4

1706

CITY OF ALBUQUERQUE
DEPARTMENT OF PUBLIC WORKS

PLANS
FOR CONSTRUCTION
OF

SPECIAL ASSESSMENT DISTRICT NO. 176

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	0		1	7	6		0	1	7	1		2	0	2	0	2	0	2	0									

09
08
07

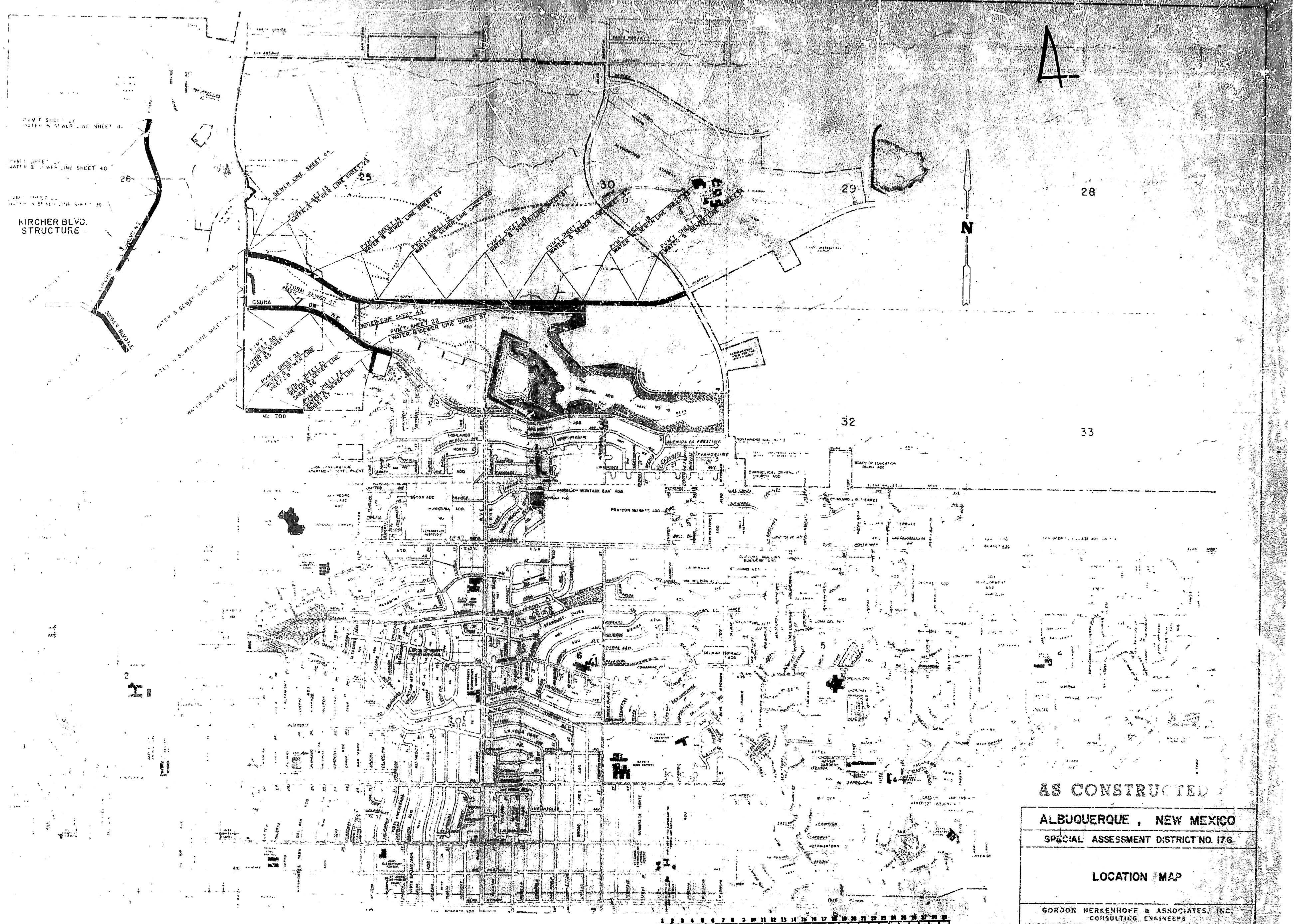
CHAIRMAN OF THE CITY COMMISSION & EX-OFFICIO MAYOR ....
CITY MANAGER ....
CITY ATTORNEY ....

DIRECTOR OF PUBLIC WORKS ....
CITY ENGINEER .... William T. Stevens

GORDON HERKENHOFF AND ASSOCIATES
ENGINEERS · PLANNERS

SHEET 1 OF 56

A


KIRCHER BLVD. STRUCTURE
26
25
30
29
28
32
33
N
STORM SEWER
WATER & SEWER LINE SHEET 44
PVM'T SHEET 22 WATER & SEWER LINE SHEET 37
WATER & SEWER LINE SHEET 40
WATER LINE SHEET 45
AVENIDA LA PRESTINA
STARDUST SKIES
PRAIRIE HEIGHTS ADD
DELMAR TERRACE ADD
2
4
5
6
7

AS CONSTRUCTED

ALBUQUERQUE , NEW MEXICO

SPECIAL ASSESSMENT DISTRICT NO. 176

LOCATION MAP

GORDON HERKENHOFF & ASSOCIATES, INC.
CONSULTING ENGINEERS
ALBUQUERQUE NEW MEXICO

SCALE	DATE	DRAWN	SHEET
1" = 1000'	MAY 1970	DRAWN: G.C. CHECKED: N.D.M.	SHEET 2 OF 56

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	0		1	7	6		0	2				2	1	2	1	2	1	24										

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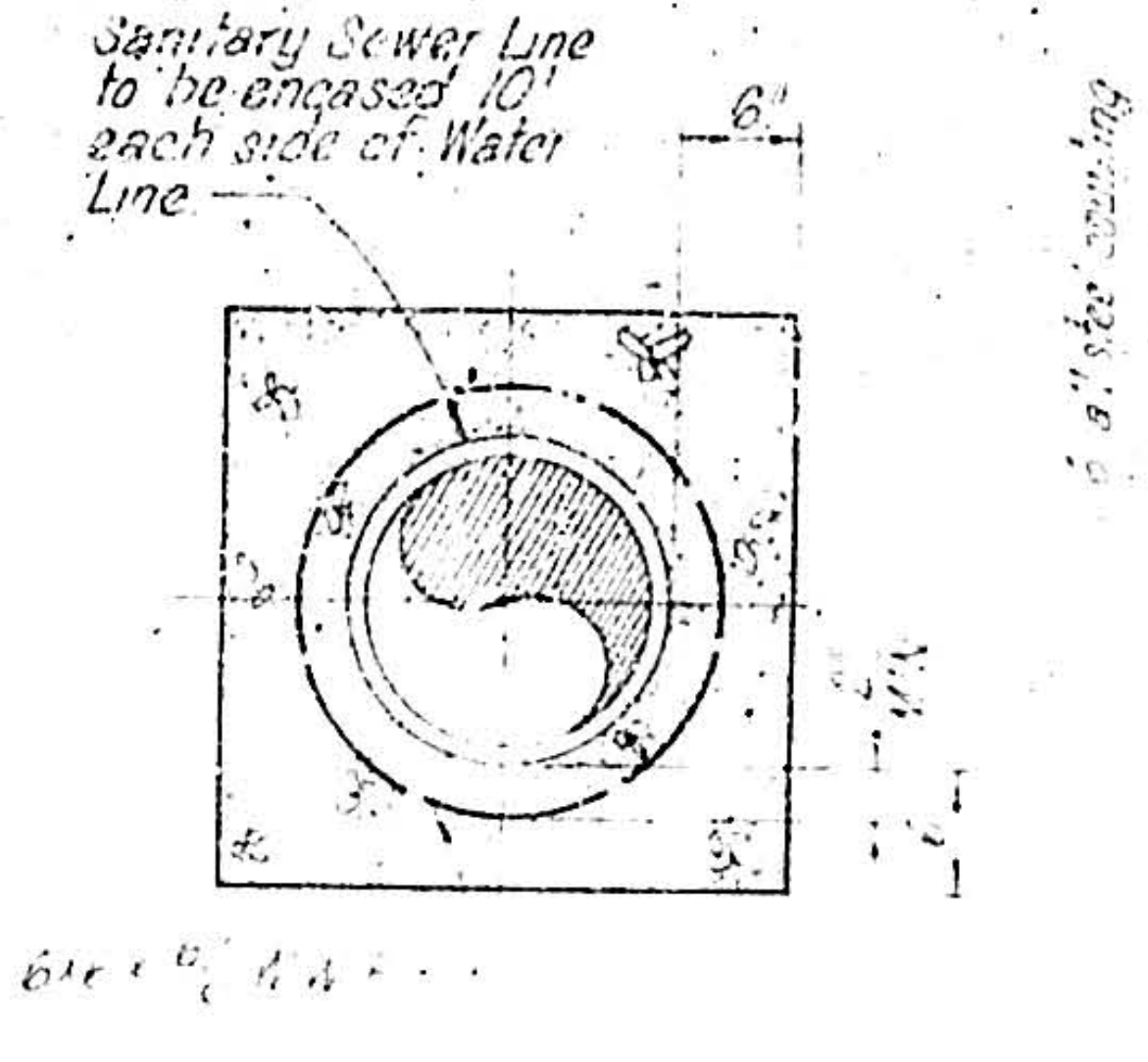
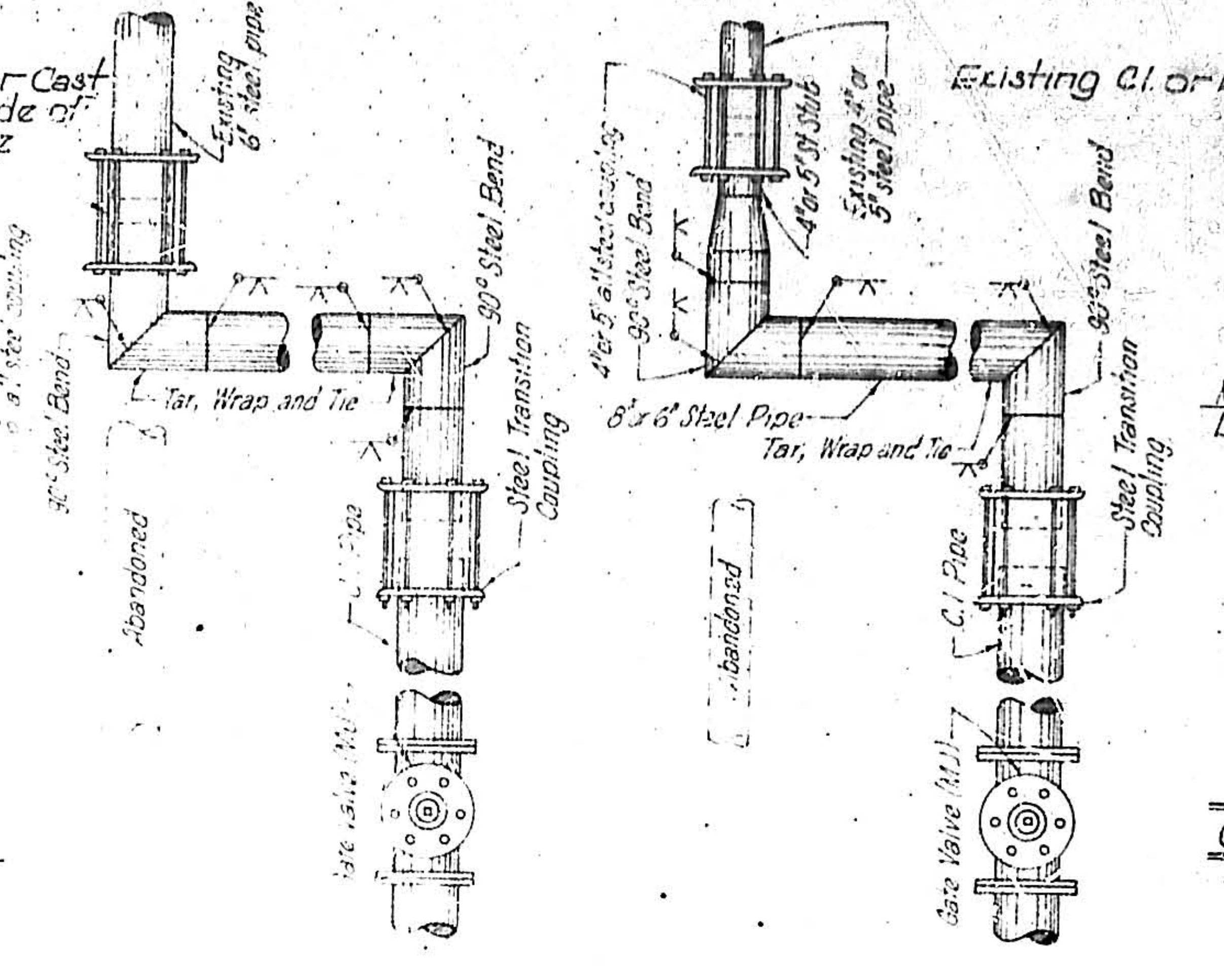
08
07

NOTE:
Sanitary Sewer Line May be Replaced With Ductile Iron or Cast Iron Pipe Class 150, 10' Each Side of Waterline, In Lieu of Concrete Encasement

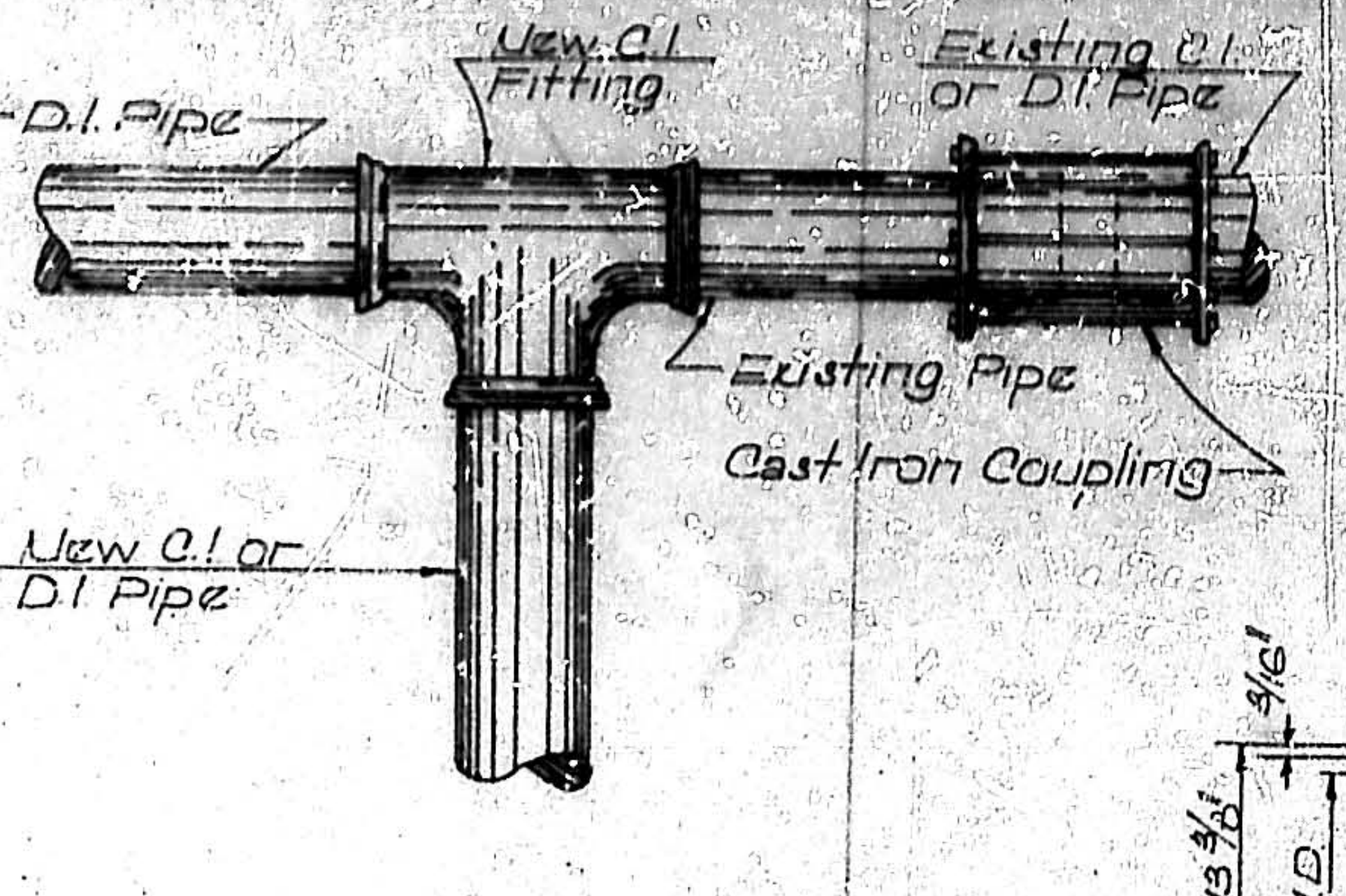

Sanitary Sewer Line to be encased 10' each side of Water Line
6"

CONCRETE ENCASEMENT DETAIL
No Scale

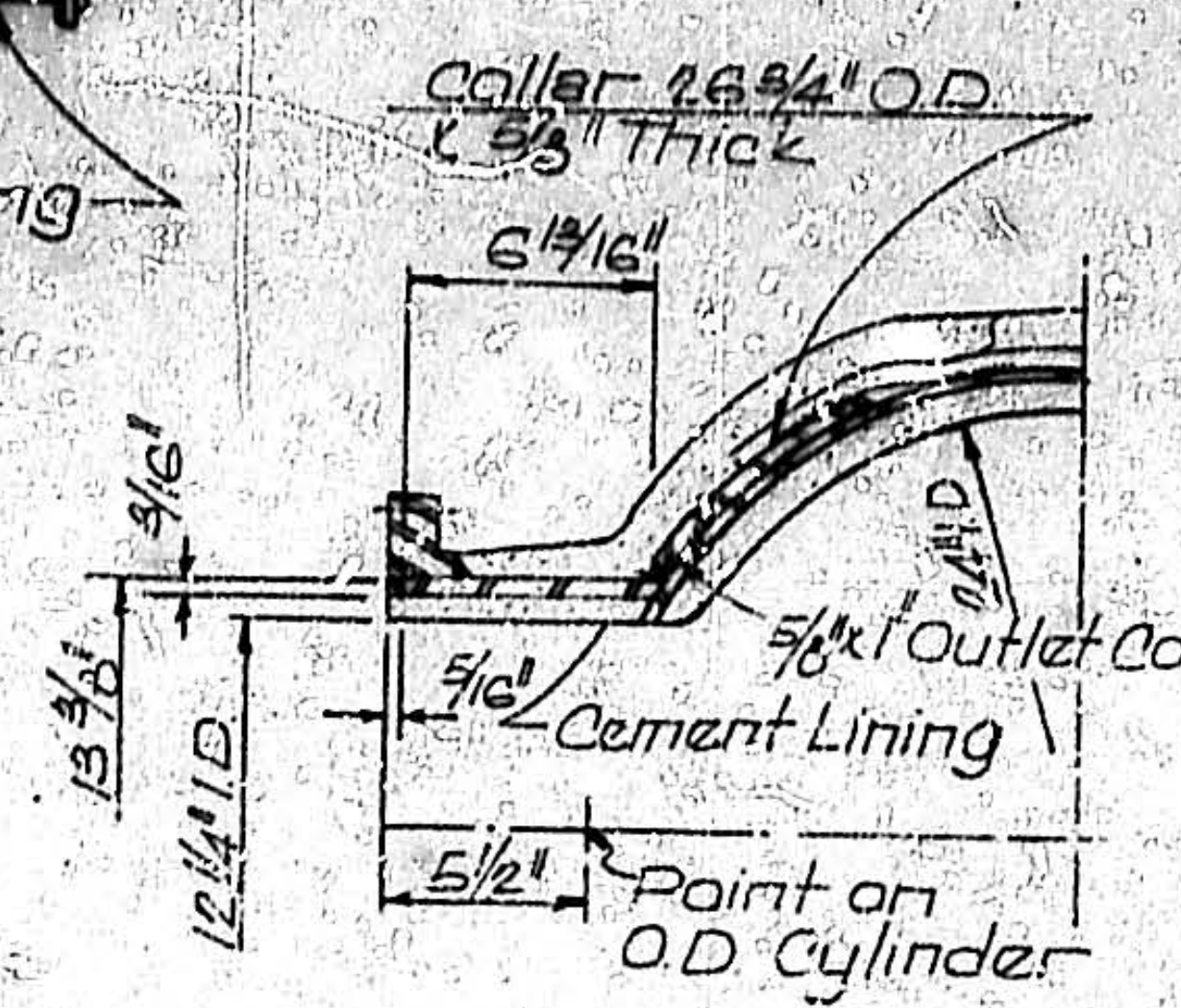

Existing 6" Steel pipe
90° Steel Bend
Tar, Wrap and Tie
Steel Transition Coupling
Abandoned
Existing 4" or 5" Steel pipe
90° Steel Bend
8" or 6" Steel Pipe
Tar, Wrap and Tie
Steel Transition Coupling
C.I. Pipe
Abandoned
Gate Valve

6" or 8" Cast Iron to 6" Steel — 8" or 6" Cast Iron to 4" to 5" Steel

TYPICAL 6" or 8" CAST IRON TO STEEL PIPE CONNECTIONS
No Scale

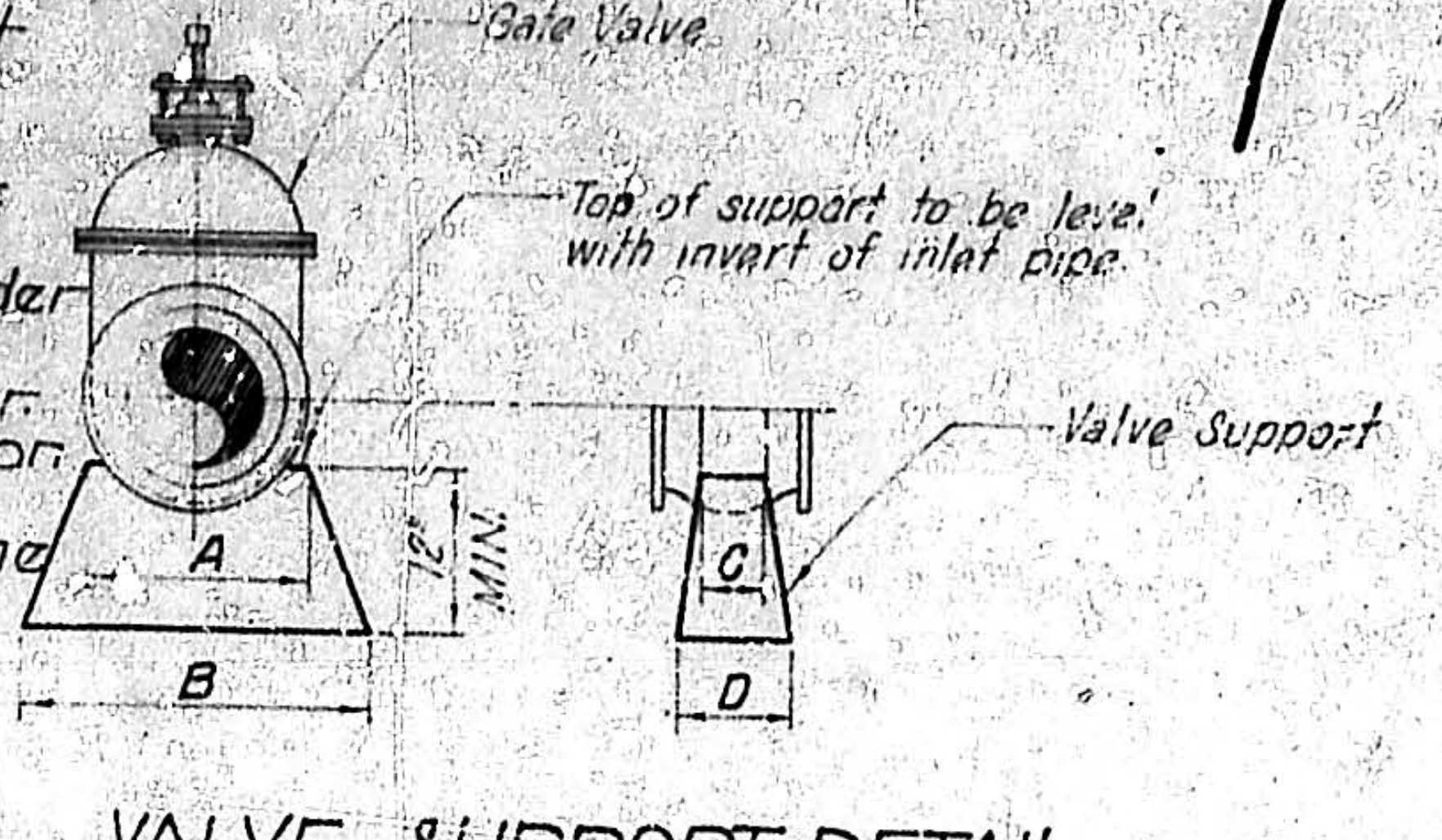

Existing C.I. or D.I. Pipe
New C.I. Fitting
Existing C.I. or D.I. Pipe
Existing Pipe
Cast Iron Coupling
New C.I. or D.I. Pipe

TYPICAL CONNECTION TO EXISTING CAST IRON OR DUCTILE IRON PIPE
No Scale


Collar 26 3/4" O.D. & 3/8" Thick
6 13/16"
9/16"
5/8" Outlet Collar
Cement Lining
5 1/2"
Point on O.D. Cylinder
13 3/4"
12 1/4" I.D.

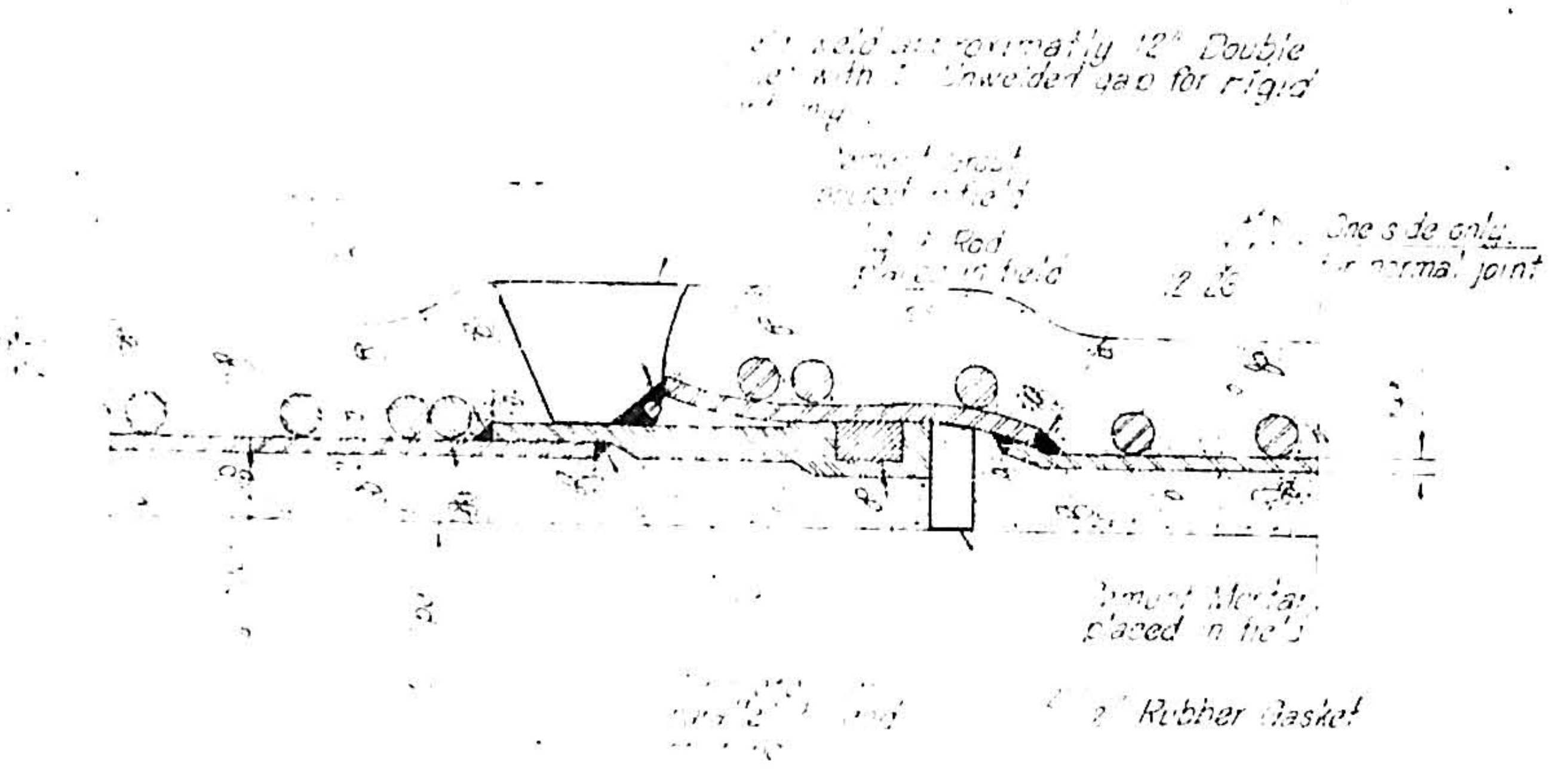
WELDING NECK DETAIL
No Scale

ORDER OF PROCEDURE
1. Remove Shop Applied Cement Mortar Coat Around Point to be Tapped.
2. Tack Weld Rods to Cylinder.
3. Cut Rods, Bend Out Allowing Room For Collar, Clean Cylinder.
4. Weld Collar to Cylinder and Air Test. Weld Rods to Collar.
5. Place Tapping Outline in Position and Weld.
6. Attach Tapping Tee and Machine and Proceed With Normal Tapping Operation.
7. Replace Mortar Coating.


Gate Valve
Top of support to be level with invert of inlet pipe
Valve Support
A
B
C
D
12" MIN.

VALVE SUPPORT DETAIL
No Scale

VALVE SUPPORT TABLE				
Valve Size	A	B	C	D
4"	8"	14"	3"	6"
6"	8"	14"	3"	6"
8"	17"	29"	4"	8"
10"	19"	31"	5"	10"
12"	21"	33"	6"	12"
14"	22"	34"	8"	14"
16"	25"	37"	8"	16"
18"	27"	39"	9"	18"
20"	30"	42"	11"	18"
24"	32"	44"	12"	18"


Rubber Gasket

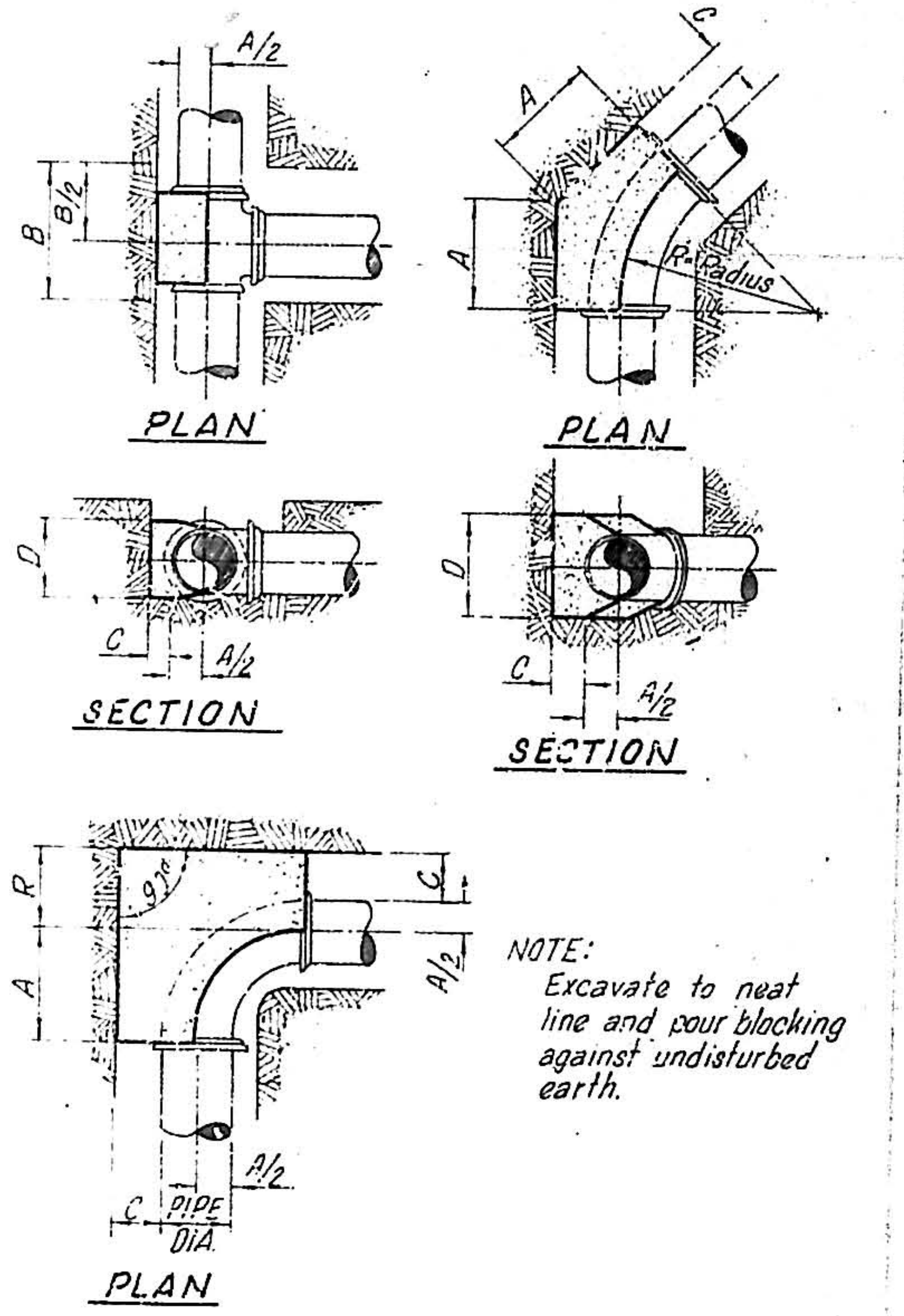
STEEL AND CONCRETE CYLINDER RIGID PIPE JOINT DETAIL
No Scale

PIPE DIAMETER	LENGTH REQUIRED*					
	Dead End	60° to 90°	30° to 60°	15° to 30°	15° and less	Tees
[illegible]	106	52'	22'	7'	2'	48'
[illegible]	132	60	24'	10'	5'	58'
[illegible]	1.6	69	27'	12'	7'	69'
24	170	[illegible]	[illegible]	30'	15'	86'

TABLE OF RIGID PIPE LENGTHS

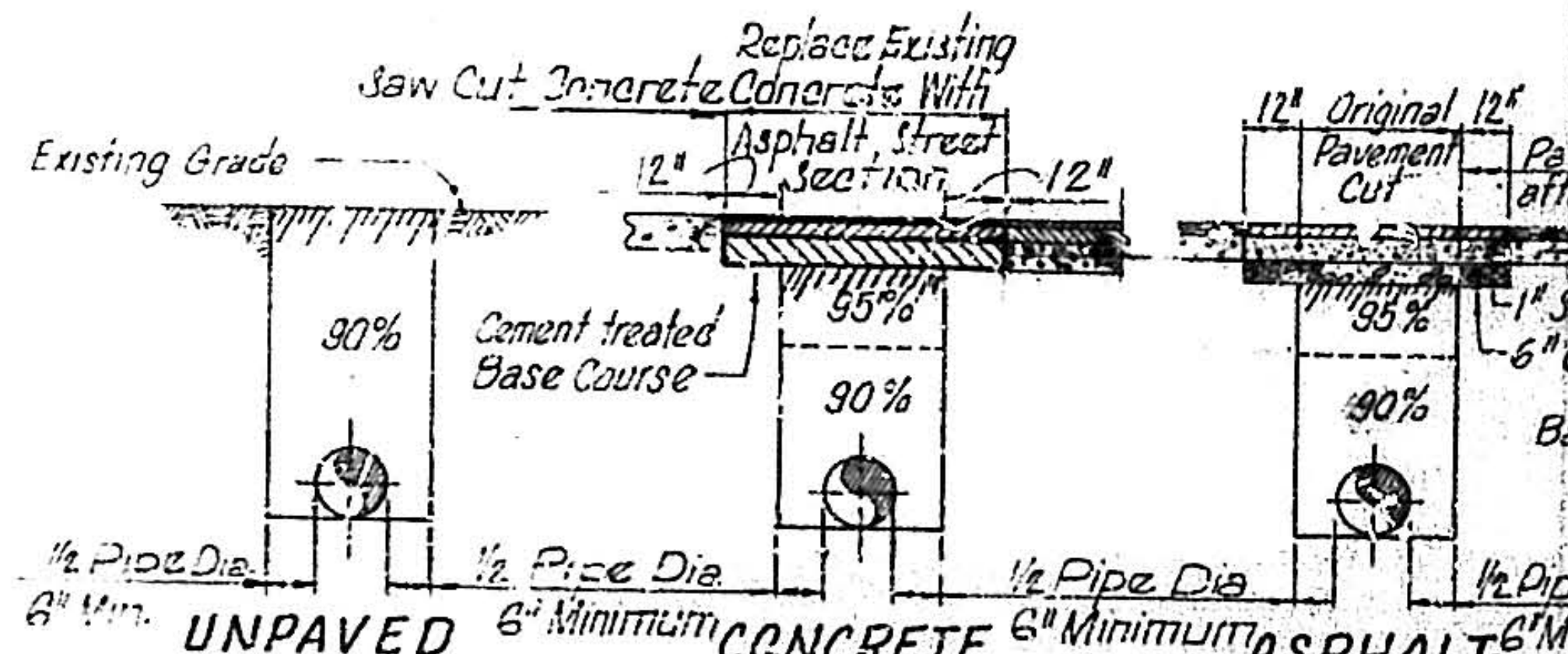
* Minimum length in feet of rigid pipe required on either side of bend or connection in lieu of blocking.

TABLE FOR CONCRETE BLOCKING FOR TEES AND BENDS					
PIPE DIA	A	B	C	D	R= Radius
4"	4"	8"	12"	6"	Function of Type of Pipe Supplied
6"	6	12"	11	9"	
8"	8"	16"	12"	12"	
10"	10	20"	12"	15"	
12"	12"	24"	12"	18"	
14"	14"	28"	12"	21"	
16"	16"	32"	12"	24"	
18"	18"	36"	12"	27"	
20"	20"	40"	12"	30"	
24"	24"	48"	12"	36"	


A/2
B
B/2
PLAN
A
C
R=Radius
PLAN
D
C
A/2
SECTION
D
C
A/2
SECTION
R
A
A/2
A/2
C
PIPE DIA.
PLAN

NOTE:
Excavate to neat line and pour blocking against undisturbed earth.

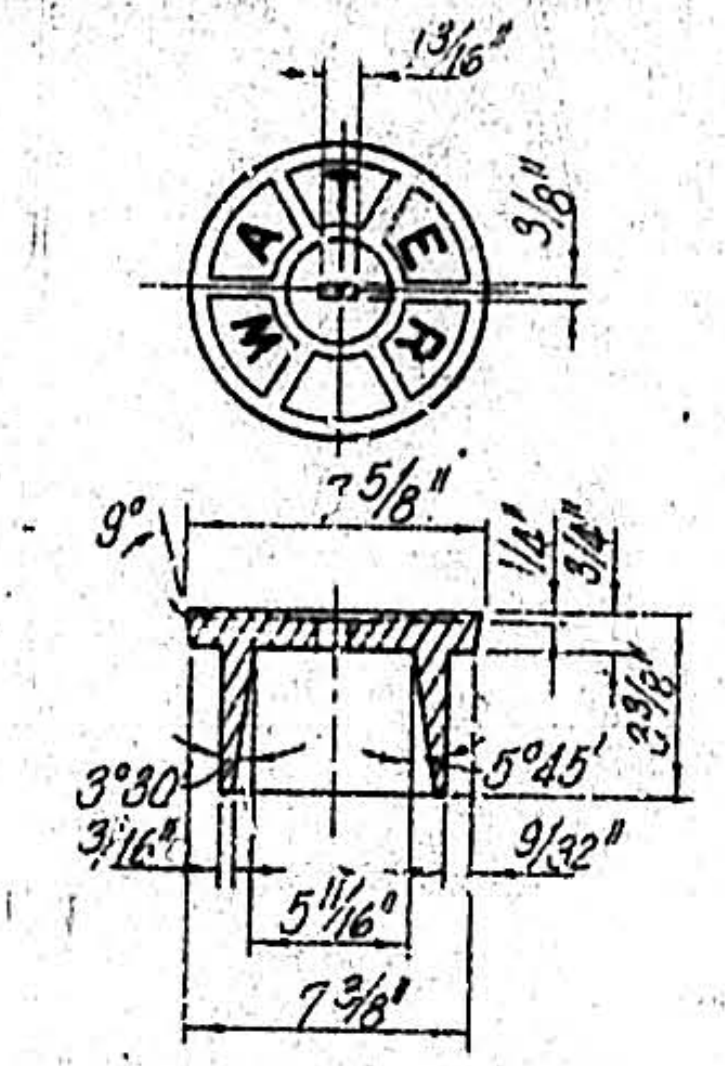
CONCRETE BLOCKING DETAILS
No Scale


Existing Grade
90%
1/2 Pipe Dia.
6" Min.
Saw Cut Concrete
Replace Existing Concrete With Asphalt Street Section
12"
12"
Cement treated Base Course
95%
90%
1/2 Pipe Dia
6" Minimum
12" Original Pavement Cut 12"
Pavement Cut after compaction
3" Asphalt Base Course
1" Surface Course
6" Cement treated Base Course
95%
90%
1/2 Pipe Dia
6" Minimum
1/2 Pipe Dia.
6" Min.

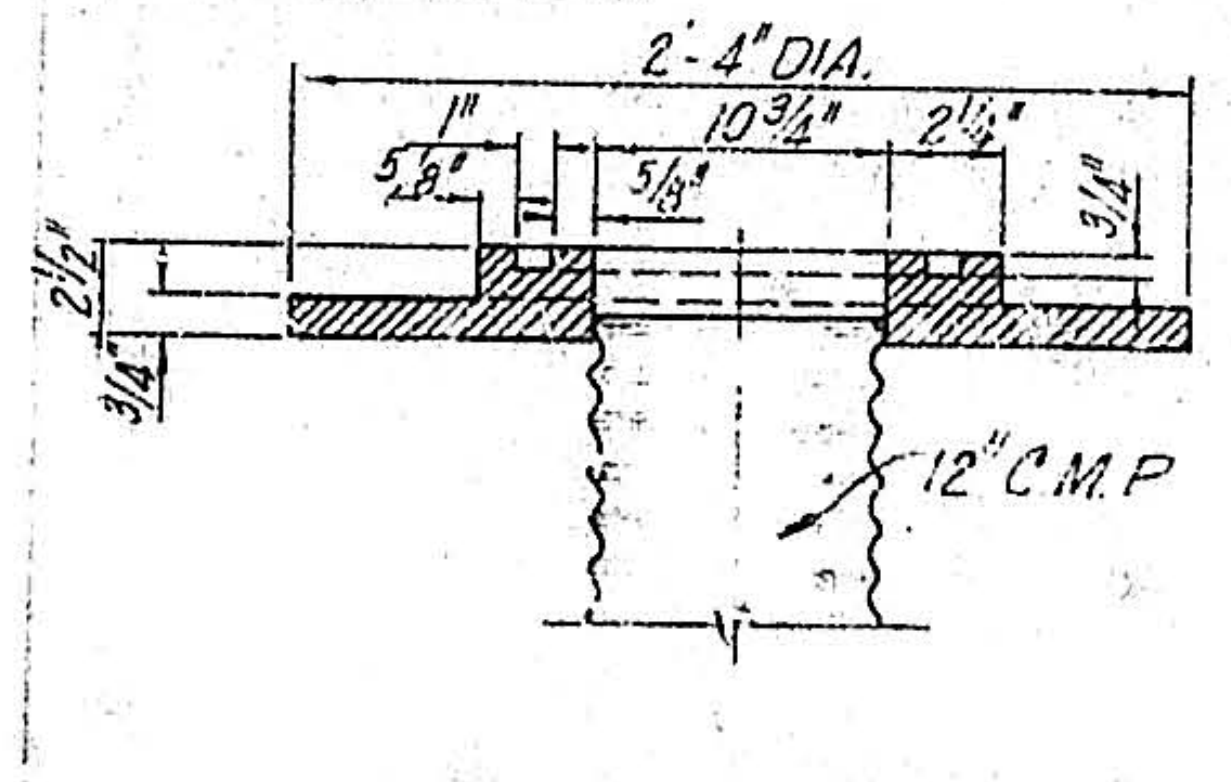
UNPAVED SECTION — CONCRETE STREET SECTION — ASPHALT STREET SECTION

Backfill Compaction Notes:
1. Top 6" Residential streets and top 12" Arterial Streets (Paved) to be compacted to 95% Mod. Proctor (A.A.S.H.O. T-180-57). Unpaved streets and balance of backfill to be 90% Mod Proctor (A.A.S.H.O. T-180-57).

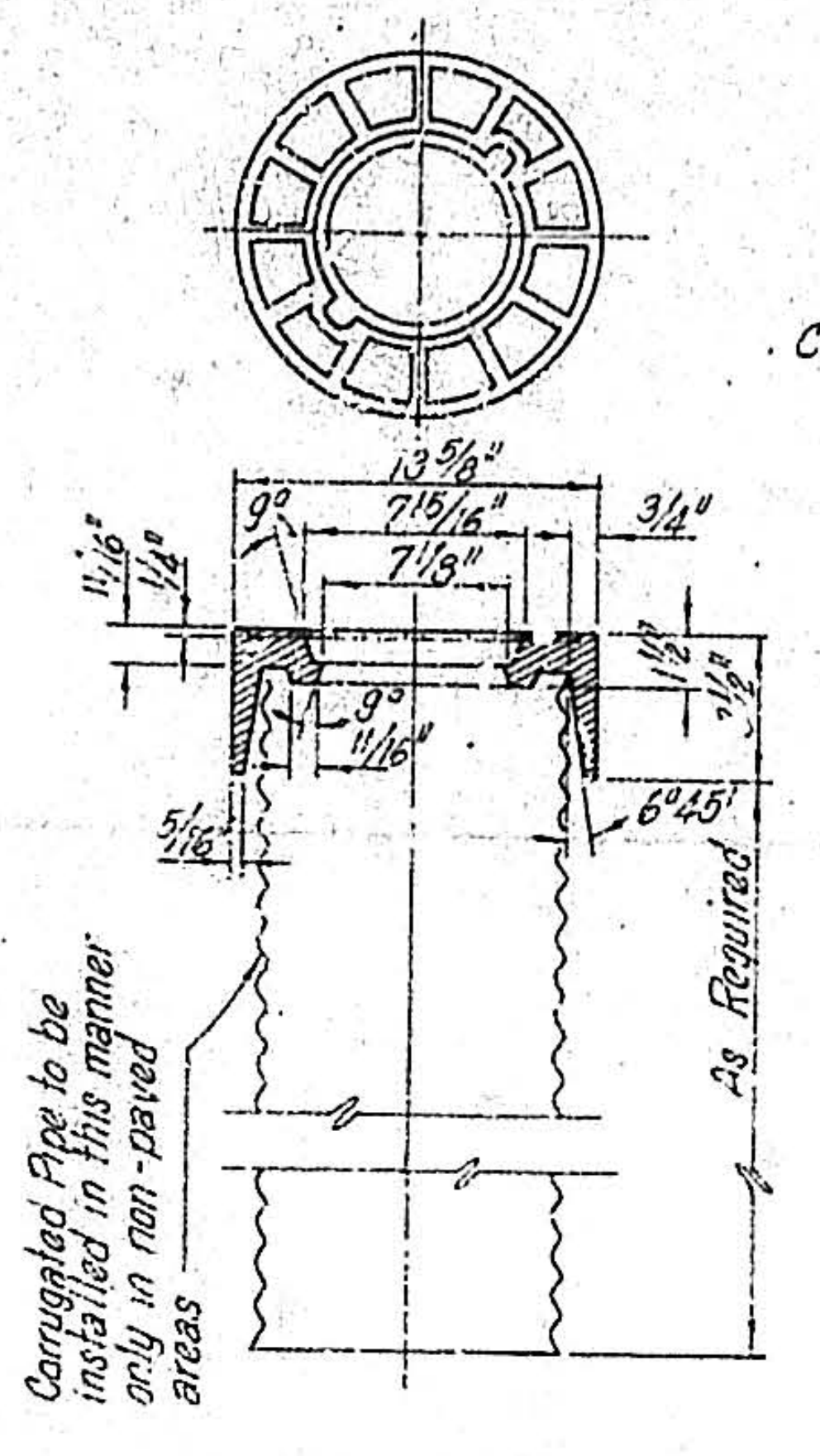
TRENCHING DETAILS
No Scale


13/16"
3/8"
7 5/8"
3/4"
3/4"
3/8"
3°30'
5°45'
5 11/16"
7 3/8"

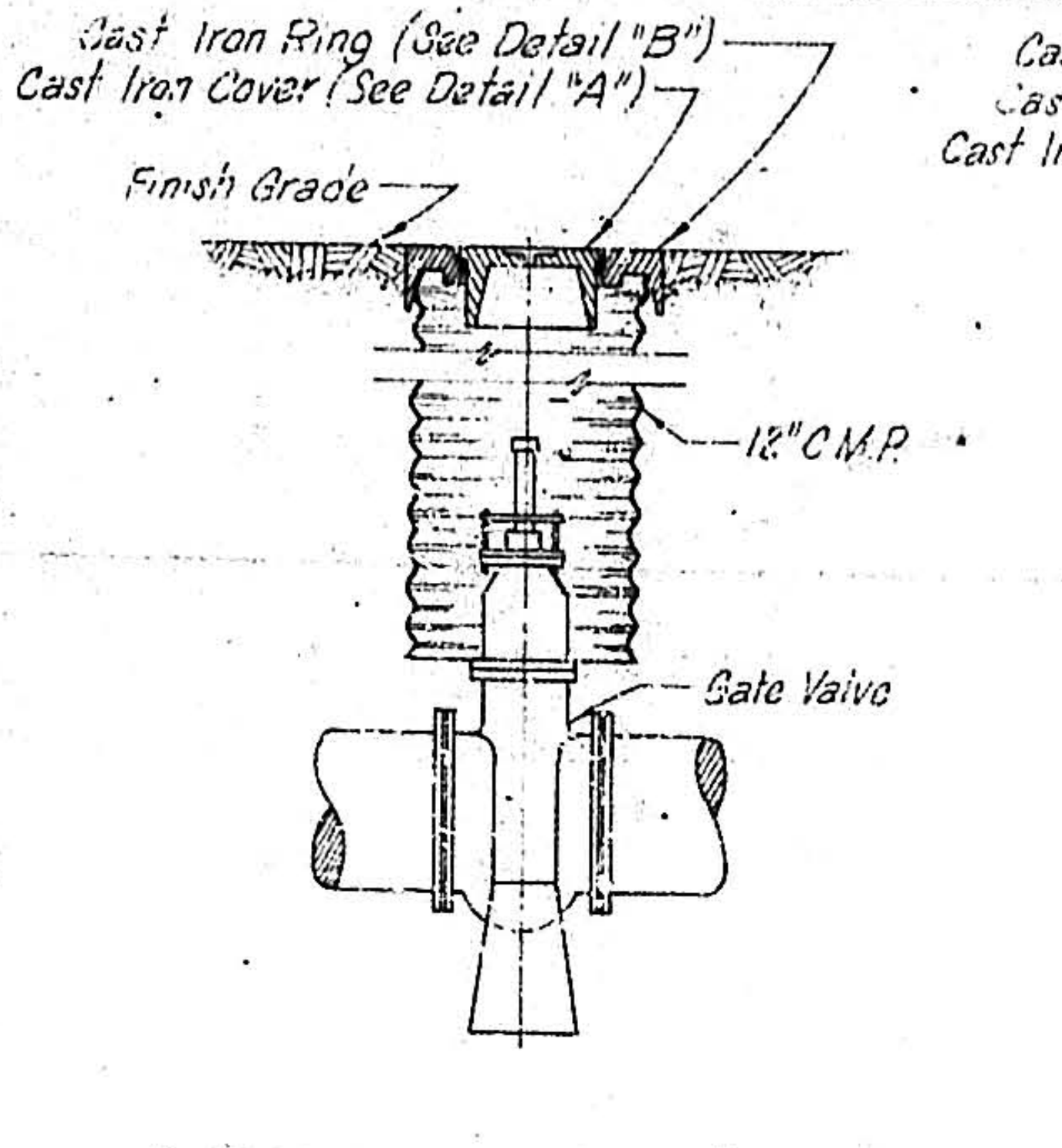
DETAIL "A" COVER


2'-4" DIA.
10 3/4"
2 1/2"
1"
5/8"
3/4"
3/4"
12" C.M.P.

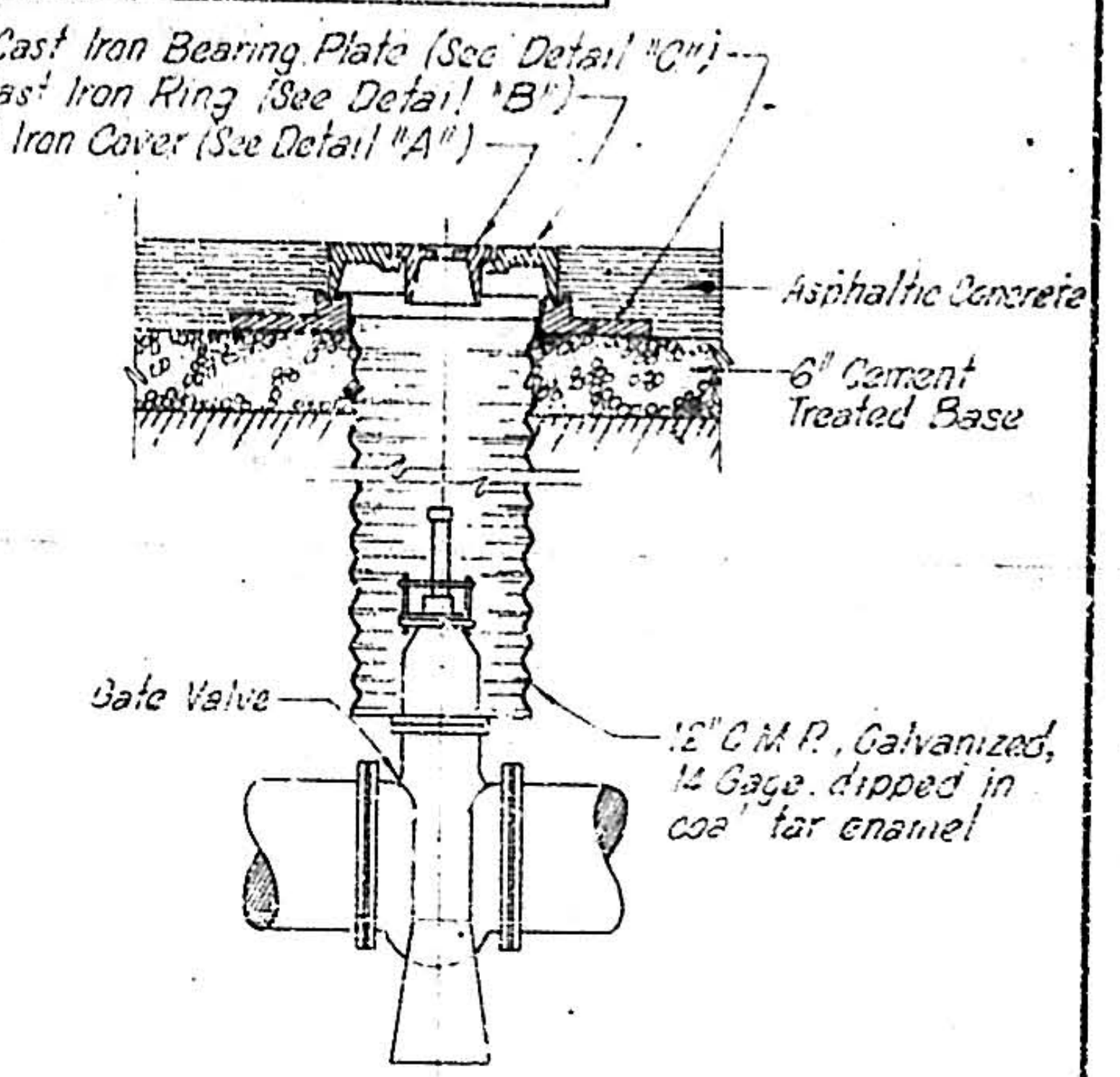
DETAIL "C" BEARING PLATE


13 3/8"
7 15/16"
7 3/8"
3/4"
6°45'
As Required
Corrugated Pipe to be installed in this manner only in non-paved areas

DETAIL "B" RING

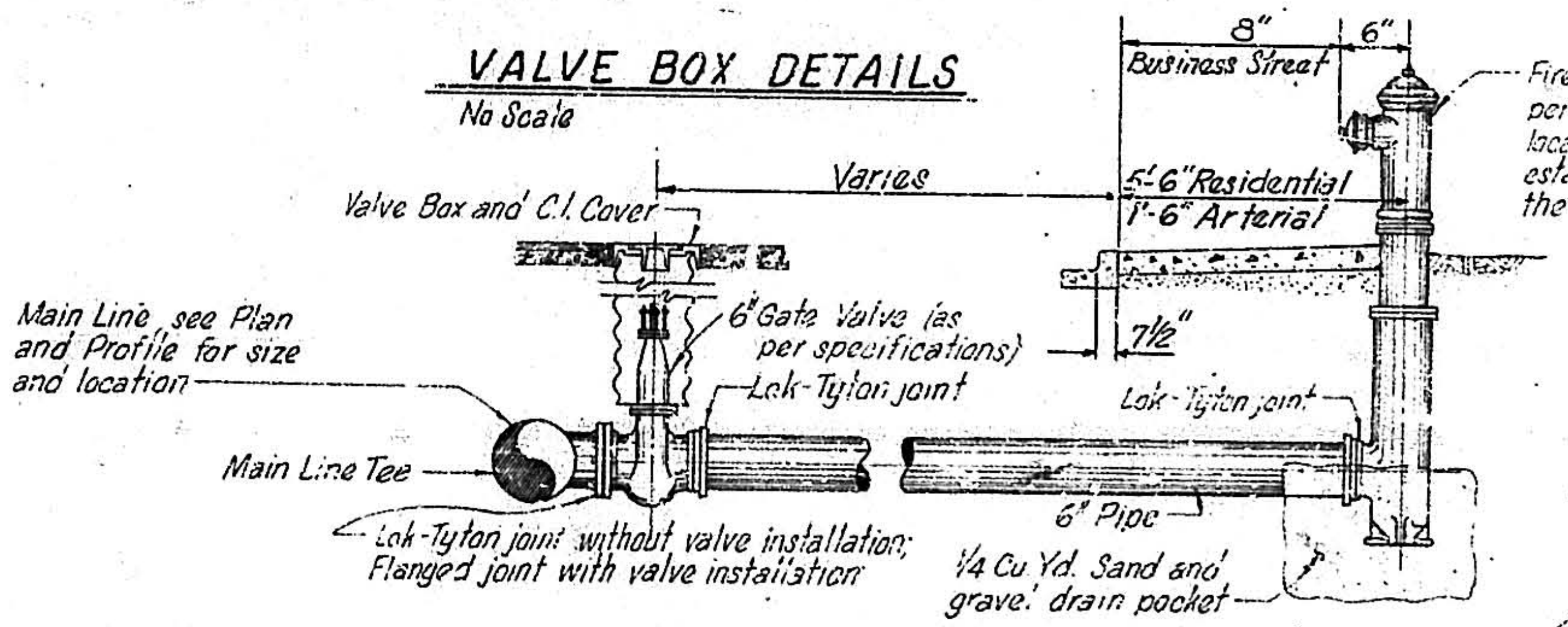

Cast Iron Ring (See Detail "B")
Cast Iron Cover (See Detail "A")
Finish Grade
12" C.M.P.
Gate Valve

UNPAVED STREET SECTION


Cast Iron Bearing Plate (See Detail "C")
Cast Iron Ring (See Detail "B")
Cast Iron Cover (See Detail "A")
Asphaltic Concrete
6" Cement Treated Base
Gate Valve
12" C.M.P., Galvanized, 14 Gage, dipped in coal tar enamel

PAVED STREET SECTION

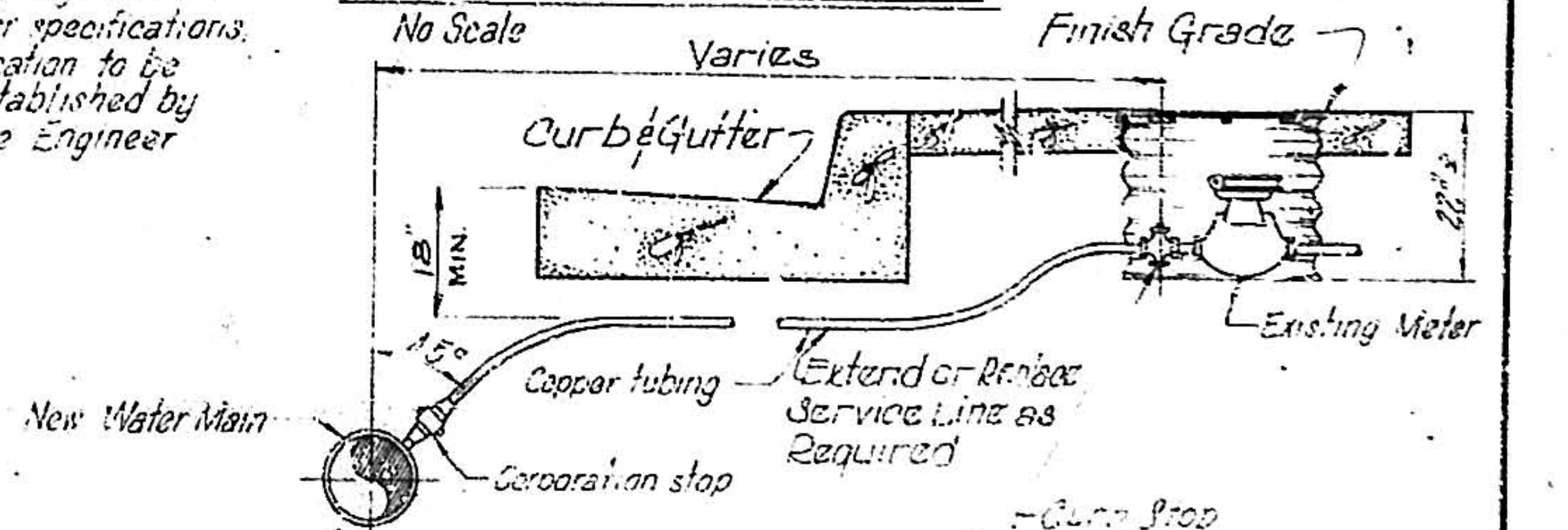
VALVE BOX DETAILS
No Scale


8"
6"
Business Street
Fire Hydrant as per specifications, location to be established by the Engineer
Varies
5'-6" Residential
1'-6" Arterial
Valve Box and C.I. Cover
6" Gate Valve (as per specifications)
Lok-Tyton joint
7 1/2"
Main Line, see Plan and Profile for size and location
Main Line Tee
Lok-Tyton joint
6" Pipe
Lok-Tyton joint without valve installation; Flanged joint with valve installation
1/4 Cu. Yd. Sand and gravel drain pocket

NOTES: 1. A 6" Gate Valve on fire hydrant connection piping is only required when the main line is sized 12" DIA. and larger.
2. When connecting an existing fire hydrant to new main, cut connection piping and use cast coupling to make connection. Lok-Tyton joint not required.

FIRE HYDRANT SETTING DETAIL
No Scale

VALVE BOX DETAILS
No Scale


Varies
Finish Grade
Curb & Gutter
18" MIN.
Existing Meter
15°
Copper tubing
Extend or Relocate Service Line as Required
New Water Main
Corporation stop
Curb Stop

TRANSFER and SETBACK METER SERVICE LINE INSTALLATION
No Scale

Note: Minimum 18" of Sidewalk Shall be Sawed and Removed and Replaced to Facilitate Service Line Installation.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	9		1	7	6	0	7	7	1							1	0											

AS CONSTRUCTED

ALBUQUERQUE, NEW MEXICO

PIPING AND VALVE DETAILS

GORDON HERKENHOFF & ASSOCIATES, INC.
CONSULTING ENGINEERS
ALBUQUERQUE NEW MEXICO

SCALE	DATE	DRAWN: C.A.S.	SHEET 7
AS SHOWN	JULY, 1970	CHECKED: G.A.J.	OF 56

07-176
09-176
09-176

STA 0-20
For Manhole Location
See Sheet #44
20' Concrete Encasement 00+0
STA 0-10
Connect to 16 x 16 x 10 Tee
1-10" Gate Valve
1-Valve Box
STA 0+10
1-6" Fire Hydrant 5'-6" Lok-Tyton Pipe
1-10"x10"x6" Tee Blocking
STA 0+50 Build Double "C"
inlet INV. EL 03.40
STA 1+00 Build Double "C"
inlet INV. EL 04.25
MIRIESS
5
10 CORP.
ACADEMY FOR BOYS TRUST
H.P.D. CO.
2
N
15
P.I. STA. 6+00.17
Δ = 27° 56' RT
Take up Deflections in pipe joints
10" Water Line 5' South of North Right of Way
R/W Line
W
1/2" I.P. in Conc.
ACADEMY
RD. N.E.
℄ Construction & Survey
301.9'
297.4'
318.4'
300'
300.5'
S
12" Sewer Line
53'
43'
45'
86'
R/W Line
1/2" I.P. in Conc.
P.T. STA. 10+32.56
STA. 12+00
1-10" Gate Valve
1-Valve Box
18" R.C.P.
S=.009
18" RCP
S=.009
18" R.C.P.
S=.009
30" RCP
S=.008
STA. 3+00
Build 4' Dia.
Type "B" Manhole
STA. 6+00
Build 4' Dia.
Type "B" Manhole
STA. 9+00
Build 4' Dia.
Type "B" Manhole
STA. 12+00
Build 4' Dia.
Type "B" Manhole
STA. 14+45
6" Sewer Stub
STA. 14+55
2" Water Stub
STA. 15+00
Build 4' Dia.
Type "B" Manhole
STA. 12+00 ℄ CONSTR.
EQ.
STA. 11+99.11 PIPE BK.
STA. 12+00 PIPE AH.
STA. 0+30 35' S. of ℄
Build 4' DIA. Type "A" MH
INV. EL. 02.90
STA. 0+80 35' S. of ℄
Build 4' DIA. Type "A" MH
INV. EL 03.75
SANGRE
DE
CRISTO
CORP.
69-07
62
02
℄ CURVE DATA
P.I. STA. 6+00.17
Δ = 27° 56' RT.
R = 1810'
L = 882.56'
T = 450.17'
1/2" I.P. in Conc.
℄ R/W Line
℄ Survey
53.00'
53.00'
1/2" I.P. in Conc.
℄ R/W Line
PROPERTY TIE
STA. 10+32.56
T.B.M.: Top 1/2" I.P. in Conc.
Approx 53' RT. STA. 13+25
EL. 5228.57
RHODES TRACT
SCALES
Horiz. 1" = 50'
Vert. 1" = 5'
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
0 7 1 7 6 2 8 7 1 0 2 0 2 6 2 1 8 2
09
5230
5225
5230
5225
5220
5215
5210
5205
5215
5210
5205
5200
5210
5205
5200
Exist. Ground
10" Water Line
Existing ground
Finish Grade
Existing ground
Finish Grade
Begin Conc. Encasement
S=0.0168
S=0.0168
S=0.0168
S=0.0168
S=0.0168
S=0.0168
12" V.C.P. Sewer Line
STA. 0-20
Inv. Elev. 98.66
STA. 3+00
Inv. Elev. 04.04
STA. 6+00
Inv. Elev. 09.07
STA. 9+00
Inv. Elev. 14.11
STA. 12+00
Inv. Elev. 19.14
STA. 15+00
Inv. Elev. 24.18
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
AS CONSTRUCTED

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

SPECIAL ASSESSMENT DISTRICT NO. 176 SHEET 28 OF 56

15
N
20
25
2
30
ct. STA. 30+46.56
€ CURVE DATA
P.I. STA. 26+73.61
Δ = 27°46'20" Lt.
R = 1510'
L = 761.01'
T = 388.06'
OPPOSITE STA. 26+75
1-10"x10"x10" Tee
1-10" Gate Valve
1-Valve Box
Blocking
Take up deflection in pipe joints
Nail in Conc.
298.5'
43'
36'
55'
201'
200'
20' Concrete Encasement
Install 55'-4" C.I. Soil Pipe S=1/4" Per ft.
STA. 30+00 Build 4' Dia. Type "B" Manhole
STA. 28+00 Build 4' Dia. Type "B" Manhole
For continuation see sheet 46
P.I. STA. 26+73.61 Δ= 27°46'20" Lt
10" Waterline 5' South of North Right of Way
R/W Line
P.C. STA. 22+85.55
300.8'
ACADEMY
300.0'
RD.
N.E.
€ Construction & Survey
297.5'
53'
13'
26'
STA. 17+45 6" Sewer Stubout
STA. 17+55 2" Water Stubout
STA. 18+00 Build 4' Dia. Type "B" Manhole
STA. 20+50 4" Sewer Stubout
STA. 20+50 1 1/4" Water Stubout
STA. 21+00 Build 4' Dia. Type "B" Manhole
STA. 22+50 6" Sewer Stubout
STA. 22+60 4" Water Stubout
STA. 23+50 6" Sewer Stubout
STA. 24+00 Build 4' Dia. Type "B" Manhole
STA. 24+50 6" Sewer Stubout
STA. 24+60 4" Water Stubout
STA. 26+00 Build 4' Dia. Type "B" Manhole
100'
R/W Line
Nail in Conc.
55'
€ Survey
PROPERTY TIE
STA. 30+46.56
SCALES
1" = 50' Hor.
1" = 5' Ver.
09 07
02 02
RHODES
TRACT
ARROYO DEL OSO GOLF COURSE & PARK
07 176 2971 02 02 62182
09
PLAN
PROFILE
5245
5240
5235
5230
5260
5255
5250
Existing Ground
10" Waterline
Top north curb
Top Finish Grade
Existing ground
12" V.C.P. Sewer Line
S = 0.0168
S = 0.00875
S = 0.0218
STA. 18+00 Inv. El. 29.21
STA. 21.00 Inv. El. 34.25
STA. 24+00 Inv. EL. 39.29
STA. 26+00 Inv. El. 41.04
Begin Concrete Encasement
STA. 28+00 Inv. El. In = 42.75 Inv. El. Out = 46.00
STA. 30+00 Inv. EL. 50.37
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31

AS CONSTRUCTED

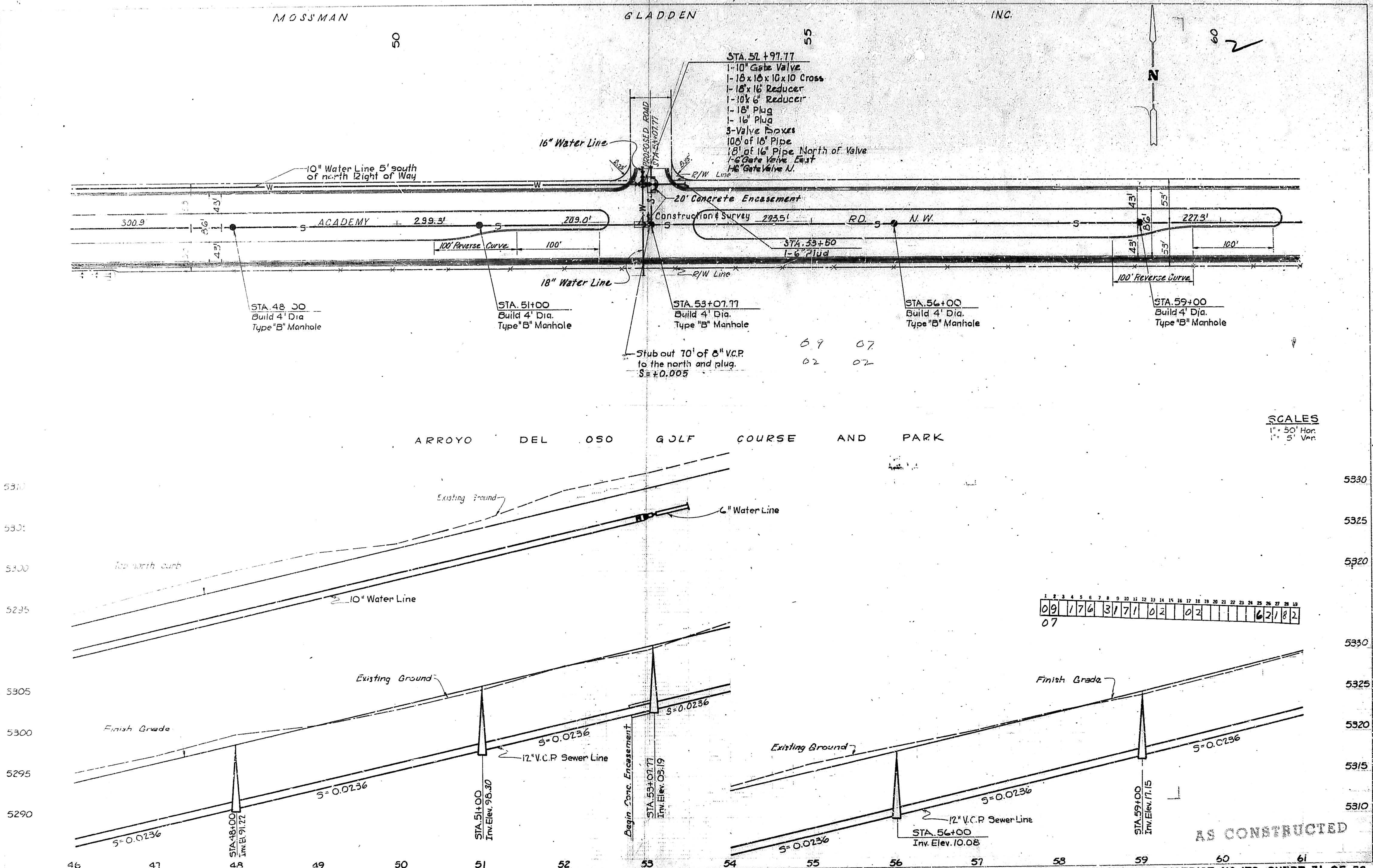
PLATE 1 SINGLE PLAN - PROFILE - DOTTED
CHARLES BRUNING COMPANY
MADE IN U.S.A.

SPECIAL ASSESSMENT DISTRICT NO. 176 SHEET 29 OF 56

35
MOSSMAN — GLADDEN INC.
40
45
N
2
STA. 35+95.78
1-10x10x6 Tee
1-10" Gate Valve
2-Valve Boxes
18'-6" Pipe
1-6" Plug
Blocking
1-6" Gate Valve
43'
43'
Proposed R/W Line
℄ Proposed Road STA. 37+32.38
Proposed R/W Line
20' Concrete Easement
R/W Line
10" Water Line 5' south of north Right of Way
W
ACADEMY
ROAD N.E.
53'
86'
43'
299.47'
432.38'
S
167.62'
301'
℄ Construction ℄ Survey
299.00'
90°
100' Reverse Curve
100'
R/W Line
4" Strand Wire Fence
55'
EQU.
STA 33+00
Build 4 Dia
Type "B" Manhole
Stubout 70'-8" V.C.P. to the north and plug. S=+0.005
STA. 37+32.38
Build 4' Dia.
Type "B" Manhole
STA. 39+00
Build 4' Dia.
Type "B" Manhole
STA. 42+00
Build 4' Dia.
Type "B" Manhole
STA. 45+00
Build 4' Dia.
Type "B" Manhole
STA. 33+00 ℄ CONSTR.
STA. 32+99.47 PIPE BK.
STA. 33+00 PIPE AH.
09 07
02 02
ARROYO DEL OSO GOLF COURSE AND PARK
SCALES
1" = 50' Hor.
1" = 5' Ver.
07 176 3071 02 02 62182
09
5280
5275
5270
5265
5260
5270
5265
5260
5295
5290
5285
5280
5275
5290
5285
5280
5275
Existing Ground
Top north curb
10" Water Line
Existing Ground
12" V.C.P. Sewer Line
S=0.0218
Finish Grade
STA. 33+00 Inv. El. 56.92
STA. 37+32.38 Inv. El. 66.35
STA. 39+00 Inv. Elev. 70.01
Top north curb
10" Water Line
Existing Ground
Finish Grade
Top south curb
S=0.0236
12" V.C.P. Sewer Line
STA. 42+00 Inv. El. 71.08
STA. 45+00 Inv. Elev. 84.16
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
PLATE 1 SINGLE PLAN - PROFILE - DOTTED
CHARLES BRUNING COMPANY
MADE IN U.S.A.

AS CONSTRUCTED

SPECIAL ASSESSMENT DISTRICT NO. 176 SHEET 30 OF 56


MOSSMAN
GLADDEN
INC.
50
55
60
N
STA. 52+97.77
1-10" Gate Valve
1-18x18x10x10 Cross
1-18"x16" Reducer
1-10"x6" Reducer
1-18" Plug
1-16" Plug
3-Valve Boxes
108' of 18" Pipe
18' of 16" Pipe North of Valve
1-6" Gate Valve East
1-6" Gate Valve N.
16" Water Line
PROPOSED ROAD
STA. 53+07.77
R=25'
R=25'
R/W Line
10" Water Line 5' south of north Right of Way
20' Concrete Encasement
Construction ¢ Survey
ACADEMY
RD.
N.W.
300.9
299.3'
209.0'
293.5'
227.3'
43'
86'
53'
100' Reverse Curve
100'
STA. 53+50
1-6" Plug
18" Water Line
R/W Line
STA. 48+00
Build 4' Dia
Type "B" Manhole
STA. 51+00
Build 4' Dia.
Type "B" Manhole
STA. 53+07.77
Build 4' Dia.
Type "B" Manhole
STA. 56+00
Build 4' Dia.
Type "B" Manhole
STA. 59+00
Build 4' Dia.
Type "B" Manhole
Stub out 70' of 8" V.C.P. to the north and plug.
S=+0.005
69 07
02 02
ARROYO DEL OSO GOLF COURSE AND PARK
SCALES
1" = 50' Hor.
1" = 5' Ver.
Existing Ground
6" Water Line
Top north curb
10" Water Line
Existing Ground
Finish Grade
12" V.C.P. Sewer Line
S=0.0236
Begin Conc. Encasement
STA. 48+00 Inv. El. 91.22
STA. 51+00 Inv. Elev. 98.30
STA. 53+07.77 Inv. Elev. 03.19
STA. 56+00 Inv. Elev. 10.08
STA. 59+00 Inv. Elev. 17.15
Finish Grade
Existing Ground
5310
5305
5300
5295
5290
5330
5325
5320
5315
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	9		1	7	6		3	1	7	1		0	2			0	2							6	2	1	8	2

07

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

SPECIAL ASSESSMENT DISTRICT NO. 176 SHEET 31 OF 56

2

BEAR CANYON VILLAGE
80
85
STA. 81+24.17
1-10"x10"x6" Tee
1-6" Gate Valve
1-6" Plug
1-Valve Box
18'-6" Pipe
Blocking
25' 25'
TORREON DR. NE
STA.81+34.17
STA. 84+31.17
1-10"x10"x6" Tee
1-6" Plug
18'-6" Pipe
1-6" Gate Valve
1-Valve Box
Blocking
30' 30'
CUBERO DR. N.E.
STA.84+41.17
20' Concrete Encasement
N
STA. 87+31.17
1-12"x12"x6" Tee
1-10" Gate Valve
1-6" Gate Valve-South
2-Valve Box
1-12"x10" Reducer
126'-6" Pipe
Connected to Existing Line
5' S.of N. R/W
10" Water Line
R/W Line
5' S. of N. R/W
10" Water Line
R/W Line
5' S. of N. R/W
12" Water Line
ACADEMY ROAD N.E.
299.8'
234.8'
100' Reverse Curb
100'
℄ Construction ℄ Survey
307.2'
100' Reverse Curb
70'
299.5'
20' Concrete Encasement
53 43' 86' 43' 33
53' 45' 86' 43' 53' 53'
R/W Line
STA. 79+00
Build. 4' Dia.
Type "B" Manhole.
STA. 81+34.17
Build. 4' Dia.
Type "B" Manhole.
Stub out 70' of
8" V.C.P. North ℄ Plug.
S=+0.005
STA. 84+41.17
Build. 4' Dia.
Type "B" Manhole.
Stub out 70' of
8" V.C.P. North ℄ Plug.
S=+0.005
6" Water Line
KNIGHTS RDALE
STA.87+41.17
32' 32'
STA. 87+41.17
Build. 4' Dia.
Type "B" Manhole.
69 07
07 03
AMERICAN HERITAGE NORTH
SCALES
1"=50' Hor.
1"=5' Ver.
5395 5390 5385 5380 5375 5370 5365
5380 5375 5370 5365
5395 5390 5385 5380 5375
5410 5405 5400 5395 5410 5405 5400 5395 5390
Top North Curb
10" Water Line
Existing Ground
10" Water Line
Top North Curb
Existing Ground
10" Water Line
12" Water Line
Existing Ground
Finish Grade
Existing Ground
Finish Grade
Existing Ground
Finish Grade
8" V.C.P. Sewer Line
S=0.03
STA. 79+00
INV. ELV. 71.26
S=0.03
STA. 81+34.17
INV. ELV. 78.28
8" V.C.P. Sewer Line
S=0.032
S=0.036
8" V.C.P. Sewer Line
STA. 84+41.17
INV. ELV. 88.11
Begin Conc. Encasement
STA. 87+41.17
INV. ELV. 98.71
S=0.0296
76 77 78 79 80 81 82 83 84 85 86 87 88
PLAN
PROFILE

07 | 176 | 3371 | 03 | 02 | 6219 2

09

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

SPECIAL ASSESSMENT DISTRICT NO. 176 SHEET 33 OF 56

2

N
90
95
℄ Curve Data
P.I. STA. 93+16.32
Δ = 27°50'40" Lt.
R = 1805'
L = 879.29'
T = 448.55'
P.C. STA. 88+67.77
12" Water Line 5' south of north Right of Way
Take up Deflections in pipe joints
R/W Line
100' Reverse Curve
206.9'
ACADEMY
RD.
N.E.
151.4'
149.6'
149.7'
150.3'
150.5'
℄ Construction & Survey
8" Sewer Line
Rebar
P.I. STA. 93+16.32
Δ = 27°50'40" LT
STA. 89+50 Build 4' Dia. Type "B" Manhole
STA. 91+00 Build 4' Dia. Type "B" Manhole
STA. 92+50 Build 4' Dia. Type "B" Manhole
STA. 94+00 Build 4' Dia. Type "B" Manhole
STA. 95+50 Build 4' Dia. Type "B" Manhole
STA. 97+00 Build 4' Dia. Type "B" Manhole
1. F.A.A. Buried Cable (Do Not Disturb)
2. M.S.T. & T. Buried Cable (to be lowered by others)
3. 2-Circuits of 3 ϕ Electric Cable 2-4" Duct Encased in Concrete
P.T. STA. 97+44.96
STA. 99+14
1-8"x8 Tapping Sleeve
1-12"x8" Reducer
1-8" Gate Valve
1-Valve Box (FL×MJ)
Blocking
Dry Tap By City
STA. 99+57.47
Stub out one peice of 8" V.C.P. south and east and plug.
S=0.004 (Up) South
S=0.03 (Up) East
Existing Water Line 12"
WYOMING BLVD. N.E.
Edge of Oil
258.0'
100'
100' Reverse Curve
Nail in Conc.
53'
43'
86'
PROPERTY TIE STA. 88+67.77
PROPERTY TIE STA. 97+44.96
R/W Line
℄ Survey
CAUTION! BURIED CABLES BEFORE EXCAVATING CALL TEL. CO. 842-1211
B.M. Nail in P.P. S.E. Cor. of Int. Academy & Wyoming EL. 5442.04
SCALES
1" = 50' Hor.
1" = 5' Ver.
SWEARINGEN
Top north curb
Existing Ground
12" Water Line
Finish Grade
8" V.C.P. Sewer Line
S=0.0296
STA. 89+50 Inv. Elev. 05.09
STA. 91+00 Inv. El. 09.53
STA. 92+50 Inv. Elev. 13.97
STA. 94+00 Inv. Elev. 18.41
STA. 95+50 Inv. El. 22.85
STA. 97+00 Inv. Elev. 27.29
STA. 99+57.47 Inv. Elev. 34.91
Top of manhole to be determined in the field by the Engineer.
5405
5410
5415
5420
5425
5430
5435
5440
5445
15
20
25
30
35
88
89
90
91
93
94
95
96
97
98
99
07 176 3471 03 02 62192
09

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

AS CONSTRUCTED

SPECIAL ASSESSMENT DISTRICT NO. 176 SHEET 34 OF 56

2
STA. 0-10
Connect to 16"×16"×6" Tee
1-6" Gate Valve
1-Valve Box
See Sheet No. 43 for location.
STA 0+15
1-6"×6"×6" Tee
1-6" Fire Hydrant
25'-6" Lok-Tyton Pipe
Blocking
20' Concrete Easement
STA. 0-20
For Manhole Location
See Sheet #43
STA. 2+50
Build 4' Dia.
Type "B" Manhole
STA. 5+50
Build 4' Dia.
Type "B" Manhole
STA. 8+50
Build 4' Dia.
Type "B" Manhole
STA. 11+50
Build 4' Dia.
Type "B" Manhole
STA. 13+00
Build 4' Dia.
Type "B" Manhole
OSUNA ROAD N.E.
℄ Construction ℄ Survey
Right of way
6" Waterline 10' North of ℄
271'
289'
300.5'
300.5'
150'
150.5'
Rebar
I.P. in concrete
PC STA. 10+63.16
℄ CURVE DATA
P.I. STA. 12+60.16
Δ=25°13'24" RT.
R=1323.00
L=584.35'
T=297.00'
STA. 12+00
1-6" Gate Valve
1-Valve Box
Double "C" Inlets
See Sheet #47
24" R.C.P.
See Sheet #47
Take up Deflection
In Pipe joints
STA. 12+95
4" Sewer Stubout
STA. 13+03
1¼" Water Stubout
18" R.C.P.
See Sheet #47
Match Line STA. 14+00
N
SCALES
1"=50' Horiz.
1"=5' Vert.
PLAN
PROFILE
Existing Ground
Finish Grade
6" Waterline
5210
5205
5220
5225
5230
8" VPC
S=0.0151
8" VCP
S=0.0151
STA. 0-20
Inv. El. 2.80
STA. 2+50
Inv. El. 6.58
STA. 5+50
Inv. El. 11.12
STA. 8+50
Inv. El. 15.65
STA. 11+50
Inv. El. 20.19
STA. 13+00
Inv. El. 22.46
0-100
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
07 178 3571 03 03 6218
09
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PLATE 1 SINGLE PLAN - PROFILE - DOTTED
CHARLES BRUNING COMPANY
MADE IN U.S.A.

SPECIAL ASSESSMENT DISTRICT NO. 176 SHEET 35 OF 56

2
15
20
25
30
N
STA. 14+50
Build 4' Dia.
Type "B" Manhole
Take up deflection
in pipe joints.
STA. 16+20
1¼" Water Stubout
STA. 17+50
Build. 4' Dia.
Type "B" Manhole
STA. 19+00
Build. 4' Dia.
Type "B" Manhole
STA. 20+50
Build. 4' Dia.
Type "B" Manhole
STA. 27+02
1-12"×12"×12" Tee
1-12"×6" Reducer
1-6" Gate Valve
1- Valve Box
Blocking
CURVE DATA
P.I. STA=28+01.10
Δ=22°50' LT.
R=800'
L=314.16'
T=159.13'
150.5'
149.5'
151'
148.5'
150.5'
300.00'
270.5'
156.4'
157.5'
OSCURA ROAD N.E.
℄ Construction & Survey
W
S
STA. 16+00
Build. 4' Dia.
Type "B" Manhole
STA. 14+74
1¼" Water Stubout
STA. 14+64
4" Sewer Stubout
STA. 16+10
4" Sewer Stubout
STA. 18+17
4" Water Stubout
STA. 18+07
6" Sewer Stubout
P.T. STA. 19+15.54
STA. 20+50
6" Sewer Stubout
STA. 23+50
Build. 4' Dia.
Type "B" Manhole
6" Water Line
Rebar
100'
12" ℄ W
P.C. STA. 26+41.97
12" R.C.P. & New Manhole
See Sheet 46.
12" R.C.P.
12" Water Line
Take up deflection
in pipe joints.
P.T. STA. 29+56.13
STA. 23+10
4" Water Stubout
STA. 23+00
6" Sewer Stubout
CURVE DATA
P.I. STA. 18+12.47
Δ=14°37'30" RT.
R=785.10
L=328.03
T=164.91'
69 07
6 03
STA. 26+41.97
Build. 4' Dia.
Type "B" Manhole
STA. 28+00
Build. 4' Dia.
Type "B" Manhole
STA. 29+56.13
Build. 4' Dia.
Type "B" Manhole
SCALES
1"=50' Horiz.
1"=5' Vert.
PLAN
PROFILE
5250
5245
5240
5235
5230
5245
5240
5235
Existing Ground
Finish Ground
6" Water Line
Existing Ground
Finish Grade
8" V.C.P.
S=0.0151
8" V.C.P.
S=0.0236
8" V.C.P.
S=0.0236
8" V.C.P.
S=0.0236
8" V.C.P.
S=0.0236
STA. 14+50
INV. ELV. 24.73
STA. 16+00
INV. ELV. 27.00
STA. 17+50
INV. ELV. 30.54
STA. 19+00
INV. ELV. 34.08
STA. 20+50
INV. ELV. 37.62
5260
5255
5265
5260
5255
Existing Ground
Finish Grade
12" Water Line
6" Water Line
07 176 3671 03 03 6218
09
Existing Ground
Finish Grade
8" V.C.P.
S=0.0236
8" V.C.P.
S=0.0236
8" V.C.P.
S=0.0149
S=0.0149
8" V.C.P.
S=0.0149
STA. 23+50
INV. ELV. 44.70
STA. 26+41.97
INV. ELV. 51.57
STA. 28+00
INV. ELV. 53.93
STA. 29+56.13
INV. ELV. 56.26
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30

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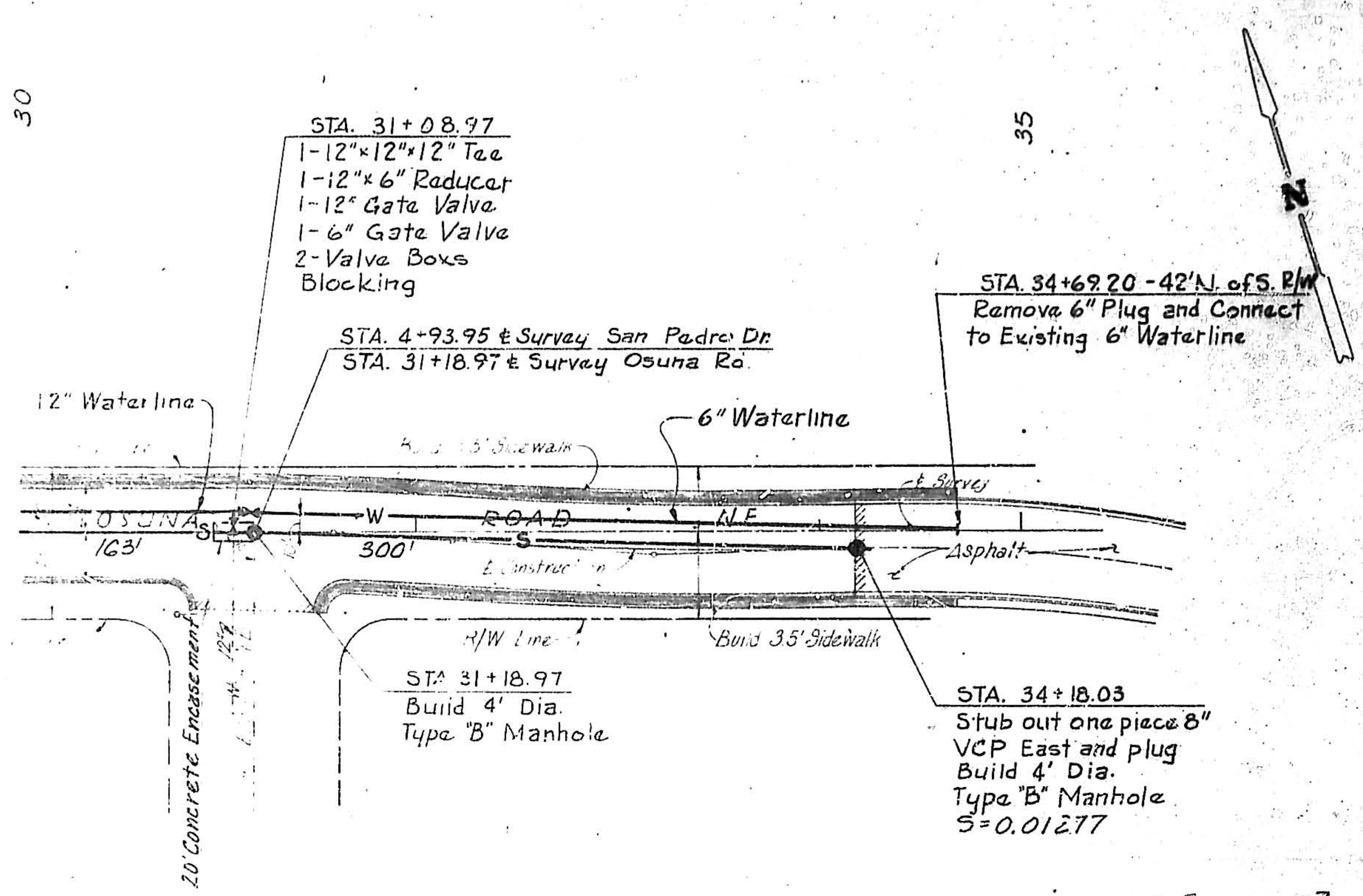
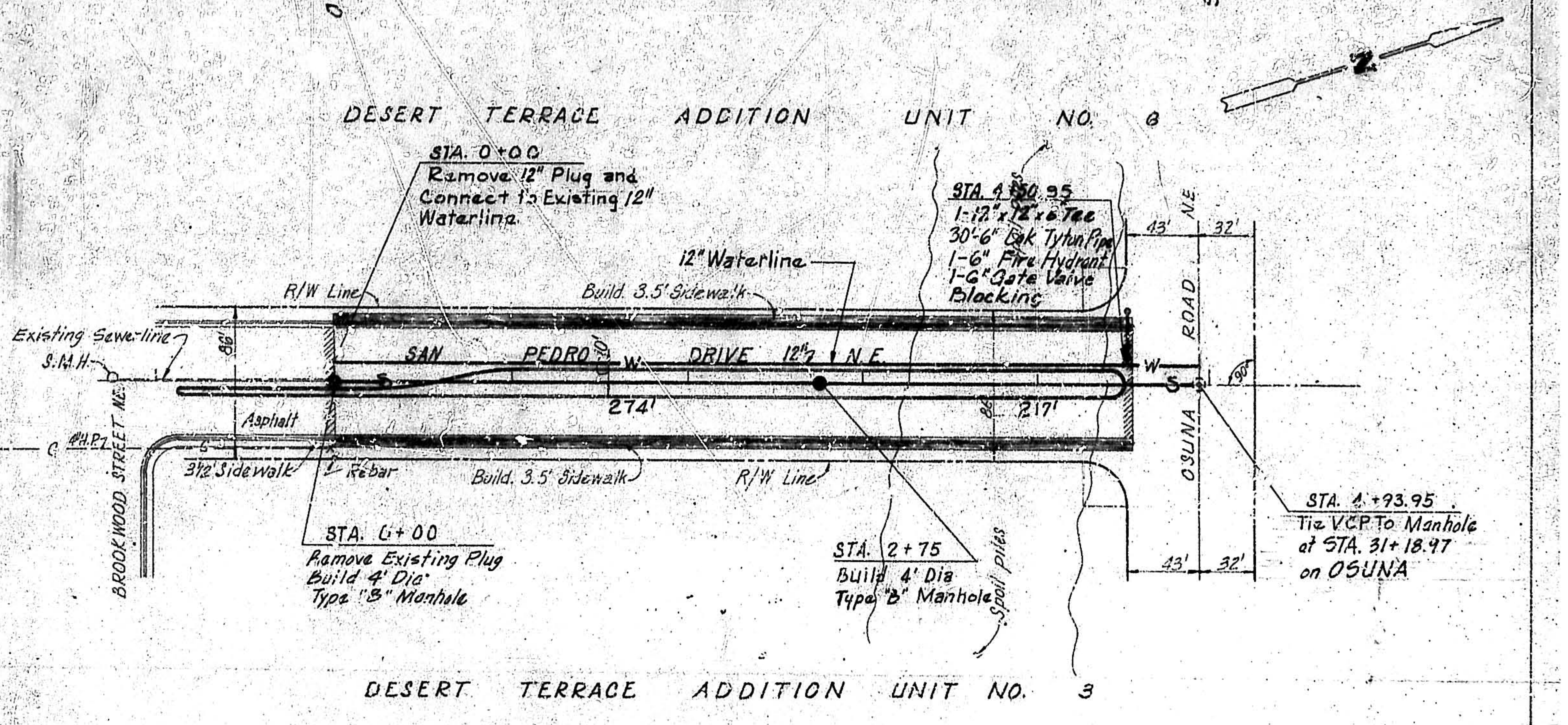
PLATE 1 SINGLE PLAN - PROFILE - DOTTED
CHARLES BRUNING COMPANY
MADE IN U.S.A.

SPECIAL ASSESSMENT DISTRICT NO. 176 SHEET 36 OF 56

2


30
35
N
STA. 31+08.97
1-12"×12"×12" Tee
1-12"×6" Reducer
1-12" Gate Valve
1-6" Gate Valve
2-Valve Boxs
Blocking
STA. 34+69.20 -42'N. of S. R/W
Remove 6" Plug and Connect to Existing 6" Waterline
STA. 4+93.95 ℄ Survey San Pedro Dr.
STA. 31+18.97 ℄ Survey Osuna Rd.
12" Waterline
6" Waterline
Build 3.5' Sidewalk
℄ Survey
OSUNA
ROAD
N.E.
W
S
163'
300'
℄ Construction
Asphalt
R/W Line
Build 3.5' Sidewalk
20' Concrete Encasement
STA 31+18.97
Build 4' Dia.
Type "B" Manhole
STA. 34+18.03
Stub out one piece 8" VCP East and plug
Build 4' Dia.
Type "B" Manhole
S=0.01277


0
5
DESERT TERRACE ADDITION UNIT NO. 6
STA. 0+00
Remove 12" Plug and Connect to Existing 12" Waterline
STA. 4+50.95
1-12"×12"×6 Tee
30'-6" Cek Tytun Pipe
1-6" Fire Hydrant
1-6" Gate Valve
Blocking
12" Waterline
R/W Line
Build 3.5' Sidewalk
Existing Sewerline
S.M.H.
86'
SAN PEDRO DRIVE N.E.
12"
W
S
274'
217'
Asphalt
P.I.
3½' Sidewalk
Rebar
Build 3.5' Sidewalk
R/W Line
BROOKWOOD STREET NE
N.E. ROAD OSUNA
43'
32'
90°
STA. 0+00
Remove Existing Plug
Build 4' Dia.
Type "B" Manhole
STA. 2+75
Build 4' Dia
Type "B" Manhole
Spoil piles
STA. 4+93.95
Tie VCP To Manhole at STA. 31+18.97 on OSUNA
DESERT TERRACE ADDITION UNIT NO. 3

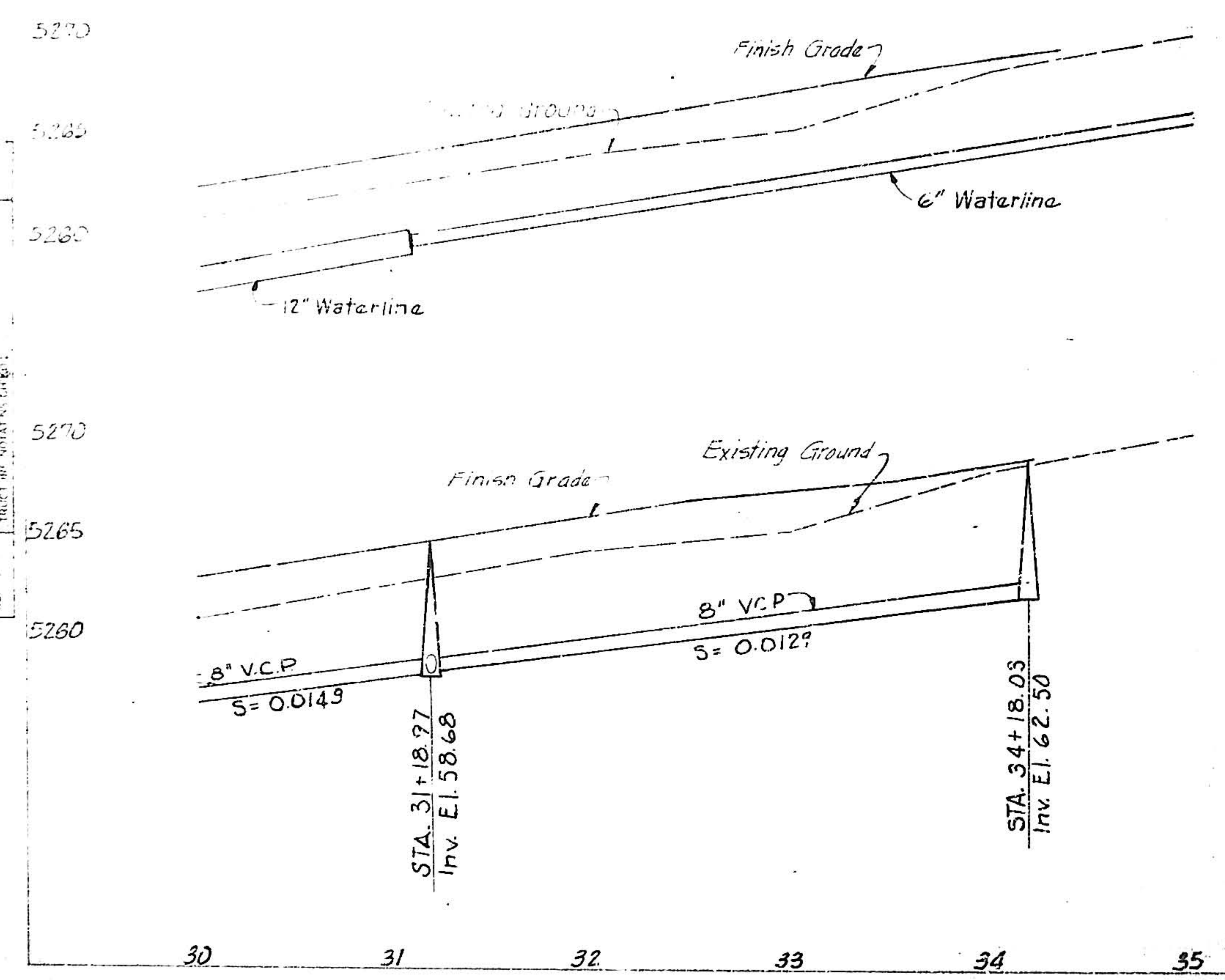
09 07
02 03

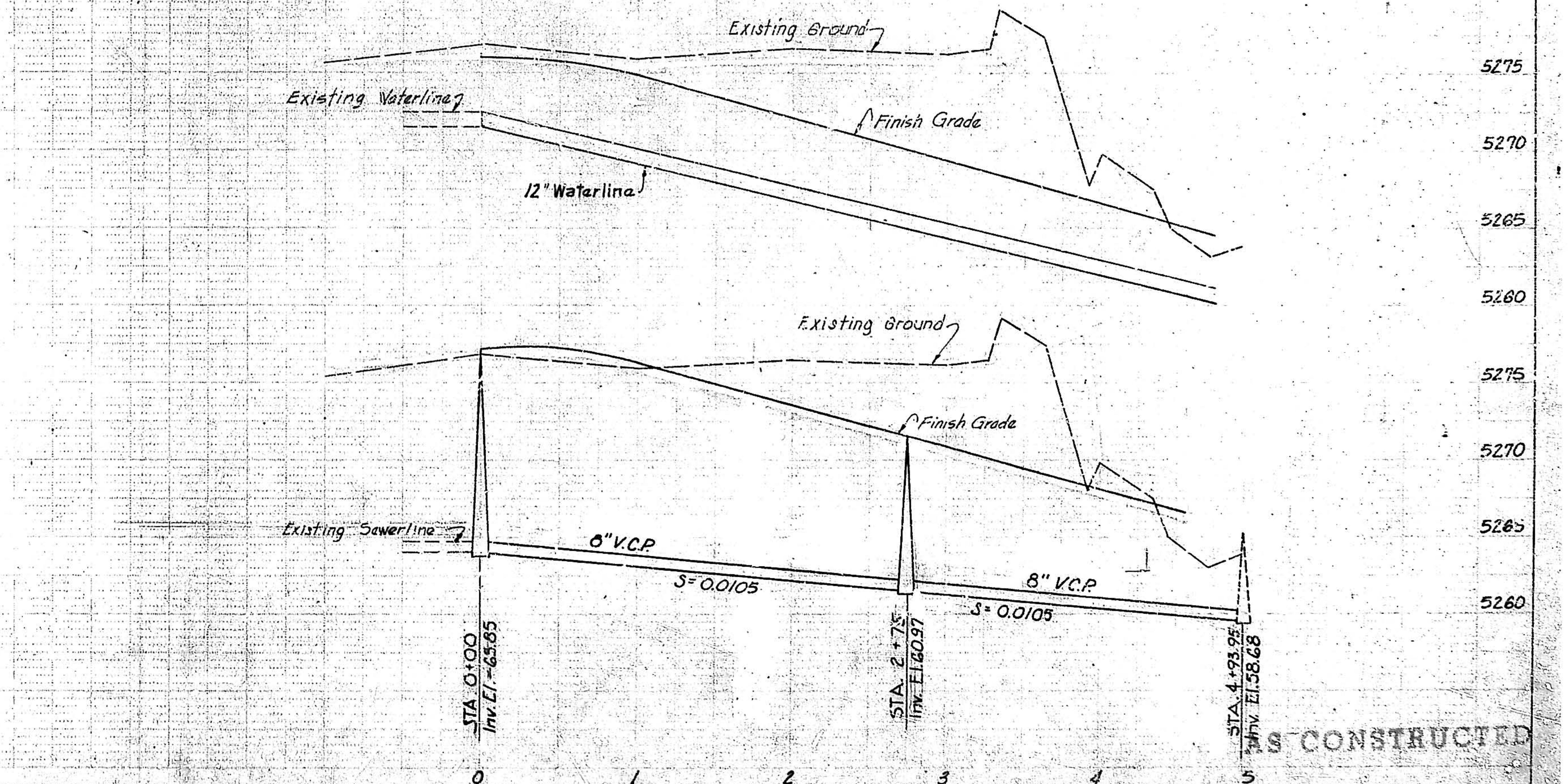
Bench mark chisled "□" top end south curb Osuna Rd. Rt. of Sta. 34+17.80 Approx. 250' east of San Pedro, EL-526949

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	7		1	7	6		3	7	7	1		0	3				0	2						6	2	1	8	

09

SCALES
1" = 50' Horiz.
1" = 5' Vert.


5270
5265
5260
Finish Grade
Existing Ground
6" Waterline
12" Waterline
5270
5265
5260
Existing Ground
Finish Grade
8" V.C.P.
S=0.0149
8" VCP
S=0.0129
STA. 31+18.97 Inv. El. 58.68
STA. 34+18.03 Inv. El. 62.50
30
31
32
33
34
35


Existing Ground
Existing Waterline
Finish Grade
12" Waterline
5275
5270
5265
5260
Existing Ground
Finish Grade
Existing Sewerline
8" V.C.P.
S=0.0105
8" V.C.P.
S=0.0105
STA. 0+00 Inv. El. 65.85
STA. 2+75 Inv. El. 60.97
STA. 4+93.95 Inv. El. 58.68
5275
5270
5265
5260
0
1
2
3
4
5

AS CONSTRUCTED

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

SPECIAL ASSESSMENT DISTRICT NO. 176 SHEET 37 OF 56

ASSOCIATED
INVESTORS
0
5
10
2
N
STA. 0+10
1- 8" Gate Valve
1- Valve Box
Connect to 16"×16"×8" Tee
Rebar
Modify median curb
as shown
STA. 0+10
1- 8"×8"×6" Tee
18'-6" Lok-Tyton Pipe
1- Fire Hydrant
Blocking
Rebar
STA. 5+00
1-8"×8"×6" Tee
18'-6" Lok-Tyton Pipe
1- Fire Hydrant
Blocking
STA. 10+50
1-8"×8"×6" Tee
18'-6" Lok-Tyton Pipe
1-Fire Hydrant
1 Blocking
STA. 12 + 54
Remove Existing 6"
Plug and Connect to
Existing 6" Waterline
1-8"×6" Reducer
END CONSTRUCTION
STA. 12+52.00
50'
50'
120
Holding Lane
BLVD NE
Existing median curb
18" RCP
S=.009
STA. 0+30
Build Double "C" inlets
STA. 0+80
Build Double "C" inlets
18" RCP
S=.009
8" Waterline
Right of way
8" Waterline
A.P.
Future Sewer
Line
14.5
McLEOD
ROAD
N.E.
W
S
171.8'
250.7' 8" Sewer Line
351.5'
300'
300'
BEGIN CONSTRUCTION
STA. 0-31.30
18" RCP
S=.009
24" RCP S=.020
6' Chain link fence
Right of way
Asphalt
S.M.H.
STA. 0+20
Build 4' Dia.
Type "B" Manhole
Inv Elev=5204.00
Asphalt pad
STA. 1+50
Build 4' Dia.
Type "B" Manhole
STA. 4+00
Build 4' Dia
Type "B" Manhole
STA. 6+50
Build 4' Dia
Type "B" Manhole
STA. 9+50
Build 4' Dia
Type "B" Manhole
STA. 11+00 to STA. 12+54.40
transition street width to
match existing curbs.
STA. 12+50
Tie 8" VPC to Existing
Manhole
STA. 0+45, 15' S of ℄
Build 4' Dia
Type "A" Manhole
Inv. Elev = 09.40
18" RCP
S=.009
STA 0+75, 10' S of ℄
Build 4' Dia
Type "A" Manhole
Inv Elev. 08.50
Rebar
Rebar
I.P.
30°00'40"
90°
30°
Survey Line
Survey Line
Survey Line
STA 0+00
STA 3+00.40
STA 5+88.20
PROPERTY TIES
PLAN
RUTH T. BRECHEISEN
ASSOCIATED INVESTORS
SCALES
1"=50' Horiz.
1"=5' Vert.
PROFILE
5245
5240
5235
5230
5225
5220
5215
5210
5205
5200
Finish Grade
Existing Ground
8" Water Line
Finish Grade
Existing Ground
8" V.C.P.
S=0.0264
8" V.C.P.
S=0.0264
8" V.C.P.
S=0.0264
Existing Ground
8" Water Line
Finish Grade
Existing Ground
Finish Grade
8" V.C.P.
S=0.0264
8" V.C.P.
S=0.0264
8" V.C.P.
S=0.0264
STA 0+20
INV ELV 04.0
STA. 1+50
INV. ELV 08.49
STA. 4+00
INV. ELV. 15.08
STA. 6+50
INV. ELV. 21.68
STA. 9+50
INV. ELV. 29.59
STA. 12+50
TOP ELV. 42.65
INV. ELV. 37.50
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
07 176 3871 03 02 6171
09

AS CONSTRUCTED

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

SPECIAL ASSESSMENT DISTRICT NO. 176 SHEET 38 OF 56

2-

ALBUQUERQUE INDUSTRIAL PARK SITE
STA. 16+86
1-14" x 8" Reducer
1-8" Gate Valve
1-Valve Box
Remove 14" Plug & Connect to Existing 14" Tee.
20' Concrete Encasement
STA. 22+86
1-8x8x8x8 Cross
1-8" Gate Valve
100'-8" Pipe-Lok Tyton
2-8"x6" Reducer
2-6" Fire Hydrants
1-Valve Box
Blocking
1-6" Sleeve
20' Concrete Encasement
STA. 25+00
1-8" Gate Valve
1-Valve Box
2-8" Sleeves
STA. 28+86
1-8x8x8x8 Cross
1-8" Gate Valve
100'-8" Pipe-Lok Tyton
2-8"x6" Reducer
2-6" Fire Hydrants
1-Valve Box
Blocking
1-8" Solid Sleeve
20' Concrete Encasement
STA. 30+00
Build 4' Dia.
Type "B" Manhole
Right of Way
8" Water Line 5' E of West Right of Way
KIRCHER
BOULEVARD
53'
43'
86'
36'
PP
198.5'
302.5'
299.5
150.8'
150.3'
43'
43'
S
N
Right of Way
STA. 16+75
Build 4' Dia
Type "B" Manhole
STA. 19+00
Build 4' Dia.
Type "B" Manhole
STA. 21+00
Build 4' Dia.
Type "B" Manhole
STA. 24+00
Build 4' Dia.
Type "B" Manhole
STA. 27+00
Build 4' Dia.
Type "B" Manhole
STA. 28+50
Build 4' Dia.
Type "B" Manhole
INDUSTRIAL PARK SITE
15
20
90
Existing Ground
Finish Grade
8" Water Line
8" V.C.P.
S=0.004
S=0.0085
S=0.0085
S=0.0041
S=0.007
S=0.007
S=0.007
STA. 16+75 INV. Elev. 47.35
Begin Concrete Encasement
STA. 19+00 INV. Elev. 49.26
STA. 21+00 INV. Elev. 50.96
Begin Concrete Encasement
STA. 24+00 INV. Elev. 49.13
STA. 27+00 INV. Elev. 47.63
STA. 28+50 INV. Elev. 46.58
Begin Concrete Encasement
STA. 30+00 INV. Elev. 45.53
5160
5155
5150
5160
5155
5150
5145
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
69
67
67
03

Note:
In making connection to existing 14" line, extreme caution is to be exercised to insure no surge or air in existing water line, since line is a dead end.

℄ CURVE DATA
P.I. STA. 29+51.00
Δ=50°00' LT.
R=536.13'
L=467.86'
T=250.00'

SCALES
1"=50' Horiz.
1"=5' Vert.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	7		1	7	6		3	9	7	1		0	3			0	2							6	2	1	7	1

09

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

AS CONSTRUCTED

SPECIAL ASSESSMENT DISTRICT NO. 175 SHEET 39 OF 56

2
STA. 31+66.19 Pipe Bk.
STA. 31+68.86 Pipe Ah.
Take up Deflection in pipe joints
STA. 34+86
1-8"x8"x8"x8" Cross
1-8" Gate Valve
2-8" Gate Valve
100'-8" Pipe-Lok Tyton
2-8"x6" Reducer
2-6" Fire Hydrants
2- Valve Box
Blocking
20' Concrete Encasement
Right of way
8" Water Line 5' E of W. R/W
KIRCHER 299.8'
BOULEVARD
N.E.
277.2
129.6'
℄ Construction & Survey
Right of Way
STA. 33+60
Build 4' Dia.
Type "B" Manhole
STA. 36+00
Build 4' Dia.
Type "B" Manhole
STA. 38+76.70
Build 4' Dia.
Type "B" Manhole
P.C. STA. 38+76.70
STA. 40+86
1-8"x8"x8"x8" Cross
1-8" Gate Valve
2-8"x6" Reducers
2-6" Fire Hydrants
1-Valve Box
Blocking
20' Concrete Encasement
173.4'
148.8'
151'
109.1'
369.4'
STA. 40+50
Build 4' Dia.
Type "B" Manhole
℄ CURVE DATA
P.I. STA. 41+16.70
Δ=34°37'49" R
R=262.29'
L=581.61'
T=300.00'
STA. 42+00
Build 4' Dia.
Type "B" Manhole
STA. 43+50
Build 4' Dia.
Type "B" Manhole
Take up Deflection in pipe joints
STA. 44+58.13
Build 4' Dia.
Type "B" Manhole
P.T. STA. 44+58.13
STA. 44+57.57 Pipe Bk.
STA. 44+58.13 Pipe Ah.
43'
43'
53'
53'
86'
INTERSTATE
INDUSTRIAL
TRACT
09 07
07 07
SCALES:
1"=50' Horiz.
1"=5' Vert.
Existing Ground
Finish Grade
8" Waterline
8" Waterline
5150
5145
5140
5135
5130
07 176 4071 03 02 621712
09
Finish Grade
Existing Ground
8" V.C.P.
S=0.015
20' Concrete Encasement
136
8" V.C.P.
S=0.004
S=0.004
8" V.C.P.
S=0.004
20' Concrete Encasement
136
S=0.004
8" V.C.P.
S=0.004
STA. 31+68.86
INV. Elev. 43.00
STA. 33+00
INV. Elev. 41.03
STA. 36+00
INV. Elev. 36.53
STA. 38+76.70
INV. Elev. 35.42
STA. 40+50
INV. Elev. 34.73
STA. 42+00
INV. Elev. 34.13
STA. 43+50
INV. Elev. 33.53
STA. 44+58.13
INV. Elev. 33.10
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
AS CONSTRUCTED
PLATE 1 SINGLE PLAN - PROFILE - DOTTED

SPECIAL ASSESSMENT DISTRICT NO. 176 SHEET 40 OF 56

45
STA. 46+95
1-12×12×8 Tee
1-12" Gate Valve
1-8" Gate Valve
168'-12" Pipe
2-12" Plugs
2 Valve Boxes
Blocking
STA. 46+60
1-8×8×6 Tee
1-Fire Hydrant
5'6" Lok-Tyton Pipe
N.E.
ROAD
Asphalt Median Curb
20' Concrete Encasement
Remove 8" Plug and connect to existing 8" cross.
1-8" Gate Valve
1-Valve Box
STA. 48+29 Build
4' DIA Type 'D'
Drop Manhole
KIRCHER BLVD. NE
℄ Construction Survey
SMH
STA. 46+95
1-12×12×8 Tee
125'-8" Pipe
Blocking
Med. Curb
Remove existing median curb to limits shown. Build new median to demension shown.
Water line
12" Water line
Existing Ground
Grade
5140
5135
5130
5" VCP
S=0.004
20' Concrete Encasement
Existing 18" Sewer line
48+29 INV EL=31.61
45
46
47
48
PLATE 1 SURFACE PLAN PROFILE PLOTTED

07 174 4171 03 02 62171

09

AS CONSTRUCTED

SPECIAL ASSESSMENT DISTRICT NO. 176 SHEET 41 OF 56

0
5
10
15
2
Inv. EL. 06.25
0+
Edge of oil
30" RCP SD
225'
Existing water Line
Approx end of water Line
48.4'
STA. 2+65
Build 4' Dia. Type "B" M.H.
Sump 18" Below Water Line
STA.3+06.50
Remove existing plug and
connect to existing 16" C.I.
water line.
1-16×16×8 Tee
1-16" Gate Valve (Horiz)
1-Valve B. x
Blocking
SAN MATEO
BOULEVARD
N.E.
55'
30" R.C.P.
36'
28.5'
25'
15.1'
McLEOD ROAD
STA 2+96.50
64
Build 4' DIA. M.H.~10' S.℄
Type "A"
STA 2+50 15' West of ℄
Build 4' DIA Type "B" M.H.
Inv EL 07.98
Build 4 DIA MH 10' S.℄
Type "A"
INV EL-09.40
Build Double "C" Inlets
See Sheet 38
McLeod
EL=5210.97
G 8" H.P.
2-30" C.M.P.
W.M.
Rebar
Tele. box
W
24" C.M.P.
STA. 9+00
1-16×16×6 Tee
1- 6" Gate valve
1-6" Fire hydrant
1-Valve box
5'6" Lok-Tyton pipe
Blocking
Concrete headwall
Right of way
24" C.M.P.
Conc. headwall
16" Water Line
Edge of oil
Conc. curb
Asphalt drive Silver dollar drive in theater
Conc. curb
6" Curb and gutter
60" C.M.P.
Conc. headwall
STA. 15+00
1-16×16×6 Tee
1-6" Fire Hydrant
1-Valve Box
1-6" Gate Valve
5'-6" Lok-Tyton Pipe
Blocking
68
61
69
02
Survey Line
Right of way
10'
Rebar
STA. 0+75
PROPERTY TIE
SCALES
1"= 50' Horiz.
1"= 5' Vert
5220
5215
5210
5205
5200
30" Existing C.M.P.
24" Existing C.M.P.
Existing Ground
60" Existing C.M.P.
16" Water Line
CONC. BOX
S=0.008
30" R.C.P.
S=0.037
24" R.C.P. & S=0.020
STA. 0+00
INV. EL=05.25
STA. 2+50
INV. EL=06.87 in
INV. EL=05.00 out
STA. 2+65
INV. EL.=05.25 in
INV. EL.=07.42 out
STA. 3+25
INV. EL.=09.64
STA. 3+30
INV. EL.=09.94
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
08 176 42 01 02 61171
09
PLAN
PROFILE

AS CONSTRUCTED

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

SPECIAL ASSESSMENT DISTRICT NO. 176 SHEET 42 OF 56

2
N
15
20
25
30
SAN MATEO BOULEVARD N.E.
STA. 21+00
1-16"x 16"x 6" Tee
1-6" Fire Hydrant
1-6" Gate Valve
1-Valve Box
5'-6" Lok-Tyton Pipe
Blocking
36" C.M.P.
Conc. Headwall
6" H.P.
8" H.P.
Edge of oil
Right of way
16" Water Line
STA. 17+00
1-16" Gate Valve
1-Valve Box
OPP. STA. 25+83.53
Build. 4' Dia. Manhole
8" Sewer Line
317.5'
OPP. STA. 29+00
Build. 4' Dia. Manhole
300.5'
10'
OSUNA ROAD N.E.
STA. 25+83.53
80'
STA. 25+93.53
1-16"x 16"x 6" Tee
1-16" Gate Valve (Horiz.)
1-Valve Box
Blocking
See Sheet 35
Bench mark top S.H.D. R/W marker 30+00
East side San Mateo EL=5215.96
69 67
02 63
SCALES
1"=50' Horiz.
1"=5' Vert.
PLAN
PROFILE
SURVEY
CHECKED
NOTE BOOK
NO.
Existing 36" C.M.P.
Existing Ground
16" Water Line
8" V.C.P. S=0.0101
8" V.C.P. S=0.0071
5210
5205
5200
5195
5190
STA. 25+83.53
Inv. EL. 02.50
STA. 29+00
Inv. EL. 99.30
0 7 1 7 6 4 3 7 1 6 3 0 2 6 2 1 7 2
09
15
16
17
18
19
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21
22
23
24
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26
27
28
29
30

AS CONSTRUCTED

SPECIAL ASSESSMENT DISTRICT NO. 176 SHEET 43 OF 56

PLATE 1 SINGLE PLAN - PROFILE - DOTTED
CHARLES BRUNING COMPANY
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Note: Remove wingwall down to slab rebuild with 30" R.C.P. in place See Detail Sheets 10 & 11

30
35
40
45
N
3
STA.32+00 Build 4' Dia. Type 'B' Manhole
STA 33+25 Build 4' Dia. Type 'B' Manhole
13-10'x 4' Concrete Boxes
INV. ELEV. 5200
STA.35+25 Build 4' Dia. Type 'B' Manhole
STA. 36+92.00 10' W. of ℄ Build. 4' Dia. Type A Manhole Inv. Elev. 5201.95
STA 37+27.83 Build 4' Dia. Type 'D' Manhole
STA. 40+25 Build 4' Dia. Type 'B' Manhole
STA.43+25 Build 4' Dia. Type 'B' Manhole
SAN MATEO BOULEVARD N.E.
Edge of oil
- 8" Ductile Pipe
Headwall
200.4' 30" R.C.P.
15" Sewer Line
Edge of oil
300.5'
123.5'
Wing Wall
199.1'
Wing Wall
S=0.01
205'
297.5'
300.00'
204.7'
20'
10'
Plug
Concrete headwall
Wired riprap
16" Water Line
Right of way
C.I.P.
I.P.
30" R.C.P.
S=0.0235
ACADEMY ROAD N.E.
STA.37+27.83
108'
See Sheet 28
1-16x16x6 Tee
1-6" Gate Valve
1-6" Fire Hydrant
1-Valve Box
5'-6" Lok-Tyton pipe
Blocking
STA.37+75.83
1-16x16x10 Tee
1-16" Gate valve (Horiz.) North of Tee
1-16" Plug
1-Valve box
16'-16" Pipe to North of Valve
Blocking
See Sheet 28 For Academy Line
PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
NOTE BOOK
NO.
BY
DATE

07 02 09 02 08 01

Bench mark, chisled 'o' top concrete head wall (35' south of North end) east side San Mateo south of Academy Road EL=5205.99

SCALES
1"=50' Horiz.
1"=5' Vert.

5205
5200
5195
5190
5185
16" Water Line
8" VCP S=.0071
8" V.C.P. S=.0071
8" Ductile Iron S=.0071
8" Ductile Iron S=.0071
16" Water Line
Existing Ground
S=0.0096
15" V.C.P.
S=0.0096
15" V.C.P.
S=0.0096
STA.32+00 INV. Elev.=97.16
Begin Conc. Encasement
STA.33+25 INV. Elev.=96.27
STA.35+25 INV. Elev.=94.84
STA.37+27.83 INV. Elev.=93.39
STA. 40+25 INV. Elev. 90.54
STA. 43+25 INV. Elev.=87.66
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
PROFILE
NOTE BOOK
NO.
BY
DATE

07	176	4471	030102				6217

08
09

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

SPECIAL ASSESSMENT DISTRICT NO. 176 SHEET 44 OF 56

N
2
P.C. STA. 22+85.55
STA. 25+70
"D" Type Inlet With
13 Standard Grates
OSUNA ROAD N.E.
STA. 0+00 Water Line
= STA. 27+19.72
OSUNA ROAD
STA. 0+27
Δ= 40°45' Lt.
Build 4' Dia
Type "A" M.H.
24'
223'
27" R.C.P.
(Class III)
27" R.C.P.
STA. 3+00
6'x14' Dumped Rip Rap
Headwall See Detail
This Sheet.
STA. 2+86
Daylight Channel
10' Bottom Lined Channel
See detail Sheet 8.
STA. 0+62
Δ= 15°00' Lt.
1" Thick Pvmt
3" Thick Pvmt
ROAD N.E.
25
STA. 26+40
"D" Type Inlet With
24 Special Grates
12" Water Line
P.I. STA. 9+87.00 Water Line
= P.O.C. STA. 26+80
1-12" 22½° Bend
Blocking
Deflect 4 Joints
P.I. STA. 26+73.61
Δ= 27° 46' 20" Lt.
STA. 9+44.75 Water Line
Post 26+98.74
STA. 10+35
1-12"x10" Reducer
Connect to 10"x10"x10" Tee
1-12" Gate Valve
1-Valve Box
℄ ACADEMY
10" Water Line
Flex Beam Guard rail
STA. 0+28
1-12" 45° Bend
1-12" Gate Valve
Connect to 12"x12"x12" Tee
Valve Box
STA. 26+41.97
ARROYO DEL OSO GOLF COURSE
#5 Diagonal
ea side
℄ 27" R.C.P.
36"
#4 @ 16
@ Center Each Way
30"
24"
48"
HEADWALL DETAIL
08 09
01 02
SCALES
Horiz 1"=50'
Vert 1"=10'
PLAN
PROFILE
5255
5250
5245
5240
5235
5230
Bottom of Existing Arroyo
27" R.C.P.
S= 0.0345
STA. 0+00
INV. EL. 51.31
STA. 0+27
Build 4' Dia Type "A"
Manhole
INV. EL. 50.72
STA. 3+00
INV. EL. 41.30
Top Existing Ground Profile
Finish Grade Channel
S= 0.0125
S= 0.0465
+80 End Lined Channel
INV. EL. 41.75
STA. +22.21
INV. EL. 42.95
STA. +10
INV. EL. 43.10
4
3
2
1
0
5260
6' Min Depth @ Channel Crossing
12" Water Line
PROFILE OF WATER LINE
0
1
2
3
4
5
6
7
8
9
08 176 4671 0102 6217
09
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PLATE 1 SINGLE PLAN - PROFILE - LOTTED
CHARLES BRUNING COMPANY
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SPECIAL ASSESSMENT DISTRICT NO. 176 SHEET 46 OF 56