TOWN OF PARADISE VALLEY
INDIAN BEND WASH IMPROVEMENTS
PRELIMINARY REPORT
VOLUME NO. 2

4-08-75

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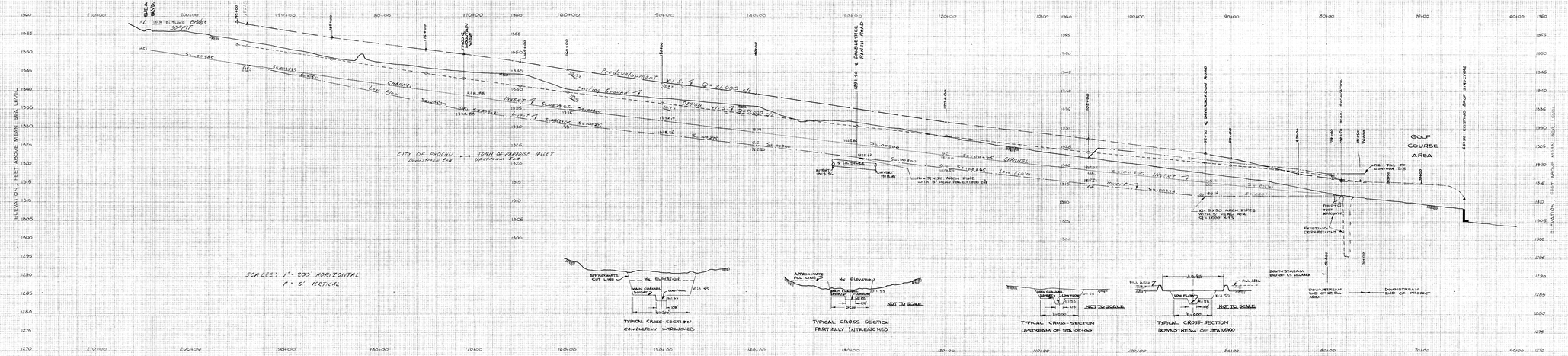


PRELIMINARY PROFILE

TOWN OF PARADISE VALLEY
INDIAN BEND WASH IMPROVEMENTS

LEGEND

- EXISTING GROUND ELEVATIONS
- EXISTING CONDITIONS WATER SURFACE ELEVATIONS Q = 21000 cfs
- DESIGN (MAIN CHANNEL) INVERT ELEVATIONS
- DESIGN (MAIN CHANNEL) WATER SURFACE ELEVATIONS Q = 21000 cfs
- DESIGN (LOW FLOW CHANNEL) INVERT ELEVATIONS
- DEPTH OF FILL ELEVATIONS

WATER RESOURCES ASSOCIATES INC.
SCOTTSDALE, ARIZONA
APRIL 1975

SCALES:
HORIZONTAL 1" = 200'
VERTICAL 1" = 5'

PRELIMINARY CROSS-SECTIONS

TOWN OF PARADISE VALLEY
INDIAN BEND WASH IMPROVEMENTS

Water Resources Associates, Inc.
April 1975 Scottsdale, Ariz.

Looking downstream from near Shea Blvd. to existing weir structure in the Camelback Country Club Golf Course

SCALES: 1" = 200' HORIZONTAL
1" = 5' VERTICAL

Q_{100} = 24,000 c.f.s.
n = Varies

Scales: 1" = 200' HORIZONTAL
1" = 5' VERTICAL

WATER SURFACE ELEVATIONS

LOW FLOW CHANNEL
1000 cfs

Sta. 6550. - Weir in
Camelback Golf Course

INDIAN BEND WASH
PARADISE VALLEY, ARIZ.

Water Resources Associates, Inc.
Scottsdale, Arizona
April 1975
Project #T-8064

Sta.	W.S. Elev.	
6550.	1308.86	
7000.	1310.91	
7350.	1311.85	
7650.	1312.89	
7850.	1313.16	
7940.	1313.25	
8300.	1313.99	
9000.	1315.28	
Sta. 9270. Invergordon Rd.		
9270.	1315.25	- Downstream Side
9270.	1318.55	- Upstream Side
10500.	1319.06	
12000	1321.92	
Sta. 12940 Double Tree Ranch Road		
12940.	1324.78	- Downstream Side
12940.	1328.0	- Upstream Side
14000.	1328.73	
15000.	1330.69	
16000.	1333.46	
16500.	1335.06	
17100.	1337.20	
17500.	1339.00	
18500.	1344.39	
19500.	1347.87	
19500.	1348.21	

EXISTING CONDITIONS
Q = 21,000 cfs

Sta. 6550.0 - Weir in Camelback Golf Course

BACKWATER COMPUTATION SHEET

TOWN OF PARADISE VALLEY
INDIAN BEND WASH IMPROVEMENTS
PRELIMINARY REPORT

WATER RESOURCES ASSOCIATES, INC.
Scottsdale, Arizona
April 1975
Project #T-8064

Sta.	W.S. Elev.	L	n	A	w.p.	Q	V	Vh	Sf	Sf avg.	E	EB	F#
6550.0	1311.14	0.0	0.035	2201	781	21000	9.54	1.413	0.012679	0.000000	1312.55	1312.55	1.00
7000.0	1315.21	400.0	0.035	5141	1200	21000	4.08	0.259	0.001330	0.007005	1315.47	1315.47	0.35
7350.0	1315.64	300.0	0.035	5658	1400	21000	3.71	0.214	0.001188	0.001259	1315.85	1315.85	0.33
7650.0	1315.96	250.0	0.035	4670	1250	21000	4.50	0.314	0.001935	0.001561	1316.27	1316.27	0.41
7850.0	1316.30	100.0	0.043	7026	1640	21000	2.99	0.139	0.001075	0.001505	1316.44	1316.44	0.25
7940.0	1316.46	100.0	0.043	4367	1650	21000	4.81	0.359	0.005291	0.003183	1316.82	1316.82	0.52
8300.0	1318.09	300.0	0.043	4893	2100	21000	4.29	0.286	0.004995	0.005143	1318.38	1318.37	0.50
9000.0	1322.14	700.0	0.043	4494	2105	21000	4.67	0.339	0.006653	0.005824	1322.47	1322.47	0.56
9270.0	1323.54	270.0	0.043	4203	1222	21000	5.00	0.388	0.004027	0.005340	1323.93	1323.92	0.48
10500.0	1327.56	1210.0	0.043	5547	1624	21000	3.79	0.223	0.002333	0.003180	1327.78	1327.79	0.36
12000.0	1331.94	1500.0	0.043	4999	1710	21000	4.20	0.274	0.003535	0.002934	1332.21	1332.20	0.43
12940.0	1335.28	940.0	0.043	5183	1870	21000	4.05	0.255	0.003532	0.003534	1335.53	1335.53	0.43
14000.0	1339.23	1060.0	0.043	4568	1500	21000	4.60	0.328	0.004011	0.003771	1339.56	1339.55	0.46
15000.0	1342.40	1000.0	0.043	5700	1600	21000	3.68	0.211	0.002089	0.003050	1342.61	1342.61	0.34
16000.0	1345.75	960.0	0.043	4289	1545	21000	4.90	0.372	0.005144	0.003617	1346.12	1346.13	0.52
16500.0	1347.88	500.0	0.043	5750	1939	21000	3.65	0.207	0.002622	0.003883	1348.09	1348.09	0.37
17100.0	1349.90	600.0	0.043	4977	1940	21000	4.22	0.276	0.004245	0.003433	1350.18	1350.17	0.46
17500.0	1351.25	400.0	0.043	5760	1690	21000	3.65	0.206	0.002170	0.003208	1351.46	1351.46	0.35
18500.0	1354.36	1000.0	0.043	4490	1500	21000	4.68	0.340	0.004248	0.003209	1354.70	1354.71	0.48
19400.0	1357.93	900.0	0.043	4851	1585	21000	4.33	0.291	0.003531	0.003890	1358.22	1358.21	0.44
19500.0	1358.57	100.0	0.043	3071	1530	21000	6.84	0.726	0.015472	0.009502	1359.30	1359.29	0.85

PRELIMINARY DESIGN CONDITIONS

Q = 21,000 cfs

Sta. 6550.0 - Weir in Camelback Golf Course

BACKWATER COMPUTATION SHEET

TOWN OF PARADISE VALLEY

INDIAN BEND WASH IMPROVEMENTS
PRELIMINARY REPORT

WATER RESOURCES ASSOCIATES, INC.
Scottsdale, Arizona
April 1975
Project #T-8064

Sta.	W.S. Elev.	L	n	A	w.p.	Q	V	Vh	Sf	Sf avg.	E	EB	F#
6550.0	1311.14	0.0	0.035	2201	781	21000	9.54	1.413	0.012679	0.000000	1312.55	1312.55	1.00
7000.0	1315.21	400.0	0.035	5141	1200	21000	4.08	0.259	0.001330	0.007005	1315.47	1315.47	0.35
7350.0	1315.64	300.0	0.035	5658	1400	21000	3.71	0.214	0.001188	0.001259	1315.85	1315.85	0.33
7650.0	1315.96	250.0	0.035	4670	1250	21000	4.50	0.314	0.001935	0.001561	1316.27	1316.27	0.41
7850.0	1315.96	100.0	0.040	2366	678	21000	8.87	1.223	0.010778	0.006356	1317.18	1317.18	0.84
7940.0	1317.34	100.0	0.040	3290	732	21000	6.38	0.633	0.003982	0.007380	1317.97	1317.98	0.53
8300.0	1318.48	300.0	0.040	3544	702	21000	5.93	0.545	0.002939	0.003460	1319.03	1319.02	0.47
9000.0	1320.39	700.0	0.040	3820	700	21000	5.50	0.469	0.002280	0.002610	1320.86	1320.86	0.42
9270.0	1321.01	270.0	0.040	3984	710	21000	5.27	0.431	0.002019	0.002150	1321.44	1321.44	0.39
10500.0	1323.91	1210.0	0.040	3551	700	21000	5.91	0.543	0.002908	0.002463	1324.45	1324.45	0.46
12000.0	1328.07	1500.0	0.040	3676	700	21000	5.71	0.507	0.002591	0.002749	1328.58	1328.58	0.44
12940.0	1330.58	940.0	0.040	3599	700	21000	5.83	0.529	0.002780	0.002686	1331.11	1331.11	0.45
14000.0	1333.61	1060.0	0.040	3499	686	21000	6.00	0.559	0.002973	0.002877	1334.17	1334.17	0.47
15000.0	1336.68	1000.0	0.040	3438	690	21000	6.11	0.579	0.003177	0.003075	1337.26	1337.25	0.48
16000.0	1339.68	960.0	0.040	3473	690	21000	6.05	0.568	0.003072	0.003125	1340.25	1340.25	0.48
16500.0	1341.28	500.0	0.040	3364	686	21000	6.24	0.605	0.003389	0.003231	1341.89	1341.88	0.50
17100.0	1343.34	600.0	0.040	3320	686	21000	6.32	0.621	0.003541	0.003465	1343.96	1343.96	0.51
17500.0	1344.79	400.0	0.040	3251	684	21000	6.46	0.648	0.003782	0.003661	1345.44	1345.44	0.52
18500.0	1348.62	1000.0	0.040	3242	694	21000	6.48	0.652	0.003894	0.003838	1349.27	1349.28	0.53
19400.0	1352.07	900.0	0.040	3299	700	21000	6.37	0.629	0.003716	0.003805	1352.70	1352.70	0.52
19500.0	1352.44	100.0	0.040	3290	700	21000	6.38	0.633	0.003749	0.003733	1353.07	1353.08	0.52

TRAVERSE COMPUTATION

WATER RESOURCES ASSOCIATES, INC
Proj. #T-8064

SHEET NO. 1 OF 1 SHEETS

PROJECT
Coe & Van Loo/Town of Paradise Valley
Indian Bend Wash
Reference Line

SURVEYED BY DATE

DATE April 1975

PLOTTED BY DATE

REF. DWG. NO.

STATE

COUNTY

PLANE GRID SYSTEM

FIELD BK. NO.

COMPUTED BY

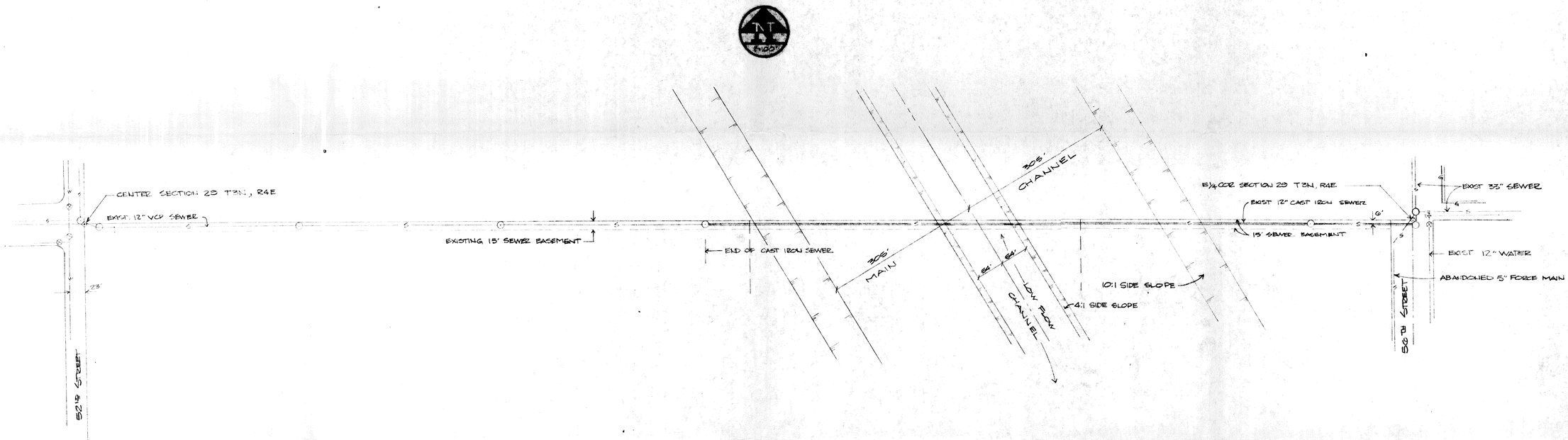
CHECKED BY

ZONE

PAGE NO.

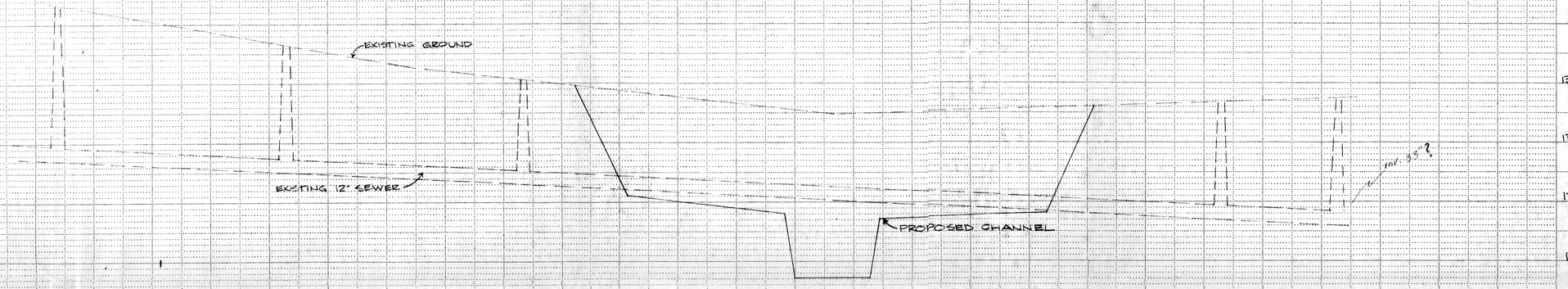
STATION	DISTANCE	☐ ANGLE ☐ AZIMUTH	BEARING	COSINE	SINE	LATITUDE	DEPARTURE	COORDINATES NORTH	COORDINATES EAST
1								927,600.00	497,600.00
	4532.753		N45°32'10.7"W						
Drop Struct. 2								930,775.00	494,365.00
	1760.778		N45°33'08.0"W						
PI 3								932,008.00	493,108.00
	7088.335		N61°43'55.5"W						
PI 4								935,365.00	486,875.00
	5431.984		N31°49'55.5"W						
End 5								939,980.00	484,000.00

PLAN	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	ALIGNMENT CHECKED		
	RT. OF WAY CHECKED		



PROFILE	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	GRADES CHECKED		
	B. M. NOTED		
	STRUCTURE NOTATIONS CHKD		

SCALE
HORZ 1" = 100'
VERT 1" = 4'



PRELIMINARY DESIGN
INDIAN BEND WASH
MOUNTAIN VIEW ROAD

SHEET 1 of 4

PLATE 1 SINGLE PLAN - PROFILE - DOTTED
CHARLES BRUNING COMPANY
MADE IN U.S.A.

704-01-01

PLAN
SURVEYED
PLOTTED
NOTE BOOK
NO.
ALIGNMENT CHECKED
RT. OF WAY CHECKED
BY
DATE

MOUNTAIN VIEW ROAD (JUDD ROAD)

EXIST. COR. SECTION 29 T3N, R4E

40'

10:1 SIDE SLOPE

305' MAIN CHANNEL

4:1 SIDE SLOPE

305' MAIN CHANNEL

LOW FLOW CHANNEL

EXIST. 12" WATER

EXIST. ABANDONED 8" FORCE MAIN

38'

DOUBLETREE RANCH ROAD

40' 40'

SE COR. SECT. 29 T3N, R4E

56TH STREET

PROFILE
SURVEYED
PLOTTED
NOTE BOOK
NO.
ALIGNMENT CHECKED
RT. OF WAY CHECKED
B. M.= NOTED
STRUCTURE NOTATNS CHKD
BY
DATE

SCALE
HORZ: 1" = 100'
VERT 1" = 4'

1340
1336
1332
1328
1324

EXISTING GROUND

EXIST. 12" WATER

EXIST. ABANDONED 8" FORCE MAIN

PROPOSED CHANNEL

PRELIMINARY DESIGN
INDIAN BEND WASH
56th STREET CROSSING

SHEET 2 OF 4

PLATE 1 SINGLE PLAN - PROFILE - DOTTED
CHARLES BRUNING COMPANY
MADE IN U.S.A.

704-01-01

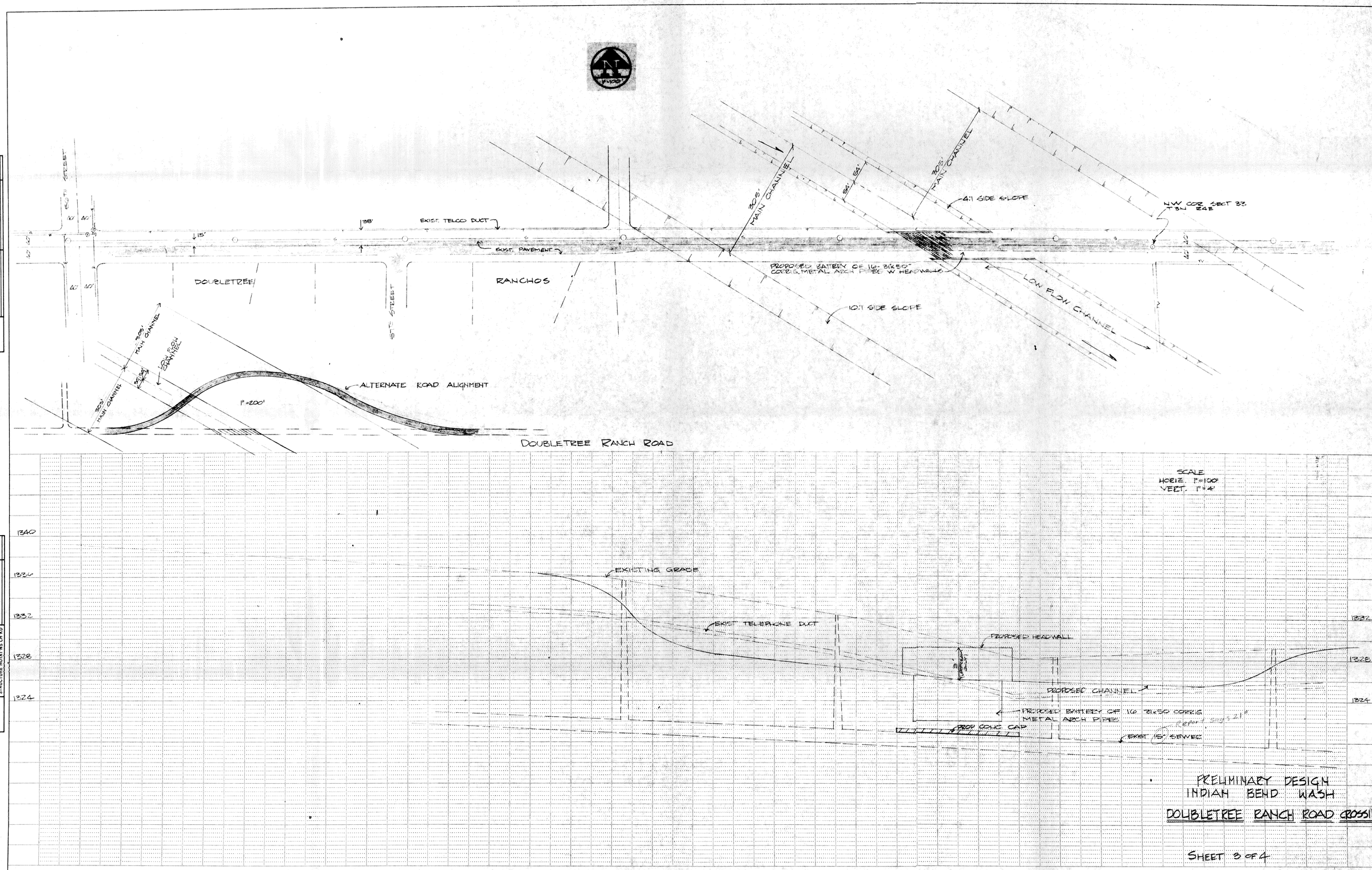
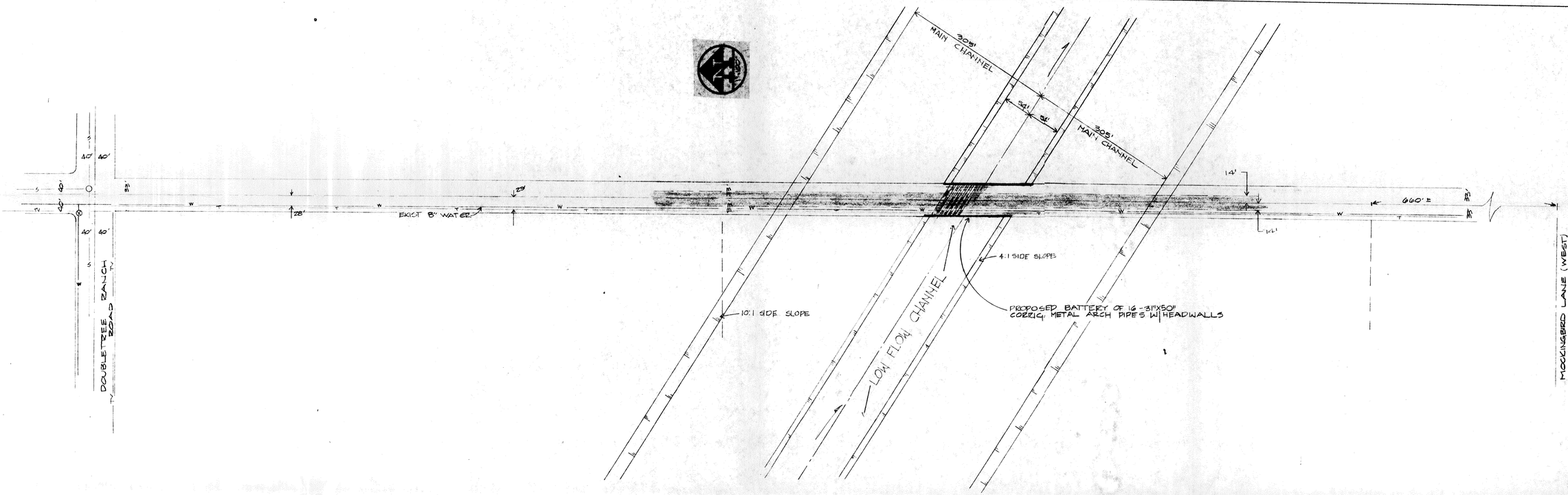


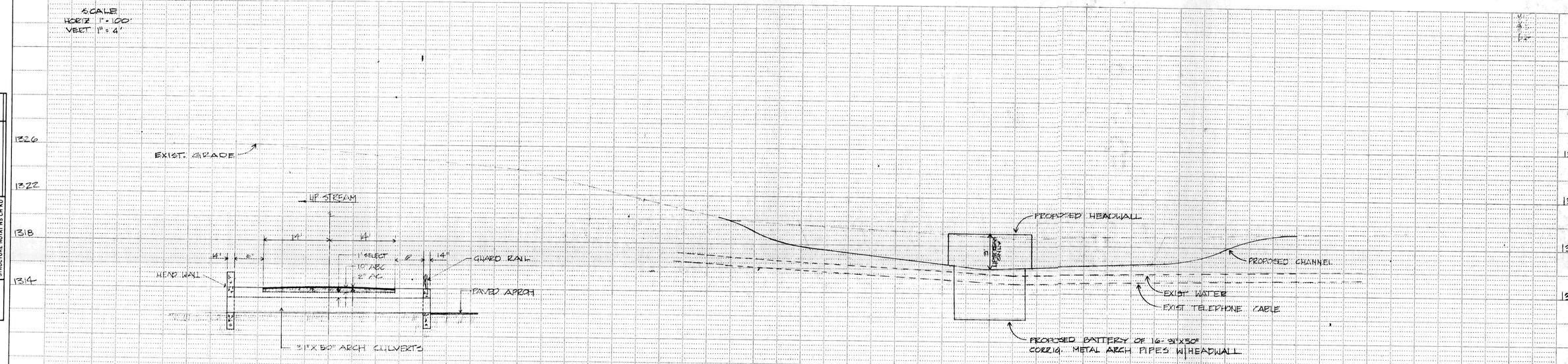
PLATE 1 SINGLE PLAN - PROFILE - DOTTED
CHARLES BRUNING COMPANY
MADE IN U.S.A.

COE & VAN LOO CONSULTING ENGINEERS INC.

704-01-01



SCALE
HORIZ 1" = 100'
VERT 1" = 4'



TYPICAL SECTION
SCALE 1" = 10'

PRELIMINARY DESIGN
INDIAN BEND WASH
INVERGORDON ROAD CROSSING

SHEET 4 OF 4

CONSULTING ENGINEERS
COE & VAN LOO

PLAN
NOTE BOOK
NO
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT OF WAY CHECKED
BY
DATE

PROFILE
NOTE BOOK
NO
SURVEYED
PLOTTED
GRADES CHECKED
B. M. NOTED
STRUCTURE NOTAT'NS CH'KD
BY
DATE

PLATE 1 SINGLE PLAN - PROFILE - DOTTED
CHARLES BRUNING COMPANY
MADE IN U.S.A.

704-01-01