

**GENERAL NOTES FOR STORM DRAIN CONSTRUCTION**

1. ALL PIPE LAID IN OPEN TRENCH SHALL BE BEDDED IN ACCORDANCE WITH LOS ANGELES COUNTY ENGINEER CASE AND BEDDING PER STD NO. D 54
2. 24 HOURS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE WALNUT CITY ENGINEER AT (714) 594-9702
3. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (1988 EDITION) ALL SUPPLEMENTS & AMENDMENTS ADOPTED THERETO PRIOR TO THE APPROVAL OF THESE PLANS AND TO THE SATISFACTION OF THE CITY ENGINEER
4. ALL BACKFILL SHALL BE COMPACTED TO A RELATIVE DENSITY OF 90 PERCENT
5. ALL STATE AND LOCAL TRENCH SAFETY RULES WILL BE RIGIDLY ENFORCED
6. THE CONTRACTOR MUST MAINTAIN ALL TRAFFIC SIGNS IN AN ERECT, READILY DISCERNIBLE POSITION, FREE FROM OBSTRUCTIONS TO MOTORIST'S VISION AND SHALL RESET SAME IN PROPER POSITION UPON COMPLETION OF CONSTRUCTION
7. ANY EXISTING UTILITIES CROSSING THE STORM DRAIN SHALL BE SUPPORTED PER STD NO. 2-D173 AS DIRECTED BY THE CITY ENGINEER
8. RCP SHALL BE MANUFACTURED AND INSPECTED IN ACCORDANCE WITH SECTION 207-2.7, 2.8 AND 2.9 OF THE STANDARD SPECIFICATIONS
9. THE CONTRACTOR SHALL FURNISH A LETTER OF CERTIFICATION FROM THE PIPE MANUFACTURER AS TO TEST RESULTS OF THE PIPE INSTALLED
10. ALL PIPE LENGTHS SHOWN ARE HORIZONTAL PROJECTIONS UNLESS NOTED OTHERWISE
11. THE ENGINEERING CO., CARRI ENGINEERING, HAS INVESTIGATED ALL AVAILABLE RECORDS OF THE CITY AND OF OTHER PUBLIC UTILITIES INVOLVED, AND ALL KNOWN SUBSTRUCTURES ARE SHOWN HEREON. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL SUBSTRUCTURES, WHETHER SHOWN HEREON OR NOT, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR THE TOTAL EXPENSE OF REPAIR OR REPLACEMENT OF ANY SAID SUBSTRUCTURES DAMAGED BY HIS OPERATIONS IN CONNECTION WITH THE PROSECUTION OF SAID WORK
12. ELEVATIONS ARE IN FEET ABOVE USG AND GS MEAN SEA LEVEL DATUM OF 1929
13. THIS STORM DRAIN WILL NOT BE ACCEPTED FOR MAINTENANCE UNTIL THE STREETS HAVE BEEN PAVED, MANHOLES BROUGHT UP TO GRADE AND THE SYSTEM CLEANED TO THE SATISFACTION OF THE CITY ENGINEER
14. THE CONTRACTORS ATTENTION IS DIRECTED TO SECTION 7-10 4.1 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION IN REGARDS TO SAFETY
15. THE CONTRACTOR SHALL CONFORM TO THE MINIMUM PUBLIC SAFETY REQUIREMENTS AS SHOWN ON LOS ANGELES COUNTY ENGINEER STANDARD S-2
16. ALL CONCRETE SHALL BE 3000 POUNDS PER SQUARE INCH PORTLAND CEMENT CONCRETE, UNLESS OTHERWISE SPECIFIED
17. FINISHG ALL EXPOSED EDGES WITH 3/4 INCH CHAMFERS
18. REINFORCEMENT SHALL BE DEFORMED BARS OF INTERMEDIATE GRADE STEEL IN ACCORDANCE WITH ASTM A-615

ESTIMATE OF QUANTITY		
ITEM	QUANTITY	UNIT
24" RCP 1250 D	373.27	L.F.
CONCRETE COLLAR	1	EA.
C.B. #3 W=14'	1	EA.
LOCAL DEPRESSION	60	SQ. FT.
SLOPE ANCHOR	2	EA.
MANHOLE No. 1	1	EA.

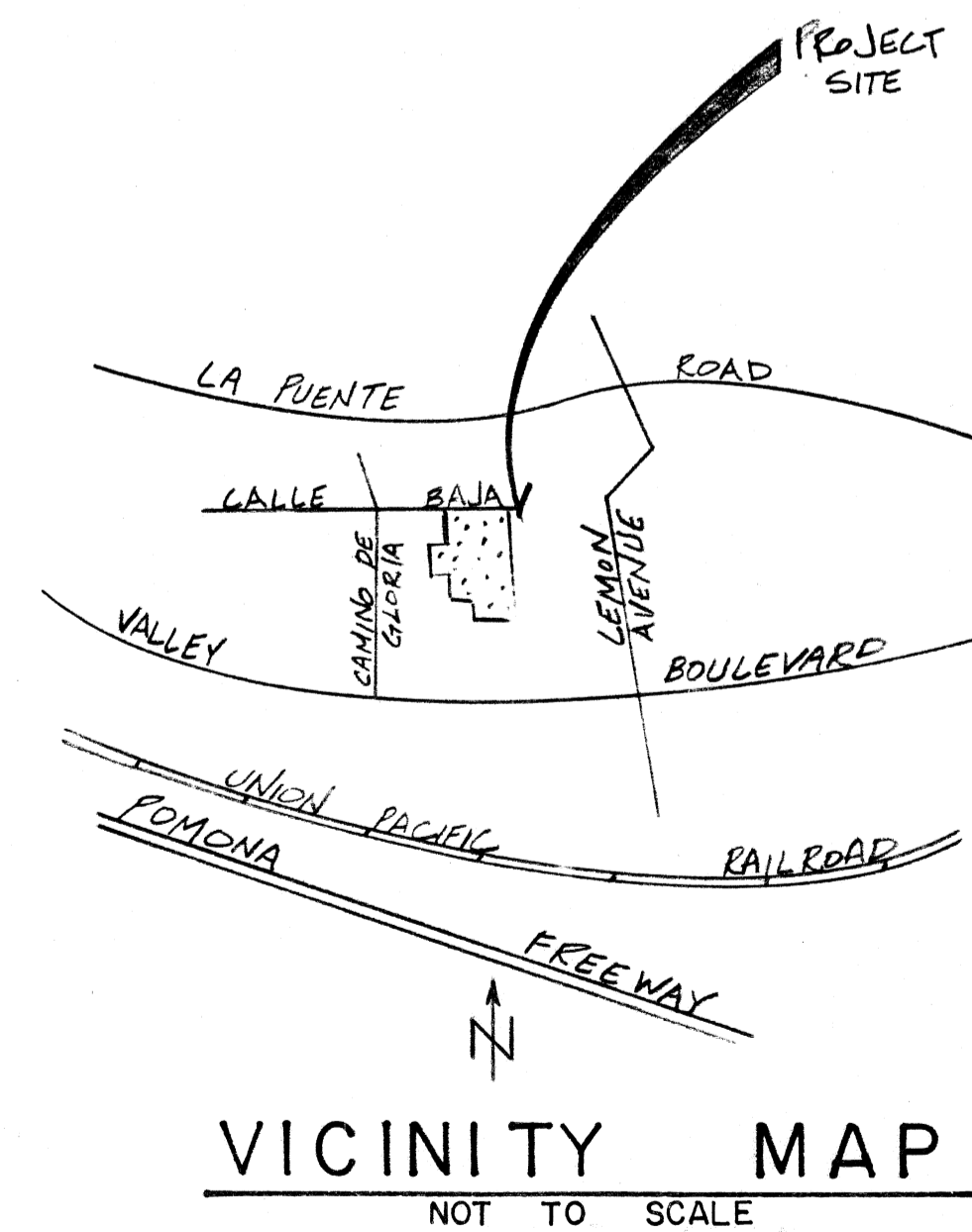
**NOTE TO CONTRACTOR:**

ENGINEER HAS ATTEMPTED TO SHOW ALL PERTINENT UNDERGROUND UTILITIES OR SUBSTRUCTURES. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO LOCATE AND PROTECT ALL UTILITIES OR SUBSTRUCTURES WHETHER SHOWN OR NOT. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO EXCAVATION OR CONSTRUCTION, TO DETERMINE EXACT LOCATIONS.

CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

**LIST OF STANDARD DRAWINGS (L.A.C.F.C.D.)**

CATCH BASIN NO. 2	2 D162
LOCAL DEPRESSION NO. 2	2 D88
PIPE BEDDING	2 D54
CATCH BASIN OPENING	2 D232
C.B. REINFORCEMENT	2 D172
C.B. REINF (FOR ROUND MH)	2 D157
STD DROP STEP	2 D96
MH FRAME AND COVER (FOR CB)	2 D156
PROTECTION BAR	2 D175
PROTECTION BAR STIRRUP	2 D264
SEWER PROTECTION	2 D251
PROTECTION BARRIER	2 D261.1 TO .3
C.B. CONNECTION	2 D244
CONC. REINF. STEEL	2 D171

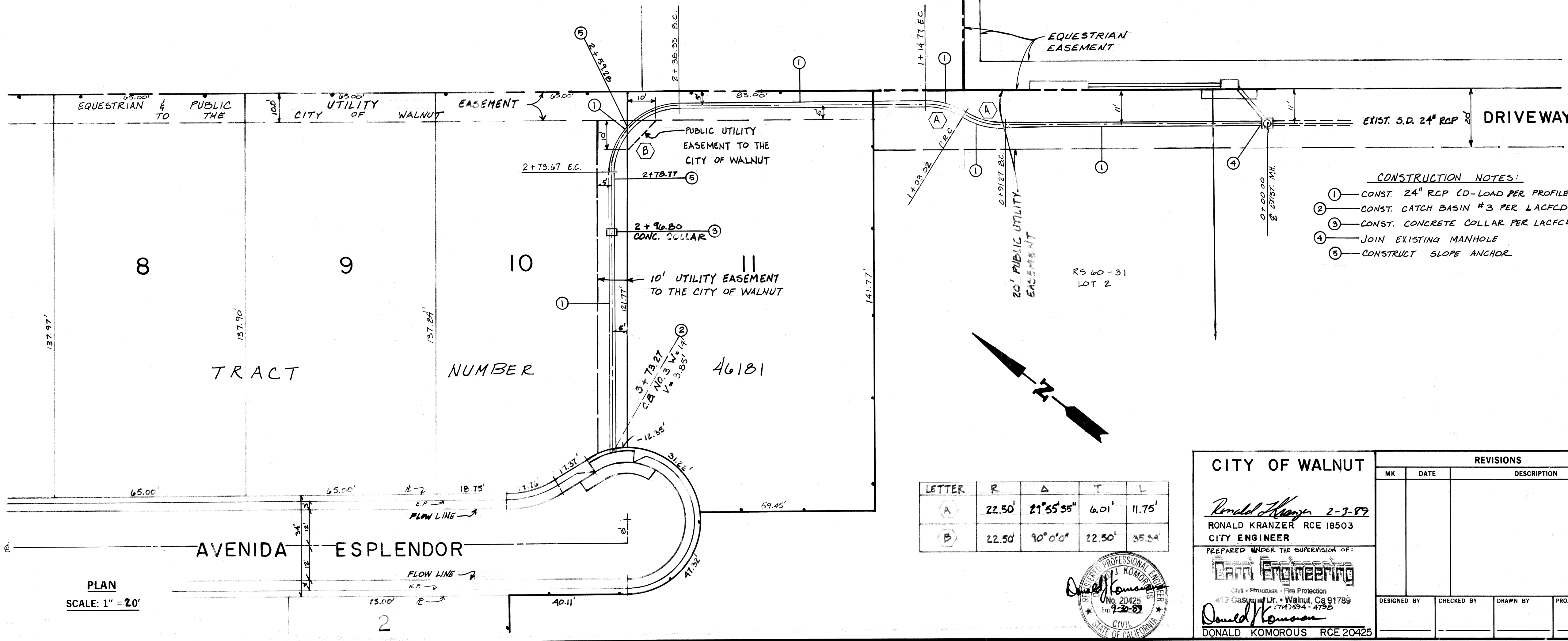
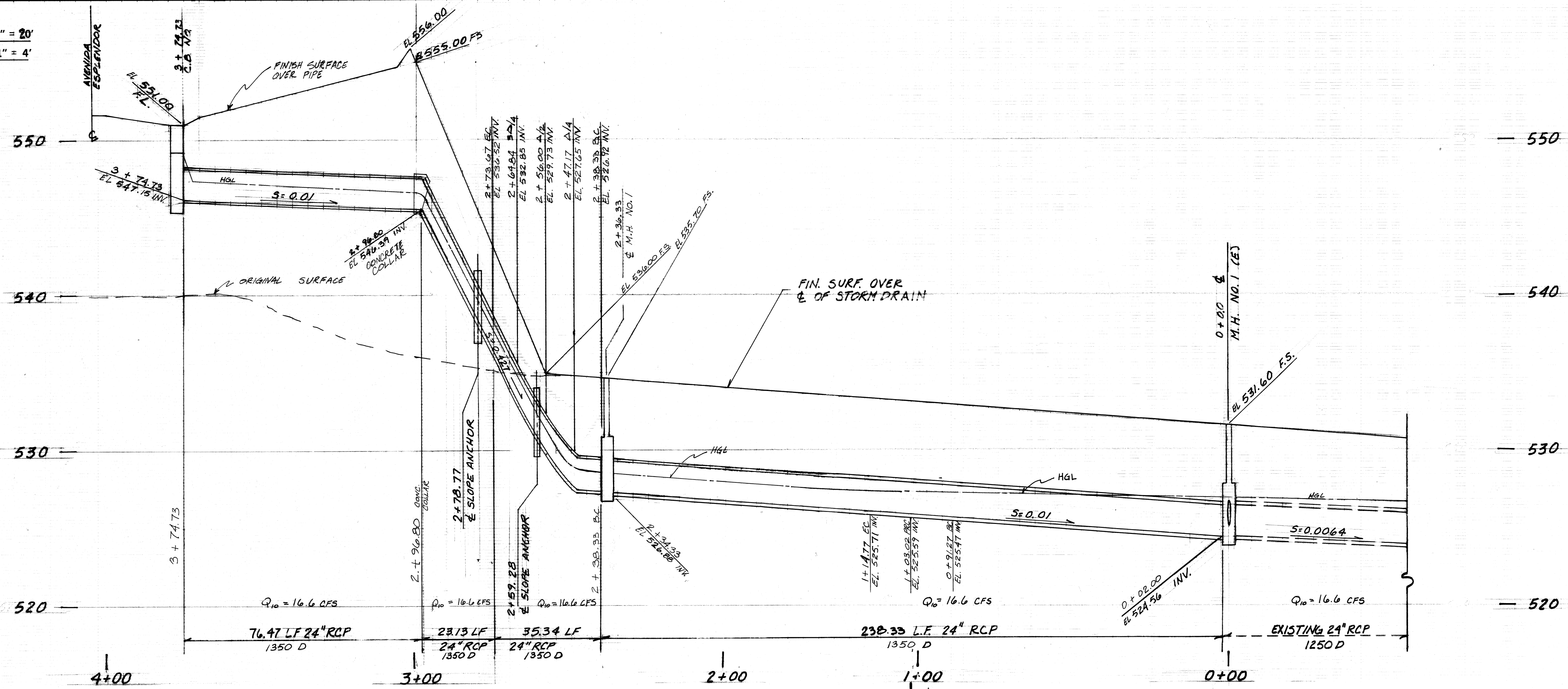


IF CONSTRUCTION OF IMPROVEMENTS AS SHOWN HEREON ARE NOT INITIATED WITHIN 18 MONTHS OF APPROVAL DATE, THESE PLANS ARE SUBJECT TO REVIEW BY THE CITY OF WALNUT.

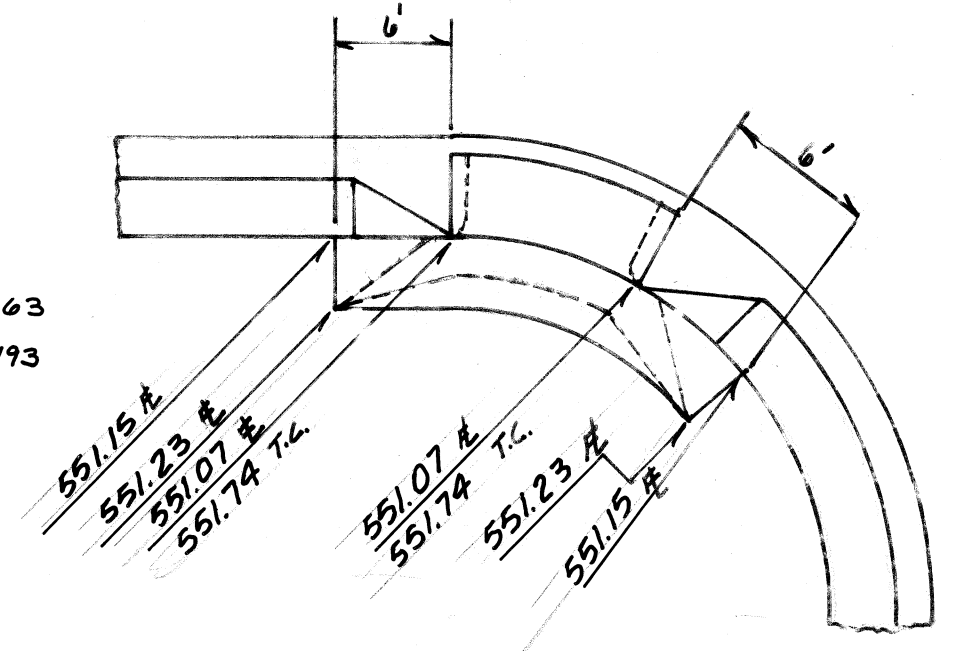
CITY OF WALNUT		CITY OF WALNUT	
 RONALD KRANZER RCE 18503 DATE 2-3-89 CITY ENGINEER		STORM DRAIN	
PREPARED UNDER THE SUPERVISION OF:  Carr Engineering Civil • Structural • Fire Protection 412 Easthill Dr. • Walnut, Ca 91789  DONALD KOMOROUS RCE 20425			
TRACT 46181		SHEET 1 OF 2	



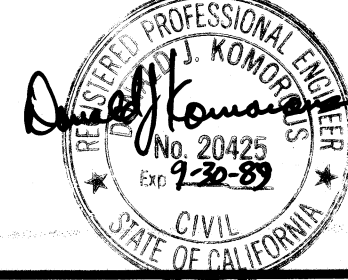
PROFILE  
 SCALES: HOR. 1" = 20'  
 VERT. 1" = 4'



- CONSTRUCTION NOTES:**
- 1 - CONST. 24" RCP (D-LOAD PER PROFILE)
  - 2 - CONST. CATCH BASIN #3 PER LACFLD STD. 2-D163
  - 3 - CONST. CONCRETE COLLAR PER LACFLD STD. 2-D193
  - 4 - JOIN EXISTING MANHOLE
  - 5 - CONSTRUCT SLOPE ANCHOR



LETTER	R	Δ	T	L
A	22.50'	21°55'35"	6.01'	11.75'
B	22.50'	90°0'0"	22.50'	35.34'



CITY OF WALNUT  
 Ronald Kranzer 2-3-89  
 RONALD KRANZER RCE 18503  
 CITY ENGINEER  
 PREPARED UNDER THE SUPERVISION OF:  
 Carr Engineering  
 Civil - Structural - Fire Protection  
 412 Casanova Dr., Walnut, Ca 91789  
 (714) 594-4726  
 Donald Komorous  
 DONALD KOMOROUS RCE 20425

REVISIONS	
MK	DATE

CITY OF WALNUT  
**STORM DRAIN**  
 PLAN AND PROFILE  
 STA. 0+0.00 TO STA. 3+73.27  
 TRACT 46181  
 DATE:      SCALE: A.S.  
 NO.      SHEET 2 OF 2

PLAN  
 SCALE: 1" = 20'