

**STORM DRAIN PLANS IN
TRACT NO. 45068 M.T.D. NO. 1265**

BENCH MARK
C G 1774 - ELEV. 577.92
L & T. IN CONC. HEADWALL @ N.W. COR.
LA PUENTE ROAD & PIERRE ROAD
25' NORTH & 30' EAST C/L INT.
MARKED "B.M."

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 SUBJECT 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 DISTRICT PRIOR TO COMMENCING ANY CONSTRUCTION WORK UNDER THIS CONTRACT. CONTACT THE DISTRICT BY TELEPHONE AT 226-3129 TO OBTAIN AN INSPECTION AND CONNECTION PERMIT AND TO MAKE DEPOSIT FOR CONSTRUCTION INSPECTION BY THE DISTRICT.
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. ALL CATCH BASINS WITHIN THE DEDICATED STREET RIGHT-OF-WAY SHALL BE CONSTRUCTED PER THE STREET PLANS.
33. THE CONTRACTOR SHALL PROVIDE FOR CONTRIBUTORY DRAINAGE AT ALL TIMES UNTIL THIS STORM DRAIN SYSTEM IS OPERABLE.
34. ALL REFERENCES ON THIS PLAN TO THE COUNTY ENGINEER, ROAD DEPARTMENT, OR FLOOD CONTROL DISTRICT SHALL APPLY TO THE APPROPRIATE SECTIONS OF THE DEPARTMENT OF PUBLIC WORKS.
35. EXISTING UTILITIES SHALL BE MAINTAINED IN PLACE BY THE CONTRACTOR, UNLESS OTHERWISE NOTED.
36. WHERE THE UTILITIES ARE INDICATED ON THE DRAWINGS TO BE SUPPORTED, SAID SUPPORTS SHALL BE IN ACCORDANCE WITH STANDARD PLAN NO. 224-D, UNLESS OTHERWISE INDICATED.
37. ALL OPENINGS RESULTING FROM THE CUTTING OR PARTIAL REMOVAL OF EXISTING CULVERTS, PIPES OR SIMILAR STRUCTURES SHALL BE SEALED WITH 8 INCHES OF BRICK AND MORTAR OR 6 INCHES OF CONCRETE, UNLESS OTHERWISE SHOWN.
38. MANHOLES NO. 1, 2, 3, AND 4, SHALL USE THE STANDARD PLANS 630-0 FOR THE "FRAME AND COVER" AND 635-0 FOR THE "STANDARD DROP STEP"

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 1985 EDITION", INCLUDING SUPPLEMENTS AND SHALL BE PROSECUTED ONLY IN THE PRESENCE OF THE CITY ENGINEER.
2. APPROVAL OF THIS PLAN BY THE CITY ENGINEER 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 CITY ENGINEER BY TELEPHONE (714) 594-3702 AT LEAST 24 HOURS BEFORE STARTING ANY WORK UNDER THIS CONTRACT. THE CONTRACTOR SHALL SUBMIT A DEPOSIT FOR CONSTRUCTION INSPECTION TO THE CITY ENGINEER, CITY OF WALNUT, 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 CITY ENGINEER.
16. PIPE SHALL BE EMBEDDED 6 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 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 226-8180
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 AS BEDDING PER STANDARD DRAWING D-54 UNLESS OTHERWISE NOTED. THE BEDDING MATERIAL PLACED FROM THE BOTTOM OF THE PIPE TO 1 FOOT OVER THE TOP OF THE PIPE SHALL BE SAND, CRUSHED AGGREGATE OR NATIVE FREE-DRAINING GRANULAR MATERIAL AND SHALL HAVE A SAND EQUIVALENT OF 20 OR GREATER.
21. 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 DIRECTOR OF CITY ENGINEER.
22. 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.

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
MANHOLE NO. 4	2 - D113
M.H. FRAME & COVER FOR C.B.'s	2 - D136
C-B - REINFORCEMENT FOR ROUND M.H.	2 - D137
C-B - NO. 1	2 - D160
C-B - NO. 2	2 - D162
C-B - NO. 3	2 - D163
STANDARD A-615 REINFORCING BARS	2 - D171
C-B - REINFORCEMENT	2 - D172
REMOVABLE PROTECTION BAR FOR C.B.	2 - D175
TYPICAL FENCE FOR CHANNEL R/W	2 - D178
TYPICAL FENCE FOR CHANNEL WALLS	2 - D180
MANHOLE NO. 2	2 - D184
TRANSITION STRUCTURE NO. 3	2 - D188
JUNCTION STRUCTURE NO. 4	2 - D193
CONNECTION TO C.B.	2 - D224
DETAIL OF C-B - OPENING	2 - D232
TRANSITION STRUCTURE NO. 1	2 - D236
STANDARD DOUBLE PIPE & WIRE REVEITEMENT	2 - D253
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

AMERICAN PUBLIC WORKS ASSOCIATION

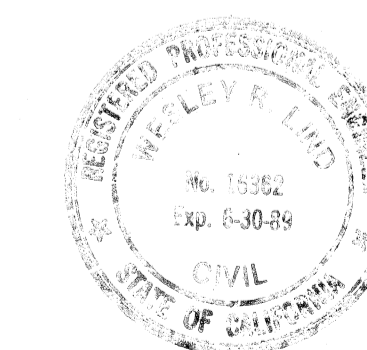
CURB OPENING C.B.	300.0
CURB OPENING C.B. WITH GRATING(S)	301.0
CHAIN LINK FENCE & GATES	600.0
C.B. FACE PLATE ASSEMBLY & PROTECTION BAR	310.0

LOS ANGELES COUNTY ENGINEER

PIPE BEDDING	D - 54
CONCRETE PIPE ANCHORS	D - 72
PUBLIC SAFETY	S - 2

LOS ANGELES COUNTY ROAD DEPARTMENT

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



aw hml
REGISTERED CIVIL ENGINEER NO. _____
DATE: 10-15-81

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.

M.T.D. 1265

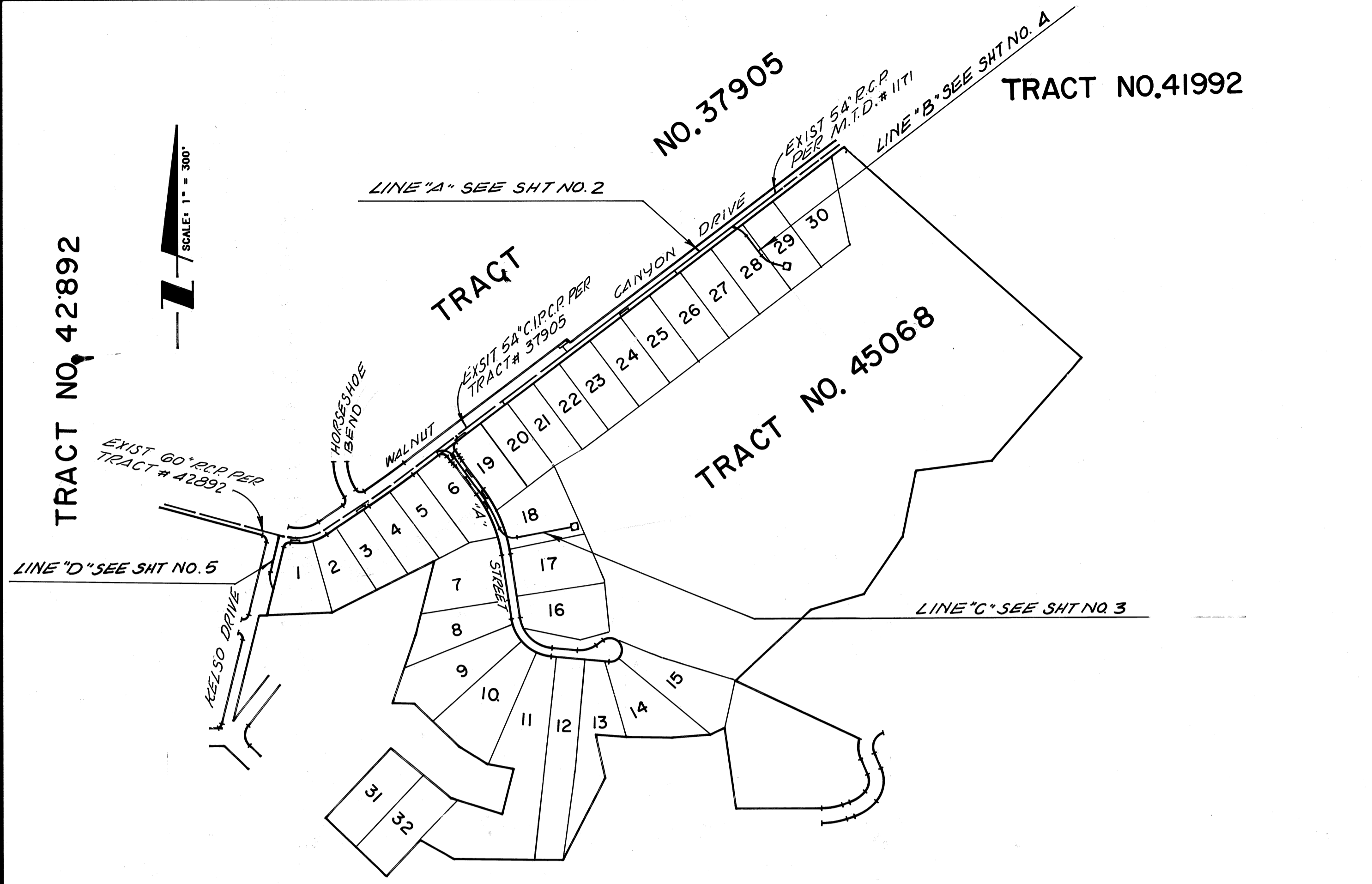
CITY OF WALNUT

RONALD L KRANZER CITY ENGINEER

APPROVED BY *Ronald L Kranzer* DATE: 11-7-88
RONALD L KRANZER RCE 18503

SIGNATURE: *aw hml* RCE NO. 2233

SHT 1 OF 6 SHTS



KEY MAP

SCALE 1"=300'

HYDRAULIC ELEMENTS TABLE

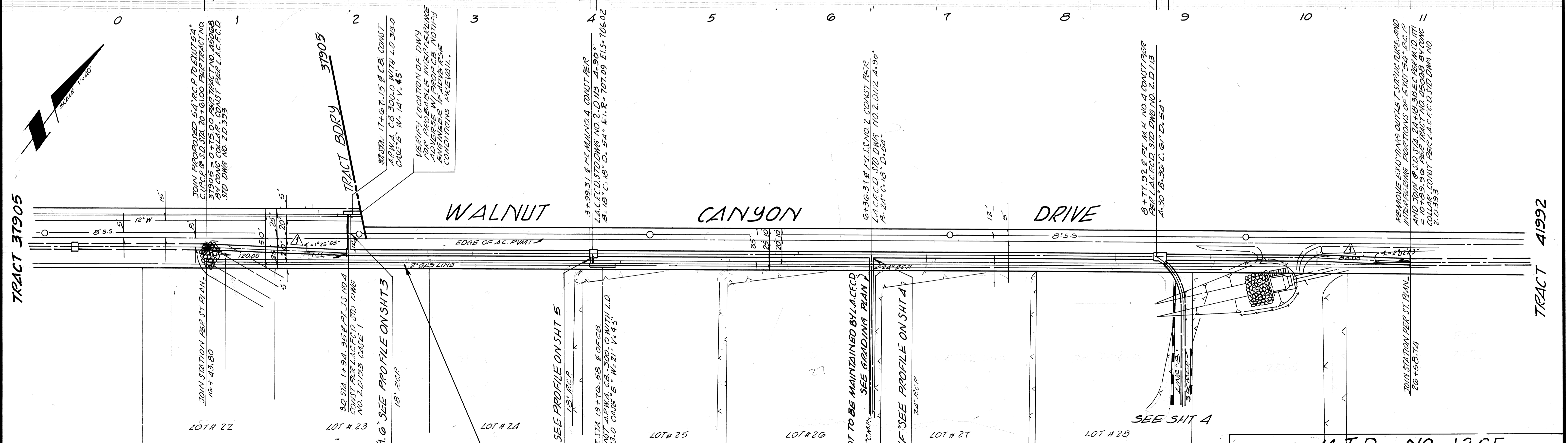
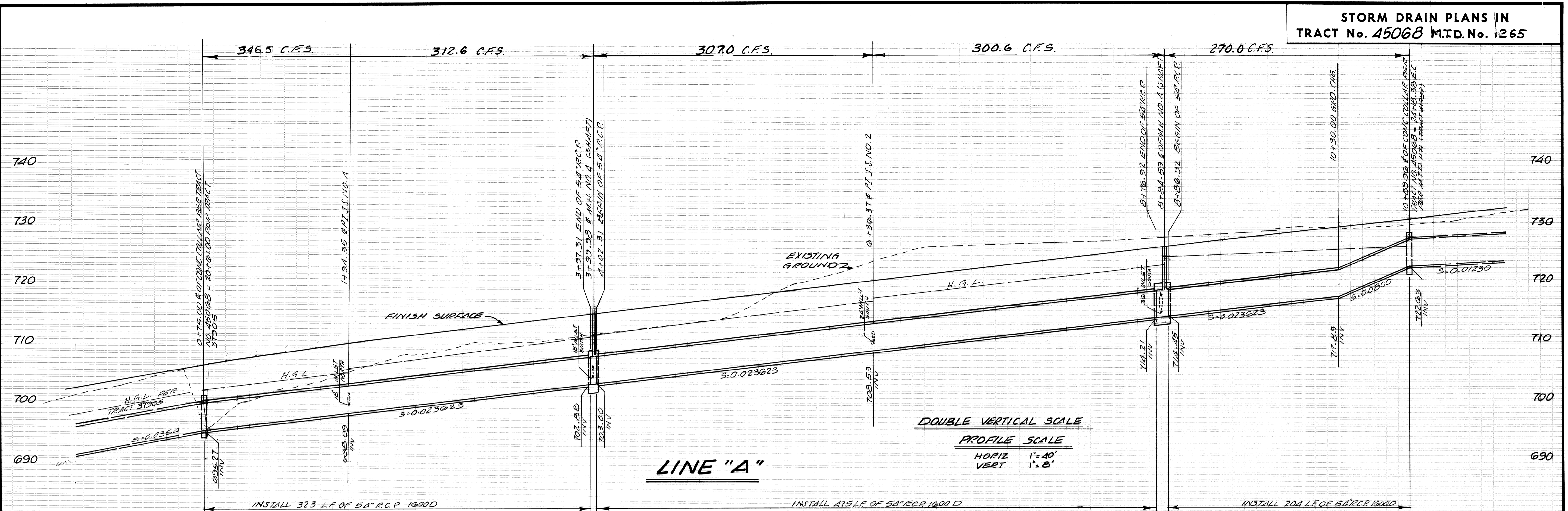
LINE	STATION	STATION	PIPE SIZE	Q C.F.S.	V F.P.S.	Dn FT	
"A"	0+75.00	1+94.35	54"	315.3	19.8	4.5	
	1+94.35	3+99.31	54"	300.3	19.3	4.5	
	3+99.31	6+30.37	54"	300.3	18.8	4.5	
	6+30.37	8+84.59	54"	293.1	18.4	4.5	
	8+84.59	10+89.90	54"	258.4	16.3	4.5	
"B"	1+52.88	3+54.29	36"	34.7	10.3	1.0	
	"C"	1+30.10	2+10.00	36"	52.5	7.4	3.0
		2+10.00	2+21.75	36"	52.5	22.1	1.10
		2+21.75	2+33.00	36"	48.5	21.7	1.05
		2+33.00	3+40.00	36"	40.0	21.5	1.0
3+40.00		3+05.78	36"	41.0	20.8	0.97	
"D"	3+05.78	4+00.00	36"	37.0	20.2	0.92	
	4+00.00	5+04.00	36"	37.0	24.7	0.80	
	5+04.00	7+20.11	36"	37.0	12.0	1.31	
	7+20.11	8+00.00	36"	37.0	12.0	1.31	
	8+00.00	9+00.00	36"	37.0	12.0	1.31	

LOCATION MAP

NOT TO SCALE

NO.	REVISION	REVISED BY	APPROVED BY	DATE

STORM DRAIN PLANS IN TRACT No. 45068 M.T.D. No. 1265



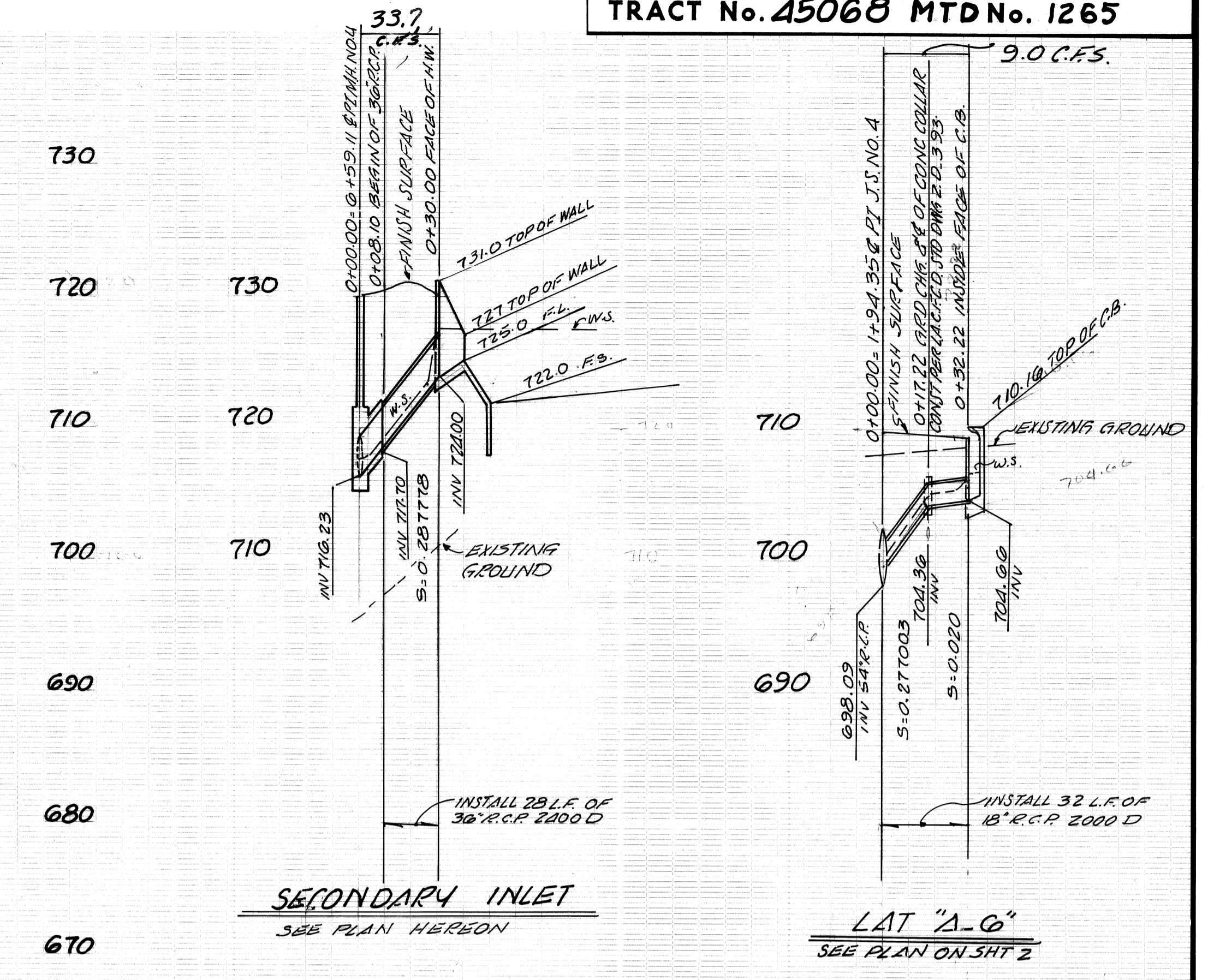
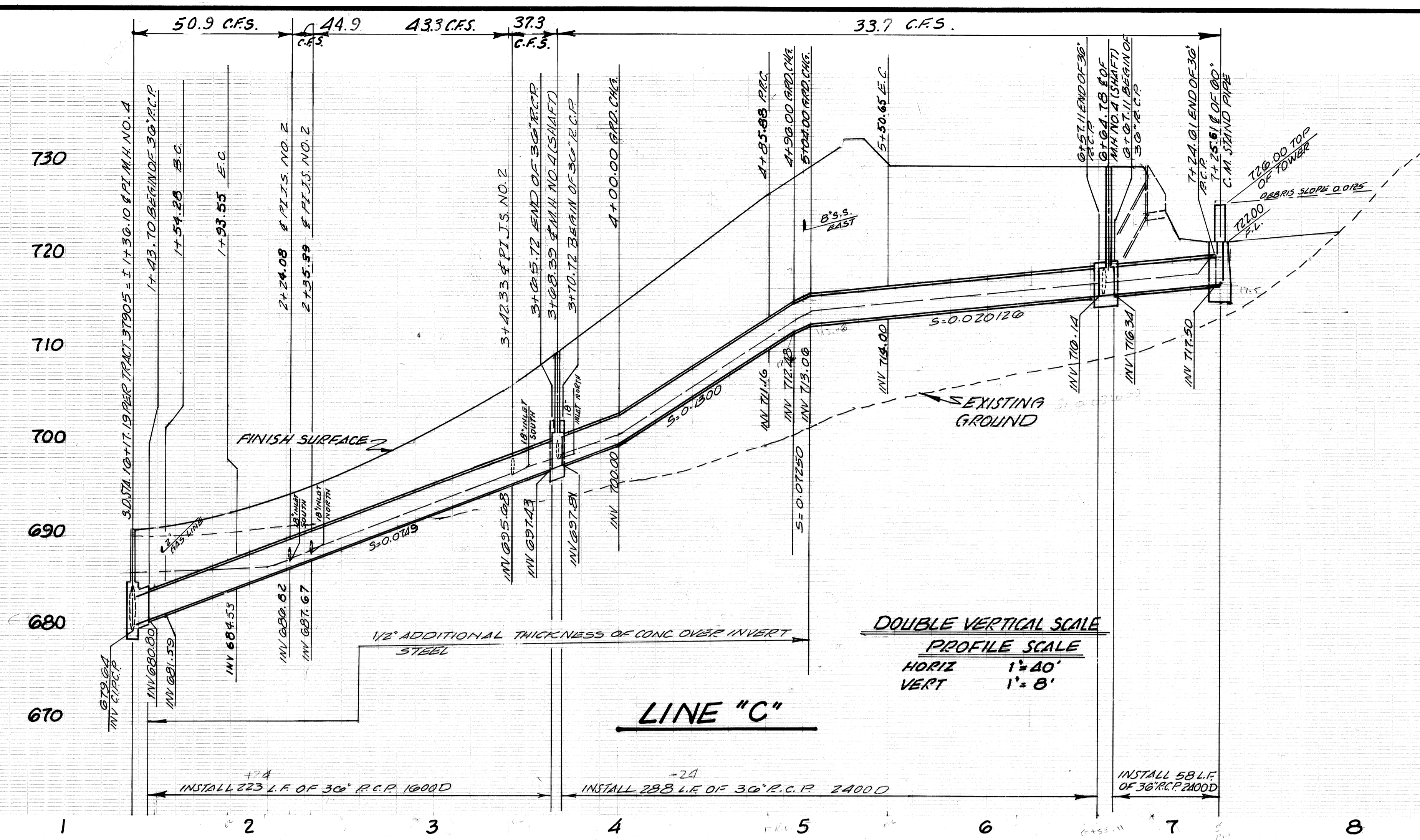
NO.	REVISION	REVISED BY	APPROVED BY	DATE
1	REVISED ALIGNMENT OF PIPE DUE TO LOCATION OF EXIST PIPE	LIND & HILLERUD INC	Jack Nottel	3/20/09

RELOCATE EXISTING GAS LINE TO PROVIDE MIN OF 6' FROM REAR OF C.B.

LIND & HILLERUD INC
2065 HUNTINGTON DRIVE
SAN MARINO, CA, 91108
(818) 449-3161

M.T.D. NO. 1265
CITY OF WALNUT
RONALD L. KRANZER CITY ENGINEER
APPROVE BY: *Ronald L. Kranzer*
R.C.E. NO. 19233 DATE: 11-7-88

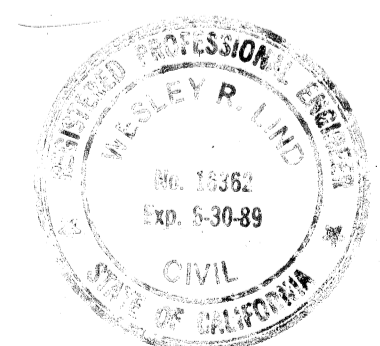
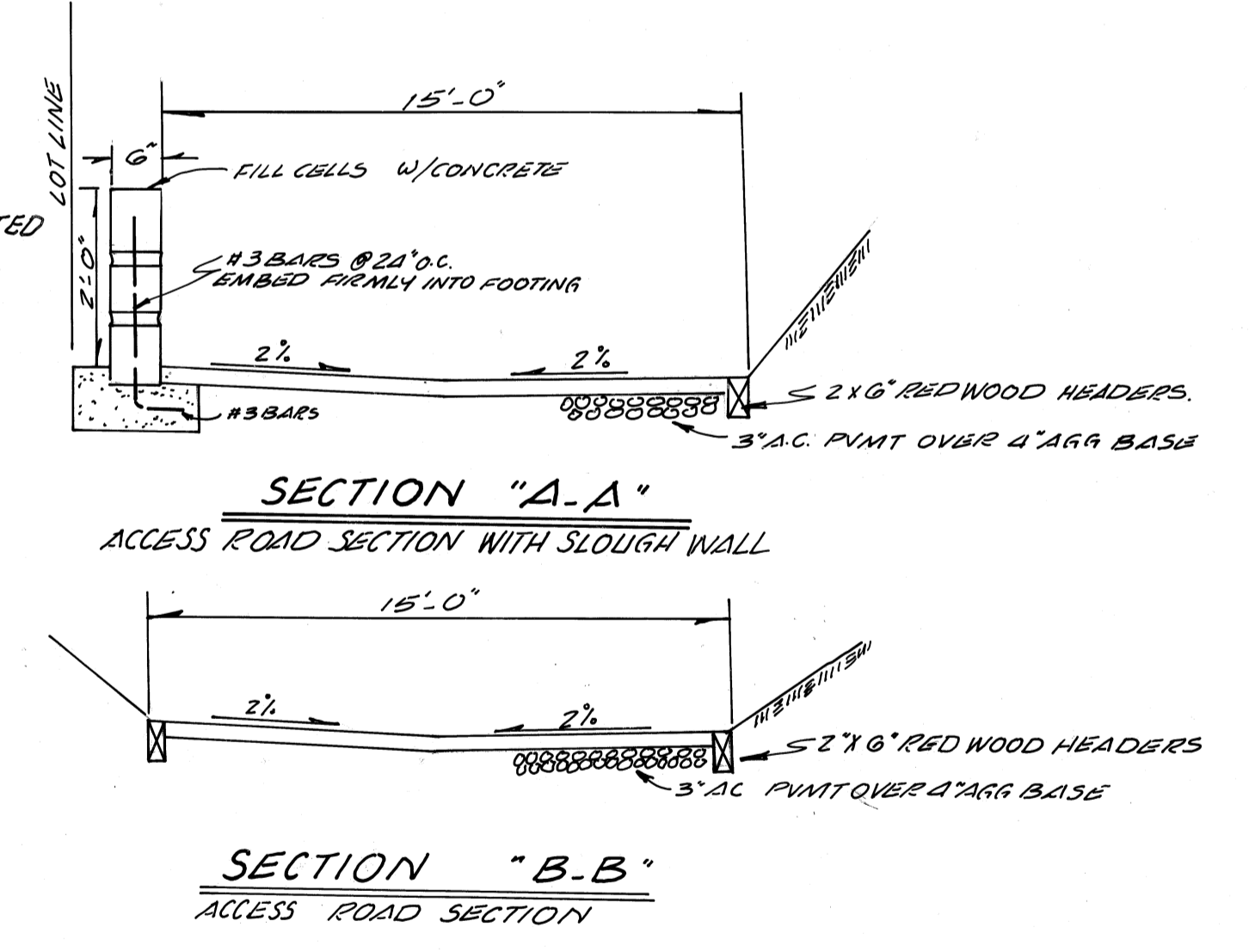
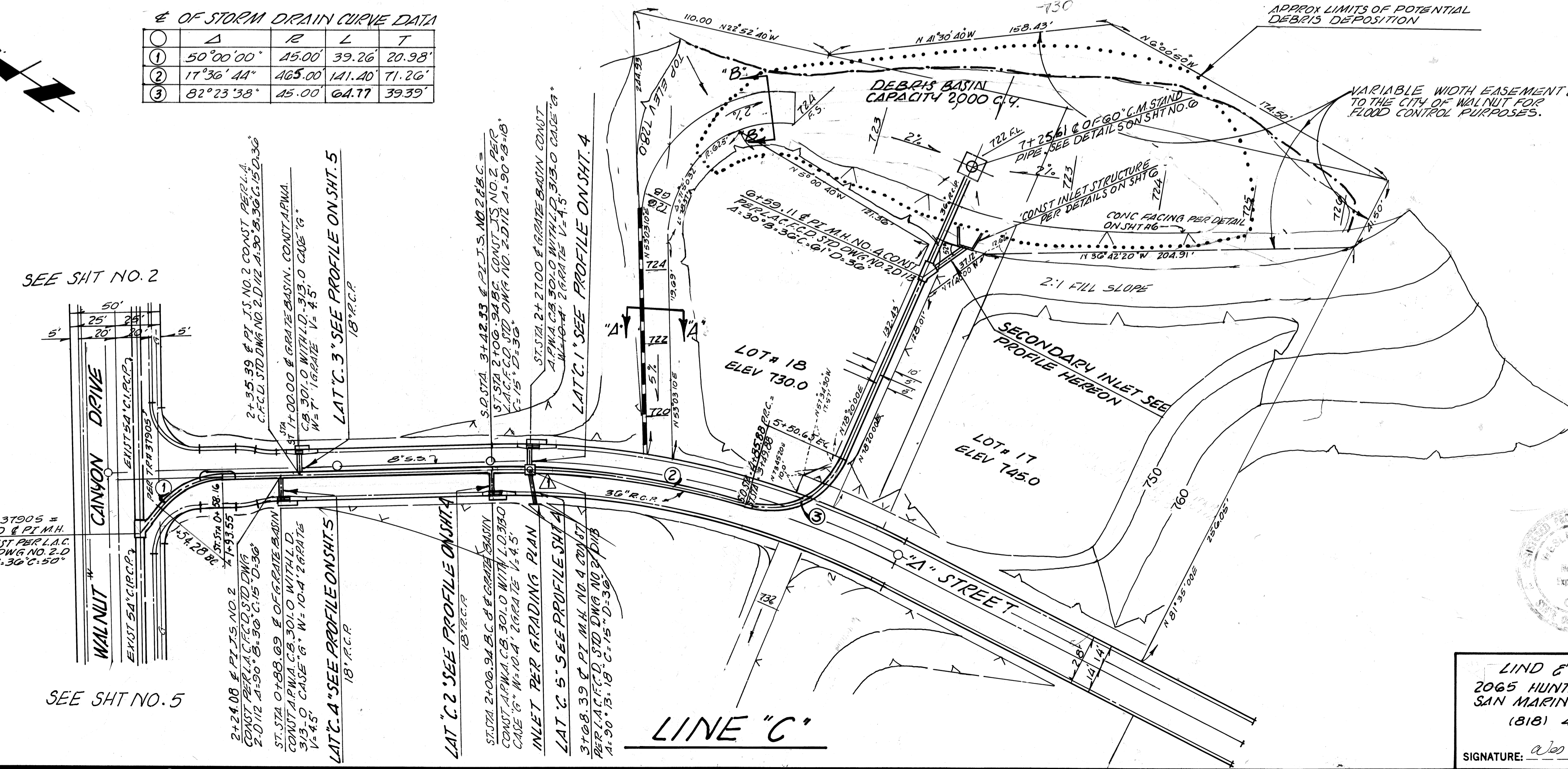
STORM DRAIN PLANS IN TRACT No. 45068 MTD No. 1265



DATA OF STORM DRAIN CURVE DATA

Station	Δ	R	L	T
1	50°00'00"	45.00'	39.26'	20.98'
2	17°36'44"	465.00'	141.40'	71.26'
3	82°23'38"	45.00'	64.77'	39.39'

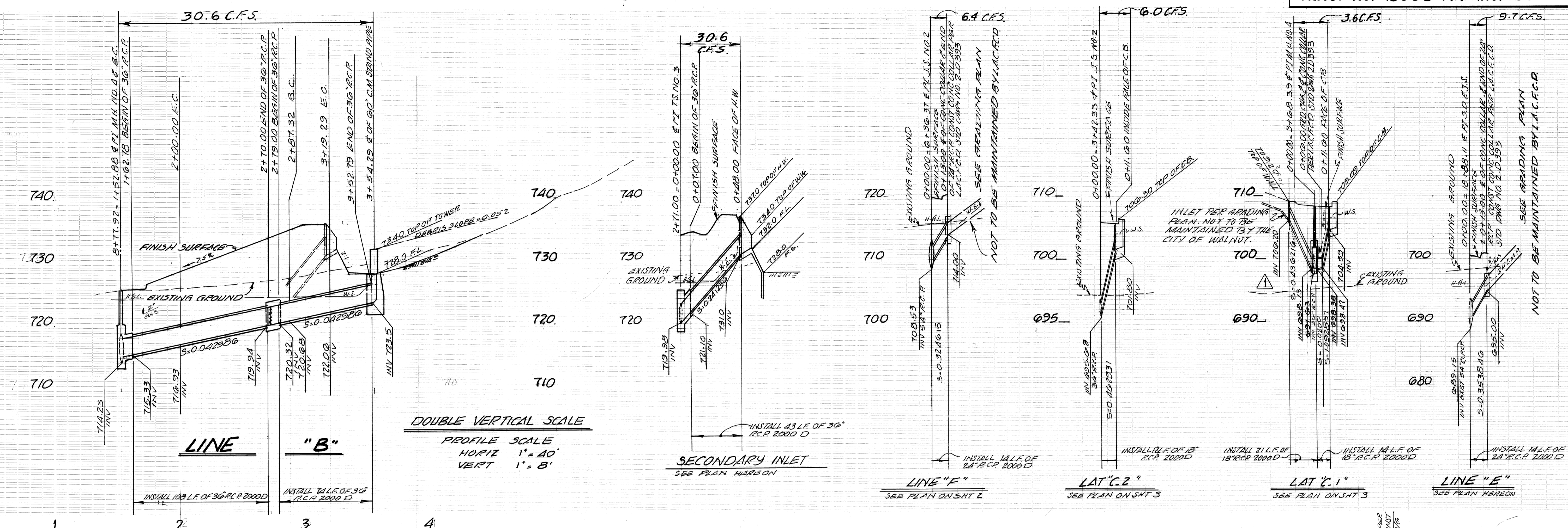
NO.	REVISION	DATE	BY	APPROVED BY
1	ADD LATERAL 'C'	3/12/88	J. Hillerud	R. Kranzer



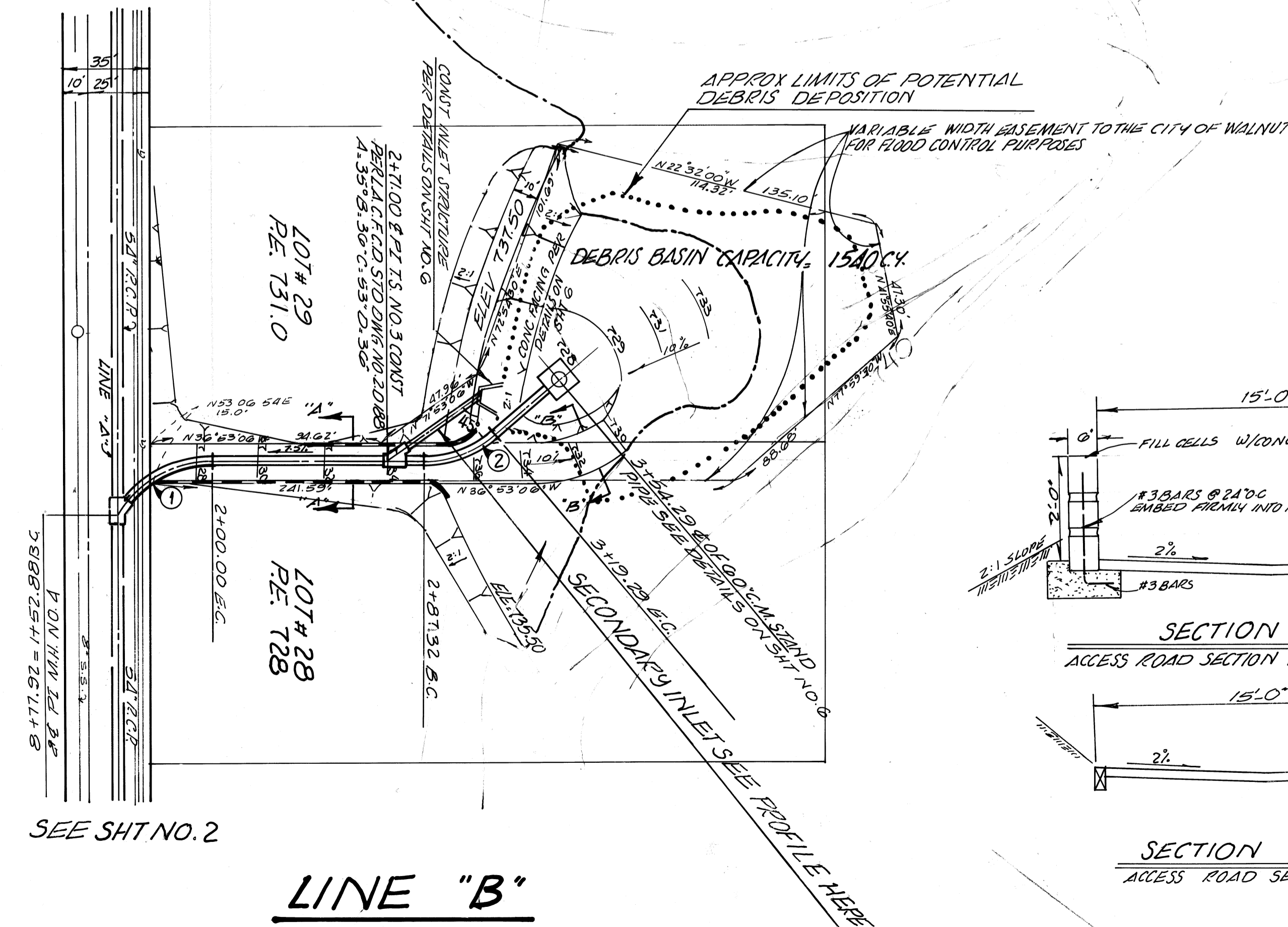
LIND & HILLERUD, INC
2065 HUNTINGTON DRIVE
SAN MARINO, CA, 91108
(818) 449-3161

M.T.D. NO. 1265
CITY OF WALNUT
RONALD L. KRANZER CITY ENGINEER
APPROVED BY: *Ronald L. Kranzer* R.C.E. NO. DATE: 11-7-88
RONALD L. KRANZER R.C.E. 18503

STORM DRAIN PLANS IN TRACT No. 45068 M.T.D. No. 1265

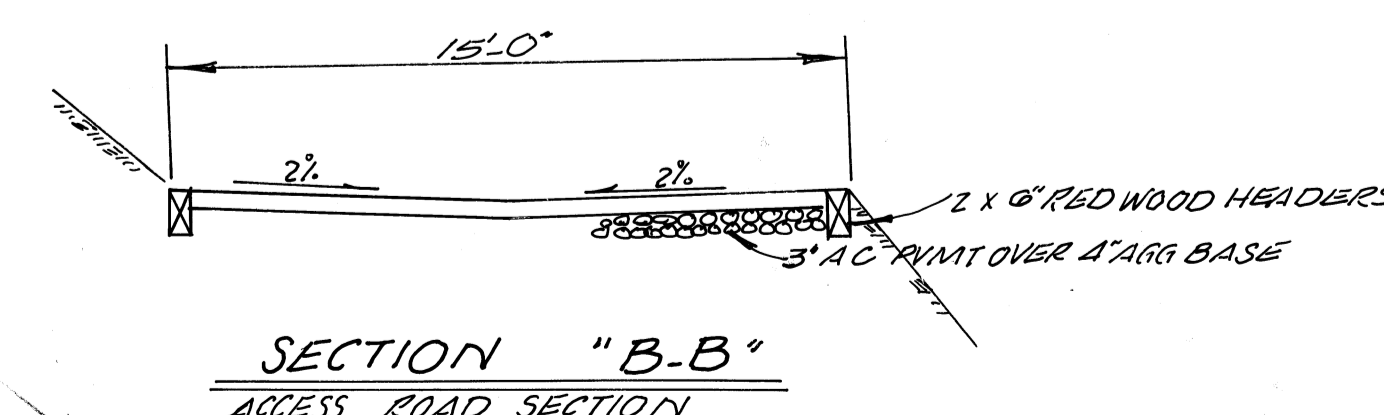
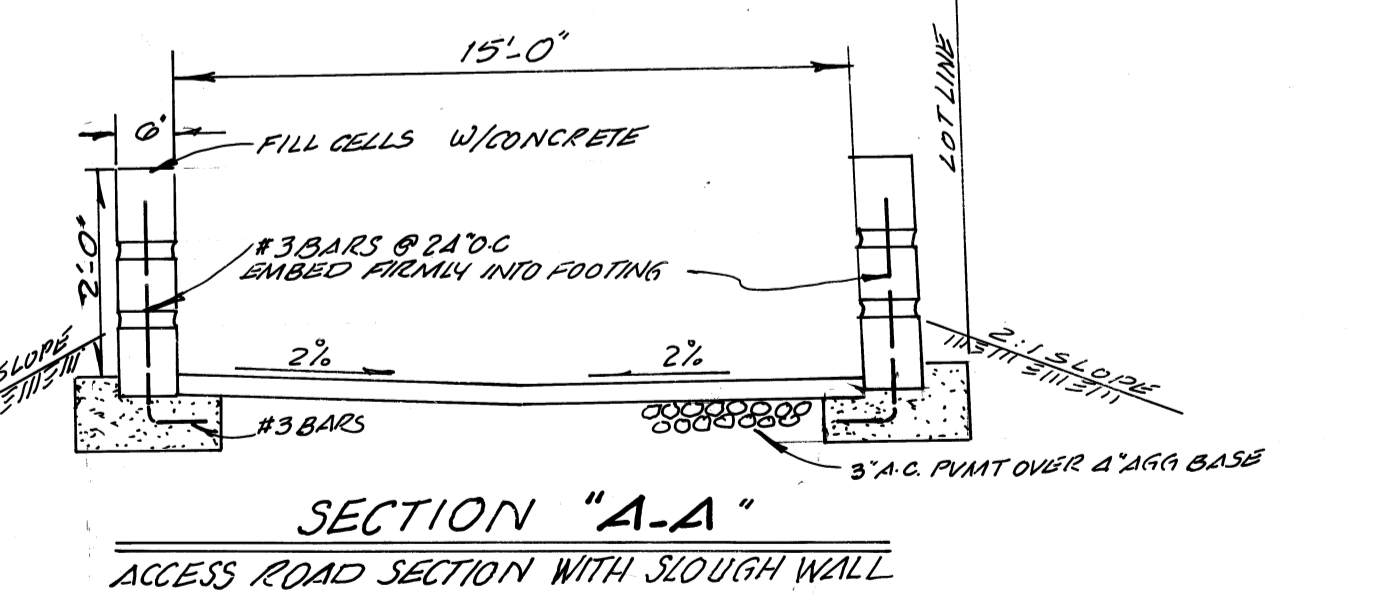


SEE SHT NO. 2

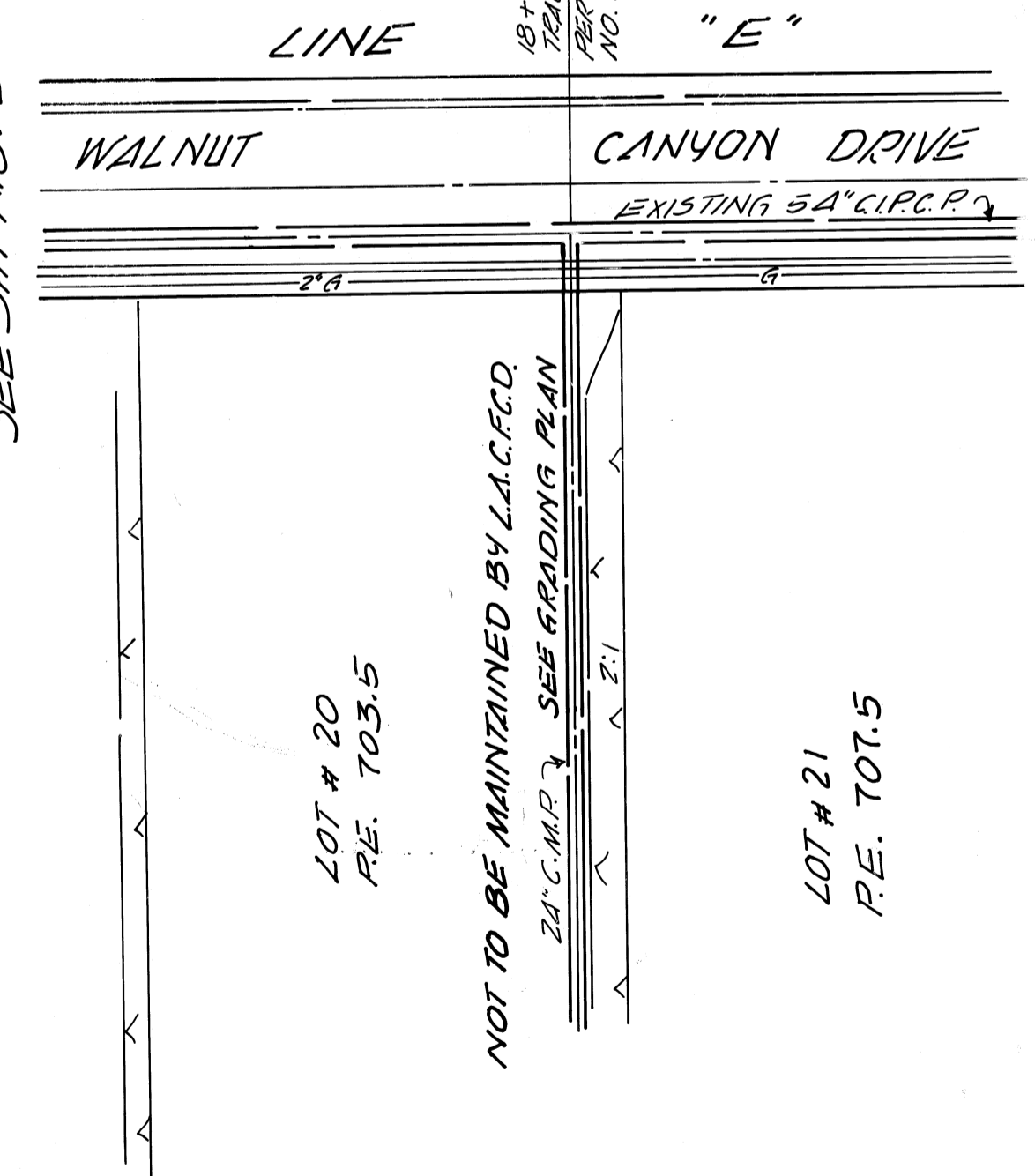


DATA OF STORM DRAIN CURVE DATA

Station	Δ	R	L	T
①	60° 00' 00"	45.00'	47.12'	25.98'
②	40° 42' 21"	45.00'	31.97'	16.69'



SEE SHT NO. 5



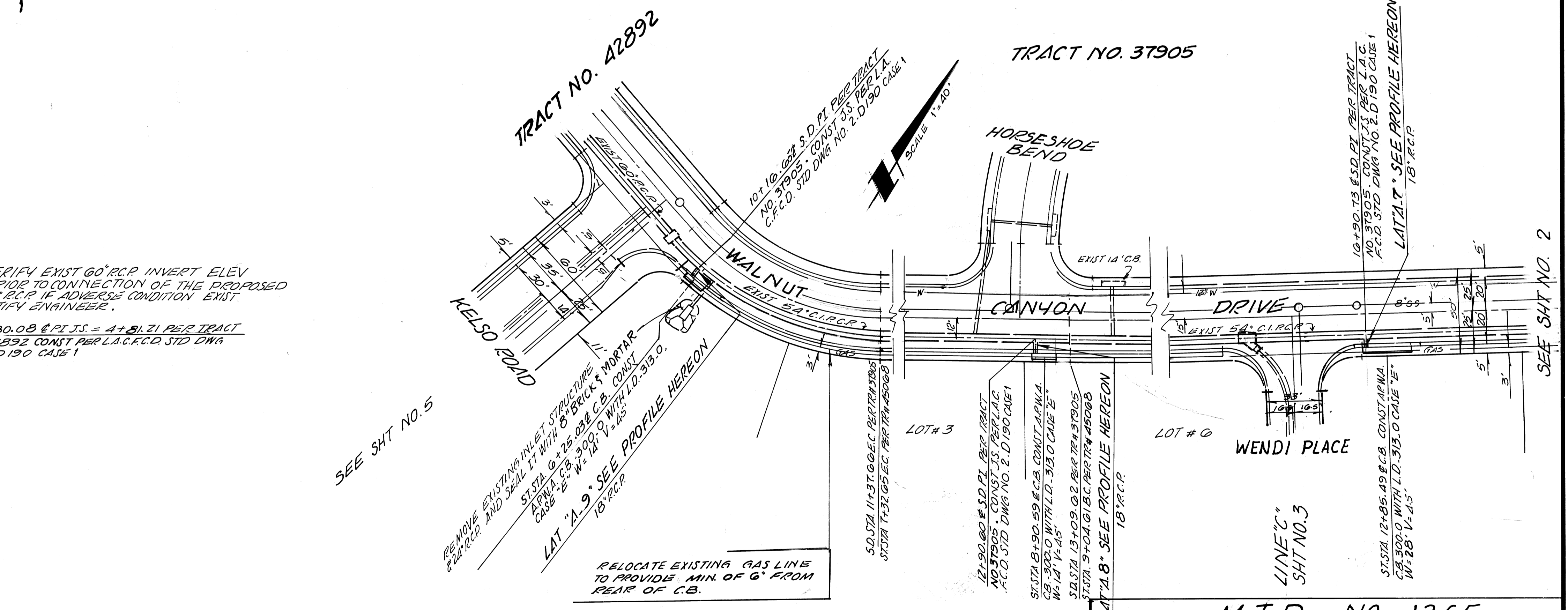
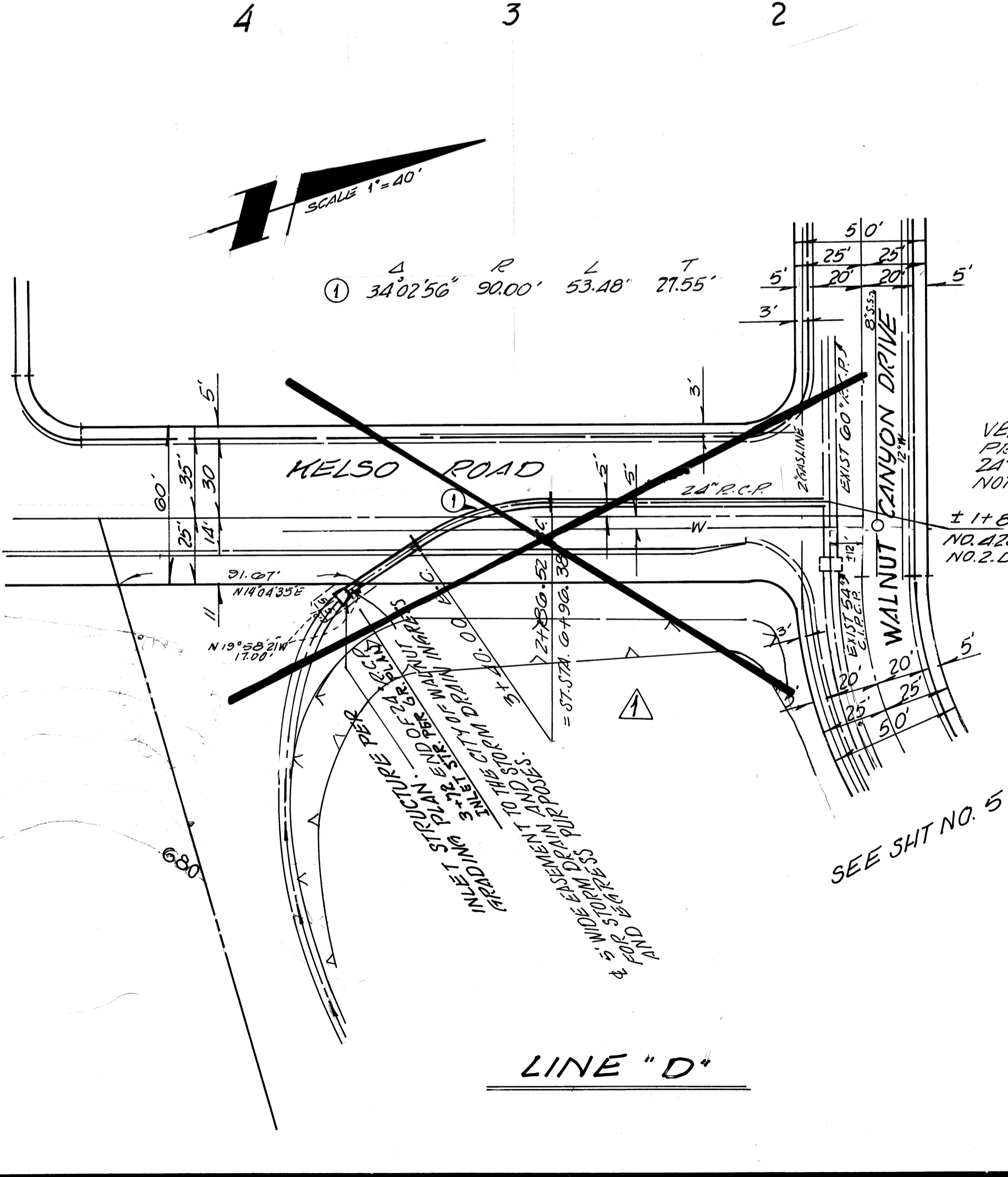
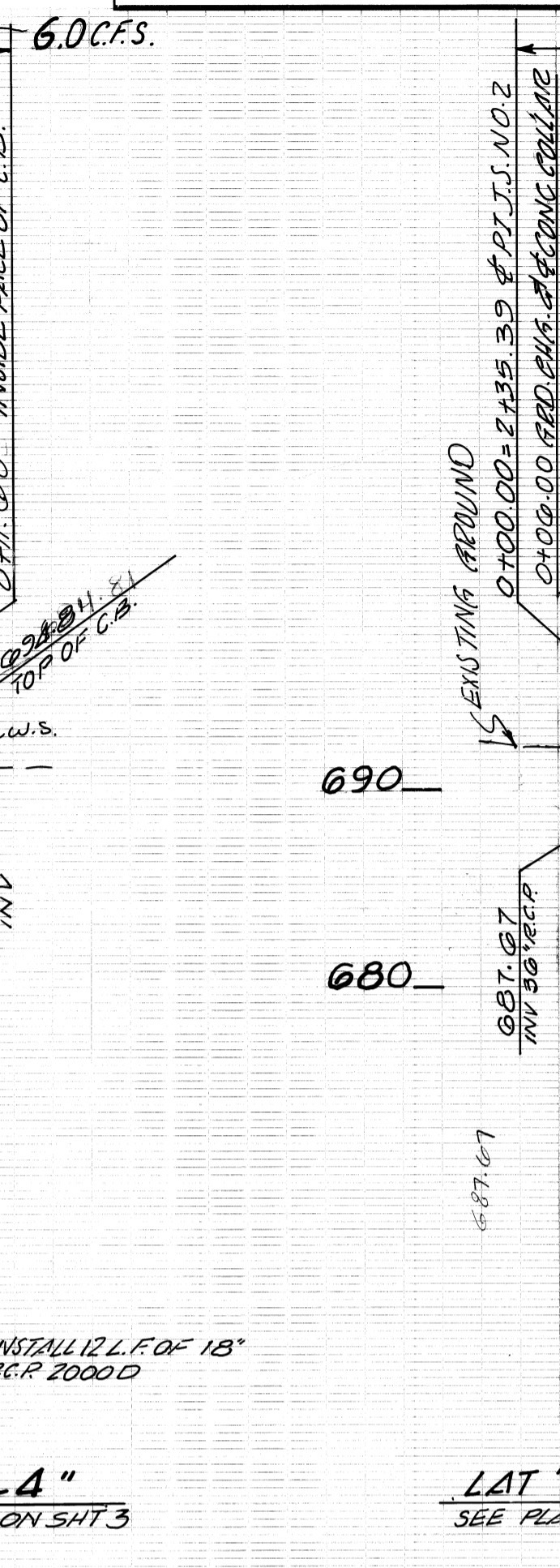
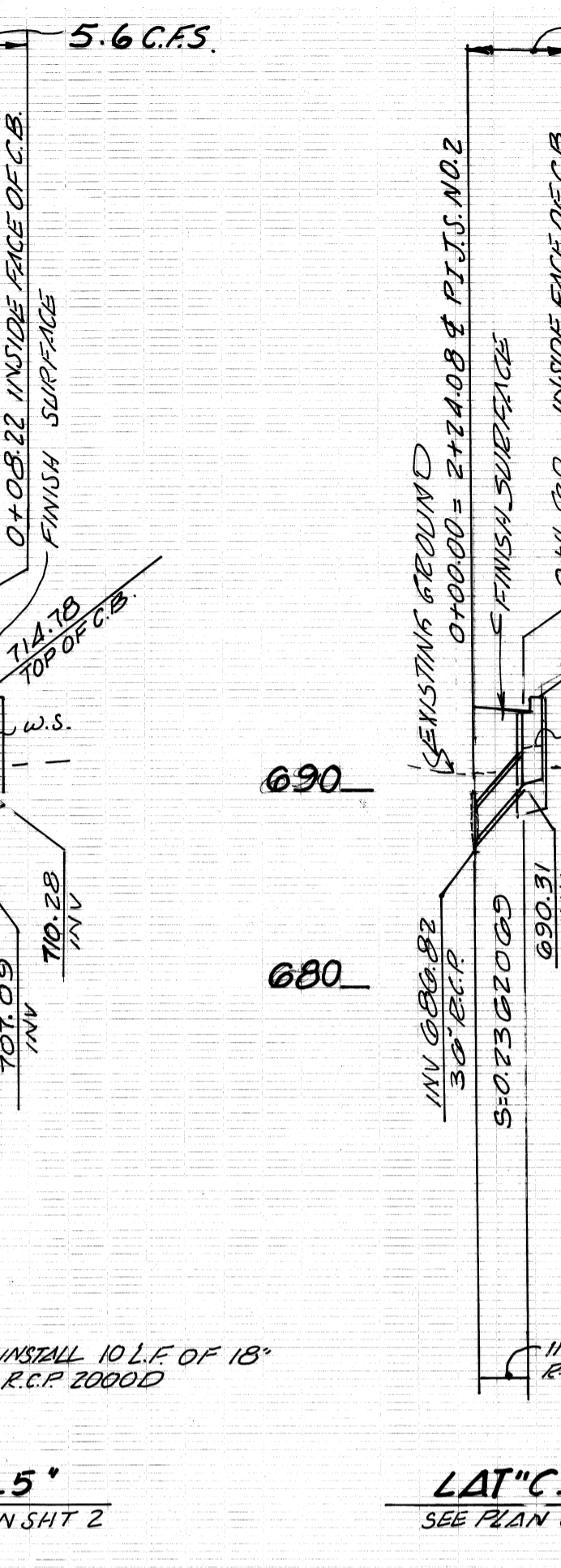
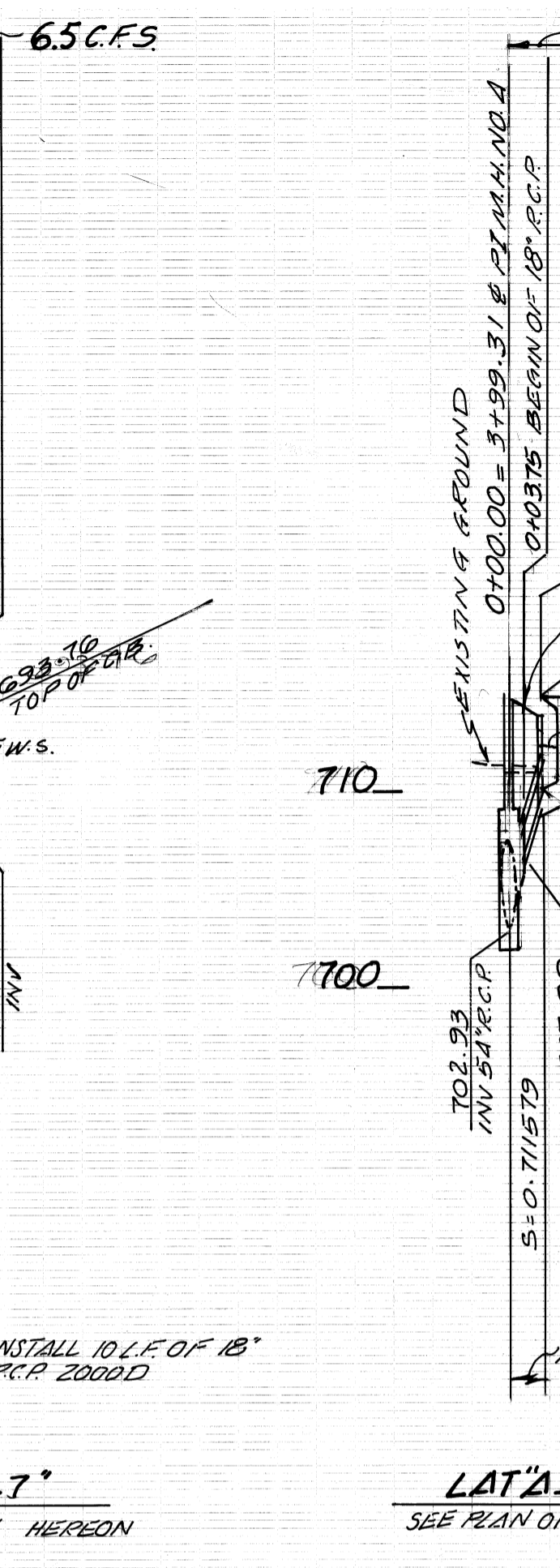
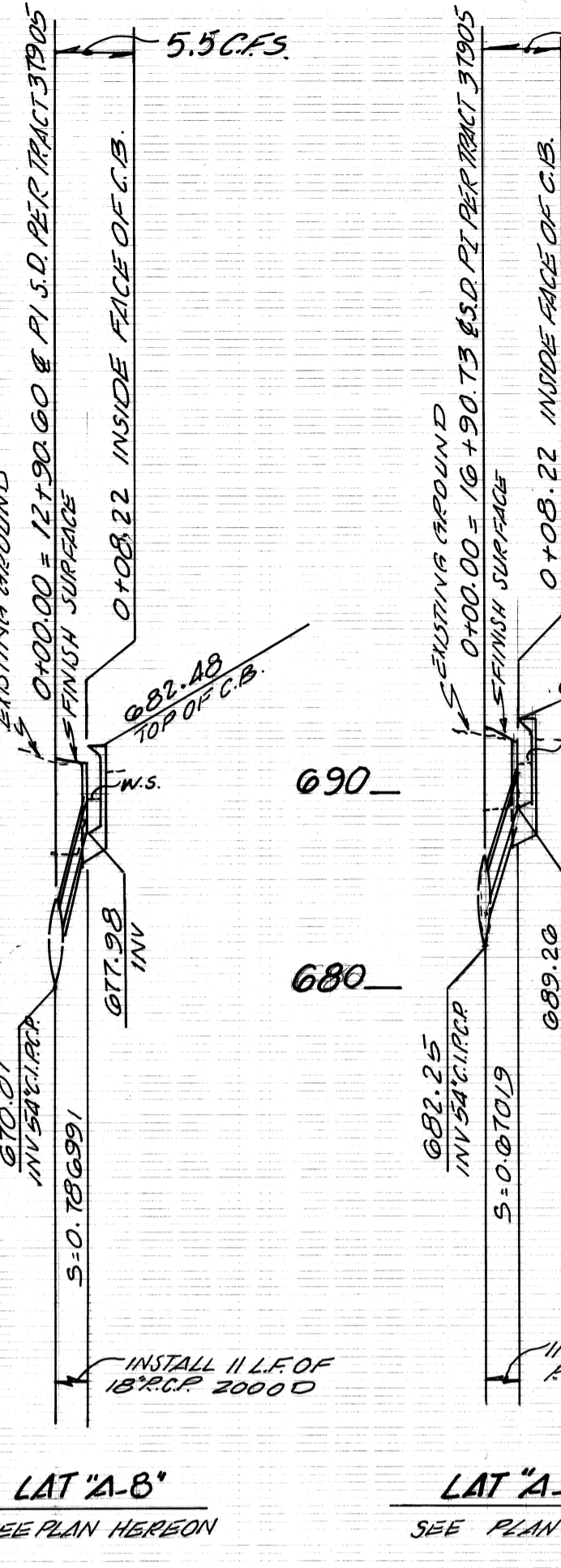
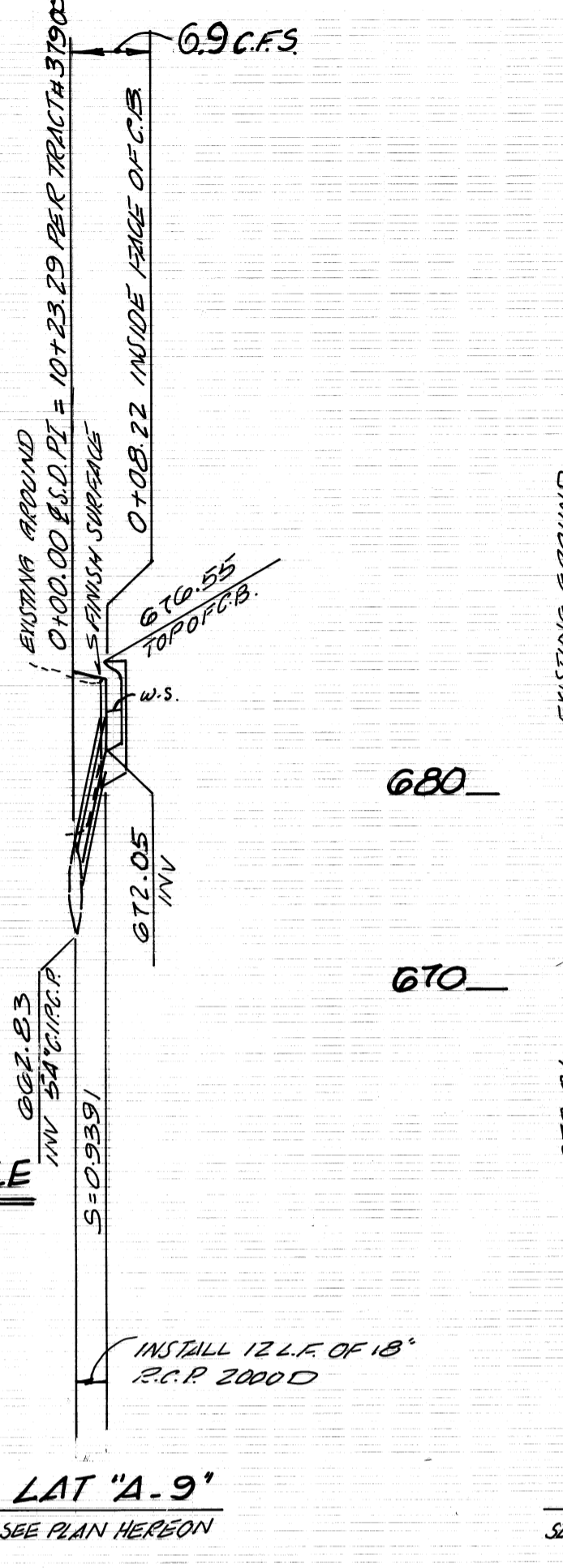
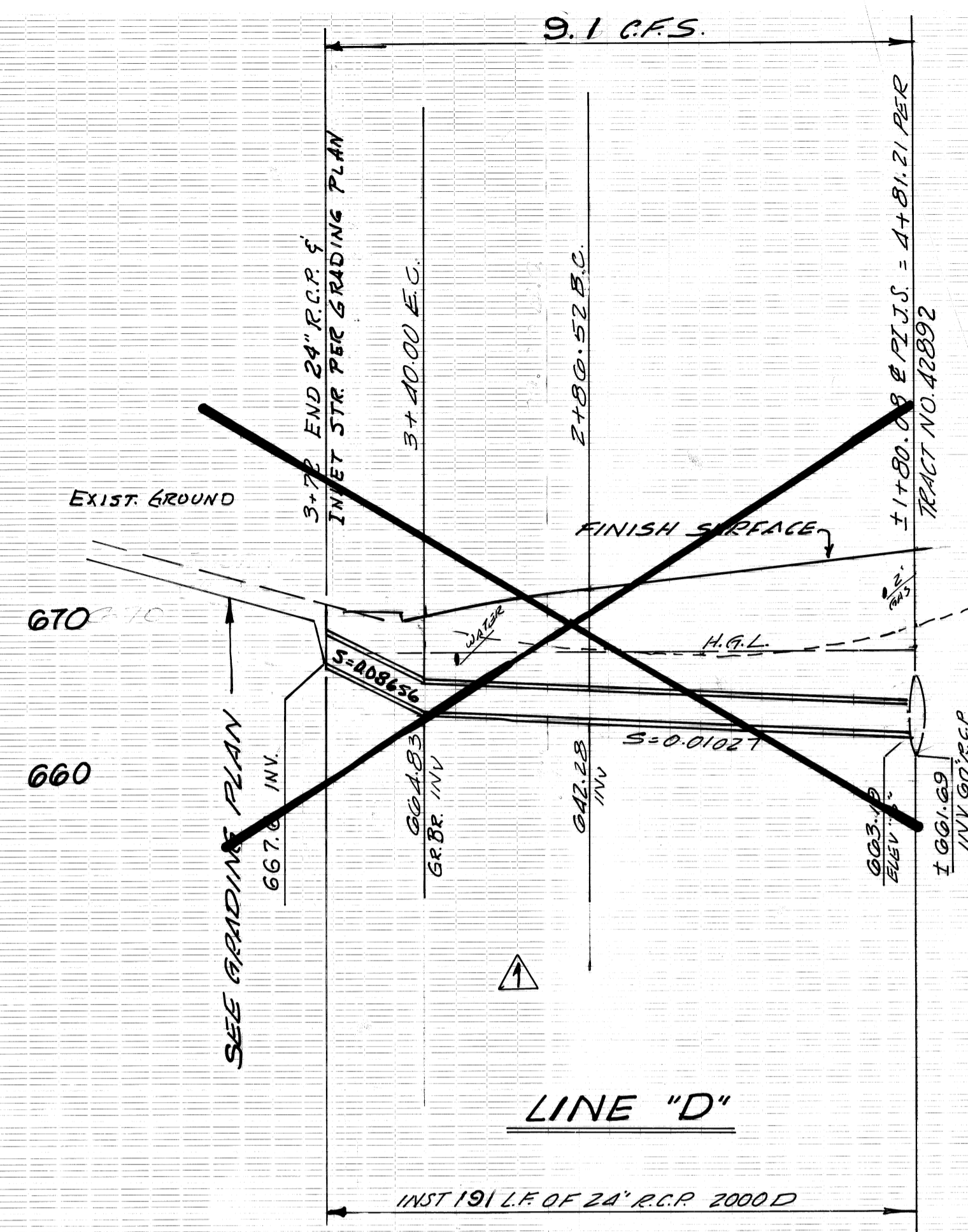
REVISION

NO.	REVISION	APPROVED BY	DATE
1	ADD LABEL 'C' PROFILE VERTICAL SCALE SEE SHT 3	JACK DODD	7/10/89

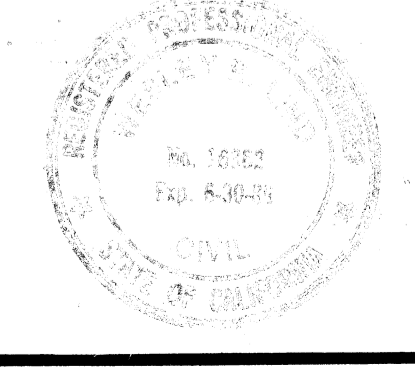
LIND & HILLERUD, INC.
2065 HUNTINGTON DRIVE
SAN MARINO, CA, 91108
(818) 449-3161

M. T. D. NO. 1265
CITY OF WALNUT
RONALD L. KRANZER CITY ENGINEER
APPROVED BY: [Signature] R.C.E. NO. 10392 DATE: 11-7-88
RONALD L. KRANZER R.C.E. 18503

STORM DRAIN PLANS IN
TRACT No. 45068 MTD No. 1265



NO.	REVISION	REVISED BY	APPROVED BY	DATE
1	DELETE PLAN & PROFILE LINE "D"	LIND & HILLERUD INC	Jack Hillerud	3/2/09



LIND & HILLERUD INC
 2065 HUNTINGTON DRIVE
 SAN MARINO, CA. 91108
 (818) 449-3161

M.T.D. NO. 1265
 CITY OF WALNUT
 RONALD L. KRANZER CITY ENGINEER
 APPROVED BY: *Ronald L. Kranzer* R.C.E. NO. DATE: 11-7-88
 RONALD L. KRANZER R.C.E. 18503

