

BENCH MARK C.G. 1781 ELEV. 617.011
 R.D.B.M. TAG NR. CTR. OF CONC.
 HDWL. 24 FT. N. & LA PUENTE
 RD. + 0.2 MI. W/O GRAND AVE.
 COVINA QUAD. 1975

STORM DRAIN PLANS IN
 TRACT NO. 35305 M.T.-D. NO. 1122
 40419

GENERAL NOTES (Cont'd)

23. A SOILS ENGINEER SHALL CERTIFY THAT ALL FILLS AND BACKFILLS OVER UNDERGROUND STORM DRAINS OUTSIDE OF ST. R/W HAVE BEEN COMPACTED OR CONSOLIDATED TO A 90% DENSITY. THIS CERTIFICATION SHALL BE SUBMITTED TO THE COUNTY ENGINEER PRIOR TO ACCEPTANCE OF THE WORK BY THE COUNTY.
24. THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 7-10. 4.1 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION IN REGARD TO SAFETY ORDERS.
25. THE CONTRACTOR SHALL CONFORM TO THE "MINIMUM PUBLIC SAFETY REQUIREMENTS" AS SHOWN ON LOS ANGELES COUNTY ENGINEER STANDARD S-2.
26. ALL PIPE SHALL BE PLACED IN A TRENCH IN NATURAL GROUND AND/OR COMPACTED FILL. THE GROUND LEVEL BEFORE THE TRENCHING SHALL BE AT LEAST 3 FEET ABOVE TOP OF PIPE ELEVATION. OR AT FINISH SURFACE ELEVATION, WHICHEVER IS LESS. ALL BACKFILL IN EASEMENTS SHALL BE COMPACTED TO THE DENSITY REQUIRED BY THE GRADING PLAN.
27. THE INSPECTOR MAY HAVE THE OPTION TO REQUIRE CONCRETE BACKFILL DURING CONSTRUCTION WHEN THE PIPE HAS LESS THAN ONE FOOT OF COVER AND IS SUBJECTED TO HEAVY EQUIPMENT TRAFFIC. THE CONCRETE BACKFILL SHALL CONSIST OF 1:3:5 MIX CEMENT CONCRETE POURED FROM WALL TO WALL OF TRENCH AND FROM BOTTOM OF TRENCH TO A MINIMUM DEPTH OF 4 INCHES OVER TOP OF PIPE.
28. THE CONTRACTOR SHALL NOTIFY THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT, CONTRACT ADMINISTRATION DIVISION BY TELEPHONE AT 226-4206 AT LEAST 24 HOURS BEFORE STARTING ANY WORK UNDER THIS CONTRACT.
29. MAIN LINE STORM DRAIN R.C. PIPE, WHERE INDICATED IN THE PROFILE SHALL BE MANUFACTURED WITH 1" OR 1 1/2" ADDITIONAL THICKNESS OF CONCRETE OVER THE INVERT REINFORCING.
30. A PERMIT SHALL BE OBTAINED FROM THE LOS ANGELES COUNTY FLOOD CONTROL ELEMENT PRIOR TO COMMENCING ANY CONSTRUCTION WORK UNDER THIS CONTRACT. CONTACT THE DISTRICT BY TELEPHONE AT 226-4208 TO OBTAIN AN INSPECTION AND CONNECTION PERMIT AND TO MAKE DEPOSIT FOR CONSTRUCTION INSPECTION BY THE FLOOD CONTROL ELEMENT.
31. LONGITUDINAL STEEL SHALL BE CONTINUOUS AND EXTEND THROUGH ALL CONSTRUCTION JOINTS EXCEPT TRANSVERSE JOINTS IN RECTANGULAR CHANNELS AND AROUND ALL CORNERS UNLESS OTHERWISE SHOWN.
32. THE CONTRACTOR SHALL OBTAIN A PERMIT FOR UTILITY TRENCHES FROM THE CITY OF WALNUT.

GENERAL NOTES

1. ELEVATIONS ARE IN FEET ABOVE U.S.C. & G.S. MEAN SEA LEVEL DATUM OF 1929. ALL WORK SHALL BE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION 1989 EDITION", INCLUDING SUPPLEMENTS AND SHALL BE PROSECUTED ONLY IN THE PRESENCE OF THE COUNTY ENGINEER.
2. APPROVAL OF THIS PLAN BY THE COUNTY OF LOS ANGELES DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OF THE LOCATION, OR THE EXISTENCE OR NON-EXISTENCE OF ANY UNDERGROUND UTILITY, PIPE OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THIS NOTE APPLIES TO ALL SHEETS.
3. THE CONTRACTOR SHALL NOTIFY THE ENVIRONMENTAL DEVELOPMENT DIV. BY TELEPHONE, 738-2156 AT LEAST 24 HOURS BEFORE STARTING ANY WORK UNDER THIS CONTRACT. THE CONTRACTOR SHALL SUBMIT A DEPOSIT FOR CONSTRUCTION INSPECTION TO THE COUNTY ENGINEER, 550 S. VERMONT AVE., LOS ANGELES, AT LEAST 24 HOURS BEFORE STARTING ANY WORK UNDER THIS CONTRACT.
4. ALL CONSTRUCTION JOINTS IN THE FOOTING OF SLABS AND WALLS SHALL BE IN THE SAME PLANE. NO STAGGERING OF JOINTS WILL BE PERMITTED.
5. NO CONCRETE SHALL BE PLACED UNTIL THE FORMS AND REINFORCING STEEL HAS BEEN PLACED, INSPECTED AND APPROVED.
6. TRANSVERSE REINFORCEMENT AND TRANSVERSE JOINTS SHALL BE PLACED AT RIGHT ANGLES (OR RADIAL) TO CONDUIT CENTERLINE EXCEPT AS OTHERWISE SHOWN ON THE DRAWINGS.
7. ALL CONCRETE SHALL BE PORTLAND CEMENT CONCRETE WITH AN ULTIMATE 28 DAYS COMPRESSIVE STRENGTH OF 3250 PSI.
8. ALL EXPOSED EDGES SHALL BE FINISHED WITH A 3/4" CHAMFER.
9. ALL STEEL ADJACENT TO FACE OF CONCRETE SHALL HAVE 2 1/2" CLEARANCE UNLESS OTHERWISE SPECIFIED.
10. REINFORCEMENT SHALL BE DEFORMED BARS OF INTERMEDIATE GRADE STEEL AS PER A.S.T.M. A-615 GRADE 60.
11. ALL BAR BENDS AND HOOKS SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE "MANUAL OF STANDARD PRACTICE".
12. DIMENSIONS FROM FACE OF CONCRETE TO STEEL ARE TO CENTERLINE OF STEEL UNLESS OTHERWISE NOTED.
13. ALL BACKFILLS AND FILLS TO BE USED AS SUBGRADE SHALL BE COMPACTED TO A RELATIVE DENSITY OF 90% UNLESS OTHERWISE SPECIFIED.
14. ALL STEEL THAT IS TO BE CONTINUOUS SHALL HAVE A MINIMUM LAP OF 30 BAR DIAMETERS OR 18", WHICHEVER IS GREATER.
15. ALL CATCH BASINS AND CONNECTOR PIPES BETWEEN CATCH BASINS TO BE INSPECTED BY THE COUNTY ROAD DEPARTMENT.
16. PIPE SHALL BE EMBEDDED 5 INCHES INTO ALL STRUCTURES INCLUDING INLET & HEADWALLS, UNLESS OTHERWISE SPECIFIED.
17. WHERE PIPE IS TO BE PLACED IN FILL, THE FILL SHALL BE COMPACTED TO A MINIMUM DEPTH OF 3 FEET ABOVE THE TOP OF PIPE PRIOR TO TRENCHING.
18. ALL BACKFILL AND FILL AROUND CLOSED CONDUIT IN STREET RIGHTS OF WAY SHALL BE BROUGHT UP TO SUBGRADE OF THE ROAD OR TO 2 FEET ABOVE THE TOP OF THE CONDUIT, WHICHEVER IS LESS. THE ROAD DEPARTMENT SHALL INSPECT ALL BACKFILL AND FILL ABOVE AFOREMENTIONED LIMITS. APPLICATION FOR AN ENGINEER OR INSPECTOR IN CONNECTION WITH THE WORK, SHALL BE MADE BY THE CONTRACTOR AT LEAST 24 HOURS BEFORE HIS SERVICE IS REQUIRED. CALL 226-8191.
19. A PERMIT SHALL BE OBTAINED FROM THE ROAD DEPARTMENT AND SHALL BE SUBMITTED TO THE INSPECTOR PRIOR TO COMMENCING CONSTRUCTION WITHIN THEIR RIGHTS OF WAY.
20. ALL REINFORCED CONCRETE PIPE SHALL BE BEDDED IN ACCORDANCE WITH LOS ANGELES COUNTY ENGINEER CASE A4 BEDDING PER STANDARD DRAWING D-54, UNLESS OTHERWISE NOTED.
21. UNLESS OTHERWISE SHOWN, CONCRETE DIMENSIONS SHALL BE MEASURED VERTICALLY OR HORIZONTALLY AND PARALLEL OR AT RIGHT ANGLES (OR RADIAL) TO THE CENTER LINE OF CONSTRUCTION.
22. THIS STORM DRAIN WILL NOT BE ACCEPTED FOR MAINTENANCE UNTIL THE STREETS HAVE BEEN PAVED, MANHOLES BROUGHT TO GRADE, AND THE SYSTEM IS CLEANED TO THE SATISFACTION OF THE COUNTY ENGINEER.

LIST OF STANDARD PLANS

- LOS ANGELES COUNTY FLOOD CONTROL DIST.
- STANDARD DROP STEP 2 - D96
 MANHOLE NO. 1 2 - D102
 CONC. RINGS, REDUCER & PIPE FOR M.H. SHAFT 2 - D107
 JUNCTION STRUCTURE NO. 2 2 - D112
- M.H. FRAME & COVER FOR C.B.'s 2 - D156
 C.B. REINFORCEMENT FOR ROUND M.H.'s 2 - D157
- C.B. NO. 3 2 - D163
 STANDARD A-615 REINFORCING BARS 2 - D171
 C.B. REINFORCEMENT 2 - D172
 REMOVABLE PROTECTION BAR FOR C.B.'s 2 - D175
 TYPICAL FENCE FOR CHANNEL R/W 2 - D178
 TYPICAL FENCE FOR CHANNEL WALLS 2 - D180
- TRANSITION STRUCTURE NO. 3 2 - D188
- CONNECTION TO C.B. 2 - D224
 DETAIL OF C.B. OPENING 2 - D232
- PROTECTION BARRIER 2 - D261-1--3
 ADJUSTABLE PROTECTION BAR STIRRUP 2 - D264
 STANDARD 24" M.H. FRAME & COVER 2 - D472
 TRASH RACK 2 - DTR1-1--2
 LOCAL DEPRESSION NO. 2 (H-6", CASE C) & (H-6", CASE B) 2 - D88
 CONCRETE COLLAR 2 - D393

RIPRAP NOTES

1. ROCKS FOR GROUTED RIPRAP SHALL BE GOOD QUALITY BROKEN CONCRETE AND/OR RIVER RUN ROCK. THE SMALLEST DIMENSION SHALL EXCEED 3 INCHES AND THE LARGEST DIMENSION SHALL NOT EXCEED 18 INCHES. THE LARGEST DIMENSION SHALL NOT EXCEED 4 TIMES THE SMALLEST DIMENSION.
 2. THERE SHALL BE A GROUT BED OF AT LEAST 2 INCHES BENEATH THE FIRST LAYER OF ROCK. ALL THE VOIDS BETWEEN THE ROCKS SHALL BE FILLED WITH GROUT. MAXIMUM SPACING BETWEEN ROCKS SHALL BE 2 INCHES.
 3. SURFACE ROCKS SHALL BE IMBEDDED FROM 1/2 TO 2/3 OF THEIR MAXIMUM DIMENSION.
- NOTE: CONCRETE MAY BE SUBSTITUTED FOR THE GROUT.

PRIVATE ENGINEERS NOTICE TO CONTRACTORS

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THIS MAP.

THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES NOT OF RECORD OR NOT SHOWN ON THIS DRAWING.

Ross N. Bolton
 REGISTERED CIVIL ENGINEER NO.

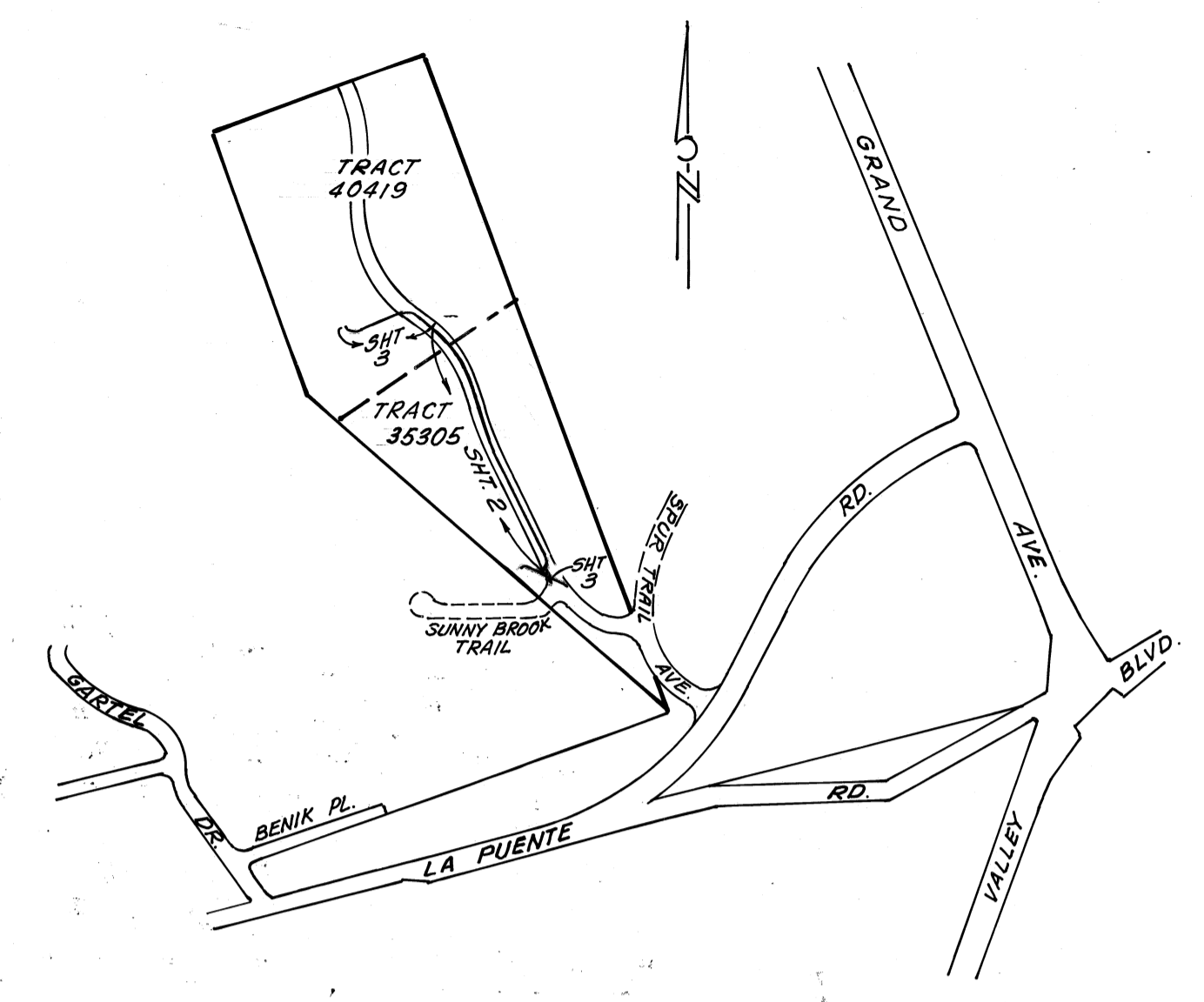
6-18-86
 DATE

LOS ANGELES COUNTY ENGINEER

- PIPE BEDDING D - 54
 CONCRETE PIPE ANCHORS D - 72

LOS ANGELES COUNTY ROAD DEPARTMENT

- CURB & GUTTER TRANSITION 66 - 03
 LOCAL DEPRESSION NO. 1 68 - 01



INDEX MAP
 SCALE: 1"=600'
 CITY OF WALNUT
 TRACT NOS. 40419 & 35305

LINE	FROM STA.	TO STA.	SIZE (IN.)	Q-C.F.S.	V-F.R.S.	STORM FREQ.
A	0+35.83	0+97.25	30"	82.80	25.26	25
	0+97.25	1+19.02	30"	41.70	21.37	25
	1+19.02	1+82.84	30"	29.80	11.90	25
B	1+00.00	1+07.28	21"	11.90	36.74	25
C	1+00.00	4+64.00	24"	41.10	15.68	25
	4+64.00	5+06.00	24"	41.10	13.00	25
	5+06.00	8+73.00	24"	34.70	11.05	25
	8+73.00	10+49.00	24"	29.20	12.10	25
	10+49.00	11+24.00	24"	25.00	11.77	25
	11+24.00	12+54.50	24"	25.00	11.77	25
	12+54.50	13+08.00	24"	25.00	28.22	25
	13+08.00	14+38.20	24"	25.00	10.13	25

NOTE:
 IF CONSTRUCTION OF IMPROVEMENTS AS SHOWN HEREON IS NOT COMMENCED WITHIN 18 MONTHS OF APPROVAL DATE THESE PLANS ARE SUBJECT TO REVISION

NO.	REVISION	REVISED BY	APPROVED BY	DATE

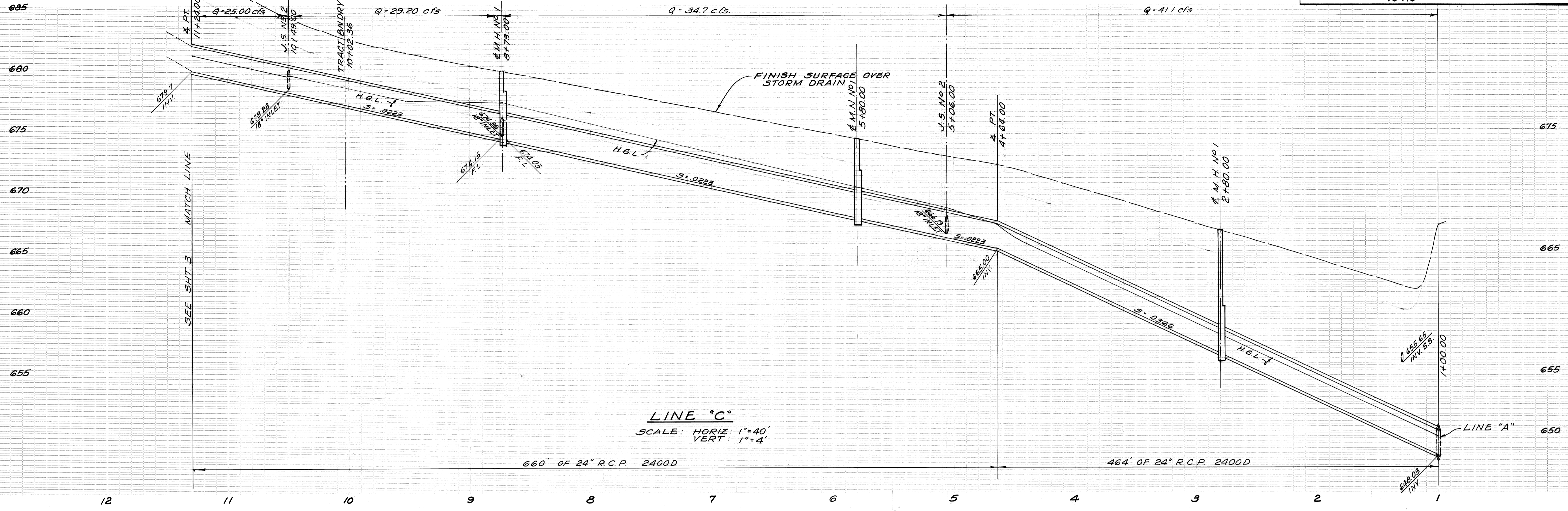
CITY OF WALNUT - Approved
 City Engineer

Ronald L. Kranzer 8-20-86
 Ronald L. Kranzer R.E. 18503 Date

SOUTH BAY ENGINEERING CORPORATION
 304 TEJON PLACE
 PALOS VERDES ESTATES, CA 90274
 Phone (213) 375-2556 772-1555

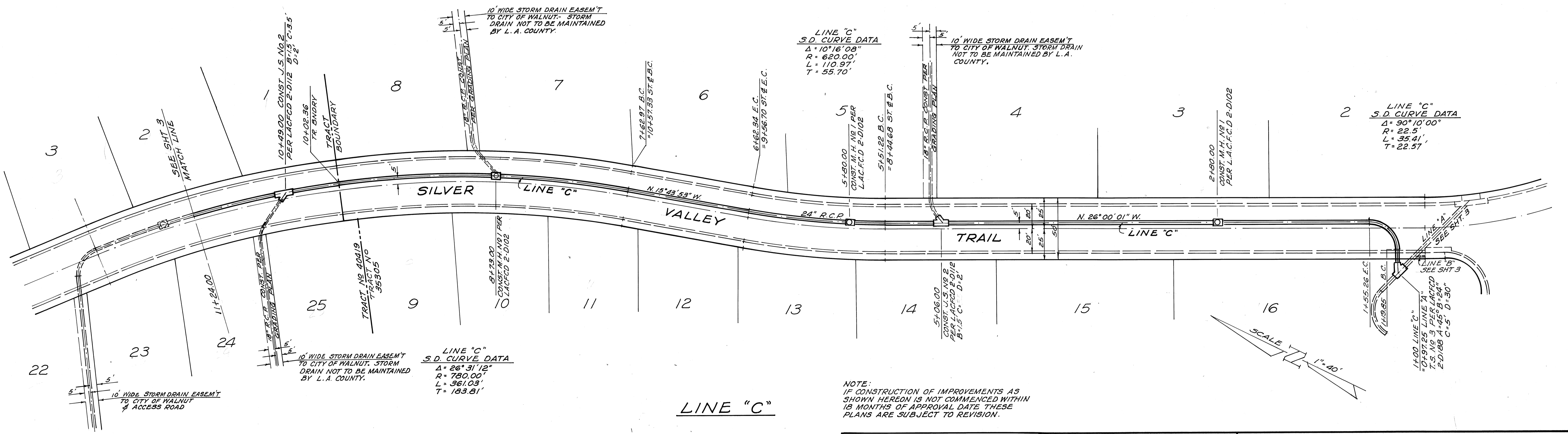
SIGNATURE: *Ross N. Bolton* RCE NO. 26120

CITY OF WALNUT
 LOS ANGELES COUNTY
 STORM DRAIN PLANS



LINE "C"
SCALE: HORIZ: 1"=40'
VERT: 1"=4'

660' OF 24" R.C.P. 24000 464' OF 24" R.C.P. 24000

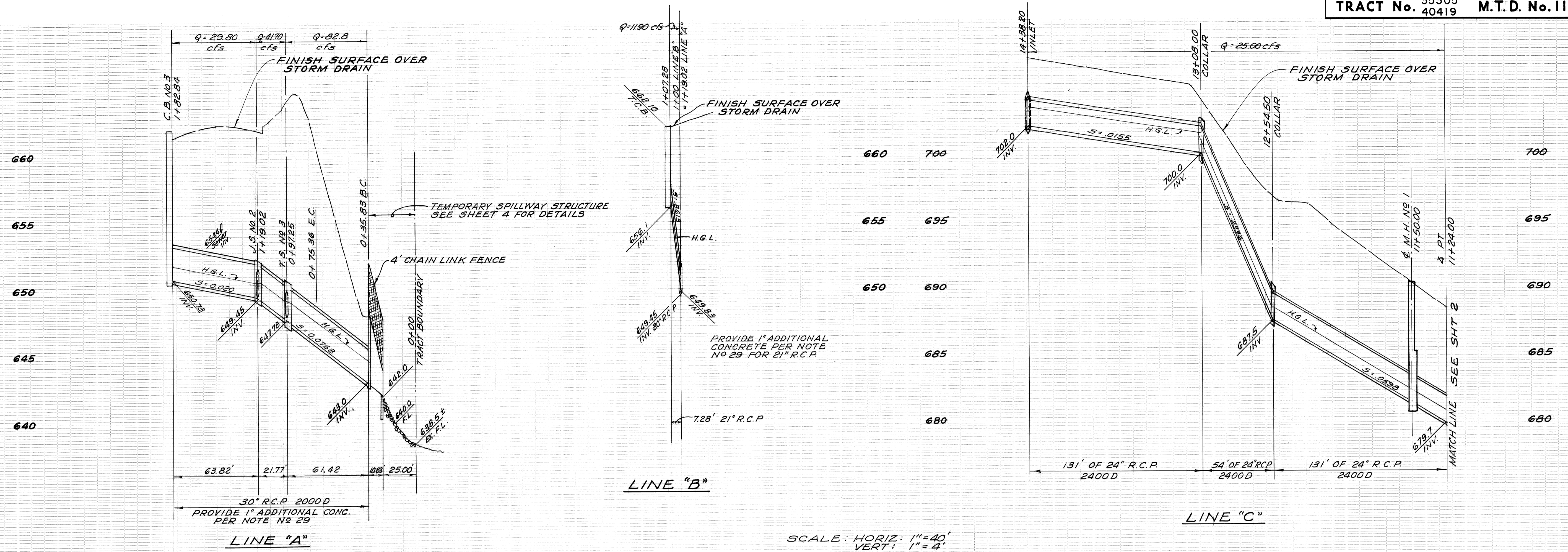


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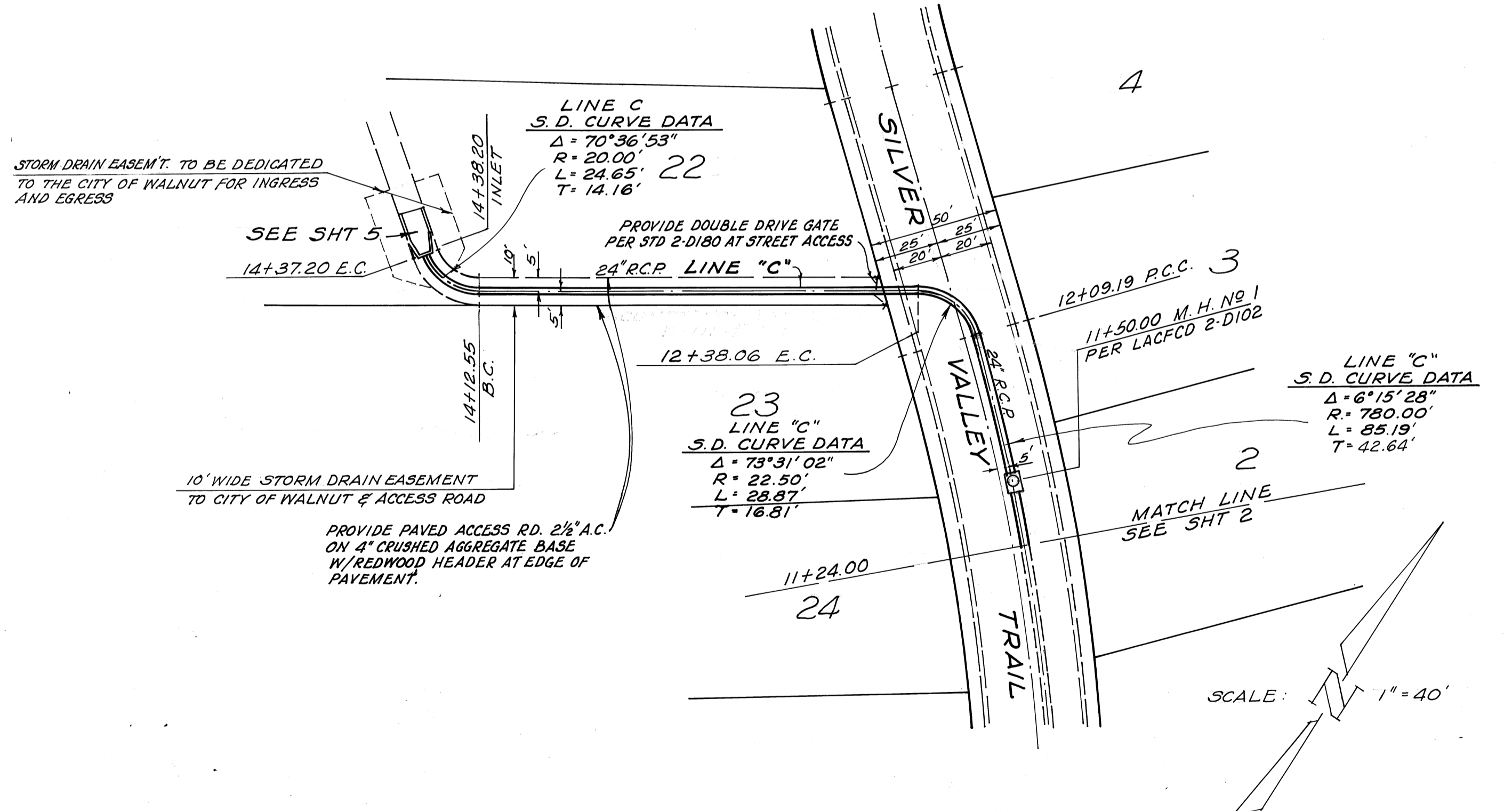
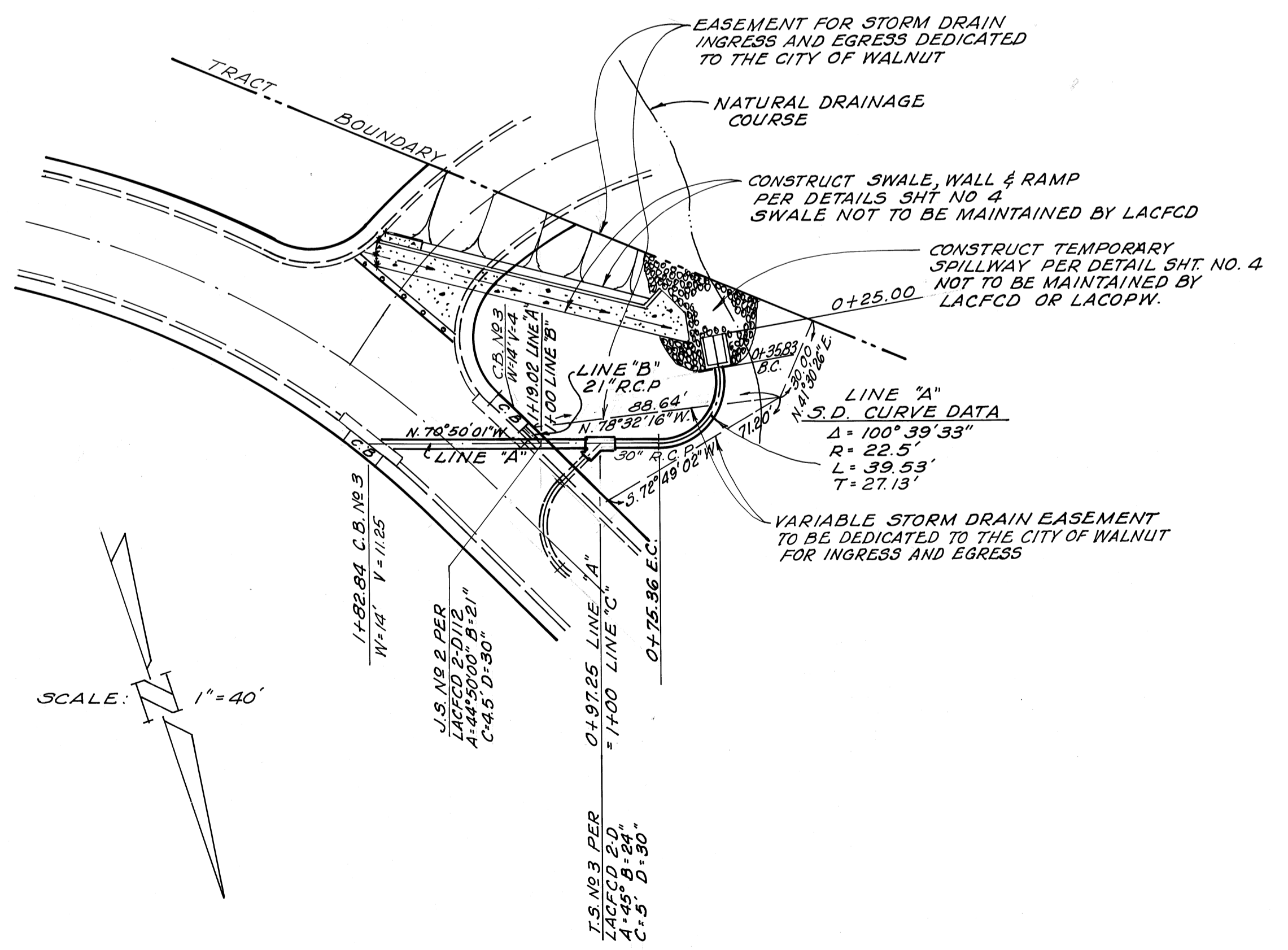
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CITY OF WALNUT - Approved City Engineer <i>Ronald L. Kranzer</i> 8-20-86 Ronald L. Kranzer, R.C.E. 18503 Date	SOUTH BAY ENGINEERING CORPORATION 304 TEJON PLACE PALOS VERDES ESTATES, CA. 90274 (213) 375-2556 FROM L.A. 772-1555	CITY OF WALNUT
		LOS ANGELES COUNTY
SIGNATURE: <i>Robert M. Baker</i> R.C.E. NO. 26120		STORM DRAIN PROFILES

1543

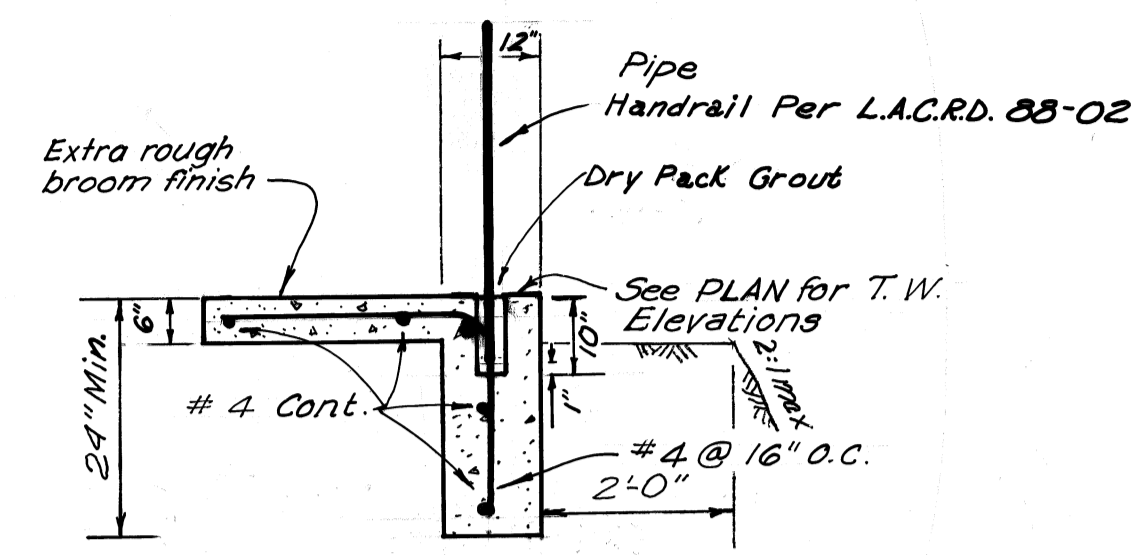


SCALE: HORIZ: 1"=40'
 VERT: 1"=4'

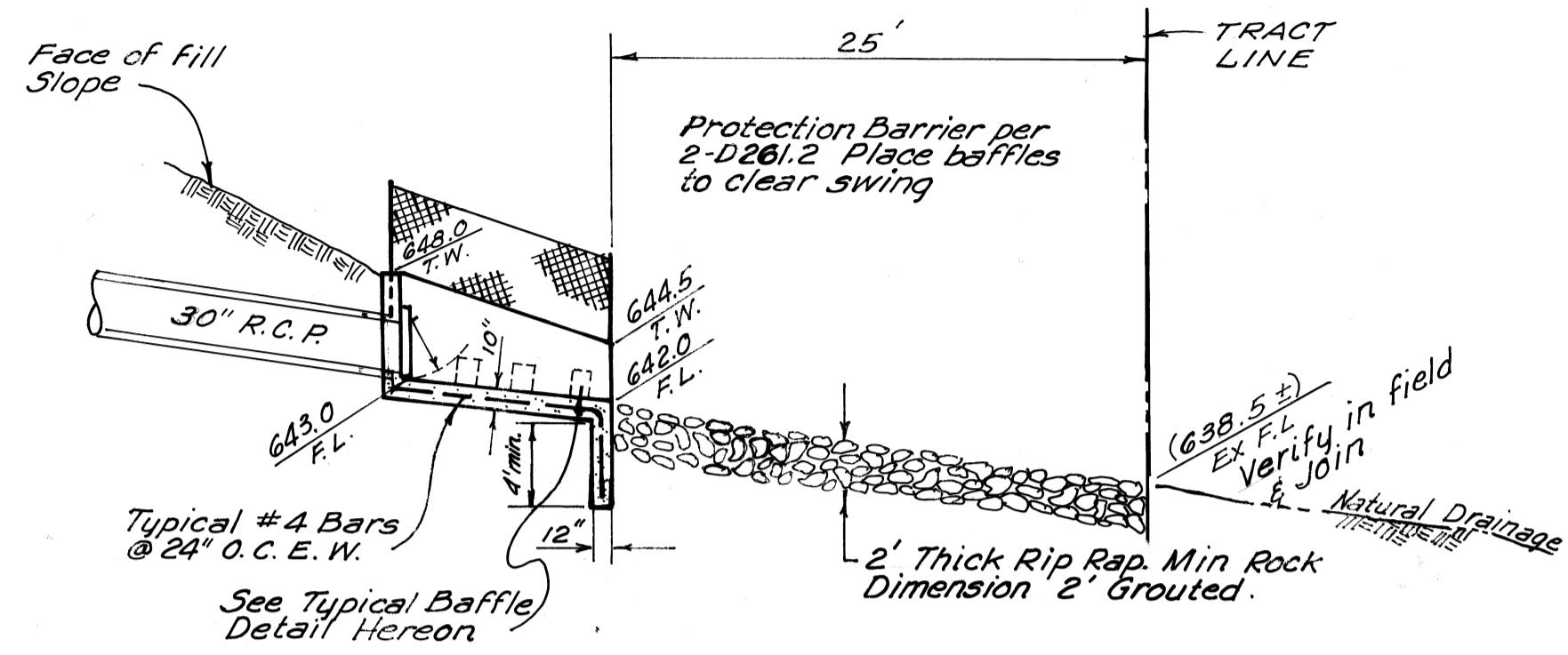


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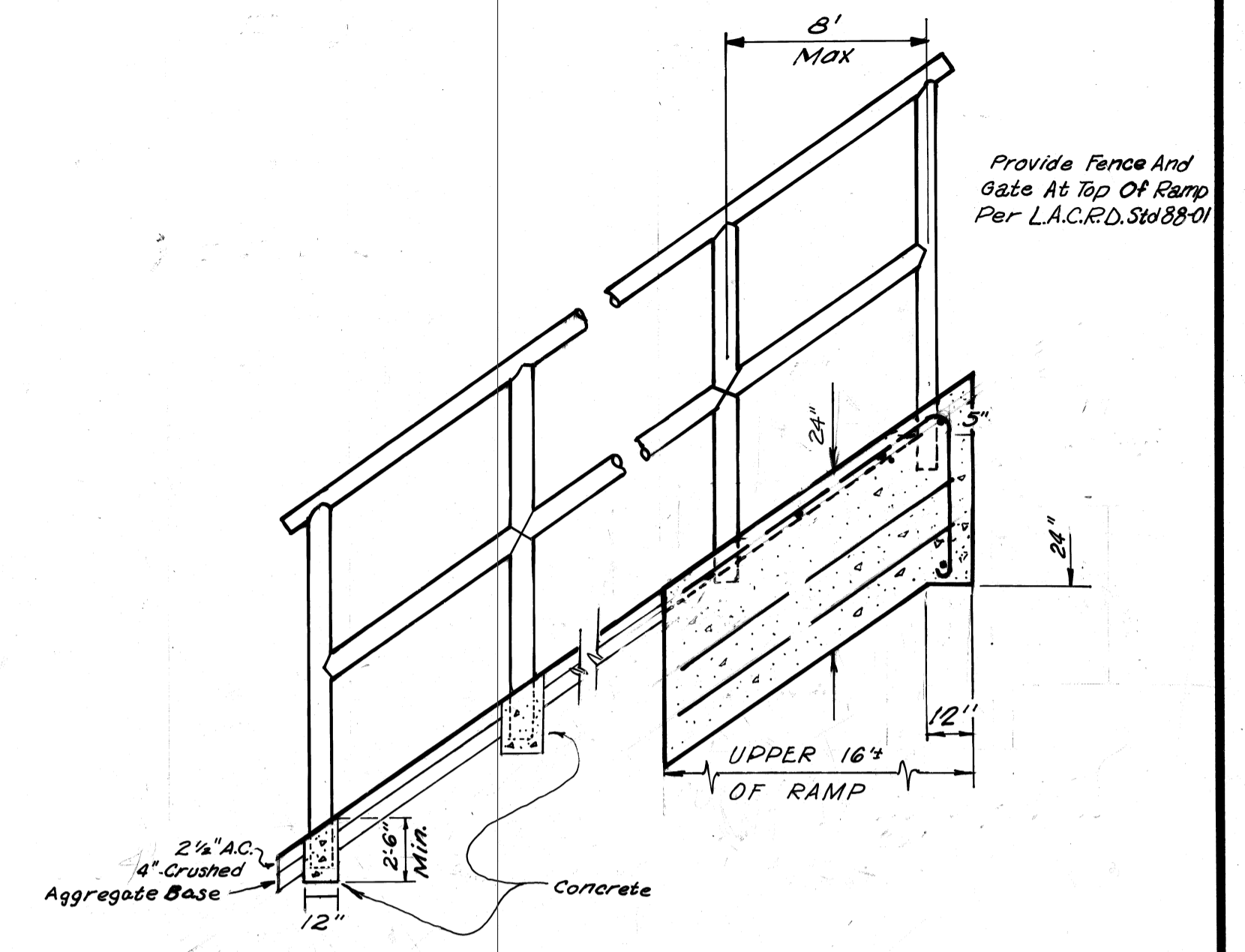
CITY OF WALNUT - Approved City Engineer	SOUTH BAY ENGINEERING CORPORATION 304 TEJON PLACE PALOS VERDES ESTATES, CA. 90274 (213) 375-2556 FROM L.A. 772-1555	CITY OF WALNUT LOS ANGELES COUNTY
Signature: <i>Ronald L. Kranzer</i> Ronald L. Kranzer, R.C.E. 18503 Date: 8-20-88	SIGNATURE: <i>Tom N. Baker</i> R.C.E. NO. 26120	STORM DRAIN PROFILES SHT 3 OF 5 SHTS



NORTHEASTERLY SECTION
UPPER 16'± OF RAMP 1"=20'



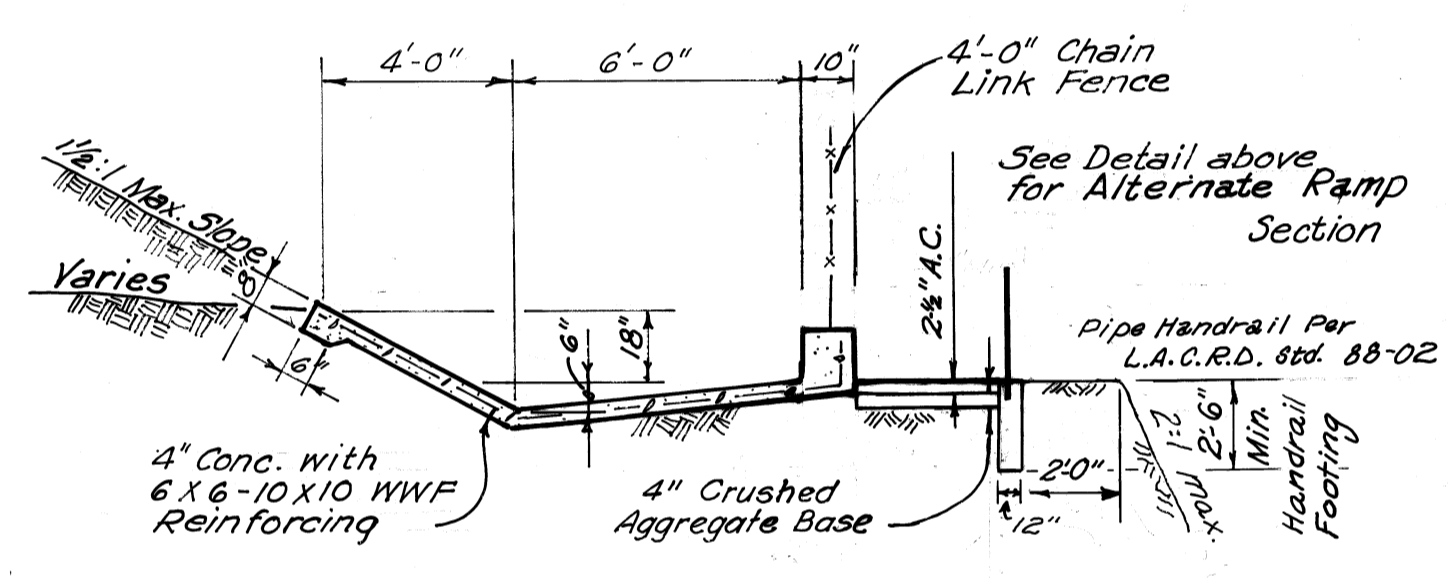
PROFILE 1/8"=1'-0"



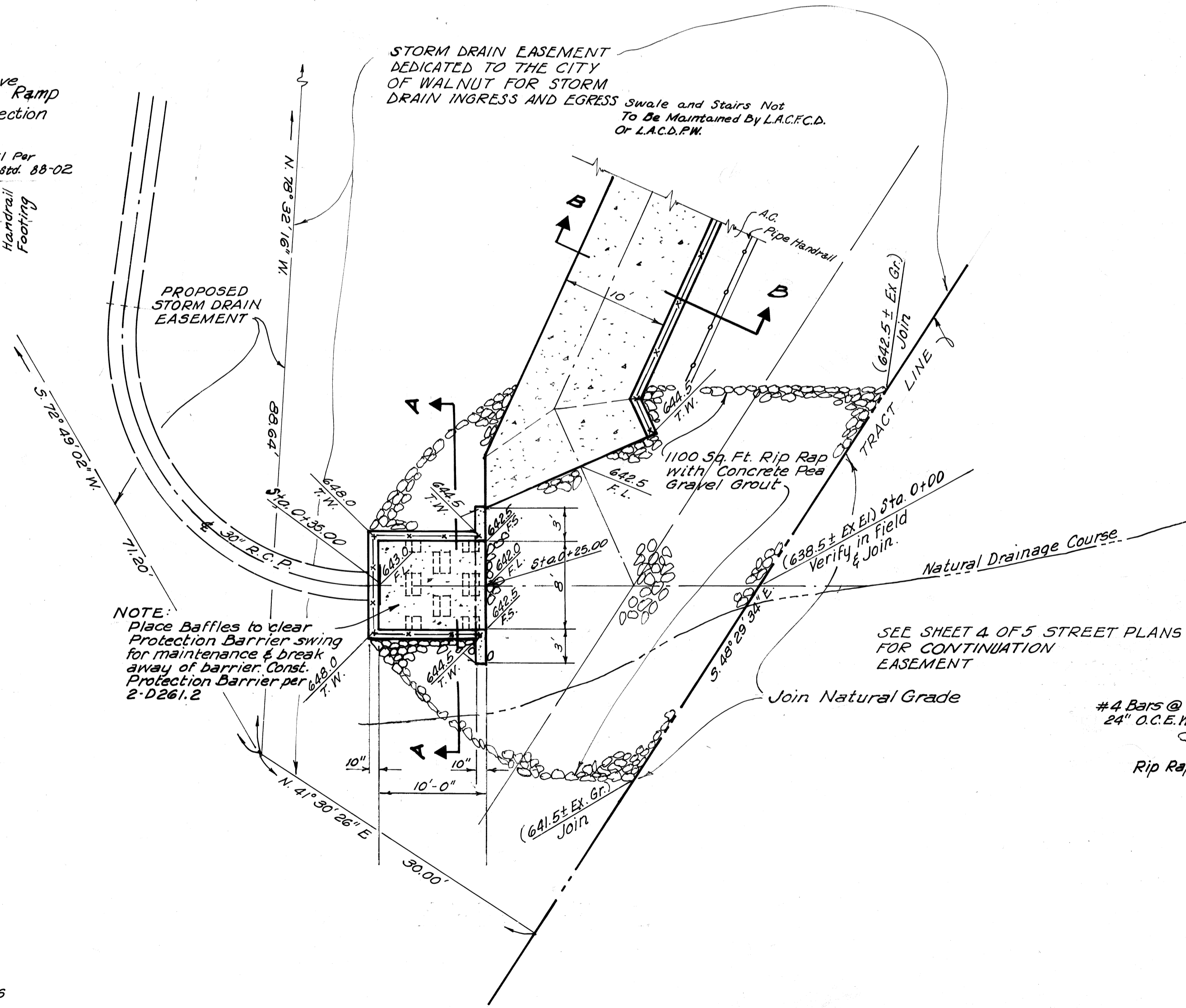
RAMP AND HANDRAIL
N.T.S.

NOTES:

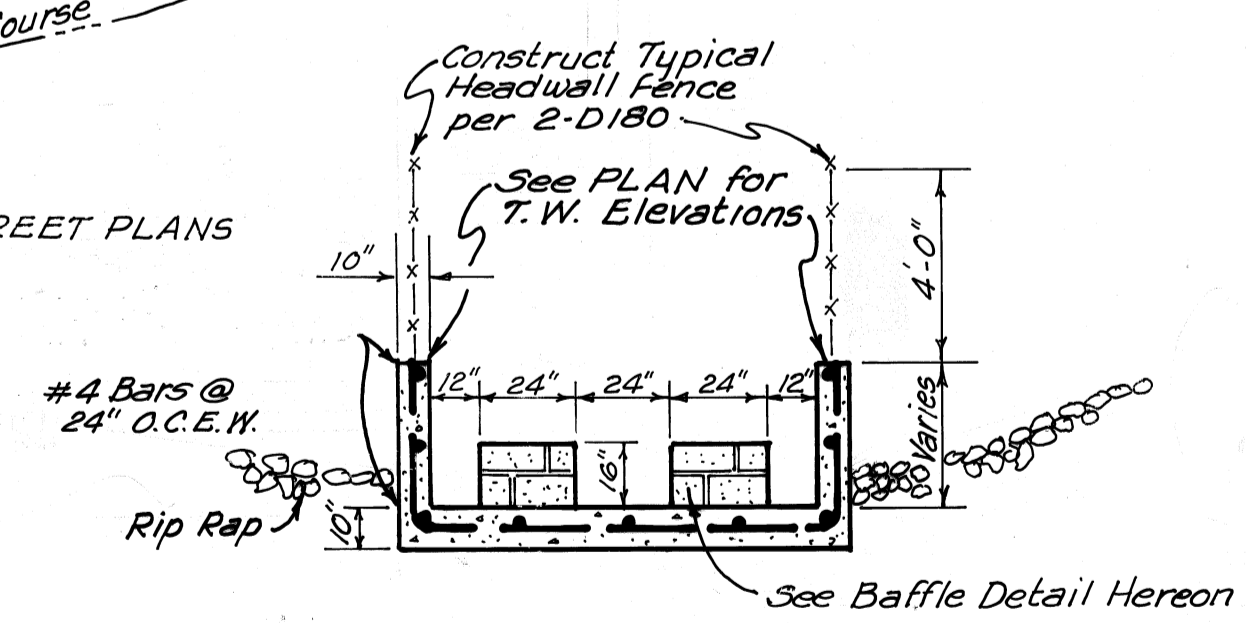
1. The Width of the Ramp Shall Not Be Less than 42"
2. Use Handrails Per L.A.C.R.D. Plan 88-02
3. Handrails Shall Not Reduce The Required Ramp Width By More Than 3'-3/4"
4. The Slope of The Ramp Shall Not Exceed 17%



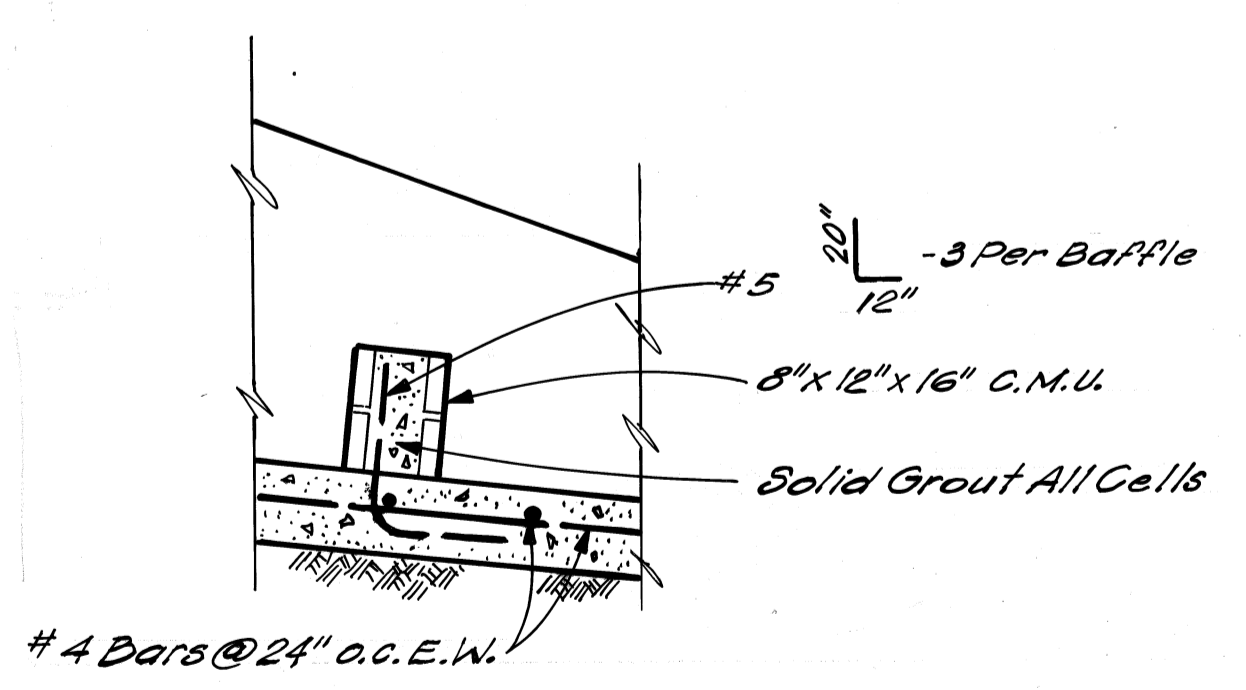
SECTION B-B 1/4"=1'-0"
Not To Be Maintained By L.A.C.F.C.D. Or L.A.C.D.R.W.



OVERFLOW
TEMPORARY SPILLWAY



SECTION A-A 1/4"=1'-0"
For Cutoff Wall Detail See Profile



TYPICAL BAFFLE
Scale: 1/2"=1'-0"

NOTE:
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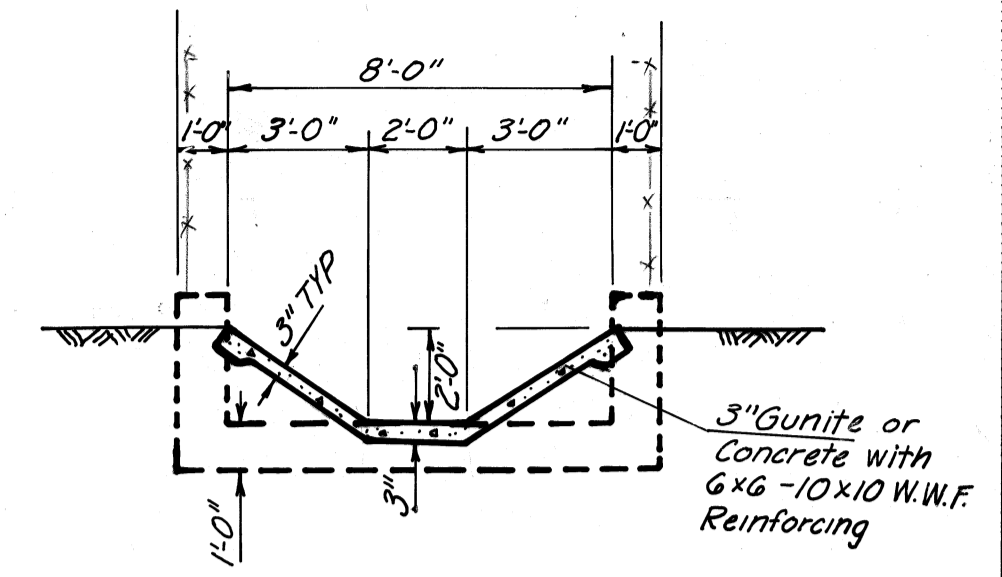
NO.	REVISION	REVISED BY	APPROVED BY	DATE	CITY OF WALNUT - Approved City Engineer
1	REVISED STREET GRADES & ADDED STORM DRAIN LINE "C"	Ronald L. Kranzer		6-6-86	

Ronald L. Kranzer 8-20-86
Ronald L. Kranzer, R.C.E. 18503 Date

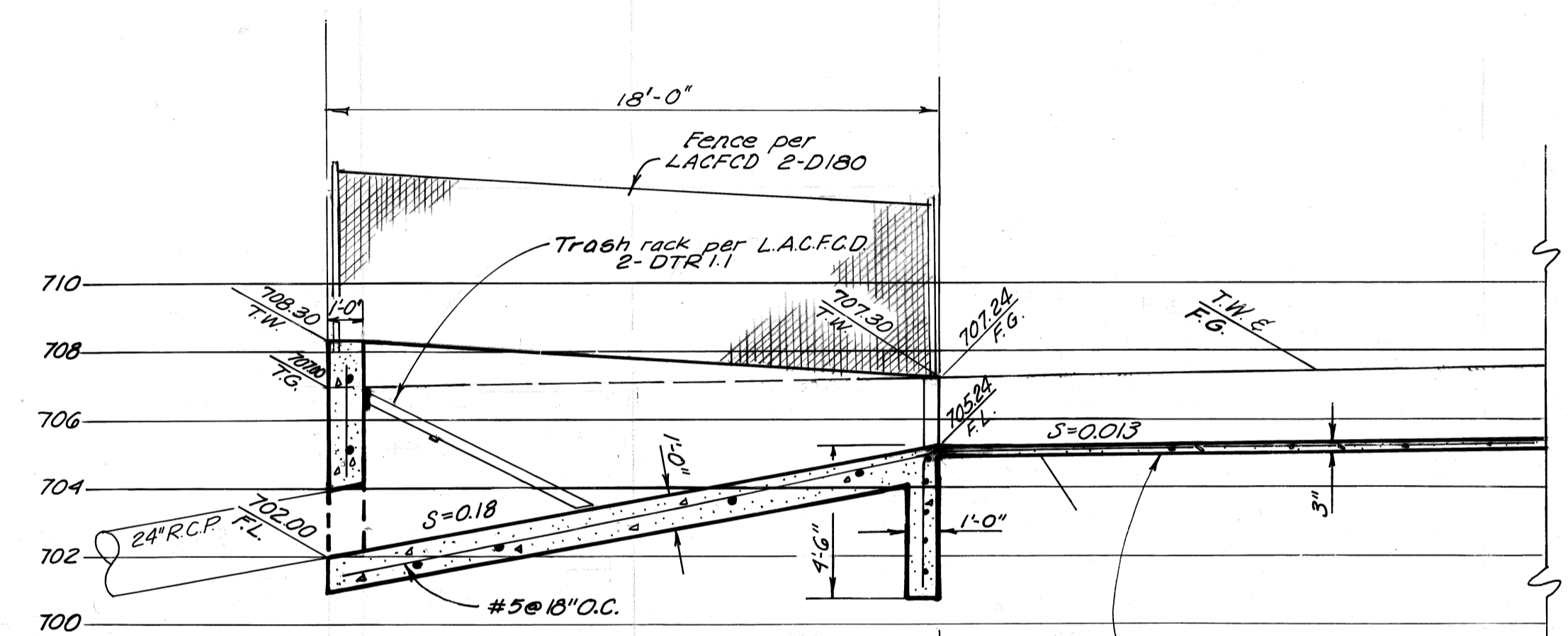
SOUTH BAY ENGINEERING CORPORATION
304 TEJON PLACE
PALOS VERDES ESTATES, CA. 90274
(213) 375-2556 FROM L.A. 772-1555
SIGNATURE: *Ronald L. Kranzer* R.C.E. NO. 12412

CITY OF WALNUT
LOS ANGELES COUNTY
STORM DRAIN DETAILS

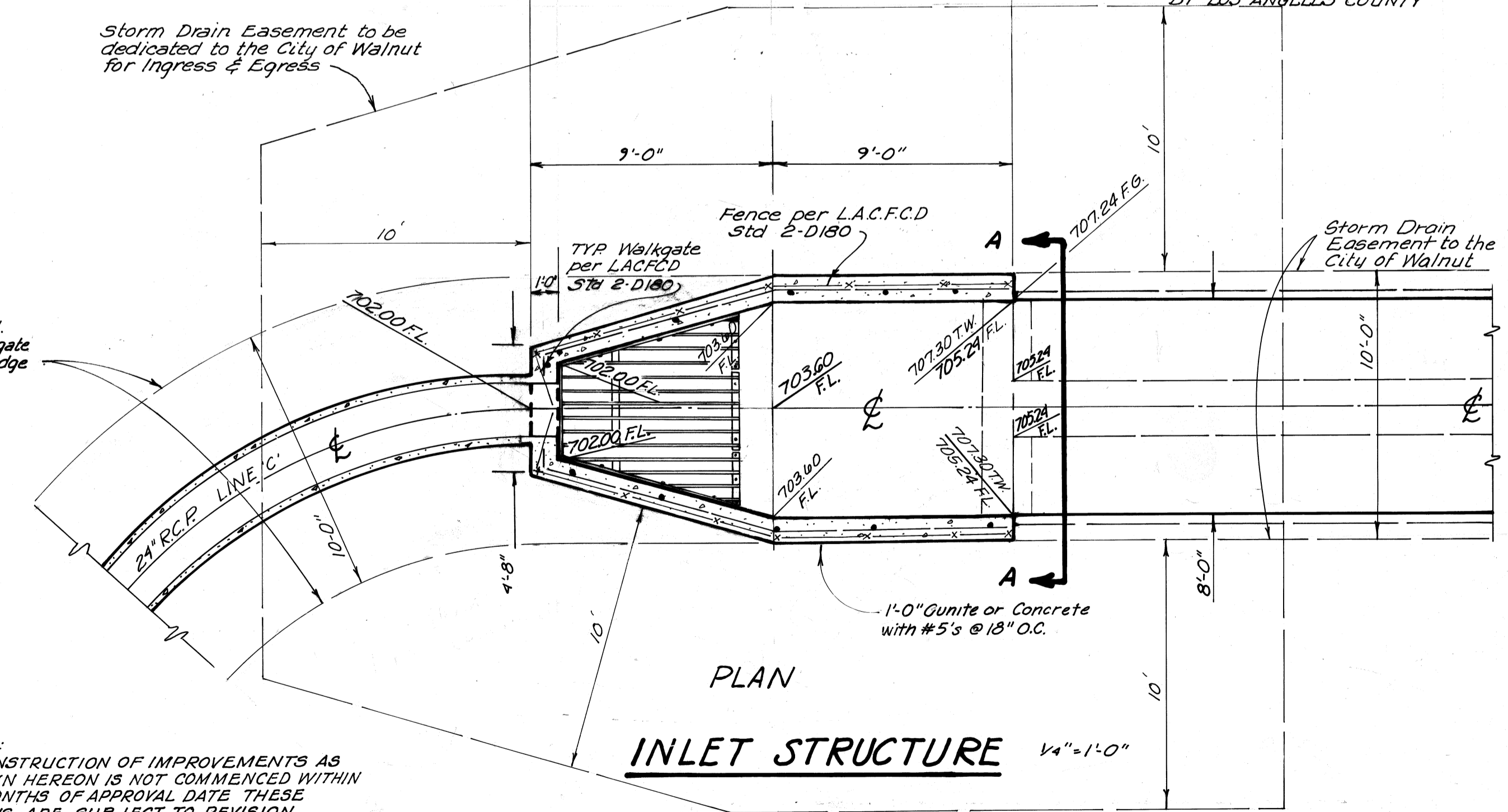
STORM DRAIN PLANS IN
TRACT No. 35305 40419 M.T.D.No. 1122



SECTION A-A
 SWALE NOT TO BE MAINTAINED
 BY LOS ANGELES COUNTY



PROFILE
 SWALE NOT TO BE MAINTAINED
 BY LOS ANGELES COUNTY



NOTE:
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NO.	REVISION	REVISED BY	APPROVED BY	DATE
1	REVISED STREET GRADES & ADDED STORM DRAIN LINE "C"	<i>Tom M. Pula</i>		

CITY OF WALNUT - Approved
 City Engineer

Ronald L. Krautner 8-20-86
 Ronald L. Krautner, R.C.E. 18503 Date

SOUTH BAY ENGINEERING CORPORATION
 304 TEJON PLACE
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 SIGNATURE: *Tom M. Pula* R.C.E. NO. 26120

CITY OF WALNUT
LOS ANGELES COUNTY
STORM DRAIN DETAILS