# SKUNK CREEK

Between Arizona Canal Diversion Channel & Central Arizona Project

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

## FLOODPLAIN DELINEATION REPORT
December 11, 1990

CVL

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# SKUNK CREEK

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## FLOODPLAIN DELINEATION REPORT
December 11, 1990

COE & VAN LOO
PLANNING • ENGINEERING
LANDSCAPE ARCHITECTURE

Also included under separate cover are the following items:

- Hydrology Report (six copies)
- Elevation Reference Mark Report (one copy)
- Existing condition floodplain delineation maps, full size (six sets of prints, one set of Mylars)
- Future condition floodplain delineation maps, full size (six sets of prints, one set of Mylars)
- HEC-2 input/output data files on 5 1/4" diskettes (one set)
- Digital polyline contour and planimetric data developed for topographic mapping in ASCII format, on two magnetic tapes (one set)

As you are aware, we have previously submitted the following documents as part of this study:

- Field Reconnaissance Report (one set)
- HEC-1 Model Comparison and Sensitivity Report (four sets)

We have received useful suggestions and technical guidance from Mr. Russ Cruff and his team from your office during the hydrology modeling work. A special thanks to Mr. Tim Murphy for his valuable and timely input throughout the study process. We are grateful for the assistance.

Thank you for allowing us to participate on this project. We look forward to working with you on similar projects in the future.

Sincerely,

COE & VAN LOO
Consulting Engineers, Inc.

Ashok C. Patel, P.E., R.L.S.
Project Manager

Jack K. Moody, P.E.
Project Engineer

ACP:rbb
109005LT.004

CVL

# SKUNK CREEK

**Between the Arizona Canal Diversion Channel and the Central Arizona Project Canal**

# FLOODPLAIN DELINEATION REPORT

FCD 89-72

December 11, 1990

Prepared for:
*Flood Control District of Maricopa County*
3335 West Durango Street
Phoenix, Arizona 85009
(602) 262-1501


Prepared by:
*Coe & Van Consulting Engineers, Inc.*
4550 North 12th Street
Phoenix, Arizona 85014
(602) 264-6831

SKUNK CREEK
Between ACDC and the CAP
FLOODPLAIN DELINEATION REPORT

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Registered Professional Engineer (Civil)
CERTIFICATE
22208
JACK K.
MOODY
Date Signed 12/11/90
ARIZONA, U. S. A.

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Registered Professional Engineer (Civil)
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MOODY
Date Signed 12/11/90
ARIZONA, U.S.A.

CVL

## UNDER SEPARATE COVER*

Hydrology Report (submitted November 12, 1990)

HEC-1 Model Comparison & Sensitivity Tests Report (submitted Oct. 2, 1990, four copies)

Field Reconnaissance Report (submitted October 16, 1990, one copy)

Existing Condition Floodplain Delineation Maps (full size)

Future Condition Floodplain Delineation Maps (full size)

HEC-2 Input and Output Data on 5 1/4" diskettes (one copy)

Elevation Reference Mark Report (one copy)

* Six sets except as otherwise noted

Registered Professional Engineer (Civil)
CERTIFICATE NO.
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JACK K.
MOODY
Date Signed 12/11/90
ARIZONA, U.S.A.

# 1.0 STUDY INFORMATION

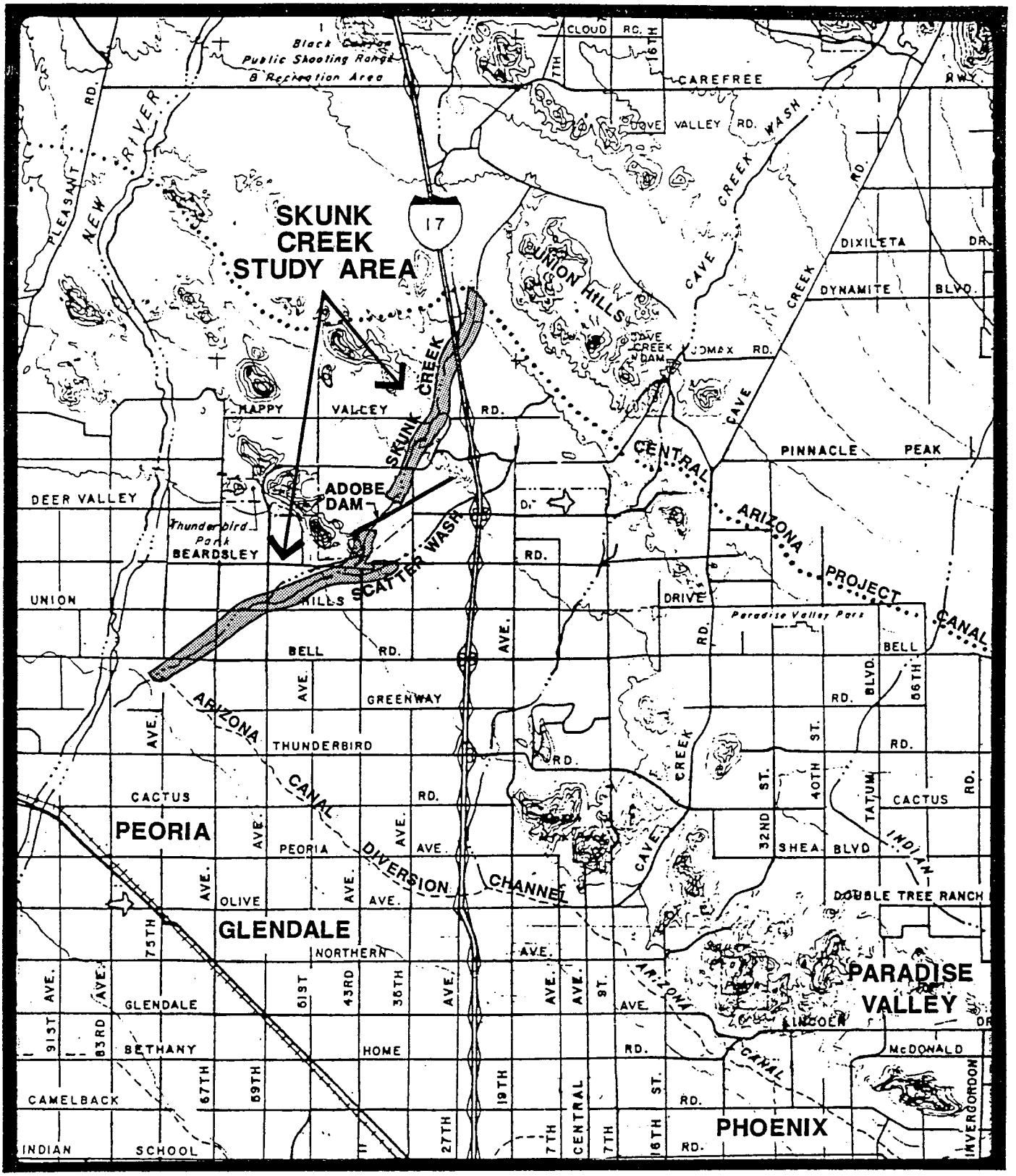
*Coe and Van Loo Consulting Engineers, Inc. (CVL)* had contracted with the Flood Control District of Maricopa County (FCDMC) to perform a Flood Insurance Study (FIS) for a portion of Skunk Creek located in Maricopa County, Arizona. The study reach includes Skunk Creek, from the Arizona Canal Diversion Channel (ACDC) to the Central Arizona Project Canal (CAP), and a portion of Scatter Wash from its confluence with Skunk Creek to Beardsley Road. This is approximately 10.1 miles of Skunk Creek and 1.3 miles of Scatter Wash. The study reach lies within the Cities of Phoenix, Glendale, and Peoria. Adobe Dam, a major flood control facility located within the Skunk Creek study reach, essentially divides the study reach into two separate reaches. The study reach and location of Adobe Dam are indicated on the Vicinity Map (figure 1).

The purpose of the study was to evaluate the various improvements and changes that have occurred along Skunk creek and within the watershed, and incorporate them into an FIS. However, many problems were discovered within the study reach, including several floodplain encroachment violations, inadequate detention structures, reduced channel capacities, and other problems created by ongoing construction activities and changes. After discovering these concerns, it was agreed that this report would not be used as a flood insurance study but instead it would be used as a fact finding study of the existing condition primarily for the purpose of enhancing floodplain management.

# 2.0 HYDROLOGY

A hydrology report was prepared for Skunk Creek below Adobe Dam (Ref. 3). The existing hydrologic condition was modeled using the FCDMC's Hydrologic Design Manual (Ref. 6). This report was to incorporate the many improvements within the watershed, including urbanization, major detention basins, the Central Arizona Project Canal, and more. In addition, the FCDMC's "new" hydrology method was used. The results of this hydrology report varied greatly from the existing hydrology prepared by the U.S. Army Corps of Engineers (CORPS) and used by the Federal Emergency Management Agency (FEMA). A sensitivity analysis was performed and a report prepared (Ref. 4) in an attempt to qualify the results of hydrology model.

Some concern was raised about the integrity of the stormwater detention areas behind the CAP overshoots. It was noted in a letter from Mr. James R. Morris of Arizona Department of Water Resources (ADWR) to Mr. Joe Tram of FCDMC (see correspondence 1) that many of the CAP cross-drainage structures are sized for floods less than a 100-year event. ADWR also recommends that these structures should be critically examined during any floodplain study, and only be credited if they can be certified according to FEMA requirements and if they have assured maintenance. The embankment behind the CAP does not appear to be compacted and may not effectively withstand the 100-year storm. A field investigation by CVL after a significant storm event indicated that, in several locations, the high water was within one foot of the top of the embankment. In addition, several surface cracks associated with embankment slope failure have appeared. Some cracks are as large as 3" to 4" wide. Refer to the photographs in figure 2, and the Appendix Section II for a better understanding of the CAP areas of concern.




**VICINITY MAP**

**FIGURE 1**

**SKUNK CREEK**
**Between ACDC and CAP**
**FLOODPLAIN STUDY**



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NTS
NORTH

Ponding behind C.A.P. embankment. Note that the high water marks are within about one foot of the top of embankment.

The embankment behind the C.A.P. is not compacted and several surface cracks associated with embankment slope failure have appeared.

**C.A.P. EMBANKMENT PHOTOGRAPHS**
**August 13, 1990**



**FIGURE 2**

As a result of these concerns, the FCDMC determined that the hydrology model would not be used for the floodplain delineation. It was agreed that the effective FEMA discharges would be used for the existing condition hydraulic analysis of Skunk Creek and Scatter Wash. The future condition hydraulic analysis used discharges based on information provided by CORPS. Refer to correspondence 2.

TABLE 1
PEAK DISCHARGES USED FOR FLOODPLAIN DELINEATION

| LOCATION | EXISTING FLOWS | | | FUTURE FLOWS |
|---|---|---|---|---|
| | 10-YR (cfs) | 50-YR (cfs) | 100-YR (cfs) | 100-YR* (cfs) |
| Skunk Creek at ACDC | 2200 | 6,700 | 11,000 | 13,000 |
| Skunk Creek below confluence with Scatter Wash | 2000 | 5,500 | 8,400 | 10,000 |
| Skunk Creek above confluence with Scatter Wash | 1600 | 2,200 | 2,600 | 2,800 |
| Skunk Creek below Adobe Dam | 1370 | 1,650 | 1,730 | 1,730 |
| Scatter Wash above confluence with Skunk Creek | 580 | 3,500 | 6,100 | 7,300 |
| Skunk Creek above Adobe Dam | 15,000 | 29,000 | 39,000 | 39,000 |
| Skunk Creek at I-17 | 10,500 | 27,000 | 35,000 | 35,000 |

*Note: The future flows used in the floodplain delineation below Adobe Dam were prorated and incrementally adjusted to match the CORPS HEC-2 run.

# 3.0 HYDRAULIC ANALYSIS

## 3.1 Scope of Study

The study reach is Skunk Creek from the ACDC to the CAP. Adobe Dam lies within the study reach, and effectively divides the reach into two independent study areas. The study area below the Dam is highly urbanized and is significantly channelized. The study area above the Dam is much more natural with some channelization. Scatter Wash, from its confluence with Skunk Creek to Beardsley Road, is included in the study area below Adobe Dam. Adobe Dam and its impound are not part of the study area.

The existing condition 10-year, 50-year, and 100-year frequency floods were analyzed for the entire study reach. The resultant 100-year flood limits were delineated and compared with the current FEMA regulatory flood limits and with the FEMA floodway limits. Refer to the floodplain delineation maps in the Appendix Section V.

The future condition 100-year frequency flood was analyzed for the study area south of Adobe Dam. The resultant flood limits were delineated and compared with the CORPS future floodplain and floodway delineations. Refer to the floodplain delineation maps in the Appendix Section VIII. As indicated in the letter from the CORPS (correspondence 2) the future condition peak discharges above Adobe Dam are the same as the existing condition peak discharges. Additionally, the CORPS work did not depict future floodplain and floodway delineation above the Dam. Therefore, the floodplain delineation and profile comparison for the future condition above Adobe Dam is the same as that used in the existing condition.

## 3.2 Mapping

Topographic mapping was prepared by Aerial Mapping Company, Inc. (AMCI) from photographs taken in April, 1990. Vertical elevations are based on the Sea Level Datum of 1929 as monumented by the United States National Geodetic Survey and the United States Geological Survey. Horizonal and vertical control tabulation are provided in the Elevation Reference Mark Report under separate cover. The cross sections were located by CVL and digitized by AMCI.

## 3.3 Modeling

The CORPS HEC-2 Water Surface Profiles computer program was used to model the study reaches. The September 1988 version of HEC-2 (as implemented by Dodson and Associates, Inc. in their 1990 version of ProHEC-1) was used in this study.

All cross sections are stationed from left to right looking downstream with the control line set at station 10,000. Cross section numbers for Skunk Creek are stationed in river miles upstream from the confluence with New River. Cross section numbers for Scatter Wash are stationed in river miles upstream from the confluence with Skunk Creek. The computer runs were started based on the slope area method. The high water in Adobe Dam was not used due to the difference in the time of peak flow.

The roughness factors ("N" values) for Skunk Creek and Scatter Wash were established based on field investigations, topographic mapping, and photographs of the area. These values were coordinated with the FCDMC.

TABLE 2
"N" VALUES USED FOR FLOODPLAIN DELINEATION

| | |
|---|---|
| SKUNK CREEK BELOW ADOBE DAM: | |
| "N" value for the channel = | .035 to .045 |
| "N" value for the overbanks | .045 to .048 |
| "N" value for concrete channelization = | .015 |
| SKUNK CREEK ABOVE ADOBE DAM: | |
| "N" value for the channel = | .030 to .050 |
| "N" value for the overbanks = | .040 to .055 |
| "N" value for concrete box culverts = | .012 |
| SCATTER WASH: | |
| "N" value for the channel = | .035 to .060 |
| "N" value for the overbanks = | .045 to .060 |
| "N" value for concrete box culverts = | .012 |

In some areas, encroachment cards (ET) were used to model dead or noneffective flow areas. Consequently "SSTA" in "ENDST" do not represent the actual flooding limits, and the delineation was established based on the cross section point elevations and the topography. At other locations, large borrow pits create noneffective flow areas. These areas have been modeled by adjusting GR points as though the hole was filled in to the adjacent ground elevations. In some cases "TOPWID" does not represent the full width of the floodplain due to ineffective flow areas or low islands within the floodplain. These considerations were accounted for in the modeling and delineation process.

Several bridges and culverts are located within the study reach. Some of these bridges were modeled using the special bridge method. In cases where the flow was contained within a channel, and remained open channel flow through the bridge, the bridge was modeled using GR points to define the piers. The bridge modeling techniques were coordinated with the FCDMC.

Distribution of flow in the split flow area was determined using the flow distribution (of the output) at the split location, and by matching upstream energy grade elevations.

## 3.4 Hydraulic Concerns

Numerous hydraulic concerns including several floodplain encroachment violations have occurred within the study reach since the initial flood insurance study. The majority of these concerns occur within the Cities of Glendale and Phoenix, and therefore these municipalities have been notified so they can evaluate the problems and consider mitigation measures.

Numerous hydrologic and hydraulic changes are occurring throughout the study reach. The most significant may be Arizona Department of Transportation's (ADOT) construction of the outer loop highway. When this is completed it will change the hydrology and hydraulics of Skunk Creek and Scatter Wash. Culvert crossing and channelization of portions of Skunk Creek and Scatter Wash are currently under construction. Refer to the Appendix Section III for excerpts of the construction plans.

Brief descriptions of the hydraulic concerns are provided below. The descriptions, specifically the flow values, are to be considered approximate and qualitative, and any effort to mitigate these problems should consider further evaluation. The hydraulic concerns described below (by location numbers 1, 2, 3, ... etc.) are denoted on the Floodplain Delineation Maps in the Appendix Sections V and VIII.

1. Break out location near the 71st Avenue alignment north of Bell Road: The right bank is overtopped in the 100-year flow, by approximately 0.5' at two locations that are approximately 10' wide each. Approximately 20 cfs will break out and continue west along Bell Road. Once the breakout begins, more flow may break out due to erosion of the bank. This condition is not reflected on the current FEMA Flood Insurance Rate Map.

2. Break out location east of 67th Avenue near John Cabot Road: Approximately 800 cfs (100-yr) breaks out of the right bank and continues west (beyond the mapping limits) in sheet flow approximately 1' deep. This condition is not reflected on the current FEMA Flood Insurance Rate Map.

3. Break out near 66th Lane: Approximately 800 cfs (100-yr) breaks out of the left bank and will continue southwest toward 67th Avenue. Flow will be approximately 2' deep in 66th Lane. A portion of the flow will turn back into

Skunk Creek, and the remainder will continue beyond the mapping limits. This condition is not reflected on the current FEMA Flood Insurance Rate Map.

4. Break out near 64th Drive and Murial Drive: Approximately 1000 cfs (100-yr) breaks out of the left bank and will continue south beyond the mapping limits. This condition is not reflected on the current FEMA Flood Insurance Rate Map.

5. A shallow flooding area occurs between the 52nd Avenue and 55th Avenue alignments. Approximately 1500 cfs (100-yr) causes shallow flooding 1' to 2' deep in the left overbank. This flow makes it back into the main channel by about 55th Avenue. This condition is not reflected on the current FEMA Flood Insurance Rate Map.

6. ADOT is currently constructing five 10'x6' concrete box culverts and some channelization at Beardsley Road and 43rd Avenue for the outer loop crossing of Skunk Creek. The construction is approximately 50% complete.

7. Scatter Wash break out at 43rd Avenue: Approximately 3000 cfs (100-yr) breaks out of the left bank and continues south beyond the mapping limits. This condition is not reflected on the current FEMA Flood Insurance Rate Map.

8. Scatter Wash break out south of Beardsley Road (Section 1.038): Approximately 300 cfs (100-yr) breaks out of the left bank and continues south beyond the mapping limits. This condition is not reflected on the current FEMA Flood Insurance Rate Map. This situation will be alleviated when ADOT completes the culverts and channelization on Scatter Wash.

9. ADOT is currently constructing nine 10'x6' and one 10'x8' concrete box culverts and some channelization on Scatter Wash at Beardsley Road for the outer loop crossing of Scatter Wash. The construction is approximately 30% complete.

10. Break out and shallow flooding area south of Pinnacle Peak Road and east of 35th Avenue: Approximately 2500 cfs (100-yr) splits out east of 35th Avenue and continues south in shallow flow approximately 1' to 2' deep.

11. Possible break out south of Pinnacle Peak Road in right overbank: Approximately 2500 cfs (100-yr) may break out of the right overbank south of Pinacle Peak Road. Some flow will continue south back into the channel, and some may continue west into the Adobe Dam impoundment.

12. The City of Phoenix Landfill is encroaching approximately 300 feet into the current FEMA floodway.

13. Break out west of 35th Avenue, approximately ½ mile north of Pinnacle Peak Road (Section 9.400): Approximately 500 cfs (100-yr) breaks out of the right overbank across 35th Avenue and continues south through a subdivision toward Pinacle Peak Road. This seems to be a result of the Landfill encroachment into the floodway. This condition is not reflected on the current FEMA Flood Insurance Rate Map.

14. Possible breakout into City of Phoenix Landfill (Section 9.713): Approximately 800 cfs (100-yr) may break out of the left bank. The City of Phoenix indicated they would fill up this breach to contain the flow.

15. Possible break out into City of Phoenix Landfill (Section 10.280): Approximately 1000 cfs (100-yr) may break out of the left bank. The City of Phoenix indicated they would fill up this breach to contain the flow. This condition is not reflected on the current FEMA Flood Insurance Rate Map.

16. The Central Arizona Project Canal overshoots do not have adequate capacity for the 100-year flow. The 100-year flow will overtop and possibly breach the Canal and also break out to the west across I-17.

17. Break out location near the 71st Avenue alignment, north of Bell Road: The right bank is overtopped in the 100-year future flow, by approximately 1.0' at two locations, approximately 20' wide each. Approximately 100 cfs will break out and continue west along Bell Road. Once the breakout begins, more flow may break out due to erosion of the bank.

18. 67th Avenue does not have sufficient topography to the south to show limits of ponding.

19. Break out location east of 67th Avenue, near John Cabot Road: Approximately 800 cfs (100-yr future) breaks out of the right bank and continues west (beyond the mapping limits) in sheet flow approximately 1' deep.

20. Break out near 66th Lane: Approximately 1000 cfs (100-yr future) breaks out of the left bank and will continue southwest toward 67th Avenue. Flow will be approximately 2' deep in 66th Lane. A portion of the flow will turn back into Skunk Creek, and the remainder will continue beyond the mapping limits.

21. Break out near 64th Drive and Murial Drive: Approximately 1000 cfs (100-yr future) breaks out of the left bank and will continue south beyond the mapping limits.

22. A shallow flooding area occurs between the 52nd Avenue and 55th Avenue alignments. Approximately 1800 cfs (100-yr future) caused shallow flooding 1' to 2' deep in the left overbank. This flow makes it back into the main channel by about 57th Avenue and will not cross Union Hills.

23. ADOT is currently constructing five 10'x6' concrete box culverts and some channelization at Beardsley Road and 43rd Avenue for the outer loop crossing of Skunk Creek. The construction is approximately 50% complete.

24. Scatter Wash break out at 43rd Avenue: Approximately 3000 cfs (100-yr future) breaks out of the left bank and continues south beyond the mapping limits.

25. Scatter Wash break out south of Beardsley Road (Section 1.038): Approximately 300 cfs (100-yr future) breaks out of the left bank and continues south beyond the mapping limits. This situation will be alleviated when ADOT completes the culverts and channelization on Scatter Wash.

26. ADOT is currently constructing nine 10'x6' and one 10'x8' concrete box culverts and some channelization on Scatter Wash at Beardsley Road for the outer loop crossing of Scatter Wash. The construction is approximately 30% complete.

## 4.0 OTHER STUDIES

1. U.S. Federal Emergency Management Agency, Flood Insurance Study, Maricopa County, Arizona and Incorporated Areas. Revised September 29, 1989 (Reference 1)

2. U.S. Army Corps of Engineers, Los Angeles District, Adobe Dam (Including Skunk Creek to the Arizona Canal). April 1979 (Reference 2)

# 5.0 REFERENCES


1. U.S. Federal Emergency Management Agency, Flood Insurance Study, Maricopa County, Arizona and Incorporated Areas. Revised September 29, 1989.

2. U.S. Army Corps of Engineers, Los Angeles District, Gila River Basin, New River and Phoenix City Streams, Arizona, Adobe Dam (Including Skunk Creek to the Arizona Canal), Design Memorandum No. 3, General Design Memorandum-Phase II, Project Design-Part 2. April 1979.

3. Coe & Van Loo Consulting Engineers, Inc. Skunk Creek Between Arizona Canal Diversion Channel and Central Arizona Project, Hydrology Report. November 9, 1990.

4. Coe & Van Loo Consulting Engineers, Inc. Skunk Creek Between the Arizona Canal Design Channel and the Central Arizona Project Canal, HEC-1 Model Comparison and Sensitivity Tests. October, 1990.

5. Federal Emergency Management Agency, Flood Insurance Study Guidelines and Specifications for Study Contractors. September, 1985

6. Flood Control District of Maricopa County, Special Projects Branch, Hydrology Division. Hydrologic Design Manual for Maricopa County, Arizona. September 1, 1990.

7. U.S. Army Corps of Engineers, Los Angeles District, Gila River Basin; Phoenix, Arizona and Vicinity (including New River) Hydrology Part 2, Design Memorandum No. 2. 1982

8. U.S. Army Corps of Engineers, The Hydrologic Engineering Center, HEC-2 Water Surface Profiles Users Manual. September 1982.

9. Dodson & Associates, Inc. Hands-On HEC-2. Draft January 29, 1990.

10. Hoggan, Daniel H., Computer-Assisted Floodplain Hydrology & Hydraulics. New York, N.Y.: McGraw-Hill, 1989.

11. U.S. Department of Transportation, Federal Highway Association Hydraulic Design of Highway Culverts, Hydraulic Design Series No. 5. September 1985.

12. Flood Control District of Maricopa County, Data Structures, November 1985, Updated February 1990.

13. Flood Control District of Maricopa County. New River/Skunk Creek/Agua Fria River Flood Control Master Plan. May 1983. Draft.

14. Collar, William and White Engineers, Inc. Adobe Mountain Skunk Creek Floodplain Revision. August 1986.

15. Harza Engineering Company, Skunk Creek Channel, Hydraulic Analysis of Proposed Channel Improvements, Phoenix, Arizona. July 1986. Preliminary.

16. Lowry and Associates. Creek Side Market Place, Skunk Creek Hydraulic Analysis. May 1986.

17. AGK Engineers, Inc. Flood Insurance Study for Buchanan Wash from Skunk Creek to C.A.P., Maricopa County, Arizona. November 1987.

18. Van Loo & Patel Consulting Engineers, Inc. 100 Year Floodplain Study for Channelization of Overland Hills. March 1985.

19. Engineering Alliance, Inc., Consulting Engineers. Drainage Study and Structure Concept Report 43rd Avenue Crossing Scatter Wash. June 1990

20. RGA Engineering Corporation, Floodplain Study for Channelization of Skunk Creek at 51st Avenue Crossing. June 14, 1989.

21. Willdan Associates, New River/Skunk Creek/Agua Fria River Conceptual Flood Control Plan. December 1981. Draft.

# SECTION I

# CORRESPONDENCE

Correspondence 1-ADWR Letter Regarding the CAP
Correspondence 2-CORPS Letter Regarding Skunk Creek Hydrology

Correspondence 1

ADWR Letter Regarding the CAP

FLOOD CONTROL DISTRICT
RECEIVED
NOV 01 1990
REMARKS
FILE

October 29, 1990

ARIZONA
DEPARTMENT
OF WATER
RESOURCES

Rose Mofford, Governor
N. W. Plummer,
Director

15 South 15th Avenue
Phoenix, Arizona 85007

Joe Tram
Floodplain Branch Manager
Flood Control District of Maricopa County
3335 West Durango Street
Phoenix, Arizona 85009

RE: Central Arizona Project and Flood Insurance Studies

Dear Mr. Tram:

This is in response to your letter of 11 October 1990 requesting guidance on modeling CAP cross-drainage structures when completing studies for floodplain mapping purposes. ADWR recommends that CAP cross-drainage structures be critically examined during any floodplain study and only be credited if they can be certified according to FEMA requirements and if they have assured maintenance.

Since many of the CAP cross-drainage structures are sized for floods less than a 100-year event, this will mean that an evaluation of the CAP's effect both upstream for ponding and downstream for maximum expected outflows under 100-year condition will have to be made. We would be happy to discuss the exact procedure with you as necessary.

Please feel free to contact me at 542-1541 if you have any questions or need any additional information.

Sincerely,

James R. Morris

James R. Morris, P.E.
Chief
Flood Management Section

JRM:bw

Correspondence 2

CORPS Leter Regarding Skunk Creek Hydrology

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2711
LOS ANGELES, CALIFORNIA 90053-2325

September 26, 1990

RECEIVED
OCT 1 1990

REPLY TO
ATTENTION OF

Office the Chief
Hydrology & Hydraulics Branch

Coe & Van Loo
Consulting Engineers Inc.
Attn: Mr. Jack Moody
4550 North 12th Street
Phoenix, Arizona 85014-4291

Dear Mr. Moody:

This letter is in response to your August 27 request for peak discharges on Skunk Creek and Scatter Wash. The following tables present all available requested information:

| | | PRESENT CONDITION PEAK DISCHARGES (cfs) | | | |
|---|---|---|---|---|---|
| Location | DA $mi^2$ | SPF | 100-yr | 50-yr | 10-yr |
| SCATTER WASH | | | | | |
| above I-17 Hwy | 6.3 | 13,000 | 5700 | 3200 | 540 |
| above Skunk Creek | 8.5 | 14,000 | 6100 | 3500 | 580 |
| SKUNK CREEK | | | | | |
| at I-17 Hwy | 64.6 | 54,000 | --- | --- | --- |
| above Adobe Dam | 89.6 | 66,000 | 39,000 | 29,000 | 15,000 |
| below Adobe Dam | 0.0 | 1890 | 1730 | 1650 | 1370 |
| above Scatter Wash | 0.9 | 4000 | 2600 | 2200 | 1600 |
| below Scatter Wash | 9.4 | 18,000 | 8400 | 5500 | 2000 |
| above ACDC | 19.9 | 23,000 | 11,000 | 6700 | 2200 |

| Location | DA $mi^2$ | FUTURE CONDITION PEAK DISCHARGES (cfs) SPF | 100-yr | 50-yr | 10-yr |
|---|---|---|---|---|---|
| SCATTER WASH | | | | | |
| above I-17 Hwy | 6.3 | --- | --- | --- | --- |
| above Skunk Creek | 8.5 | --- | --- | --- | --- |
| SKUNK CREEK | | | | | |
| at I-17 Hwy* | 64.6 | 54,000 | --- | --- | --- |
| above Adobe Dam* | 89.6 | 66,000 | 39,000 | 29,000 | 15,000 |
| below Adobe Dam | 0.0 | 1890 | 1730 | 1,650 | 1,370 |
| above Scatter Wash | 0.9 | 4500 | 2800 | --- | --- |
| below Scatter Wash | 9.4 | 21,000 | 10,000 | --- | --- |
| above ACDC | 19.9 | 26,000 | 13,000 | --- | --- |

*Adobe Dam and Skunk Creek Channel under I-17, were designed based on no land use change upstream of the dam.

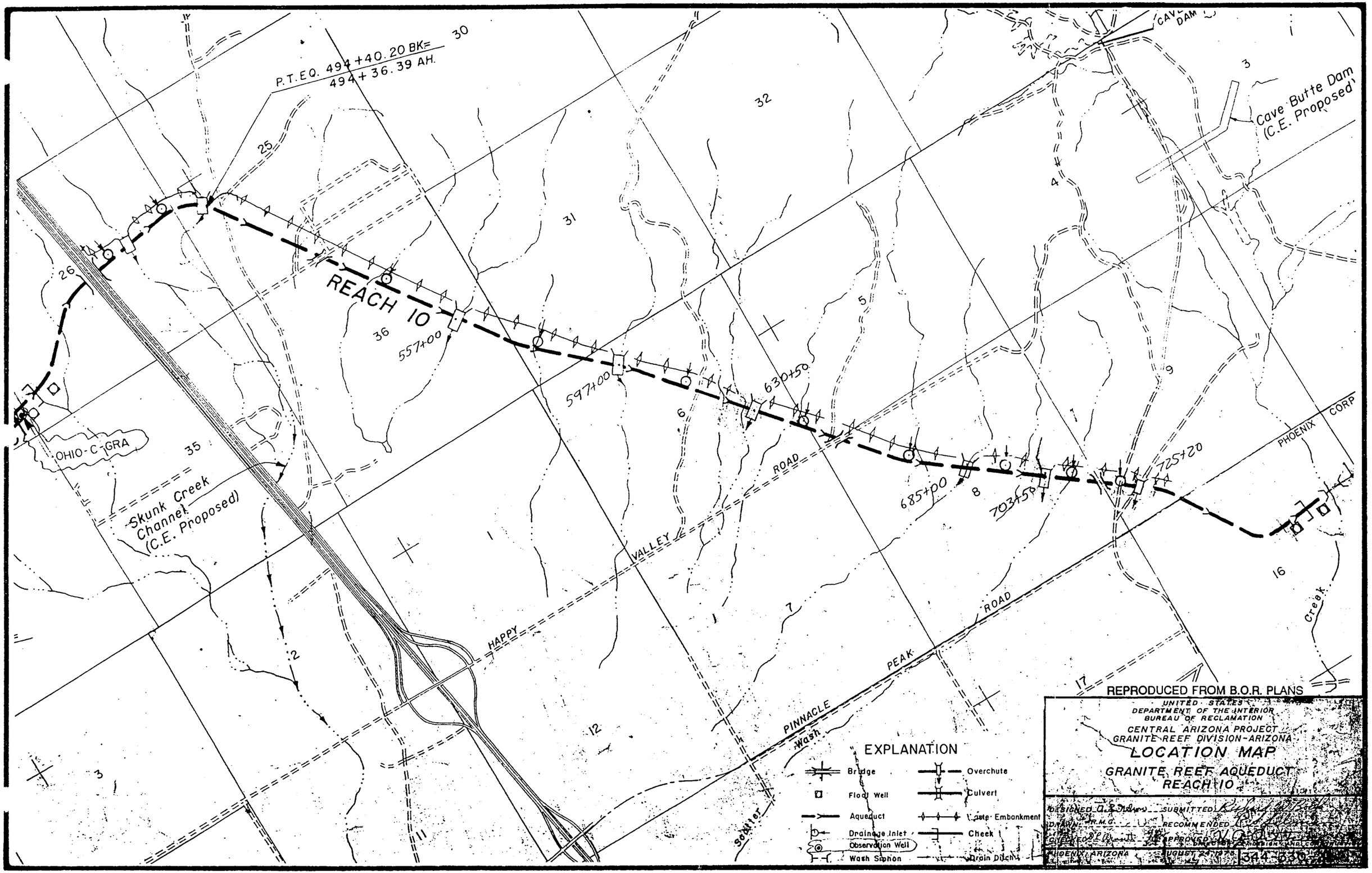
If you have any questions, please contact Jody Fischer at (213)-894-3164.

Sincerely,

Robert E. Koplin, PE
Chief, Engineering Division

# SECTION II

# CENTRAL ARIZONA PROJECT CANAL CROSS DRAINAGE INFORMATION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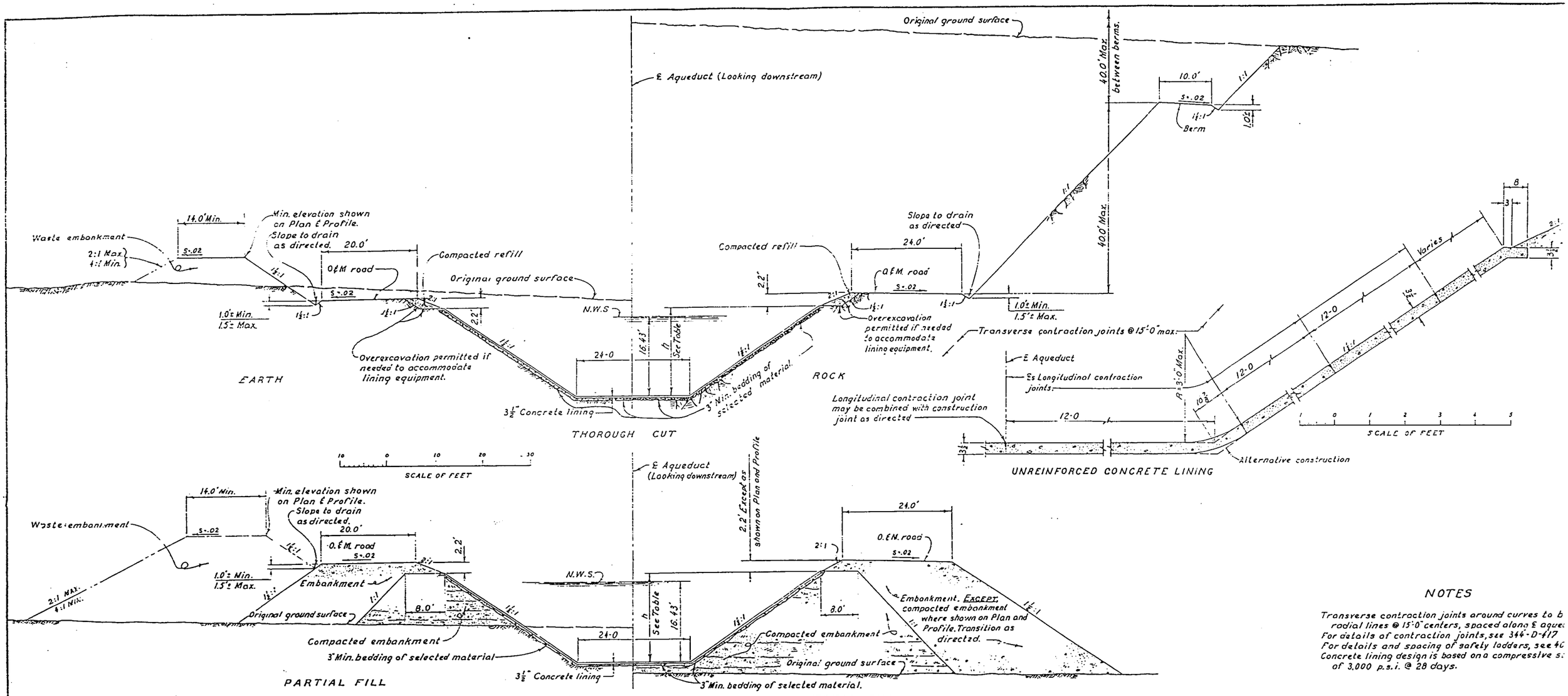
494+36.39 AH.
REACH 10
557+00
597+00
630+50
685+00
703+50
725+20
CAVE DAM
Cave Butte Dam
(C.E. Proposed)
OHIO-C-GRA
Skunk Creek
Channel
(C.E. Proposed)
HAPPY VALLEY ROAD
PINNACLE PEAK ROAD
PHOENIX CORP
Sonter Wash
Creek
EXPLANATION
Bridge
Flood Well
Aqueduct
Drainage Inlet
Observation Well
Wash Siphon
Overchute
Culvert
Site Embankment
Check
Drain Ditch
REPRODUCED FROM B.O.R. PLANS
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT
GRANITE REEF DIVISION-ARIZONA
LOCATION MAP
GRANITE REEF AQUEDUCT
REACH 10
DESIGNED
SUBMITTED
DRAWN R.M.G.
RECOMMENDED
CHECKED
APPROVED
PHOENIX, ARIZONA
AUGUST 24, 1972
344-330




## NOTES

Transverse contraction joints around curves to b
radial lines @ 15'-0" centers, spaced along ℄ aque
For details of contraction joints, see 344-D-417
For details and spacing of safety ladders, see 4
Concrete lining design is based on a compressive s
of 3,000 p.s.i. @ 28 days.

### HYDRAULIC PROPERTIES

| A | V | Q | r | n | s | b | d |
|---|---|---|---|---|---|---|---|
| 799.24 | 3.75 | 3000 | 9.60 | .016 | .00008 | 24.0 | 16.43 |

### LINING HEIGHT TABLE

| STATION | h |
|---|---|
| 106+00 TO 349+00 | 18.6 |
| 349+00 TO 379+00 | 19.0 |
| 379+00 TO 629+00 | 19.5 |
| 630+16.29 TO 690+00 | 18.5 |
| 690+00 TO 720+00 | 19.0 |
| 720+00 TO 770+00 | 19.5 |
| 771+18.29 TO 859+77.95 | 18.6 |

REPRODUCED FROM B.O.R. PLANS

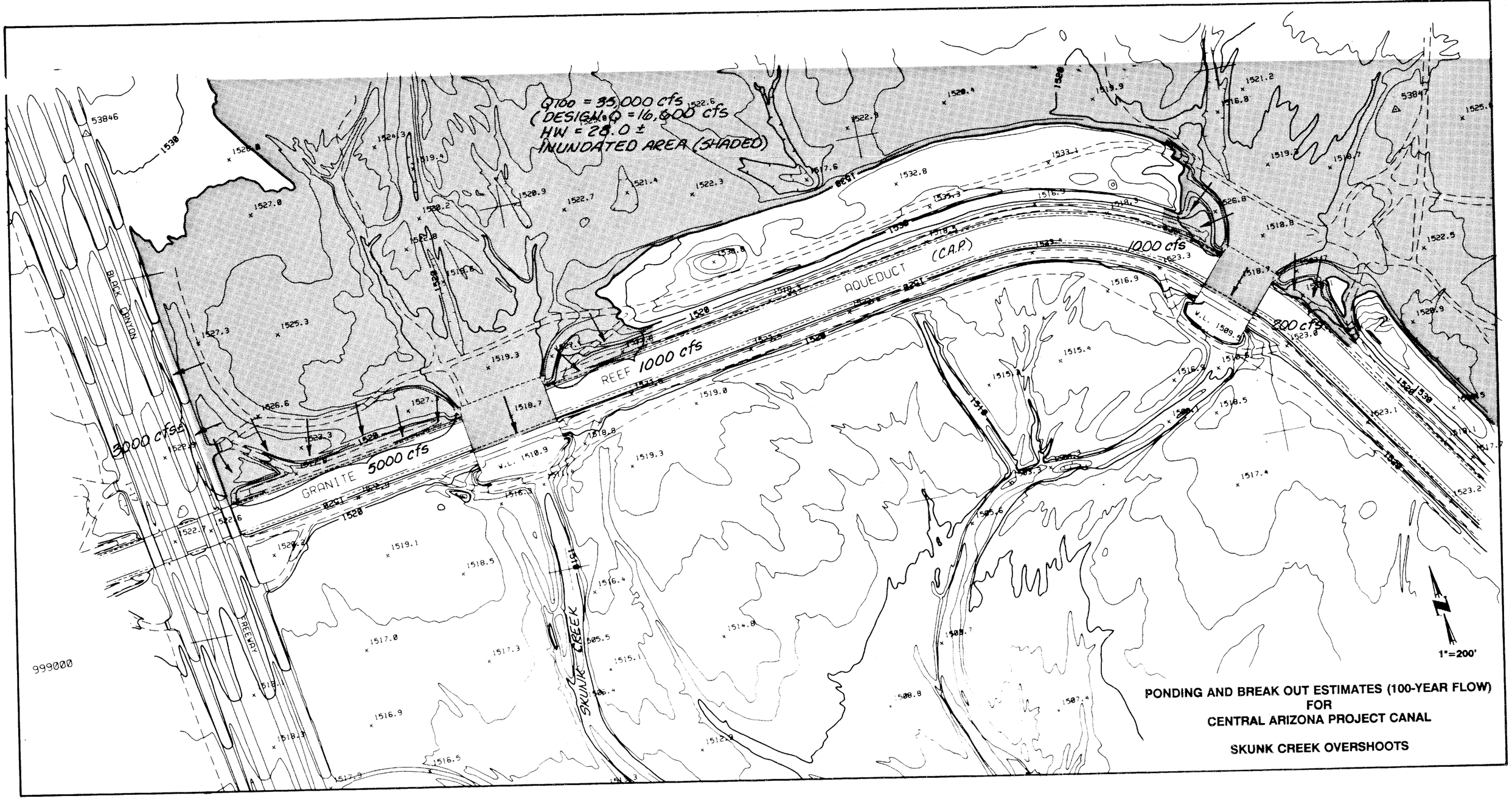
ALWAYS THINK SAFETY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL ARIZONA PROJECT
GRANITE REEF DIVISION - ARIZONA

GRANITE REEF AQUEDUCT
REACH 10
TYPICAL AQUEDUCT SECTIONS

DESIGNED A. J. Ward SUBMITTED
DRAWN B. L. Dinsmore RECOMMENDED
CHECKED R. C. Higgman APPROVED Richard W. Fo
ACT. CHIEF, HYDRAULIC STRUCTURES E

DENVER, COLORADO FEB. 20, 1975 344-D-416




**PONDING AND BREAK OUT ESTIMATES (100-YEAR FLOW)**
**FOR**
**CENTRAL ARIZONA PROJECT CANAL**

**SKUNK CREEK OVERSHOOTS**

| CROSS DRAINAGE STRUCTURES | | | | | |
|---|---|---|---|---|---|
| STATION | SIZE | PEAK Qin (cfs) | STORAGE CAPACITY (ac.ft) | PEAK Qout (cfs) | DESIGN STORM |
| 112+40 | 24" DIA. PIPE CULVERT | 50 | 9 | 23 | 50yr, 6hr GENERAL STORM |
| 122+00 | 24" DIA. PIPE CULVERT | 72 | 59 | 28 | " |
| 134+00 | 33" DIA. PIPE CULVERT | 186 | 18 | 51 | " |
| 174+50 | 48" DIA. PIPE CULVERT | 748 | 1020 | 108 | " |
| 241+60 | 42" DIA. PIPE OVERCHUTE | 574 | 238 | 25 | " |
| 380+00 | 3BBL 66" DIA. PIPE CULVERT | 1280 | 2130 | 638 | " |
| 470+80 | 244' WIDE OVERCHUTE | 16,600 | 0 | 16,600 | " |
| 492+04 | 156' WIDE OVERCHUTE | | | | " |
| 557+00 | 42" DIA. PIPE OVERCHUTE | 850 | 1147 | 111 | " |
| 597+00 | 30" DIA. PIPE OVERCHUTE | 294 | | | " |
| 630+50 | 42" DIA. PIPE OVERCHUTE | 1060 | | | " |
| 685+00 | 36" DIA. PIPE OVERCHUTE | 508 | | | " |
| 703+50 | 30" DIA. PIPE OVERCHUTE | 292 | | | " |
| 725+20 | 30" DIA. PIPE OVERCHUTE | 266 | 69 | 27 | " |
| 776+00 | WASH SIPHON | 3560 | 0 | 3560 | " |

CENTRAL ARIZONA PROJECT CANAL
CROSS DRAINAGE STRUCTURE

**DESIGN INFORMATION**
REPRODUCED FROM B.O.R. PLANS

INPUT DATA FOR UNIT HYGROGRAPHS
HAYDEN-RHODES AQUEDUCT - REACH 10

| STATION | AREA Sq.Mi. | GRAPH SCS/PV | CHANNEL Miles | CENTROID Miles | SLOPE ft/mi. | CURVE No. | PRECIPITATION 100-yr 50-yr 3-hr |
|---|---|---|---|---|---|---|---|
| 112+40 | 0.04 | SCS | 0.17 | 0.08 | 2235 | 85 | See PREFRE table for rainfall data. |
| 122+00 | 0.06 | SCS | 0.27 | 0.13 | 1945 | 85 | |
| 134+00 | 0.16 | SCS | 0.57 | 0.27 | 921 | 85 | |
| 174+50 | 1.51 | SCS | 1.74 | 0.68 | 151 | 78 | |
| 241+60 | 1.16 | SCS | 1.75 | 1.10 | 440 | 78 | |
| 380+00 | 10.7 | SCS | 7.5 | 3.0 | 48 | 70 | |
| 470+80 | 61.0 | SCS | 18.0 | 9.4 | 139 | 81 | |
| 492+04 | SKUNK CREEK OVERCHUTE STRUCTURES | | | | | | |
| 557+00 | 1.42 | SCS | 1.2 | 0.60 | 375 | 78 | |
| 597+00 | 0.53 | SCS | 1.0 | 0.50 | 350 | 77 | |
| 630+50 | 1.14 | SCS | 1.5 | 0.90 | 353 | 86 | |
| 685+00 | 0.84 | SCS | 1.4 | 0.60 | 300 | 80 | |
| 703+50 | 0.58 | SCS | 1.4 | 0.60 | 321 | 77 | |
| 725+20 | 0.32 | SCS | 1.0 | 0.40 | 200 | 81 | |
| 776+00 | CAVE BUTTES DAM CONTROLS OUTFLOW | | | | | | |

PRECIPITATION FREQUENCY VALUES FOR GRANITE REEF AQUEDUCT REACH 10
ZONE NUMBER= 7

| | RETURN PERIOD | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DURATION | 2-YR | 5-YR | 10-YR | 25-YR | 50-YR | 100-YR | 500-YR | |
| 5-MIN | .28 | .37 | .44 | .52 | .59 | .66 | .82 | 5-MIN |
| 10-MIN | .43 | .58 | .68 | .81 | .92 | 1.03 | 1.27 | 10-MIN |
| 15-MIN | .55 | .73 | .86 | 1.03 | 1.17 | 1.30 | 1.61 | 15-MIN |
| 30-MIN | .76 | 1.01 | 1.19 | 1.43 | 1.62 | 1.80 | 2.23 | 30-MIN |
| 1-HR | .96 | 1.28 | 1.50 | 1.81 | 2.05 | 2.28 | 2.83 | 1-HR |
| 2-HR | 1.04 | 1.40 | 1.65 | 2.00 | 2.26 | 2.53 | 3.14 | 2-HR |
| 3-HR | 1.10 | 1.49 | 1.75 | 2.12 | 2.41 | 2.69 | 3.35 | 3-HR |
| 6-HR | 1.20 | 1.64 | 1.94 | 2.36 | 2.68 | 3.00 | 3.74 | 6-HR |
| 12-HR | 1.30 | 1.82 | 2.17 | 2.66 | 3.03 | 3.40 | 4.26 | 12-HR |
| 24-HR | 1.40 | 2.00 | 2.40 | 2.95 | 3.38 | 3.80 | 4.78 | 24-HR |

CENTRAL ARIZONA PROJECT CANAL
CROSS DRAINAGE STRUCTURE

**HYDROLOGIC DESIGN INFORMATION**
FROM B.O.R.

INPUT DATA FOR FLOOD ROUTING
HAYDEN-RHODES AQUEDUCT REACH 10

| STATION | STRUCT. TYPE | SIZE | INVERT ELEV. | CREST ELEV. | STORAGE CAPACITY DATA * ELEV. | AC.FT | ELEV. | AC.FT. |
|---|---|---|---|---|---|---|---|---|
| 112+40 | Culvert | 24" | 1503.00 | 1518.3 | 1505 | 0 | 1508 | 0.3 |
| | | | | | 1512 | 1.75 | 1516 | 4.2 |
| 122+00 | Culvert | 24" | 1502.00 | 1518.2 | 1502 | 0 | 1504 | 9.0 |
| | | | | | 1506 | 12.5 | 1508 | 16.6 |
| | | | | | 1510 | 21.4 | 1512 | 27.0 |
| 134+00 | Culvert | 33" | 1507.62 | 1518.1 | 1507 | 0 | 1508 | 1.1 |
| | | | | | 1510 | 1.9 | 1512 | 3.2 |
| | | | | | 1214 | 5.2 | 1516 | 8.2 |
| | | | | | 1218 | 12.5 | 1520 | 18.3 |
| 174+50 | Culvert | 48" | 1494.00 | 1517.8 | 1494 | 0 | 1496 | 2.1 |
| | | | | | 1498 | 9.1 | 1500 | 24.4 |
| | | | | | 1502 | 50.4 | 1504 | 89.5 |
| | | | | | 1506 | 143.8 | 1508 | 215.3 |
| 241+60 | Pipe OC | 42" | 1518.41 | 1525.7 | 1518 | 0 | 1520 | 85.4 |
| | | | | | 1522 | 146.6 | 1524 | 233.7 |
| | | | | | 1525 | 289.4 | | |
| 380+00 | culvert | 3-66" | 1493.00 | 1516.2 | 1493 | 0 | 1494 | 0.2 |
| | | | | | 1496 | 2.2 | 1498 | 9.4 |
| | | | | | 1500 | 26.8 | 1502 | 58.8 |
| | | | | | 1504 | 118.0 | 1506 | 215.8 |
| | | | | | 1508 | 360.4 | 1510 | 581.4 |
| 470+80 | Flume | 244' W | 1518.57 | 1527.0 | NO ROUTING ON THIS WASH | | | |
| 492+04 | Flume | 156' W | 1518.41 | | | | | |
| 557+00 | Pipe OC | 42" | 1515.78 | 1523.1 | 1515 | 0 | 1516 | 180.3 |
| 597+00 | Pipe OC | 30" | 1515.45 | 1521.6 | 1518 | 390.5 | 1520 | 710.2 |
| 630+50 | Pipe OC | 42" | 1518.41 | 1522.5 | 1522 | 1147 | | |
| 685+00 | Pipe OC | 36" | 1515.21 | 1521.5 | | | | |
| 703+50 | Pipe OC | 30" | 1515.00 | 1521.2 | | | | |
| 725+20 | Pipe OC | 30" | 1515.34 | 1521.5 | 1515 | 0 | 1516 | 4.3 |
| | | | | | 1518 | 9.2 | 1520 | 16.6 |
| | | | | | 1522 | 27.2 | | |
| 775+38 | Wash S. | 72'W | 1505.54 | 1515.04 | | | | |

CAVE CREEK INCLUDES OUTFLOW FROM CAVE BUTTES DAM

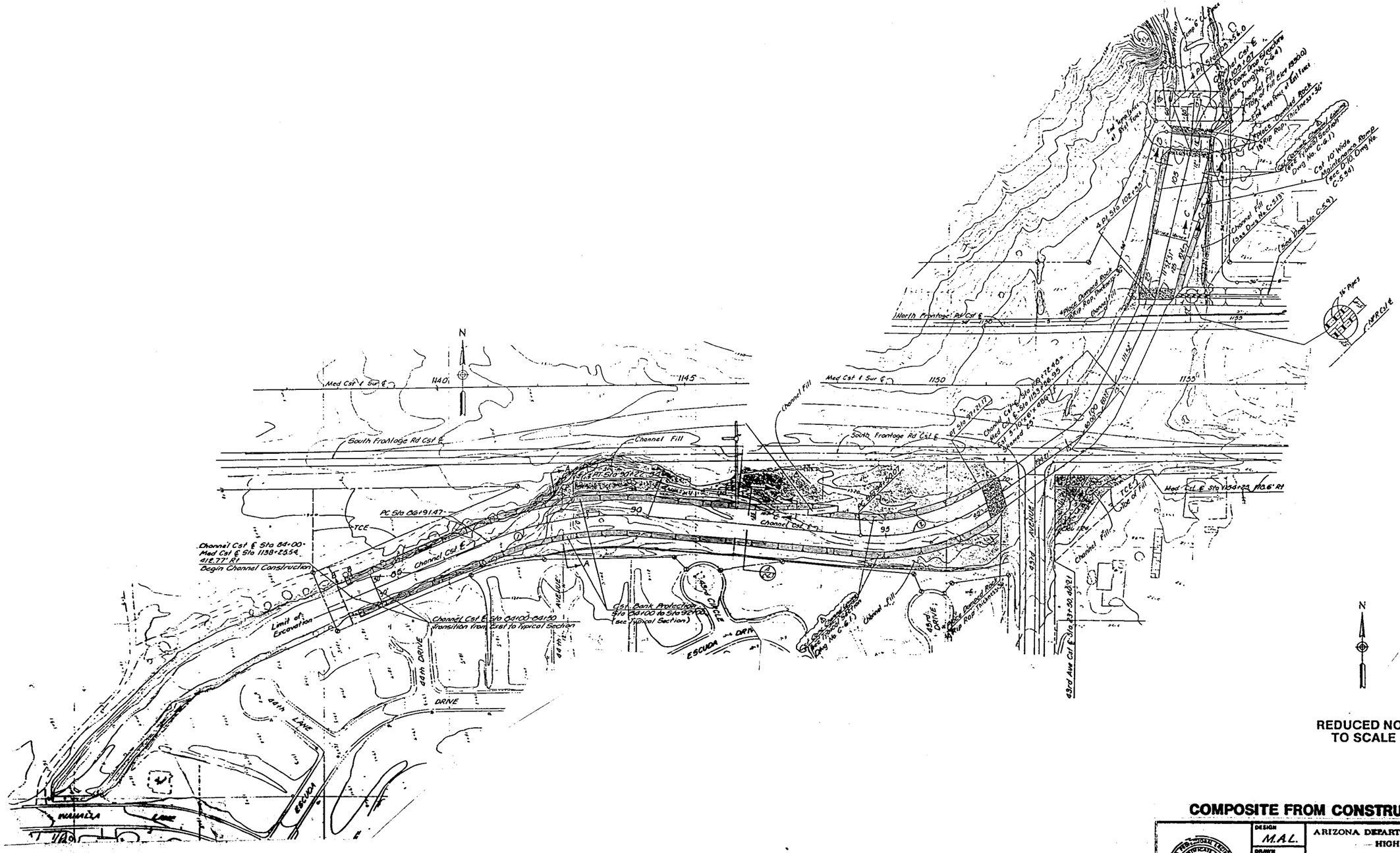
* All area capacity data is based on the reservoir 50-years sediment deposition.

CENTRAL ARIZONA PROJECT CANAL
CROSS DRAINAGE STRUCTURE

**RESERVOIR INFORMATION**
FROM B.O.R.

# SECTION III

# ADOT OUTER LOOP HIGHWAY CULVERT CROSSINGS

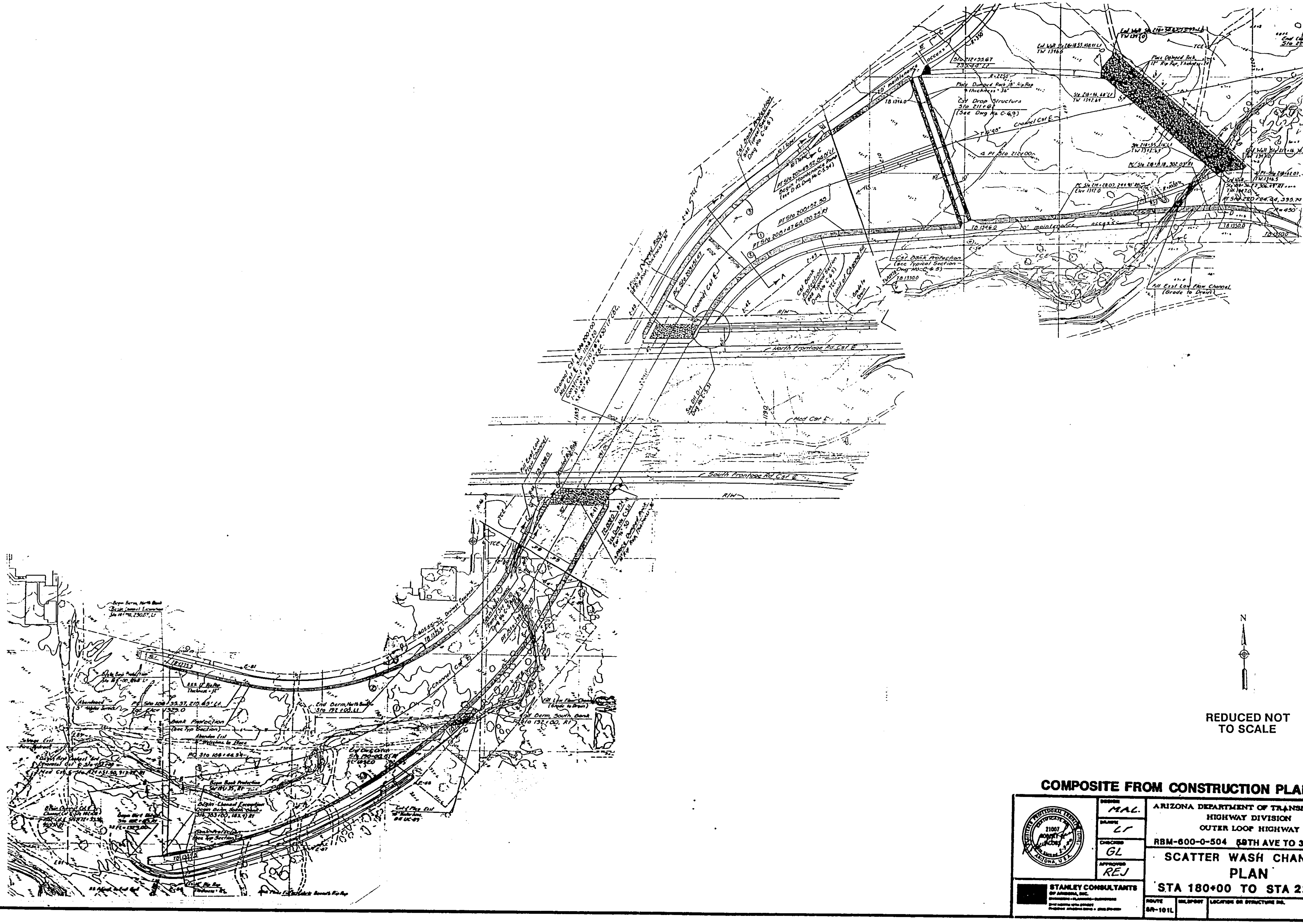



**COMPOSITE FROM CONSTRUCTION PLANS**

| | | |
|---|---|---|
| DESIGN M.A.L. | ARIZONA DEPARTMENT OF TRANSPORTATION | |
| DRAWN Cr | HIGHWAY DIVISION | |
| CHECKED GL | OUTER LOOP HIGHWAY | |
| APPROVED REJ | RBM-600-0-504 59TH AVE TO 35TH AVE | |
| | SKUNK CREEK | |
| | CHANNELIZATION | |
| | STA 84+00 TO STA 105+62 | |

STANLEY CONSULTANTS OF ARIZONA, INC.

| ROUTE | MILEPOST | LOCATION OR STRUCTURE NO. | DWG. NO. |
|---|---|---|---|
| SR-101L | | | C-6.2 |



REDUCED NOT TO SCALE

**COMPOSITE FROM CONSTRUCTION PLANS**

| | | |
|---|---|---|
| DESIGN MAL | ARIZONA DEPARTMENT OF TRANSPORTATION<br>HIGHWAY DIVISION<br>OUTER LOOP HIGHWAY | |
| DRAWN LF | RBM-600-0-504 59TH AVE TO 35TH.AVE | |
| CHECKED GL | SCATTER WASH CHANNEL<br>PLAN<br>STA 180+00 TO STA 221+86 | |
| APPROVED REJ | | |
| STANLEY CONSULTANTS OF ARIZONA, INC. | ROUTE SR-101L | DWG. NO. C-6.5 |

# SECTION IV

# EXISTING CONDITION, HEC-2 OUTPUT AND CROSS SECTION PLOTS

Existing Condition HEC-2 Output

Skunk Creek
ACDC to Adobe Dam
Including Scatter Wash

```
*******************************************************
*  WATER SURFACE PROFILES                             *
*  DEVELOPED BY THE COE                               *
   'ERSION OF SEPTEMBER 1988                          *
   ERROR: 01,02,03                                    *
*  RUN DATE    12/ 6/90   TIME   10: 1:32             *
*******************************************************
```

```
****************************************
*  DODSON & ASSOCIATES, INC.           *
*  HYDROLOGIST AND CIVIL ENGINEERS     *
*  5629 FM 1960 WEST SUITE 314         *
*  HOUSTON, TEXAS  77069               *
*  (713) 440-3787 Fax (713) 440-4742   *
****************************************
```

```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                        X
XXXXXXX  XXXX     X         XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX             XXXXXXX
```

END OF BANNER

THIS RUN EXECUTED 12/ 6/90 10: 1:33

```
**************************************************
  HEC2 RELEASE DATED SEP 88 UPDATED SEPT 1989


  ERROR CORR -  01,02,03
  MODIFICATION -
**************************************************


T1      SKUNK CREEK FLOODPLAIN ANALYSIS, FOR FCDMC (#89-72), BY CVL (#1090-05).
T2      ARIZONA CANAL DIVERSION CHANNEL (ACDC) TO ADOBE DAM.
T3      10-YEAR FLOWS,  EXISTING CONDITION    NOV. 1990     (FILE NAME - SKS.FZ)

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0         2         0         0      .0079        0         0         0    1187.7        0

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

      1         0        -1         0         0         0        -1         0         0         0


J3  VARIABLE CODES FOR SUMMARY PRINTOUT

     38        43         1         8        42         3         2        26         5        39
     53         4        54

NC     .045      .045      .035        .1        .3
QT        3      2200      6700     11000
         SKUNK CREEK FLOODPLAIN STUDY.
         ARIZONA CANAL DIVERSION CHANNEL (ACDC) TO ADOBE DAM.  INCLUDING SCATTER
         WASH FROM ITS CONFLUENCE WITH SKUNK CREEK TO BEARDSLEY ROAD.
         EXISTING FLOWS PER FEMA.
         PREPARED AS A PART OF THE SKUNK CREEK FLOODPLAIN STUDY, BETWEEN THE
         ACDC AND THE CAP.
         PREPARED FOR THE FLOOD CONTROL DISTRICT OF MARICOPA COUNTY (FCD #89-72)
         PREPARED BY COE & VAN LOO CONSULTING ENGINEERS, 1990.
         TOPOGRAPHIC MAPPING PREPARED BY AERIAL MAPPING COMPANY, INC. FROM
         PHOTOGRAPHS TAKEN IN APRIL 1990.  ELEVATION BASED ON NGVD OF 1929.
         THE CONTROL LINE OF SKUNK CREEK IS STATION 10,000.
         ALL SECTIONS ARE STATIONED LOOKING DOWNSTREAM.
         CROSS SECTION NUMBERS FOR SKUNK CREEK ARE STATIONED IN RIVER MILES FROM
         THE CONFLUENCE WITH NEW RIVER.
         CROSS SECTION NUMBERS FOR SCATTER WASH ARE STATIONED IN RIVER MILES
         FROM THE CONFLUENCE WITH SKUNK CREEK.
         THIS RUN WAS STARTED BASED ON THE SLOPE-AREA METHOD.
         ENCROACHMENT CARDS (ET) WERE USED IN SOME CASES TO BETTER MODEL DEAD OR
         NONEFFECTIVE FLOW AREAS.  IN SOME CASES "SSTA" AND "ENDST" DO NOT
         REPRESENT THE ACTUAL FLOODING LIMITS, AND THE DELINEATION WAS BASED ON
```

```
        THE CROSS-SECTION AND THE TOPOGRAPHY.  IN SOME CASES, "TOPWID" DOES NOT
        REPRESENT THE FULL WIDTH OF THE FLOODPLAIN, DUE TO INEFFECTIVE FLOW
        AREAS OR LOW ISLANDS WITHIN THE FLOODPLAIN.
        IMMEDIATELY UPSTREAM OF THE CONFLUENCE WITH ACDC.
X1    1.663       15    9915.4   10075.8       0       0       0
GR   1202.1   9915.4    1184.1    9956.3  1183.7  9977.8  1184.6  10000.0  1184.6  10006.0
GR   1186.4  10010.3    1186.1   10026.0  1183.7 10029.6  1183.7  10034.4  1184.1  10040.0
GR   1201.1  10075.8    1201.4   10115.1  1201.8 10198.1  1203.4  10204.1  1203.3  10254.6

X1    1.763       17    9905.8   10081.6     510     530     528
GR   1215.0   9771.5    1215.5    9879.3  1214.4  9905.8  1206.4   9924.8  1205.9   9928.1
GR   1189.9   9952.6    1189.1    9960.6  1186.8  9965.8  1188.2   9976.9  1188.7  10000.0
GR   1188.2  10028.4    1196.7   10061.0  1203.1 10081.6  1203.1  10089.5  1203.3  10100.8
GR   1203.4  10202.4    1203.2   10212.2

X1    1.857       24    9913.3   10052.8     470     530     496
GR   1208.5   9648.9    1207.8    9694.0  1207.0  9751.0  1206.2   9784.2  1205.1   9809.5
GR   1208.5   9837.0    1213.0    9876.1  1213.5  9885.6  1213.4   9913.3  1197.7   9944.4
GR   1195.0   9955.7    1190.6    9964.5  1191.6  9980.9  1191.1  10000.0  1191.2  10017.9
GR   1192.7  10032.0    1191.0   10038.9  1204.5 10052.8  1204.4  10061.8  1203.3  10071.2
GR   1204.2  10081.3    1205.1   10089.6  1205.5 10108.4  1205.6  10215.8

NC     .045      .045      .038       .1      .3
        IMMEDIATELY DOWNSTREAM OF THE 75TH AVENUE ALIGNMENT.
X1    1.868       22    9926.6   10072.2      50      65      58
GR   1206.7   9758.9    1205.2    9810.6  1203.6  9851.0  1201.8   9871.0  1201.9   9884.3
GR   1205.5   9917.8    1205.1    9926.6  1203.4  9933.4  1200.1   9942.6  1195.4   9954.2
     1191.7   9958.8    1191.3    9971.4  1192.6  9979.3  1192.0   9988.2  1192.0  10000.0
GR   1192.1  10017.0    1198.1   10041.3  1203.4 10072.2  1204.8  10083.6  1205.7  10114.9
GR   1206.0  10155.6    1206.2   10230.2

ET    1.912      9.1       9.1       9.1                                     9930   10061
X1    1.912       27    9930.2   10060.3     215     250     232
GR   1215.4   9659.5    1215.8    9753.0  1214.9  9888.1  1215.4   9930.2  1207.7   9946.8
GR   1207.8   9950.3    1194.5    9973.3  1191.3  9986.6  1191.4  10000.0  1191.2  10012.2
GR   1190.5  10017.7    1194.2   10035.8  1207.9 10060.3  1208.0  10069.6  1203.8  10077.1
GR   1204.3  10099.6    1206.4   10109.1  1206.9 10146.1  1206.4  10163.8  1203.1  10207.6
GR   1202.9  10235.4    1203.4   10262.2  1204.2 10309.4  1205.2  10381.3  1206.5  10432.3
GR   1206.3  10497.2    1206.7   10560.8

NC     .045      .045      .035       .1      .3
X1    1.962       21    9932.7   10054.6     220     280     264
GR   1215.2   9582.2    1215.6    9784.2  1216.0  9881.9  1216.2   9932.7  1209.4   9951.8
GR   1196.2   9977.9    1193.0    9991.1  1192.4 10000.0  1192.2  10007.9  1197.7  10029.2
GR   1209.3  10054.6    1209.1   10066.6  1206.1 10074.2  1207.6  10118.8  1207.1  10163.8
GR   1209.2  10173.7    1210.0   10181.3  1209.8 10234.6  1209.9  10300.4  1209.8  10347.6
GR   1210.0  10399.7

ET    2.034      9.1       9.1       9.1                                     9869   10060
X1    2.034       48    9930.1   10059.4     370     390     380
GR   1212.6   8850.4    1213.9    9079.0  1213.7  9190.5  1216.1   9266.4  1214.0   9304.1
GR   1216.1   9379.0    1215.1    9476.9  1215.7  9562.0  1215.9   9671.7  1216.7   9680.7
GR   1214.9   9689.6    1217.0    9711.3  1215.5  9717.9  1216.1   9767.9  1218.0   9771.3
GR   1218.5   9805.6    1217.3    9829.7  1215.8  9836.0  1216.0   9851.7  1216.5   9861.2
```

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| GR | 1217.8 | 9869.2 | 1216.5 | 9876.4 | 1213.0 | 9890.4 | 1208.4 | 9900.9 | 1208.9 | 9919.5 |
| GR | 1209.1 | 9930.1 | 1199.1 | 9961.1 | 1194.5 | 9982.6 | 1194.3 | 9998.9 | 1194.5 | 10000.0 |
| GR | 1193.9 | 10016.6 | 1206.7 | 10049.6 | 1211.5 | 10059.4 | 1211.7 | 10067.7 | 1206.9 | 10088.1 |
| GR | 1207.3 | 10122.7 | 1207.9 | 10146.8 | 1211.4 | 10164.8 | 1211.9 | 10195.0 | 1211.8 | 10251.7 |
| GR | 1211.8 | 10313.1 | 1211.7 | 10387.8 | 1211.6 | 10445.5 | 1210.9 | 10484.4 | 1211.6 | 10554.2 |
| GR | 1211.4 | 10616.0 | 1211.8 | 10658.2 | 1211.4 | 10703.1 | | | | |
| ET | 2.129 | 9.1 | 9.1 | 9.1 | | | | | 9954 | 10070 |
| X1 | 2.129 | 59 | 9954.0 | 10069.9 | 520 | 470 | 502 | | | |
| GR | 1217.1 | 8845.2 | 1217.7 | 8977.6 | 1217.8 | 9141.1 | 1217.6 | 9227.8 | 1217.6 | 9412.8 |
| GR | 1217.5 | 9509.8 | 1217.6 | 9659.4 | 1216.9 | 9813.7 | 1216.4 | 9840.9 | 1215.0 | 9850.9 |
| GR | 1215.7 | 9852.1 | 1215.7 | 9856.0 | 1214.8 | 9856.6 | 1217.1 | 9862.8 | 1215.7 | 9864.8 |
| GR | 1215.3 | 9880.0 | 1215.9 | 9883.2 | 1212.4 | 9895.6 | 1210.9 | 9904.6 | 1211.7 | 9919.3 |
| GR | 1211.9 | 9931.7 | 1211.9 | 9938.6 | 1216.7 | 9948.8 | 1216.7 | 9954.0 | 1200.1 | 9972.1 |
| GR | 1196.6 | 9986.4 | 1196.5 | 9998.0 | 1196.7 | 10000.0 | 1196.8 | 10011.1 | 1196.2 | 10030.4 |
| GR | 1200.9 | 10044.4 | 1208.0 | 10060.4 | 1213.1 | 10069.9 | 1213.0 | 10078.8 | 1208.8 | 10090.2 |
| GR | 1209.3 | 10121.4 | 1209.5 | 10165.9 | 1209.8 | 10213.0 | 1209.9 | 10278.4 | 1210.5 | 10331.8 |
| GR | 1210.5 | 10430.9 | 1210.6 | 10519.8 | 1210.5 | 10626.4 | 1210.8 | 10667.5 | 1211.4 | 10673.5 |
| GR | 1211.2 | 10711.0 | 1211.1 | 10738.1 | 1210.4 | 10741.1 | 1212.0 | 10787.5 | 1212.0 | 10791.8 |
| GR | 1213.0 | 10797.7 | 1212.9 | 10806.1 | 1211.6 | 10807.0 | 1211.5 | 10821.5 | 1211.0 | 10835.6 |
| GR | 1209.8 | 10854.5 | 1210.4 | 10863.1 | 1211.0 | 10887.6 | 1211.2 | 10889.4 | | |
| ET | 2.230 | 9.1 | 9.1 | 9.1 | | | | | 9817 | 10325 |
| X1 | 2.230 | 51 | 9817.8 | 10070.3 | 560 | 430 | 533 | | | |
| GR | 1217.2 | 9081.4 | 1218.1 | 9261.4 | 1217.7 | 9302.4 | 1218.4 | 9372.8 | 1218.1 | 9404.3 |
| GR | 1218.8 | 9460.1 | 1217.8 | 9649.3 | 1217.3 | 9688.9 | 1217.9 | 9722.8 | 1218.2 | 9781.8 |
| GR | 1218.5 | 9797.5 | 1217.3 | 9805.0 | 1217.3 | 9810.7 | 1219.2 | 9817.8 | 1217.6 | 9824.2 |
| GR | 1206.3 | 9878.9 | 1205.4 | 9894.6 | 1203.7 | 9906.9 | 1205.0 | 9919.6 | 1204.3 | 9939.4 |
| GR | 1202.7 | 9961.7 | 1203.4 | 9968.2 | 1202.3 | 9974.3 | 1203.3 | 9979.5 | 1202.1 | 9985.0 |
| GR | 1203.3 | 9993.4 | 1199.6 | 9996.9 | 1199.8 | 10000.0 | 1203.6 | 10005.0 | 1203.4 | 10029.4 |
| GR | 1204.5 | 10045.0 | 1206.2 | 10058.3 | 1212.4 | 10070.3 | 1213.1 | 10105.8 | 1213.7 | 10139.4 |
| GR | 1213.8 | 10198.1 | 1214.4 | 10325.7 | 1214.3 | 10356.6 | 1213.2 | 10437.7 | 1212.4 | 10490.1 |
| GR | 1212.6 | 10504.7 | 1212.5 | 10526.6 | 1211.8 | 10556.1 | 1212.7 | 10577.0 | 1213.4 | 10602.2 |
| GR | 1213.5 | 10635.1 | 1213.7 | 10639.6 | 1213.4 | 10643.4 | 1213.2 | 10661.7 | 1212.3 | 10681.3 |
| GR | 1211.9 | 10691.6 | | | | | | | | |
| X1 | 2.319 | 49 | 9893.7 | 10164.4 | 470 | 410 | 470 | | | |
| GR | 1215.8 | 9353.4 | 1215.3 | 9376.5 | 1215.9 | 9433.1 | 1216.0 | 9479.1 | 1215.9 | 9495.7 |
| GR | 1216.1 | 9536.2 | 1217.3 | 9571.3 | 1217.3 | 9591.3 | 1216.8 | 9612.2 | 1215.8 | 9628.4 |
| GR | 1215.4 | 9656.5 | 1215.2 | 9678.0 | 1216.3 | 9704.5 | 1215.4 | 9729.3 | 1215.6 | 9737.6 |
| GR | 1216.4 | 9758.8 | 1217.6 | 9782.8 | 1218.1 | 9811.0 | 1218.5 | 9838.0 | 1219.2 | 9859.8 |
| GR | 1219.8 | 9866.0 | 1218.1 | 9873.2 | 1218.8 | 9874.9 | 1219.0 | 9880.2 | 1217.8 | 9883.7 |
| GR | 1220.1 | 9893.7 | 1219.0 | 9898.0 | 1218.0 | 9904.1 | 1211.5 | 9920.0 | 1207.5 | 9931.8 |
| GR | 1207.7 | 9950.6 | 1207.3 | 9971.9 | 1207.1 | 9992.7 | 1207.3 | 10000.0 | 1207.8 | 10015.0 |
| GR | 1207.6 | 10031.9 | 1208.5 | 10046.4 | 1209.0 | 10067.5 | 1208.1 | 10082.8 | 1206.9 | 10098.3 |
| GR | 1209.0 | 10107.1 | 1217.2 | 10129.9 | 1217.7 | 10141.2 | 1218.3 | 10164.4 | 1218.6 | 10209.7 |
| GR | 1218.8 | 10242.2 | 1218.3 | 10315.5 | 1216.7 | 10371.2 | 1215.6 | 10397.0 | | |
| NC | .045 | .045 | .038 | .3 | .5 | | | | | |

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        DOWNSTREAM FACE OF BELL ROAD BRIDGE.
X1    2.353       13    9853.4   10146.6     320       70      180    0.707
GR   1217.0   9853.4    1211.2    9853.5  1210.2     9881   1210.2     9915   1211.4     9949
GR   1206.7     9983    1206.5     10000  1206.2    10017   1206.8    10051   1208.7    10085
GR   1210.0    10119    1209.9   10146.5  1217.5  10146.6

SB    0.90     1.56       2.7         0    81.0      6.4   1843.9      7.3   1206.2   1205.9
        UPSTREAM FACE OF BELL ROAD BRIDGE, SPECIAL BRIDE METHOD USED.
X1   2.379       13    9853.4   10146.6     106      106      106    0.707
X2                          1    1217.8  1222.4                            0.707
BT      13   9853.4    1222.4    1217.4  9853.5   1222.4   1217.4     9881   1222.4   1217.4
BT    9915   1222.4    1217.4      9949  1222.4   1217.4     9983   1222.4   1217.5    10000
BT  1222.4   1217.8     10017    1222.4  1217.5    10051   1222.4   1217.4    10085   1222.4
BT  1217.4    10119    1222.4    1217.5 10146.5   1222.4   1217.4  10146.6   1222.4   1217.4
GR  1217.4   9853.4    1212.7    9853.5  1211.1     9881   1211.0     9915   1209.2     9949
GR  1205.9     9983    1206.4     10000  1206.8    10017   1208.7    10051   1210.5    10085
GR  1210.1    10119    1210.6   10146.5  1217.4  10146.6

NC    .045    .045      .035        .1      .3
ET   2.422      9.1       9.1       9.1                                      9841    10074
X1   2.422       33    9848.2   10073.1      70      395      258
GR  1217.7   9519.5    1217.5    9540.7  1219.2   9565.4   1219.2    9608.0   1218.8   9643.0
GR  1218.1   9673.9    1216.9    9695.1  1217.3   9722.0   1216.8    9757.2   1216.9   9797.7
GR  1217.1   9813.0    1217.7    9822.4  1221.2   9840.9   1220.9    9848.2   1216.1   9863.3
GR  1212.7   9878.3    1212.3    9893.2  1210.3   9916.3   1210.2    9942.8   1209.5   9977.1
GR  1209.0   9999.0    1209.0   10000.0  1208.2  10015.2   1208.3   10028.2   1208.3  10045.9
    1210.8  10046.3    1221.1   10073.1  1219.9  10076.5   1220.3   10086.4   1214.5  10103.0
GR  1214.2  10128.6    1214.5   10147.4  1213.7  10153.4

ET   2.491      9.1       9.1       9.1                                      9790   10036.6
        IMMEDIATELY DOWNSTREAM OF CONFLUENCE WITH 71ST AVENUE CHANNEL.
X1   2.491       59    9790.6   10036.5     310      370      364
GR  1219.8   9413.9    1220.2    9424.2  1219.5   9427.6   1219.1    9448.4   1218.3   9470.0
GR  1217.1   9495.2    1218.9    9498.6  1217.4   9504.6   1219.2    9517.9   1217.8   9526.3
GR  1218.1   9554.5    1218.1    9577.3  1218.7   9586.2   1219.3    9610.2   1219.6   9630.3
GR  1219.0   9654.6    1218.7    9673.3  1221.8   9682.5   1220.9    9714.2   1219.7   9729.0
GR  1215.8   9739.9    1215.0    9750.4  1216.7   9763.9   1217.6    9771.0   1220.1   9783.8
GR  1220.9   9790.6    1218.6    9798.4  1213.7   9815.5   1212.8    9819.0   1213.4   9826.1
GR  1212.7   9838.0    1211.2    9846.6  1211.2   9850.4   1211.6    9854.7   1213.0   9859.6
GR  1214.0   9883.4    1213.6    9901.4  1211.8   9918.4   1212.2    9937.2   1212.1   9961.4
GR  1211.0   9988.6    1208.5    9994.1  1208.9  10000.0   1210.0   10012.1   1211.9  10022.7
GR  1216.5  10032.2    1218.7   10036.5  1214.7  10046.0   1213.5   10051.2   1214.9  10063.8
GR  1216.3  10080.1    1219.9   10092.3  1221.0  10101.2   1220.4   10108.4   1217.9  10128.9
GR  1217.5  10135.1    1220.7   10150.8  1219.9  10280.5   1219.9   10284.9

ET   2.561      9.1       9.1       9.1                                      9913    10200
X1   2.561       57    9919.2   10167.2     290      400      370
GR  1220.4   9471.5    1220.4    9477.1  1219.1   9478.4   1219.3    9492.6   1218.5   9515.0
GR  1218.2   9538.0    1219.9    9548.5  1220.6   9553.4   1220.3    9556.4   1219.6   9576.8
GR  1220.5   9598.5    1220.9    9635.7  1220.9   9678.2   1220.8    9713.9   1220.6   9744.7
GR  1220.1   9782.6    1220.2    9819.7  1220.0   9850.0   1218.9    9870.1   1218.6   9885.7
GR  1219.3   9892.5    1219.6    9904.0  1221.1   9912.8   1220.9    9919.2   1212.4   9935.9
GR  1212.5   9941.3    1213.1    9953.5  1214.4   9963.4   1214.7    9984.0   1214.7   9993.8
    1214.3  10000.0    1213.1   10007.4  1213.6  10021.4   1214.5   10031.8   1214.1  10043.7
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GR   1212.9   10053.7   1214.8   10067.1   1215.1   10087.4   1213.9   10104.5   1213.9   10113.4
GR   1215.2   10119.6   1215.4   10128.9   1214.8   10139.2   1223.2   10155.7   1222.6   10161.4
GR   1224.0   10167.2   1224.8   10184.0   1224.9   10207.9   1223.8   10240.0   1224.1   10261.8
GR   1224.9   10281.2   1225.0   10311.0   1225.2   10358.8   1225.4   10414.4   1225.7   10453.1
GR   1226.4   10497.2   1226.1   10532.9

X1    2.634      36    9869.2   10252.4    400      360      385
GR   1224.8    9538.1   1223.6    9715.5   1223.6    9766.9   1224.5    9855.6   1223.5    9869.2
GR   1219.7    9879.5   1216.8    9902.2   1216.4    9913.4   1215.7    9943.1   1212.6    9953.5
GR   1212.4    9957.2   1214.0    9967.8   1214.4    9982.1   1214.6   10000.0   1214.6   10015.8
GR   1213.9   10061.1   1214.5   10074.2   1213.7   10092.4   1214.6   10108.9   1215.8   10121.4
GR   1216.0   10136.4   1215.2   10146.4   1215.6   10176.3   1216.3   10187.0   1216.8   10192.9
GR   1214.8   10195.7   1216.2   10217.6   1222.1   10231.7   1222.2   10238.2   1224.5   10245.8
GR   1225.5   10252.4   1225.5   10261.3   1225.5   10372.9   1225.9   10476.1   1226.3   10576.7
GR   1226.2   10609.9

X1    2.720      37    9951.7   10259.1    480      400      454
GR   1227.6    9767.6   1226.8    9889.3   1226.6    9934.5   1225.7    9951.7   1222.3    9960.1
GR   1221.7    9968.0   1216.8    9975.6   1215.4    9982.8   1213.2    9993.8   1213.7    9998.9
GR   1214.1   10000.0   1216.0   10009.6   1217.0   10025.2   1217.6   10047.2   1217.1   10055.5
GR   1215.8   10062.5   1215.8   10073.3   1217.1   10083.5   1217.7   10105.0   1218.5   10150.4
GR   1218.3   10182.3   1218.6   10200.7   1219.0   10216.7   1219.8   10223.4   1223.4   10243.5
GR   1223.0   10251.0   1226.2   10259.1   1226.0   10317.2   1226.2   10354.2   1225.6   10363.1
GR   1226.5   10387.3   1226.4   10423.4   1226.9   10477.0   1227.7   10529.5   1228.3   10563.9
GR   1228.1   10594.5   1228.1   10611.1

X1    2.801      35    9792.8   10085.8    460      330      428
GR   1231.0    9357.1   1230.1    9405.3   1228.4    9424.6   1227.7    9471.3   1227.1    9483.1
GR   1226.8    9528.8   1227.7    9558.0   1228.3    9584.0   1228.5    9629.0   1228.7    9653.6
GR   1228.3    9720.1   1227.8    9772.0   1227.5    9792.8   1225.4    9797.6   1225.5    9818.1
GR   1222.4    9822.1   1221.6    9827.4   1221.3    9844.7   1219.9    9848.7   1220.2    9866.5
GR   1219.6    9894.6   1219.5    9924.9   1218.1    9960.8   1217.3    9981.0   1217.3   10000.0
GR   1217.3   10012.7   1217.7   10018.0   1217.9   10027.2   1219.1   10039.1   1219.6   10053.5
GR   1222.3   10069.7   1225.9   10081.1   1227.6   10085.8   1227.4   10170.8   1227.5   10297.4

X1    2.900      27    9812.7   10077.6    470      530      523
GR   1230.8    9290.5   1229.2    9477.8   1228.9    9649.5   1229.5    9724.7   1229.3    9764.4
GR   1229.0    9793.5   1228.8    9812.7   1224.8    9820.9   1224.2    9826.3   1221.5    9831.6
GR   1221.4    9842.3   1222.0    9865.7   1221.9    9902.8   1221.2    9937.7   1220.4    9972.7
GR   1219.3   10000.0   1219.1   10012.4   1218.9   10026.2   1219.0   10037.0   1218.3   10047.2
GR   1221.2   10056.6   1227.3   10062.4   1227.3   10070.1   1229.0   10077.6   1229.6   10166.5
GR   1229.7   10312.2   1229.6   10363.0

NC     .045      .045     .040      .1       .3
X1    3.000      39    9930.2   10133.4    450      560      528
GR   1232.0    9257.3   1231.4    9345.0   1230.8    9411.0   1231.0    9515.4   1230.8    9596.0
GR   1230.1    9647.2   1230.3    9708.5   1230.2    9796.3   1229.4    9859.3   1229.8    9901.2
GR   1229.5    9917.8   1229.1    9930.2   1220.0    9941.1   1220.3    9949.0   1221.9    9956.2
GR   1223.1    9973.0   1222.5    9984.9   1223.1    9991.6   1221.3    9996.3   1220.6   10000.0
GR   1220.5   10007.4   1222.3   10014.7   1222.6   10043.7   1222.2   10082.5   1221.7   10106.6
GR   1222.9   10116.3   1227.1   10124.5   1229.6   10130.0   1230.2   10133.4   1230.5   10160.3
GR   1230.8   10200.0   1231.0   10250.7   1231.3   10312.7   1230.8   10369.0   1231.6   10431.7
GR   1231.5   10477.0   1231.8   10539.4   1231.4   10583.2   1231.2   10641.8
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ET    3.077      9.1      9.1      9.1                                                  9905.5    10126.9
X1    3.077       31   9905.6  10126.8      410      410      407
GR   1231.8   9327.7   1231.2   9528.4   1231.0   9727.6   1231.5   9818.7   1231.3    9875.4
GR   1231.0   9888.6   1231.6   9905.6   1227.9   9912.5   1223.7   9924.9   1223.5    9928.7
GR   1224.4   9942.9   1223.4   9973.6   1222.8   9986.9   1223.2  10000.0   1223.6   10023.8
GR   1224.8  10034.5   1224.5  10058.4   1223.7  10079.3   1224.2  10097.2   1226.1   10108.2
GR   1235.1  10126.8   1232.1  10137.7   1232.2  10159.6   1231.4  10182.8   1231.4   10226.5
GR   1231.5  10269.1   1231.8  10331.9   1231.9  10383.9   1232.1  10440.2   1232.3   10510.6
GR   1232.5  10619.9

ET    3.143      9.1      9.1      9.1                                                     9965      10109
X1    3.143       59   9965.6  10108.2      360      320      348
GR   1236.1   9482.4   1237.0   9493.3   1236.6   9527.1   1235.1   9561.4   1234.8    9580.4
GR   1234.5   9598.0   1233.7   9610.8   1233.6   9643.4   1232.9   9672.1   1231.9    9694.1
GR   1232.4   9711.3   1232.2   9728.9   1232.6   9735.8   1233.2   9758.7   1234.2    9780.5
GR   1234.1   9805.8   1233.0   9837.5   1232.9   9872.6   1233.3   9898.9   1233.1    9924.3
GR   1233.3   9938.8   1233.3   9952.3   1233.2   9965.6   1230.6   9973.7   1225.0    9983.5
GR   1222.5   9993.3   1222.4  10000.0   1223.7  10022.3   1224.9  10046.7   1225.7   10066.5
GR   1226.5  10080.9   1226.9  10093.1   1228.8  10097.6   1233.9  10108.2   1234.1   10116.5
GR   1233.4  10137.9   1233.5  10166.9   1233.5  10172.8   1233.7  10195.5   1233.7   10236.9
GR   1234.3  10268.6   1234.3  10300.6   1234.5  10328.5   1233.6  10356.0   1233.3   10391.3
GR   1234.4  10416.5   1234.0  10448.9   1234.0  10485.8   1234.7  10516.3   1234.8   10546.3
GR   1234.1  10565.0   1233.2  10571.2   1233.9  10590.2   1235.5  10607.1   1235.5   10633.3
GR   1235.4  10663.9   1235.3  10700.7   1235.2  10736.3   1235.4  10765.2

ET    3.200      9.1      9.1      9.1                                                     9927      10085
X1    3.200       52   9927.3  10082.2      310      270      301
GR   1237.9   9482.4   1237.9   9501.6   1237.8   9545.8   1237.5   9572.4   1236.0    9591.8
GR   1235.7   9619.3   1235.7   9652.1   1235.4   9681.1   1235.4   9689.1   1235.2    9692.6
GR   1235.0   9696.5   1235.3   9712.3   1234.5   9726.6   1234.9   9733.3   1234.9    9751.5
GR   1234.7   9790.0   1234.7   9829.4   1234.5   9873.2   1234.5   9899.3   1235.1    9916.8
GR   1236.0   9927.3   1235.3   9937.3   1227.6   9954.1   1226.8   9973.3   1225.0    9982.3
GR   1225.0   9998.0   1226.2  10000.0   1225.8  10015.1   1226.9  10036.2   1228.3   10055.4
GR   1229.7  10064.1   1235.6  10082.2   1235.6  10110.9   1235.6  10155.7   1235.5   10206.4
GR   1235.1  10256.4   1235.3  10288.8   1235.1  10315.0   1234.1  10338.0   1234.5   10361.4
GR   1234.8  10386.4   1234.6  10389.3   1234.6  10422.7   1234.3  10462.2   1233.9   10477.0
GR   1234.2  10490.1   1234.1  10505.0   1234.5  10534.2   1235.0  10571.8   1235.9   10613.6
GR   1236.2  10648.9   1237.2  10668.8

ET    3.300      9.1      9.1      9.1                                                     9930      10118
         FROM SECTION 3.300 TO SECTION 3.400, ET CARDS ARE USED TO MODEL
         EFFECTIVE FLOW AREA IN BOTH OVERBANKS AT A 1:1 CONTRACTION UPSTEAM
         FROM THE CONSTRICTION.
X1    3.300       41   9940.0  10082.2      550      510      528
GR   1240.1   9503.7   1240.5   9546.8   1240.5   9570.6   1237.5   9605.6   1237.5    9659.7
GR   1236.5   9702.5   1236.6   9744.3   1236.5   9791.8   1235.8   9825.3   1236.3    9858.8
GR   1236.6   9890.3   1237.7   9914.2   1239.1   9929.2   1239.0   9940.0   1234.9    9944.7
GR   1230.9   9955.6   1229.8   9966.1   1228.6   9974.9   1228.6   9986.7   1228.1    9991.9
GR   1226.6   9994.5   1227.2  10000.0   1227.2  10013.3   1229.5  10020.7   1228.4   10038.1
GR   1229.5  10055.7   1230.4  10063.0   1236.1  10075.5   1239.0  10082.2   1239.4   10118.0
GR   1239.2  10150.3   1238.1  10186.3   1238.9  10215.9   1238.6  10236.0   1236.8   10253.8
GR   1238.4  10280.1   1237.8  10309.2   1237.4  10340.3   1236.6  10354.4   1236.6   10377.3
GR   1237.5  10384.5
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ET    3.400      7.1      7.1      9.1                          9912     10081     9470.2    10497.0
         FROM SECTION 3.400 TO SECTION 3.840, ET CARDS ARE USED TO MODEL
         EFFECTIVE FLOW AREAS IN BOTH OVERBANKS AT A 4:1 EXPANSION DOWNSTREAM
         FROM THE CHANNELIZATION.
X1    3.400       52   9912.5  10080.0      530      520      528
GR   1240.0   9470.2   1239.8   9508.5   1239.5   9549.0   1239.4   9573.5   1239.1   9594.4
GR   1239.8   9612.2   1239.2   9633.4   1239.7   9646.8   1239.4   9669.1   1239.4   9705.7
GR   1239.1   9742.4   1239.0   9773.2   1239.2   9803.7   1239.5   9836.8   1239.6   9874.6
GR   1239.5   9899.0   1238.9   9912.5   1237.4   9921.8   1233.4   9936.4   1231.3   9953.2
GR   1230.9   9971.6   1230.6   9982.2   1229.9   9997.0   1230.2  10000.0   1230.3  10015.2
GR   1230.8  10032.1   1231.8  10046.2   1239.6  10068.6   1240.8  10080.0   1239.8  10098.7
GR   1240.6  10111.8   1240.1  10130.4   1238.9  10152.8   1238.6  10178.4   1238.9  10199.3
GR   1239.9  10214.9   1239.7  10236.5   1238.9  10248.6   1239.9  10259.1   1239.3  10290.0
GR   1239.1  10322.0   1239.4  10346.6   1239.0  10358.0   1237.8  10370.7   1238.8  10380.1
GR   1240.7  10387.2   1238.8  10398.8   1239.0  10411.2   1239.4  10437.7   1239.1  10461.4
GR   1239.9  10479.9   1240.2  10497.0

ET    3.500      9.1      9.1      9.1                                                9570     10440
X1    3.500       66   9972.6  10174.9      520      530      528
GR   1243.7   8957.1   1243.4   8976.4   1243.4   8992.8   1243.7   9043.7   1243.3   9073.9
GR   1243.2   9078.8   1243.4   9099.5   1243.1   9114.8   1243.4   9120.3   1242.6   9131.6
GR   1241.8   9146.4   1242.0   9169.7   1242.1   9200.5   1242.0   9231.8   1241.4   9261.6
GR   1241.2   9292.1   1241.0   9321.7   1241.1   9357.5   1241.2   9398.4   1240.8   9440.9
GR   1241.3   9464.3   1240.7   9473.5   1240.7   9495.0   1241.0   9540.2   1241.3   9598.4
GR   1241.4   9650.2   1240.9   9728.2   1241.3   9770.7   1241.7   9803.1   1241.0   9843.8
GR   1241.0   9881.2   1240.7   9913.0   1241.0   9953.6   1241.3   9965.2   1241.7   9972.6
GR   1235.9   9985.3   1233.5   9997.2   1232.9  10000.0   1233.0  10013.1   1233.1  10023.8
GR   1231.9  10032.2   1233.1  10051.8   1233.3  10077.1   1233.7  10093.6   1236.0  10104.6
GR   1236.3  10113.6   1236.1  10122.4   1238.1  10137.8   1240.6  10158.2   1242.0  10174.9
GR   1241.9  10195.5   1241.0  10212.1   1240.6  10226.1   1241.6  10242.5   1241.8  10264.5
GR   1242.4  10303.4   1242.3  10340.1   1243.7  10389.2   1243.8  10430.8   1243.7  10457.4
GR   1244.5  10482.9   1244.9  10517.0   1244.1  10535.6   1244.3  10574.1   1244.4  10608.9
GR   1244.7  10643.9

ET    3.600      9.1      9.1      9.1                                                9660     10270
X1    3.600       67   9946.2  10098.2      525      510      528
GR   1247.9   9064.4   1248.4   9080.6   1248.7   9095.1   1247.8   9109.8   1245.9   9121.9
GR   1244.9   9129.0   1245.7   9136.6   1244.9   9143.0   1244.2   9146.6   1246.0   9153.2
GR   1246.4   9164.6   1246.1   9171.4   1246.6   9177.9   1243.6   9184.1   1243.1   9224.4
GR   1243.6   9258.0   1243.9   9286.1   1243.3   9328.2   1243.7   9368.4   1243.3   9416.1
GR   1243.6   9460.4   1243.6   9506.7   1243.9   9557.1   1243.8   9609.6   1243.7   9653.8
GR   1243.3   9705.9   1243.5   9758.8   1243.2   9808.1   1243.0   9850.8   1242.8   9885.2
GR   1243.0   9912.0   1243.0   9932.2   1242.3   9946.2   1236.6   9967.8   1234.9   9974.2
GR   1234.6   9985.9   1234.3   9998.1   1235.1  10000.0   1235.9  10013.8   1235.1  10027.1
GR   1235.5  10040.2   1236.2  10051.9   1236.3  10062.9   1238.1  10073.8   1238.4  10083.1
GR   1243.1  10098.2   1242.6  10116.4   1242.7  10145.3   1245.0  10161.8   1244.8  10171.0
GR   1244.6  10184.6   1244.4  10195.3   1244.0  10220.5   1244.0  10245.6   1244.4  10269.7
GR   1244.7  10291.9   1244.1  10315.8   1244.7  10338.3   1244.7  10375.7   1245.3  10414.4
GR   1245.5  10451.2   1245.8  10492.1   1245.8  10530.6   1244.7  10562.0   1245.3  10591.1
GR   1245.4  10623.5   1245.4  10632.0
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ET    3.700       7.1       7.1       9.1                                9946.9    10100      9720    10110
X1    3.700        92    9947.0   10078.5       515       515       528
GR   1248.7    8618.4    1248.7    8647.8    1248.5    8671.1    1248.3    8675.0    1248.6    8688.9
GR   1248.2    8706.2    1249.0    8711.2    1249.1    8729.5    1248.8    8749.6    1249.0    8794.8
GR   1249.1    8840.2    1248.9    8891.7    1249.4    8943.1    1249.4    8981.5    1248.2    9026.1
GR   1246.9    9054.0    1245.7    9086.3    1245.9    9120.3    1246.1    9157.9    1246.1    9184.6
GR   1244.7    9202.1    1244.0    9217.2    1243.8    9237.0    1243.6    9264.2    1244.8    9283.8
GR   1245.0    9293.3    1244.2    9304.0    1244.5    9323.7    1247.4    9337.1    1247.7    9365.6
GR   1247.7    9410.3    1246.9    9445.7    1246.6    9472.5    1247.4    9498.8    1248.1    9525.6
GR   1244.8    9540.2    1244.8    9572.7    1244.7    9629.1    1244.1    9675.0    1244.3    9689.1
GR   1245.4    9694.7    1244.4    9708.7    1244.4    9746.3    1244.3    9784.2    1244.2    9817.3
GR   1244.9    9838.3    1246.6    9850.8    1244.7    9867.9    1245.8    9886.0    1245.9    9898.2
GR   1245.0    9909.3    1245.4    9928.6    1246.8    9939.5    1248.8    9947.0    1244.1    9955.4
GR   1238.5    9973.3    1235.3    9991.4    1235.3   10000.0    1235.2   10023.2    1236.2   10043.5
GR   1240.0   10059.3    1243.6   10072.5    1244.8   10078.5    1244.3   10091.6    1243.7   10098.3
GR   1245.0   10113.7    1245.9   10135.2    1245.5   10154.9    1244.6   10183.1    1244.0   10213.1
GR   1244.2   10246.3    1244.3   10275.3    1245.1   10283.5    1248.3   10291.7    1245.6   10303.2
GR   1245.1   10362.1    1245.6   10442.1    1245.0   10495.9    1245.1   10540.5    1244.6   10558.1
GR   1245.4   10570.1    1245.4   10585.1    1244.8   10608.2    1244.9   10628.2    1246.1   10628.3
GR   1246.1   10656.0    1247.9   10678.5    1248.0   10736.9    1246.0   10753.0    1245.3   10771.3
GR   1245.3   10801.2    1245.3   10812.4

ET    3.767       7.1       7.1       9.1                                 9936   10078.3      9800   10078.3
X1    3.767        97    9954.3   10078.2       355       355       354
GR   1251.2    8824.2    1250.9    8872.5    1250.4    8909.5    1250.2    8967.3    1249.7    9016.4
GR   1249.5    9042.1    1248.6    9078.7    1249.3    9086.4    1248.3    9102.4    1248.6    9137.9
GR   1247.6    9182.6    1247.1    9213.0    1245.9    9222.8    1246.4    9236.7    1250.2    9242.8
GR   1246.6    9255.2    1247.7    9262.5    1246.8    9272.2    1246.7    9291.7    1246.5    9311.6
GR   1247.2    9320.5    1246.3    9331.7    1247.0    9341.9    1246.6    9345.8    1245.4    9353.2
GR   1246.6    9362.5    1245.6    9381.3    1246.0    9406.6    1245.4    9455.7    1246.3    9517.0
GR   1247.2    9545.9    1246.7    9553.9    1246.2    9568.2    1247.1    9586.7    1247.2    9613.5
GR   1247.4    9635.5    1247.7    9647.0    1247.4    9666.9    1246.5    9687.4    1246.9    9713.2
GR   1247.7    9744.6    1247.9    9761.4    1249.4    9769.9    1247.2    9784.2    1247.7    9791.8
GR   1248.5    9797.0    1248.8    9804.4    1246.9    9811.9    1246.1    9831.2    1245.7    9850.5
GR   1247.5    9865.5    1245.7    9874.2    1247.0    9881.5    1245.6    9887.7    1248.1    9895.3
GR   1247.2    9900.9    1248.1    9906.2    1245.8    9916.2    1246.4    9936.6    1246.1    9954.3
GR   1243.2    9962.0    1242.2    9974.0    1239.8    9986.0    1235.6    9999.8    1235.3   10000.0
GR   1235.9   10020.0    1236.6   10037.6    1237.9   10046.8    1239.5   10055.3    1246.1   10070.0
GR   1248.1   10078.2    1247.8   10084.9    1245.2   10097.2    1246.0   10124.3    1245.6   10164.2
GR   1245.6   10210.9    1245.5   10245.8    1245.3   10271.2    1246.1   10296.9    1246.3   10327.9
GR   1246.6   10349.6    1246.7   10356.8    1247.8   10367.5    1247.2   10392.7    1246.8   10425.6
GR   1245.9   10436.8    1245.8   10445.6    1246.1   10461.1    1246.1   10474.5    1246.1   10483.7
GR   1247.5   10483.8    1247.6   10510.3    1248.0   10517.0    1248.2   10588.4    1248.5   10611.3
GR   1250.4   10637.1    1250.6   10655.7

NC     .045       .045      .035        .1        .3
ET    3.840       7.1       9.1       9.1                                 9952   10073.6      9900   10073.6
          FROM SECTION 3.840 TO SECTION 4.422, SKUNK CREEK IS CHANNELIZED.
X1    3.840        77    9952.9   10073.5       370       390       385
GR   1252.9    8587.9    1252.3    8625.8    1251.8    8684.4    1251.4    8757.3    1251.4    8800.2
GR   1251.3    8850.4    1251.0    8864.5    1250.2    8883.4    1249.9    8931.8    1249.9    8982.4
GR   1250.7    9025.6    1250.2    9058.9    1249.7    9083.9    1249.5    9109.4    1249.6    9124.8
GR   1250.7    9134.9    1251.7    9149.7    1252.6    9181.8    1252.5    9228.8    1252.5    9271.7
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| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| GR | 1252.1 | 9310.4 | 1251.5 | 9339.1 | 1250.6 | 9354.7 | 1247.3 | 9373.8 | 1247.6 | 9407.4 |
| GR | 1247.3 | 9445.8 | 1248.0 | 9496.0 | 1247.7 | 9537.0 | 1247.4 | 9580.0 | 1247.6 | 9612.9 |
| GR | 1247.4 | 9643.3 | 1247.2 | 9671.6 | 1247.1 | 9694.2 | 1248.1 | 9715.1 | 1248.2 | 9750.5 |
| GR | 1248.2 | 9788.5 | 1248.0 | 9810.8 | 1248.3 | 9828.8 | 1247.3 | 9841.3 | 1248.0 | 9864.6 |
| GR | 1247.3 | 9885.4 | 1246.9 | 9903.9 | 1246.2 | 9913.1 | 1243.6 | 9921.8 | 1243.2 | 9929.5 |
| GR | 1245.7 | 9939.0 | 1246.5 | 9952.9 | 1241.1 | 9963.8 | 1240.1 | 9975.2 | 1239.0 | 10000.0 |
| GR | 1239.7 | 10027.5 | 1241.5 | 10048.5 | 1248.1 | 10065.0 | 1250.2 | 10073.5 | 1250.0 | 10086.1 |
| GR | 1246.8 | 10099.9 | 1247.6 | 10139.1 | 1247.6 | 10183.2 | 1247.3 | 10223.1 | 1248.4 | 10245.1 |
| GR | 1248.7 | 10259.4 | 1249.3 | 10280.0 | 1249.6 | 10282.3 | 1249.6 | 10321.5 | 1249.1 | 10381.8 |
| GR | 1248.1 | 10410.3 | 1248.1 | 10447.7 | 1248.6 | 10470.0 | 1248.0 | 10486.4 | 1249.5 | 10507.9 |
| GR | 1250.2 | 10537.0 | 1250.8 | 10561.7 | 1251.7 | 10637.7 | 1251.7 | 10663.1 | 1251.5 | 10686.5 |
| GR | 1252.2 | 10702.8 | 1252.2 | 10703.6 | | | | | | |
| ET | 3.916 | 9.1 | 9.1 | 9.1 | | | | | 9930 | 10076 |
| X1 | 3.916 | 63 | 9930.4 | 10075.2 | 390 | 410 | 401 | | | |
| GR | 1259.1 | 9111.6 | 1259.2 | 9148.3 | 1257.7 | 9167.1 | 1252.2 | 9190.2 | 1251.0 | 9213.3 |
| GR | 1251.0 | 9217.5 | 1253.5 | 9226.2 | 1251.3 | 9249.0 | 1250.4 | 9258.6 | 1250.8 | 9281.6 |
| GR | 1252.4 | 9299.5 | 1252.2 | 9325.4 | 1251.4 | 9335.9 | 1249.5 | 9350.2 | 1249.1 | 9369.5 |
| GR | 1249.6 | 9397.4 | 1249.2 | 9430.6 | 1250.1 | 9457.9 | 1250.0 | 9484.9 | 1250.1 | 9524.2 |
| GR | 1250.4 | 9563.4 | 1250.4 | 9598.8 | 1250.2 | 9638.6 | 1250.0 | 9675.4 | 1249.8 | 9707.0 |
| GR | 1248.7 | 9739.2 | 1248.3 | 9762.5 | 1247.4 | 9779.0 | 1245.9 | 9797.0 | 1245.3 | 9803.6 |
| GR | 1247.4 | 9815.8 | 1249.3 | 9827.1 | 1250.2 | 9838.4 | 1248.7 | 9856.3 | 1248.0 | 9871.1 |
| GR | 1248.1 | 9880.5 | 1250.1 | 9893.8 | 1252.4 | 9909.9 | 1252.8 | 9930.4 | 1242.3 | 9946.1 |
| GR | 1242.3 | 9972.4 | 1241.6 | 9999.2 | 1242.3 | 10000.0 | 1242.5 | 10028.5 | 1242.1 | 10040.3 |
| GR | 1241.6 | 10051.2 | 1242.2 | 10059.2 | 1252.7 | 10075.2 | 1252.2 | 10096.4 | 1249.9 | 10104.4 |
| GR | 1252.4 | 10117.9 | 1252.7 | 10142.5 | 1252.7 | 10179.2 | 1252.7 | 10233.0 | 1252.2 | 10242.6 |
| GR | 1252.5 | 10269.1 | 1252.2 | 10290.9 | 1251.6 | 10310.3 | 1250.6 | 10310.5 | 1250.8 | 10336.2 |
| GR | 1252.9 | 10362.4 | 1253.3 | 10402.3 | 1254.0 | 10443.4 | | | | |
| ET | 4.000 | 9.1 | 9.1 | 9.1 | | | | | 9907 | 10074 |
| X1 | 4.000 | 61 | 9927.9 | 10073.7 | 430 | 460 | 444 | | | |
| GR | 1252.1 | 9420.5 | 1253.1 | 9434.9 | 1251.3 | 9447.3 | 1251.7 | 9458.0 | 1252.3 | 9467.7 |
| GR | 1252.3 | 9486.3 | 1252.3 | 9500.2 | 1252.0 | 9525.3 | 1251.1 | 9553.7 | 1250.9 | 9585.9 |
| GR | 1251.0 | 9612.3 | 1252.8 | 9624.6 | 1250.6 | 9638.2 | 1251.4 | 9647.1 | 1250.3 | 9658.9 |
| GR | 1251.2 | 9685.4 | 1250.6 | 9721.6 | 1250.4 | 9751.9 | 1249.4 | 9767.4 | 1247.5 | 9783.5 |
| GR | 1248.7 | 9803.6 | 1247.8 | 9822.8 | 1248.0 | 9838.3 | 1248.7 | 9856.0 | 1248.9 | 9873.3 |
| GR | 1249.9 | 9886.0 | 1250.8 | 9896.4 | 1255.2 | 9906.6 | 1255.1 | 9927.9 | 1244.2 | 9946.9 |
| GR | 1245.4 | 9967.8 | 1245.0 | 9982.2 | 1245.1 | 10000.0 | 1244.2 | 10022.8 | 1244.4 | 10045.0 |
| GR | 1244.8 | 10056.2 | 1250.4 | 10065.2 | 1254.6 | 10073.7 | 1254.6 | 10092.6 | 1251.0 | 10102.8 |
| GR | 1252.3 | 10113.0 | 1254.5 | 10120.2 | 1253.9 | 10131.8 | 1255.4 | 10151.1 | 1256.6 | 10163.4 |
| GR | 1256.5 | 10174.5 | 1255.9 | 10174.8 | 1255.9 | 10196.9 | 1256.1 | 10231.1 | 1256.6 | 10231.9 |
| GR | 1256.6 | 10253.8 | 1256.8 | 10282.3 | 1256.8 | 10300.3 | 1256.7 | 10301.0 | 1256.9 | 10317.1 |
| GR | 1257.3 | 10338.8 | 1257.2 | 10361.4 | 1257.5 | 10382.7 | 1257.5 | 10392.4 | 1257.0 | 10412.5 |
| GR | 1256.7 | 10429.4 | | | | | | | | |
| ET | 4.057 | 9.1 | 9.1 | 9.1 | | | | | 9920 | 10140 |
| X1 | 4.057 | 66 | 9924.6 | 10077.6 | 300 | 300 | 301 | | | |
| GR | 1253.4 | 9216.9 | 1253.3 | 9270.2 | 1253.0 | 9326.4 | 1253.9 | 9353.6 | 1253.2 | 9372.1 |
| GR | 1252.7 | 9389.3 | 1252.0 | 9408.1 | 1252.2 | 9447.9 | 1252.6 | 9480.8 | 1251.2 | 9505.2 |
| GR | 1251.6 | 9529.0 | 1252.0 | 9541.8 | 1250.1 | 9562.8 | 1250.1 | 9593.6 | 1250.4 | 9634.8 |
| GR | 1250.1 | 9668.4 | 1249.7 | 9693.5 | 1250.7 | 9713.8 | 1250.3 | 9741.4 | 1250.9 | 9774.5 |
| GR | 1251.2 | 9795.0 | 1251.6 | 9810.2 | 1250.7 | 9818.8 | 1250.1 | 9831.1 | 1249.6 | 9853.2 |
| GR | 1249.6 | 9872.1 | 1250.8 | 9890.0 | 1253.6 | 9898.8 | 1257.0 | 9906.8 | 1257.0 | 9924.6 |
| GR | 1246.1 | 9943.9 | 1245.5 | 9951.4 | 1245.9 | 9963.4 | 1245.7 | 9988.8 | 1246.4 | 10000.0 |

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GR   1246.4   10031.3   1245.9   10042.4   1246.6   10052.0   1248.4   10057.3   1256.2   10069.3
GR   1258.8   10077.6   1258.8   10093.5   1259.4   10110.4   1259.6   10138.7   1259.5   10172.6
GR   1259.4   10205.0   1259.3   10229.7   1259.0   10264.4   1258.5   10301.5   1258.0   10333.5
GR   1257.7   10361.6   1257.5   10369.4   1257.1   10369.6   1257.1   10384.7   1257.1   10398.5
GR   1257.6   10399.2   1257.2   10412.6   1256.9   10433.7   1256.9   10464.5   1256.8   10495.1
GR   1257.0   10520.6   1257.0   10547.3   1257.2   10565.5   1257.0   10584.9   1256.6   10607.4
GR   1256.2   10623.8

        DOWNSTREAM FACE OF UNION HILLS BRIDGE.  BRIDGE IS MODELED AS OPEN
        CHANNEL FLOW, WITH GR POINTS DEFINING THE PIERS.
X1   4.082      33   9797.0   10142.    300      10    150     0.5
GR   1262.3   9643.1   1262.9   9705.7   1262.9   9756.5   1264.3   9775.0   1265.2   9797.0
GR   1261.8   9811.4   1259.6   9830.0   1258.5   9861.2   1255.8   9873.6   1249.9   9892.7
GR   1246.1   9904.6   1247.3   9934.2   1246.1   9941.0   1261.3   9941.1   1261.3   9946.9
GR   1246.1   9947.0   1247.1   9964.9   1246.5   9998.9   1246.8   10000.   1246.8   10040.0
GR   1245.9   10053.0   1261.3   10053.1   1261.3   10058.9   1245.9   10059.   1246.8   10079.
GR   1246.3   10103.   1246.4   10112.   1252.6   10130.   1258.4   10142.   1258.6   10161.
GR   1259.5   10190.   1260.1   10209.   1260.1   10246.

        UPSTREAM FACE OF UNION HILLS BRIDGE.
X1   4.131      28   9824.2   10217.    214      214      214     0.5
GR   1262.7   9782.2   1264.2   9803.5   1263.5   9824.2   1260.4   9838.3   1257.8   9855.5
GR   1253.0   9880.3   1250.5   9896.8   1250.2   9941.0   1262.0   9941.1   1262.0   9946.9
GR   1250.2   9947.0   1250.1   9956.3   1248.9   9999.2   1249.1   10000.   1248.8   10048.0
GR   1248.2   10053.0   1262.0   10053.1   1262.0   10058.9   1248.2   10059.0   1248.7   10092.
GR   1248.8   10113.   1249.8   10131.   1252.1   10143.   1258.3   10161.   1260.5   10177.
GR   1261.6   10198.   1263.6   10217.   1263.7   10231.

ET   4.177     9.1      9.1      9.1                                          9930     10090
X1   4.177      40   9931.7   10088.2     10      450      245
GR   1257.9   9673.2   1257.3   9734.6   1257.5   9791.7   1257.4   9843.7   1257.8   9880.8
GR   1258.0   9897.2   1258.9   9903.1   1260.1   9907.8   1262.2   9914.7   1262.1   9931.7
GR   1249.7   9952.8   1250.1   9986.9   1249.9   10000.0   1249.9   10035.0   1250.2   10052.6
GR   1252.0   10060.5   1260.2   10075.2   1261.2   10088.2   1261.2   10097.4   1256.7   10114.3
GR   1256.3   10137.3   1257.2   10155.8   1255.8   10173.9   1254.3   10193.4   1255.0   10217.1
GR   1256.0   10247.5   1256.6   10271.8   1255.4   10289.1   1256.5   10304.3   1255.4   10322.7
GR   1256.7   10341.5   1256.7   10369.4   1256.3   10398.4   1257.1   10426.2   1257.9   10452.1
GR   1256.9   10471.5   1257.7   10487.5   1260.4   10503.0   1259.8   10530.6   1259.8   10550.2

ET   4.300     9.1      9.1      9.1                                          9910     10088
X1   4.300      68   9927.5   10069.1    630      680      649
GR   1265.1   9630.0   1265.1   9631.9   1264.8   9654.4   1264.2   9669.2   1264.7   9669.4
GR   1264.3   9680.1   1261.8   9691.6   1259.5   9703.2   1259.2   9731.9   1259.5   9752.3
GR   1260.1   9769.8   1260.3   9792.9   1260.5   9818.6   1260.3   9847.3   1259.0   9869.7
GR   1258.5   9886.5   1258.8   9894.2   1262.2   9901.7   1264.1   9908.5   1263.9   9927.5
GR   1257.0   9937.2   1253.8   9946.3   1253.7   9959.1   1253.5   9975.7   1253.3   9993.4
GR   1253.2   10000.0   1253.1   10021.6   1253.4   10034.8   1253.7   10046.0   1257.2   10061.4
GR   1263.0   10069.1   1264.1   10088.2   1262.6   10097.7   1258.9   10111.5   1259.0   10126.1
GR   1261.5   10140.7   1262.5   10157.7   1262.6   10173.8   1262.0   10183.1   1260.2   10186.6
GR   1260.5   10199.8   1261.5   10205.1   1260.9   10213.8   1261.9   10221.6   1261.9   10228.9
GR   1261.2   10242.5   1261.7   10262.0   1261.7   10288.8   1261.2   10320.3   1260.9   10359.5
GR   1260.8   10398.8   1261.3   10432.9   1261.4   10473.4   1262.4   10509.7   1261.6   10550.0
GR   1261.6   10597.5   1261.6   10628.7   1261.6   10678.9   1262.0   10713.2   1263.2   10762.0
GR   1263.2   10796.6   1263.2   10832.5   1262.3   10873.7   1262.2   10893.6   1262.2   10912.8
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GR   1262.9   10916.9   1266.8   10925.8   1266.8   10941.4

QT      3      2000     5500      8400
ET   4.406       9.1      9.1       9.1                                          9913     10089
X1   4.406        69   9913.9   10088.5     530      580      560
GR   1266.8   9557.9   1267.2    9585.6   1267.7   9590.0   1267.2   9590.0   1267.1    9602.7
GR   1267.0   9613.9   1267.5    9636.9   1266.9   9646.2   1264.0   9658.9   1263.4    9678.7
GR   1264.0   9687.4   1267.6    9709.6   1270.0   9737.3   1270.9   9758.4   1271.0    9772.7
GR   1268.4   9791.0   1268.5    9808.0   1266.1   9823.5   1265.3   9833.2   1265.7    9856.9
GR   1267.2   9881.8   1268.0    9901.5   1268.5   9913.9   1261.2   9927.3   1257.0    9935.1
GR   1256.0   9965.4   1255.3    9994.8   1255.8  10000.0   1256.4  10033.8   1256.8   10055.4
GR   1257.5  10062.5   1262.1   10071.9   1267.1  10080.1   1267.4  10088.5   1265.6   10099.4
GR   1263.5  10127.9   1263.0   10154.6   1263.9  10173.1   1264.1  10194.3   1264.6   10214.2
GR   1264.5  10238.9   1265.0   10265.9   1263.5  10291.3   1263.8  10316.3   1264.0   10351.5
GR   1263.8  10383.0   1263.4   10418.0   1263.9  10447.2   1264.0  10490.2   1263.8   10519.8
GR   1263.0  10534.0   1262.5   10543.4   1263.9  10561.6   1264.5  10593.3   1264.6   10625.4
GR   1264.8  10660.2   1265.0   10700.5   1265.2  10745.2   1265.6  10780.1   1265.1   10804.4
GR   1263.3  10807.8   1265.8   10812.8   1265.3  10834.9   1265.0  10865.7   1265.7   10895.1
GR   1265.4  10926.7   1265.5   10963.8   1265.8  11034.8   1266.0  11043.3

         DOWNSTREAM FACE OF 59TH AVENUE BRIDGE.  BRIDGE IS MODELED AS OPEN
         CHANNEL FLOW, WITH GR POINTS DEFINING THE PIERS.
X1   4.415        23   9916.6   10091.      55       55       55
GR   1269.0   9897.9   1269.2    9910.4   1269.3   9916.6   1257.5   9939.4   1256.8    9959.0
GR   1256.7   9966.8   1266.0    9966.9   1266.0   9968.1   1256.7   9968.2   1256.6    9976.7
GR   1256.1   9988.1   1256.2   10000.    1256.4  10024.    1256.5  10031.8   1266.0   10031.9
GR   1266.0  10033.1   1256.5   10033.2   1256.7  10046.    1257.0  10063.    1264.2   10075.
GR   1270.0  10091.    1269.8   10115.    1269.3  10146.

         UPSTREAM FACE OF 59TH AVENUE BRIDGE.
X1   4.436        23   9915.0   10093.     100      100      100
GR   1269.5   9902.0   1269.6    9911.6   1268.8   9915.0   1262.8   9927.6   1256.6    9940.6
GR   1255.8   9957.9   1255.2    9966.8   1266.0   9966.9   1266.0   9968.1   1255.2    9968.2
GR   1255.6   9983.6   1255.5   10000.    1256.0  10029.    1255.4  10031.8   1266.0   10031.9
GR   1266.0  10033.1   1255.4   10033.2   1256.6  10054.    1256.6  10065.    1266.1   10081.
GR   1269.2  10093.    1269.4   10128.    1269.4  10161.

ET   4.445       9.1      9.1       9.1                                          9893     10112
X1   4.445        70   9893.9   10111.8     50       50       50
GR   1267.3   9504.9   1267.4    9537.0   1267.7   9552.1   1268.4   9581.0   1268.4    9591.5
GR   1268.4   9610.7   1267.9    9623.9   1267.8   9656.0   1268.5   9707.4   1269.9    9756.8
GR   1269.7   9799.7   1268.6    9830.6   1268.7   9853.9   1269.9   9883.2   1269.9    9893.9
GR   1268.9   9901.3   1260.8    9914.9   1257.3   9922.3   1256.8   9942.4   1256.4    9978.4
GR   1256.2  10000.0   1256.6   10027.9   1256.5  10054.1   1256.5  10076.8   1257.0   10086.8
GR   1267.5  10101.7   1268.9   10111.8   1269.1  10133.3   1268.8  10160.2   1268.2   10179.3
GR   1267.0  10197.3   1267.3   10210.7   1270.0  10212.1   1269.4  10215.5   1269.2   10233.1
GR   1269.1  10250.3   1269.7   10250.6   1268.1  10258.3   1267.0  10277.5   1265.9   10301.1
GR   1265.8  10334.8   1266.2   10367.2   1267.8  10378.7   1267.8  10392.9   1265.2   10407.1
GR   1266.0  10437.2   1266.1   10472.6   1266.9  10494.3   1266.1  10506.1   1266.1   10516.2
GR   1268.5  10525.2   1269.2   10551.3   1270.2  10587.1   1270.5  10636.9   1271.0   10685.2
GR   1271.0  10728.2   1269.1   10749.6   1267.6  10776.6   1266.0  10788.2   1266.2   10813.0
GR   1267.2  10833.8   1268.9   10849.6   1269.1  10853.4   1269.1  10856.5   1268.7   10856.5
GR   1268.8  10893.0   1268.6   10934.9   1268.6  10978.4   1268.6  11025.2   1268.6   11034.2
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| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ET | 4.500 | 9.1 | 9.1 | 9.1 | | | | | 9770 | 10160 |
| X1 | 4.500 | 84 | 9819.8 | 10119.3 | 290 | 290 | 290 | | | |
| GR | 1268.1 | 9390.9 | 1268.6 | 9439.9 | 1269.4 | 9490.6 | 1269.5 | 9518.9 | 1268.8 | 9545.1 |
| GR | 1269.5 | 9573.9 | 1269.8 | 9595.6 | 1269.9 | 9605.7 | 1268.6 | 9615.2 | 1268.2 | 9619.4 |
| GR | 1269.5 | 9626.3 | 1268.7 | 9647.3 | 1269.4 | 9668.8 | 1269.1 | 9691.3 | 1269.7 | 9710.8 |
| GR | 1269.6 | 9733.3 | 1270.7 | 9768.4 | 1270.0 | 9795.4 | 1268.1 | 9819.8 | 1264.8 | 9846.5 |
| GR | 1260.0 | 9878.1 | 1257.0 | 9907.3 | 1256.4 | 9929.7 | 1258.3 | 9947.3 | 1256.6 | 9962.4 |
| GR | 1257.6 | 9974.5 | 1257.7 | 9986.1 | 1256.9 | 10000.0 | 1257.0 | 10014.5 | 1256.6 | 10030.9 |
| GR | 1256.2 | 10052.7 | 1257.8 | 10077.9 | 1258.9 | 10100.8 | 1259.8 | 10103.8 | 1267.8 | 10119.3 |
| GR | 1268.3 | 10126.1 | 1269.9 | 10151.3 | 1270.2 | 10162.8 | 1266.2 | 10196.7 | 1266.2 | 10221.3 |
| GR | 1266.3 | 10259.3 | 1266.3 | 10301.8 | 1265.9 | 10327.7 | 1266.6 | 10338.8 | 1271.0 | 10349.1 |
| GR | 1269.9 | 10364.4 | 1269.7 | 10374.5 | 1269.4 | 10391.7 | 1269.4 | 10404.0 | 1270.1 | 10404.0 |
| GR | 1268.9 | 10424.3 | 1268.9 | 10457.7 | 1268.8 | 10499.5 | 1269.5 | 10534.7 | 1269.5 | 10566.8 |
| GR | 1270.0 | 10598.8 | 1270.7 | 10626.2 | 1273.9 | 10644.8 | 1276.7 | 10658.1 | 1277.4 | 10661.4 |
| GR | 1272.9 | 10796.9 | 1270.9 | 10808.3 | 1269.9 | 10838.5 | 1269.9 | 10855.8 | 1269.6 | 10889.3 |
| GR | 1268.9 | 10941.5 | 1268.9 | 10990.1 | 1269.0 | 11038.8 | 1269.0 | 11090.0 | 1269.0 | 11142.9 |
| GR | 1269.3 | 11188.6 | 1269.0 | 11235.7 | 1269.4 | 11276.5 | 1269.2 | 11315.4 | 1269.6 | 11337.0 |
| GR | 1270.2 | 11346.5 | 1270.2 | 11367.3 | 1269.2 | 11378.0 | 1268.8 | 11393.9 | 1268.6 | 11408.5 |
| GR | 1269.8 | 11427.2 | 1271.1 | 11442.7 | 1270.3 | 11456.1 | 1270.3 | 11462.2 | | |
| ET | 4.600 | 9.1 | 9.1 | 9.1 | | | | | 9845 | 10183 |
| X1 | 4.600 | 87 | 9858.3 | 10182.0 | 530 | 530 | 528 | | | |
| GR | 1270.3 | 9360.0 | 1269.2 | 9381.1 | 1269.8 | 9400.0 | 1269.5 | 9414.1 | 1270.4 | 9431.8 |
| GR | 1271.9 | 9450.7 | 1271.9 | 9493.1 | 1272.1 | 9517.0 | 1271.4 | 9524.7 | 1270.1 | 9535.2 |
| GR | 1270.8 | 9549.6 | 1270.8 | 9563.0 | 1271.1 | 9576.1 | 1270.7 | 9592.2 | 1271.3 | 9609.3 |
| GR | 1272.1 | 9619.7 | 1273.0 | 9624.0 | 1270.7 | 9637.1 | 1270.5 | 9657.8 | 1270.3 | 9684.4 |
| GR | 1270.3 | 9711.6 | 1270.9 | 9756.9 | 1271.1 | 9793.4 | 1271.0 | 9823.7 | 1271.5 | 9840.5 |
| GR | 1271.1 | 9858.3 | 1269.3 | 9869.8 | 1265.5 | 9883.1 | 1260.6 | 9900.5 | 1259.3 | 9910.6 |
| GR | 1258.3 | 9937.8 | 1258.8 | 9960.4 | 1260.3 | 9976.8 | 1259.9 | 9996.6 | 1259.2 | 10000.0 |
| GR | 1259.4 | 10023.8 | 1259.7 | 10047.6 | 1259.6 | 10077.5 | 1260.4 | 10096.2 | 1262.4 | 10102.7 |
| GR | 1265.2 | 10111.9 | 1265.5 | 10136.7 | 1268.9 | 10162.7 | 1269.9 | 10182.0 | 1268.3 | 10196.9 |
| GR | 1266.2 | 10213.4 | 1265.5 | 10225.9 | 1265.5 | 10247.9 | 1265.8 | 10263.8 | 1269.3 | 10278.9 |
| GR | 1271.9 | 10291.3 | 1270.0 | 10302.1 | 1269.5 | 10317.6 | 1268.9 | 10317.7 | 1269.0 | 10341.7 |
| GR | 1269.5 | 10341.8 | 1269.8 | 10355.5 | 1269.9 | 10388.2 | 1270.6 | 10431.9 | 1270.3 | 10469.9 |
| GR | 1270.0 | 10519.9 | 1270.3 | 10560.3 | 1270.1 | 10595.9 | 1269.5 | 10625.9 | 1270.0 | 10655.2 |
| GR | 1270.2 | 10683.9 | 1270.9 | 10711.6 | 1270.1 | 10750.9 | 1270.1 | 10788.2 | 1269.9 | 10820.1 |
| GR | 1270.6 | 10849.7 | 1271.0 | 10922.1 | 1270.6 | 10966.5 | 1268.9 | 10966.5 | 1268.9 | 10997.6 |
| GR | 1269.4 | 11027.6 | 1269.2 | 11059.7 | 1269.3 | 11084.9 | 1270.1 | 11124.9 | 1270.0 | 11178.5 |
| GR | 1270.0 | 11238.0 | 1269.9 | 11292.3 | 1269.1 | 11343.8 | 1269.3 | 11358.2 | 1269.2 | 11371.9 |
| GR | 1270.7 | 11386.4 | 1271.3 | 11394.2 | | | | | | |
| ET | 4.674 | 9.1 | 9.1 | 9.1 | | | | | 9750 | 10190 |
| X1 | 4.674 | 78 | 9875.9 | 10189.3 | 390 | 390 | 391 | | | |
| GR | 1272.9 | 9445.0 | 1272.7 | 9489.1 | 1272.3 | 9520.3 | 1271.9 | 9531.7 | 1272.0 | 9551.4 |
| GR | 1272.0 | 9566.3 | 1271.7 | 9582.5 | 1272.6 | 9608.4 | 1274.3 | 9624.2 | 1277.0 | 9638.7 |
| GR | 1277.1 | 9659.4 | 1275.3 | 9674.9 | 1275.7 | 9707.0 | 1275.8 | 9740.3 | 1275.5 | 9767.4 |
| GR | 1275.5 | 9800.7 | 1275.1 | 9830.0 | 1274.0 | 9857.0 | 1272.6 | 9875.9 | 1266.0 | 9894.2 |
| GR | 1263.9 | 9905.9 | 1263.4 | 9932.1 | 1261.6 | 9954.4 | 1262.6 | 9980.2 | 1261.3 | 10000.0 |
| GR | 1261.0 | 10020.1 | 1260.7 | 10030.6 | 1262.0 | 10041.9 | 1262.5 | 10051.1 | 1262.5 | 10070.6 |
| GR | 1262.9 | 10093.0 | 1263.3 | 10097.7 | 1266.7 | 10108.1 | 1268.9 | 10147.9 | 1270.7 | 10189.3 |
| GR | 1270.7 | 10209.4 | 1269.6 | 10218.1 | 1267.9 | 10236.8 | 1265.3 | 10250.7 | 1265.5 | 10272.8 |
| GR | 1265.5 | 10287.9 | 1267.0 | 10298.6 | 1270.0 | 10313.0 | 1270.1 | 10321.2 | 1269.7 | 10321.3 |
| GR | 1269.8 | 10345.9 | 1270.3 | 10346.3 | 1270.3 | 10356.1 | 1269.9 | 10356.1 | 1269.9 | 10413.9 |

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GR   1269.5   10481.7   1270.3   10561.1   1270.0   10625.6   1270.0   10683.7   1270.9   10714.1
GR   1271.0   10744.0   1270.2   10778.6   1269.7   10824.4   1269.6   10877.4   1269.1   10928.6
GR   1269.2   10984.5   1269.5   11038.1   1269.5   11086.2   1269.5   11132.1   1269.9   11171.2
GR   1270.4   11203.0   1270.9   11249.9   1271.8   11282.8   1273.4   11317.4   1274.3   11352.3
GR   1274.6   11385.2   1274.8   11422.8   1274.6   11452.9   1275.0   11488.0   1275.4   11525.0
GR   1274.8   11563.3   1275.2   11603.6   1275.0   11632.0

ET   4.721       9.1       9.1       9.1                                          9800     10225
          IMMEDIATELY UPSTREAM OF 57TH AVENUE DIP SECTION.
X1   4.721        72    9864.1   10145.2       240       260       248
GR   1272.7   9379.3   1272.6    9384.0   1272.6    9399.3   1272.5    9414.8   1272.8    9420.1
GR   1273.6   9443.2   1274.0    9480.9   1273.5    9513.0   1273.4    9527.4   1272.7    9533.3
GR   1272.9   9545.6   1273.0    9557.5   1272.7    9569.3   1272.3    9586.2   1271.7    9596.7
GR   1272.8   9613.2   1274.5    9629.9   1275.1    9636.5   1274.2    9654.8   1274.2    9689.0
GR   1274.2   9732.2   1274.9    9772.2   1274.9    9805.9   1274.8    9824.8   1274.1    9846.6
GR   1272.9   9864.1   1268.9    9882.8   1263.6    9902.0   1263.7    9927.8   1264.6    9954.6
GR   1262.8   9973.7   1261.5    9987.3   1261.2   10000.0   1261.0   10018.1   1263.4   10025.5
GR   1263.9  10042.5   1264.2   10066.9   1264.3   10087.9   1264.5   10117.3   1264.2   10130.5
GR   1270.0  10145.2   1270.1   10171.8   1271.2   10199.8   1271.8   10225.5   1271.9   10232.9
GR   1267.4  10253.1   1266.2   10267.0   1266.0   10290.8   1265.6   10306.3   1269.7   10326.3
GR   1270.9  10340.2   1270.6   10366.1   1271.1   10366.2   1271.4   10386.4   1269.7   10403.2
GR   1266.5  10425.5   1266.1   10434.7   1268.2   10463.8   1271.3   10495.4   1271.7   10519.8
GR   1271.7  10556.9   1271.8   10599.7   1272.7   10654.3   1272.6   10679.1   1272.1   10692.6
GR   1272.2  10707.1   1272.3   10719.9   1272.3   10753.7   1272.3   10791.5   1272.6   10827.9
GR   1272.8  10859.7   1271.8   10881.8

X1   4.770        76    9858.7   10201.7       265       240       259
GR   1274.8   9306.8   1274.5    9359.5   1275.3    9417.6   1275.7    9471.0   1275.5    9516.5
GR   1275.5   9535.1   1275.1    9535.1   1275.5    9555.4   1274.8    9570.9   1275.3    9571.0
GR   1275.4   9581.9   1275.3    9586.4   1272.9    9593.6   1273.2    9613.0   1275.7    9626.0
GR   1274.9   9634.7   1274.9    9643.3   1275.4    9661.5   1276.0    9710.4   1277.5    9763.2
GR   1277.3   9805.9   1277.3    9837.4   1277.4    9858.7   1273.4    9879.3   1268.3    9895.1
GR   1265.8   9904.1   1266.0    9927.8   1266.1    9959.2   1265.2    9984.2   1263.6    9999.7
GR   1263.7  10000.0   1265.9   10013.4   1265.6   10050.0   1266.3   10064.6   1265.3   10084.0
GR   1266.2  10103.0   1269.2   10113.0   1270.0   10134.1   1272.0   10163.4   1274.9   10185.1
GR   1277.1  10201.7   1276.4   10218.9   1274.0   10241.5   1274.1   10264.4   1274.3   10292.7
GR   1274.7  10313.5   1274.7   10325.8   1273.7   10325.8   1274.4   10356.8   1274.7   10407.9
GR   1274.9  10453.1   1274.5   10500.4   1274.5   10557.0   1274.1   10609.9   1273.9   10666.1
GR   1273.8  10717.2   1273.0   10767.2   1272.9   10824.0   1273.2   10868.1   1273.2   10924.4
GR   1273.2  10974.4   1273.5   11024.8   1273.9   11066.4   1274.5   11110.6   1274.9   11161.8
GR   1275.1  11204.2   1275.3   11254.2   1276.0   11307.1   1276.0   11361.5   1275.9   11416.9
GR   1276.0  11478.3   1275.7   11522.5   1276.2   11570.7   1276.3   11626.4   1276.4   11679.3
GR   1276.5  11694.5

X1   4.870        84    9803.9   10143.6       610       420       528
GR   1278.7   9469.9   1278.4    9516.9   1278.5    9558.0   1279.8    9585.0   1280.1    9607.5
GR   1278.9   9649.8   1278.1    9682.4   1277.9    9724.3   1277.5    9761.1   1277.7    9786.5
GR   1277.6   9803.9   1273.2    9832.6   1268.5    9868.3   1267.2    9892.0   1267.2    9931.0
GR   1266.9   9966.0   1267.0    9997.4   1267.2   10000.0   1266.7   10033.7   1267.0   10070.4
GR   1267.3  10086.4   1272.9   10111.5   1275.9   10133.1   1277.5   10143.6   1277.9   10158.6
GR   1276.1  10172.0   1276.1   10185.1   1276.3   10198.4   1276.0   10221.4   1276.0   10239.1
GR   1276.7  10264.2   1276.7   10298.7   1276.8   10330.3   1275.6   10347.4   1274.7   10366.7
GR   1275.6  10378.8   1276.3   10397.0   1275.6   10421.7   1275.6   10455.7   1275.5   10484.4
GR   1276.4  10498.7   1275.4   10523.8   1275.7   10542.4   1275.0   10556.3   1275.1   10581.4
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GR   1275.4   10607.4   1274.8   10632.3   1274.4   10657.9   1275.0   10674.1   1274.4   10707.2
GR   1274.5   10751.6   1274.0   10794.1   1274.3   10851.1   1274.5   10906.2   1274.5   10966.4
GR   1274.8   11030.5   1275.6   11086.1   1275.5   11134.6   1275.6   11177.7   1275.1   11196.2
GR   1275.7   11231.6   1276.1   11271.6   1276.6   11298.1   1276.2   11313.1   1274.8   11323.5
GR   1274.9   11329.4   1277.3   11343.1   1277.6   11372.9   1276.7   11385.2   1277.7   11405.5
GR   1277.6   11427.0   1278.1   11453.1   1278.5   11489.4   1278.4   11518.6   1277.7   11529.4
GR   1278.6   11544.5   1278.6   11565.0   1278.7   11584.6   1277.4   11596.7   1277.3   11600.9
GR   1278.9   11610.1   1278.6   11644.7   1279.0   11687.2   1279.0   11687.8

X1    4.893      90    9916.9   10074.1     150      110      121
GR   1280.4    9484.9   1279.9    9515.1   1279.1    9552.0   1278.2    9580.3   1278.9    9597.6
GR   1279.6    9609.1   1278.8    9628.2   1279.5    9654.7   1280.2    9681.9   1280.4    9704.5
GR   1279.2    9731.2   1279.0    9756.9   1279.4    9781.0   1278.4    9802.0   1277.2    9834.4
GR   1276.1    9873.7   1275.7    9897.6   1275.1    9916.9   1271.1    9936.3   1267.9    9953.6
GR   1266.9    9965.6   1266.6    9990.5   1266.1   10000.0   1265.8   10015.4   1268.1   10031.3
GR   1271.7   10040.4   1274.2   10058.1   1275.2   10074.1   1275.3   10094.8   1277.0   10119.2
GR   1277.0   10141.7   1276.2   10153.7   1276.6   10180.3   1276.7   10213.9   1276.6   10240.9
GR   1276.2   10270.5   1274.2   10288.6   1276.3   10304.7   1277.5   10332.3   1276.9   10360.8
GR   1276.4   10395.5   1276.1   10426.9   1276.4   10458.6   1276.3   10491.9   1275.7   10513.6
GR   1275.4   10544.5   1276.0   10560.8   1275.0   10574.5   1275.8   10587.7   1275.7   10593.6
GR   1276.8   10621.0   1277.7   10654.8   1278.1   10685.1   1278.2   10728.6   1278.2   10772.2
GR   1278.6   10810.8   1278.6   10852.6   1278.1   10895.8   1277.7   10933.2   1277.7   10977.7
GR   1278.0   11016.3   1278.3   11048.9   1278.3   11086.8   1278.6   11128.2   1279.0   11163.7
GR   1279.8   11196.5   1279.9   11218.7   1279.7   11233.1   1278.6   11242.3   1277.3   11248.5
GR   1277.2   11257.3   1277.5   11287.8   1277.6   11318.7   1278.3   11343.2   1278.3   11361.0
GR   1278.2   11374.9   1276.9   11384.6   1276.4   11388.9   1277.6   11398.7   1278.1   11415.4
GR   1278.6   11432.6   1278.6   11454.7   1278.7   11486.9   1279.0   11515.7   1279.2   11544.4
GR   1279.6   11565.7   1279.2   11584.0   1278.1   11591.8   1278.4   11598.3   1279.3   11601.4

ET    4.922      9.1       9.1       9.1                                          9842     10134
        IMMEDIATELY DOWNSTREAM AT 55TH AVENUE CHANNEL.
X1    4.922      96    9897.2   10133.7     155      145      153
GR   1280.2    9301.7   1280.2    9346.2   1279.3    9349.3   1279.3    9399.2   1279.1    9429.5
GR   1278.5    9462.6   1279.0    9479.6   1278.4    9505.6   1278.5    9543.1   1278.8    9578.8
GR   1279.2    9604.4   1279.2    9628.5   1279.0    9673.6   1278.7    9705.9   1278.8    9733.2
GR   1278.7    9765.1   1278.5    9796.7   1278.4    9816.2   1276.1    9828.5   1278.3    9842.0
GR   1276.8    9852.6   1276.5    9874.7   1276.5    9897.2   1275.5    9921.5   1275.0    9932.4
GR   1275.0    9935.3   1271.5    9951.4   1270.6    9960.2   1270.7    9983.4   1269.9   10000.0
GR   1270.0   10036.4   1270.0   10064.1   1270.3   10073.4   1271.9   10085.5   1276.0   10103.3
GR   1277.6   10116.5   1278.4   10133.7   1277.9   10150.6   1277.2   10166.1   1278.1   10182.6
GR   1277.7   10201.2   1278.0   10211.8   1278.6   10226.6   1277.8   10252.0   1277.6   10291.5
GR   1277.6   10321.7   1277.8   10356.2   1276.9   10381.9   1277.1   10415.5   1276.4   10449.4
GR   1277.3   10479.5   1278.2   10506.3   1278.7   10529.7   1279.2   10533.1   1278.7   10553.0
GR   1279.0   10575.9   1278.3   10593.8   1279.1   10627.9   1278.6   10669.0   1278.1   10725.8
GR   1278.4   10767.7   1278.5   10816.1   1278.2   10858.7   1277.8   10885.7   1277.3   10925.2
GR   1277.8   10971.9   1278.1   11014.3   1278.3   11060.8   1278.7   11099.3   1279.1   11123.0
GR   1279.2   11142.2   1278.7   11158.0   1278.3   11170.0   1278.2   11177.3   1277.5   11187.4
GR   1278.4   11203.7   1278.2   11228.6   1277.6   11251.6   1278.5   11260.7   1278.7   11272.5
GR   1277.9   11297.0   1278.2   11324.0   1278.4   11351.1   1278.4   11372.1   1277.6   11392.9
GR   1279.3   11413.4   1279.3   11430.9   1279.8   11454.4   1280.0   11473.3   1279.3   11497.0
GR   1278.1   11506.6   1279.5   11517.0   1280.2   11533.7   1280.5   11551.1   1279.1   11566.2
GR   1281.3   11577.0
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| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ET | 4.945 | 9.1 | 9.1 | 9.1 | | | | | 9940 | 11340 |
| X1 | 4.945 | 51 | 9946.6 | 10042.2 | 115 | 210 | 121 | | | |
| X3 | | 1270.3 | | | | | | | | |
| GR | 1279.1 | 9283.5 | 1279.3 | 9332.8 | 1279.1 | 9358.7 | 1279.3 | 9396.3 | 1279.1 | 9433.4 |
| GR | 1279.2 | 9467.5 | 1279.2 | 9495.6 | 1279.2 | 9526.2 | 1278.8 | 9559.9 | 1278.8 | 9585.0 |
| GR | 1278.5 | 9611.2 | 1278.6 | 9636.3 | 1278.8 | 9673.6 | 1278.8 | 9718.4 | 1279.2 | 9756.6 |
| GR | 1279.4 | 9788.0 | 1279.2 | 9823.0 | 1278.9 | 9858.3 | 1278.9 | 9889.8 | 1279.4 | 9920.8 |
| GR | 1279.6 | 9928.3 | 1281.5 | 9939.7 | 1279.1 | 9946.6 | 1270.3 | 9961.3 | 1269.1 | 9974.6 |
| GR | 1270.4 | 9990.1 | 1270.7 | 10000.0 | 1271.8 | 10014.7 | 1276.4 | 10033.6 | 1276.7 | 10042.2 |
| GR | 1276.9 | 10075.8 | 1277.5 | 10123.0 | 1277.9 | 10173.6 | 1278.2 | 10227.5 | 1278.8 | 10281.2 |
| GR | 1279.3 | 10342.2 | 1279.9 | 10410.1 | 1279.9 | 10477.8 | 1279.6 | 10547.7 | 1279.7 | 10617.0 |
| GR | 1281.4 | 10681.7 | 1281.2 | 10745.5 | 1280.7 | 10811.4 | 1280.9 | 10884.5 | 1281.0 | 10952.6 |
| GR | 1280.3 | 11023.8 | 1281.1 | 11089.5 | 1281.2 | 11157.1 | 1281.5 | 11221.1 | 1281.8 | 11286.4 |
| GR | 1282.1 | 11340.1 | | | | | | | | |
| ET | 4.974 | 9.1 | 9.1 | 9.1 | | | | | 9957 | 10700 |
| X1 | 4.974 | 68 | 9958.0 | 10084.4 | 155 | 80 | 153 | | | |
| X3 | | 1270.3 | | | | | | | | |
| GR | 1280.4 | 9282.4 | 1279.5 | 9342.4 | 1278.6 | 9359.2 | 1278.3 | 9409.3 | 1278.2 | 9442.4 |
| GR | 1278.3 | 9466.1 | 1279.1 | 9490.3 | 1279.2 | 9526.6 | 1278.5 | 9555.6 | 1278.4 | 9604.3 |
| GR | 1278.1 | 9650.3 | 1278.1 | 9692.6 | 1278.7 | 9718.2 | 1278.0 | 9746.1 | 1278.3 | 9781.3 |
| GR | 1278.5 | 9812.2 | 1280.1 | 9841.4 | 1280.3 | 9871.7 | 1280.1 | 9904.5 | 1280.3 | 9935.1 |
| GR | 1280.7 | 9948.5 | 1281.7 | 9958.0 | 1280.5 | 9964.6 | 1272.8 | 9980.0 | 1271.9 | 9982.9 |
| GR | 1267.8 | 9991.8 | 1268.7 | 10000.0 | 1268.9 | 10021.5 | 1270.2 | 10035.5 | 1270.2 | 10052.0 |
| GR | 1270.5 | 10057.8 | 1278.4 | 10071.4 | 1279.5 | 10084.4 | 1280.0 | 10107.5 | 1280.0 | 10146.5 |
| GR | 1280.0 | 10147.1 | 1280.0 | 10183.7 | 1280.0 | 10214.3 | 1280.7 | 10251.5 | 1281.1 | 10289.7 |
| GR | 1280.8 | 10323.1 | 1280.7 | 10357.8 | 1281.2 | 10397.9 | 1280.6 | 10442.4 | 1280.6 | 10479.0 |
| GR | 1281.3 | 10521.0 | 1282.0 | 10558.9 | 1282.5 | 10595.3 | 1283.4 | 10631.1 | 1283.2 | 10663.9 |
| GR | 1283.1 | 10704.5 | 1282.4 | 10741.7 | 1282.9 | 10784.8 | 1282.2 | 10821.7 | 1281.3 | 10850.2 |
| GR | 1280.8 | 10887.2 | 1280.6 | 10922.3 | 1280.8 | 10959.5 | 1281.0 | 11000.1 | 1281.4 | 11043.5 |
| GR | 1282.0 | 11075.3 | 1282.4 | 11095.4 | 1281.3 | 11112.4 | 1281.3 | 11148.1 | 1281.7 | 11188.5 |
| GR | 1282.1 | 11231.2 | 1281.9 | 11278.4 | 1282.2 | 11279.7 | | | | |
| ET | 5.008 | 9.1 | 9.1 | 9.1 | | | | | 9873 | 10086 |
| X1 | 5.008 | 79 | 9913.5 | 10085.6 | 190 | 175 | 180 | | | |
| X3 | | 1270.3 | | | | | | | | |
| GR | 1281.6 | 9071.7 | 1281.6 | 9126.1 | 1280.8 | 9175.8 | 1280.9 | 9231.8 | 1280.6 | 9275.6 |
| GR | 1279.2 | 9287.9 | 1279.8 | 9303.7 | 1279.8 | 9330.0 | 1279.9 | 9344.5 | 1280.6 | 9354.6 |
| GR | 1279.3 | 9358.8 | 1278.8 | 9369.8 | 1280.2 | 9377.8 | 1279.7 | 9377.9 | 1279.7 | 9387.2 |
| GR | 1280.0 | 9388.2 | 1280.1 | 9406.9 | 1280.1 | 9442.2 | 1280.3 | 9469.8 | 1280.8 | 9514.6 |
| GR | 1279.0 | 9540.7 | 1279.3 | 9574.5 | 1279.4 | 9605.4 | 1279.3 | 9643.0 | 1279.2 | 9692.7 |
| GR | 1279.4 | 9743.1 | 1278.9 | 9785.6 | 1279.0 | 9824.2 | 1279.7 | 9851.6 | 1280.9 | 9873.2 |
| GR | 1280.6 | 9893.9 | 1279.5 | 9913.5 | 1278.5 | 9923.9 | 1269.1 | 9938.9 | 1268.7 | 9974.0 |
| GR | 1268.2 | 10000.0 | 1267.9 | 10030.9 | 1268.0 | 10051.3 | 1279.0 | 10072.7 | 1285.7 | 10085.6 |
| GR | 1281.4 | 10100.1 | 1281.8 | 10141.6 | 1282.6 | 10167.7 | 1285.2 | 10181.1 | 1286.4 | 10200.8 |
| GR | 1290.1 | 10219.3 | 1288.1 | 10248.6 | 1284.6 | 10271.1 | 1285.7 | 10285.0 | 1287.1 | 10297.1 |
| GR | 1284.4 | 10309.7 | 1283.8 | 10324.4 | 1284.1 | 10329.5 | 1282.9 | 10344.2 | 1283.8 | 10364.5 |
| GR | 1284.7 | 10380.3 | 1281.7 | 10392.9 | 1281.2 | 10418.9 | 1280.6 | 10466.4 | 1280.4 | 10509.6 |
| GR | 1281.0 | 10542.7 | 1281.7 | 10588.6 | 1282.5 | 10626.0 | 1282.1 | 10666.2 | 1282.1 | 10708.5 |
| GR | 1281.8 | 10750.8 | 1281.6 | 10779.9 | 1282.1 | 10796.9 | 1282.6 | 10831.2 | 1282.7 | 10865.0 |
| GR | 1282.7 | 10904.6 | 1282.7 | 10942.2 | 1282.6 | 10976.9 | 1281.8 | 10999.4 | 1281.0 | 11021.9 |
| GR | 1281.5 | 11055.2 | 1282.2 | 11110.6 | 1282.1 | 11157.6 | 1282.0 | 11186.0 | | |

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ET    5.080       9.1       9.1       9.1                                                  9921     10250
X1    5.080        70    9921.8   10056.9       375       385       380
GR   1284.4    8830.0    1283.2    8871.8    1282.6    8920.9    1282.0    8981.5    1281.6    9032.4
GR   1281.6    9076.1    1282.1    9116.3    1281.7    9132.7    1281.9    9153.4    1280.6    9179.9
GR   1281.2    9207.8    1281.4    9242.8    1281.5    9290.7    1281.5    9335.3    1281.5    9389.2
GR   1281.7    9429.5    1281.4    9463.5    1280.9    9511.8    1281.3    9537.1    1281.5    9550.0
GR   1281.8    9562.8    1281.3    9577.3    1280.8    9587.8    1281.5    9636.0    1281.1    9687.7
GR   1281.2    9740.1    1280.7    9782.8    1280.6    9801.6    1280.4    9816.5    1279.9    9829.4
GR   1282.4    9854.0    1281.4    9890.2    1282.1    9908.4    1282.0    9921.8    1280.8    9927.0
GR   1272.1    9942.3    1272.0    9978.0    1272.5   10000.0    1272.5   10029.3    1273.0   10040.3
GR   1283.6   10056.9    1284.4   10083.9    1284.4   10100.2    1286.4   10113.0    1287.3   10129.8
GR   1288.3   10152.4    1288.1   10189.0    1288.2   10223.4    1290.5   10256.4    1289.8   10281.8
GR   1288.5   10319.7    1289.9   10356.0    1290.2   10387.9    1290.3   10422.2    1289.5   10461.1
GR   1286.6   10510.1    1284.7   10535.5    1284.2   10568.0    1285.6   10609.7    1285.8   10650.2
GR   1286.6   10679.9    1287.0   10715.2    1286.4   10746.5    1286.8   10761.6    1284.8   10787.7
GR   1284.8   10831.9    1284.6   10888.2    1284.4   10941.5    1283.7   10997.1    1283.7   11052.1

NC     .048       .048      .045        .1        .3
          APPROXIMATE LOCATION OF 54TH AVENUE DIP SECTION.
X1    5.103        79    9926.4   10052.8       120       120       121
GR   1288.0    8794.6    1287.7    8817.5    1286.6    8837.7    1284.8    8879.5    1284.1    8922.0
GR   1283.3    8971.4    1283.2    9027.1    1282.6    9089.9    1282.5    9122.9    1282.0    9148.4
GR   1281.6    9189.9    1281.7    9239.3    1281.9    9284.8    1282.1    9314.3    1282.3    9345.1
GR   1282.2    9384.1    1281.8    9420.5    1282.4    9442.7    1281.8    9456.5    1282.2    9463.5
GR   1282.3    9472.6    1282.4    9480.3    1281.7    9485.2    1282.3    9506.9    1282.3    9534.4
GR   1282.8    9558.0    1283.1    9615.5    1282.2    9666.5    1282.0    9727.9    1282.0    9808.8
GR   1281.9    9871.7    1282.2    9913.1    1281.9    9926.4    1273.0    9949.2    1272.4    9959.2
GR   1273.0    9974.7    1273.1    9992.7    1272.7   10000.0    1272.8   10024.2    1273.7   10032.5
GR   1284.4   10052.8    1282.9   10081.2    1282.5   10096.7    1283.8   10113.8    1284.8   10132.1
GR   1286.2   10145.7    1287.0   10180.2    1291.2   10225.0    1292.4   10255.5    1294.1   10288.8
GR   1294.4   10317.4    1293.9   10349.6    1292.5   10382.7    1288.9   10409.1    1286.7   10435.1
GR   1287.2   10468.4    1285.0   10495.8    1284.0   10517.9    1283.7   10543.4    1284.7   10573.8
GR   1284.5   10609.6    1285.1   10643.0    1285.6   10673.2    1285.3   10716.9    1285.4   10763.7
GR   1285.4   10806.9    1286.0   10845.8    1286.3   10876.4    1286.5   10896.0    1287.1   10907.0
GR   1287.1   10934.4    1287.2   10956.9    1286.5   10980.6    1286.9   11005.9    1287.0   11030.9
GR   1287.1   11051.9    1284.4   11068.7    1283.8   11079.0    1282.8   11086.4

ET    5.118       9.1       9.1       9.1                                                  8790     10250
X1    5.118        72    9968.3   10026.5        75       100        79
GR   1287.8    8789.9    1286.0    8837.5    1285.3    8891.1    1285.6    8906.4    1285.2    8925.2
GR   1284.8    8947.8    1283.9    9002.1    1283.4    9061.1    1283.4    9111.9    1283.4    9141.8
GR   1283.3    9172.3    1282.6    9187.7    1282.6    9217.1    1282.8    9239.4    1283.3    9264.2
GR   1283.1    9328.7    1282.6    9372.7    1282.7    9401.8    1283.0    9418.4    1282.7    9426.5
GR   1282.7    9448.0    1282.3    9480.9    1282.3    9527.0    1282.3    9563.2    1282.8    9604.1
GR   1282.8    9635.9    1282.8    9684.0    1282.5    9735.2    1282.5    9782.2    1282.6    9823.0
GR   1282.4    9873.9    1283.0    9929.1    1282.9    9948.0    1282.8    9960.1    1282.3    9968.3
GR   1271.4    9988.8    1271.4    9994.2    1271.4   10000.0    1277.9   10019.3    1283.4   10026.5
GR   1283.8   10039.1    1285.9   10061.2    1286.5   10094.6    1285.8   10125.4    1286.9   10155.6
GR   1286.6   10186.0    1287.1   10218.3    1287.2   10251.7    1287.0   10278.8    1286.5   10311.1
GR   1287.3   10340.8    1287.3   10372.9    1286.9   10395.2    1285.3   10419.4    1284.4   10447.3
GR   1284.0   10482.6    1284.0   10519.8    1284.0   10552.2    1284.2   10585.4    1284.8   10616.3
GR   1284.8   10645.2    1284.3   10667.6    1284.7   10702.9    1284.6   10738.3    1285.0   10778.9
GR   1285.8   10818.0    1287.0   10839.0    1286.4   10869.6    1287.1   10906.9    1287.1   10948.9
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GR   1286.9    10995.8    1287.1    11001.5

ET   5.159       9.1       9.1       9.1                                          9000      10175
X1   5.159        75    9958.9    10045.4      220       165       216
GR   1290.6    8997.3    1290.5     9020.4   1287.9    9054.0    1285.4    9089.0    1284.9    9124.5
GR   1285.7    9140.6    1284.8     9154.5   1284.8    9183.3    1284.4    9220.3    1284.2    9249.3
GR   1284.2    9272.6    1284.2     9301.3   1284.1    9328.1    1284.2    9356.6    1284.4    9389.7
GR   1284.6    9419.0    1284.3     9444.0   1284.3    9485.9    1284.0    9527.7    1284.1    9570.2
GR   1284.2    9608.8    1284.2     9650.0   1284.1    9690.4    1283.3    9722.0    1282.9    9758.3
GR   1282.7    9791.1    1283.3     9826.3   1283.6    9861.1    1283.9    9898.8    1283.9    9932.3
GR   1283.9    9958.9    1283.3     9976.1   1274.7    9986.2    1272.5    9995.8    1272.4   10000.0
GR   1272.6   10009.2    1274.2    10021.1   1282.4   10035.2    1285.3   10045.4    1287.1   10069.4
GR   1286.5   10096.6    1287.2    10133.9   1288.1   10175.1    1287.5   10208.1    1287.1   10243.6
GR   1286.9   10284.3    1286.0    10320.5   1285.2   10348.5    1285.3   10377.3    1284.8   10412.5
GR   1284.2   10440.8    1284.2    10470.9   1284.8   10500.2    1286.1   10517.1    1287.0   10532.1
GR   1286.2   10551.4    1284.7    10565.7   1285.0   10588.5    1285.9   10597.1    1286.1   10602.3
GR   1286.1   10619.8    1286.3    10630.8   1287.0   10650.4    1286.6   10675.4    1286.8   10698.7
GR   1287.6   10731.1    1288.2    10761.4   1287.5   10809.5    1287.4   10839.4    1287.3   10872.0
GR   1287.2   10909.6    1287.0    10954.4   1286.6   10991.9    1286.9   11045.4    1286.2   11059.7

ET   5.204       9.1       9.1       9.1                                          8965      10250
X1   5.204        89    9927.9    10108.5      220       220       230
GR   1291.5    8963.7    1291.0     9001.0   1289.7    9041.4    1287.7    9076.9    1287.0    9112.3
GR   1285.7    9153.5    1285.4     9193.8   1285.5    9213.7    1286.2    9241.7    1286.6    9247.6
GR   1285.6    9253.4    1286.0     9263.3   1285.4    9286.2    1285.3    9307.4    1285.2    9342.7
GR   1285.7    9357.0    1285.5     9383.5   1285.9    9404.6    1286.2    9423.8    1285.8    9440.4
GR   1285.6    9455.1    1284.8     9473.4   1285.1    9497.5    1285.7    9513.9    1285.8    9522.7
GR   1286.0    9534.1    1285.1     9543.8   1286.0    9565.8    1285.3    9599.7    1285.7    9642.7
GR   1286.0    9682.9    1285.9     9726.1   1285.8    9764.1    1286.2    9793.6    1286.5    9833.7
GR   1286.6    9853.9    1287.0     9866.5   1288.4    9874.3    1289.0    9886.9    1288.1    9895.3
GR   1285.4    9910.4    1282.5     9927.9   1281.7    9938.1    1275.3    9956.1    1274.2    9973.1
GR   1273.5    9991.7    1274.1    10000.0   1273.7   10018.4    1274.5   10043.4    1275.4   10061.7
GR   1276.2   10080.8    1278.7    10091.3   1286.5   10108.5    1286.7   10132.7    1287.5   10149.2
GR   1288.7   10168.7    1288.7    10189.8   1288.9   10216.8    1289.5   10242.5    1287.5   10259.3
GR   1287.1   10282.9    1286.2    10302.8   1286.3   10327.0    1286.8   10356.5    1286.0   10387.4
GR   1285.2   10420.4    1284.9    10422.8   1284.9   10448.5    1285.3   10482.7    1285.9   10514.1
GR   1286.4   10539.2    1287.1    10560.1   1287.0   10579.9    1286.7   10597.2    1287.0   10622.0
GR   1287.0   10680.1    1287.8    10720.1   1288.0   10748.7    1287.6   10770.6    1287.7   10792.7
GR   1287.1   10818.3    1287.4    10846.0   1287.2   10877.9    1286.9   10904.8    1287.1   10937.3
GR   1287.1   10968.6    1286.1    10993.5   1285.7   11014.6    1285.7   11021.8

ET   5.263       9.1       9.1       9.1                                          9587      10700
        A LARGE BORROW PIT IN THE LEFT OVERBANK IS NOT EFFECTIVE FLOW AREA.
        THIS AREA HAS BEEN MODELED AS THOUGH THE HOLE WAS FILLED TO ELEVATION
        1286.0.
X1   5.263        79    9976.8    10151.3      320       320       320
GR   1294.5    8735.2    1293.6     8784.9   1292.6    8821.1    1290.4    8843.6    1289.7    8878.2
GR   1289.6    8899.7    1289.6     8916.1   1288.6    8942.5    1288.9    8988.6    1288.9    9028.2
GR   1288.1    9077.6    1288.1     9125.0   1288.6    9153.7    1287.6    9175.8    1287.4    9202.2
GR   1287.2    9215.9    1286.3     9219.3   1287.4    9224.9    1287.4    9247.4    1287.1    9256.9
GR   1286.5    9260.7    1287.9     9266.6   1287.6    9289.8    1287.2    9326.9    1287.2    9352.4
GR   1287.1    9387.3    1287.4     9417.1   1287.1    9435.3    1287.2    9455.4    1287.6    9470.7
GR   1287.0    9485.6    1283.8     9490.9   1284.3    9493.4    1287.3    9501.2    1286.4    9520.3
GR   1286.8    9530.5    1287.0     9552.5   1287.3    9569.4    1287.8    9587.3    1287.3    9605.1
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| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| GR | 1286.0 | 9637.1 | 1286.0 | 9957.8 | 1286.0 | 9971.6 | 1283.6 | 9976.8 | 1280.5 | 9990.0 |
| GR | 1275.6 | 9999.6 | 1275.8 | 10000.0 | 1276.7 | 10021.5 | 1278.4 | 10038.8 | 1276.4 | 10059.2 |
| GR | 1275.8 | 10083.5 | 1276.8 | 10102.5 | 1279.0 | 10113.0 | 1280.3 | 10124.9 | 1283.8 | 10140.0 |
| GR | 1286.0 | 10151.3 | 1286.9 | 10160.7 | 1286.9 | 10176.8 | 1284.8 | 10193.6 | 1284.7 | 10212.2 |
| GR | 1284.1 | 10239.4 | 1282.5 | 10260.1 | 1283.1 | 10271.1 | 1285.5 | 10284.6 | 1288.2 | 10296.2 |
| GR | 1287.9 | 10329.3 | 1287.8 | 10371.1 | 1287.2 | 10385.3 | 1288.1 | 10412.3 | 1288.0 | 10448.8 |
| GR | 1287.9 | 10485.3 | 1287.9 | 10516.4 | 1287.8 | 10542.9 | 1287.8 | 10576.7 | 1287.4 | 10608.2 |
| GR | 1288.2 | 10638.5 | 1287.7 | 10667.6 | 1288.1 | 10697.9 | 1288.0 | 10716.4 | | |
| X1 | 5.364 | 71 | 9954.8 | 10332.6 | 540 | 520 | 533 | | | |
| GR | 1292.4 | 8890.2 | 1291.2 | 8946.4 | 1290.7 | 8964.0 | 1291.2 | 8967.0 | 1290.1 | 8970.8 |
| GR | 1290.6 | 8977.0 | 1290.2 | 9020.6 | 1290.5 | 9056.5 | 1290.0 | 9099.0 | 1290.1 | 9152.7 |
| GR | 1290.1 | 9200.8 | 1289.9 | 9253.3 | 1290.4 | 9293.0 | 1289.8 | 9318.5 | 1290.2 | 9360.6 |
| GR | 1290.0 | 9415.6 | 1289.9 | 9469.1 | 1290.0 | 9512.7 | 1289.7 | 9543.2 | 1290.0 | 9566.0 |
| GR | 1290.4 | 9581.6 | 1290.8 | 9591.3 | 1289.1 | 9613.9 | 1288.4 | 9631.3 | 1288.9 | 9657.7 |
| GR | 1289.0 | 9679.8 | 1289.1 | 9688.6 | 1289.6 | 9705.5 | 1289.4 | 9724.0 | 1289.1 | 9735.9 |
| GR | 1290.4 | 9756.0 | 1291.0 | 9794.3 | 1290.6 | 9837.9 | 1290.8 | 9880.0 | 1290.5 | 9913.4 |
| GR | 1289.4 | 9941.2 | 1288.1 | 9954.8 | 1279.3 | 9971.2 | 1276.0 | 9984.7 | 1275.0 | 10000.0 |
| GR | 1276.2 | 10016.5 | 1276.1 | 10033.6 | 1275.2 | 10049.9 | 1277.2 | 10072.5 | 1277.3 | 10107.6 |
| GR | 1276.9 | 10153.1 | 1276.6 | 10206.3 | 1277.1 | 10244.1 | 1276.6 | 10274.9 | 1276.9 | 10289.2 |
| GR | 1285.4 | 10309.9 | 1287.1 | 10332.6 | 1292.6 | 10366.3 | 1292.4 | 10386.4 | 1292.3 | 10420.7 |
| GR | 1291.0 | 10447.8 | 1290.5 | 10475.7 | 1289.7 | 10498.2 | 1289.7 | 10522.0 | 1288.5 | 10546.9 |
| GR | 1288.0 | 10557.5 | 1288.2 | 10575.8 | 1288.3 | 10606.5 | 1288.0 | 10629.0 | 1288.7 | 10646.5 |
| GR | 1287.8 | 10657.6 | 1288.9 | 10671.8 | 1288.1 | 10700.3 | 1288.7 | 10721.1 | 1288.7 | 10738.7 |
| GR | 1288.3 | 10766.6 | | | | | | | | |
| NC | .048 | .048 | .040 | .1 | .3 | | | | | |
| X1 | 5.397 | 50 | 9966.3 | 10249.2 | 155 | 190 | 174 | | | |
| GR | 1290.5 | 9387.6 | 1290.1 | 9449.4 | 1290.2 | 9510.9 | 1290.4 | 9556.7 | 1290.4 | 9585.4 |
| GR | 1291.8 | 9601.3 | 1290.8 | 9624.8 | 1291.3 | 9653.0 | 1292.1 | 9678.9 | 1291.1 | 9701.3 |
| GR | 1292.2 | 9724.4 | 1293.1 | 9734.7 | 1294.3 | 9746.4 | 1292.4 | 9755.9 | 1291.9 | 9779.1 |
| GR | 1292.1 | 9817.8 | 1291.0 | 9860.4 | 1291.1 | 9900.0 | 1289.8 | 9935.7 | 1287.8 | 9966.3 |
| GR | 1285.7 | 9981.7 | 1276.9 | 9994.6 | 1276.7 | 10000.0 | 1277.2 | 10040.1 | 1277.9 | 10081.6 |
| GR | 1278.6 | 10125.5 | 1278.7 | 10165.5 | 1278.7 | 10204.1 | 1279.6 | 10227.4 | 1284.0 | 10237.8 |
| GR | 1287.1 | 10249.2 | 1290.2 | 10268.5 | 1290.2 | 10292.6 | 1289.5 | 10304.3 | 1288.0 | 10315.7 |
| GR | 1290.1 | 10339.9 | 1292.5 | 10361.6 | 1292.8 | 10376.2 | 1290.2 | 10400.1 | 1291.0 | 10430.1 |
| GR | 1290.7 | 10462.7 | 1290.9 | 10490.5 | 1290.7 | 10524.8 | 1290.1 | 10555.4 | 1290.7 | 10583.2 |
| GR | 1289.7 | 10600.8 | 1289.7 | 10609.3 | 1291.1 | 10628.7 | 1290.9 | 10658.6 | 1291.1 | 10685.7 |
| X1 | 5.432 | 49 | 9964.4 | 10304 | 140 | 220 | 185 | | | |
| GR | 1290.8 | 9441.9 | 1291.3 | 9511.2 | 1291.0 | 9577.0 | 1290.6 | 9620.6 | 1290.6 | 9659.3 |
| GR | 1291.9 | 9702.4 | 1292.8 | 9727.6 | 1292.9 | 9762.9 | 1292.7 | 9804.3 | 1292.6 | 9824.1 |
| GR | 1291.6 | 9840.4 | 1292.3 | 9865.3 | 1291.9 | 9894.8 | 1294.2 | 9906.2 | 1291.1 | 9918.8 |
| GR | 1289.8 | 9943.8 | 1288.9 | 9964.4 | 1285.7 | 9978.2 | 1279.3 | 9987.4 | 1276.3 | 9997.4 |
| GR | 1276.5 | 10000.0 | 1276.6 | 10025.8 | 1277.8 | 10055.4 | 1277.8 | 10089.5 | 1277.8 | 10128.4 |
| GR | 1277.7 | 10162.5 | 1277.9 | 10198.7 | 1277.4 | 10228.5 | 1277.1 | 10251.8 | 1277.9 | 10267.5 |
| GR | 1278.4 | 10279.8 | 1285.1 | 10291.9 | 1290.1 | 10304.0 | 1290.2 | 10312.9 | 1291.5 | 10322.9 |
| GR | 1292.2 | 10333.2 | 1291.9 | 10364.7 | 1291.9 | 10407.6 | 1291.5 | 10443.3 | 1291.9 | 10478.6 |
| GR | 1292.3 | 10505.0 | 1291.5 | 10522.5 | 1291.9 | 10544.7 | 1291.3 | 10562.6 | 1292.0 | 10584.4 |
| GR | 1291.5 | 10604.8 | 1291.1 | 10618.0 | 1291.8 | 10641.2 | 1291.7 | 10662.8 | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X1 | 5.500 | 62 | 9831.5 | 10076.6 | 310 | 290 | 359 | | | |
| GR | 1293.0 | 9027.3 | 1292.6 | 9067.7 | 1291.9 | 9111.9 | 1293.1 | 9138.4 | 1295.7 | 9151.0 |
| GR | 1291.4 | 9170.4 | 1292.3 | 9203.1 | 1291.6 | 9241.6 | 1292.7 | 9265.6 | 1293.6 | 9275.3 |
| GR | 1292.9 | 9289.2 | 1293.1 | 9305.8 | 1291.0 | 9314.3 | 1291.3 | 9350.6 | 1291.5 | 9395.3 |
| GR | 1292.4 | 9446.6 | 1292.8 | 9494.0 | 1293.4 | 9528.9 | 1293.3 | 9559.9 | 1294.0 | 9600.5 |
| GR | 1294.1 | 9632.4 | 1293.6 | 9653.4 | 1293.1 | 9667.6 | 1286.5 | 9686.3 | 1283.2 | 9706.7 |
| GR | 1281.3 | 9735.3 | 1281.3 | 9753.8 | 1281.9 | 9761.8 | 1280.9 | 9774.1 | 1280.6 | 9787.9 |
| GR | 1282.7 | 9797.3 | 1281.0 | 9808.6 | 1282.2 | 9818.1 | 1281.2 | 9825.3 | 1281.7 | 9831.5 |
| GR | 1279.2 | 9842.8 | 1280.0 | 9881.0 | 1280.4 | 9918.0 | 1280.2 | 9942.1 | 1279.6 | 9973.2 |
| GR | 1279.6 | 10000.0 | 1279.8 | 10032.7 | 1281.7 | 10041.9 | 1288.0 | 10051.3 | 1289.1 | 10066.4 |
| GR | 1293.7 | 10076.6 | 1293.0 | 10103.4 | 1293.0 | 10149.2 | 1292.7 | 10200.2 | 1292.7 | 10252.3 |
| GR | 1292.7 | 10286.1 | 1292.3 | 10330.6 | 1292.2 | 10377.8 | 1292.3 | 10415.6 | 1291.8 | 10436.3 |
| GR | 1292.2 | 10459.6 | 1292.1 | 10483.6 | 1292.7 | 10506.0 | 1292.6 | 10526.0 | 1291.6 | 10537.9 |
| GR | 1292.6 | 10560.3 | 1292.1 | 10589.2 | | | | | | |
| X1 | 5.579 | 64 | 9947.2 | 10055.7 | 330 | 375 | 417 | | | |
| GR | 1295.8 | 8846.0 | 1295.8 | 8867.9 | 1294.9 | 8875.3 | 1295.3 | 8888.7 | 1294.7 | 8911.5 |
| GR | 1294.2 | 8945.6 | 1294.0 | 8978.0 | 1293.6 | 8994.0 | 1294.2 | 9004.4 | 1293.3 | 9011.2 |
| GR | 1294.2 | 9022.6 | 1293.8 | 9048.6 | 1294.0 | 9086.6 | 1293.6 | 9129.9 | 1293.3 | 9162.4 |
| GR | 1292.7 | 9170.3 | 1293.7 | 9188.2 | 1293.5 | 9230.8 | 1293.5 | 9285.4 | 1293.8 | 9334.7 |
| GR | 1293.8 | 9381.4 | 1292.7 | 9398.6 | 1292.5 | 9407.0 | 1294.1 | 9422.0 | 1293.8 | 9457.2 |
| GR | 1294.8 | 9485.1 | 1293.5 | 9526.1 | 1293.5 | 9577.8 | 1293.3 | 9617.2 | 1291.6 | 9646.7 |
| GR | 1290.6 | 9672.5 | 1292.9 | 9683.0 | 1290.7 | 9700.5 | 1292.3 | 9719.4 | 1291.6 | 9756.5 |
| GR | 1291.5 | 9774.8 | 1288.7 | 9796.4 | 1287.1 | 9822.2 | 1285.0 | 9847.6 | 1284.6 | 9868.8 |
| GR | 1287.5 | 9896.7 | 1288.4 | 9921.2 | 1289.1 | 9947.2 | 1287.4 | 9960.3 | 1282.8 | 9976.2 |
| GR | 1283.0 | 9993.4 | 1283.3 | 10000.0 | 1284.9 | 10020.8 | 1289.0 | 10047.1 | 1294.3 | 10055.7 |
| GR | 1294.3 | 10089.6 | 1294.3 | 10134.4 | 1294.3 | 10189.7 | 1294.7 | 10246.5 | 1294.7 | 10289.2 |
| GR | 1294.0 | 10308.5 | 1295.2 | 10332.6 | 1294.8 | 10375.1 | 1295.1 | 10406.9 | 1294.7 | 10418.1 |
| GR | 1294.1 | 10427.3 | 1294.6 | 10448.8 | 1294.5 | 10470.1 | 1294.5 | 10477.4 | | |
| X1 | 5.679 | 59 | 9894.2 | 10114.1 | 410 | 520 | 528 | | | |
| GR | 1298.3 | 9129.9 | 1298.0 | 9169.6 | 1296.9 | 9206.1 | 1296.5 | 9240.8 | 1296.3 | 9284.8 |
| GR | 1296.0 | 9329.2 | 1296.1 | 9369.9 | 1295.9 | 9399.8 | 1296.5 | 9421.3 | 1296.6 | 9440.8 |
| GR | 1295.8 | 9457.1 | 1296.8 | 9476.9 | 1296.5 | 9511.0 | 1296.7 | 9544.2 | 1296.5 | 9571.3 |
| GR | 1296.7 | 9583.6 | 1296.7 | 9591.9 | 1296.0 | 9599.3 | 1296.5 | 9612.3 | 1296.2 | 9632.9 |
| GR | 1295.4 | 9648.6 | 1292.6 | 9661.8 | 1292.5 | 9677.7 | 1293.8 | 9690.0 | 1294.6 | 9700.3 |
| GR | 1294.6 | 9727.1 | 1295.5 | 9747.9 | 1295.1 | 9771.7 | 1295.1 | 9804.2 | 1295.3 | 9833.8 |
| GR | 1295.2 | 9864.3 | 1295.0 | 9894.2 | 1293.5 | 9917.4 | 1291.7 | 9946.9 | 1290.6 | 9968.5 |
| GR | 1290.3 | 9984.9 | 1288.2 | 10000.0 | 1288.1 | 10012.6 | 1289.8 | 10028.4 | 1290.3 | 10049.6 |
| GR | 1290.5 | 10073.8 | 1290.5 | 10095.0 | 1291.6 | 10107.6 | 1294.5 | 10114.1 | 1299.8 | 10121.8 |
| GR | 1298.9 | 10128.2 | 1295.8 | 10137.0 | 1296.9 | 10148.9 | 1296.7 | 10166.6 | 1297.6 | 10183.7 |
| GR | 1298.4 | 10199.9 | 1298.2 | 10224.0 | 1298.8 | 10258.2 | 1300.6 | 10292.4 | 1300.1 | 10371.3 |
| GR | 1301.4 | 10419.1 | 1300.5 | 10463.3 | 1299.1 | 10492.3 | 1300.5 | 10510.8 | | |
| ET | 5.754 | 7.1 | 9.1 | 9.1 | | | 9953 | 10092 | 9720 | 10092 |
| X1 | 5.754 | 61 | 9953.7 | 10081.1 | 410 | 360 | 422 | | | |
| GR | 1300.4 | 9192.0 | 1301.2 | 9218.4 | 1302.2 | 9236.1 | 1301.6 | 9259.7 | 1301.2 | 9281.0 |
| GR | 1300.1 | 9289.7 | 1300.1 | 9303.3 | 1300.0 | 9313.2 | 1299.9 | 9337.5 | 1299.8 | 9375.2 |
| GR | 1299.6 | 9429.3 | 1299.8 | 9467.8 | 1299.8 | 9516.4 | 1299.5 | 9565.4 | 1299.4 | 9609.5 |
| GR | 1299.7 | 9641.1 | 1299.6 | 9680.4 | 1299.8 | 9710.1 | 1301.2 | 9720.6 | 1294.1 | 9733.4 |
| GR | 1293.9 | 9743.2 | 1295.2 | 9750.3 | 1300.1 | 9760.2 | 1300.6 | 9780.2 | 1299.8 | 9812.4 |
| GR | 1299.9 | 9835.2 | 1296.8 | 9850.6 | 1294.7 | 9867.0 | 1295.1 | 9888.9 | 1295.8 | 9919.2 |
| GR | 1296.8 | 9939.0 | 1297.1 | 9953.7 | 1294.7 | 9965.3 | 1293.0 | 9980.2 | 1291.7 | 9991.0 |

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GR   1290.9    9997.5    1290.9   10000.0    1291.9   10018.0    1292.6   10039.6    1293.0   10056.7
GR   1293.9   10068.0    1298.7   10081.1    1301.0   10091.2    1300.9   10117.2    1300.5   10141.3
GR   1299.6   10160.2    1300.0   10186.9    1299.9   10215.1    1299.5   10244.1    1300.1   10261.6
GR   1299.0   10270.4    1299.9   10290.9    1299.9   10321.1    1299.9   10352.1    1299.8   10389.4
GR   1299.3   10419.8    1298.9   10444.1    1299.4   10468.1    1299.8   10496.5    1299.7   10520.4
GR   1300.2   10530.8

ET    5.837       9.1       9.1       9.1                                                 9774     10155
X1    5.837        68    9851.8   10097.5     450      425      438
GR   1301.9    9327.0    1302.1    9371.7    1302.2    9400.7    1302.6    9411.3    1303.8    9421.8
GR   1303.2    9431.9    1301.8    9443.9    1301.6    9469.0    1301.3    9488.4    1302.3    9501.7
GR   1306.8    9513.8    1305.6    9527.4    1305.8    9559.3    1305.7    9594.7    1306.3    9607.1
GR   1308.8    9615.5    1305.9    9629.3    1304.4    9647.5    1303.1    9678.4    1302.5    9698.4
GR   1301.0    9708.3    1302.1    9723.6    1302.4    9757.1    1302.6    9774.0    1302.5    9795.1
GR   1301.3    9823.6    1300.8    9851.8    1299.0    9885.9    1298.1    9915.8    1297.3    9942.0
GR   1296.0    9967.5    1295.4    9984.5    1295.4    9993.4    1295.7   10000.0    1295.7   10012.8
GR   1295.6   10025.6    1295.1   10033.7    1298.1   10048.0    1299.0   10062.7    1299.4   10076.9
GR   1301.7   10097.5    1302.9   10114.6    1302.8   10135.6    1303.1   10154.5    1302.7   10174.9
GR   1302.4   10189.9    1301.7   10206.4    1301.7   10227.2    1301.9   10254.5    1302.1   10275.3
GR   1302.2   10290.7    1302.3   10306.4    1301.8   10330.7    1302.0   10358.6    1301.8   10380.6
GR   1301.1   10395.9    1301.4   10418.2    1301.2   10449.4    1300.9   10478.3    1301.3   10518.0
GR   1301.3   10549.6    1301.6   10580.0    1301.8   10609.5    1301.5   10635.4    1301.2   10648.1
GR   1301.1   10652.7    1302.7   10663.2    1302.3   10675.8

NC     .045      .045      .035       .1        .3
ET    5.881       9.1       9.1       9.1                                                 9820     10136
          FROM SECTION 5.881 TO SECTION 6.568, SKUNK CREEK IS CHANNELIZED.
X1    5.881        51    9822.6   10135.2     230      230      232
GR   1303.4    9285.0    1303.6    9321.8    1303.5    9358.7    1303.7    9383.6    1304.1    9398.4
GR   1304.4    9412.8    1304.0    9423.7    1303.4    9431.0    1305.3    9443.8    1306.9    9452.1
GR   1307.1    9471.4    1307.5    9480.5    1307.5    9518.3    1306.8    9542.1    1307.1    9559.1
GR   1307.4    9595.0    1306.9    9617.9    1306.0    9647.7    1305.2    9668.1    1304.9    9672.3
GR   1305.4    9687.6    1305.2    9702.8    1305.6    9708.3    1306.1    9745.3    1306.2    9781.5
GR   1306.1    9822.6    1300.2    9842.1    1295.8    9860.9    1295.4    9894.0    1295.5    9931.5
GR   1295.3    9980.4    1295.3   10000.0    1296.0   10040.5    1296.1   10073.8    1296.6   10099.7
GR   1303.3   10120.7    1306.8   10135.2    1306.3   10161.2    1306.1   10201.8    1305.8   10236.4
GR   1306.2   10269.0    1306.4   10310.3    1306.5   10352.6    1306.9   10395.1    1306.4   10435.8
GR   1307.0   10474.4    1307.0   10514.8    1307.5   10556.4    1307.2   10592.4    1307.6   10630.6
GR   1307.9   10651.8

X1    5.970        52    9863.3   10147.7     500      430      470
GR   1307.3    9500.3    1308.2    9530.7    1306.8    9574.0    1306.9    9603.0    1307.4    9651.2
GR   1307.0    9672.0    1306.8    9679.0    1306.5    9682.8    1306.4    9686.5    1306.7    9699.0
GR   1306.2    9710.5    1306.6    9716.1    1307.2    9733.1    1308.1    9750.3    1308.3    9793.8
GR   1307.2    9801.5    1307.1    9825.1    1306.4    9850.8    1305.5    9863.3    1304.9    9867.5
GR   1298.2    9886.1    1296.2    9900.7    1295.8    9933.8    1295.8    9965.2    1296.5    9996.7
GR   1296.5   10000.0    1296.3   10044.4    1296.2   10080.8    1296.2   10110.3    1297.0   10124.5
GR   1303.1   10136.9    1305.2   10147.7    1307.3   10162.3    1306.8   10174.0    1306.9   10199.9
GR   1306.9   10215.1    1307.6   10245.6    1308.0   10273.9    1308.3   10301.5    1308.0   10326.1
GR   1308.9   10357.0    1309.4   10378.1    1309.3   10401.6    1308.0   10417.7    1307.5   10431.5
GR   1307.3   10435.9    1307.7   10452.2    1307.4   10468.9    1307.8   10478.8    1308.2   10501.3
GR   1308.3   10526.1    1308.8   10533.2
```

LOWER WALL OF DROP STRUCTURE DOWNSTREAM OF HAVASUPAI DRIVE.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X1 | 5.973 | 44 | 9879.9 | 10120.1 | 16 | 16 | 16 | | | |
| GR | 1307.6 | 9487.4 | 1307.8 | 9524.6 | 1307.4 | 9570.9 | 1307.9 | 9610.6 | 1307.5 | 9647.2 |
| GR | 1306.9 | 9664.8 | 1306.3 | 9671.6 | 1306.5 | 9688.1 | 1305.8 | 9700.1 | 1306.3 | 9706.3 |
| GR | 1306.7 | 9731.8 | 1307.0 | 9761.0 | 1307.1 | 9790.2 | 1306.6 | 9793.1 | 1307.5 | 9824.5 |
| GR | 1307.4 | 9844.7 | 1305.4 | 9864.7 | 1305.3 | 9873.8 | 1305.1 | 9879.9 | 1297.3 | 9880 |
| GR | 1297.3 | 10000 | 1297.3 | 10120 | 1305.1 | 10120.1 | 1305.5 | 10120.6 | 1305.2 | 10128.7 |
| GR | 1306.2 | 10147.3 | 1306.3 | 10163.3 | 1306.8 | 10179.9 | 1307.3 | 10206.6 | 1307.9 | 10235.6 |
| GR | 1307.9 | 10256.4 | 1307.8 | 10289.0 | 1308.1 | 10312.9 | 1308.9 | 10333.3 | 1309.7 | 10366.8 |
| GR | 1309.1 | 10393.7 | 1307.6 | 10412.9 | 1307.1 | 10427.5 | 1307.5 | 10444.9 | 1307.9 | 10464.4 |
| GR | 1308.3 | 10485.9 | 1308.6 | 10511.1 | 1308.6 | 10541.4 | 1308.6 | 10542.3 | | |

UPPER WALL OF DROP STRUCTURE AT HAVASUPAI DRIVE.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X1 | 5.977 | 55 | 9879.9 | 10120.1 | 21 | 21 | 21 | | | |
| X3 | 10 | | | | | | | | | |
| GR | 1307.3 | 9477.8 | 1307.5 | 9511.0 | 1307.3 | 9553.4 | 1307.2 | 9585.8 | 1307.6 | 9626.3 |
| GR | 1307.0 | 9645.3 | 1306.6 | 9657.8 | 1306.2 | 9663.8 | 1306.3 | 9677.8 | 1305.6 | 9693.3 |
| GR | 1305.7 | 9696.7 | 1306.2 | 9700.1 | 1306.3 | 9716.3 | 1306.3 | 9752.4 | 1306.0 | 9777.6 |
| GR | 1305.4 | 9788.9 | 1304.5 | 9796.3 | 1304.3 | 9804.6 | 1304.3 | 9812.2 | 1304.7 | 9824.5 |
| GR | 1304.2 | 9842.5 | 1305.8 | 9860.2 | 1306.1 | 9862 | 1306.1 | 9879.9 | 1301.0 | 9880 |
| GR | 1301.0 | 9920 | 1301.0 | 9989.9 | 1298.9 | 9990 | 1298.9 | 10000 | 1298.9 | 10010 |
| GR | 1301.0 | 10010.1 | 1301.0 | 10065 | 1301.0 | 10120 | 1306.1 | 10120.1 | 1306.1 | 10138 |
| GR | 1306.8 | 10139.6 | 1303.9 | 10141.5 | 1305.4 | 10157.1 | 1305.2 | 10175.7 | 1306.1 | 10199.3 |
| GR | 1306.4 | 10225.0 | 1306.7 | 10257.1 | 1307.3 | 10284.5 | 1307.6 | 10309.0 | 1308.3 | 10337.9 |
| GR | 1309.2 | 10359.2 | 1308.8 | 10385.2 | 1308.0 | 10407.2 | 1307.6 | 10419.9 | 1307.4 | 10436.6 |
| GR | 1307.6 | 10447.3 | 1308.1 | 10457.9 | 1308.8 | 10486.7 | 1309.1 | 10513.6 | 1308.4 | 10535.8 |

HAVASUPAI DRIVE DIP SECTION.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X1 | 5.982 | 39 | 9857.1 | 10131.8 | 26 | 26 | 26 | | | |
| GR | 1307.5 | 9470.7 | 1307.8 | 9523.2 | 1307.1 | 9565.6 | 1307.7 | 9596.4 | 1307.4 | 9626.7 |
| GR | 1307.1 | 9639.6 | 1306.7 | 9646.8 | 1306.6 | 9650.6 | 1306.4 | 9671.5 | 1306.0 | 9708.0 |
| GR | 1305.8 | 9741.4 | 1305.0 | 9779.2 | 1304.7 | 9795.6 | 1303.3 | 9833.6 | 1301.7 | 9857.1 |
| GR | 1300.2 | 9892.2 | 1299.6 | 9930.8 | 1299.5 | 9969.3 | 1299.4 | 9996.0 | 1299.2 | 10000.0 |
| GR | 1299.2 | 10021.6 | 1299.5 | 10053.6 | 1300.2 | 10092.8 | 1301.7 | 10131.8 | 1303.1 | 10166.8 |
| GR | 1304.4 | 10203.4 | 1305.3 | 10234.0 | 1305.8 | 10261.9 | 1306.4 | 10288.9 | 1306.4 | 10315.4 |
| GR | 1306.3 | 10349.0 | 1306.2 | 10379.9 | 1306.5 | 10413.4 | 1306.7 | 10450.3 | 1306.9 | 10491.1 |
| GR | 1307.1 | 10525.4 | 1307.1 | 10551.2 | 1308.1 | 10558.0 | 1308.2 | 10560.6 | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X1 | 5.990 | 55 | 9842.4 | 10151.0 | 42 | 42 | 42 | | | |
| GR | 1308.2 | 9460.7 | 1308.2 | 9489.3 | 1307.7 | 9568.7 | 1306.9 | 9595.3 | 1307.0 | 9611.9 |
| GR | 1306.4 | 9630.5 | 1307.0 | 9640.1 | 1307.5 | 9673.0 | 1307.5 | 9703.2 | 1307.4 | 9722.8 |
| GR | 1307.2 | 9744.7 | 1307.2 | 9766.9 | 1307.2 | 9784.2 | 1307.2 | 9820.1 | 1306.3 | 9842.4 |
| GR | 1305.1 | 9854.4 | 1300.9 | 9872.6 | 1299.7 | 9896.1 | 1299.6 | 9927.7 | 1299.6 | 9960.3 |
| GR | 1299.5 | 9982.2 | 1298.4 | 9989.5 | 1297.7 | 9991.4 | 1297.8 | 9999.8 | 1298.3 | 10000.0 |
| GR | 1299.0 | 10013.9 | 1298.9 | 10049.2 | 1298.9 | 10090.8 | 1299.1 | 10108.3 | 1301.1 | 10125.3 |
| GR | 1304.8 | 10137.6 | 1306.8 | 10151.0 | 1306.8 | 10160.7 | 1306.8 | 10178.8 | 1306.8 | 10203.4 |
| GR | 1307.2 | 10229.9 | 1307.6 | 10253.8 | 1308.1 | 10281.9 | 1308.1 | 10284.1 | 1308.1 | 10298.4 |
| GR | 1309.5 | 10298.8 | 1309.4 | 10309.9 | 1307.9 | 10310.9 | 1308.1 | 10333.9 | 1308.1 | 10357.9 |
| GR | 1307.7 | 10390.1 | 1307.3 | 10420.8 | 1307.5 | 10438.3 | 1307.3 | 10466.7 | 1307.7 | 10487.2 |
| GR | 1307.6 | 10506.2 | 1307.4 | 10524.9 | 1307.0 | 10531.6 | 1307.5 | 10562.0 | 1307.6 | 10566.0 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X1 | 6.089 | 54 | 9853.8 | 10166.2 | 480 | 525 | 523 | | | |
| GR | 1310.7 | 9368.9 | 1310.4 | 9395.7 | 1309.5 | 9417.1 | 1309.4 | 9419.8 | 1309.8 | 9437.2 |
| GR | 1309.4 | 9450.4 | 1309.8 | 9462.8 | 1310.5 | 9486.0 | 1310.4 | 9518.8 | 1309.9 | 9549.8 |
| GR | 1309.2 | 9580.2 | 1309.4 | 9601.2 | 1309.1 | 9607.8 | 1309.2 | 9640.5 | 1309.0 | 9680.6 |
| GR | 1309.6 | 9692.4 | 1309.5 | 9721.6 | 1309.7 | 9762.8 | 1309.2 | 9794.9 | 1309.2 | 9820.7 |
| GR | 1309.4 | 9846.3 | 1309.3 | 9853.8 | 1304.5 | 9872.5 | 1300.3 | 9890.5 | 1300.4 | 9922.5 |
| GR | 1299.5 | 9955.5 | 1299.9 | 9965.4 | 1298.8 | 9976.3 | 1298.7 | 9985.7 | 1299.9 | 10000.0 |
| GR | 1300.1 | 10042.8 | 1300.5 | 10080.3 | 1300.4 | 10109.3 | 1302.2 | 10126.6 | 1305.5 | 10144.5 |
| GR | 1308.6 | 10159.8 | 1309.9 | 10166.2 | 1309.2 | 10181.3 | 1308.6 | 10197.4 | 1308.3 | 10206.6 |
| GR | 1308.3 | 10241.3 | 1308.6 | 10289.0 | 1308.6 | 10337.5 | 1309.1 | 10390.7 | 1309.1 | 10437.1 |
| GR | 1309.6 | 10473.6 | 1309.6 | 10517.7 | 1309.6 | 10553.9 | 1309.6 | 10589.1 | 1309.0 | 10596.6 |
| GR | 1309.1 | 10615.7 | 1308.8 | 10633.2 | 1309.1 | 10637.3 | 1309.5 | 10651.8 | | |

CONFLUENCE WITH SCATTER WASH.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X1 | 6.189 | 49 | 9842.2 | 10154.5 | 505 | 505 | 528 | | | |
| GR | 1308.4 | 9500.6 | 1308.4 | 9562.4 | 1308.4 | 9624.0 | 1308.5 | 9694.8 | 1308.2 | 9761.5 |
| GR | 1308.3 | 9792.5 | 1309.1 | 9814.2 | 1310.0 | 9823.9 | 1310.8 | 9832.1 | 1310.8 | 9842.2 |
| GR | 1310.1 | 9847.4 | 1307.8 | 9858.6 | 1303.0 | 9876.3 | 1300.6 | 9888.9 | 1300.6 | 9915.0 |
| GR | 1300.7 | 9947.0 | 1300.3 | 9964.1 | 1300.0 | 9977.4 | 1299.0 | 9992.2 | 1299.0 | 10000.0 |
| GR | 1300.1 | 10015.8 | 1300.2 | 10045.0 | 1300.3 | 10082.5 | 1301.8 | 10110.6 | 1304.2 | 10126.2 |
| GR | 1308.0 | 10142.9 | 1309.4 | 10151.6 | 1309.9 | 10154.5 | 1309.4 | 10159.8 | 1309.5 | 10163.5 |
| GR | 1309.0 | 10166.1 | 1309.3 | 10179.3 | 1309.0 | 10195.9 | 1309.6 | 10197.5 | 1309.8 | 10207.7 |
| GR | 1310.4 | 10234.8 | 1310.4 | 10273.7 | 1310.5 | 10321.9 | 1311.2 | 10374.5 | 1311.1 | 10406.6 |
| GR | 1310.5 | 10441.9 | 1310.7 | 10479.1 | 1310.4 | 10508.3 | 1310.8 | 10540.7 | 1310.6 | 10566.0 |
| GR | 1310.5 | 10581.9 | 1310.3 | 10590.9 | 1310.0 | 10623.9 | 1310.0 | 10625.2 | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ur | 3 | 1600 | 2200 | 2600 | | | | | | |
| X1 | 6.219 | 27 | 9937.8 | 10076.9 | 180 | 40 | 158 | | | |
| GR | 1309.9 | 9937.8 | 1305.0 | 9950.4 | 1300.8 | 9963.3 | 1299.6 | 9983.6 | 1299.6 | 10000.0 |
| GR | 1299.6 | 10030.1 | 1301.5 | 10045.5 | 1308.7 | 10060.4 | 1309.9 | 10076.9 | 1310.1 | 10097.4 |
| GR | 1310.5 | 10111.7 | 1310.4 | 10128.8 | 1310.0 | 10148.7 | 1309.6 | 10159.0 | 1309.7 | 10174.9 |
| GR | 1309.8 | 10193.9 | 1309.9 | 10230.7 | 1309.9 | 10264.0 | 1309.9 | 10295.3 | 1309.9 | 10325.7 |
| GR | 1310.0 | 10355.9 | 1310.0 | 10384.3 | 1310.4 | 10417.0 | 1310.4 | 10447.8 | 1310.6 | 10474.2 |
| GR | 1310.7 | 10495.9 | 1310.7 | 10497.0 | | | | | | |

LOWER WALL OF DROP STRUCTURE.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X1 | 6.223 | 28 | 9959.9 | 10040.1 | 40 | 20 | 23 | | | |
| GR | 1311.9 | 9923.5 | 1310.3 | 9940.0 | 1308.5 | 9942.0 | 1308.5 | 9959.9 | 1300.3 | 9960.0 |
| GR | 1300.3 | 10000.0 | 1300.3 | 10020.0 | 1300.3 | 10040.0 | 1308.5 | 10040.1 | 1308.5 | 10058.0 |
| GR | 1310.1 | 10082.9 | 1310.9 | 10097.9 | 1310.9 | 10114.6 | 1310.9 | 10135.4 | 1310.4 | 10158.1 |
| GR | 1310.3 | 10162.6 | 1310.6 | 10177.1 | 1310.6 | 10200.1 | 1310.7 | 10227.1 | 1311.2 | 10256.4 |
| GR | 1311.2 | 10289.9 | 1311.1 | 10311.9 | 1311.1 | 10334.6 | 1311.1 | 10360.9 | 1311.2 | 10388.4 |
| GR | 1311.4 | 10414.0 | 1311.4 | 10442.4 | 1311.4 | 10461.0 | | | | |

UPPER WALL OF DROP STRUCTURE.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X1 | 6.227 | 28 | 9959.9 | 10040.1 | 10 | 10 | 19 | | | |
| GR | 1311.9 | 9923.5 | 1310.3 | 9940.0 | 1310.0 | 9942.0 | 1310.0 | 9959.9 | 1305.0 | 9960.0 |
| GR | 1305.0 | 10000.0 | 1305.0 | 10020.0 | 1305.0 | 10040.0 | 1310.0 | 10040.1 | 1310.0 | 10058.0 |
| GR | 1310.1 | 10082.9 | 1310.9 | 10097.9 | 1310.9 | 10114.6 | 1310.9 | 10135.4 | 1310.4 | 10158.1 |
| GR | 1310.3 | 10162.6 | 1310.6 | 10177.1 | 1310.6 | 10200.1 | 1310.7 | 10227.1 | 1311.2 | 10256.4 |
| GR | 1311.2 | 10289.9 | 1311.1 | 10311.9 | 1311.1 | 10334.6 | 1311.1 | 10360.9 | 1311.2 | 10388.4 |
| GR | 1311.4 | 10414.0 | 1311.4 | 10442.4 | 1311.4 | 10461.0 | | | | |

```
X1    6.230       26    9913.3   10085.3       16       16       16
GR   1313.3   9909.9    1313.3    9913.3   1310.5   9927.0   1305.6   9947.1   1304.5   9967.4
GR   1303.6   9987.5    1303.4   10000.0   1304.1  10010.6   1304.3  10038.3   1308.0  10059.1
GR   1309.8  10075.5    1310.3   10085.3   1311.1  10106.3   1311.4  10123.7   1311.4  10135.0
GR   1311.3  10160.9    1310.4   10196.8   1311.4  10223.8   1311.0  10249.6   1311.4  10285.4
GR   1311.4  10316.3    1311.4   10351.5   1311.6  10381.2   1311.9  10418.4   1312.1  10460.5
GR   1312.1  10466.7

X1    6.298       37    9905.4   10071.5      360      360      359
GR   1314.0   9672.2    1313.9    9700.1   1313.8   9732.0   1313.3   9761.4   1312.6   9779.3
GR   1312.6   9798.7    1312.6    9813.3   1312.9   9818.4   1312.9   9842.3   1313.1   9860.9
GR   1313.1   9888.7    1313.2    9905.4   1312.5   9914.8   1307.8   9934.8   1305.5   9955.2
GR   1304.8   9975.0    1303.6    9992.0   1303.8  10000.0   1304.9  10012.0   1305.2  10023.7
GR   1307.8  10041.5    1312.3   10062.0   1313.1  10071.5   1311.9  10083.4   1312.7  10097.6
GR   1313.3  10145.1    1313.0   10176.2   1312.3  10197.2   1311.9  10206.5   1312.4  10226.6
GR   1311.7  10244.7    1312.5   10253.8   1313.2  10276.4   1313.9  10306.8   1312.6  10344.3
GR   1312.7  10370.0    1312.7   10383.3

X1    6.356       26    9920.6   10047.4      315      305      306
GR   1315.2   9655.5    1315.3    9673.4   1316.0   9680.1   1315.8   9691.9   1315.1   9708.7
GR   1315.2   9723.6    1316.2    9740.8   1316.4   9766.5   1315.6   9786.9   1315.3   9816.7
GR   1315.9   9835.1    1317.1    9839.3   1317.3   9844.8   1316.1   9847.1   1316.1   9877.6
GR   1316.2   9899.6    1315.9    9910.9   1316.3   9920.6   1313.2   9935.1   1309.7   9956.3
GR   1305.2   9978.6    1304.8    9992.2   1305.8  10000.0   1306.3  10017.1   1309.8  10033.2
GR   1314.9  10047.4

NC     .015      .015      .015       .3       .5
         DOWNSTREAM FACE OF 5-10'X6' CONCRETE BOX CULVERTS AT WAHALLA DRIVE.
X1    6.361       24    9973.2   10026.8       60        5       26
GR   1316.5   9815.0    1316.0    9864.3   1316.0   9894.8   1315.7   9912.7   1317.0   9922.1
GR   1318.0   9931.1    1314.8    9944.9   1315.0   9954.7   1315.0   9966.5   1315.9   9973.2
GR   1305.0   9973.3    1305.0     10000   1305.0  10026.7   1315.9  10026.8   1315.8  10053.1
GR   1315.8  10074.0    1316.0   10098.7   1316.0  10122.5   1315.2  10142.4   1314.7  10165.0
GR   1314.4  10197.2    1313.5   10226.7   1312.9  10250.4   1313.3  10252.0

SB     1.25      1.56       2.9         0     53.3      3.3      300        0     1305     1305
         UPSTREAM FACE OF 5-10'X6' CONCRETE BOX CULVERTS AT WAHALLA DRIVE.
         SPECIAL BRIDGE METHOD USED.
X1    6.377        5    9973.2   10026.8       72       72       72
X2                         1      1311   1314.9
BT        2   9973.2    1314.9      1311  10026.8   1314.9     1311
GR   1315.9   9973.2      1305    9973.3     1305    10000     1305  10026.7   1315.9  10026.8

X1    6.378       15    9961.4   10038.6       10       10       10
GR   1315.8   9853.0    1315.8    9889.6   1315.5   9920.7   1315.5   9943.1   1315.5   9951.0
GR   1315.9   9961.4      1305    9961.5     1305    10000     1305  10038.5   1315.9  10038.6
GR   1316.1  10041.6    1315.8   10065.1   1315.4  10105.9   1315.3  10150.4   1315.3  10151.0
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          DROP STRUCTURE INTO BOX CULVERTS AT WAHALLA DRIVE.
X1    6.379       15    9961.4   10038.6       0.1       0.1       0.1
GR   1315.8   9853.0    1315.8    9889.6    1315.5    9920.7    1315.5    9943.1    1315.5    9951.0
GR   1315.9   9961.4      1311    9961.5      1311     10000      1311   10038.5    1315.9   10038.6
GR   1316.1  10041.6    1315.8   10065.1    1315.4   10105.9    1315.3   10150.4    1315.3   10151.0

NC     .045     .045      .035        .1        .3
ET    6.389      9.1       9.1       9.1                                            9936     10081
X1    6.389       20    9951.9   10057.4        10        85        53
GR   1316.0   9879.4    1316.0    9914.9    1316.1    9936.7    1315.2    9951.9    1309.6    9974.0
GR   1309.1   9997.1    1309.3   10000.0    1310.2   10023.1    1313.5   10043.6    1315.6   10057.4
GR   1316.1  10080.4    1315.9   10113.8    1315.8   10149.5    1315.8   10181.9    1315.2   10205.2
GR   1315.6  10230.7    1315.3   10256.2    1314.5   10277.2    1314.5   10301.2    1314.7   10324.6

ET    6.471      9.1       9.1       9.1                                            9960     10400
X1    6.471       41    9960.8   10076.8       380       480       433
GR   1317.5   9548.7    1316.4    9574.0    1316.6    9599.4    1317.3    9630.3    1317.0    9662.8
GR   1315.9   9692.6    1316.0    9715.6    1316.1    9730.7    1316.7    9743.0    1316.9    9768.0
GR   1316.9   9789.1    1316.5    9801.6    1316.7    9831.1    1316.8    9860.9    1317.2    9875.6
GR   1317.6   9891.5    1317.8    9916.5    1317.9    9944.5    1318.3    9960.8    1317.1    9966.0
GR   1312.5   9977.9    1312.0    9997.5    1311.8   10000.0    1311.6   10021.6    1311.7   10034.9
GR   1315.0  10055.6    1318.0   10076.8    1317.9   10096.1    1317.7   10130.6    1318.1   10167.2
GR   1318.6  10208.0    1319.2   10247.8    1320.1   10286.4    1319.8   10315.8    1319.5   10331.9
GR   1320.0  10354.4    1320.7   10358.3    1319.0   10369.9    1320.0   10379.2    1320.1   10391.2
GR   1320.7  10401.6

NC     .045     .045      .038        .1        .3
ET    6.568      9.1       9.1       9.1                                            9930     10089
X1    6.568       37    9957.3   10057.2       510       525       512
GR   1319.0   9572.4    1318.9    9623.0    1318.4    9644.9    1318.0    9652.8    1318.6    9669.4
GR   1318.2   9684.9    1318.8    9694.8    1320.0    9727.0    1320.7    9758.9    1320.6    9801.3
GR   1320.5   9839.4    1321.0    9892.2    1321.2    9927.6    1321.1    9947.8    1320.8    9957.3
GR   1315.1   9970.2    1312.9    9980.1    1312.6    9995.6    1312.8   10000.0    1313.5   10027.4
GR   1315.7  10040.7    1319.2   10057.2    1320.9   10075.0    1323.7   10089.1    1322.4   10101.4
GR   1322.7  10129.9    1322.4   10153.8    1322.8   10170.2    1323.1   10179.8    1324.6   10196.9
GR   1324.9  10215.1    1323.7   10245.9    1324.0   10278.8    1323.5   10318.6    1323.5   10355.1
GR   1323.5  10385.3    1323.8   10413.4

ET    6.615      9.1       9.1       9.1                                            9845     10300
X1    6.615       47    9925.6   10039.5       230       260       248
GR   1319.2   9453.4    1318.7    9473.5    1318.8    9502.3    1319.7    9521.3    1318.8    9564.5
GR   1317.8   9584.9    1318.1    9590.3    1318.4    9606.0    1318.4    9617.5    1318.9    9621.8
GR   1319.6   9645.8    1320.1    9686.3    1320.0    9727.9    1319.8    9769.7    1320.0    9802.7
GR   1321.2   9845.5    1320.2    9863.5    1316.8    9876.2    1317.2    9886.6    1318.4    9905.2
GR   1318.7   9925.6    1317.4    9938.7    1315.8    9952.7    1314.7    9964.3    1315.4    9970.6
GR   1316.7   9978.2    1313.3    9993.7    1313.6   10000.0    1315.5   10021.2    1320.3   10039.5
GR   1321.5  10061.3    1322.6   10079.5    1324.1   10091.8    1324.4   10098.7    1324.4   10114.2
GR   1323.5  10127.6    1323.8   10144.5    1323.8   10163.0    1323.2   10175.0    1324.1   10185.6
GR   1323.4  10197.4    1323.8   10216.6    1324.3   10241.7    1324.7   10268.0    1325.9   10293.4
GR   1326.0  10314.6    1326.0   10315.4
```

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ET | 6.717 | 9.1 | 9.1 | 9.1 | | | | | 9953 | 10270 |
| X1 | 6.717 | 33 | 9953.1 | 10115.5 | 480 | 515 | 539 | | | |
| GR | 1320.1 | 9620.9 | 1320.2 | 9634.5 | 1319.9 | 9646.9 | 1320.7 | 9653.5 | 1320.7 | 9677.8 |
| GR | 1321.2 | 9719.1 | 1320.9 | 9753.5 | 1321.5 | 9779.9 | 1321.3 | 9811.2 | 1321.2 | 9843.6 |
| GR | 1321.0 | 9876.3 | 1321.1 | 9911.9 | 1321.3 | 9936.2 | 1321.3 | 9953.1 | 1320.1 | 9960.7 |
| GR | 1316.5 | 9972.9 | 1316.5 | 9984.1 | 1315.7 | 9991.9 | 1315.6 | 10000.0 | 1316.4 | 10012.9 |
| GR | 1317.3 | 10027.1 | 1318.5 | 10048.2 | 1318.0 | 10068.5 | 1318.7 | 10090.2 | 1320.9 | 10115.5 |
| GR | 1322.3 | 10145.1 | 1321.8 | 10172.8 | 1322.3 | 10196.3 | 1323.3 | 10224.4 | 1325.4 | 10244.5 |
| GR | 1325.4 | 10257.4 | 1325.4 | 10270.3 | 1326.0 | 10274.3 | | | | |
| X1 | 6.779 | 24 | 9874.6 | 10164.0 | 340 | 290 | 327 | | | |
| GR | 1325.0 | 9729.7 | 1324.6 | 9796.0 | 1323.7 | 9837.6 | 1322.2 | 9874.6 | 1320.9 | 9905.9 |
| GR | 1319.7 | 9933.5 | 1319.3 | 9965.4 | 1319.3 | 9995.1 | 1319.6 | 10000.0 | 1319.8 | 10032.8 |
| GR | 1319.9 | 10049.1 | 1320.6 | 10073.7 | 1321.0 | 10109.9 | 1321.1 | 10137.7 | 1322.9 | 10164.0 |
| GR | 1323.7 | 10185.1 | 1323.5 | 10207.2 | 1323.2 | 10227.0 | 1324.0 | 10254.8 | 1324.8 | 10289.0 |
| GR | 1326.6 | 10319.8 | 1327.8 | 10347.7 | 1329.6 | 10377.3 | 1330.6 | 10391.1 | | |

INTERSECTION OF 43RD AVENUE AND BEARDSLEY ROAD DIP SECTION.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X1 | 6.809 | 28 | 9962.7 | 10109.8 | 200 | 85 | 158 | | | |
| GR | 1325.9 | 9704.9 | 1326.0 | 9746.7 | 1325.8 | 9783.3 | 1326.8 | 9802.9 | 1326.6 | 9823.7 |
| GR | 1326.7 | 9855.9 | 1327.1 | 9888.9 | 1327.1 | 9919.3 | 1326.9 | 9942.1 | 1324.3 | 9962.7 |
| GR | 1322.6 | 9974.2 | 1319.5 | 9983.0 | 1318.7 | 10000.0 | 1318.7 | 10026.1 | 1319.9 | 10052.0 |
| GR | 1321.5 | 10070.7 | 1321.6 | 10092.0 | 1322.3 | 10109.8 | 1322.1 | 10130.2 | 1322.2 | 10155.3 |
| GR | 1322.9 | 10184.3 | 1323.9 | 10213.3 | 1324.6 | 10234.2 | 1325.1 | 10259.4 | 1325.4 | 10283.7 |
| GR | 1326.6 | 10309.2 | 1328.7 | 10332.7 | 1329.8 | 10357.6 | | | | |
| ET | 6.831 | 9.1 | 9.1 | 9.1 | | | | | 9822 | 10137 |
| X1 | 6.831 | 31 | 9876.7 | 10136.1 | 150 | 70 | 116 | | | |
| GR | 1325.3 | 9697.8 | 1325.7 | 9741.1 | 1326.0 | 9779.8 | 1326.9 | 9822.8 | 1325.9 | 9856.7 |
| GR | 1324.9 | 9876.7 | 1321.2 | 9894.6 | 1320.5 | 9905.8 | 1321.2 | 9931.8 | 1321.2 | 9939.5 |
| GR | 1321.8 | 9974.4 | 1321.7 | 10000.0 | 1321.4 | 10017.7 | 1321.2 | 10068.2 | 1321.5 | 10100.1 |
| GR | 1322.7 | 10114.3 | 1325.1 | 10136.1 | 1324.9 | 10151.3 | 1323.6 | 10167.0 | 1325.3 | 10179.3 |
| GR | 1323.0 | 10183.2 | 1323.3 | 10190.8 | 1324.0 | 10209.4 | 1325.7 | 10234.4 | 1325.7 | 10259.7 |
| GR | 1325.8 | 10285.9 | 1326.0 | 10301.1 | 1327.4 | 10311.6 | 1328.1 | 10324.6 | 1329.8 | 10345.8 |
| GR | 1331.9 | 10364.4 | | | | | | | | |
| X1 | 6.896 | 28 | 9945.5 | 10094.7 | 400 | 300 | 343 | | | |
| GR | 1327.3 | 9517.4 | 1327.3 | 9596.6 | 1326.7 | 9642.2 | 1326.7 | 9694.4 | 1327.0 | 9738.7 |
| GR | 1327.4 | 9783.2 | 1327.5 | 9818.9 | 1327.2 | 9853.2 | 1327.4 | 9890.3 | 1327.6 | 9921.8 |
| GR | 1327.6 | 9940.5 | 1327.4 | 9945.5 | 1320.4 | 9959.2 | 1321.9 | 9979.3 | 1322.9 | 10000.0 |
| GR | 1323.6 | 10023.5 | 1322.9 | 10049.5 | 1322.7 | 10068.8 | 1321.9 | 10074.8 | 1322.5 | 10079.6 |
| GR | 1327.2 | 10094.7 | 1327.1 | 10136.9 | 1328.0 | 10180.8 | 1328.4 | 10218.6 | 1328.5 | 10239.8 |
| GR | 1329.9 | 10259.1 | 1330.8 | 10281.0 | 1331.4 | 10288.6 | | | | |
| X1 | 7.000 | 31 | 9970.0 | 10139.3 | 590 | 500 | 549 | | | |
| GR | 1332.2 | 9578.4 | 1331.4 | 9640.5 | 1329.7 | 9650.5 | 1330.6 | 9663.3 | 1330.5 | 9704.5 |
| GR | 1330.1 | 9730.7 | 1329.8 | 9763.3 | 1329.5 | 9781.8 | 1328.8 | 9792.4 | 1330.7 | 9816.3 |
| GR | 1330.5 | 9854.5 | 1330.1 | 9883.0 | 1329.7 | 9899.6 | 1330.0 | 9916.7 | 1329.2 | 9923.7 |
| GR | 1329.5 | 9970.0 | 1324.9 | 9982.7 | 1323.9 | 9994.2 | 1323.6 | 10000.0 | 1323.7 | 10018.5 |
| GR | 1323.5 | 10033.0 | 1323.3 | 10048.6 | 1323.0 | 10063.5 | 1323.8 | 10067.4 | 1325.6 | 10072.7 |
| GR | 1325.9 | 10078.3 | 1324.9 | 10085.0 | 1325.0 | 10088.9 | 1339.6 | 10119.9 | 1346.2 | 10139.3 |
| GR | 1346.2 | 10141.0 | | | | | | | | |

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NC     .045      .045      .035       .1        .3
ET    7.100       9.1       9.1       9.1                                                  9823     10027
          SECTION 7.100 TO SECTION 7.409 SKUNK CREEK IS CHANNELIZED.
X1    7.100        36    9823.3   10026.4       470       510       528
GR   1335.2    9452.6    1335.2    9512.8    1334.3    9565.7    1333.3    9624.9    1333.0    9654.8
GR   1332.2    9689.2    1331.3    9735.0    1331.3    9758.1    1331.9    9783.8    1331.3    9808.8
GR   1330.6    9810.5    1332.1    9823.3    1329.5    9833.6    1329.4    9845.3    1326.9    9853.0
GR   1326.9    9869.0    1328.3    9887.5    1328.6    9900.8    1327.6    9914.2    1326.6    9934.6
GR   1327.0    9956.2    1327.5    9976.5    1326.4    9999.4    1326.4   10000.0    1326.2   10006.2
GR   1334.9   10026.4    1334.8   10042.7    1328.5   10060.2    1328.1   10067.3    1328.4   10086.6
GR   1324.9   10109.7    1324.7   10122.7    1329.0   10133.2    1333.2   10143.6    1334.0   10159.0
GR   1342.9   10177.4

QT       3       1370      1650      1730
ET    7.174       9.1       9.1       9.1                                                  9960     10038
X1    7.174        55    9964.8   10037.6       425       420       391
GR   1336.1    9333.1    1335.4    9376.2    1335.6    9406.7    1336.1    9435.4    1335.6    9455.9
GR   1334.8    9495.7    1335.3    9530.7    1333.9    9567.9    1333.1    9594.6    1333.2    9607.7
GR   1332.8    9616.8    1329.2    9624.7    1333.2    9639.4    1334.0    9648.5    1331.8    9660.0
GR   1331.6    9666.3    1331.6    9674.1    1333.0    9679.6    1333.2    9705.3    1330.7    9712.5
GR   1330.3    9729.9    1331.0    9740.3    1331.0    9747.2    1330.2    9758.8    1329.5    9775.9
GR   1328.8    9792.5    1330.3    9803.7    1330.7    9820.5    1331.6    9839.5    1332.0    9857.3
GR   1331.8    9877.5    1331.7    9898.1    1332.0    9915.9    1332.2    9928.4    1336.8    9942.5
GR   1340.9    9951.1    1340.3    9964.8    1339.6    9968.7    1327.2    9992.7    1326.6    9998.4
GR   1326.1   10000.0    1326.8   10007.6    1334.6   10026.2    1339.9   10037.6    1339.2   10053.9
GR   1331.4   10066.1    1330.4   10071.9    1330.4   10081.6    1330.5   10086.5    1333.5   10102.2
GR   1333.6   10123.3    1334.1   10142.9    1334.5   10161.3    1336.0   10170.2    1339.7   10185.0

ET    7.244       9.1       9.1       9.1                                                  9950     10044
X1    7.244        63    9959.8   10037.5       400       350       370
GR   1338.3    9414.4    1338.8    9460.8    1339.1    9487.6    1338.5    9503.8    1336.7    9516.9
GR   1336.0    9529.2    1338.5    9539.7    1338.3    9551.9    1337.2    9564.0    1335.7    9581.6
GR   1334.8    9598.1    1333.8    9606.1    1333.8    9615.2    1329.0    9638.3    1328.9    9644.8
GR   1329.9    9659.3    1330.4    9674.1    1330.9    9682.0    1332.4    9712.1    1333.4    9729.3
GR   1333.1    9743.0    1333.2    9764.0    1333.2    9783.6    1332.6    9800.2    1332.3    9806.6
GR   1334.3    9815.6    1337.0    9826.1    1337.6    9847.7    1337.0    9860.1    1336.7    9879.5
GR   1337.1    9893.8    1336.9    9902.9    1335.0    9910.4    1335.6    9924.3    1336.4    9932.6
GR   1341.5    9949.2    1341.5    9959.8    1326.9    9991.3    1326.9    9999.6    1326.9   10000.0
GR   1327.6   10010.5    1340.6   10037.5    1341.3   10044.3    1340.2   10054.8    1334.5   10067.0
GR   1334.0   10092.8    1335.2   10101.8    1335.9   10119.6    1335.6   10141.1    1335.4   10163.0
GR   1335.8   10191.9    1335.5   10205.4    1333.9   10218.5    1335.3   10224.6    1335.0   10234.2
GR   1334.0   10242.7    1334.0   10249.3    1335.3   10260.2    1334.8   10279.4    1335.5   10282.5
GR   1335.6   10293.2    1341.9   10316.0    1358.8   10362.0

ET    7.327       9.1       9.1       9.1                                                  9950     10040
X1    7.327        51    9957.5   10038.4       480       380       438
GR   1342.3    9487.7    1341.6    9566.8    1340.8    9618.3    1340.6    9680.2    1342.1    9692.2
GR   1341.7    9699.1    1338.9    9709.9    1341.4    9718.0    1339.5    9731.7    1339.6    9761.8
GR   1339.3    9778.9    1338.8    9792.3    1339.4    9810.5    1339.4    9835.0    1339.3    9868.7
GR   1339.4    9891.4    1339.5    9907.2    1336.9    9918.1    1337.0    9920.5    1339.2    9924.9
GR   1339.2    9934.9    1341.5    9945.7    1341.6    9957.5    1328.0    9985.8    1327.4    9990.1
GR   1326.7    9998.0    1326.7   10000.0    1327.5   10008.5    1341.5   10038.4    1341.4   10050.7
GR   1336.6   10059.2    1336.3   10081.6    1336.6   10097.9    1337.3   10108.2    1336.1   10115.5
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GR   1335.2   10131.5   1334.5   10143.2   1336.0   10154.1   1336.3   10162.3   1335.3   10171.9
GR   1335.6   10182.9   1335.9   10195.0   1335.0   10205.7   1336.2   10215.6   1335.6   10226.7
GR   1335.4   10243.2   1335.5   10262.7   1335.6   10278.9   1336.2   10285.8   1337.8   10297.5
GR   1354.2   10324.2

        OUTLET FROM ADOBE DAM.
X1    7.409        21   9944.3   10065.7    470      400      433
GR   1342.1    9829.6   1340.5    9856.8   1338.3   9892.8   1338.3   9910.3   1338.3   9914.9
GR   1341.5    9925.3   1342.1    9934.7   1341.4   9944.3   1325.5   9974.1   1322.6   9985.1
GR   1322.9   10000.0   1324.0   10023.6   1327.1   10036.1   1341.1   10065.7   1342.1   10080.7
GR   1341.5   10086.2   1340.7   10094.9   1339.3   10099.9   1344.6   10126.3   1348.3   10168.5
GR   1354.8   10218.8

NC     .045      .045      .035       .1       .3
QT        3      2000      5500     8400
X1   -6.189        49   9842.2   10154.5    505      505      528
GR   1308.4    9500.6   1308.4    9562.4   1308.4   9624.0   1308.5   9694.8   1308.2   9761.5
GR   1308.3    9792.5   1309.1    9814.2   1310.0   9823.9   1310.8   9832.1   1310.8   9842.2
GR   1310.1    9847.4   1307.8    9858.6   1303.0   9876.3   1300.6   9888.9   1300.6   9915.0
GR   1300.7    9947.0   1300.3    9964.1   1300.0   9977.4   1299.0   9992.2   1299.0   10000.0
GR   1300.1   10015.8   1300.2   10045.0   1300.3   10082.5   1301.8   10110.6   1304.2   10126.2
GR   1308.0   10142.9   1309.4   10151.6   1309.9   10154.5   1309.4   10159.8   1309.5   10163.5
GR   1309.0   10166.1   1309.3   10179.3   1309.0   10195.9   1309.6   10197.5   1309.8   10207.7
GR   1310.4   10234.8   1310.4   10273.7   1310.5   10321.9   1311.2   10374.5   1311.1   10406.6
GR   1310.5   10441.9   1310.7   10479.1   1310.4   10508.3   1310.8   10540.7   1310.6   10566.0
GR   1310.5   10581.9   1310.3   10590.9   1310.0   10623.9   1310.0   10625.2

QT        3       580      3500     6100
        SCATTER WASH
X1     .028        17   9900.9   10089.2    100      170      148
GR   1307.9    9756.4   1308.0    9800.3   1308.8   9839.1   1309.8   9856.9   1311.6   9874.8
GR   1312.2    9888.1   1311.6    9900.9   1310.3   9907.6   1301.8   9928.4   1300.9   9951.6
GR   1300.8    9981.0   1300.9   10000.0   1301.1   10029.9   1301.2   10058.4   1302.1   10075.5
GR   1307.0   10087.6   1308.9   10089.2

ET     .032       9.1       9.1       9.1                                          9919     10081
        LOWER WALL OF DROP STRUCTURE IMMEDIATELY UPSTREAM OF SKUNK CREEK.
X1     .032        18   9919.9   10080.1     23       23       23
GR   1308.3    9737.2   1308.3    9778.5   1308.9   9829.9   1309.9   9857.3   1311.7   9877.9
GR   1312.7    9893.7   1308.5    9902.0   1308.5   9919.9   1301.4   9920.0   1301.4   9960.0
GR   1301.4   10000.0   1301.4   10040.0   1301.4   10080.0   1308.5   10080.1   1308.5   10098.0
GR   1313.1   10100.7   1313.1   10111.4   1313.8   10119.2

ET     .036       9.1       9.1       9.1                                          9919     10081
        UPPER WALL OF DROP STRUCTURE.
X1     .036        18   9919.9   10080.1     19       19       19
GR   1308.3    9737.2   1308.3    9778.5   1308.9   9829.9   1309.9   9857.3   1311.7   9877.9
GR   1312.7    9893.7   1311.5    9902.0   1311.5   9919.9   1305.7   9920.0   1305.7   9960.0
GR   1305.7   10000.0   1305.7   10040.0   1305.7   10080.0   1311.5   10080.1   1311.5   10098.0
GR   1313.1   10100.7   1313.1   10111.4   1313.8   10119.2
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ET     .040       9.1       9.1       9.1                                                  9897      10120
X1     .040        24    9897.8   10117.7        21        21        21
GR   1308.5    9743.9    1308.5    9790.1    1308.7    9828.5    1309.1    9857.4    1310.7    9874.8
GR   1312.5    9887.4    1312.6    9897.8    1310.9    9909.6    1306.2    9927.1    1305.1    9949.7
GR   1305.1    9977.7    1305.1    9989.0    1305.1    9993.6    1303.3    9994.0    1303.3   10000.0
GR   1303.5   10006.5    1304.8   10008.0    1304.8   10027.1    1305.0   10057.3    1305.3   10078.6
GR   1310.2   10094.9    1312.9   10109.5    1313.8   10117.7    1314.0   10132.1

ET     .116       9.1       9.1       9.1                                                  9878      10100
X1     .116        47    9878.5   10098.1       410       400       401
GR   1314.7    9421.3    1314.7    9446.9    1315.0    9474.8    1315.4    9506.3    1315.1    9523.6
GR   1315.4    9553.0    1315.8    9586.1    1315.7    9617.2    1315.4    9639.1    1315.3    9706.7
GR   1315.2    9720.5    1315.3    9793.1    1315.0    9803.7    1314.5    9804.5    1314.5    9817.7
GR   1313.2    9831.1    1312.6    9842.4    1310.6    9849.6    1311.6    9856.4    1313.2    9867.2
GR   1313.5    9871.6    1313.4    9878.5    1310.4    9887.5    1306.4    9901.6    1305.3    9911.5
GR   1304.9    9933.2    1304.7    9956.7    1304.7    9977.1    1304.5    9987.1    1303.0    9994.5
GR   1302.7   10000.0    1303.0   10008.9    1304.7   10019.8    1305.3   10040.9    1307.0   10060.5
GR   1309.0   10075.7    1312.7   10090.2    1315.2   10098.1    1314.7   10122.9    1314.6   10139.1
GR   1314.6   10181.9    1313.8   10203.0    1313.4   10209.1    1313.8   10225.8    1313.6   10236.7
GR   1314.1   10246.2    1314.8   10266.1

ET     .184       9.1       9.1       9.1                                                  9896      10120
X1     .184        49    9897.0   10117.2       340       350       359
GR   1315.2    9524.7    1315.5    9568.5    1315.9    9601.2    1316.3    9614.2    1316.4    9628.1
GR   1314.7    9648.3    1314.1    9672.4    1314.0    9705.5    1314.0    9736.5    1315.1    9762.9
GR   1316.2    9781.2    1317.1    9791.6    1317.1    9797.5    1316.7    9812.9    1316.5    9822.5
GR   1313.5    9839.4    1312.3    9850.4    1311.9    9862.6    1314.4    9876.6    1315.3    9886.3
GR   1315.9    9897.0    1314.3    9904.8    1310.2    9921.6    1307.1    9935.7    1305.9    9951.8
GR   1305.5    9972.7    1304.9    9987.3    1303.9    9997.1    1304.0   10000.0    1304.1   10010.7
GR   1305.2   10019.1    1306.3   10050.1    1308.2   10074.3    1312.4   10099.0    1315.7   10113.5
GR   1317.5   10117.2    1317.5   10122.9    1317.5   10141.9    1317.5   10159.7    1317.4   10195.6
GR   1316.6   10215.0    1315.6   10224.4    1316.2   10240.2    1316.2   10253.8    1316.7   10263.4
GR   1317.3   10287.5    1317.4   10314.9    1317.5   10344.6    1317.2   10353.7

NC     .015      .015      .015       .3        .5
         DOWNSTREAM FACE OF 10-10'X5' CONCRETE BOX CULVERTS AT 45TH AVENUE.
X1     .200        40    9945.7   10054.3        70        85        84
GR   1317.2    9423.9    1317.2    9460.2    1317.2    9513.5    1317.4    9557.5    1317.3    9564.3
GR   1317.2    9575.3    1317.2    9611.2    1317.1    9627.1    1316.9    9662.9    1316.4    9708.1
GR   1316.5    9744.4    1316.8    9765.3    1317.2    9778.3    1317.2    9787.8    1317.2    9812.9
GR   1316.6    9838.4    1316.4    9872.4    1316.5    9899.5    1316.1    9923.6    1316.6    9945.7
GR   1305.3    9945.8    1305.3     10000    1305.3   10054.2    1316.6   10054.3    1316.6   10078.8
GR   1316.7   10104.1    1317.5   10118.3    1318.2   10141.9    1318.4   10176.6    1318.1   10201.4
GR   1317.2   10214.2    1316.3   10221.4    1316.9   10238.0    1316.4   10251.2    1316.9   10256.5
GR   1317.3   10276.1    1317.7   10304.5    1317.8   10335.2    1317.8   10363.0    1317.5   10369.0

SB    1.25      1.56       2.9         0     107.5       7.5       600         0    1305.4    1305.3
         UPSTREAM FACE OF 10-10'X6' CONCRETE BOX CULVERTS AT 45TH AVENUE.
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        SPECIAL BRIDGE METHOD USED.
X1    .212        5    9945.7   10054.3       60       60       60
X2                        1    1311.4    1316.2
BT       2   9945.7   1316.2    1311.4   10054.3   1316.2   1311.4
GR  1316.5   9945.7   1305.4    9945.8    1305.4    10000   1305.4  10054.2   1316.5  10054.3

X1    .213       39     9935     10065        10       10       10
GR  1318.1   9496.0   1318.2    9536.4    1318.0   9562.8   1317.3   9570.4   1317.5   9572.6
GR  1317.2   9575.6   1317.1    9592.6    1317.2   9604.5   1317.6   9606.8   1318.5   9627.5
GR  1318.5   9662.6   1318.2    9690.6    1317.8   9720.6   1316.7   9744.3   1316.7   9779.6
GR  1316.8   9817.3   1317.3    9842.9    1316.7   9877.5   1316.6   9910.2   1316.5     9920
GR  1316.5     9935   1305.4    9935.1    1305.4    10000   1305.4  10064.9   1316.5    10065
GR  1317.1  10090.0   1317.1   10126.6    1317.5  10163.2   1317.3  10191.1   1316.9  10206.2
GR  1316.7  10219.3   1316.4   10221.4    1316.7  10236.2   1316.3  10250.5   1316.7  10258.3
GR  1317.9  10274.5   1318.3   10301.3    1318.1  10330.1   1318.1  10361.0

        DROP STRUCTURE INTO BOX CULVERTS AT 45TH AVENUE.
X1    .214       39     9935     10065       0.1      0.1      0.1
GR  1318.1   9496.0   1318.2    9536.4    1318.0   9562.8   1317.3   9570.4   1317.5   9572.6
GR  1317.2   9575.6   1317.1    9592.6    1317.2   9604.5   1317.6   9606.8   1318.5   9627.5
GR  1318.5   9662.6   1318.2    9690.6    1317.8   9720.6   1316.7   9744.3   1316.7   9779.6
GR  1316.8   9817.3   1317.3    9842.9    1316.7   9877.5   1316.6   9910.2   1316.5     9920
GR  1316.5     9935   1310.3    9935.1    1310.3    10000   1310.3  10064.9   1316.5    10065
GR  1317.1  10090.0   1317.1   10126.6    1317.5  10163.2   1317.3  10191.1   1316.9  10206.2
GR  1316.7  10219.3   1316.4   10221.4    1316.7  10236.2   1316.3  10250.5   1316.7  10258.3
GR  1317.9  10274.5   1318.3   10301.3    1318.1  10330.1   1318.1  10361.0

NC    .045     .045     .035       .1       .3
ET    .232      9.1      9.1      9.1                                         9859    10200
X1    .232       40   9870.7   10069.0       80      100       95
GR  1319.2   9485.9   1318.5    9551.0    1317.4   9577.0   1317.5   9593.0   1317.4   9604.1
GR  1318.3   9615.8   1319.0    9658.0    1319.0   9705.6   1318.2   9723.8   1317.5   9762.4
GR  1317.6   9799.9   1318.4    9832.0    1318.7   9859.4   1317.8   9870.7   1309.9   9916.3
GR  1310.1   9949.8   1310.3    9972.9    1309.7   9985.7   1308.3   9997.2   1308.7  10000.0
GR  1309.1  10008.8   1310.4   10017.2    1310.3  10040.1   1311.6  10052.3   1317.9  10069.0
GR  1318.3  10083.3   1318.5   10111.9    1318.9  10143.2   1318.8  10174.7   1318.0  10209.3
GR  1316.7  10215.6   1316.6   10219.3    1316.6  10221.0   1316.7  10238.1   1316.1  10250.7
GR  1316.7  10255.0   1317.5   10270.1    1318.6  10298.5   1318.5  10332.2   1318.4  10358.7

X1    .337       50   9857.6   10208.5      560      530      554
GR  1319.5   9436.9   1319.0    9452.3    1319.3   9467.8   1319.1   9481.1   1319.4   9495.5
GR  1320.8   9528.0   1320.4    9565.7    1319.7   9599.1   1320.2   9633.7   1320.3   9669.3
GR  1320.1   9688.2   1319.6    9702.7    1319.7   9722.6   1319.2   9735.3   1320.0   9749.0
GR  1320.4   9773.7   1320.5    9805.0    1319.6   9830.3   1319.7   9847.5   1320.3   9857.6
GR  1316.7   9877.6   1312.7    9895.4    1313.0   9923.2   1313.2   9958.1   1312.5   9983.0
GR  1310.8   9997.6   1310.4   10000.0    1310.6  10007.3   1312.2  10014.4   1312.5  10044.5
GR  1312.6  10089.7   1313.0   10134.6    1312.7  10170.1   1314.4  10186.1   1317.4  10197.9
GR  1321.0  10208.5   1321.2   10216.9    1320.9  10230.9   1321.1  10282.8   1320.9  10307.1
GR  1320.6  10351.7   1319.3   10374.8    1318.5  10383.1   1318.4  10387.2   1318.5  10403.2
GR  1318.3  10416.5   1318.7   10425.6    1319.3  10457.7   1319.2  10486.5   1319.2  10508.1
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ET     .438       9.1       9.1       9.1                                                  9800      10265
         BOTTOM OF DROP STRUCTURE IMMEDIATELY DOWNSTREAM OF 43RD AVENUE.
X1     .438        40    9852.6   10264.4       545       420       533
GR   1319.3    8964.3    1319.2    9051.5    1319.3    9059.5    1319.7    9066.0    1320.3    9121.0
GR   1320.1    9233.4    1320.3    9314.2    1320.3    9387.8    1319.2    9402.5    1318.9    9443.7
GR   1320.1    9450.6    1321.0    9650.2    1320.9    9664.5    1321.0    9789.8    1320.6    9852.6
GR   1314.8    9881.7    1313.9    9898.0    1313.4    9958.0    1313.4   10000.0    1313.1   10049.2
GR   1312.8   10055.3    1313.4   10087.0    1313.7   10139.3    1313.8   10166.2    1313.4   10168.3
GR   1313.7   10215.2    1313.7   10238.6    1322.4   10264.4    1322.6   10269.8    1321.7   10295.7
GR   1321.9   10346.7    1321.3   10408.9    1321.1   10449.3    1320.3   10455.8    1320.3   10506.8
GR   1318.8   10519.8    1318.6   10543.4    1318.4   10562.4    1319.1   10585.5    1319.3   10617.0

ET     .441       9.1       9.1       9.1                                                  9847      10273
         TOP OF DROP STRUCTURE IMMEDIATELY DOWNSTREAM OF 43RD AVENUE.
X1     .441        34    9847.8   10272.7        16        16        16
GR   1318.6    8964.1    1319.9    9180.1    1320.1    9309.4    1320.1    9397.6    1319.2    9401.5
GR   1318.8    9441.2    1320.3    9447.0    1320.1    9493.2    1320.1    9561.3    1320.3    9666.0
GR   1321.0    9785.7    1321.4    9847.8    1321.1    9853.6    1319.8    9864.2    1318.1    9875.1
GR   1318.0    9885.7    1317.8   10000.0    1317.7   10058.4    1317.9   10172.5    1318.0   10256.5
GR   1322.5   10272.7    1322.2   10279.2    1322.0   10309.7    1321.8   10380.6    1321.5   10419.8
GR   1321.2   10458.7    1320.4   10463.3    1319.8   10514.6    1319.0   10523.4    1318.5   10529.3
GR   1318.5   10565.7    1319.6   10585.7    1319.6   10612.6    1319.2   10629.4

ET     .458       9.1       9.1       9.1                                                  9800      10452
         43RD AVENUE DIP SECTION.
         FROM SECTION 0.458 TO SECTION 0.629, ET CARDS ARE USED TO MODEL
         EFFECTIVE FLOW IN BOTH OVERBANKS AT A 1:1 CONTRACTION UPSTREAM FROM
         THE CHANNELIZATION.
X1     .458        32    9940.5   10422.4        70       250        90
GR   1317.6    8979.0    1318.6    9240.9    1319.2    9505.2    1319.3    9740.2    1319.2    9940.5
GR   1318.8   10000.0    1319.1   10131.0    1318.9   10253.9    1318.5   10362.2    1318.8   10401.3
GR   1319.2   10422.4    1322.9   10451.9    1322.8   10460.2    1321.7   10485.2    1319.6   10568.4
GR   1319.5   10597.2    1320.0   10639.9    1320.2   10660.0    1320.7   10665.7    1321.1   10760.3
GR   1321.3   10818.7    1320.5   10867.0    1320.9   10883.9    1321.5   10898.2    1321.5   10926.0
GR   1320.9   10946.4    1321.0   10954.4    1320.5   11018.3    1321.1   11084.3    1321.4   11139.4
GR   1321.2   11196.5    1321.1   11228.6

NC     .060      .060      .060       .1        .3
ET     .489       9.1       9.1       9.1                                                  9650      10700
X1     .489        57    9931.8   10413.3       170       170       163
GR   1319.0    9104.6    1319.3    9185.2    1318.7    9210.1    1319.6    9229.3    1319.9    9295.1
GR   1319.6    9387.7    1319.6    9457.1    1319.7    9538.3    1319.5    9584.3    1319.0    9596.4
GR   1319.9    9600.2    1319.5    9679.1    1319.5    9731.4    1319.6    9765.2    1319.6    9810.3
GR   1319.7    9878.7    1319.5    9919.0    1319.3    9927.2    1320.0    9931.8    1319.3    9935.0
GR   1318.9    9975.0    1319.4    9993.7    1319.1   10000.0    1319.2   10118.5    1319.5   10201.1
GR   1320.2   10265.0    1319.6   10343.5    1320.8   10384.8    1321.9   10413.3    1321.9   10436.4
GR   1321.1   10450.2    1320.1   10460.4    1320.0   10489.7    1321.0   10515.4    1320.4   10546.9
GR   1319.7   10563.0    1320.6   10594.3    1320.0   10619.7    1318.5   10627.3    1320.0   10641.3
GR   1319.2   10664.3    1320.3   10689.7    1320.7   10716.9    1320.9   10749.8    1320.5   10773.4
GR   1320.7   10809.3    1321.2   10848.9    1321.6   10898.3    1322.7   10920.1    1320.7   10952.0
GR   1323.8   11016.9    1323.4   11035.2    1324.1   11105.6    1324.5   11139.4    1324.3   11178.1
GR   1324.1   11212.4    1323.8   11237.6
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|---|---|---|---|---|---|---|---|---|---|---|
| X1 | .568 | 60 | 9873.8 | 10286.6 | 435 | 300 | 417 | | | |
| GR | 1322.1 | 9031.4 | 1322.7 | 9159.2 | 1322.4 | 9230.6 | 1322.3 | 9309.1 | 1321.8 | 9385.2 |
| GR | 1321.4 | 9494.7 | 1321.8 | 9574.8 | 1321.4 | 9643.1 | 1321.7 | 9705.3 | 1322.2 | 9751.9 |
| GR | 1321.3 | 9775.0 | 1321.8 | 9786.0 | 1321.8 | 9837.1 | 1321.3 | 9864.9 | 1322.3 | 9873.8 |
| GR | 1321.5 | 9886.2 | 1321.5 | 9953.3 | 1321.6 | 10000.0 | 1321.3 | 10066.5 | 1320.5 | 10094.7 |
| GR | 1320.6 | 10102.8 | 1321.1 | 10117.1 | 1321.6 | 10150.9 | 1321.3 | 10184.8 | 1321.0 | 10218.8 |
| GR | 1320.7 | 10236.5 | 1322.2 | 10271.7 | 1323.6 | 10286.6 | 1325.1 | 10367.7 | 1324.3 | 10376.8 |
| GR | 1322.4 | 10426.3 | 1320.4 | 10446.6 | 1320.4 | 10452.8 | 1323.0 | 10461.6 | 1323.6 | 10469.6 |
| GR | 1323.6 | 10489.6 | 1323.8 | 10513.9 | 1324.2 | 10536.1 | 1322.9 | 10548.2 | 1321.3 | 10555.6 |
| GR | 1322.0 | 10573.4 | 1321.8 | 10627.8 | 1321.8 | 10684.2 | 1321.7 | 10717.4 | 1322.8 | 10770.2 |
| GR | 1323.1 | 10822.8 | 1323.5 | 10893.8 | 1324.1 | 10950.7 | 1324.2 | 11022.0 | 1323.7 | 11082.7 |
| GR | 1323.8 | 11114.9 | 1324.8 | 11150.7 | 1324.7 | 11220.2 | 1325.2 | 11256.4 | 1325.6 | 11281.7 |
| GR | 1326.5 | 11320.2 | 1326.7 | 11335.3 | 1326.7 | 11389.6 | 1326.8 | 11433.3 | 1327.1 | 11459.9 |
| ET | .629 | 7.1 | 9.1 | 9.1 | | | 9491 | 10932 | 9491 | 11470 |
| X1 | .629 | 57 | 9905.1 | 10074.6 | 340 | 255 | 322 | | | |
| GR | 1323.1 | 8987.1 | 1323.7 | 9146.1 | 1323.9 | 9238.3 | 1324.1 | 9320.4 | 1324.5 | 9389.8 |
| GR | 1324.9 | 9490.9 | 1324.4 | 9566.3 | 1323.4 | 9617.3 | 1323.6 | 9685.8 | 1323.1 | 9762.6 |
| GR | 1322.2 | 9835.0 | 1323.2 | 9905.1 | 1322.7 | 9972.4 | 1323.2 | 10000.0 | 1323.9 | 10074.6 |
| GR | 1323.4 | 10121. | 1322.9 | 10149.5 | 1323.9 | 10191.3 | 1324.1 | 10206.9 | 1323.4 | 10260.5 |
| GR | 1322.4 | 10324. | 1322.3 | 10391.3 | 1323.3 | 10409.1 | 1325.0 | 10448.4 | 1326.4 | 10489.4 |
| GR | 1325.0 | 10514. | 1324.9 | 10560.6 | 1324.6 | 10606.0 | 1323.6 | 10638.3 | 1323.2 | 10662.6 |
| GR | 1320.6 | 10673. | 1323.4 | 10683.5 | 1323.9 | 10687.9 | 1323.8 | 10712.0 | 1322.3 | 10718.9 |
| GR | 1323.5 | 10740. | 1324.0 | 10773.1 | 1324.1 | 10812.3 | 1323.8 | 10862.1 | 1324.2 | 10894.0 |
| GR | 1325.0 | 10932. | 1323.5 | 10954.5 | 1322.4 | 10979.2 | 1322.4 | 11042.3 | 1322.2 | 11078.5 |
| GR | 1323.1 | 11129. | 1323.9 | 11164.3 | 1323.0 | 11186.4 | 1323.2 | 11198.1 | 1324.1 | 11208.0 |
| GR | 1324.7 | 11232. | 1324.9 | 11270.3 | 1325.2 | 11311.9 | 1325.4 | 11376.6 | 1326.0 | 11408.3 |
| GR | 1326.5 | 11439. | 1326.8 | 11471.4 | | | | | | |
| NC | .055 | .055 | .045 | .1 | .3 | | | | | |
| ET | .763 | 7.1 | 9.1 | 9.1 | | | 9840 | 10500 | 9840 | 11000 |
| X1 | .736 | 53 | 9981.3 | 10002 | 600 | 440 | 565 | | | |
| GR | 1332.8 | 9838.4 | 1328.7 | 9856.9 | 1327.1 | 9872.2 | 1326.3 | 9888.0 | 1325.4 | 9919.4 |
| GR | 1325.6 | 9938.9 | 1325.8 | 9972.3 | 1325.6 | 9981.3 | 1323.9 | 9987.0 | 1324.0 | 9992.1 |
| GR | 1325.6 | 10000.0 | 1326.5 | 10002. | 1325.2 | 10075. | 1324.1 | 10198. | 1324.1 | 10220. |
| GR | 1324.1 | 10257.8 | 1324.6 | 10307. | 1325.2 | 10351. | 1325.2 | 10368. | 1326.0 | 10401. |
| GR | 1326.0 | 10435.0 | 1326.2 | 10479. | 1326.6 | 10533. | 1326.7 | 10575. | 1326.4 | 10605. |
| GR | 1325.3 | 10629.3 | 1325.2 | 10641. | 1325.4 | 10654. | 1324.2 | 10665. | 1325.7 | 10680. |
| GR | 1326.0 | 10697.8 | 1325.4 | 10724. | 1325.2 | 10744. | 1325.5 | 10755. | 1325.7 | 10787. |
| GR | 1325.6 | 10816.0 | 1325.6 | 10829. | 1326.6 | 10850. | 1326.8 | 10878. | 1327.2 | 10919. |
| GR | 1328.0 | 10958.7 | 1328.0 | 10991. | 1328.4 | 11020. | 1328.6 | 11049. | 1328.3 | 11083. |
| GR | 1328.0 | 11113.9 | 1327.9 | 11125. | 1328.4 | 11146. | 1328.2 | 11160. | 1327.7 | 11175. |
| GR | 1328.3 | 11198.5 | 1326.9 | 11211. | 1327.2 | 11223. | | | | |
| ET | .813 | 9.1 | 9.1 | 9.1 | | | | | 9935 | 10757 |
| X1 | .813 | 51 | 9992.0 | 10008 | 370 | 525 | 407 | | | |
| GR | 1338.1 | 9933.7 | 1331.3 | 9952.4 | 1327.7 | 9959.6 | 1327.2 | 9967.7 | 1326.1 | 9974.7 |
| GR | 1326.6 | 9988.3 | 1326.6 | 9992.0 | 1323.4 | 9996.5 | 1323.8 | 10000. | 1326.1 | 10008. |
| GR | 1326.1 | 10019.1 | 1325.5 | 10028.1 | 1326.4 | 10055.5 | 1326.1 | 10074. | 1324.3 | 10077. |
| GR | 1324.2 | 10081.7 | 1326.2 | 10085.4 | 1326.7 | 10118.1 | 1326.7 | 10137. | 1325.5 | 10142. |
| GR | 1325.6 | 10148.1 | 1326.3 | 10152.0 | 1327.1 | 10179.5 | 1327.3 | 10213. | 1327.4 | 10243. |
| GR | 1327.1 | 10273.5 | 1327.4 | 10309.7 | 1327.8 | 10354.8 | 1328.2 | 10423. | 1328.0 | 10474. |
| GR | 1328.1 | 10511.4 | 1329.4 | 10536.0 | 1328.9 | 10568.3 | 1328.7 | 10613. | 1329.1 | 10678. |

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GR   1329.8   10719.4   1329.9   10757.3   1329.5   10793.8   1330.0   10837.   1329.9   10868.
GR   1329.4   10877.8   1329.7   10895.4   1330.0   10909.0   1330.2   10921.   1331.0   10942.
GR   1331.4   10954.6   1331.2   10971.9   1330.0   10981.5   1330.0   11003.   1330.0   11047.
GR   1330.1   11081.4

X1    .860      48    10000.0   10068.1    235      250      248
GR   1336.0    9821.2   1330.9    9848.5   1329.1    9860.2   1327.9    9870.0   1326.3    9875.0
GR   1326.3    9884.4   1327.8    9888.5   1327.8    9916.5   1327.0    9937.9   1326.3    9971.2
GR   1327.4    9982.0   1327.8    9996.0   1327.8   10000.0   1327.7   10057.0   1327.1   10066.
GR   1328.3   10068.1   1328.2   10092.6   1328.0   10125.6   1327.8   10143.3   1327.9   10180.
GR   1327.8   10215.2   1327.5   10256.5   1327.5   10281.9   1327.6   10290.1   1329.5   10300.
GR   1328.1   10308.8   1327.9   10321.8   1326.7   10337.1   1327.1   10372.1   1327.3   10393.
GR   1328.7   10414.8   1329.2   10439.9   1330.9   10482.6   1330.9   10537.7   1330.9   10583.
GR   1332.6   10727.1   1332.0   10729.6   1332.3   10754.5   1333.8   10787.7   1332.4   10815.
GR   1332.4   10839.2   1332.8   10855.7   1334.0   10863.6   1333.9   10882.1   1333.2   10902.
GR   1333.3   10925.2   1335.1   10955.1   1334.8   10963.1

ET    .949      7.1                                          9565     10079
X1    .949      61     9998.1    10013     320      410      470
GR   1334.8    9564.5   1332.1    9581.8   1331.4    9598.1   1330.5    9637.8   1329.9    9688.6
GR   1329.7    9711.0   1329.1    9733.7   1329.0    9738.1   1330.0    9742.5   1329.9    9757.3
GR   1328.3    9763.8   1329.8    9778.7   1329.6    9798.7   1329.6    9828.5   1329.8    9854.8
GR   1329.6    9876.1   1329.5    9902.7   1329.1    9926.5   1329.5    9952.0   1330.2    9973.6
GR   1330.7    9998.1   1329.5   10000.0   1327.7   10004.3   1327.7   10007.   1330.4   10013.
GR   1330.2   10029.0   1328.6   10035.9   1329.5   10054.2   1330.8   10079.   1330.1   10085.
GR   1330.7   10104.4   1330.6   10146.8   1330.8   10210.3   1330.7   10220.   1330.9   10294.
GR   1330.0   10298.3   1330.7   10304.3   1330.8   10338.2   1330.7   10364.   1331.2   10387.
GR   1330.9   10408.1   1330.1   10423.4   1331.0   10430.8   1330.9   10462.   1331.1   10522.
GR   1331.1   10578.6   1331.7   10639.6   1331.9   10695.1   1331.9   10740.   1332.0   10765.
GR   1333.1   10780.4   1333.7   10792.8   1333.4   10831.4   1334.2   10841.   1333.9   10869.
GR   1334.4   10896.9   1335.5   10919.6   1336.6   10949.1   1336.0   10975.   1335.7   10997.
GR   1336.9   11032.9

NC    .050      .050      .040      .1       .3
ET   1.038      7.1       9.1       9.1                        9589     10050    9589     11340
X1   1.038      55     9974.8    10024.2    580      300      470
GR   1333.7    9211.5   1333.8    9290.6   1333.8    9406.1   1334.0    9473.4   1334.2    9589.4
GR   1333.7    9666.2   1332.6    9672.4   1332.7    9711.5   1333.1    9742.9   1332.9    9798.5
GR   1332.6    9851.2   1331.4    9872.4   1332.3    9877.5   1331.5    9892.0   1332.8    9920.0
GR   1332.6    9948.3   1332.3    9974.8   1331.8   10000.0   1332.9   10024.2   1333.7   10050.1
GR   1333.0   10095.5   1332.3   10119.8   1333.2   10168.7   1333.0   10250.9   1333.0   10318.1
GR   1332.7   10387.5   1332.7   10449.6   1332.6   10507.2   1332.6   10537.3   1332.2   10546.0
GR   1332.8   10556.8   1332.8   10578.9   1332.9   10610.7   1332.7   10652.0   1333.0   10680.7
GR   1333.4   10715.5   1333.3   10746.8   1333.0   10763.3   1333.9   10785.8   1334.5   10799.8
GR   1334.2   10815.0   1334.1   10836.4   1332.8   10849.8   1333.4   10868.5   1333.3   10907.0
GR   1333.7   10950.0   1333.8   10990.1   1333.8   11030.3   1334.4   11068.2   1334.4   11100.6
GR   1334.8   11140.6   1335.7   11212.4   1336.1   11271.7   1337.2   11315.5   1337.9   11341.7

ET   1.144      7.1       9.1       9.1                        9445     10400    9445     11388
X1   1.144      66     9985.7    10010.0    590      410      560
GR   1336.7    9346.8   1337.1    9444.7   1336.5    9557.6   1336.5    9632.0   1336.0    9695.8
GR   1336.1    9732.1   1336.0    9766.4   1335.6    9783.5   1335.5    9853.8   1335.5    9905.9
GR   1334.9    9956.0   1334.9    9970.4   1335.6    9981.0   1336.5    9985.7   1331.8    9994.3
GR   1330.9    9999.3   1331.0   10000.0   1333.4   10005.3   1335.6   10010.0   1335.4   10046.3
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| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| GR | 1335.4 | 10101.5 | 1335.6 | 10151.7 | 1336.2 | 10184.9 | 1335.5 | 10208.9 | 1335.8 | 10241.7 |
| GR | 1336.2 | 10300.1 | 1336.7 | 10359.4 | 1337.2 | 10383.7 | 1337.1 | 10438.4 | 1336.0 | 10500.9 |
| GR | 1336.0 | 10537.9 | 1335.8 | 10576.5 | 1335.4 | 10597.5 | 1335.2 | 10613.3 | 1334.6 | 10619.2 |
| GR | 1335.7 | 10642.5 | 1336.0 | 10648.2 | 1336.2 | 10663.4 | 1335.8 | 10679.7 | 1335.2 | 10711.0 |
| GR | 1335.2 | 10731.1 | 1334.2 | 10745.5 | 1334.7 | 10759.3 | 1335.3 | 10782.6 | 1335.0 | 10798.8 |
| GR | 1334.2 | 10800.7 | 1335.0 | 10810.9 | 1334.7 | 10841.3 | 1334.7 | 10856.3 | 1335.7 | 10885.0 |
| GR | 1336.6 | 10910.5 | 1338.2 | 10935.6 | 1338.4 | 10947.0 | 1336.8 | 10969.8 | 1335.4 | 10997.9 |
| GR | 1335.3 | 11030.6 | 1335.3 | 11074.1 | 1335.0 | 11133.9 | 1335.0 | 11184.0 | 1335.1 | 11222.3 |
| GR | 1335.0 | 11252.8 | 1335.6 | 11264.9 | 1336.4 | 11309.9 | 1336.9 | 11344.7 | 1337.5 | 11371.5 |
| GR | 1339.2 | 11388.5 | | | | | | | | |
| ET | 1.257 | 7.1 | | | | | 9885 | 10167 | | |
| | NEAR BEARDSLEY ROAD DIP SECTION. | | | | | | | | | |
| X1 | 1.257 | 52 | 9941.9 | 10007.3 | 440 | 405 | 597 | | | |
| GR | 1340.6 | 9249.8 | 1340.4 | 9289.1 | 1341.3 | 9321.1 | 1342.3 | 9344.7 | 1343.2 | 9371.6 |
| GR | 1341.7 | 9382.2 | 1341.4 | 9400.5 | 1341.3 | 9419.2 | 1341.4 | 9495.3 | 1342.4 | 9497.1 |
| GR | 1343.8 | 9541.5 | 1342.8 | 9596.5 | 1341.8 | 9640.1 | 1338.8 | 9653.6 | 1338.7 | 9670.4 |
| GR | 1338.2 | 9675.9 | 1337.9 | 9720.1 | 1337.6 | 9756.0 | 1336.9 | 9808.5 | 1337.3 | 9855.3 |
| GR | 1337.9 | 9885.5 | 1337.4 | 9915.8 | 1335.8 | 9920.1 | 1334.0 | 9941.9 | 1333.9 | 9952.6 |
| GR | 1334.5 | 9977.3 | 1334.6 | 10000.0 | 1334.6 | 10007.3 | 1336.4 | 10062.1 | 1337.2 | 10098.9 |
| GR | 1337.4 | 10135.3 | 1337.8 | 10167.5 | 1337.3 | 10197.5 | 1337.4 | 10229.1 | 1337.8 | 10281.9 |
| GR | 1337.8 | 10314.8 | 1337.4 | 10340.4 | 1337.1 | 10364.6 | 1337.1 | 10427.4 | 1337.2 | 10474.8 |
| GR | 1337.2 | 10496.0 | 1337.5 | 10558.9 | 1337.3 | 10599.0 | 1337.1 | 10631.0 | 1337.7 | 10673.1 |
| GR | 1337.6 | 10742.0 | 1337.3 | 10790.4 | 1337.3 | 10835.5 | 1337.4 | 10867.6 | 1337.1 | 10899.2 |
| GR | 1337.3 | 11040.6 | 1338.8 | 11121.7 | | | | | | |
| ET | 1.336 | 9.1 | 9.1 | 9.1 | | | | | 9470 | 10937 |
| X1 | 1.336 | 49 | 9988.2 | 10025.1 | 360 | 440 | 417 | | | |
| GR | 1340.6 | 9268.8 | 1340.9 | 9348.8 | 1342.0 | 9368.1 | 1342.1 | 9396.1 | 1341.3 | 9403.9 |
| GR | 1341.8 | 9422.8 | 1343.4 | 9442.2 | 1344.6 | 9463.7 | 1344.7 | 9478.8 | 1343.8 | 9511.6 |
| GR | 1343.9 | 9551.3 | 1343.8 | 9599.0 | 1343.7 | 9637.5 | 1343.2 | 9652.1 | 1343.4 | 9666.3 |
| GR | 1343.7 | 9670.2 | 1343.6 | 9689.9 | 1342.5 | 9704.9 | 1340.1 | 9731.5 | 1340.7 | 9752.1 |
| GR | 1340.0 | 9782.5 | 1338.7 | 9817.1 | 1338.4 | 9856.5 | 1337.9 | 9886.5 | 1338.3 | 9917.0 |
| GR | 1339.2 | 9947.1 | 1339.0 | 9975.6 | 1339.1 | 9988.2 | 1335.0 | 9993.7 | 1334.4 | 10000.0 |
| GR | 1338.5 | 10005.3 | 1338.5 | 10017.9 | 1340.3 | 10025.1 | 1338.7 | 10033.2 | 1338.8 | 10063.3 |
| GR | 1338.8 | 10098.3 | 1338.9 | 10155.9 | 1339.7 | 10225.5 | 1339.7 | 10293.1 | 1339.4 | 10336.5 |
| GR | 1339.8 | 10421.8 | 1339.8 | 10482.1 | 1339.6 | 10552.0 | 1340.0 | 10626.6 | 1340.0 | 10706.8 |
| GR | 1340.2 | 10768.9 | 1340.6 | 10819.4 | 1341.0 | 10871.1 | 1341.4 | 10937.8 | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SECNO | DEPTH | CWSEL | CRIWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

*PROF 1

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS

CCHV= .100 CEHV= .300

*SECNO 1.663

SKUNK CREEK FLOODPLAIN STUDY.
ARIZONA CANAL DIVERSION CHANNEL (ACDC) TO ADOBE DAM. INCLUDING SCATTER
WASH FROM ITS CONFLUENCE WITH SKUNK CREEK TO BEARDSLEY ROAD.
EXISTING FLOWS PER FEMA.
PREPARED AS A PART OF THE SKUNK CREEK FLOODPLAIN STUDY, BETWEEN THE
ACDC AND THE CAP.
PREPARED FOR THE FLOOD CONTROL DISTRICT OF MARICOPA COUNTY (FCD #89-72)
PREPARED BY COE & VAN LOO CONSULTING ENGINEERS, 1990.
TOPOGRAPHIC MAPPING PREPARED BY AERIAL MAPPING COMPANY, INC. FROM
PHOTOGRAPHS TAKEN IN APRIL 1990. ELEVATION BASED ON NGVD OF 1929.
THE CONTROL LINE OF SKUNK CREEK IS STATION 10,000.
ALL SECTIONS ARE STATIONED LOOKING DOWNSTREAM.
CROSS SECTION NUMBERS FOR SKUNK CREEK ARE STATIONED IN RIVER MILES FROM
THE CONFLUENCE WITH NEW RIVER.
CROSS SECTION NUMBERS FOR SCATTER WASH ARE STATIONED IN RIVER MILES
FROM THE CONFLUENCE WITH SKUNK CREEK.
THIS RUN WAS STARTED BASED ON THE SLOPE-AREA METHOD.
ENCROACHMENT CARDS (ET) WERE USED IN SOME CASES TO BETTER MODEL DEAD OR
NONEFFECTIVE FLOW AREAS. IN SOME CASES "SSTA" AND "ENDST" DO NOT
REPRESENT THE ACTUAL FLOODING LIMITS, AND THE DELINEATION WAS BASED ON
THE CROSS-SECTION AND THE TOPOGRAPHY. IN SOME CASES, "TOPWID" DOES NOT
REPRESENT THE FULL WIDTH OF THE FLOODPLAIN, DUE TO INEFFECTIVE FLOW
AREAS OR LOW ISLANDS WITHIN THE FLOODPLAIN.
IMMEDIATELY UPSTREAM OF THE CONFLUENCE WITH ACDC.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1.663 | 4.00 | 1187.70 | 1187.22 | 1187.70 | 1188.59 | .89 | .00 | .00 | 1202.10 |
| 2200. | 0. | 2200. | 0. | 0. | 290. | 0. | 0. | 0. | 1201.10 |
| .00 | .00 | 7.58 | .00 | .000 | .035 | .000 | .000 | 1183.70 | 9948.12 |
| .007918 | 0. | 0. | 0. | 0 | 14 | 0 | .00 | 99.46 | 10047.58 |

*SECNO 1.763

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1.763 | 4.97 | 1191.77 | 1191.26 | .00 | 1192.71 | .93 | 4.10 | .01 | 1214.40 |
| 2200. | 0. | 2200. | 0. | 0. | 284. | 0. | 3. | 1. | 1203.10 |
| .02 | .00 | 7.75 | .00 | .000 | .035 | .000 | .000 | 1186.80 | 9949.73 |
| .007626 | 510. | 528. | 530. | 2 | 8 | 0 | .00 | 92.38 | 10042.11 |

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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO 1.857
    1.857     4.55  1195.15  1194.28      .00  1195.94      .79     3.22      .01  1213.40
    2200.       0.    2200.       0.       0.     308.       0.       7.       2.   1204.50
      .04      .00     7.15      .00     .000     .035     .000     .000  1190.60  9955.09
  .005597     470.     496.     530.        2       19        0      .00    88.08 10043.17


CCHV=     .100 CEHV=     .300
*SECNO 1.868

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
         IMMEDIATELY DOWNSTREAM OF THE 75TH AVENUE ALIGNMENT.
    1.868     4.00  1195.30  1195.30      .00  1196.80     1.50      .50      .21  1205.10
    2200.       0.    2200.       0.       0.     224.       0.       7.       2.   1203.40
      .04      .00     9.82      .00     .000     .038     .000     .000  1191.30  9954.33
  .015305      50.      58.      65.        0       11        0      .00    75.63 10029.96


*SECNO 1.912

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.37


3470 ENCROACHMENT STATIONS=     9930.0   10061.0  TYPE=      1  TARGET=      131.000
    1.912     7.11  1197.61  1195.30      .00  1198.14      .54     1.25      .10  1215.40
    2200.       0.    2200.       0.       0.     374.       0.       9.       3.   1207.90
      .05      .00     5.88      .00     .000     .038     .000     .000  1190.50  9967.93
  .002717     215.     232.     250.        3       11        0      .00    73.96 10041.89


CCHV=     .100 CEHV=     .300
*SECNO 1.962

3301 HV CHANGED MORE THAN HVINS
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .49

    1.962     5.85  1198.05  1197.92      .00  1199.78      1.73      1.28       .36  1216.20
    2200.       0.    2200.       0.       0.     208.       0.       11.        3.   1209.30
      .06      .00    10.56      .00     .000     .035     .000      .000  1192.20  9974.24
  .011090     220.     264.     280.        4       15        0       .00    55.73 10029.97


*SECNO 2.034

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.24


3470 ENCROACHMENT STATIONS=     9869.0   10060.0  TYPE=      1  TARGET=      191.000
    2.034     7.12  1201.02  1198.58      .00  1201.51      .49      1.60       .12  1209.10
    2200.       0.    2200.       0.       0.     390.       0.       13.        4.   1211.50
      .08      .00     5.64      .00     .000     .035     .000      .000  1193.90  9955.16
 .002208     370.     380.     390.        2       15        0       .00    79.78 10034.94


*SECNO 2.129

3470 ENCROACHMENT STATIONS=     9954.0   10070.0  TYPE=      1  TARGET=      116.000
    2.129     6.00  1202.20  1200.35      .00  1202.79      .59      1.25       .03  1216.70
    2200.       0.    2200.       0.       0.     358.       0.       17.        5.   1213.10
      .10      .00     6.14      .00     .000     .035     .000      .000  1196.20  9969.80
  .002829     520.     502.     470.        3       11        0       .00    77.54 10047.34


*SECNO 2.230
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9817.0   10325.0  TYPE=      1  TARGET=      508.000
    2.230     5.88  1205.48  1205.48      .00  1206.33      .85      2.85       .08  1219.20
    2200.       0.    2200.       0.       0.     297.       0.       21.        6.   1212.40
      .12      .00     7.40      .00     .000     .035     .000      .000  1199.60  9893.23
  .013622     560.     533.     430.        0        6        0       .00   159.42 10052.65
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| SECNO | DEPTH | CWSEL | CRIWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
|---|---|---|---|---|---|---|---|---|---|
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

*SECNO 2.319

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.49

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 2.319 | 3.11 | 1210.01 | 1209.47 | .00 | 1210.48 | .47 | 4.12 | .04 | 1220.10 |
| 2200. | 0. | 2200. | 0. | 0. | 399. | 0. | 25. | 8. | 1218.30 |
| .14 | .00 | 5.51 | .00 | .000 | .035 | .000 | .000 | 1206.90 | 9924.39 |
| .006105 | 470. | 470. | 410. | 5 | 18 | 0 | .00 | 185.53 | 10109.92 |

CCHV= .300 CEHV= .500
*SECNO 2.353

3265 DIVIDED FLOW

DOWNSTREAM FACE OF BELL ROAD BRIDGE.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 2.353 | 4.95 | 1211.15 | 1209.98 | .00 | 1211.49 | .35 | .97 | .04 | 1217.00 |
| 2200. | 0. | 2200. | 0. | 0. | 465. | 0. | 27. | 9. | 1217.50 |
| .15 | .00 | 4.74 | .00 | .000 | .038 | .000 | .000 | 1206.20 | 9854.36 |
| .004827 | 320. | 180. | 70. | 2 | 11 | 0 | .00 | 200.09 | 10060.63 |

SPECIAL BRIDGE

| SB | XK | XKOR | COFQ | RDLEN | BWC | BWP | BAREA | SS | ELCHU | ELCHD |
|---|---|---|---|---|---|---|---|---|---|---|
| | .90 | 1.56 | 2.70 | .00 | 81.00 | 6.40 | 1843.90 | 7.30 | 1206.20 | 1205.90 |

*SECNO 2.379
CLASS A LOW FLOW

3420 BRIDGE W.S.= 1211.27 BRIDGE VELOCITY= 3.74 CALCULATED CHANNEL AREA= 566.

| EGPRS | EGLWC | H3 | QWEIR | QLOW | BAREA | TRAPEZOID AREA | ELLC | ELTRD | WEIRLN |
|---|---|---|---|---|---|---|---|---|---|
| .00 | 1211.67 | .03 | 0. | 2200. | 1844. | 1848. | 1217.80 | 1222.40 | 0. |

UPSTREAM FACE OF BELL ROAD BRIDGE, SPECIAL BRIDE METHOD USED.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 2.379 | 5.28 | 1211.18 | .00 | .00 | 1211.67 | .50 | .18 | .00 | 1217.40 |
| 2200. | 0. | 2200. | 0. | 0. | 389. | 0. | 28. | 9. | 1217.40 |
| .16 | .00 | 5.65 | .00 | .000 | .038 | .000 | .000 | 1205.90 | 9871.95 |
| .008000 | 106. | 106. | 106. | 0 | 0 | 0 | .00 | 188.67 | 10060.63 |

```
SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


CCHV=     .100 CEHV=     .300
*SECNO 2.422

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.56


3470 ENCROACHMENT STATIONS=     9841.0   10074.0  TYPE=      1  TARGET=      233.000
   2.422     4.40  1212.60  1211.38      .00  1212.95      .35     1.26      .01  1220.90
   2200.       0.    2200.       0.       0.     465.       0.      31.      10.   1221.10
     .17      .00     4.73      .00     .000     .035     .000     .000  1208.20  9881.87
  .003293     70.     258.     395.        2       14        0      .00   169.12 10050.99


*SECNO 2.491

3470 ENCROACHMENT STATIONS=     9790.0   10036.6  TYPE=      1  TARGET=      246.600
         IMMEDIATELY DOWNSTREAM OF CONFLUENCE WITH 71ST AVENUE CHANNEL.
   2.491     5.63  1214.13  1213.46      .00  1214.54      .41     1.57      .02  1220.90
   2200.       0.    2200.       0.       0.     428.       0.      34.      12.   1218.70
     .19      .00     5.14      .00     .000     .035     .000     .000  1208.50  9814.02
  .005858    310.     364.     370.        3        8        0      .00   213.28 10027.30


*SECNO 2.561

3470 ENCROACHMENT STATIONS=     9913.0   10200.0  TYPE=      1  TARGET=      287.000
   2.561     3.84  1216.24  1215.65      .00  1216.64      .39     2.10      .00  1220.90
   2200.       0.    2200.       0.       0.     437.       0.      38.      14.   1224.00
     .21      .00     5.04      .00     .000     .035     .000     .000  1212.40  9928.36
  .005500    290.     370.     400.        3       14        0      .00   213.67 10142.03


*SECNO 2.634

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.08

   2.634     5.04  1217.44  1215.96      .00  1217.56      .12      .89      .03  1223.50
   2200.       0.    2200.       0.       0.     798.       0.      43.      16.   1225.50
     .25      .00     2.76      .00     .000     .035     .000     .000  1212.40  9897.15
  .001275    400.     385.     360.        3       12        0      .00   323.42 10220.58
```

```
   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST

*SECNO 2.720

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    2.720     5.32  1218.52  1218.52      .00  1219.29      .77     1.44      .20  1225.70
    2200.      0.    2200.       0.       0.     312.       0.      49.      19.   1226.20
      .27      .00     7.04      .00     .000     .035     .000     .000  1213.20  9972.93
  .017711     480.     454.     400.        0        8        0      .00   222.99 10195.92

*SECNO 2.801

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.61

    2.801     4.13  1221.43  1220.29      .00  1221.67      .24     2.33      .05  1227.50
    2200.      0.    2200.       0.       0.     559.       0.      54.      21.   1227.60
      .30      .00     3.94      .00     .000     .035     .000     .000  1217.30  9837.05
  .002603     460.     428.     330.        6       11        0      .00   227.45 10064.50

*SECNO 2.900
    2.900     4.66  1222.96  1222.16      .00  1223.24      .28     1.56      .01  1228.80
    2200.      0.    2200.       0.       0.     517.       0.      60.      24.   1229.00
      .33      .00     4.25      .00     .000     .035     .000     .000  1218.30  9828.72
  .003431     470.     523.     530.        4       10        0      .00   229.57 10058.28

CCHV=     .100 CEHV=     .300
*SECNO 3.000
    3.000     4.84  1224.84  1223.78      .00  1225.14      .30     1.90      .01  1229.10
    2200.      0.    2200.       0.       0.     502.       0.      66.      26.   1230.20
      .37      .00     4.38      .00     .000     .040     .000     .000  1220.00  9935.30
  .003761     450.     528.     560.        2       14        0      .00   184.80 10120.10

*SECNO 3.077

3470 ENCROACHMENT STATIONS=     9905.5   10126.9  TYPE=      1  TARGET=      221.400
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


    3.077     3.69  1226.49  1225.55      .00  1226.82      .32     1.67      .01  1231.60
    2200.      0.    2200.       0.       0.     482.       0.      71.      28.   1235.10
      .39     .00     4.57      .00     .000     .040     .000     .000  1222.80  9916.66
  .004473    410.     407.     410.        2       11        0      .00   192.35 10109.01


*SECNO 3.143

3470 ENCROACHMENT STATIONS=     9965.0   10109.0  TYPE=      1  TARGET=      144.000
    3.143     5.60  1228.00  1226.86      .00  1228.50      .51     1.63      .05  1233.20
    2200.      0.    2200.       0.       0.     385.       0.      74.      29.   1233.90
      .41     .00     5.71      .00     .000     .040     .000     .000  1222.40  9978.25
  .004929    360.     348.     320.        2       11        0      .00   117.45 10095.70


*SECNO 3.200

3470 ENCROACHMENT STATIONS=     9927.0   10085.0  TYPE=      1  TARGET=      158.000
    3.200     4.68  1229.68  1228.88      .00  1230.33      .65     1.78      .04  1236.00
    2200.      0.    2200.       0.       0.     339.       0.      77.      30.   1235.60
      .42     .00     6.48      .00     .000     .040     .000     .000  1225.00  9949.57
  .007245    310.     301.     270.        2       19        0      .00   114.39 10063.96


*SECNO 3.300

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.42


3470 ENCROACHMENT STATIONS=     9930.0   10118.0  TYPE=      1  TARGET=      188.000
        FROM SECTION 3.300 TO SECTION 3.400, ET CARDS ARE USED TO MODEL
        EFFECTIVE FLOW AREA IN BOTH OVERBANKS AT A 1:1 CONTRACTION UPSTEAM
        FROM THE CONSTRICTION.
    3.300     5.95  1232.55  1231.03      .00  1232.97      .42     2.62      .02  1239.00
    2200.      0.    2200.       0.       0.     423.       0.      81.      32.   1239.00
      .45     .00     5.21      .00     .000     .040     .000     .000  1226.60  9951.08
  .003603    550.     528.     510.        1       11        0      .00   116.65 10067.73


*SECNO 3.400

3470 ENCROACHMENT STATIONS=     9912.0   10081.0  TYPE=      1  TARGET=      169.000
        FROM SECTION 3.400 TO SECTION 3.840, ET CARDS ARE USED TO MODEL
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        EFFECTIVE FLOW AREAS IN BOTH OVERBANKS AT A 4:1 EXPANSION DOWNSTREAM
        FROM THE CHANNELIZATION.
   3.400     4.67  1234.57  1233.24      .00  1235.01      .44     2.03      .01  1238.90
   2200.       0.    2200.       0.       0.     412.       0.      86.      33.   1240.80
     .48      .00     5.34      .00     .000     .040     .000     .000  1229.90  9932.14
 .004116     530.     528.     520.        3       11        0      .00   122.00 10054.15


*SECNO 3.500

3470 ENCROACHMENT STATIONS=     9570.0   10440.0  TYPE=      1  TARGET=      870.000
   3.500     4.95  1236.85  1235.49      .00  1237.25      .40     2.24      .00  1241.70
   2200.       0.    2200.       0.       0.     434.       0.      92.      35.   1242.00
     .51      .00     5.07      .00     .000     .040     .000     .000  1231.90  9983.22
 .004356     520.     528.     530.        2       16        0      .00   144.93 10128.16


*SECNO 3.600

3470 ENCROACHMENT STATIONS=     9660.0   10270.0  TYPE=      1  TARGET=      610.000
   3.600     4.88  1239.18  1237.93      .00  1239.64      .46     2.37      .02  1242.30
   2200.       0.    2200.       0.       0.     405.       0.      97.      36.   1243.10
     .53      .00     5.43      .00     .000     .040     .000     .000  1234.30  9958.04
 .004636     525.     528.     510.        1       15        0      .00   127.55 10085.59


*SECNO 3.700

3470 ENCROACHMENT STATIONS=     9946.9   10100.0  TYPE=      1  TARGET=      153.100
   3.700     5.88  1241.08  1238.88      .00  1241.48      .41     1.84      .00  1248.80
   2200.       0.    2200.       0.       0.     429.       0.     102.      38.   1244.80
     .56      .00     5.13      .00     .000     .040     .000     .000  1235.20  9965.08
 .002717     515.     528.     515.        2       15        0      .00    98.14 10063.23


*SECNO 3.767

3470 ENCROACHMENT STATIONS=     9936.0   10078.3  TYPE=      1  TARGET=      142.300
   3.767     6.76  1242.06  1239.93      .00  1242.57      .51     1.06      .03  1246.10
   2200.       0.    2200.       0.       0.     386.       0.     105.      38.   1248.10
     .58      .00     5.71      .00     .000     .040     .000     .000  1235.30  9974.71
 .003295     355.     354.     355.        2       15        0      .00    86.28 10061.00


CCHV=     .100 CEHV=     .300
*SECNO 3.840

3470 ENCROACHMENT STATIONS=     9952.0   10073.6  TYPE=      1  TARGET=      121.600
        FROM SECTION 3.840 TO SECTION 4.422, SKUNK CREEK IS CHANNELIZED.
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


    3.840     4.50  1243.50  1242.64      .00  1244.25      .75     1.60      .07  1246.50
    2200.       0.    2200.       0.       0.     317.       0.     108.      39.   1250.20
      .60      .00     6.95      .00     .000     .035     .000     .000  1239.00  9958.96
  .005430     370.     385.     390.        2       11        0      .00    94.53 10053.49


*SECNO 3.916

3470 ENCROACHMENT STATIONS=     9930.0   10076.0  TYPE=      1  TARGET=      146.000
    3.916     3.96  1245.56  1244.41      .00  1246.03      .47     1.75      .03  1252.80
    2200.       0.    2200.       0.       0.     399.       0.     111.      40.   1252.70
      .62      .00     5.51      .00     .000     .035     .000     .000  1241.60  9941.24
  .003593     390.     401.     410.        2       14        0      .00   123.07 10064.31


*SECNO 4.000

3470 ENCROACHMENT STATIONS=     9907.0   10074.0  TYPE=      1  TARGET=      167.000
    4.000     3.34  1247.54  1247.01      .00  1248.27      .72     2.16      .08  1255.10
    2200.       0.    2200.       0.       0.     323.       0.     115.      41.   1254.60
      .63      .00     6.82      .00     .000     .035     .000     .000  1244.20  9941.06
  .006988     430.     444.     460.        1       19        0      .00   119.55 10060.62


*SECNO 4.057

3470 ENCROACHMENT STATIONS=     9920.0   10140.0  TYPE=      1  TARGET=      220.000
    4.057     3.86  1249.36  1248.37      .00  1249.89      .53     1.61      .02  1257.00
    2200.       0.    2200.       0.       0.     377.       0.     117.      42.   1258.80
      .65      .00     5.84      .00     .000     .035     .000     .000  1245.50  9938.12
  .004221     300.     301.     300.        2       15        0      .00   120.66 10058.78


*SECNO 4.082

3265 DIVIDED FLOW

        DOWNSTREAM FACE OF UNION HILLS BRIDGE.  BRIDGE IS MODELED AS OPEN
        CHANNEL FLOW, WITH GR POINTS DEFINING THE PIERS.
    4.082     4.14  1250.04  1249.07      .00  1250.64      .60      .72      .02  1265.20
    2200.       0.    2200.       0.       0.     354.       0.     119.      43.   1258.40
      .66      .00     6.21      .00     .000     .035     .000     .000  1245.90  9767.68
  .005513     300.     150.      10.        2       15        0      .00   109.20  9882.83
```

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SECNO | DEPTH | CWSEL | CRIWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

*SECNO 4.131

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
UPSTREAM FACE OF UNION HILLS BRIDGE.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 4.131 | 3.39 | 1251.59 | 1251.59 | .00 | 1252.71 | 1.12 | 1.86 | .15 | 1263.50 |
| 2200. | 0. | 2200. | 0. | 0. | 260. | 0. | 120. | 43. | 1263.60 |
| .66 | .00 | 8.48 | .00 | .000 | .035 | .000 | .000 | 1248.20 | 9835.90 |
| .015793 | 214. | 214. | 214. | 0 | 15 | 0 | .00 | 119.41 | 9961.27 |

*SECNO 4.177

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.33

3470 ENCROACHMENT STATIONS= 9930.0 10090.0 TYPE= 1 TARGET= 160.000

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 4.177 | 4.04 | 1253.74 | 1252.34 | .00 | 1254.17 | .43 | 1.39 | .07 | 1262.10 |
| 2200. | 0. | 2200. | 0. | 0. | 417. | 0. | 122. | 44. | 1261.20 |
| .67 | .00 | 5.27 | .00 | .000 | .035 | .000 | .000 | 1249.70 | 9945.92 |
| .002905 | 10. | 245. | 450. | 3 | 15 | 0 | .00 | 117.72 | 10063.63 |

*SECNO 4.300

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .63

3470 ENCROACHMENT STATIONS= 9910.0 10088.0 TYPE= 1 TARGET= 178.000

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 4.300 | 3.24 | 1256.34 | 1255.84 | .00 | 1257.09 | .75 | 2.83 | .09 | 1263.90 |
| 2200. | 0. | 2200. | 0. | 0. | 317. | 0. | 128. | 46. | 1263.00 |
| .70 | .00 | 6.94 | .00 | .000 | .035 | .000 | .000 | 1253.10 | 9939.06 |
| .007251 | 630. | 649. | 680. | 4 | 14 | 0 | .00 | 118.58 | 10057.64 |

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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO 4.406

3470 ENCROACHMENT STATIONS=     9913.0   10089.0  TYPE=      1  TARGET=      176.000
    4.406     4.05  1259.35  1258.17      .00  1259.72      .37     2.59      .04  1268.50
    2000.       0.    2000.       0.       0.     408.       0.     132.      47.   1267.40
      .73      .00     4.90      .00     .000     .035     .000     .000  1255.30  9930.74
  .003097     530.     560.     580.        2       15        0      .00   135.54 10066.28


*SECNO 4.415

3265 DIVIDED FLOW

         DOWNSTREAM FACE OF 59TH AVENUE BRIDGE.  BRIDGE IS MODELED AS OPEN
         CHANNEL FLOW, WITH GR POINTS DEFINING THE PIERS.
    4.415     3.38  1259.48  1258.63      .00  1259.97      .49      .21      .03  1269.30
    2000.       0.    2000.       0.       0.     357.       0.     133.      47.   1270.00
      .74      .00     5.60      .00     .000     .035     .000     .000  1256.10  9935.57
  .005064      55.      55.      55.        2       14        0      .00   128.88 10067.13


*SECNO 4.436

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.82

         UPSTREAM FACE OF 59TH AVENUE BRIDGE.
    4.436     4.83  1260.03  1257.86      .00  1260.25      .22      .25      .03  1268.80
    2000.       0.    2000.       0.       0.     532.       0.     134.      48.   1269.20
      .74      .00     3.76      .00     .000     .035     .000     .000  1255.20  9933.41
  .001523     100.     100.     100.        2       15        0      .00   134.74 10070.77


*SECNO 4.445

3470 ENCROACHMENT STATIONS=     9893.0   10112.0  TYPE=      1  TARGET=      219.000
    4.445     3.95  1260.15  1258.22      .00  1260.32      .17      .07      .00  1269.90
    2000.       0.    2000.       0.       0.     605.       0.     134.      48.   1268.90
      .75      .00     3.31      .00     .000     .035     .000     .000  1256.20  9916.28
  .001177      50.      50.      50.        2       18        0      .00   174.99 10091.27
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECNO 4.500

3470 ENCROACHMENT STATIONS=     9770.0   10160.0  TYPE=      1  TARGET=      390.000
   4.500      4.31  1260.51  1258.60      .00  1260.64      .12      .31      .00  1268.10
   2000.        0.    2000.       0.       0.     710.       0.     139.      49.   1267.80
     .78       .00     2.82      .00     .000     .035     .000     .000  1256.20  9874.72
 .000985      290.     290.     290.        2       14        0      .00   230.46 10105.18

*SECNO 4.600

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .39

3470 ENCROACHMENT STATIONS=     9845.0   10183.0  TYPE=      1  TARGET=      338.000
   4.600      3.08  1261.38  1260.90      .00  1261.80      .42     1.07      .09  1271.10
   2000.        0.    2000.       0.       0.     385.       0.     145.      52.   1269.90
     .80       .00     5.20      .00     .000     .035     .000     .000  1258.30  9897.71
 .006364      530.     528.     530.        2       14        0      .00   201.70 10099.41

*SECNO 4.674

3470 ENCROACHMENT STATIONS=     9750.0   10190.0  TYPE=      1  TARGET=      440.000
   4.674      3.41  1264.11  1263.74      .00  1264.61      .50     2.79      .02  1272.60
   2000.        0.    2000.       0.       0.     354.       0.     149.      54.   1270.70
     .82       .00     5.65      .00     .000     .035     .000     .000  1260.70  9904.72
 .008057      390.     391.     390.        3        5        0      .00   195.46 10100.18

*SECNO 4.721

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.54

3470 ENCROACHMENT STATIONS=     9800.0   10225.0  TYPE=      1  TARGET=      425.000
        IMMEDIATELY UPSTREAM OF 57TH AVENUE DIP SECTION.
   4.721      4.62  1265.62  1264.80      .00  1265.87      .25     1.24      .02  1272.90
   2000.        0.    2000.       0.       0.     498.       0.     151.      55.   1270.00
     .84       .00     4.02      .00     .000     .035     .000     .000  1261.00  9894.69
 .003393      240.     248.     260.        2        8        0      .00   239.40 10134.09
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


*SECNO 4.770
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    4.770     3.55  1267.15  1267.15      .00  1267.83      .68     1.60      .13  1277.40
    2000.      0.    2000.      0.       0.     303.       0.     154.      56.   1277.10
      .85     .00     6.60      .00     .000     .035     .000     .000  1263.60  9899.24
  .014600     265.     259.     240.        0       14        0      .00   206.92 10106.16


*SECNO 4.870

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.86

    4.870     3.08  1269.78  1268.48      .00  1269.95      .17     2.07      .05  1277.60
    2000.      0.    2000.      0.       0.     602.       0.     159.      59.   1277.50
      .90     .00     3.32      .00     .000     .035     .000     .000  1266.70  9858.59
  .001787     610.     528.     420.        6        8        0      .00   238.92 10097.51


*SECNO 4.893

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .39

    4.893     3.73  1269.53  1269.43      .00  1270.69     1.16      .45      .30  1275.10
    2000.      0.    2000.      0.       0.     231.       0.     160.      59.   1275.20
      .90     .00     8.65      .00     .000     .035     .000     .000  1265.80  9944.76
  .011920     150.     121.     110.        4       11        0      .00    90.16 10034.93


*SECNO 4.922
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9842.0   10134.0  TYPE=      1  TARGET=      292.000
        IMMEDIATELY DOWNSTREAM AT 55TH AVENUE CHANNEL.
    4.922     2.32  1272.22  1272.22      .00  1273.16      .94     2.03      .02  1276.50
    2000.      0.    2000.      0.       0.     257.       0.     161.      60.   1278.40
      .90     .00     7.79      .00     .000     .035     .000     .000  1269.90  9948.09
  .014846     155.     153.     145.        0       14        0      .00   138.80 10086.89
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO 4.945

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9940.0   11340.0  TYPE=      1  TARGET=     1400.000
   4.945     3.71  1274.01  1274.01      .00  1275.52     1.50     1.68      .17  1279.10
   2000.       0.    2000.       0.       0.     203.       0.     162.      60.   1276.70
     .91      .00     9.83      .00     .000     .035     .000     .000  1270.30  9955.10
 .012952     115.     121.     210.        0       14        0      .00    68.70 10023.79


*SECNO 4.974

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.08


3470 ENCROACHMENT STATIONS=     9957.0   10700.0  TYPE=      1  TARGET=      743.000
   4.974     5.51  1275.81  1273.13      .00  1276.11      .30      .48      .12  1281.70
   2000.       0.    2000.       0.       0.     453.       0.     163.      60.   1279.50
     .92      .00     4.42      .00     .000     .035     .000     .000  1270.30  9973.99
 .001362     155.     153.      80.        2       15        0      .00    92.95 10066.94


*SECNO 5.008

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.80


3470 ENCROACHMENT STATIONS=     9873.0   10086.0  TYPE=      1  TARGET=      213.000
   5.008     5.85  1276.15  1272.34      .00  1276.26      .11      .13      .02  1279.50
   2000.       0.    2000.       0.       0.     755.       0.     165.      61.   1285.70
     .94      .00     2.65      .00     .000     .035     .000     .000  1270.30  9927.66
 .000422     190.     180.     175.        2       18        0      .00   139.49 10067.15


*SECNO 5.080
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .43


3470 ENCROACHMENT STATIONS=     9921.0   10250.0  TYPE=      1  TARGET=     329.000
    5.080     4.28  1276.28  1274.62      .00  1276.65      .36      .31      .08  1282.00
    2000.       0.    2000.       0.       0.     413.       0.     170.      62.   1283.60
      .96      .00     4.84      .00     .000     .035     .000     .000  1272.00  9934.94
  .002293     375.     380.     385.        2       14        0      .00   110.50 10045.44


CCHV=     .100 CEHV=     .300
*SECNO 5.103

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .59

         APPROXIMATE LOCATION OF 54TH AVENUE DIP SECTION.
    5.103     4.18  1276.58  1275.43      .00  1277.14      .56      .44      .06  1281.90
    2000.       0.    2000.       0.       0.     334.       0.     171.      62.   1284.40
      .96      .00     5.98      .00     .000     .045     .000     .000  1272.40  9940.01
  .006504     120.     121.     120.        2       19        0      .00    97.96 10037.97


*SECNO 5.118

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     8790.0   10250.0  TYPE=      1  TARGET=    1460.000
    5.118     6.45  1277.85  1277.85      .00  1279.92     2.08      .84      .46  1282.30
    2000.       0.    2000.       0.       0.     173.       0.     172.      62.   1283.40
      .97      .00    11.57      .00     .000     .045     .000     .000  1271.40  9976.68
  .020450      75.      79.     100.        0       14        0      .00    42.46 10019.14


*SECNO 5.159

3301 HV CHANGED MORE THAN HVINS
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.54


3470 ENCROACHMENT STATIONS=     9000.0   10175.0  TYPE=      1  TARGET=     1175.000
   5.159     8.53  1280.93  1277.69      .00  1281.49      .55     1.41      .15  1283.90
   2000.       0.    2000.       0.       0.     335.       0.     173.      63.   1285.30
     .98      .00     5.97      .00     .000     .045     .000     .000  1272.40  9978.88
 .003173     220.     216.     165.        3       15        0      .00    53.80 10032.68


*SECNO 5.204

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.15


3470 ENCROACHMENT STATIONS=     8965.0   10250.0  TYPE=      1  TARGET=     1285.000
   5.204     8.14  1281.64  1276.48      .00  1281.70      .06      .17      .05  1282.50
   2000.       0.    2000.       0.       0.    1002.       0.     177.      63.   1286.50
    1.01      .00     2.00      .00     .000     .045     .000     .000  1273.50  9938.27
 .000321     220.     230.     220.        2       22        0      .00   159.52 10097.79


*SECNO 5.263

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .49


3470 ENCROACHMENT STATIONS=     9587.0   10700.0  TYPE=      1  TARGET=     1113.000
        A LARGE BORROW PIT IN THE LEFT OVERBANK IS NOT EFFECTIVE FLOW AREA.
        THIS AREA HAS BEEN MODELED AS THOUGH THE HOLE WAS FILLED TO ELEVATION
        1286.0.
   5.263     6.16  1281.76  1278.83      .00  1281.92      .15      .18      .03  1283.60
   2000.       0.    2000.       0.       0.     634.       0.     183.      64.   1286.00
    1.04      .00     3.16      .00     .000     .045     .000     .000  1275.60  9984.62
 .001322     320.     320.     320.        2       18        0      .00   146.59 10131.21


*SECNO 5.364

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.17

   5.364     7.07  1282.07  1277.74      .00  1282.09      .02      .16      .01  1288.10
   2000.       0.    2000.       0.       0.    1758.       0.     197.      67.   1287.10
    1.17      .00     1.14      .00     .000     .045     .000     .000  1275.00  9966.03
 .000132     540.     533.     520.        2       13        0      .00   335.76 10301.80
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| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SECNO | DEPTH | CWSEL | CRIWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

CCHV= .100 CEHV= .300
*SECNO 5.397

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .50

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 5.397 | 5.38 | 1282.08 | 1279.38 | .00 | 1282.15 | .07 | .04 | .01 | 1287.80 |
| 2000. | 0. | 2000. | 0. | 0. | 953. | 0. | 203. | 68. | 1287.10 |
| 1.19 | .00 | 2.10 | .00 | .000 | .040 | .000 | .000 | 1276.70 | 9987.01 |
| .000531 | 155. | 174. | 190. | 2 | 22 | 0 | .00 | 246.25 | 10233.26 |

*SECNO 5.432

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.60

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 5.432 | 5.88 | 1282.18 | 1278.66 | .00 | 1282.21 | .03 | .06 | .00 | 1288.90 |
| 2000. | 0. | 2000. | 0. | 0. | 1372. | 0. | 208. | 70. | 1290.10 |
| 1.22 | .00 | 1.46 | .00 | .000 | .040 | .000 | .000 | 1276.30 | 9983.27 |
| .000208 | 140. | 185. | 220. | 2 | 18 | 0 | .00 | 303.35 | 10286.62 |

*SECNO 5.500

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .24

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 5.500 | 3.04 | 1282.24 | 1281.35 | .00 | 1282.46 | .21 | .19 | .05 | 1281.70 |
| 2000. | 149. | 1851. | 0. | 86. | 484. | 0. | 216. | 72. | 1293.70 |
| 1.25 | 1.72 | 3.82 | .00 | .048 | .040 | .000 | .000 | 1279.20 | 9721.10 |
| .003512 | 310. | 359. | 290. | 2 | 22 | 0 | .00 | 316.52 | 10042.71 |

*SECNO 5.579

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


    5.579     3.96   1286.76   1286.76       .00   1287.77      1.01      2.61       .24   1289.10
    2000.     405.     1595.       0.       83.      184.        0.      220.       74.    1294.30
     1.27     4.91      8.69       .00      .048      .040      .000      .000   1282.80   9826.34
  .015391     330.      417.      375.         0        11         0       .00    133.42  10032.72


*SECNO 5.679

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.51

    5.679     4.37   1292.47   1291.76       .00   1292.88       .42      5.05       .06   1295.00
    2000.       0.     2000.       0.        0.      387.        0.      223.       76.    1294.50
     1.29      .00      5.17       .00      .000      .040      .000      .000   1288.10   9934.32
  .006776     410.      528.      520.         5        15         0       .00    175.22  10109.54


*SECNO 5.754

3470 ENCROACHMENT STATIONS=     9953.0   10092.0  TYPE=      1  TARGET=      139.000
    5.754     4.50   1295.40   1294.73       .00   1296.07       .67      3.11       .08   1297.10
    2000.       0.     2000.       0.        0.      305.        0.      227.       77.    1298.70
     1.31      .00      6.55       .00      .000      .040      .000      .000   1290.90   9961.90
  .008064     410.      422.      360.         3        15         0       .00    110.21  10072.11


*SECNO 5.837

3470 ENCROACHMENT STATIONS=     9774.0   10155.0  TYPE=      1  TARGET=      381.000
    5.837     3.94   1299.04   1298.27       .00   1299.46       .43      3.37       .02   1300.80
    2000.       0.     2000.       0.        0.      380.        0.      230.       79.    1301.70
     1.33      .00      5.26       .00      .000      .040      .000      .000   1295.10   9885.24
  .007351     450.      438.      425.         3        19         0       .00    178.71  10063.94


CCHV=     .100 CEHV=     .300
*SECNO 5.881

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  4.43
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  SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
  Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
  TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
  SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


3470 ENCROACHMENT STATIONS=     9820.0   10136.0  TYPE=      1  TARGET=      316.000
        FROM SECTION 5.881 TO SECTION 6.568, SKUNK CREEK IS CHANNELIZED.
   5.881     4.37  1299.67  1296.95      .00  1299.73      .06      .23      .04  1306.10
   2000.       0.    2000.       0.       0.    1004.       0.     234.      80.   1306.80
    1.37      .00     1.99      .00     .000     .035     .000     .000  1295.30  9844.36
  .000374    230.     232.     230.        3       18        0      .00   264.97 10109.33


*SECNO 5.970
   5.970     4.07  1299.87  1297.52      .00  1299.95      .08      .21      .01  1305.50
   2000.       0.    2000.       0.       0.     875.       0.     244.      83.   1305.20
    1.42      .00     2.28      .00     .000     .035     .000     .000  1295.80  9881.47
  .000544    500.     470.     430.        3       18        0      .00   248.86 10130.33


*SECNO 5.973

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .55

        LOWER WALL OF DROP STRUCTURE DOWNSTREAM OF HAVASUPAI DRIVE.
   5.973     2.52  1299.82  1298.59      .00  1299.99      .17      .01      .03  1305.10
   2000.       0.    2000.       0.       0.     605.       0.     244.      83.   1305.10
    1.43      .00     3.31      .00     .000     .035     .000     .000  1297.30  9879.97
  .001817     16.      16.      16.        2       17        0      .00   240.06 10120.03


*SECNO 5.977
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1306.10 ELREA=      1306.10

        UPPER WALL OF DROP STRUCTURE AT HAVASUPAI DRIVE.
   5.977     3.22  1302.12  1302.12      .00  1302.76      .65      .09      .14  1306.10
   2000.       0.    2000.       0.       0.     310.       0.     244.      83.   1306.10
    1.43      .00     6.45      .00     .000     .035     .000     .000  1298.90  9879.98
  .017011     21.      21.      21.        0       11        0      .00   240.04 10120.02


*SECNO 5.982
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  4.32

        HAVASUPAI DRIVE DIP SECTION.
   5.982     3.58  1302.78  1301.05      .00  1302.88      .10      .06      .05  1301.70
   2000.       6.    1985.       10.       9.     775.      15.     245.      83.   1301.70
    1.43      .66     2.56      .66     .045     .035     .045     .000  1299.20  9841.26
 .000911      26.      26.      26.        2       11        0      .00   317.50 10158.76


*SECNO 5.990
   5.990     5.13  1302.83  1300.50      .00  1302.91      .08      .03      .00  1306.30
   2000.       0.    2000.       0.       0.     905.       0.     246.      83.   1306.80
    1.43      .00     2.21      .00     .000     .035     .000     .000  1297.70  9864.21
 .000536      42.      42.      42.        2       19        0      .00   266.85 10131.07


*SECNO 6.089
   6.089     4.48  1303.18  1301.36      .00  1303.29      .11      .37      .01  1309.30
   2000.       0.    2000.       0.       0.     745.       0.     256.      86.   1309.90
    1.49      .00     2.68      .00     .000     .035     .000     .000  1298.70  9878.18
 .000952     480.     523.     525.        2       11        0      .00   253.71 10131.89


*SECNO 6.189
        CONFLUENCE WITH SCATTER WASH.
   6.189     4.65  1303.65  1301.64      .00  1303.75      .10      .46      .00  1310.80
   2000.       0.    2000.       0.       0.     776.       0.     265.      89.   1309.90
    1.55      .00     2.58      .00     .000     .035     .000     .000  1299.00  9873.91
 .000811     505.     528.     505.        2       14        0      .00   248.70 10122.61


*SECNO 6.219

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .44

   6.219     4.06  1303.66  1302.20      .00  1304.03      .38      .20      .08  1309.90
   1600.       0.    1600.       0.       0.     324.       0.     267.      90.   1309.90
    1.55      .00     4.94      .00     .000     .035     .000     .000  1299.60  9954.53
 .002694     180.     158.      40.        2       11        0      .00    95.43 10049.96
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO 6.223
         LOWER WALL OF DROP STRUCTURE.
    6.223     3.30  1303.60  1302.61      .00  1304.17      .57      .08      .06  1308.50
    1600.       0.    1600.       0.       0.     264.       0.     267.      90.   1308.50
     1.56      .00     6.05      .00     .000     .035     .000     .000  1300.30  9959.96
  .004592      40.      23.      20.        2       11        0      .00    80.08 10040.04


*SECNO 6.227

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
         UPPER WALL OF DROP STRUCTURE.
    6.227     2.31  1307.31  1307.31      .00  1308.47     1.17      .14      .18  1310.00
    1600.       0.    1600.       0.       0.     185.       0.     267.      90.   1310.00
     1.56      .00     8.67      .00     .000     .035     .000     .000  1305.00  9959.95
  .014715      10.      19.      10.        0       19        0      .00    80.09 10040.05


-SECNO 6.230

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.33

    6.230     5.02  1308.42  1306.29      .00  1308.62      .20      .05      .10  1313.30
    1600.       0.    1600.       0.       0.     449.       0.     267.      90.   1310.30
     1.56      .00     3.57      .00     .000     .035     .000     .000  1303.40  9935.53
  .001327      16.      16.      16.        3       11        0      .00   127.42 10062.94


*SECNO 6.298
    6.298     5.34  1308.94  1307.09      .00  1309.19      .26      .56      .02  1313.20
    1600.       0.    1600.       0.       0.     394.       0.     271.      91.   1313.10
     1.58      .00     4.06      .00     .000     .035     .000     .000  1303.60  9929.96
  .001825     360.     359.     360.        3       19        0      .00   116.72 10046.68


*SECNO 6.356
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .52

   6.356     4.72  1309.52  1308.83      .00  1310.31      .79      .96      .16  1316.30
   1600.       0.    1600.       0.       0.     224.       0.     273.      92.   1314.90
    1.59      .00     7.14      .00     .000     .035     .000     .000  1304.80  9957.17
 .006640     315.     306.     305.        2       15        0      .00    74.76 10031.93


CCHV=     .300 CEHV=     .500
*SECNO 6.361

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.31

        DOWNSTREAM FACE OF 5-10'X6' CONCRETE BOX CULVERTS AT WAHALLA DRIVE.
   6.361     4.81  1309.81  1308.02      .00  1310.41      .60      .04      .06  1315.90
   1600.       0.    1600.       0.       0.     257.       0.     273.      92.   1315.90
    1.59      .00     6.23      .00     .000     .015     .000     .000  1305.00  9973.26
 .000606      60.      26.       5.        2       14        0      .00    53.49 10026.74


SPECIAL BRIDGE

SB  XK       XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
    1.25      1.56      2.90       .00    53.30      3.30    300.00      .00   1305.00   1305.00

*SECNO 6.377
CLASS A LOW FLOW

3420 BRIDGE W.S.=    1309.69 BRIDGE VELOCITY=      6.83     CALCULATED CHANNEL AREA=      234.

 EGPRS      EGLWC       H3      QWEIR      QLOW      BAREA   TRAPEZOID      ELLC     ELTRD     WEIRLN
                                                              AREA
      .00   1310.54      .18        0.     1600.      300.      300.     1311.00   1314.90        0.


        UPSTREAM FACE OF 5-10'X6' CONCRETE BOX CULVERTS AT WAHALLA DRIVE.
        SPECIAL BRIDGE METHOD USED.
   6.377     4.98  1309.98      .00      .00  1310.54      .56      .14      .00  1315.90
   1600.       0.    1600.       0.       0.     266.       0.     273.      92.   1315.90
    1.60      .00     6.01      .00     .000     .015     .000     .000  1305.00  9973.25
 .000542      72.      72.      72.        0        0        0      .00    53.49 10026.75
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST

*SECNO 6.378

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.70

    6.378     5.42  1310.42  1307.38      .00  1310.65      .23      .00      .10  1315.90
    1600.       0.    1600.       0.       0.     418.       0.     273.      92.   1315.90
     1.60      .00     3.83      .00     .000     .015     .000     .000  1305.00  9961.45
  .000187      10.      10.      10.        2       11        0      .00    77.10 10038.55

*SECNO 6.379

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
        DROP STRUCTURE INTO BOX CULVERTS AT WAHALLA DRIVE.
    6.379     2.37  1313.37  1313.37      .00  1314.56     1.19      .00      .48  1315.90
    1600.       0.    1600.       0.       0.     183.       0.     273.      92.   1315.90
     1.60      .00     8.77      .00     .000     .015     .000     .000  1311.00  9961.45
  .002683       0.       0.       0.        0       14        0      .00    77.10 10038.55

CCHV=     .100 CEHV=     .300
*SECNO 6.389

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     9936.0   10081.0  TYPE=      1  TARGET=      145.000
    6.389     5.34  1314.44  1312.53      .00  1314.78      .34      .13      .09  1315.20
    1600.       0.    1600.       0.       0.     343.       0.     274.      92.   1315.60
     1.60      .00     4.67      .00     .000     .035     .000     .000  1309.10  9954.92
  .002208      10.      53.      85.        3       11        0      .00    94.82 10049.74

*SECNO 6.471

3470 ENCROACHMENT STATIONS=     9960.0   10400.0  TYPE=      1  TARGET=      440.000
    6.471     4.01  1315.61  1314.58      .00  1316.15      .53     1.31      .06  1318.30
    1600.       0.    1600.       0.       0.     273.       0.     277.      93.   1318.00
     1.62      .00     5.86      .00     .000     .035     .000     .000  1311.60  9969.85
  .004400     380.     433.     480.        2       11        0      .00    90.07 10059.92
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


CCHV=     .100 CEHV=     .300
*SECNO 6.568

3470 ENCROACHMENT STATIONS=     9930.0   10089.0  TYPE=      1  TARGET=      159.000
    6.568     5.03  1317.63  1315.95      .00  1318.04      .41     1.88      .01  1320.80
    1600.       0.    1600.       0.       0.     312.       0.     280.      94.   1319.20
     1.65      .00     5.13      .00     .000     .038     .000     .000  1312.60  9964.48
  .003107     510.     512.     525.        2       15        0      .00    85.30 10049.78


*SECNO 6.615

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9845.0   10300.0  TYPE=      1  TARGET=      455.000
    6.615     5.24  1318.54  1317.45      .00  1318.92      .37      .88      .00  1318.70
    1600.      81.    1519.       0.      37.     303.       0.     282.      95.   1320.30
     1.66     2.22     5.01      .00     .045     .038     .000     .000  1313.30  9869.66
  .004093     230.     248.     260.        0       15        0      .00   151.56 10032.83


*SECNO 6.717

3470 ENCROACHMENT STATIONS=     9953.0   10270.0  TYPE=      1  TARGET=      317.000
    6.717     4.84  1320.44  1319.03      .00  1320.68      .24     1.74      .01  1321.30
    1600.       0.    1600.       0.       0.     411.       0.     287.      97.   1320.90
     1.70      .00     3.89      .00     .000     .038     .000     .000  1315.60  9958.59
  .002632     480.     539.     515.        1       23        0      .00   151.54 10110.13


*SECNO 6.779

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .63

    6.779     2.41  1321.71  1321.23      .00  1321.98      .27     1.29      .01  1322.20
    1600.       0.    1600.       0.       0.     387.       0.     290.      98.   1322.90
     1.72      .00     4.14      .00     .000     .038     .000     .000  1319.30  9886.35
  .006609     340.     327.     290.        2       18        0      .00   260.29 10146.64


*SECNO 6.809
        INTERSECTION OF 43RD AVENUE AND BEARDSLEY ROAD DIP SECTION.
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


    6.809     3.84  1322.54  1321.66      .00  1322.91      .37      .90      .03  1324.30
    1600.       0.    1578.      22.       0.     322.      19.     291.      99.  1322.30
     1.73      .00     4.90     1.14     .000     .038     .045     .000  1318.70  9974.37
  .004994     200.     158.      85.        2       11        0      .00   195.02 10169.39


*SECNO 6.831

3470 ENCROACHMENT STATIONS=     9822.0   10137.0  TYPE=      1  TARGET=      315.000
    6.831     2.74  1323.24  1322.54      .00  1323.47      .23      .54      .01  1324.90
    1600.       0.    1600.       0.       0.     419.       0.     292.      99.  1325.10
     1.74      .00     3.82      .00     .000     .038     .000     .000  1320.50  9884.73
  .004401     150.     116.      70.        2       11        0      .00   234.47 10119.20


*SECNO 6.896
    6.896     4.49  1324.89  1324.22      .00  1325.31      .43     1.79      .06  1327.40
    1600.       0.    1600.       0.       0.     305.       0.     295.     101.  1327.20
     1.76      .00     5.25      .00     .000     .038     .000     .000  1320.40  9950.42
  .006277     400.     343.     300.        1       14        0      .00   136.85 10087.27


*SECNO 7.000

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.49

    7.000     4.25  1327.25  1325.84      .00  1327.55      .30     2.22      .01  1329.50
    1600.       0.    1600.       0.       0.     365.       0.     299.     102.  1346.20
     1.80      .00     4.39      .00     .000     .038     .000     .000  1323.00  9976.22
  .002824     590.     549.     500.        2       14        0      .00   117.45 10093.67


CCHV=     .100 CEHV=     .300
*SECNO 7.100

3470 ENCROACHMENT STATIONS=     9823.0   10027.0  TYPE=      1  TARGET=      204.000
        SECTION 7.100 TO SECTION 7.409 SKUNK CREEK IS CHANNELIZED.
    7.100     4.55  1329.25  1328.74      .00  1329.63      .38     2.06      .02  1332.10
    1600.       0.    1600.       0.       0.     323.       0.     303.     104.  1334.90
     1.82      .00     4.95      .00     .000     .035     .000     .000  1324.70  9845.77
  .005710     470.     528.     510.        3       10        0      .00   167.51 10013.28
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST

*SECNO 7.174

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9960.0   10038.0  TYPE=      1  TARGET=       78.000
   7.174     5.68  1331.78  1331.78      .00  1333.59     1.81     3.13      .43  1340.30
   1370.       0.    1370.       0.       0.     127.       0.     305.     105.   1339.90
    1.83      .00    10.81      .00     .000     .035     .000     .000  1326.10  9983.84
 .012948     425.     391.     420.        0       11        0      .00    35.62 10019.47

*SECNO 7.244

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.69

3470 ENCROACHMENT STATIONS=     9950.0   10044.0  TYPE=      1  TARGET=       94.000
   7.244     7.82  1334.72  1331.67      .00  1335.13      .41     1.40      .14  1341.50
   1370.       0.    1370.       0.       0.     265.       0.     307.     105.   1340.60
    1.85      .00     5.17      .00     .000     .035     .000     .000  1326.90  9974.42
 .001783     400.     370.     350.        3       15        0      .00    50.87 10025.29

*SECNO 7.327

3470 ENCROACHMENT STATIONS=     9950.0   10040.0  TYPE=      1  TARGET=       90.000
   7.327     8.77  1335.47  1331.56      .00  1335.76      .30      .61      .01  1341.60
   1370.       0.    1370.       0.       0.     314.       0.     310.     106.   1341.50
    1.88      .00     4.36      .00     .000     .035     .000     .000  1326.70  9970.28
 .001133     480.     438.     380.        2       14        0      .00    55.22 10025.50

*SECNO 7.409

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  4.12

        OUTLET FROM ADOBE DAM.
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


    7.409    13.23  1335.83  1326.21      .00  1335.86      .03      .07      .03  1341.40
    1370.       0.    1370.       0.       0.     926.       0.     316.     107.   1341.10
     1.96      .00     1.48      .00     .000     .035     .000     .000  1322.60  9954.74
  .000067     470.     433.     400.        2       18        0      .00    99.81 10054.55


CCHV=     .100 CEHV=     .300
*SECNO -6.189
START TRIB COMP
     -6.189     6.189  1303.648
   -6.189     4.65  1303.65      .00      .00  1303.75      .10      .11     -.00  1310.80
    2000.       0.    2000.       0.       0.     776.       0.     326.     109.   1309.90
     2.02      .00     2.58      .00     .000     .035     .000     .000  1299.00  9873.91
  .000811     505.     528.     505.        0        0        0      .00   248.70 10122.61


*SECNO  .028

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .46

         SCATTER WASH
     .028     3.02  1303.82  1301.88      .00  1303.85      .03      .09      .01  1311.60
     580.       0.     580.       0.       0.     407.       0.     328.     110.   1308.90
     2.05      .00     1.42      .00     .000     .035     .000     .000  1300.80  9923.46
  .000316     100.     148.     170.        2       17        0      .00   156.29 10079.75


*SECNO  .032

3470 ENCROACHMENT STATIONS=     9919.0   10081.0  TYPE=      1  TARGET=      162.000
         LOWER WALL OF DROP STRUCTURE IMMEDIATELY UPSTREAM OF SKUNK CREEK.
     .032     2.43  1303.83  1302.14      .00  1303.86      .03      .01      .00  1308.50
     580.       0.     580.       0.       0.     389.       0.     329.     110.   1308.50
     2.05      .00     1.49      .00     .000     .035     .000     .000  1301.40  9919.97
  .000392      23.      23.      23.        0       14        0      .00   160.07 10080.03


*SECNO  .036
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9919.0   10081.0  TYPE=      1  TARGET=      162.000
         UPPER WALL OF DROP STRUCTURE.
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST

     .036      .74  1306.44  1306.44      .00  1306.81      .37      .02      .10  1311.50
    580.        0.     580.       0.       0.     118.       0.     329.     110.   1311.50
    2.05      .00     4.91      .00     .000     .035     .000     .000  1305.70  9919.99
  .020286     19.      19.      19.        0       17        0      .00   160.03 10080.01

*SECNO  .040

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  4.47

3470 ENCROACHMENT STATIONS=     9897.0   10120.0  TYPE=      1  TARGET=      223.000
     .040     3.54  1306.84  1305.66      .00  1306.90      .06      .06      .03  1312.60
    580.        0.     580.       0.       0.     290.       0.     329.     110.   1313.80
    2.06      .00     2.00      .00     .000     .035     .000     .000  1303.30  9924.72
  .001015     21.      21.      21.        2       20        0      .00   158.99 10083.72

*SECNO  .116

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.51

3470 ENCROACHMENT STATIONS=     9878.0   10100.0  TYPE=      1  TARGET=      222.000
     .116     4.42  1307.12  1305.31      .00  1307.16      .04      .26      .00  1313.40
    580.        0.     580.       0.       0.     373.       0.     332.     111.   1315.20
    2.13      .00     1.56      .00     .000     .035     .000     .000  1302.70  9899.05
  .000445    410.     401.     400.        4       13        0      .00   162.39 10061.44

*SECNO  .184

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .54

3470 ENCROACHMENT STATIONS=     9896.0   10120.0  TYPE=      1  TARGET=      224.000
     .184     3.45  1307.35  1306.20      .00  1307.45      .10      .27      .02  1315.90
    580.        0.     580.       0.       0.     234.       0.     334.     112.   1317.50
    2.17      .00     2.48      .00     .000     .035     .000     .000  1303.90  9934.54
  .001552    340.     359.     350.        2       11        0      .00   128.99 10063.53
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


CCHV=     .300 CEHV=     .500
*SECNO  .200

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.44

        DOWNSTREAM FACE OF 10-10'X5' CONCRETE BOX CULVERTS AT 45TH AVENUE.
    .200     2.10  1307.40  1306.26      .00  1307.50      .10      .04      .00  1316.60
    580.       0.     580.       0.       0.     227.       0.     335.     113.   1316.60
    2.18      .00     2.55      .00     .000     .015     .000     .000  1305.30  9945.78
  .000260     70.      84.      85.        2       14        0      .00   108.44 10054.22



SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
    1.25      1.56      2.90       .00    107.50      7.50    600.00      .00    1305.40   1305.30

*SECNO  .212
CLASS A LOW FLOW

3420 BRIDGE W.S.=    1307.43 BRIDGE VELOCITY=       2.79     CALCULATED CHANNEL AREA=       203.

 EGPRS      EGLWC       H3       QWEIR      QLOW      BAREA   TRAPEZOID      ELLC     ELTRD     WEIRLN
                                                                 AREA
       .00   1307.53      .02        0.      580.      600.      600.     1311.40   1316.20        0.


        UPSTREAM FACE OF 10-10'X6' CONCRETE BOX CULVERTS AT 45TH AVENUE.
        SPECIAL BRIDGE METHOD USED.
    .212     2.02  1307.42      .00      .00  1307.53      .11      .03      .00  1316.50
    580.       0.     580.       0.       0.     219.       0.     335.     113.   1316.50
    2.19      .00     2.65      .00     .000     .015     .000     .000  1305.40  9945.78
  .000296     60.      60.      60.        0        0        0      .00   108.44 10054.22


*SECNO  .213
    .213     2.07  1307.47  1306.25      .00  1307.54      .07      .00      .01  1316.50
    580.       0.     580.       0.       0.     268.       0.     335.     113.   1316.50
    2.19      .00     2.16      .00     .000     .015     .000     .000  1305.40  9935.08
  .000189     10.      10.      10.        2       14        0      .00   129.84 10064.92


*SECNO  .214
7185 MINIMUM SPECIFIC ENERGY
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


3720 CRITICAL DEPTH ASSUMED
        DROP STRUCTURE INTO BOX CULVERTS AT 45TH AVENUE.
    .214      .85  1311.15  1311.15      .00  1311.58      .43      .00      .18  1316.50
    580.       0.     580.       0.       0.     110.       0.     335.     113.   1316.50
    2.19      .00     5.26      .00     .000     .015     .000     .000  1310.30  9935.09
  .003564      0.       0.       0.        0       18        0      .00   129.83 10064.91


CCHV=     .100 CEHV=     .300
*SECNO  .232

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.55


3470 ENCROACHMENT STATIONS=     9859.0   10200.0  TYPE=      1  TARGET=      341.000
    .232     3.44  1311.74  1310.73      .00  1311.82      .08      .21      .03  1317.80
    580.       0.     580.       0.       0.     249.       0.     335.     113.   1317.90
    2.20      .00     2.33      .00     .000     .035     .000     .000  1308.30  9905.69
  .001490     80.      95.     100.        2       20        0      .00   146.97 10052.67


*SECNO  .337

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .44

    .337     2.90  1313.30  1313.08      .00  1313.43      .13     1.60      .02  1320.30
    580.       0.     580.       0.       0.     197.       0.     338.     116.   1321.00
    2.25      .00     2.94      .00     .000     .035     .000     .000  1310.40  9892.75
  .007762    560.     554.     530.        2       13        0      .00   282.96 10175.71


*SECNO  .438

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.71


3470 ENCROACHMENT STATIONS=     9800.0   10265.0  TYPE=      1  TARGET=      465.000
        BOTTOM OF DROP STRUCTURE IMMEDIATELY DOWNSTREAM OF 43RD AVENUE.
    .438     1.82  1314.62  1313.94      .00  1314.65      .03     1.21      .01  1320.60
    580.       0.     580.       0.       0.     393.       0.     342.     120.   1322.40
    2.35      .00     1.48      .00     .000     .035     .000     .000  1312.80  9885.03
  .001061    545.     533.     420.        3       17        0      .00   356.29 10241.32
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO  .441
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9847.0   10273.0  TYPE=      1  TARGET=      426.000
         TOP OF DROP STRUCTURE IMMEDIATELY DOWNSTREAM OF 43RD AVENUE.
     .441      .58  1318.28  1318.28      .00  1318.49      .21      .05      .05  1321.40
     580.       0.     580.       0.       0.     158.       0.     342.     120.   1322.50
     2.35      .00     3.67      .00     .000     .035     .000     .000  1317.70  9873.97
  .024310      16.      16.      16.        0       17        0      .00   383.53 10257.50


*SECNO  .458

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.97


3470 ENCROACHMENT STATIONS=     9800.0   10452.0  TYPE=      1  TARGET=      652.000
         43RD AVENUE DIP SECTION.
         FROM SECTION 0.458 TO SECTION 0.629, ET CARDS ARE USED TO MODEL
         EFFECTIVE FLOW IN BOTH OVERBANKS AT A 1:1 CONTRACTION UPSTREAM FROM
         THE CHANNELIZATION.
     .458     1.82  1319.42  1319.25      .00  1319.49      .07      .99      .01  1319.20
     580.      22.     558.       0.      26.     254.       0.     342.     121.   1319.20
     2.36      .84     2.20      .59     .045     .035     .045     .000  1317.60  9800.00
  .006293      70.      90.     250.       7       14        0      .00   624.14 10424.14


CCHV=     .100 CEHV=     .300
*SECNO  .489

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.41


3470 ENCROACHMENT STATIONS=     9650.0   10700.0  TYPE=      1  TARGET=     1050.000
     .489     1.69  1320.19  1319.72      .00  1320.21      .02      .71      .01  1320.00
     580.     172.     353.      55.     172.     313.      57.     344.     124.   1321.90
     2.41     1.00     1.13      .97     .060     .060     .060     .000  1318.50  9650.00
  .003150     170.     163.     170.        6       18        0      .00   849.88 10687.12
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO  .568

3265 DIVIDED FLOW

     .568     1.56  1321.96  1321.70      .00  1321.99      .03     1.78      .00  1322.30
     580.     151.     358.     71.     154.     246.      53.     349.     133.   1323.60
     2.49      .98     1.46     1.33     .060     .060     .060     .000  1320.40  9361.14
  .006354     435.     417.     300.        3       14        0      .00  1059.87 10729.79


*SECNO  .629

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9491.0   10932.0  TYPE=      1  TARGET=     1441.000
     .629     2.94  1323.54  1323.01      .00  1323.57      .03     1.59      .00  1323.20
     580.     193.      62.     325.     142.      62.     210.     352.     139.   1323.90
     2.55     1.36      .99     1.55     .060     .060     .060     .000  1320.60  9610.15
  .004346     340.     322.     255.        4       11        0      .00   701.83 10742.66


CCHV=     .100 CEHV=     .300
*SECNO  .736

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9840.0   10500.0  TYPE=      1  TARGET=      660.000
     .736     1.66  1325.56  1324.96      .00  1325.61      .05     2.04      .01  1325.60
     580.       0.      40.     540.       2.      19.     298.     356.     145.   1326.50
     2.62      .31     2.14     1.81     .055     .045     .055     .000  1323.90  9914.06
  .004184     600.     565.     440.        4       22        0      .00   365.95 10382.56


*SECNO  .813

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9935.0   10757.0  TYPE=      1  TARGET=      822.000
     .813     3.99  1327.39  1326.76      .00  1327.48      .09     1.85      .01  1326.60
     580.      33.     152.     395.      23.      44.     222.     359.     149.   1326.10
     2.69     1.46     3.49     1.78     .055     .045     .055     .000  1323.40  9964.61
  .003286     370.     407.     525.        2       14        0      .00   340.18 10308.57
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO  .860

3265 DIVIDED FLOW

     .860     1.97  1328.27  1327.81      .00  1328.31      .04      .83      .00  1327.80
     580.     267.      51.     262.     142.      39.     191.     361.     152.   1328.30
     2.73     1.88     1.33     1.37     .055     .045     .055     .000  1326.30  9866.99
  .003463     235.     248.     250.        2       19        0      .00   519.17 10408.08


*SECNO  .949

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .59


3470 ENCROACHMENT STATIONS=     9565.0   10079.0  TYPE=      1  TARGET=      514.000
     .949     2.51  1330.21  1330.01      .00  1330.32      .11     1.99      .02  1330.70
     580.     410.      88.      82.     191.      21.      32.     364.     155.   1330.40
     2.77     2.15     4.15     2.59     .055     .045     .055     .000  1327.70  9662.33
  .009849     320.     470.     410.        3       12        0      .00   365.07 10067.75


CCHV=     .100 CEHV=     .300
*SECNO 1.038

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.60


3470 ENCROACHMENT STATIONS=     9589.0   10050.0  TYPE=      1  TARGET=      461.000
    1.038     2.00  1333.40  1332.94      .00  1333.46      .06     3.14      .00  1332.30
     580.     422.     155.       3.     242.      59.       4.     367.     160.   1332.90
     2.85     1.75     2.61      .73     .050     .040     .050     .000  1331.40  9667.90
  .003869     580.     470.     300.        6       14        0      .00   372.41 10040.31


*SECNO 1.144

3265 DIVIDED FLOW
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS=     9445.0   10400.0  TYPE=      1  TARGET=      955.000
    1.144     4.96  1335.86  1335.85      .00  1336.15      .29     2.62      .07  1336.50
     580.     142.     359.     78.      96.     67.      68.     371.     165.   1335.60
     2.89     1.48     5.37     1.15     .050     .040     .050     .000  1330.90  9772.29
  .005699     590.     560.     410.        3       25        0      .00   443.75 10250.79


*SECNO 1.257

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.54


3470 ENCROACHMENT STATIONS=     9885.0   10167.0  TYPE=      1  TARGET=      282.000
         NEAR BEARDSLEY ROAD DIP SECTION.
    1.257     3.19  1337.09  1335.56      .00  1337.15      .06      .98      .02  1334.00
     580.      73.     396.     111.      50.     181.      99.     374.     168.   1334.60
     2.96     1.45     2.18     1.12     .050     .040     .050     .000  1333.90  9916.60
  .000884     440.     597.     405.        3       17        0      .00   177.72 10094.32


*SECNO 1.336

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9470.0   10937.0  TYPE=      1  TARGET=     1467.000
    1.336     4.65  1339.05  1339.05      .00  1339.35      .30      .86      .07  1339.10
     580.     217.     327.     36.      87.     60.      31.     376.     171.   1340.30
     2.99     2.49     5.47     1.17     .050     .040     .050     .000  1334.40  9807.75
  .010501     360.     417.     440.        0       15        0      .00   317.68 10169.07
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T1      SKUNK CREEK FLOODPLAIN ANALYSIS, FOR FCDMC (#89-72), BY CVL (#1090-05).
T2      ARIZONA CANAL DIVERSION CHANNEL (ACDC) TO ADOBE DAM.
T3      50-YEAR FLOWS,  EXISTING CONDITION    NOV. 1990     (FILE NAME - SKS.FZ)

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0        3        0        0     .0079       0        0        0     1190.6      0

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

      2        0       -1        0        0        0       -1        0        0        0
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


*PROF 2

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS

CCHV=     .100 CEHV=     .300
*SECNO 1.663
        SKUNK CREEK FLOODPLAIN STUDY.
        ARIZONA CANAL DIVERSION CHANNEL (ACDC) TO ADOBE DAM.  INCLUDING SCATTER
        WASH FROM ITS CONFLUENCE WITH SKUNK CREEK TO BEARDSLEY ROAD.
        EXISTING FLOWS PER FEMA.
        PREPARED AS A PART OF THE SKUNK CREEK FLOODPLAIN STUDY, BETWEEN THE
        ACDC AND THE CAP.
        PREPARED FOR THE FLOOD CONTROL DISTRICT OF MARICOPA COUNTY (FCD #89-72)
        PREPARED BY COE & VAN LOO CONSULTING ENGINEERS, 1990.
        TOPOGRAPHIC MAPPING PREPARED BY AERIAL MAPPING COMPANY, INC. FROM
        PHOTOGRAPHS TAKEN IN APRIL 1990.  ELEVATION BASED ON NGVD OF 1929.
        THE CONTROL LINE OF SKUNK CREEK IS STATION 10,000.
        ALL SECTIONS ARE STATIONED LOOKING DOWNSTREAM.
        CROSS SECTION NUMBERS FOR SKUNK CREEK ARE STATIONED IN RIVER MILES FROM
        THE CONFLUENCE WITH NEW RIVER.
        CROSS SECTION NUMBERS FOR SCATTER WASH ARE STATIONED IN RIVER MILES
        FROM THE CONFLUENCE WITH SKUNK CREEK.
        THIS RUN WAS STARTED BASED ON THE SLOPE-AREA METHOD.
        ENCROACHMENT CARDS (ET) WERE USED IN SOME CASES TO BETTER MODEL DEAD OR
        NONEFFECTIVE FLOW AREAS.  IN SOME CASES "SSTA" AND "ENDST" DO NOT
        REPRESENT THE ACTUAL FLOODING LIMITS, AND THE DELINEATION WAS BASED ON
        THE CROSS-SECTION AND THE TOPOGRAPHY.  IN SOME CASES, "TOPWID" DOES NOT
        REPRESENT THE FULL WIDTH OF THE FLOODPLAIN, DUE TO INEFFECTIVE FLOW
        AREAS OR LOW ISLANDS WITHIN THE FLOODPLAIN.
        IMMEDIATELY UPSTREAM OF THE CONFLUENCE WITH ACDC.
   1.663     6.90  1190.60  1190.01  1190.60  1192.55     1.96      .00      .00  1202.10
   6700.       0.    6700.       0.       0.     597.       0.       0.       0.   1201.10
     .00      .00    11.22      .00     .000     .035     .000     .000  1183.70  9941.53
 .007868       0.       0.       0.        0       10        0      .00   112.16 10053.69


*SECNO 1.763
   1.763     7.95  1194.75  1194.21      .00  1196.81     2.06     4.22      .03  1214.40
   6700.       0.    6700.       0.       0.     581.       0.       7.       1.   1203.10
     .01      .00    11.53      .00     .000     .035     .000     .000  1186.80  9945.19
 .008129     510.     528.     530.        1        8        0      .00   108.28 10053.47
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


*SECNO 1.857
    1.857     7.92  1198.52  1197.36       .00  1200.26      1.73      3.41       .03  1213.40
    6700.       0.    6700.       0.        0.     634.        0.       14.        3.   1204.50
      .03      .00    10.56      .00      .000     .035      .000      .000  1190.60  9942.77
  .005901     470.     496.     530.         2       15         0       .00   103.88 10046.65


CCHV=     .100 CEHV=     .300
*SECNO 1.868

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
        IMMEDIATELY DOWNSTREAM OF THE 75TH AVENUE ALIGNMENT.
    1.868     7.34  1198.64  1198.64       .00  1201.29      2.65       .49       .28  1205.10
    6700.       0.    6700.       0.        0.     513.        0.       15.        3.   1203.40
      .03      .00    13.06      .00      .000     .038      .000      .000  1191.30  9946.20
  .012798      50.      58.      65.         0       11         0       .00    98.25 10044.45


*SECNO 1.912

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.75


3470 ENCROACHMENT STATIONS=     9930.0   10061.0  TYPE=      1  TARGET=      131.000
    1.912    11.02  1201.52  1198.97  1197.61  1202.98      1.46      1.57       .12  1215.40
    6700.       0.    6700.       0.        0.     691.        0.       18.        3.   1207.90
      .03      .00     9.69      .00      .000     .038      .000      .000  1190.50  9961.15
  .004196     215.     232.     250.         2        8         0       .00    87.75 10048.90


CCHV=     .100 CEHV=     .300
*SECNO 1.962

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

  1.962      9.83   1202.03   1202.03   1198.05   1205.28      3.25      1.66       .54   1216.20
  6700.        0.     6700.        0.        0.     463.        0.       22.        4.   1209.30
    .04       .00     14.47       .00      .000      .035      .000      .000   1192.20   9966.37
 .010386     220.      264.      280.         0        11         0       .00     72.32  10038.69

*SECNO 2.034

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.21

3470 ENCROACHMENT STATIONS=     9869.0    10060.0  TYPE=      1  TARGET=      191.000
  2.034     12.24   1206.14   1202.24   1201.02   1207.05       .91      1.54       .23   1209.10
  6700.        0.     6700.        0.        0.     873.        0.       27.        4.   1211.50
    .05       .00      7.68       .00      .000      .035      .000      .000   1193.90   9939.28
 .002134     370.      380.      390.         2        15         0       .00    108.87  10048.15

*SECNO 2.129

3470 ENCROACHMENT STATIONS=     9954.0    10070.0  TYPE=      1  TARGET=      116.000
  2.129     10.96   1207.16   1203.78   1202.20   1208.30      1.14      1.18       .07   1216.70
  6700.        0.     6700.        0.        0.     783.        0.       37.        6.   1213.10
    .07       .00      8.55       .00      .000      .035      .000      .000   1196.20   9964.40
 .002588     520.      502.      470.         3        14         0       .00     94.10  10058.50

*SECNO 2.230

3470 ENCROACHMENT STATIONS=     9817.0    10325.0  TYPE=      1  TARGET=      508.000
  2.230      9.54   1209.14   1207.46   1205.48   1209.88       .73      1.54       .04   1219.20
  6700.        0.     6700.        0.        0.     975.        0.       48.        7.   1212.40
    .09       .00      6.87       .00      .000      .035      .000      .000   1199.60   9865.14
 .003248     560.      533.      430.         3        14         0       .00    198.85  10064.00

*SECNO 2.319

3301 HV CHANGED MORE THAN HVINS
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    2.319     4.39  1211.29  1211.29  1210.01  1212.99     1.69     2.67      .29  1220.10
    6700.       0.    6700.       0.       0.     641.       0.      56.      10.   1218.30
      .10      .00    10.45      .00     .000     .035     .000     .000  1206.90  9920.61
  .012316     470.     470.     410.        0       14        0      .00   192.86 10113.47


CCHV=     .300 CEHV=     .500
*SECNO 2.353

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.79

         DOWNSTREAM FACE OF BELL ROAD BRIDGE.
    2.353     7.52  1213.72  1212.09  1211.15  1214.42      .70     1.14      .30  1217.00
    6700.       0.    6700.       0.       0.     995.       0.      60.      10.   1217.50
      .11      .00     6.74      .00     .000     .038     .000     .000  1206.20  9853.44
  .003829     320.     180.      70.        2       11        0      .00   207.22 10060.66


SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
      .90      1.56      2.70       .00     81.00      6.40   1843.90      7.30   1206.20   1205.90

*SECNO 2.379
CLASS A LOW FLOW

3420 BRIDGE W.S.=    1213.79 BRIDGE VELOCITY=       6.60     CALCULATED CHANNEL AREA=       987.

 EGPRS      EGLWC       H3       QWEIR      QLOW      BAREA   TRAPEZOID      ELLC      ELTRD     WEIRLN
                                                                 AREA
       .00   1214.62       .07        0.     6700.     1844.     1848.     1217.80   1222.40        0.


         UPSTREAM FACE OF BELL ROAD BRIDGE, SPECIAL BRIDE METHOD USED.
    2.379     7.89  1213.79       .00  1211.18  1214.62      .83      .20      .00  1217.40
    6700.       0.    6700.       0.       0.     916.       0.      62.      11.   1217.40
      .11      .00     7.32      .00     .000     .038     .000     .000  1205.90  9853.45
  .004977     106.     106.     106.        0        0        0      .00   207.20 10060.66
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


CCHV=     .100 CEHV=     .300
*SECNO 2.422
3280 CROSS SECTION      2.42 EXTENDED      1.22 FEET


3470 ENCROACHMENT STATIONS=     9841.0   10074.0  TYPE=      1  TARGET=      233.000
   2.422     6.72  1214.92  1213.51  1212.60  1215.81      .90     1.18      .02  1220.90
   6700.       0.    6700.       0.       0.     882.       0.      67.      12.   1221.10
     .12      .00     7.60      .00     .000     .035     .000     .000  1208.20  9868.52
 .004187      70.     258.     395.        2       19        0      .00   188.49 10057.01


*SECNO 2.491

3470 ENCROACHMENT STATIONS=     9790.0   10036.6  TYPE=      1  TARGET=      246.600
        IMMEDIATELY DOWNSTREAM OF CONFLUENCE WITH 71ST AVENUE CHANNEL.
   2.491     8.06  1216.56  1215.23  1214.13  1217.31      .75     1.48      .01  1220.90
   6700.       0.    6700.       0.       0.     964.       0.      75.      14.   1218.70
     .14      .00     6.95      .00     .000     .035     .000     .000  1208.50  9805.52
 .003962     310.     364.     370.        2        5        0      .00   226.79 10032.32


*SECNO 2.561

3470 ENCROACHMENT STATIONS=     9913.0   10200.0  TYPE=      1  TARGET=      287.000
   2.561     5.76  1218.16  1217.30  1216.24  1219.12      .95     1.75      .06  1220.90
   6700.       0.    6700.       0.       0.     855.       0.      83.      16.   1224.00
     .15      .00     7.84      .00     .000     .035     .000     .000  1212.40  9924.58
 .005718     290.     370.     400.        2       14        0      .00   221.23 10145.81


*SECNO 2.634

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.11

   2.634     7.42  1219.82  1217.31  1217.44  1220.10      .27      .91      .07  1223.50
   6700.       0.    6700.       0.       0.    1596.       0.      94.      18.   1225.50
     .18      .00     4.20      .00     .000     .035     .000     .000  1212.40  9879.16
 .001290     400.     385.     360.        2       15        0      .00   347.10 10226.26
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECNO 2.720

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .38

    2.720     7.27  1220.47  1220.20  1218.52  1221.57     1.10     1.23      .25  1225.70
    6700.      0.    6700.       0.       0.     795.       0.     106.      21.   1226.20
      .19     .00     8.43      .00     .000     .035     .000     .000  1213.20  9969.90
  .008846    480.     454.     400.        3       10        0      .00   257.26 10227.17


*SECNO 2.801

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.53

    2.801     6.00  1223.30  1222.00  1221.43  1223.98      .67     2.36      .04  1227.50
    6700.      0.    6700.       0.       0.    1017.       0.     115.      24.   1227.60
      .21     .00     6.59      .00     .000     .035     .000     .000  1217.30  9820.94
  .003765    460.     428.     330.        2       14        0      .00   251.93 10072.87


*SECNO 2.900
    2.900     6.89  1225.19  1223.66  1222.96  1225.84      .65     1.86      .00  1228.80
    6700.      0.    6700.       0.       0.    1037.       0.     127.      27.   1229.00
      .23     .00     6.46      .00     .000     .035     .000     .000  1218.30  9820.10
  .003352    470.     523.     530.        3       15        0      .00   240.29 10060.39


CCHV=     .100 CEHV=     .300
*SECNO 3.000
    3.000     7.15  1227.15  1225.55  1224.84  1227.95      .79     2.07      .04  1229.10
    6700.      0.    6700.       0.       0.     937.       0.     139.      29.   1230.20
      .25     .00     7.15      .00     .000     .040     .000     .000  1220.00  9932.53
  .004629    450.     528.     560.        2       15        0      .00   192.08 10124.61


*SECNO 3.077

3470 ENCROACHMENT STATIONS=     9905.5   10126.9  TYPE=      1  TARGET=      221.400
    3.077     6.22  1229.02  1227.33  1226.49  1229.74      .72     1.79      .01  1231.60
    6700.      0.    6700.       0.       0.     984.       0.     148.      31.   1235.10
      .27     .00     6.81      .00     .000     .040     .000     .000  1222.80  9910.41
  .004177    410.     407.     410.        2       14        0      .00   203.83 10114.24
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


*SECNO 3.143

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9965.0   10109.0  TYPE=      1  TARGET=      144.000
   3.143     8.00  1230.40  1229.40  1228.00  1231.91     1.51     1.93      .24  1233.20
   6700.       0.   6700.       0.       0.     679.       0.     155.      33.   1233.90
     .28      .00     9.87      .00     .000     .040     .000     .000  1222.40  9974.05
 .007741     360.     348.     320.        2        8        0      .00   126.88 10100.93


*SECNO 3.200

3470 ENCROACHMENT STATIONS=     9927.0   10085.0  TYPE=      1  TARGET=      158.000
   3.200     7.74  1232.74  1231.47  1229.68  1234.10     1.37     2.18      .01  1236.00
   6700.       0.   6700.       0.       0.     714.       0.     160.      33.   1235.60
     .29      .00     9.38      .00     .000     .040     .000     .000  1225.00  9942.89
 .006769     310.     301.     270.        3       15        0      .00   130.53 10073.42


*SECNO 3.300

3470 ENCROACHMENT STATIONS=     9930.0   10118.0  TYPE=      1  TARGET=      188.000
        FROM SECTION 3.300 TO SECTION 3.400, ET CARDS ARE USED TO MODEL
        EFFECTIVE FLOW AREA IN BOTH OVERBANKS AT A 1:1 CONTRACTION UPSTEAM
        FROM THE CONSTRICTION.
   3.300     9.28  1235.88  1233.63  1232.55  1236.88     1.00     2.74      .04  1239.00
   6700.       0.   6700.       0.       0.     835.       0.     169.      35.   1239.00
     .31      .00     8.02      .00     .000     .040     .000     .000  1226.60  9943.59
 .004095     550.     528.     510.        2       11        0      .00   131.41 10075.00


*SECNO 3.400

3470 ENCROACHMENT STATIONS=     9912.0   10081.0  TYPE=      1  TARGET=      169.000
        FROM SECTION 3.400 TO SECTION 3.840, ET CARDS ARE USED TO MODEL
        EFFECTIVE FLOW AREAS IN BOTH OVERBANKS AT A 4:1 EXPANSION DOWNSTREAM
        FROM THE CHANNELIZATION.
   3.400     8.20  1238.10  1235.76  1234.57  1238.99      .89     2.10      .01  1238.90
   6700.       0.   6700.       0.       0.     884.       0.     180.      37.   1240.80
     .33      .00     7.58      .00     .000     .040     .000     .000  1229.90  9917.48
 .003867     530.     528.     520.        2       14        0      .00   146.80 10064.28
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


*SECNO 3.500

3470 ENCROACHMENT STATIONS=     9570.0   10440.0  TYPE=      1  TARGET=      870.000
    3.500     8.33  1240.23  1237.93  1236.85  1240.96      .72      1.95      .02  1241.70
    6700.       0.    6700.       0.       0.     982.       0.      191.      39.  1242.00
      .35      .00     6.82      .00     .000     .040     .000      .000  1231.90  9975.81
  .003540     520.     528.     530.        2       19        0       .00   179.41 10155.22


*SECNO 3.600

3470 ENCROACHMENT STATIONS=     9660.0   10270.0  TYPE=      1  TARGET=      610.000
    3.600     7.92  1242.22  1240.43  1239.18  1243.24     1.02      2.19      .09  1242.30
    6700.       0.    6700.       0.       0.     825.       0.      202.      41.  1243.10
      .37      .00     8.12      .00     .000     .040     .000      .000  1234.30  9946.51
  .004946     525.     528.     510.        2       19        0       .00   148.86 10095.37


*SECNO 3.700

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9946.9   10100.0  TYPE=      1  TARGET=      153.100
    3.700     9.35  1244.55  1242.01  1241.08  1245.61     1.05      2.36      .01  1248.80
    6700.       0.    6692.       8.       0.     813.       6.      212.      42.  1244.80
      .38      .00     8.23     1.29     .000     .040     .045      .000  1235.20  9954.59
  .004047     515.     528.     515.        2       15        0       .00   137.75 10100.00


*SECNO 3.767

3470 ENCROACHMENT STATIONS=     9936.0   10078.3  TYPE=      1  TARGET=      142.300
    3.767    10.66  1245.96  1243.46  1242.06  1247.07     1.11      1.45      .02  1246.10
    6700.       0.    6700.       0.       0.     791.       0.      218.      43.  1248.10
      .39      .00     8.47      .00     .000     .040     .000      .000  1235.30  9954.68
  .004124     355.     354.     355.        2       15        0       .00   115.00 10069.68


CCHV=     .100 CEHV=     .300
*SECNO 3.840

3470 ENCROACHMENT STATIONS=     9900.0   10073.6  TYPE=      1  TARGET=      173.600
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        FROM SECTION 3.840 TO SECTION 4.422, SKUNK CREEK IS CHANNELIZED.
   3.840     8.42  1247.42  1245.64  1243.50  1248.55     1.12     1.47      .00  1246.50
   6700.     404.    6296.       0.     109.     721.       0.     225.      45.   1250.20
     .41     3.70     8.73      .00     .045     .035     .000     .000  1239.00  9900.00
 .003569     370.     385.     390.        2       14        0      .00   163.30 10063.30


*SECNO 3.916

3470 ENCROACHMENT STATIONS=     9930.0   10076.0  TYPE=      1  TARGET=      146.000
   3.916     7.32  1248.92  1246.83  1245.56  1249.93     1.01     1.37      .01  1252.80
   6700.       0.    6700.       0.       0.     831.       0.     233.      46.   1252.70
     .42      .00     8.07      .00     .000     .035     .000     .000  1241.60  9936.20
 .003281     390.     401.     410.        2       14        0      .00   133.24 10069.44


*SECNO 4.000

3470 ENCROACHMENT STATIONS=     9907.0   10074.0  TYPE=      1  TARGET=      167.000
   4.000     6.30  1250.50  1249.46  1247.54  1251.96     1.46     1.90      .14  1255.10
   6700.       0.    6700.       0.       0.     690.       0.     241.      47.   1254.60
     .43      .00     9.70      .00     .000     .035     .000     .000  1244.20  9935.92
 .005802     430.     444.     460.        2       19        0      .00   129.49 10065.41


*SECNO 4.057

3470 ENCROACHMENT STATIONS=     9920.0   10140.0  TYPE=      1  TARGET=      220.000
   4.057     6.77  1252.27  1250.83  1249.36  1253.53     1.27     1.55      .02  1257.00
   6700.       0.    6700.       0.       0.     741.       0.     246.      48.   1258.80
     .44      .00     9.04      .00     .000     .035     .000     .000  1245.50  9932.98
 .004610     300.     301.     300.        2       15        0      .00   130.27 10063.25


*SECNO 4.082

3265 DIVIDED FLOW

        DOWNSTREAM FACE OF UNION HILLS BRIDGE.  BRIDGE IS MODELED AS OPEN
        CHANNEL FLOW, WITH GR POINTS DEFINING THE PIERS.
   4.082     7.06  1252.96  1251.71  1250.04  1254.44     1.48      .84      .06  1265.20
   6700.       0.    6700.       0.       0.     687.       0.     248.      49.   1258.40
     .45      .00     9.76      .00     .000     .035     .000     .000  1245.90  9762.95
 .006972     300.     150.      10.        2       11        0      .00   118.07  9886.92


*SECNO 4.131
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3265 DIVIDED FLOW

        UPSTREAM FACE OF UNION HILLS BRIDGE.
   4.131     6.32  1254.52  1254.01  1251.59  1256.27     1.75     1.75      .08  1263.50
   6700.       0.    6700.       0.       0.     631.       0.     251.      49.   1263.60
     .45      .00    10.62      .00     .000     .035     .000     .000  1248.20  9827.31
 .009710     214.     214.     214.        2       15        0      .00   132.89  9966.12

*SECNO 4.177

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.56


3470 ENCROACHMENT STATIONS=     9930.0   10090.0  TYPE=      1  TARGET=      160.000
   4.177     6.90  1256.60  1254.86  1253.74  1257.78     1.18     1.46      .06  1262.10
   6700.       0.    6700.       0.       0.     767.       0.     255.      50.   1261.20
     .46      .00     8.73      .00     .000     .035     .000     .000  1249.70  9941.06
 .004005      10.     245.     450.        2       15        0      .00   127.68 10068.74

*SECNO 4.300

3470 ENCROACHMENT STATIONS=     9910.0   10088.0  TYPE=      1  TARGET=      178.000
   4.300     6.34  1259.44  1258.30  1256.34  1260.84     1.39     2.99      .06  1263.90
   6700.       0.    6700.       0.       0.     707.       0.     266.      52.   1263.00
     .48      .00     9.47      .00     .000     .035     .000     .000  1253.10  9933.76
 .005362     630.     649.     680.        3       15        0      .00   130.62 10064.38

*SECNO 4.406

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9913.0   10089.0  TYPE=      1  TARGET=      176.000
   4.406     6.99  1262.29  1260.05  1259.35  1262.98      .69     2.07      .07  1268.50
   5500.       0.    5500.       0.       0.     823.       0.     276.      54.   1267.40
     .50      .00     6.68      .00     .000     .035     .000     .000  1255.30  9925.31
 .002547     530.     560.     580.        2       15        0      .00   146.90 10072.20
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST

*SECNO 4.415

3265 DIVIDED FLOW

        DOWNSTREAM FACE OF 59TH AVENUE BRIDGE.  BRIDGE IS MODELED AS OPEN
        CHANNEL FLOW, WITH GR POINTS DEFINING THE PIERS.
   4.415     6.25  1262.35  1260.55  1259.48  1263.20      .85      .18      .05  1269.30
   5500.      0.    5500.      0.       0.     742.       0.     277.      54.   1270.00
     .51     .00     7.41     .00     .000     .035     .000     .000  1256.10  9930.03
 .004103     55.     55.      55.       2       14        0      .00   139.33 10071.92

*SECNO 4.436

3265 DIVIDED FLOW

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.42

        UPSTREAM FACE OF 59TH AVENUE BRIDGE.
   4.436     7.79  1262.99  1259.79  1260.03  1263.52      .52      .28      .03  1268.80
   5500.      0.    5500.      0.       0.     948.       0.     279.      54.   1269.20
     .51     .00     5.80     .00     .000     .035     .000     .000  1255.20  9927.19
 .002035    100.    100.     100.       2       15        0      .00   146.07 10075.77

*SECNO 4.445

3470 ENCROACHMENT STATIONS=     9893.0   10112.0  TYPE=      1  TARGET=      219.000
   4.445     7.06  1263.26  1259.80  1260.15  1263.61      .35      .07      .02  1269.90
   5500.      0.    5500.      0.       0.    1165.       0.     280.      54.   1268.90
     .51     .00     4.72     .00     .000     .035     .000     .000  1256.20  9910.77
 .001090     50.     50.      50.       2       14        0      .00   184.91 10095.68

*SECNO 4.500

3470 ENCROACHMENT STATIONS=     9770.0   10160.0  TYPE=      1  TARGET=      390.000
   4.500     7.46  1263.66  1260.00  1260.51  1263.88      .21      .26      .01  1268.10
   5500.      0.    5500.      0.       0.    1479.       0.     289.      56.   1267.80
     .53     .00     3.72     .00     .000     .035     .000     .000  1256.20  9853.97
 .000752    290.    290.     290.       2       11        0      .00   257.32 10111.29
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECNO 4.600

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .54

3470 ENCROACHMENT STATIONS=     9845.0   10183.0  TYPE=      1  TARGET=      338.000
    4.600     5.83  1264.13  1262.32  1261.38  1264.63      .51      .67      .09  1271.10
    5500.       0.    5500.       0.       0.     963.       0.     304.      59.   1269.90
      .56      .00     5.71      .00     .000     .035     .000     .000  1258.30  9887.97
  .002551     530.     528.     530.        2       11        0      .00   220.41 10108.38

*SECNO 4.674

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .49

3470 ENCROACHMENT STATIONS=     9750.0   10190.0  TYPE=      1  TARGET=      440.000
    4.674     4.70  1265.40  1265.21  1264.11  1266.65     1.25     1.79      .22  1272.60
    5500.       0.    5500.       0.       0.     613.       0.     311.      61.   1270.70
      .57      .00     8.97      .00     .000     .035     .000     .000  1260.70  9897.54
  .010521     390.     391.     390.        2       15        0      .00   206.59 10104.13

*SECNO 4.721

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.84

3470 ENCROACHMENT STATIONS=     9800.0   10225.0  TYPE=      1  TARGET=      425.000
         IMMEDIATELY UPSTREAM OF 57TH AVENUE DIP SECTION.
    4.721     6.50  1267.50  1266.05  1265.62  1268.01      .51     1.29      .07  1272.90
    5500.       0.    5500.       0.       0.     958.       0.     316.      62.   1270.00
      .58      .00     5.74      .00     .000     .035     .000     .000  1261.00  9887.89
  .003092     240.     248.     260.        2        8        0      .00   250.95 10138.85
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST

*SECNO 4.770

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   4.770     4.86  1268.46  1268.46  1267.15  1269.86     1.39     1.46      .26  1277.40
   5500.       0.    5500.       0.       0.     581.       0.     320.      63.   1277.10
     .59      .00     9.47      .00     .000     .035     .000     .000  1263.60  9894.60
 .013390     265.     259.     240.        0       19        0      .00   215.95 10110.54

*SECNO 4.870

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.58

   4.870     5.09  1271.79  1269.79  1269.78  1272.17      .38     2.21      .10  1277.60
   5500.       0.    5500.       0.       0.    1108.       0.     330.      66.   1277.50
     .62      .00     4.96      .00     .000     .035     .000     .000  1266.70  9843.29
 .002019     610.     528.     420.        4       14        0      .00   263.24 10106.54

*SECNO 4.893

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   4.893     6.09  1271.89  1271.89  1269.53  1274.06     2.16      .48      .53  1275.10
   5500.       0.    5500.       0.       0.     466.       0.     333.      67.   1275.20
     .62      .00    11.80      .00     .000     .035     .000     .000  1265.80  9932.46
 .011363     150.     121.     110.        0       11        0      .00   109.31 10041.76

*SECNO 4.922

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     9842.0    10134.0  TYPE=      1  TARGET=      292.000
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        IMMEDIATELY DOWNSTREAM AT 55TH AVENUE CHANNEL.
   4.922     4.34  1274.24  1274.04  1272.22  1275.76     1.52     1.64      .06  1276.50
   5500.      0.    5500.       0.       0.     556.       0.     334.      67.   1278.40
     .63     .00     9.89      .00     .000     .035     .000     .000  1269.90  9938.78
  .010101    155.     153.     145.        2       14        0      .00   156.90 10095.67


*SECNO 4.945

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9940.0   11340.0  TYPE=      1  TARGET=     1400.000
   4.945     7.02  1277.32  1277.32  1274.01  1279.42     2.10     1.16      .18  1279.10
   5500.      0.    5457.      43.       0.     467.      24.     336.      68.   1276.70
     .63     .00    11.68     1.77     .000     .035     .045     .000  1270.30  9949.57
  .009077    115.     121.     210.        0       14        0      .00   159.34 10108.91


*SECNO 4.974

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.15


3470 ENCROACHMENT STATIONS=     9957.0   10700.0  TYPE=      1  TARGET=      743.000
   4.974     9.12  1279.42  1275.68  1275.81  1280.12      .70      .56      .14  1281.70
   5500.      0.    5500.       0.       0.     818.       0.     338.      68.   1279.50
     .64     .00     6.72      .00     .000     .035     .000     .000  1270.30  9966.76
  .001960    155.     153.      80.        3       15        0      .00   116.69 10083.45


*SECNO 5.008

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.84


3470 ENCROACHMENT STATIONS=     9873.0   10086.0  TYPE=      1  TARGET=      213.000
   5.008     9.78  1280.08  1274.26  1276.15  1280.34      .26      .17      .04  1279.50
   5500.      1.    5499.       0.       3.    1340.       0.     343.      69.   1285.70
     .65     .35     4.10      .00     .045     .035     .000     .000  1270.30  9903.17
  .000577    190.     180.     175.        2       14        0      .00   171.61 10074.78
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


*SECNO 5.080

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .58


3470 ENCROACHMENT STATIONS=     9921.0   10250.0  TYPE=      1  TARGET=      329.000
   5.080     8.18  1280.18  1276.77  1276.28  1280.80      .62      .35      .11  1282.00
   5500.       0.    5500.       0.       0.     869.       0.     352.      70.   1283.60
     .67      .00     6.33      .00     .000     .035     .000     .000  1272.00  9928.09
 .001721     375.     380.     385.        2        8        0      .00   123.46 10051.54


CCHV=     .100 CEHV=     .300
*SECNO 5.103

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .62

        APPROXIMATE LOCATION OF 54TH AVENUE DIP SECTION.
   5.103     7.92  1280.32  1277.81  1276.58  1281.20      .88      .32      .08  1281.90
   5500.       0.    5500.       0.       0.     731.       0.     354.      70.   1284.40
     .67      .00     7.52      .00     .000     .045     .000     .000  1272.40  9930.46
 .004546     120.     121.     120.        0       14        0      .00   114.60 10045.05


*SECNO 5.118

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     8790.0   10250.0  TYPE=      1  TARGET=     1460.000
   5.118    10.36  1281.76  1281.76  1277.85  1285.31     3.55      .65      .80  1282.30
   5500.       0.    5500.       0.       0.     364.       0.     355.      71.   1283.40
     .67      .00    15.12      .00     .000     .045     .000     .000  1271.40  9969.32
 .018937      75.      79.     100.        0       14        0      .00    55.03 10024.35


*SECNO 5.159

3301 HV CHANGED MORE THAN HVINS
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  4.40


3470 ENCROACHMENT STATIONS=     9000.0   10175.0  TYPE=      1  TARGET=     1175.000
   5.159    13.67  1286.07  1281.61  1280.93  1286.21      .14      .56      .34  1283.90
   5500.    2729.    2769.       2.    1717.     698.       4.     362.      73.   1285.30
     .69     1.59     3.97      .51     .048     .045     .048     .000  1272.40  9079.77
 .000979     220.     216.     165.        2       12        0      .00   975.75 10055.52


*SECNO 5.204

3265 DIVIDED FLOW

3280 CROSS SECTION      5.20 EXTENDED       .51 FEET


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.61


3470 ENCROACHMENT STATIONS=     8965.0   10250.0  TYPE=      1  TARGET=     1285.000
   5.204    12.71  1286.21  1278.38  1281.64  1286.34      .13      .13      .00  1282.50
   5500.     210.    5290.       0.     406.    1797.       0.     374.      78.   1286.50
     .72      .52     2.94      .00     .048     .045     .000     .000  1273.50  9137.23
 .000378     220.     230.     220.        3       22        0      .00   852.24 10107.87


*SECNO 5.263

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .68


3470 ENCROACHMENT STATIONS=     9587.0   10700.0  TYPE=      1  TARGET=     1113.000
        A LARGE BORROW PIT IN THE LEFT OVERBANK IS NOT EFFECTIVE FLOW AREA.
        THIS AREA HAS BEEN MODELED AS THOUGH THE HOLE WAS FILLED TO ELEVATION
        1286.0.
   5.263    10.74  1286.34  1280.85  1281.76  1286.53      .20      .17      .02  1283.60
   5500.      57.    5094.     349.     122.    1380.     223.     389.      83.   1286.00
     .74      .47     3.69     1.57     .048     .045     .048     .000  1275.60  9628.83
 .000809     320.     320.     320.        2       18        0      .00   632.86 10288.19
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


*SECNO 5.364

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.47

   5.364    11.65  1286.65  1278.73  1282.07  1286.69      .04      .14      .02  1288.10
   5500.       0.    5500.       0.       0.    3350.       0.     420.      89.   1287.10
     .83      .00     1.64      .00     .000     .045     .000     .000  1275.00  9957.50
 .000133     540.     533.     520.        0       22        0      .00   369.11 10326.61


CCHV=     .100 CEHV=     .300
*SECNO 5.397

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .64

   5.397     9.94  1286.64  1280.64  1282.08  1286.75      .10      .03      .02  1287.80
   5500.       0.    5500.       0.       0.    2124.       0.     431.      91.   1287.10
     .85      .00     2.59      .00     .000     .040     .000     .000  1276.70  9974.79
 .000321     155.     174.     190.        2       22        0      .00   272.72 10247.52


*SECNO 5.432

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.41

   5.432    10.43  1286.73  1279.75  1282.18  1286.79      .06      .04      .00  1288.90
   5500.       0.    5500.       0.       0.    2789.       0.     441.      92.   1290.10
     .88      .00     1.97      .00     .000     .040     .000     .000  1276.30  9973.75
 .000162     140.     185.     220.        2       22        0      .00   322.09 10295.85


*SECNO 5.500

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .58

   5.500     7.59  1286.79  1282.64  1282.24  1286.90      .11      .09      .01  1281.70
   5500.    1340.    4160.       0.     685.    1460.       0.     461.      95.   1293.70
     .91     1.96     2.85      .00     .048     .040     .000     .000  1279.20  9685.49
 .000472     310.     359.     290.        2       17        0      .00   364.00 10049.49


*SECNO 5.579
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    5.579     5.99  1288.79  1288.79  1286.76  1290.10     1.30      .52      .36  1289.10
    5500.    1939.    3561.      0.     278.     351.      0.     473.      97.   1294.30
      .93     6.99    10.14     .00     .048     .040     .000     .000  1282.80  9795.68
  .013475     330.     417.     375.        0       16        0      .00   236.35 10045.77


*SECNO 5.679

3265 DIVIDED FLOW

    5.679     6.15  1294.25  1293.45  1292.47  1295.06      .82     4.92      .05  1295.00
    5500.     157.    5343.      0.      48.     729.      0.     482.     100.   1294.50
      .95     3.24     7.33     .00     .048     .040     .000     .000  1288.10  9654.01
  .007352     410.     528.     520.        3       15        0      .00   249.60 10113.54


*SECNO 5.754

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9720.0   10092.0  TYPE=      1  TARGET=      372.000
    5.754     6.40  1297.30  1296.85  1295.40  1298.29      .99     3.17      .05  1297.10
    5500.     984.    4516.      0.     225.     528.      0.     489.     102.   1298.70
      .96     4.37     8.55     .00     .048     .040     .000     .000  1290.90  9727.63
  .007746     410.     422.     360.        3        8        0      .00   256.10 10077.29


*SECNO 5.837

3470 ENCROACHMENT STATIONS=     9774.0   10155.0  TYPE=      1  TARGET=      381.000
    5.837     5.79  1300.89  1300.04  1299.04  1301.67      .78     3.36      .02  1300.80
    5500.       0.    5500.      0.       0.     776.      0.     497.     105.   1301.70
      .98      .34     7.09     .00     .048     .040     .000     .000  1295.10  9846.71
  .007573     450.     438.     425.        2       15        0      .00   243.54 10090.25
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


CCHV=     .100 CEHV=     .300
*SECNO 5.881

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.46


3470 ENCROACHMENT STATIONS=     9820.0   10136.0  TYPE=      1  TARGET=      316.000
         FROM SECTION 5.881 TO SECTION 6.568, SKUNK CREEK IS CHANNELIZED.
    5.881     6.60  1301.90  1298.18  1299.67  1302.08      .18      .35      .06  1306.10
    5500.       0.    5500.       0.       0.    1611.       0.     503.     106.   1306.80
     1.00      .00     3.41      .00     .000     .035     .000     .000  1295.30  9836.49
  .000632     230.     232.     230.        2        8        0      .00   279.82 10116.31


*SECNO 5.970
    5.970     6.41  1302.21  1298.78  1299.87  1302.42      .22      .33      .01  1305.50
    5500.       0.    5500.       0.       0.    1470.       0.     520.     109.   1305.20
     1.03      .00     3.74      .00     .000     .035     .000     .000  1295.80  9874.98
  .000779     500.     470.     430.        3       14        0      .00   260.10 10135.08


*SECNO 5.973

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .70

         LOWER WALL OF DROP STRUCTURE DOWNSTREAM OF HAVASUPAI DRIVE.
    5.973     4.83  1302.13  1299.83  1299.82  1302.48      .35      .02      .04  1305.10
    5500.       0.    5500.       0.       0.    1160.       0.     520.     109.   1305.10
     1.03      .00     4.74      .00     .000     .035     .000     .000  1297.30  9879.94
  .001610      16.      16.      16.        2       18        0      .00   240.12 10120.06


*SECNO 5.977

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1306.10 ELREA=      1306.10

         UPPER WALL OF DROP STRUCTURE AT HAVASUPAI DRIVE.
    5.977     4.43  1303.33  1303.33  1302.12  1304.63     1.30      .08      .28  1306.10
    5500.      0.    5500.       0.       0.     602.       0.     520.     110.   1306.10
     1.03      .00     9.14      .00     .000     .035     .000     .000  1298.90  9879.95
  .014258      21.      21.      21.        0       15        0      .00   240.09 10120.05


*SECNO 5.982

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.40

         HAVASUPAI DRIVE DIP SECTION.
    5.982     5.36  1304.56  1302.27  1302.78  1304.81      .25      .08      .10  1301.70
    5500.     109.    5215.     176.      70.    1264.     105.     521.     110.   1301.70
     1.03     1.56     4.13     1.67     .045     .035     .045     .000  1299.20  9799.51
  .001235      26.      26.      26.        3       19        0      .00   409.18 10208.70


*SECNO 5.990
    5.990     6.92  1304.62  1301.74  1302.83  1304.86      .24      .05      .00  1306.30
    5500.      0.    5500.       0.       0.    1392.       0.     522.     110.   1306.80
     1.04      .00     3.95      .00     .000     .035     .000     .000  1297.70  9856.50
  .001031      42.      42.      42.        2       19        0      .00   280.49 10136.99


*SECNO 6.089
    6.089     6.49  1305.19  1302.66  1303.18  1305.48      .29      .61      .01  1309.30
    5500.      0.    5500.       0.       0.    1277.       0.     538.     113.   1309.90
     1.07      .00     4.31      .00     .000     .035     .000     .000  1298.70  9869.80
  .001323     480.     523.     525.        0       11        0      .00   273.03 10142.83


*SECNO 6.189
         CONFLUENCE WITH SCATTER WASH.
    6.189     6.85  1305.85  1302.95  1303.65  1306.11      .26      .63      .00  1310.80
    5500.      0.    5500.       0.       0.    1346.       0.     554.     117.   1309.90
     1.11      .00     4.09      .00     .000     .035     .000     .000  1299.00  9865.78
  .001080     505.     528.     505.        2       14        0      .00   267.69 10133.46
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECNO 6.219

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .43

    6.219     6.44  1306.04  1302.73  1303.66  1306.28      .23      .16      .00  1309.90
    2200.       0.    2200.       0.       0.     566.       0.     558.     117.   1309.90
     1.12      .00     3.89      .00     .000     .035     .000     .000  1299.60  9947.72
  .000934     180.     158.      40.        2       14        0      .00   107.19 10054.90


*SECNO 6.223
        LOWER WALL OF DROP STRUCTURE.
    6.223     5.68  1305.98  1303.15  1303.60  1306.34      .36      .03      .04  1308.50
    2200.       0.    2200.       0.       0.     455.       0.     558.     117.   1308.50
     1.12      .00     4.84      .00     .000     .035     .000     .000  1300.30  9959.93
  .001527      40.      23.      20.        2       14        0      .00    80.14 10040.07


*SECNO 6.227

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
        UPPER WALL OF DROP STRUCTURE.
    6.227     2.86  1307.86  1307.86  1307.31  1309.29     1.44      .07      .32  1310.00
    2200.       0.    2200.       0.       0.     229.       0.     558.     117.   1310.00
     1.12      .00     9.62      .00     .000     .035     .000     .000  1305.00  9959.94
  .013862      10.      19.      10.        0        8        0      .00    80.11 10040.06


*SECNO 6.230

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.17

    6.230     5.82  1309.22  1306.76  1308.42  1309.46      .24      .05      .12  1313.30
    2200.       0.    2200.       0.       0.     554.       0.     558.     117.   1310.30
     1.12      .00     3.97      .00     .000     .035     .000     .000  1303.40  9932.26
  .001380      16.      16.      16.        3       11        0      .00   137.93 10070.19
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO 6.298
    6.298     6.14  1309.73  1307.63  1308.94  1310.05      .31      .56      .02  1313.20
    2200.       0.    2200.       0.       0.     490.       0.     563.     119.   1313.10
     1.14      .00     4.49      .00     .000     .035     .000     .000  1303.60  9926.56
  .001806     360.     359.     360.        3       19        0      .00   123.75 10050.32


*SECNO 6.356

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .52

    6.356     5.44  1310.24  1309.50  1309.52  1311.20      .96      .96      .19  1316.30
    2200.       0.    2200.       0.       0.     280.       0.     565.     119.   1314.90
     1.15      .00     7.87      .00     .000     .035     .000     .000  1304.80  9953.07
  .006737     315.     306.     305.        1       15        0      .00    81.34 10034.41


CCHV=     .300 CEHV=     .500
*SECNO 6.361

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.85

         DOWNSTREAM FACE OF 5-10'X6' CONCRETE BOX CULVERTS AT WAHALLA DRIVE.
    6.361     5.34  1310.34  1308.74  1309.81  1311.26      .92      .05      .01  1315.90
    2200.       0.    2200.       0.       0.     285.       0.     566.     119.   1315.90
     1.16      .00     7.71      .00     .000     .015     .000     .000  1305.00  9973.25
  .000827      60.      26.       5.        2       14        0      .00    53.50 10026.75


SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     1.25      1.56      2.90       .00     53.30      3.30    300.00       .00   1305.00   1305.00

*SECNO 6.377
PRESSURE FLOW
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


EGPRS     EGLWC      H3      QWEIR      QPR      BAREA   TRAPEZOID      ELLC     ELTRD     WEIRLN
                                                            AREA
 1311.64   1311.49     .34       0.    2200.      300.      300.    1311.00   1314.90        0.


      UPSTREAM FACE OF 5-10'X6' CONCRETE BOX CULVERTS AT WAHALLA DRIVE.
      SPECIAL BRIDGE METHOD USED.
  6.377     5.88  1310.88      .00  1309.98  1311.64      .76      .38      .00  1315.90
  2200.       0.    2200.       0.       0.     314.       0.     566.     119.   1315.90
   1.16      .00     7.00      .00     .000     .015     .000     .000  1305.00  9973.25
 .000612     72.      72.      72.        3        0        0      .00    53.51 10026.75


*SECNO 6.378

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.75

  6.378     6.48  1311.48  1307.93  1310.42  1311.78      .30      .00      .14  1315.90
  2200.       0.    2200.       0.       0.     500.       0.     566.     119.   1315.90
   1.16      .00     4.40      .00     .000     .015     .000     .000  1305.00  9961.44
 .000200     10.      10.      10.        2        8        0      .00    77.12 10038.56


*SECNO 6.379

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
      DROP STRUCTURE INTO BOX CULVERTS AT WAHALLA DRIVE.
  6.379     2.93  1313.93  1313.93  1313.37  1315.40     1.48      .00      .59  1315.90
  2200.       0.    2200.       0.       0.     226.       0.     566.     119.   1315.90
   1.16      .00     9.75      .00     .000     .015     .000     .000  1311.00  9961.44
 .002551      0.       0.       0.        0       14        0      .00    77.12 10038.56


CCHV=     .100 CEHV=     .300
*SECNO 6.389
3280 CROSS SECTION      6.39 EXTENDED       .51 FEET
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 SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
 Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
 TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
 SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9936.0   10081.0  TYPE=      1  TARGET=      145.000
   6.389     6.11  1315.21  1313.15  1314.44  1315.64      .43      .13      .11  1315.20
   2200.       0.    2200.       0.       0.     420.       0.     567.     119.   1315.60
    1.16      .02     5.24      .00     .000     .035     .000     .000  1309.10  9951.68
 .002372      10.      53.      85.        4       11        0      .00   103.18 10054.86


*SECNO 6.471

3470 ENCROACHMENT STATIONS=     9960.0   10400.0  TYPE=      1  TARGET=      440.000
   6.471     4.81  1316.41  1315.18  1315.61  1317.03      .62     1.33      .06  1318.30
   2200.       0.    2200.       0.       0.     348.       0.     570.     120.   1318.00
    1.18      .00     6.32      .00     .000     .035     .000     .000  1311.60  9967.79
 .004145     380.     433.     480.        2       11        0      .00    97.77 10065.56


CCHV=     .100 CEHV=     .300
*SECNO 6.568

3470 ENCROACHMENT STATIONS=     9930.0   10089.0  TYPE=      1  TARGET=      159.000
   6.568     5.81  1318.41  1316.57  1317.63  1318.93      .52     1.89      .01  1320.80
   2200.       0.    2200.       0.       0.     381.       0.     575.     122.   1319.20
    1.21      .00     5.78      .00     .000     .038     .000     .000  1312.60  9962.72
 .003295     510.     512.     525.        2       15        0      .00    90.74 10053.46


*SECNO 6.615

3470 ENCROACHMENT STATIONS=     9845.0   10300.0  TYPE=      1  TARGET=      455.000
   6.615     6.07  1319.37  1317.99  1318.54  1319.74      .37      .80      .01  1318.70
   2200.     208.    1992.       0.      83.     392.       0.     577.     122.   1320.30
    1.22     2.51     5.09      .00     .045     .038     .000     .000  1313.30  9866.61
 .003173     230.     248.     260.        2       15        0      .00   169.33 10035.94


*SECNO 6.717

3470 ENCROACHMENT STATIONS=     9953.0   10270.0  TYPE=      1  TARGET=      317.000
   6.717     5.43  1321.03  1319.46  1320.44  1321.32      .30     1.58      .01  1321.30
   2200.       0.    2200.       0.       0.     504.       0.     583.     124.   1320.90
    1.25      .00     4.36      .27     .000     .038     .045     .000  1315.60  9954.84
 .002730     480.     539.     515.        1       14        0      .00   163.32 10118.16
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


*SECNO 6.779
    6.779     2.93   1322.23   1321.50   1321.71   1322.50       .27      1.18       .00   1322.20
    2200.       0.     2200.        0.        0.      525.        0.      587.      126.   1322.90
     1.28      .02      4.19       .00      .045      .038      .000      .000   1319.30   9873.99
  .004954     340.      327.      290.         2        18         0       .00    280.14  10154.13


*SECNO 6.809
         INTERSECTION OF 43RD AVENUE AND BEARDSLEY ROAD DIP SECTION.
    6.809     4.21   1322.91   1322.19   1322.54   1323.40       .49       .83       .06   1324.30
    2200.       0.     2119.       81.        0.      372.       44.      589.      127.   1322.30
     1.28      .00      5.69      1.85      .000      .038      .045      .000   1318.70   9972.11
  .005671     200.      158.       85.         2        11         0       .00    212.45  10184.56


*SECNO 6.831

3470 ENCROACHMENT STATIONS=     9822.0   10137.0  TYPE=      1  TARGET=      315.000
    6.831     3.19   1323.69   1322.83   1323.24   1323.96       .27       .55       .02   1324.90
    2200.       0.     2200.        0.        0.      527.        0.      590.      127.   1325.10
     1.29      .00      4.18       .00      .000      .038      .000      .000   1320.50   9882.54
  .004023     150.      116.       70.         2        11         0       .00    240.78  10123.32


*SECNO 6.896
    6.896     4.87   1325.27   1324.62   1324.89   1325.86       .59      1.80       .09   1327.40
    2200.       0.     2200.        0.        0.      358.        0.      593.      129.   1327.20
     1.31      .00      6.15       .00      .000      .038      .000      .000   1320.40   9949.67
  .007112     400.      343.      300.         2        14         0       .00    138.83  10088.50


*SECNO 7.000

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.55

    7.000     4.89   1327.89   1326.29   1327.25   1328.27       .39      2.40       .02   1329.50
    2200.       0.     2200.        0.        0.      441.        0.      598.      131.   1346.20
     1.34      .00      4.99       .00      .000      .038      .000      .000   1323.00   9974.46
  .002952     590.      549.      500.         2        19         0       .00    120.56  10095.02


CCHV=      .100 CEHV=      .300
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO 7.100

3470 ENCROACHMENT STATIONS=     9823.0   10027.0  TYPE=      1  TARGET=      204.000
        SECTION 7.100 TO SECTION 7.409 SKUNK CREEK IS CHANNELIZED.
    7.100     5.13  1329.83  1329.07  1329.25  1330.24      .41     1.96      .01  1332.10
    2200.       0.    2200.       0.       0.     426.       0.     604.     132.   1334.90
     1.37      .00     5.16      .00     .000     .035     .000     .000  1324.70  9832.29
  .004819     470.     528.     510.        3       14        0      .00   182.34 10014.63


*SECNO 7.174

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9960.0   10038.0  TYPE=      1  TARGET=       78.000
    7.174     6.21  1332.31  1332.31  1331.78  1334.28     1.97     2.70      .47  1340.30
    1650.       0.    1650.       0.       0.     146.       0.     606.     133.   1339.90
     1.37      .00    11.26      .00     .000     .035     .000     .000  1326.10  9982.80
  .012651     425.     391.     420.        0       11        0      .00    37.94 10020.75


*SECNO 7.244

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.62


3470 ENCROACHMENT STATIONS=     9950.0   10044.0  TYPE=      1  TARGET=       94.000
    7.244     8.49  1335.39  1332.18  1334.72  1335.86      .47     1.43      .15  1341.50
    1650.       0.    1650.       0.       0.     300.       0.     608.     134.   1340.60
     1.39      .00     5.49      .00     .000     .035     .000     .000  1326.90  9972.97
  .001842     400.     370.     350.        3       15        0      .00    53.72 10026.69


*SECNO 7.327

3470 ENCROACHMENT STATIONS=     9950.0   10040.0  TYPE=      1  TARGET=       90.000
    7.327     9.48  1336.18  1332.05  1335.47  1336.51      .34      .64      .01  1341.60
    1650.       0.    1650.       0.       0.     355.       0.     611.     134.   1341.50
     1.42      .00     4.65      .00     .000     .035     .000     .000  1326.70  9968.79
  .001179     480.     438.     380.        2       14        0      .00    58.24 10027.03
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO 7.409

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.90

         OUTLET FROM ADOBE DAM.
    7.409    13.98  1336.58  1326.57  1335.83  1336.63      .04      .09      .03  1341.40
    1650.       0.    1650.       0.       0.    1002.       0.     618.     135.   1341.10
     1.49      .00     1.65      .00     .000     .035     .000     .000  1322.60  9953.32
  .000078     470.     433.     400.        2       18        0      .00   102.83 10056.15


CCHV=     .100 CEHV=     .300
*SECNO -6.189
START TRIB COMP
     -6.189     6.189  1305.853
   -6.189     6.85  1305.85      .00  1303.65  1306.11      .26      .21     -.10  1310.80
    5500.       0.    5500.       0.       0.    1346.       0.     632.     137.   1309.90
     1.53      .00     4.09      .00     .000     .035     .000     .000  1299.00  9865.78
  .001080     505.     528.     505.        0        0        0      .00   267.69 10133.46


*SECNO  .028

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .52

         SCATTER WASH
     .028     5.19  1305.99  1303.70  1303.82  1306.32      .33      .18      .02  1311.60
    3500.       0.    3500.       0.       0.     759.       0.     636.     138.   1308.90
     1.54      .00     4.61      .00     .000     .035     .000     .000  1300.80  9918.13
  .001588     100.     148.     170.        1       18        0      .00   166.99 10085.12


*SECNO  .032

3470 ENCROACHMENT STATIONS=     9919.0   10081.0  TYPE=      1  TARGET=      162.000
         LOWER WALL OF DROP STRUCTURE IMMEDIATELY UPSTREAM OF SKUNK CREEK.
     .032     4.61  1306.01  1303.86  1303.83  1306.36      .35      .04      .01  1308.50
    3500.       0.    3500.       0.       0.     739.       0.     636.     138.   1308.50
     1.54      .00     4.74      .00     .000     .035     .000     .000  1301.40  9919.94
  .001742      23.      23.      23.        0       11        0      .00   160.13 10080.06
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO  .036

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9919.0   10081.0  TYPE=      1  TARGET=      162.000
        UPPER WALL OF DROP STRUCTURE.
    .036     2.45  1308.15  1308.15  1306.44  1309.39     1.24      .07      .27  1311.50
   3500.       0.    3500.       0.       0.     392.       0.     637.     138.   1311.50
    1.54      .00     8.93      .00     .000     .035     .000     .000  1305.70  9919.96
 .013948      19.      19.      19.        0       11        0      .00   160.08 10080.04


*SECNO  .040

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.36


3470 ENCROACHMENT STATIONS=     9897.0   10120.0  TYPE=      1  TARGET=      223.000
    .040     5.86  1309.16  1307.47  1306.84  1309.57      .41      .10      .08  1312.60
   3500.       0.    3500.       0.       0.     678.       0.     637.     138.   1313.80
    1.54      .00     5.17      .00     .000     .035     .000     .000  1303.30  9916.09
 .002495      21.      21.      21.        3       17        0      .00   175.34 10091.43


*SECNO  .116

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.48


3470 ENCROACHMENT STATIONS=     9878.0   10100.0  TYPE=      1  TARGET=      222.000
    .116     7.30  1310.00  1307.24  1307.12  1310.24      .24      .65      .02  1313.40
   3500.       0.    3500.       0.       0.     884.       0.     644.     140.   1315.20
    1.57      .00     3.96      .00     .000     .035     .000     .000  1302.70  9888.92
 .001136     410.     401.     400.        3       19        0      .00   190.69 10079.61
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO  .184

3470 ENCROACHMENT STATIONS=     9896.0   10120.0  TYPE=      1  TARGET=      224.000
     .184     6.53  1310.43  1308.40  1307.35  1310.83      .39      .54      .04  1315.90
    3500.       0.    3500.       0.       0.     696.       0.     651.     141.   1317.50
     1.59      .00     5.03      .00     .000     .035     .000     .000  1303.90  9920.64
  .002105     340.     359.     350.        2       14        0      .00   166.80 10087.44


CCHV=     .300 CEHV=     .500
*SECNO  .200

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.00

        DOWNSTREAM FACE OF 10-10'X5' CONCRETE BOX CULVERTS AT 45TH AVENUE.
     .200     5.10  1310.40  1308.48  1307.40  1311.02      .62      .08      .11  1316.60
    3500.       0.    3500.       0.       0.     553.       0.     652.     142.   1316.60
     1.59      .00     6.33      .00     .000     .015     .000     .000  1305.30  9945.75
  .000525      70.      84.      85.        2       11        0      .00   108.49 10054.25



SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     1.25      1.56      2.90       .00    107.50      7.50    600.00      .00   1305.40   1305.30

*SECNO  .212
CLASS A LOW FLOW

3420 BRIDGE W.S.=    1310.30 BRIDGE VELOCITY=       7.06     CALCULATED CHANNEL AREA=       490.

 EGPRS      EGLWC       H3       QWEIR      QLOW      BAREA   TRAPEZOID      ELLC      ELTRD     WEIRLN
                                                                 AREA
       .00   1311.20      .20        0.     3500.      600.      600.     1311.40   1316.20        0.


        UPSTREAM FACE OF 10-10'X6' CONCRETE BOX CULVERTS AT 45TH AVENUE.
        SPECIAL BRIDGE METHOD USED.
     .212     5.20  1310.60      .00  1307.42  1311.20      .60      .18      .00  1316.50
    3500.       0.    3500.       0.       0.     564.       0.     652.     142.   1316.50
     1.60      .00     6.20      .00     .000     .015     .000     .000  1305.40  9945.75
  .000491      60.      60.      60.        0        0        0      .00   108.49 10054.25
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO  .213
     .213     5.50  1310.90  1308.22  1307.47  1311.27      .37      .00      .07  1316.50
    3500.       0.    3500.       0.       0.     714.       0.     653.     142.   1316.50
     1.60      .00     4.90      .00     .000     .015     .000     .000  1305.40  9935.05
  .000281      10.      10.      10.        2       11        0      .00   129.90 10064.95


*SECNO  .214

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
         DROP STRUCTURE INTO BOX CULVERTS AT 45TH AVENUE.
     .214     2.82  1313.12  1313.12  1311.15  1314.54     1.42      .00      .52  1316.50
    3500.       0.    3500.       0.       0.     366.       0.     653.     142.   1316.50
     1.60      .00     9.57      .00     .000     .015     .000     .000  1310.30  9935.05
  .002481       0.       0.       0.        0       11        0      .00   129.89 10064.95


CCHV=     .100 CEHV=     .300
*SECNO  .232

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9859.0   10200.0  TYPE=      1  TARGET=      341.000
     .232     6.16  1314.46  1312.65  1311.74  1314.87      .41      .23      .10  1317.80
    3500.       0.    3500.       0.       0.     679.       0.     654.     142.   1317.90
     1.60      .00     5.16      .00     .000     .035     .000     .000  1308.30  9890.05
  .002349      80.      95.     100.        3       14        0      .00   169.80 10059.85


*SECNO  .337
     .337     5.39  1315.79  1314.27  1313.30  1316.01      .22     1.12      .02  1320.30
    3500.       0.    3500.       0.       0.     940.       0.     664.     145.   1321.00
     1.64      .00     3.72      .00     .000     .035     .000     .000  1310.40  9881.66
  .001756     560.     554.     530.        1       14        0      .00   309.90 10191.56


*SECNO  .438

3470 ENCROACHMENT STATIONS=     9800.0   10265.0  TYPE=      1  TARGET=      465.000
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        BOTTOM OF DROP STRUCTURE IMMEDIATELY DOWNSTREAM OF 43RD AVENUE.
    .438     3.84  1316.64  1314.95  1314.62  1316.79      .15      .77      .01  1320.60
   3500.       0.    3500.       0.       0.    1134.       0.     677.     149.   1322.40
    1.69      .00     3.09      .00     .000     .035     .000     .000  1312.80  9872.49
  .001212     545.     533.     420.        2       18        0      .00   374.82 10247.31


*SECNO  .441
3280 CROSS SECTION       .44 EXTENDED       .03 FEET


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9847.0   10273.0  TYPE=      1  TARGET=      426.000
        TOP OF DROP STRUCTURE IMMEDIATELY DOWNSTREAM OF 43RD AVENUE.
    .441     1.53  1319.23  1319.23  1318.28  1319.91      .68      .05      .16  1321.40
   3500.       0.    3500.       0.       0.     529.       0.     677.     150.   1322.50
    1.69      .00     6.62      .00     .000     .035     .000     .000  1317.70  9867.85
  .016405      16.      16.      16.        0       18        0      .00   393.08 10260.93


*SECNO  .458

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.82


3470 ENCROACHMENT STATIONS=     9800.0   10452.0  TYPE=      1  TARGET=      652.000
        43RD AVENUE DIP SECTION.
        FROM SECTION 0.458 TO SECTION 0.629, ET CARDS ARE USED TO MODEL
        EFFECTIVE FLOW IN BOTH OVERBANKS AT A 1:1 CONTRACTION UPSTREAM FROM
        THE CHANNELIZATION.
    .458     2.86  1320.46  1319.97  1319.42  1320.69      .23      .73      .04  1319.20
   3500.     453.    3037.      11.     172.     755.       6.     679.     151.   1319.20
    1.70     2.64     4.02     1.69     .045     .035     .045     .000  1317.60  9800.00
  .004939      70.      90.     250.        4       17        0      .00   632.42 10432.42


CCHV=     .100 CEHV=     .300
*SECNO  .489

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9650.0   10700.0  TYPE=      1  TARGET=     1050.000
    .489     2.84  1321.34  1320.35  1320.19  1321.41      .07      .70      .02  1320.00
   3500.    1088.    1847.     565.     496.     832.     308.     683.     154.   1321.90
    1.72     2.19     2.22     1.84     .060     .060     .060     .000  1318.50  9650.00
  .003717     170.     163.     170.        3       23        0      .00  1002.73 10700.00
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO  .568

3265 DIVIDED FLOW

3280 CROSS SECTION       .57 EXTENDED       .87 FEET

     .568     2.57  1322.97  1322.28  1321.96  1323.03      .06     1.62      .00  1322.30
    3500.    1524.    1438.     538.     862.     649.     297.     699.     166.   1323.60
     1.78     1.77     2.22     1.81     .060     .060     .060     .000  1320.40  9031.40
  .004293     435.     417.     300.        2       18        0      .00  1550.31 10799.46


*SECNO  .629

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9491.0   11470.0  TYPE=      1  TARGET=     1979.000
     .629     3.76  1324.36  1323.64  1323.54  1324.43      .07     1.40      .00  1323.20
    3500.     860.     377.    2264.     402.     195.    1021.     711.     176.   1323.90
     1.81     2.14     1.93     2.22     .060     .060     .060     .000  1320.60  9568.09
  .005039     340.     322.     255.        2       11        0      .00  1430.96 11218.60


CCHV=     .100 CEHV=     .300
*SECNO  .736

3470 ENCROACHMENT STATIONS=     9840.0   11000.0  TYPE=      1  TARGET=     1160.000
     .736     2.85  1326.75  1326.05  1325.56  1326.87      .12     2.43      .01  1325.60
    3500.     200.     162.    3138.     100.      43.    1130.     727.     189.   1326.50
     1.86     2.00     3.79     2.78     .055     .045     .055     .000  1323.90  9878.96
  .005214     600.     565.     440.        2       14        0      .00   993.09 10872.05


*SECNO  .813

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9935.0   10757.0  TYPE=      1  TARGET=      822.000
     .813     5.68  1329.08  1328.20  1327.39  1329.25      .17     2.36      .01  1326.60
    3500.     245.     385.    2870.      79.      71.     997.     741.     199.   1326.10
     1.91     3.12     5.46     2.88     .055     .045     .055     .000  1323.40  9956.83
  .004204     370.     407.     525.        2       17        0      .00   692.11 10675.36
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO  .860
     .860     3.68  1329.98  1328.69  1328.27  1330.09      .11      .83      .01  1327.80
    3500.    1073.     465.    1962.     381.     155.     807.     748.     203.   1328.30
     1.93     2.82     3.00     2.43     .055     .045     .055     .000  1326.30  9854.49
  .002778     235.     248.     250.        2       18        0      .00   604.95 10459.44


*SECNO  .949

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .63

     .949     3.81  1331.51  1331.05  1330.21  1331.67      .16     1.56      .02  1330.70
    3500.    2261.     204.    1034.     671.      40.     469.     759.     210.   1330.40
     1.97     3.37     5.08     2.21     .055     .045     .055     .000  1327.70  9595.59
  .007033     320.     470.     410.        2       10        0      .00  1024.46 10620.05


CCHV=     .100 CEHV=     .300
*SECNO 1.038

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9589.0   11340.0  TYPE=      1  TARGET=     1751.000
    1.038     2.65  1334.05  1333.52  1333.40  1334.14      .09     2.47      .01  1332.30
    3500.    1155.     341.    2004.     453.      92.     953.     772.     221.   1332.90
     2.02     2.55     3.72     2.10     .050     .040     .050     .000  1331.40  9612.31
  .004406     580.     470.     300.        5       11        0      .00  1386.24 11046.14


*SECNO 1.144

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9445.0   11388.0  TYPE=      1  TARGET=     1943.000
    1.144     5.51  1336.41  1336.14  1335.86  1336.57      .16     2.40      .02  1336.50
    3500.     541.     480.    2479.     251.      80.    1004.     787.     236.   1335.60
     2.06     2.16     6.01     2.47     .050     .040     .050     .000  1330.90  9643.37
  .005974     590.     560.     410.        4       15        0      .00  1441.75 11310.66
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST

*SECNO 1.257

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.46

        NEAR BEARDSLEY ROAD DIP SECTION.
   1.257     4.31  1338.21  1337.83  1337.09  1338.38      .16     1.81      .00  1334.00
   3500.     496.    1242.    1761.     244.     255.    1032.     802.     249.   1334.60
    2.11     2.04     4.87     1.71     .050     .040     .050     .000  1333.90  9675.66
 .002808     440.     597.     405.        3       13        0      .00  1414.80 11090.46

*SECNO 1.336

3265 DIVIDED FLOW

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .47

3470 ENCROACHMENT STATIONS=     9470.0   10937.0  TYPE=      1  TARGET=     1467.000
   1.336     5.79  1340.19  1340.14  1339.05  1340.57      .38     2.13      .06  1339.10
   3500.    1403.     755.    1342.     308.      99.     456.     813.     261.   1340.30
    2.13     4.55     7.65     2.94     .050     .040     .050     .000  1334.40  9730.50
 .012484     360.     417.     440.        1       15        0      .00   994.83 10765.94
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T1      SKUNK CREEK FLOODPLAIN ANALYSIS, FOR FCDMC (#89-72), BY CVL (#1090-05).
T2      ARIZONA CANAL DIVERSION CHANNEL (ACDC) TO ADOBE DAM.
T3      100-YEAR FLOWS, EXISTING CONDITION    NOV. 1990     (FILE NAME - SKS.FZ)

J1  ICHECK    INQ     NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0        4        0        0    .0082        0        0        0    1192.5      0

J2  NPROF    IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

     15        0       -1        0        0        0       -1        0        0        0
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| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SECNO | DEPTH | CWSEL | CRIWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

*PROF 3

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS

CCHV= .100 CEHV= .300

*SECNO 1.663

SKUNK CREEK FLOODPLAIN STUDY.
ARIZONA CANAL DIVERSION CHANNEL (ACDC) TO ADOBE DAM. INCLUDING SCATTER WASH FROM ITS CONFLUENCE WITH SKUNK CREEK TO BEARDSLEY ROAD.
EXISTING FLOWS PER FEMA.
PREPARED AS A PART OF THE SKUNK CREEK FLOODPLAIN STUDY, BETWEEN THE ACDC AND THE CAP.
PREPARED FOR THE FLOOD CONTROL DISTRICT OF MARICOPA COUNTY (FCD #89-72)
PREPARED BY COE & VAN LOO CONSULTING ENGINEERS, 1990.
TOPOGRAPHIC MAPPING PREPARED BY AERIAL MAPPING COMPANY, INC. FROM PHOTOGRAPHS TAKEN IN APRIL 1990. ELEVATION BASED ON NGVD OF 1929.
THE CONTROL LINE OF SKUNK CREEK IS STATION 10,000.
ALL SECTIONS ARE STATIONED LOOKING DOWNSTREAM.
CROSS SECTION NUMBERS FOR SKUNK CREEK ARE STATIONED IN RIVER MILES FROM THE CONFLUENCE WITH NEW RIVER.
CROSS SECTION NUMBERS FOR SCATTER WASH ARE STATIONED IN RIVER MILES FROM THE CONFLUENCE WITH SKUNK CREEK.
THIS RUN WAS STARTED BASED ON THE SLOPE-AREA METHOD.
ENCROACHMENT CARDS (ET) WERE USED IN SOME CASES TO BETTER MODEL DEAD OR NONEFFECTIVE FLOW AREAS. IN SOME CASES "SSTA" AND "ENDST" DO NOT REPRESENT THE ACTUAL FLOODING LIMITS, AND THE DELINEATION WAS BASED ON THE CROSS-SECTION AND THE TOPOGRAPHY. IN SOME CASES, "TOPWID" DOES NOT REPRESENT THE FULL WIDTH OF THE FLOODPLAIN, DUE TO INEFFECTIVE FLOW AREAS OR LOW ISLANDS WITHIN THE FLOODPLAIN.
IMMEDIATELY UPSTREAM OF THE CONFLUENCE WITH ACDC.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1.663 | 8.80 | 1192.50 | 1192.01 | 1192.50 | 1195.31 | 2.81 | .00 | .00 | 1202.10 |
| 11000. | 0. | 11000. | 0. | 0. | 818. | 0. | 0. | 0. | 1201.10 |
| .00 | .00 | 13.45 | .00 | .000 | .035 | .000 | .000 | 1183.70 | 9937.21 |
| .008214 | 0. | 0. | 0. | 0 | 10 | 0 | .00 | 120.48 | 10057.69 |

*SECNO 1.763

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1.763 | 10.00 | 1196.80 | 1196.29 | .00 | 1199.63 | 2.83 | 4.31 | .01 | 1214.40 |
| 11000. | 0. | 11000. | 0. | 0. | 815. | 0. | 10. | 1. | 1203.10 |
| .01 | .00 | 13.50 | .00 | .000 | .035 | .000 | .000 | 1186.80 | 9942.04 |
| .008119 | 510. | 528. | 530. | 0 | 8 | 0 | .00 | 119.25 | 10061.30 |

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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO 1.857
    1.857    10.05  1200.65  1199.47      .00  1203.18     2.53     3.52      .03  1213.40
   11000.       0.   11000.       0.       0.     862.       0.      19.       3.   1204.50
      .02      .00    12.76      .00     .000     .035     .000     .000  1190.60  9938.55
  .006267     470.     496.     530.        2       11        0      .00   110.29 10048.84


CCHV=     .100 CEHV=     .300
*SECNO 1.868

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
         IMMEDIATELY DOWNSTREAM OF THE 75TH AVENUE ALIGNMENT.
    1.868     9.61  1200.91  1200.91      .00  1204.19     3.28      .49      .23  1205.10
   11000.       0.   11000.       0.       0.     757.       0.      21.       3.   1203.40
      .02      .00    14.53      .00     .000     .038     .000     .000  1191.30  9940.35
  .011951      50.      58.      65.        0       11        0      .00   117.31 10057.66


*SECNO 1.912

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.48


3470 ENCROACHMENT STATIONS=     9930.0   10061.0  TYPE=      1  TARGET=      131.000
    1.912    13.22  1203.72  1201.51  1201.52  1206.08     2.36     1.80      .09  1215.40
   11000.       0.   11000.       0.       0.     892.       0.      25.       3.   1207.90
      .03      .00    12.33      .00     .000     .038     .000     .000  1190.50  9957.35
  .005454     215.     232.     250.        2        8        0      .00    95.47 10052.83


CCHV=     .100 CEHV=     .300
*SECNO 1.962

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

  1.962     12.56   1204.76   1204.76   1202.03   1208.87      4.11      1.89       .53   1216.20
 11000.      0.     11000.       0.        0.      676.        0.       30.        4.   1209.30
    .03      .00     16.28      .00      .000      .035      .000      .000   1192.20   9960.98
 .009754    220.      264.     280.         0        11         0       .00     83.68  10044.66

*SECNO 2.034

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.19

3470 ENCROACHMENT STATIONS=     9869.0   10060.0  TYPE=      1  TARGET=      191.000
  2.034     15.55   1209.45   1204.66   1206.14   1210.62      1.17      1.45       .29   1209.10
 11000.      24.     10976.       0.       21.     1263.        0.       38.        5.   1211.50
    .04     1.17      8.69      .00      .045      .035      .000      .000   1193.90   9898.50
 .002027    370.      380.     390.         3        15         0       .00    156.71  10055.22

*SECNO 2.129

3470 ENCROACHMENT STATIONS=     9954.0   10070.0  TYPE=      1  TARGET=      116.000
  2.129     14.13   1210.33   1206.21   1207.16   1211.89      1.56      1.15       .12   1216.70
 11000.       0.     11000.       0.        0.     1098.        0.       52.        7.   1213.10
    .06      .00     10.02      .00      .000      .035      .000      .000   1196.20   9960.94
 .002627    520.      502.     470.         3        14         0       .00    103.80  10064.75

*SECNO 2.230
3280 CROSS SECTION      2.23 EXTENDED       .52 FEET

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     9817.0   10325.0  TYPE=      1  TARGET=      508.000
  2.230     12.82   1212.42   1208.76   1209.14   1213.09       .68      1.11       .09   1219.20
 11000.       0.     11000.       0.        0.     1663.        0.       69.        9.   1212.40
    .08      .00      6.61      .01      .000      .035      .045      .000   1199.60   9849.27
 .001705    560.      533.     430.         2        14         0       .00    222.07  10071.34
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO 2.319

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .46

    2.319     6.18  1213.08  1212.63  1211.29  1214.97     1.90     1.51      .37  1220.10
   11000.       0.   11000.       0.       0.     995.       0.      83.      11.   1218.30
      .09      .00    11.06      .00     .000     .035     .000     .000  1206.90  9916.13
  .008215     470.     470.     410.        2       14        0      .00   202.32 10118.45


CCHV=     .300 CEHV=     .500
*SECNO 2.353

3301 HV CHANGED MORE THAN HVINS

         DOWNSTREAM FACE OF BELL ROAD BRIDGE.
    2.353     8.93  1215.13  1213.36  1213.72  1216.27     1.14     1.06      .23  1217.00
   11000.       0.   11000.       0.       0.    1286.       0.      88.      12.   1217.50
      .10      .00     8.55      .00     .000     .038     .000     .000  1206.20  9853.42
  .004454     320.     180.      70.        3        8        0      .00   207.25 10060.67


SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
      .90      1.56      2.70       .00     81.00      6.40   1843.90      7.30   1206.20   1205.90

*SECNO 2.379
CLASS A LOW FLOW

3420 BRIDGE W.S.=    1215.13 BRIDGE VELOCITY=       8.59     CALCULATED CHANNEL AREA=      1249.

 EGPRS      EGLWC       H3       QWEIR      QLOW      BAREA   TRAPEZOID      ELLC      ELTRD     WEIRLN
                                                              AREA
       .00   1216.52       .14        0.    11000.     1844.     1848.     1217.80   1222.40        0.


         UPSTREAM FACE OF BELL ROAD BRIDGE, SPECIAL BRIDE METHOD USED.
    2.379     9.37  1215.27       .00  1213.79  1216.52     1.26      .26      .00  1217.40
   11000.       0.   11000.       0.       0.    1222.       0.      91.      12.   1217.40
      .10      .00     9.00      .00     .000     .038     .000     .000  1205.90  9853.43
  .005221     106.     106.     106.        0        0        0      .00   207.24 10060.67
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

CCHV=     .100 CEHV=     .300
*SECNO 2.422
3280 CROSS SECTION      2.42 EXTENDED      2.76 FEET

3470 ENCROACHMENT STATIONS=     9841.0   10074.0  TYPE=      1  TARGET=      233.000
    2.422     8.26  1216.46  1214.94  1214.92  1217.81     1.35      1.26      .03  1220.90
   11000.       0.   11000.       0.       0.    1182.       0.       98.      13.   1221.10
      .11      .00      9.31      .00     .000     .035     .000      .000  1208.20  9862.15
  .004577      70.      258.     395.        2       19        0       .00   198.88 10061.04

*SECNO 2.491

3470 ENCROACHMENT STATIONS=     9790.0   10036.6  TYPE=      1  TARGET=      246.600
         IMMEDIATELY DOWNSTREAM OF CONFLUENCE WITH 71ST AVENUE CHANNEL.
    2.491     9.79  1218.29  1216.44  1216.56  1219.30     1.01      1.46      .03  1220.90
   11000.       0.   11000.       0.       0.    1366.       0.      109.      15.   1218.70
      .12      .00      8.06      .00     .000     .035     .000      .000  1208.50  9799.47
  .003540     310.      364.     370.        2       11        0       .00   236.24 10035.71

*SECNO 2.561

3470 ENCROACHMENT STATIONS=     9913.0   10200.0  TYPE=      1  TARGET=      287.000
    2.561     7.26  1219.66  1218.53  1218.16  1220.99     1.33      1.59      .10  1220.90
   11000.       0.   11000.       0.       0.    1190.       0.      120.      17.   1224.00
      .13      .00      9.24      .00     .000     .035     .000      .000  1212.40  9921.64
  .005314     290.      370.     400.        2       14        0       .00   227.11 10148.75

*SECNO 2.634

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.08

    2.634     9.16  1221.56  1218.26  1219.82  1221.94      .39       .86      .09  1223.50
   11000.       0.   11000.       0.       0.    2205.       0.      135.      20.   1225.50
      .15      .00      4.99      .00     .000     .035     .000      .000  1212.40  9874.47
  .001228     400.      385.     360.        2       15        0       .00   355.93 10230.40
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST

*SECNO 2.720

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .43

    2.720     8.79  1221.99  1221.39  1220.47  1223.31     1.31     1.09      .28  1225.70
   11000.       0.   11000.       0.       0.    1196.       0.     152.      23.   1226.20
      .17      .00     9.20      .00     .000     .035     .000     .000  1213.20  9964.09
  .006591     480.     454.     400.        3       10        0      .00   271.58 10235.67


*SECNO 2.801
    2.801     7.22  1224.52  1223.14  1223.30  1225.59     1.06     2.25      .02  1227.50
   11000.       0.   11000.       0.       0.    1328.       0.     165.      26.   1227.60
      .18      .00     8.28      .00     .000     .035     .000     .000  1217.30  9819.36
  .004302     460.     428.     330.        3       14        0      .00   257.38 10076.74


*SECNO 2.900
    2.900     8.35  1226.65  1224.86  1225.19  1227.62      .97     2.02      .01  1228.80
   11000.       0.   11000.       0.       0.    1390.       0.     181.      29.   1229.00
      .20      .00     7.91      .00     .000     .035     .000     .000  1218.30  9817.12
  .003499     470.     523.     530.        2       11        0      .00   244.66 10061.78


CCHV=     .100 CEHV=     .300
*SECNO 3.000
    3.000     8.69  1228.69  1226.90  1227.15  1229.92     1.23     2.22      .08  1229.10
   11000.       0.   11000.       0.       0.    1236.       0.     197.      31.   1230.20
      .22      .00     8.90      .00     .000     .040     .000     .000  1220.00  9930.69
  .005157     450.     528.     560.        2       15        0      .00   197.30 10128.00


*SECNO 3.077

3470 ENCROACHMENT STATIONS=     9905.5   10126.9  TYPE=      1  TARGET=      221.400
    3.077     7.98  1230.78  1228.66  1229.02  1231.81     1.03     1.87      .02  1231.60
   11000.       0.   11000.       0.       0.    1348.       0.     209.      33.   1235.10
      .23      .00     8.16      .00     .000     .040     .000     .000  1222.80  9907.13
  .004137     410.     407.     410.        2       14        0      .00   210.74 10117.87
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST

*SECNO 3.143

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .65

3470 ENCROACHMENT STATIONS=     9965.0   10109.0  TYPE=      1  TARGET=      144.000
   3.143     9.49  1231.89  1231.24  1230.40  1234.35     2.45     2.11      .43  1233.20
  11000.       0.   11000.       0.       0.     875.       0.     218.      35.   1233.90
     .24      .00     12.57      .00     .000     .040     .000     .000  1222.40  9969.64
 .009724     360.      348.     320.        2        8        0      .00   134.40 10104.05

*SECNO 3.200

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     9927.0   10085.0  TYPE=      1  TARGET=      158.000
   3.200     9.93  1234.93  1233.33  1232.74  1236.76     1.83     2.35      .06  1236.00
  11000.       0.   11000.       0.       0.    1013.       0.     224.      36.   1235.60
     .25      .00     10.86      .00     .000     .040     .000     .000  1225.00  9938.11
 .006409     310.      301.     270.        3       11        0      .00   142.04 10080.14

*SECNO 3.300
3280 CROSS SECTION      3.30 EXTENDED       .60 FEET

3470 ENCROACHMENT STATIONS=     9930.0   10118.0  TYPE=      1  TARGET=      188.000
        FROM SECTION 3.300 TO SECTION 3.400, ET CARDS ARE USED TO MODEL
        EFFECTIVE FLOW AREA IN BOTH OVERBANKS AT A 1:1 CONTRACTION UPSTEAM
        FROM THE CONSTRICTION.
   3.300    11.49  1238.09  1235.48  1235.88  1239.55     1.46     2.75      .04  1239.00
  11000.       0.   11000.       0.       0.    1136.       0.     237.      37.   1239.00
     .26      .00      9.68      .00     .000     .040     .000     .000  1226.60  9941.04
 .004310     550.      528.     510.        2       11        0      .00   139.08 10080.11

*SECNO 3.400
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


3265 DIVIDED FLOW

3280 CROSS SECTION      3.40 EXTENDED       .45 FEET


3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9470.2   10497.0  TYPE=      1  TARGET=     1026.800
        FROM SECTION 3.400 TO SECTION 3.840, ET CARDS ARE USED TO MODEL
        EFFECTIVE FLOW AREAS IN BOTH OVERBANKS AT A 4:1 EXPANSION DOWNSTREAM
        FROM THE CHANNELIZATION.
   3.400    10.75  1240.65  1237.56  1238.10  1241.27      .62     1.64      .08  1238.90
  11000.    1005.    8934.    1061.     540.    1283.     523.     258.      44.   1240.80
     .29     1.86     6.96     2.03     .045     .040     .045     .000  1229.90  9470.20
 .002342     530.     528.     520.        2       14        0      .00  1022.20 10497.00


*SECNO 3.500

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9570.0   10440.0  TYPE=      1  TARGET=      870.000
   3.500    10.09  1241.99  1239.53  1240.23  1242.88      .89     1.53      .08  1241.70
  11000.     612.   10305.      84.     334.    1318.      49.     283.      55.   1242.00
     .31     1.83     7.82     1.71     .045     .040     .045     .000  1231.90  9570.00
 .003696     520.     528.     530.        2       11        0      .00   705.67 10277.05


*SECNO 3.600

3470 ENCROACHMENT STATIONS=     9660.0   10270.0  TYPE=      1  TARGET=      610.000
   3.600     9.61  1243.91  1242.10  1242.22  1245.28     1.37     2.26      .14  1242.30
  11000.     418.   10426.     156.     208.    1082.      61.     301.      62.   1243.10
     .32     2.01     9.64     2.54     .045     .040     .045     .000  1234.30  9660.00
 .005002     525.     528.     510.        2       15        0      .00   494.01 10154.01


*SECNO 3.700
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


3265 DIVIDED FLOW

3280 CROSS SECTION      3.70 EXTENDED      1.10 FEET


3470 ENCROACHMENT STATIONS=     9720.0   10110.0  TYPE=      1  TARGET=      390.000
   3.700    11.20  1246.40  1244.99  1244.55  1247.64     1.24     2.34      .01  1248.80
  11000.     970.    9812.     219.     326.    1044.      66.     318.      67.   1244.80
     .34     2.97     9.40     3.31     .045     .040     .045     .000  1235.20  9720.00
 .003979     515.     528.     515.        2        5        0      .00   371.77 10110.00


*SECNO 3.767

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9800.0   10078.3  TYPE=      1  TARGET=      278.300
   3.767    12.40  1247.70  1245.53  1245.96  1249.34     1.64     1.58      .12  1246.10
  11000.     519.   10481.       0.     178.     998.       0.     329.      70.   1248.10
     .35     2.91    10.50      .00     .045     .040     .000     .000  1235.30  9808.73
 .005045     355.     354.     355.        2        9        0      .00   260.09 10076.57


CCHV=     .100 CEHV=     .300
*SECNO 3.840

3470 ENCROACHMENT STATIONS=     9900.0   10073.6  TYPE=      1  TARGET=      173.600
        FROM SECTION 3.840 TO SECTION 4.422, SKUNK CREEK IS CHANNELIZED.
   3.840    10.48  1249.48  1247.64  1247.42  1251.00     1.52     1.65      .01  1246.50
  11000.    1157.    9843.       0.     218.     956.       0.     339.      72.   1250.20
     .36     5.30    10.30      .00     .045     .035     .000     .000  1239.00  9900.00
 .003718     370.     385.     390.        2       19        0      .00   170.60 10070.60


*SECNO 3.916

3470 ENCROACHMENT STATIONS=     9930.0   10076.0  TYPE=      1  TARGET=      146.000
   3.916     9.35  1250.95  1248.61  1248.92  1252.48     1.53     1.47      .00  1252.80
  11000.       0.   11000.       0.       0.    1106.       0.     350.      73.   1252.70
     .37      .00     9.94      .00     .000     .035     .000     .000  1241.60  9933.18
 .003646     390.     401.     410.        2       14        0      .00   139.34 10072.52
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


*SECNO 4.000

3470 ENCROACHMENT STATIONS=     9907.0   10074.0  TYPE=      1  TARGET=      167.000
    4.000     8.39  1252.59  1251.26  1250.50  1254.59     2.00     1.97      .14  1255.10
   11000.       0.   11000.       0.       0.     968.       0.     360.      74.   1254.60
      .38      .00     11.36      .00     .000     .035     .000     .000  1244.20  9932.29
  .005523     430.      444.     460.        0       15        0      .00   137.33 10069.62


*SECNO 4.057

3470 ENCROACHMENT STATIONS=     9920.0   10140.0  TYPE=      1  TARGET=      220.000
    4.057     8.82  1254.32  1252.62  1252.27  1256.14     1.82     1.53      .02  1257.00
   11000.       0.   11000.       0.       0.    1016.       0.     367.      75.   1258.80
      .39      .00     10.83      .00     .000     .035     .000     .000  1245.50  9929.34
  .004693     300.      301.     300.        2       15        0      .00   137.07 10066.41


*SECNO 4.082

3265 DIVIDED FLOW

        DOWNSTREAM FACE OF UNION HILLS BRIDGE.  BRIDGE IS MODELED AS OPEN
        CHANNEL FLOW, WITH GR POINTS DEFINING THE PIERS.
    4.082     9.06  1254.96  1253.61  1252.96  1257.14     2.18      .89      .11  1265.20
   11000.       0.   11000.       0.       0.     928.       0.     370.      76.   1258.40
      .39      .00     11.85      .00     .000     .035     .000     .000  1245.90  9759.71
  .007788     300.      150.      10.        2       11        0      .00   123.40  9888.99


*SECNO 4.131

3265 DIVIDED FLOW

        UPSTREAM FACE OF UNION HILLS BRIDGE.
    4.131     8.49  1256.69  1255.76  1254.52  1258.87     2.17     1.73      .00  1263.50
   11000.       0.   11000.       0.       0.     929.       0.     375.      76.   1263.60
      .40      .00     11.83      .00     .000     .035     .000     .000  1248.20  9821.70
  .008364     214.      214.     214.        2       15        0      .00   141.69  9969.27


*SECNO 4.177
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


3470 ENCROACHMENT STATIONS=     9930.0   10090.0  TYPE=      1  TARGET=      160.000
    4.177     8.88  1258.58  1256.70  1256.60  1260.36     1.78     1.45      .04  1262.10
   11000.       0.   11000.       0.       0.    1028.       0.     380.      77.   1261.20
      .40      .00    10.70      .00     .000     .035     .000     .000  1249.70  9937.68
  .004403      10.     245.     450.        1       15        0      .00   134.63 10072.31


*SECNO 4.300

3470 ENCROACHMENT STATIONS=     9910.0   10088.0  TYPE=      1  TARGET=      178.000
    4.300     8.45  1261.55  1260.06  1259.44  1263.47     1.92     3.07      .04  1263.90
   11000.       0.   11000.       0.       0.     988.       0.     395.      79.   1263.00
      .42      .00    11.13      .00     .000     .035     .000     .000  1253.10  9930.81
  .005086     630.     649.     680.        3       15        0      .00   136.37 10067.17


*SECNO 4.406

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9913.0   10089.0  TYPE=      1  TARGET=      176.000
    4.406     9.28  1264.58  1261.27  1262.29  1265.38      .80     1.80      .11  1268.50
    8400.       0.    8400.       0.       0.    1169.       0.     409.      81.   1267.40
      .44      .00     7.18      .00     .000     .035     .000     .000  1255.30  9921.10
  .001997     530.     560.     580.        2       19        0      .00   154.87 10075.97


*SECNO 4.415

3265 DIVIDED FLOW

        DOWNSTREAM FACE OF 59TH AVENUE BRIDGE.  BRIDGE IS MODELED AS OPEN
        CHANNEL FLOW, WITH GR POINTS DEFINING THE PIERS.
    4.415     8.50  1264.60  1261.81  1262.35  1265.57      .97      .14      .05  1269.30
    8400.       0.    8400.       0.       0.    1065.       0.     411.      81.   1270.00
      .44      .00     7.89      .00     .000     .035     .000     .000  1256.10  9925.67
  .003305      55.      55.      55.        2       14        0      .00   147.99 10076.12


*SECNO 4.436
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


3265 DIVIDED FLOW

        UPSTREAM FACE OF 59TH AVENUE BRIDGE.
   4.436     9.98  1265.18  1261.03  1262.99  1265.85      .67      .25      .03  1268.80
   8400.       0.    8400.       0.       0.    1277.       0.     413.      82.   1269.20
     .45      .00     6.58      .00     .000     .035     .000     .000  1255.20  9922.60
 .002002     100.     100.     100.        2       19        0      .00   154.42 10079.45

*SECNO 4.445

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.45


3470 ENCROACHMENT STATIONS=     9893.0   10112.0  TYPE=      1  TARGET=      219.000
   4.445     9.31  1265.51  1260.84  1263.26  1265.94      .43      .07      .02  1269.90
   8400.       0.    8400.       0.       0.    1588.       0.     415.      82.   1268.90
     .45      .00     5.29      .00     .000     .035     .000     .000  1256.20  9906.99
 .000958      50.      50.      50.        2       14        0      .00   191.88 10098.87

*SECNO 4.500

3470 ENCROACHMENT STATIONS=     9770.0   10160.0  TYPE=      1  TARGET=      390.000
   4.500     9.73  1265.93  1260.89  1263.66  1266.18      .25      .22      .02  1268.10
   8400.       0.    8400.       0.       0.    2087.       0.     427.      83.   1267.80
     .47      .00     4.03      .00     .000     .035     .000     .000  1256.20  9837.30
 .000620     290.     290.     290.        0        8        0      .00   278.39 10115.69

*SECNO 4.600

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .58


3470 ENCROACHMENT STATIONS=     9845.0   10183.0  TYPE=      1  TARGET=      338.000
   4.600     7.98  1266.28  1263.28  1264.13  1266.78      .50      .52      .08  1271.10
   8400.       0.    8400.       0.       0.    1476.       0.     449.      87.   1269.90
     .50      .00     5.69      .00     .000     .035     .000     .000  1258.30  9880.39
 .001813     530.     528.     530.        2        8        0      .00   262.24 10142.63
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST

*SECNO 4.674

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .54


3470 ENCROACHMENT STATIONS=     9750.0   10190.0  TYPE=      1  TARGET=      440.000
    4.674     6.28  1266.98  1266.15  1265.40  1268.19     1.22     1.20      .21  1272.60
    8400.       0.    8400.       0.       0.     949.       0.     460.      89.   1270.70
      .51      .00     8.85      .00     .000     .035     .000     .000  1260.70  9891.48
  .006291     390.     391.     390.        2       19        0      .00   221.69 10113.17


*SECNO 4.721

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.41


3470 ENCROACHMENT STATIONS=     9800.0   10225.0  TYPE=      1  TARGET=      425.000
        IMMEDIATELY UPSTREAM OF 57TH AVENUE DIP SECTION.
    4.721     7.61  1268.61  1266.88  1267.50  1269.32      .71     1.07      .05  1272.90
    8400.       0.    8400.       0.       0.    1242.       0.     466.      90.   1270.00
      .52      .00     6.77      .00     .000     .035     .000     .000  1261.00  9883.85
  .003155     240.     248.     260.        2       11        0      .00   257.82 10141.67


*SECNO 4.770

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    4.770     5.80  1269.40  1269.40  1268.46  1271.17     1.77     1.43      .32  1277.40
    8400.       0.    8400.       0.       0.     787.       0.     472.      92.   1277.10
      .53      .00    10.67      .00     .000     .035     .000     .000  1263.60  9891.68
  .012108     265.     259.     240.        0       15        0      .00   226.67 10118.35
```

```
SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST

*SECNO 4.870

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.38

   4.870     6.30  1273.00  1270.65  1271.79  1273.53      .53     2.24      .12  1277.60
   8400.       0.    8400.       0.       0.    1436.       0.     486.      95.   1277.50
     .55      .00     5.85      .00     .000     .035     .000     .000  1266.70  9834.10
 .002139     610.     528.     420.        4       14        0      .00   278.15 10112.24


*SECNO 4.893

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   4.893     7.65  1273.45  1273.45  1271.89  1276.04     2.59      .49      .62  1275.10
   8400.       0.    8400.       0.       0.     651.       0.     488.      95.   1275.20
     .55      .00    12.91      .00     .000     .035     .000     .000  1265.80  9924.89
 .010731     150.     121.     110.        0       11        0      .00   127.91 10052.80


*SECNO 4.922

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9842.0   10134.0  TYPE=      1  TARGET=      292.000
        IMMEDIATELY DOWNSTREAM AT 55TH AVENUE CHANNEL.
   4.922     6.11  1276.01  1275.26  1274.24  1277.50     1.48     1.35      .11  1276.50
   8400.       0.    8400.       0.       0.     860.       0.     491.      96.   1278.40
     .56      .00     9.77      .00     .000     .035     .000     .000  1269.90  9909.04
 .007345     155.     153.     145.        4       19        0      .00   194.36 10103.40


*SECNO 4.945
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9940.0   11340.0  TYPE=      1  TARGET=     1400.000
```

```
SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST

  4.945     8.91  1279.21  1279.21  1277.32  1280.87     1.66      .81      .05  1279.10
  8400.       0.    7167.    1233.       0.     645.     362.     494.     97.   1276.70
    .56     .02    11.12     3.40     .045     .035     .045     .000  1270.30  9946.29
 .005608    115.     121.     210.        0       11        0      .00   384.56 10330.85

*SECNO 4.974

3470 ENCROACHMENT STATIONS=     9957.0   10700.0  TYPE=      1  TARGET=      743.000
  4.974     9.92  1280.22  1277.33  1279.42  1281.52     1.30      .62      .04  1281.70
  8400.       0.    8371.      29.       0.     913.      35.     497.     98.   1279.50
    .57     .00     9.17      .81     .000     .035     .045     .000  1270.30  9965.16
 .003248    155.     153.      80.        2       15        0      .00   260.78 10225.94

*SECNO 5.008

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.99

3470 ENCROACHMENT STATIONS=     9873.0   10086.0  TYPE=      1  TARGET=      213.000
  5.008    11.13  1281.43  1275.51  1280.08  1281.87      .44      .26      .09  1279.50
  8400.      42.    8358.       0.      41.    1560.       0.     502.     99.   1285.70
    .58     1.02     5.36      .00     .045     .035     .000     .000  1270.30  9873.00
 .000823    190.     180.     175.        2       11        0      .00   204.38 10077.38

*SECNO 5.080

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .59

3470 ENCROACHMENT STATIONS=     9921.0   10250.0  TYPE=      1  TARGET=      329.000
  5.080     9.53  1281.53  1278.22  1280.18  1282.54     1.01      .50      .17  1282.00
  8400.       0.    8400.       0.       0.    1040.       0.     514.    100.   1283.60
    .59     .00     8.08      .00     .000     .035     .000     .000  1272.00  9923.83
 .002372    375.     380.     385.        2       11        0      .00   129.84 10053.66
```

```
   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST

CCHV=     .100 CEHV=     .300
*SECNO 5.103

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .64

        APPROXIMATE LOCATION OF 54TH AVENUE DIP SECTION.
   5.103     9.31  1281.71  1279.35  1280.32  1283.07     1.37      .43      .11  1281.90
   8400.      1.    8399.       0.       4.     895.       0.     517.     101.   1284.40
     .59      .37     9.38      .00     .048     .045     .000     .000  1272.40  9178.24
 .005815     120.     121.     120.        1       15        0      .00   185.25 10047.70


*SECNO 5.118

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     8790.0   10250.0  TYPE=      1  TARGET=     1460.000
   5.118    12.74  1284.14  1284.14  1281.76  1285.00      .86      .44      .05  1282.30
   8400.    3611.    4778.      11.    1270.     500.       7.     519.     102.   1283.40
     .59     2.84     9.55     1.44     .048     .045     .048     .000  1271.40  8987.66
 .005371      75.      79.     100.        0       11        0      .00  1055.01 10042.67


*SECNO 5.159

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9000.0   10175.0  TYPE=      1  TARGET=     1175.000
   5.159    13.02  1285.42  1285.15  1286.07  1286.09      .68     1.07      .02  1283.90
   8400.    3201.    5199.       0.    1153.     642.       0.     528.     107.   1285.30
     .60     2.78     8.10      .02     .048     .045     .048     .000  1272.40  9088.83
 .004558     220.     216.     165.        3        5        0      .00   947.84 10046.90


*SECNO 5.204
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


3265 DIVIDED FLOW

3280 CROSS SECTION      5.20 EXTENDED       .52 FEET


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.27


3470 ENCROACHMENT STATIONS=     8965.0   10250.0  TYPE=      1  TARGET=     1285.000
   5.204    12.72  1286.22  1279.58  1286.21  1286.52      .30      .39      .04  1282.50
   8400.     322.    8078.       0.     407.    1798.       0.     538.     111.   1286.50
     .62      .79     4.49      .00     .048     .045     .000     .000  1273.50  9137.16
 .000881     220.     230.     220.        2       14        0      .00   852.64 10107.87


*SECNO 5.263

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9587.0   10700.0  TYPE=      1  TARGET=     1113.000
        A LARGE BORROW PIT IN THE LEFT OVERBANK IS NOT EFFECTIVE FLOW AREA.
        THIS AREA HAS BEEN MODELED AS THOUGH THE HOLE WAS FILLED TO ELEVATION
        1286.0.
   5.263    10.91  1286.51  1282.11  1286.34  1286.94      .42      .38      .04  1283.60
   8400.     158.    7670.     572.     184.    1411.     243.     553.     117.   1286.00
     .64      .86     5.43     2.36     .048     .045     .048     .000  1275.60  9624.44
 .001703     320.     320.     320.        2       11        0      .00   641.31 10288.96


*SECNO 5.364

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.55

   5.364    12.17  1287.17  1279.42  1286.65  1287.26      .09      .29      .03  1288.10
   8400.       0.    8400.       0.       0.    3543.       0.     586.     123.   1287.10
     .70      .00     2.37      .01     .000     .045     .000     .000  1275.00  9956.53
 .000263     540.     533.     520.        2       18        0      .00   376.50 10333.03


CCHV=     .100 CEHV=     .300
```

| SECNO | DEPTH | CWSEL | CRIWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
|---|---|---|---|---|---|---|---|---|---|
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

*SECNO 5.397

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .65

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 5.397 | 10.45 | 1287.15 | 1281.48 | 1286.64 | 1287.36 | .21 | .07 | .04 | 1287.80 |
| 8400. | 0. | 8400. | 0. | 0. | 2263. | 0. | 598. | 124. | 1287.10 |
| .71 | .00 | 3.71 | .01 | .000 | .040 | .000 | .000 | 1276.70 | 9971.07 |
| .000622 | 155. | 174. | 190. | 2 | 18 | 0 | .00 | 278.44 | 10249.51 |

*SECNO 5.432

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.42

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 5.432 | 11.03 | 1287.33 | 1280.48 | 1286.73 | 1287.45 | .12 | .08 | .01 | 1288.90 |
| 8400. | 0. | 8400. | 0. | 0. | 2982. | 0. | 609. | 126. | 1290.10 |
| .73 | .00 | 2.82 | .00 | .000 | .040 | .000 | .000 | 1276.30 | 9971.18 |
| .000306 | 140. | 185. | 220. | 2 | 18 | 0 | .00 | 326.11 | 10297.29 |

*SECNO 5.500

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .62

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 5.500 | 8.23 | 1287.43 | 1283.36 | 1286.79 | 1287.64 | .21 | .16 | .03 | 1281.70 |
| 8400. | 2134. | 6266. | 0. | 780. | 1601. | 0. | 630. | 128. | 1293.70 |
| .76 | 2.74 | 3.91 | .00 | .048 | .040 | .000 | .000 | 1279.20 | 9683.66 |
| .000793 | 310. | 359. | 290. | 2 | 22 | 0 | .00 | 366.80 | 10050.45 |

*SECNO 5.579

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 5.579 | 6.88 | 1289.68 | 1289.68 | 1288.79 | 1291.33 | 1.66 | .80 | .44 | 1289.10 |
| 8400. | 3310. | 5090. | 0. | 412. | 439. | 0. | 645. | 131. | 1294.30 |
| .77 | 8.03 | 11.59 | .00 | .048 | .040 | .000 | .000 | 1282.80 | 9788.88 |
| .013968 | 330. | 417. | 375. | 0 | 12 | 0 | .00 | 259.32 | 10048.20 |

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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST

*SECNO 5.679

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

    5.679     7.17  1295.27  1294.48  1294.25  1296.30     1.03     4.91      .06  1295.00
    8400.     473.    7926.       1.     136.     949.       0.     656.     135.   1294.50
      .79     3.49     8.35     1.23     .048     .040     .048     .000  1288.10  9649.19
  .007235     410.     528.     520.        3       12        0      .00   435.73 10115.22


*SECNO 5.754

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9720.0   10092.0  TYPE=      1  TARGET=      372.000
    5.754     7.40  1298.30  1297.77  1297.30  1299.55     1.25     3.18      .07  1297.10
    8400.    1991.    6409.       0.     362.     652.       0.     666.     138.   1298.70
      .80     5.50     9.82      .00     .048     .040     .000     .000  1290.90  9725.83
  .007939     410.     422.     360.        3       11        0      .00   267.59 10080.01


*SECNO 5.837

3470 ENCROACHMENT STATIONS=     9774.0   10155.0  TYPE=      1  TARGET=      381.000
    5.837     6.79  1301.89  1300.99  1300.89  1302.92     1.03     3.35      .02  1300.80
    8400.      61.    8339.       0.      28.    1019.       0.     676.     141.   1301.70
      .81     2.18     8.19      .55     .048     .040     .048     .000  1295.10  9809.59
  .007317     450.     438.     425.        2       15        0      .00   290.61 10100.21


CCHV=     .100 CEHV=     .300
*SECNO 5.881

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.03
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


3470 ENCROACHMENT STATIONS=     9820.0   10136.0  TYPE=      1  TARGET=      316.000
        FROM SECTION 5.881 TO SECTION 6.568, SKUNK CREEK IS CHANNELIZED.
   5.881     7.83  1303.13  1298.99  1301.90  1303.42      .29      .42      .07  1306.10
   8400.       0.    8400.       0.       0.    1960.       0.     684.     142.   1306.80
     .83      .00     4.29      .00     .000     .035     .000     .000  1295.30  9832.42
  .000796    230.     232.     230.        2       11        0      .00   287.75 10120.17


*SECNO 5.970
   5.970     7.70  1303.50  1299.62  1302.21  1303.84      .33      .41      .01  1305.50
   8400.       0.    8400.       0.       0.    1812.       0.     705.     145.   1305.20
     .86      .00     4.64      .00     .000     .035     .000     .000  1295.80  9871.38
  .000942    500.     470.     430.        3       11        0      .00   267.60 10138.98


*SECNO 5.973
        LOWER WALL OF DROP STRUCTURE DOWNSTREAM OF HAVASUPAI DRIVE.
   5.973     6.10  1303.40  1300.65  1302.13  1303.91      .51      .02      .05  1305.10
   8400.       0.    8400.       0.       0.    1464.       0.     705.     146.   1305.10
     .86      .00     5.74      .00     .000     .035     .000     .000  1297.30  9879.92
  .001749     16.      16.      16.        2       14        0      .00   240.16 10120.08


*SECNO 5.977

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1306.10 ELREA=      1306.10

        UPPER WALL OF DROP STRUCTURE AT HAVASUPAI DRIVE.
   5.977     5.25  1304.15  1304.15  1303.33  1305.87     1.71      .08      .36  1306.10
   8400.       0.    8400.       0.       0.     800.       0.     706.     146.   1306.10
     .86      .00    10.51      .00     .000     .035     .000     .000  1298.90  9879.94
  .013014     21.      21.      21.        0       15        0      .00   240.12 10120.06


*SECNO 5.982
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| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SECNO | DEPTH | CWSEL | CRIWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 3.27

HAVASUPAI DRIVE DIP SECTION.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 5.982 | 6.56 | 1305.76 | 1303.07 | 1304.56 | 1306.08 | .33 | .07 | .14 | 1301.70 |
| 8400. | 328. | 7603. | 468. | 171. | 1593. | 224. | 707. | 146. | 1301.70 |
| .86 | 1.92 | 4.77 | 2.09 | .045 | .035 | .045 | .000 | 1299.20 | 9743.64 |
| .001215 | 26. | 26. | 26. | 3 | 15 | 0 | .00 | 515.62 | 10259.26 |

*SECNO 5.990

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 5.990 | 8.08 | 1305.78 | 1302.54 | 1304.62 | 1306.15 | .37 | .05 | .01 | 1306.30 |
| 8400. | 0. | 8400. | 0. | 0. | 1726. | 0. | 708. | 146. | 1306.80 |
| .86 | .00 | 4.87 | .00 | .000 | .035 | .000 | .000 | 1297.70 | 9847.61 |
| .001265 | 42. | 42. | 42. | 2 | 19 | 0 | .00 | 296.55 | 10144.16 |

*SECNO 6.089

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 6.089 | 7.75 | 1306.45 | 1303.47 | 1305.19 | 1306.87 | .41 | .71 | .01 | 1309.30 |
| 8400. | 0. | 8400. | 0. | 0. | 1628. | 0. | 729. | 150. | 1309.90 |
| .89 | .00 | 5.16 | .00 | .000 | .035 | .000 | .000 | 1298.70 | 9864.89 |
| .001449 | 480. | 523. | 525. | 2 | 14 | 0 | .00 | 284.32 | 10149.21 |

*SECNO 6.189

CONFLUENCE WITH SCATTER WASH.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 6.189 | 8.19 | 1307.19 | 1303.79 | 1305.85 | 1307.56 | .37 | .69 | .00 | 1310.80 |
| 8400. | 0. | 8400. | 0. | 0. | 1711. | 0. | 749. | 153. | 1309.90 |
| .92 | .00 | 4.91 | .00 | .000 | .035 | .000 | .000 | 1299.00 | 9860.85 |
| .001195 | 505. | 528. | 505. | 2 | 14 | 0 | .00 | 278.49 | 10139.34 |

*SECNO 6.219

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .43

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 6.219 | 7.94 | 1307.54 | 1303.05 | 1306.04 | 1307.74 | .20 | .16 | .02 | 1309.90 |
| 2600. | 0. | 2600. | 0. | 0. | 732. | 0. | 753. | 154. | 1309.90 |
| .93 | .00 | 3.55 | .00 | .000 | .035 | .000 | .000 | 1299.60 | 9943.86 |
| .000605 | 180. | 158. | 40. | 2 | 18 | 0 | .00 | 114.15 | 10058.01 |

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


*SECNO 6.223
        LOWER WALL OF DROP STRUCTURE.
    6.223     7.18  1307.48  1303.49  1305.98  1307.79       .32       .02       .04  1308.50
    2600.       0.    2600.       0.       0.     575.        0.     754.      154.   1308.50
      .93      .00     4.52      .00     .000     .035      .000      .000  1300.30  9959.91
  .001020      40.      23.      20.        2       18         0       .00    80.17 10040.09


*SECNO 6.227

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
        UPPER WALL OF DROP STRUCTURE.
    6.227     3.19  1308.19  1308.19  1307.86  1309.80      1.61       .05       .39  1310.00
    2600.       0.    2600.       0.       0.     255.        0.     754.      154.   1310.00
      .93      .00    10.18      .00     .000     .035      .000      .000  1305.00  9959.94
  .013556      10.      19.      10.        0       14         0       .00    80.13 10040.06


*SECNO 6.230

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.13

    6.230     6.31  1309.71  1307.07  1309.22  1309.98       .27       .05       .13  1313.30
    2600.       0.    2600.       0.       0.     624.        0.     754.      154.   1310.30
      .94      .00     4.17      .00     .000     .035      .000      .000  1303.40  9930.23
  .001381      16.      16.      16.        3        8         0       .00   144.46 10074.70


*SECNO 6.298
    6.298     6.62  1310.22  1307.93  1309.73  1310.57       .35       .56       .02  1313.20
    2600.       0.    2600.       0.       0.     551.        0.     759.      155.   1313.10
      .96      .00     4.72      .00     .000     .035      .000      .000  1303.60  9924.49
  .001783     360.     359.     360.        3       19         0       .00   128.04 10052.54


*SECNO 6.356
```

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SECNO | DEPTH | CWSEL | CRIWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .52

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 6.356 | 5.88 | 1310.68 | 1309.90 | 1310.24 | 1311.72 | 1.05 | .95 | .21 | 1316.30 |
| 2600. | 0. | 2600. | 0. | 0. | 316. | 0. | 762. | 156. | 1314.90 |
| .97 | .00 | 8.21 | .00 | .000 | .035 | .000 | .000 | 1304.80 | 9950.38 |
| .006629 | 315. | 306. | 305. | 2 | 15 | 0 | .00 | 85.26 | 10035.64 |

CCHV= .300 CEHV= .500
*SECNO 6.361

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 2.64

DOWNSTREAM FACE OF 5-10'X6' CONCRETE BOX CULVERTS AT WAHALLA DRIVE.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 6.361 | 5.68 | 1310.68 | 1309.19 | 1310.34 | 1311.82 | 1.14 | .05 | .04 | 1315.90 |
| 2600. | 0. | 2600. | 0. | 0. | 304. | 0. | 762. | 156. | 1315.90 |
| .97 | .00 | 8.56 | .00 | .000 | .015 | .000 | .000 | 1305.00 | 9973.25 |
| .000950 | 60. | 26. | 5. | 2 | 15 | 0 | .00 | 53.50 | 10026.75 |

SPECIAL BRIDGE

| SB | XK | XKOR | COFQ | RDLEN | BWC | BWP | BAREA | SS | ELCHU | ELCHD |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.25 | 1.56 | 2.90 | .00 | 53.30 | 3.30 | 300.00 | .00 | 1305.00 | 1305.00 |

*SECNO 6.377
PRESSURE FLOW

| EGPRS | EGLWC | H3 | QWEIR | QPR | BAREA | TRAPEZOID AREA | ELLC | ELTRD | WEIRLN |
|---|---|---|---|---|---|---|---|---|---|
| 1312.50 | 1312.12 | .47 | 0. | 2600. | 300. | 300. | 1311.00 | 1314.90 | 0. |

UPSTREAM FACE OF 5-10'X6' CONCRETE BOX CULVERTS AT WAHALLA DRIVE.
SPECIAL BRIDGE METHOD USED.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 6.377 | 6.68 | 1311.68 | .00 | 1310.88 | 1312.50 | .82 | .68 | .00 | 1315.90 |
| 2600. | 0. | 2600. | 0. | 0. | 357. | 0. | 763. | 156. | 1315.90 |
| .97 | .00 | 7.28 | .00 | .000 | .015 | .000 | .000 | 1305.00 | 9973.24 |
| .000577 | 72. | 72. | 72. | 3 | 0 | 0 | .00 | 53.52 | 10026.76 |

```
   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST

*SECNO 6.378

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.74

    6.378     7.33  1312.33  1308.28  1311.48  1312.66      .33      .00      .15  1315.90
    2600.       0.    2600.       0.       0.     565.       0.     763.     156.   1315.90
      .97      .00     4.60      .00     .000     .015     .000     .000  1305.00  9961.43
  .000191      10.      10.      10.        2       11        0      .00    77.13 10038.57

*SECNO 6.379

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
        DROP STRUCTURE INTO BOX CULVERTS AT WAHALLA DRIVE.
    6.379     3.27  1314.27  1314.27  1313.93  1315.92     1.65      .00      .66  1315.90
    2600.       0.    2600.       0.       0.     252.       0.     763.     156.   1315.90
      .97      .00    10.31      .00     .000     .015     .000     .000  1311.00  9961.43
  .002483       0.       0.       0.        0       14        0      .00    77.13 10038.57

CCHV=     .100 CEHV=     .300
*SECNO 6.389
3280 CROSS SECTION      6.39 EXTENDED       .99 FEET

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     9936.0   10081.0  TYPE=      1  TARGET=      145.000
    6.389     6.59  1315.69  1313.52  1315.21  1316.17      .47      .13      .12  1315.20
    2600.       1.    2599.       0.       2.     470.       0.     763.     156.   1315.60
      .97      .63     5.53      .21     .045     .035     .045     .000  1309.10  9943.56
  .002347      10.      53.      85.        4       11        0      .00   118.14 10061.71

*SECNO 6.471

3470 ENCROACHMENT STATIONS=     9960.0   10400.0  TYPE=      1  TARGET=      440.000
    6.471     5.27  1316.87  1315.51  1316.41  1317.54      .68     1.31      .06  1318.30
    2600.       0.    2600.       0.       0.     394.       0.     767.     157.   1318.00
      .99      .00     6.61      .00     .000     .035     .000     .000  1311.60  9966.61
  .004075     380.     433.     480.        2       14        0      .00   102.18 10068.78
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


CCHV=     .100 CEHV=     .300
*SECNO 6.568

3470 ENCROACHMENT STATIONS=     9930.0   10089.0  TYPE=      1  TARGET=      159.000
    6.568     6.27  1318.87  1316.94  1318.41  1319.45      .59     1.90      .01  1320.80
    2600.       0.    2600.       0.       0.     423.       0.     772.     158.   1319.20
     1.02      .00     6.15      .00     .000     .038     .000     .000  1312.60  9961.68
  .003397     510.     512.     525.        2       15        0      .00    93.94 10055.62


*SECNO 6.615

3470 ENCROACHMENT STATIONS=     9845.0   10300.0  TYPE=      1  TARGET=      455.000
    6.615     6.56  1319.86  1318.35  1319.37  1320.23      .38      .76      .02  1318.70
    2600.     307.    2293.       0.     112.     446.       0.     775.     159.   1320.30
     1.03     2.74     5.14      .00     .045     .038     .000     .000  1313.30  9864.78
  .002786     230.     248.     260.        2       12        0      .00   173.03 10037.81


*SECNO 6.717

3470 ENCROACHMENT STATIONS=     9953.0   10270.0  TYPE=      1  TARGET=      317.000
    6.717     5.77  1321.37  1319.70  1321.03  1321.71      .33     1.47      .00  1321.30
    2600.       0.    2598.       2.       0.     561.       2.     782.     161.   1320.90
     1.06      .02     4.64      .66     .045     .038     .045     .000  1315.60  9953.00
  .002713     480.     539.     515.        2       14        0      .00   172.53 10125.53


*SECNO 6.779
    6.779     3.23  1322.53  1321.67  1322.23  1322.81      .28     1.10      .01  1322.20
    2600.       1.    2599.       0.       1.     610.       0.     786.     163.   1322.90
     1.08      .65     4.26      .00     .045     .038     .000     .000  1319.30  9866.54
  .004280     340.     327.     290.        2       18        0      .00   292.00 10158.54


*SECNO 6.809
         INTERSECTION OF 43RD AVENUE AND BEARDSLEY ROAD DIP SECTION.
    6.809     4.43  1323.13  1322.50  1322.91  1323.68      .56      .79      .08  1324.30
    2600.       0.    2463.     137.       0.     402.      61.     788.     164.   1322.30
     1.09      .00     6.13     2.26     .000     .038     .045     .000  1318.70  9970.65
  .006004     200.     158.      85.        2       11        0      .00   220.18 10190.82
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO 6.831

3470 ENCROACHMENT STATIONS=     9822.0   10137.0  TYPE=      1  TARGET=      315.000
    6.831     3.46  1323.96  1323.00  1323.69  1324.26      .30      .55      .03  1324.90
    2600.       0.    2600.       0.       0.     591.       0.     789.     164.   1325.10
     1.10      .00     4.40      .00     .000     .038     .000     .000  1320.50  9881.26
  .003912     150.     116.      70.        2       11        0      .00   244.45 10125.72


*SECNO 6.896
    6.896     5.10  1325.50  1324.89  1325.27  1326.19      .69     1.82      .12  1327.40
    2600.       0.    2600.       0.       0.     390.       0.     793.     166.   1327.20
     1.11      .00     6.67      .00     .000     .038     .000     .000  1320.40  9949.22
  .007561     400.     343.     300.        2       11        0      .00   140.01 10089.23


*SECNO 7.000

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.58

    7.000     5.26  1328.26  1326.57  1327.89  1328.71      .44     2.49      .02  1329.50
    2600.       0.    2600.       0.       0.     486.       0.     799.     168.   1346.20
     1.14      .00     5.35      .00     .000     .038     .000     .000  1323.00  9973.42
  .003028     590.     549.     500.        2       19        0      .00   122.41 10095.83


CCHV=     .100 CEHV=     .300
*SECNO 7.100

3470 ENCROACHMENT STATIONS=     9823.0   10027.0  TYPE=      1  TARGET=      204.000
         SECTION 7.100 TO SECTION 7.409 SKUNK CREEK IS CHANNELIZED.
    7.100     5.47  1330.17  1329.27  1329.83  1330.61      .44     1.90      .00  1332.10
    2600.       0.    2600.       0.       0.     488.       0.     805.     169.   1334.90
     1.17      .00     5.33      .00     .000     .035     .000     .000  1324.70  9830.95
  .004349     470.     528.     510.        3       12        0      .00   184.46 10015.41


*SECNO 7.174

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


3470 ENCROACHMENT STATIONS=     9960.0   10038.0  TYPE=      1  TARGET=       78.000
    7.174     6.39  1332.49  1332.49  1332.31  1334.47     1.98     2.42      .46  1340.30
    1730.       0.    1730.       0.       0.     153.       0.     808.     170.   1339.90
     1.18      .00    11.29      .00     .000     .035     .000     .000  1326.10  9982.46
  .012288     425.     391.     420.        0        8        0      .00    38.71 10021.17


*SECNO 7.244

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.57


3470 ENCROACHMENT STATIONS=     9950.0   10044.0  TYPE=      1  TARGET=       94.000
    7.244     8.66  1335.56  1332.31  1335.39  1336.05      .49     1.43      .15  1341.50
    1730.       0.    1730.       0.       0.     309.       0.     810.     171.   1340.60
     1.20      .00     5.59      .00     .000     .035     .000     .000  1326.90  9972.61
  .001866     400.     370.     350.        3       15        0      .00    54.43 10027.04


*SECNO 7.327

3470 ENCROACHMENT STATIONS=     9950.0   10040.0  TYPE=      1  TARGET=       90.000
    7.327     9.66  1336.36  1332.19  1336.18  1336.71      .35      .65      .01  1341.60
    1730.       0.    1730.       0.       0.     365.       0.     813.     171.   1341.50
     1.22      .00     4.74      .00     .000     .035     .000     .000  1326.70  9968.40
  .001194     480.     438.     380.        2       14        0      .00    59.02 10027.42


*SECNO 7.409

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.85

         OUTLET FROM ADOBE DAM.
    7.409    14.18  1336.78  1326.66  1336.58  1336.83      .04      .09      .03  1341.40
    1730.       0.    1730.       0.       0.    1022.       0.     820.     172.   1341.10
     1.29      .00     1.69      .00     .000     .035     .000     .000  1322.60  9952.96
  .000081     470.     433.     400.        2       18        0      .00   103.61 10056.57
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


CCHV=     .100 CEHV=     .300
*SECNO -6.189
START TRIB COMP
     -6.189     6.189  1307.190
   -6.189     8.19  1307.19      .00  1305.85  1307.56      .37      .29     -.17  1310.80
    8400.       0.    8400.       0.       0.    1711.       0.     836.     175.   1309.90
     1.32      .00     4.91      .00     .000     .035     .000     .000  1299.00  9860.85
  .001195     505.     528.     505.        0        0        0      .00   278.49 10139.34


*SECNO  .028

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .53

         SCATTER WASH
     .028     6.45  1307.25  1304.83  1305.99  1307.86      .61      .22      .07  1311.60
    6100.       0.    6100.       0.       0.     972.       0.     841.     175.   1308.90
     1.33      .00     6.28      .00     .000     .035     .000     .000  1300.80  9915.07
  .002221     100.     148.     170.        2        8        0      .00   172.74 10087.81


*SECNO  .032

3470 ENCROACHMENT STATIONS=     9919.0   10081.0  TYPE=      1  TARGET=      162.000
         LOWER WALL OF DROP STRUCTURE IMMEDIATELY UPSTREAM OF SKUNK CREEK.
     .032     5.87  1307.27  1304.95  1306.01  1307.93      .65      .05      .01  1308.50
    6100.       0.    6100.       0.       0.     941.       0.     842.     175.   1308.50
     1.33      .00     6.48      .00     .000     .035     .000     .000  1301.40  9919.92
  .002410      23.      23.      23.        1       11        0      .00   160.16 10080.08


*SECNO  .036

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9919.0   10081.0  TYPE=      1  TARGET=      162.000
         UPPER WALL OF DROP STRUCTURE.
     .036     3.55  1309.25  1309.25  1308.15  1311.04     1.79      .09      .34  1311.50
    6100.       0.    6100.       0.       0.     568.       0.     842.     175.   1311.50
     1.33      .00    10.75      .00     .000     .035     .000     .000  1305.70  9919.94
  .012551      19.      19.      19.        0       14        0      .00   160.12 10080.06
```

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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST

*SECNO  .040

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.12

3470 ENCROACHMENT STATIONS=     9897.0   10120.0  TYPE=      1  TARGET=      223.000
     .040     7.30  1310.60  1308.58  1309.16  1311.26      .66      .11      .11  1312.60
    6100.       0.    6100.       0.       0.     937.       0.     842.     176.   1313.80
     1.33      .00     6.51      .00     .000     .035     .000     .000  1303.30  9910.74
  .002794      21.      21.      21.        3       14        0      .00   186.29 10097.03

*SECNO  .116

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.45

3470 ENCROACHMENT STATIONS=     9878.0   10100.0  TYPE=      1  TARGET=      222.000
     .116     8.94  1311.64  1308.36  1310.00  1312.03      .40      .75      .03  1313.40
    6100.       0.    6100.       0.       0.    1206.       0.     852.     177.   1315.20
     1.35      .00     5.06      .00     .000     .035     .000     .000  1302.70  9883.79
  .001328     410.     401.     400.        3       15        0      .00   202.24 10086.03

*SECNO  .184

3470 ENCROACHMENT STATIONS=     9896.0   10120.0  TYPE=      1  TARGET=      224.000
     .184     8.21  1312.11  1309.62  1310.43  1312.70      .59      .61      .06  1315.90
    6100.       0.    6100.       0.       0.     990.       0.     861.     179.   1317.50
     1.37      .00     6.16      .00     .000     .035     .000     .000  1303.90  9913.77
  .002248     340.     359.     350.        2       14        0      .00   183.54 10097.30

CCHV=     .300 CEHV=     .500
*SECNO  .200

3301 HV CHANGED MORE THAN HVINS
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| SECNO | DEPTH | CWSEL | CRIWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
|---|---|---|---|---|---|---|---|---|---|
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.82

DOWNSTREAM FACE OF 10-10'X5' CONCRETE BOX CULVERTS AT 45TH AVENUE.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| .200 | 6.65 | 1311.95 | 1309.91 | 1310.40 | 1313.06 | 1.11 | .10 | .26 | 1316.60 |
| 6100. | 0. | 6100. | 0. | 0. | 721. | 0. | 863. | 179. | 1316.60 |
| 1.37 | .00 | 8.46 | .00 | .000 | .015 | .000 | .000 | 1305.30 | 9945.74 |
| .000681 | 70. | 84. | 85. | 2 | 11 | 0 | .00 | 108.52 | 10054.26 |

SPECIAL BRIDGE

| SB XK | XKOR | COFQ | RDLEN | BWC | BWP | BAREA | SS | ELCHU | ELCHD |
|---|---|---|---|---|---|---|---|---|---|
| 1.25 | 1.56 | 2.90 | .00 | 107.50 | 7.50 | 600.00 | .00 | 1305.40 | 1305.30 |

*SECNO .212

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.44

PRESSURE FLOW

| EGPRS | EGLWC | H3 | QWEIR | QPR | BAREA | TRAPEZOID AREA | ELLC | ELTRD | WEIRLN |
|---|---|---|---|---|---|---|---|---|---|
| 1314.45 | 1313.40 | .45 | 0. | 6100. | 600. | 600. | 1311.40 | 1316.20 | 0. |

UPSTREAM FACE OF 10-10'X6' CONCRETE BOX CULVERTS AT 45TH AVENUE.
SPECIAL BRIDGE METHOD USED.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| .212 | 8.35 | 1313.75 | .00 | 1310.60 | 1314.45 | .70 | 1.39 | .00 | 1316.50 |
| 6100. | 0. | 6100. | 0. | 0. | 906. | 0. | 864. | 179. | 1316.50 |
| 1.37 | .00 | 6.73 | .00 | .000 | .015 | .000 | .000 | 1305.40 | 9945.72 |
| .000330 | 60. | 60. | 60. | 2 | 0 | 0 | .00 | 108.55 | 10054.28 |

*SECNO .213

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| .213 | 8.67 | 1314.07 | 1309.49 | 1310.90 | 1314.53 | .46 | .00 | .07 | 1316.50 |
| 6100. | 0. | 6100. | 0. | 0. | 1126. | 0. | 864. | 179. | 1316.50 |
| 1.38 | .00 | 5.42 | .00 | .000 | .015 | .000 | .000 | 1305.40 | 9935.02 |
| .000198 | 10. | 10. | 10. | 2 | 11 | 0 | .00 | 129.96 | 10064.98 |

*SECNO .214

```
   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
        DROP STRUCTURE INTO BOX CULVERTS AT 45TH AVENUE.
     .214     4.08  1314.38  1314.38  1313.12  1316.44     2.06      .00      .80  1316.50
    6100.       0.    6100.       0.       0.     530.       0.     864.     179.   1316.50
     1.38      .00    11.52      .00     .000     .015     .000     .000  1310.30  9935.03
  .002248       0.       0.       0.        0       14        0      .00   129.93 10064.97


CCHV=     .100 CEHV=     .300
*SECNO  .232

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9859.0   10200.0  TYPE=      1  TARGET=      341.000
     .232     7.91  1316.21  1313.82  1314.46  1316.80      .59      .21      .15  1317.80
    6100.       0.    6100.       0.       0.     991.       0.     866.     180.   1317.90
     1.38      .00     6.16      .00     .000     .035     .000     .000  1308.30  9879.87
  .002264      80.      95.     100.        4       11        0      .00   184.65 10064.52


*SECNO  .337
     .337     7.08  1317.48  1314.99  1315.79  1317.75      .26      .92      .03  1320.30
    6100.       0.    6100.       0.       0.    1478.       0.     882.     183.   1321.00
     1.42      .00     4.13      .00     .000     .035     .000     .000  1310.40  9873.25
  .001260     560.     554.     530.        2       14        0      .00   324.90 10198.15


*SECNO  .438

3470 ENCROACHMENT STATIONS=     9800.0   10265.0  TYPE=      1  TARGET=      465.000
        BOTTOM OF DROP STRUCTURE IMMEDIATELY DOWNSTREAM OF 43RD AVENUE.
     .438     5.35  1318.15  1315.59  1316.64  1318.34      .20      .59      .01  1320.60
    6100.       0.    6100.       0.       0.    1709.       0.     901.     187.   1322.40
     1.46      .00     3.57      .00     .000     .035     .000     .000  1312.80  9864.91
  .000980     545.     533.     420.        2       18        0      .00   386.87 10251.78
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO  .441
3280 CROSS SECTION       .44 EXTENDED       .64 FEET


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9847.0   10273.0  TYPE=      1  TARGET=      426.000
        TOP OF DROP STRUCTURE IMMEDIATELY DOWNSTREAM OF 43RD AVENUE.
    .441     2.14  1319.84  1319.84  1319.23  1320.81      .98      .04      .23  1321.40
   6100.       0.    6100.       0.       0.     769.       0.     901.     187.   1322.50
    1.46      .00     7.93      .00     .000     .035     .000     .000  1317.70  9863.90
  .014579     16.      16.      16.        0       18        0      .00   399.22 10263.11


*SECNO  .458
3280 CROSS SECTION       .46 EXTENDED       .08 FEET


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.90


3470 ENCROACHMENT STATIONS=     9800.0   10452.0  TYPE=      1  TARGET=      652.000
        43RD AVENUE DIP SECTION.
        FROM SECTION 0.458 TO SECTION 0.629, ET CARDS ARE USED TO MODEL
        EFFECTIVE FLOW IN BOTH OVERBANKS AT A 1:1 CONTRACTION UPSTREAM FROM
        THE CHANNELIZATION.
    .458     3.58  1321.18  1320.44  1320.46  1321.50      .31      .62      .07  1319.20
   6100.     887.    5180.      33.     274.    1105.      16.     904.     189.   1319.20
    1.46     3.24     4.69     2.07     .045     .035     .045     .000  1317.60  9800.00
  .004032     70.      90.     250.        3       11        0      .00   638.22 10438.22


CCHV=     .100 CEHV=     .300
*SECNO  .489

3470 ENCROACHMENT STATIONS=     9650.0   10700.0  TYPE=      1  TARGET=     1050.000
    .489     3.54  1322.04  1320.72  1321.34  1322.14      .11      .63      .02  1320.00
   6100.    1859.    3105.    1137.     693.    1165.     492.     911.     192.   1321.90
    1.48     2.68     2.67     2.31     .060     .060     .060     .000  1318.50  9650.00
  .003570    170.     163.     170.        3       14        0      .00  1050.00 10700.00
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST

*SECNO  .568

3265 DIVIDED FLOW

3280 CROSS SECTION       .57 EXTENDED      1.44 FEET

     .568     3.14  1323.54  1322.55  1322.97  1323.62      .08     1.47      .00  1322.30
    6100.    2856.    2219.    1025.    1344.     883.     507.     934.     204.   1323.60
     1.53     2.13     2.51     2.02     .060     .060     .060     .000  1320.40  9031.40
  .003731     435.     417.     300.        2       14        0      .00  1681.99 10897.52

*SECNO  .629

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=     9491.0   11470.0  TYPE=      1  TARGET=     1979.000
     .629     4.25  1324.85  1324.02  1324.36  1324.95      .10     1.33      .01  1323.20
    6100.    1502.     691.    3906.     581.     277.    1492.     952.     215.   1323.90
     1.56     2.59     2.49     2.62     .060     .060     .060     .000  1320.60  9498.69
  .005271     340.     322.     255.        2        8        0      .00  1628.73 11260.42

CCHV=     .100 CEHV=     .300
*SECNO  .736
3280 CROSS SECTION       .74 EXTENDED       .14 FEET

3470 ENCROACHMENT STATIONS=     9840.0   11000.0  TYPE=      1  TARGET=     1160.000
     .736     3.44  1327.34  1326.47  1326.75  1327.51      .17     2.53      .02  1325.60
    6100.     434.     249.    5417.     162.      55.    1653.     975.     230.   1326.50
     1.60     2.67     4.55     3.28     .055     .045     .055     .000  1323.90  9869.92
  .005398     600.     565.     440.        2       14        0      .00  1055.95 10925.87

*SECNO  .813

3470 ENCROACHMENT STATIONS=     9935.0   10757.0  TYPE=      1  TARGET=      822.000
     .813     6.42  1329.82  1328.74  1329.08  1330.04      .22     2.52      .02  1326.60
    6100.     403.     521.    5177.     105.      82.    1501.     996.     241.   1326.10
     1.64     3.84     6.32     3.45     .055     .045     .055     .000  1323.40  9955.36
  .004590     370.     407.     525.        2       17        0      .00   771.35 10726.71
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


*SECNO  .860
     .860      4.50   1330.80   1329.19   1329.98   1330.97       .17       .92       .01   1327.80
    6100.     1752.      820.     3528.      502.      211.     1135.     1006.      245.    1328.30
     1.66      3.49      3.89      3.11      .055      .045      .055      .000   1326.30   9849.18
  .003106      235.      248.      250.         2        18         0       .00    630.80  10479.98


*SECNO  .949
     .949      4.56   1332.26   1331.47   1331.51   1332.42       .16      1.44       .00   1330.70
    6100.     3386.      255.     2459.      980.       51.      987.     1023.      253.    1330.40
     1.70      3.46      4.96      2.49      .055      .045      .055      .000   1327.70   9580.78
  .004829      320.      470.      410.         2        10         0       .00   1187.83  10768.62


CCHV=     .100 CEHV=     .300
*SECNO 1.038

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9589.0   11340.0  TYPE=      1  TARGET=     1751.000
    1.038      3.04   1334.44   1333.83   1334.05   1334.59       .15      2.17       .00   1332.30
    6100.     1898.      511.     3691.      602.      111.     1350.     1042.      265.    1332.90
     1.74      3.15      4.60      2.73      .050      .040      .050      .000   1331.40   9589.00
  .005231      580.      470.      300.         4        11         0       .00   1511.47  11104.77


*SECNO 1.144

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9445.0   11388.0  TYPE=      1  TARGET=     1943.000
    1.144      5.99   1336.89   1336.49   1336.41   1337.06       .16      2.46       .00   1336.50
    6100.     1134.      565.     4401.      466.       92.     1556.     1064.      282.    1335.60
     1.78      2.44      6.17      2.83      .050      .040      .050      .000   1330.90   9483.36
  .005296      590.      560.      410.         3        15         0       .00   1726.41  11344.32


*SECNO 1.257
        NEAR BEARDSLEY ROAD DIP SECTION.
    1.257      4.80   1338.70   1338.22   1338.21   1338.90       .20      1.83       .01   1334.00
    6100.      922.     1633.     3545.      373.      286.     1560.     1086.      297.    1334.60
     1.82      2.47      5.70      2.27      .050      .040      .050      .000   1333.90   9669.79
  .003292      440.      597.      405.         3        13         0       .00   1446.70  11116.49
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| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SECNO | DEPTH | CWSEL | CRIWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

*SECNO 1.336

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = .59

3470 ENCROACHMENT STATIONS= 9470.0 10937.0 TYPE= 1 TARGET= 1467.000

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1.336 | 6.37 | 1340.77 | 1340.53 | 1340.19 | 1341.11 | .34 | 2.17 | .04 | 1339.10 |
| 6100. | 2100. | 906. | 3094. | 450. | 120. | 908. | 1103. | 310. | 1340.30 |
| 1.84 | 4.67 | 7.55 | 3.41 | .050 | .040 | .050 | .000 | 1334.40 | 9724.07 |
| .009505 | 360. | 417. | 440. | 2 | 15 | 0 | .00 | 1117.32 | 10841.39 |

THIS RUN EXECUTED 12/ 6/90 10: 2:55

**********
HEC2 RELEASE DATED SEP 88 UPDATED SEPT 1989

ERROR CORR - 01,02,03
MODIFICATION -
**********

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

10-YEAR FLOWS, EXISTING

SUMMARY PRINTOUT

| | SECNO | Q | CWSEL | DEPTH | ELMIN | EG | CRIWS | VCH | 10*KS | XLCH | SSTA | TOPWID | ENDST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1.663 | 2200.00 | 1187.70 | 4.00 | 1183.70 | 1188.59 | 1187.22 | 7.58 | 79.18 | .00 | 9948.12 | 99.46 | 10047.58 |
| | 1.663 | 6700.00 | 1190.60 | 6.90 | 1183.70 | 1192.55 | 1190.01 | 11.22 | 78.68 | .00 | 9941.53 | 112.16 | 10053.69 |
| | 1.663 | 11000.00 | 1192.50 | 8.80 | 1183.70 | 1195.31 | 1192.01 | 13.45 | 82.14 | .00 | 9937.21 | 120.48 | 10057.69 |
| | 1.763 | 2200.00 | 1191.77 | 4.97 | 1186.80 | 1192.71 | 1191.26 | 7.75 | 76.26 | 528.00 | 9949.73 | 92.38 | 10042.11 |
| | 1.763 | 6700.00 | 1194.75 | 7.95 | 1186.80 | 1196.81 | 1194.21 | 11.53 | 81.29 | 528.00 | 9945.19 | 108.28 | 10053.47 |
| | 1.763 | 11000.00 | 1196.80 | 10.00 | 1186.80 | 1199.63 | 1196.29 | 13.50 | 81.19 | 528.00 | 9942.04 | 119.25 | 10061.30 |
| | 1.857 | 2200.00 | 1195.15 | 4.55 | 1190.60 | 1195.94 | 1194.28 | 7.15 | 55.97 | 496.00 | 9955.09 | 88.08 | 10043.17 |
| | 1.857 | 6700.00 | 1198.52 | 7.92 | 1190.60 | 1200.26 | 1197.36 | 10.56 | 59.01 | 496.00 | 9942.77 | 103.88 | 10046.65 |
| | 1.857 | 11000.00 | 1200.65 | 10.05 | 1190.60 | 1203.18 | 1199.47 | 12.76 | 62.67 | 496.00 | 9938.55 | 110.29 | 10048.84 |
| * | 1.868 | 2200.00 | 1195.30 | 4.00 | 1191.30 | 1196.80 | 1195.30 | 9.82 | 153.05 | 58.00 | 9954.33 | 75.63 | 10029.96 |
| * | 1.868 | 6700.00 | 1198.64 | 7.34 | 1191.30 | 1201.29 | 1198.64 | 13.06 | 127.98 | 58.00 | 9946.20 | 98.25 | 10044.45 |
| * | 1.868 | 11000.00 | 1200.91 | 9.61 | 1191.30 | 1204.19 | 1200.91 | 14.53 | 119.51 | 58.00 | 9940.35 | 117.31 | 10057.66 |
| * | 1.912 | 2200.00 | 1197.61 | 7.11 | 1190.50 | 1198.14 | 1195.30 | 5.88 | 27.17 | 232.00 | 9967.93 | 73.96 | 10041.89 |
| * | 1.912 | 6700.00 | 1201.52 | 11.02 | 1190.50 | 1202.98 | 1198.97 | 9.69 | 41.96 | 232.00 | 9961.15 | 87.75 | 10048.90 |
| * | 1.912 | 11000.00 | 1203.72 | 13.22 | 1190.50 | 1206.08 | 1201.51 | 12.33 | 54.54 | 232.00 | 9957.35 | 95.47 | 10052.83 |
| * | 1.962 | 2200.00 | 1198.05 | 5.85 | 1192.20 | 1199.78 | 1197.92 | 10.56 | 110.90 | 264.00 | 9974.24 | 55.73 | 10029.97 |
| * | 1.962 | 6700.00 | 1202.03 | 9.83 | 1192.20 | 1205.28 | 1202.03 | 14.47 | 103.86 | 264.00 | 9966.37 | 72.32 | 10038.69 |
| * | 1.962 | 11000.00 | 1204.76 | 12.56 | 1192.20 | 1208.87 | 1204.76 | 16.28 | 97.54 | 264.00 | 9960.98 | 83.68 | 10044.66 |
| * | 2.034 | 2200.00 | 1201.02 | 7.12 | 1193.90 | 1201.51 | 1198.58 | 5.64 | 22.08 | 380.00 | 9955.16 | 79.78 | 10034.94 |
| * | 2.034 | 6700.00 | 1206.14 | 12.24 | 1193.90 | 1207.05 | 1202.24 | 7.68 | 21.34 | 380.00 | 9939.28 | 108.87 | 10048.15 |
| * | 2.034 | 11000.00 | 1209.45 | 15.55 | 1193.90 | 1210.62 | 1204.66 | 8.69 | 20.27 | 380.00 | 9898.50 | 156.71 | 10055.22 |
| | 2.129 | 2200.00 | 1202.20 | 6.00 | 1196.20 | 1202.79 | 1200.35 | 6.14 | 28.29 | 502.00 | 9969.80 | 77.54 | 10047.34 |
| | 2.129 | 6700.00 | 1207.16 | 10.96 | 1196.20 | 1208.30 | 1203.78 | 8.55 | 25.88 | 502.00 | 9964.40 | 94.10 | 10058.50 |
| | 2.129 | 11000.00 | 1210.33 | 14.13 | 1196.20 | 1211.89 | 1206.21 | 10.02 | 26.27 | 502.00 | 9960.94 | 103.80 | 10064.75 |

| | SECNO | Q | CWSEL | DEPTH | ELMIN | EG | CRIWS | VCH | 10*KS | XLCH | SSTA | TOPWID | ENDST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * | 2.230 | 2200.00 | 1205.48 | 5.88 | 1199.60 | 1206.33 | 1205.48 | 7.40 | 136.22 | 533.00 | 9893.23 | 159.42 | 10052.65 |
| | 2.230 | 6700.00 | 1209.14 | 9.54 | 1199.60 | 1209.88 | 1207.46 | 6.87 | 32.48 | 533.00 | 9865.14 | 198.85 | 10064.00 |
| | 2.230 | 11000.00 | 1212.42 | 12.82 | 1199.60 | 1213.09 | 1208.76 | 6.61 | 17.05 | 533.00 | 9849.27 | 222.07 | 10071.34 |
| * | 2.319 | 2200.00 | 1210.01 | 3.11 | 1206.90 | 1210.48 | 1209.47 | 5.51 | 61.05 | 470.00 | 9924.39 | 185.53 | 10109.92 |
| * | 2.319 | 6700.00 | 1211.29 | 4.39 | 1206.90 | 1212.99 | 1211.29 | 10.45 | 123.16 | 470.00 | 9920.61 | 192.86 | 10113.47 |
| * | 2.319 | 11000.00 | 1213.08 | 6.18 | 1206.90 | 1214.97 | 1212.63 | 11.06 | 82.15 | 470.00 | 9916.13 | 202.32 | 10118.45 |
| | 2.353 | 2200.00 | 1211.15 | 4.95 | 1206.20 | 1211.49 | 1209.98 | 4.74 | 48.27 | 180.00 | 9854.36 | 200.09 | 10060.63 |
| * | 2.353 | 6700.00 | 1213.72 | 7.52 | 1206.20 | 1214.42 | 1212.09 | 6.74 | 38.29 | 180.00 | 9853.44 | 207.22 | 10060.66 |
| | 2.353 | 11000.00 | 1215.13 | 8.93 | 1206.20 | 1216.27 | 1213.36 | 8.55 | 44.54 | 180.00 | 9853.42 | 207.25 | 10060.67 |
| | 2.379 | 2200.00 | 1211.18 | 5.28 | 1205.90 | 1211.67 | .00 | 5.65 | 80.00 | 106.00 | 9871.95 | 188.67 | 10060.63 |
| | 2.379 | 6700.00 | 1213.79 | 7.89 | 1205.90 | 1214.62 | .00 | 7.32 | 49.77 | 106.00 | 9853.45 | 207.20 | 10060.66 |
| | 2.379 | 11000.00 | 1215.27 | 9.37 | 1205.90 | 1216.52 | .00 | 9.00 | 52.21 | 106.00 | 9853.43 | 207.24 | 10060.67 |
| * | 2.422 | 2200.00 | 1212.60 | 4.40 | 1208.20 | 1212.95 | 1211.38 | 4.73 | 32.93 | 258.00 | 9881.87 | 169.12 | 10050.99 |
| | 2.422 | 6700.00 | 1214.92 | 6.72 | 1208.20 | 1215.81 | 1213.51 | 7.60 | 41.87 | 258.00 | 9868.52 | 188.49 | 10057.01 |
| | 2.422 | 11000.00 | 1216.46 | 8.26 | 1208.20 | 1217.81 | 1214.94 | 9.31 | 45.77 | 258.00 | 9862.15 | 198.88 | 10061.04 |
| | 2.491 | 2200.00 | 1214.13 | 5.63 | 1208.50 | 1214.54 | 1213.46 | 5.14 | 58.58 | 364.00 | 9814.02 | 213.28 | 10027.30 |
| | 2.491 | 6700.00 | 1216.56 | 8.06 | 1208.50 | 1217.31 | 1215.23 | 6.95 | 39.62 | 364.00 | 9805.52 | 226.79 | 10032.32 |
| | 2.491 | 11000.00 | 1218.29 | 9.79 | 1208.50 | 1219.30 | 1216.44 | 8.06 | 35.40 | 364.00 | 9799.47 | 236.24 | 10035.71 |
| | 2.561 | 2200.00 | 1216.24 | 3.84 | 1212.40 | 1216.64 | 1215.65 | 5.04 | 55.00 | 370.00 | 9928.36 | 213.67 | 10142.03 |
| | 2.561 | 6700.00 | 1218.16 | 5.76 | 1212.40 | 1219.12 | 1217.30 | 7.84 | 57.18 | 370.00 | 9924.58 | 221.23 | 10145.81 |
| | 2.561 | 11000.00 | 1219.66 | 7.26 | 1212.40 | 1220.99 | 1218.53 | 9.24 | 53.14 | 370.00 | 9921.64 | 227.11 | 10148.75 |
| * | 2.634 | 2200.00 | 1217.44 | 5.04 | 1212.40 | 1217.56 | 1215.96 | 2.76 | 12.75 | 385.00 | 9897.15 | 323.42 | 10220.58 |
| * | 2.634 | 6700.00 | 1219.82 | 7.42 | 1212.40 | 1220.10 | 1217.31 | 4.20 | 12.90 | 385.00 | 9879.16 | 347.10 | 10226.26 |
| * | 2.634 | 11000.00 | 1221.56 | 9.16 | 1212.40 | 1221.94 | 1218.26 | 4.99 | 12.28 | 385.00 | 9874.47 | 355.93 | 10230.40 |
| * | 2.720 | 2200.00 | 1218.52 | 5.32 | 1213.20 | 1219.29 | 1218.52 | 7.04 | 177.11 | 454.00 | 9972.93 | 222.99 | 10195.92 |
| * | 2.720 | 6700.00 | 1220.47 | 7.27 | 1213.20 | 1221.57 | 1220.20 | 8.43 | 88.46 | 454.00 | 9969.90 | 257.26 | 10227.17 |
| * | 2.720 | 11000.00 | 1221.99 | 8.79 | 1213.20 | 1223.31 | 1221.39 | 9.20 | 65.91 | 454.00 | 9964.09 | 271.58 | 10235.67 |
| * | 2.801 | 2200.00 | 1221.43 | 4.13 | 1217.30 | 1221.67 | 1220.29 | 3.94 | 26.03 | 428.00 | 9837.05 | 227.45 | 10064.50 |
| * | 2.801 | 6700.00 | 1223.30 | 6.00 | 1217.30 | 1223.98 | 1222.00 | 6.59 | 37.65 | 428.00 | 9820.94 | 251.93 | 10072.87 |
| | 2.801 | 11000.00 | 1224.52 | 7.22 | 1217.30 | 1225.59 | 1223.14 | 8.28 | 43.02 | 428.00 | 9819.36 | 257.38 | 10076.74 |
| | 2.900 | 2200.00 | 1222.96 | 4.66 | 1218.30 | 1223.24 | 1222.16 | 4.25 | 34.31 | 523.00 | 9828.72 | 229.57 | 10058.28 |
| | 2.900 | 6700.00 | 1225.19 | 6.89 | 1218.30 | 1225.84 | 1223.66 | 6.46 | 33.52 | 523.00 | 9820.10 | 240.29 | 10060.39 |
| | 2.900 | 11000.00 | 1226.65 | 8.35 | 1218.30 | 1227.62 | 1224.86 | 7.91 | 34.99 | 523.00 | 9817.12 | 244.66 | 10061.78 |
| | 3.000 | 2200.00 | 1224.84 | 4.84 | 1220.00 | 1225.14 | 1223.78 | 4.38 | 37.61 | 528.00 | 9935.30 | 184.80 | 10120.10 |
| | 3.000 | 6700.00 | 1227.15 | 7.15 | 1220.00 | 1227.95 | 1225.55 | 7.15 | 46.29 | 528.00 | 9932.53 | 192.08 | 10124.61 |
| | 3.000 | 11000.00 | 1228.69 | 8.69 | 1220.00 | 1229.92 | 1226.90 | 8.90 | 51.57 | 528.00 | 9930.69 | 197.30 | 10128.00 |
| | 3.077 | 2200.00 | 1226.49 | 3.69 | 1222.80 | 1226.82 | 1225.55 | 4.57 | 44.73 | 407.00 | 9916.66 | 192.35 | 10109.01 |
| | 3.077 | 6700.00 | 1229.02 | 6.22 | 1222.80 | 1229.74 | 1227.33 | 6.81 | 41.77 | 407.00 | 9910.41 | 203.83 | 10114.24 |
| | 3.077 | 11000.00 | 1230.78 | 7.98 | 1222.80 | 1231.81 | 1228.66 | 8.16 | 41.37 | 407.00 | 9907.13 | 210.74 | 10117.87 |

| | SECNO | Q | CWSEL | DEPTH | ELMIN | EG | CRIWS | VCH | 10*KS | XLCH | SSTA | TOPWID | ENDST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 3.143 | 2200.00 | 1228.00 | 5.60 | 1222.40 | 1228.50 | 1226.86 | 5.71 | 49.29 | 348.00 | 9978.25 | 117.45 | 10095.70 |
| | 3.143 | 6700.00 | 1230.40 | 8.00 | 1222.40 | 1231.91 | 1229.40 | 9.87 | 77.41 | 348.00 | 9974.05 | 126.88 | 10100.93 |
| * | 3.143 | 11000.00 | 1231.89 | 9.49 | 1222.40 | 1234.35 | 1231.24 | 12.57 | 97.24 | 348.00 | 9969.64 | 134.40 | 10104.05 |
| | 3.200 | 2200.00 | 1229.68 | 4.68 | 1225.00 | 1230.33 | 1228.88 | 6.48 | 72.45 | 301.00 | 9949.57 | 114.39 | 10063.96 |
| | 3.200 | 6700.00 | 1232.74 | 7.74 | 1225.00 | 1234.10 | 1231.47 | 9.38 | 67.69 | 301.00 | 9942.89 | 130.53 | 10073.42 |
| | 3.200 | 11000.00 | 1234.93 | 9.93 | 1225.00 | 1236.76 | 1233.33 | 10.86 | 64.09 | 301.00 | 9938.11 | 142.04 | 10080.14 |
| * | 3.300 | 2200.00 | 1232.55 | 5.95 | 1226.60 | 1232.97 | 1231.03 | 5.21 | 36.03 | 528.00 | 9951.08 | 116.65 | 10067.73 |
| | 3.300 | 6700.00 | 1235.88 | 9.28 | 1226.60 | 1236.88 | 1233.63 | 8.02 | 40.95 | 528.00 | 9943.59 | 131.41 | 10075.00 |
| | 3.300 | 11000.00 | 1238.09 | 11.49 | 1226.60 | 1239.55 | 1235.48 | 9.68 | 43.10 | 528.00 | 9941.04 | 139.08 | 10080.11 |
| | 3.400 | 2200.00 | 1234.57 | 4.67 | 1229.90 | 1235.01 | 1233.24 | 5.34 | 41.16 | 528.00 | 9932.14 | 122.00 | 10054.15 |
| | 3.400 | 6700.00 | 1238.10 | 8.20 | 1229.90 | 1238.99 | 1235.76 | 7.58 | 38.67 | 528.00 | 9917.48 | 146.80 | 10064.28 |
| | 3.400 | 11000.00 | 1240.65 | 10.75 | 1229.90 | 1241.27 | 1237.56 | 6.96 | 23.42 | 528.00 | 9470.20 | 1022.20 | 10497.00 |
| | 3.500 | 2200.00 | 1236.85 | 4.95 | 1231.90 | 1237.25 | 1235.49 | 5.07 | 43.56 | 528.00 | 9983.22 | 144.93 | 10128.16 |
| | 3.500 | 6700.00 | 1240.23 | 8.33 | 1231.90 | 1240.96 | 1237.93 | 6.82 | 35.40 | 528.00 | 9975.81 | 179.41 | 10155.22 |
| | 3.500 | 11000.00 | 1241.99 | 10.09 | 1231.90 | 1242.88 | 1239.53 | 7.82 | 36.96 | 528.00 | 9570.00 | 705.67 | 10277.05 |
| | 3.600 | 2200.00 | 1239.18 | 4.88 | 1234.30 | 1239.64 | 1237.93 | 5.43 | 46.36 | 528.00 | 9958.04 | 127.55 | 10085.59 |
| | 3.600 | 6700.00 | 1242.22 | 7.92 | 1234.30 | 1243.24 | 1240.43 | 8.12 | 49.46 | 528.00 | 9946.51 | 148.86 | 10095.37 |
| | 3.600 | 11000.00 | 1243.91 | 9.61 | 1234.30 | 1245.28 | 1242.10 | 9.64 | 50.02 | 528.00 | 9660.00 | 494.01 | 10154.01 |
| | 3.700 | 2200.00 | 1241.08 | 5.88 | 1235.20 | 1241.48 | 1238.88 | 5.13 | 27.17 | 528.00 | 9965.08 | 98.14 | 10063.23 |
| | 3.700 | 6700.00 | 1244.55 | 9.35 | 1235.20 | 1245.61 | 1242.01 | 8.23 | 40.47 | 528.00 | 9954.59 | 137.75 | 10100.00 |
| | 3.700 | 11000.00 | 1246.40 | 11.20 | 1235.20 | 1247.64 | 1244.99 | 9.40 | 39.79 | 528.00 | 9720.00 | 371.77 | 10110.00 |
| | 3.767 | 2200.00 | 1242.06 | 6.76 | 1235.30 | 1242.57 | 1239.93 | 5.71 | 32.95 | 354.00 | 9974.71 | 86.28 | 10061.00 |
| | 3.767 | 6700.00 | 1245.96 | 10.66 | 1235.30 | 1247.07 | 1243.46 | 8.47 | 41.24 | 354.00 | 9954.68 | 115.00 | 10069.68 |
| | 3.767 | 11000.00 | 1247.70 | 12.40 | 1235.30 | 1249.34 | 1245.53 | 10.50 | 50.45 | 354.00 | 9808.73 | 260.09 | 10076.57 |
| | 3.840 | 2200.00 | 1243.50 | 4.50 | 1239.00 | 1244.25 | 1242.64 | 6.95 | 54.30 | 385.00 | 9958.96 | 94.53 | 10053.49 |
| | 3.840 | 6700.00 | 1247.42 | 8.42 | 1239.00 | 1248.55 | 1245.64 | 8.73 | 35.69 | 385.00 | 9900.00 | 163.30 | 10063.30 |
| | 3.840 | 11000.00 | 1249.48 | 10.48 | 1239.00 | 1251.00 | 1247.64 | 10.30 | 37.18 | 385.00 | 9900.00 | 170.60 | 10070.60 |
| | 3.916 | 2200.00 | 1245.56 | 3.96 | 1241.60 | 1246.03 | 1244.41 | 5.51 | 35.93 | 401.00 | 9941.24 | 123.07 | 10064.31 |
| | 3.916 | 6700.00 | 1248.92 | 7.32 | 1241.60 | 1249.93 | 1246.83 | 8.07 | 32.81 | 401.00 | 9936.20 | 133.24 | 10069.44 |
| | 3.916 | 11000.00 | 1250.95 | 9.35 | 1241.60 | 1252.48 | 1248.61 | 9.94 | 36.46 | 401.00 | 9933.18 | 139.34 | 10072.52 |
| | 4.000 | 2200.00 | 1247.54 | 3.34 | 1244.20 | 1248.27 | 1247.01 | 6.82 | 69.88 | 444.00 | 9941.06 | 119.55 | 10060.62 |
| | 4.000 | 6700.00 | 1250.50 | 6.30 | 1244.20 | 1251.96 | 1249.46 | 9.70 | 58.02 | 444.00 | 9935.92 | 129.49 | 10065.41 |
| | 4.000 | 11000.00 | 1252.59 | 8.39 | 1244.20 | 1254.59 | 1251.26 | 11.36 | 55.23 | 444.00 | 9932.29 | 137.33 | 10069.62 |
| | 4.057 | 2200.00 | 1249.36 | 3.86 | 1245.50 | 1249.89 | 1248.37 | 5.84 | 42.21 | 301.00 | 9938.12 | 120.66 | 10058.78 |
| | 4.057 | 6700.00 | 1252.27 | 6.77 | 1245.50 | 1253.53 | 1250.83 | 9.04 | 46.10 | 301.00 | 9932.98 | 130.27 | 10063.25 |
| | 4.057 | 11000.00 | 1254.32 | 8.82 | 1245.50 | 1256.14 | 1252.62 | 10.83 | 46.93 | 301.00 | 9929.34 | 137.07 | 10066.41 |
| | 4.082 | 2200.00 | 1250.04 | 4.14 | 1245.90 | 1250.64 | 1249.07 | 6.21 | 55.13 | 150.00 | 9767.68 | 109.20 | 9882.83 |
| | 4.082 | 6700.00 | 1252.96 | 7.06 | 1245.90 | 1254.44 | 1251.71 | 9.76 | 69.72 | 150.00 | 9762.95 | 118.07 | 9886.92 |
| | 4.082 | 11000.00 | 1254.96 | 9.06 | 1245.90 | 1257.14 | 1253.61 | 11.85 | 77.88 | 150.00 | 9759.71 | 123.40 | 9888.99 |

| | SECNO | Q | CWSEL | DEPTH | ELMIN | EG | CRIWS | VCH | 10*KS | XLCH | SSTA | TOPWID | ENDST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * | 4.131 | 2200.00 | 1251.59 | 3.39 | 1248.20 | 1252.71 | 1251.59 | 8.48 | 157.93 | 214.00 | 9835.90 | 119.41 | 9961.27 |
| | 4.131 | 6700.00 | 1254.52 | 6.32 | 1248.20 | 1256.27 | 1254.01 | 10.62 | 97.10 | 214.00 | 9827.31 | 132.89 | 9966.12 |
| | 4.131 | 11000.00 | 1256.69 | 8.49 | 1248.20 | 1258.87 | 1255.76 | 11.83 | 83.64 | 214.00 | 9821.70 | 141.69 | 9969.27 |
| * | 4.177 | 2200.00 | 1253.74 | 4.04 | 1249.70 | 1254.17 | 1252.34 | 5.27 | 29.05 | 245.00 | 9945.92 | 117.72 | 10063.63 |
| * | 4.177 | 6700.00 | 1256.60 | 6.90 | 1249.70 | 1257.78 | 1254.86 | 8.73 | 40.05 | 245.00 | 9941.06 | 127.68 | 10068.74 |
| | 4.177 | 11000.00 | 1258.58 | 8.88 | 1249.70 | 1260.36 | 1256.70 | 10.70 | 44.03 | 245.00 | 9937.68 | 134.63 | 10072.31 |
| * | 4.300 | 2200.00 | 1256.34 | 3.24 | 1253.10 | 1257.09 | 1255.84 | 6.94 | 72.51 | 649.00 | 9939.06 | 118.58 | 10057.64 |
| | 4.300 | 6700.00 | 1259.44 | 6.34 | 1253.10 | 1260.84 | 1258.30 | 9.47 | 53.62 | 649.00 | 9933.76 | 130.62 | 10064.38 |
| | 4.300 | 11000.00 | 1261.55 | 8.45 | 1253.10 | 1263.47 | 1260.06 | 11.13 | 50.86 | 649.00 | 9930.81 | 136.37 | 10067.17 |
| | 4.406 | 2000.00 | 1259.35 | 4.05 | 1255.30 | 1259.72 | 1258.17 | 4.90 | 30.97 | 560.00 | 9930.74 | 135.54 | 10066.28 |
| | 4.406 | 5500.00 | 1262.29 | 6.99 | 1255.30 | 1262.98 | 1260.05 | 6.68 | 25.47 | 560.00 | 9925.31 | 146.90 | 10072.20 |
| | 4.406 | 8400.00 | 1264.58 | 9.28 | 1255.30 | 1265.38 | 1261.27 | 7.18 | 19.97 | 560.00 | 9921.10 | 154.87 | 10075.97 |
| | 4.415 | 2000.00 | 1259.48 | 3.38 | 1256.10 | 1259.97 | 1258.63 | 5.60 | 50.64 | 55.00 | 9935.57 | 128.88 | 10067.13 |
| | 4.415 | 5500.00 | 1262.35 | 6.25 | 1256.10 | 1263.20 | 1260.55 | 7.41 | 41.03 | 55.00 | 9930.03 | 139.33 | 10071.92 |
| | 4.415 | 8400.00 | 1264.60 | 8.50 | 1256.10 | 1265.57 | 1261.81 | 7.89 | 33.05 | 55.00 | 9925.67 | 147.99 | 10076.12 |
| * | 4.436 | 2000.00 | 1260.03 | 4.83 | 1255.20 | 1260.25 | 1257.86 | 3.76 | 15.23 | 100.00 | 9933.41 | 134.74 | 10070.77 |
| * | 4.436 | 5500.00 | 1262.99 | 7.79 | 1255.20 | 1263.52 | 1259.79 | 5.80 | 20.35 | 100.00 | 9927.19 | 146.07 | 10075.77 |
| | 4.436 | 8400.00 | 1265.18 | 9.98 | 1255.20 | 1265.85 | 1261.03 | 6.58 | 20.02 | 100.00 | 9922.60 | 154.42 | 10079.45 |
| | 4.445 | 2000.00 | 1260.15 | 3.95 | 1256.20 | 1260.32 | 1258.22 | 3.31 | 11.77 | 50.00 | 9916.28 | 174.99 | 10091.27 |
| | 4.445 | 5500.00 | 1263.26 | 7.06 | 1256.20 | 1263.61 | 1259.80 | 4.72 | 10.90 | 50.00 | 9910.77 | 184.91 | 10095.68 |
| * | 4.445 | 8400.00 | 1265.51 | 9.31 | 1256.20 | 1265.94 | 1260.84 | 5.29 | 9.58 | 50.00 | 9906.99 | 191.88 | 10098.87 |
| | 4.500 | 2000.00 | 1260.51 | 4.31 | 1256.20 | 1260.64 | 1258.60 | 2.82 | 9.85 | 290.00 | 9874.72 | 230.46 | 10105.18 |
| | 4.500 | 5500.00 | 1263.66 | 7.46 | 1256.20 | 1263.88 | 1260.00 | 3.72 | 7.52 | 290.00 | 9853.97 | 257.32 | 10111.29 |
| | 4.500 | 8400.00 | 1265.93 | 9.73 | 1256.20 | 1266.18 | 1260.89 | 4.03 | 6.20 | 290.00 | 9837.30 | 278.39 | 10115.69 |
| * | 4.600 | 2000.00 | 1261.38 | 3.08 | 1258.30 | 1261.80 | 1260.90 | 5.20 | 63.64 | 528.00 | 9897.71 | 201.70 | 10099.41 |
| * | 4.600 | 5500.00 | 1264.13 | 5.83 | 1258.30 | 1264.63 | 1262.32 | 5.71 | 25.51 | 528.00 | 9887.97 | 220.41 | 10108.38 |
| * | 4.600 | 8400.00 | 1266.28 | 7.98 | 1258.30 | 1266.78 | 1263.28 | 5.69 | 18.13 | 528.00 | 9880.39 | 262.24 | 10142.63 |
| | 4.674 | 2000.00 | 1264.11 | 3.41 | 1260.70 | 1264.61 | 1263.74 | 5.65 | 80.57 | 391.00 | 9904.72 | 195.46 | 10100.18 |
| * | 4.674 | 5500.00 | 1265.40 | 4.70 | 1260.70 | 1266.65 | 1265.21 | 8.97 | 105.21 | 391.00 | 9897.54 | 206.59 | 10104.13 |
| * | 4.674 | 8400.00 | 1266.98 | 6.28 | 1260.70 | 1268.19 | 1266.15 | 8.85 | 62.91 | 391.00 | 9891.48 | 221.69 | 10113.17 |
| * | 4.721 | 2000.00 | 1265.62 | 4.62 | 1261.00 | 1265.87 | 1264.80 | 4.02 | 33.93 | 248.00 | 9894.69 | 239.40 | 10134.09 |
| * | 4.721 | 5500.00 | 1267.50 | 6.50 | 1261.00 | 1268.01 | 1266.05 | 5.74 | 30.92 | 248.00 | 9887.89 | 250.95 | 10138.85 |
| * | 4.721 | 8400.00 | 1268.61 | 7.61 | 1261.00 | 1269.32 | 1266.88 | 6.77 | 31.55 | 248.00 | 9883.85 | 257.82 | 10141.67 |
| * | 4.770 | 2000.00 | 1267.15 | 3.55 | 1263.60 | 1267.83 | 1267.15 | 6.60 | 146.00 | 259.00 | 9899.24 | 206.92 | 10106.16 |
| * | 4.770 | 5500.00 | 1268.46 | 4.86 | 1263.60 | 1269.86 | 1268.46 | 9.47 | 133.90 | 259.00 | 9894.60 | 215.95 | 10110.54 |
| * | 4.770 | 8400.00 | 1269.40 | 5.80 | 1263.60 | 1271.17 | 1269.40 | 10.67 | 121.08 | 259.00 | 9891.68 | 226.67 | 10118.35 |
| * | 4.870 | 2000.00 | 1269.78 | 3.08 | 1266.70 | 1269.95 | 1268.48 | 3.32 | 17.87 | 528.00 | 9858.59 | 238.92 | 10097.51 |
| * | 4.870 | 5500.00 | 1271.79 | 5.09 | 1266.70 | 1272.17 | 1269.79 | 4.96 | 20.19 | 528.00 | 9843.29 | 263.24 | 10106.54 |
| * | 4.870 | 8400.00 | 1273.00 | 6.30 | 1266.70 | 1273.53 | 1270.65 | 5.85 | 21.39 | 528.00 | 9834.10 | 278.15 | 10112.24 |

| | SECNO | Q | CWSEL | DEPTH | ELMIN | EG | CRIWS | VCH | 10*KS | XLCH | SSTA | TOPWID | ENDST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * | 4.893 | 2000.00 | 1269.53 | 3.73 | 1265.80 | 1270.69 | 1269.43 | 8.65 | 119.20 | 121.00 | 9944.76 | 90.16 | 10034.93 |
| * | 4.893 | 5500.00 | 1271.89 | 6.09 | 1265.80 | 1274.06 | 1271.89 | 11.80 | 113.63 | 121.00 | 9932.46 | 109.31 | 10041.76 |
| * | 4.893 | 8400.00 | 1273.45 | 7.65 | 1265.80 | 1276.04 | 1273.45 | 12.91 | 107.31 | 121.00 | 9924.89 | 127.91 | 10052.80 |
| * | 4.922 | 2000.00 | 1272.22 | 2.32 | 1269.90 | 1273.16 | 1272.22 | 7.79 | 148.46 | 153.00 | 9948.09 | 138.80 | 10086.89 |
| | 4.922 | 5500.00 | 1274.24 | 4.34 | 1269.90 | 1275.76 | 1274.04 | 9.89 | 101.01 | 153.00 | 9938.78 | 156.90 | 10095.67 |
| | 4.922 | 8400.00 | 1276.01 | 6.11 | 1269.90 | 1277.50 | 1275.26 | 9.77 | 73.45 | 153.00 | 9909.04 | 194.36 | 10103.40 |
| * | 4.945 | 2000.00 | 1274.01 | 3.71 | 1270.30 | 1275.52 | 1274.01 | 9.83 | 129.52 | 121.00 | 9955.10 | 68.70 | 10023.79 |
| * | 4.945 | 5500.00 | 1277.32 | 7.02 | 1270.30 | 1279.42 | 1277.32 | 11.68 | 90.77 | 121.00 | 9949.57 | 159.34 | 10108.91 |
| * | 4.945 | 8400.00 | 1279.21 | 8.91 | 1270.30 | 1280.87 | 1279.21 | 11.12 | 56.08 | 121.00 | 9946.29 | 384.56 | 10330.85 |
| * | 4.974 | 2000.00 | 1275.81 | 5.51 | 1270.30 | 1276.11 | 1273.13 | 4.42 | 13.62 | 153.00 | 9973.99 | 92.95 | 10066.94 |
| * | 4.974 | 5500.00 | 1279.42 | 9.12 | 1270.30 | 1280.12 | 1275.68 | 6.72 | 19.60 | 153.00 | 9966.76 | 116.69 | 10083.45 |
| | 4.974 | 8400.00 | 1280.22 | 9.92 | 1270.30 | 1281.52 | 1277.33 | 9.17 | 32.48 | 153.00 | 9965.16 | 260.78 | 10225.94 |
| * | 5.008 | 2000.00 | 1276.15 | 5.85 | 1270.30 | 1276.26 | 1272.34 | 2.65 | 4.22 | 180.00 | 9927.66 | 139.49 | 10067.15 |
| * | 5.008 | 5500.00 | 1280.08 | 9.78 | 1270.30 | 1280.34 | 1274.26 | 4.10 | 5.77 | 180.00 | 9903.17 | 171.61 | 10074.78 |
| * | 5.008 | 8400.00 | 1281.43 | 11.13 | 1270.30 | 1281.87 | 1275.51 | 5.36 | 8.23 | 180.00 | 9873.00 | 204.38 | 10077.38 |
| * | 5.080 | 2000.00 | 1276.28 | 4.28 | 1272.00 | 1276.65 | 1274.62 | 4.84 | 22.93 | 380.00 | 9934.94 | 110.50 | 10045.44 |
| * | 5.080 | 5500.00 | 1280.18 | 8.18 | 1272.00 | 1280.80 | 1276.77 | 6.33 | 17.21 | 380.00 | 9928.09 | 123.46 | 10051.54 |
| * | 5.080 | 8400.00 | 1281.53 | 9.53 | 1272.00 | 1282.54 | 1278.22 | 8.08 | 23.72 | 380.00 | 9923.83 | 129.84 | 10053.66 |
| * | 5.103 | 2000.00 | 1276.58 | 4.18 | 1272.40 | 1277.14 | 1275.43 | 5.98 | 65.04 | 121.00 | 9940.01 | 97.96 | 10037.97 |
| | 5.103 | 5500.00 | 1280.32 | 7.92 | 1272.40 | 1281.20 | 1277.81 | 7.52 | 45.46 | 121.00 | 9930.46 | 114.60 | 10045.05 |
| | 5.103 | 8400.00 | 1281.71 | 9.31 | 1272.40 | 1283.07 | 1279.35 | 9.38 | 58.15 | 121.00 | 9178.24 | 185.25 | 10047.70 |
| * | 5.118 | 2000.00 | 1277.85 | 6.45 | 1271.40 | 1279.92 | 1277.85 | 11.57 | 204.50 | 79.00 | 9976.68 | 42.46 | 10019.14 |
| * | 5.118 | 5500.00 | 1281.76 | 10.36 | 1271.40 | 1285.31 | 1281.76 | 15.12 | 189.37 | 79.00 | 9969.32 | 55.03 | 10024.35 |
| * | 5.118 | 8400.00 | 1284.14 | 12.74 | 1271.40 | 1285.00 | 1284.14 | 9.55 | 53.71 | 79.00 | 8987.66 | 1055.01 | 10042.67 |
| * | 5.159 | 2000.00 | 1280.93 | 8.53 | 1272.40 | 1281.49 | 1277.69 | 5.97 | 31.73 | 216.00 | 9978.88 | 53.80 | 10032.68 |
| * | 5.159 | 5500.00 | 1286.07 | 13.67 | 1272.40 | 1286.21 | 1281.61 | 3.97 | 9.79 | 216.00 | 9079.77 | 975.75 | 10055.52 |
| | 5.159 | 8400.00 | 1285.42 | 13.02 | 1272.40 | 1286.09 | 1285.15 | 8.10 | 45.58 | 216.00 | 9088.83 | 947.84 | 10046.90 |
| * | 5.204 | 2000.00 | 1281.64 | 8.14 | 1273.50 | 1281.70 | 1276.48 | 2.00 | 3.21 | 230.00 | 9938.27 | 159.52 | 10097.79 |
| * | 5.204 | 5500.00 | 1286.21 | 12.71 | 1273.50 | 1286.34 | 1278.38 | 2.94 | 3.78 | 230.00 | 9137.23 | 852.24 | 10107.87 |
| * | 5.204 | 8400.00 | 1286.22 | 12.72 | 1273.50 | 1286.52 | 1279.58 | 4.49 | 8.81 | 230.00 | 9137.16 | 852.64 | 10107.87 |
| * | 5.263 | 2000.00 | 1281.76 | 6.16 | 1275.60 | 1281.92 | 1278.83 | 3.16 | 13.22 | 320.00 | 9984.62 | 146.59 | 10131.21 |
| * | 5.263 | 5500.00 | 1286.34 | 10.74 | 1275.60 | 1286.53 | 1280.85 | 3.69 | 8.09 | 320.00 | 9628.83 | 632.86 | 10288.19 |
| | 5.263 | 8400.00 | 1286.51 | 10.91 | 1275.60 | 1286.94 | 1282.11 | 5.43 | 17.03 | 320.00 | 9624.44 | 641.31 | 10288.96 |
| * | 5.364 | 2000.00 | 1282.07 | 7.07 | 1275.00 | 1282.09 | 1277.74 | 1.14 | 1.32 | 533.00 | 9966.03 | 335.76 | 10301.80 |
| * | 5.364 | 5500.00 | 1286.65 | 11.65 | 1275.00 | 1286.69 | 1278.73 | 1.64 | 1.33 | 533.00 | 9957.50 | 369.11 | 10326.61 |
| * | 5.364 | 8400.00 | 1287.17 | 12.17 | 1275.00 | 1287.26 | 1279.42 | 2.37 | 2.63 | 533.00 | 9956.53 | 376.50 | 10333.03 |
| * | 5.397 | 2000.00 | 1282.08 | 5.38 | 1276.70 | 1282.15 | 1279.38 | 2.10 | 5.31 | 174.00 | 9987.01 | 246.25 | 10233.26 |
| * | 5.397 | 5500.00 | 1286.64 | 9.94 | 1276.70 | 1286.75 | 1280.64 | 2.59 | 3.21 | 174.00 | 9974.79 | 272.72 | 10247.52 |
| * | 5.397 | 8400.00 | 1287.15 | 10.45 | 1276.70 | 1287.36 | 1281.48 | 3.71 | 6.22 | 174.00 | 9971.07 | 278.44 | 10249.51 |

| | SECNO | Q | CWSEL | DEPTH | ELMIN | EG | CRIWS | VCH | 10*KS | XLCH | SSTA | TOPWID | ENDST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * | 5.432 | 2000.00 | 1282.18 | 5.88 | 1276.30 | 1282.21 | 1278.66 | 1.46 | 2.08 | 185.00 | 9983.27 | 303.35 | 10286.62 |
| * | 5.432 | 5500.00 | 1286.73 | 10.43 | 1276.30 | 1286.79 | 1279.75 | 1.97 | 1.62 | 185.00 | 9973.75 | 322.09 | 10295.85 |
| * | 5.432 | 8400.00 | 1287.33 | 11.03 | 1276.30 | 1287.45 | 1280.48 | 2.82 | 3.06 | 185.00 | 9971.18 | 326.11 | 10297.29 |
| * | 5.500 | 2000.00 | 1282.24 | 3.04 | 1279.20 | 1282.46 | 1281.35 | 3.82 | 35.12 | 359.00 | 9721.10 | 316.52 | 10042.71 |
| * | 5.500 | 5500.00 | 1286.79 | 7.59 | 1279.20 | 1286.90 | 1282.64 | 2.85 | 4.72 | 359.00 | 9685.49 | 364.00 | 10049.49 |
| * | 5.500 | 8400.00 | 1287.43 | 8.23 | 1279.20 | 1287.64 | 1283.36 | 3.91 | 7.93 | 359.00 | 9683.66 | 366.80 | 10050.45 |
| * | 5.579 | 2000.00 | 1286.76 | 3.96 | 1282.80 | 1287.77 | 1286.76 | 8.69 | 153.91 | 417.00 | 9826.34 | 133.42 | 10032.72 |
| * | 5.579 | 5500.00 | 1288.79 | 5.99 | 1282.80 | 1290.10 | 1288.79 | 10.14 | 134.75 | 417.00 | 9795.68 | 236.35 | 10045.77 |
| * | 5.579 | 8400.00 | 1289.68 | 6.88 | 1282.80 | 1291.33 | 1289.68 | 11.59 | 139.68 | 417.00 | 9788.88 | 259.32 | 10048.20 |
| * | 5.679 | 2000.00 | 1292.47 | 4.37 | 1288.10 | 1292.88 | 1291.76 | 5.17 | 67.76 | 528.00 | 9934.32 | 175.22 | 10109.54 |
| | 5.679 | 5500.00 | 1294.25 | 6.15 | 1288.10 | 1295.06 | 1293.45 | 7.33 | 73.52 | 528.00 | 9654.01 | 249.60 | 10113.54 |
| | 5.679 | 8400.00 | 1295.27 | 7.17 | 1288.10 | 1296.30 | 1294.48 | 8.35 | 72.35 | 528.00 | 9649.19 | 435.73 | 10115.22 |
| | 5.754 | 2000.00 | 1295.40 | 4.50 | 1290.90 | 1296.07 | 1294.73 | 6.55 | 80.64 | 422.00 | 9961.90 | 110.21 | 10072.11 |
| | 5.754 | 5500.00 | 1297.30 | 6.40 | 1290.90 | 1298.29 | 1296.85 | 8.55 | 77.46 | 422.00 | 9727.63 | 256.10 | 10077.29 |
| | 5.754 | 8400.00 | 1298.30 | 7.40 | 1290.90 | 1299.55 | 1297.77 | 9.82 | 79.39 | 422.00 | 9725.83 | 267.59 | 10080.01 |
| | 5.837 | 2000.00 | 1299.04 | 3.94 | 1295.10 | 1299.46 | 1298.27 | 5.26 | 73.51 | 438.00 | 9885.24 | 178.71 | 10063.94 |
| | 5.837 | 5500.00 | 1300.89 | 5.79 | 1295.10 | 1301.67 | 1300.04 | 7.09 | 75.73 | 438.00 | 9846.71 | 243.54 | 10090.25 |
| | 5.837 | 8400.00 | 1301.89 | 6.79 | 1295.10 | 1302.92 | 1300.99 | 8.19 | 73.17 | 438.00 | 9809.59 | 290.61 | 10100.21 |
| * | 5.881 | 2000.00 | 1299.67 | 4.37 | 1295.30 | 1299.73 | 1296.95 | 1.99 | 3.74 | 232.00 | 9844.36 | 264.97 | 10109.33 |
| * | 5.881 | 5500.00 | 1301.90 | 6.60 | 1295.30 | 1302.08 | 1298.18 | 3.41 | 6.32 | 232.00 | 9836.49 | 279.82 | 10116.31 |
| * | 5.881 | 8400.00 | 1303.13 | 7.83 | 1295.30 | 1303.42 | 1298.99 | 4.29 | 7.96 | 232.00 | 9832.42 | 287.75 | 10120.17 |
| | 5.970 | 2000.00 | 1299.87 | 4.07 | 1295.80 | 1299.95 | 1297.52 | 2.28 | 5.44 | 470.00 | 9881.47 | 248.86 | 10130.33 |
| | 5.970 | 5500.00 | 1302.21 | 6.41 | 1295.80 | 1302.42 | 1298.78 | 3.74 | 7.79 | 470.00 | 9874.98 | 260.10 | 10135.08 |
| | 5.970 | 8400.00 | 1303.50 | 7.70 | 1295.80 | 1303.84 | 1299.62 | 4.64 | 9.42 | 470.00 | 9871.38 | 267.60 | 10138.98 |
| * | 5.973 | 2000.00 | 1299.82 | 2.52 | 1297.30 | 1299.99 | 1298.59 | 3.31 | 18.17 | 16.00 | 9879.97 | 240.06 | 10120.03 |
| * | 5.973 | 5500.00 | 1302.13 | 4.83 | 1297.30 | 1302.48 | 1299.83 | 4.74 | 16.10 | 16.00 | 9879.94 | 240.12 | 10120.06 |
| | 5.973 | 8400.00 | 1303.40 | 6.10 | 1297.30 | 1303.91 | 1300.65 | 5.74 | 17.49 | 16.00 | 9879.92 | 240.16 | 10120.08 |
| * | 5.977 | 2000.00 | 1302.12 | 3.22 | 1298.90 | 1302.76 | 1302.12 | 6.45 | 170.11 | 21.00 | 9879.98 | 240.04 | 10120.02 |
| * | 5.977 | 5500.00 | 1303.33 | 4.43 | 1298.90 | 1304.63 | 1303.33 | 9.14 | 142.58 | 21.00 | 9879.95 | 240.09 | 10120.05 |
| * | 5.977 | 8400.00 | 1304.15 | 5.25 | 1298.90 | 1305.87 | 1304.15 | 10.51 | 130.14 | 21.00 | 9879.94 | 240.12 | 10120.06 |
| * | 5.982 | 2000.00 | 1302.78 | 3.58 | 1299.20 | 1302.88 | 1301.05 | 2.56 | 9.11 | 26.00 | 9841.26 | 317.50 | 10158.76 |
| * | 5.982 | 5500.00 | 1304.56 | 5.36 | 1299.20 | 1304.81 | 1302.27 | 4.13 | 12.35 | 26.00 | 9799.51 | 409.18 | 10208.70 |
| * | 5.982 | 8400.00 | 1305.76 | 6.56 | 1299.20 | 1306.08 | 1303.07 | 4.77 | 12.15 | 26.00 | 9743.64 | 515.62 | 10259.26 |
| | 5.990 | 2000.00 | 1302.83 | 5.13 | 1297.70 | 1302.91 | 1300.50 | 2.21 | 5.36 | 42.00 | 9864.21 | 266.85 | 10131.07 |
| | 5.990 | 5500.00 | 1304.62 | 6.92 | 1297.70 | 1304.86 | 1301.74 | 3.95 | 10.31 | 42.00 | 9856.50 | 280.49 | 10136.99 |
| | 5.990 | 8400.00 | 1305.78 | 8.08 | 1297.70 | 1306.15 | 1302.54 | 4.87 | 12.65 | 42.00 | 9847.61 | 296.55 | 10144.16 |
| | 6.089 | 2000.00 | 1303.18 | 4.48 | 1298.70 | 1303.29 | 1301.36 | 2.68 | 9.52 | 523.00 | 9878.18 | 253.71 | 10131.89 |
| | 6.089 | 5500.00 | 1305.19 | 6.49 | 1298.70 | 1305.48 | 1302.66 | 4.31 | 13.23 | 523.00 | 9869.80 | 273.03 | 10142.83 |
| | 6.089 | 8400.00 | 1306.45 | 7.75 | 1298.70 | 1306.87 | 1303.47 | 5.16 | 14.49 | 523.00 | 9864.89 | 284.32 | 10149.21 |

| | SECNO | Q | CWSEL | DEPTH | ELMIN | EG | CRIWS | VCH | 10*KS | XLCH | SSTA | TOPWID | ENDST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 6.189 | 2000.00 | 1303.65 | 4.65 | 1299.00 | 1303.75 | 1301.64 | 2.58 | 8.11 | 528.00 | 9873.91 | 248.70 | 10122.61 |
| | 6.189 | 5500.00 | 1305.85 | 6.85 | 1299.00 | 1306.11 | 1302.95 | 4.09 | 10.80 | 528.00 | 9865.78 | 267.69 | 10133.46 |
| | 6.189 | 8400.00 | 1307.19 | 8.19 | 1299.00 | 1307.56 | 1303.79 | 4.91 | 11.95 | 528.00 | 9860.85 | 278.49 | 10139.34 |
| * | 6.219 | 1600.00 | 1303.66 | 4.06 | 1299.60 | 1304.03 | 1302.20 | 4.94 | 26.94 | 158.00 | 9954.53 | 95.43 | 10049.96 |
| * | 6.219 | 2200.00 | 1306.04 | 6.44 | 1299.60 | 1306.28 | 1302.73 | 3.89 | 9.34 | 158.00 | 9947.72 | 107.19 | 10054.90 |
| * | 6.219 | 2600.00 | 1307.54 | 7.94 | 1299.60 | 1307.74 | 1303.05 | 3.55 | 6.05 | 158.00 | 9943.86 | 114.15 | 10058.01 |
| | 6.223 | 1600.00 | 1303.60 | 3.30 | 1300.30 | 1304.17 | 1302.61 | 6.05 | 45.92 | 23.00 | 9959.96 | 80.08 | 10040.04 |
| | 6.223 | 2200.00 | 1305.98 | 5.68 | 1300.30 | 1306.34 | 1303.15 | 4.84 | 15.27 | 23.00 | 9959.93 | 80.14 | 10040.07 |
| | 6.223 | 2600.00 | 1307.48 | 7.18 | 1300.30 | 1307.79 | 1303.49 | 4.52 | 10.20 | 23.00 | 9959.91 | 80.17 | 10040.09 |
| * | 6.227 | 1600.00 | 1307.31 | 2.31 | 1305.00 | 1308.47 | 1307.31 | 8.67 | 147.15 | 19.00 | 9959.95 | 80.09 | 10040.05 |
| * | 6.227 | 2200.00 | 1307.86 | 2.86 | 1305.00 | 1309.29 | 1307.86 | 9.62 | 138.62 | 19.00 | 9959.94 | 80.11 | 10040.06 |
| * | 6.227 | 2600.00 | 1308.19 | 3.19 | 1305.00 | 1309.80 | 1308.19 | 10.18 | 135.56 | 19.00 | 9959.94 | 80.13 | 10040.06 |
| * | 6.230 | 1600.00 | 1308.42 | 5.02 | 1303.40 | 1308.62 | 1306.29 | 3.57 | 13.27 | 16.00 | 9935.53 | 127.42 | 10062.94 |
| * | 6.230 | 2200.00 | 1309.22 | 5.82 | 1303.40 | 1309.46 | 1306.76 | 3.97 | 13.80 | 16.00 | 9932.26 | 137.93 | 10070.19 |
| * | 6.230 | 2600.00 | 1309.71 | 6.31 | 1303.40 | 1309.98 | 1307.07 | 4.17 | 13.81 | 16.00 | 9930.23 | 144.46 | 10074.70 |
| | 6.298 | 1600.00 | 1308.94 | 5.34 | 1303.60 | 1309.19 | 1307.09 | 4.06 | 18.25 | 359.00 | 9929.96 | 116.72 | 10046.68 |
| | 6.298 | 2200.00 | 1309.73 | 6.14 | 1303.60 | 1310.05 | 1307.63 | 4.49 | 18.06 | 359.00 | 9926.56 | 123.75 | 10050.32 |
| | 6.298 | 2600.00 | 1310.22 | 6.62 | 1303.60 | 1310.57 | 1307.93 | 4.72 | 17.83 | 359.00 | 9924.49 | 128.04 | 10052.54 |
| * | 6.356 | 1600.00 | 1309.52 | 4.72 | 1304.80 | 1310.31 | 1308.83 | 7.14 | 66.40 | 306.00 | 9957.17 | 74.76 | 10031.93 |
| | 6.356 | 2200.00 | 1310.24 | 5.44 | 1304.80 | 1311.20 | 1309.50 | 7.87 | 67.37 | 306.00 | 9953.07 | 81.34 | 10034.41 |
| | 6.356 | 2600.00 | 1310.68 | 5.88 | 1304.80 | 1311.72 | 1309.90 | 8.21 | 66.29 | 306.00 | 9950.38 | 85.26 | 10035.64 |
| * | 6.361 | 1600.00 | 1309.81 | 4.81 | 1305.00 | 1310.41 | 1308.02 | 6.23 | 6.06 | 26.00 | 9973.26 | 53.49 | 10026.74 |
| * | 6.361 | 2200.00 | 1310.34 | 5.34 | 1305.00 | 1311.26 | 1308.74 | 7.71 | 8.27 | 26.00 | 9973.25 | 53.50 | 10026.75 |
| * | 6.361 | 2600.00 | 1310.68 | 5.68 | 1305.00 | 1311.82 | 1309.19 | 8.56 | 9.50 | 26.00 | 9973.25 | 53.50 | 10026.75 |
| | 6.377 | 1600.00 | 1309.98 | 4.98 | 1305.00 | 1310.54 | .00 | 6.01 | 5.42 | 72.00 | 9973.25 | 53.49 | 10026.75 |
| | 6.377 | 2200.00 | 1310.88 | 5.88 | 1305.00 | 1311.64 | .00 | 7.00 | 6.12 | 72.00 | 9973.25 | 53.51 | 10026.75 |
| | 6.377 | 2600.00 | 1311.68 | 6.68 | 1305.00 | 1312.50 | .00 | 7.28 | 5.77 | 72.00 | 9973.24 | 53.52 | 10026.76 |
| * | 6.378 | 1600.00 | 1310.42 | 5.42 | 1305.00 | 1310.65 | 1307.38 | 3.83 | 1.87 | 10.00 | 9961.45 | 77.10 | 10038.55 |
| * | 6.378 | 2200.00 | 1311.48 | 6.48 | 1305.00 | 1311.78 | 1307.93 | 4.40 | 2.00 | 10.00 | 9961.44 | 77.12 | 10038.56 |
| * | 6.378 | 2600.00 | 1312.33 | 7.33 | 1305.00 | 1312.66 | 1308.28 | 4.60 | 1.91 | 10.00 | 9961.43 | 77.13 | 10038.57 |
| * | 6.379 | 1600.00 | 1313.37 | 2.37 | 1311.00 | 1314.56 | 1313.37 | 8.77 | 26.83 | .10 | 9961.45 | 77.10 | 10038.55 |
| * | 6.379 | 2200.00 | 1313.93 | 2.93 | 1311.00 | 1315.40 | 1313.93 | 9.75 | 25.51 | .10 | 9961.44 | 77.12 | 10038.56 |
| * | 6.379 | 2600.00 | 1314.27 | 3.27 | 1311.00 | 1315.92 | 1314.27 | 10.31 | 24.83 | .10 | 9961.43 | 77.13 | 10038.57 |
| | 6.389 | 1600.00 | 1314.44 | 5.34 | 1309.10 | 1314.78 | 1312.53 | 4.67 | 22.08 | 53.00 | 9954.92 | 94.82 | 10049.74 |
| | 6.389 | 2200.00 | 1315.21 | 6.11 | 1309.10 | 1315.64 | 1313.15 | 5.24 | 23.72 | 53.00 | 9951.68 | 103.18 | 10054.86 |
| | 6.389 | 2600.00 | 1315.69 | 6.59 | 1309.10 | 1316.17 | 1313.52 | 5.53 | 23.47 | 53.00 | 9943.56 | 118.14 | 10061.71 |
| | 6.471 | 1600.00 | 1315.61 | 4.01 | 1311.60 | 1316.15 | 1314.58 | 5.86 | 44.00 | 433.00 | 9969.85 | 90.07 | 10059.92 |
| | 6.471 | 2200.00 | 1316.41 | 4.81 | 1311.60 | 1317.03 | 1315.18 | 6.32 | 41.45 | 433.00 | 9967.79 | 97.77 | 10065.56 |
| | 6.471 | 2600.00 | 1316.87 | 5.27 | 1311.60 | 1317.54 | 1315.51 | 6.61 | 40.75 | 433.00 | 9966.61 | 102.18 | 10068.78 |

| | SECNO | Q | CWSEL | DEPTH | ELMIN | EG | CRIWS | VCH | 10*KS | XLCH | SSTA | TOPWID | ENDST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 6.568 | 1600.00 | 1317.63 | 5.03 | 1312.60 | 1318.04 | 1315.95 | 5.13 | 31.07 | 512.00 | 9964.48 | 85.30 | 10049.78 |
| | 6.568 | 2200.00 | 1318.41 | 5.81 | 1312.60 | 1318.93 | 1316.57 | 5.78 | 32.95 | 512.00 | 9962.72 | 90.74 | 10053.46 |
| | 6.568 | 2600.00 | 1318.87 | 6.27 | 1312.60 | 1319.45 | 1316.94 | 6.15 | 33.97 | 512.00 | 9961.68 | 93.94 | 10055.62 |
| | 6.615 | 1600.00 | 1318.54 | 5.24 | 1313.30 | 1318.92 | 1317.45 | 5.01 | 40.93 | 248.00 | 9869.66 | 151.56 | 10032.83 |
| | 6.615 | 2200.00 | 1319.37 | 6.07 | 1313.30 | 1319.74 | 1317.99 | 5.09 | 31.73 | 248.00 | 9866.61 | 169.33 | 10035.94 |
| | 6.615 | 2600.00 | 1319.86 | 6.56 | 1313.30 | 1320.23 | 1318.35 | 5.14 | 27.86 | 248.00 | 9864.78 | 173.03 | 10037.81 |
| | 6.717 | 1600.00 | 1320.44 | 4.84 | 1315.60 | 1320.68 | 1319.03 | 3.89 | 26.32 | 539.00 | 9958.59 | 151.54 | 10110.13 |
| | 6.717 | 2200.00 | 1321.03 | 5.43 | 1315.60 | 1321.32 | 1319.46 | 4.36 | 27.30 | 539.00 | 9954.84 | 163.32 | 10118.16 |
| | 6.717 | 2600.00 | 1321.37 | 5.77 | 1315.60 | 1321.71 | 1319.70 | 4.64 | 27.13 | 539.00 | 9953.00 | 172.53 | 10125.53 |
| * | 6.779 | 1600.00 | 1321.71 | 2.41 | 1319.30 | 1321.98 | 1321.23 | 4.14 | 66.09 | 327.00 | 9886.35 | 260.29 | 10146.64 |
| | 6.779 | 2200.00 | 1322.23 | 2.93 | 1319.30 | 1322.50 | 1321.50 | 4.19 | 49.54 | 327.00 | 9873.99 | 280.14 | 10154.13 |
| | 6.779 | 2600.00 | 1322.53 | 3.23 | 1319.30 | 1322.81 | 1321.67 | 4.26 | 42.80 | 327.00 | 9866.54 | 292.00 | 10158.54 |
| | 6.809 | 1600.00 | 1322.54 | 3.84 | 1318.70 | 1322.91 | 1321.66 | 4.90 | 49.94 | 158.00 | 9974.37 | 195.02 | 10169.39 |
| | 6.809 | 2200.00 | 1322.91 | 4.21 | 1318.70 | 1323.40 | 1322.19 | 5.69 | 56.71 | 158.00 | 9972.11 | 212.45 | 10184.56 |
| | 6.809 | 2600.00 | 1323.13 | 4.43 | 1318.70 | 1323.68 | 1322.50 | 6.13 | 60.04 | 158.00 | 9970.65 | 220.18 | 10190.82 |
| | 6.831 | 1600.00 | 1323.24 | 2.74 | 1320.50 | 1323.47 | 1322.54 | 3.82 | 44.01 | 116.00 | 9884.73 | 234.47 | 10119.20 |
| | 6.831 | 2200.00 | 1323.69 | 3.19 | 1320.50 | 1323.96 | 1322.83 | 4.18 | 40.23 | 116.00 | 9882.54 | 240.78 | 10123.32 |
| | 6.831 | 2600.00 | 1323.96 | 3.46 | 1320.50 | 1324.26 | 1323.00 | 4.40 | 39.12 | 116.00 | 9881.26 | 244.45 | 10125.72 |
| | 6.896 | 1600.00 | 1324.89 | 4.49 | 1320.40 | 1325.31 | 1324.22 | 5.25 | 62.77 | 343.00 | 9950.42 | 136.85 | 10087.27 |
| | 6.896 | 2200.00 | 1325.27 | 4.87 | 1320.40 | 1325.86 | 1324.62 | 6.15 | 71.12 | 343.00 | 9949.67 | 138.83 | 10088.50 |
| | 6.896 | 2600.00 | 1325.50 | 5.10 | 1320.40 | 1326.19 | 1324.89 | 6.67 | 75.61 | 343.00 | 9949.22 | 140.01 | 10089.23 |
| * | 7.000 | 1600.00 | 1327.25 | 4.25 | 1323.00 | 1327.55 | 1325.84 | 4.39 | 28.24 | 549.00 | 9976.22 | 117.45 | 10093.67 |
| * | 7.000 | 2200.00 | 1327.89 | 4.89 | 1323.00 | 1328.27 | 1326.29 | 4.99 | 29.52 | 549.00 | 9974.46 | 120.56 | 10095.02 |
| * | 7.000 | 2600.00 | 1328.26 | 5.26 | 1323.00 | 1328.71 | 1326.57 | 5.35 | 30.28 | 549.00 | 9973.42 | 122.41 | 10095.83 |
| | 7.100 | 1600.00 | 1329.25 | 4.55 | 1324.70 | 1329.63 | 1328.74 | 4.95 | 57.10 | 528.00 | 9845.77 | 167.51 | 10013.28 |
| | 7.100 | 2200.00 | 1329.83 | 5.13 | 1324.70 | 1330.24 | 1329.07 | 5.16 | 48.19 | 528.00 | 9832.29 | 182.34 | 10014.63 |
| | 7.100 | 2600.00 | 1330.17 | 5.47 | 1324.70 | 1330.61 | 1329.27 | 5.33 | 43.49 | 528.00 | 9830.95 | 184.46 | 10015.41 |
| * | 7.174 | 1370.00 | 1331.78 | 5.68 | 1326.10 | 1333.59 | 1331.78 | 10.81 | 129.48 | 391.00 | 9983.84 | 35.62 | 10019.47 |
| * | 7.174 | 1650.00 | 1332.31 | 6.21 | 1326.10 | 1334.28 | 1332.31 | 11.26 | 126.51 | 391.00 | 9982.80 | 37.94 | 10020.75 |
| * | 7.174 | 1730.00 | 1332.49 | 6.39 | 1326.10 | 1334.47 | 1332.49 | 11.29 | 122.88 | 391.00 | 9982.46 | 38.71 | 10021.17 |
| * | 7.244 | 1370.00 | 1334.72 | 7.82 | 1326.90 | 1335.13 | 1331.67 | 5.17 | 17.83 | 370.00 | 9974.42 | 50.87 | 10025.29 |
| * | 7.244 | 1650.00 | 1335.39 | 8.49 | 1326.90 | 1335.86 | 1332.18 | 5.49 | 18.42 | 370.00 | 9972.97 | 53.72 | 10026.69 |
| * | 7.244 | 1730.00 | 1335.56 | 8.66 | 1326.90 | 1336.05 | 1332.31 | 5.59 | 18.66 | 370.00 | 9972.61 | 54.43 | 10027.04 |
| | 7.327 | 1370.00 | 1335.47 | 8.77 | 1326.70 | 1335.76 | 1331.56 | 4.36 | 11.33 | 438.00 | 9970.28 | 55.22 | 10025.50 |
| | 7.327 | 1650.00 | 1336.18 | 9.48 | 1326.70 | 1336.51 | 1332.05 | 4.65 | 11.79 | 438.00 | 9968.79 | 58.24 | 10027.03 |
| | 7.327 | 1730.00 | 1336.36 | 9.66 | 1326.70 | 1336.71 | 1332.19 | 4.74 | 11.94 | 438.00 | 9968.40 | 59.02 | 10027.42 |
| * | 7.409 | 1370.00 | 1335.83 | 13.23 | 1322.60 | 1335.86 | 1326.21 | 1.48 | .67 | 433.00 | 9954.74 | 99.81 | 10054.55 |
| * | 7.409 | 1650.00 | 1336.58 | 13.98 | 1322.60 | 1336.63 | 1326.57 | 1.65 | .78 | 433.00 | 9953.32 | 102.83 | 10056.15 |
| * | 7.409 | 1730.00 | 1336.78 | 14.18 | 1322.60 | 1336.83 | 1326.66 | 1.69 | .81 | 433.00 | 9952.96 | 103.61 | 10056.57 |

| | SECNO | Q | CWSEL | DEPTH | ELMIN | EG | CRIWS | VCH | 10*KS | XLCH | SSTA | TOPWID | ENDST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | -6.189 | 2000.00 | 1303.65 | 4.65 | 1299.00 | 1303.75 | .00 | 2.58 | 8.11 | 528.00 | 9873.91 | 248.70 | 10122.61 |
| | -6.189 | 5500.00 | 1305.85 | 6.85 | 1299.00 | 1306.11 | .00 | 4.09 | 10.80 | 528.00 | 9865.78 | 267.69 | 10133.46 |
| | -6.189 | 8400.00 | 1307.19 | 8.19 | 1299.00 | 1307.56 | .00 | 4.91 | 11.95 | 528.00 | 9860.85 | 278.49 | 10139.34 |
| * | .028 | 580.00 | 1303.82 | 3.02 | 1300.80 | 1303.85 | 1301.88 | 1.42 | 3.16 | 148.00 | 9923.46 | 156.29 | 10079.75 |
| * | .028 | 3500.00 | 1305.99 | 5.19 | 1300.80 | 1306.32 | 1303.70 | 4.61 | 15.88 | 148.00 | 9918.13 | 166.99 | 10085.12 |
| * | .028 | 6100.00 | 1307.25 | 6.45 | 1300.80 | 1307.86 | 1304.83 | 6.28 | 22.21 | 148.00 | 9915.07 | 172.74 | 10087.81 |
| | .032 | 580.00 | 1303.83 | 2.43 | 1301.40 | 1303.86 | 1302.14 | 1.49 | 3.92 | 23.00 | 9919.97 | 160.07 | 10080.03 |
| | .032 | 3500.00 | 1306.01 | 4.61 | 1301.40 | 1306.36 | 1303.86 | 4.74 | 17.42 | 23.00 | 9919.94 | 160.13 | 10080.06 |
| | .032 | 6100.00 | 1307.27 | 5.87 | 1301.40 | 1307.93 | 1304.95 | 6.48 | 24.10 | 23.00 | 9919.92 | 160.16 | 10080.08 |
| * | .036 | 580.00 | 1306.44 | .74 | 1305.70 | 1306.81 | 1306.44 | 4.91 | 202.86 | 19.00 | 9919.99 | 160.03 | 10080.01 |
| * | .036 | 3500.00 | 1308.15 | 2.45 | 1305.70 | 1309.39 | 1308.15 | 8.93 | 139.48 | 19.00 | 9919.96 | 160.08 | 10080.04 |
| * | .036 | 6100.00 | 1309.25 | 3.55 | 1305.70 | 1311.04 | 1309.25 | 10.75 | 125.51 | 19.00 | 9919.94 | 160.12 | 10080.06 |
| * | .040 | 580.00 | 1306.84 | 3.54 | 1303.30 | 1306.90 | 1305.66 | 2.00 | 10.15 | 21.00 | 9924.72 | 158.99 | 10083.72 |
| * | .040 | 3500.00 | 1309.16 | 5.86 | 1303.30 | 1309.57 | 1307.47 | 5.17 | 24.95 | 21.00 | 9916.09 | 175.34 | 10091.43 |
| * | .040 | 6100.00 | 1310.60 | 7.30 | 1303.30 | 1311.26 | 1308.58 | 6.51 | 27.94 | 21.00 | 9910.74 | 186.29 | 10097.03 |
| * | .116 | 580.00 | 1307.12 | 4.42 | 1302.70 | 1307.16 | 1305.31 | 1.56 | 4.45 | 401.00 | 9899.05 | 162.39 | 10061.44 |
| * | .116 | 3500.00 | 1310.00 | 7.30 | 1302.70 | 1310.24 | 1307.24 | 3.96 | 11.36 | 401.00 | 9888.92 | 190.69 | 10079.61 |
| * | .116 | 6100.00 | 1311.64 | 8.94 | 1302.70 | 1312.03 | 1308.36 | 5.06 | 13.28 | 401.00 | 9883.79 | 202.24 | 10086.03 |
| * | .184 | 580.00 | 1307.35 | 3.45 | 1303.90 | 1307.45 | 1306.20 | 2.48 | 15.52 | 359.00 | 9934.54 | 128.99 | 10063.53 |
| | .184 | 3500.00 | 1310.43 | 6.53 | 1303.90 | 1310.83 | 1308.40 | 5.03 | 21.05 | 359.00 | 9920.64 | 166.80 | 10087.44 |
| | .184 | 6100.00 | 1312.11 | 8.21 | 1303.90 | 1312.70 | 1309.62 | 6.16 | 22.48 | 359.00 | 9913.77 | 183.54 | 10097.30 |
| * | .200 | 580.00 | 1307.40 | 2.10 | 1305.30 | 1307.50 | 1306.26 | 2.55 | 2.60 | 84.00 | 9945.78 | 108.44 | 10054.22 |
| * | .200 | 3500.00 | 1310.40 | 5.10 | 1305.30 | 1311.02 | 1308.48 | 6.33 | 5.25 | 84.00 | 9945.75 | 108.49 | 10054.25 |
| * | .200 | 6100.00 | 1311.95 | 6.65 | 1305.30 | 1313.06 | 1309.91 | 8.46 | 6.81 | 84.00 | 9945.74 | 108.52 | 10054.26 |
| | .212 | 580.00 | 1307.42 | 2.02 | 1305.40 | 1307.53 | .00 | 2.65 | 2.96 | 60.00 | 9945.78 | 108.44 | 10054.22 |
| | .212 | 3500.00 | 1310.60 | 5.20 | 1305.40 | 1311.20 | .00 | 6.20 | 4.91 | 60.00 | 9945.75 | 108.49 | 10054.25 |
| * | .212 | 6100.00 | 1313.75 | 8.35 | 1305.40 | 1314.45 | .00 | 6.73 | 3.30 | 60.00 | 9945.72 | 108.55 | 10054.28 |
| | .213 | 580.00 | 1307.47 | 2.07 | 1305.40 | 1307.54 | 1306.25 | 2.16 | 1.89 | 10.00 | 9935.08 | 129.84 | 10064.92 |
| | .213 | 3500.00 | 1310.90 | 5.50 | 1305.40 | 1311.27 | 1308.22 | 4.90 | 2.81 | 10.00 | 9935.05 | 129.90 | 10064.95 |
| | .213 | 6100.00 | 1314.07 | 8.67 | 1305.40 | 1314.53 | 1309.49 | 5.42 | 1.98 | 10.00 | 9935.02 | 129.96 | 10064.98 |
| * | .214 | 580.00 | 1311.15 | .85 | 1310.30 | 1311.58 | 1311.15 | 5.26 | 35.64 | .10 | 9935.09 | 129.83 | 10064.91 |
| * | .214 | 3500.00 | 1313.12 | 2.82 | 1310.30 | 1314.54 | 1313.12 | 9.57 | 24.81 | .10 | 9935.05 | 129.89 | 10064.95 |
| * | .214 | 6100.00 | 1314.38 | 4.08 | 1310.30 | 1316.44 | 1314.38 | 11.52 | 22.48 | .10 | 9935.03 | 129.93 | 10064.97 |
| * | .232 | 580.00 | 1311.74 | 3.44 | 1308.30 | 1311.82 | 1310.73 | 2.33 | 14.90 | 95.00 | 9905.69 | 146.97 | 10052.67 |
| | .232 | 3500.00 | 1314.46 | 6.16 | 1308.30 | 1314.87 | 1312.65 | 5.16 | 23.49 | 95.00 | 9890.05 | 169.80 | 10059.85 |
| | .232 | 6100.00 | 1316.21 | 7.91 | 1308.30 | 1316.80 | 1313.82 | 6.16 | 22.64 | 95.00 | 9879.87 | 184.65 | 10064.52 |
| * | .337 | 580.00 | 1313.30 | 2.90 | 1310.40 | 1313.43 | 1313.08 | 2.94 | 77.62 | 554.00 | 9892.75 | 282.96 | 10175.71 |
| | .337 | 3500.00 | 1315.79 | 5.39 | 1310.40 | 1316.01 | 1314.27 | 3.72 | 17.56 | 554.00 | 9881.66 | 309.90 | 10191.56 |
| | .337 | 6100.00 | 1317.48 | 7.08 | 1310.40 | 1317.75 | 1314.99 | 4.13 | 12.60 | 554.00 | 9873.25 | 324.90 | 10198.15 |

| | SECNO | Q | CWSEL | DEPTH | ELMIN | EG | CRIWS | VCH | 10*KS | XLCH | SSTA | TOPWID | ENDST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * | .438 | 580.00 | 1314.62 | 1.82 | 1312.80 | 1314.65 | 1313.94 | 1.48 | 10.61 | 533.00 | 9885.03 | 356.29 | 10241.32 |
| | .438 | 3500.00 | 1316.64 | 3.84 | 1312.80 | 1316.79 | 1314.95 | 3.09 | 12.12 | 533.00 | 9872.49 | 374.82 | 10247.31 |
| | .438 | 6100.00 | 1318.15 | 5.35 | 1312.80 | 1318.34 | 1315.59 | 3.57 | 9.80 | 533.00 | 9864.91 | 386.87 | 10251.78 |
| * | .441 | 580.00 | 1318.28 | .58 | 1317.70 | 1318.49 | 1318.28 | 3.67 | 243.10 | 16.00 | 9873.97 | 383.53 | 10257.50 |
| * | .441 | 3500.00 | 1319.23 | 1.53 | 1317.70 | 1319.91 | 1319.23 | 6.62 | 164.05 | 16.00 | 9867.85 | 393.08 | 10260.93 |
| * | .441 | 6100.00 | 1319.84 | 2.14 | 1317.70 | 1320.81 | 1319.84 | 7.93 | 145.79 | 16.00 | 9863.90 | 399.22 | 10263.11 |
| * | .458 | 580.00 | 1319.42 | 1.82 | 1317.60 | 1319.49 | 1319.25 | 2.20 | 62.93 | 90.00 | 9800.00 | 624.14 | 10424.14 |
| * | .458 | 3500.00 | 1320.46 | 2.86 | 1317.60 | 1320.69 | 1319.97 | 4.02 | 49.39 | 90.00 | 9800.00 | 632.42 | 10432.42 |
| * | .458 | 6100.00 | 1321.18 | 3.58 | 1317.60 | 1321.50 | 1320.44 | 4.69 | 40.32 | 90.00 | 9800.00 | 638.22 | 10438.22 |
| * | .489 | 580.00 | 1320.19 | 1.69 | 1318.50 | 1320.21 | 1319.72 | 1.13 | 31.50 | 163.00 | 9650.00 | 849.88 | 10687.12 |
| | .489 | 3500.00 | 1321.34 | 2.84 | 1318.50 | 1321.41 | 1320.35 | 2.22 | 37.17 | 163.00 | 9650.00 | 1002.73 | 10700.00 |
| | .489 | 6100.00 | 1322.04 | 3.54 | 1318.50 | 1322.14 | 1320.72 | 2.67 | 35.70 | 163.00 | 9650.00 | 1050.00 | 10700.00 |
| | .568 | 580.00 | 1321.96 | 1.56 | 1320.40 | 1321.99 | 1321.70 | 1.46 | 63.54 | 417.00 | 9361.14 | 1059.87 | 10729.79 |
| | .568 | 3500.00 | 1322.97 | 2.57 | 1320.40 | 1323.03 | 1322.28 | 2.22 | 42.93 | 417.00 | 9031.40 | 1550.31 | 10799.46 |
| | .568 | 6100.00 | 1323.54 | 3.14 | 1320.40 | 1323.62 | 1322.55 | 2.51 | 37.31 | 417.00 | 9031.40 | 1681.99 | 10897.52 |
| | .629 | 580.00 | 1323.54 | 2.94 | 1320.60 | 1323.57 | 1323.01 | .99 | 43.46 | 322.00 | 9610.15 | 701.83 | 10742.66 |
| | .629 | 3500.00 | 1324.36 | 3.76 | 1320.60 | 1324.43 | 1323.64 | 1.93 | 50.39 | 322.00 | 9568.09 | 1430.96 | 11218.60 |
| | .629 | 6100.00 | 1324.85 | 4.25 | 1320.60 | 1324.95 | 1324.02 | 2.49 | 52.71 | 322.00 | 9498.69 | 1628.73 | 11260.42 |
| | .736 | 580.00 | 1325.56 | 1.66 | 1323.90 | 1325.61 | 1324.96 | 2.14 | 41.84 | 565.00 | 9914.06 | 365.95 | 10382.56 |
| | .736 | 3500.00 | 1326.75 | 2.85 | 1323.90 | 1326.87 | 1326.05 | 3.79 | 52.14 | 565.00 | 9878.96 | 993.09 | 10872.05 |
| | .736 | 6100.00 | 1327.34 | 3.44 | 1323.90 | 1327.51 | 1326.47 | 4.55 | 53.98 | 565.00 | 9869.92 | 1055.95 | 10925.87 |
| | .813 | 580.00 | 1327.39 | 3.99 | 1323.40 | 1327.48 | 1326.76 | 3.49 | 32.86 | 407.00 | 9964.61 | 340.18 | 10308.57 |
| | .813 | 3500.00 | 1329.08 | 5.68 | 1323.40 | 1329.25 | 1328.20 | 5.46 | 42.04 | 407.00 | 9956.83 | 692.11 | 10675.36 |
| | .813 | 6100.00 | 1329.82 | 6.42 | 1323.40 | 1330.04 | 1328.74 | 6.32 | 45.90 | 407.00 | 9955.36 | 771.35 | 10726.71 |
| | .860 | 580.00 | 1328.27 | 1.97 | 1326.30 | 1328.31 | 1327.81 | 1.33 | 34.63 | 248.00 | 9866.99 | 519.17 | 10408.08 |
| | .860 | 3500.00 | 1329.98 | 3.68 | 1326.30 | 1330.09 | 1328.69 | 3.00 | 27.78 | 248.00 | 9854.49 | 604.95 | 10459.44 |
| | .860 | 6100.00 | 1330.80 | 4.50 | 1326.30 | 1330.97 | 1329.19 | 3.89 | 31.06 | 248.00 | 9849.18 | 630.80 | 10479.98 |
| * | .949 | 580.00 | 1330.21 | 2.51 | 1327.70 | 1330.32 | 1330.01 | 4.15 | 98.49 | 470.00 | 9662.33 | 365.07 | 10067.75 |
| * | .949 | 3500.00 | 1331.51 | 3.81 | 1327.70 | 1331.67 | 1331.05 | 5.08 | 70.33 | 470.00 | 9595.59 | 1024.46 | 10620.05 |
| | .949 | 6100.00 | 1332.26 | 4.56 | 1327.70 | 1332.42 | 1331.47 | 4.96 | 48.29 | 470.00 | 9580.78 | 1187.83 | 10768.62 |
| * | 1.038 | 580.00 | 1333.40 | 2.00 | 1331.40 | 1333.46 | 1332.94 | 2.61 | 38.69 | 470.00 | 9667.90 | 372.41 | 10040.31 |
| | 1.038 | 3500.00 | 1334.05 | 2.65 | 1331.40 | 1334.14 | 1333.52 | 3.72 | 44.06 | 470.00 | 9612.31 | 1386.24 | 11046.14 |
| | 1.038 | 6100.00 | 1334.44 | 3.04 | 1331.40 | 1334.59 | 1333.83 | 4.60 | 52.31 | 470.00 | 9589.00 | 1511.47 | 11104.77 |
| | 1.144 | 580.00 | 1335.86 | 4.96 | 1330.90 | 1336.15 | 1335.85 | 5.37 | 56.99 | 560.00 | 9772.29 | 443.75 | 10250.79 |
| | 1.144 | 3500.00 | 1336.41 | 5.51 | 1330.90 | 1336.57 | 1336.14 | 6.01 | 59.74 | 560.00 | 9643.37 | 1441.75 | 11310.66 |
| | 1.144 | 6100.00 | 1336.89 | 5.99 | 1330.90 | 1337.06 | 1336.49 | 6.17 | 52.96 | 560.00 | 9483.36 | 1726.41 | 11344.32 |
| * | 1.257 | 580.00 | 1337.09 | 3.19 | 1333.90 | 1337.15 | 1335.56 | 2.18 | 8.84 | 597.00 | 9916.60 | 177.72 | 10094.32 |
| * | 1.257 | 3500.00 | 1338.21 | 4.31 | 1333.90 | 1338.38 | 1337.83 | 4.87 | 28.08 | 597.00 | 9675.66 | 1414.80 | 11090.46 |
| | 1.257 | 6100.00 | 1338.70 | 4.80 | 1333.90 | 1338.90 | 1338.22 | 5.70 | 32.92 | 597.00 | 9669.79 | 1446.70 | 11116.49 |

| | SECNO | Q | CWSEL | DEPTH | ELMIN | EG | CRIWS | VCH | 10*KS | XLCH | SSTA | TOPWID | ENDST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * | 1.336 | 580.00 | 1339.05 | 4.65 | 1334.40 | 1339.35 | 1339.05 | 5.47 | 105.01 | 417.00 | 9807.75 | 317.68 | 10169.07 |
| * | 1.336 | 3500.00 | 1340.19 | 5.79 | 1334.40 | 1340.57 | 1340.14 | 7.65 | 124.84 | 417.00 | 9730.50 | 994.83 | 10765.94 |
| * | 1.336 | 6100.00 | 1340.77 | 6.37 | 1334.40 | 1341.11 | 1340.53 | 7.55 | 95.05 | 417.00 | 9724.07 | 1117.32 | 10841.39 |

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION SECNO=      1.868  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      1.868  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      1.868  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      1.868  PROFILE=  2  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      1.868  PROFILE=  3  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      1.868  PROFILE=  3  MINIMUM SPECIFIC ENERGY

WARNING SECNO=      1.912  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      1.912  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      1.912  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      1.962  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=      1.962  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      1.962  PROFILE=  2  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      1.962  PROFILE=  3  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      1.962  PROFILE=  3  MINIMUM SPECIFIC ENERGY

WARNING SECNO=      2.034  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      2.034  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      2.034  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      2.230  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      2.230  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=      2.319  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=      2.319  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      2.319  PROFILE=  2  MINIMUM SPECIFIC ENERGY
WARNING SECNO=      2.319  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      2.353  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      2.422  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      2.634  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      2.634  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      2.634  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      2.720  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      2.720  PROFILE=  1  MINIMUM SPECIFIC ENERGY
WARNING SECNO=      2.720  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      2.720  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      2.801  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      2.801  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      3.143  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      3.300  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      4.131  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      4.131  PROFILE=  1  MINIMUM SPECIFIC ENERGY
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WARNING SECNO=      4.177  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      4.177  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      4.300  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      4.436  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      4.436  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      4.445  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      4.600  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      4.600  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      4.600  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      4.674  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      4.674  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      4.721  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      4.721  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      4.721  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      4.770  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      4.770  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      4.770  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      4.770  PROFILE=  2  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      4.770  PROFILE=  3  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      4.770  PROFILE=  3  MINIMUM SPECIFIC ENERGY

WARNING SECNO=      4.870  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      4.870  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      4.870  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      4.893  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=      4.893  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      4.893  PROFILE=  2  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      4.893  PROFILE=  3  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      4.893  PROFILE=  3  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=      4.922  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      4.922  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=      4.945  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      4.945  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      4.945  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      4.945  PROFILE=  2  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      4.945  PROFILE=  3  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      4.945  PROFILE=  3  MINIMUM SPECIFIC ENERGY

WARNING SECNO=      4.974  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      4.974  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      5.008  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      5.008  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO=     5.008  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     5.080  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     5.080  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     5.080  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     5.103  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     5.103  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     5.103  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     5.118  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     5.118  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     5.118  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     5.118  PROFILE=  2  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     5.118  PROFILE=  3  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     5.118  PROFILE=  3  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     5.159  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     5.159  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     5.204  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     5.204  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     5.204  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     5.263  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     5.263  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     5.364  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     5.364  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     5.364  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     5.397  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     5.397  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     5.397  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     5.432  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     5.432  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     5.432  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     5.500  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     5.500  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     5.500  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     5.579  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     5.579  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     5.579  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     5.579  PROFILE=  2  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     5.579  PROFILE=  3  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     5.579  PROFILE=  3  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     5.679  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     5.881  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     5.881  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO=      5.881  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      5.973  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      5.973  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      5.977  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      5.977  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      5.977  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      5.977  PROFILE=  2  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      5.977  PROFILE=  3  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      5.977  PROFILE=  3  MINIMUM SPECIFIC ENERGY

WARNING SECNO=      5.982  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      5.982  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      5.982  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      6.219  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      6.219  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      6.219  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      6.227  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      6.227  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      6.227  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      6.227  PROFILE=  2  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      6.227  PROFILE=  3  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      6.227  PROFILE=  3  MINIMUM SPECIFIC ENERGY

WARNING SECNO=      6.230  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      6.230  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      6.230  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      6.356  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      6.356  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      6.356  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      6.361  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      6.361  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      6.361  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      6.378  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      6.378  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      6.378  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      6.379  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      6.379  PROFILE=  1  MINIMUM SPECIFIC ENERGY
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WARNING SECNO=      6.779  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      7.000  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO=     7.000  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     7.174  PROFILE=  1  CRITICAL DEPTH ASSUMED
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WARNING SECNO=     7.244  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     7.244  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     7.244  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     7.409  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     7.409  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     7.409  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .028  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO=      .028  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      .036  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .036  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .036  PROFILE=  2  CRITICAL DEPTH ASSUMED
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CAUTION SECNO=      .036  PROFILE=  3  CRITICAL DEPTH ASSUMED
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WARNING SECNO=      .040  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO=      .040  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .116  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .116  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .116  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .184  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .200  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .200  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .200  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .212  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      .214  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .214  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .214  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .214  PROFILE=  2  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      .214  PROFILE=  3  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .214  PROFILE=  3  MINIMUM SPECIFIC ENERGY

WARNING SECNO=      .232  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .337  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO=      .438  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      .441  PROFILE=  1  CRITICAL DEPTH ASSUMED
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WARNING SECNO=      .458  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .458  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .458  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .489  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .949  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      .949  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.038  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.257  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.257  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     1.336  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.336  PROFILE=  1  MINIMUM SPECIFIC ENERGY
WARNING SECNO=     1.336  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     1.336  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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Existing Condition Cross Section Plots

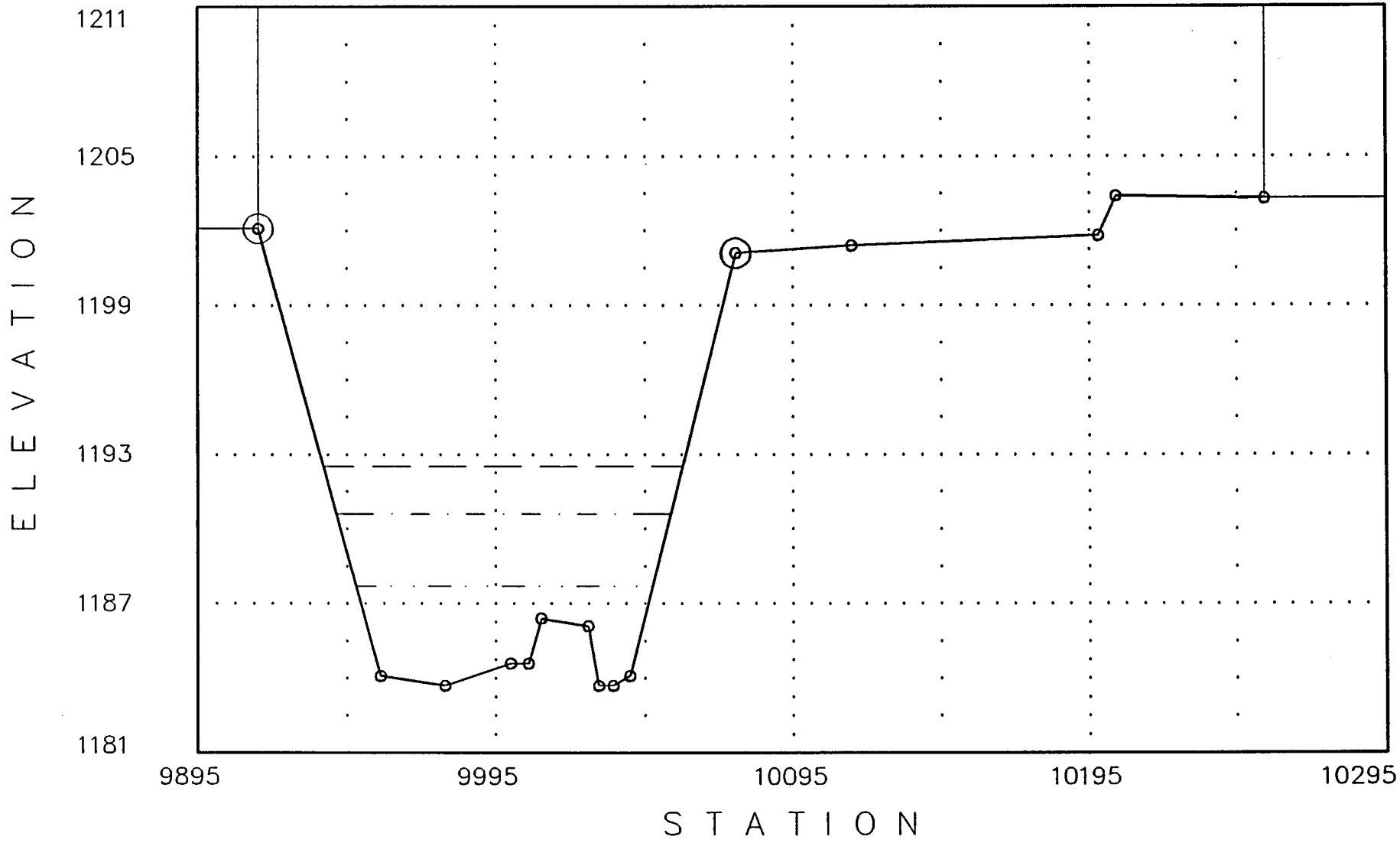
Skunk Creek
ADCD to Adobe Dam
Including Scatter Wash

CVL

<<<<<< Cross Section: 1.663: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1187.7
Q2= 6700 WS2= 1190.6
Q3= 11000 WS3= 1192.5

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

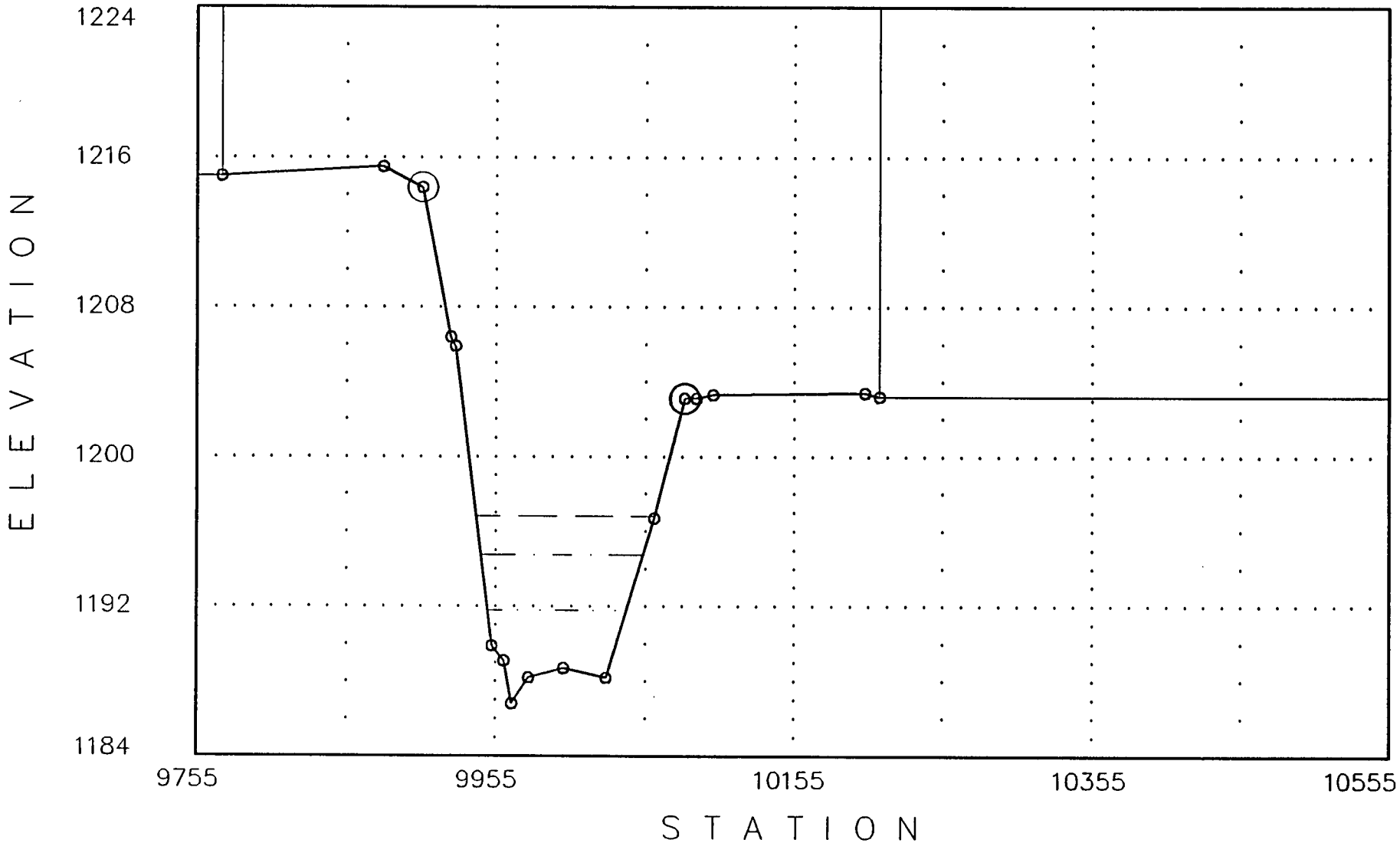



12-06-1990

<<<<<< Cross Section: 1.763: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1191.77
Q2= 6700 WS2= 1194.75
Q3= 11000 WS3= 1196.8

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

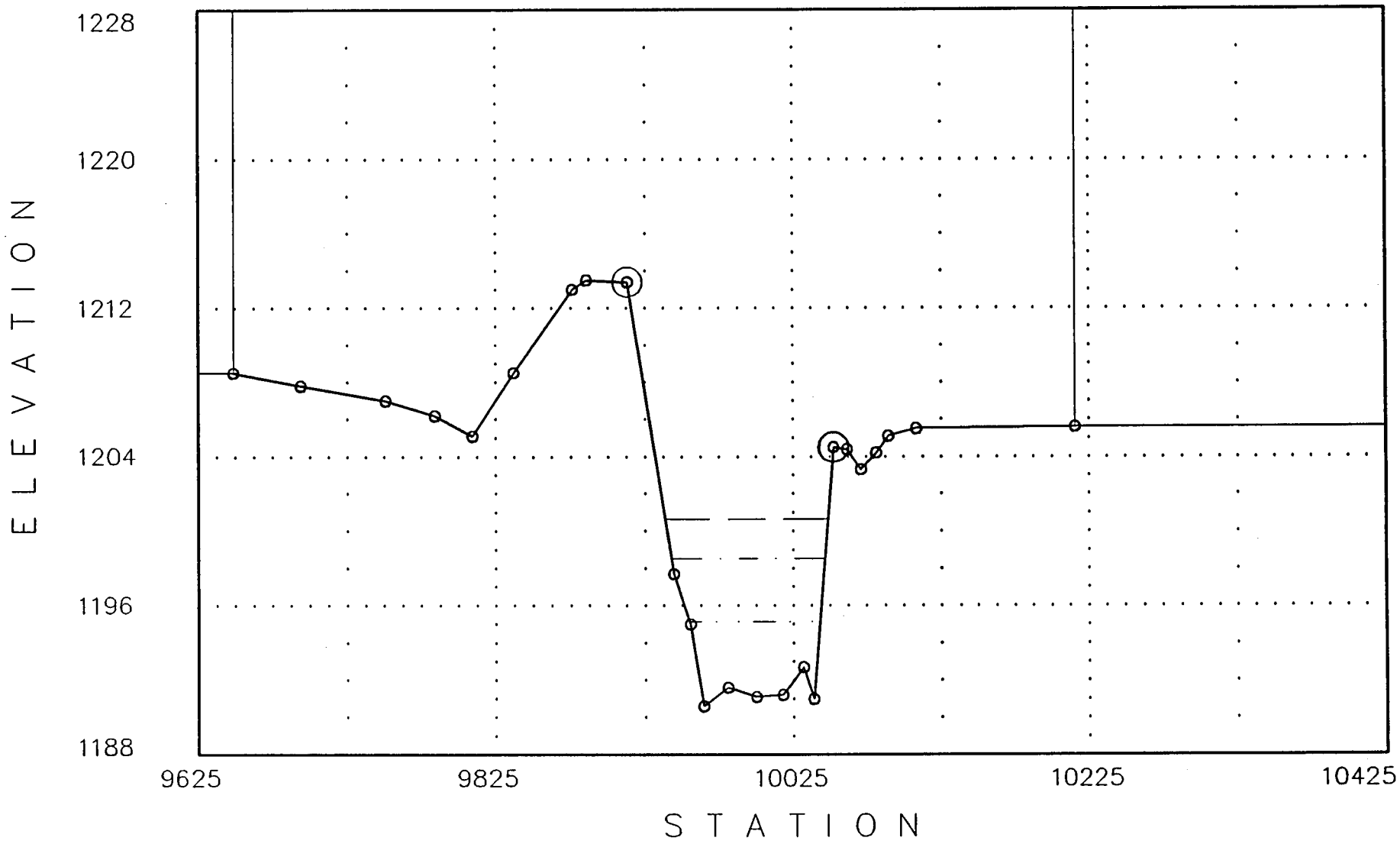



12-06-1990

<<<<<< Cross Section: 1.857: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1195.15
Q2= 6700 WS2= 1198.52
Q3= 11000 WS3= 1200.65

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

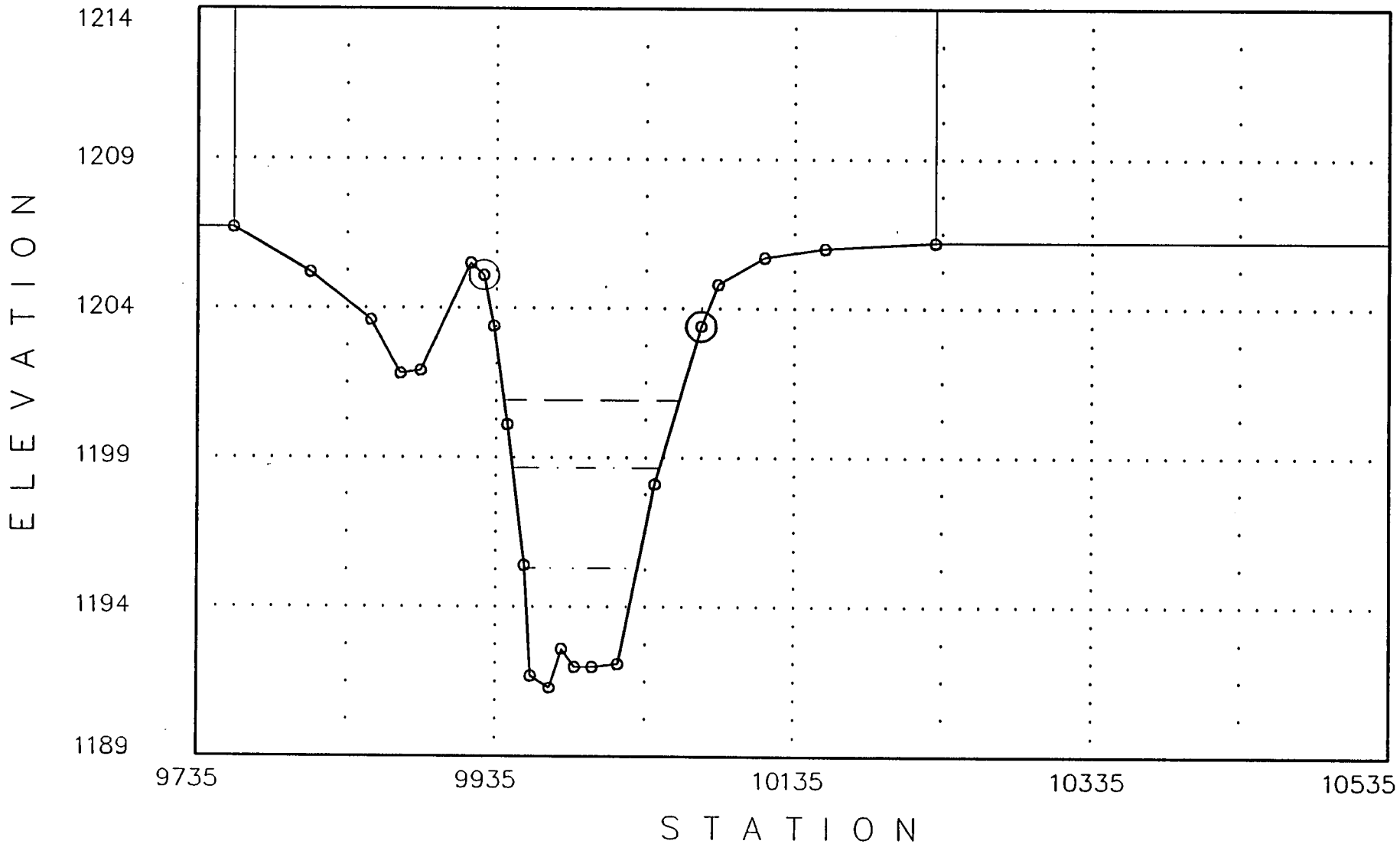



12-06-1990

<<<<<< Cross Section: 1.868: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1195.3
Q2= 6700 WS2= 1198.64
Q3= 11000 WS3= 1200.91

Manning-n's: n-lob = .045 n-ch = .038 n-rob = .045

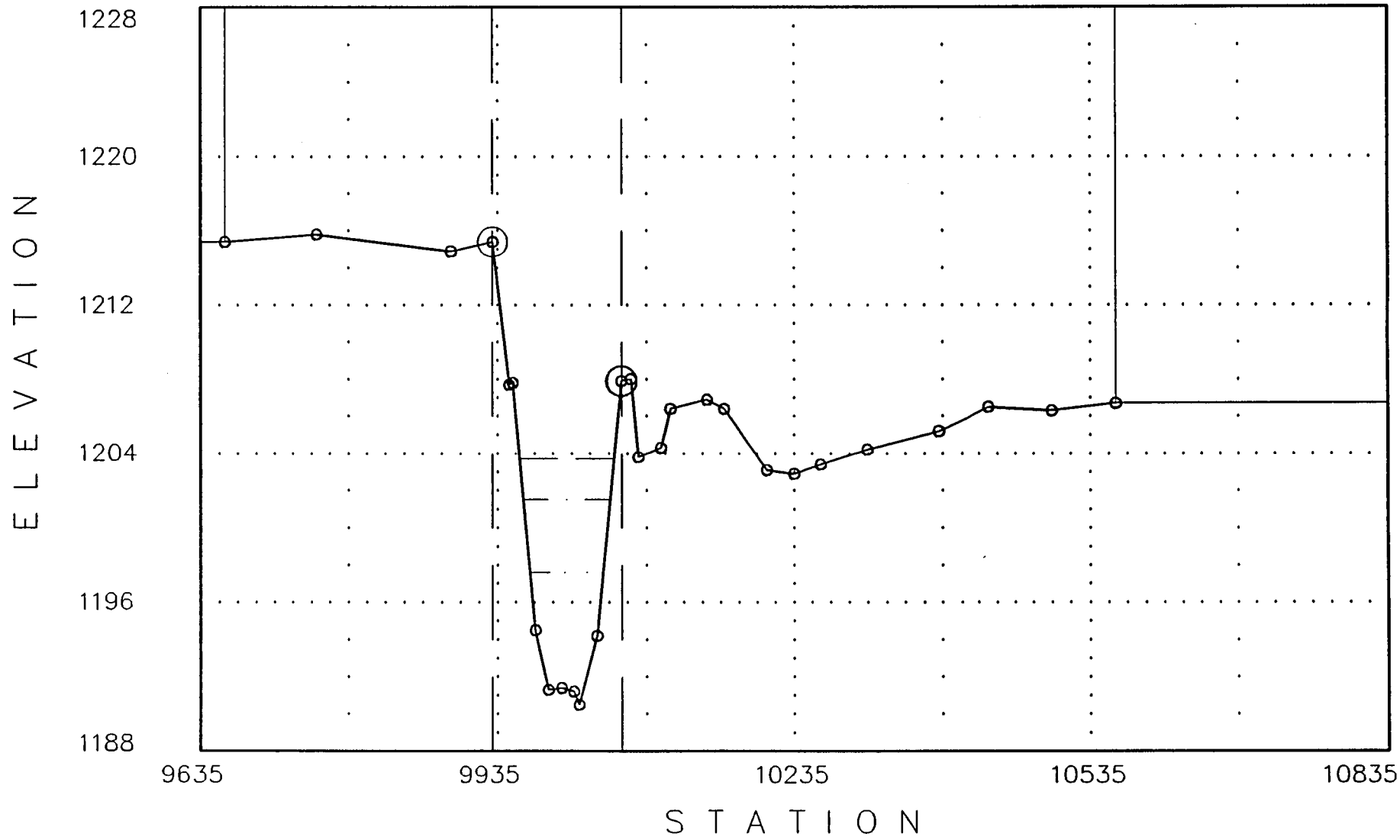



12-06-1990

<<<<<< Cross Section: 1.912: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1197.61
Q2= 6700 WS2= 1201.52
Q3= 11000 WS3= 1203.72

Manning-n's: n-lob = .045 n-ch = .038 n-rob = .045

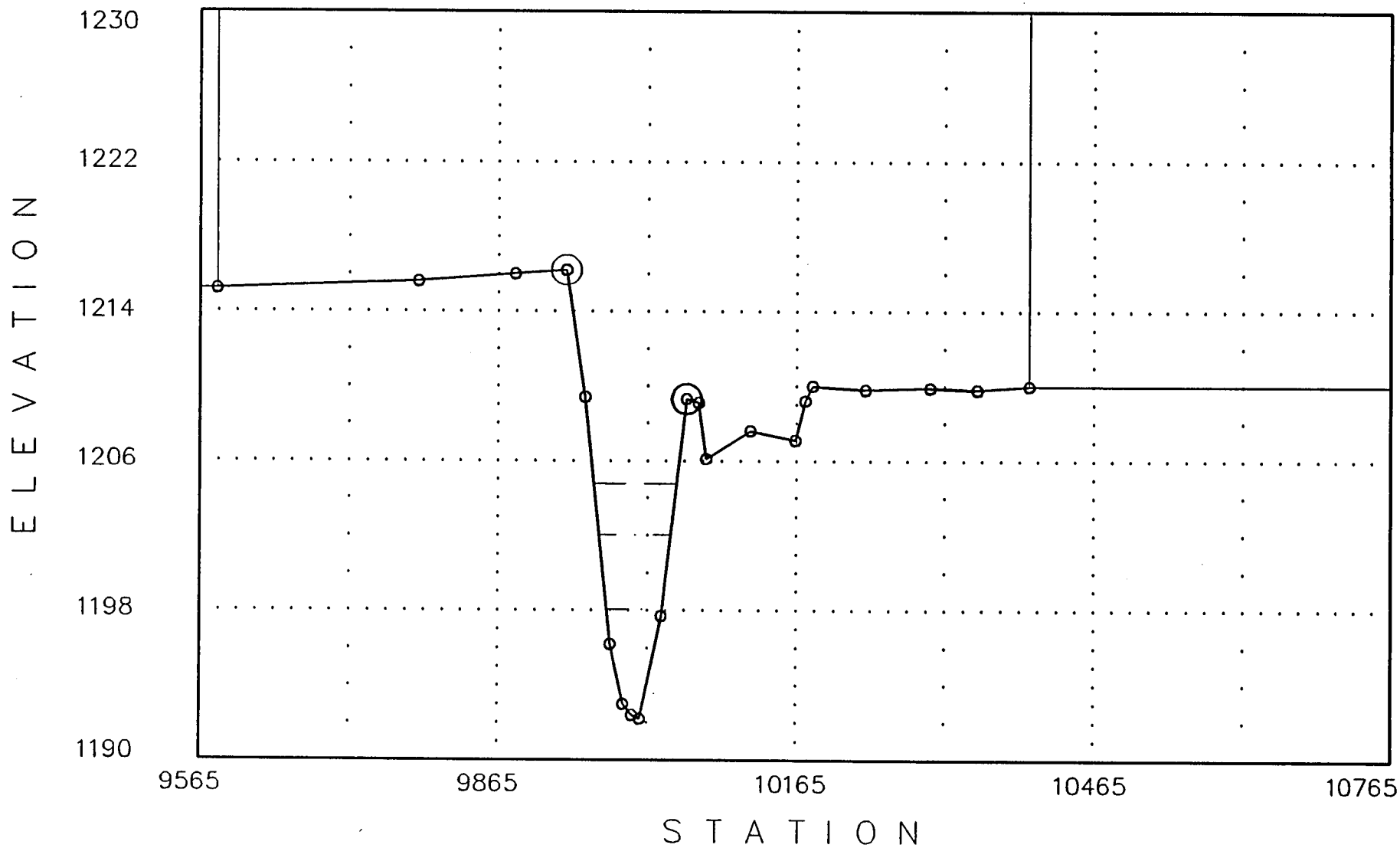



12-06-1990

<<<<<< Cross Section: 1.962: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1198.05
Q2= 6700 WS2= 1202.03
Q3= 11000 WS3= 1204.76

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

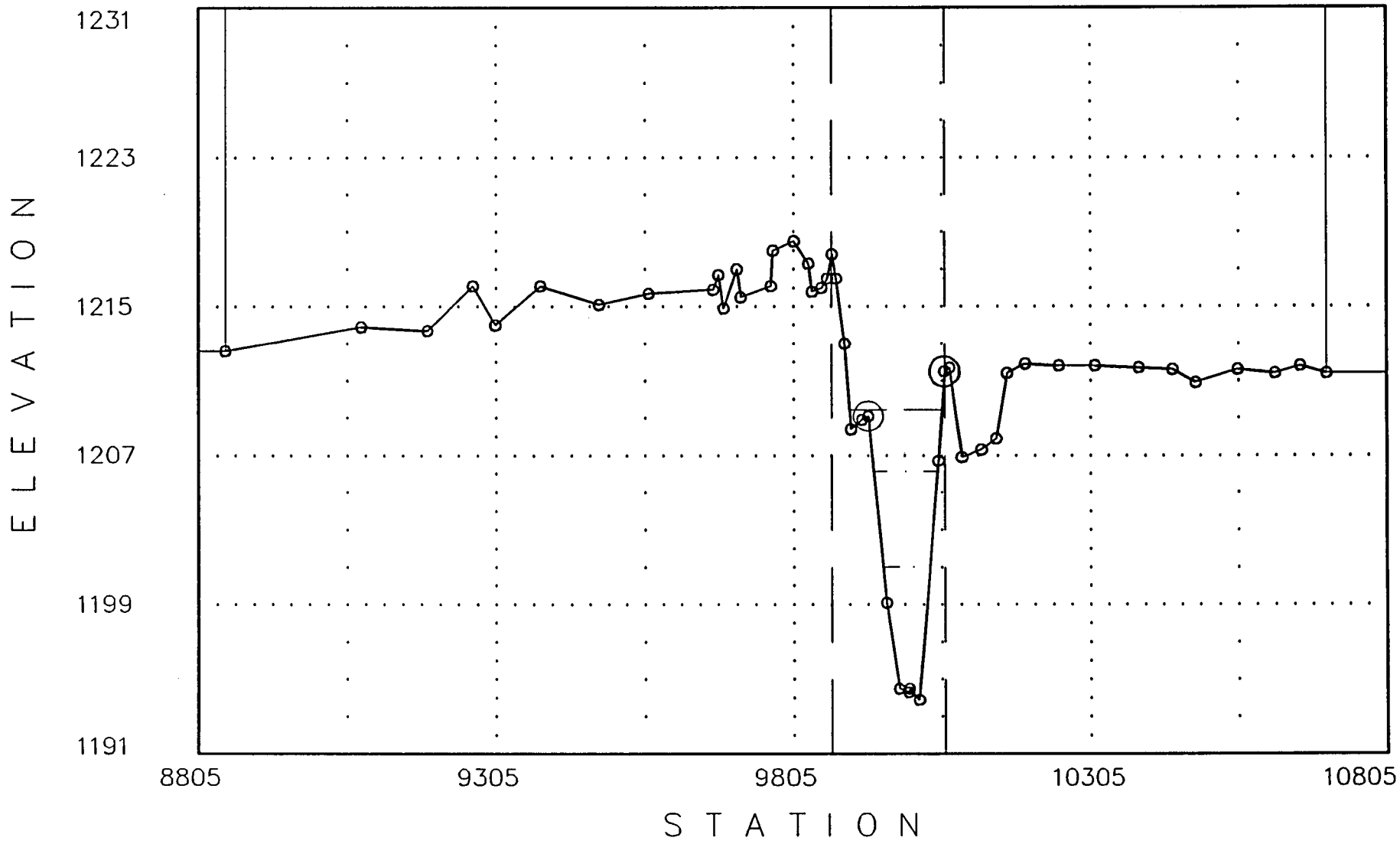



12-06-1990

<<<<<< Cross Section: 2.034: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1201.02
Q2= 6700 WS2= 1206.14
Q3= 11000 WS3= 1209.45

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

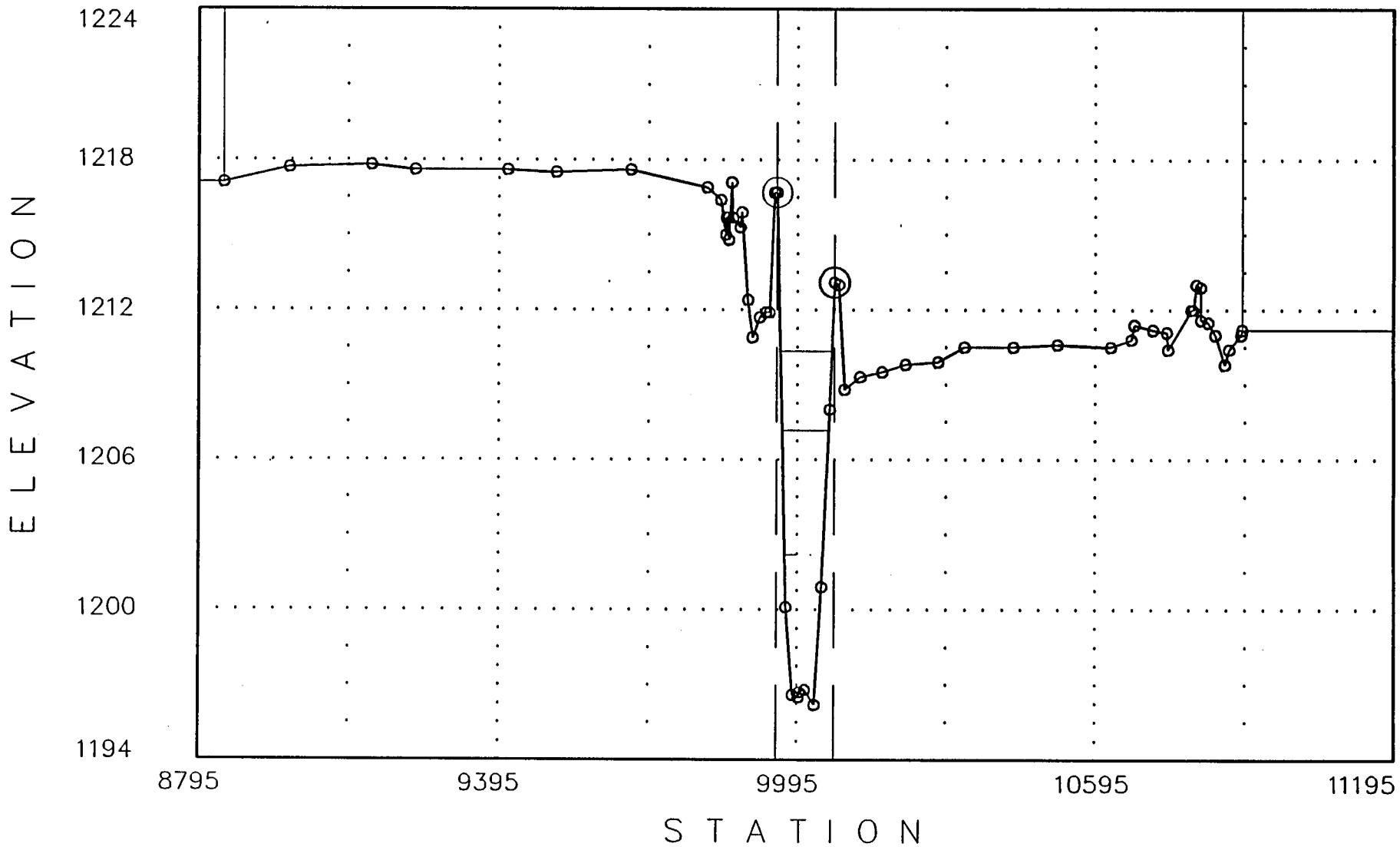



12-06-1990

<<<<<< Cross Section: 2.129: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1202.2
Q2= 6700 WS2= 1207.16
Q3= 11000 WS3= 1210.33

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

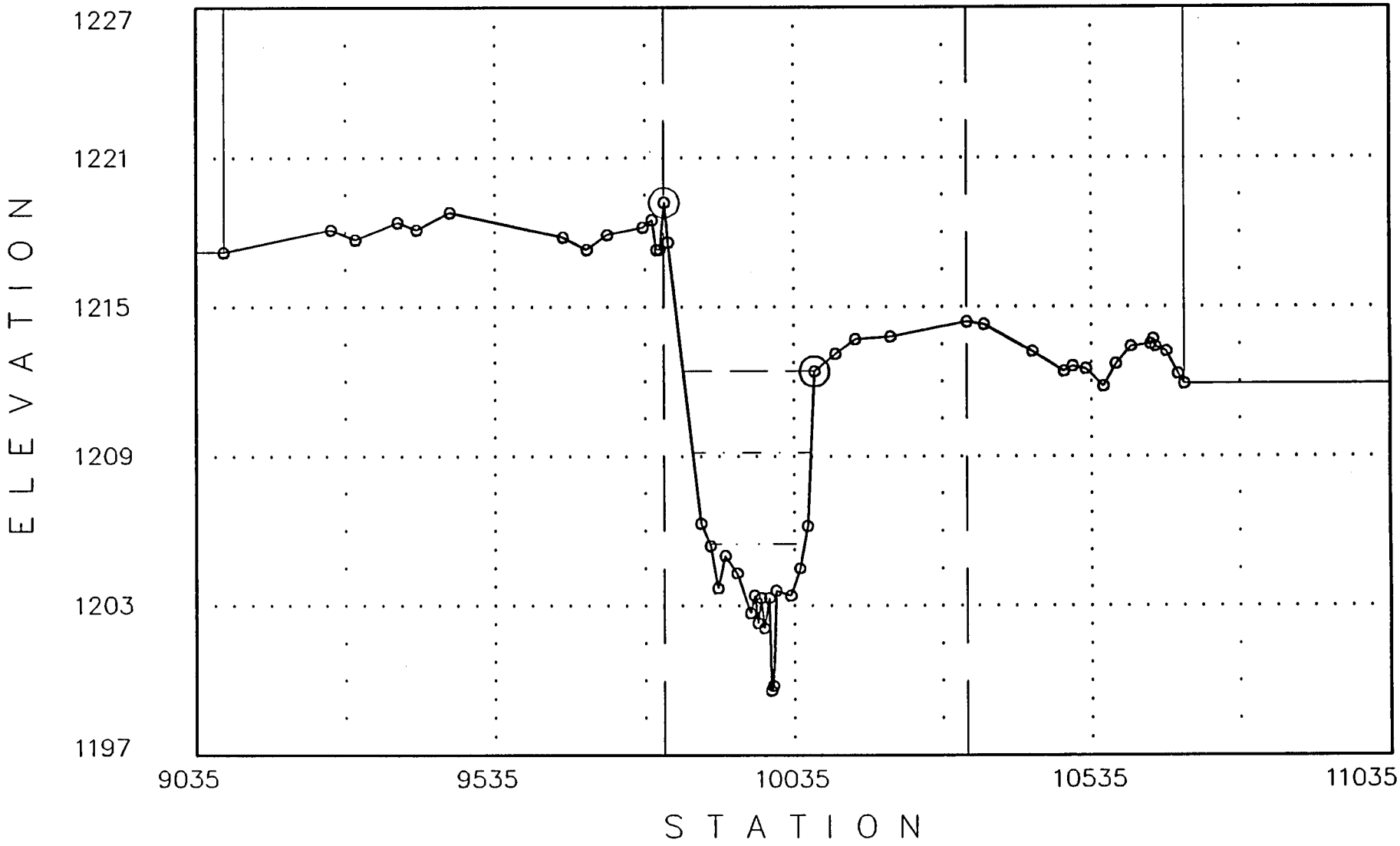



12-06-1990

<<<<<< Cross Section: 2.23: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1205.48
Q2= 6700 WS2= 1209.14
Q3= 11000 WS3= 1212.42

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

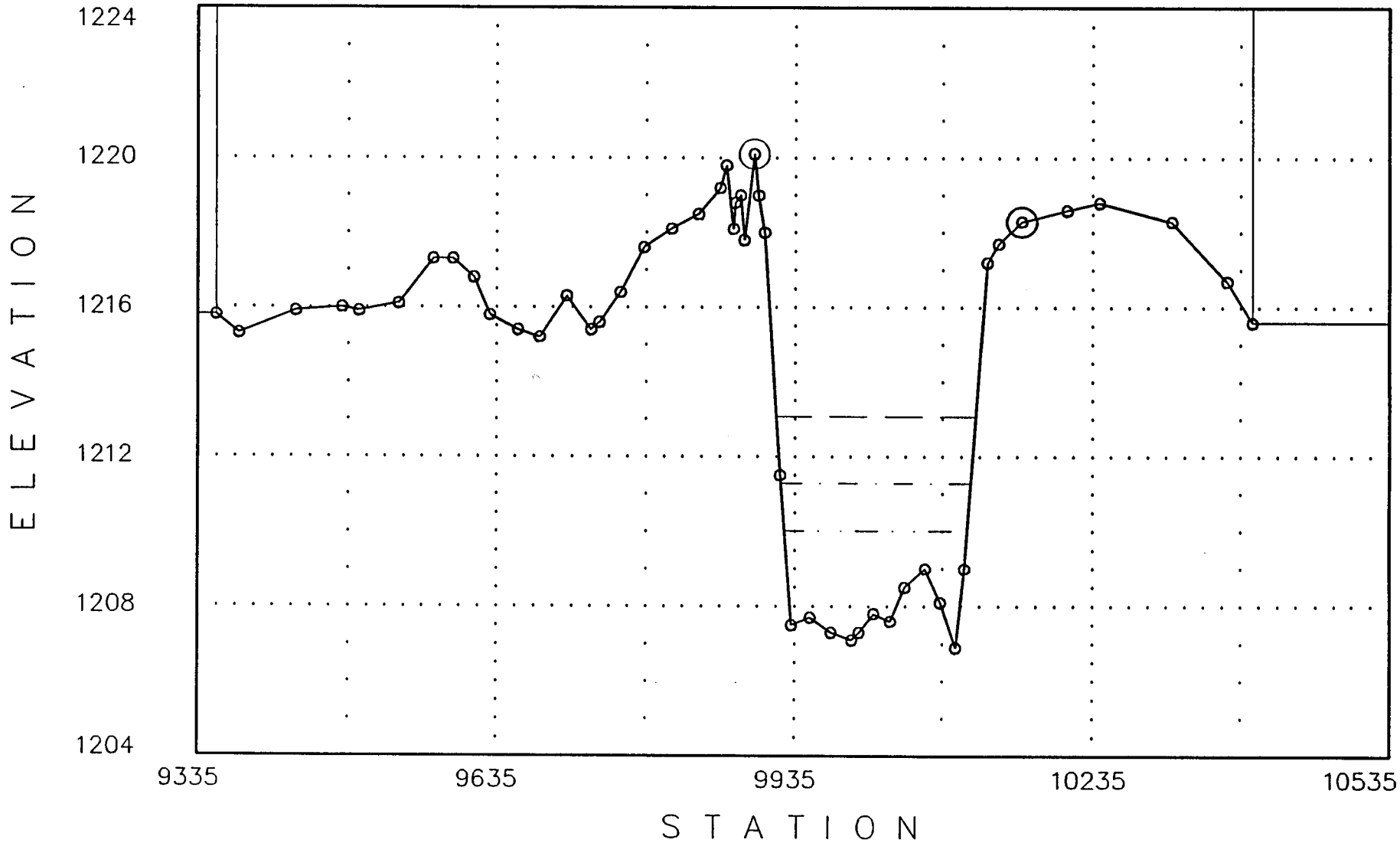



12-06-1990

<<<<<< Cross Section: 2.319: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1210.01
Q2= 6700 WS2= 1211.29
Q3= 11000 WS3= 1213.08

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

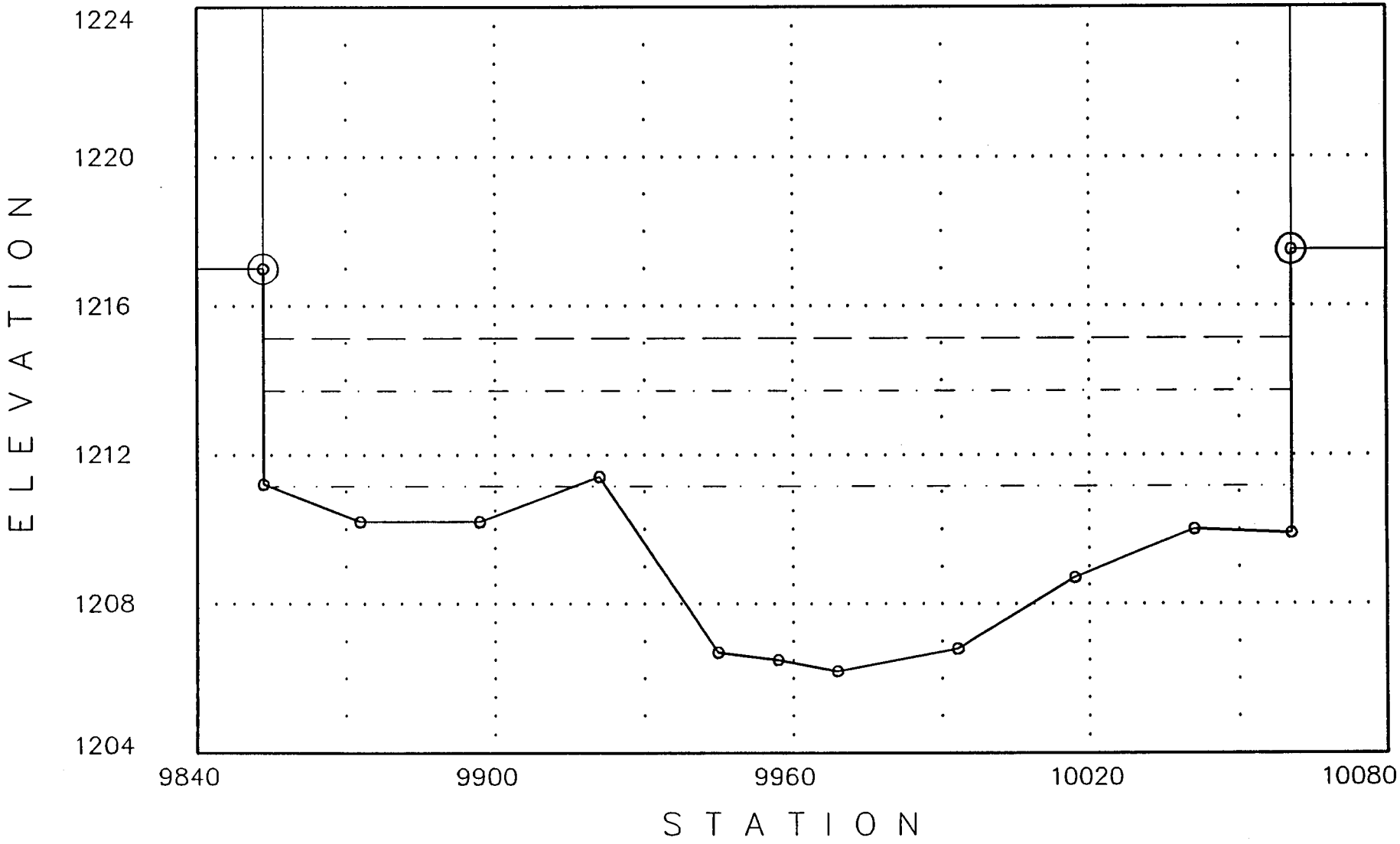



12-06-1990

<<<<<< Cross Section: 2.353: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1211.15
Q2= 6700 WS2= 1213.72
Q3= 11000 WS3= 1215.13

Manning-n's: n-lob = .045 n-ch = .038 n-rob = .045



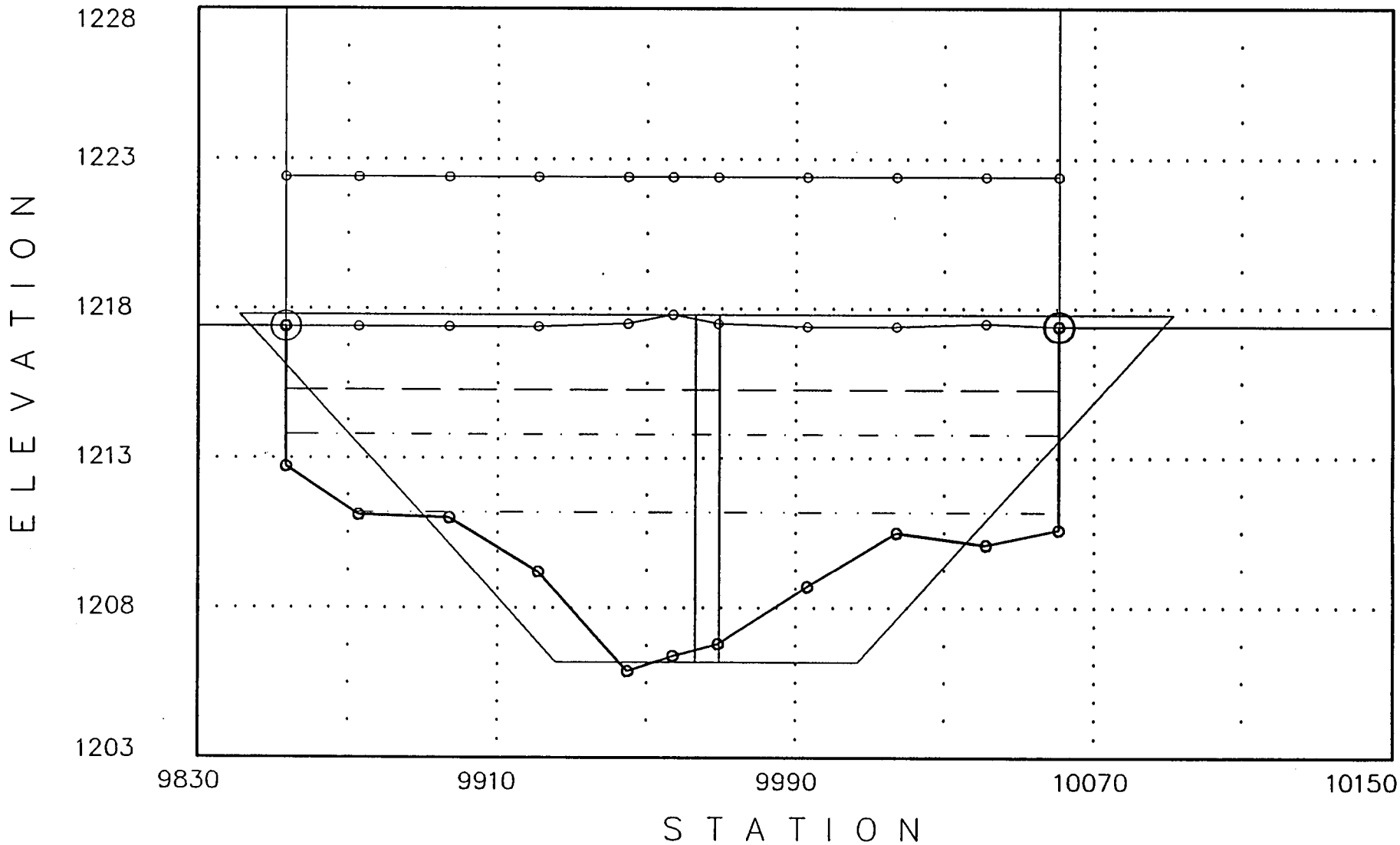

12-06-1990

<<<<<< Cross Section: 2.379: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1211.18
Q2= 6700 WS2= 1213.79
Q3= 11000 WS3= 1215.27

Manning-n's: n-lob = .045 n-ch = .038 n-rob = .045

SPECIAL BRIDGE

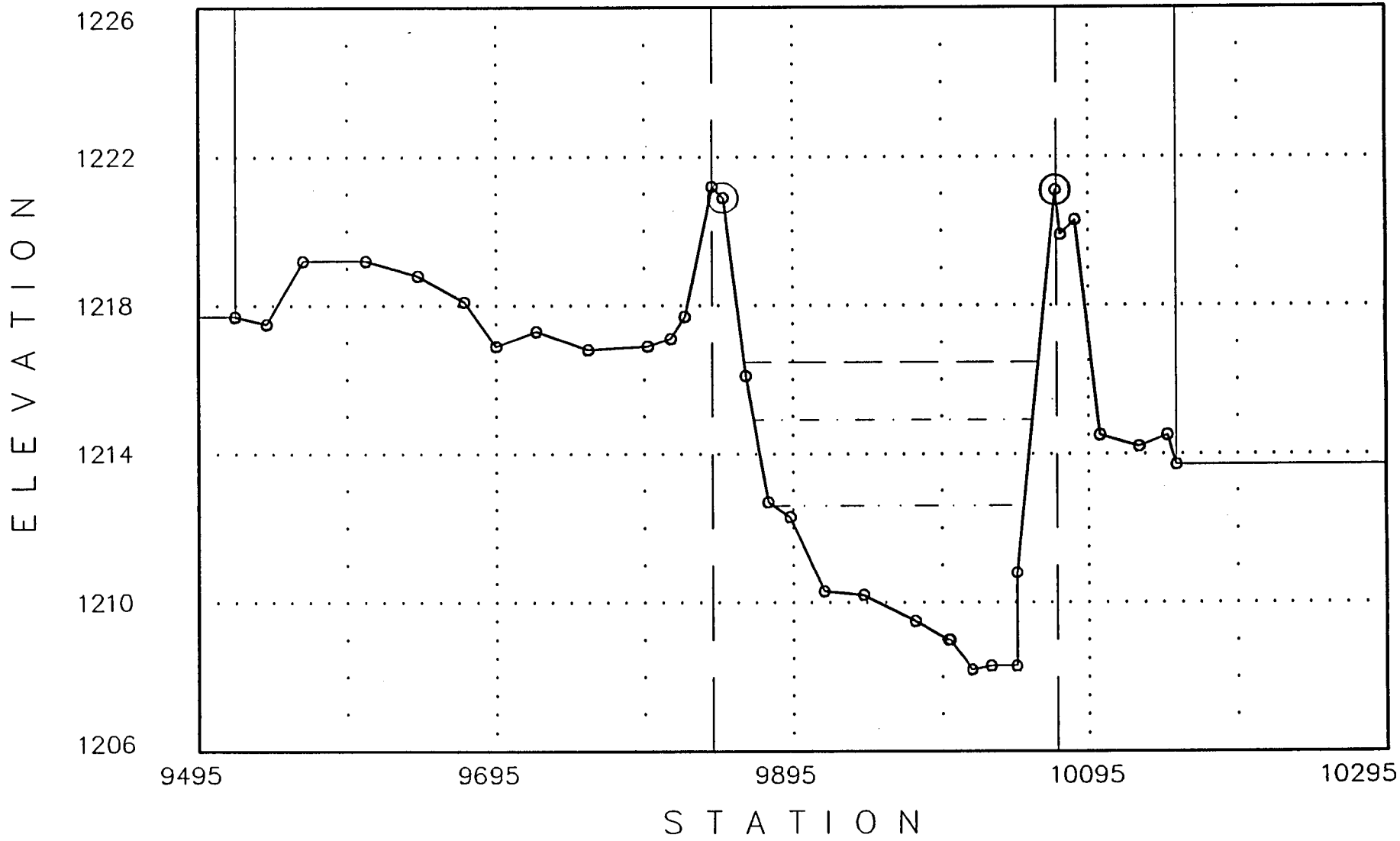



12-06-1990

<<<<<< Cross Section: 2.422: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1212.6
Q2= 6700 WS2= 1214.92
Q3= 11000 WS3= 1216.46

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

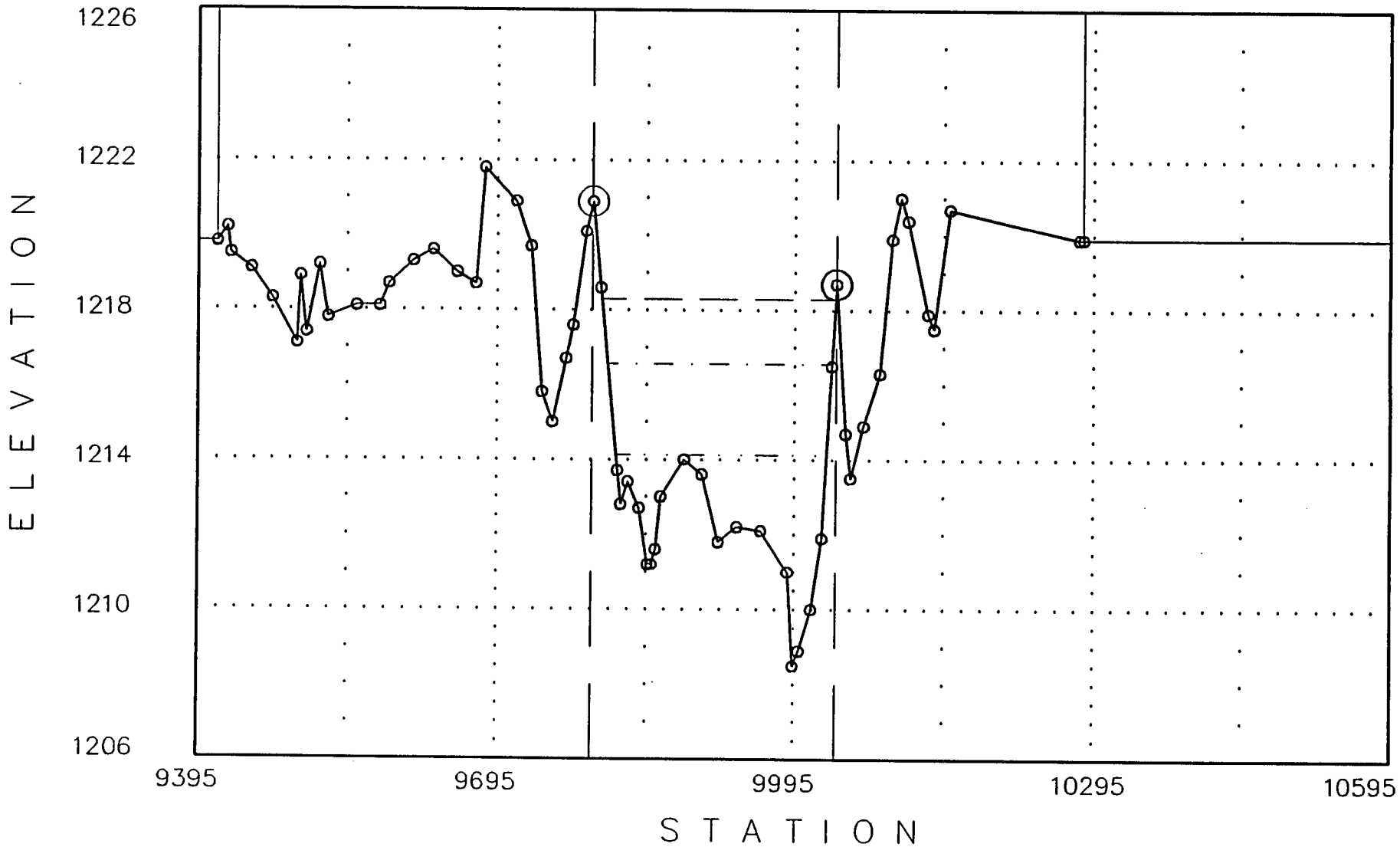



12-06-1990

<<<<<< Cross Section: 2.491: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1214.13
Q2= 6700 WS2= 1216.56
Q3= 11000 WS3= 1218.29

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

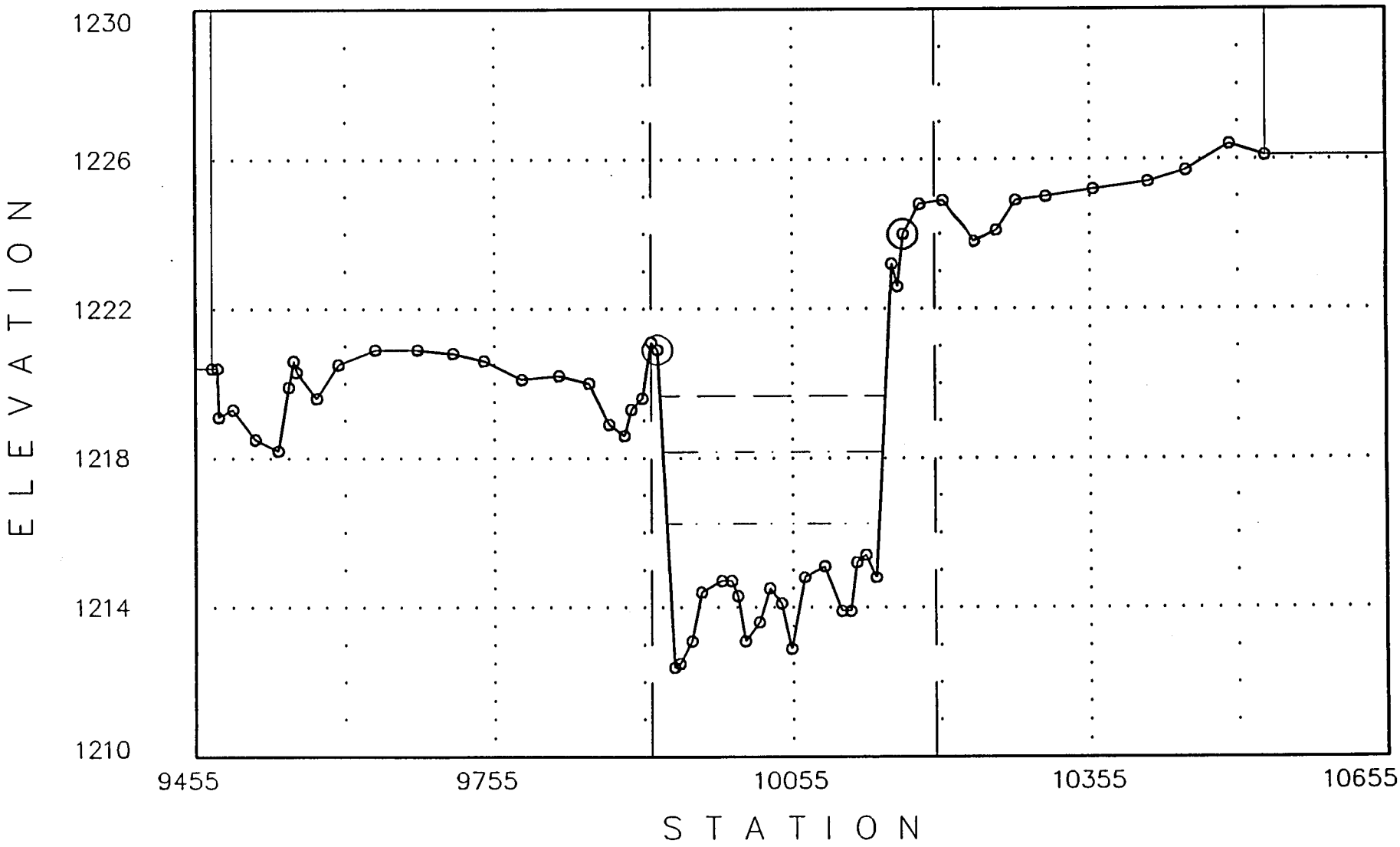



12-06-1990

<<<<<< Cross Section: 2.561: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1216.24
Q2= 6700 WS2= 1218.16
Q3= 11000 WS3= 1219.66

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

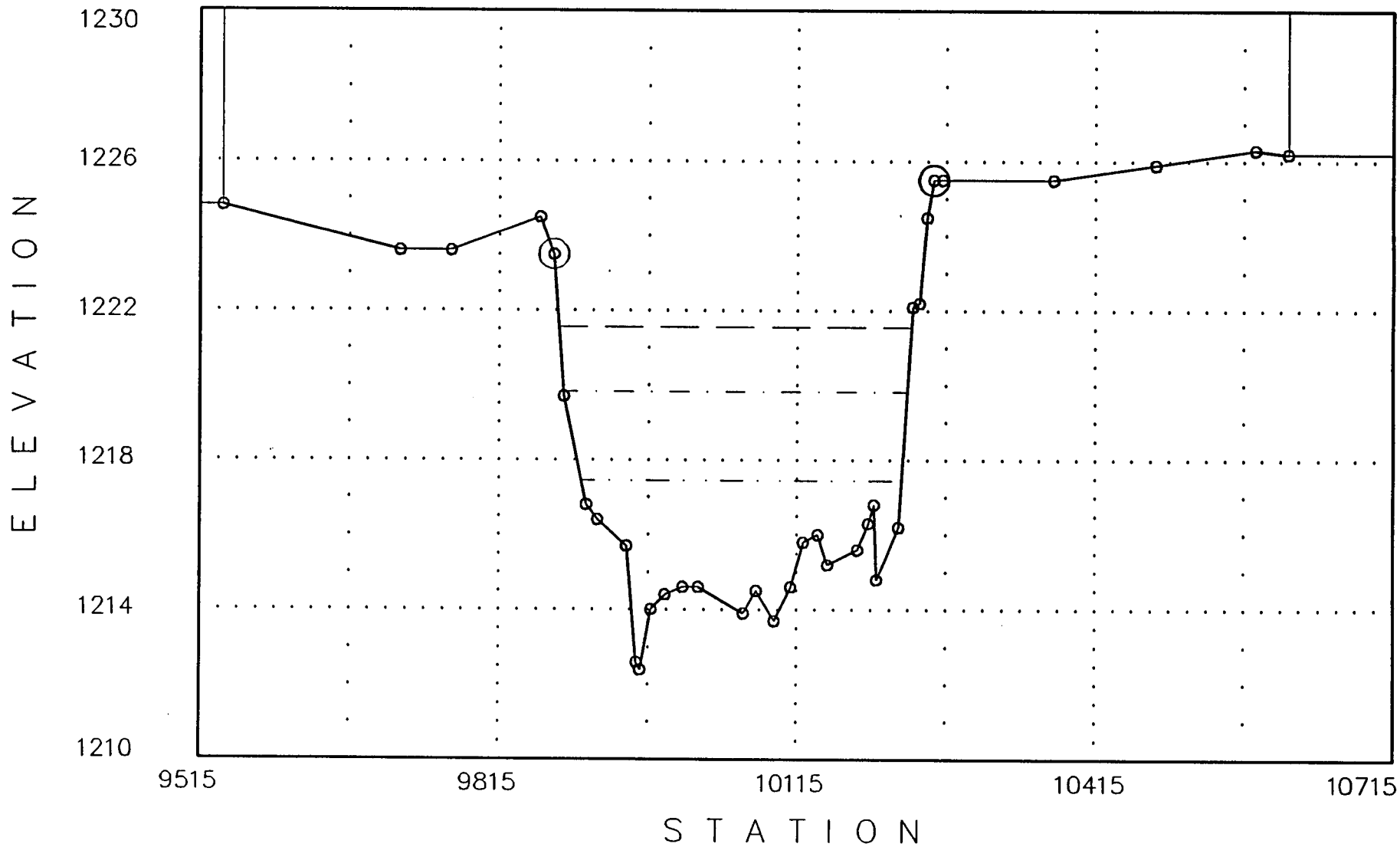



12-06-1990

<<<<<< Cross Section: 2.634: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1217.44
Q2= 6700 WS2= 1219.82
Q3= 11000 WS3= 1221.56

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

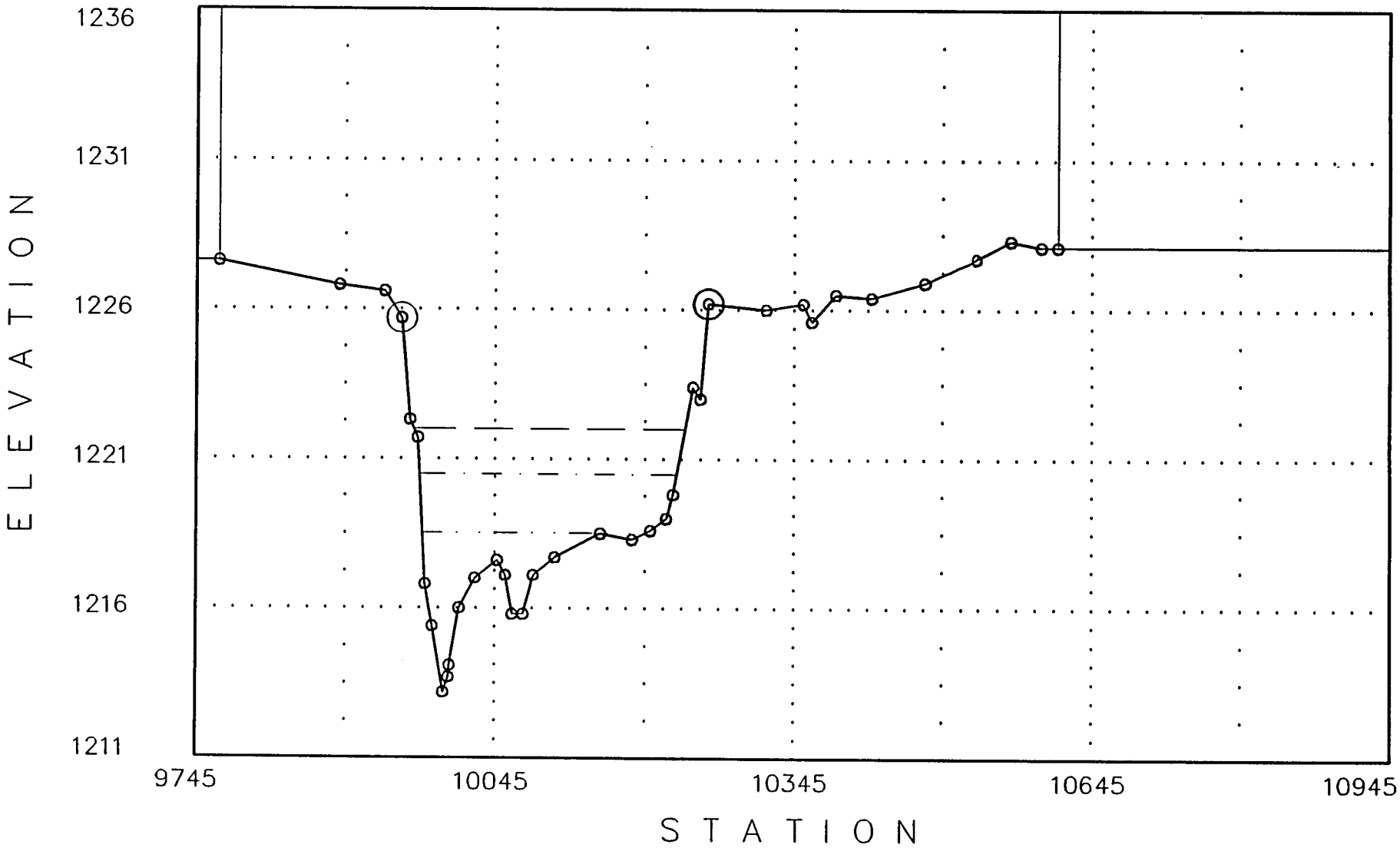



12-06-1990

<<<<<< Cross Section: 2.72: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1218.52
Q2= 6700 WS2= 1220.47
Q3= 11000 WS3= 1221.99

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

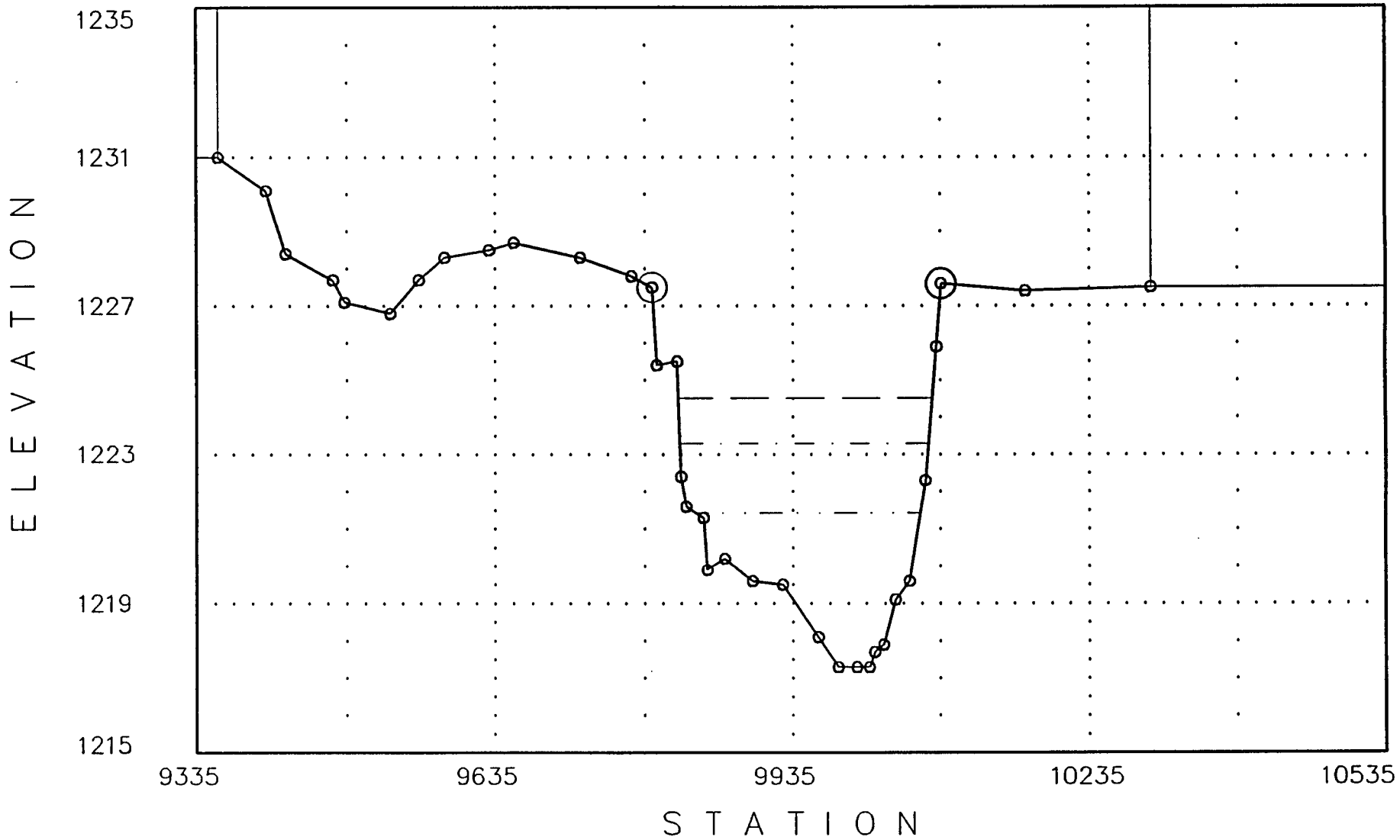



12-06-1990

<<<<<< Cross Section: 2.801: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1221.43
Q2= 6700 WS2= 1223.3
Q3= 11000 WS3= 1224.52

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

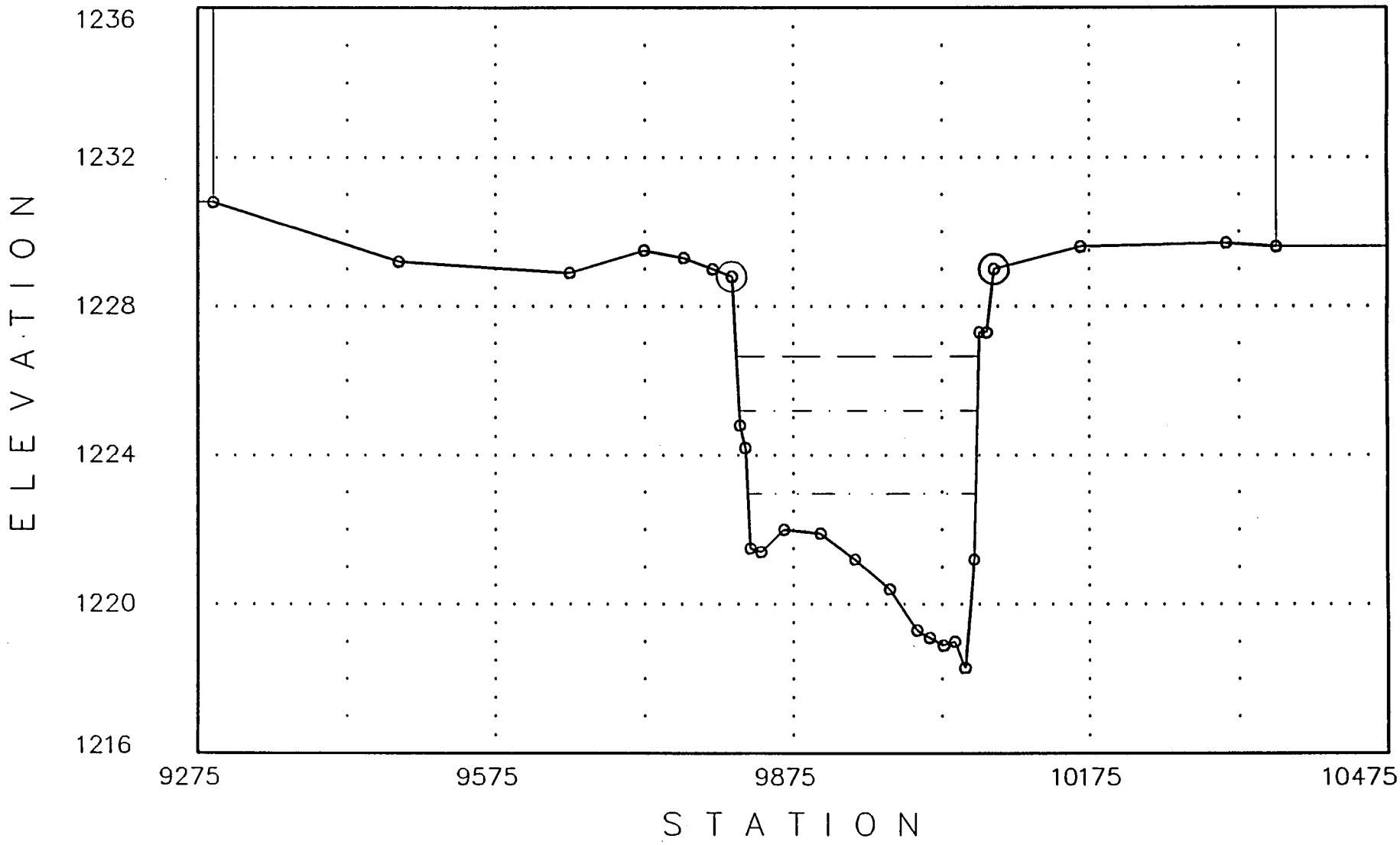



12-06-1990

<<<<<< Cross Section: 2.9: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1222.96
Q2= 6700 WS2= 1225.19
Q3= 11000 WS3= 1226.65

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

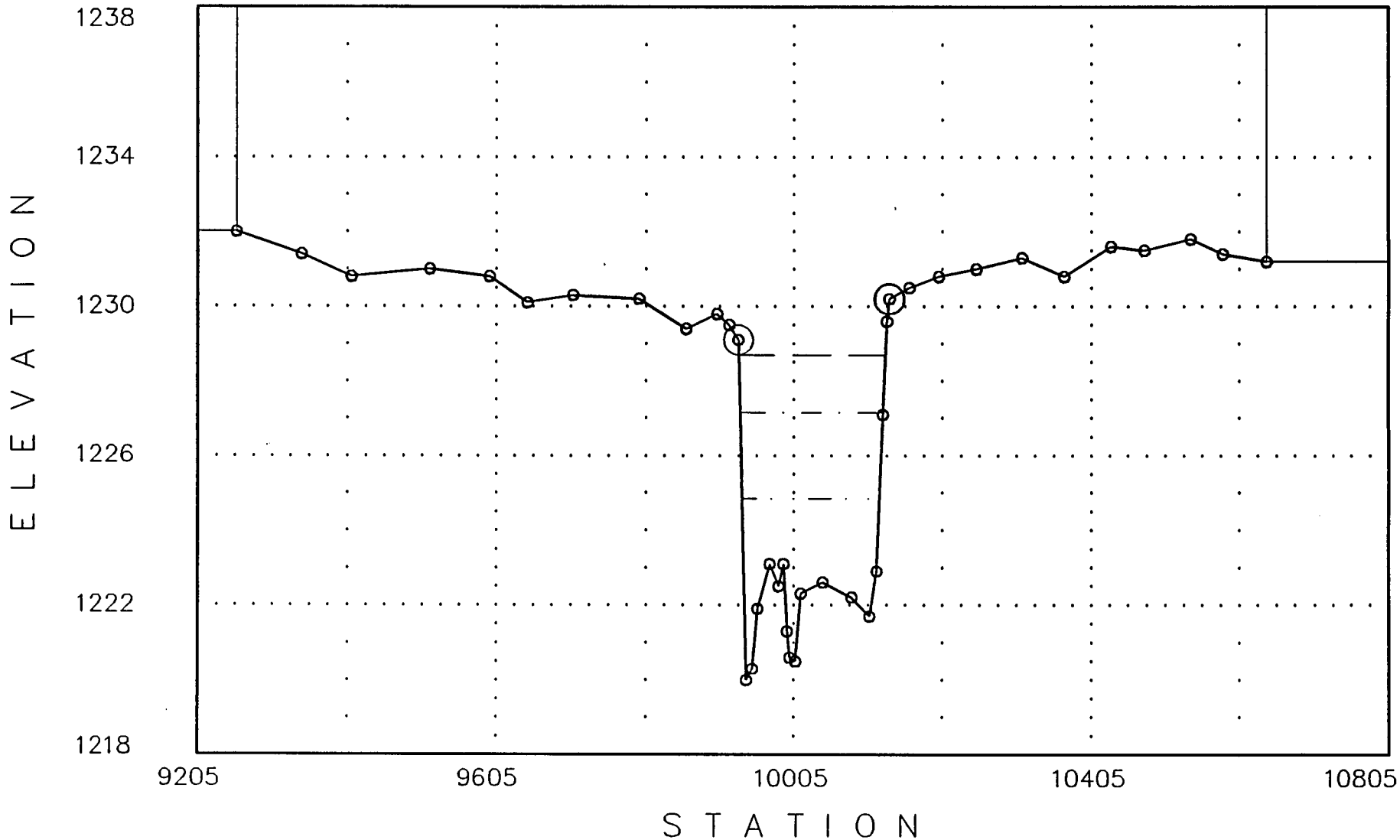



12-06-1990

<<<<<< Cross Section: 3: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1224.84
Q2= 6700 WS2= 1227.15
Q3= 11000 WS3= 1228.69

Manning-n's: n-lob = .045 n-ch = .04 n-rob = .045

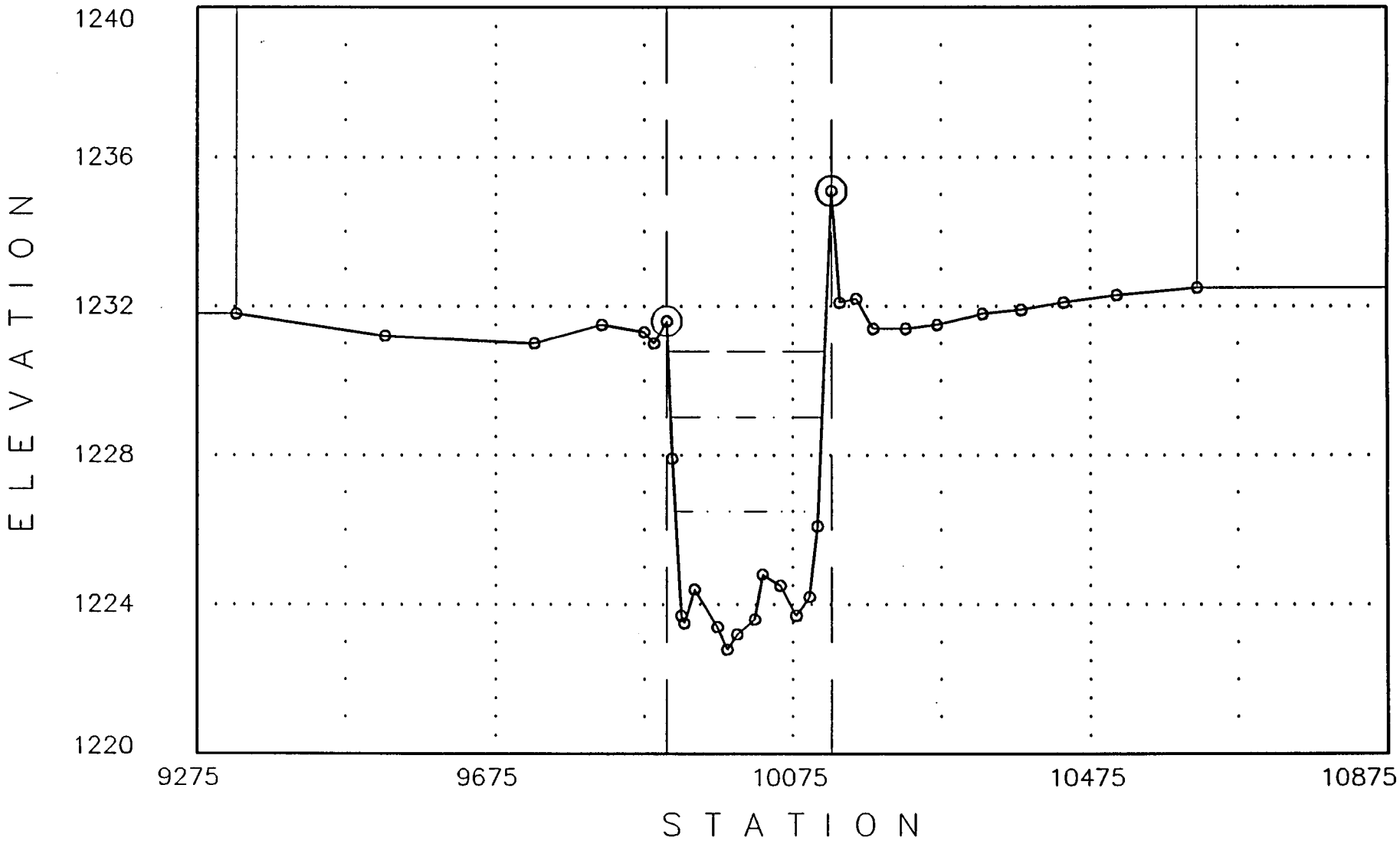



12-06-1990

<<<<<< Cross Section: 3.077: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1226.49
Q2= 6700 WS2= 1229.02
Q3= 11000 WS3= 1230.78

Manning-n's: n-lob = .045 n-ch = .04 n-rob = .045

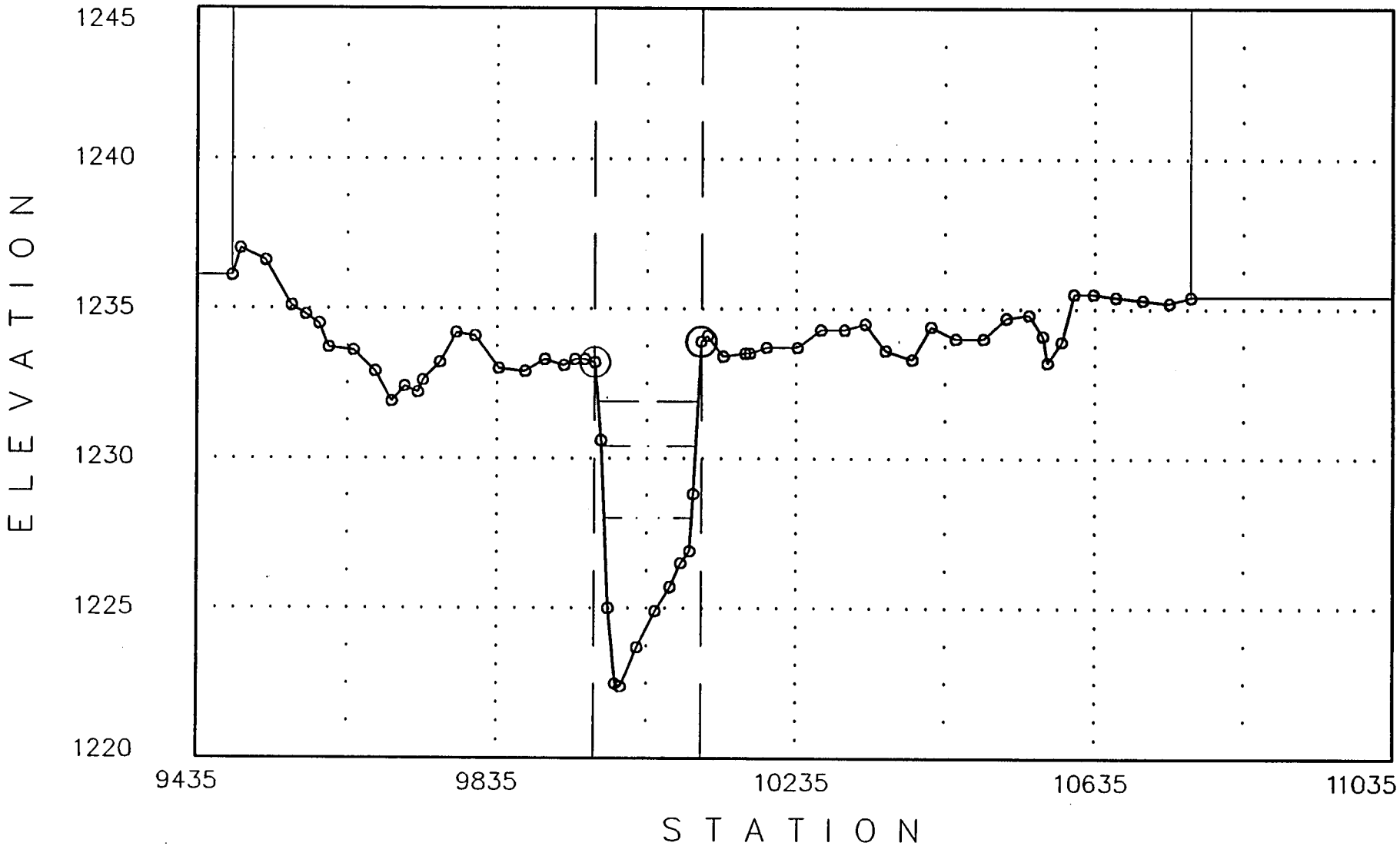



12-06-1990

<<<<<< Cross Section: . 3.143: (FN = SKS.FZO). >>>>>>

Q1= 2200 WS1= 1228
Q2= 6700 WS2= 1230.4
Q3= 11000 WS3= 1231.89

Manning-n's: n-lob = .045 n-ch = .04 n-rob = .045

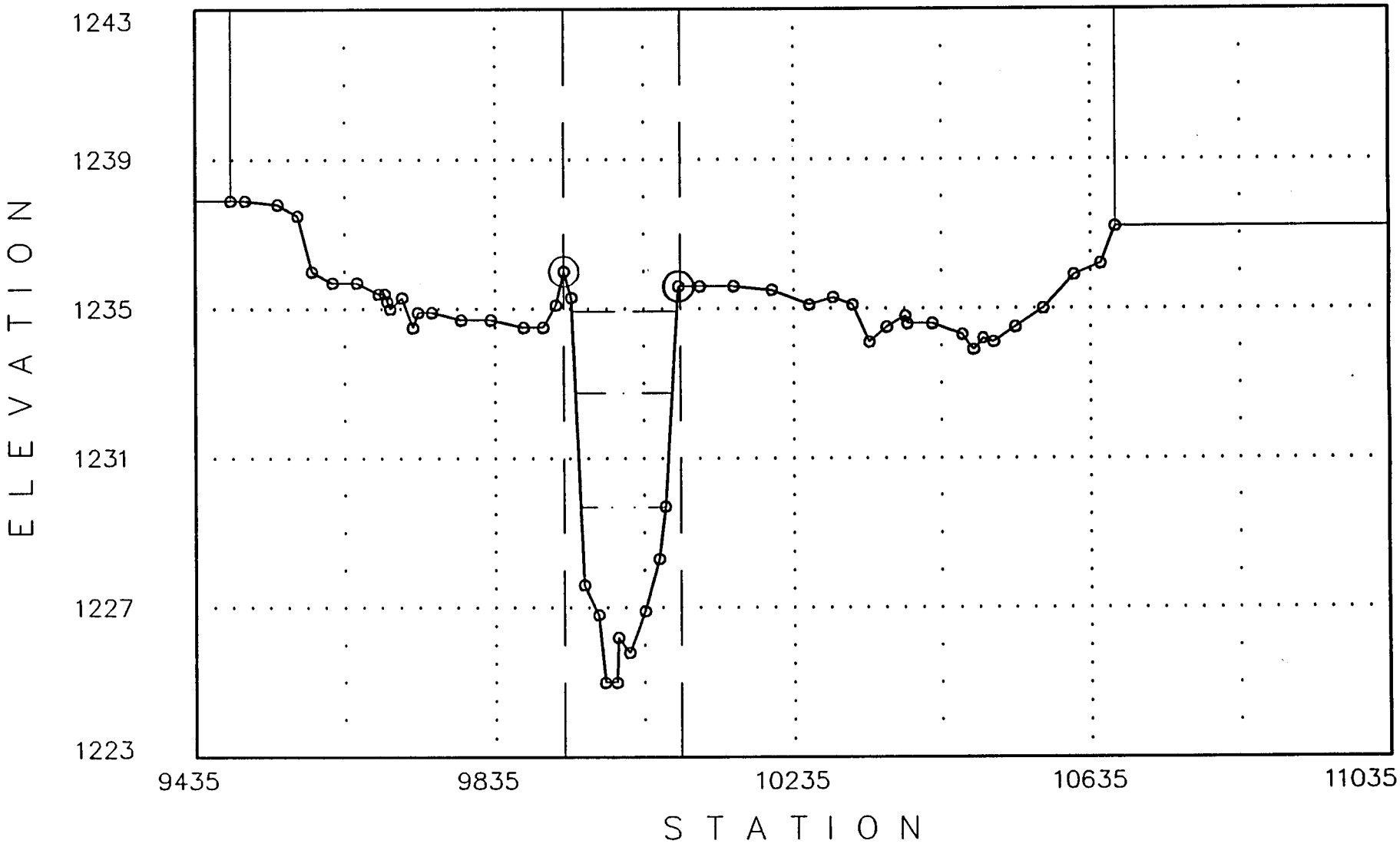



12-06-1990

<<<<<< Cross Section: 3.2: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1229.68
Q2= 6700 WS2= 1232.74
Q3= 11000 WS3= 1234.93

Manning-n's: n-lob = .045 n-ch = .04 n-rob = .045

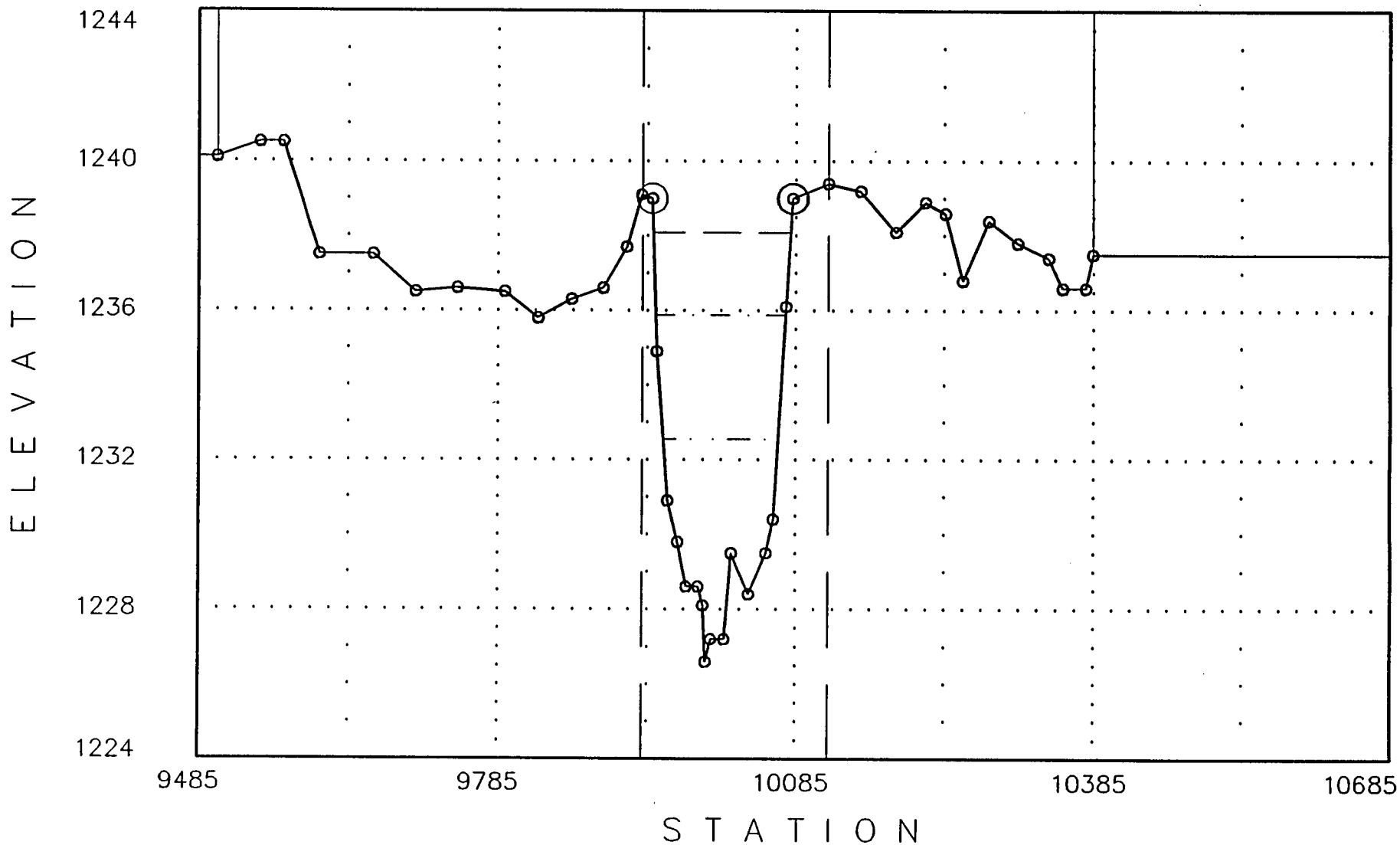



12-06-1990

<<<<<< Cross Section: 3.3: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1232.55
Q2= 6700 WS2= 1235.88
Q3= 11000 WS3= 1238.09

Manning-n's: n-lob = .045 n-ch = .04 n-rob = .045

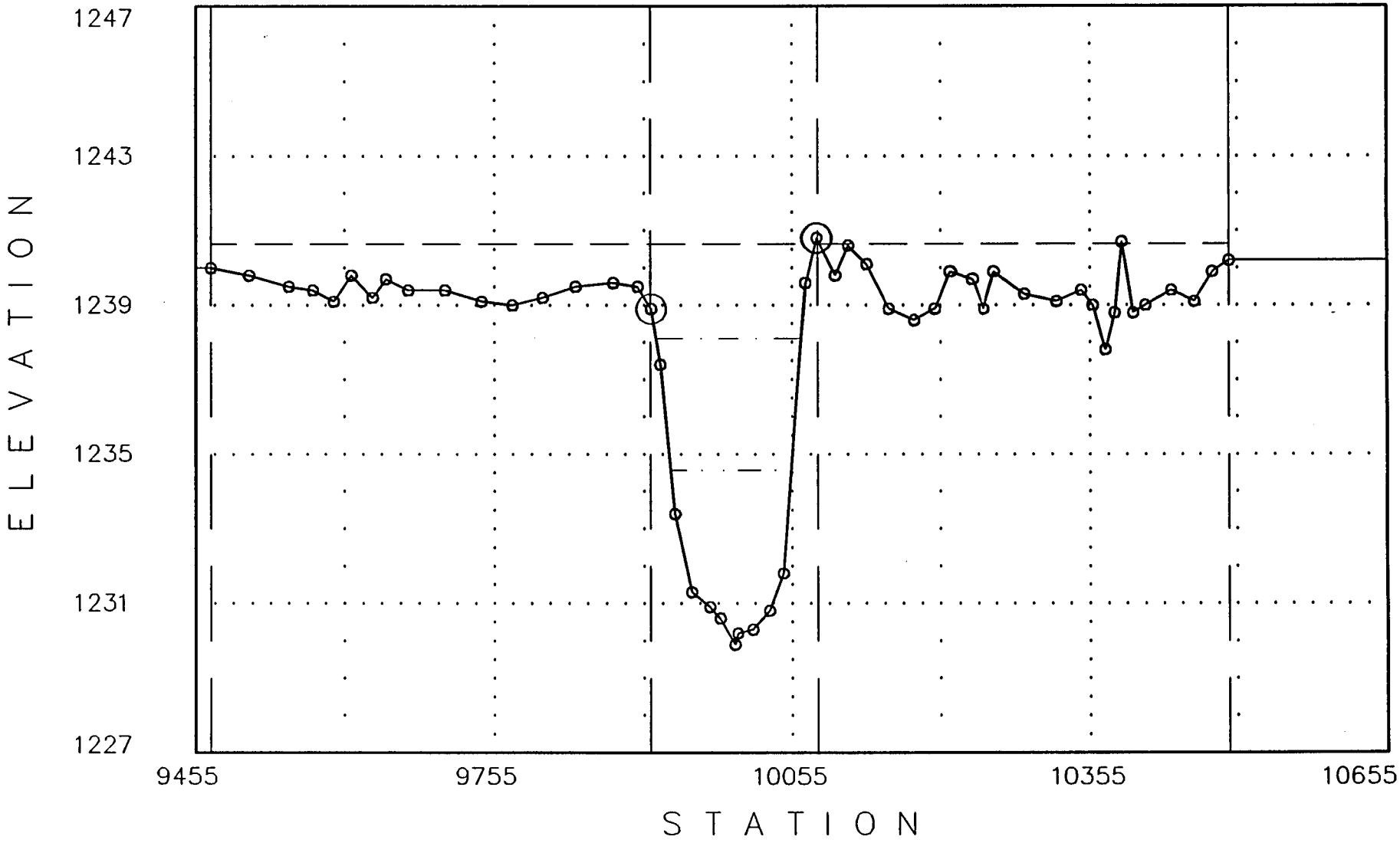



12-06-1990

<<<<<< Cross Section: 3.4: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1234.57
Q2= 6700 WS2= 1238.1
Q3= 11000 WS3= 1240.65

Manning-n's: n-lob = .045 n-ch = .04 n-rob = .045

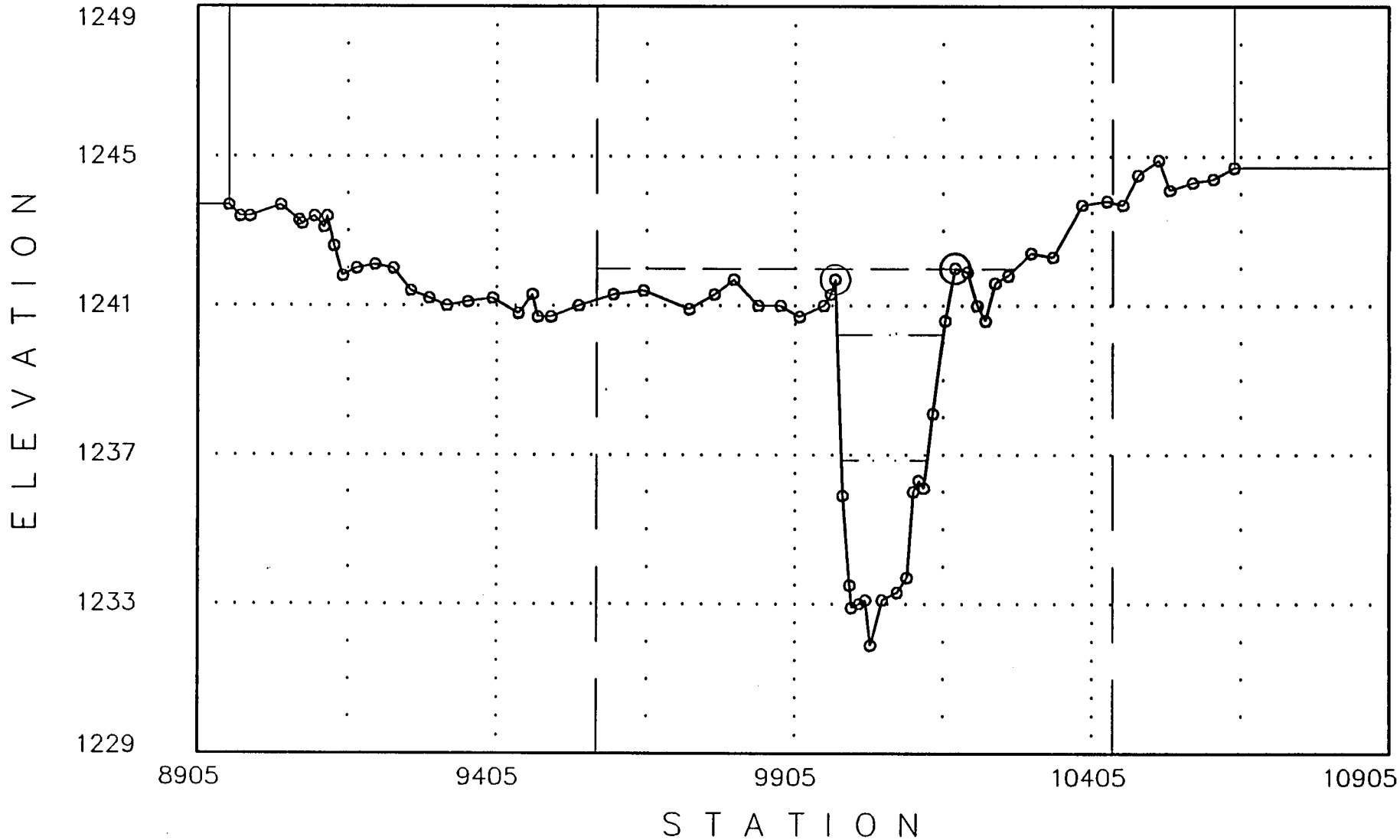



12-06-1990

<<<<<< Cross Section: 3.5: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1236.85
Q2= 6700 WS2= 1240.23
Q3= 11000 WS3= 1241.99

Manning-n's: n-lob = .045 n-ch = .04 n-rob = .045

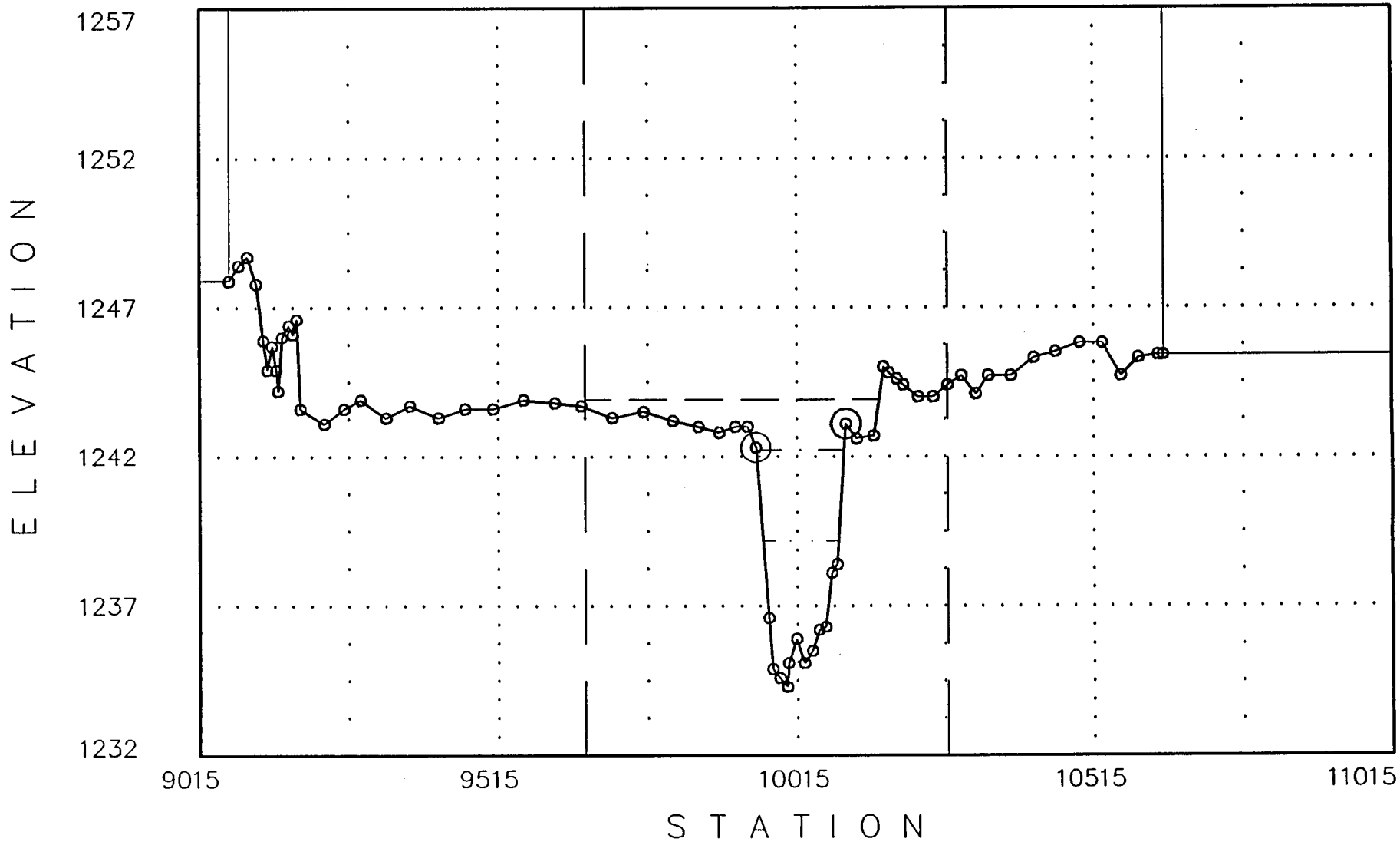



12-06-1990

<<<<<< Cross Section: 3.6: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1239.18
Q2= 6700 WS2= 1242.22
Q3= 11000 WS3= 1243.91

Manning-n's: n-lob = .045 n-ch = .04 n-rob = .045

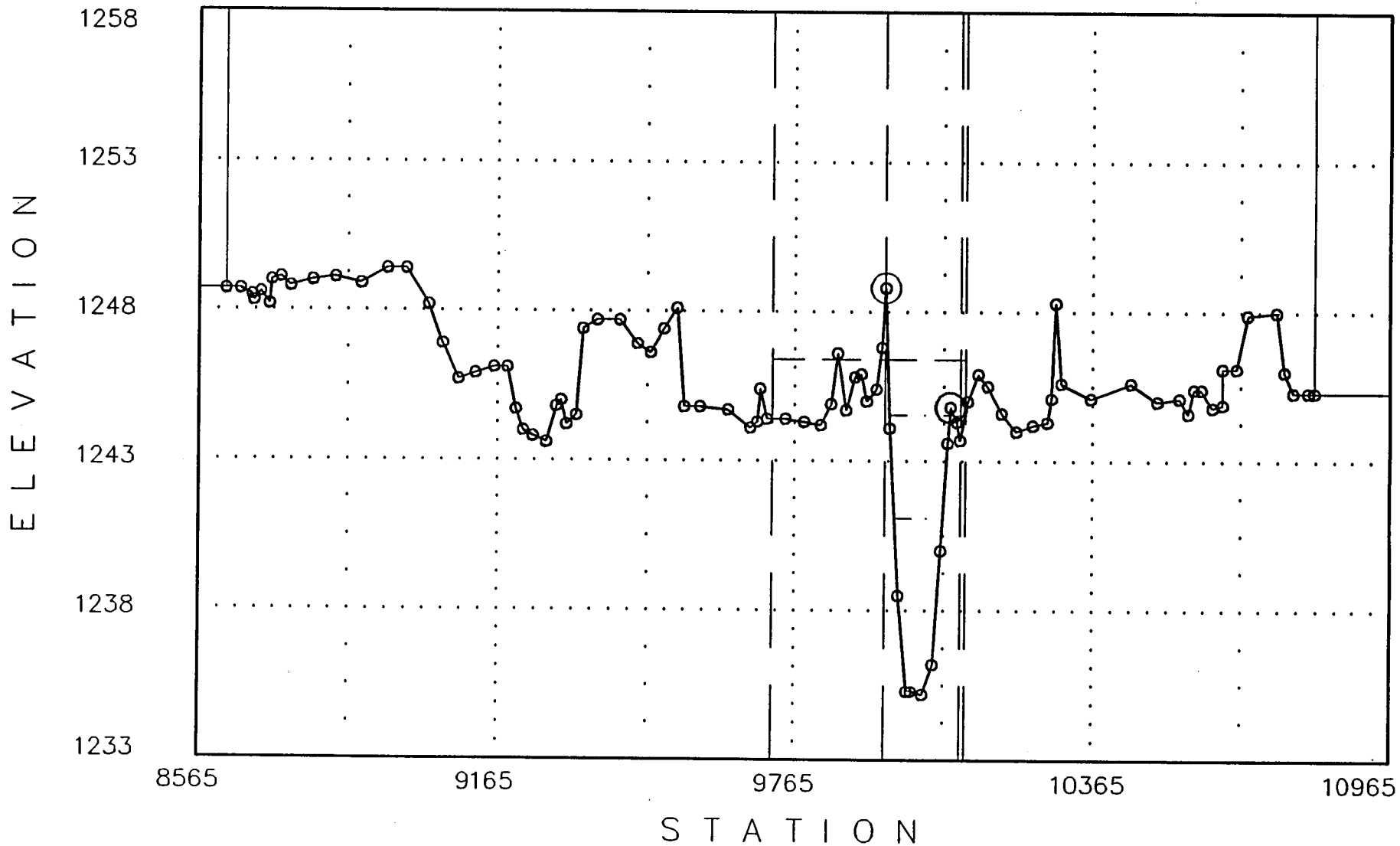



12-06-1990

<<<<<< Cross Section: 3.7: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1241.08
Q2= 6700 WS2= 1244.55
Q3= 11000 WS3= 1246.4

Manning-n's: n-lob = .045 n-ch = .04 n-rob = .045

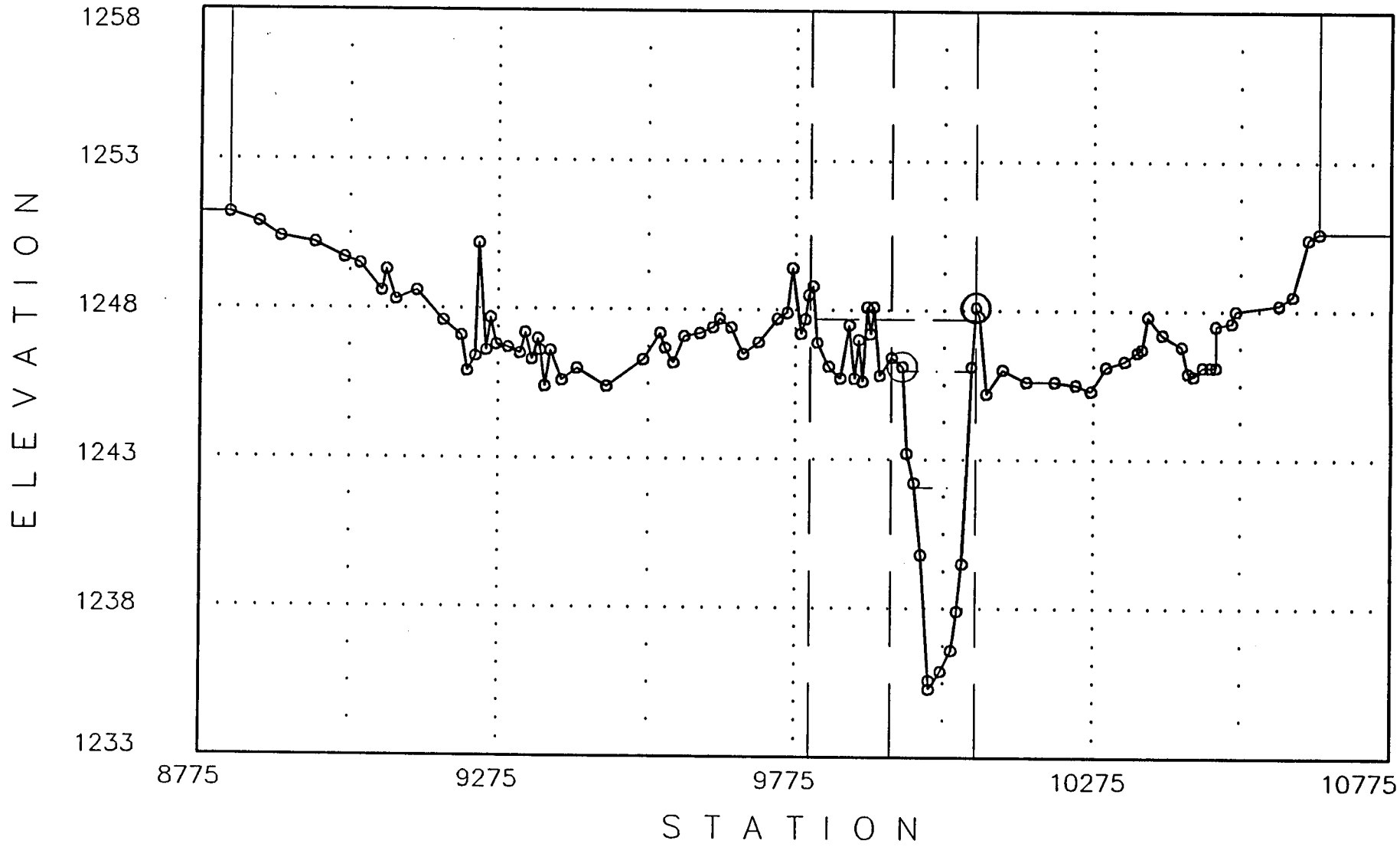



12-06-1990

<<<<<< Cross Section: 3.767: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1242.06
Q2= 6700 WS2= 1245.96
Q3= 11000 WS3= 1247.7

Manning-n's: n-lob = .045 n-ch = .04 n-rob = .045

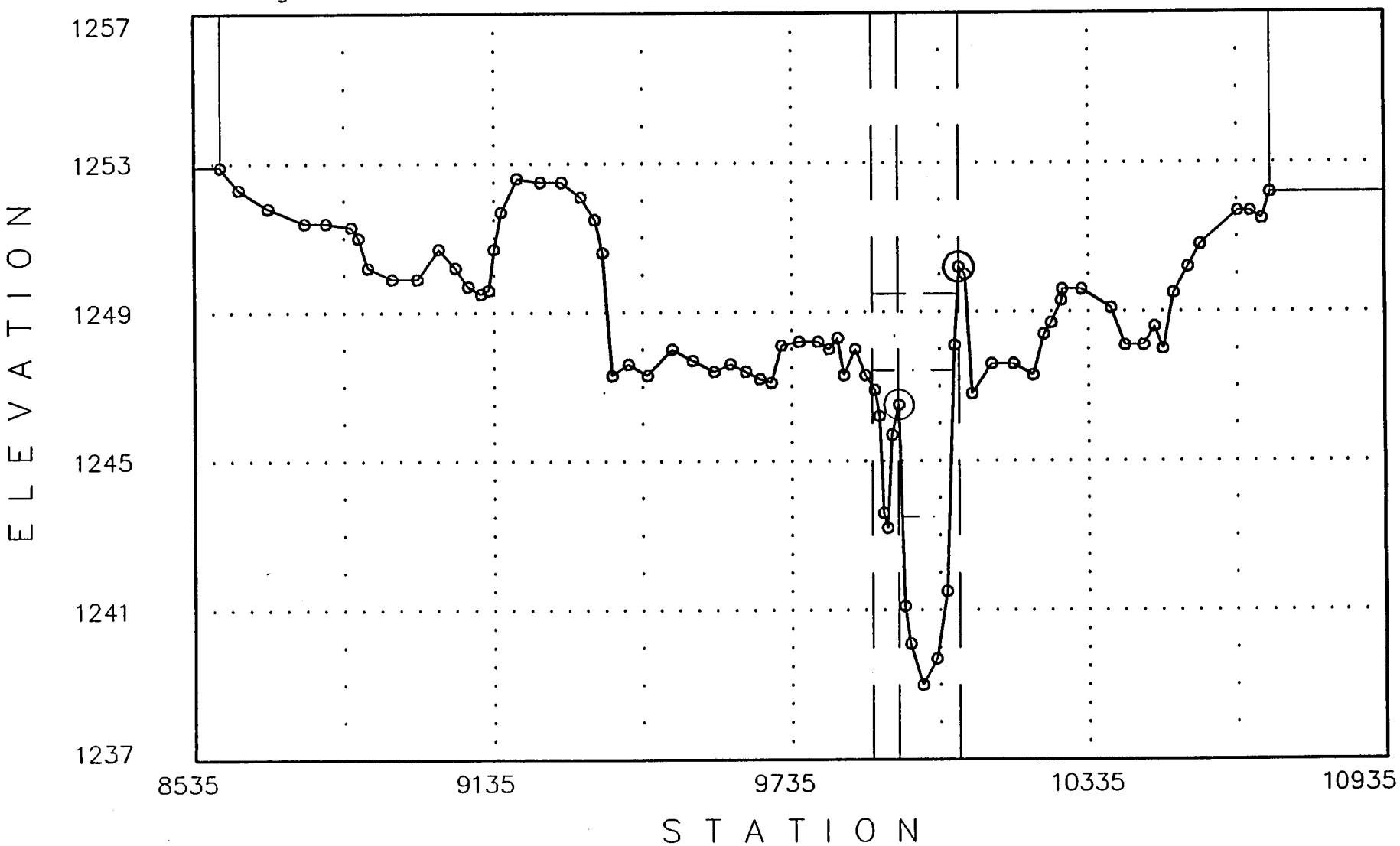



12-06-1990

<<<<<< Cross Section: 3.84: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1243.5
Q2= 6700 WS2= 1247.42
Q3= 11000 WS3= 1249.48

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

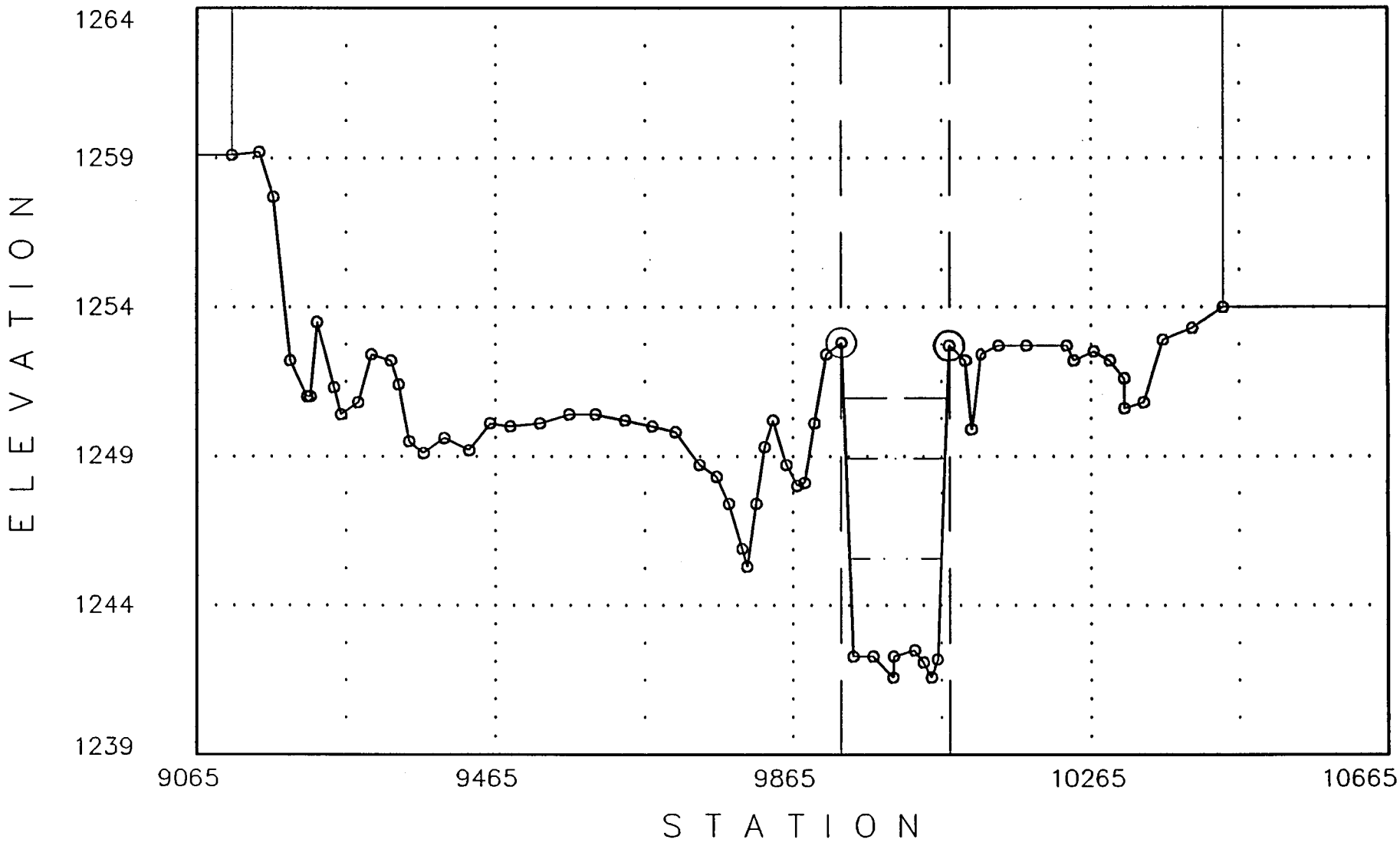



12-06-1990

<<<<<< Cross Section: 3.916: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1245.56
Q2= 6700 WS2= 1248.92
Q3= 11000 WS3= 1250.95

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

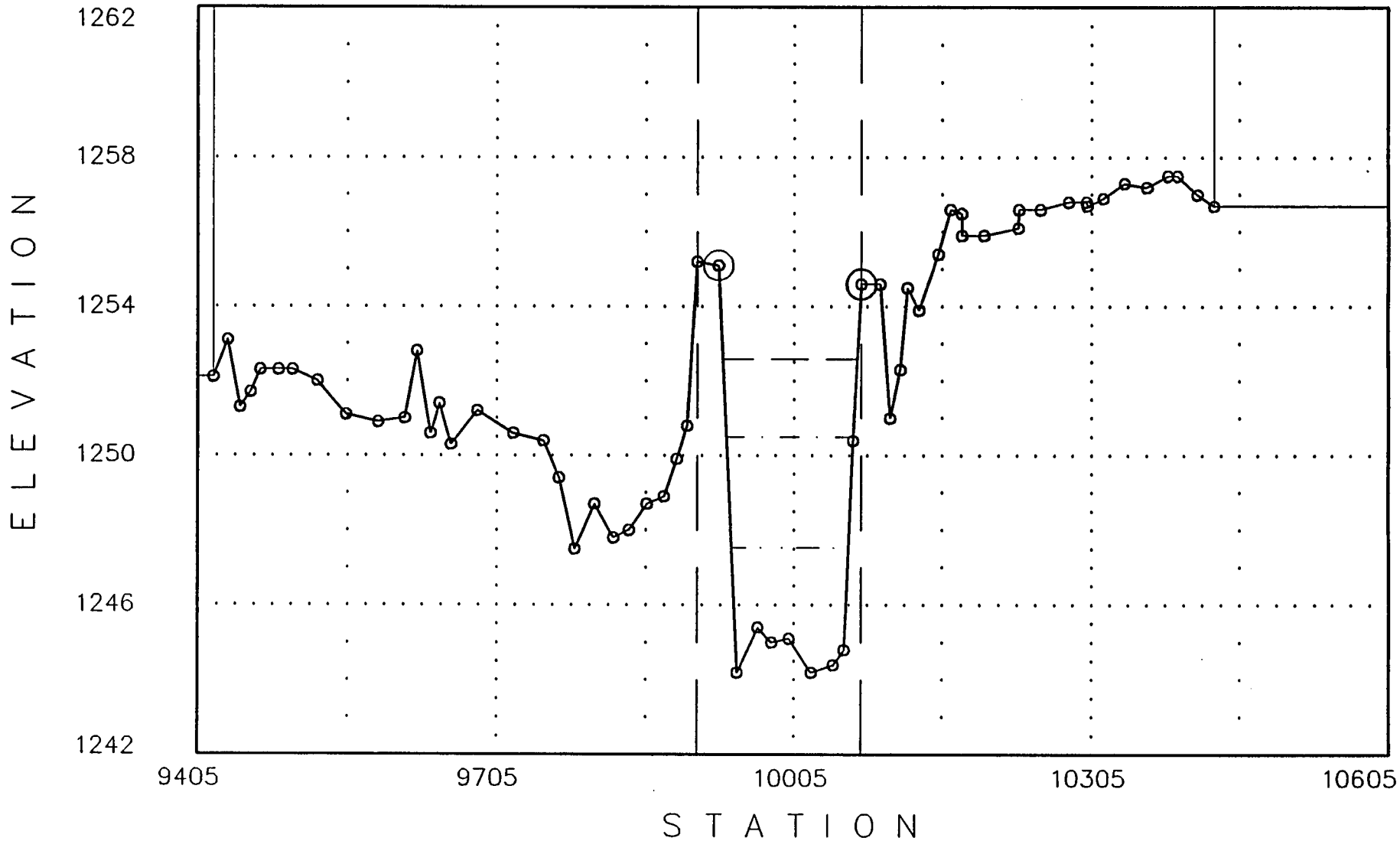



12-06-1990

<<<<<< Cross Section: 4: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1247.54
Q2= 6700 WS2= 1250.5
Q3= 11000 WS3= 1252.59

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

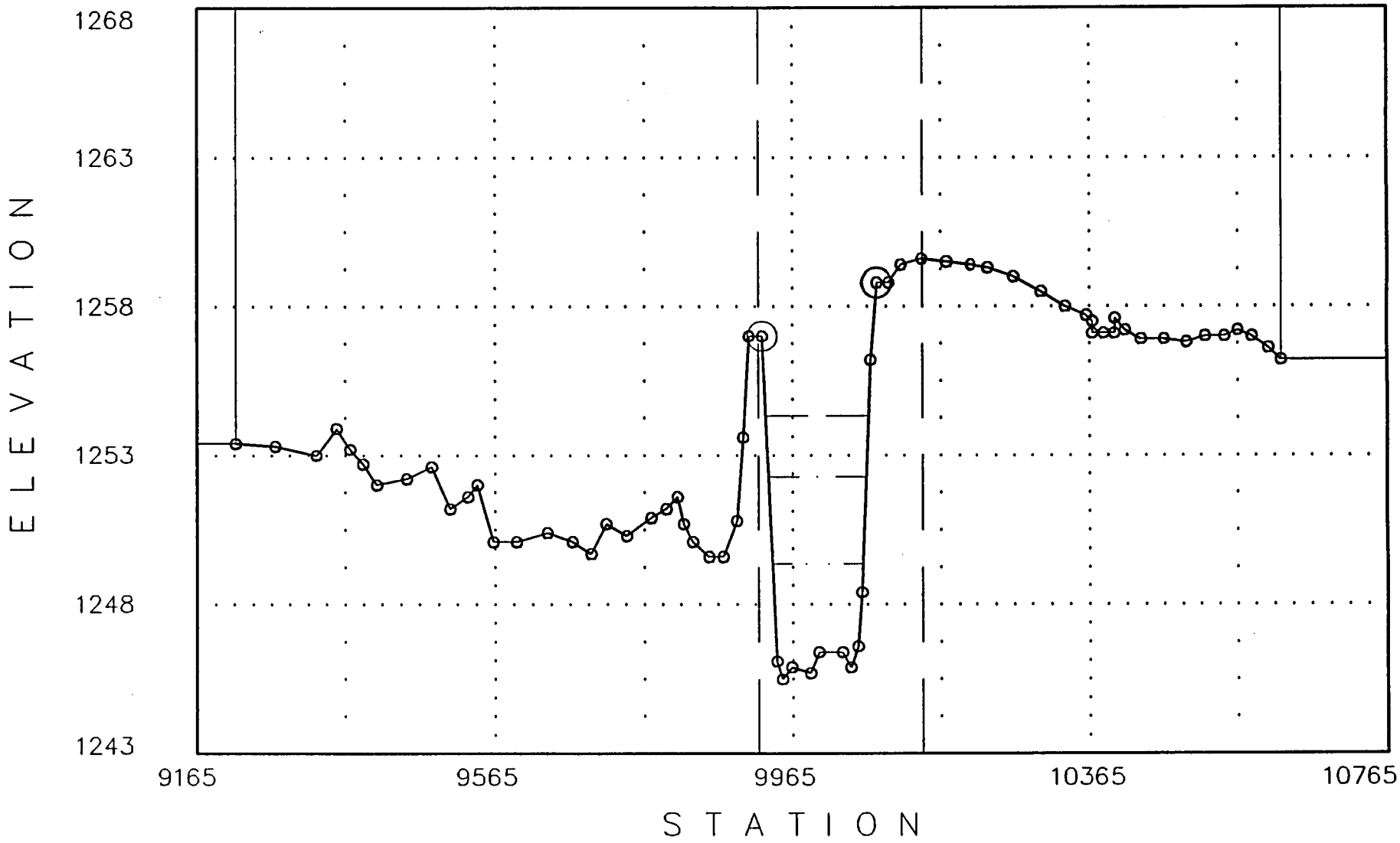



12-06-1990

<<<<<< Cross Section: 4.057: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1249.36
Q2= 6700 WS2= 1252.27
Q3= 11000 WS3= 1254.32

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

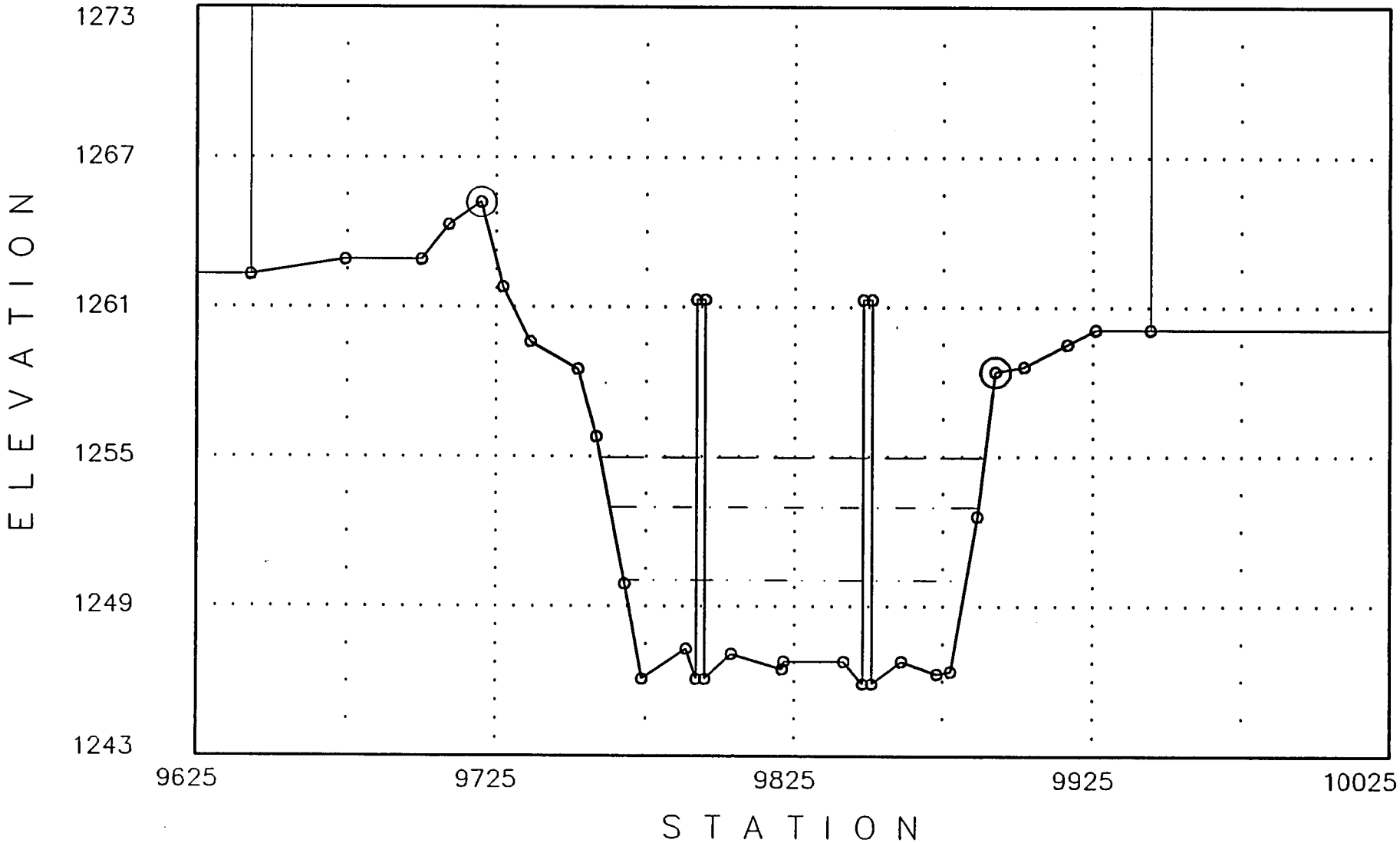



12-06-1990

<<<<<< Cross Section: 4.082: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1250.04
Q2= 6700 WS2= 1252.96
Q3= 11000 WS3= 1254.96

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

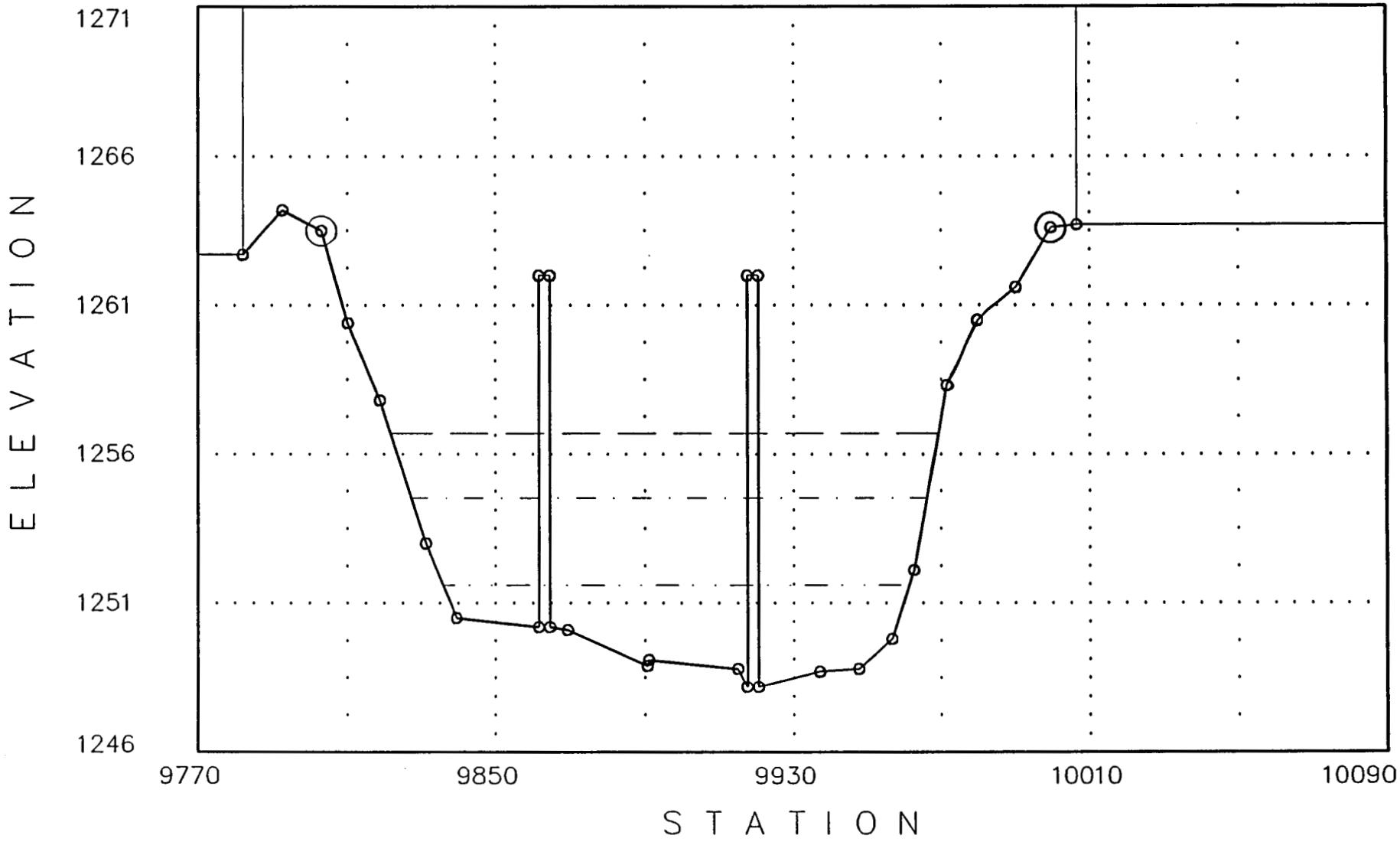



12-06-1990

<<<<<< Cross Section: 4.131: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1251.59
Q2= 6700 WS2= 1254.52
Q3= 11000 WS3= 1256.69

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

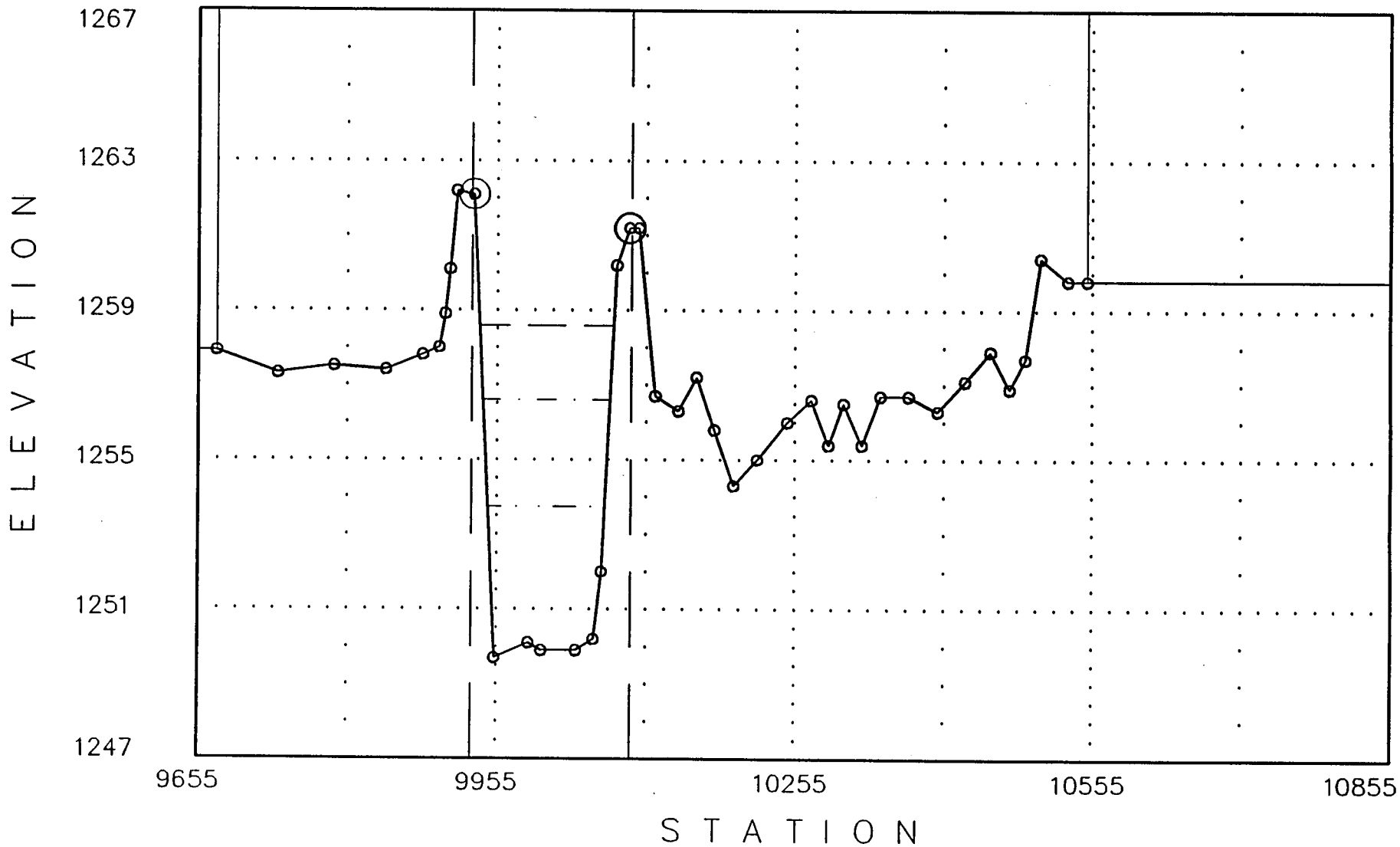



12-06-1990

<<<<<< Cross Section: 4.177: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1253.74
Q2= 6700 WS2= 1256.6
Q3= 11000 WS3= 1258.58

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

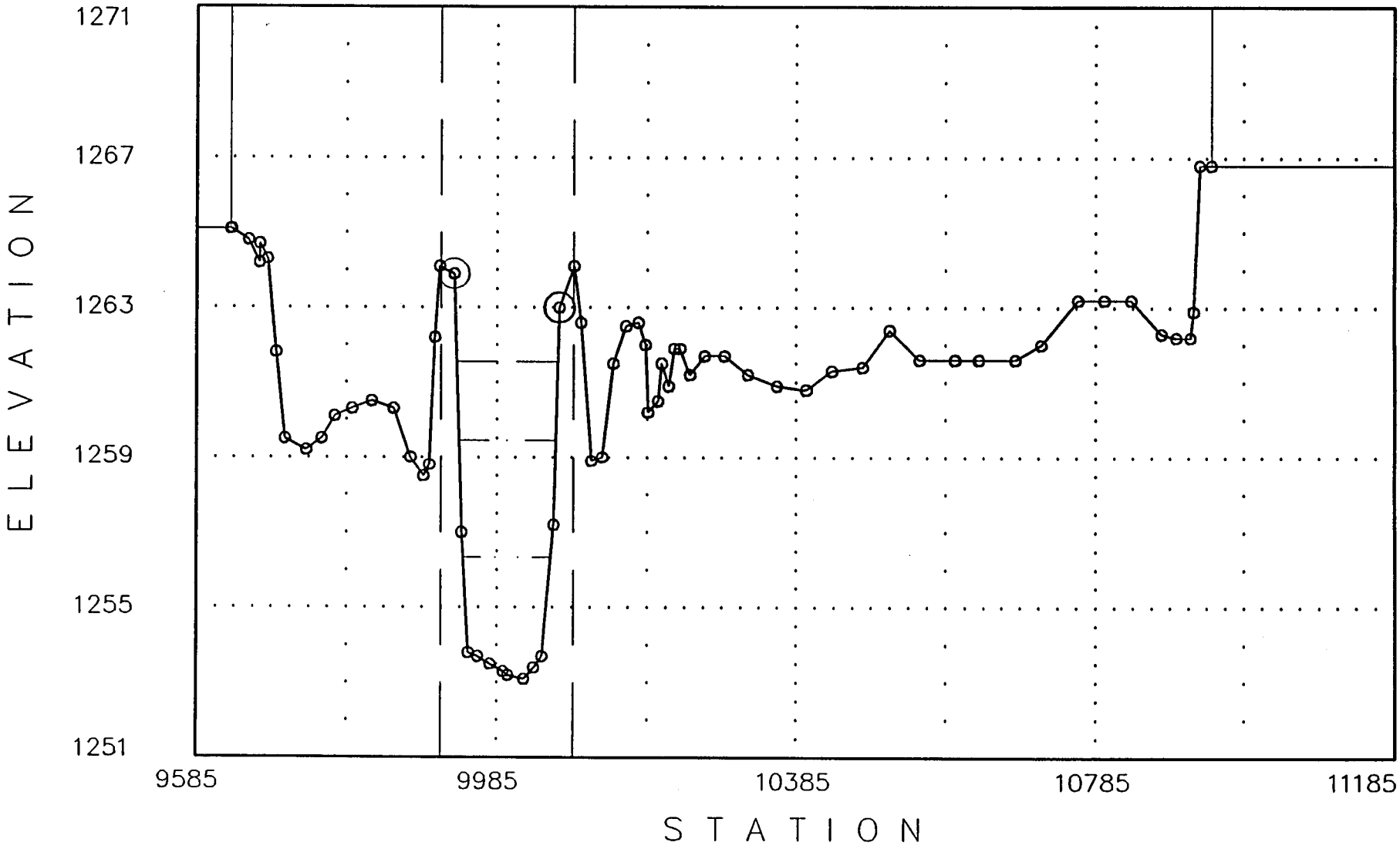



12-06-1990

<<<<<< Cross Section: 4.3: (FN = SKS.FZO) >>>>>>

Q1= 2200 WS1= 1256.34
Q2= 6700 WS2= 1259.44
Q3= 11000 WS3= 1261.55

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

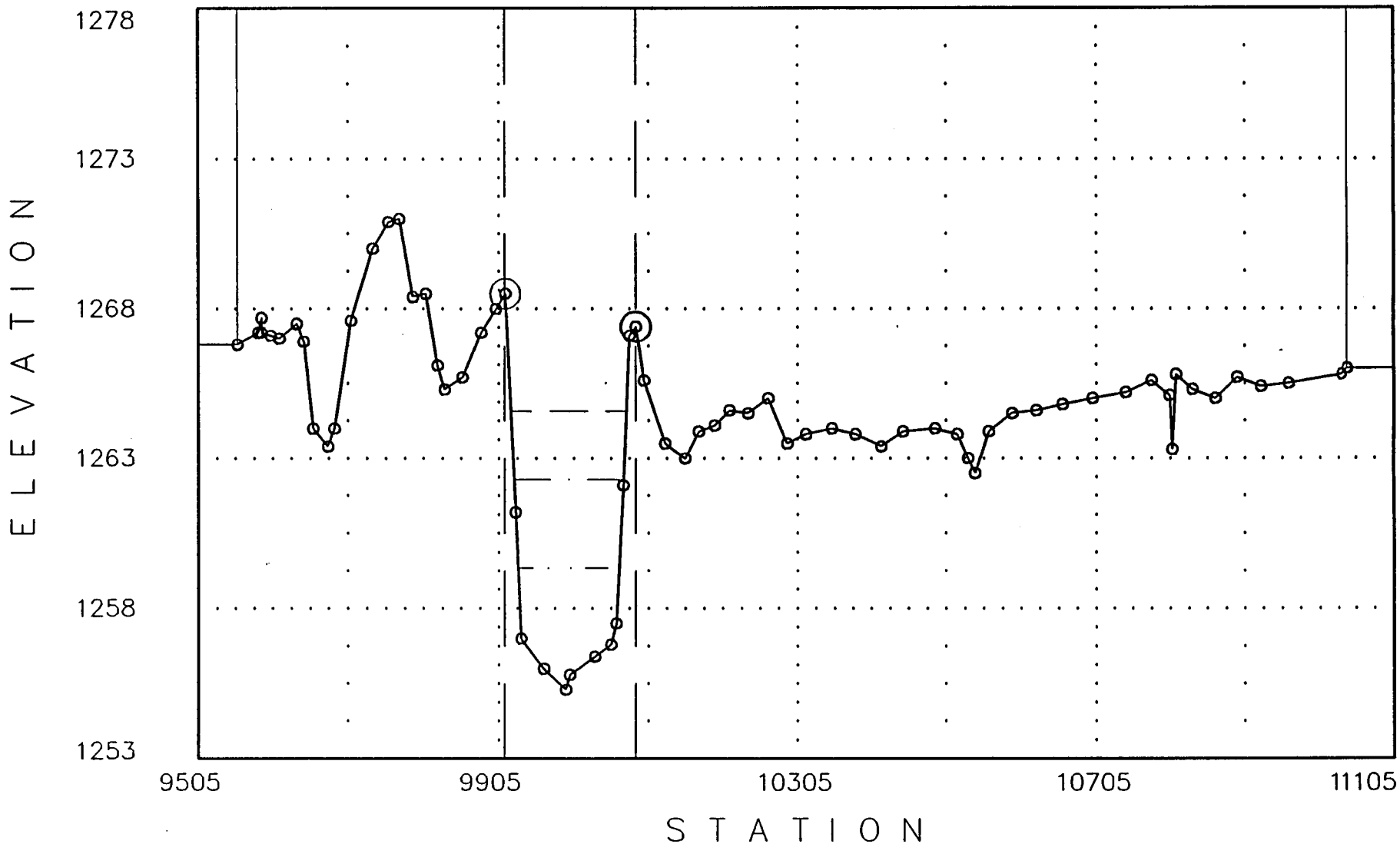



12-06-1990

<<<<<< Cross Section: 4.406: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1259.35
Q2= 5500 WS2= 1262.29
Q3= 8400 WS3= 1264.58

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

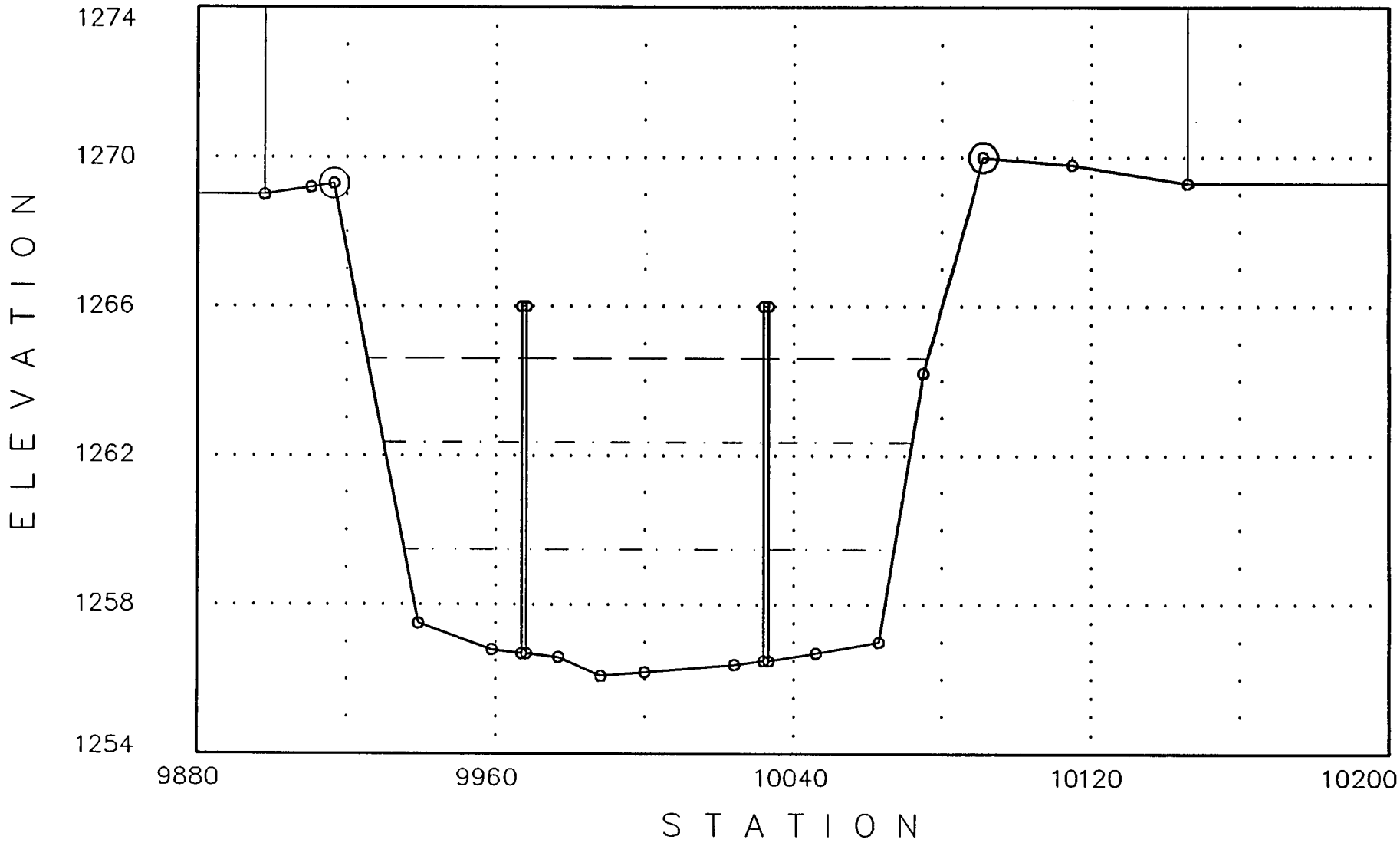



12-06-1990

<<<<<< Cross Section: 4.415: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1259.48
Q2= 5500 WS2= 1262.35
Q3= 8400 WS3= 1264.6

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

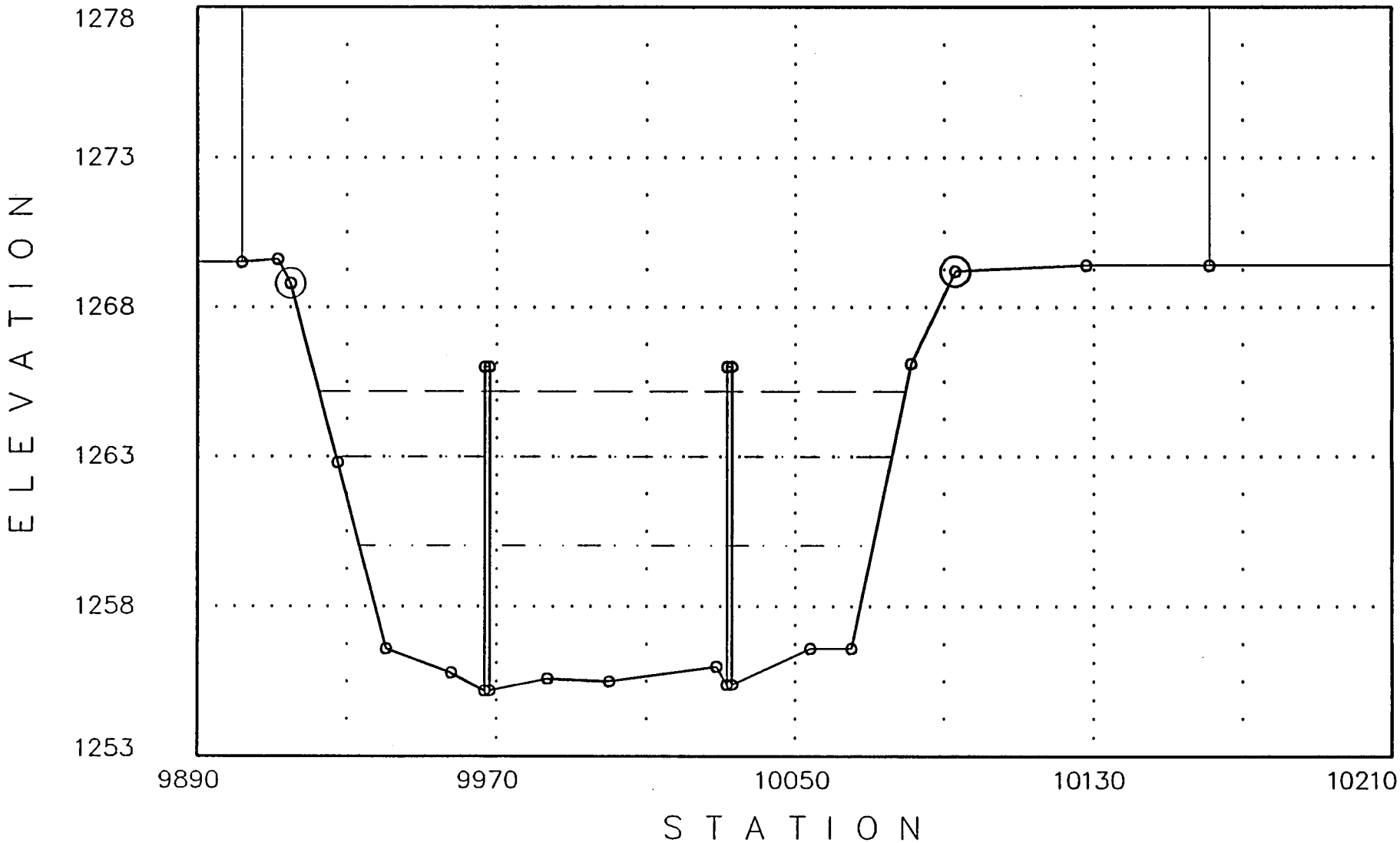



12-06-1990

<<<<<< Cross Section: 4.436: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1260.03
Q2= 5500 WS2= 1262.99
Q3= 8400 WS3= 1265.18

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

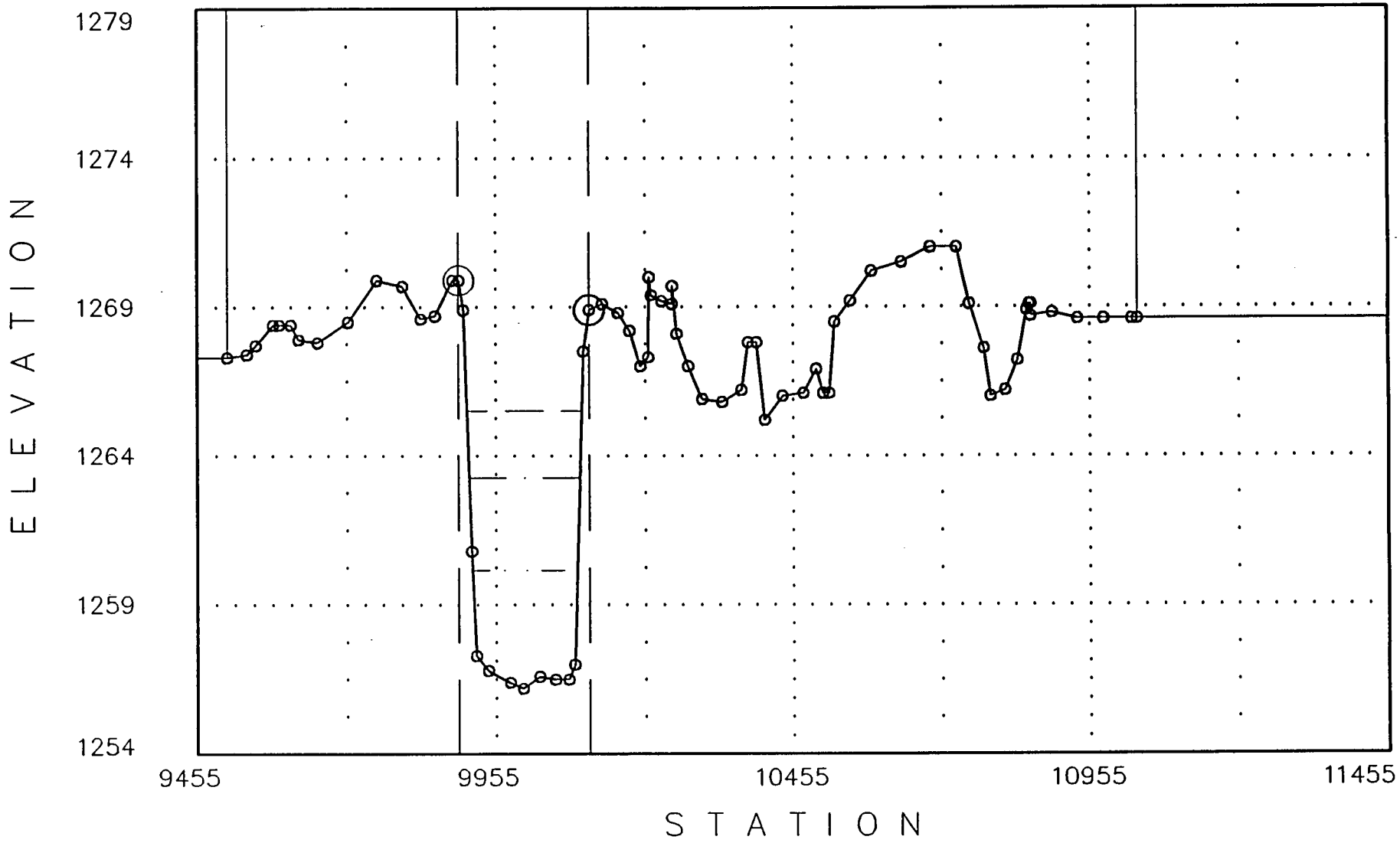



12-06-1990

<<<<<< Cross Section: 4.445: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1260.15
Q2= 5500 WS2= 1263.26
Q3= 8400 WS3= 1265.51

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

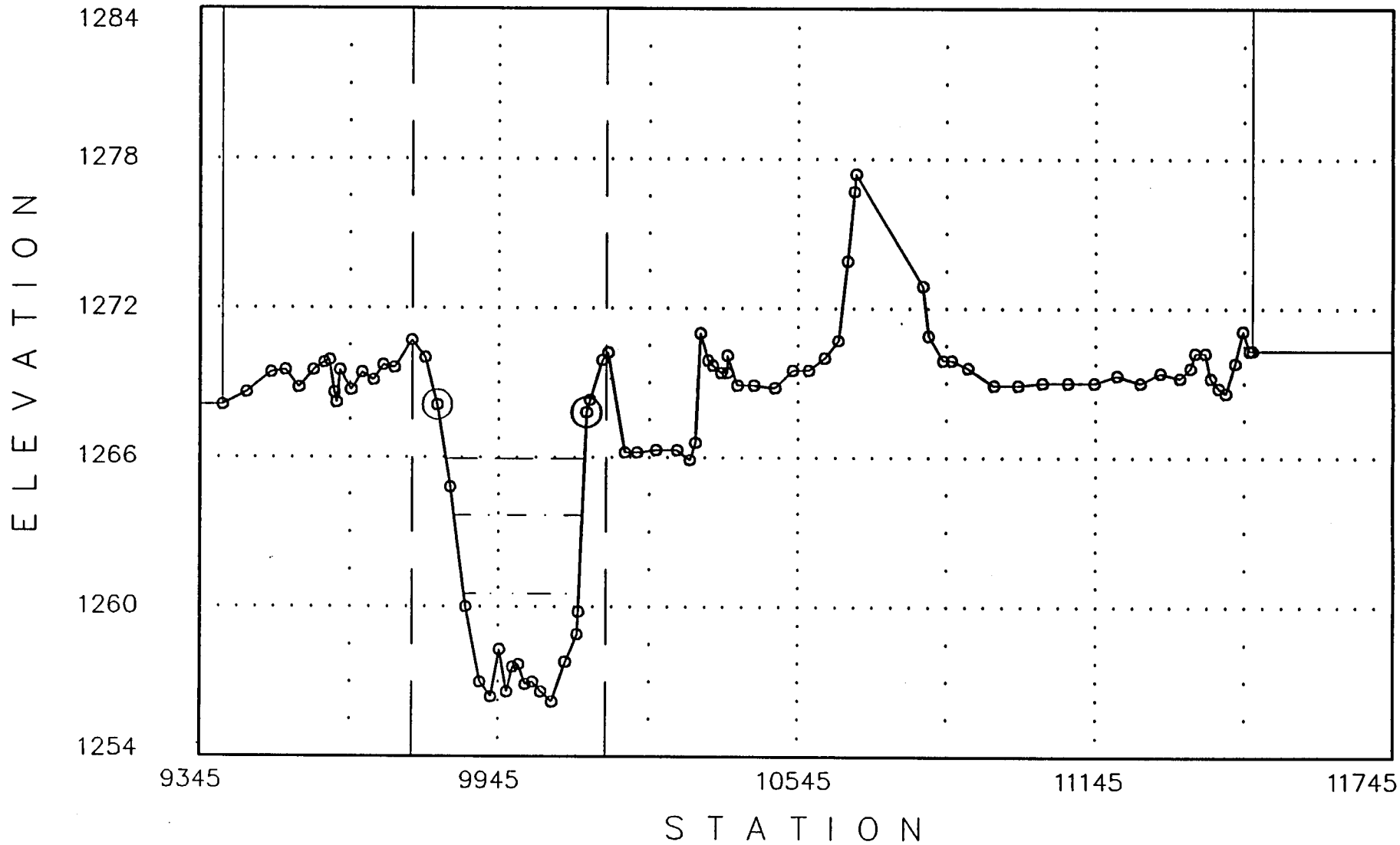



12-06-1990

<<<<<< Cross Section: 4.5: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1260.51
Q2= 5500 WS2= 1263.66
Q3= 8400 WS3= 1265.93

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

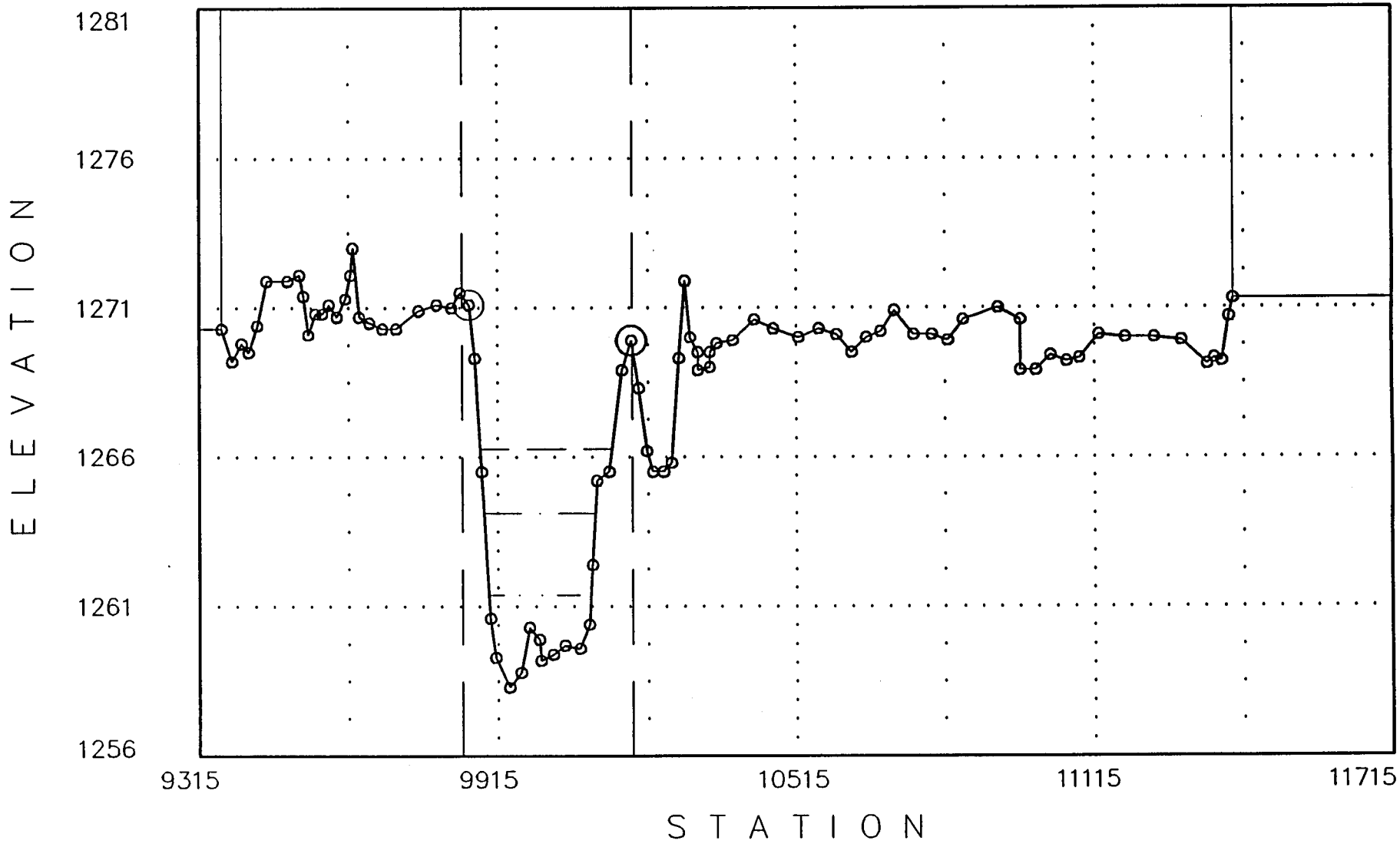



12-06-1990

<<<<<< Cross Section: 4.6: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1261.38
Q2= 5500 WS2= 1264.13
Q3= 8400 WS3= 1266.28

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

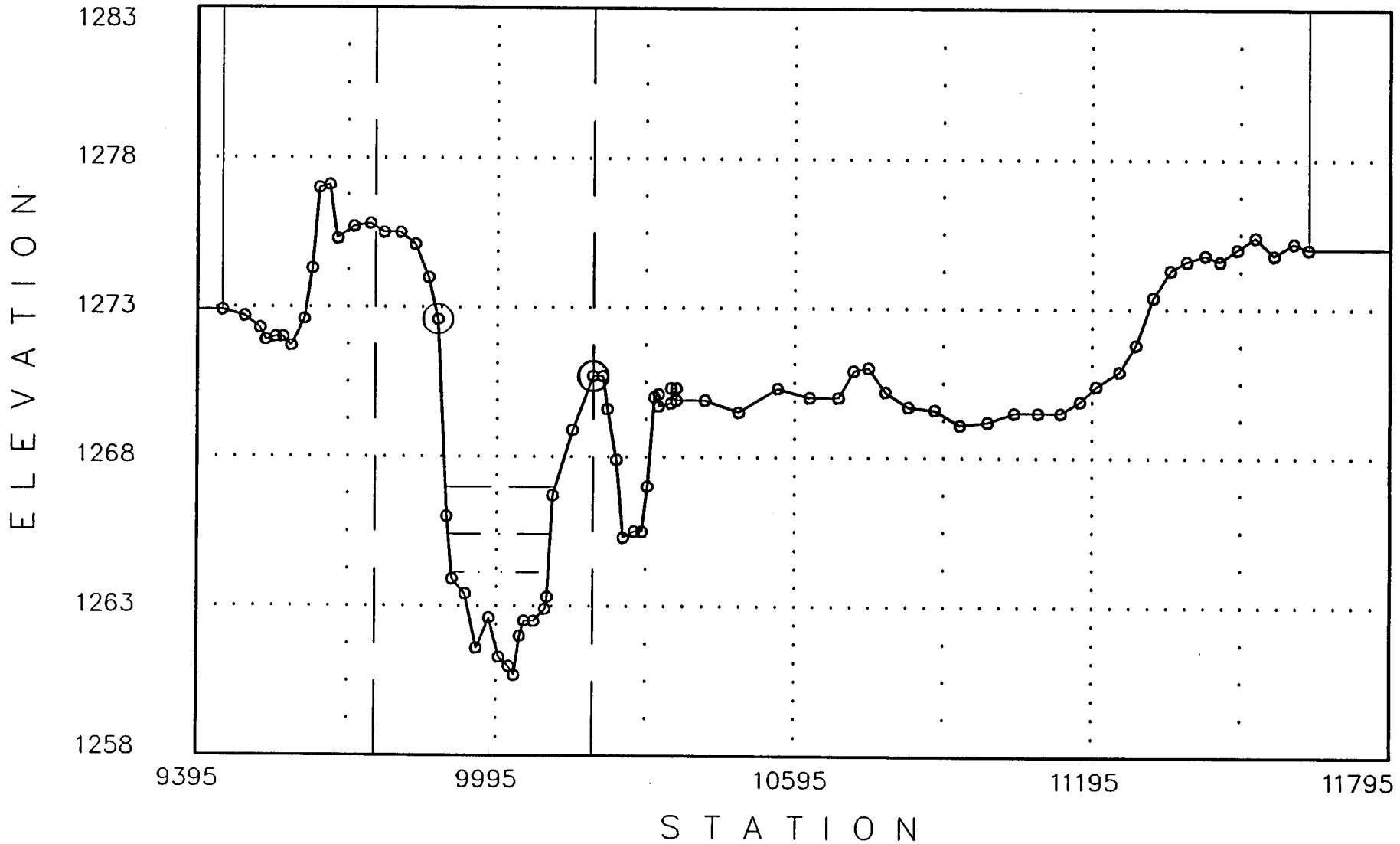



12-06-1990

<<<<<< Cross Section: 4.674: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1264.11
Q2= 5500 WS2= 1265.4
Q3= 8400 WS3= 1266.98

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

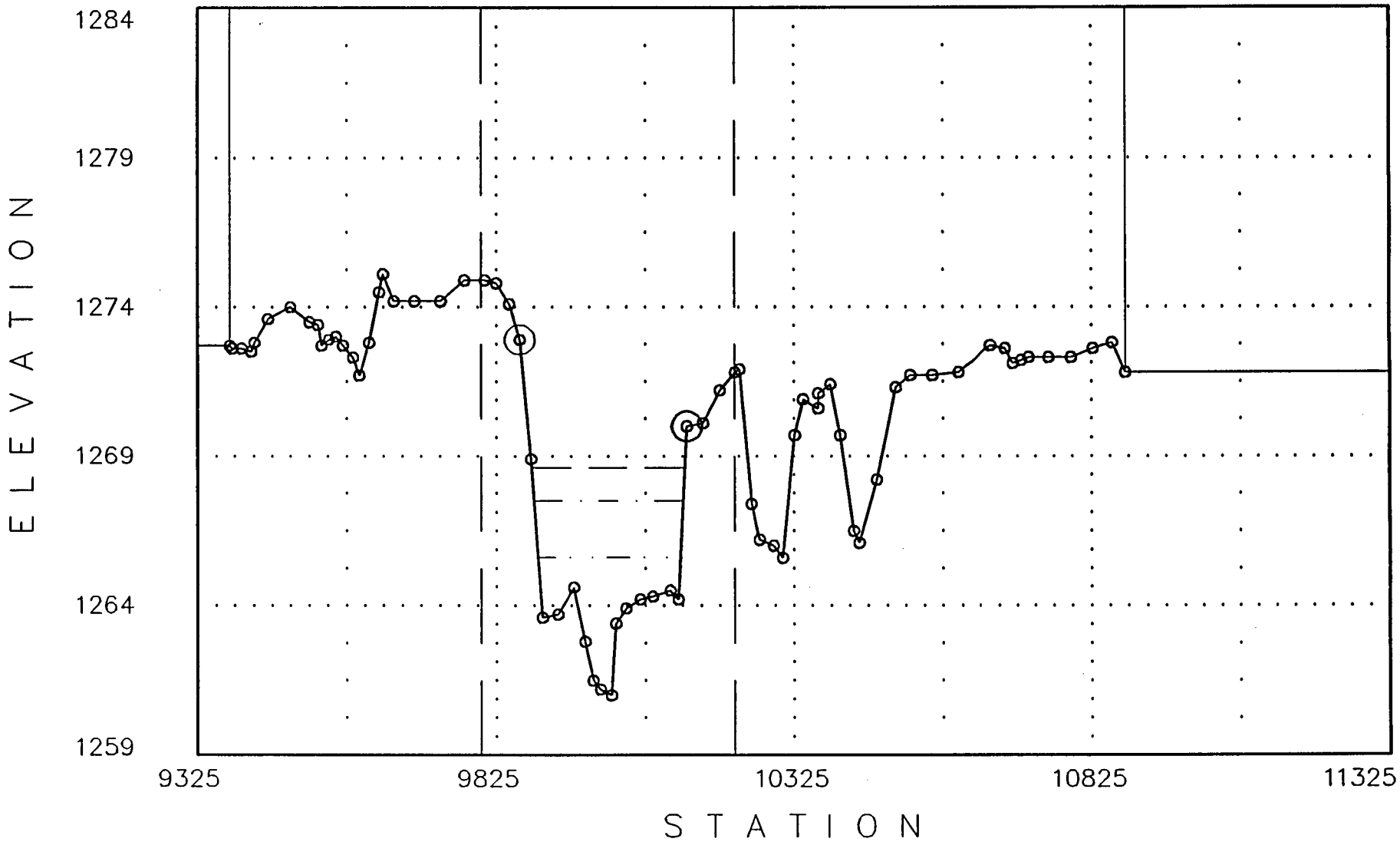



12-06-1990

<<<<<< Cross Section: 4.721: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1265.62
Q2= 5500 WS2= 1267.5
Q3= 8400 WS3= 1268.61

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

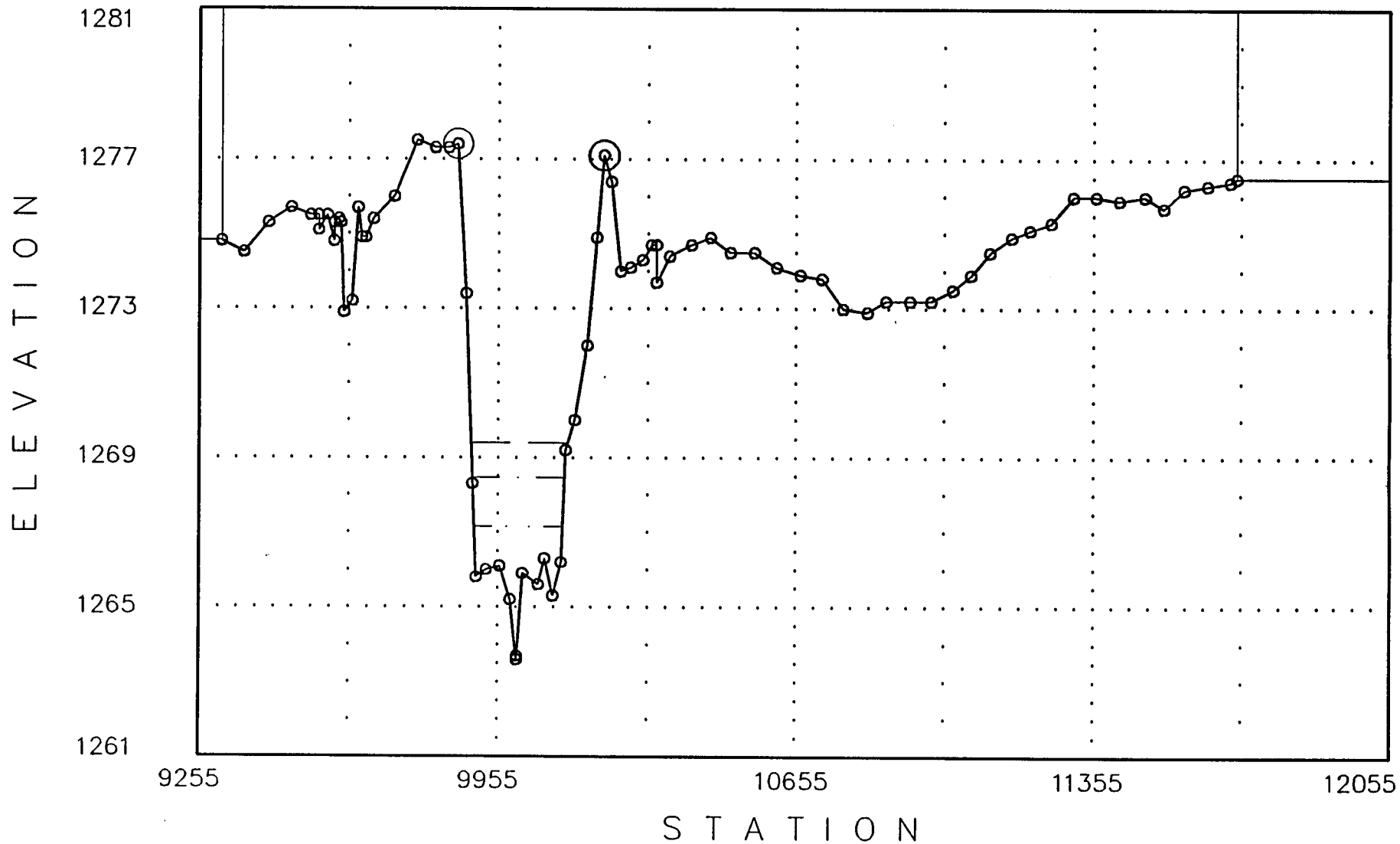



12-06-1990

<<<<<< Cross Section: 4.77: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1267.15
Q2= 5500 WS2= 1268.46
Q3= 8400 WS3= 1269.4

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

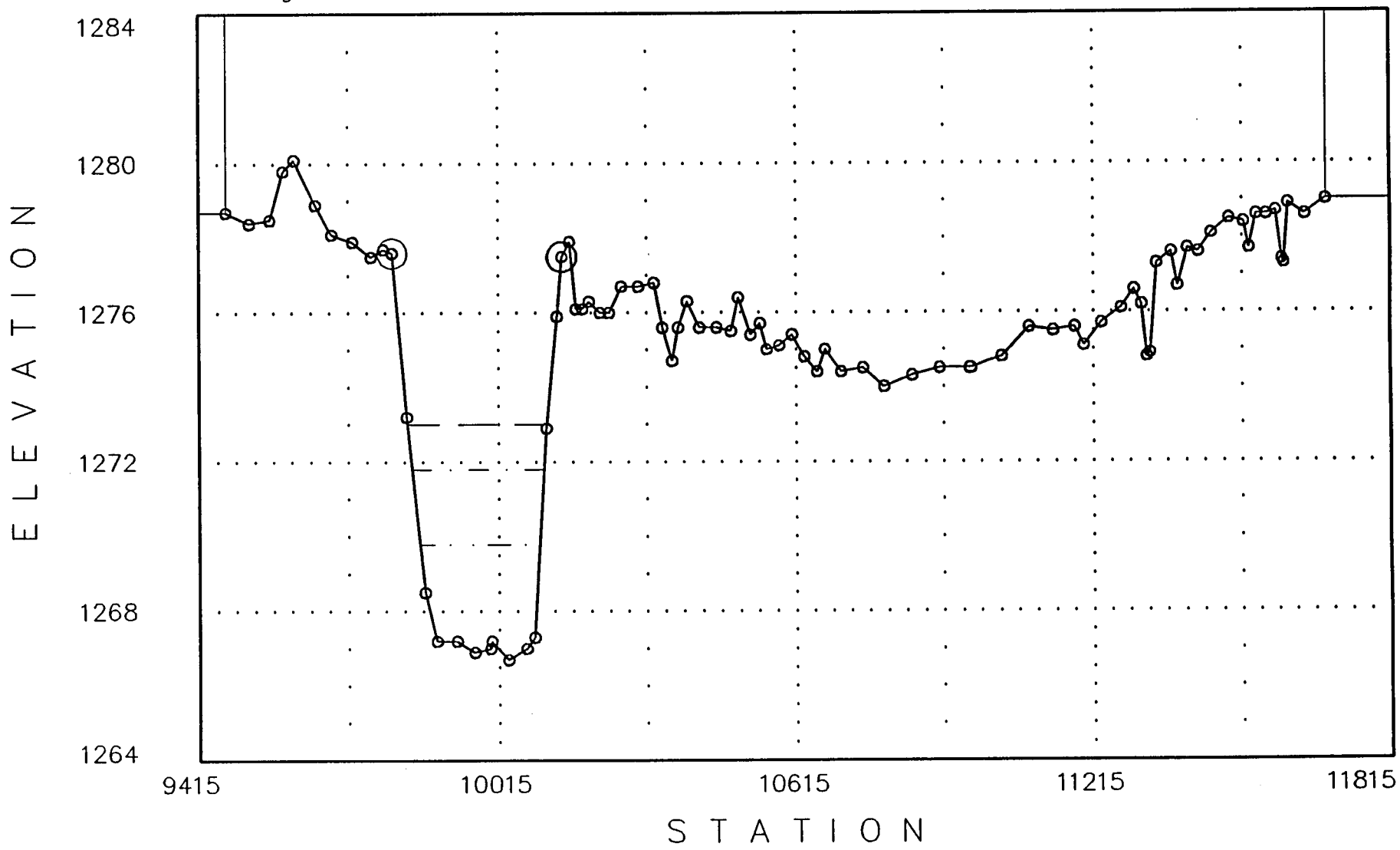



12-06-1990

<<<<<< Cross Section: 4.87: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1269.78
Q2= 5500 WS2= 1271.79
Q3= 8400 WS3= 1273

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

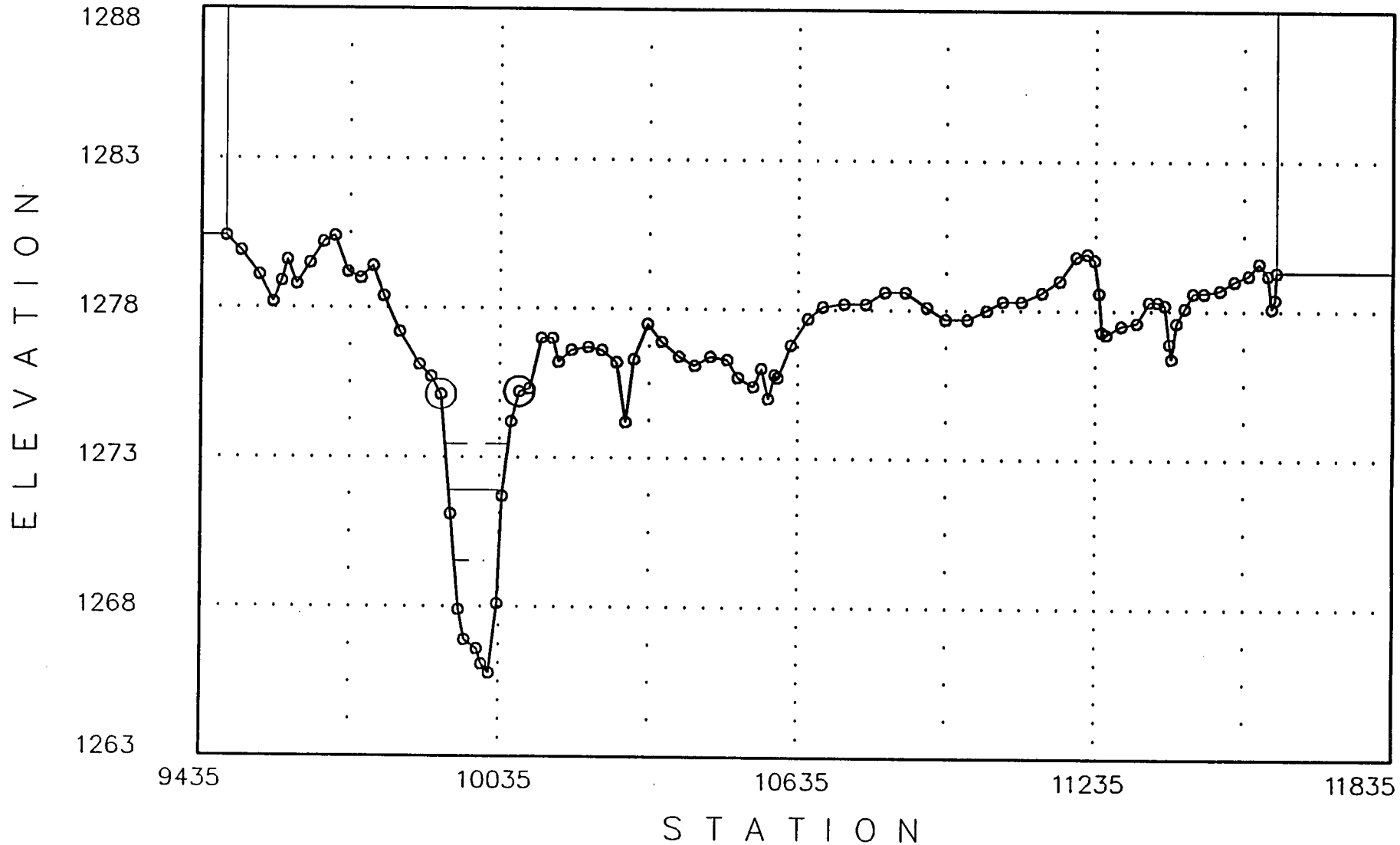



12-06-1990

<<<<<< Cross Section: 4.893: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1269.53
Q2= 5500 WS2= 1271.89
Q3= 8400 WS3= 1273.45

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

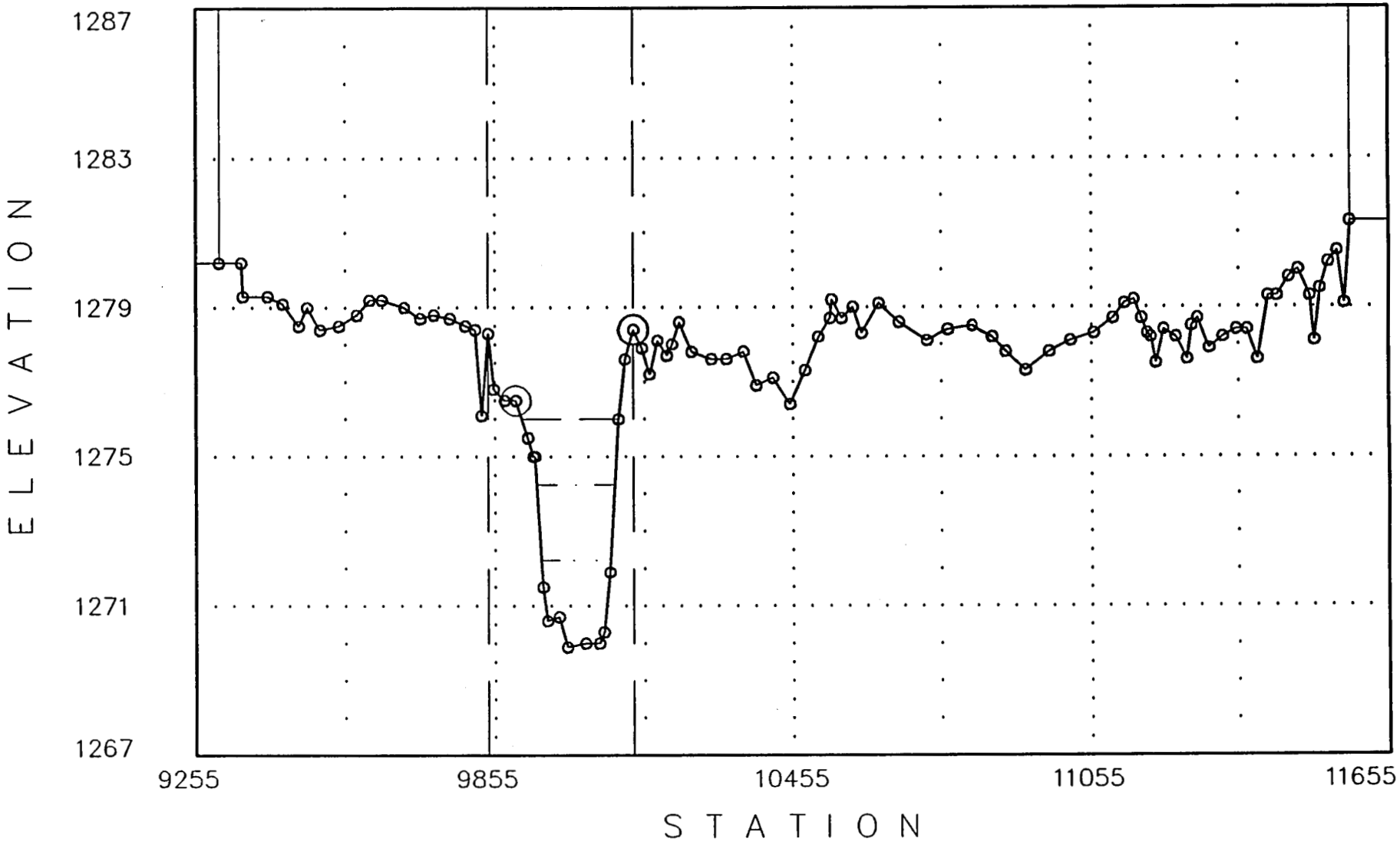



12-06-1990

<<<<<< Cross Section: 4.922: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1272.22
Q2= 5500 WS2= 1274.24
Q3= 8400 WS3= 1276.01

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

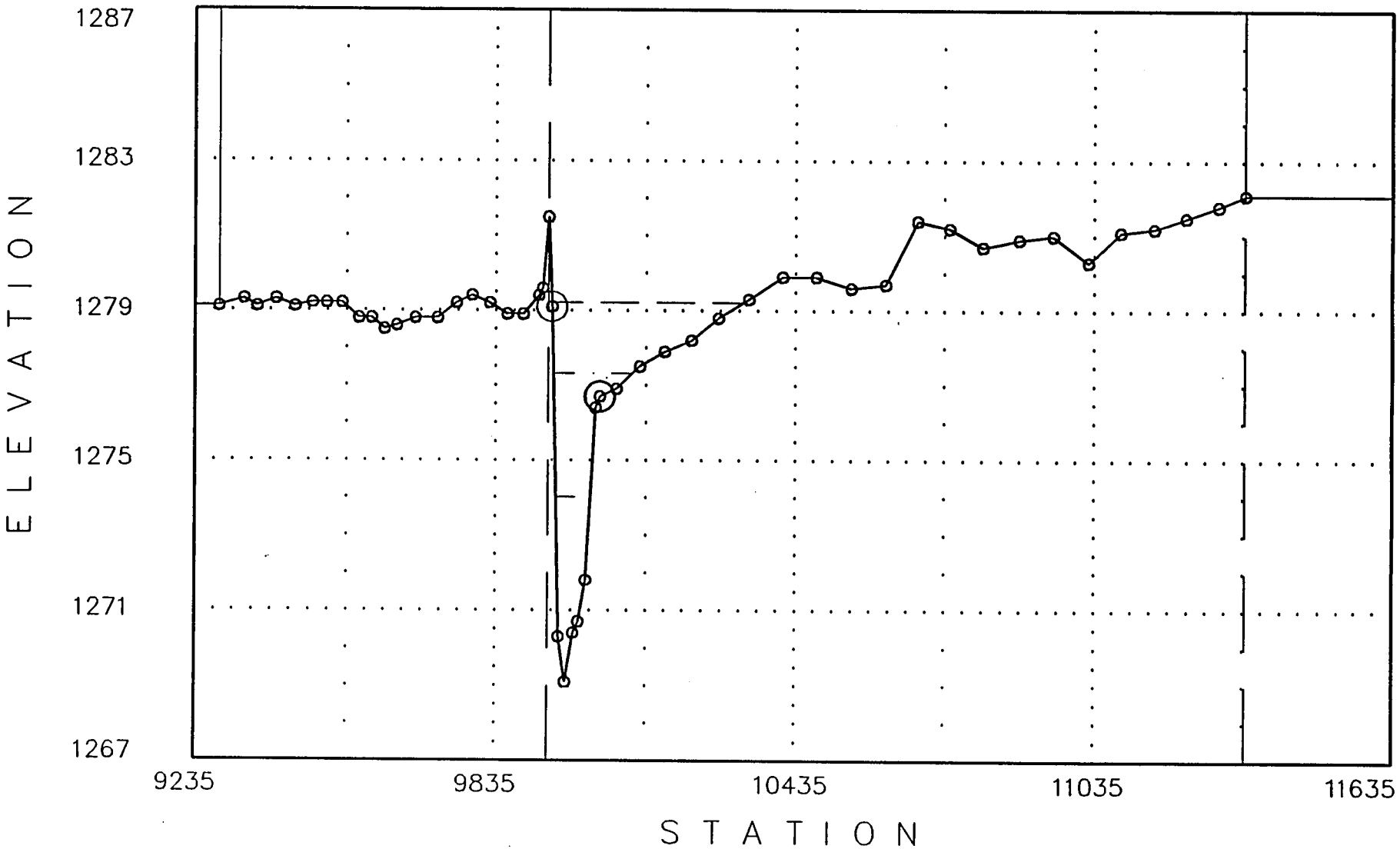



12-06-1990

<<<<<< Cross Section: 4.945: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1274.01
Q2= 5500 WS2= 1277.32
Q3= 8400 WS3= 1279.21

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

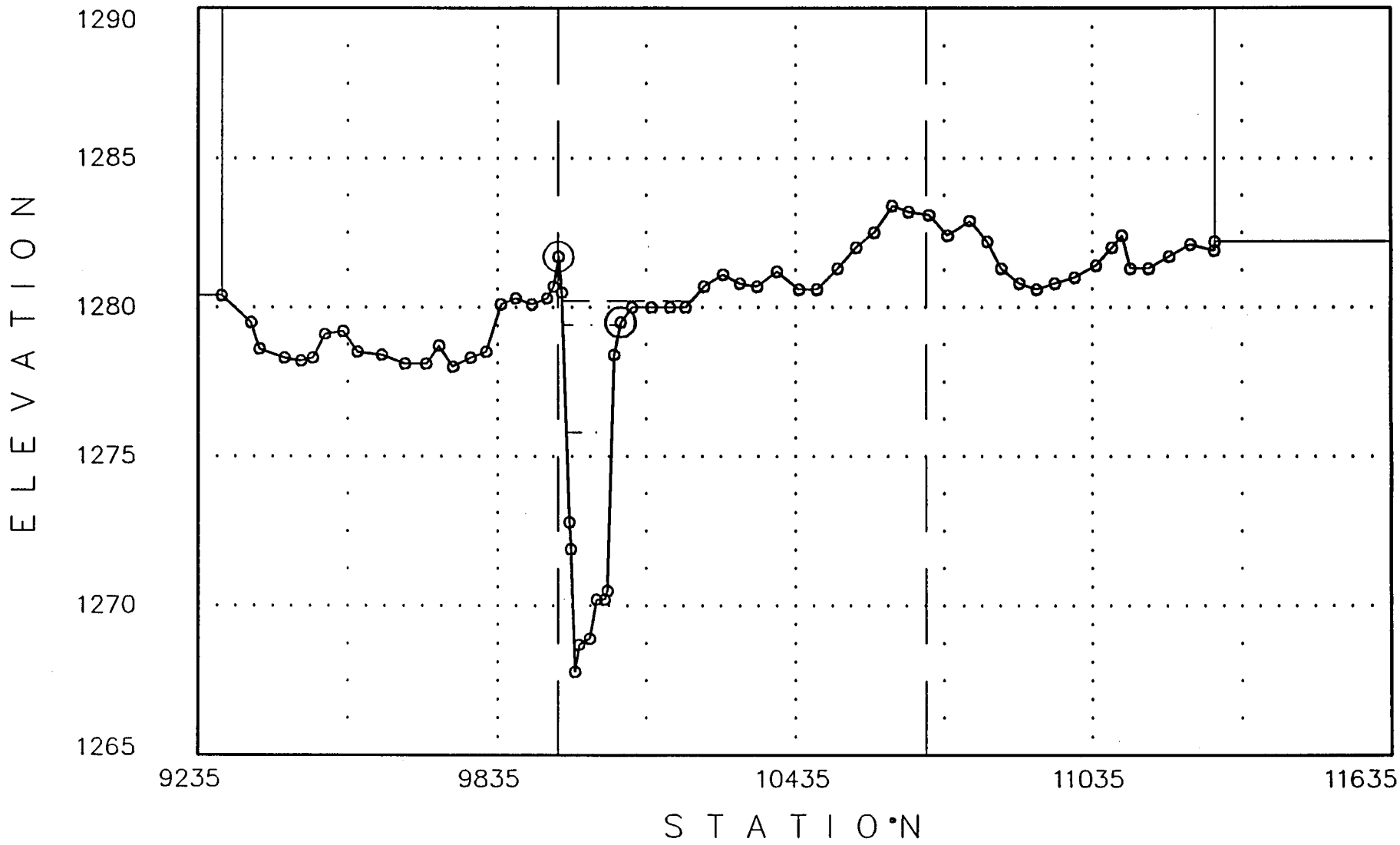



12-06-1990

<<<<<< Cross Section: 4.974: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1275.81
Q2= 5500 WS2= 1279.42
Q3= 8400 WS3= 1280.22

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

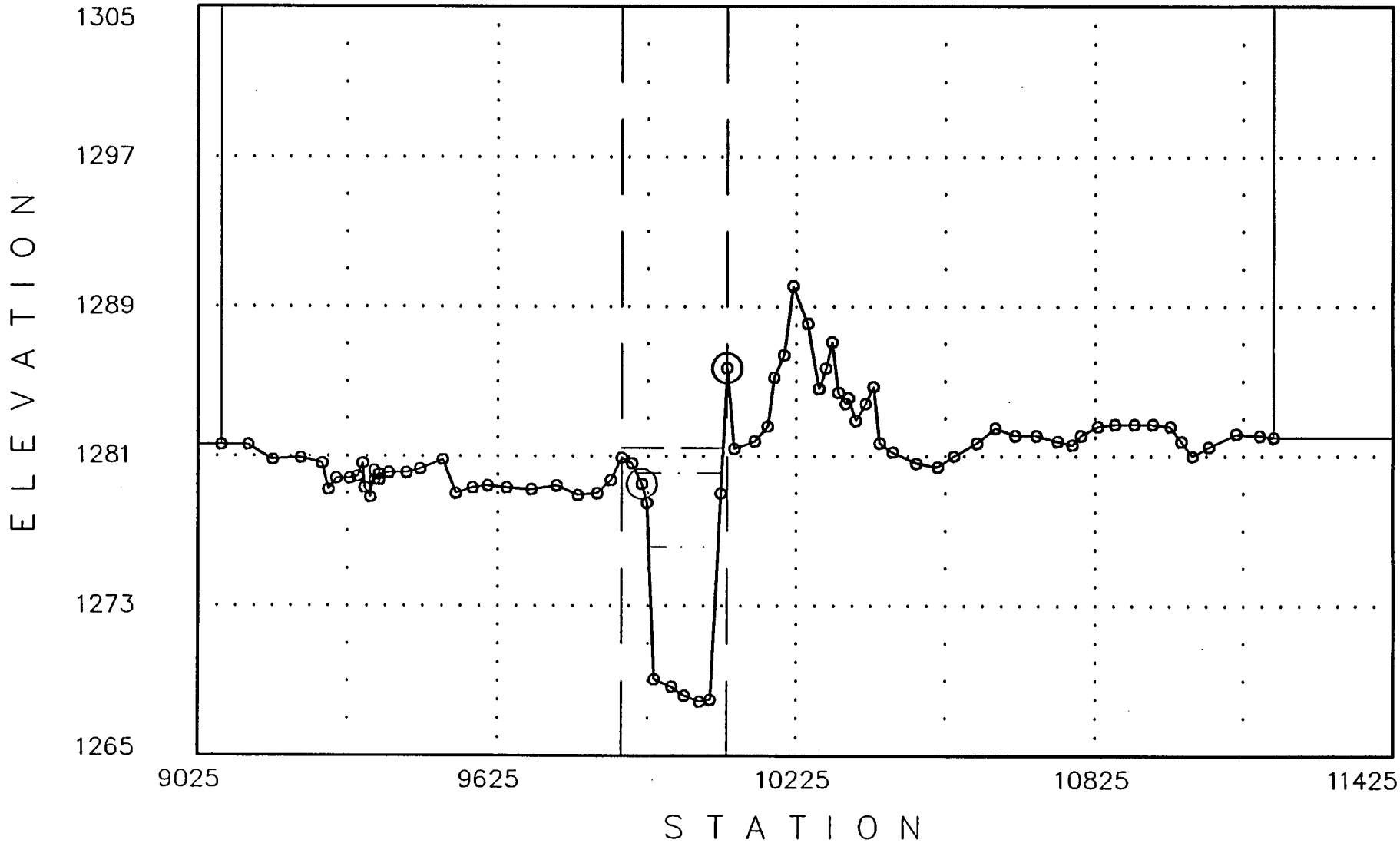



12-06-1990

<<<<<< Cross Section: 5.008: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1276.15
Q2= 5500 WS2= 1280.08
Q3= 8400 WS3= 1281.43

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

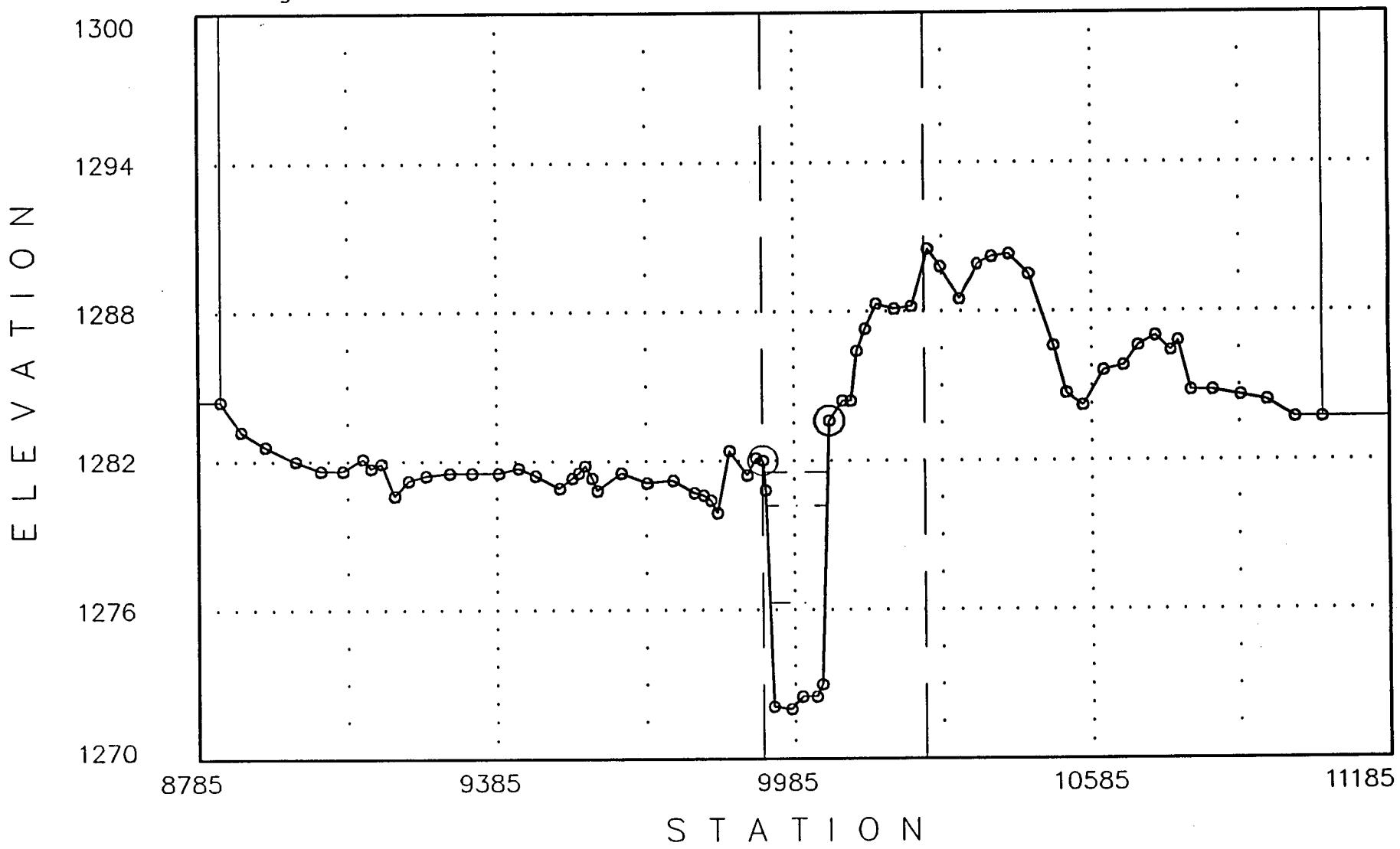



12-06-1990

<<<<<< Cross Section: 5.08: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1276.28
Q2= 5500 WS2= 1280.18
Q3= 8400 WS3= 1281.53

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

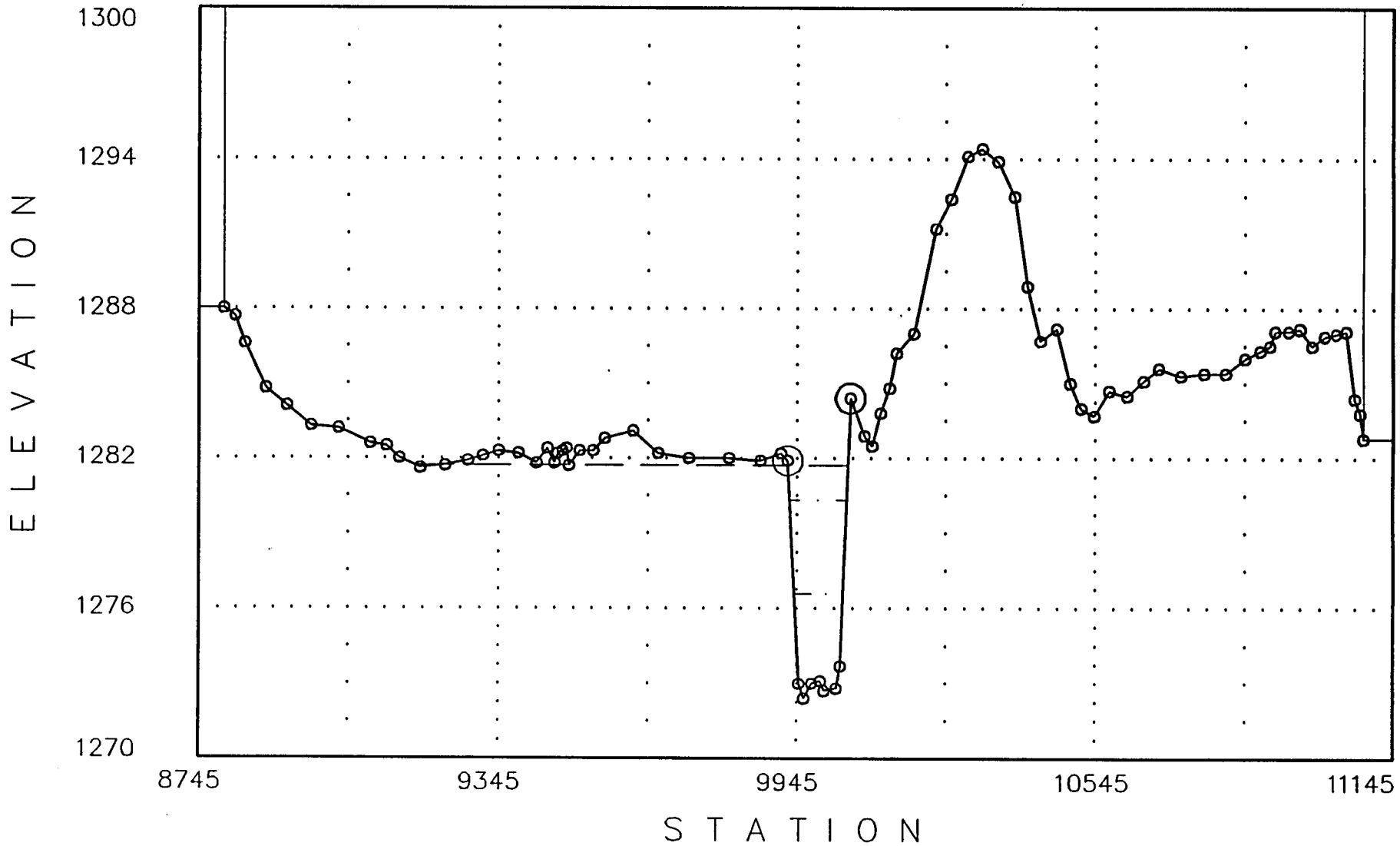



12-06-1990

<<<<<< Cross Section: 5.103: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1276.58
Q2= 5500 WS2= 1280.32
Q3= 8400 WS3= 1281.71

Manning-n's: n-lob = .048 n-ch = .045 n-rob = .048

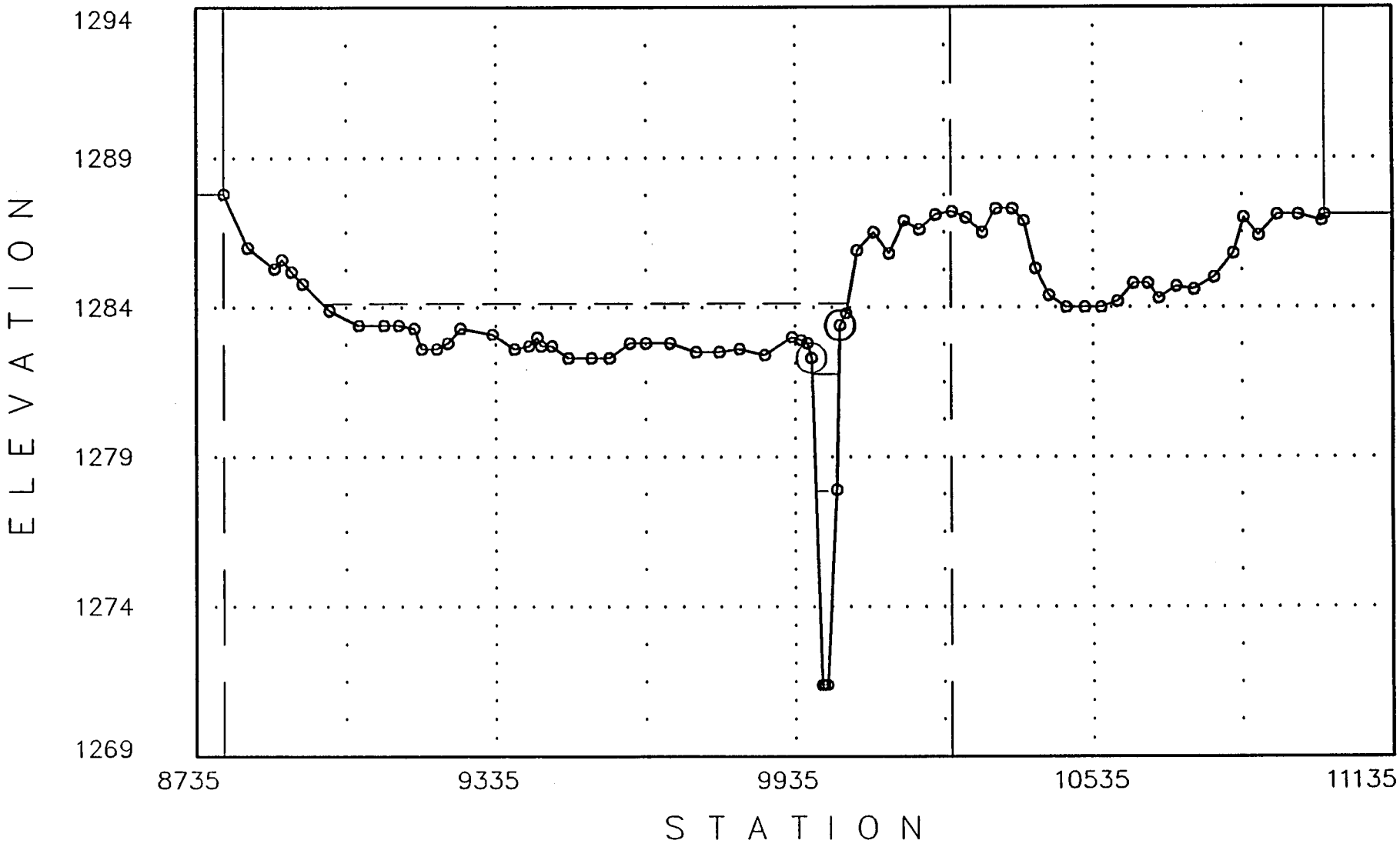



12-06-1990

<<<<<< Cross Section: 5.118: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1277.85
Q2= 5500 WS2= 1281.76
Q3= 8400 WS3= 1284.14

Manning-n's: n-lob = .048 n-ch = .045 n-rob = .048

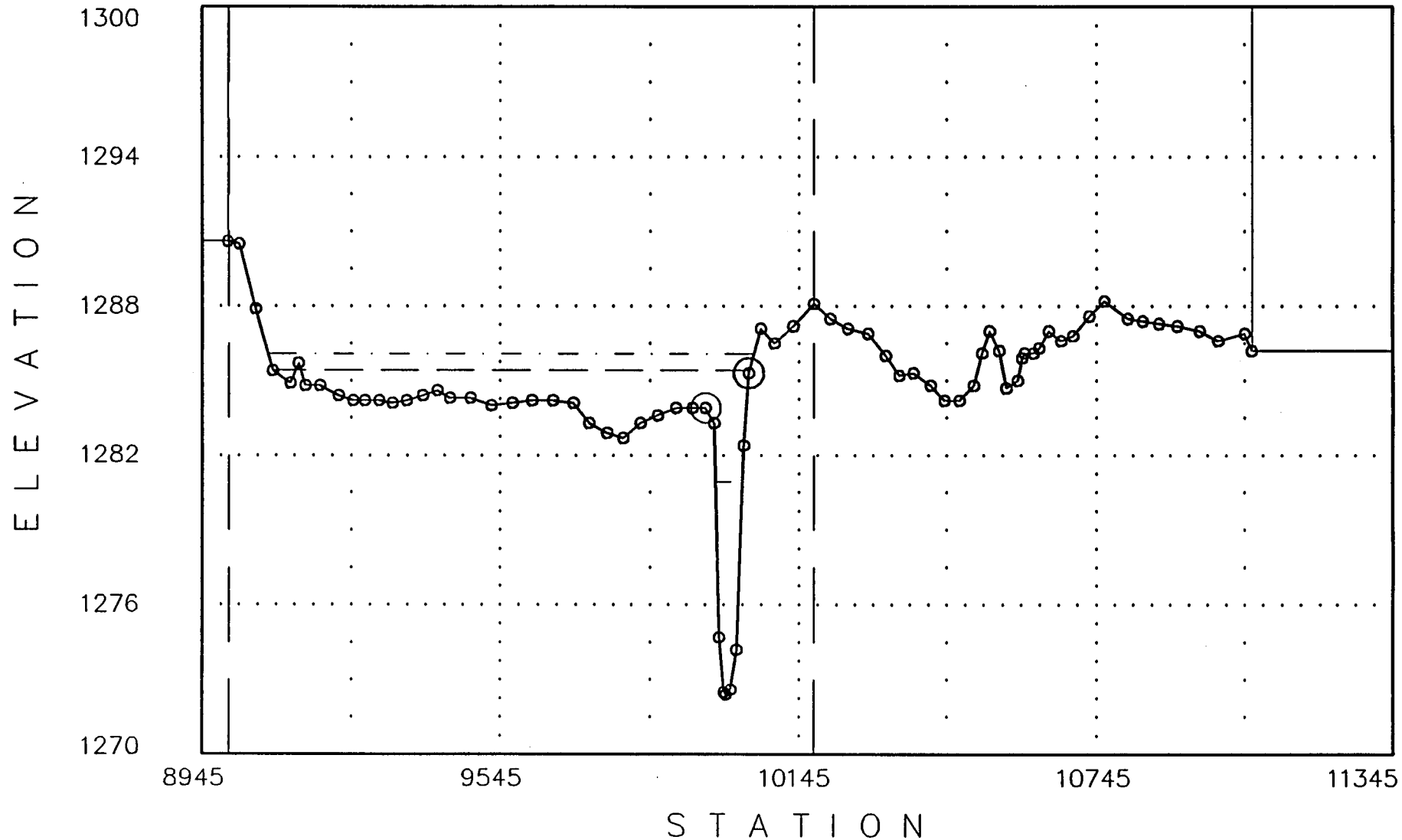



12-06-1990

<<<<<< Cross Section: 5.159: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1280.93
Q2= 5500 WS2= 1286.07
Q3= 8400 WS3= 1285.42

Manning-n's: n-lob = .048 n-ch = .045 n-rob = .048

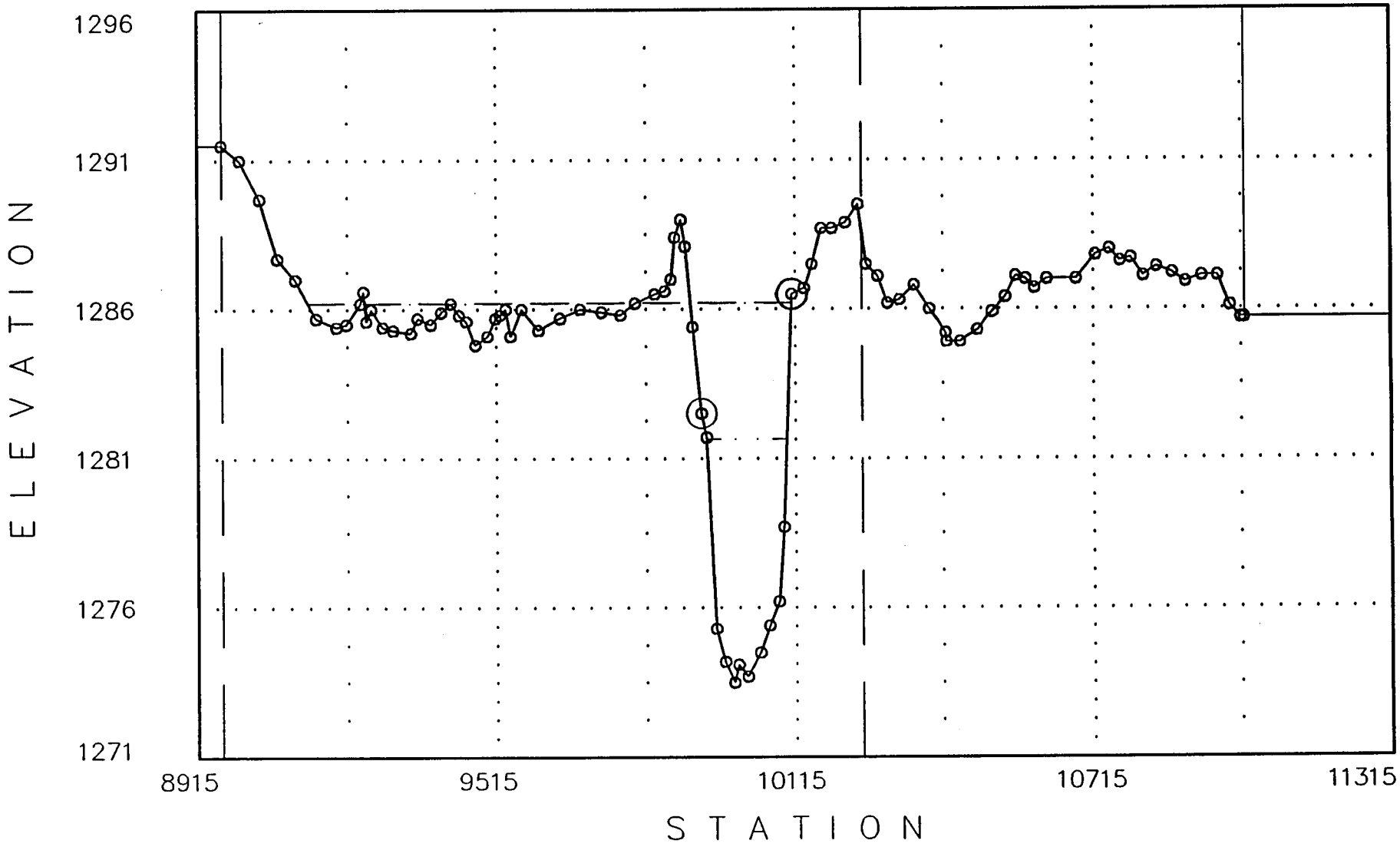



12-06-1990

<<<<<< Cross Section: 5.204: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1281.64
Q2= 5500 WS2= 1286.21
Q3= 8400 WS3= 1286.22

Manning-n's: n-lob = .048 n-ch = .045 n-rob = .048

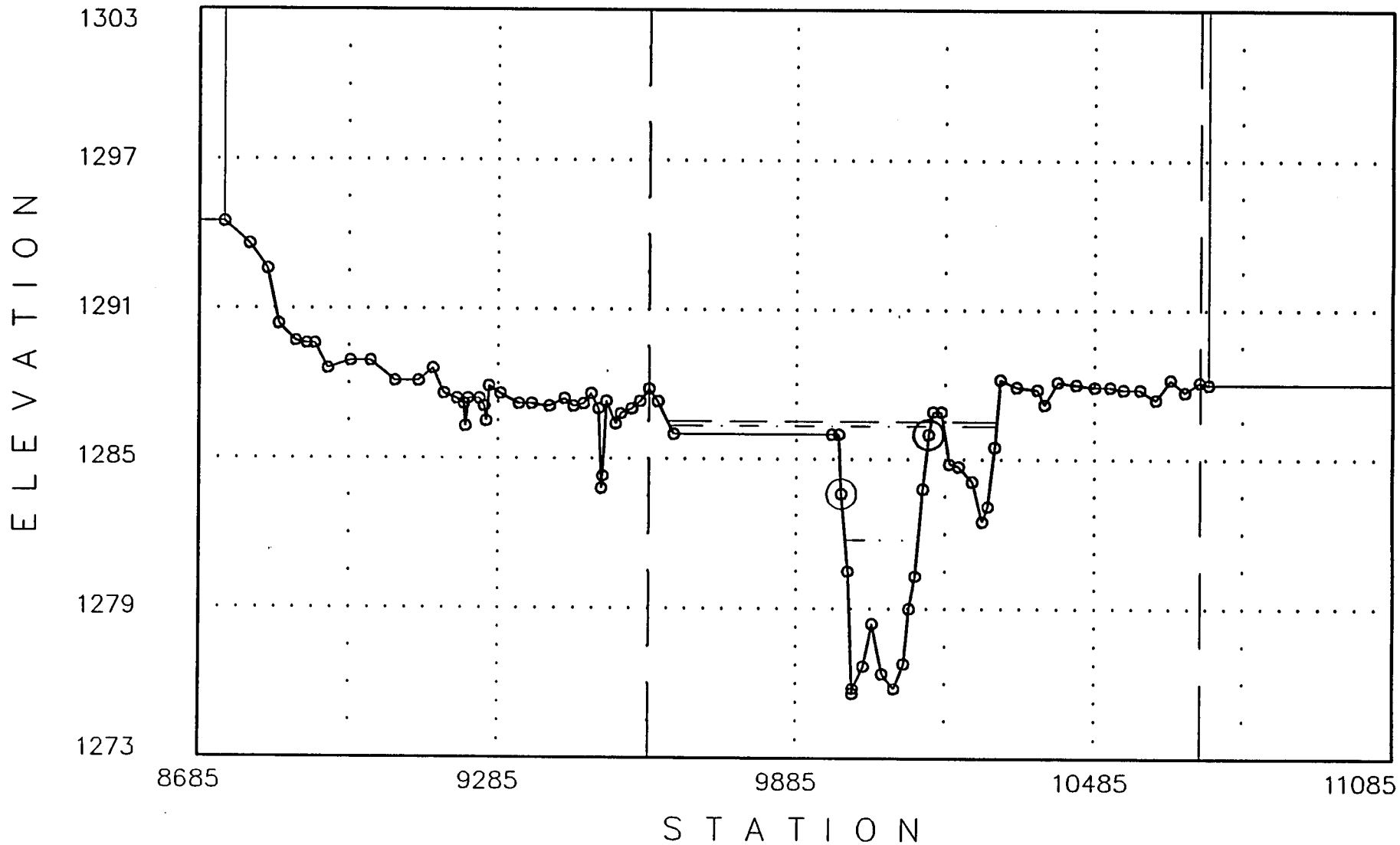



12-06-1990

<<<<<< Cross Section: 5.263: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1281.76
Q2= 5500 WS2= 1286.34
Q3= 8400 WS3= 1286.51

Manning-n's: n-lob = .048 n-ch = .045 n-rob = .048

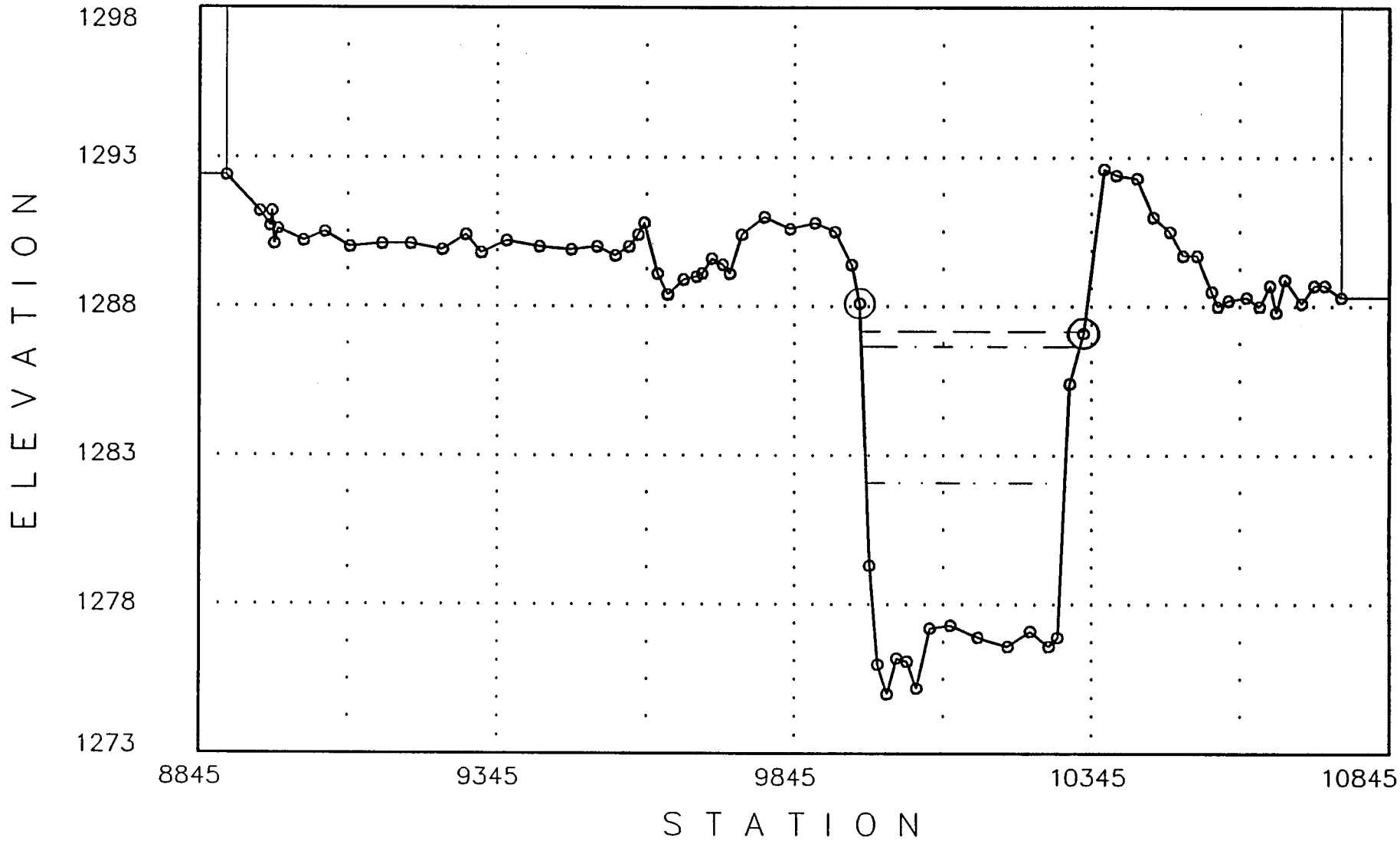



12-06-1990

<<<<<< Cross Section: 5.364: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1282.07
Q2= 5500 WS2= 1286.65
Q3= 8400 WS3= 1287.17

Manning-n's: n-lob = .048 n-ch = .045 n-rob = .048

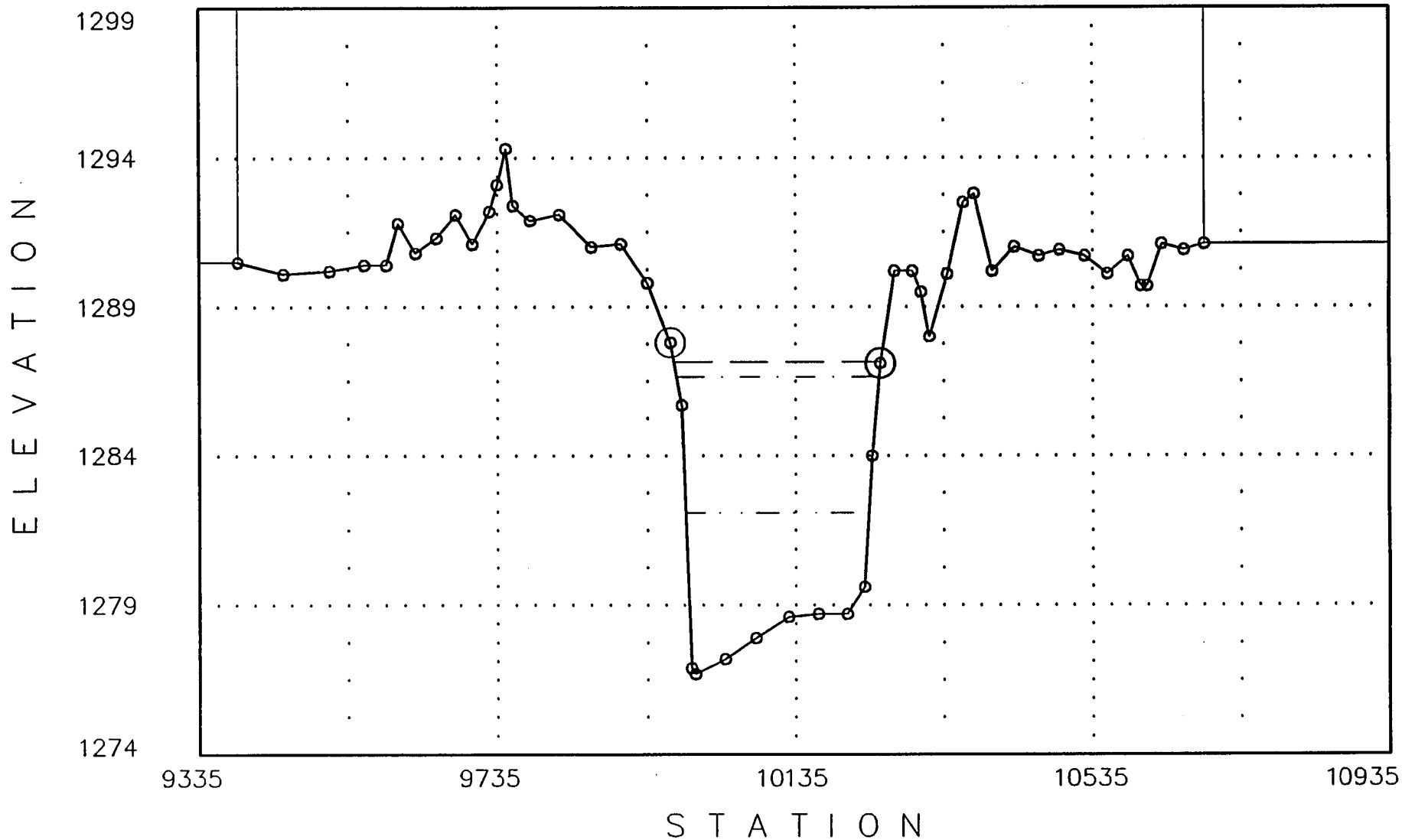



12-06-1990

<<<<<< Cross Section: 5.397: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1282.08
Q2= 5500 WS2= 1286.64
Q3= 8400 WS3= 1287.15

Manning-n's: n-lob = .048 n-ch = .04 n-rob = .048

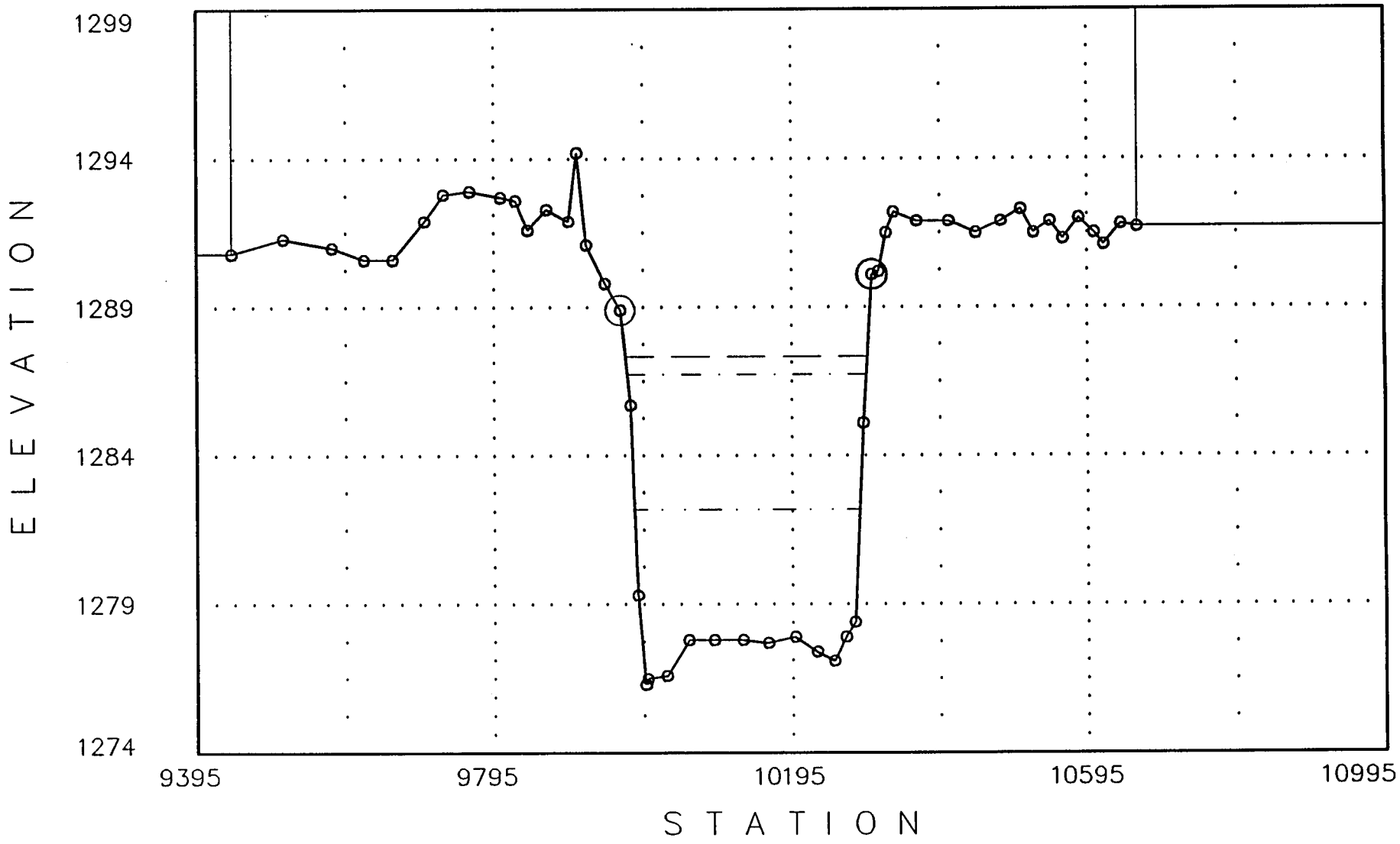



12-06-1990

<<<<<< Cross Section: 5.432: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1282.18
Q2= 5500 WS2= 1286.73
Q3= 8400 WS3= 1287.33

Manning-n's: n-lob = .048 n-ch = .04 n-rob = .048

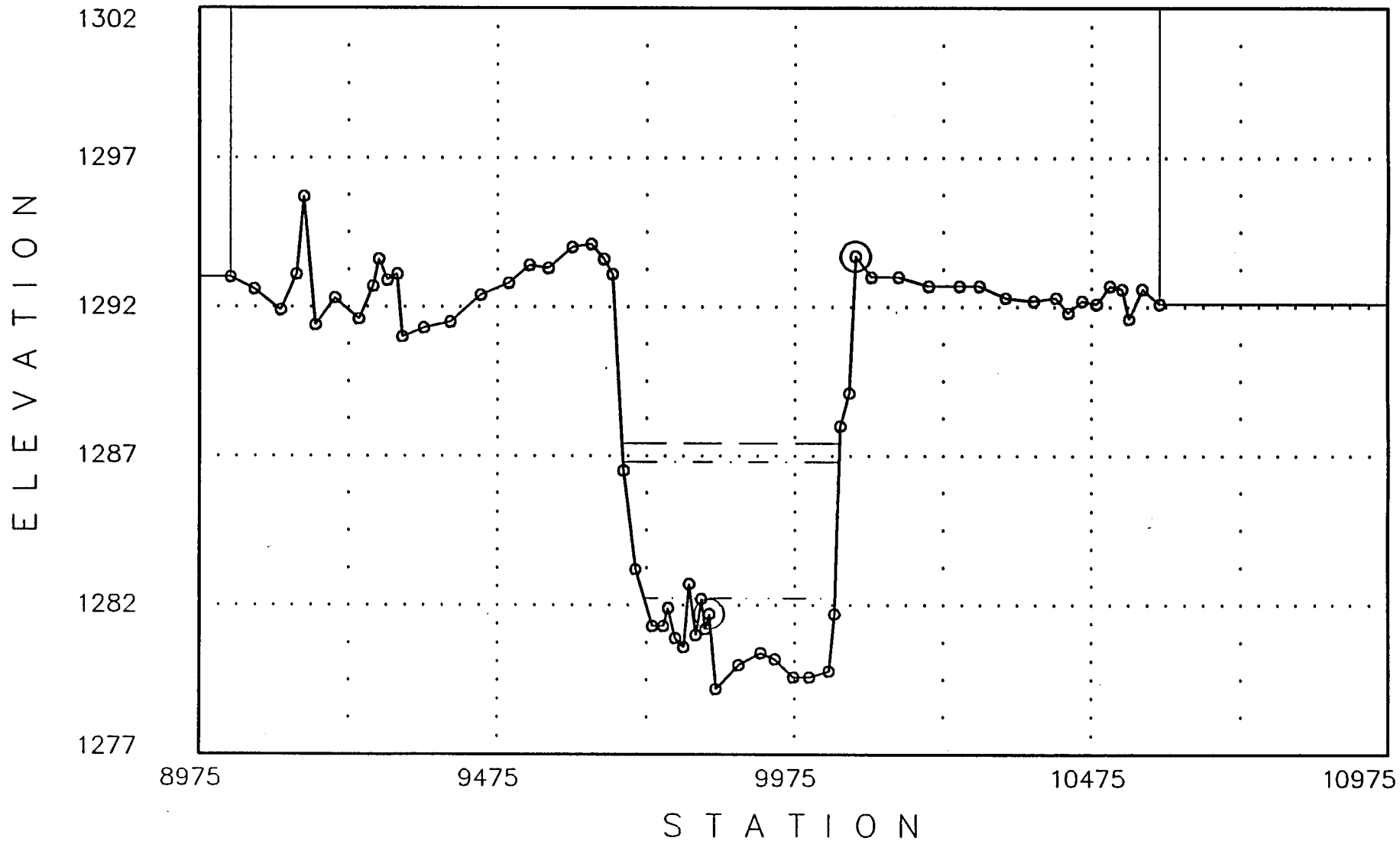



12-06-1990

<<<<<< Cross Section: 5.5: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1282.24
Q2= 5500 WS2= 1286.79
Q3= 8400 WS3= 1287.43

Manning-n's: n-lob = .048 n-ch = .04 n-rob = .048

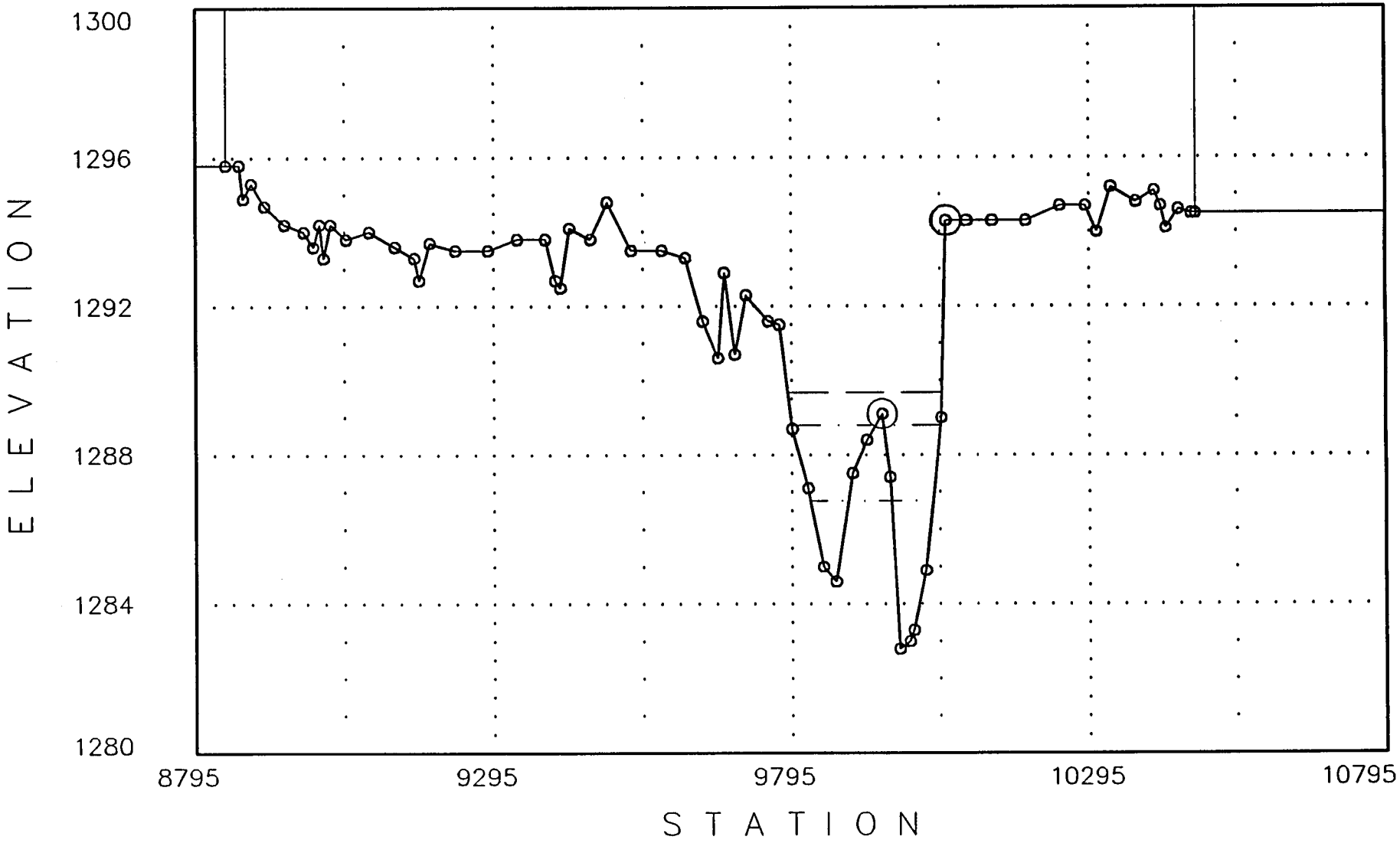



12-06-1990

<<<<<< Cross Section: 5.579: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1286.76
Q2= 5500 WS2= 1288.79
Q3= 8400 WS3= 1289.68

Manning-n's: n-lob = .048 n-ch = .04 n-rob = .048

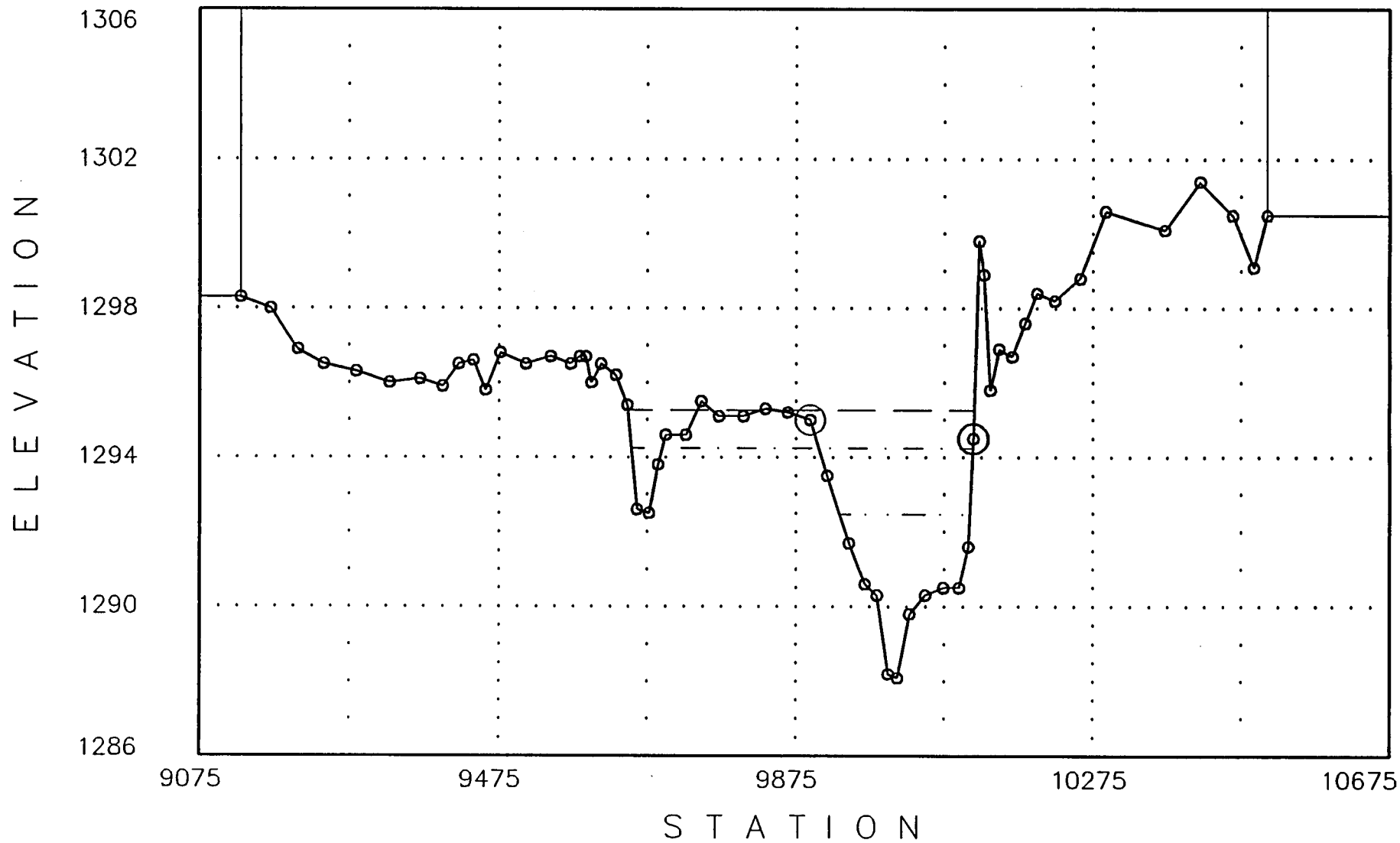



12-06-1990

<<<<<< Cross Section: 5.679: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1292.47
Q2= 5500 WS2= 1294.25
Q3= 8400 WS3= 1295.27

Manning-n's: n-lob = .048 n-ch = .04 n-rob = .048

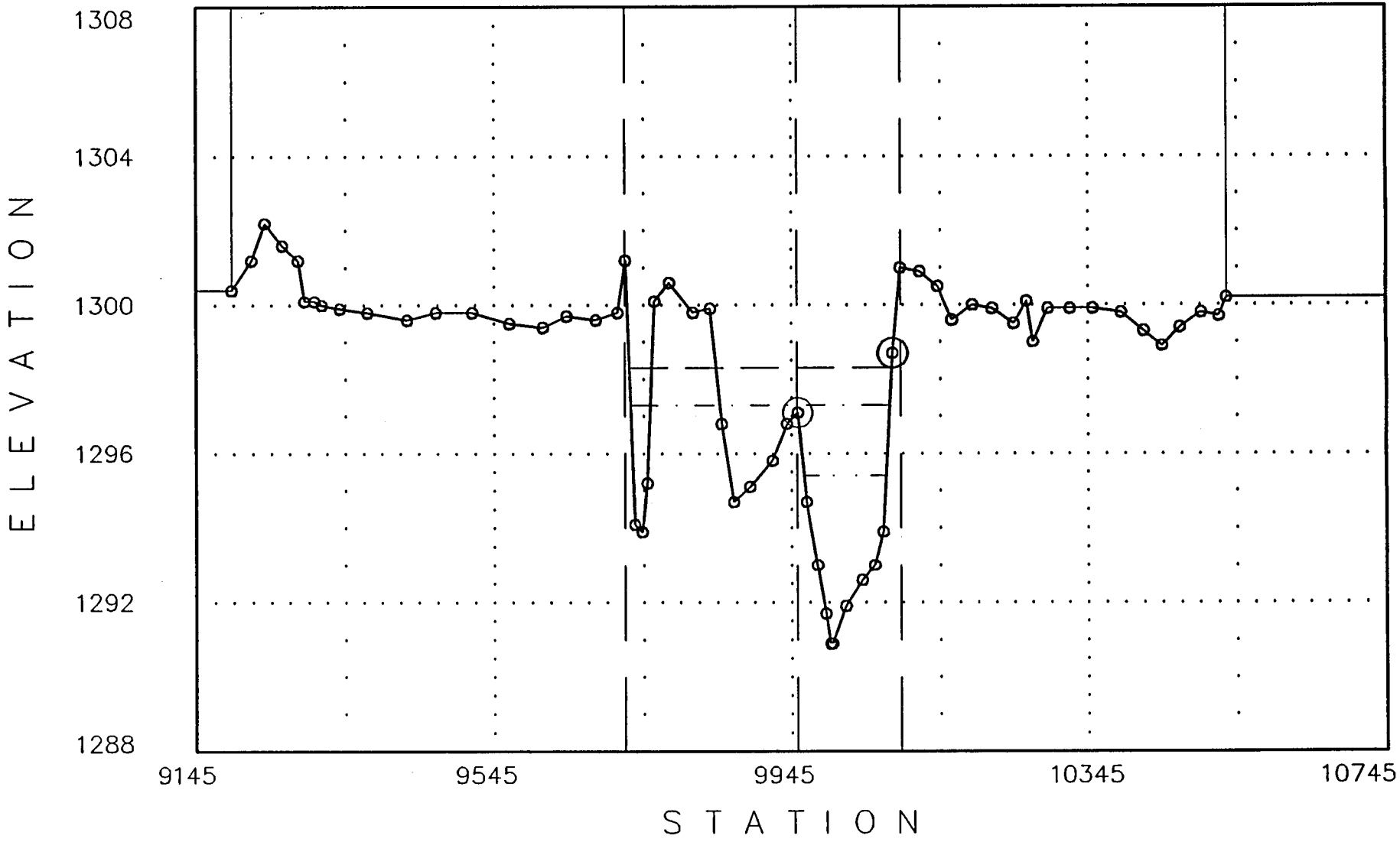



12-06-1990

<<<<<< Cross Section: 5.754: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1295.4
Q2= 5500 WS2= 1297.3
Q3= 8400 WS3= 1298.3

Manning-n's: n-lob = .048 n-ch = .04 n-rob = .048

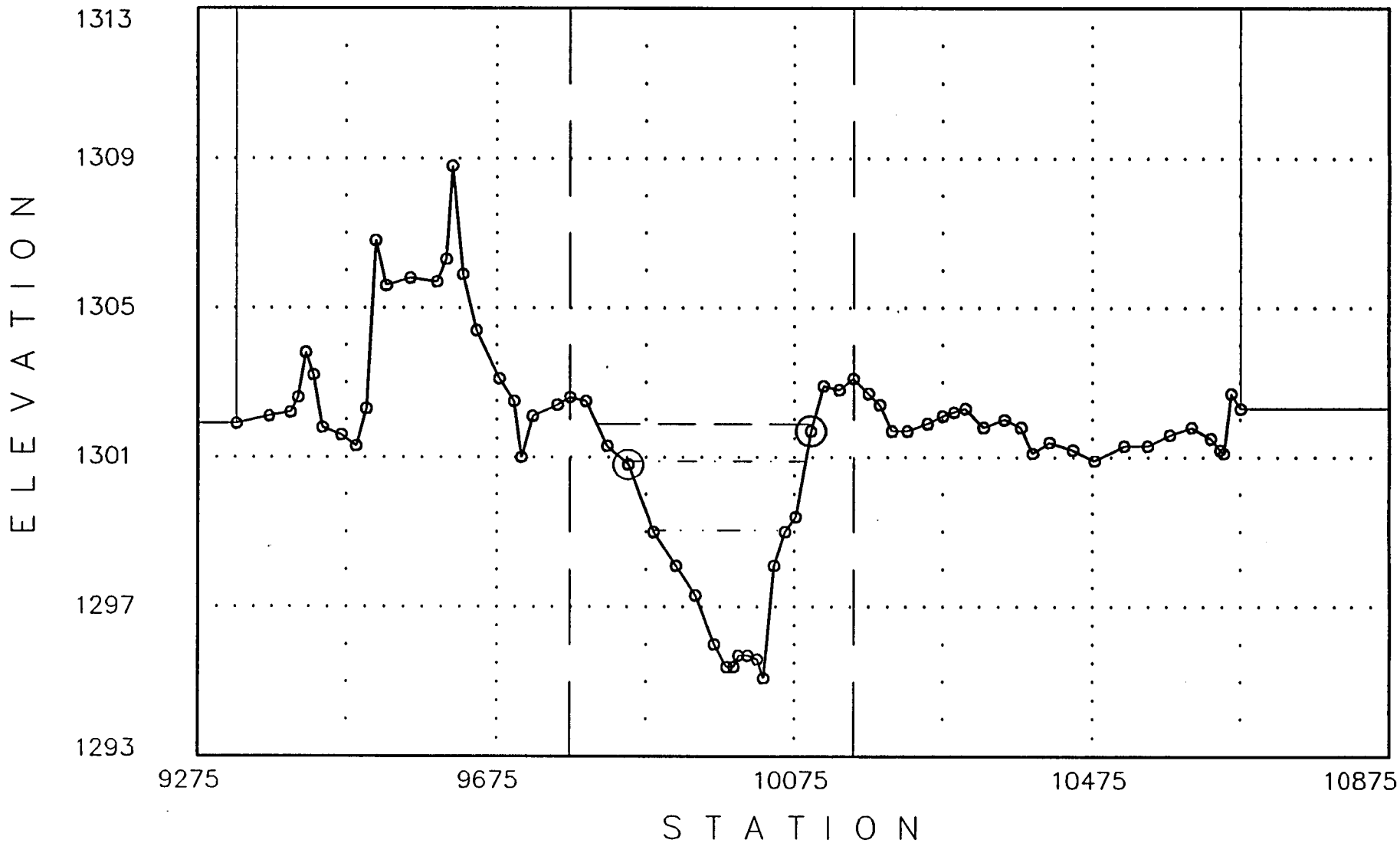



12-06-1990

<<<<<< Cross Section: 5.837: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1299.04
Q2= 5500 WS2= 1300.89
Q3= 8400 WS3= 1301.89

Manning-n's: n-lob = .048 n-ch = .04 n-rob = .048

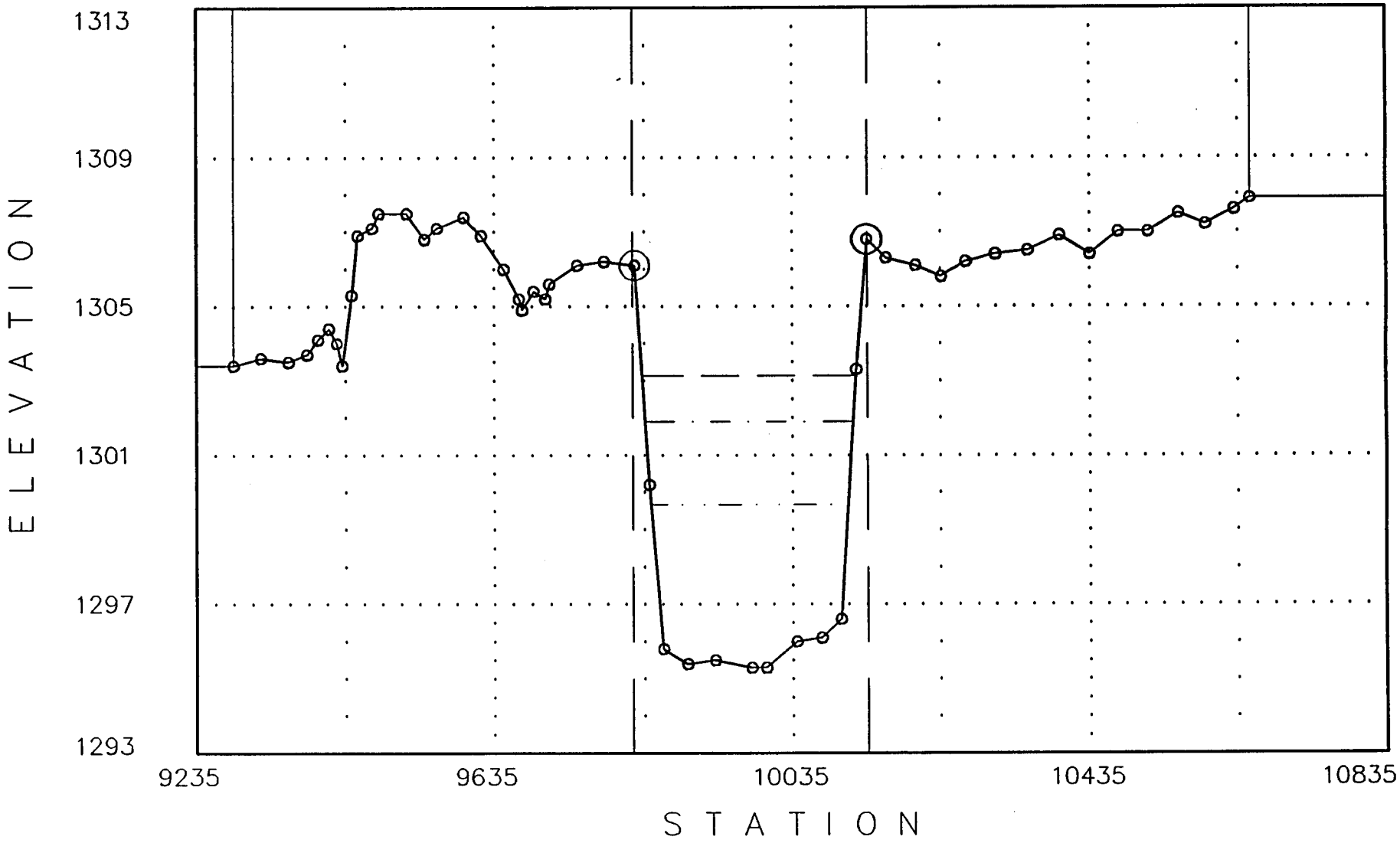



12-06-1990

<<<<<< Cross Section: 5.881: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1299.67
Q2= 5500 WS2= 1301.9
Q3= 8400 WS3= 1303.13

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

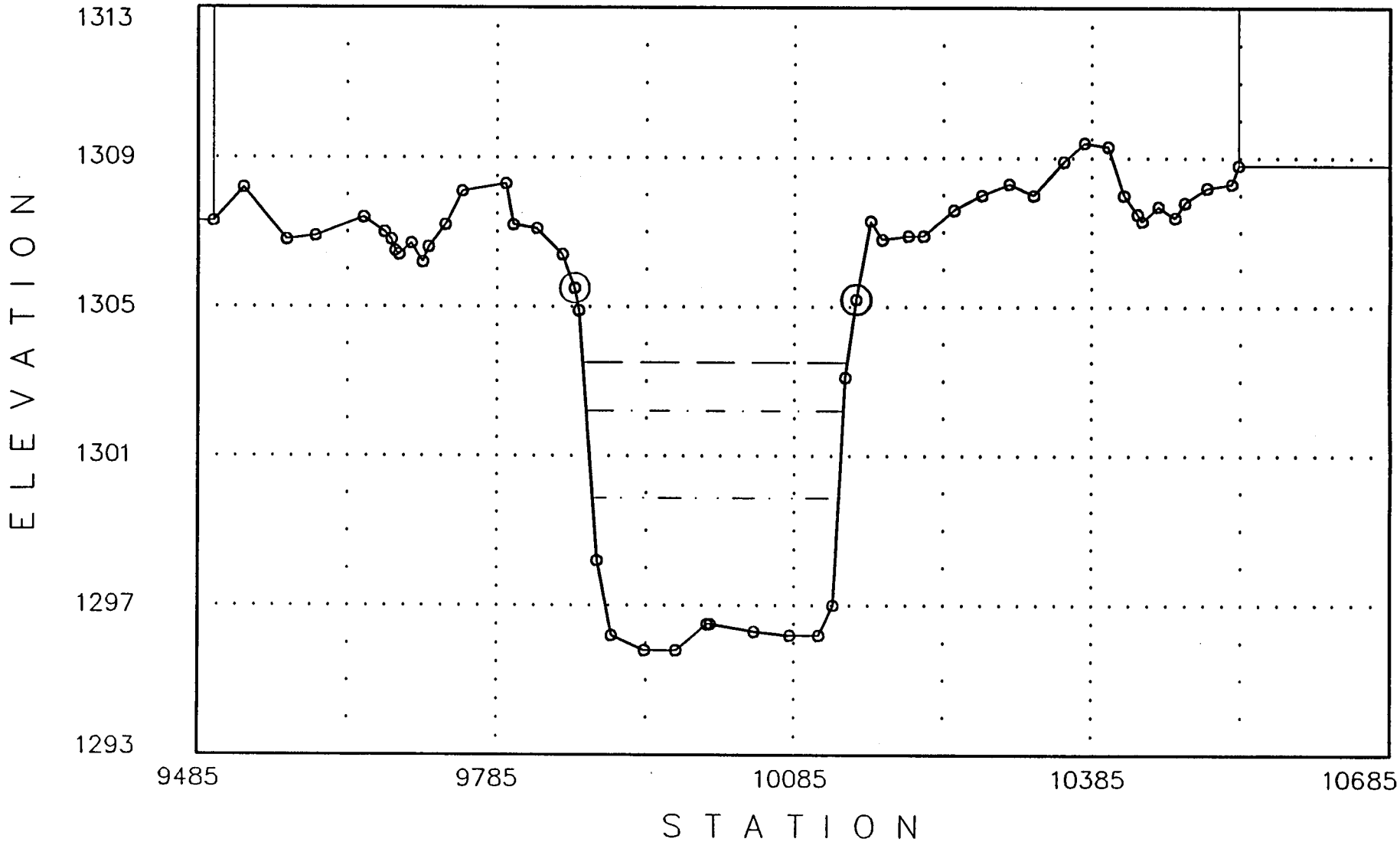



12-06-1990

<<<<<< Cross Section: 5.97: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1299.87
Q2= 5500 WS2= 1302.21
Q3= 8400 WS3= 1303.5

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

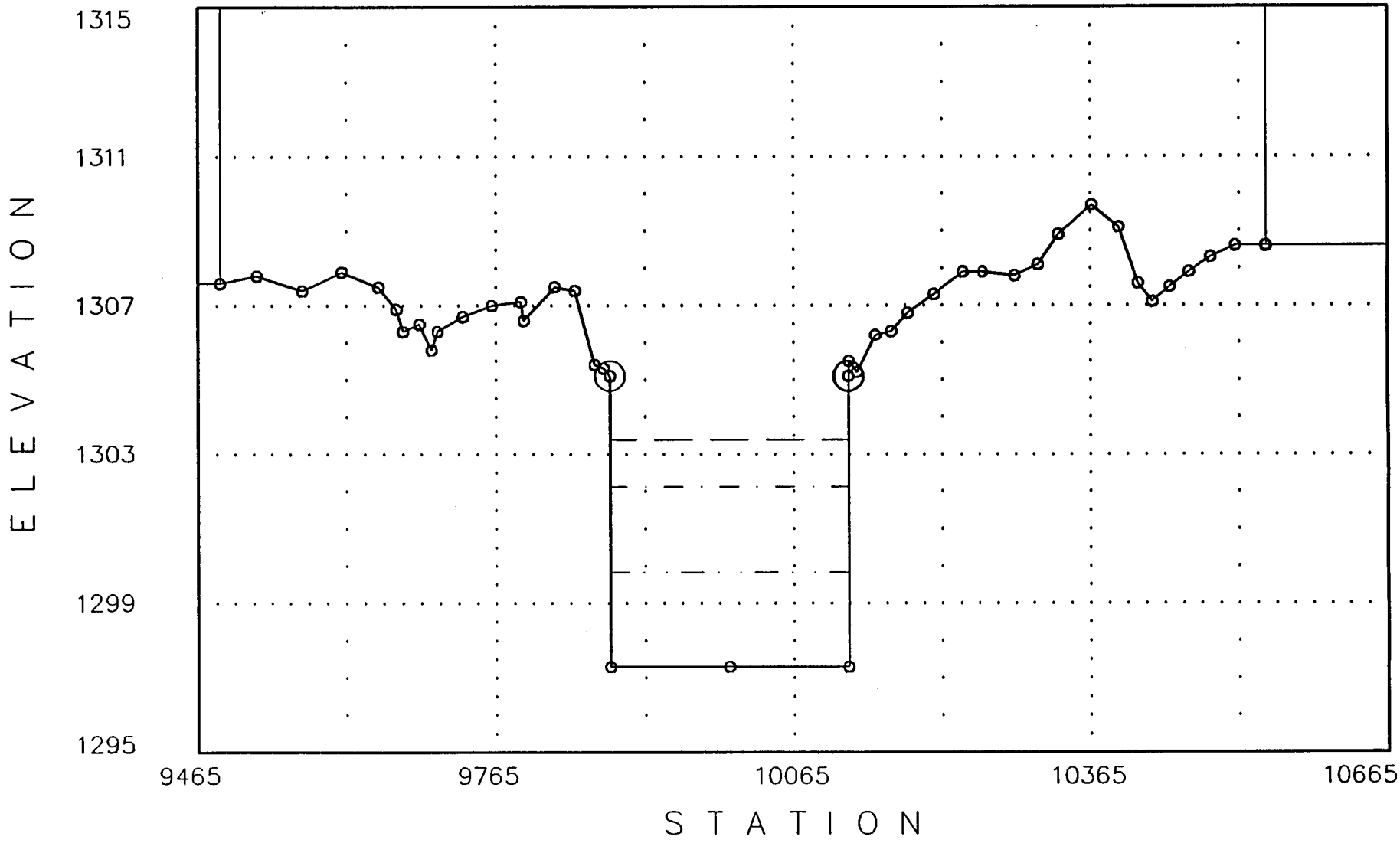



12-06-1990

<<<<<< Cross Section: 5.973: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1299.82
Q2= 5500 WS2= 1302.13
Q3= 8400 WS3= 1303.4

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

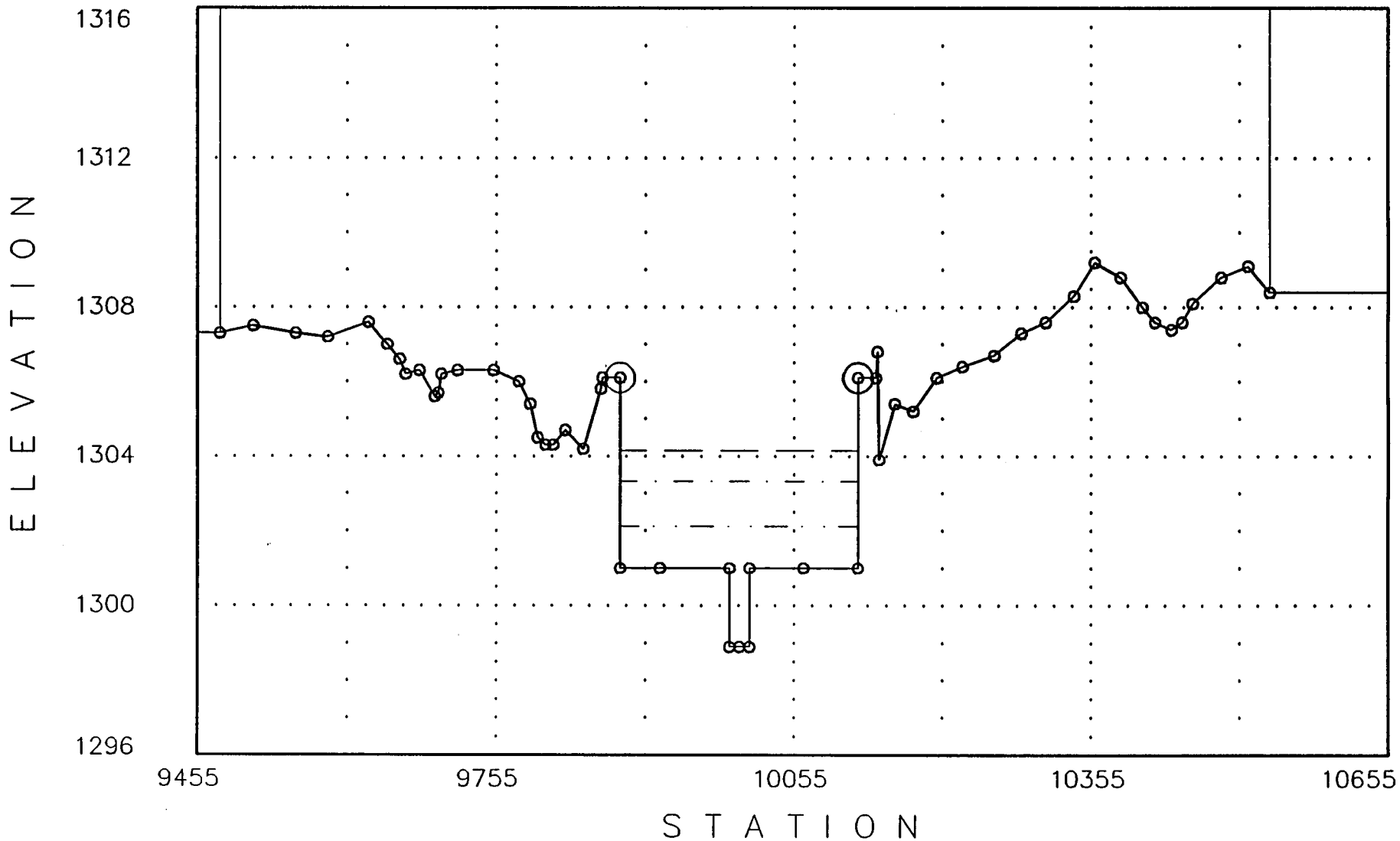



12-06-1990

<<<<<< Cross Section: 5.977: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1302.12
Q2= 5500 WS2= 1303.33
Q3= 8400 WS3= 1304.15

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

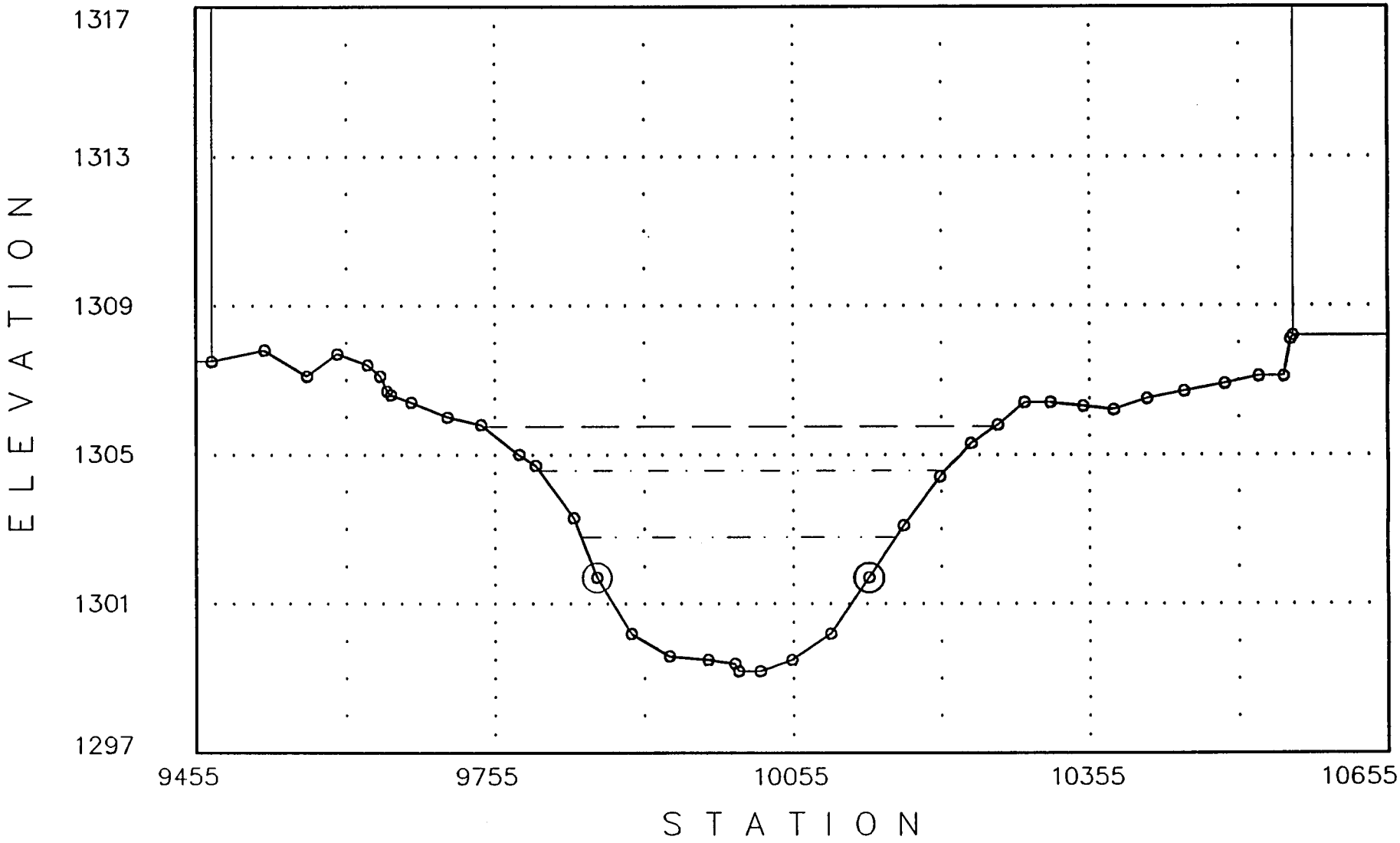



12-06-1990

<<<<<< Cross Section: 5.982: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1302.78
Q2= 5500 WS2= 1304.56
Q3= 8400 WS3= 1305.76

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

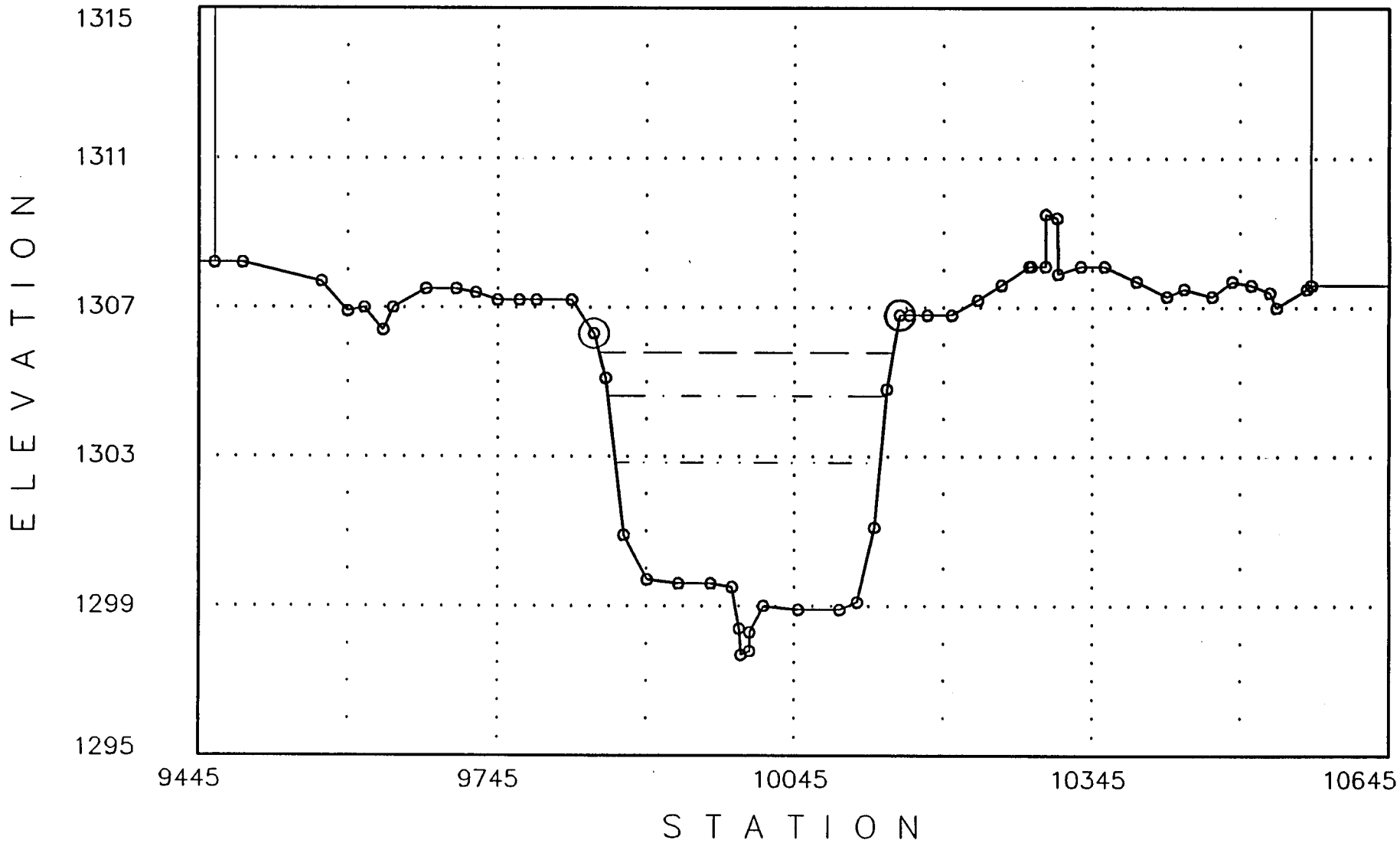



12-06-1990

<<<<<< Cross Section: 5.99: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1302.83
Q2= 5500 WS2= 1304.62
Q3= 8400 WS3= 1305.78

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

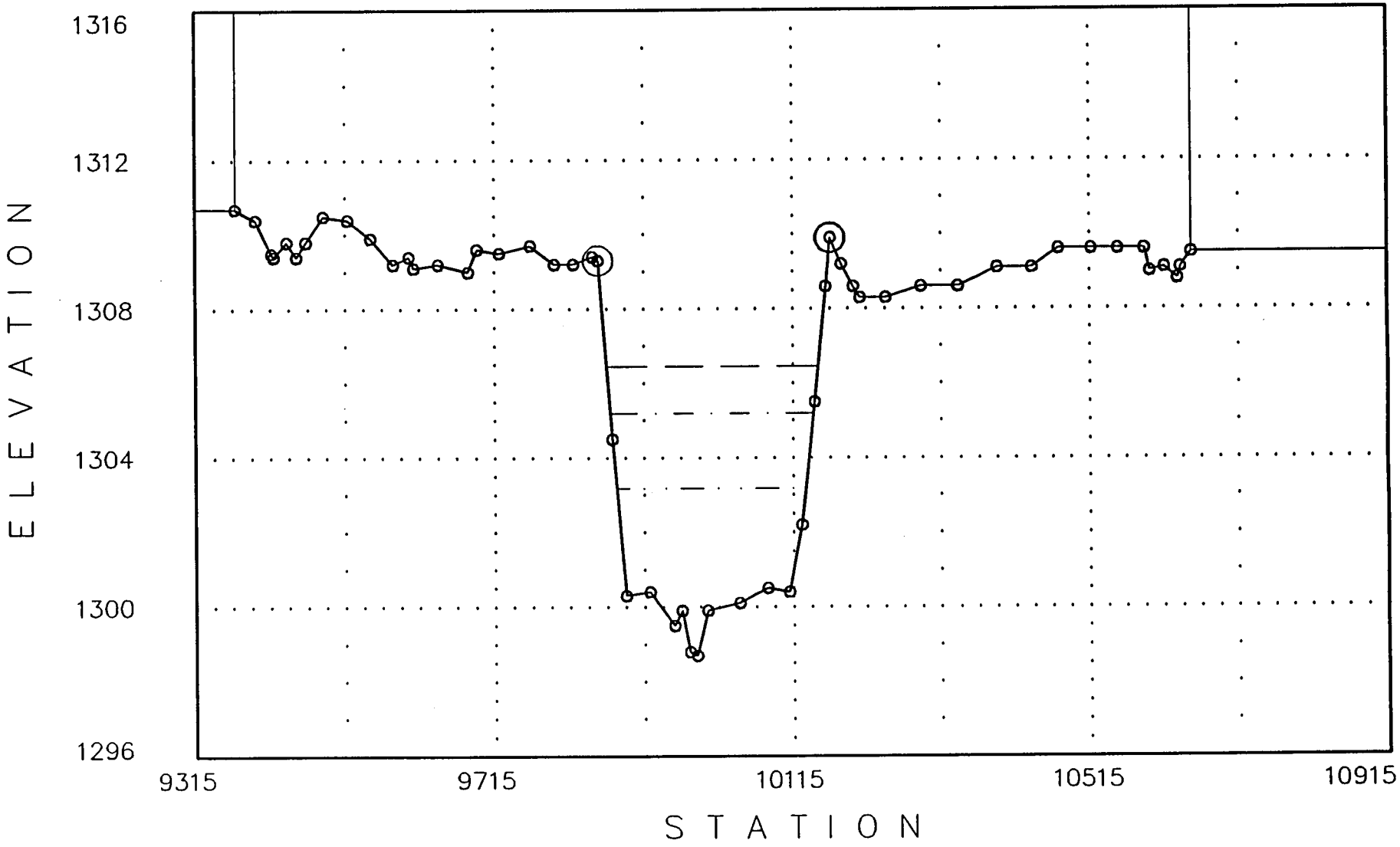



12-06-1990

<<<<<< Cross Section: 6.089: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1303.18
Q2= 5500 WS2= 1305.19
Q3= 8400 WS3= 1306.45

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

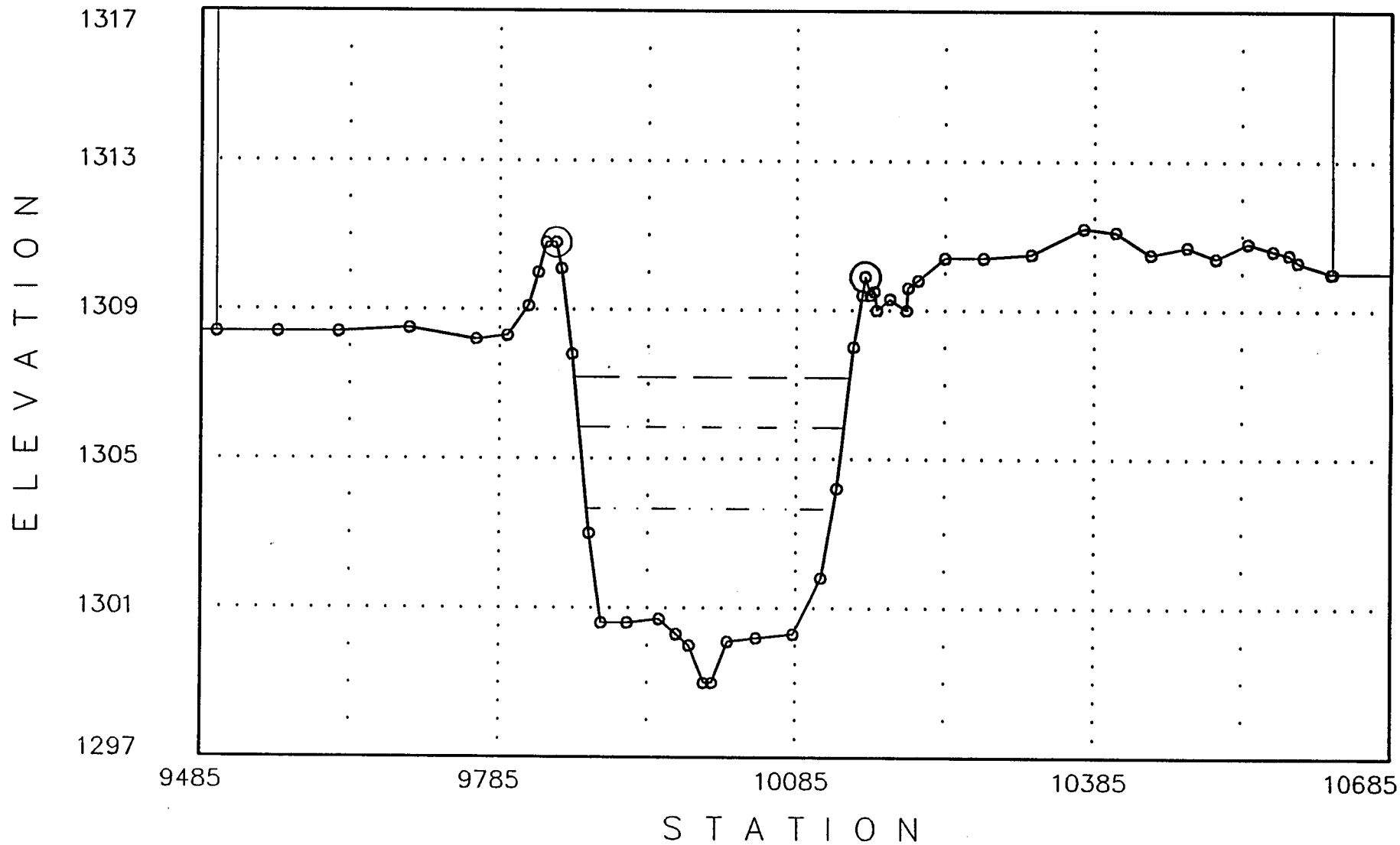



12-06-1990

<<<<<< Cross Section: 6.189: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1303.65
Q2= 5500 WS2= 1305.85
Q3= 8400 WS3= 1307.19

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

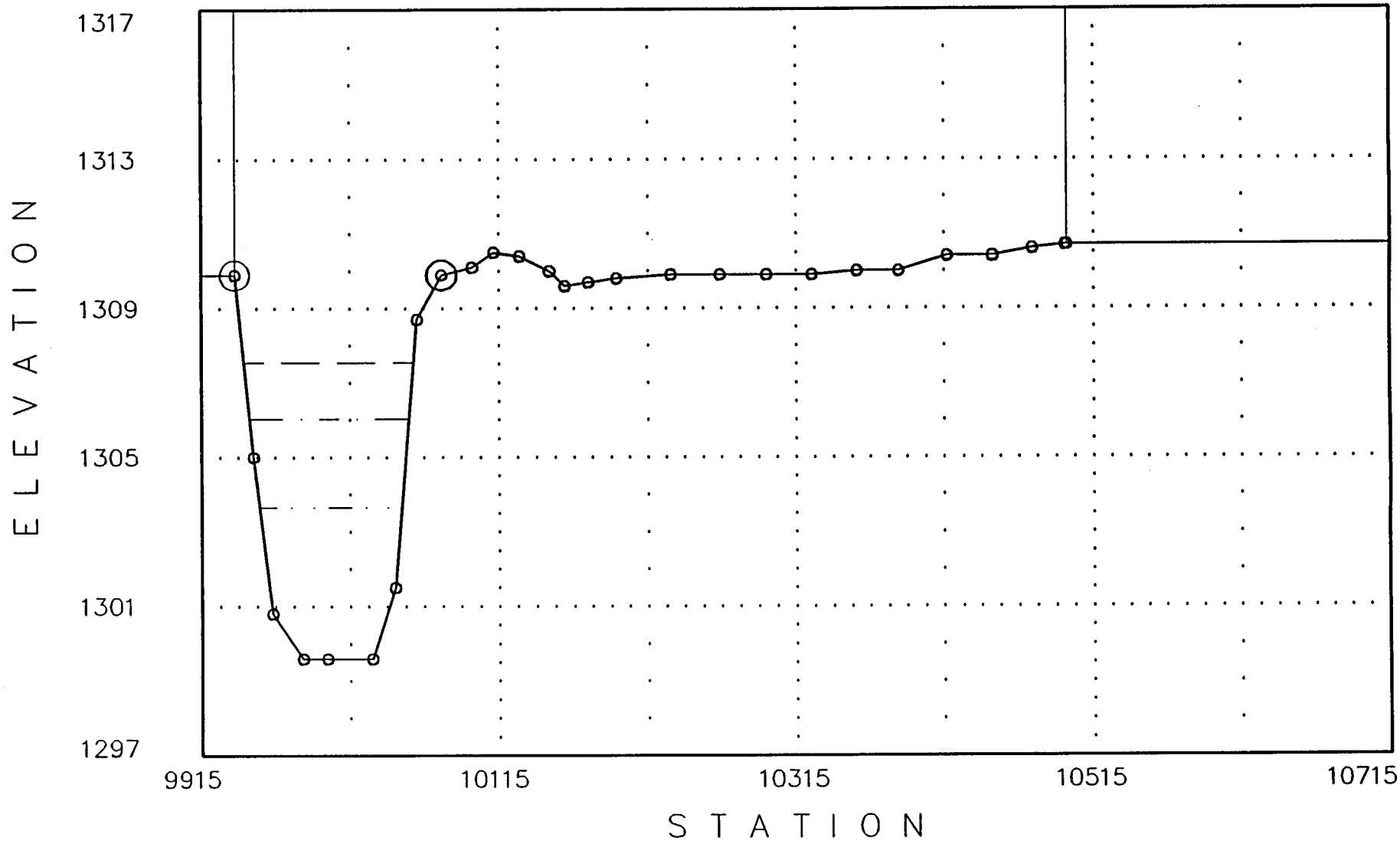



12-06-1990

<<<<<< Cross Section: 6.219: (FN = SKS.FZO) >>>>>>

Q1= 1600 WS1= 1303.66
Q2= 2200 WS2= 1306.04
Q3= 2600 WS3= 1307.54

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

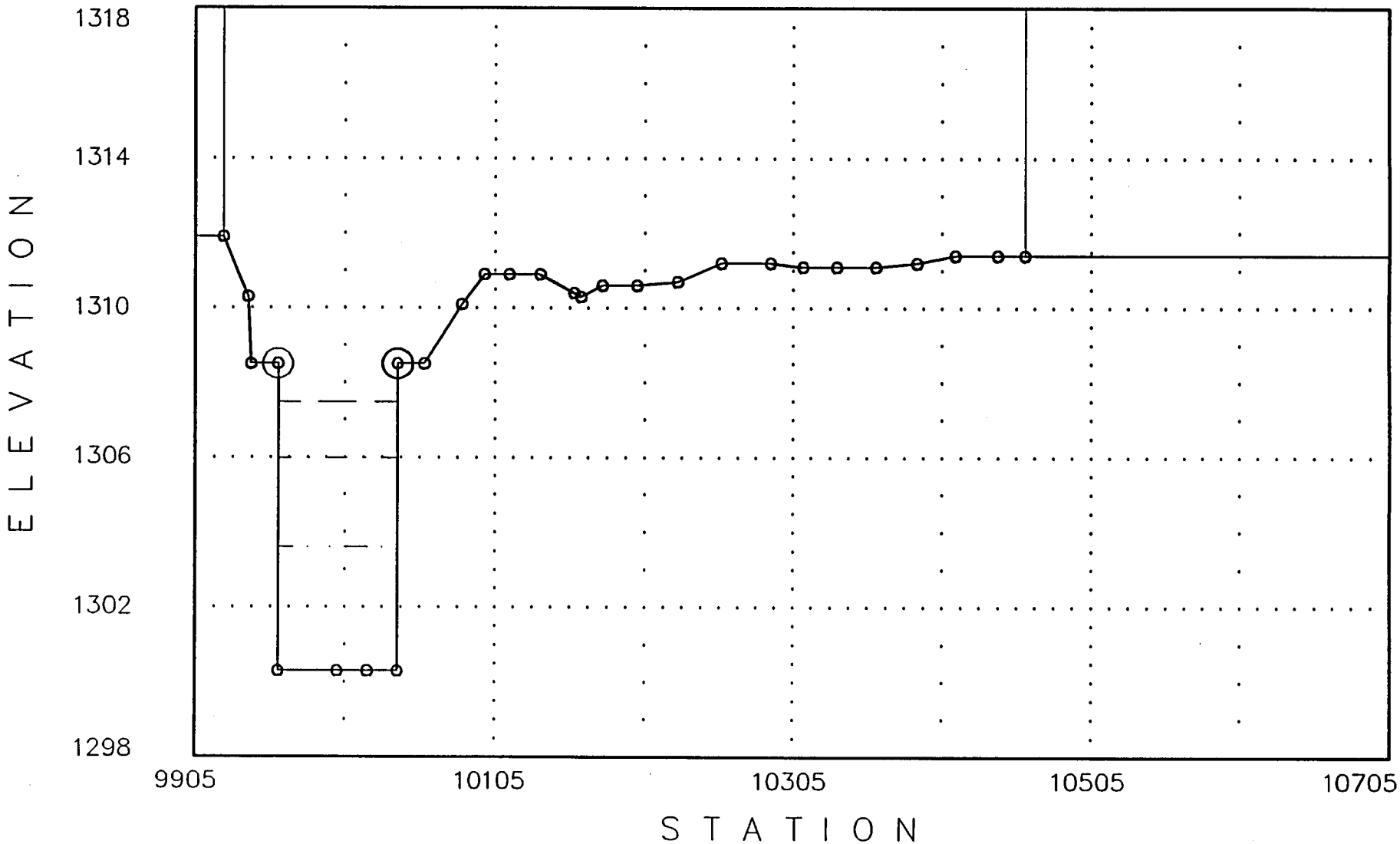



12-06-1990

<<<<<< Cross Section: 6.223: (FN = SKS.FZO) >>>>>>

Q1= 1600 WS1= 1303.6
Q2= 2200 WS2= 1305.98
Q3= 2600 WS3= 1307.48

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

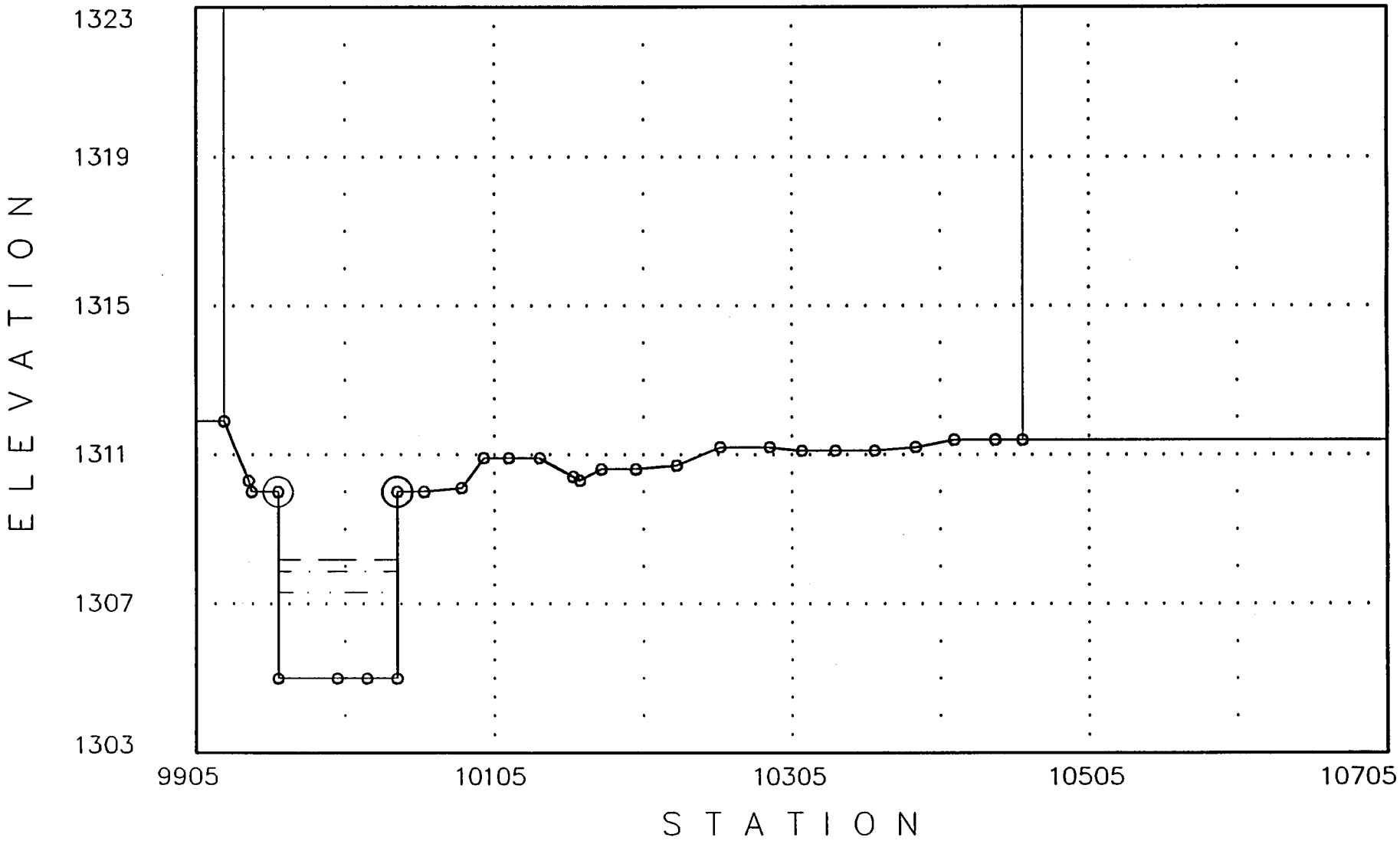



12-06-1990

<<<<<< Cross Section: 6.227: (FN = SKS.FZO) >>>>>>

Q1= 1600 WS1= 1307.31
Q2= 2200 WS2= 1307.86
Q3= 2600 WS3= 1308.19

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

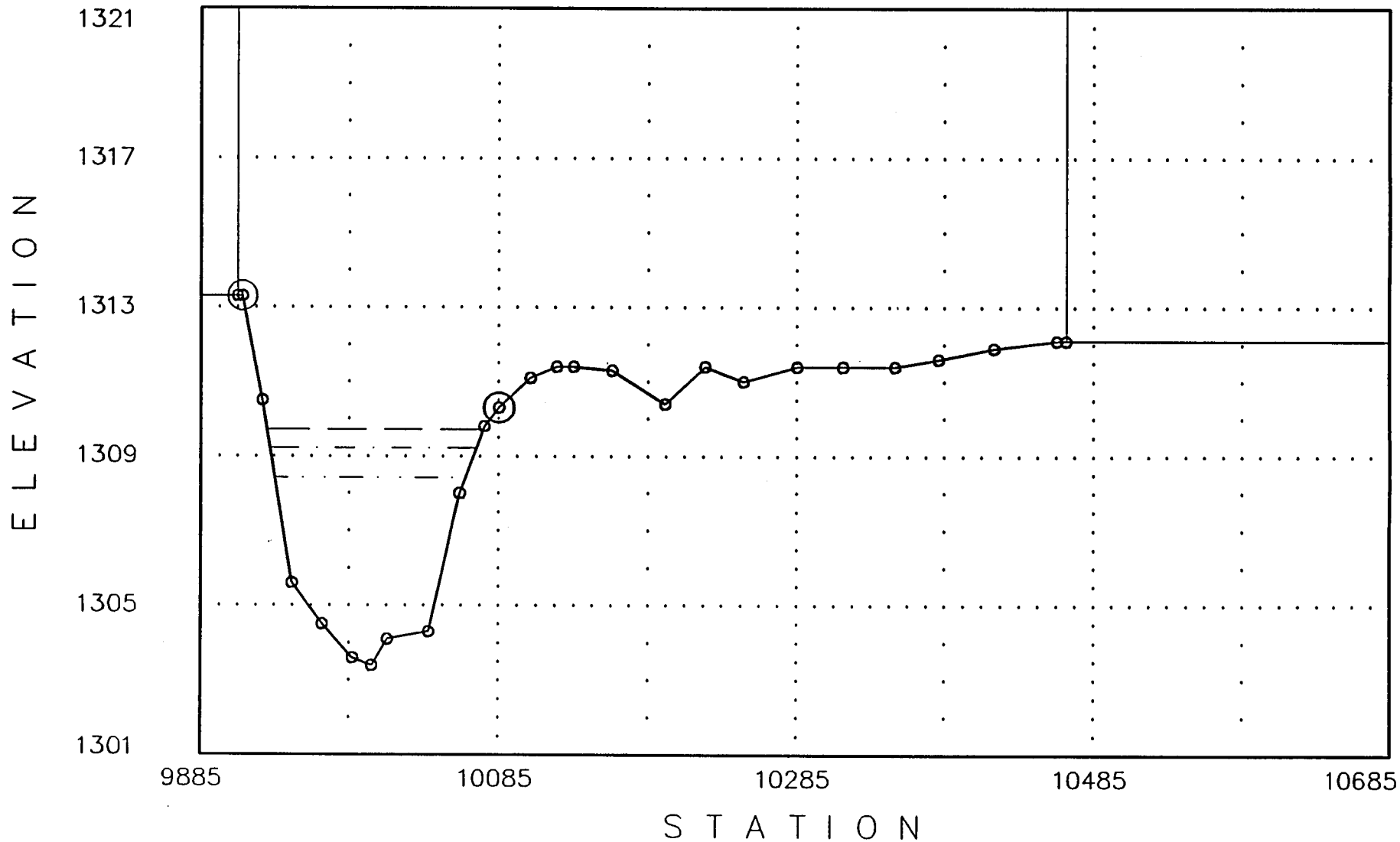



12-06-1990

<<<<<< Cross Section: 6.23: (FN = SKS.FZO) >>>>>>

Q1= 1600 WS1= 1308.42
Q2= 2200 WS2= 1309.22
Q3= 2600 WS3= 1309.71

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

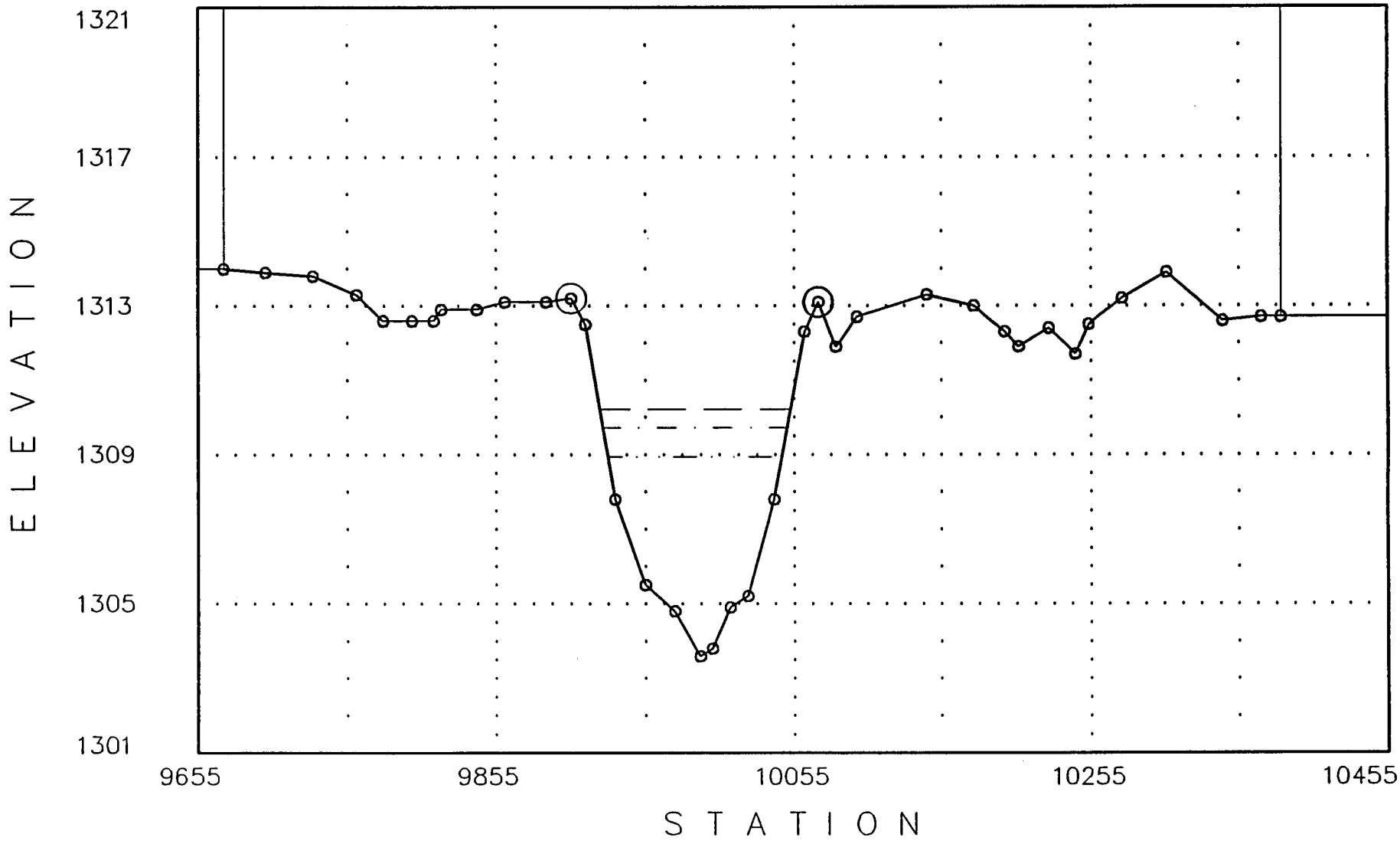



12-06-1990

<<<<<< Cross Section: 6.298: (FN = SKS.FZO) >>>>>>

Q1= 1600 WS1= 1308.94
Q2= 2200 WS2= 1309.73
Q3= 2600 WS3= 1310.22

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

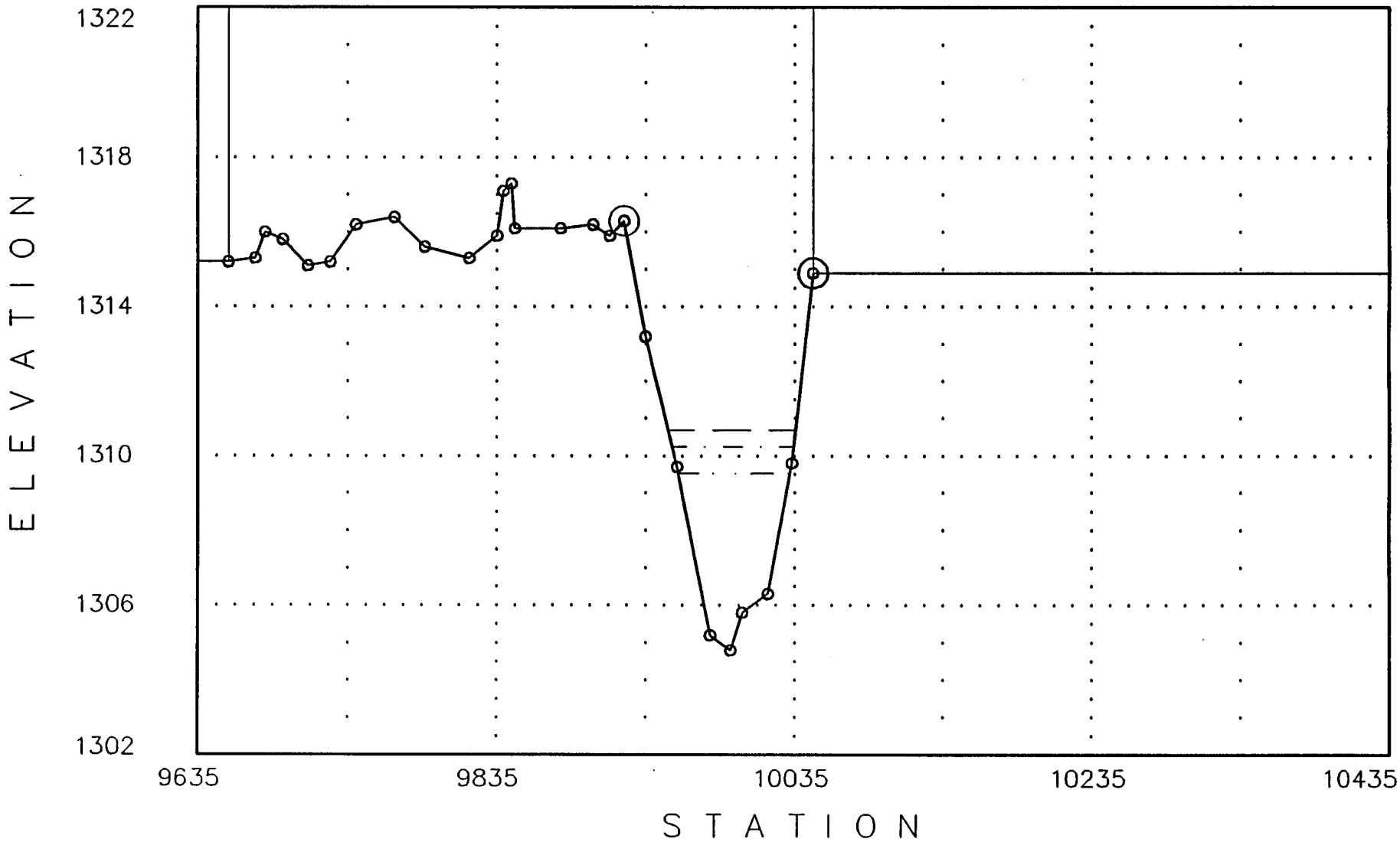



12-06-1990

<<<<<< Cross Section: 6.356: (FN = SKS.FZO) >>>>>>

Q1= 1600 WS1= 1309.52
Q2= 2200 WS2= 1310.24
Q3= 2600 WS3= 1310.68

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

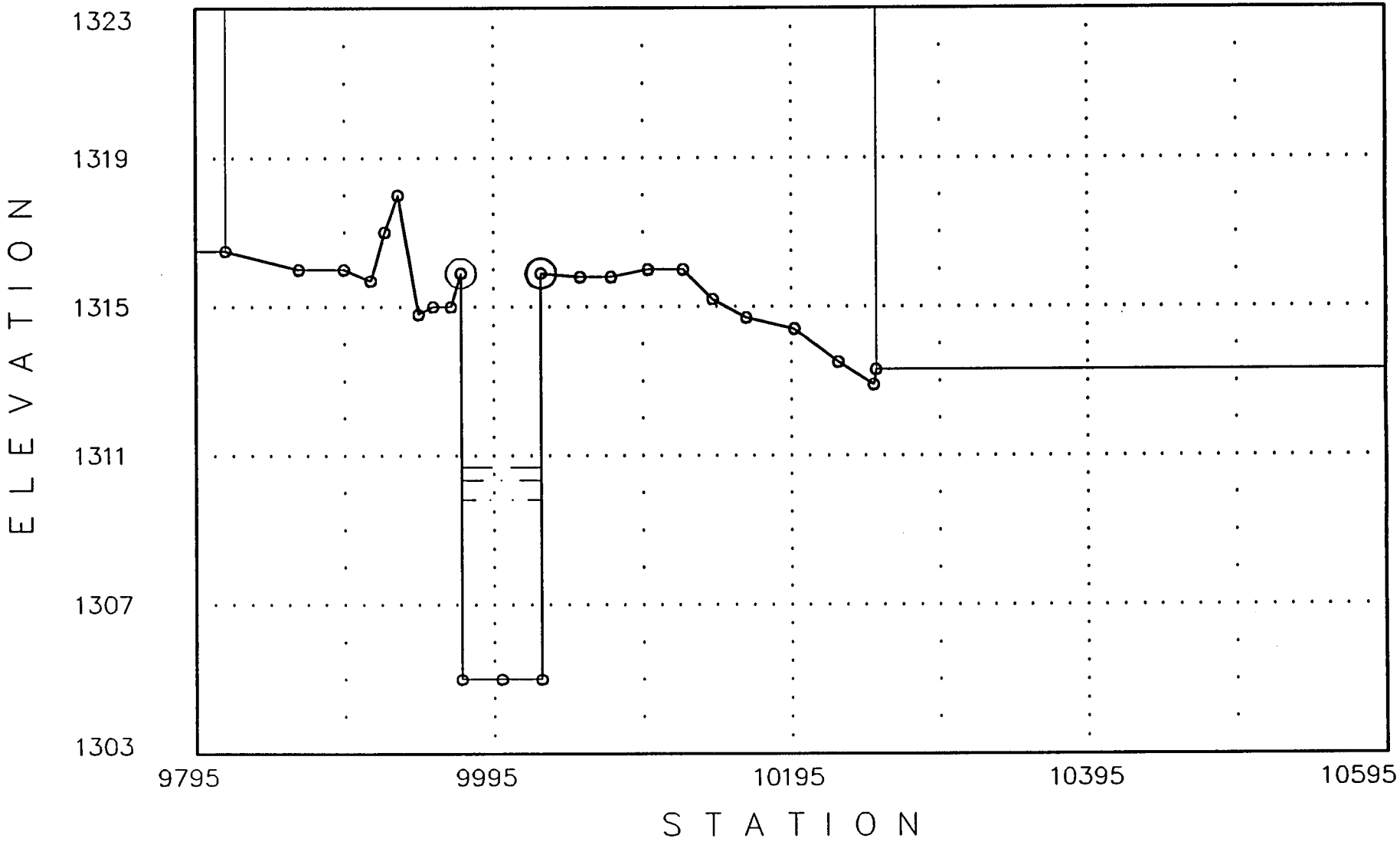



12-06-1990

<<<<<< Cross Section: 6.361: (FN = SKS.FZO) >>>>>>

Q1= 1600 WS1= 1309.81
Q2= 2200 WS2= 1310.34
Q3= 2600 WS3= 1310.68

Manning-n's: n-lob = .015 n-ch = .015 n-rob = .015



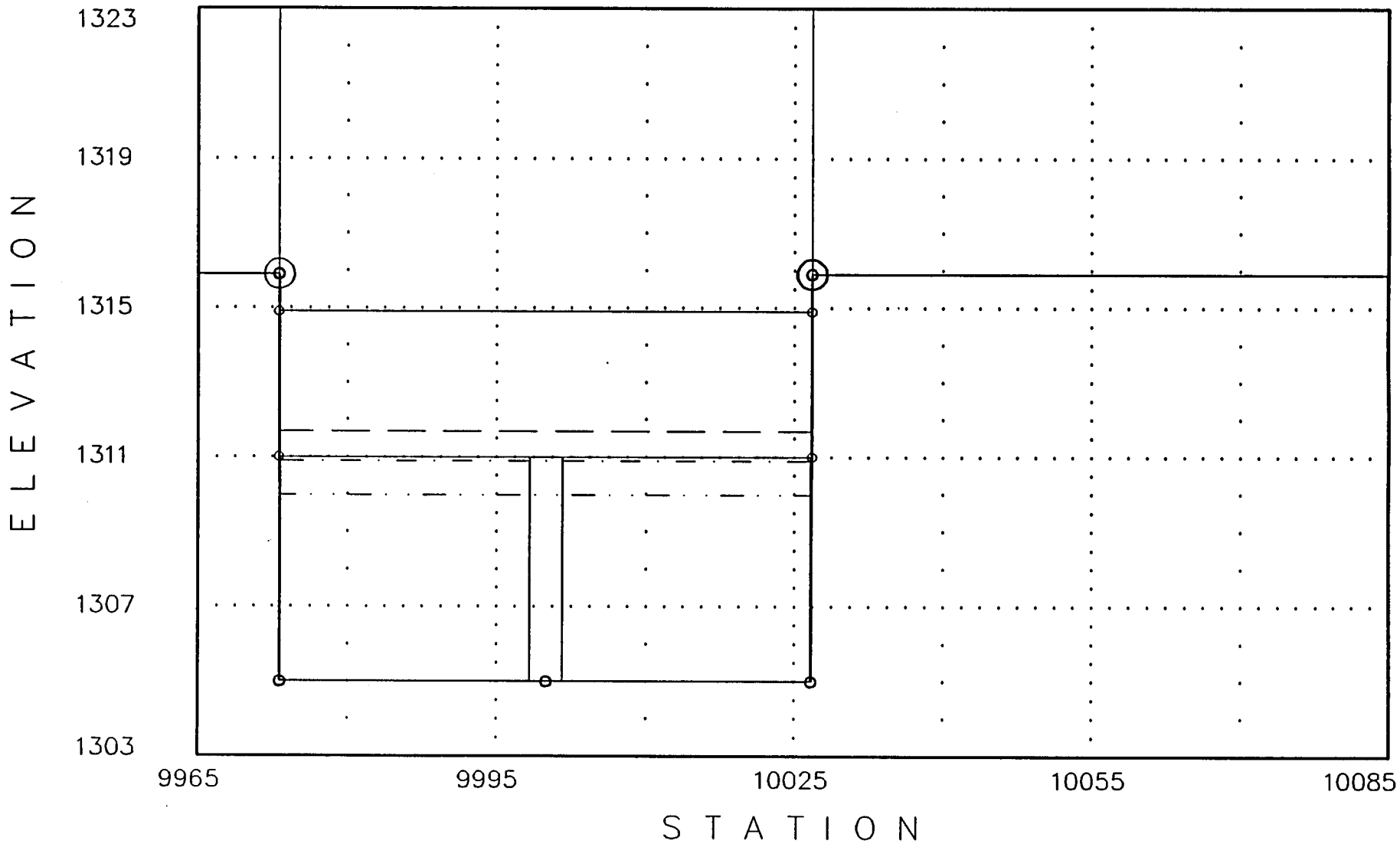

12-06-1990

<<<<<< Cross Section: 6.377: (FN = SKS.FZO) >>>>>>

Q1= 1600 WS1= 1309.98
Q2= 2200 WS2= 1310.88
Q3= 2600 WS3= 1311.68

Manning-n's: n-lob = .015 n-ch = .015 n-rob = .015

SPECIAL BRIDGE

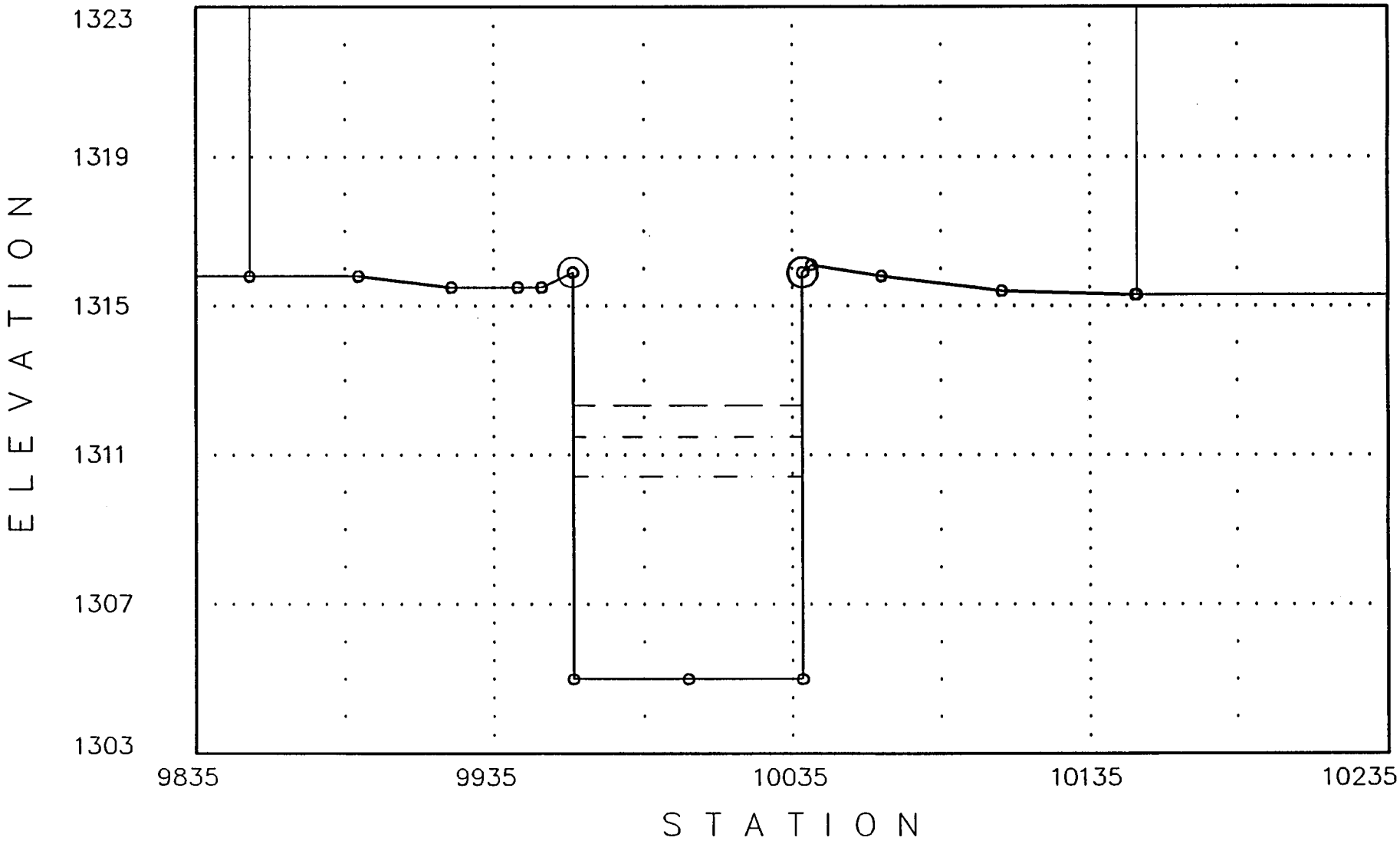



12-06-1990

<<<<<< Cross Section: 6.378: (FN = SKS.FZO) >>>>>>

Q1= 1600 WS1= 1310.42
Q2= 2200 WS2= 1311.48
Q3= 2600 WS3= 1312.33

Manning-n's: n-lob = .015 n-ch = .015 n-rob = .015

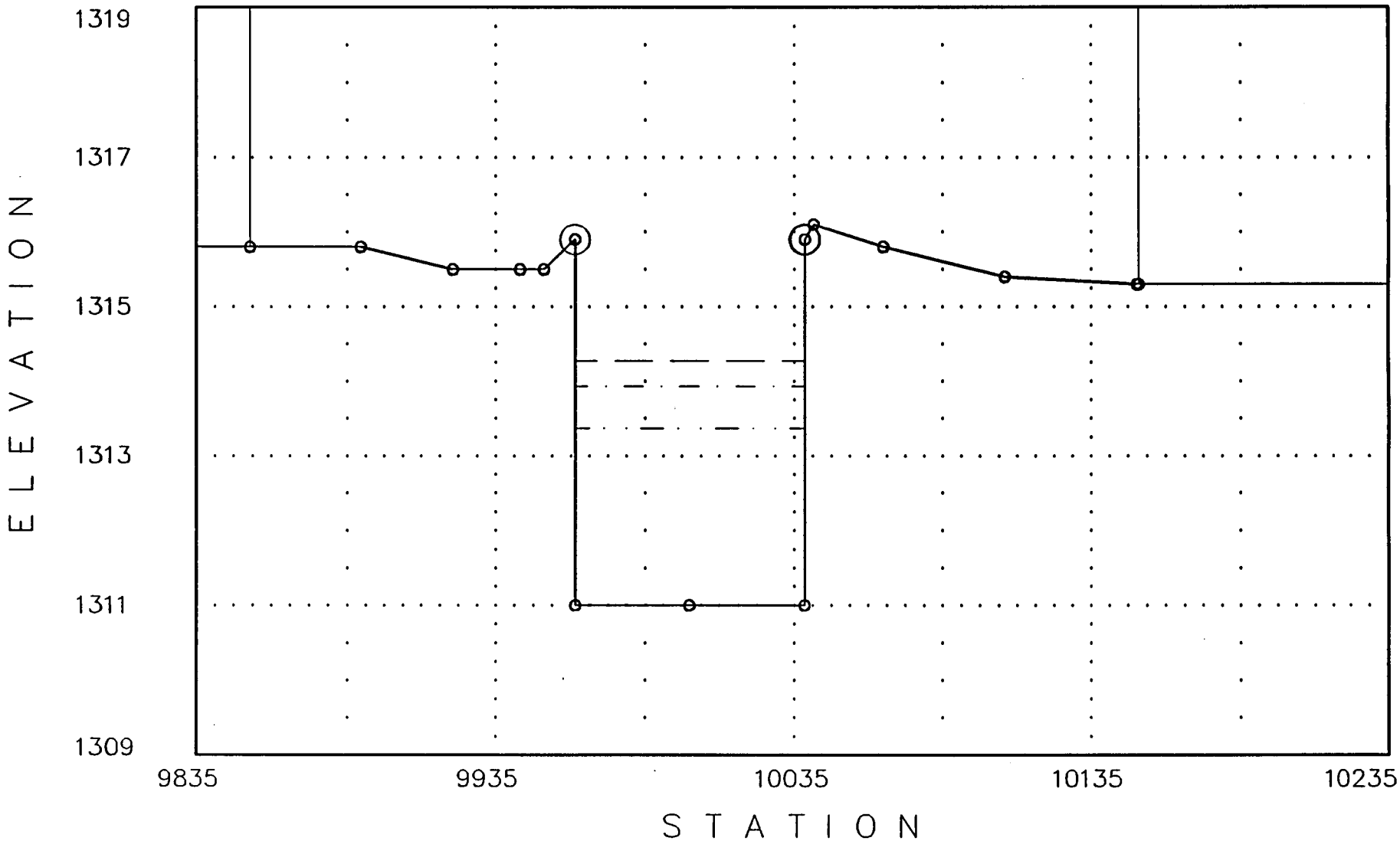



12-06-1990

<<<<<< Cross Section: 6.379: (FN = SKS.FZO) >>>>>>

Q1= 1600 WS1= 1313.37
Q2= 2200 WS2= 1313.93
Q3= 2600 WS3= 1314.27

Manning-n's: n-lob = .015 n-ch = .015 n-rob = .015

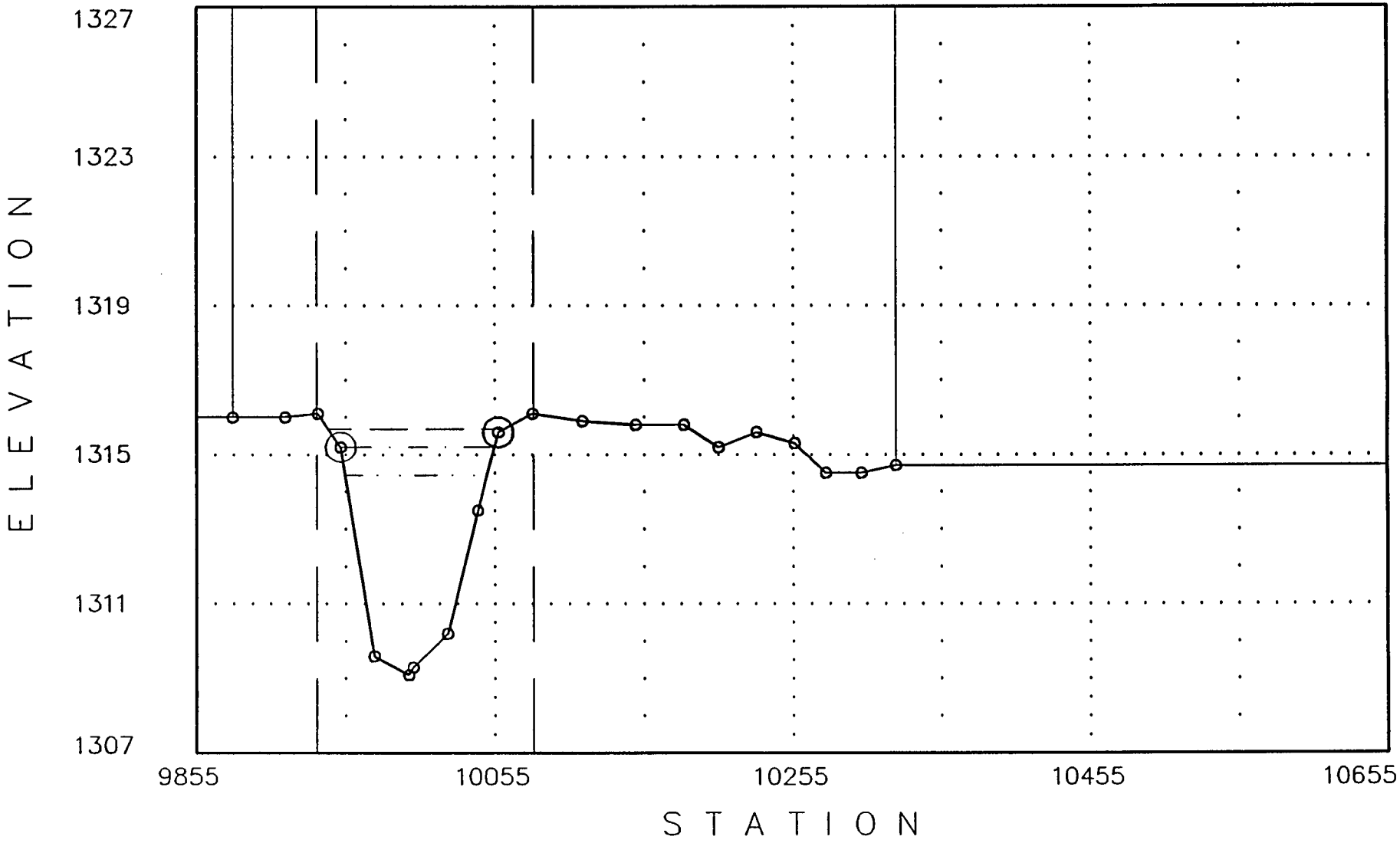



12-06-1990

<<<<<< Cross Section: 6.389: (FN = SKS.FZO) >>>>>>

Q1= 1600 WS1= 1314.44
Q2= 2200 WS2= 1315.21
Q3= 2600 WS3= 1315.69

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

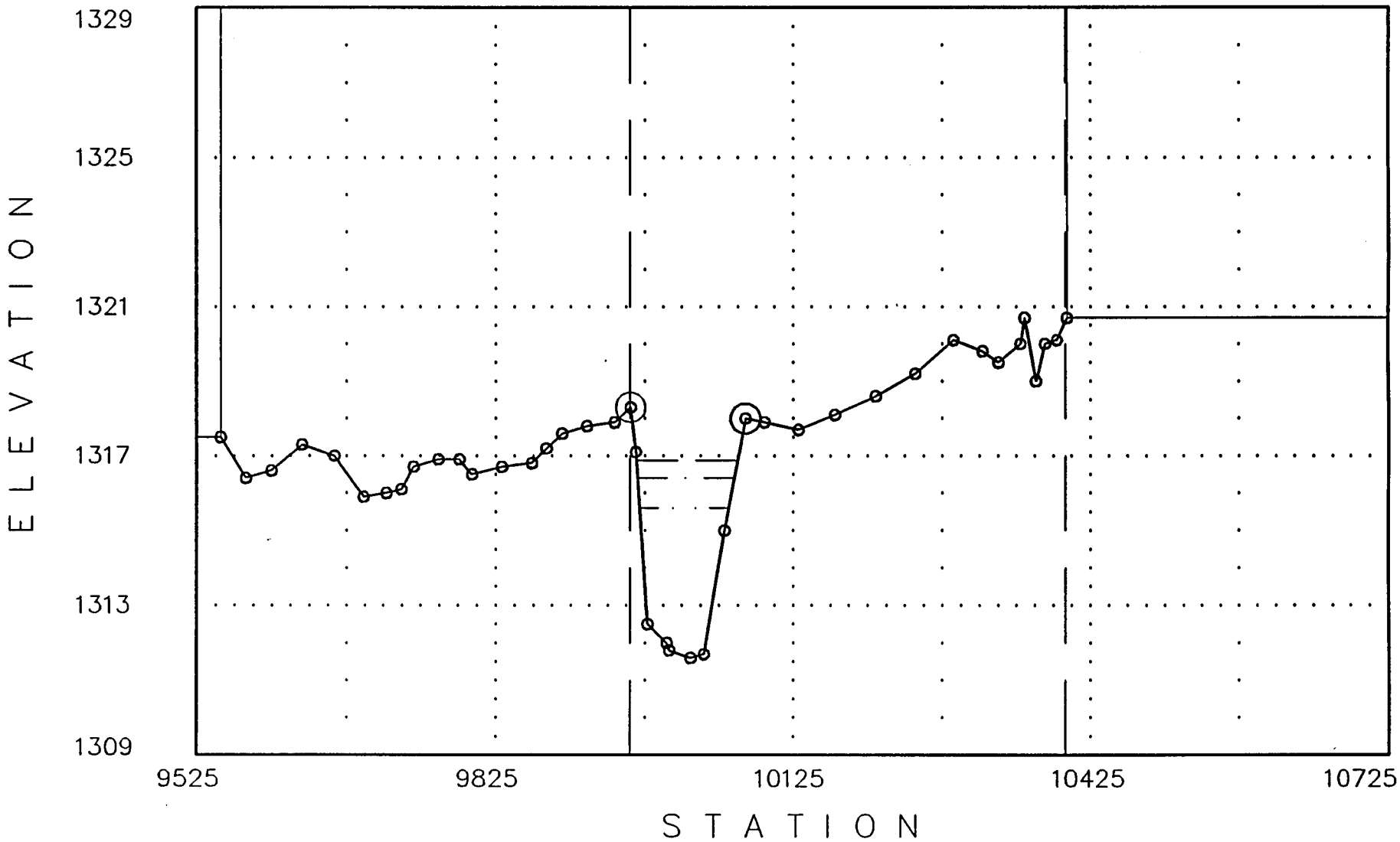



12-06-1990

<<<<<< Cross Section: 6.471: (FN = SKS.FZO) >>>>>>

Q1= 1600 WS1= 1315.61
Q2= 2200 WS2= 1316.41
Q3= 2600 WS3= 1316.87

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

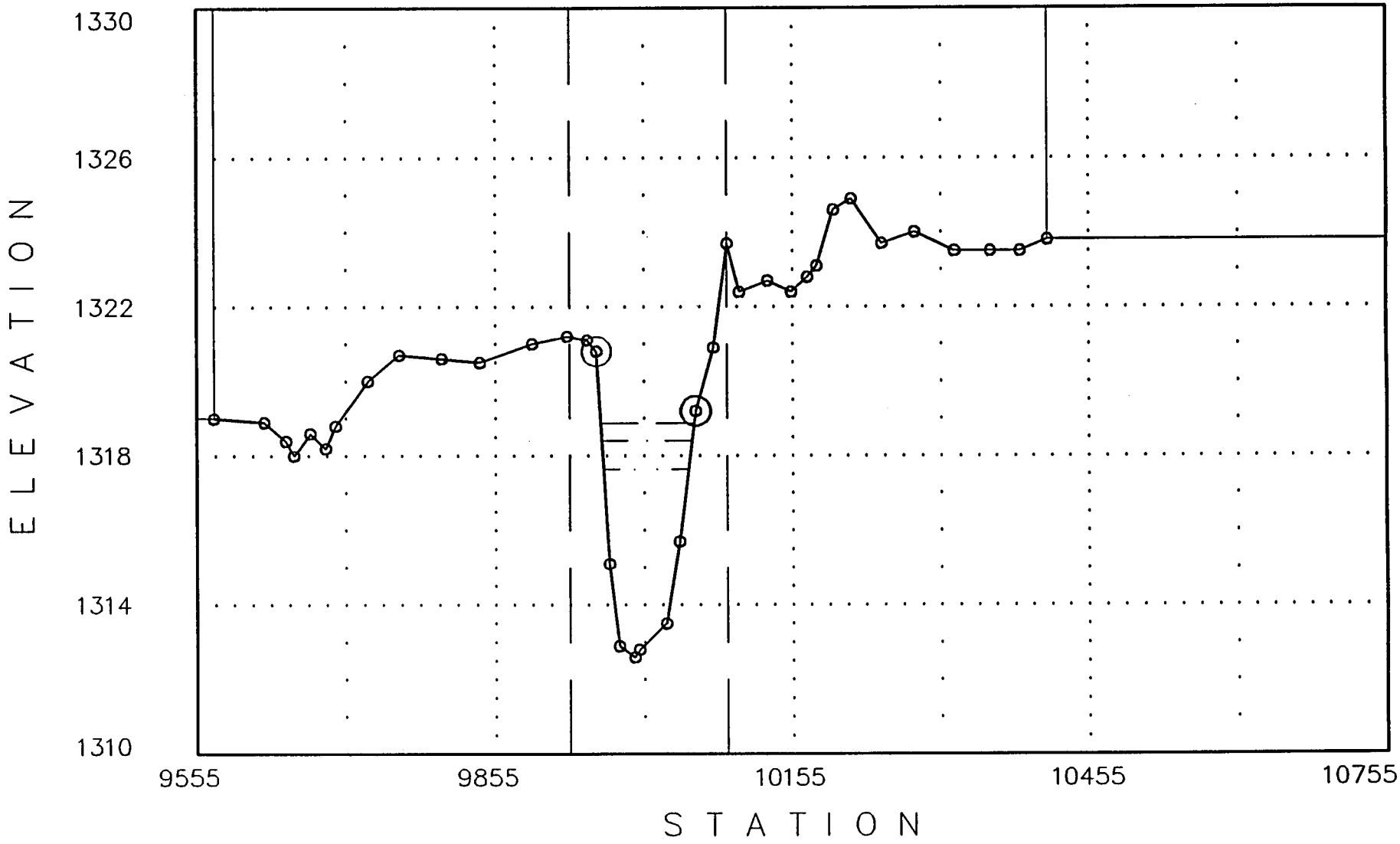



12-06-1990

<<<<<< Cross Section: 6.568: (FN = SKS.FZO) >>>>>>

Q1= 1600 WS1= 1317.63
Q2= 2200 WS2= 1318.41
Q3= 2600 WS3= 1318.87

Manning-n's: n-lob = .045 n-ch = .038 n-rob = .045

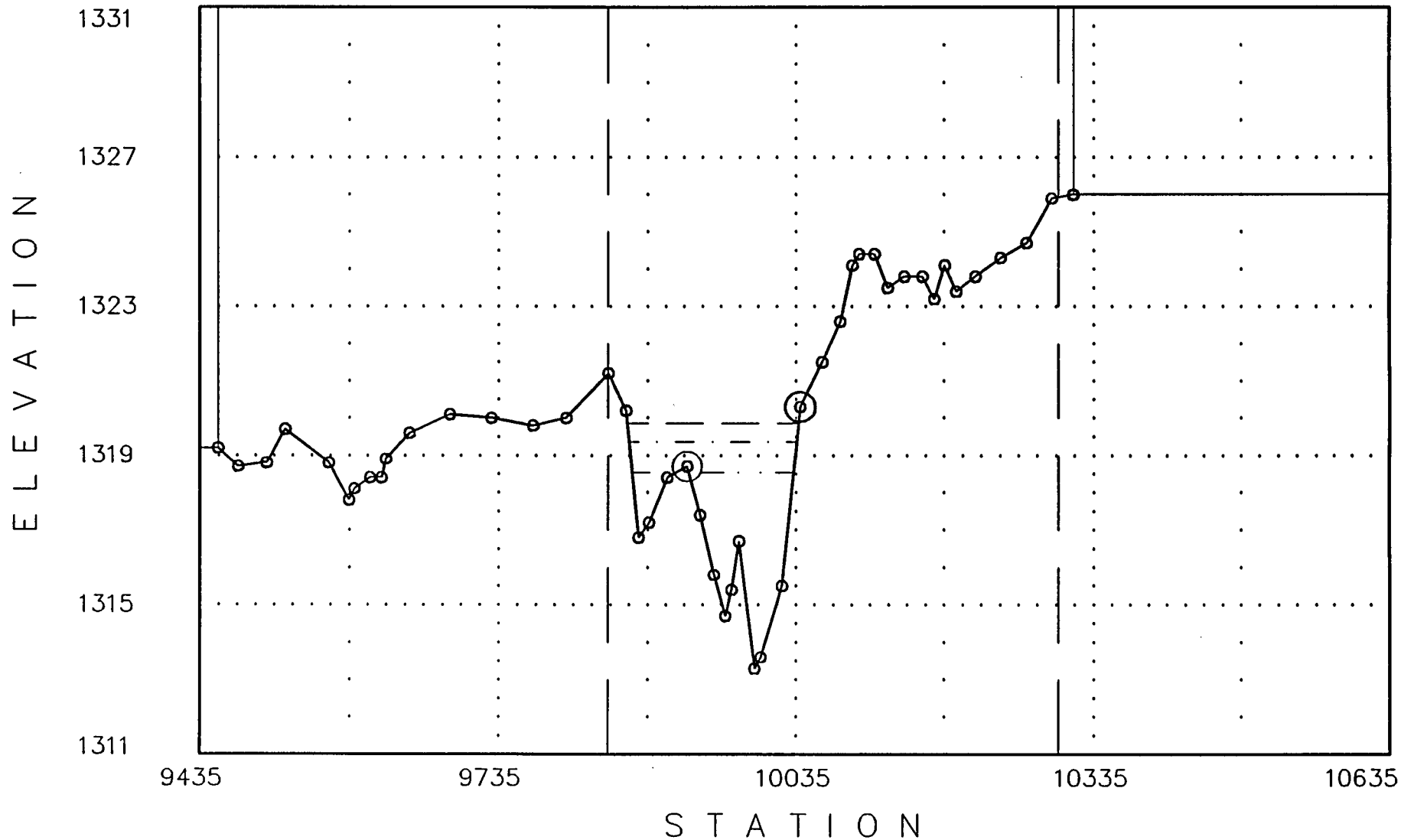



12-06-1990

<<<<<< Cross Section: 6.615: (FN = SKS.FZO) >>>>>>

Q1= 1600 WS1= 1318.54
Q2= 2200 WS2= 1319.37
Q3= 2600 WS3= 1319.86

Manning-n's: n-lob = .045 n-ch = .038 n-rob = .045

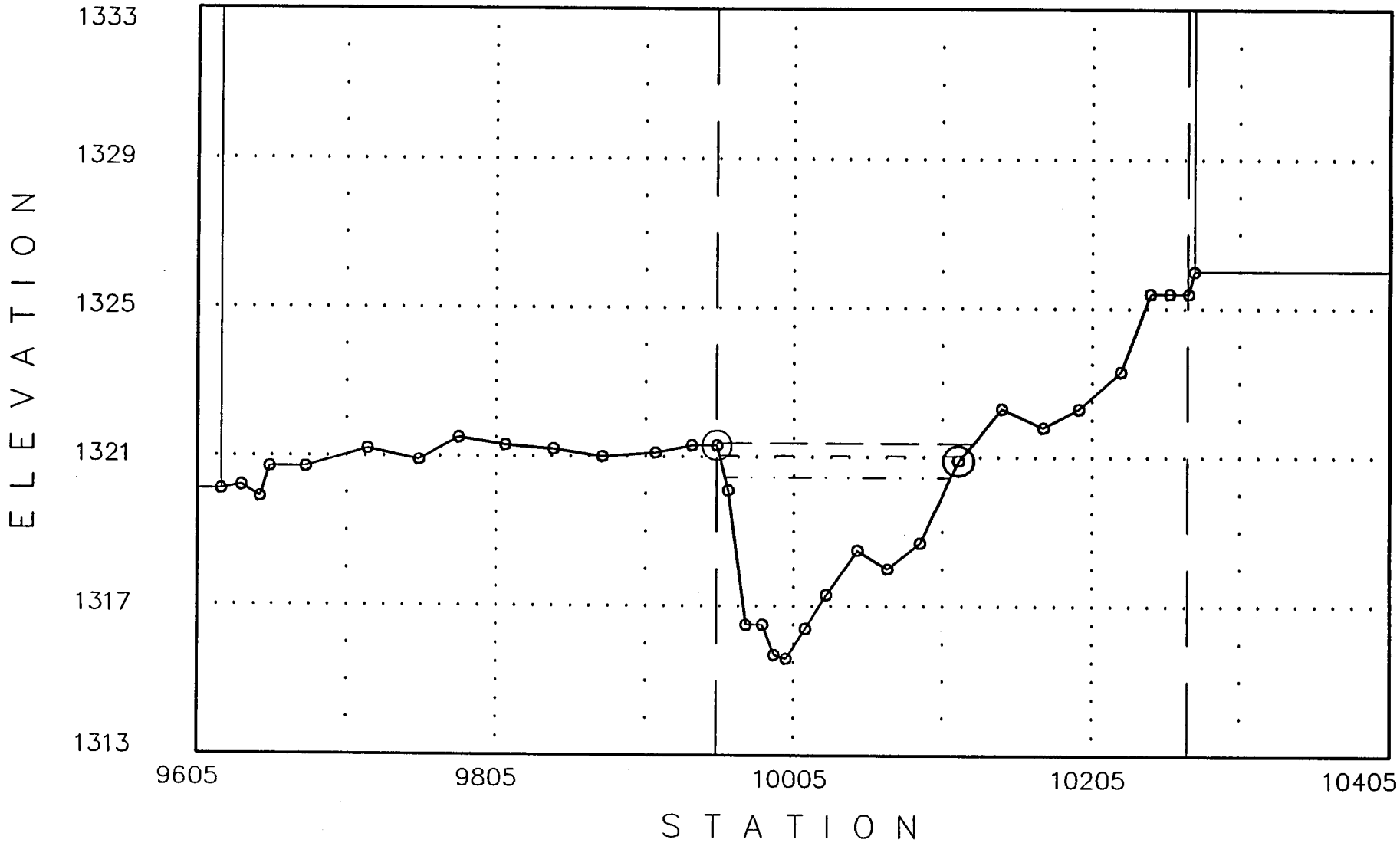



12-06-1990

<<<<<< Cross Section: 6.717: (FN = SKS.FZO) >>>>>>

Q1= 1600 WS1= 1320.44
Q2= 2200 WS2= 1321.03
Q3= 2600 WS3= 1321.37

Manning-n's: n-lob = .045 n-ch = .038 n-rob = .045

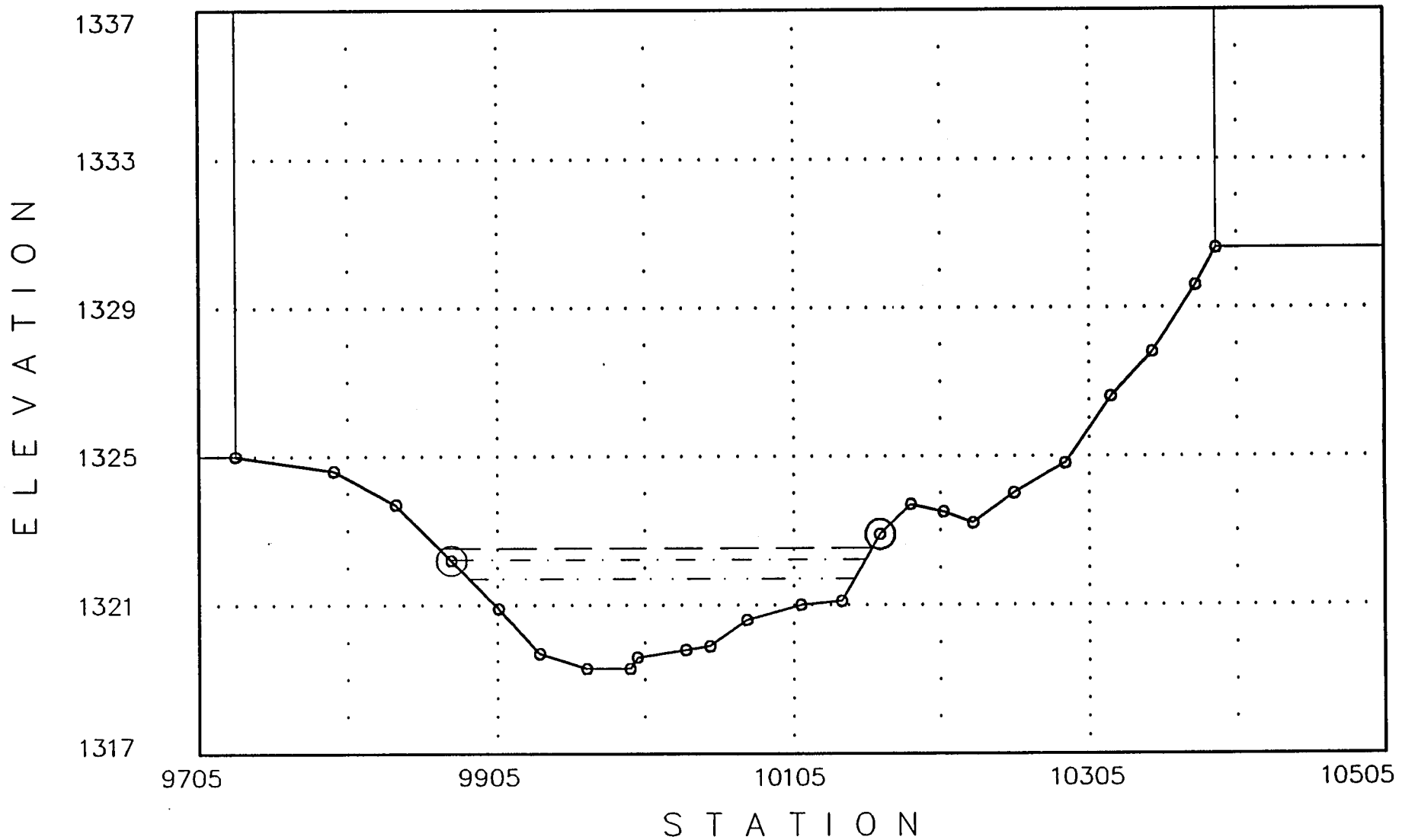



12-06-1990

<<<<<< Cross Section: 6.779: (FN = SKS.FZO) >>>>>>

Q1= 1600 WS1= 1321.71
Q2= 2200 WS2= 1322.23
Q3= 2600 WS3= 1322.53

Manning-n's: n-lob = .045 n-ch = .038 n-rob = .045

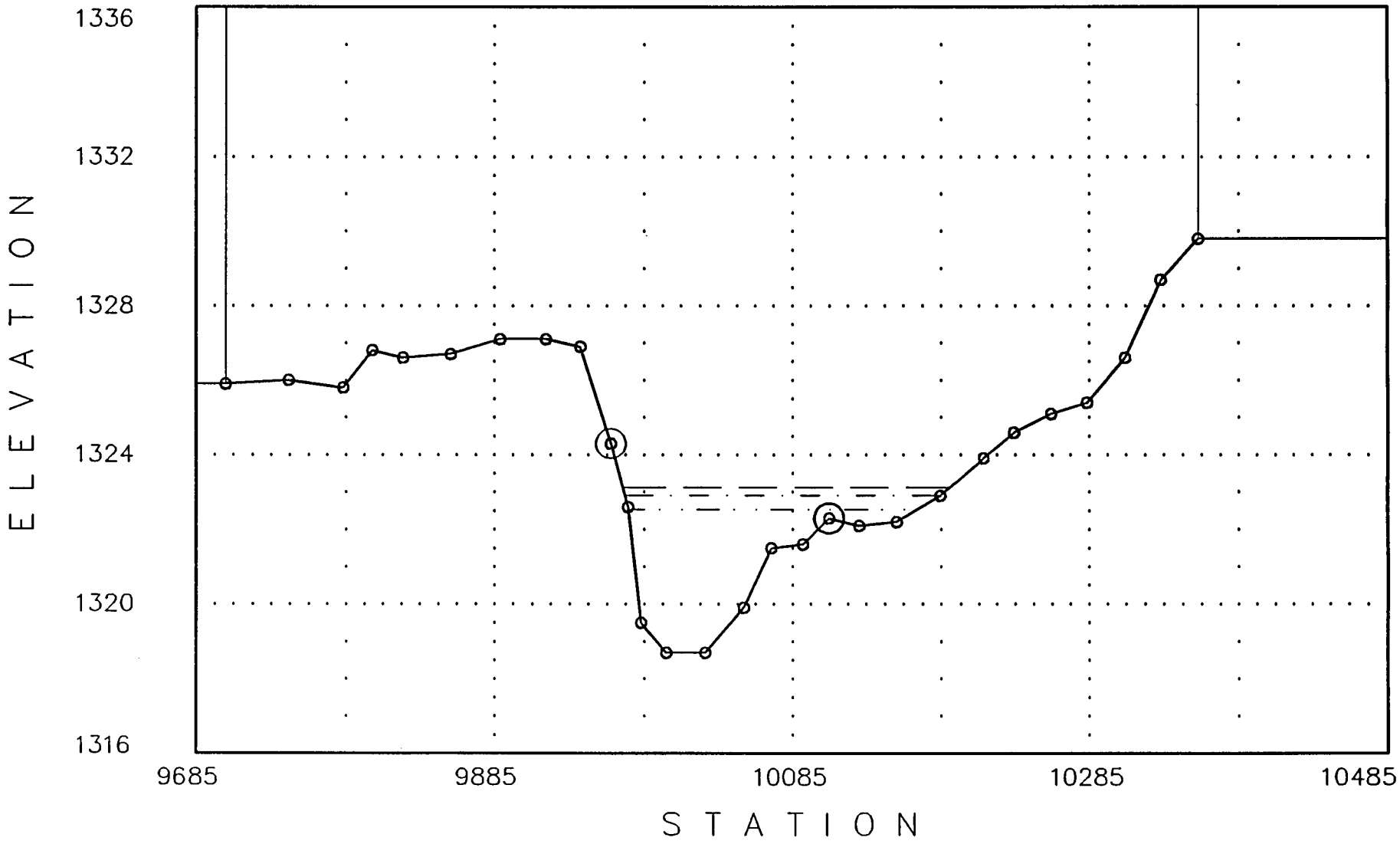



12-06-1990

<<<<<< Cross Section: 6.809: (FN = SKS.FZO) >>>>>>

Q1= 1600 WS1= 1322.54
Q2= 2200 WS2= 1322.91
Q3= 2600 WS3= 1323.13

Manning-n's: n-lob = .045 n-ch = .038 n-rob = .045

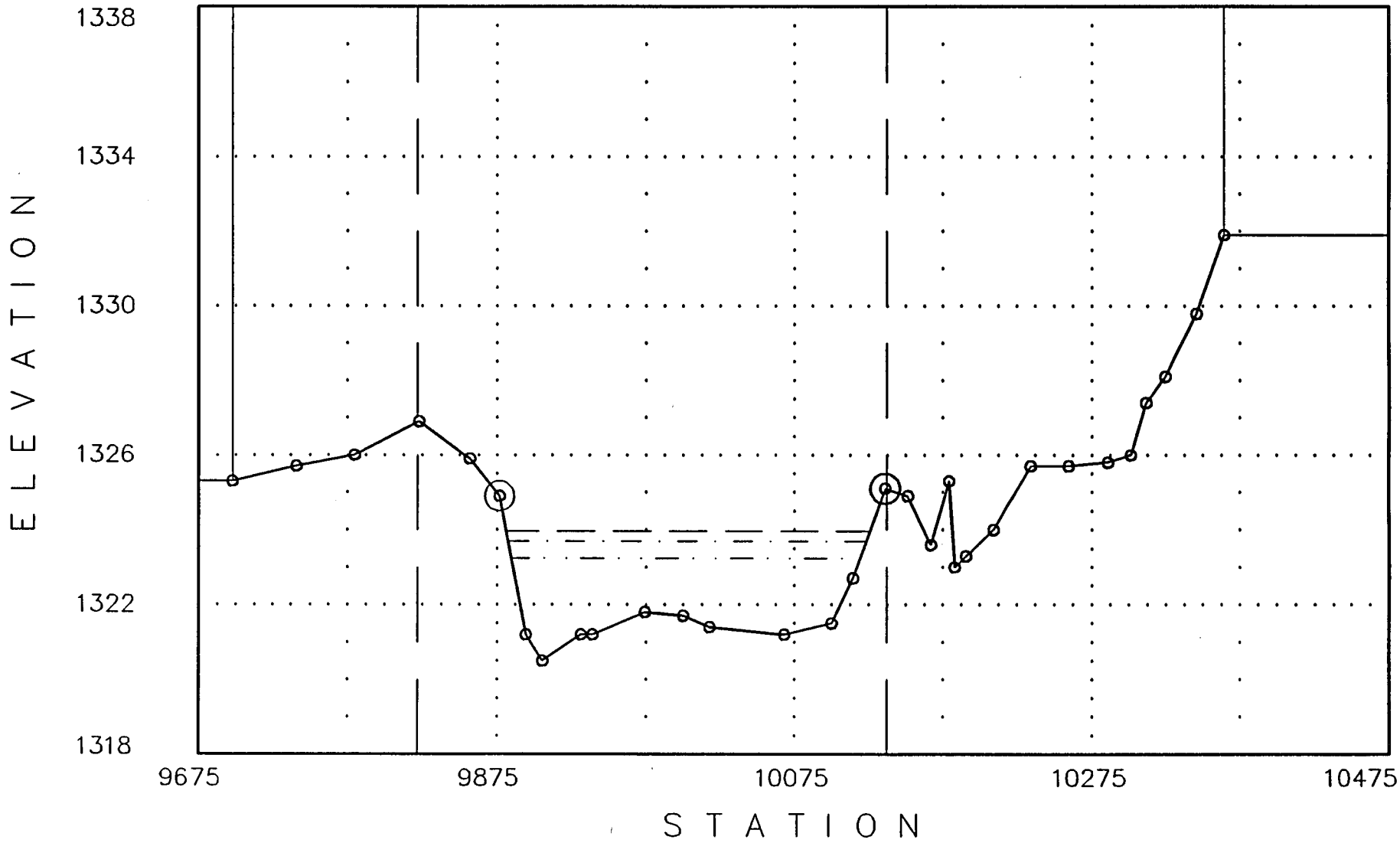



12-06-1990

<<<<<< Cross Section: 6.831: (FN = SKS.FZO) >>>>>>

Q1= 1600 WS1= 1323.24
Q2= 2200 WS2= 1323.69
Q3= 2600 WS3= 1323.96

Manning-n's: n-lob = .045 n-ch = .038 n-rob = .045

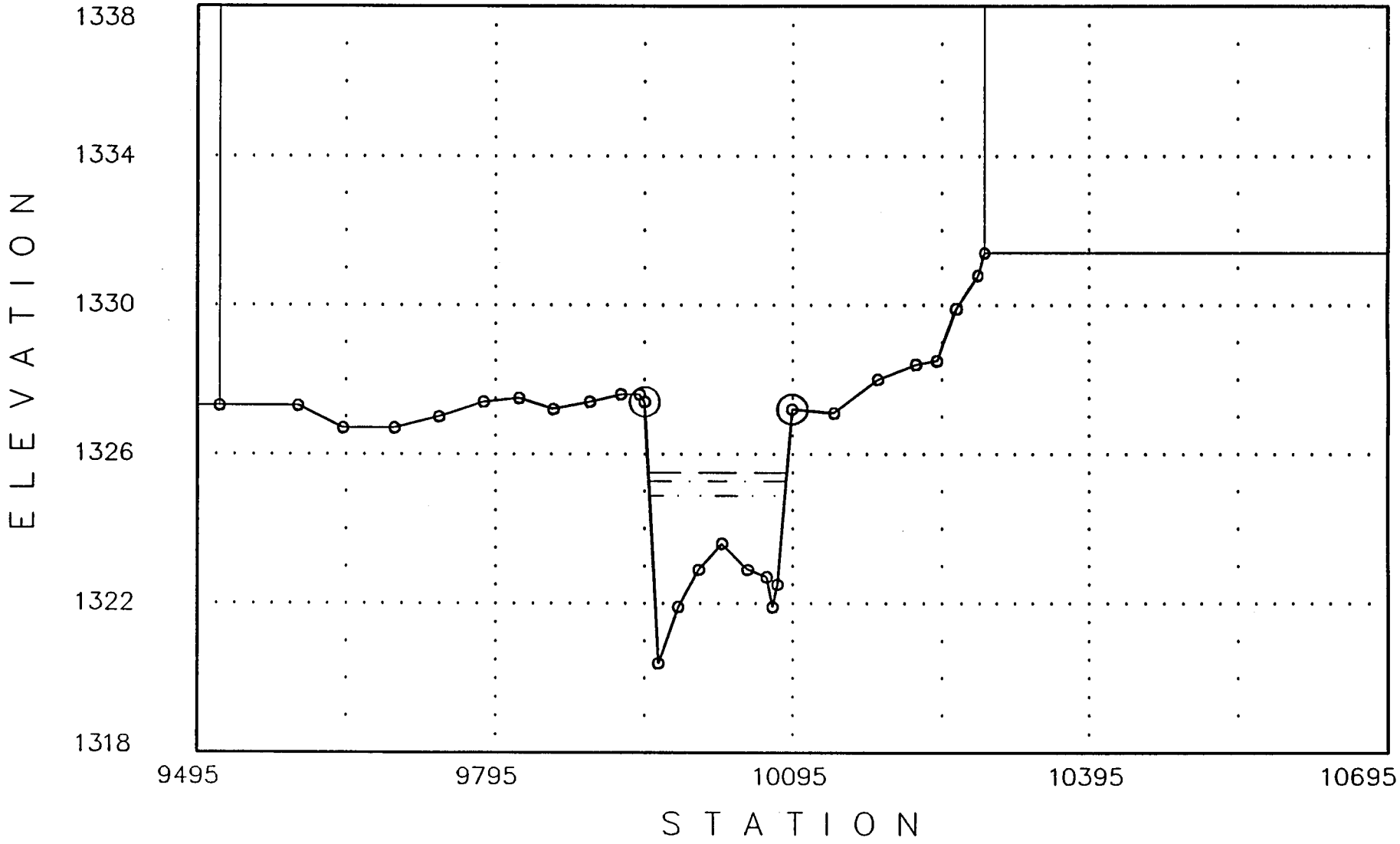



12-06-1990

<<<<<< Cross Section: 6.896: (FN = SKS.FZO) >>>>>>

Q1= 1600 WS1= 1324.89
Q2= 2200 WS2= 1325.27
Q3= 2600 WS3= 1325.5

Manning-n's: n-lob = .045 n-ch = .038 n-rob = .045

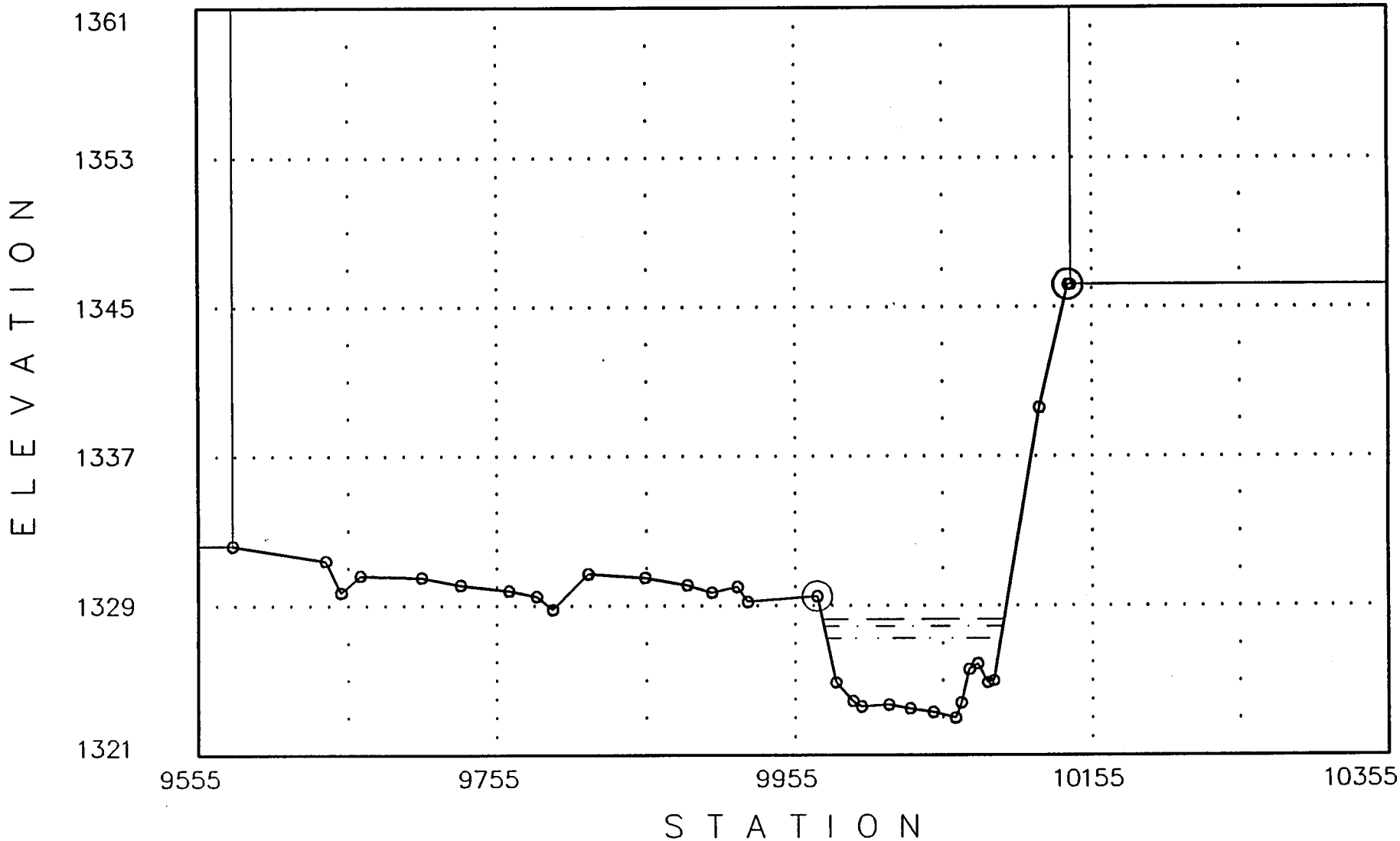



12-06-1990

<<<<<< Cross Section: 7: (FN = SKS.FZO) >>>>>>

Q1= 1600 WS1= 1327.25
Q2= 2200 WS2= 1327.89
Q3= 2600 WS3= 1328.26

Manning-n's: n-lob = .045 n-ch = .038 n-rob = .045

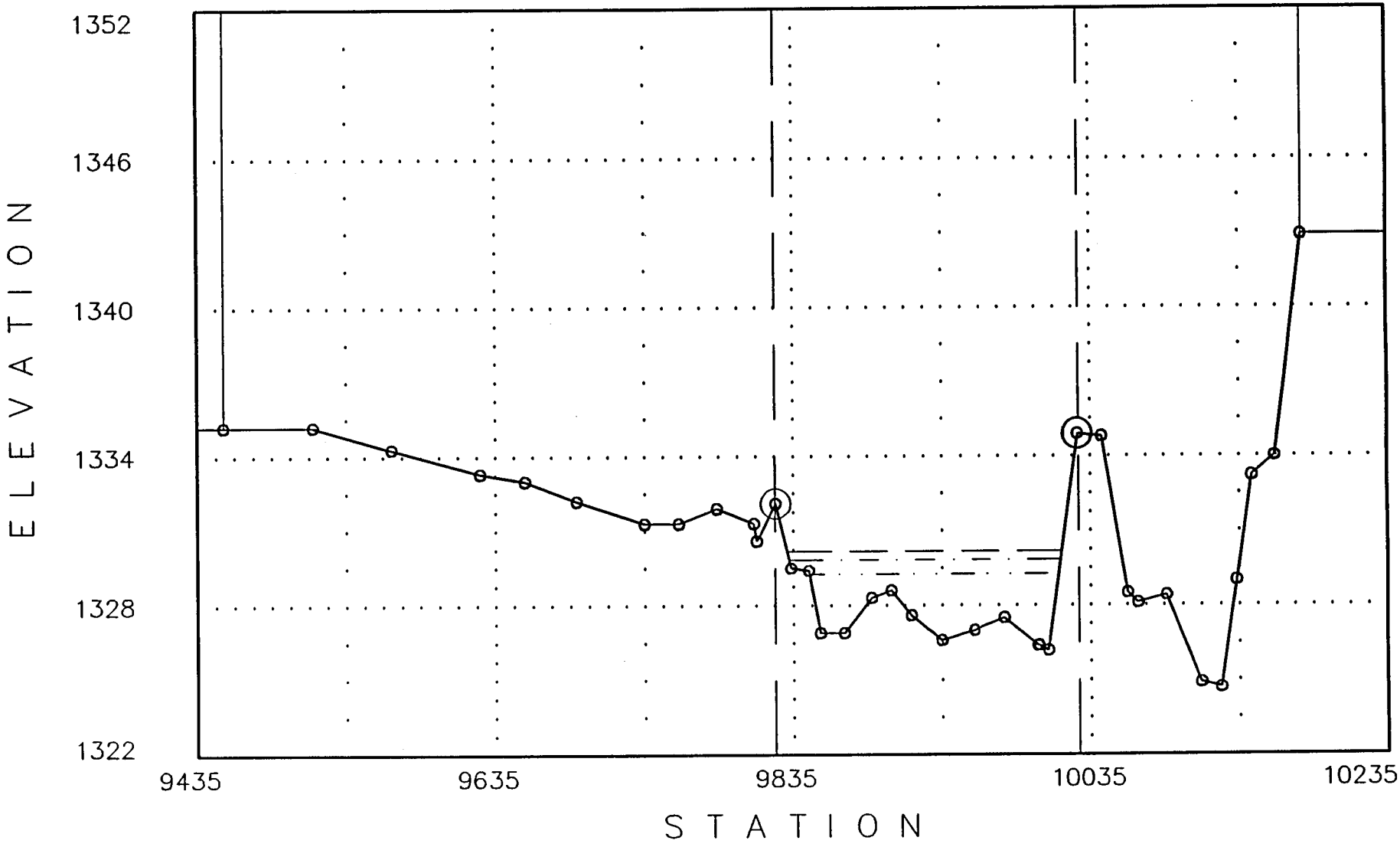



12-06-1990

<<<<<< Cross Section: 7.1: (FN = SKS.FZO) >>>>>>

Q1= 1600 WS1= 1329.25
Q2= 2200 WS2= 1329.83
Q3= 2600 WS3= 1330.17

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

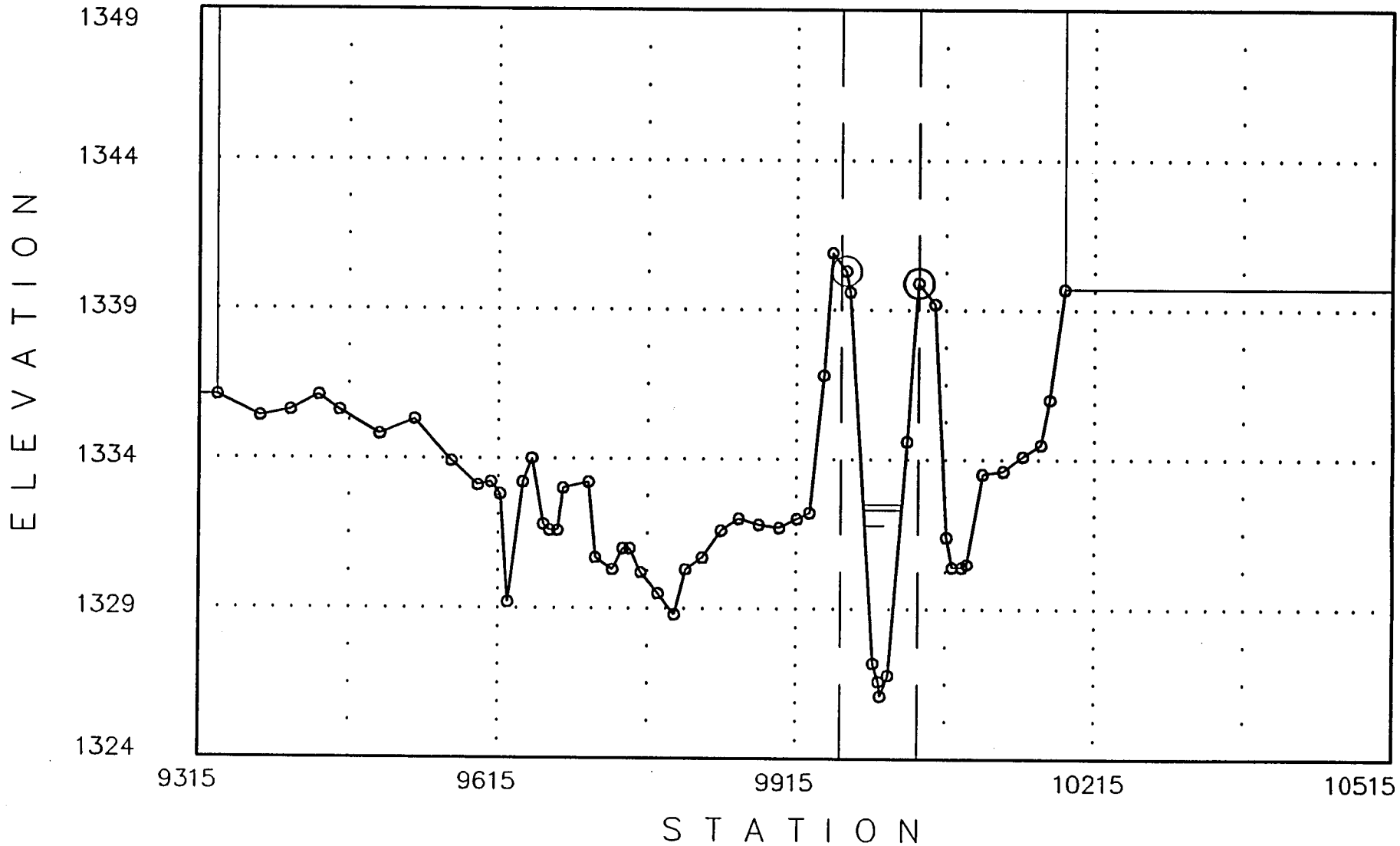



12-06-1990

<<<<<< Cross Section: 7.174: (FN = SKS.FZO) >>>>>>

Q1= 1370 WS1= 1331.78
Q2= 1650 WS2= 1332.31
Q3= 1730 WS3= 1332.49

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

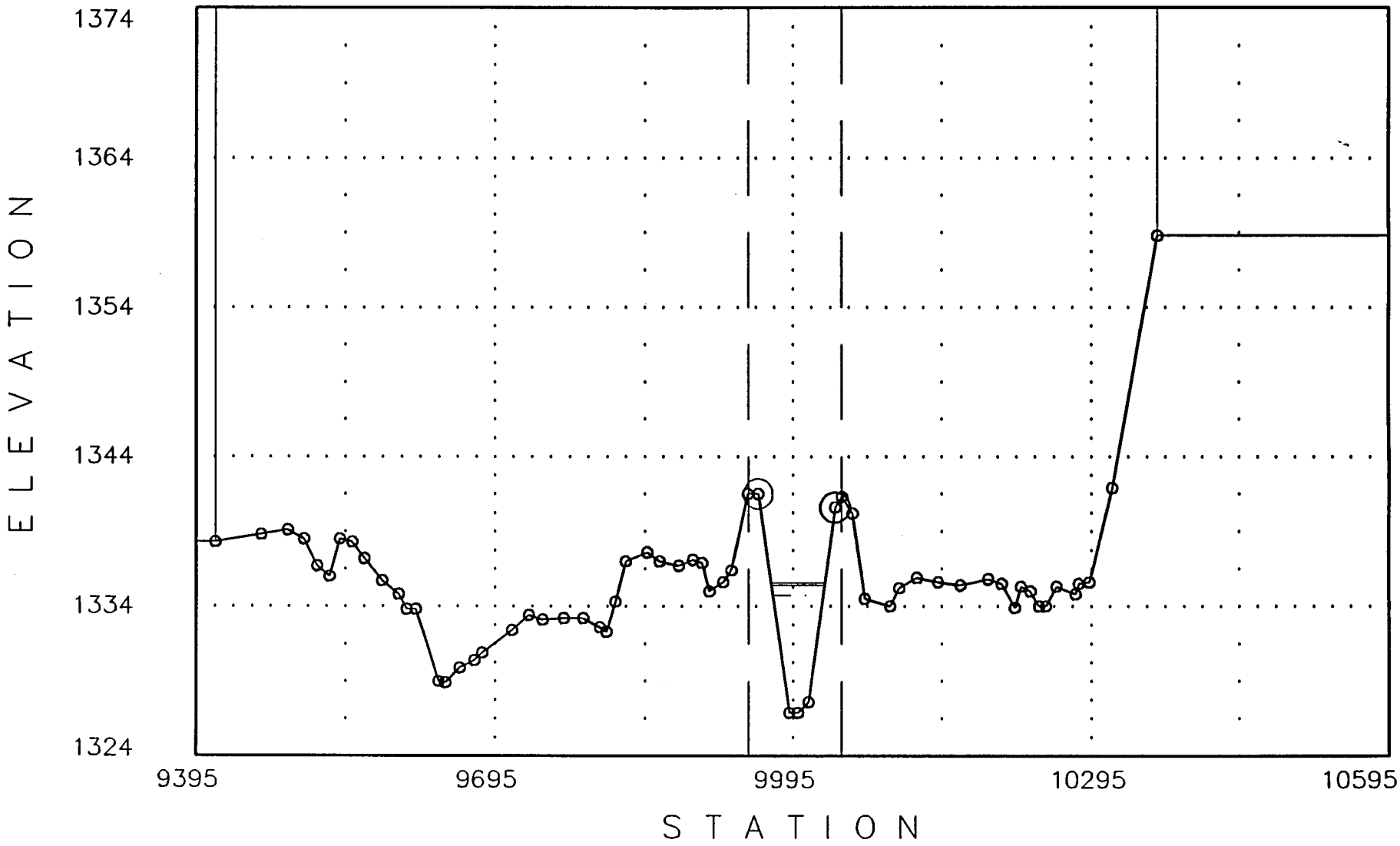



12-06-1990

<<<<<< Cross Section: 7.244: (FN = SKS.FZO) >>>>>>

Q1= 1370 WS1= 1334.72
Q2= 1650 WS2= 1335.39
Q3= 1730 WS3= 1335.56

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

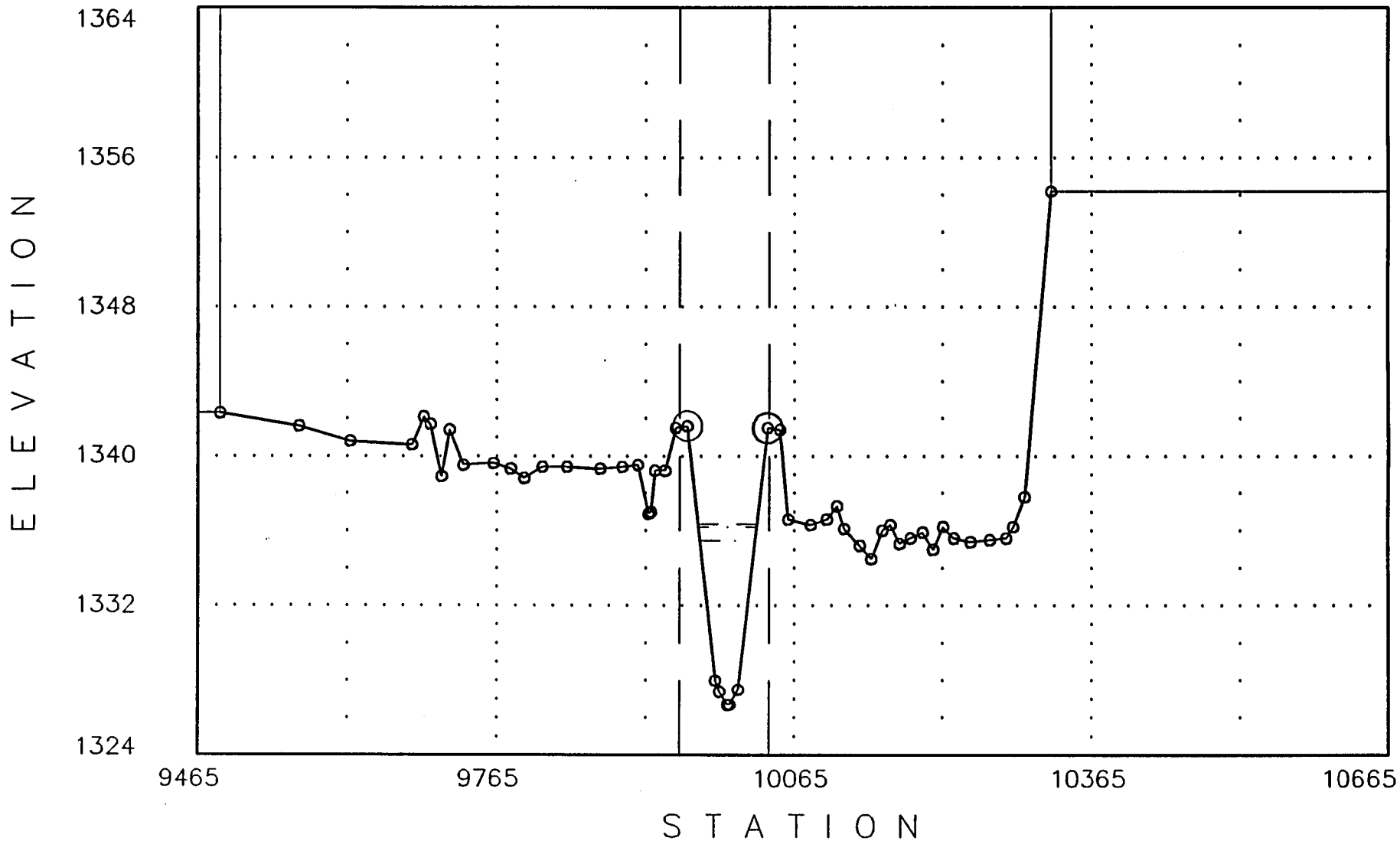



12-06-1990

<<<<<< Cross Section: 7.327: (FN = SKS.FZO) >>>>>>

Q1= 1370 WS1= 1335.47
Q2= 1650 WS2= 1336.18
Q3= 1730 WS3= 1336.36

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

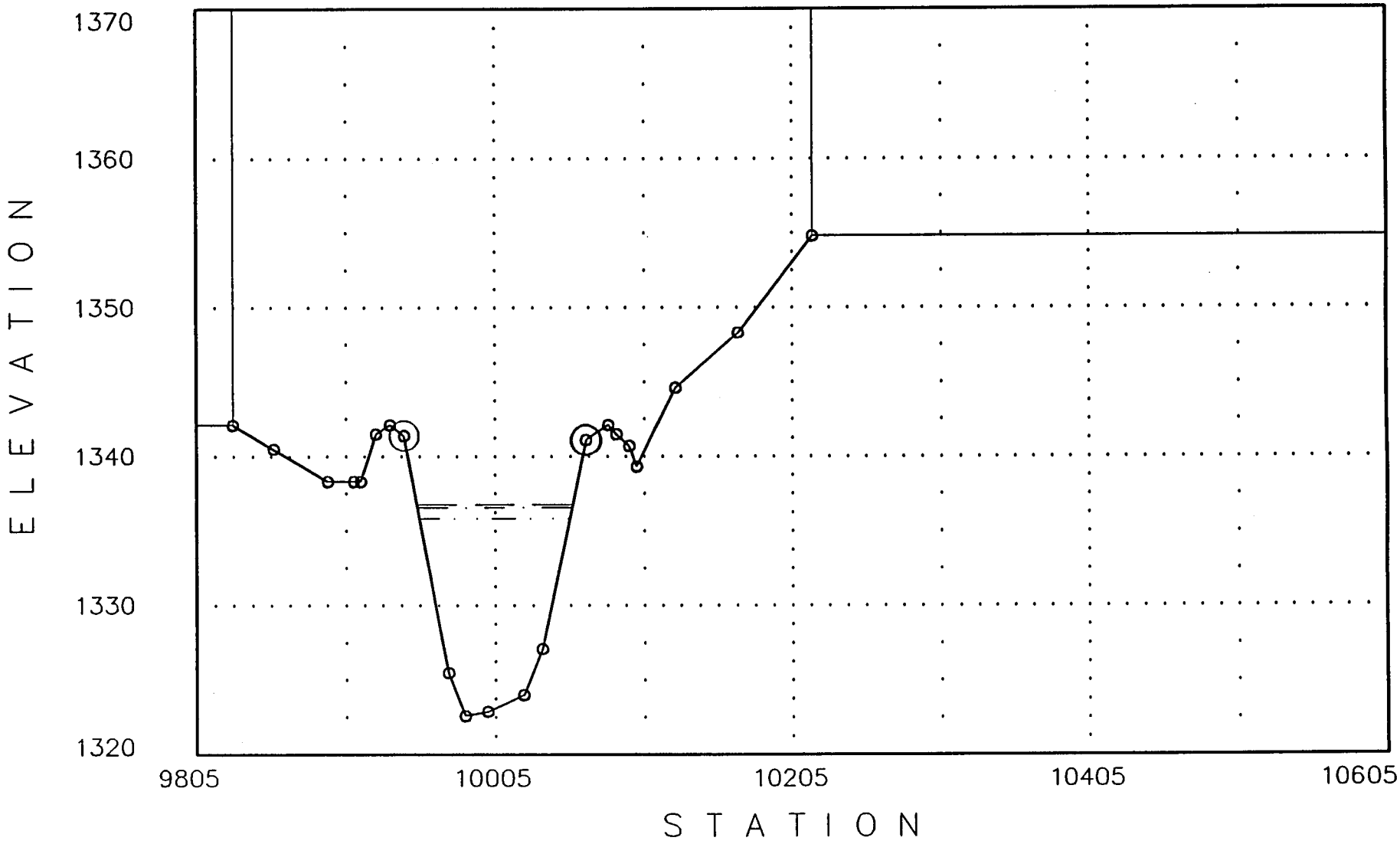



12-06-1990

<<<<<< Cross Section: 7.409: (FN = SKS.FZO) >>>>>>

Q1= 1370 WS1= 1335.83
Q2= 1650 WS2= 1336.58
Q3= 1730 WS3= 1336.78

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

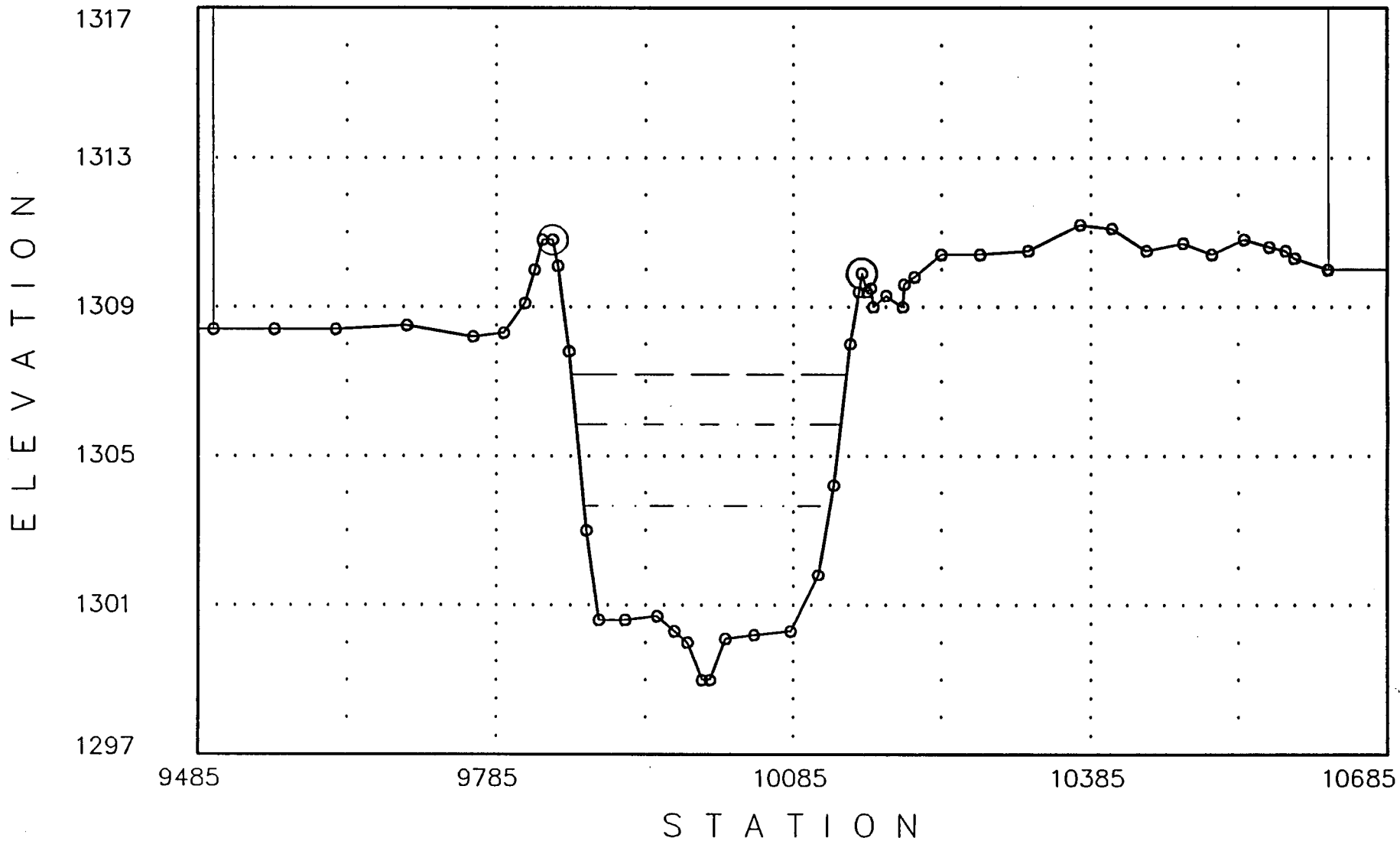



12-06-1990

<<<<<< Cross Section: -6.189: (FN = SKS.FZO) >>>>>>

Q1= 2000 WS1= 1303.65
Q2= 5500 WS2= 1305.85
Q3= 8400 WS3= 1307.19

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

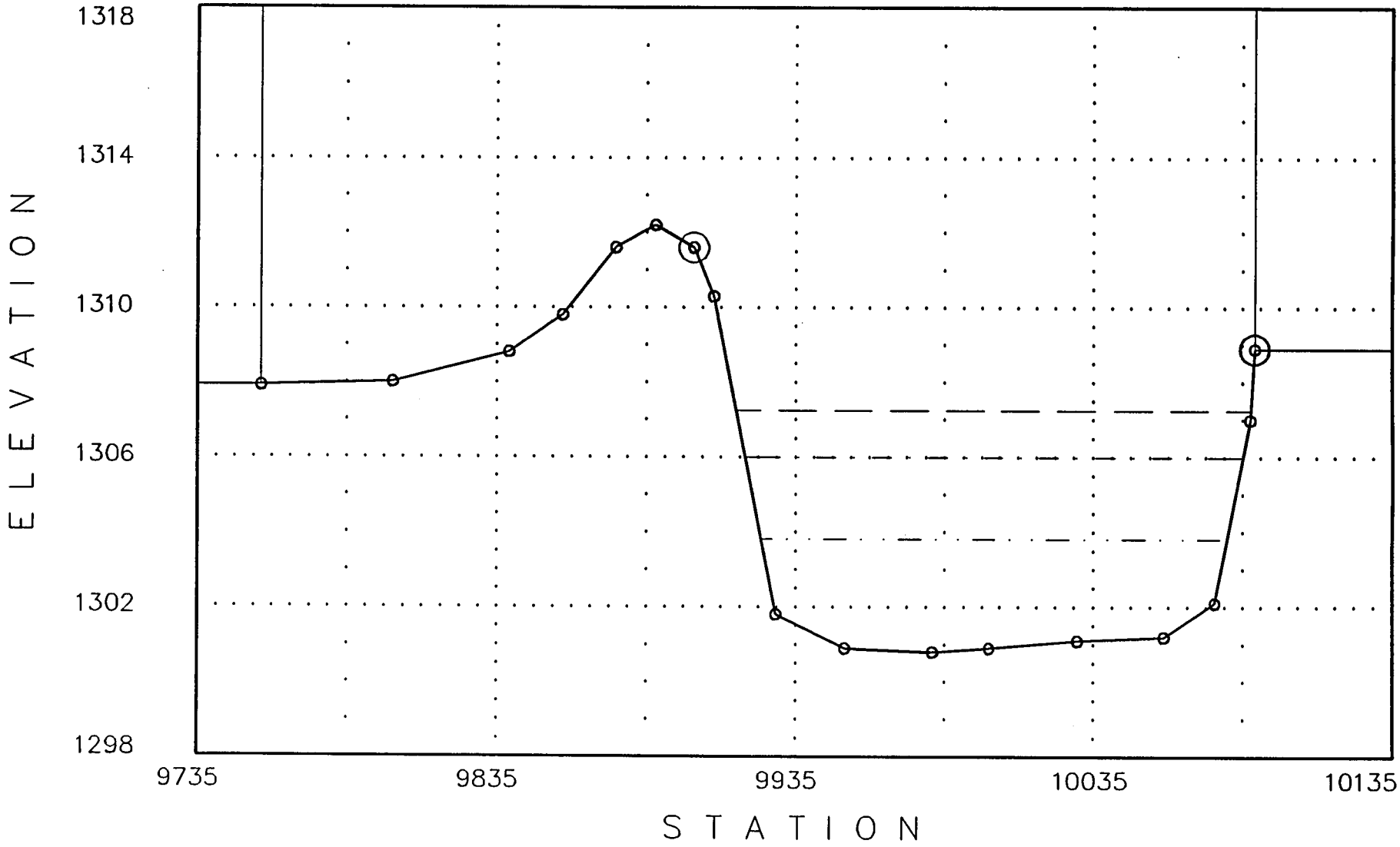



12-06-1990

<<<<<< Cross Section: .028: (FN = SKS.FZO) >>>>>>

Q1= 580 WS1= 1303.82
Q2= 3500 WS2= 1305.99
Q3= 6100 WS3= 1307.25

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

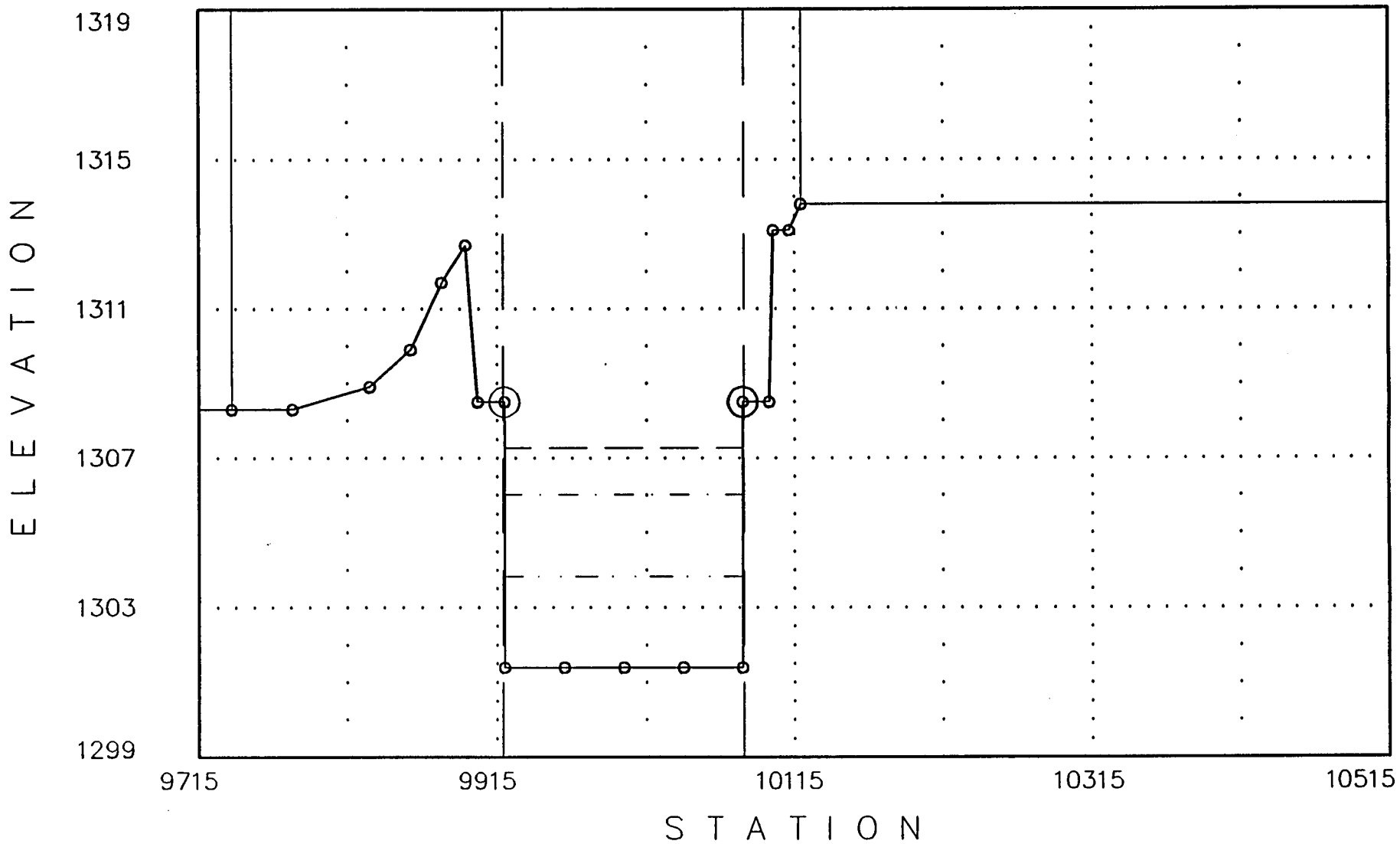



12-06-1990

<<<<<< Cross Section: .032: (FN = SKS.FZO) >>>>>>

Q1= 580 WS1= 1303.83
Q2= 3500 WS2= 1306.01
Q3= 6100 WS3= 1307.27

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

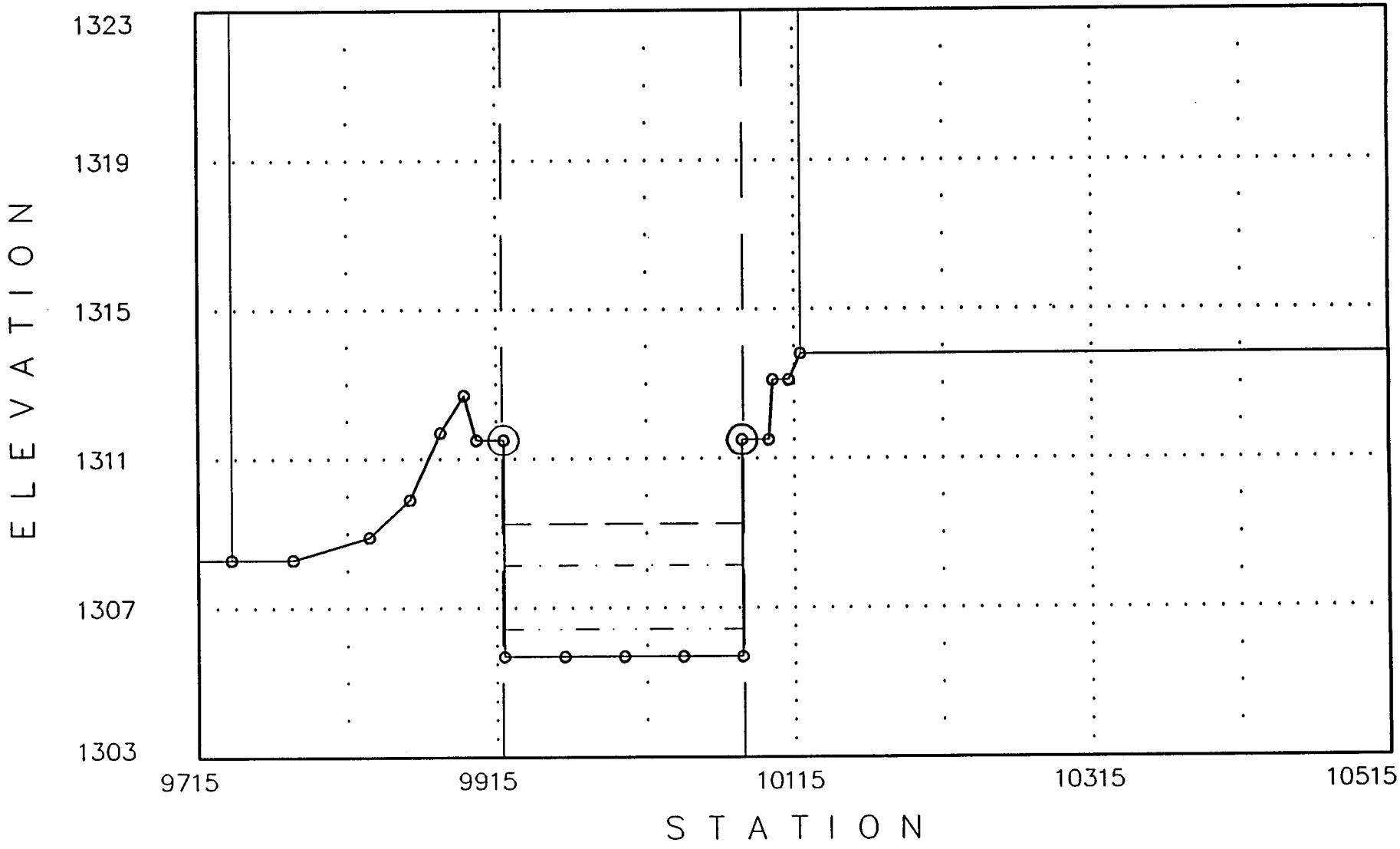



12-06-1990

<<<<<< Cross Section: .036: (FN = SKS.FZO) >>>>>>

Q1= 580 WS1= 1306.44
Q2= 3500 WS2= 1308.15
Q3= 6100 WS3= 1309.25

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

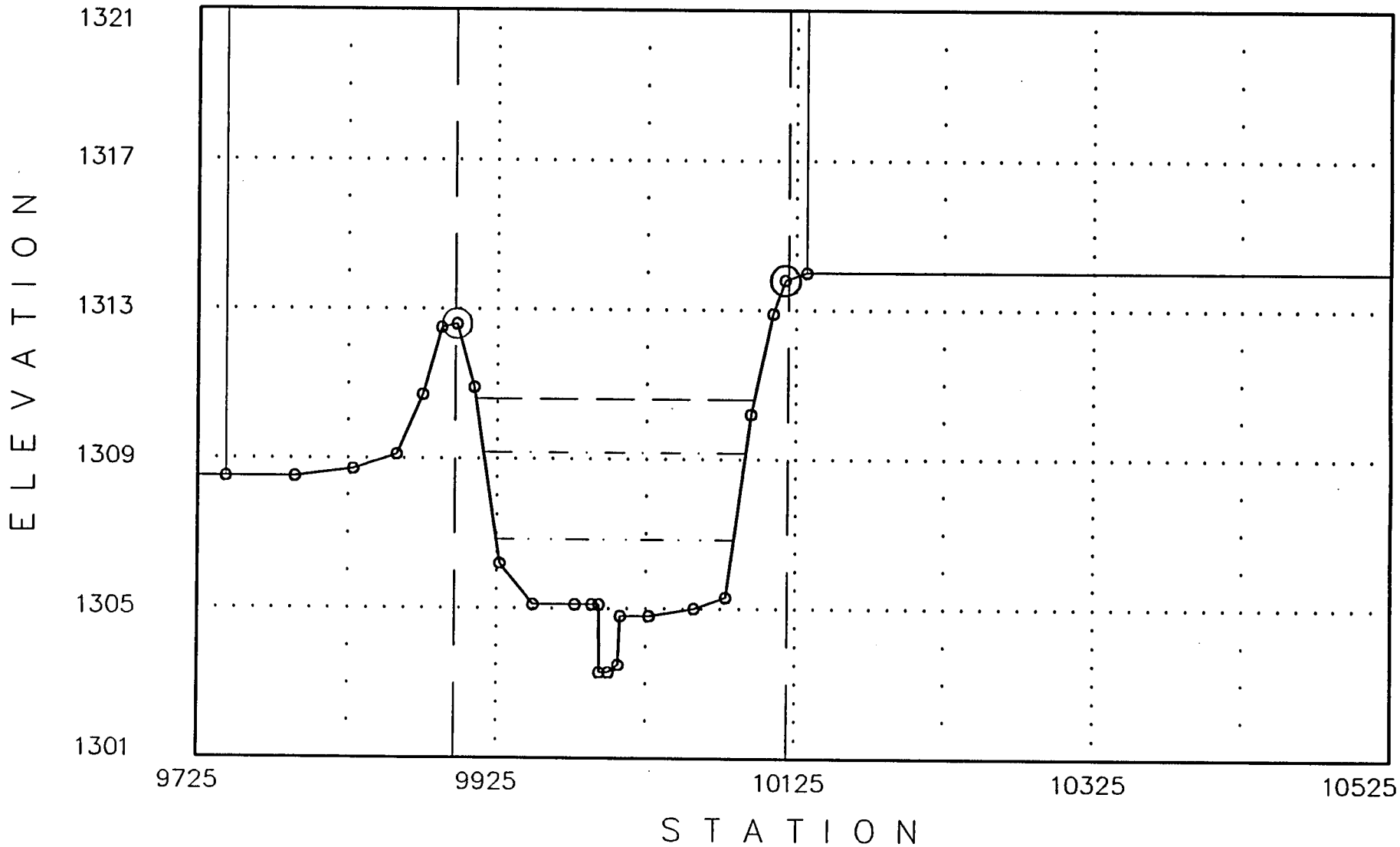



12-06-1990

<<<<<< Cross Section: .04: (FN = SKS.FZO) >>>>>>

Q1= 580 WS1= 1306.84
Q2= 3500 WS2= 1309.16
Q3= 6100 WS3= 1310.6

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

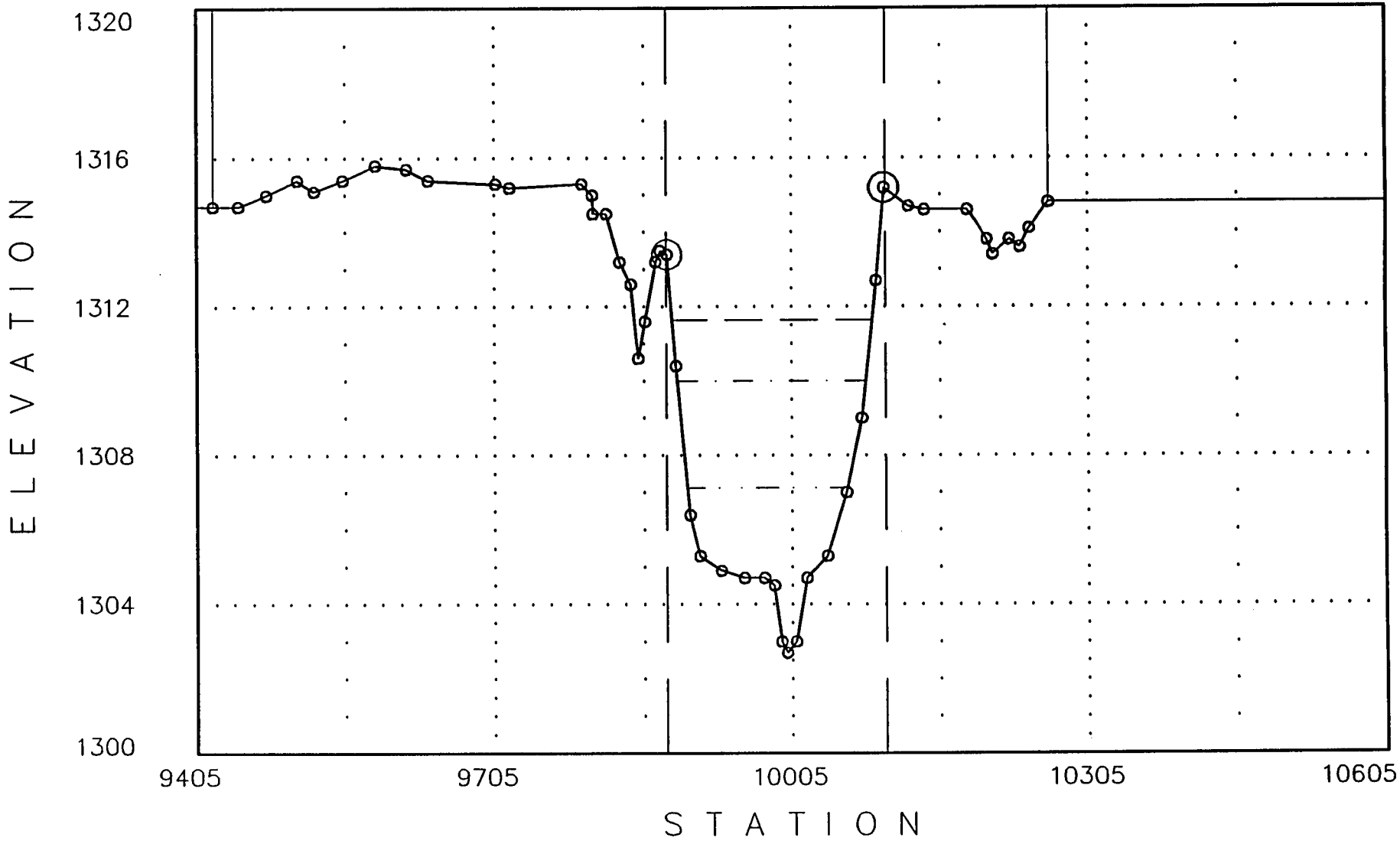



12-06-1990

<<<<<< Cross Section: .116: (FN = SKS.FZO) >>>>>>

Q1= 580 WS1= 1307.12
Q2= 3500 WS2= 1310
Q3= 6100 WS3= 1311.64

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

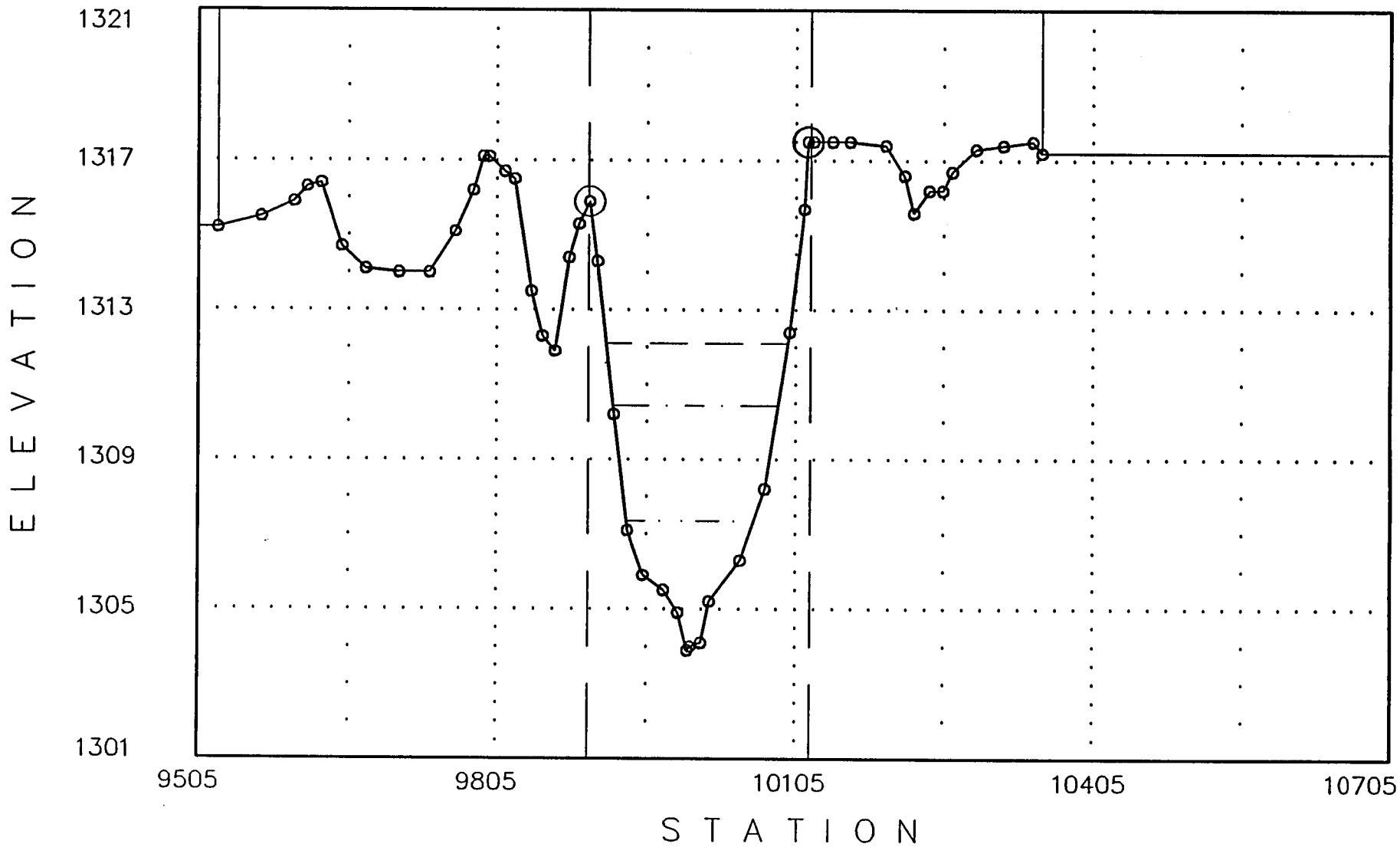



12-06-1990

<<<<<< Cross Section: .184: (FN = SKS.FZO) >>>>>>

Q1= 580 WS1= 1307.35
Q2= 3500 WS2= 1310.43
Q3= 6100 WS3= 1312.11

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

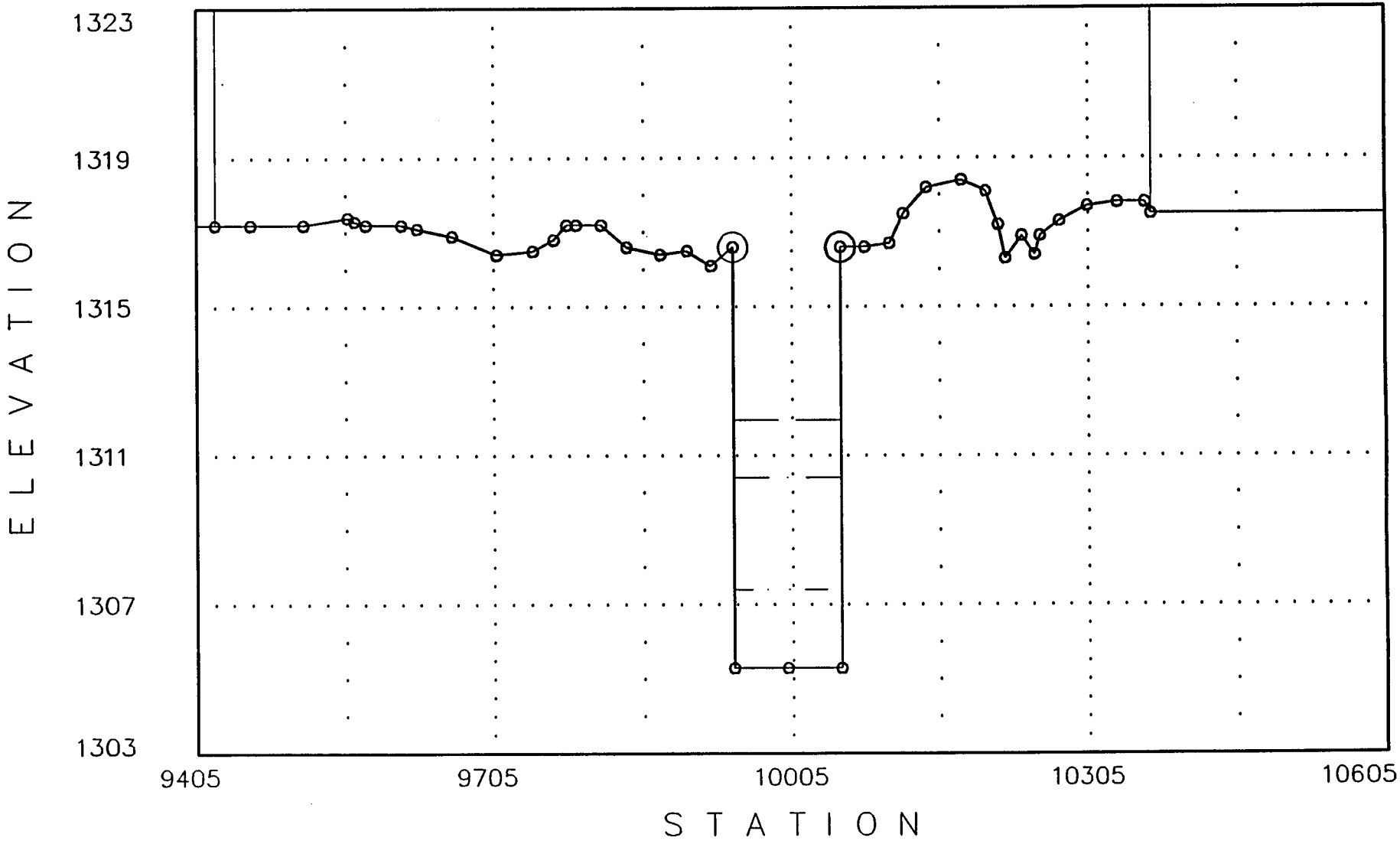



12-06-1990

<<<<<< Cross Section: .2: (FN = SKS.FZO) >>>>>>

Q1= 580 WS1= 1307.4
Q2= 3500 WS2= 1310.4
Q3= 6100 WS3= 1311.95

Manning-n's: n-lob = .015 n-ch = .015 n-rob = .015

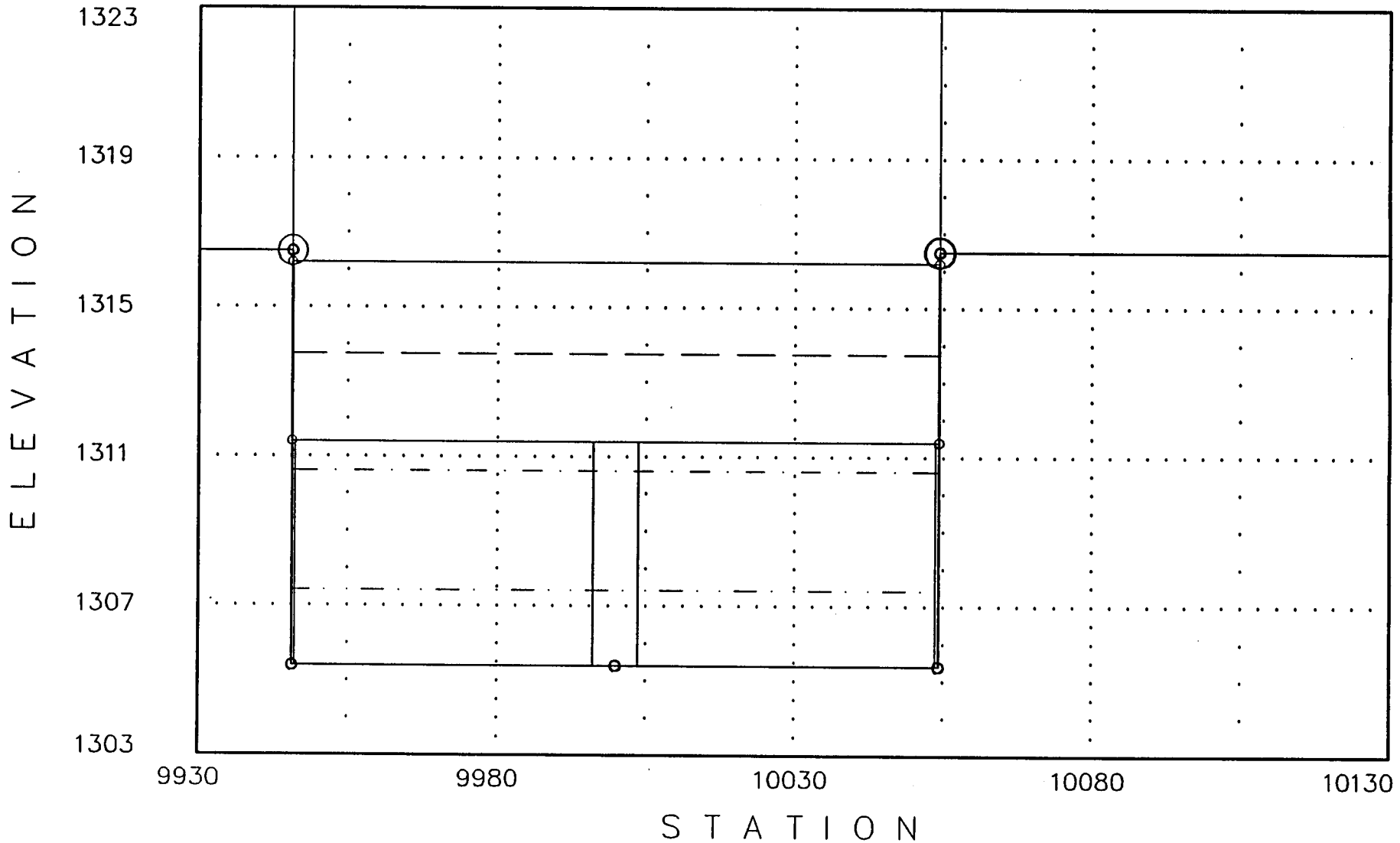



12-06-1990

<<<<<< Cross Section: .212: (FN = SKS.FZO) >>>>>>

Q1= 580 WS1= 1307.42
Q2= 3500 WS2= 1310.6
Q3= 6100 WS3= 1313.75

Manning-n's: n-lob = .015 n-ch = .015 n-rob = .015 SPECIAL BRIDGE

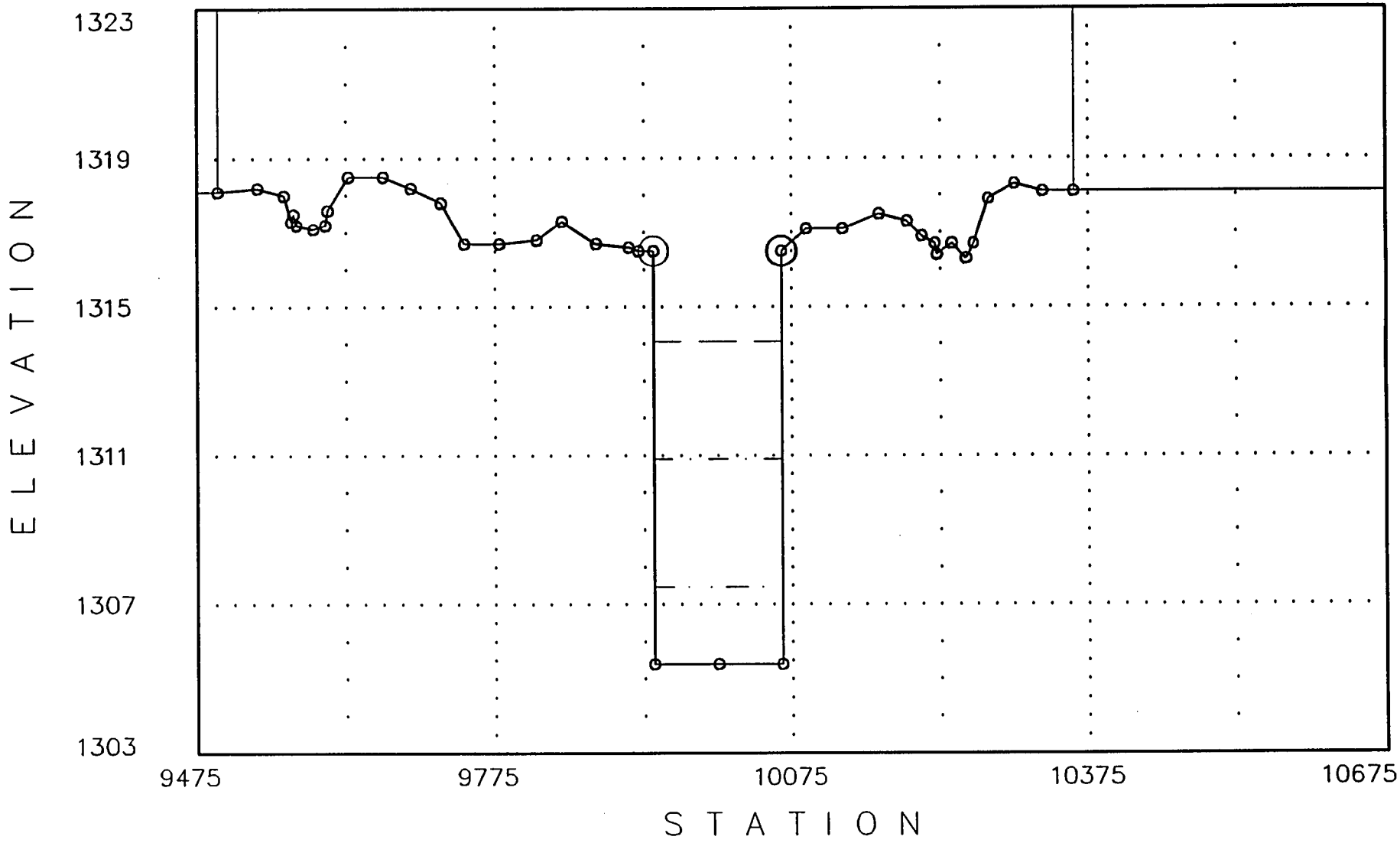



12-06-1990

<<<<<< Cross Section: .213: (FN = SKS.FZO) >>>>>>

Q1= 580 WS1= 1307.47
Q2= 3500 WS2= 1310.9
Q3= 6100 WS3= 1314.07

Manning-n's: n-lob = .015 n-ch = .015 n-rob = .015

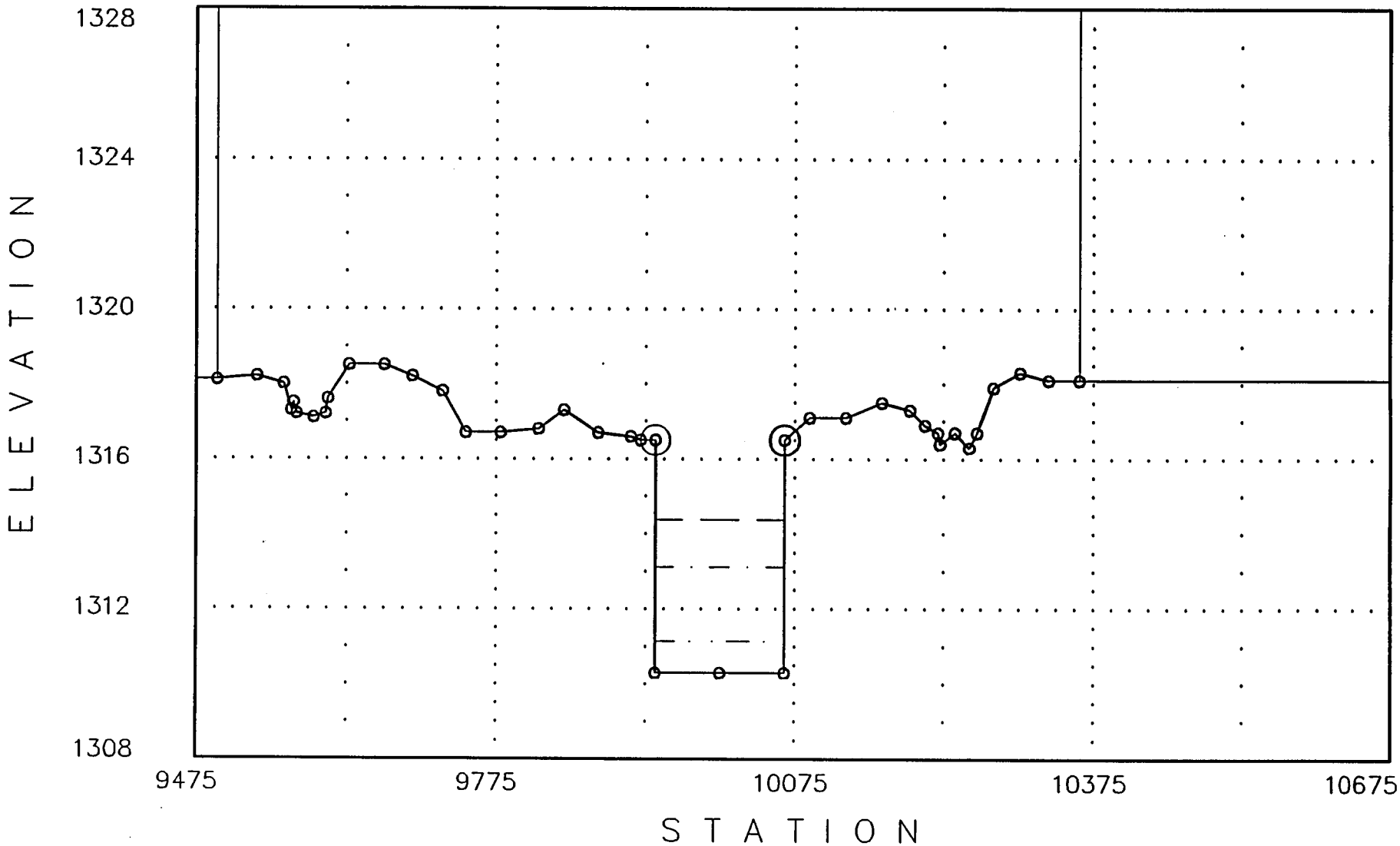



12-06-1990

<<<<<< Cross Section: .214: (FN = SKS.FZO) >>>>>>

Q1= 580 WS1= 1311.15
Q2= 3500 WS2= 1313.12
Q3= 6100 WS3= 1314.38

Manning-n's: n-lob = .015 n-ch = .015 n-rob = .015

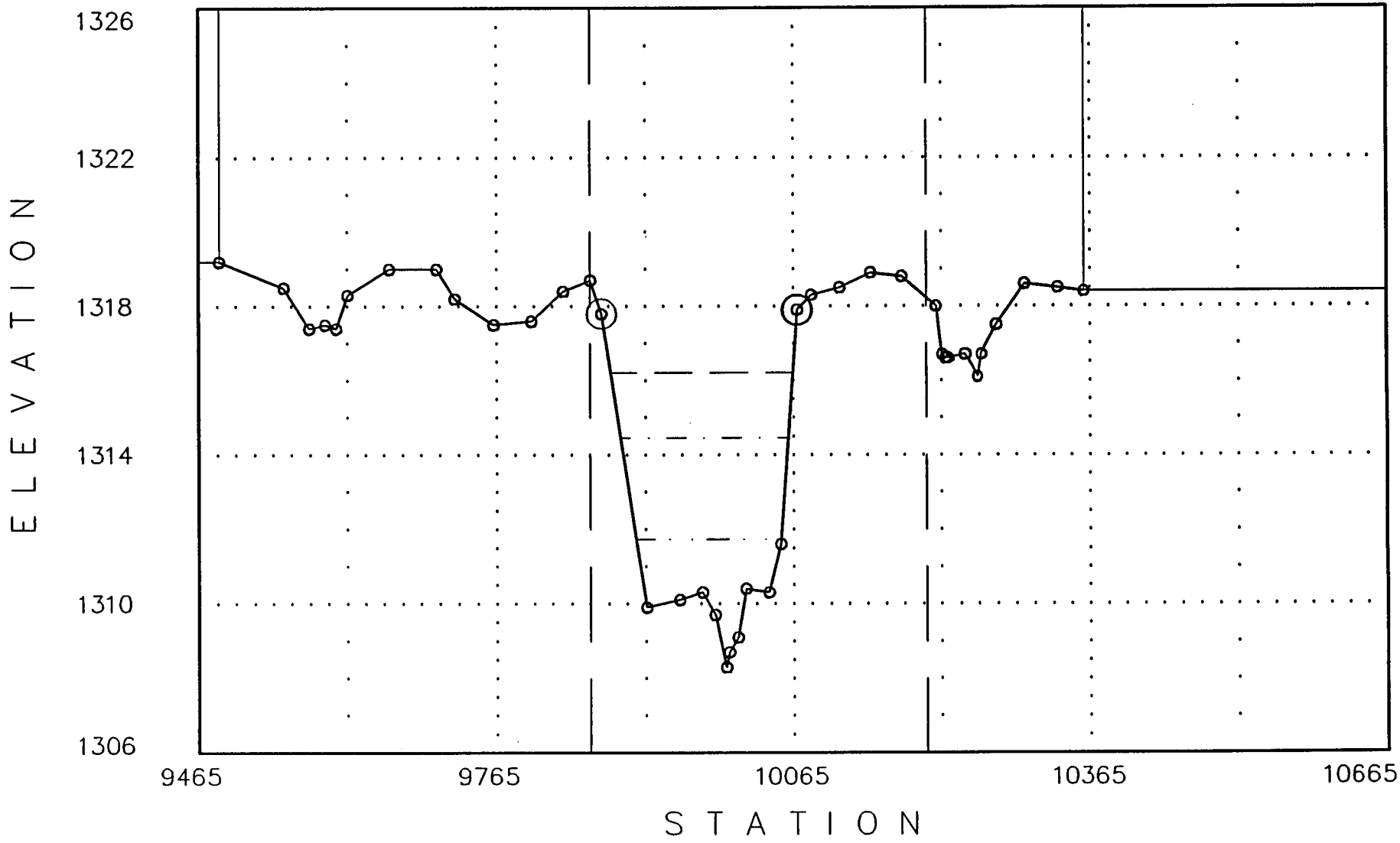



12-06-1990

<<<<<< Cross Section: .232: (FN = SKS.FZO) >>>>>>

Q1= 580 WS1= 1311.74
Q2= 3500 WS2= 1314.46
Q3= 6100 WS3= 1316.21

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

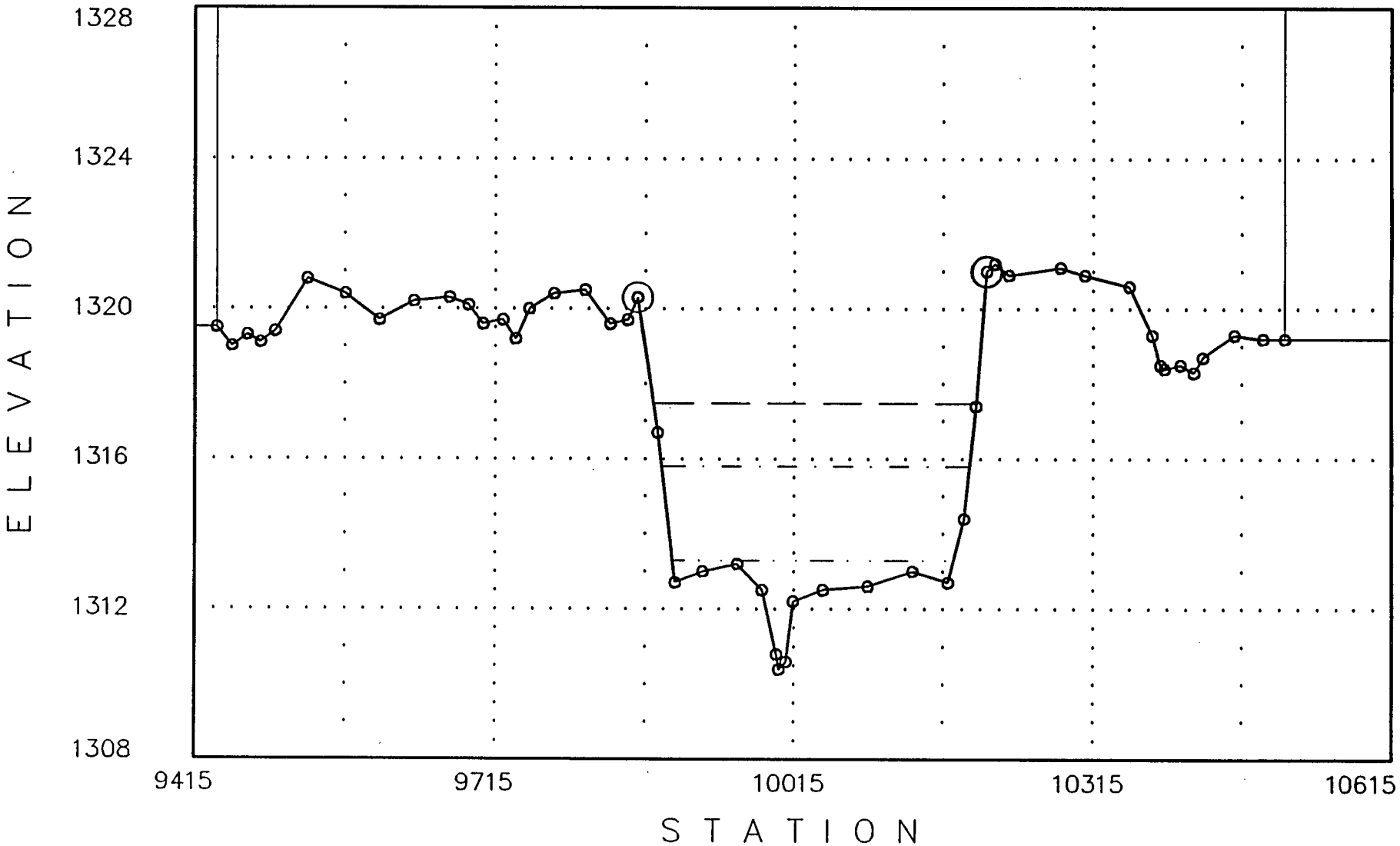



12-06-1990

<<<<<< Cross Section: .337: (FN = SKS.FZO) >>>>>>

Q1= 580 WS1= 1313.3
Q2= 3500 WS2= 1315.79
Q3= 6100 WS3= 1317.48

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

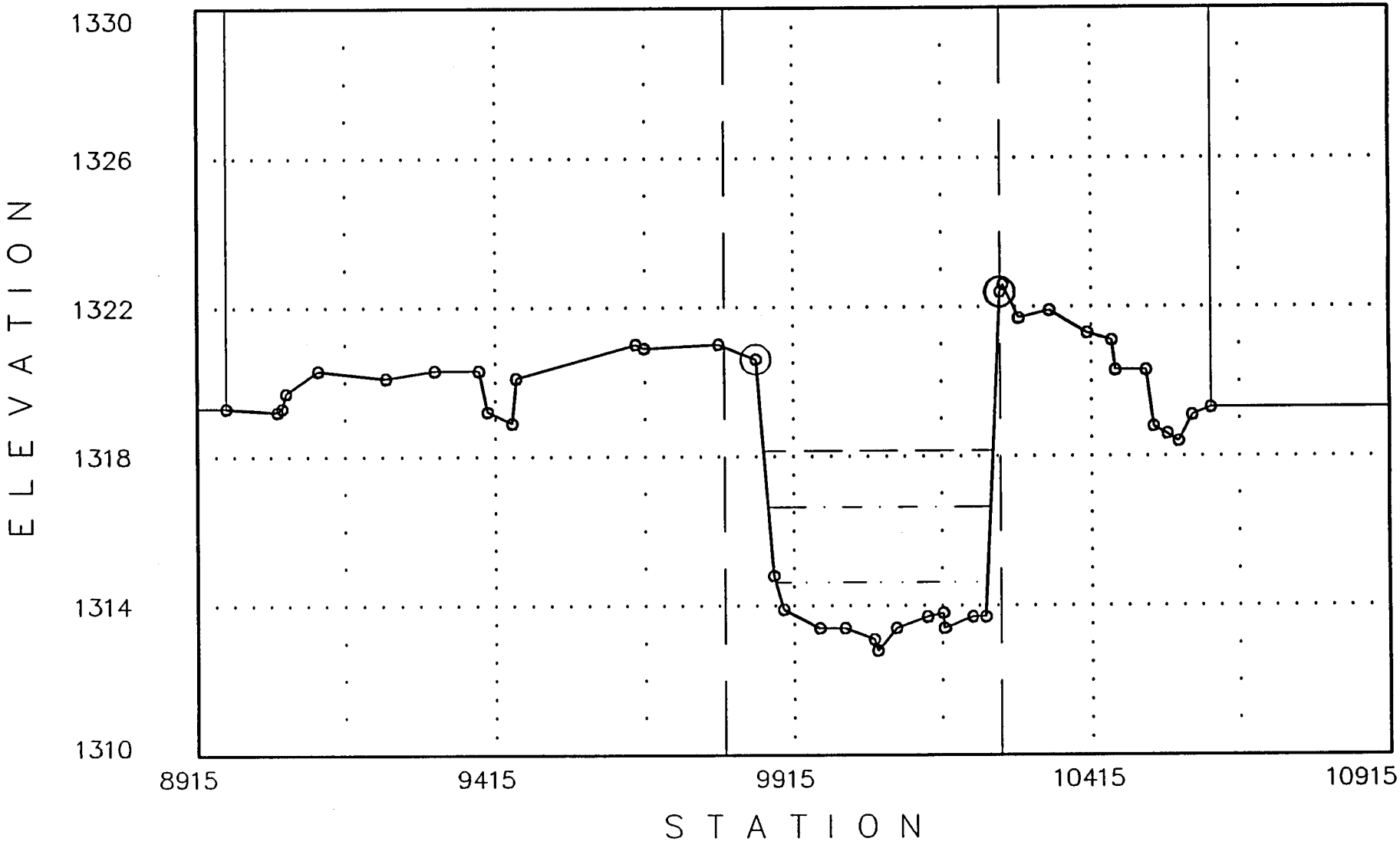



12-06-1990

<<<<<< Cross Section: .438: (FN = SKS.FZO) >>>>>>

Q1= 580 WS1= 1314.62
Q2= 3500 WS2= 1316.64
Q3= 6100 WS3= 1318.15

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

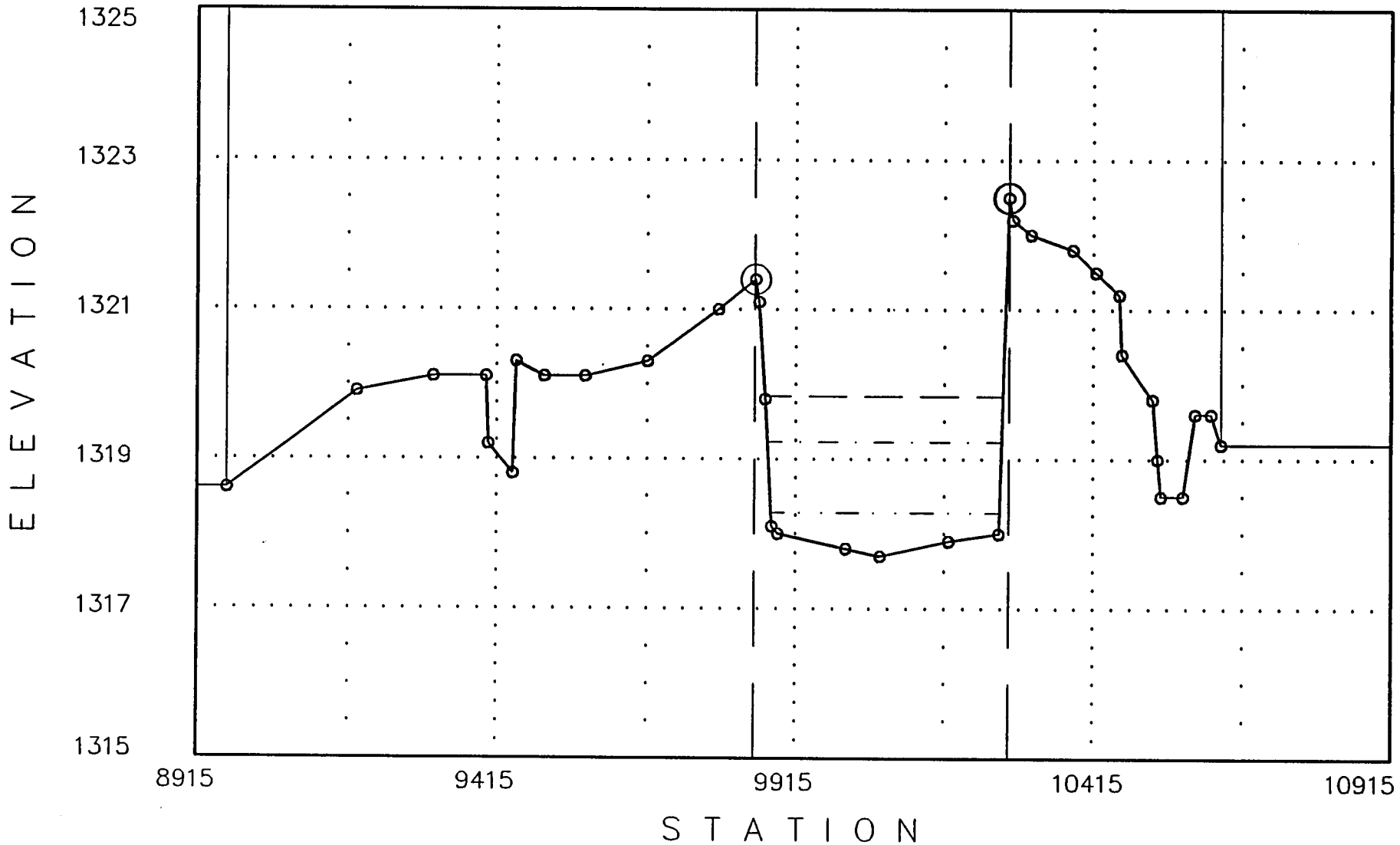



12-06-1990

<<<<<< Cross Section: .441: (FN = SKS.FZO) >>>>>>

Q1= 580 WS1= 1318.28
Q2= 3500 WS2= 1319.23
Q3= 6100 WS3= 1319.84

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

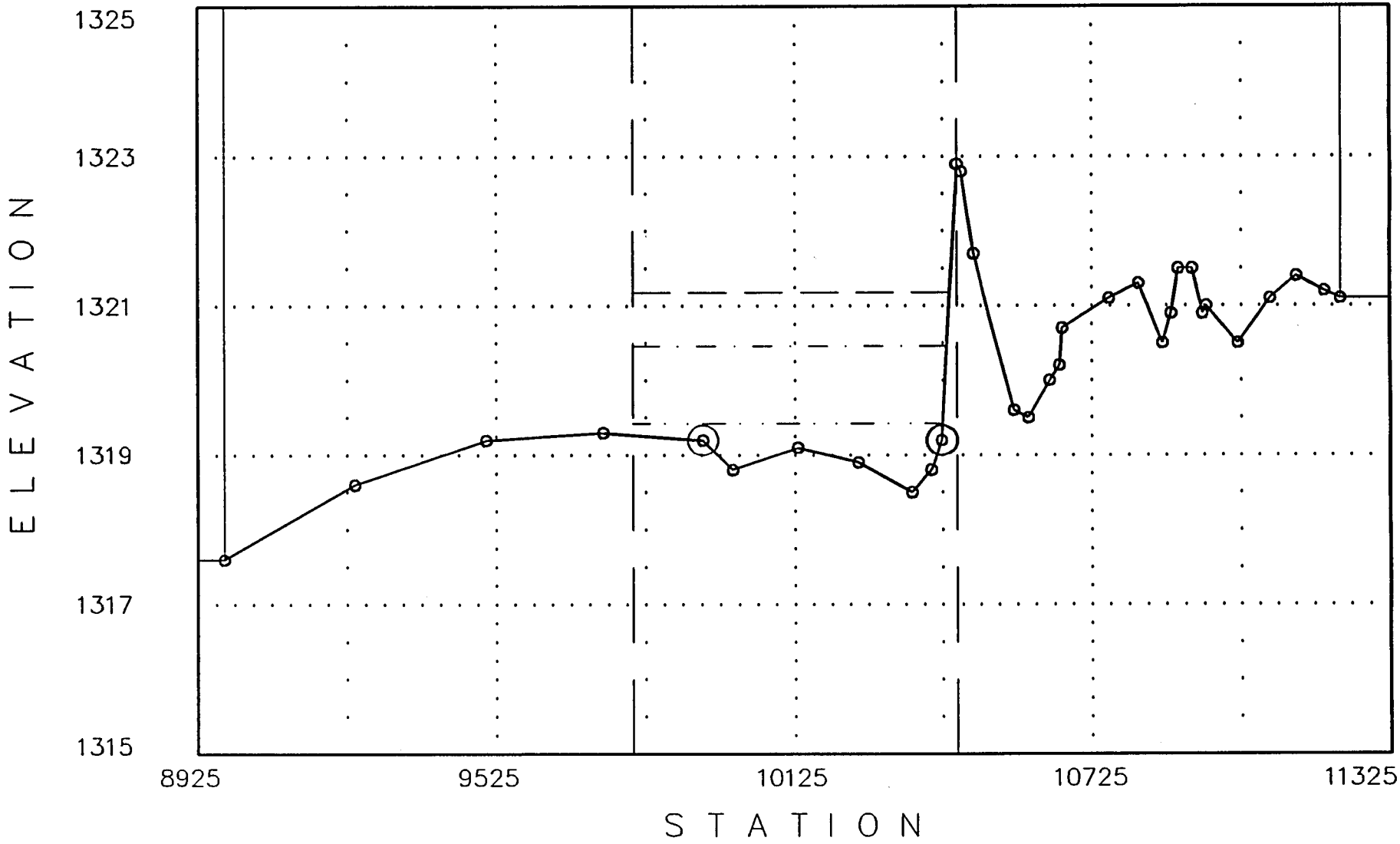



12-06-1990

<<<<<< Cross Section: .458: (FN = SKS.FZO) >>>>>>

Q1= 580 WS1= 1319.42
Q2= 3500 WS2= 1320.46
Q3= 6100 WS3= 1321.18

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

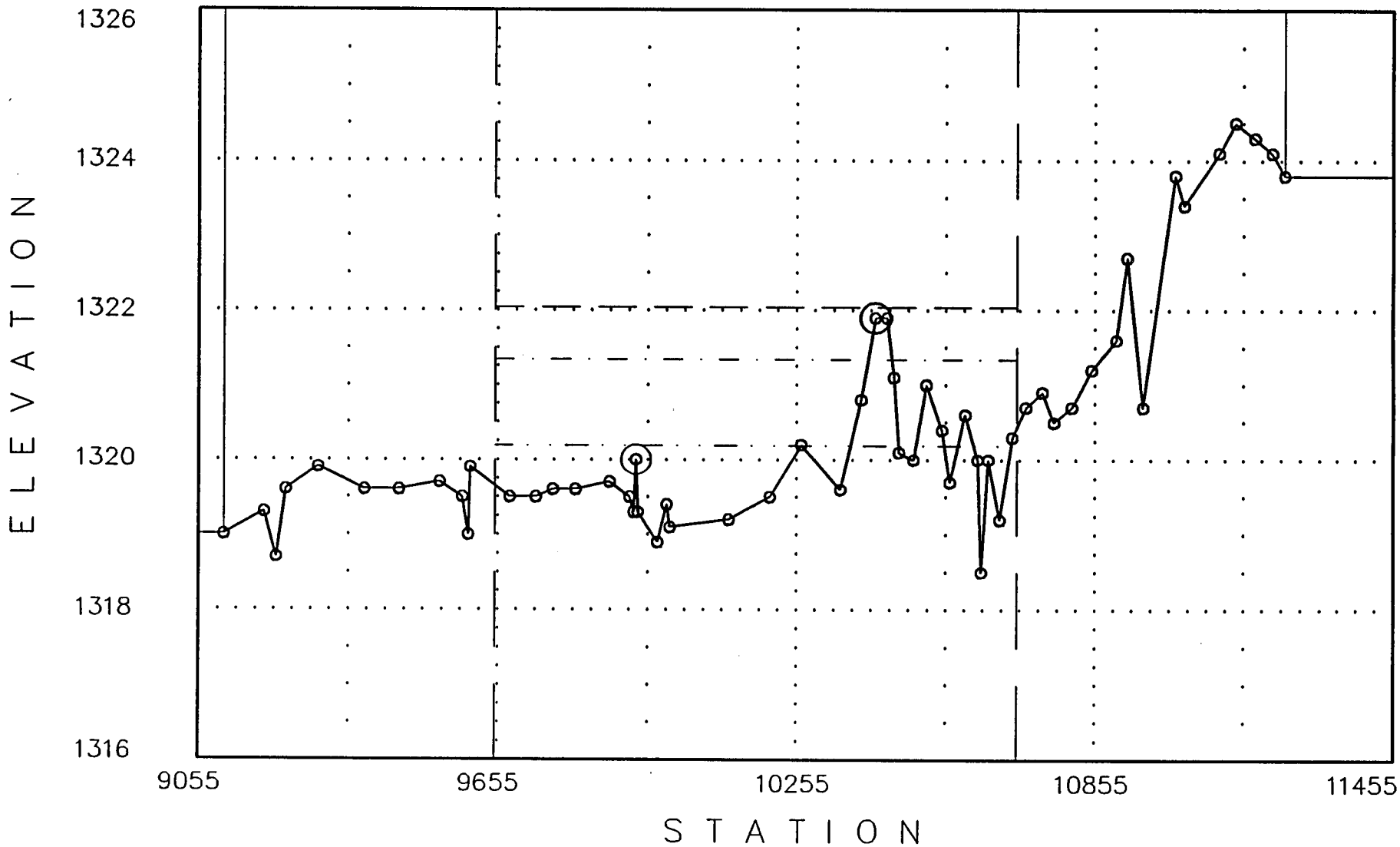



12-06-1990

<<<<<< Cross Section: .489: (FN = SKS.FZO) >>>>>>

Q1= 580 WS1= 1320.19
Q2= 3500 WS2= 1321.34
Q3= 6100 WS3= 1322.04

Manning-n's: n-lob = .06 n-ch = .06 n-rob = .06

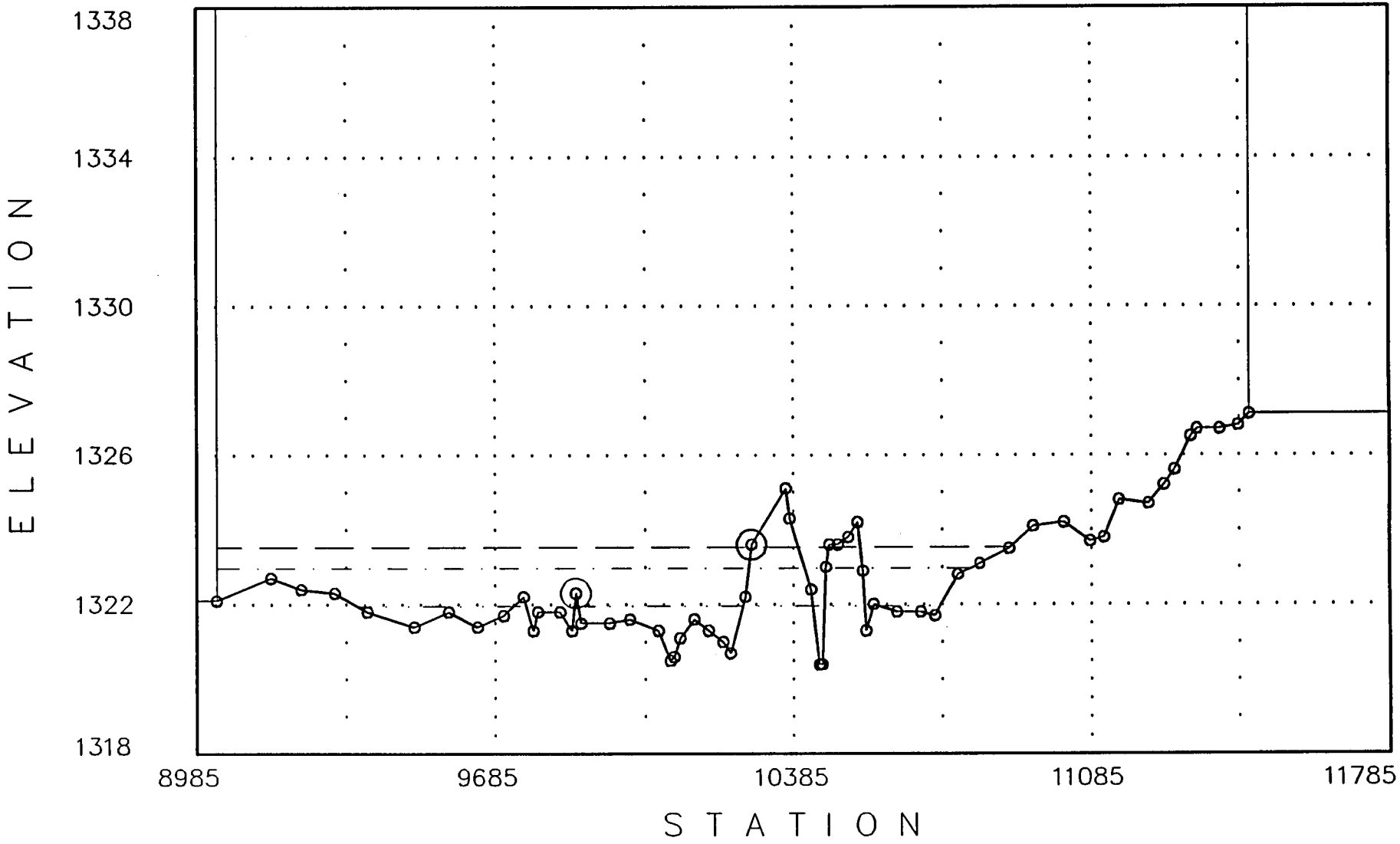



12-06-1990

<<<<<< Cross Section: .568: (FN = SKS.FZO) >>>>>>

Q1= 580 WS1= 1321.96
Q2= 3500 WS2= 1322.97
Q3= 6100 WS3= 1323.54

Manning-n's: n-lob = .06 n-ch = .06 n-rob = .06

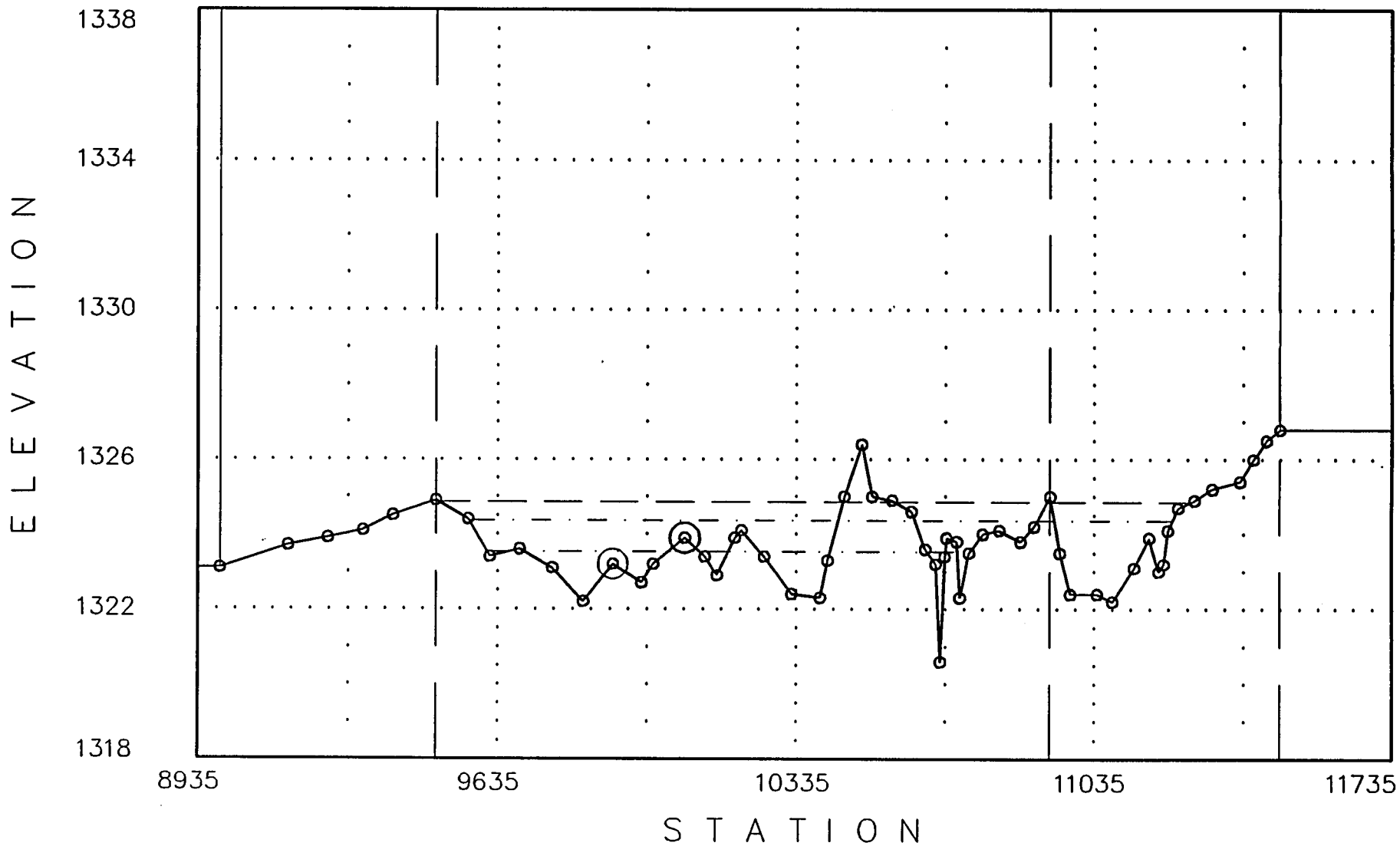



12-06-1990

<<<<<< Cross Section: .629: (FN = SKS.FZO) >>>>>>

Q1= 580 WS1= 1323.54
Q2= 3500 WS2= 1324.36
Q3= 6100 WS3= 1324.85

Manning-n's: n-lob = .06 n-ch = .06 n-rob = .06

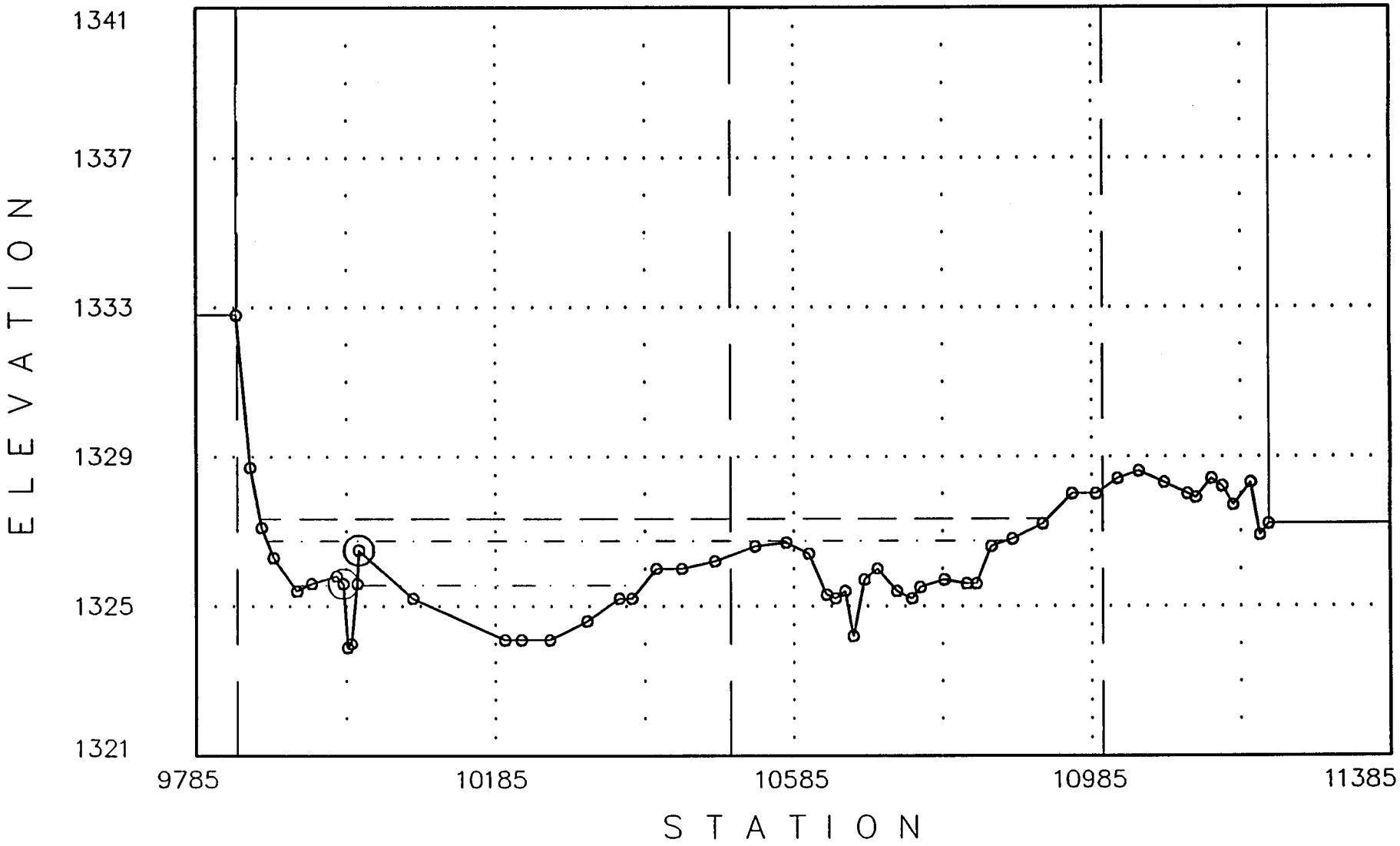



12-06-1990

<<<<<< Cross Section: .736: (FN = SKS.FZO) >>>>>>

Q1= 580 WS1= 1325.56
Q2= 3500 WS2= 1326.75
Q3= 6100 WS3= 1327.34

Manning-n's: n-lob = .055 n-ch = .045 n-rob = .055

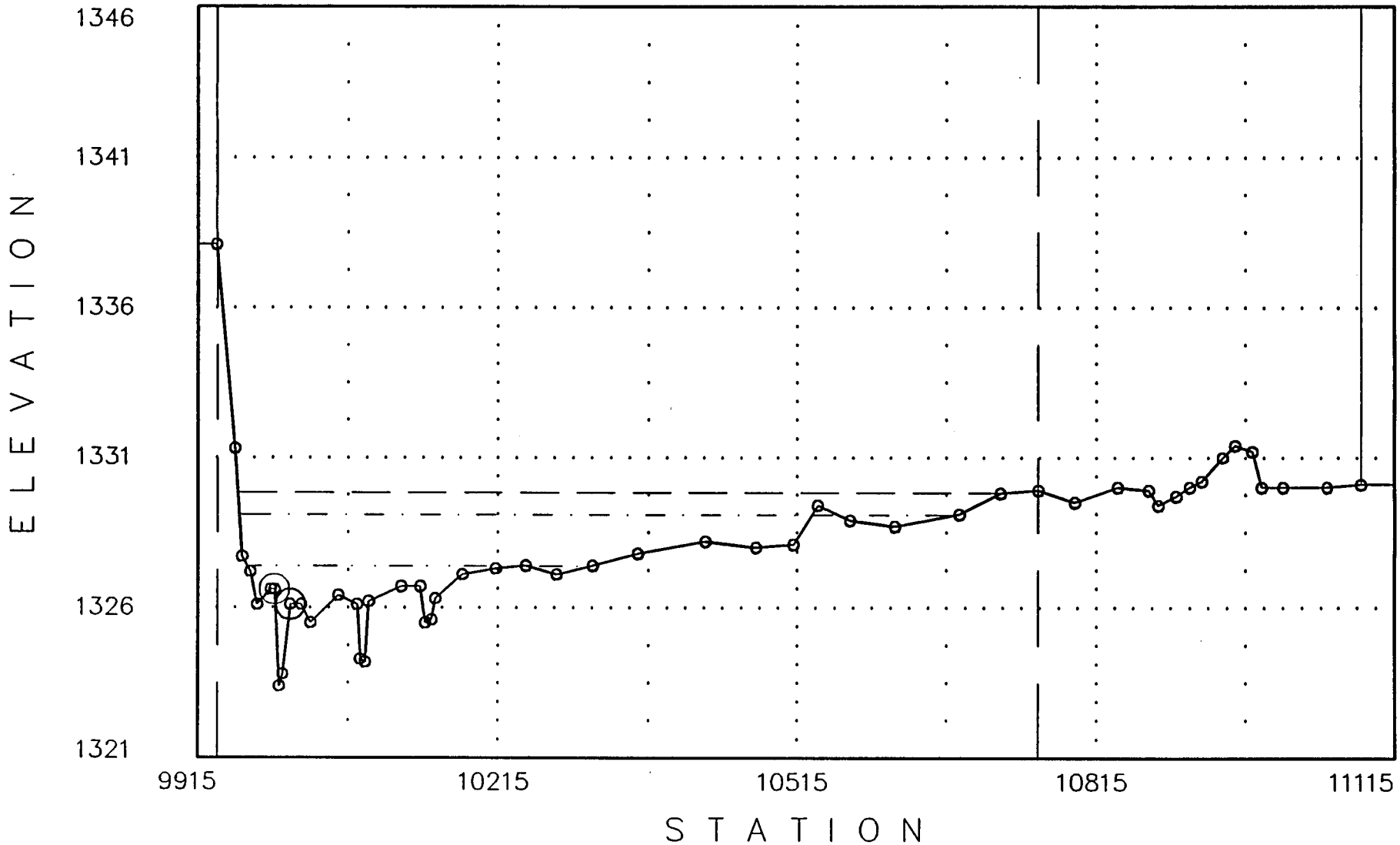



12-06-1990

<<<<<< Cross Section: .813: (FN = SKS.FZO) >>>>>>

Q1= 580 WS1= 1327.39
Q2= 3500 WS2= 1329.08
Q3= 6100 WS3= 1329.82

Manning-n's: n-lob = .055 n-ch = .045 n-rob = .055

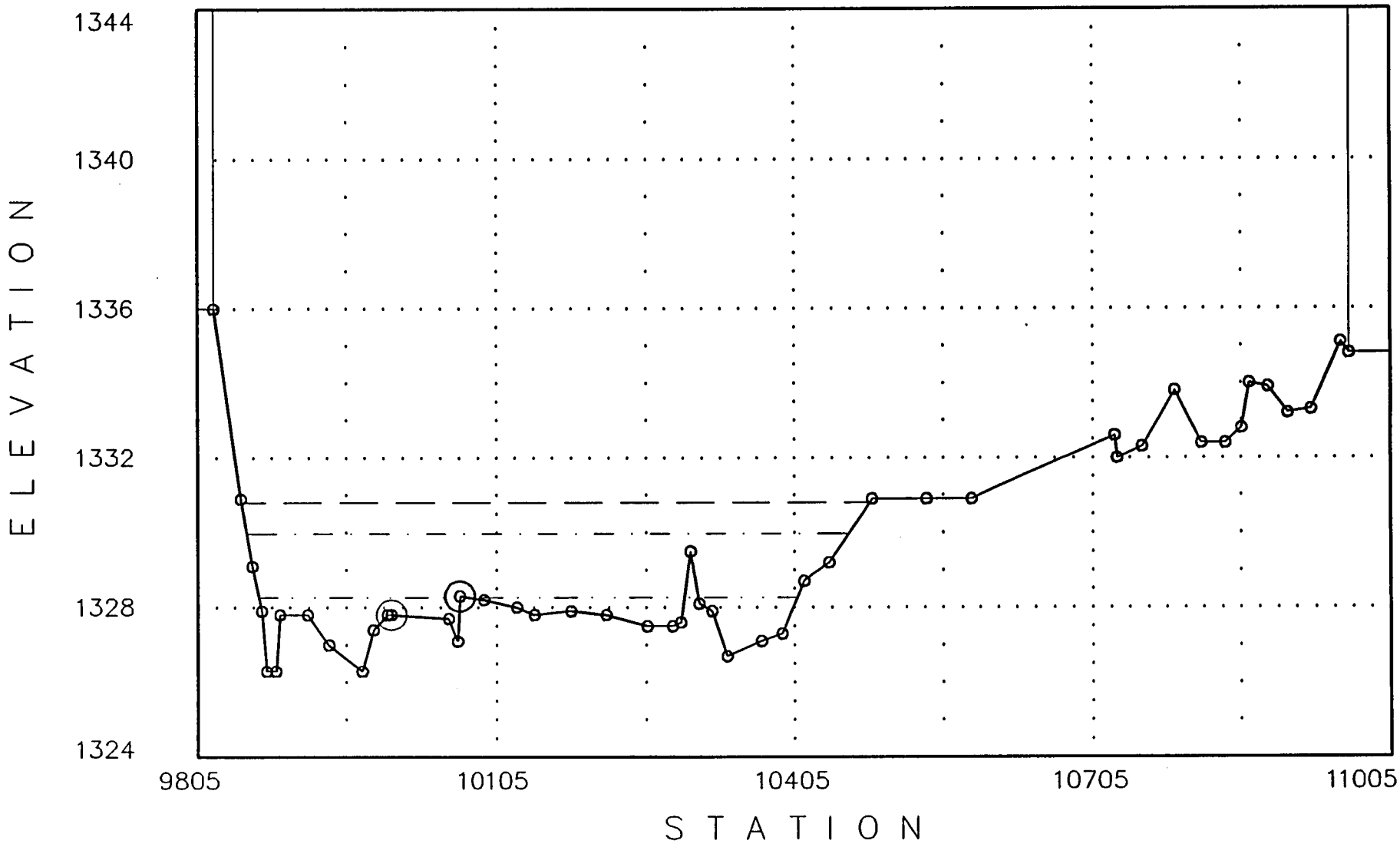



12-06-1990

<<<<<< Cross Section: .86: (FN = SKS.FZO) >>>>>>

Q1= 580 WS1= 1328.27
Q2= 3500 WS2= 1329.98
Q3= 6100 WS3= 1330.8

Manning-n's: n-lob = .055 n-ch = .045 n-rob = .055

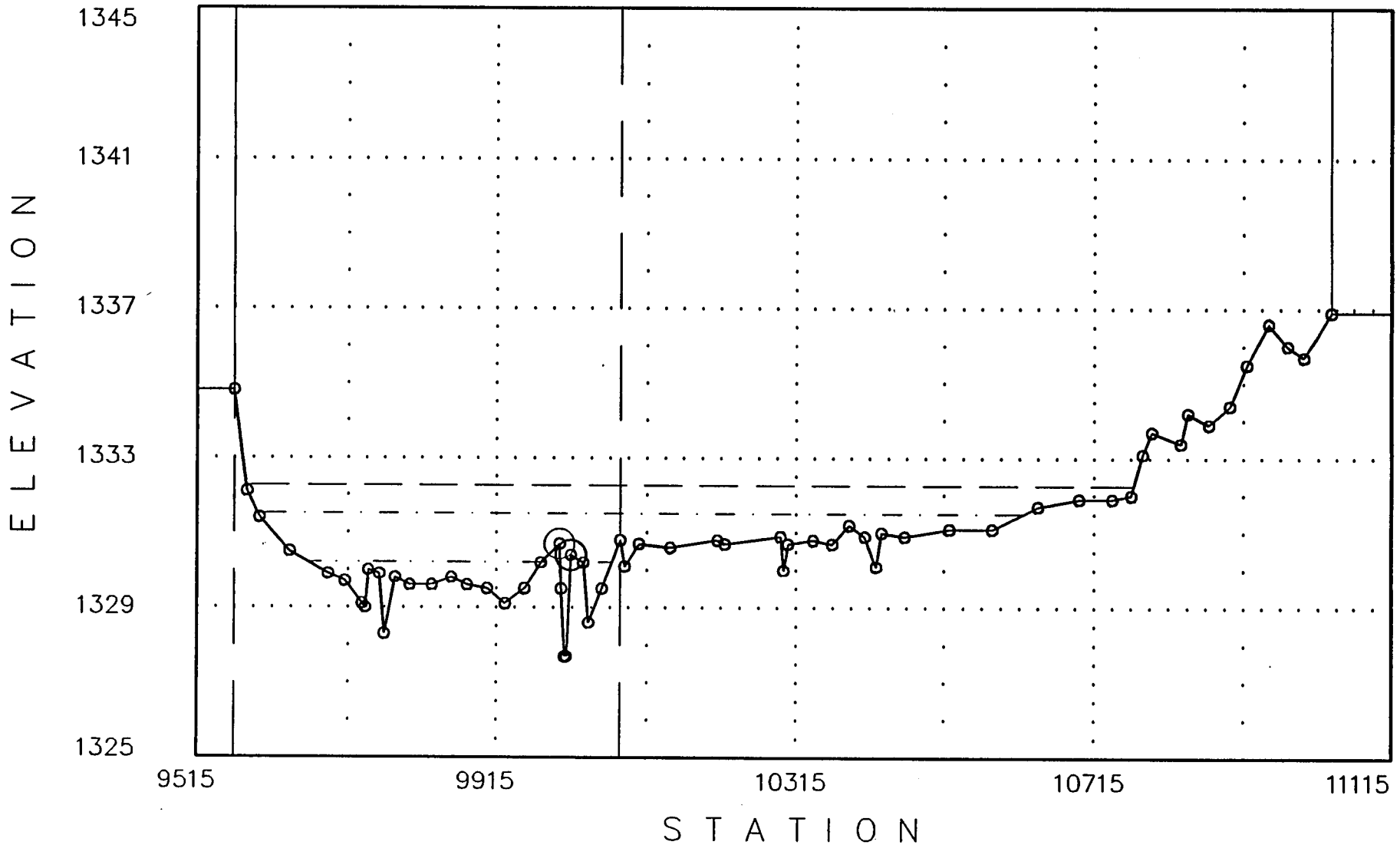



12-06-1990

<<<<<< Cross Section: .949: (FN = SKS.FZO) >>>>>>

Q1= 580 WS1= 1330.21
Q2= 3500 WS2= 1331.51
Q3= 6100 WS3= 1332.26

Manning-n's: n-lob = .055 n-ch = .045 n-rob = .055

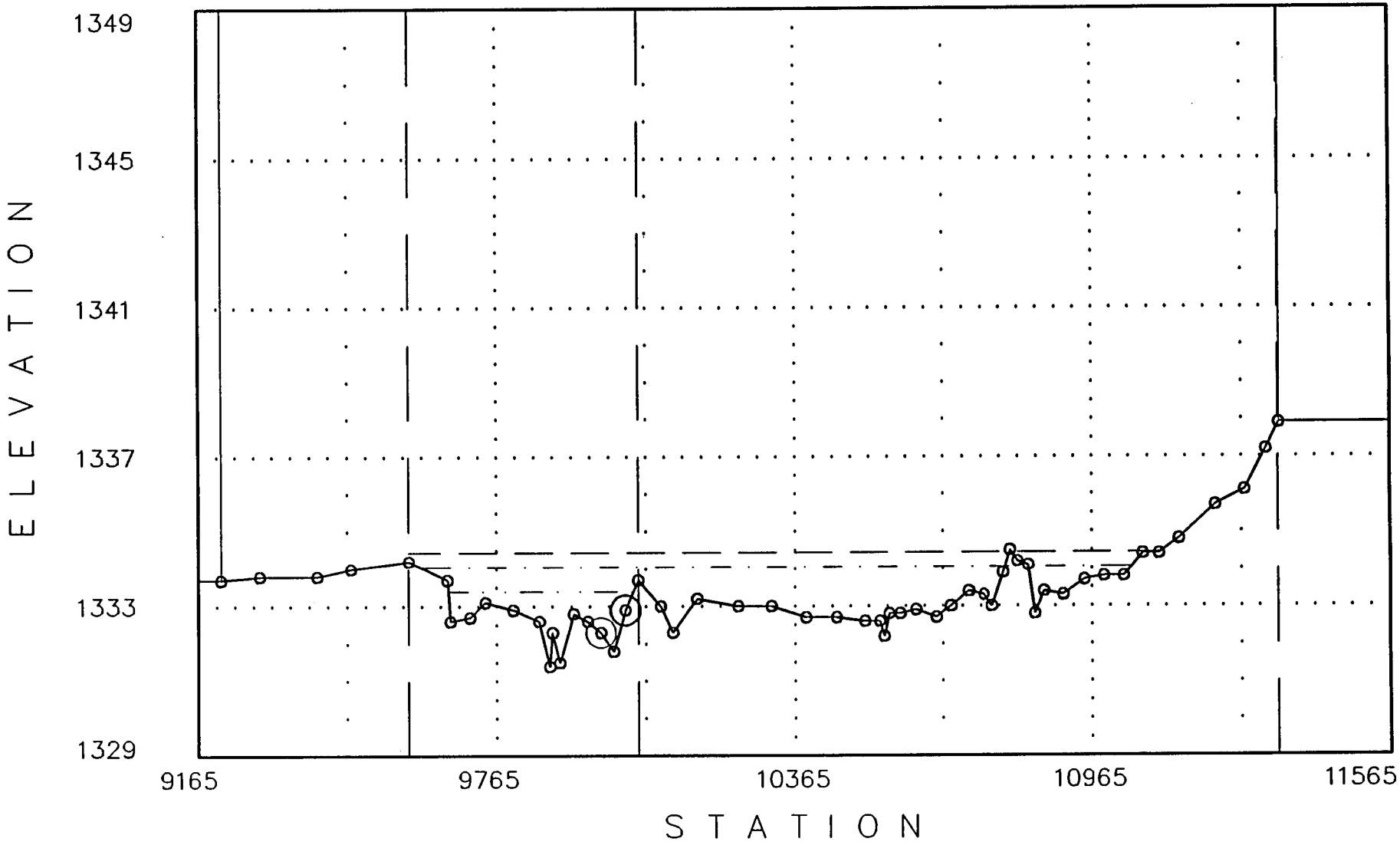



12-06-1990

<<<<<< Cross Section: 1.038: (FN = SKS.FZO) >>>>>>

Q1= 580 WS1= 1333.4
Q2= 3500 WS2= 1334.05
Q3= 6100 WS3= 1334.44

Manning-n's: n-lob = .05 n-ch = .04 n-rob = .05

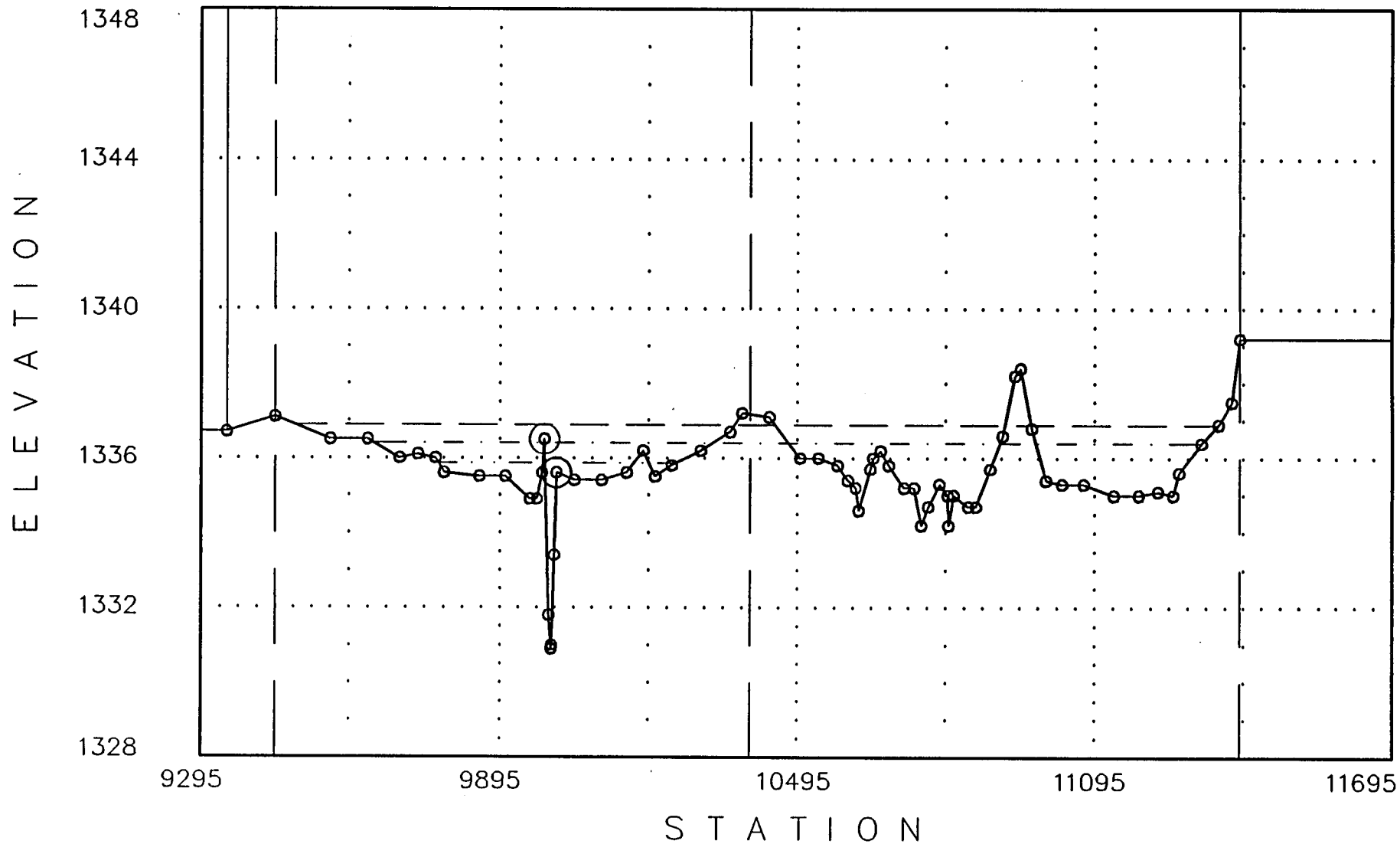



12-06-1990

<<<<<< Cross Section: 1.144: (FN = SKS.FZO) >>>>>>

Q1= 580 WS1= 1335.86
Q2= 3500 WS2= 1336.41
Q3= 6100 WS3= 1336.89

Manning-n's: n-lob = .05 n-ch = .04 n-rob = .05

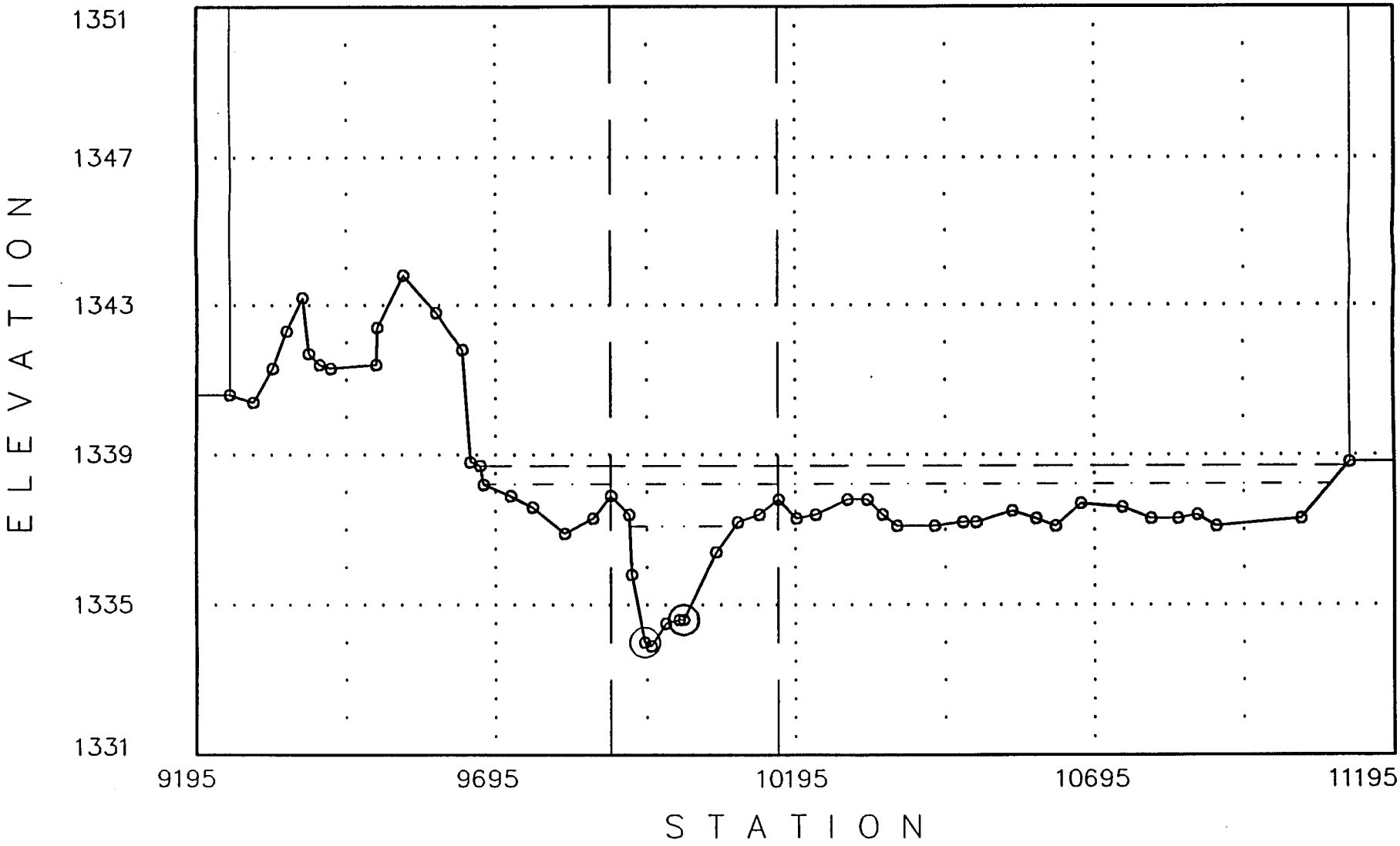



12-06-1990

<<<<<< Cross Section: 1.257: (FN = SKS.FZO) >>>>>>

Q1= 580 WS1= 1337.09
Q2= 3500 WS2= 1338.21
Q3= 6100 WS3= 1338.7

Manning-n's: n-lob = .05 n-ch = .04 n-rob = .05

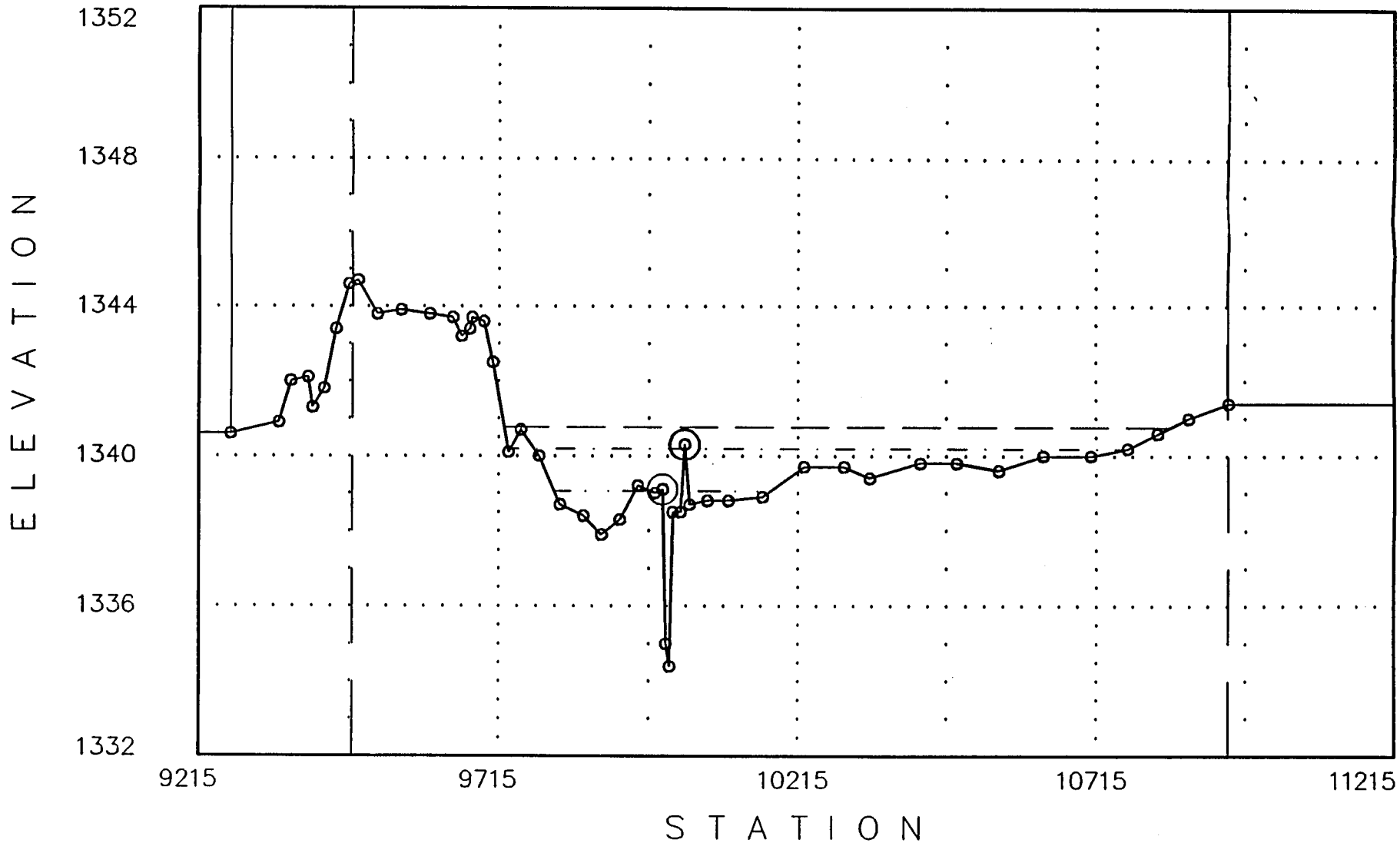



12-06-1990

<<<<<< Cross Section: 1.336: (FN = SKS.FZO) >>>>>>

Q1= 580 WS1= 1339.05
Q2= 3500 WS2= 1340.19
Q3= 6100 WS3= 1340.77

Manning-n's: n-lob = .05 n-ch = .04 n-rob = .05




12-06-1990

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*  WATER SURFACE PROFILES                           *
*  DEVELOPED BY THE COE                             *
*  VERSION OF SEPTEMBER 1988                        *
*  ERROR: 01,02,03                                  *
*  RUN DATE    12/ 6/90   TIME    9:57: 1           *
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*************************************
*  DODSON & ASSOCIATES, INC.
*  HYDROLOGIST AND CIVIL ENGINEERS
*  5629 FM 1960 WEST SUITE 314
*  HOUSTON, TEXAS  77069
*  (713) 440-3787 Fax (713) 440-4742
*************************************
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X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
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XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX             XXXXXXX
```

END OF BANNER

THIS RUN EXECUTED 12/ 6/90 9:57: 2

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*****************************************************
  HEC2 RELEASE DATED SEP 88 UPDATED SEPT 1989


  ERROR CORR -  01,02,03
  MODIFICATION -
*****************************************************


T1      SKUNK CREEK FLOODPLAIN ANALYSIS, FOR FCDMC (#89-72), BY CVL (#1090-05).
T2      ADOBE DAM TO THE CENTRAL ARIZONA PROJECT CANAL (CAP).
T3      10-YEAR FLOWS,  EXISTING CONDITION   NOV. 1990    (FILE NAME - SKN.FZ)

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0         2         0         0     .0130         0         0         0    1376.1         0

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

      1         0        -1         0         0         0        -1         0         0         0


J3  VARIABLE CODES FOR SUMMARY PRINTOUT

     38        43         1         8        42         3         2        26         5        39
     53         4        54

NC     .050      .050      .040        .1        .3
QT        3     15000     29000     39000
         SKUNK CREEK FLOODPLAIN STUDY.
         ADOBE DAM TO THE CENTRAL ARIZONA PROJECT CANAL (CAP).
         EXISTING FLOWS PER FEMA.
         PREPARED AS A PART OF THE SKUNK CREEK FLOODPLAIN STUDY, BETWEEN THE
         ACDC AND THE CAP.
         PREPARED FOR THE FLOOD CONTROL DISTRICT OF MARICOPA COUNTY (FCD #89-72)
         PREPARED BY COE & VAN LOO CONSULTING ENGINEERS, 1990.
         TOPOGRAPHIC MAPPING PREPARED BY AERIAL MAPPING COMPANY, INC. FROM
         PHOTOGRAPHS TAKEN IN APRIL 1990.  ELEVATION BASED ON NGVD OF 1929.
         THE CONTROL LINE OF SKUNK CREEK IS STATION 10,000.
         ALL SECTIONS ARE STATIONED LOOKING DOWNSTREAM.
         CROSS SECTION NUMBERS ARE STATIONED IN RIVER MILES FROM THE CONFLUENCE
         WITH NEW RIVER.
         THIS RUN WAS STARTED BASED ON THE SLOPE-AREA METHOD.  THE HIGH WATER IN
         ADOBE DAM WAS NOT USED DUE TO THE DIFFERENCE IN THE TIME TO PEAK.
         ENCROACHMENT CARDS (ET) WERE USED IN SOME CASES TO BETTER MODEL DEAD OR
         NONEFFECTIVE FLOW AREAS.  IN SOME CASES "SSTA" AND "ENDST" DO NOT
         REPRESENT THE ACTUAL FLOODING LIMITS, AND THE DELINEATION WAS BASED ON
         THE CROSS-SECTION AND THE TOPOGRAPHY.  IN SOME CASES, "TOPWID" DOES NOT
         REPRESENT THE FULL WIDTH OF THE FLOODPLAIN, DUE TO INEFFECTIVE FLOW
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AREAS OR LOW ISLANDS WITHIN THE FLOODPLAIN.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X1 | 8.566 | 97 | 9001.7 | 10040.6 | 0 | 0 | 0 | | | |
| GR | 1387.7 | 7864.4 | 1386.7 | 7914.2 | 1385 | 7933.2 | 1386.2 | 8010.9 | 1385.4 | 8173 |
| GR | 1384.3 | 8203.7 | 1384.5 | 8220.9 | 1383.3 | 8228.6 | 1382.5 | 8322.4 | 1381.5 | 8324.5 |
| GR | 1381.2 | 8338.7 | 1382.5 | 8341.2 | 1381.5 | 8344 | 1381.5 | 8449.8 | 1380.4 | 8503 |
| GR | 1380.2 | 8705.2 | 1378.7 | 8829 | 1380.4 | 8834.8 | 1378.8 | 8845.6 | 1380.4 | 8848.8 |
| GR | 1378.2 | 8853.6 | 1380.7 | 8862.6 | 1380.3 | 8867.2 | 1379.2 | 8872.3 | 1378.8 | 8875.2 |
| GR | 1379.8 | 8896.4 | 1380.3 | 8923.5 | 1379.2 | 8937.1 | 1380.1 | 8973.5 | 1382.1 | 8978.3 |
| GR | 1382.5 | 8983.7 | 1381.2 | 8988.6 | 1382.9 | 8995.1 | 1381.9 | 9001.7 | 1380.3 | 9008.1 |
| GR | 1380.1 | 9013.4 | 1377.7 | 9018.9 | 1376.5 | 9025 | 1375.6 | 9033 | 1373.2 | 9041.5 |
| GR | 1372 | 9052.5 | 1370.8 | 9063.8 | 1370.3 | 9126.1 | 1369.2 | 9138.9 | 1370.2 | 9208.1 |
| GR | 1370.1 | 9340.9 | 1369.1 | 9352.6 | 1370.3 | 9363.5 | 1370.1 | 9371.4 | 1369.1 | 9375.6 |
| GR | 1370.1 | 9423.2 | 1372.1 | 9460 | 1373.5 | 9481.4 | 1374 | 9502.6 | 1373 | 9514.7 |
| GR | 1372.2 | 9520.1 | 1373.4 | 9530.2 | 1373.7 | 9597.7 | 1372.2 | 9605.1 | 1372.3 | 9615.3 |
| GR | 1371.3 | 9628.7 | 1372.3 | 9655.6 | 1373 | 9772.6 | 1374 | 9794.1 | 1375.1 | 9845.6 |
| GR | 1375.1 | 9861.6 | 1373.8 | 9878 | 1372.5 | 9924.8 | 1371.2 | 9936.4 | 1371.2 | 9938.5 |
| GR | 1375 | 9943.2 | 1377.2 | 9949.5 | 1378.2 | 9966.1 | 1375.9 | 9975.9 | 1372.4 | 9983.7 |
| GR | 1372 | 9986.3 | 1368.8 | 9993 | 1368.8 | 9996 | 1366.3 | 10000 | 1366.9 | 10009.4 |
| GR | 1368.7 | 10015 | 1373.4 | 10024.9 | 1378.6 | 10033.1 | 1380.1 | 10040.6 | 1381.1 | 10115.4 |
| GR | 1380 | 10225.4 | 1381.2 | 10296.3 | 1381.6 | 10516.7 | 1382.6 | 10729.1 | 1383.8 | 10816.6 |
| GR | 1383.7 | 10825.5 | 1381.4 | 10828.6 | 1384 | 10837.6 | 1383 | 10895.8 | 1383.7 | 11111.2 |
| GR | 1385.9 | 12184.6 | 1389.2 | 12197 | | | | | | |
| X1 | 8.680 | 93 | 9088.6 | 10072.6 | 615 | 650 | 602 | | | |
| GR | 1390.3 | 8163.3 | 1388.6 | 8235.1 | 1389.1 | 8359.1 | 1387.5 | 8437.1 | 1385.1 | 8440.6 |
| GR | 1383.7 | 8591 | 1383.7 | 8703.7 | 1383.5 | 8830.4 | 1384.4 | 8879.3 | 1383.4 | 8897.3 |
| GR | 1383 | 8926.2 | 1385 | 8932.9 | 1382.2 | 8943.8 | 1384.5 | 8947.3 | 1382.4 | 8951.2 |
| GR | 1384.7 | 8961 | 1384.9 | 8963.4 | 1383.1 | 8967.4 | 1382.3 | 9060.2 | 1385.7 | 9069.1 |
| GR | 1386.3 | 9071.1 | 1384.6 | 9075.5 | 1385.6 | 9082 | 1385 | 9088.6 | 1382.8 | 9093.2 |
| GR | 1380.9 | 9101.2 | 1378 | 9112.5 | 1376 | 9120.2 | 1374.5 | 9126.6 | 1373.5 | 9134.2 |
| GR | 1372 | 9139.3 | 1371.7 | 9228.6 | 1370.6 | 9234.2 | 1371.8 | 9249.9 | 1371.8 | 9253.4 |
| GR | 1370.3 | 9264.4 | 1371.2 | 9372 | 1372.6 | 9429.6 | 1373.2 | 9531.8 | 1374.3 | 9630.9 |
| GR | 1374.4 | 9714.1 | 1375.5 | 9738.8 | 1376.4 | 9811.4 | 1375.2 | 9824.8 | 1376.5 | 9888.5 |
| GR | 1375.4 | 9899.8 | 1374.2 | 9910.2 | 1372.7 | 9919 | 1372.4 | 9940.5 | 1373.8 | 9945.1 |
| GR | 1375 | 9949.4 | 1376.2 | 9964.6 | 1373.9 | 9969 | 1372.2 | 9977.8 | 1369.2 | 9982.4 |
| GR | 1369.1 | 9991.8 | 1372 | 10000 | 1372.8 | 10001.3 | 1375.2 | 10006.9 | 1375.5 | 10015.3 |
| GR | 1376.6 | 10023.1 | 1377.1 | 10032 | 1378.1 | 10036.8 | 1376.6 | 10041.2 | 1378.2 | 10053 |
| GR | 1378.9 | 10056.2 | 1381.8 | 10066.7 | 1382.8 | 10072.6 | 1382.2 | 10076 | 1380.4 | 10083.6 |
| GR | 1380.7 | 10089.7 | 1383.4 | 10095.7 | 1383.1 | 10201.2 | 1384.3 | 10256.6 | 1384.2 | 10368.9 |
| GR | 1383.9 | 10523.6 | 1384.9 | 10654.1 | 1385.1 | 10781 | 1385.5 | 10934.2 | 1385.9 | 11104.7 |
| GR | 1386.5 | 11273.1 | 1386.8 | 11384.3 | 1387.6 | 11573.9 | 1388 | 11707 | 1388.7 | 11818.9 |
| GR | 1390.1 | 11891 | 1389.9 | 11952.6 | 1388.8 | 11979.1 | 1392.5 | 12008.1 | 1394.1 | 12020.2 |
| GR | 1391 | 12032.7 | 1391.6 | 12038.3 | 1393.1 | 12047.5 | | | | |
| X1 | 8.815 | 92 | 9700.7 | 10552.2 | 450 | 680 | 713 | | | |
| GR | 1390.4 | 8943.9 | 1389.2 | 8974.1 | 1387.5 | 8991.8 | 1386.3 | 9007.6 | 1385.6 | 9015.4 |
| GR | 1385.1 | 9092 | 1385.3 | 9149.6 | 1385.4 | 9207.2 | 1385.2 | 9252.2 | 1386.1 | 9270.9 |
| GR | 1387.1 | 9288.7 | 1385.4 | 9303.7 | 1386.1 | 9317.4 | 1386.6 | 9330.9 | 1385.5 | 9344.2 |
| GR | 1386.2 | 9366.5 | 1386.3 | 9432.4 | 1385.8 | 9486.7 | 1386.2 | 9501.4 | 1384.9 | 9508 |
| GR | 1386.6 | 9513.9 | 1384.6 | 9520.4 | 1387 | 9530.1 | 1384.7 | 9549 | 1386.3 | 9562.6 |
| GR | 1386.3 | 9583.6 | 1385.5 | 9599.5 | 1385.8 | 9630.3 | 1386.7 | 9645.9 | 1387.1 | 9661.6 |
| GR | 1388.7 | 9675.7 | 1389 | 9690 | 1387.6 | 9700.7 | 1386.3 | 9740.1 | 1383.6 | 9776.7 |
| GR | 1381.1 | 9813 | 1377.7 | 9845.6 | 1376.8 | 9874.4 | 1374.8 | 9895.2 | 1373.9 | 9920.4 |
| GR | 1373.2 | 9939.1 | 1372.3 | 9956.6 | 1371.1 | 9971.6 | 1369.9 | 9981.1 | 1370.2 | 10000 |

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GR   1370.1    10013.    1369.4    10021.7   1370.3    10037.2   1371.1    10081.3   1371.6    10149.9
GR   1372.9    10169.    1374.4    10184.2   1375      10229.4   1376      10244.9   1375.9    10255.5
GR   1376.7    10273.    1377.1    10291.5   1378.5    10312.8   1380.1    10335.4   1382      10366.9
GR   1382.3    10393.    1383.1    10423.3   1384.7    10446.7   1386.9    10472.5   1388.1    10496
GR   1390.2    10524.    1392.3    10552.2   1393.2    10573.5   1394.2    10601.3   1392.7    10624.4
GR   1392.3    10653.    1391.6    10678.9   1392.6    10706.1   1391.9    10760.3   1392.1    10825.5
GR   1392.2    10892.    1391.5    10926.2   1390.7    10963.5   1390.4    11031.2   1390.8    11098.1
GR   1389.9    11128.    1390.2    11193.3   1390.4    11246.2   1390.2    11319.6   1390.4    11384.8
GR   1391.1    11449.    1391      11512.9   1391      11582.8   1391.2    11591.2   1392.2    11611.9
GR   1393.3    11626.    1393.9    11648.7

ET   8.907     9.1       9.1       9.1                                                 9900      10500
X1   8.907     93        9904.1    10282     660       295       485.8
GR   1397.5    8854.3    1396.5    8883.1    1395.9    8916.3    1393.5    8950.3    1392.4    8982.2
GR   1392.2    9015.4    1390.8    9048.5    1390      9072.4    1390.1    9093      1389.3    9125.4
GR   1387.1    9132      1388.3    9137.7    1388.9    9177.8    1388.8    9248.3    1388.7    9296.7
GR   1388.8    9347.5    1388.6    9432.5    1388.5    9492.7    1388.5    9576.8    1388.8    9657.8
GR   1388.9    9730.6    1388.8    9747.9    1390.2    9752.5    1390      9770      1388.2    9776.2
GR   1390.7    9785.4    1389.2    9791.4    1389.2    9809.1    1390.1    9822.1    1390.2    9837.9
GR   1389.2    9858.8    1388.9    9871.3    1389.5    9887.5    1390      9898.3    1391.5    9904.1
GR   1388.4    9912.9    1386      9927.3    1383.3    9944      1379.2    9960      1380.1    9974
GR   1380.1    9981.1    1375      9991.3    1374.9    10000     1375.6    10009.7   1377.8    10023.2
GR   1381.2    10034.5   1379.6    10061.1   1378.5    10092.6   1379.2    10146.4   1380.4    10163.1
GR   1380.5    10199.3   1383.2    10222.4   1384.1    10244.8   1387.4    10263.2   1390.4    10282
GR   1389.8    10324.3   1390.2    10349     1391.2    10368.8   1391.8    10396.9   1392.5    10457.2
GR   1392.1    10500.9   1391.5    10538.2   1391.8    10630.2   1391.9    10716.2   1391.9    10796.2
GR   1391.8    10839.9   1391.9    10896.3   1391.2    10991.6   1392      11012.1   1392.6    11021.1
GR   1392      11029.7   1392.1    11084.6   1391.1    11117.1   1392.2    11124     1394.2    11143
GR   1396      11152.2   1395      11168.2   1395.7    11254.6   1395.8    11298.7   1396.5    11330.5
GR   1395.9    11357.1   1392.8    11357.4   1392      11370.3   1393      11392     1391.7    11418.2
GR   1394      11445.5   1395.5    11472.6   1395.5    11538.5   1395.8    11583.3   1396.5    11625.2
GR   1396.4    11684.3   1396.9    11748.1   1397.2    11782.6

ET   9.022     9.1       9.1       9.1                                                 8850      10500
         PINNACLE PEAK ROAD DIP SECTION.
         FROM SECTION 9.022 TO SECTION 9.282, ET CARDS ARE USED TO MODEL
         EFFECTIVE FLOW AREA IN THE LEFT OVERBANK AT A 4:1 EXPANSION DOWNSTREAM
         FROM THE CONSTRICTION.
X1   9.022     67        9763.5    10337.0   670       285       607.2
GR   1396.9    8583.9    1395.9    8656.6    1395.3    8729.3    1394.7    8793.9    1395.1    8874.3
GR   1394.7    8947.0    1394.4    9032.8    1394.4    9115.2    1394.6    9205.9    1394.3    9292.4
GR   1394.1    9381.3    1394.0    9468.2    1393.8    9556.6    1393.2    9636.3    1392.9    9689.4
GR   1392.4    9763.5    1390.7    9835.7    1390.2    9908.6    1389.1    9989.5    1389.4    10000.0
GR   1389.8    10098.6   1389.8    10184.3   1390.6    10270.0   1391.9    10337.0   1391.9    10382.4
GR   1392.9    10421.0   1393.4    10454.4   1393.4    10476.9   1396.8    10483.8   1398.0    10497.1
GR   1398.1    10502.7   1397.2    10522.6   1395.9    10536.9   1395.9    10580.9   1396.5    10624.8
GR   1396.8    10682.6   1396.7    10723.4   1395.7    10724.9   1395.8    10740.2   1395.6    10749.4
GR   1395.6    10750.1   1395.5    10777.7   1395.2    10803.0   1395.7    10810.0   1396.0    10834.2
GR   1397.0    10878.1   1397.4    10918.7   1397.3    10958.4   1397.9    11007.4   1397.8    11042.6
GR   1397.6    11072.0   1396.7    11089.8   1394.6    11090.1   1394.1    11097.2   1393.5    11103.0
GR   1393.5    11118.3   1393.5    11131.2   1393.8    11141.7   1393.7    11147.1   1396.4    11164.8
GR   1399.0    11182.5   1399.0    11209.2   1398.9    11239.8   1399.5    11272.9   1399.2    11309.9
GR   1399.2    11350.0   1399.9    11390.9
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NC     .055      .050      .040       .1        .3
ET    9.100       5.1       9.1       9.1      9710     10440                                  8950     10440
        FROM SECTION 9.100 TO SECTION 9.282, THE DIKE IN THE LEFT OVERBANK IS
        OVERTOPPED AND IS UNSTABLE, IT IS THEREFORE IGNORED.
X1    9.100        95    9782.6   10412.8       275       500     411.8
GR   1402.3    7838.9    1401.6    7915.9    1401.8    7962.4    1400.5    8010.5    1399.8      8109
GR   1400.5    8121.5    1398.2    8130.6      1400    8144.7    1400.9    8201.9    1400.2    8227.4
GR   1399.4    8251.8    1398.4    8274.2    1398.3      8358    1397.7    8425.8    1395.1    8463.3
GR   1395.3    8508.2    1393.4    8526.3    1393.1    8575.3    1391.9    8600.8    1392.6    8625.5
GR   1392.3    8649.3    1393.3      8667    1392.1    8681.2    1393.3      8702    1393.6    8725.4
GR   1392.9    8745.8    1392.2    8754.6    1393.3    8766.4    1394.4    8779.1    1394.6    8878.7
GR   1394.7    8960.2      1394    8983.1    1392.6    8994.7    1391.9      9001      1393    9008.3
GR   1392.5      9022    1393.4    9037.3    1393.7    9051.8    1392.9      9064    1394.2    9073.3
GR   1393.3      9097    1394.3    9109.5    1394.3    9197.8    1394.1    9239.2    1394.9      9272
GR   1394.4    9342.2    1395.1    9416.2    1394.9    9494.6    1395.2    9596.7    1396.1    9631.8
GR   1395.8    9654.8    1394.9    9667.7      1395    9696.6    1397.3    9710.4    1394.9    9723.6
GR   1392.9    9738.8    1392.4    9757.9    1393.2    9782.6    1392.4    9789.9    1391.5    9808.3
GR   1390.9    9871.2    1391.7    9899.6    1391.5    9962.3    1392.2    9987.9    1390.1    9998.7
GR   1390.1     10000    1391.1   10012.7    1391.2   10102.1    1391.8   10142.8    1392.4   10232.1
GR   1392.6   10333.1      1392   10393.1    1392.9   10401.2    1398.2   10412.8    1398.8   10433.8
GR   1399.3     10443    1398.2   10456.3    1398.3   10554.7      1398   10654.3    1398.6   10697.7
GR   1397.4   10698.9    1397.4   10736.3    1396.6     10754    1397.5   10770.8    1398.4   10802.1
GR     1398   10851.2    1398.7   10908.7      1398   10951.3    1398.2   11015.2    1397.3   11028.9
GR   1394.6     11029    1394.7   11076.5      1396   11086.8    1399.3   11107.9    1399.7   11134.2

ET    9.200       5.1       9.1       9.1      9815     10326                                  9100     10326
X1    9.200        93    9862.4   10325.2       425       530     528.0
GR   1403.3    8057.9    1402.5    8082.6    1402.6    8115.3    1401.6    8160.9    1400.9    8217.5
GR   1399.9    8273.3    1400.6    8319.2      1400    8343.8    1398.4    8367.9    1396.2    8388.1
GR   1396.7    8411.8    1395.9    8420.5    1396.9    8438.1    1396.8    8508.9    1395.9    8568.5
GR   1395.1    8584.2    1395.5      8609    1394.7    8623.3    1395.7    8637.8    1397.1    8656.4
GR   1397.2    8696.5    1396.5    8716.2    1396.6    8747.4      1398    8764.4    1396.8    8775.3
GR   1395.6    8783.8    1396.5    8819.9    1398.5      8834    1398.5    8907.6    1398.3    8977.6
GR   1397.8    8998.4    1396.7    9008.1      1397    9030.3    1397.8    9045.4    1396.3    9055.6
GR     1396    9064.5    1397.2    9080.1      1398    9104.5      1397    9159.6    1398.1    9179.5
GR   1396.7    9199.8    1397.2    9219.4    1397.9    9242.8    1398.9    9268.1    1400.6      9283
GR   1402.1    9290.8    1397.9    9305.6      1395    9329.9    1395.1    9352.6    1396.4    9374.5
GR     1398    9399.6    1398.7    9427.9    1399.1    9492.8    1399.4    9547.1    1398.7    9584.5
GR   1399.2    9655.1    1398.5    9686.3    1399.8      9712    1399.1    9729.3    1398.5    9783.2
GR   1399.8    9815.1    1398.5    9830.9    1398.6    9843.9    1397.3    9862.4    1393.9    9888.7
GR   1393.2    9906.3    1393.4    9960.9    1392.6    9985.1    1393.7     10000    1393.8   10069.3
GR   1393.9   10167.7      1393   10210.7    1393.1   10273.5    1393.7     10291    1400.1   10304.4
GR   1401.6   10325.2    1401.3   10337.9    1402.3   10341.5    1401.5   10348.9    1403.2   10356.9
GR   1401.1   10365.9    1401.8   10391.6    1401.4   10488.4    1401.5     10572    1400.2   10578.2
GR   1401.4   10584.4    1400.7   10594.1    1401.2   10610.8    1400.3     10629      1401   10645.1
GR   1400.9   10733.4    1401.4   10845.8    1401.6   10883.4

NC     .050      .050      .045       .1        .3
ET    9.282       5.1       9.1       9.1      9849     10275                                  9315     10275
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        FROM SECTION 9.282 TO SECTION 10.280, CITY OF PHOENIX LANDFILL.
X1    9.282       91    9859.4   10075.5     420     440    433.0
GR   1409.2   9311.1    1401.7      9350  1400.8  9358.4   1400.8   9374.7   1401.3     9381
GR   1401.2   9423.2    1400.4    9433.6  1400.7  9439.9   1400.9   9451.1   1399.7     9463
GR   1399.2   9475.8    1400.9    9488.4  1400.6  9496.3   1399.2   9503.9   1399.7   9510.1
GR   1401.3   9519.9      1401    9525.9  1400.2  9531.5   1401.5   9541.1   1401.4   9581.2
GR   1401.9   9598.1    1401.4    9623.4  1401.4  9643.2   1402.2   9652.4   1401.7   9661.4
GR   1401.3   9674.2    1400.6    9678.5  1401.5  9685.1   1401.1   9705.5   1401.4   9734.6
GR   1403.6   9754.7    1401.3      9767  1401.8  9792.7   1401.8   9825.1   1400.9   9835.9
GR   1401.7   9849.1    1400.6    9859.4  1394.6  9877.8   1394.1   9891.1   1394.5   9913.9
GR   1394.8   9928.5    1395.7    9948.8    1395    9968   1394.1     9994   1392.7    10000
GR   1393.1    10018    1392.5   10027.1  1393.2   10038   1392.9  10053.4   1394.4  10066.1
GR   1398.3  10075.5    1397.5   10090.5  1398.2  10101.6  1395.2  10120.4   1393.2  10133.9
GR   1393.2  10161.4    1392.6   10178.4  1393.4  10183.6  1393.5  10207.9   1394.8  10229.1
GR   1394.8  10237.9    1402.3     10254  1404.3  10275.6  1402.9  10291.1   1402.4  10312.2
GR   1402.4  10343.6    1402.4   10377.7  1402.5  10408.9  1402.5  10422.2   1402.5  10457.8
GR   1402.2  10489.1    1402.1   10529.8  1402.2  10568.9  1402.2  10612.7   1402.2  10651.6
GR   1402.1    10692    1402.5   10735.6  1401.5  10764.2  1402.1    10799   1401.9  10830.6
GR   1401.9    10847    1402.2     10871  1401.9  10900.8  1401.9  10924.7   1401.6  10950.4
GR   1402.1  10980.5    1402.2     11015  1402.4  11040.9  1402.1  11074.1   1402.4  11108.7
GR   1402.5  11124.4
ET    9.400      5.1       9.1       9.1    9810    10345                     9810    10500
        FROM SECTION 9.400 TO SECTION 9.560, ET CARDS ARE USED TO MODEL
        EFFECTIVE FLOW AREA IN THE RIGHT OVERBANK AT A 4:1 EXPANSION DOWNSTREAM
        FROM THE CONSTRICTION.
X1    9.400       72    9928.2   10290.6     420     580    623.0
GR   1413.3   9805.7    1409.5      9825  1408.8  9829.2   1408.4   9841.6   1405.6   9858.8
GR   1404.2   9878.7    1403.5    9901.9  1404.8  9918.6   1403.7   9928.2   1398.2   9945.5
GR   1397.4     9967    1397.1    9977.6  1397.7  9996.7   1397.6    10000   1397.5  10022.8
GR   1398.2  10038.2    1398.4   10055.9  1397.8   10084   1397.8  10110.6     1398  10135.9
GR   1398.1  10156.7      1397   10181.3  1396.9  10206.6  1395.8    10229   1394.7  10254.5
GR   1397.1    10270    1401.5   10290.6  1401.7   10307    1403    10330   1403.3  10345.4
GR   1402.6  10354.8    1403.5   10371.5    1404   10398   1403.3  10431.2   1402.9    10462
GR     1404  10490.2    1403.6     10516    1403  10549.1   1403.1  10587.9   1402.8  10623.8
GR   1402.8  10650.6    1402.2   10667.6  1402.7  10687.8   1402.6  10710.7   1401.8  10727.2
GR   1402.7    10750    1403.2   10771.2  1406.3  10785.9   1401.6  10800.3   1402.4  10810.6
GR   1405.4  10820.2    1402.8   10833.2  1402.6   10856   1405.4  10871.9     1407  10886.8
GR   1406.7  10899.3    1406.4   10926.8  1406.3  10967.8   1406.3    11005   1406.2  11050.1
GR     1406  11102.6      1406   11158.7  1405.6  11210.8   1405.9  11247.2     1406  11293.6
GR   1405.4  11342.7    1406.2   11400.3  1406.1  11452.5    1407  11507.4   1407.2  11562.2
GR   1407.5  11614.2    1407.3   11662.2
ET    9.488      5.1       9.1       9.1    9900    10458                     9900    10600
X1    9.488       87    9972.3   10159.6     420     400    464.6
GR   1419.6   9896.7    1412.5      9923  1412.5  9939.8   1408.9   9957.2   1406.8   9962.3
GR   1405.6   9972.3    1402.9      9981    1402  9989.3   1399.9     9995   1399.5    10000
GR   1399.5  10035.7    1400.1   10064.8  1400.2  10097.2  1400.7  10129.5   1400.8  10159.6
GR   1399.9  10184.6    1400.7   10202.9    1398  10213.7  1399.5    10226   1401.7  10243.8
GR     1402  10262.1      1402   10275.1    1402  10285.8    1402  10302.9     1402  10316.8
GR     1402  10330.1      1402   10349.2    1402  10364.6   1401.9  10375.8   1404.2  10387.8
GR   1403.9  10401.6    1403.1     10415  1402.1  10426.3   1403.4  10445.6   1406.3  10458.3
GR   1403.4  10473.6    1402.9   10488.2  1406.9  10499.6   1405.2  10527.6   1406.1  10557.3
GR   1405.5  10587.4    1405.9   10628.5  1405.8    10666   1405.1    10698   1406.7  10727.9
```

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| GR | 1406.1 | 10758.2 | 1406.8 | 10794.1 | 1406.7 | 10829.3 | 1406.6 | 10854.8 | 1407 | 10889.3 |
| GR | 1407.5 | 10911.3 | 1407 | 10922.7 | 1405.8 | 10948.4 | 1404.5 | 10978.5 | 1404.7 | 11004.6 |
| GR | 1404.9 | 11029.2 | 1405.1 | 11038.2 | 1405.8 | 11058.6 | 1405.4 | 11087.3 | 1405.1 | 11115.8 |
| GR | 1406.9 | 11147.7 | 1408.3 | 11177.8 | 1408.5 | 11192.9 | 1408.3 | 11212.8 | 1408.2 | 11237.2 |
| GR | 1409.1 | 11254.3 | 1407.2 | 11267.6 | 1407.2 | 11290 | 1406.9 | 11311.3 | 1406.8 | 11323.5 |
| GR | 1409 | 11332 | 1409 | 11354.1 | 1409.2 | 11399.3 | 1409.3 | 11440.9 | 1409.2 | 11479.9 |
| GR | 1408.9 | 11526.9 | 1409 | 11572.3 | 1409.1 | 11617.5 | 1409 | 11655.4 | 1410.2 | 11676.4 |
| GR | 1412 | 11695.2 | 1411.9 | 11717.2 | 1409.6 | 11726.4 | 1410 | 11757.6 | 1410 | 11788.1 |
| GR | 1411.2 | 11797.2 | 1411 | 11803 | | | | | | |
| X1 | 9.560 | 43 | 9969.6 | 10065.8 | 385 | 365 | 380.2 | | | |
| GR | 1426.9 | 9816.2 | 1424.6 | 9844.4 | 1422.7 | 9859.5 | 1424.3 | 9869 | 1416.7 | 9890.1 |
| GR | 1414.2 | 9909.4 | 1414.2 | 9923.3 | 1413.8 | 9932.9 | 1411.8 | 9939.8 | 1409.7 | 9952.5 |
| GR | 1408.8 | 9969.6 | 1406.9 | 9976.2 | 1397.9 | 9989.1 | 1397.3 | 9993.5 | 1397.3 | 10000 |
| GR | 1397.3 | 10005.7 | 1399.6 | 10016.3 | 1399.7 | 10031.1 | 1400.4 | 10052.1 | 1408.4 | 10065.8 |
| GR | 1409 | 10097.2 | 1408.2 | 10109.8 | 1407 | 10125.5 | 1407 | 10145.6 | 1402.5 | 10165.4 |
| GR | 1402.7 | 10197.6 | 1407 | 10226.1 | 1407 | 10250 | 1407 | 10266 | 1407 | 10287.8 |
| GR | 1407 | 10308.7 | 1407.5 | 10328.8 | 1407.9 | 10337.6 | 1407.6 | 10352.2 | 1408 | 10361.7 |
| GR | 1407.1 | 10381.8 | 1405.4 | 10399.6 | 1403.7 | 10414.3 | 1405.5 | 10429.1 | 1415.8 | 10470.2 |
| GR | 1418.7 | 10483.6 | 1422.2 | 10508.4 | 1421 | 10526.8 | | | | |
| ET | 9.655 | 9.1 | 9.1 | 9.1 | | | | | 9700 | 10280 |
| X1 | 9.655 | 91 | 9815.7 | 10091.7 | 450 | 375 | 501.6 | | | |
| GR | 1415.5 | 8386.9 | 1415.3 | 8396.9 | 1413.2 | 8420.2 | 1412.4 | 8426.5 | 1409.9 | 8435 |
| GR | 1409.6 | 8451.3 | 1410.8 | 8458.2 | 1413 | 8467.4 | 1413.5 | 8496.7 | 1413 | 8506.9 |
| GR | 1413.8 | 8516 | 1413.3 | 8522.1 | 1413.2 | 8538.7 | 1410.9 | 8548.9 | 1410.5 | 8567.5 |
| GR | 1409.9 | 8582.3 | 1408.2 | 8592.7 | 1408.1 | 8615.5 | 1407.2 | 8630.7 | 1408.7 | 8646.2 |
| GR | 1409.7 | 8666.6 | 1409.7 | 8691.5 | 1410.5 | 8715 | 1409.7 | 8741.7 | 1409.8 | 8773.9 |
| GR | 1409.5 | 8811.7 | 1410.7 | 8825.3 | 1409.8 | 8854.6 | 1409.2 | 8865 | 1409.9 | 8878.9 |
| GR | 1409.9 | 8918.2 | 1410.3 | 8950.1 | 1409.7 | 8971.6 | 1410.2 | 8986.7 | 1409.4 | 9002.5 |
| GR | 1410.4 | 9020.3 | 1409.6 | 9038.7 | 1409.3 | 9072.5 | 1410.7 | 9093.3 | 1408.5 | 9111.7 |
| GR | 1409.8 | 9131.4 | 1408.8 | 9149.9 | 1409.3 | 9195.7 | 1410.2 | 9220.6 | 1408.5 | 9237.3 |
| GR | 1408.6 | 9279.7 | 1408.4 | 9335.4 | 1407.8 | 9394.6 | 1407.7 | 9444.9 | 1407.8 | 9495.9 |
| GR | 1408.4 | 9528.4 | 1408.7 | 9560.2 | 1409.5 | 9609.1 | 1409.2 | 9646.1 | 1410.6 | 9668.6 |
| GR | 1416.2 | 9688.3 | 1423.3 | 9700.9 | 1422.7 | 9720.4 | 1416.2 | 9732.8 | 1408.2 | 9760.2 |
| GR | 1406.5 | 9769.9 | 1405.6 | 9776 | 1404 | 9786.8 | 1403.1 | 9797.6 | 1407.5 | 9815.7 |
| GR | 1406.2 | 9824.8 | 1406.2 | 9830.6 | 1402.6 | 9842.7 | 1402.7 | 9888.2 | 1403.1 | 9925.4 |
| GR | 1403.1 | 9946.9 | 1402.5 | 9971.5 | 1403.4 | 9980.3 | 1400.7 | 9987 | 1401 | 10000 |
| GR | 1400.8 | 10006.1 | 1402.5 | 10014.5 | 1402.3 | 10033.6 | 1400.8 | 10047 | 1401.4 | 10057.6 |
| GR | 1404.4 | 10071.7 | 1407.4 | 10091.7 | 1407.7 | 10107.5 | 1408.8 | 10121.7 | 1410.2 | 10140.1 |
| GR | 1410.2 | 10147.8 | 1410.9 | 10158.2 | 1411.4 | 10183 | 1414.8 | 10211.8 | 1421.9 | 10246.5 |
| GR | 1430.7 | 10283.3 | | | | | | | | |
| X1 | 9.713 | 44 | 9726.1 | 10099.3 | 315 | 290 | 306.2 | | | |
| GR | 1429.7 | 9583.1 | 1430.9 | 9598.8 | 1429.2 | 9612.6 | 1426.7 | 9619.9 | 1419.0 | 9631.7 |
| GR | 1419.3 | 9649.0 | 1418.8 | 9666.9 | 1421.5 | 9674.3 | 1410.3 | 9698.4 | 1409.1 | 9713.1 |
| GR | 1408.8 | 9726.1 | 1407.1 | 9743.8 | 1405.6 | 9769.2 | 1403.7 | 9798.1 | 1403.4 | 9809.3 |
| GR | 1402.9 | 9820.6 | 1402.9 | 9849.4 | 1403.5 | 9863.6 | 1402.9 | 9887.6 | 1403.0 | 9912.8 |
| GR | 1402.5 | 9938.4 | 1403.1 | 9965.9 | 1402.1 | 9972.5 | 1401.6 | 9983.6 | 1402.4 | 9989.1 |
| GR | 1402.3 | 10000.0 | 1403.1 | 10017.7 | 1403.3 | 10029.1 | 1402.6 | 10042.8 | 1404.0 | 10054.2 |
| GR | 1406.6 | 10071.1 | 1410.6 | 10089.4 | 1412.6 | 10099.3 | 1412.4 | 10108.7 | 1412.2 | 10122.1 |
| GR | 1412.1 | 10135.2 | 1414.1 | 10158.1 | 1418.6 | 10186.0 | 1425.8 | 10216.2 | 1431.8 | 10249.0 |
| GR | 1437.9 | 10285.5 | 1442.2 | 10335.1 | 1444.2 | 10375.2 | 1444.9 | 10385.5 | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| NC | .050 | .050 | .040 | .1 | .3 | | | | | |
| X1 | 9.800 | 38 | 9789.7 | 10124.4 | 475 | 460 | 459.4 | | | |
| GR | 1442.0 | 9641.4 | 1430.7 | 9680.0 | 1425.9 | 9698.7 | 1424.7 | 9706.0 | 1423.8 | 9708.3 |
| GR | 1423.6 | 9721.5 | 1423.8 | 9737.0 | 1426.1 | 9744.0 | 1418.9 | 9759.4 | 1412.2 | 9789.7 |
| GR | 1408.5 | 9819.7 | 1404.4 | 9858.4 | 1403.9 | 9887.7 | 1404.0 | 9913.5 | 1403.8 | 9935.5 |
| GR | 1403.1 | 9964.8 | 1403.9 | 9990.1 | 1402.7 | 10000.0 | 1403.7 | 10019.8 | 1404.9 | 10037.6 |
| GR | 1406.0 | 10045.8 | 1405.5 | 10054.2 | 1407.1 | 10061.5 | 1407.1 | 10075.8 | 1408.9 | 10096.5 |
| GR | 1410.4 | 10124.4 | 1413.3 | 10153.4 | 1416.3 | 10183.4 | 1415.9 | 10200.9 | 1416.2 | 10209.9 |
| GR | 1417.1 | 10224.1 | 1420.7 | 10248.2 | 1426.8 | 10283.2 | 1439.7 | 10332.9 | 1445.6 | 10368.4 |
| GR | 1449.0 | 10397.4 | 1448.8 | 10436.6 | 1449.3 | 10465.4 | | | | |
| X1 | 9.896 | 28 | 9944.8 | 10157.1 | 460 | 505 | 506.9 | | | |
| GR | 1442.7 | 9801.7 | 1431.0 | 9844.8 | 1424.1 | 9861.4 | 1424.7 | 9893.6 | 1425.6 | 9901.1 |
| GR | 1416.5 | 9923.3 | 1410.1 | 9944.8 | 1408.1 | 9963.6 | 1406.2 | 9981.2 | 1405.0 | 9991.6 |
| GR | 1405.5 | 10000.0 | 1407.1 | 10026.3 | 1407.0 | 10061.5 | 1406.3 | 10096.9 | 1407.0 | 10122.9 |
| GR | 1407.0 | 10143.8 | 1408.9 | 10157.1 | 1408.9 | 10172.1 | 1409.2 | 10192.3 | 1411.0 | 10228.4 |
| GR | 1414.8 | 10266.5 | 1416.6 | 10302.3 | 1417.5 | 10321.7 | 1417.7 | 10347.4 | 1421.7 | 10382.9 |
| GR | 1430.4 | 10429.3 | 1436.3 | 10466.2 | 1438.9 | 10484.1 | | | | |
| X1 | 9.983 | 32 | 9975.3 | 10113.1 | 435 | 495 | 459.4 | | | |
| GR | 1442.0 | 9804.1 | 1429.5 | 9846.1 | 1424.8 | 9852.0 | 1425.7 | 9865.6 | 1424.6 | 9879.5 |
| GR | 1425.9 | 9886.2 | 1419.9 | 9897.6 | 1415.9 | 9936.8 | 1414.8 | 9969.1 | 1414.7 | 9975.3 |
| GR | 1410.1 | 9978.7 | 1407.1 | 9985.3 | 1409.4 | 9993.1 | 1408.7 | 10000.0 | 1409.0 | 10038.4 |
| GR | 1409.4 | 10071.2 | 1410.5 | 10093.9 | 1412.1 | 10113.1 | 1412.8 | 10140.9 | 1413.8 | 10161.1 |
| GR | 1414.8 | 10188.1 | 1415.5 | 10225.7 | 1415.8 | 10255.9 | 1417.8 | 10279.3 | 1420.4 | 10302.7 |
| GR | 1419.7 | 10330.2 | 1421.7 | 10358.5 | 1424.1 | 10380.0 | 1429.3 | 10406.5 | 1430.1 | 10437.5 |
| GR | 1438.6 | 10491.0 | 1441.1 | 10511.4 | | | | | | |
| ET | 10.108 | 9.1 | 9.1 | 9.1 | | | | | 9740 | 10436 |
| X1 | 10.108 | 43 | 9858.7 | 10258.7 | 625 | 485 | 660.0 | | | |
| GR | 1448.8 | 9496.8 | 1439.2 | 9539.3 | 1428.3 | 9591.0 | 1424.0 | 9609.5 | 1423.3 | 9635.6 |
| GR | 1424.2 | 9663.2 | 1424.7 | 9676.2 | 1424.4 | 9694.7 | 1425.5 | 9709.0 | 1430.5 | 9726.6 |
| GR | 1432.3 | 9739.2 | 1429.4 | 9756.5 | 1423.2 | 9792.2 | 1422.9 | 9811.2 | 1423.4 | 9834.6 |
| GR | 1422.3 | 9858.7 | 1418.5 | 9891.8 | 1415.2 | 9918.0 | 1415.4 | 9937.5 | 1415.5 | 9956.5 |
| GR | 1413.9 | 9976.2 | 1415.3 | 9994.7 | 1414.4 | 10000.0 | 1414.5 | 10031.0 | 1416.7 | 10048.3 |
| GR | 1415.6 | 10069.9 | 1415.8 | 10101.7 | 1414.6 | 10122.2 | 1414.7 | 10136.0 | 1416.8 | 10163.2 |
| GR | 1417.3 | 10186.7 | 1418.5 | 10224.0 | 1420.9 | 10258.7 | 1423.3 | 10272.2 | 1423.0 | 10292.2 |
| GR | 1423.7 | 10298.1 | 1427.0 | 10335.6 | 1431.8 | 10367.4 | 1434.1 | 10383.0 | 1433.7 | 10394.7 |
| GR | 1438.6 | 10423.2 | 1441.6 | 10436.6 | 1441.5 | 10436.8 | | | | |
| ET | 10.180 | 9.1 | 9.1 | 9.1 | | | | | 9784 | 10400 |
| X1 | 10.180 | 48 | 9891.1 | 10253.0 | 405 | 335 | 380.2 | | | |
| GR | 1437.0 | 9471.6 | 1431.6 | 9508.4 | 1427.5 | 9537.8 | 1427.1 | 9558.8 | 1427.6 | 9581.2 |
| GR | 1428.7 | 9592.9 | 1427.9 | 9599.2 | 1426.2 | 9601.2 | 1428.4 | 9605.1 | 1428.1 | 9617.1 |
| GR | 1429.0 | 9652.1 | 1427.8 | 9670.4 | 1428.6 | 9698.9 | 1428.3 | 9726.1 | 1427.4 | 9744.2 |
| GR | 1429.8 | 9756.1 | 1435.2 | 9770.2 | 1436.1 | 9784.0 | 1429.1 | 9812.0 | 1426.3 | 9833.1 |
| GR | 1424.6 | 9859.1 | 1422.4 | 9891.1 | 1420.0 | 9914.7 | 1420.2 | 9938.9 | 1419.1 | 9962.2 |
| GR | 1417.5 | 9978.0 | 1417.4 | 10000.0 | 1417.4 | 10028.0 | 1417.8 | 10051.8 | 1417.2 | 10070.6 |
| GR | 1417.1 | 10089.0 | 1416.5 | 10108.6 | 1414.4 | 10131.7 | 1415.3 | 10144.3 | 1417.8 | 10158.8 |
| GR | 1418.7 | 10187.5 | 1420.2 | 10219.5 | 1421.5 | 10253.0 | 1423.2 | 10282.0 | 1423.8 | 10296.8 |
| GR | 1423.2 | 10309.0 | 1424.8 | 10330.5 | 1425.5 | 10339.8 | 1426.5 | 10367.9 | 1428.1 | 10390.6 |
| GR | 1429.6 | 10437.2 | 1431.0 | 10477.5 | 1431.0 | 10490.7 | | | | |

NEAR HAPPY VALLEY ROAD DIP SECTION.
FROM SECTION 10.280 TO SECTION 10.389, ET CARDS ARE USED TO MODEL
EFFECTIVE FLOW AREA IN THE LEFT OVERBANK AT A 1:1 CONTRACTION UPSTREAM
FROM THE CONSTRICTION.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X1 | 10.280 | 68 | 9863.9 | 10120.0 | 550 | 490 | 528.0 | | | |
| GR | 1439.1 | 9581.7 | 1439.6 | 9622.5 | 1439.3 | 9655.8 | 1435.4 | 9688.3 | 1430.6 | 9730.0 |
| GR | 1429.1 | 9756.0 | 1428.8 | 9774.3 | 1429.8 | 9806.3 | 1430.9 | 9837.1 | 1430.2 | 9863.9 |
| GR | 1427.6 | 9887.9 | 1424.0 | 9918.0 | 1421.9 | 9939.2 | 1421.7 | 9958.7 | 1421.2 | 9982.8 |
| GR | 1421.1 | 10000.0 | 1420.7 | 10022.2 | 1420.2 | 10038.1 | 1419.5 | 10051.2 | 1422.5 | 10065.5 |
| GR | 1426.2 | 10092.8 | 1429.8 | 10120.0 | 1430.8 | 10140.8 | 1430.2 | 10166.5 | 1429.0 | 10193.1 |
| GR | 1429.2 | 10213.0 | 1429.2 | 10218.6 | 1429.6 | 10241.4 | 1430.2 | 10258.8 | 1429.9 | 10282.7 |
| GR | 1431.2 | 10294.7 | 1427.9 | 10310.2 | 1429.6 | 10321.1 | 1430.0 | 10337.0 | 1428.6 | 10361.3 |
| GR | 1427.3 | 10385.1 | 1427.8 | 10407.2 | 1428.2 | 10423.0 | 1427.3 | 10436.2 | 1429.0 | 10454.8 |
| GR | 1429.3 | 10467.2 | 1427.6 | 10478.6 | 1425.7 | 10487.9 | 1428.1 | 10508.7 | 1429.6 | 10533.6 |
| GR | 1429.6 | 10564.5 | 1429.5 | 10592.4 | 1430.5 | 10606.3 | 1431.5 | 10612.3 | 1431.9 | 10629.2 |
| GR | 1431.9 | 10643.8 | 1429.8 | 10656.9 | 1429.0 | 10669.4 | 1431.0 | 10692.5 | 1434.7 | 10719.7 |
| GR | 1440.9 | 10744.1 | 1442.1 | 10755.5 | 1444.0 | 10771.8 | 1444.0 | 10782.6 | 1442.6 | 10788.0 |
| GR | 1444.6 | 10802.3 | 1445.4 | 10823.8 | 1445.7 | 10843.7 | 1444.7 | 10866.7 | 1446.0 | 10903.0 |
| GR | 1444.8 | 10927.1 | 1446.2 | 10958.8 | 1446.1 | 10967.2 | | | | |
| ET | 10.389 | 9.1 | 9.1 | 9.1 | | | | | 8482 | 10410 |
| X1 | 10.389 | 92 | 9919.5 | 10224.1 | 605 | 480 | 575.5 | | | |
| GR | 1440.6 | 8481.8 | 1440.8 | 8501.1 | 1441.1 | 8509.9 | 1440.4 | 8545.2 | 1438.6 | 8583 |
| GR | 1437.5 | 8611.4 | 1436.8 | 8652 | 1435.4 | 8687.1 | 1434.3 | 8717.9 | 1434.6 | 8751.7 |
| GR | 1434.6 | 8795.6 | 1434.9 | 8842.1 | 1434.7 | 8882.4 | 1434.7 | 8923.4 | 1434.7 | 8962.6 |
| GR | 1434.4 | 8996.1 | 1435.1 | 9027.7 | 1435.1 | 9052.6 | 1433.9 | 9073.5 | 1433.1 | 9097.6 |
| GR | 1433 | 9108.4 | 1433.9 | 9126.1 | 1433 | 9146.8 | 1433.2 | 9165.3 | 1432.2 | 9171.9 |
| GR | 1433.4 | 9184.6 | 1432.5 | 9195.4 | 1431.9 | 9201.1 | 1433.7 | 9211.9 | 1432.8 | 9230.4 |
| GR | 1431.6 | 9237.4 | 1432.9 | 9249.4 | 1432.6 | 9280.3 | 1432.7 | 9308.5 | 1432.9 | 9344.1 |
| GR | 1431.8 | 9372 | 1431.7 | 9399.9 | 1432.8 | 9427.2 | 1431.9 | 9446.1 | 1430.6 | 9470.3 |
| GR | 1430.5 | 9480.5 | 1432.6 | 9502.2 | 1432.1 | 9525.5 | 1432.3 | 9554.1 | 1432.8 | 9582 |
| GR | 1432.7 | 9613.4 | 1431.3 | 9635.5 | 1432.9 | 9665.3 | 1432.9 | 9698.1 | 1433.5 | 9737.4 |
| GR | 1433.5 | 9771.4 | 1433.3 | 9809.3 | 1432.4 | 9819.5 | 1431.8 | 9842 | 1432.8 | 9865.1 |
| GR | 1433 | 9897.2 | 1433.6 | 9919.5 | 1431.6 | 9931.3 | 1429.3 | 9947.9 | 1427.5 | 9969.5 |
| GR | 1426.1 | 9981.6 | 1426.2 | 9990.1 | 1427.2 | 10000 | 1426.6 | 10022.4 | 1426.8 | 10043.4 |
| GR | 1425.7 | 10065.5 | 1426.1 | 10086.1 | 1427 | 10110.2 | 1428 | 10142 | 1428.9 | 10167.1 |
| GR | 1430.9 | 10188.9 | 1432.6 | 10224.1 | 1432.9 | 10260.2 | 1432.9 | 10293.5 | 1431.7 | 10320.9 |
| GR | 1431.5 | 10343.6 | 1432.3 | 10360.1 | 1440.8 | 10397.6 | 1443.4 | 10413.8 | 1442.5 | 10433.7 |
| GR | 1441.9 | 10456.2 | 1441.2 | 10476.3 | 1439.1 | 10495.2 | 1437.8 | 10510.1 | 1436.7 | 10532 |
| GR | 1437.3 | 10549.1 | 1435.8 | 10568.2 | 1436.1 | 10577.4 | 1441.6 | 10608.3 | 1443.8 | 10644 |
| GR | 1446.6 | 10661.8 | 1448.7 | 10674 | | | | | | |

SECTION 10.468 & 10.565, A LARGE BORROW PIT IS NOT EFFECTIVE FLOW AREA.
THIS AREA HAS BEEN MODELED AS THOUGH THE HOLE WAS FILLED IN TO THE
ADJACENT GROUND ELEVATIONS.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X1 | 10.468 | 71 | 9784.0 | 10095 | 410 | 390 | 417.1 | | | |
| GR | 1446.3 | 8365.1 | 1446.2 | 8403.1 | 1446.3 | 8447.8 | 1445.9 | 8491.6 | 1445.9 | 8526.6 |
| GR | 1444.2 | 8562.1 | 1442.7 | 8591.4 | 1443.0 | 8619.4 | 1443.4 | 8647.6 | 1442.7 | 8673.0 |
| GR | 1441.4 | 8710.9 | 1441.9 | 8741.8 | 1442.4 | 8776.3 | 1442.6 | 8814.0 | 1442.0 | 8849.0 |
| GR | 1441.6 | 8888.0 | 1440.7 | 8928.3 | 1439.3 | 8963.1 | 1437.9 | 8994.7 | 1436.1 | 9020.9 |
| GR | 1435.6 | 9046.3 | 1435.2 | 9060.0 | 1435.1 | 9070.0 | 1434.5 | 9078.1 | 1433.5 | 9081.4 |
| GR | 1435.9 | 9092.7 | 1435.5 | 9116.0 | 1435.5 | 9702.7 | 1434.7 | 9708.7 | 1435.0 | 9724.7 |
| GR | 1436.0 | 9736.6 | 1434.8 | 9754.7 | 1435.6 | 9768.4 | 1434.2 | 9784.0 | 1432.3 | 9800.8 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| GR | 1430.5 | 9817.4 | 1429.5 | 9836.4 | 1428.8 | 9847.9 | 1431.7 | 9857.3 | 1430.4 | 9870.6 |
| GR | 1428.4 | 9877.9 | 1427.7 | 9885.3 | 1429.2 | 9894.5 | 1430.5 | 9906.6 | 1431.0 | 9939.4 |
| GR | 1430.7 | 9977.7 | 1430.7 | 9997.5 | 1430.7 | 10000. | 1430.3 | 10011. | 1428.9 | 10016. |
| GR | 1428.5 | 10022. | 1430.2 | 10033. | 1430.3 | 10048. | 1431.9 | 10070. | 1434.2 | 10095. |
| GR | 1436.1 | 10115. | 1435.8 | 10129. | 1434.7 | 10142. | 1437.3 | 10160. | 1442.4 | 10180. |
| GR | 1445.8 | 10194. | 1445.9 | 10215. | 1446.2 | 10232. | 1447.3 | 10255. | 1447.8 | 10285. |
| GR | 1448.0 | 10324. | 1448.2 | 10366. | 1449.1 | 10403. | 1449.9 | 10452. | 1449.0 | 10524. |
| GR | 1449.2 | 10549. | | | | | | | | |
| X1 | 10.565 | 46 | 9857.8 | 10069.7 | 470 | 545 | 512.2 | | | |
| GR | 1444.0 | 9088.1 | 1443.4 | 9144.8 | 1441.8 | 9175.9 | 1440.7 | 9194.0 | 1441.3 | 9215.0 |
| GR | 1441.5 | 9227.1 | 1439.5 | 9243.1 | 1439.4 | 9265.2 | 1438.6 | 9286.2 | 1437.0 | 9295.2 |
| GR | 1438.5 | 9304.8 | 1438.5 | 9775.0 | 1438.2 | 9801.1 | 1436.2 | 9820.8 | 1435.9 | 9857.8 |
| GR | 1434.1 | 9893.2 | 1433.4 | 9914.0 | 1433.1 | 9939.2 | 1432.9 | 9965.3 | 1432.6 | 9991.0 |
| GR | 1431.2 | 10000.0 | 1430.0 | 10015.0 | 1430.3 | 10026.2 | 1433.2 | 10035.9 | 1434.8 | 10050.2 |
| GR | 1437.8 | 10069.7 | 1437.1 | 10079.5 | 1436.6 | 10084.5 | 1439.9 | 10100.7 | 1439.6 | 10116.0 |
| GR | 1440.0 | 10135.1 | 1440.4 | 10157.5 | 1447.0 | 10186.0 | 1449.4 | 10205.0 | 1450.3 | 10223.2 |
| GR | 1450.9 | 10243.9 | 1451.1 | 10272.3 | 1450.2 | 10293.2 | 1449.1 | 10312.5 | 1450.6 | 10335.2 |
| GR | 1447.4 | 10357.4 | 1447.9 | 10367.4 | 1449.1 | 10394.5 | 1449.8 | 10410.4 | 1448.5 | 10421.8 |
| GR | 1447.3 | 10429.2 | | | | | | | | |
| ET | 10.617 | 5.1 | | | 9560 | 10258 | | | | |
| X1 | 10.617 | 63 | 9913.3 | 10117.4 | 275 | 280 | 274.6 | | | |
| GR | 1446.1 | 8739.1 | 1446.2 | 8760.6 | 1444.7 | 8779.1 | 1444.6 | 8826.2 | 1444.6 | 8872.9 |
| GR | 1445.2 | 8922.0 | 1445.4 | 8967.5 | 1445.8 | 9015.7 | 1446.4 | 9061.2 | 1445.2 | 9101.8 |
| GR | 1445.7 | 9150.3 | 1445.2 | 9194.8 | 1444.1 | 9227.9 | 1444.4 | 9263.5 | 1443.4 | 9298.5 |
| GR | 1441.5 | 9333.3 | 1440.8 | 9352.3 | 1441.2 | 9374.1 | 1441.2 | 9400.6 | 1441.6 | 9431.9 |
| GR | 1442.3 | 9455.5 | 1441.8 | 9479.8 | 1441.7 | 9492.6 | 1441.8 | 9512.5 | 1440.8 | 9530.1 |
| GR | 1442.2 | 9560.8 | 1442.0 | 9587.8 | 1441.1 | 9613.2 | 1440.4 | 9639.5 | 1441.4 | 9663.0 |
| GR | 1441.7 | 9703.0 | 1441.8 | 9736.5 | 1441.3 | 9769.4 | 1441.2 | 9791.7 | 1440.6 | 9802.0 |
| GR | 1440.7 | 9802.5 | 1441.1 | 9830.1 | 1441.7 | 9838.4 | 1440.5 | 9861.6 | 1439.6 | 9884.0 |
| GR | 1437.3 | 9897.9 | 1437.4 | 9913.3 | 1435.8 | 9927.5 | 1434.1 | 9941.1 | 1432.9 | 9958.4 |
| GR | 1433.0 | 9978.4 | 1434.5 | 10000.0 | 1433.7 | 10016.4 | 1433.5 | 10032.6 | 1434.5 | 10053.1 |
| GR | 1433.9 | 10069.3 | 1434.8 | 10086.8 | 1435.0 | 10101.0 | 1439.7 | 10117.4 | 1440.7 | 10125.4 |
| GR | 1440.3 | 10136.3 | 1438.4 | 10144.4 | 1438.3 | 10153.9 | 1441.9 | 10172.0 | 1450.3 | 10196.9 |
| GR | 1456.1 | 10223.4 | 1462.8 | 10247.6 | 1465.4 | 10258.4 | | | | |
| ET | 10.707 | 9.1 | 9.1 | 9.1 | | | | | 9450 | 10590 |
| X1 | 10.707 | 73 | 9921.2 | 10059.1 | 470 | 360 | 475.2 | | | |
| GR | 1448.5 | 8988.3 | 1448.3 | 9027.7 | 1448.8 | 9072.5 | 1448.3 | 9106.9 | 1448.4 | 9145.8 |
| GR | 1448.3 | 9181.6 | 1447.1 | 9221.7 | 1446.3 | 9258.1 | 1446.0 | 9285.8 | 1446.2 | 9307.6 |
| GR | 1447.6 | 9339.4 | 1448.1 | 9367.9 | 1449.1 | 9398.3 | 1449.3 | 9424.9 | 1449.3 | 9445.7 |
| GR | 1448.9 | 9467.6 | 1450.9 | 9496.6 | 1449.2 | 9534.8 | 1448.8 | 9572.3 | 1448.5 | 9607.8 |
| GR | 1448.4 | 9648.9 | 1445.4 | 9682.6 | 1444.3 | 9716.9 | 1444.0 | 9735.2 | 1444.4 | 9744.6 |
| GR | 1443.3 | 9752.8 | 1442.4 | 9761.8 | 1443.9 | 9772.8 | 1444.4 | 9792.2 | 1443.9 | 9802.7 |
| GR | 1443.3 | 9824.6 | 1442.1 | 9841.0 | 1440.3 | 9856.2 | 1438.9 | 9881.0 | 1439.7 | 9901.1 |
| GR | 1439.2 | 9921.2 | 1438.9 | 9936.7 | 1438.0 | 9957.5 | 1436.9 | 9976.8 | 1434.6 | 9986.7 |
| GR | 1433.0 | 9994.5 | 1432.9 | 10000.0 | 1434.3 | 10014.7 | 1435.6 | 10025.3 | 1437.8 | 10034.7 |
| GR | 1438.0 | 10044.9 | 1439.5 | 10052.7 | 1444.3 | 10059.1 | 1444.2 | 10089.2 | 1443.8 | 10128.8 |
| GR | 1444.5 | 10151.2 | 1443.9 | 10178.2 | 1443.7 | 10217.2 | 1443.6 | 10253.5 | 1443.8 | 10261.9 |
| GR | 1443.6 | 10284.9 | 1443.5 | 10312.5 | 1443.6 | 10335.5 | 1443.5 | 10341.7 | 1444.0 | 10357.7 |
| GR | 1442.9 | 10379.3 | 1443.7 | 10400.3 | 1441.8 | 10412.1 | 1437.3 | 10421.2 | 1434.3 | 10426.2 |
| GR | 1434.3 | 10434.4 | 1435.0 | 10444.8 | 1437.3 | 10455.8 | 1450.2 | 10481.6 | 1454.7 | 10507.7 |
| GR | 1462.3 | 10548.9 | 1469.4 | 10586.7 | 1471.6 | 10597.3 | | | | |

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NC     .050      .050      .050        .1        .3
QT        3     10500     27000     35000
ET   10.808       9.1       9.1       9.1                                                    9550     10800
        CONFLUENCE WITH BUCHANAN WASH.
        FROM SECTION 10.808 TO SECTION 11.088, ET CARDS ARE USED TO MODEL
        EFFECTIVE FLOW AREA IN THE RIGHT AND LEFT OVERBANKS AT A 4:1 EXPANSION
        DOWNSTREAM FROM THE CHANNELIZATION. SINCE THESE SECTIONS ARE ENCROACHED
        TO THE EFFECTIVE FLOW AREA FROM THE CHANNELIZATION, THE LOWER Q WAS
        USED (NOT INCLUDING BUCHANAN WASH).  THE FLOODPLAIN WAS EXTRAPOLATED
        TO MEET THE NATURAL GROUND.
X1   10.808        92    9911.9   10042.6       470       525     533.3
GR   1450.9    9262.8    1449.8      9304    1449.4    9372.6    1449.5    9396.4    1450.1    9413.5
GR     1450    9438.1    1450.8    9465.1    1450.8      9539    1450.7    9587.1    1450.1    9602.8
GR   1448.8    9621.7    1448.1    9651.2    1448.3    9677.5    1447.1    9688.4    1448.6    9697.8
GR   1447.5    9707.3    1445.3    9717.1    1447.2    9723.6      1449    9737.9    1448.6    9787.6
GR   1447.3    9801.6    1447.2    9816.4    1448.7    9829.8    1447.9    9841.1    1447.8    9855.9
GR   1446.8    9871.4    1446.1    9878.3      1445    9883.8    1445.2    9911.9      1443    9915.3
GR   1441.1    9925.8    1440.6    9935.1      1440    9944.2    1442.1    9953.1    1440.8    9964.1
GR   1441.4    9977.3    1440.7     10000    1439.9     10010    1439.6   10014.6    1443.4   10026.3
GR   1448.2   10042.6    1448.1   10054.2    1446.4   10072.5    1443.4   10086.1    1444.5   10101.8
GR   1445.4   10116.7    1444.3   10131.7    1442.8   10147.6    1442.7     10157    1444.2   10171.1
GR   1447.3   10183.6    1447.7   10198.2      1447     10217    1447.8   10240.1    1446.9   10247.8
GR   1445.8   10252.2    1447.8   10262.2    1447.7   10263.3    1446.9   10285.3    1447.4   10334.3
GR   1443.6   10344.8    1443.4   10349.1    1445.9   10359.2    1446.5     10399    1444.7   10415.4
GR   1446.5   10428.3    1445.9   10446.9      1446   10469.7    1443.6   10480.1      1445   10494.8
GR     1446   10518.6    1445.9   10583.3    1445.8   10661.5    1445.3     10690    1443.9   10700.9
GR   1444.9   10710.1    1445.3   10741.5      1444   10752.5    1445.3   10763.7    1444.5   10843.1
GR   1444.2   10913.6    1444.1   10942.1    1442.9   10951.9    1439.9   10958.9    1442.8   10963.9
GR   1436.6   10970.9    1436.6   10978.1      1438   10990.4    1446.3   10999.9    1446.7   11021.1
GR   1448.1   11035.9    1451.4   11055.5

ET   10.888       9.1       9.1       9.1                                                    9600     10450
X1   10.888        94    9818.3     10018       450       620     422.4
GR     1458    8472.2    1457.6    8531.7    1456.9    8581.8      1456    8622.5    1454.3    8677.7
GR   1454.4    8714.1    1453.8    8739.8    1452.9    8811.3      1453    8861.9      1453    8938.6
GR   1453.4    9015.4    1454.2      9062    1454.8    9143.9    1455.3    9232.1    1454.7    9259.7
GR   1455.2    9325.4    1455.5    9383.1    1454.5    9410.8    1453.7    9438.3    1452.9    9481.7
GR   1453.2    9547.2      1453    9612.8    1453.1    9663.1    1452.3    9677.4    1451.1      9686
GR   1445.8    9691.8    1443.2    9698.8    1442.5      9718      1443    9739.2      1444    9746.8
GR   1446.8      9763    1447.2    9778.1    1448.3    9799.5    1448.2    9818.3    1447.5    9836.3
GR   1444.6    9848.3    1445.3    9891.6      1447    9898.9    1445.9    9912.9    1445.2    9927.6
GR   1445.5    9945.9    1444.8    9976.7    1443.3    9999.6    1443.3     10000    1443.2   10008.7
GR   1444.2    10013.    1450.4     10018    1450.3     10058    1449.2   10069.7    1449.8   10092.1
GR   1450.1    10160.    1448.2   10176.1      1449   10197.9    1448.3   10210.9    1449.2     10230
GR   1449.8    10303.    1449.1   10367.3    1449.3   10387.7    1448.7   10405.3    1449.4   10463.1
GR   1450.4    10495.    1449.8   10556.5    1449.2   10626.3    1449.3   10684.6    1449.3   10747.6
GR   1449.4    10822.    1449.2   10889.1    1448.6   10949.5    1448.2   11020.5    1447.8   11075.5
GR   1448.4    11128.    1447.8   11163.3    1447.9   11175.3    1440.5   11183.5    1439.8   11193.8
GR   1440.9    11201.    1447.7   11208.5    1448.4     11225    1448.5   11235.8    1447.4   11252.6
GR   1446.5    11268.    1446.1   11284.6      1448   11297.1    1447.1   11301.2    1445.4   11306.3
GR   1447.9    11315.    1447.4   11351.6    1448.1   11382.7    1447.9   11420.7    1449.1   11463.4
GR   1450.2    11500.    1450.8   11530.2    1454.3   11547.2      1461   11577.7
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ET   10.960      9.1      9.1      9.1                                          9600    10250
X1   10.960       95   9938.2  10024.0      330      460    380.2
GR   1456.2   8684.7   1455.9   8731.8   1456.1   8818.3   1455.9   8861.7   1456.7   8904.4
GR   1457.2   8988.1   1456.7   9070.8   1456.9   9152.9   1457.1   9185.8   1457.7   9215.3
GR   1457.7   9230.6   1456.9   9260.8   1456.1     9305   1456.1   9337.5     1456   9383.1
GR   1456.7   9438.9   1456.2     9452   1453.2   9469.6   1448.5   9480.9   1444.9   9486.7
GR     1444   9500.4   1444.6   9511.1   1446.8   9530.8   1448.2   9551.2   1448.9   9573.5
GR   1449.5   9590.7   1450.3   9598.7   1451.8   9609.8   1452.8   9618.4   1451.6     9625
GR   1449.5   9632.7   1450.5   9652.4   1452.2   9672.3   1452.2   9735.3   1452.1   9817.8
GR   1452.2   9856.7   1451.7     9886   1450.7   9907.1   1450.3   9938.2   1449.5   9964.9
GR   1446.8   9974.3   1443.9   9992.4   1443.8    10000   1443.8    10008   1446.3    10019
GR   1450.2   10024.   1450.6   10088.   1450.9    10163   1451.2   10191.5     1452   10225.6
GR   1452.2   10250.   1452.6   10294.   1452.4   10346.     1453   10368.4   1452.2   10403.7
GR   1452.8   10444.   1452.2   10486.   1451.8    10532   1451.7   10611.2   1451.5   10682.9
GR   1451.5   10757.   1451.7    10803   1451.2   10844.   1449.8   10865.6   1449.4   10873.8
GR     1450   10881.   1449.3   10890.   1449.7   10923.   1450.4     10942   1449.9   10962.5
GR   1442.7   10971.   1442.1   10977.   1442.7   10982.   1449.5   10987.4   1450.4   10993.8
GR   1450.6   11055.   1450.4   11115.   1449.1   11130.   1450.4   11147.2   1449.1   11158.3
GR   1450.3   11171.   1450.3   11218.   1450.8   11268.   1450.1   11309.4   1449.3   11318.6
GR   1450.2   11334.   1451.1   11392.   1451.5   11453.   1451.5   11515.6   1452.6   11535.6
GR   1454.5   11562.   1454.4   11585.   1453.7   11617.   1454.7   11670.5   1463.1   11697.3

ET   11.049      9.1      9.1      9.1                                          9800    10200
X1   11.049       93   9838.4  10179.8      455      500    469.9
GR   1459.9   8810.5   1459.7   8863.4   1458.9   8920.2   1458.1   8977.5   1458.3   9063.2
GR   1458.6   9085.5   1459.3   9128.3   1459.6   9179.5   1459.6   9245.7   1459.7   9323.8
GR   1460.3   9353.7   1460.5   9397.1   1459.7   9427.6     1459     9462   1459.1   9513.1
GR   1459.5   9532.7   1458.9   9552.3   1456.5   9561.5   1453.5   9565.7   1448.9   9567.6
GR   1448.8     9589   1450.4   9610.2   1451.1   9629.4   1449.7     9648   1451.4   9665.3
GR   1452.8   9685.1   1452.5   9729.4   1454.6   9747.4   1455.2   9818.1     1454   9838.4
GR   1452.9     9858   1451.8   9871.2   1452.4   9908.7   1451.8   9947.9   1451.4    10000
GR   1451.2  10081.7   1451.5  10146.6   1453.1  10179.8     1454  10251.2   1454.2  10288.5
GR   1454.8  10328.4   1454.7  10394.7   1454.7  10401.8   1454.2  10462.2   1453.8  10524.2
GR   1453.7  10572.8   1453.4  10628.9   1453.1  10687.8   1452.4  10726.6   1452.2  10781.9
GR   1452.2  10840.6   1452.4  10893.9   1454.7  10917.5   1456.5  10943.7   1457.2  10978.3
GR   1457.2  11008.9   1456.4  11028.5   1455.2  11055.5   1452.7  11075.3   1452.1  11098.6
GR   1451.5  11115.2   1450.6    11162   1451.2  11181.8   1450.6  11188.1   1451.7  11196.7
GR     1452  11204.7   1450.7  11221.5   1451.7  11240.6   1452.2  11263.4   1451.2  11280.8
GR   1452.9  11297.6   1452.6    11309   1449.8  11317.3   1446.4  11324.3   1445.6  11334.5
GR   1446.6    11341   1452.4    11349   1451.6  11363.1   1450.8  11385.1   1450.5  11407.8
GR   1451.3    11433   1452.3  11454.1   1452.3  11525.4   1452.2  11600.8   1452.9    11637
GR   1453.6  11658.4   1454.1  11684.2   1454.7    11711   1455.6    11724     1459  11739.8
GR   1461.1  11758.4   1464.7  11783.4     1466  11789.3

NC     .050     .050     .030       .1       .3
ET   11.088      9.1      9.1      9.1                                          9814    10215
        DOWNSTREAM END OF CORPS CHANNELIZATION FOR I-17 CROSSING.
X1   11.088       91   9835.6  10173.2      210      210    205.9
GR   1461.9   8869.0   1462.0   8946.4   1461.4   9008.4   1460.7   9080.0   1460.5   9161.0
GR   1461.1   9239.7   1461.3   9328.9   1461.9   9397.0   1462.1   9444.0   1462.1   9450.4
GR   1461.2   9474.2   1459.4   9521.5   1457.0   9544.1   1451.2   9558.9   1450.7   9576.0
GR   1453.1   9589.1   1452.1   9610.8   1451.9   9632.6   1452.0   9639.8   1454.0   9652.7
GR   1453.6   9678.9   1453.2   9712.7   1453.1   9741.4   1453.1   9762.9   1465.8   9788.7
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GR   1467.0    9795.2    1467.2    9813.7    1466.7    9835.6    1464.1    9843.8    1451.3    9869.4
GR   1452.3    9915.8    1452.2    9946.0    1452.0    9993.4    1452.1   10000.0    1452.4   10067.3
GR   1451.5   10112.8    1452.6   10138.8    1468.8   10173.2    1468.7   10191.9    1469.0   10214.9
GR   1461.1   10235.2    1455.5   10249.9    1456.0   10289.2    1456.3   10341.4    1456.2   10389.9
GR   1455.9   10436.7    1455.7   10490.1    1454.9   10528.6    1454.5   10574.3    1454.7   10613.6
GR   1454.2   10649.4    1454.2   10693.2    1454.0   10730.3    1453.2   10758.2    1453.8   10780.0
GR   1455.0   10812.2    1454.7   10851.4    1454.6   10879.6    1455.9   10916.1    1456.2   10952.1
GR   1454.1   10985.6    1454.1   11020.6    1452.7   11055.2    1452.7   11092.7    1451.7   11119.8
GR   1451.5   11138.7    1453.8   11165.7    1453.4   11197.9    1452.2   11218.2    1451.8   11228.6
GR   1454.2   11243.3    1453.4   11252.8    1446.4   11265.2    1445.4   11269.0    1449.3   11278.0
GR   1453.5   11286.3    1453.8   11305.1    1453.0   11330.4    1452.8   11367.6    1452.4   11407.7
GR   1452.4   11443.3    1451.9   11457.3    1453.0   11481.9    1452.9   11515.2    1453.1   11555.1
GR   1453.1   11590.3    1454.0   11632.0    1453.9   11664.0    1454.0   11701.5    1454.2   11738.0
GR   1455.1   11764.8

X1   11.180        14    9829.8   10175.1       420       550     485.8
GR   1469.7    9817.3    1469.6    9829.8    1468.6    9834.5    1452.8    9866.7    1452.8    9888.1
GR   1452.6    9922.3    1452.8    9981.4    1452.6   10000.0    1452.6   10058.2    1452.6   10090.4
GR   1452.0   10121.0    1452.7   10136.5    1470.7   10175.1    1470.7   10180.9

X1   11.271        13    9832.7   10179.3       480       495     480.5
GR   1471.0    9822.5    1471.0    9832.7    1453.4    9868.8    1453.0    9909.5    1452.7    9953.7
GR   1453.7    9975.9    1453.2    9999.0    1453.3   10000.0    1453.2   10055.8    1452.7   10096.4
GR   1452.5   10138.5    1471.6   10179.3    1471.6   10185.8

X1   11.356        11    9833.6   10179.3       380       500     448.8
GR   1472.2    9816.3    1472.0    9833.6    1453.9    9873.3    1453.2    9907.0    1453.6    9996.8
GR   1453.6   10000.0    1454.0   10072.7    1453.3   10128.4    1453.8   10139.0    1473.0   10179.3
GR   1473.0   10189.0

X1   11.435        11    9829.0   10173.1       415       420     417.1
GR   1473.0    9823.0    1473.0    9829.0    1453.8    9868.6    1454.3    9940.8    1454.1   10000.0
GR   1453.9   10066.4    1454.4   10113.0    1454.4   10133.9    1468.9   10163.4    1473.3   10173.1
GR   1473.3   10185.6

NC     .012      .012      .012        .3        .5
         DOWNSTREAM END OF CONCRETE APRON FOR I-17 BRIDGE.
X1   11.466         5    9878.9   10121.1       165       165     165
GR   1471.4    9878.9    1460.4      9879    1460.3     10000    1460.4     10121    1471.4   10121.1

         DOWNSTRAM FACE OF I-17 BRIDGE.  BRIDGE IS MODELED AS OPEN CHANNEL,
         WITH GR POINTS DEFINING THE WALLS (PIERS).
X1   11.479        33    9878.9   10121.1        70        70      70
GR   1472.6    9878.9    1460.6      9879    1460.6    9904.4    1472.6    9904.5    1472.6    9905.3
GR   1460.6    9905.4    1460.6    9936.1    1472.6    9936.2    1472.6    9937.0    1460.6    9937.1
GR   1460.6    9967.8    1472.6    9967.9    1472.6    9968.7    1460.6    9968.8    1460.6    9999.5
GR   1472.6    9999.6    1472.6     10000    1472.6   10000.4    1460.6   10000.5    1460.6   10031.2
GR   1472.6   10031.3    1472.6   10032.1    1460.6   10032.2    1460.6   10062.9    1472.6   10063.0
GR   1472.6   10063.8    1460.6   10063.9    1460.6   10094.6    1472.6   10094.7    1472.6   10095.5
GR   1460.6   10095.6    1460.6     10121    1472.6   10121.1
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        UPSTEAM FACE OF I-17 BRIDGE.
X1   11.543        0        0        0      340      340      340        0     1.55
X1   11.546        5   9878.9  10121.1       14       14       14
GR    1474   9878.9   1462.2     9879   1462.2    10000   1462.2    10121     1474  10121.1

        UPSTREAM END OF CONCRETE SPILLWAY ENTRANCE TO I-17 BRIDGE.
X1   11.589       10   9878.0  10118.3      230      230      230
GR   1495.9   9843.0   1495.9   9878.0   1472.7   9878.1   1472.9    10000.   1472.9   10081.
GR   1472.7  10118.1   1495.9  10118.3   1495.9   10153.   1496.1    10186.   1494.8   10190.

NC    .040     .040     .035       .1       .3
X1   11.661       15   9802.9  10196.6      440      370    380.2
GR   1495.3   9790.0   1495.3   9802.9   1483.8   9840.3   1473.6   9872.4   1473.1   9929.3
GR   1473.3   9971.9   1473.2  10000.0   1472.9  10052.9   1472.9  10092.7   1472.5  10118.1
GR   1471.7  10127.9   1483.8  10162.4   1495.5  10196.6   1495.6  10201.9   1495.6  10212.1

X1   11.746       22   9869.9  10082.7      500      420    448.8
GR   1495.3   9760.0   1495.3   9771.1   1485.4   9803.8   1477.6   9829.8   1476.4   9869.9
GR   1475.1   9896.1   1474.5   9914.7   1473.9   9932.9   1473.1   9958.9   1473.2   9995.1
GR   1473.4  10000.0   1473.7  10019.5   1475.1  10029.2   1475.5  10053.8   1476.2  10082.7
GR   1476.2  10115.9   1475.7  10134.8   1475.4  10155.8   1484.5  10180.8   1495.4  10214.8
GR   1495.6  10222.9   1495.6  10231.4

X1   11.829       26   9953.2  10079.9      500      400    438.2
GR   1495.2   9747.6   1495.2   9757.9   1489.4   9781.2   1481.8   9805.2   1481.1   9852.2
GR   1481.2   9889.0   1480.7   9925.0   1480.2   9953.2   1476.4   9967.9   1474.7   9978.0
GR   1474.6   9997.9   1474.4  10000.0   1474.0  10029.8   1474.4  10040.6   1476.7  10054.0
GR   1478.0  10079.9   1478.1  10110.9   1478.2  10145.2   1478.2  10171.4   1478.3  10197.3
GR   1478.5  10214.1   1478.6  10228.1   1486.8  10253.2   1495.3  10280.8   1495.8  10288.2
GR   1495.8  10294.4

X1   11.913       28   9887.5  10087.3      510      390    443.5
GR   1495.3   9690.1   1495.3   9701.7   1484.6   9738.8   1484.3   9786.1   1484.9   9824.8
GR   1485.0   9871.6   1485.0   9887.5   1481.5   9903.2   1480.9   9931.5   1479.9   9948.4
GR   1477.5   9960.1   1477.1   9983.8   1477.0   9993.6   1477.2  10000.0   1477.4  10023.4
GR   1478.7  10038.9   1480.4  10055.0   1481.0  10087.3   1481.0  10126.8   1480.6  10159.8
GR   1481.0  10189.2   1480.6  10218.8   1480.2  10248.7   1481.0  10269.3   1480.5  10284.8
GR   1495.3  10329.6   1495.5  10341.3   1495.5  10349.1

ET   12.000      9.1      9.1      9.1                                          9762    10430
X1   12.000       34   9961.3  10214.4      540      410    459.4
GR   1495.8   9645.0   1495.8   9657.9   1489.0   9681.5   1490.7   9717.0   1491.3   9761.9
GR   1490.1   9806.2   1488.9   9849.8   1487.2   9875.7   1486.8   9889.7   1484.8   9902.1
GR   1483.6   9906.8   1484.9   9922.3   1484.8   9942.2   1483.6   9961.3   1479.7   9976.3
GR   1480.4  10000.0   1480.4  10040.1   1480.2  10070.4   1480.2  10102.4   1480.0  10126.6
GR   1480.2  10151.4   1479.7  10168.2   1480.0  10187.6   1481.2  10204.9   1482.0  10214.4
GR   1482.4  10245.2   1482.4  10276.7   1482.7  10311.6   1482.7  10340.9   1482.6  10368.8
GR   1483.0  10384.3   1491.1  10407.1   1495.9  10424.7   1495.9  10437.0
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ET   12.100                 7.1                                    9890      10557
        UPSTEAM END OF LEFT BANK CHANNELIZAITON LEVEE.  THE RIGHT BANK
        CHANNELIZATION LEVEE TIES INTO I-17 AT STTATION 12.900.
X1   12.100       39    9912.5   10338.1       550       520     528.0
GR   1498.5    9581.6   1498.4    9589.4    1496.0    9603.7    1496.2    9637.7    1495.9    9682.2
GR   1495.4    9717.7   1494.6    9755.6    1492.9    9790.8    1491.5    9832.0    1490.7    9856.3
GR   1489.6    9871.5   1490.2    9890.8    1490.4    9912.5    1488.9    9933.6    1484.5    9953.2
GR   1481.7    9970.7   1481.6    9991.1    1482.5   10000.0    1482.2   10023.7    1482.7   10053.6
GR   1482.5   10071.2   1482.7   10088.6    1482.9   10120.2    1483.0   10154.9    1483.4   10190.4
GR   1483.3   10225.7   1483.2   10253.7    1482.1   10277.6    1483.5   10300.1    1485.3   10313.2
GR   1489.1   10338.1   1489.0   10366.2    1488.7   10399.8    1488.7   10434.6    1488.7   10468.2
GR   1488.8   10498.3   1489.5   10522.1    1496.4   10543.9    1496.9   10557.6

X1   12.200       35    9961.0   10458.6       535       505     528.0
GR   1498.7    9434.0   1498.0    9547.3    1496.6    9693.5    1494.8    9733.3    1493.6    9786.7
GR   1492.5    9855.4   1492.1    9901.6    1491.4    9923.2    1490.3    9930.7    1491.5    9937.9
GR   1490.3    9949.9   1490.8    9961.0    1488.6    9976.2    1485.5    9990.0    1485.6   10000.0
GR   1485.6   10016.9   1484.7   10037.1    1485.1   10073.7    1485.0   10114.1    1485.3   10161.0
GR   1485.5   10223.9   1485.4   10302.2    1484.9   10371.4    1484.8   10399.9    1485.0   10418.2
GR   1486.1   10430.5   1488.9   10442.8    1491.4   10458.6    1491.8   10474.2    1492.2   10527.8
GR   1491.8   10557.1   1492.6   10625.3    1492.1   10637.4    1498.8   10663.1    1498.7   10675.2

X1   12.300       46    9951.8   10192.5       540       495     528
GR   1502.4    9451.7   1502.4    9543.0    1501.4    9623.4    1500.8    9732.9    1500.0    9799.5
GR   1498.9    9837.6   1497.1    9889.1    1495.4    9930.9    1494.6    9951.8    1486.2    9959.2
GR   1485.8    9969.9   1486.7    9995.9    1487.4   10000.0    1489.6   10005.5    1490.3   10016.6
GR   1490.6   10037.7   1492.3   10071.6    1491.8   10082.9    1491.9   10107.2    1490.0   10126.7
GR   1489.2   10140.9   1488.9   10146.1    1488.7   10153.7    1491.6   10156.8    1492.5   10175.0
GR   1492.9   10192.5   1491.3   10226.8    1491.6   10270.5    1490.1   10338.5    1489.0   10384.4
GR   1488.1   10434.4   1488.6   10446.0    1487.8   10456.6    1487.4   10483.8    1487.3   10509.5
GR   1488.1   10553.5   1489.2   10565.6    1491.7   10581.5    1494.4   10595.2    1495.1   10609.0
GR   1495.9   10693.1   1496.0   10753.0    1496.1   10784.9    1496.4   10786.7    1501.1   10801.3
GR   1500.1   10820.7

X1   12.400       65    9966.5   10133.7       530       530     528
GR   1505.5    9351.6   1505.4    9465.6    1504.3    9598.7    1504.4    9653.9    1503.1    9657.0
GR   1502.0    9734.1   1501.7    9769.7    1502.0    9813.9    1502.0    9853.7    1501.8    9876.2
GR   1500.1    9885.5   1497.1    9896.2    1494.7    9906.0    1496.1    9920.7    1496.7    9937.6
GR   1497.5    9954.7   1497.5    9966.5    1495.7    9971.3    1495.2    9974.2    1492.2    9981.2
GR   1493.0    9987.1   1494.0    9997.1    1494.2   10000.0    1495.5   10020.7    1495.4   10038.4
GR   1493.9   10052.5   1494.0   10059.6    1492.2   10062.8    1492.3   10071.8    1493.2   10086.2
GR   1491.2   10093.1   1489.5   10100.2    1489.0   10104.2    1489.9   10111.9    1493.8   10125.0
GR   1497.2   10133.7   1497.0   10153.6    1497.8   10191.3    1497.7   10209.4    1496.5   10225.1
GR   1496.5   10236.7   1495.8   10284.8    1494.7   10297.6    1493.7   10307.6    1494.1   10328.3
GR   1494.6   10358.7   1494.2   10385.4    1494.2   10417.1    1494.1   10451.4    1494.3   10461.8
GR   1492.6   10474.4   1491.8   10488.1    1491.5   10515.4    1491.6   10543.8    1491.6   10572.6
GR   1492.7   10603.3   1492.9   10621.1    1493.5   10642.2    1497.9   10652.9    1498.7   10700.5
GR   1499.0   10772.5   1499.2   10806.6    1498.8   10826.9    1504.5   10847.0    1504.5   10860.3
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|---|---|---|---|---|---|---|---|---|---|---|
| ET | 12.500 | 9.1 | 9.1 | 9.1 | | | | | 9600 | 10822 |
| X1 | 12.500 | 54 | 9950.5 | 10041.0 | 545 | 460 | 528 | | | |
| GR | 1510.6 | 9125.2 | 1509.5 | 9168.3 | 1509.1 | 9183.8 | 1509.1 | 9198.5 | 1509.5 | 9210.7 |
| GR | 1508.8 | 9259.3 | 1507.4 | 9317.4 | 1506.1 | 9368.0 | 1504.2 | 9412.2 | 1503.8 | 9453.3 |
| GR | 1503.4 | 9478.8 | 1505.2 | 9549.0 | 1505.9 | 9598.5 | 1505.8 | 9696.2 | 1505.4 | 9739.4 |
| GR | 1503.7 | 9780.8 | 1502.3 | 9821.0 | 1500.9 | 9846.2 | 1500.1 | 9874.9 | 1500.5 | 9887.8 |
| GR | 1499.8 | 9902.3 | 1500.5 | 9914.6 | 1500.0 | 9930.2 | 1500.4 | 9940.6 | 1499.8 | 9950.5 |
| GR | 1493.6 | 9958.4 | 1494.7 | 9987.3 | 1495.4 | 10000.0 | 1495.9 | 10013.7 | 1495.7 | 10029.5 |
| GR | 1498.6 | 10041.0 | 1499.0 | 10055.6 | 1498.7 | 10085.8 | 1499.2 | 10112.5 | 1500.0 | 10140.5 |
| GR | 1500.7 | 10162.8 | 1501.7 | 10220.6 | 1501.8 | 10310.0 | 1502.1 | 10412.7 | 1502.0 | 10442.3 |
| GR | 1501.2 | 10448.8 | 1501.3 | 10512.0 | 1500.8 | 10548.1 | 1501.4 | 10570.3 | 1501.1 | 10594.6 |
| GR | 1502.4 | 10608.4 | 1502.2 | 10664.9 | 1501.9 | 10729.1 | 1501.5 | 10738.2 | 1502.3 | 10766.5 |
| GR | 1501.9 | 10790.2 | 1507.7 | 10806.5 | 1507.9 | 10820.8 | 1508.0 | 10822.5 | | |
| ET | 12.592 | 5.1 | | | 9485 | 10543 | | | | |
| X1 | 12.592 | 79 | 9975.9 | 10050.1 | 470 | 270 | 485.8 | | | |
| GR | 1513.6 | 8635.8 | 1513.0 | 8673.7 | 1512.0 | 8681.0 | 1513.6 | 8687.3 | 1511.8 | 8696.6 |
| GR | 1511.7 | 8718.8 | 1512.1 | 8729.9 | 1511.3 | 8788.6 | 1511.6 | 8834.5 | 1511.0 | 8874.7 |
| GR | 1510.7 | 8918.3 | 1510.7 | 8966.2 | 1511.1 | 9012.2 | 1510.9 | 9130.3 | 1509.8 | 9205.4 |
| GR | 1508.3 | 9279.4 | 1507.2 | 9312.3 | 1507.4 | 9326.5 | 1507.2 | 9352.3 | 1505.4 | 9378.2 |
| GR | 1504.6 | 9407.9 | 1504.4 | 9426.5 | 1505.1 | 9439.2 | 1504.8 | 9451.9 | 1505.6 | 9467.9 |
| GR | 1506.4 | 9484.8 | 1505.8 | 9497.9 | 1504.9 | 9530.8 | 1503.3 | 9549.0 | 1502.1 | 9555.9 |
| GR | 1502.8 | 9567.3 | 1502.3 | 9578.9 | 1502.3 | 9583.7 | 1498.5 | 9588.1 | 1497.8 | 9593.2 |
| GR | 1498.6 | 9606.7 | 1499.4 | 9631.3 | 1500.9 | 9642.9 | 1502.1 | 9671.8 | 1502.8 | 9695.2 |
| GR | 1500.6 | 9711.5 | 1501.5 | 9719.8 | 1503.1 | 9728.7 | 1503.2 | 9733.0 | 1503.0 | 9773.0 |
| GR | 1503.1 | 9786.8 | 1500.3 | 9798.4 | 1499.9 | 9801.5 | 1501.9 | 9807.4 | 1502.9 | 9811.5 |
| GR | 1503.4 | 9842.1 | 1503.2 | 9881.9 | 1503.6 | 9923.0 | 1502.8 | 9943.7 | 1502.2 | 9960.6 |
| GR | 1502.0 | 9975.9 | 1500.3 | 9987.5 | 1496.6 | 9997.6 | 1496.5 | 10000.0 | 1496.3 | 10015.4 |
| GR | 1500.2 | 10027.8 | 1503.5 | 10050.1 | 1504.2 | 10084.1 | 1503.8 | 10135.6 | 1504.0 | 10142.8 |
| GR | 1503.5 | 10213.1 | 1503.5 | 10260.7 | 1505.4 | 10299.2 | 1505.0 | 10329.4 | 1504.0 | 10347.0 |
| GR | 1504.1 | 10379.8 | 1504.6 | 10413.7 | 1505.1 | 10452.8 | 1505.0 | 10466.0 | 1504.3 | 10488.7 |
| GR | 1504.7 | 10503.4 | 1505.0 | 10514.8 | 1509.4 | 10529.8 | 1509.5 | 10543.9 | | |
| X1 | 12.700 | 84 | 9963.5 | 10084.2 | 475 | 525 | 570.2 | | | |
| GR | 1515 | 8500 | 1514.0 | 8680.0 | 1513.0 | 8800.0 | 1512.2 | 8846.2 | 1511.3 | 8870.3 |
| GR | 1511.8 | 8915.3 | 1510.6 | 8953.1 | 1509.8 | 8967.0 | 1509.9 | 8985.2 | 1509.2 | 9012.2 |
| GR | 1507.7 | 9029.6 | 1507.0 | 9039.9 | 1507.8 | 9052.4 | 1507.0 | 9057.4 | 1507.6 | 9072.2 |
| GR | 1507.8 | 9099.2 | 1508.0 | 9135.4 | 1507.8 | 9152.4 | 1507.0 | 9159.7 | 1508.1 | 9168.8 |
| GR | 1506.9 | 9200.4 | 1505.7 | 9215.5 | 1506.2 | 9222.7 | 1504.9 | 9230.0 | 1507.1 | 9241.6 |
| GR | 1506.9 | 9257.5 | 1508.1 | 9270.2 | 1506.6 | 9286.6 | 1505.9 | 9323.8 | 1504.7 | 9337.1 |
| GR | 1504.8 | 9354.1 | 1498.0 | 9372.0 | 1497.8 | 9385.5 | 1504.8 | 9393.5 | 1506.2 | 9402.0 |
| GR | 1508.1 | 9421.1 | 1507.9 | 9464.6 | 1507.1 | 9506.0 | 1507.7 | 9519.9 | 1507.7 | 9569.2 |
| GR | 1506.9 | 9585.2 | 1508.6 | 9598.4 | 1508.9 | 9616.2 | 1508.0 | 9631.6 | 1508.1 | 9638.1 |
| GR | 1508.5 | 9667.3 | 1507.0 | 9683.0 | 1507.7 | 9688.6 | 1506.3 | 9696.0 | 1506.0 | 9711.1 |
| GR | 1507.9 | 9720.3 | 1506.4 | 9726.7 | 1507.4 | 9739.8 | 1508.4 | 9755.1 | 1507.0 | 9786.2 |
| GR | 1508.4 | 9805.4 | 1509.0 | 9823.0 | 1508.4 | 9877.8 | 1509.1 | 9926.7 | 1509.6 | 9963.5 |
| GR | 1509.0 | 9973.6 | 1506.4 | 9983.2 | 1503.8 | 9988.6 | 1503.9 | 9994.1 | 1505.3 | 10000.0 |
| GR | 1505.3 | 10000.0 | 1507.5 | 10013.9 | 1506.0 | 10024.8 | 1506.9 | 10048.1 | 1506.2 | 10060.9 |
| GR | 1507.0 | 10071.7 | 1507.4 | 10078.9 | 1508.9 | 10084.2 | 1508.6 | 10100.5 | 1507.8 | 10123.6 |
| GR | 1508.2 | 10153.0 | 1508.2 | 10183.2 | 1508.4 | 10235.0 | 1507.7 | 10277.9 | 1508.4 | 10312.1 |
| GR | 1508.6 | 10343.1 | 1512.5 | 10356.2 | 1512.5 | 10368.7 | 1512.4 | 10369.4 | | |

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NH       5      0.06     8803.2     0.035     8863.3      0.06     9954.6     0.035    10045.4      0.06
NH   10286
        STATION 12.800 TO 12.966, THIS MODEL DID NOT EXCLUDE INEFFECTIVE FLOW
        AREAS OUTSIDE OF THE 4:1 EXPANSION DOWNSTREAM OF THE CAP OVERSHOOTS.
        THIS WAS PER THE FCDMC REQUEST DUE TO THE CAP OVERSHOOTS NOT HAVING
        ADEQUATE CAPACITY. NH CARDS WERE USED TO GIVE HIGH N-VALUES TO THE
        LESS EFFECTIVE FLOW AREAS.
X1   12.800       94     9945.0    10045.4       570       515       528
GR    1516     8070       1514       8250    1512.6    8380.7    1512.6      8425      1514    8460.1
GR  1512.4   8521.1     1511.3     8547.2    1509.2    8568.2    1507.2    8574.7    1508.9    8580.2
GR  1508.4   8589.1     1509.4     8602.9    1508.5    8614.7    1510.2    8629.3    1508.8    8638.4
GR  1510.8   8646.7     1510.6     8655.6    1509.1    8661.2    1510.4    8673.2    1511.1    8687.2
GR  1509.2     8694     1511.2     8702.9    1510.1      8734    1508.9    8737.7    1510.1    8756.4
GR    1511   8766.3     1510.1     8776.5    1510.8    8791.8    1511.1    8798.3    1510.4    8803.2
GR    1507   8807.9     1506.1     8816.4    1502.9    8828.2    1503.3    8841.2    1507.3    8846.6
GR    1508   8854.4     1509.7     8863.3    1509.7    8879.8    1508.4    8890.6    1510.2    8897.1
GR  1510.8   8956.2     1511.2     8997.3    1511.3    9004.7      1513    9120.7    1513.1    9141.6
GR  1513.9   9212.9     1513.3     9257.2    1513.2    9307.6    1512.2    9358.8    1512.4    9414.2
GR  1513.6   9449.2     1513.9       9481    1514.7    9521.1    1514.8    9533.9    1514.1    9561.8
GR  1514.3     9625     1513.5     9645.4    1513.6    9686.4    1511.9    9699.9    1511.4    9711.6
GR  1509.4   9727.1     1512.3     9744.2    1512.2    9763.4    1513.1    9779.4    1511.9    9794.1
GR  1513.3   9810.4     1514.3     9821.2    1513.5    9847.9    1512.5    9879.3    1511.6    9901.7
GR  1512.4   9915.3     1510.9     9928.4    1511.5    9945.0    1511.1    9954.6    1507.1    9966.9
GR  1506.1   9977.8     1506.2     9992.8    1504.7    9997.6    1504.4     10000    1505.6   10007.6
GR  1510.4    10018.    1512.5    10045.4    1513.1   10093.5    1512.5   10119.5    1511.3   10127.9
GR  1511.7    10138.    1512.6    10143.9    1512.7   10171.8      1512     10199    1511.7   10242.5
GR  1511.7    10264.    1513.2    10273.1    1514.9   10279.1    1515.2     10286

NH       5      0.06     8137.7     0.035     8231.2      0.06      9937     0.035    10050.8      0.06
NH   10859
X1   12.900       95       9937    10050.8       330       595     528.0
GR  1517.7     8015     1517.4       8063    1516.5    8117.5    1517.5    8137.7    1517.1    8161.6
GR  1516.3   8173.4     1514.6     8181.3    1508.6    8185.4    1509.5    8213.7    1513.5    8220.2
GR  1515.7   8231.2     1516.4     8241.7    1515.3    8258.5    1513.9    8267.3    1513.3    8276.6
GR  1515.3   8283.2     1515.3     8300.5    1514.5    8307.8    1514.6    8395.6    1513.7    8402.5
GR  1514.9   8417.3     1513.9     8610.2    1510.4    8623.8    1512.3    8633.1    1510.6      8636
GR  1513.1   8642.1     1513.5     8656.8    1514.3    8679.8    1515.2    8714.8    1514.8    8737.8
GR  1513.7   8750.1     1512.6     8760.3    1508.7    8771.5    1508.2    8789.5      1511    8796.8
GR  1514.6   8804.8     1514.6     8870.7    1513.8    8886.4    1514.3    8916.4    1513.2    8955.4
GR  1512.3   8998.1     1513.1     9011.1    1513.1    9040.4      1512      9055    1513.8    9077.5
GR  1514.6     9163     1514.5     9179.3    1513.3    9197.4    1514.5    9213.6    1515.4    9244.2
GR  1515.6   9385.9     1516.5     9434.7    1515.9    9558.7    1516.2      9678      1517    9684.9
GR    1517   9693.3     1516.1     9713.6    1516.7    9773.8    1515.6    9788.4      1515    9798.1
GR  1513.9   9804.9       1512     9809.8    1514.8    9823.7    1515.2    9868.5    1515.9    9892.5
GR  1516.7   9918.7     1516.9       9937    1516.2    9948.4    1512.6    9957.7    1510.7    9967.3
GR  1508.5   9979.3       1507     9985.5      1507    9993.7    1507.8     10000    1508.6   10015.4
GR  1510.9  10026.6     1513.4    10037.8      1516   10050.8      1515     10062    1511.7   10076.4
GR  1510.5  10079.1     1514.4    10092.4    1515.4   10114.7    1515.9   10150.2    1517.8   10200.1
GR  1517.3  10297.2     1516.6    10358.9    1516.9   10532.5    1517.2   10542.9    1515.9   10555.4
GR  1517.1  10583.8     1517.2    10753.5    1516.3   10780.8    1518.8   10789.6    1519.9     10859
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NH      5      0.06    7897.8     0.035    8001.1      0.06    9885.8     0.035   10269.2      0.06
NH  10823
        150 FEET DOWNSTREAM FROM THE CAP.
X1  12.966       93    9885.8   10269.2       325       365     348.5
GR  1519.6   7738.6    1518.6    7778.6    1518.8    7830.9      1518    7853.3    1517.6    7872.7
GR  1516.7   7897.8    1514.3    7923.1    1512.8    7932.8    1511.3    7941.1    1510.8    7981.9
GR  1511.9   7988.4    1514.4    8001.1    1514.1    8018.3    1514.9    8058.7    1516.3      8085
GR  1516.9   8150.8    1516.3    8201.6    1516.7    8379.5    1515.8    8420.6    1515.8    8441.8
GR  1516.7   8455.7    1516.6      8515    1515.4    8532.5    1516.6    8549.6    1516.9    8615.2
GR  1515.3   8624.6    1515.3    8644.2    1516.8    8652.6    1516.4    8710.2    1515.9    8787.8
GR    1515     8816    1513.9    8823.7    1513.4    8829.3    1512.6    8835.1    1510.7    8844.3
GR  1509.9   8858.5    1513.4    8865.1    1515.3    8872.3    1516.3    8923.9    1516.6    8988.9
GR  1516.1   9036.4    1516.1    9170.5    1516.6    9254.6    1515.6    9270.2    1516.4    9282.6
GR  1516.3   9310.8    1515.1    9316.4    1516.5    9327.5    1517.9    9335.9      1519    9342.1
GR  1519.6   9410.5    1518.5    9429.8    1518.3    9485.6    1519.5    9533.7    1520.7    9552.3
GR  1520.6   9576.8    1519.6    9605.5    1518.8    9670.6    1518.8    9733.5    1518.1    9757.8
GR  1517.1   9771.5      1516    9798.2    1515.1    9804.1    1515.8    9813.8      1518    9832.8
GR  1518.4   9857.2    1519.3    9885.8    1518.1    9896.8    1515.2    9910.4    1512.8    9943.8
GR  1511.5     9966    1511.4     10000    1512.5   10039.6    1513.5   10109.6    1515.2   10146.3
GR  1516.2    10179    1518.2   10200.8    1519.1   10230.7    1519.8   10269.2      1519   10320.7
GR  1518.6    10409    1518.9   10497.5    1519.1   10539.7    1518.7   10591.3    1519.4   10616.9
GR  1518.3   10639.4   1518.8     10697    1521.1   10709.4    1520.9     10750    1519.6   10768.1
GR  1520.3   10801.1   1522.1   10811.2    1522.5     10823
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| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SECNO | DEPTH | CWSEL | CRIWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

*PROF 1

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS

CCHV= .100 CEHV= .300
*SECNO 8.566

3265 DIVIDED FLOW

SKUNK CREEK FLOODPLAIN STUDY.
ADOBE DAM TO THE CENTRAL ARIZONA PROJECT CANAL (CAP).
EXISTING FLOWS PER FEMA.
PREPARED AS A PART OF THE SKUNK CREEK FLOODPLAIN STUDY, BETWEEN THE
ACDC AND THE CAP.
PREPARED FOR THE FLOOD CONTROL DISTRICT OF MARICOPA COUNTY (FCD #89-72)
PREPARED BY COE & VAN LOO CONSULTING ENGINEERS, 1990.
TOPOGRAPHIC MAPPING PREPARED BY AERIAL MAPPING COMPANY, INC. FROM
PHOTOGRAPHS TAKEN IN APRIL 1990. ELEVATION BASED ON NGVD OF 1929.
THE CONTROL LINE OF SKUNK CREEK IS STATION 10,000.
ALL SECTIONS ARE STATIONED LOOKING DOWNSTREAM.
CROSS SECTION NUMBERS ARE STATIONED IN RIVER MILES FROM THE CONFLUENCE
WITH NEW RIVER.
THIS RUN WAS STARTED BASED ON THE SLOPE-AREA METHOD. THE HIGH WATER IN
ADOBE DAM WAS NOT USED DUE TO THE DIFFERENCE IN THE TIME TO PEAK.
ENCROACHMENT CARDS (ET) WERE USED IN SOME CASES TO BETTER MODEL DEAD OR
NONEFFECTIVE FLOW AREAS. IN SOME CASES "SSTA" AND "ENDST" DO NOT
REPRESENT THE ACTUAL FLOODING LIMITS, AND THE DELINEATION WAS BASED ON
THE CROSS-SECTION AND THE TOPOGRAPHY. IN SOME CASES, "TOPWID" DOES NOT
REPRESENT THE FULL WIDTH OF THE FLOODPLAIN, DUE TO INEFFECTIVE FLOW
AREAS OR LOW ISLANDS WITHIN THE FLOODPLAIN.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 8.566 | 7.42 | 1373.72 | 1373.34 | 1376.10 | 1374.59 | .87 | .00 | .00 | 1381.90 |
| 15000. | 0. | 15000. | 0. | 0. | 2003. | 0. | 0. | 0. | 1380.10 |
| .00 | .00 | 7.49 | .00 | .000 | .040 | .000 | .000 | 1366.30 | 9039.65 |
| .012841 | 0. | 0. | 0. | 0 | 13 | 4 | .00 | 838.85 | 10025.41 |

*SECNO 8.680

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.33

   8.680     8.04  1377.14  1375.06      .00  1377.44      .29     2.78      .06  1385.00
  15000.       0.   15000.       0.       0.    3456.       0.      38.      12.   1382.80
     .04      .00     4.34      .00     .000     .040     .000     .000  1369.10  9115.81
 .002360     615.     602.     650.        5       14        0      .00   921.97 10045.19


*SECNO 8.815
   8.815     9.38  1378.78  1376.09      .00  1379.32      .54     1.81      .07  1387.60
  15000.       0.   15000.       0.       0.    2542.       0.      87.      24.   1392.30
     .07      .00     5.90      .00     .000     .040     .000     .000  1369.40  9835.18
 .002749     450.     713.     680.        3       15        0      .00   481.67 10316.85


*SECNO 8.907

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9900.0   10500.0  TYPE=      1  TARGET=      600.000
   8.907     9.00  1383.90  1383.90      .00  1386.07     2.18     2.62      .49  1391.50
  15000.       0.   15000.       0.       0.    1266.       0.     108.      28.   1390.40
     .08      .00    11.84      .00     .000     .040     .000     .000  1374.90  9940.32
 .015041     660.     486.     295.        0       11        0      .00   299.39 10239.71


*SECNO 9.022

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     8850.0   10500.0  TYPE=      1  TARGET=     1650.000
        PINNACLE PEAK ROAD DIP SECTION.
        FROM SECTION 9.022 TO SECTION 9.282, ET CARDS ARE USED TO MODEL
        EFFECTIVE FLOW AREA IN THE LEFT OVERBANK AT A 4:1 EXPANSION DOWNSTREAM
        FROM THE CONSTRICTION.
   9.022     4.15  1393.25  1393.09      .00  1394.34     1.09     8.16      .11  1392.40
  15000.     115.   14539.     346.      55.    1710.      98.     130.      35.   1391.90
     .10     2.09     8.50     3.53     .050     .040     .050     .000  1389.10  9629.94
 .012212     670.     607.     285.        3       14        0      .00   814.29 10444.23
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST

CCHV=     .100 CEHV=     .300
*SECNO 9.100

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.05

3470 ENCROACHMENT STATIONS=     9710.0   10440.0  TYPE=      1  TARGET=      730.000
        FROM SECTION 9.100 TO SECTION 9.282, THE DIKE IN THE LEFT OVERBANK IS
        OVERTOPPED AND IS UNSTABLE, IT IS THEREFORE IGNORED.
   9.100     6.04  1396.14  1394.35      .00  1396.56      .43     2.16      .07  1393.20
  15000.     580.   14420.       0.     187.    2709.       0.     152.      42.   1398.20
     .13     3.10     5.32      .00     .055     .040     .000     .000  1390.10  9716.80
 .002915     275.     412.     500.        4        8        0      .00   691.48 10408.28

*SECNO 9.200

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .66

3470 ENCROACHMENT STATIONS=     9815.0   10326.0  TYPE=      1  TARGET=      511.000
   9.200     5.36  1397.96  1396.94      .00  1398.94      .99     2.21      .17  1397.30
  15000.       3.   14997.       0.       3.    1883.       0.     181.      49.   1401.60
     .14     1.04     7.97      .00     .055     .040     .000     .000  1392.60  9853.02
 .006594     425.     528.     530.        3       19        0      .00   446.90 10299.92

CCHV=     .100 CEHV=     .300
*SECNO 9.282

3470 ENCROACHMENT STATIONS=     9849.0   10275.0  TYPE=      1  TARGET=      426.000
        FROM SECTION 9.282 TO SECTION 10.280, CITY OF PHOENIX LANDFILL.
   9.282     7.99  1400.49  1398.13      .00  1401.17      .68     2.19      .03  1400.60
  15000.       0.    8821.    6179.       0.    1292.     982.     201.      53.   1398.30
     .16      .00     6.83     6.29     .000     .045     .050     .000  1392.50  9859.76
 .003980     420.     433.     440.        2        8        0      .00   390.34 10250.10
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO 9.400

3470 ENCROACHMENT STATIONS=     9810.0   10345.0  TYPE=      1  TARGET=      535.000
        FROM SECTION 9.400 TO SECTION 9.560, ET CARDS ARE USED TO MODEL
        EFFECTIVE FLOW AREA IN THE RIGHT OVERBANK AT A 4:1 EXPANSION DOWNSTREAM
        FROM THE CONSTRICTION.
   9.400     8.45  1403.15  1401.28      .00  1404.00      .86     2.78      .05  1403.70
  15000.       0.   14894.     106.       0.    2000.      44.     232.      59.   1401.50
     .18      .00     7.45     2.41     .000     .045     .050     .000  1394.70  9929.95
 .005206     420.     623.     580.        2       15        0      .00   407.48 10337.42


*SECNO 9.488

3470 ENCROACHMENT STATIONS=     9900.0   10458.0  TYPE=      1  TARGET=      558.000
   9.488     7.75  1405.75  1404.35      .00  1406.53      .77     2.52      .01  1405.60
  15000.       0.    7802.    7198.       0.     998.    1172.     253.      63.   1400.80
     .20      .02     7.82     6.14     .050     .045     .050     .000  1398.00  9971.04
 .006063     420.     465.     400.        3       19        0      .00   484.86 10455.90


*SECNO 9.560

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   9.560    11.27  1408.57  1408.57      .00  1410.47     1.90     2.94      .34  1408.80
  15000.       0.    9601.    5399.       0.     745.     803.     269.      67.   1408.40
     .21      .00    12.88     6.72     .000     .045     .050     .000  1397.30  9970.41
 .010583     385.     380.     365.        0       11        0      .00   441.45 10441.34


*SECNO 9.655

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.64
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS=     9700.0   10280.0  TYPE=      1  TARGET=      580.000
    9.655     11.01   1411.71   1407.33      .00   1412.13      .42      1.52      .15   1407.50
   15000.     1469.    13080.     451.     377.     2409.     193.      293.      72.    1407.40
      .24      3.90      5.43      2.33     .050      .045     .050      .000  1400.70   9748.18
  .001519     450.      502.      375.        3        14        0       .00   437.44  10185.62


*SECNO 9.713

3265 DIVIDED FLOW

    9.713     10.61   1412.21   1407.46      .00   1412.58      .37       .44      .01   1408.80
   15000.      181.    14819.       0.      83.     3021.       1.      315.      75.    1412.60
      .26      2.17      4.91       .16     .050      .045     .050      .000  1401.60   9694.28
  .001355     315.      306.      290.        2        11        0       .00   418.41  10136.50


CCHV=      .100 CEHV=      .300
*SECNO 9.800
    9.800     10.10   1412.80   1409.33      .00   1413.42      .61       .77      .07   1412.20
   15000.        1.    14955.      44.       1.     2379.      29.      344.      79.    1410.40
      .28       .60      6.29      1.54     .050      .040     .050      .000  1402.70   9786.96
  .002104     475.      459.      460.        2        14        0       .00   361.48  10148.45


*SECNO 9.896

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .70

    9.896      8.92   1413.92   1412.15      .00   1415.05     1.12      1.48      .15   1410.10
   15000.       72.    13180.    1748.      25.     1483.     355.      369.      83.    1408.90
      .29      2.92      8.89      4.93     .050      .040     .050      .000  1405.00   9931.95
  .004300     460.      507.      505.        2        19        0       .00   325.78  10257.73


*SECNO 9.983

3301 HV CHANGED MORE THAN HVINS
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    9.983      9.60   1416.70   1416.70       .00   1418.99      2.29      2.79       .35   1414.70
   15000.      209.    12826.     1965.       59.      992.      347.      386.       86.    1412.10
      .30      3.55     12.93      5.66      .050      .040      .050      .000   1407.10   9928.92
  .009013      435.      459.      495.         0         8         0       .00    337.56  10266.48

*SECNO 10.108

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.58

3470 ENCROACHMENT STATIONS=     9740.0   10436.0  TYPE=      1  TARGET=      696.000
   10.108      8.02   1421.92   1419.81       .00   1422.67       .74      3.52       .15   1422.30
   15000.        0.    14997.        3.        0.     2166.        3.      413.       92.    1420.90
      .33       .00      6.93      1.14      .000      .040      .050      .000   1413.90   9861.92
  .003628      625.      660.      485.         1        14         0       .00    402.57  10264.49

*SECNO 10.180

3265 DIVIDED FLOW

3470 ENCROACHMENT STATIONS=     9784.0   10400.0  TYPE=      1  TARGET=      616.000
   10.180      9.01   1423.41   1422.02       .00   1424.42      1.01      1.67       .08   1422.40
   15000.       10.    14921.       69.        7.     1842.       32.      430.       95.    1421.50
      .34      1.38      8.10      2.20      .050      .040      .050      .000   1414.40   9876.58
  .005447      405.      380.      335.         2        11         0       .00    416.99  10311.66

*SECNO 10.280

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST

3720 CRITICAL DEPTH ASSUMED
        NEAR HAPPY VALLEY ROAD DIP SECTION.
        FROM SECTION 10.280 TO SECTION 10.389, ET CARDS ARE USED TO MODEL
        EFFECTIVE FLOW AREA IN THE LEFT OVERBANK AT A 1:1 CONTRACTION UPSTREAM
        FROM THE CONSTRICTION.
  10.280     8.71  1428.21  1428.21      .00  1430.47     2.26     4.02      .37  1430.20
  15000.       0.   14760.     240.       0.    1214.      80.     449.     100.   1429.80
     .35      .00    12.16     3.01     .000     .040     .050     .000  1419.50  9882.27
 .011438     550.     528.     490.        0        8        0      .00   342.87 10510.52

*SECNO 10.389

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.64

3470 ENCROACHMENT STATIONS=     8482.0   10410.0  TYPE=      1  TARGET=     1928.000
  10.389     7.96  1433.66  1432.96      .00  1434.41      .75     3.79      .15  1433.60
  15000.    2050.   12524.     427.     868.    1665.     176.     476.     111.   1432.60
     .38     2.36     7.52     2.43     .050     .040     .050     .000  1425.70  9080.63
 .004275     605.     576.     480.        3       12        0      .00  1274.40 10366.11

*SECNO 10.468

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

        SECTION 10.468 & 10.565, A LARGE BORROW PIT IS NOT EFFECTIVE FLOW AREA.
        THIS AREA HAS BEEN MODELED AS THOUGH THE HOLE WAS FILLED IN TO THE
        ADJACENT GROUND ELEVATIONS.
  10.468     7.88  1435.58  1434.86      .00  1437.03     1.45     2.41      .21  1434.20
  15000.     170.   14797.      33.     119.    1523.      18.     497.     121.   1434.20
     .39     1.43     9.72     1.88     .050     .040     .050     .000  1427.70  9046.69
 .008285     410.     417.     390.        2       13        0      .00  1048.56 10148.15
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


*SECNO 10.565
   10.565      9.43   1439.43   1439.37       .00   1440.75      1.32      3.70       .01   1435.90
   15000.     2048.    12762.     190.      679.     1289.       52.      518.      132.    1437.80
      .41      3.01      9.90      3.64      .050      .040      .050      .000   1430.00   9256.70
  .006429     470.      512.      545.         1         8         0       .00    841.73  10098.43


*SECNO 10.617

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9560.0    10258.0  TYPE=       1  TARGET=      698.000
   10.617      8.08   1440.98   1440.03       .00   1442.66      1.67      1.80       .11   1437.40
   15000.      545.    14221.     234.      129.     1339.       68.      529.      136.    1439.70
      .41      4.22     10.62      3.44      .050      .040      .050      .000   1432.90   9617.52
  .006705     275.      275.      280.         2        11         0       .00    377.70  10167.40


*SECNO 10.707

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9450.0    10590.0  TYPE=       1  TARGET=     1140.000
   10.707     11.32   1444.22   1442.38       .00   1445.28      1.05      2.56       .06   1439.20
   15000.     2122.     9479.    3398.      427.     1005.      569.      548.      141.    1444.30
      .43      4.97      9.43      5.97      .050      .040      .050      .000   1432.90   9721.59
  .004666     470.      475.      360.         3        11         0       .00    687.45  10469.65


CCHV=     .100 CEHV=     .300
*SECNO 10.808

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .65


3470 ENCROACHMENT STATIONS=     9550.0   10800.0  TYPE=      1  TARGET=     1250.000
        CONFLUENCE WITH BUCHANAN WASH.
        FROM SECTION 10.808 TO SECTION 11.088, ET CARDS ARE USED TO MODEL
        EFFECTIVE FLOW AREA IN THE RIGHT AND LEFT OVERBANKS AT A 4:1 EXPANSION
        DOWNSTREAM FROM THE CHANNELIZATION. SINCE THESE SECTIONS ARE ENCROACHED
        TO THE EFFECTIVE FLOW AREA FROM THE CHANNELIZATION, THE LOWER Q WAS
        USED (NOT INCLUDING BUCHANAN WASH).  THE FLOODPLAIN WAS EXTRAPOLATED
        TO MEET THE NATURAL GROUND.
   10.808    10.84  1447.44  1446.71      .00  1447.92      .49     2.59      .06  1445.20
   10500.     349.    5242.    4909.     108.     750.    1291.     572.     151.   1448.20
      .46     3.22     6.99     3.80     .050     .050     .050     .000  1436.60  9685.30
  .005378     470.     533.     525.        2       13        0      .00   919.09 10800.00


*SECNO 10.888

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9600.0   10450.0  TYPE=      1  TARGET=      850.000
   10.888    10.22  1450.02  1448.72      .00  1450.66      .64     2.69      .05  1448.20
   10500.    4154.    5789.     557.     592.     925.     265.     595.     161.   1450.40
      .48     7.01     6.26     2.10     .050     .050     .050     .000  1439.80  9687.18
  .005864     450.     422.     620.        2       14        0      .00   701.30 10450.00


*SECNO 10.960
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9600.0   10250.0  TYPE=      1  TARGET=      650.000
   10.960    11.04  1453.14  1453.14      .00  1454.24     1.10     3.00      .14  1450.30
   10500.    2195.    5602.    2703.     486.     533.     491.     610.     167.   1450.20
      .49     4.51    10.51     5.50     .050     .050     .050     .000  1442.10  9600.00
  .011347     330.     380.     460.        0        9        0      .00   650.00 10250.00


*SECNO 11.049
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.64


3470 ENCROACHMENT STATIONS=     9800.0   10200.0  TYPE=      1  TARGET=      400.000
   11.049    11.29  1456.89  1454.96      .00  1457.38      .49     3.08      .06  1454.00
   10500.     241.    9954.     305.      79.    1739.      74.     628.     173.   1453.10
      .51     3.07     5.72     4.13     .050     .050     .050     .000  1445.60  9800.00
  .004231     455.     470.     500.        3       10        0      .00   400.00 10200.00


CCHV=     .100 CEHV=     .300
*SECNO 11.088
3280 CROSS SECTION     11.09 EXTENDED      2.23 FEET


3470 ENCROACHMENT STATIONS=     9814.0   10215.0  TYPE=      1  TARGET=      401.000
         DOWNSTREAM END OF CORPS CHANNELIZATION FOR I-17 CROSSING.
   11.088    11.93  1457.33  1455.70      .00  1458.11      .78      .64      .09  1466.70
   10500.       0.   10500.       0.       0.    1477.       0.     636.     174.   1468.80
      .52      .00     7.11      .00     .000     .030     .000     .000  1445.40  9857.34
  .002395     210.     206.     210.        2       10        0      .00   291.50 10148.84


*SECNO 11.180
   11.180     6.46  1458.46  1456.17      .00  1459.09      .63      .97      .02  1469.60
   10500.       0.   10500.       0.       0.    1648.       0.     653.     178.   1470.70
      .54      .00     6.37      .00     .000     .030     .000     .000  1452.00  9855.16
  .001678     420.     486.     550.        2       22        0      .00   293.71 10148.86


*SECNO 11.271
   11.271     6.77  1459.27  1456.60      .00  1459.82      .55      .72      .01  1471.00
   10500.       0.   10500.       0.       0.    1765.       0.     672.     181.   1471.60
      .57      .00     5.95      .00     .000     .030     .000     .000  1452.50  9856.75
  .001352     480.     481.     495.        2       14        0      .00   296.22 10152.97


*SECNO 11.356
   11.356     6.68  1459.88  1457.19      .00  1460.44      .56      .61      .00  1472.00
   10500.       0.   10500.       0.       0.    1748.       0.     690.     184.   1473.00
      .59      .00     6.01      .00     .000     .030     .000     .000  1453.20  9860.19
  .001366     380.     449.     500.        2       14        0      .00   291.56 10151.75
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


*SECNO 11.435
   11.435      6.65  1460.45  1457.73       .00  1461.00       .55       .56       .00  1473.00
   10500.        0.  10500.        0.        0.    1762.        0.      707.      187.   1473.30
      .61       .00     5.96       .00      .000     .030      .000      .000  1453.80  9854.90
  .001332      415.     417.      420.         0       11         0       .00   291.30 10146.20


CCHV=     .300 CEHV=     .500
*SECNO 11.466

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
         DOWNSTREAM END OF CONCRETE APRON FOR I-17 BRIDGE.
   11.466      3.93  1464.23  1464.23       .00  1466.17      1.94       .22       .69  1471.40
   10500.        0.  10500.        0.        0.     940.        0.      712.      188.   1471.40
      .61       .00    11.18       .00      .000     .012      .000      .000  1460.30  9878.96
  .001391      165.     165.      165.         0       11         0       .00   242.07 10121.04


*SECNO 11.479

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
         DOWNSTRAM FACE OF I-17 BRIDGE.  BRIDGE IS MODELED AS OPEN CHANNEL,
         WITH GR POINTS DEFINING THE WALLS (PIERS).
   11.479      3.95  1464.55  1464.55       .00  1466.53      1.98       .11       .02  1472.60
   10500.        0.  10500.        0.        0.     929.        0.      714.      188.   1472.60
      .61       .00    11.31       .00      .000     .012      .000      .000  1460.60  9878.97
  .001832       70.      70.       70.         0        5         0       .00   235.53 10121.03


*SECNO 11.543

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
         UPSTEAM FACE OF I-17 BRIDGE.
   11.543      3.94  1466.09  1466.09       .00  1468.08      1.99       .62       .00  1474.15
   10500.        0.  10500.        0.        0.     928.        0.      721.      190.   1474.15
      .62       .00    11.31       .00      .000     .012      .000      .000  1462.15  9878.97
  .001836      340.     340.      340.         0        5         0       .00   235.53 10121.03
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


*SECNO 11.546

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.70

   11.546     4.93  1467.13  1466.05      .00  1468.33      1.20      .01       .23  1474.00
   10500.       0.   10500.       0.       0.    1192.        0.     721.      190.   1474.00
      .62      .00     8.81      .00     .000     .012      .000     .000  1462.20  9878.96
  .000636      14.      14.      14.       17        5         0      .00   242.08 10121.04


*SECNO 11.589

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
        UPSTREAM END OF CONCRETE SPILLWAY ENTRANCE TO I-17 BRIDGE.
   11.589     4.02  1476.72  1476.72      .00  1478.69      1.97      .21       .38  1495.90
   10500.       0.   10500.       0.       0.     933.        0.     727.      191.   1495.90
      .63      .00    11.26      .00     .000     .012      .000     .000  1472.70  9878.08
  .001413     230.     230.     230.        0       15         0      .00   240.05 10118.13


CCHV=     .100 CEHV=     .300
*SECNO 11.661

3301 HV CHANGED MORE THAN HVINS

   11.661     7.15  1478.85  1476.70      .00  1479.52       .68      .71       .13  1495.30
   10500.       0.   10500.       0.       0.    1592.        0.     738.      194.   1495.50
      .64      .00     6.59      .00     .000     .035      .000     .000  1471.70  9855.89
  .002542     440.     380.     370.        4       11         0      .00   292.39 10148.28


*SECNO 11.746
   11.746     6.93  1480.03  1478.38      .00  1480.72       .69     1.19       .00  1476.40
   10500.     523.    8376.    1601.     132.    1186.      328.     755.      197.   1476.20
      .66     3.97     7.06     4.88     .040     .035      .040     .000  1473.10  9821.69
  .002801     500.     449.     420.        2       19         0      .00   346.84 10168.53
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECNO 11.829

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .66

   11.829     7.26  1481.26  1480.92      .00  1482.69      1.43      1.75       .22  1480.20
   10500.      77.    7581.    2842.      39.     711.      461.      769.      201.   1478.00
      .67     1.98     10.66     6.16     .040     .035      .040      .000  1474.00  9841.47
  .006372     500.     438.     400.        2        5         0       .00   394.77 10236.24


*SECNO 11.913

3301 HV CHANGED MORE THAN HVINS

   11.913     7.13  1484.13  1483.02      .00  1484.84       .71      2.07       .07  1485.00
   10500.       0.    6990.    3510.       0.     939.      686.      783.      205.   1481.00
      .69      .00     7.44     5.12     .000     .035      .040      .000  1477.00  9891.42
  .003818     510.     444.     390.        2       12         0       .00   404.36 10295.78


*SECNO 12.000

3470 ENCROACHMENT STATIONS=     9762.0   10430.0  TYPE=      1  TARGET=      668.000
   12.000     5.95  1485.65  1484.03      .00  1486.16       .51      1.30       .02  1483.60
   10500.     151.    8311.    2037.      74.    1343.      539.      801.      209.   1482.00
      .71     2.05     6.19     3.78     .040     .035      .040      .000  1479.70  9896.89
  .002301     540.     459.     410.        2       14         0       .00   494.84 10391.73


*SECNO 12.100
         UPSTEAM END OF LEFT BANK CHANNELIZAITON LEVEE.  THE RIGHT BANK
         CHANNELIZATION LEVEE TIES INTO I-17 AT STTATION 12.900.
   12.100     5.47  1487.07  1485.81      .00  1487.79       .71      1.57       .06  1490.40
   10500.       0.   10500.       0.       0.    1548.        0.      822.      215.   1489.10
      .74      .00     6.78      .00     .000     .035      .000      .000  1481.60  9941.73
  .003976     550.     528.     520.        2       19         0       .00   383.10 10324.83


*SECNO 12.200
   12.200     4.46  1489.16  1487.81      .00  1489.70       .54      1.89       .02  1490.80
   10500.       0.   10500.       0.       0.    1788.        0.      842.      220.   1491.40
      .76      .00     5.87      .00     .000     .035      .000      .000  1484.70  9972.33
  .003248     535.     528.     505.        2       11         0       .00   472.12 10444.45
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO 12.300

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .52

  12.300     5.82  1491.62  1491.58      .00  1492.78     1.15     2.89      .19  1494.60
  10500.       0.    3260.    7240.       0.     385.     833.     860.     226.   1492.90
     .78      .00     8.47     8.69     .000     .035     .040     .000  1485.80  9954.42
 .011864     540.     528.     495.        1       11        0      .00   512.55 10581.05


*SECNO 12.400

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.46

  12.400     7.36  1496.36  1495.58      .00  1497.00      .63     4.17      .05  1497.50
  10500.      52.    3191.    7256.      21.     488.    1143.     878.     232.   1497.20
     .80     2.53     6.54     6.35     .040     .035     .040     .000  1489.00  9899.22
 .005599     530.     528.     530.        4        8        0      .00   593.81 10649.16


*SECNO 12.500
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9600.0   10822.0  TYPE=      1  TARGET=     1222.000
  12.500     8.93  1502.53  1502.53      .00  1503.49      .96     2.31      .10  1499.80
  10500.     998.    6277.    3226.     259.     646.     908.     897.     241.   1498.60
     .82     3.85     9.72     3.55     .040     .035     .040     .000  1493.60  9814.34
 .003957     545.     528.     460.        0        8        0      .00   977.64 10791.98
```

```
   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO 12.592

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9485.0   10543.0  TYPE=      1  TARGET=     1058.000
   12.592     8.43  1504.73  1504.45      .00  1505.46      .73     1.94      .02  1502.00
   10500.    6302.    3576.     622.    1118.     397.     263.     914.     248.   1503.50
      .84     5.64     9.00     2.36     .040     .035     .040     .000  1496.30  9532.73
  .004932     470.     486.     270.        2       10        0      .00   872.44 10504.55


*SECNO 12.700

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   12.700    10.72  1508.52  1508.52      .00  1509.31      .79     3.20      .02  1509.60
   10500.    8843.    1501.     156.    1216.     231.      82.     933.     260.   1508.90
      .86     7.27     6.51     1.90     .040     .035     .040     .000  1497.80  9020.05
  .008665     475.     570.     525.        0       12        0      .00  1120.01 10331.21


1490 NH CARD USED
*SECNO 12.800

3265 DIVIDED FLOW

         STATION 12.800 TO 12.966, THIS MODEL DID NOT EXCLUDE INEFFECTIVE FLOW
         AREAS OUTSIDE OF THE 4:1 EXPANSION DOWNSTREAM OF THE CAP OVERSHOOTS.
         THIS WAS PER THE FCDMC REQUEST DUE TO THE CAP OVERSHOOTS NOT HAVING
         ADEQUATE CAPACITY. NH CARDS WERE USED TO GIVE HIGH N-VALUES TO THE
         LESS EFFECTIVE FLOW AREAS.
   12.800     9.52  1512.42  1511.40      .00  1512.95      .52     3.61      .03  1511.50
   10500.    7472.    2950.      77.    1498.     391.      61.     955.     273.   1512.50
      .89     4.99     7.55     1.27     .046     .034     .060     .000  1502.90  8520.25
  .004979     570.     528.     515.        2       16        0      .00   984.16 10268.38


1490 NH CARD USED
*SECNO 12.900
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| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SECNO | DEPTH | CWSEL | CRIWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 12.900 | 7.93 | 1514.93 | 1514.93 | .00 | 1515.77 | .84 | 2.34 | .09 | 1516.90 |
| 10500. | 5700. | 4565. | 235. | 1287. | 458. | 69. | 972. | 282. | 1516.00 |
| .90 | 4.43 | 9.96 | 3.39 | .051 | .035 | .060 | .000 | 1507.00 | 8179.76 |
| .006807 | 330. | 528. | 595. | 0 | 10 | 0 | .00 | 1142.67 | 10104.23 |

1490 NH CARD USED
*SECNO 12.966

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.54

150 FEET DOWNSTREAM FROM THE CAP.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 12.966 | 7.05 | 1516.95 | 1515.55 | .00 | 1517.24 | .29 | 1.42 | .05 | 1519.30 |
| 10500. | 5151. | 5349. | 0. | 1679. | 1013. | 0. | 989. | 293. | 1519.80 |
| .92 | 3.07 | 5.28 | .00 | .046 | .035 | .000 | .000 | 1509.90 | 7890.88 |
| .002860 | 325. | 349. | 365. | 2 | 15 | 0 | .00 | 1772.79 | 10187.16 |

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T1      SKUNK CREEK FLOODPLAIN ANALYSIS, FOR FCDMC (#89-72), BY CVL (#1090-05).
T2      ADOBE DAM TO THE CENTRAL ARIZONA PROJECT CANAL (CAP).
T3      50-YEAR FLOWS,  EXISTING CONDITION    NOV. 1990     (FILE NAME - SKN.FZ)

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

      0         3         0         0      .0102        0         0         0    1378.5        0

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

      2         0        -1         0         0         0        -1         0         0         0
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST

*PROF 2

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS

CCHV=     .100 CEHV=     .300
*SECNO 8.566

3265 DIVIDED FLOW

        SKUNK CREEK FLOODPLAIN STUDY.
        ADOBE DAM TO THE CENTRAL ARIZONA PROJECT CANAL (CAP).
        EXISTING FLOWS PER FEMA.
        PREPARED AS A PART OF THE SKUNK CREEK FLOODPLAIN STUDY, BETWEEN THE
        ACDC AND THE CAP.
        PREPARED FOR THE FLOOD CONTROL DISTRICT OF MARICOPA COUNTY (FCD #89-72)
        PREPARED BY COE & VAN LOO CONSULTING ENGINEERS, 1990.
        TOPOGRAPHIC MAPPING PREPARED BY AERIAL MAPPING COMPANY, INC. FROM
        PHOTOGRAPHS TAKEN IN APRIL 1990.  ELEVATION BASED ON NGVD OF 1929.
        THE CONTROL LINE OF SKUNK CREEK IS STATION 10,000.
        ALL SECTIONS ARE STATIONED LOOKING DOWNSTREAM.
        CROSS SECTION NUMBERS ARE STATIONED IN RIVER MILES FROM THE CONFLUENCE
        WITH NEW RIVER.
        THIS RUN WAS STARTED BASED ON THE SLOPE-AREA METHOD.  THE HIGH WATER IN
        ADOBE DAM WAS NOT USED DUE TO THE DIFFERENCE IN THE TIME TO PEAK.
        ENCROACHMENT CARDS (ET) WERE USED IN SOME CASES TO BETTER MODEL DEAD OR
        NONEFFECTIVE FLOW AREAS.  IN SOME CASES "SSTA" AND "ENDST" DO NOT
        REPRESENT THE ACTUAL FLOODING LIMITS, AND THE DELINEATION WAS BASED ON
        THE CROSS-SECTION AND THE TOPOGRAPHY.  IN SOME CASES, "TOPWID" DOES NOT
        REPRESENT THE FULL WIDTH OF THE FLOODPLAIN, DUE TO INEFFECTIVE FLOW
        AREAS OR LOW ISLANDS WITHIN THE FLOODPLAIN.
   8.566     8.94  1375.24  1374.72  1378.50  1376.39     1.15      .00      .00  1381.90
  29000.       0.   29000.       0.       0.    3366.       0.       0.       0.   1380.10
     .00      .00     8.62      .00     .000     .040     .000     .000  1366.30  9034.29
 .010195       0.       0.       0.        0       20        5      .00   960.00 10027.79


*SECNO 8.680

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.94
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

  8.680     9.66  1378.76  1376.44       .00  1379.29       .53      2.84       .06  1385.00
 29000.       0.   29000.       0.        0.    4976.        0.       58.       13.   1382.80
    .03      .00     5.83      .00      .000     .040      .000      .000  1369.10  9109.52
 .002710    615.     602.     650.         4       15         0       .00   946.07 10055.58

*SECNO 8.815

3301 HV CHANGED MORE THAN HVINS

  8.815    11.31  1380.71  1378.24       .00  1381.77      1.06      2.32       .16  1387.60
 29000.       0.   29000.       0.        0.    3512.        0.      127.       25.   1392.30
    .05      .00     8.26      .00      .000     .040      .000      .000  1369.40  9816.75
 .003963    450.     713.     680.         3       11         0       .00   528.74 10345.49

*SECNO 8.907

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9900.0   10500.0  TYPE=      1  TARGET=      600.000
  8.907    11.46  1386.36  1386.36  1383.90  1389.47      3.10      3.19       .61  1391.50
 29000.       0.   29000.       0.        0.    2051.        0.      158.       30.   1390.40
    .06      .00    14.14      .00      .000     .040      .000      .000  1374.90  9925.11
 .012961    660.     486.     295.         0        5         0       .00   332.31 10257.43

*SECNO 9.022

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     8850.0   10500.0  TYPE=      1  TARGET=     1650.000
        PINNACLE PEAK ROAD DIP SECTION.
        FROM SECTION 9.022 TO SECTION 9.282, ET CARDS ARE USED TO MODEL
        EFFECTIVE FLOW AREA IN THE LEFT OVERBANK AT A 4:1 EXPANSION DOWNSTREAM
        FROM THE CONSTRICTION.
  9.022     5.71  1394.81  1394.71  1393.25  1396.12      1.31      6.47       .18  1392.40
 29000.    2132.   25296.    1572.     673.    2605.      314.      197.       43.   1391.90
    .08     3.17     9.71     5.01     .050     .040      .050      .000  1389.10  8927.34
 .009087    670.     607.     285.         2        8         0       .00  1552.41 10479.76
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST

CCHV=     .100 CEHV=     .300
*SECNO 9.100

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.86


3470 ENCROACHMENT STATIONS=     8950.0   10440.0  TYPE=      1  TARGET=     1490.000
        FROM SECTION 9.100 TO SECTION 9.282, THE DIKE IN THE LEFT OVERBANK IS
        OVERTOPPED AND IS UNSTABLE, IT IS THEREFORE IGNORED.
   9.100     7.39  1397.49  1395.70  1396.14  1397.94      .46     1.74      .09  1393.20
  29000.    7496.   21504.      0.    2497.    3559.       0.     238.      55.   1398.20
     .10     3.00     6.04      .00     .055     .040     .000     .000  1390.10  8950.00
 .002629     275.     412.     500.       3        5        0      .00  1461.25 10411.25


*SECNO 9.200

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9100.0   10326.0  TYPE=      1  TARGET=     1226.000
   9.200     6.32  1398.92  1398.92  1397.96  1400.84     1.92     2.40      .44  1397.30
  29000.    2404.   26596.      0.     550.    2303.       0.     288.      68.   1401.60
     .11     4.37    11.55      .00     .055     .040     .000     .000  1392.60  9100.00
 .010663     425.     528.     530.        0       11        0      .00   922.75 10301.93


CCHV=     .100 CEHV=     .300
*SECNO 9.282

3265 DIVIDED FLOW

3280 CROSS SECTION      9.28 EXTENDED       .21 FEET
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.55


3470 ENCROACHMENT STATIONS=     9315.0   10275.0  TYPE=      1  TARGET=      960.000
        FROM SECTION 9.282 TO SECTION 10.280, CITY OF PHOENIX LANDFILL.
   9.282    10.22  1402.72  1400.22  1400.49  1403.78     1.06     2.85      .09  1400.60
  29000.    2139.   15817.   11044.     759.    1773.    1377.     322.      77.   1398.30
     .13     2.82     8.92     8.02     .050     .045     .050     .000  1392.50  9344.76
 .004463     420.     433.     440.        2       11        0      .00   900.80 10258.44


*SECNO 9.400

3470 ENCROACHMENT STATIONS=     9810.0   10500.0  TYPE=      1  TARGET=      690.000
        FROM SECTION 9.400 TO SECTION 9.560, ET CARDS ARE USED TO MODEL
        EFFECTIVE FLOW AREA IN THE RIGHT OVERBANK AT A 4:1 EXPANSION DOWNSTREAM
        FROM THE CONSTRICTION.
   9.400    10.78  1405.48  1403.69  1403.15  1406.78     1.30     2.93      .07  1403.70
  29000.     218.   26864.    1917.      83.    2846.     488.     371.      86.   1401.50
     .15     2.62     9.44     3.93     .050     .045     .050     .000  1394.70  9860.51
 .005264     420.     623.     580.        3       11        0      .00   639.49 10500.00


*SECNO 9.488

3470 ENCROACHMENT STATIONS=     9900.0   10600.0  TYPE=      1  TARGET=      700.000
   9.488    10.12  1408.12  1406.23  1405.75  1409.12     1.00     2.31      .03  1405.60
  29000.      66.   13258.   15676.      21.    1442.    2273.     407.      93.   1400.80
     .16     3.10     9.19     6.90     .050     .045     .050     .000  1398.00  9959.09
 .005131     420.     465.     400.        2       19        0      .00   640.91 10600.00


*SECNO 9.560

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   9.560    13.42  1410.72  1410.72  1408.57  1413.17     2.45     2.70      .44  1408.80
  29000.     108.   14651.   14241.      28.     952.    1615.     434.      97.   1408.40
     .17     3.80    15.38     8.82     .050     .045     .050     .000  1397.30  9946.33
 .011004     385.     380.     365.        0       11        0      .00   503.60 10449.93
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECNO 9.655

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.30


3470 ENCROACHMENT STATIONS=     9700.0   10280.0  TYPE=      1  TARGET=      580.000
    9.655    13.70  1414.40  1409.68  1411.71  1415.21      .81      1.88      .16  1407.50
   29000.    3171.   23993.    1835.     571.    3152.     477.      470.     102.   1407.40
      .19     5.56     7.61     3.85     .050     .045     .050      .000  1400.70  9738.96
  .002086     450.     502.     375.        3       14        0       .00   469.46 10208.42


*SECNO 9.713
    9.713    13.51  1415.11  1409.72  1412.21  1415.81      .70      .58      .01  1408.80
   29000.     692.   27963.     345.     185.    4103.     150.      500.     106.   1412.60
      .20     3.75     6.81     2.29     .050     .045     .050      .000  1401.60  9688.04
  .001750     315.     306.     290.        2       14        0       .00   476.35 10164.39


CCHV=     .100 CEHV=     .300
*SECNO 9.800
    9.800    13.07  1415.77  1411.82  1412.80  1416.86     1.09      .93      .12  1412.20
   29000.      61.   28480.     459.      29.    3370.     144.      542.     110.   1410.40
      .22     2.10     8.45     3.19     .050     .040     .050      .000  1402.70  9773.57
  .002388     475.     459.     460.        2       19        0       .00   404.51 10178.07


*SECNO 9.896

3301 HV CHANGED MORE THAN HVINS

    9.896    11.90  1416.90  1414.71  1413.92  1418.65     1.75     1.59      .20  1410.10
   29000.     346.   23919.    4735.      78.    2114.     720.      580.     115.   1408.90
      .23     4.46    11.31     6.57     .050     .040     .050      .000  1405.00  9922.33
  .004341     460.     507.     505.        2       19        0       .00   386.43 10308.76


*SECNO 9.983
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    9.983     12.19   1419.29   1419.29   1416.70   1422.40      3.11      2.81       .41   1414.70
   29000.     1334.    21327.     6339.      212.     1348.      780.      608.      119.    1412.10
      .24      6.30     15.82      8.13      .050      .040      .050      .000   1407.10   9903.57
  .008955      435.      459.      495.         0         8         0       .00    389.14  10292.71


*SECNO 10.108

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.64


3470 ENCROACHMENT STATIONS=     9740.0    10436.0  TYPE=      1  TARGET=      696.000
   10.108     10.82   1424.72   1421.95   1421.92   1425.87      1.15      3.28       .20   1422.30
   29000.      288.    28502.      210.      120.     3281.       81.      650.      125.    1420.90
      .26      2.39      8.69      2.60      .050      .040      .050      .000   1413.90   9783.45
  .003316      625.      660.      485.         2        14         0       .00    526.25  10309.69


*SECNO 10.180

3470 ENCROACHMENT STATIONS=     9784.0    10400.0  TYPE=      1  TARGET=      616.000
   10.180     11.58   1425.98   1424.23   1423.41   1427.48      1.50      1.50       .10   1422.40
   29000.      323.    27758.      919.       94.     2777.      226.      679.      130.    1421.50
      .27      3.43     10.00      4.07      .050      .040      .050      .000   1414.40   9837.97
  .004797      405.      380.      335.         3        11         0       .00    515.37  10353.34


*SECNO 10.280

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
        NEAR HAPPY VALLEY ROAD DIP SECTION.
        FROM SECTION 10.280 TO SECTION 10.389, ET CARDS ARE USED TO MODEL
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        EFFECTIVE FLOW AREA IN THE LEFT OVERBANK AT A 1:1 CONTRACTION UPSTREAM
        FROM THE CONSTRICTION.
   10.280    11.70  1431.20  1431.20  1428.21  1433.08     1.88     3.02      .12  1430.20
   29000.     610.   23512.    4877.     183.    1953.    1081.     717.     139.   1429.80
      .29     3.34    12.04     4.51     .050     .040     .050     .000  1419.50  9724.77
  .007048     550.     528.     490.        0        5        0      .00   931.59 10693.99


*SECNO 10.389

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     8482.0   10410.0  TYPE=      1  TARGET=     1928.000
   10.389     9.62  1435.32  1434.58  1433.66  1436.13      .81     2.94      .11  1433.60
   29000.    8722.   18695.    1583.    2505.    2169.     417.     771.     155.   1432.60
      .31     3.48     8.62     3.80     .050     .040     .050     .000  1425.70  8689.36
  .003942     605.     576.     480.        2       16        0      .00  1684.06 10373.42


*SECNO 10.468

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
        SECTION 10.468 & 10.565, A LARGE BORROW PIT IS NOT EFFECTIVE FLOW AREA.
        THIS AREA HAS BEEN MODELED AS THOUGH THE HOLE WAS FILLED IN TO THE
        ADJACENT GROUND ELEVATIONS.
   10.468     9.63  1437.33  1437.33  1435.58  1438.90     1.58     2.17      .23  1434.20
   29000.    5579.   22992.     429.    1443.    2063.     114.     812.     169.   1434.20
      .32     3.87    11.14     3.77     .050     .040     .050     .000  1427.70  9003.06
  .007270     410.     417.     390.        0        5        0      .00  1157.04 10160.10


*SECNO 10.565

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   10.565    11.05  1441.05  1441.05  1439.43  1442.74     1.70     3.62      .04  1435.90
   29000.    8410.   19852.     738.    1680.    1630.     165.     852.     181.   1437.80
      .34     5.01    12.18     4.47     .050     .040     .050     .000  1430.00  9188.31
  .007121     470.     512.     545.        0        8        0      .00   947.36 10160.29


*SECNO 10.617
7185 MINIMUM SPECIFIC ENERGY
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


3720 CRITICAL DEPTH ASSUMED
   10.617    10.44  1443.34  1443.34  1440.98  1445.27     1.93     1.81      .07  1437.40
   29000.    5329.   22597.    1075.    1282.    1820.     198.     874.     186.   1439.70
      .34     4.16    12.42     5.44     .050     .040     .050     .000  1432.90  9299.54
  .006080     275.     275.     280.        0       12        0      .00   876.74 10176.28


*SECNO 10.707

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9450.0   10590.0  TYPE=      1  TARGET=     1140.000
   10.707    13.59  1446.49  1445.62  1444.22  1447.75     1.26     2.41      .07  1439.20
   29000.    5507.   14857.    8637.     951.    1318.    1501.     910.     195.   1444.30
      .36     5.79    11.27     5.76     .050     .040     .050     .000  1432.90  9670.38
  .004657     470.     475.     360.        3       13        0      .00   803.80 10474.18


CCHV=     .100 CEHV=     .300
*SECNO 10.808

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9550.0   10800.0  TYPE=      1  TARGET=     1250.000
        CONFLUENCE WITH BUCHANAN WASH.
        FROM SECTION 10.808 TO SECTION 11.088, ET CARDS ARE USED TO MODEL
        EFFECTIVE FLOW AREA IN THE RIGHT AND LEFT OVERBANKS AT A 4:1 EXPANSION
        DOWNSTREAM FROM THE CHANNELIZATION. SINCE THESE SECTIONS ARE ENCROACHED
        TO THE EFFECTIVE FLOW AREA FROM THE CHANNELIZATION, THE LOWER Q WAS
        USED (NOT INCLUDING BUCHANAN WASH).  THE FLOODPLAIN WAS EXTRAPOLATED
        TO MEET THE NATURAL GROUND.
   10.808    13.09  1449.69  1448.46  1447.44  1450.32      .63     2.50      .06  1445.20
   27000.    2290.    8608.   16102.     596.    1043.    2978.     960.     207.   1448.20
      .38     3.84     8.25     5.41     .050     .050     .050     .000  1436.60  9608.75
  .004962     470.     533.     525.        2       13        0      .00  1191.25 10800.00


*SECNO 10.888

3470 ENCROACHMENT STATIONS=     9600.0   10450.0  TYPE=      1  TARGET=      850.000
   10.888    12.54  1452.34  1451.48  1450.02  1453.40     1.06     2.96      .13  1448.20
   27000.    8366.   12302.    6332.     904.    1389.    1253.    1009.     219.   1450.40
      .40     9.25     8.86     5.05     .050     .050     .050     .000  1439.80  9676.64
  .006864     450.     422.     620.        2       10        0      .00   773.36 10450.00
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


*SECNO 10.960

3470 ENCROACHMENT STATIONS=     9600.0   10250.0  TYPE=      1  TARGET=      650.000
   10.960    13.25  1455.35  1454.98  1453.14  1456.88     1.53     3.34      .14  1450.30
   27000.    9325.    9269.    8406.    1235.     723.     992.    1039.     225.   1450.20
      .41     7.55    12.82     8.48     .050     .050     .050     .000  1442.10  9600.00
  .011241     330.     380.     460.        2        9        0      .00   650.00 10250.00


*SECNO 11.049

3470 ENCROACHMENT STATIONS=     9800.0   10200.0  TYPE=      1  TARGET=      400.000
   11.049    13.95  1459.55  1457.60  1456.89  1460.88     1.33     3.98      .02  1454.00
   27000.    1151.   24969.     880.     181.    2648.     128.    1071.     231.   1453.10
      .42     6.37     9.43     6.89     .050     .050     .050     .000  1445.60  9800.00
  .006559     455.     470.     500.        2       10        0      .00   400.00 10200.00


CCHV=     .100 CEHV=     .300
*SECNO 11.088
3280 CROSS SECTION     11.09 EXTENDED      4.88 FEET


3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9814.0   10215.0  TYPE=      1  TARGET=      401.000
         DOWNSTREAM END OF CORPS CHANNELIZATION FOR I-17 CROSSING.
   11.088    14.58  1459.98  1458.62  1457.33  1462.19     2.21     1.04      .26  1466.70
   27000.       0.   27000.       0.       0.    2264.       0.    1083.     233.   1468.80
      .43      .00    11.93      .00     .000     .030     .000     .000  1445.40  9852.04
  .004024     210.     206.     210.        3       11        0      .00   302.43 10154.47


*SECNO 11.180

3301 HV CHANGED MORE THAN HVINS

   11.180    10.17  1462.17  1459.24  1458.46  1463.65     1.48     1.39      .07  1469.60
   27000.       0.   27000.       0.       0.    2765.       0.    1111.     236.   1470.70
      .44      .00     9.76      .00     .000     .030     .000     .000  1452.00  9847.60
  .002132     420.     486.     550.        2        8        0      .00   309.20 10156.81
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


*SECNO 11.271
   11.271    10.81  1463.31  1459.67  1459.27  1464.57     1.26      .90      .02  1471.00
   27000.       0.   27000.       0.       0.    2995.       0.    1143.     240.   1471.60
      .46      .00     9.02      .00     .000     .030     .000     .000  1452.50  9848.47
  .001664     480.     481.     495.        2       19        0      .00   313.13 10161.59


*SECNO 11.356
   11.356    10.86  1464.06  1460.30  1459.88  1465.31     1.25      .74      .00  1472.00
   27000.       0.   27000.       0.       0.    3005.       0.    1174.     243.   1473.00
      .47      .00     8.99      .00     .000     .030     .000     .000  1453.20  9851.02
  .001620     380.     449.     500.        2       14        0      .00   309.50 10160.53


*SECNO 11.435
   11.435    10.96  1464.76  1460.82  1460.45  1465.97     1.21      .66      .00  1473.00
   27000.       0.   27000.       0.       0.    3053.       0.    1203.     246.   1473.30
      .48      .00     8.84      .00     .000     .030     .000     .000  1453.80  9846.02
  .001534     415.     417.     420.        1       14        0      .00   308.94 10154.95


CCHV=     .300 CEHV=     .500
*SECNO 11.466

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
        DOWNSTREAM END OF CONCRETE APRON FOR I-17 BRIDGE.
   11.466     7.31  1467.61  1467.61  1464.23  1471.28     3.67      .22     1.23  1471.40
   27000.       0.   27000.       0.       0.    1757.       0.    1212.     247.   1471.40
      .49      .00    15.37      .00     .000     .012     .000     .000  1460.30  9878.93
  .001183     165.     165.     165.        0       14        0      .00   242.13 10121.07


*SECNO 11.479

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
        DOWNSTRAM FACE OF I-17 BRIDGE.  BRIDGE IS MODELED AS OPEN CHANNEL,
        WITH GR POINTS DEFINING THE WALLS (PIERS).
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


   11.479     7.42  1468.02  1468.02  1464.55  1471.73     3.71      .10      .02  1472.60
   27000.      0.   27000.       0.       0.    1747.       0.    1215.     247.   1472.60
      .49     .00     15.46      .00     .000     .012     .000     .000  1460.60  9878.94
  .001852     70.      70.      70.        0        5        0      .00   235.99 10121.06


*SECNO 11.543

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
        UPSTEAM FACE OF I-17 BRIDGE.
   11.543     7.40  1469.55  1469.55  1466.09  1473.28     3.73      .63      .01  1474.15
   27000.      0.   27000.       0.       0.    1743.       0.    1228.     249.   1474.15
      .49     .00     15.49      .00     .000     .012     .000     .000  1462.15  9878.94
  .001865    340.     340.     340.        0        5        0      .00   235.99 10121.06


*SECNO 11.546

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.88

   11.546     9.31  1471.51  1469.43  1467.13  1473.74     2.23      .01      .45  1474.00
   27000.      0.   27000.       0.       0.    2253.       0.    1229.     249.   1474.00
      .49     .00     11.98      .00     .000     .012     .000     .000  1462.20  9878.92
  .000528     14.      14.      14.       17        5        0      .00   242.16 10121.08


*SECNO 11.589

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
        UPSTREAM END OF CONCRETE SPILLWAY ENTRANCE TO I-17 BRIDGE.
   11.589     7.43  1480.13  1480.13  1476.72  1483.82     3.69      .17      .73  1495.90
   27000.      0.   27000.       0.       0.    1751.       0.    1239.     250.   1495.90
      .50     .00     15.42      .00     .000     .012     .000     .000  1472.70  9878.07
  .001186    230.     230.     230.        0       15        0      .00   240.10 10118.16
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


CCHV=     .100 CEHV=     .300
*SECNO 11.661

3301 HV CHANGED MORE THAN HVINS

   11.661    11.71  1483.41  1479.83  1478.85  1484.68     1.27      .62      .24  1495.30
   27000.       0.  27000.       0.       0.    2987.       0.    1260.     253.   1495.50
      .51      .00     9.04      .00     .000     .035     .000     .000  1471.70  9841.55
  .002337     440.     380.     370.        4        8        0      .00   319.72 10161.27


*SECNO 11.746
   11.746    11.47  1484.57  1481.18  1480.03  1485.69     1.12     1.00      .01  1476.40
   27000.    2308.  19637.    5055.     384.    2151.     746.    1292.     256.   1476.20
      .53     6.00     9.13     6.78     .040     .035     .040     .000  1473.10  9806.57
  .002117     500.     449.     420.        2       19        0      .00   374.44 10181.01


*SECNO 11.829
   11.829    11.50  1485.50  1483.86  1481.26  1486.92     1.42     1.14      .09  1480.20
   27000.    3897.  14041.    9062.     679.    1249.    1152.    1324.     261.   1478.00
      .54     5.74    11.24     7.87     .040     .035     .040     .000  1474.00  9793.50
  .003347     500.     438.     400.        2       15        0      .00   455.73 10249.23


*SECNO 11.913
   11.913    10.22  1487.22  1485.63  1484.13  1488.42     1.20     1.48      .02  1485.00
   27000.    1562.  15344.   10094.     386.    1556.    1345.    1356.     266.   1481.00
      .55     4.05     9.86     7.50     .040     .035     .040     .000  1477.00  9729.71
  .003516     510.     444.     390.        2       19        0      .00   575.43 10305.14


*SECNO 12.000

3470 ENCROACHMENT STATIONS=     9762.0   10430.0  TYPE=      1  TARGET=      668.000
   12.000     9.07  1488.77  1486.45  1485.65  1489.76      .99     1.31      .02  1483.60
   27000.    1498.  18675.    6827.     337.    2135.    1108.    1391.     272.   1482.00
      .57     4.45     8.75     6.16     .040     .035     .040     .000  1479.70  9851.80
  .002479     540.     459.     410.        2       14        0      .00   548.74 10400.54


*SECNO 12.100
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


3470 ENCROACHMENT STATIONS=     9890.0   10557.0  TYPE=      1  TARGET=      667.000
        UPSTEAM END OF LEFT BANK CHANNELIZAITON LEVEE.  THE RIGHT BANK
        CHANNELIZATION LEVEE TIES INTO I-17 AT STTATION 12.900.
   12.100     8.55  1490.15  1488.31  1487.07  1491.51     1.36     1.64      .11  1490.40
   27000.      0.   26316.     684.      0.    2784.     241.    1431.     279.   1489.10
      .58     .00     9.45     2.84     .000     .035     .040     .000  1481.60  9915.96
  .004024    550.     528.     520.        2       15        0      .00   608.20 10524.17


*SECNO 12.200

3265 DIVIDED FLOW

   12.200     7.62  1492.32  1490.04  1489.16  1493.31      .99     1.77      .04  1490.80
   27000.     171.   26777.      52.      73.    3336.      50.    1471.     287.   1491.40
      .60     2.34     8.03     1.04     .040     .035     .040     .000  1484.70  9876.08
  .002837    535.     528.     505.        2       14        0      .00   731.62 10638.25


*SECNO 12.300

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .61

   12.300     8.49  1494.29  1493.60  1491.62  1495.68     1.40     2.25      .12  1494.60
   27000.      0.    9054.   17946.      0.     980.    1867.    1508.     295.   1492.90
      .62     .00     9.24     9.61     .000     .035     .040     .000  1485.80  9952.08
  .007501    540.     528.     495.        2        8        0      .00   642.56 10594.63


*SECNO 12.400
   12.400     9.26  1498.26  1497.69  1496.36  1499.59     1.33     3.90      .01  1497.50
   27000.     640.    8125.   18235.     128.     802.    2035.    1543.     304.   1497.20
      .63     5.02    10.13     8.96     .040     .035     .040     .000  1489.00  9892.08
  .007232    530.     528.     530.        2        8        0      .00   782.04 10674.11


*SECNO 12.500
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9600.0   10822.0  TYPE=      1  TARGET=     1222.000
   12.500    10.61  1504.21  1504.21  1502.53  1505.65     1.43     3.11      .03  1499.80
   27000.    3351.   10632.   13017.     528.     798.    2175.    1579.     314.   1498.60
      .65     6.34    13.32     5.98     .040     .035     .040     .000  1493.60  9768.26
  .005606    545.     528.     460.        0       12        0      .00  1028.44 10796.71
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


*SECNO 12.592

3301 HV CHANGED MORE THAN HVINS

   12.592    10.55  1506.85  1506.19  1504.73  1507.68      .83     1.97      .06  1502.00
   27000.   15464.    5796.    5741.    2328.     555.    1224.    1613.     323.   1503.50
      .66     6.64    10.44     4.69     .040     .035     .040     .000  1496.30  9357.30
  .004257     470.     486.     270.        2       10        0      .00  1163.82 10521.12


*SECNO 12.700

3265 DIVIDED FLOW


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .62

   12.700    12.03  1509.83  1509.81  1508.52  1510.99     1.16     3.22      .10  1509.60
   27000.   21152.    3594.    2254.    2408.     380.     420.    1655.     337.   1508.90
      .68     8.78     9.45     5.37     .040     .035     .040     .000  1497.80  8966.39
 .010912     475.     570.     525.        2       12        0      .00  1366.56 10347.25


1490 NH CARD USED
*SECNO 12.800

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.47

        STATION 12.800 TO 12.966, THIS MODEL DID NOT EXCLUDE INEFFECTIVE FLOW
        AREAS OUTSIDE OF THE 4:1 EXPANSION DOWNSTREAM OF THE CAP OVERSHOOTS.
        THIS WAS PER THE FCDMC REQUEST DUE TO THE CAP OVERSHOOTS NOT HAVING
        ADEQUATE CAPACITY. NH CARDS WERE USED TO GIVE HIGH N-VALUES TO THE
        LESS EFFECTIVE FLOW AREAS.
   12.800    11.57  1514.47  1513.66  1512.42  1515.06      .59     4.01      .06  1511.50
   27000.   19695.    5826.    1478.    4075.     596.     493.    1709.     359.   1512.50
      .71     4.83     9.77     3.00     .052     .035     .060     .000  1502.90  8207.52
 .005080     570.     528.     515.        3        9        0      .00  2032.78 10277.59
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| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SECNO | DEPTH | CWSEL | CRIWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

1490 NH CARD USED
*SECNO 12.900

3265 DIVIDED FLOW

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 12.900 | 9.70 | 1516.70 | 1516.60 | 1514.93 | 1517.60 | .90 | 2.45 | .09 | 1516.90 |
| 27000. | 18470. | 7608. | 922. | 3674. | 636. | 235. | 1750. | 376. | 1516.00 |
| .72 | 5.03 | 11.96 | 3.92 | .055 | .035 | .060 | .000 | 1507.00 | 8105.61 |
| .007888 | 330. | 528. | 595. | 3 | 10 | 0 | .00 | 2083.65 | 10782.20 |

1490 NH CARD USED
*SECNO 12.966

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.60

150 FEET DOWNSTREAM FROM THE CAP.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 12.966 | 8.93 | 1518.83 | 1517.56 | 1516.95 | 1519.21 | .39 | 1.56 | .05 | 1519.30 |
| 27000. | 16428. | 10556. | 15. | 4642. | 1580. | 33. | 1791. | 393. | 1519.80 |
| .74 | 3.54 | 6.68 | .46 | .052 | .035 | .060 | .000 | 1509.90 | 7769.60 |
| .003091 | 325. | 349. | 365. | 2 | 14 | 0 | .00 | 2392.89 | 10697.13 |

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T1      SKUNK CREEK FLOODPLAIN ANALYSIS, FOR FCDMC (#89-72), BY CVL (#1090-05).
T2      ADOBE DAM TO THE CENTRAL ARIZONA PROJECT CANAL (CAP).
T3      100-YEAR FLOWS, EXISTING CONDITION    NOV. 1990     (FILE NAME - SKN.FZ)

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0        4        0        0     .0099       0        0        0     1379.7      0

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

     15        0       -1        0        0       0       -1        0        0        0
```

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SECNO | DEPTH | CWSEL | CRIWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

*PROF 3

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS

CCHV= .100 CEHV= .300
*SECNO 8.566

3265 DIVIDED FLOW

SKUNK CREEK FLOODPLAIN STUDY.
ADOBE DAM TO THE CENTRAL ARIZONA PROJECT CANAL (CAP).
EXISTING FLOWS PER FEMA.
PREPARED AS A PART OF THE SKUNK CREEK FLOODPLAIN STUDY, BETWEEN THE
ACDC AND THE CAP.
PREPARED FOR THE FLOOD CONTROL DISTRICT OF MARICOPA COUNTY (FCD #89-72)
PREPARED BY COE & VAN LOO CONSULTING ENGINEERS, 1990.
TOPOGRAPHIC MAPPING PREPARED BY AERIAL MAPPING COMPANY, INC. FROM
PHOTOGRAPHS TAKEN IN APRIL 1990. ELEVATION BASED ON NGVD OF 1929.
THE CONTROL LINE OF SKUNK CREEK IS STATION 10,000.
ALL SECTIONS ARE STATIONED LOOKING DOWNSTREAM.
CROSS SECTION NUMBERS ARE STATIONED IN RIVER MILES FROM THE CONFLUENCE
WITH NEW RIVER.
THIS RUN WAS STARTED BASED ON THE SLOPE-AREA METHOD. THE HIGH WATER IN
ADOBE DAM WAS NOT USED DUE TO THE DIFFERENCE IN THE TIME TO PEAK.
ENCROACHMENT CARDS (ET) WERE USED IN SOME CASES TO BETTER MODEL DEAD OR
NONEFFECTIVE FLOW AREAS. IN SOME CASES "SSTA" AND "ENDST" DO NOT
REPRESENT THE ACTUAL FLOODING LIMITS, AND THE DELINEATION WAS BASED ON
THE CROSS-SECTION AND THE TOPOGRAPHY. IN SOME CASES, "TOPWID" DOES NOT
REPRESENT THE FULL WIDTH OF THE FLOODPLAIN, DUE TO INEFFECTIVE FLOW
AREAS OR LOW ISLANDS WITHIN THE FLOODPLAIN.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 8.566 | 9.67 | 1375.97 | 1375.52 | 1379.70 | 1377.39 | 1.42 | .00 | .00 | 1381.90 |
| 39000. | 0. | 39000. | 0. | 0. | 4074. | 0. | 0. | 0. | 1380.10 |
| .00 | .00 | 9.57 | .00 | .000 | .040 | .000 | .000 | 1366.30 | 9029.71 |
| .009892 | 0. | 0. | 0. | 0 | 18 | 5 | .00 | 969.63 | 10028.95 |

*SECNO 8.680

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.86

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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


    8.680    10.59  1379.69  1377.22      .00  1380.38      .69      2.91      .07  1385.00
   39000.       0.   39000.       0.       0.    5867.       0.      69.      13.   1382.80
      .03      .00     6.65      .00     .000     .040     .000     .000  1369.10  9105.86
  .002860     615.     602.     650.        3       12        0      .00   953.24 10059.11


*SECNO 8.815

3301 HV CHANGED MORE THAN HVINS

    8.815    12.35  1381.75  1379.38      .00  1383.17     1.42      2.57      .22  1387.60
   39000.       0.   39000.       0.       0.    4078.       0.     150.      26.   1392.30
      .05      .00     9.56      .00     .000     .040     .000     .000  1369.40  9803.58
  .004696     450.     713.     680.        3       11        0      .00   559.16 10362.74


*SECNO 8.907

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9900.0   10500.0  TYPE=      1  TARGET=      600.000
    8.907    12.84  1387.74  1387.74  1383.90  1391.46     3.72      3.52      .69  1391.50
   39000.       0.   39000.       0.       0.    2520.       0.     187.      31.   1390.40
      .05      .00    15.47      .00     .000     .040     .000     .000  1374.90  9916.84
  .012569     660.     486.     295.        0        8        0      .00   348.51 10265.35


*SECNO 9.022

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     8850.0   10500.0  TYPE=      1  TARGET=     1650.000
        PINNACLE PEAK ROAD DIP SECTION.
        FROM SECTION 9.022 TO SECTION 9.282, ET CARDS ARE USED TO MODEL
        EFFECTIVE FLOW AREA IN THE LEFT OVERBANK AT A 4:1 EXPANSION DOWNSTREAM
        FROM THE CONSTRICTION.
    9.022     6.77  1395.87  1395.42  1393.25  1397.01     1.14      5.29      .26  1392.40
   39000.    6137.   30361.    2501.    1631.    3214.     467.     241.      45.   1391.90
      .07     3.76     9.45     5.36     .050     .040     .050     .000  1389.10  8850.00
  .006497     670.     607.     285.        3        8        0      .00  1631.91 10481.91
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


CCHV=     .100 CEHV=     .300
*SECNO 9.100

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.44


3470 ENCROACHMENT STATIONS=     8950.0   10440.0  TYPE=      1  TARGET=     1490.000
        FROM SECTION 9.100 TO SECTION 9.282, THE DIKE IN THE LEFT OVERBANK IS
        OVERTOPPED AND IS UNSTABLE, IT IS THEREFORE IGNORED.
   9.100     8.03  1398.13  1396.40  1396.14  1398.74      .61     1.67      .05  1393.20
  39000.   11087.   27913.       0.    3026.    3959.       0.     292.      57.   1398.20
     .09     3.66     7.05      .00     .055     .040     .000     .000  1390.10  8950.00
 .003116     275.     412.     500.        3       12        0      .00  1462.64 10412.64


*SECNO 9.200

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9100.0   10326.0  TYPE=      1  TARGET=     1226.000
   9.200     7.42  1400.02  1400.02  1397.96  1401.95     1.93     2.49      .40  1397.30
  39000.    5713.   33287.       0.    1295.    2790.       0.     354.      71.   1401.60
     .11     4.41    11.93      .00     .055     .040     .000     .000  1392.60  9100.00
 .008884     425.     528.     530.        0       11        0      .00  1184.05 10304.24


CCHV=     .100 CEHV=     .300
*SECNO 9.282

3265 DIVIDED FLOW

3280 CROSS SECTION      9.28 EXTENDED      1.05 FEET
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9315.0   10275.0  TYPE=      1  TARGET=      960.000
         FROM SECTION 9.282 TO SECTION 10.280, CITY OF PHOENIX LANDFILL.
    9.282    11.05  1403.55  1402.15  1400.49  1404.92     1.37     2.91      .06  1400.60
   39000.    4637.   20207.   14156.    1187.    1955.    1534.     397.      81.   1398.30
      .12     3.91    10.34     9.23     .050     .045     .050     .000  1392.50  9340.40
  .005263     420.     433.     440.        2       11        0      .00   926.41 10267.51


*SECNO 9.400

3470 ENCROACHMENT STATIONS=     9810.0   10500.0  TYPE=      1  TARGET=      690.000
         FROM SECTION 9.400 TO SECTION 9.560, ET CARDS ARE USED TO MODEL
         EFFECTIVE FLOW AREA IN THE RIGHT OVERBANK AT A 4:1 EXPANSION DOWNSTREAM
         FROM THE CONSTRICTION.
    9.400    11.93  1406.63  1405.06  1403.15  1408.22     1.59     3.24      .07  1403.70
   39000.     653.   34600.    3747.     166.    3262.     729.     456.      91.   1401.50
      .14     3.92    10.61     5.14     .050     .045     .050     .000  1394.70  9852.48
  .005540     420.     623.     580.        3       11        0      .00   647.52 10500.00


*SECNO 9.488

3470 ENCROACHMENT STATIONS=     9900.0   10600.0  TYPE=      1  TARGET=      700.000
    9.488    11.40  1409.40  1407.20  1405.75  1410.61     1.21     2.35      .04  1405.60
   39000.     168.   17009.   21823.      40.    1681.    2834.     500.      97.   1400.80
      .15     4.15    10.12     7.70     .050     .045     .050     .000  1398.00  9954.79
  .005067     420.     465.     400.        2       19        0      .00   645.20 10600.00


*SECNO 9.560

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    9.560    14.52  1411.82  1411.82  1408.57  1414.72     2.90     2.73      .51  1408.80
   39000.     309.   17891.   20800.      58.    1058.    2040.     533.     102.   1408.40
      .16     5.36    16.91    10.20     .050     .045     .050     .000  1397.30  9939.72
  .011544     385.     380.     365.        0       11        0      .00   514.60 10454.33
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST

*SECNO 9.655

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.20


3470 ENCROACHMENT STATIONS=     9700.0   10280.0  TYPE=      1  TARGET=      580.000
   9.655    15.20  1415.90  1411.08  1411.71  1416.97     1.07     2.07      .18  1407.50
  39000.    4444.   31416.    3141.     689.    3563.     658.     575.     107.   1407.40
     .17     6.45     8.82     4.77     .050     .045     .050     .000  1400.70  9733.86
 .002376     450.     502.     375.        2       19        0      .00   483.27 10217.13


*SECNO 9.713
   9.713    15.12  1416.72  1411.05  1412.21  1417.64      .93      .66      .01  1408.80
  39000.    1133.   37018.     849.     248.    4701.     263.     610.     110.   1412.60
     .18     4.56     7.87     3.23     .050     .045     .050     .000  1401.60  9684.59
 .001949     315.     306.     290.        3       14        0      .00   489.73 10174.33


CCHV=     .100 CEHV=     .300
*SECNO 9.800
   9.800    14.70  1417.40  1413.23  1412.80  1418.81     1.40     1.02      .14  1412.20
  39000.     171.   37778.    1052.      61.    3918.     285.     661.     115.   1410.40
     .20     2.79     9.64     3.69     .050     .040     .050     .000  1402.70  9766.17
 .002545     475.     459.     460.        2       19        0      .00   459.95 10226.12


*SECNO 9.896

3301 HV CHANGED MORE THAN HVINS

   9.896    13.57  1418.57  1416.25  1413.92  1420.67     2.11     1.65      .21  1410.10
  39000.     663.   30995.    7342.     118.    2468.    1019.     706.     121.   1408.90
     .21     5.60    12.56     7.21     .050     .040     .050     .000  1405.00  9918.26
 .004352     460.     507.     505.        2       15        0      .00   436.82 10355.08


*SECNO 9.983
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    9.983    13.84  1420.94  1420.94  1416.70  1424.27     3.33     2.71      .37  1414.70
   39000.    2545.   26401.   10054.     339.    1575.    1122.     742.     126.   1412.10
      .22     7.50    16.76     8.96     .050     .040     .050     .000  1407.10  9895.62
  .008164     435.     459.     495.        0        5        0      .00   452.12 10347.74


*SECNO 10.108

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.57


3470 ENCROACHMENT STATIONS=     9740.0   10436.0  TYPE=      1  TARGET=      696.000
   10.108    12.29  1426.19  1423.27  1421.92  1427.61     1.42     3.15      .19  1422.30
   39000.     840.   37575.     585.     237.    3868.     168.     794.     132.   1420.90
      .24     3.55     9.71     3.48     .050     .040     .050     .000  1413.90  9774.99
  .003329     625.     660.     485.        2       14        0      .00   551.39 10326.38


*SECNO 10.180

3470 ENCROACHMENT STATIONS=     9784.0   10400.0  TYPE=      1  TARGET=      616.000
   10.180    13.02  1427.42  1425.52  1423.41  1429.19     1.77     1.48      .11  1422.40
   39000.     798.   36276.    1926.     181.    3297.     393.     830.     137.   1421.50
      .25     4.40    11.00     4.90     .050     .040     .050     .000  1414.40  9824.66
  .004620     405.     380.     335.        2       11        0      .00   556.30 10380.96


*SECNO 10.280
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
        NEAR HAPPY VALLEY ROAD DIP SECTION.
        FROM SECTION 10.280 TO SECTION 10.389, ET CARDS ARE USED TO MODEL
        EFFECTIVE FLOW AREA IN THE LEFT OVERBANK AT A 1:1 CONTRACTION UPSTREAM
        FROM THE CONSTRICTION.
   10.280    12.81  1432.31  1432.31  1428.21  1434.25     1.93     2.85      .05  1430.20
   39000.    1514.   28379.    9107.     342.    2237.    1702.     878.     146.   1429.80
      .26     4.42    12.69     5.35     .050     .040     .050     .000  1419.50  9715.13
  .006529     550.     528.     490.        0        6        0      .00   987.01 10702.14
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO 10.389

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     8482.0   10410.0  TYPE=      1  TARGET=     1928.000
   10.389    10.55  1436.25  1435.36  1433.66  1437.07      .82     2.71      .11  1433.60
   39000.   14530.   22051.    2420.    3659.    2452.     558.     950.     164.   1432.60
      .28     3.97     8.99     4.34     .050     .040     .050     .000  1425.70  8665.83
  .003644     605.     576.     480.        2       14        0      .00  1711.69 10377.52


*SECNO 10.468

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
        SECTION 10.468 & 10.565, A LARGE BORROW PIT IS NOT EFFECTIVE FLOW AREA.
        THIS AREA HAS BEEN MODELED AS THOUGH THE HOLE WAS FILLED IN TO THE
        ADJACENT GROUND ELEVATIONS.
   10.468    10.45  1438.15  1438.15  1435.58  1439.87     1.72     2.07      .27  1434.20
   39000.   10256.   27938.     806.    2095.    2321.     169.    1003.     177.   1434.20
      .30     4.90    12.04     4.78     .050     .040     .050     .000  1427.70  8988.97
  .007253     410.     417.     390.        0        6        0      .00  1174.38 10163.35


*SECNO 10.565
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   10.565    11.87  1441.87  1441.87  1439.43  1443.83     1.96     3.71      .07  1435.90
   39000.   13438.   24267.    1295.    2231.    1805.     241.    1053.     189.   1437.80
      .31     6.02    13.45     5.37     .050     .040     .050     .000  1430.00  9174.54
  .007579     470.     512.     545.        0        8        0      .00   989.31 10163.85


*SECNO 10.617

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   10.617    11.35  1444.25  1444.25  1440.98  1446.48     2.23     1.94      .08  1437.40
   39000.    9686.   27681.    1633.    1853.    2005.     252.    1080.     196.   1439.70
      .32     5.23    13.81     6.48     .050     .040     .050     .000  1432.90  9223.43
  .006611     275.     275.     280.        0       11        0      .00   932.26 10178.96
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO 10.707

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9450.0   10590.0  TYPE=      1  TARGET=     1140.000
   10.707    14.74  1447.64  1446.35  1444.22  1449.08     1.43     2.51      .08  1439.20
   39000.    8116.   18114.   12770.    1248.    1477.    1982.    1124.     204.   1444.30
      .33     6.50    12.26     6.44     .050     .040     .050     .000  1432.90  9657.39
  .004731     470.     475.     360.        3       11        0      .00   819.10 10476.49


CCHV=     .100 CEHV=     .300
*SECNO 10.808

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9550.0   10800.0  TYPE=      1  TARGET=     1250.000
         CONFLUENCE WITH BUCHANAN WASH.
         FROM SECTION 10.808 TO SECTION 11.088, ET CARDS ARE USED TO MODEL
         EFFECTIVE FLOW AREA IN THE RIGHT AND LEFT OVERBANKS AT A 4:1 EXPANSION
         DOWNSTREAM FROM THE CHANNELIZATION. SINCE THESE SECTIONS ARE ENCROACHED
         TO THE EFFECTIVE FLOW AREA FROM THE CHANNELIZATION, THE LOWER Q WAS
         USED (NOT INCLUDING BUCHANAN WASH).  THE FLOODPLAIN WAS EXTRAPOLATED
         TO MEET THE NATURAL GROUND.
   10.808    14.21  1450.81  1449.05  1447.44  1451.41      .61     2.25      .08  1445.20
   35000.    3972.    9574.   21454.     949.    1189.    3825.    1188.     216.   1448.20
      .35     4.19     8.05     5.61     .050     .050     .050     .000  1436.60  9550.00
  .003965     470.     533.     525.        2       10        0      .00  1250.00 10800.00


*SECNO 10.888

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9600.0   10450.0  TYPE=      1  TARGET=      850.000
   10.888    13.27  1453.07  1452.10  1450.02  1454.36     1.28     2.74      .20  1448.20
   35000.   10276.   15172.    9551.    1014.    1534.    1568.    1249.     229.   1450.40
      .37    10.13     9.89     6.09     .050     .050     .050     .000  1439.80  9600.00
  .007485     450.     422.     620.        2       10        0      .00   835.75 10450.00
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO 10.960

3470 ENCROACHMENT STATIONS=     9600.0   10250.0  TYPE=      1  TARGET=      650.000
   10.960    14.13  1456.23  1455.54  1453.14  1457.95     1.72     3.46      .13  1450.30
   35000.   13061.   10766.   11173.    1534.     799.    1191.    1284.     236.   1450.20
      .38     8.51    13.48     9.38     .050     .050     .050     .000  1442.10  9600.00
  .010878     330.     380.     460.        2        8        0      .00   650.00 10250.00


*SECNO 11.049

3470 ENCROACHMENT STATIONS=     9800.0   10200.0  TYPE=      1  TARGET=      400.000
   11.049    14.85  1460.45  1458.32  1456.89  1462.22     1.77     4.25      .02  1454.00
   35000.    1635.   32211.    1154.     215.    2953.     146.    1321.     242.   1453.10
      .39     7.60    10.91     7.91     .050     .050     .050     .000  1445.60  9800.00
  .007590     455.     470.     500.        2       15        0      .00   400.00 10200.00


CCHV=     .100 CEHV=     .300
*SECNO 11.088
3280 CROSS SECTION     11.09 EXTENDED      5.72 FEET


3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9814.0   10215.0  TYPE=      1  TARGET=      401.000
        DOWNSTREAM END OF CORPS CHANNELIZATION FOR I-17 CROSSING.
   11.088    15.42  1460.82  1459.95  1457.33  1463.82     2.99     1.23      .37  1466.70
   35000.       0.   35000.       0.       0.    2521.       0.    1335.     244.   1468.80
      .40      .00    13.89      .00     .000     .030     .000     .000  1445.40  9850.35
  .004806     210.     206.     210.        3        8        0      .00   305.91 10156.26


*SECNO 11.180

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.47

   11.180    11.63  1463.63  1460.48  1458.46  1465.46     1.83     1.53      .12  1469.60
   35000.       0.   35000.       0.       0.    3220.       0.    1367.     247.   1470.70
      .41      .00    10.87      .00     .000     .030     .000     .000  1452.00  9844.64
  .002219     420.     486.     550.        2       11        0      .00   315.29 10159.93
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


*SECNO 11.271
   11.271    12.36  1464.86  1460.92  1459.27  1466.43      1.56       .94       .03  1471.00
   35000.       0.   35000.       0.       0.    3487.       0.     1404.      251.   1471.60
      .42      .00     10.04      .00     .000     .030     .000      .000  1452.50  9845.28
  .001736     480.      481.     495.        2       15        0       .00   319.63 10164.91


*SECNO 11.356
   11.356    12.45  1465.65  1461.55  1459.88  1467.20      1.55       .77       .00  1472.00
   35000.       0.   35000.       0.       0.    3502.       0.     1440.      254.   1473.00
      .43      .00      9.99      .00     .000     .030     .000      .000  1453.20  9847.54
  .001687     380.      449.     500.        2       14        0       .00   316.33 10163.86


*SECNO 11.435
   11.435    12.59  1466.39  1462.06  1460.45  1467.88      1.50       .68       .01  1473.00
   35000.       0.   35000.       0.       0.    3565.       0.     1473.      257.   1473.30
      .45      .00      9.82      .00     .000     .030     .000      .000  1453.80  9842.64
  .001587     415.      417.     420.        2       14        0       .00   315.65 10158.29


CCHV=     .300 CEHV=     .500
*SECNO 11.466

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
        DOWNSTREAM END OF CONCRETE APRON FOR I-17 BRIDGE.
   11.466     8.69  1468.99  1468.99  1464.23  1473.34      4.35       .22      1.43  1471.40
   35000.       0.   35000.       0.       0.    2091.       0.     1484.      258.   1471.40
      .45      .00     16.74      .00     .000     .012     .000      .000  1460.30  9878.92
  .001128     165.      165.     165.        0       14        0       .00   242.16 10121.08


*SECNO 11.479

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
        DOWNSTRAM FACE OF I-17 BRIDGE.  BRIDGE IS MODELED AS OPEN CHANNEL,
        WITH GR POINTS DEFINING THE WALLS (PIERS).
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SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS     BANK ELEV
Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA     LEFT/RIGHT
TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

  11.479     8.82  1469.42  1469.42  1464.55  1473.83     4.41      .10      .03  1472.60
  35000.       0.   35000.       0.       0.    2078.       0.    1488.     258.   1472.60
     .45      .00    16.85      .00     .000     .012     .000     .000  1460.60  9878.93
 .001895      70.      70.      70.        0        5        0      .00   236.18 10121.07

*SECNO 11.543

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
        UPSTEAM FACE OF I-17 BRIDGE.
  11.543     8.80  1470.95  1470.95  1466.09  1475.38     4.43      .65      .01  1474.15
  35000.       0.   35000.       0.       0.    2072.       0.    1504.     260.   1474.15
     .45      .00    16.89      .00     .000     .012     .000     .000  1462.15  9878.93
 .001909     340.     340.     340.        0        5        0      .00   236.17 10121.07

*SECNO 11.546

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.94

  11.546    11.08  1473.28  1470.79  1467.13  1475.92     2.65      .01      .54  1474.00
  35000.       0.   35000.       0.       0.    2681.       0.    1504.     260.   1474.00
     .46      .00    13.05      .00     .000     .012     .000     .000  1462.20  9878.91
 .000506      14.      14.      14.       17        5        0      .00   242.19 10121.09

*SECNO 11.589

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
        UPSTREAM END OF CONCRETE SPILLWAY ENTRANCE TO I-17 BRIDGE.
  11.589     8.81  1481.51  1481.51  1476.72  1485.89     4.39      .17      .87  1495.90
  35000.       0.   35000.       0.       0.    2083.       0.    1517.     262.   1495.90
     .46      .00    16.81      .00     .000     .012     .000     .000  1472.70  9878.06
 .001135     230.     230.     230.        0       15        0      .00   240.11 10118.18
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


CCHV=     .100 CEHV=     .300
*SECNO 11.661

3301 HV CHANGED MORE THAN HVINS

   11.661    13.61  1485.31  1481.06  1478.85  1486.77     1.46      .59      .29  1495.30
   35000.       0.   35000.       0.       0.    3604.       0.    1542.     264.   1495.50
      .47      .00     9.71      .00     .000     .035     .000     .000  1471.70  9835.42
  .002206     440.     380.     370.        4        8        0      .00   331.36 10166.79


*SECNO 11.746
   11.746    13.35  1486.45  1482.29  1480.03  1487.71     1.27      .92      .02  1476.40
   35000.    3340.   24791.    6869.     509.    2551.     936.    1581.     268.   1476.20
      .48     6.56     9.72     7.34     .040     .035     .040     .000  1473.10  9800.34
  .001911     500.     449.     420.        2       19        0      .00   386.54 10186.88


*SECNO 11.829
   11.829    13.32  1487.32  1484.84  1481.26  1488.74     1.42      .99      .05  1480.20
   35000.    6272.   16754.   11974.     974.    1479.    1465.    1621.     272.   1478.00
      .50     6.44    11.33     8.17     .040     .035     .040     .000  1474.00  9787.77
  .002711     500.     438.     400.        2       15        0      .00   467.12 10254.89


*SECNO 11.913
   11.913    11.74  1488.74  1486.54  1484.13  1489.98     1.23     1.21      .02  1485.00
   35000.    3147.   18741.   13113.     631.    1861.    1682.    1661.     277.   1481.00
      .51     4.98    10.07     7.80     .040     .035     .040     .000  1477.00  9724.41
  .002885     510.     444.     390.        2       19        0      .00   585.36 10309.77


*SECNO 12.000

3470 ENCROACHMENT STATIONS=     9762.0   10430.0  TYPE=      1  TARGET=      668.000
   12.000    10.32  1490.02  1487.36  1485.65  1491.17     1.15     1.19      .01  1483.60
   35000.    2491.   23288.    9221.     499.    2452.    1343.    1705.     284.   1482.00
      .53     4.99     9.50     6.87     .040     .035     .040     .000  1479.70  9809.08
  .002430     540.     459.     410.        2       14        0      .00   594.98 10404.06


*SECNO 12.100
        UPSTEAM END OF LEFT BANK CHANNELIZAITON LEVEE.  THE RIGHT BANK
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        CHANNELIZATION LEVEE TIES INTO I-17 AT STTATION 12.900.
   12.100     9.75  1491.35  1489.80  1487.07  1492.82     1.47     1.55      .10  1490.40
   35000.     186.   32898.    1916.      75.    3292.     466.    1755.     292.   1489.10
      .54     2.46     9.99     4.11     .040     .035     .040     .000  1481.60  9836.58
  .003635     550.     528.     520.        2       15        0      .00   691.36 10527.94


*SECNO 12.200
   12.200     8.66  1493.36  1490.96  1489.16  1494.53     1.16     1.67      .03  1490.80
   35000.     582.   33861.     557.     205.    3857.     236.    1804.     301.   1491.40
      .56     2.83     8.78     2.36     .040     .035     .040     .000  1484.70  9801.15
  .002795     535.     528.     505.        2       14        0      .00   841.12 10642.27


*SECNO 12.300

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .64

   12.300     9.42  1495.22  1494.28  1491.62  1496.81     1.60     2.16      .13  1494.60
   35000.       7.   12195.   22798.       5.    1203.    2248.    1850.     310.   1492.90
      .57     1.41    10.13    10.14     .040     .035     .040     .000  1485.80  9935.68
  .006873     540.     528.     495.        2        5        0      .00   685.63 10621.31


*SECNO 12.400

3265 DIVIDED FLOW

   12.400    10.01  1499.01  1498.41  1496.36  1500.55     1.54     3.73      .01  1497.50
   35000.    1107.   10340.   23553.     184.     927.    2466.    1893.     319.   1497.20
      .59     6.01    11.15     9.55     .040     .035     .040     .000  1489.00  9889.41
  .007225     530.     528.     530.        3        5        0      .00   894.99 10827.62


*SECNO 12.500
7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9600.0   10822.0  TYPE=      1  TARGET=     1222.000
   12.500    11.19  1504.79  1504.79  1502.53  1506.43     1.65     3.25      .03  1499.80
   35000.    4571.   12349.   18080.     636.     850.    2608.    1935.     330.   1498.60
      .60     7.18    14.53     6.93     .040     .035     .040     .000  1493.60  9754.35
  .006134     545.     528.     460.        0        8        0      .00  1043.96 10798.31


*SECNO 12.592

3301 HV CHANGED MORE THAN HVINS
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


12.592    11.29  1507.59  1506.75  1504.73  1508.49      .91     1.99      .07  1502.00
35000.   19812.    6685.    8503.    2801.     610.    1572.    1975.     340.   1503.50
   .62     7.07    10.96     5.41     .040     .035     .040     .000  1496.30  9300.61
.004139    470.     486.     270.        2       10        0      .00  1223.02 10523.63


*SECNO 12.700

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .64

12.700    12.62  1510.42  1510.25  1508.52  1511.65     1.23     3.05      .10  1509.60
35000.   26857.    4552.    3590.    2991.     451.     573.    2026.     354.   1508.90
   .63     8.98    10.10     6.26     .040     .035     .040     .000  1497.80  8956.28
.009957    475.     570.     525.        2        8        0      .00  1392.92 10349.20


1490 NH CARD USED
*SECNO 12.800

3301 HV CHANGED MORE THAN HVINS

        STATION 12.800 TO 12.966, THIS MODEL DID NOT EXCLUDE INEFFECTIVE FLOW
        AREAS OUTSIDE OF THE 4:1 EXPANSION DOWNSTREAM OF THE CAP OVERSHOOTS.
        THIS WAS PER THE FCDMC REQUEST DUE TO THE CAP OVERSHOOTS NOT HAVING
        ADEQUATE CAPACITY. NH CARDS WERE USED TO GIVE HIGH N-VALUES TO THE
        LESS EFFECTIVE FLOW AREAS.
12.800    12.13  1515.03  1514.21  1512.42  1515.69      .66     3.99      .06  1511.50
35000.   25839.    6938.    2223.    5058.     653.     624.    2093.     377.   1512.50
   .66     5.11    10.63     3.56     .053     .035     .060     .000  1502.90  8157.00
.005374    570.     528.     515.        3        9        0      .00  2125.17 10282.17


1490 NH CARD USED
*SECNO 12.900

3265 DIVIDED FLOW

12.900    10.32  1517.32  1517.10  1514.93  1518.19      .87     2.43      .06  1516.90
35000.   24821.    8609.    1570.    4801.     707.     502.    2146.     398.   1516.00
   .67     5.17    12.18     3.12     .056     .035     .060     .000  1507.00  8067.86
.007391    330.     528.     595.        3       10        0      .00  2596.21 10784.39
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| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SECNO | DEPTH | CWSEL | CRIWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

1490 NH CARD USED
*SECNO 12.966

3265 DIVIDED FLOW

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.49

150 FEET DOWNSTREAM FROM THE CAP.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 12.966 | 9.49 | 1519.39 | 1517.98 | 1516.95 | 1519.82 | .43 | 1.59 | .04 | 1519.30 |
| 35000. | 22190. | 12578. | 232. | 5740. | 1777. | 227. | 2198. | 419. | 1519.80 |
| .69 | 3.87 | 7.08 | 1.02 | .053 | .035 | .060 | .000 | 1509.90 | 7746.86 |
| .003331 | 325. | 349. | 365. | 2 | 16 | 0 | .00 | 2784.37 | 10700.20 |

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CAUTION SECNO=     10.280  PROFILE=  3  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     10.280  PROFILE=  3  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     10.389  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     10.468  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     10.468  PROFILE=  2  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     10.468  PROFILE=  3  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     10.468  PROFILE=  3  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     10.565  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     10.565  PROFILE=  2  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     10.565  PROFILE=  3  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     10.565  PROFILE=  3  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     10.617  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     10.617  PROFILE=  2  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     10.617  PROFILE=  3  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     10.617  PROFILE=  3  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     10.808  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     10.960  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     10.960  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     11.049  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     11.180  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     11.466  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     11.466  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     11.466  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     11.466  PROFILE=  2  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     11.466  PROFILE=  3  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     11.466  PROFILE=  3  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     11.479  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     11.479  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     11.479  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     11.479  PROFILE=  2  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     11.479  PROFILE=  3  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     11.479  PROFILE=  3  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     11.543  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     11.543  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     11.543  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     11.543  PROFILE=  2  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     11.543  PROFILE=  3  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     11.543  PROFILE=  3  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     11.546  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     11.546  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     11.546  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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THIS RUN EXECUTED 12/ 6/90 9:57:53

**********
HEC2 RELEASE DATED SEP 88 UPDATED SEPT 1989

ERROR CORR - 01,02,03
MODIFICATION -
**********

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

10-YEAR FLOWS, EXISTING

SUMMARY PRINTOUT

| | SECNO | Q | CWSEL | DEPTH | ELMIN | EG | CRIWS | VCH | 10*KS | XLCH | SSTA | TOPWID | ENDST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 8.566 | 15000.00 | 1373.72 | 7.42 | 1366.30 | 1374.59 | 1373.34 | 7.49 | 128.41 | .00 | 9039.65 | 838.85 | 10025.41 |
| | 8.566 | 29000.00 | 1375.24 | 8.94 | 1366.30 | 1376.39 | 1374.72 | 8.62 | 101.95 | .00 | 9034.29 | 960.00 | 10027.79 |
| | 8.566 | 39000.00 | 1375.97 | 9.67 | 1366.30 | 1377.39 | 1375.52 | 9.57 | 98.92 | .00 | 9029.71 | 969.63 | 10028.95 |
| * | 8.680 | 15000.00 | 1377.14 | 8.04 | 1369.10 | 1377.44 | 1375.06 | 4.34 | 23.60 | 602.00 | 9115.81 | 921.97 | 10045.19 |
| * | 8.680 | 29000.00 | 1378.76 | 9.66 | 1369.10 | 1379.29 | 1376.44 | 5.83 | 27.10 | 602.00 | 9109.52 | 946.07 | 10055.58 |
| * | 8.680 | 39000.00 | 1379.69 | 10.59 | 1369.10 | 1380.38 | 1377.22 | 6.65 | 28.60 | 602.00 | 9105.86 | 953.24 | 10059.11 |
| | 8.815 | 15000.00 | 1378.78 | 9.38 | 1369.40 | 1379.32 | 1376.09 | 5.90 | 27.49 | 713.00 | 9835.18 | 481.67 | 10316.85 |
| | 8.815 | 29000.00 | 1380.71 | 11.31 | 1369.40 | 1381.77 | 1378.24 | 8.26 | 39.63 | 713.00 | 9816.75 | 528.74 | 10345.49 |
| | 8.815 | 39000.00 | 1381.75 | 12.35 | 1369.40 | 1383.17 | 1379.38 | 9.56 | 46.96 | 713.00 | 9803.58 | 559.16 | 10362.74 |
| * | 8.907 | 15000.00 | 1383.90 | 9.00 | 1374.90 | 1386.07 | 1383.90 | 11.84 | 150.41 | 485.80 | 9940.32 | 299.39 | 10239.71 |
| * | 8.907 | 29000.00 | 1386.36 | 11.46 | 1374.90 | 1389.47 | 1386.36 | 14.14 | 129.61 | 485.80 | 9925.11 | 332.31 | 10257.43 |
| * | 8.907 | 39000.00 | 1387.74 | 12.84 | 1374.90 | 1391.46 | 1387.74 | 15.47 | 125.69 | 485.80 | 9916.84 | 348.51 | 10265.35 |
| | 9.022 | 15000.00 | 1393.25 | 4.15 | 1389.10 | 1394.34 | 1393.09 | 8.50 | 122.12 | 607.20 | 9629.94 | 814.29 | 10444.23 |
| | 9.022 | 29000.00 | 1394.81 | 5.71 | 1389.10 | 1396.12 | 1394.71 | 9.71 | 90.87 | 607.20 | 8927.34 | 1552.41 | 10479.76 |
| | 9.022 | 39000.00 | 1395.87 | 6.77 | 1389.10 | 1397.01 | 1395.42 | 9.45 | 64.97 | 607.20 | 8850.00 | 1631.91 | 10481.91 |
| * | 9.100 | 15000.00 | 1396.14 | 6.04 | 1390.10 | 1396.56 | 1394.35 | 5.32 | 29.15 | 411.80 | 9716.80 | 691.48 | 10408.28 |
| * | 9.100 | 29000.00 | 1397.49 | 7.39 | 1390.10 | 1397.94 | 1395.70 | 6.04 | 26.29 | 411.80 | 8950.00 | 1461.25 | 10411.25 |
| * | 9.100 | 39000.00 | 1398.13 | 8.03 | 1390.10 | 1398.74 | 1396.40 | 7.05 | 31.16 | 411.80 | 8950.00 | 1462.64 | 10412.64 |
| * | 9.200 | 15000.00 | 1397.96 | 5.36 | 1392.60 | 1398.94 | 1396.94 | 7.97 | 65.94 | 528.00 | 9853.02 | 446.90 | 10299.92 |
| * | 9.200 | 29000.00 | 1398.92 | 6.32 | 1392.60 | 1400.84 | 1398.92 | 11.55 | 106.63 | 528.00 | 9100.00 | 922.75 | 10301.93 |
| * | 9.200 | 39000.00 | 1400.02 | 7.42 | 1392.60 | 1401.95 | 1400.02 | 11.93 | 88.84 | 528.00 | 9100.00 | 1184.05 | 10304.24 |
| | 9.282 | 15000.00 | 1400.49 | 7.99 | 1392.50 | 1401.17 | 1398.13 | 6.83 | 39.80 | 433.00 | 9859.76 | 390.34 | 10250.10 |
| * | 9.282 | 29000.00 | 1402.72 | 10.22 | 1392.50 | 1403.78 | 1400.22 | 8.92 | 44.63 | 433.00 | 9344.76 | 900.80 | 10258.44 |
| | 9.282 | 39000.00 | 1403.55 | 11.05 | 1392.50 | 1404.92 | 1402.15 | 10.34 | 52.63 | 433.00 | 9340.40 | 926.41 | 10267.51 |

SUMMARY OF ERRORS AND SPECIAL NOTES

```
WARNING SECNO=     8.680  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     8.680  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     8.680  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     8.907  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     8.907  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     8.907  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     8.907  PROFILE=  2  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     8.907  PROFILE=  3  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     8.907  PROFILE=  3  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     9.100  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     9.100  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     9.100  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     9.200  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
CAUTION SECNO=     9.200  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     9.200  PROFILE=  2  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     9.200  PROFILE=  3  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     9.200  PROFILE=  3  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     9.282  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     9.560  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     9.560  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     9.560  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     9.560  PROFILE=  2  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     9.560  PROFILE=  3  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     9.560  PROFILE=  3  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     9.655  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     9.655  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=     9.655  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     9.896  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     9.983  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     9.983  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     9.983  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     9.983  PROFILE=  2  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=     9.983  PROFILE=  3  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     9.983  PROFILE=  3  MINIMUM SPECIFIC ENERGY

WARNING SECNO=    10.108  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    10.108  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=    10.108  PROFILE=  3  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=    10.280  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    10.280  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=    10.280  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=    10.280  PROFILE=  2  MINIMUM SPECIFIC ENERGY
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| | SECNO | Q | CWSEL | DEPTH | ELMIN | EG | CRIWS | VCH | 10*KS | XLCH | SSTA | TOPWID | ENDST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10.565 | 15000.00 | 1439.43 | 9.43 | 1430.00 | 1440.75 | 1439.37 | 9.90 | 64.29 | 512.20 | 9256.70 | 841.73 | 10098.43 |
| * | 10.565 | 29000.00 | 1441.05 | 11.05 | 1430.00 | 1442.74 | 1441.05 | 12.18 | 71.21 | 512.20 | 9188.31 | 947.36 | 10160.29 |
| * | 10.565 | 39000.00 | 1441.87 | 11.87 | 1430.00 | 1443.83 | 1441.87 | 13.45 | 75.79 | 512.20 | 9174.54 | 989.31 | 10163.85 |
| | 10.617 | 15000.00 | 1440.98 | 8.08 | 1432.90 | 1442.66 | 1440.03 | 10.62 | 67.05 | 274.60 | 9617.52 | 377.70 | 10167.40 |
| * | 10.617 | 29000.00 | 1443.34 | 10.44 | 1432.90 | 1445.27 | 1443.34 | 12.42 | 60.80 | 274.60 | 9299.54 | 876.74 | 10176.28 |
| * | 10.617 | 39000.00 | 1444.25 | 11.35 | 1432.90 | 1446.48 | 1444.25 | 13.81 | 66.11 | 274.60 | 9223.43 | 932.26 | 10178.96 |
| | 10.707 | 15000.00 | 1444.22 | 11.32 | 1432.90 | 1445.28 | 1442.38 | 9.43 | 46.66 | 475.20 | 9721.59 | 687.45 | 10469.65 |
| | 10.707 | 29000.00 | 1446.49 | 13.59 | 1432.90 | 1447.75 | 1445.62 | 11.27 | 46.57 | 475.20 | 9670.38 | 803.80 | 10474.18 |
| | 10.707 | 39000.00 | 1447.64 | 14.74 | 1432.90 | 1449.08 | 1446.35 | 12.26 | 47.31 | 475.20 | 9657.39 | 819.10 | 10476.49 |
| * | 10.808 | 10500.00 | 1447.44 | 10.84 | 1436.60 | 1447.92 | 1446.71 | 6.99 | 53.78 | 533.30 | 9685.30 | 919.09 | 10800.00 |
| | 10.808 | 27000.00 | 1449.69 | 13.09 | 1436.60 | 1450.32 | 1448.46 | 8.25 | 49.62 | 533.30 | 9608.75 | 1191.25 | 10800.00 |
| | 10.808 | 35000.00 | 1450.81 | 14.21 | 1436.60 | 1451.41 | 1449.05 | 8.05 | 39.65 | 533.30 | 9550.00 | 1250.00 | 10800.00 |
| | 10.888 | 10500.00 | 1450.02 | 10.22 | 1439.80 | 1450.66 | 1448.72 | 6.26 | 58.64 | 422.40 | 9687.18 | 701.30 | 10450.00 |
| | 10.888 | 27000.00 | 1452.34 | 12.54 | 1439.80 | 1453.40 | 1451.48 | 8.86 | 68.64 | 422.40 | 9676.64 | 773.36 | 10450.00 |
| | 10.888 | 35000.00 | 1453.07 | 13.27 | 1439.80 | 1454.36 | 1452.10 | 9.89 | 74.85 | 422.40 | 9600.00 | 835.75 | 10450.00 |
| * | 10.960 | 10500.00 | 1453.14 | 11.04 | 1442.10 | 1454.24 | 1453.14 | 10.51 | 113.47 | 380.20 | 9600.00 | 650.00 | 10250.00 |
| | 10.960 | 27000.00 | 1455.35 | 13.25 | 1442.10 | 1456.88 | 1454.98 | 12.82 | 112.41 | 380.20 | 9600.00 | 650.00 | 10250.00 |
| | 10.960 | 35000.00 | 1456.23 | 14.13 | 1442.10 | 1457.95 | 1455.54 | 13.48 | 108.78 | 380.20 | 9600.00 | 650.00 | 10250.00 |
| * | 11.049 | 10500.00 | 1456.89 | 11.29 | 1445.60 | 1457.38 | 1454.96 | 5.72 | 42.31 | 469.90 | 9800.00 | 400.00 | 10200.00 |
| | 11.049 | 27000.00 | 1459.55 | 13.95 | 1445.60 | 1460.88 | 1457.60 | 9.43 | 65.59 | 469.90 | 9800.00 | 400.00 | 10200.00 |
| | 11.049 | 35000.00 | 1460.45 | 14.85 | 1445.60 | 1462.22 | 1458.32 | 10.91 | 75.90 | 469.90 | 9800.00 | 400.00 | 10200.00 |
| | 11.088 | 10500.00 | 1457.33 | 11.93 | 1445.40 | 1458.11 | 1455.70 | 7.11 | 23.95 | 205.90 | 9857.34 | 291.50 | 10148.84 |
| | 11.088 | 27000.00 | 1459.98 | 14.58 | 1445.40 | 1462.19 | 1458.62 | 11.93 | 40.24 | 205.90 | 9852.04 | 302.43 | 10154.47 |
| | 11.088 | 35000.00 | 1460.82 | 15.42 | 1445.40 | 1463.82 | 1459.95 | 13.89 | 48.06 | 205.90 | 9850.35 | 305.91 | 10156.26 |
| | 11.180 | 10500.00 | 1458.46 | 6.46 | 1452.00 | 1459.09 | 1456.17 | 6.37 | 16.78 | 485.80 | 9855.16 | 293.71 | 10148.86 |
| | 11.180 | 27000.00 | 1462.17 | 10.17 | 1452.00 | 1463.65 | 1459.24 | 9.76 | 21.32 | 485.80 | 9847.60 | 309.20 | 10156.81 |
| * | 11.180 | 35000.00 | 1463.63 | 11.63 | 1452.00 | 1465.46 | 1460.48 | 10.87 | 22.19 | 485.80 | 9844.64 | 315.29 | 10159.93 |
| | 11.271 | 10500.00 | 1459.27 | 6.77 | 1452.50 | 1459.82 | 1456.60 | 5.95 | 13.52 | 480.50 | 9856.75 | 296.22 | 10152.97 |
| | 11.271 | 27000.00 | 1463.31 | 10.81 | 1452.50 | 1464.57 | 1459.67 | 9.02 | 16.64 | 480.50 | 9848.47 | 313.13 | 10161.59 |
| | 11.271 | 35000.00 | 1464.86 | 12.36 | 1452.50 | 1466.43 | 1460.92 | 10.04 | 17.36 | 480.50 | 9845.28 | 319.63 | 10164.91 |
| | 11.356 | 10500.00 | 1459.88 | 6.68 | 1453.20 | 1460.44 | 1457.19 | 6.01 | 13.66 | 448.80 | 9860.19 | 291.56 | 10151.75 |
| | 11.356 | 27000.00 | 1464.06 | 10.86 | 1453.20 | 1465.31 | 1460.30 | 8.99 | 16.20 | 448.80 | 9851.02 | 309.50 | 10160.53 |
| | 11.356 | 35000.00 | 1465.65 | 12.45 | 1453.20 | 1467.20 | 1461.55 | 9.99 | 16.87 | 448.80 | 9847.54 | 316.33 | 10163.86 |
| | 11.435 | 10500.00 | 1460.45 | 6.65 | 1453.80 | 1461.00 | 1457.73 | 5.96 | 13.32 | 417.10 | 9854.90 | 291.30 | 10146.20 |
| | 11.435 | 27000.00 | 1464.76 | 10.96 | 1453.80 | 1465.97 | 1460.82 | 8.84 | 15.34 | 417.10 | 9846.02 | 308.94 | 10154.95 |
| | 11.435 | 35000.00 | 1466.39 | 12.59 | 1453.80 | 1467.88 | 1462.06 | 9.82 | 15.87 | 417.10 | 9842.64 | 315.65 | 10158.29 |
| * | 11.466 | 10500.00 | 1464.23 | 3.93 | 1460.30 | 1466.17 | 1464.23 | 11.18 | 13.91 | 165.00 | 9878.96 | 242.07 | 10121.04 |
| * | 11.466 | 27000.00 | 1467.61 | 7.31 | 1460.30 | 1471.28 | 1467.61 | 15.37 | 11.83 | 165.00 | 9878.93 | 242.13 | 10121.07 |
| * | 11.466 | 35000.00 | 1468.99 | 8.69 | 1460.30 | 1473.34 | 1468.99 | 16.74 | 11.28 | 165.00 | 9878.92 | 242.16 | 10121.08 |

| | SECNO | Q | CWSEL | DEPTH | ELMIN | EG | CRIWS | VCH | 10*KS | XLCH | SSTA | TOPWID | ENDST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 9.400 | 15000.00 | 1403.15 | 8.45 | 1394.70 | 1404.00 | 1401.28 | 7.45 | 52.06 | 623.00 | 9929.95 | 407.48 | 10337.42 |
| | 9.400 | 29000.00 | 1405.48 | 10.78 | 1394.70 | 1406.78 | 1403.69 | 9.44 | 52.64 | 623.00 | 9860.51 | 639.49 | 10500.00 |
| | 9.400 | 39000.00 | 1406.63 | 11.93 | 1394.70 | 1408.22 | 1405.06 | 10.61 | 55.40 | 623.00 | 9852.48 | 647.52 | 10500.00 |
| | 9.488 | 15000.00 | 1405.75 | 7.75 | 1398.00 | 1406.53 | 1404.35 | 7.82 | 60.63 | 464.60 | 9971.04 | 484.86 | 10455.90 |
| | 9.488 | 29000.00 | 1408.12 | 10.12 | 1398.00 | 1409.12 | 1406.23 | 9.19 | 51.31 | 464.60 | 9959.09 | 640.91 | 10600.00 |
| | 9.488 | 39000.00 | 1409.40 | 11.40 | 1398.00 | 1410.61 | 1407.20 | 10.12 | 50.67 | 464.60 | 9954.79 | 645.20 | 10600.00 |
| * | 9.560 | 15000.00 | 1408.57 | 11.27 | 1397.30 | 1410.47 | 1408.57 | 12.88 | 105.83 | 380.20 | 9970.41 | 441.45 | 10441.34 |
| * | 9.560 | 29000.00 | 1410.72 | 13.42 | 1397.30 | 1413.17 | 1410.72 | 15.38 | 110.04 | 380.20 | 9946.33 | 503.60 | 10449.93 |
| * | 9.560 | 39000.00 | 1411.82 | 14.52 | 1397.30 | 1414.72 | 1411.82 | 16.91 | 115.44 | 380.20 | 9939.72 | 514.60 | 10454.33 |
| * | 9.655 | 15000.00 | 1411.71 | 11.01 | 1400.70 | 1412.13 | 1407.33 | 5.43 | 15.19 | 501.60 | 9748.18 | 437.44 | 10185.62 |
| * | 9.655 | 29000.00 | 1414.40 | 13.70 | 1400.70 | 1415.21 | 1409.68 | 7.61 | 20.86 | 501.60 | 9738.96 | 469.46 | 10208.42 |
| * | 9.655 | 39000.00 | 1415.90 | 15.20 | 1400.70 | 1416.97 | 1411.08 | 8.82 | 23.76 | 501.60 | 9733.86 | 483.27 | 10217.13 |
| | 9.713 | 15000.00 | 1412.21 | 10.61 | 1401.60 | 1412.58 | 1407.46 | 4.91 | 13.55 | 306.20 | 9694.28 | 418.41 | 10136.50 |
| | 9.713 | 29000.00 | 1415.11 | 13.51 | 1401.60 | 1415.81 | 1409.72 | 6.81 | 17.50 | 306.20 | 9688.04 | 476.35 | 10164.39 |
| | 9.713 | 39000.00 | 1416.72 | 15.12 | 1401.60 | 1417.64 | 1411.05 | 7.87 | 19.49 | 306.20 | 9684.59 | 489.73 | 10174.33 |
| | 9.800 | 15000.00 | 1412.80 | 10.10 | 1402.70 | 1413.42 | 1409.33 | 6.29 | 21.04 | 459.40 | 9786.96 | 361.48 | 10148.45 |
| | 9.800 | 29000.00 | 1415.77 | 13.07 | 1402.70 | 1416.86 | 1411.82 | 8.45 | 23.88 | 459.40 | 9773.57 | 404.51 | 10178.07 |
| | 9.800 | 39000.00 | 1417.40 | 14.70 | 1402.70 | 1418.81 | 1413.23 | 9.64 | 25.45 | 459.40 | 9766.17 | 459.95 | 10226.12 |
| * | 9.896 | 15000.00 | 1413.92 | 8.92 | 1405.00 | 1415.05 | 1412.15 | 8.89 | 43.00 | 506.90 | 9931.95 | 325.78 | 10257.[illegible] |
| | 9.896 | 29000.00 | 1416.90 | 11.90 | 1405.00 | 1418.65 | 1414.71 | 11.31 | 43.41 | 506.90 | 9922.33 | 386.43 | 10308.[illegible] |
| | 9.896 | 39000.00 | 1418.57 | 13.57 | 1405.00 | 1420.67 | 1416.25 | 12.56 | 43.52 | 506.90 | 9918.26 | 436.82 | 10355.08 |
| * | 9.983 | 15000.00 | 1416.70 | 9.60 | 1407.10 | 1418.99 | 1416.70 | 12.93 | 90.13 | 459.40 | 9928.92 | 337.56 | 10266.48 |
| * | 9.983 | 29000.00 | 1419.29 | 12.19 | 1407.10 | 1422.40 | 1419.29 | 15.82 | 89.55 | 459.40 | 9903.57 | 389.14 | 10292.71 |
| * | 9.983 | 39000.00 | 1420.94 | 13.84 | 1407.10 | 1424.27 | 1420.94 | 16.76 | 81.64 | 459.40 | 9895.62 | 452.12 | 10347.74 |
| * | 10.108 | 15000.00 | 1421.92 | 8.02 | 1413.90 | 1422.67 | 1419.81 | 6.93 | 36.28 | 660.00 | 9861.92 | 402.57 | 10264.49 |
| * | 10.108 | 29000.00 | 1424.72 | 10.82 | 1413.90 | 1425.87 | 1421.95 | 8.69 | 33.16 | 660.00 | 9783.45 | 526.25 | 10309.69 |
| * | 10.108 | 39000.00 | 1426.19 | 12.29 | 1413.90 | 1427.61 | 1423.27 | 9.71 | 33.29 | 660.00 | 9774.99 | 551.39 | 10326.38 |
| | 10.180 | 15000.00 | 1423.41 | 9.01 | 1414.40 | 1424.42 | 1422.02 | 8.10 | 54.47 | 380.20 | 9876.58 | 416.99 | 10311.66 |
| | 10.180 | 29000.00 | 1425.98 | 11.58 | 1414.40 | 1427.48 | 1424.23 | 10.00 | 47.97 | 380.20 | 9837.97 | 515.37 | 10353.34 |
| | 10.180 | 39000.00 | 1427.42 | 13.02 | 1414.40 | 1429.19 | 1425.52 | 11.00 | 46.20 | 380.20 | 9824.66 | 556.30 | 10380.96 |
| * | 10.280 | 15000.00 | 1428.21 | 8.71 | 1419.50 | 1430.47 | 1428.21 | 12.16 | 114.38 | 528.00 | 9882.27 | 342.87 | 10510.52 |
| * | 10.280 | 29000.00 | 1431.20 | 11.70 | 1419.50 | 1433.08 | 1431.20 | 12.04 | 70.48 | 528.00 | 9724.77 | 931.59 | 10693.99 |
| * | 10.280 | 39000.00 | 1432.31 | 12.81 | 1419.50 | 1434.25 | 1432.31 | 12.69 | 65.29 | 528.00 | 9715.13 | 987.01 | 10702.14 |
| * | 10.389 | 15000.00 | 1433.66 | 7.96 | 1425.70 | 1434.41 | 1432.96 | 7.52 | 42.75 | 575.50 | 9080.63 | 1274.40 | 10366.11 |
| | 10.389 | 29000.00 | 1435.32 | 9.62 | 1425.70 | 1436.13 | 1434.58 | 8.62 | 39.42 | 575.50 | 8689.36 | 1684.06 | 10373.42 |
| | 10.389 | 39000.00 | 1436.25 | 10.55 | 1425.70 | 1437.07 | 1435.36 | 8.99 | 36.44 | 575.50 | 8665.83 | 1711.69 | 10377.52 |
| | 10.468 | 15000.00 | 1435.58 | 7.88 | 1427.70 | 1437.03 | 1434.86 | 9.72 | 82.85 | 417.10 | 9046.69 | 1048.56 | 10148.15 |
| * | 10.468 | 29000.00 | 1437.33 | 9.63 | 1427.70 | 1438.90 | 1437.33 | 11.14 | 72.70 | 417.10 | 9003.06 | 1157.04 | 10160.10 |
| * | 10.468 | 39000.00 | 1438.15 | 10.45 | 1427.70 | 1439.87 | 1438.15 | 12.04 | 72.53 | 417.10 | 8988.97 | 1174.38 | 10163.35 |

| | SECNO | Q | CWSEL | DEPTH | ELMIN | EG | CRIWS | VCH | 10*KS | XLCH | SSTA | TOPWID | ENDST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * | 12.500 | 10500.00 | 1502.53 | 8.93 | 1493.60 | 1503.49 | 1502.53 | 9.72 | 39.57 | 528.00 | 9814.34 | 977.64 | 10791.98 |
| * | 12.500 | 27000.00 | 1504.21 | 10.61 | 1493.60 | 1505.65 | 1504.21 | 13.32 | 56.06 | 528.00 | 9768.26 | 1028.44 | 10796.71 |
| * | 12.500 | 35000.00 | 1504.79 | 11.19 | 1493.60 | 1506.43 | 1504.79 | 14.53 | 61.34 | 528.00 | 9754.35 | 1043.96 | 10798.31 |
| | 12.592 | 10500.00 | 1504.73 | 8.43 | 1496.30 | 1505.46 | 1504.45 | 9.00 | 49.32 | 485.80 | 9532.73 | 872.44 | 10504.55 |
| | 12.592 | 27000.00 | 1506.85 | 10.55 | 1496.30 | 1507.68 | 1506.19 | 10.44 | 42.57 | 485.80 | 9357.30 | 1163.82 | 10521.12 |
| | 12.592 | 35000.00 | 1507.59 | 11.29 | 1496.30 | 1508.49 | 1506.75 | 10.96 | 41.39 | 485.80 | 9300.61 | 1223.02 | 10523.63 |
| * | 12.700 | 10500.00 | 1508.52 | 10.72 | 1497.80 | 1509.31 | 1508.52 | 6.51 | 86.65 | 570.20 | 9020.05 | 1120.01 | 10331.21 |
| * | 12.700 | 27000.00 | 1509.83 | 12.03 | 1497.80 | 1510.99 | 1509.81 | 9.45 | 109.12 | 570.20 | 8966.39 | 1366.56 | 10347.25 |
| * | 12.700 | 35000.00 | 1510.42 | 12.62 | 1497.80 | 1511.65 | 1510.25 | 10.10 | 99.57 | 570.20 | 8956.28 | 1392.92 | 10349.20 |
| | 12.800 | 10500.00 | 1512.42 | 9.52 | 1502.90 | 1512.95 | 1511.40 | 7.55 | 49.79 | 528.00 | 8520.25 | 984.16 | 10268.38 |
| * | 12.800 | 27000.00 | 1514.47 | 11.57 | 1502.90 | 1515.06 | 1513.66 | 9.77 | 50.80 | 528.00 | 8207.52 | 2032.78 | 10277.59 |
| | 12.800 | 35000.00 | 1515.03 | 12.13 | 1502.90 | 1515.69 | 1514.21 | 10.63 | 53.74 | 528.00 | 8157.00 | 2125.17 | 10282.17 |
| * | 12.900 | 10500.00 | 1514.93 | 7.93 | 1507.00 | 1515.77 | 1514.93 | 9.96 | 68.07 | 528.00 | 8179.76 | 1142.67 | 10104.23 |
| | 12.900 | 27000.00 | 1516.70 | 9.70 | 1507.00 | 1517.60 | 1516.60 | 11.96 | 78.88 | 528.00 | 8105.61 | 2083.65 | 10782.20 |
| | 12.900 | 35000.00 | 1517.32 | 10.32 | 1507.00 | 1518.19 | 1517.10 | 12.18 | 73.91 | 528.00 | 8067.86 | 2596.21 | 10784.39 |
| * | 12.966 | 10500.00 | 1516.95 | 7.05 | 1509.90 | 1517.24 | 1515.55 | 5.28 | 28.60 | 348.50 | 7890.88 | 1772.79 | 10187.16 |
| * | 12.966 | 27000.00 | 1518.83 | 8.93 | 1509.90 | 1519.21 | 1517.56 | 6.68 | 30.91 | 348.50 | 7769.60 | 2392.89 | 10697.13 |
| * | 12.966 | 35000.00 | 1519.39 | 9.49 | 1509.90 | 1519.82 | 1517.98 | 7.08 | 33.31 | 348.50 | 7746.86 | 2784.37 | 10700.20 |

| | SECNO | Q | CWSEL | DEPTH | ELMIN | EG | CRIWS | VCH | 10*KS | XLCH | SSTA | TOPWID | ENDST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * | 11.479 | 10500.00 | 1464.55 | 3.95 | 1460.60 | 1466.53 | 1464.55 | 11.31 | 18.32 | 70.00 | 9878.97 | 235.53 | 10121.03 |
| * | 11.479 | 27000.00 | 1468.02 | 7.42 | 1460.60 | 1471.73 | 1468.02 | 15.46 | 18.52 | 70.00 | 9878.94 | 235.99 | 10121.06 |
| * | 11.479 | 35000.00 | 1469.42 | 8.82 | 1460.60 | 1473.83 | 1469.42 | 16.85 | 18.95 | 70.00 | 9878.93 | 236.18 | 10121.07 |
| * | 11.543 | 10500.00 | 1466.09 | 3.94 | 1462.15 | 1468.08 | 1466.09 | 11.31 | 18.36 | 340.00 | 9878.97 | 235.53 | 10121.03 |
| * | 11.543 | 27000.00 | 1469.55 | 7.40 | 1462.15 | 1473.28 | 1469.55 | 15.49 | 18.65 | 340.00 | 9878.94 | 235.99 | 10121.06 |
| * | 11.543 | 35000.00 | 1470.95 | 8.80 | 1462.15 | 1475.38 | 1470.95 | 16.89 | 19.09 | 340.00 | 9878.93 | 236.17 | 10121.07 |
| * | 11.546 | 10500.00 | 1467.13 | 4.93 | 1462.20 | 1468.33 | 1466.05 | 8.81 | 6.36 | 14.00 | 9878.96 | 242.08 | 10121.04 |
| * | 11.546 | 27000.00 | 1471.51 | 9.31 | 1462.20 | 1473.74 | 1469.43 | 11.98 | 5.28 | 14.00 | 9878.92 | 242.16 | 10121.08 |
| * | 11.546 | 35000.00 | 1473.28 | 11.08 | 1462.20 | 1475.92 | 1470.79 | 13.05 | 5.06 | 14.00 | 9878.91 | 242.19 | 10121.09 |
| * | 11.589 | 10500.00 | 1476.72 | 4.02 | 1472.70 | 1478.69 | 1476.72 | 11.26 | 14.13 | 230.00 | 9878.08 | 240.05 | 10118.13 |
| * | 11.589 | 27000.00 | 1480.13 | 7.43 | 1472.70 | 1483.82 | 1480.13 | 15.42 | 11.86 | 230.00 | 9878.07 | 240.10 | 10118.16 |
| * | 11.589 | 35000.00 | 1481.51 | 8.81 | 1472.70 | 1485.89 | 1481.51 | 16.81 | 11.35 | 230.00 | 9878.06 | 240.11 | 10118.18 |
| | 11.661 | 10500.00 | 1478.85 | 7.15 | 1471.70 | 1479.52 | 1476.70 | 6.59 | 25.42 | 380.20 | 9855.89 | 292.39 | 10148.28 |
| | 11.661 | 27000.00 | 1483.41 | 11.71 | 1471.70 | 1484.68 | 1479.83 | 9.04 | 23.37 | 380.20 | 9841.55 | 319.72 | 10161.27 |
| | 11.661 | 35000.00 | 1485.31 | 13.61 | 1471.70 | 1486.77 | 1481.06 | 9.71 | 22.06 | 380.20 | 9835.42 | 331.36 | 10166.79 |
| | 11.746 | 10500.00 | 1480.03 | 6.93 | 1473.10 | 1480.72 | 1478.38 | 7.06 | 28.01 | 448.80 | 9821.69 | 346.84 | 10168.53 |
| | 11.746 | 27000.00 | 1484.57 | 11.47 | 1473.10 | 1485.69 | 1481.18 | 9.13 | 21.17 | 448.80 | 9806.57 | 374.44 | 10181.01 |
| | 11.746 | 35000.00 | 1486.45 | 13.35 | 1473.10 | 1487.71 | 1482.29 | 9.72 | 19.11 | 448.80 | 9800.34 | 386.54 | 10186.88 |
| * | 11.829 | 10500.00 | 1481.26 | 7.26 | 1474.00 | 1482.69 | 1480.92 | 10.66 | 63.72 | 438.20 | 9841.47 | 394.77 | 10236.[illegible] |
| | 11.829 | 27000.00 | 1485.50 | 11.50 | 1474.00 | 1486.92 | 1483.86 | 11.24 | 33.47 | 438.20 | 9793.50 | 455.73 | 10249.[illegible] |
| | 11.829 | 35000.00 | 1487.32 | 13.32 | 1474.00 | 1488.74 | 1484.84 | 11.33 | 27.11 | 438.20 | 9787.77 | 467.12 | 10254.89 |
| | 11.913 | 10500.00 | 1484.13 | 7.13 | 1477.00 | 1484.84 | 1483.02 | 7.44 | 38.18 | 443.50 | 9891.42 | 404.36 | 10295.78 |
| | 11.913 | 27000.00 | 1487.22 | 10.22 | 1477.00 | 1488.42 | 1485.63 | 9.86 | 35.16 | 443.50 | 9729.71 | 575.43 | 10305.14 |
| | 11.913 | 35000.00 | 1488.74 | 11.74 | 1477.00 | 1489.98 | 1486.54 | 10.07 | 28.85 | 443.50 | 9724.41 | 585.36 | 10309.77 |
| | 12.000 | 10500.00 | 1485.65 | 5.95 | 1479.70 | 1486.16 | 1484.03 | 6.19 | 23.01 | 459.40 | 9896.89 | 494.84 | 10391.73 |
| | 12.000 | 27000.00 | 1488.77 | 9.07 | 1479.70 | 1489.76 | 1486.45 | 8.75 | 24.79 | 459.40 | 9851.80 | 548.74 | 10400.54 |
| | 12.000 | 35000.00 | 1490.02 | 10.32 | 1479.70 | 1491.17 | 1487.36 | 9.50 | 24.30 | 459.40 | 9809.08 | 594.98 | 10404.06 |
| | 12.100 | 10500.00 | 1487.07 | 5.47 | 1481.60 | 1487.79 | 1485.81 | 6.78 | 39.76 | 528.00 | 9941.73 | 383.10 | 10324.83 |
| | 12.100 | 27000.00 | 1490.15 | 8.55 | 1481.60 | 1491.51 | 1488.31 | 9.45 | 40.24 | 528.00 | 9915.96 | 608.20 | 10524.17 |
| | 12.100 | 35000.00 | 1491.35 | 9.75 | 1481.60 | 1492.82 | 1489.80 | 9.99 | 36.35 | 528.00 | 9836.58 | 691.36 | 10527.94 |
| | 12.200 | 10500.00 | 1489.16 | 4.46 | 1484.70 | 1489.70 | 1487.81 | 5.87 | 32.48 | 528.00 | 9972.33 | 472.12 | 10444.45 |
| | 12.200 | 27000.00 | 1492.32 | 7.62 | 1484.70 | 1493.31 | 1490.04 | 8.03 | 28.37 | 528.00 | 9876.08 | 731.62 | 10638.25 |
| | 12.200 | 35000.00 | 1493.36 | 8.66 | 1484.70 | 1494.53 | 1490.96 | 8.78 | 27.95 | 528.00 | 9801.15 | 841.12 | 10642.27 |
| * | 12.300 | 10500.00 | 1491.62 | 5.82 | 1485.80 | 1492.78 | 1491.58 | 8.47 | 118.64 | 528.00 | 9954.42 | 512.55 | 10581.05 |
| * | 12.300 | 27000.00 | 1494.29 | 8.49 | 1485.80 | 1495.68 | 1493.60 | 9.24 | 75.01 | 528.00 | 9952.08 | 642.56 | 10594.63 |
| * | 12.300 | 35000.00 | 1495.22 | 9.42 | 1485.80 | 1496.81 | 1494.28 | 10.13 | 68.73 | 528.00 | 9935.68 | 685.63 | 10621.31 |
| * | 12.400 | 10500.00 | 1496.36 | 7.36 | 1489.00 | 1497.00 | 1495.58 | 6.54 | 55.99 | 528.00 | 9899.22 | 593.81 | 10649.16 |
| | 12.400 | 27000.00 | 1498.26 | 9.26 | 1489.00 | 1499.59 | 1497.69 | 10.13 | 72.32 | 528.00 | 9892.08 | 782.04 | 10674.11 |
| | 12.400 | 35000.00 | 1499.01 | 10.01 | 1489.00 | 1500.55 | 1498.41 | 11.15 | 72.25 | 528.00 | 9889.41 | 894.99 | 10827.62 |

Existing Condition Cross Section Plots

Skunk Creek
Adobe Dam to CAP

CVL

Existing Condition HEC-2 Output

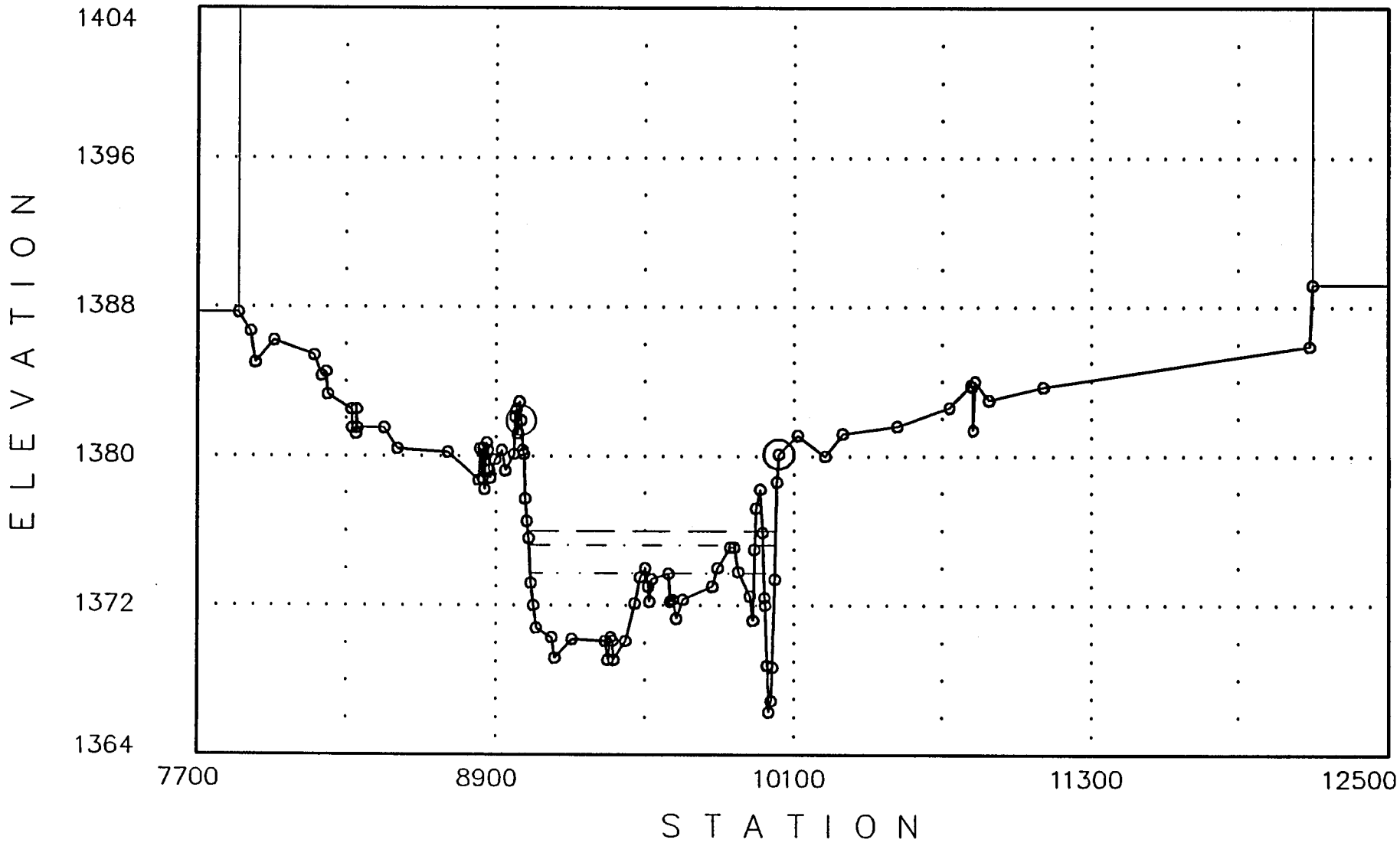
Skunk Creek
Adobe Dam to CAP

CVL

<<<<<< Cross Section: 8.566: (FN = SKN.FZO) >>>>>>

Q1= 15000 WS1= 1373.72
Q2= 29000 WS2= 1375.24
Q3= 39000 WS3= 1375.97

Manning-n's: n-lob = .05 n-ch = .04 n-rob = .05

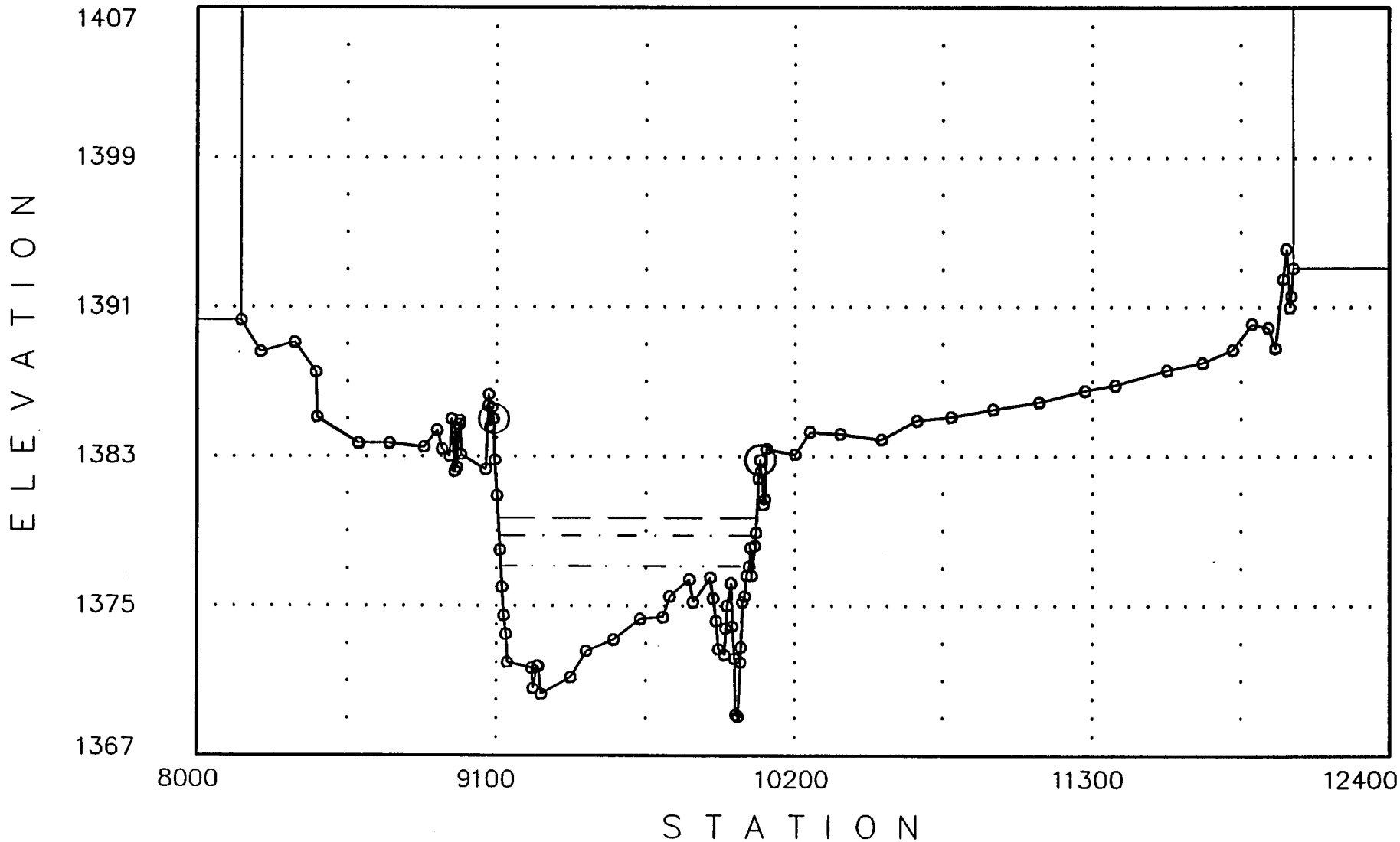



12-07-1990

<<<<<< Cross Section: 8.68: (FN = SKN.FZO) >>>>>>

Q1= 15000 WS1= 1377.14
Q2= 29000 WS2= 1378.76
Q3= 39000 WS3= 1379.69

Manning-n's: n-lob = .05 n-ch = .04 n-rob = .05

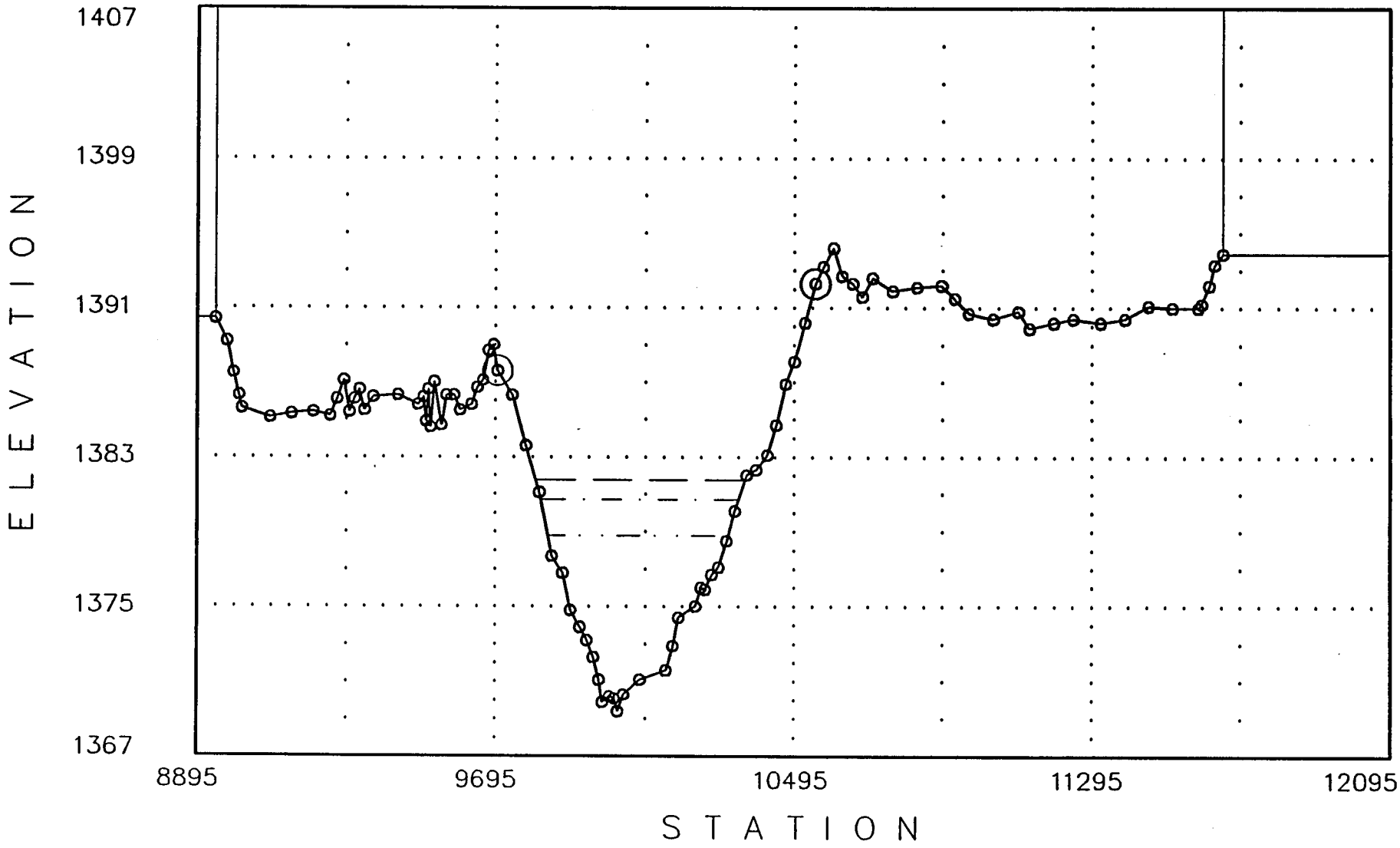



12-07-1990

<<<<<< Cross Section: 8.815: (FN = SKN.FZO) >>>>>>

Q1= 15000 WS1= 1378.78
Q2= 29000 WS2= 1380.71
Q3= 39000 WS3= 1381.75

Manning-n's: n-lob = .05 n-ch = .04 n-rob = .05

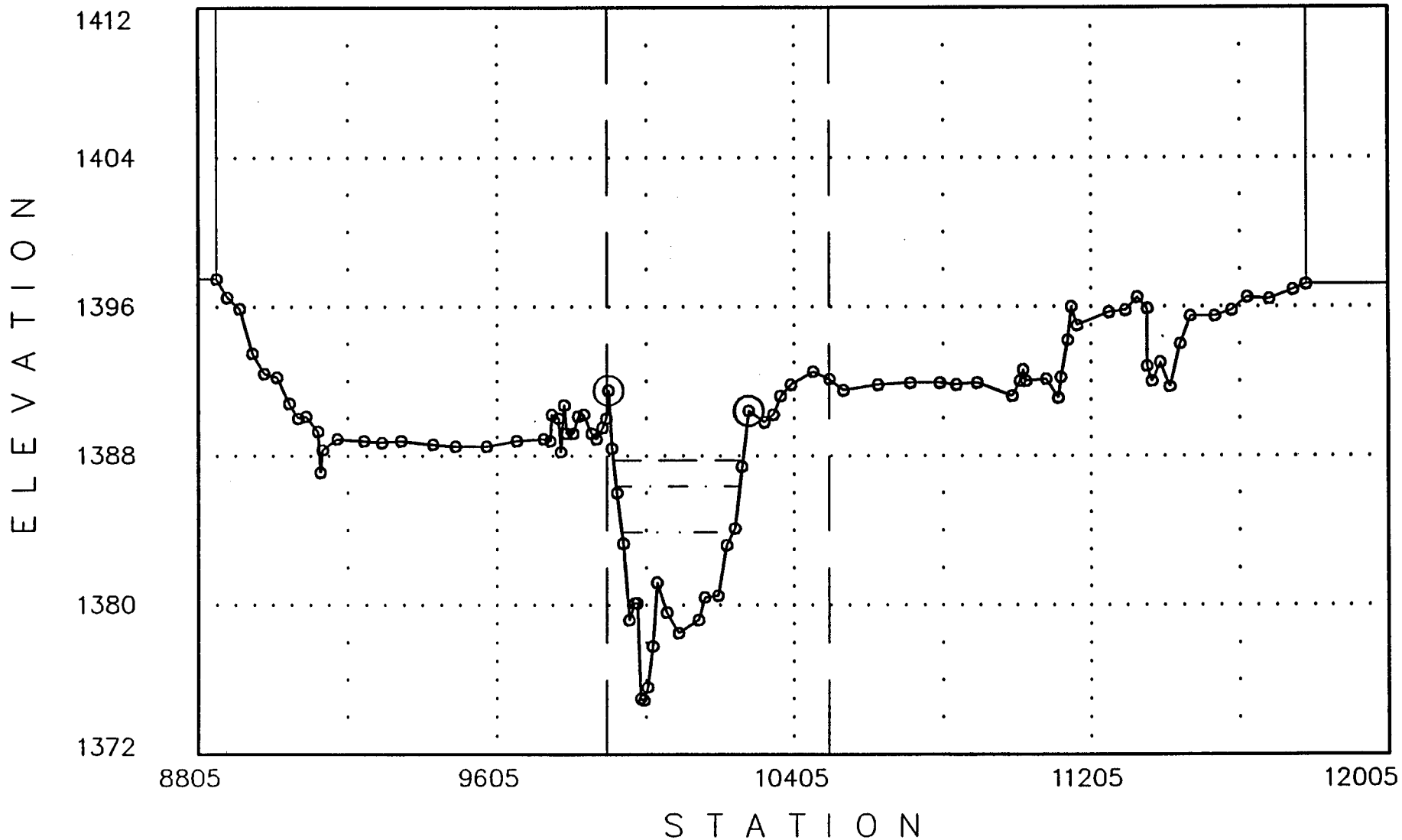



12-07-1990

<<<<<< Cross Section: 8.907: (FN = SKN.FZO) >>>>>>

Q1= 15000 WS1= 1383.9
Q2= 29000 WS2= 1386.36
Q3= 39000 WS3= 1387.74

Manning-n's: n-lob = .05 n-ch = .04 n-rob = .05

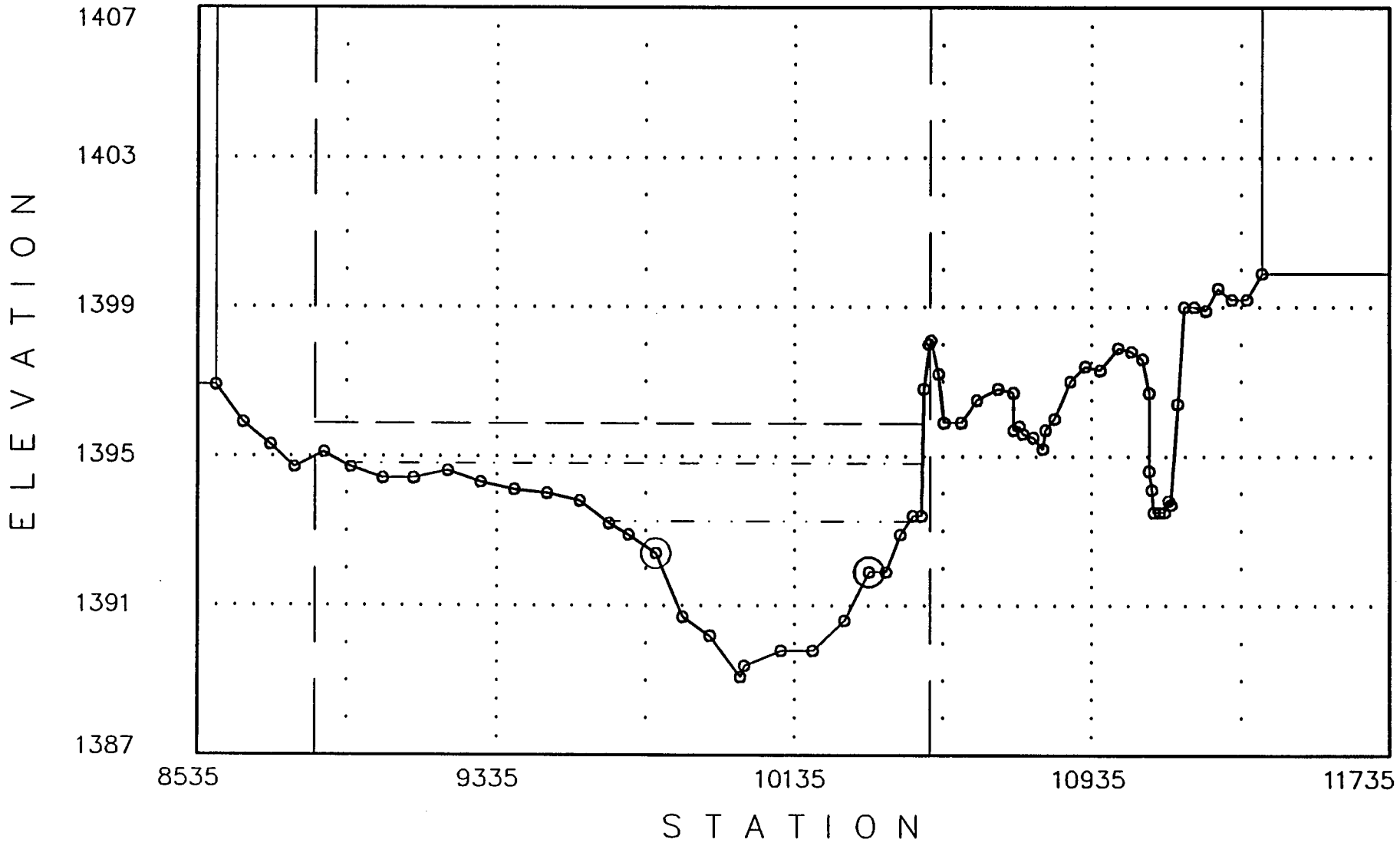



12-07-1990

<<<<<< Cross Section: 9.022: (FN = SKN.FZO) >>>>>>

Q1= 15000 WS1= 1393.25
Q2= 29000 WS2= 1394.81
Q3= 39000 WS3= 1395.87

Manning-n's: n-lob = .05 n-ch = .04 n-rob = .05

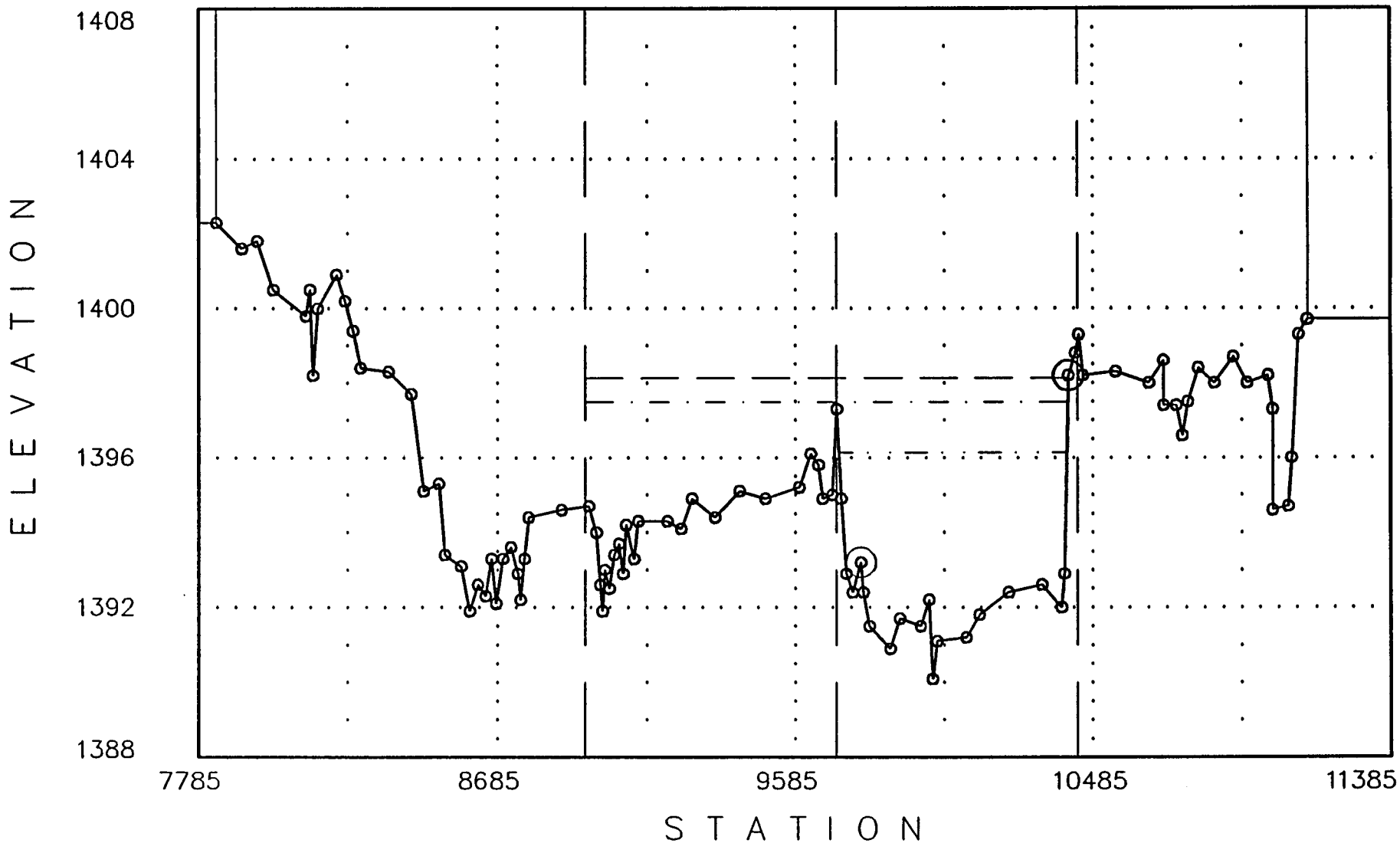



12-07-1990

<<<<<< Cross Section: 9.1: (FN = SKN.FZO) >>>>>>

Q1= 15000 WS1= 1396.14
Q2= 29000 WS2= 1397.49
Q3= 39000 WS3= 1398.13

Manning-n's: n-lob = .055 n-ch = .04 n-rob = .05

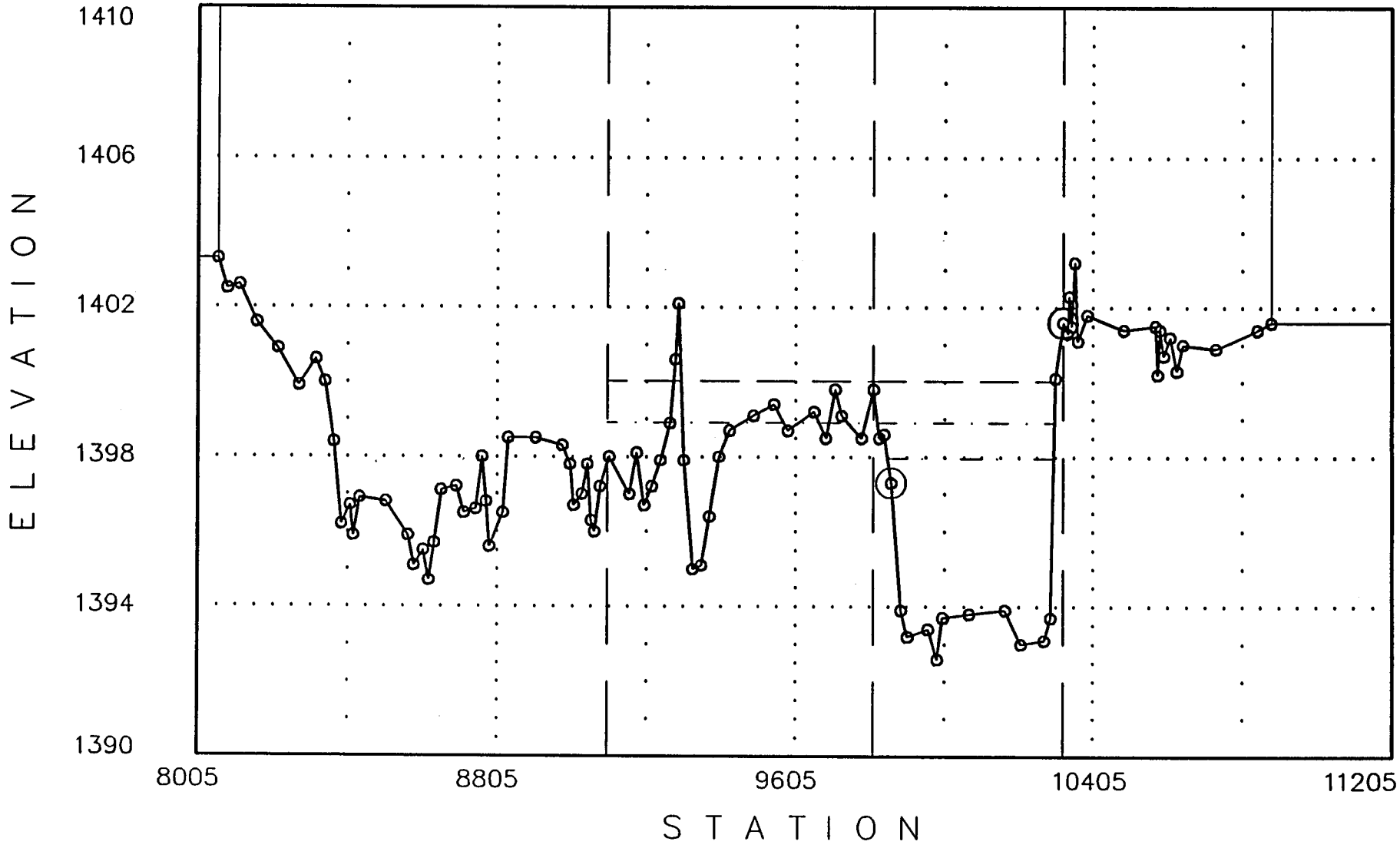



12-07-1990

<<<<<< Cross Section: 9.2: (FN = SKN.FZO) >>>>>>

Q1= 15000 WS1= 1397.96
Q2= 29000 WS2= 1398.92
Q3= 39000 WS3= 1400.02

Manning-n's: n-lob = .055 n-ch = .04 n-rob = .05

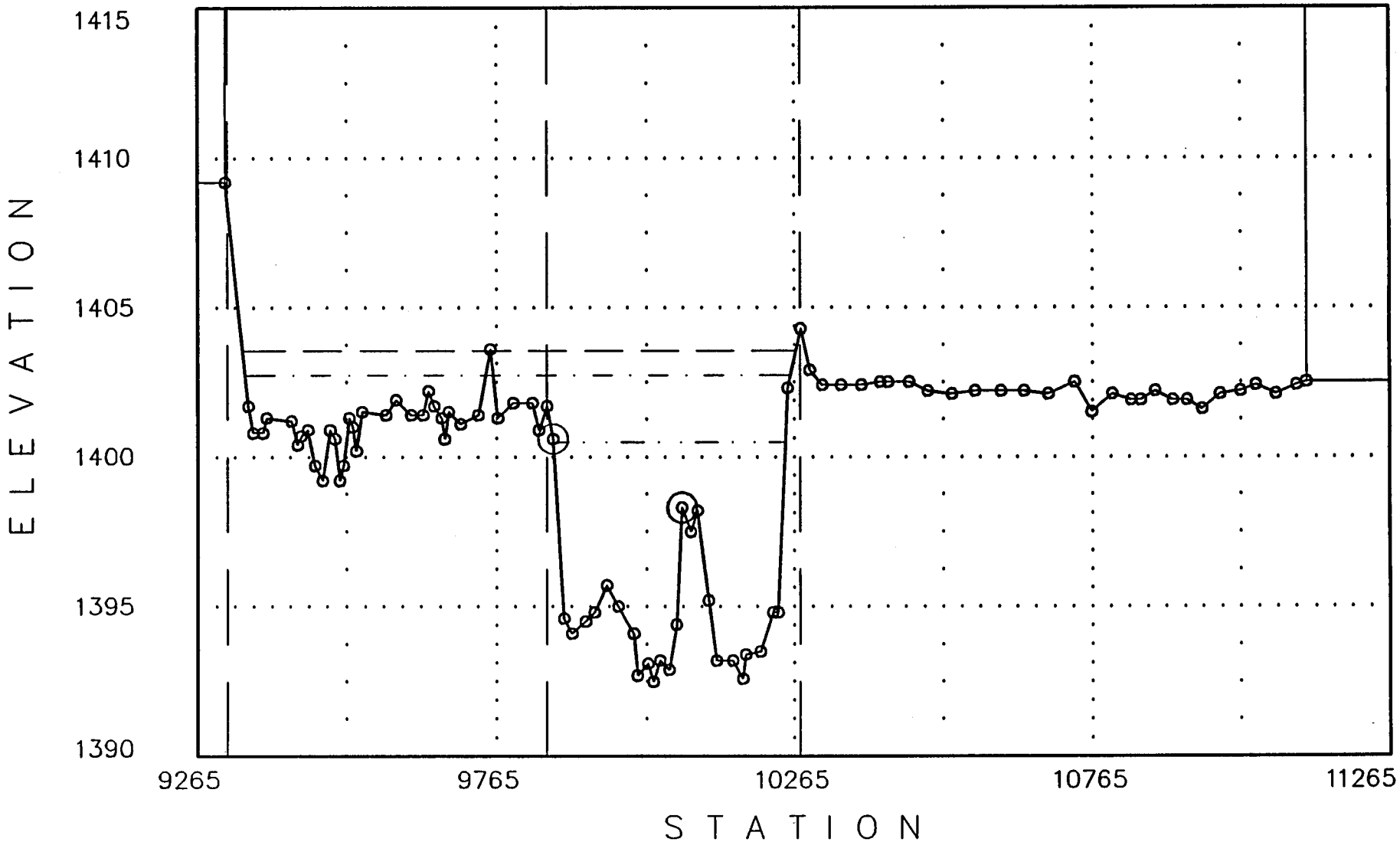



12-07-1990

<<<<<< Cross Section: 9.282: (FN = SKN.FZO) >>>>>>

Q1= 15000 WS1= 1400.49
Q2= 29000 WS2= 1402.72
Q3= 39000 WS3= 1403.55

Manning-n's: n-lob = .05 n-ch = .045 n-rob = .05

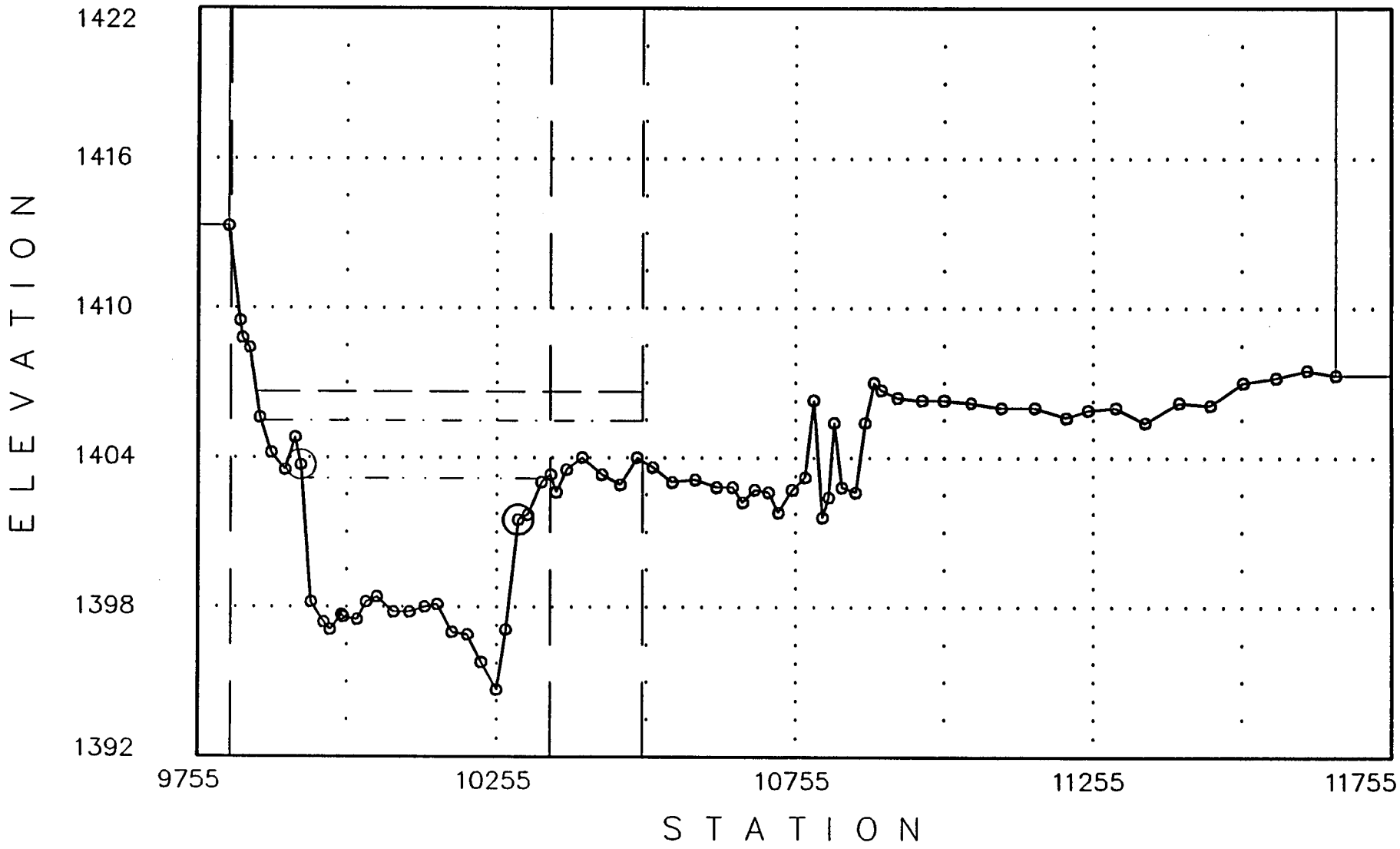



12-07-1990

<<<<<< Cross Section: 9.4: (FN = SKN.FZO) >>>>>>

Q1= 15000 WS1= 1403.15
Q2= 29000 WS2= 1405.48
Q3= 39000 WS3= 1406.63

Manning-n's: n-lob = .05 n-ch = .045 n-rob = .05

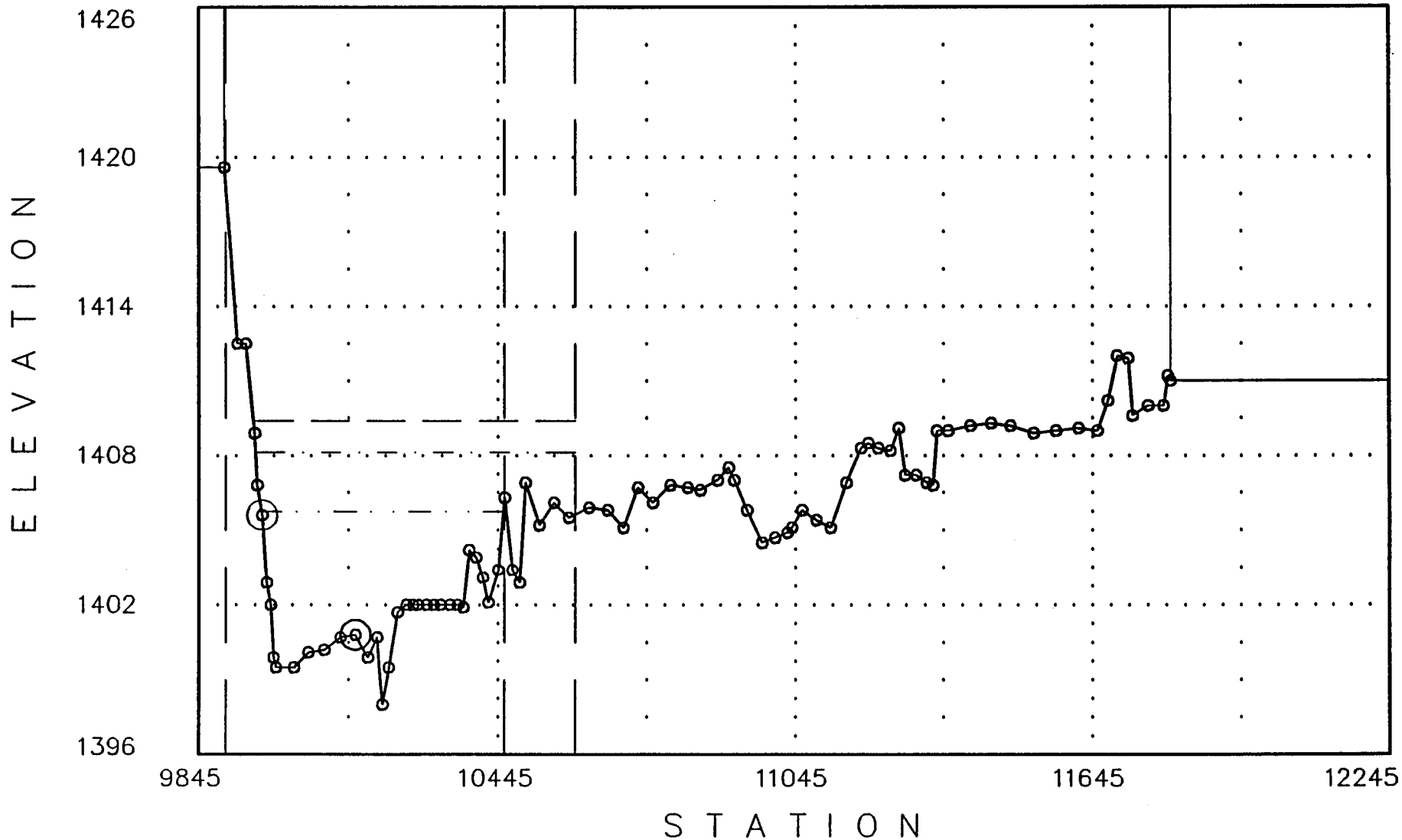



12-07-1990

<<<<<< Cross Section: 9.488: (FN = SKN.FZO) >>>>>>

Q1= 15000 WS1= 1405.75
Q2= 29000 WS2= 1408.12
Q3= 39000 WS3= 1409.4

Manning-n's: n-lob = .05 n-ch = .045 n-rob = .05

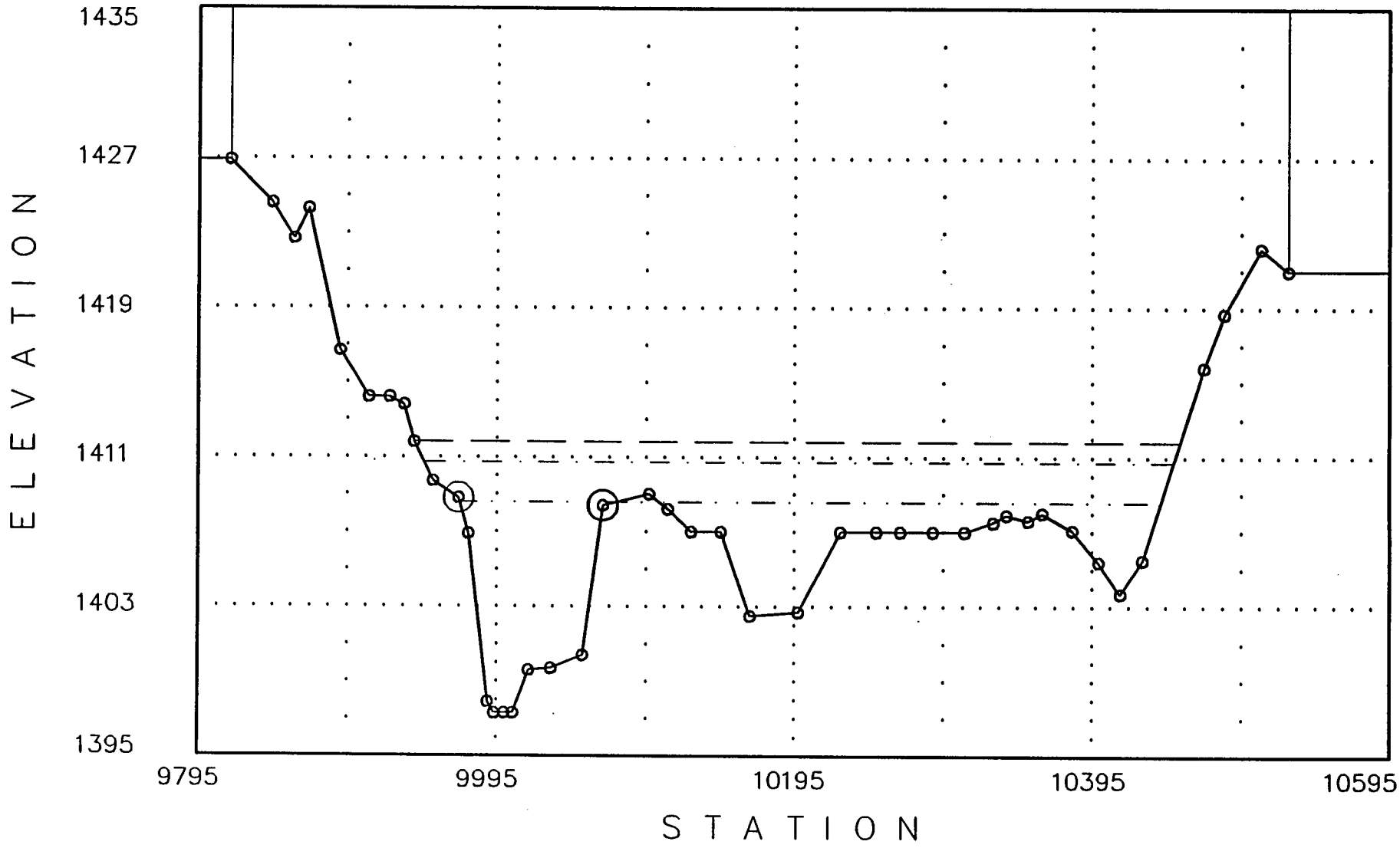



12-07-1990

<<<<<< Cross Section: 9.56: (FN - SKN.FZO) >>>>>>

Q1= 15000 WS1= 1408.57
Q2= 29000 WS2= 1410.72
Q3= 39000 WS3= 1411.82

Manning-n's: n-lob = .05 n-ch = .045 n-rob = .05

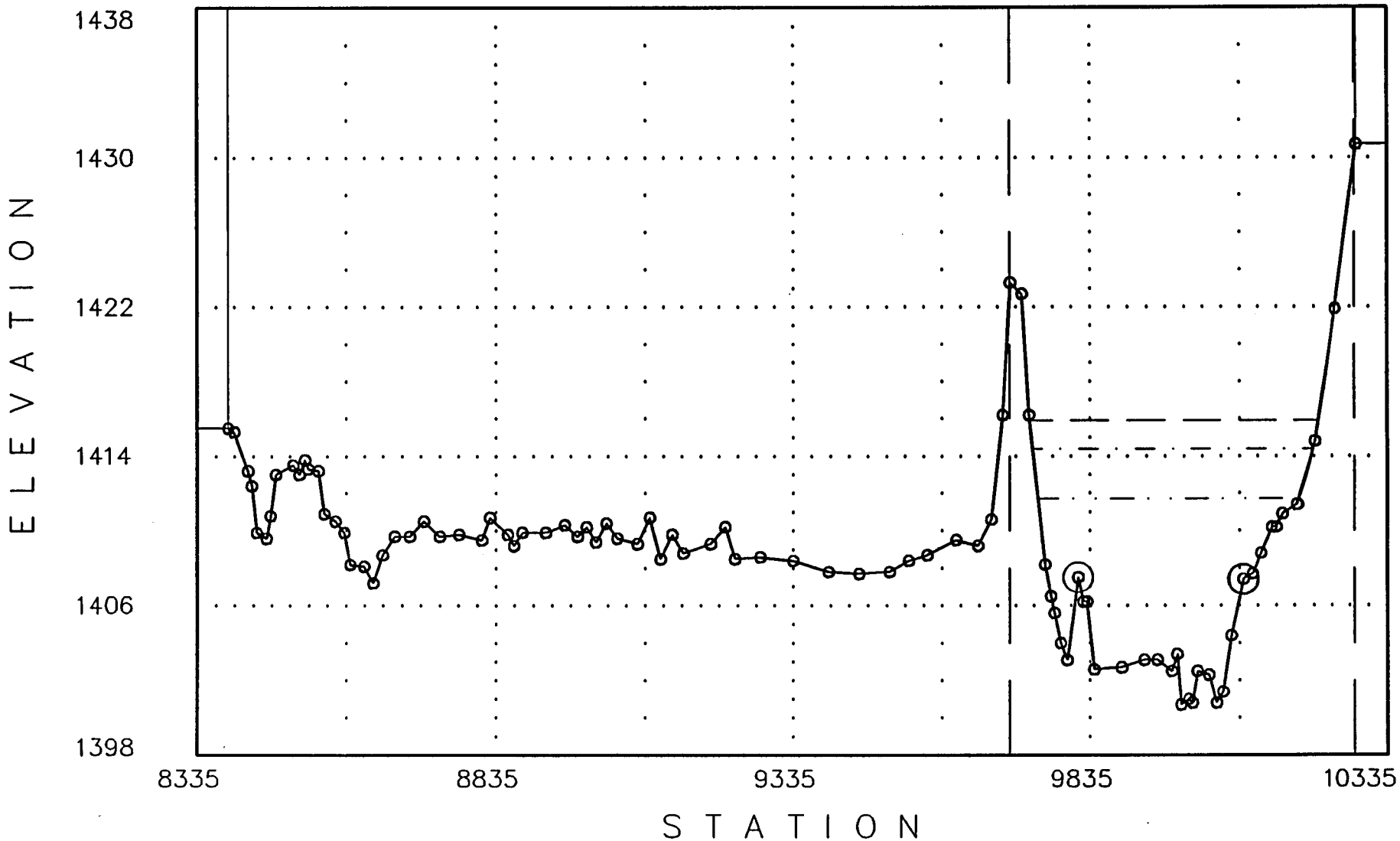



12-07-1990

<<<<<< Cross Section: 9.655: (FN = SKN.FZO) >>>>>>

Q1= 15000 WS1= 1411.71
Q2= 29000 WS2= 1414.4
Q3= 39000 WS3= 1415.9

Manning-n's: n-lob = .05 n-ch = .045 n-rob = .05

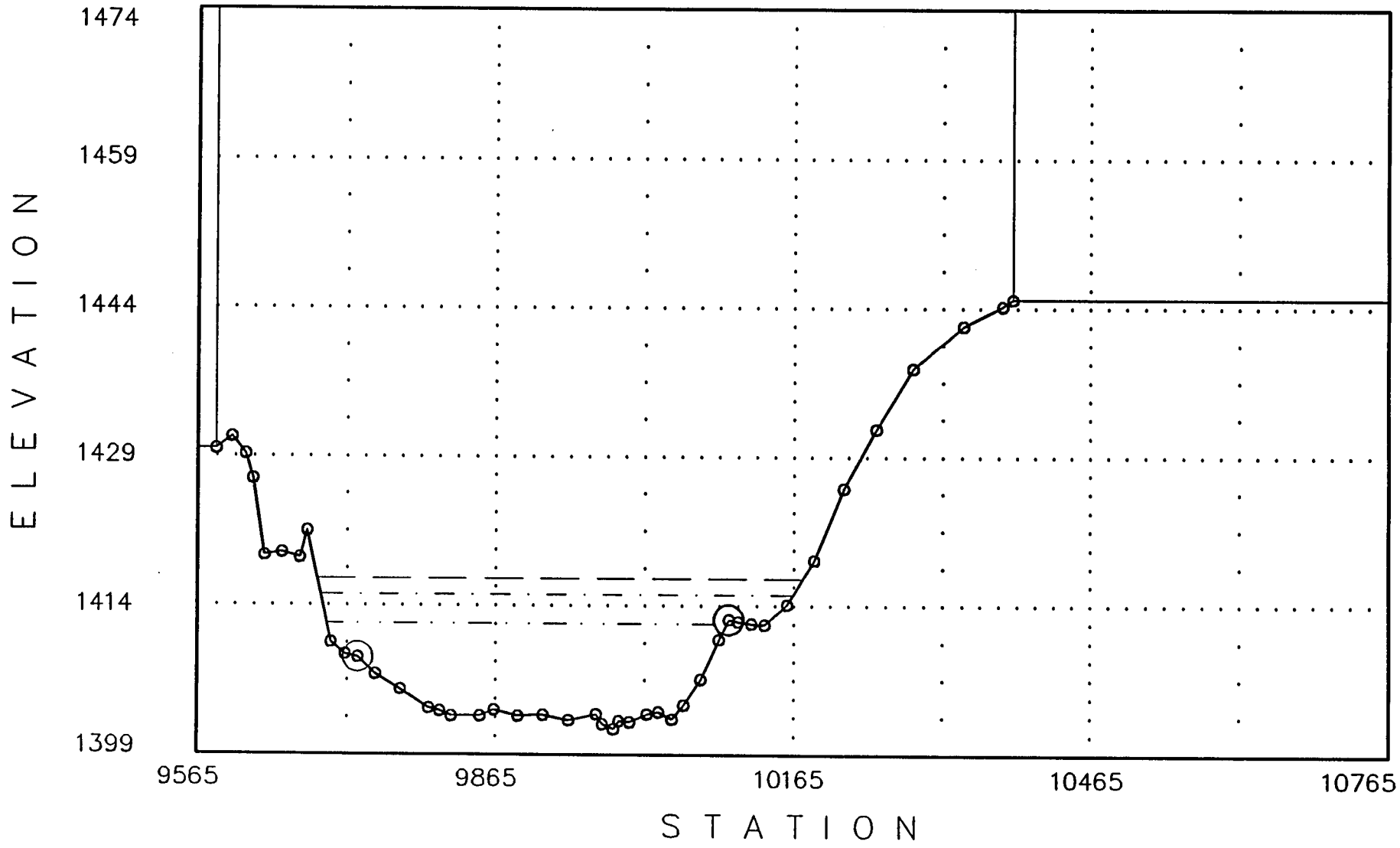



12-07-1990

<<<<<< Cross Section: 9.713: (FN = SKN.FZO) >>>>>>

Q1= 15000 WS1= 1412.21
Q2= 29000 WS2= 1415.11
Q3= 39000 WS3= 1416.72

Manning-n's: n-lob = .05 n-ch = .045 n-rob = .05

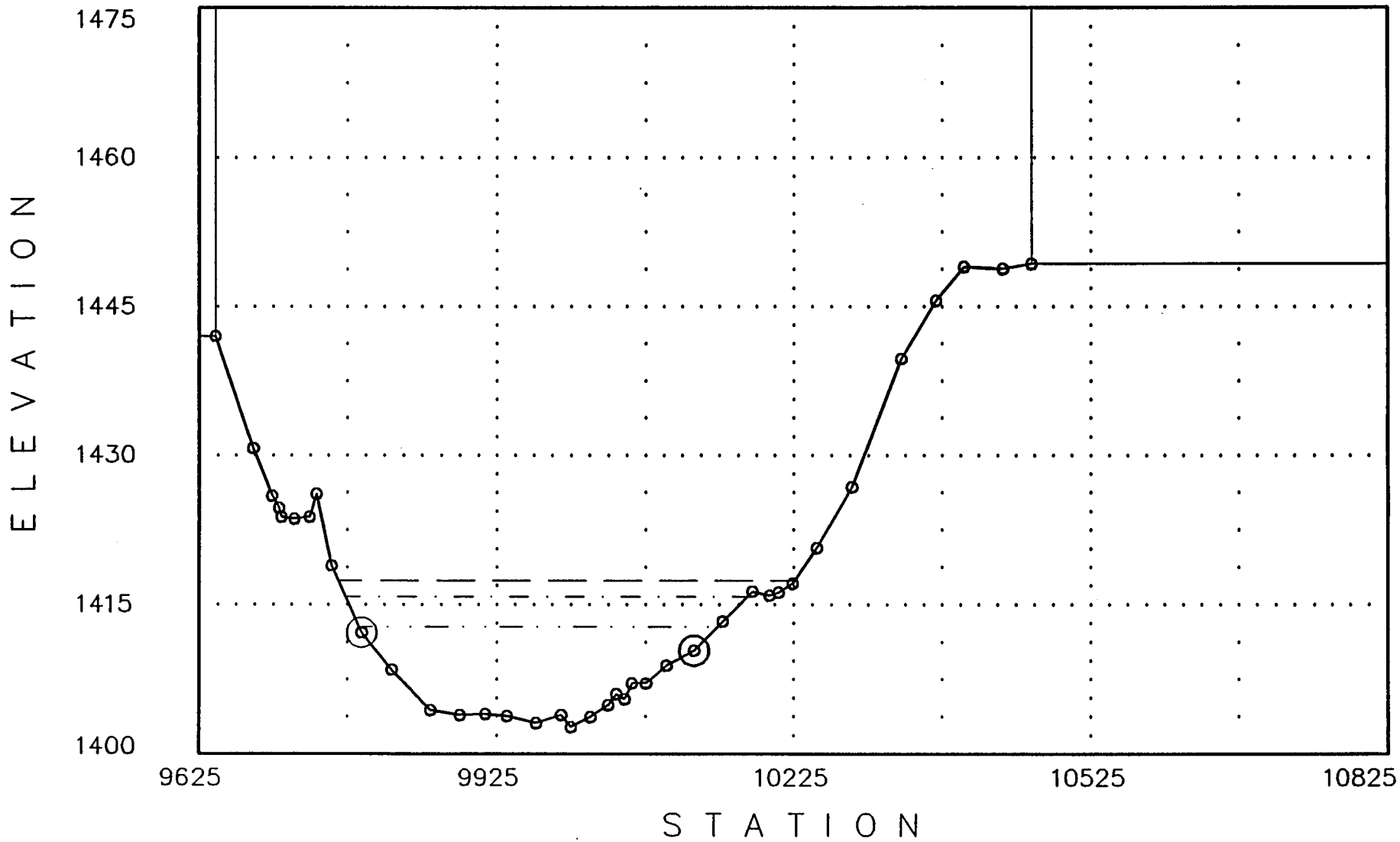



12-07-1990

<<<<<< Cross Section: 9.8: (FN = SKN.FZO) >>>>>>

Q1= 15000 WS1= 1412.8
Q2= 29000 WS2= 1415.77
Q3= 39000 WS3= 1417.4

Manning-n's: n-lob = .05 n-ch = .04 n-rob = .05

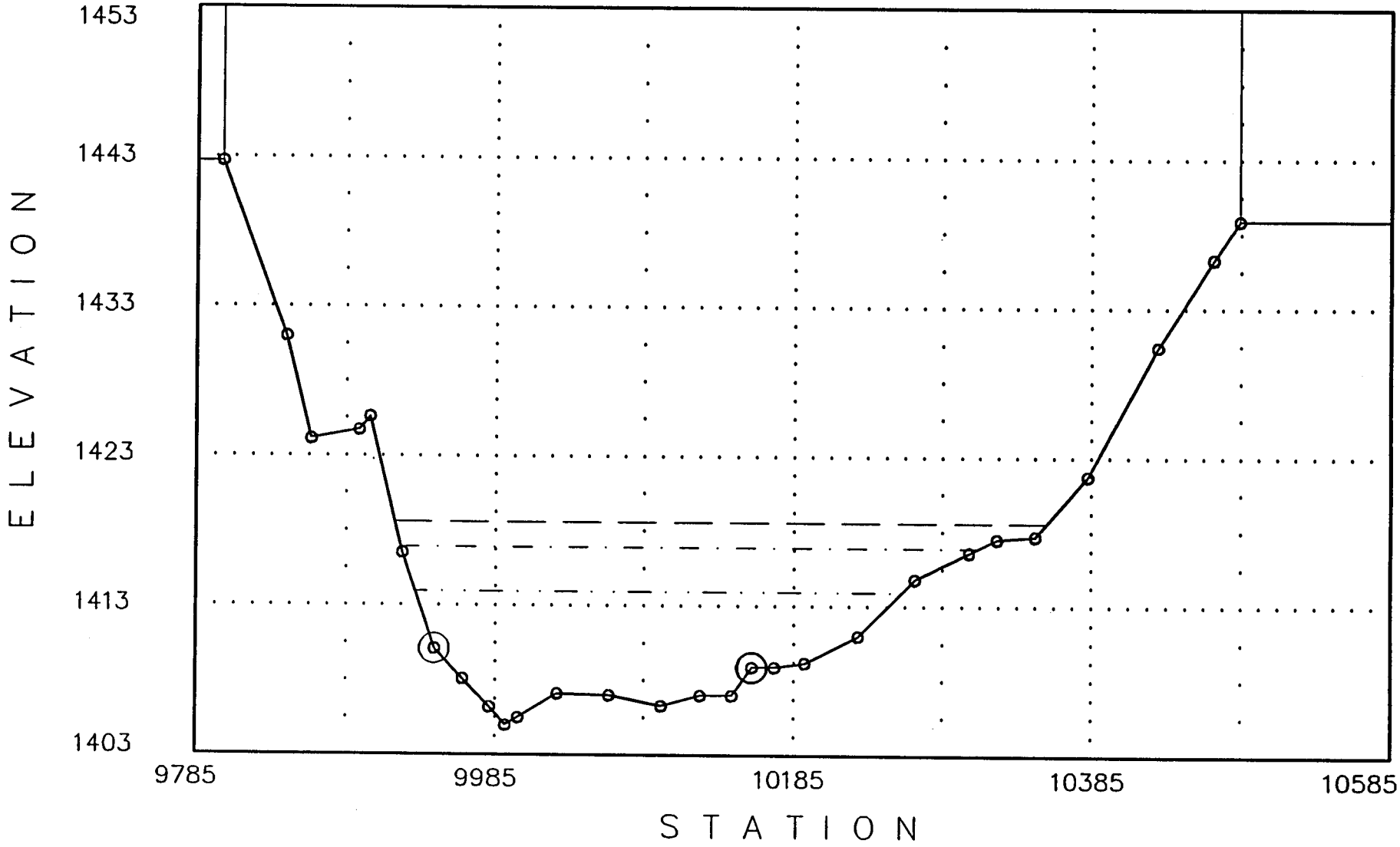



12-07-1990

<<<<<< Cross Section: 9.896: (FN = SKN.FZO) >>>>>>

Q1= 15000 WS1= 1413.92
Q2= 29000 WS2= 1416.9
Q3= 39000 WS3= 1418.57

Manning-n's: n-lob = .05 n-ch = .04 n-rob = .05

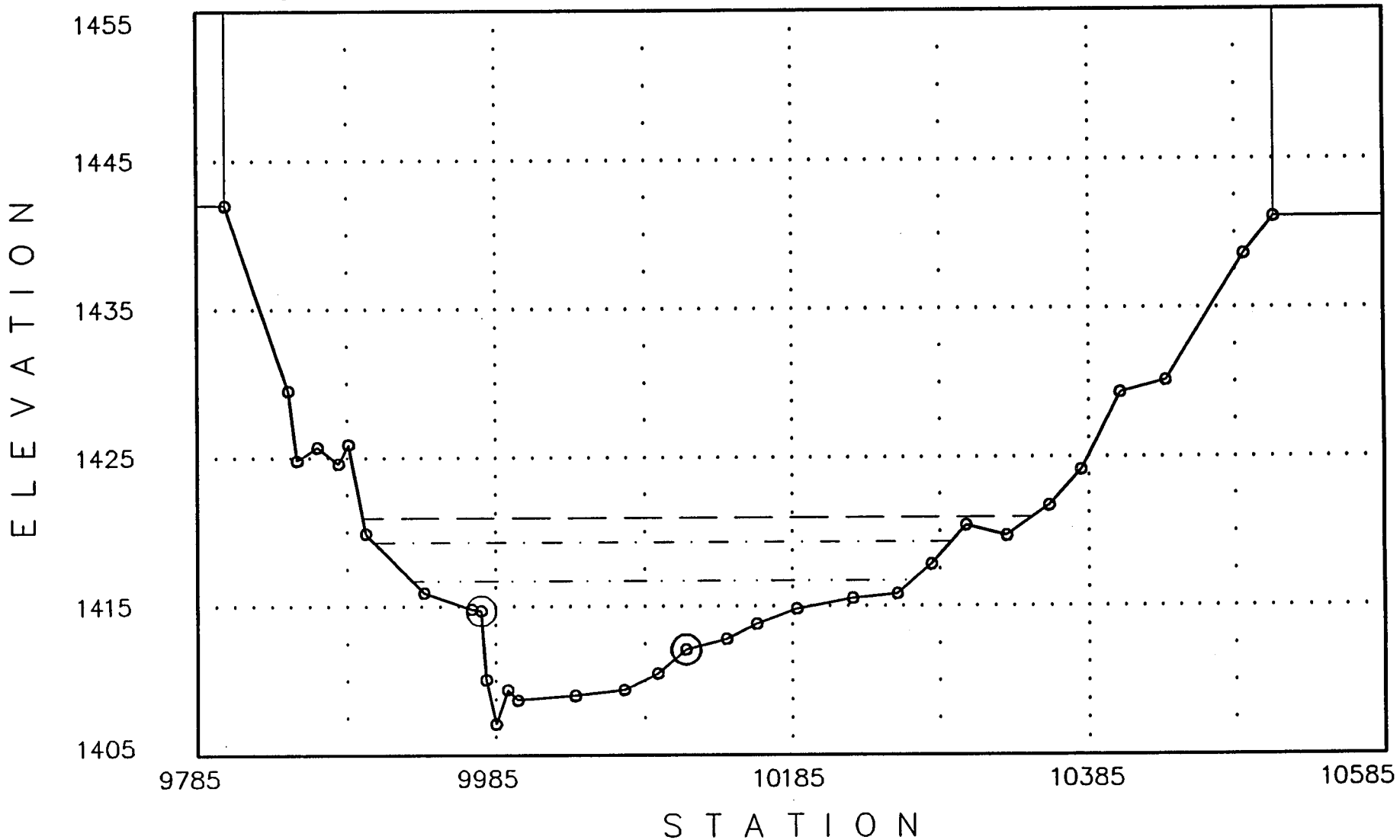



12-07-1990

<<<<<< Cross Section: 9.983: (FN = SKN.FZO) >>>>>>

Q1= 15000 WS1= 1416.7
Q2= 29000 WS2= 1419.29
Q3= 39000 WS3= 1420.94

Manning-n's: n-lob = .05 n-ch = .04 n-rob = .05

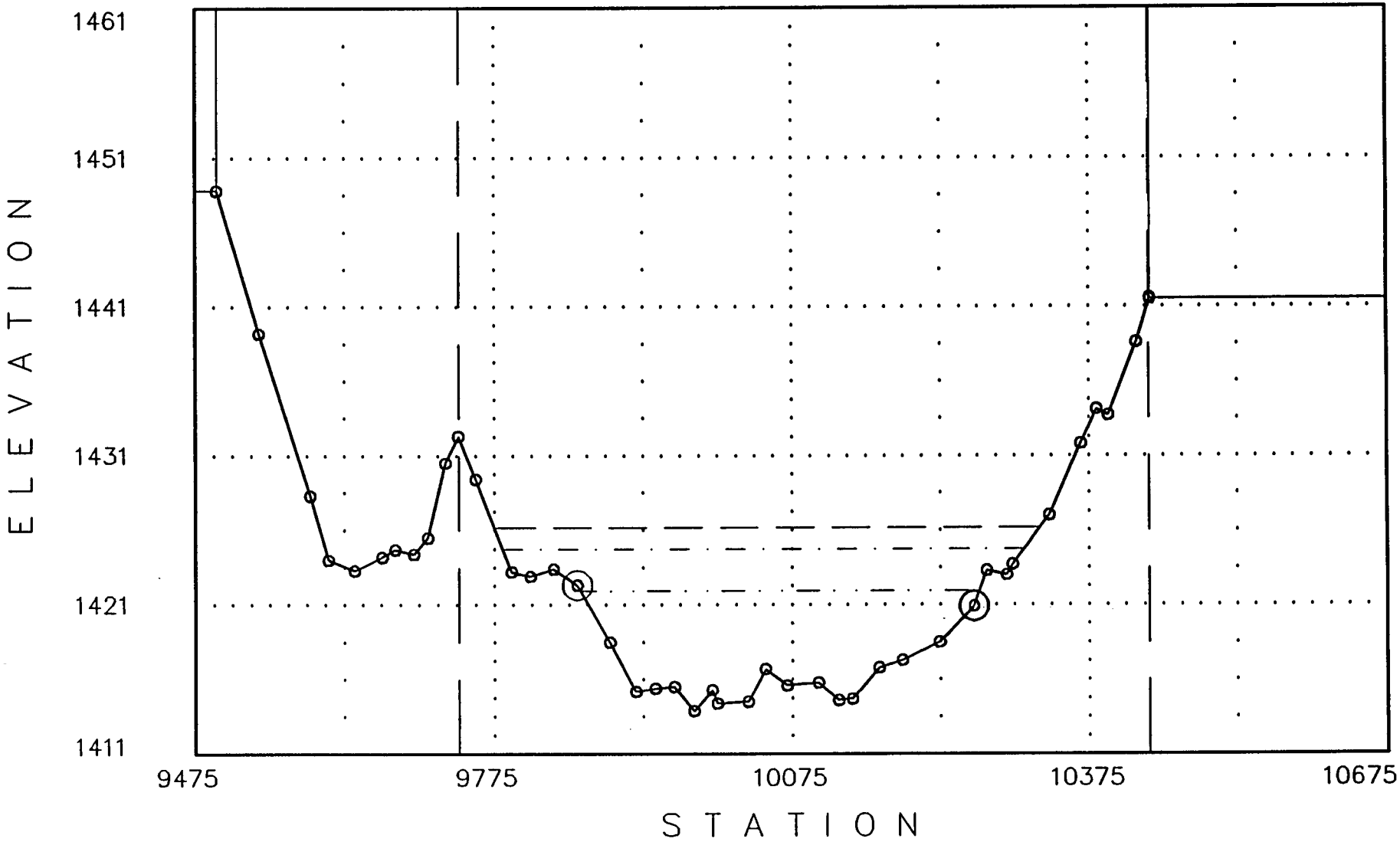



12-07-1990

<<<<<< Cross Section: 10.108: (Fl$_N$ = SKN.FZO) >>>>>>

Q1= 15000 WS1= 1421.92
Q2= 29000 WS2= 1424.72
Q3= 39000 WS3= 1426.19

Manning-n's: n-lob = .05 n-ch = .04 n-rob = .05

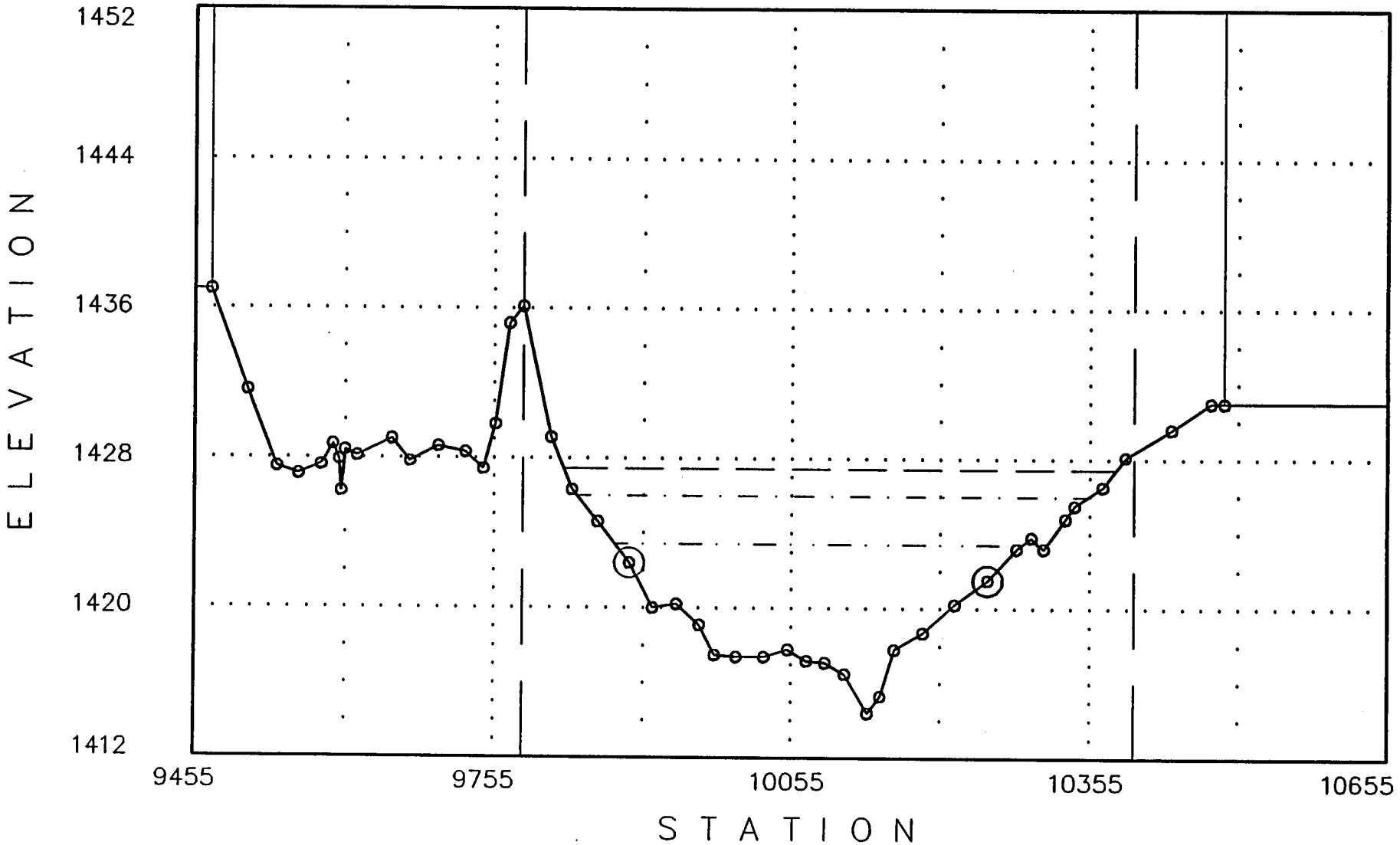



12-07-1990

<<<<<< Cross Section: 10.18: (FN = SKN.FZO) >>>>>>

Q1= 15000 WS1= 1423.41
Q2= 29000 WS2= 1425.98
Q3= 39000 WS3= 1427.42

Manning-n's: n-lob = .05 n-ch = .04 n-rob = .05

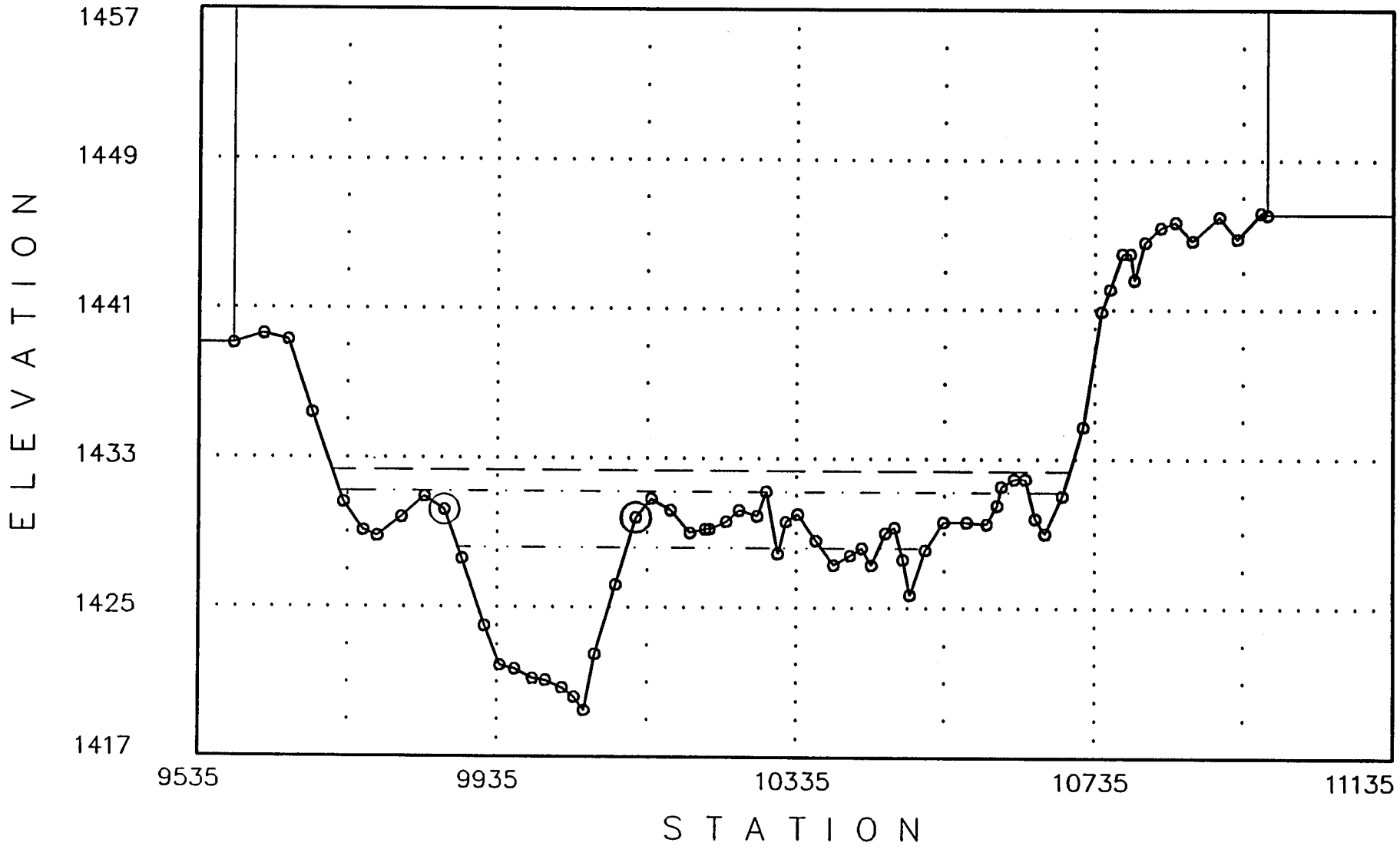



12-07-1990

<<<<<< Cross Section: 10.28: (FN = SKN.FZO) >>>>>>

Q1= 15000 WS1= 1428.21
Q2= 29000 WS2= 1431.2
Q3= 39000 WS3= 1432.31

Manning-n's: n-lob = .05 n-ch = .04 n-rob = .05

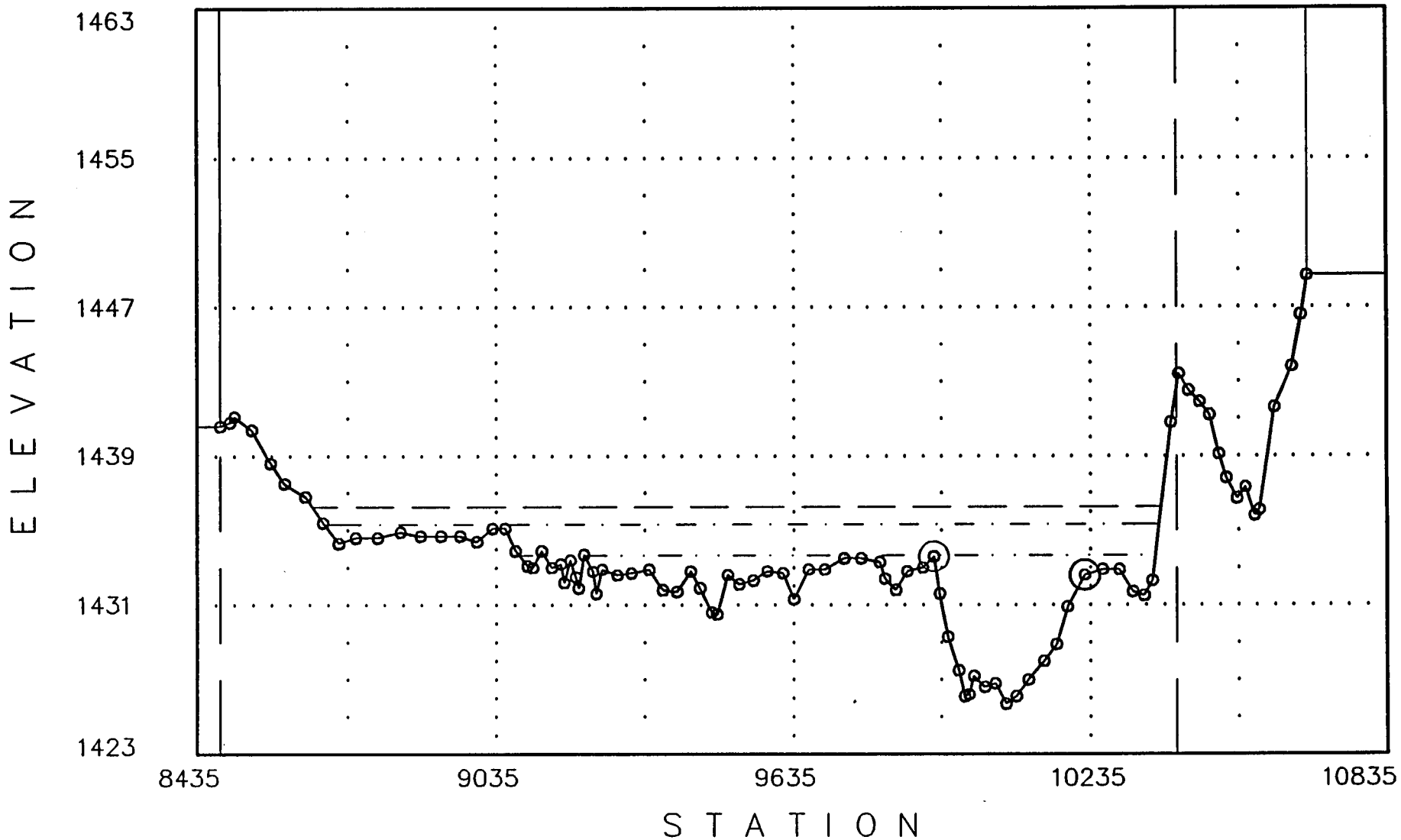



12-07-1990

<<<<<< Cross Section: 10.389: (FN = SKN.FZO) >>>>>>

Q1= 15000 WS1= 1433.66
Q2= 29000 WS2= 1435.32
Q3= 39000 WS3= 1436.25

Manning-n's: n-lob = .05 n-ch = .04 n-rob = .05

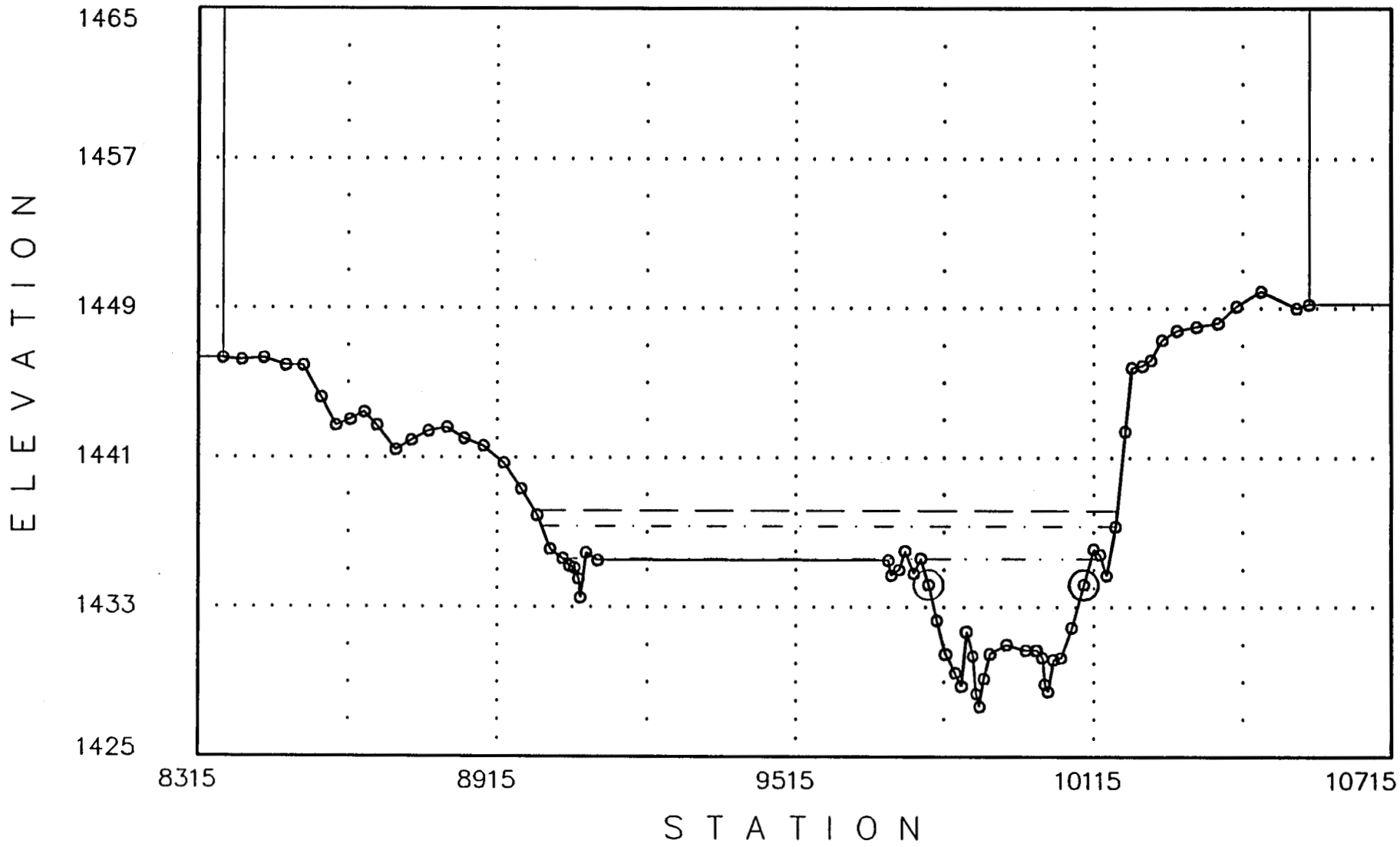



12-07-1990

<<<<<< Cross Section: 10.468: (FIN = SKN.FZO) >>>>>>

Q1= 15000 WS1= 1435.58
Q2= 29000 WS2= 1437.33
Q3= 39000 WS3= 1438.15

Manning-n's: n-lob = .05 n-ch = .04 n-rob = .05

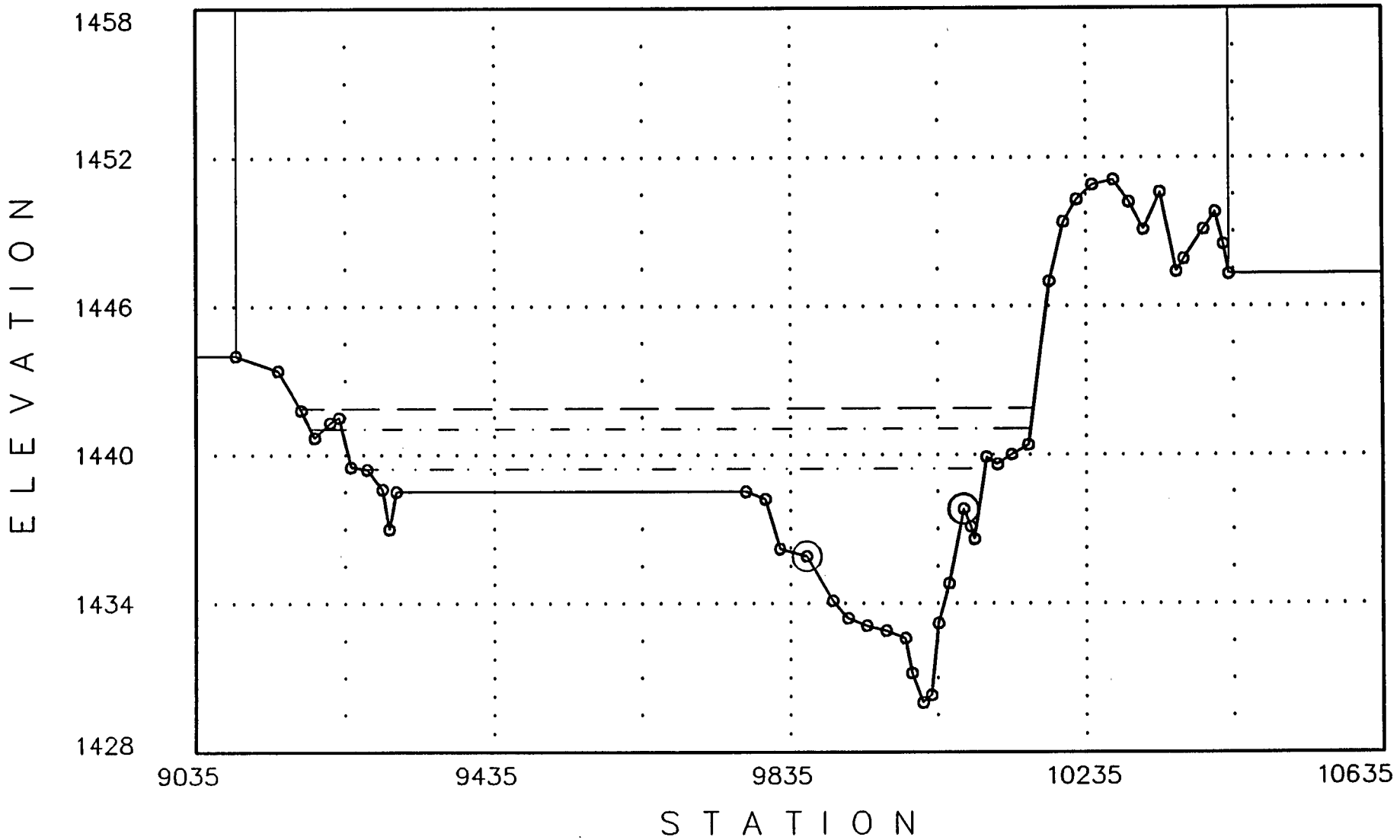



12-07-1990

<<<<<< Cross Section: 10.565: (FN = SKN.FZO) >>>>>>

Q1= 15000 WS1= 1439.43
Q2= 29000 WS2= 1441.05
Q3= 39000 WS3= 1441.87

Manning-n's: n-lob = .05 n-ch = .04 n-rob = .05

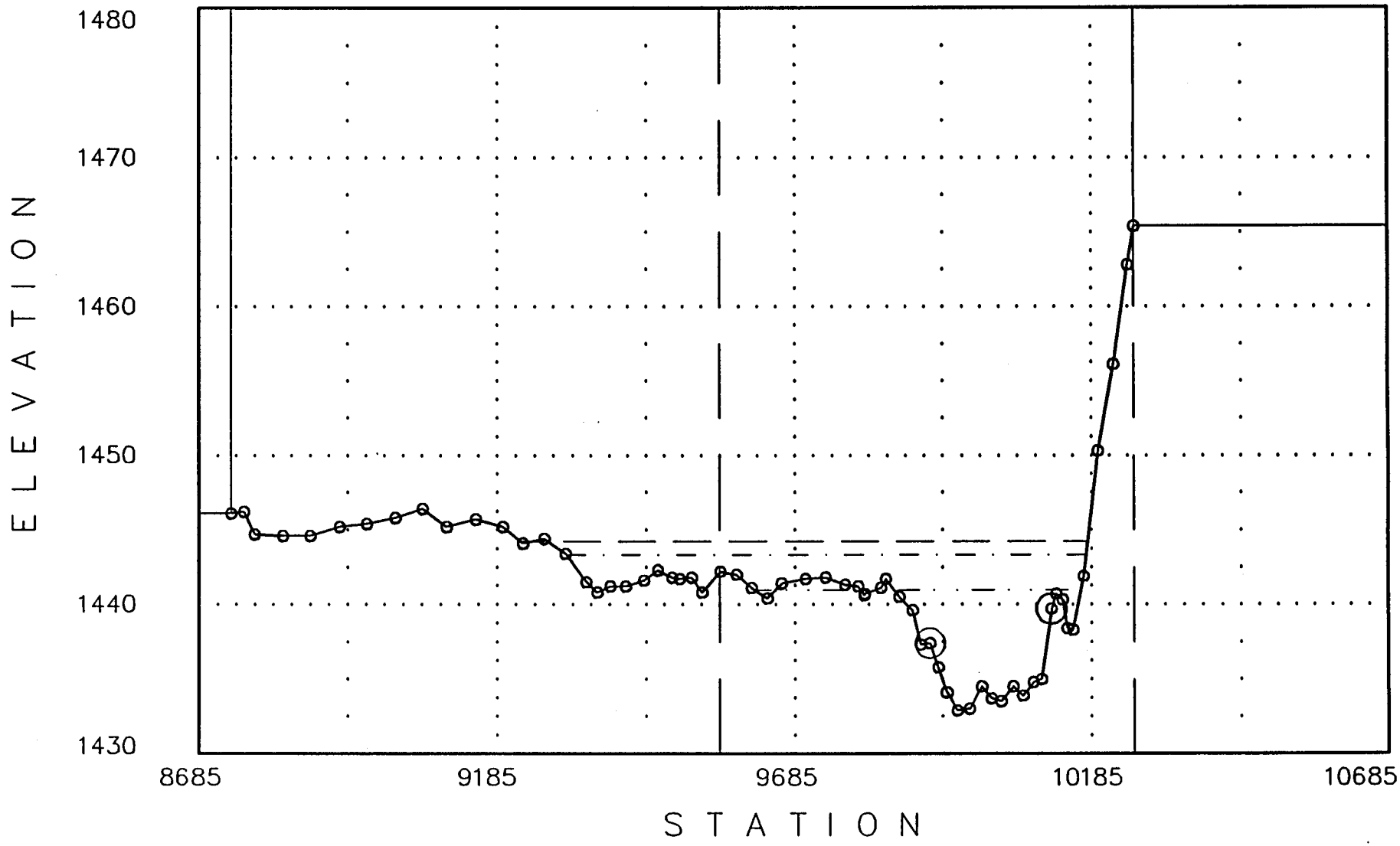



12-07-1990

<<<<<< Cross Section: 10.617: (Fl\ = SKN.FZO) >>>>>>

Q1= 15000 WS1= 1440.98
Q2= 29000 WS2= 1443.34
Q3= 39000 WS3= 1444.25

Manning-n's: n-lob = .05 n-ch = .04 n-rob = .05

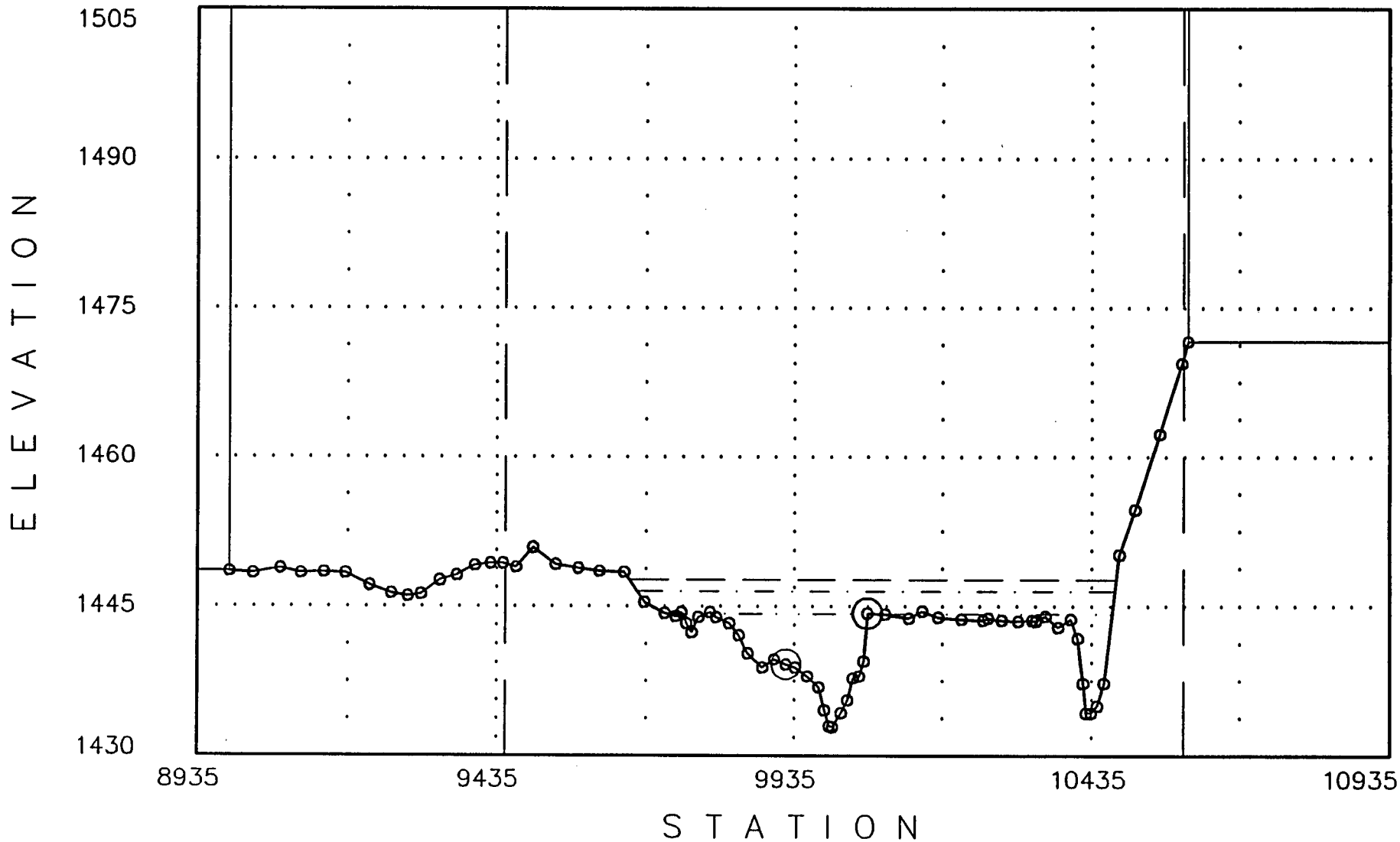



12-07-1990

<<<<<< Cross Section: 10.707: (FN = SKN.FZO) >>>>>>

Q1= 15000 WS1= 1444.22
Q2= 29000 WS2= 1446.49
Q3= 39000 WS3= 1447.64

Manning-n's: n-lob = .05 n-ch = .04 n-rob = .05

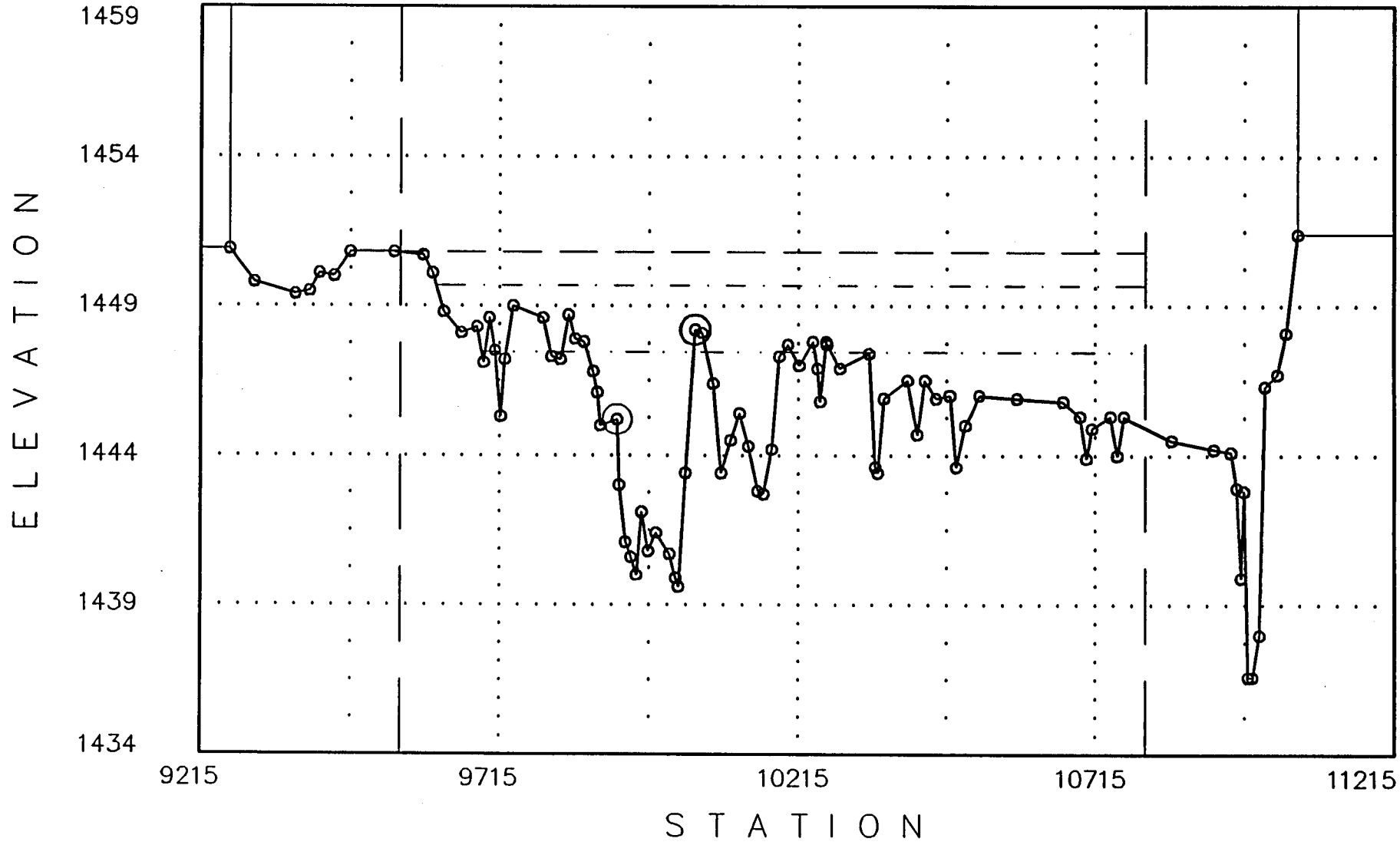



12-07-1990

<<<<<< Cross Section: 10.808: (F1N = SKN.FZO) >>>>>>

Q1= 10500 WS1= 1447.44
Q2= 27000 WS2= 1449.69
Q3= 35000 WS3= 1450.81

Manning-n's: n-lob = .05 n-ch = .05 n-rob = .05

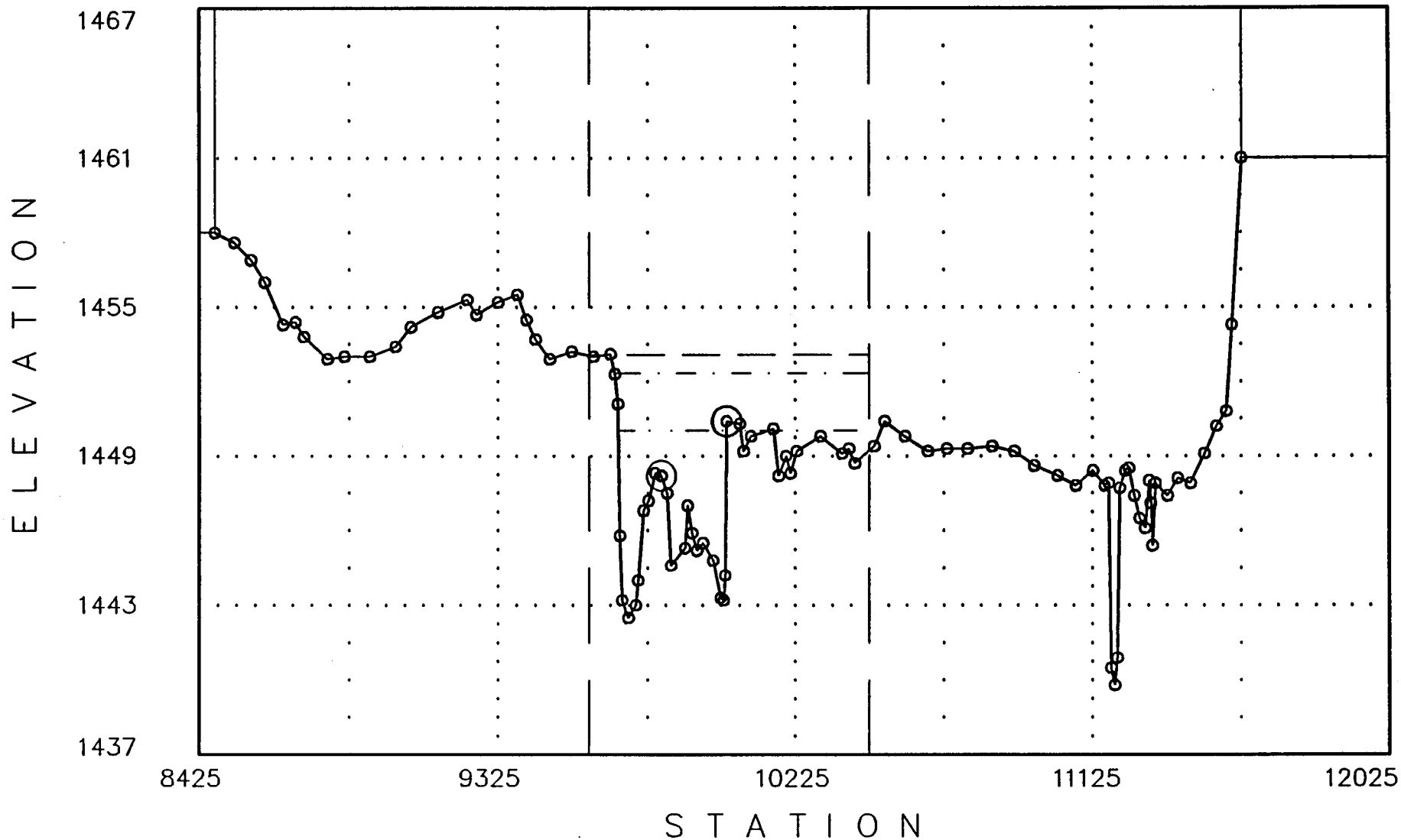



12-07-1990

<<<<<< Cross Section: 10.888: (FN = SKN.FZO) >>>>>>

Q1= 10500 WS1= 1450.02
Q2= 27000 WS2= 1452.34
Q3= 35000 WS3= 1453.07

Manning-n's: n-lob = .05 n-ch = .05 n-rob = .05

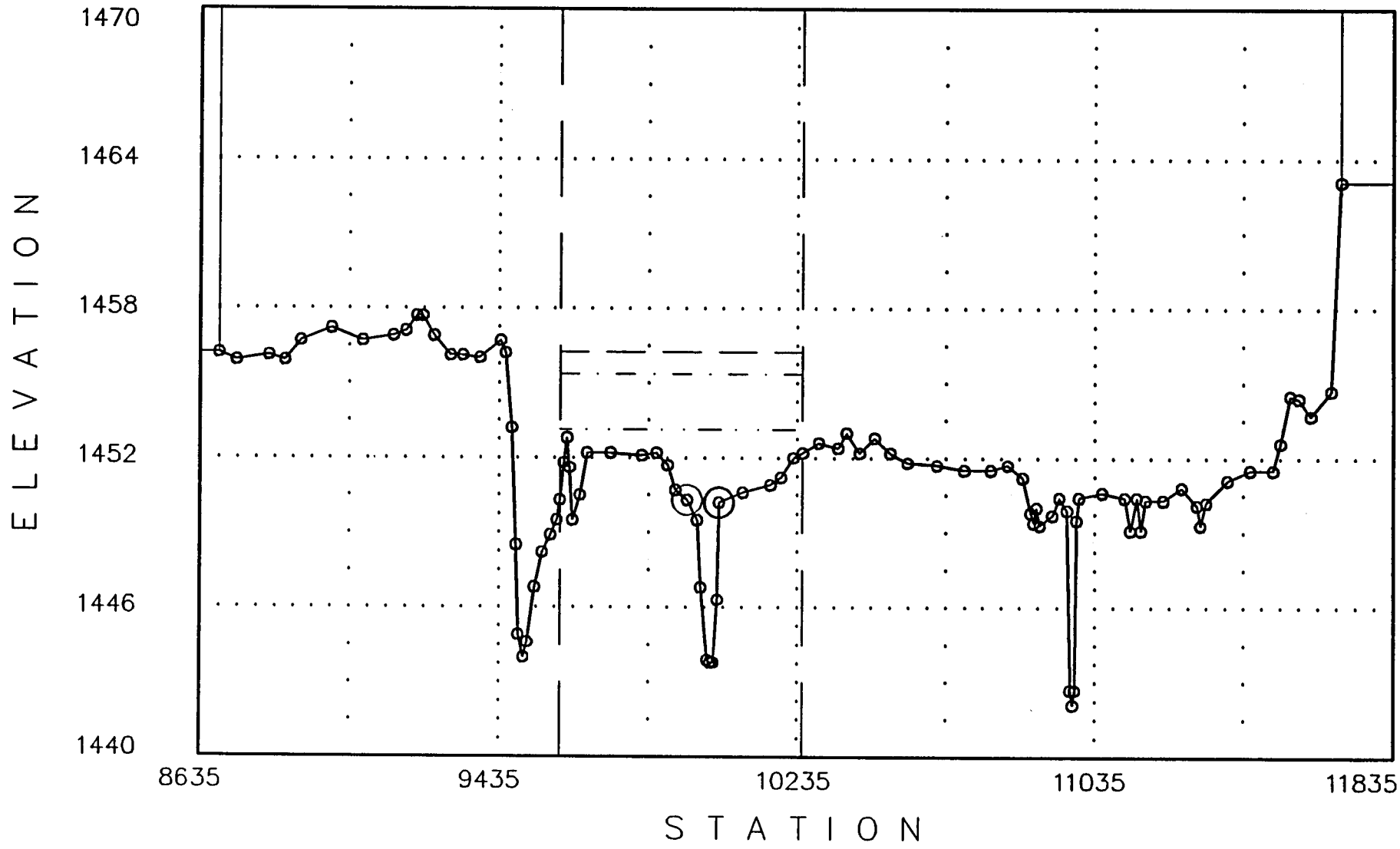



12-07-1990

<<<<<< Cross Section: 10.96: (FN = SKN.FZO) >>>>>>

Q1= 10500 WS1= 1453.14
Q2= 27000 WS2= 1455.35
Q3= 35000 WS3= 1456.23

Manning-n's: n-lob = .05 n-ch = .05 n-rob = .05

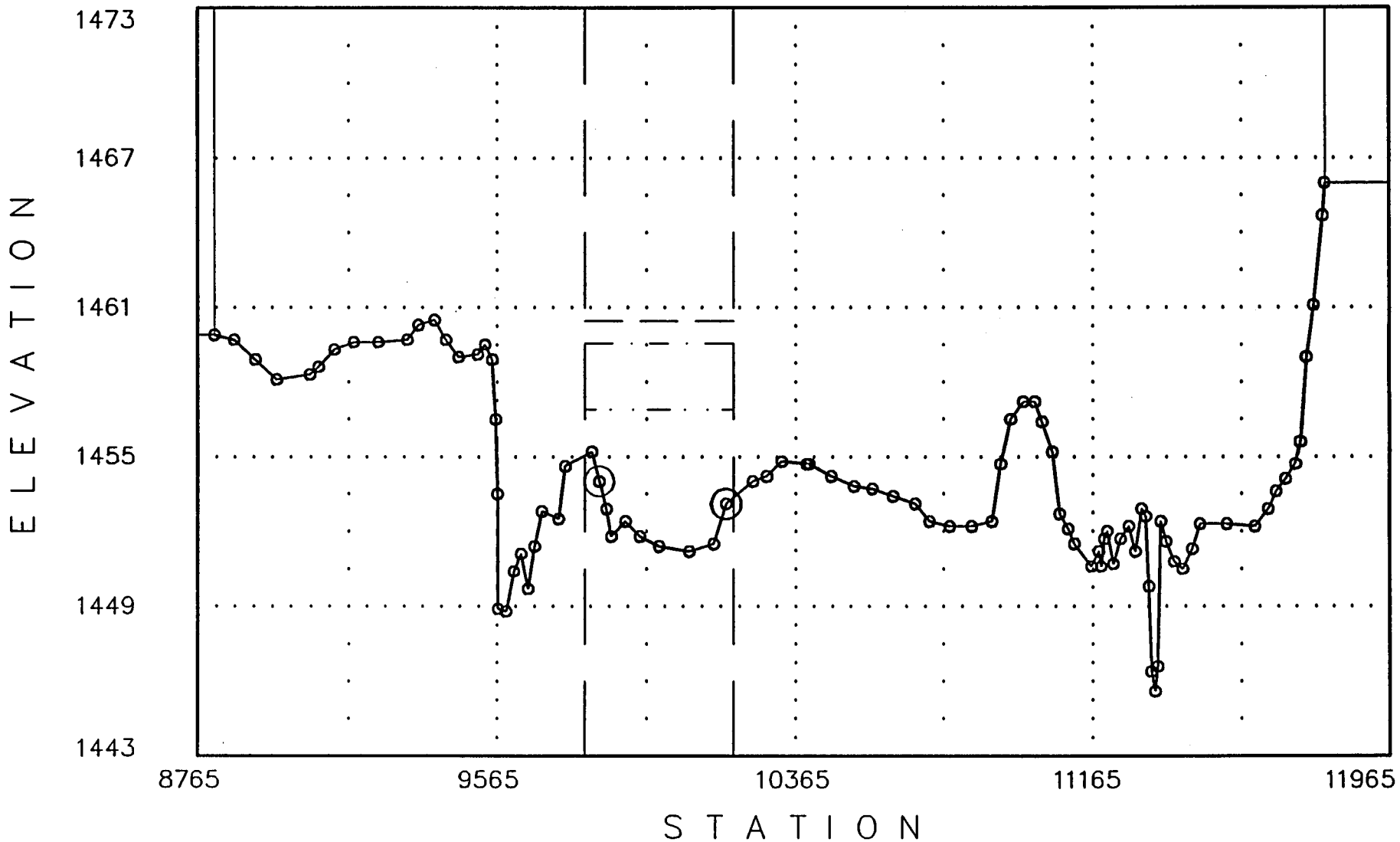



12-07-1990

<<<<<< Cross Section: 11.049: (FN = SKN.FZO) >>>>>>

Q1= 10500 WS1= 1456.89
Q2= 27000 WS2= 1459.55
Q3= 35000 WS3= 1460.45

Manning-n's: n-lob = .05 n-ch = .05 n-rob = .05

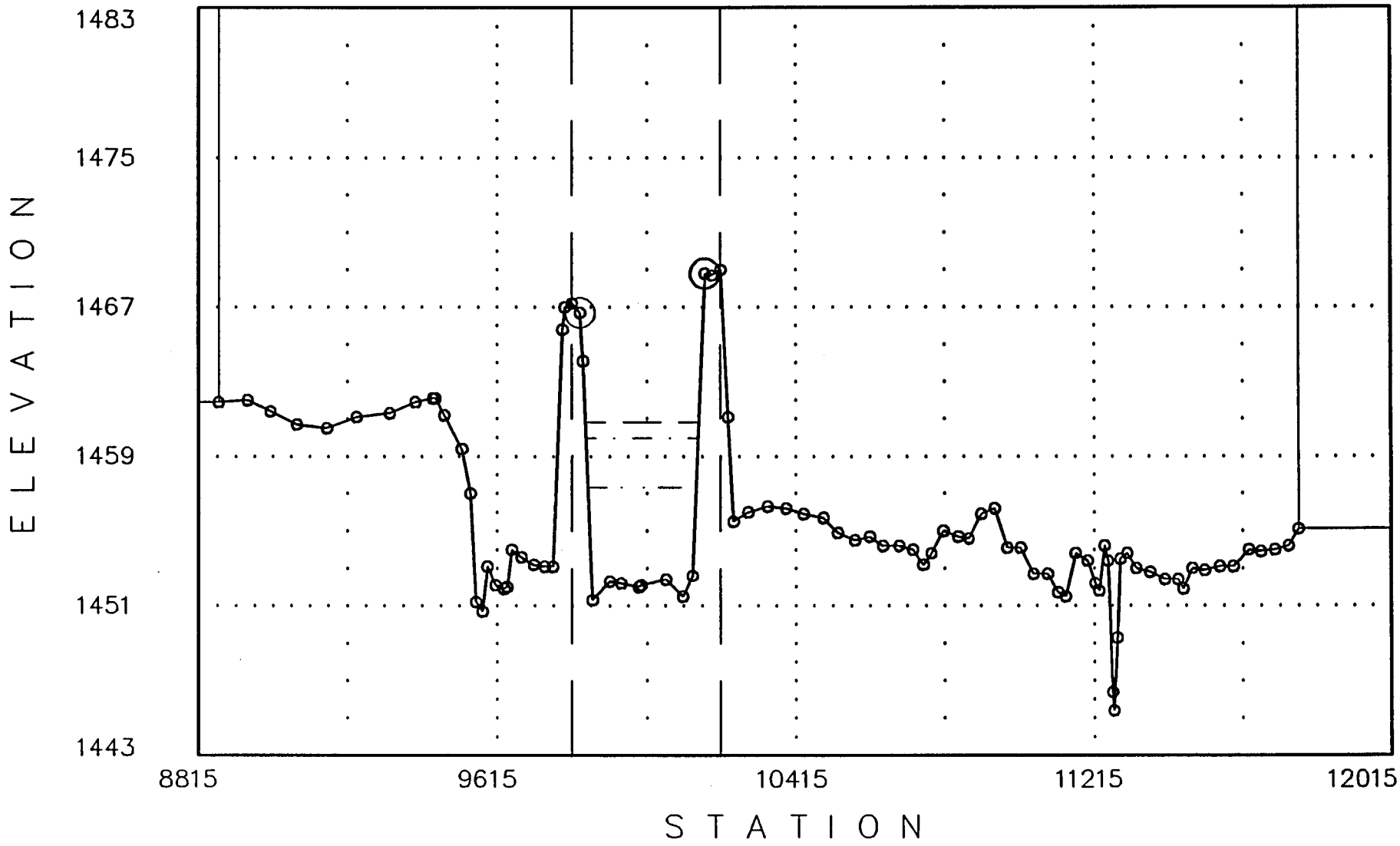



12-07-1990

<<<<<< Cross Section: 11.088: (Fln = SKN.FZO) >>>>>>

Q1= 10500 WS1= 1457.33
Q2= 27000 WS2= 1459.98
Q3= 35000 WS3= 1460.82

Manning-n's: n-lob = .05 n-ch = .03 n-rob = .05

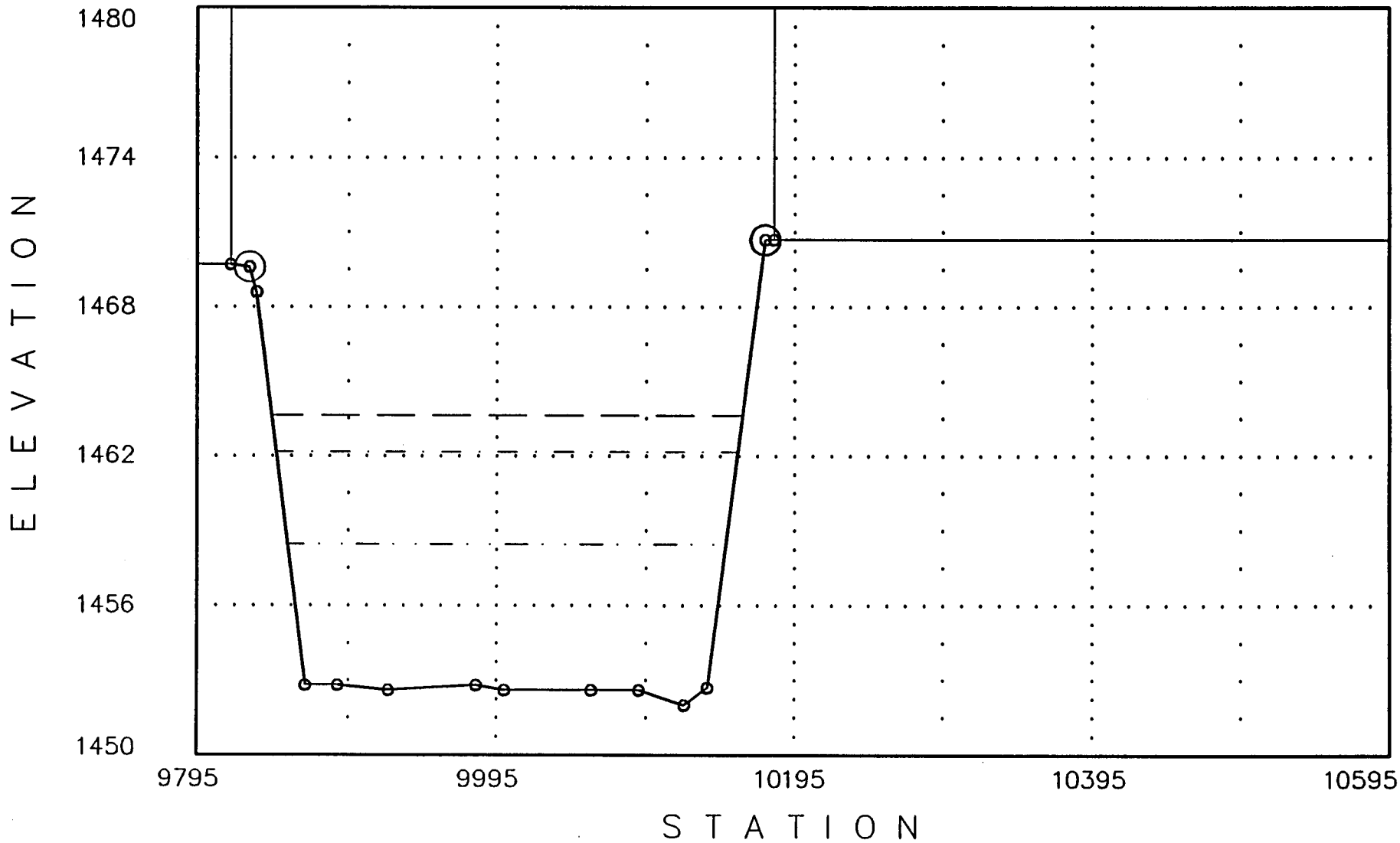



12-07-1990

<<<<<< Cross Section: 11.18: (FN = SKN.FZO) >>>>>>

Q1= 10500 WS1= 1458.46
Q2= 27000 WS2= 1462.17
Q3= 35000 WS3= 1463.63

Manning-n's: n-lob = .05 n-ch = .03 n-rob = .05

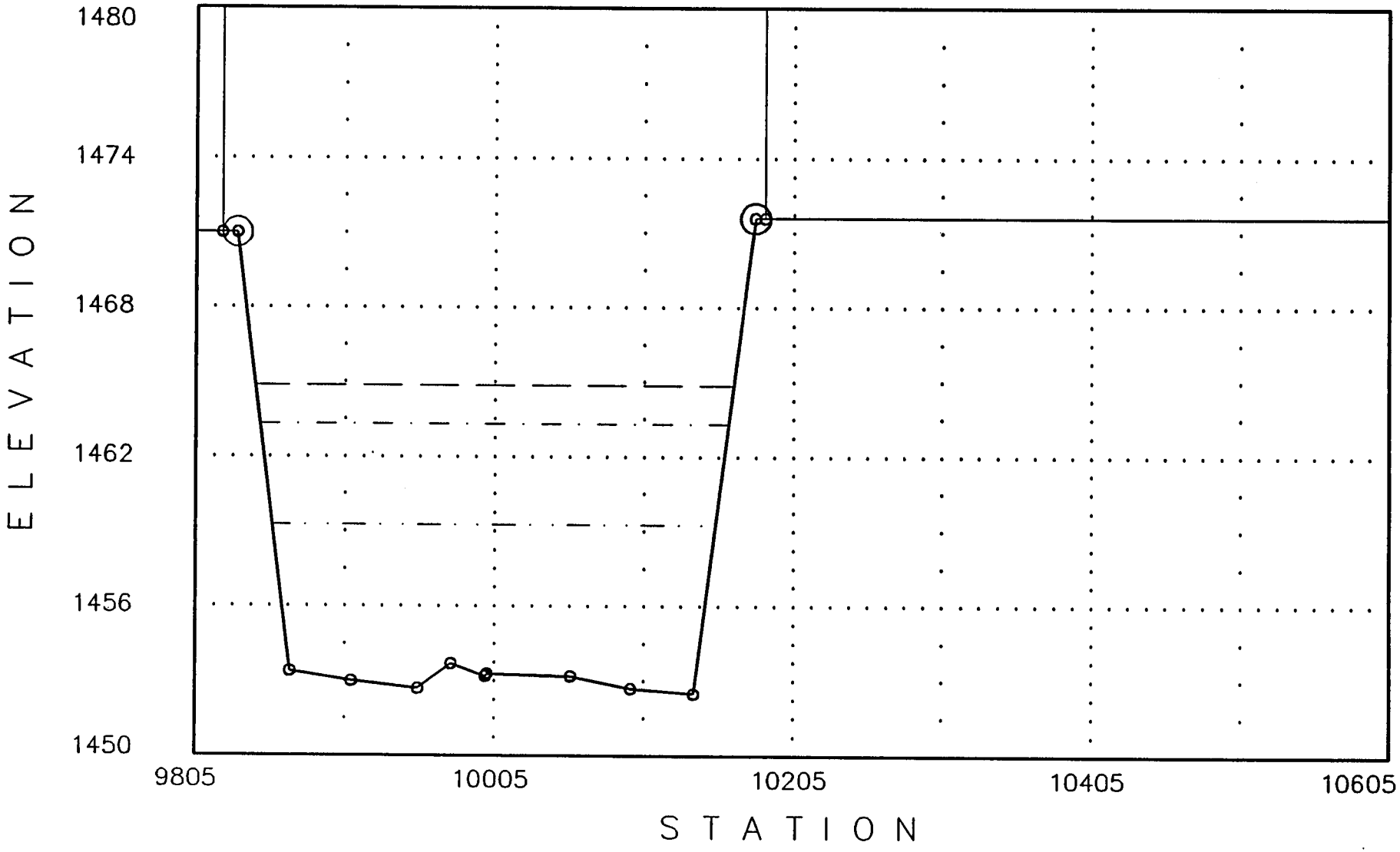



12-07-1990

<<<<<< Cross Section: 11.271: (FN = SKN.FZO) >>>>>>

Q1= 10500 WS1= 1459.27
Q2= 27000 WS2= 1463.31
Q3= 35000 WS3= 1464.86

Manning-n's: n-lob = .05 n-ch = .03 n-rob = .05

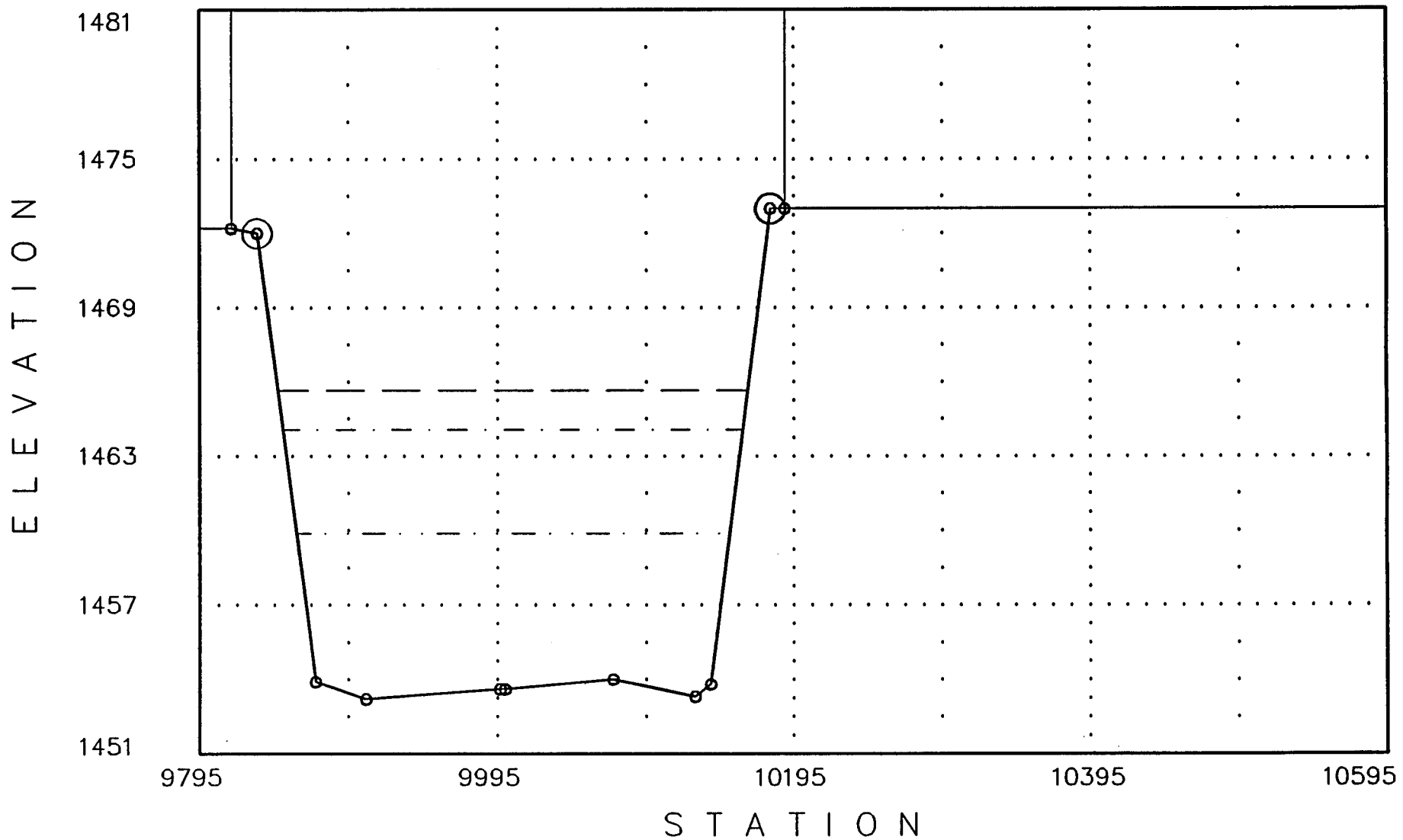



12-07-1990

<<<<<< Cross Section: 11.356: (FN = SKN.FZO) >>>>>>

Q1= 10500 WS1= 1459.88
Q2= 27000 WS2= 1464.06
Q3= 35000 WS3= 1465.65

Manning-n's: n-lob = .05 n-ch = .03 n-rob = .05

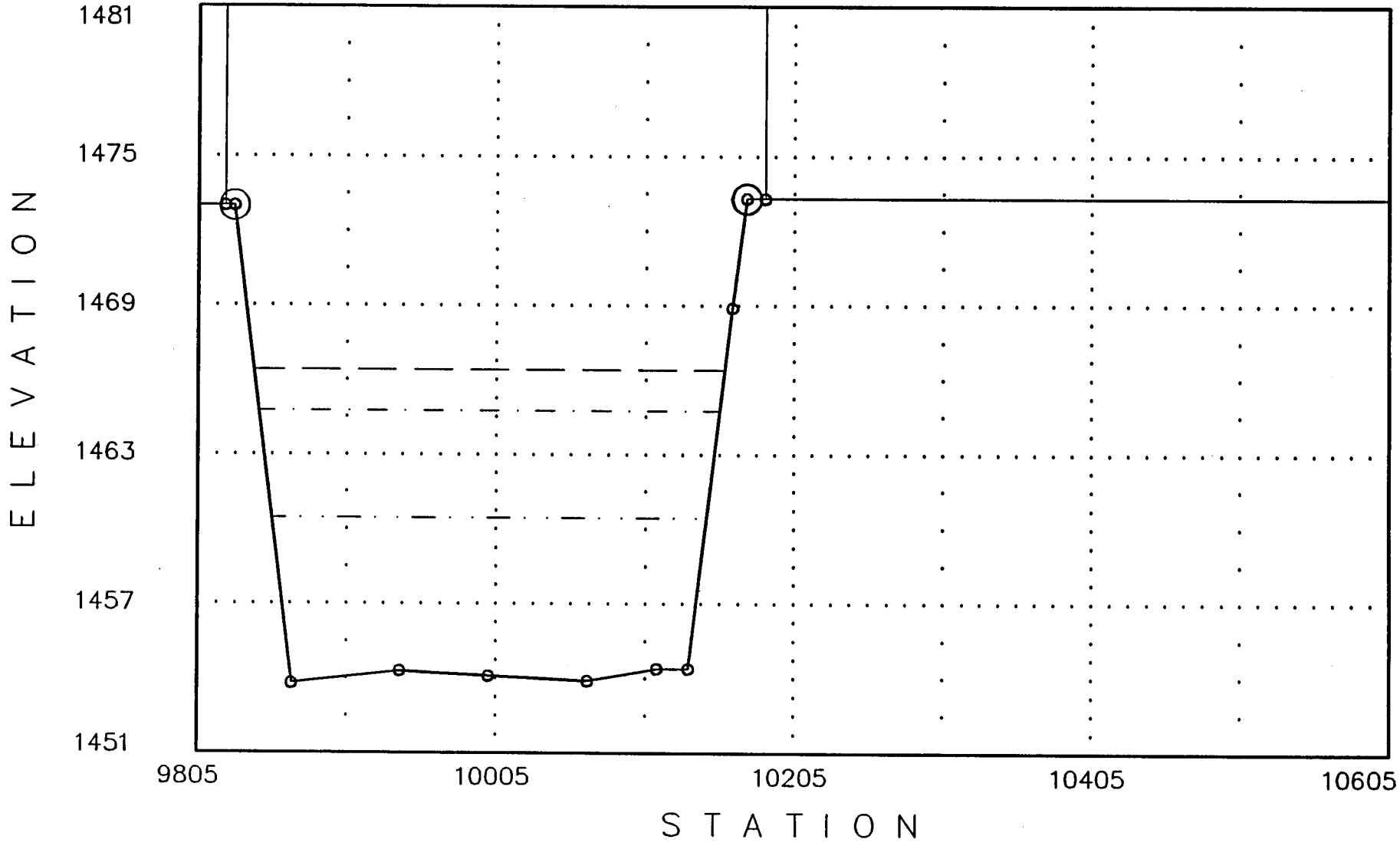



12-07-1990

<<<<<< Cross Section: 11.435: (Fin = SKN.FZO) >>>>>>

Q1= 10500 WS1= 1460.45
Q2= 27000 WS2= 1464.76
Q3= 35000 WS3= 1466.39

Manning-n's: n-lob = .05 n-ch = .03 n-rob = .05

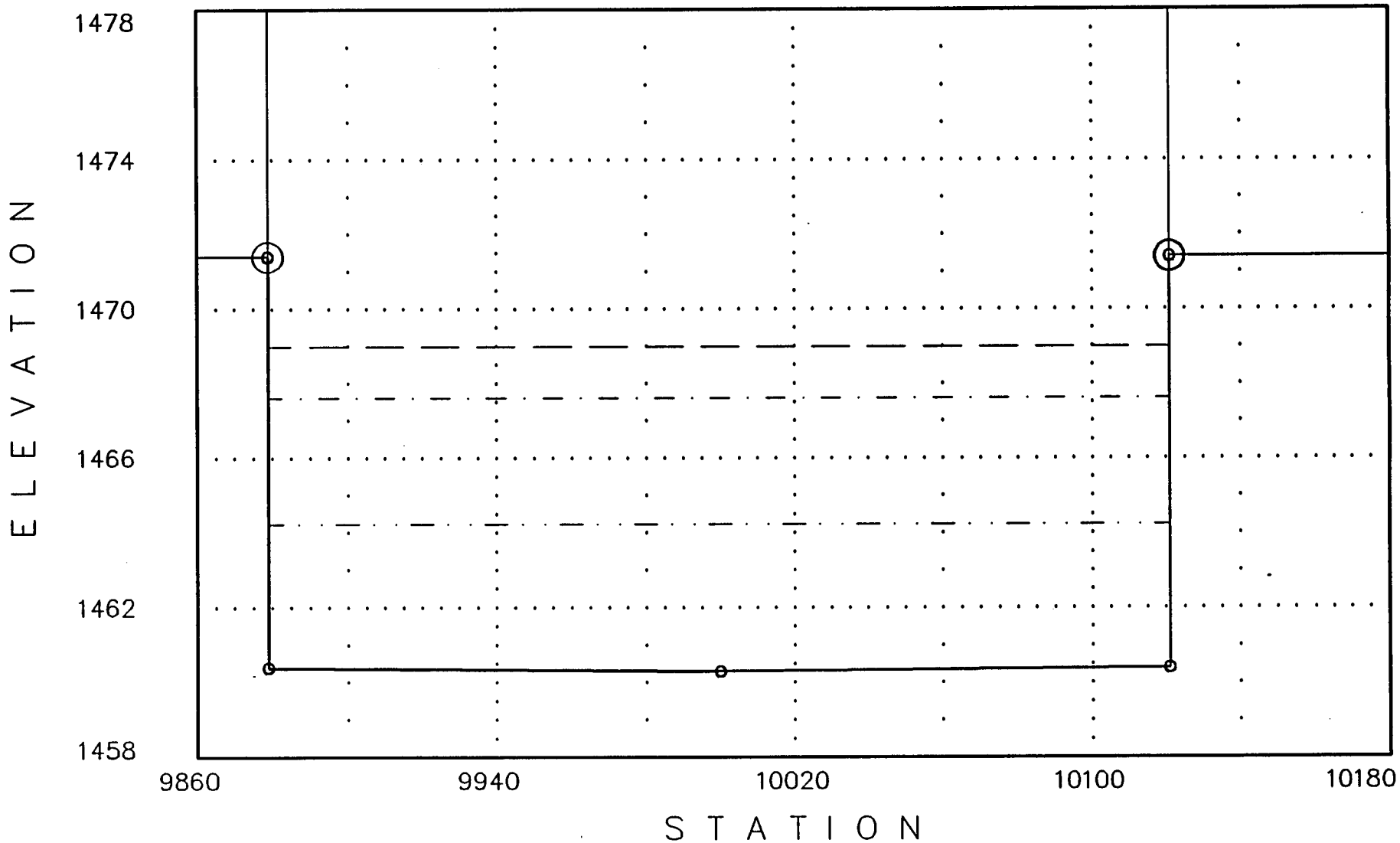



12-07-1990

<<<<<< Cross Section: 11.466: (FN = SKN.FZO) >>>>>>

Q1= 10500 WS1= 1464.23
Q2= 27000 WS2= 1467.61
Q3= 35000 WS3= 1468.99

Manning-n's: n-lob = .012 n-ch = .012 n-rob = .012

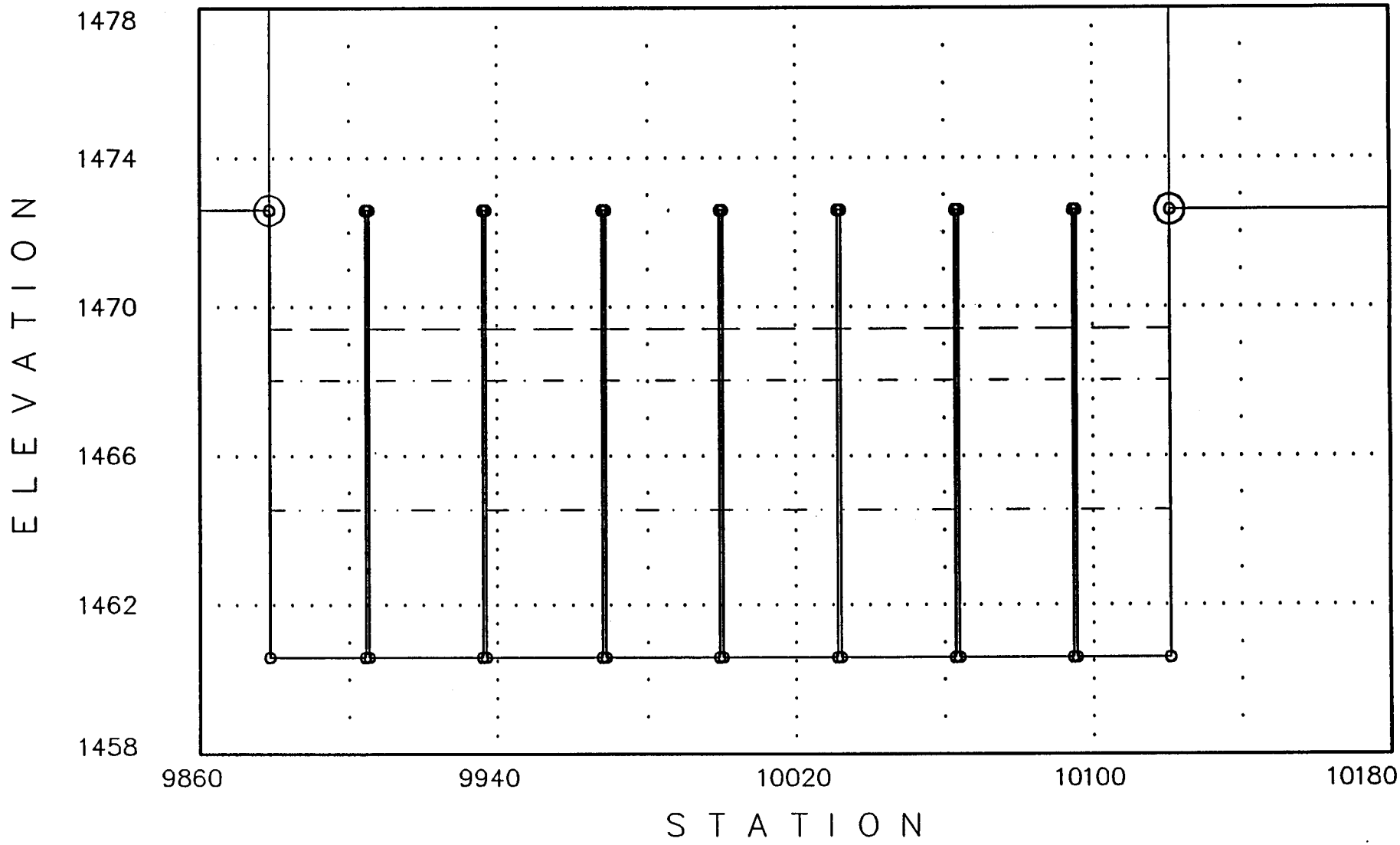



12-07-1990

<<<<<< Cross Section: 11.479: (Fin = SKN.FZO) >>>>>>

Q1= 10500 WS1= 1464.55
Q2= 27000 WS2= 1468.02
Q3= 35000 WS3= 1469.42

Manning-n's: n-lob = .012 n-ch = .012 n-rob = .012

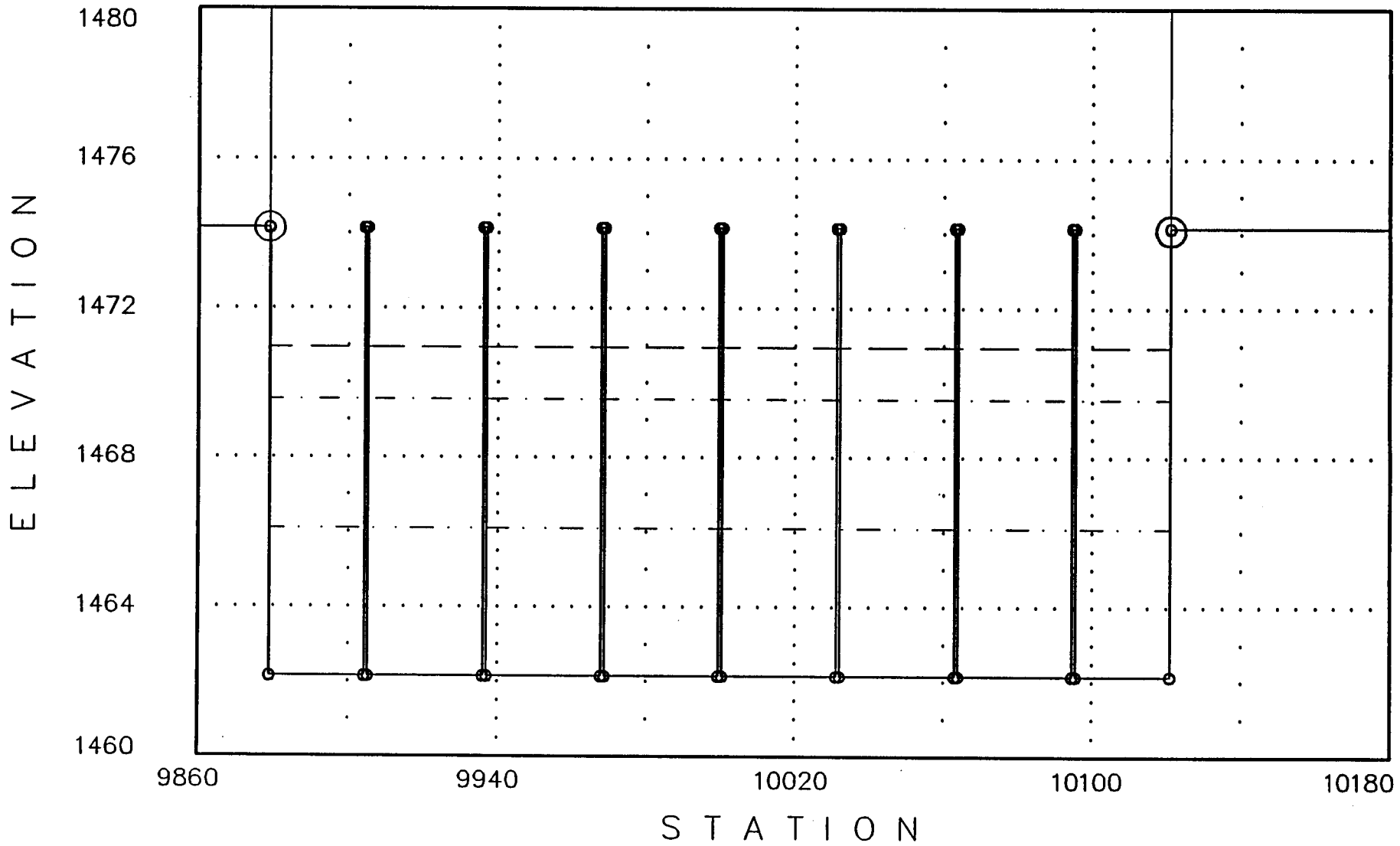



12-07-1990

<<<<<< Cross Section: 11.543: (FN = SKN.FZO) >>>>>>

Q1= 10500 WS1= 1466.09
Q2= 27000 WS2= 1469.55
Q3= 35000 WS3= 1470.95

Manning-n's: n-lob = .012 n-ch = .012 n-rob = .012

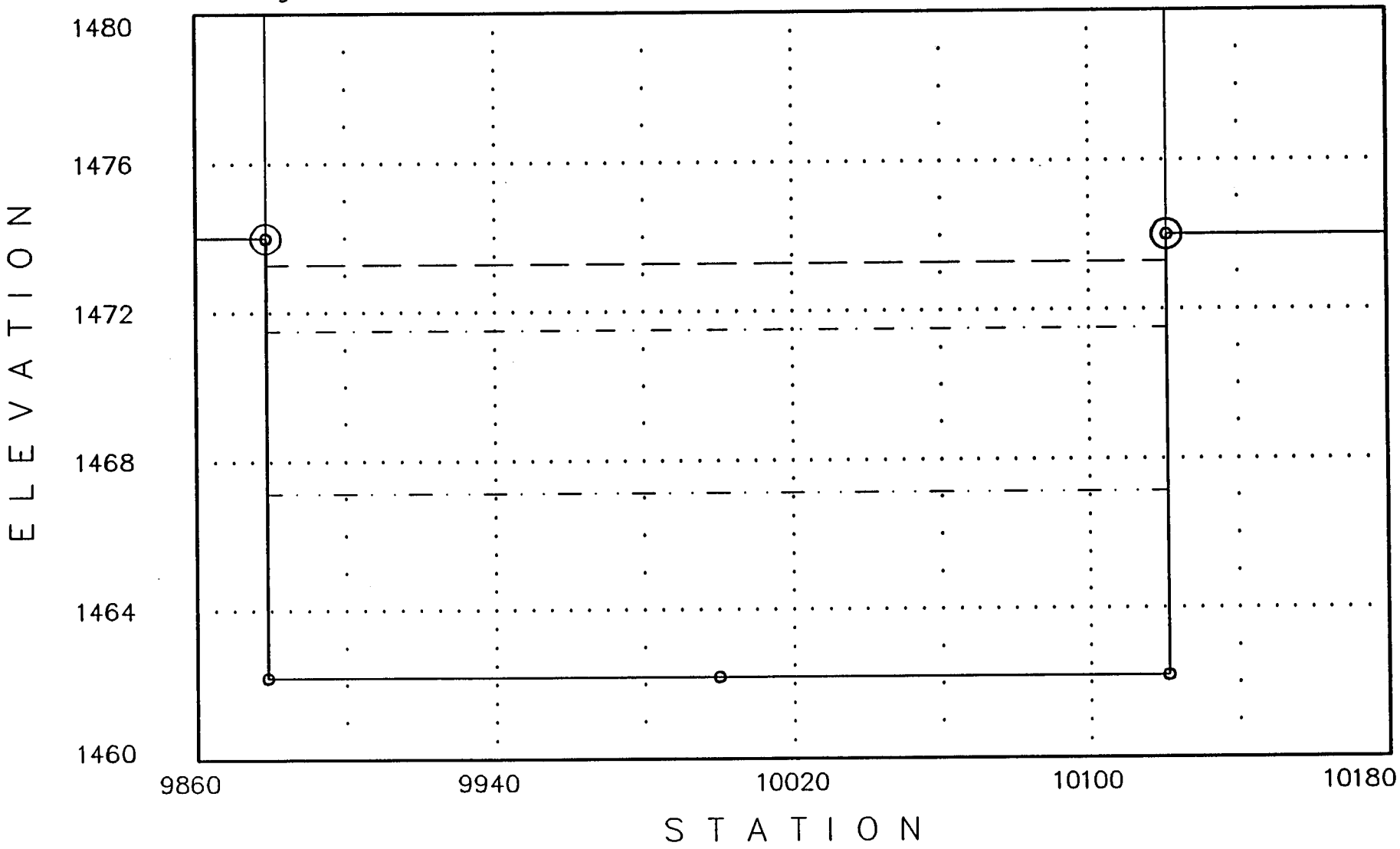



12-07-1990

<<<<<< Cross Section: 11.546: (FIN = SKN.FZO) >>>>>>

Q1= 10500 WS1= 1467.13
Q2= 27000 WS2= 1471.51
Q3= 35000 WS3= 1473.28

Manning-n's: n-lob = .012 n-ch = .012 n-rob = .012

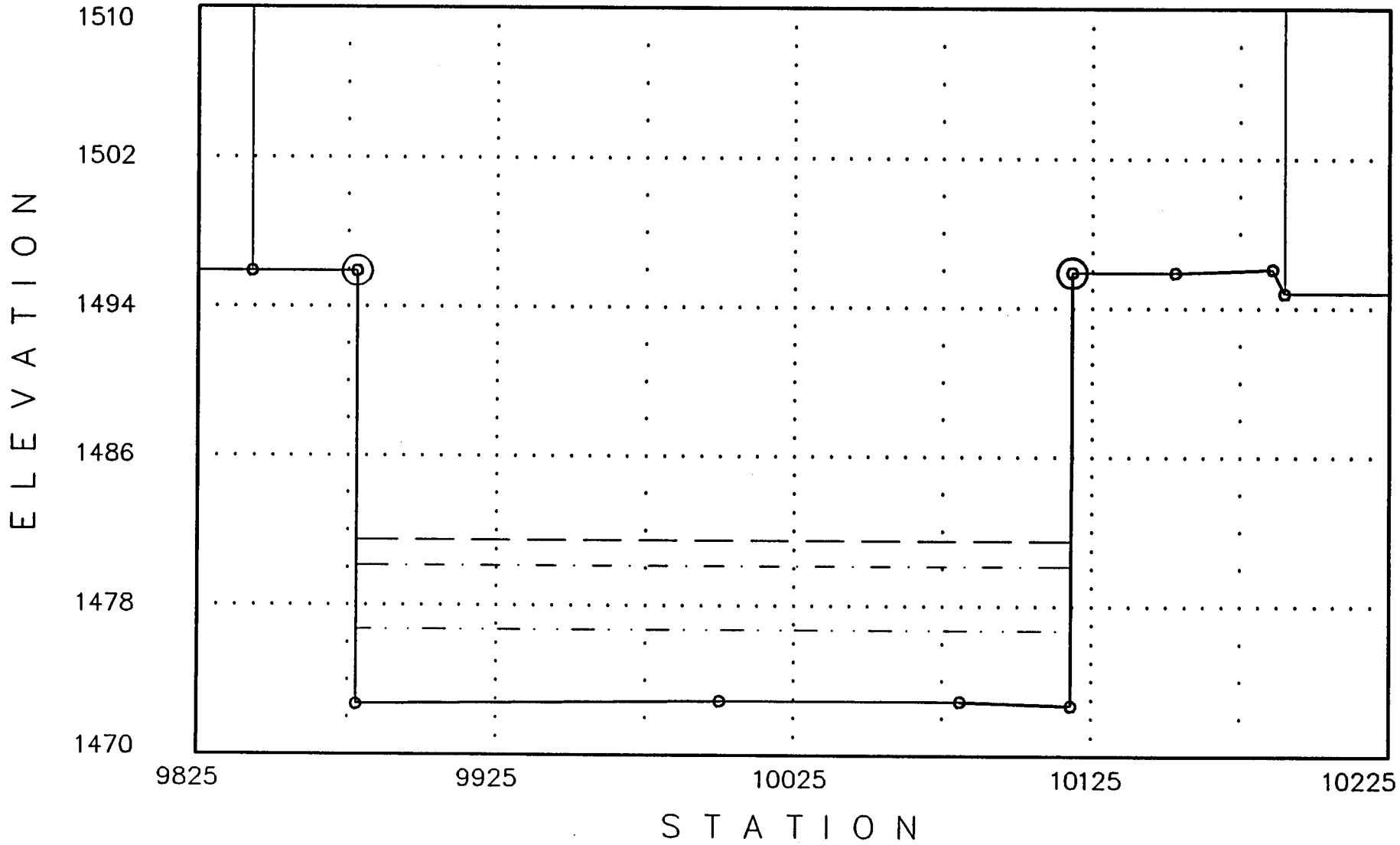



12-07-1990

<<<<<< Cross Section: 11.589: (FN = SKN.FZO) >>>>>>

Q1= 10500 WS1= 1476.72
Q2= 27000 WS2= 1480.13
Q3= 35000 WS3= 1481.51

Manning-n's: n-lob = .012 n-ch = .012 n-rob = .012

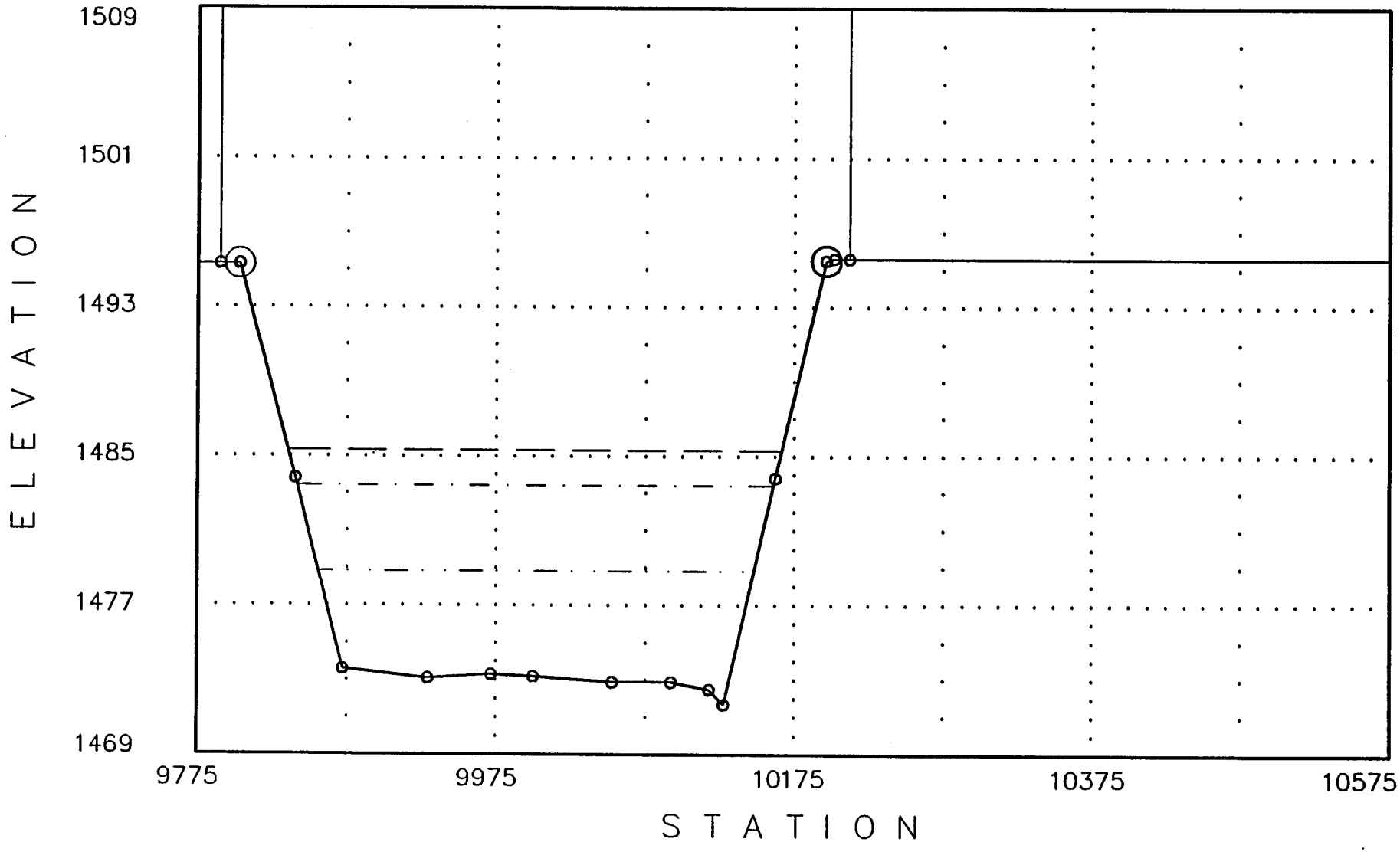



12-07-1990

<<<<<< Cross Section: 11.661: (Fl$_N$ = SKN.FZO) >>>>>>

Q1= 10500 WS1= 1478.85
Q2= 27000 WS2= 1483.41
Q3= 35000 WS3= 1485.31

Manning-n's: n-lob = .04 n-ch = .035 n-rob = .04

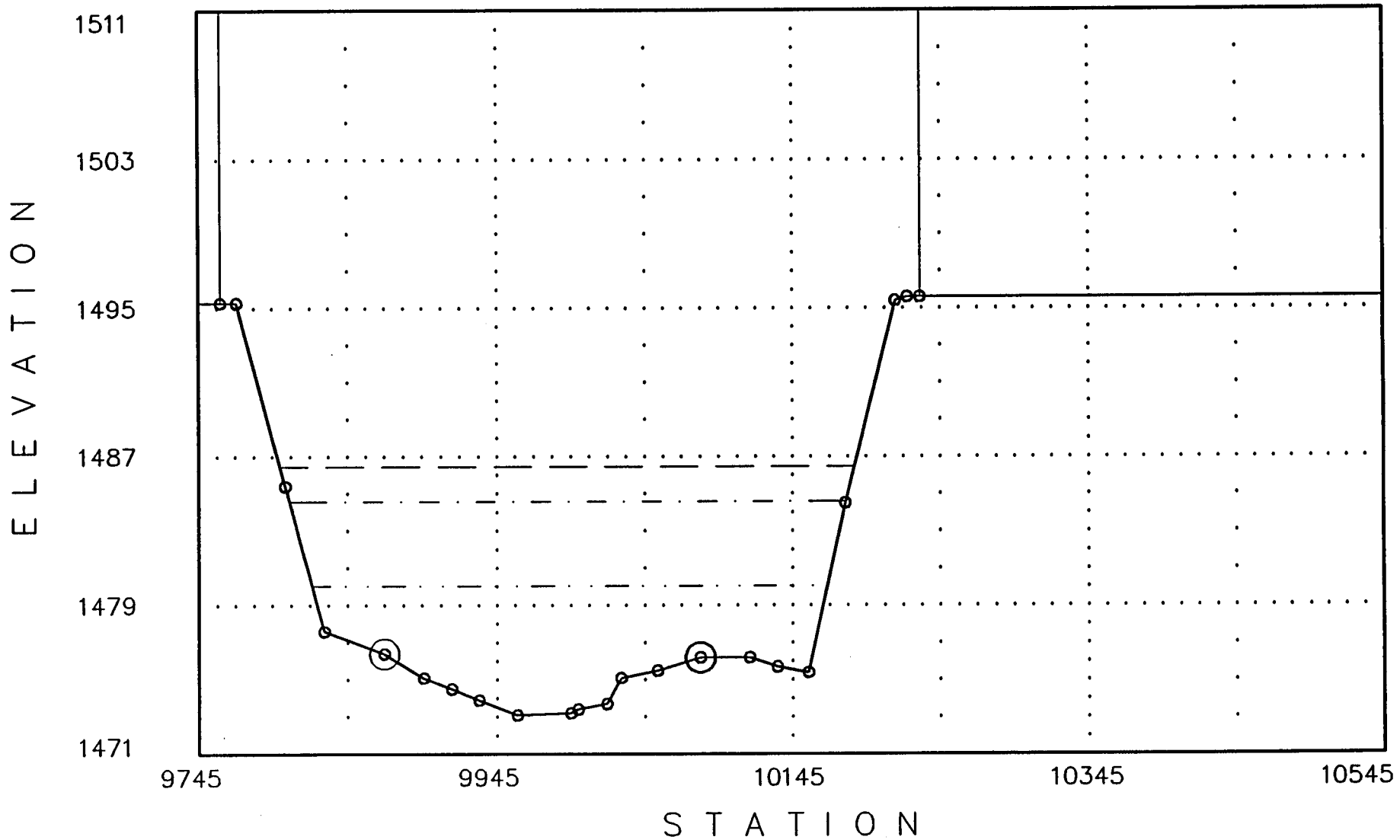



12-07-1990

<<<<<< Cross Section: 11.746: (FN = SKN.FZO) >>>>>>

Q1= 10500 WS1= 1480.03
Q2= 27000 WS2= 1484.57
Q3= 35000 WS3= 1486.45

Manning-n's: n-lob = .04 n-ch = .035 n-rob = .04

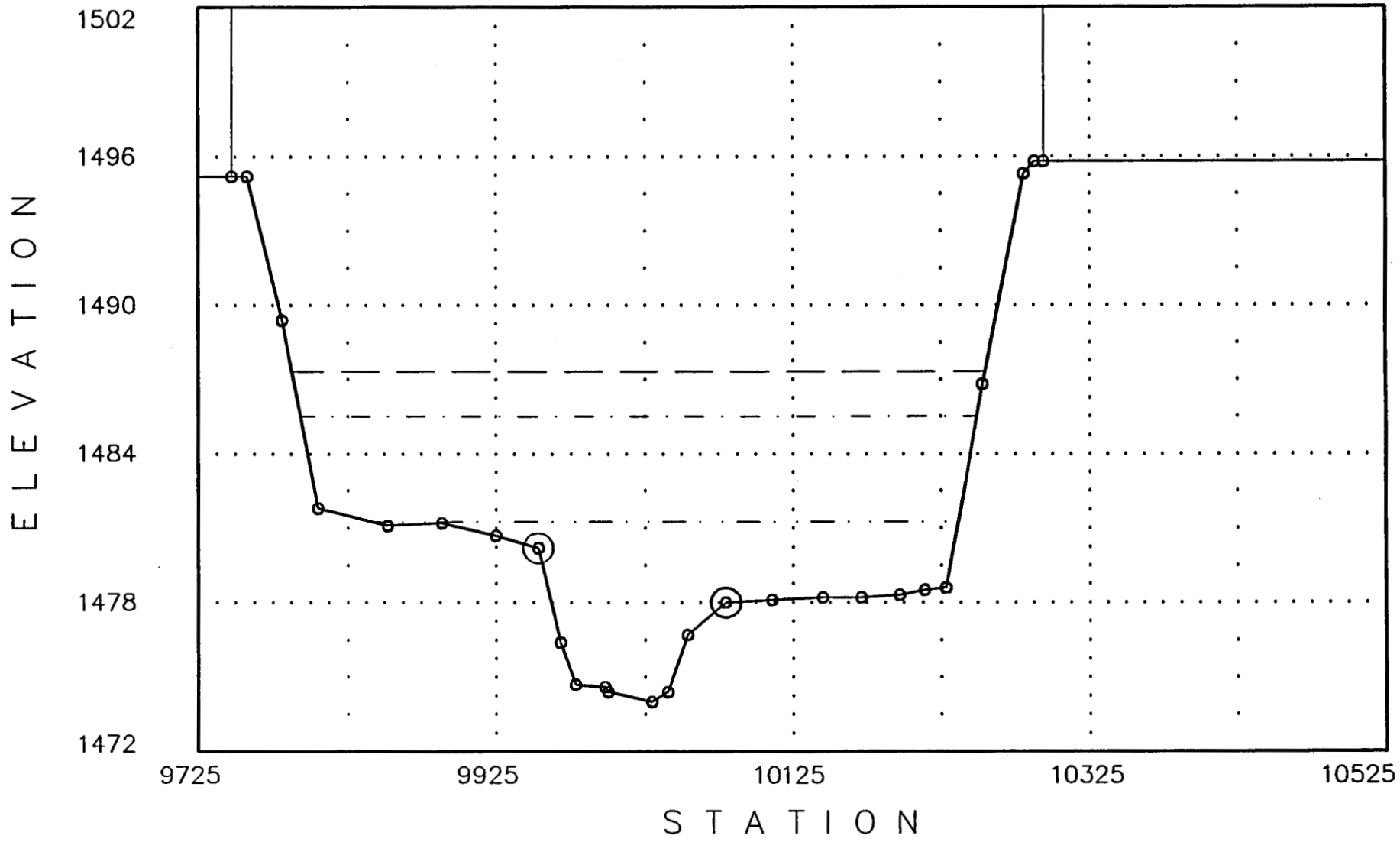



12-07-1990

<<<<<< Cross Section: 11.829: (FIN = SKN.FZO) >>>>>>

Q1= 10500 WS1= 1481.26
Q2= 27000 WS2= 1485.5
Q3= 35000 WS3= 1487.32

Manning-n's: n-lob = .04 n-ch = .035 n-rob = .04

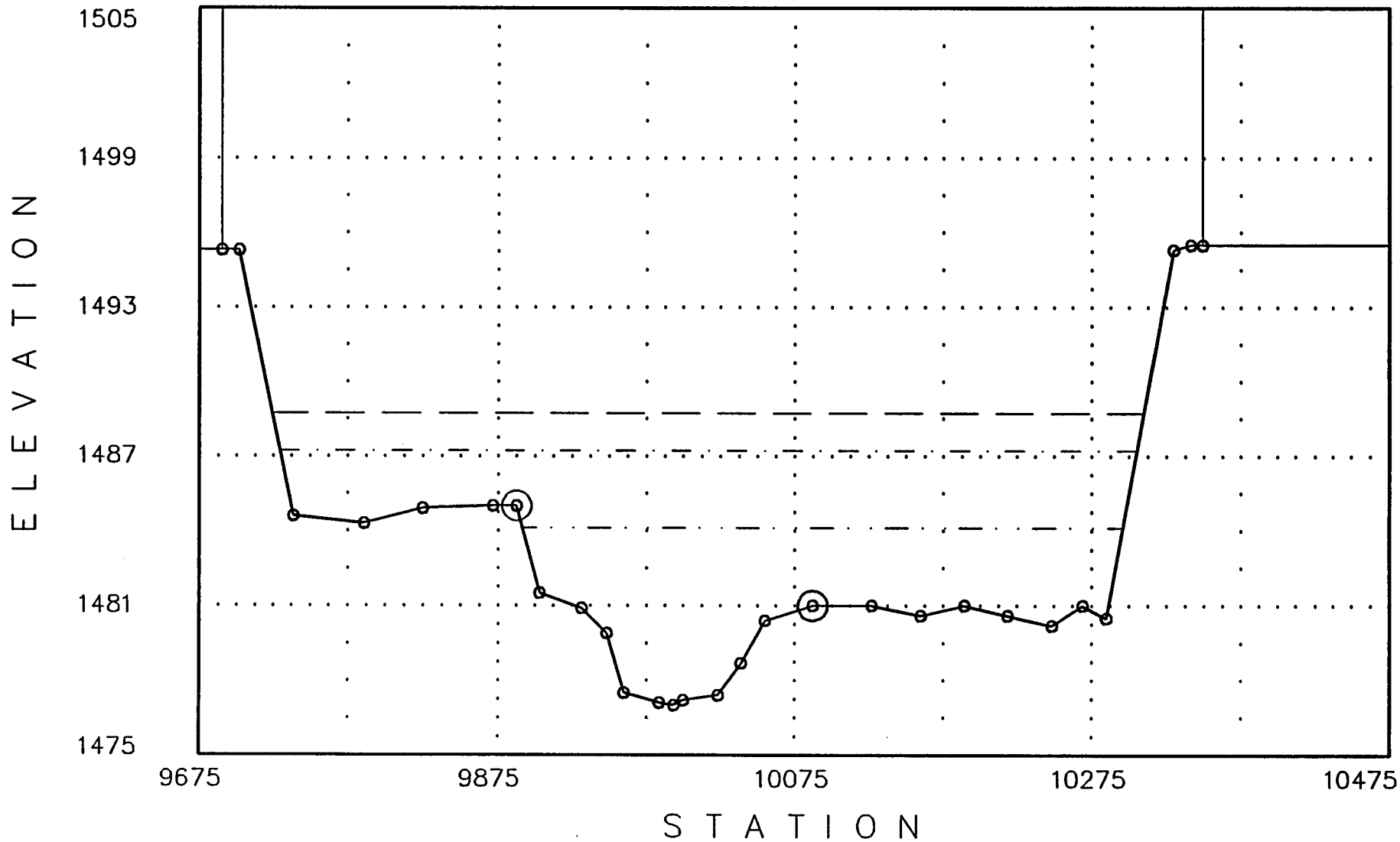



12-07-1990

<<<<<< Cross Section: 11.913: (FN = SKN.FZO) >>>>>>

Q1= 10500 WS1= 1484.13
Q2= 27000 WS2= 1487.22
Q3= 35000 WS3= 1488.74

Manning-n's: n-lob = .04 n-ch = .035 n-rob = .04

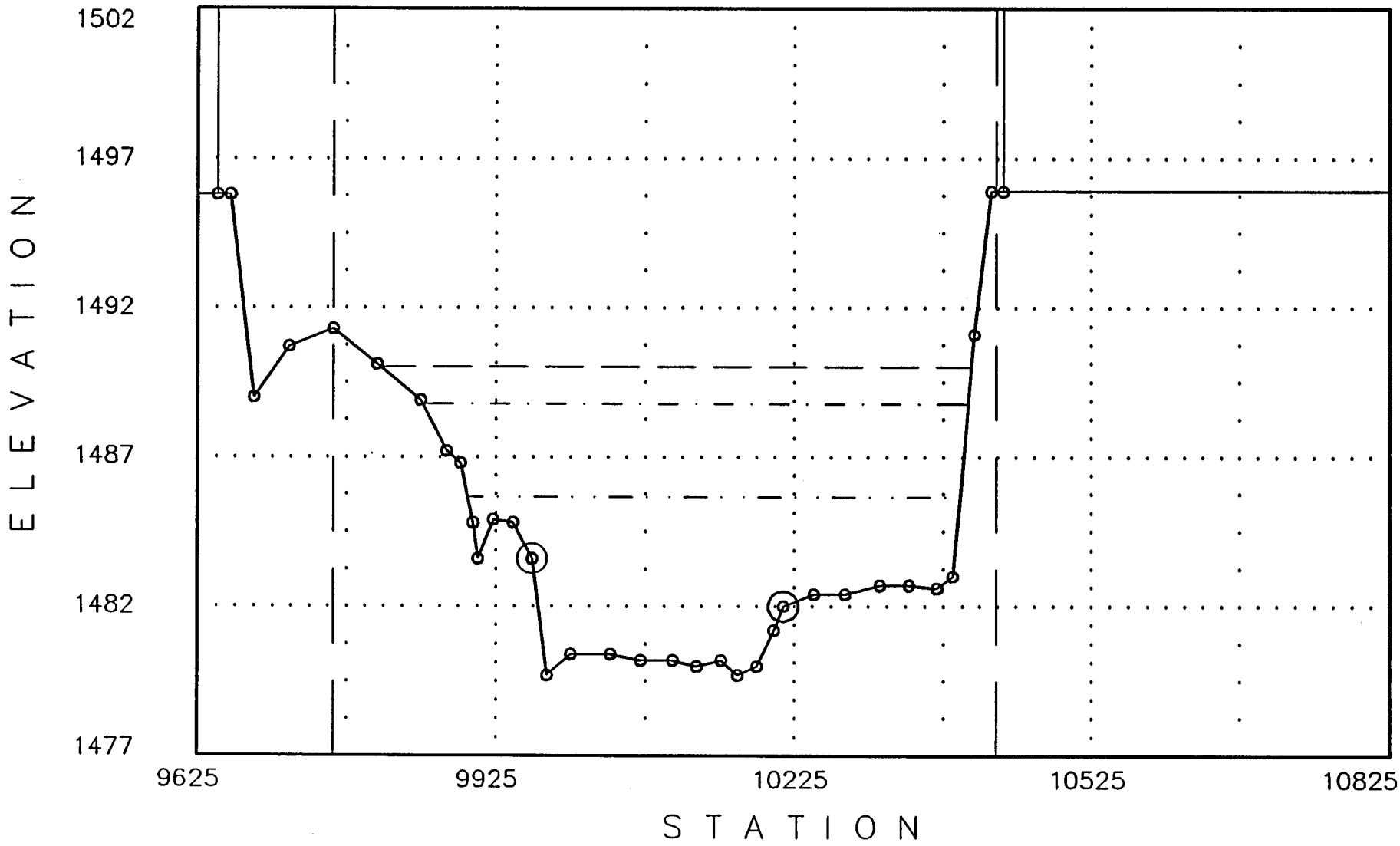



12-07-1990

<<<<<< Cross Section: 12: (FN = SKN.FZO) >>>>>>

Q1= 10500 WS1= 1485.65
Q2= 27000 WS2= 1488.77
Q3= 35000 WS3= 1490.02

Manning-n's: n-lob = .04 n-ch = .035 n-rob = .04

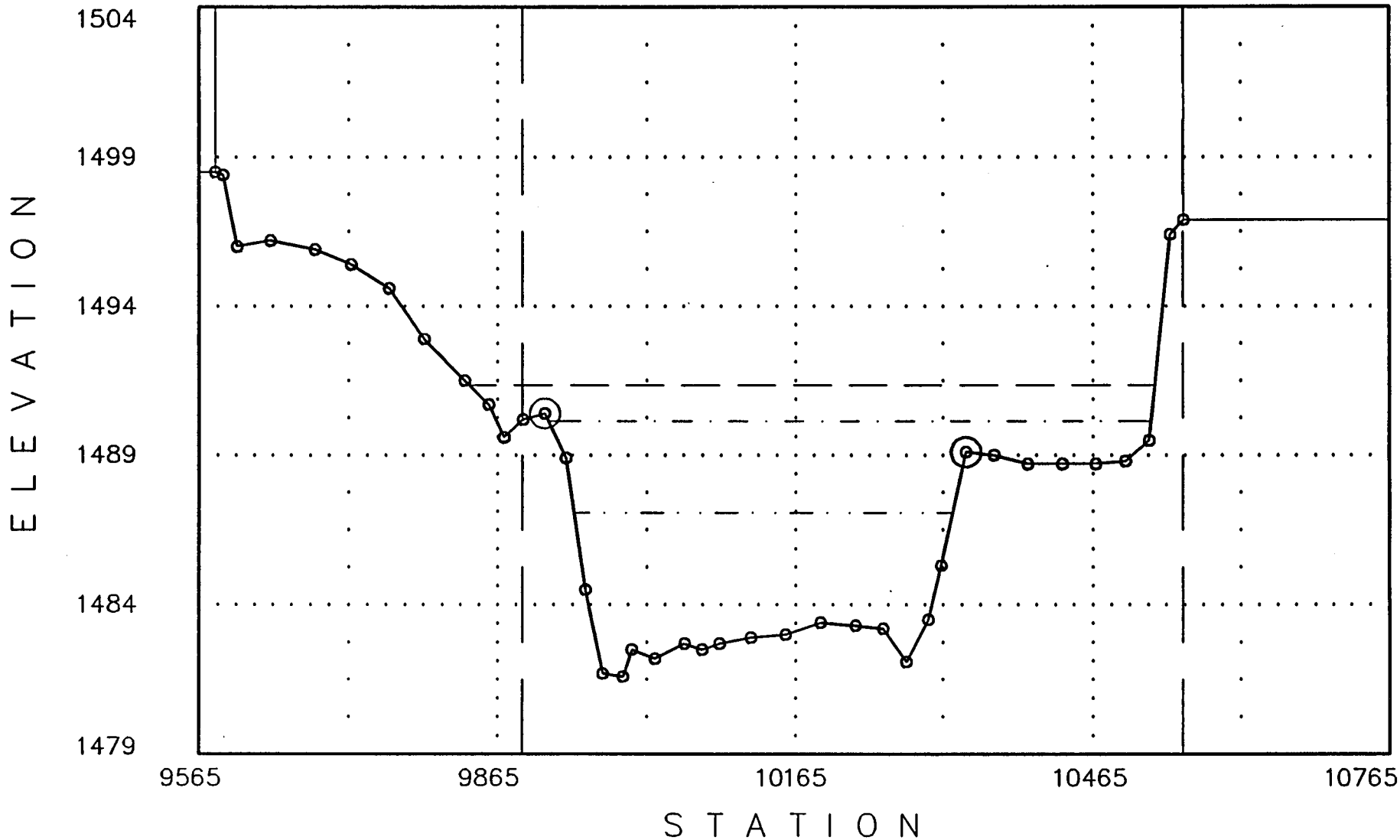



12-07-1990

<<<<<< Cross Section: 12.1: (FN = SKN.FZO) >>>>>>

Q1= 10500 WS1= 1487.07
Q2= 27000 WS2= 1490.15
Q3= 35000 WS3= 1491.35

Manning-n's: n-lob = .04 n-ch = .035 n-rob = .04

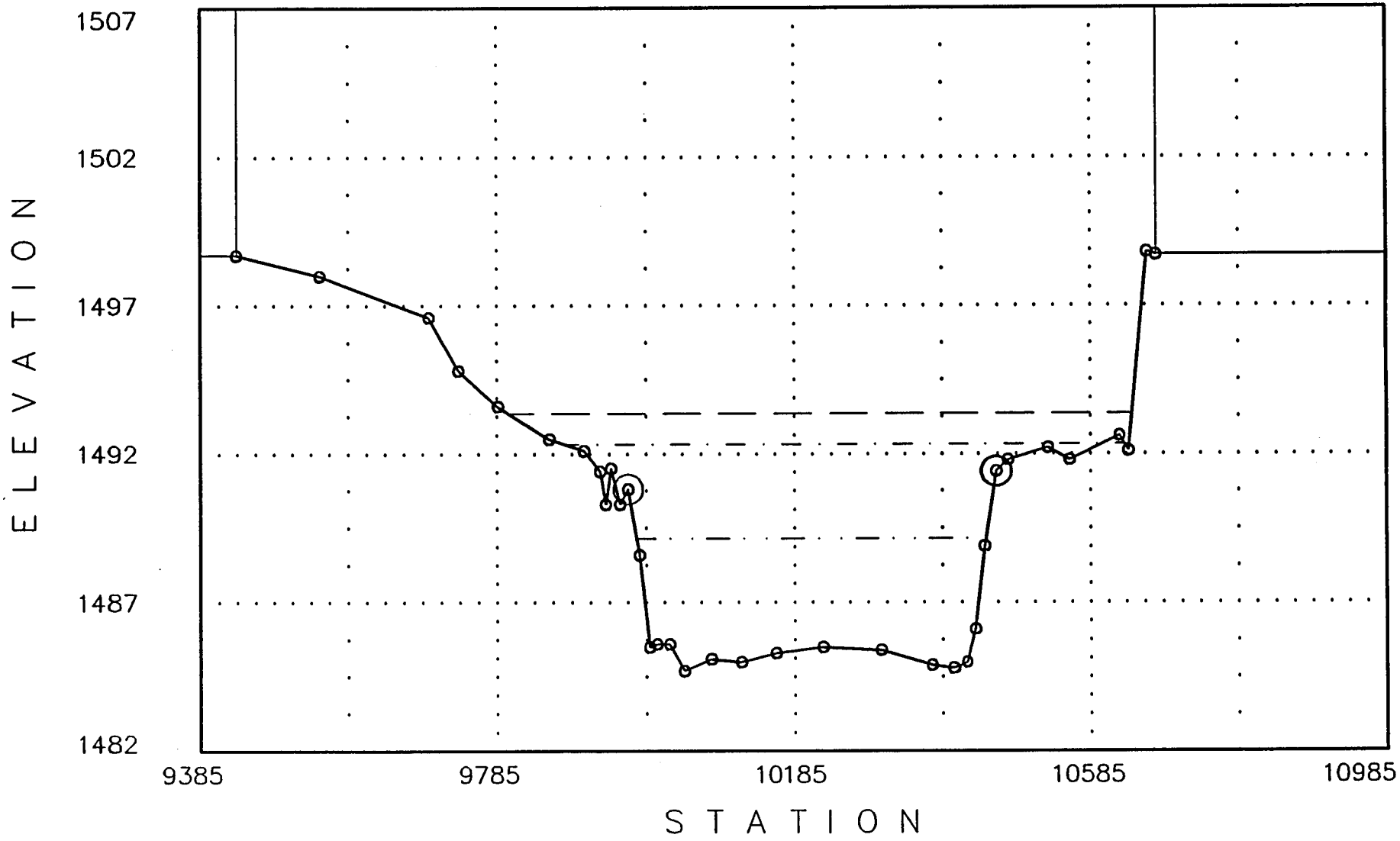



12-07-1990

<<<<<< Cross Section: 12.2: (FN - SKN.FZO) >>>>>>

Q1= 10500 WS1= 1489.16
Q2= 27000 WS2= 1492.32
Q3= 35000 WS3= 1493.36

Manning-n's: n-lob = .04 n-ch = .035 n-rob = .04

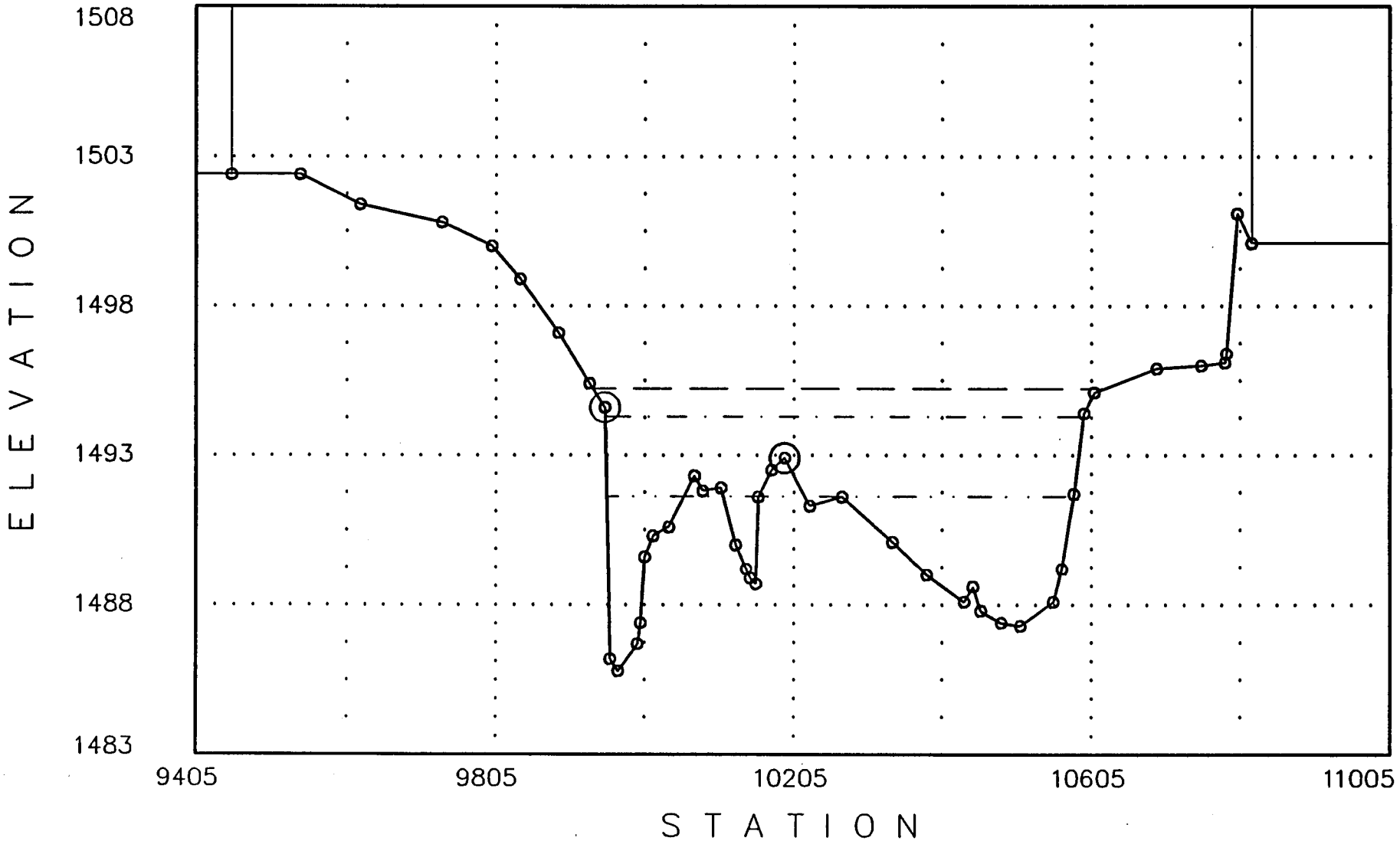



12-07-1990

<<<<<< Cross Section: 12.3: (FN = SKN.FZO) >>>>>>

Q1= 10500 WS1= 1491.62
Q2= 27000 WS2= 1494.29
Q3= 35000 WS3= 1495.22

Manning-n's: n-lob = .04 n-ch = .035 n-rob = .04

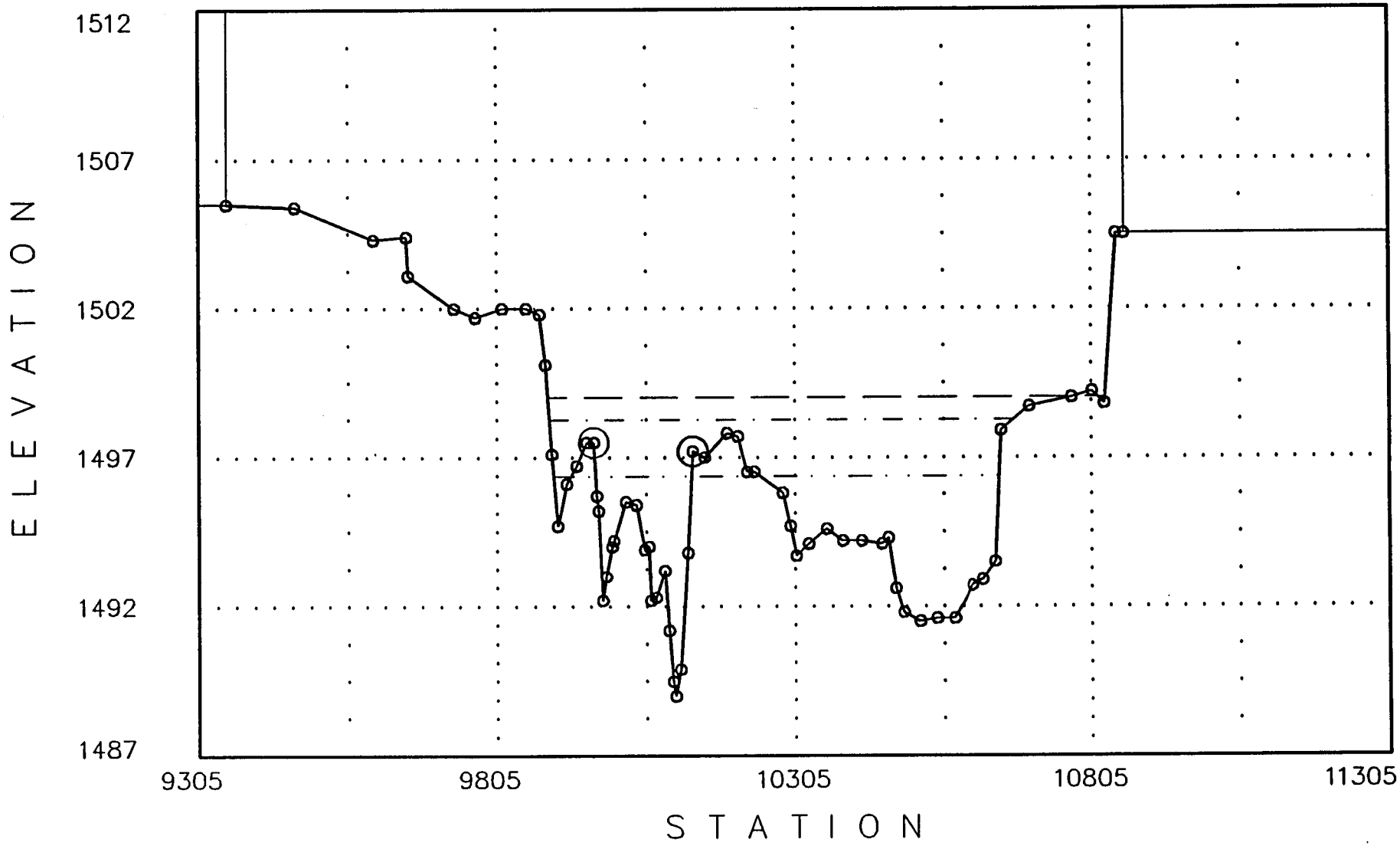



12-07-1990

<<<<<< Cross Section: 12.4: (FN - SKN.FZO) >>>>>>

Q1= 10500 WS1= 1496.36
Q2= 27000 WS2= 1498.26
Q3= 35000 WS3= 1499.01

Manning-n's: n-lob = .04 n-ch = .035 n-rob = .04

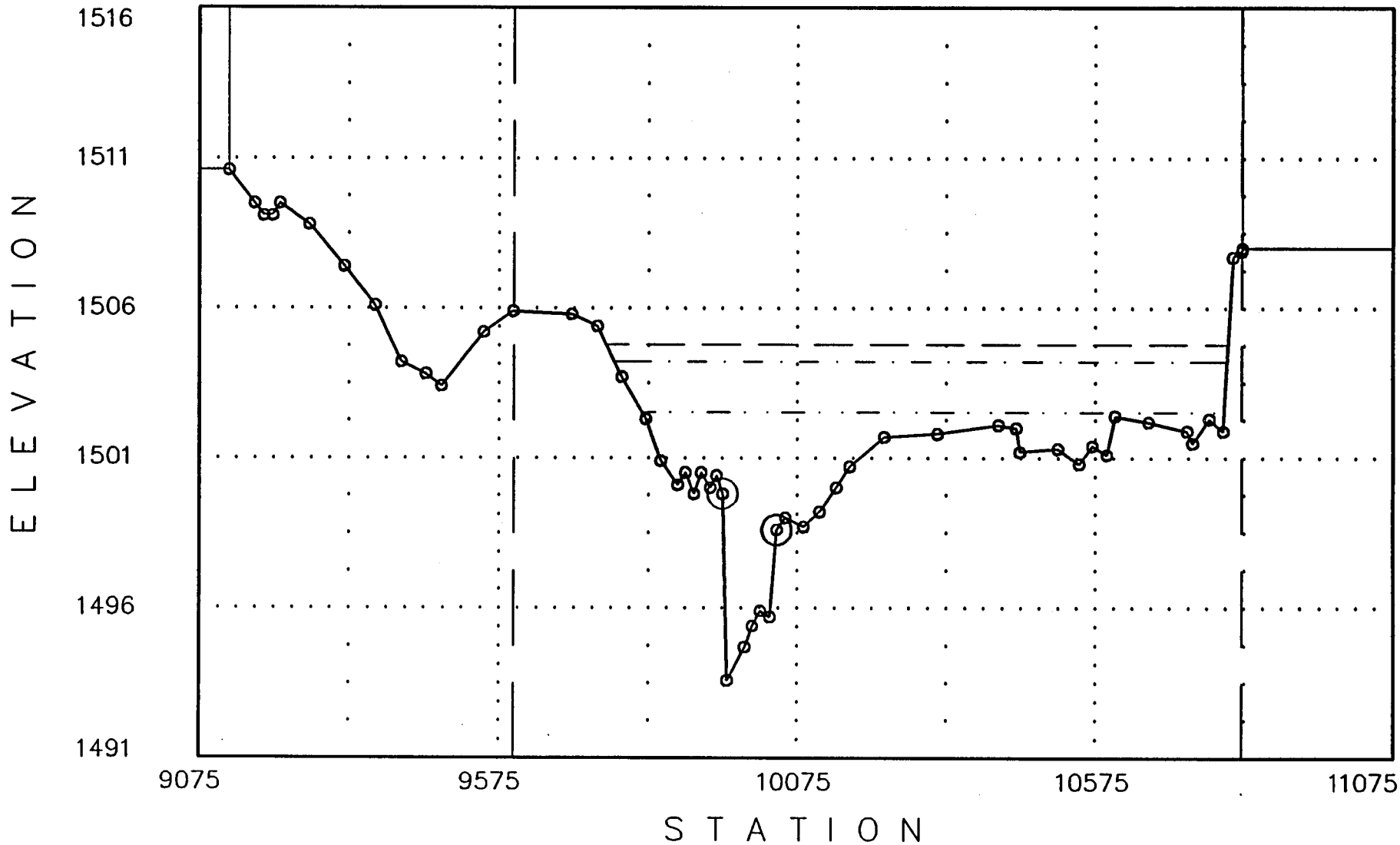



12-07-1990

<<<<<< Cross Section: 12.5: (FN = SKN.FZO) >>>>>>

Q1= 10500 WS1= 1502.53
Q2= 27000 WS2= 1504.21
Q3= 35000 WS3= 1504.79

Manning-n's: n-lob = .04 n-ch = .035 n-rob = .04

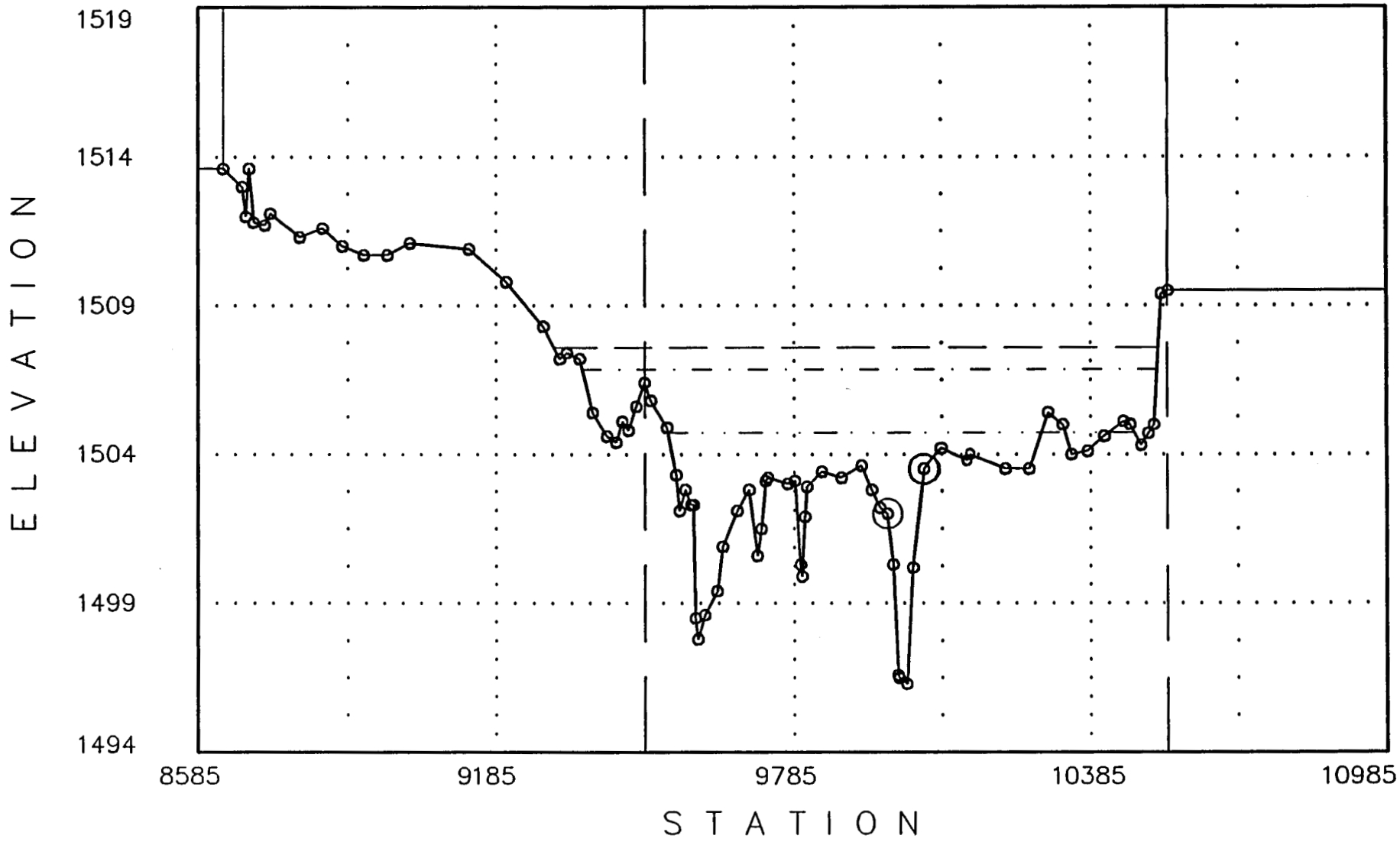



12-07-1990

<<<<<< Cross Section: 12.592: (FIN = SKN.FZO) >>>>>>

Q1= 10500 WS1= 1504.73
Q2= 27000 WS2= 1506.85
Q3= 35000 WS3= 1507.59

Manning-n's: n-lob = .04 n-ch = .035 n-rob = .04

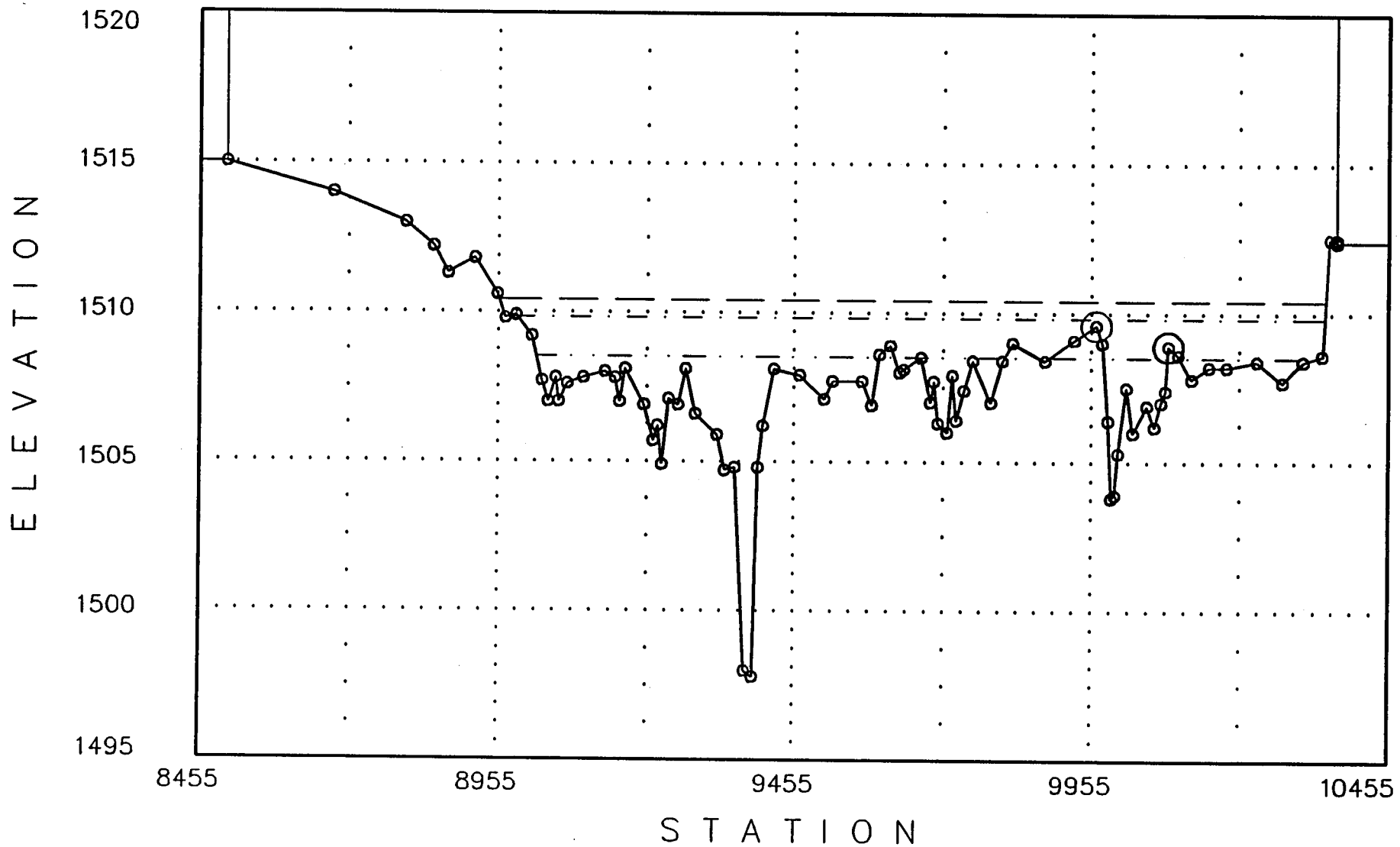



12-07-1990

<<<<<< Cross Section: 12.7: (FN = SKN.FZO) >>>>>>

Q1= 10500 WS1= 1508.52
Q2= 27000 WS2= 1509.83
Q3= 35000 WS3= 1510.42

Manning-n's: n-lob = .04 n-ch = .035 n-rob = .04

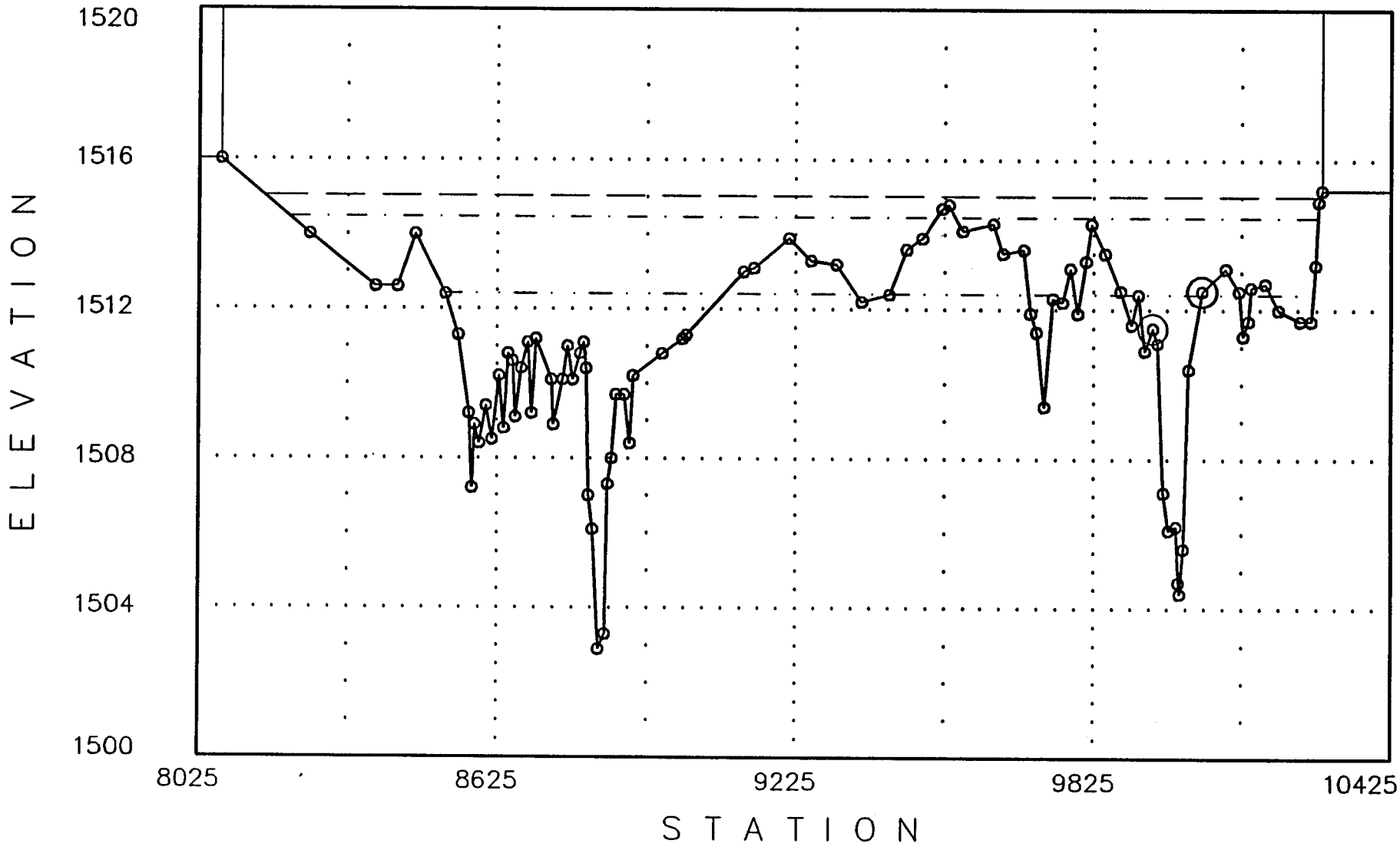



12-07-1990

<<<<<< Cross Section: 12.8: (FN - SKN.FZO) >>>>>>

Q1= 10500 WS1= 1512.42
Q2= 27000 WS2= 1514.47
Q3= 35000 WS3= 1515.03

Manning-n values specified with a 'NH' or 'NV' Card:

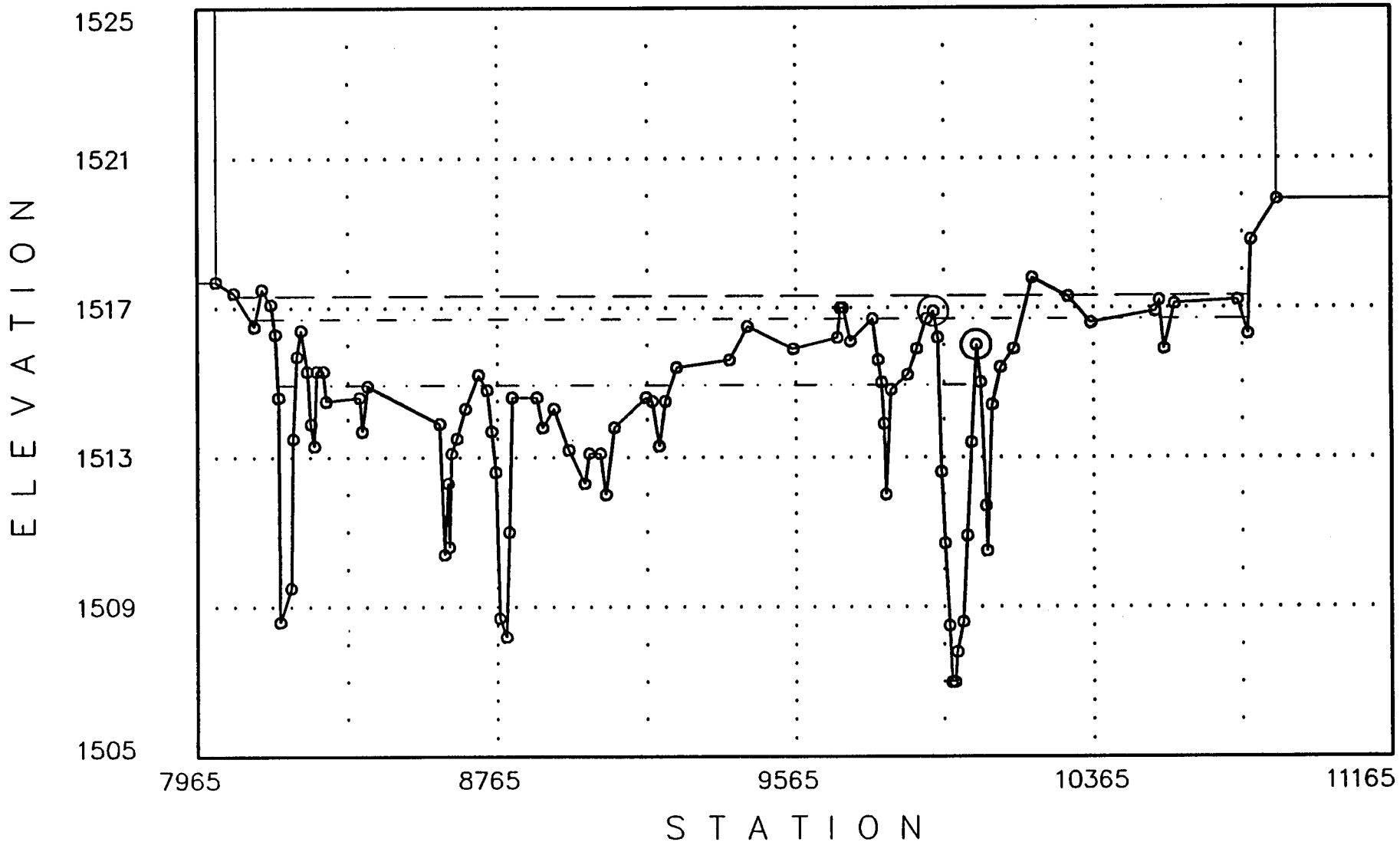



12-07-1990

<<<<<< Cross Section: 12.9: (FN = SKN.FZO) >>>>>>

Q1= 10500 WS1= 1514.93
Q2= 27000 WS2= 1516.7
Q3= 35000 WS3= 1517.32

Manning-n values specified with a 'NH' or 'NV' Card:

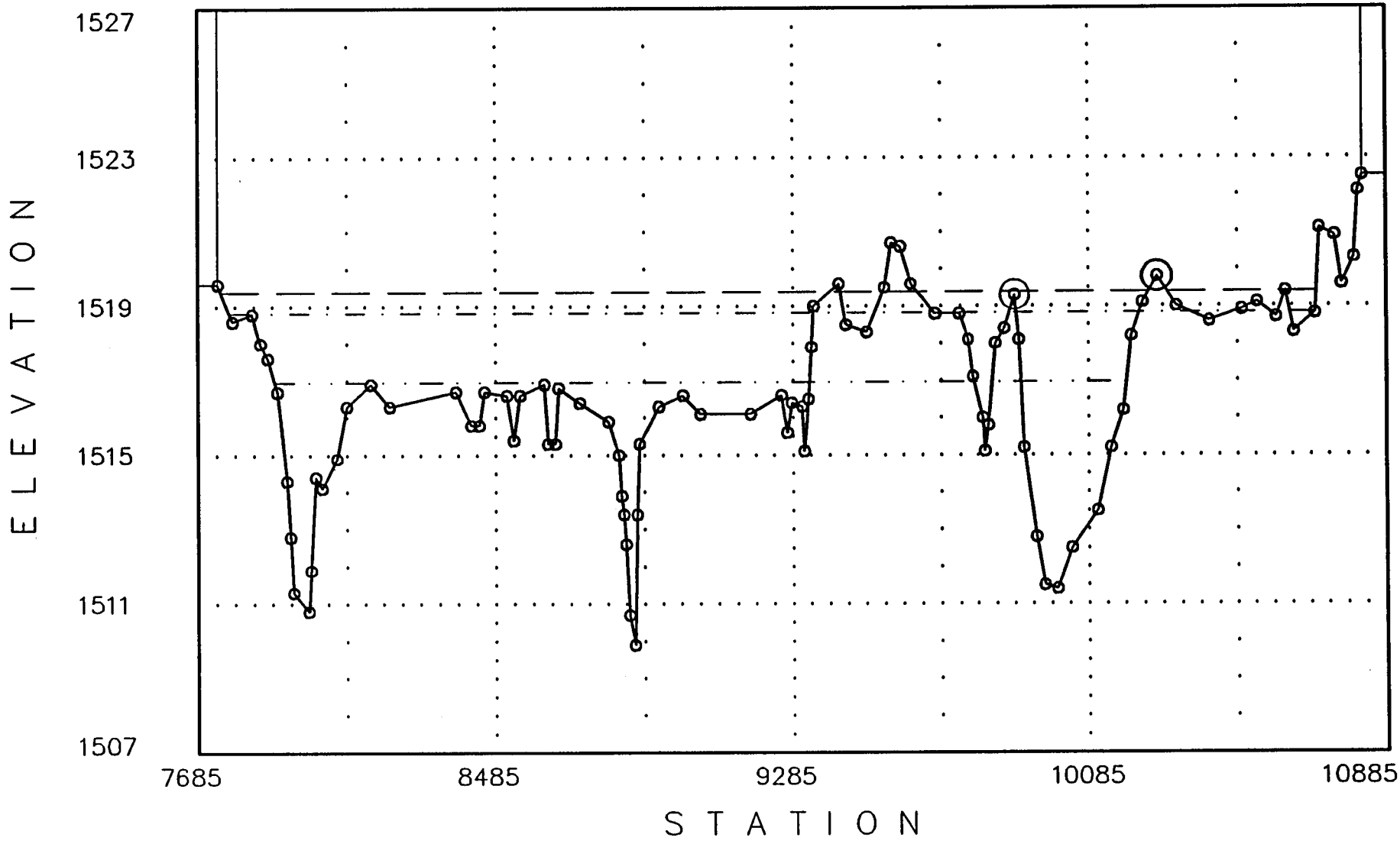



12-07-1990

<<<<<< Cross Section: 12.966: (FIN = SKN.FZO) >>>>>>

Q1= 10500 WS1= 1516.95
Q2= 27000 WS2= 1518.83
Q3= 35000 WS3= 1519.39

Manning-n values specified with a 'NH' or 'NV' Card:




12-07-1990

Existing Condition HEC-2 Output

Skunk Creek
Split Flow Area

South of Pinnacle Peak Road
and
East of 35th Avenue

CVL

```
*******************************************************
*  WATER SURFACE PROFILES                             *
*  DEVELOPED BY THE COE                               *
   VERSION OF SEPTEMBER 1988                          *
*  ERROR: 01,02,03                                    *
*  RUN DATE    12/ 6/90   TIME    9:59:20             *
*******************************************************
```


```
****************************************
*  DODSON & ASSOCIATES, INC.           *
*  HYDROLOGIST AND CIVIL ENGINEERS     *
*  5629 FM 1960 WEST SUITE 314         *
*  HOUSTON, TEXAS  77069               *
*  (713) 440-3787 Fax (713) 440-4742   *
****************************************
```


```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                        X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX             XXXXXXX
```

END OF BANNER

THIS RUN EXECUTED 12/ 6/90 9:59:20

```
**************************************************
  HEC2 RELEASE DATED SEP 88 UPDATED SEPT 1989


  ERROR CORR -  01,02,03
  MODIFICATION -
**************************************************


T1      SKUNK CREEK FLOODPLAIN ANALYSIS, FOR FCDMC (#89-72), BY CVL (#1090-05).
T2      ADOBE DAM TO PINNACLE PEAK ROAD, SPLIT FLOW EAST OF 35TH AVE.
T3      50-YEAR FLOWS,  EXISTING CONDITION    NOV. 1990   (FILE NAME - SKNSPLIT)

J1  ICHECK    INQ      NINV     IDIR     STRT     METRIC   HVINS    Q        WSEL     FQ

      0        3        0        0     .0133       0        0        0    1380.9      0

J2  NPROF     IPLOT    PRFVS    XSECV    XSECH    FN       ALLDC    IBW      CHNIM    ITRACE

      1        0       -1        0        0        0       -1        0        0        0


J3  VARIABLE CODES FOR SUMMARY PRINTOUT

    38       43        1        8       42        3        2       26        5       39
    53        4       54

NC     .05      .05      .05       .1       .3
QT       3        0     1800     2500
ET   8.566      9.1      9.1      9.1                                                  8400     9000
        SKUNK CREEK FLOODPLAIN STUDY.
        SPLIT FLOW AREA SOUTH OF PINNALE PEAK ROAD AND EAST OF 35TH AVENUE.
        FLOW SPLIT BASED ON EXISTING FLOWS PER FEMA
        PREPARED AS A PART OF THE SKUNK CREEK FLOODPLAIN STUDY, BETWEEN THE
        ACDC AND THE CAP.
        PREPARED FOR THE FLOOD CONTROL DISTRICT OF MARICOPA COUNTY (FCD #89-72)
        PREPARED BY COE & VAN LOO CONSULTING ENGINEERS, 1990.
        TOPOGRAPHIC MAPPING PREPARED BY AERIAL MAPPING COMPANY, INC. FROM
        PHOTOGRAPHS TAKEN IN APRIL 1990.  ELEVATION BASED ON NGVD OF 1929.
        THE CONTROL LINE OF SKUNK CREEK IS STATION 10,000.
        ALL SECTIONS ARE STATIONED LOOKING DOWNSTREAM.
        CROSS SECTION NUMBERS ARE STATIONED IN RIVER MILES FROM THE CONFLUENCE
        WITH NEW RIVER.
        THIS RUN WAS STARTED BASED ON THE SLOPE-AREA METHOD.  THE HIGH WATER IN
        ADOBE DAM WAS NOT USED DUE TO THE DIFFERENCE IN THE TIME TO PEAK.
        ENCROACHMENT CARDS (ET) WERE USED IN SOME CASES TO BETTER MODEL DEAD OR
        NONEFFECTIVE FLOW AREAS.  IN SOME CASES "SSTA" AND "ENDST" DO NOT
        REPRESENT THE ACTUAL FLOODING LIMITS, AND THE DELINEATION WAS BASED ON
        THE CROSS-SECTION AND THE TOPOGRAPHY.  IN SOME CASES, "TOPWID" DOES NOT
```

```
        REPRESENT THE FULL WIDTH OF THE FLOODPLAIN, DUE TO INEFFECTIVE FLOW
        AREAS OR LOW ISLANDS WITHIN THE FLOODPLAIN.
        THIS BREAKOUT AREA (EAST OF 35TH AVENUE) IS INUNDATED BY SHALLOW
        SHEET FLOW WITH AN APPROXIMATE DEPTH OF ONE TO THREE FEET.
X1    8.566      97    8503   8923.5       0       0       0
GR   1387.7  7864.4  1386.7   7914.2    1385  7933.2  1386.2  8010.9  1385.4    8173
GR   1384.3  8203.7  1384.5   8220.9  1383.3  8228.6  1382.5  8322.4  1381.5  8324.5
GR   1381.2  8338.7  1382.5   8341.2  1381.5    8344  1381.5  8449.8  1380.4    8503
GR   1380.2  8705.2  1378.7     8829  1380.4  8834.8  1378.8  8845.6  1380.4  8848.8
GR   1378.2  8853.6  1380.7   8862.6  1380.3  8867.2  1379.2  8872.3  1378.8  8875.2
GR   1379.8  8896.4  1380.3   8923.5  1379.2  8937.1  1380.1  8973.5  1382.1  8978.3
GR   1382.5  8983.7  1381.2   8988.6  1382.9  8995.1  1381.9  9001.7  1380.3  9008.1
GR   1380.1  9013.4  1377.7   9018.9  1376.5    9025  1375.6    9033  1373.2  9041.5
GR     1372  9052.5  1370.8   9063.8  1370.3  9126.1  1369.2  9138.9  1370.2  9208.1
GR   1370.1  9340.9  1369.1   9352.6  1370.3  9363.5  1370.1  9371.4  1369.1  9375.6
GR   1370.1  9423.2  1372.1     9460  1373.5  9481.4    1374  9502.6    1373  9514.7
GR   1372.2  9520.1  1373.4   9530.2  1373.7  9597.7  1372.2  9605.1  1372.3  9615.3
GR   1371.3  9628.7  1372.3   9655.6    1373  9772.6    1374  9794.1  1375.1  9845.6
GR   1375.1  9861.6  1373.8     9878  1372.5  9924.8  1371.2  9936.4  1371.2  9938.5
GR     1375  9943.2  1377.2   9949.5  1378.2  9966.1  1375.9  9975.9  1372.4  9983.7
GR     1372  9986.3  1368.8     9993  1368.8    9996  1366.3   10000  1366.9 10009.4
GR   1368.7    10015  1373.4  10024.9  1378.6 10033.1  1380.1 10040.6  1381.1 10115.4
GR     1380 10225.4  1381.2  10296.3  1381.6 10516.7  1382.6 10729.1  1383.8 10816.6
GR   1383.7 10825.5  1381.4  10828.6    1384 10837.6    1383 10895.8  1383.7 11111.2
GR   1385.9 12184.6  1389.2    12197

ET    8.680     9.1     9.1      9.1                                   8164    9070
      8.680      93  8440.6     8961     615     650     602
GR   1390.3  8163.3  1388.6   8235.1  1389.1  8359.1  1387.5  8437.1  1385.1  8440.6
GR   1383.7    8591  1383.7   8703.7  1383.5  8830.4  1384.4  8879.3  1383.4  8897.3
GR     1383  8926.2    1385   8932.9  1382.2  8943.8  1384.5  8947.3  1382.4  8951.2
GR   1384.7    8961  1384.9   8963.4  1383.1  8967.4  1382.3  9060.2  1385.7  9069.1
GR   1386.3  9071.1  1384.6   9075.5  1385.6    9082    1385  9088.6  1382.8  9093.2
GR   1380.9  9101.2    1378   9112.5    1376  9120.2  1374.5  9126.6  1373.5  9134.2
GR     1372  9139.3  1371.7   9228.6  1370.6  9234.2  1371.8  9249.9  1371.8  9253.4
GR   1370.3  9264.4  1371.2     9372  1372.6  9429.6  1373.2  9531.8  1374.3  9630.9
GR   1374.4  9714.1  1375.5   9738.8  1376.4  9811.4  1375.2  9824.8  1376.5  9888.5
GR   1375.4  9899.8  1374.2   9910.2  1372.7    9919  1372.4  9940.5  1373.8  9945.1
GR     1375  9949.4  1376.2   9964.6  1373.9    9969  1372.2  9977.8  1369.2  9982.4
GR   1369.1  9991.8    1372    10000  1372.8 10001.3  1375.2 10006.9  1375.5 10015.3
GR   1376.6 10023.1  1377.1    10032  1378.1 10036.8  1376.6 10041.2  1378.2   10053
GR   1378.9 10056.2  1381.8  10066.7  1382.8 10072.6  1382.2   10076  1380.4 10083.6
GR   1380.7 10089.7  1383.4  10095.7  1383.1 10201.2  1384.3 10256.6  1384.2 10368.9
GR   1383.9 10523.6  1384.9  10654.1  1385.1   10781  1385.5 10934.2  1385.9 11104.7
GR   1386.5 11273.1  1386.8  11384.3  1387.6 11573.9    1388   11707  1388.7 11818.9
GR   1390.1   11891  1389.9  11952.6  1388.8 11979.1  1392.5 12008.1  1394.1 12020.2
GR     1391 12032.7  1391.6  12038.3  1393.1 12047.5

QT       3       0    2000     2700
ET   8.815     9.1     9.1      9.1                                   8944    9700
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        200 CFS SPILLS BACK INTO THE MAIN CHANNEL BETWEEN SECTION 8.815 & 8.680
X1    8.815       92    8974.1    9530.1       450       680       713
GR   1390.4   8943.9    1389.2    8974.1    1387.5    8991.8    1386.3    9007.6    1385.6    9015.4
GR   1385.1     9092    1385.3    9149.6    1385.4    9207.2    1385.2    9252.2    1386.1    9270.9
GR   1387.1   9288.7    1385.4    9303.7    1386.1    9317.4    1386.6    9330.9    1385.5    9344.2
GR   1386.2   9366.5    1386.3    9432.4    1385.8    9486.7    1386.2    9501.4    1384.9      9508
GR   1386.6   9513.9    1384.6    9520.4      1387    9530.1    1384.7      9549    1386.3    9562.6
GR   1386.3   9583.6    1385.5    9599.5    1385.8    9630.3    1386.7    9645.9    1387.1    9661.6
GR   1388.7   9675.7      1389      9690    1387.6    9700.7    1386.3    9740.1    1383.6    9776.7
GR   1381.1     9813    1377.7    9845.6    1376.8    9874.4    1374.8    9895.2    1373.9    9920.4
GR   1373.2   9939.1    1372.3    9956.6    1371.1    9971.6    1369.9    9981.1    1370.2     10000
GR   1370.1   10013.    1369.4   10021.7    1370.3   10037.2    1371.1   10081.3    1371.6   10149.9
GR   1372.9   10169.    1374.4   10184.2      1375   10229.4      1376   10244.9    1375.9   10255.5
GR   1376.7   10273.    1377.1   10291.5    1378.5   10312.8    1380.1   10335.4      1382   10366.9
GR   1382.3   10393.    1383.1   10423.3    1384.7   10446.7    1386.9   10472.5    1388.1     10496
GR   1390.2   10524.    1392.3   10552.2    1393.2   10573.5    1394.2   10601.3    1392.7   10624.4
GR   1392.3   10653.    1391.6   10678.9    1392.6   10706.1    1391.9   10760.3    1392.1   10825.5
GR   1392.2   10892.    1391.5   10926.2    1390.7   10963.5    1390.4   11031.2    1390.8   11098.1
GR   1389.9   11128.    1390.2   11193.3    1390.4   11246.2    1390.2   11319.6    1390.4   11384.8
GR   1391.1   11449.      1391   11512.9      1391   11582.8    1391.2   11591.2    1392.2   11611.9
GR   1393.3   11626.    1393.9   11648.7

ET    8.907      9.1       9.1       9.1                                             8855      9900
X1    8.907       93    9015.4    9752.5       660       295     485.8
GR   1397.5   8854.3    1396.5    8883.1    1395.9    8916.3    1393.5    8950.3    1392.4    8982.2
GR   1392.2   9015.4    1390.8    9048.5      1390    9072.4    1390.1      9093    1389.3    9125.4
GR   1387.1     9132    1388.3    9137.7    1388.9    9177.8    1388.8    9248.3    1388.7    9296.7
GR   1388.8   9347.5    1388.6    9432.5    1388.5    9492.7    1388.5    9576.8    1388.8    9657.8
GR   1388.9   9730.6    1388.8    9747.9    1390.2    9752.5      1390      9770    1388.2    9776.2
GR   1390.7   9785.4    1389.2    9791.4    1389.2    9809.1    1390.1    9822.1    1390.2    9837.9
GR   1389.2   9858.8    1388.9    9871.3    1389.5    9887.5      1390    9898.3    1391.5    9904.1
GR   1388.4   9912.9      1386    9927.3    1383.3      9944    1379.2      9960    1380.1      9974
GR   1380.1   9981.1      1375    9991.3    1374.9     10000    1375.6   10009.7    1377.8   10023.2
GR   1381.2   10034.5   1379.6   10061.1    1378.5   10092.6    1379.2   10146.4    1380.4   10163.1
GR   1380.5   10199.3   1383.2   10222.4    1384.1   10244.8    1387.4   10263.2    1390.4     10282
GR   1389.8   10324.3   1390.2     10349    1391.2   10368.8    1391.8   10396.9    1392.5   10457.2
GR   1392.1   10500.9   1391.5   10538.2    1391.8   10630.2    1391.9   10716.2    1391.9   10796.2
GR   1391.8   10839.9   1391.9   10896.3    1391.2   10991.6      1392   11012.1    1392.6   11021.1
GR     1392   11029.7   1392.1   11084.6    1391.1   11117.1    1392.2     11124    1394.2     11143
GR     1396   11152.2     1395   11168.2    1395.7   11254.6    1395.8   11298.7    1396.5   11330.5
GR   1395.9   11357.1   1392.8   11357.4      1392   11370.3      1393     11392    1391.7   11418.2
GR     1394   11445.5   1395.5   11472.6    1395.5   11538.5    1395.8   11583.3    1396.5   11625.2
GR   1396.4   11684.3   1396.9   11748.1    1397.2   11782.6

NC      .05       .05       .04        .1        .3
QT        3     15000     29000     39000
ET    9.022      9.1       9.1       9.1                                             8850     10500
        THIS SECTION IS JUST UPSTREAM OF THE SPLIT, AT PINNACLE PEAK ROAD, AND
        IS MODELED WITH THE TOTAL FLOW IN SKUNK CREEK.
X1    9.022       67    9763.5   10337.0       670       285     607.2
GR   1396.9   8583.9    1395.9    8656.6    1395.3    8729.3    1394.7    8793.9    1395.1    8874.3
GR   1394.7   8947.0    1394.4    9032.8    1394.4    9115.2    1394.6    9205.9    1394.3    9292.4
GR   1394.1   9381.3    1394.0    9468.2    1393.8    9556.6    1393.2    9636.3    1392.9    9689.4
GR   1392.4   9763.5    1390.7    9835.7    1390.2    9908.6    1389.1    9989.5    1389.4   10000.0
```

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| GR | 1389.8 | 10098.6 | 1389.8 | 10184.3 | 1390.6 | 10270.0 | 1391.9 | 10337.0 | 1391.9 | 10382.4 |
| GR | 1392.9 | 10421.0 | 1393.4 | 10454.4 | 1393.4 | 10476.9 | 1396.8 | 10483.8 | 1398.0 | 10497.1 |
| GR | 1398.1 | 10502.7 | 1397.2 | 10522.6 | 1395.9 | 10536.9 | 1395.9 | 10580.9 | 1396.5 | 10624.8 |
| GR | 1396.8 | 10682.6 | 1396.7 | 10723.4 | 1395.7 | 10724.9 | 1395.8 | 10740.2 | 1395.6 | 10749.4 |
| GR | 1395.6 | 10750.1 | 1395.5 | 10777.7 | 1395.2 | 10803.0 | 1395.7 | 10810.0 | 1396.0 | 10834.2 |
| GR | 1397.0 | 10878.1 | 1397.4 | 10918.7 | 1397.3 | 10958.4 | 1397.9 | 11007.4 | 1397.8 | 11042.6 |
| GR | 1397.6 | 11072.0 | 1396.7 | 11089.8 | 1394.6 | 11090.1 | 1394.1 | 11097.2 | 1393.5 | 11103.0 |
| GR | 1393.5 | 11118.3 | 1393.5 | 11131.2 | 1393.8 | 11141.7 | 1393.7 | 11147.1 | 1396.4 | 11164.8 |
| GR | 1399.0 | 11182.5 | 1399.0 | 11209.2 | 1398.9 | 11239.8 | 1399.5 | 11272.9 | 1399.2 | 11309.9 |
| GR | 1399.2 | 11350.0 | 1399.9 | 11390.9 | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SECNO | DEPTH | CWSEL | CRIWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

*PROF 1

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS

CCHV= .100 CEHV= .300
*SECNO 8.566

3470 ENCROACHMENT STATIONS= 8400.0 9000.0 TYPE= 1 TARGET= 600.000
SKUNK CREEK FLOODPLAIN STUDY.
SPLIT FLOW AREA SOUTH OF PINNALE PEAK ROAD AND EAST OF 35TH AVENUE.
FLOW SPLIT BASED ON EXISTING FLOWS PER FEMA
PREPARED AS A PART OF THE SKUNK CREEK FLOODPLAIN STUDY, BETWEEN THE
ACDC AND THE CAP.
PREPARED FOR THE FLOOD CONTROL DISTRICT OF MARICOPA COUNTY (FCD #89-72)
PREPARED BY COE & VAN LOO CONSULTING ENGINEERS, 1990.
TOPOGRAPHIC MAPPING PREPARED BY AERIAL MAPPING COMPANY, INC. FROM
PHOTOGRAPHS TAKEN IN APRIL 1990. ELEVATION BASED ON NGVD OF 1929.
THE CONTROL LINE OF SKUNK CREEK IS STATION 10,000.
ALL SECTIONS ARE STATIONED LOOKING DOWNSTREAM.
CROSS SECTION NUMBERS ARE STATIONED IN RIVER MILES FROM THE CONFLUENCE
WITH NEW RIVER.
THIS RUN WAS STARTED BASED ON THE SLOPE-AREA METHOD. THE HIGH WATER IN
ADOBE DAM WAS NOT USED DUE TO THE DIFFERENCE IN THE TIME TO PEAK.
ENCROACHMENT CARDS (ET) WERE USED IN SOME CASES TO BETTER MODEL DEAD OR
NONEFFECTIVE FLOW AREAS. IN SOME CASES "SSTA" AND "ENDST" DO NOT
REPRESENT THE ACTUAL FLOODING LIMITS, AND THE DELINEATION WAS BASED ON
THE CROSS-SECTION AND THE TOPOGRAPHY. IN SOME CASES, "TOPWID" DOES NOT
REPRESENT THE FULL WIDTH OF THE FLOODPLAIN, DUE TO INEFFECTIVE FLOW
AREAS OR LOW ISLANDS WITHIN THE FLOODPLAIN.
THIS BREAKOUT AREA (EAST OF 35TH AVENUE) IS INUNDATED BY SHALLOW
SHEET FLOW WITH AN APPROXIMATE DEPTH OF ONE TO THREE FEET.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 8.566 | 14.65 | 1380.95 | 1380.67 | .00 | 1381.14 | .20 | .00 | .00 | 1380.40 |
| 1800. | 10. | 1533. | 256. | 7. | 437. | 64. | 0. | 0. | 1380.30 |
| .00 | 1.44 | 3.51 | 3.99 | .050 | .050 | .050 | .000 | 1366.30 | 8476.59 |
| .013299 | 0. | 0. | 0. | 0 | 7 | 5 | .00 | 498.94 | 8975.53 |

*SECNO 8.680

3265 DIVIDED FLOW

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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.89


3470 ENCROACHMENT STATIONS=     8164.0    9070.0  TYPE=      1  TARGET=      906.000
    8.680    15.87  1384.97  1384.21      .00  1385.06      .09     3.91      .01  1385.10
    1800.       0.    1115.     685.       0.     570.     224.       9.       8.   1384.70
      .07      .00     1.96     3.05     .000     .050     .050     .000  1369.10  8454.61
  .003711     615.     602.     650.        6       15        0      .00   612.36  9067.19


*SECNO 8.815

3470 ENCROACHMENT STATIONS=     8944.0    9700.0  TYPE=      1  TARGET=      756.000
         200 CFS SPILLS BACK INTO THE MAIN CHANNEL BETWEEN SECTION 8.815 & 8.680
    8.815    17.86  1387.26  1386.36      .00  1387.32      .07     2.26      .00  1389.20
    2000.       0.    1685.     315.       0.     809.     163.      23.      18.   1387.00
      .17      .00     2.08     1.94     .000     .050     .050     .000  1369.40  8995.06
  .002838     450.     713.     680.        5       10        0      .00   667.89  9662.95


 ;ECNO 8.907

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     8855.0    9900.0  TYPE=      1  TARGET=     1045.000
    8.907    15.01  1389.91  1389.91      .00  1390.00      .09     1.78      .01  1392.20
    2000.       0.    1905.      95.       0.     775.      57.      33.      26.   1390.20
      .22      .00     2.46     1.67     .000     .050     .050     .000  1374.90  9100.77
  .005417     660.     486.     295.        0       20        0      .00   746.01  9896.31


CCHV=     .100 CEHV=     .300
*SECNO 9.022

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
```

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SECNO | DEPTH | CWSEL | CRIWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

3470 ENCROACHMENT STATIONS= 8850.0 10500.0 TYPE= 1 TARGET= 1650.000

THIS SECTION IS JUST UPSTREAM OF THE SPLIT, AT PINNACLE PEAK ROAD, AND
IS MODELED WITH THE TOTAL FLOW IN SKUNK CREEK.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 9.022 | 5.63 | 1394.73 | 1394.73 | .00 | 1396.12 | 1.38 | 5.54 | .39 | 1392.40 |
| 29000. | 1967. | 25491. | 1542. | 611. | 2561. | 303. | 62. | 41. | 1391.90 |
| .24 | 3.22 | 9.95 | 5.08 | .050 | .040 | .050 | .000 | 1389.10 | 8941.05 |
| .009758 | 670. | 607. | 285. | 0 | 18 | 0 | .00 | 1538.55 | 10479.60 |

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T1      SKUNK CREEK FLOODPLAIN ANALYSIS, FOR FCDMC (#89-72), BY CVL (#1090-05).
T2      ADOBE DAM TO PINNACLE PEAK ROAD, SPLIT FLOW EAST OF 35TH AVE.
T3      100-YEAR FLOWS,  EXISTING CONDITION   NOV. 1990   (FILE NAME - SKNSPLIT)
```

| J1 | ICHECK | INQ | NINV | IDIR | STRT | METRIC | HVINS | Q | WSEL | FQ |
|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 4 | 0 | 0 | .0133 | 0 | 0 | 0 | 1381.2 | 0 |

| J2 | NPROF | IPLOT | PRFVS | XSECV | XSECH | FN | ALLDC | IBW | CHNIM | ITRACE |
|---|---|---|---|---|---|---|---|---|---|---|
| | 15 | 0 | -1 | 0 | 0 | 0 | -1 | 0 | 0 | 0 |

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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*PROF 2

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS

CCHV=     .100 CEHV=     .300
*SECNO 8.566

3470 ENCROACHMENT STATIONS=     8400.0    9000.0  TYPE=      1  TARGET=      600.000
        SKUNK CREEK FLOODPLAIN STUDY.
        SPLIT FLOW AREA SOUTH OF PINNALE PEAK ROAD AND EAST OF 35TH AVENUE.
        FLOW SPLIT BASED ON EXISTING FLOWS PER FEMA
        PREPARED AS A PART OF THE SKUNK CREEK FLOODPLAIN STUDY, BETWEEN THE
        ACDC AND THE CAP.
        PREPARED FOR THE FLOOD CONTROL DISTRICT OF MARICOPA COUNTY (FCD #89-72)
        PREPARED BY COE & VAN LOO CONSULTING ENGINEERS, 1990.
        TOPOGRAPHIC MAPPING PREPARED BY AERIAL MAPPING COMPANY, INC. FROM
        PHOTOGRAPHS TAKEN IN APRIL 1990.  ELEVATION BASED ON NGVD OF 1929.
        THE CONTROL LINE OF SKUNK CREEK IS STATION 10,000.
        ALL SECTIONS ARE STATIONED LOOKING DOWNSTREAM.
        CROSS SECTION NUMBERS ARE STATIONED IN RIVER MILES FROM THE CONFLUENCE
        WITH NEW RIVER.
        THIS RUN WAS STARTED BASED ON THE SLOPE-AREA METHOD.  THE HIGH WATER IN
        ADOBE DAM WAS NOT USED DUE TO THE DIFFERENCE IN THE TIME TO PEAK.
        ENCROACHMENT CARDS (ET) WERE USED IN SOME CASES TO BETTER MODEL DEAD OR
        NONEFFECTIVE FLOW AREAS.  IN SOME CASES "SSTA" AND "ENDST" DO NOT
        REPRESENT THE ACTUAL FLOODING LIMITS, AND THE DELINEATION WAS BASED ON
        THE CROSS-SECTION AND THE TOPOGRAPHY.  IN SOME CASES, "TOPWID" DOES NOT
        REPRESENT THE FULL WIDTH OF THE FLOODPLAIN, DUE TO INEFFECTIVE FLOW
        AREAS OR LOW ISLANDS WITHIN THE FLOODPLAIN.
        THIS BREAKOUT AREA (EAST OF 35TH AVENUE) IS INUNDATED BY SHALLOW
        SHEET FLOW WITH AN APPROXIMATE DEPTH OF ONE TO THREE FEET.
   8.566    14.87  1381.17  1380.94  1380.95  1381.43      .25      .00      .00  1380.40
   2500.      26.    2135.     339.      14.     533.      76.       0.       0.   1380.30
     .00     1.82     4.01     4.45     .050     .050     .050     .000  1366.30  8465.58
 .013326       0.       0.       0.        0        7        5      .00   510.50  8976.08


*SECNO 8.680

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.88


3470 ENCROACHMENT STATIONS=     8164.0    9070.0  TYPE=      1  TARGET=      906.000
```

```
   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


    8.680    16.17  1385.27  1384.36  1384.97  1385.39      .11     3.94      .01  1385.10
    2500.       0.    1646.     854.       0.     725.     256.      11.       8.   1384.70
      .06      .02     2.27     3.33     .050     .050     .050     .000  1369.10  8440.35
  .003769     615.     602.     650.        5       12        0      .00   627.62  9067.97


*SECNO 8.815

3470 ENCROACHMENT STATIONS=     8944.0    9700.0  TYPE=      1  TARGET=      756.000
         200 CFS SPILLS BACK INTO THE MAIN CHANNEL BETWEEN SECTION 8.815 & 8.680
    8.815    18.16  1387.56  1386.65  1387.26  1387.64      .08     2.25      .00  1389.20
    2700.       0.    2258.     442.       0.     973.     204.      29.      19.   1387.00
      .15      .00     2.32     2.17     .000     .050     .050     .000  1369.40  8991.19
  .002779     450.     713.     680.        5       10        0      .00   674.46  9665.64


*SECNO 8.907

3265 DIVIDED FLOW

7185 MINIMUM SPECIFIC ENERGY
  20 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     8855.0    9900.0  TYPE=      1  TARGET=     1045.000
    8.907    15.01  1389.91  1389.91  1389.91  1390.07      .17     2.21      .03  1392.20
    2700.       0.    2572.     128.       0.     775.      57.      39.      26.   1390.20
      .19      .00     3.32     2.26     .000     .050     .050     .000  1374.90  9100.77
  .009873     660.     486.     295.        0       20        0      .00   746.01  9896.31


CCHV=     .100 CEHV=     .300
*SECNO 9.022

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     8850.0   10500.0  TYPE=      1  TARGET=     1650.000
         THIS SECTION IS JUST UPSTREAM OF THE SPLIT, AT PINNACLE PEAK ROAD, AND
         IS MODELED WITH THE TOTAL FLOW IN SKUNK CREEK.
    9.022     6.34  1395.44  1395.44  1394.73  1396.95     1.51     5.54      .40  1392.40
   39000.    4846.   31776.    2377.    1237.    2966.     405.      76.      42.   1391.90
      .21     3.92     10.71     5.88     .050     .040     .050     .000  1389.10  8850.00
  .009294     670.     607.     285.        0       18        0      .00  1631.04 10481.04
```

THIS RUN EXECUTED 12/ 6/90 9:59:25

**********
HEC2 RELEASE DATED SEP 88 UPDATED SEPT 1989

ERROR CORR - 01,02,03
MODIFICATION -
**********

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

50-YEAR FLOWS, EXISTING

SUMMARY PRINTOUT

| | SECNO | Q | CWSEL | DEPTH | ELMIN | EG | CRIWS | VCH | 10*KS | XLCH | SSTA | TOPWID | ENDST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 8.566 | 1800.00 | 1380.95 | 14.65 | 1366.30 | 1381.14 | 1380.67 | 3.51 | 132.99 | .00 | 8476.59 | 498.94 | 8975.53 |
| | 8.566 | 2500.00 | 1381.17 | 14.87 | 1366.30 | 1381.43 | 1380.94 | 4.01 | 133.26 | .00 | 8465.58 | 510.50 | 8976.08 |
| * | 8.680 | 1800.00 | 1384.97 | 15.87 | 1369.10 | 1385.06 | 1384.21 | 1.96 | 37.11 | 602.00 | 8454.61 | 612.36 | 9067.19 |
| * | 8.680 | 2500.00 | 1385.27 | 16.17 | 1369.10 | 1385.39 | 1384.36 | 2.27 | 37.69 | 602.00 | 8440.35 | 627.62 | 9067.[illegible] |
| | 8.815 | 2000.00 | 1387.26 | 17.86 | 1369.40 | 1387.32 | 1386.36 | 2.08 | 28.38 | 713.00 | 8995.06 | 667.89 | 9662.95 |
| | 8.815 | 2700.00 | 1387.56 | 18.16 | 1369.40 | 1387.64 | 1386.65 | 2.32 | 27.79 | 713.00 | 8991.19 | 674.46 | 9665.64 |
| * | 8.907 | 2000.00 | 1389.91 | 15.01 | 1374.90 | 1390.00 | 1389.91 | 2.46 | 54.17 | 485.80 | 9100.77 | 746.01 | 9896.31 |
| * | 8.907 | 2700.00 | 1389.91 | 15.01 | 1374.90 | 1390.07 | 1389.91 | 3.32 | 98.73 | 485.80 | 9100.77 | 746.01 | 9896.31 |
| * | 9.022 | 29000.00 | 1394.73 | 5.63 | 1389.10 | 1396.12 | 1394.73 | 9.95 | 97.58 | 607.20 | 8941.05 | 1538.55 | 10479.60 |
| * | 9.022 | 39000.00 | 1395.44 | 6.34 | 1389.10 | 1396.95 | 1395.44 | 10.71 | 92.94 | 607.20 | 8850.00 | 1631.04 | 10481.04 |

SUMMARY OF ERRORS AND SPECIAL NOTES

```
WARNING SECNO=      8.680  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
WARNING SECNO=      8.680  PROFILE=  2  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      8.907  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      8.907  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      8.907  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      8.907  PROFILE=  2  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=      9.022  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      9.022  PROFILE=  1  MINIMUM SPECIFIC ENERGY
CAUTION SECNO=      9.022  PROFILE=  2  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      9.022  PROFILE=  2  MINIMUM SPECIFIC ENERGY
```

Existing Condition Cross Section Plots

Skunk Creek
Split Flow Area

South of Pinnacle Peak Road
and
East of 35th Avenue

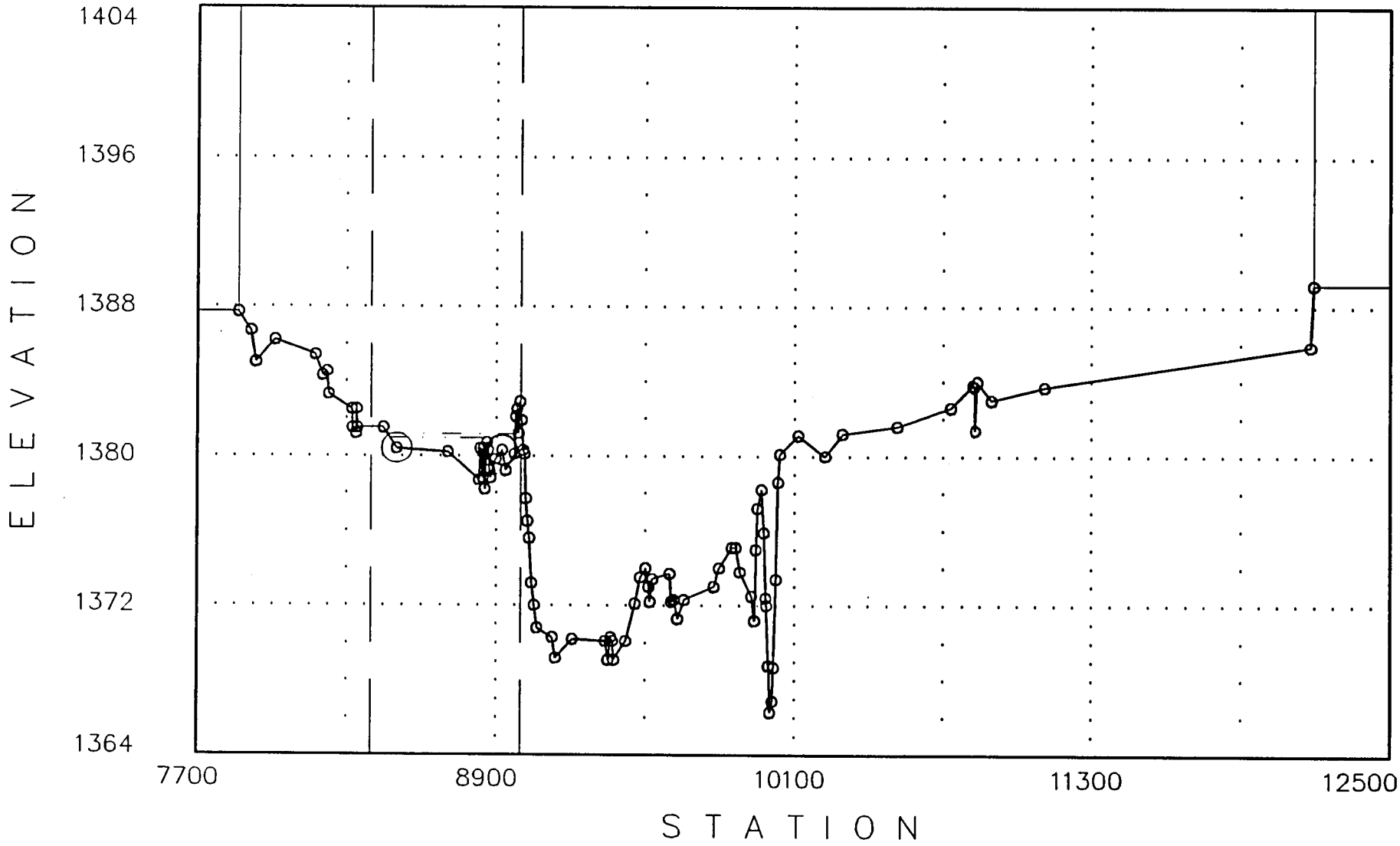
CVL

<<<<<< Cross Section: 8.566: (FN = SKNSPLIT.O) >>>>>>

Q1= 1800 WS1= 1380.95

Q2= 2500 WS2= 1381.17

Manning-n's: n-lob = .05 n-ch = .05 n-rob = .05

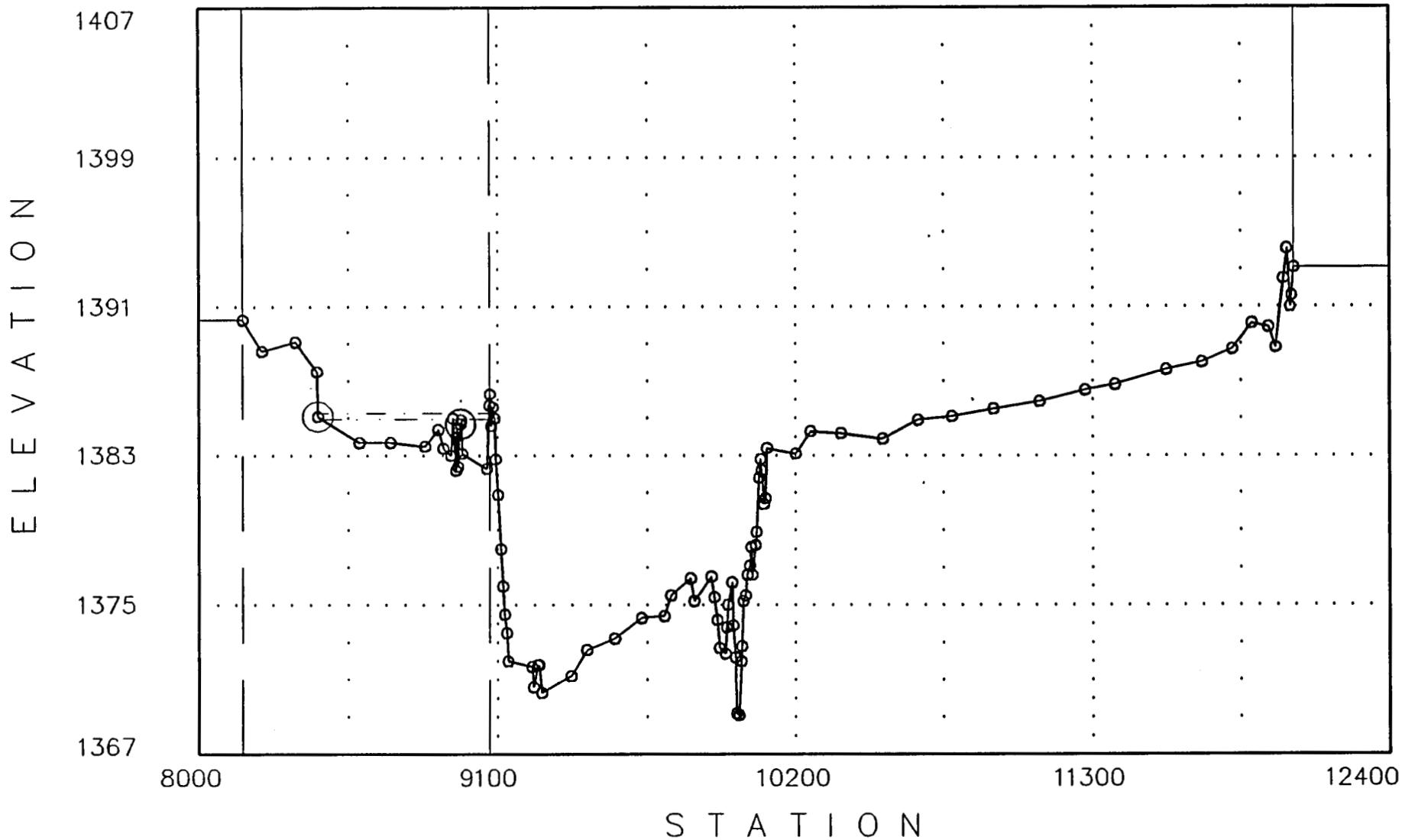



12-06-1990

<<<<<< Cross Section: 8.68: (FN = SKNSPLIT.O) >>>>>>

Q1= 1800 WS1= 1384.97
Q2= 2500 WS2= 1385.27

Manning-n's: n-lob = .05 n-ch = .05 n-rob = .05

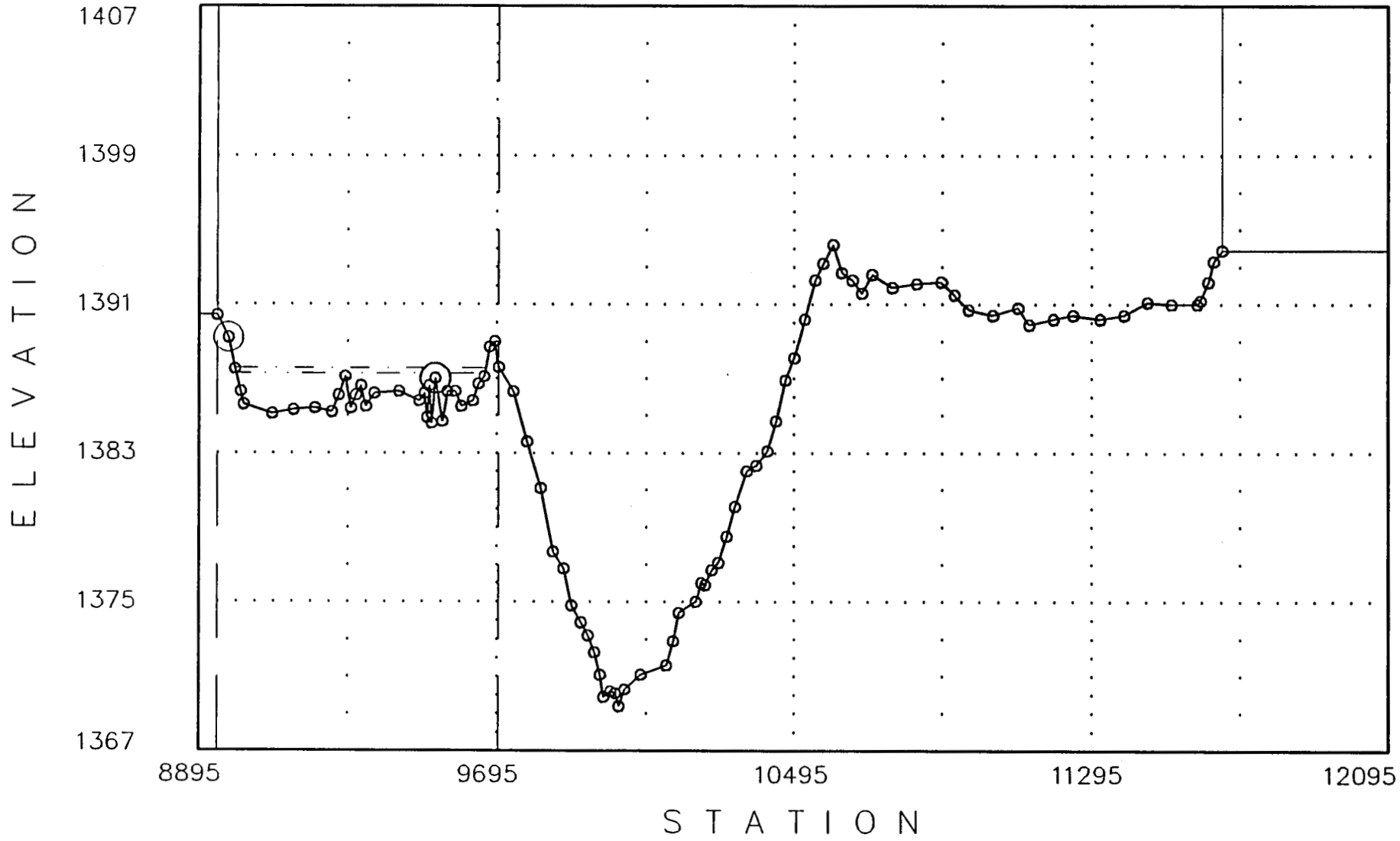



12-06-1990

<<<<<< Cross Section: 8.815: (FN = SKNSPLIT.O) >>>>>>

Q1= 2000 WS1= 1387.26
Q2= 2700 WS2= 1387.56

Manning-n's: n-lob = .05 n-ch = .05 n-rob = .05

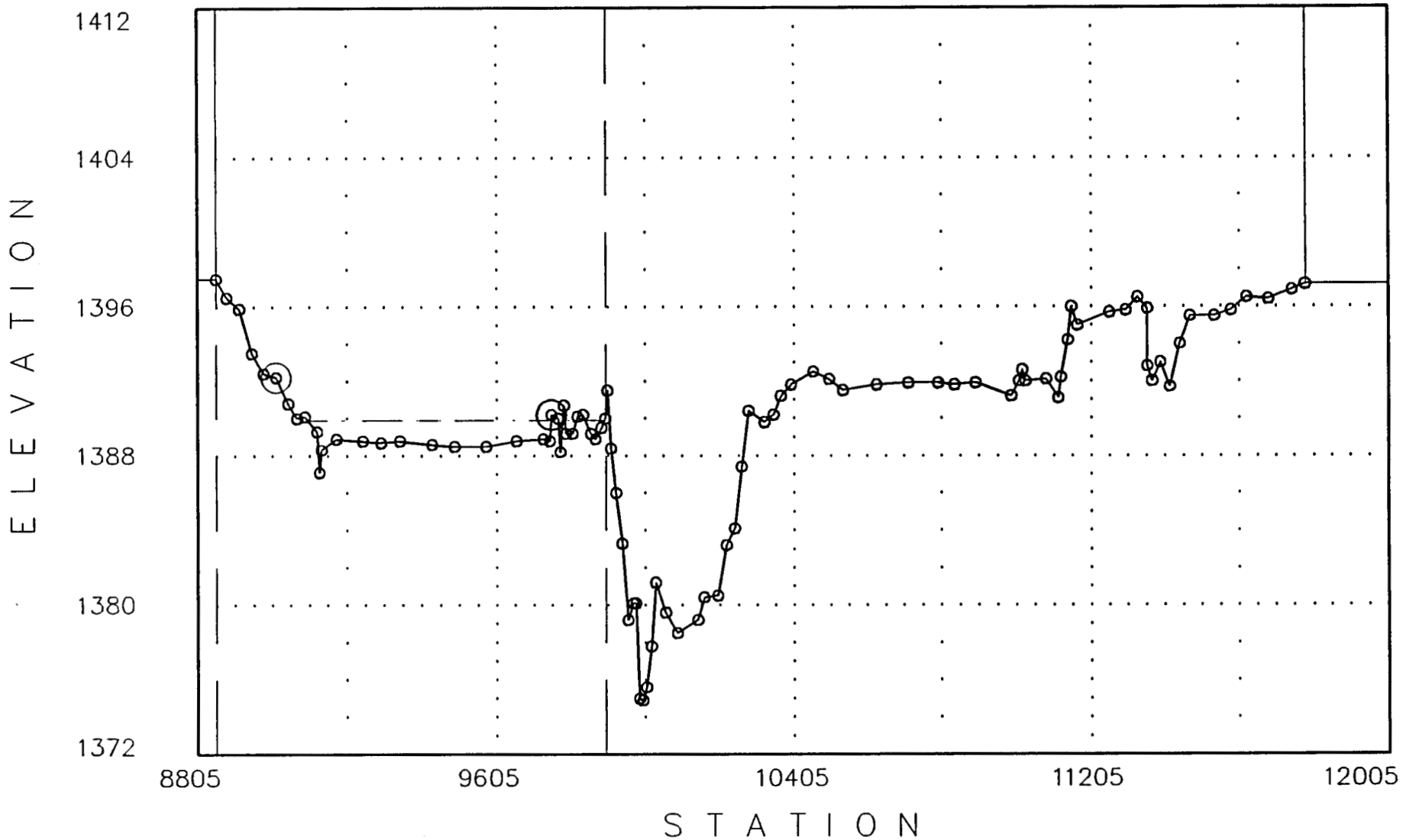



12-06-1990

<<<<<< Cross Section: 8.907: (FN = SKNSPLIT.O) >>>>>>

Q1= 2000 WS1= 1389.91
Q2= 2700 WS2= 1389.91

Manning-n's: n-lob = .05 n-ch = .05 n-rob = .05

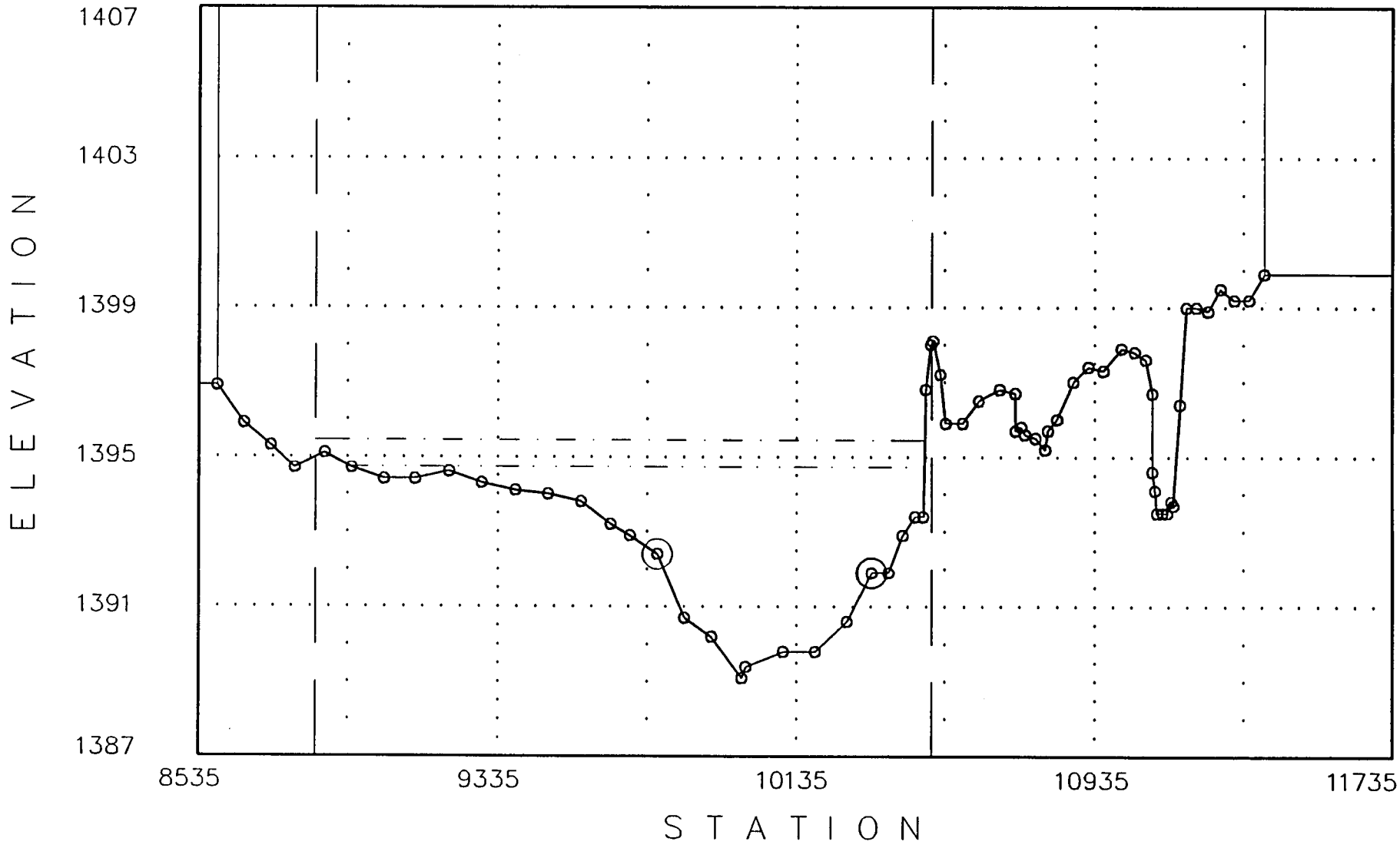



12-06-1990

<<<<<< Cross Section: 9.022: (FN = SKNSPLIT.O) >>>>>>

Q1= 29000 WS1= 1394.73
Q2= 39000 WS2= 1395.44

Manning-n's: n-lob = .05 n-ch = .04 n-rob = .05




12-06-1990

# SECTION V

# EXISTING CONDITION FLOODPLAIN DELINEATION MAPS

(REDUCED COPY)

CVL

| NO | REVISION BY DESCRIPTION | REV BY | CKD BY | DATE |
|---|---|---|---|---|
| | | | | |

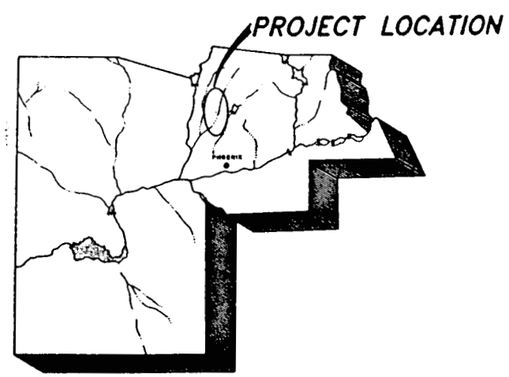
| NO | REVISION BY DESCRIPTION | REV BY | CKD BY | DATE |
|---|---|---|---|---|
| | | | | |

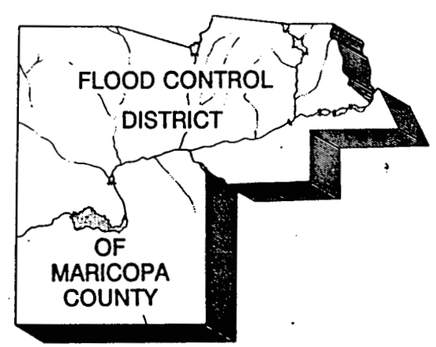
| NO | REVISION BY DESCRIPTION | REV. BY | CKD BY | DATE |
|---|---|---|---|---|
| | | | | |

# FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

## FLOODPLAIN DELINEATION (EXISTING FLOWS)
## ON
## **SKUNK CREEK**
## **FROM ARIZONA CANAL DIVERSION CHANNEL**
## **TO**
## **CENTRAL ARIZONA PROJECT CANAL**

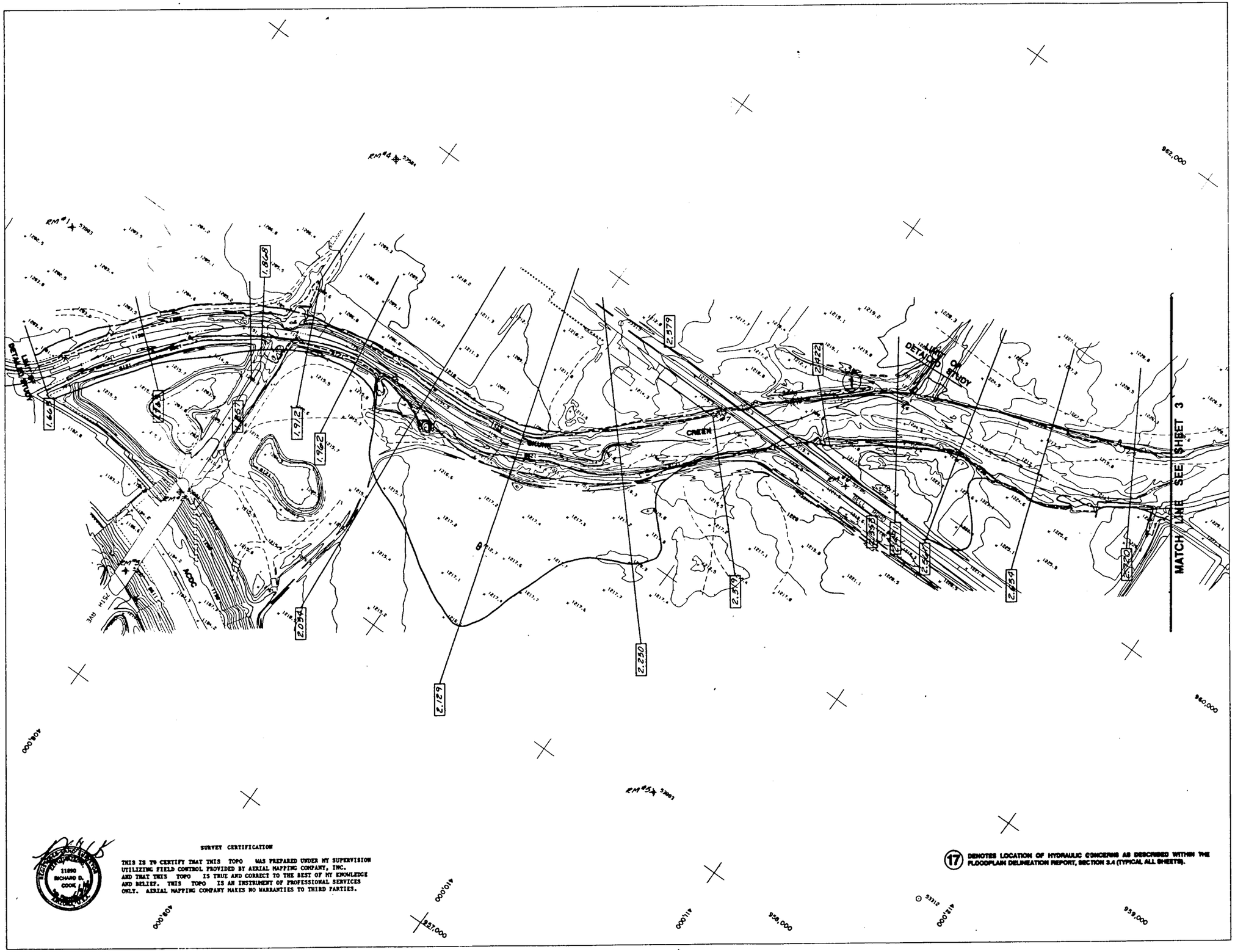
## CONTRACT FCD 89-72



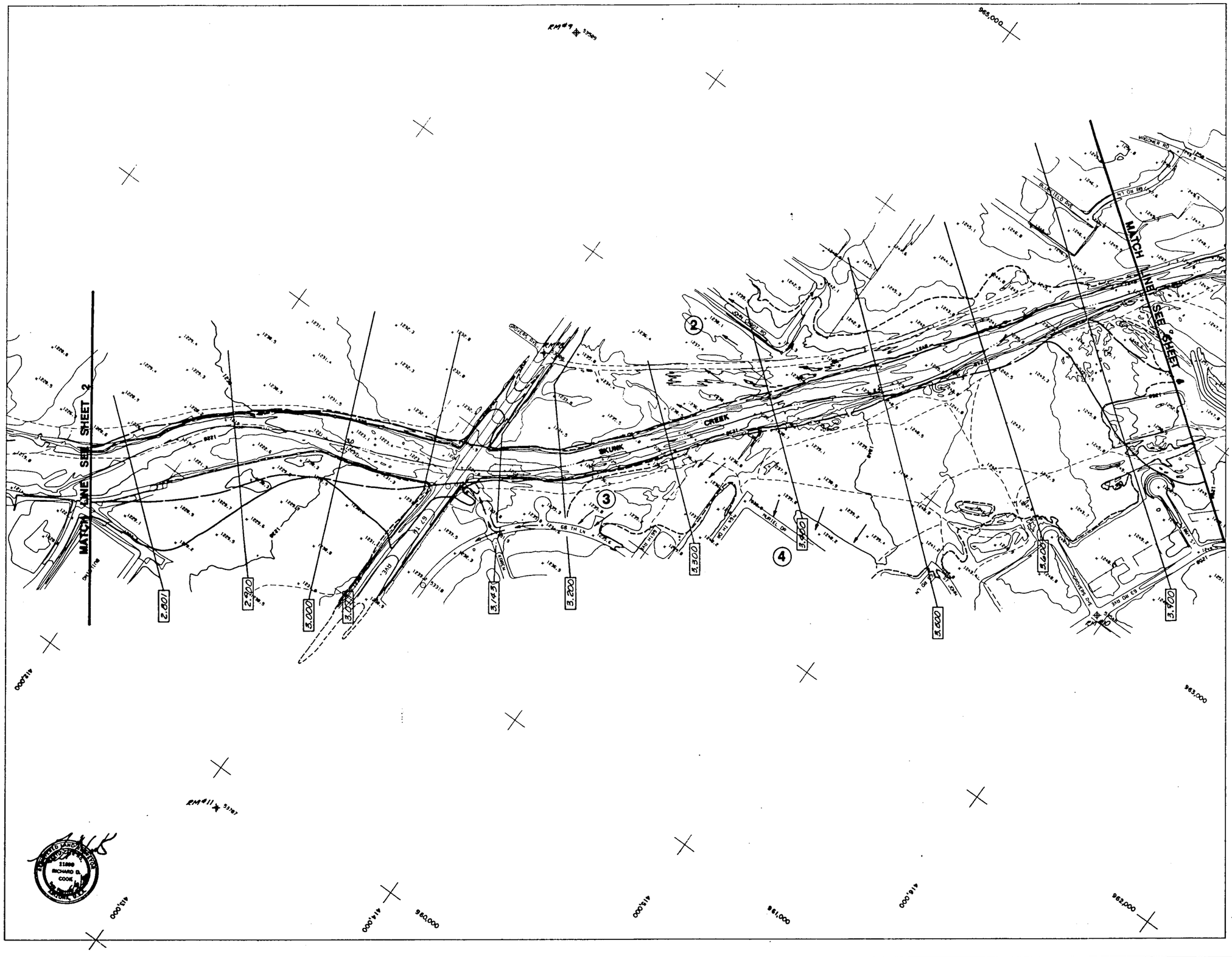




| |
|---|
| FLOOD CONTROL DISTRICT OF MARICOPA COUNTY |
| SKUNK CREEK FLOODPLAIN DELINEATION |
| ACDC TO CAP |
| RECOMMENDED: DATE: / APPROVED BY: DATE: / FLOODPLAIN ADMINISTRATOR — 1 OF 13 |
| COE & VAN LOO CONSULTING ENGINEERS INC. PHOENIX ARIZONA |

FCDMC CONTRACT NO. 89-72 CVL JOB NO. 1090-05-06

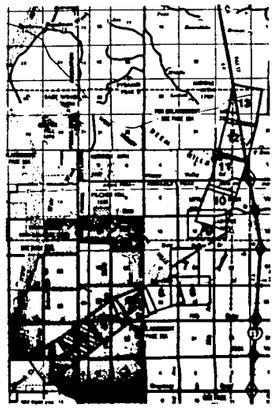



FCDMC CONTRACT NO. 89-72 CVL JOB NO. 1090-05-06



0 200 400

CONTOUR INTERVAL 2 FEET



**KEY MAP**
NTS

**LEGEND**

- 100-YEAR FLOOD LIMITS (FEMA)
- FLOODWAY LIMITS (FEMA)
- 100-YEAR FLOOD LIMITS (CVL RESTUDY)
- 2.0 — STATIONING IN RIVER MILES UPSTREAM FROM NEW RIVER
- 2.174 — CROSS-SECTION NUMBER
- + RM#4 — REFERENCE MARK
- CONTROL LINE

NOTES:

THIS FLOOD INSURANCE STUDY WORK MAP HAS BEEN PREPARED IN ACCORDANCE WITH FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) GUIDELINES

MAP BASED ON 1" = 200' TOPOGRAPHIC MAPPING PREPARED BY AERIAL MAPPING COMPANY, INC. (AMCI) FROM PHOTOGRAPHS TAKEN IN APRIL 1990

ELEVATIONS BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929.

**PHOENIX & GLENDALE, ARIZONA**

MAPPING DATA:

| | |
|---|---|
| COMPILATION SCALE: | 1" = 200' |
| CONTOUR INTERVAL: | 2' |
| FLIGHT ALTITUDE: | 4800' |
| DATUM MSL: | 1929 |
| FLOWN BY: | AMCI |
| COMPILED BY: | AMCI |
| CONTROL SURVEY BY: | AMCI |

FLOOD CONTROL DISTRICT
OF MARICOPA COUNTY

SKUNK CREEK
FLOODPLAIN DELINEATION

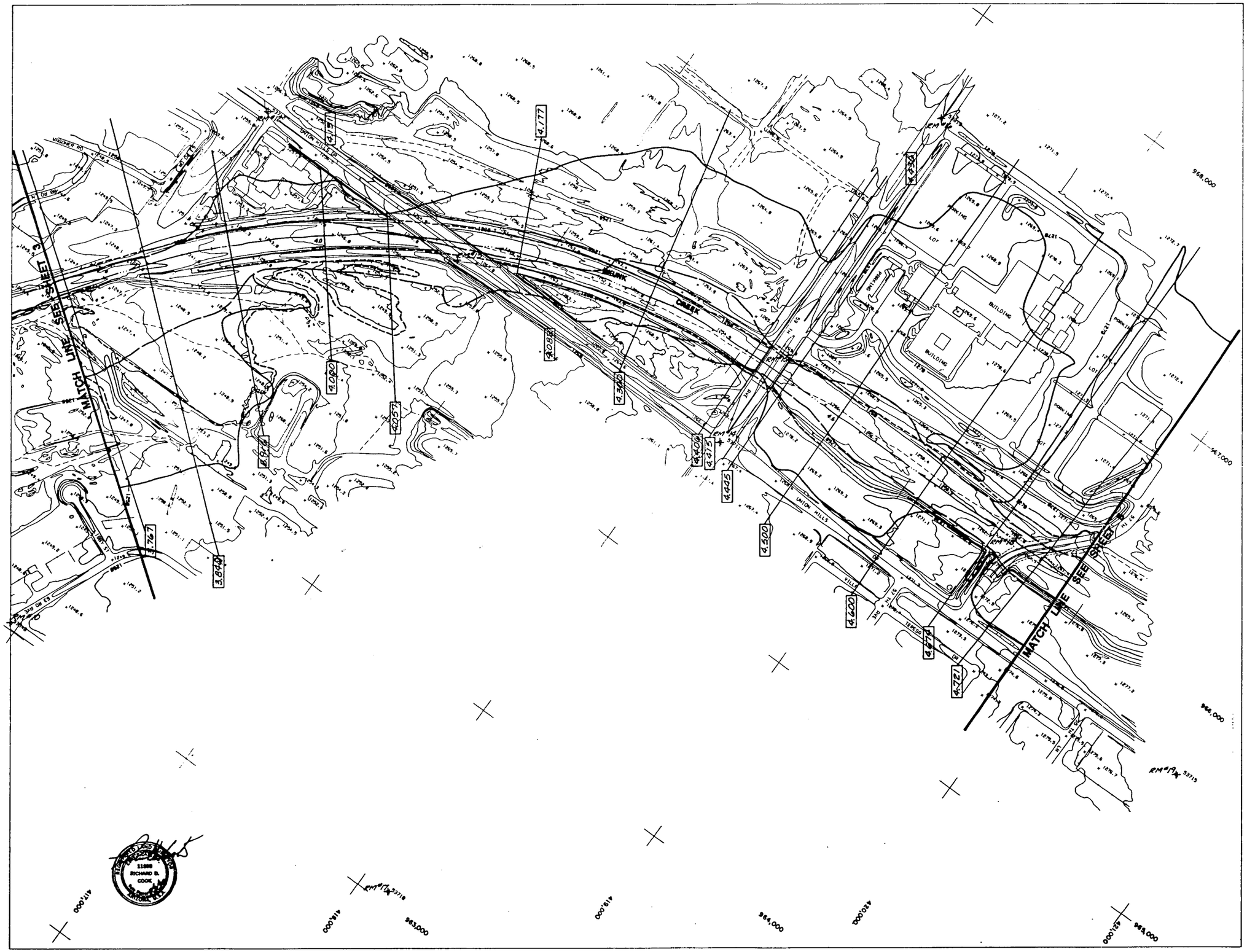
ACDC TO CAP

RECOMMENDED: DATE:
APPROVED BY: DATE:
FLOODPLAIN ADMINISTRATOR

3 OF 13

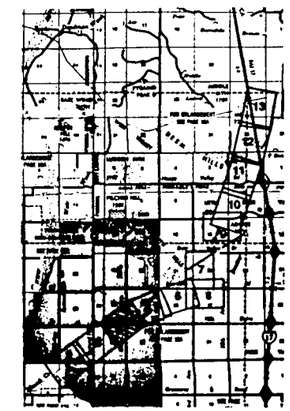
COE & VAN LOO CONSULTING ENGINEERS INC. PHOENIX ARIZONA

FCDMC CONTRACT NO. 89-73 CVL JOB NO. 1990-05-06




0 200 400

CONTOUR INTERVAL 2 FEET



**KEY MAP**
NTS

**LEGEND**

- 100-YEAR FLOOD LIMITS (FEMA)
- FLOODWAY LIMITS (FEMA)
- 100-YEAR FLOOD LIMITS (CVL RESTUDY)
- 2.0 — STATIONING IN RIVER MILES UPSTREAM FROM NEW RIVER
- 2.174 — CROSS-SECTION NUMBER
- + RM#4 — REFERENCE MARK
- CONTROL LINE

**NOTES:**

THIS FLOOD INSURANCE STUDY WORK MAP HAS BEEN PREPARED IN ACCORDANCE WITH FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) GUIDELINES

MAP BASED ON 1" = 200' TOPOGRAPHIC MAPPING PREPARED BY AERIAL MAPPING COMPANY, INC. (AMCI) FROM PHOTOGRAPHS TAKEN IN APRIL 1980

ELEVATIONS BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929.

**PHOENIX & GLENDALE, ARIZONA**

**MAPPING DATA:**

| | |
|---|---|
| COMPILATION SCALE: | 1" = 200' |
| CONTOUR INTERVAL: | 2' |
| FLIGHT ALTITUDE: | 4000' |
| DATUM MSL: | 1929 |
| FLOWN BY: | AMCI |
| COMPILED BY: | AMCI |
| CONTROL SURVEY BY: | AMCI |

FLOOD CONTROL DISTRICT
OF MARICOPA COUNTY

# SKUNK CREEK FLOODPLAIN DELINEATION

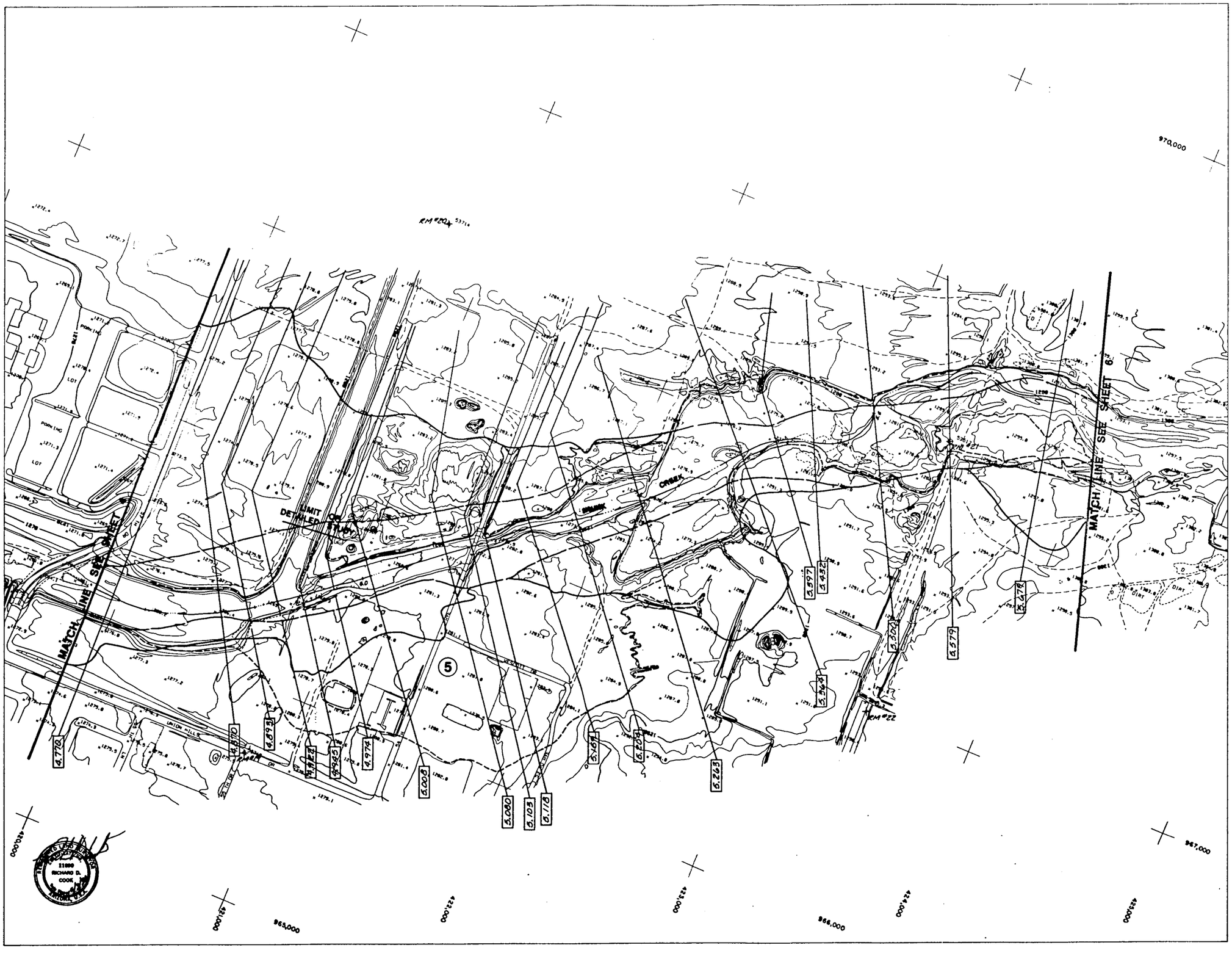
ACDC TO CAP

RECOMMENDED _____ DATE: _____
APPROVED BY: _____ DATE: _____
FLOODPLAIN ADMINISTRATOR

4 OF 13

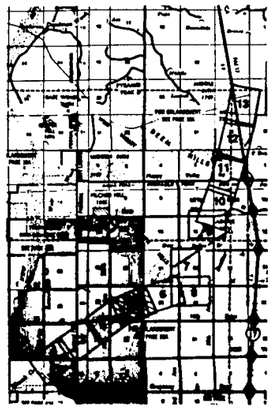
COE & VAN LOO CONSULTING ENGINEERS INC. PHOENIX ARIZONA

FCDMC CONTRACT NO. 88-73 CVL JOB NO. 1020-05-88



0 200 400

CONTOUR INTERVAL 2 FEET



**KEY MAP**
NTS

**LEGEND**

- 100-YEAR FLOOD LIMITS (FEMA)
- FLOODWAY LIMITS (FEMA)
- 100-YEAR FLOOD LIMITS (CVL RESTUDY)
- 2.0 — STATIONING IN RIVER MILES UPSTREAM FROM NEW RIVER
- 2.174 — CROSS-SECTION NUMBER
- + RM#4 — REFERENCE MARK
- CONTROL LINE

NOTES:

THIS FLOOD INSURANCE STUDY WORK MAP HAS BEEN PREPARED IN ACCORDANCE WITH FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) GUIDELINES

MAP BASED ON 1" = 200' TOPOGRAPHIC MAPPING PREPARED BY AERIAL MAPPING COMPANY, INC. (AMCI) FROM PHOTOGRAPHS TAKEN IN APRIL 1990

ELEVATIONS BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929.

**PHOENIX & GLENDALE, ARIZONA**

MAPPING DATA:

| | |
|---|---|
| COMPILATION SCALE: | 1" = 200' |
| CONTOUR INTERVAL: | 2' |
| FLIGHT ALTITUDE: | 4600' |
| DATUM MSL: | 1929 |
| FLOWN BY: | AMCI |
| COMPILED BY: | AMCI |
| CONTROL SURVEY BY: | AMCI |

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

SKUNK CREEK FLOODPLAIN DELINEATION

ACDC TO CAP

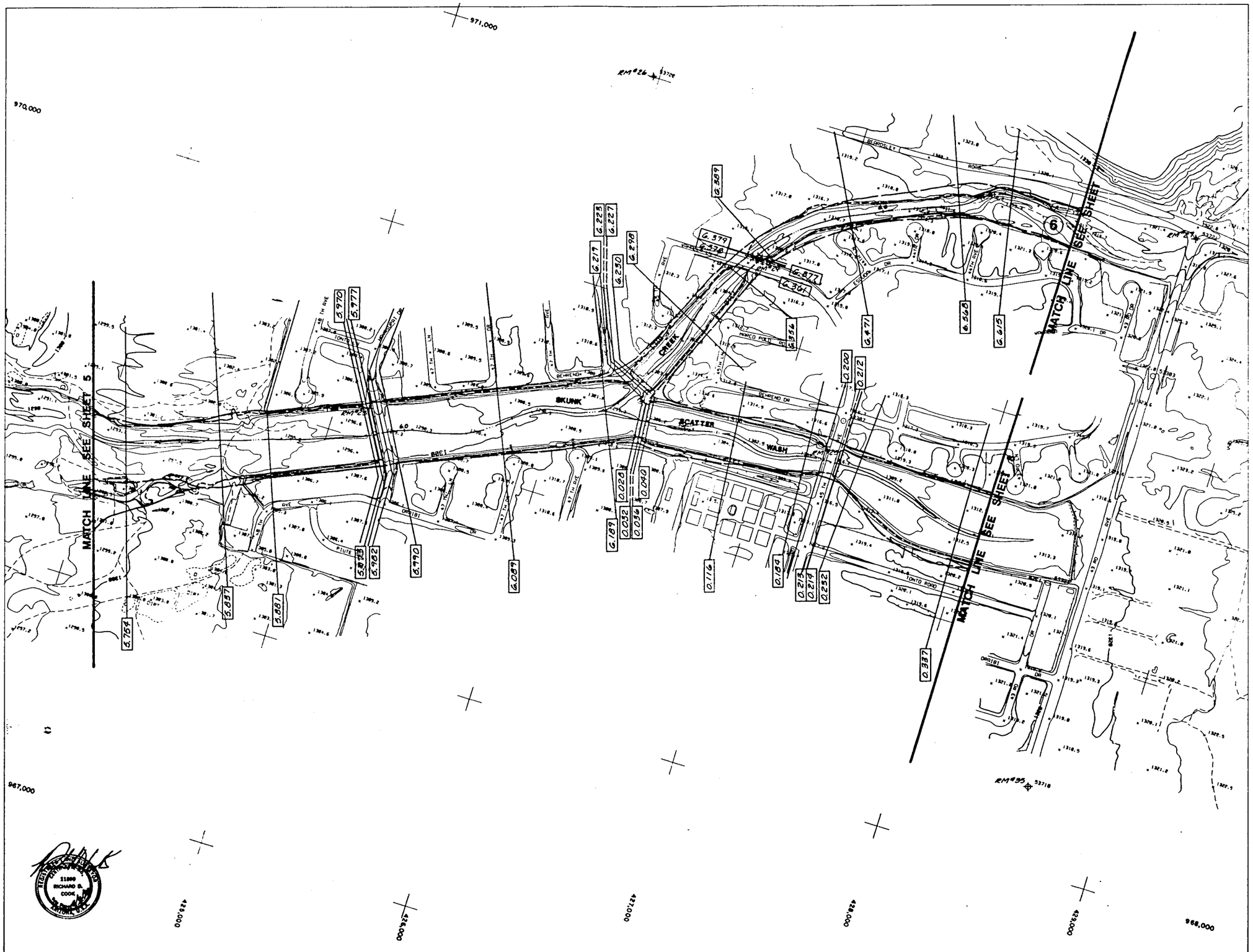
RECOMMENDED: DATE:

APPROVED BY: DATE:

FLOODPLAIN ADMINISTRATOR

5 OF 13

COE & VAN LOO CONSULTING ENGINEERS INC. PHOENIX ARIZONA



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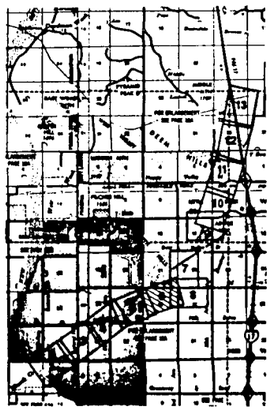
CONTOUR INTERVAL 2 FEET



**KEY MAP**
NTS

**LEGEND**

- 100-YEAR FLOOD LIMITS (FEMA)
- FLOODWAY LIMITS (FEMA)
- 100-YEAR FLOOD LIMITS (CVL RESTUDY)
- 2.0 — STATIONING IN RIVER MILES UPSTREAM FROM NEW RIVER
- 2.179 — CROSS-SECTION NUMBER
- + RM#4 — REFERENCE MARK
- CONTROL LINE

**NOTES:**

THIS FLOOD INSURANCE STUDY WORK MAP HAS BEEN PREPARED IN ACCORDANCE WITH FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) GUIDELINES

MAP BASED ON 1" = 200' TOPOGRAPHIC MAPPING PREPARED BY AERIAL MAPPING COMPANY, INC. (AMCI) FROM PHOTOGRAPHS TAKEN IN APRIL 1980

ELEVATIONS BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929.

**PHOENIX & GLENDALE, ARIZONA**

**MAPPING DATA:**

| | |
|---|---|
| COMPILATION SCALE: | 1" = 200' |
| CONTOUR INTERVAL: | 2' |
| FLIGHT ALTITUDE: | 4800' |
| DATUM MSL: | 1929 |
| FLOWN BY: | AMCI |
| COMPILED BY: | AMCI |
| CONTROL SURVEY BY: | AMCI |

REGISTERED PROFESSIONAL ENGINEER 11800 RICHARD B. COOK ARIZONA U.S.A.

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

SKUNK CREEK FLOODPLAIN DELINEATION

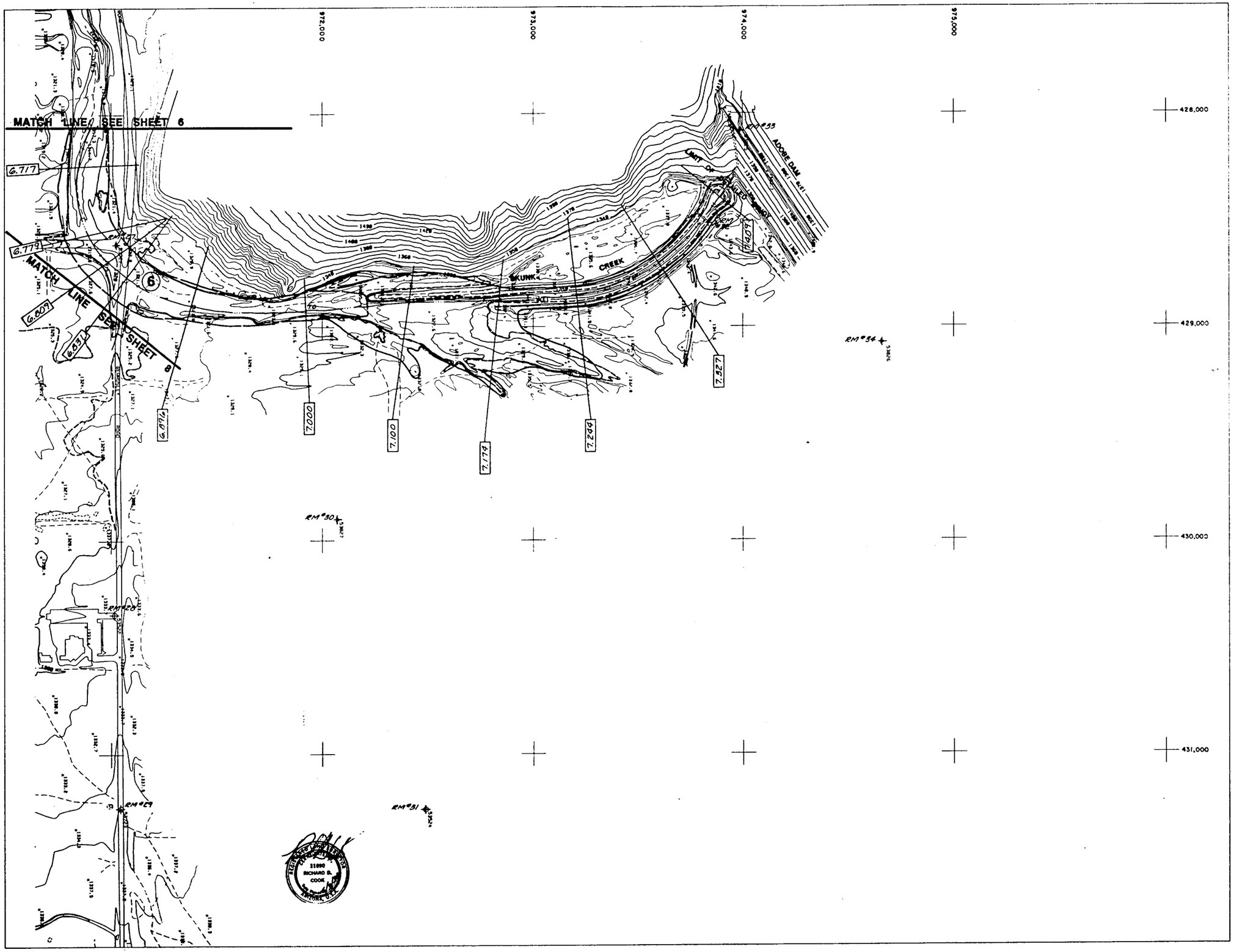
ACDC TO CAP

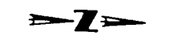
RECOMMENDED: DATE:
APPROVED BY: DATE:
FLOODPLAIN ADMINISTRATOR

6 OF 13

COE & VAN LOO CONSULTING ENGINEERS INC. PHOENIX ARIZONA

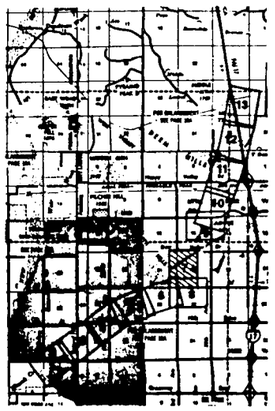
FCDMC CONTRACT NO. 88-72 CVL JOB NO. 1030-05-00



0 200 400

CONTOUR INTERVAL 2 FEET



**KEY MAP**
NTS

## LEGEND

- 100-YEAR FLOOD LIMITS (FEMA)
- FLOODWAY LIMITS (FEMA)
- 100-YEAR FLOOD LIMITS (CVL RESTUDY)
- 2.0 — STATIONING IN RIVER MILES UPSTREAM FROM NEW RIVER
- 2.174 — CROSS-SECTION NUMBER
- + RM#4 — REFERENCE MARK
- CONTROL LINE

**NOTES:**

THIS FLOOD INSURANCE STUDY WORK MAP HAS BEEN PREPARED IN ACCORDANCE WITH FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) GUIDELINES

MAP BASED ON 1" = 200' TOPOGRAPHIC MAPPING PREPARED BY AERIAL MAPPING COMPANY, INC. (AMCI) FROM PHOTOGRAPHS TAKEN IN APRIL 1980

ELEVATIONS BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929.

**PHOENIX & GLENDALE, ARIZONA**

MAPPING DATA:

| | |
|---|---|
| COMPILATION SCALE: | 1" = 200' |
| CONTOUR INTERVAL: | 2' |
| FLIGHT ALTITUDE: | 4600' |
| DATUM MSL: | 1929 |
| FLOWN BY: | AMCI |
| COMPILED BY: | AMCI |
| CONTROL SURVEY BY: | AMCI |

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

SKUNK CREEK FLOODPLAIN DELINEATION

ACDC TO CAP

RECOMMENDED: DATE:

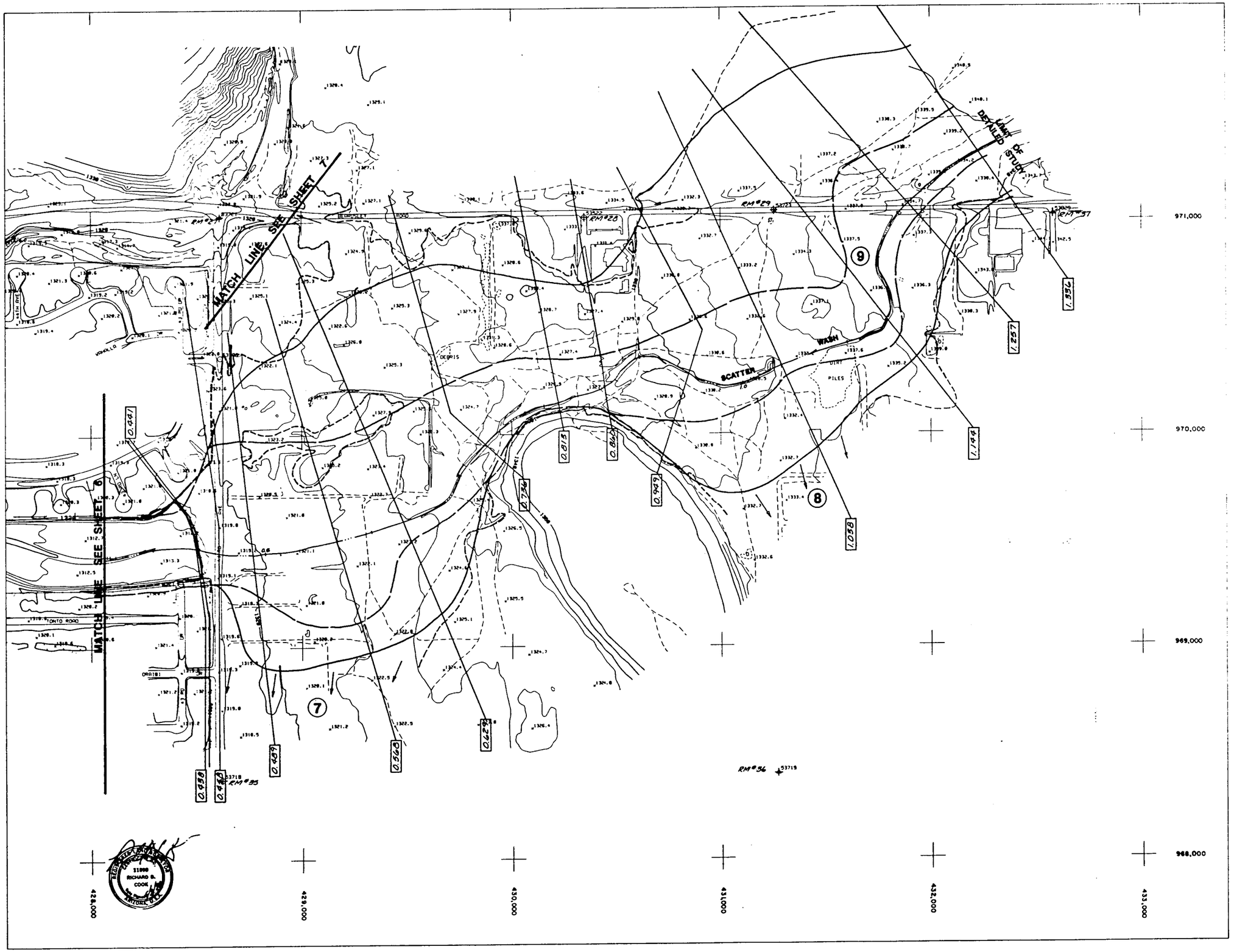
APPROVED BY: DATE:

FLOODPLAIN ADMINISTRATOR

7 OF 13

COE & VAN LOO CONSULTING ENGINEERS INC. PHOENIX ARIZONA

FCDMC CONTRACT NO. 88-72 CVL JOB NO. 1090-05-06

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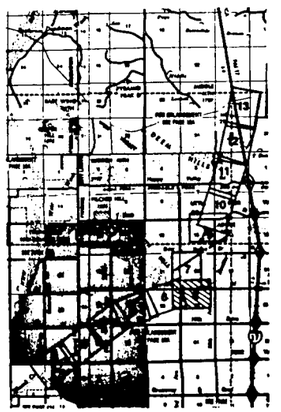
0 200 400

CONTOUR INTERVAL 2 FEET



**KEY MAP**
NTS

**LEGEND**

- 100-YEAR FLOOD LIMITS (FEMA)
- FLOODWAY LIMITS (FEMA)
- 100-YEAR FLOOD LIMITS (CVL RESTUDY)
- 2.0 — STATIONING IN RIVER MILES UPSTREAM FROM NEW RIVER
- 2.174 — CROSS-SECTION NUMBER
- + RM#4 — REFERENCE MARK
- CONTROL LINE

NOTES:

THIS FLOOD INSURANCE STUDY WORK MAP HAS BEEN PREPARED IN ACCORDANCE WITH FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) GUIDELINES

MAP BASED ON 1" = 200' TOPOGRAPHIC MAPPING PREPARED BY AERIAL MAPPING COMPANY, INC. (AMCI) FROM PHOTOGRAPHS TAKEN IN APRIL 1980

ELEVATIONS BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929.

**PHOENIX & GLENDALE, ARIZONA**

MAPPING DATA:

| | |
|---|---|
| COMPILATION SCALE: | 1" = 200' |
| CONTOUR INTERVAL: | 2' |
| FLIGHT ALTITUDE: | 4000' |
| DATUM MSL: | 1929 |
| FLOWN BY: | AMCI |
| COMPILED BY: | AMCI |
| CONTROL SURVEY BY: | AMCI |

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

SKUNK CREEK FLOODPLAIN DELINEATION

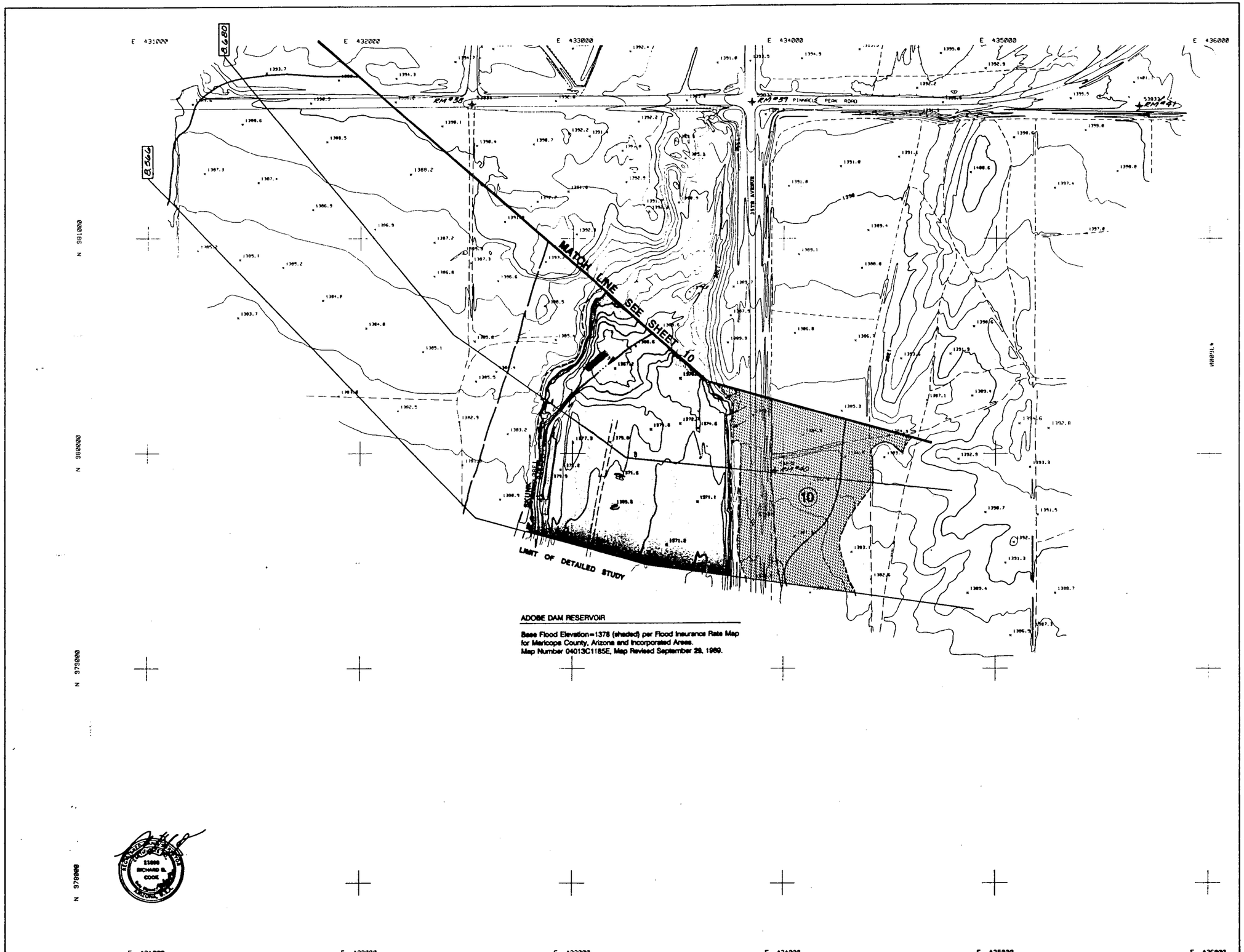
ACDC TO CAP

RECOMMENDED: DATE:
APPROVED BY: DATE:
FLOODPLAIN ADMINISTRATOR

8 OF 13

COE & VAN LOO CONSULTING ENGINEERS INC. PHOENIX ARIZONA

FCDMC CONTRACT NO. 89-72 CVL JOB NO. 1030-05-08

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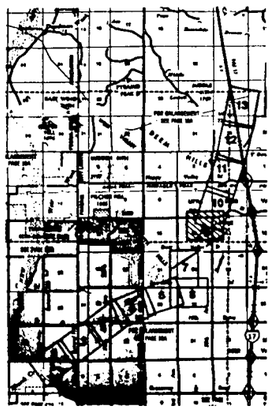
CONTOUR INTERVAL 2 FEET



**KEY MAP**
NTS

**LEGEND**

- 100-YEAR FLOOD LIMITS (FEMA)
- FLOODWAY LIMITS (FEMA)
- 100-YEAR FLOOD LIMITS (CVL RESTUDY)
- 5.0 STATIONING IN RIVER MILES UPSTREAM FROM NEW RIVER
- 2.174 CROSS-SECTION NUMBER
- + RM#4 REFERENCE MARK
- CONTROL LINE

**NOTES:**

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MAP BASED ON 1" = 200' TOPOGRAPHIC MAPPING PREPARED BY AERIAL MAPPING COMPANY, INC. (AMCI) FROM PHOTOGRAPHS TAKEN IN APRIL 1990

ELEVATIONS BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929.

**PHOENIX & GLENDALE, ARIZONA**

**MAPPING DATA:**

| | |
|---|---|
| COMPILATION SCALE: | 1" = 200' |
| CONTOUR INTERVAL: | 2' |
| FLIGHT ALTITUDE: | 4600' |
| DATUM MSL: | 1929 |
| FLOWN BY: | AMCI |
| COMPILED BY: | AMCI |
| CONTROL SURVEY BY: | AMCI |

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

SKUNK CREEK FLOODPLAIN DELINEATION

ACDC TO CAP

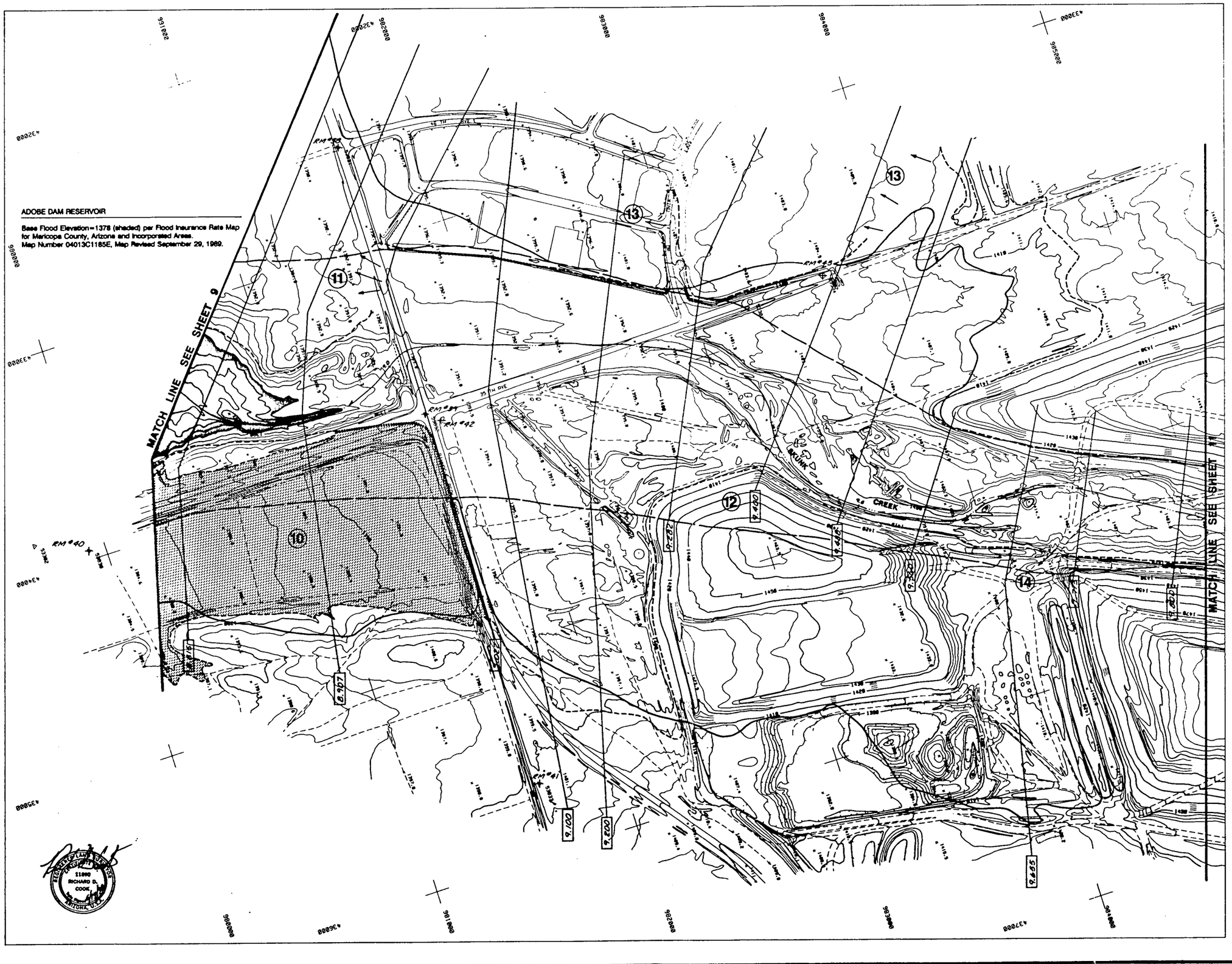
RECOMMENDED APPROVED BY: DATE:

FLOODPLAIN ADMINISTRATOR DATE:

9 OF 13

COE & VAN LOO CONSULTING ENGINEERS INC. PHOENIX ARIZONA

FCDMC CONTRACT NO. 89-72 CVL JOB NO. 1090-05-08

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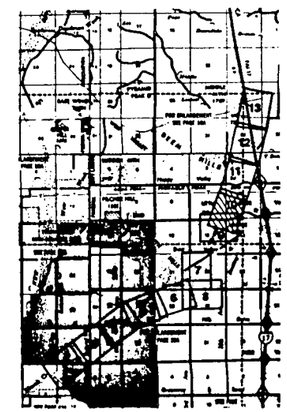
CONTOUR INTERVAL 2 FEET



KEY MAP
NTS

## LEGEND

- 100-YEAR FLOOD LIMITS (FEMA)
- FLOODWAY LIMITS (FEMA)
- 100-YEAR FLOOD LIMITS (CVL RESTUDY)
- 8.0 — STATIONING IN RIVER MILES UPSTREAM FROM NEW RIVER
- 2.174 — CROSS-SECTION NUMBER
- + RM#4 — REFERENCE MARK
- CONTROL LINE

NOTES:

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MAP BASED ON 1" = 200' TOPOGRAPHIC MAPPING PREPARED BY AERIAL MAPPING COMPANY, INC. (AMCI) FROM PHOTOGRAPHS TAKEN IN APRIL 1990

ELEVATIONS BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929.

**PHOENIX & GLENDALE, ARIZONA**

MAPPING DATA:

| | |
|---|---|
| COMPILATION SCALE: | 1" = 200' |
| CONTOUR INTERVAL: | 2' |
| FLIGHT ALTITUDE: | 4800' |
| DATUM MBL: | 1989 |
| FLOWN BY: | AMCI |
| COMPILED BY: | AMCI |
| CONTROL SURVEY BY: | AMCI |

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

SKUNK CREEK FLOODPLAIN DELINEATION

ACDC TO CAP

RECOMMENDED: DATE:

APPROVED BY: DATE:

FLOODPLAIN ADMINISTRATOR

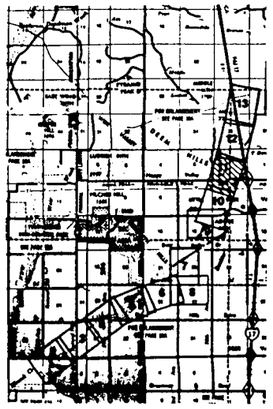
10 OF 13

COE & VAN LOO CONSULTING ENGINEERS INC. PHOENIX ARIZONA

FCDMC CONTRACT NO. 89-72 CVL JOB NO. 1090-05-08

0 200 400

CONTOUR INTERVAL 2 FEET



**KEY MAP**
NTS

**LEGEND**

- 100-YEAR FLOOD LIMITS (FEMA)
- FLOODWAY LIMITS (FEMA)
- 100-YEAR FLOOD LIMITS (CVL RESTUDY)
- 2.0 — STATIONING IN RIVER MILES UPSTREAM FROM NEW RIVER
- 2.174 — CROSS-SECTION NUMBER
- + RM#4 — REFERENCE MARK
- CONTROL LINE

NOTES:

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ELEVATIONS BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929.

**PHOENIX & GLENDALE, ARIZONA**

MAPPING DATA:

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|---|---|
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| CONTOUR INTERVAL: | 2' |
| FLIGHT ALTITUDE: | 4500' |
| DATUM MSL: | 1929 |
| FLOWN BY: | AMCI |
| COMPILED BY: | AMCI |
| CONTROL SURVEY BY: | AMCI |

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

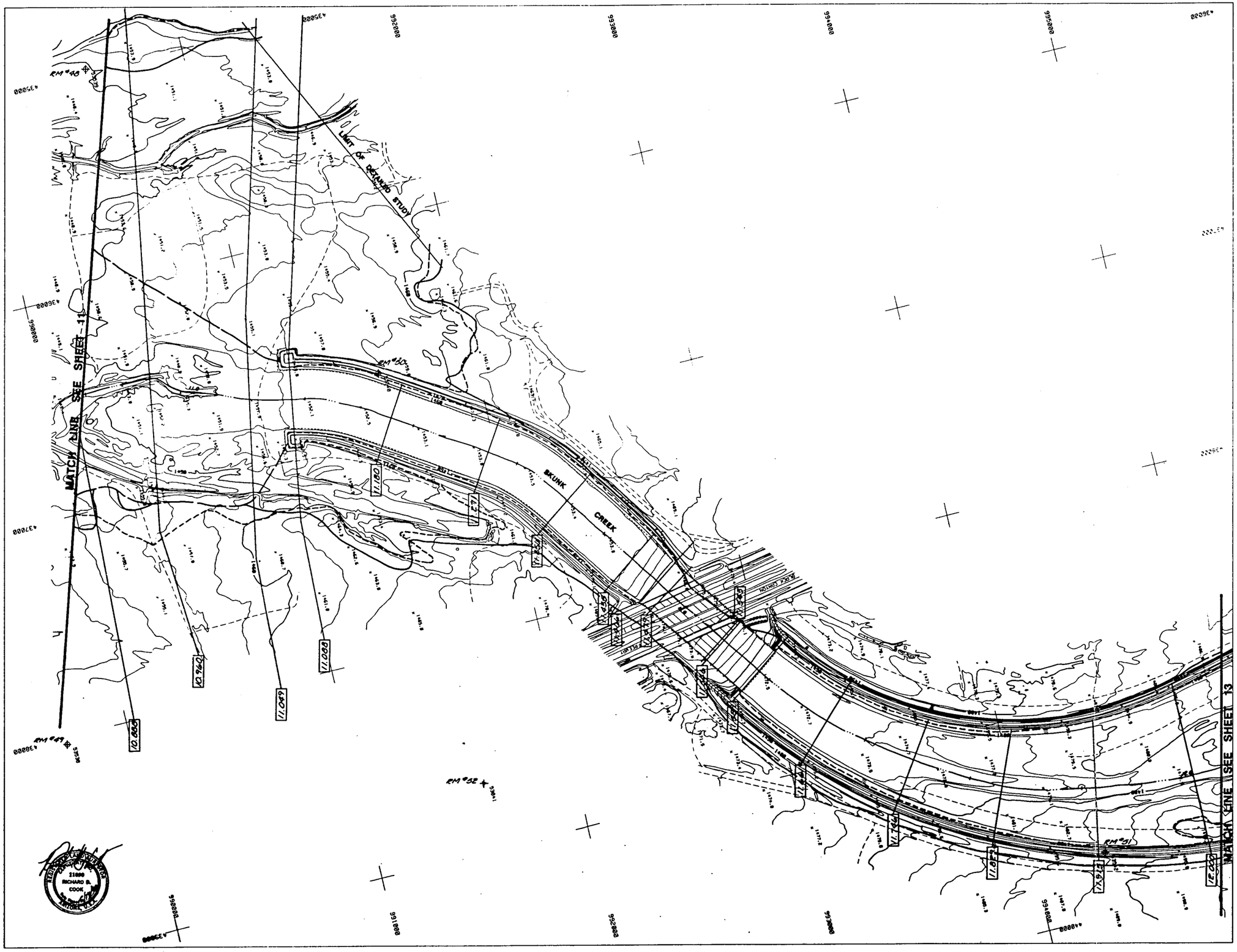
SKUNK CREEK FLOODPLAIN DELINEATION

ACDC TO CAP

RECOMMENDED: DATE:
APPROVED BY: DATE:
FLOODPLAIN ADMINISTRATOR

11 OF 13

COE & VAN LOO CONSULTING ENGINEERS INC. PHOENIX ARIZONA

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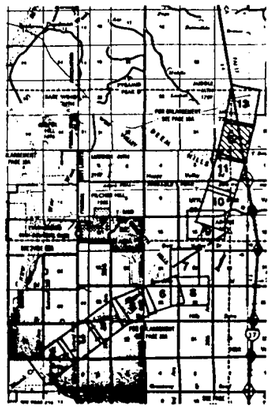
CONTOUR INTERVAL 2 FEET



KEY MAP
NTS

## LEGEND

- 100-YEAR FLOOD LIMITS (FEMA)
- FLOODWAY LIMITS (FEMA)
- 100-YEAR FLOOD LIMITS (CVL RESTUDY)
- 2.0 — STATIONING IN RIVER MILES UPSTREAM FROM NEW RIVER
- 2.174 — CROSS-SECTION NUMBER
- + RM#4 — REFERENCE MARK
- CONTROL LINE

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ELEVATIONS BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929.

**PHOENIX & GLENDALE, ARIZONA**

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|---|---|
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| CONTOUR INTERVAL: | 2' |
| FLIGHT ALTITUDE: | 4500' |
| DATUM MSL: | 1929 |
| FLOWN BY: | AMCI |
| COMPILED BY: | AMCI |
| CONTROL SURVEY BY: | AMCI |

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

# SKUNK CREEK FLOODPLAIN DELINEATION

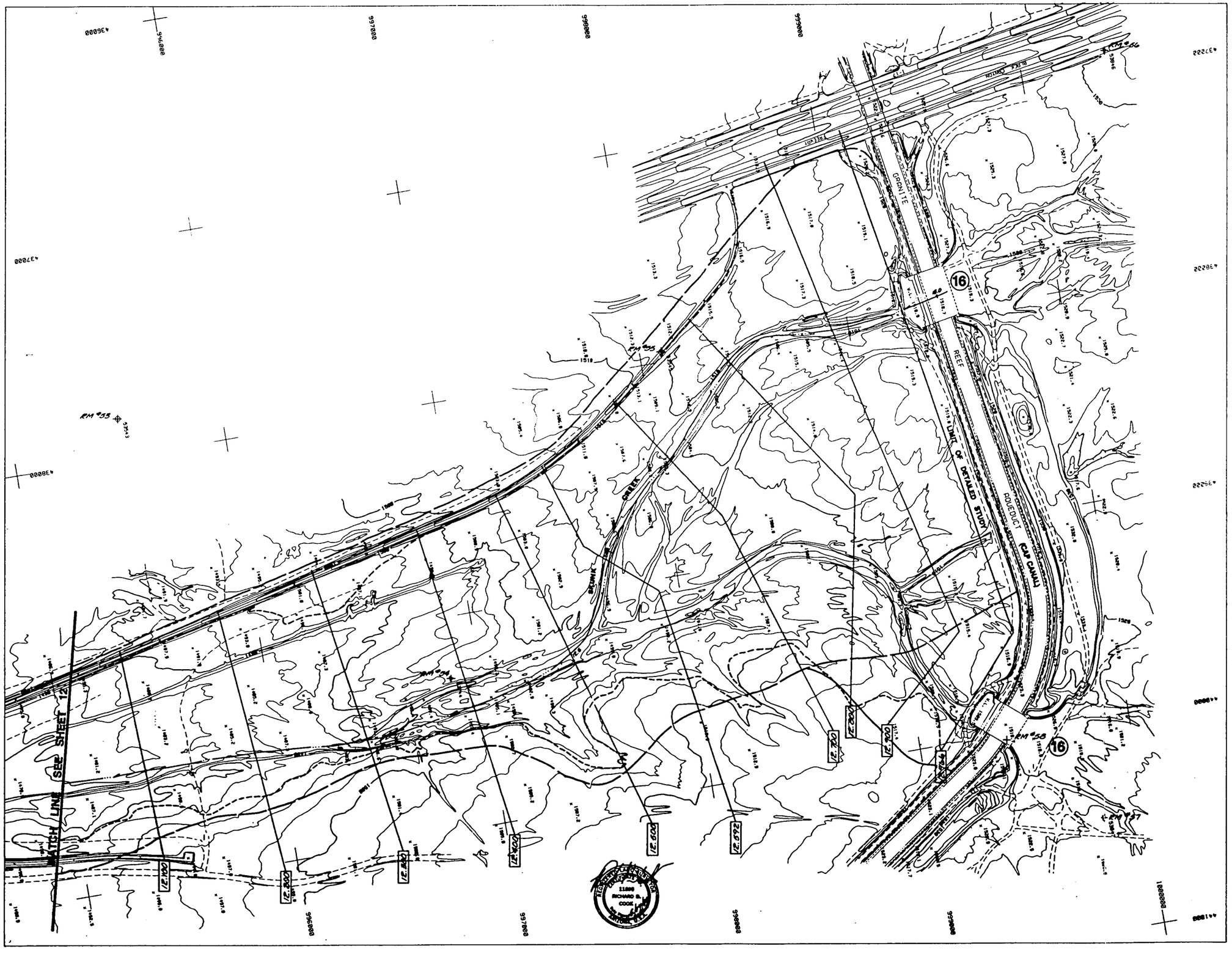
ACDC TO CAP

RECOMMENDED: DATE:
APPROVED BY: DATE:
FLOODPLAIN ADMINISTRATOR

12 OF 13

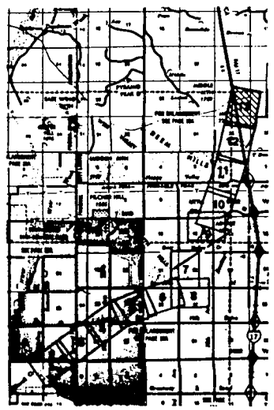
COE & VAN LOO CONSULTING ENGINEERS INC. PHOENIX ARIZONA

FCDMC CONTRACT NO 89-72 CVL JOB NO 1090-05-08




0 200 400

CONTOUR INTERVAL 2 FEET



**KEY MAP**
NTS

**LEGEND**

- 100-YEAR FLOOD LIMITS (FEMA)
- FLOODWAY LIMITS (FEMA)
- 100-YEAR FLOOD LIMITS (CVL RESTUDY)
- 2.0 STATIONING IN RIVER MILES UPSTREAM FROM NEW RIVER
- 2.174 CROSS-SECTION NUMBER
- + RM#4 REFERENCE MARK
- CONTROL LINE

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**PHOENIX & GLENDALE, ARIZONA**

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| FLIGHT ALTITUDE: | 4600' |
| DATUM MSL: | 1929 |
| FLOWN BY: | AMCI |
| COMPILED BY: | AMCI |
| CONTROL SURVEY BY: | AMCI |

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

SKUNK CREEK FLOODPLAIN DELINEATION

ACDC TO CAP

RECOMMENDED: DATE:

APPROVED BY: DATE:

FLOODPLAIN ADMINISTRATOR

13 OF 13

COE & VAN LOO CONSULTING ENGINEERS INC. PHOENIX ARIZONA

FCDMC CONTRACT NO 80-79 CVL JOB NO 1080-05-06

# SECTION VI

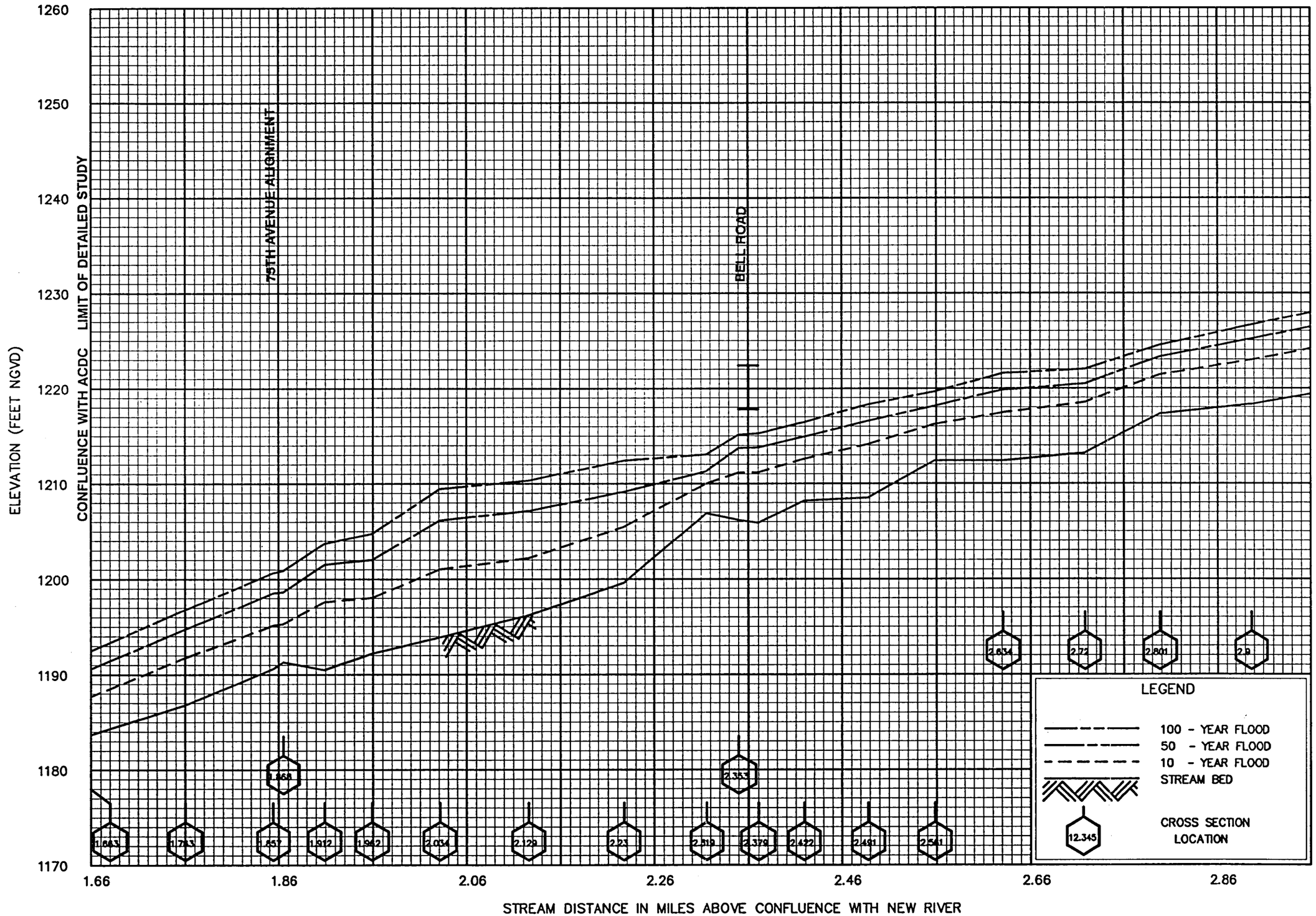
# EXISTING CONDITION FLOOD PROFILES

Existing Condition Flood Profiles

Skunk Creek
ACDC to CAP
Including Scatter Wash

10, 50, and 100-year Floods, CVL Restudy

CVL




FLOOD PROFILES

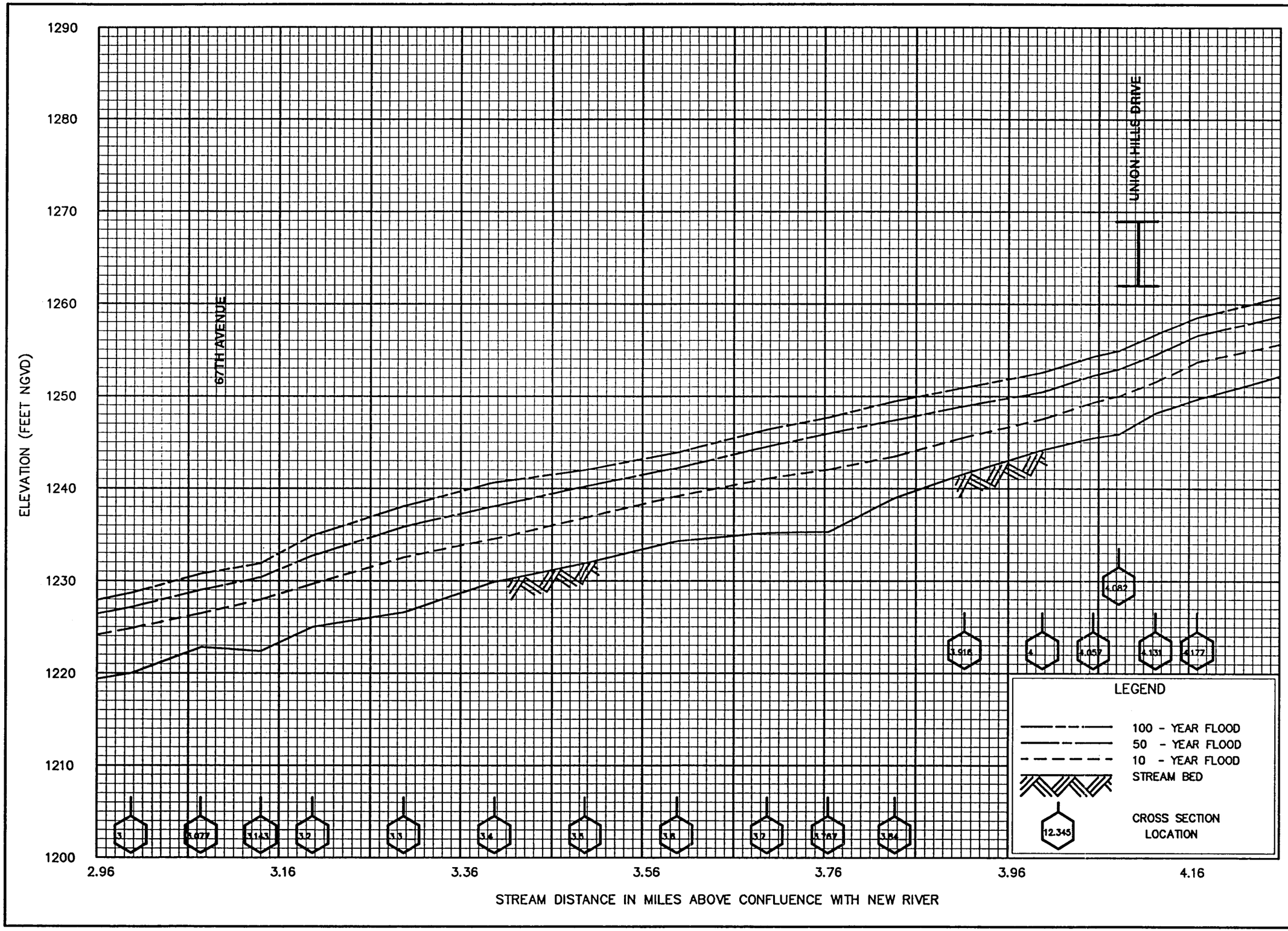
SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990

EXISTING FLOWS

P-1



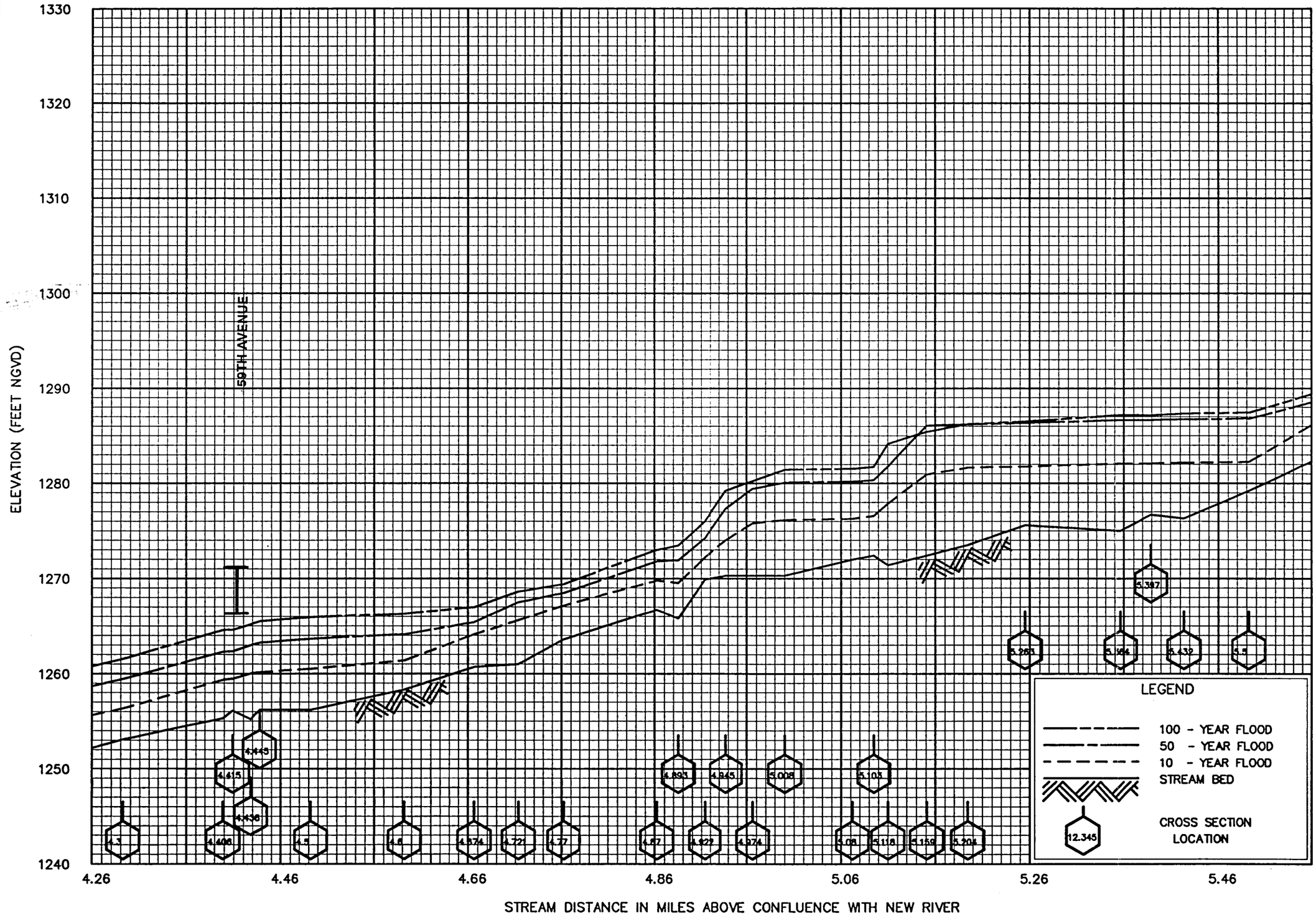

FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990

EXISTING FLOWS




FLOOD PROFILES

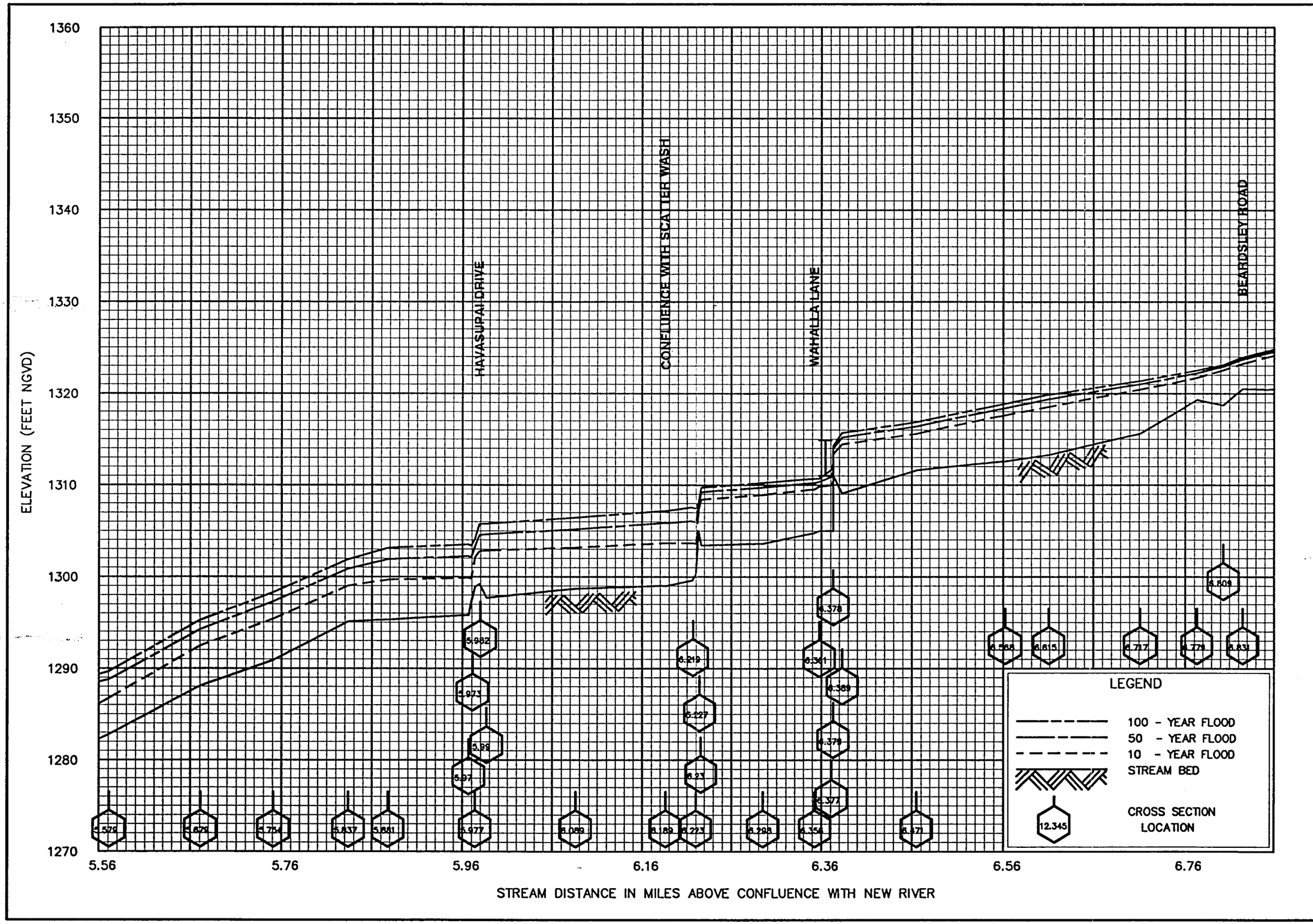
SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990

EXISTING FLOWS

P-3



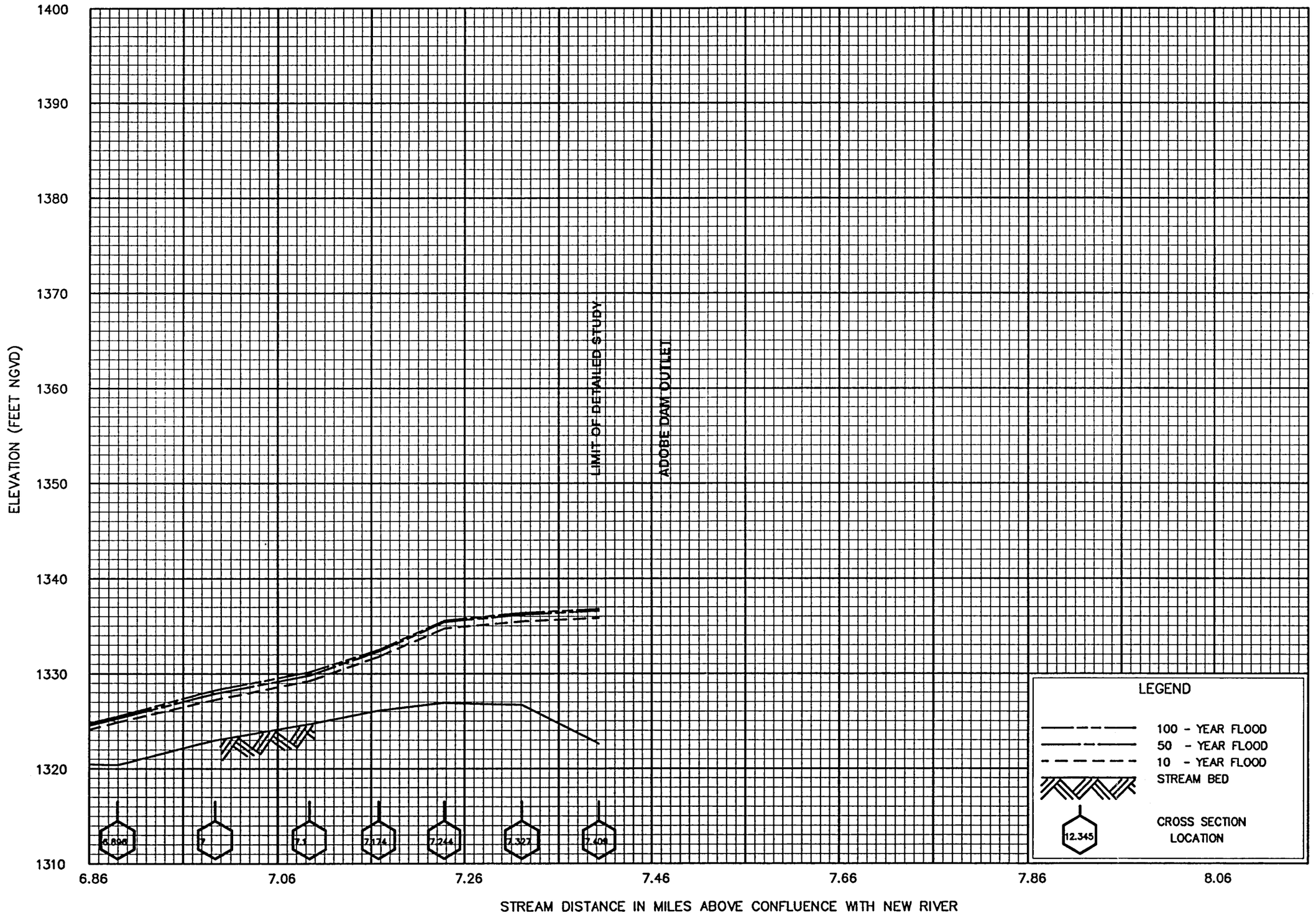

FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990

EXISTING FLOWS



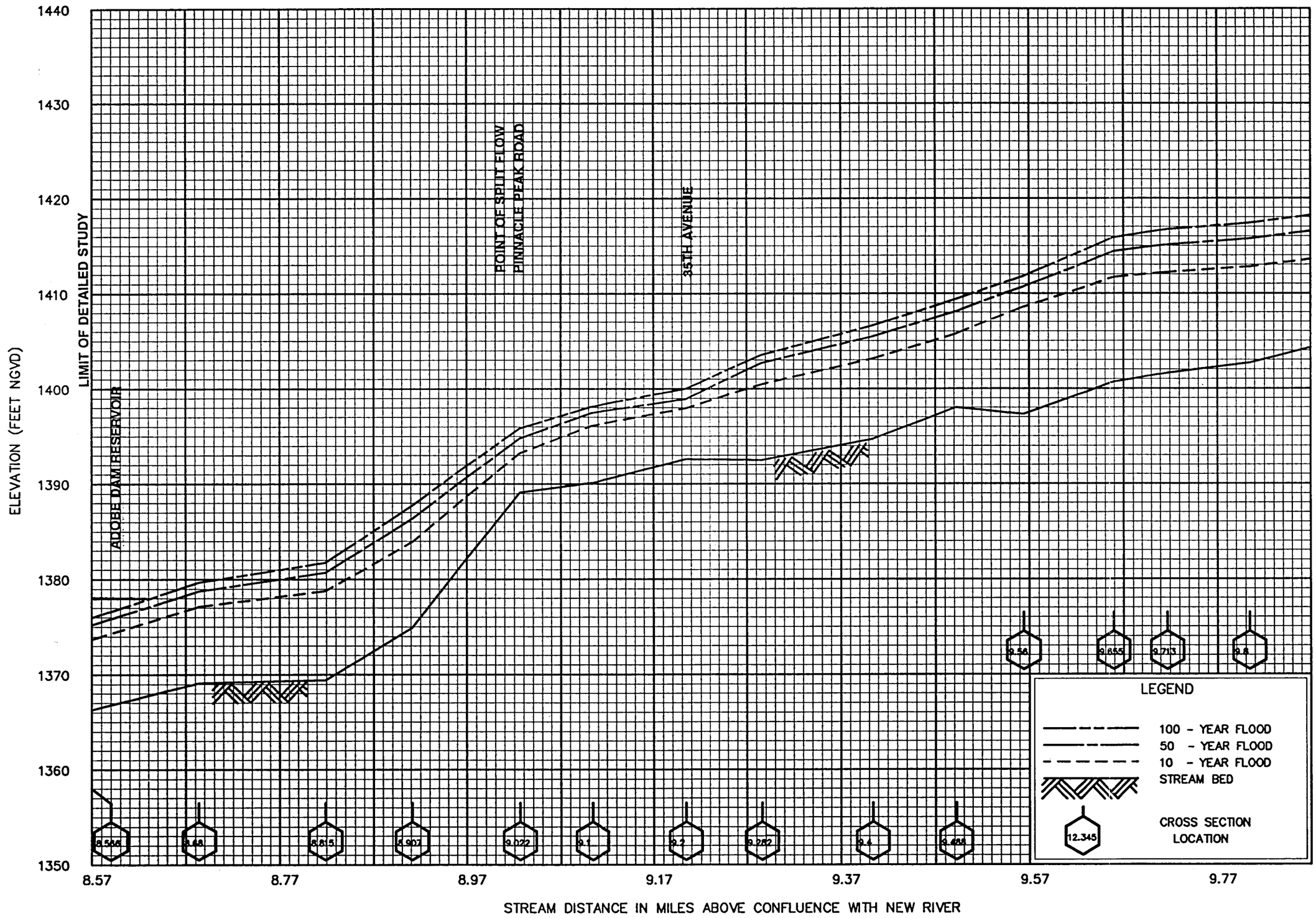

FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990
EXISTING FLOWS

P-5




FLOOD PROFILES

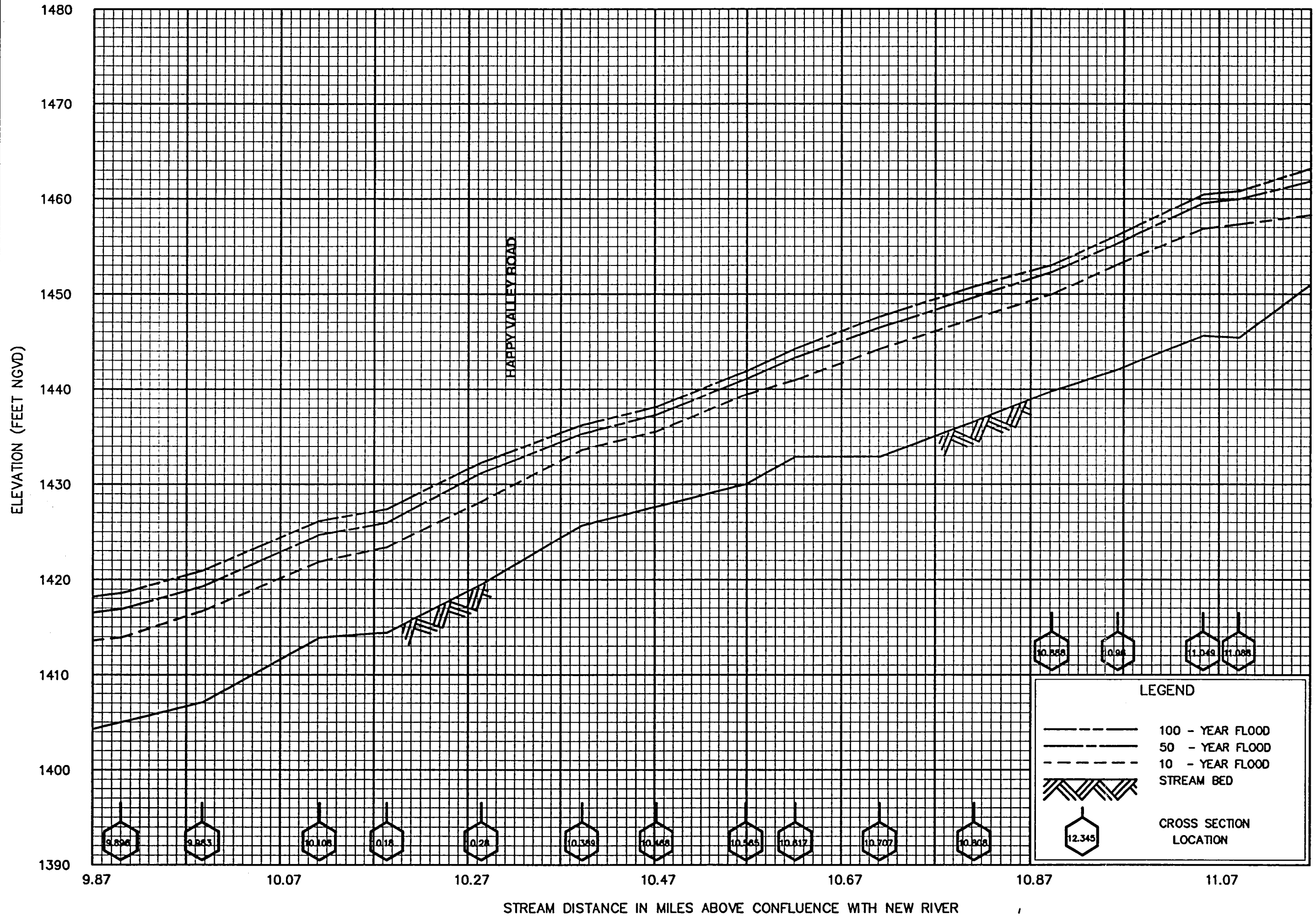
SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990

EXISTING FLOWS

P-6

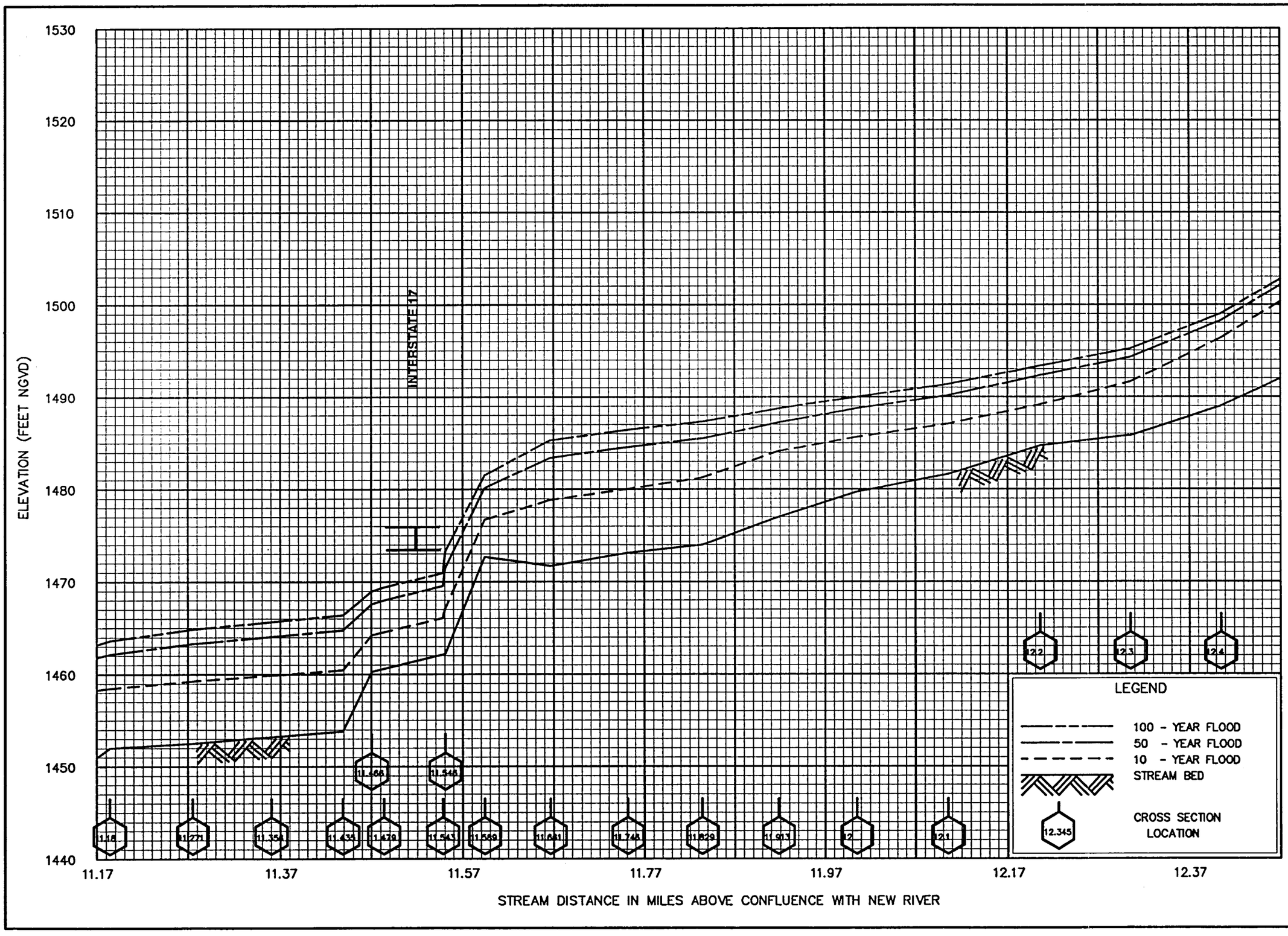



FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990
EXISTING FLOWS

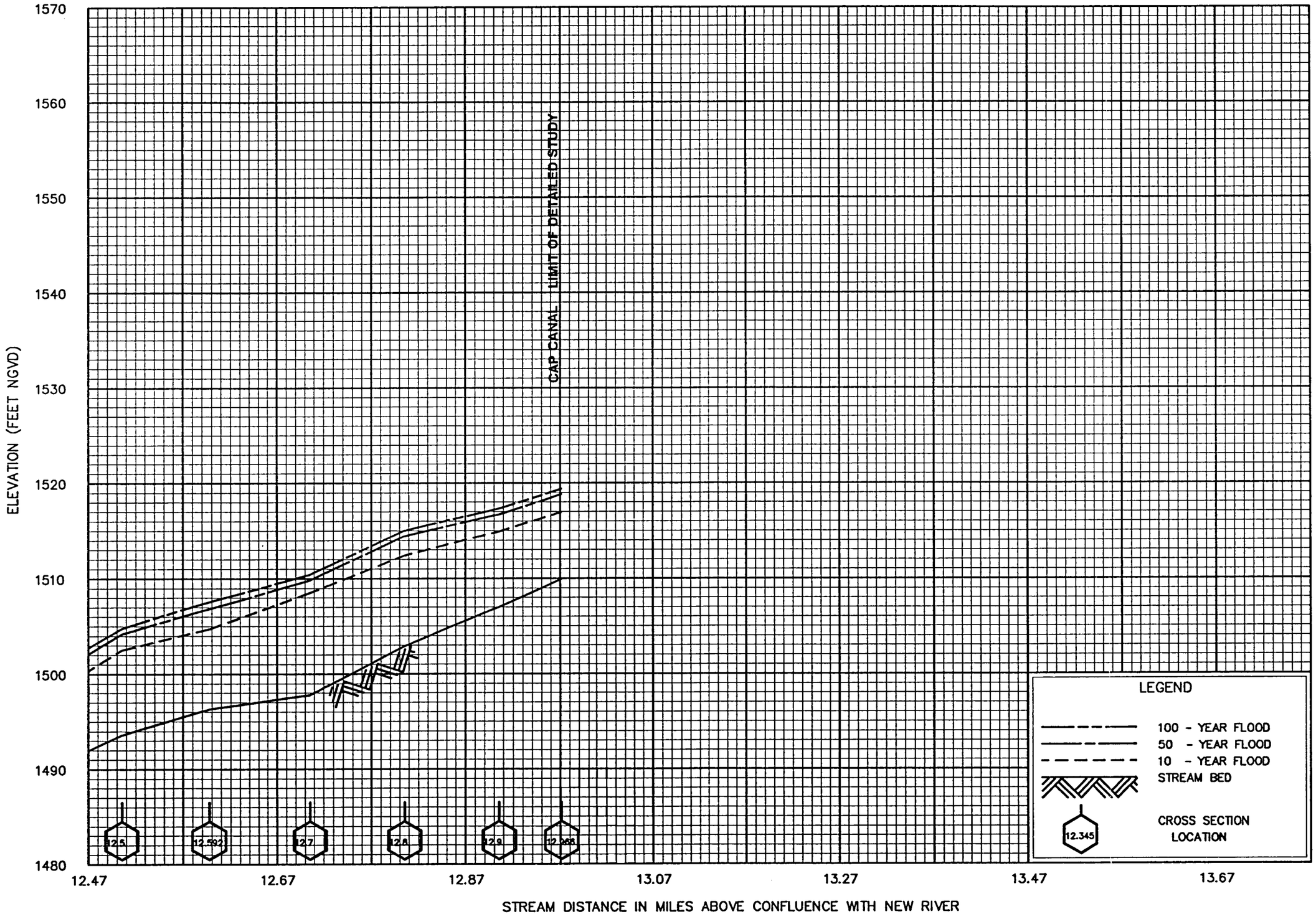



FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990
EXISTING FLOWS



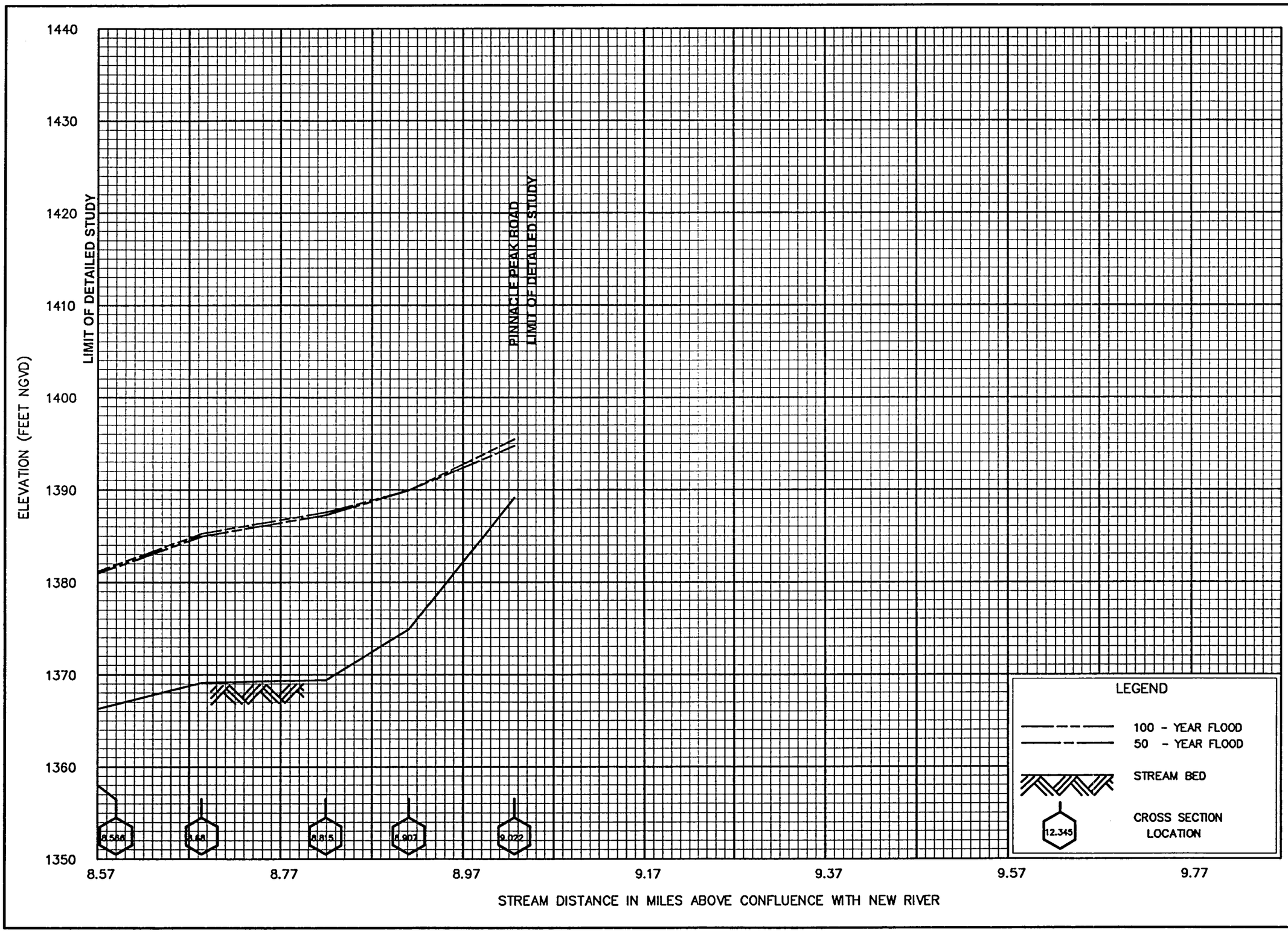

FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990

EXISTING FLOWS




FLOOD PROFILES

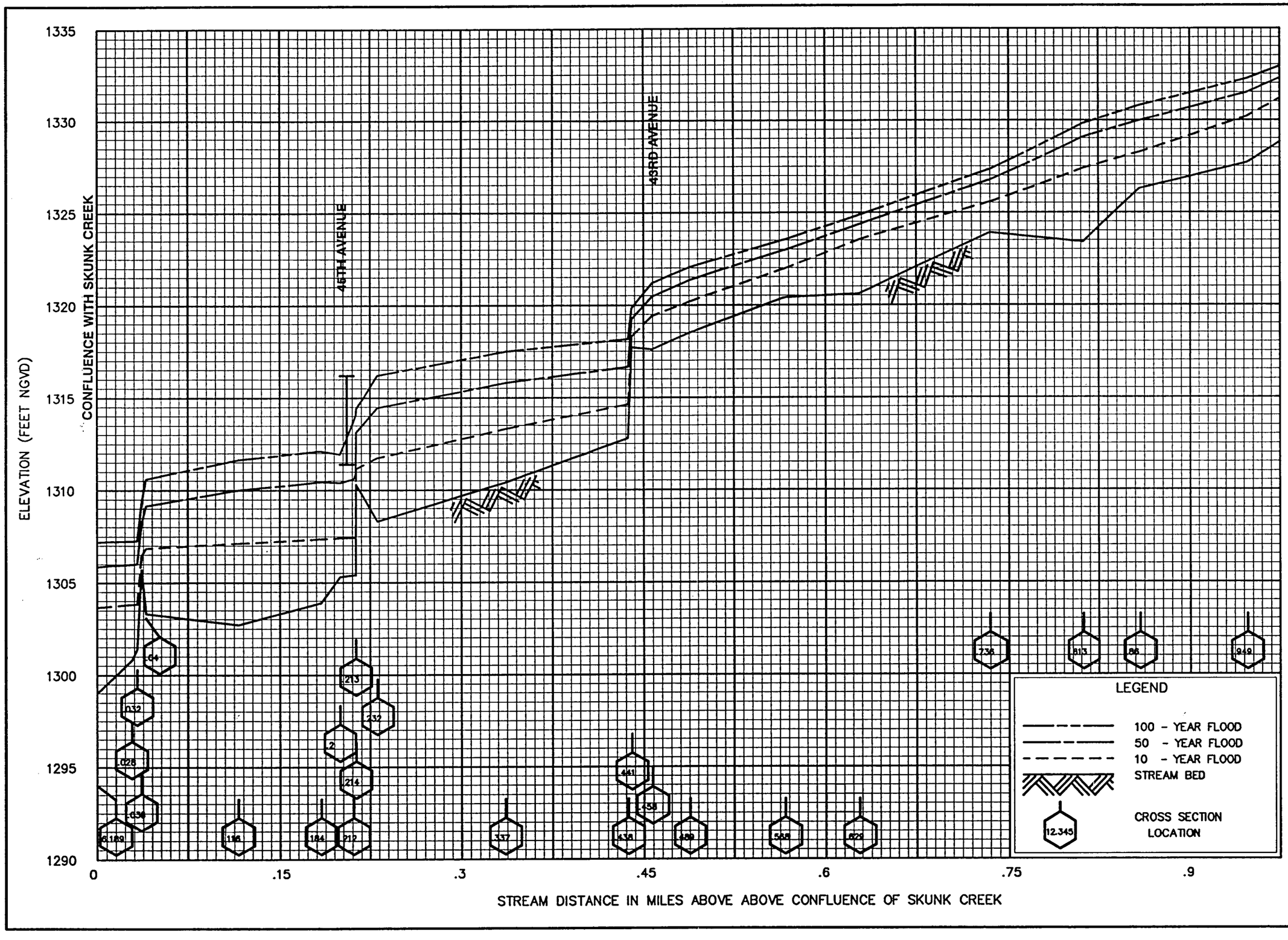
SKUNK CREEK SPLIT FLOW

35TH AVENUE AND PINNACLE PEAK ROAD

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990

EXISTING FLOWS




FLOOD PROFILES

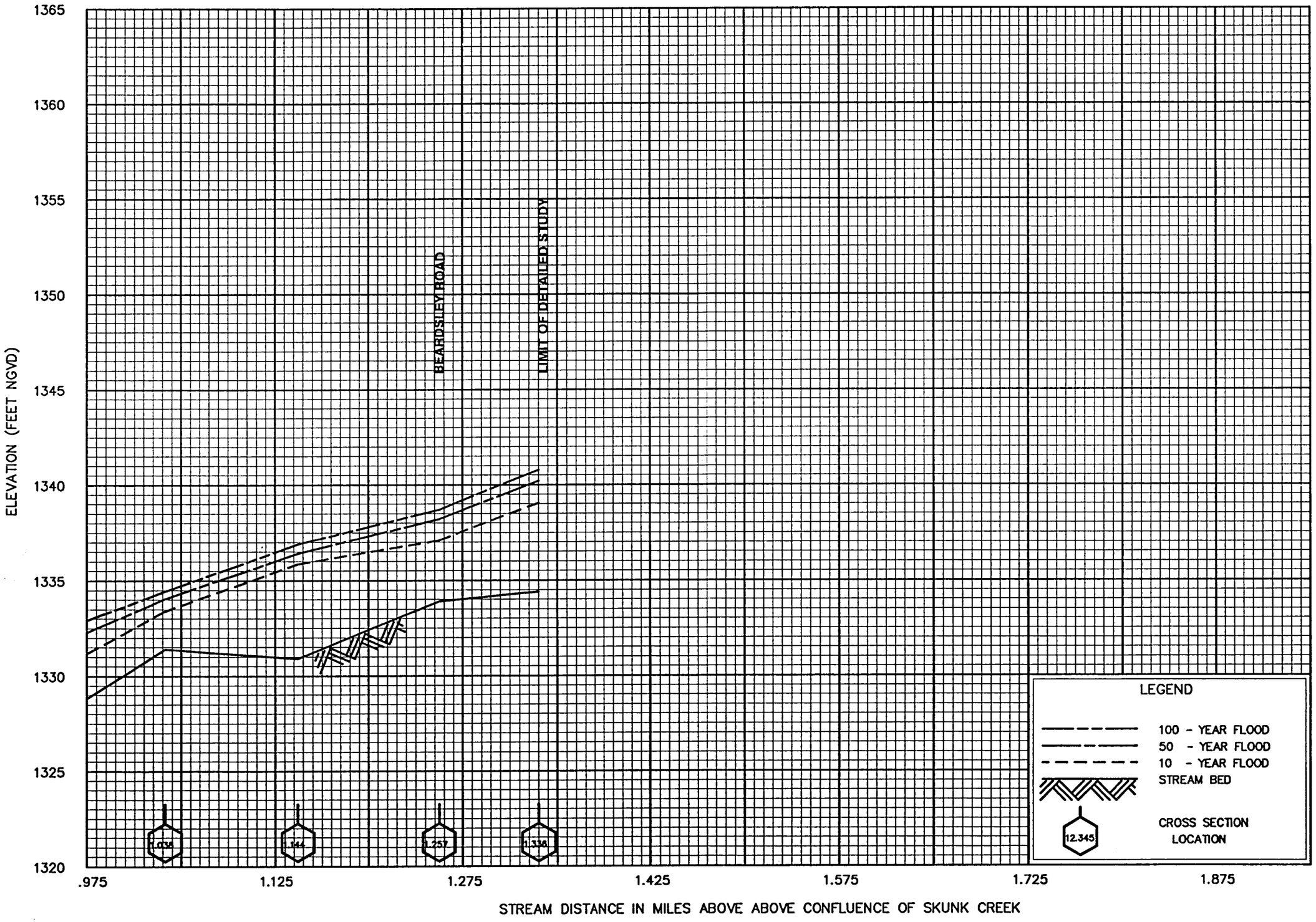
SCATTER WASH

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990

EXISTING FLOWS

P-11




FLOOD PROFILES

SCATTER WASH

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990

EXISTING FLOWS

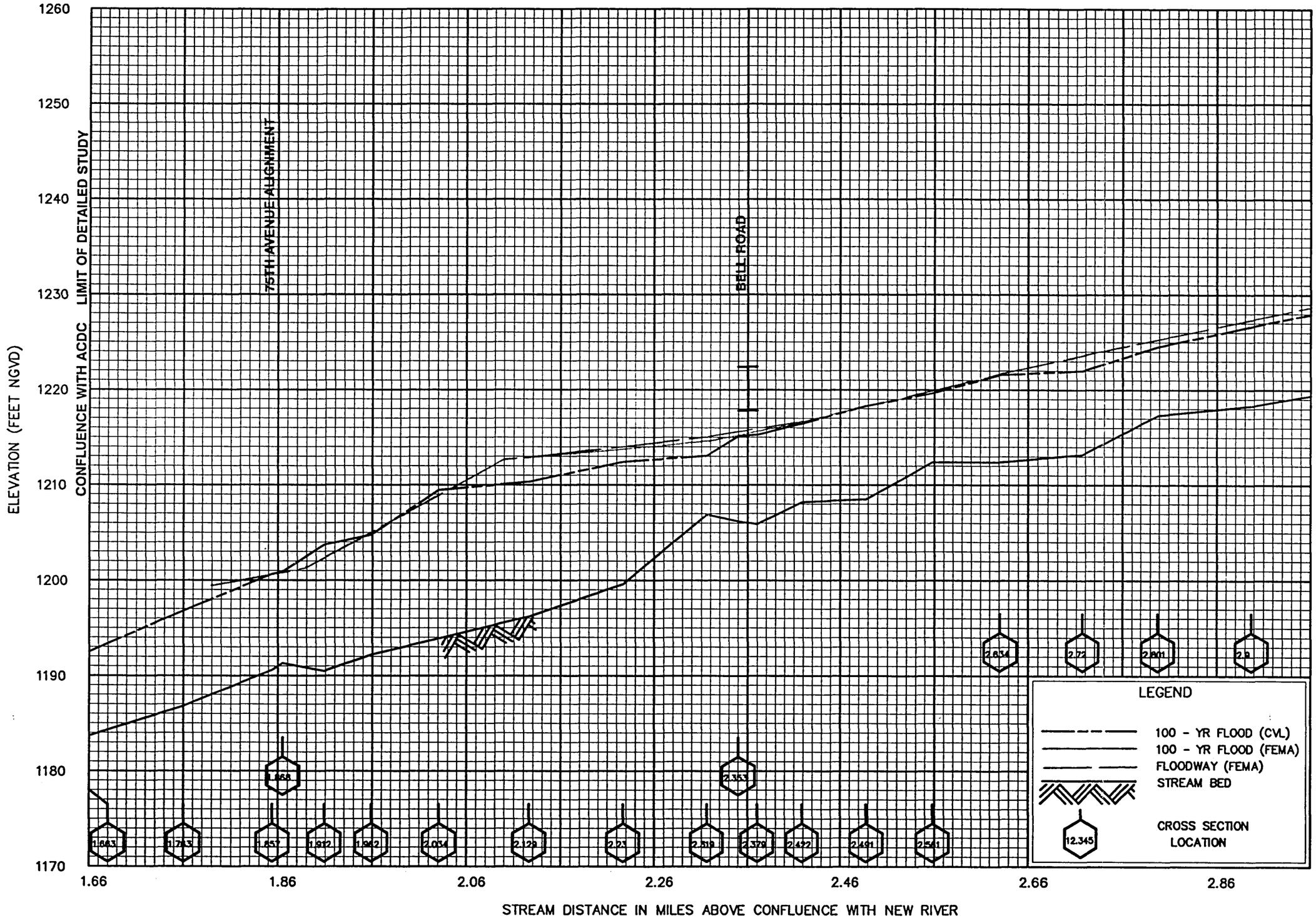
P-12

Existing Condition Flood Profiles

Skunk Creek
ACDC to CAP
Including Scatter Wash

100-year Flood, CVL Restudy
100-year Flood, FEMA
Floodway, FEMA

CVL

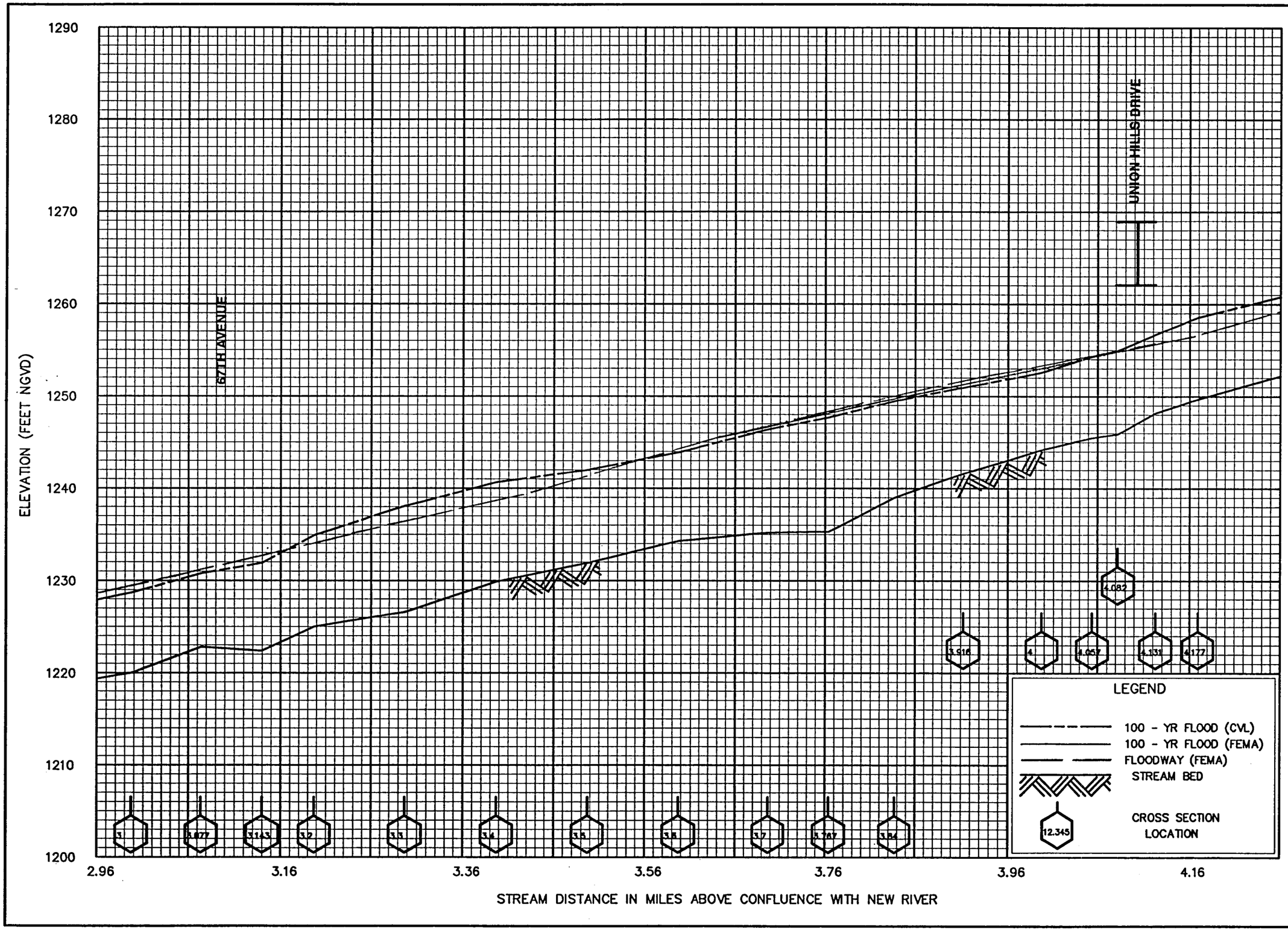



FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990
EXISTING FLOWS




FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990

EXISTING FLOWS

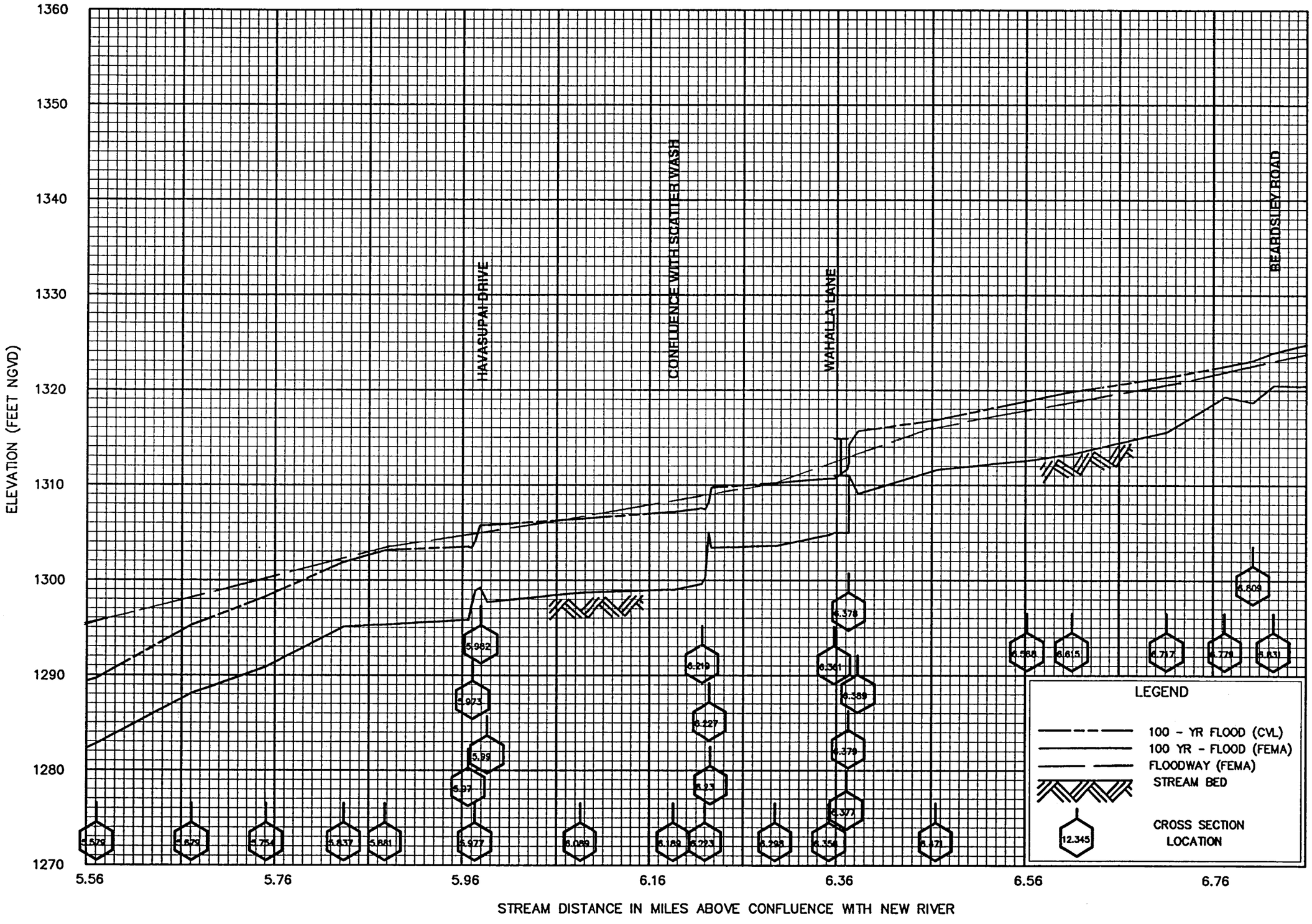
P-14

FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990
EXISTING FLOWS




FLOOD PROFILES

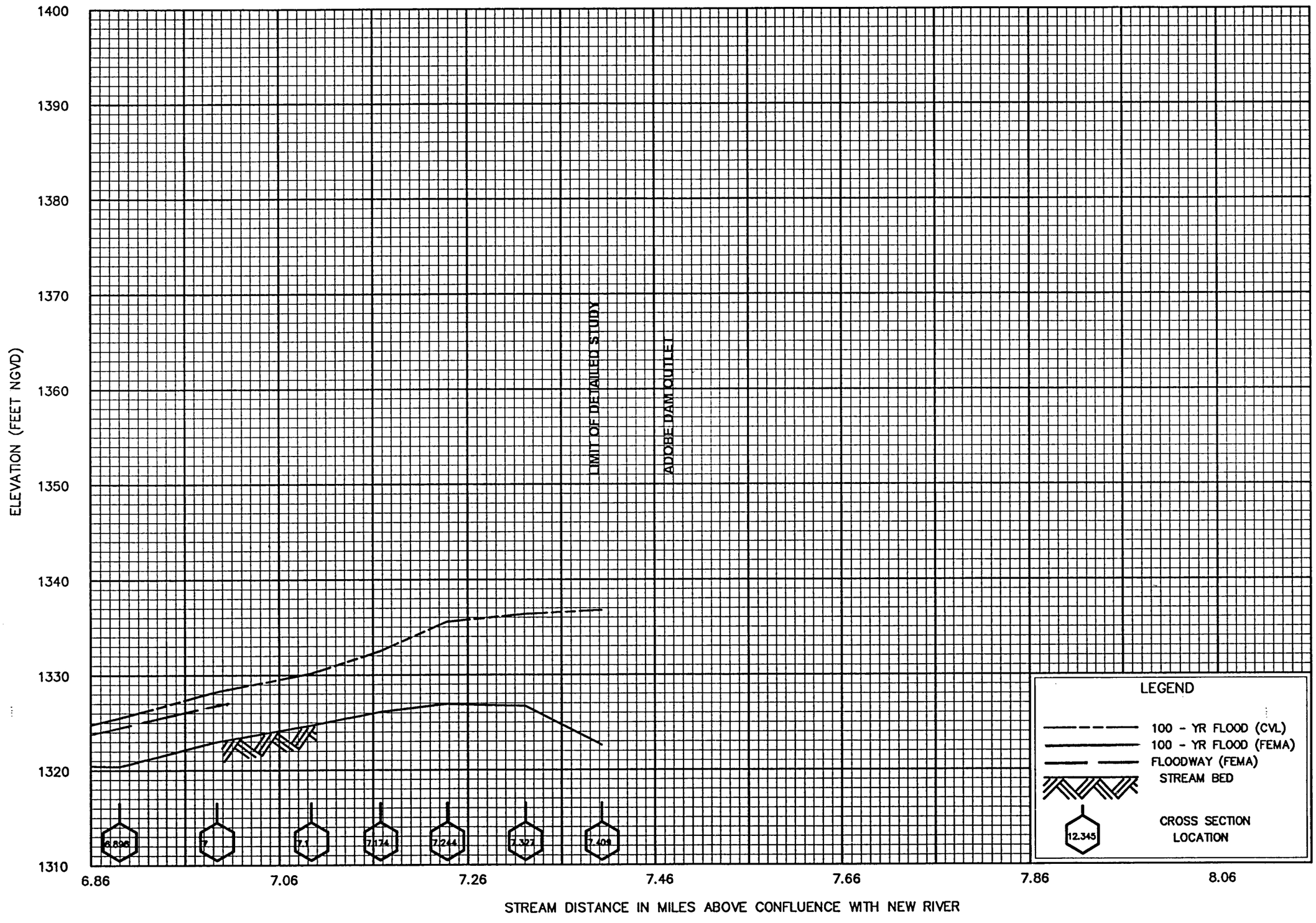
SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990

EXISTING FLOWS

P-16



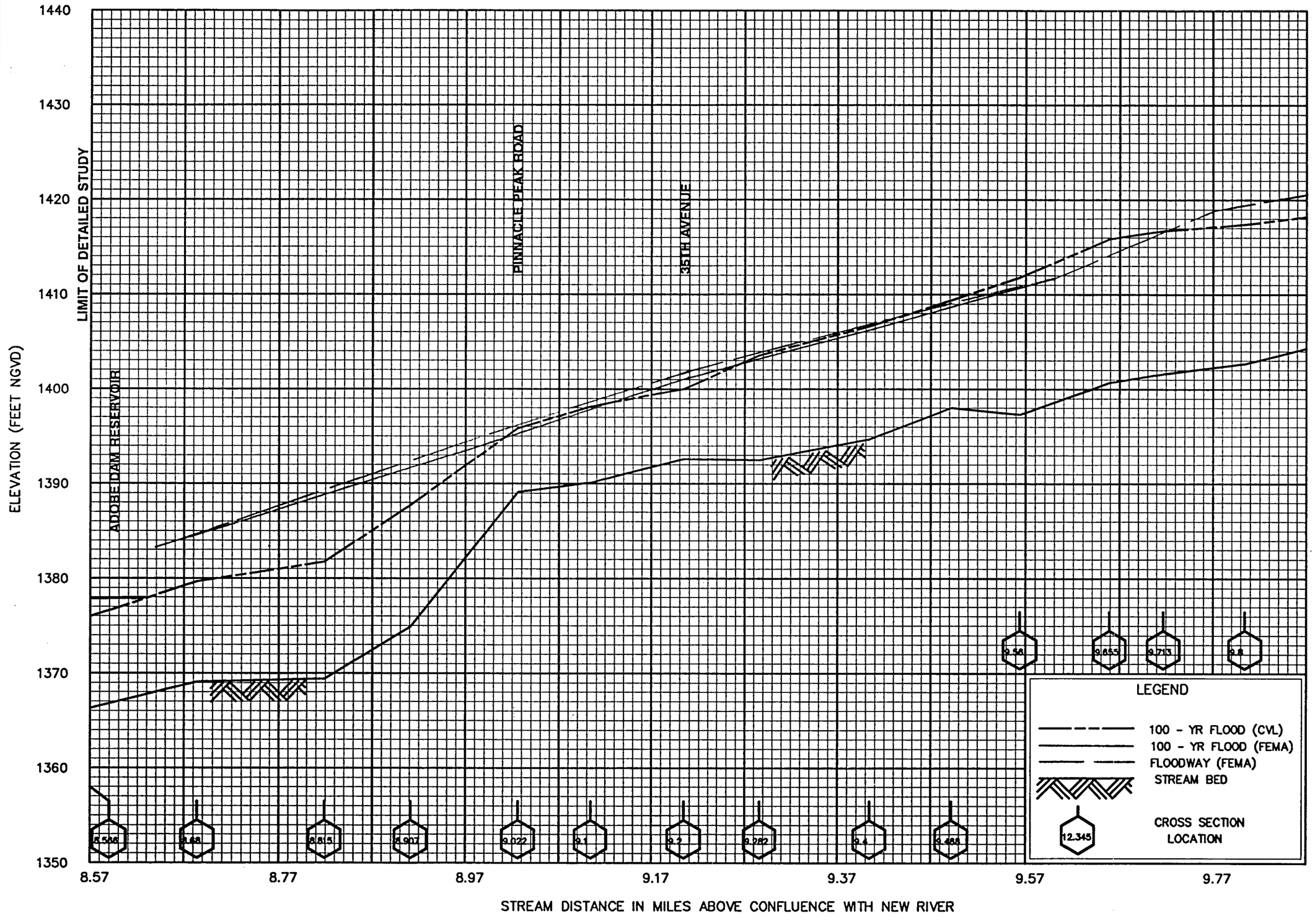

FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990

EXISTING FLOWS

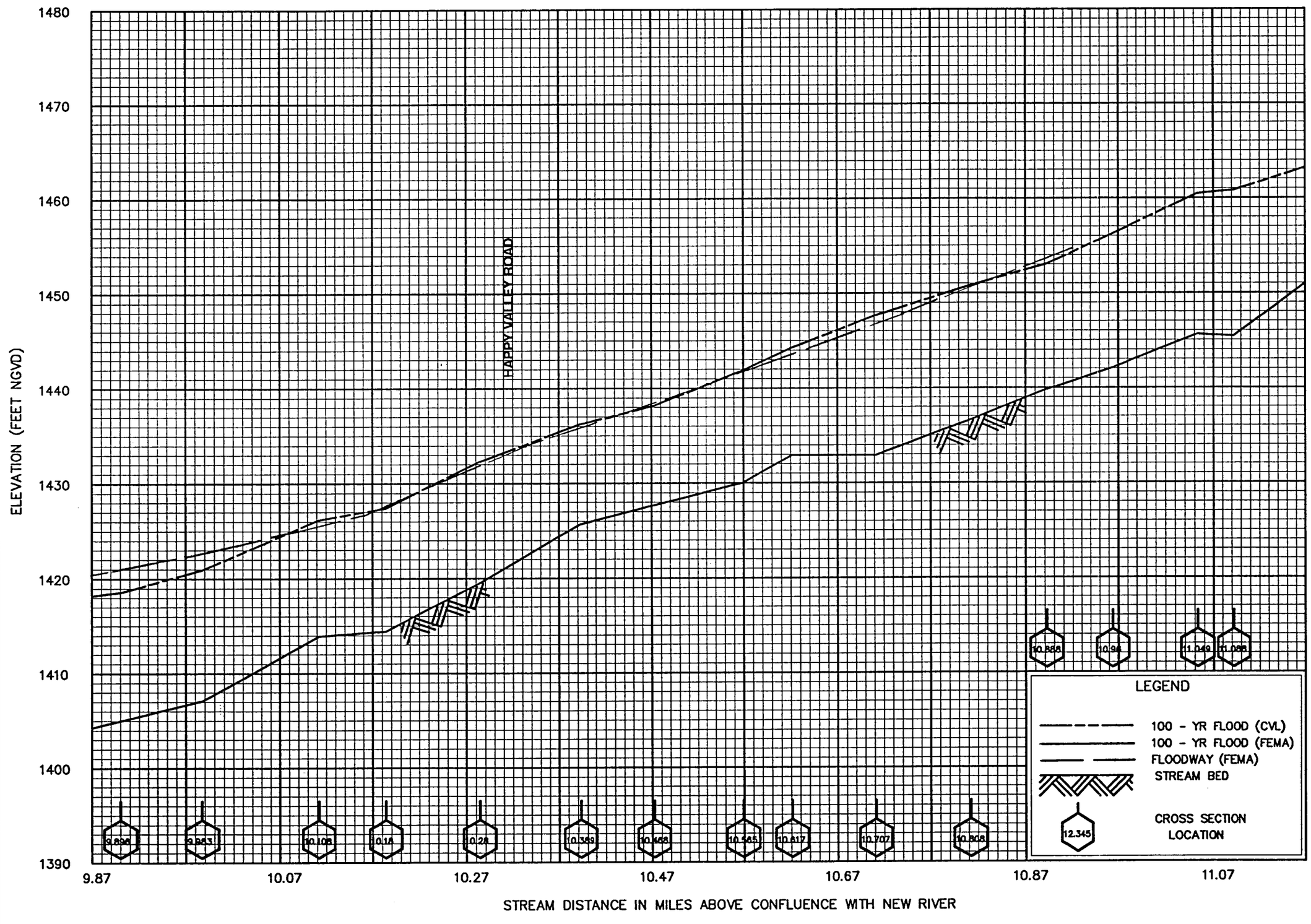



FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990
EXISTING FLOWS



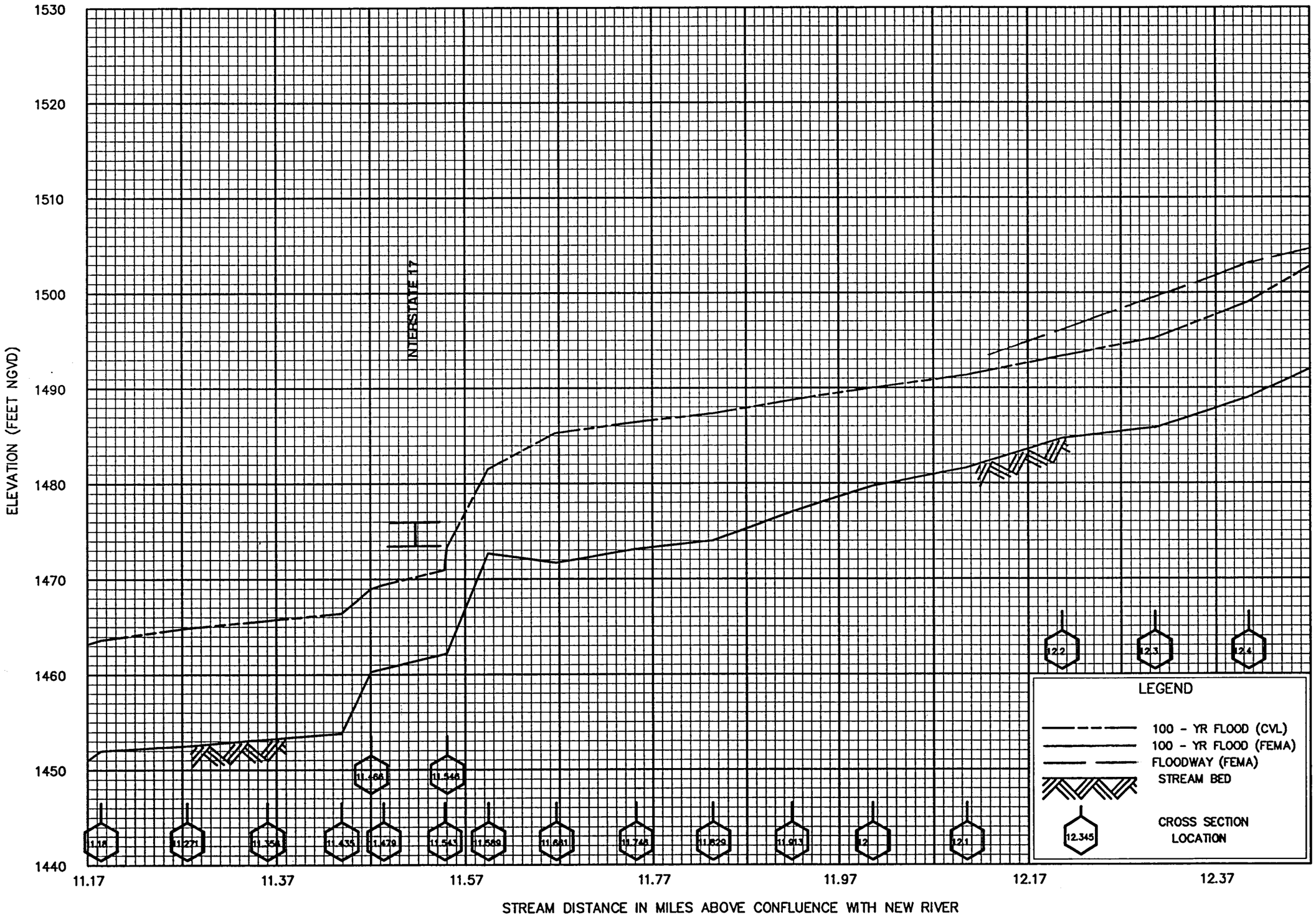

FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990

EXISTING FLOWS

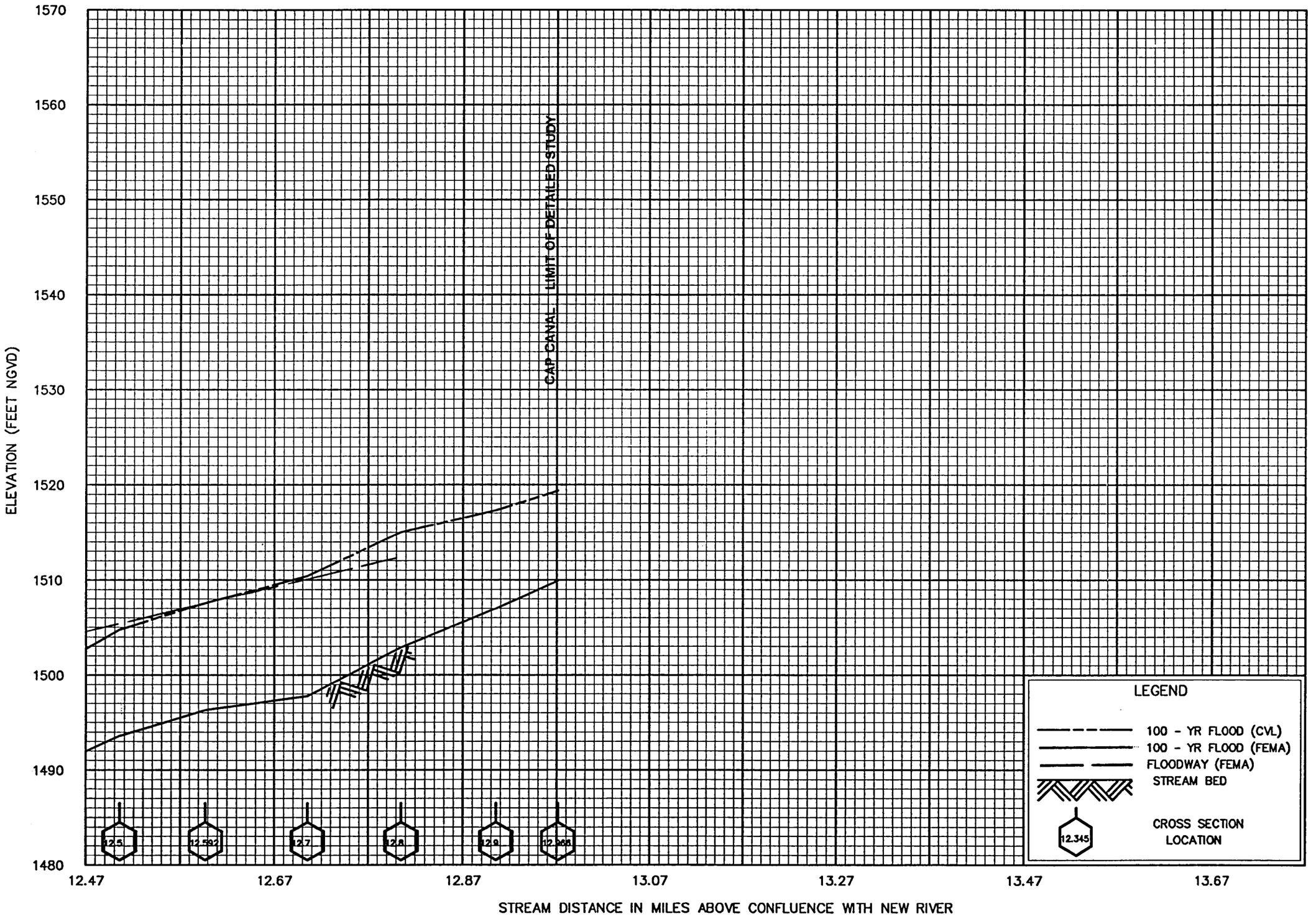



# FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990
EXISTING FLOWS



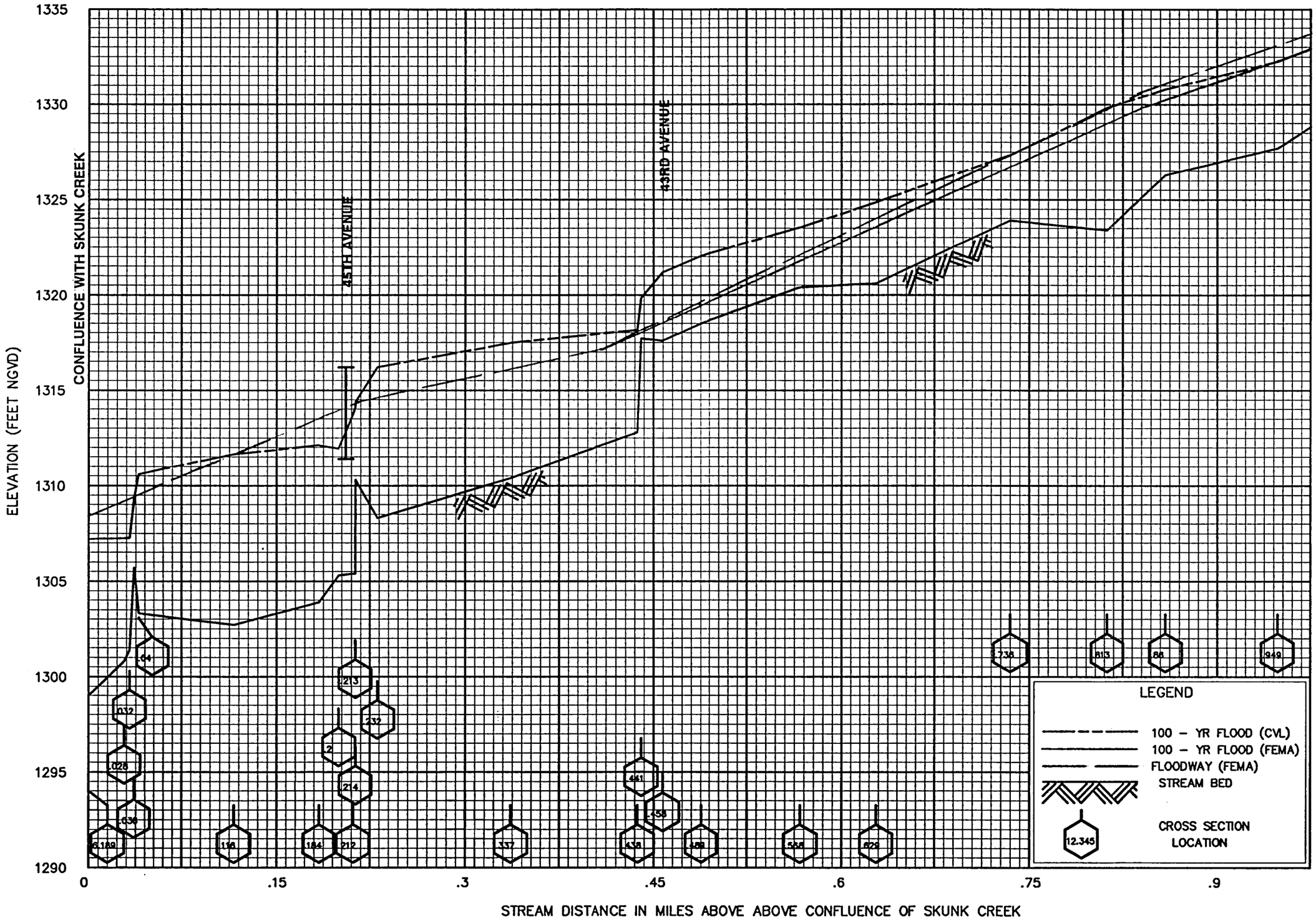

FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990

EXISTING FLOWS



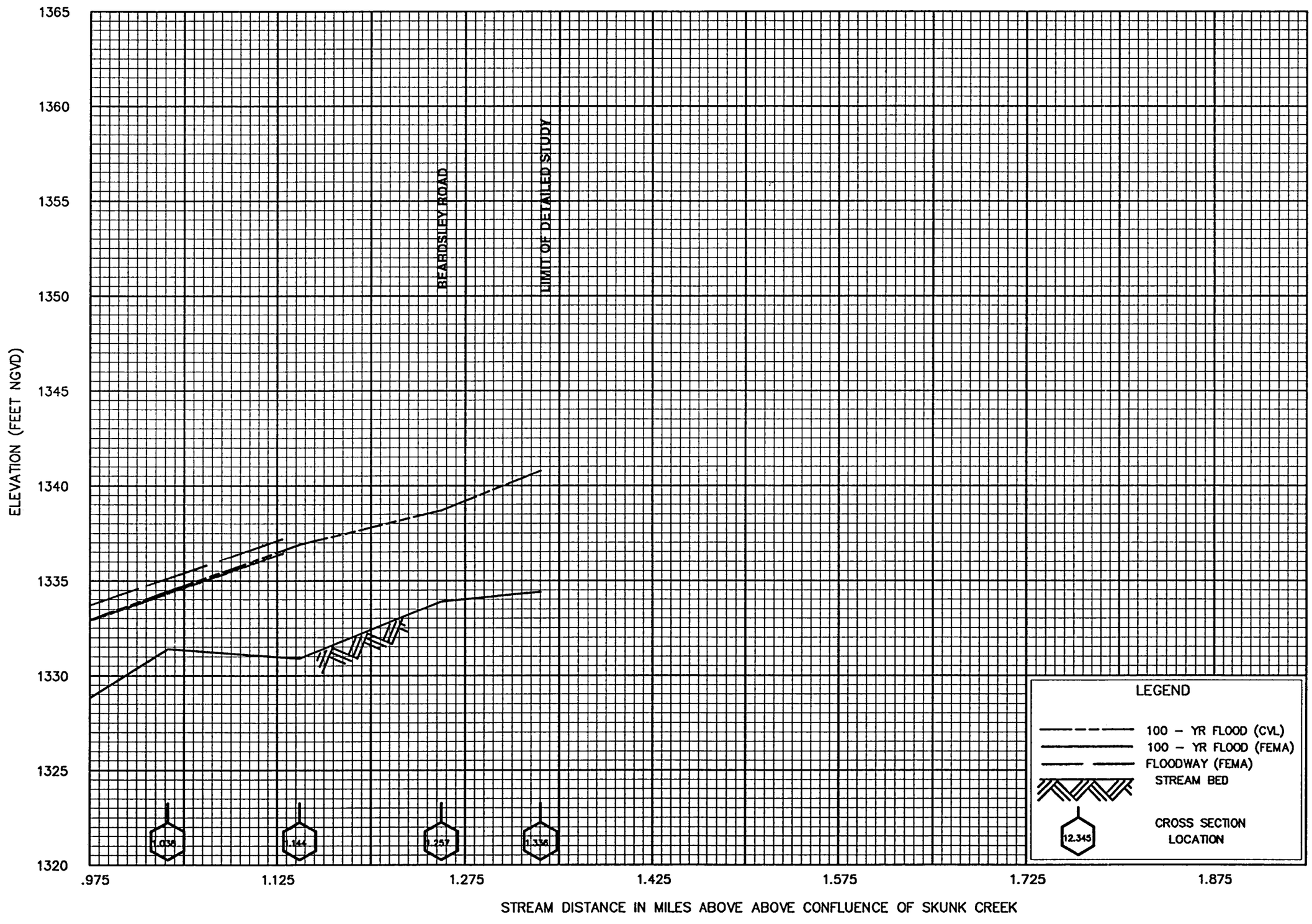

FLOOD PROFILES

SCATTER WASH

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY – DEC. 1990

EXISTING FLOWS




FLOOD PROFILES

SCATTER WASH

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990

EXISTING FLOWS

# SECTION VII

# FUTURE CONDITION, HEC-2 OUTPUT AND CROSS SECTION PLOTS

Future Condition HEC-2 Output

Skunk Creek
ACDC to Adobe Dam
Including Scatter Wash

CVL

```
*******************************************************
*  WATER SURFACE PROFILES                             *
*  DEVELOPED BY THE COE                               *
   VERSION OF SEPTEMBER 1988                          *
*  ERROR: 01,02,03                                    *
*  RUN DATE    12/ 6/90   TIME   13: 3:11             *
*******************************************************
```

```
****************************************
*  DODSON & ASSOCIATES, INC.           *
*  HYDROLOGIST AND CIVIL ENGINEERS     *
*  5629 FM 1960 WEST SUITE 314         *
*  HOUSTON, TEXAS  77069               *
*  (713) 440-3787 Fax (713) 440-4742   *
****************************************
```

```
X     X  XXXXXXX   XXXXX              XXXXX
X     X  X        X     X            X     X
X     X  X        X                        X
XXXXXXX  XXXX     X          XXXXX    XXXXX
X     X  X        X                  X
X     X  X        X     X            X
X     X  XXXXXXX   XXXXX             XXXXXXX
```

END OF BANNER

THIS RUN EXECUTED 12/ 6/90 13: 3:11

```
**************************************************
  HEC2 RELEASE DATED SEP 88 UPDATED SEPT 1989


  ERROR CORR -  01,02,03
  MODIFICATION -
**************************************************


T1      SKUNK CREEK FLOODPLAIN ANALYSIS, FOR FCDMC (#89-72), BY CVL (#1090-05).
T2      ARIZONA CANAL DIVERSION CHANNEL (ACDC) TO ADOBE DAM.
T3      100-YEAR FLOWS,   FUTURE CONDITION    NOV. 1990     (FILE NAME - SKSFUT)

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

       0         2         0         0     .0079         0         0         0    1193.4         0

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

      -1         0        -1         0         0         0        -1         0         0         0


J3  VARIABLE CODES FOR SUMMARY PRINTOUT

     38        43         1         8        42         3         2        26         5        39
     53         4        54

NC     .045      .045      .035        .1        .3
QT        1     13000
         SKUNK CREEK FLOODPLAIN STUDY.
         ARIZONA CANAL DIVERSION CHANNEL (ACDC) TO ADOBE DAM.  INCLUDING SCATTER
         WASH FROM ITS CONFLUENCE WITH SKUNK CREEK TO BEARDSLEY ROAD.
         FUTURE FLOWS PER CORPS.
         PREPARED AS A PART OF THE SKUNK CREEK FLOODPLAIN STUDY, BETWEEN THE
         ACDC AND THE CAP.
         PREPARED FOR THE FLOOD CONTROL DISTRICT OF MARICOPA COUNTY (FCD #89-72)
         PREPARED BY COE & VAN LOO CONSULTING ENGINEERS, 1990.
         TOPOGRAPHIC MAPPING PREPARED BY AERIAL MAPPING COMPANY, INC. FROM
         PHOTOGRAPHS TAKEN IN APRIL 1990.  ELEVATION BASED ON NGVD OF 1929.
         THE CONTROL LINE OF SKUNK CREEK IS STATION 10,000.
         ALL SECTIONS ARE STATIONED LOOKING DOWNSTREAM.
         CROSS SECTION NUMBERS FOR SKUNK CREEK ARE STATIONED IN RIVER MILES FROM
         THE CONFLUENCE WITH NEW RIVER.
         CROSS SECTION NUMBERS FOR SCATTER WASH ARE STATIONED IN RIVER MILES
         FROM THE CONFLUENCE WITH SKUNK CREEK.
         THIS RUN WAS STARTED BASED ON THE SLOPE-AREA METHOD.
         ENCROACHMENT CARDS (ET) WERE USED IN SOME CASES TO BETTER MODEL DEAD OR
         NONEFFECTIVE FLOW AREAS.  IN SOME CASES "SSTA" AND "ENDST" DO NOT
         REPRESENT THE ACTUAL FLOODING LIMITS, AND THE DELINEATION WAS BASED ON
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        THE CROSS-SECTION AND THE TOPOGRAPHY.  IN SOME CASES, "TOPWID" DOES NOT
        REPRESENT THE FULL WIDTH OF THE FLOODPLAIN, DUE TO INEFFECTIVE FLOW
        AREAS OR LOW ISLANDS WITHIN THE FLOODPLAIN.
        IMMEDIATELY UPSTREAM OF THE CONFLUENCE WITH ACDC.
X1    1.663       15    9915.4   10075.8       0       0       0
GR   1202.1   9915.4    1184.1    9956.3  1183.7  9977.8  1184.6  10000.0  1184.6  10006.0
GR   1186.4  10010.3    1186.1   10026.0  1183.7 10029.6  1183.7  10034.4  1184.1  10040.0
GR   1201.1  10075.8    1201.4   10115.1  1201.8 10198.1  1203.4  10204.1  1203.3  10254.6

X1    1.763       17    9905.8   10081.6     510     530     528
X3       10
GR   1215.0   9771.5    1215.5    9879.3  1214.4  9905.8  1206.4   9924.8  1205.9   9928.1
GR   1189.9   9952.6    1189.1    9960.6  1186.8  9965.8  1188.2   9976.9  1188.7  10000.0
GR   1188.2  10028.4    1196.7   10061.0  1203.1 10081.6  1203.1  10089.5  1203.3  10100.8
GR   1203.4  10202.4    1203.2   10212.2

X1    1.857       24    9913.3   10052.8     470     530     496
X3       10
GR   1208.5   9648.9    1207.8    9694.0  1207.0  9751.0  1206.2   9784.2  1205.1   9809.5
GR   1208.5   9837.0    1213.0    9876.1  1213.5  9885.6  1213.4   9913.3  1197.7   9944.4
GR   1195.0   9955.7    1190.6    9964.5  1191.6  9980.9  1191.1  10000.0  1191.2  10017.9
GR   1192.7  10032.0    1191.0   10038.9  1204.5 10052.8  1204.4  10061.8  1203.3  10071.2
GR   1204.2  10081.3    1205.1   10089.6  1205.5 10108.4  1205.6  10215.8

NC     .045     .045      .038       .1      .3
        IMMEDIATELY DOWNSTREAM OF THE 75TH AVENUE ALIGNMENT.
      1.868       22    9926.6   10072.2      50      65      58
X3       10
GR   1206.7   9758.9    1205.2    9810.6  1203.6  9851.0  1201.8   9871.0  1201.9   9884.3
GR   1205.5   9917.8    1205.1    9926.6  1203.4  9933.4  1200.1   9942.6  1195.4   9954.2
GR   1191.7   9958.8    1191.3    9971.4  1192.6  9979.3  1192.0   9988.2  1192.0  10000.0
GR   1192.1  10017.0    1198.1   10041.3  1203.4 10072.2  1204.8  10083.6  1205.7  10114.9
GR   1206.0  10155.6    1206.2   10230.2

QT       1   12930
ET   1.912     9.1                                                          9930   10061
X1   1.912      27    9930.2   10060.3     215     250     232
GR   1215.4   9659.5    1215.8    9753.0  1214.9  9888.1  1215.4   9930.2  1207.7   9946.8
GR   1207.8   9950.3    1194.5    9973.3  1191.3  9986.6  1191.4  10000.0  1191.2  10012.2
GR   1190.5  10017.7    1194.2   10035.8  1207.9 10060.3  1208.0  10069.6  1203.8  10077.1
GR   1204.3  10099.6    1206.4   10109.1  1206.9 10146.1  1206.4  10163.8  1203.1  10207.6
GR   1202.9  10235.4    1203.4   10262.2  1204.2 10309.4  1205.2  10381.3  1206.5  10432.3
GR   1206.3  10497.2    1206.7   10560.8

NC     .045     .045      .035       .1      .3
X1   1.962      21    9932.7   10054.6     220     280     264
GR   1215.2   9582.2    1215.6    9784.2  1216.0  9881.9  1216.2   9932.7  1209.4   9951.8
GR   1196.2   9977.9    1193.0    9991.1  1192.4 10000.0  1192.2  10007.9  1197.7  10029.2
GR   1209.3  10054.6    1209.1   10066.6  1206.1 10074.2  1207.6  10118.8  1207.1  10163.8
GR   1209.2  10173.7    1210.0   10181.3  1209.8 10234.6  1209.9  10300.4  1209.8  10347.6
GR   1210.0  10399.7
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| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ET | 2.034 | 9.1 | | | | | | | 9869 | 10060 |
| X1 | 2.034 | 48 | 9930.1 | 10059.4 | 370 | 390 | 380 | | | |
| GR | 1212.6 | 8850.4 | 1213.9 | 9079.0 | 1213.7 | 9190.5 | 1216.1 | 9266.4 | 1214.0 | 9304.1 |
| GR | 1216.1 | 9379.0 | 1215.1 | 9476.9 | 1215.7 | 9562.0 | 1215.9 | 9671.7 | 1216.7 | 9680.7 |
| GR | 1214.9 | 9689.6 | 1217.0 | 9711.3 | 1215.5 | 9717.9 | 1216.1 | 9767.9 | 1218.0 | 9771.3 |
| GR | 1218.5 | 9805.6 | 1217.3 | 9829.7 | 1215.8 | 9836.0 | 1216.0 | 9851.7 | 1216.5 | 9861.2 |
| GR | 1217.8 | 9869.2 | 1216.5 | 9876.4 | 1213.0 | 9890.4 | 1208.4 | 9900.9 | 1208.9 | 9919.5 |
| GR | 1209.1 | 9930.1 | 1199.1 | 9961.1 | 1194.5 | 9982.6 | 1194.3 | 9998.9 | 1194.5 | 10000.0 |
| GR | 1193.9 | 10016.6 | 1206.7 | 10049.6 | 1211.5 | 10059.4 | 1211.7 | 10067.7 | 1206.9 | 10088.1 |
| GR | 1207.3 | 10122.7 | 1207.9 | 10146.8 | 1211.4 | 10164.8 | 1211.9 | 10195.0 | 1211.8 | 10251.7 |
| GR | 1211.8 | 10313.1 | 1211.7 | 10387.8 | 1211.6 | 10445.5 | 1210.9 | 10484.4 | 1211.6 | 10554.2 |
| GR | 1211.4 | 10616.0 | 1211.8 | 10658.2 | 1211.4 | 10703.1 | | | | |
| ET | 2.129 | 9.1 | | | | | | | 9954 | 10070 |
| X1 | 2.129 | 59 | 9954.0 | 10069.9 | 520 | 470 | 502 | | | |
| X3 | 10 | | | | | | | | | |
| GR | 1217.1 | 8845.2 | 1217.7 | 8977.6 | 1217.8 | 9141.1 | 1217.6 | 9227.8 | 1217.6 | 9412.8 |
| GR | 1217.5 | 9509.8 | 1217.6 | 9659.4 | 1216.9 | 9813.7 | 1216.4 | 9840.9 | 1215.0 | 9850.9 |
| GR | 1215.7 | 9852.1 | 1215.7 | 9856.0 | 1214.8 | 9856.6 | 1217.1 | 9862.8 | 1215.7 | 9864.8 |
| GR | 1215.3 | 9880.0 | 1215.9 | 9883.2 | 1212.4 | 9895.6 | 1210.9 | 9904.6 | 1211.7 | 9919.3 |
| GR | 1211.9 | 9931.7 | 1211.9 | 9938.6 | 1216.7 | 9948.8 | 1216.7 | 9954.0 | 1200.1 | 9972.1 |
| GR | 1196.6 | 9986.4 | 1196.5 | 9998.0 | 1196.7 | 10000.0 | 1196.8 | 10011.1 | 1196.2 | 10030.4 |
| GR | 1200.9 | 10044.4 | 1208.0 | 10060.4 | 1213.1 | 10069.9 | 1213.0 | 10078.8 | 1208.8 | 10090.2 |
| GR | 1209.3 | 10121.4 | 1209.5 | 10165.9 | 1209.8 | 10213.0 | 1209.9 | 10278.4 | 1210.5 | 10331.8 |
| GR | 1210.5 | 10430.9 | 1210.6 | 10519.8 | 1210.5 | 10626.4 | 1210.8 | 10667.5 | 1211.4 | 10673.5 |
| GR | 1211.2 | 10711.0 | 1211.1 | 10738.1 | 1210.4 | 10741.1 | 1212.0 | 10787.5 | 1212.0 | 10791.8 |
| GR | 1213.0 | 10797.7 | 1212.9 | 10806.1 | 1211.6 | 10807.0 | 1211.5 | 10821.5 | 1211.0 | 10835.6 |
| GR | 1209.8 | 10854.5 | 1210.4 | 10863.1 | 1211.0 | 10887.6 | 1211.2 | 10889.4 | | |
| QT | 1 | 12720 | | | | | | | | |
| ET | 2.230 | 9.1 | | | | | | | 9817 | 10325 |
| X1 | 2.230 | 51 | 9817.8 | 10070.3 | 560 | 430 | 533 | | | |
| GR | 1217.2 | 9081.4 | 1218.1 | 9261.4 | 1217.7 | 9302.4 | 1218.4 | 9372.8 | 1218.1 | 9404.3 |
| GR | 1218.8 | 9460.1 | 1217.8 | 9649.3 | 1217.3 | 9688.9 | 1217.9 | 9722.8 | 1218.2 | 9781.8 |
| GR | 1218.5 | 9797.5 | 1217.3 | 9805.0 | 1217.3 | 9810.7 | 1219.2 | 9817.8 | 1217.6 | 9824.2 |
| GR | 1206.3 | 9878.9 | 1205.4 | 9894.6 | 1203.7 | 9906.9 | 1205.0 | 9919.6 | 1204.3 | 9939.4 |
| GR | 1202.7 | 9961.7 | 1203.4 | 9968.2 | 1202.3 | 9974.3 | 1203.3 | 9979.5 | 1202.1 | 9985.0 |
| GR | 1203.3 | 9993.4 | 1199.6 | 9996.9 | 1199.8 | 10000.0 | 1203.6 | 10005.0 | 1203.4 | 10029.4 |
| GR | 1204.5 | 10045.0 | 1206.2 | 10058.3 | 1212.4 | 10070.3 | 1213.1 | 10105.8 | 1213.7 | 10139.4 |
| GR | 1213.8 | 10198.1 | 1214.4 | 10325.7 | 1214.3 | 10356.6 | 1213.2 | 10437.7 | 1212.4 | 10490.1 |
| GR | 1212.6 | 10504.7 | 1212.5 | 10526.6 | 1211.8 | 10556.1 | 1212.7 | 10577.0 | 1213.4 | 10602.2 |
| GR | 1213.5 | 10635.1 | 1213.7 | 10639.6 | 1213.4 | 10643.4 | 1213.2 | 10661.7 | 1212.3 | 10681.3 |
| GR | 1211.9 | 10691.6 | | | | | | | | |
| X1 | 2.319 | 49 | 9893.7 | 10164.4 | 470 | 410 | 470 | | | |
| X3 | 10 | | | | | | | | | |
| GR | 1215.8 | 9353.4 | 1215.3 | 9376.5 | 1215.9 | 9433.1 | 1216.0 | 9479.1 | 1215.9 | 9495.7 |
| GR | 1216.1 | 9536.2 | 1217.3 | 9571.3 | 1217.3 | 9591.3 | 1216.8 | 9612.2 | 1215.8 | 9628.4 |
| GR | 1215.4 | 9656.5 | 1215.2 | 9678.0 | 1216.3 | 9704.5 | 1215.4 | 9729.3 | 1215.6 | 9737.6 |
| GR | 1216.4 | 9758.8 | 1217.6 | 9782.8 | 1218.1 | 9811.0 | 1218.5 | 9838.0 | 1219.2 | 9859.8 |
| GR | 1219.8 | 9866.0 | 1218.1 | 9873.2 | 1218.8 | 9874.9 | 1219.0 | 9880.2 | 1217.8 | 9883.7 |
| GR | 1220.1 | 9893.7 | 1219.0 | 9898.0 | 1218.0 | 9904.1 | 1211.5 | 9920.0 | 1207.5 | 9931.8 |
| GR | 1207.7 | 9950.6 | 1207.3 | 9971.9 | 1207.1 | 9992.7 | 1207.3 | 10000.0 | 1207.8 | 10015.0 |

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GR   1207.6   10031.9   1208.5   10046.4   1209.0   10067.5   1208.1   10082.8   1206.9   10098.3
GR   1209.0   10107.1   1217.2   10129.9   1217.7   10141.2   1218.3   10164.4   1218.6   10209.7
GR   1218.8   10242.2   1218.3   10315.5   1216.7   10371.2   1215.6   10397.0

NC    .045      .045      .038       .3       .5
        DOWNSTREAM FACE OF BELL ROAD BRIDGE.
X1   2.353        13    9853.4   10146.6     320       70      180    0.707
GR   1217.0    9853.4   1211.2    9853.5   1210.2     9881   1210.2     9915   1211.4     9949
GR   1206.7      9983   1206.5     10000   1206.2    10017   1206.8    10051   1208.7    10085
GR   1210.0     10119   1209.9   10146.5   1217.5   10146.6

SB    0.90      1.56       2.7         0     81.0      6.4   1843.9      7.3   1206.2   1205.9
        UPSTREAM FACE OF BELL ROAD BRIDGE, SPECIAL BRIDE METHOD USED.
X1   2.379        13    9853.4   10146.6     106      106      106    0.707
X2                          1    1217.8   1222.4                             0.707
BT      13    9853.4   1222.4    1217.4    9853.5   1222.4   1217.4     9881   1222.4   1217.4
BT    9915    1222.4   1217.4      9949   1222.4   1217.4     9983   1222.4   1217.5    10000
BT   1222.4   1217.8    10017   1222.4   1217.5    10051   1222.4   1217.4    10085   1222.4
BT   1217.4    10119   1222.4   1217.5   10146.5   1222.4   1217.4   10146.6   1222.4   1217.4
GR   1217.4    9853.4   1212.7    9853.5   1211.1     9881   1211.0     9915   1209.2     9949
GR   1205.9      9983   1206.4     10000   1206.8    10017   1208.7    10051   1210.5    10085
GR   1210.1     10119   1210.6   10146.5   1217.4   10146.6

NC    .045      .045      .035       .1       .3
QT       1     12580
ET   2.422       9.1                                                            9841    10074
     2.422        33    9848.2   10073.1      70      395      258
GR   1217.7    9519.5   1217.5    9540.7   1219.2    9565.4   1219.2    9608.0   1218.8    9643.0
GR   1218.1    9673.9   1216.9    9695.1   1217.3    9722.0   1216.8    9757.2   1216.9    9797.7
GR   1217.1    9813.0   1217.7    9822.4   1221.2    9840.9   1220.9    9848.2   1216.1    9863.3
GR   1212.7    9878.3   1212.3    9893.2   1210.3    9916.3   1210.2    9942.8   1209.5    9977.1
GR   1209.0    9999.0   1209.0   10000.0   1208.2   10015.2   1208.3   10028.2   1208.3   10045.9
GR   1210.8   10046.3   1221.1   10073.1   1219.9   10076.5   1220.3   10086.4   1214.5   10103.0
GR   1214.2   10128.6   1214.5   10147.4   1213.7   10153.4

ET   2.491       9.1                                                            9790   10036.6
        IMMEDIATELY DOWNSTREAM OF CONFLUENCE WITH 71ST AVENUE CHANNEL.
X1   2.491        59    9790.6   10036.5     310      370      364
GR   1219.8    9413.9   1220.2    9424.2   1219.5    9427.6   1219.1    9448.4   1218.3    9470.0
GR   1217.1    9495.2   1218.9    9498.6   1217.4    9504.6   1219.2    9517.9   1217.8    9526.3
GR   1218.1    9554.5   1218.1    9577.3   1218.7    9586.2   1219.3    9610.2   1219.6    9630.3
GR   1219.0    9654.6   1218.7    9673.3   1221.8    9682.5   1220.9    9714.2   1219.7    9729.0
GR   1215.8    9739.9   1215.0    9750.4   1216.7    9763.9   1217.6    9771.0   1220.1    9783.8
GR   1220.9    9790.6   1218.6    9798.4   1213.7    9815.5   1212.8    9819.0   1213.4    9826.1
GR   1212.7    9838.0   1211.2    9846.6   1211.2    9850.4   1211.6    9854.7   1213.0    9859.6
GR   1214.0    9883.4   1213.6    9901.4   1211.8    9918.4   1212.2    9937.2   1212.1    9961.4
GR   1211.0    9988.6   1208.5    9994.1   1208.9   10000.0   1210.0   10012.1   1211.9   10022.7
GR   1216.5   10032.2   1218.7   10036.5   1214.7   10046.0   1213.5   10051.2   1214.9   10063.8
GR   1216.3   10080.1   1219.9   10092.3   1221.0   10101.2   1220.4   10108.4   1217.9   10128.9
GR   1217.5   10135.1   1220.7   10150.8   1219.9   10280.5   1219.9   10284.9
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| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ET | 2.561 | 9.1 | | | | | | | 9913 | 10200 |
| X1 | 2.561 | 57 | 9919.2 | 10167.2 | 290 | 400 | 370 | | | |
| GR | 1220.4 | 9471.5 | 1220.4 | 9477.1 | 1219.1 | 9478.4 | 1219.3 | 9492.6 | 1218.5 | 9515.0 |
| GR | 1218.2 | 9538.0 | 1219.9 | 9548.5 | 1220.6 | 9553.4 | 1220.3 | 9556.4 | 1219.6 | 9576.8 |
| GR | 1220.5 | 9598.5 | 1220.9 | 9635.7 | 1220.9 | 9678.2 | 1220.8 | 9713.9 | 1220.6 | 9744.7 |
| GR | 1220.1 | 9782.6 | 1220.2 | 9819.7 | 1220.0 | 9850.0 | 1218.9 | 9870.1 | 1218.6 | 9885.7 |
| GR | 1219.3 | 9892.5 | 1219.6 | 9904.0 | 1221.1 | 9912.8 | 1220.9 | 9919.2 | 1212.4 | 9935.9 |
| GR | 1212.5 | 9941.3 | 1213.1 | 9953.5 | 1214.4 | 9963.4 | 1214.7 | 9984.0 | 1214.7 | 9993.8 |
| GR | 1214.3 | 10000.0 | 1213.1 | 10007.4 | 1213.6 | 10021.4 | 1214.5 | 10031.8 | 1214.1 | 10043.7 |
| GR | 1212.9 | 10053.7 | 1214.8 | 10067.1 | 1215.1 | 10087.4 | 1213.9 | 10104.5 | 1213.9 | 10113.4 |
| GR | 1215.2 | 10119.6 | 1215.4 | 10128.9 | 1214.8 | 10139.2 | 1223.2 | 10155.7 | 1222.6 | 10161.4 |
| GR | 1224.0 | 10167.2 | 1224.8 | 10184.0 | 1224.9 | 10207.9 | 1223.8 | 10240.0 | 1224.1 | 10261.8 |
| GR | 1224.9 | 10281.2 | 1225.0 | 10311.0 | 1225.2 | 10358.8 | 1225.4 | 10414.4 | 1225.7 | 10453.1 |
| GR | 1226.4 | 10497.2 | 1226.1 | 10532.9 | | | | | | |
| X1 | 2.634 | 36 | 9869.2 | 10252.4 | 400 | 360 | 385 | | | |
| X3 | 10 | | | | | | | | | |
| GR | 1224.8 | 9538.1 | 1223.6 | 9715.5 | 1223.6 | 9766.9 | 1224.5 | 9855.6 | 1223.5 | 9869.2 |
| GR | 1219.7 | 9879.5 | 1216.8 | 9902.2 | 1216.4 | 9913.4 | 1215.7 | 9943.1 | 1212.6 | 9953.5 |
| GR | 1212.4 | 9957.2 | 1214.0 | 9967.8 | 1214.4 | 9982.1 | 1214.6 | 10000.0 | 1214.6 | 10015.8 |
| GR | 1213.9 | 10061.1 | 1214.5 | 10074.2 | 1213.7 | 10092.4 | 1214.6 | 10108.9 | 1215.8 | 10121.4 |
| GR | 1216.0 | 10136.4 | 1215.2 | 10146.4 | 1215.6 | 10176.3 | 1216.3 | 10187.0 | 1216.8 | 10192.9 |
| GR | 1214.8 | 10195.7 | 1216.2 | 10217.6 | 1222.1 | 10231.7 | 1222.2 | 10238.2 | 1224.5 | 10245.8 |
| GR | 1225.5 | 10252.4 | 1225.5 | 10261.3 | 1225.5 | 10372.9 | 1225.9 | 10476.1 | 1226.3 | 10576.7 |
| GR | 1226.2 | 10609.9 | | | | | | | | |
| QT | 1 | 12370 | | | | | | | | |
| X1 | 2.720 | 37 | 9951.7 | 10259.1 | 480 | 400 | 454 | | | |
| GR | 1227.6 | 9767.6 | 1226.8 | 9889.3 | 1226.6 | 9934.5 | 1225.7 | 9951.7 | 1222.3 | 9960.1 |
| GR | 1221.7 | 9968.0 | 1216.8 | 9975.6 | 1215.4 | 9982.8 | 1213.2 | 9993.8 | 1213.7 | 9998.9 |
| GR | 1214.1 | 10000.0 | 1216.0 | 10009.6 | 1217.0 | 10025.2 | 1217.6 | 10047.2 | 1217.1 | 10055.5 |
| GR | 1215.8 | 10062.5 | 1215.8 | 10073.3 | 1217.1 | 10083.5 | 1217.7 | 10105.0 | 1218.5 | 10150.4 |
| GR | 1218.3 | 10182.3 | 1218.6 | 10200.7 | 1219.0 | 10216.7 | 1219.8 | 10223.4 | 1223.4 | 10243.5 |
| GR | 1223.0 | 10251.0 | 1226.2 | 10259.1 | 1226.0 | 10317.2 | 1226.2 | 10354.2 | 1225.6 | 10363.1 |
| GR | 1226.5 | 10387.3 | 1226.4 | 10423.4 | 1226.9 | 10477.0 | 1227.7 | 10529.5 | 1228.3 | 10563.9 |
| GR | 1228.1 | 10594.5 | 1228.1 | 10611.1 | | | | | | |
| X1 | 2.801 | 35 | 9792.8 | 10085.8 | 460 | 330 | 428 | | | |
| GR | 1231.0 | 9357.1 | 1230.1 | 9405.3 | 1228.4 | 9424.6 | 1227.7 | 9471.3 | 1227.1 | 9483.1 |
| GR | 1226.8 | 9528.8 | 1227.7 | 9558.0 | 1228.3 | 9584.0 | 1228.5 | 9629.0 | 1228.7 | 9653.6 |
| GR | 1228.3 | 9720.1 | 1227.8 | 9772.0 | 1227.5 | 9792.8 | 1225.4 | 9797.6 | 1225.5 | 9818.1 |
| GR | 1222.4 | 9822.1 | 1221.6 | 9827.4 | 1221.3 | 9844.7 | 1219.9 | 9848.7 | 1220.2 | 9866.5 |
| GR | 1219.6 | 9894.6 | 1219.5 | 9924.9 | 1218.1 | 9960.8 | 1217.3 | 9981.0 | 1217.3 | 10000.0 |
| GR | 1217.3 | 10012.7 | 1217.7 | 10018.0 | 1217.9 | 10027.2 | 1219.1 | 10039.1 | 1219.6 | 10053.5 |
| GR | 1222.3 | 10069.7 | 1225.9 | 10081.1 | 1227.6 | 10085.8 | 1227.4 | 10170.8 | 1227.5 | 10297.4 |
| X1 | 2.900 | 27 | 9812.7 | 10077.6 | 470 | 530 | 523 | | | |
| GR | 1230.8 | 9290.5 | 1229.2 | 9477.8 | 1228.9 | 9649.5 | 1229.5 | 9724.7 | 1229.3 | 9764.4 |
| GR | 1229.0 | 9793.5 | 1228.8 | 9812.7 | 1224.8 | 9820.9 | 1224.2 | 9826.3 | 1221.5 | 9831.6 |
| GR | 1221.4 | 9842.3 | 1222.0 | 9865.7 | 1221.9 | 9902.8 | 1221.2 | 9937.7 | 1220.4 | 9972.7 |
| GR | 1219.3 | 10000.0 | 1219.1 | 10012.4 | 1218.9 | 10026.2 | 1219.0 | 10037.0 | 1218.3 | 10047.2 |
| GR | 1221.2 | 10056.6 | 1227.3 | 10062.4 | 1227.3 | 10070.1 | 1229.0 | 10077.6 | 1229.6 | 10166.5 |
| GR | 1229.7 | 10312.2 | 1229.6 | 10363.0 | | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| NC | .045 | .045 | .040 | .1 | .3 | | | | | |
| X1 | 3.000 | 39 | 9930.2 | 10133.4 | 450 | 560 | 528 | | | |
| GR | 1232.0 | 9257.3 | 1231.4 | 9345.0 | 1230.8 | 9411.0 | 1231.0 | 9515.4 | 1230.8 | 9596.0 |
| GR | 1230.1 | 9647.2 | 1230.3 | 9708.5 | 1230.2 | 9796.3 | 1229.4 | 9859.3 | 1229.8 | 9901.2 |
| GR | 1229.5 | 9917.8 | 1229.1 | 9930.2 | 1220.0 | 9941.1 | 1220.3 | 9949.0 | 1221.9 | 9956.2 |
| GR | 1223.1 | 9973.0 | 1222.5 | 9984.9 | 1223.1 | 9991.6 | 1221.3 | 9996.3 | 1220.6 | 10000.0 |
| GR | 1220.5 | 10007.4 | 1222.3 | 10014.7 | 1222.6 | 10043.7 | 1222.2 | 10082.5 | 1221.7 | 10106.6 |
| GR | 1222.9 | 10116.3 | 1227.1 | 10124.5 | 1229.6 | 10130.0 | 1230.2 | 10133.4 | 1230.5 | 10160.3 |
| GR | 1230.8 | 10200.0 | 1231.0 | 10250.7 | 1231.3 | 10312.7 | 1230.8 | 10369.0 | 1231.6 | 10431.7 |
| GR | 1231.5 | 10477.0 | 1231.8 | 10539.4 | 1231.4 | 10583.2 | 1231.2 | 10641.8 | | |
| QT | 1 | 12160 | | | | | | | | |
| ET | 3.077 | 9.1 | | | | | | | 9905.5 | 10126.9 |
| X1 | 3.077 | 31 | 9905.6 | 10126.8 | 410 | 410 | 407 | | | |
| GR | 1231.8 | 9327.7 | 1231.2 | 9528.4 | 1231.0 | 9727.6 | 1231.5 | 9818.7 | 1231.3 | 9875.4 |
| GR | 1231.0 | 9888.6 | 1231.6 | 9905.6 | 1227.9 | 9912.5 | 1223.7 | 9924.9 | 1223.5 | 9928.7 |
| GR | 1224.4 | 9942.9 | 1223.4 | 9973.6 | 1222.8 | 9986.9 | 1223.2 | 10000.0 | 1223.6 | 10023.8 |
| GR | 1224.8 | 10034.5 | 1224.5 | 10058.4 | 1223.7 | 10079.3 | 1224.2 | 10097.2 | 1226.1 | 10108.2 |
| GR | 1235.1 | 10126.8 | 1232.1 | 10137.7 | 1232.2 | 10159.6 | 1231.4 | 10182.8 | 1231.4 | 10226.5 |
| GR | 1231.5 | 10269.1 | 1231.8 | 10331.9 | 1231.9 | 10383.9 | 1232.1 | 10440.2 | 1232.3 | 10510.6 |
| GR | 1232.5 | 10619.9 | | | | | | | | |
| ET | 3.143 | 9.1 | | | | | | | 9965 | 10109 |
| X1 | 3.143 | 59 | 9965.6 | 10108.2 | 360 | 320 | 348 | | | |
| GR | 1236.1 | 9482.4 | 1237.0 | 9493.3 | 1236.6 | 9527.1 | 1235.1 | 9561.4 | 1234.8 | 9580.4 |
| GR | 1234.5 | 9598.0 | 1233.7 | 9610.8 | 1233.6 | 9643.4 | 1232.9 | 9672.1 | 1231.9 | 9694.1 |
| GR | 1232.4 | 9711.3 | 1232.2 | 9728.9 | 1232.6 | 9735.8 | 1233.2 | 9758.7 | 1234.2 | 9780.5 |
| GR | 1234.1 | 9805.8 | 1233.0 | 9837.5 | 1232.9 | 9872.6 | 1233.3 | 9898.9 | 1233.1 | 9924.3 |
| GR | 1233.3 | 9938.8 | 1233.3 | 9952.3 | 1233.2 | 9965.6 | 1230.6 | 9973.7 | 1225.0 | 9983.5 |
| GR | 1222.5 | 9993.3 | 1222.4 | 10000.0 | 1223.7 | 10022.3 | 1224.9 | 10046.7 | 1225.7 | 10066.5 |
| GR | 1226.5 | 10080.9 | 1226.9 | 10093.1 | 1228.8 | 10097.6 | 1233.9 | 10108.2 | 1234.1 | 10116.5 |
| GR | 1233.4 | 10137.9 | 1233.5 | 10166.9 | 1233.5 | 10172.8 | 1233.7 | 10195.5 | 1233.7 | 10236.9 |
| GR | 1234.3 | 10268.6 | 1234.3 | 10300.6 | 1234.5 | 10328.5 | 1233.6 | 10356.0 | 1233.3 | 10391.3 |
| GR | 1234.4 | 10416.5 | 1234.0 | 10448.9 | 1234.0 | 10485.8 | 1234.7 | 10516.3 | 1234.8 | 10546.3 |
| GR | 1234.1 | 10565.0 | 1233.2 | 10571.2 | 1233.9 | 10590.2 | 1235.5 | 10607.1 | 1235.5 | 10633.3 |
| GR | 1235.4 | 10663.9 | 1235.3 | 10700.7 | 1235.2 | 10736.3 | 1235.4 | 10765.2 | | |
| ET | 3.200 | 9.1 | | | | | | | 9927 | 10085 |
| X1 | 3.200 | 52 | 9927.3 | 10082.2 | 310 | 270 | 301 | | | |
| GR | 1237.9 | 9482.4 | 1237.9 | 9501.6 | 1237.8 | 9545.8 | 1237.5 | 9572.4 | 1236.0 | 9591.8 |
| GR | 1235.7 | 9619.3 | 1235.7 | 9652.1 | 1235.4 | 9681.1 | 1235.4 | 9689.1 | 1235.2 | 9692.6 |
| GR | 1235.0 | 9696.5 | 1235.3 | 9712.3 | 1234.5 | 9726.6 | 1234.9 | 9733.3 | 1234.9 | 9751.5 |
| GR | 1234.7 | 9790.0 | 1234.7 | 9829.4 | 1234.5 | 9873.2 | 1234.5 | 9899.3 | 1235.1 | 9916.8 |
| GR | 1236.0 | 9927.3 | 1235.3 | 9937.3 | 1227.6 | 9954.1 | 1226.8 | 9973.3 | 1225.0 | 9982.3 |
| GR | 1225.0 | 9998.0 | 1226.2 | 10000.0 | 1225.8 | 10015.1 | 1226.9 | 10036.2 | 1228.3 | 10055.4 |
| GR | 1229.7 | 10064.1 | 1235.6 | 10082.2 | 1235.6 | 10110.9 | 1235.6 | 10155.7 | 1235.5 | 10206.4 |
| GR | 1235.1 | 10256.4 | 1235.3 | 10288.8 | 1235.1 | 10315.0 | 1234.1 | 10338.0 | 1234.5 | 10361.4 |
| GR | 1234.8 | 10386.4 | 1234.6 | 10389.3 | 1234.6 | 10422.7 | 1234.3 | 10462.2 | 1233.9 | 10477.0 |
| GR | 1234.2 | 10490.1 | 1234.1 | 10505.0 | 1234.5 | 10534.2 | 1235.0 | 10571.8 | 1235.9 | 10613.6 |
| GR | 1236.2 | 10648.9 | 1237.2 | 10668.8 | | | | | | |

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ET    3.300       9.1                                                                  9930      10118
        FROM SECTION 3.300 TO SECTION 3.400, ET CARDS ARE USED TO MODEL
        EFFECTIVE FLOW AREA IN BOTH OVERBANKS AT A 1:1 CONTRACTION UPSTEAM
        FROM THE CONSTRICTION.
X1    3.300        41    9940.0   10082.2       550       510       528
GR   1240.1    9503.7    1240.5    9546.8    1240.5    9570.6    1237.5    9605.6    1237.5    9659.7
GR   1236.5    9702.5    1236.6    9744.3    1236.5    9791.8    1235.8    9825.3    1236.3    9858.8
GR   1236.6    9890.3    1237.7    9914.2    1239.1    9929.2    1239.0    9940.0    1234.9    9944.7
GR   1230.9    9955.6    1229.8    9966.1    1228.6    9974.9    1228.6    9986.7    1228.1    9991.9
GR   1226.6    9994.5    1227.2   10000.0    1227.2   10013.3    1229.5   10020.7    1228.4   10038.1
GR   1229.5   10055.7    1230.4   10063.0    1236.1   10075.5    1239.0   10082.2    1239.4   10118.0
GR   1239.2   10150.3    1238.1   10186.3    1238.9   10215.9    1238.6   10236.0    1236.8   10253.8
GR   1238.4   10280.1    1237.8   10309.2    1237.4   10340.3    1236.6   10354.4    1236.6   10377.3
GR   1237.5   10384.5

QT        1     11950
ET    3.400       9.1                                                                  9470.2    10497.0
        FROM SECTION 3.400 TO SECTION 3.840, ET CARDS ARE USED TO MODEL
        EFFECTIVE FLOW AREAS IN BOTH OVERBANKS AT A 4:1 EXPANSION DOWNSTREAM
        FROM THE CHANNELIZATION.
X1    3.400        52    9912.5   10080.0       530       520       528
GR   1240.0    9470.2    1239.8    9508.5    1239.5    9549.0    1239.4    9573.5    1239.1    9594.4
GR   1239.8    9612.2    1239.2    9633.4    1239.7    9646.8    1239.4    9669.1    1239.4    9705.7
GR   1239.1    9742.4    1239.0    9773.2    1239.2    9803.7    1239.5    9836.8    1239.6    9874.6
GR   1239.5    9899.0    1238.9    9912.5    1237.4    9921.8    1233.4    9936.4    1231.3    9953.2
GR   1230.9    9971.6    1230.6    9982.2    1229.9    9997.0    1230.2   10000.0    1230.3   10015.2
GR   1230.8   10032.1    1231.8   10046.2    1239.6   10068.6    1240.8   10080.0    1239.8   10098.7
GR   1240.6   10111.8    1240.1   10130.4    1238.9   10152.8    1238.6   10178.4    1238.9   10199.3
GR   1239.9   10214.9    1239.7   10236.5    1238.9   10248.6    1239.9   10259.1    1239.3   10290.0
GR   1239.1   10322.0    1239.4   10346.6    1239.0   10358.0    1237.8   10370.7    1238.8   10380.1
GR   1240.7   10387.2    1238.8   10398.8    1239.0   10411.2    1239.4   10437.7    1239.1   10461.4
GR   1239.9   10479.9    1240.2   10497.0

ET    3.500       9.1                                                                  9570      10440
X1    3.500        66    9972.6   10174.9       520       530       528
GR   1243.7    8957.1    1243.4    8976.4    1243.4    8992.8    1243.7    9043.7    1243.3    9073.9
GR   1243.2    9078.8    1243.4    9099.5    1243.1    9114.8    1243.4    9120.3    1242.6    9131.6
GR   1241.8    9146.4    1242.0    9169.7    1242.1    9200.5    1242.0    9231.8    1241.4    9261.6
GR   1241.2    9292.1    1241.0    9321.7    1241.1    9357.5    1241.2    9398.4    1240.8    9440.9
GR   1241.3    9464.3    1240.7    9473.5    1240.7    9495.0    1241.0    9540.2    1241.3    9598.4
GR   1241.4    9650.2    1240.9    9728.2    1241.3    9770.7    1241.7    9803.1    1241.0    9843.8
GR   1241.0    9881.2    1240.7    9913.0    1241.0    9953.6    1241.3    9965.2    1241.7    9972.6
GR   1235.9    9985.3    1233.5    9997.2    1232.9   10000.0    1233.0   10013.1    1233.1   10023.8
GR   1231.9   10032.2    1233.1   10051.8    1233.3   10077.1    1233.7   10093.6    1236.0   10104.6
GR   1236.3   10113.6    1236.1   10122.4    1238.1   10137.8    1240.6   10158.2    1242.0   10174.9
GR   1241.9   10195.5    1241.0   10212.1    1240.6   10226.1    1241.6   10242.5    1241.8   10264.5
GR   1242.4   10303.4    1242.3   10340.1    1243.7   10389.2    1243.8   10430.8    1243.7   10457.4
GR   1244.5   10482.9    1244.9   10517.0    1244.1   10535.6    1244.3   10574.1    1244.4   10608.9
GR   1244.7   10643.9
```

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ET | 3.600 | 9.1 | | | | | | | 9660 | 10270 |
| X1 | 3.600 | 67 | 9946.2 | 10098.2 | 525 | 510 | 528 | | | |
| GR | 1247.9 | 9064.4 | 1248.4 | 9080.6 | 1248.7 | 9095.1 | 1247.8 | 9109.8 | 1245.9 | 9121.9 |
| GR | 1244.9 | 9129.0 | 1245.7 | 9136.6 | 1244.9 | 9143.0 | 1244.2 | 9146.6 | 1246.0 | 9153.2 |
| GR | 1246.4 | 9164.6 | 1246.1 | 9171.4 | 1246.6 | 9177.9 | 1243.6 | 9184.1 | 1243.1 | 9224.4 |
| GR | 1243.6 | 9258.0 | 1243.9 | 9286.1 | 1243.3 | 9328.2 | 1243.7 | 9368.4 | 1243.3 | 9416.1 |
| GR | 1243.6 | 9460.4 | 1243.6 | 9506.7 | 1243.9 | 9557.1 | 1243.8 | 9609.6 | 1243.7 | 9653.8 |
| GR | 1243.3 | 9705.9 | 1243.5 | 9758.8 | 1243.2 | 9808.1 | 1243.0 | 9850.8 | 1242.8 | 9885.2 |
| GR | 1243.0 | 9912.0 | 1243.0 | 9932.2 | 1242.3 | 9946.2 | 1236.6 | 9967.8 | 1234.9 | 9974.2 |
| GR | 1234.6 | 9985.9 | 1234.3 | 9998.1 | 1235.1 | 10000.0 | 1235.9 | 10013.8 | 1235.1 | 10027.1 |
| GR | 1235.5 | 10040.2 | 1236.2 | 10051.9 | 1236.3 | 10062.9 | 1238.1 | 10073.8 | 1238.4 | 10083.1 |
| GR | 1243.1 | 10098.2 | 1242.6 | 10116.4 | 1242.7 | 10145.3 | 1245.0 | 10161.8 | 1244.8 | 10171.0 |
| GR | 1244.6 | 10184.6 | 1244.4 | 10195.3 | 1244.0 | 10220.5 | 1244.0 | 10245.6 | 1244.4 | 10269.7 |
| GR | 1244.7 | 10291.9 | 1244.1 | 10315.8 | 1244.7 | 10338.3 | 1244.7 | 10375.7 | 1245.3 | 10414.4 |
| GR | 1245.5 | 10451.2 | 1245.8 | 10492.1 | 1245.8 | 10530.6 | 1244.7 | 10562.0 | 1245.3 | 10591.1 |
| GR | 1245.4 | 10623.5 | 1245.4 | 10632.0 | | | | | | |
| | | | | | | | | | | |
| ET | 3.700 | 9.1 | | | | | | | 9720 | 10110 |
| X1 | 3.700 | 92 | 9947.0 | 10078.5 | 515 | 515 | 528 | | | |
| GR | 1248.7 | 8618.4 | 1248.7 | 8647.8 | 1248.5 | 8671.1 | 1248.3 | 8675.0 | 1248.6 | 8688.9 |
| GR | 1248.2 | 8706.2 | 1249.0 | 8711.2 | 1249.1 | 8729.5 | 1248.8 | 8749.6 | 1249.0 | 8794.8 |
| GR | 1249.1 | 8840.2 | 1248.9 | 8891.7 | 1249.4 | 8943.1 | 1249.4 | 8981.5 | 1248.2 | 9026.1 |
| GR | 1246.9 | 9054.0 | 1245.7 | 9086.3 | 1245.9 | 9120.3 | 1246.1 | 9157.9 | 1246.1 | 9184.6 |
| GR | 1244.7 | 9202.1 | 1244.0 | 9217.2 | 1243.8 | 9237.0 | 1243.6 | 9264.2 | 1244.8 | 9283.8 |
| [illegible] | 1245.0 | 9293.3 | 1244.2 | 9304.0 | 1244.5 | 9323.7 | 1247.4 | 9337.1 | 1247.7 | 9365.6 |
| [illegible] | 1247.7 | 9410.3 | 1246.9 | 9445.7 | 1246.6 | 9472.5 | 1247.4 | 9498.8 | 1248.1 | 9525.6 |
| GR | 1244.8 | 9540.2 | 1244.8 | 9572.7 | 1244.7 | 9629.1 | 1244.1 | 9675.0 | 1244.3 | 9689.1 |
| GR | 1245.4 | 9694.7 | 1244.4 | 9708.7 | 1244.4 | 9746.3 | 1244.3 | 9784.2 | 1244.2 | 9817.3 |
| GR | 1244.9 | 9838.3 | 1246.6 | 9850.8 | 1244.7 | 9867.9 | 1245.8 | 9886.0 | 1245.9 | 9898.2 |
| GR | 1245.0 | 9909.3 | 1245.4 | 9928.6 | 1246.8 | 9939.5 | 1248.8 | 9947.0 | 1244.1 | 9955.4 |
| GR | 1238.5 | 9973.3 | 1235.3 | 9991.4 | 1235.3 | 10000.0 | 1235.2 | 10023.2 | 1236.2 | 10043.5 |
| GR | 1240.0 | 10059.3 | 1243.6 | 10072.5 | 1244.8 | 10078.5 | 1244.3 | 10091.6 | 1243.7 | 10098.3 |
| GR | 1245.0 | 10113.7 | 1245.9 | 10135.2 | 1245.5 | 10154.9 | 1244.6 | 10183.1 | 1244.0 | 10213.1 |
| GR | 1244.2 | 10246.3 | 1244.3 | 10275.3 | 1245.1 | 10283.5 | 1248.3 | 10291.7 | 1245.6 | 10303.2 |
| GR | 1245.1 | 10362.1 | 1245.6 | 10442.1 | 1245.0 | 10495.9 | 1245.1 | 10540.5 | 1244.6 | 10558.1 |
| GR | 1245.4 | 10570.1 | 1245.4 | 10585.1 | 1244.8 | 10608.2 | 1244.9 | 10628.2 | 1246.1 | 10628.3 |
| GR | 1246.1 | 10656.0 | 1247.9 | 10678.5 | 1248.0 | 10736.9 | 1246.0 | 10753.0 | 1245.3 | 10771.3 |
| GR | 1245.3 | 10801.2 | 1245.3 | 10812.4 | | | | | | |
| | | | | | | | | | | |
| QT | 1 | 11670 | | | | | | | | |
| ET | 3.767 | 9.1 | | | | | | | 9800 | 10078.3 |
| X1 | 3.767 | 97 | 9954.3 | 10078.2 | 355 | 355 | 354 | | | |
| GR | 1251.2 | 8824.2 | 1250.9 | 8872.5 | 1250.4 | 8909.5 | 1250.2 | 8967.3 | 1249.7 | 9016.4 |
| GR | 1249.5 | 9042.1 | 1248.6 | 9078.7 | 1249.3 | 9086.4 | 1248.3 | 9102.4 | 1248.6 | 9137.9 |
| GR | 1247.6 | 9182.6 | 1247.1 | 9213.0 | 1245.9 | 9222.8 | 1246.4 | 9236.7 | 1250.2 | 9242.8 |
| GR | 1246.6 | 9255.2 | 1247.7 | 9262.5 | 1246.8 | 9272.2 | 1246.7 | 9291.7 | 1246.5 | 9311.6 |
| GR | 1247.2 | 9320.5 | 1246.3 | 9331.7 | 1247.0 | 9341.9 | 1246.6 | 9345.8 | 1245.4 | 9353.2 |
| GR | 1246.6 | 9362.5 | 1245.6 | 9381.3 | 1246.0 | 9406.6 | 1245.4 | 9455.7 | 1246.3 | 9517.0 |
| GR | 1247.2 | 9545.9 | 1246.7 | 9553.9 | 1246.2 | 9568.2 | 1247.1 | 9586.7 | 1247.2 | 9613.5 |
| GR | 1247.4 | 9635.5 | 1247.7 | 9647.0 | 1247.4 | 9666.9 | 1246.5 | 9687.4 | 1246.9 | 9713.2 |
| GR | 1247.7 | 9744.6 | 1247.9 | 9761.4 | 1249.4 | 9769.9 | 1247.2 | 9784.2 | 1247.7 | 9791.8 |
| GR | 1248.5 | 9797.0 | 1248.8 | 9804.4 | 1246.9 | 9811.9 | 1246.1 | 9831.2 | 1245.7 | 9850.5 |
| | 1247.5 | 9865.5 | 1245.7 | 9874.2 | 1247.0 | 9881.5 | 1245.6 | 9887.7 | 1248.1 | 9895.3 |

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GR   1247.2    9900.9    1248.1    9906.2    1245.8    9916.2    1246.4    9936.6    1246.1    9954.3
GR   1243.2    9962.0    1242.2    9974.0    1239.8    9986.0    1235.6    9999.8    1235.3   10000.0
GR   1235.9   10020.0    1236.6   10037.6    1237.9   10046.8    1239.5   10055.3    1246.1   10070.0
GR   1248.1   10078.2    1247.8   10084.9    1245.2   10097.2    1246.0   10124.3    1245.6   10164.2
GR   1245.6   10210.9    1245.5   10245.8    1245.3   10271.2    1246.1   10296.9    1246.3   10327.9
GR   1246.6   10349.6    1246.7   10356.8    1247.8   10367.5    1247.2   10392.7    1246.8   10425.6
GR   1245.9   10436.8    1245.8   10445.6    1246.1   10461.1    1246.1   10474.5    1246.1   10483.7
GR   1247.5   10483.8    1247.6   10510.3    1248.0   10517.0    1248.2   10588.4    1248.5   10611.3
GR   1250.4   10637.1    1250.6   10655.7

NC    .045      .045      .035       .1        .3
ET   3.840       9.1                                                                   9900   10073.6
          FROM SECTION 3.840 TO SECTION 4.422, SKUNK CREEK IS CHANNELIZED.
X1   3.840        77    9952.9   10073.5       370       390       385
GR   1252.9    8587.9    1252.3    8625.8    1251.8    8684.4    1251.4    8757.3    1251.4    8800.2
GR   1251.3    8850.4    1251.0    8864.5    1250.2    8883.4    1249.9    8931.8    1249.9    8982.4
GR   1250.7    9025.6    1250.2    9058.9    1249.7    9083.9    1249.5    9109.4    1249.6    9124.8
GR   1250.7    9134.9    1251.7    9149.7    1252.6    9181.8    1252.5    9228.8    1252.5    9271.7
GR   1252.1    9310.4    1251.5    9339.1    1250.6    9354.7    1247.3    9373.8    1247.6    9407.4
GR   1247.3    9445.8    1248.0    9496.0    1247.7    9537.0    1247.4    9580.0    1247.6    9612.9
GR   1247.4    9643.3    1247.2    9671.6    1247.1    9694.2    1248.1    9715.1    1248.2    9750.5
GR   1248.2    9788.5    1248.0    9810.8    1248.3    9828.8    1247.3    9841.3    1248.0    9864.6
GR   1247.3    9885.4    1246.9    9903.9    1246.2    9913.1    1243.6    9921.8    1243.2    9929.5
GR   1245.7    9939.0    1246.5    9952.9    1241.1    9963.8    1240.1    9975.2    1239.0   10000.0
GR   1239.7   10027.5    1241.5   10048.5    1248.1   10065.0    1250.2   10073.5    1250.0   10086.1
GR   1246.8   10099.9    1247.6   10139.1    1247.6   10183.2    1247.3   10223.1    1248.4   10245.1
GR   1248.7   10259.4    1249.3   10280.0    1249.6   10282.3    1249.6   10321.5    1249.1   10381.8
GR   1248.1   10410.3    1248.1   10447.7    1248.6   10470.0    1248.0   10486.4    1249.5   10507.9
GR   1250.2   10537.0    1250.8   10561.7    1251.7   10637.7    1251.7   10663.1    1251.5   10686.5
GR   1252.2   10702.8    1252.2   10703.6

ET   3.916       9.1                                                                   9930      10076
X1   3.916        63    9930.4   10075.2       390       410       401
GR   1259.1    9111.6    1259.2    9148.3    1257.7    9167.1    1252.2    9190.2    1251.0    9213.3
GR   1251.0    9217.5    1253.5    9226.2    1251.3    9249.0    1250.4    9258.6    1250.8    9281.6
GR   1252.4    9299.5    1252.2    9325.4    1251.4    9335.9    1249.5    9350.2    1249.1    9369.5
GR   1249.6    9397.4    1249.2    9430.6    1250.1    9457.9    1250.0    9484.9    1250.1    9524.2
GR   1250.4    9563.4    1250.4    9598.8    1250.2    9638.6    1250.0    9675.4    1249.8    9707.0
GR   1248.7    9739.2    1248.3    9762.5    1247.4    9779.0    1245.9    9797.0    1245.3    9803.6
GR   1247.4    9815.8    1249.3    9827.1    1250.2    9838.4    1248.7    9856.3    1248.0    9871.1
GR   1248.1    9880.5    1250.1    9893.8    1252.4    9909.9    1252.8    9930.4    1242.3    9946.1
GR   1242.3    9972.4    1241.6    9999.2    1242.3   10000.0    1242.5   10028.5    1242.1   10040.3
GR   1241.6   10051.2    1242.2   10059.2    1252.7   10075.2    1252.2   10096.4    1249.9   10104.4
GR   1252.4   10117.9    1252.7   10142.5    1252.7   10179.2    1252.7   10233.0    1252.2   10242.6
GR   1252.5   10269.1    1252.2   10290.9    1251.6   10310.3    1250.6   10310.5    1250.8   10336.2
GR   1252.9   10362.4    1253.3   10402.3    1254.0   10443.4

ET   4.000       9.1                                                                   9907      10074
X1   4.000        61    9927.9   10073.7       430       460       444
GR   1252.1    9420.5    1253.1    9434.9    1251.3    9447.3    1251.7    9458.0    1252.3    9467.7
GR   1252.3    9486.3    1252.3    9500.2    1252.0    9525.3    1251.1    9553.7    1250.9    9585.9
GR   1251.0    9612.3    1252.8    9624.6    1250.6    9638.2    1251.4    9647.1    1250.3    9658.9
GR   1251.2    9685.4    1250.6    9721.6    1250.4    9751.9    1249.4    9767.4    1247.5    9783.5
GR   1248.7    9803.6    1247.8    9822.8    1248.0    9838.3    1248.7    9856.0    1248.9    9873.3
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GR    1249.9    9886.0    1250.8    9896.4    1255.2    9906.6    1255.1    9927.9    1244.2    9946.9
GR    1245.4    9967.8    1245.0    9982.2    1245.1   10000.0    1244.2   10022.8    1244.4   10045.0
GR    1244.8   10056.2    1250.4   10065.2    1254.6   10073.7    1254.6   10092.6    1251.0   10102.8
GR    1252.3   10113.0    1254.5   10120.2    1253.9   10131.8    1255.4   10151.1    1256.6   10163.4
GR    1256.5   10174.5    1255.9   10174.8    1255.9   10196.9    1256.1   10231.1    1256.6   10231.9
GR    1256.6   10253.8    1256.8   10282.3    1256.8   10300.3    1256.7   10301.0    1256.9   10317.1
GR    1257.3   10338.8    1257.2   10361.4    1257.5   10382.7    1257.5   10392.4    1257.0   10412.5
GR    1256.7   10429.4

QT         1      11460
ET     4.057        9.1                                                                 9920     10140
X1     4.057         66    9924.6   10077.6     300       300       301
GR    1253.4    9216.9    1253.3    9270.2    1253.0    9326.4    1253.9    9353.6    1253.2    9372.1
GR    1252.7    9389.3    1252.0    9408.1    1252.2    9447.9    1252.6    9480.8    1251.2    9505.2
GR    1251.6    9529.0    1252.0    9541.8    1250.1    9562.8    1250.1    9593.6    1250.4    9634.8
GR    1250.1    9668.4    1249.7    9693.5    1250.7    9713.8    1250.3    9741.4    1250.9    9774.5
GR    1251.2    9795.0    1251.6    9810.2    1250.7    9818.8    1250.1    9831.1    1249.6    9853.2
GR    1249.6    9872.1    1250.8    9890.0    1253.6    9898.8    1257.0    9906.8    1257.0    9924.6
GR    1246.1    9943.9    1245.5    9951.4    1245.9    9963.4    1245.7    9988.8    1246.4   10000.0
GR    1246.4   10031.3    1245.9   10042.4    1246.6   10052.0    1248.4   10057.3    1256.2   10069.3
GR    1258.8   10077.6    1258.8   10093.5    1259.4   10110.4    1259.6   10138.7    1259.5   10172.6
GR    1259.4   10205.0    1259.3   10229.7    1259.0   10264.4    1258.5   10301.5    1258.0   10333.5
GR    1257.7   10361.6    1257.5   10369.4    1257.1   10369.6    1257.1   10384.7    1257.1   10398.5
GR    1257.6   10399.2    1257.2   10412.6    1256.9   10433.7    1256.9   10464.5    1256.8   10495.1
GR    1257.0   10520.6    1257.0   10547.3    1257.2   10565.5    1257.0   10584.9    1256.6   10607.4
GR    1256.2   10623.8

          DOWNSTREAM FACE OF UNION HILLS BRIDGE.  BRIDGE IS MODELED AS OPEN
          CHANNEL FLOW, WITH GR POINTS DEFINING THE PIERS.
X1     4.082         33    9797.0   10142.     300        10       150       0.5
GR    1262.3    9643.1    1262.9    9705.7    1262.9    9756.5    1264.3    9775.0    1265.2    9797.0
GR    1261.8    9811.4    1259.6    9830.0    1258.5    9861.2    1255.8    9873.6    1249.9    9892.7
GR    1246.1    9904.6    1247.3    9934.2    1246.1    9941.0    1261.3    9941.1    1261.3    9946.9
GR    1246.1    9947.0    1247.1    9964.9    1246.5    9998.9    1246.8   10000.     1246.8   10040.0
GR    1245.9   10053.0    1261.3   10053.1    1261.3   10058.9    1245.9   10059.     1246.8   10079.
GR    1246.3   10103.     1246.4   10112.     1252.6   10130.     1258.4   10142.     1258.6   10161.
GR    1259.5   10190.     1260.1   10209.     1260.1   10246.

          UPSTREAM FACE OF UNION HILLS BRIDGE.
X1     4.131         28    9824.2   10217.     214       214       214       0.5
GR    1262.7    9782.2    1264.2    9803.5    1263.5    9824.2    1260.4    9838.3    1257.8    9855.5
GR    1253.0    9880.3    1250.5    9896.8    1250.2    9941.0    1262.0    9941.1    1262.0    9946.9
GR    1250.2    9947.0    1250.1    9956.3    1248.9    9999.2    1249.1   10000.     1248.8   10048.0
GR    1248.2   10053.0    1262.0   10053.1    1262.0   10058.9    1248.2   10059.0    1248.7   10092.
GR    1248.8   10113.     1249.8   10131.     1252.1   10143.     1258.3   10161.     1260.5   10177.
GR    1261.6   10198.     1263.6   10217.     1263.7   10231.

ET     4.177        9.1                                                                 9930     10090
X1     4.177         40    9931.7   10088.2      10       450       245
GR    1257.9    9673.2    1257.3    9734.6    1257.5    9791.7    1257.4    9843.7    1257.8    9880.8
GR    1258.0    9897.2    1258.9    9903.1    1260.1    9907.8    1262.2    9914.7    1262.1    9931.7
GR    1249.7    9952.8    1250.1    9986.9    1249.9   10000.0    1249.9   10035.0    1250.2   10052.6
GR    1252.0   10060.5    1260.2   10075.2    1261.2   10088.2    1261.2   10097.4    1256.7   10114.3
GR    1256.3   10137.3    1257.2   10155.8    1255.8   10173.9    1254.3   10193.4    1255.0   10217.1
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GR   1256.0   10247.5   1256.6   10271.8   1255.4   10289.1   1256.5   10304.3   1255.4   10322.7
GR   1256.7   10341.5   1256.7   10369.4   1256.3   10398.4   1257.1   10426.2   1257.9   10452.1
GR   1256.9   10471.5   1257.7   10487.5   1260.4   10503.0   1259.8   10530.6   1259.8   10550.2

QT       1     11320
ET   4.300       9.1                                                                 9910    10088
X1   4.300        68   9927.5   10069.1     630      680     649
GR   1265.1    9630.0   1265.1    9631.9   1264.8    9654.4   1264.2    9669.2   1264.7    9669.4
GR   1264.3    9680.1   1261.8    9691.6   1259.5    9703.2   1259.2    9731.9   1259.5    9752.3
GR   1260.1    9769.8   1260.3    9792.9   1260.5    9818.6   1260.3    9847.3   1259.0    9869.7
GR   1258.5    9886.5   1258.8    9894.2   1262.2    9901.7   1264.1    9908.5   1263.9    9927.5
GR   1257.0    9937.2   1253.8    9946.3   1253.7    9959.1   1253.5    9975.7   1253.3    9993.4
GR   1253.2   10000.0   1253.1   10021.6   1253.4   10034.8   1253.7   10046.0   1257.2   10061.4
GR   1263.0   10069.1   1264.1   10088.2   1262.6   10097.7   1258.9   10111.5   1259.0   10126.1
GR   1261.5   10140.7   1262.5   10157.7   1262.6   10173.8   1262.0   10183.1   1260.2   10186.6
GR   1260.5   10199.8   1261.5   10205.1   1260.9   10213.8   1261.9   10221.6   1261.9   10228.9
GR   1261.2   10242.5   1261.7   10262.0   1261.7   10288.8   1261.2   10320.3   1260.9   10359.5
GR   1260.8   10398.8   1261.3   10432.9   1261.4   10473.4   1262.4   10509.7   1261.6   10550.0
GR   1261.6   10597.5   1261.6   10628.7   1261.6   10678.9   1262.0   10713.2   1263.2   10762.0
GR   1263.2   10796.6   1263.2   10832.5   1262.3   10873.7   1262.2   10893.6   1262.2   10912.8
GR   1262.9   10916.9   1266.8   10925.8   1266.8   10941.4

ET   4.406       9.1                                                                 9913    10089
X1   4.406        69   9913.9   10088.5     530      580     560
GR   1266.8    9557.9   1267.2    9585.6   1267.7    9590.0   1267.2    9590.0   1267.1    9602.7
GR   1267.0    9613.9   1267.5    9636.9   1266.9    9646.2   1264.0    9658.9   1263.4    9678.7
GR   1264.0    9687.4   1267.6    9709.6   1270.0    9737.3   1270.9    9758.4   1271.0    9772.7
GR   1268.4    9791.0   1268.5    9808.0   1266.1    9823.5   1265.3    9833.2   1265.7    9856.9
GR   1267.2    9881.8   1268.0    9901.5   1268.5    9913.9   1261.2    9927.3   1257.0    9935.1
GR   1256.0    9965.4   1255.3    9994.8   1255.8   10000.0   1256.4   10033.8   1256.8   10055.4
GR   1257.5   10062.5   1262.1   10071.9   1267.1   10080.1   1267.4   10088.5   1265.6   10099.4
GR   1263.5   10127.9   1263.0   10154.6   1263.9   10173.1   1264.1   10194.3   1264.6   10214.2
GR   1264.5   10238.9   1265.0   10265.9   1263.5   10291.3   1263.8   10316.3   1264.0   10351.5
GR   1263.8   10383.0   1263.4   10418.0   1263.9   10447.2   1264.0   10490.2   1263.8   10519.8
GR   1263.0   10534.0   1262.5   10543.4   1263.9   10561.6   1264.5   10593.3   1264.6   10625.4
GR   1264.8   10660.2   1265.0   10700.5   1265.2   10745.2   1265.6   10780.1   1265.1   10804.4
GR   1263.3   10807.8   1265.8   10812.8   1265.3   10834.9   1265.0   10865.7   1265.7   10895.1
GR   1265.4   10926.7   1265.5   10963.8   1265.8   11034.8   1266.0   11043.3

         DOWNSTREAM FACE OF 59TH AVENUE BRIDGE.  BRIDGE IS MODELED AS OPEN
         CHANNEL FLOW, WITH GR POINTS DEFINING THE PIERS.
X1   4.415        23   9916.6   10091.       55       55      55
GR   1269.0    9897.9   1269.2    9910.4   1269.3    9916.6   1257.5    9939.4   1256.8    9959.0
GR   1256.7    9966.8   1266.0    9966.9   1266.0    9968.1   1256.7    9968.2   1256.6    9976.7
GR   1256.1    9988.1   1256.2   10000.    1256.4   10024.    1256.5   10031.8   1266.0   10031.9
GR   1266.0   10033.1   1256.5   10033.2   1256.7   10046.    1257.0   10063.    1264.2   10075.
GR   1270.0   10091.    1269.8   10115.    1269.3   10146.

         UPSTREAM FACE OF 59TH AVENUE BRIDGE.
X1   4.436        23   9915.0   10093.      100      100     100
GR   1269.5    9902.0   1269.6    9911.6   1268.8    9915.0   1262.8    9927.6   1256.6    9940.6
GR   1255.8    9957.9   1255.2    9966.8   1266.0    9966.9   1266.0    9968.1   1255.2    9968.2
GR   1255.6    9983.6   1255.5   10000.    1256.0   10029.    1255.4   10031.8   1266.0   10031.9
GR   1266.0   10033.1   1255.4   10033.2   1256.6   10054.    1256.6   10065.    1266.1   10081.
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| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| GR | 1269.2 | 10093. | 1269.4 | 10128. | 1269.4 | 10161. | | | | |
| QT | 1 | 11180 | | | | | | | | |
| ET | 4.445 | 9.1 | | | | | | | 9893 | 10112 |
| X1 | 4.445 | 70 | 9893.9 | 10111.8 | 50 | 50 | 50 | | | |
| GR | 1267.3 | 9504.9 | 1267.4 | 9537.0 | 1267.7 | 9552.1 | 1268.4 | 9581.0 | 1268.4 | 9591.5 |
| GR | 1268.4 | 9610.7 | 1267.9 | 9623.9 | 1267.8 | 9656.0 | 1268.5 | 9707.4 | 1269.9 | 9756.8 |
| GR | 1269.7 | 9799.7 | 1268.6 | 9830.6 | 1268.7 | 9853.9 | 1269.9 | 9883.2 | 1269.9 | 9893.9 |
| GR | 1268.9 | 9901.3 | 1260.8 | 9914.9 | 1257.3 | 9922.3 | 1256.8 | 9942.4 | 1256.4 | 9978.4 |
| GR | 1256.2 | 10000.0 | 1256.6 | 10027.9 | 1256.5 | 10054.1 | 1256.5 | 10076.8 | 1257.0 | 10086.8 |
| GR | 1267.5 | 10101.7 | 1268.9 | 10111.8 | 1269.1 | 10133.3 | 1268.8 | 10160.2 | 1268.2 | 10179.3 |
| GR | 1267.0 | 10197.3 | 1267.3 | 10210.7 | 1270.0 | 10212.1 | 1269.4 | 10215.5 | 1269.2 | 10233.1 |
| GR | 1269.1 | 10250.3 | 1269.7 | 10250.6 | 1268.1 | 10258.3 | 1267.0 | 10277.5 | 1265.9 | 10301.1 |
| GR | 1265.8 | 10334.8 | 1266.2 | 10367.2 | 1267.8 | 10378.7 | 1267.8 | 10392.9 | 1265.2 | 10407.1 |
| GR | 1266.0 | 10437.2 | 1266.1 | 10472.6 | 1266.9 | 10494.3 | 1266.1 | 10506.1 | 1266.1 | 10516.2 |
| GR | 1268.5 | 10525.2 | 1269.2 | 10551.3 | 1270.2 | 10587.1 | 1270.5 | 10636.9 | 1271.0 | 10685.2 |
| GR | 1271.0 | 10728.2 | 1269.1 | 10749.6 | 1267.6 | 10776.6 | 1266.0 | 10788.2 | 1266.2 | 10813.0 |
| GR | 1267.2 | 10833.8 | 1268.9 | 10849.6 | 1269.1 | 10853.4 | 1269.1 | 10856.5 | 1268.7 | 10856.5 |
| GR | 1268.8 | 10893.0 | 1268.6 | 10934.9 | 1268.6 | 10978.4 | 1268.6 | 11025.2 | 1268.6 | 11034.2 |
| ET | 4.500 | 9.1 | | | | | | | 9770 | 10160 |
| X1 | 4.500 | 84 | 9819.8 | 10119.3 | 290 | 290 | 290 | | | |
| GR | 1268.1 | 9390.9 | 1268.6 | 9439.9 | 1269.4 | 9490.6 | 1269.5 | 9518.9 | 1268.8 | 9545.1 |
| GR | 1269.5 | 9573.9 | 1269.8 | 9595.6 | 1269.9 | 9605.7 | 1268.6 | 9615.2 | 1268.2 | 9619.4 |
| GR | 1269.5 | 9626.3 | 1268.7 | 9647.3 | 1269.4 | 9668.8 | 1269.1 | 9691.3 | 1269.7 | 9710.8 |
| GR | 1269.6 | 9733.3 | 1270.7 | 9768.4 | 1270.0 | 9795.4 | 1268.1 | 9819.8 | 1264.8 | 9846.5 |
| [illegible] | 1260.0 | 9878.1 | 1257.0 | 9907.3 | 1256.4 | 9929.7 | 1258.3 | 9947.3 | 1256.6 | 9962.4 |
| GR | 1257.6 | 9974.5 | 1257.7 | 9986.1 | 1256.9 | 10000.0 | 1257.0 | 10014.5 | 1256.6 | 10030.9 |
| GR | 1256.2 | 10052.7 | 1257.8 | 10077.9 | 1258.9 | 10100.8 | 1259.8 | 10103.8 | 1267.8 | 10119.3 |
| GR | 1268.3 | 10126.1 | 1269.9 | 10151.3 | 1270.2 | 10162.8 | 1266.2 | 10196.7 | 1266.2 | 10221.3 |
| GR | 1266.3 | 10259.3 | 1266.3 | 10301.8 | 1265.9 | 10327.7 | 1266.6 | 10338.8 | 1271.0 | 10349.1 |
| GR | 1269.9 | 10364.4 | 1269.7 | 10374.5 | 1269.4 | 10391.7 | 1269.4 | 10404.0 | 1270.1 | 10404.0 |
| GR | 1268.9 | 10424.3 | 1268.9 | 10457.7 | 1268.8 | 10499.5 | 1269.5 | 10534.7 | 1269.5 | 10566.8 |
| GR | 1270.0 | 10598.8 | 1270.7 | 10626.2 | 1273.9 | 10644.8 | 1276.7 | 10658.1 | 1277.4 | 10661.4 |
| GR | 1272.9 | 10796.9 | 1270.9 | 10808.3 | 1269.9 | 10838.5 | 1269.9 | 10855.8 | 1269.6 | 10889.3 |
| GR | 1268.9 | 10941.5 | 1268.9 | 10990.1 | 1269.0 | 11038.8 | 1269.0 | 11090.0 | 1269.0 | 11142.9 |
| GR | 1269.3 | 11188.6 | 1269.0 | 11235.7 | 1269.4 | 11276.5 | 1269.2 | 11315.4 | 1269.6 | 11337.0 |
| GR | 1270.2 | 11346.5 | 1270.2 | 11367.3 | 1269.2 | 11378.0 | 1268.8 | 11393.9 | 1268.6 | 11408.5 |
| GR | 1269.8 | 11427.2 | 1271.1 | 11442.7 | 1270.3 | 11456.1 | 1270.3 | 11462.2 | | |
| ET | 4.600 | 9.1 | | | | | | | 9845 | 10183 |
| X1 | 4.600 | 87 | 9858.3 | 10182.0 | 530 | 530 | 528 | | | |
| GR | 1270.3 | 9360.0 | 1269.2 | 9381.1 | 1269.8 | 9400.0 | 1269.5 | 9414.1 | 1270.4 | 9431.8 |
| GR | 1271.9 | 9450.7 | 1271.9 | 9493.1 | 1272.1 | 9517.0 | 1271.4 | 9524.7 | 1270.1 | 9535.2 |
| GR | 1270.8 | 9549.6 | 1270.8 | 9563.0 | 1271.1 | 9576.1 | 1270.7 | 9592.2 | 1271.3 | 9609.3 |
| GR | 1272.1 | 9619.7 | 1273.0 | 9624.0 | 1270.7 | 9637.1 | 1270.5 | 9657.8 | 1270.3 | 9684.4 |
| GR | 1270.3 | 9711.6 | 1270.9 | 9756.9 | 1271.1 | 9793.4 | 1271.0 | 9823.7 | 1271.5 | 9840.5 |
| GR | 1271.1 | 9858.3 | 1269.3 | 9869.8 | 1265.5 | 9883.1 | 1260.6 | 9900.5 | 1259.3 | 9910.6 |
| GR | 1258.3 | 9937.8 | 1258.8 | 9960.4 | 1260.3 | 9976.8 | 1259.9 | 9996.6 | 1259.2 | 10000.0 |
| GR | 1259.4 | 10023.8 | 1259.7 | 10047.6 | 1259.6 | 10077.5 | 1260.4 | 10096.2 | 1262.4 | 10102.7 |
| GR | 1265.2 | 10111.9 | 1265.5 | 10136.7 | 1268.9 | 10162.7 | 1269.9 | 10182.0 | 1268.3 | 10196.9 |
| GR | 1266.2 | 10213.4 | 1265.5 | 10225.9 | 1265.5 | 10247.9 | 1265.8 | 10263.8 | 1269.3 | 10278.9 |
| GR | 1271.9 | 10291.3 | 1270.0 | 10302.1 | 1269.5 | 10317.6 | 1268.9 | 10317.7 | 1269.0 | 10341.7 |
| [illegible] | 1269.5 | 10341.8 | 1269.8 | 10355.5 | 1269.9 | 10388.2 | 1270.6 | 10431.9 | 1270.3 | 10469.9 |

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GR   1270.0   10519.9   1270.3   10560.3   1270.1   10595.9   1269.5   10625.9   1270.0   10655.2
GR   1270.2   10683.9   1270.9   10711.6   1270.1   10750.9   1270.1   10788.2   1269.9   10820.1
GR   1270.6   10849.7   1271.0   10922.1   1270.6   10966.5   1268.9   10966.5   1268.9   10997.6
GR   1269.4   11027.6   1269.2   11059.7   1269.3   11084.9   1270.1   11124.9   1270.0   11178.5
GR   1270.0   11238.0   1269.9   11292.3   1269.1   11343.8   1269.3   11358.2   1269.2   11371.9
GR   1270.7   11386.4   1271.3   11394.2

ET    4.674       9.1                                                                 9750    10190
X1    4.674        78   9875.9   10189.3     390      390      391
GR   1272.9    9445.0   1272.7    9489.1   1272.3    9520.3   1271.9    9531.7   1272.0    9551.4
GR   1272.0    9566.3   1271.7    9582.5   1272.6    9608.4   1274.3    9624.2   1277.0    9638.7
GR   1277.1    9659.4   1275.3    9674.9   1275.7    9707.0   1275.8    9740.3   1275.5    9767.4
GR   1275.5    9800.7   1275.1    9830.0   1274.0    9857.0   1272.6    9875.9   1266.0    9894.2
GR   1263.9    9905.9   1263.4    9932.1   1261.6    9954.4   1262.6    9980.2   1261.3   10000.0
GR   1261.0   10020.1   1260.7   10030.6   1262.0   10041.9   1262.5   10051.1   1262.5   10070.6
GR   1262.9   10093.0   1263.3   10097.7   1266.7   10108.1   1268.9   10147.9   1270.7   10189.3
GR   1270.7   10209.4   1269.6   10218.1   1267.9   10236.8   1265.3   10250.7   1265.5   10272.8
GR   1265.5   10287.9   1267.0   10298.6   1270.0   10313.0   1270.1   10321.2   1269.7   10321.3
GR   1269.8   10345.9   1270.3   10346.3   1270.3   10356.1   1269.9   10356.1   1269.9   10413.9
GR   1269.5   10481.7   1270.3   10561.1   1270.0   10625.6   1270.0   10683.7   1270.9   10714.1
GR   1271.0   10744.0   1270.2   10778.6   1269.7   10824.4   1269.6   10877.4   1269.1   10928.6
GR   1269.2   10984.5   1269.5   11038.1   1269.5   11086.2   1269.5   11132.1   1269.9   11171.2
GR   1270.4   11203.0   1270.9   11249.9   1271.8   11282.8   1273.4   11317.4   1274.3   11352.3
GR   1274.6   11385.2   1274.8   11422.8   1274.6   11452.9   1275.0   11488.0   1275.4   11525.0
GR   1274.8   11563.3   1275.2   11603.6   1275.0   11632.0

QT       1     11970
ET    4.721       9.1                                                                 9800    10225
         IMMEDIATELY UPSTREAM OF 57TH AVENUE DIP SECTION.
X1    4.721        72   9864.1   10145.2     240      260      248
GR   1272.7    9379.3   1272.6    9384.0   1272.6    9399.3   1272.5    9414.8   1272.8    9420.1
GR   1273.6    9443.2   1274.0    9480.9   1273.5    9513.0   1273.4    9527.4   1272.7    9533.3
GR   1272.9    9545.6   1273.0    9557.5   1272.7    9569.3   1272.3    9586.2   1271.7    9596.7
GR   1272.8    9613.2   1274.5    9629.9   1275.1    9636.5   1274.2    9654.8   1274.2    9689.0
GR   1274.2    9732.2   1274.9    9772.2   1274.9    9805.9   1274.8    9824.8   1274.1    9846.6
GR   1272.9    9864.1   1268.9    9882.8   1263.6    9902.0   1263.7    9927.8   1264.6    9954.6
GR   1262.8    9973.7   1261.5    9987.3   1261.2   10000.0   1261.0   10018.1   1263.4   10025.5
GR   1263.9   10042.5   1264.2   10066.9   1264.3   10087.9   1264.5   10117.3   1264.2   10130.5
GR   1270.0   10145.2   1270.1   10171.8   1271.2   10199.8   1271.8   10225.5   1271.9   10232.9
GR   1267.4   10253.1   1266.2   10267.0   1266.0   10290.8   1265.6   10306.3   1269.7   10326.3
GR   1270.9   10340.2   1270.6   10366.1   1271.1   10366.2   1271.4   10386.4   1269.7   10403.2
GR   1266.5   10425.5   1266.1   10434.7   1268.2   10463.8   1271.3   10495.4   1271.7   10519.8
GR   1271.7   10556.9   1271.8   10599.7   1272.7   10654.3   1272.6   10679.1   1272.1   10692.6
GR   1272.2   10707.1   1272.3   10719.9   1272.3   10753.7   1272.3   10791.5   1272.6   10827.9
GR   1272.8   10859.7   1271.8   10881.8

X1    4.770        76   9858.7   10201.7     265      240      259
GR   1274.8    9306.8   1274.5    9359.5   1275.3    9417.6   1275.7    9471.0   1275.5    9516.5
GR   1275.5    9535.1   1275.1    9535.1   1275.5    9555.4   1274.8    9570.9   1275.3    9571.0
GR   1275.4    9581.9   1275.3    9586.4   1272.9    9593.6   1273.2    9613.0   1275.7    9626.0
GR   1274.9    9634.7   1274.9    9643.3   1275.4    9661.5   1276.0    9710.4   1277.5    9763.2
GR   1277.3    9805.9   1277.3    9837.4   1277.4    9858.7   1273.4    9879.3   1268.3    9895.1
GR   1265.8    9904.1   1266.0    9927.8   1266.1    9959.2   1265.2    9984.2   1263.6    9999.7
GR   1263.7   10000.0   1265.9   10013.4   1265.6   10050.0   1266.3   10064.6   1265.3   10084.0
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| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| GR | 1266.2 | 10103.0 | 1269.2 | 10113.0 | 1270.0 | 10134.1 | 1272.0 | 10163.4 | 1274.9 | 10185.1 |
| GR | 1277.1 | 10201.7 | 1276.4 | 10218.9 | 1274.0 | 10241.5 | 1274.1 | 10264.4 | 1274.3 | 10292.7 |
| GR | 1274.7 | 10313.5 | 1274.7 | 10325.8 | 1273.7 | 10325.8 | 1274.4 | 10356.8 | 1274.7 | 10407.9 |
| GR | 1274.9 | 10453.1 | 1274.5 | 10500.4 | 1274.5 | 10557.0 | 1274.1 | 10609.9 | 1273.9 | 10666.1 |
| GR | 1273.8 | 10717.2 | 1273.0 | 10767.2 | 1272.9 | 10824.0 | 1273.2 | 10868.1 | 1273.2 | 10924.4 |
| GR | 1273.2 | 10974.4 | 1273.5 | 11024.8 | 1273.9 | 11066.4 | 1274.5 | 11110.6 | 1274.9 | 11161.8 |
| GR | 1275.1 | 11204.2 | 1275.3 | 11254.2 | 1276.0 | 11307.1 | 1276.0 | 11361.5 | 1275.9 | 11416.9 |
| GR | 1276.0 | 11478.3 | 1275.7 | 11522.5 | 1276.2 | 11570.7 | 1276.3 | 11626.4 | 1276.4 | 11679.3 |
| GR | 1276.5 | 11694.5 | | | | | | | | |
| ET | 4.870 | 9.1 | | | | | | | 9803 | 10144 |
| X1 | 4.870 | 84 | 9803.9 | 10143.6 | 610 | 420 | 528 | | | |
| GR | 1278.7 | 9469.9 | 1278.4 | 9516.9 | 1278.5 | 9558.0 | 1279.8 | 9585.0 | 1280.1 | 9607.5 |
| GR | 1278.9 | 9649.8 | 1278.1 | 9682.4 | 1277.9 | 9724.3 | 1277.5 | 9761.1 | 1277.7 | 9786.5 |
| GR | 1277.6 | 9803.9 | 1273.2 | 9832.6 | 1268.5 | 9868.3 | 1267.2 | 9892.0 | 1267.2 | 9931.0 |
| GR | 1266.9 | 9966.0 | 1267.0 | 9997.4 | 1267.2 | 10000.0 | 1266.7 | 10033.7 | 1267.0 | 10070.4 |
| GR | 1267.3 | 10086.4 | 1272.9 | 10111.5 | 1275.9 | 10133.1 | 1277.5 | 10143.6 | 1277.9 | 10158.6 |
| GR | 1276.1 | 10172.0 | 1276.1 | 10185.1 | 1276.3 | 10198.4 | 1276.0 | 10221.4 | 1276.0 | 10239.1 |
| GR | 1276.7 | 10264.2 | 1276.7 | 10298.7 | 1276.8 | 10330.3 | 1275.6 | 10347.4 | 1274.7 | 10366.7 |
| GR | 1275.6 | 10378.8 | 1276.3 | 10397.0 | 1275.6 | 10421.7 | 1275.6 | 10455.7 | 1275.5 | 10484.4 |
| GR | 1276.4 | 10498.7 | 1275.4 | 10523.8 | 1275.7 | 10542.4 | 1275.0 | 10556.3 | 1275.1 | 10581.4 |
| GR | 1275.4 | 10607.4 | 1274.8 | 10632.3 | 1274.4 | 10657.9 | 1275.0 | 10674.1 | 1274.4 | 10707.2 |
| GR | 1274.5 | 10751.6 | 1274.0 | 10794.1 | 1274.3 | 10851.1 | 1274.5 | 10906.2 | 1274.5 | 10966.4 |
| GR | 1274.8 | 11030.5 | 1275.6 | 11086.1 | 1275.5 | 11134.6 | 1275.6 | 11177.7 | 1275.1 | 11196.2 |
| GR | 1275.7 | 11231.6 | 1276.1 | 11271.6 | 1276.6 | 11298.1 | 1276.2 | 11313.1 | 1274.8 | 11323.5 |
| [illegible] | 1274.9 | 11329.4 | 1277.3 | 11343.1 | 1277.6 | 11372.9 | 1276.7 | 11385.2 | 1277.7 | 11405.5 |
| [illegible] | 1277.6 | 11427.0 | 1278.1 | 11453.1 | 1278.5 | 11489.4 | 1278.4 | 11518.6 | 1277.7 | 11529.4 |
| GR | 1278.6 | 11544.5 | 1278.6 | 11565.0 | 1278.7 | 11584.6 | 1277.4 | 11596.7 | 1277.3 | 11600.9 |
| GR | 1278.9 | 11610.1 | 1278.6 | 11644.7 | 1279.0 | 11687.2 | 1279.0 | 11687.8 | | |
| ET | 4.893 | 9.1 | | | | | | | 9900 | 10095 |
| X1 | 4.893 | 90 | 9916.9 | 10074.1 | 150 | 110 | 121 | | | |
| GR | 1280.4 | 9484.9 | 1279.9 | 9515.1 | 1279.1 | 9552.0 | 1278.2 | 9580.3 | 1278.9 | 9597.6 |
| GR | 1279.6 | 9609.1 | 1278.8 | 9628.2 | 1279.5 | 9654.7 | 1280.2 | 9681.9 | 1280.4 | 9704.5 |
| GR | 1279.2 | 9731.2 | 1279.0 | 9756.9 | 1279.4 | 9781.0 | 1278.4 | 9802.0 | 1277.2 | 9834.4 |
| GR | 1276.1 | 9873.7 | 1275.7 | 9897.6 | 1275.1 | 9916.9 | 1271.1 | 9936.3 | 1267.9 | 9953.6 |
| GR | 1266.9 | 9965.6 | 1266.6 | 9990.5 | 1266.1 | 10000.0 | 1265.8 | 10015.4 | 1268.1 | 10031.3 |
| GR | 1271.7 | 10040.4 | 1274.2 | 10058.1 | 1275.2 | 10074.1 | 1275.3 | 10094.8 | 1277.0 | 10119.2 |
| GR | 1277.0 | 10141.7 | 1276.2 | 10153.7 | 1276.6 | 10180.3 | 1276.7 | 10213.9 | 1276.6 | 10240.9 |
| GR | 1276.2 | 10270.5 | 1274.2 | 10288.6 | 1276.3 | 10304.7 | 1277.5 | 10332.3 | 1276.9 | 10360.8 |
| GR | 1276.4 | 10395.5 | 1276.1 | 10426.9 | 1276.4 | 10458.6 | 1276.3 | 10491.9 | 1275.7 | 10513.6 |
| GR | 1275.4 | 10544.5 | 1276.0 | 10560.8 | 1275.0 | 10574.5 | 1275.8 | 10587.7 | 1275.7 | 10593.6 |
| GR | 1276.8 | 10621.0 | 1277.7 | 10654.8 | 1278.1 | 10685.1 | 1278.2 | 10728.6 | 1278.2 | 10772.2 |
| GR | 1278.6 | 10810.8 | 1278.6 | 10852.6 | 1278.1 | 10895.8 | 1277.7 | 10933.2 | 1277.7 | 10977.7 |
| GR | 1278.0 | 11016.3 | 1278.3 | 11048.9 | 1278.3 | 11086.8 | 1278.6 | 11128.2 | 1279.0 | 11163.7 |
| GR | 1279.8 | 11196.5 | 1279.9 | 11218.7 | 1279.7 | 11233.1 | 1278.6 | 11242.3 | 1277.3 | 11248.5 |
| GR | 1277.2 | 11257.3 | 1277.5 | 11287.8 | 1277.6 | 11318.7 | 1278.3 | 11343.2 | 1278.3 | 11361.0 |
| GR | 1278.2 | 11374.9 | 1276.9 | 11384.6 | 1276.4 | 11388.9 | 1277.6 | 11398.7 | 1278.1 | 11415.4 |
| GR | 1278.6 | 11432.6 | 1278.6 | 11454.7 | 1278.7 | 11486.9 | 1279.0 | 11515.7 | 1279.2 | 11544.4 |
| GR | 1279.6 | 11565.7 | 1279.2 | 11584.0 | 1278.1 | 11591.8 | 1278.4 | 11598.3 | 1279.3 | 11601.4 |

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ET    4.922       9.1                                                          9842      10134
         IMMEDIATELY DOWNSTREAM AT 55TH AVENUE CHANNEL.
X1    4.922        96    9897.2   10133.7       155       145       153
GR   1280.2    9301.7    1280.2    9346.2    1279.3    9349.3    1279.3    9399.2    1279.1    9429.5
GR   1278.5    9462.6    1279.0    9479.6    1278.4    9505.6    1278.5    9543.1    1278.8    9578.8
GR   1279.2    9604.4    1279.2    9628.5    1279.0    9673.6    1278.7    9705.9    1278.8    9733.2
GR   1278.7    9765.1    1278.5    9796.7    1278.4    9816.2    1276.1    9828.5    1278.3    9842.0
GR   1276.8    9852.6    1276.5    9874.7    1276.5    9897.2    1275.5    9921.5    1275.0    9932.4
GR   1275.0    9935.3    1271.5    9951.4    1270.6    9960.2    1270.7    9983.4    1269.9   10000.0
GR   1270.0   10036.4    1270.0   10064.1    1270.3   10073.4    1271.9   10085.5    1276.0   10103.3
GR   1277.6   10116.5    1278.4   10133.7    1277.9   10150.6    1277.2   10166.1    1278.1   10182.6
GR   1277.7   10201.2    1278.0   10211.8    1278.6   10226.6    1277.8   10252.0    1277.6   10291.5
GR   1277.6   10321.7    1277.8   10356.2    1276.9   10381.9    1277.1   10415.5    1276.4   10449.4
GR   1277.3   10479.5    1278.2   10506.3    1278.7   10529.7    1279.2   10533.1    1278.7   10553.0
GR   1279.0   10575.9    1278.3   10593.8    1279.1   10627.9    1278.6   10669.0    1278.1   10725.8
GR   1278.4   10767.7    1278.5   10816.1    1278.2   10858.7    1277.8   10885.7    1277.3   10925.2
GR   1277.8   10971.9    1278.1   11014.3    1278.3   11060.8    1278.7   11099.3    1279.1   11123.0
GR   1279.2   11142.2    1278.7   11158.0    1278.3   11170.0    1278.2   11177.3    1277.5   11187.4
GR   1278.4   11203.7    1278.2   11228.6    1277.6   11251.6    1278.5   11260.7    1278.7   11272.5
GR   1277.9   11297.0    1278.2   11324.0    1278.4   11351.1    1278.4   11372.1    1277.6   11392.9
GR   1279.3   11413.4    1279.3   11430.9    1279.8   11454.4    1280.0   11473.3    1279.3   11497.0
GR   1278.1   11506.6    1279.5   11517.0    1280.2   11533.7    1280.5   11551.1    1279.1   11566.2
GR   1281.3   11577.0

QT        1     10830
X1    4.945        51    9946.6   10042.2       115       210       121
X3               1270.3
GR   1279.1    9283.5    1279.3    9332.8    1279.1    9358.7    1279.3    9396.3    1279.1    9433.4
GR   1279.2    9467.5    1279.2    9495.6    1279.2    9526.2    1278.8    9559.9    1278.8    9585.0
GR   1278.5    9611.2    1278.6    9636.3    1278.8    9673.6    1278.8    9718.4    1279.2    9756.6
GR   1279.4    9788.0    1279.2    9823.0    1278.9    9858.3    1278.9    9889.8    1279.4    9920.8
GR   1279.6    9928.3    1281.5    9939.7    1279.1    9946.6    1270.3    9961.3    1269.1    9974.6
GR   1270.4    9990.1    1270.7   10000.0    1271.8   10014.7    1276.4   10033.6    1276.7   10042.2
GR   1276.9   10075.8    1277.5   10123.0    1277.9   10173.6    1278.2   10227.5    1278.8   10281.2
GR   1279.3   10342.2    1279.9   10410.1    1279.9   10477.8    1279.6   10547.7    1279.7   10617.0
GR   1281.4   10681.7    1281.2   10745.5    1280.7   10811.4    1280.9   10884.5    1281.0   10952.6
GR   1280.3   11023.8    1281.1   11089.5    1281.2   11157.1    1281.5   11221.1    1281.8   11286.4
GR   1282.1   11340.1

ET    4.974       9.1                                                          9283      10700
X1    4.974        68    9958.0   10084.4       155        80       153
X3               1270.3
GR   1280.4    9282.4    1279.5    9342.4    1278.6    9359.2    1278.3    9409.3    1278.2    9442.4
GR   1278.3    9466.1    1279.1    9490.3    1279.2    9526.6    1278.5    9555.6    1278.4    9604.3
GR   1278.1    9650.3    1278.1    9692.6    1278.7    9718.2    1278.0    9746.1    1278.3    9781.3
GR   1278.5    9812.2    1280.1    9841.4    1280.3    9871.7    1280.1    9904.5    1280.3    9935.1
GR   1280.7    9948.5    1281.7    9958.0    1280.5    9964.6    1272.8    9980.0    1271.9    9982.9
GR   1267.8    9991.8    1268.7   10000.0    1268.9   10021.5    1270.2   10035.5    1270.2   10052.0
GR   1270.5   10057.8    1278.4   10071.4    1279.5   10084.4    1280.0   10107.5    1280.0   10146.5
GR   1280.0   10147.1    1280.0   10183.7    1280.0   10214.3    1280.7   10251.5    1281.1   10289.7
GR   1280.8   10323.1    1280.7   10357.8    1281.2   10397.9    1280.6   10442.4    1280.6   10479.0
GR   1281.3   10521.0    1282.0   10558.9    1282.5   10595.3    1283.4   10631.1    1283.2   10663.9
GR   1283.1   10704.5    1282.4   10741.7    1282.9   10784.8    1282.2   10821.7    1281.3   10850.2
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GR   1280.8   10887.2   1280.6   10922.3   1280.8   10959.5   1281.0   11000.1   1281.4   11043.5
GR   1282.0   11075.3   1282.4   11095.4   1281.3   11112.4   1281.3   11148.1   1281.7   11188.5
GR   1282.1   11231.2   1281.9   11278.4   1282.2   11279.7

ET   5.008      9.1                                                                 9072     10086
X1   5.008       79    9913.5   10085.6     190      175      180
X3             1270.3
GR   1281.6   9071.7   1281.6    9126.1   1280.8    9175.8   1280.9    9231.8   1280.6    9275.6
GR   1279.2   9287.9   1279.8    9303.7   1279.8    9330.0   1279.9    9344.5   1280.6    9354.6
GR   1279.3   9358.8   1278.8    9369.8   1280.2    9377.8   1279.7    9377.9   1279.7    9387.2
GR   1280.0   9388.2   1280.1    9406.9   1280.1    9442.2   1280.3    9469.8   1280.8    9514.6
GR   1279.0   9540.7   1279.3    9574.5   1279.4    9605.4   1279.3    9643.0   1279.2    9692.7
GR   1279.4   9743.1   1278.9    9785.6   1279.0    9824.2   1279.7    9851.6   1280.9    9873.2
GR   1280.6   9893.9   1279.5    9913.5   1278.5    9923.9   1269.1    9938.9   1268.7    9974.0
GR   1268.2  10000.0   1267.9   10030.9   1268.0   10051.3   1279.0   10072.7   1285.7   10085.6
GR   1281.4  10100.1   1281.8   10141.6   1282.6   10167.7   1285.2   10181.1   1286.4   10200.8
GR   1290.1  10219.3   1288.1   10248.6   1284.6   10271.1   1285.7   10285.0   1287.1   10297.1
GR   1284.4  10309.7   1283.8   10324.4   1284.1   10329.5   1282.9   10344.2   1283.8   10364.5
GR   1284.7  10380.3   1281.7   10392.9   1281.2   10418.9   1280.6   10466.4   1280.4   10509.6
GR   1281.0  10542.7   1281.7   10588.6   1282.5   10626.0   1282.1   10666.2   1282.1   10708.5
GR   1281.8  10750.8   1281.6   10779.9   1282.1   10796.9   1282.6   10831.2   1282.7   10865.0
GR   1282.7  10904.6   1282.7   10942.2   1282.6   10976.9   1281.8   10999.4   1281.0   11021.9
GR   1281.5  11055.2   1282.2   11110.6   1282.1   11157.6   1282.0   11186.0

QT       1    10760
ET   5.080      9.1                                                                 8850     10250
I    5.080       70    9921.8   10056.9     375      385      380
GR   1284.4   8830.0   1283.2    8871.8   1282.6    8920.9   1282.0    8981.5   1281.6    9032.4
GR   1281.6   9076.1   1282.1    9116.3   1281.7    9132.7   1281.9    9153.4   1280.6    9179.9
GR   1281.2   9207.8   1281.4    9242.8   1281.5    9290.7   1281.5    9335.3   1281.5    9389.2
GR   1281.7   9429.5   1281.4    9463.5   1280.9    9511.8   1281.3    9537.1   1281.5    9550.0
GR   1281.8   9562.8   1281.3    9577.3   1280.8    9587.8   1281.5    9636.0   1281.1    9687.7
GR   1281.2   9740.1   1280.7    9782.8   1280.6    9801.6   1280.4    9816.5   1279.9    9829.4
GR   1282.4   9854.0   1281.4    9890.2   1282.1    9908.4   1282.0    9921.8   1280.8    9927.0
GR   1272.1   9942.3   1272.0    9978.0   1272.5   10000.0   1272.5   10029.3   1273.0   10040.3
GR   1283.6  10056.9   1284.4   10083.9   1284.4   10100.2   1286.4   10113.0   1287.3   10129.8
GR   1288.3  10152.4   1288.1   10189.0   1288.2   10223.4   1290.5   10256.4   1289.8   10281.8
GR   1288.5  10319.7   1289.9   10356.0   1290.2   10387.9   1290.3   10422.2   1289.5   10461.1
GR   1286.6  10510.1   1284.7   10535.5   1284.2   10568.0   1285.6   10609.7   1285.8   10650.2
GR   1286.6  10679.9   1287.0   10715.2   1286.4   10746.5   1286.8   10761.6   1284.8   10787.7
GR   1284.8  10831.9   1284.6   10888.2   1284.4   10941.5   1283.7   10997.1   1283.7   11052.1

NC    .048      .048     .045       .1       .3
ET   5.103      9.1                                                                 8800     10053
        APPROXIMATE LOCATION OF 54TH AVENUE DIP SECTION.
X1   5.103       79    9926.4   10052.8     120      120      121
GR   1288.0   8794.6   1287.7    8817.5   1286.6    8837.7   1284.8    8879.5   1284.1    8922.0
GR   1283.3   8971.4   1283.2    9027.1   1282.6    9089.9   1282.5    9122.9   1282.0    9148.4
GR   1281.6   9189.9   1281.7    9239.3   1281.9    9284.8   1282.1    9314.3   1282.3    9345.1
GR   1282.2   9384.1   1281.8    9420.5   1282.4    9442.7   1281.8    9456.5   1282.2    9463.5
GR   1282.3   9472.6   1282.4    9480.3   1281.7    9485.2   1282.3    9506.9   1282.3    9534.4
GR   1282.8   9558.0   1283.1    9615.5   1282.2    9666.5   1282.0    9727.9   1282.0    9808.8
GR   1281.9   9871.7   1282.2    9913.1   1281.9    9926.4   1273.0    9949.2   1272.4    9959.2
     1273.0   9974.7   1273.1    9992.7   1272.7   10000.0   1272.8   10024.2   1273.7   10032.5
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| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| GR | 1284.4 | 10052.8 | 1282.9 | 10081.2 | 1282.5 | 10096.7 | 1283.8 | 10113.8 | 1284.8 | 10132.1 |
| GR | 1286.2 | 10145.7 | 1287.0 | 10180.2 | 1291.2 | 10225.0 | 1292.4 | 10255.5 | 1294.1 | 10288.8 |
| GR | 1294.4 | 10317.4 | 1293.9 | 10349.6 | 1292.5 | 10382.7 | 1288.9 | 10409.1 | 1286.7 | 10435.1 |
| GR | 1287.2 | 10468.4 | 1285.0 | 10495.8 | 1284.0 | 10517.9 | 1283.7 | 10543.4 | 1284.7 | 10573.8 |
| GR | 1284.5 | 10609.6 | 1285.1 | 10643.0 | 1285.6 | 10673.2 | 1285.3 | 10716.9 | 1285.4 | 10763.7 |
| GR | 1285.4 | 10806.9 | 1286.0 | 10845.8 | 1286.3 | 10876.4 | 1286.5 | 10896.0 | 1287.1 | 10907.0 |
| GR | 1287.1 | 10934.4 | 1287.2 | 10956.9 | 1286.5 | 10980.6 | 1286.9 | 11005.9 | 1287.0 | 11030.9 |
| GR | 1287.1 | 11051.9 | 1284.4 | 11068.7 | 1283.8 | 11079.0 | 1282.8 | 11086.4 | | |
| ET | 5.118 | 9.1 | | | | | | | 8790 | 10250 |
| X1 | 5.118 | 72 | 9968.3 | 10026.5 | 75 | 100 | 79 | | | |
| GR | 1287.8 | 8789.9 | 1286.0 | 8837.5 | 1285.3 | 8891.1 | 1285.6 | 8906.4 | 1285.2 | 8925.2 |
| GR | 1284.8 | 8947.8 | 1283.9 | 9002.1 | 1283.4 | 9061.1 | 1283.4 | 9111.9 | 1283.4 | 9141.8 |
| GR | 1283.3 | 9172.3 | 1282.6 | 9187.7 | 1282.6 | 9217.1 | 1282.8 | 9239.4 | 1283.3 | 9264.2 |
| GR | 1283.1 | 9328.7 | 1282.6 | 9372.7 | 1282.7 | 9401.8 | 1283.0 | 9418.4 | 1282.7 | 9426.5 |
| GR | 1282.7 | 9448.0 | 1282.3 | 9480.9 | 1282.3 | 9527.0 | 1282.3 | 9563.2 | 1282.8 | 9604.1 |
| GR | 1282.8 | 9635.9 | 1282.8 | 9684.0 | 1282.5 | 9735.2 | 1282.5 | 9782.2 | 1282.6 | 9823.0 |
| GR | 1282.4 | 9873.9 | 1283.0 | 9929.1 | 1282.9 | 9948.0 | 1282.8 | 9960.1 | 1282.3 | 9968.3 |
| GR | 1271.4 | 9988.8 | 1271.4 | 9994.2 | 1271.4 | 10000.0 | 1277.9 | 10019.3 | 1283.4 | 10026.5 |
| GR | 1283.8 | 10039.1 | 1285.9 | 10061.2 | 1286.5 | 10094.6 | 1285.8 | 10125.4 | 1286.9 | 10155.6 |
| GR | 1286.6 | 10186.0 | 1287.1 | 10218.3 | 1287.2 | 10251.7 | 1287.0 | 10278.8 | 1286.5 | 10311.1 |
| GR | 1287.3 | 10340.8 | 1287.3 | 10372.9 | 1286.9 | 10395.2 | 1285.3 | 10419.4 | 1284.4 | 10447.3 |
| GR | 1284.0 | 10482.6 | 1284.0 | 10519.8 | 1284.0 | 10552.2 | 1284.2 | 10585.4 | 1284.8 | 10616.3 |
| GR | 1284.8 | 10645.2 | 1284.3 | 10667.6 | 1284.7 | 10702.9 | 1284.6 | 10738.3 | 1285.0 | 10778.9 |
| GR | 1285.8 | 10818.0 | 1287.0 | 10839.0 | 1286.4 | 10869.6 | 1287.1 | 10906.9 | 1287.1 | 10948.9 |
| GR | 1286.9 | 10995.8 | 1287.1 | 11001.5 | | | | | | |
| QT | 1 | 10690 | | | | | | | | |
| ET | 5.159 | 9.1 | | | | | | | 9000 | 10175 |
| X1 | 5.159 | 75 | 9958.9 | 10045.4 | 220 | 165 | 216 | | | |
| GR | 1290.6 | 8997.3 | 1290.5 | 9020.4 | 1287.9 | 9054.0 | 1285.4 | 9089.0 | 1284.9 | 9124.5 |
| GR | 1285.7 | 9140.6 | 1284.8 | 9154.5 | 1284.8 | 9183.3 | 1284.4 | 9220.3 | 1284.2 | 9249.3 |
| GR | 1284.2 | 9272.6 | 1284.2 | 9301.3 | 1284.1 | 9328.1 | 1284.2 | 9356.6 | 1284.4 | 9389.7 |
| GR | 1284.6 | 9419.0 | 1284.3 | 9444.0 | 1284.3 | 9485.9 | 1284.0 | 9527.7 | 1284.1 | 9570.2 |
| GR | 1284.2 | 9608.8 | 1284.2 | 9650.0 | 1284.1 | 9690.4 | 1283.3 | 9722.0 | 1282.9 | 9758.3 |
| GR | 1282.7 | 9791.1 | 1283.3 | 9826.3 | 1283.6 | 9861.1 | 1283.9 | 9898.8 | 1283.9 | 9932.3 |
| GR | 1283.9 | 9958.9 | 1283.3 | 9976.1 | 1274.7 | 9986.2 | 1272.5 | 9995.8 | 1272.4 | 10000.0 |
| GR | 1272.6 | 10009.2 | 1274.2 | 10021.1 | 1282.4 | 10035.2 | 1285.3 | 10045.4 | 1287.1 | 10069.4 |
| GR | 1286.5 | 10096.6 | 1287.2 | 10133.9 | 1288.1 | 10175.1 | 1287.5 | 10208.1 | 1287.1 | 10243.6 |
| GR | 1286.9 | 10284.3 | 1286.0 | 10320.5 | 1285.2 | 10348.5 | 1285.3 | 10377.3 | 1284.8 | 10412.5 |
| GR | 1284.2 | 10440.8 | 1284.2 | 10470.9 | 1284.8 | 10500.2 | 1286.1 | 10517.1 | 1287.0 | 10532.1 |
| GR | 1286.2 | 10551.4 | 1284.7 | 10565.7 | 1285.0 | 10588.5 | 1285.9 | 10597.1 | 1286.1 | 10602.3 |
| GR | 1286.1 | 10619.8 | 1286.3 | 10630.8 | 1287.0 | 10650.4 | 1286.6 | 10675.4 | 1286.8 | 10698.7 |
| GR | 1287.6 | 10731.1 | 1288.2 | 10761.4 | 1287.5 | 10809.5 | 1287.4 | 10839.4 | 1287.3 | 10872.0 |
| GR | 1287.2 | 10909.6 | 1287.0 | 10954.4 | 1286.6 | 10991.9 | 1286.9 | 11045.4 | 1286.2 | 11059.7 |
| ET | 5.204 | 9.1 | | | | | | | 8965 | 10250 |
| X1 | 5.204 | 89 | 9927.9 | 10108.5 | 220 | 220 | 230 | | | |
| GR | 1291.5 | 8963.7 | 1291.0 | 9001.0 | 1289.7 | 9041.4 | 1287.7 | 9076.9 | 1287.0 | 9112.3 |
| GR | 1285.7 | 9153.5 | 1285.4 | 9193.8 | 1285.5 | 9213.7 | 1286.2 | 9241.7 | 1286.6 | 9247.6 |
| GR | 1285.6 | 9253.4 | 1286.0 | 9263.3 | 1285.4 | 9286.2 | 1285.3 | 9307.4 | 1285.2 | 9342.7 |
| GR | 1285.7 | 9357.0 | 1285.5 | 9383.5 | 1285.9 | 9404.6 | 1286.2 | 9423.8 | 1285.8 | 9440.4 |
| GR | 1285.6 | 9455.1 | 1284.8 | 9473.4 | 1285.1 | 9497.5 | 1285.7 | 9513.9 | 1285.8 | 9522.7 |
| GR | 1286.0 | 9534.1 | 1285.1 | 9543.8 | 1286.0 | 9565.8 | 1285.3 | 9599.7 | 1285.7 | 9642.7 |

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GR   1286.0    9682.9   1285.9   9726.1   1285.8   9764.1   1286.2   9793.6   1286.5   9833.7
GR   1286.6    9853.9   1287.0   9866.5   1288.4   9874.3   1289.0   9886.9   1288.1   9895.3
GR   1285.4    9910.4   1282.5   9927.9   1281.7   9938.1   1275.3   9956.1   1274.2   9973.1
GR   1273.5    9991.7   1274.1  10000.0   1273.7  10018.4   1274.5  10043.4   1275.4  10061.7
GR   1276.2   10080.8   1278.7  10091.3   1286.5  10108.5   1286.7  10132.7   1287.5  10149.2
GR   1288.7   10168.7   1288.7  10189.8   1288.9  10216.8   1289.5  10242.5   1287.5  10259.3
GR   1287.1   10282.9   1286.2  10302.8   1286.3  10327.0   1286.8  10356.5   1286.0  10387.4
GR   1285.2   10420.4   1284.9  10422.8   1284.9  10448.5   1285.3  10482.7   1285.9  10514.1
GR   1286.4   10539.2   1287.1  10560.1   1287.0  10579.9   1286.7  10597.2   1287.0  10622.0
GR   1287.0   10680.1   1287.8  10720.1   1288.0  10748.7   1287.6  10770.6   1287.7  10792.7
GR   1287.1   10818.3   1287.4  10846.0   1287.2  10877.9   1286.9  10904.8   1287.1  10937.3
GR   1287.1   10968.6   1286.1  10993.5   1285.7  11014.6   1285.7  11021.8

ET    5.263       9.1                                                          9587     10700
        A LARGE BORROW PIT IN THE LEFT OVERBANK IS NOT EFFECTIVE FLOW AREA.
        THIS AREA HAS BEEN MODELED AS THOUGH THE HOLE WAS FILLED TO ELEVATION
        1286.0.
X1    5.263        79   9976.8  10151.3     320     320     320
GR   1294.5    8735.2   1293.6   8784.9   1292.6   8821.1   1290.4   8843.6   1289.7   8878.2
GR   1289.6    8899.7   1289.6   8916.1   1288.6   8942.5   1288.9   8988.6   1288.9   9028.2
GR   1288.1    9077.6   1288.1   9125.0   1288.6   9153.7   1287.6   9175.8   1287.4   9202.2
GR   1287.2    9215.9   1286.3   9219.3   1287.4   9224.9   1287.4   9247.4   1287.1   9256.9
GR   1286.5    9260.7   1287.9   9266.6   1287.6   9289.8   1287.2   9326.9   1287.2   9352.4
GR   1287.1    9387.3   1287.4   9417.1   1287.1   9435.3   1287.2   9455.4   1287.6   9470.7
GR   1287.0    9485.6   1283.8   9490.9   1284.3   9493.4   1287.3   9501.2   1286.4   9520.3
GR   1286.8    9530.5   1287.0   9552.5   1287.3   9569.4   1287.8   9587.3   1287.3   9605.1
GR   1286.0    9637.1   1286.0   9957.8   1286.0   9971.6   1283.6   9976.8   1280.5   9990.0
GR   1275.6    9999.6   1275.8  10000.0   1276.7  10021.5   1278.4  10038.8   1276.4  10059.2
GR   1275.8   10083.5   1276.8  10102.5   1279.0  10113.0   1280.3  10124.9   1283.8  10140.0
GR   1286.0   10151.3   1286.9  10160.7   1286.9  10176.8   1284.8  10193.6   1284.7  10212.2
GR   1284.1   10239.4   1282.5  10260.1   1283.1  10271.1   1285.5  10284.6   1288.2  10296.2
GR   1287.9   10329.3   1287.8  10371.1   1287.2  10385.3   1288.1  10412.3   1288.0  10448.8
GR   1287.9   10485.3   1287.9  10516.4   1287.8  10542.9   1287.8  10576.7   1287.4  10608.2
GR   1288.2   10638.5   1287.7  10667.6   1288.1  10697.9   1288.0  10716.4

QT        1     10550
ET    5.364       9.1                                                          9900     10400
X1    5.364        71   9954.8  10332.6     540     520     533
GR   1292.4    8890.2   1291.2   8946.4   1290.7   8964.0   1291.2   8967.0   1290.1   8970.8
GR   1290.6    8977.0   1290.2   9020.6   1290.5   9056.5   1290.0   9099.0   1290.1   9152.7
GR   1290.1    9200.8   1289.9   9253.3   1290.4   9293.0   1289.8   9318.5   1290.2   9360.6
GR   1290.0    9415.6   1289.9   9469.1   1290.0   9512.7   1289.7   9543.2   1290.0   9566.0
GR   1290.4    9581.6   1290.8   9591.3   1289.1   9613.9   1288.4   9631.3   1288.9   9657.7
GR   1289.0    9679.8   1289.1   9688.6   1289.6   9705.5   1289.4   9724.0   1289.1   9735.9
GR   1290.4    9756.0   1291.0   9794.3   1290.6   9837.9   1290.8   9880.0   1290.5   9913.4
GR   1289.4    9941.2   1288.1   9954.8   1279.3   9971.2   1276.0   9984.7   1275.0  10000.0
GR   1276.2   10016.5   1276.1  10033.6   1275.2  10049.9   1277.2  10072.5   1277.3  10107.6
GR   1276.9   10153.1   1276.6  10206.3   1277.1  10244.1   1276.6  10274.9   1276.9  10289.2
GR   1285.4   10309.9   1287.1  10332.6   1292.6  10366.3   1292.4  10386.4   1292.3  10420.7
GR   1291.0   10447.8   1290.5  10475.7   1289.7  10498.2   1289.7  10522.0   1288.5  10546.9
GR   1288.0   10557.5   1288.2  10575.8   1288.3  10606.5   1288.0  10629.0   1288.7  10646.5
GR   1287.8   10657.6   1288.9  10671.8   1288.1  10700.3   1288.7  10721.1   1288.7  10738.7
GR   1288.3   10766.6
```

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| NC | .048 | .048 | .040 | .1 | .3 | | | | | |
| X1 | 5.397 | 50 | 9966.3 | 10249.2 | 155 | 190 | 174 | | | |
| GR | 1290.5 | 9387.6 | 1290.1 | 9449.4 | 1290.2 | 9510.9 | 1290.4 | 9556.7 | 1290.4 | 9585.4 |
| GR | 1291.8 | 9601.3 | 1290.8 | 9624.8 | 1291.3 | 9653.0 | 1292.1 | 9678.9 | 1291.1 | 9701.3 |
| GR | 1292.2 | 9724.4 | 1293.1 | 9734.7 | 1294.3 | 9746.4 | 1292.4 | 9755.9 | 1291.9 | 9779.1 |
| GR | 1292.1 | 9817.8 | 1291.0 | 9860.4 | 1291.1 | 9900.0 | 1289.8 | 9935.7 | 1287.8 | 9966.3 |
| GR | 1285.7 | 9981.7 | 1276.9 | 9994.6 | 1276.7 | 10000.0 | 1277.2 | 10040.1 | 1277.9 | 10081.6 |
| GR | 1278.6 | 10125.5 | 1278.7 | 10165.5 | 1278.7 | 10204.1 | 1279.6 | 10227.4 | 1284.0 | 10237.8 |
| GR | 1287.1 | 10249.2 | 1290.2 | 10268.5 | 1290.2 | 10292.6 | 1289.5 | 10304.3 | 1288.0 | 10315.7 |
| GR | 1290.1 | 10339.9 | 1292.5 | 10361.6 | 1292.8 | 10376.2 | 1290.2 | 10400.1 | 1291.0 | 10430.1 |
| GR | 1290.7 | 10462.7 | 1290.9 | 10490.5 | 1290.7 | 10524.8 | 1290.1 | 10555.4 | 1290.7 | 10583.2 |
| GR | 1289.7 | 10600.8 | 1289.7 | 10609.3 | 1291.1 | 10628.7 | 1290.9 | 10658.6 | 1291.1 | 10685.7 |
| X1 | 5.432 | 49 | 9964.4 | 10304 | 140 | 220 | 185 | | | |
| X3 | 10 | | | | | | | | | |
| GR | 1290.8 | 9441.9 | 1291.3 | 9511.2 | 1291.0 | 9577.0 | 1290.6 | 9620.6 | 1290.6 | 9659.3 |
| GR | 1291.9 | 9702.4 | 1292.8 | 9727.6 | 1292.9 | 9762.9 | 1292.7 | 9804.3 | 1292.6 | 9824.1 |
| GR | 1291.6 | 9840.4 | 1292.3 | 9865.3 | 1291.9 | 9894.8 | 1294.2 | 9906.2 | 1291.1 | 9918.8 |
| GR | 1289.8 | 9943.8 | 1288.9 | 9964.4 | 1285.7 | 9978.2 | 1279.3 | 9987.4 | 1276.3 | 9997.4 |
| GR | 1276.5 | 10000.0 | 1276.6 | 10025.8 | 1277.8 | 10055.4 | 1277.8 | 10089.5 | 1277.8 | 10128.4 |
| GR | 1277.7 | 10162.5 | 1277.9 | 10198.7 | 1277.4 | 10228.5 | 1277.1 | 10251.8 | 1277.9 | 10267.5 |
| GR | 1278.4 | 10279.8 | 1285.1 | 10291.9 | 1290.1 | 10304.0 | 1290.2 | 10312.9 | 1291.5 | 10322.9 |
| GR | 1292.2 | 10333.2 | 1291.9 | 10364.7 | 1291.9 | 10407.6 | 1291.5 | 10443.3 | 1291.9 | 10478.6 |
| GR | 1292.3 | 10505.0 | 1291.5 | 10522.5 | 1291.9 | 10544.7 | 1291.3 | 10562.6 | 1292.0 | 10584.4 |
| GR | 1291.5 | 10604.8 | 1291.1 | 10618.0 | 1291.8 | 10641.2 | 1291.7 | 10662.8 | | |
| X1 | 5.500 | 62 | 9831.5 | 10076.6 | 310 | 290 | 359 | | | |
| GR | 1293.0 | 9027.3 | 1292.6 | 9067.7 | 1291.9 | 9111.9 | 1293.1 | 9138.4 | 1295.7 | 9151.0 |
| GR | 1291.4 | 9170.4 | 1292.3 | 9203.1 | 1291.6 | 9241.6 | 1292.7 | 9265.6 | 1293.6 | 9275.3 |
| GR | 1292.9 | 9289.2 | 1293.1 | 9305.8 | 1291.0 | 9314.3 | 1291.3 | 9350.6 | 1291.5 | 9395.3 |
| GR | 1292.4 | 9446.6 | 1292.8 | 9494.0 | 1293.4 | 9528.9 | 1293.3 | 9559.9 | 1294.0 | 9600.5 |
| GR | 1294.1 | 9632.4 | 1293.6 | 9653.4 | 1293.1 | 9667.6 | 1286.5 | 9686.3 | 1283.2 | 9706.7 |
| GR | 1281.3 | 9735.3 | 1281.3 | 9753.8 | 1281.9 | 9761.8 | 1280.9 | 9774.1 | 1280.6 | 9787.9 |
| GR | 1282.7 | 9797.3 | 1281.0 | 9808.6 | 1282.2 | 9818.1 | 1281.2 | 9825.3 | 1281.7 | 9831.5 |
| GR | 1279.2 | 9842.8 | 1280.0 | 9881.0 | 1280.4 | 9918.0 | 1280.2 | 9942.1 | 1279.6 | 9973.2 |
| GR | 1279.6 | 10000.0 | 1279.8 | 10032.7 | 1281.7 | 10041.9 | 1288.0 | 10051.3 | 1289.1 | 10066.4 |
| GR | 1293.7 | 10076.6 | 1293.0 | 10103.4 | 1293.0 | 10149.2 | 1292.7 | 10200.2 | 1292.7 | 10252.3 |
| GR | 1292.7 | 10286.1 | 1292.3 | 10330.6 | 1292.2 | 10377.8 | 1292.3 | 10415.6 | 1291.8 | 10436.3 |
| GR | 1292.2 | 10459.6 | 1292.1 | 10483.6 | 1292.7 | 10506.0 | 1292.6 | 10526.0 | 1291.6 | 10537.9 |
| GR | 1292.6 | 10560.3 | 1292.1 | 10589.2 | | | | | | |
| QT | 1 | 10410 | | | | | | | | |
| X1 | 5.579 | 64 | 9947.2 | 10055.7 | 330 | 375 | 417 | | | |
| GR | 1295.8 | 8846.0 | 1295.8 | 8867.9 | 1294.9 | 8875.3 | 1295.3 | 8888.7 | 1294.7 | 8911.5 |
| GR | 1294.2 | 8945.6 | 1294.0 | 8978.0 | 1293.6 | 8994.0 | 1294.2 | 9004.4 | 1293.3 | 9011.2 |
| GR | 1294.2 | 9022.6 | 1293.8 | 9048.6 | 1294.0 | 9086.6 | 1293.6 | 9129.9 | 1293.3 | 9162.4 |
| GR | 1292.7 | 9170.3 | 1293.7 | 9188.2 | 1293.5 | 9230.8 | 1293.5 | 9285.4 | 1293.8 | 9334.7 |
| GR | 1293.8 | 9381.4 | 1292.7 | 9398.6 | 1292.5 | 9407.0 | 1294.1 | 9422.0 | 1293.8 | 9457.2 |
| GR | 1294.8 | 9485.1 | 1293.5 | 9526.1 | 1293.5 | 9577.8 | 1293.3 | 9617.2 | 1291.6 | 9646.7 |
| GR | 1290.6 | 9672.5 | 1292.9 | 9683.0 | 1290.7 | 9700.5 | 1292.3 | 9719.4 | 1291.6 | 9756.5 |
| GR | 1291.5 | 9774.8 | 1288.7 | 9796.4 | 1287.1 | 9822.2 | 1285.0 | 9847.6 | 1284.6 | 9868.8 |
| GR | 1287.5 | 9896.7 | 1288.4 | 9921.2 | 1289.1 | 9947.2 | 1287.4 | 9960.3 | 1282.8 | 9976.2 |
| GR | 1283.0 | 9993.4 | 1283.3 | 10000.0 | 1284.9 | 10020.8 | 1289.0 | 10047.1 | 1294.3 | 10055.7 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| GR | 1294.3 | 10089.6 | 1294.3 | 10134.4 | 1294.3 | 10189.7 | 1294.7 | 10246.5 | 1294.7 | 10289.2 |
| GR | 1294.0 | 10308.5 | 1295.2 | 10332.6 | 1294.8 | 10375.1 | 1295.1 | 10406.9 | 1294.7 | 10418.1 |
| GR | 1294.1 | 10427.3 | 1294.6 | 10448.8 | 1294.5 | 10470.1 | 1294.5 | 10477.4 | | |
| X1 | 5.679 | 59 | 9894.2 | 10114.1 | 410 | 520 | 528 | | | |
| GR | 1298.3 | 9129.9 | 1298.0 | 9169.6 | 1296.9 | 9206.1 | 1296.5 | 9240.8 | 1296.3 | 9284.8 |
| GR | 1296.0 | 9329.2 | 1296.1 | 9369.9 | 1295.9 | 9399.8 | 1296.5 | 9421.3 | 1296.6 | 9440.8 |
| GR | 1295.8 | 9457.1 | 1296.8 | 9476.9 | 1296.5 | 9511.0 | 1296.7 | 9544.2 | 1296.5 | 9571.3 |
| GR | 1296.7 | 9583.6 | 1296.7 | 9591.9 | 1296.0 | 9599.3 | 1296.5 | 9612.3 | 1296.2 | 9632.9 |
| GR | 1295.4 | 9648.6 | 1292.6 | 9661.8 | 1292.5 | 9677.7 | 1293.8 | 9690.0 | 1294.6 | 9700.3 |
| GR | 1294.6 | 9727.1 | 1295.5 | 9747.9 | 1295.1 | 9771.7 | 1295.1 | 9804.2 | 1295.3 | 9833.8 |
| GR | 1295.2 | 9864.3 | 1295.0 | 9894.2 | 1293.5 | 9917.4 | 1291.7 | 9946.9 | 1290.6 | 9968.5 |
| GR | 1290.3 | 9984.9 | 1288.2 | 10000.0 | 1288.1 | 10012.6 | 1289.8 | 10028.4 | 1290.3 | 10049.6 |
| GR | 1290.5 | 10073.8 | 1290.5 | 10095.0 | 1291.6 | 10107.6 | 1294.5 | 10114.1 | 1299.8 | 10121.8 |
| GR | 1298.9 | 10128.2 | 1295.8 | 10137.0 | 1296.9 | 10148.9 | 1296.7 | 10166.6 | 1297.6 | 10183.7 |
| GR | 1298.4 | 10199.9 | 1298.2 | 10224.0 | 1298.8 | 10258.2 | 1300.6 | 10292.4 | 1300.1 | 10371.3 |
| GR | 1301.4 | 10419.1 | 1300.5 | 10463.3 | 1299.1 | 10492.3 | 1300.5 | 10510.8 | | |
| ET | 5.754 | 9.1 | | | | | | | 9720 | 10092 |
| X1 | 5.754 | 61 | 9953.7 | 10081.1 | 410 | 360 | 422 | | | |
| GR | 1300.4 | 9192.0 | 1301.2 | 9218.4 | 1302.2 | 9236.1 | 1301.6 | 9259.7 | 1301.2 | 9281.0 |
| GR | 1300.1 | 9289.7 | 1300.1 | 9303.3 | 1300.0 | 9313.2 | 1299.9 | 9337.5 | 1299.8 | 9375.2 |
| GR | 1299.6 | 9429.3 | 1299.8 | 9467.8 | 1299.8 | 9516.4 | 1299.5 | 9565.4 | 1299.4 | 9609.5 |
| GR | 1299.7 | 9641.1 | 1299.6 | 9680.4 | 1299.8 | 9710.1 | 1301.2 | 9720.6 | 1294.1 | 9733.4 |
| GR | 1293.9 | 9743.2 | 1295.2 | 9750.3 | 1300.1 | 9760.2 | 1300.6 | 9780.2 | 1299.8 | 9812.4 |
| GR | 1299.9 | 9835.2 | 1296.8 | 9850.6 | 1294.7 | 9867.0 | 1295.1 | 9888.9 | 1295.8 | 9919.2 |
| GR | 1296.8 | 9939.0 | 1297.1 | 9953.7 | 1294.7 | 9965.3 | 1293.0 | 9980.2 | 1291.7 | 9991.0 |
| GR | 1290.9 | 9997.5 | 1290.9 | 10000.0 | 1291.9 | 10018.0 | 1292.6 | 10039.6 | 1293.0 | 10056.7 |
| GR | 1293.9 | 10068.0 | 1298.7 | 10081.1 | 1301.0 | 10091.2 | 1300.9 | 10117.2 | 1300.5 | 10141.3 |
| GR | 1299.6 | 10160.2 | 1300.0 | 10186.9 | 1299.9 | 10215.1 | 1299.5 | 10244.1 | 1300.1 | 10261.6 |
| GR | 1299.0 | 10270.4 | 1299.9 | 10290.9 | 1299.9 | 10321.1 | 1299.9 | 10352.1 | 1299.8 | 10389.4 |
| GR | 1299.3 | 10419.8 | 1298.9 | 10444.1 | 1299.4 | 10468.1 | 1299.8 | 10496.5 | 1299.7 | 10520.4 |
| GR | 1300.2 | 10530.8 | | | | | | | | |
| ET | 5.837 | 9.1 | | | | | | | 9774 | 10155 |
| X1 | 5.837 | 68 | 9851.8 | 10097.5 | 450 | 425 | 438 | | | |
| GR | 1301.9 | 9327.0 | 1302.1 | 9371.7 | 1302.2 | 9400.7 | 1302.6 | 9411.3 | 1303.8 | 9421.8 |
| GR | 1303.2 | 9431.9 | 1301.8 | 9443.9 | 1301.6 | 9469.0 | 1301.3 | 9488.4 | 1302.3 | 9501.7 |
| GR | 1306.8 | 9513.8 | 1305.6 | 9527.4 | 1305.8 | 9559.3 | 1305.7 | 9594.7 | 1306.3 | 9607.1 |
| GR | 1308.8 | 9615.5 | 1305.9 | 9629.3 | 1304.4 | 9647.5 | 1303.1 | 9678.4 | 1302.5 | 9698.4 |
| GR | 1301.0 | 9708.3 | 1302.1 | 9723.6 | 1302.4 | 9757.1 | 1302.6 | 9774.0 | 1302.5 | 9795.1 |
| GR | 1301.3 | 9823.6 | 1300.8 | 9851.8 | 1299.0 | 9885.9 | 1298.1 | 9915.8 | 1297.3 | 9942.0 |
| GR | 1296.0 | 9967.5 | 1295.4 | 9984.5 | 1295.4 | 9993.4 | 1295.7 | 10000.0 | 1295.7 | 10012.8 |
| GR | 1295.6 | 10025.6 | 1295.1 | 10033.7 | 1298.1 | 10048.0 | 1299.0 | 10062.7 | 1299.4 | 10076.9 |
| GR | 1301.7 | 10097.5 | 1302.9 | 10114.6 | 1302.8 | 10135.6 | 1303.1 | 10154.5 | 1302.7 | 10174.9 |
| GR | 1302.4 | 10189.9 | 1301.7 | 10206.4 | 1301.7 | 10227.2 | 1301.9 | 10254.5 | 1302.1 | 10275.3 |
| GR | 1302.2 | 10290.7 | 1302.3 | 10306.4 | 1301.8 | 10330.7 | 1302.0 | 10358.6 | 1301.8 | 10380.6 |
| GR | 1301.1 | 10395.9 | 1301.4 | 10418.2 | 1301.2 | 10449.4 | 1300.9 | 10478.3 | 1301.3 | 10518.0 |
| GR | 1301.3 | 10549.6 | 1301.6 | 10580.0 | 1301.8 | 10609.5 | 1301.5 | 10635.4 | 1301.2 | 10648.1 |
| GR | 1301.1 | 10652.7 | 1302.7 | 10663.2 | 1302.3 | 10675.8 | | | | |

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NC     .045      .045      .035       .1        .3
QT        1     10200
ET    5.881       9.1                                                                  9820      10136
          FROM SECTION 5.881 TO SECTION 6.568, SKUNK CREEK IS CHANNELIZED.
X1    5.881        51    9822.6   10135.2       230       230       232
GR   1303.4    9285.0    1303.6    9321.8    1303.5    9358.7    1303.7    9383.6    1304.1    9398.4
GR   1304.4    9412.8    1304.0    9423.7    1303.4    9431.0    1305.3    9443.8    1306.9    9452.1
GR   1307.1    9471.4    1307.5    9480.5    1307.5    9518.3    1306.8    9542.1    1307.1    9559.1
GR   1307.4    9595.0    1306.9    9617.9    1306.0    9647.7    1305.2    9668.1    1304.9    9672.3
GR   1305.4    9687.6    1305.2    9702.8    1305.6    9708.3    1306.1    9745.3    1306.2    9781.5
GR   1306.1    9822.6    1300.2    9842.1    1295.8    9860.9    1295.4    9894.0    1295.5    9931.5
GR   1295.3    9980.4    1295.3   10000.0    1296.0   10040.5    1296.1   10073.8    1296.6   10099.7
GR   1303.3   10120.7    1306.8   10135.2    1306.3   10161.2    1306.1   10201.8    1305.8   10236.4
GR   1306.2   10269.0    1306.4   10310.3    1306.5   10352.6    1306.9   10395.1    1306.4   10435.8
GR   1307.0   10474.4    1307.0   10514.8    1307.5   10556.4    1307.2   10592.4    1307.6   10630.6
GR   1307.9   10651.8

X1    5.970        52    9863.3   10147.7       500       430       470
GR   1307.3    9500.3    1308.2    9530.7    1306.8    9574.0    1306.9    9603.0    1307.4    9651.2
GR   1307.0    9672.0    1306.8    9679.0    1306.5    9682.8    1306.4    9686.5    1306.7    9699.0
GR   1306.2    9710.5    1306.6    9716.1    1307.2    9733.1    1308.1    9750.3    1308.3    9793.8
GR   1307.2    9801.5    1307.1    9825.1    1306.4    9850.8    1305.5    9863.3    1304.9    9867.5
GR   1298.2    9886.1    1296.2    9900.7    1295.8    9933.8    1295.8    9965.2    1296.5    9996.7
GR   1296.5   10000.0    1296.3   10044.4    1296.2   10080.8    1296.2   10110.3    1297.0   10124.5
GR   1303.1   10136.9    1305.2   10147.7    1307.3   10162.3    1306.8   10174.0    1306.9   10199.9
GR   1306.9   10215.1    1307.6   10245.6    1308.0   10273.9    1308.3   10301.5    1308.0   10326.1
GR   1308.9   10357.0    1309.4   10378.1    1309.3   10401.6    1308.0   10417.7    1307.5   10431.5
GR   1307.3   10435.9    1307.7   10452.2    1307.4   10468.9    1307.8   10478.8    1308.2   10501.3
GR   1308.3   10526.1    1308.8   10533.2

          LOWER WALL OF DROP STRUCTURE DOWNSTREAM OF HAVASUPAI DRIVE.
X1    5.973        44    9879.9   10120.1        16        16        16
GR   1307.6    9487.4    1307.8    9524.6    1307.4    9570.9    1307.9    9610.6    1307.5    9647.2
GR   1306.9    9664.8    1306.3    9671.6    1306.5    9688.1    1305.8    9700.1    1306.3    9706.3
GR   1306.7    9731.8    1307.0    9761.0    1307.1    9790.2    1306.6    9793.1    1307.5    9824.5
GR   1307.4    9844.7    1305.4    9864.7    1305.3    9873.8    1305.1    9879.9    1297.3      9880
GR   1297.3     10000    1297.3     10120    1305.1   10120.1    1305.5   10120.6    1305.2   10128.7
GR   1306.2   10147.3    1306.3   10163.3    1306.8   10179.9    1307.3   10206.6    1307.9   10235.6
GR   1307.9   10256.4    1307.8   10289.0    1308.1   10312.9    1308.9   10333.3    1309.7   10366.8
GR   1309.1   10393.7    1307.6   10412.9    1307.1   10427.5    1307.5   10444.9    1307.9   10464.4
GR   1308.3   10485.9    1308.6   10511.1    1308.6   10541.4    1308.6   10542.3

          UPPER WALL OF DROP STRUCTURE AT HAVASUPAI DRIVE.
X1    5.977        55    9879.9   10120.1        21        21        21
X3       10
GR   1307.3    9477.8    1307.5    9511.0    1307.3    9553.4    1307.2    9585.8    1307.6    9626.3
GR   1307.0    9645.3    1306.6    9657.8    1306.2    9663.8    1306.3    9677.8    1305.6    9693.3
GR   1305.7    9696.7    1306.2    9700.1    1306.3    9716.3    1306.3    9752.4    1306.0    9777.6
GR   1305.4    9788.9    1304.5    9796.3    1304.3    9804.6    1304.3    9812.2    1304.7    9824.5
GR   1304.2    9842.5    1305.8    9860.2    1306.1      9862    1306.1    9879.9    1301.0      9880
GR   1301.0      9920    1301.0    9989.9    1298.9      9990    1298.9     10000    1298.9     10010
GR   1301.0   10010.1    1301.0     10065    1301.0     10120    1306.1   10120.1    1306.1     10138
GR   1306.8   10139.6    1303.9   10141.5    1305.4   10157.1    1305.2   10175.7    1306.1   10199.3
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|---|---|---|---|---|---|---|---|---|---|---|
| GR | 1306.4 | 10225.0 | 1306.7 | 10257.1 | 1307.3 | 10284.5 | 1307.6 | 10309.0 | 1308.3 | 10337.9 |
| GR | 1309.2 | 10359.2 | 1308.8 | 10385.2 | 1308.0 | 10407.2 | 1307.6 | 10419.9 | 1307.4 | 10436.6 |
| GR | 1307.6 | 10447.3 | 1308.1 | 10457.9 | 1308.8 | 10486.7 | 1309.1 | 10513.6 | 1308.4 | 10535.8 |

HAVASUPAI DRIVE DIP SECTION.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X1 | 5.982 | 39 | 9857.1 | 10131.8 | 26 | 26 | 26 | | | |
| GR | 1307.5 | 9470.7 | 1307.8 | 9523.2 | 1307.1 | 9565.6 | 1307.7 | 9596.4 | 1307.4 | 9626.7 |
| GR | 1307.1 | 9639.6 | 1306.7 | 9646.8 | 1306.6 | 9650.6 | 1306.4 | 9671.5 | 1306.0 | 9708.0 |
| GR | 1305.8 | 9741.4 | 1305.0 | 9779.2 | 1304.7 | 9795.6 | 1303.3 | 9833.6 | 1301.7 | 9857.1 |
| GR | 1300.2 | 9892.2 | 1299.6 | 9930.8 | 1299.5 | 9969.3 | 1299.4 | 9996.0 | 1299.2 | 10000.0 |
| GR | 1299.2 | 10021.6 | 1299.5 | 10053.6 | 1300.2 | 10092.8 | 1301.7 | 10131.8 | 1303.1 | 10166.8 |
| GR | 1304.4 | 10203.4 | 1305.3 | 10234.0 | 1305.8 | 10261.9 | 1306.4 | 10288.9 | 1306.4 | 10315.4 |
| GR | 1306.3 | 10349.0 | 1306.2 | 10379.9 | 1306.5 | 10413.4 | 1306.7 | 10450.3 | 1306.9 | 10491.1 |
| GR | 1307.1 | 10525.4 | 1307.1 | 10551.2 | 1308.1 | 10558.0 | 1308.2 | 10560.6 | | |
| QT | 1 | 10130 | | | | | | | | |
| ET | 5.990 | 9.1 | | | | | | | 9800 | 10160 |
| X1 | 5.990 | 55 | 9842.4 | 10151.0 | 42 | 42 | 42 | | | |
| GR | 1308.2 | 9460.7 | 1308.2 | 9489.3 | 1307.7 | 9568.7 | 1306.9 | 9595.3 | 1307.0 | 9611.9 |
| GR | 1306.4 | 9630.5 | 1307.0 | 9640.1 | 1307.5 | 9673.0 | 1307.5 | 9703.2 | 1307.4 | 9722.8 |
| GR | 1307.2 | 9744.7 | 1307.2 | 9766.9 | 1307.2 | 9784.2 | 1307.2 | 9820.1 | 1306.3 | 9842.4 |
| GR | 1305.1 | 9854.4 | 1300.9 | 9872.6 | 1299.7 | 9896.1 | 1299.6 | 9927.7 | 1299.6 | 9960.3 |
| GR | 1299.5 | 9982.2 | 1298.4 | 9989.5 | 1297.7 | 9991.4 | 1297.8 | 9999.8 | 1298.3 | 10000.0 |
| GR | 1299.0 | 10013.9 | 1298.9 | 10049.2 | 1298.9 | 10090.8 | 1299.1 | 10108.3 | 1301.1 | 10125.3 |
| GR | 1304.8 | 10137.6 | 1306.8 | 10151.0 | 1306.8 | 10160.7 | 1306.8 | 10178.8 | 1306.8 | 10203.4 |
| | 1307.2 | 10229.9 | 1307.6 | 10253.8 | 1308.1 | 10281.9 | 1308.1 | 10284.1 | 1308.1 | 10298.4 |
| | 1309.5 | 10298.8 | 1309.4 | 10309.9 | 1307.9 | 10310.9 | 1308.1 | 10333.9 | 1308.1 | 10357.9 |
| GR | 1307.7 | 10390.1 | 1307.3 | 10420.8 | 1307.5 | 10438.3 | 1307.3 | 10466.7 | 1307.7 | 10487.2 |
| GR | 1307.6 | 10506.2 | 1307.4 | 10524.9 | 1307.0 | 10531.6 | 1307.5 | 10562.0 | 1307.6 | 10566.0 |
| X1 | 6.089 | 54 | 9853.8 | 10166.2 | 480 | 525 | 523 | | | |
| GR | 1310.7 | 9368.9 | 1310.4 | 9395.7 | 1309.5 | 9417.1 | 1309.4 | 9419.8 | 1309.8 | 9437.2 |
| GR | 1309.4 | 9450.4 | 1309.8 | 9462.8 | 1310.5 | 9486.0 | 1310.4 | 9518.8 | 1309.9 | 9549.8 |
| GR | 1309.2 | 9580.2 | 1309.4 | 9601.2 | 1309.1 | 9607.8 | 1309.2 | 9640.5 | 1309.0 | 9680.6 |
| GR | 1309.6 | 9692.4 | 1309.5 | 9721.6 | 1309.7 | 9762.8 | 1309.2 | 9794.9 | 1309.2 | 9820.7 |
| GR | 1309.4 | 9846.3 | 1309.3 | 9853.8 | 1304.5 | 9872.5 | 1300.3 | 9890.5 | 1300.4 | 9922.5 |
| GR | 1299.5 | 9955.5 | 1299.9 | 9965.4 | 1298.8 | 9976.3 | 1298.7 | 9985.7 | 1299.9 | 10000.0 |
| GR | 1300.1 | 10042.8 | 1300.5 | 10080.3 | 1300.4 | 10109.3 | 1302.2 | 10126.6 | 1305.5 | 10144.5 |
| GR | 1308.6 | 10159.8 | 1309.9 | 10166.2 | 1309.2 | 10181.3 | 1308.6 | 10197.4 | 1308.3 | 10206.6 |
| GR | 1308.3 | 10241.3 | 1308.6 | 10289.0 | 1308.6 | 10337.5 | 1309.1 | 10390.7 | 1309.1 | 10437.1 |
| GR | 1309.6 | 10473.6 | 1309.6 | 10517.7 | 1309.6 | 10553.9 | 1309.6 | 10589.1 | 1309.0 | 10596.6 |
| GR | 1309.1 | 10615.7 | 1308.8 | 10633.2 | 1309.1 | 10637.3 | 1309.5 | 10651.8 | | |

CONFLUENCE WITH SCATTER WASH.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X1 | 6.189 | 49 | 9842.2 | 10154.5 | 505 | 505 | 528 | | | |
| GR | 1308.4 | 9500.6 | 1308.4 | 9562.4 | 1308.4 | 9624.0 | 1308.5 | 9694.8 | 1308.2 | 9761.5 |
| GR | 1308.3 | 9792.5 | 1309.1 | 9814.2 | 1310.0 | 9823.9 | 1310.8 | 9832.1 | 1310.8 | 9842.2 |
| GR | 1310.1 | 9847.4 | 1307.8 | 9858.6 | 1303.0 | 9876.3 | 1300.6 | 9888.9 | 1300.6 | 9915.0 |
| GR | 1300.7 | 9947.0 | 1300.3 | 9964.1 | 1300.0 | 9977.4 | 1299.0 | 9992.2 | 1299.0 | 10000.0 |
| GR | 1300.1 | 10015.8 | 1300.2 | 10045.0 | 1300.3 | 10082.5 | 1301.8 | 10110.6 | 1304.2 | 10126.2 |
| GR | 1308.0 | 10142.9 | 1309.4 | 10151.6 | 1309.9 | 10154.5 | 1309.4 | 10159.8 | 1309.5 | 10163.5 |
| GR | 1309.0 | 10166.1 | 1309.3 | 10179.3 | 1309.0 | 10195.9 | 1309.6 | 10197.5 | 1309.8 | 10207.7 |
| GR | 1310.4 | 10234.8 | 1310.4 | 10273.7 | 1310.5 | 10321.9 | 1311.2 | 10374.5 | 1311.1 | 10406.6 |
| | 1310.5 | 10441.9 | 1310.7 | 10479.1 | 1310.4 | 10508.3 | 1310.8 | 10540.7 | 1310.6 | 10566.0 |

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GR   1310.5   10581.9   1310.3   10590.9   1310.0   10623.9   1310.0   10625.2

QT      1       2800
X1  6.219         27   9937.8   10076.9     180       40       158
X3     10
GR   1309.9    9937.8   1305.0    9950.4   1300.8    9963.3   1299.6    9983.6   1299.6   10000.0
GR   1299.6   10030.1   1301.5   10045.5   1308.7   10060.4   1309.9   10076.9   1310.1   10097.4
GR   1310.5   10111.7   1310.4   10128.8   1310.0   10148.7   1309.6   10159.0   1309.7   10174.9
GR   1309.8   10193.9   1309.9   10230.7   1309.9   10264.0   1309.9   10295.3   1309.9   10325.7
GR   1310.0   10355.9   1310.0   10384.3   1310.4   10417.0   1310.4   10447.8   1310.6   10474.2
GR   1310.7   10495.9   1310.7   10497.0

        LOWER WALL OF DROP STRUCTURE.
X1  6.223         28   9959.9   10040.1      40       20        23
GR   1311.9    9923.5   1310.3    9940.0   1308.5    9942.0   1308.5    9959.9   1300.3    9960.0
GR   1300.3   10000.0   1300.3   10020.0   1300.3   10040.0   1308.5   10040.1   1308.5   10058.0
GR   1310.1   10082.9   1310.9   10097.9   1310.9   10114.6   1310.9   10135.4   1310.4   10158.1
GR   1310.3   10162.6   1310.6   10177.1   1310.6   10200.1   1310.7   10227.1   1311.2   10256.4
GR   1311.2   10289.9   1311.1   10311.9   1311.1   10334.6   1311.1   10360.9   1311.2   10388.4
GR   1311.4   10414.0   1311.4   10442.4   1311.4   10461.0

        UPPER WALL OF DROP STRUCTURE.
X1  6.227         28   9959.9   10040.1      10       10        19
GR   1311.9    9923.5   1310.3    9940.0   1310.0    9942.0   1310.0    9959.9   1305.0    9960.0
GR   1305.0   10000.0   1305.0   10020.0   1305.0   10040.0   1310.0   10040.1   1310.0   10058.0
GR   1310.1   10082.9   1310.9   10097.9   1310.9   10114.6   1310.9   10135.4   1310.4   10158.1
GR   1310.3   10162.6   1310.6   10177.1   1310.6   10200.1   1310.7   10227.1   1311.2   10256.4
GR   1311.2   10289.9   1311.1   10311.9   1311.1   10334.6   1311.1   10360.9   1311.2   10388.4
GR   1311.4   10414.0   1311.4   10442.4   1311.4   10461.0

X1  6.230         26   9913.3   10085.3      16       16        16
GR   1313.3    9909.9   1313.3    9913.3   1310.5    9927.0   1305.6    9947.1   1304.5    9967.4
GR   1303.6    9987.5   1303.4   10000.0   1304.1   10010.6   1304.3   10038.3   1308.0   10059.1
GR   1309.8   10075.5   1310.3   10085.3   1311.1   10106.3   1311.4   10123.7   1311.4   10135.0
GR   1311.3   10160.9   1310.4   10196.8   1311.4   10223.8   1311.0   10249.6   1311.4   10285.4
GR   1311.4   10316.3   1311.4   10351.5   1311.6   10381.2   1311.9   10418.4   1312.1   10460.5
GR   1312.1   10466.7

X1  6.298         37   9905.4   10071.5     360      360       359
GR   1314.0    9672.2   1313.9    9700.1   1313.8    9732.0   1313.3    9761.4   1312.6    9779.3
GR   1312.6    9798.7   1312.6    9813.3   1312.9    9818.4   1312.9    9842.3   1313.1    9860.9
GR   1313.1    9888.7   1313.2    9905.4   1312.5    9914.8   1307.8    9934.8   1305.5    9955.2
GR   1304.8    9975.0   1303.6    9992.0   1303.8   10000.0   1304.9   10012.0   1305.2   10023.7
GR   1307.8   10041.5   1312.3   10062.0   1313.1   10071.5   1311.9   10083.4   1312.7   10097.6
GR   1313.3   10145.1   1313.0   10176.2   1312.3   10197.2   1311.9   10206.5   1312.4   10226.6
GR   1311.7   10244.7   1312.5   10253.8   1313.2   10276.4   1313.9   10306.8   1312.6   10344.3
GR   1312.7   10370.0   1312.7   10383.3

X1  6.356         26   9920.6   10047.4     315      305       306
X3     10
GR   1315.2    9655.5   1315.3    9673.4   1316.0    9680.1   1315.8    9691.9   1315.1    9708.7
GR   1315.2    9723.6   1316.2    9740.8   1316.4    9766.5   1315.6    9786.9   1315.3    9816.7
GR   1315.9    9835.1   1317.1    9839.3   1317.3    9844.8   1316.1    9847.1   1316.1    9877.6
GR   1316.2    9899.6   1315.9    9910.9   1316.3    9920.6   1313.2    9935.1   1309.7    9956.3
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GR   1305.2    9978.6    1304.8    9992.2    1305.8   10000.0    1306.3   10017.1    1309.8   10033.2
GR   1314.9   10047.4

NC     .015      .015      .015        .3        .5
         DOWNSTREAM FACE OF 5-10'X6' CONCRETE BOX CULVERTS AT WAHALLA DRIVE.
X1    6.361        24    9973.2   10026.8        60         5        26
GR   1316.5    9815.0    1316.0    9864.3    1316.0    9894.8    1315.7    9912.7    1317.0    9922.1
GR   1318.0    9931.1    1314.8    9944.9    1315.0    9954.7    1315.0    9966.5    1315.9    9973.2
GR   1305.0    9973.3    1305.0     10000    1305.0   10026.7    1315.9   10026.8    1315.8   10053.1
GR   1315.8   10074.0    1316.0   10098.7    1316.0   10122.5    1315.2   10142.4    1314.7   10165.0
GR   1314.4   10197.2    1313.5   10226.7    1312.9   10250.4    1313.3   10252.0

SB    1.25      1.56       2.9         0      53.3       3.3       300         0      1305      1305
         UPSTREAM FACE OF 5-10'X6' CONCRETE BOX CULVERTS AT WAHALLA DRIVE.
         SPECIAL BRIDGE METHOD USED.
X1    6.377         5    9973.2   10026.8        72        72        72
X2                          1      1311    1314.9
BT        2    9973.2    1314.9      1311   10026.8    1314.9      1311
GR   1315.9    9973.2      1305    9973.3      1305     10000      1305   10026.7    1315.9   10026.8

X1    6.378        15    9961.4   10038.6        10        10        10
GR   1315.8    9853.0    1315.8    9889.6    1315.5    9920.7    1315.5    9943.1    1315.5    9951.0
GR   1315.9    9961.4      1305    9961.5      1305     10000      1305   10038.5    1315.9   10038.6
GR   1316.1   10041.6    1315.8   10065.1    1315.4   10105.9    1315.3   10150.4    1315.3   10151.0

         DROP STRUCTURE INTO BOX CULVERTS AT WAHALLA DRIVE.
     6.379        15    9961.4   10038.6       0.1       0.1       0.1
GR   1315.8    9853.0    1315.8    9889.6    1315.5    9920.7    1315.5    9943.1    1315.5    9951.0
GR   1315.9    9961.4      1311    9961.5      1311     10000      1311   10038.5    1315.9   10038.6
GR   1316.1   10041.6    1315.8   10065.1    1315.4   10105.9    1315.3   10150.4    1315.3   10151.0

NC     .045      .045      .035        .1        .3
ET    6.389       9.1                                                                   9936     10081
X1    6.389        20    9951.9   10057.4        10        85        53
GR   1316.0    9879.4    1316.0    9914.9    1316.1    9936.7    1315.2    9951.9    1309.6    9974.0
GR   1309.1    9997.1    1309.3   10000.0    1310.2   10023.1    1313.5   10043.6    1315.6   10057.4
GR   1316.1   10080.4    1315.9   10113.8    1315.8   10149.5    1315.8   10181.9    1315.2   10205.2
GR   1315.6   10230.7    1315.3   10256.2    1314.5   10277.2    1314.5   10301.2    1314.7   10324.6

ET    6.471       9.1                                                                   9960     10400
X1    6.471        41    9960.8   10076.8       380       480       433
GR   1317.5    9548.7    1316.4    9574.0    1316.6    9599.4    1317.3    9630.3    1317.0    9662.8
GR   1315.9    9692.6    1316.0    9715.6    1316.1    9730.7    1316.7    9743.0    1316.9    9768.0
GR   1316.9    9789.1    1316.5    9801.6    1316.7    9831.1    1316.8    9860.9    1317.2    9875.6
GR   1317.6    9891.5    1317.8    9916.5    1317.9    9944.5    1318.3    9960.8    1317.1    9966.0
GR   1312.5    9977.9    1312.0    9997.5    1311.8   10000.0    1311.6   10021.6    1311.7   10034.9
GR   1315.0   10055.6    1318.0   10076.8    1317.9   10096.1    1317.7   10130.6    1318.1   10167.2
GR   1318.6   10208.0    1319.2   10247.8    1320.1   10286.4    1319.8   10315.8    1319.5   10331.9
GR   1320.0   10354.4    1320.7   10358.3    1319.0   10369.9    1320.0   10379.2    1320.1   10391.2
GR   1320.7   10401.6
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NC     .025      .025      .025       .1        .3
         DOWNSTREAM END OF ADOT FUTURE CHANNELIZATION FOR THE OUTER LOOP.
         THE ADOT OUTER LOOP BOX CULVERTS AND CHANNELIZATION ARE CURRENTLY
         UNDER CONSTRUCTION, AND IS CONSIDERED IN PLACE FOR THIS MODEL.
X1    6.511         5      9957     10043       210       210       210
GR   1318.3      9957    1311.8      9970    1311.8     10000    1311.8     10030    1318.3     10043

X1    6.634         0         0         0       650       650       650                 1.82

X1    6.772         0         0         0       670       670       670                 1.88

NC     .015      .015      .015       .1        .3
         DOWNSTREAM FACE OF ADOT OUTERLOOP BOX CULVERTS (5-10'X6').
X1    6.780         5    9973.2   10026.9        40        40        40
GR   1323.3    9973.2    1316.1    9973.3    1316.1     10000    1316.1   10026.8    1323.3   10026.9

SB     1.25      1.56       2.9         0      53.7       3.7       300         0    1317.5    1316.1
         UPSTREAM FACE OF ADOT OUTERLOOP BOX CULVERTS.
         SPECIAL BRIDGE METHOD USED.
X1    6.887         5    9973.2   10026.9       486       486       486
X2                            1    1323.5      1333
BT        2    9973.2      1333    1323.5   10026.9      1333    1323.5
GR   1327.3    9973.2    1317.5    9973.3    1317.5     10000    1317.5   10026.8    1327.3   10026.9

X1    6.889         5    9965.4   10034.6        10        10        10
GR   1327.3    9965.4    1317.5    9965.5    1317.5     10000    1317.5   10034.5    1327.3   10034.6

         DROP STRUCTURE INTO ADOT OUTERLOOP BOX CULVERTS.
X1    6.890         5    9965.4   10034.6        .1        .1        .1
GR   1327.3    9965.4    1320.5    9965.5    1320.5     10000    1320.5   10034.5    1327.3   10034.6

NC     .025      .025      .025       .1        .3
         UPSTREAM END OF ADOT FUTURE CHANNELIZAION FOR THE OUTER LOOP.
X1    6.951         5      9947     10053       310       310       310
GR   1327.5      9947      1321      9960      1321     10000      1321     10040    1327.5     10053

NC     .045      .045      .035       .1        .3
X1    7.000        31    9970.0   10139.3       265       250       259
X3       10
GR   1332.2    9578.4    1331.4    9640.5    1329.7    9650.5    1330.6    9663.3    1330.5    9704.5
GR   1330.1    9730.7    1329.8    9763.3    1329.5    9781.8    1328.8    9792.4    1330.7    9816.3
GR   1330.5    9854.5    1330.1    9883.0    1329.7    9899.6    1330.0    9916.7    1329.2    9923.7
GR   1329.5    9970.0    1324.9    9982.7    1323.9    9994.2    1323.6   10000.0    1323.7   10018.5
GR   1323.5   10033.0    1323.3   10048.6    1323.0   10063.5    1323.8   10067.4    1325.6   10072.7
GR   1325.9   10078.3    1324.9   10085.0    1325.0   10088.9    1339.6   10119.9    1346.2   10139.3
GR   1346.2   10141.0

ET    7.100       9.1                                                                   9823     10027
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SECTION 7.100 TO SECTION 7.409 SKUNK CREEK IS CHANNELIZED.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X1 | 7.100 | 36 | 9823.3 | 10026.4 | 470 | 510 | 528 | | | |
| GR | 1335.2 | 9452.6 | 1335.2 | 9512.8 | 1334.3 | 9565.7 | 1333.3 | 9624.9 | 1333.0 | 9654.8 |
| GR | 1332.2 | 9689.2 | 1331.3 | 9735.0 | 1331.3 | 9758.1 | 1331.9 | 9783.8 | 1331.3 | 9808.8 |
| GR | 1330.6 | 9810.5 | 1332.1 | 9823.3 | 1329.5 | 9833.6 | 1329.4 | 9845.3 | 1326.9 | 9853.0 |
| GR | 1326.9 | 9869.0 | 1328.3 | 9887.5 | 1328.6 | 9900.8 | 1327.6 | 9914.2 | 1326.6 | 9934.6 |
| GR | 1327.0 | 9956.2 | 1327.5 | 9976.5 | 1326.4 | 9999.4 | 1326.4 | 10000.0 | 1326.2 | 10006.2 |
| GR | 1334.9 | 10026.4 | 1334.8 | 10042.7 | 1328.5 | 10060.2 | 1328.1 | 10067.3 | 1328.4 | 10086.6 |
| GR | 1324.9 | 10109.7 | 1324.7 | 10122.7 | 1329.0 | 10133.2 | 1333.2 | 10143.6 | 1334.0 | 10159.0 |
| GR | 1342.9 | 10177.4 | | | | | | | | |
| ET | 7.174 | 9.1 | | | | | | | 9960 | 10038 |
| X1 | 7.174 | 55 | 9964.8 | 10037.6 | 425 | 420 | 391 | | | |
| GR | 1336.1 | 9333.1 | 1335.4 | 9376.2 | 1335.6 | 9406.7 | 1336.1 | 9435.4 | 1335.6 | 9455.9 |
| GR | 1334.8 | 9495.7 | 1335.3 | 9530.7 | 1333.9 | 9567.9 | 1333.1 | 9594.6 | 1333.2 | 9607.7 |
| GR | 1332.8 | 9616.8 | 1329.2 | 9624.7 | 1333.2 | 9639.4 | 1334.0 | 9648.5 | 1331.8 | 9660.0 |
| GR | 1331.6 | 9666.3 | 1331.6 | 9674.1 | 1333.0 | 9679.6 | 1333.2 | 9705.3 | 1330.7 | 9712.5 |
| GR | 1330.3 | 9729.9 | 1331.0 | 9740.3 | 1331.0 | 9747.2 | 1330.2 | 9758.8 | 1329.5 | 9775.9 |
| GR | 1328.8 | 9792.5 | 1330.3 | 9803.7 | 1330.7 | 9820.5 | 1331.6 | 9839.5 | 1332.0 | 9857.3 |
| GR | 1331.8 | 9877.5 | 1331.7 | 9898.1 | 1332.0 | 9915.9 | 1332.2 | 9928.4 | 1336.8 | 9942.5 |
| GR | 1340.9 | 9951.1 | 1340.3 | 9964.8 | 1339.6 | 9968.7 | 1327.2 | 9992.7 | 1326.6 | 9998.4 |
| GR | 1326.1 | 10000.0 | 1326.8 | 10007.6 | 1334.6 | 10026.2 | 1339.9 | 10037.6 | 1339.2 | 10053.9 |
| GR | 1331.4 | 10066.1 | 1330.4 | 10071.9 | 1330.4 | 10081.6 | 1330.5 | 10086.5 | 1333.5 | 10102.2 |
| GR | 1333.6 | 10123.3 | 1334.1 | 10142.9 | 1334.5 | 10161.3 | 1336.0 | 10170.2 | 1339.7 | 10185.0 |
| ET | 7.244 | 9.1 | | | | | | | 9950 | 10044 |
| X1 | 7.244 | 63 | 9959.8 | 10037.5 | 400 | 350 | 370 | | | |
| GR | 1338.3 | 9414.4 | 1338.8 | 9460.8 | 1339.1 | 9487.6 | 1338.5 | 9503.8 | 1336.7 | 9516.9 |
| GR | 1336.0 | 9529.2 | 1338.5 | 9539.7 | 1338.3 | 9551.9 | 1337.2 | 9564.0 | 1335.7 | 9581.6 |
| GR | 1334.8 | 9598.1 | 1333.8 | 9606.1 | 1333.8 | 9615.2 | 1329.0 | 9638.3 | 1328.9 | 9644.8 |
| GR | 1329.9 | 9659.3 | 1330.4 | 9674.1 | 1330.9 | 9682.0 | 1332.4 | 9712.1 | 1333.4 | 9729.3 |
| GR | 1333.1 | 9743.0 | 1333.2 | 9764.0 | 1333.2 | 9783.6 | 1332.6 | 9800.2 | 1332.3 | 9806.6 |
| GR | 1334.3 | 9815.6 | 1337.0 | 9826.1 | 1337.6 | 9847.7 | 1337.0 | 9860.1 | 1336.7 | 9879.5 |
| GR | 1337.1 | 9893.8 | 1336.9 | 9902.9 | 1335.0 | 9910.4 | 1335.6 | 9924.3 | 1336.4 | 9932.6 |
| GR | 1341.5 | 9949.2 | 1341.5 | 9959.8 | 1326.9 | 9991.3 | 1326.9 | 9999.6 | 1326.9 | 10000.0 |
| GR | 1327.6 | 10010.5 | 1340.6 | 10037.5 | 1341.3 | 10044.3 | 1340.2 | 10054.8 | 1334.5 | 10067.0 |
| GR | 1334.0 | 10092.8 | 1335.2 | 10101.8 | 1335.9 | 10119.6 | 1335.6 | 10141.1 | 1335.4 | 10163.0 |
| GR | 1335.8 | 10191.9 | 1335.5 | 10205.4 | 1333.9 | 10218.5 | 1335.3 | 10224.6 | 1335.0 | 10234.2 |
| GR | 1334.0 | 10242.7 | 1334.0 | 10249.3 | 1335.3 | 10260.2 | 1334.8 | 10279.4 | 1335.5 | 10282.5 |
| GR | 1335.6 | 10293.2 | 1341.9 | 10316.0 | 1358.8 | 10362.0 | | | | |
| ET | 7.327 | 9.1 | | | | | | | 9950 | 10040 |
| X1 | 7.327 | 51 | 9957.5 | 10038.4 | 480 | 380 | 438 | | | |
| GR | 1342.3 | 9487.7 | 1341.6 | 9566.8 | 1340.8 | 9618.3 | 1340.6 | 9680.2 | 1342.1 | 9692.2 |
| GR | 1341.7 | 9699.1 | 1338.9 | 9709.9 | 1341.4 | 9718.0 | 1339.5 | 9731.7 | 1339.6 | 9761.8 |
| GR | 1339.3 | 9778.9 | 1338.8 | 9792.3 | 1339.4 | 9810.5 | 1339.4 | 9835.0 | 1339.3 | 9868.7 |
| GR | 1339.4 | 9891.4 | 1339.5 | 9907.2 | 1336.9 | 9918.1 | 1337.0 | 9920.5 | 1339.2 | 9924.9 |
| GR | 1339.2 | 9934.9 | 1341.5 | 9945.7 | 1341.6 | 9957.5 | 1328.0 | 9985.8 | 1327.4 | 9990.1 |
| GR | 1326.7 | 9998.0 | 1326.7 | 10000.0 | 1327.5 | 10008.5 | 1341.5 | 10038.4 | 1341.4 | 10050.7 |
| GR | 1336.6 | 10059.2 | 1336.3 | 10081.6 | 1336.6 | 10097.9 | 1337.3 | 10108.2 | 1336.1 | 10115.5 |
| GR | 1335.2 | 10131.5 | 1334.5 | 10143.2 | 1336.0 | 10154.1 | 1336.3 | 10162.3 | 1335.3 | 10171.9 |
| GR | 1335.6 | 10182.9 | 1335.9 | 10195.0 | 1335.0 | 10205.7 | 1336.2 | 10215.6 | 1335.6 | 10226.7 |
| GR | 1335.4 | 10243.2 | 1335.5 | 10262.7 | 1335.6 | 10278.9 | 1336.2 | 10285.8 | 1337.8 | 10297.5 |
| | 1354.2 | 10324.2 | | | | | | | | |

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        OUTLET FROM ADOBE DAM.
X1    7.409       21    9944.3   10065.7      470      400      433
X3       10
GR   1342.1   9829.6    1340.5    9856.8   1338.3   9892.8   1338.3   9910.3   1338.3   9914.9
GR   1341.5   9925.3    1342.1    9934.7   1341.4   9944.3   1325.5   9974.1   1322.6   9985.1
GR   1322.9  10000.0    1324.0   10023.6   1327.1  10036.1   1341.1  10065.7   1342.1  10080.7
GR   1341.5  10086.2    1340.7   10094.9   1339.3  10099.9   1344.6  10126.3   1348.3  10168.5
GR   1354.8  10218.8

NC    .045     .045      .035       .1       .3
QT       1    10000
X1   -6.189       49    9842.2   10154.5      505      505      528
GR   1308.4   9500.6    1308.4    9562.4   1308.4   9624.0   1308.5   9694.8   1308.2   9761.5
GR   1308.3   9792.5    1309.1    9814.2   1310.0   9823.9   1310.8   9832.1   1310.8   9842.2
GR   1310.1   9847.4    1307.8    9858.6   1303.0   9876.3   1300.6   9888.9   1300.6   9915.0
GR   1300.7   9947.0    1300.3    9964.1   1300.0   9977.4   1299.0   9992.2   1299.0  10000.0
GR   1300.1  10015.8    1300.2   10045.0   1300.3  10082.5   1301.8  10110.6   1304.2  10126.2
GR   1308.0  10142.9    1309.4   10151.6   1309.9  10154.5   1309.4  10159.8   1309.5  10163.5
GR   1309.0  10166.1    1309.3   10179.3   1309.0  10195.9   1309.6  10197.5   1309.8  10207.7
GR   1310.4  10234.8    1310.4   10273.7   1310.5  10321.9   1311.2  10374.5   1311.1  10406.6
GR   1310.5  10441.9    1310.7   10479.1   1310.4  10508.3   1310.8  10540.7   1310.6  10566.0
GR   1310.5  10581.9    1310.3   10590.9   1310.0  10623.9   1310.0  10625.2

QT       1     7300
        SCATTER WASH
X1    .028       17    9900.9   10089.2      100      170      148
X3       10
GR   1307.9   9756.4    1308.0    9800.3   1308.8   9839.1   1309.8   9856.9   1311.6   9874.8
GR   1312.2   9888.1    1311.6    9900.9   1310.3   9907.6   1301.8   9928.4   1300.9   9951.6
GR   1300.8   9981.0    1300.9   10000.0   1301.1  10029.9   1301.2  10058.4   1302.1  10075.5
GR   1307.0  10087.6    1308.9   10089.2

ET    .032      9.1                                                                 9919    10081
        LOWER WALL OF DROP STRUCTURE IMMEDIATELY UPSTREAM OF SKUNK CREEK.
X1    .032       18    9919.9   10080.1       23       23       23
GR   1308.3   9737.2    1308.3    9778.5   1308.9   9829.9   1309.9   9857.3   1311.7   9877.9
GR   1312.7   9893.7    1308.5    9902.0   1308.5   9919.9   1301.4   9920.0   1301.4   9960.0
GR   1301.4  10000.0    1301.4   10040.0   1301.4  10080.0   1308.5  10080.1   1308.5  10098.0
GR   1313.1  10100.7    1313.1   10111.4   1313.8  10119.2

ET    .036      9.1                                                                 9919    10081
        UPPER WALL OF DROP STRUCTURE.
X1    .036       18    9919.9   10080.1       19       19       19
GR   1308.3   9737.2    1308.3    9778.5   1308.9   9829.9   1309.9   9857.3   1311.7   9877.9
GR   1312.7   9893.7    1311.5    9902.0   1311.5   9919.9   1305.7   9920.0   1305.7   9960.0
GR   1305.7  10000.0    1305.7   10040.0   1305.7  10080.0   1311.5  10080.1   1311.5  10098.0
GR   1313.1  10100.7    1313.1   10111.4   1313.8  10119.2
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ET    .040      9.1                                                          9897     10120
X1    .040       24    9897.8   10117.7       21       21       21
GR  1308.5   9743.9    1308.5    9790.1   1308.7   9828.5   1309.1   9857.4   1310.7   9874.8
GR  1312.5   9887.4    1312.6    9897.8   1310.9   9909.6   1306.2   9927.1   1305.1   9949.7
GR  1305.1   9977.7    1305.1    9989.0   1305.1   9993.6   1303.3   9994.0   1303.3  10000.0
GR  1303.5  10006.5    1304.8   10008.0   1304.8  10027.1   1305.0  10057.3   1305.3  10078.6
GR  1310.2  10094.9    1312.9   10109.5   1313.8  10117.7   1314.0  10132.1

ET    .116      9.1                                                          9878     10100
X1    .116       47    9878.5   10098.1      410      400      401
GR  1314.7   9421.3    1314.7    9446.9   1315.0   9474.8   1315.4   9506.3   1315.1   9523.6
GR  1315.4   9553.0    1315.8    9586.1   1315.7   9617.2   1315.4   9639.1   1315.3   9706.7
GR  1315.2   9720.5    1315.3    9793.1   1315.0   9803.7   1314.5   9804.5   1314.5   9817.7
GR  1313.2   9831.1    1312.6    9842.4   1310.6   9849.6   1311.6   9856.4   1313.2   9867.2
GR  1313.5   9871.6    1313.4    9878.5   1310.4   9887.5   1306.4   9901.6   1305.3   9911.5
GR  1304.9   9933.2    1304.7    9956.7   1304.7   9977.1   1304.5   9987.1   1303.0   9994.5
GR  1302.7  10000.0    1303.0   10008.9   1304.7  10019.8   1305.3  10040.9   1307.0  10060.5
GR  1309.0  10075.7    1312.7   10090.2   1315.2  10098.1   1314.7  10122.9   1314.6  10139.1
GR  1314.6  10181.9    1313.8   10203.0   1313.4  10209.1   1313.8  10225.8   1313.6  10236.7
GR  1314.1  10246.2    1314.8   10266.1

ET    .184      9.1                                                          9896     10120
X1    .184       49    9897.0   10117.2      340      350      359
GR  1315.2   9524.7    1315.5    9568.5   1315.9   9601.2   1316.3   9614.2   1316.4   9628.1
GR  1314.7   9648.3    1314.1    9672.4   1314.0   9705.5   1314.0   9736.5   1315.1   9762.9
GR  1316.2   9781.2    1317.1    9791.6   1317.1   9797.5   1316.7   9812.9   1316.5   9822.5
GR  1313.5   9839.4    1312.3    9850.4   1311.9   9862.6   1314.4   9876.6   1315.3   9886.3
GR  1315.9   9897.0    1314.3    9904.8   1310.2   9921.6   1307.1   9935.7   1305.9   9951.8
GR  1305.5   9972.7    1304.9    9987.3   1303.9   9997.1   1304.0  10000.0   1304.1  10010.7
GR  1305.2  10019.1    1306.3   10050.1   1308.2  10074.3   1312.4  10099.0   1315.7  10113.5
GR  1317.5  10117.2    1317.5   10122.9   1317.5  10141.9   1317.5  10159.7   1317.4  10195.6
GR  1316.6  10215.0    1315.6   10224.4   1316.2  10240.2   1316.2  10253.8   1316.7  10263.4
GR  1317.3  10287.5    1317.4   10314.9   1317.5  10344.6   1317.2  10353.7

NC    .015      .015      .015       .3       .5
        DOWNSTREAM FACE OF 10-10'X5' CONCRETE BOX CULVERTS AT 45TH AVENUE.
X1    .200       40    9945.7   10054.3       70       85       84
GR  1317.2   9423.9    1317.2    9460.2   1317.2   9513.5   1317.4   9557.5   1317.3   9564.3
GR  1317.2   9575.3    1317.2    9611.2   1317.1   9627.1   1316.9   9662.9   1316.4   9708.1
GR  1316.5   9744.4    1316.8    9765.3   1317.2   9778.3   1317.2   9787.8   1317.2   9812.9
GR  1316.6   9838.4    1316.4    9872.4   1316.5   9899.5   1316.1   9923.6   1316.6   9945.7
GR  1305.3   9945.8    1305.3     10000   1305.3  10054.2   1316.6  10054.3   1316.6  10078.8
GR  1316.7  10104.1    1317.5   10118.3   1318.2  10141.9   1318.4  10176.6   1318.1  10201.4
GR  1317.2  10214.2    1316.3   10221.4   1316.9  10238.0   1316.4  10251.2   1316.9  10256.5
GR  1317.3  10276.1    1317.7   10304.5   1317.8  10335.2   1317.8  10363.0   1317.5  10369.0

SB    1.25      1.56       2.9         0     107.5      7.5      600        0   1305.4   1305.3
        UPSTREAM FACE OF 10-10'X6' CONCRETE BOX CULVERTS AT 45TH AVENUE.
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        SPECIAL BRIDGE METHOD USED.
X1    .212        5    9945.7   10054.3       60       60       60
X2                        1    1311.4    1316.2
BT       2   9945.7   1316.2    1311.4   10054.3   1316.2   1311.4
GR  1316.5   9945.7   1305.4    9945.8    1305.4    10000   1305.4  10054.2   1316.5  10054.3

X1    .213       39     9935    10065        10       10       10
GR  1318.1   9496.0   1318.2    9536.4    1318.0   9562.8   1317.3   9570.4   1317.5   9572.6
GR  1317.2   9575.6   1317.1    9592.6    1317.2   9604.5   1317.6   9606.8   1318.5   9627.5
GR  1318.5   9662.6   1318.2    9690.6    1317.8   9720.6   1316.7   9744.3   1316.7   9779.6
GR  1316.8   9817.3   1317.3    9842.9    1316.7   9877.5   1316.6   9910.2   1316.5     9920
GR  1316.5     9935   1305.4    9935.1    1305.4    10000   1305.4  10064.9   1316.5    10065
GR  1317.1  10090.0   1317.1   10126.6    1317.5  10163.2   1317.3  10191.1   1316.9  10206.2
GR  1316.7  10219.3   1316.4   10221.4    1316.7  10236.2   1316.3  10250.5   1316.7  10258.3
GR  1317.9  10274.5   1318.3   10301.3    1318.1  10330.1   1318.1  10361.0

        DROP STRUCTURE INTO BOX CULVERTS AT 45TH AVENUE.
X1    .214       39     9935    10065       0.1      0.1      0.1
GR  1318.1   9496.0   1318.2    9536.4    1318.0   9562.8   1317.3   9570.4   1317.5   9572.6
GR  1317.2   9575.6   1317.1    9592.6    1317.2   9604.5   1317.6   9606.8   1318.5   9627.5
GR  1318.5   9662.6   1318.2    9690.6    1317.8   9720.6   1316.7   9744.3   1316.7   9779.6
GR  1316.8   9817.3   1317.3    9842.9    1316.7   9877.5   1316.6   9910.2   1316.5     9920
GR  1316.5     9935   1310.3    9935.1    1310.3    10000   1310.3  10064.9   1316.5    10065
GR  1317.1  10090.0   1317.1   10126.6    1317.5  10163.2   1317.3  10191.1   1316.9  10206.2
GR  1316.7  10219.3   1316.4   10221.4    1316.7  10236.2   1316.3  10250.5   1316.7  10258.3
GR  1317.9  10274.5   1318.3   10301.3    1318.1  10330.1   1318.1  10361.0

NC    .045     .045     .035       .1       .3
ET    .232      9.1                                                          9859    10200
X1    .232       40    9870.7   10069.0       80      100       95
GR  1319.2   9485.9   1318.5    9551.0    1317.4   9577.0   1317.5   9593.0   1317.4   9604.1
GR  1318.3   9615.8   1319.0    9658.0    1319.0   9705.6   1318.2   9723.8   1317.5   9762.4
GR  1317.6   9799.9   1318.4    9832.0    1318.7   9859.4   1317.8   9870.7   1309.9   9916.3
GR  1310.1   9949.8   1310.3    9972.9    1309.7   9985.7   1308.3   9997.2   1308.7  10000.0
GR  1309.1  10008.8   1310.4   10017.2    1310.3  10040.1   1311.6  10052.3   1317.9  10069.0
GR  1318.3  10083.3   1318.5   10111.9    1318.9  10143.2   1318.8  10174.7   1318.0  10209.3
GR  1316.7  10215.6   1316.6   10219.3    1316.6  10221.0   1316.7  10238.1   1316.1  10250.7
GR  1316.7  10255.0   1317.5   10270.1    1318.6  10298.5   1318.5  10332.2   1318.4  10358.7

X1    .337       50    9857.6   10208.5      560      530      554
GR  1319.5   9436.9   1319.0    9452.3    1319.3   9467.8   1319.1   9481.1   1319.4   9495.5
GR  1320.8   9528.0   1320.4    9565.7    1319.7   9599.1   1320.2   9633.7   1320.3   9669.3
GR  1320.1   9688.2   1319.6    9702.7    1319.7   9722.6   1319.2   9735.3   1320.0   9749.0
GR  1320.4   9773.7   1320.5    9805.0    1319.6   9830.3   1319.7   9847.5   1320.3   9857.6
GR  1316.7   9877.6   1312.7    9895.4    1313.0   9923.2   1313.2   9958.1   1312.5   9983.0
GR  1310.8   9997.6   1310.4   10000.0    1310.6  10007.3   1312.2  10014.4   1312.5  10044.5
GR  1312.6  10089.7   1313.0   10134.6    1312.7  10170.1   1314.4  10186.1   1317.4  10197.9
GR  1321.0  10208.5   1321.2   10216.9    1320.9  10230.9   1321.1  10282.8   1320.9  10307.1
GR  1320.6  10351.7   1319.3   10374.8    1318.5  10383.1   1318.4  10387.2   1318.5  10403.2
GR  1318.3  10416.5   1318.7   10425.6    1319.3  10457.7   1319.2  10486.5   1319.2  10508.1
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ET     .438       9.1                                                                    9800      10265
         BOTTOM OF DROP STRUCTURE IMMEDIATELY DOWNSTREAM OF 43RD AVENUE.
X1     .438        40    9852.6   10264.4       545       420       533
GR   1319.3    8964.3    1319.2    9051.5    1319.3    9059.5    1319.7    9066.0    1320.3    9121.0
GR   1320.1    9233.4    1320.3    9314.2    1320.3    9387.8    1319.2    9402.5    1318.9    9443.7
GR   1320.1    9450.6    1321.0    9650.2    1320.9    9664.5    1321.0    9789.8    1320.6    9852.6
GR   1314.8    9881.7    1313.9    9898.0    1313.4    9958.0    1313.4   10000.0    1313.1   10049.2
GR   1312.8   10055.3    1313.4   10087.0    1313.7   10139.3    1313.8   10166.2    1313.4   10168.3
GR   1313.7   10215.2    1313.7   10238.6    1322.4   10264.4    1322.6   10269.8    1321.7   10295.7
GR   1321.9   10346.7    1321.3   10408.9    1321.1   10449.3    1320.3   10455.8    1320.3   10506.8
GR   1318.8   10519.8    1318.6   10543.4    1318.4   10562.4    1319.1   10585.5    1319.3   10617.0

ET     .441       9.1                                                                    9847      10273
         TOP OF DROP STRUCTURE IMMEDIATELY DOWNSTREAM OF 43RD AVENUE.
X1     .441        34    9847.8   10272.7        16        16        16
GR   1318.6    8964.1    1319.9    9180.1    1320.1    9309.4    1320.1    9397.6    1319.2    9401.5
GR   1318.8    9441.2    1320.3    9447.0    1320.1    9493.2    1320.1    9561.3    1320.3    9666.0
GR   1321.0    9785.7    1321.4    9847.8    1321.1    9853.6    1319.8    9864.2    1318.1    9875.1
GR   1318.0    9885.7    1317.8   10000.0    1317.7   10058.4    1317.9   10172.5    1318.0   10256.5
GR   1322.5   10272.7    1322.2   10279.2    1322.0   10309.7    1321.8   10380.6    1321.5   10419.8
GR   1321.2   10458.7    1320.4   10463.3    1319.8   10514.6    1319.0   10523.4    1318.5   10529.3
GR   1318.5   10565.7    1319.6   10585.7    1319.6   10612.6    1319.2   10629.4

ET     .458       9.1                                                                    9800      10452
         43RD AVENUE DIP SECTION.
         FROM SECTION 0.458 TO SECTION 0.629, ET CARDS ARE USED TO MODEL
         EFFECTIVE FLOW IN BOTH OVERBANKS AT A 1:1 CONTRACTION UPSTREAM FROM
         THE CHANNELIZATION.
X1     .458        32    9940.5   10422.4        70       250        90
GR   1317.6    8979.0    1318.6    9240.9    1319.2    9505.2    1319.3    9740.2    1319.2    9940.5
GR   1318.8   10000.0    1319.1   10131.0    1318.9   10253.9    1318.5   10362.2    1318.8   10401.3
GR   1319.2   10422.4    1322.9   10451.9    1322.8   10460.2    1321.7   10485.2    1319.6   10568.4
GR   1319.5   10597.2    1320.0   10639.9    1320.2   10660.0    1320.7   10665.7    1321.1   10760.3
GR   1321.3   10818.7    1320.5   10867.0    1320.9   10883.9    1321.5   10898.2    1321.5   10926.0
GR   1320.9   10946.4    1321.0   10954.4    1320.5   11018.3    1321.1   11084.3    1321.4   11139.4
GR   1321.2   11196.5    1321.1   11228.6

NC     .060      .060      .060       .1        .3
ET     .489       9.1                                                                    9650      10700
X1     .489        57    9931.8   10413.3       170       170       163
GR   1319.0    9104.6    1319.3    9185.2    1318.7    9210.1    1319.6    9229.3    1319.9    9295.1
GR   1319.6    9387.7    1319.6    9457.1    1319.7    9538.3    1319.5    9584.3    1319.0    9596.4
GR   1319.9    9600.2    1319.5    9679.1    1319.5    9731.4    1319.6    9765.2    1319.6    9810.3
GR   1319.7    9878.7    1319.5    9919.0    1319.3    9927.2    1320.0    9931.8    1319.3    9935.0
GR   1318.9    9975.0    1319.4    9993.7    1319.1   10000.0    1319.2   10118.5    1319.5   10201.1
GR   1320.2   10265.0    1319.6   10343.5    1320.8   10384.8    1321.9   10413.3    1321.9   10436.4
GR   1321.1   10450.2    1320.1   10460.4    1320.0   10489.7    1321.0   10515.4    1320.4   10546.9
GR   1319.7   10563.0    1320.6   10594.3    1320.0   10619.7    1318.5   10627.3    1320.0   10641.3
GR   1319.2   10664.3    1320.3   10689.7    1320.7   10716.9    1320.9   10749.8    1320.5   10773.4
GR   1320.7   10809.3    1321.2   10848.9    1321.6   10898.3    1322.7   10920.1    1320.7   10952.0
GR   1323.8   11016.9    1323.4   11035.2    1324.1   11105.6    1324.5   11139.4    1324.3   11178.1
GR   1324.1   11212.4    1323.8   11237.6
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| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| X1 | .568 | 60 | 9873.8 | 10286.6 | 435 | 300 | 417 | | | |
| GR | 1322.1 | 9031.4 | 1322.7 | 9159.2 | 1322.4 | 9230.6 | 1322.3 | 9309.1 | 1321.8 | 9385.2 |
| GR | 1321.4 | 9494.7 | 1321.8 | 9574.8 | 1321.4 | 9643.1 | 1321.7 | 9705.3 | 1322.2 | 9751.9 |
| GR | 1321.3 | 9775.0 | 1321.8 | 9786.0 | 1321.8 | 9837.1 | 1321.3 | 9864.9 | 1322.3 | 9873.8 |
| GR | 1321.5 | 9886.2 | 1321.5 | 9953.3 | 1321.6 | 10000.0 | 1321.3 | 10066.5 | 1320.5 | 10094.7 |
| GR | 1320.6 | 10102.8 | 1321.1 | 10117.1 | 1321.6 | 10150.9 | 1321.3 | 10184.8 | 1321.0 | 10218.8 |
| GR | 1320.7 | 10236.5 | 1322.2 | 10271.7 | 1323.6 | 10286.6 | 1325.1 | 10367.7 | 1324.3 | 10376.8 |
| GR | 1322.4 | 10426.3 | 1320.4 | 10446.6 | 1320.4 | 10452.8 | 1323.0 | 10461.6 | 1323.6 | 10469.6 |
| GR | 1323.6 | 10489.6 | 1323.8 | 10513.9 | 1324.2 | 10536.1 | 1322.9 | 10548.2 | 1321.3 | 10555.6 |
| GR | 1322.0 | 10573.4 | 1321.8 | 10627.8 | 1321.8 | 10684.2 | 1321.7 | 10717.4 | 1322.8 | 10770.2 |
| GR | 1323.1 | 10822.8 | 1323.5 | 10893.8 | 1324.1 | 10950.7 | 1324.2 | 11022.0 | 1323.7 | 11082.7 |
| GR | 1323.8 | 11114.9 | 1324.8 | 11150.7 | 1324.7 | 11220.2 | 1325.2 | 11256.4 | 1325.6 | 11281.7 |
| GR | 1326.5 | 11320.2 | 1326.7 | 11335.3 | 1326.7 | 11389.6 | 1326.8 | 11433.3 | 1327.1 | 11459.9 |
| ET | .629 | 9.1 | | | | | | | 9491 | 11470 |
| X1 | .629 | 57 | 9905.1 | 10074.6 | 340 | 255 | 322 | | | |
| GR | 1323.1 | 8987.1 | 1323.7 | 9146.1 | 1323.9 | 9238.3 | 1324.1 | 9320.4 | 1324.5 | 9389.8 |
| GR | 1324.9 | 9490.9 | 1324.4 | 9566.3 | 1323.4 | 9617.3 | 1323.6 | 9685.8 | 1323.1 | 9762.6 |
| GR | 1322.2 | 9835.0 | 1323.2 | 9905.1 | 1322.7 | 9972.4 | 1323.2 | 10000.0 | 1323.9 | 10074.6 |
| GR | 1323.4 | 10121. | 1322.9 | 10149.5 | 1323.9 | 10191.3 | 1324.1 | 10206.9 | 1323.4 | 10260.5 |
| GR | 1322.4 | 10324. | 1322.3 | 10391.3 | 1323.3 | 10409.1 | 1325.0 | 10448.4 | 1326.4 | 10489.4 |
| GR | 1325.0 | 10514. | 1324.9 | 10560.6 | 1324.6 | 10606.0 | 1323.6 | 10638.3 | 1323.2 | 10662.6 |
| GR | 1320.6 | 10673. | 1323.4 | 10683.5 | 1323.9 | 10687.9 | 1323.8 | 10712.0 | 1322.3 | 10718.9 |
| GR | 1323.5 | 10740. | 1324.0 | 10773.1 | 1324.1 | 10812.3 | 1323.8 | 10862.1 | 1324.2 | 10894.0 |
| GR | 1325.0 | 10932. | 1323.5 | 10954.5 | 1322.4 | 10979.2 | 1322.4 | 11042.3 | 1322.2 | 11078.5 |
| GR | 1323.1 | 11129. | 1323.9 | 11164.3 | 1323.0 | 11186.4 | 1323.2 | 11198.1 | 1324.1 | 11208.0 |
| GR | 1324.7 | 11232. | 1324.9 | 11270.3 | 1325.2 | 11311.9 | 1325.4 | 11376.6 | 1326.0 | 11408.3 |
| GR | 1326.5 | 11439. | 1326.8 | 11471.4 | | | | | | |
| NC | .055 | .055 | .045 | .1 | .3 | | | | | |
| ET | .736 | 9.1 | | | | | | | 9840 | 11000 |
| X1 | .736 | 53 | 9981.3 | 10002 | 600 | 440 | 565 | | | |
| GR | 1332.8 | 9838.4 | 1328.7 | 9856.9 | 1327.1 | 9872.2 | 1326.3 | 9888.0 | 1325.4 | 9919.4 |
| GR | 1325.6 | 9938.9 | 1325.8 | 9972.3 | 1325.6 | 9981.3 | 1323.9 | 9987.0 | 1324.0 | 9992.1 |
| GR | 1325.6 | 10000.0 | 1326.5 | 10002. | 1325.2 | 10075. | 1324.1 | 10198. | 1324.1 | 10220. |
| GR | 1324.1 | 10257.8 | 1324.6 | 10307. | 1325.2 | 10351. | 1325.2 | 10368. | 1326.0 | 10401. |
| GR | 1326.0 | 10435.0 | 1326.2 | 10479. | 1326.6 | 10533. | 1326.7 | 10575. | 1326.4 | 10605. |
| GR | 1325.3 | 10629.3 | 1325.2 | 10641. | 1325.4 | 10654. | 1324.2 | 10665. | 1325.7 | 10680. |
| GR | 1326.0 | 10697.8 | 1325.4 | 10724. | 1325.2 | 10744. | 1325.5 | 10755. | 1325.7 | 10787. |
| GR | 1325.6 | 10816.0 | 1325.6 | 10829. | 1326.6 | 10850. | 1326.8 | 10878. | 1327.2 | 10919. |
| GR | 1328.0 | 10958.7 | 1328.0 | 10991. | 1328.4 | 11020. | 1328.6 | 11049. | 1328.3 | 11083. |
| GR | 1328.0 | 11113.9 | 1327.9 | 11125. | 1328.4 | 11146. | 1328.2 | 11160. | 1327.7 | 11175. |
| GR | 1328.3 | 11198.5 | 1326.9 | 11211. | 1327.2 | 11223. | | | | |
| ET | .813 | 9.1 | | | | | | | 9935 | 10950 |
| X1 | .813 | 51 | 9992.0 | 10008 | 370 | 525 | 407 | | | |
| GR | 1338.1 | 9933.7 | 1331.3 | 9952.4 | 1327.7 | 9959.6 | 1327.2 | 9967.7 | 1326.1 | 9974.7 |
| GR | 1326.6 | 9988.3 | 1326.6 | 9992.0 | 1323.4 | 9996.5 | 1323.8 | 10000. | 1326.1 | 10008. |
| GR | 1326.1 | 10019.1 | 1325.5 | 10028.1 | 1326.4 | 10055.5 | 1326.1 | 10074. | 1324.3 | 10077. |
| GR | 1324.2 | 10081.7 | 1326.2 | 10085.4 | 1326.7 | 10118.1 | 1326.7 | 10137. | 1325.5 | 10142. |
| GR | 1325.6 | 10148.1 | 1326.3 | 10152.0 | 1327.1 | 10179.5 | 1327.3 | 10213. | 1327.4 | 10243. |
| GR | 1327.1 | 10273.5 | 1327.4 | 10309.7 | 1327.8 | 10354.8 | 1328.2 | 10423. | 1328.0 | 10474. |
| GR | 1328.1 | 10511.4 | 1329.4 | 10536.0 | 1328.9 | 10568.3 | 1328.7 | 10613. | 1329.1 | 10678. |

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GR   1329.8   10719.4    1329.9   10757.3    1329.5   10793.8    1330.0    10837.    1329.9    10868.
GR   1329.4   10877.8    1329.7   10895.4    1330.0   10909.0    1330.2    10921.    1331.0    10942.
GR   1331.4   10954.6    1331.2   10971.9    1330.0   10981.5    1330.0    11003.    1330.0    11047.
GR   1330.1   11081.4

X1    .860        48   10000.0   10068.1       235       250       248
GR   1336.0    9821.2    1330.9    9848.5    1329.1    9860.2    1327.9    9870.0    1326.3    9875.0
GR   1326.3    9884.4    1327.8    9888.5    1327.8    9916.5    1327.0    9937.9    1326.3    9971.2
GR   1327.4    9982.0    1327.8    9996.0    1327.8   10000.0    1327.7   10057.0    1327.1    10066.
GR   1328.3   10068.1    1328.2   10092.6    1328.0   10125.6    1327.8   10143.3    1327.9    10180.
GR   1327.8   10215.2    1327.5   10256.5    1327.5   10281.9    1327.6   10290.1    1329.5    10300.
GR   1328.1   10308.8    1327.9   10321.8    1326.7   10337.1    1327.1   10372.1    1327.3    10393.
GR   1328.7   10414.8    1329.2   10439.9    1330.9   10482.6    1330.9   10537.7    1330.9    10583.
GR   1332.6   10727.1    1332.0   10729.6    1332.3   10754.5    1333.8   10787.7    1332.4    10815.
GR   1332.4   10839.2    1332.8   10855.7    1334.0   10863.6    1333.9   10882.1    1333.2    10902.
GR   1333.3   10925.2    1335.1   10955.1    1334.8   10963.1

NC    .030      .030      .030       .1        .3
        DOWNSTREAM END OF ADOT FUTURE CHANNELIZATION FOR THE OUTER LOOP.
        THE ADOT OUTER LOOP BOX CULVERTS AND CHANNELIZATION ARE CURRENTLY
        UNDER CONSTRUCTION, AND IS CONSIDERED IN PLACE FOR THIS MODEL.
X1   0.945         5      9770     10280       360       450       450
GR   1335.5      9770    1327.6      9786    1327.6     10000    1327.6     10264    1335.5     10280

X1   1.100         5      9907     10101       950       700       800
GR   1335.5      9907    1329.3      9919    1329.3     10000    1329.3     10089    1335.5     10101

X1   1.238         5      9921     10079       600       520       560
GR    1338       9921    1330.5      9936    1330.5     10000    1330.5     10064     1338      10079

NC    .015      .015      .015       .1        .3
        DOWNSTREAM FACE OF ADOT OUTERLOOP BOX CULVERTS (9-10'X6' & 1-10'X8').
X1   1.251         5    9945.8   10054.2       100        40        65
GR   1339.9    9945.8    1330.5    9945.9    1330.5     10000    1330.5   10054.1    1339.9   10054.2

SB    1.25      1.56       2.9         0     108.3       8.3       600         0    1331.4    1330.5
        UPSTREAM FACE OF ADOT OUTERLOOP BOX CULVERTS.
        SPECIAL BRIDGE METHOD USED.  THE BRIDGE WAS MODELED AS 10-10'X6' CBC.
X1   1.333         5    9945.8   10054.2       430       430       430
X2                          1    1337.4    1346.6
BT       2    9945.8    1346.6    1337.4   10054.2    1346.6    1337.4
GR   1340.5    9945.8    1331.4    9945.9    1331.4     10000    1331.4   10054.1    1340.5   10054.2

X1   1.334         5    9931.4   10068.6        10        10        10
GR   1340.2    9931.4    1331.4    9931.5    1331.4     10000    1331.4   10068.5    1340.3   10068.6

        DROP STRUCTURE INTO ADOT OUTERLOOP BOX CULVERTS.
X1   1.335         5    9931.4   10068.6        .1        .1        .1
GR   1340.2    9931.4    1334.5    9931.5    1334.5     10000    1334.5   10068.5    1340.3   10068.6
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NC     .030      .030      .030        .1        .3
X1    1.350         5      9933     10067        45       110        80
GR   1340.6      9933    1334.7      9945    1334.7     10000    1334.7     10055    1340.6     10067

        DROP STRUCTURE WITHIN ADOT FUTURE CHANNELIZATION FOR THE OUTER LOOP.
X1    1.505         5      9787     10213       760       900       805
GR   1344.9      9787    1338.4      9800    1338.4     10000    1338.4     10200    1344.9     10213
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


*PROF 1

CRITICAL DEPTH TO BE CALCULATED AT ALL CROSS SECTIONS

CCHV=     .100 CEHV=     .300
*SECNO 1.663
        SKUNK CREEK FLOODPLAIN STUDY.
        ARIZONA CANAL DIVERSION CHANNEL (ACDC) TO ADOBE DAM.  INCLUDING SCATTER
        WASH FROM ITS CONFLUENCE WITH SKUNK CREEK TO BEARDSLEY ROAD.
        FUTURE FLOWS PER CORPS.
        PREPARED AS A PART OF THE SKUNK CREEK FLOODPLAIN STUDY, BETWEEN THE
        ACDC AND THE CAP.
        PREPARED FOR THE FLOOD CONTROL DISTRICT OF MARICOPA COUNTY (FCD #89-72)
        PREPARED BY COE & VAN LOO CONSULTING ENGINEERS, 1990.
        TOPOGRAPHIC MAPPING PREPARED BY AERIAL MAPPING COMPANY, INC. FROM
        PHOTOGRAPHS TAKEN IN APRIL 1990.  ELEVATION BASED ON NGVD OF 1929.
        THE CONTROL LINE OF SKUNK CREEK IS STATION 10,000.
        ALL SECTIONS ARE STATIONED LOOKING DOWNSTREAM.
        CROSS SECTION NUMBERS FOR SKUNK CREEK ARE STATIONED IN RIVER MILES FROM
        THE CONFLUENCE WITH NEW RIVER.
        CROSS SECTION NUMBERS FOR SCATTER WASH ARE STATIONED IN RIVER MILES
        FROM THE CONFLUENCE WITH SKUNK CREEK.
        THIS RUN WAS STARTED BASED ON THE SLOPE-AREA METHOD.
        ENCROACHMENT CARDS (ET) WERE USED IN SOME CASES TO BETTER MODEL DEAD OR
        NONEFFECTIVE FLOW AREAS.  IN SOME CASES "SSTA" AND "ENDST" DO NOT
        REPRESENT THE ACTUAL FLOODING LIMITS, AND THE DELINEATION WAS BASED ON
        THE CROSS-SECTION AND THE TOPOGRAPHY.  IN SOME CASES, "TOPWID" DOES NOT
        REPRESENT THE FULL WIDTH OF THE FLOODPLAIN, DUE TO INEFFECTIVE FLOW
        AREAS OR LOW ISLANDS WITHIN THE FLOODPLAIN.
        IMMEDIATELY UPSTREAM OF THE CONFLUENCE WITH ACDC.
  1.663     9.70  1193.40  1192.82  1193.40  1196.45     3.05      .00      .00  1202.10
 13000.       0.   13000.       0.       0.     928.       0.       0.       0.   1201.10
    .00      .00    14.00      .00     .000     .035     .000     .000  1183.70  9935.17
 .007877       0.       0.       0.        0       10        0      .00   124.42 10059.58


*SECNO 1.763

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1214.40 ELREA=      1203.10

  1.763    10.76  1197.56  1197.11      .00  1200.74     3.18     4.26      .04  1214.40
 13000.       0.   13000.       0.       0.     908.       0.      11.       1.   1203.10
    .01      .00    14.32      .00     .000     .035     .000     .000  1186.80  9940.87
 .008254     510.     528.     530.        2        8        0      .00   122.90 10063.77
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST

*SECNO 1.857

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1213.40 ELREA=      1204.50

    1.857    10.90  1201.50  1200.33      .00  1204.37     2.87     3.59      .03  1213.40
   13000.       0.   13000.       0.       0.     957.       0.      22.       3.   1204.50
      .02      .00    13.59      .00     .000     .035     .000     .000  1190.60  9936.87
  .006405     470.     496.     530.        2       11        0      .00   112.84 10049.71


CCHV=     .100 CEHV=     .300
*SECNO 1.868

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1205.10 ELREA=      1203.40

         IMMEDIATELY DOWNSTREAM OF THE 75TH AVENUE ALIGNMENT.
    1.868    10.53  1201.83  1201.83      .00  1205.31     3.48      .49      .18  1205.10
   13000.       0.   13000.       0.       0.     869.       0.      23.       3.   1203.40
      .02      .00    14.96      .00     .000     .038     .000     .000  1191.30  9937.78
  .011502      50.      58.      65.        0        8        0      .00   125.27 10063.04


*SECNO 1.912

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9930.0   10061.0  TYPE=      1  TARGET=      131.000
    1.912    13.97  1204.47  1202.50      .00  1207.26     2.79     1.89      .07  1215.40
   12930.       0.   12930.       0.       0.     965.       0.      28.       4.   1207.90
      .03      .00    13.40      .00     .000     .038     .000     .000  1190.50  9956.05
  .006037     215.     232.     250.        2        8        0      .00    98.12 10054.17


CCHV=     .100 CEHV=     .300
*SECNO 1.962
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   1.962    13.75  1205.95  1205.95      .00  1210.23     4.28     1.94      .45  1216.20
  12930.       0.   12930.       0.       0.     778.       0.      33.       4.   1209.30
     .03      .00    16.61      .00     .000     .035     .000     .000  1192.20  9958.62
 .009118     220.     264.     280.        0        6        0      .00    88.64 10047.26


*SECNO 2.034

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.17


3470 ENCROACHMENT STATIONS=     9869.0   10060.0  TYPE=      1  TARGET=      191.000
   2.034    16.76  1210.66  1205.59      .00  1211.92     1.26     1.38      .30  1209.10
  12930.     132.   12798.       0.      61.    1416.       0.      43.       5.   1211.50
     .04     2.16     9.04      .00     .045     .035     .000     .000  1193.90  9895.73
 .001935     370.     380.     390.        2       15        0      .00   161.96 10057.69


*SECNO 2.129
3280 CROSS SECTION      2.13 EXTENDED       .25 FEET


3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9954.0   10070.0  TYPE=      1  TARGET=      116.000

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1216.70 ELREA=      1213.10

   2.129    15.25  1211.45  1207.17      .00  1213.21     1.76     1.14      .15  1216.70
  12930.       0.   12930.       0.       0.    1216.       0.      58.       7.   1213.10
     .06      .00    10.64      .00     .000     .035     .000     .000  1196.20  9959.72
 .002708     520.     502.     470.        3       14        0      .00   107.11 10066.83
```

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECNO 2.230
3280 CROSS SECTION      2.23 EXTENDED      1.77 FEET

3301 HV CHANGED MORE THAN HVINS

3470 ENCROACHMENT STATIONS=     9817.0   10325.0  TYPE=      1  TARGET=      508.000
    2.230    14.07  1213.67  1209.23      .00  1214.33      .66      1.01      .11  1219.20
   12720.       0.   12677.      43.       0.    1943.      42.       78.       9.   1212.40
      .08      .00     6.52     1.03     .000     .035     .045      .000  1199.60  9843.21
  .001396     560.     533.     430.        2       14        0       .00   294.62 10137.83

*SECNO 2.319

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .48

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1220.10 ELREA=      1218.30

    2.319     7.22  1214.12  1213.12      .00  1215.84     1.72      1.19      .32  1220.10
   12720.       0.   12720.       0.       0.    1210.       0.       95.      12.   1218.30
      .09      .00    10.52      .00     .000     .035     .000      .000  1206.90  9913.57
  .005950     470.     470.     410.        2       14        0       .00   207.79 10121.36

CCHV=     .300 CEHV=     .500
*SECNO 2.353
        DOWNSTREAM FACE OF BELL ROAD BRIDGE.
    2.353     9.39  1215.59  1213.76      .00  1216.91     1.31       .95      .12  1217.00
   12720.       0.   12720.       0.       0.    1383.       0.      101.      13.   1217.50
      .10      .00     9.20      .00     .000     .038     .000      .000  1206.20  9853.42
  .004708     320.     180.      70.        3        8        0       .00   207.26 10060.67
```

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SECNO | DEPTH | CWSEL | CRIWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

SPECIAL BRIDGE

| SB | XK | XKOR | COFQ | RDLEN | BWC | BWP | BAREA | SS | ELCHU | ELCHD |
|---|---|---|---|---|---|---|---|---|---|---|
| | .90 | 1.56 | 2.70 | .00 | 81.00 | 6.40 | 1843.90 | 7.30 | 1206.20 | 1205.90 |

*SECNO 2.379
CLASS A LOW FLOW

3420 BRIDGE W.S.= 1215.56 BRIDGE VELOCITY= 9.28 CALCULATED CHANNEL AREA= 1339.

| EGPRS | EGLWC | H3 | QWEIR | QLOW | BAREA | TRAPEZOID AREA | ELLC | ELTRD | WEIRLN |
|---|---|---|---|---|---|---|---|---|---|
| .00 | 1217.19 | .17 | 0. | 12720. | 1844. | 1848. | 1217.80 | 1222.40 | 0. |

UPSTREAM FACE OF BELL ROAD BRIDGE, SPECIAL BRIDE METHOD USED.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 2.379 | 9.86 | 1215.76 | .00 | .00 | 1217.19 | 1.43 | .28 | .00 | 1217.40 |
| 12720. | 0. | 12720. | 0. | 0. | 1324. | 0. | 104. | 13. | 1217.40 |
| .10 | .00 | 9.61 | .00 | .000 | .038 | .000 | .000 | 1205.90 | 9853.42 |
| .005375 | 106. | 106. | 106. | 0 | 0 | 0 | .00 | 207.25 | 10060.68 |

CCHV= .100 CEHV= .300
*SECNO 2.422
3280 CROSS SECTION 2.42 EXTENDED 3.30 FEET

3470 ENCROACHMENT STATIONS= 9841.0 10074.0 TYPE= 1 TARGET= 233.000

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 2.422 | 8.80 | 1217.00 | 1215.40 | .00 | 1218.48 | 1.48 | 1.28 | .01 | 1220.90 |
| 12580. | 0. | 12580. | 0. | 0. | 1290. | 0. | 112. | 14. | 1221.10 |
| .11 | .00 | 9.75 | .00 | .000 | .035 | .000 | .000 | 1208.20 | 9860.46 |
| .004566 | 70. | 258. | 395. | 2 | 19 | 0 | .00 | 201.99 | 10062.44 |

*SECNO 2.491

3470 ENCROACHMENT STATIONS= 9790.0 10036.6 TYPE= 1 TARGET= 246.600
IMMEDIATELY DOWNSTREAM OF CONFLUENCE WITH 71ST AVENUE CHANNEL.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 2.491 | 10.36 | 1218.86 | 1216.84 | .00 | 1219.95 | 1.09 | 1.43 | .04 | 1220.90 |
| 12580. | 0. | 12580. | 0. | 0. | 1500. | 0. | 123. | 16. | 1218.70 |
| .12 | .00 | 8.38 | .02 | .000 | .035 | .045 | .000 | 1208.50 | 9797.51 |
| .003437 | 310. | 364. | 370. | 2 | 11 | 0 | .00 | 239.09 | 10036.60 |

```
   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


*SECNO 2.561

3470 ENCROACHMENT STATIONS=     9913.0   10200.0  TYPE=      1  TARGET=      287.000
    2.561     7.76  1220.16  1218.93      .00  1221.60     1.44      1.55      .11  1220.90
   12580.       0.   12580.       0.       0.    1305.       0.      135.      18.   1224.00
      .13      .00      9.64      .00     .000      .035     .000      .000  1212.40  9920.65
  .005184     290.     370.     400.        2        14        0       .00   229.08 10149.73


*SECNO 2.634

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.06


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1223.50 ELREA=      1225.50

    2.634     9.73  1222.13  1218.57      .00  1222.56      .42       .85      .10  1223.50
   12580.       0.   12580.       0.       0.    2410.       0.      152.      21.   1225.50
      .15      .00      5.22      .00     .000      .035     .000      .000  1212.40  9872.92
  .001216     400.     385.     360.        2        15        0       .00   360.66 10233.57


*SECNO 2.720

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .45

    2.720     9.35  1222.55  1221.50      .00  1223.86     1.31      1.03      .27  1225.70
   12370.       0.   12370.       0.       0.    1348.       0.      171.      24.   1226.20
      .16      .00      9.18      .00     .000      .035     .000      .000  1213.20  9959.49
  .005804     480.     454.     400.        3        15        0       .00   279.26 10238.74


*SECNO 2.801
    2.801     7.55  1224.85  1223.46      .00  1226.04     1.19      2.17      .01  1227.50
   12370.       0.   12370.       0.       0.    1412.       0.      185.      27.   1227.60
      .18      .00      8.76      .00     .000      .035     .000      .000  1217.30  9818.94
  .004476     460.     428.     330.        3        14        0       .00   258.82 10077.76
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  SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
  Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
  TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
  SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO 2.900
   2.900     8.76  1227.06  1225.19      .00  1228.12     1.07     2.07      .01  1228.80
  12370.       0.  12370.       0.       0.    1491.       0.     202.      30.   1229.00
     .19      .00     8.30      .00     .000     .035     .000     .000  1218.30  9816.28
 .003536     470.     523.     530.        3       11        0      .00   245.89 10062.17


CCHV=     .100 CEHV=     .300
*SECNO 3.000
   3.000     9.11  1229.11  1227.29      .00  1230.48     1.37     2.26      .09  1229.10
  12370.       0.  12370.       0.       0.    1319.       0.     219.      33.   1230.20
     .21      .02     9.38      .00     .000     .040     .000     .000  1220.00  9929.93
 .005307     450.     528.     560.        0       15        0      .00   198.99 10128.92


*SECNO 3.077

3470 ENCROACHMENT STATIONS=     9905.5   10126.9  TYPE=      1  TARGET=      221.400
   3.077     8.48  1231.28  1228.98      .00  1232.37     1.09     1.86      .03  1231.60
  12160.       0.  12160.       0.       0.    1455.       0.     232.      34.   1235.10
     .22      .00     8.36      .00     .000     .040     .000     .000  1222.80  9906.19
 .003976     410.     407.     410.        2       14        0      .00   212.72 10118.91


*SECNO 3.143

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .62


3470 ENCROACHMENT STATIONS=     9965.0   10109.0  TYPE=      1  TARGET=      144.000
   3.143     9.85  1232.25  1231.68      .00  1234.95     2.70     2.10      .49  1233.20
  12160.       0.  12160.       0.       0.     921.       0.     242.      36.   1233.90
     .23      .00    13.20      .00     .000     .040     .000     .000  1222.40  9968.57
 .010183     360.     348.     320.        3        8        0      .00   136.19 10104.76


*SECNO 3.200

3301 HV CHANGED MORE THAN HVINS
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


3470 ENCROACHMENT STATIONS=     9927.0   10085.0  TYPE=      1  TARGET=      158.000
   3.200    10.50  1235.50  1233.75      .00  1237.41     1.91     2.39      .08  1236.00
  12160.       0.  12160.       0.       0.    1096.       0.     249.      37.   1235.60
     .24      .00    11.10      .00     .000     .040     .000     .000  1225.00  9934.40
 .006346     310.     301.     270.        3       15        0      .00   147.51 10081.90


*SECNO 3.300
3280 CROSS SECTION      3.30 EXTENDED      1.13 FEET


3470 ENCROACHMENT STATIONS=     9930.0   10118.0  TYPE=      1  TARGET=      188.000
        FROM SECTION 3.300 TO SECTION 3.400, ET CARDS ARE USED TO MODEL
        EFFECTIVE FLOW AREA IN BOTH OVERBANKS AT A 1:1 CONTRACTION UPSTEAM
        FROM THE CONSTRICTION.
   3.300    12.03  1238.63  1235.92      .00  1240.20     1.57     2.75      .03  1239.00
  12160.       0.  12160.       0.       0.    1211.       0.     263.      39.   1239.00
     .25      .00    10.04      .00     .000     .040     .000     .000  1226.60  9940.42
 .004344     550.     528.     510.        3       11        0      .00   140.93 10081.35


*SECNO 3.400
3280 CROSS SECTION      3.40 EXTENDED      1.03 FEET


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.55


3470 ENCROACHMENT STATIONS=     9470.2   10497.0  TYPE=      1  TARGET=     1026.800
        FROM SECTION 3.400 TO SECTION 3.840, ET CARDS ARE USED TO MODEL
        EFFECTIVE FLOW AREAS IN BOTH OVERBANKS AT A 4:1 EXPANSION DOWNSTREAM
        FROM THE CHANNELIZATION.
   3.400    11.33  1241.23  1239.90      .00  1241.69      .46     1.39      .11  1238.90
  11950.    1639.    8667.    1644.     796.    1380.     764.     288.      46.   1240.80
     .28     2.06     6.28     2.15     .045     .040     .045     .000  1229.90  9470.20
 .001750     530.     528.     520.        2        9        0      .00  1026.80 10497.00
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST

*SECNO 3.500

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .69

3470 ENCROACHMENT STATIONS=     9570.0   10440.0  TYPE=      1  TARGET=      870.000
   3.500    10.31  1242.21  1239.84      .00  1243.13      .92     1.30      .14  1241.70
  11950.     894.   10922.     133.     422.     1362.     73.     317.      56.   1242.00
     .30     2.12     8.02     1.83     .045      .040    .045     .000  1231.90  9570.00
 .003724     520.     528.     530.        3        19       0      .00   721.16 10291.16

*SECNO 3.600

3265 DIVIDED FLOW

3301 HV CHANGED MORE THAN HVINS

 470 ENCROACHMENT STATIONS=     9660.0   10270.0  TYPE=      1  TARGET=      610.000
   3.600     9.84  1244.14  1243.30      .00  1245.57     1.43     2.29      .15  1242.30
  11950.     644.   11091.     214.     272.     1116.     79.     337.      64.   1243.10
     .32     2.37     9.94     2.73     .045      .040    .045     .000  1234.30  9660.00
 .005104     525.     528.     510.        3         8       0      .00   537.78 10253.94

*SECNO 3.700

3265 DIVIDED FLOW

3280 CROSS SECTION      3.70 EXTENDED      1.38 FEET

3470 ENCROACHMENT STATIONS=     9720.0   10110.0  TYPE=      1  TARGET=      390.000
   3.700    11.48  1246.68  1245.51      .00  1247.96     1.28     2.38      .01  1248.80
  11950.    1262.   10418.     270.     388.     1080.     75.     355.      69.   1244.80
     .33     3.25     9.64     3.60     .045      .040    .045     .000  1235.20  9720.00
 .004028     515.     528.     515.        2         8       0      .00   377.79 10110.00

*SECNO 3.767
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9800.0   10078.3  TYPE=      1  TARGET=      278.300
   3.767    12.70  1248.00  1246.29      .00  1249.64     1.64     1.57      .11  1246.10
  11670.     716.   10954.       0.     222.    1036.       0.     366.      72.   1248.10
     .34     3.23    10.58      .00     .045     .040     .000     .000  1235.30  9807.52
 .004937     355.     354.     355.       2        8        0      .00   268.55 10077.83


CCHV=     .100 CEHV=     .300
*SECNO 3.840

3470 ENCROACHMENT STATIONS=     9900.0   10073.6  TYPE=      1  TARGET=      173.600
        FROM SECTION 3.840 TO SECTION 4.422, SKUNK CREEK IS CHANNELIZED.
   3.840    10.71  1249.71  1247.89      .00  1251.31     1.60     1.66      .00  1246.50
  11670.    1277.   10393.       0.     231.     983.       0.     377.      74.   1250.20
     .35     5.53    10.57      .00     .045     .035     .000     .000  1239.00  9900.00
 .003815     370.     385.     390.       0       19        0      .00   171.54 10071.54


*SECNO 3.916

3470 ENCROACHMENT STATIONS=     9930.0   10076.0  TYPE=      1  TARGET=      146.000
   3.916     9.60  1251.20  1248.86      .00  1252.82     1.62     1.51      .01  1252.80
  11670.       0.   11670.       0.       0.    1142.       0.     388.      75.   1252.70
     .36      .00    10.22      .00     .000     .035     .000     .000  1241.60  9932.80
 .003729     390.     401.     410.       2       14        0      .00   140.10 10072.90


*SECNO 4.000

3470 ENCROACHMENT STATIONS=     9907.0   10074.0  TYPE=      1  TARGET=      167.000
   4.000     8.67  1252.87  1251.51      .00  1254.95     2.08     1.99      .14  1255.10
  11670.       0.   11670.       0.       0.    1009.       0.     399.      77.   1254.60
     .38      .00    11.57      .00     .000     .035     .000     .000  1244.20  9931.77
 .005483     430.     444.     460.       0       15        0      .00   138.45 10070.22


*SECNO 4.057

3470 ENCROACHMENT STATIONS=     9920.0   10140.0  TYPE=      1  TARGET=      220.000
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST

  4.057     9.15  1254.65  1252.79      .00  1256.46     1.81     1.48      .03  1257.00
 11460.       0.  11460.       0.       0.    1062.       0.     406.      78.  1258.80
    .38      .00    10.79      .00     .000     .035     .000     .000  1245.50  9928.74
 .004443    300.     301.     300.        2       15        0      .00   138.19 10066.93

*SECNO 4.082

3265 DIVIDED FLOW

        DOWNSTREAM FACE OF UNION HILLS BRIDGE.  BRIDGE IS MODELED AS OPEN
        CHANNEL FLOW, WITH GR POINTS DEFINING THE PIERS.
  4.082     9.33  1255.23  1253.80      .00  1257.44     2.20      .86      .12  1265.20
 11460.       0.  11460.       0.       0.     962.       0.     410.      78.  1258.40
    .39      .00    11.91      .00     .000     .035     .000     .000  1245.90  9759.27
 .007629    300.     150.      10.        2       11        0      .00   124.13  9889.27

*SECNO 4.131

 .65 DIVIDED FLOW

        UPSTREAM FACE OF UNION HILLS BRIDGE.
  4.131     8.73  1256.93  1255.93      .00  1259.13     2.20     1.69      .00  1263.50
 11460.       0.  11460.       0.       0.     963.       0.     414.      79.  1263.60
    .39      .00    11.90      .00     .000     .035     .000     .000  1248.20  9821.09
 .008192    214.     214.     214.        2       15        0      .00   142.65  9969.62

*SECNO 4.177

3470 ENCROACHMENT STATIONS=     9930.0   10090.0  TYPE=      1  TARGET=      160.000
  4.177     9.07  1258.77  1256.88      .00  1260.61     1.83     1.44      .04  1262.10
 11460.       0.  11460.       0.       0.    1054.       0.     420.      79.  1261.20
    .40      .00    10.87      .00     .000     .035     .000     .000  1249.70  9937.35
 .004429     10.     245.     450.        1       15        0      .00   135.31 10072.66

*SECNO 4.300

3470 ENCROACHMENT STATIONS=     9910.0   10088.0  TYPE=      1  TARGET=      178.000
  4.300     8.64  1261.74  1260.18      .00  1263.67     1.93     3.04      .03  1263.90
 11320.       0.  11320.       0.       0.    1015.       0.     435.      81.  1263.00
    .41      .00    11.15      .00     .000     .035     .000     .000  1253.10  9930.53
 .004959    630.     649.     680.        3       15        0      .00   136.90 10067.43
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECNO 4.406

3470 ENCROACHMENT STATIONS=     9913.0   10089.0  TYPE=      1  TARGET=      176.000
    4.406      9.32  1264.62  1262.35       .00  1266.06      1.44      2.34       .05   1268.50
   11320.        0.  11320.       0.        0.    1176.        0.      449.       83.    1267.40
      .43       .00     9.63      .00      .000      .035      .000      .000   1255.30   9921.02
  .003564      530.     560.     580.         2        15         0       .00    155.02  10076.04

*SECNO 4.415

3265 DIVIDED FLOW

        DOWNSTREAM FACE OF 59TH AVENUE BRIDGE.  BRIDGE IS MODELED AS OPEN
        CHANNEL FLOW, WITH GR POINTS DEFINING THE PIERS.
    4.415      8.57  1264.67  1262.94       .00  1266.39      1.72       .25       .08   1269.30
   11320.        0.  11320.       0.        0.    1075.        0.      451.       84.    1270.00
      .43       .00    10.53      .00      .000      .035      .000      .000   1256.10   9925.54
  .005843       55.      55.      55.         2        15         0       .00    148.31  10076.30

*SECNO 4.436

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.41

        UPSTREAM FACE OF 59TH AVENUE BRIDGE.
    4.436     10.61  1265.81  1262.14       .00  1266.86      1.05       .40       .07   1268.80
   11320.        0.  11320.       0.        0.    1374.        0.      454.       84.    1269.20
      .43       .00     8.24      .00      .000      .035      .000      .000   1255.20   9921.28
  .002945      100.     100.     100.         3        15         0       .00    156.82  10080.51

*SECNO 4.445

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.52
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


3470 ENCROACHMENT STATIONS=     9893.0   10112.0  TYPE=      1  TARGET=      219.000
    4.445    10.16  1266.36  1261.72      .00  1267.00      .63      .09      .04  1269.90
   11180.       0.  11180.       0.       0.    1754.       0.     455.      84.   1268.90
      .44      .00     6.37      .00     .000     .035     .000     .000  1256.20  9905.55
  .001245      50.      50.      50.        2       11        0      .00   194.54 10100.09


*SECNO 4.500

3470 ENCROACHMENT STATIONS=     9770.0   10160.0  TYPE=      1  TARGET=      390.000
    4.500    10.76  1266.96  1261.62      .00  1267.30      .34      .28      .03  1268.10
   11180.       0.  11180.       0.       0.    2378.       0.     469.      86.   1267.80
      .45      .00     4.70      .00     .000     .035     .000     .000  1256.20  9828.99
  .000747     290.     290.     290.        1       11        0      .00   288.69 10117.68


*SECNO 4.600

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .63


3470 ENCROACHMENT STATIONS=     9845.0   10183.0  TYPE=      1  TARGET=      338.000
    4.600     9.05  1267.35  1264.04      .00  1267.98      .62      .59      .08  1271.10
   11180.       0.  11180.       0.       0.    1765.       0.     494.      89.   1269.90
      .48      .00     6.33      .00     .000     .035     .000     .000  1258.30  9876.61
  .001878     530.     528.     530.        2       11        0      .00   274.26 10150.87


*SECNO 4.674

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .57


3470 ENCROACHMENT STATIONS=     9750.0   10190.0  TYPE=      1  TARGET=      440.000
    4.674     7.34  1268.04  1266.96      .00  1269.39     1.36     1.20      .22  1272.60
   11180.       0.  11180.       0.       0.    1196.       0.     508.      91.   1270.70
      .49      .00     9.35      .00     .000     .035     .000     .000  1260.70  9888.55
  .005865     390.     391.     390.        2       19        0      .00   243.77 10132.32
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


*SECNO 4.721

3470 ENCROACHMENT STATIONS=     9800.0   10225.0  TYPE=      1  TARGET=      425.000
         IMMEDIATELY UPSTREAM OF 57TH AVENUE DIP SECTION.
    4.721      8.54  1269.54  1267.78       .00  1270.55      1.01      1.12       .04  1272.90
   11970.        0.   11970.        0.        0.    1488.        0.     515.       93.   1270.00
      .50       .00      8.05       .00      .000      .035      .000      .000  1261.00  9879.75
  .003630      240.      248.      260.         2        11         0       .00   264.31 10144.06


*SECNO 4.770

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    4.770      6.81  1270.41  1270.41       .00  1272.51      2.10      1.54       .33  1277.40
   11970.        0.   11970.        0.        0.    1030.        0.     523.       94.   1277.10
      .50       .00     11.63       .00      .000      .035      .000      .000  1263.60  9888.56
  .011542      265.      259.      240.         0        15         0       .00   251.56 10140.12


*SECNO 4.870

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.27


3470 ENCROACHMENT STATIONS=     9803.0   10144.0  TYPE=      1  TARGET=      341.000
    4.870      7.54  1274.24  1271.55       .00  1274.93       .69      2.28       .14  1277.60
   11970.        0.   11970.        0.        0.    1793.        0.     540.       98.   1277.50
      .53       .00      6.68       .00      .000      .035      .000      .000  1266.70  9825.77
  .002247      610.      528.      420.         3        19         0       .00   295.43 10121.20


*SECNO 4.893

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


3470 ENCROACHMENT STATIONS=     9900.0   10095.0  TYPE=      1  TARGET=      195.000
   4.893     9.29  1275.09  1275.09      .00  1277.96     2.87      .51      .65  1275.10
  11970.       0.   11970.       0.       0.     880.       0.     544.      98.   1275.20
     .53      .00    13.60      .00     .000     .035     .000     .000  1265.80  9916.93
 .010317     150.     121.     110.        0       11       0      .00   155.45 10072.39


*SECNO 4.922

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.41


3470 ENCROACHMENT STATIONS=     9842.0   10134.0  TYPE=      1  TARGET=      292.000
        IMMEDIATELY DOWNSTREAM AT 55TH AVENUE CHANNEL.
   4.922     7.90  1277.80  1276.63      .00  1279.20     1.39     1.09      .15  1276.50
  11970.     155.   11815.       0.      58.    1239.       0.     547.      99.   1278.40
     .53     2.65     9.53      .00     .045     .035     .000     .000  1269.90  9845.52
 .005178     155.     153.     145.        4       15        0      .00   275.31 10120.83


*SECNO 4.945

3265 DIVIDED FLOW

3280 CROSS SECTION      4.95 EXTENDED      1.15 FEET


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   4.945     9.95  1280.25  1280.25      .00  1281.09      .83      .52      .06  1279.10
  10830.    1651.    6744.    2434.     783.     745.     827.     553.     102.   1276.70
     .54     2.11     9.06     2.95     .045     .035     .045     .000  1270.30  9283.50
 .003071     115.     121.     210.        0        9        0      .00  1343.48 10638.04


*SECNO 4.974
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9283.0   10700.0  TYPE=      1  TARGET=     1417.000
    4.974    10.53  1280.83  1279.89      .00  1281.46      .63      .36      .02  1281.70
   10830.    3225.    7423.     182.    1282.     987.     150.     561.     105.  1279.50
      .54     2.51     7.52     1.21     .045     .035     .045     .000  1270.30  9283.00
  .002021     155.     153.      80.        2        8        0      .00  1087.13 10493.26


*SECNO 5.008

3470 ENCROACHMENT STATIONS=     9072.0   10086.0  TYPE=      1  TARGET=     1014.000
    5.008    10.95  1281.25  1276.44      .00  1281.74      .48      .26      .01  1279.50
   10830.    1609.    9221.       0.    1068.    1531.       0.     571.     110.  1285.70
      .55     1.51     6.02      .00     .045     .035     .000     .000  1270.30  9147.62
  .001062     190.     180.     175.        2       11        0      .00   929.42 10077.04


*SECNO 5.080

3265 DIVIDED FLOW


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .48


3470 ENCROACHMENT STATIONS=     8850.0   10250.0  TYPE=      1  TARGET=     1400.000
    5.080     9.03  1281.03  1279.20      .00  1282.88     1.86      .73      .41  1282.00
   10760.      63.    10697.       0.      47.     976.       0.     587.     115.  1283.60
      .56     1.33     10.96      .00     .045     .035     .000     .000  1272.00  9171.11
  .004612     375.     380.     385.        3       12        0      .00   283.40 10052.88


CCHV=     .100 CEHV=     .300
*SECNO 5.103

3301 HV CHANGED MORE THAN HVINS
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .66


3470 ENCROACHMENT STATIONS=     8800.0   10053.0  TYPE=      1  TARGET=     1253.000
        APPROXIMATE LOCATION OF 54TH AVENUE DIP SECTION.
   5.103     9.05  1281.45  1280.41      .00  1283.86     2.41      .81      .17  1281.90
  10760.       0.   10760.       0.       0.     864.       0.     590.     116.   1284.40
     .57      .00    12.45      .00     .000     .045     .000     .000  1272.40  9927.54
 .010595     120.     121.     120.        2       12        0      .00   119.66 10047.21


*SECNO 5.118

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     8790.0   10250.0  TYPE=      1  TARGET=     1460.000
   5.118    13.08  1284.48  1284.48      .00  1285.36      .88      .60      .15  1282.30
  10760.    5432.    5301.      27.    1607.     520.      14.     592.     117.   1283.40
     .57     3.38    10.19     1.98     .048     .045     .048     .000  1271.40  8967.11
 .005807      75.      79.     100.        0       15        0      .00  1079.14 10046.25


*SECNO 5.159

3470 ENCROACHMENT STATIONS=     9000.0   10175.0  TYPE=      1  TARGET=     1175.000
   5.159    13.43  1285.83  1285.49      .00  1286.51      .68     1.13      .02  1283.90
  10690.    4923.    5765.       2.    1519.     678.       2.     603.     122.   1285.30
     .58     3.24     8.50      .87     .048     .045     .048     .000  1272.40  9082.93
 .004662     220.     216.     165.        3        5        0      .00   969.59 10052.52


*SECNO 5.204

3265 DIVIDED FLOW

3280 CROSS SECTION      5.20 EXTENDED       .91 FEET
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.99


3470 ENCROACHMENT STATIONS=     8965.0   10250.0  TYPE=      1  TARGET=     1285.000
   5.204    13.11  1286.61  1280.42      .00  1287.02      .41      .47      .03  1282.50
  10690.     770.    9920.       0.     688.    1869.       1.     616.     127.   1286.50
     .59     1.12     5.31      .15     .048     .045     .048     .000  1273.50  9124.67
 .001173     220.     230.     220.        2       11        0      .00   947.69 10121.78


*SECNO 5.263

3470 ENCROACHMENT STATIONS=     9587.0   10700.0  TYPE=      1  TARGET=     1113.000
        A LARGE BORROW PIT IN THE LEFT OVERBANK IS NOT EFFECTIVE FLOW AREA.
        THIS AREA HAS BEEN MODELED AS THOUGH THE HOLE WAS FILLED TO ELEVATION
        1286.0.
   5.263    11.41  1287.01  1283.06      .00  1287.54      .53      .49      .04  1283.60
  10690.     515.    9316.     859.     362.    1498.     304.     633.     133.   1286.00
     .61     1.42     6.22     2.82     .048     .045     .048     .000  1275.60  9612.22
 .002061     320.     320.     320.        2       11        0      .00   678.87 10291.09


*SECNO 5.364

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.46


3470 ENCROACHMENT STATIONS=     9900.0   10400.0  TYPE=      1  TARGET=      500.000
   5.364    12.83  1287.83  1279.88      .00  1287.95      .12      .36      .04  1288.10
  10550.       0.   10550.       0.       0.    3790.       2.     669.     139.   1287.10
     .66      .00     2.78      .28     .000     .045     .048     .000  1275.00  9955.31
 .000333     540.     533.     520.        2       18        0      .00   381.73 10337.05


CCHV=     .100 CEHV=     .300
*SECNO 5.397

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .65

   5.397    11.09  1287.79  1282.03      .00  1288.08      .29      .08      .05  1287.80
  10550.       0.   10549.       1.       0.    2444.       1.     682.     140.   1287.10
     .67      .00     4.32      .42     .000     .040     .048     .000  1276.70  9966.36
 .000777     155.     174.     190.        2       18        0      .00   287.15 10253.51
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST

*SECNO 5.432

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.42

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1288.90 ELREA=      1290.10

   5.432    11.72  1288.02  1280.96      .00  1288.19      .17      .10      .01  1288.90
  10550.       0.  10550.       0.       0.    3211.       0.     694.     142.   1290.10
     .69      .00     3.29      .00     .000     .040     .000     .000  1276.30  9968.18
 .000385     140.     185.     220.        2       18        0      .00   330.80 10298.98

*SECNO 5.500

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .65

   5.500     8.96  1288.16  1283.82      .00  1288.42      .26      .20      .03  1281.70
  10550.    2795.     7755.       0.     888.    1760.       0.     718.     145.   1293.70
     .71     3.15     4.41      .00     .048     .040     .000     .000  1279.20  9681.61
 .000903     310.     359.     290.        2       18        0      .00   371.84 10053.45

*SECNO 5.579

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
   5.579     7.50  1290.30  1290.30      .00  1292.09     1.78      .87      .46  1289.10
  10410.    4332.     6078.       0.     514.     503.       0.     734.     147.   1294.30
     .72     8.43    12.09      .00     .048     .040     .000     .000  1282.80  9784.02
 .012866     330.     417.     375.        0       14        0      .00   265.20 10049.22

*SECNO 5.679

3301 HV CHANGED MORE THAN HVINS

   5.679     7.64  1295.74  1295.16      .00  1296.93     1.18     4.78      .06  1295.00
  10410.     870.     9538.       2.     250.    1053.       1.     747.     151.   1294.50
     .74     3.48     9.06     1.71     .048     .040     .048     .000  1288.10  9641.83
 .007420     410.     528.     520.        3        8        0      .00   474.08 10115.91
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECNO 5.754

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9720.0   10092.0  TYPE=      1  TARGET=      372.000
    5.754     7.94  1298.84  1298.37      .00  1300.30     1.46      3.29      .08  1297.10
   10410.    2724.    7686.       0.     440.     721.       0.      759.     155.   1298.70
      .75     6.19    10.66      .03     .048     .040     .048      .000  1290.90  9724.85
  .008274     410.     422.     360.       3        8        0       .00   274.06 10081.72


*SECNO 5.837
3280 CROSS SECTION      5.84 EXTENDED       .19 FEET


3470 ENCROACHMENT STATIONS=     9774.0   10155.0  TYPE=      1  TARGET=      381.000
    5.837     7.39  1302.49  1301.59      .00  1303.67     1.18      3.34      .03  1300.80
   10410.     166.   10238.       6.      58.    1167.       4.      771.     158.   1301.70
      .76     2.88     8.78     1.40     .048     .040     .048      .000  1295.10  9795.29
  .007017     450.     438.     425.       2       15        0       .00   313.50 10108.79


CCHV=     .100 CEHV=     .300
*SECNO 5.881

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.80


3470 ENCROACHMENT STATIONS=     9820.0   10136.0  TYPE=      1  TARGET=      316.000
         FROM SECTION 5.881 TO SECTION 6.568, SKUNK CREEK IS CHANNELIZED.
    5.881     8.55  1303.85  1299.45      .00  1304.20      .34      .44      .08  1306.10
   10200.       0.   10200.       0.       0.    2170.       0.      780.     159.   1306.80
      .78      .00     4.70      .00     .000     .035     .000      .000  1295.30  9830.03
  .000857     230.     232.     230.       2       11        0       .00   292.96 10122.99


*SECNO 5.970
    5.970     8.45  1304.25  1300.08      .00  1304.65      .40      .44      .02  1305.50
   10200.       0.   10200.       0.       0.    2014.       0.      802.     162.   1305.20
      .80      .00     5.06      .00     .000     .035     .000      .000  1295.80  9869.31
  .001006     500.     470.     430.       3        8        0       .00   273.51 10142.81
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  SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
  Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
  TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
  SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


*SECNO 5.973
        LOWER WALL OF DROP STRUCTURE DOWNSTREAM OF HAVASUPAI DRIVE.
   5.973     6.83  1304.13  1301.11      .00  1304.73      .60      .02      .06  1305.10
  10200.       0.   10200.       0.       0.    1640.       0.     803.     163.   1305.10
     .81      .00     6.22      .00     .000     .035     .000     .000  1297.30  9879.91
 .001783      16.      16.      16.        2       14        0      .00   240.17 10120.09


*SECNO 5.977

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1306.10 ELREA=      1306.10

        UPPER WALL OF DROP STRUCTURE AT HAVASUPAI DRIVE.
   5.977     5.70  1304.60  1304.60      .00  1306.57     1.96      .08      .41  1306.10
  10200.       0.   10200.       0.       0.     907.       0.     804.     163.   1306.10
     .81      .00    11.24      .00     .000     .035     .000     .000  1298.90  9879.93
 .012658      21.      21.      21.        0        9        0      .00   240.14 10120.07


*SECNO 5.982

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.32

        HAVASUPAI DRIVE DIP SECTION.
   5.982     7.25  1306.45  1303.51      .00  1306.80      .35      .07      .16  1301.70
  10200.     550.    8924.     726.     279.    1783.     337.     805.     163.   1301.70
     .81     1.98     5.01     2.15     .045     .035     .045     .000  1299.20  9666.73
 .001148      26.      26.      26.        3       15        0      .00   740.61 10407.34


*SECNO 5.990

3470 ENCROACHMENT STATIONS=     9800.0   10160.0  TYPE=      1  TARGET=      360.000
   5.990     8.74  1306.44  1302.97      .00  1306.87      .43      .05      .02  1306.30
  10130.       0.   10130.       0.       0.    1928.       0.     807.     163.   1306.80
     .81      .21     5.26      .00     .045     .035     .000     .000  1297.70  9838.78
 .001329      42.      42.      42.        2       19        0      .00   309.85 10148.63
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO 6.089
    6.089     8.44  1307.14  1303.91      .00  1307.62      .48      .73      .01  1309.30
   10130.       0.   10130.       0.       0.    1827.       0.     829.     167.   1309.90
      .84      .00     5.55      .00     .000     .035     .000     .000  1298.70  9862.20
  .001479     480.     523.     525.        2       14        0      .00   290.41 10152.61


*SECNO 6.189
         CONFLUENCE WITH SCATTER WASH.
    6.189     8.90  1307.90  1304.24      .00  1308.34      .44      .71      .00  1310.80
   10130.       0.   10130.       0.       0.    1912.       0.     852.     171.   1309.90
      .86      .00     5.30      .00     .000     .035     .000     .000  1299.00  9858.10
  .001237     505.     528.     505.        2       14        0      .00   284.37 10142.47


*SECNO 6.219

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .44


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1309.90 ELREA=      1309.90

    6.219     8.74  1308.34  1303.21      .00  1308.52      .18      .15      .03  1309.90
    2800.       0.    2800.       0.       0.     824.       0.     857.     171.   1309.90
      .88      .00     3.40      .00     .000     .035     .000     .000  1299.60  9941.81
  .000494     180.     158.      40.        2       18        0      .00   117.84 10059.65


*SECNO 6.223
         LOWER WALL OF DROP STRUCTURE.
    6.223     7.97  1308.27  1303.65      .00  1308.57      .30      .01      .04  1308.50
    2800.       0.    2800.       0.       0.     638.       0.     857.     171.   1308.50
      .88      .00     4.39      .00     .000     .035     .000     .000  1300.30  9959.90
  .000853      40.      23.      20.        2       18        0      .00    80.19 10040.10


*SECNO 6.227

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
         UPPER WALL OF DROP STRUCTURE.
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 SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
 Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
 TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
 SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST

  6.227     3.36  1308.36  1308.36      .00  1310.04     1.68      .04      .41  1310.00
  2800.       0.    2800.       0.       0.     269.       0.     857.     171.   1310.00
    .88      .00    10.40      .00     .000     .035     .000     .000  1305.00  9959.93
 .013266     10.      19.      10.        0       14        0      .00    80.13 10040.07

*SECNO 6.230

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.08

  6.230     6.55  1309.95  1307.20      .00  1310.23      .28      .05      .14  1313.30
  2800.       0.    2800.       0.       0.     659.       0.     858.     171.   1310.30
    .88      .00     4.25      .00     .000     .035     .000     .000  1303.40  9929.26
 .001395     16.      16.      16.        3        8        0      .00   149.18 10078.43

*SECNO 6.298
  6.298     6.86  1310.46  1308.07      .00  1310.82      .36      .56      .02  1313.20
  2800.       0.    2800.       0.       0.     581.       0.     863.     173.   1313.10
    .90      .00     4.82      .00     .000     .035     .000     .000  1303.60  9923.49
 .001766    360.     359.     360.        3       19        0      .00   130.13 10053.61

*SECNO 6.356

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .52

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1316.30 ELREA=      1314.90

  6.356     6.09  1310.89  1310.08      .00  1311.97     1.09      .94      .22  1316.30
  2800.       0.    2800.       0.       0.     335.       0.     866.     173.   1314.90
    .91      .00     8.37      .00     .000     .035     .000     .000  1304.80  9949.11
 .006576    315.     306.     305.        2       15        0      .00    87.12 10036.23
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


CCHV=     .300 CEHV=     .500
*SECNO 6.361

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.56

        DOWNSTREAM FACE OF 5-10'X6' CONCRETE BOX CULVERTS AT WAHALLA DRIVE.
   6.361     5.87  1310.87  1309.40      .00  1312.10     1.24      .05      .08  1315.90
   2800.       0.    2800.       0.       0.     314.       0.     866.     173.   1315.90
     .91      .00     8.93      .00     .000     .015     .000     .000  1305.00  9973.25
 .000999      60.      26.       5.        2       15        0      .00    53.51 10026.75



SPECIAL BRIDGE

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
    1.25      1.56      2.90       .00     53.30      3.30    300.00      .00    1305.00   1305.00

*SECNO 6.377
PRESSURE FLOW


 EGPRS      EGLWC      H3       QWEIR      QPR       BAREA   TRAPEZOID      ELLC      ELTRD     WEIRLN
                                                                AREA
   1312.98   1312.44      .53        0.     2800.      300.      300.     1311.00   1314.90        0.


        UPSTREAM FACE OF 5-10'X6' CONCRETE BOX CULVERTS AT WAHALLA DRIVE.
        SPECIAL BRIDGE METHOD USED.
   6.377     7.14  1312.14      .00      .00  1312.98      .84      .87      .00  1315.90
   2800.       0.    2800.       0.       0.     382.       0.     867.     173.   1315.90
     .91      .00     7.33      .00     .000     .015     .000     .000  1305.00  9973.23
 .000546      72.      72.      72.        3        0        0      .00    53.53 10026.77


*SECNO 6.378

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.73

   6.378     7.79  1312.79  1308.45      .00  1313.13      .34      .00      .15  1315.90
   2800.       0.    2800.       0.       0.     601.       0.     867.     173.   1315.90
     .91      .00     4.66      .00     .000     .015     .000     .000  1305.00  9961.43
 .000183      10.      10.      10.        2        11        0      .00    77.14 10038.57
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST

*SECNO 6.379

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
        DROP STRUCTURE INTO BOX CULVERTS AT WAHALLA DRIVE.
    6.379     3.44  1314.44  1314.44      .00  1316.17      1.73      .00       .70  1315.90
    2800.       0.     2800.       0.       0.     265.        0.     867.      173.   1315.90
      .91      .00     10.57      .00     .000     .015      .000     .000  1311.00  9961.43
  .002455       0.        0.       0.        0       14         0      .00    77.14 10038.57


CCHV=     .100 CEHV=     .300
*SECNO 6.389
3280 CROSS SECTION      6.39 EXTENDED      1.23 FEET


3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9936.0   10081.0  TYPE=      1  TARGET=      145.000
    6.389     6.83  1315.93  1313.70      .00  1316.42      .50      .13       .12  1315.20
    2800.       4.     2795.       1.       4.     495.        2.     867.      174.   1315.60
      .92      .80      5.65      .47     .045     .035      .045     .000  1309.10  9939.64
  .002292      10.       53.      85.        4       11         0      .00   132.76 10072.40


*SECNO 6.471

3470 ENCROACHMENT STATIONS=     9960.0   10400.0  TYPE=      1  TARGET=      440.000
    6.471     5.47  1317.07  1315.68      .00  1317.78      .71     1.29       .06  1318.30
    2800.       0.     2800.       0.       0.     415.        0.     872.      175.   1318.00
      .93      .00      6.75      .00     .000     .035      .000     .000  1311.60  9966.07
  .004066     380.      433.     480.        2       14         0      .00   104.18 10070.25


CCHV=     .100 CEHV=     .300
*SECNO 6.511

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.59

        DOWNSTREAM END OF ADOT FUTURE CHANNELIZATION FOR THE OUTER LOOP.
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        THE ADOT OUTER LOOP BOX CULVERTS AND CHANNELIZATION ARE CURRENTLY
        UNDER CONSTRUCTION, AND IS CONSIDERED IN PLACE FOR THIS MODEL.
   6.511     5.78  1317.58  1315.70      .00  1318.29      .71      .51      .00  1318.30
   2800.       0.    2800.       0.       0.     413.       0.     874.     175.   1318.30
     .94      .00     6.78      .00     .000     .025     .000     .000  1311.80  9958.45
  .001600     210.     210.     210.        2       15        0      .00    83.10 10041.55


*SECNO 6.634
   6.634     5.07  1318.69  1317.50      .00  1319.65      .96     1.29      .07  1320.12
   2800.       0.    2800.       0.       0.     356.       0.     879.     176.   1320.12
     .97      .00     7.87      .00     .000     .025     .000     .000  1313.62  9959.86
  .002509     650.     650.     650.        2       14        0      .00    80.28 10040.14


*SECNO 6.772
   6.772     4.91  1320.41  1319.38      .00  1321.45     1.04     1.77      .02  1322.00
   2800.       0.    2800.       0.       0.     343.       0.     885.     178.   1322.00
     .99      .00     8.16      .00     .000     .025     .000     .000  1315.50  9960.18
  .002799     670.     670.     670.        2       15        0      .00    79.65 10039.82


CCHV=     .100 CEHV=     .300
*SECNO 6.780

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
        DOWNSTREAM FACE OF ADOT OUTERLOOP BOX CULVERTS (5-10'X6').
   6.780     4.38  1320.48  1320.48      .00  1322.69     2.21      .11      .35  1323.30
   2800.       0.    2800.       0.       0.     235.       0.     885.     178.   1323.30
     .99      .00    11.94      .00     .000     .015     .000     .000  1316.10  9973.24
  .002475      40.      40.      40.        0       11        0      .00    53.62 10026.86


SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS    1319.67 , NOT    1320.48 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     1.25      1.56      2.90       .00    53.70      3.70    300.00       .00   1317.50   1316.10

*SECNO 6.887

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.60
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| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SECNO | DEPTH | CWSEL | CRIWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

CLASS B LOW FLOW

3420 BRIDGE W.S.= 1321.40 BRIDGE VELOCITY= 12.17 CALCULATED CHANNEL AREA= 195.

| EGPRS | EGLWC | H3 | QWEIR | QLOW | BAREA | TRAPEZOID AREA | ELLC | ELTRD | WEIRLN |
|---|---|---|---|---|---|---|---|---|---|
| 1322.59 | 1324.62 | .00 | 0. | 2800. | 300. | 300. | 1323.50 | 1333.00 | 0. |

UPSTREAM FACE OF ADOT OUTERLOOP BOX CULVERTS.
SPECIAL BRIDGE METHOD USED.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 6.887 | 5.91 | 1323.41 | .00 | .00 | 1324.62 | 1.22 | 1.93 | .00 | 1327.30 |
| 2800. | 0. | 2800. | 0. | 0. | 317. | 0. | 888. | 178. | 1327.30 |
| 1.01 | .00 | 8.85 | .00 | .000 | .015 | .000 | .000 | 1317.50 | 9973.24 |
| .000972 | 486. | 486. | 486. | 0 | 0 | 0 | .00 | 53.62 | 10026.86 |

*SECNO 6.889

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.58

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 6.889 | 6.61 | 1324.11 | 1321.20 | .00 | 1324.69 | .58 | .01 | .06 | 1327.30 |
| 2800. | 0. | 2800. | 0. | 0. | 456. | 0. | 888. | 178. | 1327.30 |
| 1.01 | .00 | 6.13 | .00 | .000 | .015 | .000 | .000 | 1317.50 | 9965.43 |
| .000390 | 10. | 10. | 10. | 3 | 14 | 0 | .00 | 69.13 | 10034.57 |

*SECNO 6.890

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
DROP STRUCTURE INTO ADOT OUTERLOOP BOX CULVERTS.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 6.890 | 3.70 | 1324.20 | 1324.20 | .00 | 1326.06 | 1.86 | .00 | .38 | 1327.30 |
| 2800. | 0. | 2800. | 0. | 0. | 256. | 0. | 888. | 178. | 1327.30 |
| 1.01 | .00 | 10.95 | .00 | .000 | .015 | .000 | .000 | 1320.50 | 9965.45 |
| .002438 | 0. | 0. | 0. | 0 | 11 | 0 | .00 | 69.11 | 10034.55 |

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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST

CCHV=     .100 CEHV=     .300
*SECNO 6.951

3301 HV CHANGED MORE THAN HVINS

        UPSTREAM END OF ADOT FUTURE CHANNELIZAION FOR THE OUTER LOOP.
   6.951     5.19  1326.19  1324.26      .00  1326.74      .55      .55      .13  1327.50
   2800.       0.    2800.       0.       0.     469.       0.     891.     179.   1327.50
    1.02      .00     5.97      .00     .000     .025     .000     .000  1321.00  9949.63
 .001342     310.     310.     310.        3       11        0      .00   100.75 10050.37

CCHV=     .100 CEHV=     .300
*SECNO 7.000

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1329.50 ELREA=      1346.20

   7.000     3.70  1326.70  1326.70      .00  1328.04     1.34      .80      .24  1329.50
   2800.       0.    2800.       0.       0.     301.       0.     893.     180.   1346.20
    1.03      .00     9.29      .00     .000     .035     .000     .000  1323.00  9977.73
 .013410     265.     259.     250.        0       19        0      .00   114.79 10092.51

*SECNO 7.100

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.14

3470 ENCROACHMENT STATIONS=     9823.0   10027.0  TYPE=      1  TARGET=      204.000
        SECTION 7.100 TO SECTION 7.409 SKUNK CREEK IS CHANNELIZED.
   7.100     5.95  1330.65  1329.38      .00  1331.01      .36     2.87      .10  1332.10
   2800.       0.    2800.       0.       0.     578.       0.     898.     181.   1334.90
    1.06      .00     4.84      .00     .000     .035     .000     .000  1324.70  9829.03
 .002931     470.     528.     510.        4       11        0      .00   187.51 10016.54
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST

*SECNO 7.174

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9960.0   10038.0  TYPE=      1  TARGET=       78.000
   7.174     8.03  1334.13  1334.13      .00  1336.59     2.46     2.04      .63  1340.30
   2800.       0.    2800.       0.       0.     222.       0.     902.     182.   1339.90
    1.07      .00    12.58      .00     .000     .035     .000     .000  1326.10  9979.29
 .011709     425.     391.     420.        0       11        0      .00    45.79 10025.08

*SECNO 7.244

3301 HV CHANGED MORE THAN HVINS

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.41

3470 ENCROACHMENT STATIONS=     9950.0   10044.0  TYPE=      1  TARGET=       94.000
   7.244    10.70  1337.60  1333.91      .00  1338.26      .66     1.49      .18  1341.50
   2800.       0.    2800.       0.       0.     428.       0.     905.     183.   1340.60
    1.08      .00     6.53      .00     .000     .035     .000     .000  1326.90  9968.24
 .002022     400.     370.     350.        2       11        0      .00    63.01 10031.25

*SECNO 7.327

3470 ENCROACHMENT STATIONS=     9950.0   10040.0  TYPE=      1  TARGET=       90.000
   7.327    11.80  1338.50  1333.75      .00  1338.99      .48      .71      .02  1341.60
   2800.       0.    2800.       0.       0.     502.       0.     910.     184.   1341.50
    1.10      .00     5.58      .00     .000     .035     .000     .000  1326.70  9963.92
 .001319     480.     438.     380.        2       14        0      .00    68.10 10032.02

*SECNO 7.409

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.38
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1341.40 ELREA=      1341.10

        OUTLET FROM ADOBE DAM.
    7.409    16.47  1339.07  1327.81      .00  1339.15      .08      .12      .04  1341.40
    2800.       0.    2800.       0.       0.    1270.       0.     918.     184.   1341.10
     1.16      .00     2.20      .00     .000     .035     .000     .000  1322.60  9948.67
  .000115     470.     433.     400.        2       14        0      .00   112.74 10061.41


CCHV=     .100 CEHV=     .300
*SECNO -6.189
START TRIB COMP
     -6.189     6.189  1307.902
   -6.189     8.90  1307.90      .00      .00  1308.33      .42      .29     -.13  1310.80
   10000.       0.   10000.       0.       0.    1912.       0.     938.     187.   1309.90
     1.19      .00     5.23      .00     .000     .035     .000     .000  1299.00  9858.10
  .001205     505.     528.     505.        0        0        0      .00   284.37 10142.47


*SECNO  .028
3280 CROSS SECTION       .03 EXTENDED       .04 FEET


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =   .54


3495 OVERBANK AREA ASSUMED NON-EFFECTIVE, ELLEA=      1311.60 ELREA=      1308.90

        SCATTER WASH
     .028     7.14  1307.94  1305.32      .00  1308.63      .69      .23      .08  1311.60
    7300.       0.    7300.       0.       0.    1092.       0.     943.     188.   1308.90
     1.19      .00     6.68      .00     .000     .035     .000     .000  1300.80  9913.38
  .002201     100.     148.     170.        2        8        0      .00   175.01 10088.39


*SECNO  .032

3470 ENCROACHMENT STATIONS=     9919.0   10081.0  TYPE=      1  TARGET=      162.000
        LOWER WALL OF DROP STRUCTURE IMMEDIATELY UPSTREAM OF SKUNK CREEK.
     .032     6.55  1307.95  1305.41      .00  1308.70      .75      .05      .02  1308.50
    7300.       0.    7300.       0.       0.    1049.       0.     943.     188.   1308.50
     1.19      .00     6.96      .00     .000     .035     .000     .000  1301.40  9919.91
  .002433      23.      23.      23.        2       11        0      .00   160.18 10080.09
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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO  .036

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9919.0   10081.0  TYPE=      1  TARGET=      162.000
        UPPER WALL OF DROP STRUCTURE.
     .036     4.00  1309.70  1309.70      .00  1311.72     2.02      .09      .38  1311.50
    7300.       0.    7300.       0.       0.     640.       0.     944.     188.   1311.50
     1.19      .00    11.41      .00     .000     .035     .000     .000  1305.70  9919.93
  .012131      19.      19.      19.        0       14        0      .00   160.14 10080.07


*SECNO  .040

3301 HV CHANGED MORE THAN HVINS


 02 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  2.07


3470 ENCROACHMENT STATIONS=     9897.0   10120.0  TYPE=      1  TARGET=      223.000
     .040     7.91  1311.21  1309.03      .00  1311.95      .75      .11      .13  1312.60
    7300.       0.    7300.       0.       0.    1053.       0.     944.     188.   1313.80
     1.20      .00     6.93      .00     .000     .035     .000     .000  1303.30  9907.46
  .002837      21.      21.      21.        4       14        0      .00   192.89 10100.35


*SECNO  .116

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.43


3470 ENCROACHMENT STATIONS=     9878.0   10100.0  TYPE=      1  TARGET=      222.000
     .116     9.59  1312.29  1308.82      .00  1312.75      .46      .77      .03  1313.40
    7300.       0.    7300.       0.       0.    1339.       0.     955.     190.   1315.20
     1.22      .00     5.45      .00     .000     .035     .000     .000  1302.70  9881.84
  .001382     410.     401.     400.        2         .001382     410.     401.     400.        2       15        0      .00   206.75
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```
   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO  .184

3470 ENCROACHMENT STATIONS=     9896.0   10120.0  TYPE=      1  TARGET=      224.000
     .184     8.87  1312.77  1310.12      .00  1313.44      .67      .63      .06  1315.90
    7300.       0.    7300.       0.       0.    1113.       0.     965.     191.   1317.50
     1.23      .00     6.56      .00     .000     .035     .000     .000  1303.90  9911.06
  .002274     340.     359.     350.        2       14        0      .00   189.58 10100.64


CCHV=     .300 CEHV=     .500
*SECNO  .200

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.75

        DOWNSTREAM FACE OF 10-10'X5' CONCRETE BOX CULVERTS AT 45TH AVENUE.
     .200     7.24  1312.54  1310.50      .00  1313.88     1.34      .10      .34  1316.60
    7300.       0.    7300.       0.       0.     785.       0.     967.     192.   1316.60
     1.23      .00     9.30      .00     .000     .015     .000     .000  1305.30  9945.74
  .000743      70.      84.      85.        2       11        0      .00   108.53 10054.26


SPECIAL BRIDGE

SB  XK       XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     1.25      1.56      2.90       .00    107.50      7.50    600.00       .00   1305.40   1305.30

*SECNO  .212

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.67

PRESSURE FLOW


 EGPRS      EGLWC      H3       QWEIR      QPR       BAREA   TRAPEZOID      ELLC      ELTRD     WEIRLN
                                                             AREA
   1316.12   1314.30      .59        0.    7300.      600.      600.     1311.40   1316.20        0.
```

```
        UPSTREAM FACE OF 10-10'X6' CONCRETE BOX CULVERTS AT 45TH AVENUE.
        SPECIAL BRIDGE METHOD USED.
    .212    10.02  1315.42      .00      .00  1316.12      .70     2.24      .00  1316.50
   7300.       0.   7300.       0.       0.    1088.       0.     968.     192.   1316.50
    1.24      .00     6.71      .00     .000     .015     .000     .000  1305.40  9945.71
 .000266      60.     60.      60.        2        0        0      .00   108.58 10054.29


*SECNO  .213
    .213    10.34  1315.74  1310.00      .00  1316.20      .46      .00      .07  1316.50
   7300.       0.   7300.       0.       0.    1343.       0.     969.     192.   1316.50
    1.24      .00     5.44      .00     .000     .015     .000     .000  1305.40  9935.01
 .000163      10.     10.      10.        2       14        0      .00   129.99 10064.99


*SECNO  .214

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
        DROP STRUCTURE INTO BOX CULVERTS AT 45TH AVENUE.
    .214     4.60  1314.90  1314.90      .00  1317.22     2.32      .00      .93  1316.50
   7300.       0.   7300.       0.       0.     597.       0.     969.     192.   1316.50
    1.24      .00    12.23      .00     .000     .015     .000     .000  1310.30  9935.03
 .002183       0.      0.       0.        0       14        0      .00   129.95 10064.97


CCHV=     .100 CEHV=     .300
*SECNO  .232

3301 HV CHANGED MORE THAN HVINS


3470 ENCROACHMENT STATIONS=     9859.0   10200.0  TYPE=      1  TARGET=      341.000
    .232     8.64  1316.94  1314.28      .00  1317.59      .65      .21      .17  1317.80
   7300.       0.   7300.       0.       0.    1129.       0.     970.     192.   1317.90
    1.24      .00     6.47      .00     .000     .035     .000     .000  1308.30  9875.65
 .002199      80.     95.     100.        4       11        0      .00   190.82 10066.46


*SECNO  .337
    .337     7.80  1318.20  1315.32      .00  1318.48      .28      .85      .04  1320.30
   7300.       0.   7300.       0.       0.    1713.       0.     989.     196.   1321.00
    1.28      .00     4.26      .00     .000     .035     .000     .000  1310.40  9869.27
 .001132     560.    554.     530.        2       11        0      .00   330.98 10200.25
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO  .438

3470 ENCROACHMENT STATIONS=     9800.0   10265.0  TYPE=      1  TARGET=      465.000
        BOTTOM OF DROP STRUCTURE IMMEDIATELY DOWNSTREAM OF 43RD AVENUE.
     .438     6.01  1318.81  1315.85      .00  1319.02      .21      .53      .01  1320.60
    7300.       0.    7300.       0.       0.    1967.       0.    1011.     200.   1322.40
     1.32      .00     3.71      .00     .000     .035     .000     .000  1312.80  9861.59
  .000894     545.     533.     420.        2       18        0      .00   392.16 10253.75


*SECNO  .441
3280 CROSS SECTION       .44 EXTENDED       .89 FEET


3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED

3470 ENCROACHMENT STATIONS=     9847.0   10273.0  TYPE=      1  TARGET=      426.000
        TOP OF DROP STRUCTURE IMMEDIATELY DOWNSTREAM OF 43RD AVENUE.
     .441     2.39  1320.09  1320.09      .00  1321.18     1.10      .04      .26  1321.40
    7300.       0.    7300.       0.       0.     869.       0.    1012.     200.   1322.50
     1.32      .00     8.40      .00     .000     .035     .000     .000  1317.70  9861.87
  .014041      16.      16.      16.        0       18        0      .00   402.15 10264.01


*SECNO  .458
3280 CROSS SECTION       .46 EXTENDED       .39 FEET


3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.93


3470 ENCROACHMENT STATIONS=     9800.0   10452.0  TYPE=      1  TARGET=      652.000
        43RD AVENUE DIP SECTION.
        FROM SECTION 0.458 TO SECTION 0.629, ET CARDS ARE USED TO MODEL
        EFFECTIVE FLOW IN BOTH OVERBANKS AT A 1:1 CONTRACTION UPSTREAM FROM
        THE CHANNELIZATION.
     .458     3.89  1321.49  1320.61      .00  1321.84      .35      .58      .07  1319.20
    7300.     1091.    6163.      46.     316.    1251.      21.    1014.     201.   1319.20
     1.32     3.45     4.93     2.21     .045     .035     .045     .000  1317.60  9800.00
  .003777      70.      90.     250.        2       11        0      .00   640.63 10440.63
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   SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
   Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
   TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
   SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


CCHV=     .100 CEHV=     .300
*SECNO  .489

3470 ENCROACHMENT STATIONS=     9650.0   10700.0  TYPE=      1  TARGET=     1050.000
     .489     3.84  1322.34  1320.86      .00  1322.46      .12      .59      .02  1320.00
    7300.    2198.    3686.    1416.     777.    1309.     578.    1022.     204.   1321.90
     1.34     2.83     2.82     2.45     .060     .060     .060     .000  1318.50  9650.00
  .003408     170.     163.     170.        3       14        0      .00  1050.00 10700.00


*SECNO  .568

3265 DIVIDED FLOW

3280 CROSS SECTION       .57 EXTENDED      1.67 FEET

     .568     3.37  1323.77  1322.66      .00  1323.85      .09     1.39      .00  1322.30
    7300.    3462.    2560.    1278.    1540.     979.     618.    1049.     217.   1323.60
     1.39     2.25     2.61     2.07     .060     .060     .060     .000  1320.40  9031.40
  .003525     435.     417.     300.        1       14        0      .00  1796.49 11106.14


*SECNO  .629

3265 DIVIDED FLOW


3470 ENCROACHMENT STATIONS=     9491.0   11470.0  TYPE=      1  TARGET=     1979.000
     .629     4.43  1325.03  1324.11      .00  1325.15      .12     1.29      .01  1323.20
    7300.    1800.     830.    4670.     658.     309.    1698.    1069.     229.   1323.90
     1.42     2.74     2.69     2.75     .060     .060     .060     .000  1320.60  9491.00
  .005302     340.     322.     255.        1        8        0      .00  1734.14 11289.08


CCHV=     .100 CEHV=     .300
*SECNO  .736
3280 CROSS SECTION       .74 EXTENDED       .36 FEET


3470 ENCROACHMENT STATIONS=     9840.0   11000.0  TYPE=      1  TARGET=     1160.000
     .736     3.65  1327.55  1326.66      .00  1327.74      .19     2.57      .02  1325.60
    7300.     546.     286.    6468.     187.      59.    1854.    1095.     245.   1326.50
     1.45     2.92     4.84     3.49     .055     .045     .055     .000  1323.90  9867.85
  .005500     600.     565.     440.        2       14        0      .00  1068.77 10936.62
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   SECNO     DEPTH     CWSEL     CRIWS     WSELK     EG        HV        HL        OLOSS    BANK ELEV
   Q         QLOB      QCH       QROB      ALOB      ACH       AROB      VOL       TWA    LEFT/RIGHT
   TIME      VLOB      VCH       VROB      XNL       XNCH      XNR       WTN       ELMIN       SSTA
   SLOPE     XLOBL     XLCH      XLOBR     ITRIAL    IDC       ICONT     CORAR     TOPWID      ENDST


*SECNO  .813

3470 ENCROACHMENT STATIONS=     9935.0   10950.0  TYPE=      1  TARGET=     1015.000
     .813     6.68  1330.08  1328.97      .00  1330.32      .24     2.57      .01  1326.60
    7300.     468.     572.    6260.     115.      87.    1751.    1119.     256.   1326.10
     1.49     4.07     6.60     3.57     .055     .045     .055     .000  1323.40  9954.82
  .004681     370.     407.     525.        2       17        0      .00   959.44 10914.27


*SECNO  .860
     .860     4.79  1331.09  1329.39      .00  1331.29      .20      .96      .00  1327.80
    7300.    2058.     981.    4261.     546.     231.    1276.    1130.     261.   1328.30
     1.51     3.77     4.25     3.34     .055     .045     .055     .000  1326.30  9847.50
  .003285     235.     248.     250.        2       14        0      .00   751.42 10598.91


CCHV=     .100 CEHV=     .300
*SECNO  .945

3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.99

         DOWNSTREAM END OF ADOT FUTURE CHANNELIZATION FOR THE OUTER LOOP.
         THE ADOT OUTER LOOP BOX CULVERTS AND CHANNELIZATION ARE CURRENTLY
         UNDER CONSTRUCTION, AND IS CONSIDERED IN PLACE FOR THIS MODEL.
     .945     4.13  1331.73  1329.52      .00  1331.94      .20      .64      .00  1335.50
    7300.       0.    7300.       0.       0.    2010.       0.    1151.     268.   1335.50
     1.54      .00     3.63      .00     .000     .030     .000     .000  1327.60  9777.63
  .000833     360.     450.     450.        3       18        0      .00   494.74 10272.37


*SECNO 1.100

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
    1.100     3.78  1333.08  1333.08      .00  1334.92     1.84     1.56      .49  1335.50
    7300.       0.    7300.       0.       0.     671.       0.    1175.     274.   1335.50
     1.56      .00    10.88      .00     .000     .030     .000     .000  1329.30  9911.68
  .008754     950.     800.     700.        0       11        0      .00   184.64 10096.32
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  SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS   BANK ELEV
  Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA   LEFT/RIGHT
  TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN      SSTA
  SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID     ENDST


*SECNO 1.238

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.68

   1.238     6.08  1336.58  1335.03      .00  1337.72     1.14     2.72      .07  1338.00
   7300.       0.    7300.       0.       0.     852.       0.    1185.     276.   1338.00
    1.58      .00     8.57      .00     .000     .030     .000     .000  1330.50  9923.85
 .003092     600.     560.     520.        3       11        0      .00   152.31 10076.15


CCHV=     .100 CEHV=     .300
*SECNO 1.251

3301 HV CHANGED MORE THAN HVINS

        DOWNSTREAM FACE OF ADOT OUTERLOOP BOX CULVERTS (9-10'X6' & 1-10'X8').
   1.251     5.24  1335.74  1335.70      .00  1338.31     2.57      .16      .43  1339.90
   7300.       0.    7300.       0.       0.     567.       0.    1186.     276.   1339.90
    1.58      .00    12.87      .00     .000     .015     .000     .000  1330.50  9945.84
 .002096     100.      65.      40.        4       11        0      .00   108.31 10054.16


SPECIAL BRIDGE

5227 DOWNSTREAM ELEV IS    1334.71 , NOT    1335.74 HYDRAULIC JUMP OCCURS DOWNSTREAM (IF LOW FLOW CONTROLS)

SB  XK        XKOR      COFQ      RDLEN     BWC       BWP       BAREA     SS        ELCHU     ELCHD
     1.25      1.56      2.90       .00    108.30      8.30    600.00       .00   1331.40   1330.50

*SECNO 1.333

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  1.64

CLASS B LOW FLOW

3420 BRIDGE W.S.=    1336.44 BRIDGE VELOCITY=      13.30     CALCULATED CHANNEL AREA=       504.
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| SECNO | DEPTH | CWSEL | CRIWS | WSELK | EG | HV | HL | OLOSS | BANK ELEV |
|---|---|---|---|---|---|---|---|---|---|
| Q | QLOB | QCH | QROB | ALOB | ACH | AROB | VOL | TWA | LEFT/RIGHT |
| TIME | VLOB | VCH | VROB | XNL | XNCH | XNR | WTN | ELMIN | SSTA |
| SLOPE | XLOBL | XLCH | XLOBR | ITRIAL | IDC | ICONT | CORAR | TOPWID | ENDST |

| EGPRS | EGLWC | H3 | QWEIR | QLOW | BAREA | TRAPEZOID AREA | ELLC | ELTRD | WEIRLN |
|---|---|---|---|---|---|---|---|---|---|
| 1339.32 | 1339.92 | .00 | 0. | 7300. | 600. | 600. | 1337.40 | 1346.60 | 0. |

UPSTREAM FACE OF ADOT OUTERLOOP BOX CULVERTS.
SPECIAL BRIDGE METHOD USED. THE BRIDGE WAS MODELED AS 10-10'X6' CBC.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1.333 | 7.13 | 1338.53 | .00 | .00 | 1339.92 | 1.39 | 1.61 | .00 | 1340.50 |
| 7300. | 0. | 7300. | 0. | 0. | 772. | 0. | 1193. | 277. | 1340.50 |
| 1.60 | .00 | 9.46 | .00 | .000 | .015 | .000 | .000 | 1331.40 | 9945.82 |
| .000783 | 430. | 430. | 430. | 0 | 0 | 0 | .00 | 108.36 | 10054.18 |

*SECNO 1.334

3301 HV CHANGED MORE THAN HVINS

3302 WARNING: CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE, KRATIO = 1.51

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1.334 | 7.88 | 1339.28 | 1335.83 | .00 | 1339.99 | .71 | .00 | .07 | 1340.20 |
| 7300. | 0. | 7300. | 0. | 0. | 1080. | 0. | 1193. | 277. | 1340.30 |
| 1.60 | .00 | 6.76 | .00 | .000 | .015 | .000 | .000 | 1331.40 | 9931.41 |
| .000343 | 10. | 10. | 10. | 3 | 14 | 0 | .00 | 137.18 | 10068.59 |

*SECNO 1.335

3301 HV CHANGED MORE THAN HVINS

7185 MINIMUM SPECIFIC ENERGY
3720 CRITICAL DEPTH ASSUMED
DROP STRUCTURE INTO ADOT OUTERLOOP BOX CULVERTS.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1.335 | 4.44 | 1338.94 | 1338.94 | .00 | 1341.17 | 2.23 | .00 | .46 | 1340.20 |
| 7300. | 0. | 7300. | 0. | 0. | 609. | 0. | 1193. | 277. | 1340.30 |
| 1.60 | .00 | 11.99 | .00 | .000 | .015 | .000 | .000 | 1334.50 | 9931.42 |
| .002181 | 0. | 0. | 0. | 0 | 11 | 0 | .00 | 137.15 | 10068.58 |

CCHV= .100 CEHV= .300
*SECNO 1.350
7185 MINIMUM SPECIFIC ENERGY

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SECNO    DEPTH    CWSEL    CRIWS    WSELK    EG       HV       HL       OLOSS    BANK ELEV
Q        QLOB     QCH      QROB     ALOB     ACH      AROB     VOL      TWA    LEFT/RIGHT
TIME     VLOB     VCH      VROB     XNL      XNCH     XNR      WTN      ELMIN       SSTA
SLOPE    XLOBL    XLCH     XLOBR    ITRIAL   IDC      ICONT    CORAR    TOPWID      ENDST


3720 CRITICAL DEPTH ASSUMED
   1.350     4.98  1339.68  1339.68      .00  1341.99     2.31      .30      .02  1340.60
   7300.       0.    7300.       0.       0.     598.       0.    1194.     278.   1340.60
    1.60      .00    12.20      .00     .000     .030     .000     .000  1334.70  9934.87
 .008129      45.      80.     110.        0        8        0      .00   130.26 10065.13


*SECNO 1.505

3301 HV CHANGED MORE THAN HVINS


3302 WARNING:  CONVEYANCE CHANGE OUTSIDE OF ACCEPTABLE RANGE,  KRATIO =  3.48

        DROP STRUCTURE WITHIN ADOT FUTURE CHANNELIZATION FOR THE OUTER LOOP.
   1.505     4.90  1343.30  1340.57      .00  1343.51      .20     1.30      .21  1344.90
   7300.       0.    7300.       0.       0.    2009.       0.    1218.     283.   1344.90
    1.66      .00     3.63      .00     .000     .030     .000     .000  1338.40  9790.19
 .000671     760.     805.     900.        4       14        0      .00   419.61 10209.81
```

THIS RUN EXECUTED 12/ 6/90 13: 3:44

**********
HEC2 RELEASE DATED SEP 88 UPDATED SEPT 1989

ERROR CORR - 01,02,03
MODIFICATION -
**********

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

100-YEAR FLOWS, FUTURE

SUMMARY PRINTOUT

| | SECNO | Q | CWSEL | DEPTH | ELMIN | EG | CRIWS | VCH | 10*KS | XLCH | SSTA | TOPWID | ENDST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1.663 | 13000.00 | 1193.40 | 9.70 | 1183.70 | 1196.45 | 1192.82 | 14.00 | 78.77 | .00 | 9935.17 | 124.42 | 10059.58 |
| | 1.763 | 13000.00 | 1197.56 | 10.76 | 1186.80 | 1200.74 | 1197.11 | 14.32 | 82.54 | 528.00 | 9940.87 | 122.90 | 10063.77 |
| | 1.857 | 13000.00 | 1201.50 | 10.90 | 1190.60 | 1204.37 | 1200.33 | 13.59 | 64.05 | 496.00 | 9936.87 | 112.84 | 1004[illegible] |
| * | 1.868 | 13000.00 | 1201.83 | 10.53 | 1191.30 | 1205.31 | 1201.83 | 14.96 | 115.02 | 58.00 | 9937.78 | 125.27 | 10063.04 |
| | 1.912 | 12930.00 | 1204.47 | 13.97 | 1190.50 | 1207.26 | 1202.50 | 13.40 | 60.37 | 232.00 | 9956.05 | 98.12 | 10054.17 |
| * | 1.962 | 12930.00 | 1205.95 | 13.75 | 1192.20 | 1210.23 | 1205.95 | 16.61 | 91.18 | 264.00 | 9958.62 | 88.64 | 10047.26 |
| * | 2.034 | 12930.00 | 1210.66 | 16.76 | 1193.90 | 1211.92 | 1205.59 | 9.04 | 19.35 | 380.00 | 9895.73 | 161.96 | 10057.69 |
| | 2.129 | 12930.00 | 1211.45 | 15.25 | 1196.20 | 1213.21 | 1207.17 | 10.64 | 27.08 | 502.00 | 9959.72 | 107.11 | 10066.83 |
| | 2.230 | 12720.00 | 1213.67 | 14.07 | 1199.60 | 1214.33 | 1209.23 | 6.52 | 13.96 | 533.00 | 9843.21 | 294.62 | 10137.83 |
| * | 2.319 | 12720.00 | 1214.12 | 7.22 | 1206.90 | 1215.84 | 1213.12 | 10.52 | 59.50 | 470.00 | 9913.57 | 207.79 | 10121.36 |
| | 2.353 | 12720.00 | 1215.59 | 9.39 | 1206.20 | 1216.91 | 1213.76 | 9.20 | 47.08 | 180.00 | 9853.42 | 207.26 | 10060.67 |
| | 2.379 | 12720.00 | 1215.76 | 9.86 | 1205.90 | 1217.19 | .00 | 9.61 | 53.75 | 106.00 | 9853.42 | 207.25 | 10060.68 |
| | 2.422 | 12580.00 | 1217.00 | 8.80 | 1208.20 | 1218.48 | 1215.40 | 9.75 | 45.66 | 258.00 | 9860.46 | 201.99 | 10062.44 |
| | 2.491 | 12580.00 | 1218.86 | 10.36 | 1208.50 | 1219.95 | 1216.84 | 8.38 | 34.37 | 364.00 | 9797.51 | 239.09 | 10036.60 |
| | 2.561 | 12580.00 | 1220.16 | 7.76 | 1212.40 | 1221.60 | 1218.93 | 9.64 | 51.84 | 370.00 | 9920.65 | 229.08 | 10149.73 |
| * | 2.634 | 12580.00 | 1222.13 | 9.73 | 1212.40 | 1222.56 | 1218.57 | 5.22 | 12.16 | 385.00 | 9872.92 | 360.66 | 10233.57 |
| * | 2.720 | 12370.00 | 1222.55 | 9.35 | 1213.20 | 1223.86 | 1221.50 | 9.18 | 58.04 | 454.00 | 9959.49 | 279.26 | 1023[illegible] |

| | SECNO | Q | CWSEL | DEPTH | ELMIN | EG | CRIWS | VCH | 10*KS | XLCH | SSTA | TOPWID | ENDST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2.801 | 12370.00 | 1224.85 | 7.55 | 1217.30 | 1226.04 | 1223.46 | 8.76 | 44.76 | 428.00 | 9818.94 | 258.82 | 10077.76 |
| | 2.900 | 12370.00 | 1227.06 | 8.76 | 1218.30 | 1228.12 | 1225.19 | 8.30 | 35.36 | 523.00 | 9816.28 | 245.89 | 10062.17 |
| | 3.000 | 12370.00 | 1229.11 | 9.11 | 1220.00 | 1230.48 | 1227.29 | 9.38 | 53.07 | 528.00 | 9929.93 | 198.99 | 10128.92 |
| | 3.077 | 12160.00 | 1231.28 | 8.48 | 1222.80 | 1232.37 | 1228.98 | 8.36 | 39.76 | 407.00 | 9906.19 | 212.72 | 10118.91 |
| * | 3.143 | 12160.00 | 1232.25 | 9.85 | 1222.40 | 1234.95 | 1231.68 | 13.20 | 101.83 | 348.00 | 9968.57 | 136.19 | 10104.76 |
| | 3.200 | 12160.00 | 1235.50 | 10.50 | 1225.00 | 1237.41 | 1233.75 | 11.10 | 63.46 | 301.00 | 9934.40 | 147.51 | 10081.90 |
| | 3.300 | 12160.00 | 1238.63 | 12.03 | 1226.60 | 1240.20 | 1235.92 | 10.04 | 43.44 | 528.00 | 9940.42 | 140.93 | 10081.35 |
| * | 3.400 | 11950.00 | 1241.23 | 11.33 | 1229.90 | 1241.69 | 1239.90 | 6.28 | 17.50 | 528.00 | 9470.20 | 1026.80 | 10497.00 |
| * | 3.500 | 11950.00 | 1242.21 | 10.31 | 1231.90 | 1243.13 | 1239.84 | 8.02 | 37.24 | 528.00 | 9570.00 | 721.16 | 10291.16 |
| | 3.600 | 11950.00 | 1244.14 | 9.84 | 1234.30 | 1245.57 | 1243.30 | 9.94 | 51.04 | 528.00 | 9660.00 | 537.78 | 10253.94 |
| | 3.700 | 11950.00 | 1246.68 | 11.48 | 1235.20 | 1247.96 | 1245.51 | 9.64 | 40.28 | 528.00 | 9720.00 | 377.79 | 10110.00 |
| | 3.767 | 11670.00 | 1248.00 | 12.70 | 1235.30 | 1249.64 | 1246.29 | 10.58 | 49.37 | 354.00 | 9807.52 | 268.55 | 10077.83 |
| | 3.840 | 11670.00 | 1249.71 | 10.71 | 1239.00 | 1251.31 | 1247.89 | 10.57 | 38.15 | 385.00 | 9900.00 | 171.54 | 10071.54 |
| | 3.916 | 11670.00 | 1251.20 | 9.60 | 1241.60 | 1252.82 | 1248.86 | 10.22 | 37.29 | 401.00 | 9932.80 | 140.10 | 10072.90 |
| | 4.000 | 11670.00 | 1252.87 | 8.67 | 1244.20 | 1254.95 | 1251.51 | 11.57 | 54.83 | 444.00 | 9931.77 | 138.45 | 10070.22 |
| | 4.057 | 11460.00 | 1254.65 | 9.15 | 1245.50 | 1256.46 | 1252.79 | 10.79 | 44.43 | 301.00 | 9928.74 | 138.19 | 10066.93 |
| | 4.082 | 11460.00 | 1255.23 | 9.33 | 1245.90 | 1257.44 | 1253.80 | 11.91 | 76.29 | 150.00 | 9759.27 | 124.13 | 9889.27 |
| | 4.131 | 11460.00 | 1256.93 | 8.73 | 1248.20 | 1259.13 | 1255.93 | 11.90 | 81.92 | 214.00 | 9821.09 | 142.65 | 9969.62 |
| | 4.177 | 11460.00 | 1258.77 | 9.07 | 1249.70 | 1260.61 | 1256.88 | 10.87 | 44.29 | 245.00 | 9937.35 | 135.31 | 10072.66 |
| | 4.300 | 11320.00 | 1261.74 | 8.64 | 1253.10 | 1263.67 | 1260.18 | 11.15 | 49.59 | 649.00 | 9930.53 | 136.90 | 10067.43 |
| | 4.406 | 11320.00 | 1264.62 | 9.32 | 1255.30 | 1266.06 | 1262.35 | 9.63 | 35.64 | 560.00 | 9921.02 | 155.02 | 10076.04 |
| | 4.415 | 11320.00 | 1264.67 | 8.57 | 1256.10 | 1266.39 | 1262.94 | 10.53 | 58.43 | 55.00 | 9925.54 | 148.31 | 10076.30 |
| * | 4.436 | 11320.00 | 1265.81 | 10.61 | 1255.20 | 1266.86 | 1262.14 | 8.24 | 29.45 | 100.00 | 9921.28 | 156.82 | 10080.51 |
| * | 4.445 | 11180.00 | 1266.36 | 10.16 | 1256.20 | 1267.00 | 1261.72 | 6.37 | 12.45 | 50.00 | 9905.55 | 194.54 | 10100.09 |
| | 4.500 | 11180.00 | 1266.96 | 10.76 | 1256.20 | 1267.30 | 1261.62 | 4.70 | 7.47 | 290.00 | 9828.99 | 288.69 | 10117.68 |
| * | 4.600 | 11180.00 | 1267.35 | 9.05 | 1258.30 | 1267.98 | 1264.04 | 6.33 | 18.78 | 528.00 | 9876.61 | 274.26 | 10150.87 |

| | SECNO | Q | CWSEL | DEPTH | ELMIN | EG | CRIWS | VCH | 10*KS | XLCH | SSTA | TOPWID | ENDST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * | 4.674 | 11180.00 | 1268.04 | 7.34 | 1260.70 | 1269.39 | 1266.96 | 9.35 | 58.65 | 391.00 | 9888.55 | 243.77 | 10132.32 |
| | 4.721 | 11970.00 | 1269.54 | 8.54 | 1261.00 | 1270.55 | 1267.78 | 8.05 | 36.30 | 248.00 | 9879.75 | 264.31 | 10144.06 |
| * | 4.770 | 11970.00 | 1270.41 | 6.81 | 1263.60 | 1272.51 | 1270.41 | 11.63 | 115.42 | 259.00 | 9888.56 | 251.56 | 10140.12 |
| * | 4.870 | 11970.00 | 1274.24 | 7.54 | 1266.70 | 1274.93 | 1271.55 | 6.68 | 22.47 | 528.00 | 9825.77 | 295.43 | 10121.20 |
| * | 4.893 | 11970.00 | 1275.09 | 9.29 | 1265.80 | 1277.96 | 1275.09 | 13.60 | 103.17 | 121.00 | 9916.93 | 155.45 | 10072.39 |
| * | 4.922 | 11970.00 | 1277.80 | 7.90 | 1269.90 | 1279.20 | 1276.63 | 9.53 | 51.78 | 153.00 | 9845.52 | 275.31 | 10120.83 |
| * | 4.945 | 10830.00 | 1280.25 | 9.95 | 1270.30 | 1281.09 | 1280.25 | 9.06 | 30.71 | 121.00 | 9283.50 | 1343.48 | 10638.04 |
| | 4.974 | 10830.00 | 1280.83 | 10.53 | 1270.30 | 1281.46 | 1279.89 | 7.52 | 20.21 | 153.00 | 9283.00 | 1087.13 | 10493.26 |
| | 5.008 | 10830.00 | 1281.25 | 10.95 | 1270.30 | 1281.74 | 1276.44 | 6.02 | 10.62 | 180.00 | 9147.62 | 929.42 | 10077.04 |
| * | 5.080 | 10760.00 | 1281.03 | 9.03 | 1272.00 | 1282.88 | 1279.20 | 10.96 | 46.12 | 380.00 | 9171.11 | 283.40 | 10052.88 |
| * | 5.103 | 10760.00 | 1281.45 | 9.05 | 1272.40 | 1283.86 | 1280.41 | 12.45 | 105.95 | 121.00 | 9927.54 | 119.66 | 10047.21 |
| * | 5.118 | 10760.00 | 1284.48 | 13.08 | 1271.40 | 1285.36 | 1284.48 | 10.19 | 58.07 | 79.00 | 8967.11 | 1079.14 | 10046.25 |
| | 5.159 | 10690.00 | 1285.83 | 13.43 | 1272.40 | 1286.51 | 1285.49 | 8.50 | 46.62 | 216.00 | 9082.93 | 969.59 | 10052[illegible] |
| * | 5.204 | 10690.00 | 1286.61 | 13.11 | 1273.50 | 1287.02 | 1280.42 | 5.31 | 11.73 | 230.00 | 9124.67 | 947.69 | 10121.78 |
| | 5.263 | 10690.00 | 1287.01 | 11.41 | 1275.60 | 1287.54 | 1283.06 | 6.22 | 20.61 | 320.00 | 9612.22 | 678.87 | 10291.09 |
| * | 5.364 | 10550.00 | 1287.83 | 12.83 | 1275.00 | 1287.95 | 1279.88 | 2.78 | 3.33 | 533.00 | 9955.31 | 381.73 | 10337.05 |
| * | 5.397 | 10550.00 | 1287.79 | 11.09 | 1276.70 | 1288.08 | 1282.03 | 4.32 | 7.77 | 174.00 | 9966.36 | 287.15 | 10253.51 |
| * | 5.432 | 10550.00 | 1288.02 | 11.72 | 1276.30 | 1288.19 | 1280.96 | 3.29 | 3.85 | 185.00 | 9968.18 | 330.80 | 10298.98 |
| * | 5.500 | 10550.00 | 1288.16 | 8.96 | 1279.20 | 1288.42 | 1283.82 | 4.41 | 9.03 | 359.00 | 9681.61 | 371.84 | 10053.45 |
| * | 5.579 | 10410.00 | 1290.30 | 7.50 | 1282.80 | 1292.09 | 1290.30 | 12.09 | 128.66 | 417.00 | 9784.02 | 265.20 | 10049.22 |
| | 5.679 | 10410.00 | 1295.74 | 7.64 | 1288.10 | 1296.93 | 1295.16 | 9.06 | 74.20 | 528.00 | 9641.83 | 474.08 | 10115.91 |
| | 5.754 | 10410.00 | 1298.84 | 7.94 | 1290.90 | 1300.30 | 1298.37 | 10.66 | 82.74 | 422.00 | 9724.85 | 274.06 | 10081.72 |
| | 5.837 | 10410.00 | 1302.49 | 7.39 | 1295.10 | 1303.67 | 1301.59 | 8.78 | 70.17 | 438.00 | 9795.29 | 313.50 | 10108.79 |
| * | 5.881 | 10200.00 | 1303.85 | 8.55 | 1295.30 | 1304.20 | 1299.45 | 4.70 | 8.57 | 232.00 | 9830.03 | 292.96 | 10122.99 |
| | 5.970 | 10200.00 | 1304.25 | 8.45 | 1295.80 | 1304.65 | 1300.08 | 5.06 | 10.06 | 470.00 | 9869.31 | 273.51 | 10142.81 |
| | 5.973 | 10200.00 | 1304.13 | 6.83 | 1297.30 | 1304.73 | 1301.11 | 6.22 | 17.83 | 16.00 | 9879.91 | 240.17 | 10120.09 |

| | SECNO | Q | CWSEL | DEPTH | ELMIN | EG | CRIWS | VCH | 10*KS | XLCH | SSTA | TOPWID | ENDST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * | 5.977 | 10200.00 | 1304.60 | 5.70 | 1298.90 | 1306.57 | 1304.60 | 11.24 | 126.58 | 21.00 | 9879.93 | 240.14 | 10120.07 |
| * | 5.982 | 10200.00 | 1306.45 | 7.25 | 1299.20 | 1306.80 | 1303.51 | 5.01 | 11.48 | 26.00 | 9666.73 | 740.61 | 10407.34 |
| | 5.990 | 10130.00 | 1306.44 | 8.74 | 1297.70 | 1306.87 | 1302.97 | 5.26 | 13.29 | 42.00 | 9838.78 | 309.85 | 10148.63 |
| | 6.089 | 10130.00 | 1307.14 | 8.44 | 1298.70 | 1307.62 | 1303.91 | 5.55 | 14.79 | 523.00 | 9862.20 | 290.41 | 10152.61 |
| | 6.189 | 10130.00 | 1307.90 | 8.90 | 1299.00 | 1308.34 | 1304.24 | 5.30 | 12.37 | 528.00 | 9858.10 | 284.37 | 10142.47 |
| * | 6.219 | 2800.00 | 1308.34 | 8.74 | 1299.60 | 1308.52 | 1303.21 | 3.40 | 4.94 | 158.00 | 9941.81 | 117.84 | 10059.65 |
| | 6.223 | 2800.00 | 1308.27 | 7.97 | 1300.30 | 1308.57 | 1303.65 | 4.39 | 8.53 | 23.00 | 9959.90 | 80.19 | 10040.10 |
| * | 6.227 | 2800.00 | 1308.36 | 3.36 | 1305.00 | 1310.04 | 1308.36 | 10.40 | 132.66 | 19.00 | 9959.93 | 80.13 | 10040.07 |
| * | 6.230 | 2800.00 | 1309.95 | 6.55 | 1303.40 | 1310.23 | 1307.20 | 4.25 | 13.95 | 16.00 | 9929.26 | 149.18 | 10078.43 |
| | 6.298 | 2800.00 | 1310.46 | 6.86 | 1303.60 | 1310.82 | 1308.07 | 4.82 | 17.66 | 359.00 | 9923.49 | 130.13 | 10053.61 |
| * | 6.356 | 2800.00 | 1310.89 | 6.09 | 1304.80 | 1311.97 | 1310.08 | 8.37 | 65.76 | 306.00 | 9949.11 | 87.12 | 10036.23 |
| * | 6.361 | 2800.00 | 1310.87 | 5.87 | 1305.00 | 1312.10 | 1309.40 | 8.93 | 9.99 | 26.00 | 9973.25 | 53.51 | 10026.75 |
| | 6.377 | 2800.00 | 1312.14 | 7.14 | 1305.00 | 1312.98 | .00 | 7.33 | 5.46 | 72.00 | 9973.23 | 53.53 | 10026.77 |
| * | 6.378 | 2800.00 | 1312.79 | 7.79 | 1305.00 | 1313.13 | 1308.45 | 4.66 | 1.83 | 10.00 | 9961.43 | 77.14 | 10038.57 |
| * | 6.379 | 2800.00 | 1314.44 | 3.44 | 1311.00 | 1316.17 | 1314.44 | 10.57 | 24.55 | .10 | 9961.43 | 77.14 | 10038.57 |
| | 6.389 | 2800.00 | 1315.93 | 6.83 | 1309.10 | 1316.42 | 1313.70 | 5.65 | 22.92 | 53.00 | 9939.64 | 132.76 | 10072.40 |
| | 6.471 | 2800.00 | 1317.07 | 5.47 | 1311.60 | 1317.78 | 1315.68 | 6.75 | 40.66 | 433.00 | 9966.07 | 104.18 | 10070.25 |
| * | 6.511 | 2800.00 | 1317.58 | 5.78 | 1311.80 | 1318.29 | 1315.70 | 6.78 | 16.00 | 210.00 | 9958.45 | 83.10 | 10041.55 |
| | 6.634 | 2800.00 | 1318.69 | 5.07 | 1313.62 | 1319.65 | 1317.50 | 7.87 | 25.09 | 650.00 | 9959.86 | 80.28 | 10040.14 |
| | 6.772 | 2800.00 | 1320.41 | 4.91 | 1315.50 | 1321.45 | 1319.38 | 8.16 | 27.99 | 670.00 | 9960.18 | 79.65 | 10039.82 |
| * | 6.780 | 2800.00 | 1320.48 | 4.38 | 1316.10 | 1322.69 | 1320.48 | 11.94 | 24.75 | 40.00 | 9973.24 | 53.62 | 10026.86 |
| * | 6.887 | 2800.00 | 1323.41 | 5.91 | 1317.50 | 1324.62 | .00 | 8.85 | 9.72 | 486.00 | 9973.24 | 53.62 | 10026.86 |
| * | 6.889 | 2800.00 | 1324.11 | 6.61 | 1317.50 | 1324.69 | 1321.20 | 6.13 | 3.90 | 10.00 | 9965.43 | 69.13 | 10034.57 |
| * | 6.890 | 2800.00 | 1324.20 | 3.70 | 1320.50 | 1326.06 | 1324.20 | 10.95 | 24.38 | .10 | 9965.45 | 69.11 | 10034.55 |
| | 6.951 | 2800.00 | 1326.19 | 5.19 | 1321.00 | 1326.74 | 1324.26 | 5.97 | 13.42 | 310.00 | 9949.63 | 100.75 | 10050.37 |
| * | 7.000 | 2800.00 | 1326.70 | 3.70 | 1323.00 | 1328.04 | 1326.70 | 9.29 | 134.10 | 259.00 | 9977.73 | 114.79 | 10092.51 |

| | SECNO | Q | CWSEL | DEPTH | ELMIN | EG | CRIWS | VCH | 10*KS | XLCH | SSTA | TOPWID | ENDST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * | 7.100 | 2800.00 | 1330.65 | 5.95 | 1324.70 | 1331.01 | 1329.38 | 4.84 | 29.31 | 528.00 | 9829.03 | 187.51 | 10016.54 |
| * | 7.174 | 2800.00 | 1334.13 | 8.03 | 1326.10 | 1336.59 | 1334.13 | 12.58 | 117.09 | 391.00 | 9979.29 | 45.79 | 10025.08 |
| * | 7.244 | 2800.00 | 1337.60 | 10.70 | 1326.90 | 1338.26 | 1333.91 | 6.53 | 20.22 | 370.00 | 9968.24 | 63.01 | 10031.25 |
| | 7.327 | 2800.00 | 1338.50 | 11.80 | 1326.70 | 1338.99 | 1333.75 | 5.58 | 13.19 | 438.00 | 9963.92 | 68.10 | 10032.02 |
| * | 7.409 | 2800.00 | 1339.07 | 16.47 | 1322.60 | 1339.15 | 1327.81 | 2.20 | 1.15 | 433.00 | 9948.67 | 112.74 | 10061.41 |
| | -6.189 | 10000.00 | 1307.90 | 8.90 | 1299.00 | 1308.33 | .00 | 5.23 | 12.05 | 528.00 | 9858.10 | 284.37 | 10142.47 |
| * | .028 | 7300.00 | 1307.94 | 7.14 | 1300.80 | 1308.63 | 1305.32 | 6.68 | 22.01 | 148.00 | 9913.38 | 175.01 | 10088.39 |
| | .032 | 7300.00 | 1307.95 | 6.55 | 1301.40 | 1308.70 | 1305.41 | 6.96 | 24.33 | 23.00 | 9919.91 | 160.18 | 10080.09 |
| * | .036 | 7300.00 | 1309.70 | 4.00 | 1305.70 | 1311.72 | 1309.70 | 11.41 | 121.31 | 19.00 | 9919.93 | 160.14 | 10080.07 |
| * | .040 | 7300.00 | 1311.21 | 7.91 | 1303.30 | 1311.95 | 1309.03 | 6.93 | 28.37 | 21.00 | 9907.46 | 192.89 | 10100.35 |
| * | .116 | 7300.00 | 1312.29 | 9.59 | 1302.70 | 1312.75 | 1308.82 | 5.45 | 13.82 | 401.00 | 9881.84 | 206.75 | 10088.59 |
| | .184 | 7300.00 | 1312.77 | 8.87 | 1303.90 | 1313.44 | 1310.12 | 6.56 | 22.74 | 359.00 | 9911.06 | 189.58 | 10100.64 |
| * | .200 | 7300.00 | 1312.54 | 7.24 | 1305.30 | 1313.88 | 1310.50 | 9.30 | 7.43 | 84.00 | 9945.74 | 108.53 | 1005[illegible] |
| * | .212 | 7300.00 | 1315.42 | 10.02 | 1305.40 | 1316.12 | .00 | 6.71 | 2.66 | 60.00 | 9945.71 | 108.58 | 10054.29 |
| | .213 | 7300.00 | 1315.74 | 10.34 | 1305.40 | 1316.20 | 1310.00 | 5.44 | 1.63 | 10.00 | 9935.01 | 129.99 | 10064.99 |
| * | .214 | 7300.00 | 1314.90 | 4.60 | 1310.30 | 1317.22 | 1314.90 | 12.23 | 21.83 | .10 | 9935.03 | 129.95 | 10064.97 |
| | .232 | 7300.00 | 1316.94 | 8.64 | 1308.30 | 1317.59 | 1314.28 | 6.47 | 21.99 | 95.00 | 9875.65 | 190.82 | 10066.46 |
| | .337 | 7300.00 | 1318.20 | 7.80 | 1310.40 | 1318.48 | 1315.32 | 4.26 | 11.32 | 554.00 | 9869.27 | 330.98 | 10200.25 |
| | .438 | 7300.00 | 1318.81 | 6.01 | 1312.80 | 1319.02 | 1315.85 | 3.71 | 8.94 | 533.00 | 9861.59 | 392.16 | 10253.75 |
| * | .441 | 7300.00 | 1320.09 | 2.39 | 1317.70 | 1321.18 | 1320.09 | 8.40 | 140.41 | 16.00 | 9861.87 | 402.15 | 10264.01 |
| * | .458 | 7300.00 | 1321.49 | 3.89 | 1317.60 | 1321.84 | 1320.61 | 4.93 | 37.77 | 90.00 | 9800.00 | 640.63 | 10440.63 |
| | .489 | 7300.00 | 1322.34 | 3.84 | 1318.50 | 1322.46 | 1320.86 | 2.82 | 34.08 | 163.00 | 9650.00 | 1050.00 | 10700.00 |
| | .568 | 7300.00 | 1323.77 | 3.37 | 1320.40 | 1323.85 | 1322.66 | 2.61 | 35.25 | 417.00 | 9031.40 | 1796.49 | 11106.14 |
| | .629 | 7300.00 | 1325.03 | 4.43 | 1320.60 | 1325.15 | 1324.11 | 2.69 | 53.02 | 322.00 | 9491.00 | 1734.14 | 11289.08 |
| | .736 | 7300.00 | 1327.55 | 3.65 | 1323.90 | 1327.74 | 1326.66 | 4.84 | 55.00 | 565.00 | 9867.85 | 1068.77 | 10936.62 |
| | .813 | 7300.00 | 1330.08 | 6.68 | 1323.40 | 1330.32 | 1328.97 | 6.60 | 46.81 | 407.00 | 9954.82 | 959.44 | 10914.27 |

| | SECNO | Q | CWSEL | DEPTH | ELMIN | EG | CRIWS | VCH | 10*KS | XLCH | SSTA | TOPWID | ENDST |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | .860 | 7300.00 | 1331.09 | 4.79 | 1326.30 | 1331.29 | 1329.39 | 4.25 | 32.85 | 248.00 | 9847.50 | 751.42 | 10598.91 |
| * | .945 | 7300.00 | 1331.73 | 4.13 | 1327.60 | 1331.94 | 1329.52 | 3.63 | 8.33 | 450.00 | 9777.63 | 494.74 | 10272.37 |
| * | 1.100 | 7300.00 | 1333.08 | 3.78 | 1329.30 | 1334.92 | 1333.08 | 10.88 | 87.54 | 800.00 | 9911.68 | 184.64 | 10096.32 |
| * | 1.238 | 7300.00 | 1336.58 | 6.08 | 1330.50 | 1337.72 | 1335.03 | 8.57 | 30.92 | 560.00 | 9923.85 | 152.31 | 10076.15 |
| | 1.251 | 7300.00 | 1335.74 | 5.24 | 1330.50 | 1338.31 | 1335.70 | 12.87 | 20.96 | 65.00 | 9945.84 | 108.31 | 10054.16 |
| * | 1.333 | 7300.00 | 1338.53 | 7.13 | 1331.40 | 1339.92 | .00 | 9.46 | 7.83 | 430.00 | 9945.82 | 108.36 | 10054.18 |
| * | 1.334 | 7300.00 | 1339.28 | 7.88 | 1331.40 | 1339.99 | 1335.83 | 6.76 | 3.43 | 10.00 | 9931.41 | 137.18 | 10068.59 |
| * | 1.335 | 7300.00 | 1338.94 | 4.44 | 1334.50 | 1341.17 | 1338.94 | 11.99 | 21.81 | .10 | 9931.42 | 137.15 | 10068.58 |
| * | 1.350 | 7300.00 | 1339.68 | 4.98 | 1334.70 | 1341.99 | 1339.68 | 12.20 | 81.29 | 80.00 | 9934.87 | 130.26 | 10065.13 |
| * | 1.505 | 7300.00 | 1343.30 | 4.90 | 1338.40 | 1343.51 | 1340.57 | 3.63 | 6.71 | 805.00 | 9790.19 | 419.61 | 10209.81 |

SUMMARY OF ERRORS AND SPECIAL NOTES

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CAUTION SECNO=     1.868  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.868  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     1.962  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.962  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     2.034  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     2.319  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     2.634  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     2.720  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     3.143  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     3.400  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     3.500  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     4.436  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     4.445  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     4.600  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     4.674  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     4.770  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     4.770  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     4.870  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     4.893  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     4.893  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     4.922  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     4.945  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     4.945  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     5.080  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     5.103  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     5.118  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     5.118  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     5.204  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     5.364  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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WARNING SECNO=      5.397  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      5.432  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      5.500  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      5.579  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      5.579  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=      5.881  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      5.977  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      5.977  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=      5.982  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      6.219  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      6.227  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      6.227  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=      6.230  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      6.356  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

 RNING SECNO=       6.361  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      6.378  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      6.379  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      6.379  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=      6.511  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      6.780  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      6.780  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=      6.887  PROFILE=  1  HYDRAULIC JUMP D.S.
WARNING SECNO=      6.887  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      6.889  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      6.890  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      6.890  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=      7.000  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      7.000  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=      7.100  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      7.174  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      7.174  PROFILE=  1  MINIMUM SPECIFIC ENERGY
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WARNING SECNO=     7.244  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     7.409  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .028  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      .036  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .036  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=      .040  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .116  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .200  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .212  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=      .214  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .214  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=      .441  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=      .441  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=      .458  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=      .945  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     1.100  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.100  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     1.238  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     1.333  PROFILE=  1  HYDRAULIC JUMP D.S.
WARNING SECNO=     1.333  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

WARNING SECNO=     1.334  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE

CAUTION SECNO=     1.335  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.335  PROFILE=  1  MINIMUM SPECIFIC ENERGY

CAUTION SECNO=     1.350  PROFILE=  1  CRITICAL DEPTH ASSUMED
CAUTION SECNO=     1.350  PROFILE=  1  MINIMUM SPECIFIC ENERGY

WARNING SECNO=     1.505  PROFILE=  1  CONVEYANCE CHANGE OUTSIDE ACCEPTABLE RANGE
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Future Condition Cross Section Plots

Skunk Creek
ACDC to Adobe Dam
Including Scatter Wash

CVL

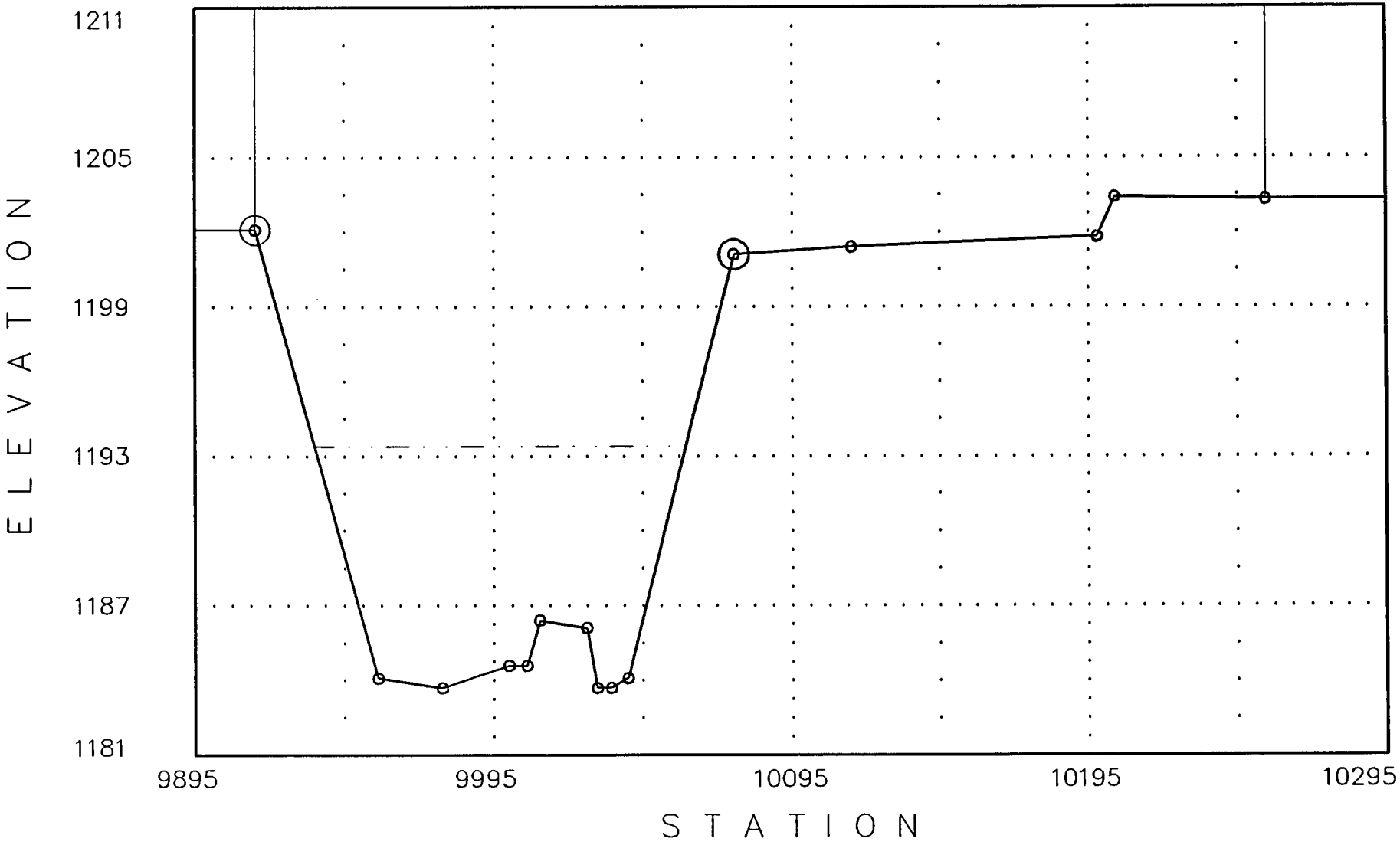
Future Condition Cross Section Plots

Skunk Creek
ACDC to Adobe Dam
Including Scatter Wash

<<<<<< Cross Section: 1.663: (FN = SKSFUT.O) >>>>>>

Q1= 13000 WS1= 1193.4

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

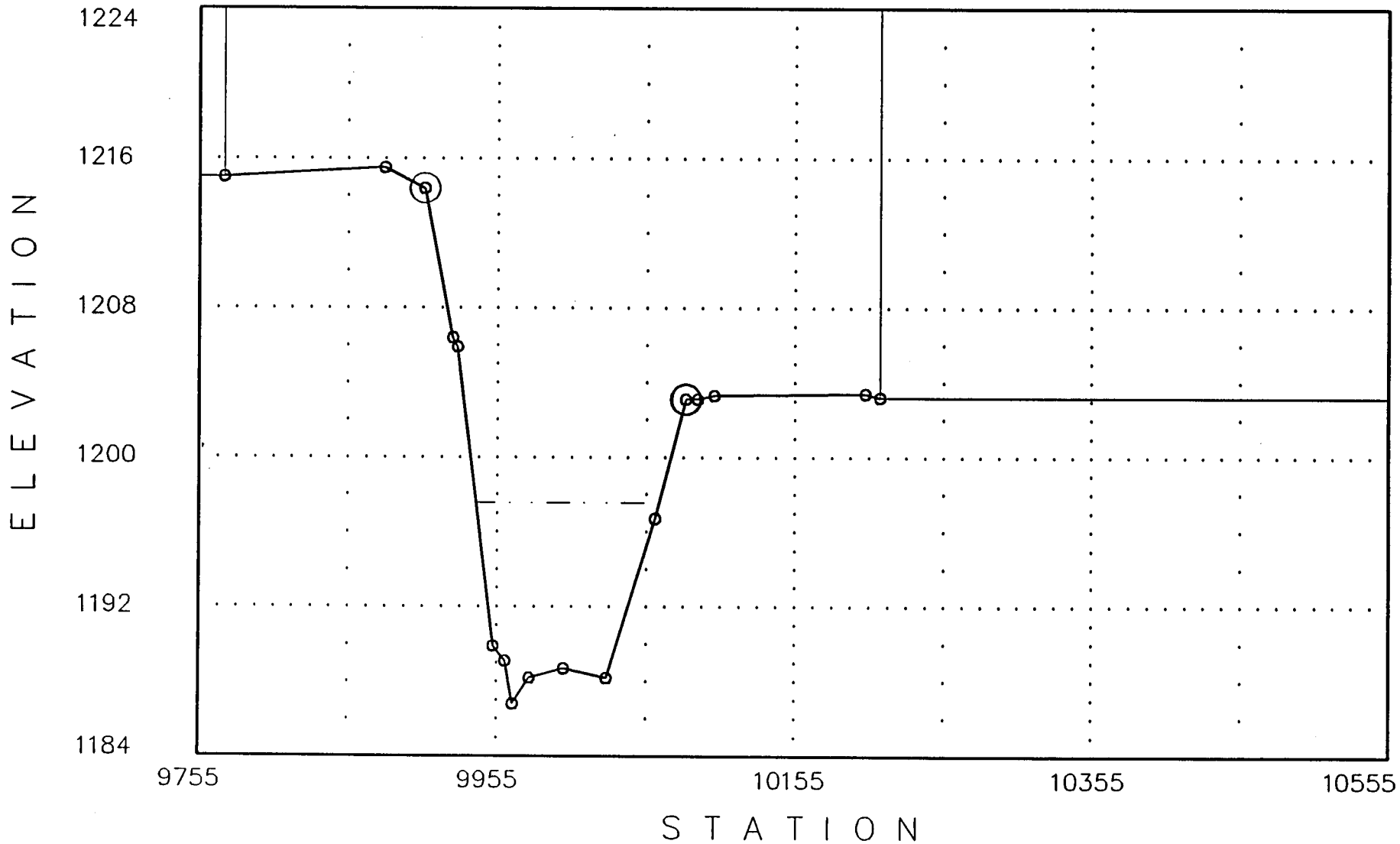



12-07-1990

<<<<<< Cross Section: 1.763: (FN = SKSFUT.O) >>>>>>

Q1= 13000 WS1= 1197.56

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

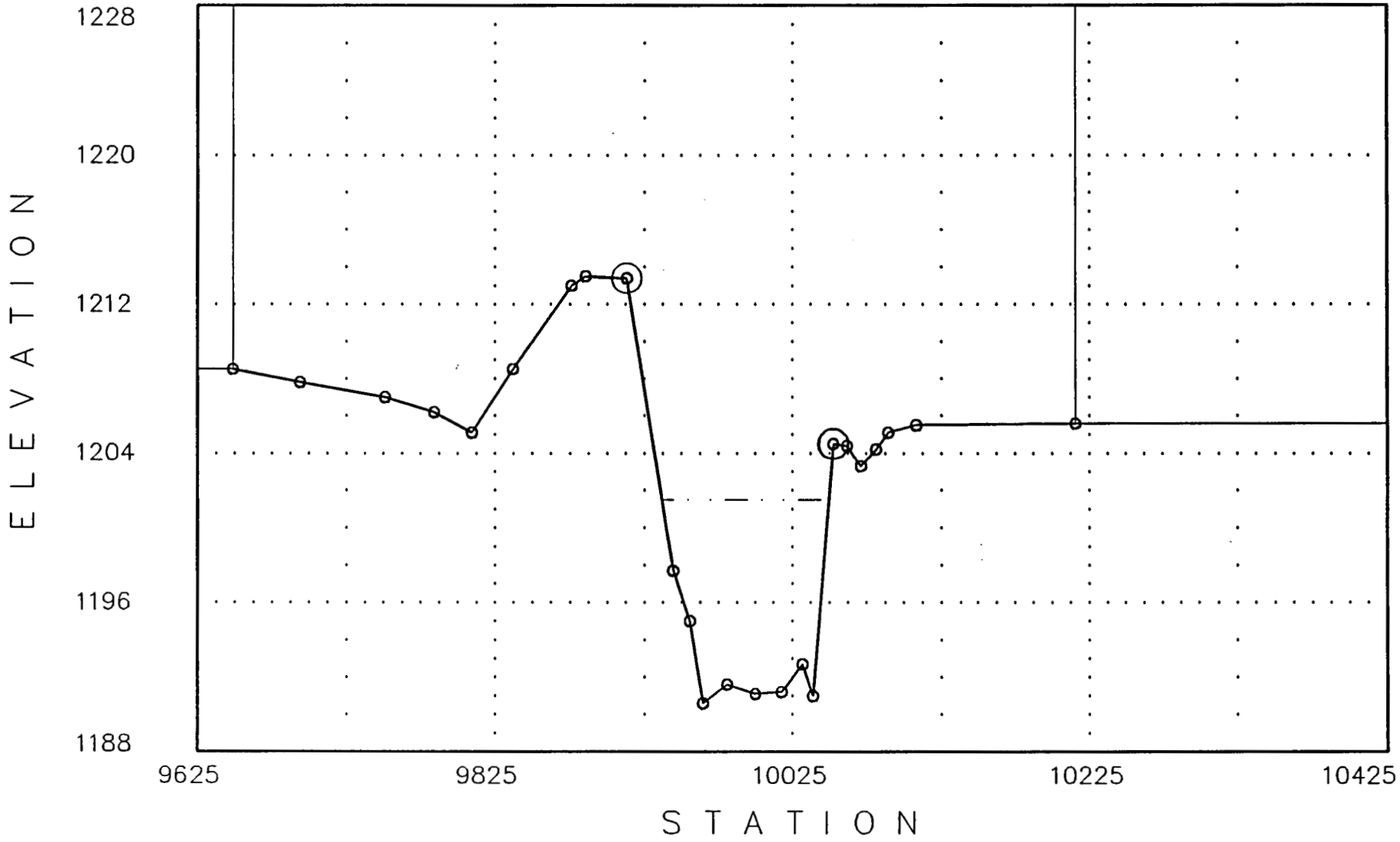



12-07-1990

<<<<<< Cross Section: 1.857: (FN = SKSFUT.O) >>>>>>

Q1= 13000 WS1= 1201.5

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

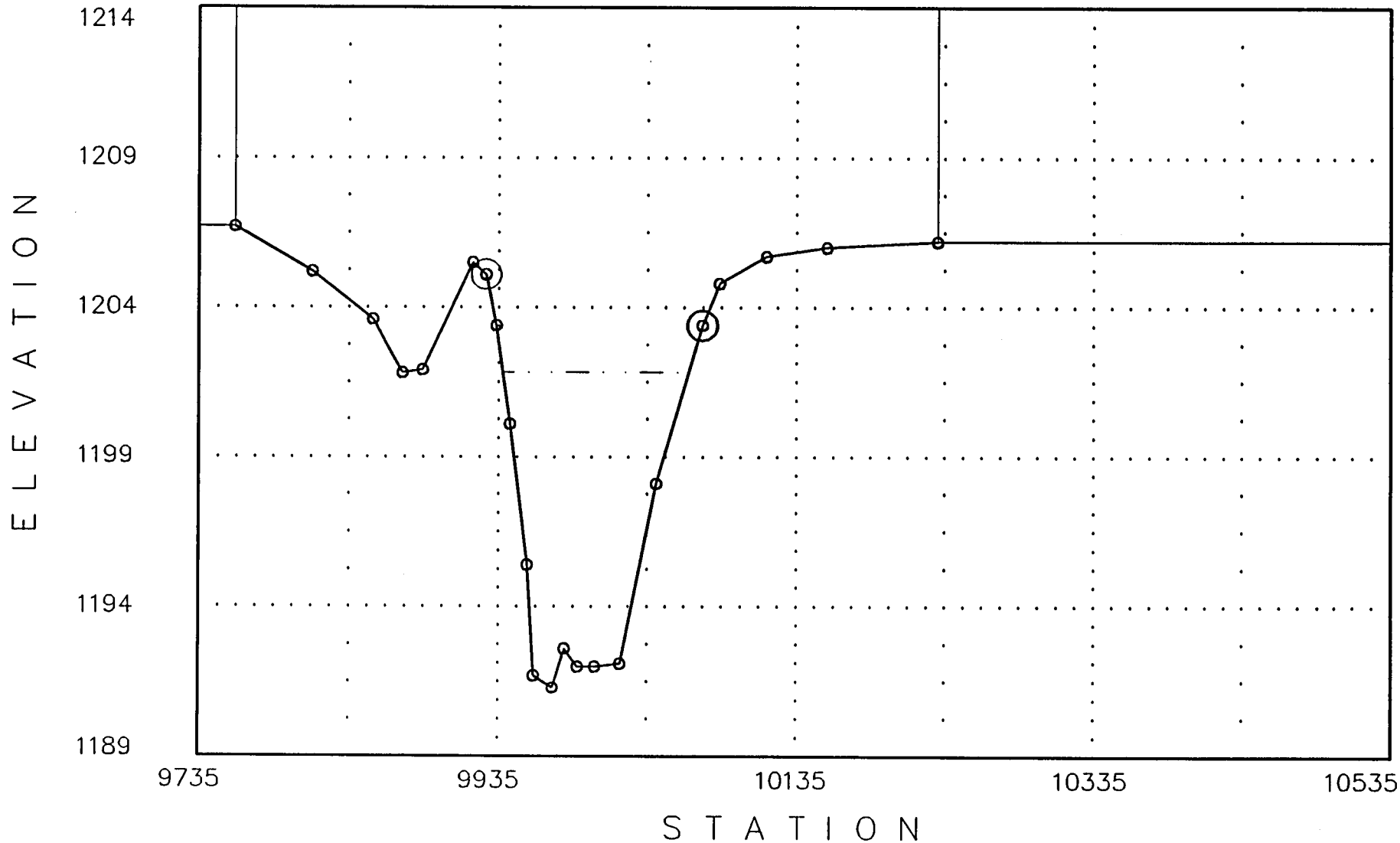



12-07-1990

<<<<<< Cross Section: 1.868: (FN = SKSFUT.O) >>>>>>

Q1= 13000 WS1= 1201.83

Manning-n's: n-lob = .045 n-ch = .038 n-rob = .045

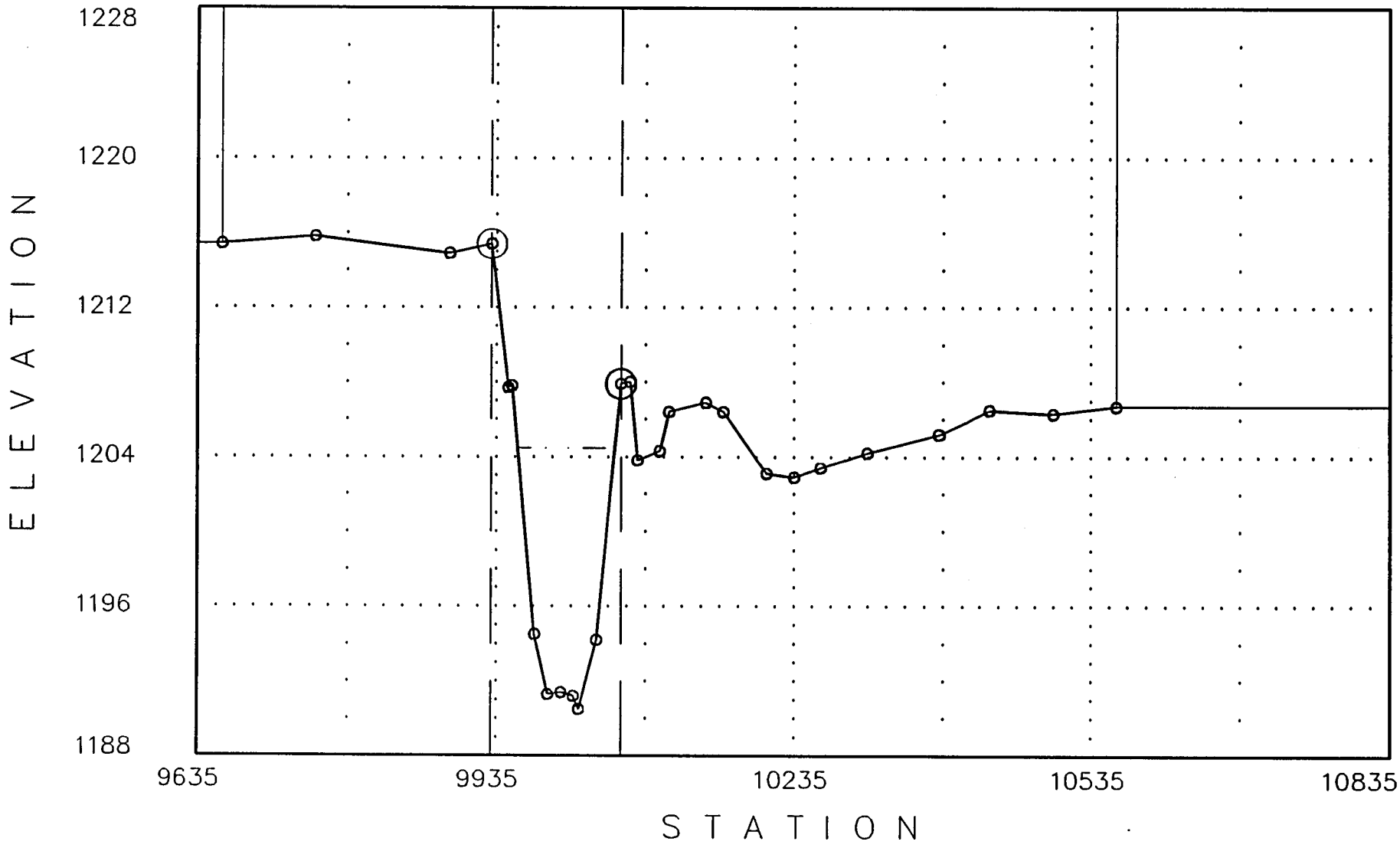



12-07-1990

<<<<<< Cross Section: 1.912: (FN = SKSFUT.O) >>>>>>

Q1= 12930 WS1= 1204.47

Manning-n's: n-lob = .045 n-ch = .038 n-rob = .045

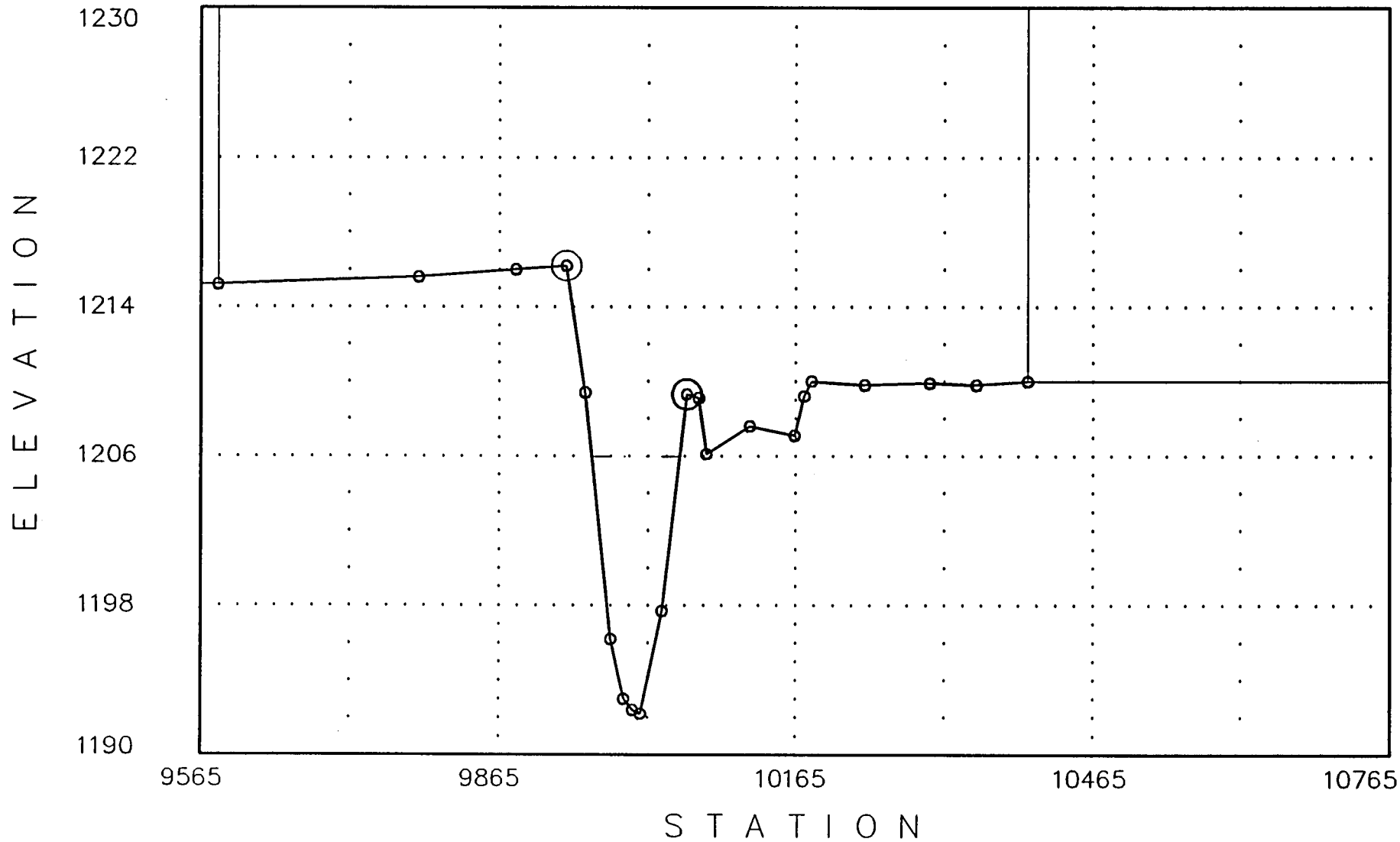



12-07-1990

<<<<<< Cross Section: 1.962: (FN = SKSFUT.O) >>>>>>

Q1= 12930 WS1= 1205.95

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

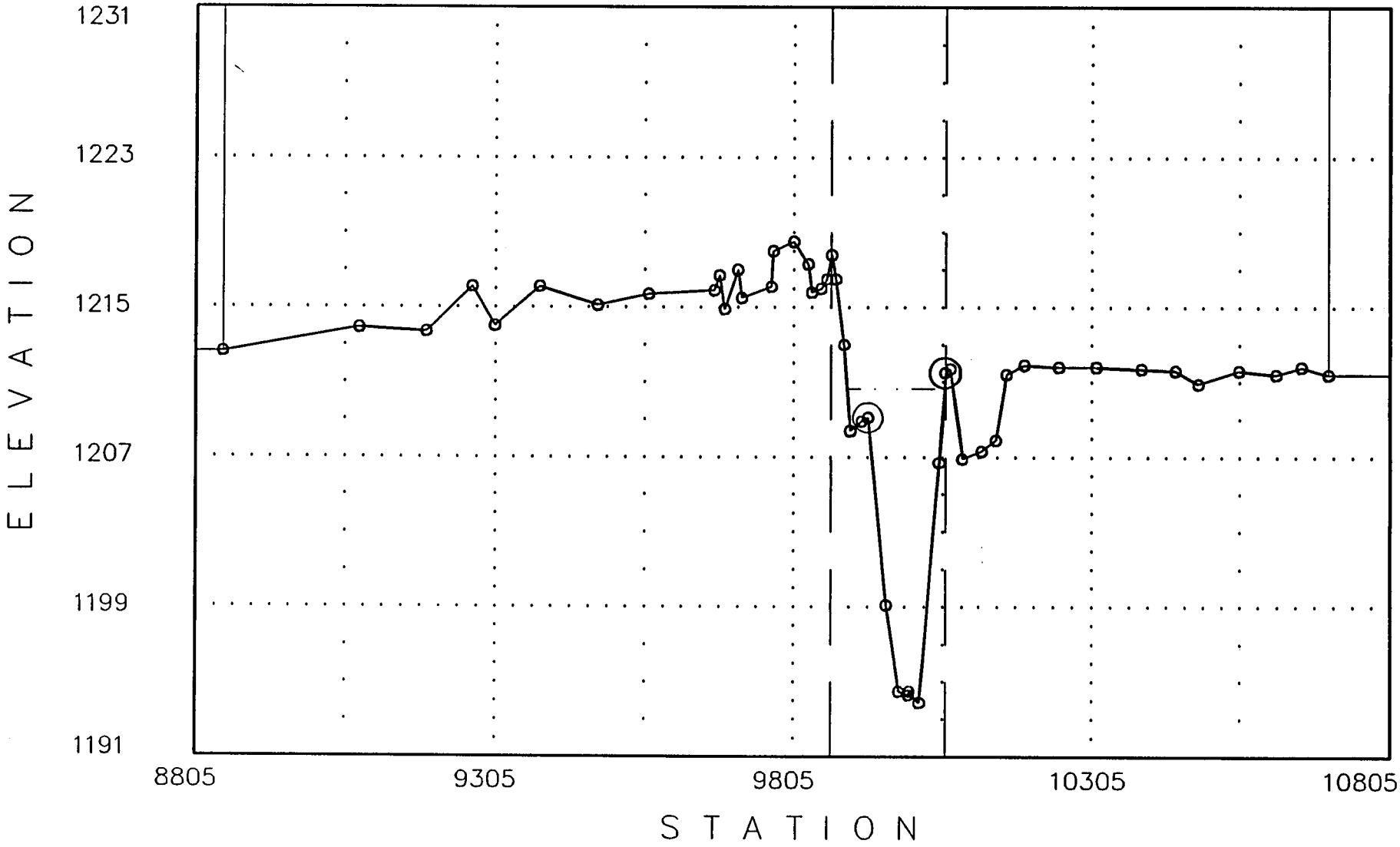



12-07-1990

<<<<<< Cross Section: 2.034: (FN = SKSFUT.O) >>>>>>

Q1= 12930 WS1= 1210.66

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

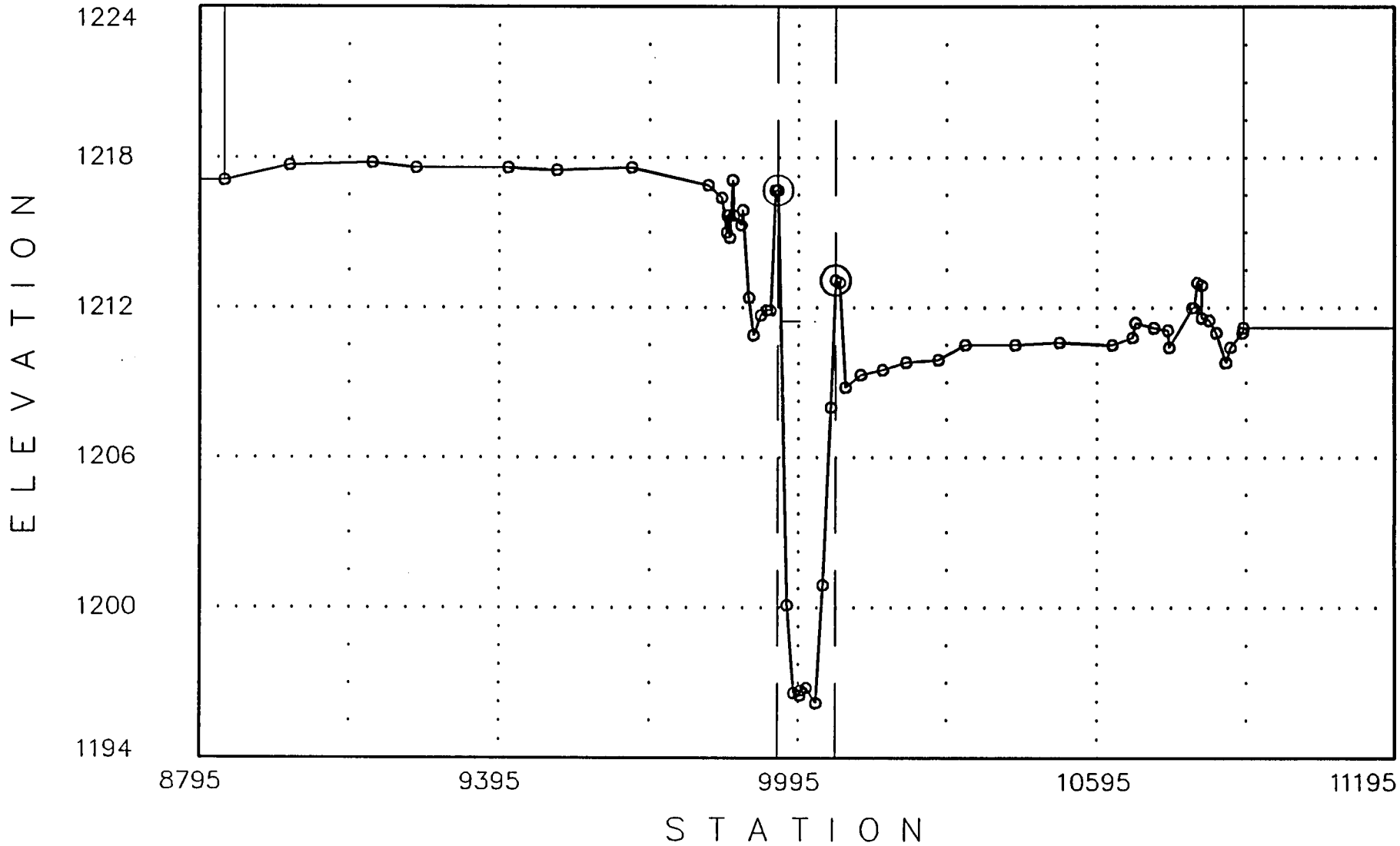



12-07-1990

<<<<<< Cross Section: 2.129: (FN = SKSFUT.O) >>>>>>

Q1= 12930 WS1= 1211.45

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

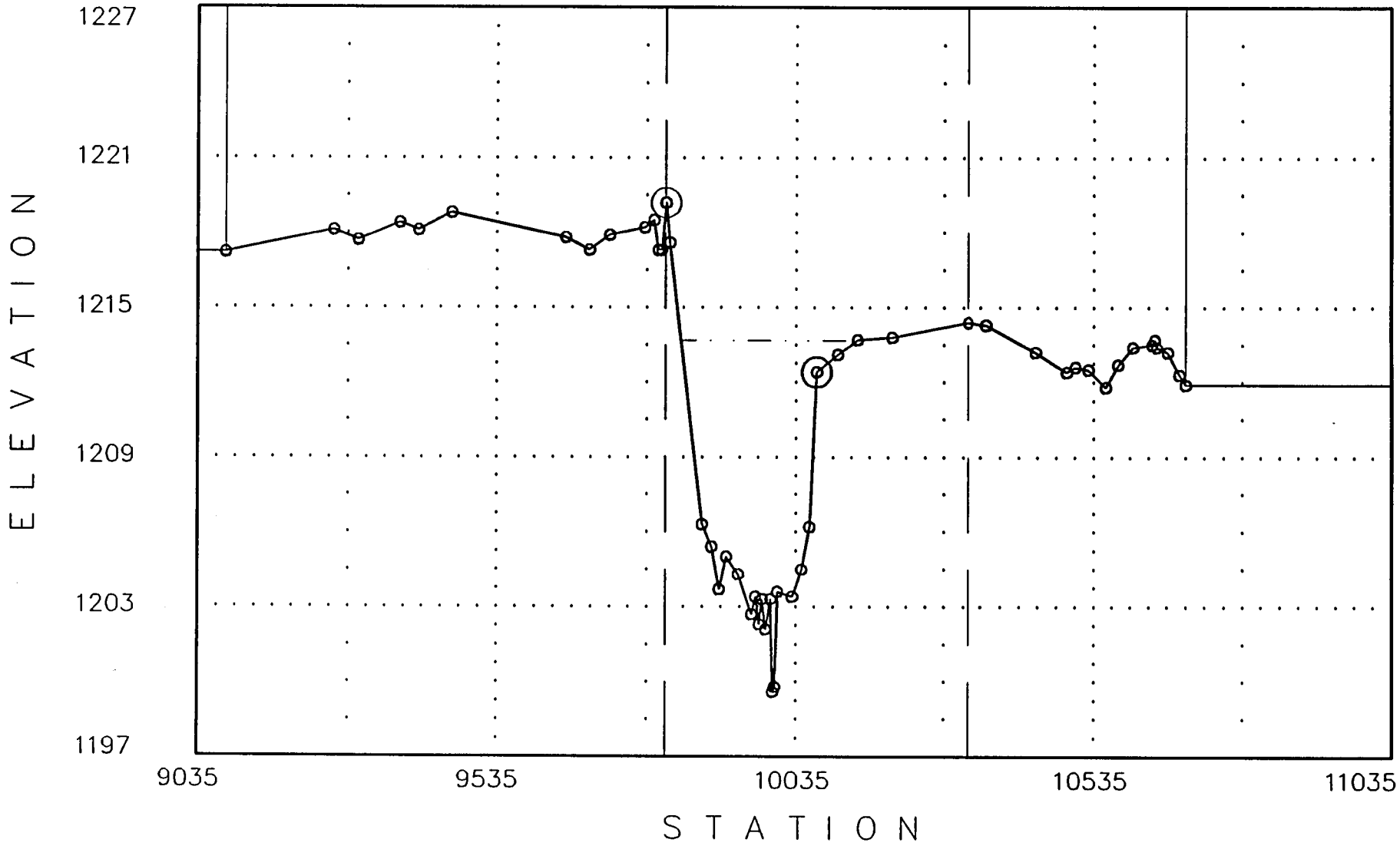



12-07-1990

<<<<<< Cross Section: 2.23: (FN = SKSFUT.O) >>>>>>

Q1= 12720 WS1= 1213.67

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

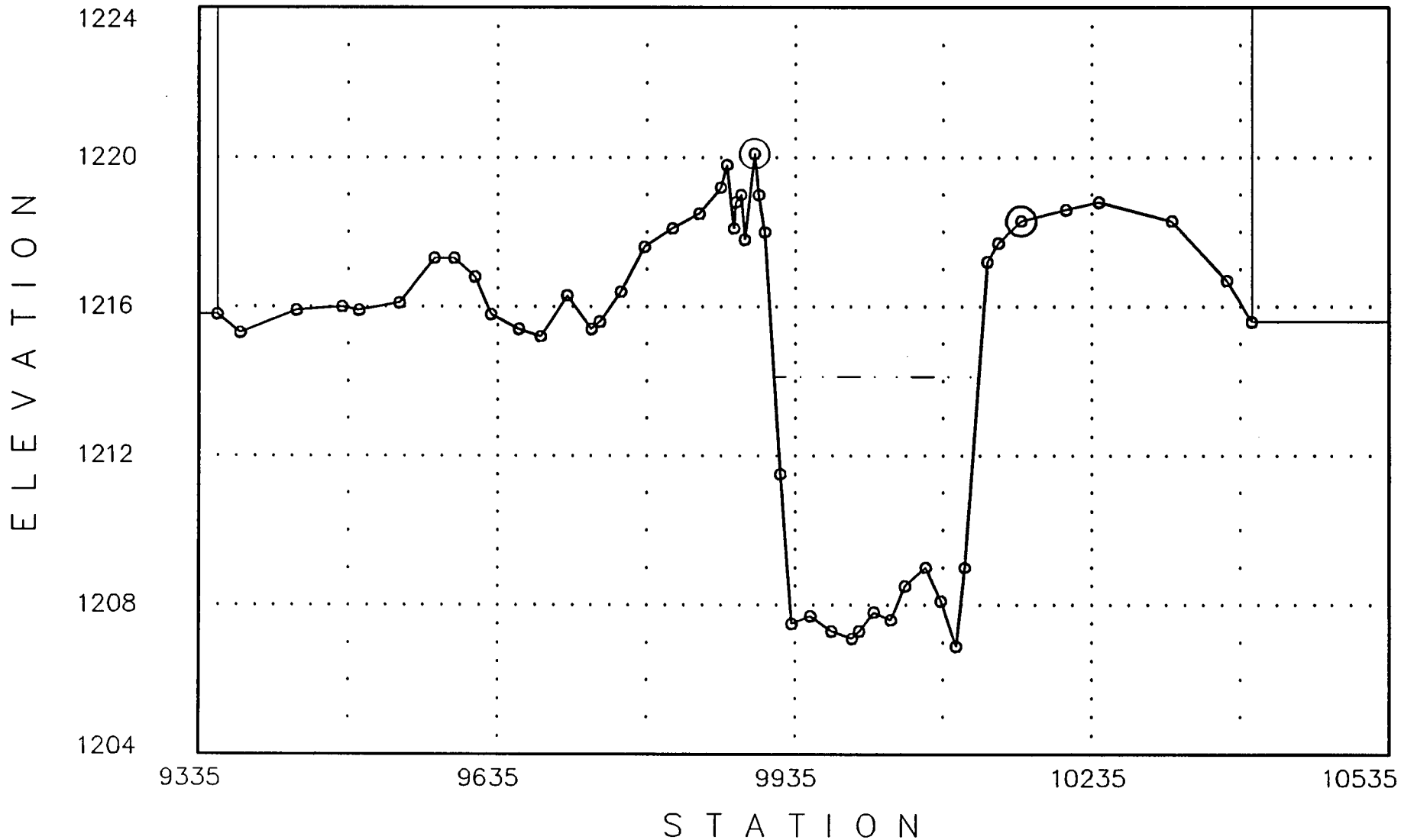



12-07-1990

<<<<<< Cross Section: 2.319: (FN = SKSFUT.O) >>>>>>

Q1= 12720 WS1= 1214.12

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

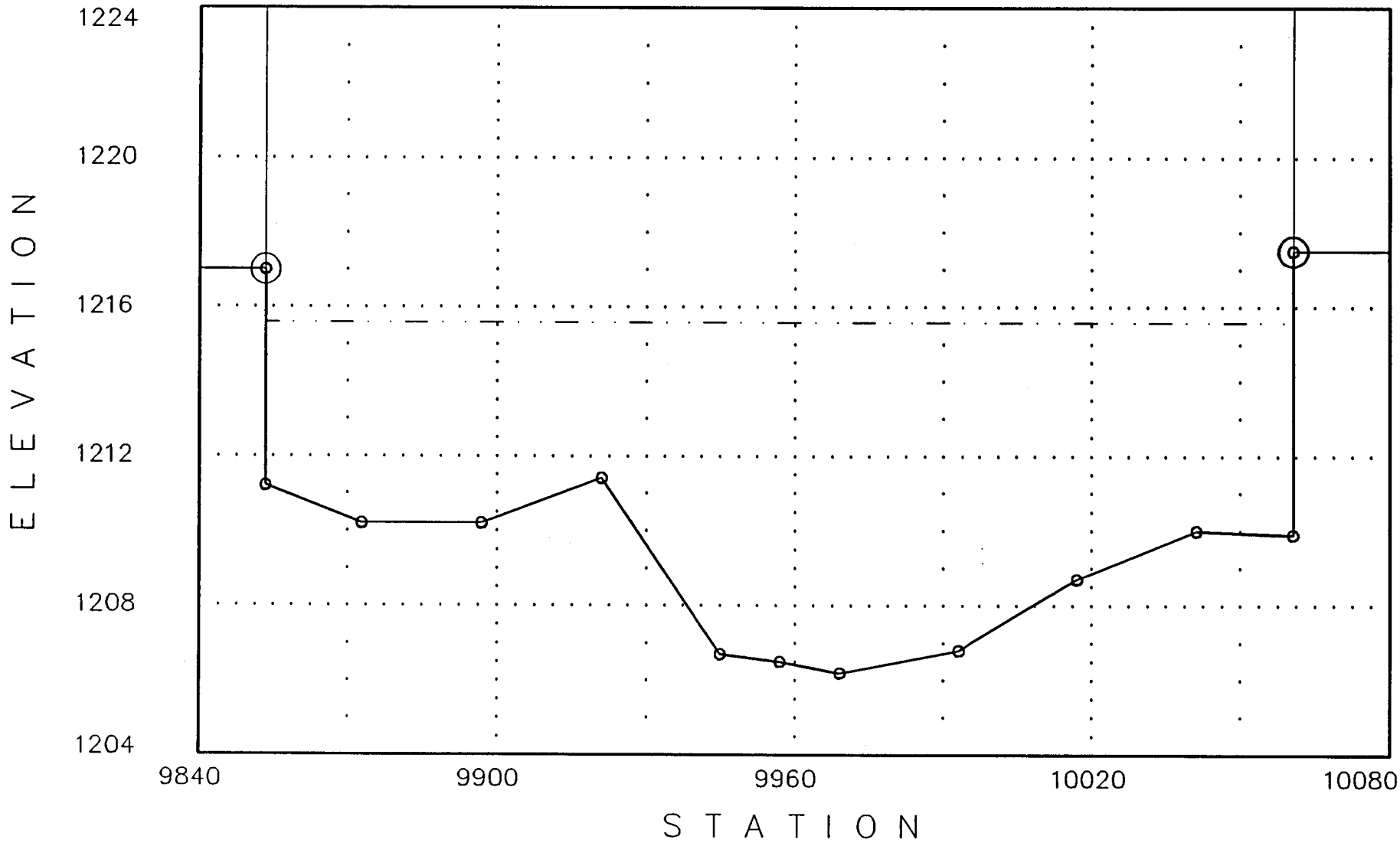



12-07-1990

<<<<<< Cross Section: 2.353: (FN = SKSFUT.O) >>>>>>

Q1= 12720 WS1= 1215.59

Manning-n's: n-lob = .045 n-ch = .038 n-rob = .045



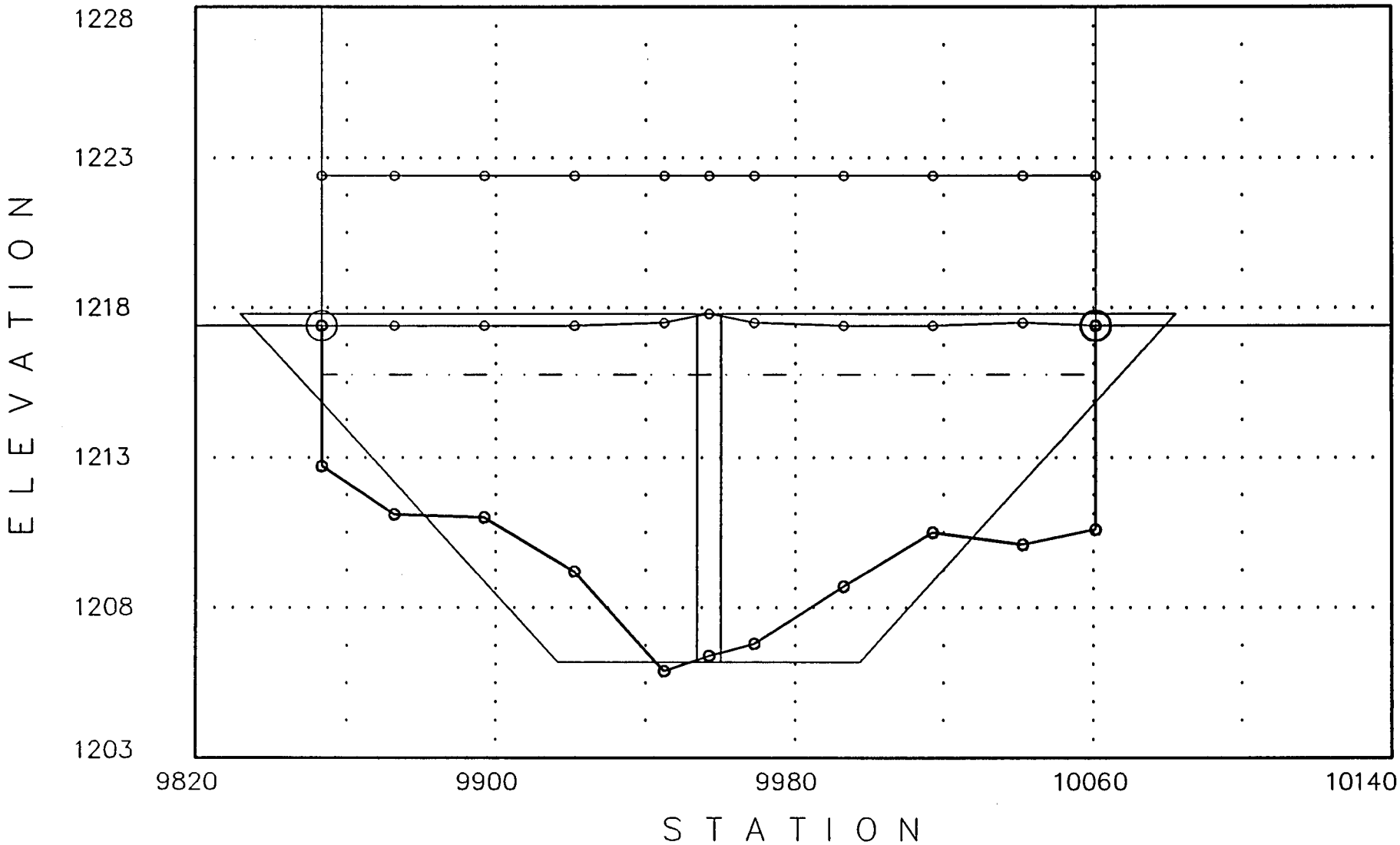

12-07-1990

<<<<<< Cross Section: 2.379: (FN = SKSFUT.O) >>>>>>

Q1= 12720 WS1= 1215.76

Manning-n's: n-lob = .045 n-ch = .038 n-rob = .045

SPECIAL BRIDGE

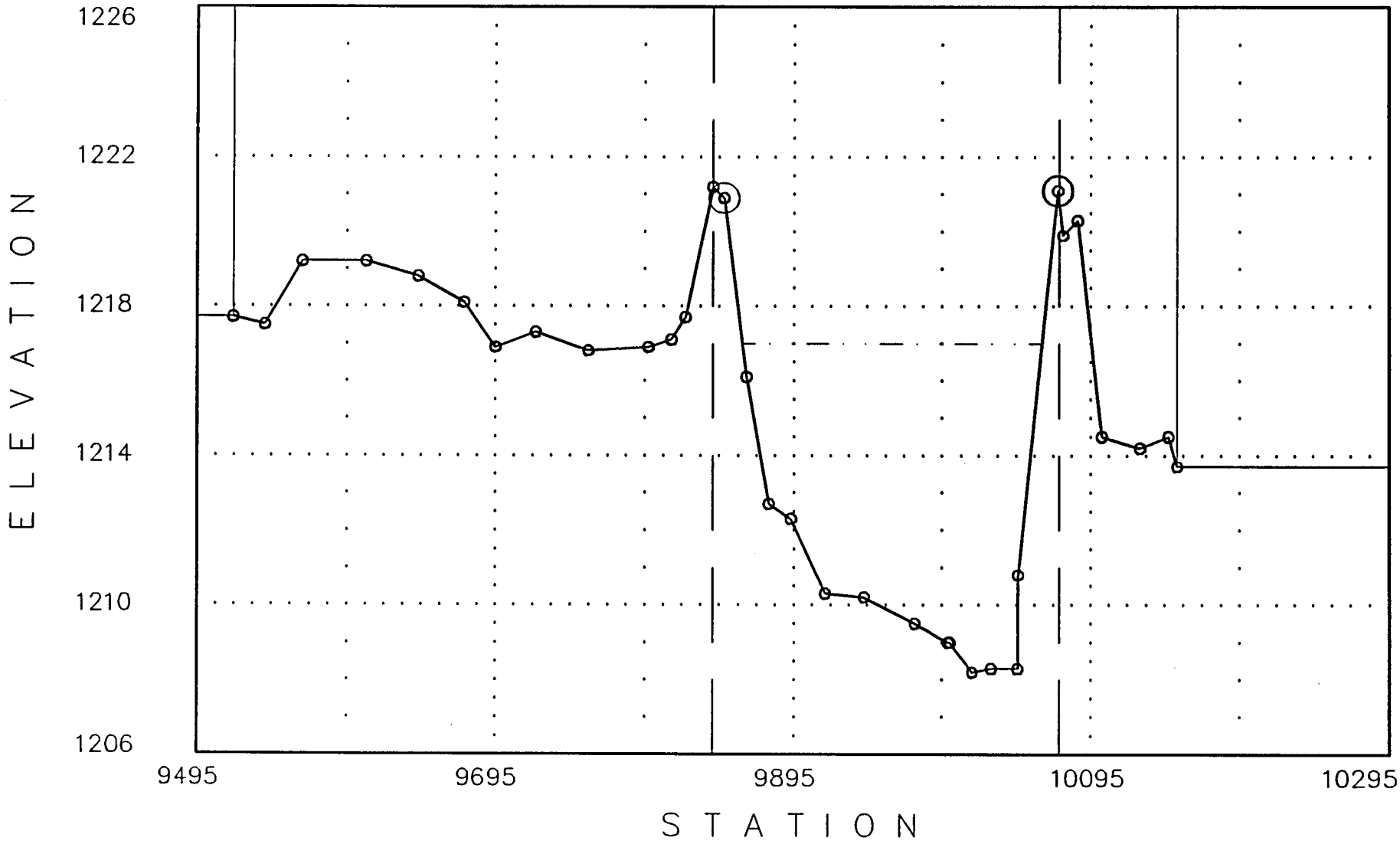



12-07-1990

<<<<<< Cross Section: 2.422: (FN = SKSFUT.O) >>>>>>

Q1= 12580 WS1= 1217

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

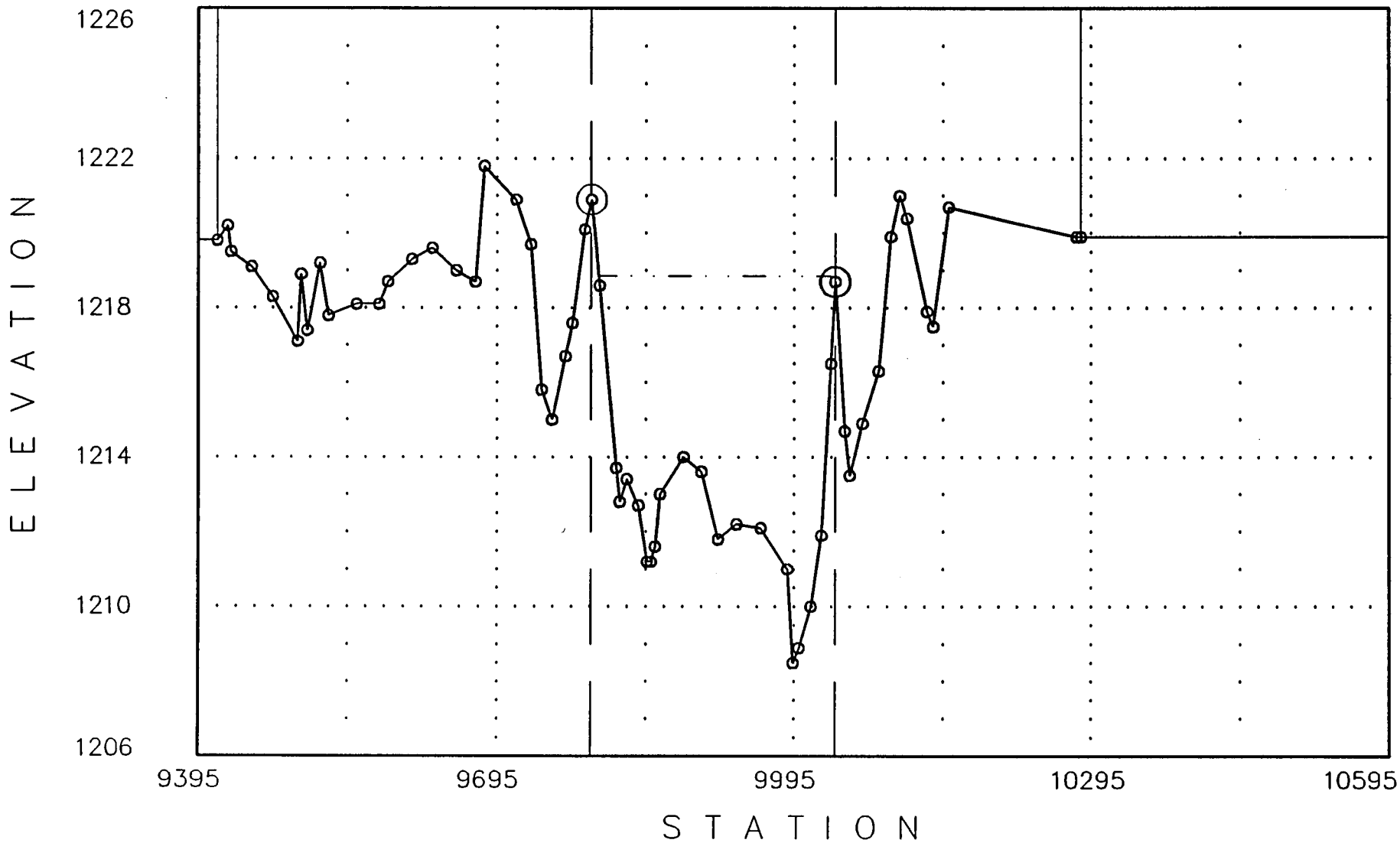



12-07-1990

<<<<<< Cross Section: 2.491: (FN = SKSFUT.O) >>>>>>

Q1= 12580 WS1= 1218.86

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

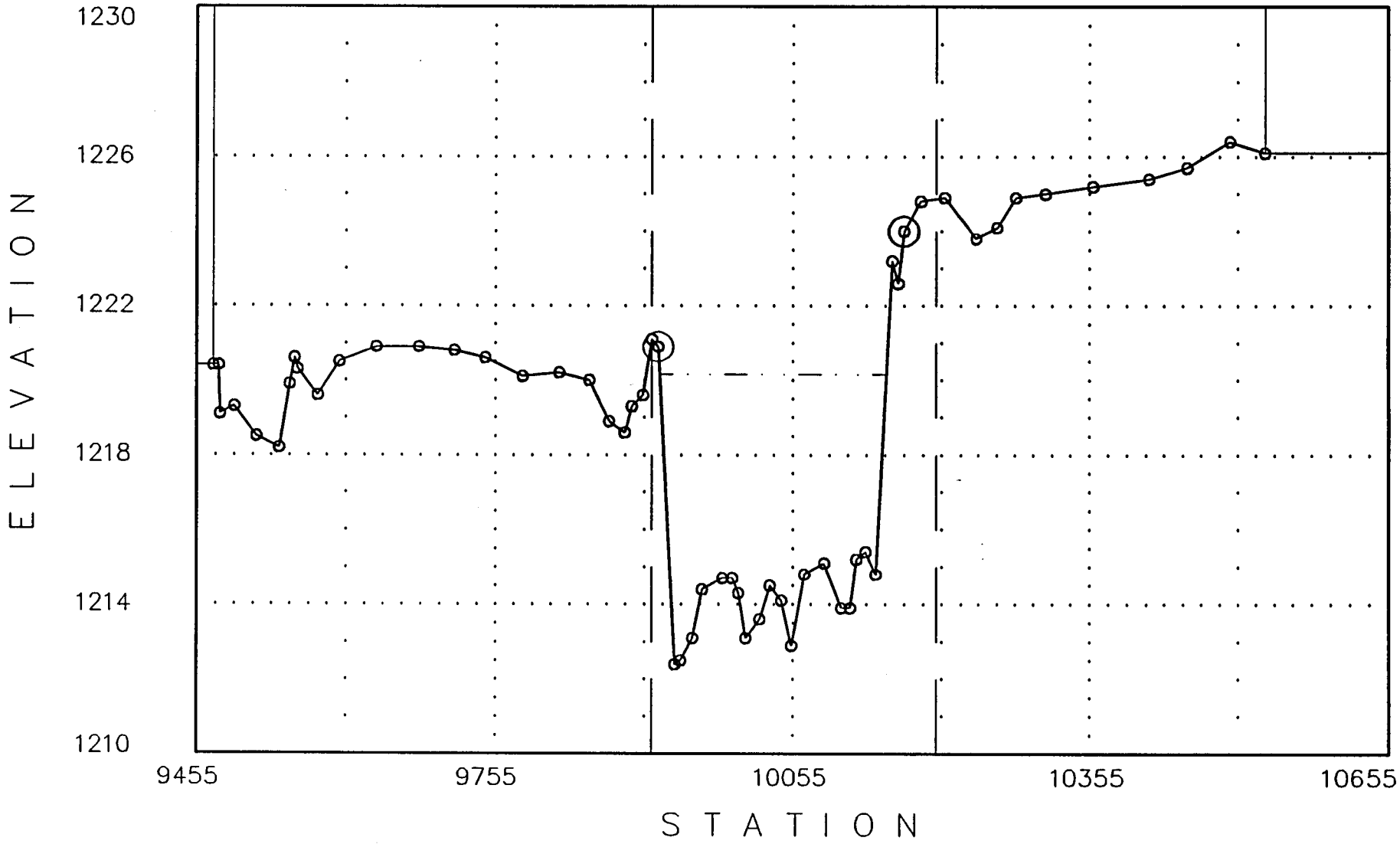



12-07-1990

<<<<<< Cross Section: 2.561: (FN = SKSFUT.O) >>>>>>

Q1= 12580 WS1= 1220.16

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

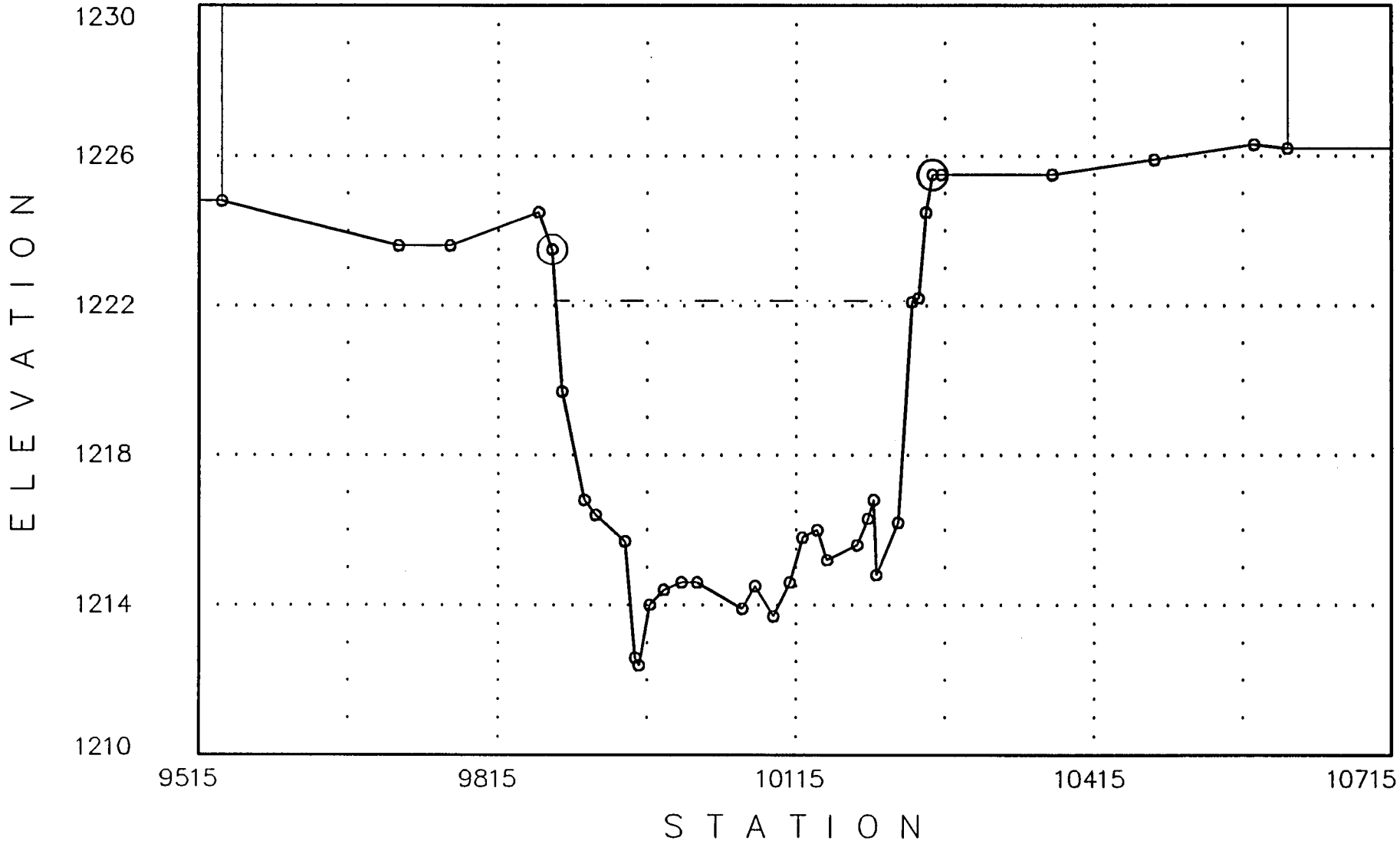



12-07-1990

<<<<<< Cross Section: 2.634: (FN = SKSFUT.O) >>>>>>

Q1= 12580 WS1= 1222.13

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

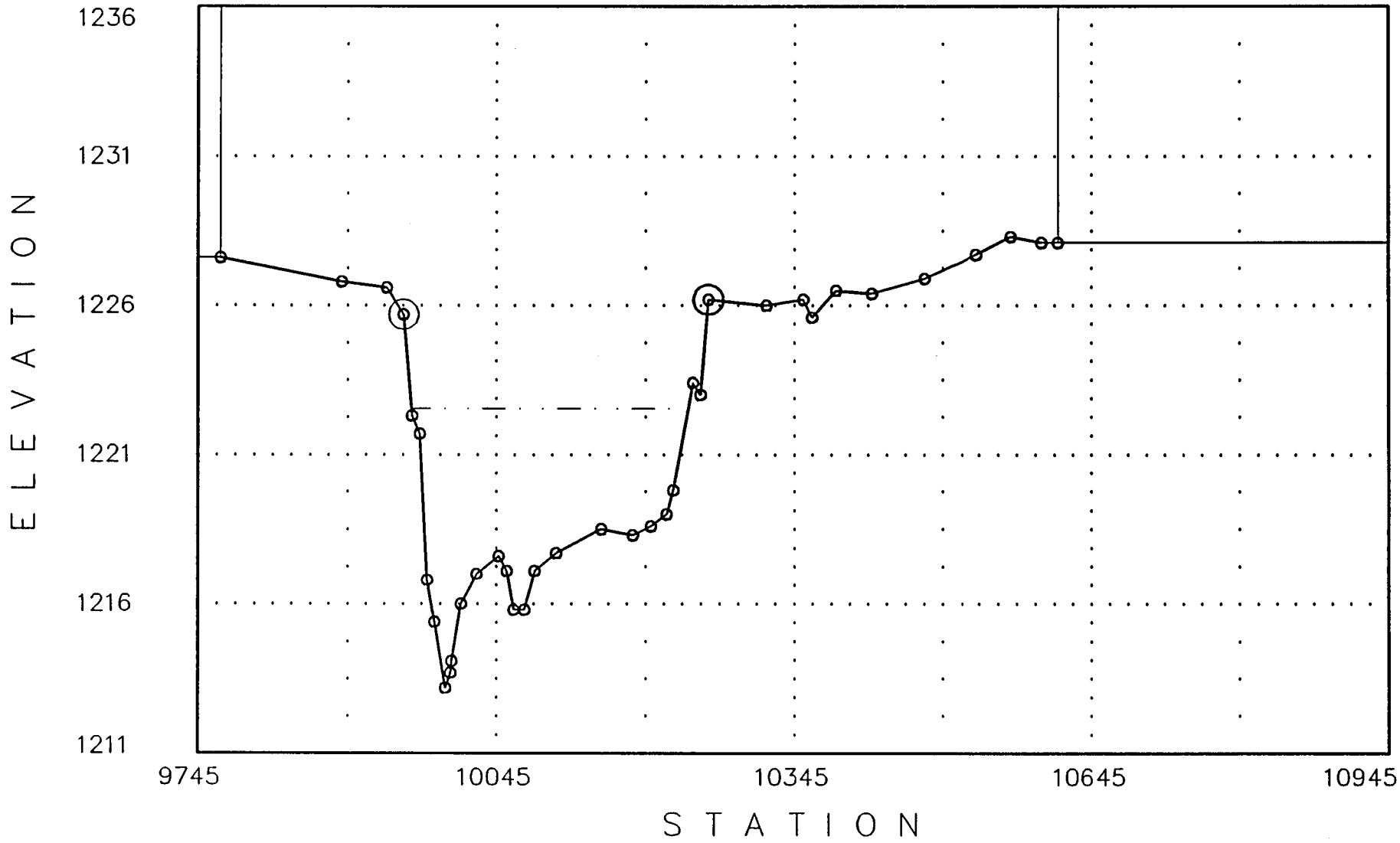



12-07-1990

<<<<<< Cross Section: 2.72: (FN = SKSFUT.O) >>>>>>

Q1= 12370 WS1= 1222.55

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

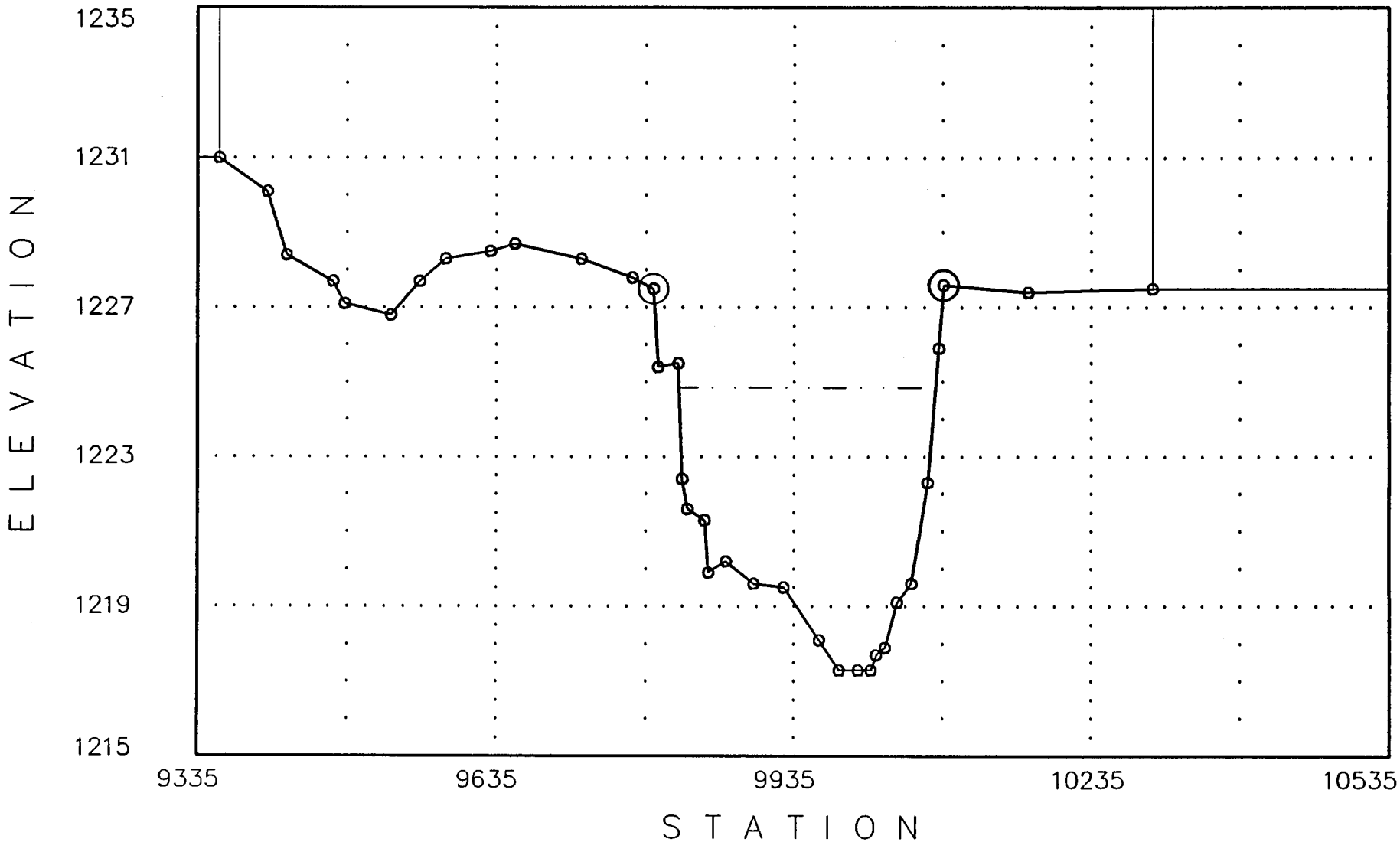



12-07-1990

<<<<<< Cross Section: 2.801: (FN = SKSFUT.O) >>>>>>

Q1= 12370 WS1= 1224.85

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

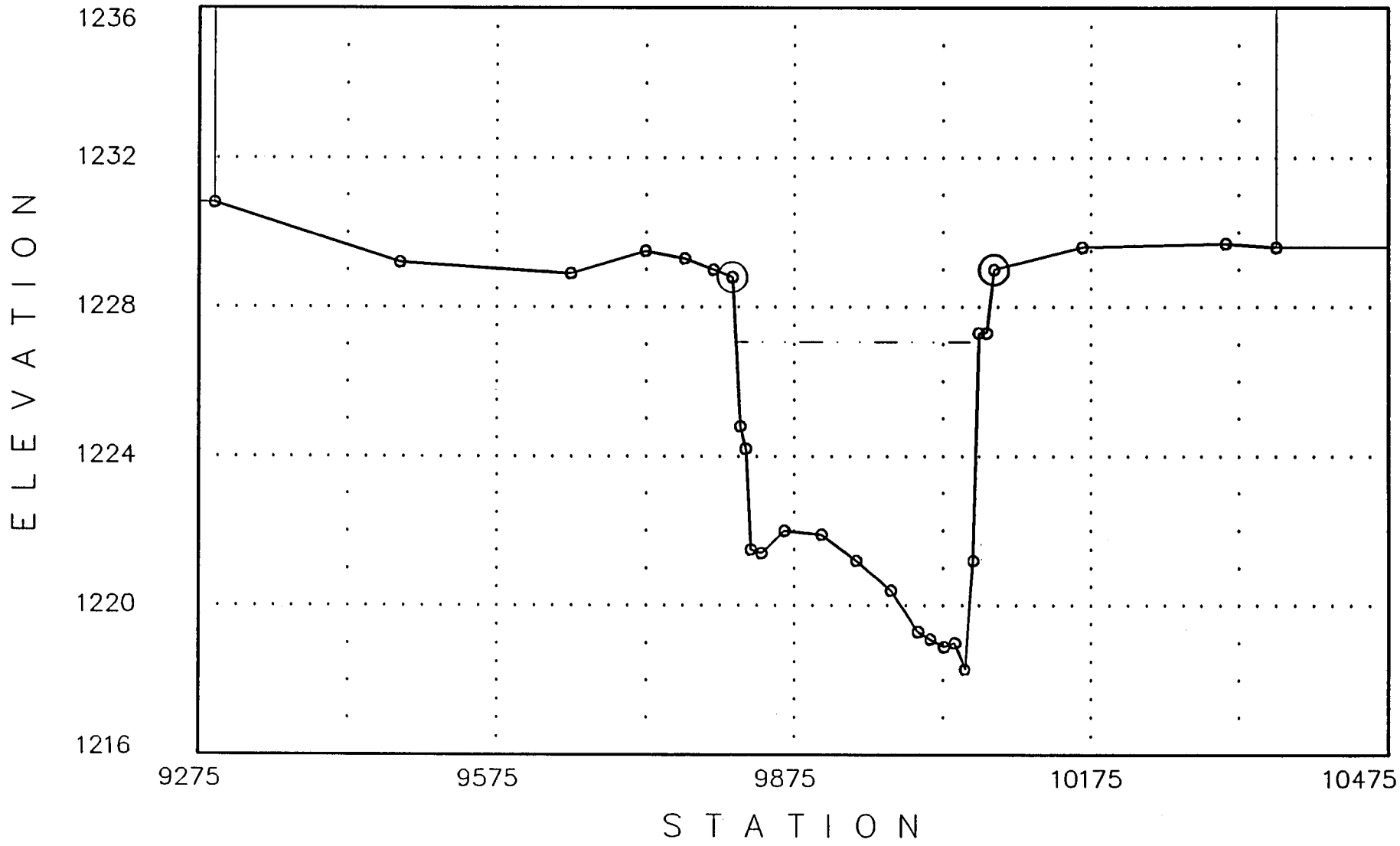



12-07-1990

<<<<<< Cross Section: 2.9: (FN = SKSFUT.O) >>>>>>

Q1= 12370 WS1= 1227.06

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

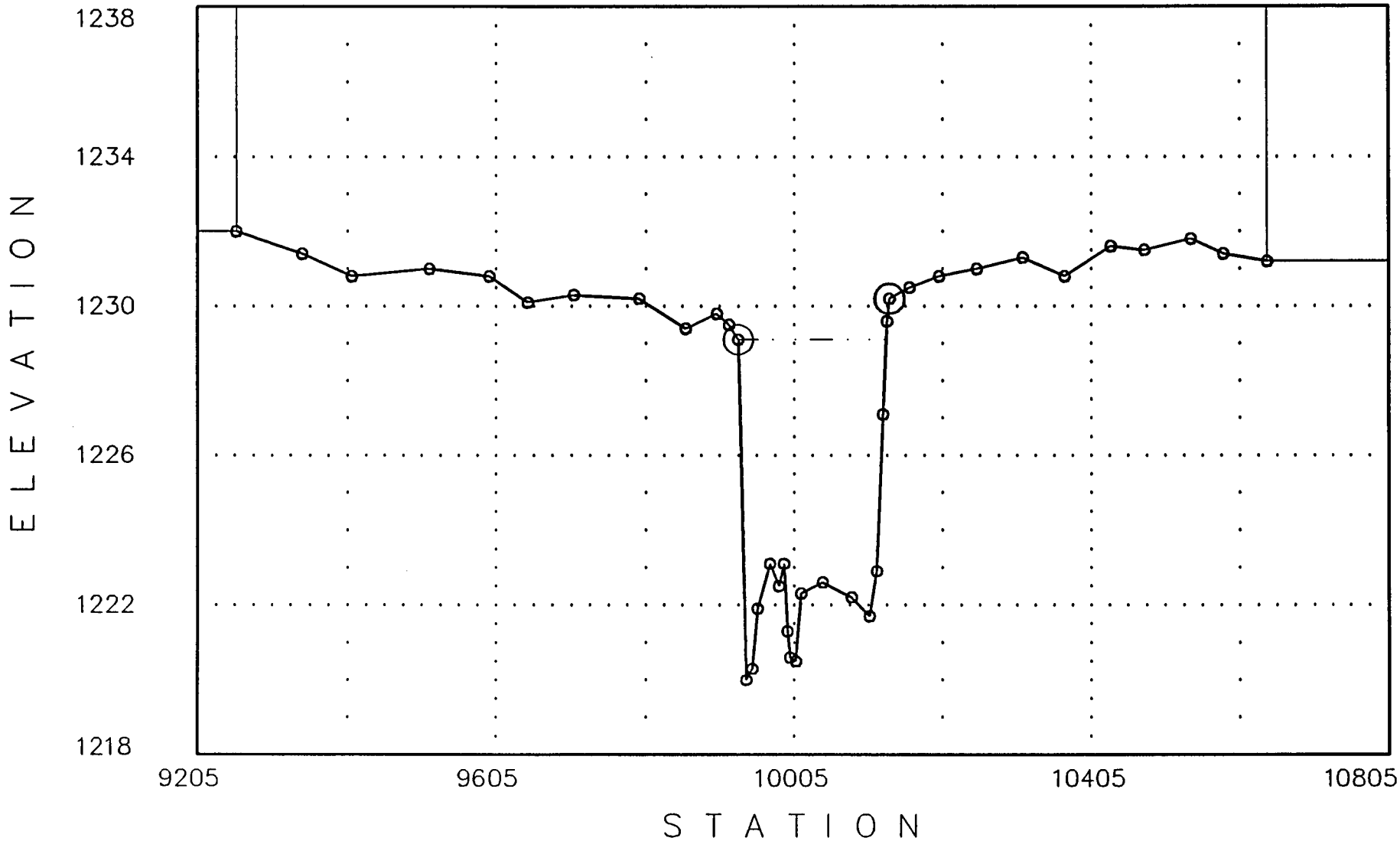



12-07-1990

<<<<<< Cross Section: 3: (FN = SKSFUT.O) >>>>>>

Q1= 12370 WS1= 1229.11

Manning-n's: n-lob = .045 n-ch = .04 n-rob = .045

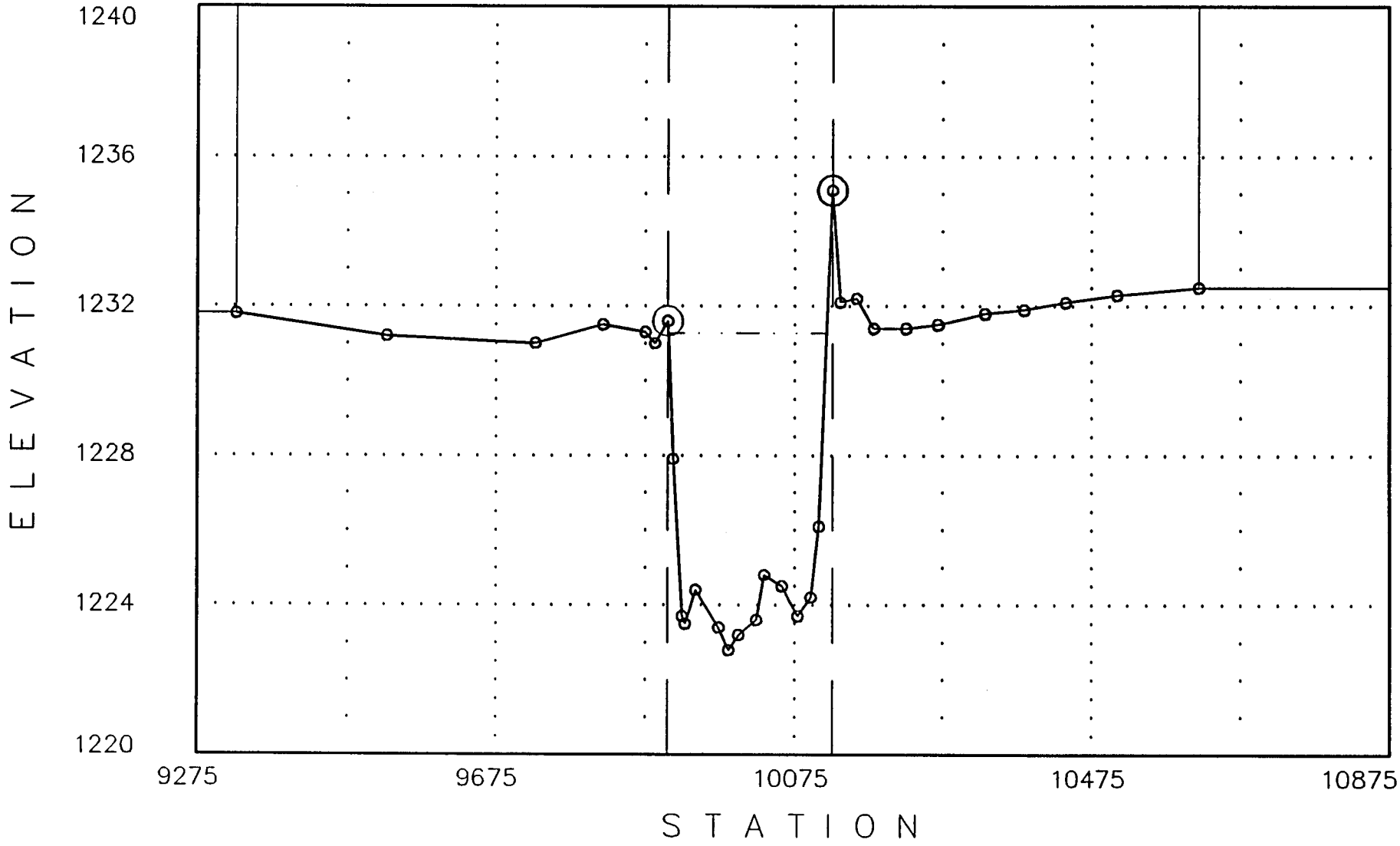



12-07-1990

<<<<<< Cross Section: 3.077: (FN = SKSFUT.O) >>>>>>

Q1= 12160 WS1= 1231.28

Manning-n's: n-lob = .045 n-ch = .04 n-rob = .045

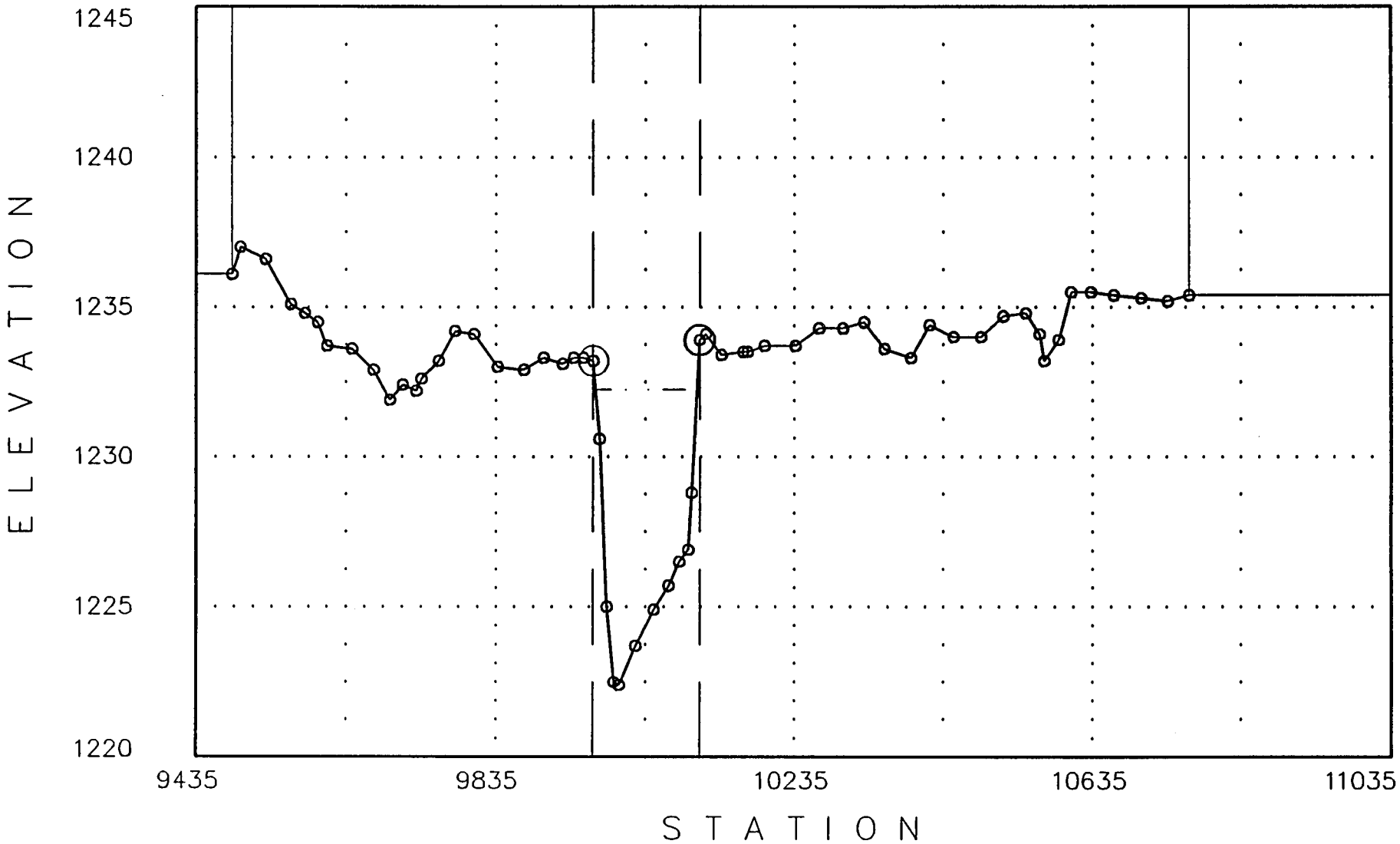



12-07-1990

<<<<<< Cross Section: 3.143: (FN = SKSFUT.O) >>>>>>

Q1= 12160 WS1= 1232.25

Manning-n's: n-lob = .045 n-ch = .04 n-rob = .045

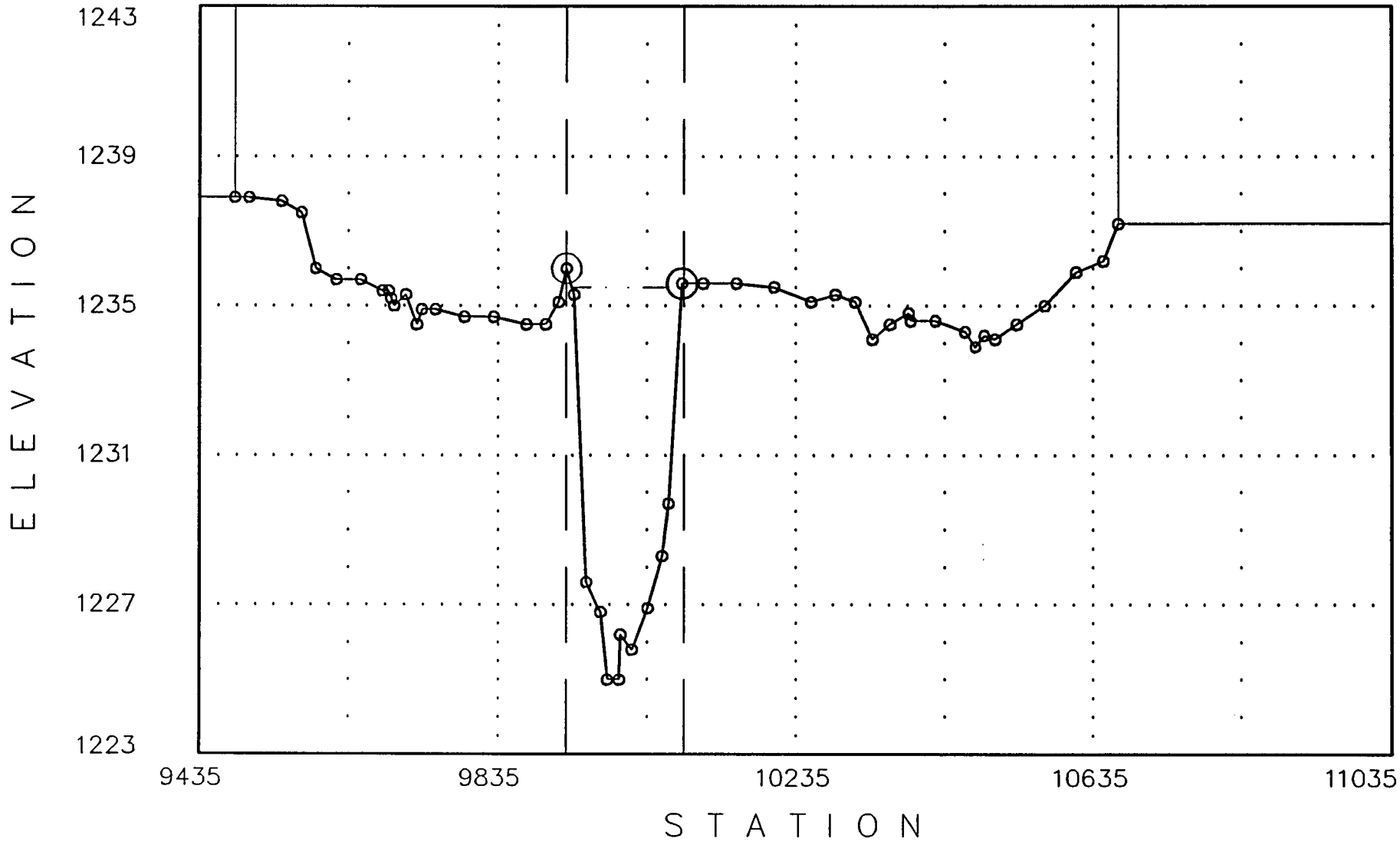



12-07-1990

<<<<<< Cross Section: 3.2: (FN = SKSFUT.O) >>>>>>

Q1= 12160 WS1= 1235.5

Manning-n's: n-lob = .045 n-ch = .04 n-rob = .045

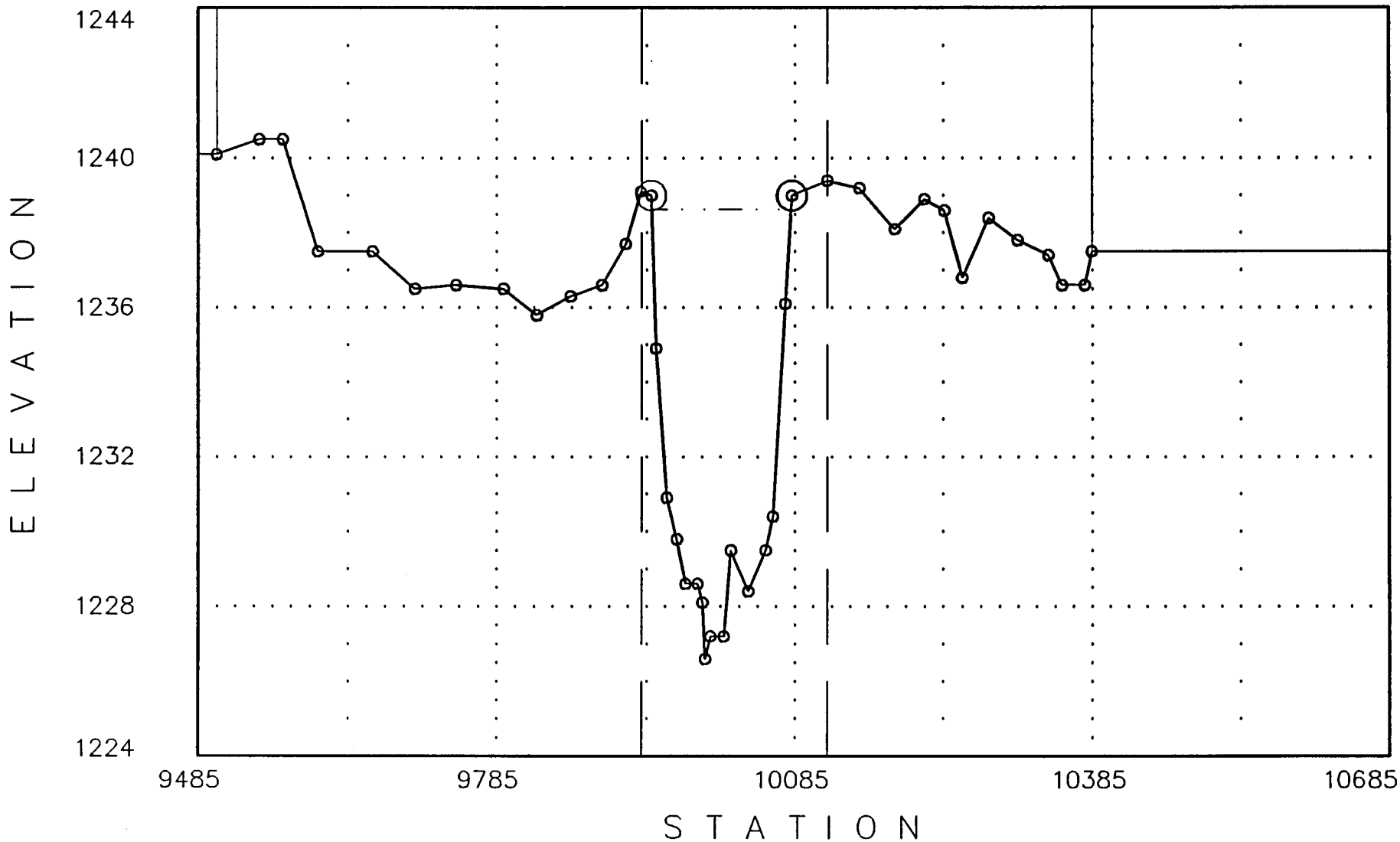



12-07-1990

<<<<<< Cross Section: 3.3: (FN = SKSFUT.O) >>>>>>

Q1= 12160 WS1= 1238.63

Manning-n's: n-lob = .045 n-ch = .04 n-rob = .045

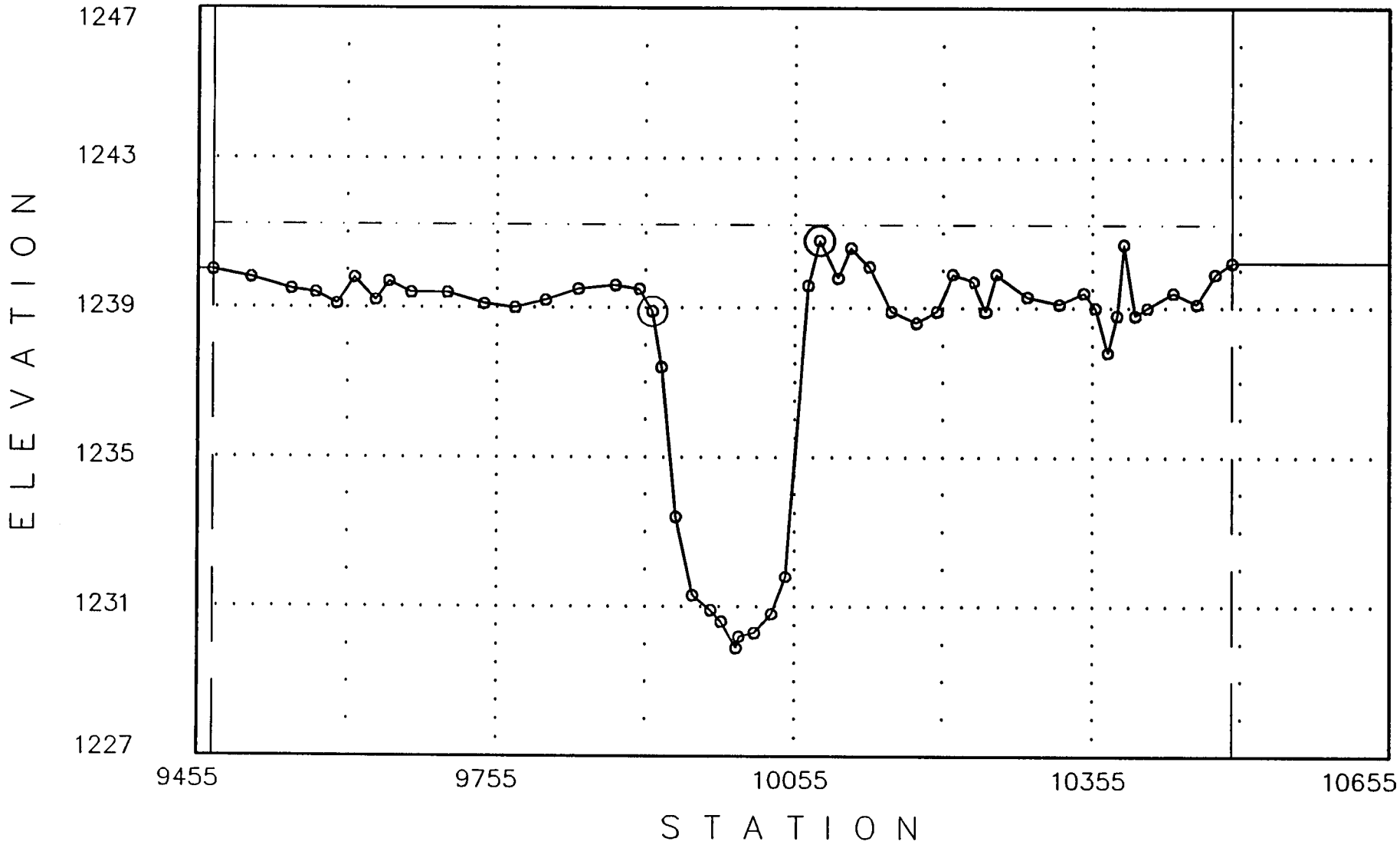



12-07-1990

<<<<<< Cross Section: 3.4: (FN = SKSFUT.O) >>>>>>

Q1= 11950 WS1= 1241.23

Manning-n's: n-lob = .045 n-ch = .04 n-rob = .045

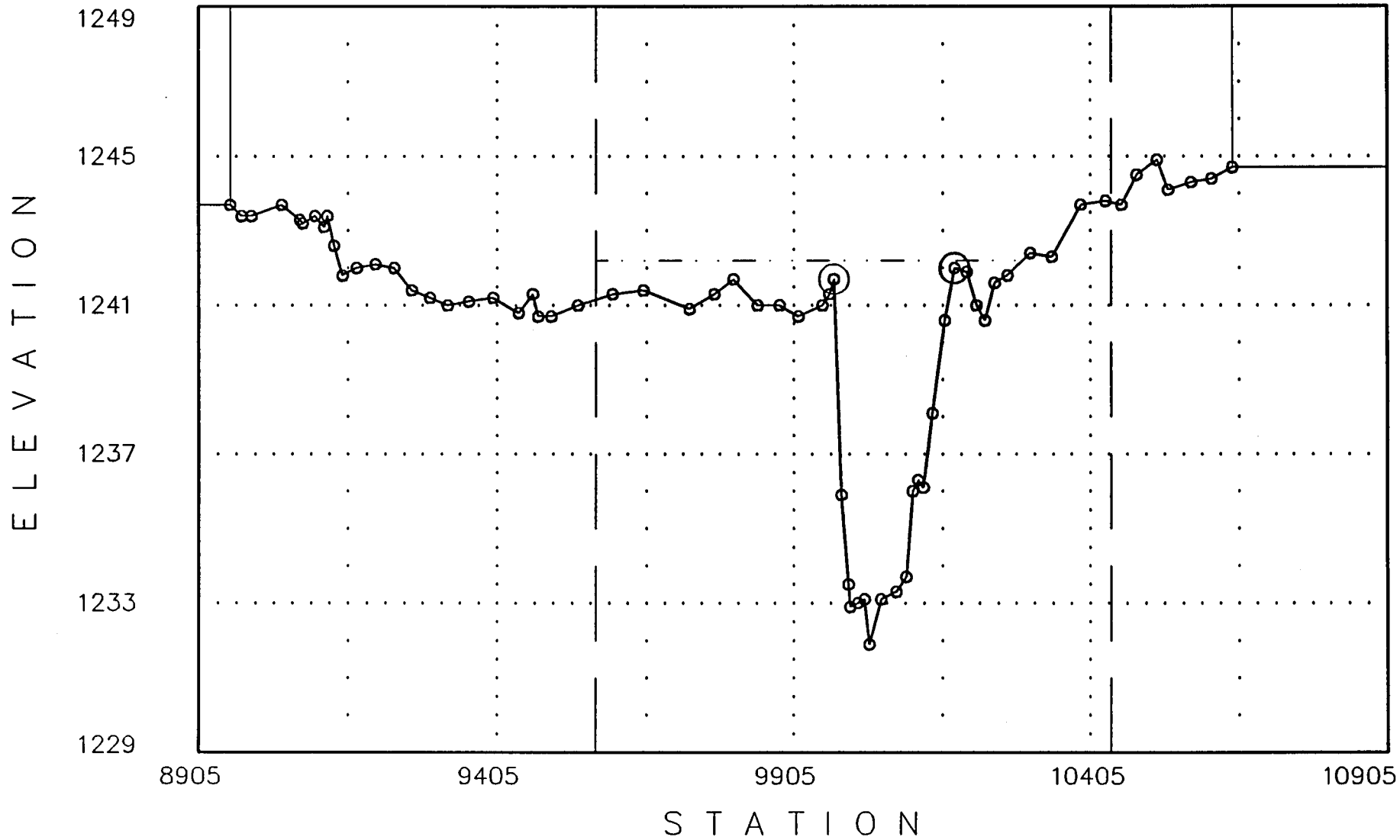



12-07-1990

<<<<<< Cross Section: 3.5: (FN = SKSFUT.O) >>>>>>

Q1= 11950 WS1= 1242.21

Manning-n's: n-lob = .045 n-ch = .04 n-rob = .045

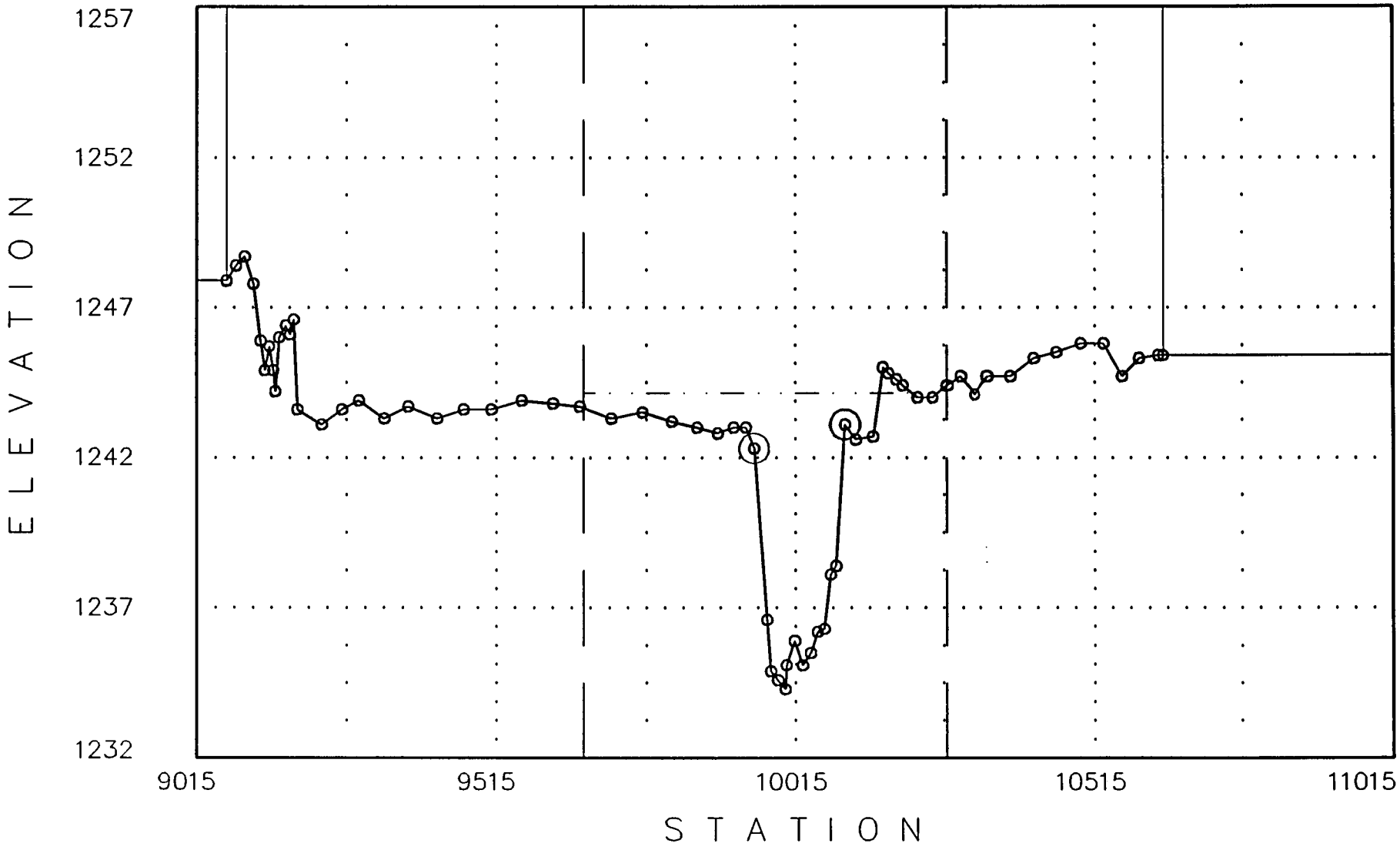



12-07-1990

<<<<<< Cross Section: 3.6: (FN = SKSFUT.O) >>>>>>

Q1= 11950 WS1= 1244.14

Manning-n's: n-lob = .045 n-ch = .04 n-rob = .045

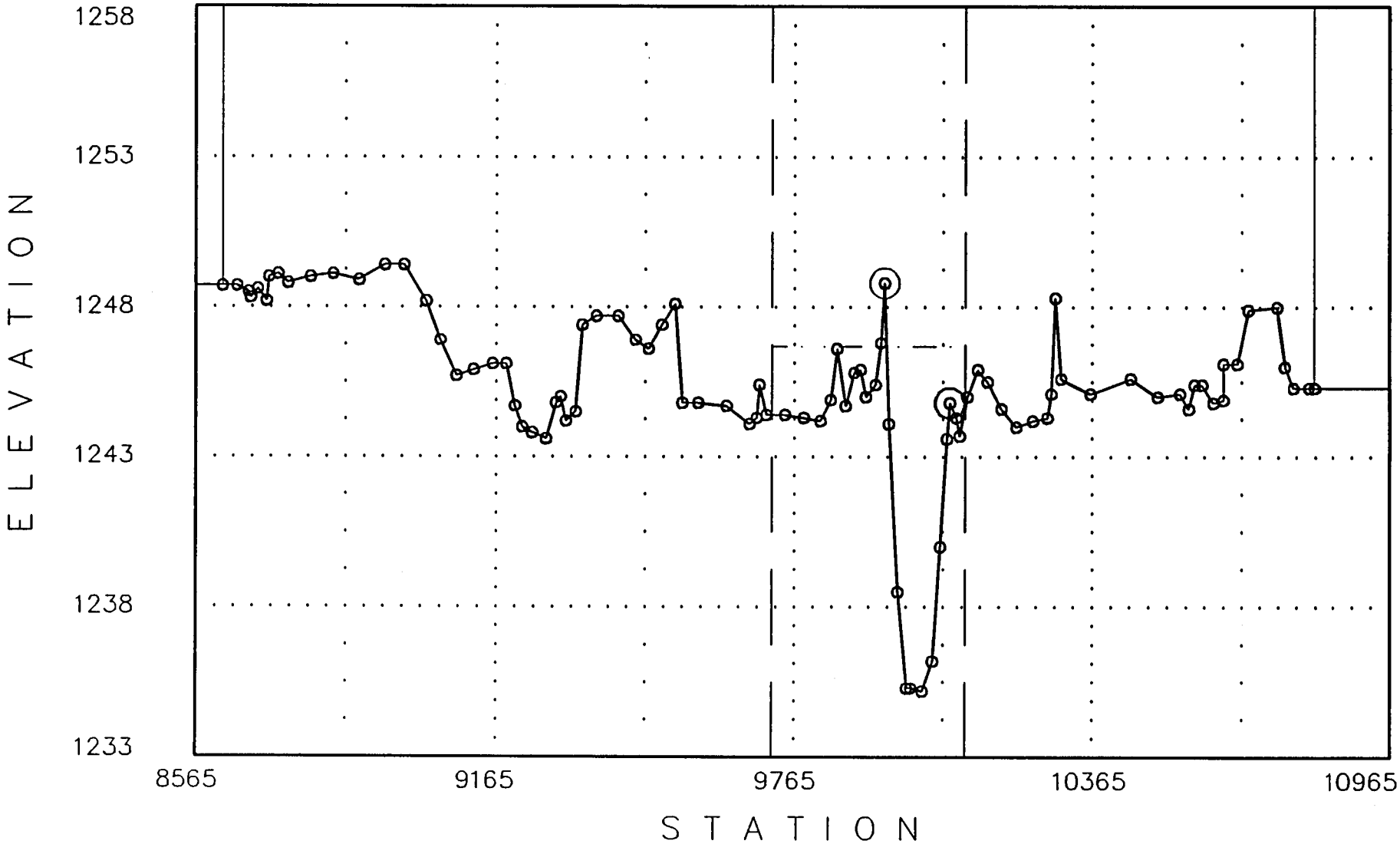



12-07-1990

<<<<<< Cross Section: 3.7: (FN = SKSFUT.O) >>>>>>

Q1= 11950 WS1= 1246.68

Manning-n's: n-lob = .045 n-ch = .04 n-rob = .045

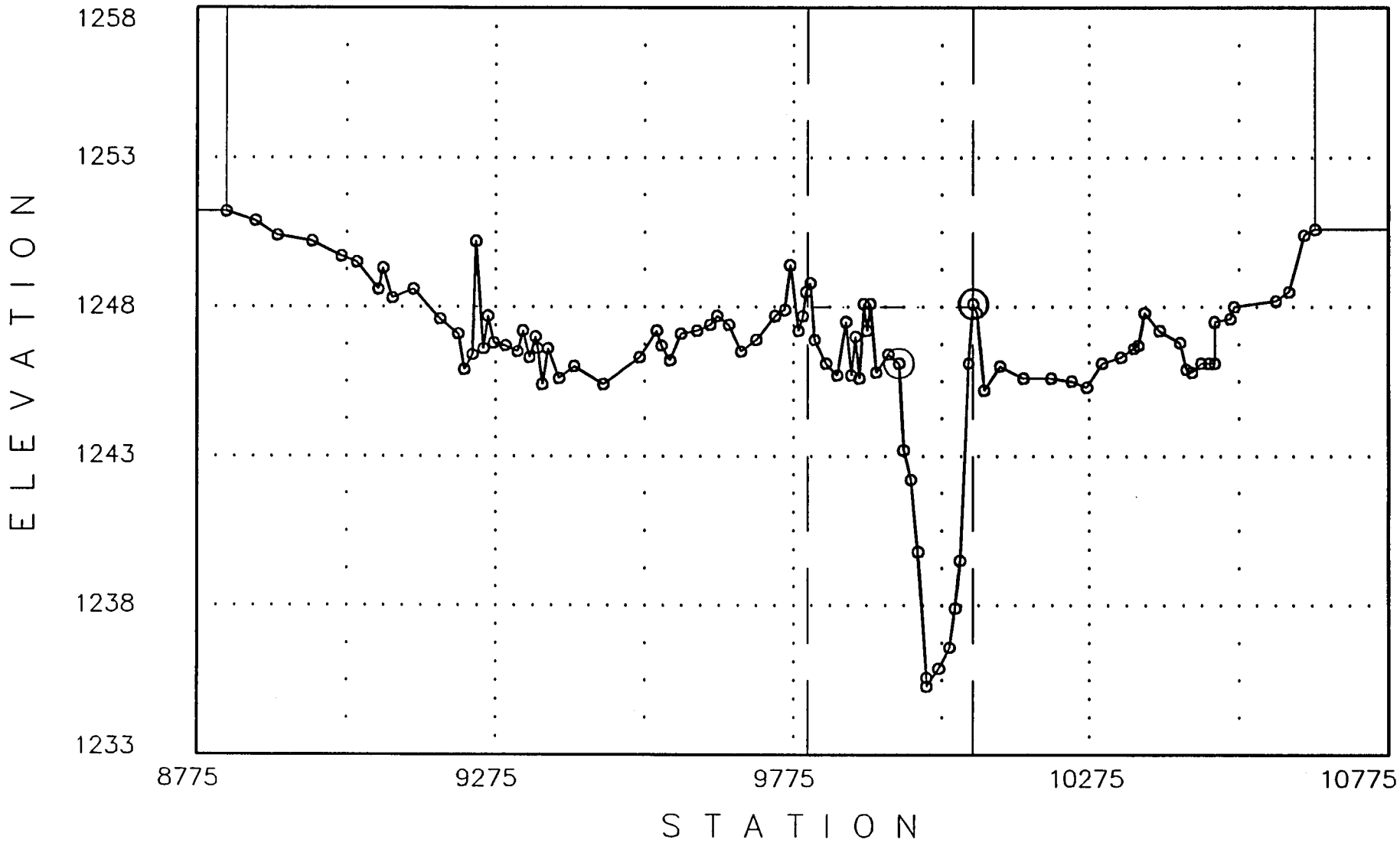



12-07-1990

<<<<<< Cross Section: 3.767: (FN = SKSFUT.O) >>>>>>

Q1= 11670 WS1= 1248

Manning-n's: n-lob = .045 n-ch = .04 n-rob = .045

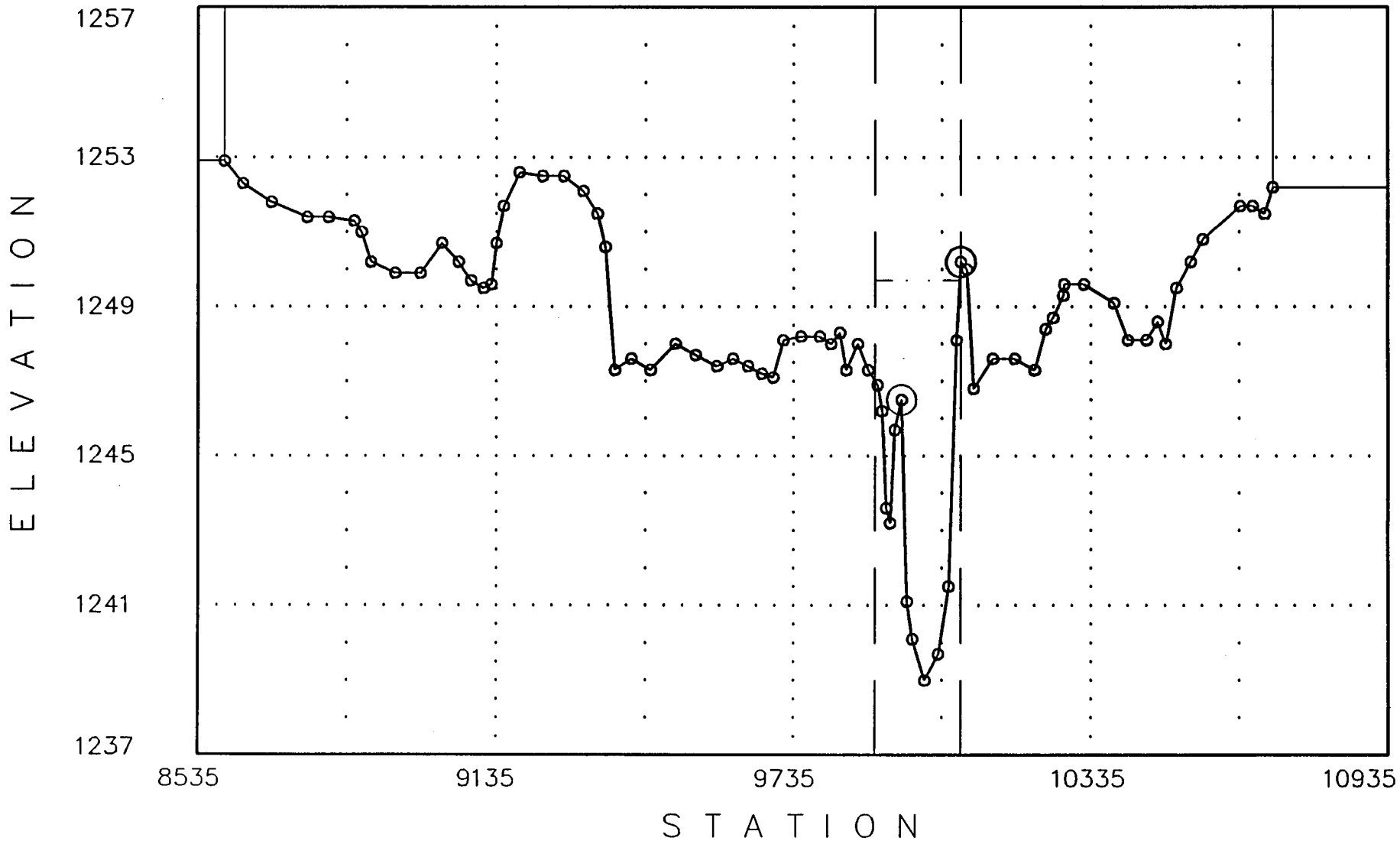



12-07-1990

<<<<<< Cross Section: 3.84: (FN = SKSFUT.O) >>>>>>

Q1= 11670 WS1= 1249.71

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

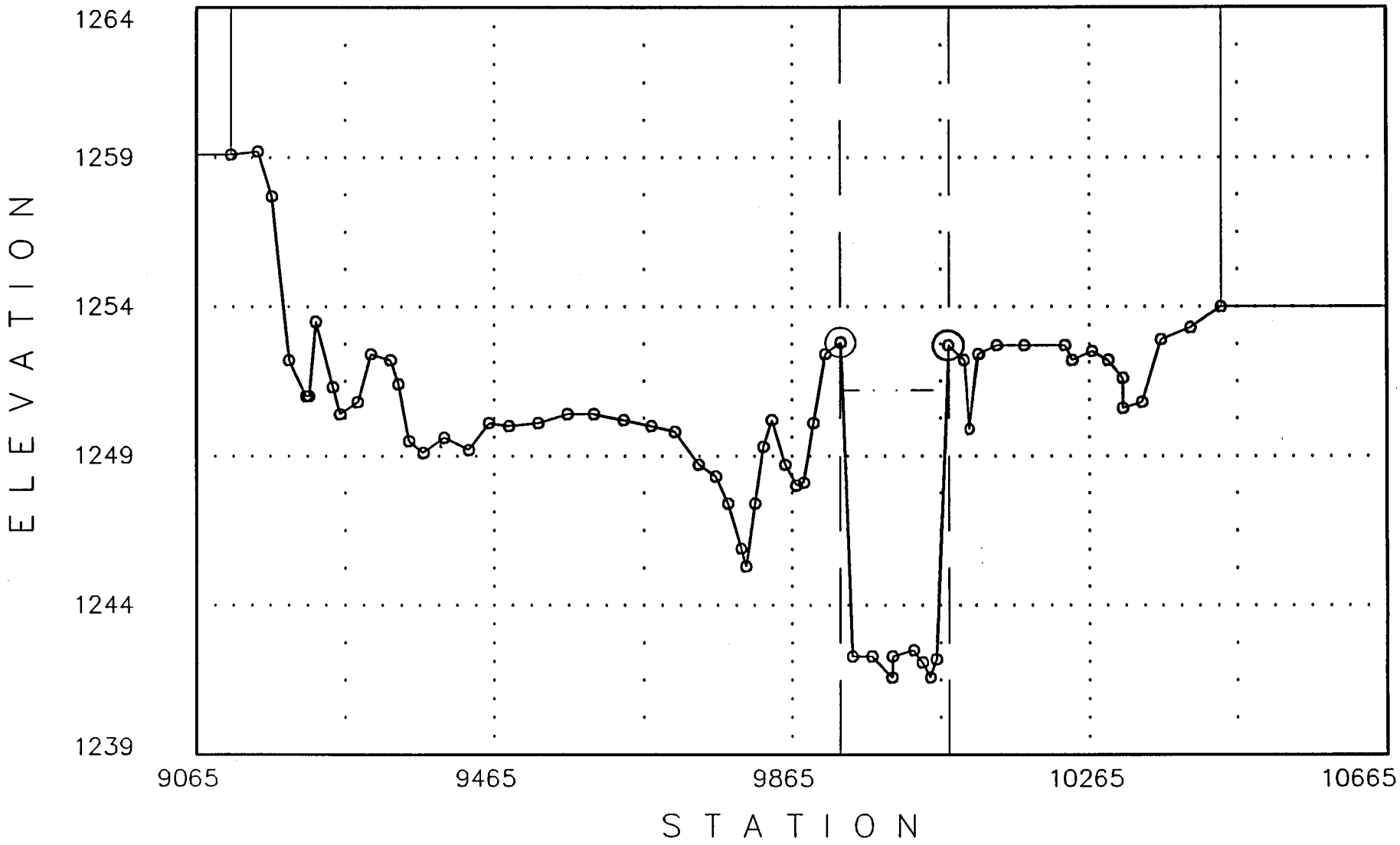



12-07-1990

<<<<<< Cross Section: 3.916: (FN = SKSFUT.O) >>>>>>

Q1= 11670 WS1= 1251.2

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

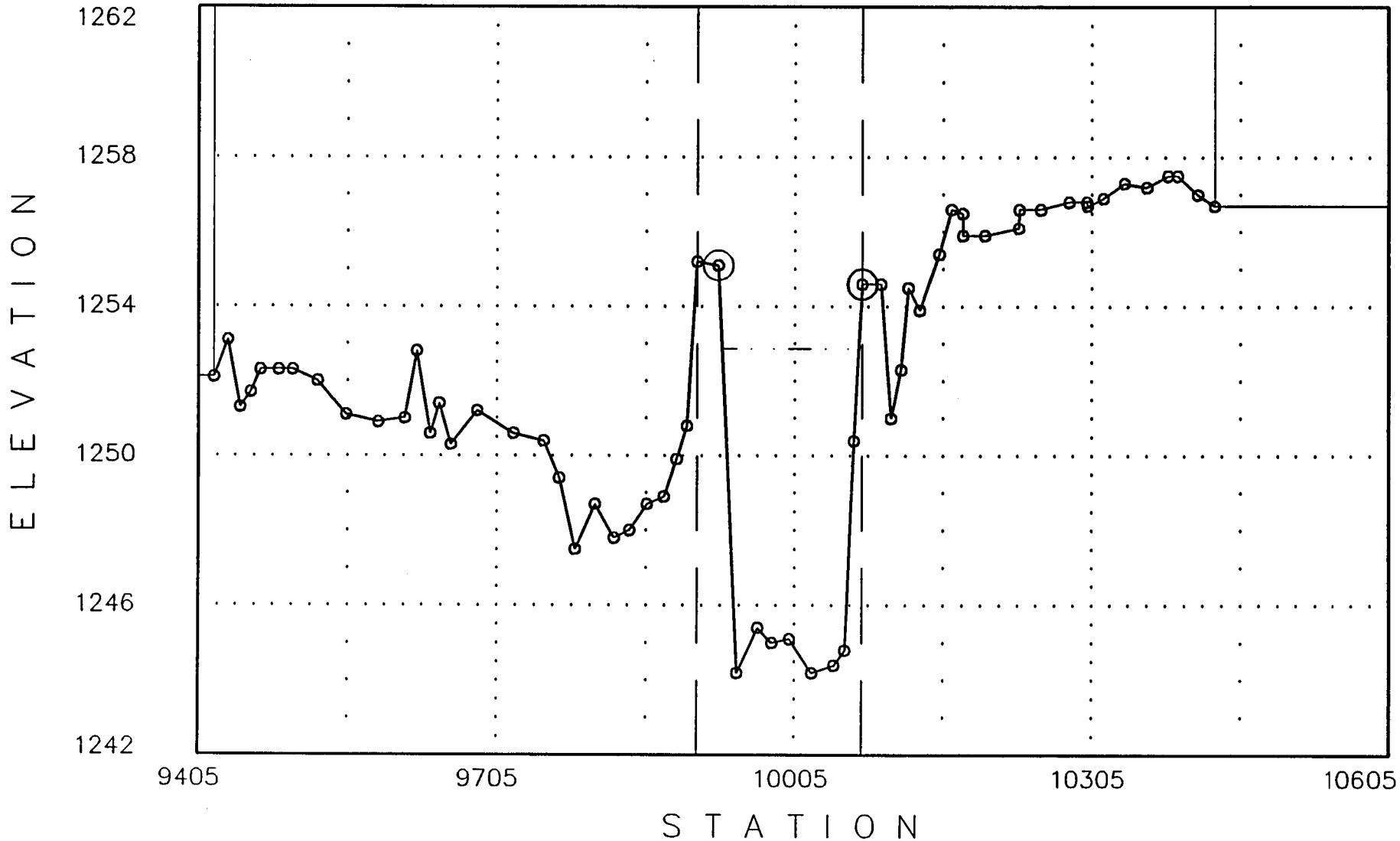



12-07-1990

<<<<<< Cross Section: 4: (FN = SKSFUT.O) >>>>>>

Q1= 11670 WS1= 1252.87

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

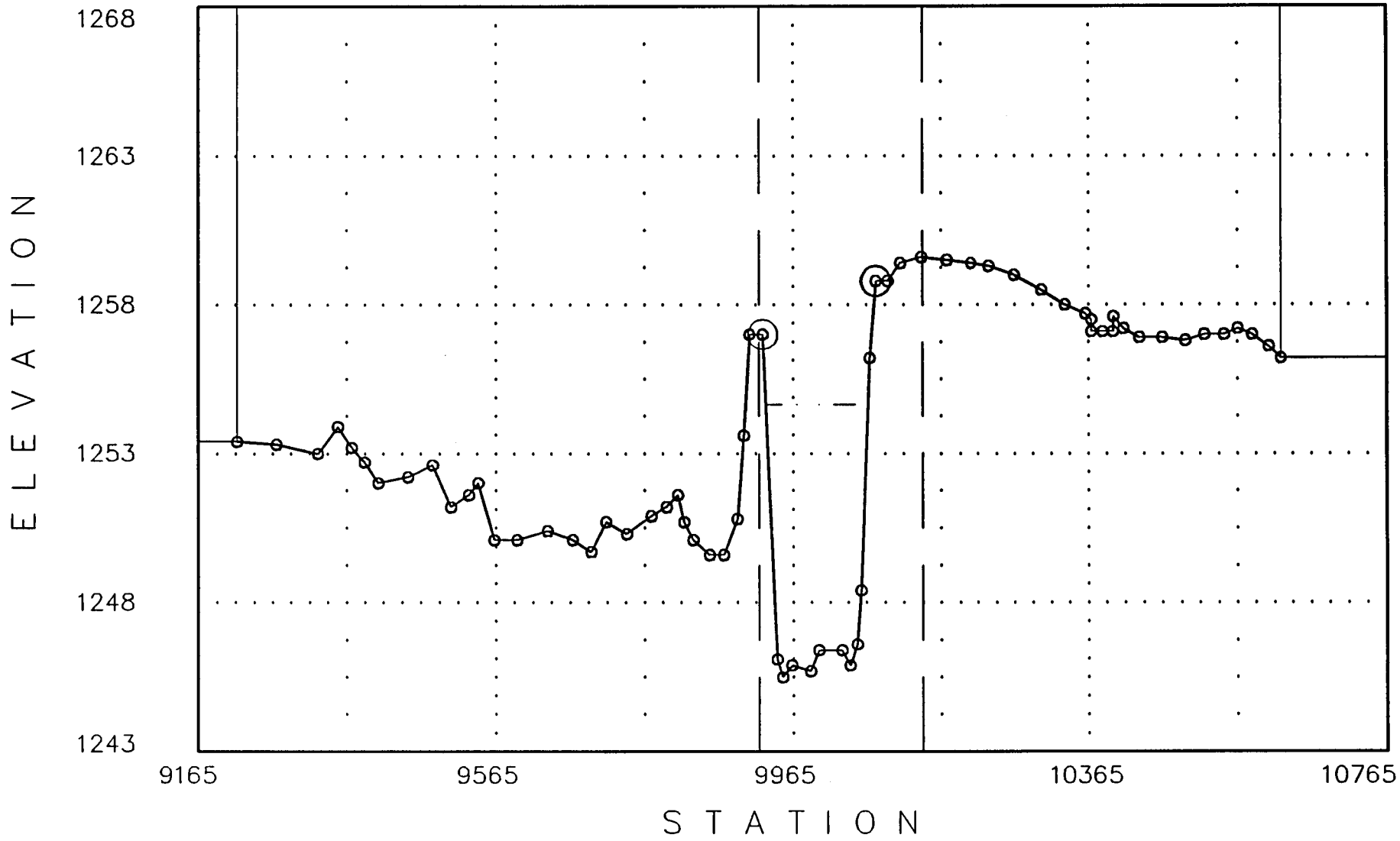



12-07-1990

<<<<<< Cross Section: 4.057: (FN = SKSFUT.O) >>>>>>

Q1= 11460 WS1= 1254.65

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

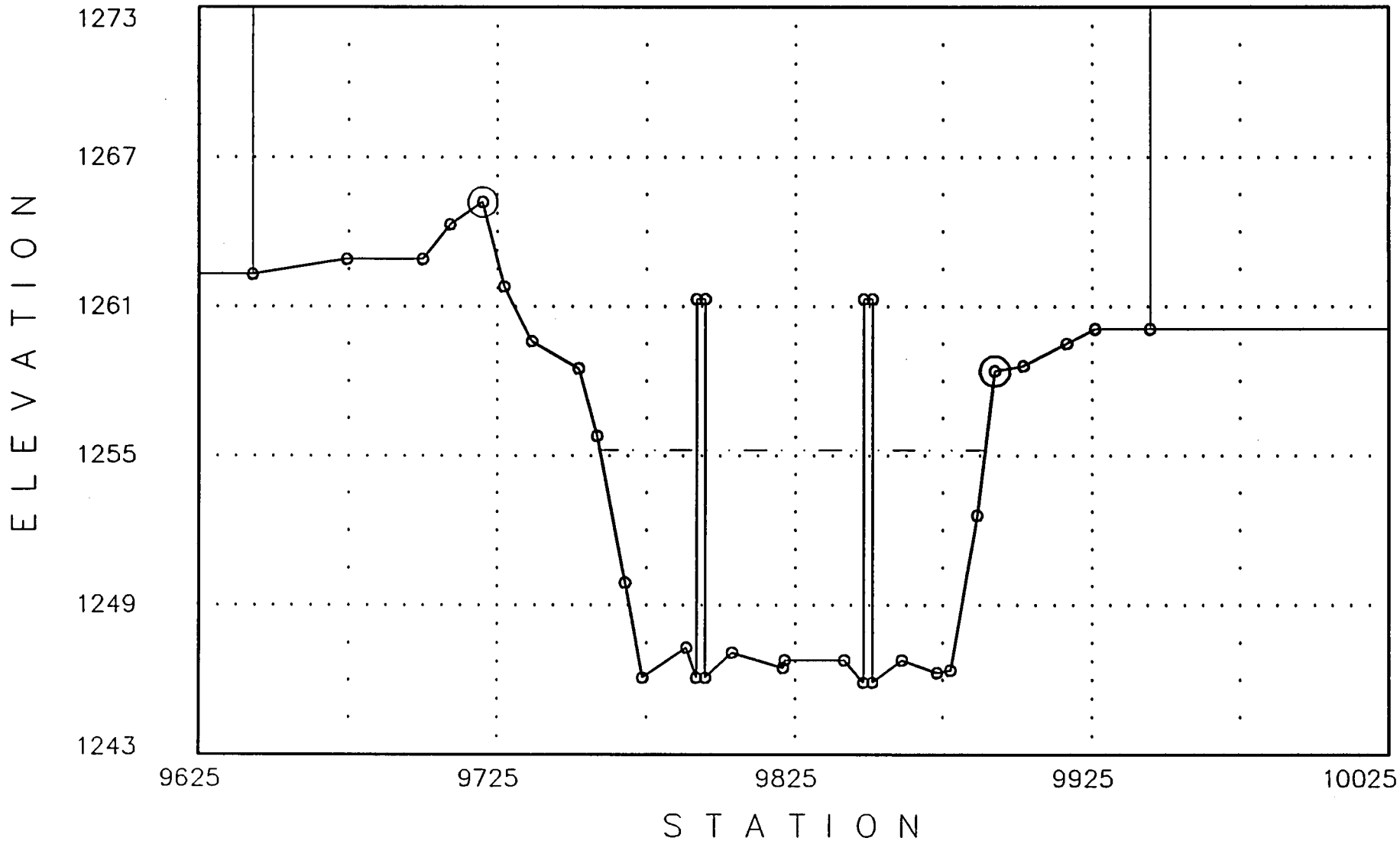



12-07-1990

<<<<<< Cross Section: 4.082: (FN = SKSFUT.O) >>>>>>

Q1= 11460 WS1= 1255.23

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

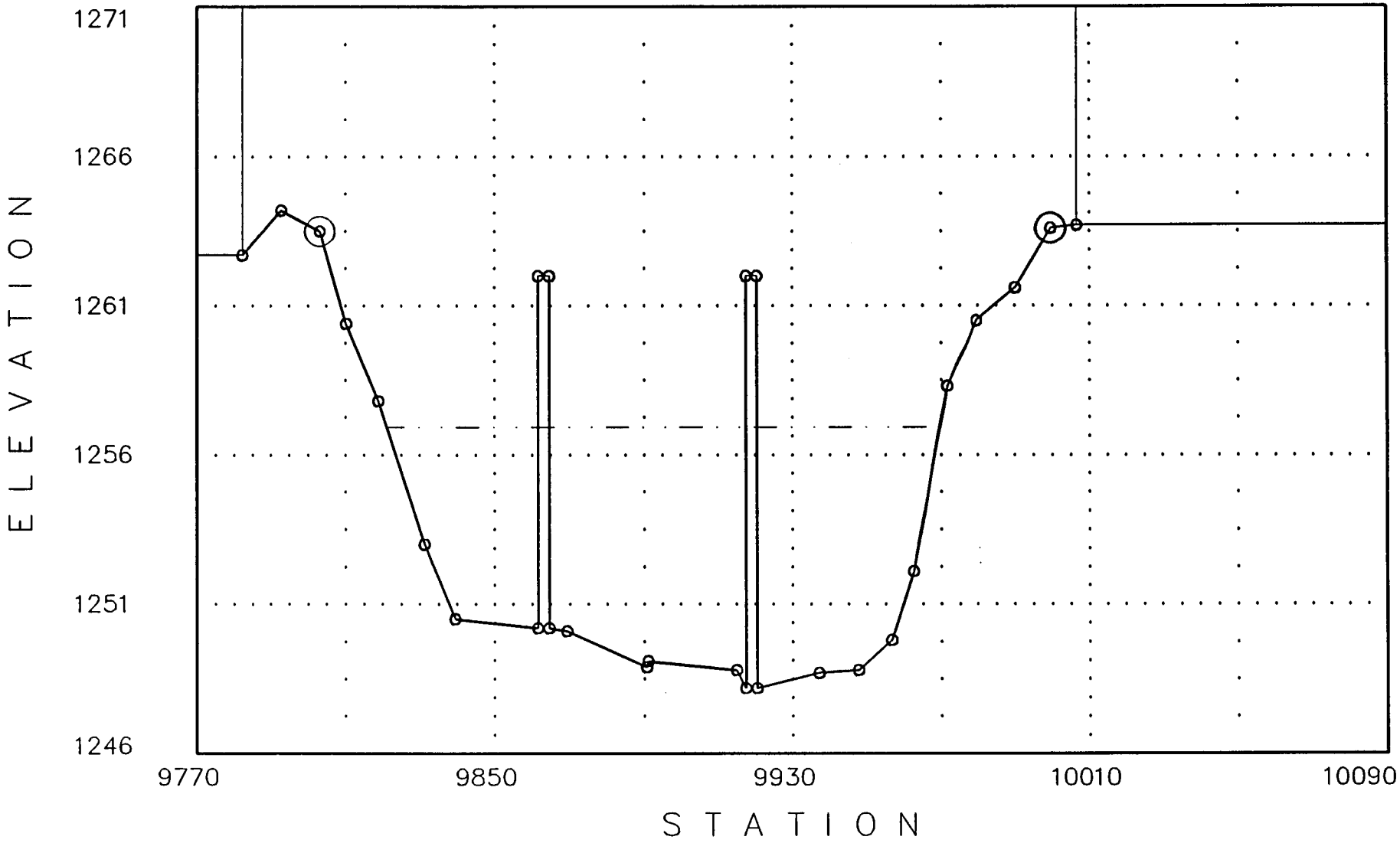



12-07-1990

<<<<<< Cross Section: 4.131: (FN = SKSFUT.O) >>>>>>

Q1= 11460 WS1= 1256.93

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

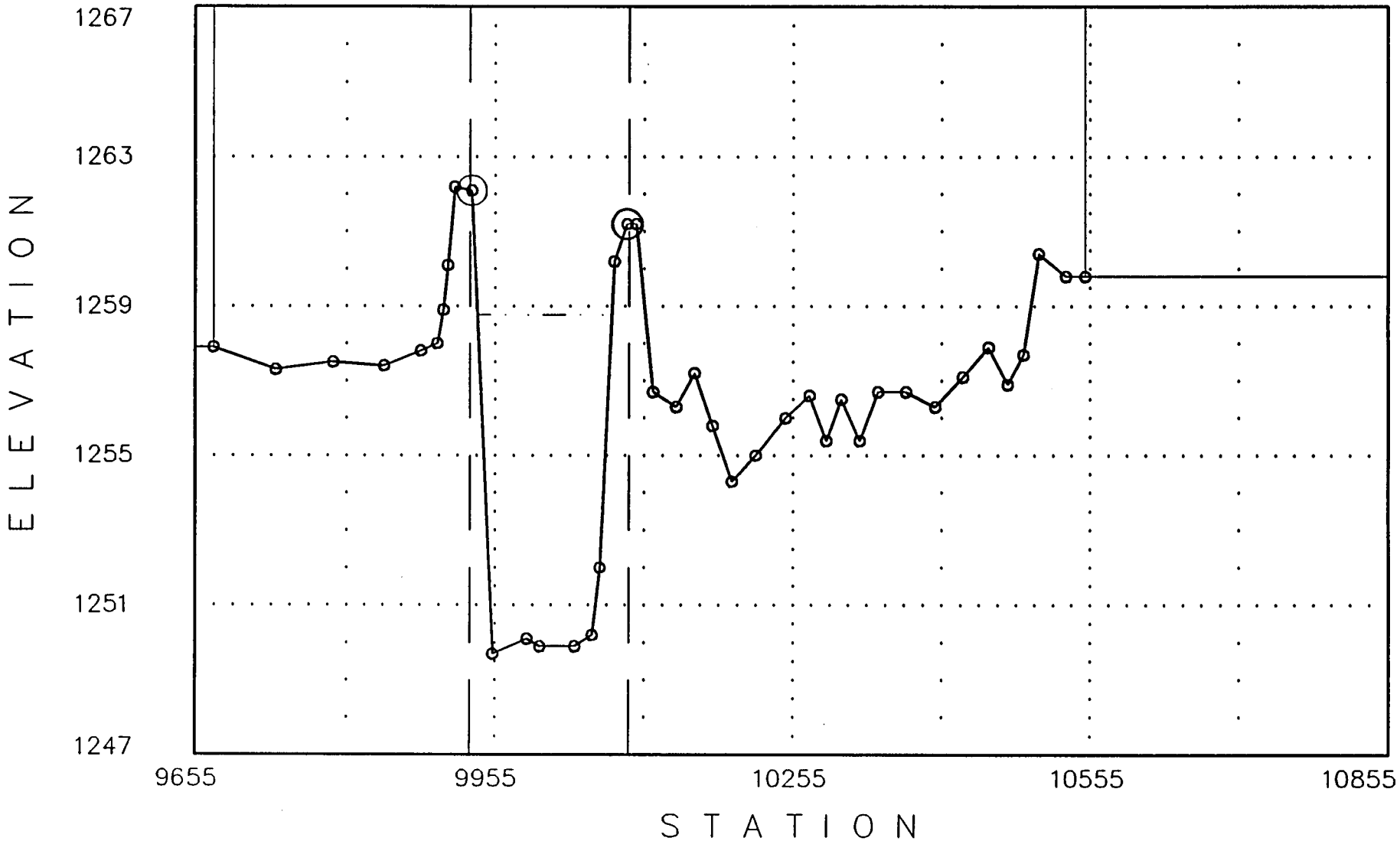



12-07-1990

<<<<<< Cross Section: 4.177: (FN = SKSFUT.O) >>>>>>

Q1= 11460 WS1= 1258.77

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

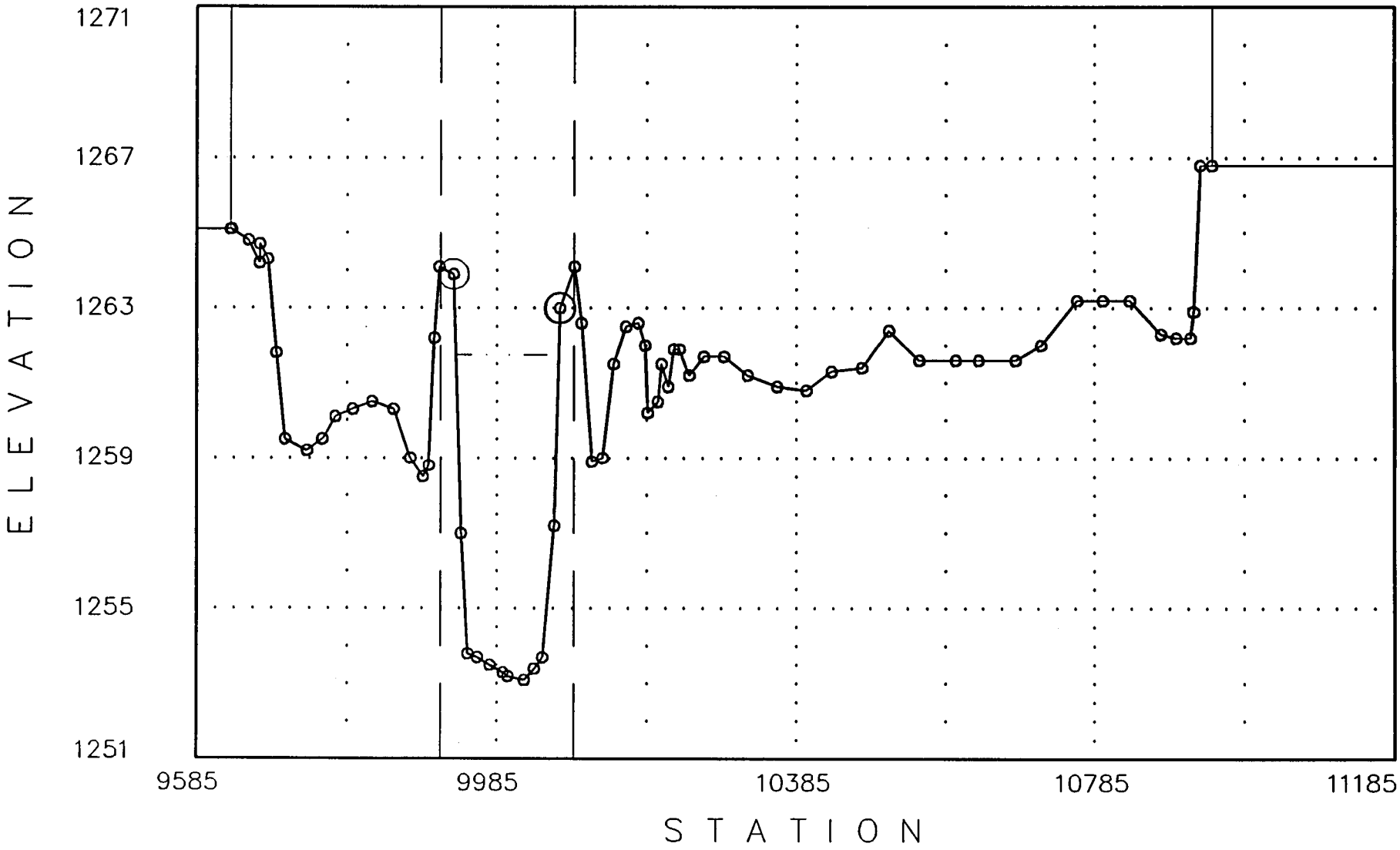



12-07-1990

<<<<<< Cross Section: 4.3: (FN = SKSFUT.O) >>>>>>

Q1= 11320 WS1= 1261.74

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

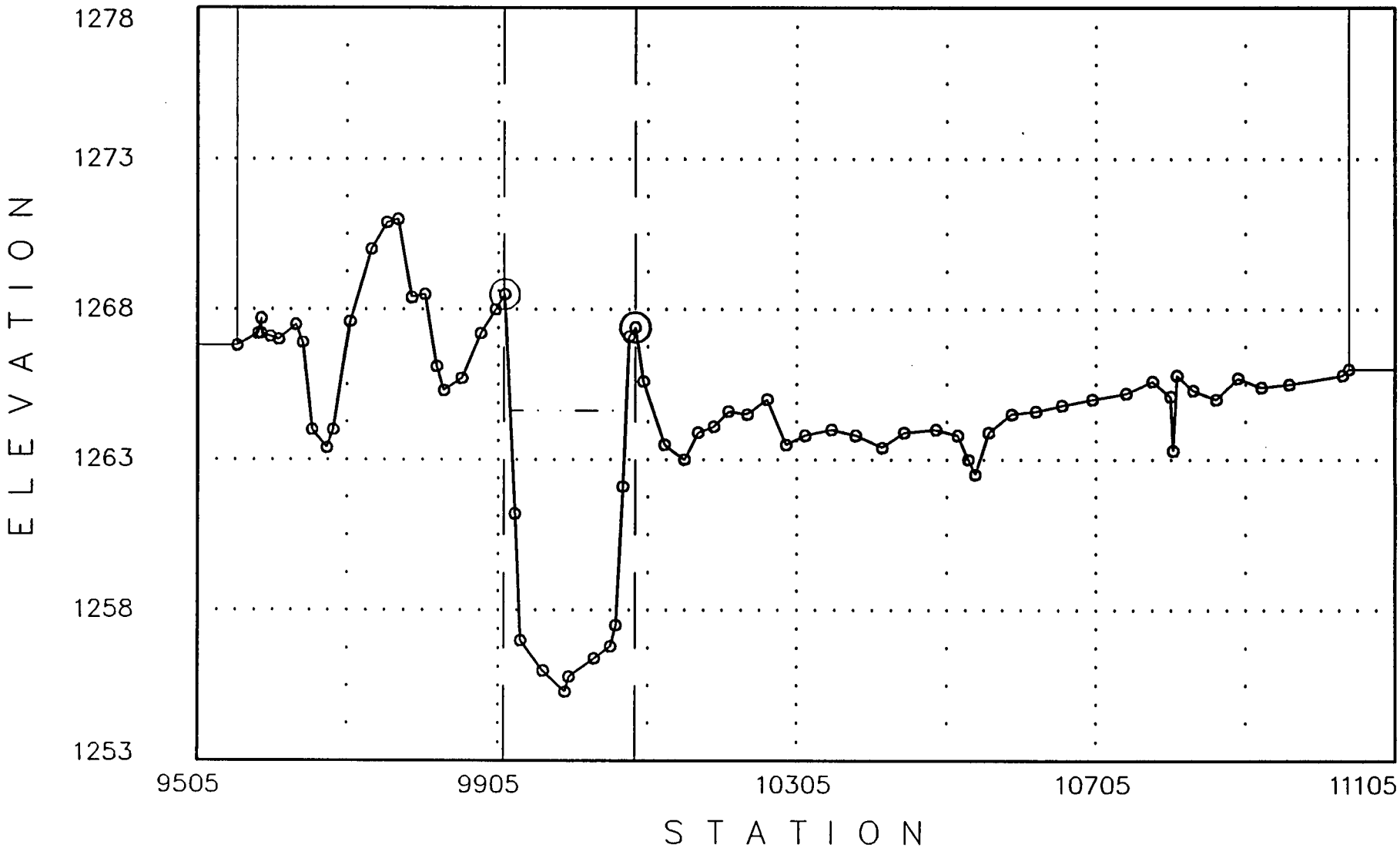



12-07-1990

<<<<<< Cross Section: 4.406: (FN = SKSFUT.O) >>>>>>

Q1= 11320 WS1= 1264.62

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

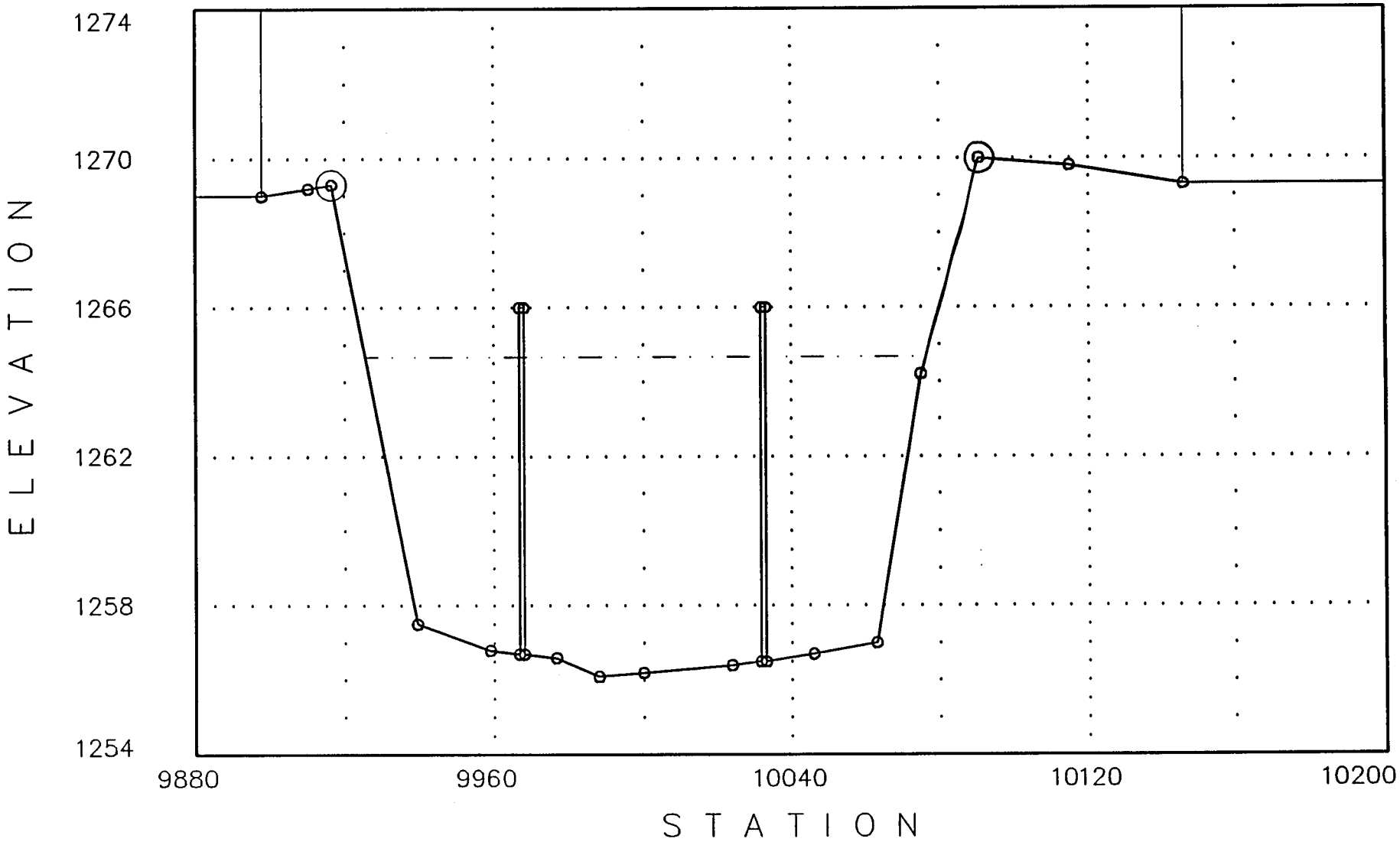



12-07-1990

<<<<<< Cross Section: 4.415: (FN = SKSFUT.O) >>>>>>

Q1= 11320 WS1= 1264.67

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

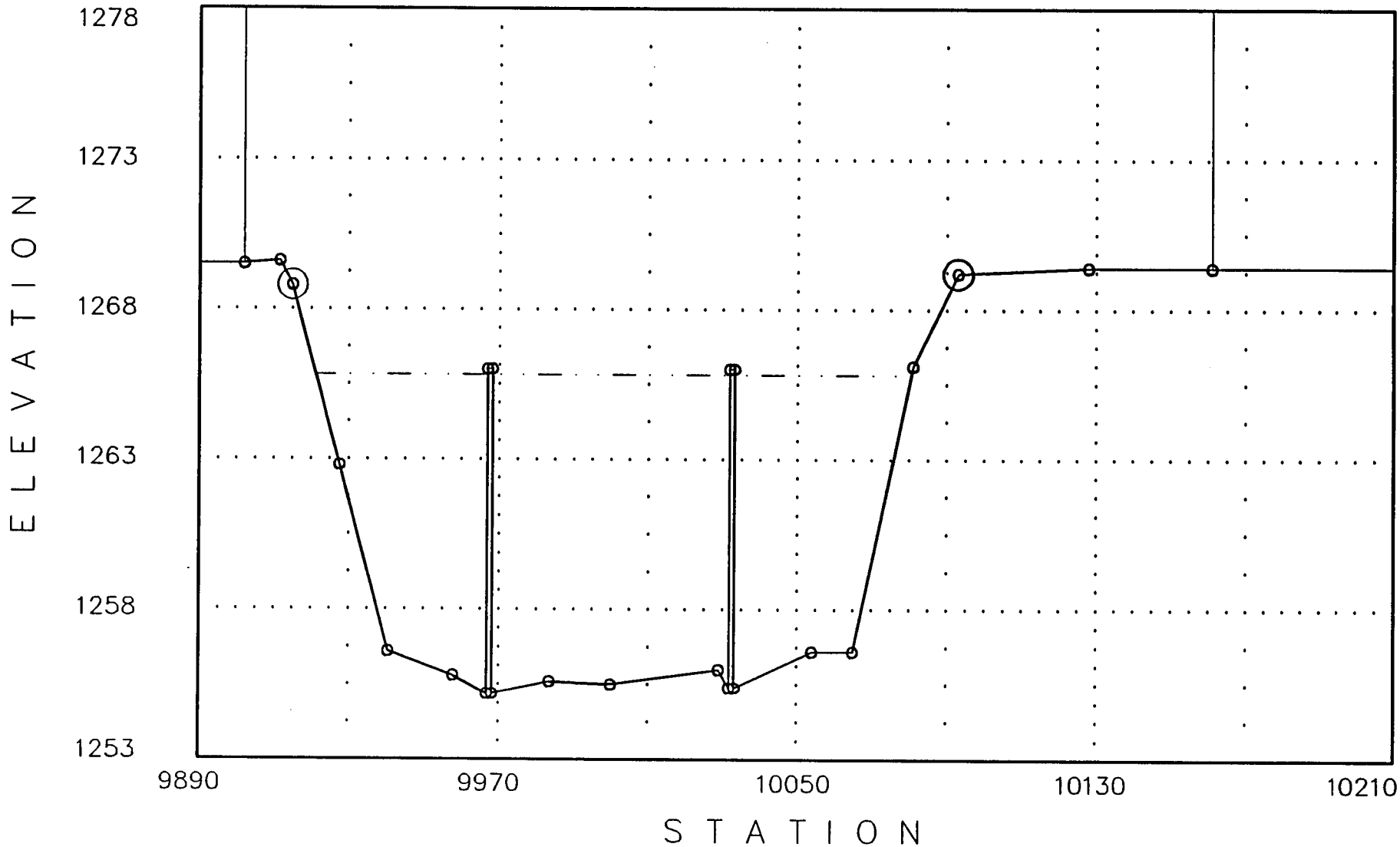



12-07-1990

<<<<<< Cross Section: 4.436: (FN = SKSFUT.O) >>>>>>

Q1= 11320 WS1= 1265.81

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

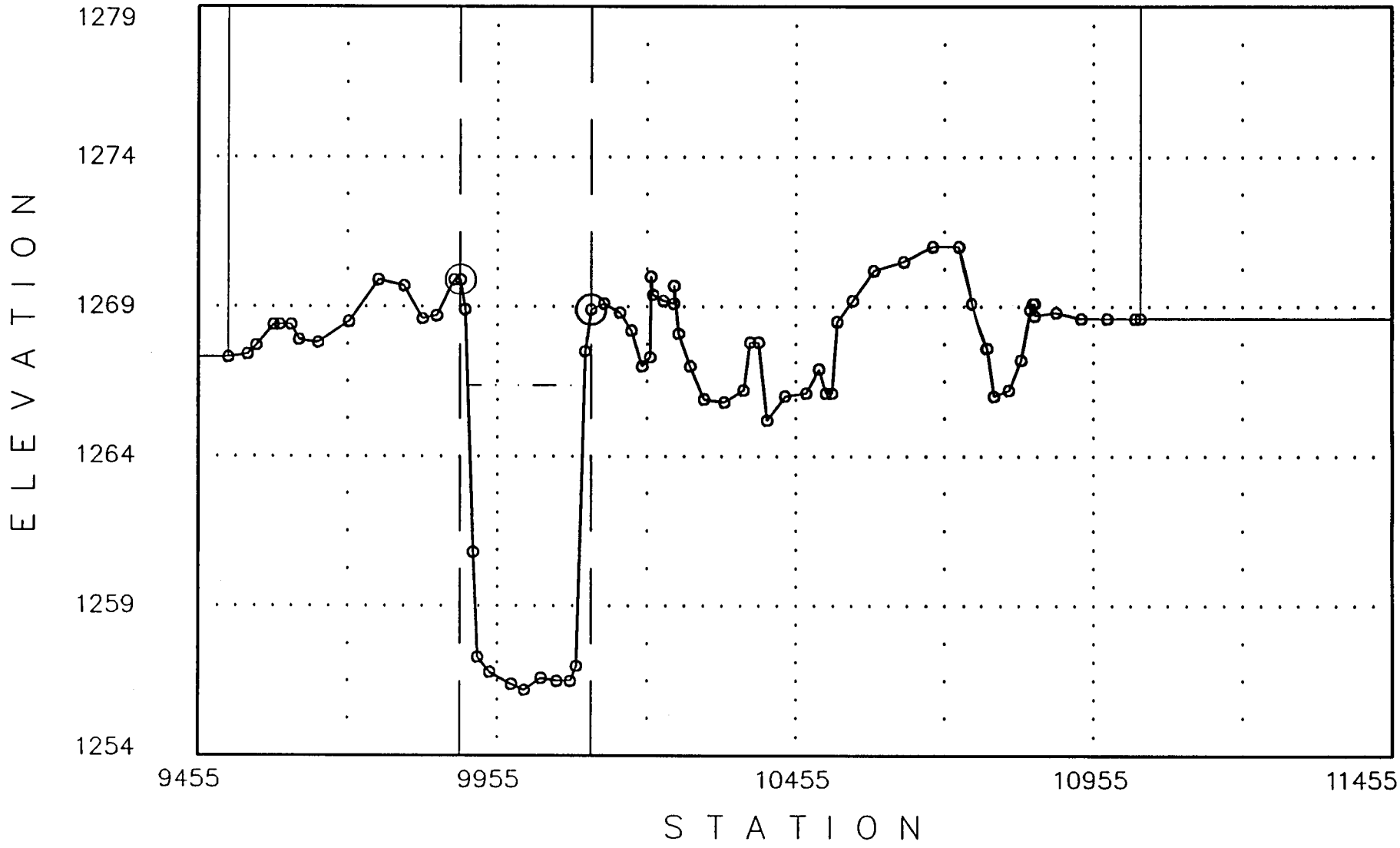



12-07-1990

<<<<<< Cross Section: 4.445: (FN = SKSFUT.O) >>>>>>

Q1= 11180 WS1= 1266.36

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

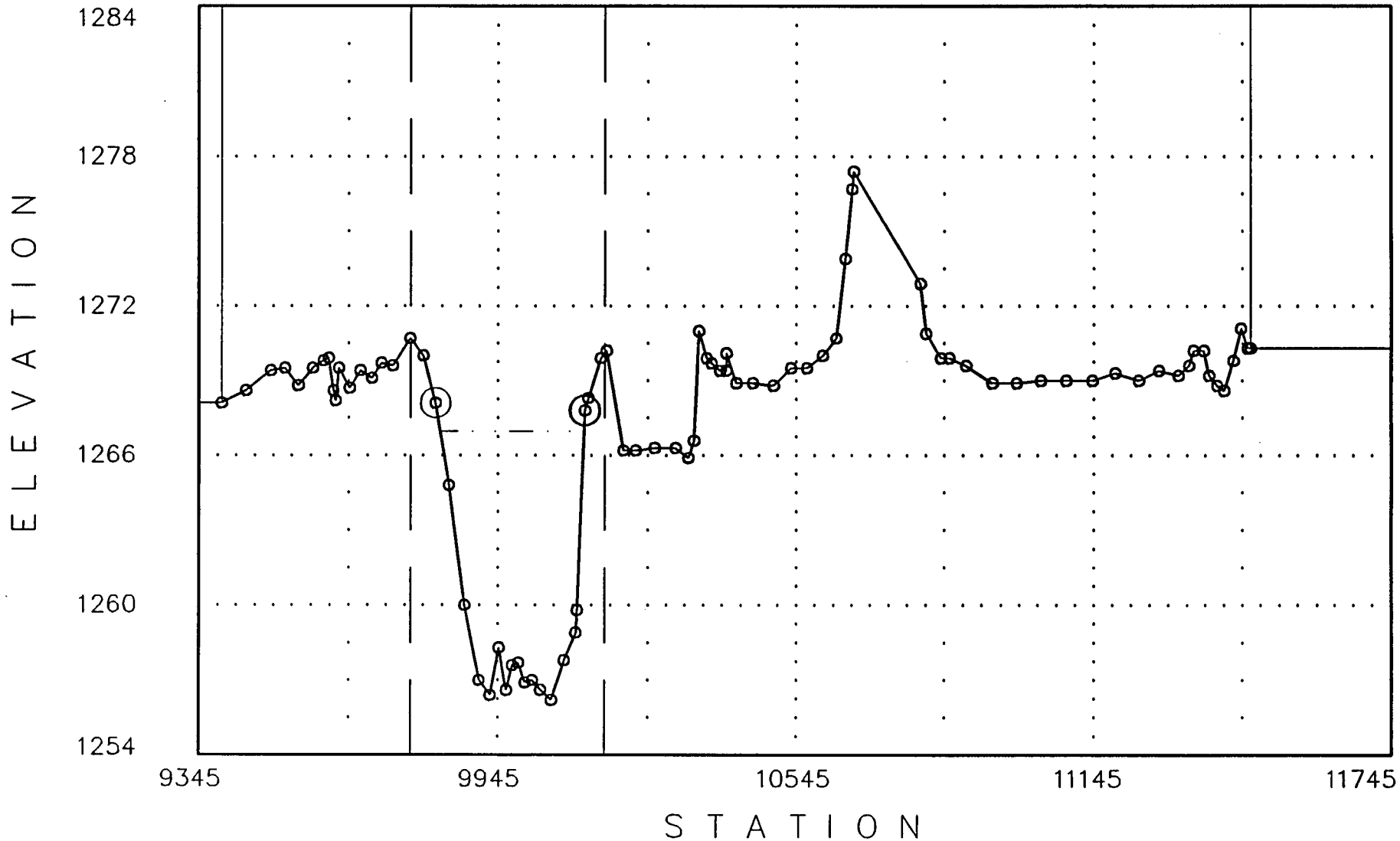



12-07-1990

<<<<<< Cross Section: 4.5: (FN = SKSFUT.O) >>>>>>

Q1= 11180 WS1= 1266.96

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

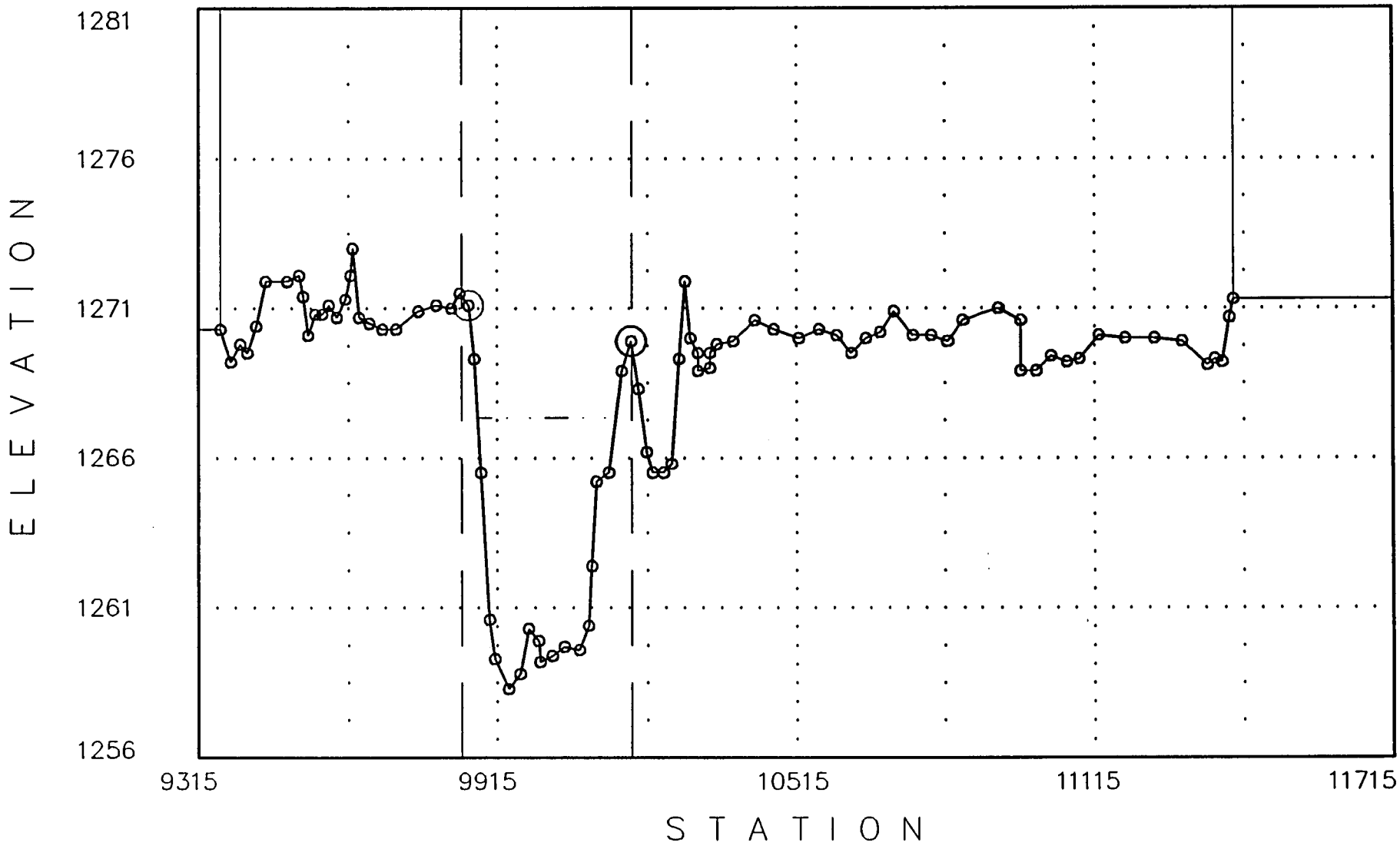



12-07-1990

<<<<<< Cross Section: 4.6: (FN = SKSFUT.O) >>>>>>

Q1= 11180 WS1= 1267.35

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

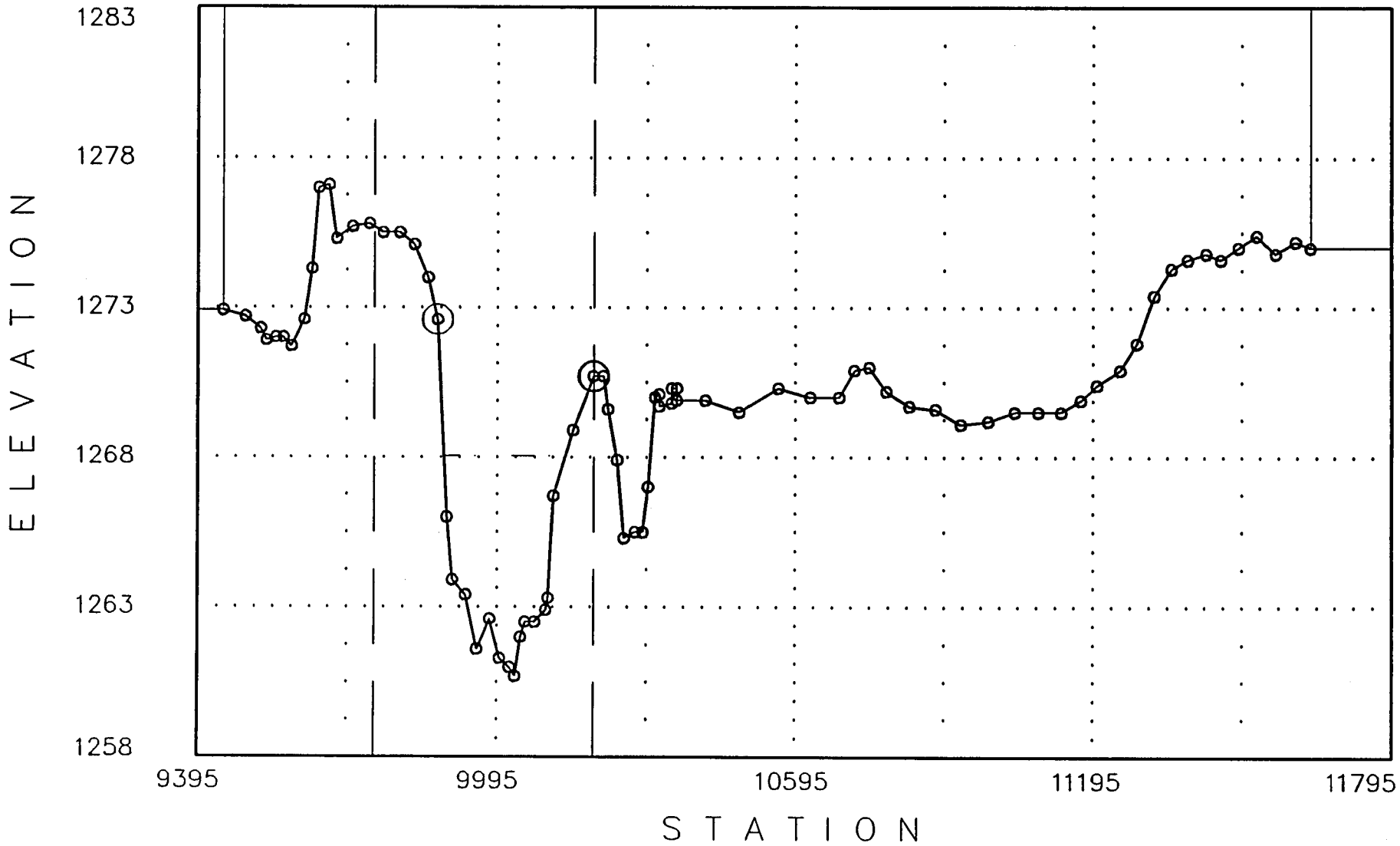



12-07-1990

<<<<<< Cross Section: 4.674: (FN = SKSFUT.O) >>>>>>

Q1= 11180 WS1= 1268.04

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

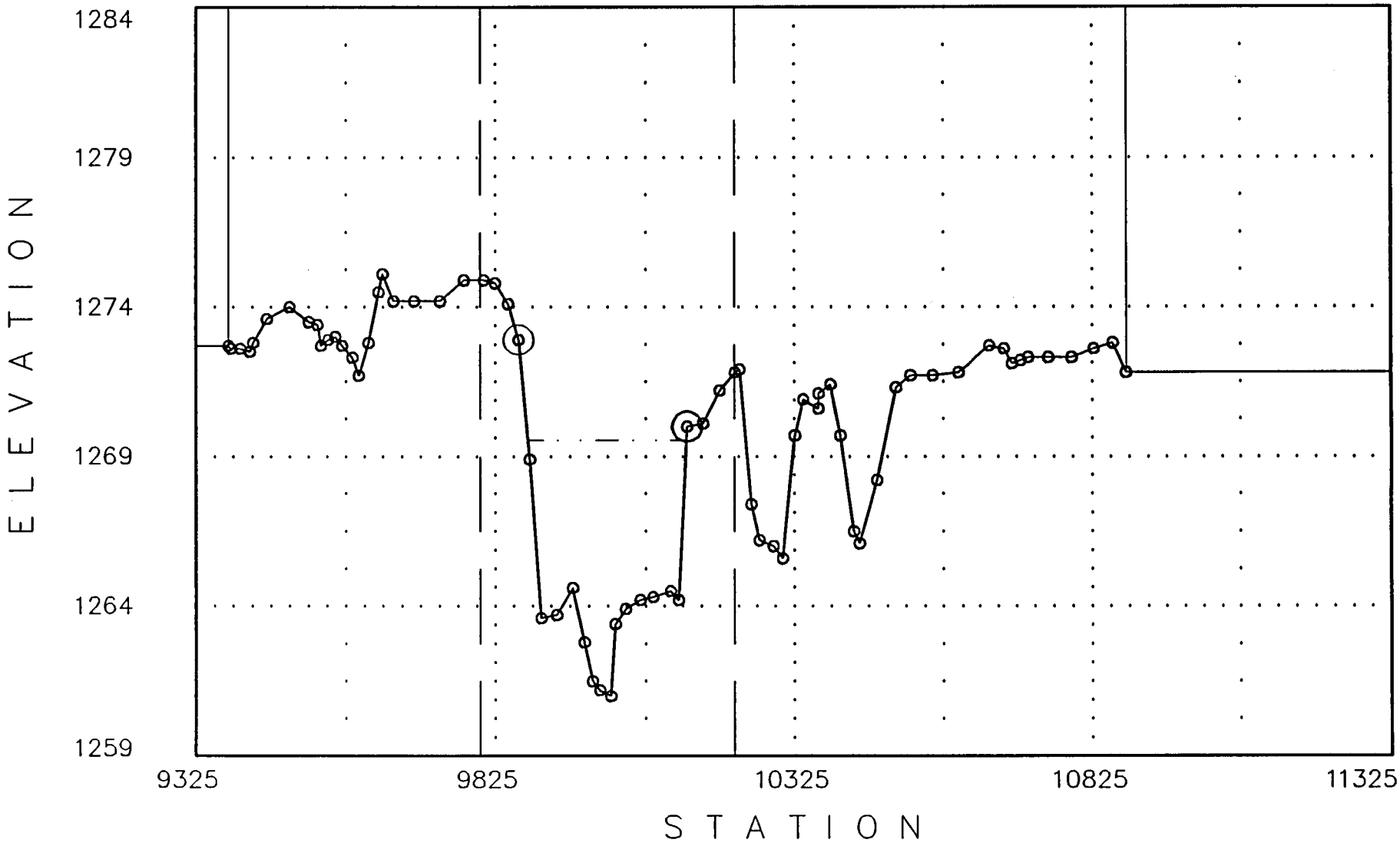



12-07-1990

<<<<<< Cross Section: 4.721: (FN = SKSFUT.O) >>>>>>

Q1= 11970 WS1= 1269.54

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

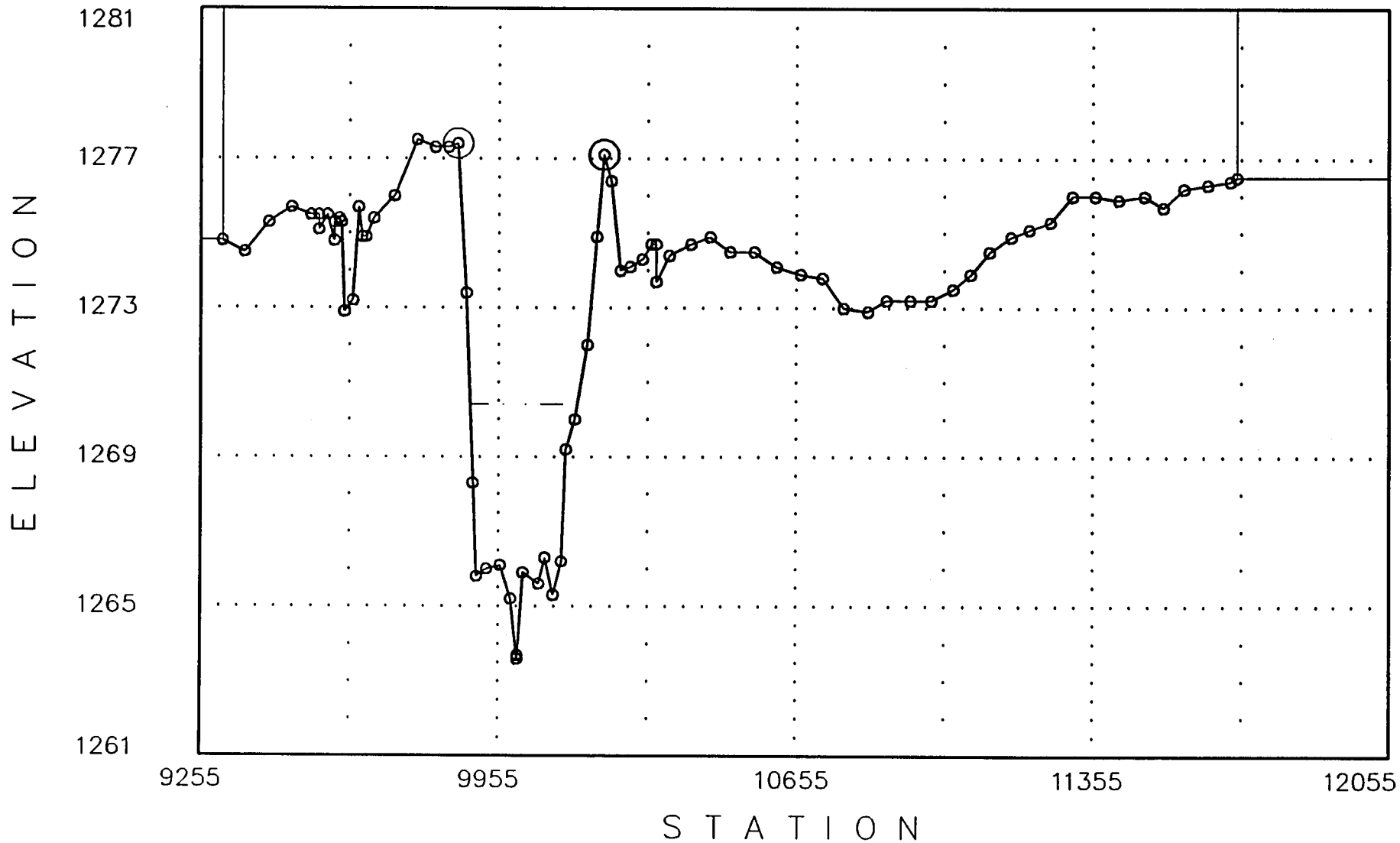



12-07-1990

<<<<<< Cross Section: 4.77: (FN = SKSFUT.O) >>>>>>

Q1= 11970 WS1= 1270.41

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

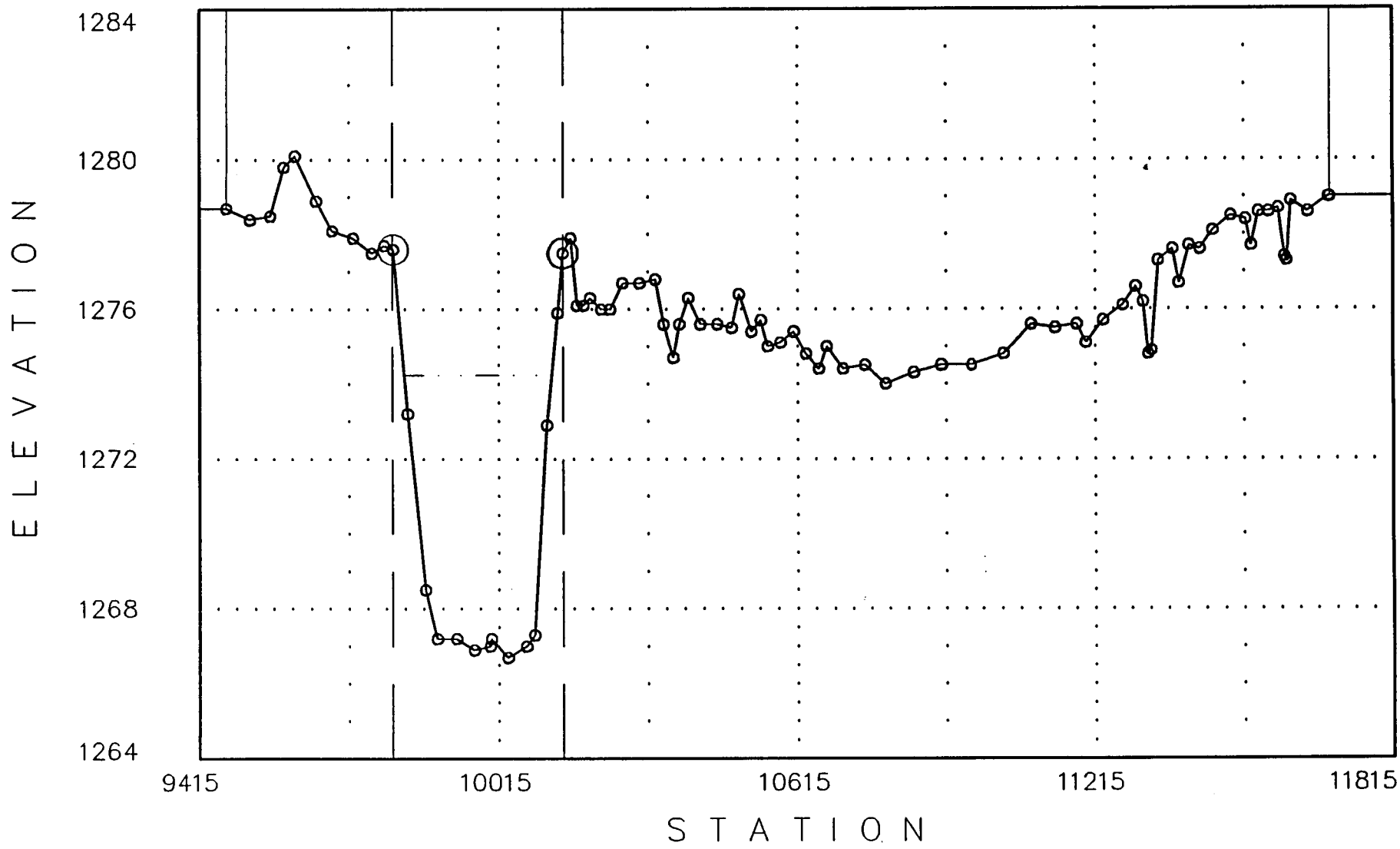



12-07-1990

<<<<<< Cross Section: 4.87: (FN = SKSFUT.O) >>>>>>

Q1= 11970 WS1= 1274.24

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

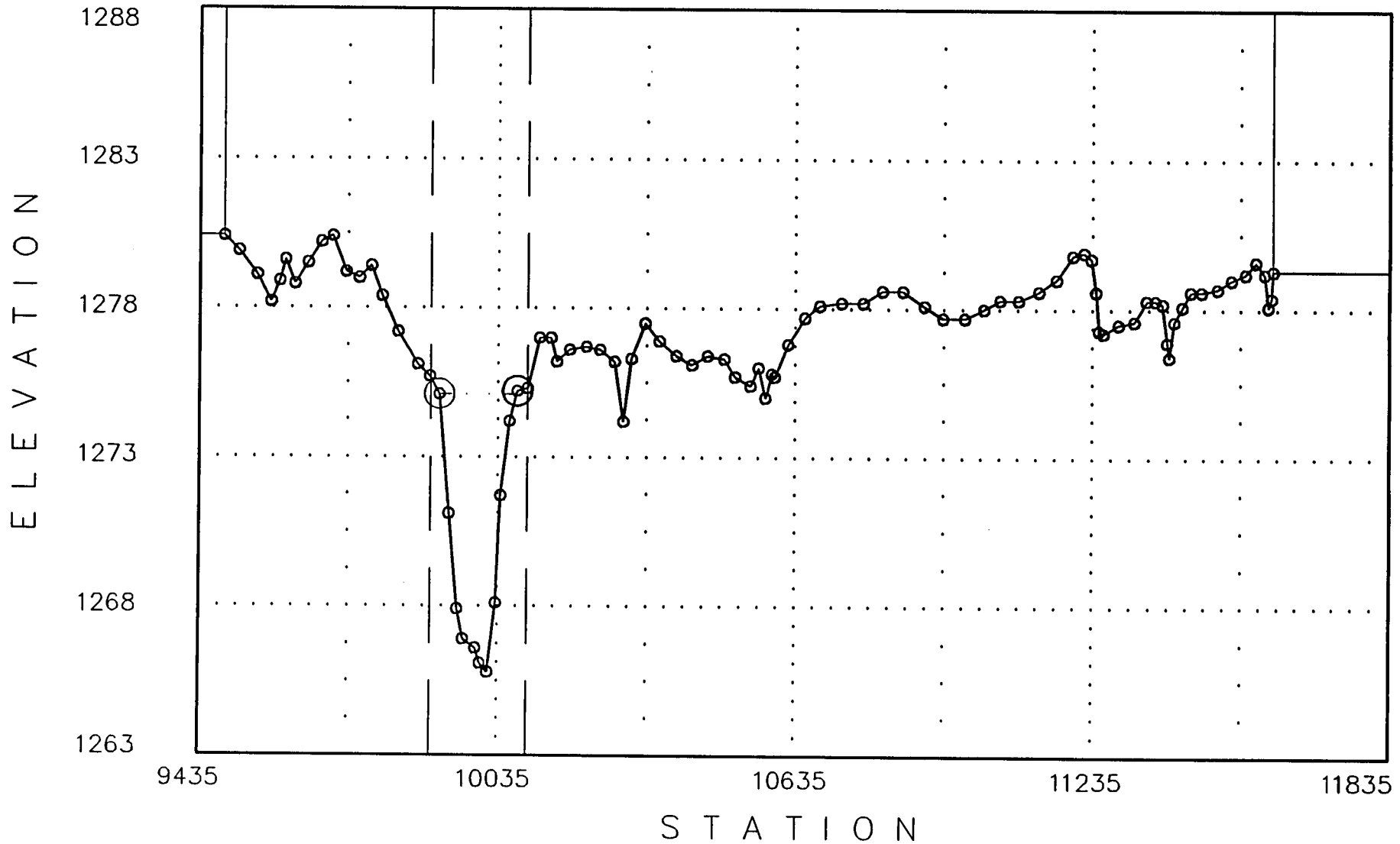



12-07-1990

<<<<<< Cross Section: 4.893: (FN = SKSFUT.O) >>>>>>

Q1= 11970 WS1= 1275.09

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

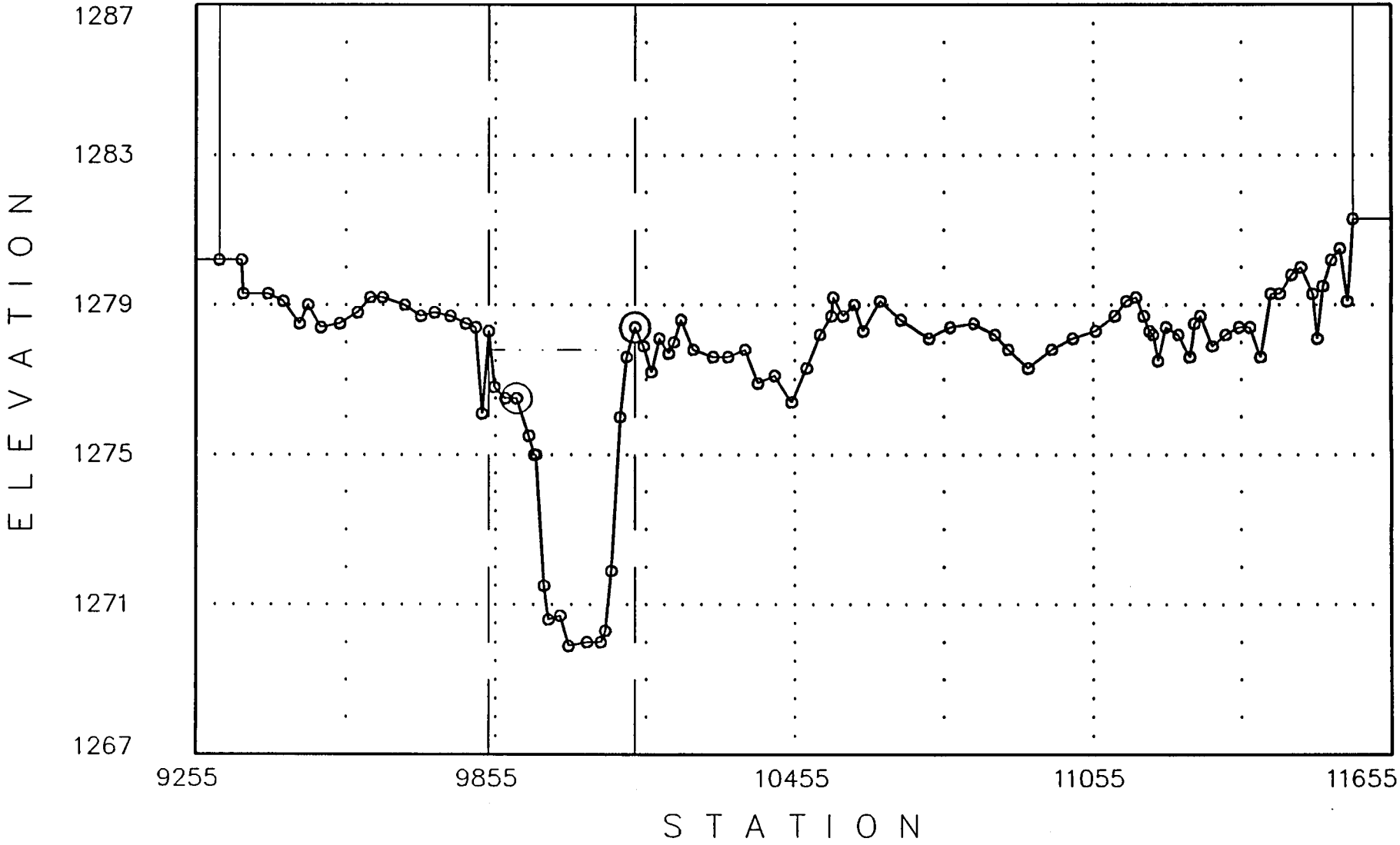



12-07-1990

<<<<<< Cross Section: 4.922: (FN = SKSFUT.O) >>>>>>

Q1= 11970 WS1= 1277.8

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

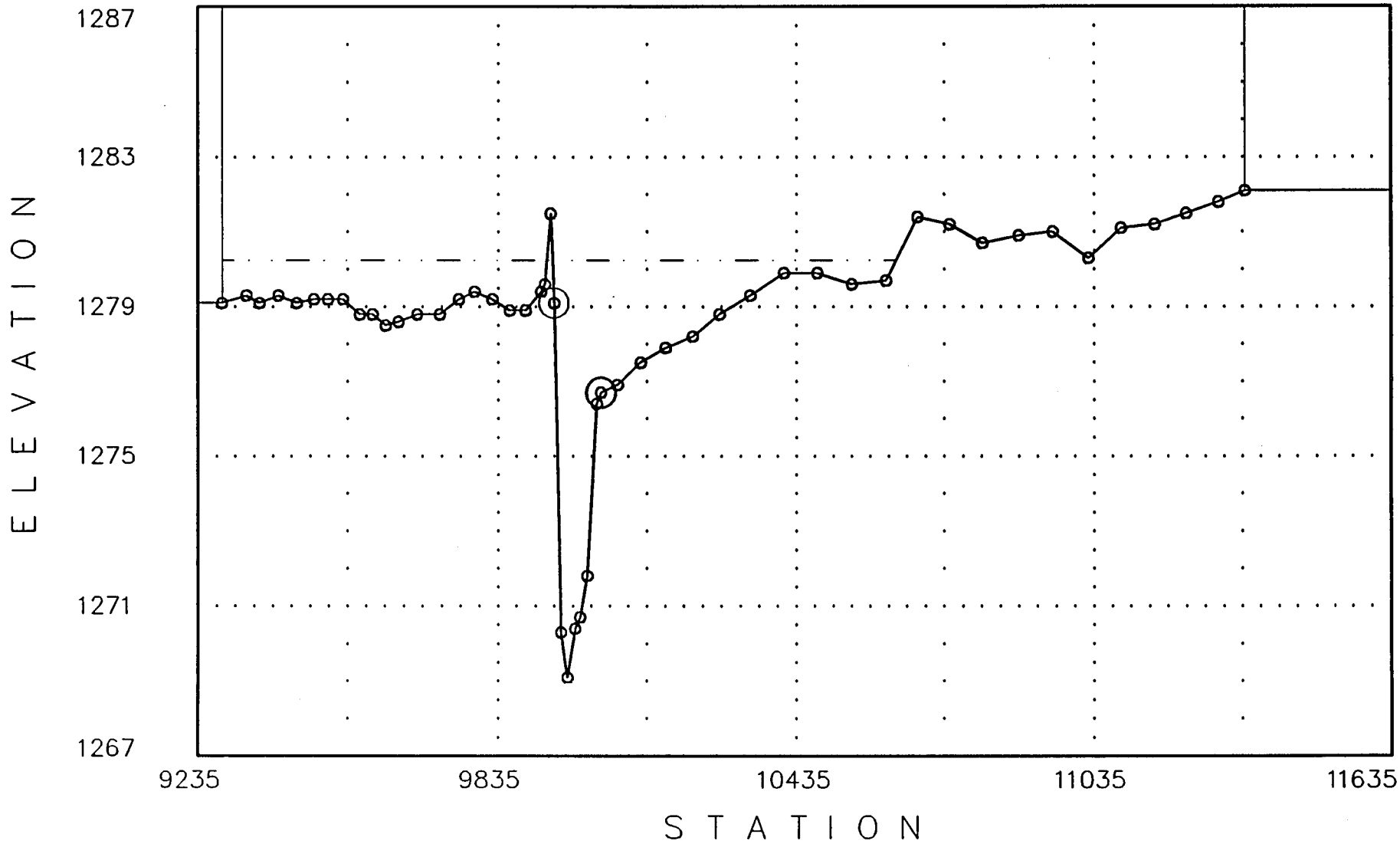



12-07-1990

<<<<<< Cross Section: 4.945: (FN = SKSFUT.O) >>>>>>

Q1= 10830 WS1= 1280.25

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

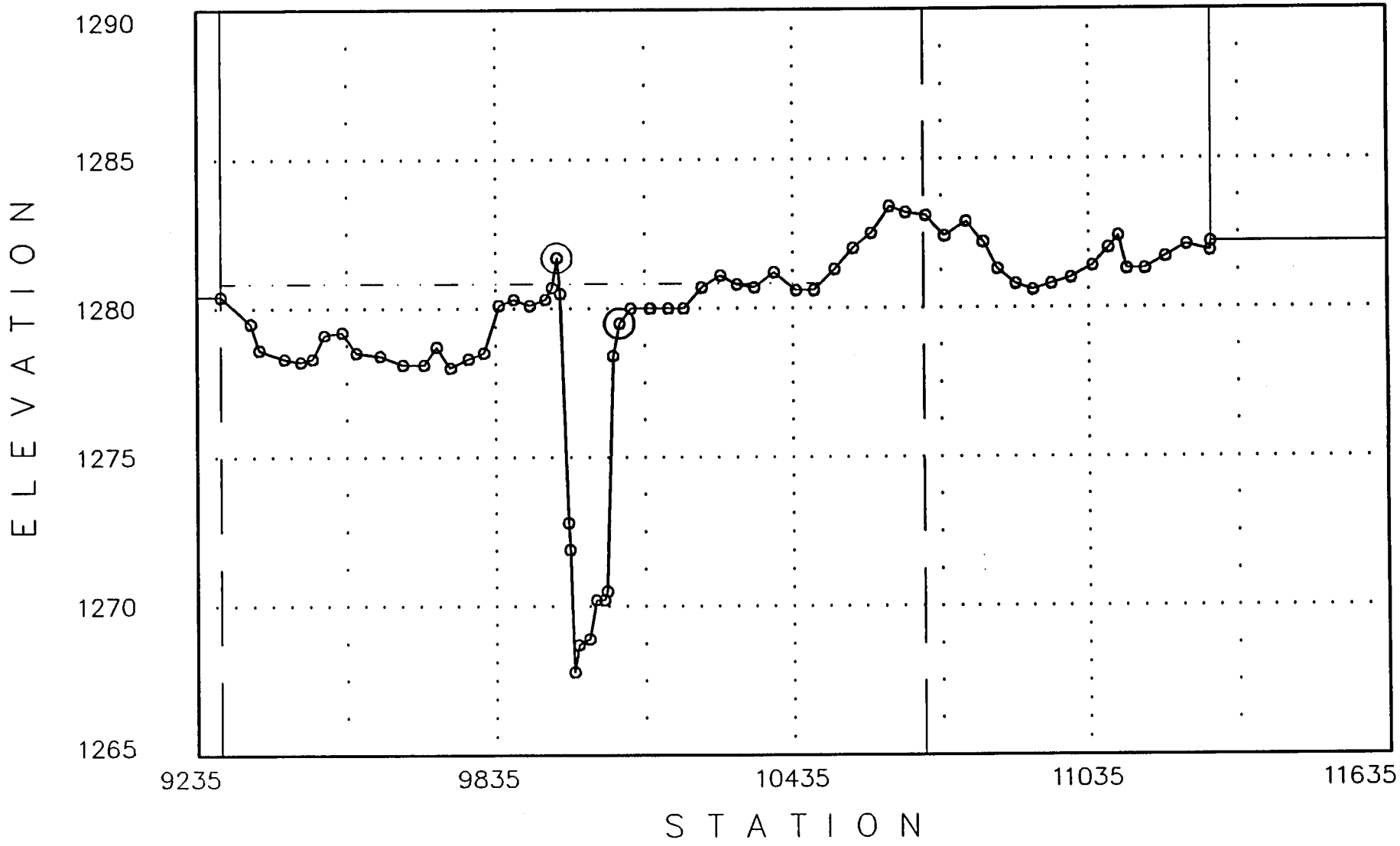



12-07-1990

<<<<<< Cross Section: 4.974: (FN = SKSFUT.O) >>>>>>

Q1= 10830 WS1= 1280.83

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

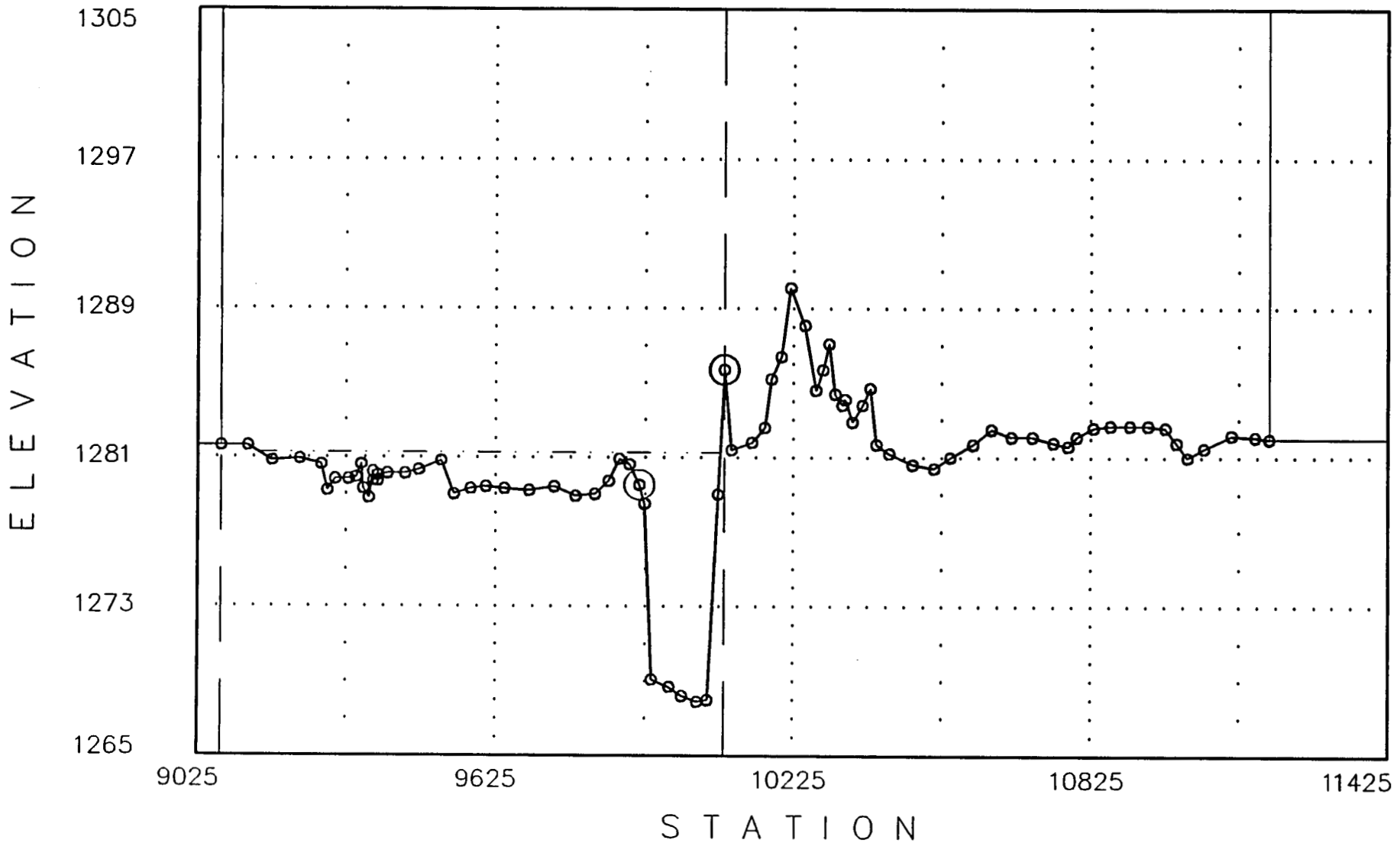



12-07-1990

<<<<<< Cross Section: 5.008: (FN = SKSFUT.O) >>>>>>

Q1= 10830 WS1= 1281.25

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

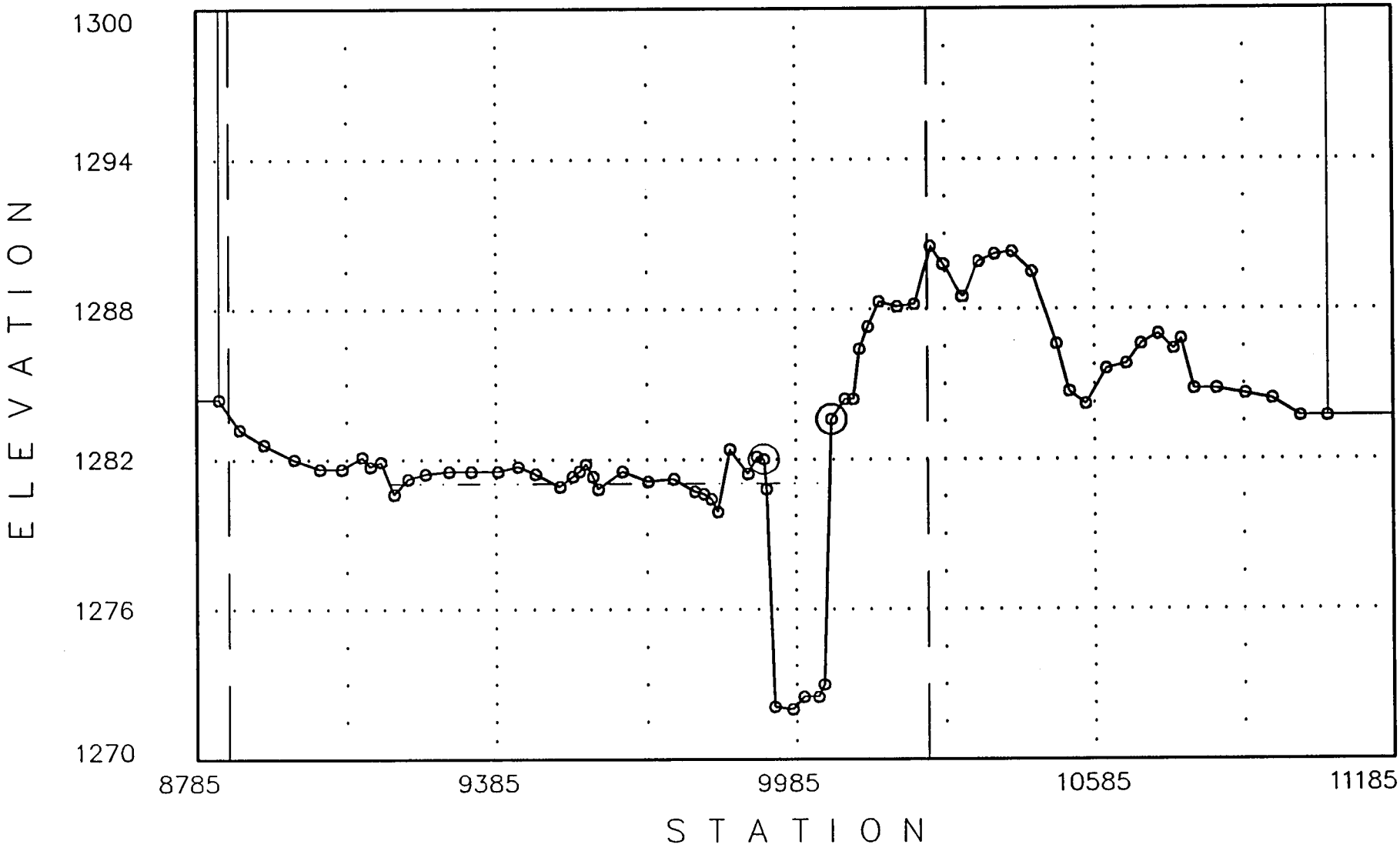



12-07-1990

<<<<<< Cross Section: 5.08: (FN = SKSFUT.O) >>>>>>

Q1= 10760 WS1= 1281.03

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

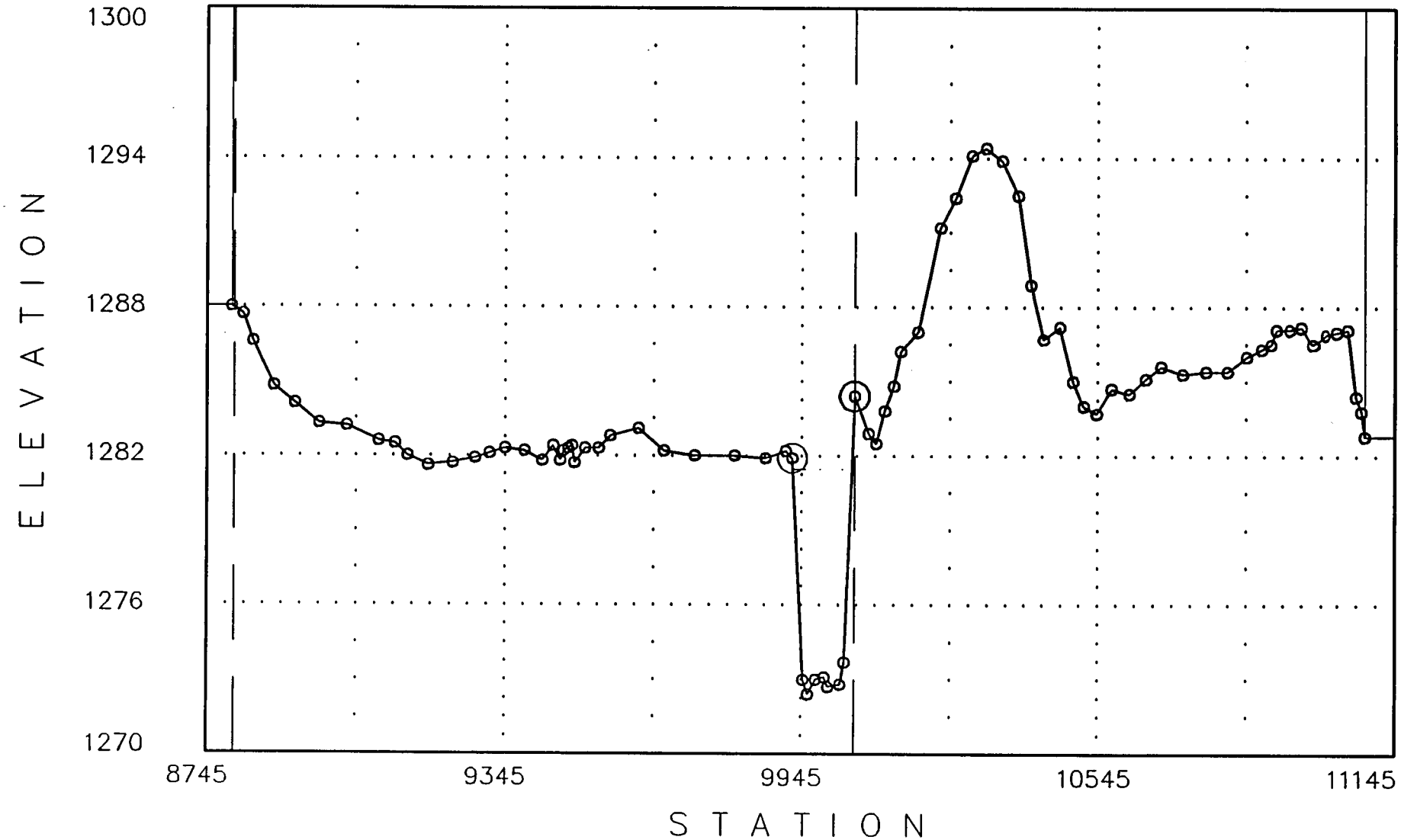



12-07-1990

<<<<<< Cross Section: 5.103: (FN = SKSFUT.O) >>>>>>

Q1= 10760 WS1= 1281.45

Manning-n's: n-lob = .048 n-ch = .045 n-rob = .048

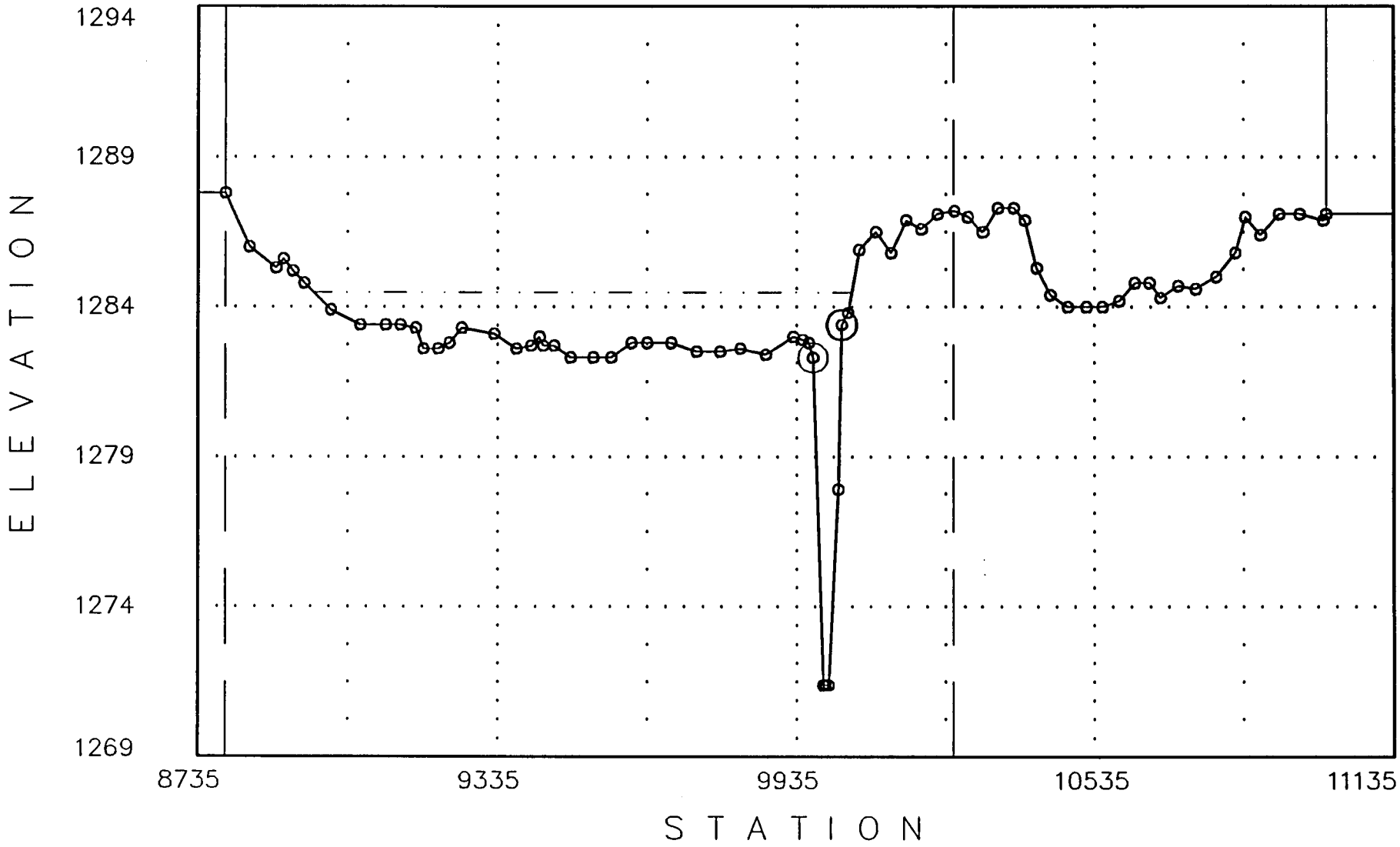



12-07-1990

<<<<<< Cross Section: 5.118: (FN = SKSFUT.O) >>>>>>

Q1= 10760 WS1= 1284.48

Manning-n's: n-lob = .048 n-ch = .045 n-rob = .048

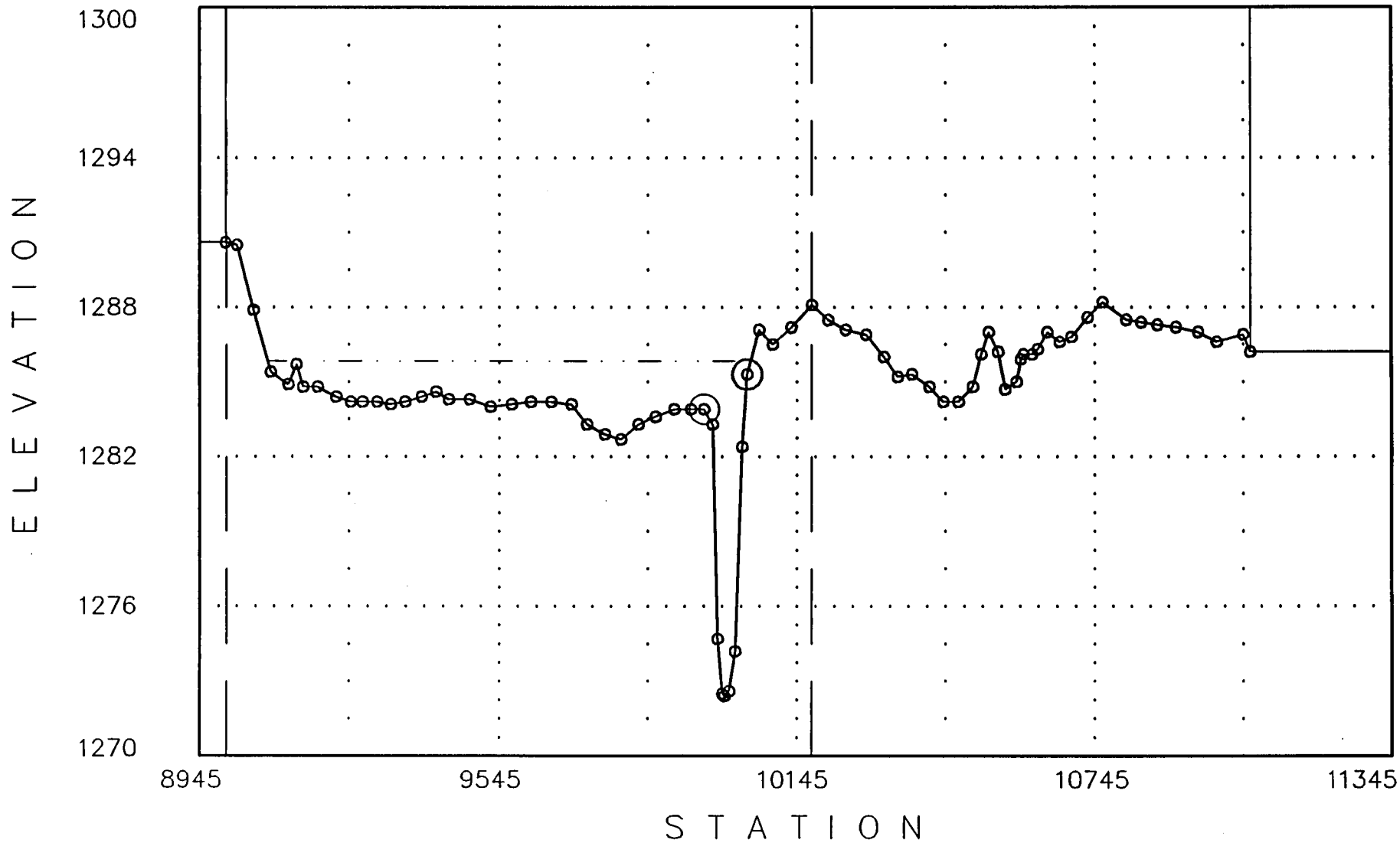



12-07-1990

<<<<<< Cross Section: 5.159: (FN = SKSFUT.O) >>>>>>

Q1= 10690 WS1= 1285.83

Manning-n's: n-lob = .048 n-ch = .045 n-rob = .048

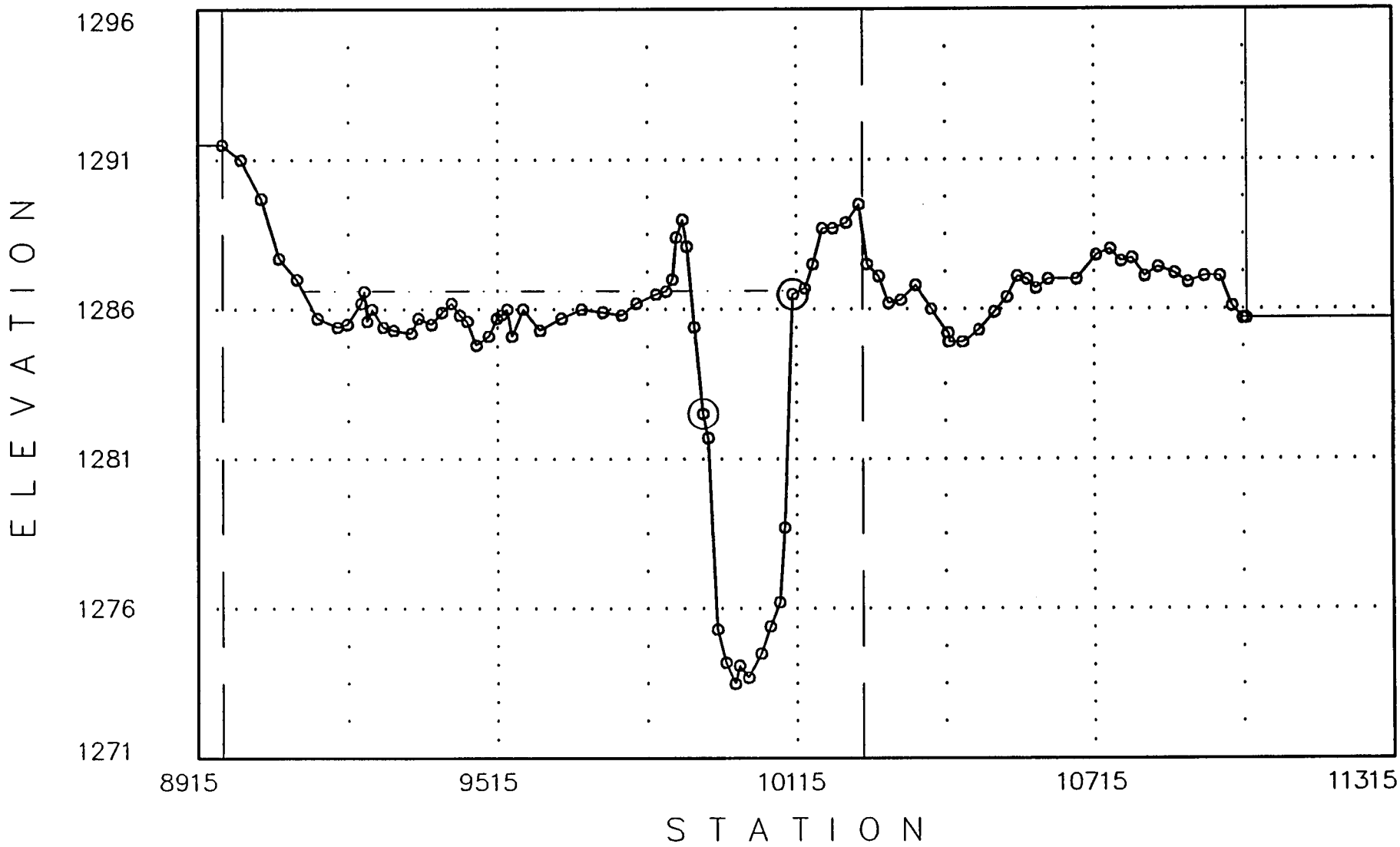



12-07-1990

<<<<<< Cross Section: 5.204: (FN = SKSFUT.O) >>>>>>

Q1= 10690 WS1= 1286.61

Manning-n's: n-lob = .048 n-ch = .045 n-rob = .048

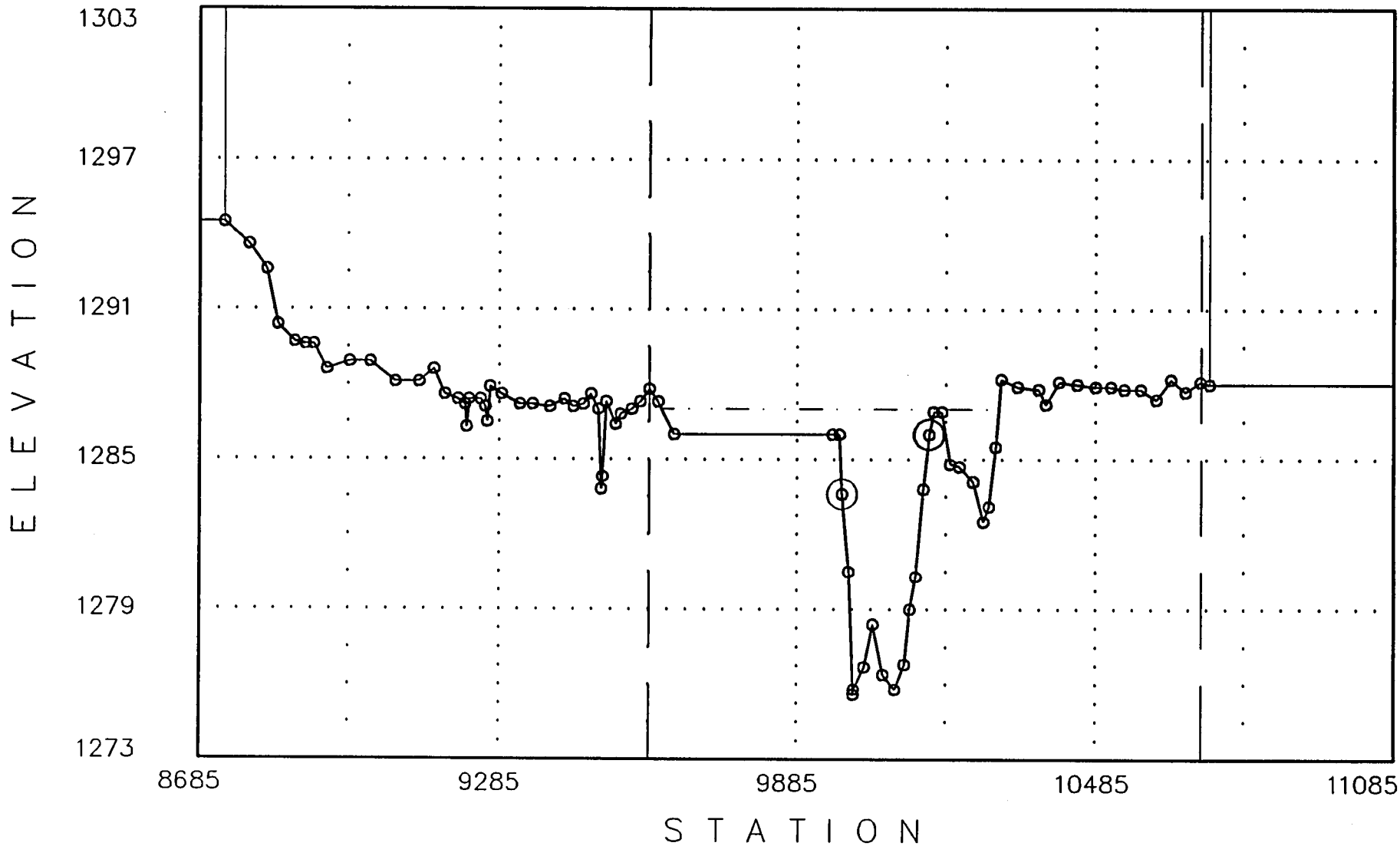



12-07-1990

<<<<<< Cross Section: 5.263: (FN = SKSFUT.O) >>>>>>

Q1= 10690 WS1= 1287.01

Manning-n's: n-lob = .048 n-ch = .045 n-rob = .048

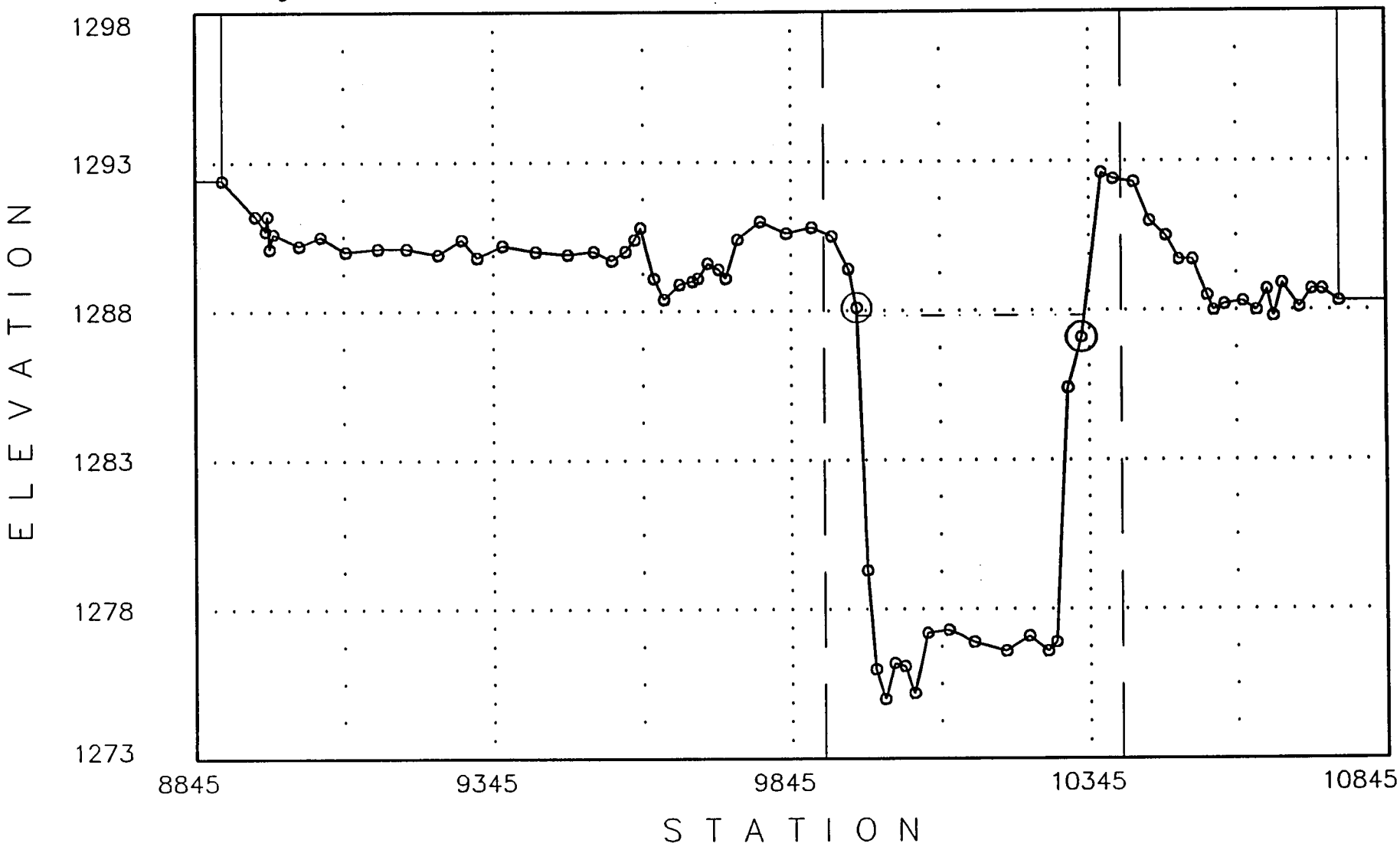



12-07-1990

<<<<<< Cross Section: 5.364: (FN = SKSFUT.O) >>>>>>

Q1= 10550 WS1= 1287.83

Manning-n's: n-lob = .048 n-ch = .045 n-rob = .048

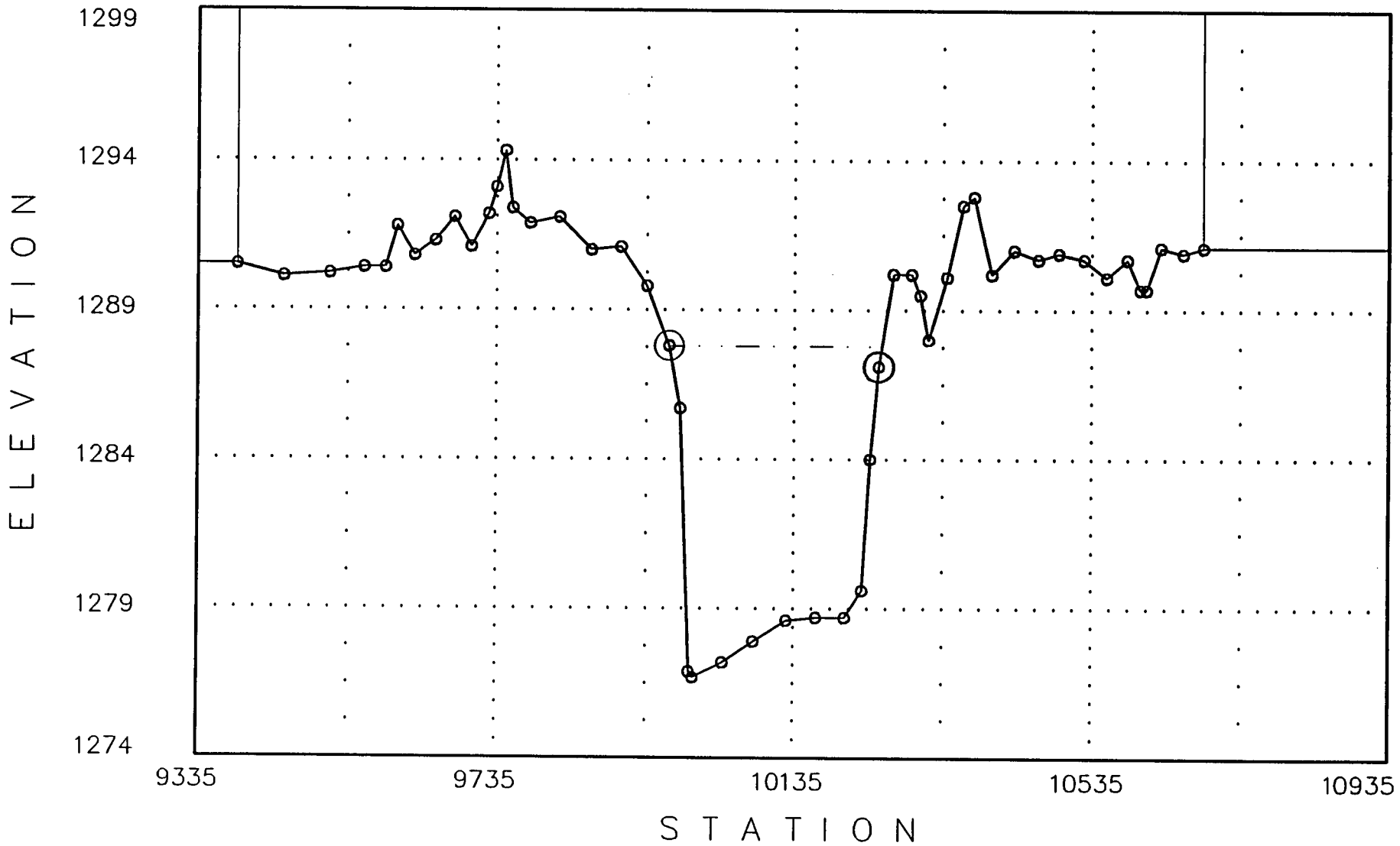



12-07-1990

<<<<<< Cross Section: 5.397: (FN = SKSFUT.O) >>>>>>

Q1= 10550 WS1= 1287.79

Manning-n's: n-lob = .048 n-ch = .04 n-rob = .048

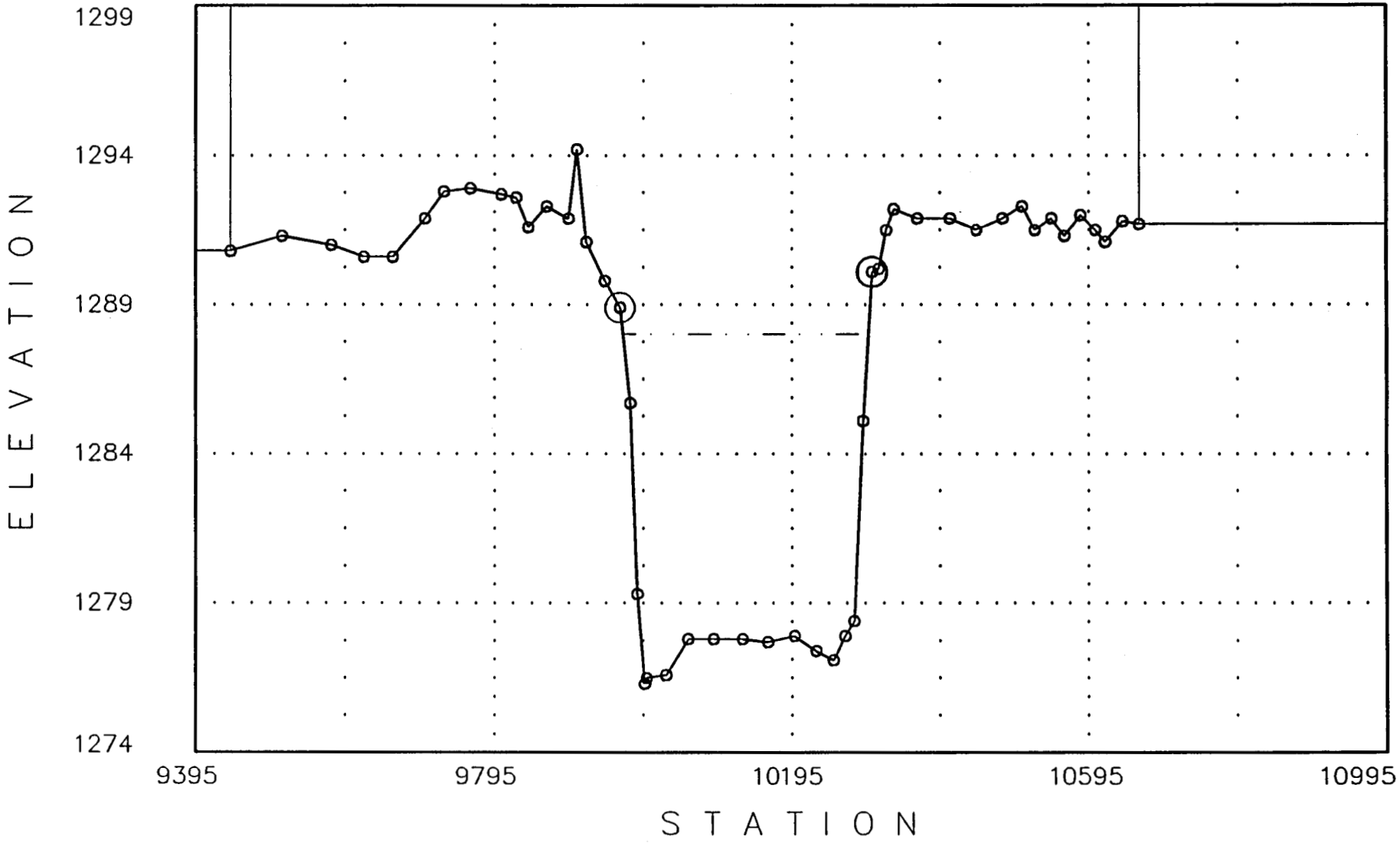



12-07-1990

<<<<<< Cross Section: 5.432: (FN = SKSFUT.O) >>>>>>

Q1= 10550 WS1= 1288.02

Manning-n's: n-lob = .048 n-ch = .04 n-rob = .048

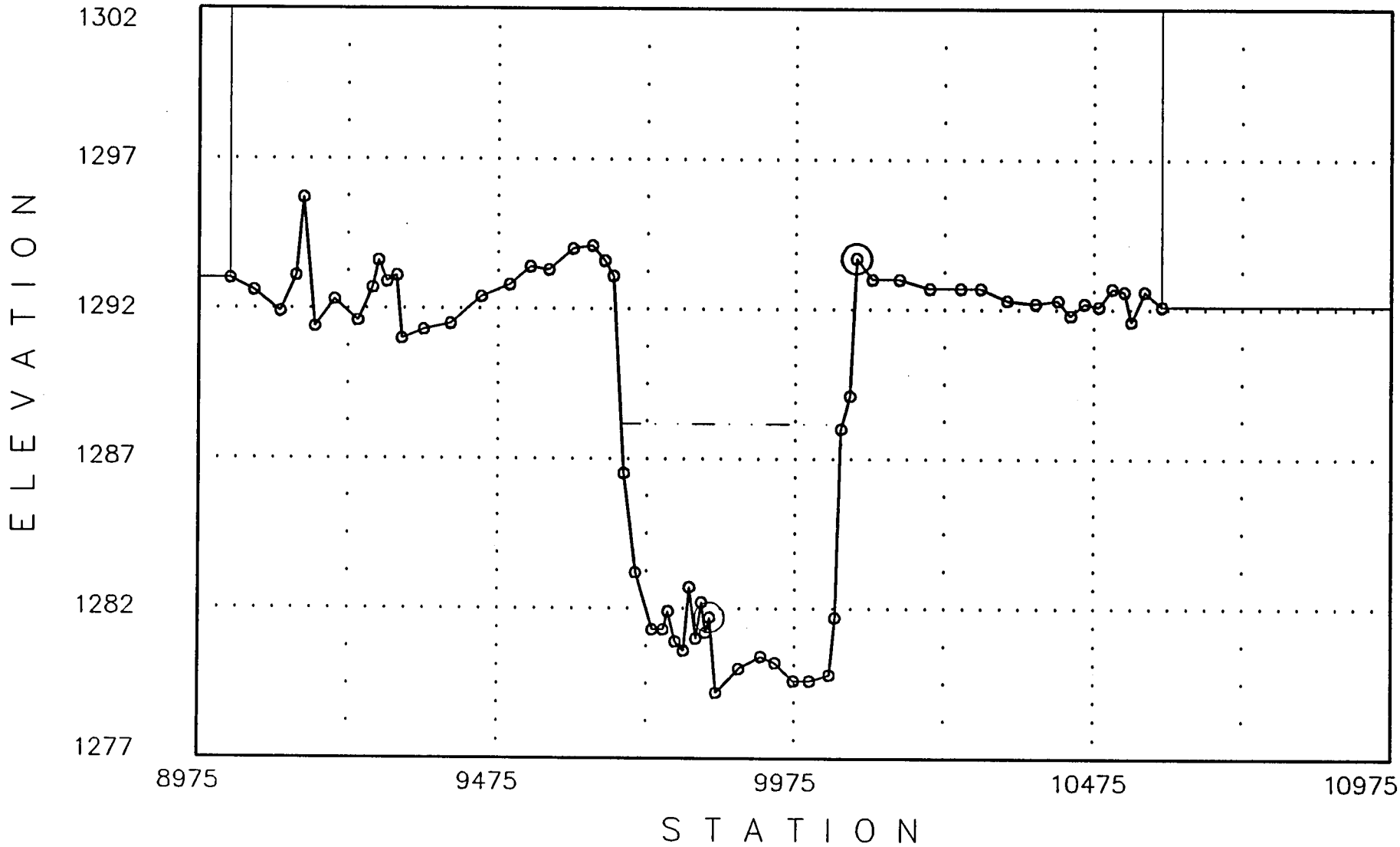



12-07-1990

<<<<<< Cross Section: 5.5: (FN = SKSFUT.O) >>>>>>

Q1= 10550 WS1= 1288.16

Manning-n's: n-lob = .048 n-ch = .04 n-rob = .048

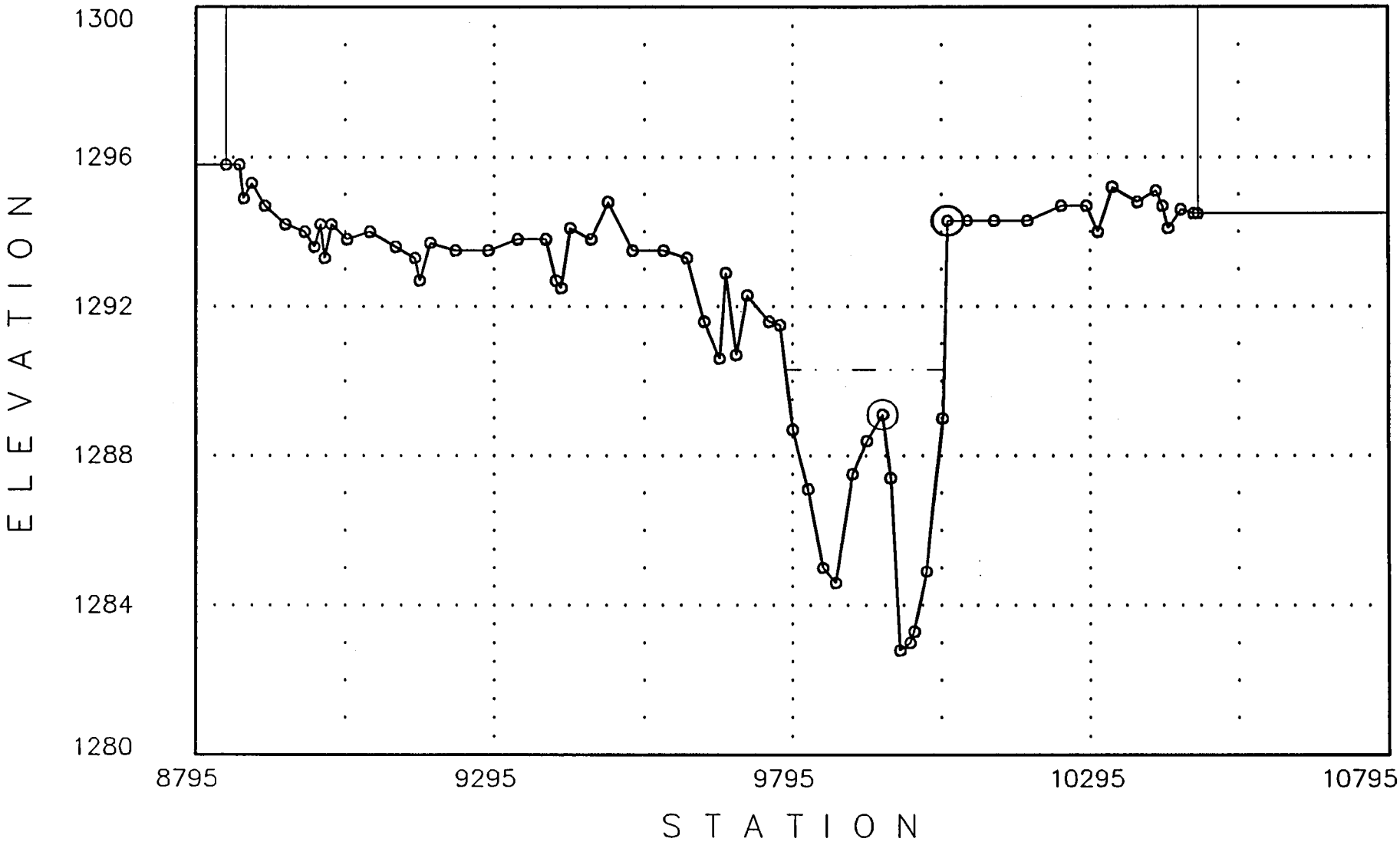



12-07-1990

<<<<<< Cross Section: 5.579: (FN = SKSFUT.O) >>>>>>

Q1= 10410 WS1= 1290.3

Manning-n's: n-lob = .048 n-ch = .04 n-rob = .048

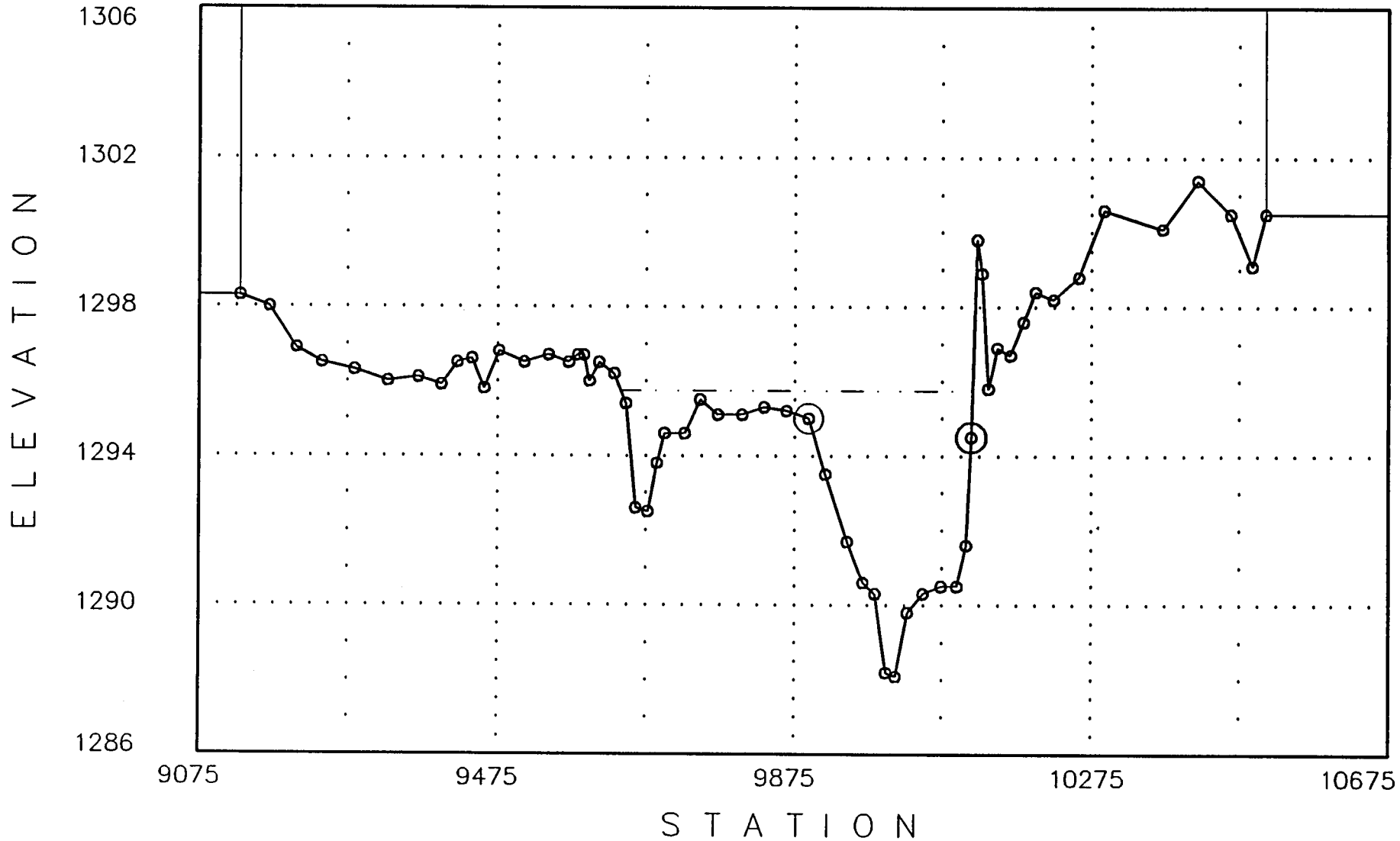



12-07-1990

<<<<<< Cross Section: 5.679: (FN = SKSFUT.O) >>>>>>

Q1= 10410 WS1= 1295.74

Manning-n's: n-lob = .048 n-ch = .04 n-rob = .048

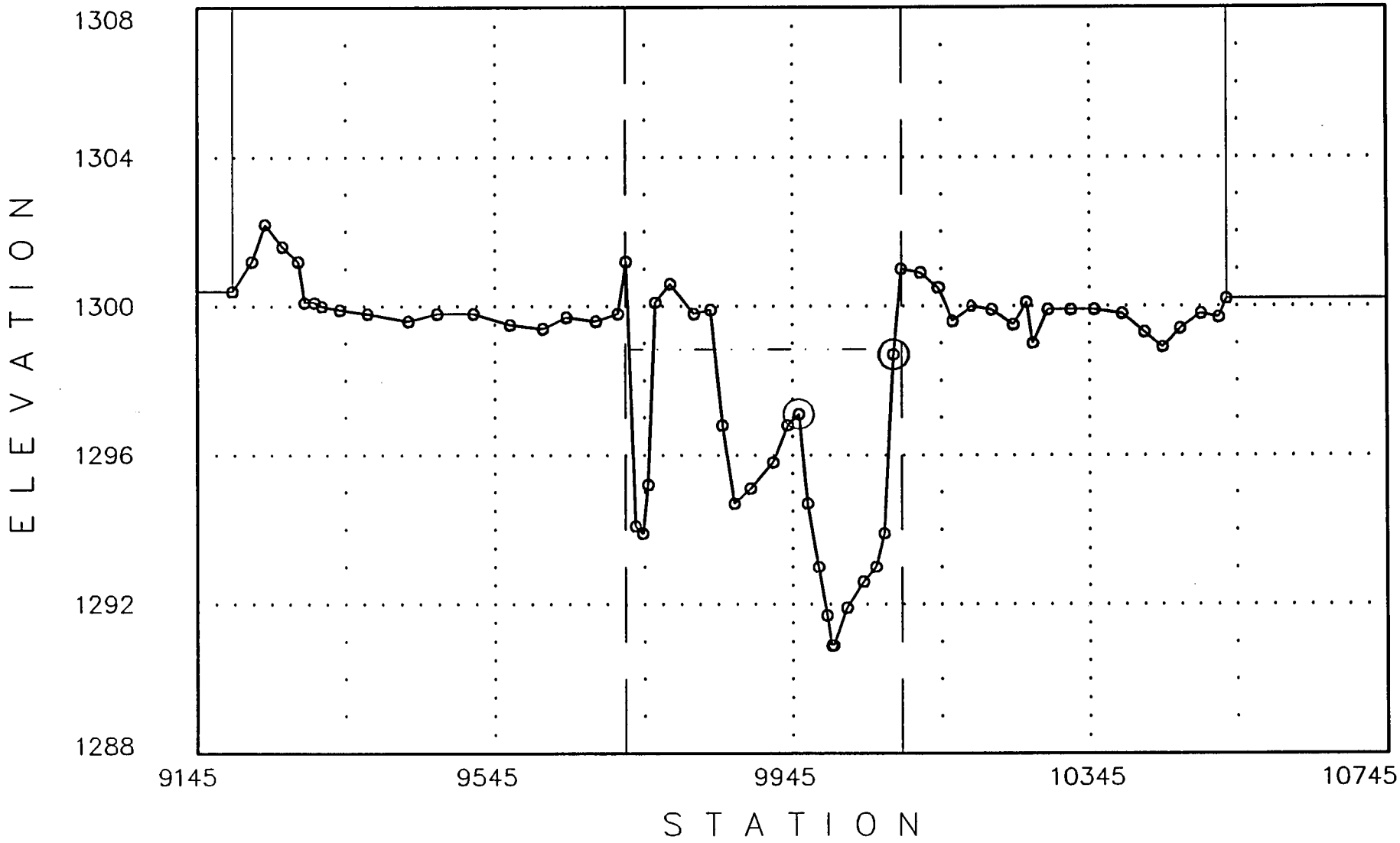



12-07-1990

<<<<<< Cross Section: 5.754: (FN = SKSFUT.O) >>>>>>

Q1= 10410 WS1= 1298.84

Manning-n's: n-lob = .048 n-ch = .04 n-rob = .048

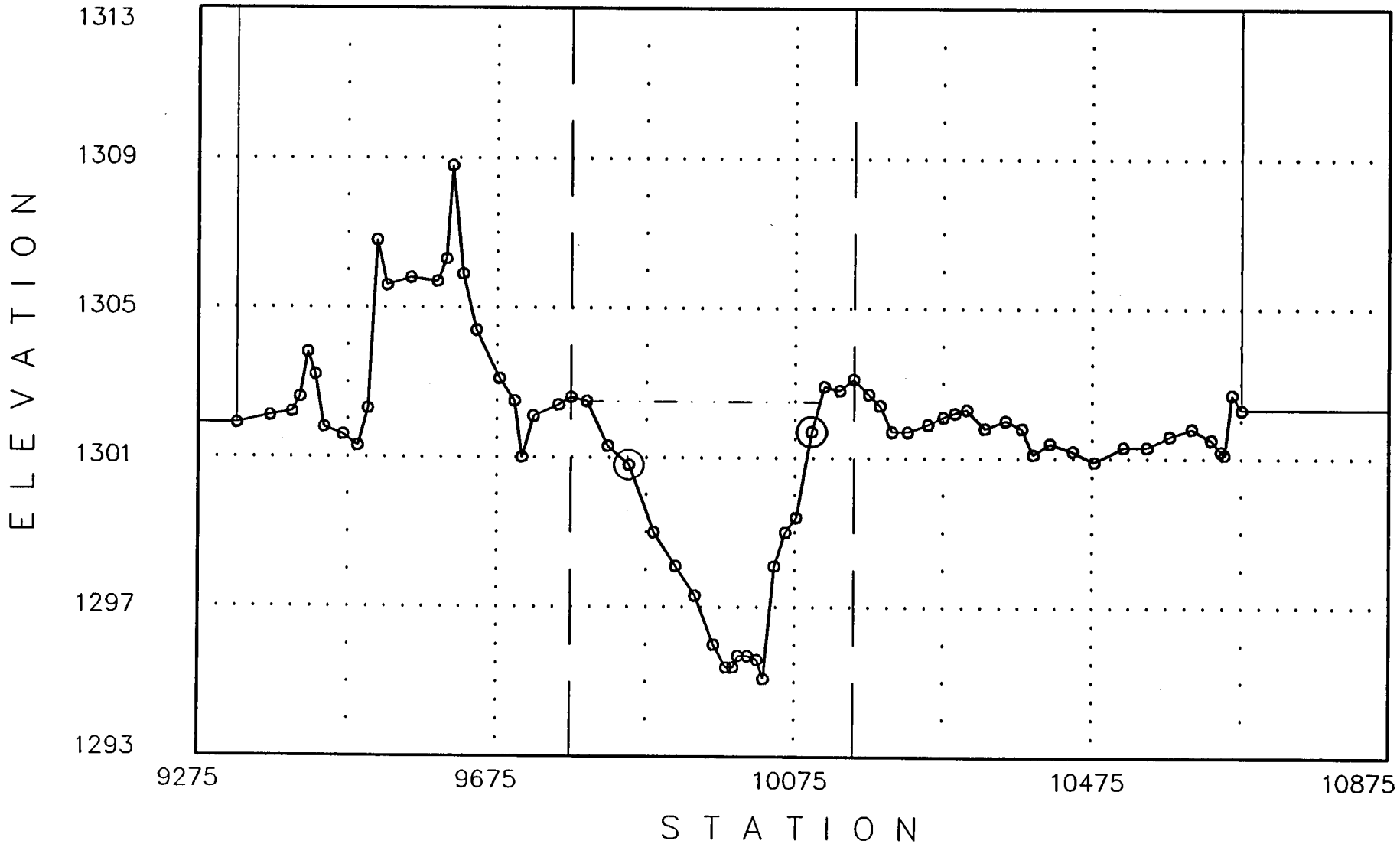



12-07-1990

<<<<<< Cross Section: 5.837: (FN = SKSFUT.O) >>>>>>

Q1= 10410 WS1= 1302.49

Manning-n's: n-lob = .048 n-ch = .04 n-rob = .048

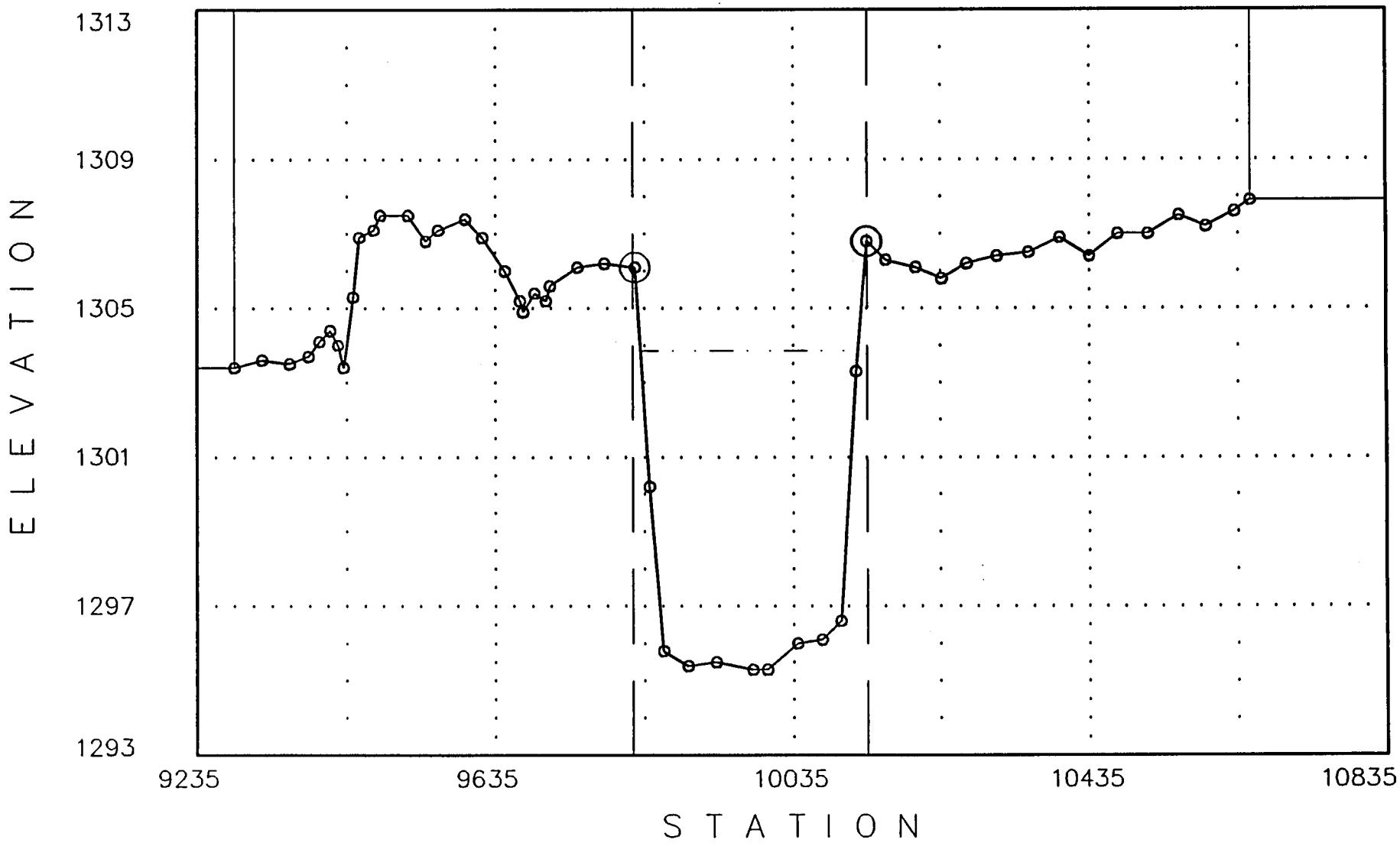



12-07-1990

<<<<<< Cross Section: 5.881: (FN = SKSFUT.O) >>>>>>

Q1= 10200 WS1= 1303.85

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

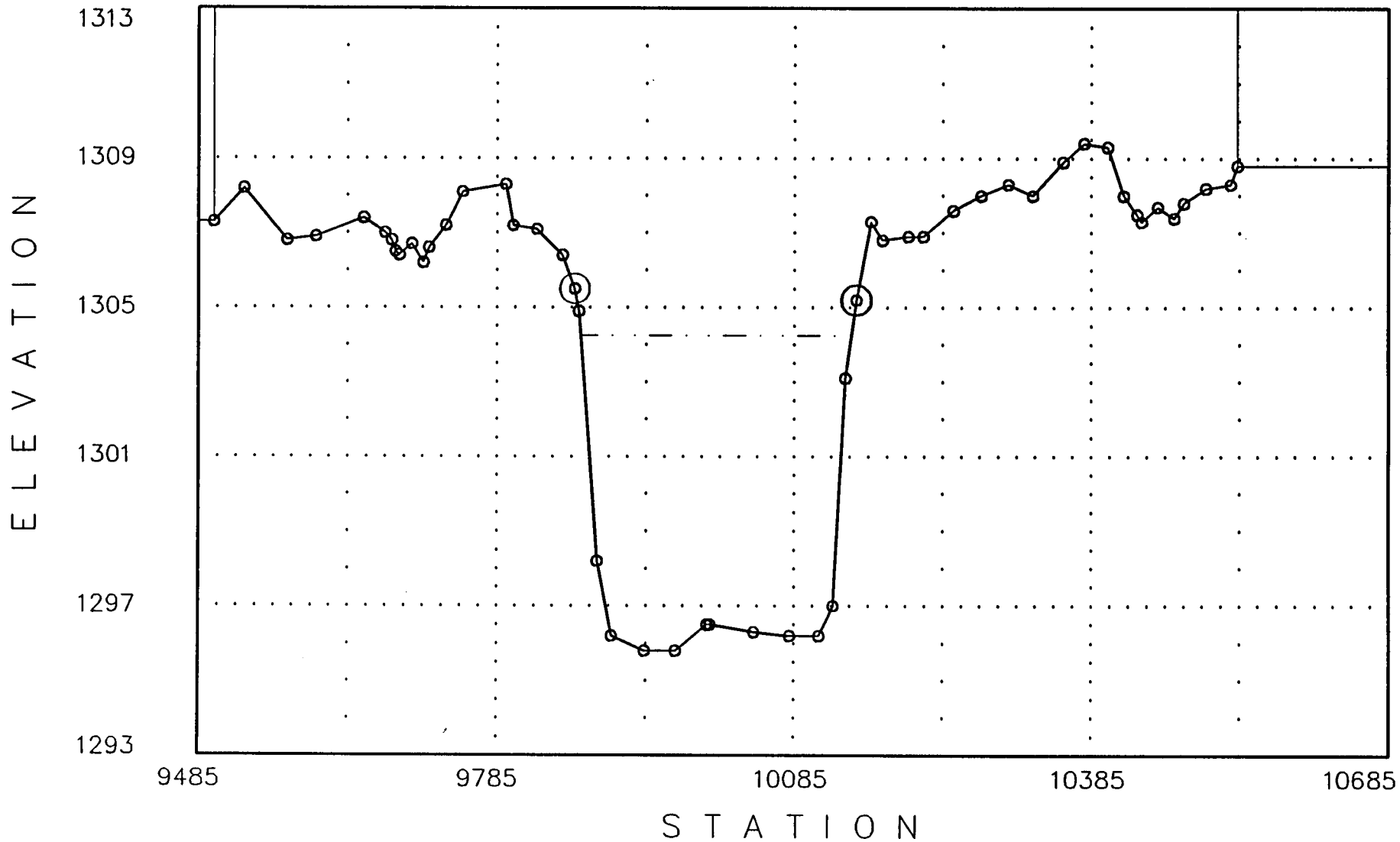



12-07-1990

<<<<<< Cross Section: 5.97: (FN = SKSFUT.O) >>>>>>

Q1= 10200 WS1= 1304.25

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

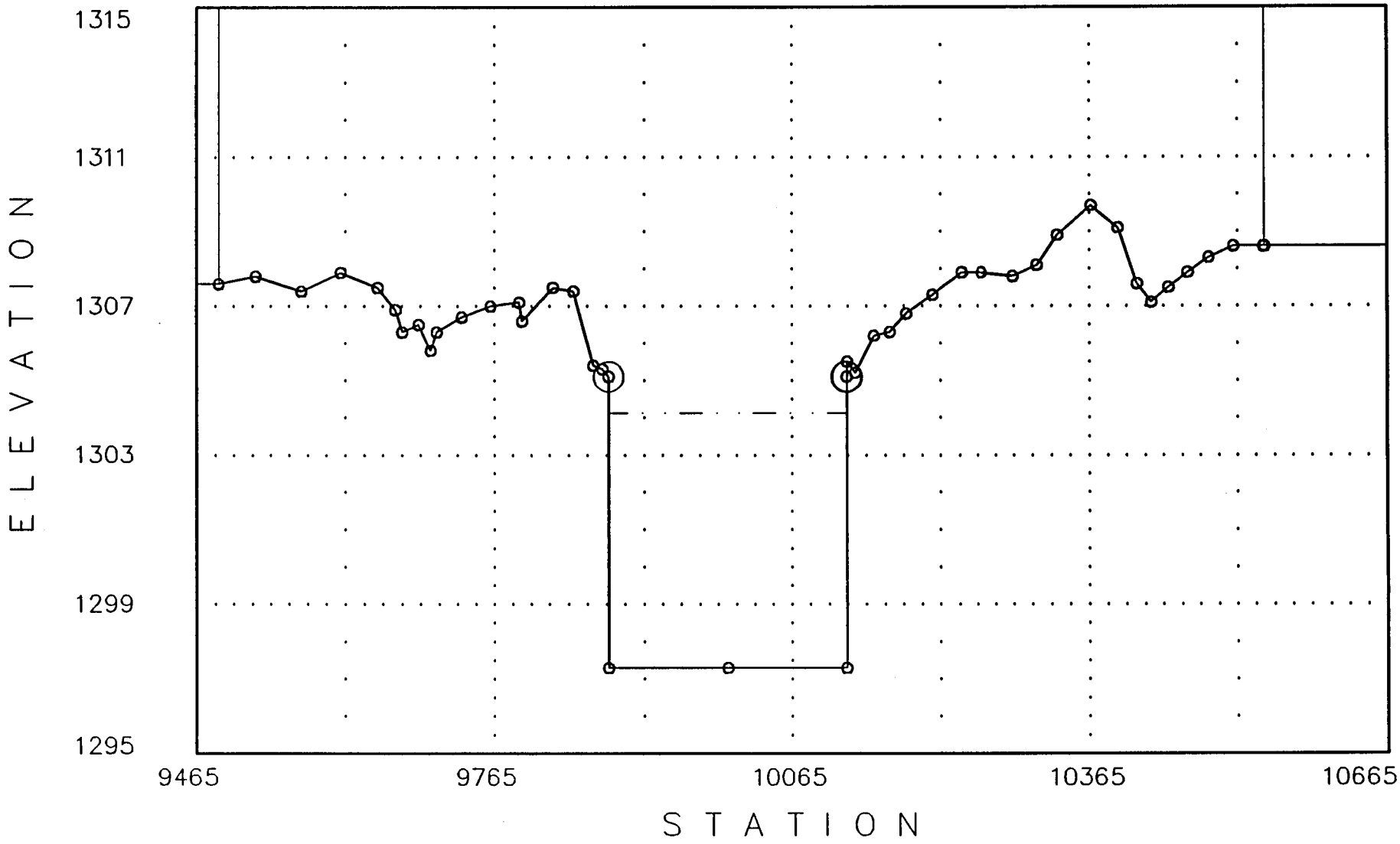



12-07-1990

<<<<<< Cross Section: 5.973: (FN = SKSFUT.O) >>>>>>

Q1= 10200 WS1= 1304.13

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

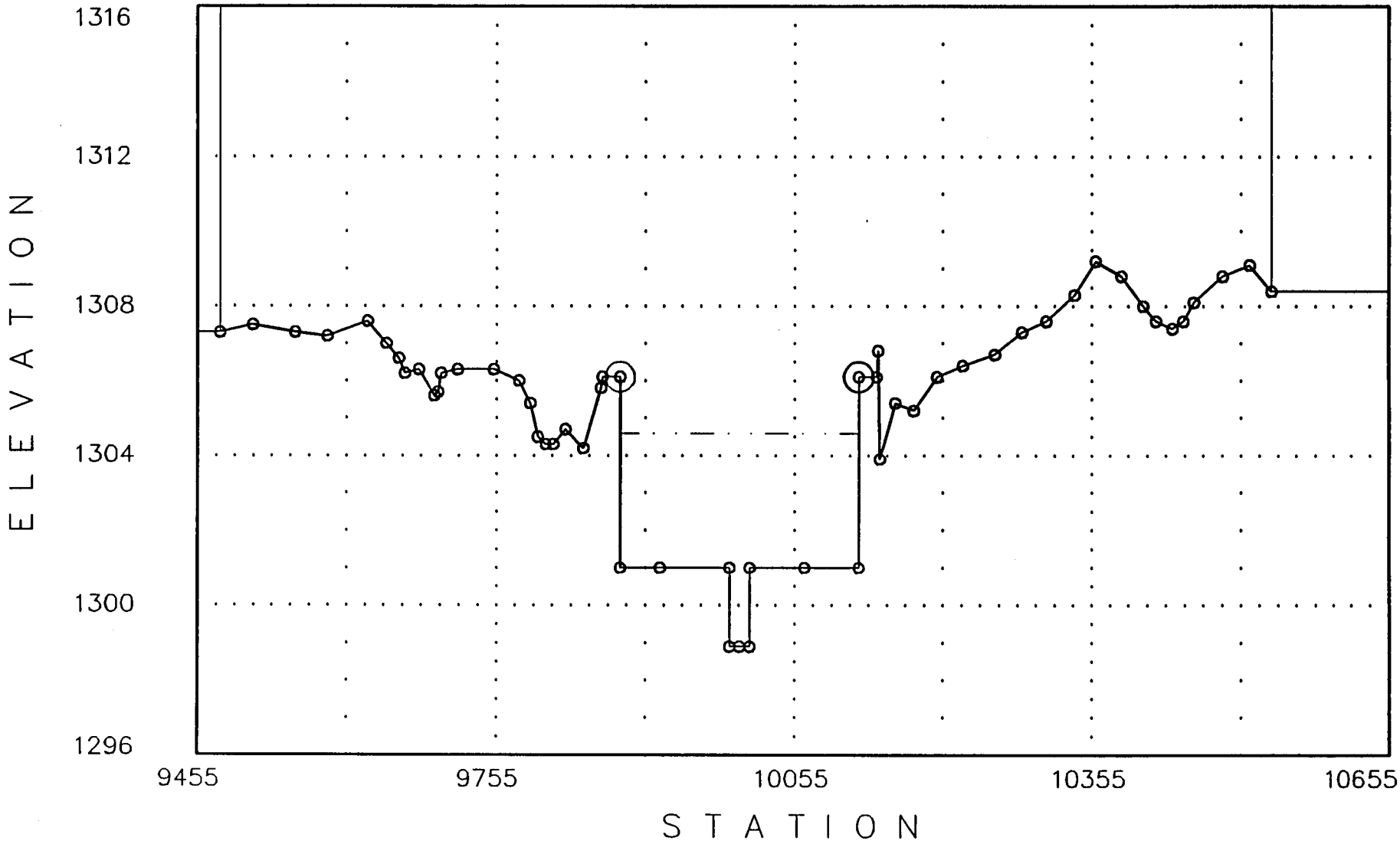



12-07-1990

<<<<<< Cross Section: 5.977: (FN = SKSFUT.O) >>>>>>

Q1= 10200 WS1= 1304.6

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

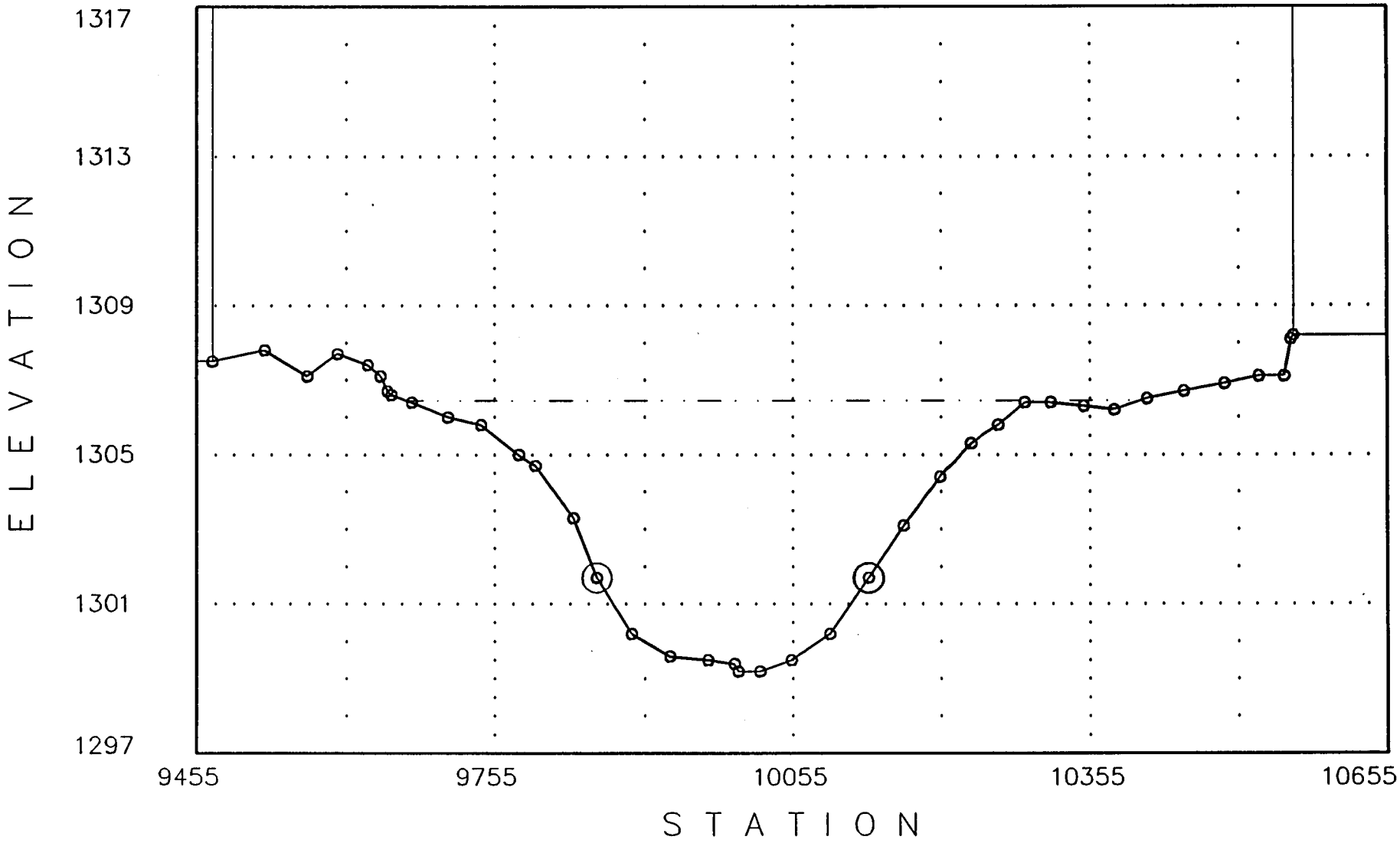



12-07-1990

<<<<<< Cross Section: 5.982: (FN = SKSFUT.O) >>>>>>

Q1= 10200 WS1= 1306.45

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

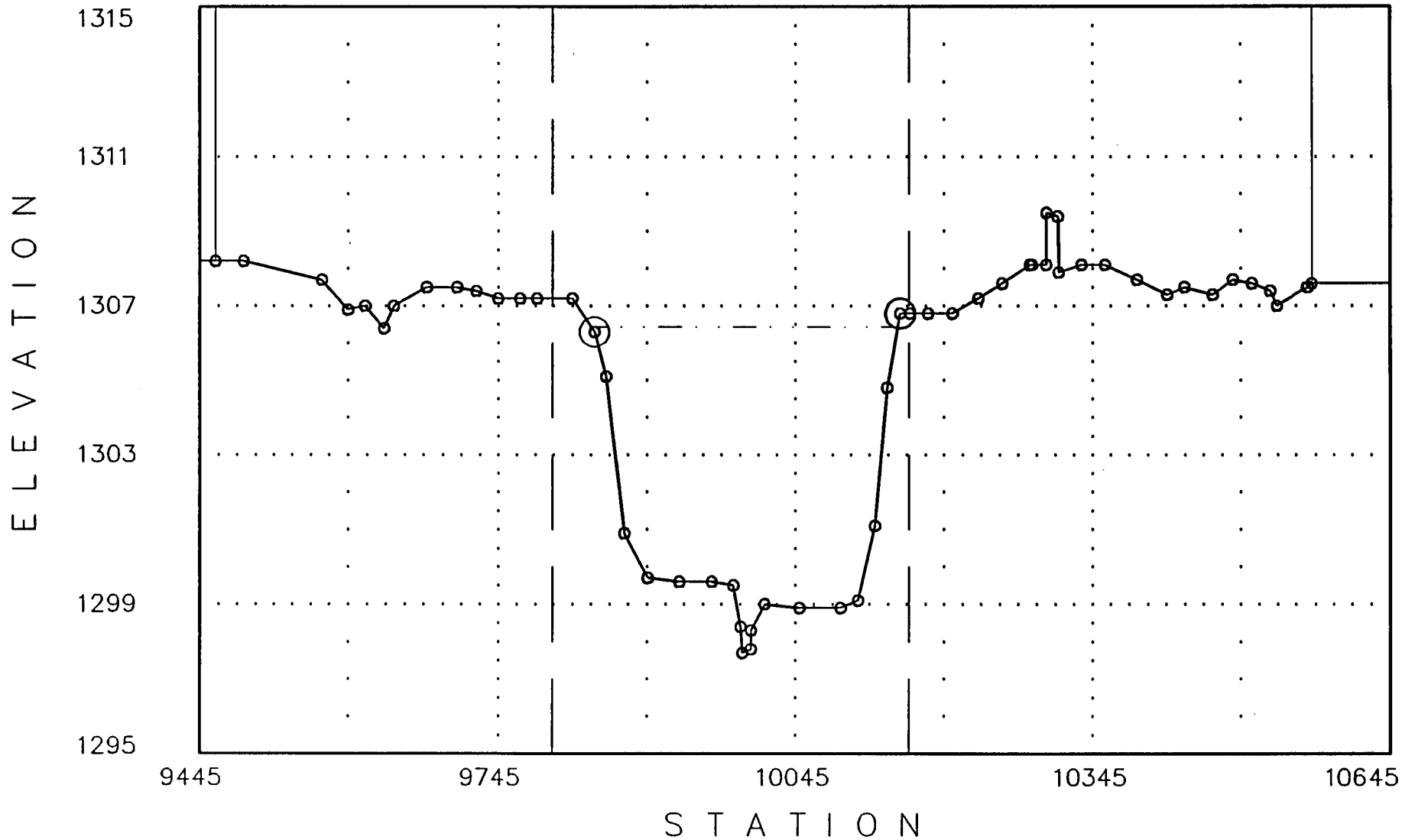



12-07-1990

<<<<<< Cross Section: 5.99: (FN = SKSFUT.O) >>>>>>

Q1= 10130 WS1= 1306.44

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

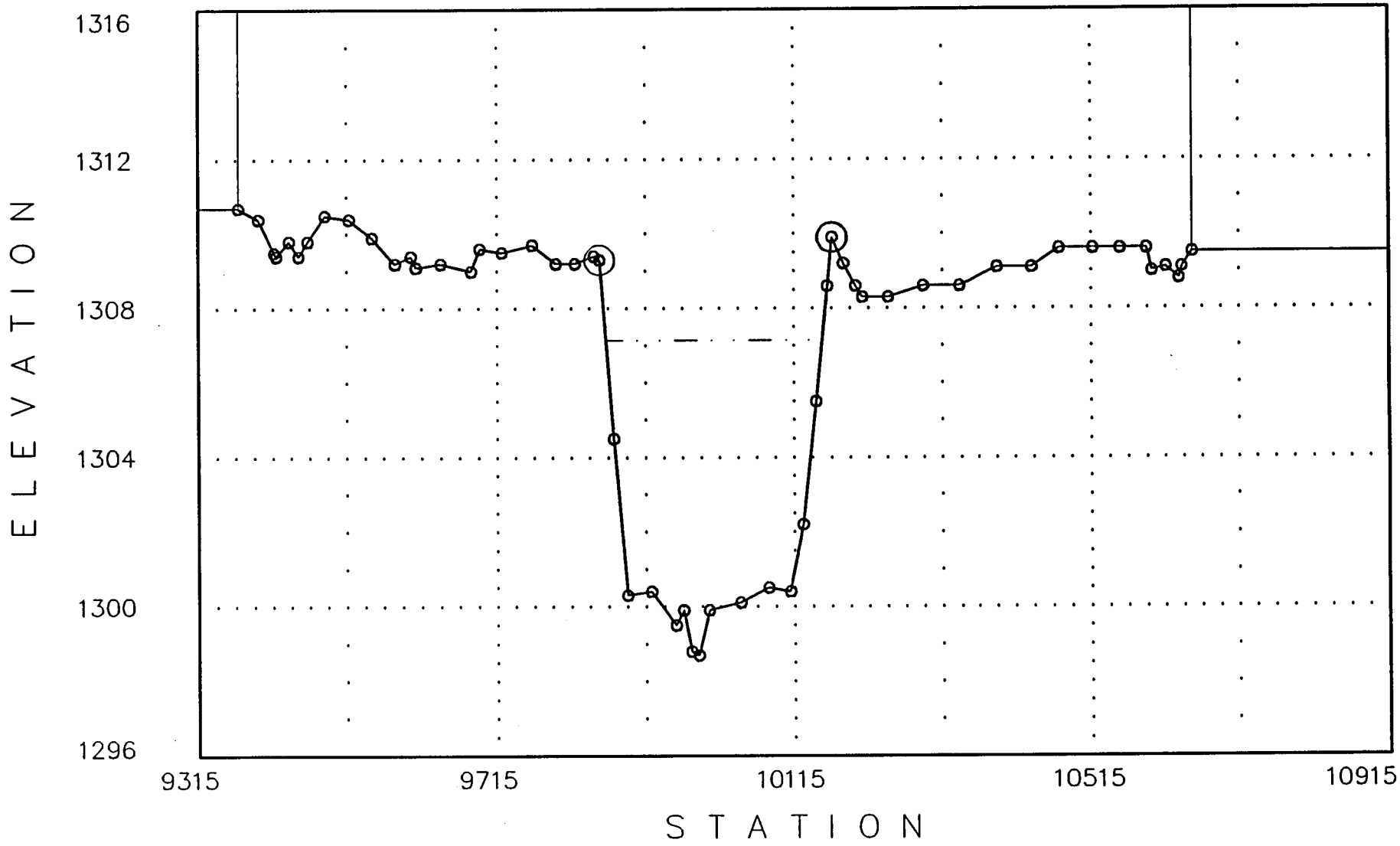



12-07-1990

<<<<<< Cross Section: 6.089: (FN = SKSFUT.O) >>>>>>

Q1= 10130 WS1= 1307.14

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

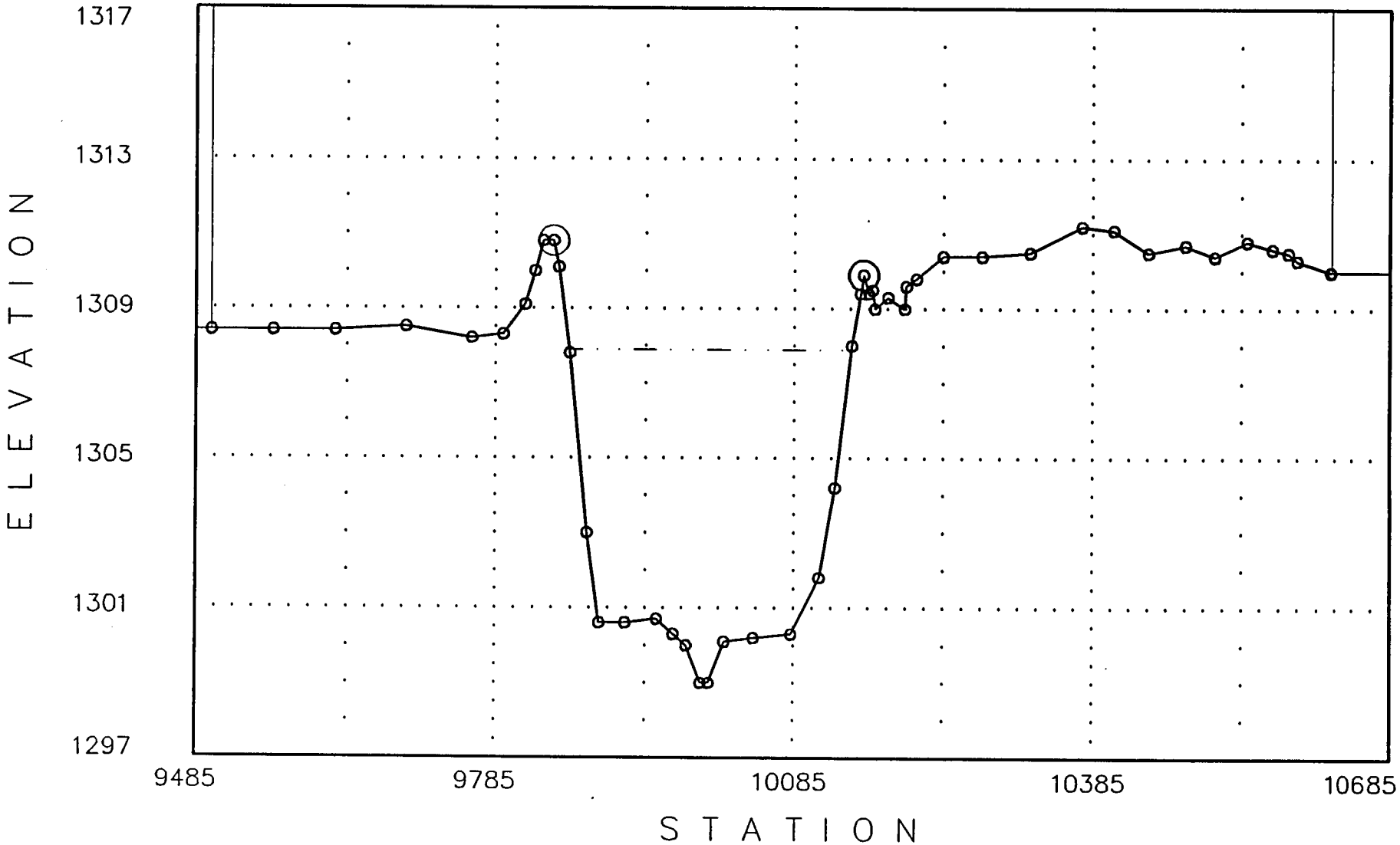



12-07-1990

<<<<<< Cross Section: 6.189: (FN = SKSFUT.O) >>>>>>

Q1= 10130 WS1= 1307.9

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

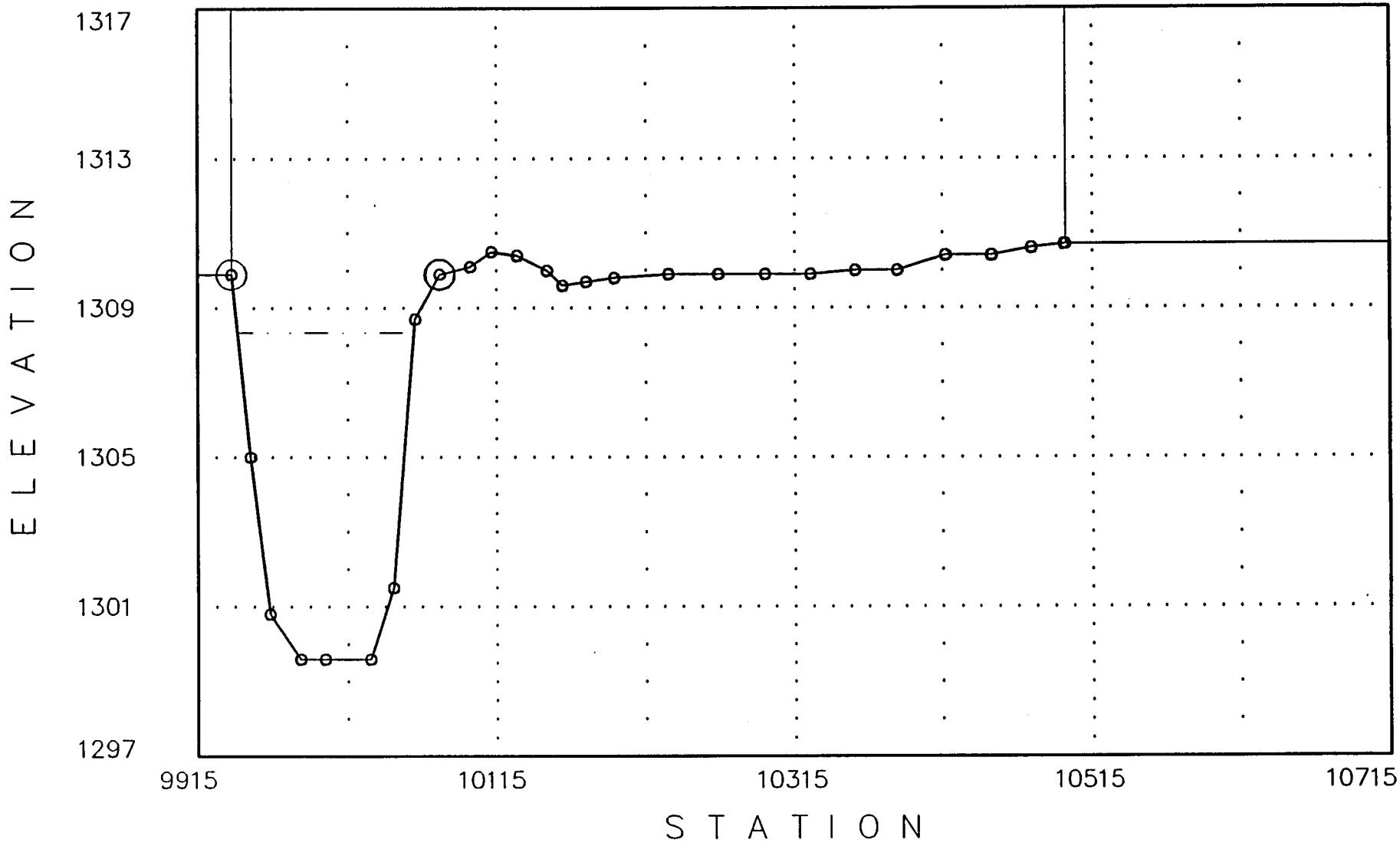



12-07-1990

<<<<<< Cross Section: 6.219: (FN = SKSFUT.O) >>>>>>

Q1= 2800 WS1= 1308.34

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

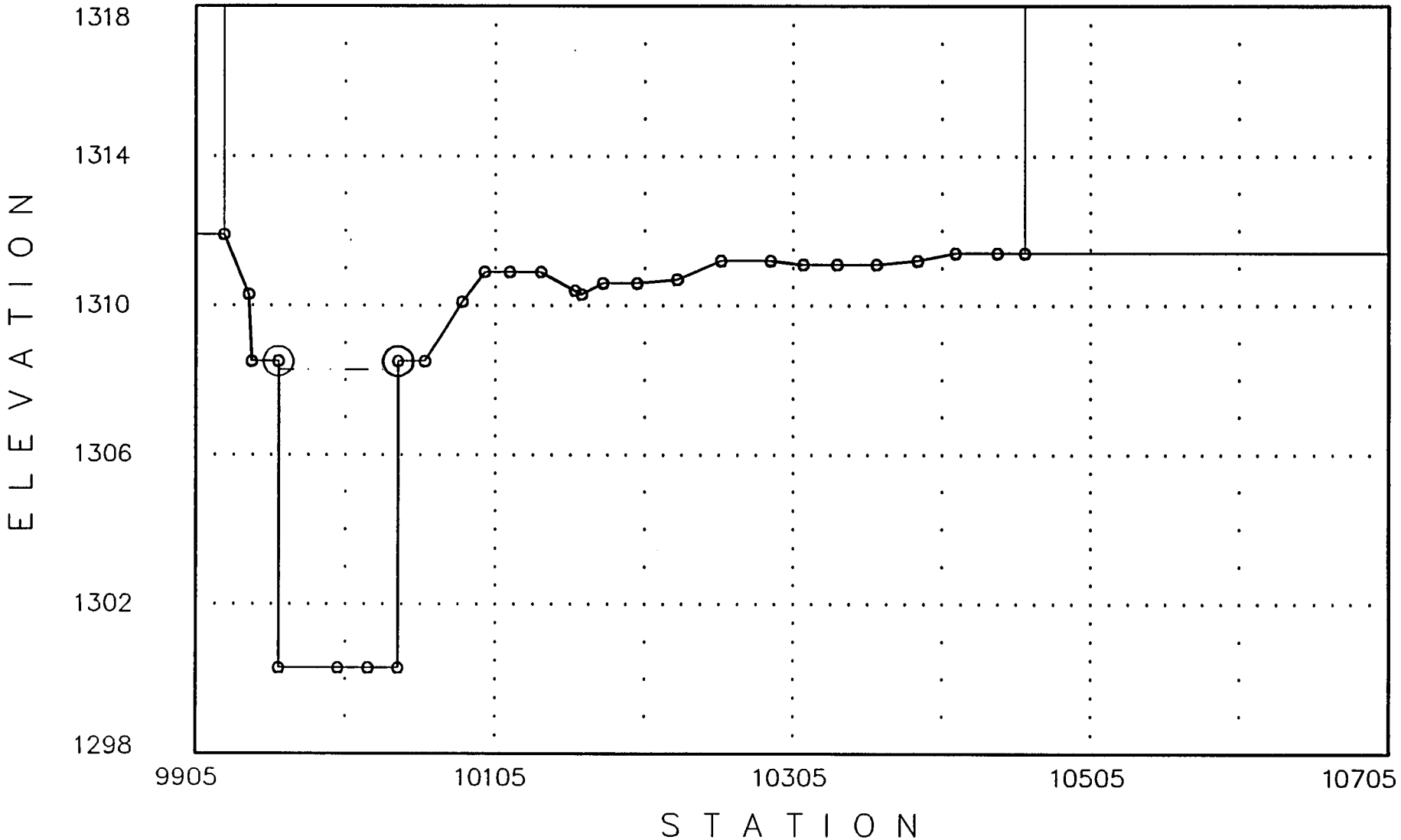



12-07-1990

<<<<<< Cross Section: 6.223: (FN = SKSFUT.O) >>>>>>

Q1= 2800 WS1= 1308.27

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

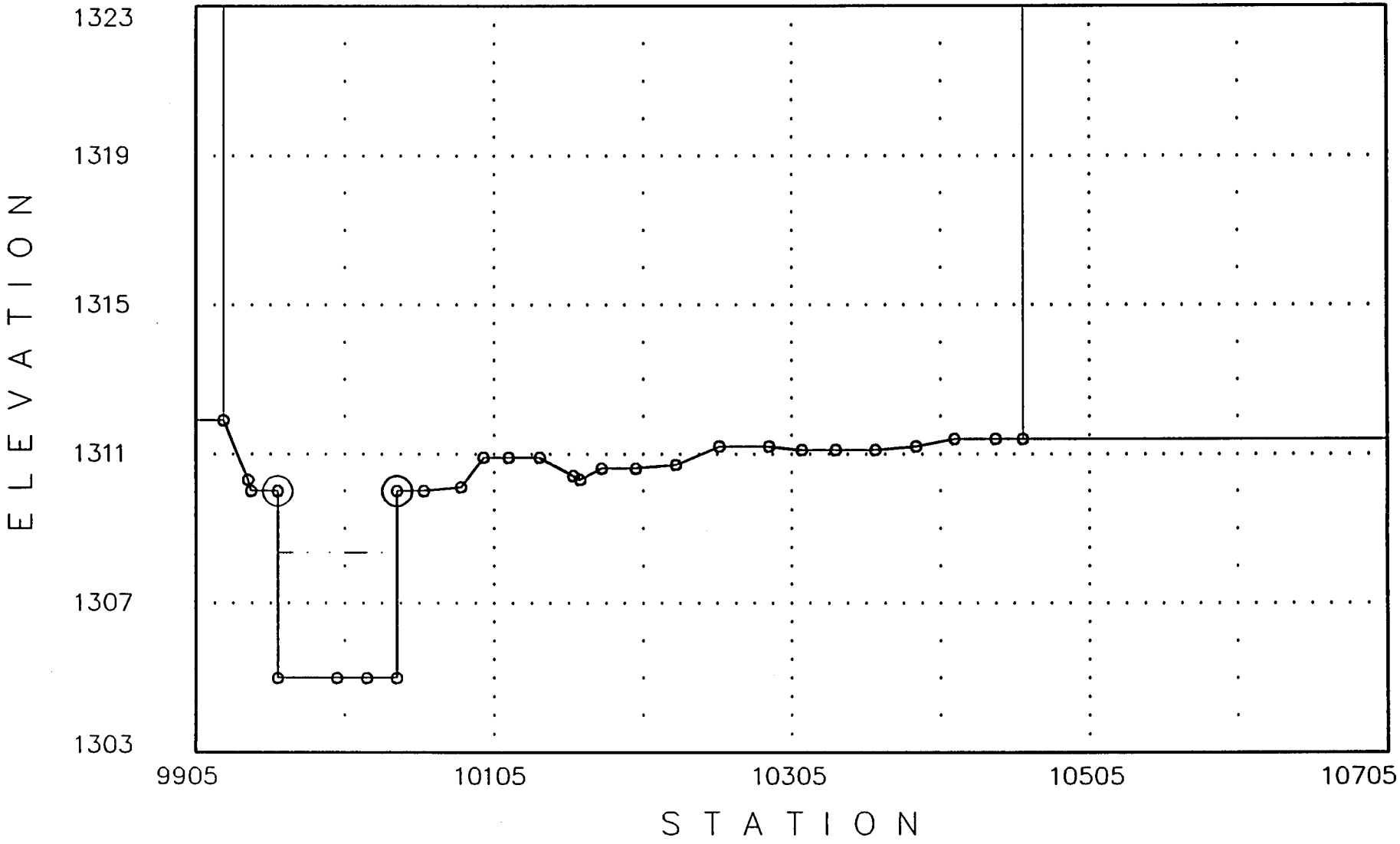



12-07-1990

<<<<<< Cross Section: 6.227: (FN = SKSFUT.O) >>>>>>

Q1= 2800 WS1= 1308.36

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

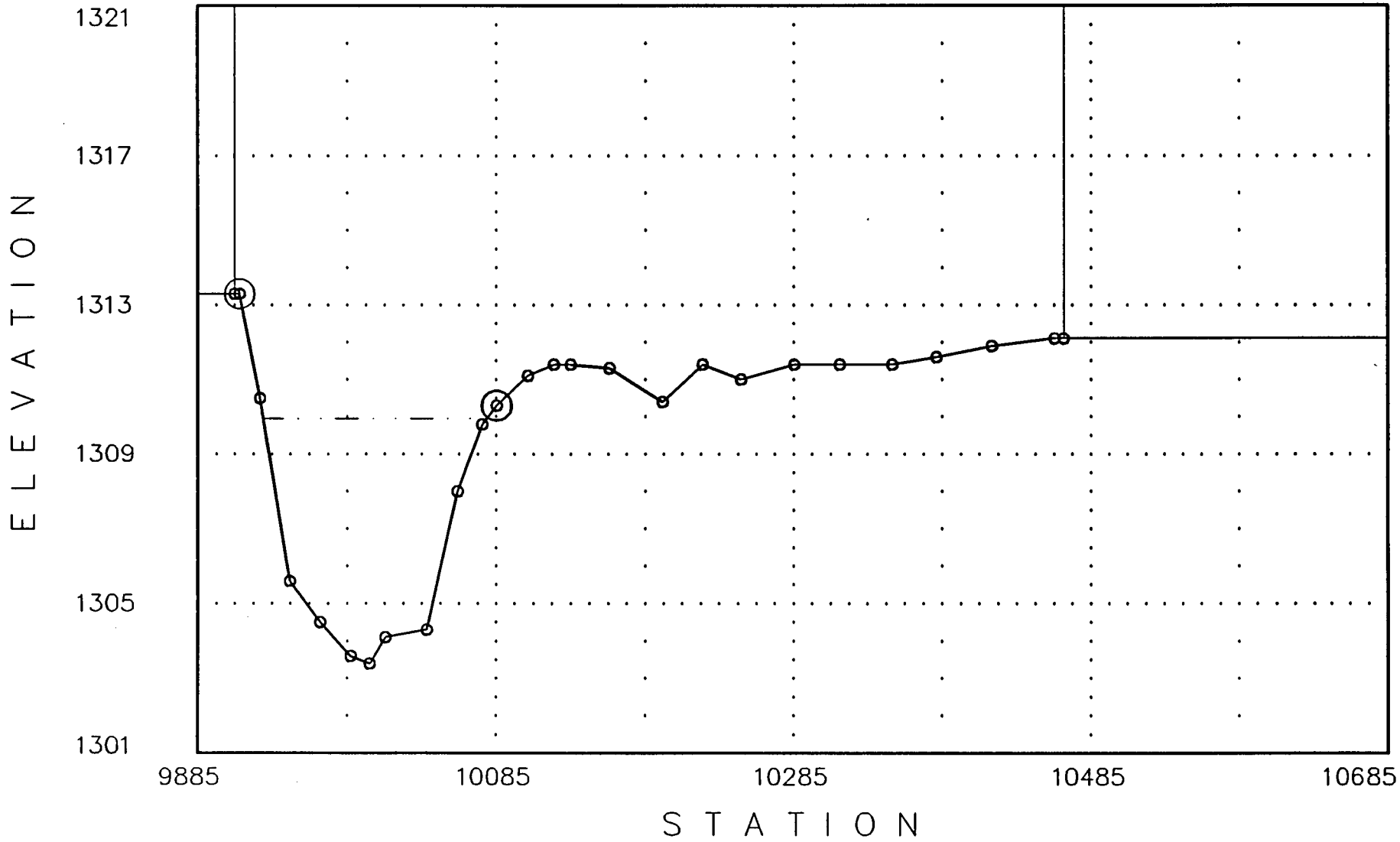



12-07-1990

<<<<<< Cross Section: 6.23: (FN = SKSFUT.O) >>>>>>

Q1= 2800 WS1= 1309.95

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

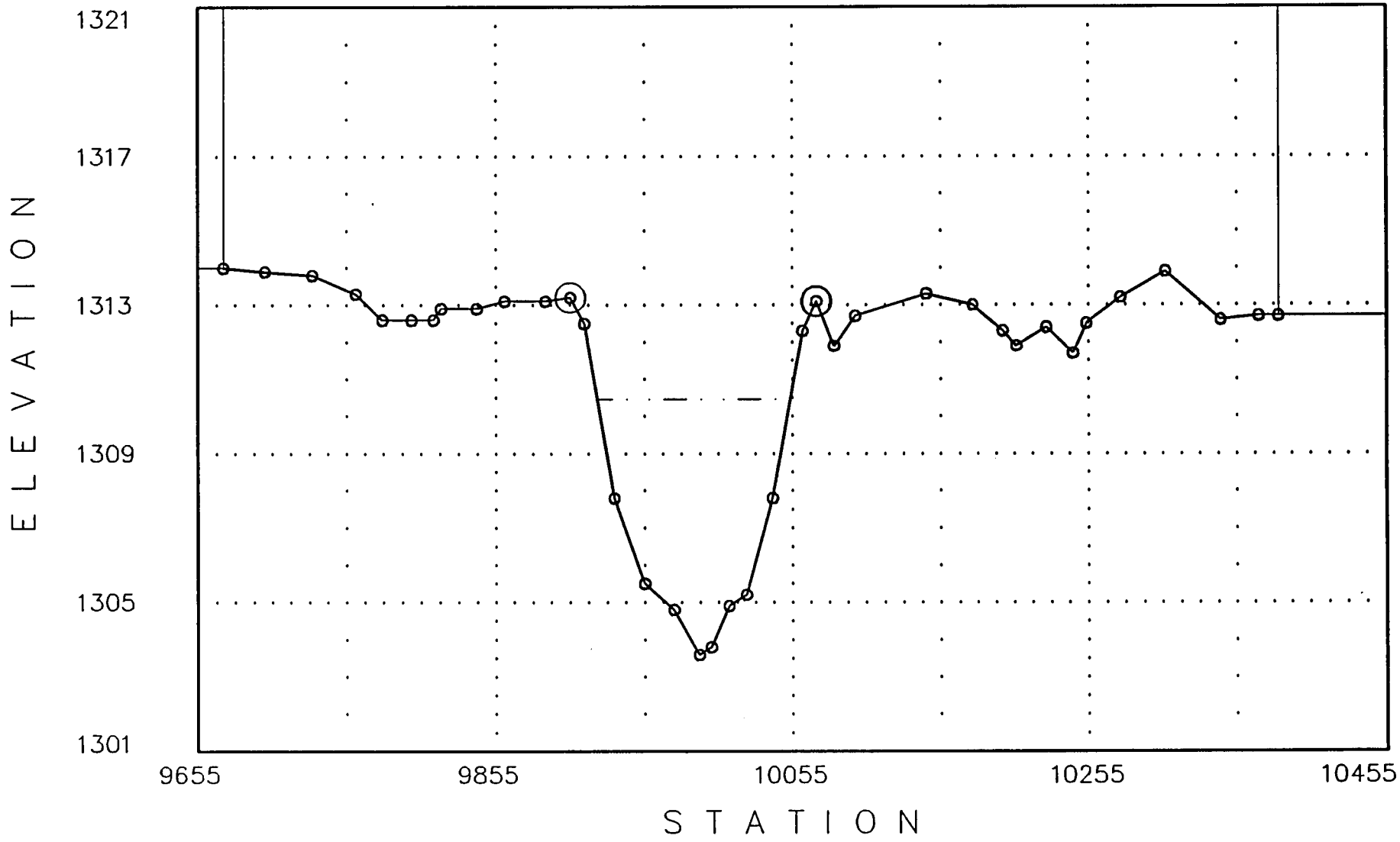



12-07-1990

<<<<<< Cross Section: 6.298: (FN = SKSFUT.O) >>>>>>

Q1= 2800 WS1= 1310.46

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

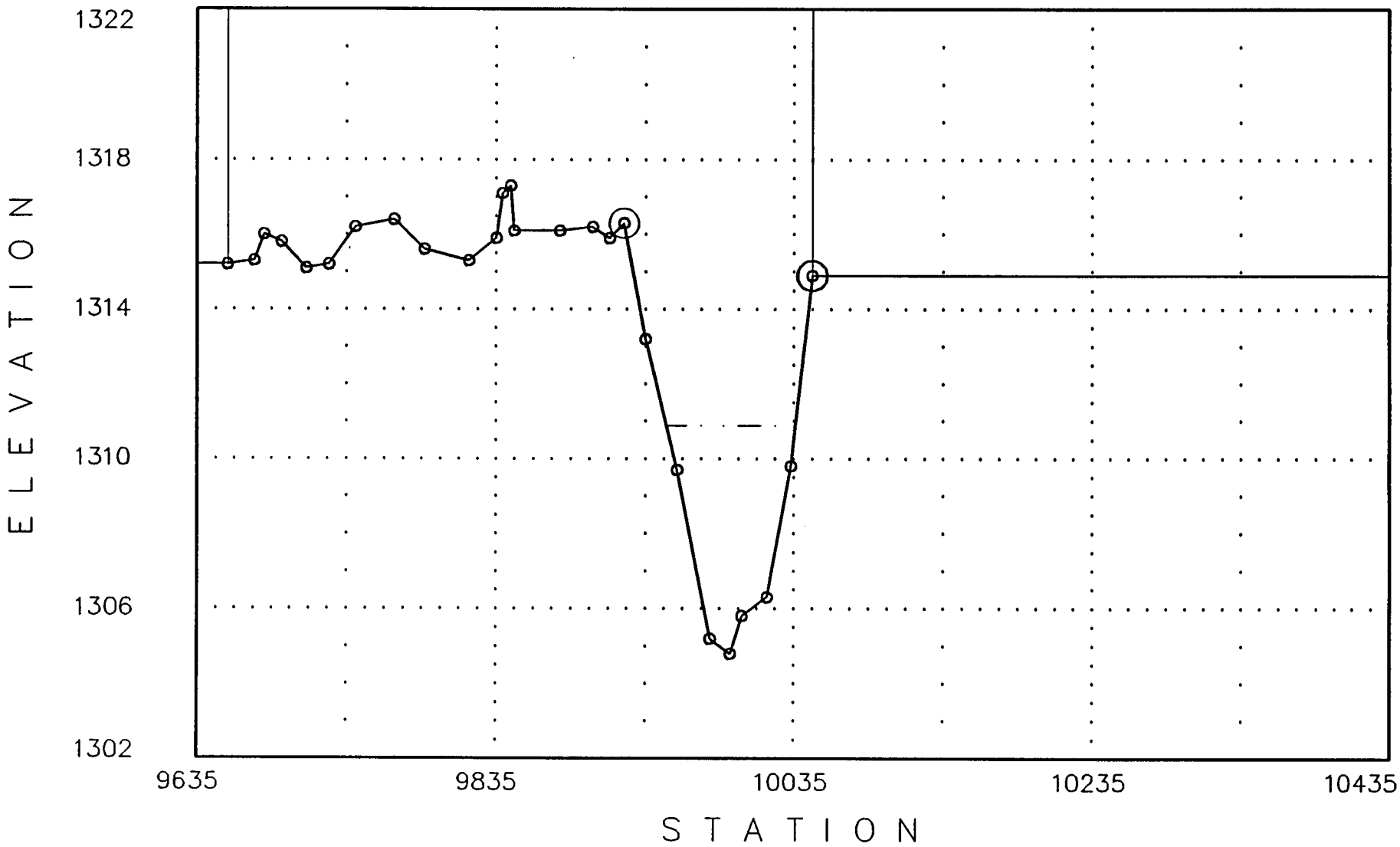



12-07-1990

<<<<<< Cross Section: 6.356: (FN = SKSFUT.O) >>>>>>

Q1= 2800 WS1= 1310.89

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

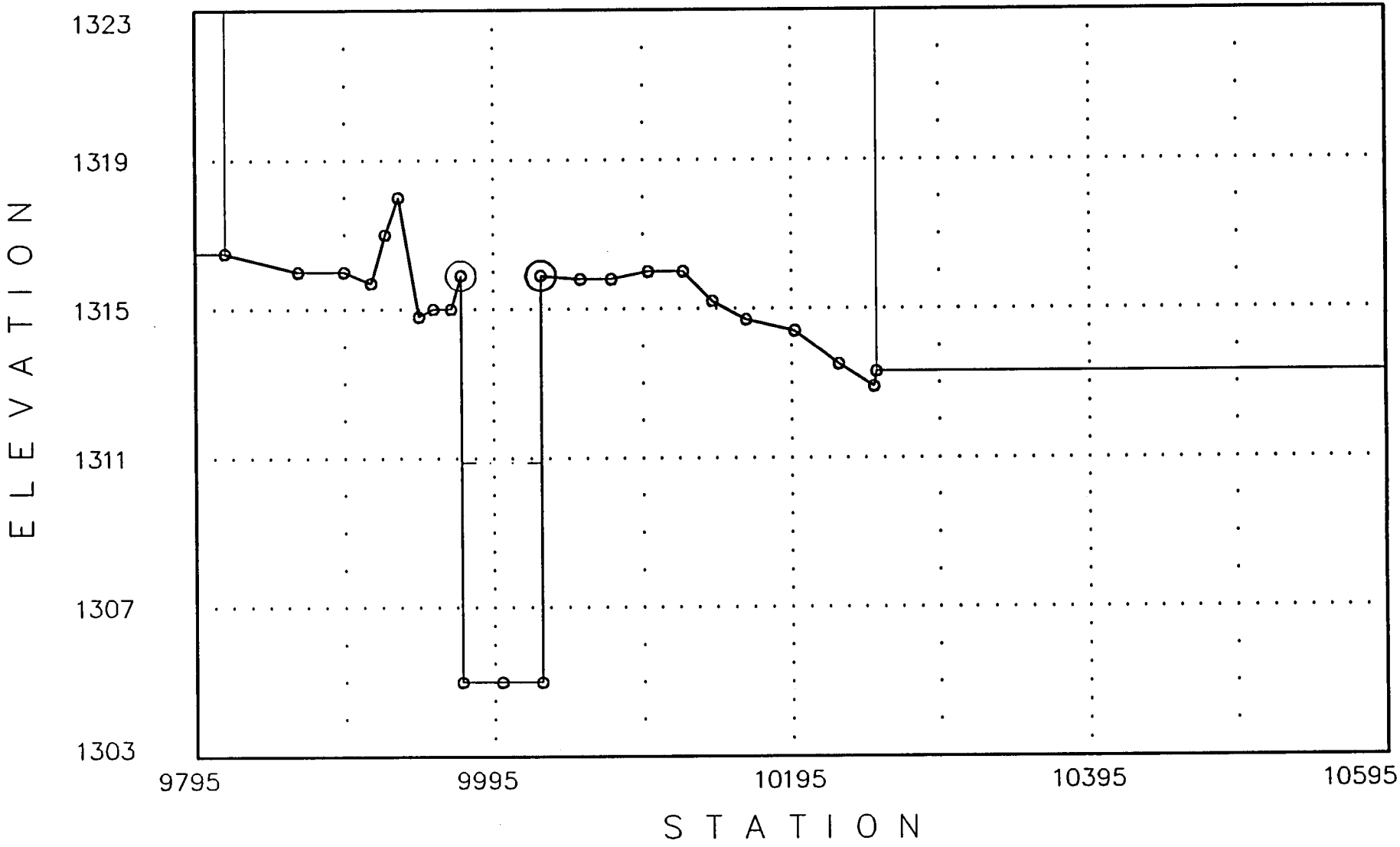



12-07-1990

<<<<<< Cross Section: 6.361: (FN = SKSFUT.O) >>>>>>

Q1= 2800 WS1= 1310.87

Manning-n's: n-lob = .015 n-ch = .015 n-rob = .015



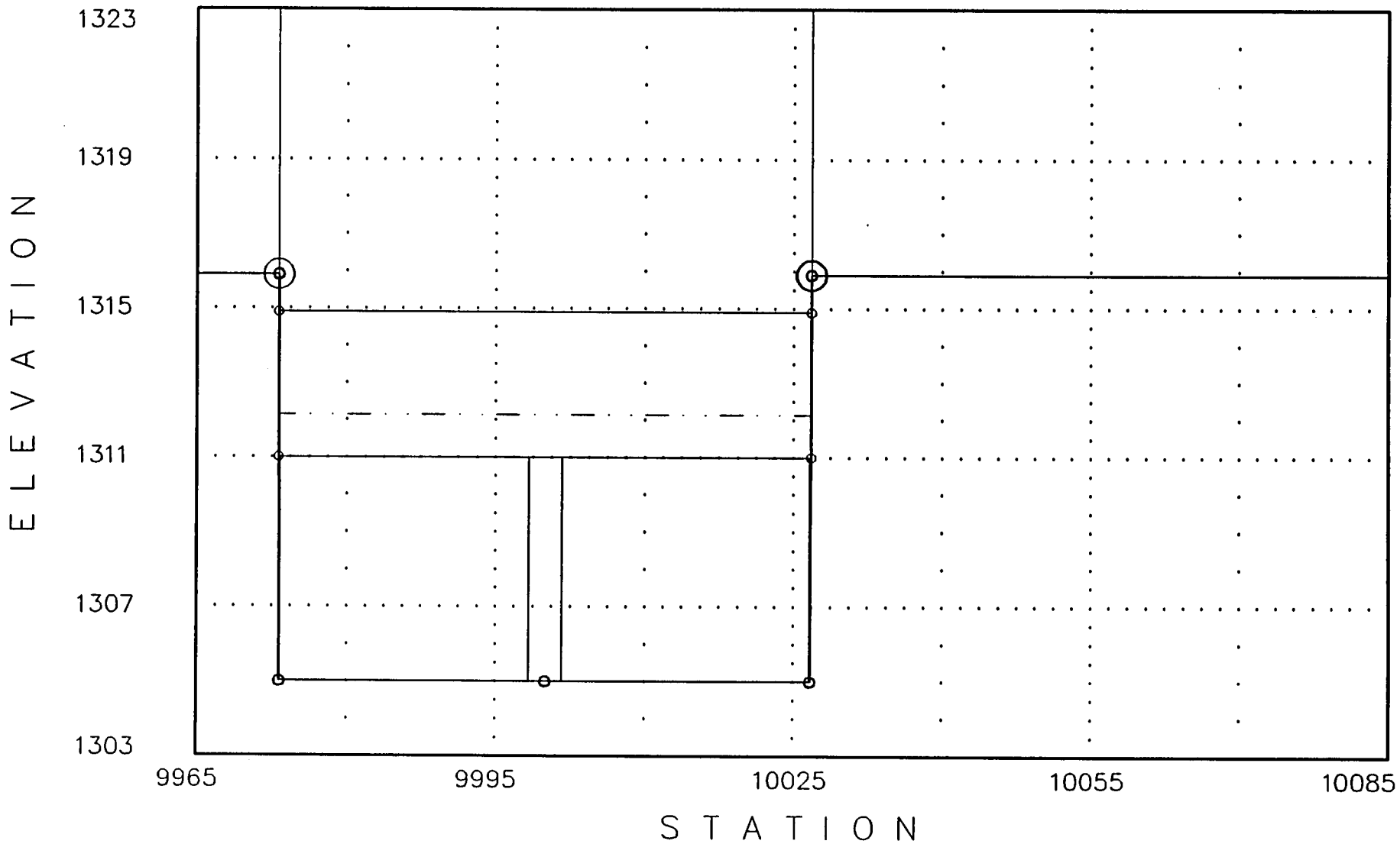

12-07-1990

<<<<<< Cross Section: 6.377: (FN = SKSFUT.O) >>>>>>

Q1= 2800 WS1= 1312.14

Manning-n's: n-lob = .015 n-ch = .015 n-rob = .015

SPECIAL BRIDGE

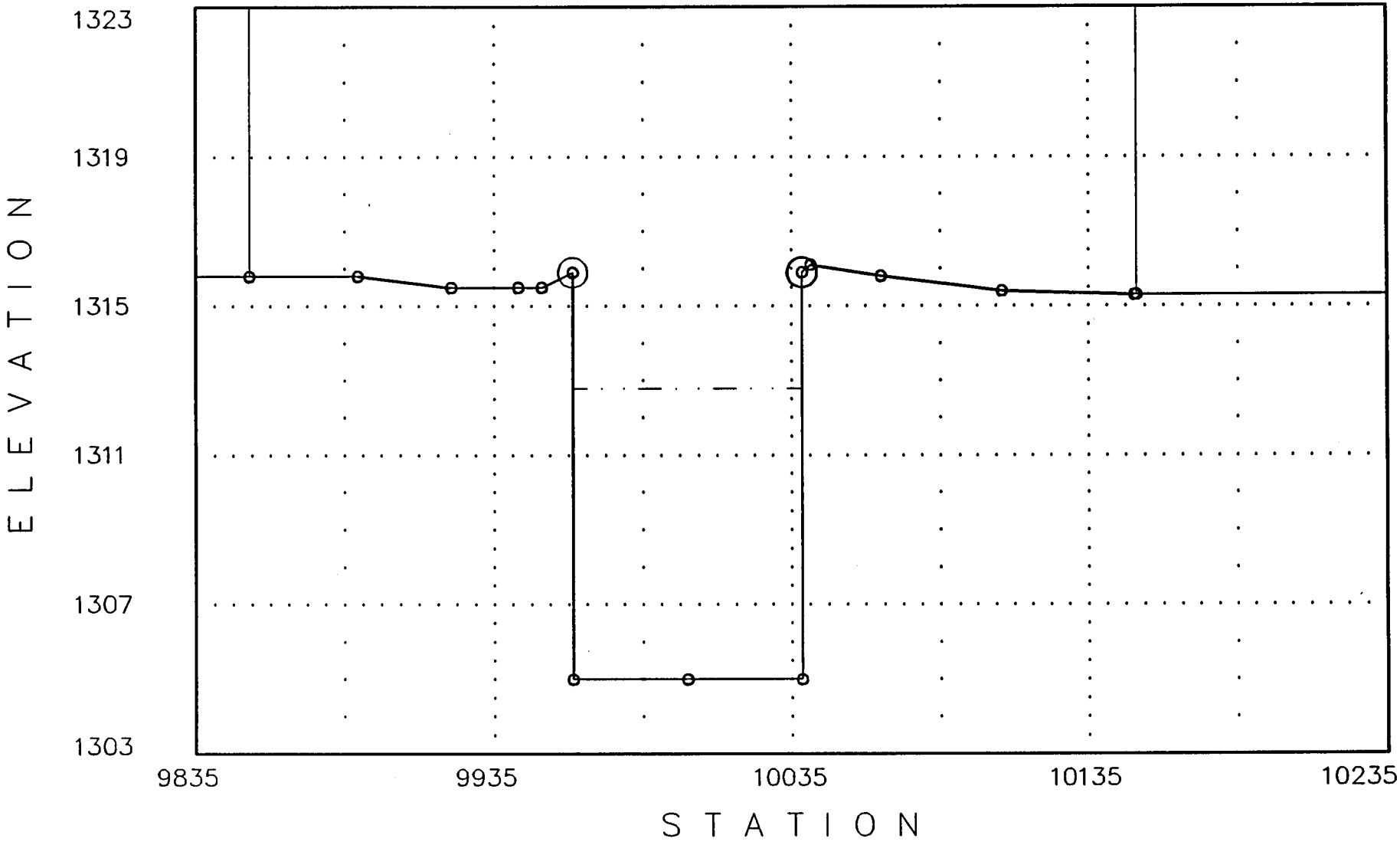



12-07-1990

<<<<<< Cross Section: 6.378: (FN = SKSFUT.O) >>>>>>

Q1= 2800 WS1= 1312.79

Manning-n's: n-lob = .015 n-ch = .015 n-rob = .015

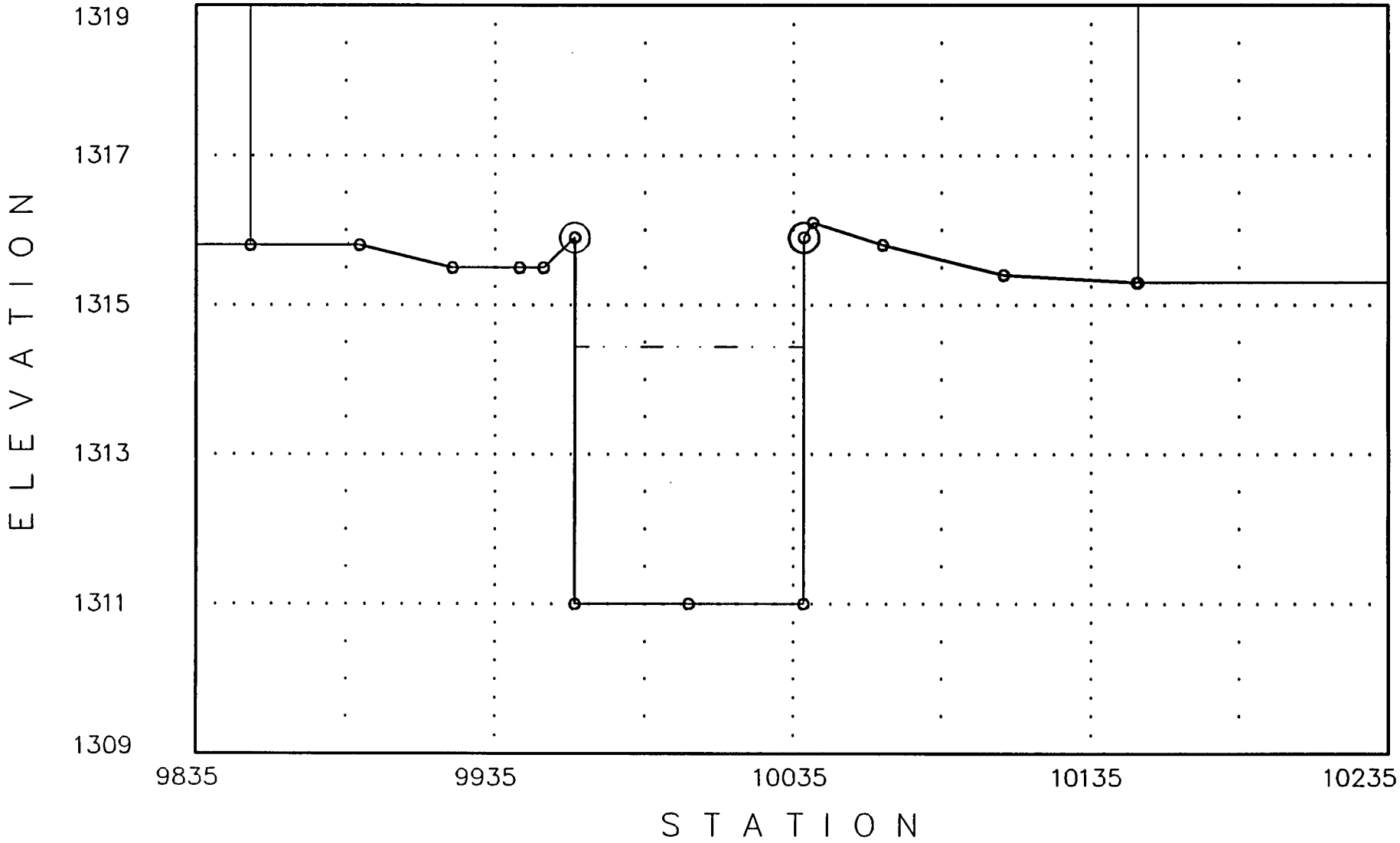



12-07-1990

<<<<<< Cross Section: 6.379: (FN = SKSFUT.O) >>>>>>

Q1= 2800 WS1= 1314.44

Manning-n's: n-lob = .015 n-ch = .015 n-rob = .015

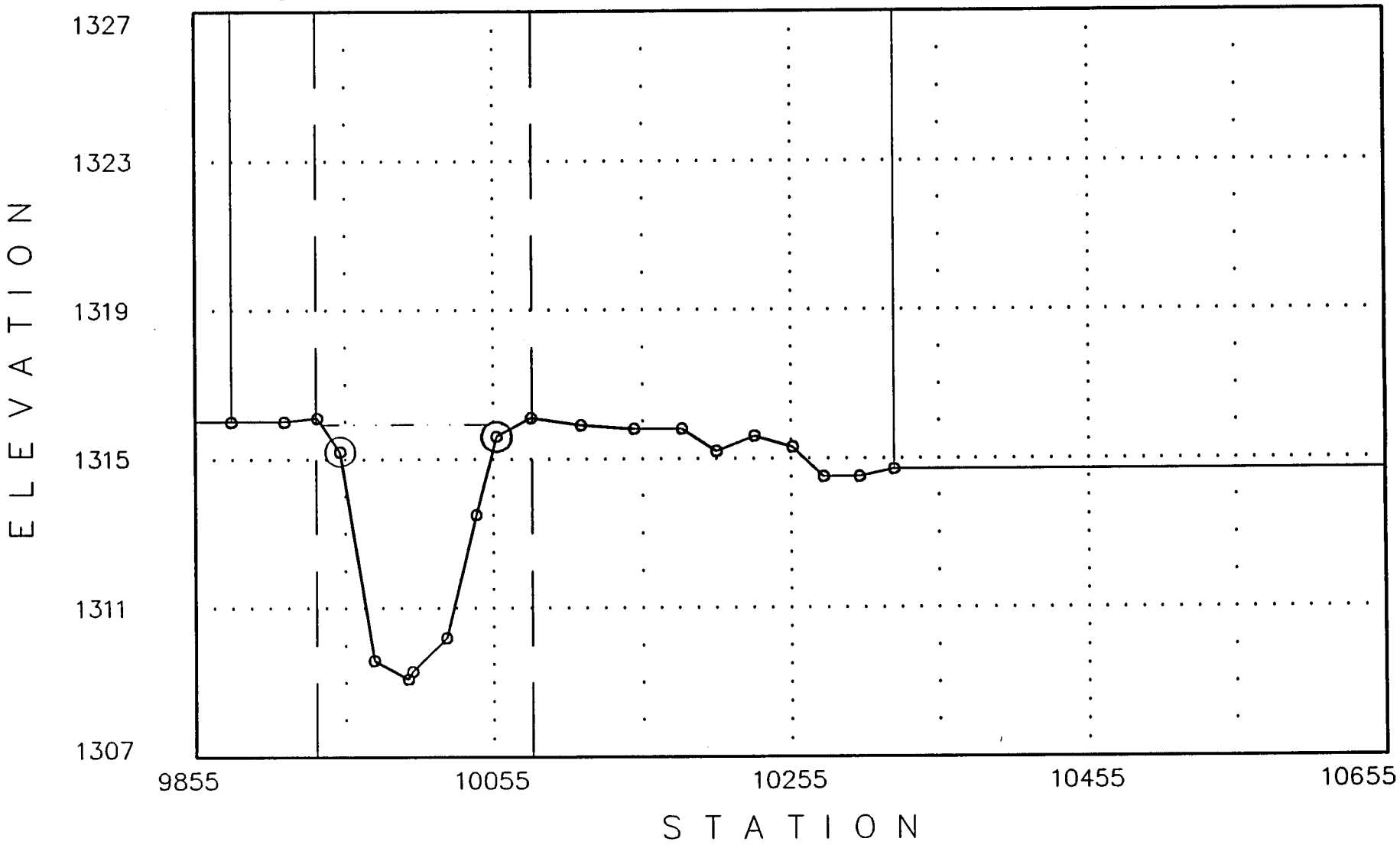



12-07-1990

<<<<<< Cross Section: 6.389: (FN = SKSFUT.O) >>>>>>

Q1= 2800 WS1= 1315.93

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

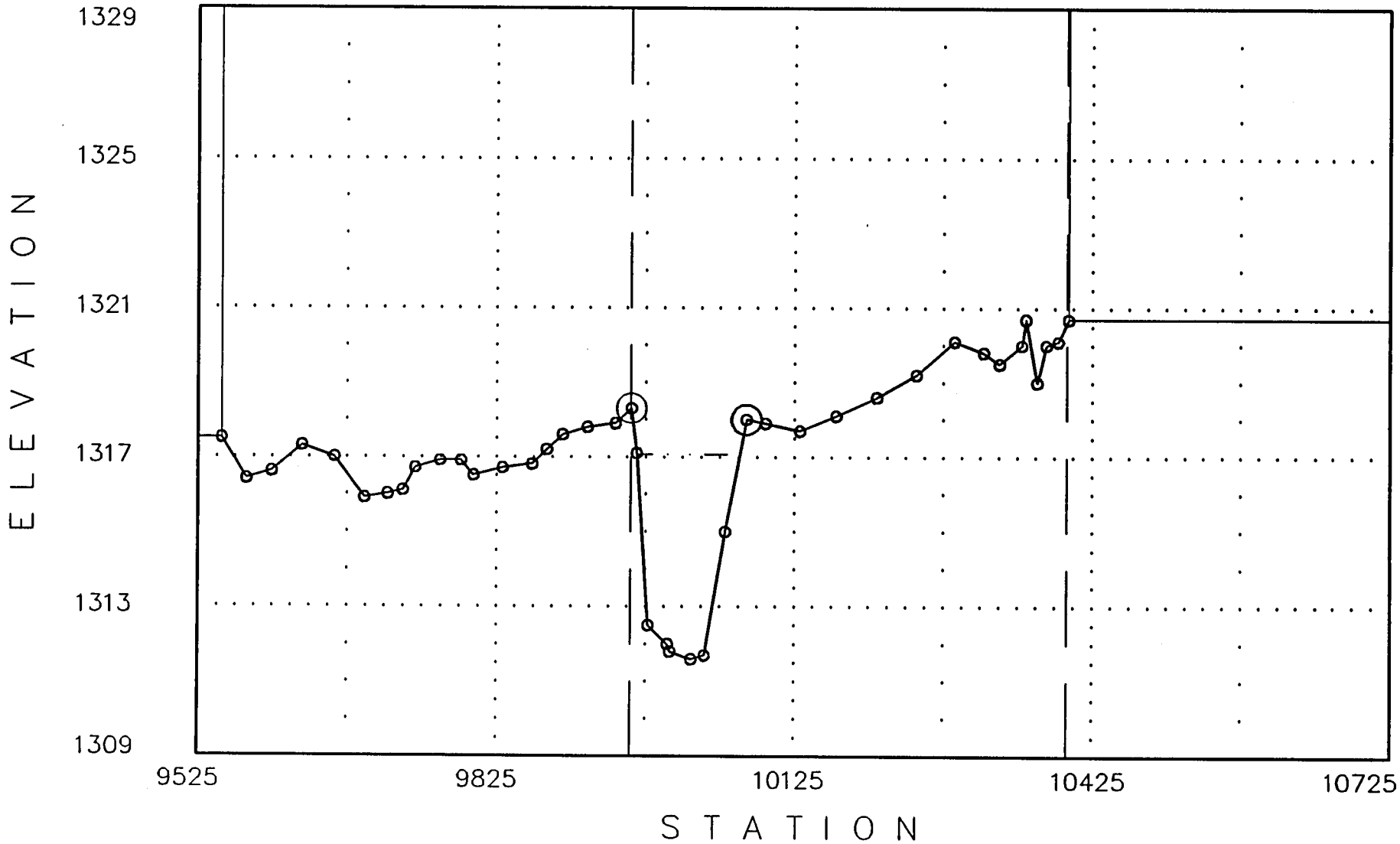



12-07-1990

<<<<<< Cross Section: 6.471: (FN = SKSFUT.O) >>>>>>

Q1= 2800 WS1= 1317.07

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

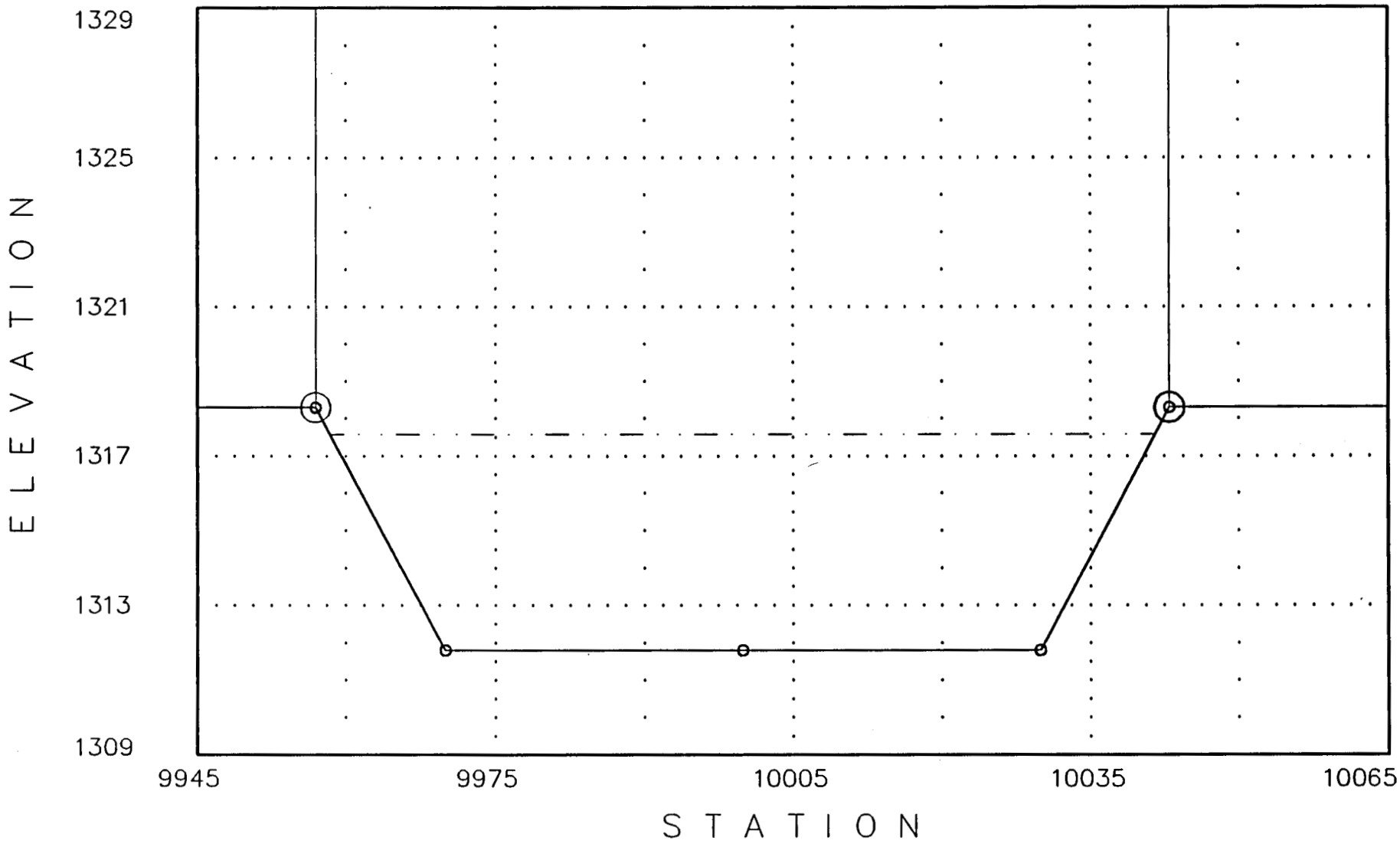



12-07-1990

<<<<<< Cross Section: 6.511: (FN = SKSFUT.O) >>>>>>

Q1= 2800 WS1= 1317.58

Manning-n's: n-lob = .025 n-ch = .025 n-rob = .025

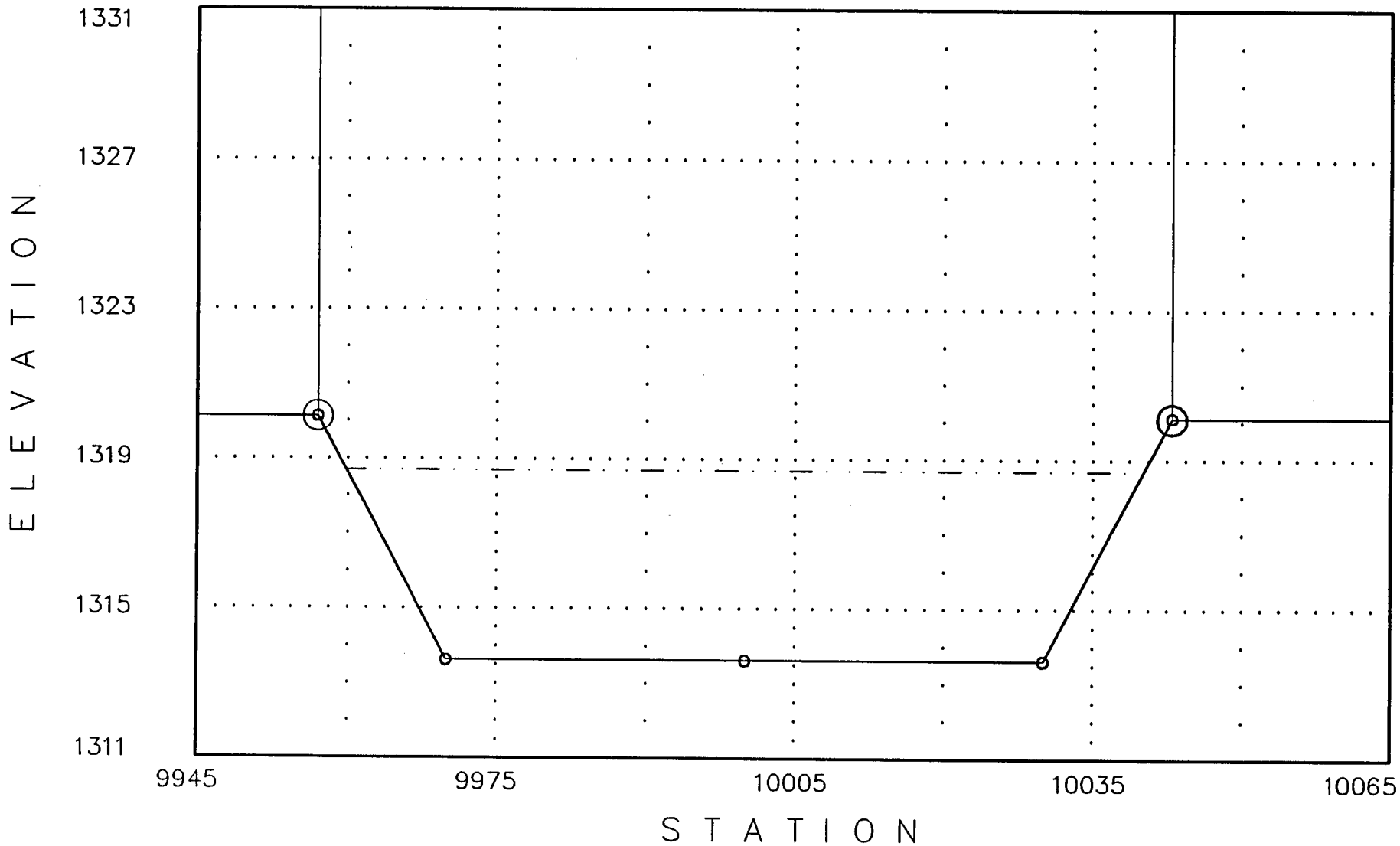



12-07-1990

<<<<<< Cross Section: 6.634: (FN = SKSFUT.O) >>>>>>

Q1= 2800 WS1= 1318.69

Manning-n's: n-lob = .025 n-ch = .025 n-rob = .025

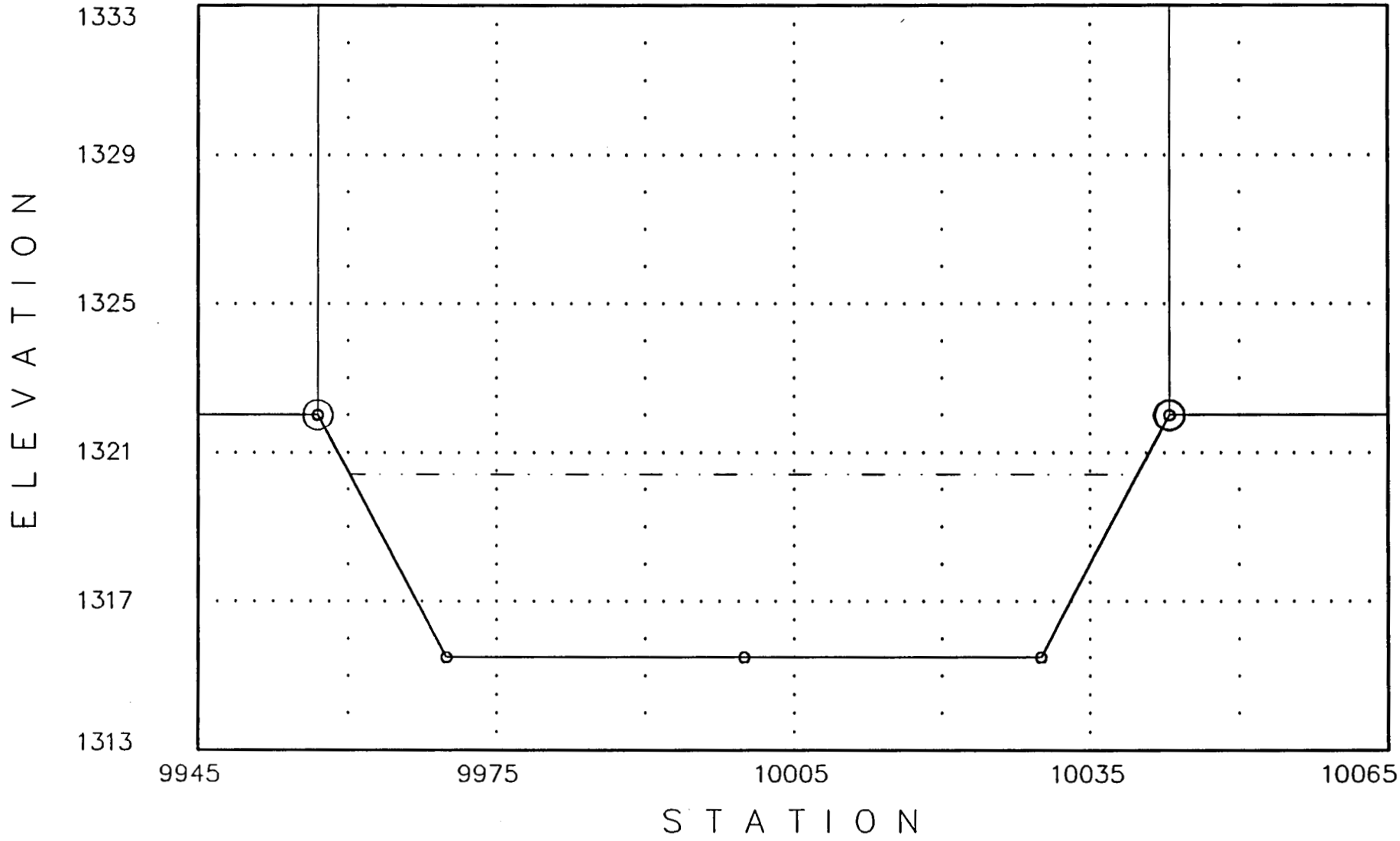



12-07-1990

<<<<<< Cross Section: 6.772: (FN = SKSFUT.O) >>>>>>

Q1= 2800 WS1= 1320.41

Manning-n's: n-lob = .025 n-ch = .025 n-rob = .025

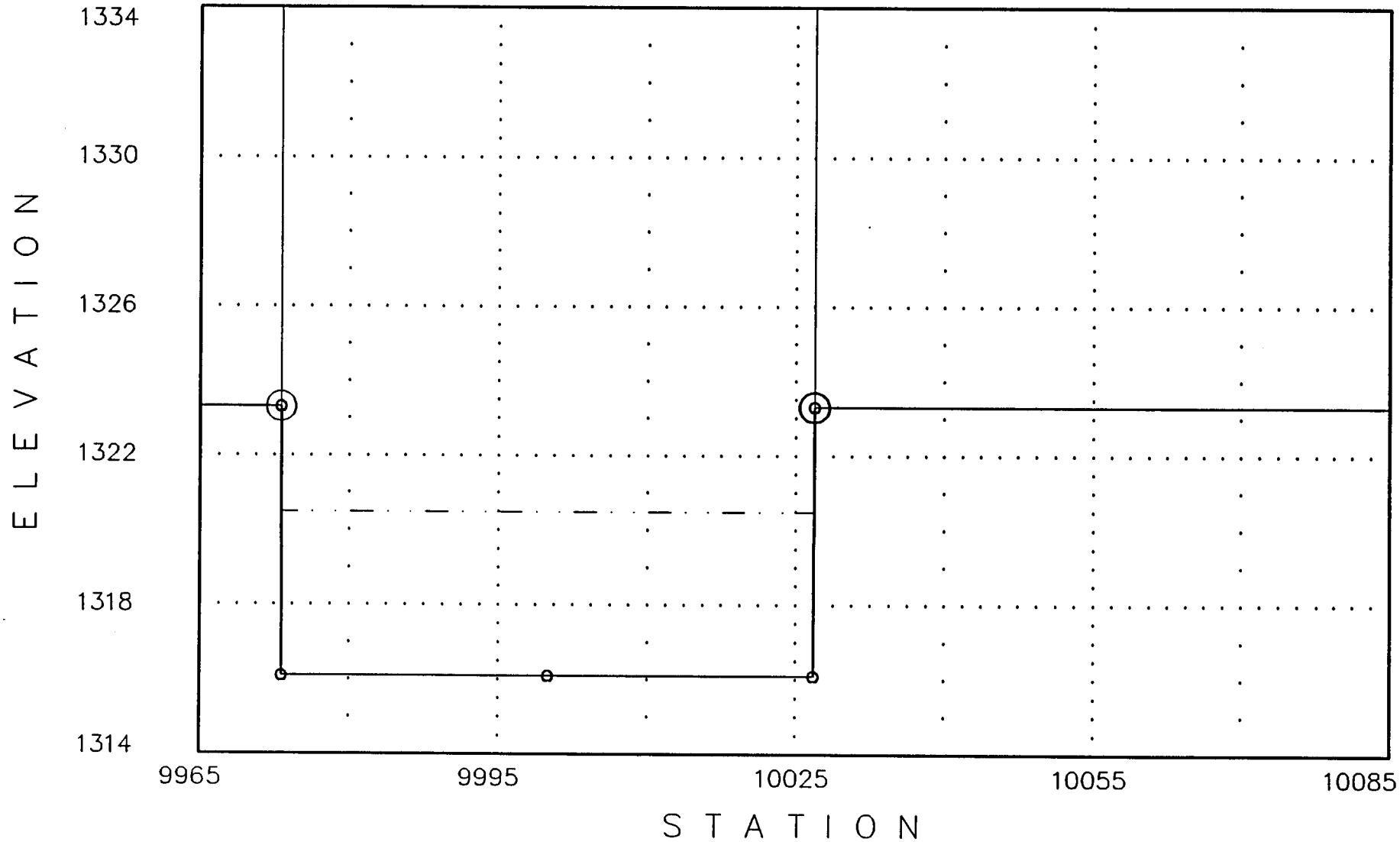



12-07-1990

<<<<<< Cross Section: 6.78: (FN = SKSFUT.O) >>>>>>

Q1= 2800 WS1= 1320.48

Manning-n's: n-lob = .015 n-ch = .015 n-rob = .015



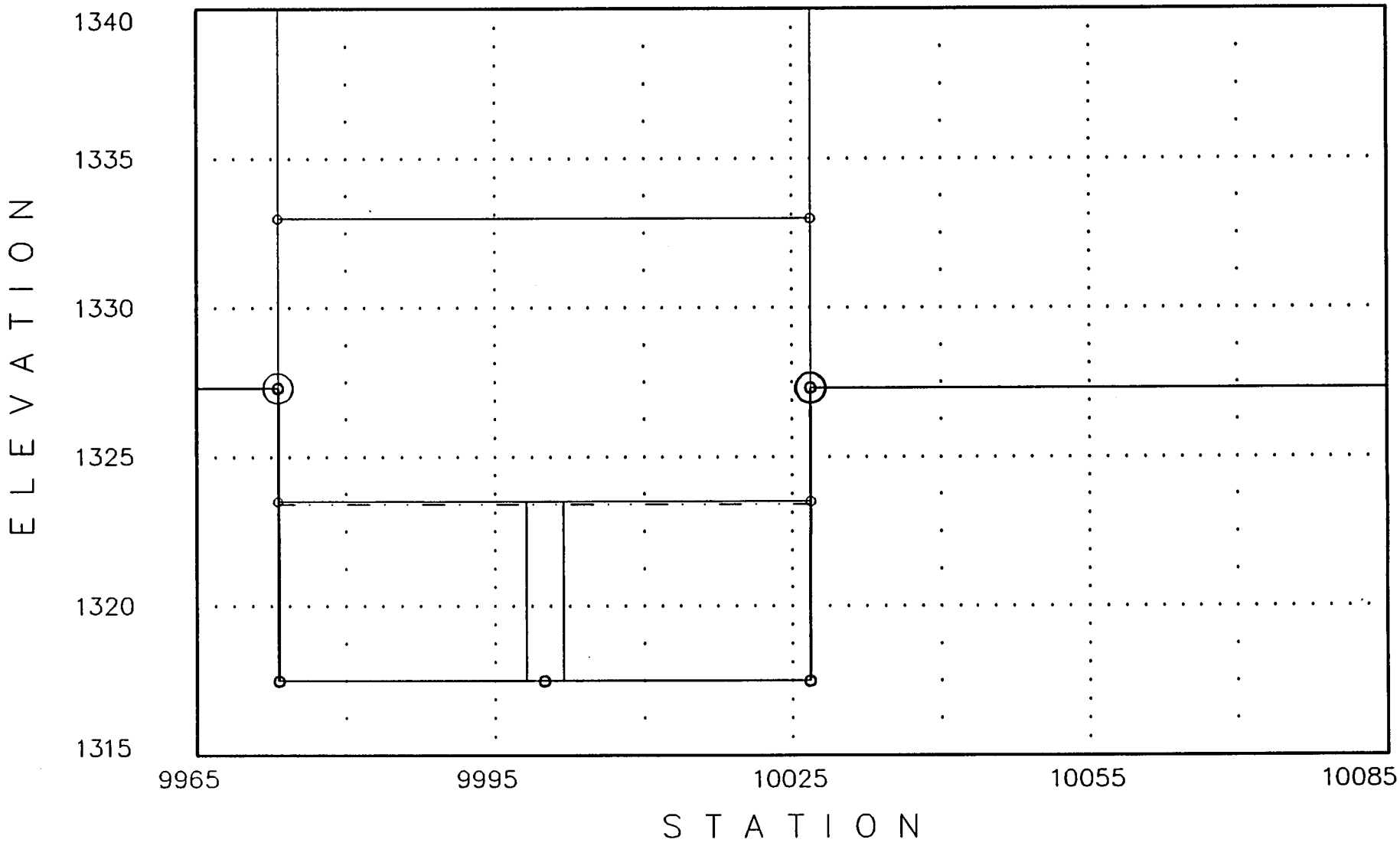

12-07-1990

<<<<<< Cross Section: 6.887: (FN = SKSFUT.O) >>>>>>

Q1= 2800 WS1= 1323.41

Manning-n's: n-lob = .015 n-ch = .015 n-rob = .015

SPECIAL BRIDGE

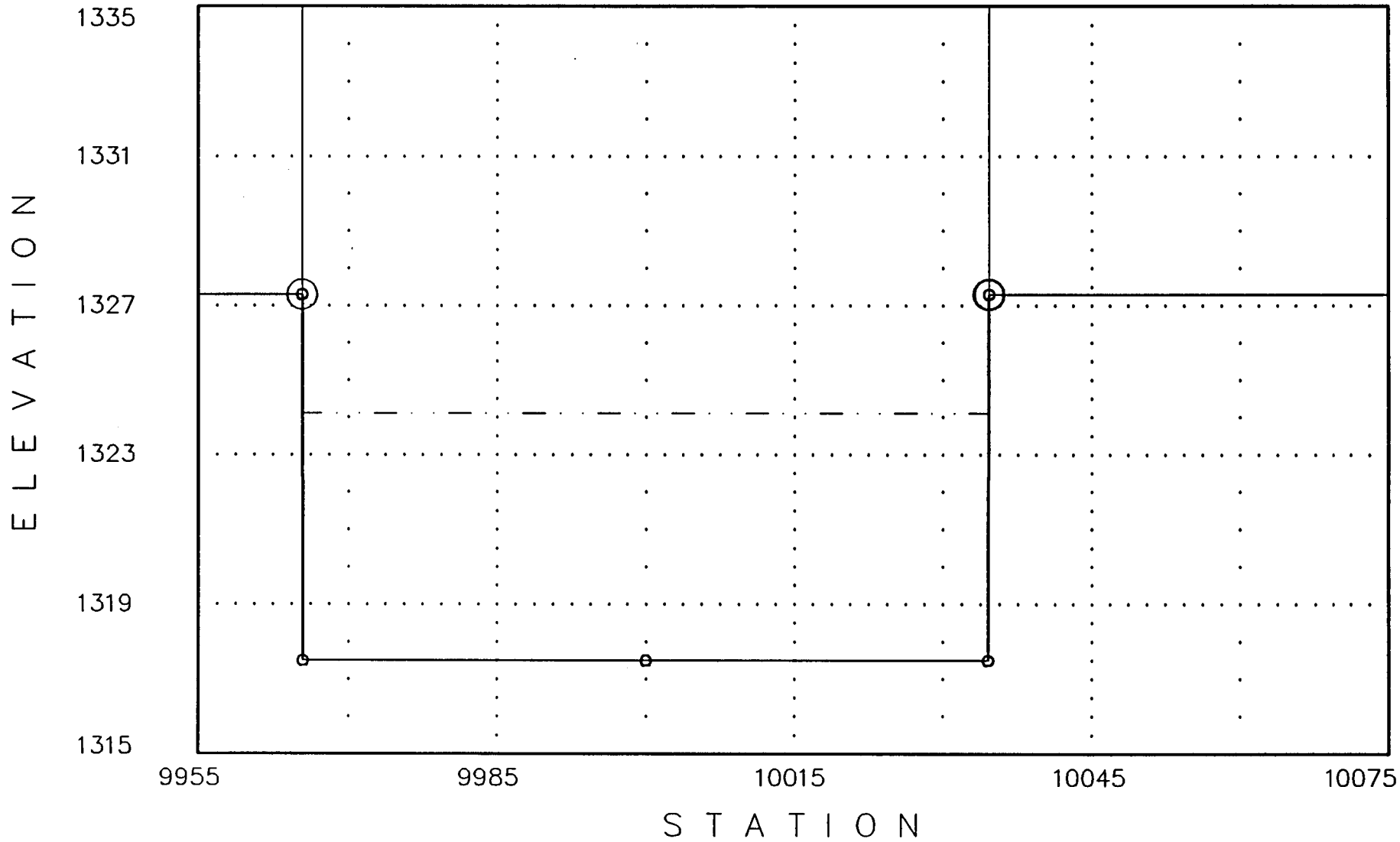



12-07-1990

<<<<<< Cross Section: 6.889: (FN = SKSFUT.O) >>>>>>

Q1= 2800 WS1= 1324.11

Manning-n's: n-lob = .015 n-ch = .015 n-rob = .015

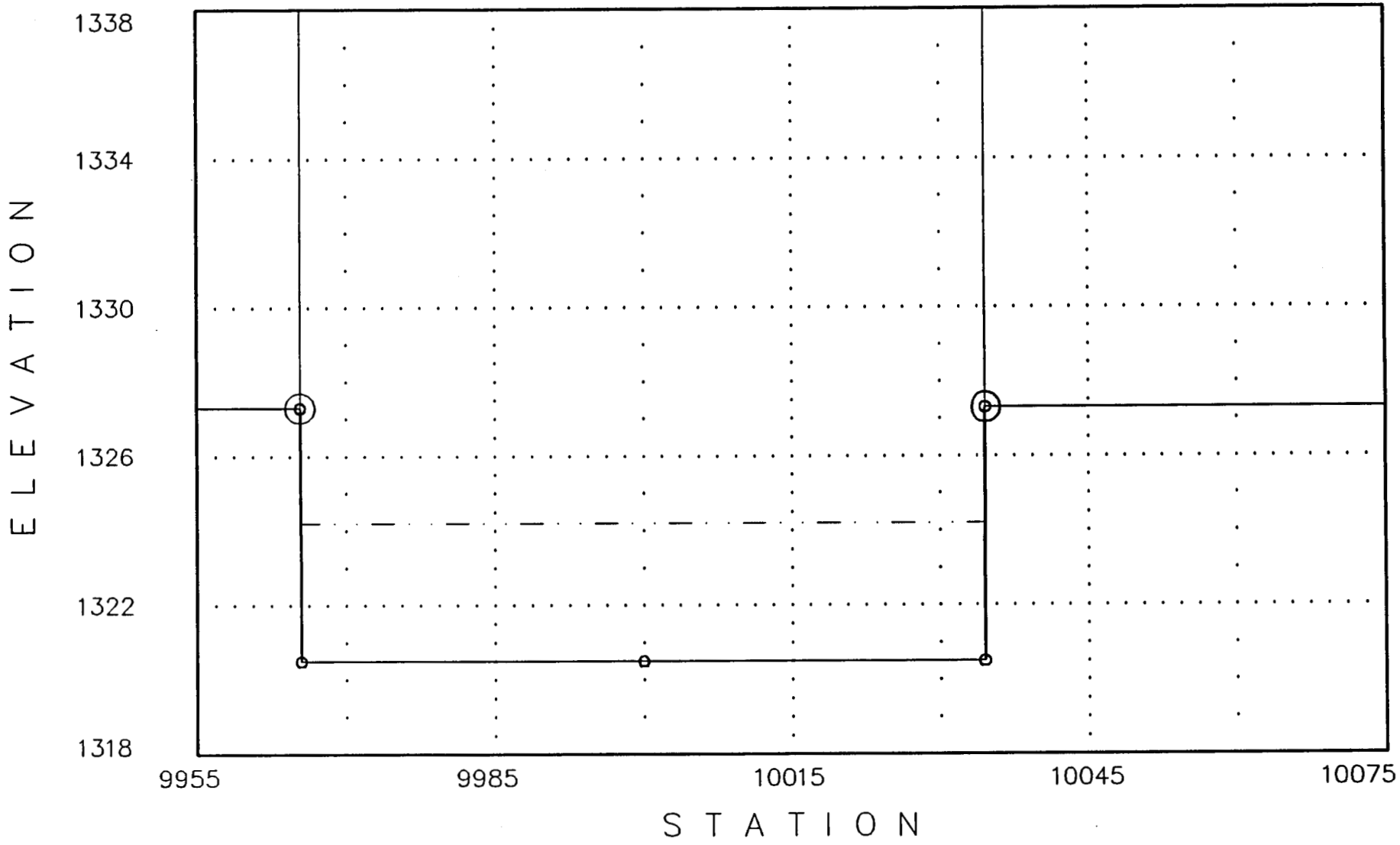



12-07-1990

<<<<<< Cross Section: 6.89: (FN = SKSFUT.O) >>>>>>

Q1= 2800 WS1= 1324.2

Manning-n's: n-lob = .015 n-ch = .015 n-rob = .015

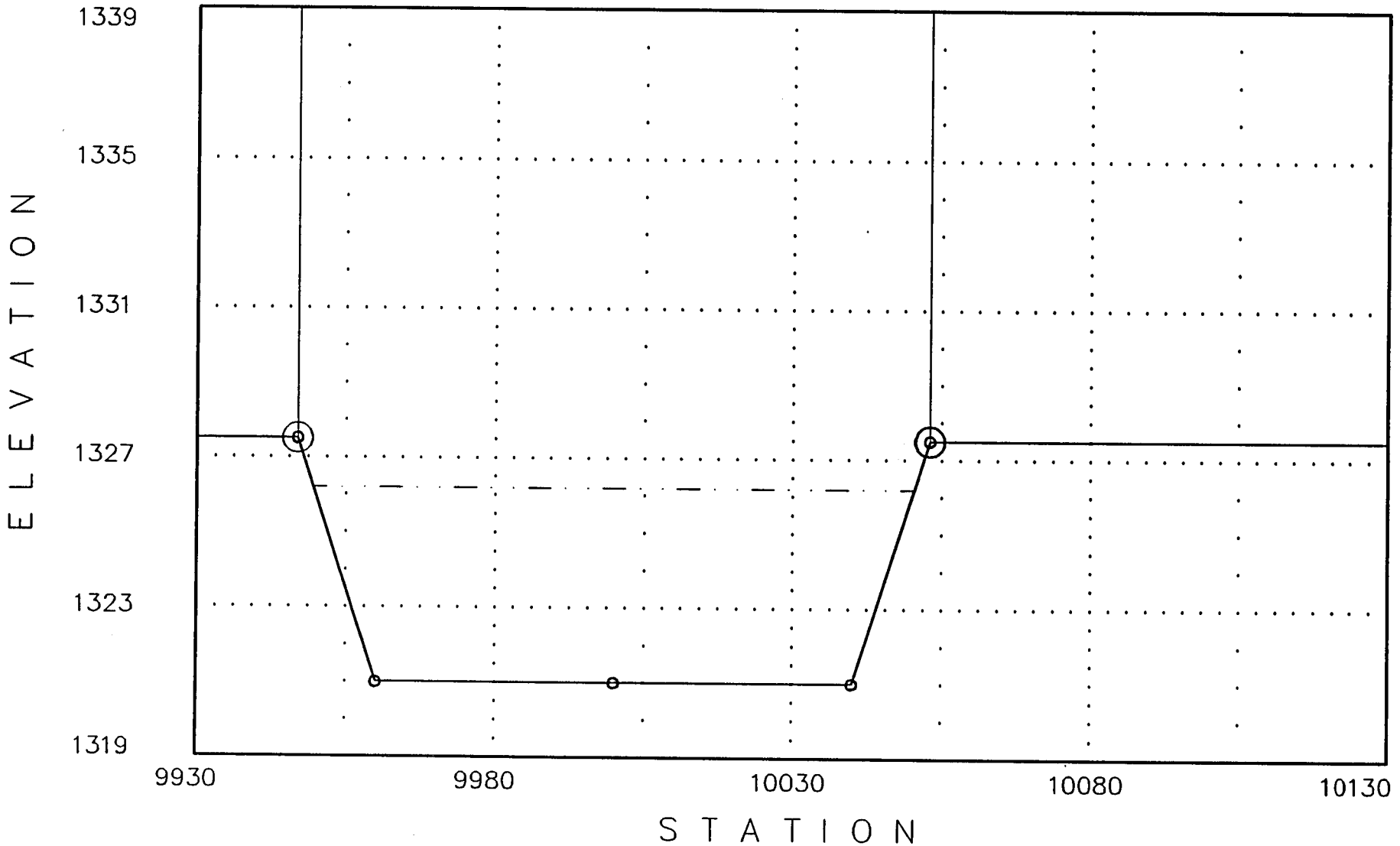



12-07-1990

<<<<<< Cross Section: 6.951: (FN = SKSFUT.O) >>>>>>

Q1= 2800 WS1= 1326.19

Manning-n's: n-lob = .025 n-ch = .025 n-rob = .025

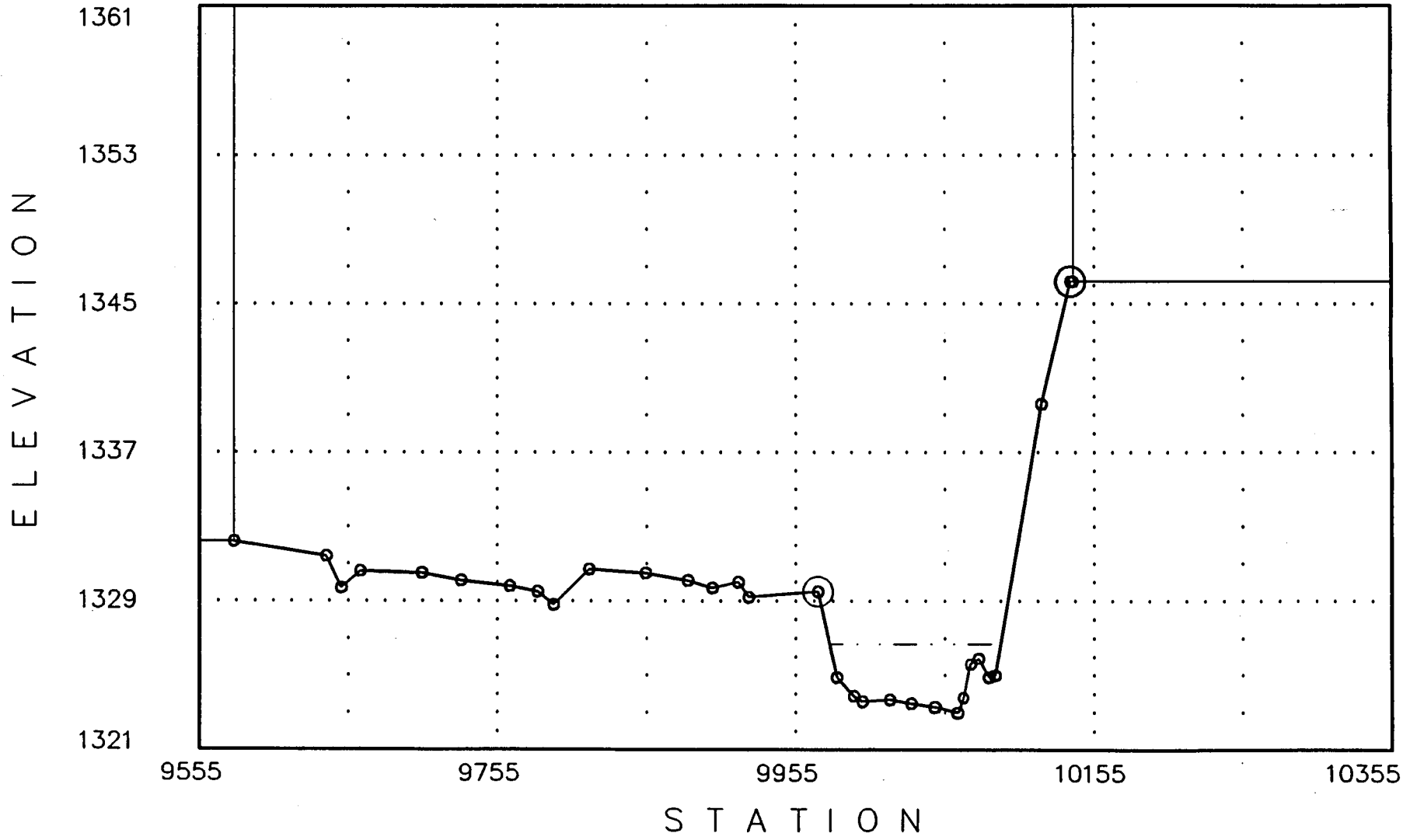



12-07-1990

<<<<<< Cross Section: 7: (FN = RSKSFUT.O) >>>>>>

Q1= 2800 WS1= 1326.7

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

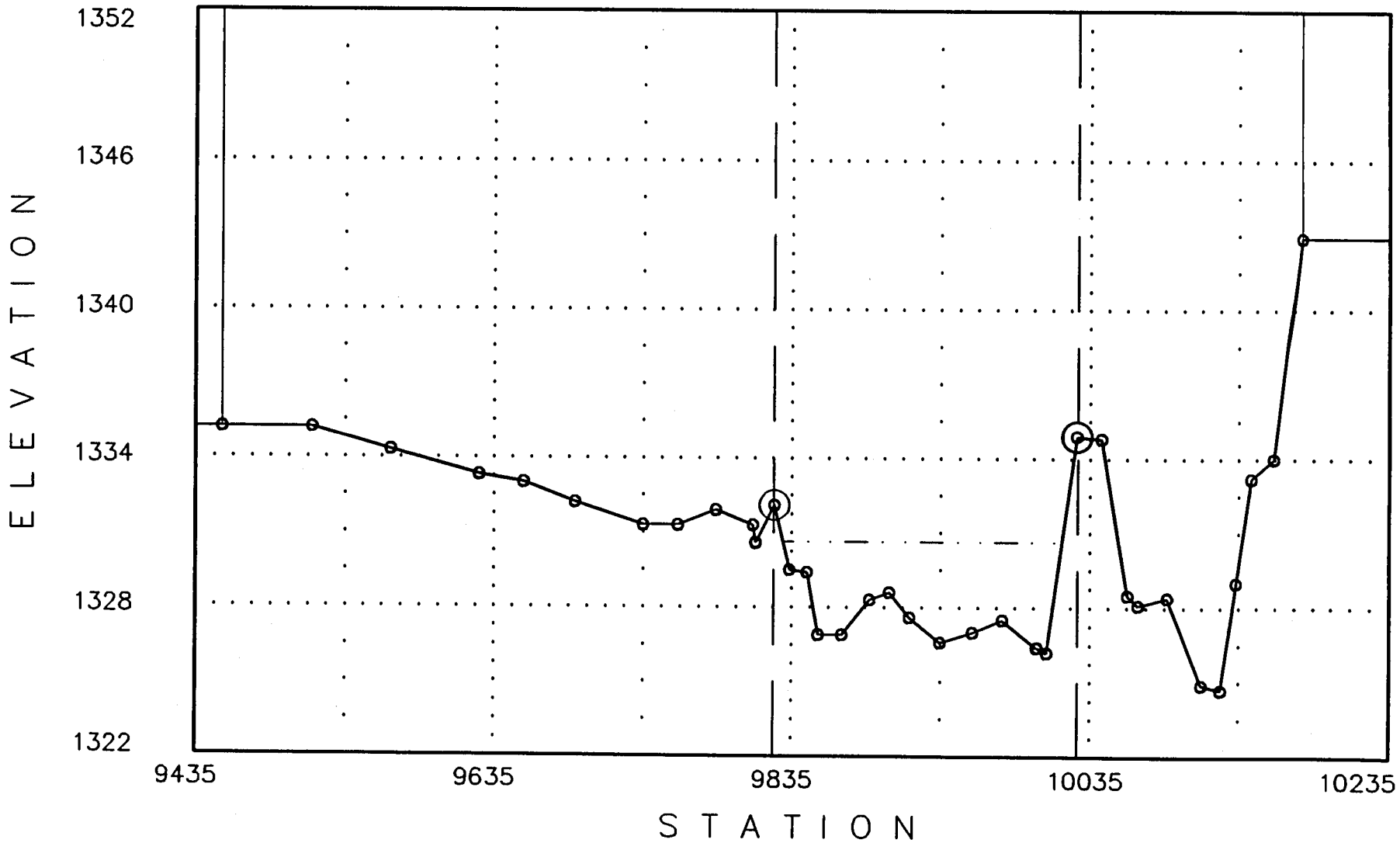



12-06-1990

<<<<<< Cross Section: 7.1: (FN = RSKSFUT.O) >>>>>>

Q1= 2800 WS1= 1330.65

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

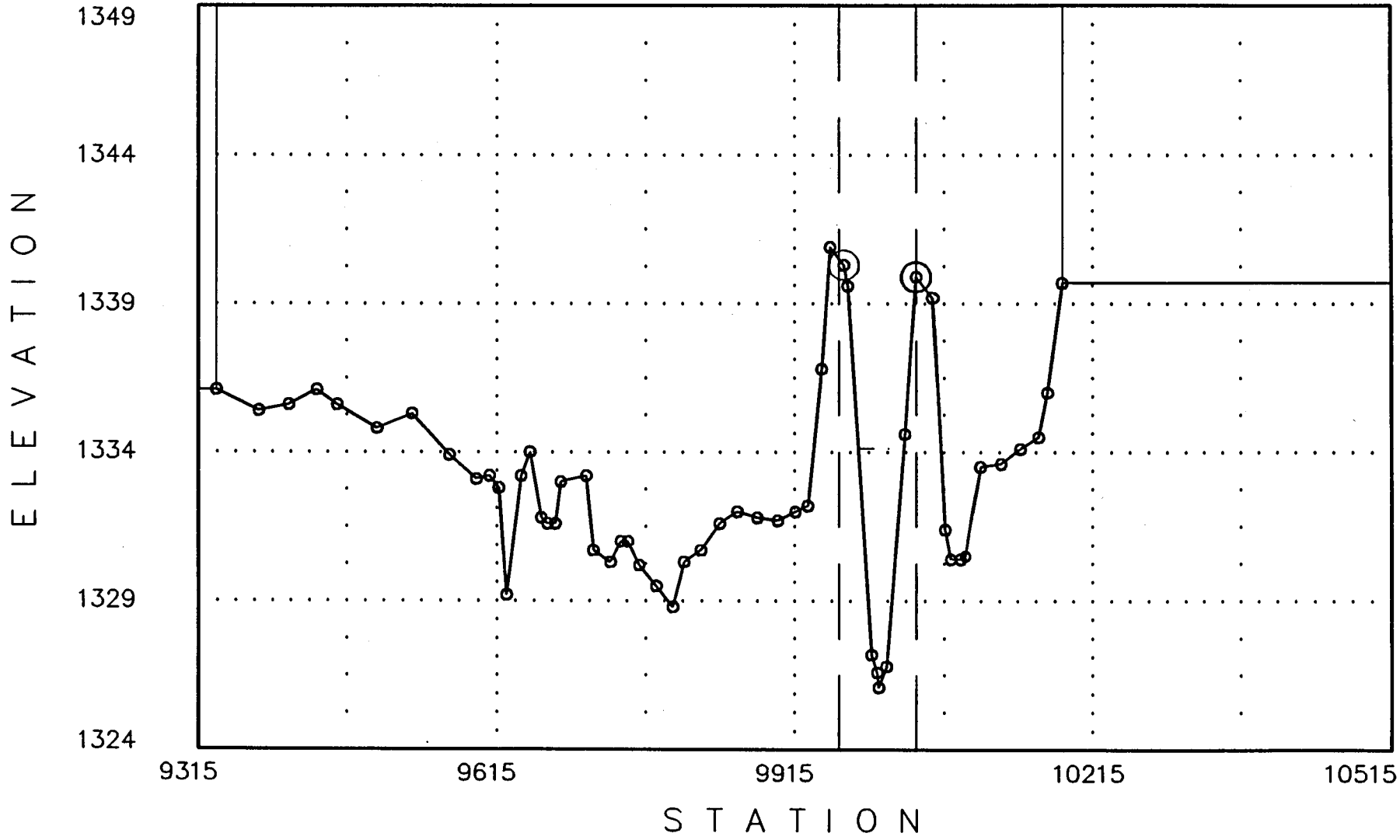



12-06-1990

<<<<<< Cross Section: 7.174: (FN = RSKSFUT.O) >>>>>>

Q1= 2800 WS1= 1334.13

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

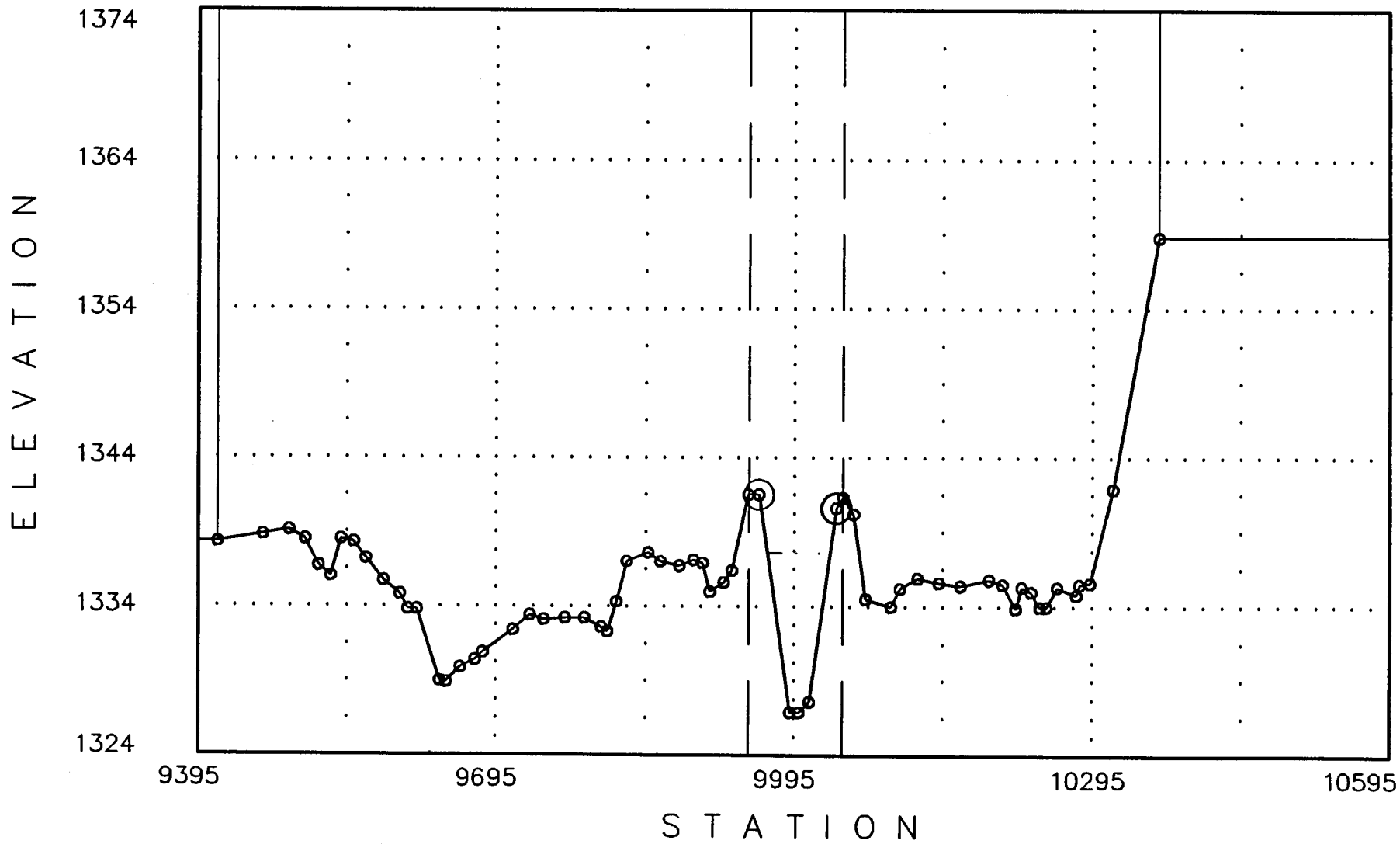



12-06-1990

<<<<<< Cross Section: 7.244: (FN = RSKSFUT.O) >>>>>>

Q1= 2800 WS1= 1337.6

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

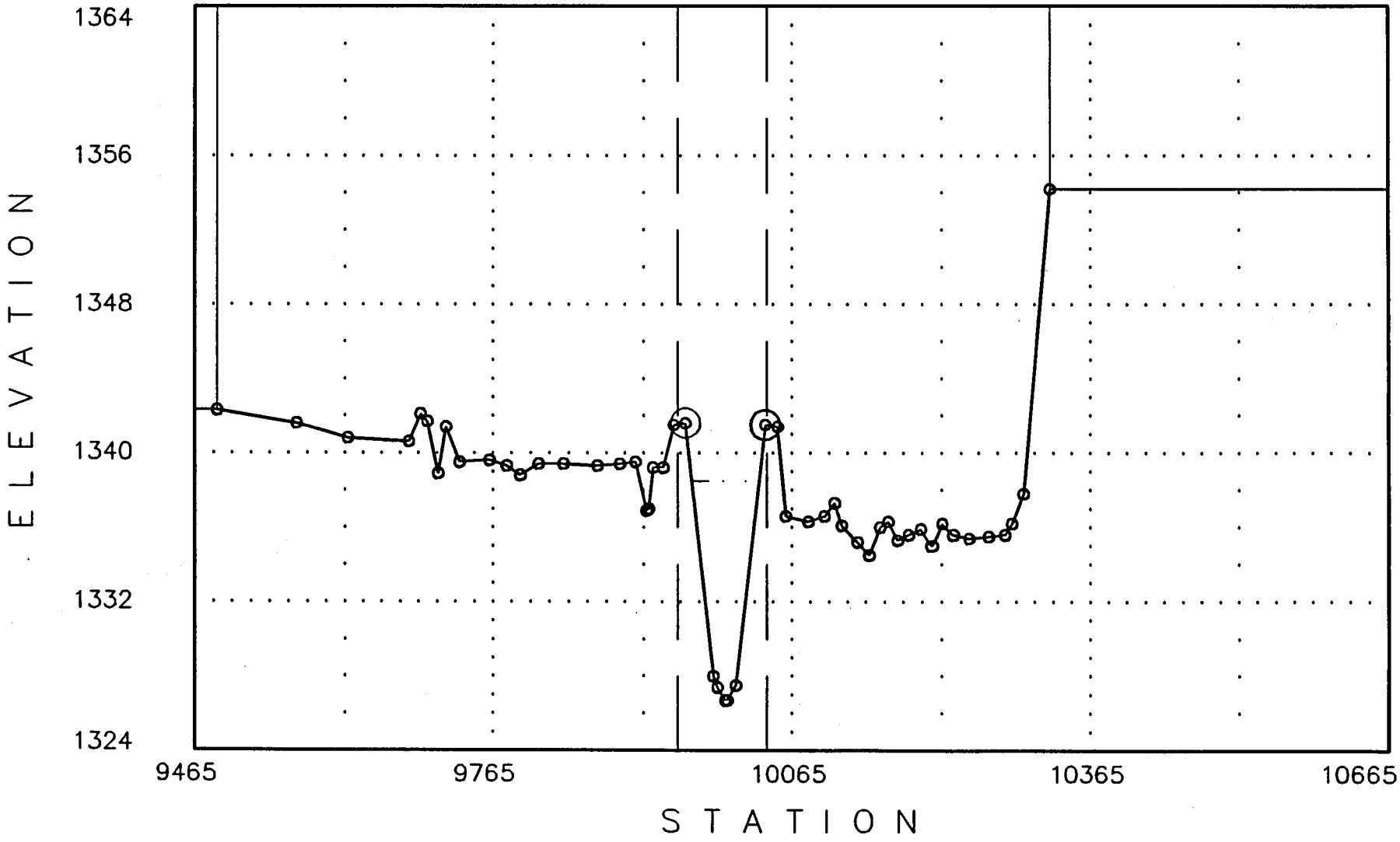



12-06-1990

<<<<<< Cross Section: 7.327: (FN = RSKSFUT.O) >>>>>>

Q1= 2800 WS1= 1338.5

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

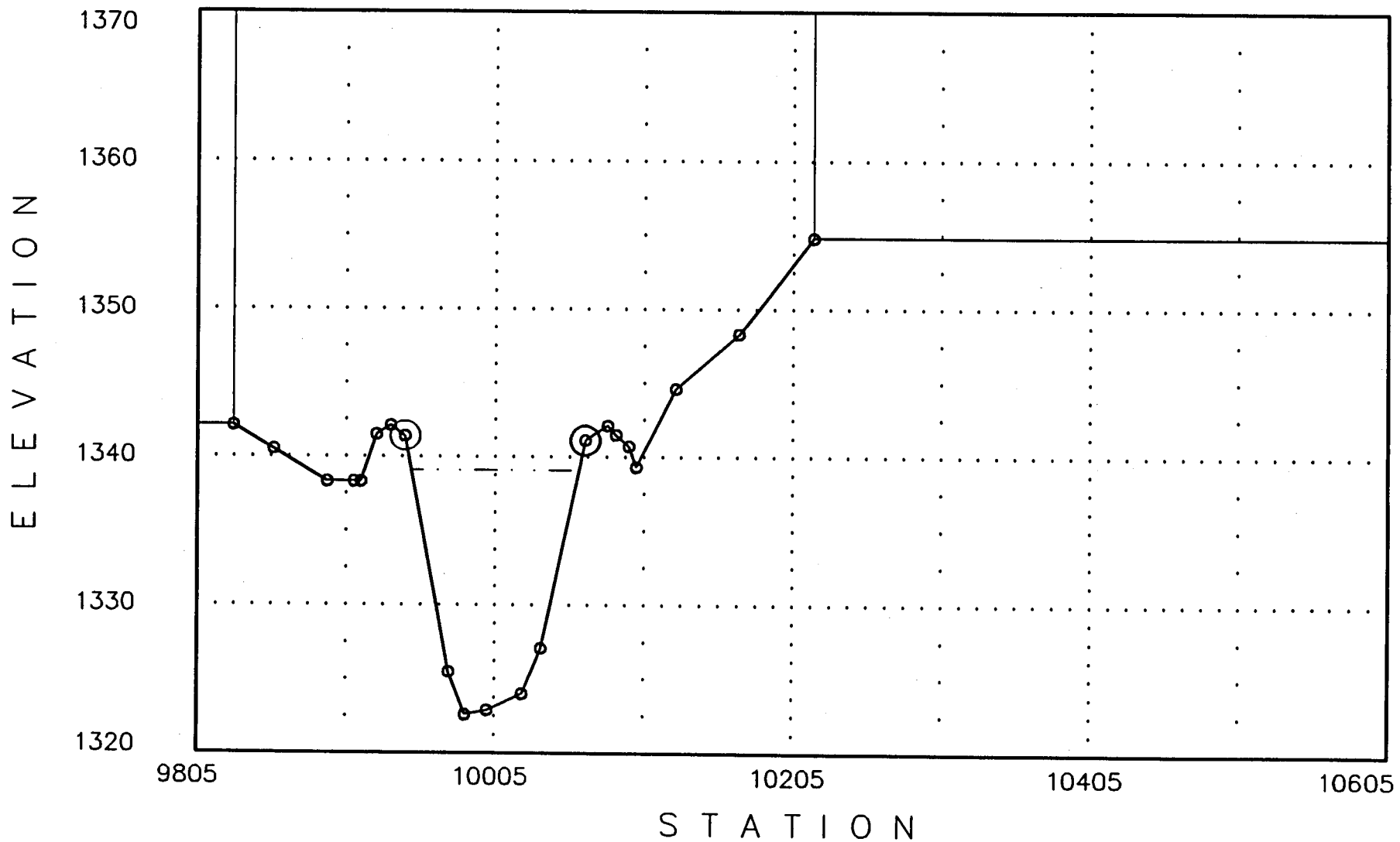



12-06-1990

<<<<<< Cross Section: 7.409: (FN = RSKSFUT.O) >>>>>>

Q1= 2800 WS1= 1339.07

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

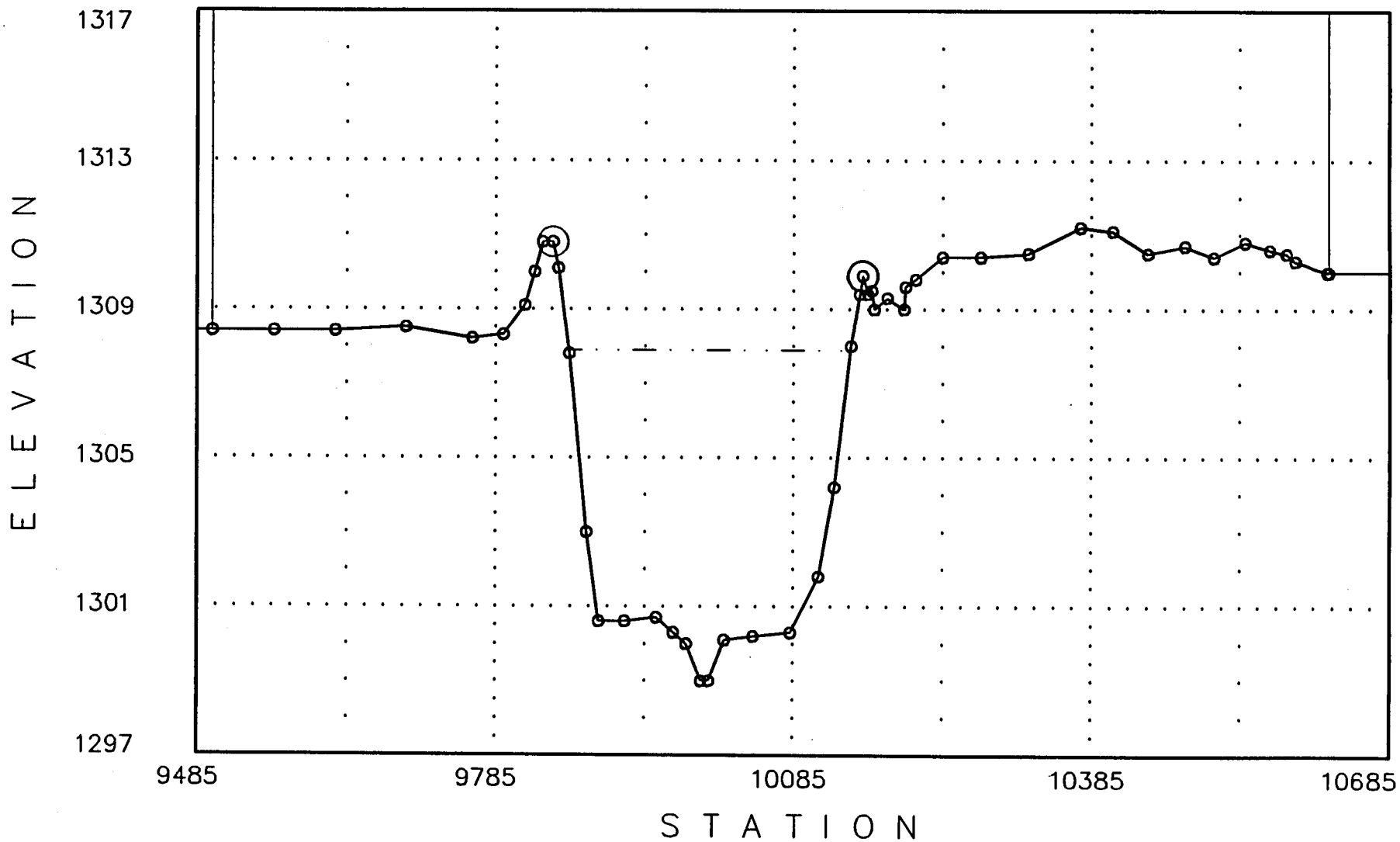



12-06-1990

<<<<<< Cross Section: -6.189: (FN = RSKSFUT.O) >>>>>>

Q1= 10000 WS1= 1307.9

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

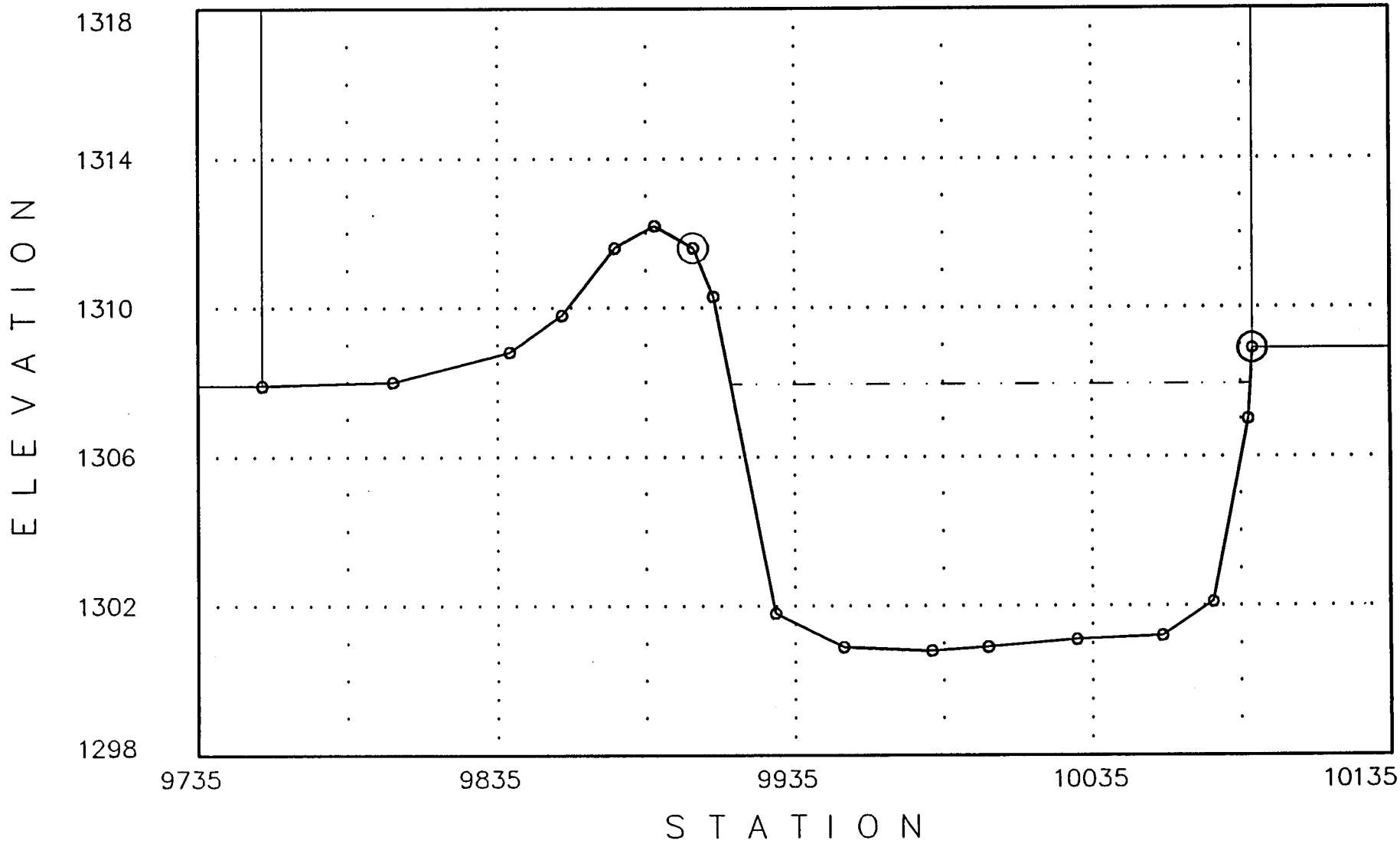



12-06-1990

<<<<<< Cross Section: .028: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1307.94

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

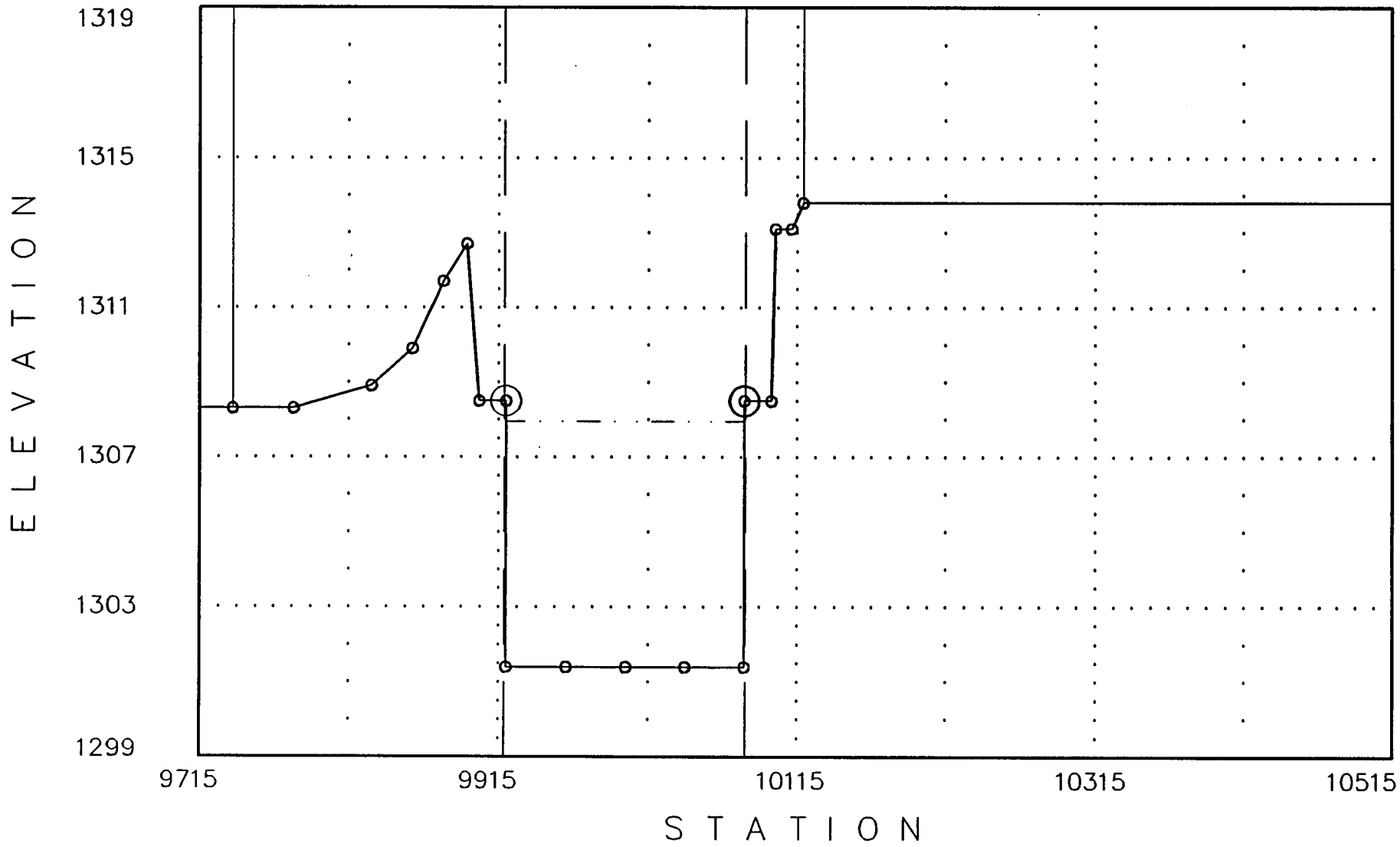



12-07-1990

<<<<<< Cross Section: .032: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1307.95

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

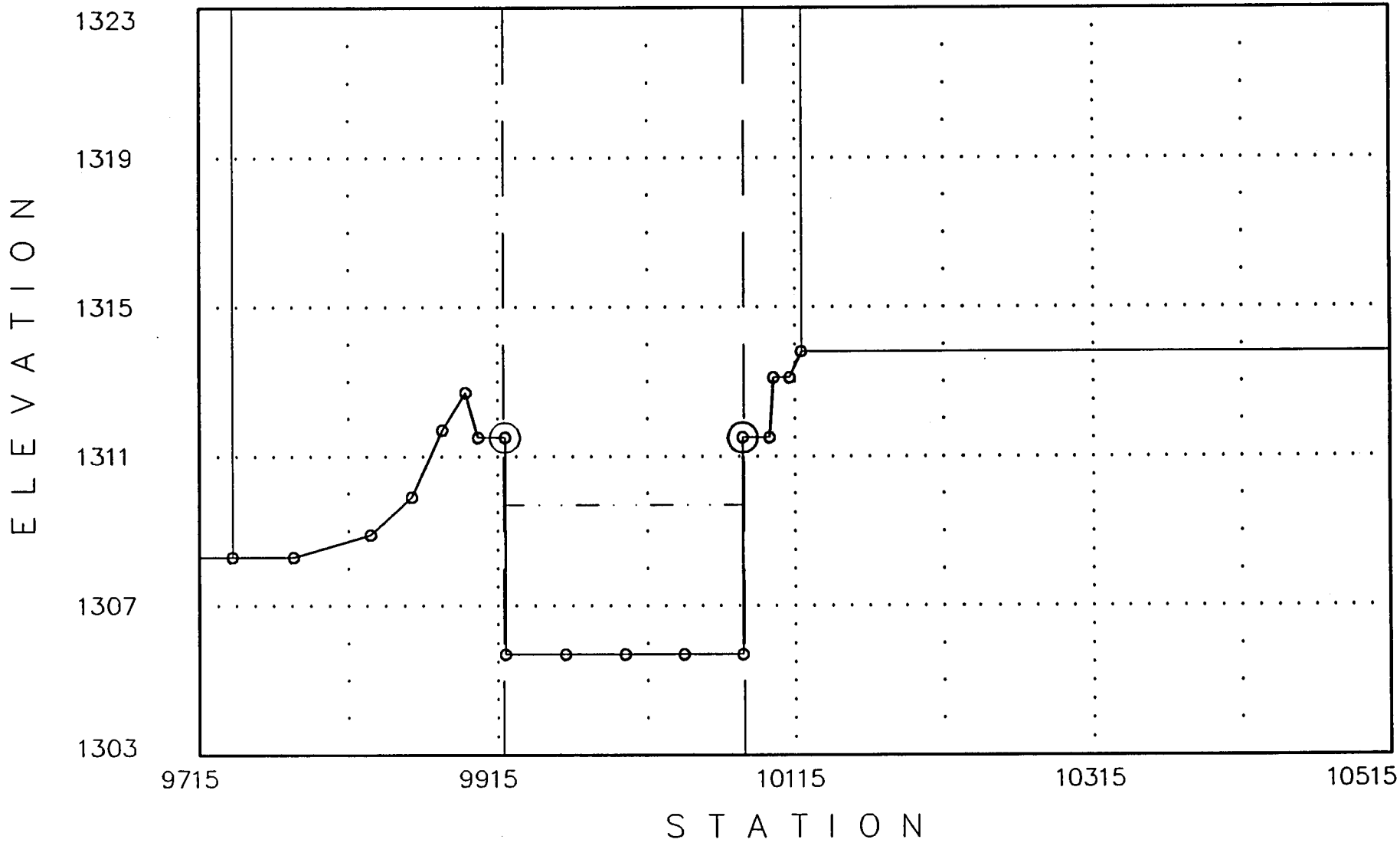



12-07-1990

<<<<<< Cross Section: .036: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1309.7

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

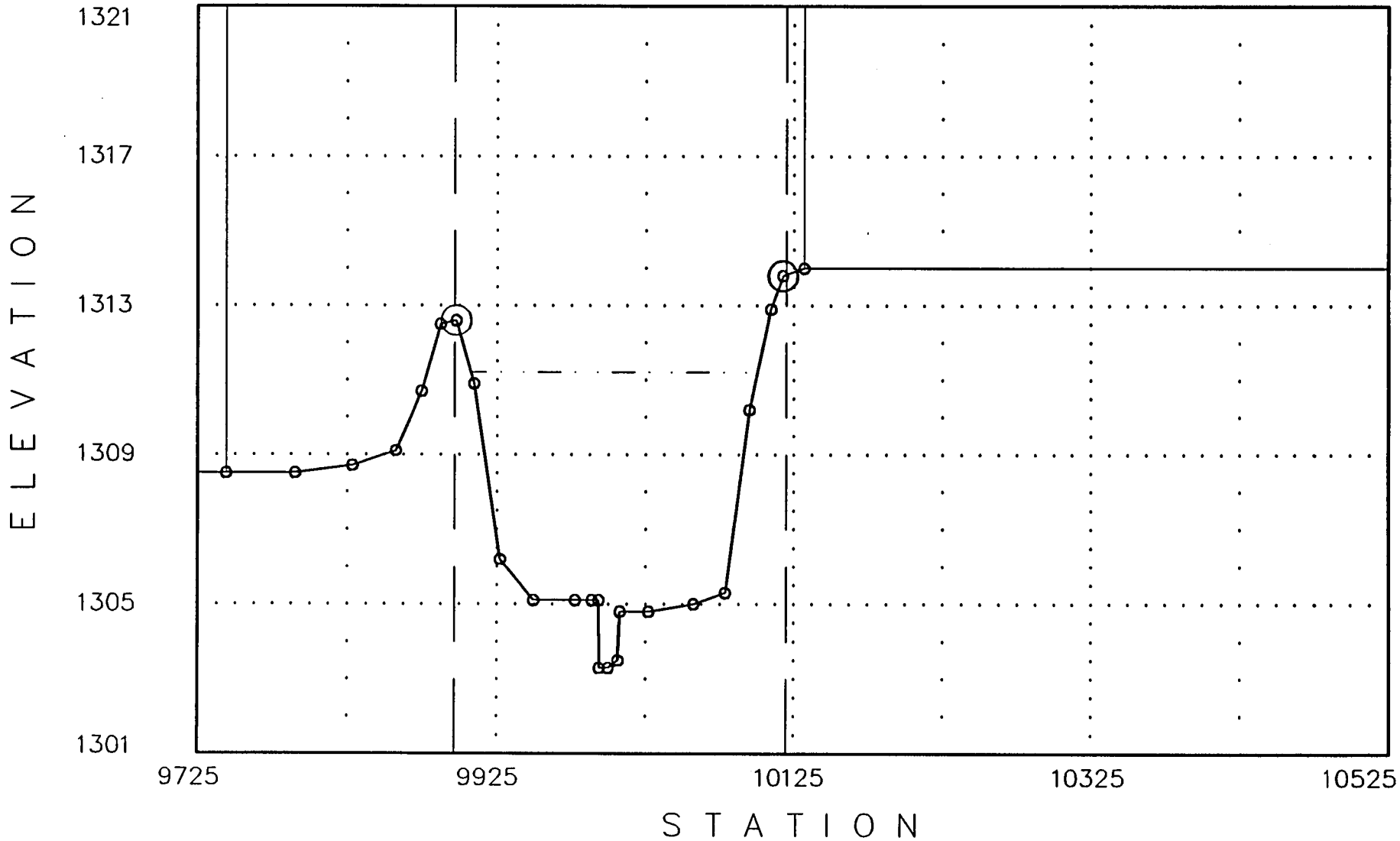



12-07-1990

<<<<<< Cross Section: .04: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1311.21

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

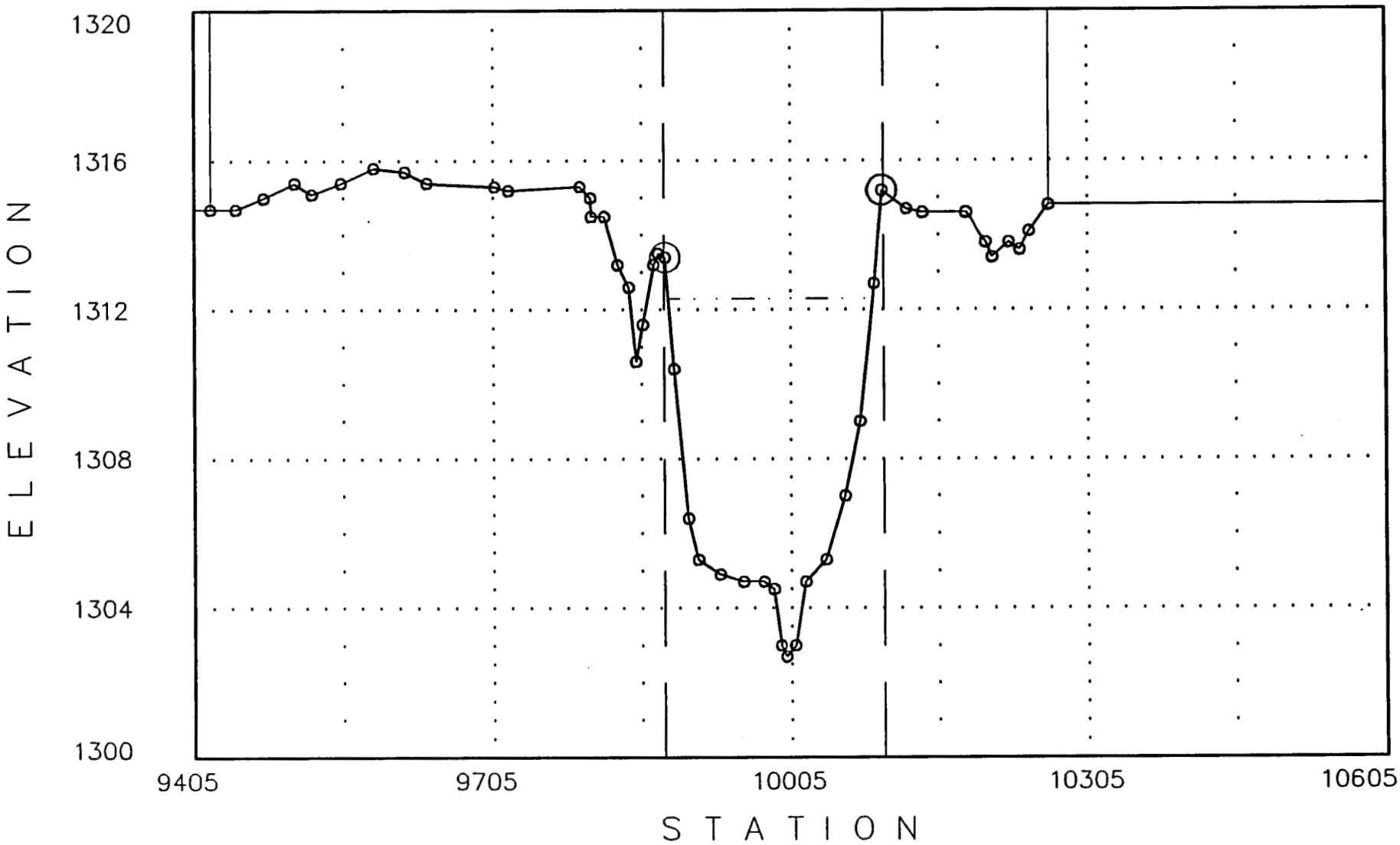



12-07-1990

<<<<<< Cross Section: .116: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1312.29

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

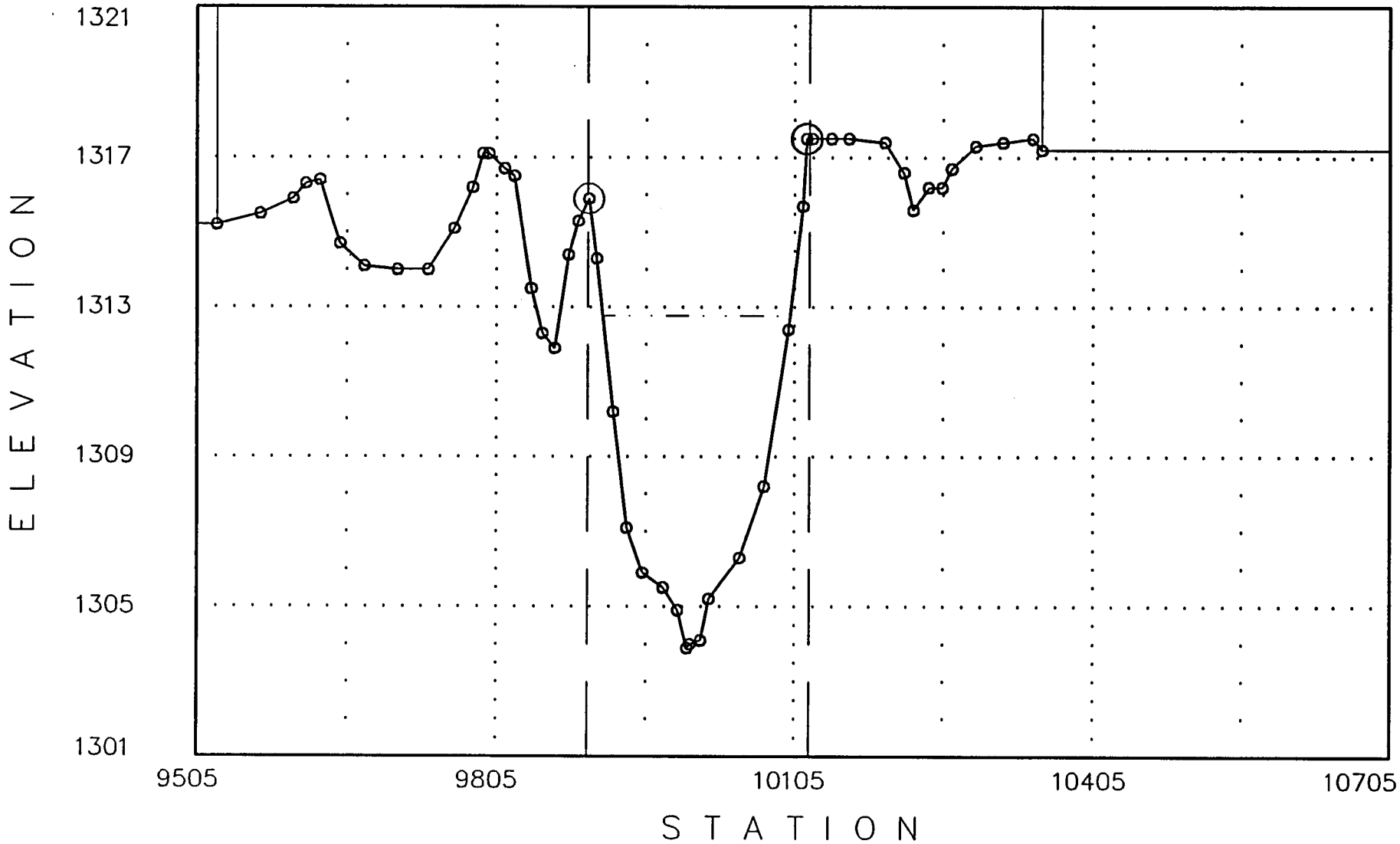



12-07-1990

<<<<<< Cross Section: .184: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1312.77

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

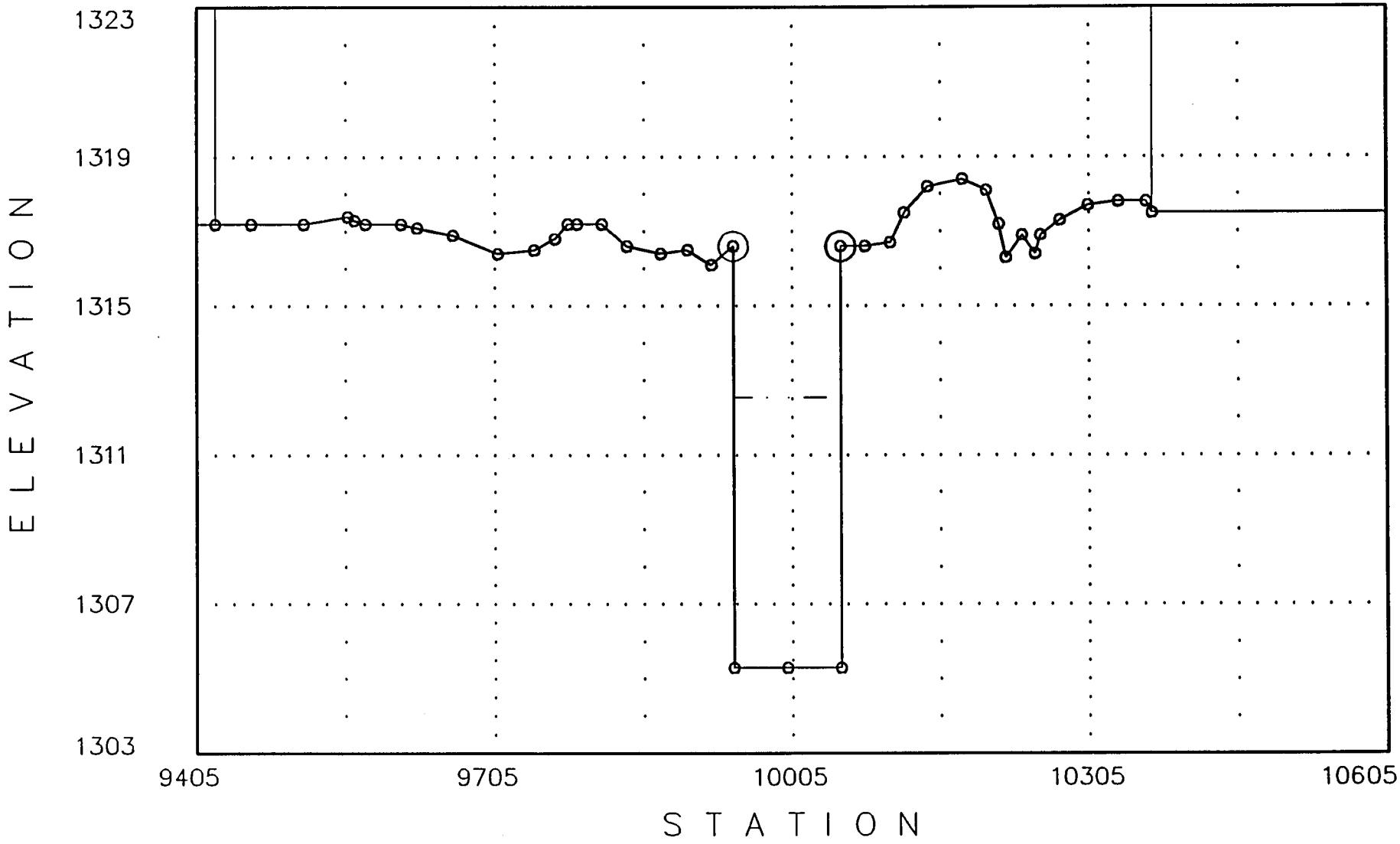



12-07-1990

<<<<<< Cross Section: .2: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1312.54

Manning-n's: n-lob = .015 n-ch = .015 n-rob = .015



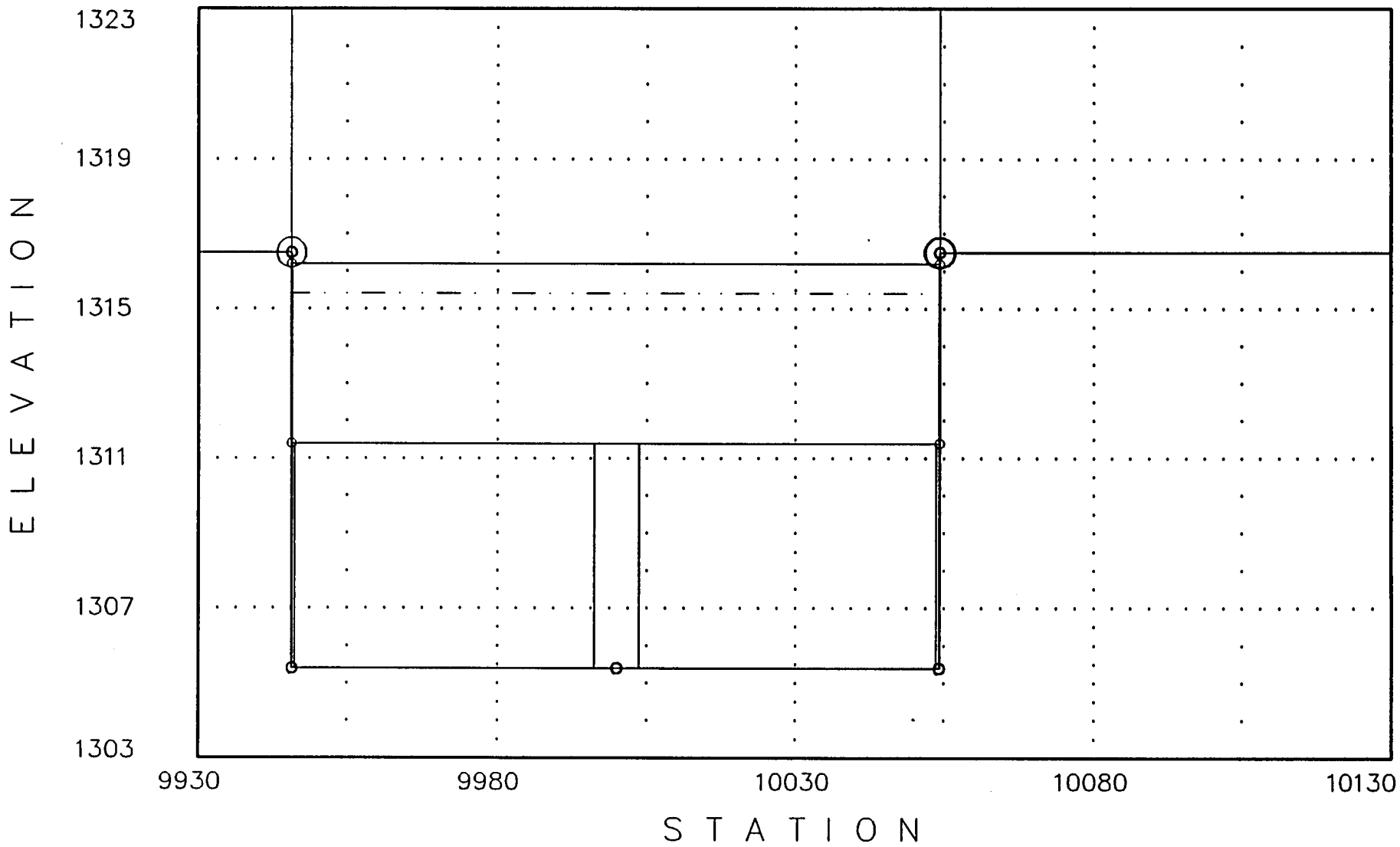

12-07-1990

<<<<<< Cross Section: .212: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1315.42

Manning-n's: n-lob = .015 n-ch = .015 n-rob = .015

SPECIAL BRIDGE

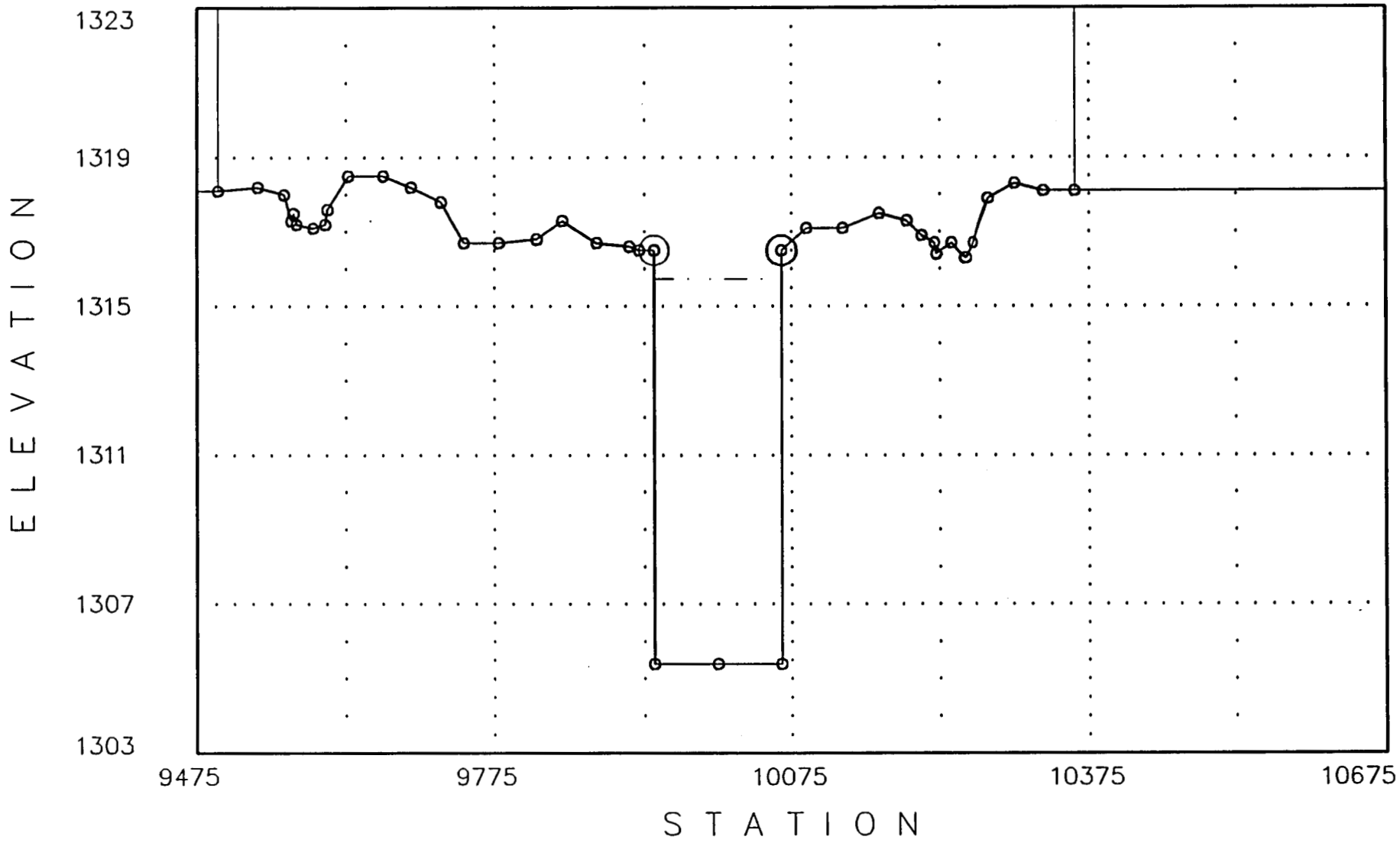



12-07-1990

<<<<<< Cross Section: .213: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1315.74

Manning-n's: n-lob = .015 n-ch = .015 n-rob = .015

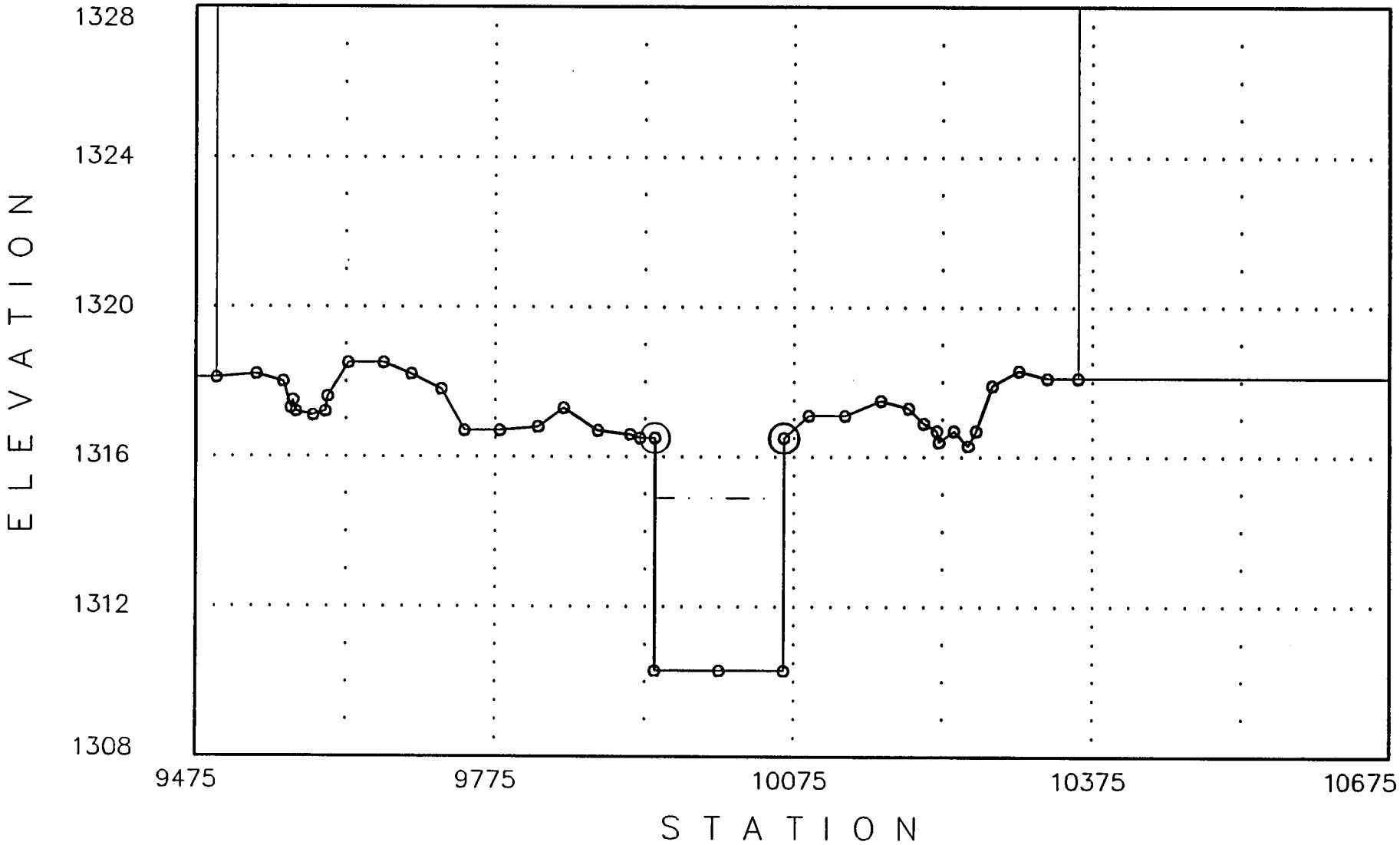



12-07-1990

<<<<<< Cross Section: .214: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1314.9

Manning-n's: n-lob = .015 n-ch = .015 n-rob = .015

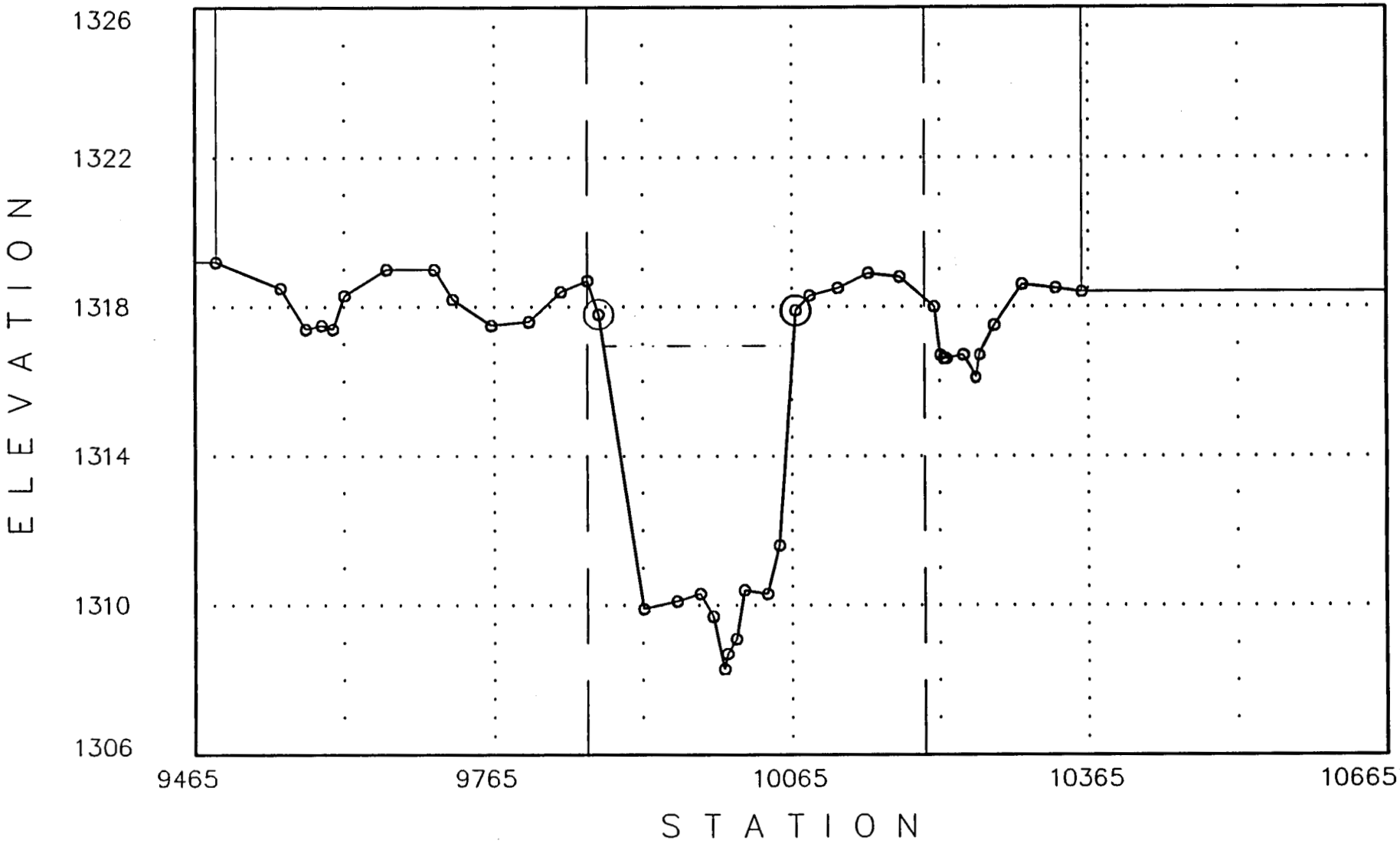



12-07-1990

<<<<<< Cross Section: .232: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1316.94

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

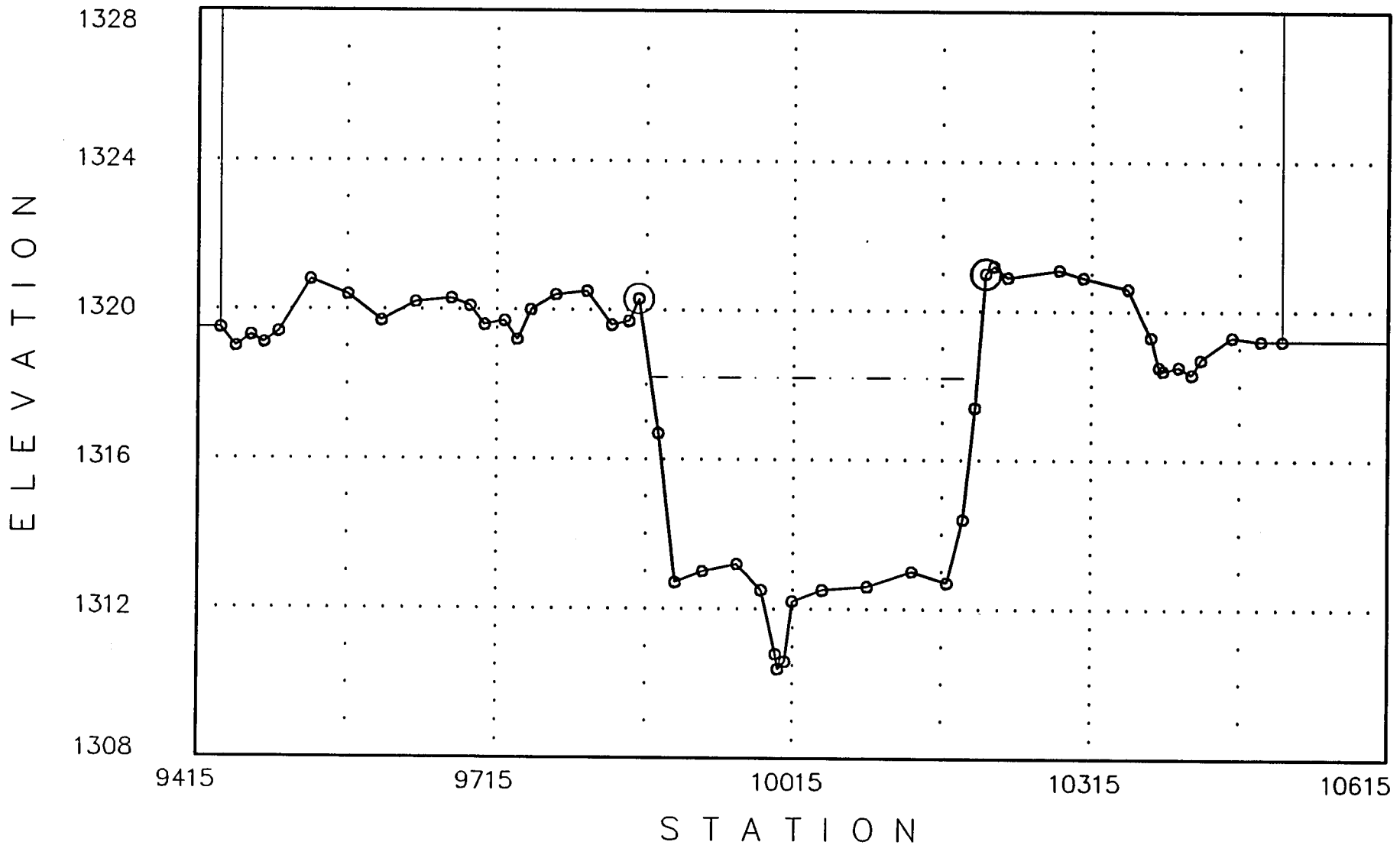



12-07-1990

<<<<<< Cross Section: .337: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1318.2

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

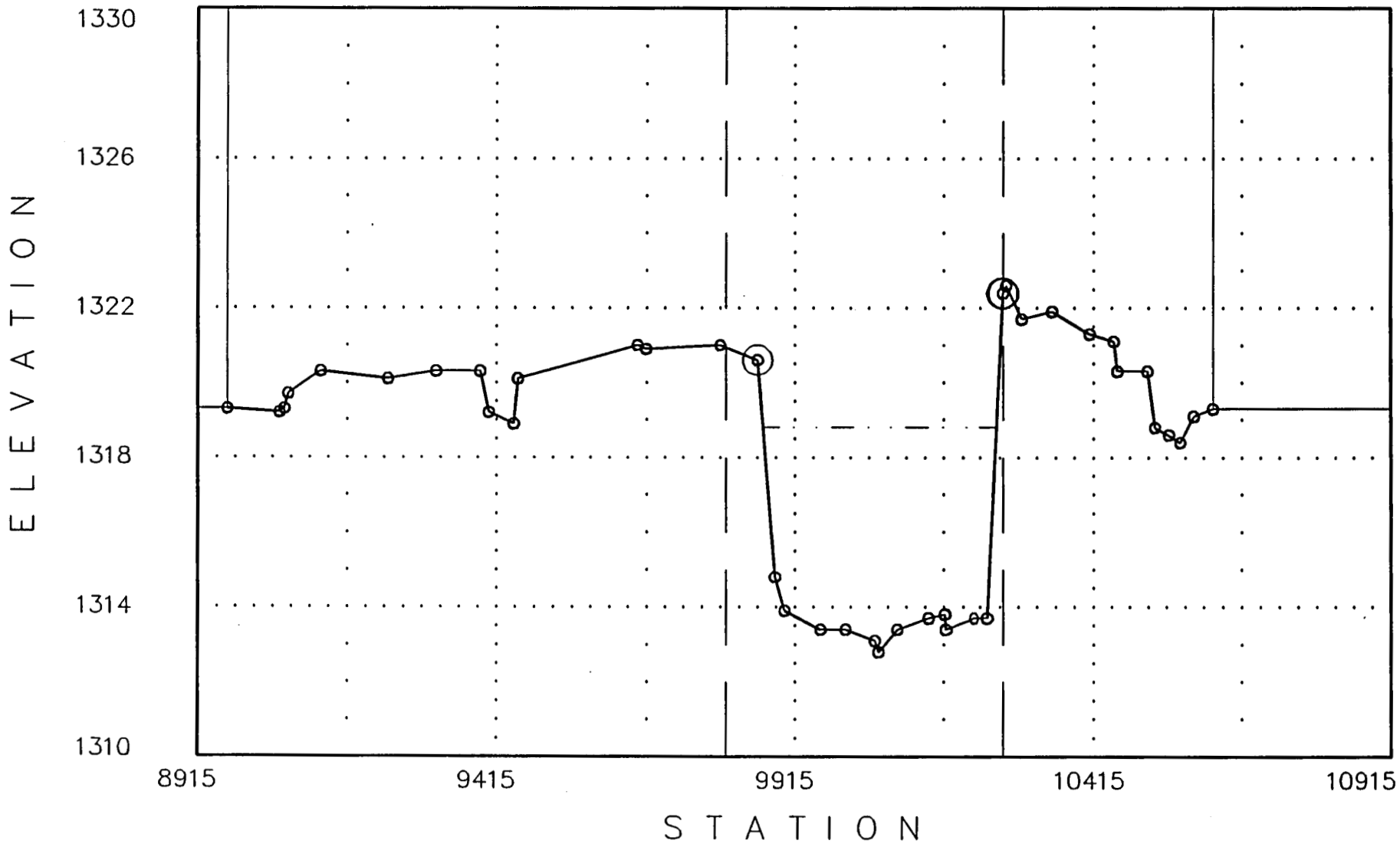



12-07-1990

<<<<<< Cross Section: .438: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1318.81

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

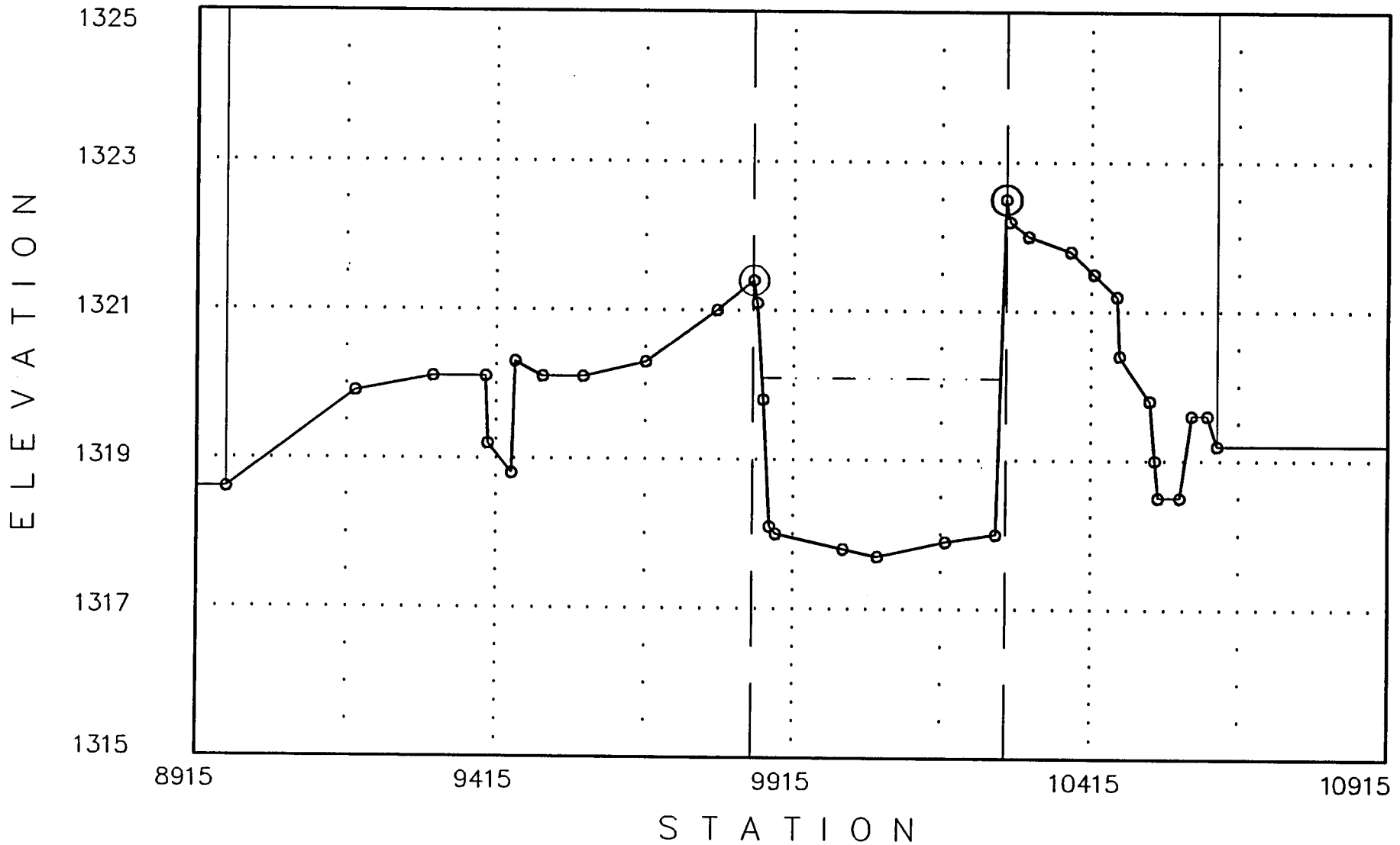



12-07-1990

<<<<<< Cross Section: .441: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1320.09

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

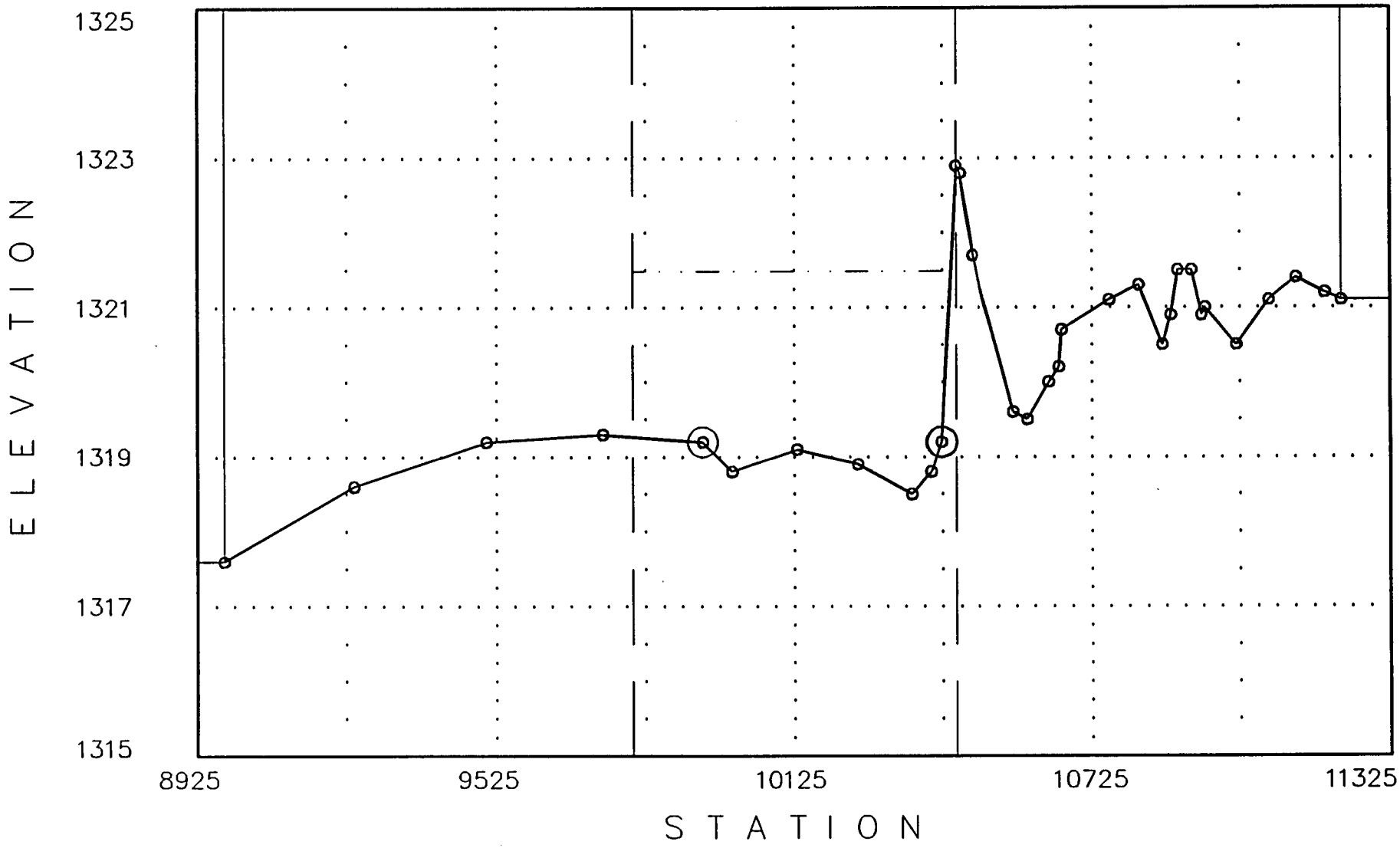



12-07-1990

<<<<<< Cross Section: .458: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1321.49

Manning-n's: n-lob = .045 n-ch = .035 n-rob = .045

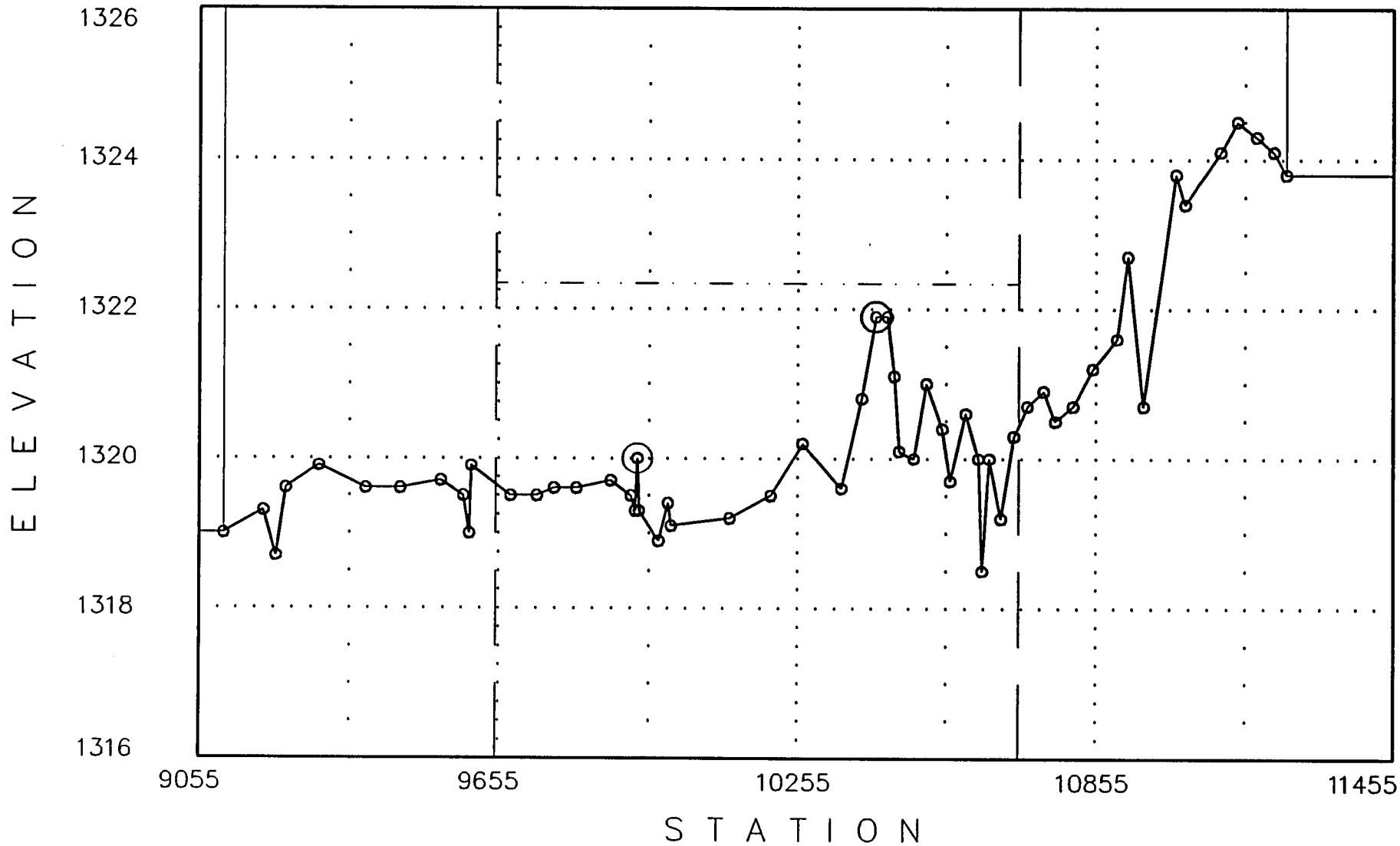



12-07-1990

<<<<<< Cross Section: .489: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1322.34

Manning-n's: n-lob = .06 n-ch = .06 n-rob = .06

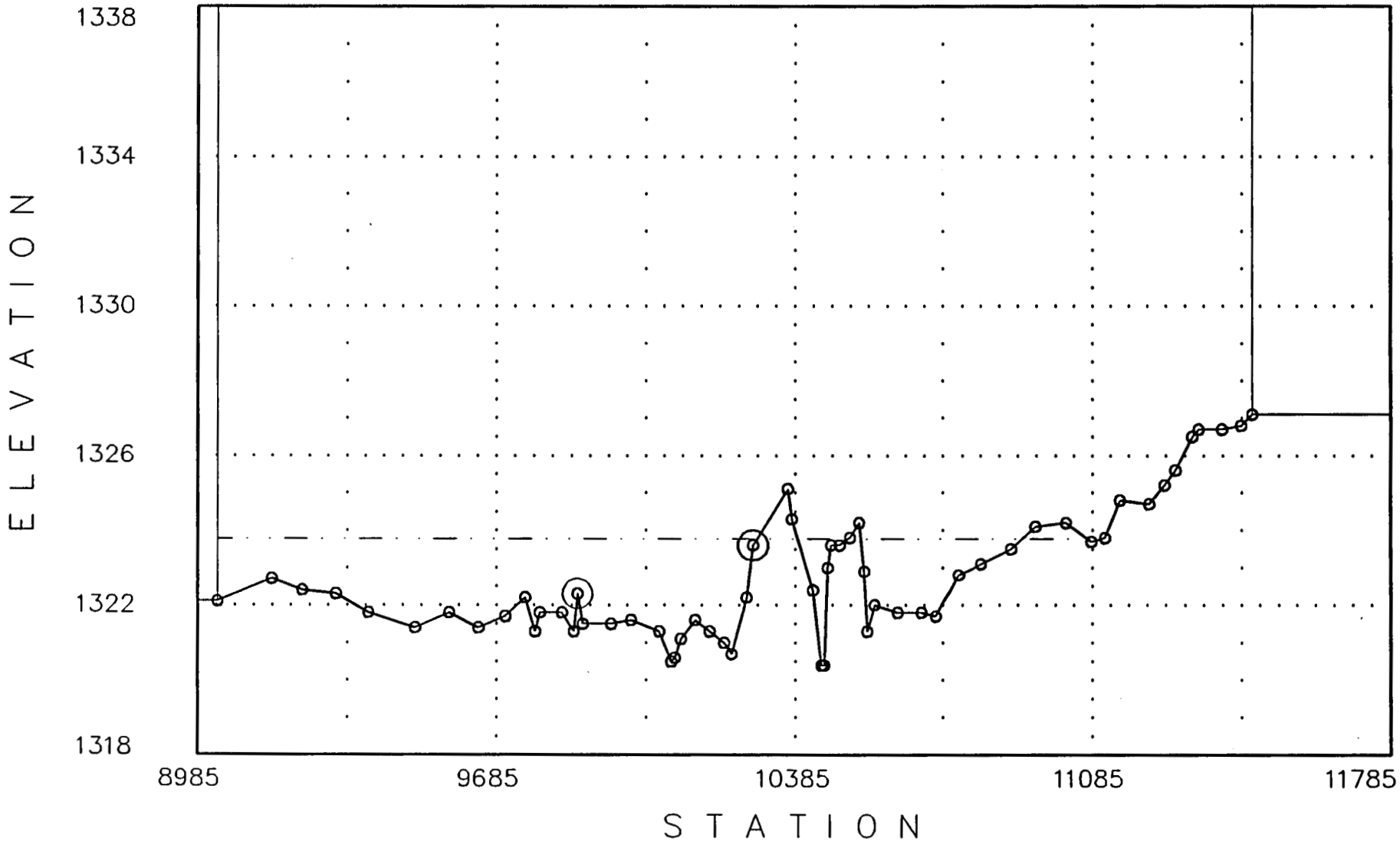



12-07-1990

<<<<<< Cross Section: .568: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1323.77

Manning-n's: n-lob = .06 n-ch = .06 n-rob = .06

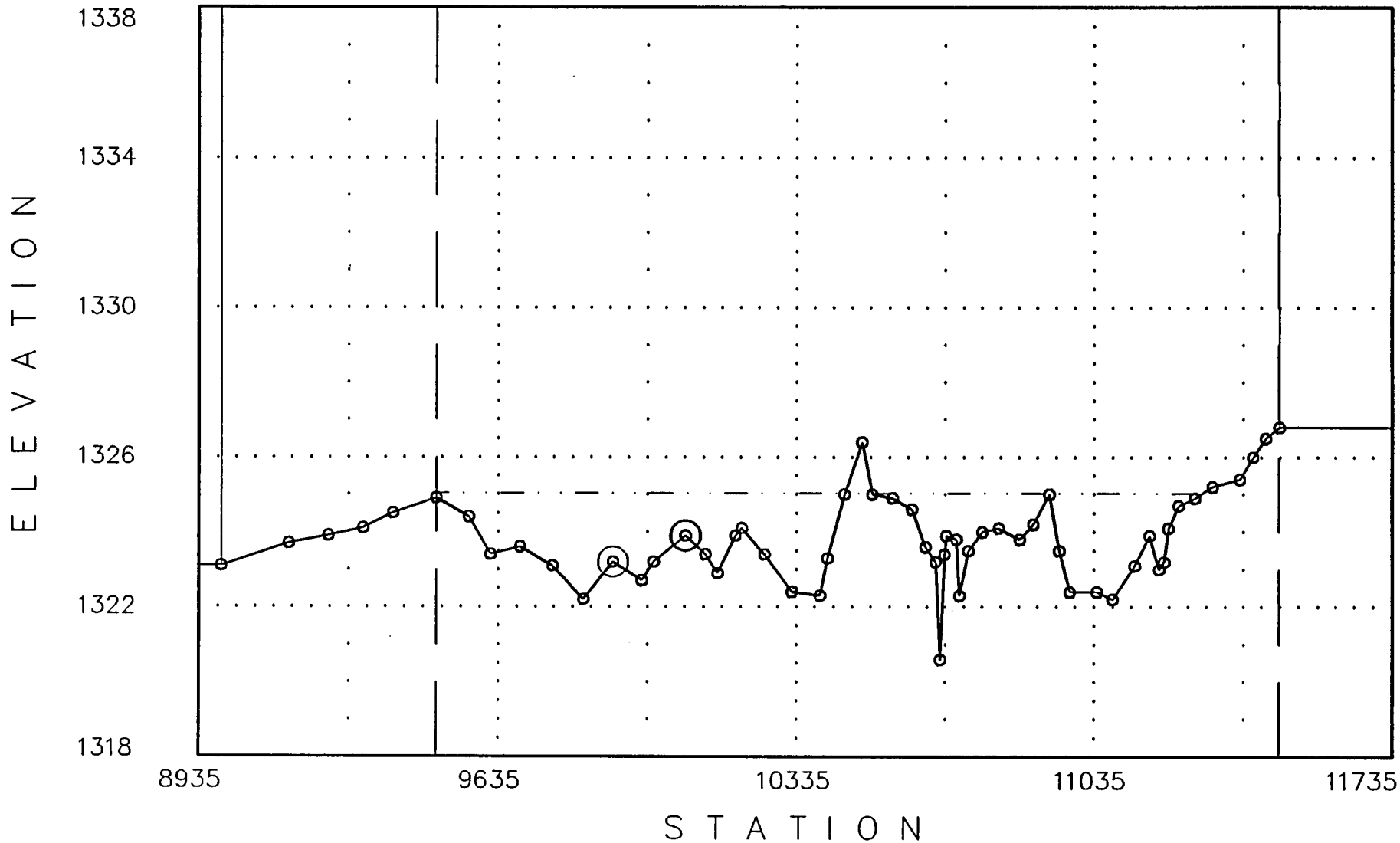



12-07-1990

<<<<<< Cross Section: .629: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1325.03

Manning-n's: n-lob = .06 n-ch = .06 n-rob = .06

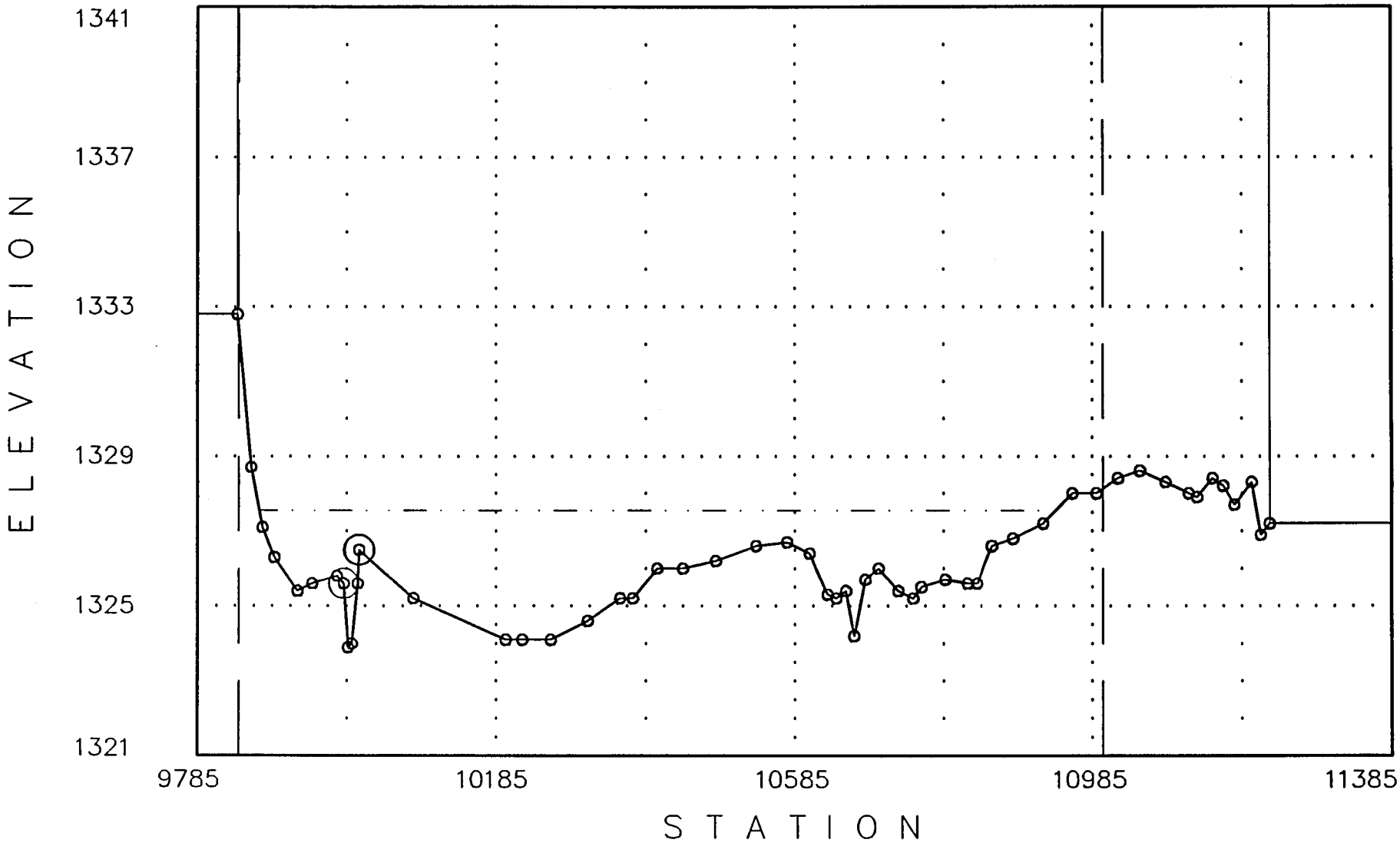



12-07-1990

<<<<<< Cross Section: .736: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1327.55

Manning-n's: n-lob = .055 n-ch = .045 n-rob = .055

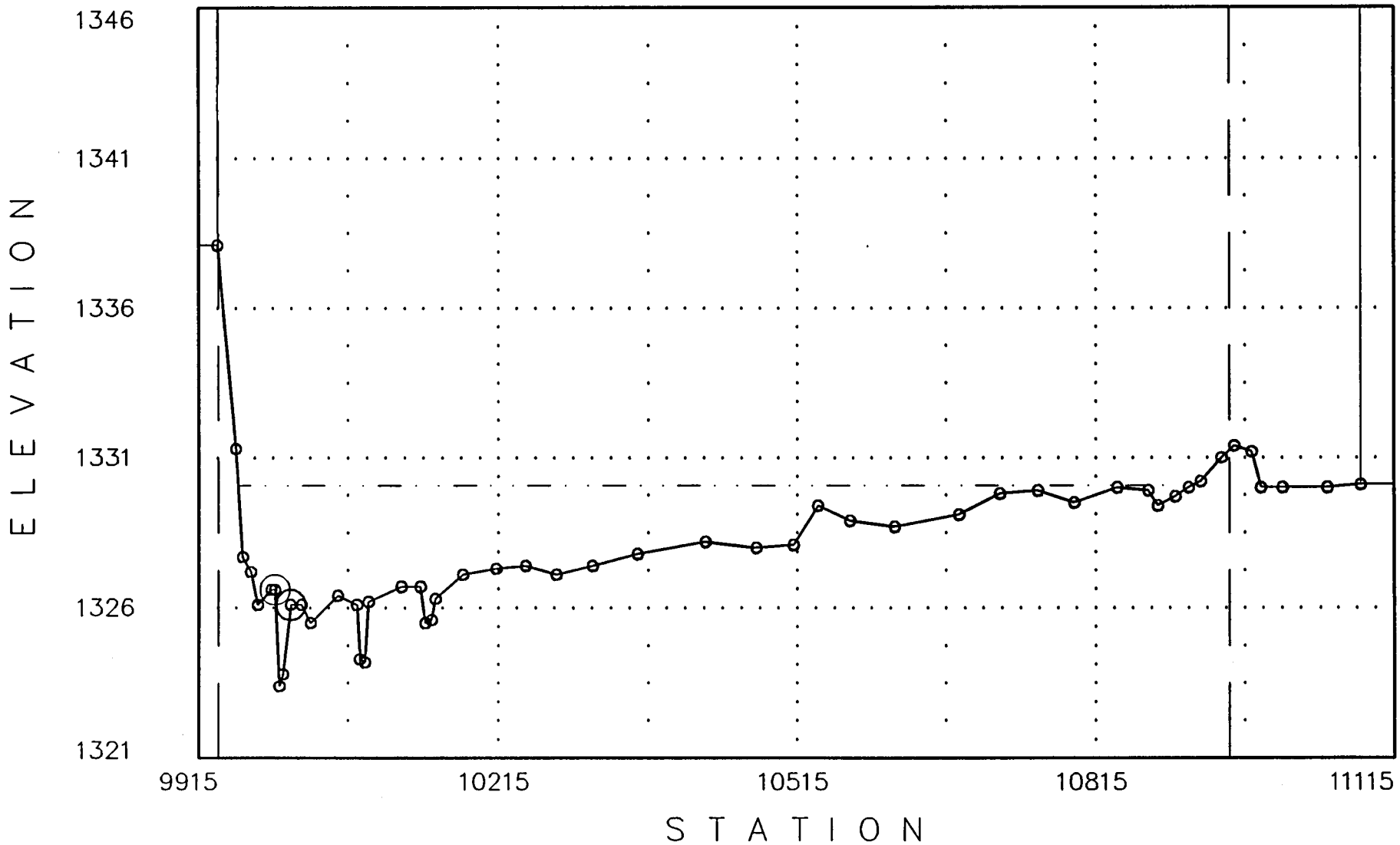



12-07-1990

<<<<<< Cross Section: .813: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1330.08

Manning-n's: n-lob = .055 n-ch = .045 n-rob = .055

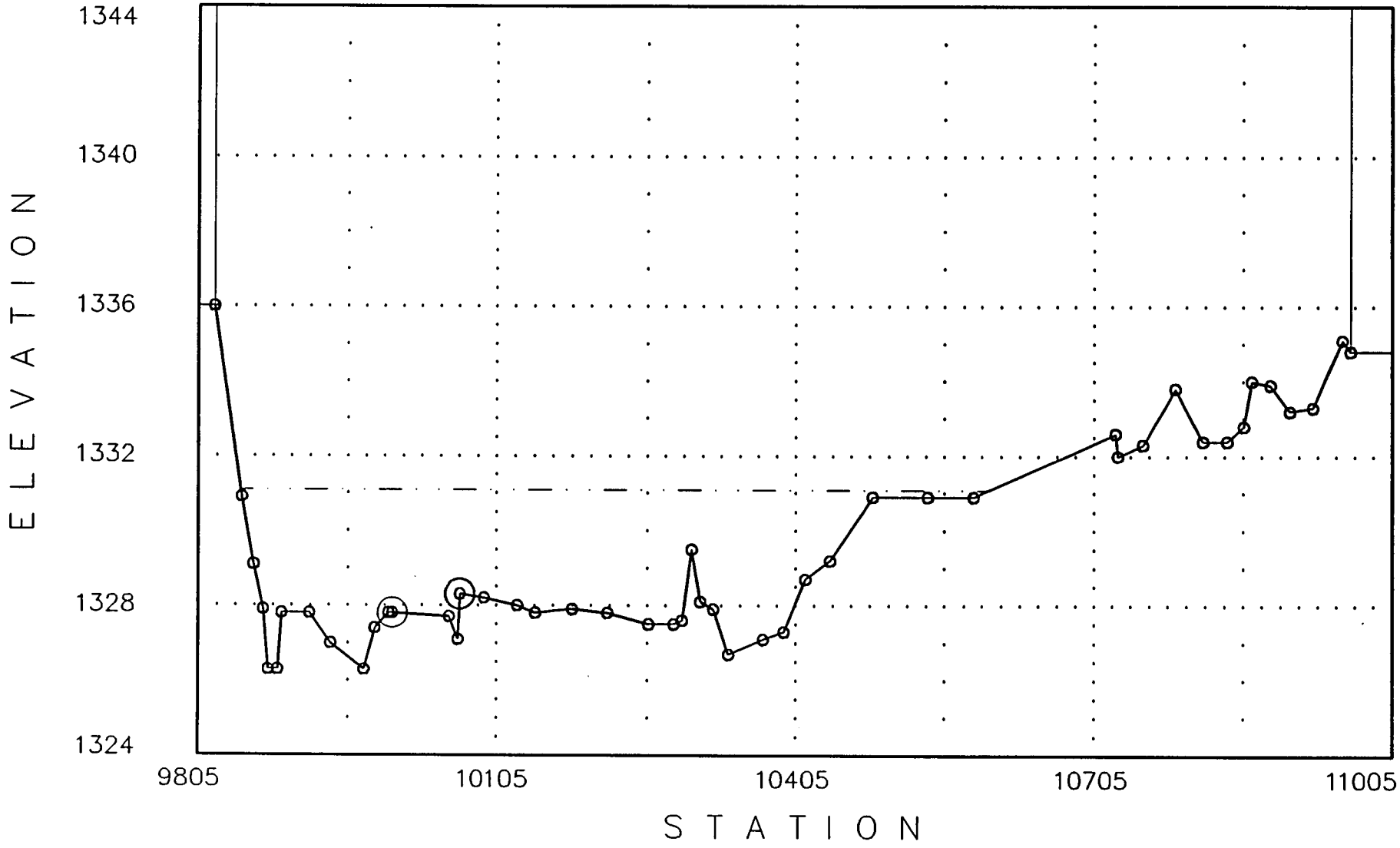



12-07-1990

<<<<<< Cross Section: .86: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1331.09

Manning-n's: n-lob = .055 n-ch = .045 n-rob = .055

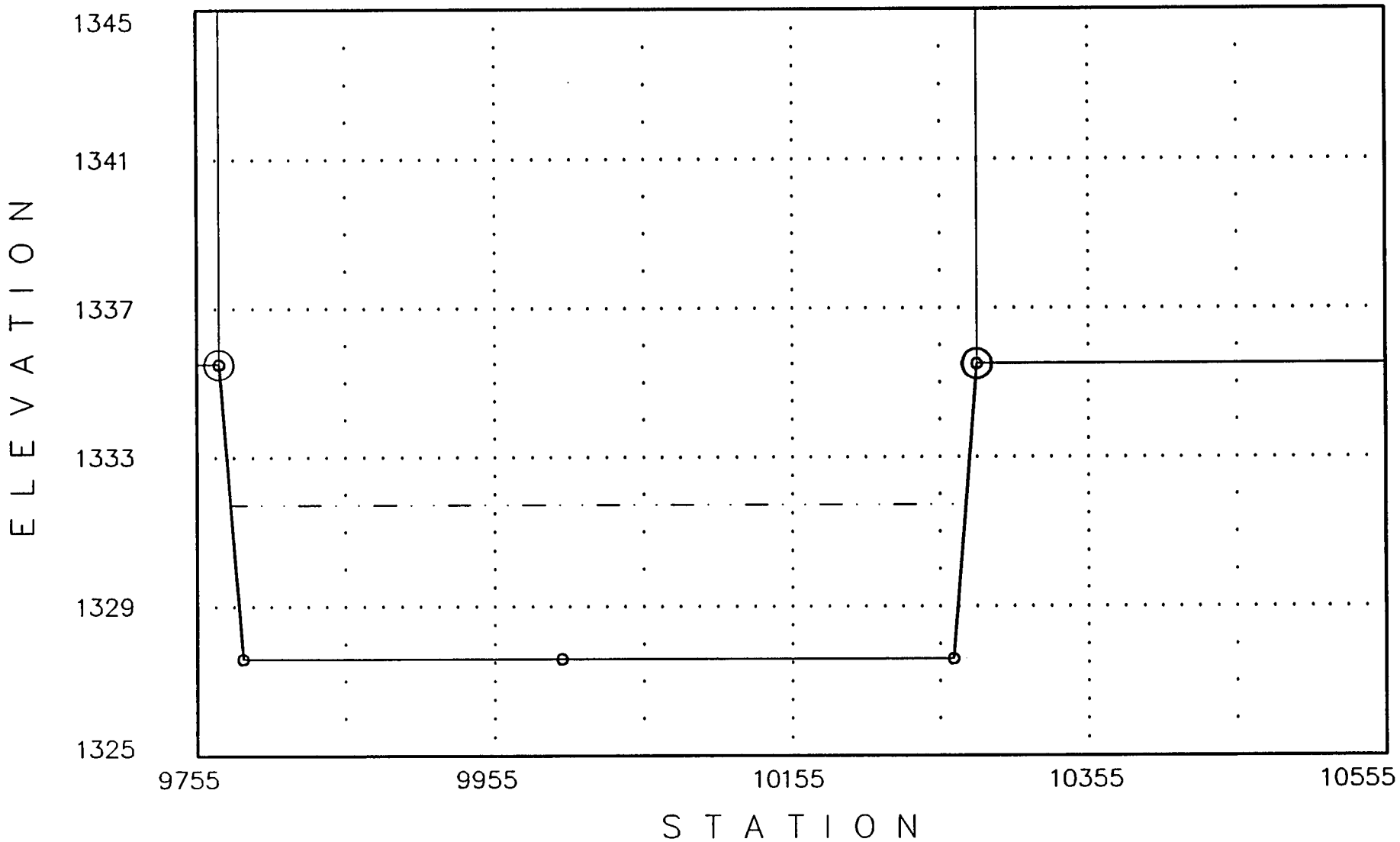



12-07-1990

<<<<<< Cross Section: .945: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1331.73

Manning-n's: n-lob = .03 n-ch = .03 n-rob = .03

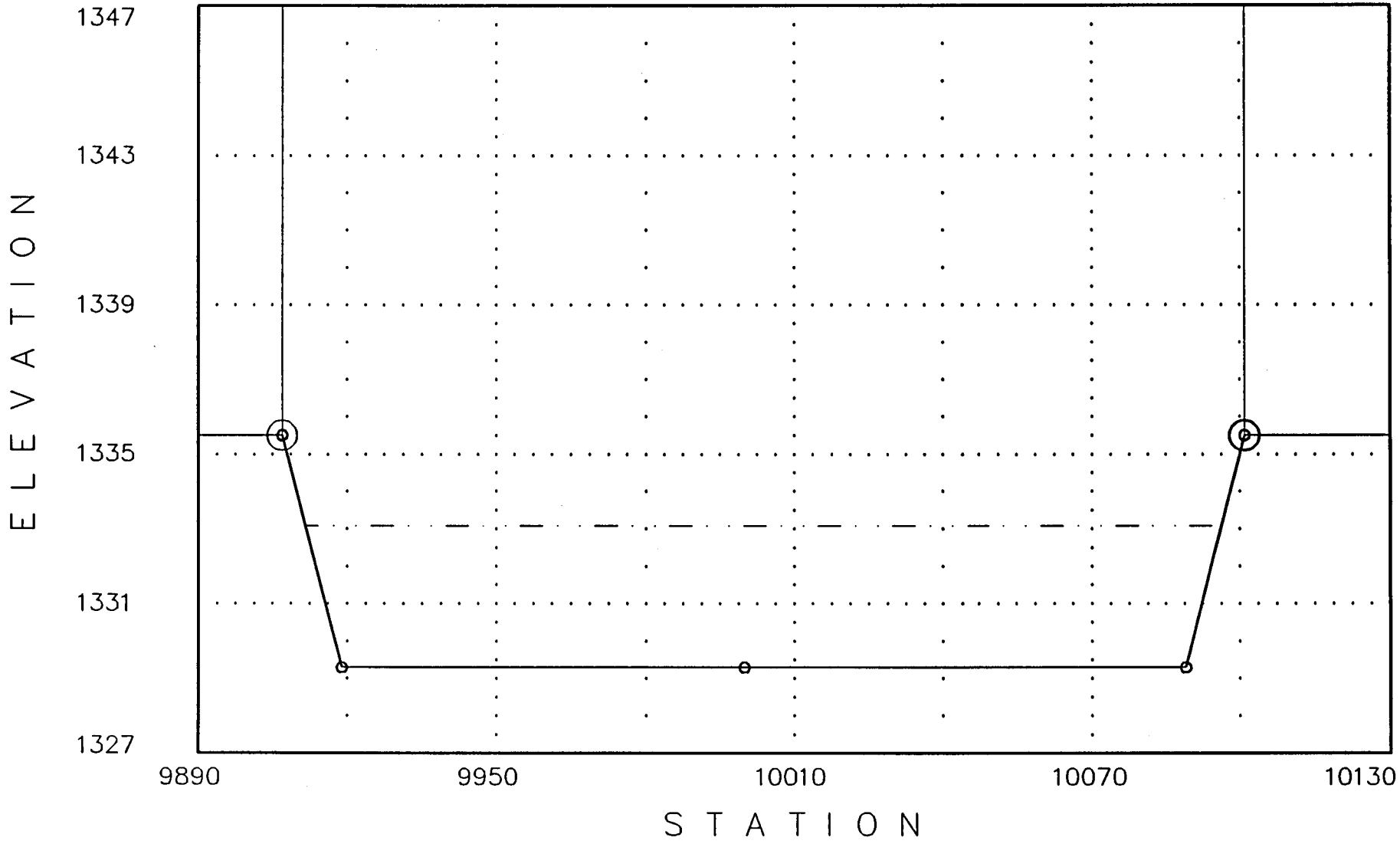



12-07-1990

<<<<<< Cross Section: 1.1: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1333.08

Manning-n's: n-lob = .03 n-ch = .03 n-rob = .03

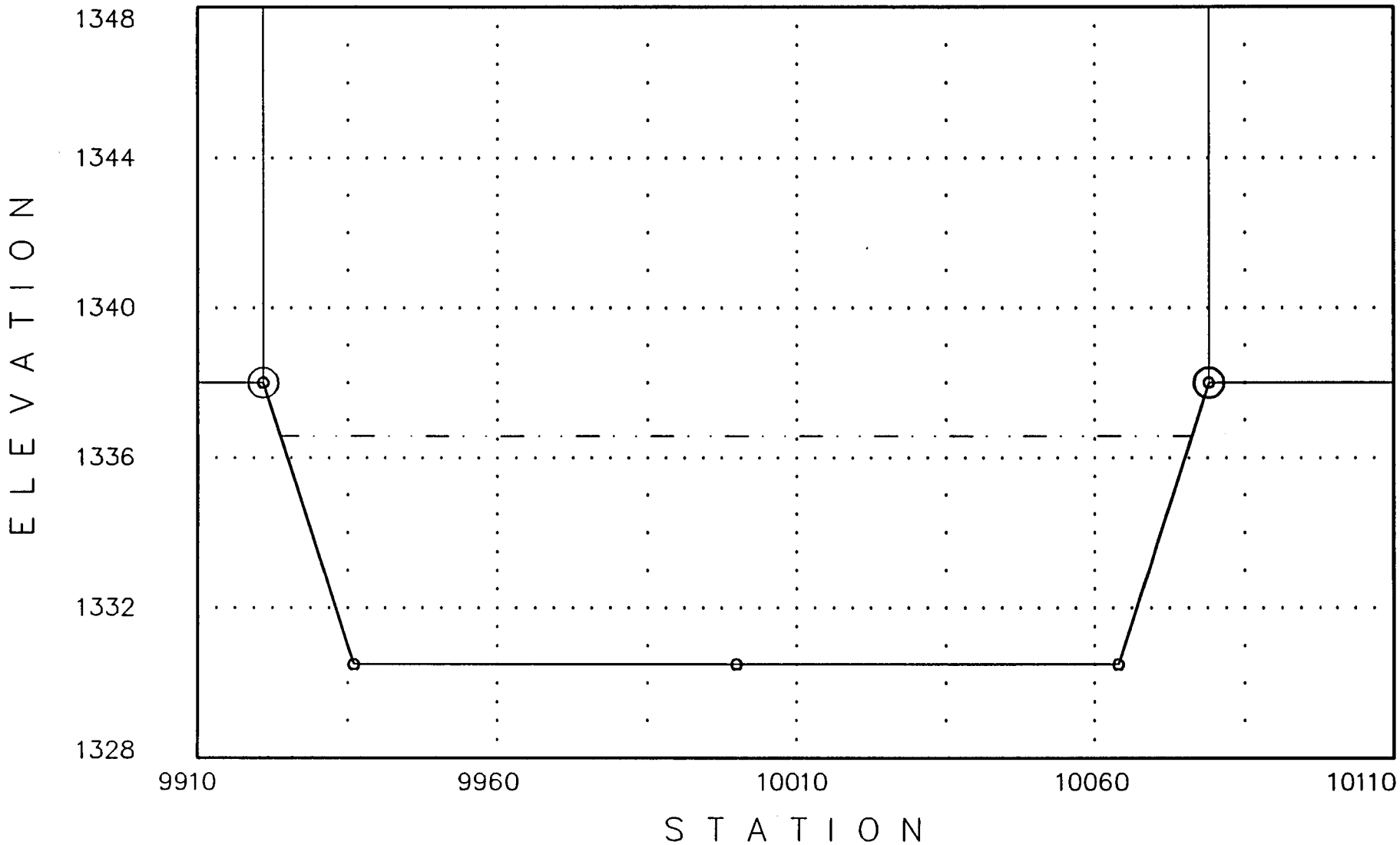



12-07-1990

<<<<<< Cross Section: 1.238: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1336.58

Manning-n's: n-lob = .03 n-ch = .03 n-rob = .03

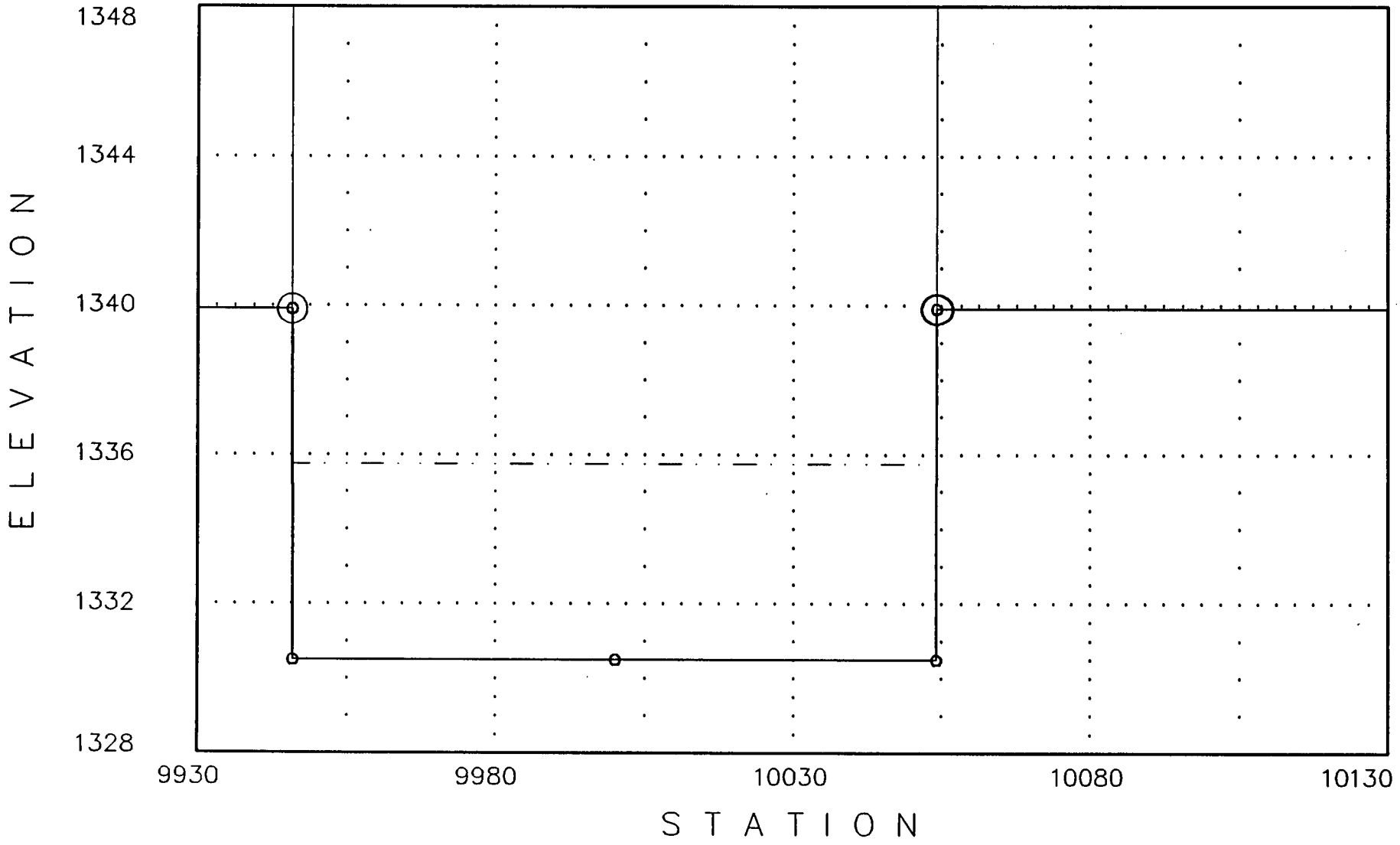



12-07-1990

<<<<<< Cross Section: 1.251: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1335.74

Manning-n's: n-lob = .015 n-ch = .015 n-rob = .015



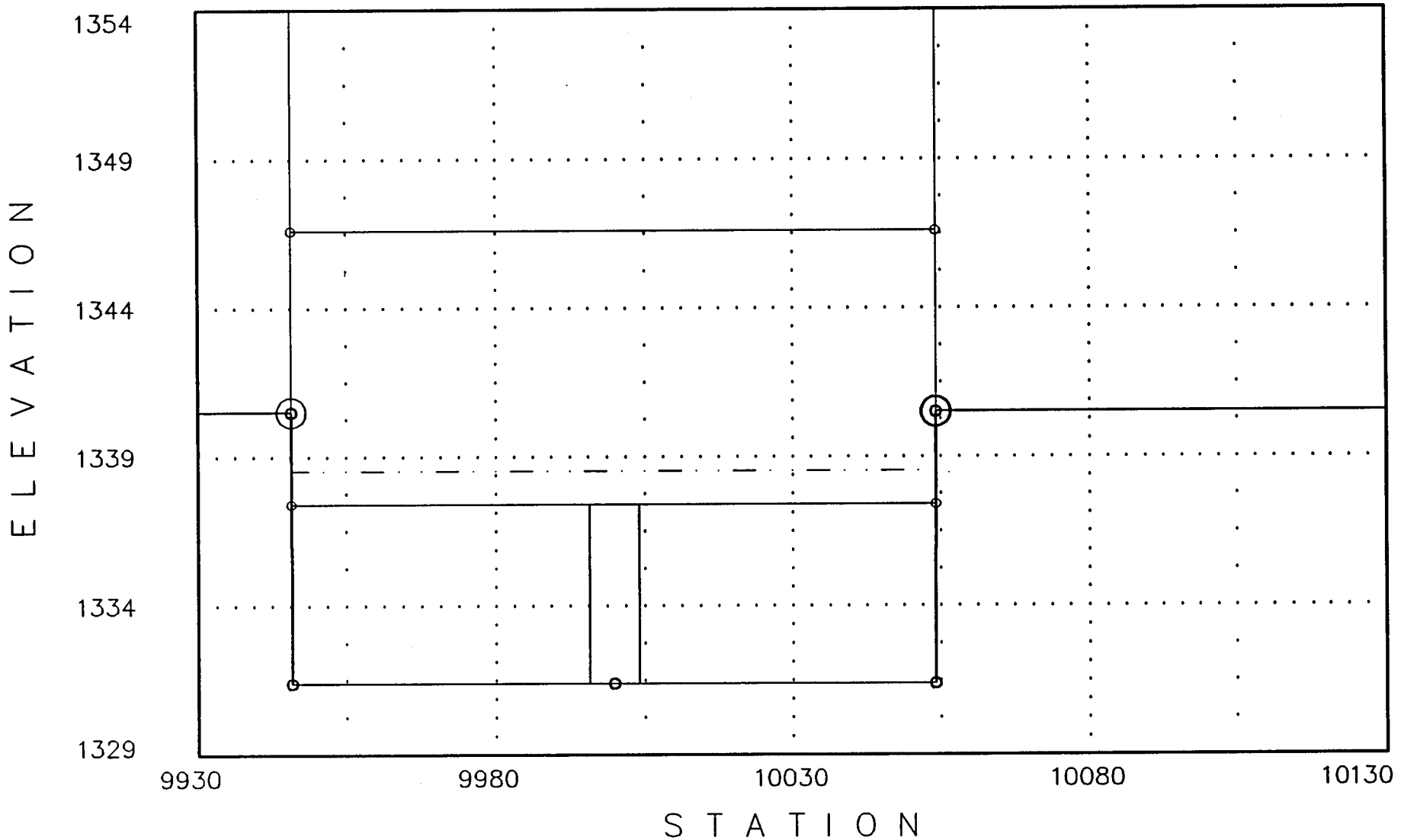

12-07-1990

<<<<<< Cross Section: 1.333: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1338.53

Manning-n's: n-lob = .015 n-ch = .015 n-rob = .015

SPECIAL BRIDGE

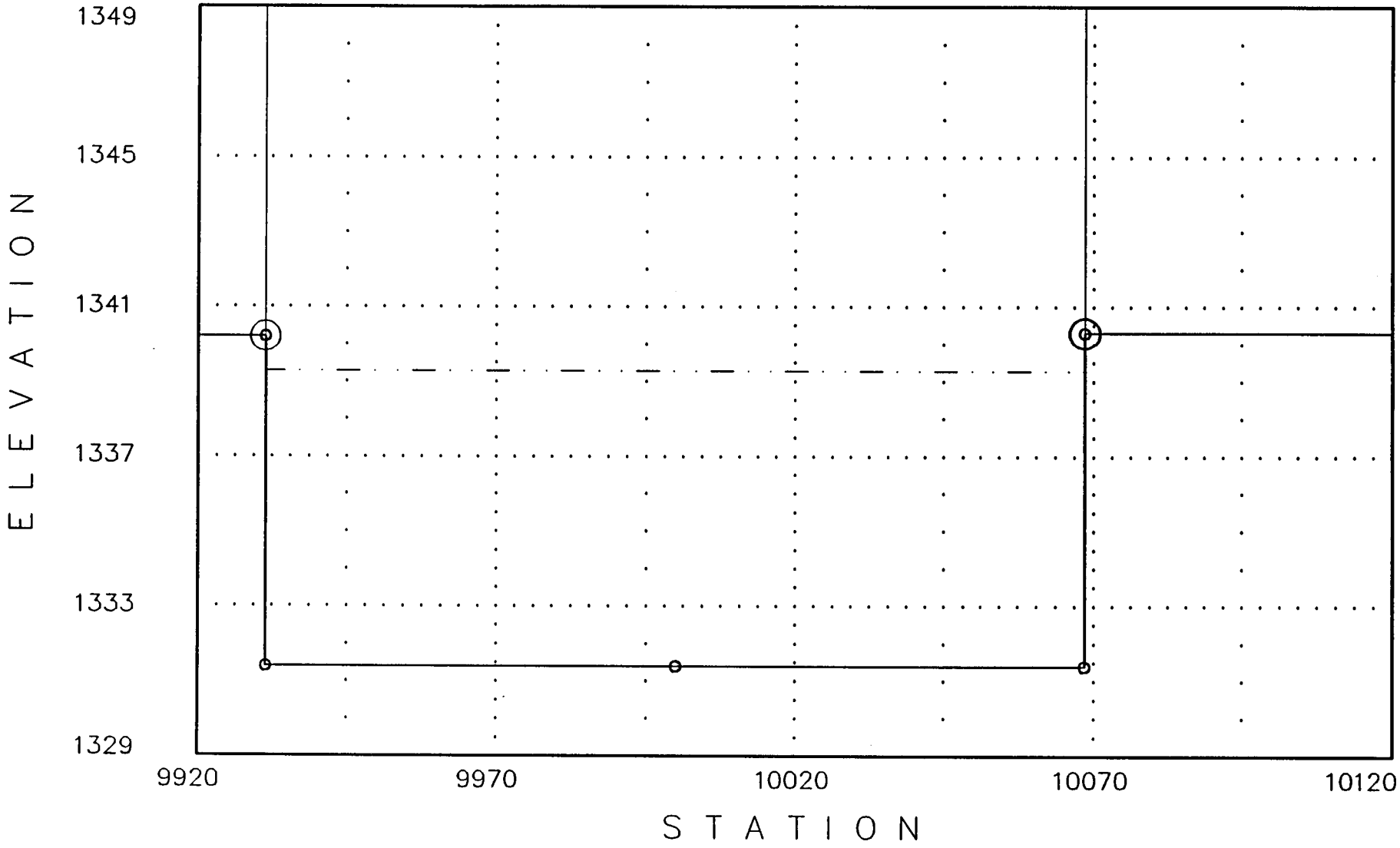



12-07-1990

<<<<<< Cross Section: 1.334: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1339.28

Manning-n's: n-lob = .015 n-ch = .015 n-rob = .015

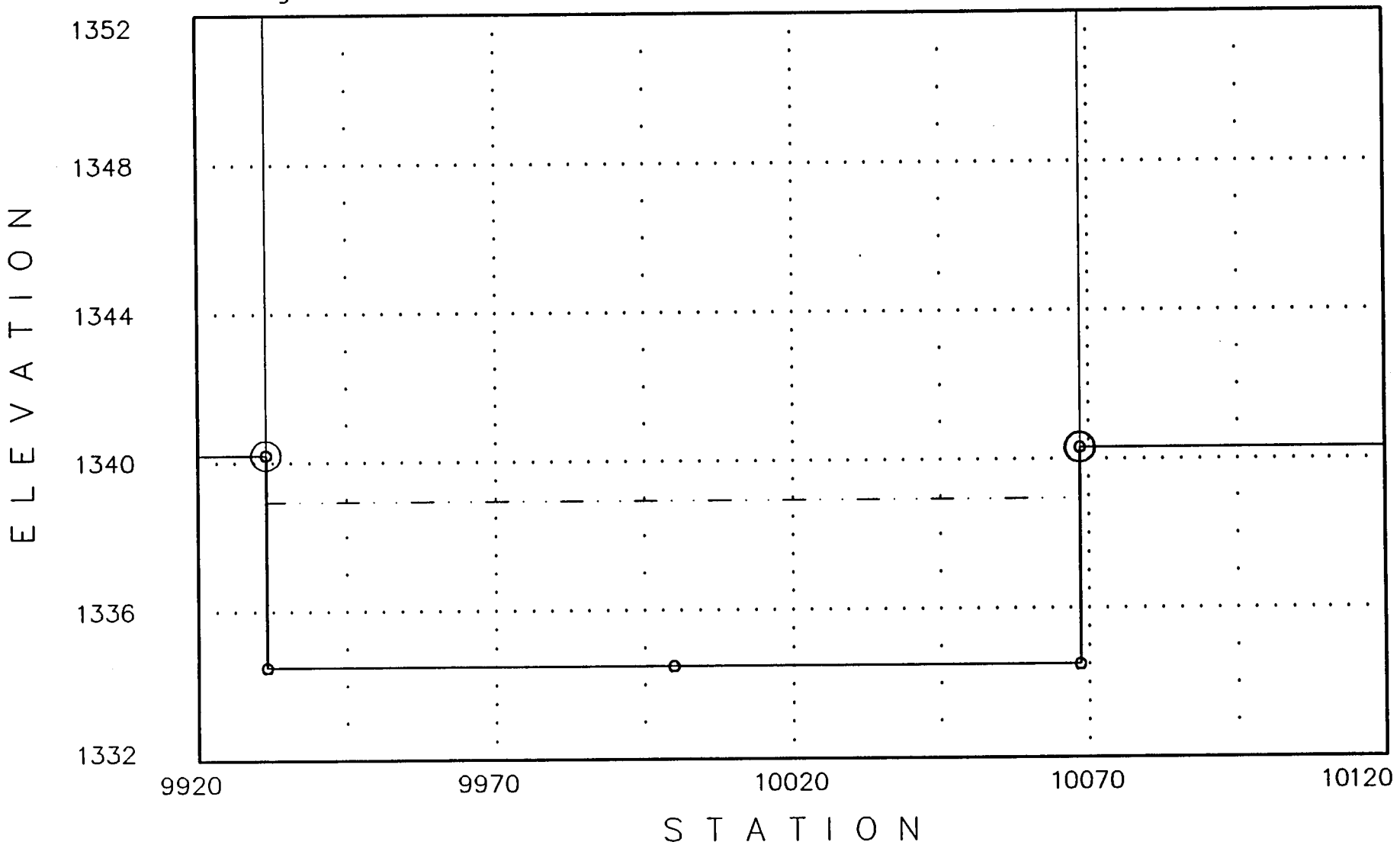



12-07-1990

<<<<<< Cross Section: 1.335: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1338.94

Manning-n's: n-lob = .015 n-ch = .015 n-rob = .015

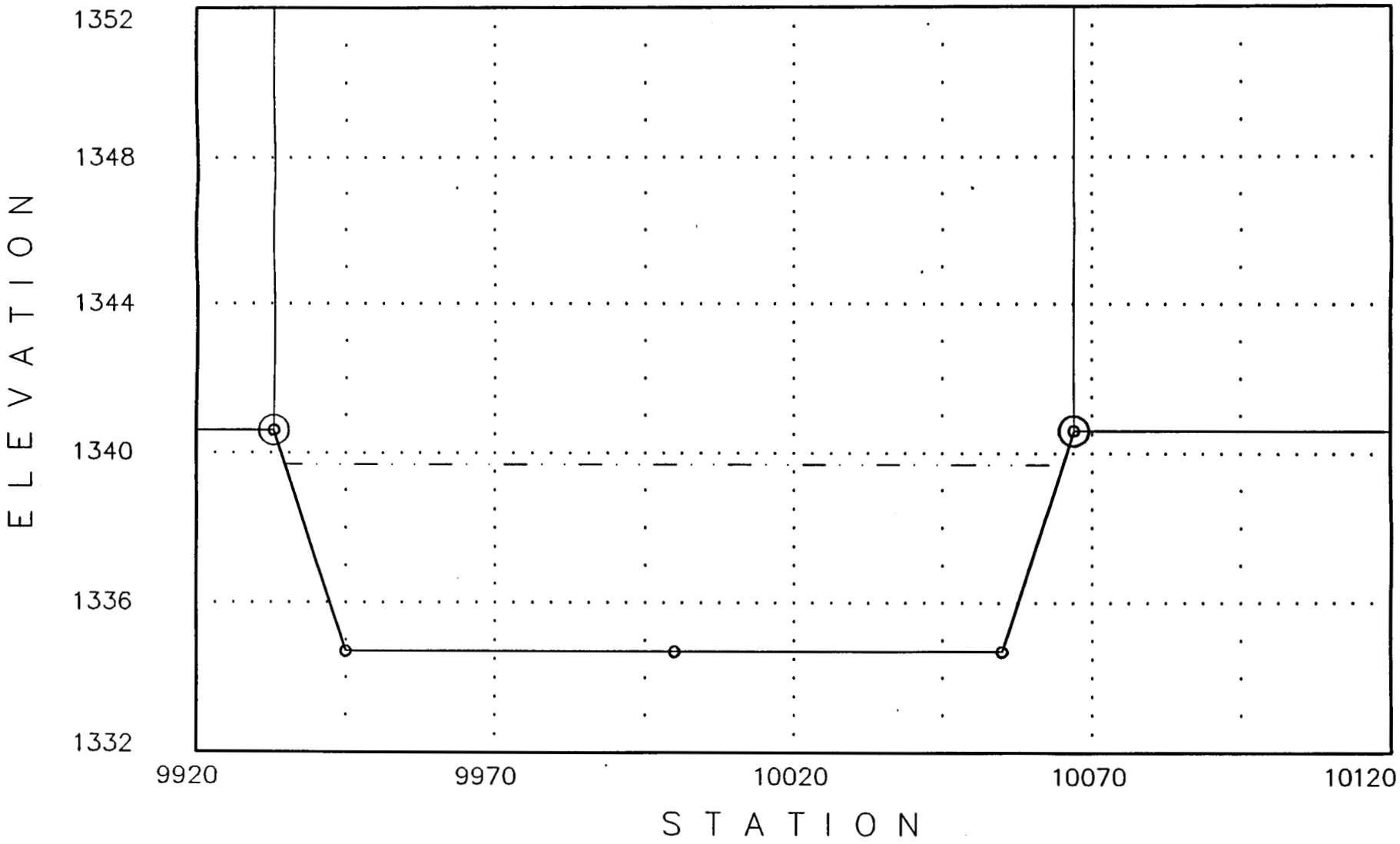



12-07-1990

<<<<<< Cross Section: 1.35: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1339.68

Manning-n's: n-lob = .03 n-ch = .03 n-rob = .03

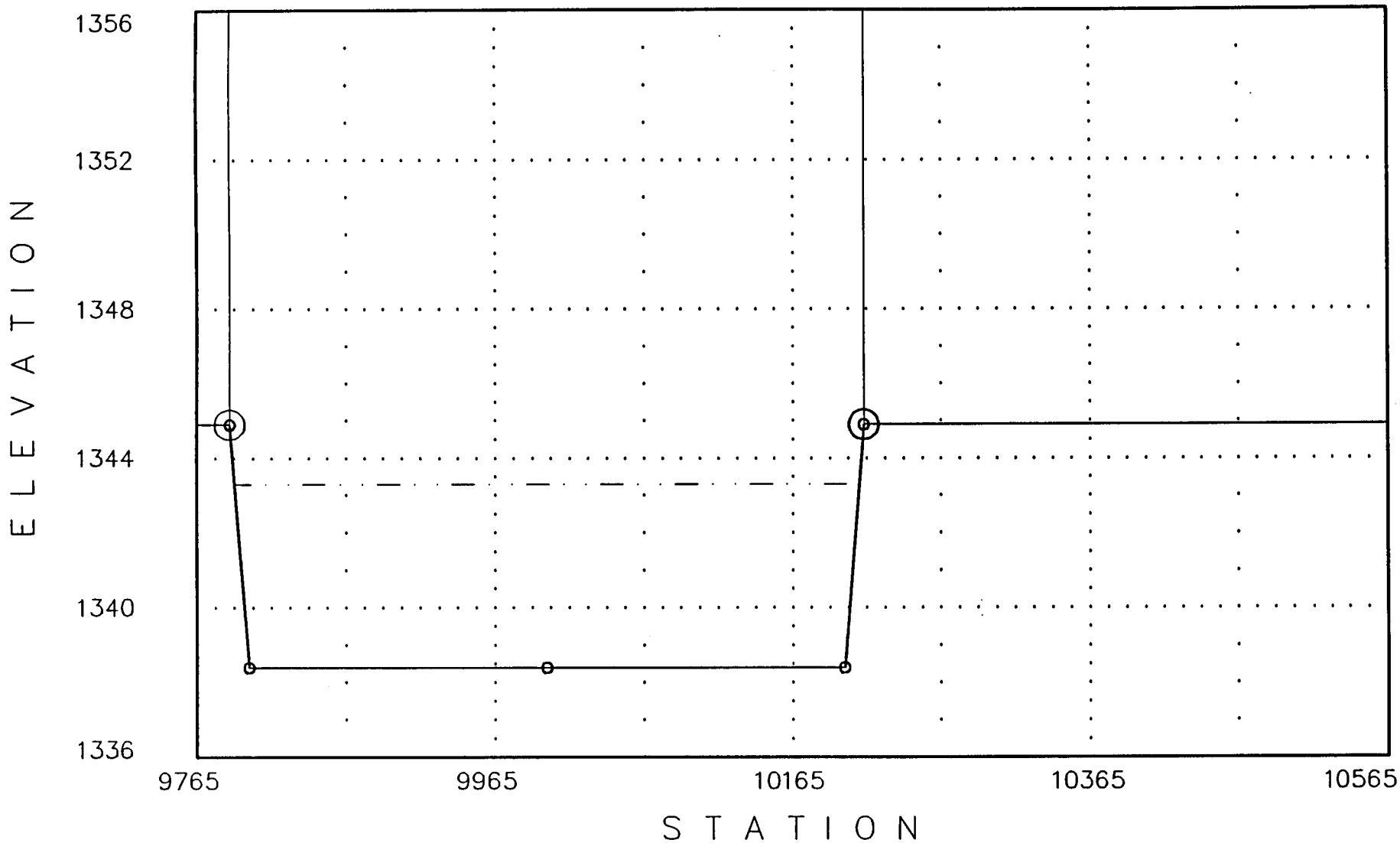



12-07-1990

<<<<<< Cross Section: 1.505: (FN = SKSFUT.O) >>>>>>

Q1= 7300 WS1= 1343.3

Manning-n's: n-lob = .03 n-ch = .03 n-rob = .03




12-07-1990

# SECTION VIII

# FUTURE CONDITION FLOODPLAIN DELINEATION MAPS

(REDUCED COPY)

| NO | REVISION BY DESCRIPTION | REV BY | CKD BY | DATE |
|---|---|---|---|---|
| | | | | |

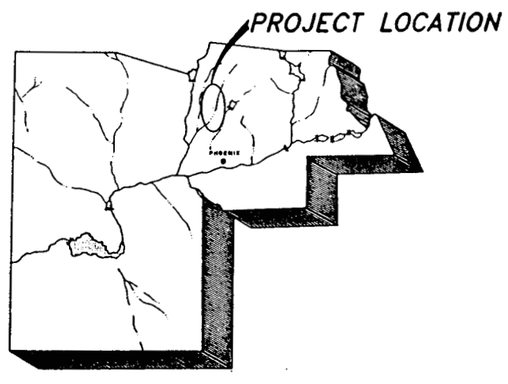
| NO | REVISION BY DESCRIPTION | REV BY | CKD BY | DATE |
|---|---|---|---|---|
| | | | | |

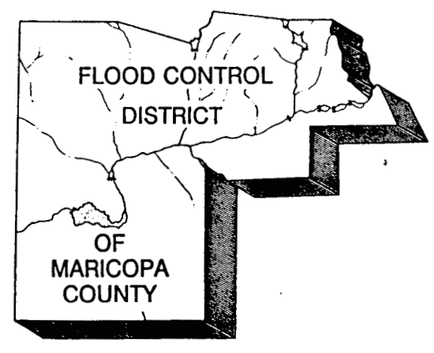
| NO | REVISION BY DESCRIPTION | REV BY | CKD BY | DATE |
|---|---|---|---|---|
| | | | | |

# FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

## FLOODPLAIN DELINEATION (FUTURE FLOWS)
## ON
## **SKUNK CREEK**
## **FROM ARIZONA CANAL DIVERSION CHANNEL**
## **TO**
## **CENTRAL ARIZONA PROJECT CANAL**

## CONTRACT FCD 89-72




FLOOD CONTROL DISTRICT
OF MARICOPA COUNTY

SKUNK CREEK
FLOODPLAIN DELINEATION

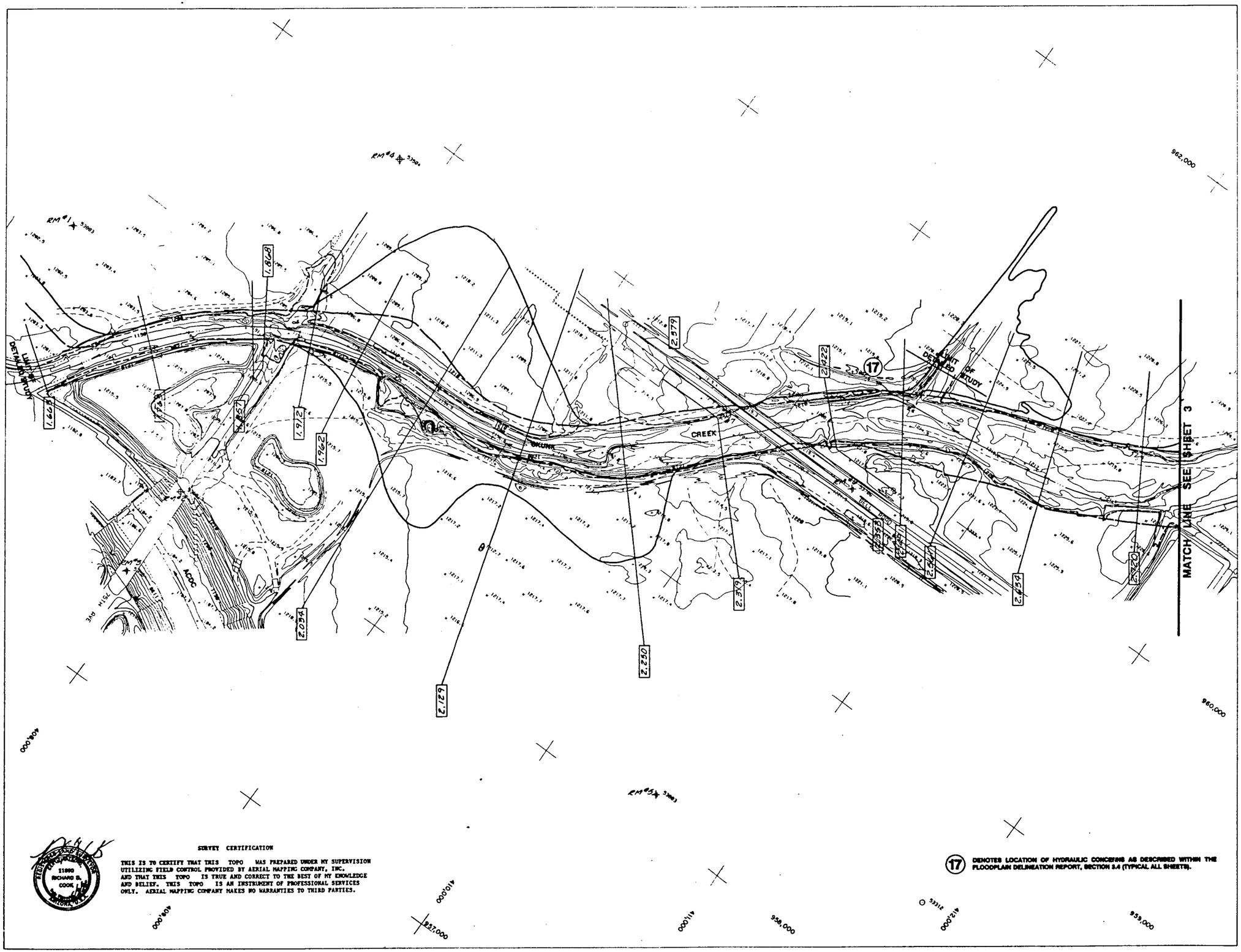
ACDC TO CAP

RECOMMENDED DATE:
APPROVED BY: DATE:
FLOODPLAIN ADMINISTRATOR

1 OF 13

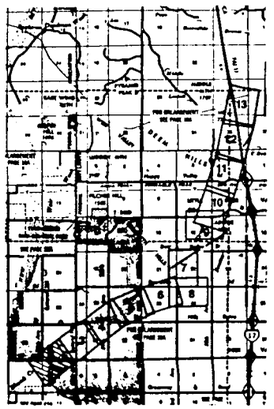
COE & VAN LOO PHOENIX ARIZONA
CONSULTING ENGINEERS INC.

FCDMC CONTRACT NO. 89-72 CVL JOB NO. 1090-05-07



0 200 400

CONTOUR INTERVAL 2 FEET



KEY MAP
NTS

## LEGEND

- 100-YEAR FLOOD LIMITS (CORPS FUTURE)
- FLOODWAY LIMITS (CORPS FUTURE)
- 100-YEAR FLOOD LIMITS (CVL FUTURE)
- 2.0 — STATIONING IN RIVER MILES UPSTREAM FROM NEW RIVER
- 2.174 — CROSS-SECTION NUMBER
- + RM#4 — REFERENCE MARK
- CONTROL LINE

NOTES:

THIS FLOOD INSURANCE STUDY WORK MAP HAS BEEN PREPARED IN ACCORDANCE WITH FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) GUIDELINES

MAP BASED ON 1" = 200' TOPOGRAPHIC MAPPING PREPARED BY AERIAL MAPPING COMPANY, INC. (AMCI) FROM PHOTOGRAPHS TAKEN IN APRIL 1990

ELEVATIONS BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929.

**PHOENIX & GLENDALE, ARIZONA**

MAPPING DATA:

| | |
|---|---|
| COMPILATION SCALE: | 1" = 200' |
| CONTOUR INTERVAL: | 2' |
| FLIGHT ALTITUDE: | 4600' |
| DATUM MSL: | 1929 |
| FLOWN BY: | AMCI |
| COMPILED BY: | AMCI |
| CONTROL SURVEY BY: | AMCI |

SURVEY CERTIFICATION

THIS IS TO CERTIFY THAT THIS TOPO WAS PREPARED UNDER MY SUPERVISION UTILIZING FIELD CONTROL PROVIDED BY AERIAL MAPPING COMPANY, INC. AND THAT THIS TOPO IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS TOPO IS AN INSTRUMENT OF PROFESSIONAL SERVICES ONLY. AERIAL MAPPING COMPANY MAKES NO WARRANTIES TO THIRD PARTIES.

REGISTERED LAND SURVEYOR 11890 RICHARD B. COOK ARIZONA U.S.A.

(17) DENOTES LOCATION OF HYDRAULIC CONCERNS AS DESCRIBED WITHIN THE FLOODPLAIN DELINEATION REPORT, SECTION 3.4 (TYPICAL ALL SHEETS).

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

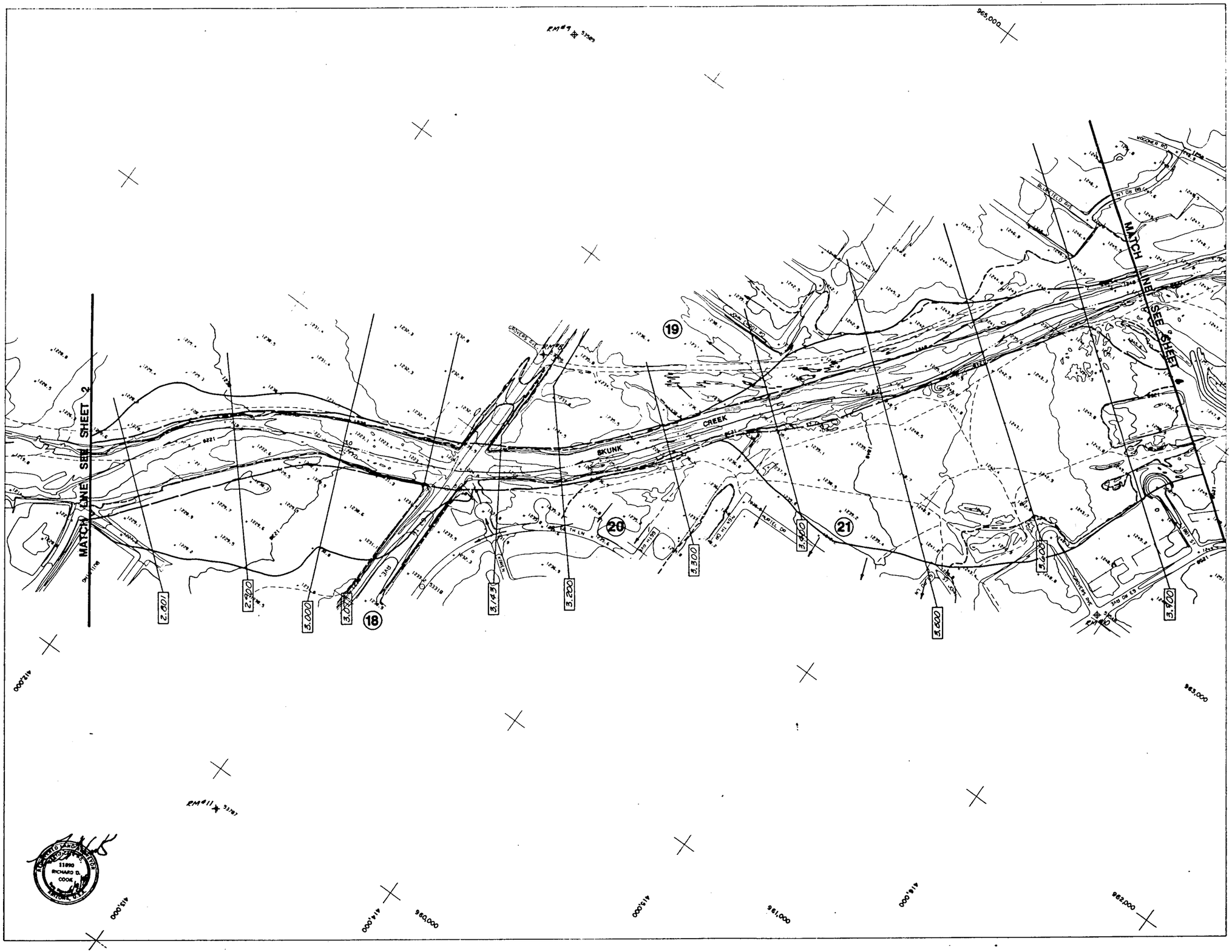
SKUNK CREEK FLOODPLAIN DELINEATION

ACDC TO CAP

RECOMMENDED: DATE:
APPROVED BY: DATE:
FLOODPLAIN ADMINISTRATOR

2 OF 13

COE & VAN LOO CONSULTING ENGINEERS INC. PHOENIX ARIZONA



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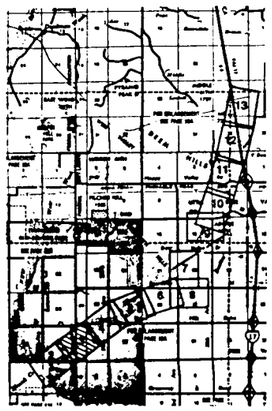
CONTOUR INTERVAL 2 FEET



KEY MAP
NTS

## LEGEND

- 100-YEAR FLOOD LIMITS (CORPS FUTURE)
- FLOODWAY LIMITS (CORPS FUTURE)
- 100-YEAR FLOOD LIMITS (CVL FUTURE)
- 2.0 STATIONING IN RIVER MILES UPSTREAM FROM NEW RIVER
- 2.174 CROSS-SECTION NUMBER
- + RM#4 REFERENCE MARK
- CONTROL LINE

NOTES:

THIS FLOOD INSURANCE STUDY WORK MAP HAS BEEN PREPARED IN ACCORDANCE WITH FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) GUIDELINES

MAP BASED ON 1" = 200' TOPOGRAPHIC MAPPING PREPARED BY AERIAL MAPPING COMPANY, INC. (AMCI) FROM PHOTOGRAPHS TAKEN IN APRIL 1990

ELEVATIONS BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929.

**PHOENIX & GLENDALE, ARIZONA**

MAPPING DATA:

| | |
|---|---|
| COMPILATION SCALE: | 1" = 200' |
| CONTOUR INTERVAL: | 2' |
| FLIGHT ALTITUDE: | 4600' |
| DATUM MSL: | 1929 |
| FLOWN BY: | AMCI |
| COMPILED BY: | AMCI |
| CONTROL SURVEY BY: | AMCI |

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

SKUNK CREEK FLOODPLAIN DELINEATION

ACDC TO CAP

RECOMMENDED: DATE:

APPROVED BY: DATE:

FLOODPLAIN ADMINISTRATOR

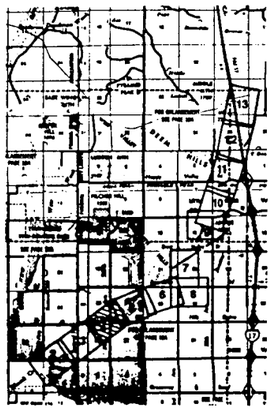
3 OF 13

COE & VAN LOO CONSULTING ENGINEERS INC. PHOENIX ARIZONA

FCDMC CONTRACT NO 89-73 CVL JOB NO 1090-05-07

0 200 400

CONTOUR INTERVAL 2 FEET



**KEY MAP**
NTS

**LEGEND**

- 100-YEAR FLOOD LIMITS (CORPS FUTURE)
- FLOODWAY LIMITS (CORPS FUTURE)
- 100-YEAR FLOOD LIMITS (CVL FUTURE)
- 2.0 — STATIONING IN RIVER MILES UPSTREAM FROM NEW RIVER
- 2.174 — CROSS-SECTION NUMBER
- + RM#4 — REFERENCE MARK
- CONTROL LINE

**NOTES:**

THIS FLOOD INSURANCE STUDY WORK MAP HAS BEEN PREPARED IN ACCORDANCE WITH FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) GUIDELINES

MAP BASED ON 1" = 200' TOPOGRAPHIC MAPPING PREPARED BY AERIAL MAPPING COMPANY, INC. (AMCI) FROM PHOTOGRAPHS TAKEN IN APRIL 1990

ELEVATIONS BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929.

**PHOENIX & GLENDALE, ARIZONA**

**MAPPING DATA:**

| | |
|---|---|
| COMPILATION SCALE: | 1" = 200' |
| CONTOUR INTERVAL: | 2' |
| FLIGHT ALTITUDE: | 4500' |
| DATUM MSL: | 1929 |
| FLOWN BY: | AMCI |
| COMPILED BY: | AMCI |
| CONTROL SURVEY BY: | AMCI |

FLOOD CONTROL DISTRICT
OF MARICOPA COUNTY

SKUNK CREEK
FLOODPLAIN DELINEATION

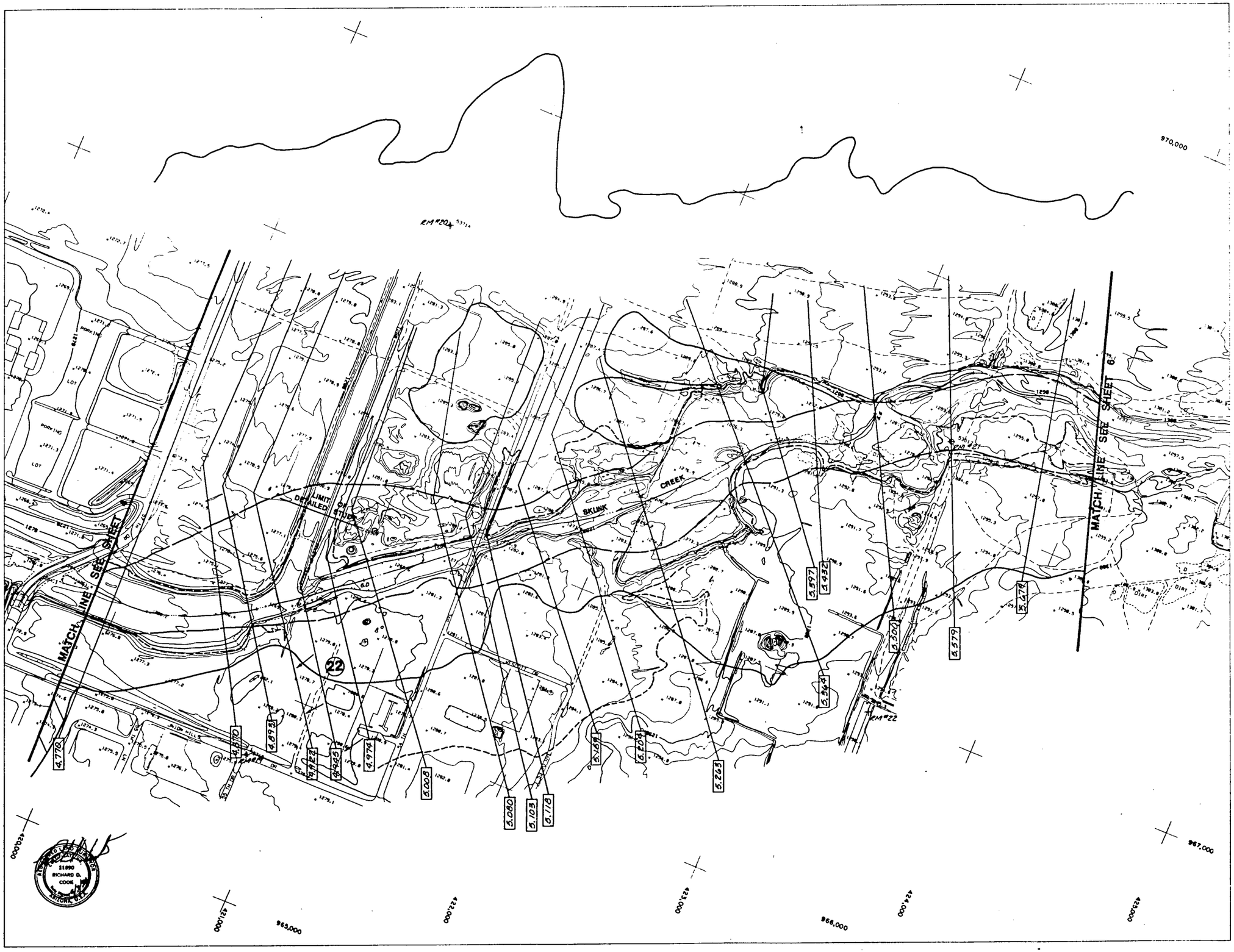
ACDC TO CAP

RECOMMENDED: DATE:
APPROVED BY: DATE:
FLOODPLAIN ADMINISTRATOR

4 OF 13

COE & VAN LOO CONSULTING ENGINEERS INC. PHOENIX ARIZONA

FCDMC CONTRACT NO. 89-72 CVL JOB NO. 1090-05-07



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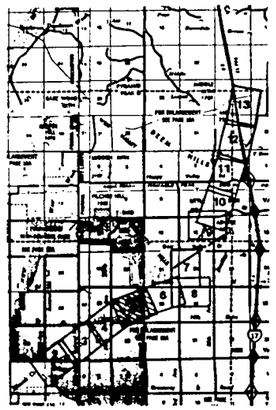
CONTOUR INTERVAL 2 FEET



**KEY MAP**
NTS

**LEGEND**

- 100-YEAR FLOOD LIMITS (CORPS FUTURE)
- FLOODWAY LIMITS (CORPS FUTURE)
- 100-YEAR FLOOD LIMITS (CVL FUTURE)
- 2.0 — STATIONING IN RIVER MILES UPSTREAM FROM NEW RIVER
- 2.179 — CROSS-SECTION NUMBER
- + RM#4 — REFERENCE MARK
- CONTROL LINE

NOTES:

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ELEVATIONS BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929.

**PHOENIX & GLENDALE, ARIZONA**

MAPPING DATA:

| | |
|---|---|
| COMPILATION SCALE: | 1" = 200' |
| CONTOUR INTERVAL: | 2' |
| FLIGHT ALTITUDE: | 4600' |
| DATUM MSL: | 1929 |
| FLOWN BY: | AMCI |
| COMPILED BY: | AMCI |
| CONTROL SURVEY BY: | AMCI |

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

SKUNK CREEK FLOODPLAIN DELINEATION

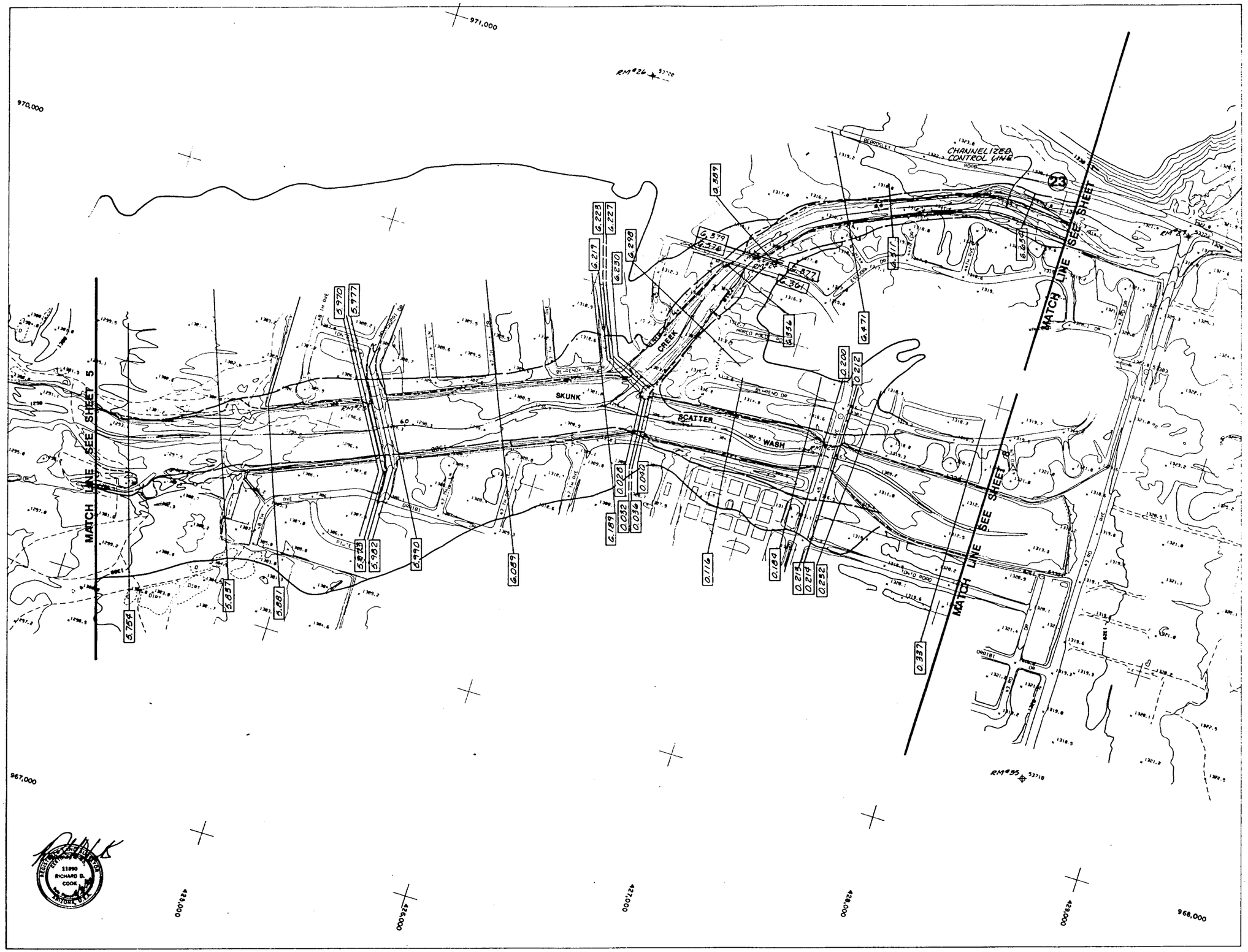
ACDC TO CAP

RECOMMENDED DATE:
APPROVED BY: DATE:
FLOODPLAIN ADMINISTRATOR

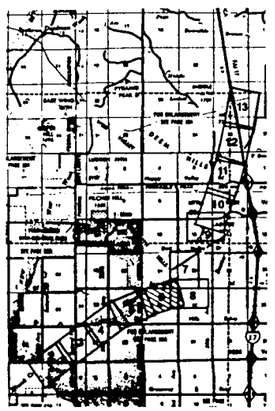
5 of 13

COE & VAN LOO CONSULTING ENGINEERS INC. PHOENIX ARIZONA

FCDMC CONTRACT NO. 89-72 CVL JOB NO. 1090-05-07



CONTOUR INTERVAL 2 FEET



**KEY MAP**
NTS

**LEGEND**

- 100-YEAR FLOOD LIMITS (CORPS FUTURE)
- FLOODWAY LIMITS (CORPS FUTURE)
- 100-YEAR FLOOD LIMITS (CVL FUTURE)
- 2.0 — STATIONING IN RIVER MILES UPSTREAM FROM NEW RIVER
- 2.174 — CROSS-SECTION NUMBER
- + RM#4 — REFERENCE MARK
- CONTROL LINE

NOTES:

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ELEVATIONS BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929.

**PHOENIX & GLENDALE, ARIZONA**

MAPPING DATA:

| | |
|---|---|
| COMPILATION SCALE: | 1" = 200' |
| CONTOUR INTERVAL: | 2' |
| FLIGHT ALTITUDE: | 4500' |
| DATUM MSL: | 1929 |
| FLOWN BY: | AMCI |
| COMPILED BY: | AMCI |
| CONTROL SURVEY BY: | AMCI |

REGISTERED PROFESSIONAL ENGINEER 11990 RICHARD B. COOK ARIZONA U.S.A.

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

SKUNK CREEK FLOODPLAIN DELINEATION

ACDC TO CAP

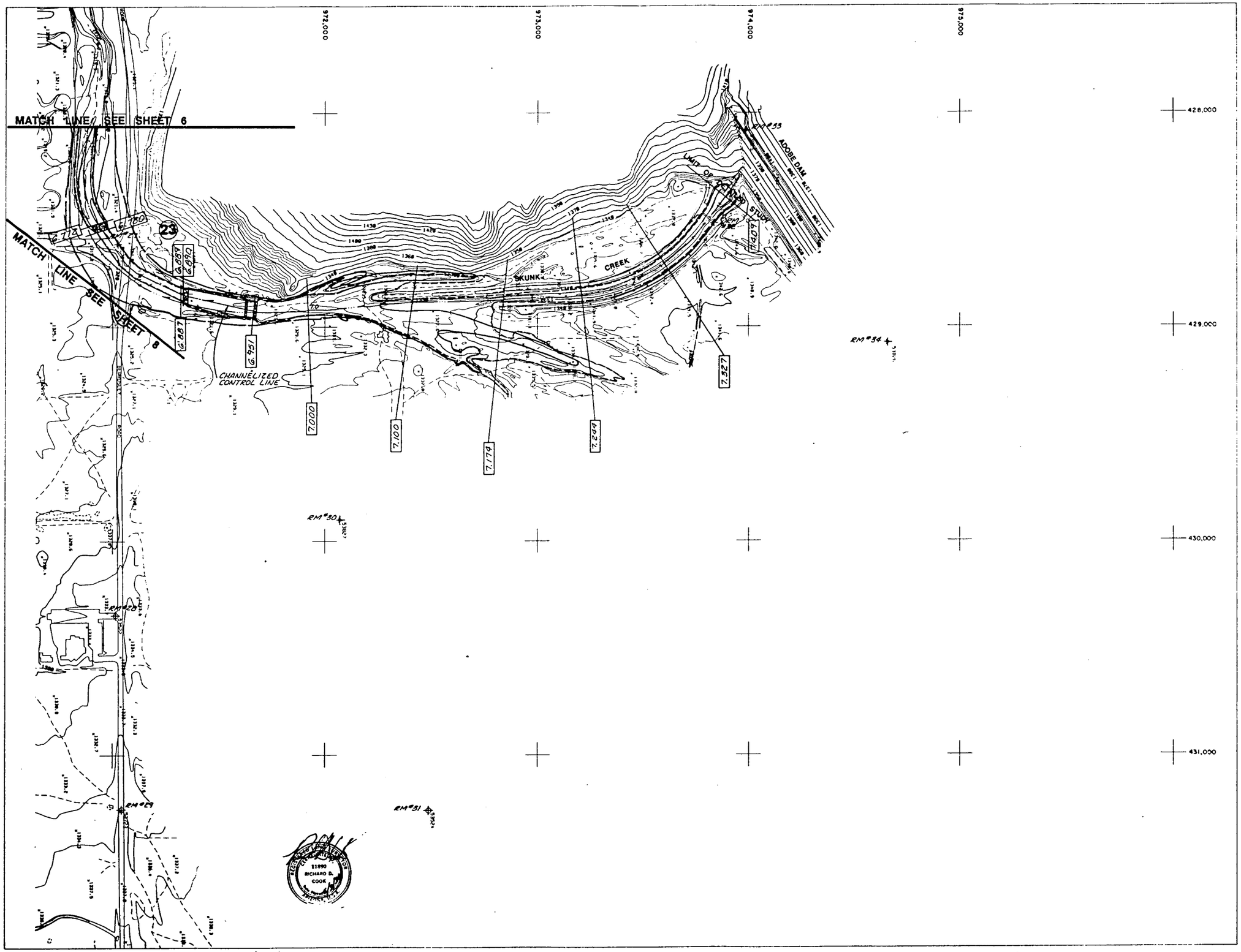
RECOMMENDED: DATE:

APPROVED BY: DATE:

FLOODPLAIN ADMINISTRATOR

6 OF 13

COE & VAN LOO CONSULTING ENGINEERS INC. PHOENIX ARIZONA

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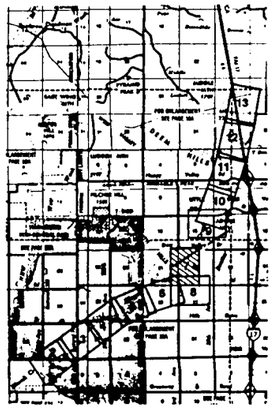
CONTOUR INTERVAL 2 FEET



**KEY MAP**
NTS

## LEGEND

- 100-YEAR FLOOD LIMITS (CORPS FUTURE)
- FLOODWAY LIMITS (CORPS FUTURE)
- 100-YEAR FLOOD LIMITS (CVL FUTURE)
- 2.0 — STATIONING IN RIVER MILES UPSTREAM FROM NEW RIVER
- 2.174 — CROSS-SECTION NUMBER
- + RM#4 — REFERENCE MARK
- CONTROL LINE

NOTES:

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**PHOENIX & GLENDALE, ARIZONA**

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|---|---|
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| CONTOUR INTERVAL: | 2' |
| FLIGHT ALTITUDE: | 4500' |
| DATUM MSL: | 1929 |
| FLOWN BY: | AMCI |
| COMPILED BY: | AMCI |
| CONTROL SURVEY BY: | AMCI |

FLOOD CONTROL DISTRICT
OF MARICOPA COUNTY

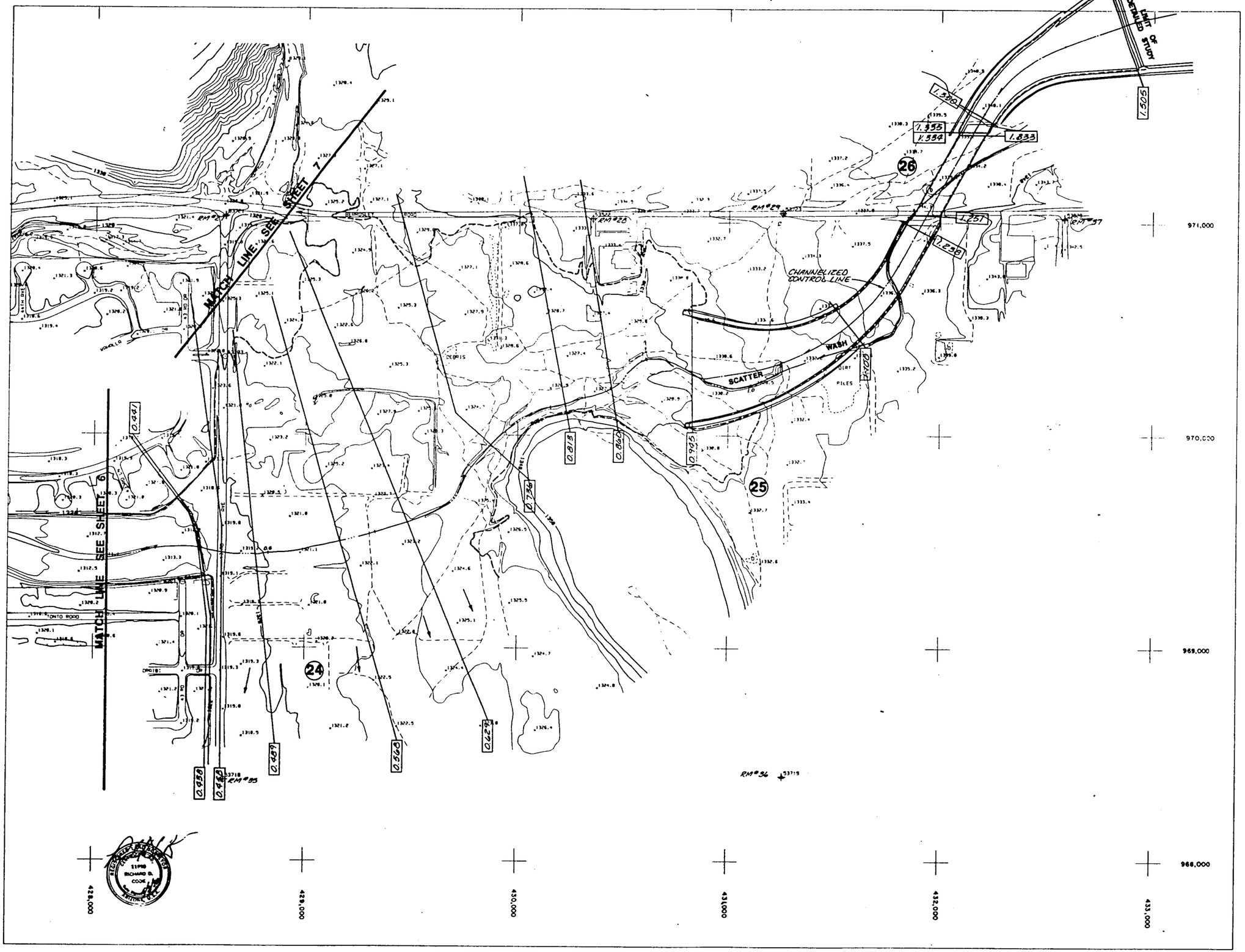
# SKUNK CREEK FLOODPLAIN DELINEATION

ACDC TO CAP

RECOMMENDED: DATE:
APPROVED BY: DATE:
FLOODPLAIN ADMINISTRATOR

7 OF 13

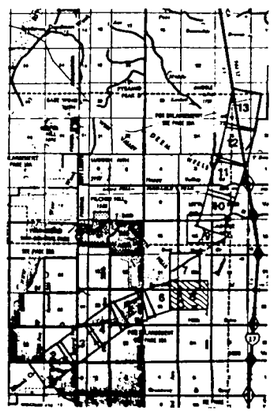
COE & VAN LOO CONSULTING ENGINEERS INC. PHOENIX ARIZONA




N

0 200 400

CONTOUR INTERVAL 2 FEET



**KEY MAP**
NTS

**LEGEND**

- 100-YEAR FLOOD LIMITS (CORPS FUTURE)
- FLOODWAY LIMITS (CORPS FUTURE)
- 100-YEAR FLOOD LIMITS (CVL FUTURE)
- 2.0 — STATIONING IN RIVER MILES UPSTREAM FROM NEW RIVER
- 2.174 — CROSS-SECTION NUMBER
- + RM#4 — REFERENCE MARK
- CONTROL LINE

NOTES:

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ELEVATIONS BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929.

**PHOENIX & GLENDALE, ARIZONA**

MAPPING DATA:

| | |
|---|---|
| COMPILATION SCALE: | 1" = 200' |
| CONTOUR INTERVAL: | 2' |
| FLIGHT ALTITUDE: | 4600' |
| DATUM MSL: | 1929 |
| FLOWN BY: | AMCI |
| COMPILED BY: | AMCI |
| CONTROL SURVEY BY: | AMCI |

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

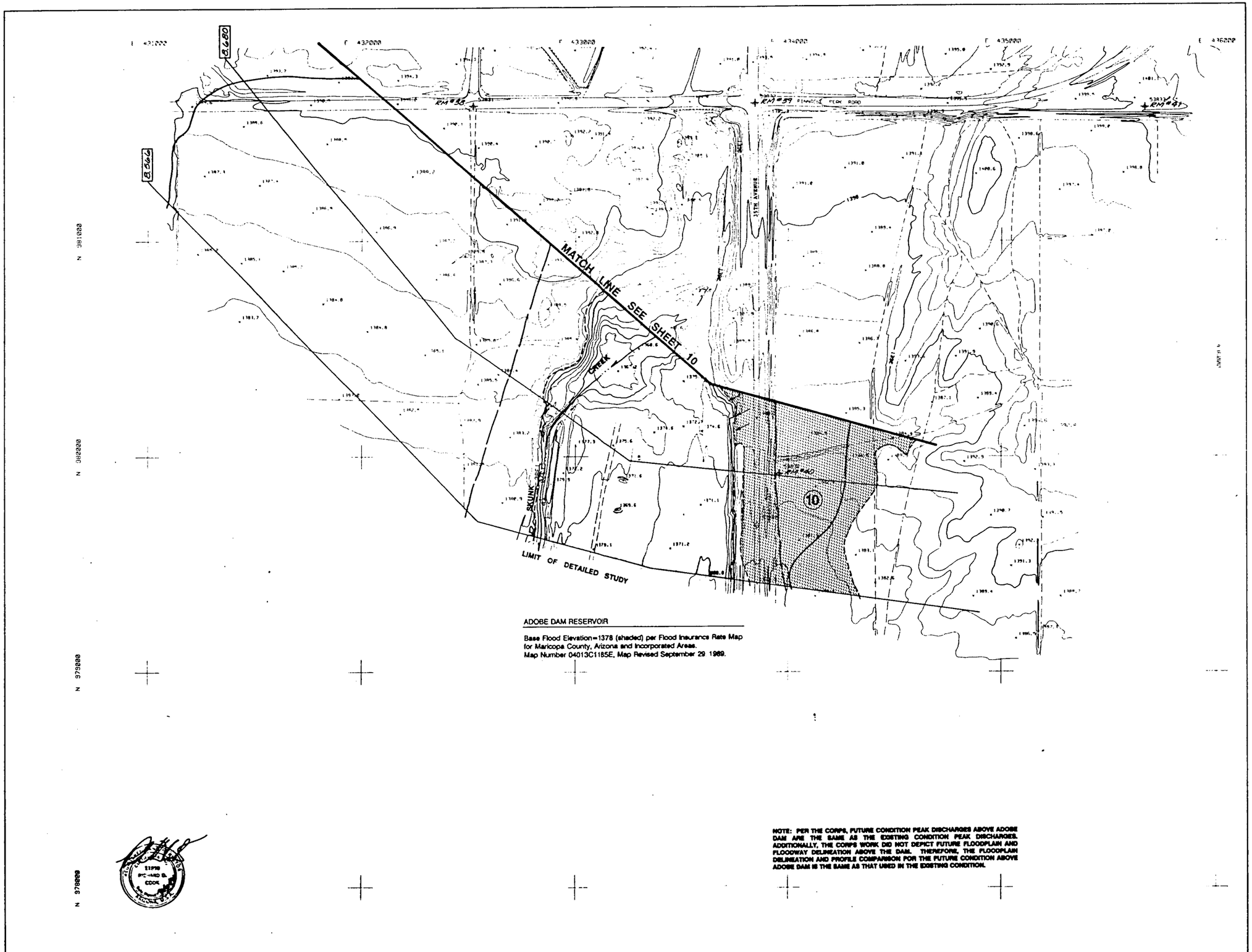
SKUNK CREEK FLOODPLAIN DELINEATION

ACDC TO CAP

RECOMMENDED DATE:
APPROVED BY: DATE:
FLOODPLAIN ADMINISTRATOR

8 OF 13

COE & VAN LOO CONSULTING ENGINEERS INC. PHOENIX ARIZONA

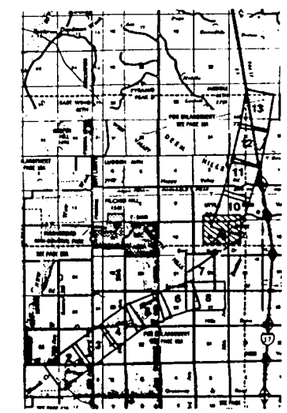



NOTE: PER THE CORPS, FUTURE CONDITION PEAK DISCHARGES ABOVE ADOBE DAM ARE THE SAME AS THE EXISTING CONDITION PEAK DISCHARGES. ADDITIONALLY, THE CORPS WORK DID NOT DEPICT FUTURE FLOODPLAIN AND FLOODWAY DELINEATION ABOVE THE DAM. THEREFORE, THE FLOODPLAIN DELINEATION AND PROFILE COMPARISON FOR THE FUTURE CONDITION ABOVE ADOBE DAM IS THE SAME AS THAT USED IN THE EXISTING CONDITION.

N

0 200 400

CONTOUR INTERVAL 2 FEET



KEY MAP
NTS

## LEGEND

- 100-YEAR FLOOD LIMITS (FEMA)
- FLOODWAY LIMITS (FEMA)
- 100-YEAR FLOOD LIMITS (CVL RESTUDY)
- 2.0 — STATIONING IN RIVER MILES UPSTREAM FROM NEW RIVER
- 2.174 — CROSS-SECTION NUMBER
- + RM#4 — REFERENCE MARK
- CONTROL LINE

NOTES:

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**PHOENIX & GLENDALE, ARIZONA**

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| DATUM MSL: | 1929 |
| FLOWN BY: | AMCI |
| COMPILED BY: | AMCI |
| CONTROL SURVEY BY: | AMCI |

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

SKUNK CREEK FLOODPLAIN DELINEATION

ACDC TO CAP

RECOMMENDED: DATE:

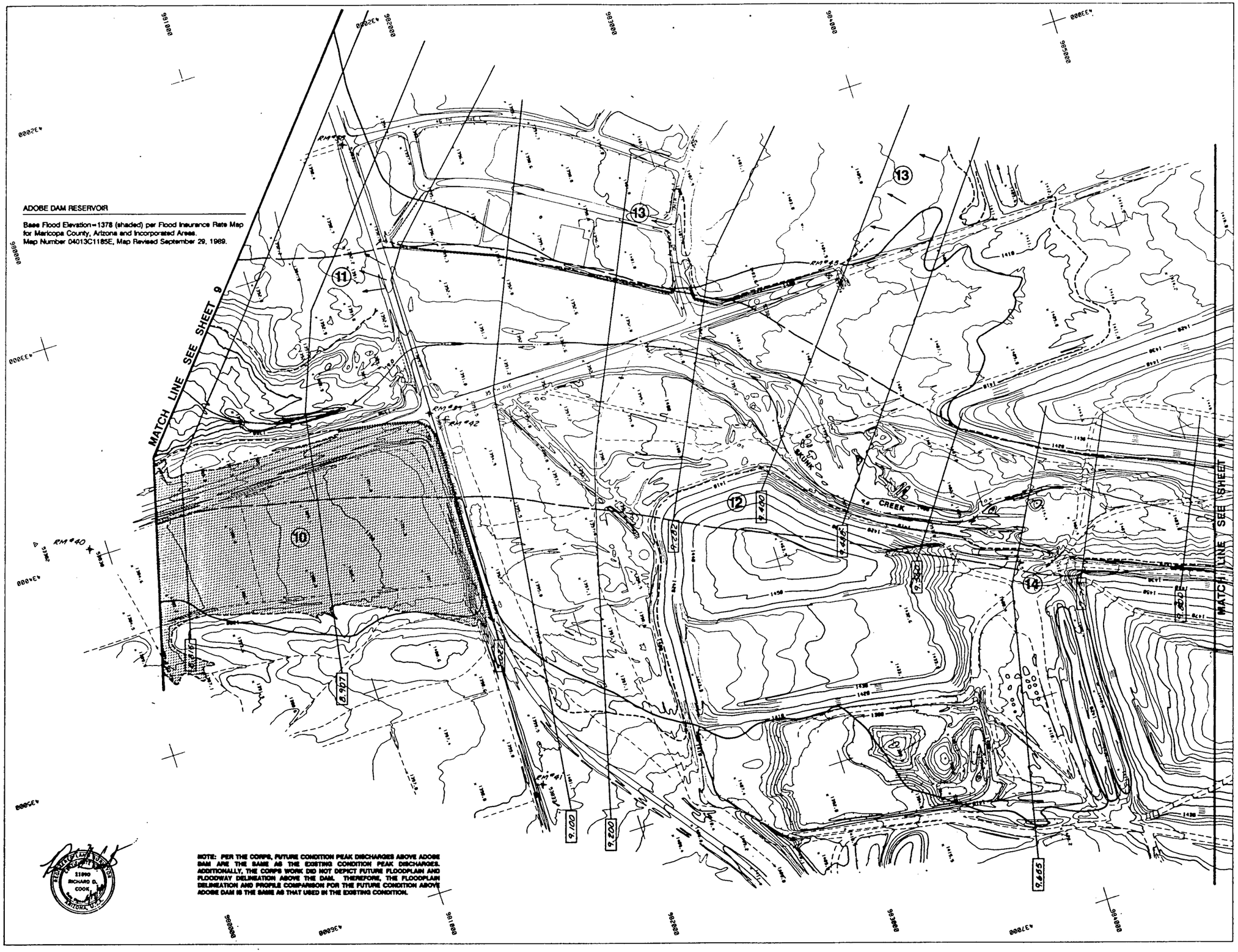
APPROVED BY: DATE:

FLOODPLAIN ADMINISTRATOR

9 OF 13

COE & VAN LOO CONSULTING ENGINEERS INC. PHOENIX ARIZONA

SCDMC CONTRACT NO. 88-72 CVL JOB NO. 1090-05-07

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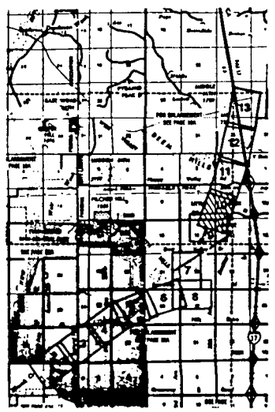
CONTOUR INTERVAL 2 FEET



**KEY MAP**
NTS

**LEGEND**

- 100-YEAR FLOOD LIMITS (FEMA)
- FLOODWAY LIMITS (FEMA)
- 100-YEAR FLOOD LIMITS (CVL RESTUDY)
- E.0 — STATIONING IN RIVER MILES UPSTREAM FROM NEW RIVER
- 2.174 — CROSS-SECTION NUMBER
- + RM#4 — REFERENCE MARK
- CONTROL LINE

NOTES:

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**PHOENIX & GLENDALE, ARIZONA**

MAPPING DATA:

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| FLIGHT ALTITUDE: | 4600' |
| DATUM MSL: | 1929 |
| FLOWN BY: | AMCI |
| COMPILED BY: | AMCI |
| CONTROL SURVEY BY: | AMCI |

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

SKUNK CREEK FLOODPLAIN DELINEATION

ACDC TO CAP

RECOMMENDED DATE:

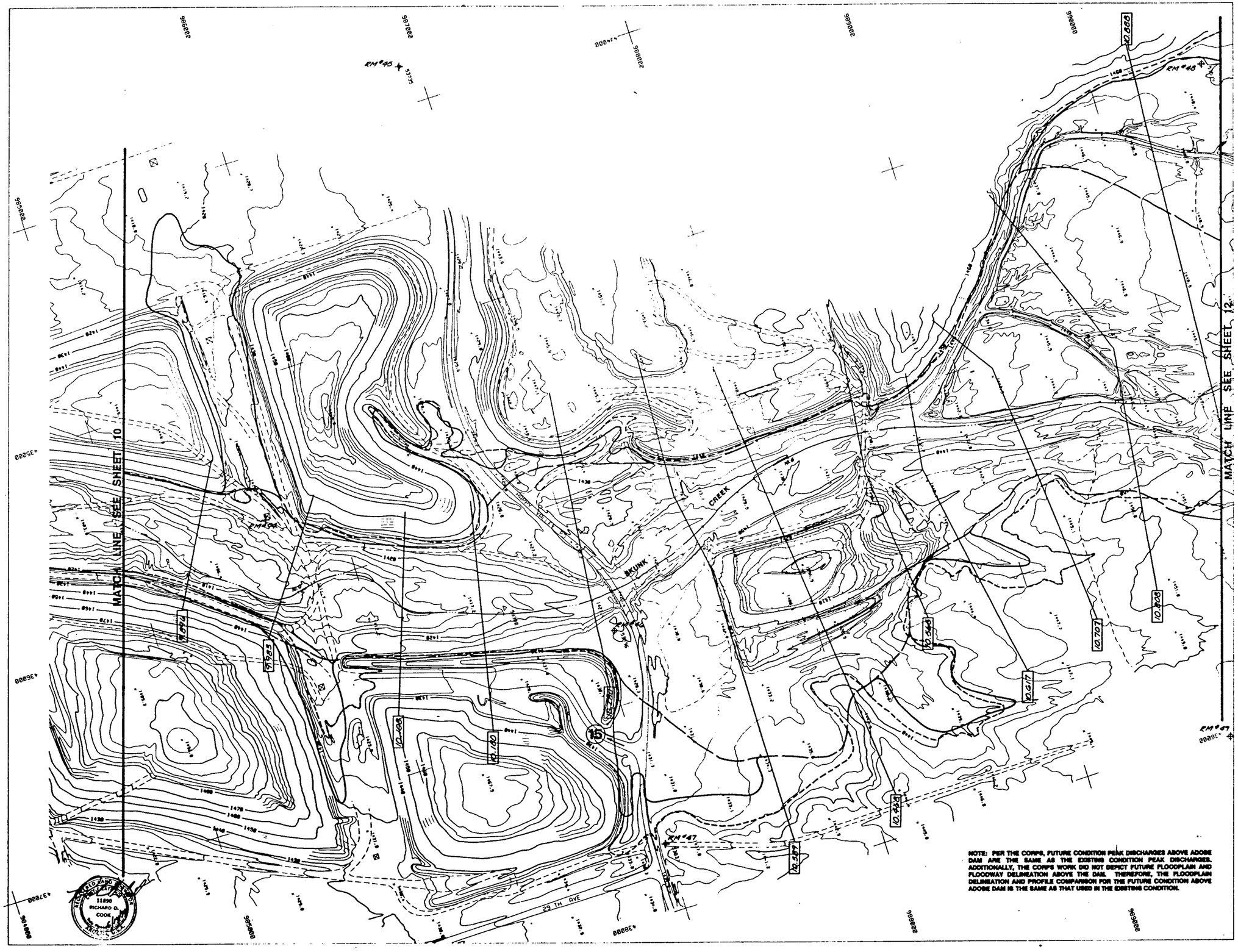
APPROVED BY: DATE:

FLOODPLAIN ADMINISTRATOR

10 OF 13

COE & VAN LOO CONSULTING ENGINEERS INC. PHOENIX ARIZONA

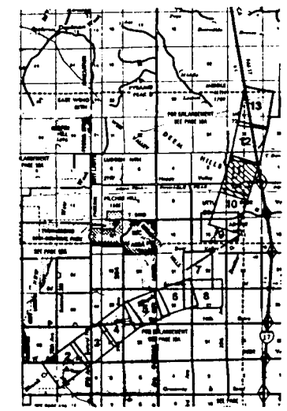
FCDMC CONTRACT NO. 89-72 CVL JOB NO. 1090-05-07




NOTE: PER THE CORPS, FUTURE CONDITION PEAK DISCHARGES ABOVE ADOBE DAM ARE THE SAME AS THE EXISTING CONDITION PEAK DISCHARGES. ADDITIONALLY, THE CORPS WORK DID NOT DEPICT FUTURE FLOODPLAIN AND FLOODWAY DELINEATION ABOVE THE DAM. THEREFORE, THE FLOODPLAIN DELINEATION AND PROFILE COMPARISON FOR THE FUTURE CONDITION ABOVE ADOBE DAM IS THE SAME AS THAT USED IN THE EXISTING CONDITION.

0 200 400

CONTOUR INTERVAL 2 FEET



KEY MAP
NTS

## LEGEND

- 100-YEAR FLOOD LIMITS (FEMA)
- FLOODWAY LIMITS (FEMA)
- 100-YEAR FLOOD LIMITS (CVL RESTUDY)
- 2.0 — STATIONING IN RIVER MILES UPSTREAM FROM NEW RIVER
- 2.174 — CROSS-SECTION NUMBER
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- CONTROL LINE

NOTES:

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| FLIGHT ALTITUDE: | 4500' |
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| COMPILED BY: | AMCI |
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FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

SKUNK CREEK FLOODPLAIN DELINEATION

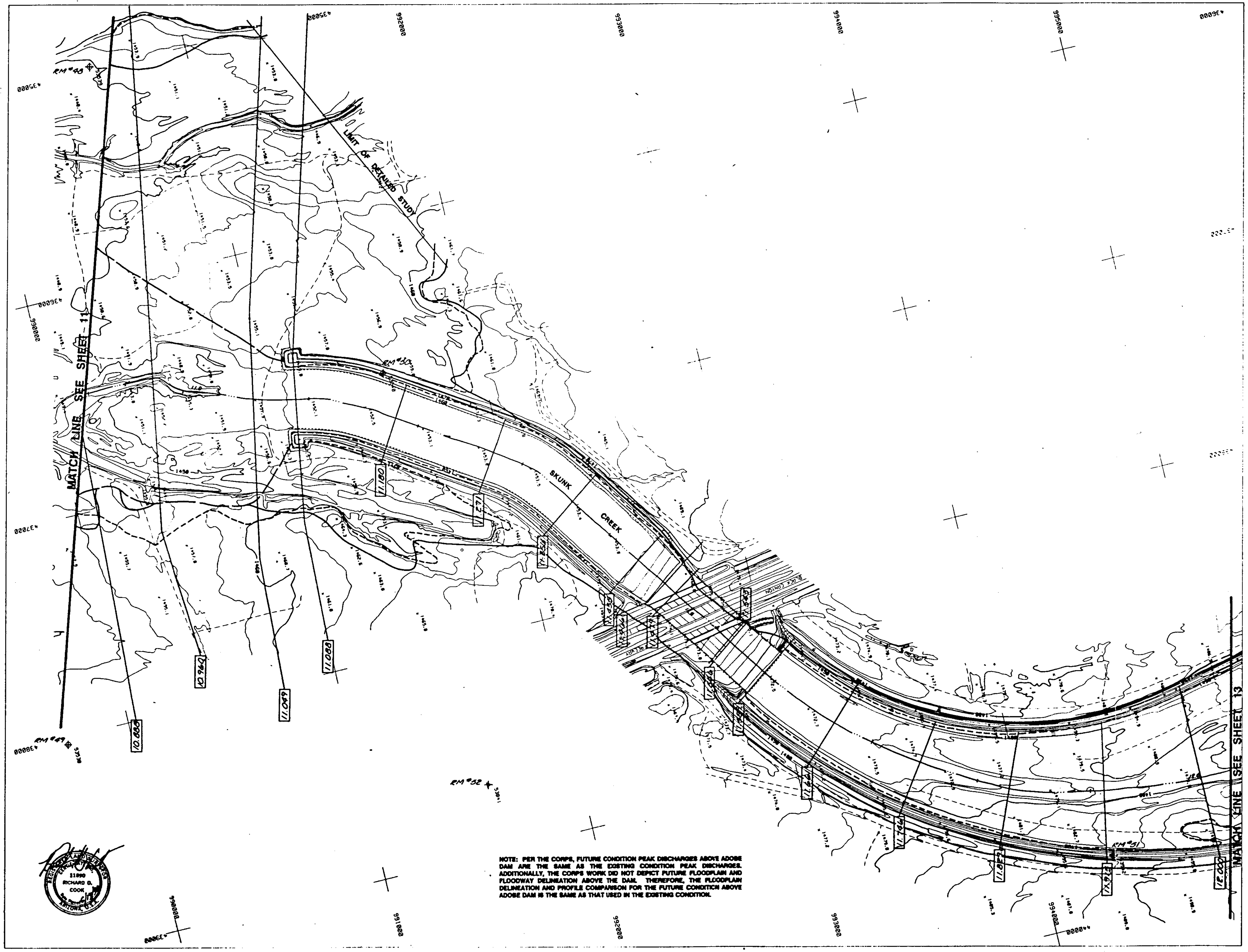
ACDC TO CAP

RECOMMENDED DATE:
APPROVED BY: DATE:
FLOODPLAIN ADMINISTRATOR

11 OF 13

COE & VAN LOO CONSULTING ENGINEERS INC. PHOENIX ARIZONA

FCDMC CONTRACT NO. 89-72 CVL JOB NO. 1090-05-07

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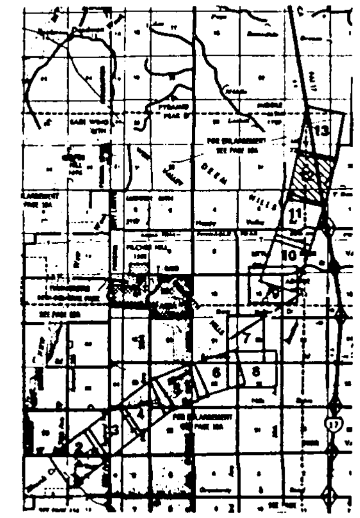
CONTOUR INTERVAL 2 FEET



**KEY MAP**

NTS

**LEGEND**

100-YEAR FLOOD LIMITS (FEMA)

FLOODWAY LIMITS (FEMA)

100-YEAR FLOOD LIMITS (CVL RESTUDY)

2.0 STATIONING IN RIVER MILES UPSTREAM FROM NEW RIVER

2.174 CROSS-SECTION NUMBER

+ RM#4 REFERENCE MARK

CONTROL LINE

**NOTES:**

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**PHOENIX & GLENDALE, ARIZONA**

**MAPPING DATA:**

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| FLIGHT ALTITUDE: | 4600' |
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| FLOWN BY: | AMCI |
| COMPILED BY: | AMCI |
| CONTROL SURVEY BY: | AMCI |

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

# SKUNK CREEK FLOODPLAIN DELINEATION

ACDC TO CAP

RECOMMENDED ____ DATE: ____

APPROVED BY: ____ DATE: ____

FLOODPLAIN ADMINISTRATOR

12 OF 13

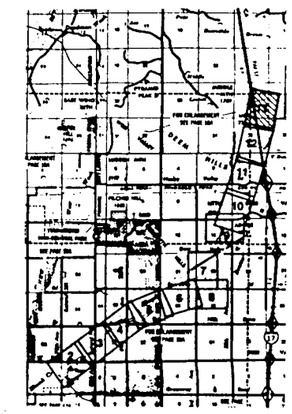
COE & VAN LOO CONSULTING ENGINEERS INC. PHOENIX ARIZONA

FCDMC CONTRACT NO. 89-72 CVL JOB NO. 1090-05-07

NOTE: PER THE CORPS, FUTURE CONDITION PEAK DISCHARGES ABOVE ADOBE DAM ARE THE SAME AS THE EXISTING CONDITION PEAK DISCHARGES. ADDITIONALLY, THE CORPS WORK DID NOT DEPICT FUTURE FLOODPLAIN AND FLOODWAY DELINEATION ABOVE THE DAM. THEREFORE, THE FLOODPLAIN DELINEATION AND PROFILE COMPARISON FOR THE FUTURE CONDITION ABOVE ADOBE DAM IS THE SAME AS THAT USED IN THE EXISTING CONDITION.

0 200 400

CONTOUR INTERVAL 2 FEET



**KEY MAP**
NTS

**LEGEND**

- 100-YEAR FLOOD LIMITS (FEMA)
- FLOODWAY LIMITS (FEMA)
- 100-YEAR FLOOD LIMITS (CVL RESTUDY)
- 2.0 — STATIONING IN RIVER MILES UPSTREAM FROM NEW RIVER
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FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

SKUNK CREEK FLOODPLAIN DELINEATION

ACDC TO CAP

RECOMMENDED DATE:
APPROVED BY: DATE:
FLOODPLAIN ADMINISTRATOR

13 OF 13

COE & VAN LOO CONSULTING ENGINEERS INC. PHOENIX ARIZONA

# SECTION IX

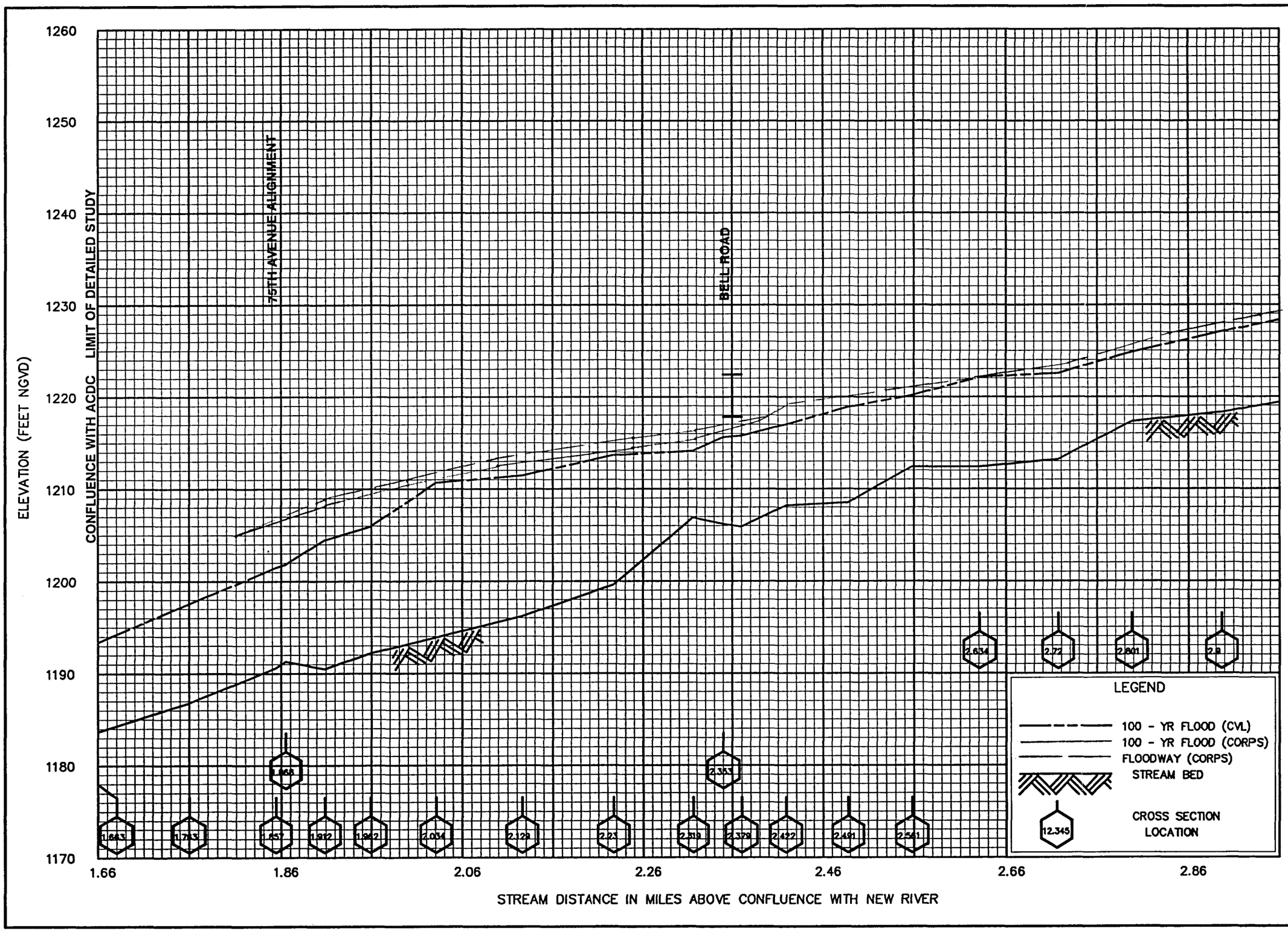
# FUTURE CONDITION FLOOD PROFILES

Future condition Flood Profiles

Skunk Creek
ACDC to Adobe Dam
Including Scatter Wash

100-year Flood, CVL
100-year Flood, CORPS
Floodway, CORPS

CVL

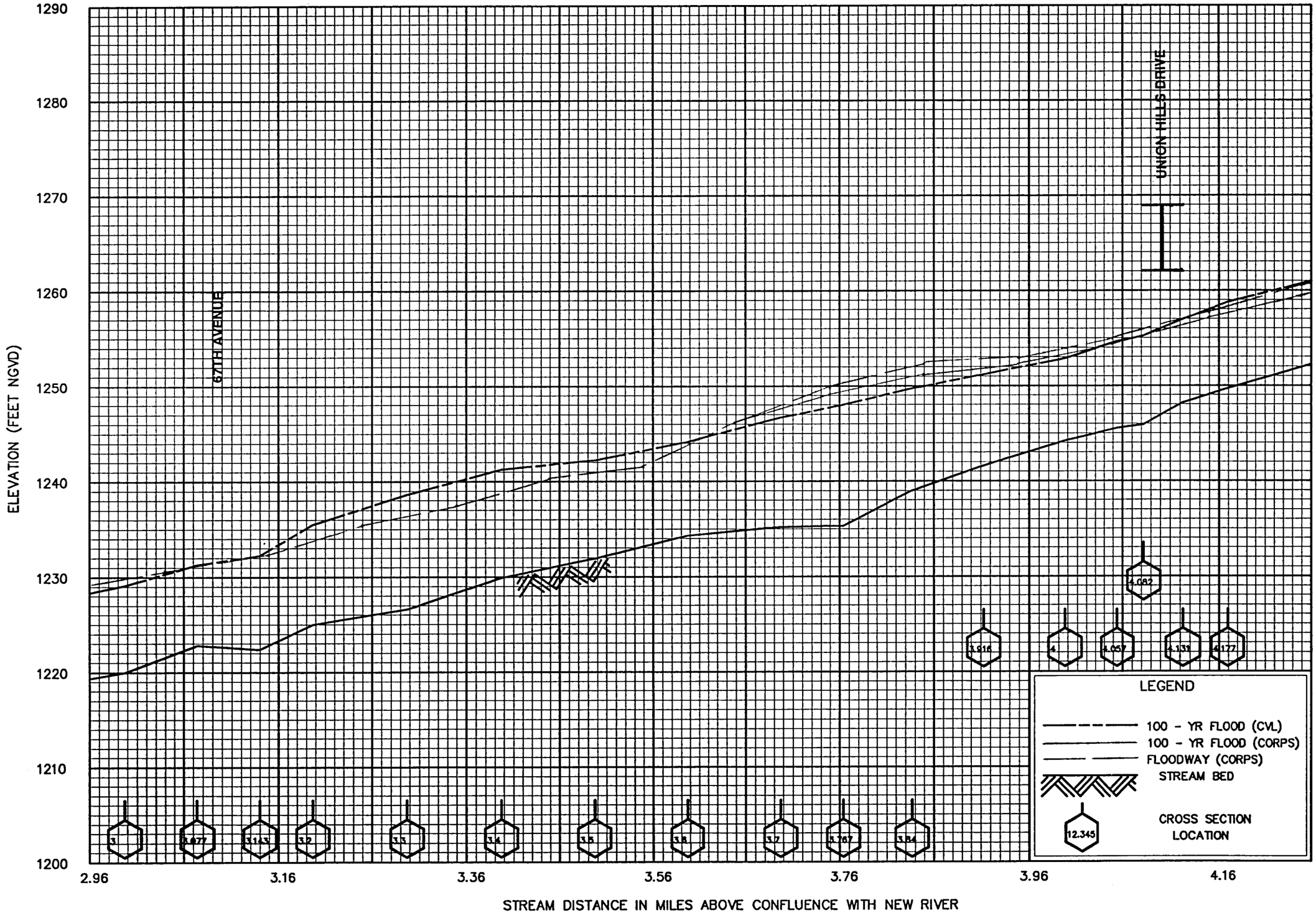



FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990
FUTURE FLOWS



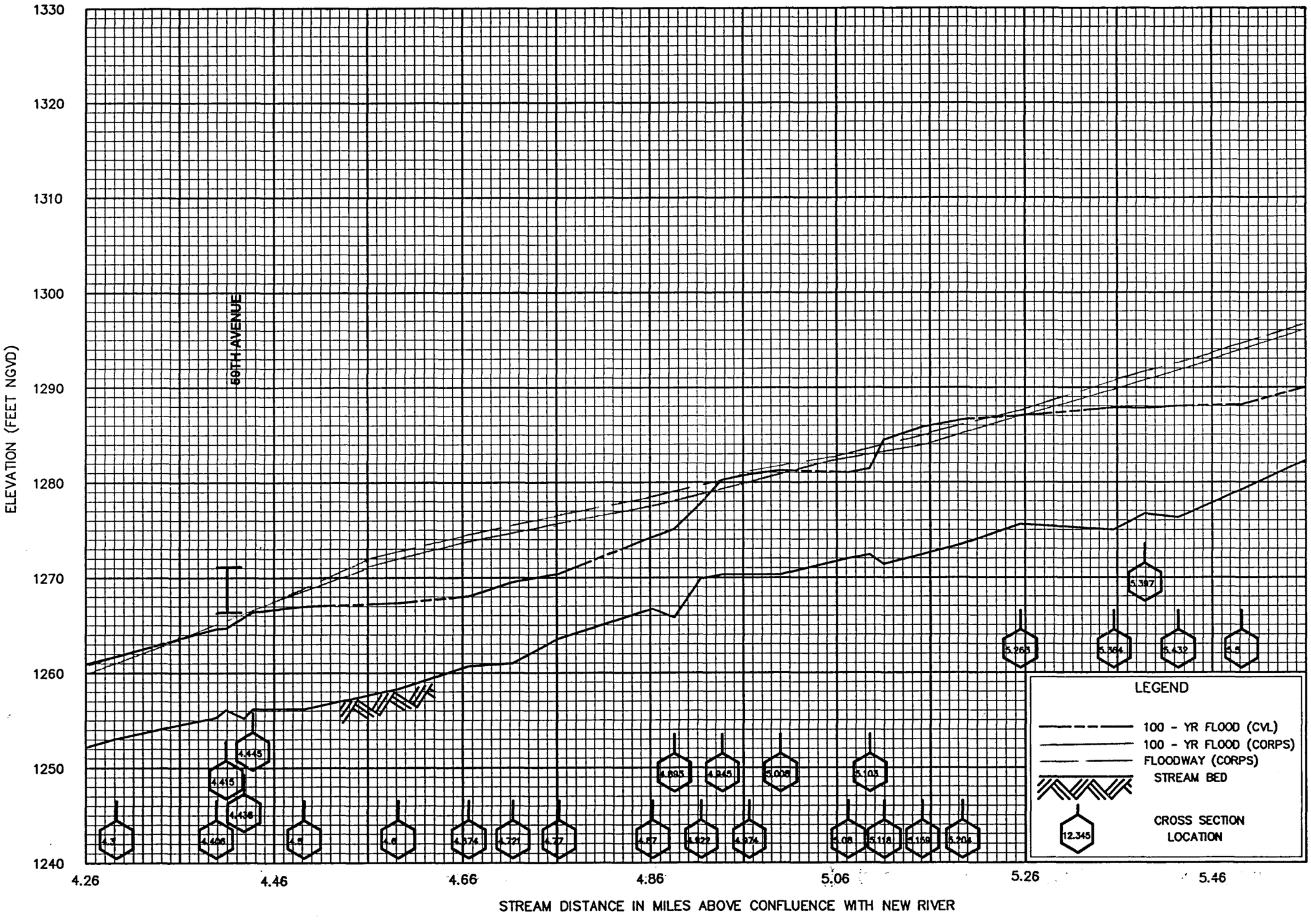

FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990

FUTURE FLOWS

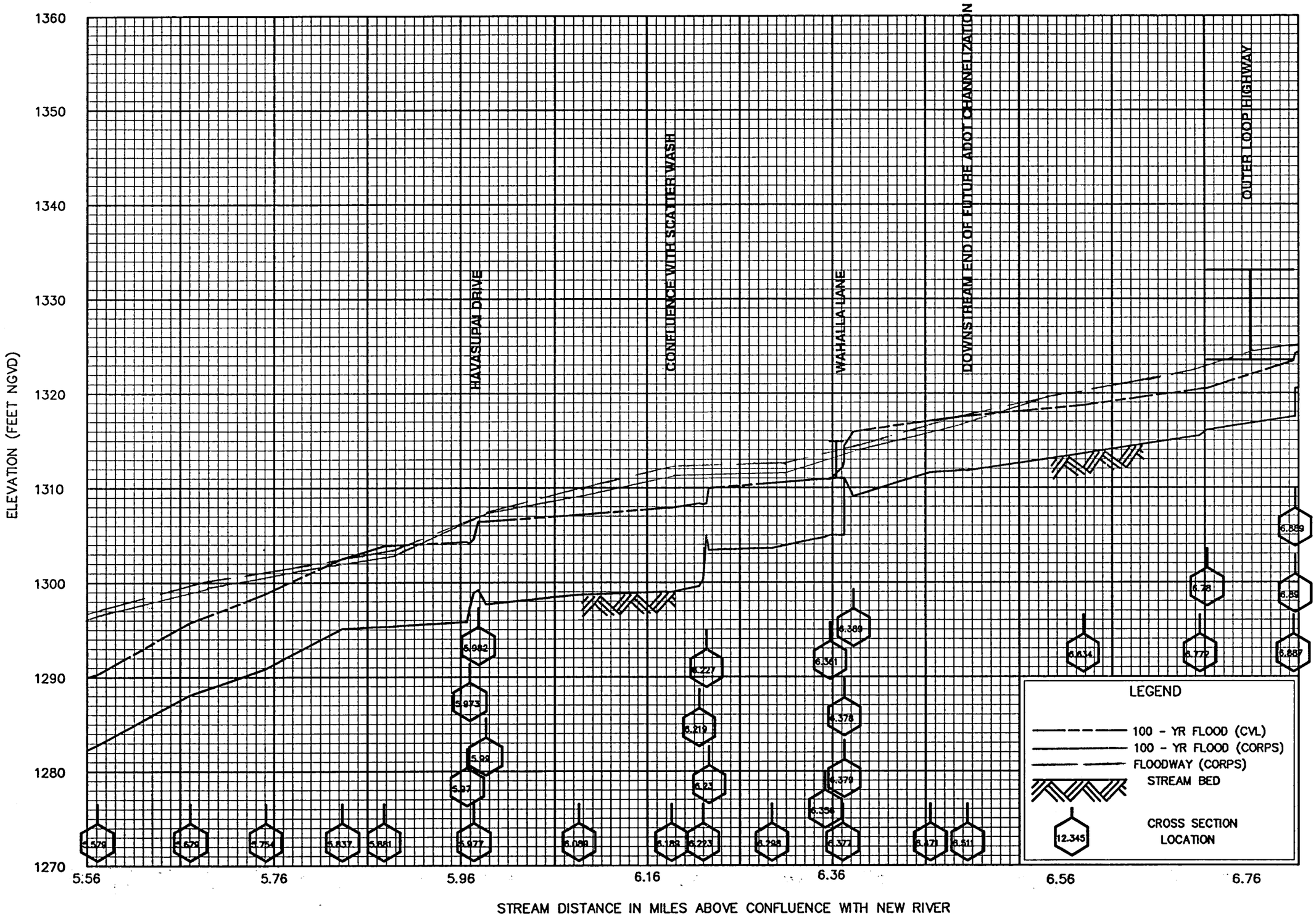



FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990
FUTURE FLOWS

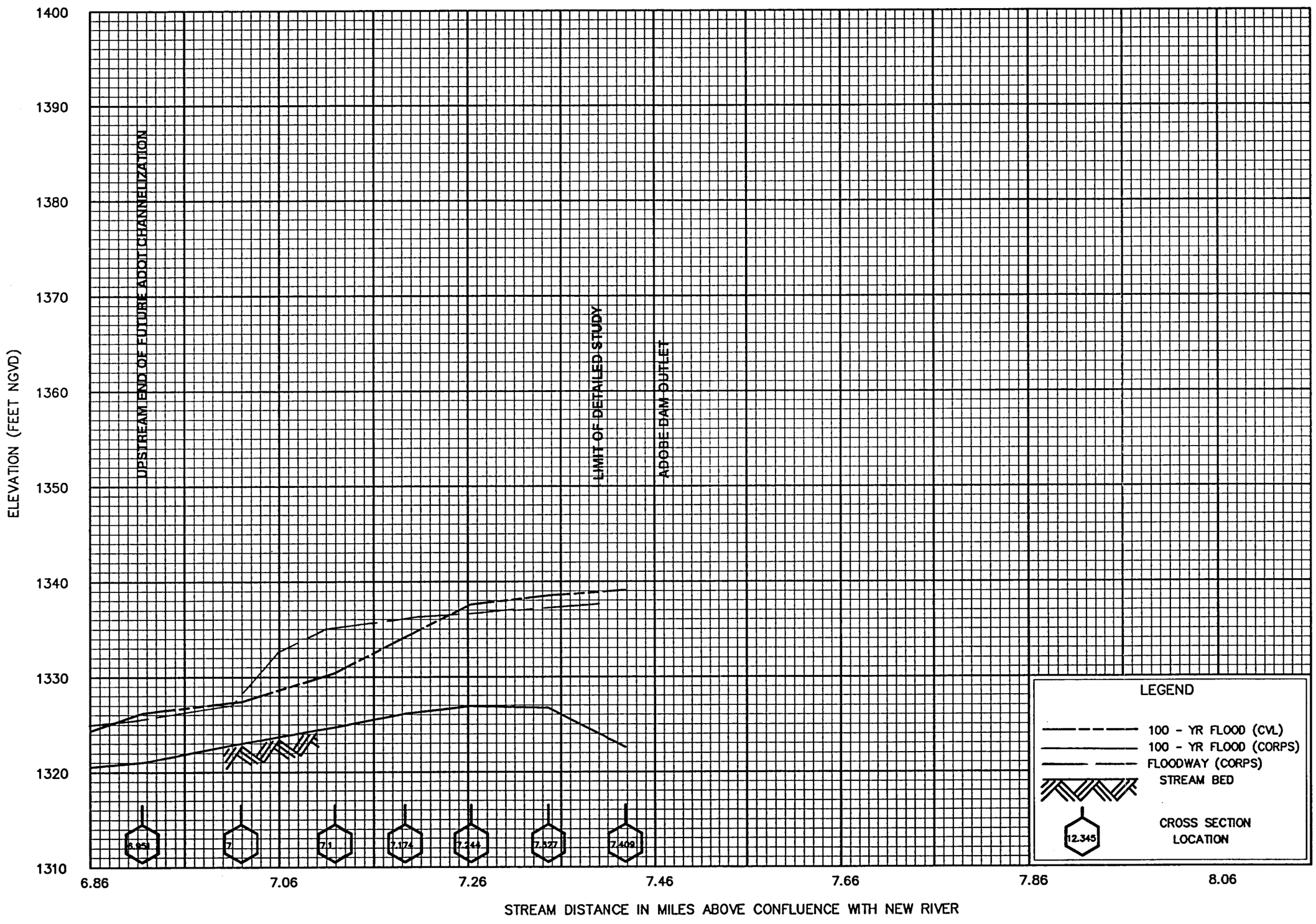



FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990
FUTURE FLOWS

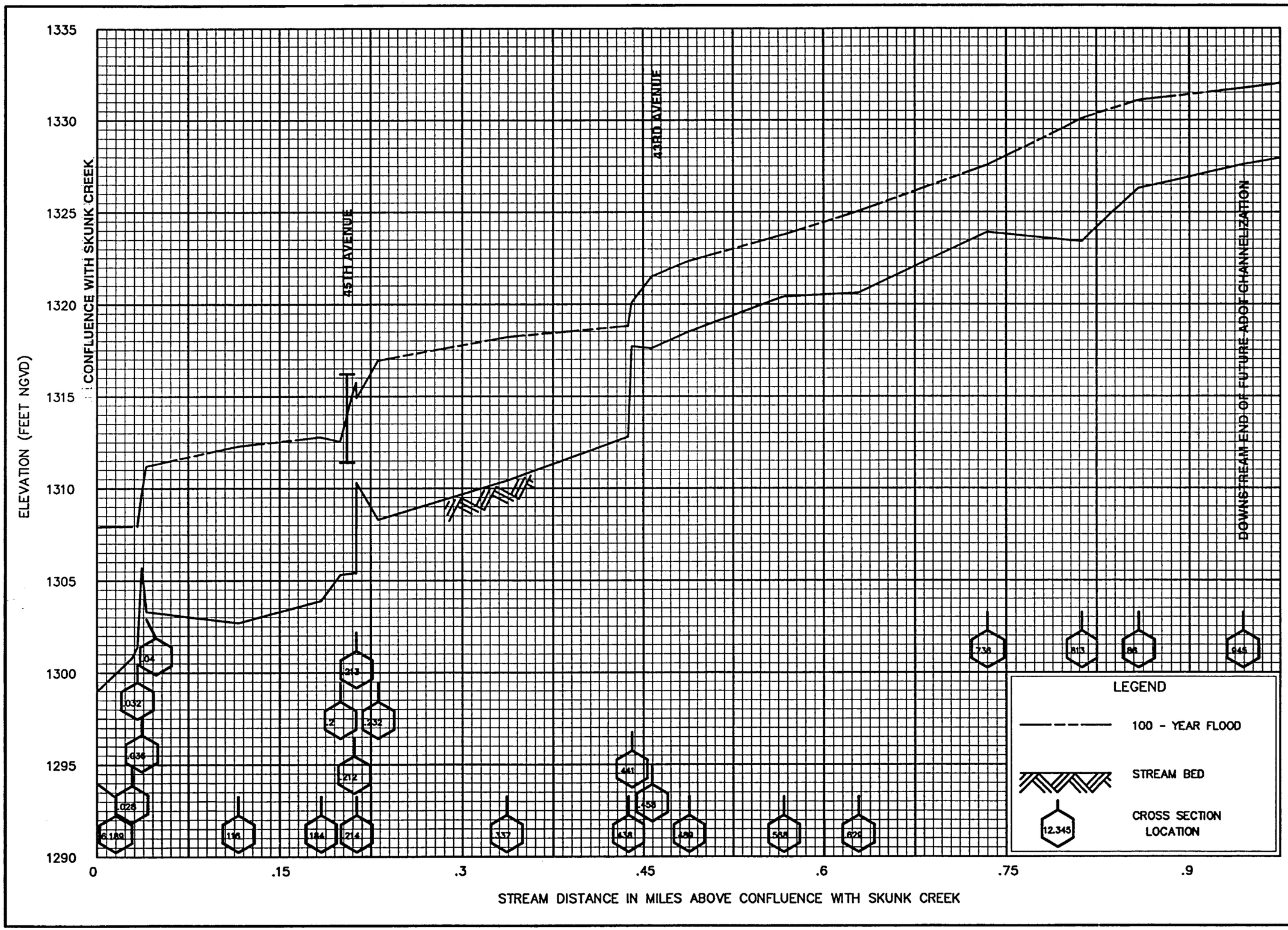



FLOOD PROFILES

SKUNK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990
FUTURE FLOWS

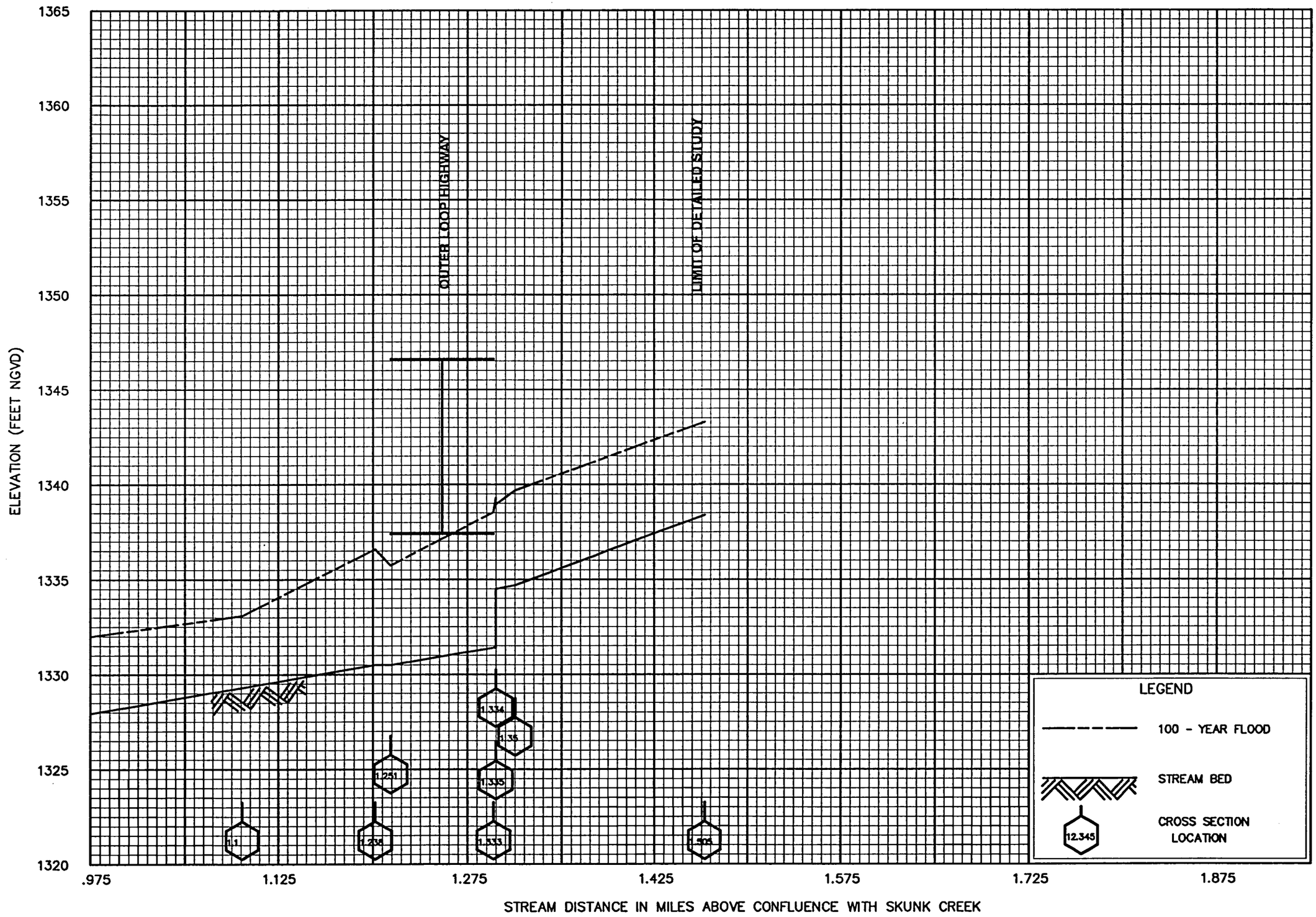



FLOOD PROFILES

SCATTER WASH

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990
FUTURE FLOWS




FLOOD PROFILES

SCATTER WASH

FEDERAL EMERGENCY MANAGEMENT AGENCY

CVL RESTUDY - DEC. 1990

FUTURE FLOWS

# SECTION X

# SUMMARY OF EXISTING REPORTS

# SKUNK CREEK F.I.S.

# SUMMARY OF EXISTING REPORTS

FCDMC #89-72

CVL #1090-05

July 12, 1990

## References


1) AGK Engineers, Inc. Hydrologic Analysis for Buchanan Wash, Maricopa County, Arizona. November 1987.

**Prepared for:** The Flood Control District of Maricopa County

Buchanan Wash is a tributary of Skunk Creek, west of I-17 between Happy Valley Road and Carefree Highway. The HEC-1 computer model was used with the SCS Type II dimensionless distribution for the 6-hour storm. The SCS curve number method, the kinematic wave overload flow option and kinematic flood routing options were used. 100-year flow just upstream of Skunk Creek = 2304 cfs. (11.29 s.m. Drainage Area).

2) AGK Engineers, Inc. Flood Insurance Study for Buchanan Wash from Skunk Creek to C.A.P., Maricopa County, Arizona. November 1987

**Prepared for:** The Flood Control District of Maricopa County.

The HEC-2 computer program was used for this detailed floodplain analysis. 200 scale aerial mapping with 2-foot contour intervals was utilized. Mannings "N" value of about 0.055 was used for both the channel and overbanks.

3) Huitt-Zollars, Inc. Area Drainage Master Study, Buchanan Wash Conceptual Drainage and Storm Drain Master Plan Report, Maricopa County, Arizona, Volumes 1, Report; Volume 2, Technical Appendix, March 1990.

**Prepared for:** City of Phoenix Engineering Department, Floodplain Management

Buchanan Wash is a tributary of Skunk Creek, west of I-17 between Happy Valley Road and Carefree Highway. The HEC-1 computer program was used to model the existing and several proposed future conditions. The SCS type II-A distribution for the 100-year, 24-hour storm was used. The SCS curve number method and the kinematic wave overland-flow options were used to determine runoff from sub-basins, and the kinematic wave method was used to route hydrographs. the 1985 PC version of the version of the HEC-1 was used. The 100-year flow just upstream of Skunk Creek = 2202 cfs (11.28 s.m. Drainage Area).

4) HKBW Engineers, Inc. East Biscuit Flat Drainage and Storm Drain Conceptual Plan. Volumes I and II, March 1990. Draft Report.

**Prepared for:** City of Phoenix, Engineering Department, Floodplain Management

East Biscuit Flat Watershed is a tributary to Skunk Creek about one quarter of a mile south of the C.A.P. Canal. The 12 square mile watershed is east of Skunk Creek and north of the C.A.P. canal. The SCS Type II A rainfall distribution was used in the HEC-1 computer program to model the 100-year, 24-hour storm. The SCS curve number method and the kinematic wave overload flow option were used to determine runoff from the subdivision. The 1985 PC version of HEC-1 was used. The 100-year flow just upstream of Skunk Creek = 11,416 cfs. (12.93 s.m. Drainage Area).

5) Collar, Williams and White Engineering, Inc. Conceptual Drainage and Storm Drain Plan for Little Deer Valley. August 24, 1989. Draft.

**Prepared for:** City of Phoenix, Engineering Department, Floodplain Management.

This report addresses eight separate basins, several of which discharge into the Adobe Dame Recreation Area, and one that impacts Skunk Creek below the dam. The HEC-1 Computer program was used to model the 100-year, 24-hour storm using the SCS Type II A rainfall distribution. The existing condition and several potential future conditions were modeled. The SCS curve number method and the synthetic unit hydrograph was used to develop hydrographs.

6) Greiner Engineering Sciences, Inc. Scatter Wash Drainage and Storm Drain Study Conceptual Plan. Volumes I and II. September 1989.

**Prepared for:** City of Phoenix, Engineering Department, Floodplain Management.

This report addresses Scatter Wash east of I-17 and North of Deer Valley Drive. The HEC-1 computer program was used to model the 100-year, 24-hour storm for the existing conditions and several potential future conditions. The SCS Type II A rainfall distribution was used, as was the SCS curve number method. Peak flows were calculated and culvert capacities were evaluated.

7) Van Loo & Patel Consulting Engineers, Inc. 100 Year Floodplain Study for Channelization of Overland Hills. March 1985.

**Prepare for:** Continental Homes, Inc.

This report addresses portions of Skunk Creek and Scatter Wash near their confluence. The report was prepared in conjunction with channelization plans. Preliminary hydrology obtained from the COE and FCDMC were used for the analysis. The HEC-2 computer program was used for this analysis.

8) DeLeuw, Cather & Company. Drainage Report, Scatter Wash Hydrology and Outer Loop Highway Interceptor Drain, 39th Avenue to 7th Street. November 1989.

**Prepared for:** Arizona Department of Transportation.

This report compiles information from other studies of Scatter Wash. The HEC-1 computer program was used to model the 100-year, 24-hour storm. The SCS curve number method and the Unit hydrographs were used for run-off from sub-basins.

9) CRSS Commercial Group, Inc. Flood plain Delineation for 19th Avenue at Beardsley Road. December 1987.

**Prepared for:** Arizona Department of Transportation.

This report evaluates the flooding problem at the intersection of 19th Avenue and Beardsley Road. The HEC-2 computer program was used to evaluate the hydraulics.

10) Willdan Associates. New River/Skunk Creek/Ague Fria River Conceptual Flood Control Plan. December 1981. Draft.

**Prepared for:** Flood Control District of Maricopa County.

The report compiles environmental, physical, social, hydrological, and hydraulic data for the study area. Based on this information, flood control alternatives were proposed.

11) Flood Control District of Maricopa County. New River/Skunk Creek/Agua Fria River Flood Control Master Plan. May 1983. Draft.

**Prepared for:** Flood Control District of Maricopa County

The report discusses the channelization master plan for the study area.

12) Collar, Williams and White Engineers, Inc. Adobe Mountain Skunk Creek Floodplain Revision. August 1986.

**Prepared for:** Thunderbird Valley Property Partnership.

The report was prepared to remove a portion of the Adobe Mountain Master Planned Community from the "A" Zone of the FIRM. Areas of fill and channelization were proposed and the results substantiated with HEC-2 models.

13) Harza Engineering Company. Skunk Creek Channel, Hydraulic Analysis of Proposed Channel Improvements, Phoenix, Arizona. July 1986. Preliminary.

**Prepared for:** City of Phoenix

This report was prepared to substantiate proposed channelization of Skunk Creek to protect the land fill south of Happy Valley Road. The HEC-2 computer program was used.

14) Lowry and Associates. Creek Side Market Place, Skunk Creek Hydraulic Analysis. May 1986.

**Prepared for:** Trammell Crow Company

The project is located northeast of 67th Avenue and Bell Road. The study was performed to determine channel improvements to Skunk Creek that would be required to protect the project from the 100-year flood. The HEC-2 computer program was used in the analysis.

15) Greiner Engineering Sciences, Inc. Bell Road Project Drainage Study. October 1987.

**Prepared for:** Maricopa County Flood Control District

The report evaluates the existing drainage situation impacting Bell Road from Grand Avenue to Scottsdale Road. In addition it presents a development plan for the Bell Road Improvements. The HEC-1 computer program was used to model the 2-, 5-, 10-, 50-, 100-year, 24-hour storms. The SCS curve number method was used.

16) PRC Engineering. I-17 Drainage Design Study. March 1987. Preliminary Design Report.

**Prepared for:** Arizona Department of Transportation

This report evaluates the drainage impacting I-17 between Deer Valley Road and Peoria Avenue. The drainage crossings were studied for the 50-year and 100-year events. The TR-20 computer model was used t evaluate the peak flows.

17) RGA Engineering Corporation. Floodplain Study for Channelization of Skunk Creek at 51st Avenue Crossing. June 14, 1989.

**Prepared for:** City of Phoenix Engineering Department

This report evaluates the impact of a proposed bridge crossing of Skunk Creek at 51st Avenue, using the HEC-2 computer program. The report recommends a 2-span bridge structure instead of box culverts.

18) Engineering Alliance, Inc., Consulting Engineers. Drainage Study and Structure Concept Report 43rd Avenue Crossing Scatter Wash. June 1990

**Prepared for:** City of Phoenix

This report evaluates the impact of a proposed bridge crossing of Scatter Wash at 43rd Avenue, using the HEC-2 computer program. The report recommends a 14-6 barrel 10'x5' box culvert.

19) Dibble & Associates Consulting Engineers. Arrowhead Road, Glendale, Arizona, Preliminary storm Drainage Master Plan. July 1982.

**Prepared for:**

This report is the master drainage plan for Arrowhead Ranch. Several revisions have been made and the report was not updated. TR-20 computer program was used to model the hydrology.