METROPOLITAN STORM SEWER EXTENSIONS PHASE IV

AND

STORM DRAINAGE FACILITIES TRAMWAY EAST

BOHANNAN WESTMAN HUSTON

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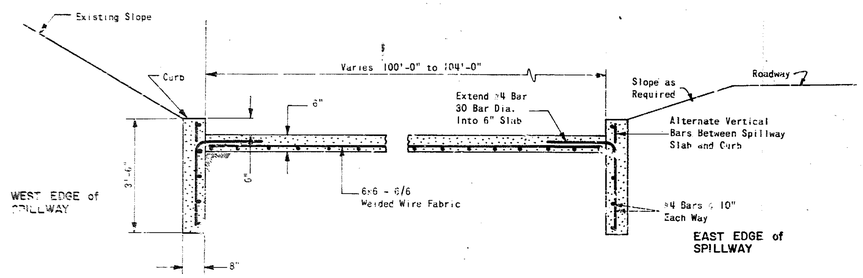
8/22/75

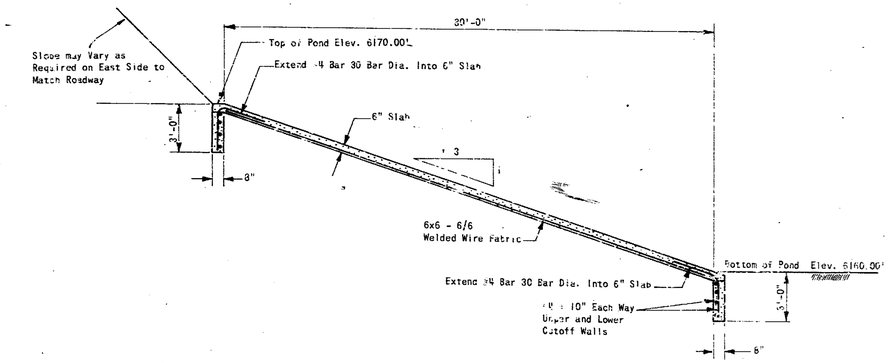
BOHANNAN WESTMAN HUSTON



DOWNSTREAM VIEW

SPILLWAY CROSS - SECTION

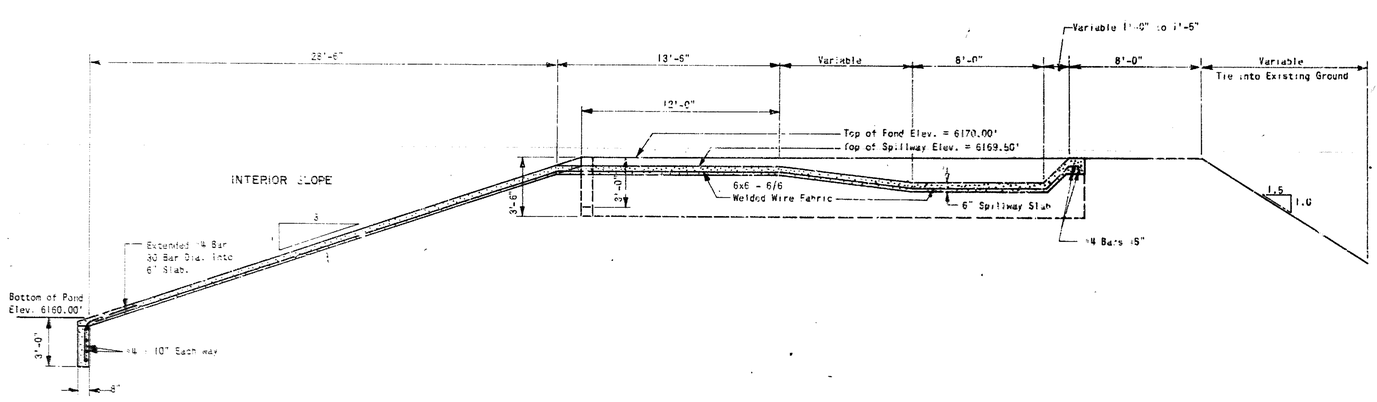
NO SCALE



DETENTION POND INTERIOR SLOPE SECTION

NO SCALE

NOTE: All bars shall have 2" clear cover unless otherwise specified. Bars in cutoff walls cast against earth shall have 3" clear cover.



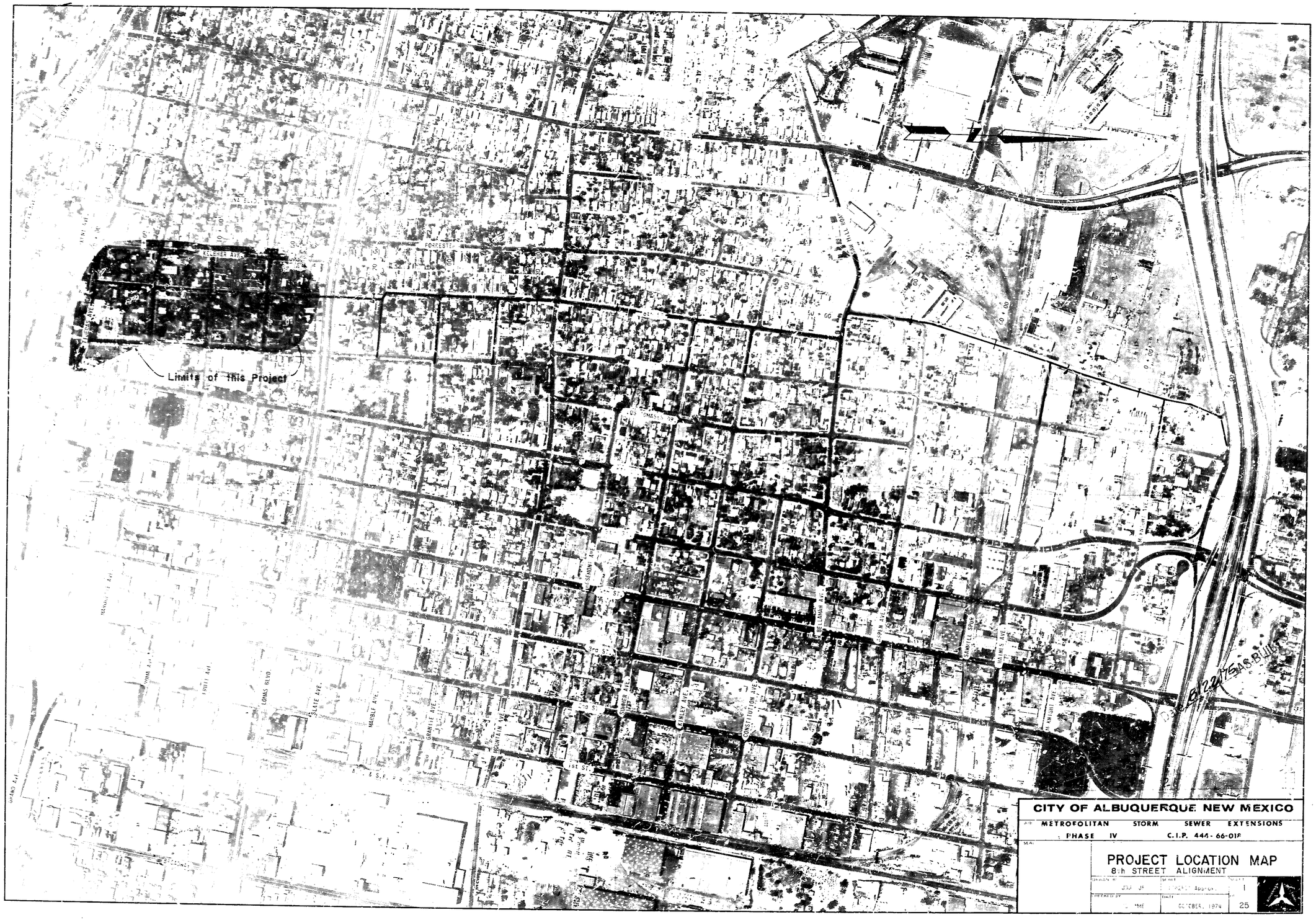
SPILLWAY SECTION THRU BERM

NO SCALE

8/22/75

08 002 2573 10

Date	Revision	
Project No.	TRAMWAY DRAINAGE FACILITIES	
Seal	HIDDEN VALLEY STORM SEWER	
	DETENTION POND and SPILLWAY DETAILS	
Job No. 73-198	Sheet 25 Of 25	
Drawn By J. D. J.	Date OCT., 1974	
Checked By R.W.M.	Scale AS SHOWN	



CITY OF ALBUQUERQUE NEW MEXICO

METROPOLITAN STORM SEWER EXTENSIONS

PHASE IV C.I.P. 444-66-01F

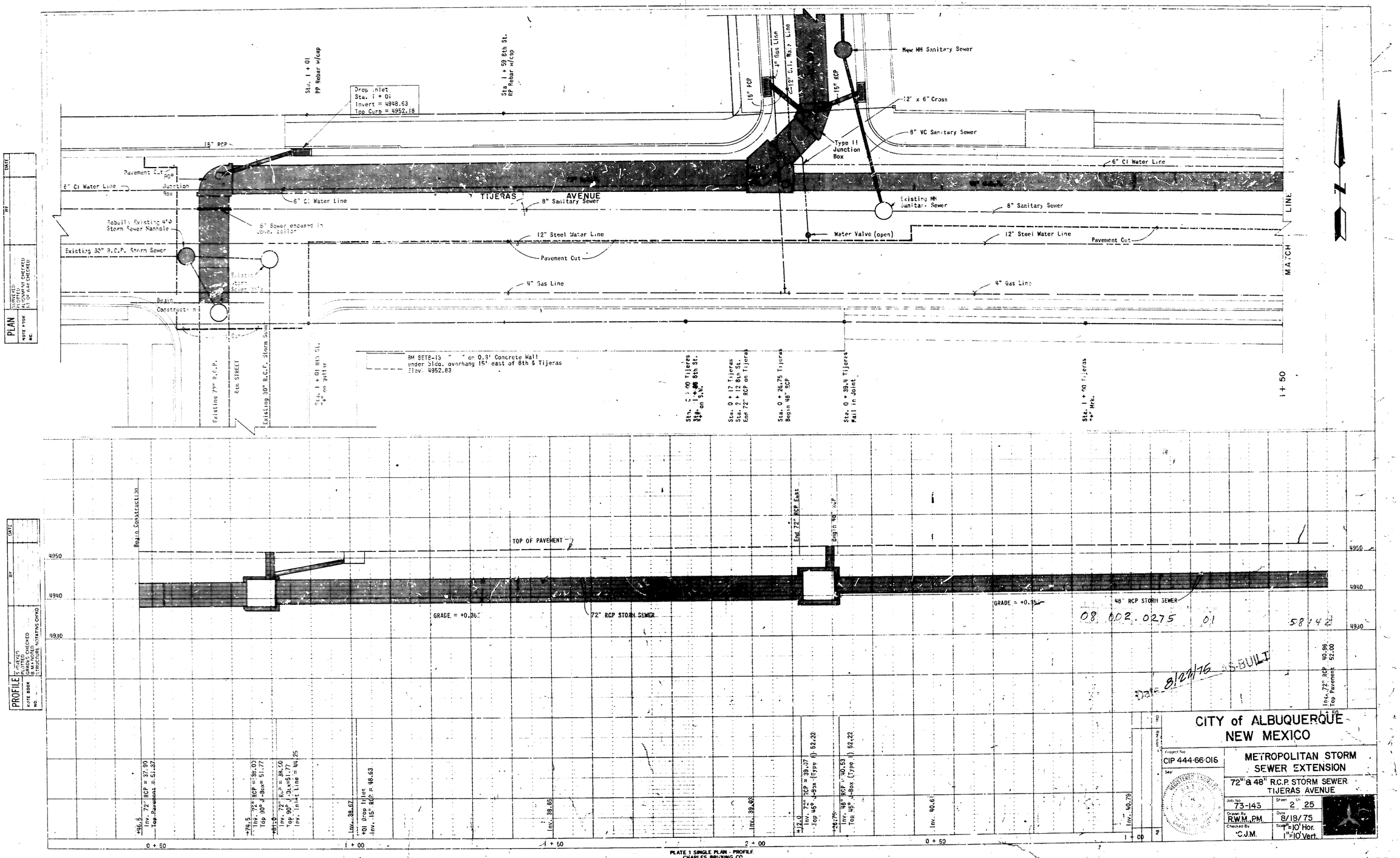
SEAL

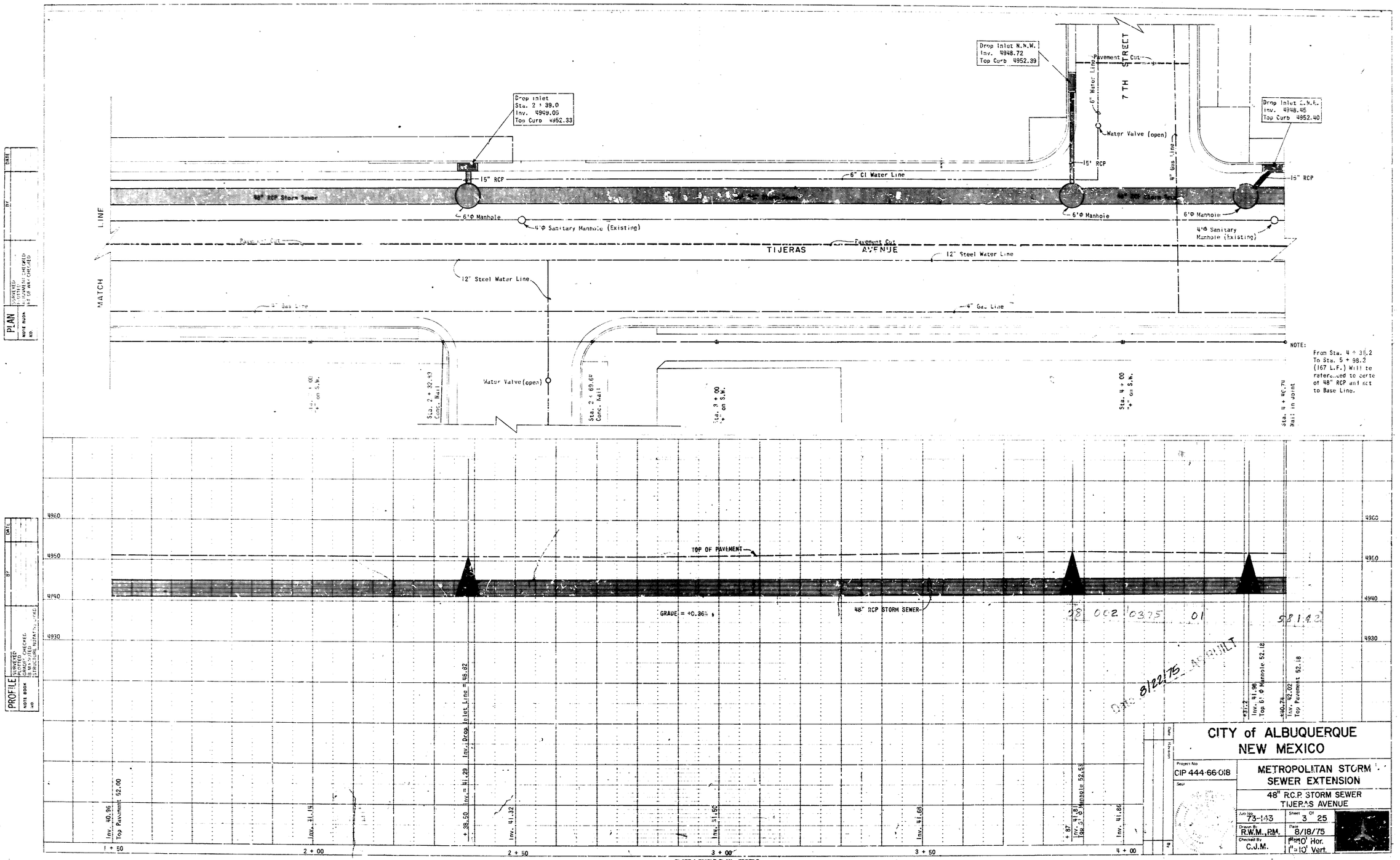
PROJECT LOCATION MAP

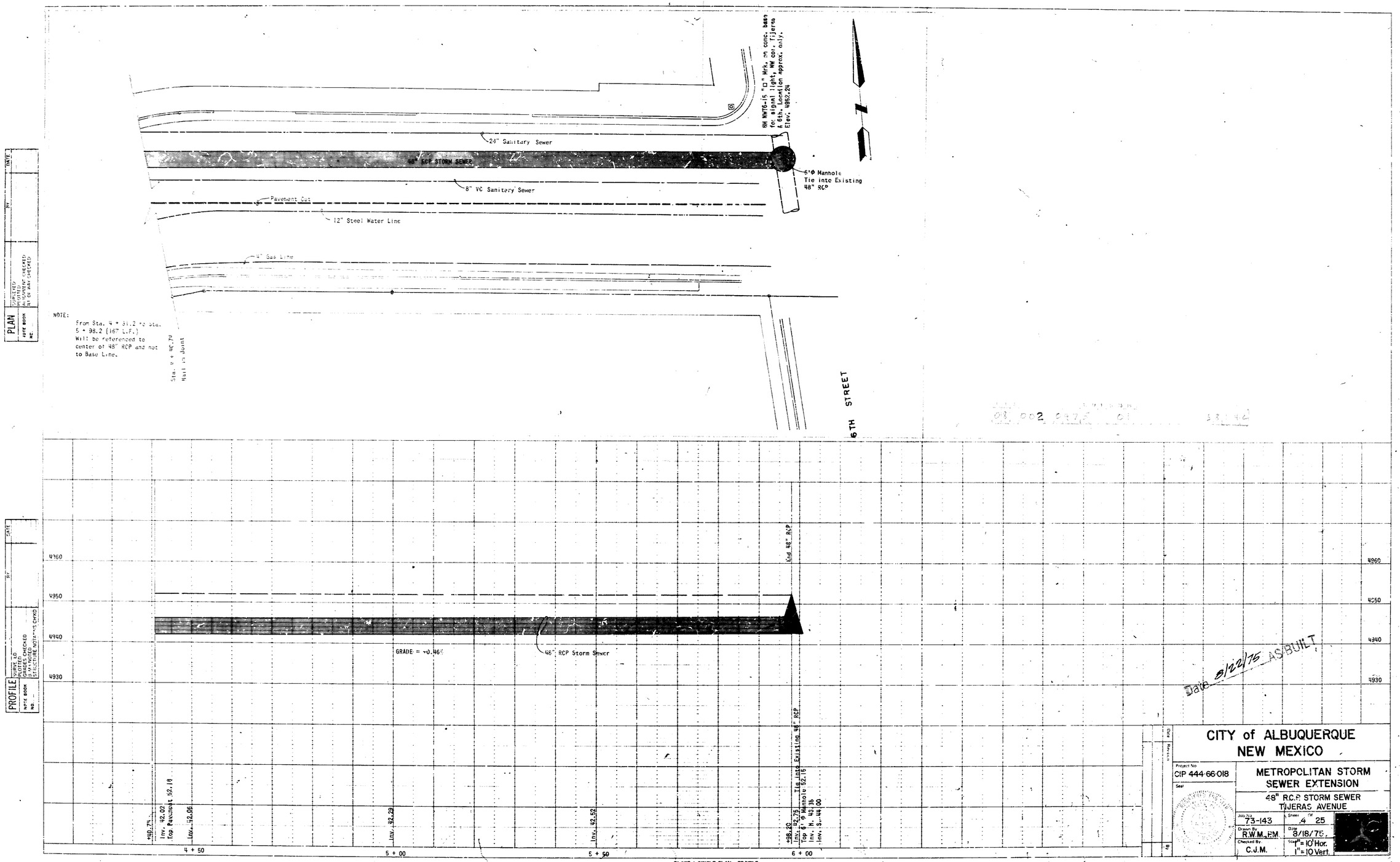
8th STREET ALIGNMENT

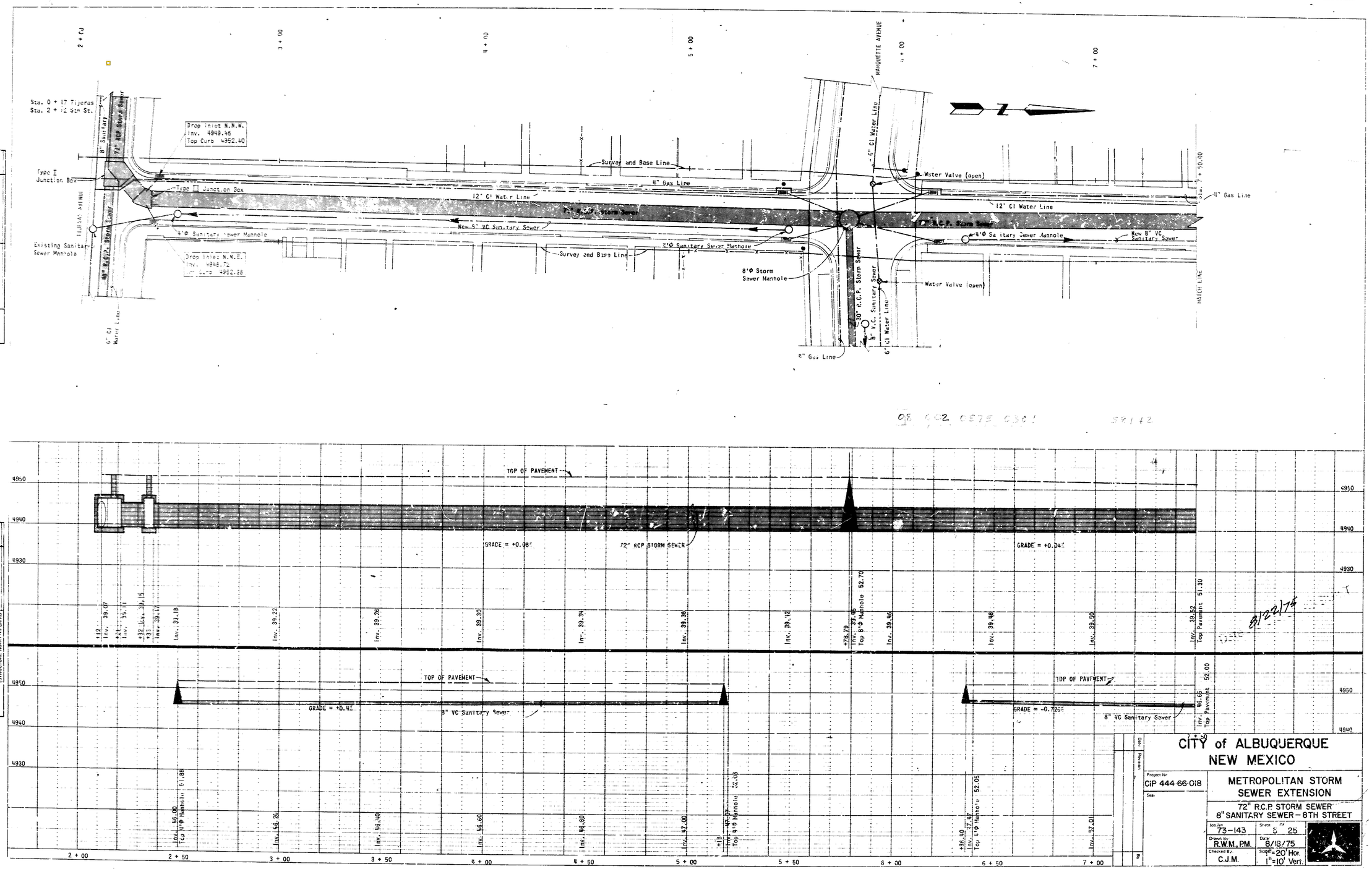
DESIGNED BY: JOE JR | SCALE: NO SCALE | SHEET: 1

DRAWN BY: MME | DATE: OCTOBER, 1974 | 25


PLAN
Sta. 1 + 01 PP Rebar w/cap
Sta. 1 + 59 8th St. RP Rebar w/cap
Drop Inlet
Sta. 1 + 01
Invert = 4948.63
Top Curb = 4952.18
15" RCP
Pavement Cut
Junction Box
6" CI Water Line
Rebuild Existing 4'ø Storm Sewer Manhole
8" Sewer encased in conc. collar
Existing 30" R.C.P. Storm Sewer
Existing Storm Sewer Manhole
Begin Construction
TIJERAS AVENUE
8" Sanitary Sewer
12" Steel Water Line
Pavement Cut
4" Gas Line
3" Gas Line
12" C.I. Main
15" RCP
New MH Sanitary Sewer
12" x 6" Cross
8" VC Sanitary Sewer
Type II Junction Box
Existing MH Sanitary Sewer
Water Valve (open)
MATCH LINE
Existing 79" R.C.P.
8th STREET
Existing 30" R.C.P. Storm Sewer
Sta. 1 + 01 8th St. 4" on gutter
BM SETB-13 " " on 0.3' Concrete Wall under Bldg. overhang 15' east of 8th & Tijeras Elev. 4952.83
Sta. 0 + 00 Tijeras Sta. 1 + 00 8th St. on S.W.
Sta. 0 + 17 Tijeras Sta. 2 + 12 8th St. End 72" RCP on Tijeras
Sta. 0 + 26.75 Tijeras Begin 48" RCP
Sta. 0 + 39.4 Tijeras Mail in Joint
Sta. 1 + 00 Tijeras "4" Mrk.
1 + 50
PROFILE
Begin Construction
TOP OF PAVEMENT
End 72" RCP East
Begin 48" RCP
4950
4940
4930
GRADE = +0.36%
72" RCP STORM SEWER
GRADE = +0.35%
48" RCP STORM SEWER
08 002.0275 01
58144
Date 8/26/76 AS-BUILT
Inv. 72" RCP 40.96
Top Pavement 52.00
+36.5 Inv. 72" RCP = 37.90 Top Pavement = 51.87
+71.5 Inv. 72" RCP = 36.03 Top 90° J-Box = 51.77
+81.0 Inv. 72" RCP = 38.50 Top 90° J-Box = 51.77 Inv. Inlet Line = 44.25
Inv. 38.67
+101 Drop Inlet Inv. 15" RCP = 48.63
Inv. 38.85
Inv. 39.08
+16.0 Inv. 72" RCP = 39.37 Top 45° J-Box (Type I) 52.22
+26.75 Inv. 48" RCP = 40.53 Top 45° J-Box (Type I) 52.22
Inv. 40.61
Inv. 40.79
0 + 50
1 + 00
1 + 50
2 + 00
0 + 50
1 + 00
CITY of ALBUQUERQUE
NEW MEXICO
Project No
CIP 444-66-016
METROPOLITAN STORM SEWER EXTENSION
72" & 48" R.C.P. STORM SEWER
TIJERAS AVENUE
Job No 73-143
Sheet 2 of 25
Drawn By R.W.M., P.M.
Date 8/19/75
Checked By C.J.M.
Scale 1"=10' Hor. 1"=10' Vert.
PLATE 1 SINGLE PLAN - PROFILE
CHARLES BRUNING CO.
MADE IN U.S.A.


Drop Inlet
Sta. 2 + 39.0
Inv. 4949.05
Top Curb 4952.33
Drop Inlet N.W.
Inv. 4948.72
Top Curb 4952.39
Drop Inlet S.W.
Inv. 4948.45
Top Curb 4952.40
7TH STREET
Pavement Cut
6" Water Line
Water Valve (open)
4" Gas Line
15" RCP
6" CI Water Line
48" RCP Storm Sewer
6'Φ Manhole
4'Φ Sanitary Manhole (Existing)
4'Φ Sanitary Manhole (Existing)
TIJERAS AVENUE
12" Steel Water Line
MATCH LINE
4" Gas Line
Water Valve (open)
Sta. 2 + 32.93 Conc. Nail
Sta. 2 + 69.68 Conc. Nail
Sta. 3 + 00 "+" on S.W.
Sta. 4 + 00 "+" on S.W.
Sta. 4 + 40.74 Nail in Joint
NOTE:
From Sta. 4 + 31.2 To Sta. 5 + 98.2 (167 L.F.) Will be rotere...ed to corte of 48" RCP and not to Base Line.
PLAN
PROFILE
TOP OF PAVEMENT
GRADE = +0.36%
48" RCP STORM SEWER
4980
4950
4940
4930
Inv. 40.96 Top Pavement 52.00
Inv. 41.14
Inv. Drop Inlet Line = 48.32
+ 38.50 Inv. = 41.29
Inv. 41.32
Inv. 41.50
Inv. 41.68
+ 87 Inv. 41.81 Top S.W. Manhole 52.55
Inv. 41.86
+31.2 Inv. 41.96 Top D. Φ Manhole 52.18
+40.74 Inv. 42.02 Top Pavement 52.18
1 + 50
2 + 00
2 + 50
3 + 00
3 + 50
4 + 00
38 002 0375 01
581142
DATE 8/22/75 AS BUILT
CITY of ALBUQUERQUE
NEW MEXICO
Project No
CIP 444-66-018
Seal
METROPOLITAN STORM SEWER EXTENSION
48" RCP STORM SEWER
TIJERAS AVENUE
Job No. 73-143
Sheet 3 of 25
Drawn By R.W.M., P.M.
Date 8/18/75
Checked By C.J.M.
Scale 1"=10' Hor. 1"=10' Vert.
PLATE 1 SINGLE PLAN - PROFILE
CHARLES BRUNING CO.
MADE IN U.S.A.


PLAN
NOTE BOOK NO.
SURVEYED
PLOTTED
GRADES CHECKED
B.M. NOTED
B.M. CHECKED
24" Sanitary Sewer
48" RCP STORM SEWER
8" VC Sanitary Sewer
Pavement Cut
12" Steel Water Line
4" Gas Line
BM NWTG-15 "□" Mrk. on conc. base for signal light, NW cor. Tijeras & 6th. Location approx. only. Elev. 4985.24
6'Φ Manhole Tie into Existing 48" RCP
NOTE:
From Sta. 4 + 31.2 to Sta. 5 + 98.2 (167 L.F.) Will be referenced to center of 48" RCP and not to Base Line.
Sta. 0 + 00.79 Wall to Point
6TH STREET
PROFILE
NOTE BOOK NO.
GRADES CHECKED
B.M. NOTED
B.M. CHECKED
4960
4950
4940
4930
GRADE = +0.46%
48" RCP Storm Sewer
End 48" RCP
Tie into Existing 48" RCP
Top 6' Φ Manhole 52.16
Inv. N. 42.35
Inv. S. 44.00
Inv. 42.75
+98.20
Inv. 42.52
Inv. 42.29
Inv. 42.06
Top Pavement 52.18
Inv. 42.02
+49.71
4 + 50
5 + 00
5 + 50
6 + 00
Date 8/20/75 AS BUILT
CITY of ALBUQUERQUE
NEW MEXICO
Project No. CIP 444-66-018
Seal
METROPOLITAN STORM SEWER EXTENSION
48" R.C.P. STORM SEWER
TIJERAS AVENUE
Job No. 73-143
Sheet 4 of 25
Drawn By R.W.M., P.M.
Date 8/18/75
Checked By C.J.M.
Scale 1" = 10' Hor. 1" = 10 Vert.
PLATE 1 SINGLE PLAN - PROFILE
CHARLES BRUNING CO
MADE IN U.S.A.



PLAN | SURVEYED | PLOTTED | DESIGNED | CHECKED | R.O.W. CHECKED | NOTE BOOK | NO. | BY | DATE

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

CITY of ALBUQUERQUE
NEW MEXICO

Project Nr CIP 444-66-018

Sear

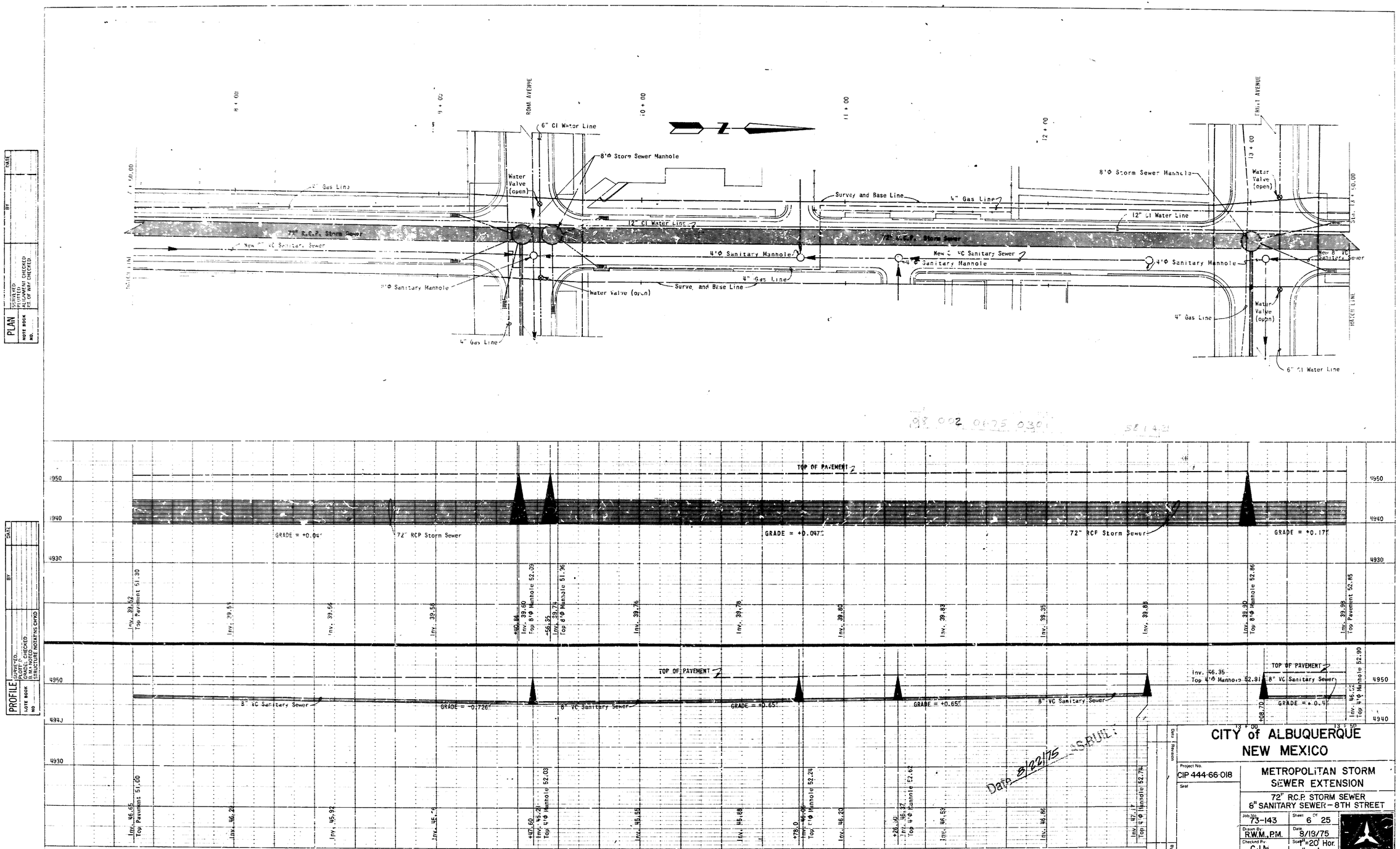
METROPOLITAN STORM SEWER EXTENSION

72" R.C.P. STORM SEWER
8" SANITARY SEWER – 8TH STREET

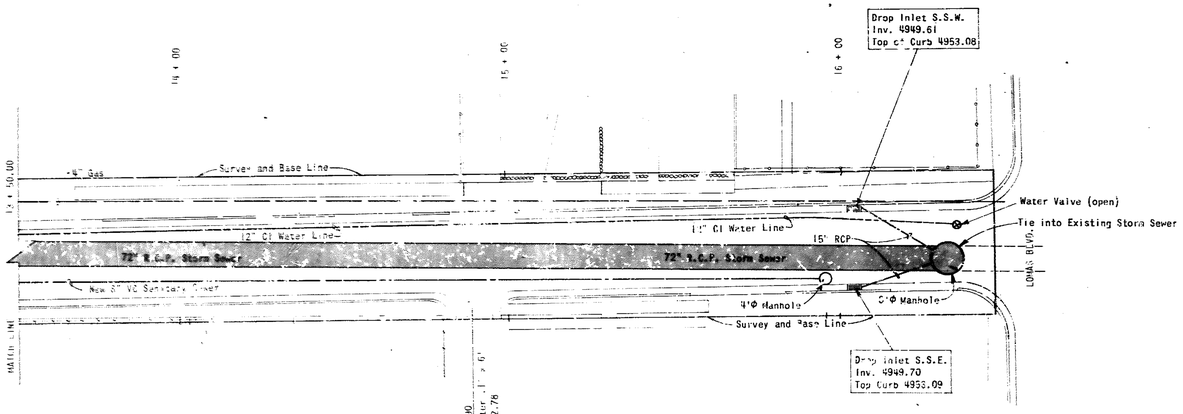
Job No. 73-143	Sheet 5 of 25
Drawn By R.W.M., P.M.	Date 8/18/75
Checked By C.J.M.	Scale 1"=20' Hor. 1"=10' Vert.

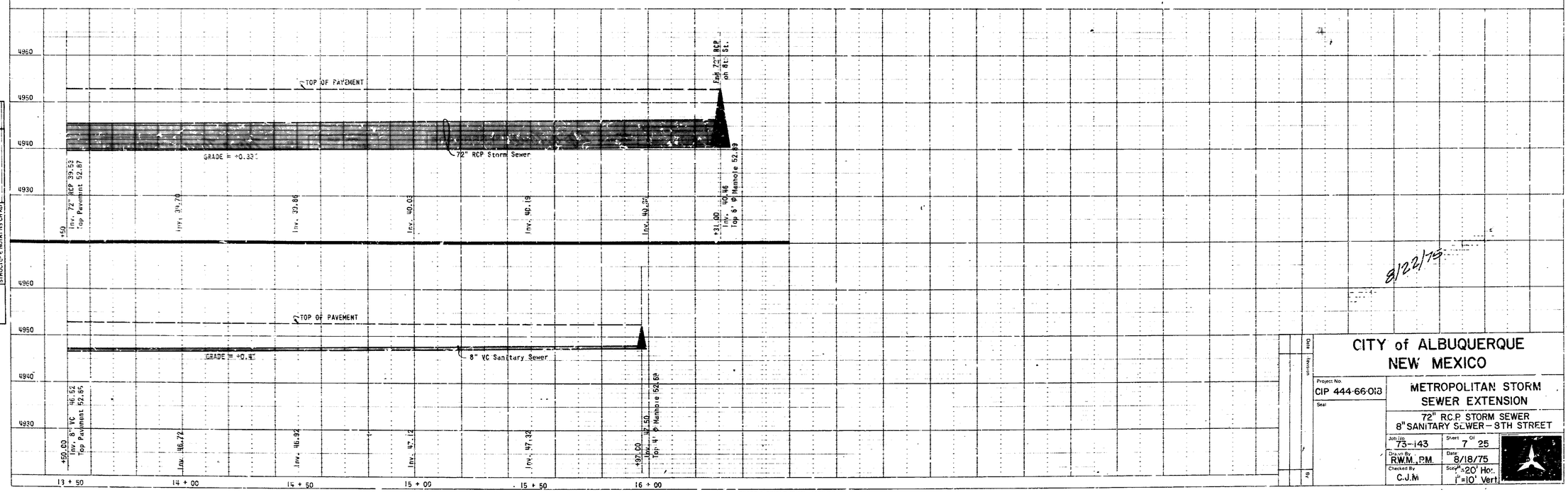
Date | Revision | By

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


PLAN
SURVEYED
PLOTTED
DESIGNED
R.W.M.
PT OF WAY CHECKED
NOTE BOOK
NO.
DATE
BY
9 + 00
10 + 00
11 + 00
12 + 00
13 + 00
ROMA AVENUE
FRUIT AVENUE
6" CI Water Line
8'Φ Storm Sewer Manhole
Water Valve (open)
4" Gas Line
Survey and Base Line
12" CI Water Line
72" R.C.P. Storm Sewer
New 8" VC Sanitary Sewer
4'Φ Sanitary Manhole
8'Φ Sanitary Manhole
PROFILE
TOP OF PAVEMENT
GRADE = +0.04
72" RCP Storm Sewer
GRADE = +0.047
GRADE = +0.177
Inv. 39.52
Top Pavement 51.30
Inv. 39.51
Inv. 39.56
Inv. 39.58
Inv. 39.60
Top 8'Φ Manhole 52.09
Inv. 39.74
Top 8'Φ Manhole 51.96
Inv. 39.76
Inv. 39.78
Inv. 39.80
Inv. 39.83
Inv. 39.85
Inv. 39.89
Inv. 39.90
Top 4'Φ Manhole 52.86
Inv. 39.99
Top Pavement 52.85
8" VC Sanitary Sewer
GRADE = -0.726
GRADE = +0.65
GRADE = +0.65
GRADE = +0.42
Inv. 46.35
Top 4'Φ Manhole 52.91
Top 4'Φ Manhole 52.90
Inv. 46.65
Top Pavement 51.00
Inv. 46.29
Inv. 45.92
Inv. 45.60
Inv. 45.21
Top 4'Φ Manhole 52.03
Inv. 46.55
Inv. 46.88
Inv. 46.20
Top 4'Φ Manhole 52.24
Inv. 46.37
Top 4'Φ Manhole 52.62
Inv. 46.58
Inv. 46.86
Inv. 47.17
Top 4'Φ Manhole 52.74
7 + 50
8 + 00
8 + 50
9 + 00
9 + 30
10 + 00
10 + 50
11 + 00
11 + 50
12 + 00
12 + 50
13 + 00
13 + 50
4950
4940
4930
Date 8/12/75
CITY of ALBUQUERQUE
NEW MEXICO
Project No.
CIP 444-66-018
Seal
METROPOLITAN STORM SEWER EXTENSION
72" R.C.P. STORM SEWER
8" SANITARY SEWER - 8TH STREET
Job No. 73-143
Sheet 6 of 25
Drawn By R.W.M., P.M.
Date 9/13/75
Checked By C.J.M.
Scale 1"=20' Hor. 1"=10' Vert.
PLATE 1 SINGLE PLAN PROFILE
CHARLES BRUNING CO.
MADE IN U.S.A.

NOTE:
Tie 2 Drop Inlets into
8'Φ Manhole w/15" RCP.





8/22/75

PLAN
SURVEYED
PLOTTED
CROSS SECTION CHECKED
BY CHECKED
NOTE BOOK
NO.

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
BY CHECKED
NOTE BOOK
NO. — STRUCTURE NOTATIONS OFKD

BY	DATE

CITY of ALBUQUERQUE
NEW MEXICO

Project No.
CIP 444-66-013

Seal

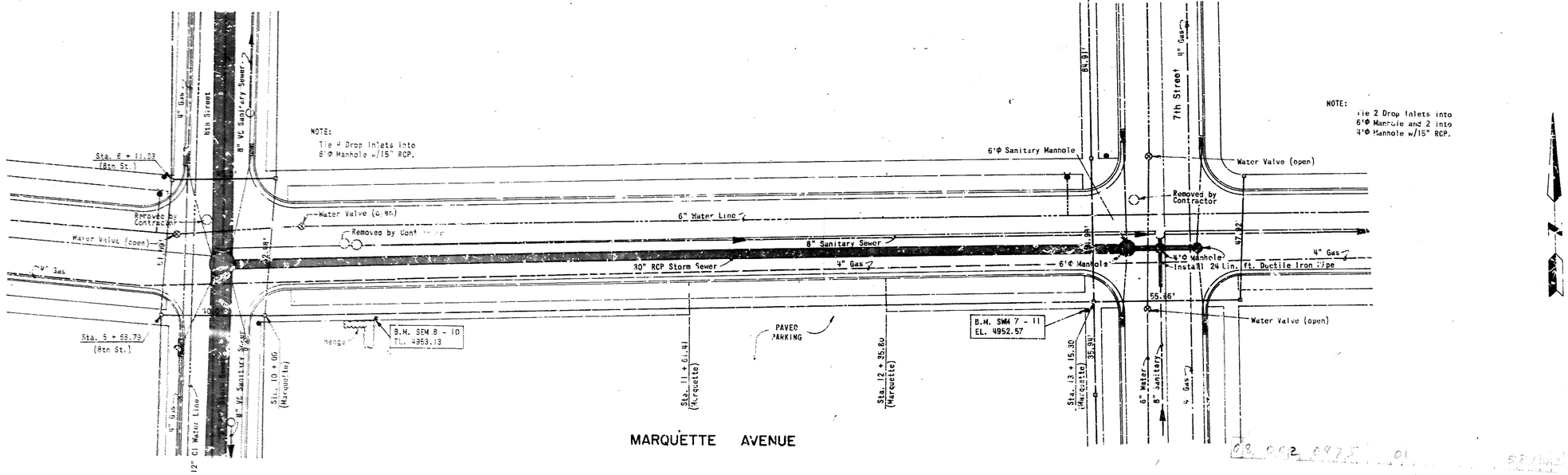
METROPOLITAN STORM SEWER EXTENSION

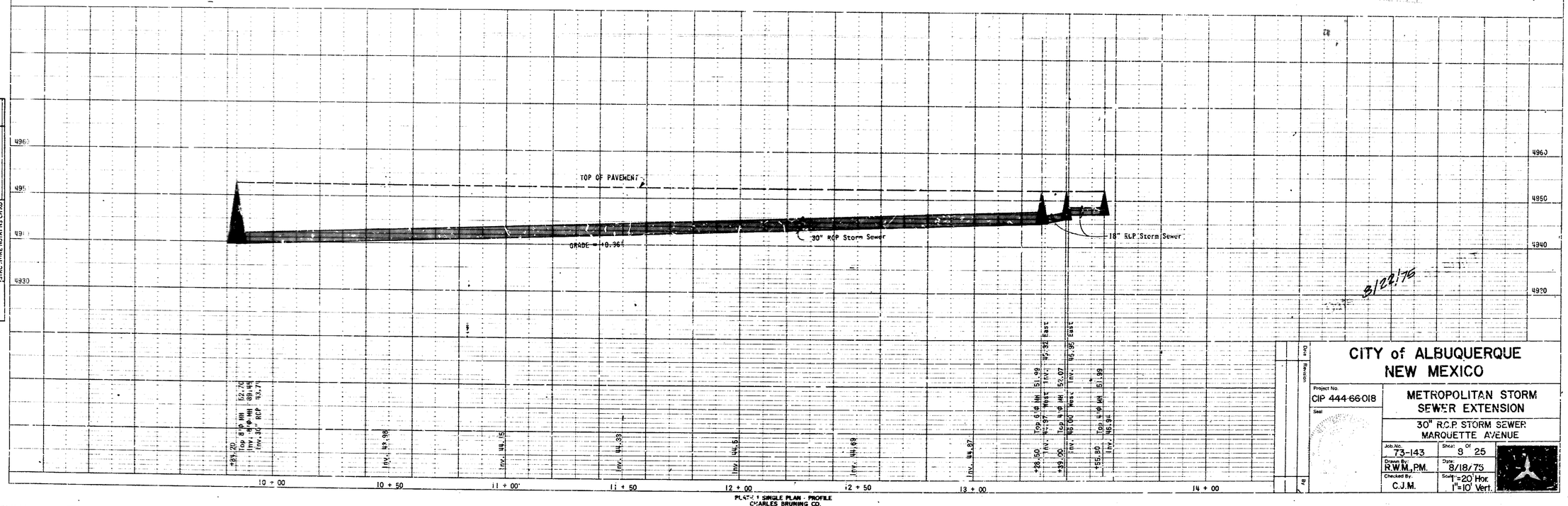
72" R.C.P. STORM SEWER
8" SANITARY SEWER — 8TH STREET

Job No. 73-143	Sheet 7 Of 25
Drawn By R.W.M., P.M.	Date 8/18/75
Checked By C.J.M.	Scale 1"=20' Hor. 1"=10' Vert.

NO.	REVISIONS	DATE

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





PLAN
NOTE BOOK NO.
PROTOTYPED PLOTTED
ALL WORK CHECKED BY
DATE

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

CITY of ALBUQUERQUE
NEW MEXICO

Project No. CIP 444-66-018

Seal

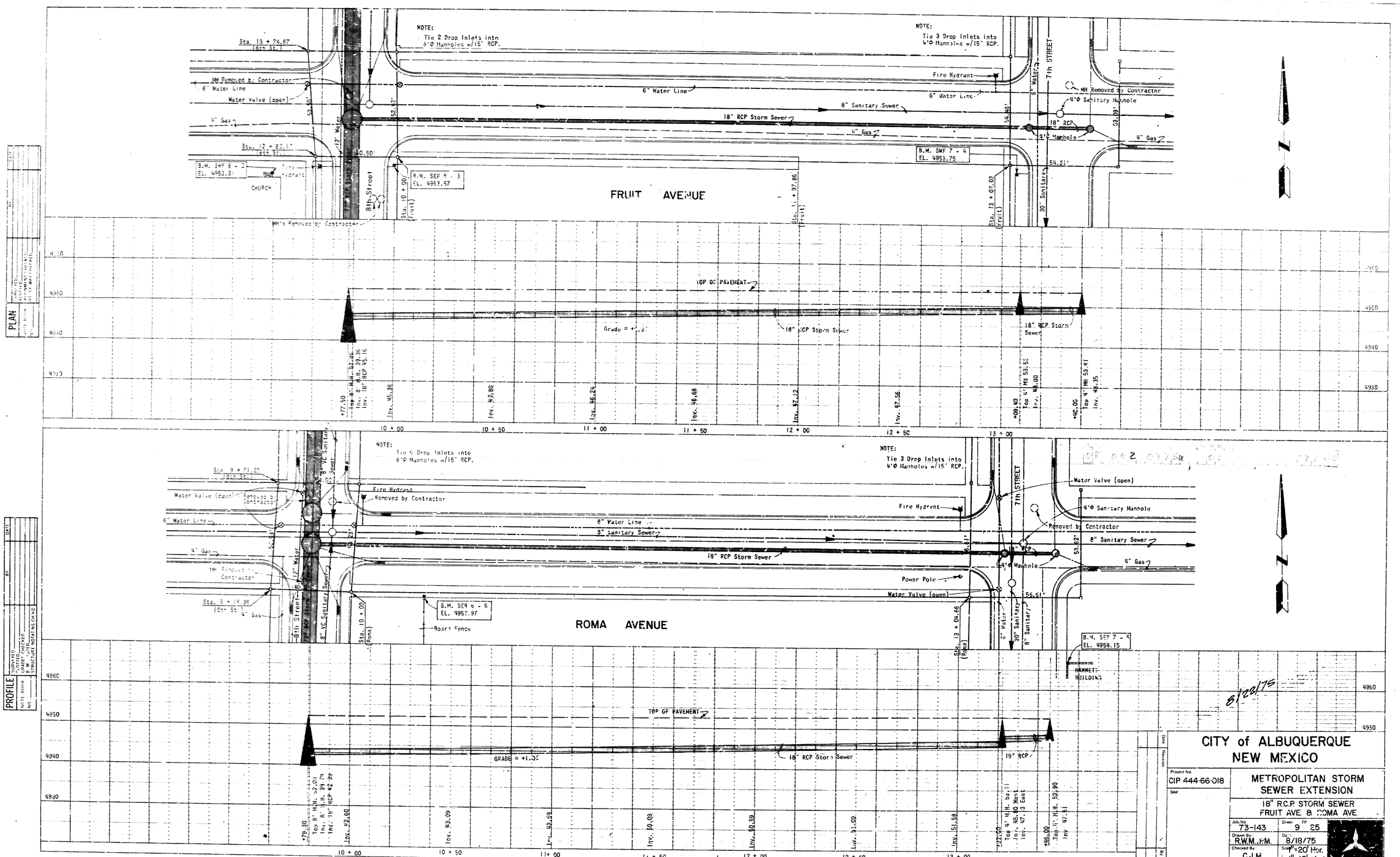
METROPOLITAN STORM SEWER EXTENSION

30" R.C.P. STORM SEWER
MARQUETTE AVENUE

Job No. 73-143	Sheet 3 Of 25
Drawn By: R.W.M., P.M.	Date: 8/18/73
Checked By: C.J.M.	Scale 1"=20' Hor. 1"=10' Vert.

Date | Revision | By

PLATON SINGLE PLAN - PROFILE
CHARLES BRUNING CO.
MADE IN U.S.A.



CITY of ALBUQUERQUE
NEW MEXICO

Project No. CIP 444-66-018

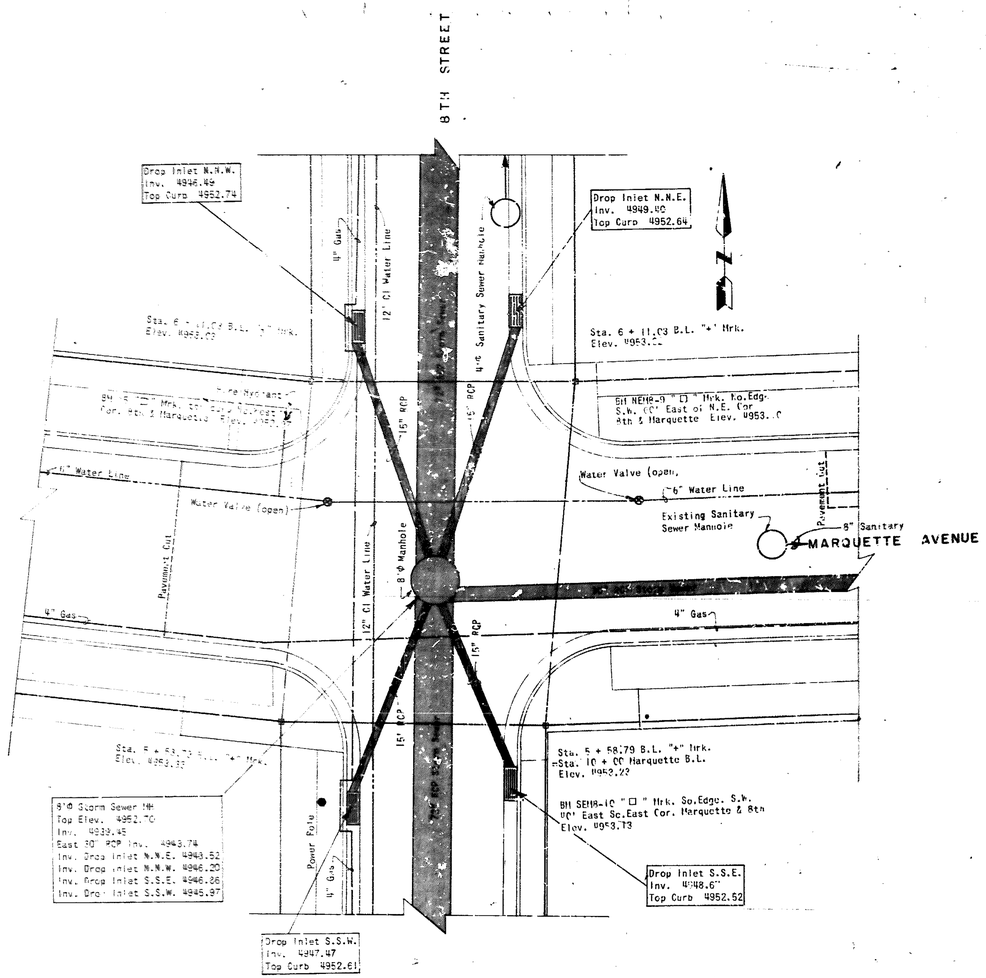
Seal

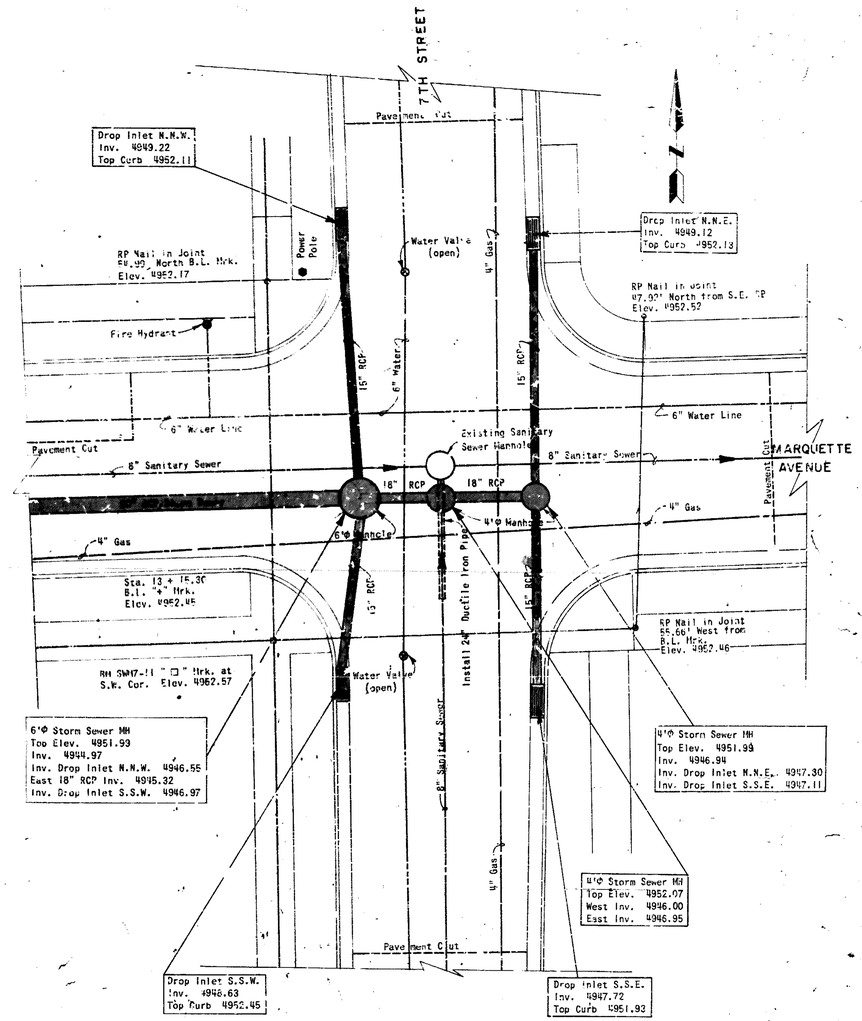
METROPOLITAN STORM SEWER EXTENSION

18" R.C.P. STORM SEWER FRUIT AVE. & ROMA AVE

Job No. 73-143	Sheet 9 of 25
Drawn By R.W.M., P.M.	Date 8/18/75
Checked By C.J.M.	Scale 1"=20' Hor. 1"=10' Vert.

PLATE 2 - DOUBLE PLAN - PROFILE
CHARLES BRINING COMPANY
MADE IN U.S.A.





Date 8/22/75 AS-BUILT

Date	Revision

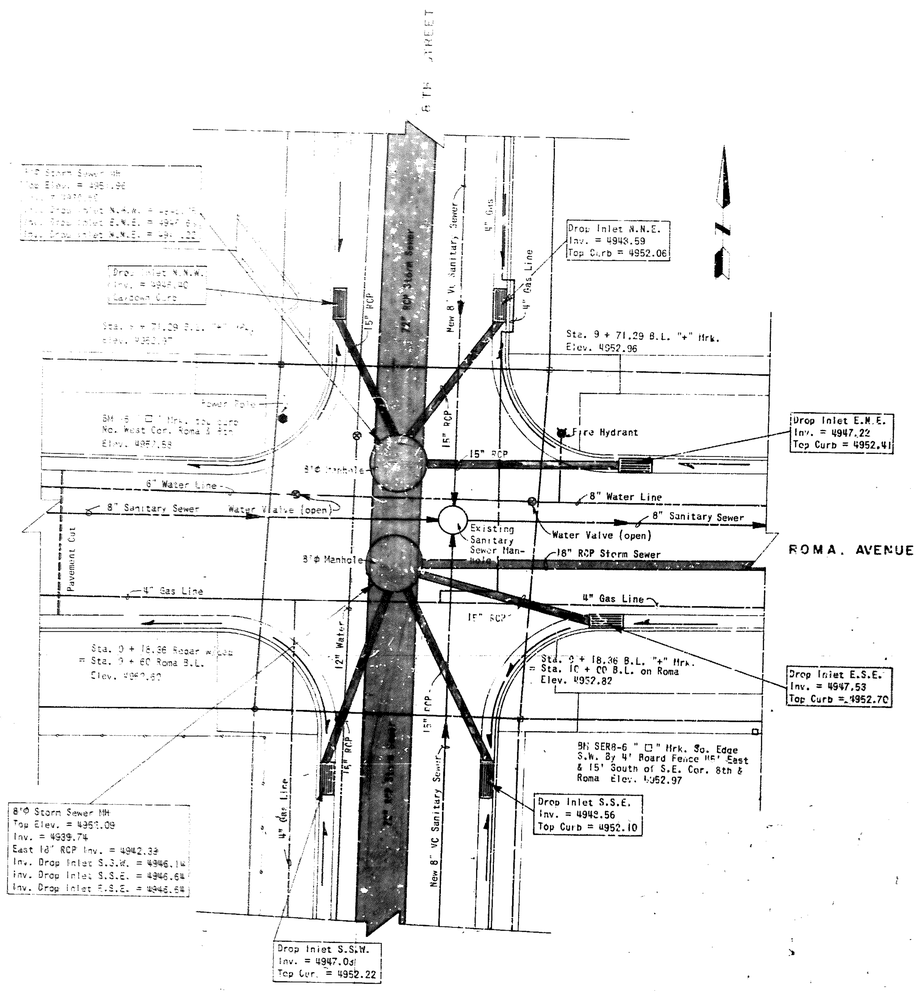
CITY of ALBUQUERQUE
NEW MEXICO

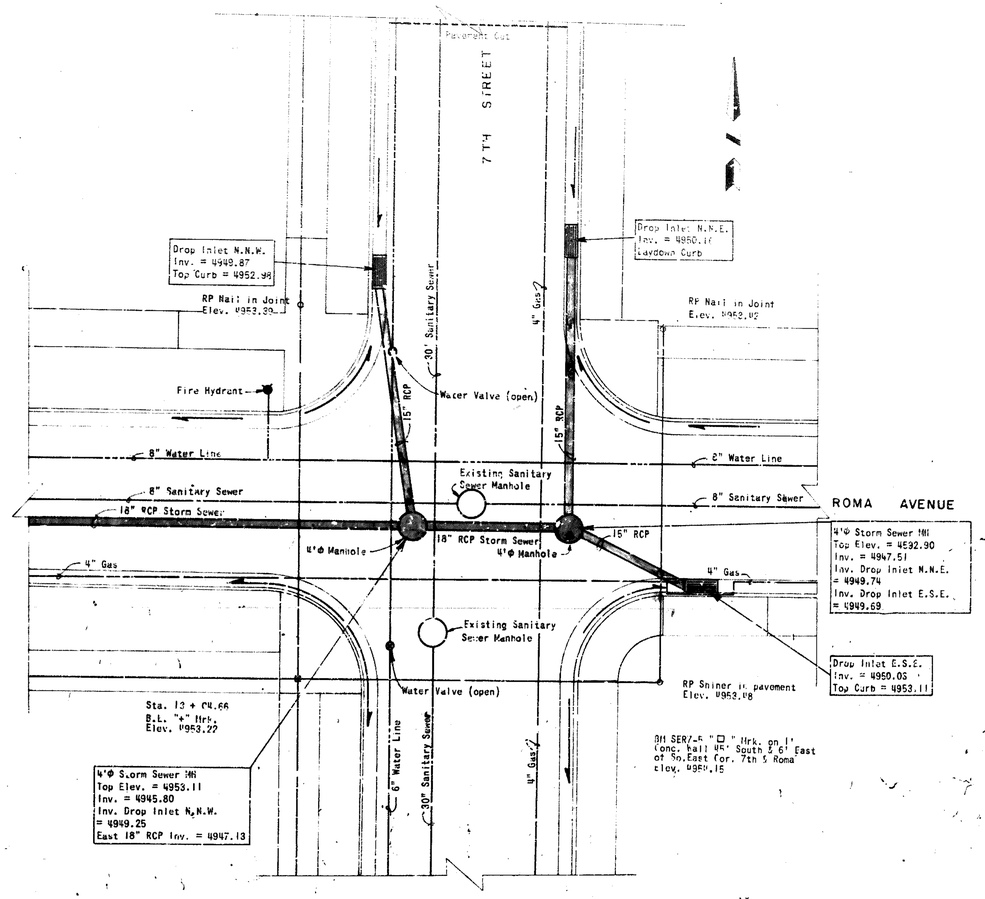
Project No. CIP 444-66-018

METROPOLITAN STORM SEWER EXTENSION INTERSECTION DETAILS

8TH STREET & MARQUETTE AVE.
7TH STREET & MARQUETTE AVE.

Job No. 73-143	Sheet 10 of 25
Drawn By R.W.M., P.M.	Date 8/16/75
Checked By O.J.M.	Scale 1" = 10'





Date 8/22/75 AS-BUILT

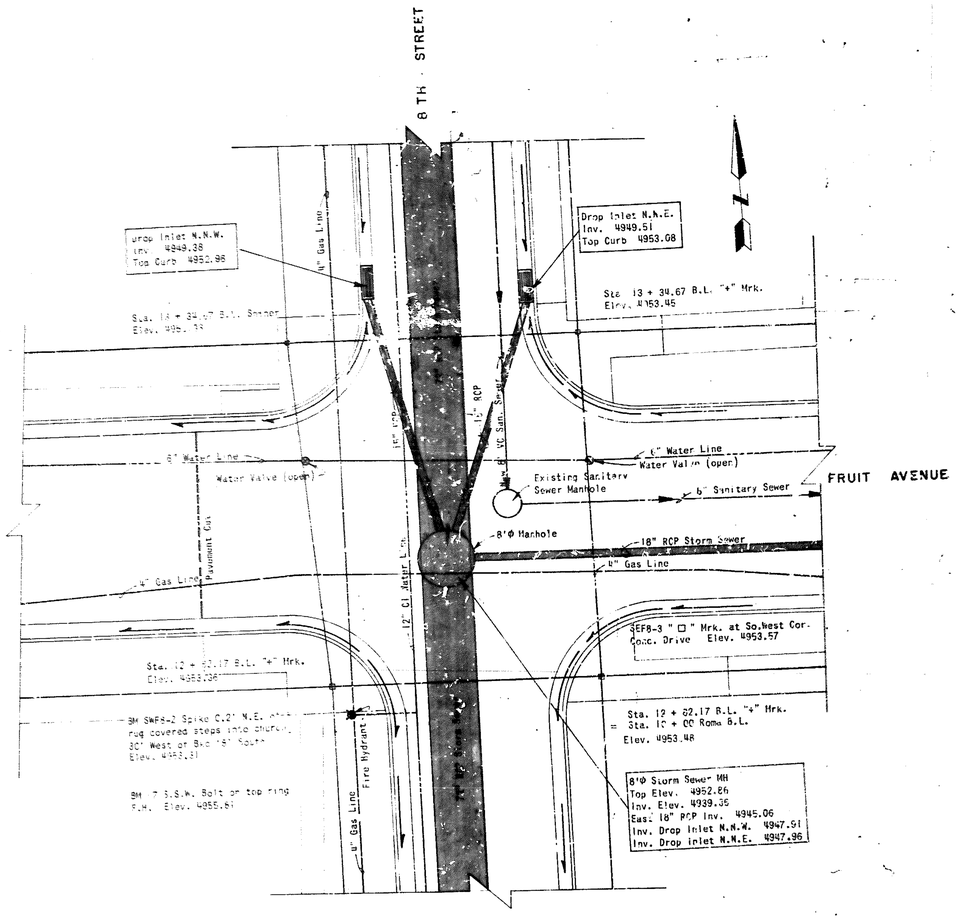
CITY of ALBUQUERQUE
NEW MEXICO

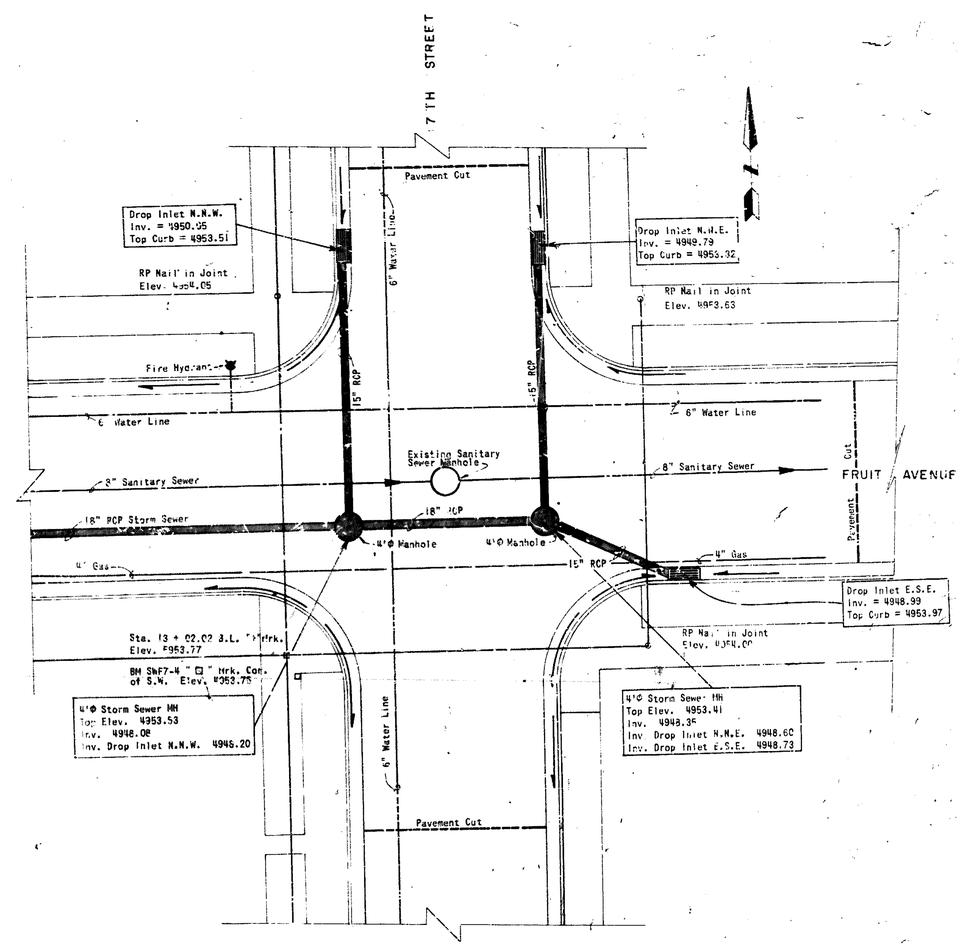
Project No. CIP 444-66-018

METROPOLITAN STORM SEWER EXTENSION
INTERSECTION DETAILS
8TH STREET & ROMA AVE.
7TH STREET & ROMA AVE.

Section 73-143.i	Sheet 11 of 25
Drawn By R.W.M., F.M.	Date 8/18/75
Checked By C.J.M.	Scale 1" = 10'

Date | Revision | By





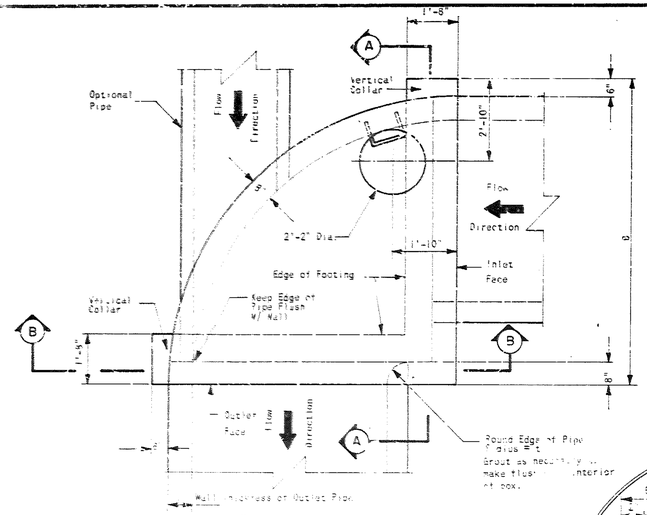
Date 8/22/75 AS BUILT

CITY of ALBUQUERQUE
NEW MEXICO

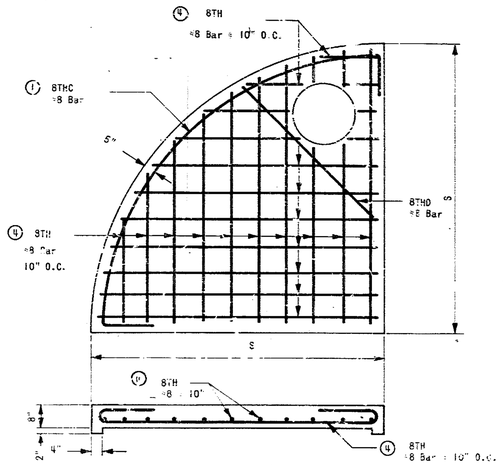
CIP 444-66-016

METROPOLITAN STORM SEWER EXTENSION
INTERSECTION DETAILS
8TH. STREET & FRUIT AVE.
7TH STREET & FRUIT AVE.

73-143.1	Sheet 12 of 25
Drawn By R.W.M., P.M.	Date 8/18/75
Checked By C.J.M.	Scale 1" = 10'

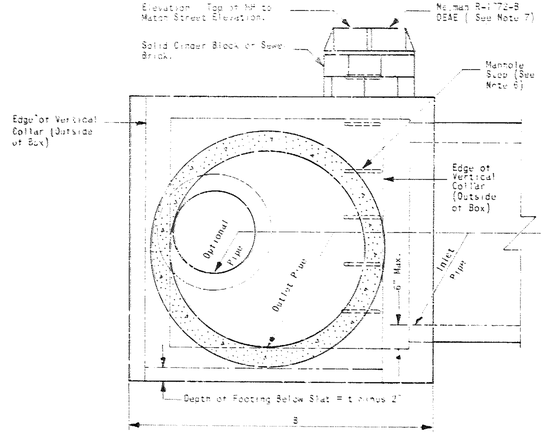


TOP VIEW
NO SCALE

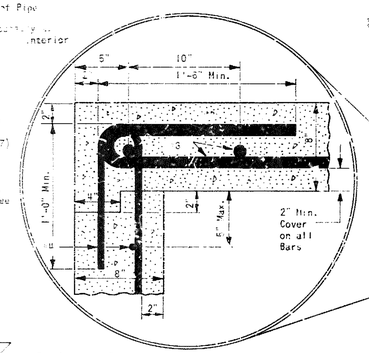


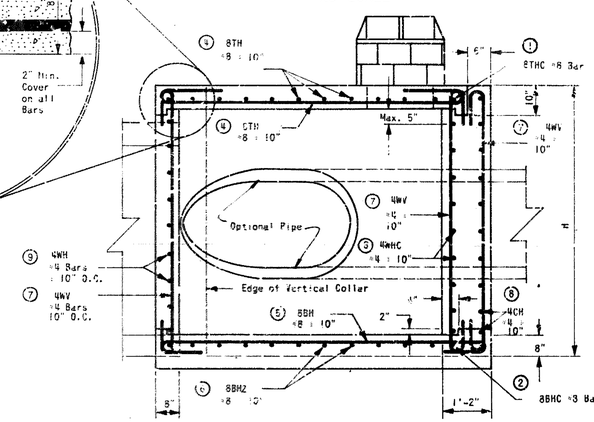
TOP SLAB BAR DETAILS
NO SCALE

RT. ANGLE PIPE DIA. OUT/IN	S	B	H	t	L	CONCRETE CU.YD.	STEEL LBS.
48/48	6'-3½"	6'-9½"	6'-3⅜"	5⅝"	9'-1"	4.05	1173
54/48	6'-10½"	7'-4½"	6'-10⅜"	6⅛"	10'-0"	4.77	1286
54/54	6'-10½"	7'-4½"	6'-10⅜"	6⅛"	10'-0"	4.73	1286
60/48	7'-5½"	7'-11½"	7'-4⅜"	6⅝"	10'-11"	5.57	1448
60/54	7'-5½"	7'-11½"	7'-4⅜"	6⅝"	10'-11"	5.53	1448
60/60	7'-5½"	7'-11½"	7'-4⅜"	6⅝"	10'-11"	5.49	1448
66/54	8'-0½"	8'-6½"	7'-11⅛"	7⅛"	11'-10"	5.42	1635
66/60	8'-0½"	8'-6½"	7'-11⅛"	7⅛"	11'-10"	6.23	1635
66/66	8'-0½"	8'-6½"	7'-11⅛"	7⅛"	11'-10"	6.34	1635
72/60	8'-7½"	9'-1½"	8'-5⅜"	7⅝"	12'-9"	7.35	1800
72/66	8'-7½"	9'-1½"	8'-5⅜"	7⅝"	12'-9"	7.31	1800
72/72	8'-7½"	9'-1½"	8'-5⅜"	7⅝"	12'-9"	7.27	1800
78/66	9'-2½"	9'-8½"	9'-0⅛"	8⅛"	13'-8"	8.29	2011
78/72	9'-2½"	9'-8½"	9'-0⅛"	8⅛"	13'-8"	8.25	2011
78/78	9'-2½"	9'-8½"	9'-0⅛"	8⅛"	13'-8"	8.21	2011

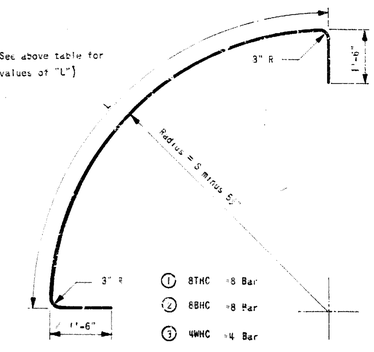


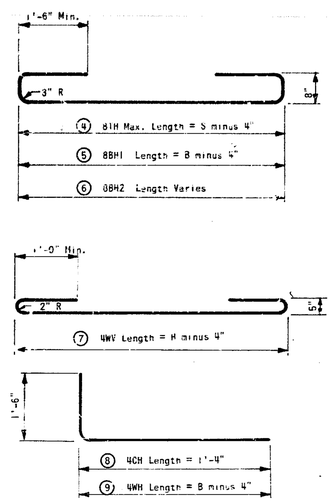
END VIEW
NO SCALE





SECTION A-A
NO SCALE



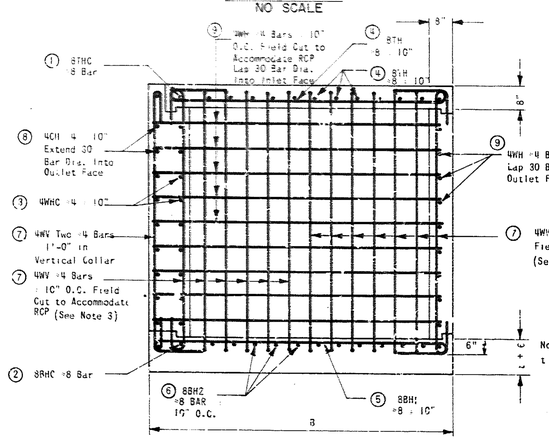


BAR BENDING DETAILS
NO SCALE

NOTES:

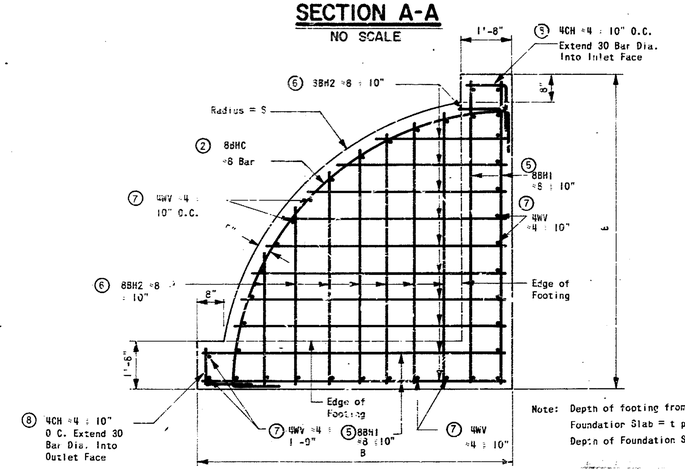
1. All deformed reinforcing bars shall be of Grade 60 Billet Steel conforming to ASTM A 615-68.
2. Lap shall be at least 30 bar diameters. Do not lap steel at bends or hooks.
3. Field cut rebar where required to receive RCP or manhole. Use #4 Bar to join cut ends together around entire opening.
4. Rebar shall have 2" of concrete cover from edge of bar to edge of concrete unless otherwise noted.
5. Concrete shall be designed for a minimum of 3000 PSI Compressive Loading and shall comply with the Uniform Standard Specifications for Public Works Construction for New Mexico. Section 100 and 500. Aggregate size shall not exceed ¾".
6. Manhole steps shall be of Aluminum Alloy at 16" O.C. with bottom step not greater than 2'-0" from floor of junction box.
7. C.D.A.E. or Engineer's Approved Equivalent.
8. t is the wall thickness of the outlet pipe.
9. See plan and profile sheets for sizes of RCP.
10. All steel dimensions are given out to out except that the bending radius is given to the inside edge of the bar.
11. Minimum bending radius is three (3) bar diameters for #3 thru #8 bars.
12. Hooks and bends which are too large to be placed normal within a slab shall be placed at a skew to insure the required cover.
13. Definition of bar symbols

(1) 8 T H C (example)
- C: Curved (very long radius)
- D: Diagonal Orientation
- H: Horizontal Plane / V: Vertical Plane
- T: Top Slab
- B: Bottom Slab
- W: Wall
- C: Collar
- 8: #8 Bar
- 4: #4 Bar etc.
- Refer to bar bending detail labeled (1)



Note:
t = Wall thickness of Outlet Pipe. See table this Sheet.

SECTION B-B
NO SCALE

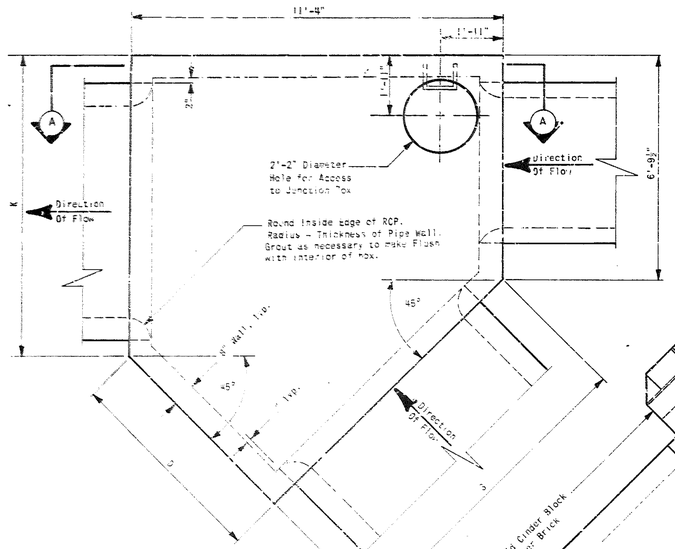


Note: Depth of footing from top of Foundation Slab = t plus 5"
Depth of Foundation Slab = 8"

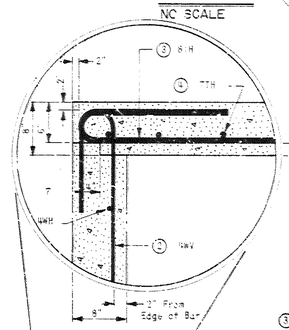
FOUNDATION BAR DETAILS
NO SCALE

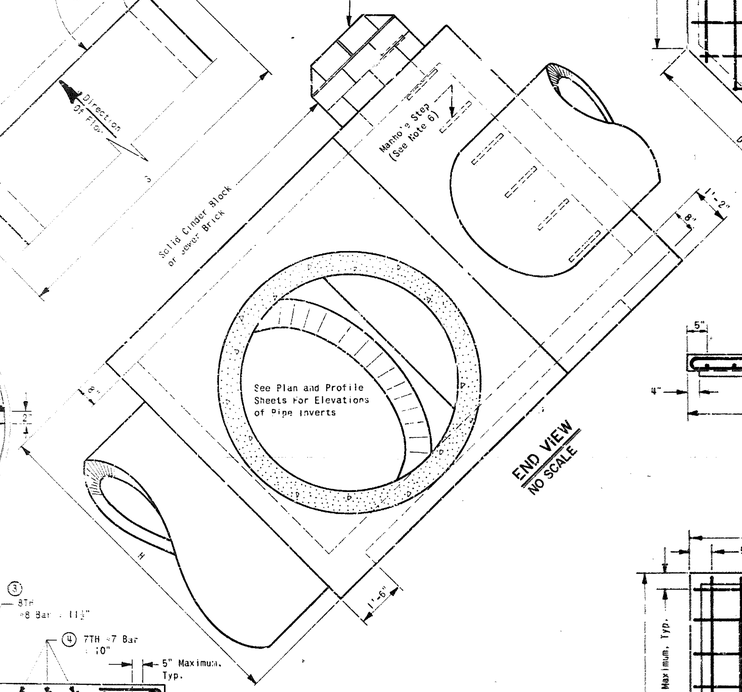
8/22/75

Date / Revision	CITY OF ALBUQUERQUE NEW MEXICO
Project No. CIP 444-66-018	METROPOLITAN STORM SEWER EXTENSIONS
Seal	90° JUNCTION BOX
Job No. 73-143	Sheet 13 of 25
Drawn By J.D.J.	Date OCT. 1974
Checked By R.W.M.	Scale AS SHOWN

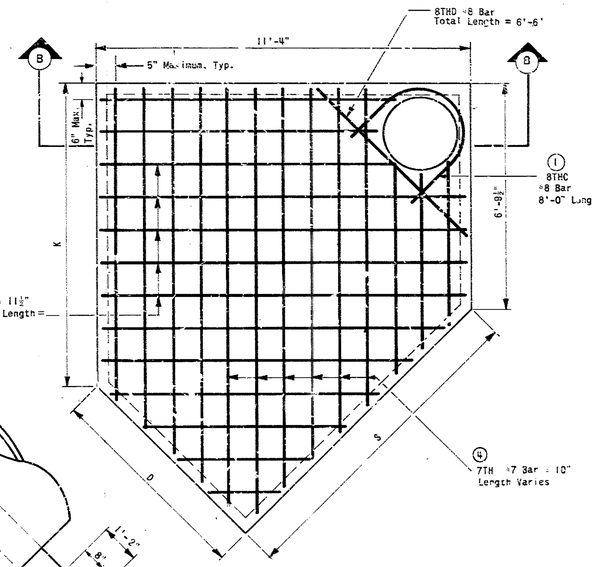


PLAN VIEW
NO SCALE

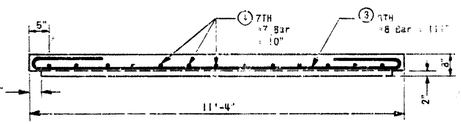




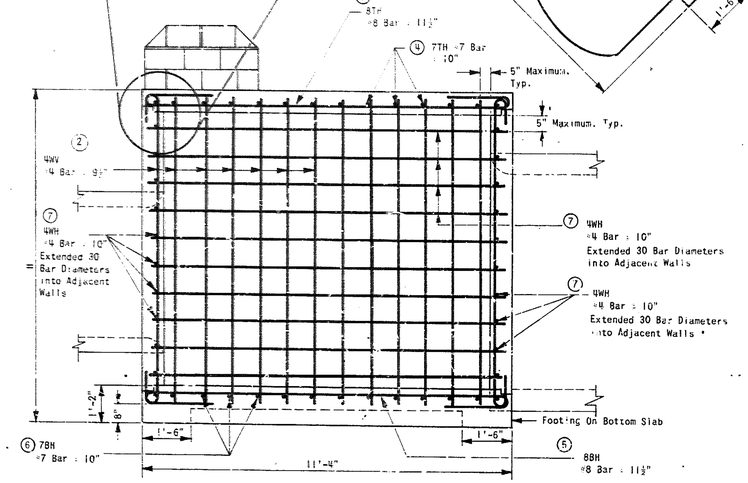
END VIEW
NO SCALE



TOP SLAB BAR DETAILS
NO SCALE

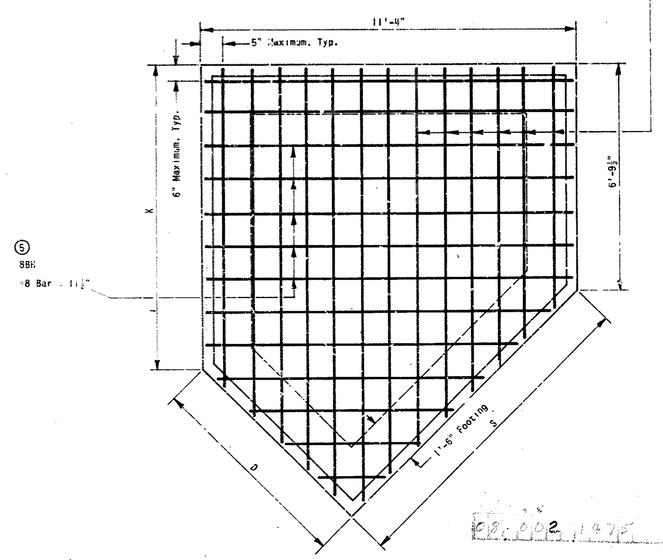


SECTION B-B
NO SCALE



SECTION A-A

TYPICAL WALL BAR DETAILS
NO SCALE

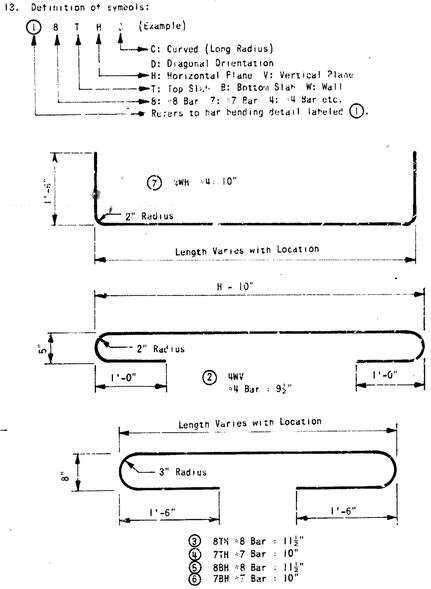


FOUNDATION BAR DETAILS
NO SCALE

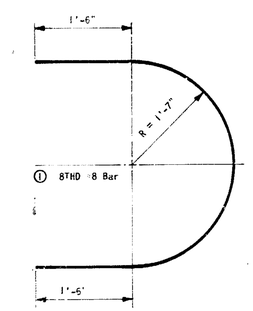
OUTLET PIPE	K	D	S	H	t (See Note 8)	CONCRETE (Cu. Yds.)	STEEL (Lbs.)
48"	6'-2⅜"	8'-5"	7'-7 3/8"	7'-3⅜"	5⅞"	14.0	2.422
54"	6'-9⅞"	8'-0"	8'-0 3/8"	7'-10"	6"	14.7	2.452
60"	7'-4⅜"	7'-7"	8'-5 3/8"	8'-4½"	6⅜"	15.5	2.495
66"	7'-11⅞"	7'-2"	8'-10"	8'-11"	7"	16.2	2.513
72"	8'-6⅜"	6'-9"	9'-3"	9'-5⅜"	7⅜"	17.0	2.606
78"	9'-1⅞"	6'-4"	9'-8"	10'-0"	8"	17.8	2.711

NOTES:

1. All deformed reinforcing bars shall be of Grade 60 Billet Steel conforming to ASTM A 615-68.
2. Lap shall be a minimum of 30 bar diameters. Do not lap Steel at bends or hooks.
3. Field cut rebar where required to receive RCP or manhole. Use #4 Bar to join cut ends together around entire opening.
4. Rebar shall have 2" of concrete cover from edge of bar to edge of concrete unless otherwise indicated.
5. Concrete shall be designed for a minimum of 3000 psi compressive loading and shall comply with the Uniform Standard Specifications for Public Works Construction for New Mexico Sections 100 and 500. Aggregate size shall not exceed ¾".
6. Manhole steps shall be of aluminum alloy at 16" O.C., with the bottom step not greater than 1'-0" from floor of junction box.
7. O.E.A.E. = or Engineer's Approved Equal.
8. t is the RCP wall thickness.
9. All steel dimensions are given out to out except that the bending radius is given to the inside edge of the bar.
10. See Plan and Profile Sheets for size of RCP.
11. Minimum bending radius is three (3) bar diameters for #3 through #8 bars.
12. Hooks and bends which are too large to be placed normal within a slab shall be placed at a skew to insure the required cover.
13. Definition of symbols:



BAR BENDING DETAILS
NO SCALE



8/22/75

CITY OF ALBUQUERQUE
NEW MEXICO

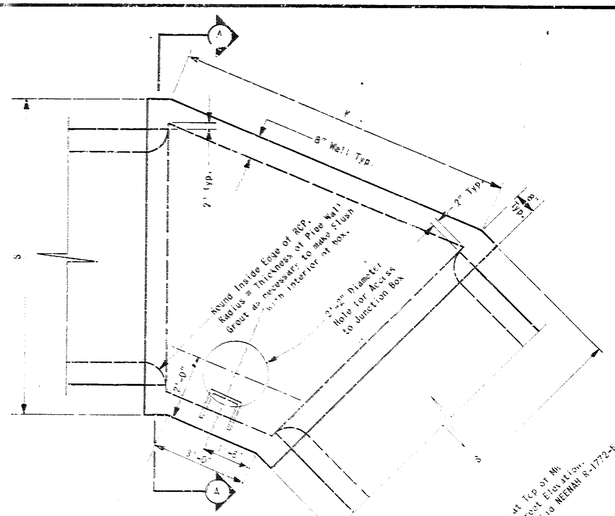
Project No. CIP 444-66-018

METROPOLITAN STORM SEWER EXTENSIONS

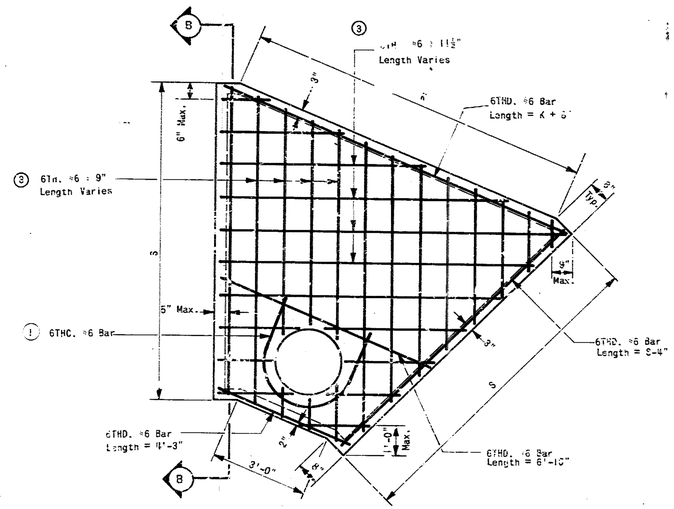
45° JUNCTION BOX TYPE I

Job No. 73-143	Sheet 14 Of 25		
Drawn By J.F.	Date 10-1974		
Checked By R.W.M.	Scale AS SHOWN		

Date | Revision | By | Seal



PLAN VIEW
NO SCALE

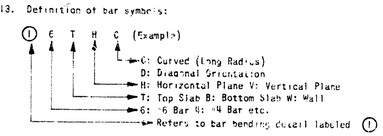


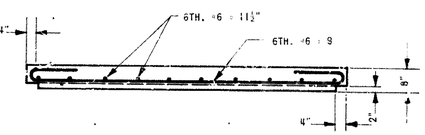
TOP SLAB BAR DETAILS
NO SCALE

OUTLET PIPE	S	K	H	t (SEE NOTE 8)	CONCRETE (CU.YD.)	STEEL (LBS.)
48"	6'-8 7/8"	8'-1 7/8"	7'-3⅜"	5⅝"	5.2	962
54"	7'-3 7/8"	8'-7½"	7'-10⅝"	6"	6.0	1.096
60"	7'-10 7/8"	9'-0 5/8"	8'-4⅝"	6⅝"	6.8	1.225
66"	8'-5 7/8"	9'-6"	8'-11⅝"	7"	7.6	1.348
72"	9'-0 7/8"	9'-11 3/8"	9'-5⅝"	7⅝"	8.5	1.472
78"	9'-7 7/8"	10'-4 5/8"	10'-0⅝"	8"	9.4	1.599

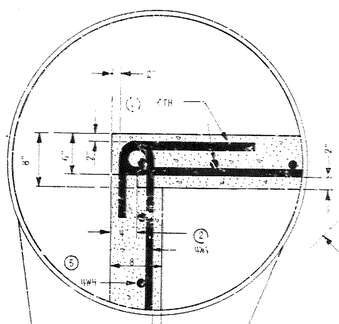
NOTES:

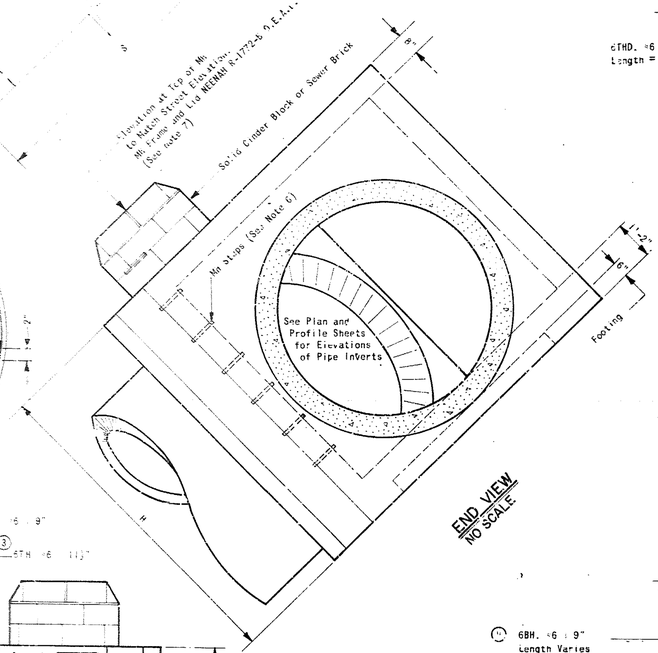
1. All deformed reinforcing bars shall be of Grade 60 Billet Steel conforming to ASTM A 615-68.
2. Lap shall be a minimum of 30 bar diameters. Do not lap steel at bends or hooks.
3. Field cut rebar where required to receive RCP or manhole. Use #5 bar to join cut ends together around entire opening. (Similar to bar 6THC)
4. Rebar shall have 2" of concrete cover from edge of bar to edge of concrete unless otherwise indicated.
5. Concrete shall be designed for a minimum of 3000 psi compressive loading and shall comply with the Uniform Standard Specifications for Public Works Construction for New Mexico Sections 100 and 500. Aggregate size shall not exceed 2".
6. Manhole steps shall be of Aluminum Alloy at 16" O.C. with the bottom step not greater than 2'-0" from floor of junction box.
7. O.E.A.E. = Or Engineer's Approved Equal.
8. t is the RCP wall thickness.
9. All steel dimensions are given out to out except that the bending radius is given to the inside edge of the bar.
10. See Plan and Profile Sheets for size of RCP.
11. Minimum bending radius is three (3) bar diameters for #3 through #8 bars.
12. Hooks and bends which are too large to be placed normal within a slab shall be placed at a skew to insure the required cover.
13. Definition of bar symbols:



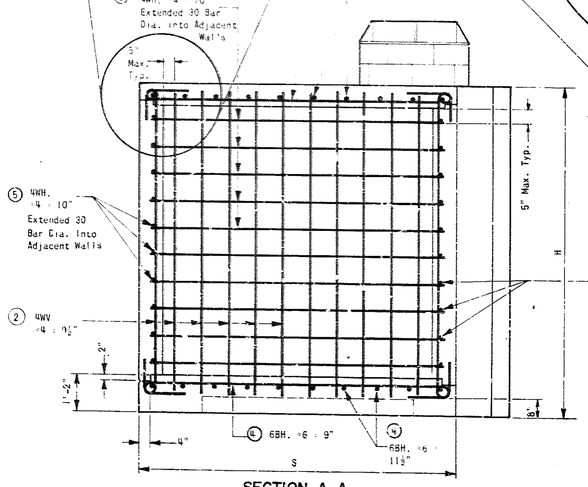


SECTION B-B
NO SCALE

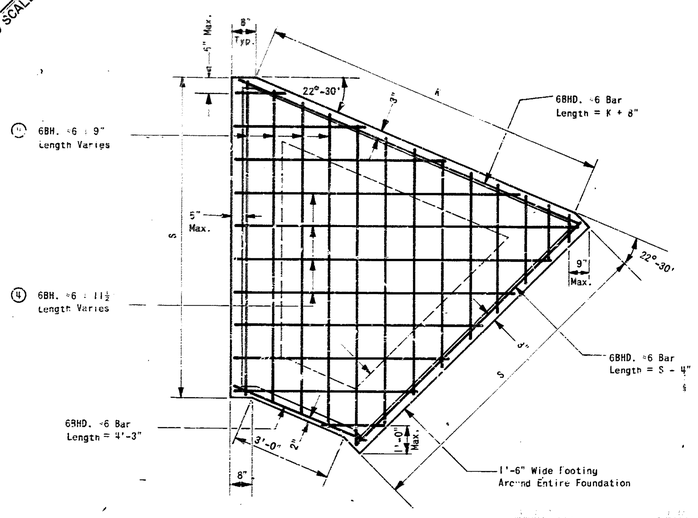




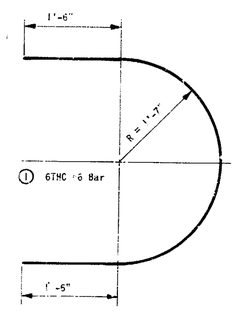
END VIEW
NO SCALE

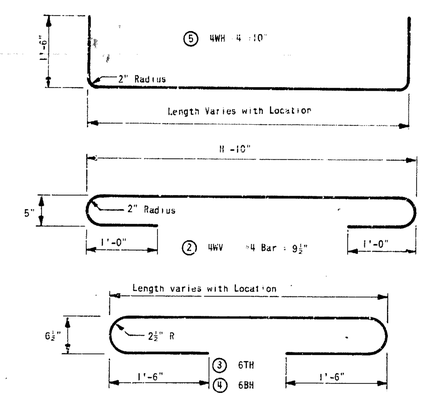


SECTION A-A
TYPICAL WALL BAR DETAILS
NO SCALE



FOUNDATION BAR DETAILS
NO SCALE

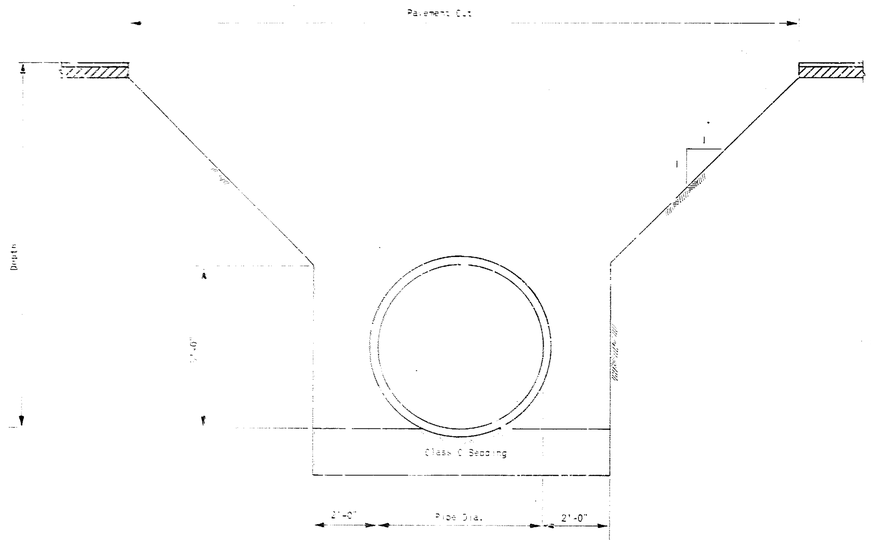




BAR BENDING DETAILS
NO SCALE

8/22/75

Date / Revision	CITY OF ALBUQUERQUE NEW MEXICO
Project No. CIP 444-66-018	METROPOLITAN STORM SEWER EXTENSIONS
Seal	45° JUNCTION BOX TYPE II
Job No. 73 143	Sheet 15 Of 25
Drawn By J.F.	Date 10-1974
Checked By R.W.M.	Scale AS SHOWN

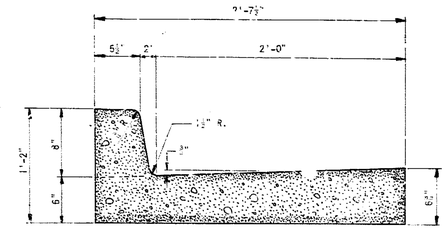


TRENCHING DETAIL

MAXIMUM ALLOWABLE PAVEMENT CUTS (Ft.)											
Depth \ Pipe ℄	18"	24"	30"	36	42"	48"	54"	60"	66"	72"	78"
Up to 5'-0"	5.5	6	6.5	7							
6'-0"	7.5	8	8.5	9	9.5	10					
8'-0"	11.5	12	12.5	13	13.5	14	14.5	15	15.5	16	
10'-0"	15.5	16	16.5	17	17.5	18	18.5	19	19.5	20	20.5
12'-0"	19.5	20	20.5	21	21.5	22	22.5	23	23.5	24	24.5
14'-0"	23.5	24	24.5	25	25.5	26	26.5	27	27.5	28	28.5
16'-0"	27.5	28	28.5	29	29.5	30	30.5	31	31.5	32	32.5
18'-0"	31.5	32	32.5	33	33.5	34	34.5	35	35.5	36	36.5

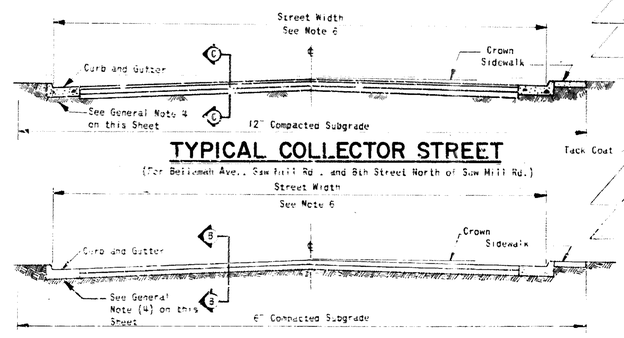
If shoring or sheet piling is used maximum allowable pavement cut is equal to the outside diameter of the pipe plus 10 feet, unless otherwise specified on the plans or by the Engineer.

LIMIT OF PAVING CUTS



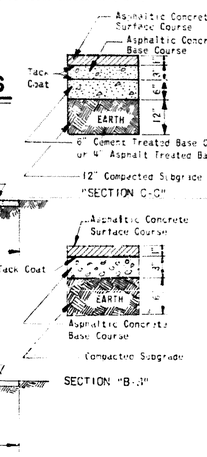
STANDARD CURB & GUTTER

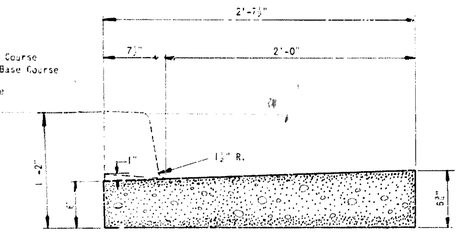
NOTE: For standard and laydown curb and gutter, provide contraction joints at 6' O.C., also provide ½" preformed expansion joints at 48' O.C. maximum, at curb returns and at each side of driveways.



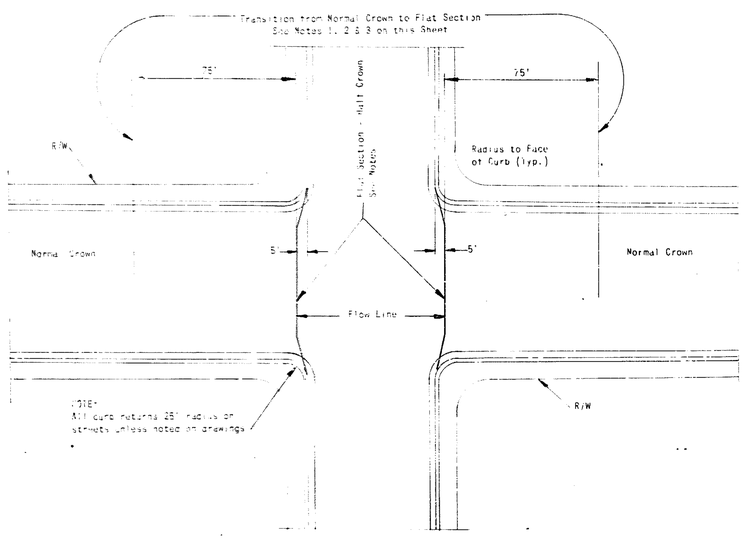
TYPICAL COLLECTOR STREET

(For Bellamah Ave., Saw Mill Rd., and 8th Street North of Saw Mill Rd.)





LAYDOWN CURB



TYPICAL RESIDENTIAL STREET

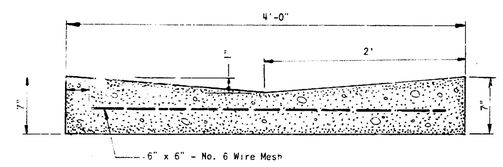
TYPICAL RESIDENTIAL STREET

(Does Not Apply to Bellamah Ave., Saw Mill Rd., or 8th Street North of Saw Mill Rd.)

ROADWAY CROWN DATA	
STREET WIDTH	CROWN
32'	5"
40'	6"
44'	7"
48'	7½"

GENERAL NOTES:

1. Reduce crown to flat section at intersections only where required for drainage.
2. Reduce normal crown to half crown at through intersections where drainage across roadway is not required.
3. Carry normal crown through (T) intersections where drainage across roadway is not required.
4. Payment for subgrade preparation under curb and gutter shall be included with curb and gutter bid items.
5. Lip of gutter to be depressed as needed to insure drainage across intersection.
6. Streets shall maintain their present width unless otherwise specified by the Engineer.



VALLEY GUTTER

3/22/75

08 092 1675 10 10

Date	Revision

CITY OF ALBUQUERQUE
NEW MEXICO

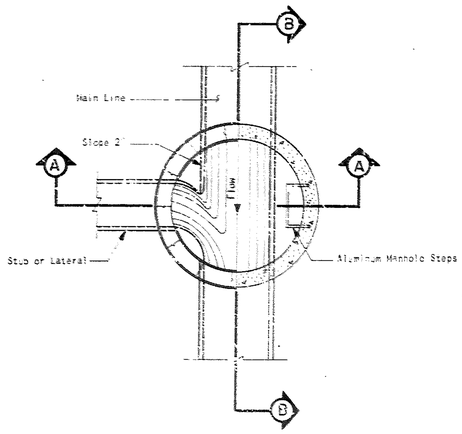
Project No. CIP 444-66-018

Seal

METROPOLITAN STORM SEWER EXTENSIONS

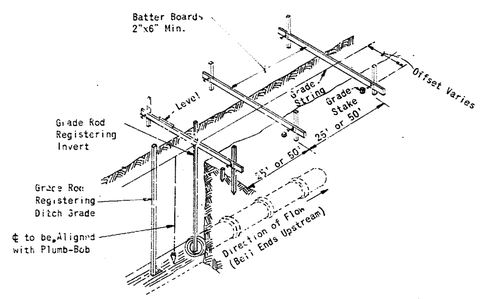
MISCELLANEOUS DETAILS

Job No. 73-143	Sheet 16 Of 25
Drawn By J.F.	Date 10-1974
Checked By R.H.G.	Scale AS SHOWN

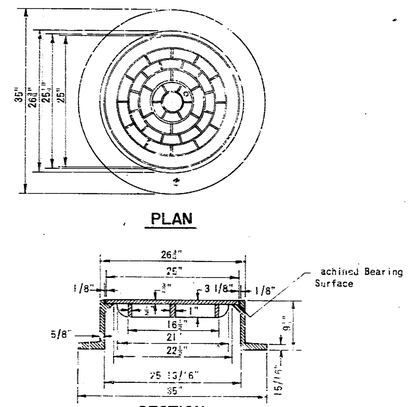


FLOOR PLAN

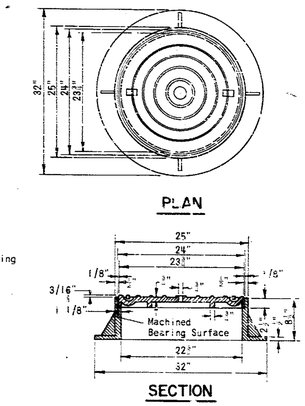
NOTE: Use of laser beam is acceptable as alternate for grade and alignment. Other methods of aligning and grading will be approved by City Inspector prior to its use.



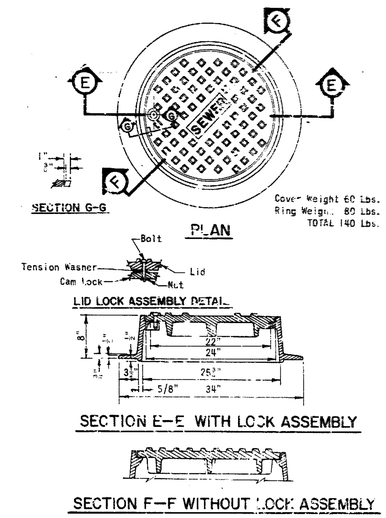
PIPE LAYING PROCEDURE



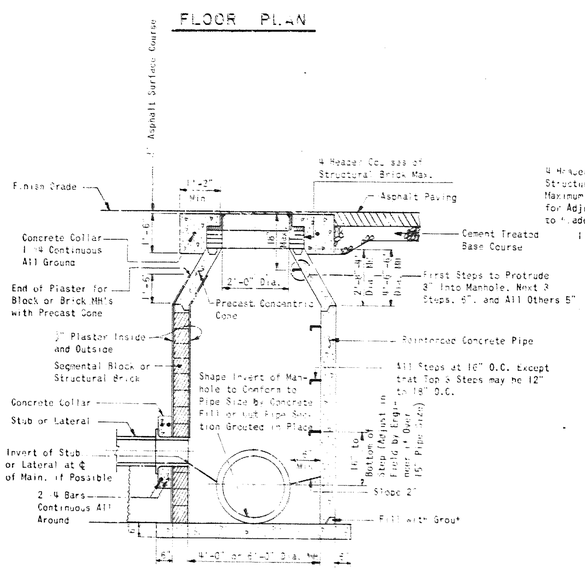
STANDARD MANHOLE FRAME & COVER DETAIL



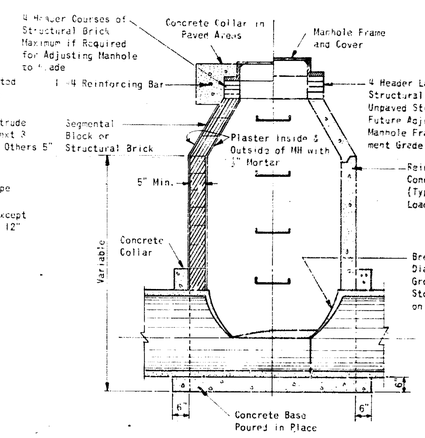
ALTERNATE CAST IRON FRAME & COVER DETAIL



ALUMINUM MANHOLE FRAME & COVER DETAIL

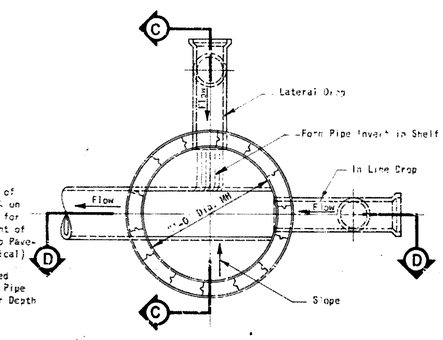


SECTION A-A

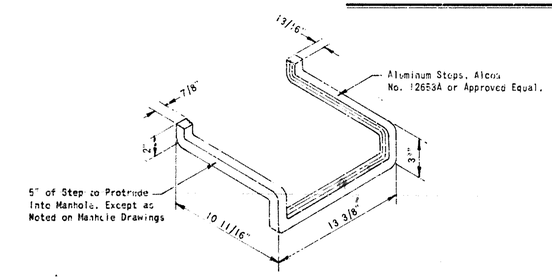


SECTION B-B

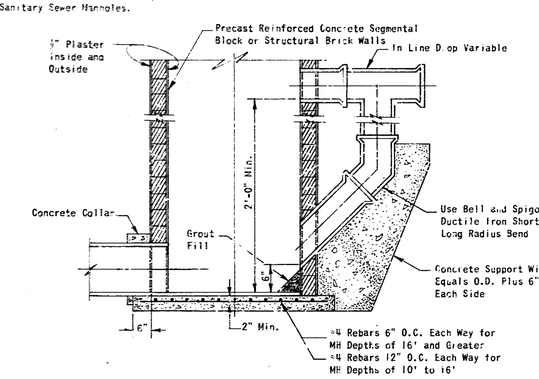
TYPE "B" - SEWER MANHOLE



FLOOR PLAN

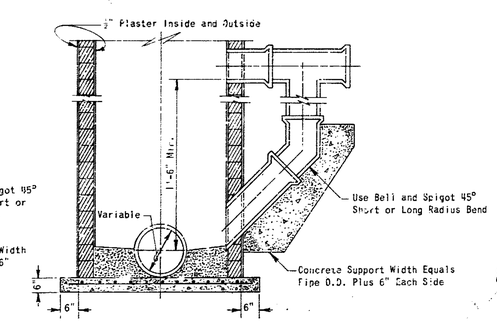


TYPICAL MANHOLE STEP DETAIL



SECTION D-D

IN LINE DROP MANHOLE



SECTION C-C

LATERAL DROP MANHOLE

8/22/76

Date	Revision

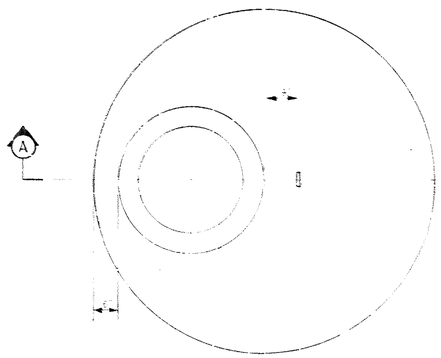
CITY OF ALBUQUERQUE
NEW MEXICO

Project No. CIP 444-66-018

METROPOLITAN STORM SEWER EXTENSIONS

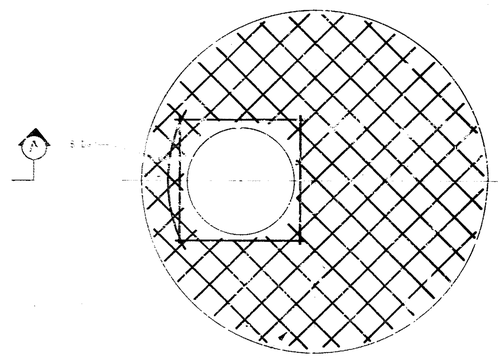
SANITARY SEWER MANHOLE

Job No. 73-143	Sheet 17 of 25
Drawn By JF	Date OCT., 1974
Checked By RRG, RHG	Scale NO SCALE



PLAN

PRECAST CONCRETE COVER

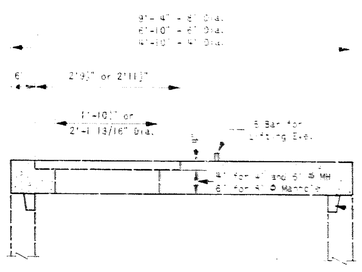


BOTTOM MAT

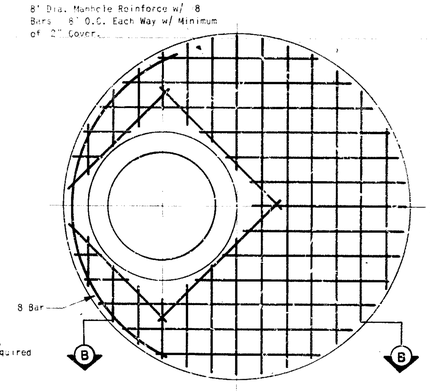
4' & 6' Dia. Manholes Reinforce w/ 8 Bars 6" O.C. Each Way w/ Minimum of 2" Cover

or

8' Dia. Manhole Reinforce w/ 8 Bars 8" O.C. Each Way w/ Minimum of 2" Cover.

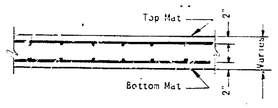


SECTION A-A

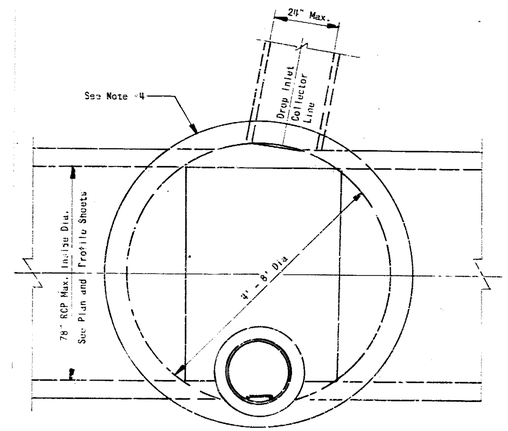


TOP MAT

REINFORCING for PRECAST CONCRETE COVER



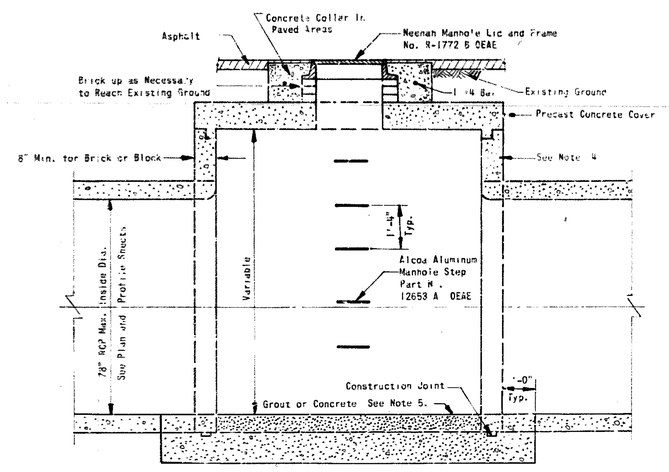
SECTION B-B



PLAN

TYPICAL STANDARD MANHOLE

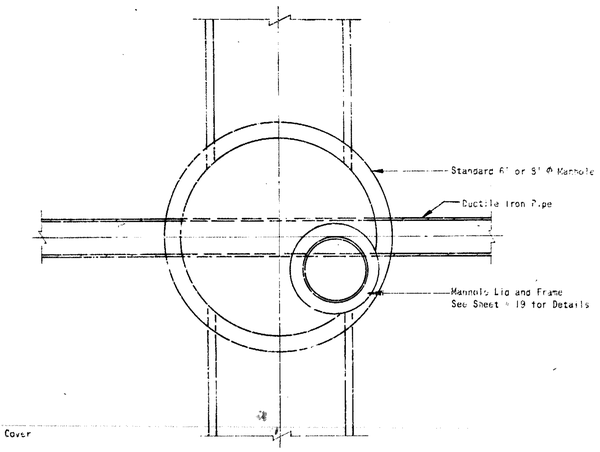
NO SCALE



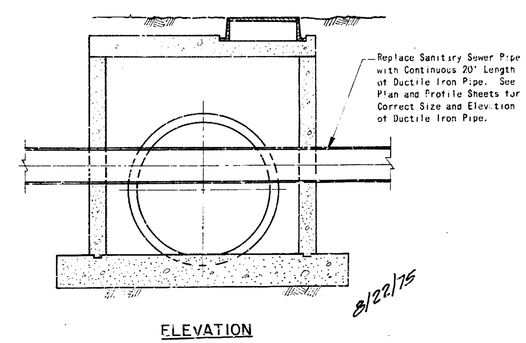
ELEVATION

TYPICAL STANDARD MANHOLE

NO SCALE



PLAN



8/22/75

ELEVATION

STANDARD MANHOLE W/ SANITARY SEWER CROSSING

NO SCALE

NOTES:

1. All rebar dimensions are shown to centerline of the bar except for cover dimension which is 2" from outside surface of bar.
2. CEAL = Or Engineer. Approved Equal.
3. All deformed reinforcing bars shall be of Grade 60 Billet Steel conforming to ASTM A 615-68.
4. Contractor shall have the option to use brick, block or precast manhole for the construction of standard manholes.
5. Contractor shall shape the bottom of the manhole with grout or concrete to provide smooth flow characteristics as directed by the Engineer
6. Lap shall be a minimum of 30 bar diameters.
7. Concrete shall be designed for a minimum of 3000 psi compressive loading and shall comply with the Uniform Standard Specifications for Public Works Construction for New Mexico Sections 100 and 500. Aggregate size shall not exceed 1".
8. Manhole steps shall be of aluminum alloy at 16" O.C., with the bottom step not greater than 2'-0" from floor of manhole.
9. See Plan and Profile Sheets for size of RCP.

08 002 1875 10

REVISIONS	DATE	BY

CITY OF ALBUQUERQUE
NEW MEXICO

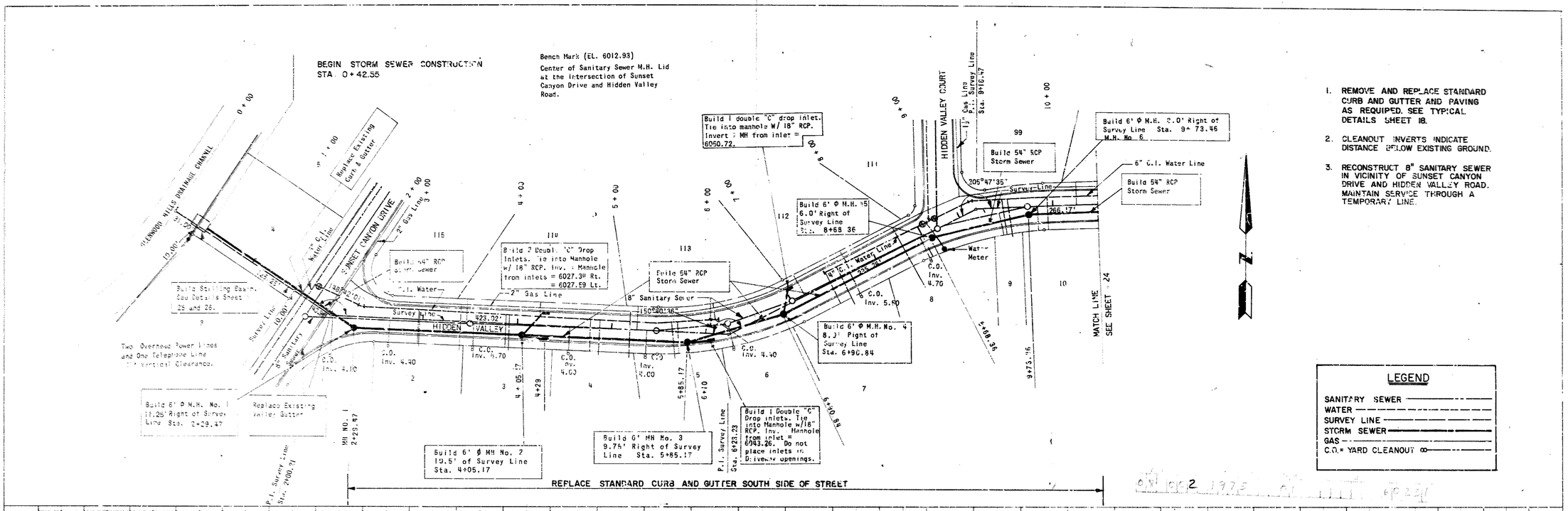
PROJECT NO CIP 444-66-018

SEAL

METROPOLITAN STORM SEWER EXTENSIONS

STORM SEWER MANHOLE

JOB NO 74-143	SHEET 18 OF 25
DRAWN BY J.L.F	DATE 10-1974
CHECKED BY R.H.G.	SCALE NO SCALE



1. REMOVE AND REPLACE STANDARD CURB AND GUTTER AND PAVING AS REQUIRED. SEE TYPICAL DETAILS SHEET 18.
2. CLEANOUT INVERTS INDICATE DISTANCE BELOW EXISTING GROUND.
3. RECONSTRUCT 8" SANITARY SEWER IN VICINITY OF SUNSET CANYON DRIVE AND HIDDEN VALLEY ROAD. MAINTAIN SERVICE THROUGH A TEMPORARY LINE.

LEGEND

- SANITARY SEWER
- WATER
- SURVEY LINE
- STORM SEWER
- GAS
- C.O. = YARD CLEANOUT

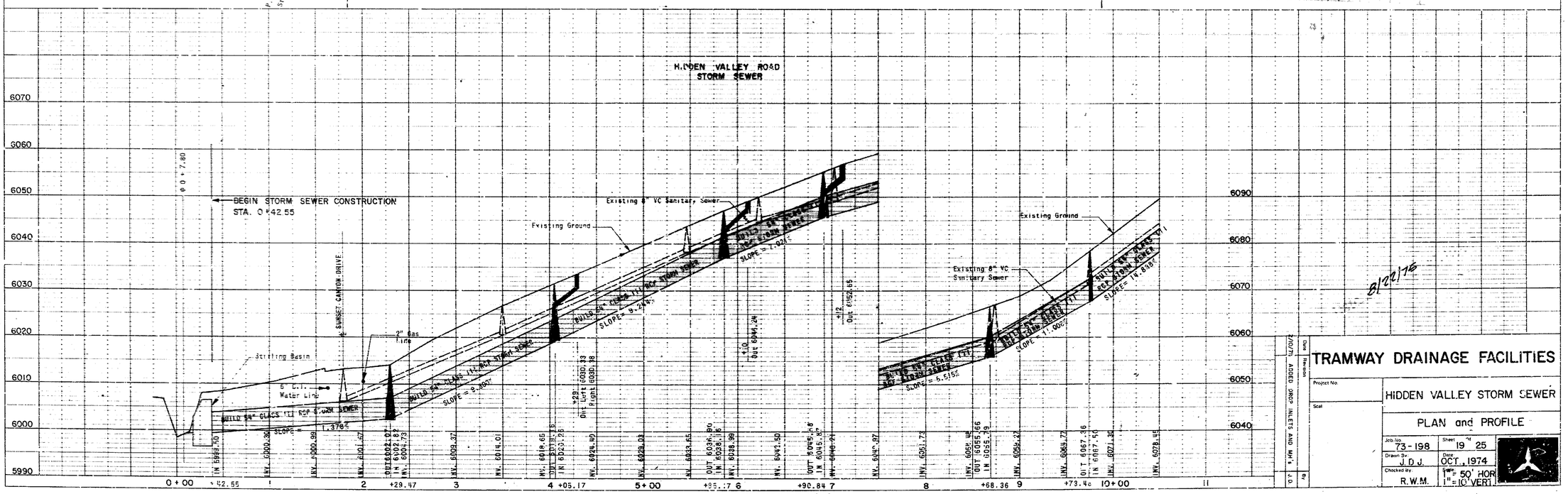


PLATE 1 SINGLE PLAN - PROFILE
CHARLES BRUNING CO.
MADE IN U.S.A.

Date	Revision	By
2/10/77	ADDED CMP INLETS AND M.H.	J.D.

TRAMWAY DRAINAGE FACILITIES

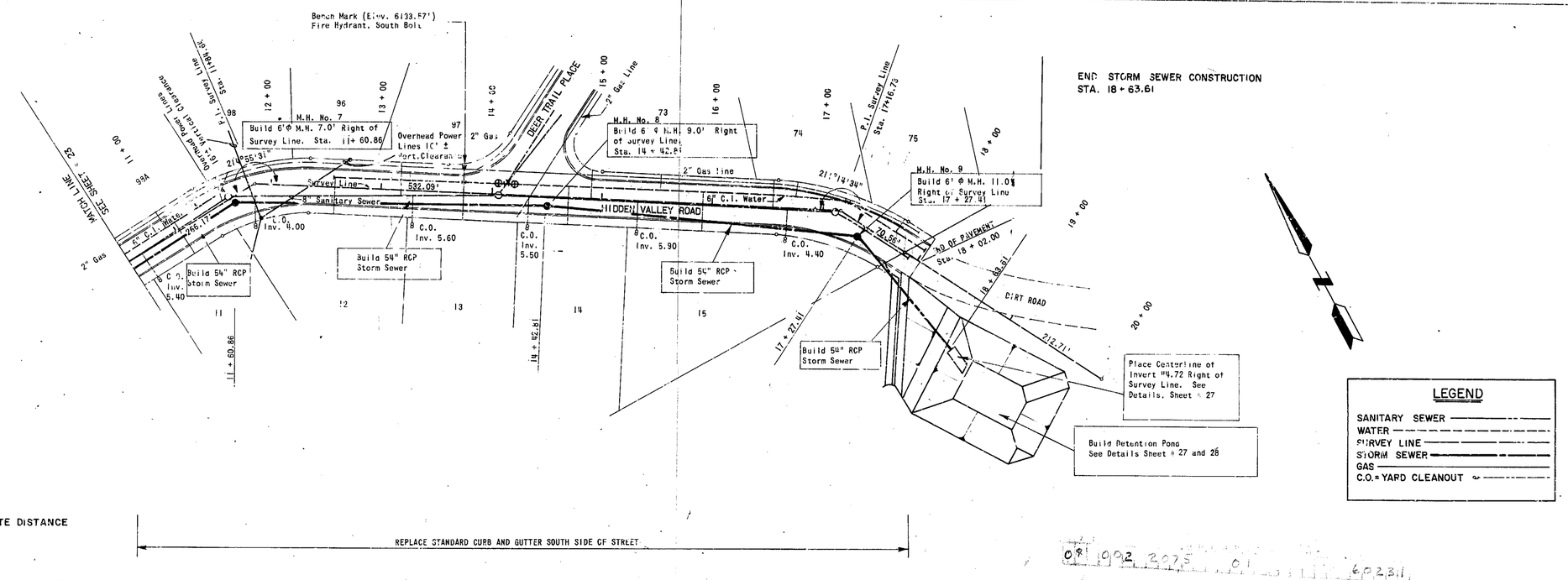
Project No.

Scale

HIDDEN VALLEY STORM SEWER

PLAN and PROFILE

Job No. 73-198	Sheet 19 of 25
Drawn by J.D.J.	Date OCT., 1974
Checked by R.W.M.	Scale 1" = 50' HOR. 1" = 10' VERT.



1. CLEANOUT INVERTS INDICATE DISTANCE BELOW EXISTING GROUND.

REPLACE STANDARD CURB AND GUTTER SOUTH SIDE OF STREET

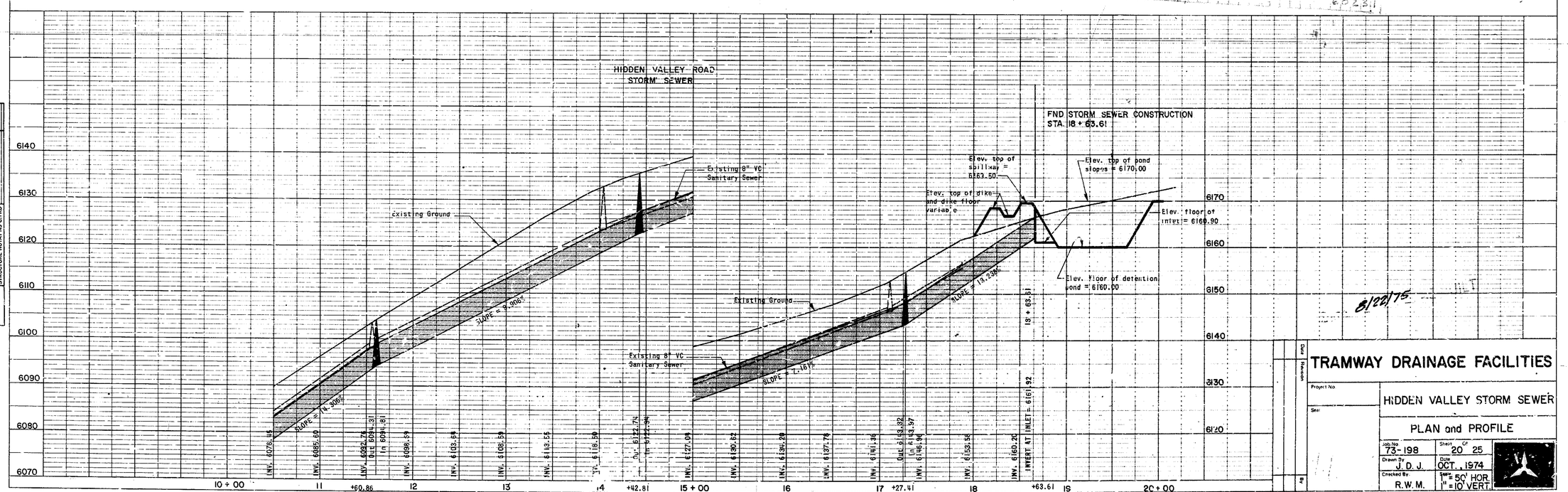


PLATE 1 SINGLE PLAN - PROFILE
CHARLES BRINING CO.
MADE IN U.S.A.

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

PROFILE		BY	DATE
NOTE BOOK NO.	SURVEYED		
	PLOTTED		
	GRADES CHECKED		
	GRADES PLOTTED		
	STRUCTURE NOTATNS C/RD		

08 092 2075 01 6P2311

8/22/75

TRAMWAY DRAINAGE FACILITIES

Project No.

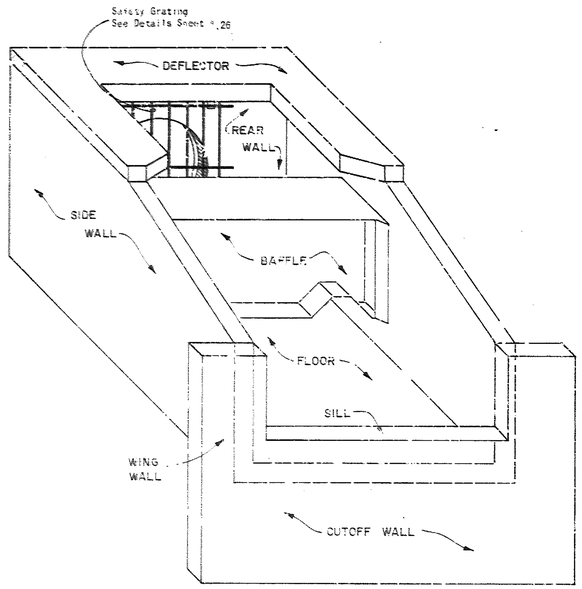
Sear

HIDDEN VALLEY STORM SEWER

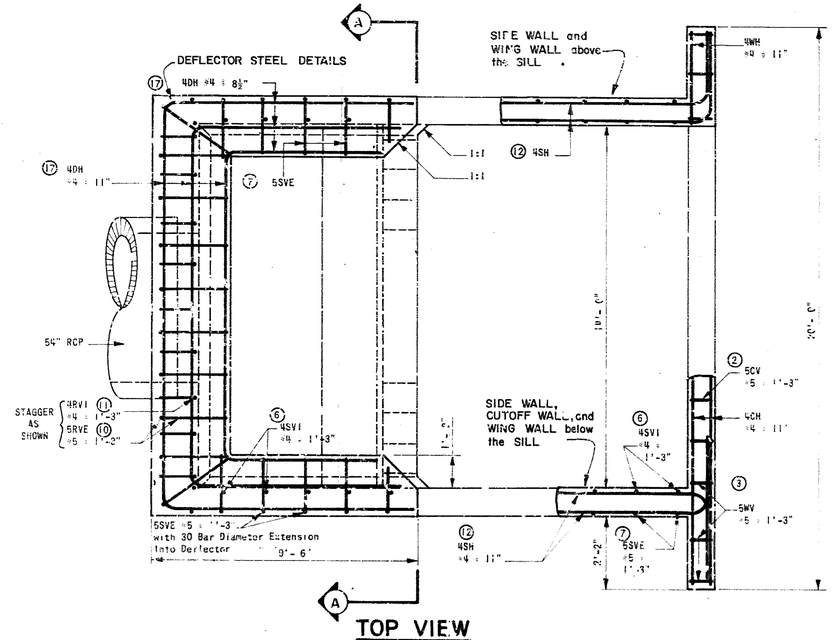
PLAN and PROFILE

Job No. 73-198	Sheet 20 of 25
Drawn By J. D. J.	Date OCT., 1974
Checked By R.W.M.	Scale 1" = 50' HOR. 1" = 10' VERT.

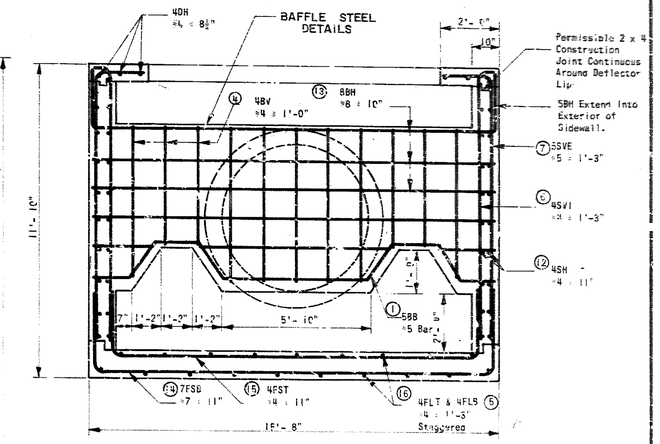
Date | Revision | By



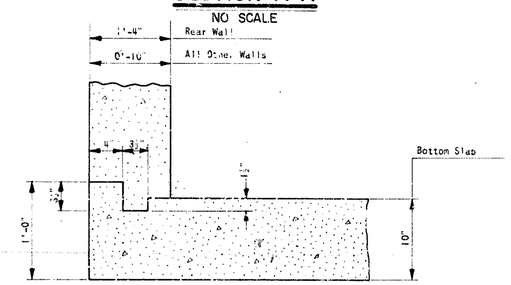
IMPACT STILLING BASIN
NO SCALE



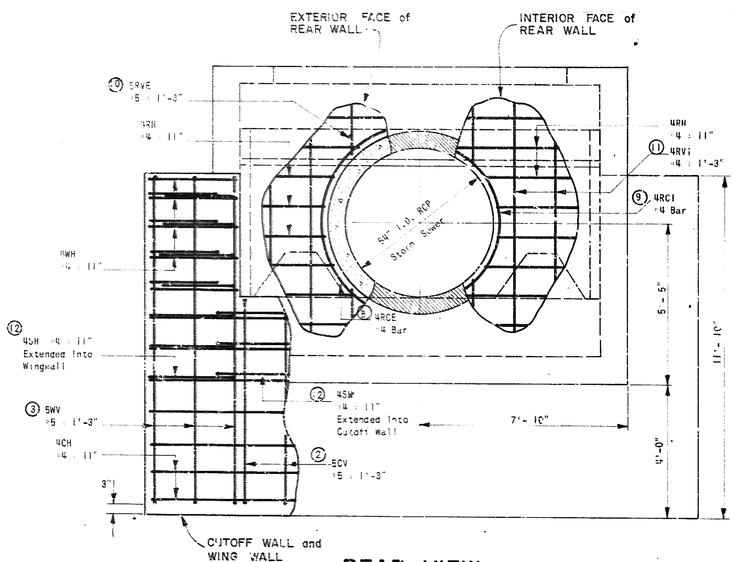
TOP VIEW
NO SCALE



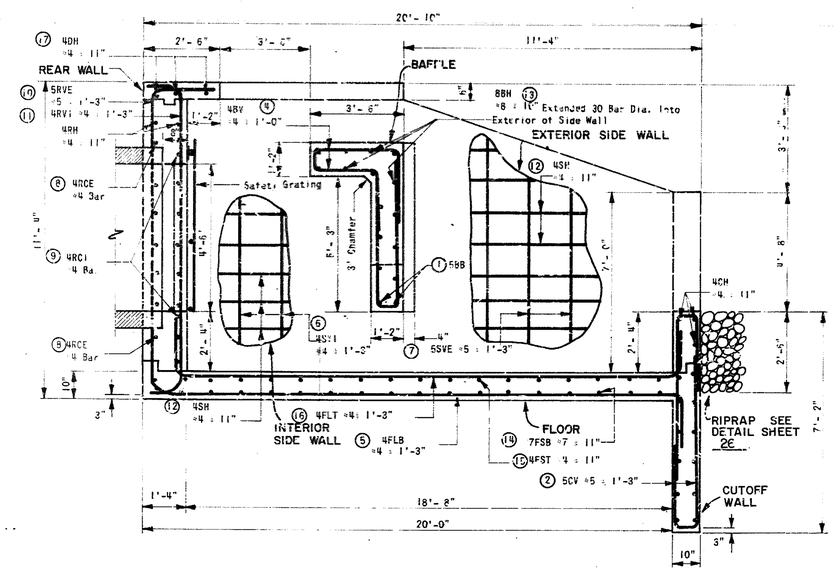
SECTION A-A
NO SCALE



TYPICAL WALL-TO-FOUNDATION CONSTRUCTION JOINT
NO SCALE



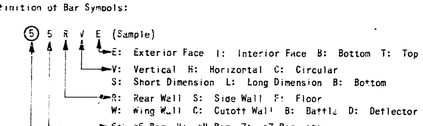
REAR VIEW
NO SCALE



SIDE VIEW
NO SCALE

NOTES:

1. Definition of Bar Symbols:



2. Extend 4FLT and 4FLB 30 Bar diameters into sill, cutoff wall and rear wall as shown.
   Extend 5BH 30 bar diameters into exterior of side wall as shown.
   Extend 4FST and 7FSB 30 bar diameters into side walls as shown.
   Extend 4SH 30 bar diameters into wing wall and cutoff wall as shown.

3. 4RVI, 4RH and 5RVE shall be cut after placement to accomodate 54" storm pipe.

Date 3/22/75 No RIGHT

08 002 3175 10

Date	Revision	
2/10/75	INCREASED STRUCTURE SIZE	J.D.

TRAMWAY DRAINAGE FACILITIES

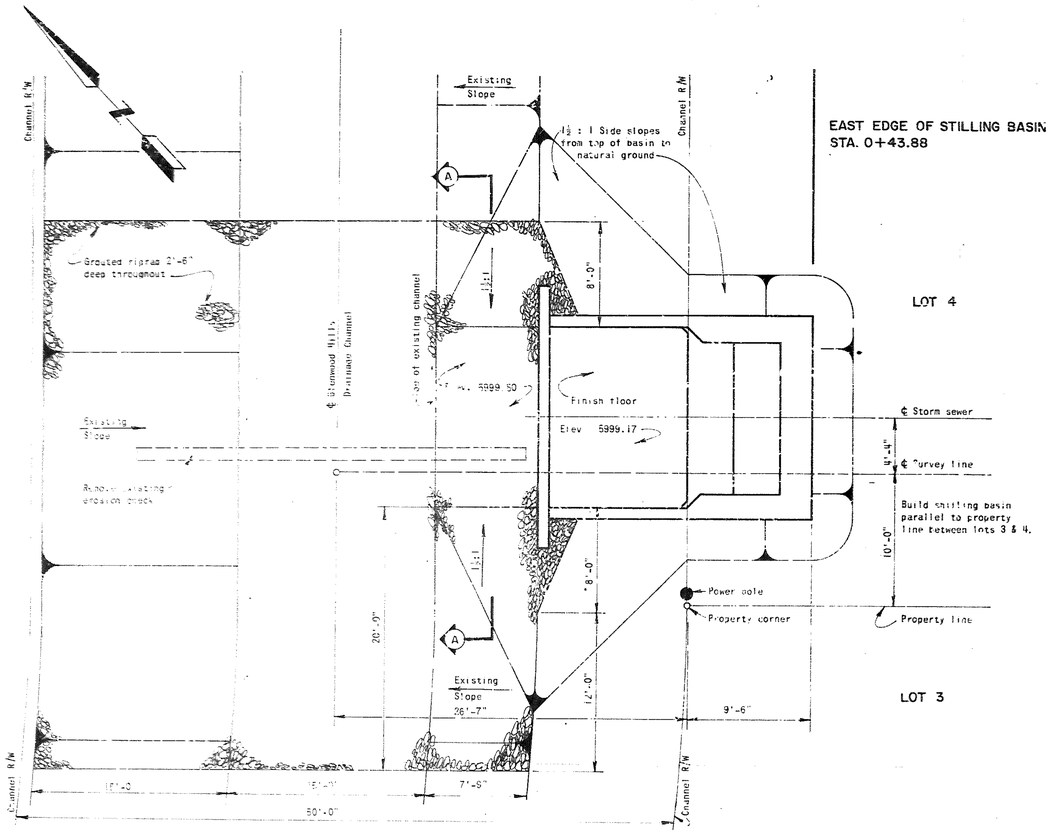
Project No.

Seal

HIDDEN VALLEY STORM SEWER

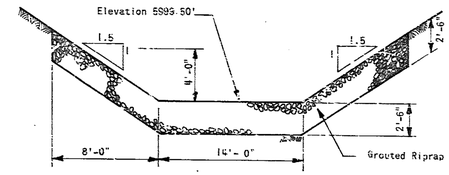
IMPACT STILLING BASIN

Job No. 73-198	Sheet 21 Of 25	
Drawn By J.D.J.	Date OCT., 1974	
Checked By R.W.M.	Scale AS SHOWN	



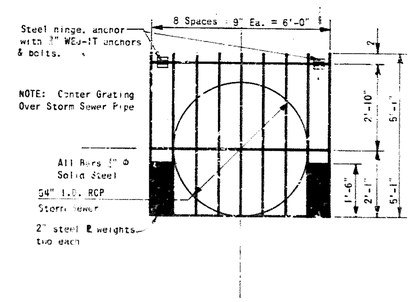
STILLING BASIN SITE PLAN

SCALE : 1" = 5'-0"



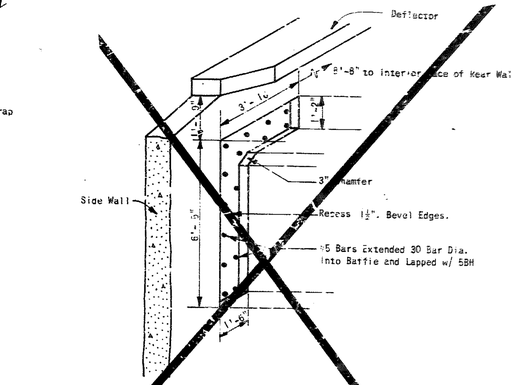
SECTION A-A

SCALE : 1" = 5'-0"



STILLING BASIN SAFETY GRATING

NO SCALE

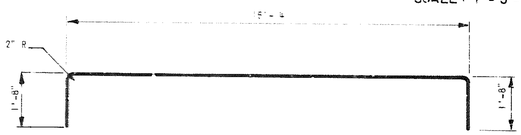


PERMISSIBLE BAFFLE - TO - SIDEWALL CONSTRUCTION JOINT

NO SCALE

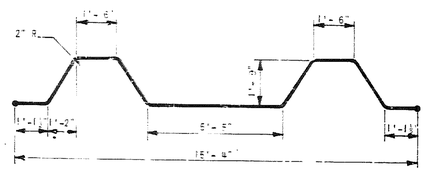
NOTES:

1. All bar detail dimensions are given out to out, except that the minimum bending radius is given to the inside edge of the bar. Minimum radius for #4 and #5 bars is 2". Minimum lap shall be 30 bar diameters except that lap shall never be less than 1'-0". Bars shall not be lapped at hooks or bends.
2. Minimum Bending Radius:
   #4 & #5 Bars ——→ 2"
   #7 Bars ——→ 3"
3. All bars shall have 2" clear cover except that bars placed in the bottom of the floor or the bottom of the cutoff wallshall have 3" clear cover. The first bar in a series shall be located not more than half the spacing distance form the outside concrete edge.
4. The [illegible] of the sidewalls or placed [illegible] discretion [illegible]



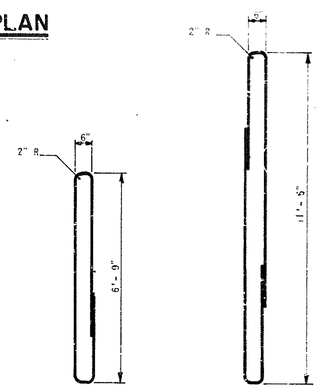
PLAN VIEW

① 5BB
No 5 Bar



SIDE VIEW

① 5BB
No. 5 Bar

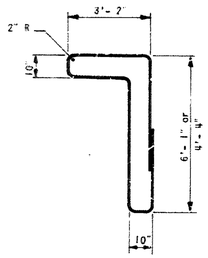


② 5CV
No. 5 Bar

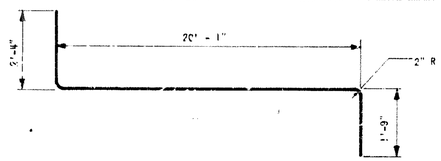
③ 5WV
No. 5 Bar

STILLING BASIN BAR DETAILS

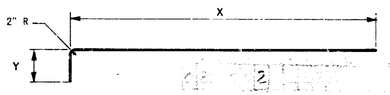
NO SCALE



④ 4BV
No. 4 Bar

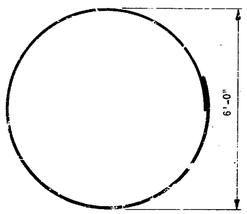


⑤ 4FLB
No. 4 Bar

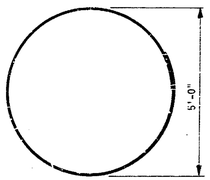


⑥ 4SVI X = 10'- 2" Y = 0'-6"
No. 4 Bar

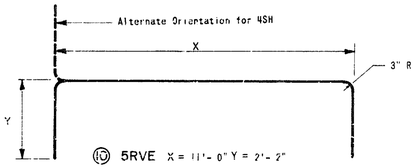
⑦ 5SVE X = 10'- 2" Y = 1'-6"
No. 5 Bar



⑧ 4RCE
No. 4 Bar



⑨ 4RCI
No. 4 Bar



⑩ 5RVE X = 11'- 0" Y = 2'- 2"
⑪ 4RVI X = 11'- 0" Y = 1'-0"
⑫ 4SH X = 20'- 7" Y = 2'-0"
⑬ 8BH X = 15'- 9" Y = 1'-9"
⑭ 7FSB X = 15'- 9" Y = 2'-4"
⑮ 4FST X = 14'- 5" Y = 1'-9"
⑯ 4FLT X = 15'- 1" Y = 1'-9"
⑰ 4DH X varies from 18'- 3" to 12'- 1"
Y varies from 9'- 1" to 6'- 0"

Date	Revision
7/8/74	INCREASED STRUCTURE SIZE

TRAMWAY DRAINAGE FACILITIES

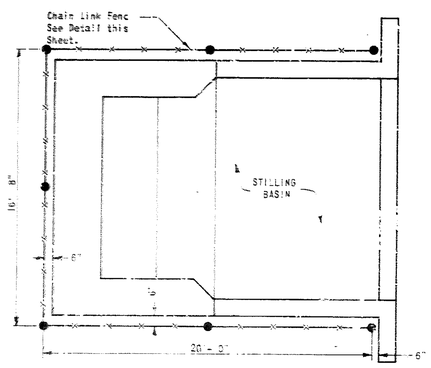
Project No.

HIDDEN VALLEY STORM SEWER

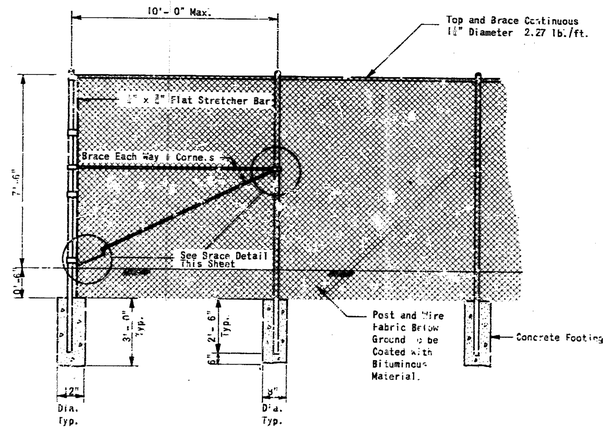
STILLING BASIN and BAR DETAILS

Job No. 73-198	Sheet 22 of 25
Drawn By J.D.J.	Date OCT., 1974
Checked By R.W.M.	Scale AS SHOWN

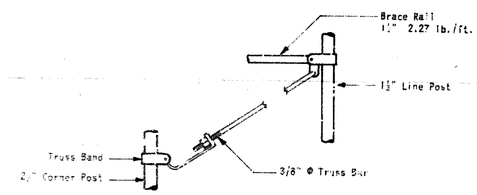
8/22/75



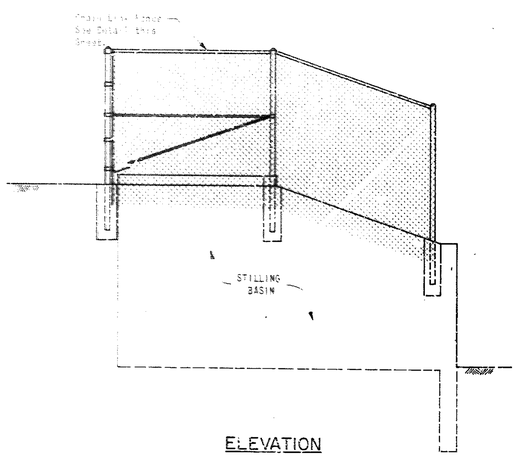
PLAN



CHAIN LINK FENCE

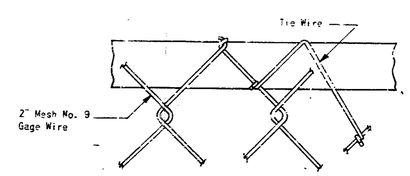


BRACE DETAIL



ELEVATION

CHAIN LINK FENCE LAYOUT
for STILLING BASIN



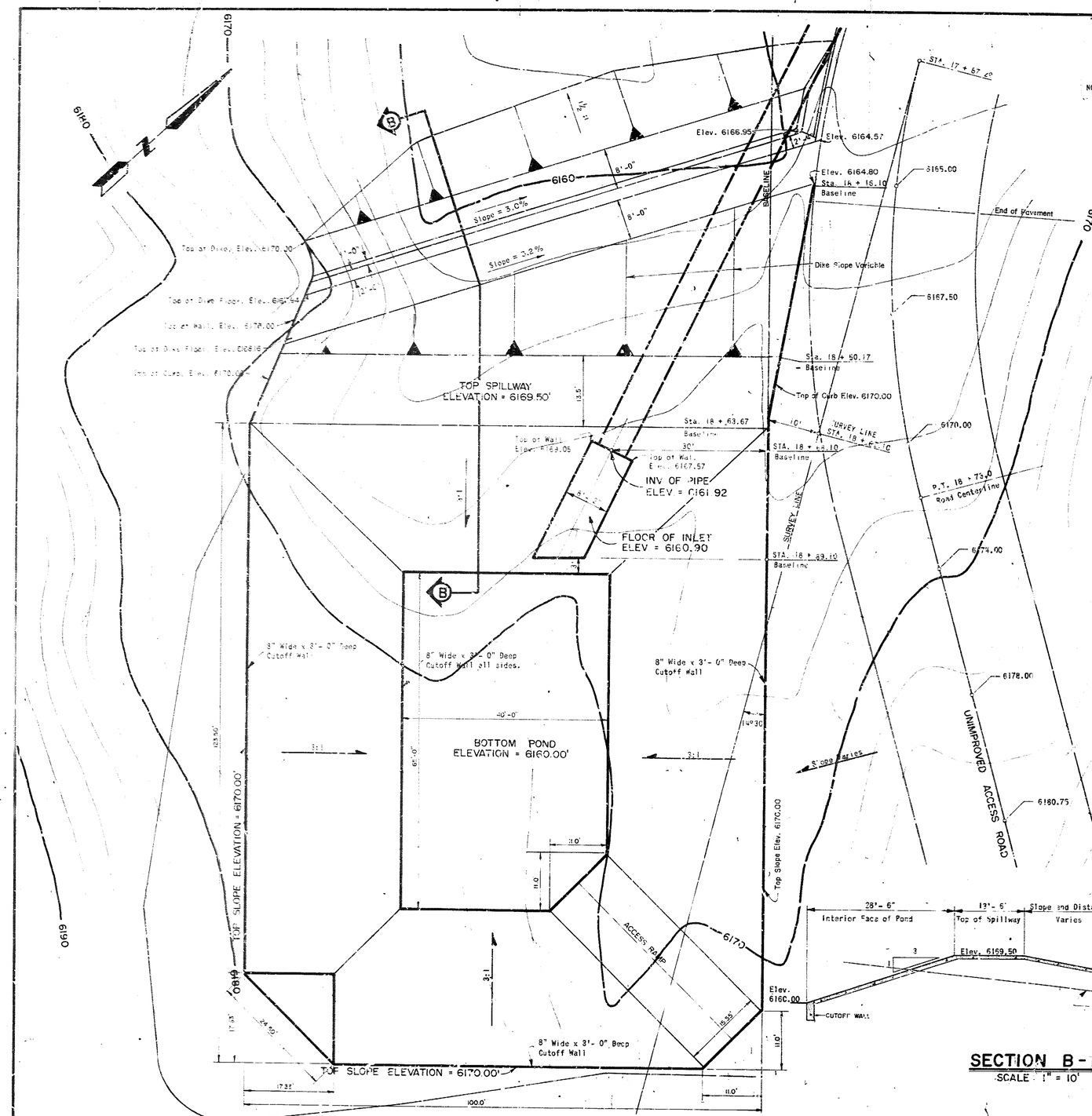
MESH DETAIL

8/22/75

08 002 2375 10

TRAMWAY DRAINAGE FACILITIES	
Project No.	HIDDEN VALLEY STORM SEWER
Site	CHAIN LINK FENCE LAYOUT for STILLING BASIN
Job No. 73-198	Sheet 23 of 25
Drawn By JDJ	Date JUNE, 1975
Checked By CJM	Scale NO SCALE

Date | Revision | By



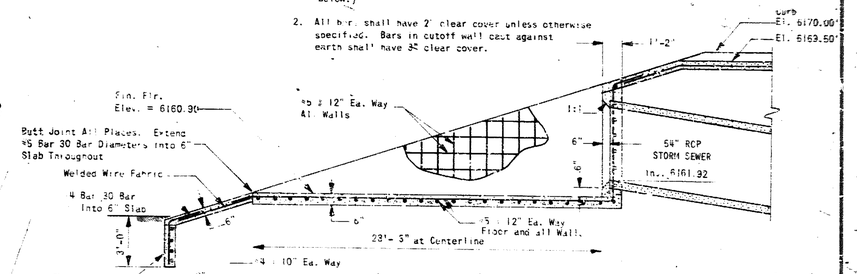
DETENTION POND PLAN VIEW

SCALE : 1" = 10'

NOTE: Spot elevations are shown along the center line of the Access Road at 25' intervals beginning 25' from the P.C.

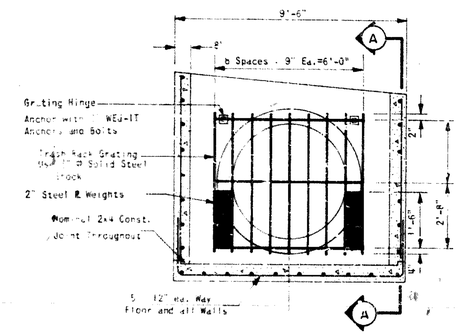
NOTE:

1. All Interior Pond Slopes to be Concrete Lined with 6" Slab and Reinforced with 6x6 - 6/6 Welded Wire Fabric. 3' Deep Cutoff Walls Shall be Placed Continuously at the Head and Toe of All Interior Slopes. (See Detail Below.)
2. All bars shall have 2" clear cover unless otherwise specified. Bars in cutoff wall cast against earth shall have 3" clear cover.



INLET CENTERLINE SECTION

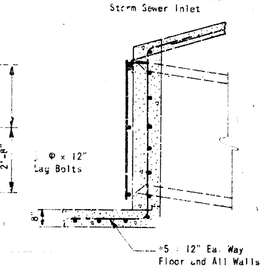
NO SCALE



INLET TRANSVERSE SECTION

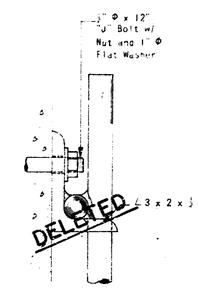
NO SCALE

NOTE: Center Trash Rack Over Storm Sewer Inlet



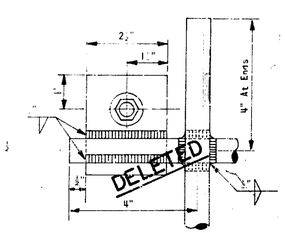
SECTION A-A

NO SCALE



SIDE VIEW

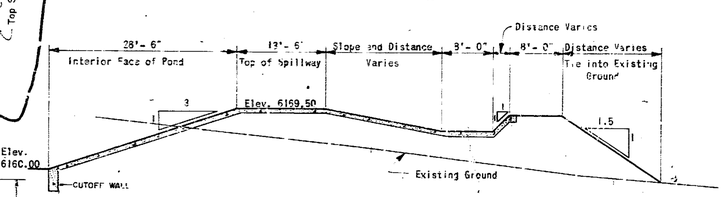
NOTE: All Bars 1" Φ Solid Steel.



FRONT VIEW

GRATING ANCHORAGE DETAIL

NO SCALE



SECTION B - B

SCALE : 1" = 10'

68 002 2475 10

Date 8/22/76 AS-BUILT

Date	Revision
2/7/72	ADDED DIKE AND DIKE CROSS-SECTION

TRAMWAY DRAINAGE FACILITIES

Project No.

Seal: No. 1318 — Registered Professional Engineer — New Mexico

HIDDEN VALLEY STORM SEWER

DETENTION POND, SPILLWAY and INLET DETAILS

Job No. 73-198	Sheet 24 of 25
Drawn By J. D. J.	Date OCT., 1974
Checked By R.W.M.	Scale AS SHOWN