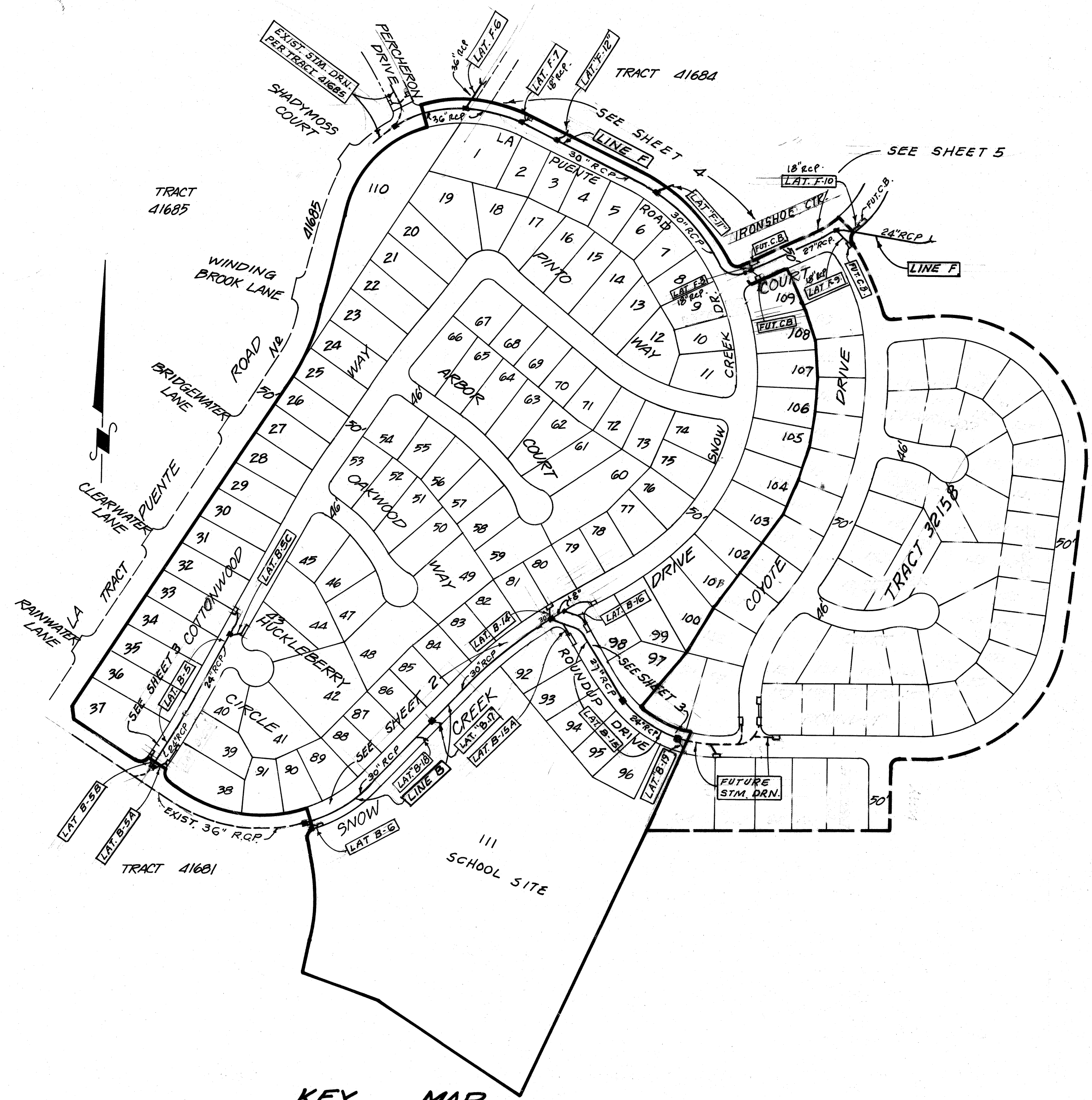


### GENERAL NOTES FOR STORM DRAIN CONST.

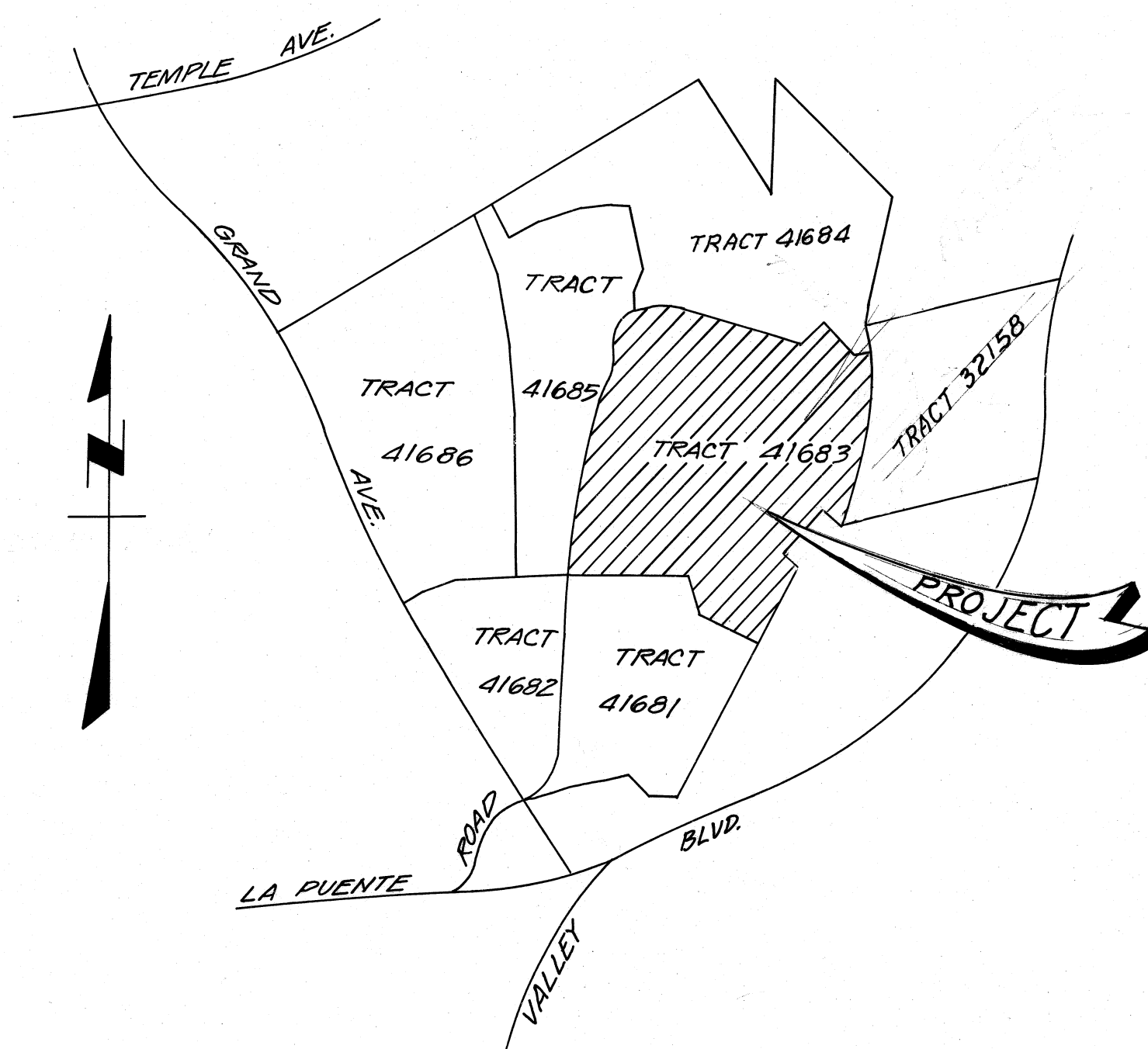
- ALL PIPE LAID IN OPEN TRENCH SHALL BE BEDDED IN ACCORDANCE WITH LACFCR STD. NO. 2-D177.
- 48 HOURS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER (714) 851-9702.
- ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECS FOR PUBLIC WORKS CONSTRUCTION AND SUPPLEMENT, 1982 EDITION, WITH 1984/85 SUPPLEMENTS.
- ALL BACKFILL SHALL BE COMPACTED TO A RELATIVE DENSITY OF 90%.
- ALL STATE AND LOCAL TRENCH SAFETY RULES WILL BE RIGIDLY ENFORCED.
- THE CONTRACTOR MUST MAINTAIN ALL TRAFFIC SIGNS IN AN UPRIGHT, READILY DISCERNABLE POSITION AND FREE FROM OBSTRUCTION TO MOTORISTS VISION, AND SHALL RESET SAME IN THE PROPER POSITION UPON COMPLETION OF CONSTRUCTION.
- EXISTING UTILITIES CROSSING THE STORM DRAIN SHALL BE SUPPORTED PER LACFCR STD. 2-D173 AS DIRECTED BY THE CITY ENGINEER.
- 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.
- THE CONTRACTOR SHALL FURNISH A LETTER OF CERTIFICATION FROM THE PIPE MANUFACTURER AS TO TEST RESULTS OF THE PIPE INSTALLED.
- ALL PIPE LENGTH SHOWN ARE HORIZONTAL PROJECTIONS, UNLESS OTHERWISE NOTED.
- ALL CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 3000 P.S.I.
- ALL REINFORCING STEEL SHALL CONFORM TO ASTM A-615 - GRADE 60.
- THE ENGINEER, V.T.N., HAS INVESTIGATED ALL AVAILABLE RECORDS OF THE CITY AND OF THE UTILITY COMPANIES INVOLVED AND ALL KNOWN SUB STRUCTURES 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 DAMAGE BY HIS OPERATION IN CONNECTION WITH THE PROSECUTION OF SAID WORK.
- 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.
- ELEVATIONS ARE IN FEET ABOVE U.S.C.G.S. MEAN SEA LEVEL DATUM OF 1929.
- FINISH ALL EXPOSED EDGES WITH 3/4" CHAMFER.
- ALL STEEL THAT IS TO BE CONTINUOUS SHALL HAVE A MINIMUM LAP AT SPLICES OF 30 BAR DIAMETERS.
- ALL PIPE TO BE IMBEDDED A MINIMUM OF 5 INCHES INTO HEADWALLS OR STRUCTURES.

### QUANTITY ESTIMATE

| NO | DESCRIPTION   | QUANTITY | UNIT |
|----|---|----------|------|
| 1  | REMOVE EXIST. BRICK & MORTAR SEAL AND JOIN EXIST.                   | 6        | EA.  |
| 2  | CONST. C.B. NO. 2 PER LACFCR STD. NO. 2-D162                        | 1        | EA.  |
| 3  | CONST. M.H. NO. 1 PER LACFCR STD. NO. 2-D102                        | 10       | EA.  |
| 4  | CONST. JUNCTION STRUCTURE NO. 2 PER LACFCR STD. 2-D112              | 4        | EA.  |
| 5  | CONST. C.B. NO. 3 PER LACFCR STD. NO. 2-D163 (W. & V. PER PLAN)     | 4        | EA.  |
| 6  | CONST. 30" RCP ~ "D" LOAD PER PROFILE                               | 1310     | L.F. |
| 7  | CONST. 18" RCP ~ "D" LOAD PER PROFILE                               | 512      | L.F. |
| 8  | CONST. 24" RCP ~ "D" LOAD PER PROFILE                               | 727      | L.F. |
| 9  | REMOVE 3.67 L.F. OF EXIST. 30" RCP                                  | 4        | L.F. |
| 10 | CONST. BRICK & MORTAR SEAL  | 10       | EA.  |
| 11 | CONST. CONC. COLLAR PER LACFCR STD. NO. 2-D393                      | 1        | EA.  |
| 12 | CONST. 21" RCP ~ "D" LOAD PER PROFILE                               | 14       | L.F. |
| 13 | CONST. 27" RCP ~ "D" LOAD PER PROFILE                               | 465      | L.F. |
| 14 | CONST. 36" RCP ~ "D" LOAD PER PROFILE                               | 259      | L.F. |
| 15 | CONST. M.H. NO. 2 PER LACFCR STD. NO. 2-D184 (WITHOUT SHAFT)        | 1        | EA.  |
| 16 | CONST. INLET STRUCTURE PER DETAIL ON SHEET 5                        | 2        | EA.  |
| 17 | CONST. C.B. NO. 1 PER LACFCR STD. NO. 2-D160                        | 6        | EA.  |
| 18 | CONST. 12' WIDE CONC. ACCESS ROAD PER PROFILE AND DETAIL SHT. NO. 5 | 178      | L.F. |
| 19 | CONST. DESILTING BASIN PER DETAIL ON SHEET NO. 5                    |          | LS.  |



KEY MAP  
SCALE: 1" = 200'



LOCATION MAP

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 60 THROUGH 84 INCLUSIVE OF MAPS, RECORDS OF LOS ANGELES COUNTY.

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

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.

APPROVED BY:  
CITY OF WALNUT  
CITY ENGINEER

*Richard Bowman*  
RICHARD L. BOWMAN REG. 24573 DATE -

PLANS PREPARED BY:  
V.T.N. CONSOLIDATED INC.  
2301 CAMPUS DRIVE  
IRVINE, CA. 92713 (714) 851-5200

*Richard Bowman*  
RICHARD BOWMAN REG. 24573 DATE -

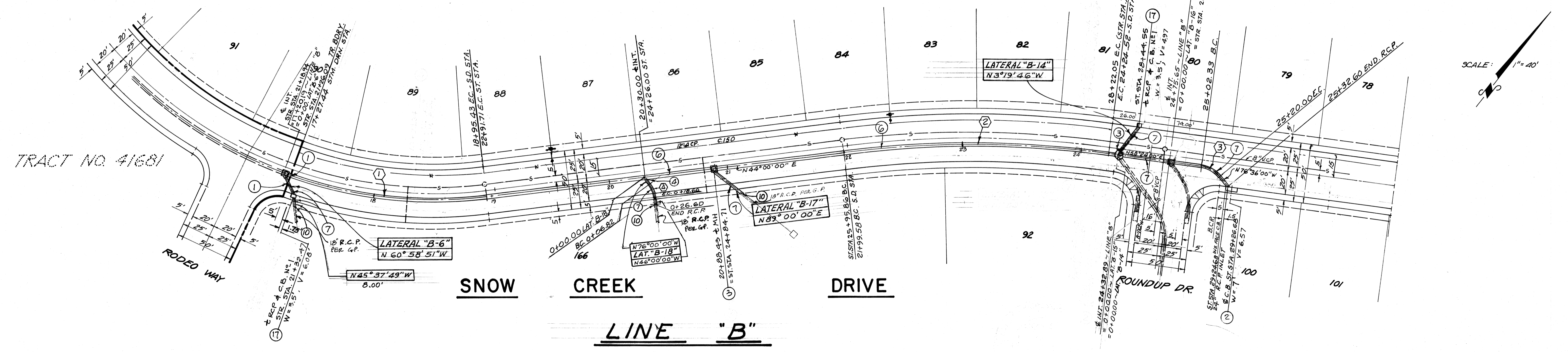
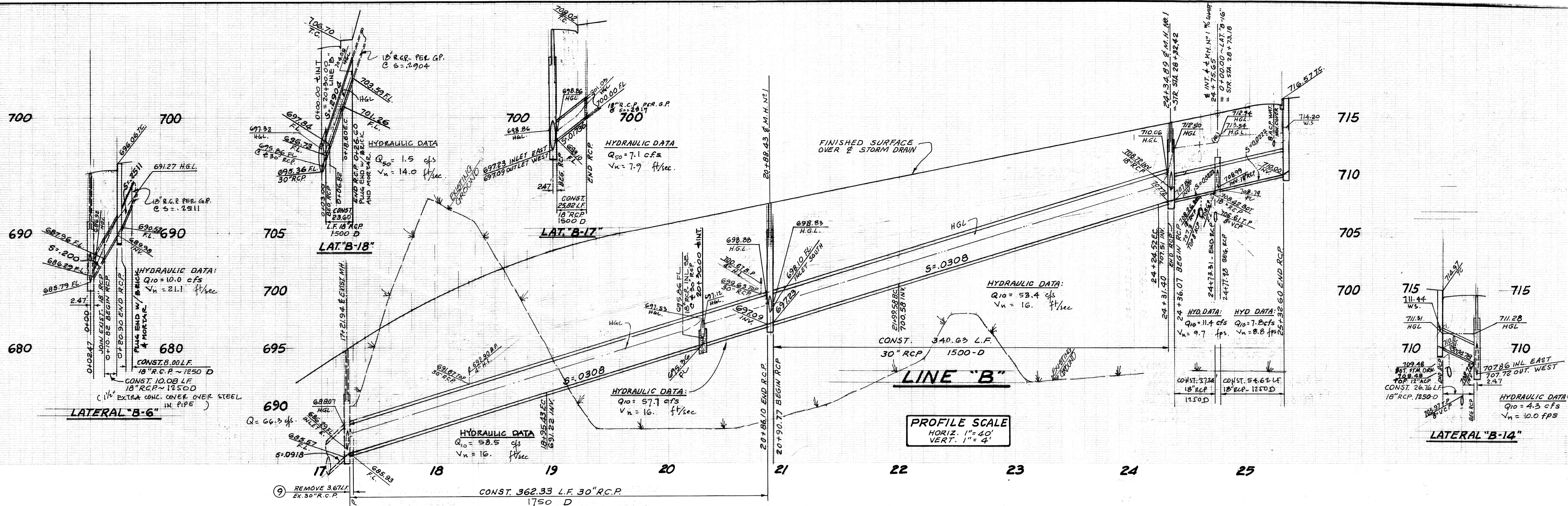
#### NOTICE TO CONTRACTOR

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.

CITY OF WALNUT

TRACT No. 41683  
STORM DRAIN

SHEET  
1  
OF  
5

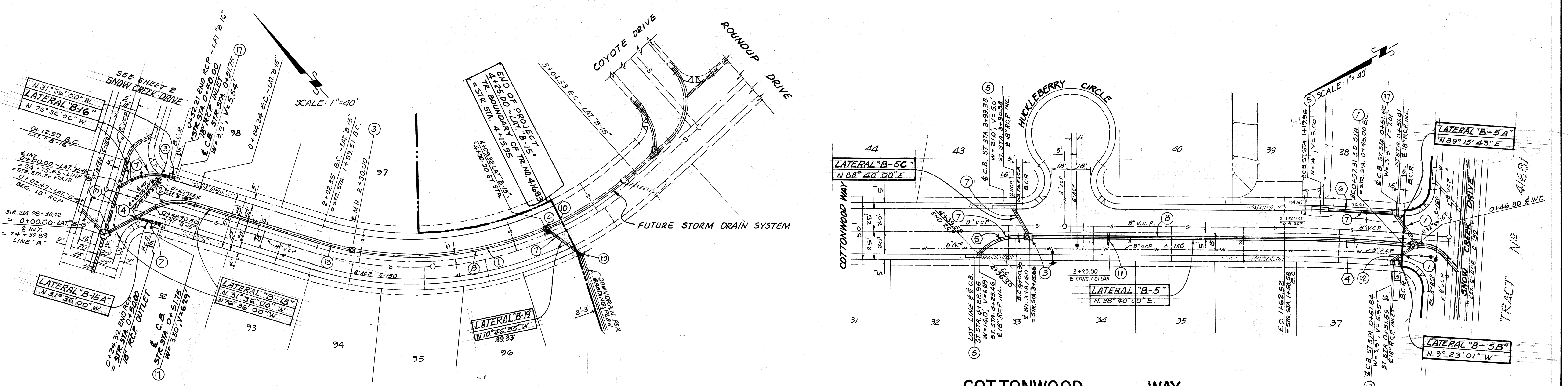
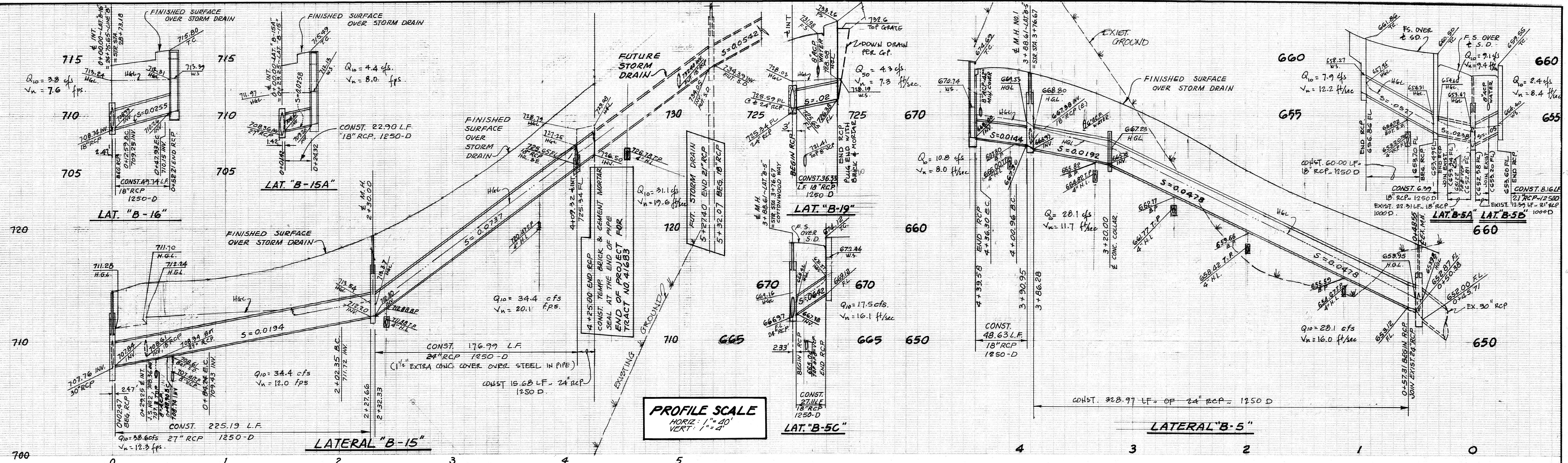


- CONSTRUCTION NOTES:**
- ① REMOVE EXIST. BRICK & CEMENT MORTAR SEAL AND JOIN THE EXIST. PIPE
  - ② CONST. C.B. NO.2 PER LACFCD STD. NO. 2-D/62
  - ③ CONST. M.H. NO.1 PER LACFCD STD. NO. 2-D/102
  - ④ CONST. J.S. NO.2 PER LACFCD STD. NO. 2-D/112
  - ⑥ CONST. 30" RCP "D"-LOAD AS SHOWN ON PLAN
  - ⑦ CONST. 18" RCP "D"-LOAD AS SHOWN ON PLAN
  - ⑨ REMOVE 3.67 L.F. OF EXIST. 30" R.C.P.
  - ⑩ CONST. BRICK & CEMENT MORTAR SEAL
  - ⑪ CONST. C.B. NO.1 PER LACFCD. STD. NO. 2-D

| N <sup>o</sup> | Δ         | R     | L      | T       |
|----------------|-----------|-------|--------|---------|
| ①              | 30°00'00" | 22.50 | 11.78  | 6.03'   |
| ②              | 45°00'00" | 22.50 | 17.67  | 9.32'   |
| ③              | 14°24'00" | 895'  | 224.94 | 113.06' |
| ④              | 27°06'44" | 355'  | 167.99 | 85.60'  |

⊕ R.C.P. CURVE DATA

**TRACT No. 41683**  
**STORM DRAIN**  
 SHEET 2 OF 5 SHEETS



**PROFILE SCALE**  
 HORIZ. 1" = 40'  
 VERT. 1" = 4'

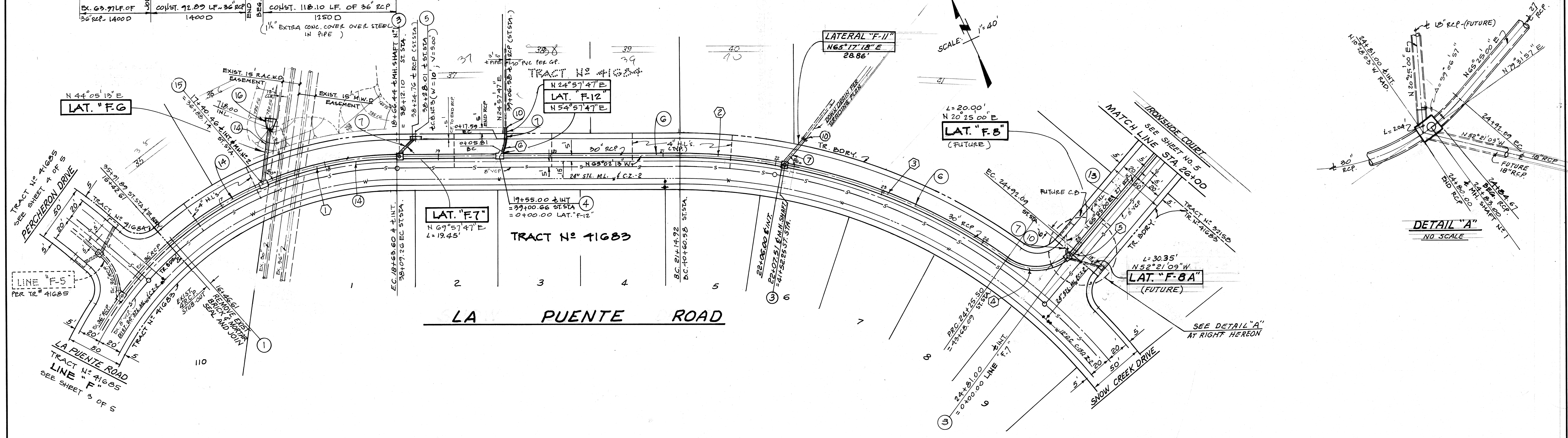
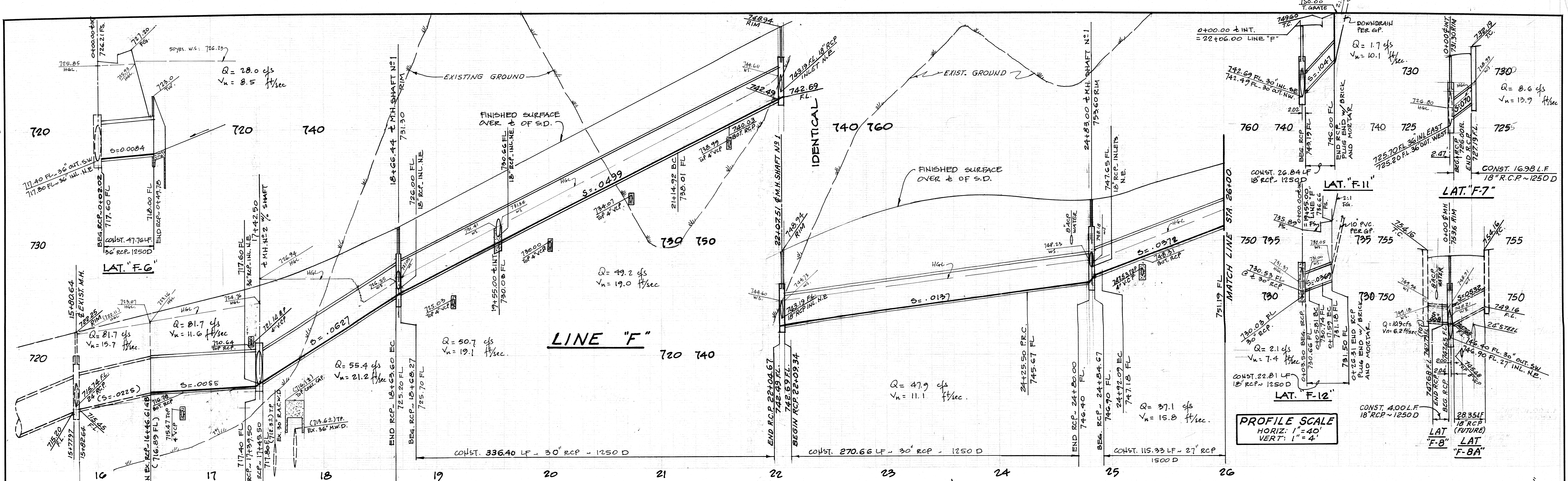
**CONSTRUCTION NOTES:**

- ③ CONST. M.H. NO 1 PER LACFCD STD. NO 2-D102
- ④ CONST. J.S. NO 2 PER LACFCD STD. NO 2-D112
- ⑤ CONST. C.B. NO 3 PER LACFCD STD. NO 2-D163 (W & V PER PLAN)
- ⑦ CONST. 18" R.C.P. - 'D' LOAD PER PROFILE
- ⑧ CONST. 24" R.C.P. - 'D' LOAD PER PROFILE
- ⑩ CONST. BRICK & CEMENT MORTAR SEAL
- ⑪ REMOVE EXIST. BRICK & CEMENT MORTAR SEAL AND JOIN THE EXIST. PIPE
- ⑪ CONST. CONCRETE COLLAR PER LACFCD STD. NO 2-D393
- ⑫ CONST. 21" R.C.P. - 'D' LOAD PER PROFILE
- ⑬ CONST. C.B. NO 1 PER LACFCD. STD. NO 2-D160
- ⑬ CONST. 21" R.C.P. - 'D' LOAD PER PROFILE

| NO | I           | R     | L       | T       |
|----|-------------|-------|---------|---------|
| ⑥  | 2° 25' 03"  | 1422' | 60.00'  | 30.00'  |
| ⑤  | 45° 00' 00" | 45'   | 35.34'  | 18.64'  |
| ④  | 4° 19' 16"  | 1395' | 105.21' | 52.63'  |
| ③  | 45° 00' 00" | 45'   | 35.34'  | 18.64'  |
| ②  | 45° 00' 00" | 45'   | 35.34'  | 18.64'  |
| ①  | 43° 23' 27" | 294'  | 222.65' | 116.97' |

⊕ R.C.P. CURVE DATA

**TRACT No. 41683**  
**STORM DRAIN**  
 SHEET 3 OF 5 SHEETS



**É.R.C.P. CURVE DATA**

| NO. | d         | R     | L       | T       |
|-----|-----------|-------|---------|---------|
| ①   | 30'00"00" | 22.5' | 11.70'  | 6.03'   |
| ②   | 14'06'57" | 45'   | 11.09'  | 5.57'   |
| ③   | 70'40'06" | 45'   | 55.50'  | 31.90'  |
| ④   | 26'25'42" | 505'  | 232.94' | 118.58' |
| ⑤   | 8'48'34"  | 505'  | 77.65'  | 38.90'  |
| ⑥   | 40'45'45" | 305'  | 216.99' | 113.31' |

- CONSTRUCTION NOTES**
- CONST. JCT. STR. NO 2 PER LACFD. STD. NO 2-D112.
  - CONST. INLET STRUCTURE PER DETAIL ON SHEET NO 5
  - CONST. MH. NO 2 PER LACFD. STD. NO 2-D184 (WITHOUT SHAFT)
  - CONST. 36" RCP - "D" LOAD PER PROFILE.
  - CONST. 27" RCP - "D" LOAD PER PROFILE.
  - CONST. BRICK & MORTAR SEAL
  - CONST. 18" RCP - "D" LOAD PER PROFILE.
  - CONST. 30" RCP - "D" LOAD PER PROFILE.
  - CONST. CB. NO 3 PER LACFD. STD. NO 2-D163 (W & V PER PLAN)
  - CONST. MH. NO 1 PER LACFD. STD. NO 102.
  - REMOVE EXIST. BRICK & MORTAR SEAL AND JOIN EXIST. RCP.

**TRACT No. 41683**  
**STORM DRAIN**  
 SHEET 4 OF 5 SHEETS  
 153-129

