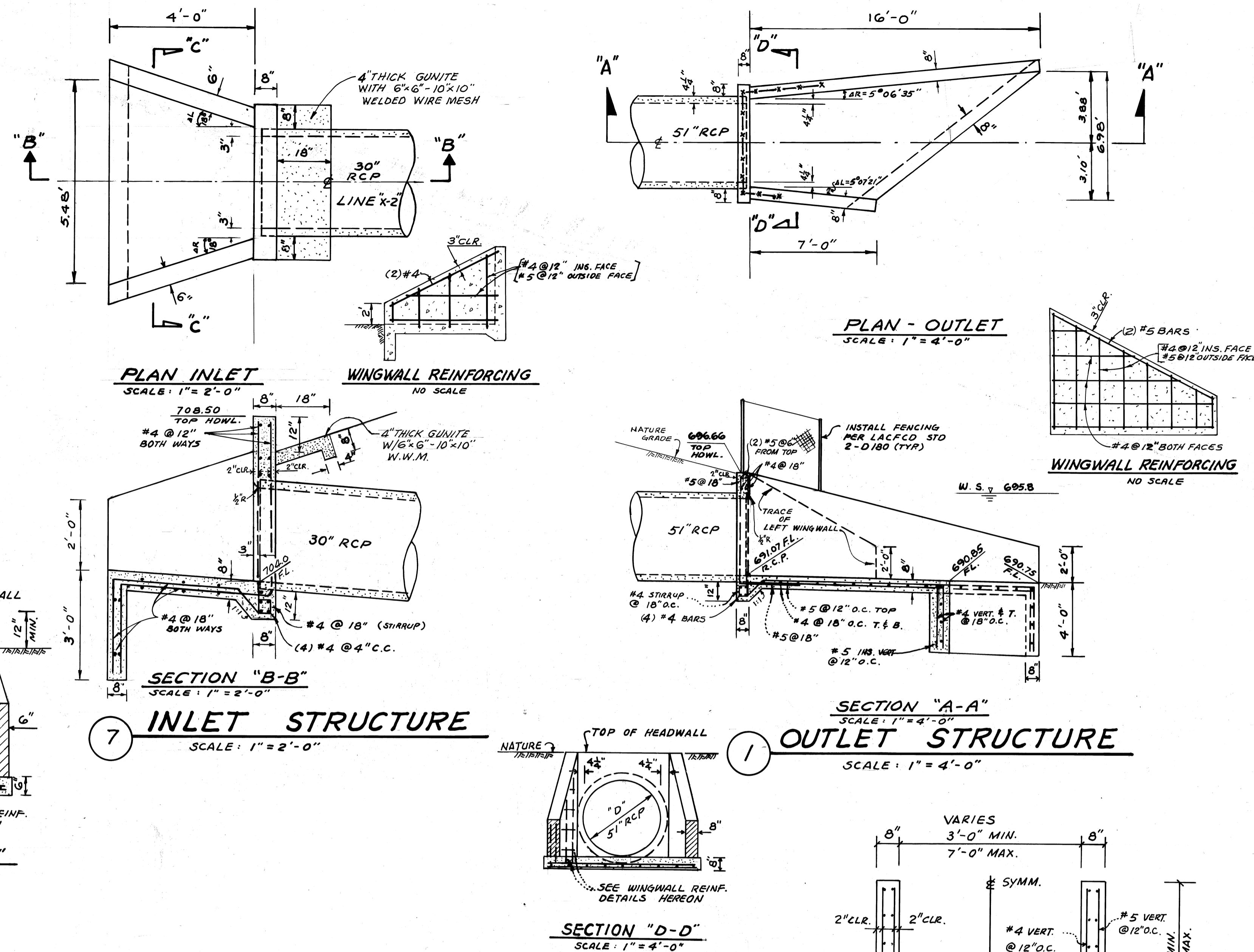


**GENERAL NOTES FOR STORM DRAIN CONSTRUCTION**

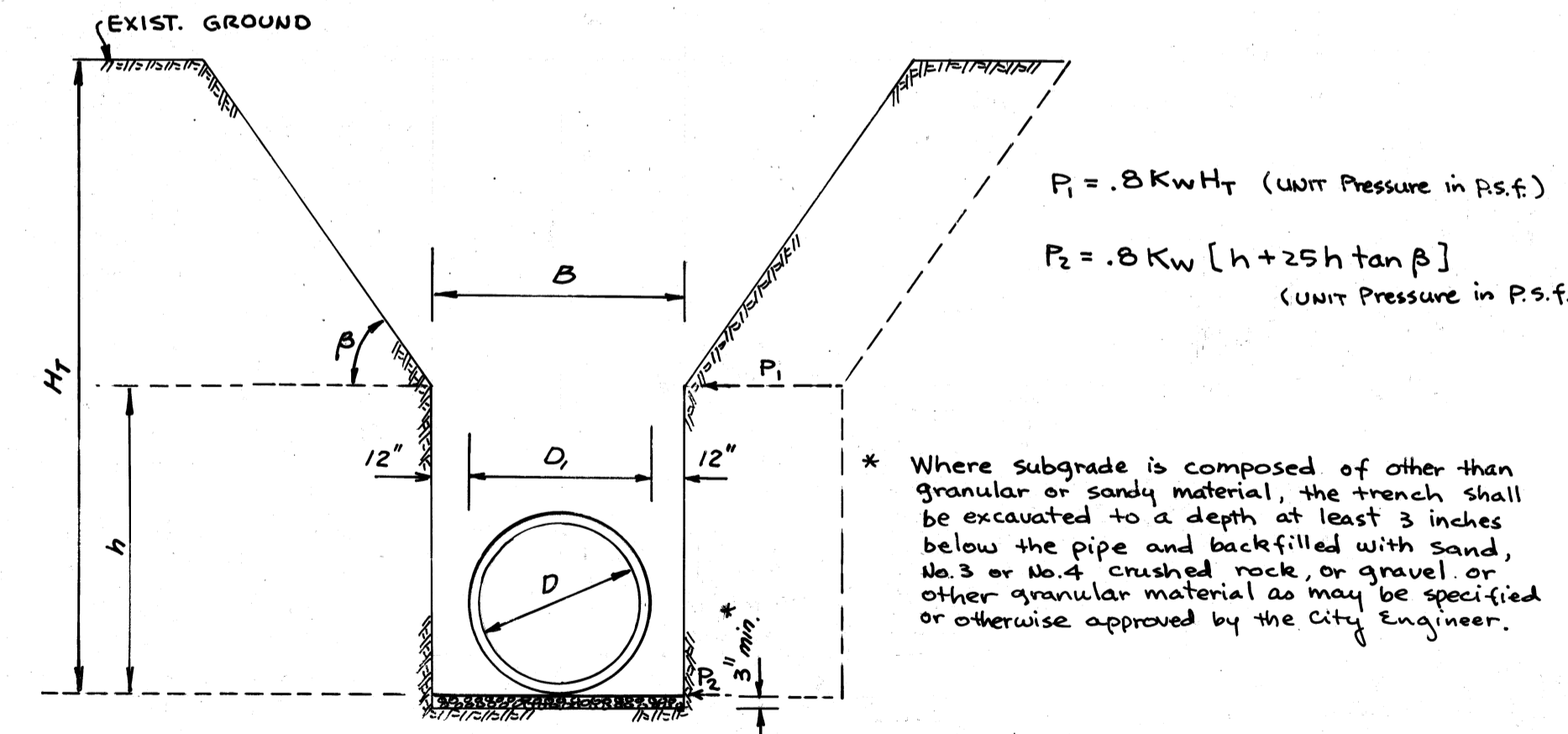
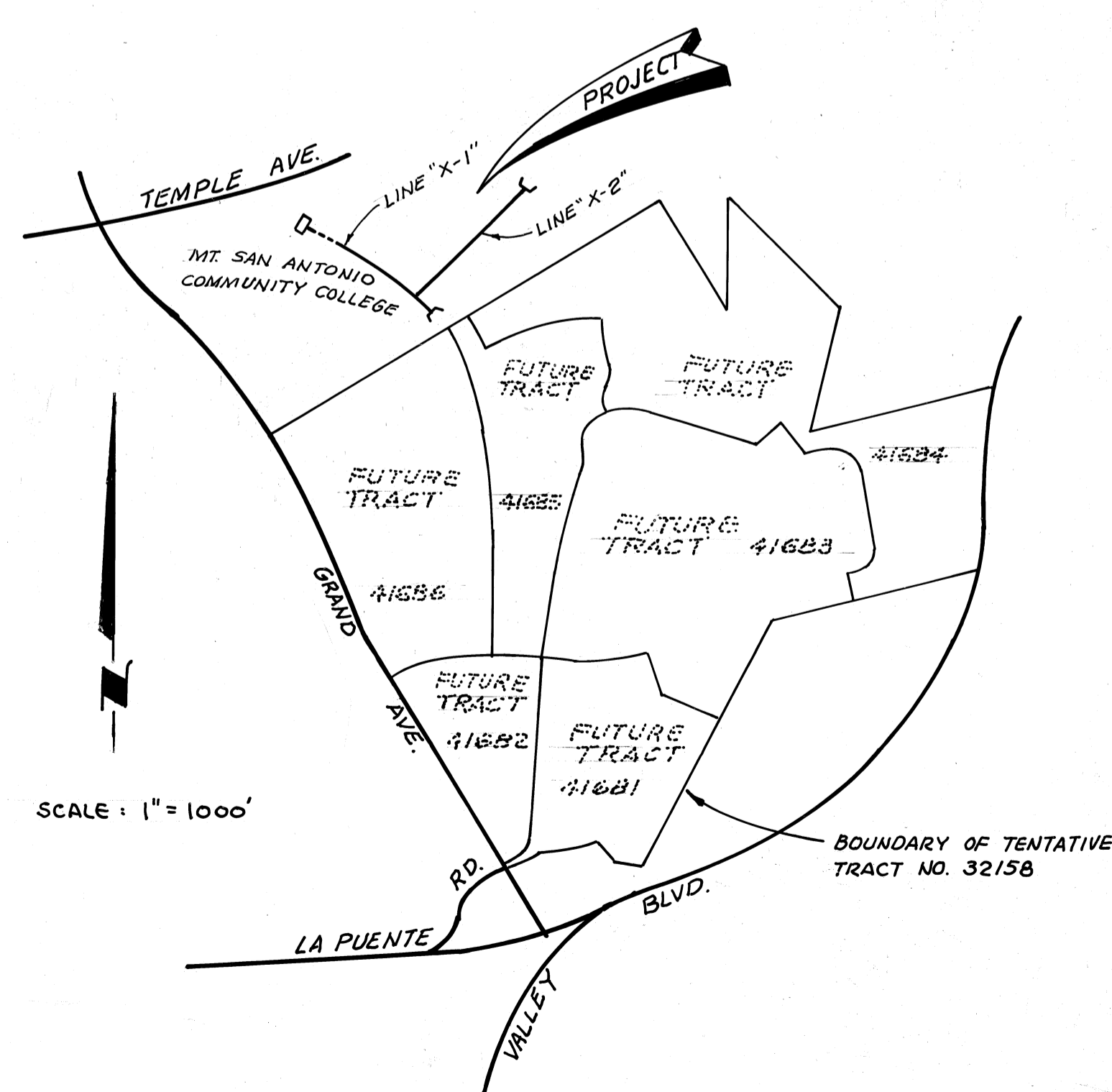
1. ALL PIPE LAID IN OPEN TRENCH SHALL BE DEDDED IN ACCORDANCE WITH LACFC D STD. DWG. NO. 2-D177.
2. 48 HOURS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER (714)594-9708. FOR INSPECTION.
3. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECS FOR PUBLIC WORKS CONSTRUCTION 1982 EDITION, WITH 1983 SUPPLEMENT.
4. ALL BACKFILL SHALL BE COMPACTED TO RELATIVE DENSITY OF 90%.
5. ALL STATE AND LOCAL TRENCH SAFETY RULES WILL BE RIGIDLY ENFORCED. SHORING, CALCS. SHALL BE SUPPLIED TO AND APPROVED BY THE CITY ENGINEER PRIOR TO START OF CONSTRUCTION.
6. THE CONTRACTOR MUST MAINTAIN ALL TRAFFIC SIGNS IN AN UPRIGHT, READILY DISCOVERABLE POSITION AND FREE FROM OBSTRUCTION TO MOTORISTS VISION AND SHALL RESET SAME IN THE PROPER POSITION UPON COMPLETION OF CONSTRUCTION.
7. EXISTING UTILITIES CROSSING THE STORM DRAIN SHALL BE SUPPORTED PER LACFC D STD. 2-D173 AS DIRECTED BY THE CITY ENGINEER.
8. RCP SHALL BE MANUFACTURED AND INSPECTED IN ACCORDANCE WITH SECTION 207-2.6, 2.7, 2.8 AND 2.9 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (1982 EDITION, WITH 1983 SUPPLEMENT.)
9. THE CONTRACTOR SHALL FURNISH A LETTER OF CERTIFICATION FROM THE PIPE MANUFACTURER AS TO TEST RESULTS OF PIPE INSTALLED.
10. ALL PIPE LENGTH SHOWN ARE HORIZONTAL PROJECTIONS, UNLESS OTHERWISE NOTED.
11. ALL CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 3000 P.S.I.
12. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A-615-GRADE 60.
13. THE ENGINEER, VTN, HAS INVESTIGATED ALL AVAILABLE RECORDS OF THE CITY AND OF THE UTILITY COMPANIES INVOLVED, AND ALL KNOWN SUBSTRUCTURES ARE SHOWN HEREON. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL SUBSTRUCTURES WHETHER OR NOT SHOWN HEREON, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR THE TOTAL EXPENSE OF REPAIR OR REPLACEMENT OF SAID SUBSTRUCTURES DAMAGED BY HIS OPERATION IN CONNECTION WITH THE PROSECUTION OF SAID WORK.
14. THIS STORM DRAIN WILL NOT BE ACCEPTED FOR MAINTENANCE UNTIL THE STREETS HAVE BEEN PAVED, MANHOLES BROUGHT UP TO GRADE, AND THE SYSTEM IS CLEANED TO THE SATISFACTION OF THE CITY ENGINEER.
15. ELEVATIONS ARE IN FEET ABOVE U.S.C.G.S MEAN SEA LEVEL DATUM OF 1929.
16. FINISH ALL EXPOSED EDGES W/3/4" CHAMFER.
17. ALL STEEL THAT IS TO BE CONTINUOUS SHALL HAVE A MINIMUM LAP AT SPLICES OF 30 BAR DIAMETERS.
18. ALL PIPE SHALL BE EMBEDDED A MIN OF 5" INTO HEADWALLS OR STRUCTURES.



QUANTITY ESTIMATE																						
NO.	ITEM	QUANTITY	UNIT																			
1	OUTLET STRUCTURE PER DETAIL HEREON	1	EA																			
2	MANHOLE NO. 4 PER LACFC D STD. 2-D113	1	EA																			
3	MANHOLE NO. 2 PER LACFC D STD. 2-D184	2	EA																			
4	51" R.C.P. ~ 1500 D	256	L.F																			
5	51" R.C.P. ~ 1000 D	160	L.F																			
6	SEAL GAP WITH BRICKS & CEMENT MORTAR	1	7	INLET STRUCTURE PER DETAIL HEREON	1	EA	8	ABANDON THE EXISTING DRAINAGE PIPE & SEAL BOTH ENDS WITH BRICK & CEMENT MORTAR	3	EA	9	FENCING PER LACFC D STD. 2-D180	16 ±	L.F	10	REMOVE EXISTING 24" R.C.P.	145 ±	L.F	11	REMOVE EXISTING 24" C.M.P.	45 ±	L.F
7	INLET STRUCTURE PER DETAIL HEREON	1	EA																			
8	ABANDON THE EXISTING DRAINAGE PIPE & SEAL BOTH ENDS WITH BRICK & CEMENT MORTAR	3	EA																			
9	FENCING PER LACFC D STD. 2-D180	16 ±	L.F																			
10	REMOVE EXISTING 24" R.C.P.	145 ±	L.F																			
11	REMOVE EXISTING 24" C.M.P.	45 ±	L.F																			

**BASIS OF BEARINGS:**  
N 22° 58' 05" W FOR THE CENTERLINE OF GRAND AVE. AS SHOWN ON TRACT NO. 40715 RECORDED IN BOOK 998, PAGES 80 THROUGH 84 INCLUSIVE OF MAPS, RECORDS OF LOS ANGELES COUNTY.

**BENCH MARK:**  
BM C.G. 1781 ELEV. 617.011  
R.D.B.M. TAG N.R. CTR. OF CONCRETE HEADWALL 24 FT. NORTH & LA PUENTE ROAD ± 0.2 MILES WEST OF GRAND AVE.  
COVINA QUAD. 1975.



- STRUCTURAL NOTES**
1. EXPOSED EDGES OF CONCRETE MEMBERS SHALL BE CHAMBERED 3/4".
  2. ALL BAR ENDS AND HOOKS SHALL CONFORM TO AMERICAN CONCRETE INSTITUTES "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" CHAPTER 7 (ACI 318-77)
  3. PLACING OF REINFORCEMENT SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTES "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" CHAPTER 7 (ACI 318-77)

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

**NOTICE TO CONTRACTOR:**  
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.

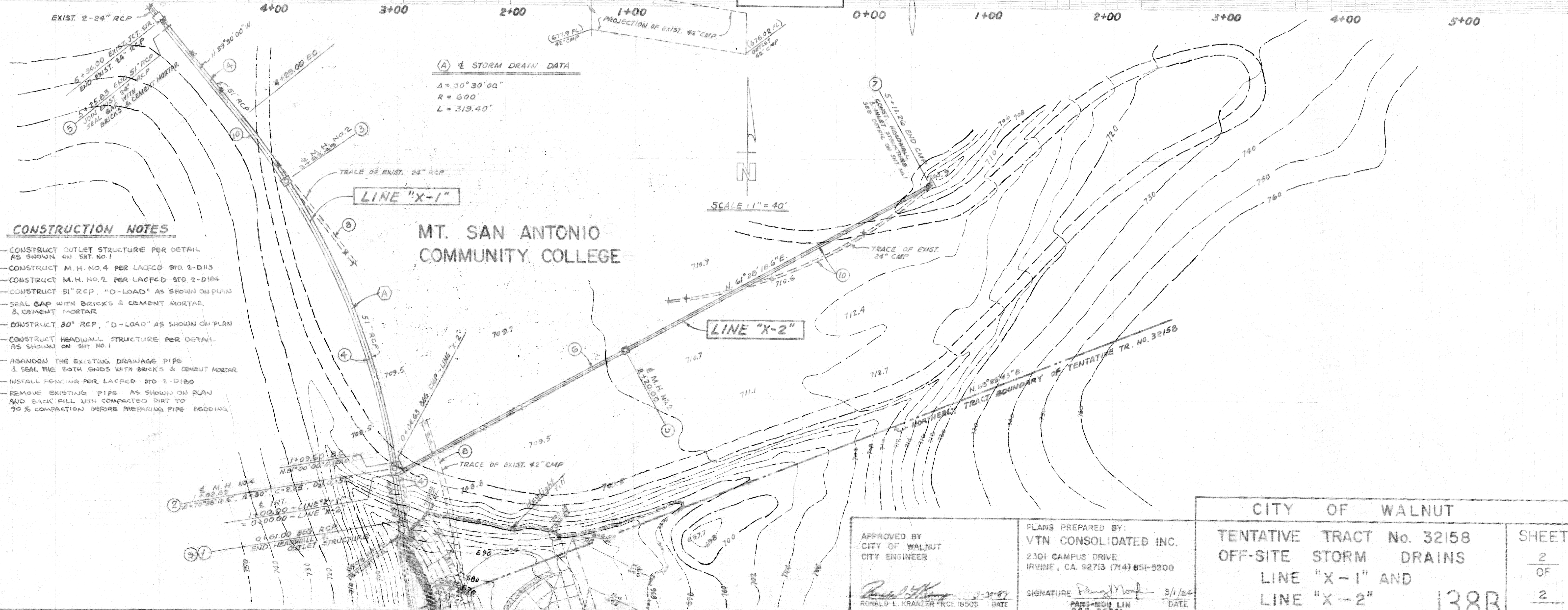
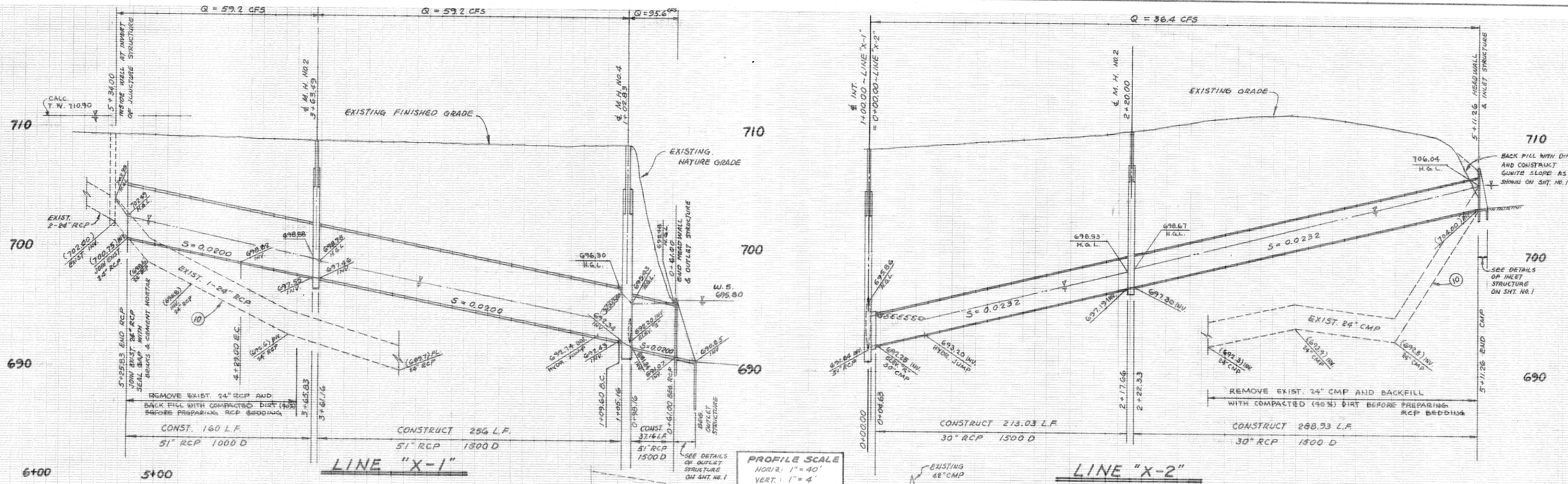
APPROVED BY:  
CITY OF WALNUT  
CITY ENGINEER

*Ronald L. Kranzer*  
RONALD L. KRANZER RCE 18503 DATE 3-30-84

PLANS PREPARED BY  
VTN CONSOLIDATED INC.  
2301 CAMPUS DRIVE  
IRVINE, CA. 92713 (714) 851-5200

SIGNATURE *Pang-Mou Lin* 3/1/84  
PANG-MOU LIN RCE 22391 DATE

CITY OF WALNUT		SHEET
TENTATIVE TRACT No. 32158		1
OFF-SITE STORM DRAINS		OF
LINE "X-1" AND		2
LINE "X-2"		138A



**(A) STORM DRAIN DATA**  
 $\Delta = 30^\circ 30' 00''$   
 $R = 600'$   
 $L = 319.40'$

- CONSTRUCTION NOTES**
- CONSTRUCT OUTLET STRUCTURE PER DETAIL AS SHOWN ON SHT. NO. 1
  - CONSTRUCT M.H. NO. 4 PER LACFD STD. 2-D113
  - CONSTRUCT M.H. NO. 2 PER LACFD STD. 2-D184
  - CONSTRUCT 51" RCP, "D-LOAD" AS SHOWN ON PLAN
  - SEAL GAP WITH BRICKS & CEMENT MORTAR & CEMENT MORTAR
  - CONSTRUCT 30" RCP, "D-LOAD" AS SHOWN ON PLAN
  - CONSTRUCT HEADWALL STRUCTURE PER DETAIL AS SHOWN ON SHT. NO. 1
  - ABANDON THE EXISTING DRAINAGE PIPE & SEAL THE BOTH ENDS WITH BRICKS & CEMENT MORTAR
  - INSTALL FENCING PER LACFD STD 2-D180
  - REMOVE EXISTING PIPE AS SHOWN ON PLAN AND BACK FILL WITH COMPACTED DIRT TO 90% COMPACTION BEFORE PREPARING PIPE BEDDING

APPROVED BY  
 CITY OF WALNUT  
 CITY ENGINEER  
 RONALD L. KRANZER RCE 18503 DATE 3-2-84

PLANS PREPARED BY:  
 VTN CONSOLIDATED INC.  
 2301 CAMPUS DRIVE  
 IRVINE, CA. 92713 (714) 851-5200  
 SIGNATURE PANG-MOU LIN RCE 22391 DATE 3/1/84

CITY OF WALNUT	
TENTATIVE TRACT No. 32158	SHEET
OFF-SITE STORM DRAINS	2
LINE "X-1" AND	OF
LINE "X-2"	2
138B	