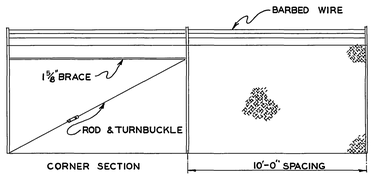
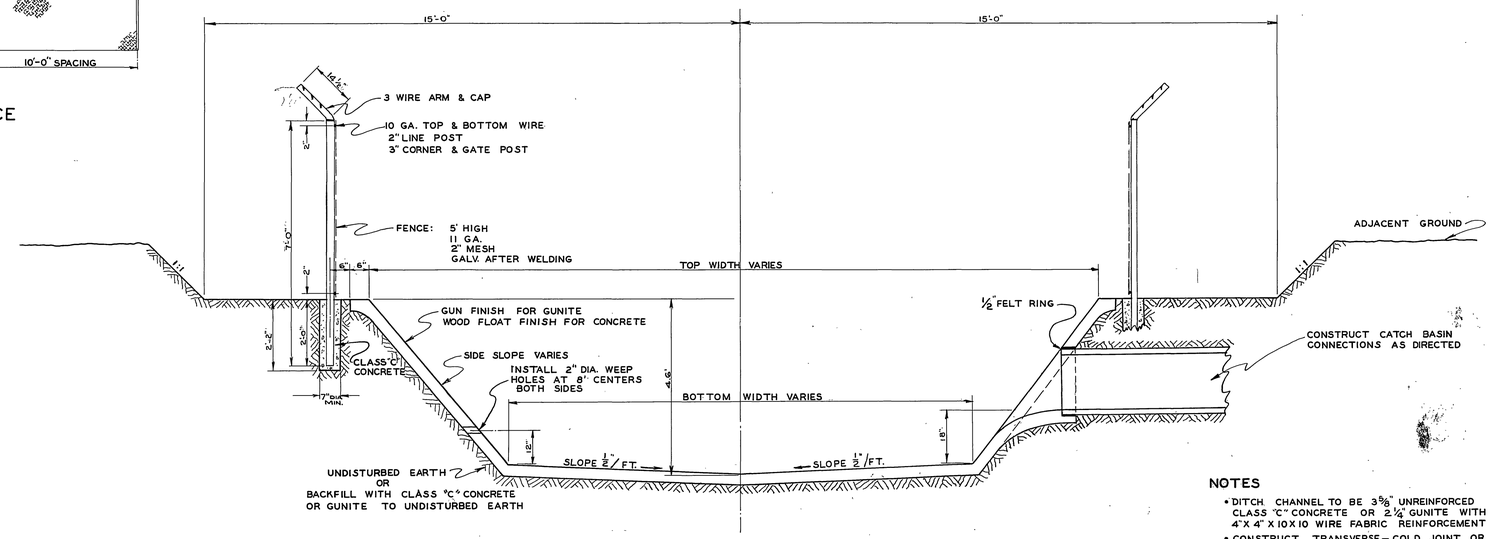


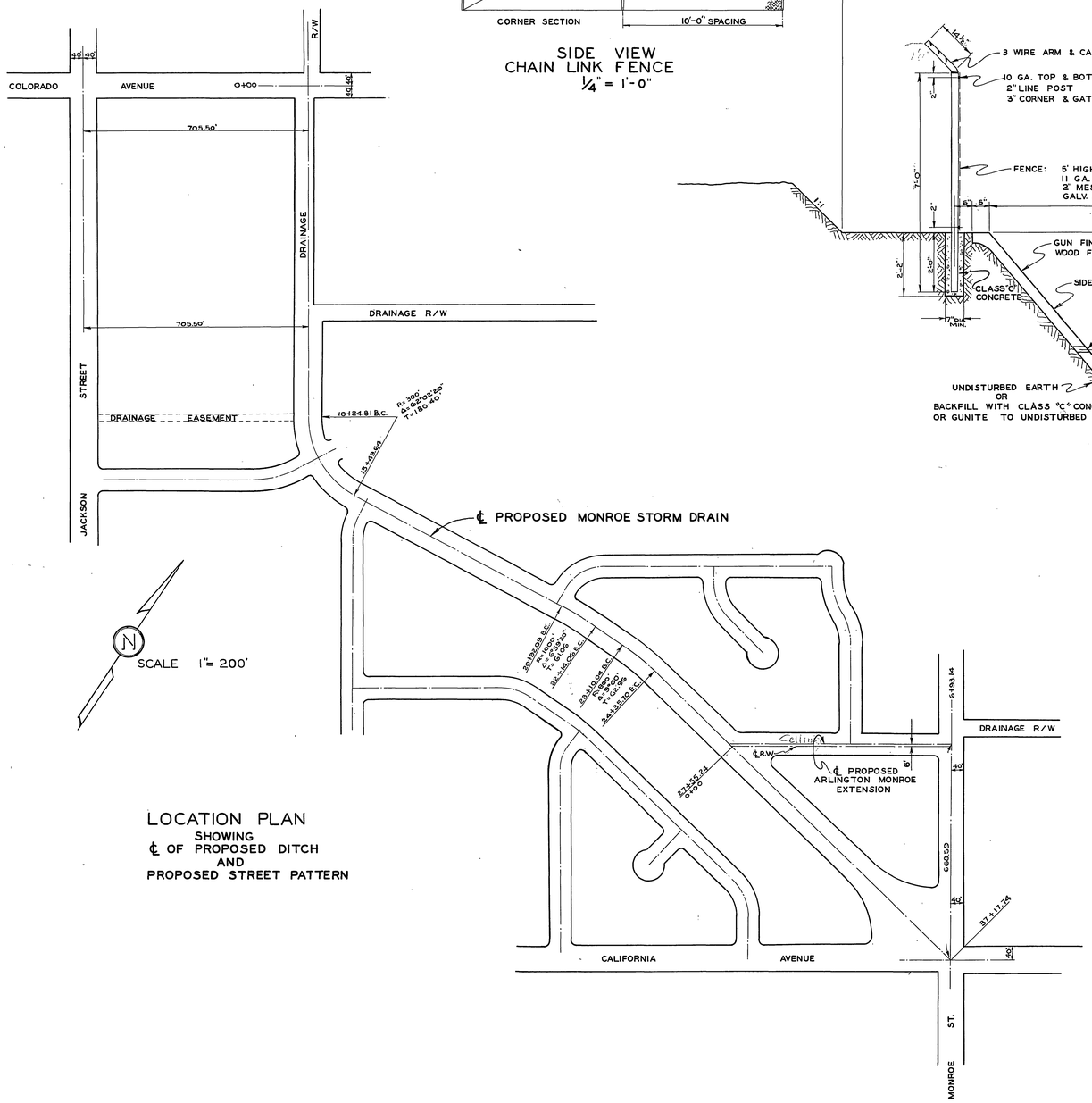
SIDE VIEW
CHAIN LINK FENCE
¼" = 1'-0"



TYPICAL SECTION OF COMPLETED DITCH
SHOWING
APPURTENANT FEATURES & FLOOD PLAIN EXCAVATION
½" = 1'-0"

NOTES

- DITCH CHANNEL TO BE 3⅜" UNREINFORCED CLASS "C" CONCRETE OR 2½" GUNITE WITH 4" X 4" X 10 X 10 WIRE FABRIC REINFORCEMENT
- CONSTRUCT TRANSVERSE – COLD JOINT OR DUMMY GROOVE ¾" DEEP EVERY 16 FT. MAX.
- FENCE POST SPACING TO BE 10'-0" MAX.
- INSTALL SIX -12' GATES CONSISTING OF DOUBLE 6' GATE EACH AS DIRECTED BY ENGINEER.



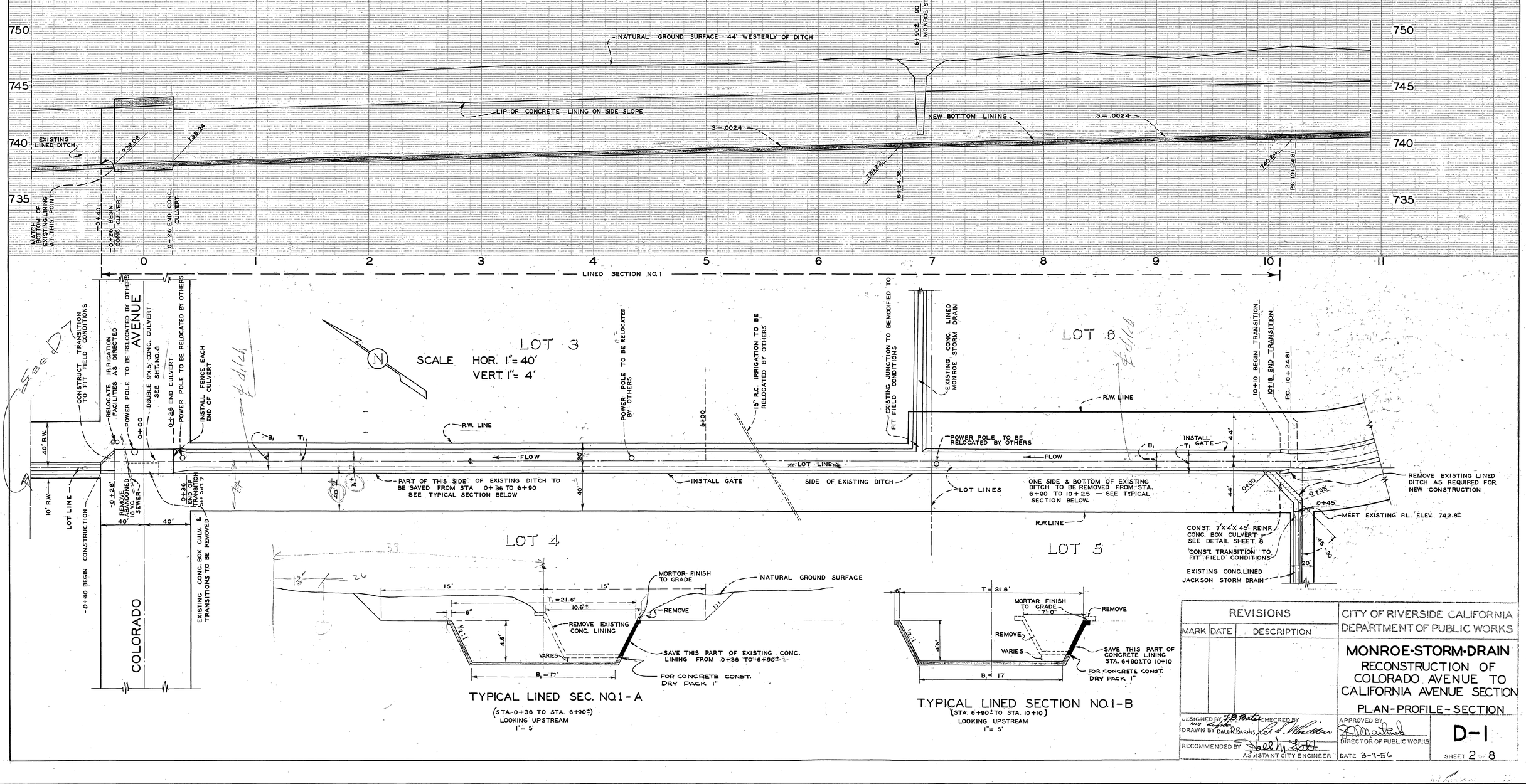
LOCATION PLAN
SHOWING
℄ OF PROPOSED DITCH
AND
PROPOSED STREET PATTERN

REVISIONS			CITY OF RIVERSIDE CALIFORNIA
MARK	DATE	DESCRIPTION	DEPARTMENT OF PUBLIC WORKS
			MONROE STORM DRAIN LOCATION PLAN AND TYPICAL SECTION
DESIGNED BY Zepher DRAWN BY Barnes.	CHECKED BY Kelly W. Hidden	APPROVED BY S. J. Martinez DIRECTOR OF PUBLIC WORKS	D-1
RECOMMENDED BY Hall M. Yost ASSISTANT CITY ENGINEER		DATE 3-9-56	SHEET 1 OF 8

INDEXED 86

HYDRAULIC PROPERTIES

STA.	TO	STA.	SS	B	D	A	R	S	V	T	Q (CFS)	N
0+36	TO	10+10	½:1	17.0'	4.6'	89	3.4	.0024	11.5	21.6'	1020	.014
10+18	TO	27+68	½:1	16.0'	4.6'	84	3.2	.0024	11.1	20.6'	930	.014
27+78	TO	36+34	1:1	10.8'	4.6'	70	2.9	.0024	9.5	20.0'	660	.014



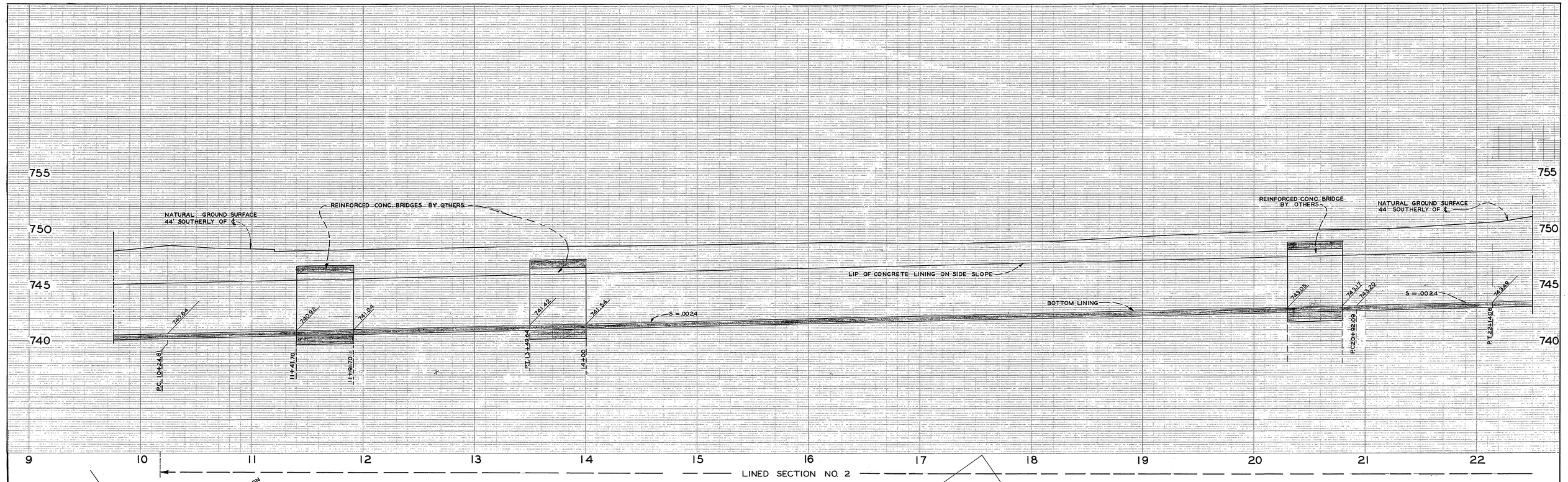
REVISIONS		
MARK	DATE	DESCRIPTION

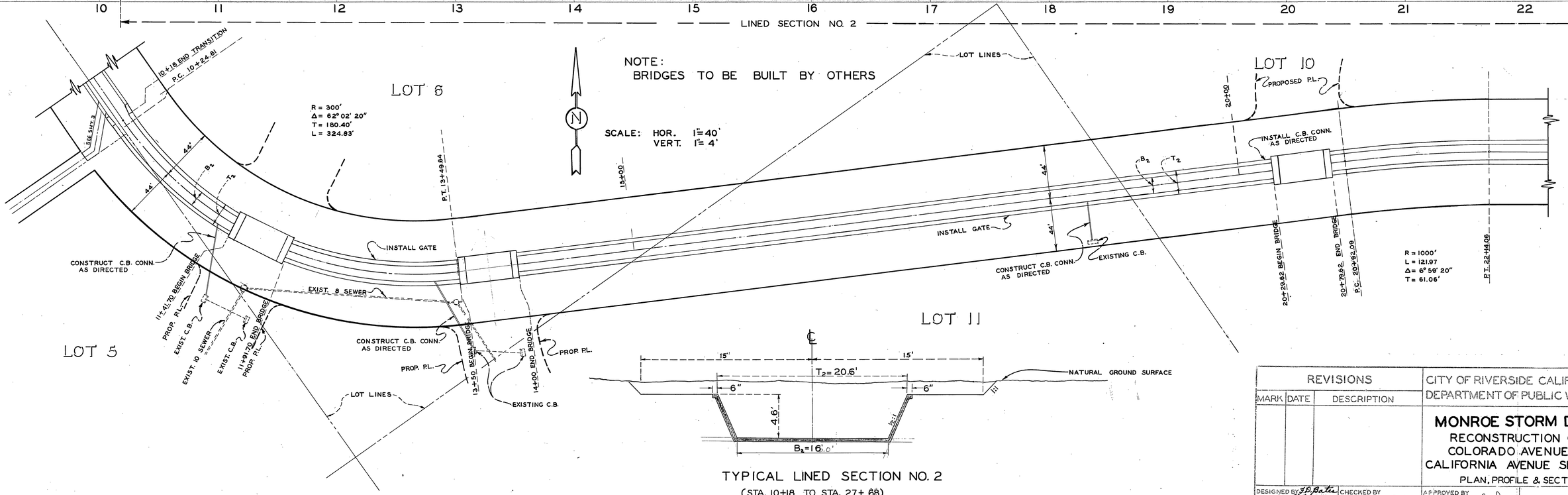
CITY OF RIVERSIDE CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

MONROE·STORM·DRAIN
RECONSTRUCTION OF COLORADO AVENUE TO CALIFORNIA AVENUE SECTION
PLAN-PROFILE-SECTION

DESIGNED BY F.B. Bates AND Lyle
CHECKED BY Kel S. Whitten
DRAWN BY DALE R. BARNES
RECOMMENDED BY Shell M. Stott
ASSISTANT CITY ENGINEER
APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE 3-9-56

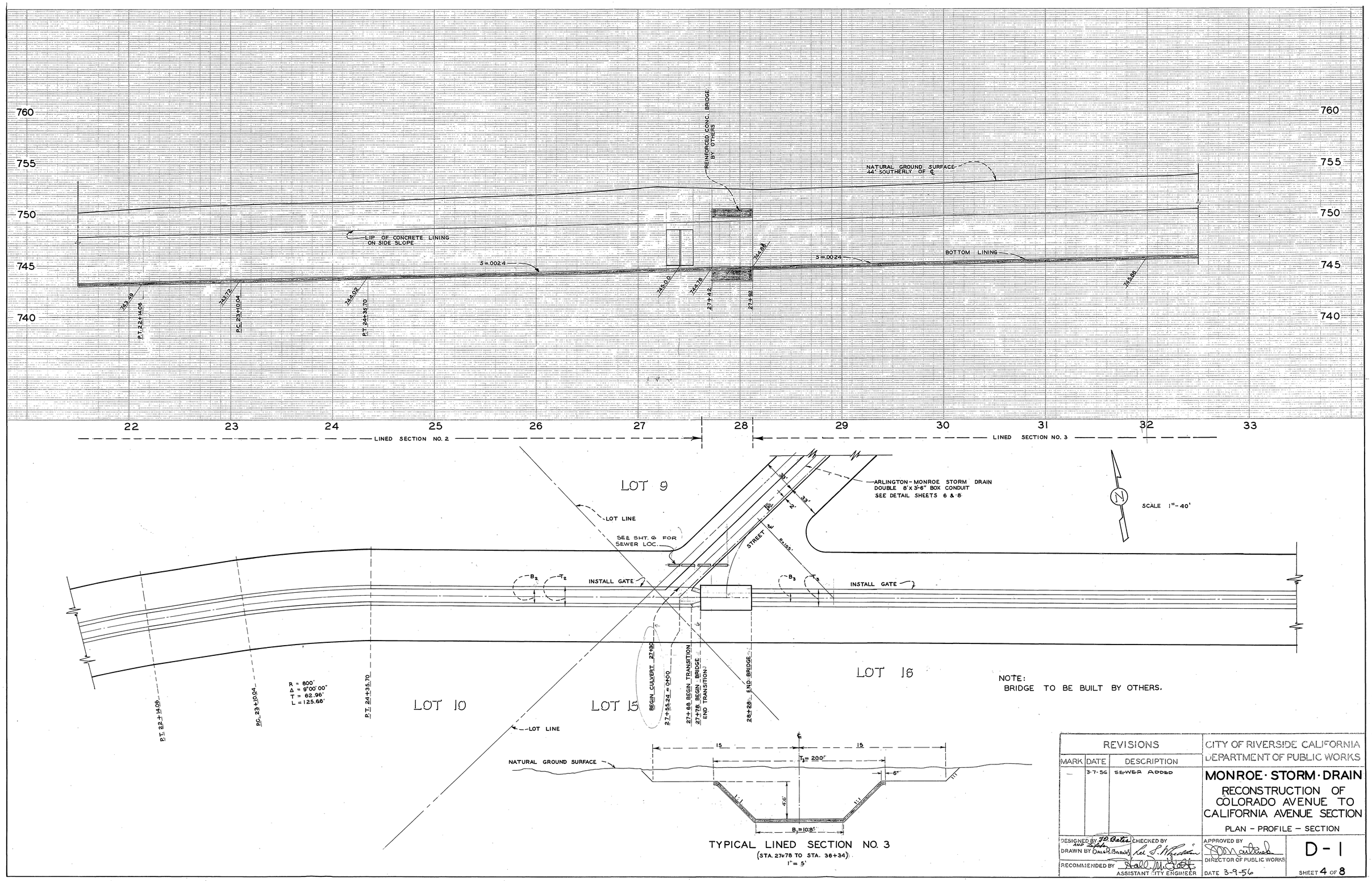
D-1
SHEET 2 OF 8





TYPICAL LINED SECTION NO. 2
(STA. 10+18 TO STA. 27+68)
1" = 5'

REVISIONS			CITY OF RIVERSIDE CALIFORNIA
MARK	DATE	DESCRIPTION	DEPARTMENT OF PUBLIC WORKS
			MONROE STORM DRAIN RECONSTRUCTION OF COLORADO AVENUE TO CALIFORNIA AVENUE SECTION PLAN, PROFILE & SECTION
DESIGNED BY J.D. Butler AND DRAWN BY Dale R. Bagley	CHECKED BY Lee L. Whitsler	APPROVED BY Robert Mitchell DIRECTOR OF PUBLIC WORKS	D-1
RECOMMENDED BY Hall M. Scott ASSISTANT CITY ENGINEER		DATE 3-9-56	SHEET 3 8



REVISIONS		
MARK	DATE	DESCRIPTION
—	3-7-56	SEWER ADDED

CITY OF RIVERSIDE CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

MONROE · STORM · DRAIN

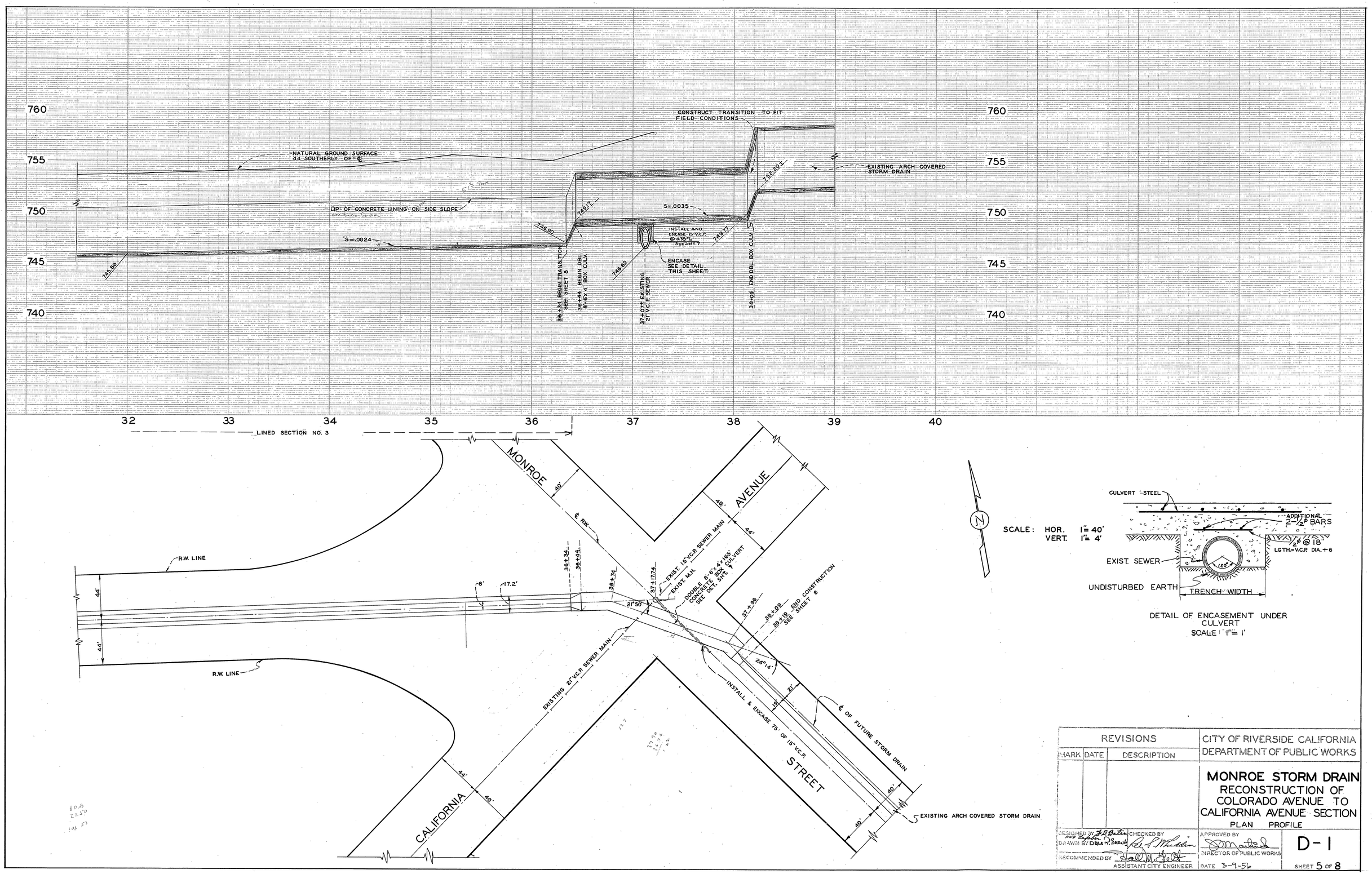
RECONSTRUCTION OF COLORADO AVENUE TO CALIFORNIA AVENUE SECTION

PLAN – PROFILE – SECTION

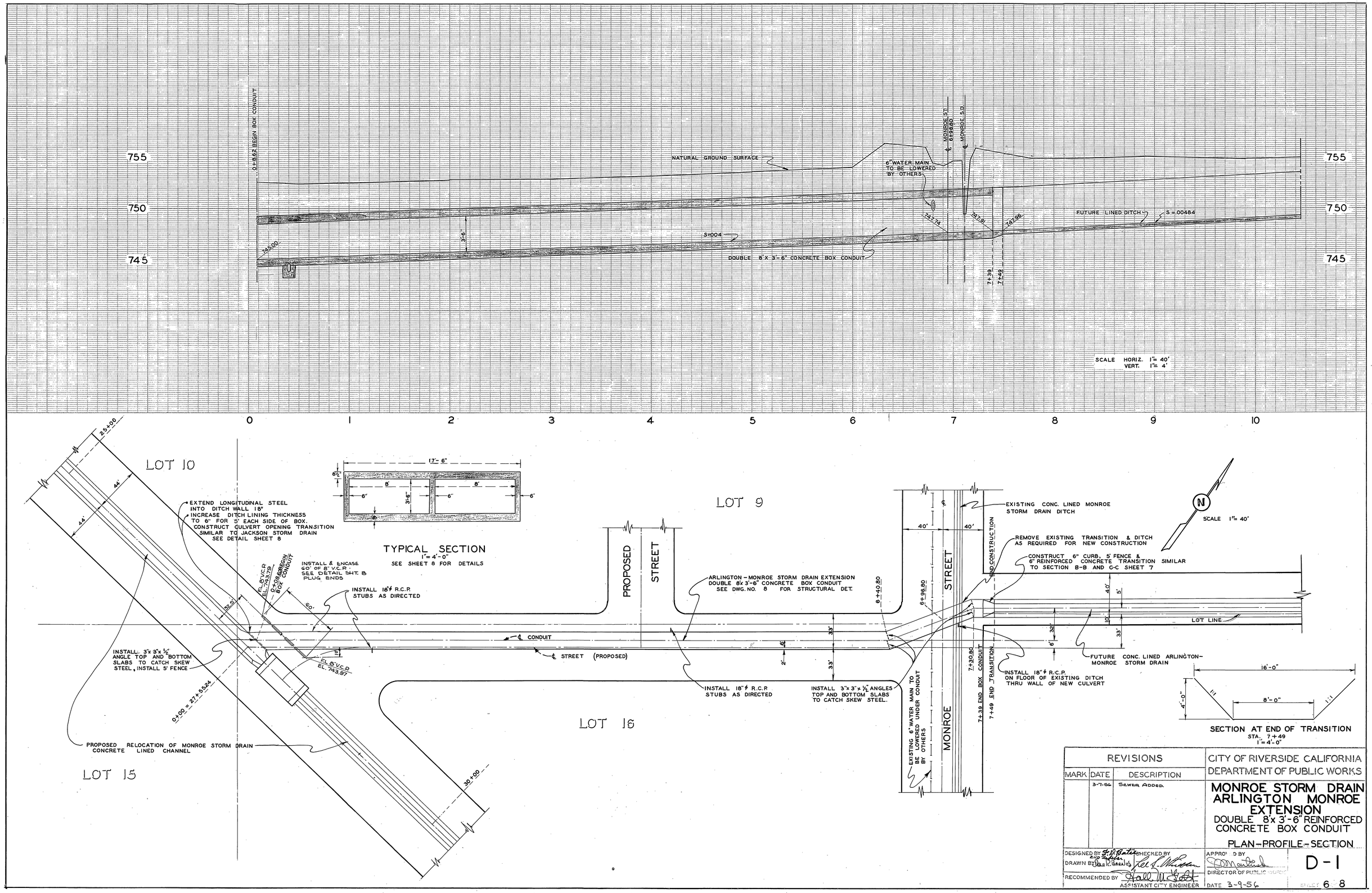
DESIGNED BY J.D. Bates AND Zafer
DRAWN BY DALE R. BARNES
CHECKED BY Lee S. Whiddon
RECOMMENDED BY Hall M. Yost
ASSISTANT CITY ENGINEER
APPROVED BY [signature]
DIRECTOR OF PUBLIC WORKS
DATE 3-9-56

D-1

SHEET 4 OF 8



REVISIONS			CITY OF RIVERSIDE CALIFORNIA DEPARTMENT OF PUBLIC WORKS
MARK	DATE	DESCRIPTION	**MONROE STORM DRAIN** RECONSTRUCTION OF COLORADO AVENUE TO CALIFORNIA AVENUE SECTION PLAN PROFILE
DESIGNED BY F.D. Bates AND Lefebvre DRAWN BY D.R.L. Barnes	CHECKED BY Lee S. Whiddon	APPROVED BY [signature] DIRECTOR OF PUBLIC WORKS	D-1
RECOMMENDED BY Hall M. Gelt ASSISTANT CITY ENGINEER		DATE 3-9-56	SHEET 5 OF 8



REVISIONS		
MARK	DATE	DESCRIPTION
	3-7-56	SEWER ADDED.

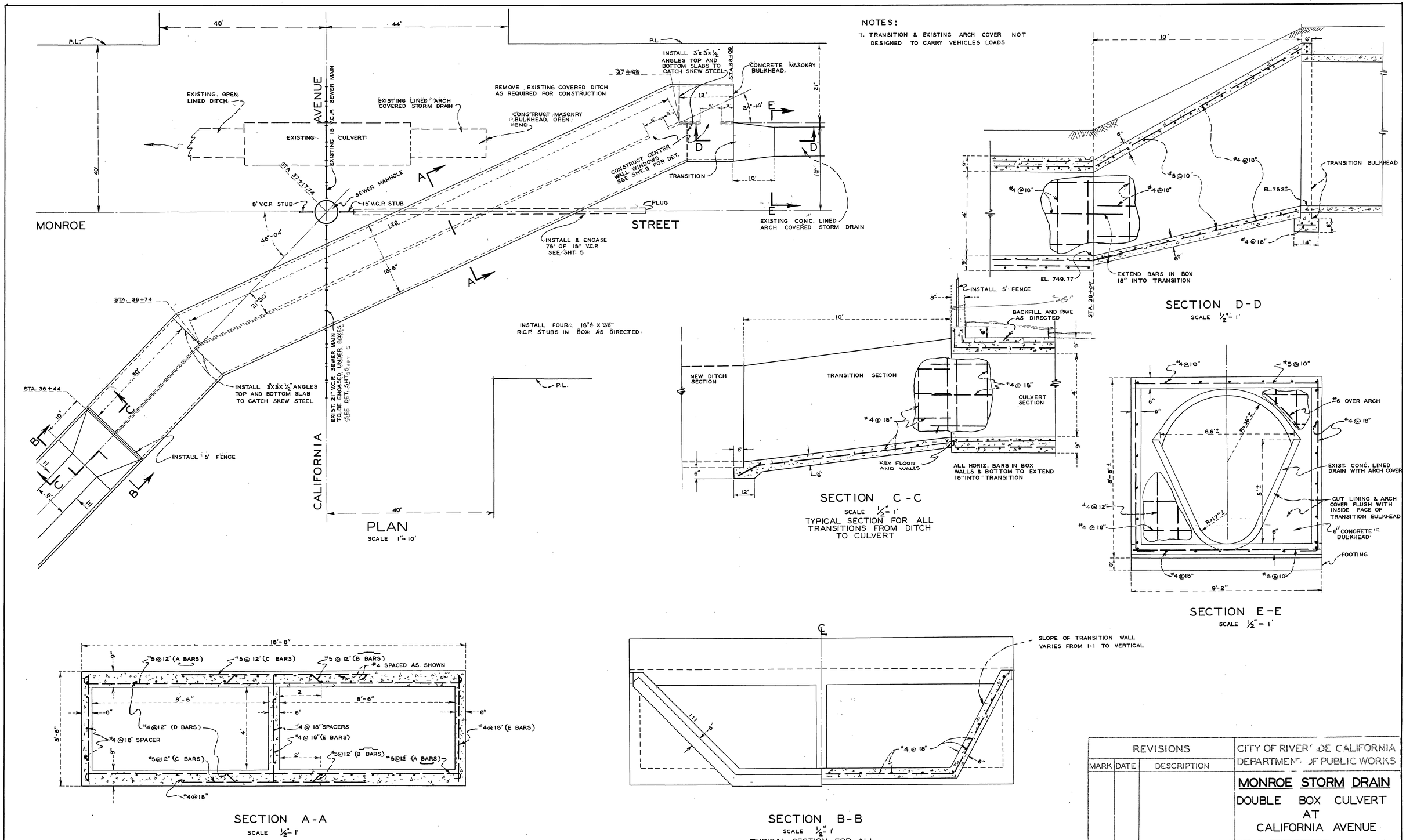
CITY OF RIVERSIDE CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

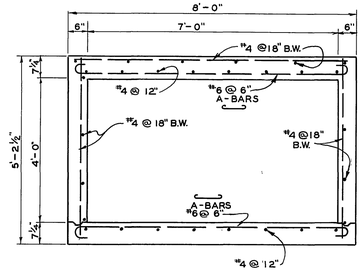
MONROE STORM DRAIN ARLINGTON MONROE EXTENSION
DOUBLE 8'x 3'-6" REINFORCED CONCRETE BOX CONDUIT
PLAN-PROFILE-SECTION

DESIGNED BY F. D. Batek
DRAWN BY Dale R. Barnes
CHECKED BY Lee L. Whisler
RECOMMENDED BY Hall M. Scott
ASSISTANT CITY ENGINEER
APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE 3-9-56

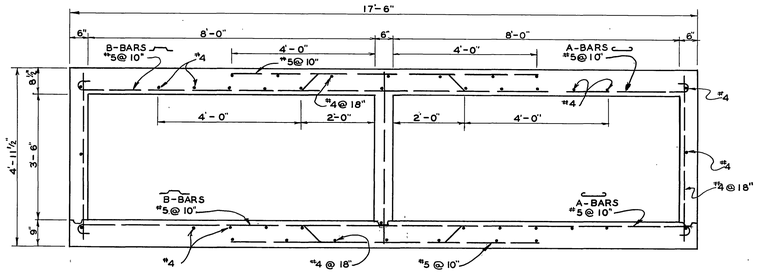
D-1

SHEET 6 of 8

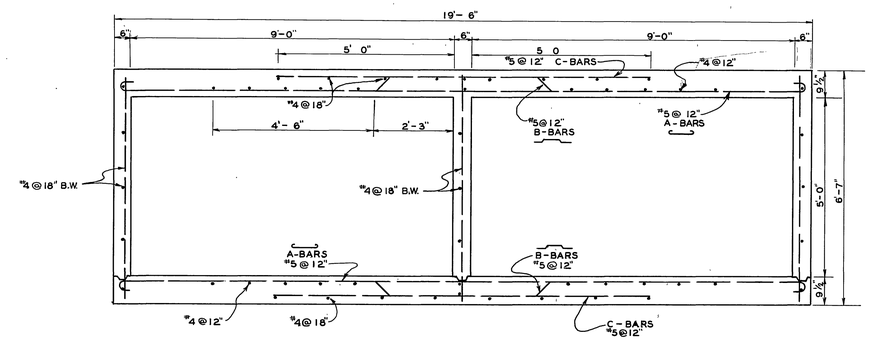

NOTES:
1. TRANSITION & EXISTING ARCH COVER NOT DESIGNED TO CARRY VEHICLES LOADS
MONROE
STREET
CALIFORNIA
AVENUE
EXISTING OPEN LINED DITCH
EXISTING CULVERT
EXISTING LINED ARCH COVERED STORM DRAIN
REMOVE EXISTING COVERED DITCH AS REQUIRED FOR CONSTRUCTION
CONSTRUCT MASONRY BULKHEAD, OPEN END
INSTALL 3"x3"x½" ANGLES TOP AND BOTTOM SLABS TO CATCH SKEW STEEL
CONCRETE MASONRY BULKHEAD
CONSTRUCT CENTER WALL WINDOWS SEE SHT. 9 FOR DET.
TRANSITION
EXISTING CONC. LINED ARCH COVERED STORM DRAIN
INSTALL & ENCASE 75' OF 15" V.C.P. SEE SHT. 5
SEWER MANHOLE
8" V.C.P. STUB
15" V.C.P. STUB
PLUG
EXISTING 15" V.C.P. SEWER MAIN
EXIST. 21" V.C.P. SEWER MAIN TO BE ENCASED UNDER BOXES SEE DET. SHT. 5
INSTALL FOUR 18"ϕ X 36" R.C.P. STUBS IN BOX AS DIRECTED
INSTALL 3"x3"x½" ANGLES TOP AND BOTTOM SLAB TO CATCH SKEW STEEL
INSTALL 5' FENCE
STA. 36+74
STA. 36+44
STA. 37+17.74
STA. 38+09
STA. 38+09
PLAN
SCALE 1"=10'
SECTION D-D
SCALE ½"=1'
TRANSITION BULKHEAD
EXTEND BARS IN BOX 18" INTO TRANSITION
EL. 749.77
EL. 752±
SECTION C-C
SCALE ½"=1'
TYPICAL SECTION FOR ALL TRANSITIONS FROM DITCH TO CULVERT
NEW DITCH SECTION
TRANSITION SECTION
CULVERT SECTION
BACKFILL AND PAVE AS DIRECTED
INSTALL 5' FENCE
KEY FLOOR AND WALLS
ALL HORIZ. BARS IN BOX WALLS & BOTTOM TO EXTEND 18" INTO TRANSITION
SECTION E-E
SCALE ½"=1'
#6 OVER ARCH
EXIST. CONC. LINED DRAIN WITH ARCH COVER
CUT LINING & ARCH COVER FLUSH WITH INSIDE FACE OF TRANSITION BULKHEAD
6" CONCRETE BULKHEAD
FOOTING
SECTION A-A
SCALE ½"=1'
#5@12" (A BARS)
#5@12" (C BARS)
#5@12" (B BARS)
#4 SPACED AS SHOWN
#4@12" (D BARS)
#4@18" SPACER
#4@18" SPACERS
#4@18" (E BARS)
#4@18" (E BARS)
#5@12" (C BARS)
#5@12" (B BARS)
#5@12" (A BARS)
SECTION B-B
SCALE ½"=1'
TYPICAL SECTION FOR ALL TRANSITIONS FROM DITCH TO CULVERT
SLOPE OF TRANSITION WALL VARIES FROM 1:1 TO VERTICAL
REVISIONS
MARK DATE DESCRIPTION
CITY OF RIVERSIDE CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
MONROE STORM DRAIN
DOUBLE BOX CULVERT AT CALIFORNIA AVENUE
DESIGNED BY
DRAWN BY D.R.B.
CHECKED BY
RECOMMENDED BY
ASSISTANT CITY ENGINEER
APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE 3-9-56
D-1
SHEET 7 8



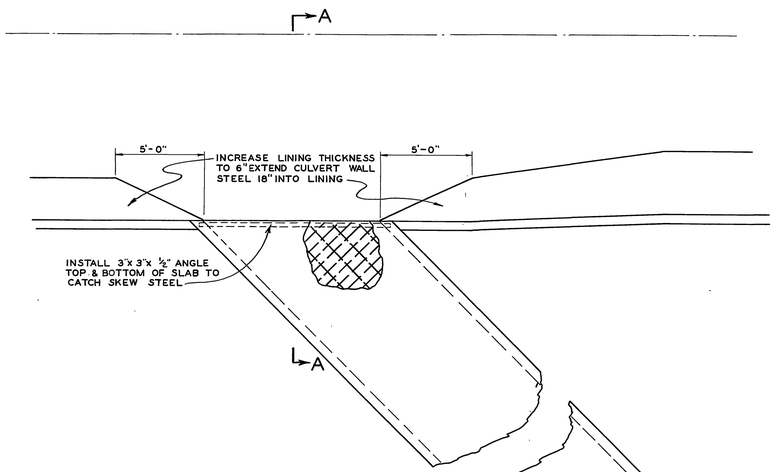
CROSS SECTION
OF
BOX CULVERT CONNECTION
WITH
JACKSON STORM DRAIN
SEE SHT. 2
½" = 1'-0"



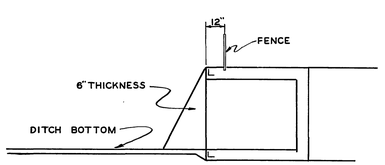
CROSS SECTION
OF
BOX CULVERT EXTENSION
OF
ARLINGTON MONROE STORM DRAIN
½" = 1'-0"



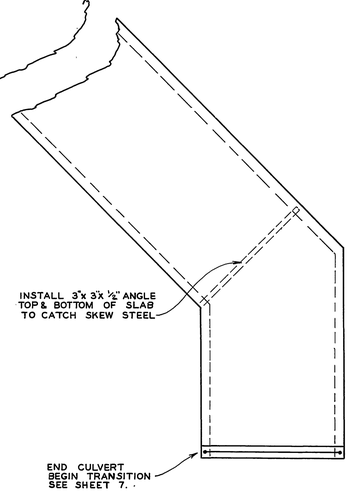
CROSS SECTION
OF
BOX CULVERT ACROSS
COLORADO AVENUE
½" = 1'-0"

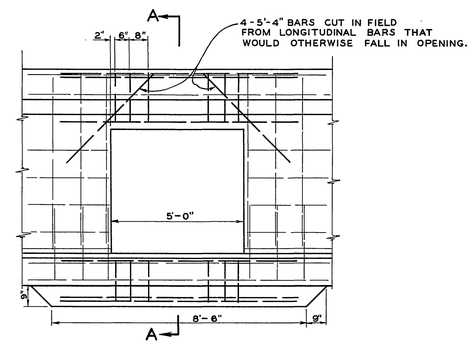


PLAN OF JUNCTION
AT
JACKSON STORM DRAIN
¼" = 1'-0"

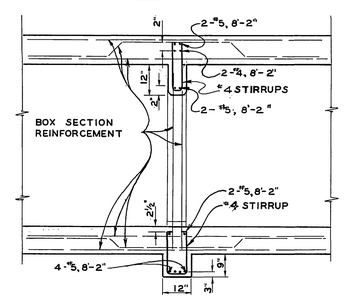


SECTION A-A
¼" = 1'-0"





ELEVATION



SECTION A-A

NOTES:

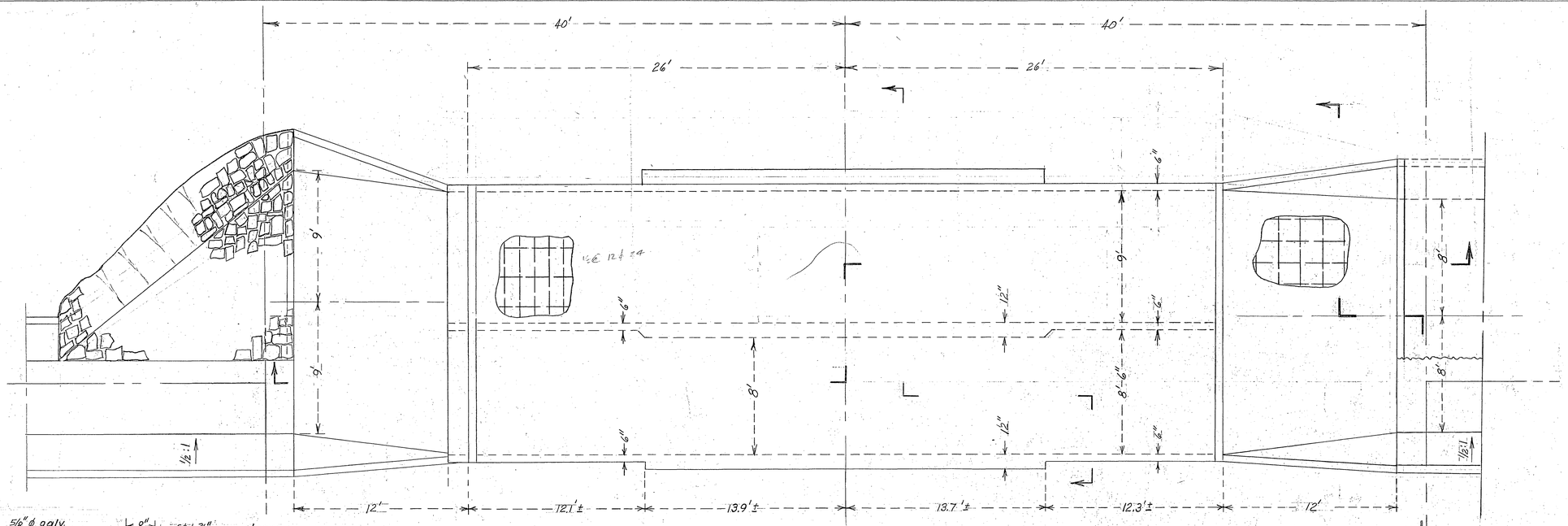
1. PLACE TWO PAIRS OF CENTER WALL VERTICAL BARS THAT WOULD OTHERWISE FALL IN OPENING 2" FROM FACE OF OPENING.
2. LONGITUDINAL BARS TO BE CUT IN FIELD 2" FROM OPENING.

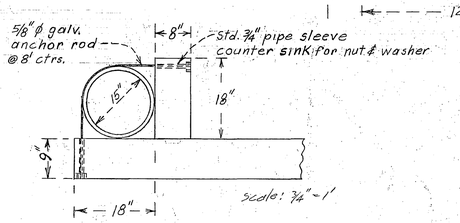
WINDOW DETAILS
FOR
MULTIPLE BOX SECTION
NO SCALE

GENERAL NOTES

1. ALL REINFORCING BARS TO HAVE 1½" MINIMUM COVER EXCEPT WHERE CONCRETE IS PLACED AGAINST EARTH WHERE MINIMUM COVER WILL BE 3".
2. ALL CULVERT CONCRETE TO BE CLASS A.
3. ALL TRANSITION CONCRETE TO BE CLASS C OR GUNITE.
4. WHERE GUNITE IS USED FOR TRANSITION CONSTRUCTION 4"X 4" BY 10 X 10 WIRE FABRIC REINFORCEMENT MAY REPLACE THE #4 BARS @ 18" AND THICKNESS MAY BE REDUCED FROM 6" TO 4"

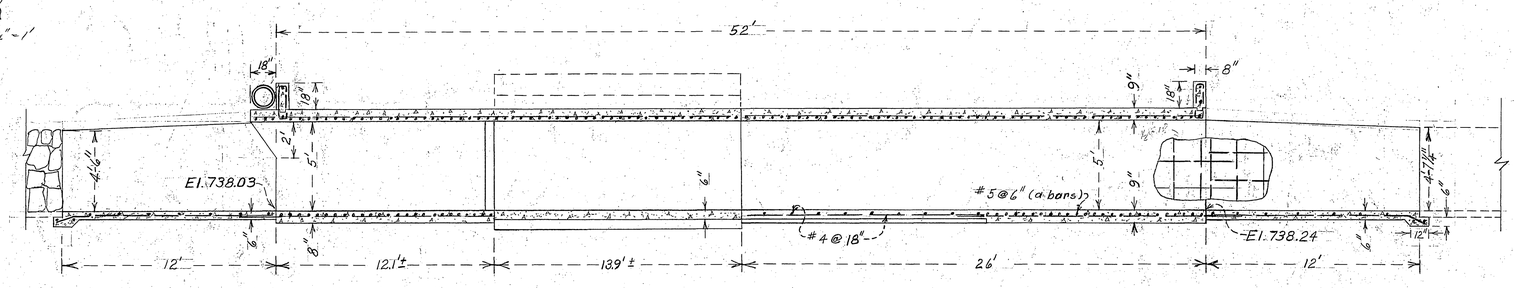
REVISIONS			CITY OF RIVERSIDE CALIFORNIA
MARK	DATE	DESCRIPTION	DEPARTMENT OF PUBLIC WORKS
			MONROE STORM DRAIN
			MISCELLANEOUS DETAILS
DESIGNED BY Zeppler	CHECKED BY Lee J. Wheeler	APPROVED Martinek	D-1
DRAWN BY Barnes			
RECOMMENDED BY Hall M. Holt		DATE 3-9-56	SHEET 8 OF 8



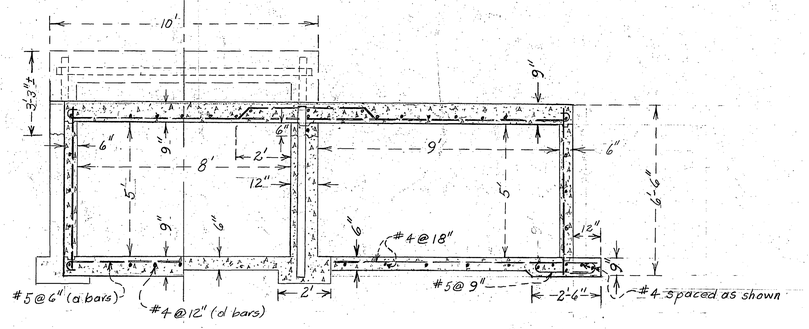


PIPE ANCHOR DETAIL

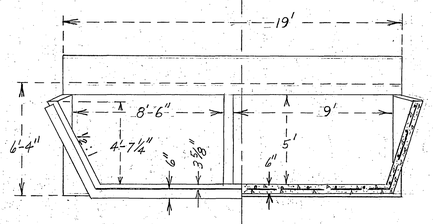
Scale: 1/4" = 1'



Scale: 1/4" = 1'



Scale: 3/4" = 1'



MONROE STORM DRAIN

Structure Details for enlarging and extending Conc. Box Culvert at Colorado Avenue

D-1-A