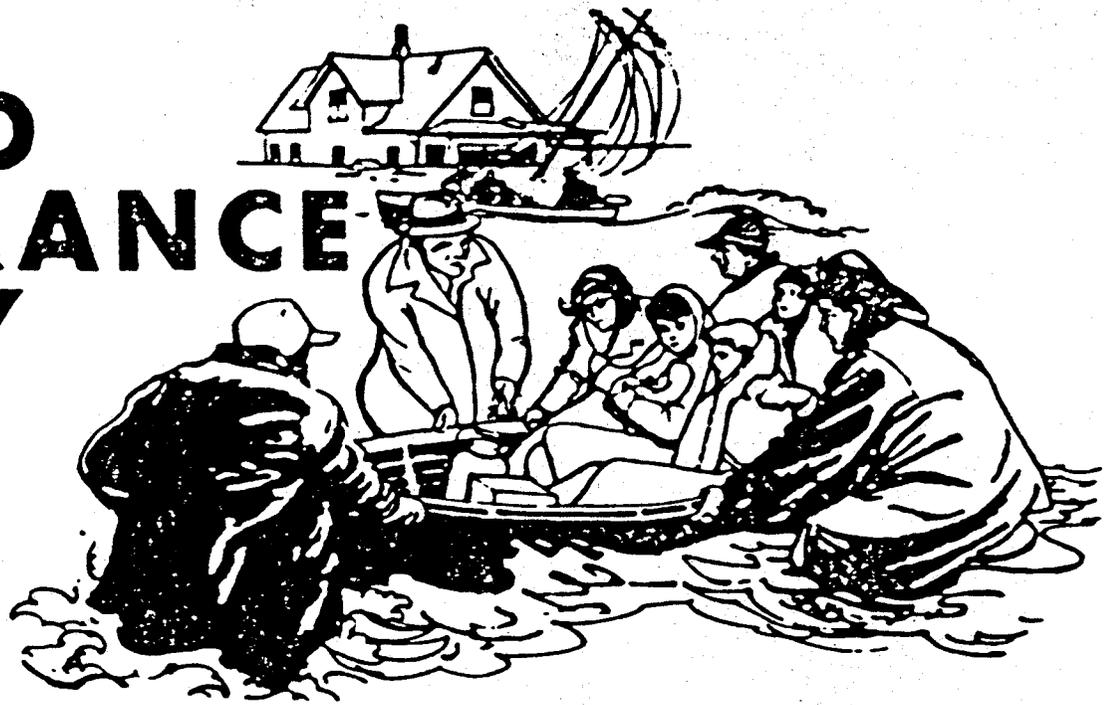
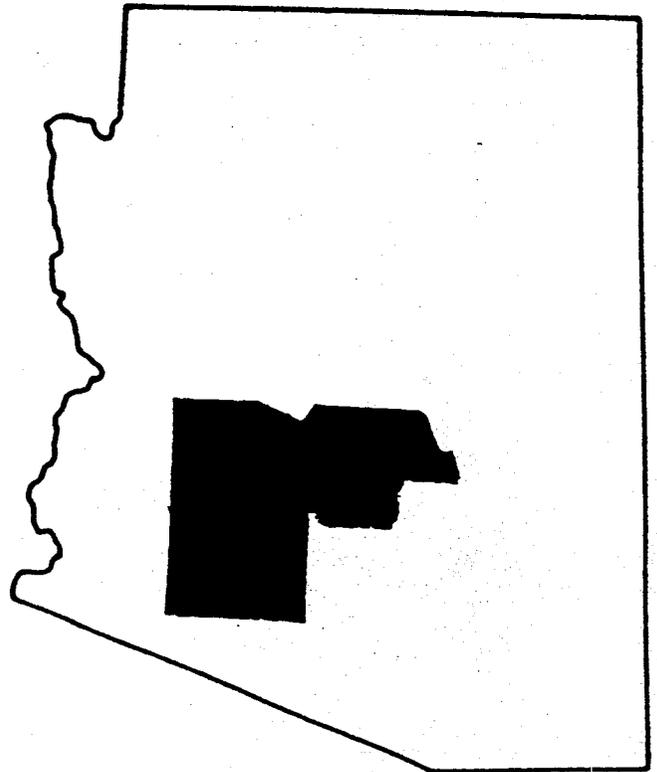


FLOOD INSURANCE STUDY



TOWN OF SURPRISE,
ARIZONA
MARICOPA COUNTY

BROOKVIEW
LOMR



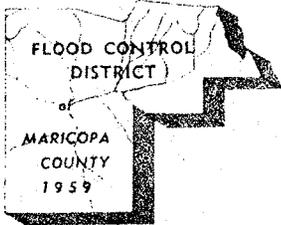
PREPARED BY ANDERSON-NELSON INC.

DECEMBER 1987



Federal Emergency Management Agency

COMMUNITY NUMBER - C40053



FLOOD CONTROL DISTRICT

of

Maricopa County

3335 West Durango Street • Phoenix, Arizona 85009
Telephone (602) 262-1501

BOARD of DIRECTORS
Tom Freestone, Chairman
George L. Campbell
Carole Carpenter
Fred Koory, Jr.
Ed Pastor

D. E. Sagramoso, P.E., Chief Engineer and General Manager

Brian R. Mrazik, Ph.D.
Chief, Risk Studies Division
Federal Insurance Administration
Federal Emergency Management Agency
Washington, D. C. 20472

Attn: William Judkins

Re: LOMR Request of Agua Fria River
Brookview Country Club
Panel 0005C (Town of Surprise) and Panel 1165 (Revised Preliminary)
Town of Surprise and Maricopa County, Arizona

Dear Dr. Mrazik:

Attached is a request for a letter of map revision from Willdan Associates, engineers for the Town of Surprise based upon information prepared by Anderson-Nelson, Incorporated for the Del Coor Company concerning the Brookview Country Club development. It is our understanding that the enclosed information addresses and answers issues that were raised prior to the Flood Control District of Maricopa County assuming the floodplain management responsibility for the Town of Surprise.

A copy of the resolution placing floodplain management responsibility with the Flood Control District of Maricopa County is attached. We have been informed that some discussions of this matter have taken place between the applicant and your agency and since we have only recently become involved, we have not reviewed this request in any depth. However, we will coordinate further activity concerning this matter and otherwise cooperate in any way we can.

Any review fees to be paid should be directed to the Del Coor Company, P.O. Box 48741, Phoenix, Arizona, 85075-8741 to the attention of Mr. Jim Gillespie, President.

Page 2.
Brian R. Mrazik

Should additional information be required, please contact either Mr. Don Anderson, P.E. of Anderson-Nelson, Inc., 1-602-273-1850, Mr. Jim Gillespie of the Del Coor Company, 1-602-228-3294 or Mr. Joe Tram, Floodplain Management Hydrologist of this office.

Sincerely,

D. E. Sagramoso,
Floodplain Administrator



Joe Tram,
Floodplain Management Hydrologist

Enclosure

Copy to: Jim Gillespie
Don Anderson, P.E. ✓
Nick D. Bacon, Town Mgr., Town of Surprise

Anderson- Nelson, Inc.

4441 East McDowell Road
Phoenix, Arizona 85008
(602) 273-1850

Don N. Anderson, P.E., L.S.
George W. Nelson, L.S.

December 7, 1987

Federal Emergency Management Agency
Natural & Technology Hazards Division
Building 105
Presidio of San Francisco, California 94129

RE: Brookview County Club
Surprise, Arizona

Gentlemen:

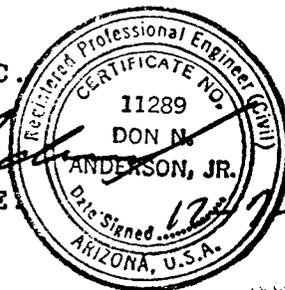
We hereby certify that the fill at the above referenced project was placed between the months of May and November of 1984.

Sincerely,

ANDERSON-NELSON, INC.


Don N. Anderson, P.E.

DNA/jas



Anderson- Nelson, Inc.

4441 East McDowell Road
Phoenix, Arizona 85008
(602) 273-1850

Don N. Anderson, P.E., L.S.
George W. Nelson, L.S.

December 7, 1987

Town of Surprise
12604 Sante Fe Drive
Surprise, Arizona 85374

RE: Brookview Country Club

Gentlemen:

Attached for your review and comment is a copy of the applicant's request for a Conditional Letter of Map Revision for Phase 1 of their Brookview Country Club project located along the east floodplain of the Aqua Fria River in the Town of Surprise.

This request has been prepared by Anderson-Nelson, Inc. as the engineering consultant for the applicant. This request is being submitted for a revision of special hazard area boundaries with no change to base flood elevations determination in accordance with FEMA Regulations 65.5. The base flood elevations being used for this submittal were taken from preliminary Flood Insurance Rate Map Panel Nos. 1168 and 1170 of 4350. Although these maps are designated preliminary they are scheduled to be adopted in the near future.

If you have any questions regarding this submittal, please do not hesitate to contact us.

Sincerely,

ANDERSON-NELSON, INC.



Don N. Anderson, P.E.

DNA/jas

BROOKVIEW COUNTRY CLUB
Town of Surprise Request for LOMR

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6. Title Report of Project	3
7. ALTA Survey	3
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9. Map of Fill Area w/F.F.E. of Structures	4
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12. Results of Fill Compaction Tests	6
13. Drawing Showing "As-Built" Erosion Protection	7
14. Certification of Date of Fill Placement	7

Prepared by Anderson-Nelson, Inc.
December 7, 1987

SECTION 1

BROOKVIEW PROPERTIES, INC.

Request for Letter of Map Revision (218-65)

This is to request that a determination be made as to whether or not a certain land area or structure is within a Special Flood Hazard Area.

All documents submitted in support of this appeal are correct to the best of my knowledge. I understand that any false statement may be punishable by fine or imprisonment under Title 18 of the United States Code, Section 1001.

BCC LIMITED
by BROOKVIEW PROPERTIES, INC.
MANAGING GENERAL PARTNER

6/24/87
Date

Michael W. Burnett
Signature of Applicant
Michael W. Burnett
Secretary/Treasurer

TOWN OF SURPRISE

Community Acknowledgement of Request
For Letter of Map Revision

TOWN OF SURPRISE
Community Name

BROOKVIEW COUNTRY CLUB
Property

We hereby acknowledge receipt and review of this Letter of Map Revision request and have found that the project meets all of our community's applicable floodplain management regulations. We understand that this request is being forwarded to FEMA for a possible map revision.

Community Official's Signature

Date

Floodplain Manager
Community Official's Title

SECTION 2

PROJECT DESCRIPTION

HISTORY

The Brookview Country Club project, which is a combined residential and golf course community, was started in 1978 by its original owner and developer, the Helzer Development Corporation. At that time, Cella Barr Associates were retained as the developer's civil engineer. The project is located along the east floodplain of the Aqua Fria River with 115th Avenue as the eastern boundary and from Bell Road north to Beardsley Road, it is within the corporate boundaries of the Town of Surprise.

Cella Barr prepared and submitted grading plans to the Town of Surprise for approval in 1983. Approval was given by the Town of Surprise based on a review by the Flood Control District of Maricopa County. One of the intentions of the grading design was that it conforms with the regulations which would permit the full area to be removed from the floodplain.

At this time, the project was sold to GWB/LC1/JV5, who in turn hired Mountain View Development as their general contractor and to serve as agent for the owner.

Early 1984, Mountain View went out to bid for the development, including site grading. Markham Contracting was awarded a design-build contract and in turn retained Moore-Kickenbacker as their engineer and surveyor. Grading construction was started by Markham's subcontractor M.M. Sundt in May, 1984, and finished in September, 1984, to current elevations. Compaction tests were run during grading and filling by Construction Inspection and Testing Company.

In late 1985, the project went into foreclosure and was purchased by the participant lenders, represented by Worthen Bank. In February, 1986, the lenders contracted to have embankment protection constructed along the Aqua Fria River which was completed in February, 1987. The embankment protection was designed by Anderson-Nelson, Inc. for Moore-Kickenbacker prior to the foreclosure on the property. The current owners verified with: 1.) Rome Glover, Building Safety Dept., Town of Surprise and 2.) Joe Tram, Flood Control District, Maricopa County, that the original permits had been issued and were current and valid. It was also verified that permits were not required from Mr. Greg Gregorian, the Corp of Engineers, Los Angeles, California.

PRESENT STATUS

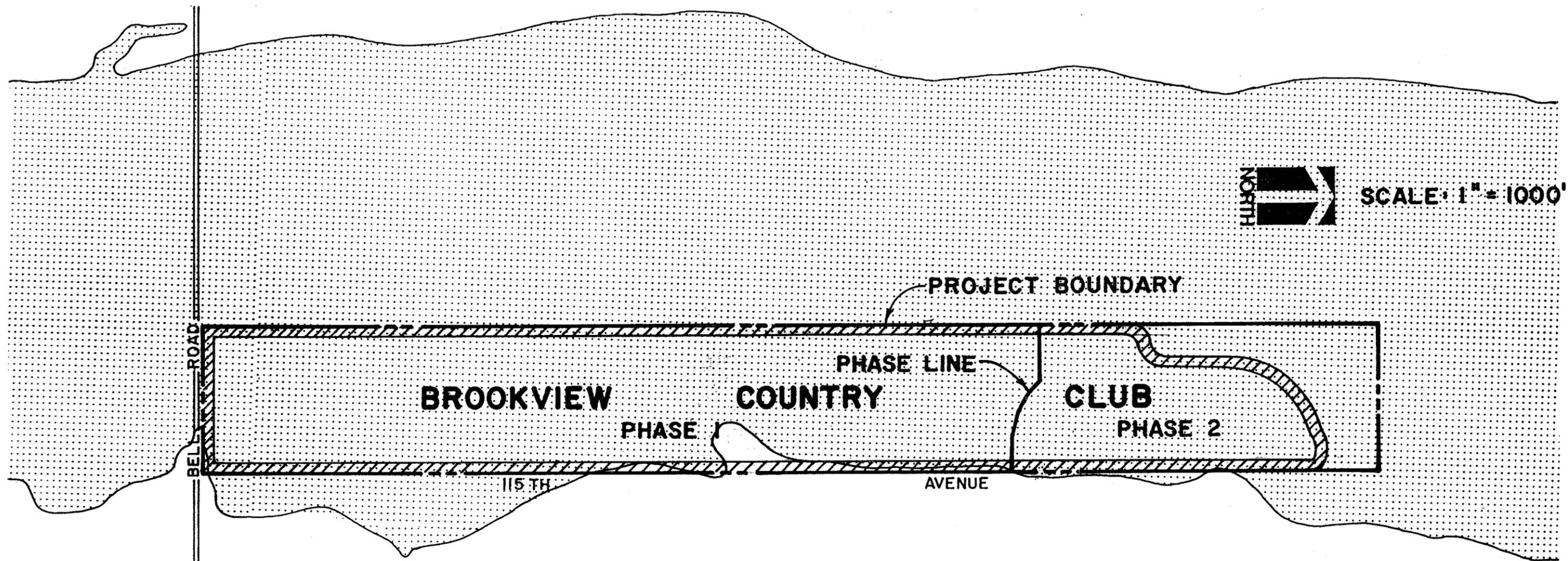
The project, at this time, sits idle. The present owner is not in the development business and as such is trying to sell the property to someone who would complete the improvements and finish its development. Almost all of the underground utilities have been installed and the road improvements on 115th Avenue along the east border of the property have been completed. The interior streets have been rough graded, but are not paved. Several model homes have been completed and are sitting vacant.

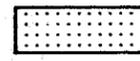
Half of the golf course has been constructed and is being maintained at a very minimal level.

The reason for this request for a LOMR is to bring the project out of the flood plain and as such make it a more marketable entity. The original intention was to construction the project at or above the base flood elevations, however, since the project was designed and constructed, a restudy was performed on the Aqua Fria River. This restudy raised some of the base flood elevations across the project thus leaving certain areas several tenths of a foot below the new flood elevations. The applicant intends to fill those area that are low up to the new base flood elevations.

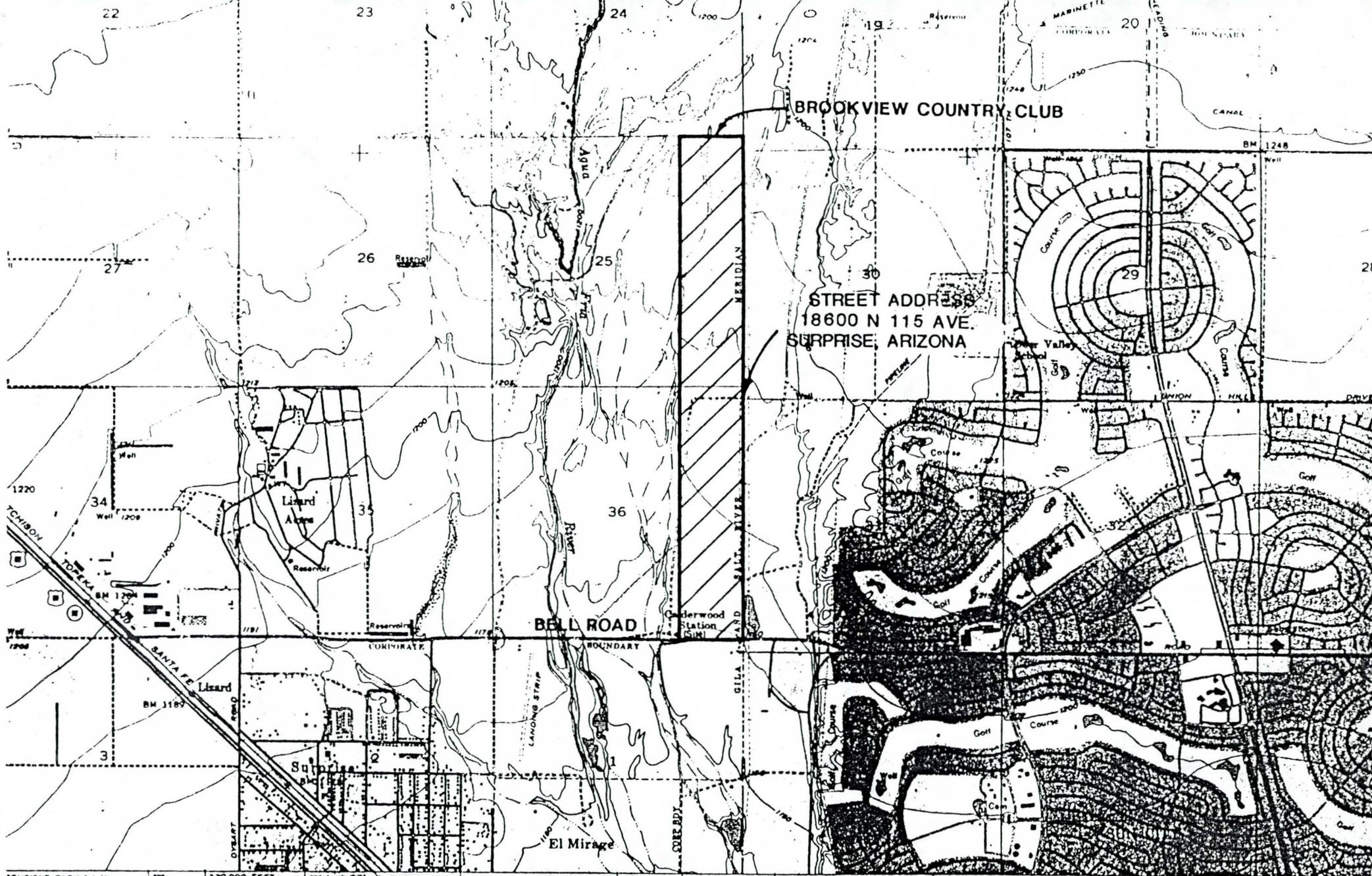
PHASING

The project has been phased for this submittal because there is, at the north end, a small encroachment into the floodway. During initial discussion with F.E.M.A. it was agreed to split the project into two phases thus speeding the release of Phase 1 from the floodplain. Therefore, we have supplied two separate legals, one for each phase.



-  BOUNDARY OF FILLED AREA
-  FLOOD PLAIN AGUA FRIA RIVER

SECTION 3



BROOKVIEW COUNTRY CLUB

STREET ADDRESS
18600 N 115 AVE.
SURPRISE, ARIZONA

BELL ROAD

El Mirage

Geological Survey
 Prepared and by
 1954
 on
 1963

SCALE 1:24 000

1 MILE
 0 1000 2000 3000 4000 5000 6000 7000 FEET
 0 1 2 3 4 5 KILOMETER

CONTOUR INTERVAL 10 FEET
 NATIONAL GEODETIC VERIFICATION STATION OF 1929

13° 13' 13" N
 107° 44' 13" W

ARIZONA
 U.S.

SPECIAL REPORT

SCHEDULE A

Order No. 201-859972-A

1. This report is for informational purposes only and is not to be considered as a commitment to issue any form of Title Insurance Policy. This report is for the sole use and benefit of the parties set forth in Number 2 below and liability is hereby limited to the amount of the fee paid.

2. For the use and benefit of:

FEMA, or other Governmental Authorities

3. The Title to the fee estate in the land described herein is at this date hereof vested in:

BCC LIMITED PARTNERSHIP, an Arizona limited partnership; BOHEMIAN SAVINGS AND LOAN ASSOCIATION, a Missouri Savings and Loan Association; PEOPLES SAVINGS AND LOAN ASSOCIATION, an Oregon Savings and Loan Association; ARIZONA PROPERTIES, INC., a New York corporation and FIRST CITIZENS SAVINGS AND LOAN ASSOCIATION, a Federal Savings and Loan Association

4. The land referred to in this report is situated in Maricopa County, Arizona, and is described as:

SEE ATTACHED EXHIBIT "A"

Search made to June 23, 1987 at 7:30 A.M.

FIRST AMERICAN TITLE INSURANCE
COMPANY OF ARIZONA

BY: Cathy L. Criner/smc Ext: 207

EXHIBIT "A"

Order No. 201-859972-A

PARCEL NO. 1:

The East half of the East half of Section 25, Township 4 North, Range 1 West.

PARCEL NO. 2:

The East half of the East half of Section 36, Township 4 North, Range 1 West.

EXCEPT 1/16th of all oil, gas, other hydrocarbon substances, helium or other substances of a gaseous nature, coal, metals, minerals, fossils, fertilizer of every name and description, together with all uranium, thorium or any other material which is or may be peculiarly essential to the production of fissionable materials, whether or not of commercial value, and the exclusive right thereto, on, in, or under the above described lands as reserved by the State of Arizona in Patent recorded in Docket 14604, Page 473.

PARCEL NO. 3:

A perpetual, non-exclusive easement over, across and underneath the following described real property, for the purposes of inspecting, constructing, repairing and maintaining a flood control embankment:

All portions of said property being the East half of the Southwest quarter of the Northeast quarter and the East half of the west half of the Southeast quarter of Section 25, Township 4 North, Range 1 West of the Gila and Salt River Base and Meridian, located within 50 feet of the following described line:

Commencing at the Southeast corner of Section 36, Township 4 North, Range 1 West; thence North 89 degrees 24 minutes 41 seconds West along the Southerly line of said Section for a distance of 1306.94 feet; thence North 00 degrees 07 minutes 58 seconds East for a distance of 5282.90 feet to the Point of Beginning of said line; thence North 00 degrees 36 minutes 59 seconds East for a distance of 2635.49 feet to an angle point; thence North 00 degrees 34 minutes 54 seconds East for a distance of 1320.64 feet to the end of said line.

PARCEL NO. 4:

A parcel of land located in the Northwest quarter of Section 30, Township 4 North, Range 1 East of the Gila and Salt River Base and Meridian, Maricopa County, Arizona. Said parcel being 70 feet in width, 35 feet on each side of the following described centerline:

CONTINUE. . . .

Commencing at the Northeast corner of Section 25, Township 4 North, Range 1 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona; thence South 00 degrees 15 minutes 08 seconds West (measured), South 00 degrees 40 minutes 2 seconds West (record), a distance of 268.41 feet to the Northwest corner of Section 30, Township 4 North, Range 1 East; thence South 00 degrees 23 minutes 55 seconds West, a distance of 191.59 feet to the True Point of Beginning; thence North 83 degrees 23 minutes 53 seconds East, a distance of 820.00 feet, to an existing berm around an agricultural field and the Point of Terminus.

SCHEDULE B

Order No. 201-859972-A

PART TWO:

- A. 1987 taxes, a lien not yet payable.
- B. Second installment of 1986 taxes, a lien, payable on or before March 1, 1987, and delinquent May 1, 1987.
- 1. Reservations contained in the Patent from the United States of America, reading as follows:

Subject to any vested and accrued water rights for mining, agricultural, manufacturing, or other purposes, and rights to ditches and reservoirs used in connection with such water rights as may be recognized and acknowledged by the local customs, laws and decisions of courts; and there is reserved from the lands hereby granted, a right of way thereon for ditches or canals constructed by the authority of the United States of America.

(Parcel Nos. 1, 3 and 4)

- 2. Reservations contained in the Patent from the State of Arizona, reading as follows:

This Patent is issued subject to any and all easements or rights of way heretofore legally obtained and now in full force and effect and subject to the following specific mineral reservation, viz:

Pursuant to the provisions of Arizona Revised Statutes 37-231, of the following substances not heretofore retained and reserved by a predecessor in title to the State of Arizona, 1/16 of all oil, gas, other hydrocarbon substances, helium or other substances of a gaseous nature, coal, metals, minerals, fossils, fertilizer of every name and description, together with all uranium, thorium, or any other material which is or may be determined by the laws of the United States, or of this state, or decisions of court, to be peculiarly essential to the production of fissionable materials, whether or not of commercial value, and the exclusive right thereto, on, in, or under the above described lands, shall be and remain and are hereby reserved in and retained by the State of Arizona, together with the right of the State of Arizona, its lessees or permittees to enter upon those lands for the purpose of exploration, development and removal of the above described substances as provided by the rules and regulations of the State Land Department and the Laws of Arizona.

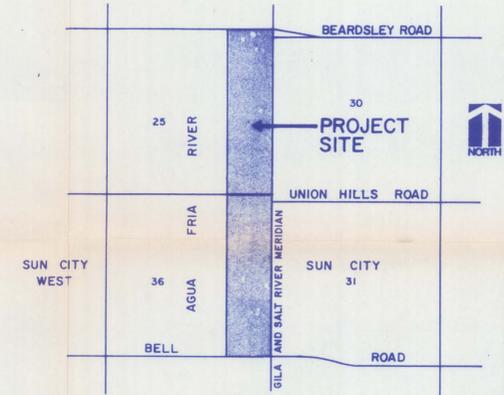
- 3. The rights or claims of title, if any, by the State of Arizona to any portion of the property described in Schedule A being located in the bed of any river or dry wash.
- 4. Water rights, claims or title to water.

CONTINUE. . . .

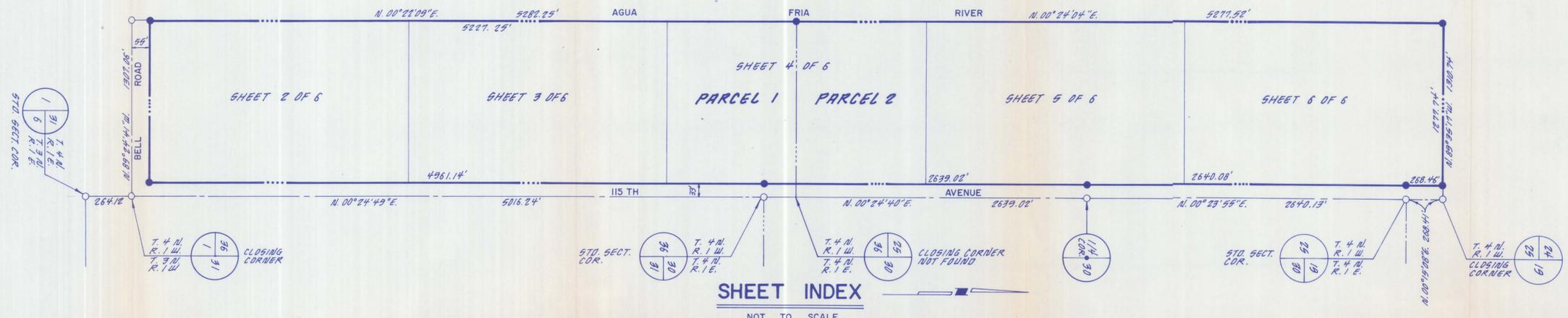
5. Any charge upon said land by reason of its inclusion in MARICOPA COUNTY MUNICIPAL WATER CONSERVATION DISTRICT. (All assessments which are due and payable have been paid.)
6. Any charge upon said land by reason of its inclusion in ELECTRICAL DISTRICT NO. 7. (All assessments which are due and payable have been paid.)
7. A plat recorded in Book 5, Page 36, of Road Maps, purporting to show a county roadway.
8. A plat recorded in Book 14, Page 63, of Road Maps, purporting to show a county roadway.
9. An easement for roadway and rights incident thereto as set forth in instrument recorded in Docket 5440, Pages 296 and 297.
10. An easement for flood control dike and rights incident thereto as set forth in instrument recorded in Docket 14049, Page 243.
11. An easement for highway purposes and rights incident thereto as set forth in instrument recorded in 85-325824, Official Records.
12. An easement for electric lines and appurtenant facilities and rights incident thereto as set forth in instrument recorded in 86-431564, Official Records.
13. All matters set forth in Memorandum Of Settlement And Release Agreement in instrument recorded in 86-630572, Official Records.
14. All terms and provisions of Participation Agreement recorded in 86-687406, Official Records.

BROOKVIEW COUNTRY CLUB A.L.T.A. SURVEY

A PORTION OF THE EAST 1/2 OF SECTIONS 25 & 36,
T. 4 N., R. 1 W., OF THE G. & S.R.B. & M.,
MARICOPA COUNTY, ARIZONA



VICINITY MAP



SHEET INDEX
NOT TO SCALE

PARCEL NO. 1:
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Commencing at the northeast corner of Section 25, Township 4 North, Range 1 West of the Gila and Salt River Base and Meridian, Maricopa County, Arizona;

THENCE South 00 degrees 15 minutes 08 seconds West, a distance of 268.41 feet to the Northwest corner of Section 30, Township 4 North, Range 1 East;

THENCE South 00 degrees 23 minutes 55 seconds West, a distance of 191.59 feet to the True Point of Beginning;

THENCE North 83 degrees 23 minutes 53 seconds East, a distance of 820.00 feet, to an existing berm around an agricultural field and the Point of Terminus.

A perpetual, non-exclusive easement over, across and underneath the following described real property, for the purposes of inspecting, constructing, repairing and maintaining a flood control embankment:

All portions of said property being the East half of the Southwest quarter of the Northeast quarter and the East half of the West half of the Southeast quarter of Section 25, Township 4 North, Range 1 West of the Gila and Salt River Base and Meridian, located within 50 feet of the following described line:

BASIS OF BEARING:
A bearing of N.89°24'41"W. was assumed along South line of Section 36, Township 4 North, Range 1 West, Gila and Salt River Meridian; said section line being marked by "Maricopa County Engineering Department" brass caps set in handholes.

NOTES:

Commencing at the Southeast corner of Section 36, Township 4 North, Range 1 West; thence North 89 degrees 24 minutes 41 seconds West along the Southerly line of said Section for a distance of 1306.94 feet; thence North 00 degrees 07 minutes 58 seconds East for a distance of 5282.90 feet to the Point of Beginning of said line; thence North 00 degrees 36 minutes 59 seconds East for a distance of 2635.49 feet to an angle point; thence North 00 degrees 34 minutes 54 seconds East for a distance of 1320.64 feet to the end of said line.

PROPORTION DISTANCES WERE CALCULATED PER "MANUAL OF SURVEYING INSTRUCTIONS" U.S. DEPARTMENT OF THE INTERIOR.

CALCULATED DISTANCES WERE PROPORTION TO THOSE DISTANCE SHOWN IN COPY OF B.L.M. FIELD NOTES OF SURVEYS AND RESURVEYS PERFORMED DURING THE YEARS 1893 AND 1894.

THE EAST CORNERS OF SECTIONS 36 AND 25, TOWNSHIP 4 SOUTH, RANGE 1 WEST, WERE ESTABLISHED AS CLOSING CORNERS DURING THE YEARS 1894 AS DESCRIBED IN B.L.M. NOTES.

IRON BARS FOUND ALONG THE WEST LINES OF SECTION 30 AND 31, TOWNSHIP 4 NORTH, RANGE 1 EAST APPEAR TO BE THE SAME AS THOSE DESCRIBED ON AN UNRECORDED SURVEY MAP SURVEYED DURING FEB. & JUNE 1963 FOR J.G. BOSWELL CO.

BENCHMARK:
RV87: MONO METAL RIVET, S.E. OF BRIDGE ON S.E. HEADWALL OF RAILROAD CROSSING, AGUA FRIA RIVER, U.S.G.S. QUAD #331121.
ELEV. 1138.469

CERTIFICATION:
I, Don N. Anderson Jr. hereby certify that this map represents a survey made on the ground in April, 1987, by me or my employees under my supervision to the normal standard of care of Land Surveyors practicing in the State of Arizona. I further certify that on the basis of my knowledge, information, and belief this map shows the boundaries of the property described hereon, shows visible improvements situated on the premises, shows easements contained in Title Commitment No. D-859972, dated January 27, 1987 as provided by First American Title Insurance Company of Arizona. I also certify that there are no other visible easements or rights-of-way in use or in evidence over or under the subject property, nor any visible encroachments of improvements onto contiguous property by the improvements located on the subject property, nor any visible encroachments of improvements from adjoining properties onto the subject property other than those shown hereon.

SITE DATA

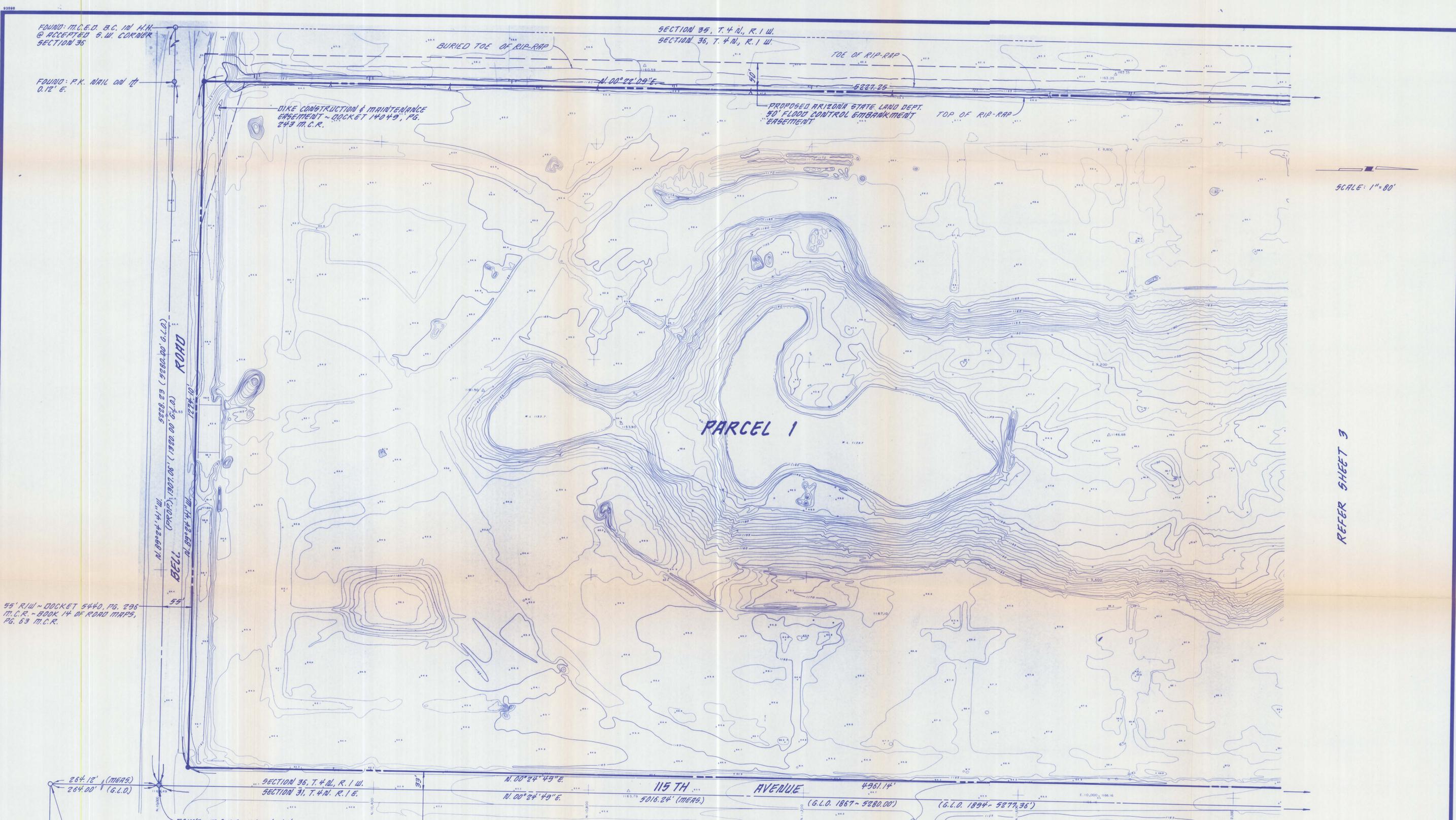
PARCEL No 1	153.146 Acres±
PARCEL No 2	154.935 Acres±
PARCEL No 4	1.318 Acres±
RIGHT OF WAY FOR BELL RD. & 115TH AVE.	9.611 Acres±
TOTAL GROSS ACRES	319.010±



Anderson-Nelson, Inc. CIVIL ENGINEERING, LAND PLANNING, CONSULTANTS PHOENIX, ARIZONA 273-1850				
A.L.T.A. SURVEY				
DRAWN BY	R.V.G.	NG DATE	BY	REVISIONS & REMARKS
SCALE	N.T.S.	1	4/30/87	REV. LEGAL DESC. PAR. 1
DATE	4/27/87	2		PARCEL 1 & 2 CORRECTED
APPROVED				PARCEL 3 & 4 ADDED
				SHT. 1 OF 6

FF D-1

D-1



FOUND: M.C.E.D. B.C. 10' H.H.
 @ ACCEPTED S.W. CORNER
 SECTION 36

FOUND: P.K. NAIL 00' H.H.
 0.12' E.

SECTION 35, T. 4 N., R. 1 W.
 SECTION 36, T. 4 N., R. 1 W.

DIKE CONSTRUCTION & MAINTENANCE
 EMBANKMENT ~ DOCKET 14049, PG.
 243 M.C.R.

PROPOSED ARIZONA STATE LAND DEPT.
 50' FLOOD CONTROL EMBANKMENT
 EMBANKMENT

SCALE: 1" = 80'

REFER SHEET 3

55' R/W ~ DOCKET 5440, PG. 296
 M.C.R. - BOOK 14 OF ROAD MAPS,
 PG. 63 M.C.R.

BELL ROAD
 77.22' (G.L.O. 1867-5280.00)
 127.44' (G.L.O. 1867-5280.00)
 127.44' (G.L.O. 1867-5280.00)
 127.44' (G.L.O. 1867-5280.00)

FOUND: M.C.E.D. B.C. 10' H.H.
 @ S.E. CORNER SECTION 36
 T. 4 N., R. 1 W., ~ C.C.

33' R/W ~ BOOK 5 OF ROAD MAPS
 PG. 36 M.C.R.

FOUND: I.P. ~ 1 1/2" I.D. @ STANDARD
 TOWNSHIP CORNER (S.W. CORNER
 SECTION 31, T. 4 N., R. 1 E.)

LEGEND:

- | | | | |
|----------|--|-----------|-----------------|
| B.C. | BRASS CAP | PROP. | PROPORTIONED |
| B.L.M. | BUREAU OF LAND MANAGEMENT | RB. | REBAR |
| C.C. | CLOSING CORNER | SEC. | SECTION |
| E/P | EDGE OF PAVEMENT | STD. COR. | STANDARD CORNER |
| FD. | FOUND | | |
| G.L.O. | GOVERNMENT LAND OFFICE | | |
| H.H. | HANDHOLE | | |
| I.B. | IRON BAR | | |
| I.D. | INSIDE DIAMETER | | |
| I.P. | IRON PIPE | | |
| M.C.E.D. | MARICOPA COUNTY ENGINEERING DEPARTMENT | | |
| M.C.R. | MARICOPA COUNTY RECORDS | | |
| MEA. | MEASURED | | |
| --- | MONUMENT LINE | | |
| --- | PROPERTY LINE | | |

BENCHMARK:
 RV87: MOND METAL RIVET, S.E. OF
 BRIDGE ON S.E. HEADWALL OF RAILROAD
 CROSSING, AQUA FRIA RIVER. U.S.G.S.
 QUAD #331121.
 ELEV. 1138.469

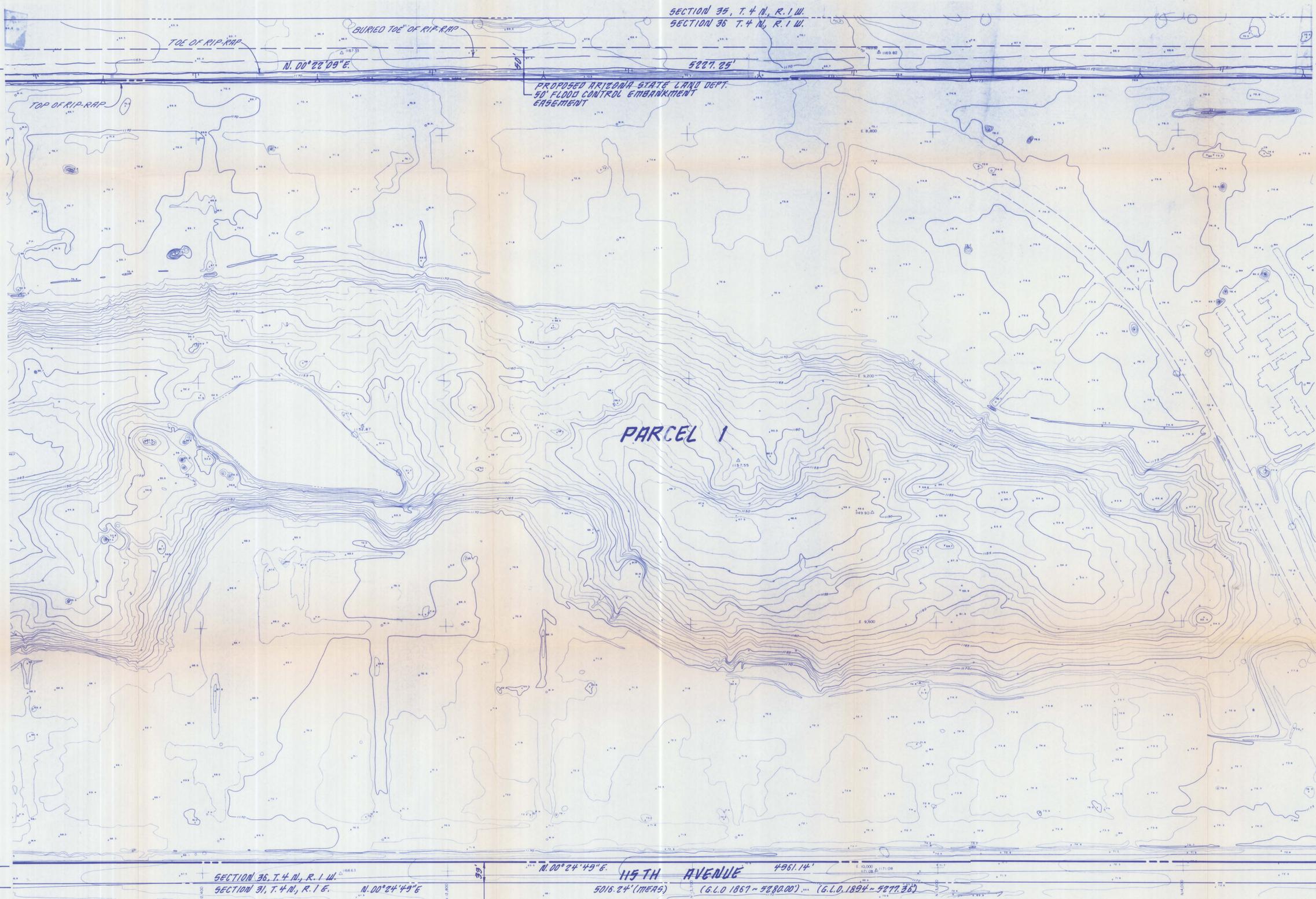
Anderson-Nelson, Inc.
 CIVIL ENGINEERING, LAND PLANNING, CONSULTANTS
 PHOENIX, ARIZONA 273-1850

BROOKVIEW COUNTRY CLUB

DRAWN BY	R.J.G.	NO.	DATE	BY	REVISIONS & REMARKS	SHT.	2
SCALE	1" = 80'	1				OF	6
DATE	4/97						
APPROVED		2					

FD-1

D-1



REFER SHEET 2

REFER SHEET 4

PARCEL 1

PROPOSED ARIZONA STATE LAND DEPT.
50' FLOOD CONTROL EMBANKMENT

115 TH AVENUE

SECTION 36, T.4N, R.1W
SECTION 31, T.4N, R.1E

SECTION 35, T.4N, R.1W
SECTION 36, T.4N, R.1W

LEGEND:

- B.C. BUREAU OF LAND MANAGEMENT
- B.L.M. BUREAU OF LAND MANAGEMENT
- C.C. CLOSING CORNER
- E/P EDGE OF PAVEMENT
- FD. FOUND
- G.L.O. GOVERNMENT LAND OFFICE
- H.H. HANDHOLE
- I.B. IRON BAR
- I.D. INSIDE DIAMETER
- I.P. IRON PIPE
- M.C.E.D. MARICOPA COUNTY ENGINEERING DEPARTMENT
- M.C.R. MARICOPA COUNTY RECORDS
- MEA. MEASURED

- PROP. PROPORTIONED
- RB. REBAR
- SEC. SECTION
- STD. COR. STANDARD CORNER

- MONUMENT LINE
- PROPERTY LINE
- PROPORTIONED
- REBAR
- SECTION
- STANDARD CORNER
- PROPERTY CORNERS (TO BE SET)
- FOUND CORNERS

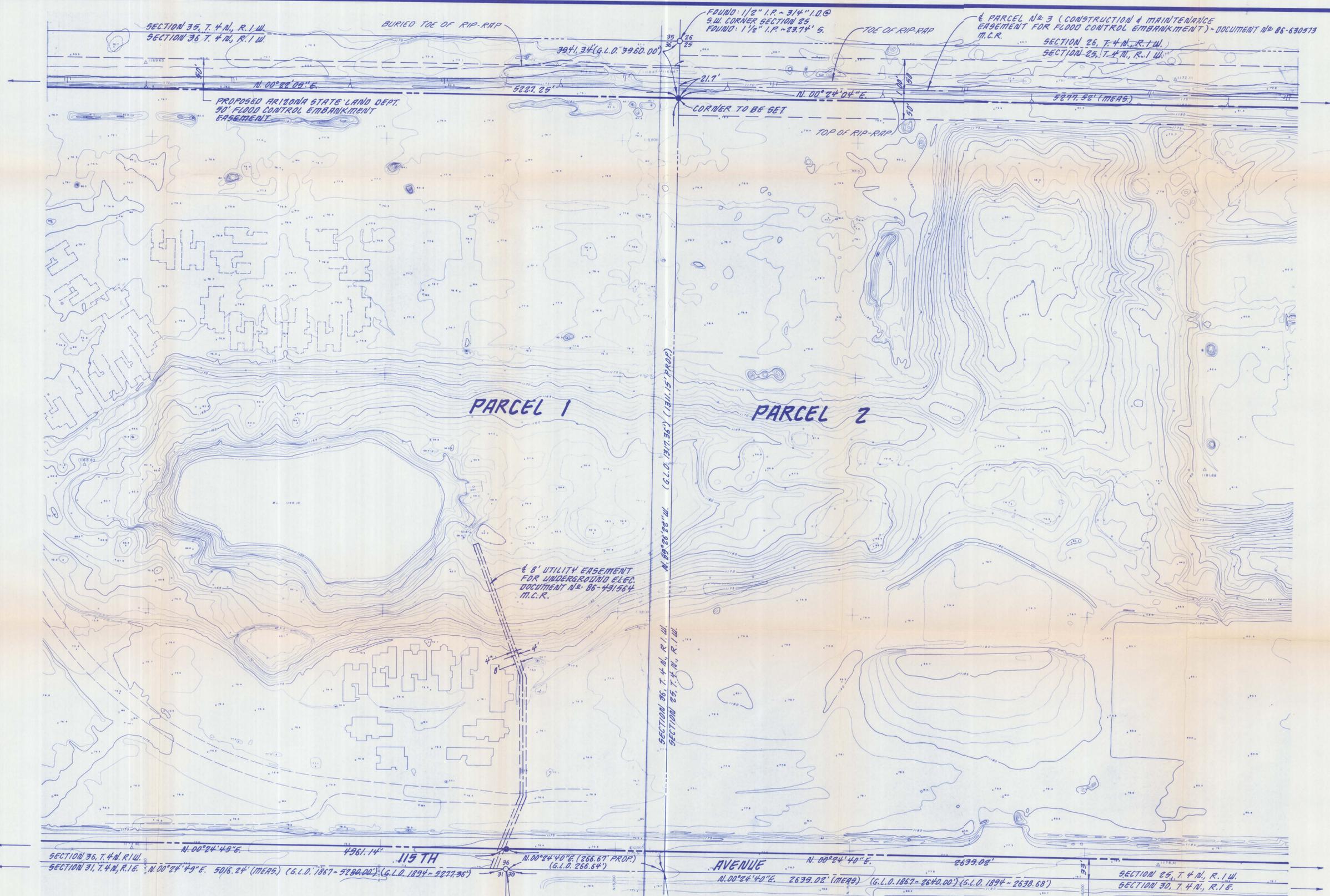
BENCHMARK:
 RVB7: MONO METAL RIVET, S.E. OF
 BRIDGE ON S.E. HEADWALL OF RAILROAD
 CROSSING, AQUA FRIA RIVER. U.S.G.S.
 QUAD #331121.
 ELEV. 1138.469



Anderson-Nelson, Inc.			
CIVIL ENGINEERING, LAND PLANNING, CONSULTANTS PHOENIX, ARIZONA 273-1850			
BROOKVIEW COUNTRY CLUB			
DRAWN BY	R.J.B.	NO. DATE	BY REVISIONS & REMARKS
SCALE	1"=50'	1	
DATE	4/87	2	
APPROVED			
			SHT. 3 OF 6

REFER SHEET 3

REFER SHEET 5



SCALE: 1" = 80'

FOUND: 3/4" I.B. - 1'± BELOW GROUND
570. CORNER TO SECTIONS 30 & 31
T. 4 N., R. 1 E.

- LEGEND:
- B.C. BRASS CAP
 - B.L.M. BUREAU OF LAND MANAGEMENT
 - C.C. CLOSING CORNER
 - E/P EDGE OF PAVEMENT
 - FD. FOUND
 - G.L.O. GOVERNMENT LAND OFFICE
 - H.B. HANDHOLE
 - I.B. IRON BAR
 - I.D. INSIDE DIAMETER
 - I.P. IRON PIPE
 - M.C.E.D. MARICOPA COUNTY ENGINEERING DEPARTMENT
 - M.C.R. MARICOPA COUNTY RECORDS
 - MEA. MEASURED
 - PROP. PROPOSED
 - RB. REBAR
 - SEC. SECTION
 - STD. COR. STANDARD CORNER
 - MONUMENT LINE
 - PROPERTY LINE
 - PROPORTIONED
 - SECTION
 - STANDARD CORNER
 - PROPERTY CORNERS (TO BE SET)
 - FOUND CORNERS

BENCHMARK:
RVB7: MONO METAL RIVET, S.E. OF
BRIDGE ON S.E. HEADWALL OF RAILROAD
CROSSING, AGUA FRIA RIVER. U.S.G.S.
QUAD #331121.
ELEV. 1138.469

Anderson-Nelson, Inc.
CIVIL ENGINEERING, LAND PLANNING, CONSULTANTS
PHOENIX, ARIZONA 273-1850

BROOKVIEW COUNTRY CLUB

DRAWN BY	R.V.B.	NO.	1	DATE	4/87	BY	REVISIONS & REMARKS	SHT.	4
SCALE	1" = 80'							OF	6
DATE	4/87								
APPROVED									

PARCEL No. 3 (CONSTRUCTION & MAINTENANCE EASEMENT FOR FLOOD CONTROL EMBANKMENT) DOCUMENT No. 86-630573 M.C.R.

SECTION 26, T. 4 N., R. 1 W.
SECTION 29, T. 4 N., R. 1 W.

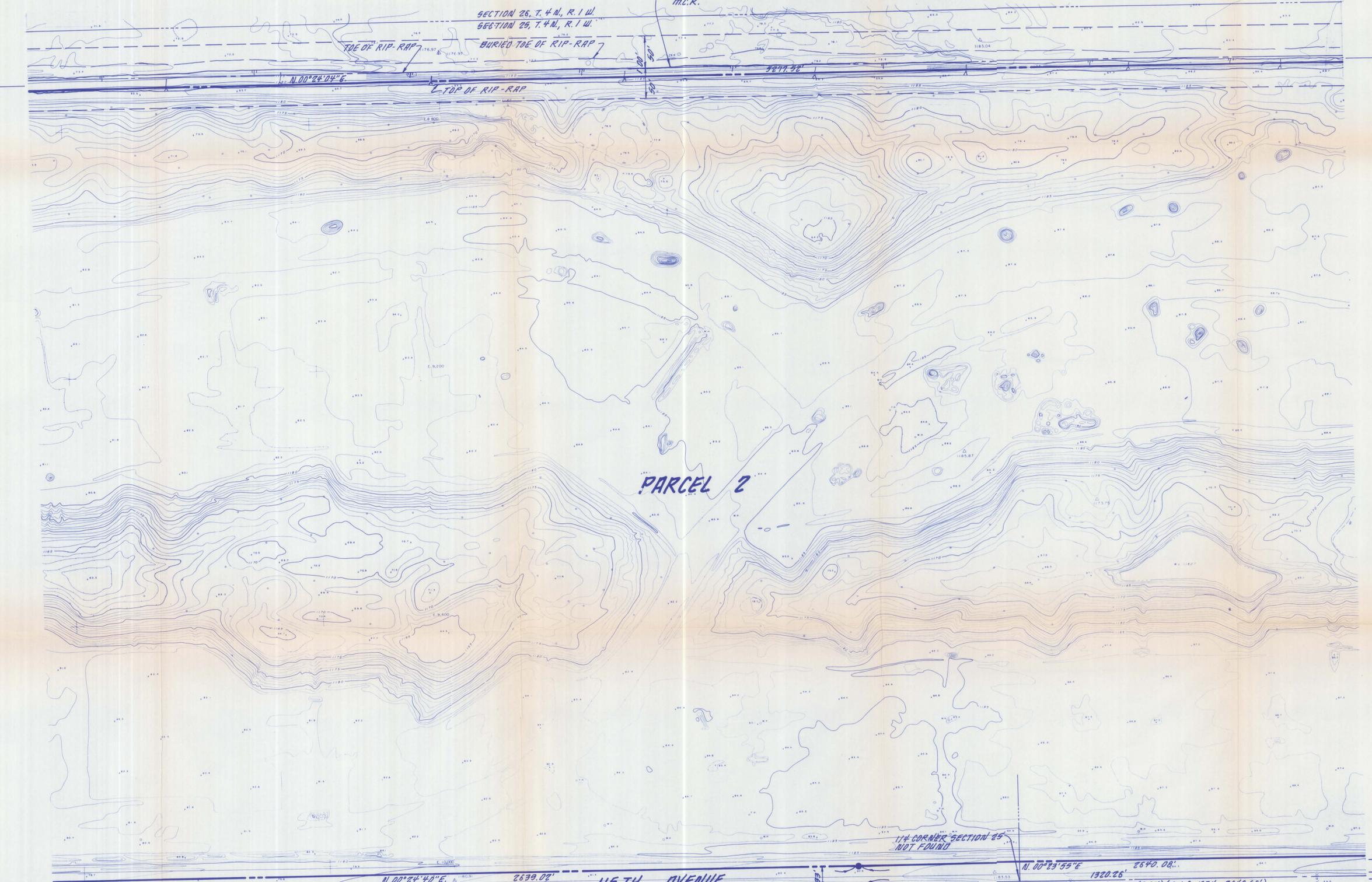
TOE OF RIP-RAP
BURIED TOE OF RIP-RAP
TOP OF RIP-RAP

SCALE: 1" = 80'

REFER SHEET 4

REFER SHEET 6

PARCEL 2



SECTION 25, T. 4 N., R. 1 W.
SECTION 30, T. 4 N., R. 1 E.
N. 00° 24' 40" E. 2639.02' (MEAS.) (G.L.O. 1867-2640.00') (G.L.O. 1894-2638.68')

115TH AVENUE

N. 00° 23' 55" E. 2640.08'
N. 00° 23' 55" E. 2640.13 (MEAS.) (G.L.O. 1867-2640.00') (G.L.O. 1894-2640.66')

FOUND: 5/8" I.B. (BENT) @ W. 1/4 CORNER SECTION 30.
FOUND: I.P. - 1" I.D. - 2' BELOW P.V.M.T. 14.5' W. & 5.3' S. OF 1/4 CORNER SECTION 30

33' R/W - BOOK 5 OF ROAD MAPS PG. 36 M.C.R.

LEGEND:

- B.C. BRASS CAP
- B.L.M. BUREAU OF LAND MANAGEMENT
- C.C. CLOSING CORNER
- E/P. EDGE OF PAVEMENT
- FD. FOUND
- G.L.O. GOVERNMENT LAND OFFICE
- H.H. HANDHOLE
- I.B. IRON BAR
- I.D. INSIDE DIAMETER
- I.P. IRON PIPE
- M.C.E.D. MARICOPA COUNTY ENGINEERING DEPARTMENT
- M.C.R. MARICOPA COUNTY RECORDS
- MEA. MEASURED

- PROP. MONUMENT LINE
- RB. PROPERTY LINE
- SEC. REBAR
- STD. COR. SECTION
- PROPERTY CORNERS (TO BE SET)
- FOUND CORNERS

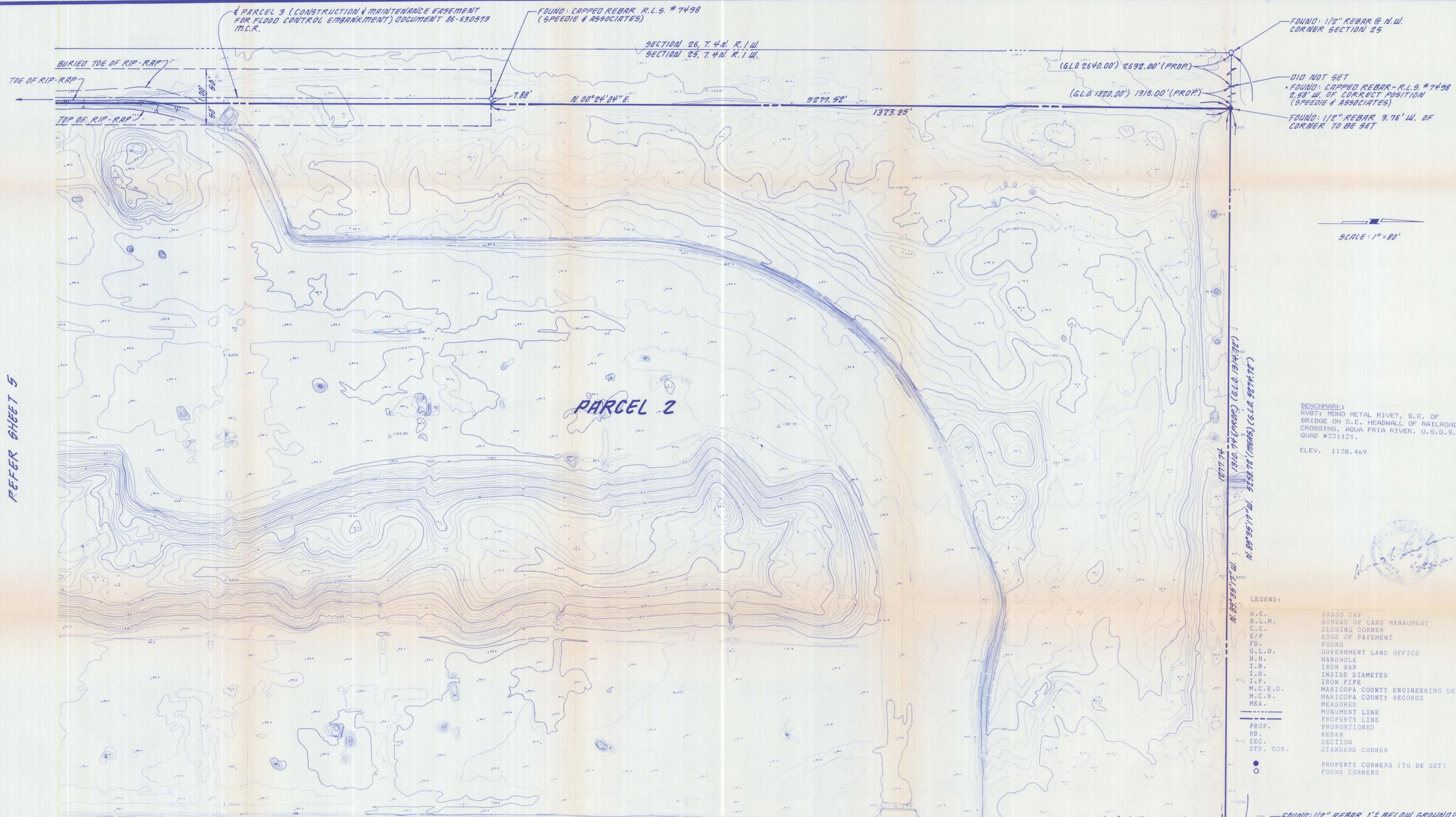
BENCHMARK: RV87: MONO METAL RIVET, S.E. OF BRIDGE ON S.E. HEADWALL OF RAILROAD CROSSING, AQUA FRIA RIVER, U.S.G.S. QUAD #331121. ELEV. 1138.469

Anderson-Nelson, Inc.
CIVIL ENGINEERING, LAND PLANNING, CONSULTANTS
PHOENIX, ARIZONA 273-1850

BROOKVIEW COUNTRY CLUB

DRAWN BY	R.J.G.	NO.	DATE	BY	REVISIONS & REMARKS	SHT.	5
SCALE	1"=80'	1.				OF	6
DATE	4/87	2.					
APPROVED							

REFER SHEET 5



PARCEL 3 (CONSTRUCTION & MAINTENANCE EASEMENT FOR FLOOD CONTROL EMBANKMENT) DOCUMENT 86-630573 M.C.R.

FOUND: CAPPED REBAR R.I.S. # 7498 (SPEEDIE & ASSOCIATES)

SECTION 26, T. 4 N., R. 1 W.
SECTION 25, T. 4 N., R. 1 W.

FOUND: 1/2" REBAR @ N.W. CORNER SECTION 25

DID NOT SET
FOUND: CAPPED REBAR - R.I.S. # 7498 2.58' W. OF CORRECT POSITION (SPEEDIE & ASSOCIATES)

FOUND: 1/2" REBAR 3.76' W. OF CORNER TO BE SET

SCALE: 1" = 80'

BENCHMARK:
RVB7: MONO METAL RIVET, S.E. OF BRIDGE ON S.E. HEADWALL OF RAILROAD CROSSING, AQUA FRIA RIVER, U.S.G.S. QUAD #331121.
ELEV. 1138.469

- LEGEND:
- B.C. BRASS CAP
 - B.L.M. BUREAU OF LAND MANAGEMENT
 - C.C. CLOSING CORNER
 - E/P. EDGE OF PAVEMENT
 - FD. FOUND
 - G.L.O. GOVERNMENT LAND OFFICE
 - H.H. HANDHOLE
 - I.B. IRON BAR
 - I.D. INSIDE DIAMETER
 - I.P. IRON PIPE
 - M.C.E.D. MARICOPA COUNTY ENGINEERING DEPARTMENT
 - M.C.R. MARICOPA COUNTY RECORDS
 - MEA. MEASURED
 - MONUMENT LINE MONUMENT LINE
 - PROPERTY LINE PROPERTY LINE
 - PROP. PROPORTIONED
 - RB. REBAR
 - SEC. SECTION
 - STD. COR. STANDARD CORNER
 - PROPERTY CORNERS (TO BE SET)
 - FOUND CORNERS

FOUND: 1/2" REBAR 1'± BELOW GROUND @ C.C. TO SECTIONS 24 & 25, T. 4 N., R. 1 W.
FOUND: 30" X 20" X 12" GRANITE STONE (NOT SET IN PLACE) - 2 NOTCHES ON S. FACE, 4 NOTCHES ON N. FACE & 1 NOTCH ON W. FACE

FOUND: 1964 M.C.E.D. B.C. @ E. E/P, STD. CORNER TO SECTIONS 19 & 31 T. 4 N., R. 1 E.
FOUND: GRANITE STONE BURIED 0.40'± E. OF B.C. - 4 NOTCHES ON S. FACE & 2 NOTCHES ON N. FACE
STONE WAS LEANING & NOT FIRMLY SET
USED BRASS CAP

FOUND: 5/8" I.B. (BEAT) @ 16/3 CORNER SECTION 30 - 0.56' E. OF 17

33' R.I.W. - BOOK 5 OF ROAD MAPS PG. 96 M.C.R.

40' R.I.W. EASEMENT DOCKET 85 325B24 M.C.R.

Anderson-Nelson, Inc.					
CIVIL ENGINEERING, LAND PLANNING, CONSULTANTS PHOENIX, ARIZONA 273-1850					
BROOKVIEW COUNTRY CLUB					
DRAWN BY	R.J.G.	NO. DATE	BY	REVISIONS & REMARKS	SHT. 6
SCALE	1"=80'	1 5/87	W.R.	ADDED 40' R.I.W. EASEMENT	OF 6
DATE	4/87				
APPROVED		2			

SECTION 4

PHASE I
LEGAL DESCRIPTION

Legal description of a parcel of land being a part of and being located within the East half of the East half of Section 36, Township 4 North, Range 1 West, and the East half of the East half of Section 25, Township 4 North, Range 1 West, Gila and Salt River Meridian, Maricopa County, Arizona, more particularly described as follows:

Commencing at the Southeast corner of said Section 36, thence N.89°24'41"W. along the South line of said Section 36, 80.57 feet; thence N.00°35'19"E., 105.68 feet to the POINT OF BEGINNING; thence N.18°43'49"E., 114.38 feet; thence N.00°08'35"E., 5587.02 feet; thence N.42°38'13"W., 26.57 feet; thence N.00°09'11"W., 76.78 feet; thence N.55°44'04"E., 17.59 feet; thence N.00°33'43"E., 975.34 feet; thence N.27°13'14"E., 21.82 feet; thence N.00°44'26"E., 438.30 feet; thence N.89°19'58"W., 337.15 feet; thence N.53°23'51"W., 173.48 feet to the beginning of a tangent curve concave to the northeast and having a radius of 969.00 feet; thence northwesterly along said curve a distance of 360.48 feet through a central angle of 21°18'53"; thence West a distance of 525.51 feet; thence S.00°40'00"W., 2450.69 feet; thence S.00°04'37"W., 3692.80 feet; thence S.04°05'59"W., 96.58 feet; thence S.00°14'21"W., 1299.11 feet; thence S.19°11'07"E., 62.11 feet; thence S.89°35'10"E., 566.58 feet; thence S.00°37'59"W., 44.27 feet; thence S.88°57'20"E., 93.48 feet; thence N.00°06'57"E., 43.07 feet; thence S.89°55'37"E., 538.69 feet to the POINT OF BEGINNING;

EXCEPT the following described Parcel "A";

Commencing at the Southeast corner of said Section 36 thence N.89°24'41"W., along the South line of said Section 36, 634.90 feet; thence N.00°35'19"E., 547.37 feet to the POINT OF BEGINNING of Parcel "A"; thence S.86°04'13"W., 56.54 feet; thence N.49°31'57"W., 163.22 feet; thence N.13°00'35"W., 36.94 feet; thence N.27°21'48"E., 142.73 feet; thence N.29°37'48"W., 101.60 feet; thence N.70°22'13"W., 58.74 feet; thence N.60°51'21"W., 166.83 feet; thence N.46°22'45"W., 82.61 feet; thence N.06°03'27"W., 168.63 feet; thence N.31°02'24"E., 48.81 feet; thence N.66°33'01"E., 103.54 feet; thence N.33°23'55"E., 76.14 feet; thence N.02°41'45"W., 247.55 feet; thence N.04°17'32"E., 146.99 feet; thence N.05°10'16"W., 133.45 feet; thence N.00°04'13"E., 308.58 feet; thence N.18°03'10"W., 137.84 feet; thence N.02°44'12"W., 293.80 feet; thence N.07°55'48"E., 192.73

feet; thence N.21°18'58"E., 102.06 feet; thence N.00°09'26"W., 184.33 feet; thence N.19°43'23"E., 185.93 feet; thence N.03°32'25"E., 239.13 feet; thence N.32°53'46"E., 250.37 feet; thence N.04°08'06"E., 183.57 feet; thence N.56°10'00"E., 52.51 feet; thence N.27°16'21"W., 114.90 feet; thence N.64°59'27"E., 372.76 feet; thence S.27°21'18"E., 203.56 feet; thence S.07°39'47"W., 147.38 feet; thence S.08°29'24"E., 185.34 feet; thence S.16°09'02"W., 100.64 feet; thence S.03°53'59"E., 192.73 feet; thence S.59°27'51"W., 43.18 feet; thence S.00°03'38"W., 165.26 feet; thence S.26°00'02"W., 262.41 feet; thence S.66°31'06"W., 151.43 feet; thence S.04°07'46"W., 99.30 feet; thence S.35°09'39"E., 101.12 feet; thence S.02°15'03"W., 45.02 feet; thence S.46°36'44"W., 60.25 feet; thence S.00°18'34"W., 189.11 feet; thence S.44°05'53"E., 58.31 feet; thence S.65°37'05"E., 209.79 feet; thence S.26°38'22"E., 39.93 feet; thence S.24°29'50"W., 82.05 feet; thence S.04°07'24"W., 118.89 feet; thence S.33°40'36"E., 85.90 feet; thence S.00°02'15"W., 58.15 feet; thence S.30°16'20"W., 86.99 feet; thence S.00°31'49"W., 243.03 feet; thence S.23°25'51"W., 160.07 feet; thence S.03°35'25"E., 352.23 feet; thence S.42°34'30"E., 127.72 feet; thence S.33°45'37"W., 172.45 feet; thence S.83°24'20"W., 74.41 feet; thence S.59°36'52"W., 115.34 feet; thence S.36°34'56"W., 61.29 feet; thence S.11°21'23"E., 173.92 feet; thence S.25°55'51"W., 93.56 feet to the POINT OF BEGINNING of Parcel "A";

and EXCEPT the following described Parcel "B";

Commencing at the Southeast corner of said Section 36, thence N.00°24'49"E., along the West line of Section 31, Township 4 North, Range 1 East, 4252.50 feet; thence N.89°35'11"W., 423.97 feet to the POINT OF BEGINNING of Parcel "B"; thence S.63°20'06"W., 274.38 feet; thence N.29°33'29"W., 109.15 feet; thence N.08°53'59"E., 23.67 feet; thence N.31°56'42"W., 172.06 feet; thence N.57°50'43"W., 64.12 feet; thence N.04°31'29"E., 129.70 feet; thence N.00°23'41"E., 800.44 feet; thence N.24°51'13"E., 100.65 feet; thence N.00°19'22"E., 230.82 feet; thence N.85°47'36"W., 249.31 feet; thence N.68°59'12"W., 62.00 feet; thence N.87°29'48"W., 162.24 feet; thence N.00°17'04"W., 329.62 feet; thence N.18°44'57"W., 22.67 feet; thence N.00°35'45"E., 1630.38 feet; thence East a distance of 312.68 feet; thence S.31°56'06"E., 111.13 feet; thence S.31°21'21"W., 240.18 feet; thence S.18°51'40"W., 303.91 feet; thence S.04°03'11"E., 946.80 feet; thence N.89°03'14"E., 421.23 feet; thence N.01°03'17"W., 255.83 feet; thence N.32°31'36"W., 46.27 feet; thence N.14°53'49"E., 89.95 feet; thence N.13°55'50"W., 244.92 feet; thence N.51°03'57"E., 71.68 feet; thence N.02°22'49"E., 204.22 feet; thence N.25°08'04"W., 125.82 feet; thence N.38°39'30"E., 227.21 feet; thence S.77°24'42"E., 134.07

feet; thence S.44°58'14"E., 122.30 feet; thence S.12°37'47"W., 102.13 feet; thence S.34°15'46"E., 197.95 feet; thence S.43°11'51"W., 119.95 feet; thence S.03°11'03"E., 191.99 feet; thence S.44°58'36"W., 113.91 feet; thence S.00°43'16"E., 206.72 feet; thence S.39°20'06"W., 62.87 feet; thence S.01°07'37"E., 125.72 feet; thence S.35°57'02"W., 58.49 feet; thence S.09°01'02"W., 88.90 feet; thence S.56°13'13"W., 96.69 feet; thence S.08°16'11"W., 258.42 feet; thence S.42°06'17"E., 139.55 feet; thence S.10°24'53"E., 432.47 feet; thence S.28°44'28"E., 161.06 feet; thence S.13°56'58"W., 188.51 feet; thence S.01°49'59"E., 132.39 feet; thence S.18°23'00"E., 79.46 feet; thence S.34°21'42"E., 90.84 feet; thence S.07°37'35"E., 48.39 feet; thence S.37°24'22"W., 140.93 feet; thence S.09°58'21"W., 235.03 feet to the POINT OF BEGINNING of Parcel "B";

Containing an area of 134.84 acres (Parcels "A" and "B" excepted out) more or less.

L.N. 333
LBJ/jas
December 2, 1987
Page 3 of 3

PHASE II
LEGAL DESCRIPTION

Legal description of a parcel of land being a part of and being located within the East half of the East half of Section 36, Township 4 North, Range 1 West, and the East half of the East half of Section 25, Township 4 North, Range 1 West, Gila and Salt River Meridian, Maricopa County, Arizona, more particularly described as follows:

Commencing at the Southeast corner of said Section 36, thence N.00°24'49"E., 5016.24 feet along the West line of Section 31, Township 4 North, Range 1 East, to the Southwest corner of Section 30, Township 4 North, Range 1 East; thence N.00°24'40"E., 2324.53 feet along the West line of said Section 30, thence N.89°35'20"W., 60.15 feet to the POINT OF BEGINNING thence N.00°44'26"E., 2563.84 feet; thence N.35°02'45"W., 37.61 feet; thence N.01°04'39"W., 65.35 feet; thence N.35°51'02"E., 61.64 feet; thence N.00°11'51"E., 61.20 feet; thence N.89°45'58"W., 263.37 feet; thence N.79°22'49"W., 179.07 feet; thence S.68°03'33"W., 305.10 feet; thence S.55°22'33"W., 153.12 feet; thence S.39°09'48"W., 159.93 feet; thence S.26°21'02"W., 119.41 feet; thence S.16°26'03"W., 144.92 feet; thence S.00°55'22"W., 683.09 feet; thence S.62°47'54"W., 201.26 feet; thence S.18°19'29"W., 98.67 feet; thence S.10°14'03"W., 95.11 feet; thence S.00°40'00"W., 901.19 feet; thence East a distance of 525.51 feet to the beginning of a non-tangent curve concave to the northeast and having a radius of 969.00 feet, a radial line passing through the beginning of said curve bears S.57°55'03"W.; thence southeasterly along said curve a distance of 360.48 feet through a central angle of 21°18'53"; thence S.53°23'51"E.; 173.48 feet; thence S.89°19'58"E., 337.15 feet to the POINT OF BEGINNING.

EXCEPT the following described Parcel "C";

Commencing at the Southeast corner of said Section 36, thence N.00°24'49"E., 5016.24 feet along the West line of Section 31, Township 4 North, Range 1 East, to the Southwest corner of Section 30, Township 4 North, Range 1 East; thence N.00°24'40"E., 2371.59 feet along the West line of said Section 30, thence N.89°35'20"W., 386.52 feet to the POINT OF BEGINNING of Parcel "C"; thence N.63°34'15"W., 206.30 feet; thence N.36°53'58"E., 93.12 feet; thence N.48°54'20"W., 83.71 feet; thence N.05°48'40"W., 179.23 feet; thence N.26°58'49"W., 105.62 feet; thence N.45°04'32"W., 79.28 feet; thence N.02°16'02"W., 312.83 feet; thence N.07°07'28"E., 154.06 feet; thence N.00°00'11"W.,

L.N. 334
LBJ/jas
December 2, 1987
Page 1 of 2

189.25 feet; thence N.74°25'51"E., 101.54 feet; thence N.08°39'28"E., 146.08 feet; thence N.14°55'54"W., 287.73 feet; thence N.01°28'37"W., 549.65 feet; thence N.49°07'43"W., 70.31 feet; thence N.00°26'53"E., 19.31 feet; thence N.46°17'58"E., 126.63 feet; thence N.12°58'40"W., 131.23 feet; thence N.66°11'54"E., 156.15 feet; thence N.85°14'51"E., 125.90 feet; thence S.46°10'00"E., 65.29 feet; thence S.00°50'50"E., 94.95 feet; thence S.33°18'29"W., 38.10 feet; thence S.00°06'31"E., 449.98 feet; thence S.16°44'42"E., 106.13 feet; thence S.28°06'01"W., 92.73 feet; thence S.01°49'43"W., 180.17 feet; thence S.18°36'00"E., 53.45 feet; thence S.13°06'14"W., 59.81 feet; thence S.00°28'52"E., 201.70 feet; thence S.11°21'23"E., 68.35 feet; thence S.15°58'28"W., 83.50 feet; thence S.00°05'04"E., 159.41 feet; thence S.36°41'42"E., 36.80 feet; thence S.00°30'08"W., 60.48 feet; thence S.40°18'00"W., 32.23 feet; thence S.00°58'02"W., 188.80 feet; thence S.26°01'43"E., 64.53 feet; thence S.24°46'43"W., 50.10 feet; thence S.00°24'59"W., 227.15 feet; thence S.32°00'20"E., 54.18 feet; thence S.31°14'43"W., 59.28 feet; thence S.02°03'13"W., 224.50 feet to the POINT OF BEGINNING of Parcel "C".

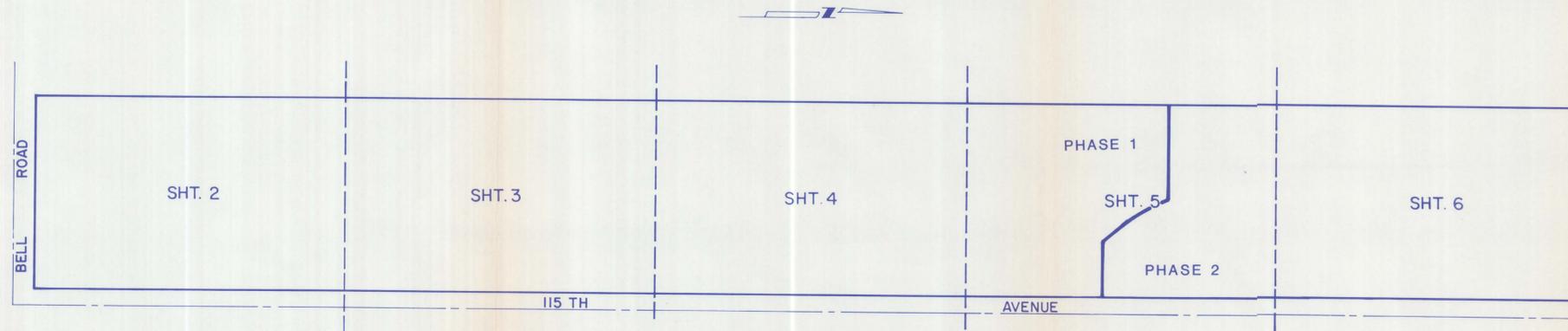
and EXCEPT the following Parcel "B-1";

Commencing at the Southeast corner of said Section 36, thence N.00°24'49"E., 5016.24 feet along the West line of Section 31, Township 4 North, Range 1 East, to the Southwest corner of Section 30, Township 4 North, Range 1 East; thence N.00°24'40"E., 2324.53 feet along the West line of said Section 30, thence N.89°35'20"W., 60.15 feet; thence N.89°19'58"W., 337.15 feet; thence N.53°23'51"W., 173.48 feet to the beginning of a tangent curve concave to the northeast and having a radius of 969.00 feet; thence northwesterly along said curve a distance of 360.48 feet through a central angle of 21°18'53"; thence West a distance of 195.63 feet to the POINT OF BEGINNING; thence N.31°56'06"W., 118.10 feet; thence N.14°13'27"W., 104.60 feet; thence N.06°23'03"W., 342.14 feet; thence N.40°32'13"W., 131.28 feet; thence N.89°18'52"W., 51.31 feet; thence S.04°13'10"W., 46.40 feet; thence S.49°38'36"W., 53.26 feet; thence S.00°35'45"W., 561.29 feet; thence East 312.68 feet to the POINT OF BEGINNING.

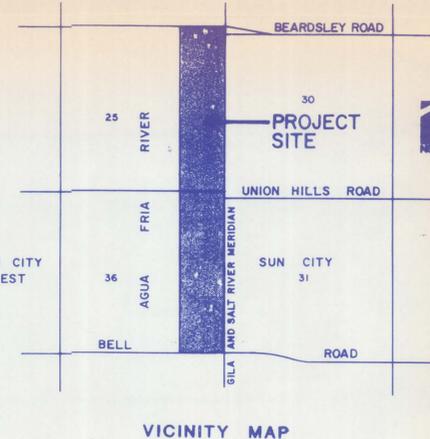
Containing an area of 46.12 acres (Parcels "C" and "B-1" excepted out) more or less.

L.N. 334
LBJ/jas
December 2, 1987
Page 2 of 2

BROOKVIEW COUNTRY CLUB



PARCEL "A"		PARCEL "B"		PARCEL "C"	
1	N.18°43'49"E. 114.38	34	S.86°04'13"W. 56.54	94	S.63°20'06"W. 274.38
2	N.00°08'35"E. 5587.02	35	N.49°31'15"W. 163.22	95	N.29°33'29"W. 109.15
3	N.42°38'13"W. 26.57	36	N.13°00'35"W. 36.94	96	N.08°53'59"W. 23.67
4	N.00°09'11"W. 76.78	37	N.27°21'48"E. 142.73	97	N.31°56'42"W. 172.06
5	N.55°44'04"E. 17.59	38	N.29°37'48"W. 101.60	98	N.57°50'43"W. 64.12
6	N.00°33'43"E. 975.34	39	N.70°22'13"W. 58.74	99	N.04°31'29"E. 129.70
7	N.27°13'14"E. 21.82	40	N.60°51'21"W. 166.83	100	N.00°23'41"E. 800.44
8	N.00°44'26"E. 438.30	41	N.46°22'45"W. 82.61	101	N.24°51'13"E. 100.65
9	N.35°02'45"W. 37.61	42	N.06°03'12"W. 168.63	102	N.00°19'22"E. 230.82
10	N.01°04'39"W. 65.35	43	N.31°02'24"E. 48.81	103	N.85°47'36"W. 249.31
11	N.35°51'02"E. 61.64	44	N.66°33'01"E. 103.54	104	N.68°50'12"W. 62.00
12	N.00°11'51"E. 61.20	45	N.33°23'55"E. 76.14	105	N.87°29'48"W. 162.24
13	N.89°45'58"W. 263.37	46	N.02°41'45"E. 247.55	106	N.00°17'10"W. 329.62
14	N.79°22'49"W. 179.07	47	N.04°17'32"E. 146.99	107	N.18°44'57"W. 22.67
15	S.68°03'33"W. 305.10	48	N.05°10'16"W. 133.45	108	N.00°35'45"E. 1630.38
16	S.55°22'33"W. 153.12	49	N.00°04'13"E. 308.58	109	N.49°38'36"E. 53.26
17	S.39°09'48"W. 159.93	50	N.18°03'10"W. 137.84	110	N.04°13'11"E. 46.40
18	S.26°21'02"W. 119.41	51	N.02°44'12"W. 253.80	111	S.89°18'52"E. 51.31
19	S.16°26'03"W. 144.92	52	N.07°55'48"E. 127.73	112	S.40°32'13"E. 131.28
20	S.00°55'22"W. 683.09	53	N.21°18'58"E. 102.06	113	S.06°23'03"E. 342.14
21	S.62°47'54"W. 201.26	54	N.00°09'26"W. 184.33	114	S.14°13'27"E. 104.60
22	S.18°19'29"W. 98.67	55	N.19°43'23"E. 185.93	115	S.31°56'06"E. 118.10
23	S.10°14'03"W. 95.11	56	N.03°32'25"E. 239.13	116	S.31°21'21"W. 240.18
24	S.00°40'00"W. 2450.69	57	N.32°53'46"E. 250.37	117	S.18°51'40"W. 303.91
25	S.00°04'37"W. 3692.80	58	N.04°08'06"E. 183.57	118	S.04°03'11"E. 946.80
26	S.04°05'59"W. 96.58	59	N.56°10'00"E. 52.51	119	N.89°03'14"E. 421.23
27	S.00°11'21"W. 1299.11	60	N.27°16'21"W. 114.90	120	N.01°03'17"W. 255.83
28	S.19°11'07"E. 62.11	61	N.64°59'27"E. 372.76	121	N.32°31'36"W. 46.27
29	S.80°35'10"E. 566.58	62	S.27°21'18"E. 203.56	122	N.14°53'49"E. 89.95
30	S.00°37'59"W. 44.27	63	S.07°39'47"W. 147.38	123	N.13°55'50"W. 244.92
31	S.88°57'20"E. 93.48	64	S.08°29'24"E. 185.34	124	N.51°03'57"E. 71.68
32	N.00°06'57"E. 43.07	65	S.16°09'02"W. 100.64	125	N.02°22'49"E. 204.22
33	S.89°55'37"E. 538.69	66	S.03°53'59"E. 192.73	126	N.25°08'04"W. 125.82
194	N.00°44'26"E. 2563.84	67	S.59°27'51"W. 43.18	127	N.38°39'30"E. 227.21
195	S.00°40'00"E. 901.18	68	S.00°03'38"W. 165.26	128	S.77°24'42"E. 134.07
197	N.00°00'00"E. 17.20	69	S.26°01'02"W. 262.41	129	S.44°58'14"E. 122.30
		70	S.66°31'06"W. 151.43	130	S.12°37'47"W. 102.13
		71	S.04°07'46"W. 99.30	131	S.34°15'46"E. 197.95
		72	S.35°09'39"E. 101.12	132	S.43°11'51"W. 119.95
		73	S.02°15'03"W. 45.02	133	S.03°11'03"E. 91.99
		74	S.46°36'44"W. 60.25	134	S.44°58'36"W. 113.91
		75	S.00°18'34"W. 189.11	135	S.00°43'16"E. 206.72
		76	S.44°03'53"E. 58.31	136	S.39°20'06"W. 62.87
		77	S.65°37'05"E. 209.79	137	S.01°07'13"W. 125.72
		78	S.26°38'22"E. 39.93	138	S.35°57'02"E. 58.49
		79	S.24°29'50"W. 82.05	139	S.09°01'02"W. 89.90
		80	S.04°07'24"W. 118.89	140	S.56°13'13"W. 96.69
		81	S.33°40'36"E. 85.90	141	S.08°16'11"W. 258.42
		82	S.00°02'15"W. 58.15	142	S.42°06'17"E. 139.55
		83	S.30°16'20"W. 86.99	143	S.10°24'53"E. 432.47
		84	S.00°31'49"W. 243.03	144	S.28°44'28"E. 161.06
		85	S.23°25'51"W. 160.07	145	S.13°56'58"W. 188.51
		86	S.03°35'25"E. 352.23	146	S.01°49'55"E. 132.39
		87	S.42°34'30"E. 127.72	147	S.15°23'03"E. 79.46
		88	S.33°45'37"W. 172.45	148	S.34°21'42"E. 90.84
		89	S.83°24'20"W. 74.41	149	S.07°37'35"E. 48.39
		90	S.59°36'52"W. 115.34	150	S.37°24'22"W. 140.93
		91	S.36°34'56"W. 61.29	151	S.09°58'21"W. 235.03
		92	S.11°21'23"E. 173.92	156	N.00°35'45"E. 561.29
		93	S.25°55'51"W. 93.56	198	S.31°56'06"E. 111.13



LEGEND
 EL. 1164 BASE FLOOD ELEV. FOR 100 YR. STORM EVENT
 (12) COURSE NUMBER
 F.F. FINISHED FLOOR ELEVATION

David Johnson
 6-19-87

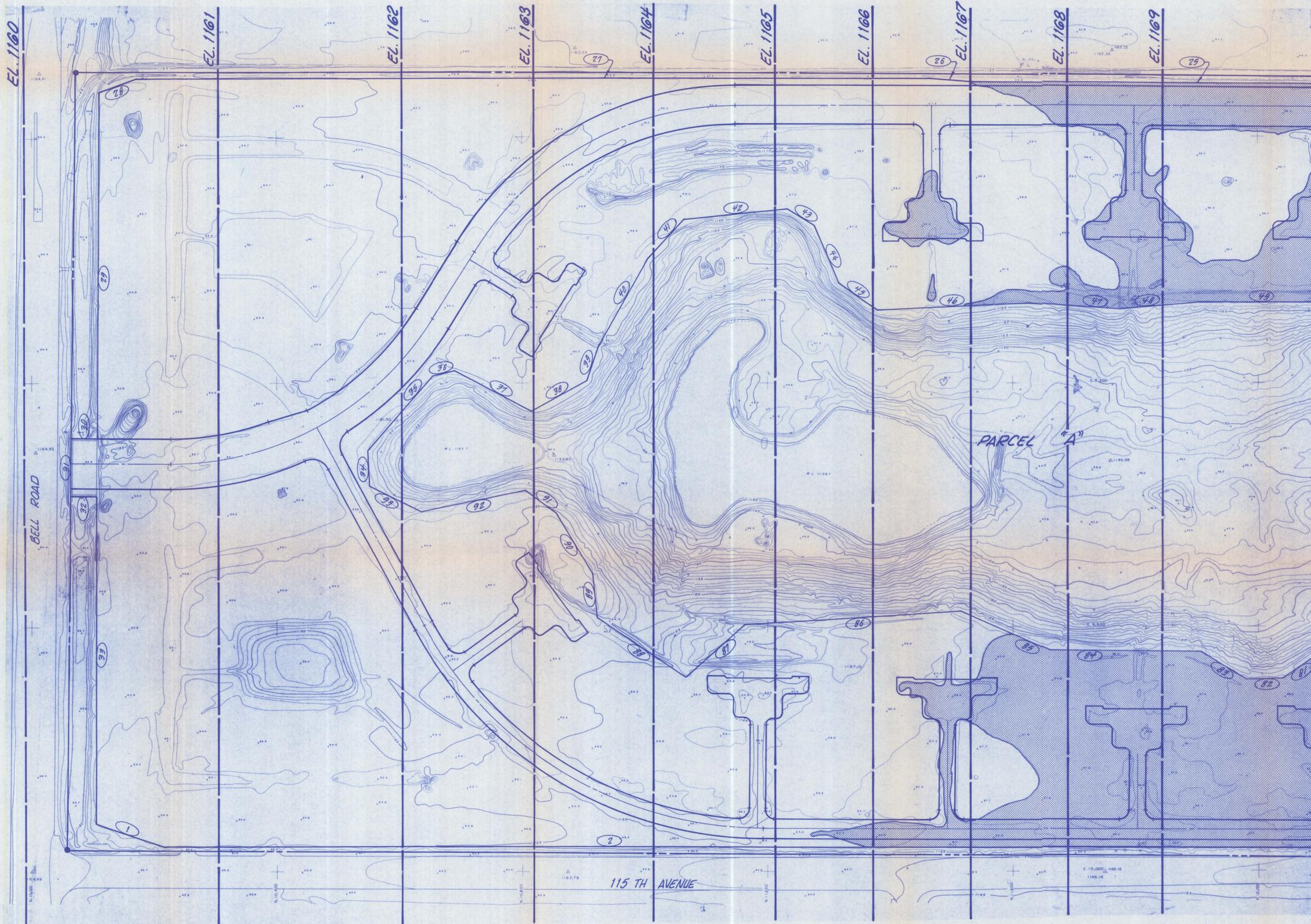
BROOKVIEW COUNTRY CLUB
 Anderson-Nelson, Inc.
 CIVIL ENGINEERING, LAND PLANNING, CONSULTANTS
 PHOENIX, ARIZONA 273-1850

FILL AREAS

DRAWN BY	NO.	DATE	BY	REVISIONS & REMARKS	SHT.
None	1	6/19/87			1
None	2				6

APPROVED _____

BENCHMARK:
 RV87: MONO METAL RIVET, S.E. OF BRIDGE ON S.E. HEADWALL OF RAILROAD CROSSING, AGUA FRIA RIVER. U.S.G.S. QUAD #33121.
 ELEV. 1138.469



LEGEND

- FILL AREA —
- BASE FLOOD ELEVATION (PRORATED) — EL. 1169
- SCALE $1" = 80'$

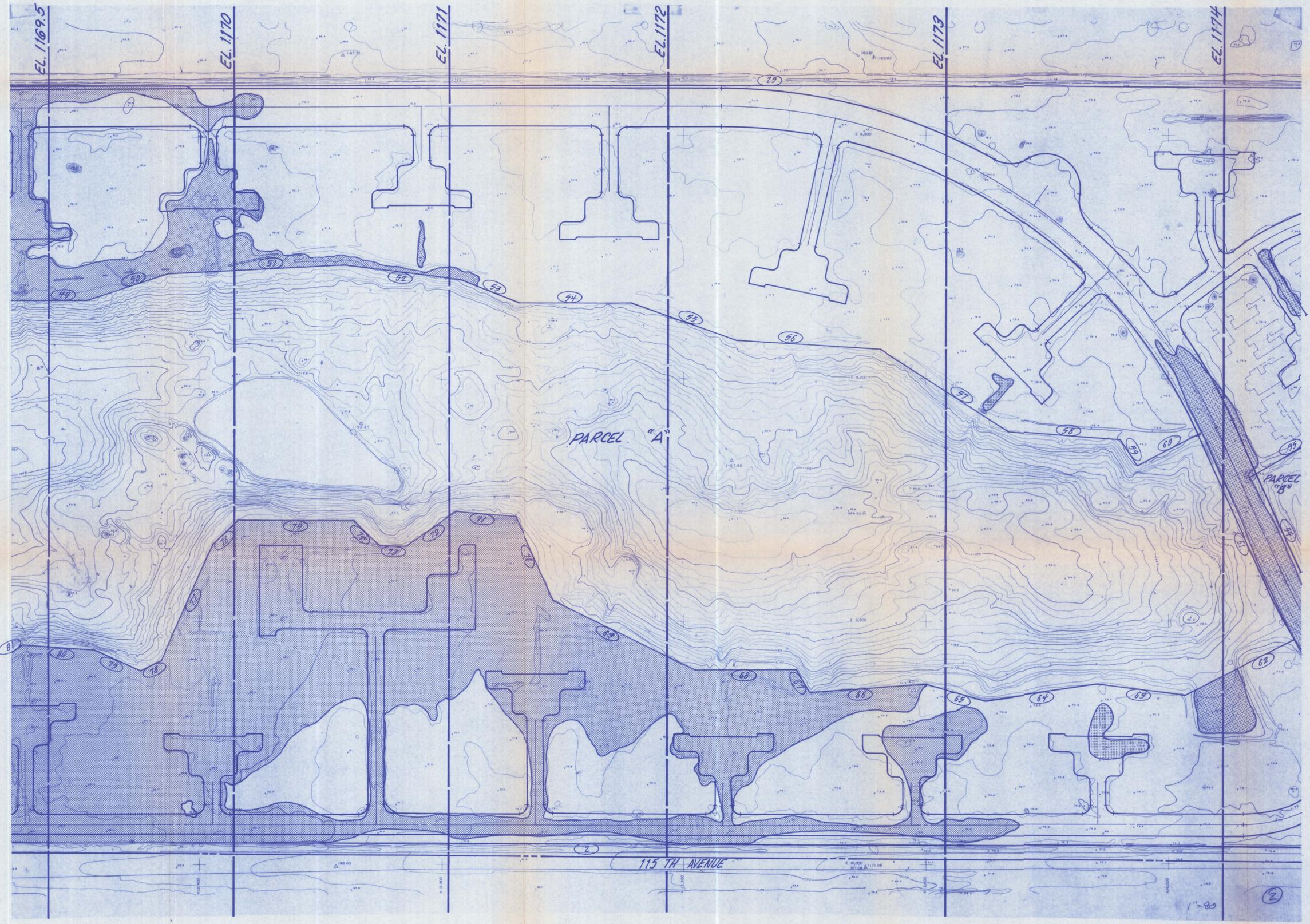
BROOKVIEW COUNTRY CLUB

Anderson-Nelson, Inc.
 CIVIL ENGINEERING, LAND PLANNING, CONSULTANTS
 PHOENIX, ARIZONA 273-1850

FILL AREAS

NO.	DATE	BY	REVISIONS & REMARKS	SHT.
1	11/27/87			2
2	9/10/87			6

DRAWN BY
 SCALE $1/8" = 1'$
 DATE 9/10/87
 APPROVED



LEGEND

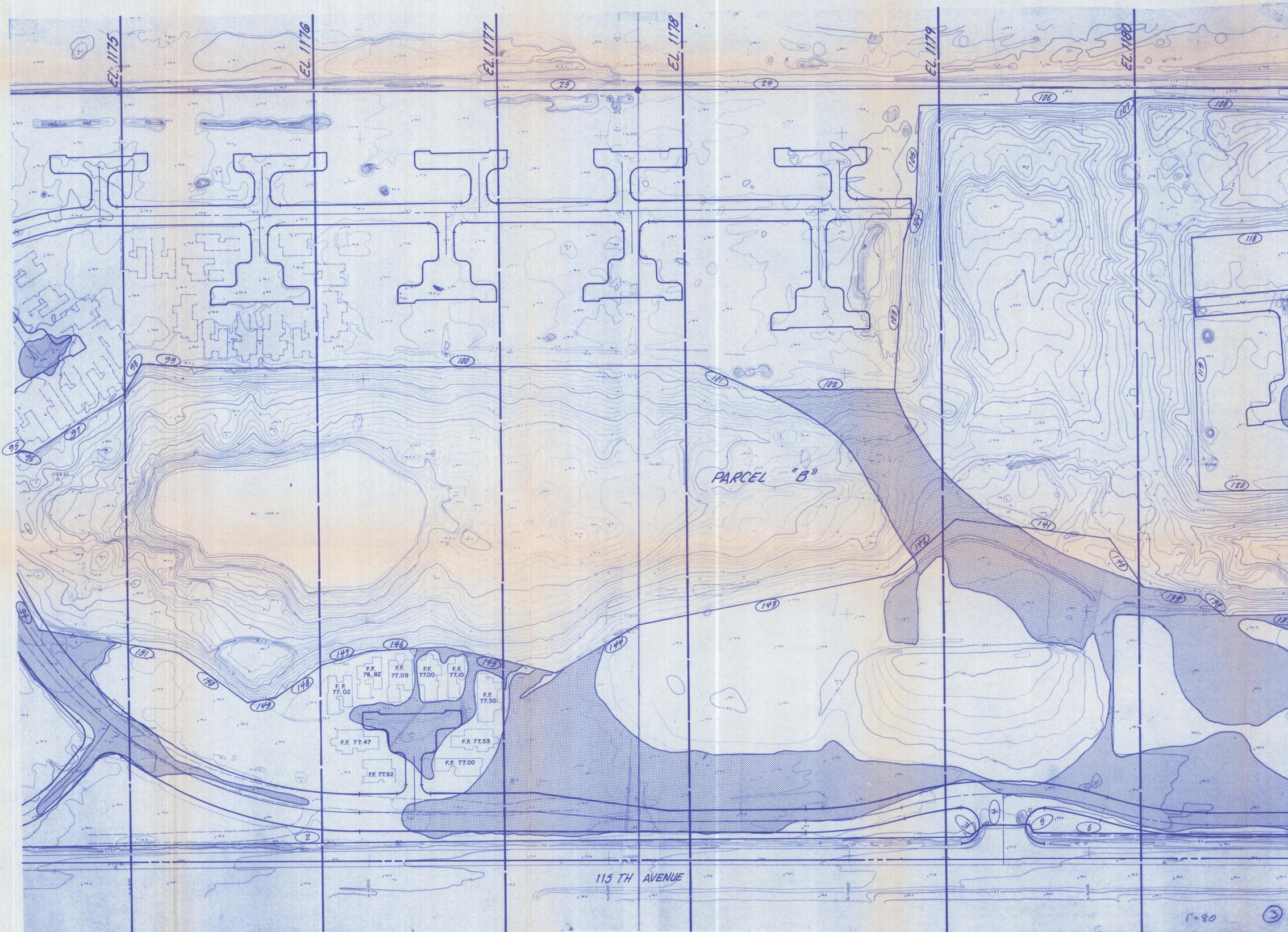
- FILL AREA —
- BASE FLOOD ELEVATION (PRORATED) — EL. 1172
- SCALE 1" = 80'

BROOKVIEW COUNTRY CLUB

Anderson-Nelson, Inc.
 CIVIL ENGINEERING, LAND PLANNING, CONSULTANTS
 PHOENIX, ARIZONA 273-1850

DRAWN BY		DATE		BY		REVISIONS & REMARKS		SHT.	
1								3	OF 6
2									

PC. 4030



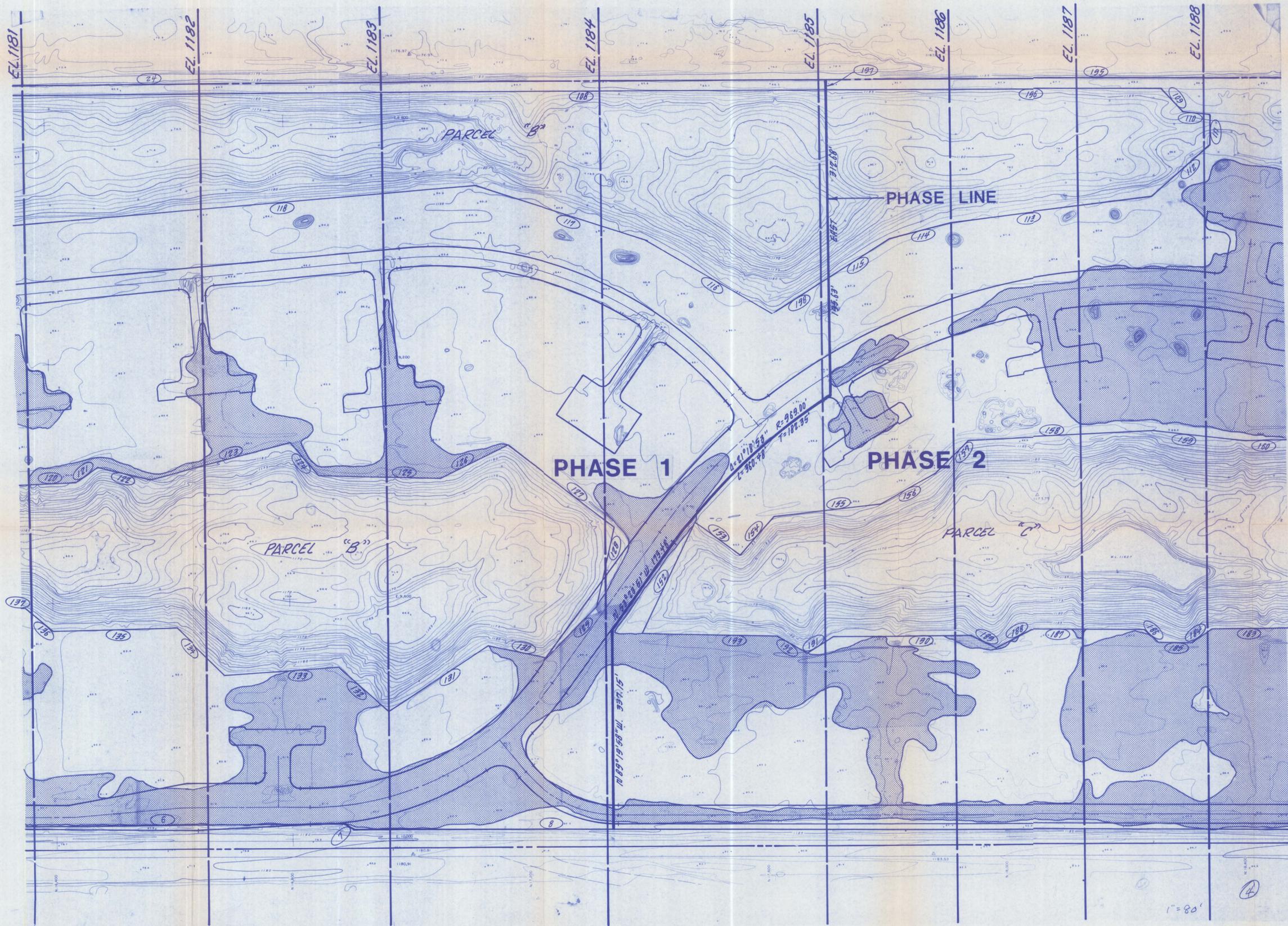
LEGEND

FILL AREA — 

BASE FLOOD ELEVATION (PRORATED) — EL. 1179

SCALE 1" = 80'

BROOKVIEW COUNTRY CLUB				
Anderson-Nelson, Inc. CIVIL ENGINEERING, LAND PLANNING, CONSULTANTS PHOENIX, ARIZONA 273-1850				
FILL AREAS				
DRAWN BY	NO.	DATE	BY	REVISIONS & REMARKS
SCALE	1	1/7/88	AN	Revised fill areas
DATE	2	9/10/88		
APPROVED				
				SHT. 4 OF 6

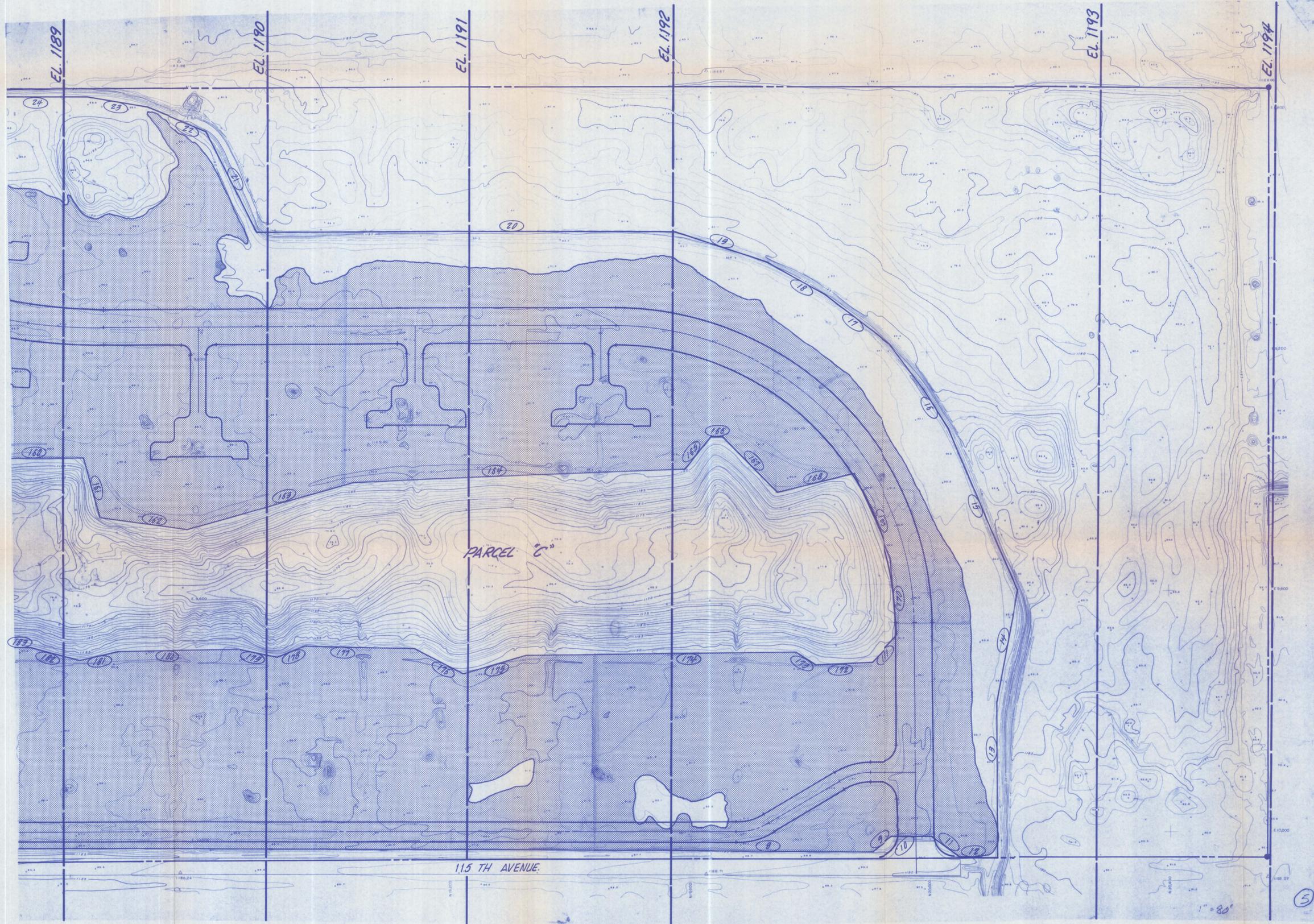


LEGEND

- FILL AREA
- BASE FLOOD ELEVATION (PRORATED) EL. 1185
- SCALE $1" = 80'$

BROOKVIEW COUNTRY CLUB				
Anderson-Nelson, Inc. CIVIL ENGINEERING, LAND PLANNING, CONSULTANTS PHOENIX, ARIZONA 273-1850				
FILL AREAS				
DRAWN BY	NO.	DATE	BY	REVISIONS & REMARKS
SCALE	1			
DATE	2			
APPROVED				

PC. 4030



LEGEND

FILL AREA — 

BASE FLOOD ELEVATION (PRORATED) —  EL. 1192

SCALE 1" = 80'

BROOKVIEW COUNTRY CLUB

Anderson-Nelson, Inc.
 CIVIL ENGINEERING, LAND PLANNING, CONSULTANTS
 PHOENIX, ARIZONA 273-1850

FILL AREAS				SHT. 6 OF 6
NO.	DATE	BY	REVISIONS & REMARKS	
1				
2				

DRAWN BY  NO. DATE BY REVISIONS & REMARKS SHT. 6 OF 6

SCALE 1" = 80'

DATE 9-11-77

APPROVED 

SECTION 5

Anderson- Nelson, Inc.

4441 East McDowell Road
Phoenix, Arizona 85008
(602) 273-1850

Don N. Anderson, P.E., L.S.
George W. Nelson, L.S.

December 7, 1987

Federal Emergency Management Agency
Natural & Technology Hazards Division
Building 105
Presidio of San Francisco, California 94129

RE: Brookview Country Club
Surprise, Arizona

Gentlemen:

We hereby certify that the plat of the metes and bounds of the project as shown on the composite FIRM Map is true and correct to the best of my knowledge.

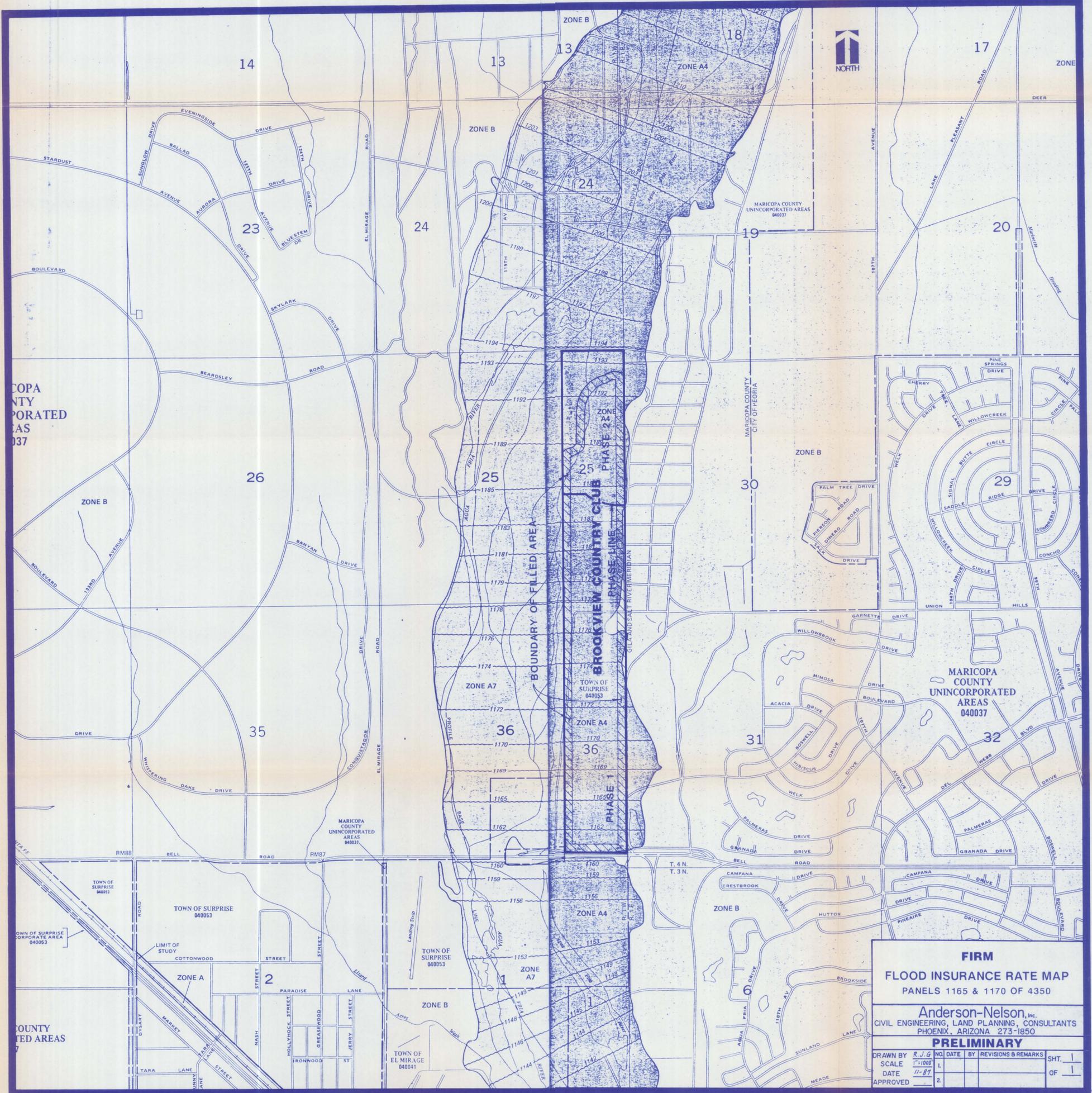
Sincerely,

ANDERSON-NELSON, INC.

Don N. Anderson
Don N. Anderson, P.E.

DNA:jcs





FIRM
FLOOD INSURANCE RATE MAP
 PANELS 1165 & 1170 OF 4350

Anderson-Nelson, Inc.
 CIVIL ENGINEERING, LAND PLANNING, CONSULTANTS
 PHOENIX, ARIZONA 273-1850

PRELIMINARY

DRAWN BY	R.J.G.	NO. DATE	BY REVISIONS & REMARKS	SHT.	1
SCALE	1"=1000'	1.		OF	1
DATE	11-87	2.			
APPROVED					

SECTION 6

Anderson- Nelson, Inc.

4441 East McDowell Road
Phoenix, Arizona 85008
(602) 273-1850

Don N. Anderson, P.E., L.S.
George W. Nelson, L.S.

COMMENT ON ATTACHED FILL DENSITY TESTS

The attached density tests reports were carried out during July of 1984, or three years ago. The reports outline 212 tests, of which 31 initially were between 91% and 95%. We think it is a reasonable assumption that all of the 31 have now achieved 95% due to natural consolidation.

Construction Inspection & Testing Co.

3151 NORTH BLACK CANYON FREEWAY
PHOENIX, ARIZONA 85015
PHONE 264-5938

FIELD DENSITY TEST RESULTS

Client MARKHAM CONTRACTING Lab. No. _____
 Address _____ Job. No. _____
 Project BROOKVIEW Location: _____
 Architect/Engineer _____ Contractor M.M. SUNDT
 Requested by _____ Sampled by: RS
 Material SOIL-NATIVE Source: _____

Date of Test	Location of Test Hole			% Moisture	Dry Density (lb cu ft)	% Compaction
7/6/84	LOT#	9	3.5' BEL.FG	6.9	116.6	90.0
		2	3.5'	8.3	115.7	91.5
		3	3.5'	7.3	117.0	90.3
		7	3.5'	6.5	117.3	90.7
7/9/84		82	3.5'	7.5	115.3	91.1
		90	3.5'	7.1	115.4	90.8
		89	3.5'	8.0	118.0	93.1
		84	3.5'	7.6	114.5	90.5
7/10/84		10	2.5'	9.0	119.0	91.9
		3	2.5'	7.9	121.0	93.4
		8	2.5'	7.6	119.5	92.3
		1	2.5'	6.1	123.8	95.7
		9	1.5'	7.3	124.3	96.0
		4	1.5'	7.7	120.2	95.7
		2	1.5'	8.6	114.5	95.7
7/11/84		82	2.5'	5.6	109.9	92.0
		90	2.5'	6.5	113.6	95.3
		92	2.5'	5.5	117.9	93.2
		84	2.5'	5.3	109.9	92.2
		85	1.5'	5.2	113.6	92.3

RECEIVED
 Markham Contracting Co.
 92.0
 95.3

AUG 17 1984

Construction Inspection & Testing Co.

3151 NORTH BLACK CANYON FREEWAY
 PHOENIX, ARIZONA 85015
 PHONE: 264-5938

FIELD DENSITY TEST RESULTS

Client MARKHAM CONTRACTING Lab. No. _____
 Address _____ Job. No. _____
 Project BROOKVIEW Location: _____
 Architect/Engineer _____ Contractor _____
 Requested by _____ Sampled by: _____
 Material _____ Source: _____

Date of Test	Location of Test Hole	% Moisture	Dry Density (lb cu ft)	% Compaction
7/11/84	LJT# 89 1.5' BEL.FG	5.7	123.2	95.1
	90 1.5' '	5.5	118.2	99.2
	84 1.5' '	8.2	114.9	96.4
	95 4' '	6.4	117.2	92.6
	135 4' '	6.8	117.3	92.7
	133 4' '	5.6	110.0	92.3
	128 4' '	7.4	115.3	96.7
	101 4' '	7.1	113.6	95.3
	115 3' '	8.2	115.2	96.6
	132 3' '	7.9	113.1	94.9
	137 3' '	8.9	117.2	98.3
	96 3' '	8.6	116.3	97.6
	141 3' '	7.1	117.1	98.2
	142 2' '	8.9	117.8	98.8
	136 2' '	7.2	116.2	95.9
	99 2' '	6.9	117.2	96.7
	140 2' '	7.2	118.4	97.7
	130 2' '	6.8	118.2	97.5
2/84	143 1' '	7.3	124.6	96.2
	136 1' '	6.7	116.3	97.6

Construction Inspection & Testing Co.

3151 NORTH BLACK CANYON FREEWAY
 PHOENIX ARIZONA 85015
 PHONE: 264-5938

FIELD DENSITY TEST RESULTS

Client: MARKHAM CONTRACTING Lab. No. _____

Address: _____ Job. No. _____

Project: BROOKVIEW Location: _____

Architect/Engineer: _____ Contractor: _____

Requested by: _____ Sampled by: _____

Material: _____ Source: _____

Date of Test	Location of Test Hole		% Moisture	Dry Density (lb cu ft)	% Compaction	
12/12/84	LOT# 98	1'	BEL.FG	9.8	123.6	95.4
	128	1'	'	7.8	117.9	96.4
	12	3.5'	'	7.1	118.5	91.5
	48	3.5'	'	7.4	126.1	96.8
	26	4'	'	6.6	124.5	94.7
	32	4'	'	5.6	122.7	94.7
	15	4'	'	5.9	114.5	90.5
	40	4'	'	6.3	123.3	95.2
	36	4'	'	6.3	127.5	98.5
	46	2.5'	'	7.4	118.0	91.1
	25	2.5'	'	8.7	117.7	90.9
	13	2.5'	'	6.8	124.1	95.8
	36	2'	'	6.0	117.1	96.6
	20	2'	'	7.6	126.9	98.0
	16	3'	'	6.6	116.3	96.0
	41	3'	'	7.2	118.5	91.5
	35	3'	'	6.7	116.5	90.0
	29	3'	'	5.6	120.2	99.2
	45	1.5'	'	6.1	116.0	95.7
	31	1.5'	'	7.9	122.9	97.2

Construction Inspection & Testing Co.

3151 NORTH BLACK CANYON FREEWAY
 PHOENIX, ARIZONA 85015
 PHONE: 264-5938

FIELD DENSITY TEST RESULTS

Client MARKHAM CONTRACTING Lab. No. _____

Address _____ Job. No. _____

Project BROOKVIEW Location: _____

Architect/Engineer _____ Contractor _____

Requested by _____ Sampled by: _____

Material _____ Source: _____

Date of Test	Location of Test Hole		% Moisture	Dry Density (lb. cu. ft.)	% Compaction	
7/12/84	LOT # 28	2'	BEL. FG	6.1	126.4	97.6
7/13/84	123	3'	'	4.3	121.5	93.8
	114	3'	'	4.4	121.5	93.8
	102	3'	'	5.6	110.7	91.3
	111	3'	'	7.2	113.4	93.6
	116	2'	'	7.9	115.4	95.2
	104	2'	'	4.7	122.8	97.1
	119	2'	'	7.8	118.6	97.9
	40	1'	'	4.5	120.0	99.0
	33	1'	'	5.3	120.2	99.2
	29	1'	'	4.9	117.7	97.1
	17	1'	'	6.6	115.2	95.0
	121	4'	'	6.8	113.6	93.7
	113	4'	'	7.8	114.3	94.3
	105	4'	'	7.1	114.2	94.2
7/16/84	82	FIN. GRADE		7.8	115.3	95.1
	89	'		6.1	118.3	97.6
	93	'		6.4	118.1	97.4
	134	'		6.8	122.6	96.9
	131	'		8.2	116.7	96.3

Construction Inspection & Testing Co.

3151 NORTH BLACK CANYON FREEWAY
PHOENIX, ARIZONA 85015
PHONE: 264-5938

FIELD DENSITY TEST RESULTS

Client MARKHAM CONTRACTING Lab. No. _____
Address _____ Job. No. _____
Project BROOKVIEW Location _____
Architect/Engineer _____ Contractor _____
Requested by _____ Sampled by: _____
Material _____ Source: _____

Date of Test	Location of Test Hole		% Moisture	Dry Density (lb cu ft)	% Compaction
7/16/84	LOT # 138	FIN. GRADE	12.6	116.6	95.6
	97	'	8.3	117.1	96.6
	126	'	5.3	121.1	95.7
	130	'	5.2	122.8	97.1
	1	'	4.3	122.4	96.8
	7	'	4.5	119.1	98.3
	12	'	5.5	127.0	98.1
	31	'	4.3	124.1	95.8
	27	'	4.4	122.8	95.0
	32	'	7.1	119.5	98.6
	44	'	5.9	123.5	95.4
	15	'	6.2	123.4	97.5
	17	'	5.1	126.8	97.9
	34	'	5.4	119.1	98.3
	29	'	8.5	126.9	98.0
	36	'	6.4	122.8	97.1
	21	4' BEL. FG	6.6	117.0	90.3
	63	4' '	6.2	118.4	91.4
	54	4' '	5.6	123.7	95.5
	57	3' '	4.5	128.1	98.9

Construction Inspection & Testing Co.

3151 NORTH BLACK CANYON FREEWAY
 PHOENIX ARIZONA 85015
 PHONE: 264-5938

FIELD DENSITY TEST RESULTS

Lab. No. _____

Client MARKHAM CONTRACTING

Job. No. _____

Address _____

Project BROOKVIEW

Location: _____

Architect/Engineer _____

Contractor _____

Requested by _____

Sampled by _____

Material _____

Source _____

Date of Test	Location of Test Hole			% Moisture	Dry Density (lb/cu ft)	% Compaction
7/18/84	LOT # 60	3'	BEL. FG	5.4	125.5	96.9
	24	3'	'	4.8	127.9	98.8
	72	3'	'	5.9	128.5	99.2
	77	2'	'	6.4	126.9	98.0
	81	2'	'	6.3	126.0	97.3
	58	2'	'	6.0	125.8	97.1
7/19/84	62	1'	'	5.1	127.6	98.5
	24	1'	'	7.8	127.6	98.5
	72	1'	'	6.0	124.4	96.1
	67	1'	'	6.2	125.7	97.1
	56	FIN. GRADE		5.3	124.6	96.2
	60	'		6.5	121.1	95.7
	23	'		5.2	123.3	95.2
	71	'		6.5	127.6	98.5
	75	'		6.8	126.0	98.1
	80	'		3.7	132.2	99.4
7/23/84	103	3'	BEL. FG	12.0	118.8	93.9
	114	3'	'	4.8	128.7	96.8
	121	3'	'	9.0	118.0	97.4
	112	4'	'	4.2	124.9	96.5

Construction Inspection & Testing Co.

3151 NORTH BLACK CANYON FREEWAY
PHOENIX, ARIZONA 85015
PHONE: 264-5938

FIELD DENSITY TEST RESULTS

Lab. No. _____

Client MARKHAM CONTRACTING

Job No. _____

Address _____

Project BROOKVIEW

Location: _____

Architect/Engineer _____

Contractor _____

Requested by _____

Sampled by: _____

Material _____

Source: _____

Date of Test	Location of Test Hole			% Moisture	Dry Density (lb cu ft)	% Compaction
7/23/84	LOT #109	4'	BEL. FG	5.5	127.0	98.1
	116	4'	'	4.8	122.4	94.5
	120	2'	'	5.1	127.0	96.6
	104	2'	'	4.7	127.9	98.8
	105	3'	'	4.9	123.6	95.4
	110	3'	'	8.6	121.7	94.0
	106	3'	'	5.9	123.5	95.4
	103	1'	'	5.7	124.9	96.4
	115	1'	'	7.4	122.1	96.5
	109	2'	'	6.2	123.7	95.5
	106	1'	'	5.2	129.5	98.9
	111	1'	'	4.9	127.6	97.6
7/24/84	102	FIN. GRADE		4.8	128.4	97.6
	121	'	'	6.3	120.0	95.0
	117	'	'	5.0	128.3	97.6
	113	'	'	5.0	128.7	97.9
	105	'	'	5.2	131.2	99.8
	109	'	'	8.5	118.6	97.9
	144	4'	BEL. FG	7.3	119.9	95.2
	149	4'	'	4.6	126.4	96.1

Instruction Inspection & Testing Co.

3151 NORTH BLACK CANYON FREEWAY
 PHOENIX, ARIZONA 85015
 PHONE: 264-5938

FIELD DENSITY TEST RESULTS

Client: MARKHAM CONTRACTING Lab. No. _____

Address: _____ Job. No. _____

Project: BROOKVIEW Location: _____

Architect/Engineer: _____ Contractor: _____

Requested by: _____ Sampled by: _____

Material: _____ Source: _____

Date of Test	Location of Test Hole		% Moisture	Dry Density (lb cu ft)	% Compaction	
7/24/84	LOT#156	4'	BEL.FG	5.2	123.2	95.1
7/24/84	150	4'	'	5.9	124.5	94.7
	153	4'	'	4.3	128.9	98.0
	157	4'	'	6.5	124.0	94.3
	162	4'	'	6.6	128.7	97.9
7/26/84	164	4'	'	4.1	127.8	97.2
	170	4'	'	4.5	128.9	98.0
	167	4'	'	3.6	121.1	95.7
	173	5'	'	5.2	121.9	96.4
	177	5'	'	6.0	122.4	96.8
	149	3'	'	6.0	123.3	97.5
	145	3'	'	5.6	124.5	98.4
	156	3'	'	6.3	122.3	94.4
	152	3'	'	4.1	124.6	96.2
	163	3'	'	6.5	125.1	96.6
	159	3'	'	6.3	126.8	97.9
	164	4'	'	6.6	123.8	95.6
	170	4'	'	9.5	127.6	97.0
	167	4'	'	4.8	125.2	96.7
	173	4'	'	5.7	123.4	95.3

Construction Inspection & Testing Co.

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 PHOENIX, ARIZONA 85015
 PHONE: 264-5938

FIELD DENSITY TEST RESULTS

Lab. No. _____

Client: MARKHAM CONTRACTING

Job. No. _____

Address _____

Project: BROOKVIEW Location: _____

Architect/Engineer _____ Contractor _____

Requested by: _____ Sampled by: _____

Material _____ Source: _____

Date of Test	Location of Test Hole		% Moisture	Dry Density (lb cu ft)	% Compaction		
7/26/84	LOT#178	4'	BEL. FG	5.9	127.7	98.6	
		145	1'	'	6.1	126.4	97.6
		150	1'	'	7.4	124.6	96.2
		156	1'	'	5.6	122.3	96.7
7/27/84		160	2'	'	6.3	121.8	96.3
		165	2'	'	4.5	124.6	96.2
		171	3'	'	6.5	119.2	94.2
		167	3'	'	6.7	123.1	95.1
		173	3'	'	7.2	125.0	96.5
		177	3'	'	5.1	127.0	98.1
		166	2'	'	6.0	123.2	95.1
		172	2'	'	5.9	124.7	96.3
		178	1'	'	4.8	123.2	95.1
		173	1'	'	5.6	123.8	95.6
		148	FIN. GRADE		6.4	125.6	97.0
		145	'	'	5.3	127.3	98.3
		151	'	'	4.3	128.3	97.6
		153	'	'	6.7	120.6	98.3
	158	'	'	7.1	122.3	99.7	
	165	'	'	6.5	126.2	97.5	

Construction Inspection & Testing Co.

3151 NORTH BLACK CANYON FREEWAY
PHOENIX ARIZONA 85015
PHONE: 264-5938

FIELD DENSITY TEST RESULTS

Client: MARKHAM CONTRACTING Lab. No. _____
Address: _____ Job. No. _____
Project: BROOKVIEW Location: _____
Architect/Engineer: _____ Contractor: _____
Requested by: _____ Sampled by: _____
Material: _____ Source: _____

Date of Test	Location of Test Hole		% Moisture	Dry Density (lb./cu. ft.)	% Compaction
7/27/84	LOT #170	FIN. GRADE	4.8	127.2	98.2
	176	'	5.3	123.9	95.7
	172	'	5.9	123.9	95.7
	177	'	5.3	123.3	95.2
	144	3' BEL. FG	5.2	124.7	95.8
	153	3' '	5.7	130.3	99.1
	160	3' '	5.9	126.6	97.8
	166	3' '	6.1	126.6	97.8
	173	3' '	7.1	123.6	95.4
	179	3' '	8.3	124.7	96.3
7/30/84	187	3' '	4.9	126.4	97.6
	150	2' '	6.5	123.7	95.5
	146	2' '	5.1	121.7	96.2
	154	2' '	4.9	127.9	97.3
	165	2' '	6.3	123.7	95.1
	162	2' '	6.2	125.5	95.4
	179	2' '	6.4	126.6	97.3
	176	2' '	7.8	123.3	95.2
	183	2' '	5.2	125.1	96.6
	187	2' '	3.8	129.6	98.6

Construction Inspection & Testing Co.

3151 NORTH BLACK CANYON FREEWAY
PHOENIX ARIZONA 85015
PHONE: 264-5938

FIELD DENSITY TEST RESULTS

Client: MARKHAM CONTRACTING Lab. No. _____
Address: _____ Job. No. _____
Project: BROOKVIEW Location: _____
Architect/Engineer: _____ Contractor: _____
Requested by: _____ Sampled by: _____
Material: _____ Source: _____

Date of Test	Location of Test Hole		% Moisture	Dry Density (lb. cu. ft.)	% Compaction
7/30/84	LOT#159	1' BEL. FG	6.7	123.2	95.2
	167	1' '	5.8	128.2	97.5
	173	1' '	5.3	120.2	95.0
	180	1' '	5.9	127.8	97.2
	186	1' '	8.2	128.2	97.9
	146	FIN. GRADE	7.8	127.5	97.0
	154	'	5.6	129.7	98.6
	158	'	6.3	124.3	95.5
	166	'	7.1	121.3	95.9
	173	'	6.1	127.5	98.0
	180	'	4.9	124.4	95.6
	188	'	5.9	125.8	96.7



SALEM M. PROUTY, P.E.

COPIES TO: CLIENT (3)

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PHOENIX, ARIZONA 85015
PHONE: 264-5938

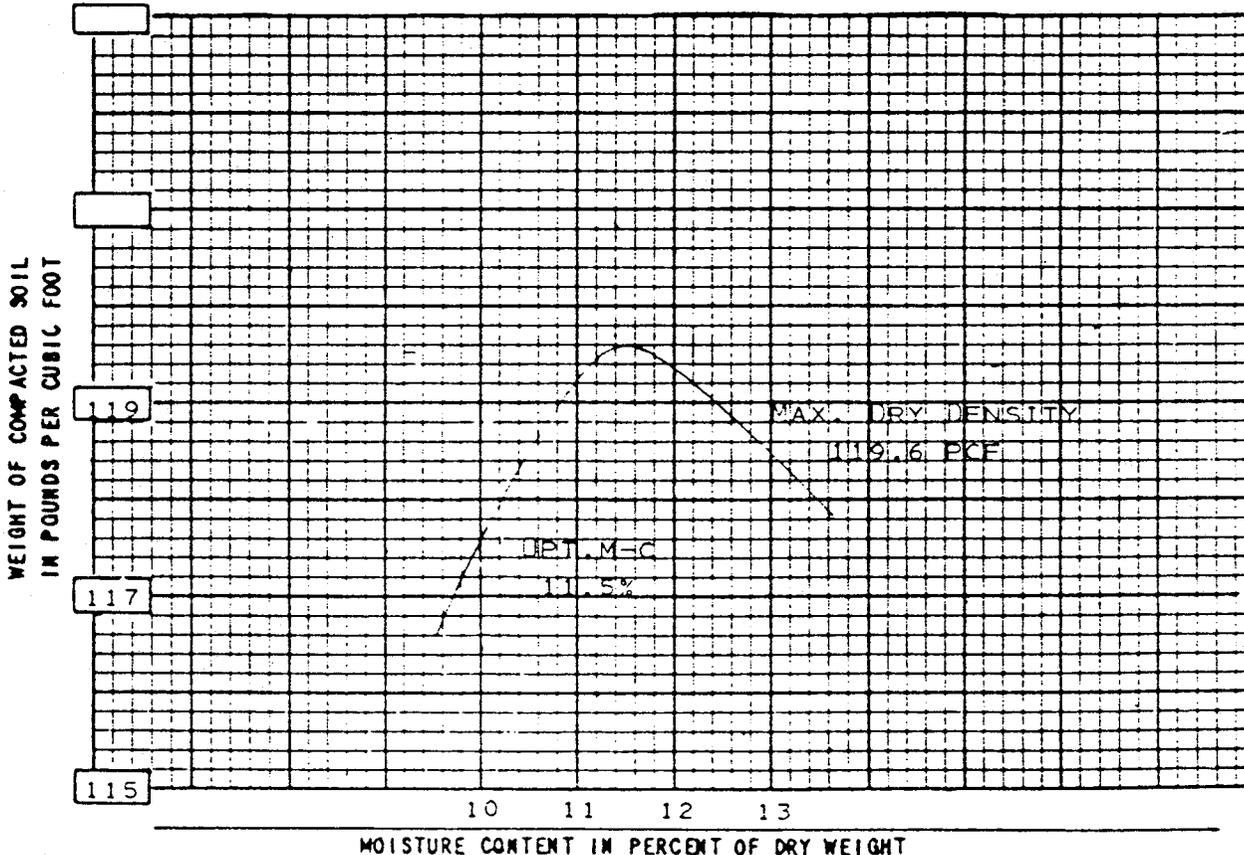
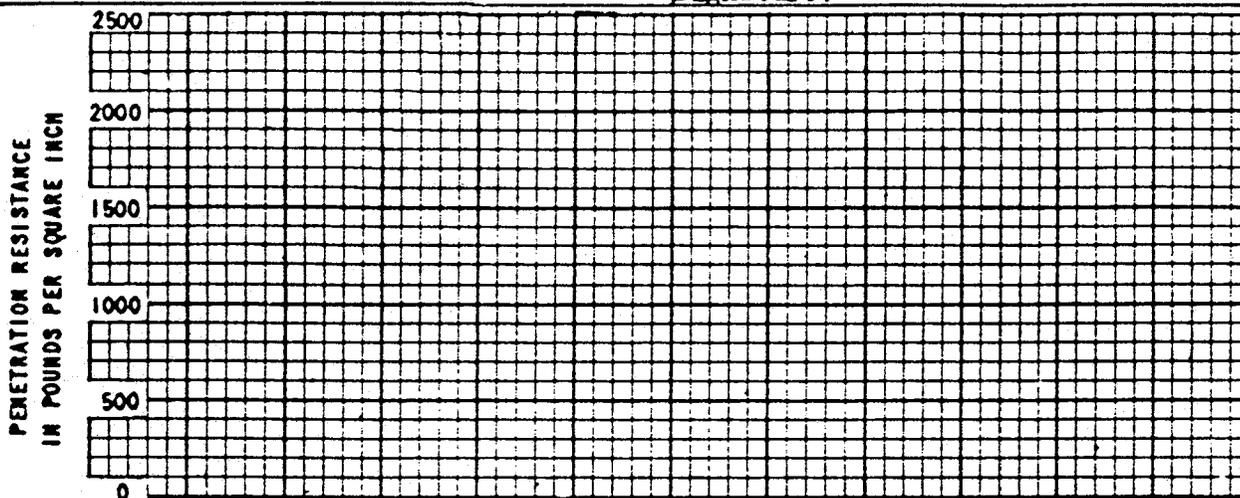
COMPACTION AND PENETRATION RESISTANCE REPORT

Date 7/3/84 Sample No.: Field _____ Lab _____

Project BROOKVIEW Location _____

Sample Location and Depth LOT#2

Signature: _____



TYPE OF TEST	TEST PROCEDURE	Classification
<input type="checkbox"/> Standard Proctor	Weight of Hammer _____ Lbs.	_____ % Material Compacted
<input type="checkbox"/> Modified AASHO	Drop _____ Inches	Passed _____ Sieve
<input type="checkbox"/> Other _____	Lifts _____	(Sp. Gr.) Gs - _____ gr/cc
	Vol. of Cylinder _____ Cu.Ft.	Curve _____ of _____

Construction Inspection & Testing Co.

3151 NORTH BLACK CANYON FREEWAY
PHOENIX, ARIZONA 85015
PHONE: 264-5938

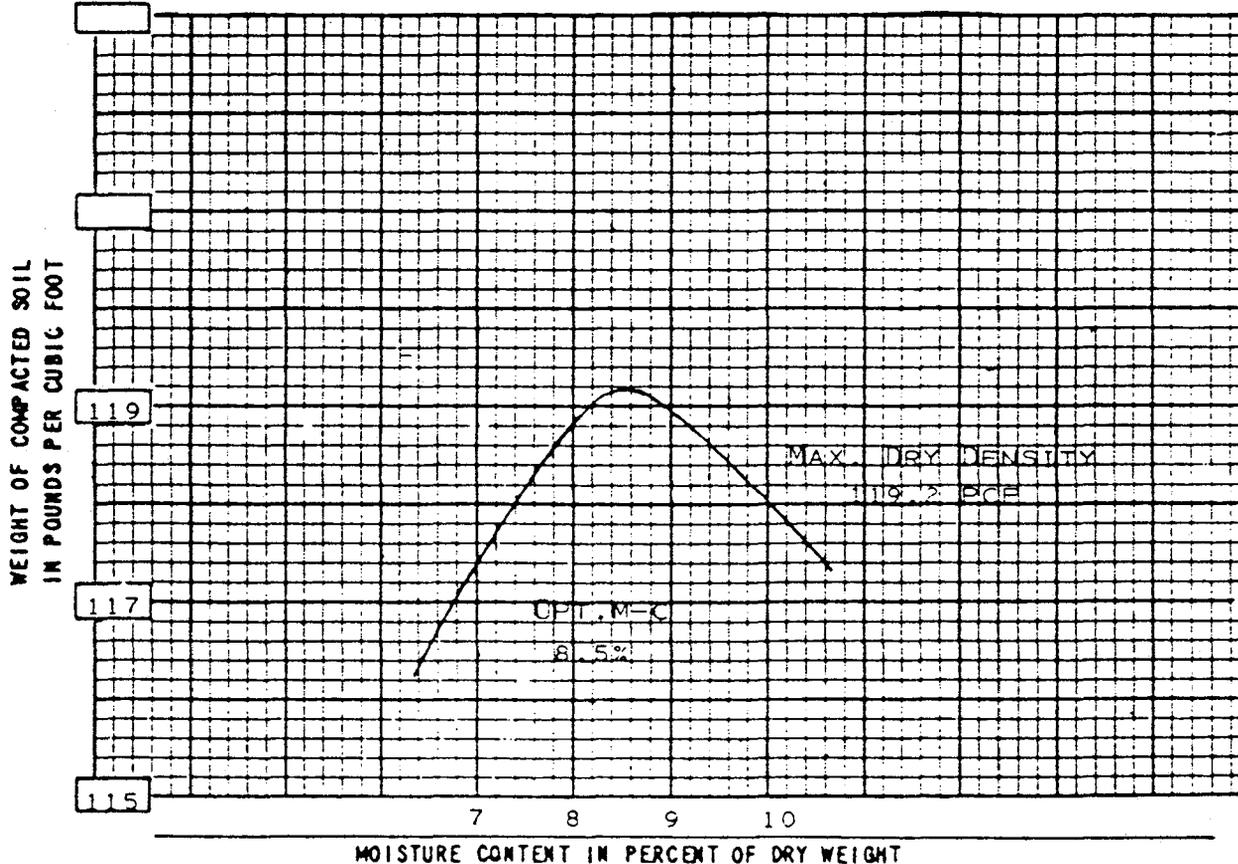
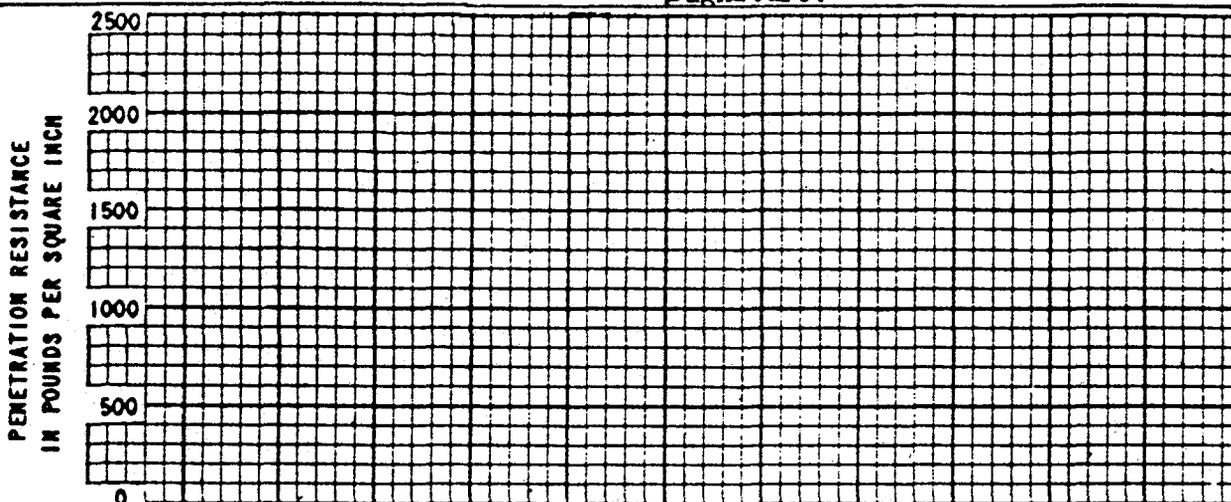
COMPACTION AND PENETRATION RESISTANCE REPORT

Date 7/6/84 Sample No.: Field _____ Lab _____

Project BROOKVIEW Location _____

Sample Location and Depth LOT #82

Signature: _____



TYPE OF TEST	TEST PROCEDURE	Classification
<input type="checkbox"/> Standard Proctor	Weight of Hammer _____ Lbs.	_____ % Material Compacted
<input type="checkbox"/> Modified AASHO	Drop _____ Inches	Passed _____ Sieve
<input type="checkbox"/> Other _____	Lifts _____	(Sp. Gr.) Gs - _____ gr/cc
	Vol. of Cylinder _____ Cu. Ft.	Curve _____ of _____

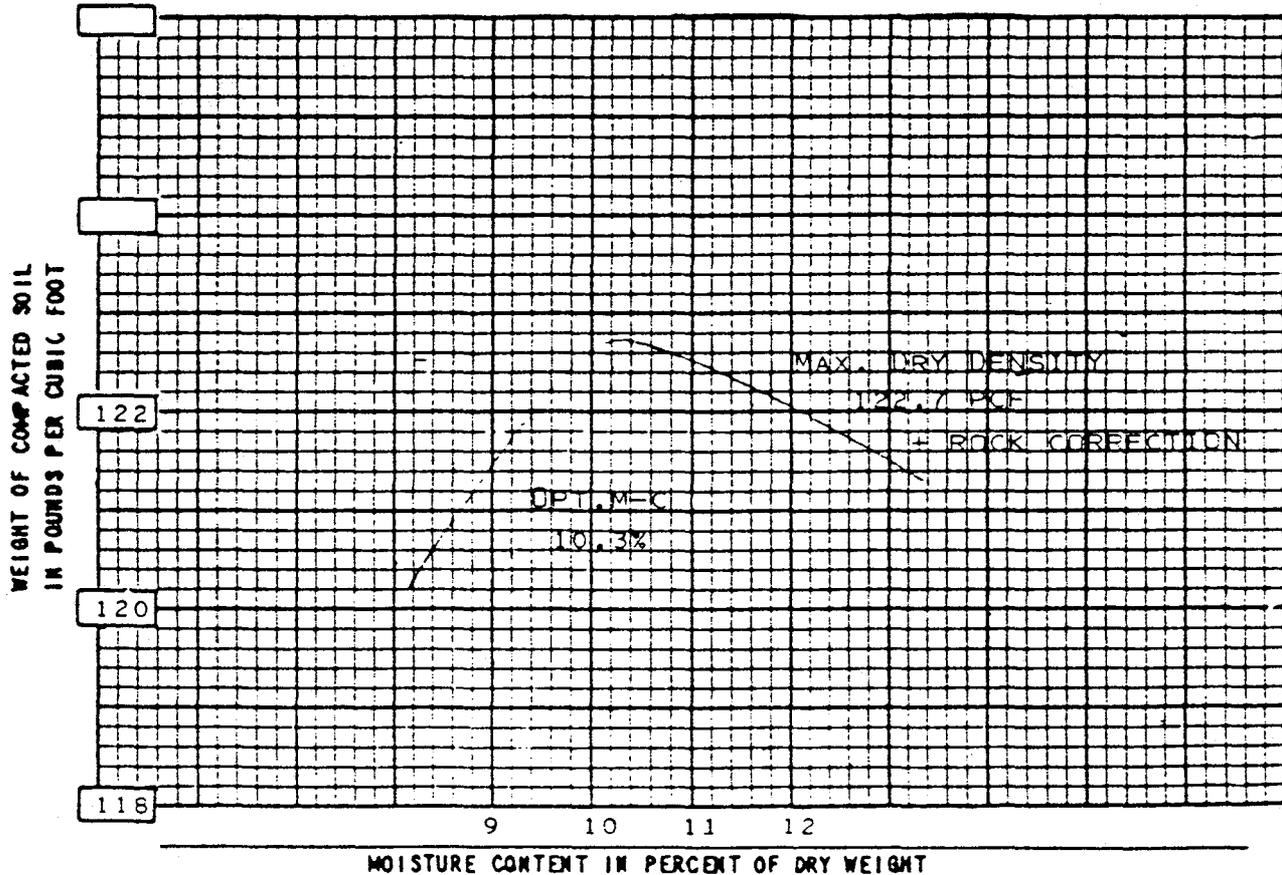
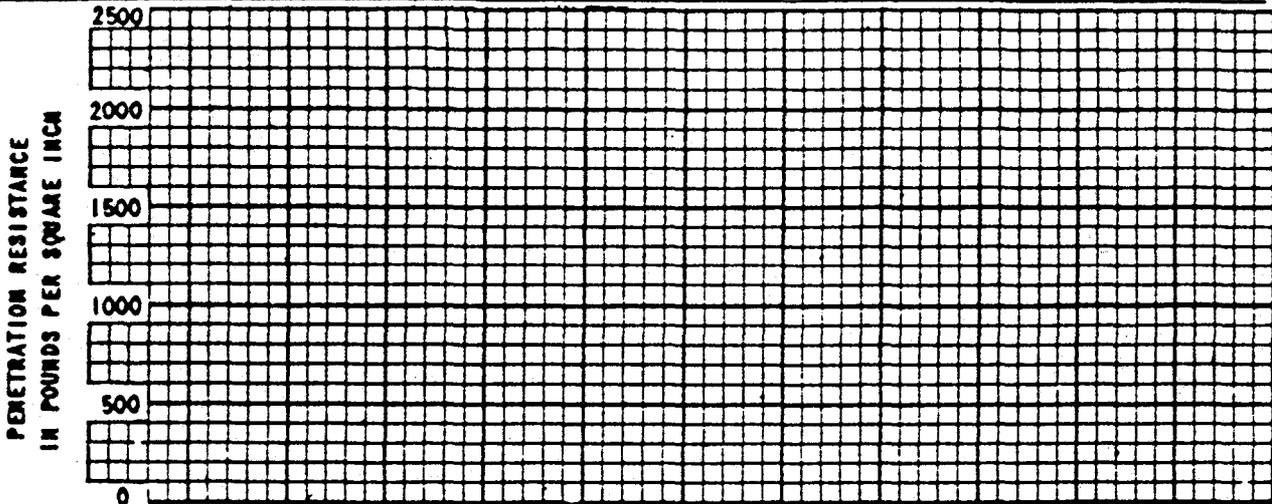
COMPACTION AND PENETRATION RESISTANCE REPORT

Date 7/12/84 Sample No.: Field _____ Lab _____

Project BROOKVIEW Location _____

Sample Location and Depth LOT#121

Signature: _____



TYPE OF TEST	TEST PROCEDURE	Classification
<input checked="" type="checkbox"/> Standard Proctor	Weight of Hammer <u>5.5</u> Lbs.	100 % Material Compacted
<input type="checkbox"/> Modified AASHTO	Drop <u>12</u> Inches	Passed <u>3/4</u> Sieve
<input type="checkbox"/> Other _____	Lifts <u>3</u> BLOWS <u>25</u>	(Sp. Gr.) Gs - _____ gr/cc
	Vol. of Cylinder <u>1/30</u> Cu.Ft.	Curve _____ of _____

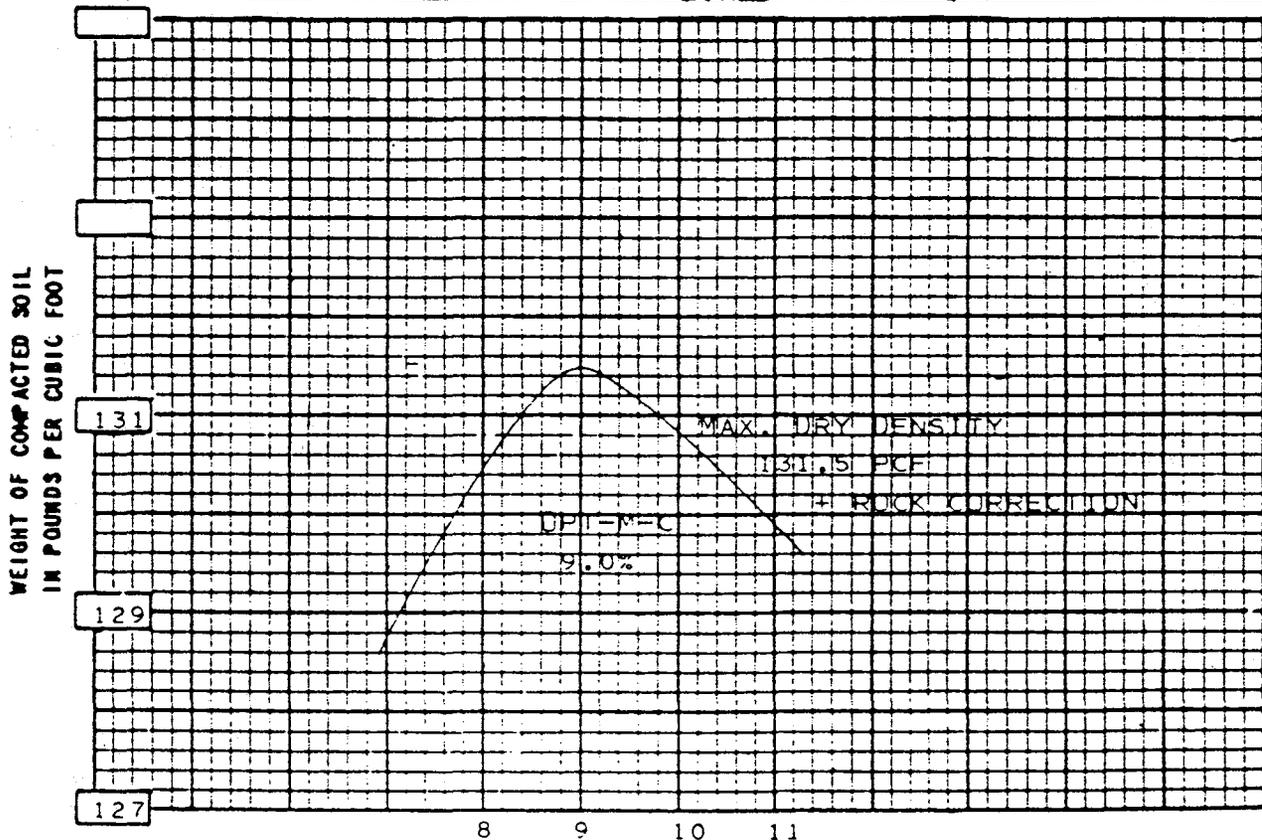
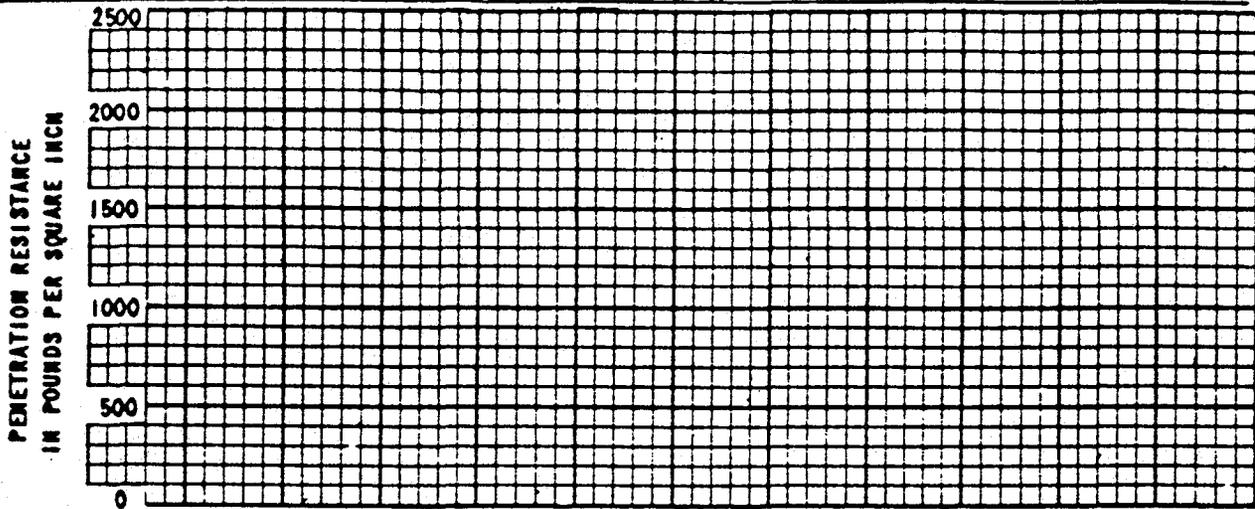
COMPACTION AND PENETRATION RESISTANCE REPORT

Date 7/16/84 Sample No.: Field _____ Lab _____

Project BROOKVIEW Location _____

Sample Location and Depth LOT#106

Signature: _____



MOISTURE CONTENT IN PERCENT OF DRY WEIGHT

TYPE OF TEST	TEST PROCEDURE	Classification
<input checked="" type="checkbox"/> Standard Proctor	Weight of Hammer <u>5.5</u> Lbs.	<u>100</u> % Material Compacted
<input type="checkbox"/> Modified AASHO	Drop <u>12</u> Inches	Passed <u>3/4</u> Sieve
<input type="checkbox"/> Other _____	Lifts <u>3</u> BLOWS <u>25</u>	(Sp. Gr.) Gs - gr/cc
	Vol. of Cylinder <u>1/30</u> Cu. Ft.	Curve of

Construction Inspection & Testing Co.

3151 NORTH BLACK CANYON FREEWAY
PHOENIX, ARIZONA 85015
PHONE: 264-5938

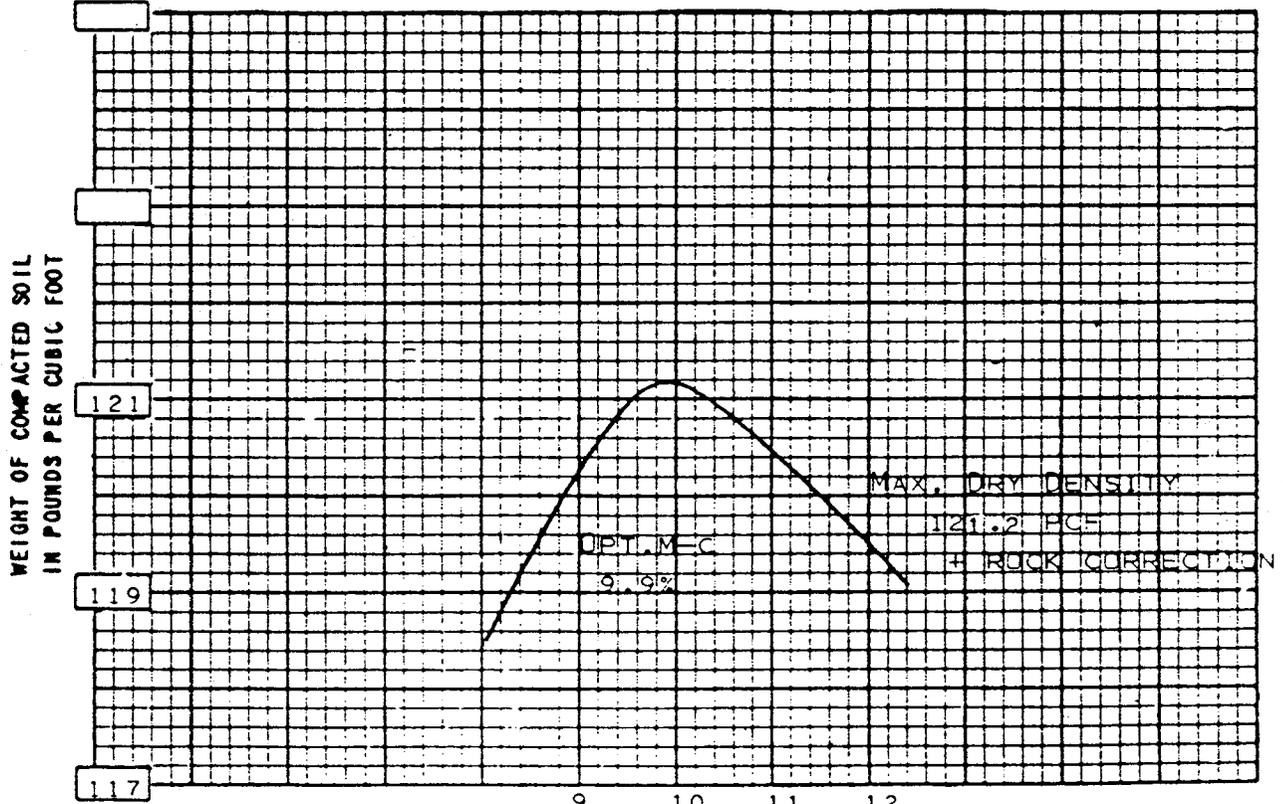
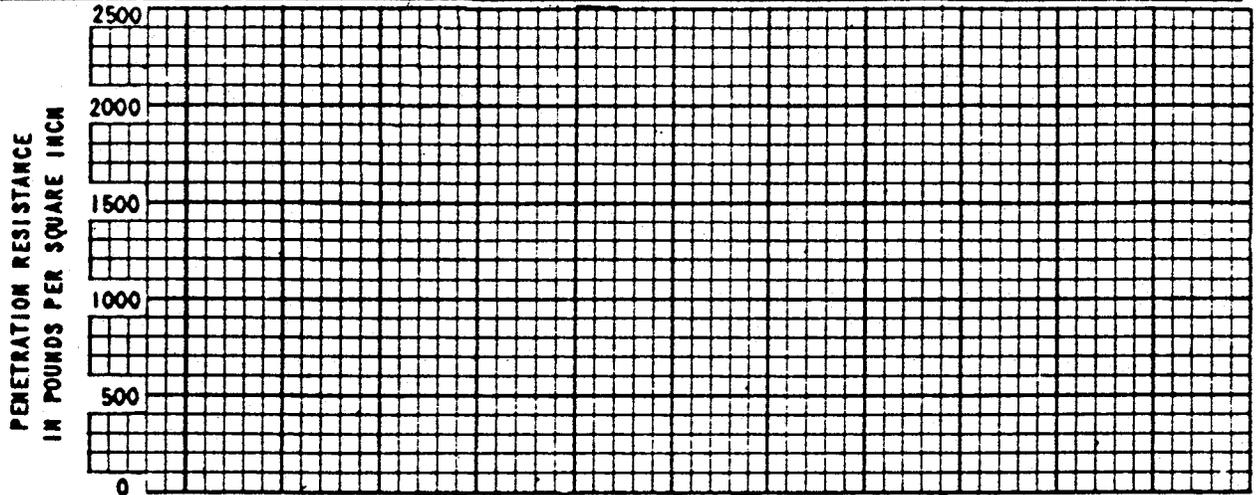
COMPACTION AND PENETRATION RESISTANCE REPORT

Date 7/10/84 Sample No.: Field _____ Lab _____

Project BROOKVIEW Location _____

Sample Location and Depth LOT#36

Signature: _____



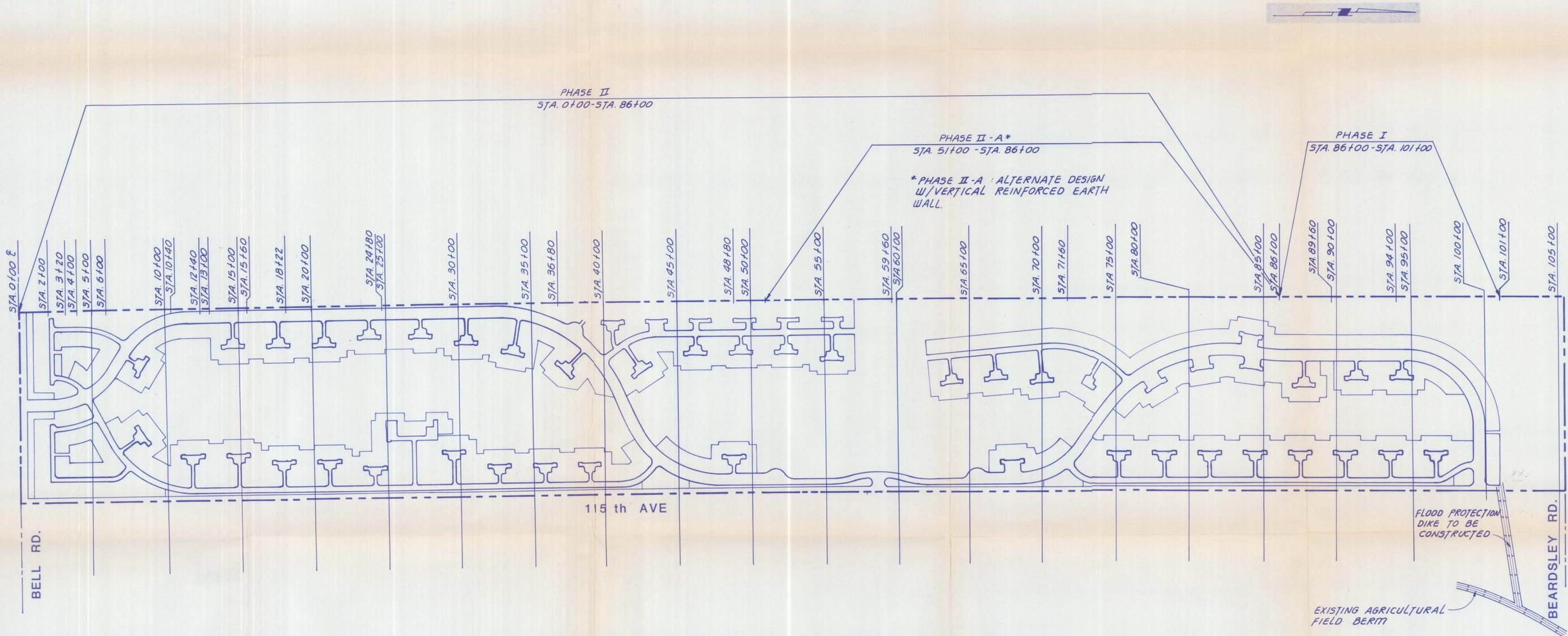
MOISTURE CONTENT IN PERCENT OF DRY WEIGHT

TYPE OF TEST <input type="checkbox"/> Standard Proctor <input type="checkbox"/> Modified AASHO <input type="checkbox"/> Other _____	TEST PROCEDURE Weight of Hammer _____ Lbs. Drop _____ Inches Lifts _____ Vol. of Cylinder _____ Cu. Ft.	Classification _____ % Material Compacted Passed _____ Sieve (Sp. Gr.) Gs - _____ gr/cc Curve _____ of
---	--	---

SECTION 7

BROOKVIEW COUNTRY CLUB

BANK PROTECTION



Handwritten signature and date:
 9-3-85

Anderson-Nelson, Inc. CIVIL ENGINEERING, LAND PLANNING, CONSULTANTS PHOENIX, ARIZONA 273-1850					
DRAWN BY	NO.	DATE	BY	REVISIONS & REMARKS	SHT. /
SCALE	1.				OF 2
DATE	2.				
APPROVED					

BROOKVIEW COUNTRY CLUB BANK PROTECTION

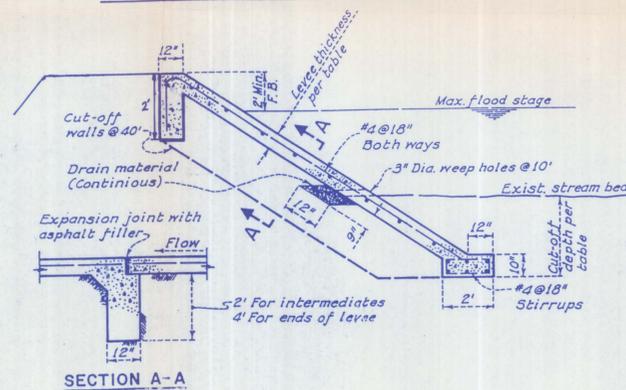
GUNNITE AND CONCRETE LEVEE DESIGN FOR 100-YEAR FLOOD

STA.	VEL. (fps)	LEVEE MATERIAL	MIN. TOP ELEVATION	LEVEE THICKNESS	CUT-OFF DEPTH
0+00	8.9		1163.1		
		Gunnite		8"	8'
3+20			1163.5		
	11.9	Concrete		8"	10'
12+40			1167.2		
		Gunnite		8"	8'
18+22	7.3		1170.5		
		Gunnite		8"	8'
24+80			1172.0		
	7.2	Gunnite		8"	8'
36+80			1175.3		
	7.3	Gunnite		8"	8'
48+80			1178.6		
	7.8	Gunnite		8"	8'
59+60			1181.5		
	8.2	Gunnite		8"	8'
71+60			1185.3		
	9.2	Concrete		8"	10'
86+00			1190.7		
Curved Reach approx. 490'	7.9	Gunnite		10"	12'
89+60			1192.0		
		Gunnite		8"	8'
94+00			1193.0		
Curved Reach approx. 913'	8.0	Gunnite		10"	12'
101+00			1194.5		
North Levee approx. 420'		Gunnite		8"	8'
			1196.4		
Off-Site Flood Protect. Dike 830'		Gunnite		8"	8'
			1197.2		

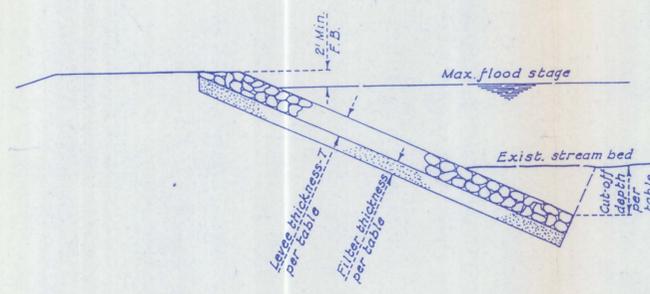
RIP-RAP - ALTERNATE DESIGN

STA.	VEL. (fps)	ROCK SIZE (D50 SIZE)	MIN. TOP ELEVATION	LEVEE THICKNESS	FILTER THICKNESS	CUT-OFF DEPTH
0+00	8.9		1163.1			
		100 lb. (12")		18 inch	6 inch	8 ft.
2+00			1163.3			
	10.0(est.)	150 lb. (15")		23 inch	9 inch	8 ft.
4+00			1163.7			
	11.0(est.)	300 lb. (18")		27 inch	9 inch	10 ft.
6+00			1164.5			
	11.9	300 lb. (18")		27 inch	9 inch	10 ft.
10+40			1166.4			
	11.0(est.)	300 lb. (18")		27 inch	9 inch	10 ft.
13+00			1167.5			
	10.0(est.)	150 lb. (15")		23 inch	9 inch	8 ft.
15+60			1169.0			
	9.0(est.)	100 lb. (12")		18 inch	6 inch	8 ft.
18+22	7.3		1170.5			
		100 lb. (12")		18 inch	6 inch	8 ft.
24+80			1172.0			
	7.2	100 lb. (12")		18 inch	6 inch	8 ft.
36+80			1175.3			
	7.3	100 lb. (12")		18 inch	6 inch	8 ft.
48+80			1178.6			
	7.8	100 lb. (12")		18 inch	6 inch	8 ft.
59+60			1181.5			
	8.2	100 lb. (12")		18 inch	6 inch	8 ft.
71+60			1185.3			
	9.2	150 lb. (15")		23 inch	9 inch	8 ft.
86+00			1190.7			
Curved Reach approx. 490'	7.9	100 lb. (12")		24 inch	6 inch	12 ft.
89+60			1192.0			
		100 lb. (12")		18 inch	6 inch	8 ft.
94+00			1193.0			
Curved Reach approx. 913'	8.0	100 lb. (12")		24 inch	6 inch	12 ft.
101+00			1194.5			
North Levee approx. 420'		100 lb. (12")		18 inch	6 inch	8 ft.
			1196.4			
Off-Site Flood Protect. Dike 830'		100 lb. (12")		18 inch	6 inch	8 ft.
			1197.2			

TYPICAL GUNNITE OR CONCRETE LEVEE SECTION



TYPICAL ROCK RIP-RAP LEVEE SECTIONS



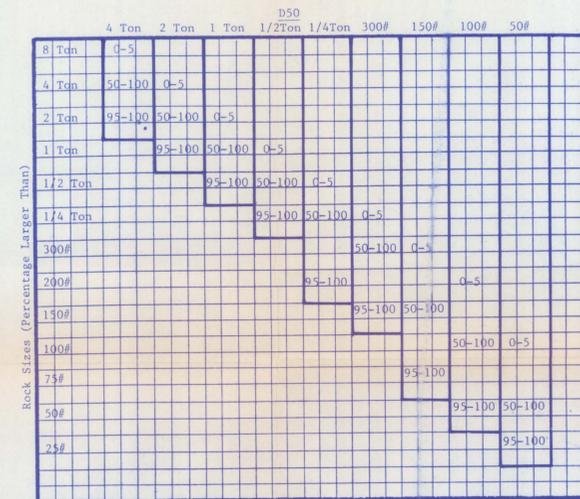
CONSTRUCTION NOTES

- All construction shall be in accordance with M.A.G. Standard Specifications and supplements there to.
- All structural concrete shall be Class A.
- Gunnite shall be in conformity to Sec. 525 of M.A.G. Specifications.
- Drain material shall be 3/4" to 1 1/2" in size.

GENERAL NOTES

- Design criteria was taken from the Los Angeles County Flood Control District Hydraulic Design Manual, March 1982.
- Stationing begins at the centerline of Bell Road and progresses North along the West property line.
- Velocities shown are mean velocities for the Agua Fria River floodway as determined by a HEC-2 analysis done for Cella Barr Associates on October 22, 1982.
- Minimum top elevations shown include a 2' freeboard above the 100 year flood level.
- Maximum side slopes for gunnite or concrete sections shall be 1 1/2:1.
- Maximum side slopes for rip-rap sections shall be 2:1.
- A four foot cut-off wall shall be placed at each end of construction.

Rock Rip-Rap Gradation



FILTER CRITERIA FOR ROCK RIP-RAP SECTIONS

ROCK SIZE	DIAMETER	% PASSING	DIAMETER
D15	3/4"	100	5"
D50	1" to 3"	OR 80-90	3 1/2"
D85	3 1/2"	40-50	2"
		10-20	3/4"

Note: D15 refers to the material size at which 15% of the material is finer by weight and so forth for the other values; D50 and D85.

Robert Anderson
3-21-85

BROOKVIEW COUNTRY CLUB

Anderson-Nelson, Inc.
CIVIL ENGINEERING, LAND PLANNING, CONSULTANTS
PHOENIX, ARIZONA 273-1850

BANK PROTECTION/LEVEE DESIGN

DRAWN BY: <i>ANW</i>	SCALE: <i>NONE</i>	DATE: <i>5-7-85</i>	BY: <i>R.C.</i>	REVISIONS & REMARKS:	SHT. 2
DATE: <i>3-21-85</i>				REVISED FILTER CRITERIA	OF 2
APPROVED:					