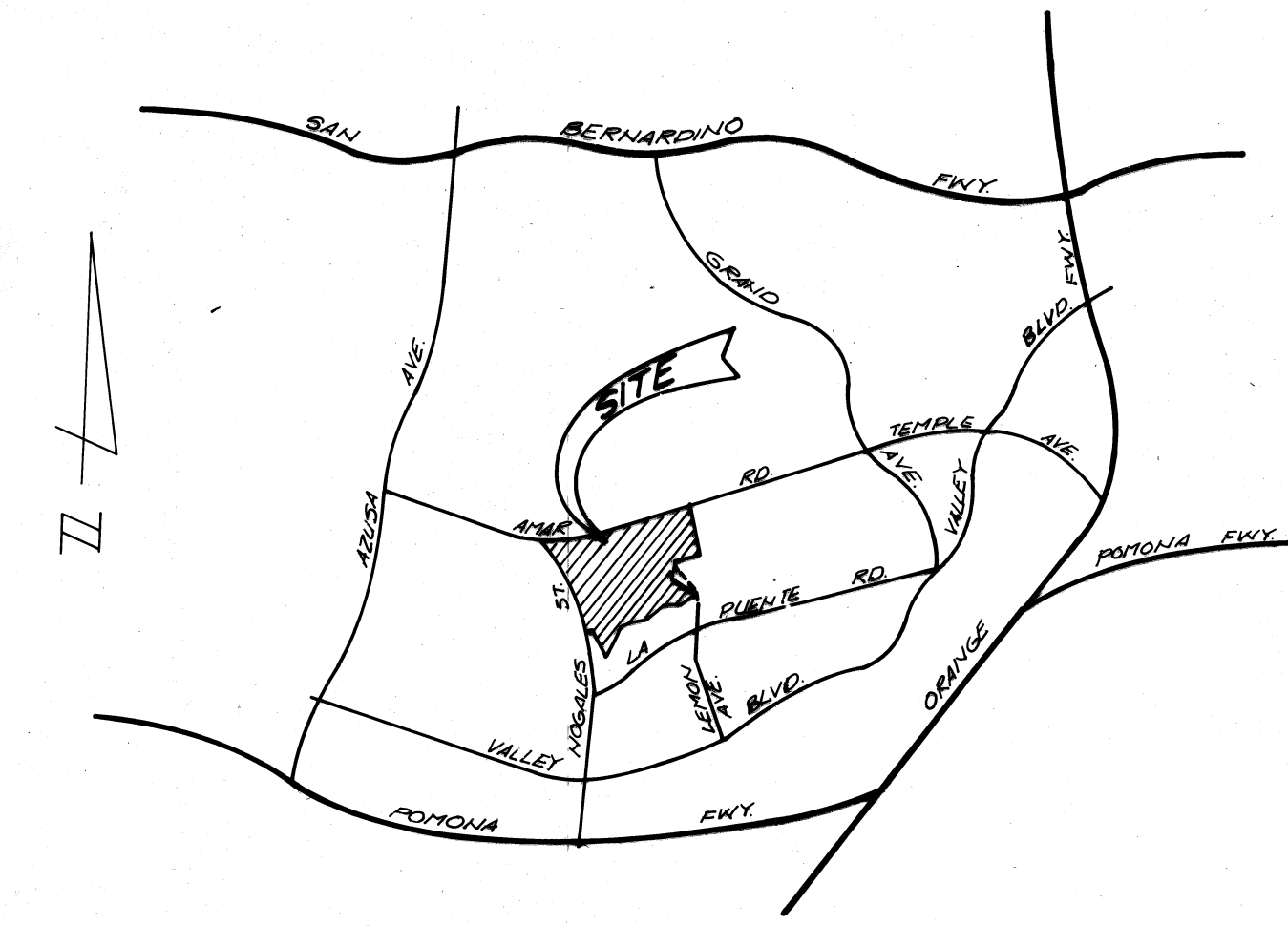


**GENERAL NOTES FOR STORM DRAIN CONSTRUCTION**

20. ELEVATIONS ARE IN FEET ABOVE U.S.C. & G.S. MEAN SEA LEVEL DATUM OF 1929.
21. GALVANIZE ALL METAL PARTS AFTER FABRICATION.
1. ALL PIPE LAID IN OPEN TRENCH SHALL BE BEDDED IN ACCORDANCE WITH LOS ANGELES COUNTY ENGINEER CASE AND BEDDING PER STANDARD NO. D-54
2. 24 HOURS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT INSPECTOR AT (213) 226-4206, AND WALNUT CITY ENGINEER AT (714) 595-2279.
3. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (1979 EDITION) AND TO THE SATISFACTION OF THE CITY ENGINEER.
4. BEFORE WORK COMMENCES, THE CONTRACTOR MUST OBTAIN A PERMIT FROM THE CITY ENGINEER TO EXCAVATE WITHIN CITY STREETS. THE PERMIT WILL BE ISSUED WITHOUT FEE.
5. ALL BACKFILL SHALL BE COMPACTED TO A RELATIVE DENSITY OF 90%.
6. ALL STATE AND LOCAL TRENCH SAFETY RULES WILL BE RIGIDLY ENFORCED.
7. THE CONTRACTOR MUST MAINTAIN ALL TRAFFIC SIGNS IN AN UPRIGHT, READILY DISCERNIBLE POSITION, FREE FROM OBSTRUCTIONS TO MOTORIST'S VISION, AND SHALL RESET SAME IN THE PROPER POSITION UPON COMPLETION OF CONSTRUCTION.
8. EXISTING UTILITIES CROSSING STORM DRAIN SHALL BE SUPPORTED PER L.A.C.F.C.D. STD. 2-D 173.1-3, AS DIRECTED BY THE CITY ENGINEER.
9. THE CONTRACTOR SHALL FURNISH A LETTER OF CERTIFICATION FROM THE PIPE MANUFACTURER AS TO TEST RESULTS OF THE PIPE INSTALLED.
10. R.C.P. SHALL BE MANUFACTURED AND INSPECTED IN ACCORDANCE WITH SECTION 207-2.7, 2.8 AND 2.9 OF STANDARD SPECIFICATIONS.
11. ALL PIPE LENGTHS SHOWN ARE HORIZONTAL PROJECTIONS, UNLESS OTHERWISE NOTED.
12. 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.
13. 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.
14. THE CONTRACTOR SHALL CONFORM TO THE "MINIMUM PUBLIC SAFETY REQUIREMENTS" AS SHOWN ON LOS ANGELES COUNTY ENGINEER STANDARD S-2.
15. ALL CONCRETE SHALL BE 3,000 POUNDS PER SQUARE INCH PORTLAND CEMENT CONCRETE, UNLESS OTHERWISE SHOWN.
16. REINFORCEMENT SHALL BE REFORMED BARS OF INTERMEDIATE GRADE STEEL AS PER ASTM A-615, GRADE 60.
17. 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 CONCRETE, POURED FROM WALL TO WALL OF TRENCH AND FROM BOTTOM OF TRENCH TO A MINIMUM DEPTH OF 4 INCHES OVER TOP OF PIPE.
18. 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.
19. 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 226-4208 TO OBTAIN AN INSPECTION PERMIT AND TO MAKE DEPOSIT FOR CONSTRUCTION INSPECTION BY THE DISTRICT.

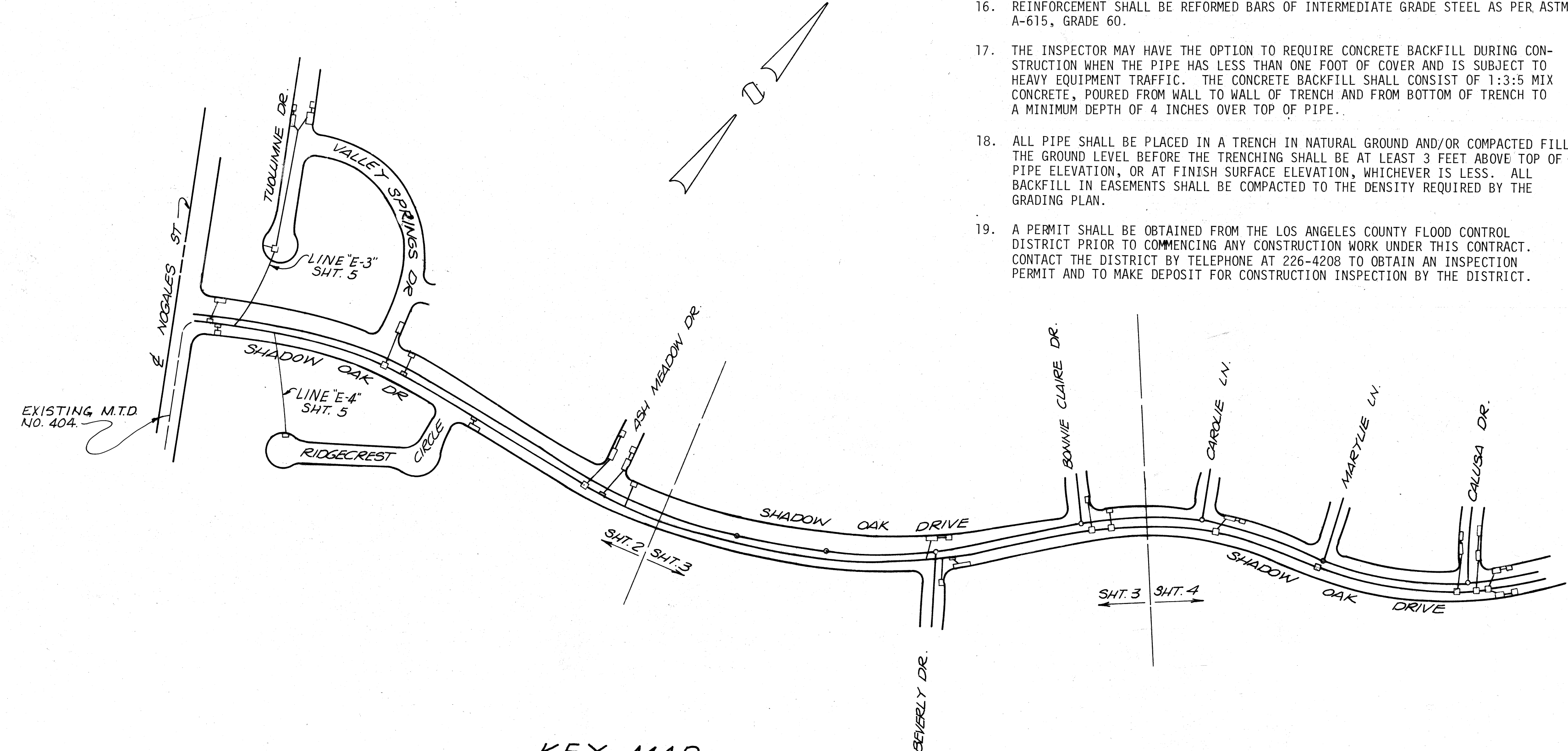
**INDEX TO STANDARD DRAWINGS**

2-D 88	LOCAL DEPRESSION NO. 2
2-D 96	STANDARD DROP STEP
2-D 102	MANHOLE NO. 1
2-D 107	CONCRETE RINGS, REDUCER AND PIPE FOR MANHOLE SHAFT
2-D 112	JUNCTION STRUCTURE NO. 2
2-D 113	MANHOLE NO. 4
2-D 156	MANHOLE FRAME AND COVER FOR CATCH BASINS
2-D 157	CATCH BASIN REINFORCEMENT FOR ROUND MANHOLES.
2-D 160	CATCH BASIN NO. 1
2-D 162	CATCH BASIN NO. 2
2-D 163	CATCH BASIN NO. 3
2-D 172	CATCH BASIN REINFORCEMENT
2-D 173	PIPE SUPPORT ACROSS TRENCHES
2-D 175	REMOVABLE PROTECTION FOR CATCH BASINS
2-D 184	MANHOLE NO. 2
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2-D 190	PIPE CONNECTIONS TO EXISTING STORM DRAINS
2-D 193	JUNCTION STRUCTURE NO. 4
2-D 224	CONNECTION TO CATCH BASIN FOR PIPES 12 INCHES THRU 72 INCHES
2-D 232	DETAIL OF CATCH BASIN OPENING
2-D 264	ADJUSTABLE PROTECTION BAR STIRRUP
2-D 265	INLET NO. 1
2-D 393	CONCRETE COLLAR FOR PIPE 12 INCHES THROUGH 66 INCHES
2-D 472	STANDARD 24-INCH MANHOLE FRAME AND COVER



**VICINITY MAP**  
NO SCALE

**BENCH MARK** N° CG 4436  
R.O.B.M. TAG IN WEST WALL OF CATCH BASIN, 6 FT. EAST OF B.C.R., 32 FT. NORTH OF E. OF LA PUENTE RD. AND 82 FT. EAST OF E. OF HOGALES ST. ELEV. 460.860  
1975 DATUM WEST COVINA QUAD



**KEY MAP**  
NO SCALE

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 the Project, excepting for liability arising from the sole negligence of the Owner or the Engineer.

**NOTICE TO CONTRACTOR**  
The existence and location of any underground utility pipe or structures shown on these Plans are obtained by a search of available records. Approval of this Plan by the City of Walnut does not constitute a representation as to the accuracy or completeness of the location or the existence or non-existence of any underground utility pipe or structure within the limits of this Project. The Contractor is required to take all due precautionary means to protect the utility lines not of record or not shown on this Plan.

**QUANTITY ESTIMATE**

ITEM	QUANTITY	UNIT
MANHOLE N°1	6	EA.
JUNCTION STRUCTURE N°2	7	EA.
MANHOLE N°4	2	EA.
CURB BASIN N°1	4	EA.
CURB BASIN N°2	8	EA.
CURB BASIN N°3	20	EA.
MANHOLE N°2	4	EA.
TRANSITION STRUCTURE N°3	1	EA.
JUNCTION STRUCTURE N°4	8	EA.
CONC. COLLAR	19	EA.
8" BRICK & MORTAR PLUG	5	EA.
18" RCP 2100 D	721	L.F.
18" RCP 2400 D	49	L.F.
18" RCP 1800 D	77	L.F.
21" RCP 1800 D	62	L.F.
21" RCP 2100 D	15	L.F.
24" RCP 1800 D	171	L.F.
24" RCP 2100 D	265	L.F.
27" RCP 2100 D	280	L.F.
27" RCP 2400 D	62	L.F.
30" RCP 2100 D	545	L.F.
33" RCP 2100 D	286	L.F.
36" RCP 2100 D	658	L.F.
42" RCP 1700 D	377	L.F.
45" RCP 1600 D	497	L.F.
51" RCP 1600 D	362	L.F.
60" RCP 1400 D	83	L.F.
12" CMP 16ga W/ASPHALT COATING	50	L.F.
15" CMP 16ga W/ASPHALT COATING	49	L.F.
18" CMP 16ga W/ASPHALT COATING	40	L.F.

**NOTE:**  
QUANTITY SHOWN ARE APPROXIMATE ONLY IT IS THE CONTRACTOR'S RESPONSIBILITY TO SUPPLY PIPE SIZE, LENGTH & D-LOADS SHOWN IN PLANS.

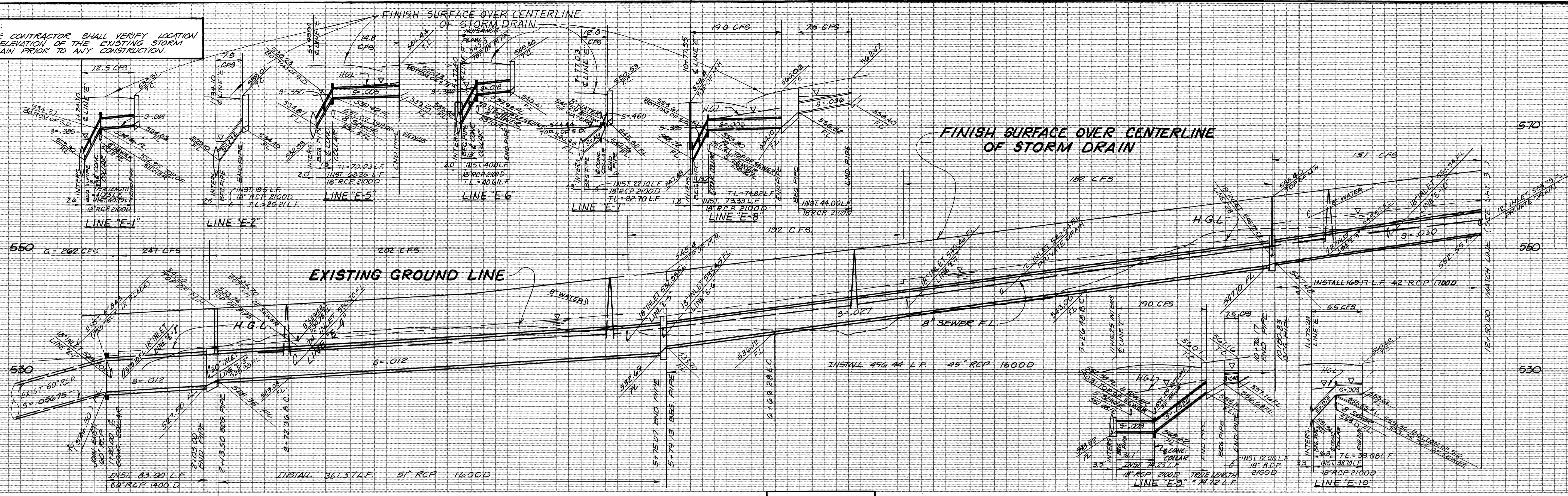
REVISIONS					
REVISED BY	REVISION	DATE	REVISED BY	REVISION	DATE

CITY OF WALNUT APPROVED  
*Frank W. Selberg* 8/28/00  
CITY ENGINEER  
FRANK SELBERG RE 12225

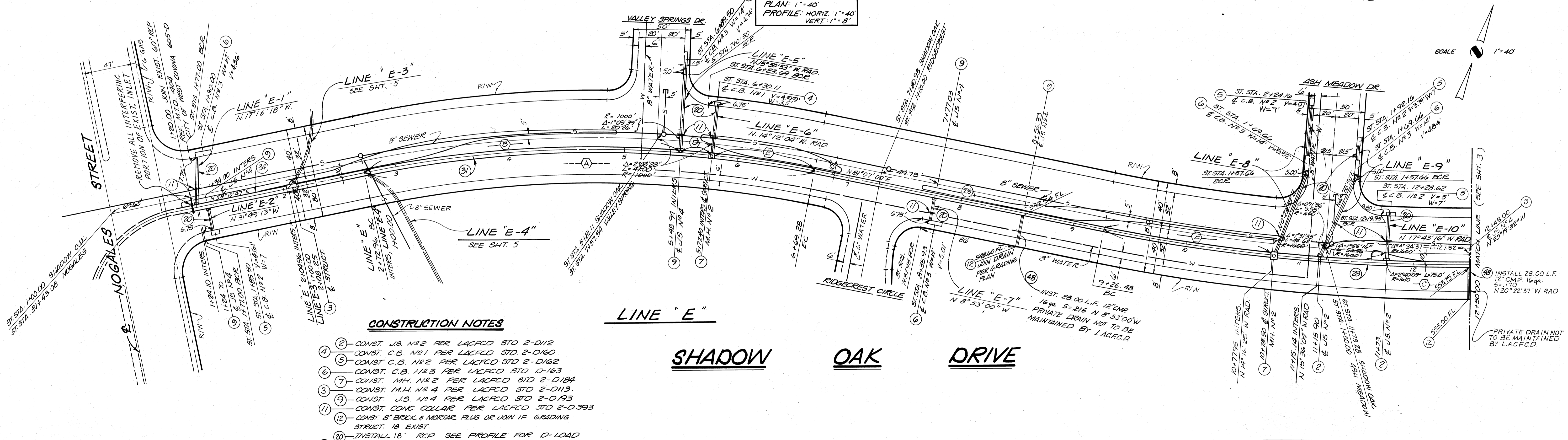
PLANS PREPARED BY:  
*Douglas S. Hunsaker* 8/14/00  
**Hunsaker & Associates Inc.**  
Planning, Engineering & Surveying  
(714) 754-1011  
3001 Red Hill, Building VI, Suite 212, Costa Mesa, CA 92626

**CITY OF WALNUT**  
STORM DRAIN IMPROVEMENTS  
MISCELLANEOUS TRANSFER DRAIN N° 903  
LINE "E" **129A**  
TR. 34673 **STORM DRAIN IMPROVEMENTS** **SHEET 1 OF 5**

\* NOTE:  
THE CONTRACTOR SHALL VERIFY LOCATION & ELEVATION OF THE EXISTING STORM DRAIN PRIOR TO ANY CONSTRUCTION.



SCALE  
PLAN: 1"=40'  
PROFILE: HORIZ: 1"=40'  
VERT: 1"=8'



- CONSTRUCTION NOTES**
- ② - CONST. J.S. N#2 PER LACFCO STD 2-D112
  - ③ - CONST. C.B. N#1 PER LACFCO STD 2-D160
  - ④ - CONST. C.B. N#2 PER LACFCO STD 2-D162
  - ⑤ - CONST. C.B. N#3 PER LACFCO STD 2-D163
  - ⑥ - CONST. M.H. N#2 PER LACFCO STD 2-D184
  - ⑦ - CONST. M.H. N#4 PER LACFCO STD 2-D113
  - ⑧ - CONST. J.S. N#4 PER LACFCO STD 2-D193
  - ⑨ - CONST. CONC. COLLAR PER LACFCO STD 2-D-393
  - ⑩ - CONST. 8" BRICK & MORTAR PLUS OR JOIN IF GRADING STRICT. IS EXIST.
  - ⑪ - INSTALL 18" RCP SEE PROFILE FOR D-LOAD
  - ⑫ - INSTALL 42" RCP SEE PROFILE FOR D-LOAD
  - ⑬ - INSTALL 45" RCP SEE PROFILE FOR D-LOAD
  - ⑭ - INSTALL 51" RCP SEE PROFILE FOR D-LOAD
  - ⑮ - INSTALL 60" RCP SEE PROFILE FOR D-LOAD
  - ⑯ - INSTALL 12" CMP ~ 16 ga. ASPHALT COATED

CURVE DATA			
Δ	R	L	T
A 22° 56' 13"	990'	376.32'	200.85'
B 15° 58' 20"	990'	275.98'	135.89'
C 33° 43' 00"	1610'	947.43'	487.88'
D 1° 38' 49"	990'	28.46'	14.23'
E 5° 19' 04"	990'	91.88'	45.96'
F 5° 23' 25"	1610'	151.47'	75.79'

REVISIONS			
NO.	DATE	BY	REASON
1	12/1/80	REVISOR	REVISED TO AGREE WITH STREET PLANS
2			
3			
4			
5			

CITY OF WALNUT APPROVED

8/28/86

CITY ENGINEER

PLANS PREPARED BY:

**Hunsaker & Associates Inc.**

Planning, Engineering & Surveying

(714) 754-1011

3001 Red Hill, Building VI, Suite 212, Costa Mesa, CA 92626

**CITY OF WALNUT**

STORM DRAIN IMPROVEMENTS

MISCELLANEOUS TRANSFER DRAIN N# 903

**LINE "E"**

STA 0+00.00 TO STA. 12+50.00

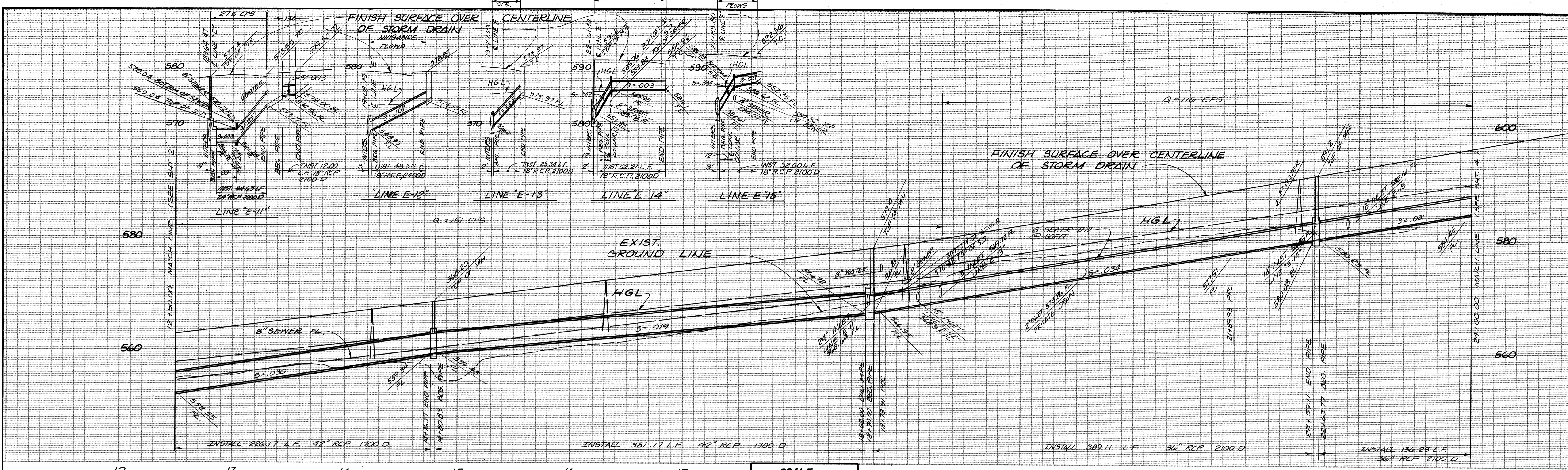
TR. 36673

STORM DRAIN IMPROVEMENTS

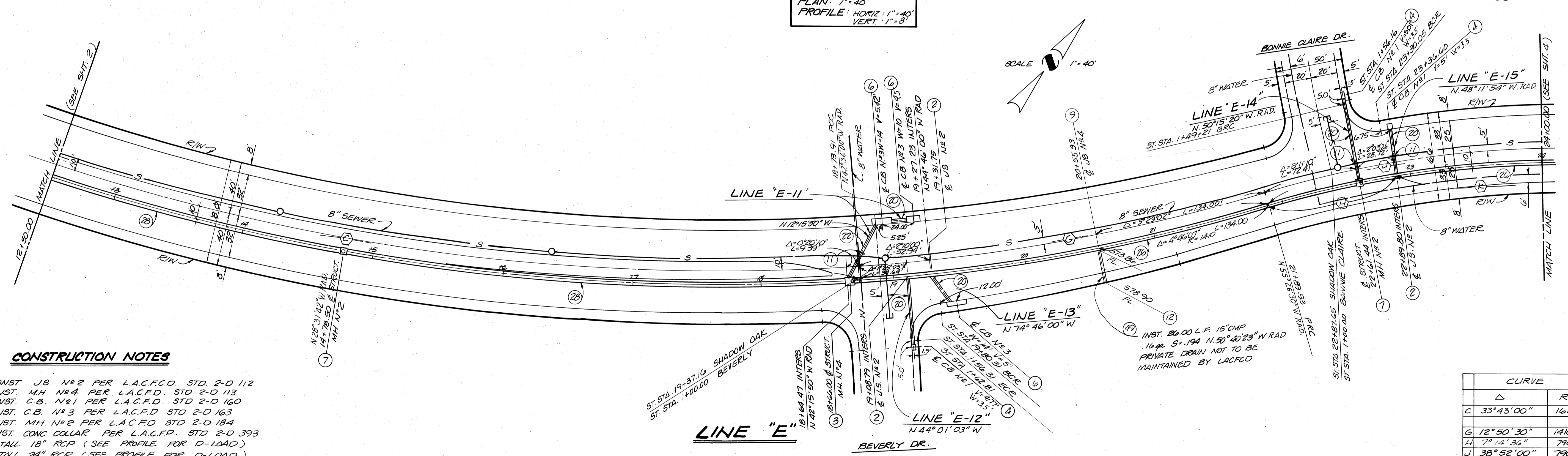
SHEET 2 OF 5

129B

WPC 183



SCALE  
 PLAN: 1"=40'  
 PROFILE: HORIZ: 1"=40'  
 VERT: 1"=8'



**CONSTRUCTION NOTES**

- ② CONST. JS. N#2 PER L.A.C.F.C.D. STD. 2-D 112
- ③ CONST. MH. N#4 PER L.A.C.F.C.D. STD. 2-D 113
- ④ CONST. C.B. N#1 PER L.A.C.F.C.D. STD. 2-D 160
- ⑤ CONST. C.B. N#3 PER L.A.C.F.C.D. STD. 2-D 163
- ⑦ CONST. MH. N#2 PER L.A.C.F.C.D. STD. 2-D 184
- ⑪ CONST. CONC. COLLAR PER L.A.C.F.C.D. STD. 2-D 393
- ⑫ INSTALL 18" RCP (SEE PROFILE FOR D-LOAD)
- ⑮ INSTALL 24" RCP (SEE PROFILE FOR D-LOAD)
- ⑰ INSTALL 36" RCP (SEE PROFILE FOR D-LOAD)
- ⑲ INSTALL 42" RCP (SEE PROFILE FOR D-LOAD)
- ⑳ INSTALL 15" CMP ~16" ASPHALT COATED
- ㉑ CONST. US. N#4 PER L.A.C.F.C.D. STD. 2-D 188
- ㉒ 8" BRICK & MORTAR PLUG OR JOIN IF GRADING STRUCTURE IS EXIST.

CURVE DATA			
Δ	R	L	T
C 33°43'00"	1610'	947.43'	487.88'
G 12°50'30"	1410'	316.02'	158.68'
M 7°14'36"	790'	39.87'	50.00'
J 38°52'00"	790'	535.90'	278.72'
K 17°41'47"	790'	244.00'	122.98'

**SHADOW OAK DRIVE**

REVISIONS		
REVISED PROFILE LINE "E-11"	REVISED T.C. ELEV., V-DEPTH, & TOP OF M.H. ELEV. TO AGREE WITH STREET PLANS	
REVISED BY: <i>[Signature]</i> RE N° 25167	REVISED BY: <i>[Signature]</i> RE N° 26107	REVISED BY: _____ RE N° _____
APPROVED: _____ DATE 11/17/80	APPROVED: _____ DATE 12/1/80	APPROVED: _____ DATE _____

CITY OF WALNUT APPROVED

PLANS PREPARED BY:  
**Hunsaker Associates Inc.**  
 Planning, Engineering & Surveying  
 (714) 754-1011  
 3001 Red Hill, Building VI, Suite 212, Costa Mesa, CA 92626

DATE: 8/28/80  
 CITY ENGINEER: *[Signature]*  
 FRANK S. LINDSEY RE 12225

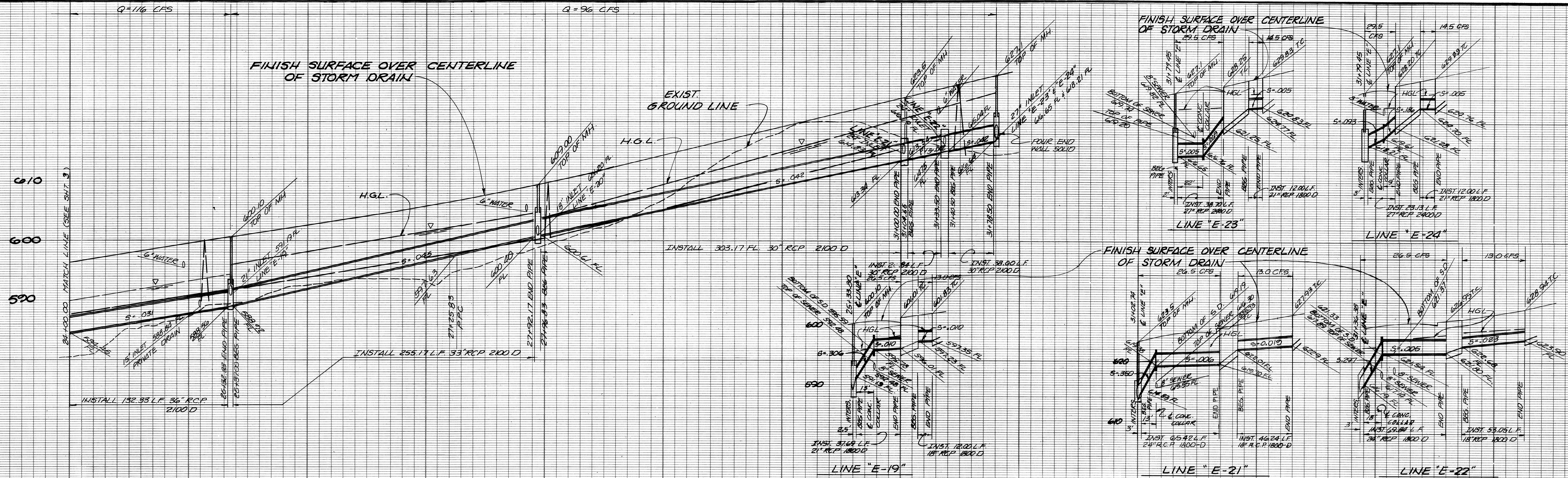
**CITY OF WALNUT**

STORM DRAIN IMPROVEMENTS  
 MISCELLANEOUS TRANSFER DRAIN N° 303  
 LINE "E"  
 STA 12150.00 TO STA. 24100.00

**1290**

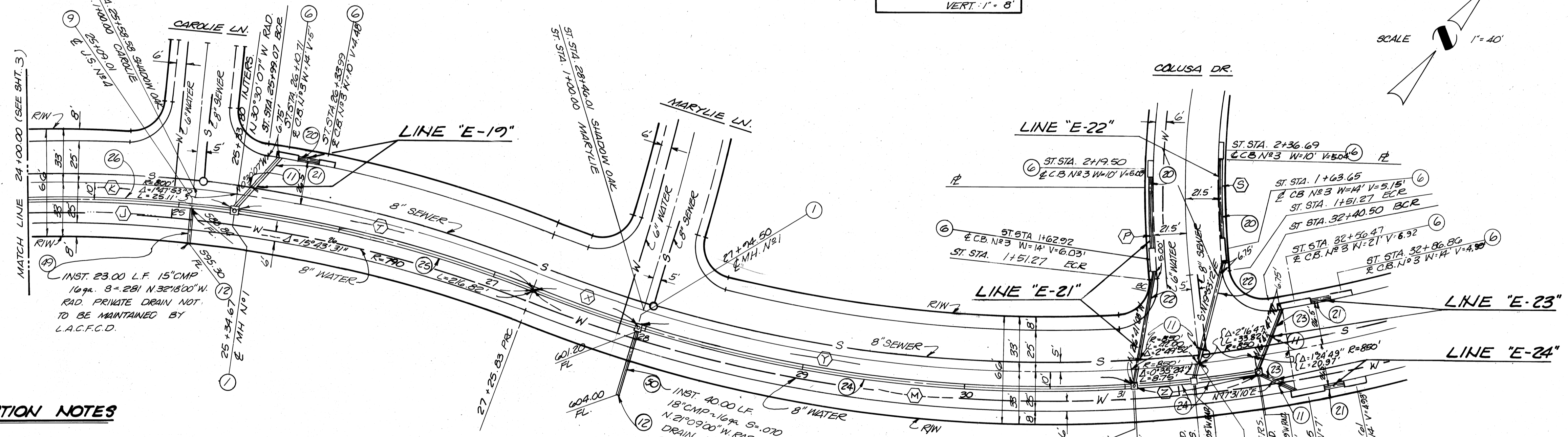
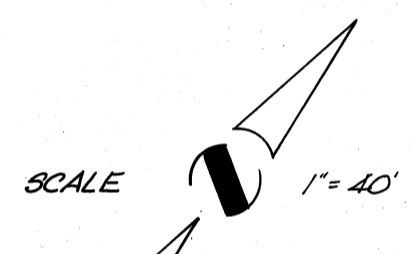
TR. 30673 STORM DRAIN IMPROVEMENTS SHEET 3 OF 5

WPC 183



24 25 26 27 28 29 31 32

SCALE  
 PLAN: 1" = 40'  
 PROFILE: HORIZ. 1" = 40'  
 VERT. 1" = 8'



**CONSTRUCTION NOTES**

- ① CONST. M.H. N#1 PER L.A.C.F.C.D. STD 2-D102
- ② CONST. C.B. N#3 PER L.A.C.F.C.D. STD 2-D163
- ③ CONST. T.S. N#3 PER L.A.C.F.C.D. STD 2-D188
- ④ CONST. CONC. COLLAR PER L.A.C.F.C.D. STD 2-D393
- ⑤ CONST. 8" BRICK & MORTAR PLUG OR JOIN IF GRADING STRUCT. IS EXIST.
- ⑥ INSTALL 18" RCP (SEE PROFILE FOR D-LOAD)
- ⑦ INSTALL 21" RCP (SEE PROFILE FOR D-LOAD)
- ⑧ INSTALL 24" RCP (SEE PROFILE FOR D-LOAD)
- ⑨ INSTALL 27" RCP (SEE PROFILE FOR D-LOAD)
- ⑩ INSTALL 30" RCP (SEE PROFILE FOR D-LOAD)
- ⑪ INSTALL 33" RCP (SEE PROFILE FOR D-LOAD)
- ⑫ INSTALL 36" RCP (SEE PROFILE FOR D-LOAD)
- ⑬ INSTALL 15" CMP ~ 10 GA. ASPHALT COATED
- ⑭ INSTALL 18" CMP ~ 10 GA. ASPHALT COATED
- ⑮ CONST. J.S. N#4 PER L.A.C.F.C.D. STD 2-D193

CURVE DATA				
	Δ	R	L	T
J	38°52'00"	790'	535.90'	278.72'
K	17°41'47"	790'	244.00'	122.98'
M	30°13'17"	860'	453.62'	232.22'
N	DELETED			
P	5°08'46"	521.5'	40.84'	23.44'
R	DELETED			
S	6°21'08"	478.5'	53.05'	26.55'
T	13°55'37"	790'	192.03'	96.49'
X	4°34'30"	860'	68.67'	34.35'
Y	20°32'08"	860'	308.24'	155.79'
Z	5°06'39"	860'	76.71'	39.38'

REVISIONS			
REVISED TO: ELEV. V-DEPTH, & TOP OF M.H. ELEV. TO AGREE WITH STREET PLANS AND REVISED LINE "E-21" PLAN AND PROFILE			
REVISED BY: <i>[Signature]</i>	RE N°:	RE N°:	RE N°:
DATE: 12/1/82	DATE:	DATE:	DATE:

CITY OF WALNUT APPROVED

PLANS PREPARED BY:  
**Hunsaker & Associates Inc.**  
 Planning, Engineering & Surveying  
 (714) 754-1011  
 3001 Red Hill, Building VI, Suite 212, Costa Mesa, CA 92626

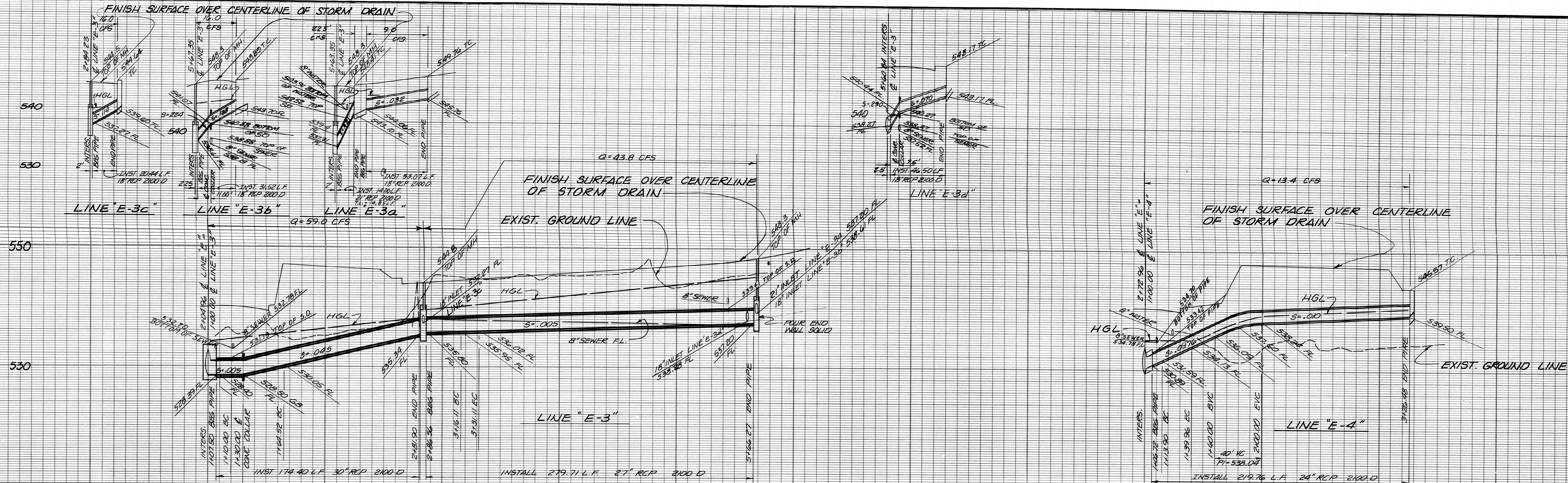
**CITY OF WALNUT**

STORM DRAIN IMPROVEMENTS  
 MISCELLANEOUS TRANSFER DRAIN N° 903  
 LINE "E"  
 STA. 24+00.00 TO STA. 31+79.45

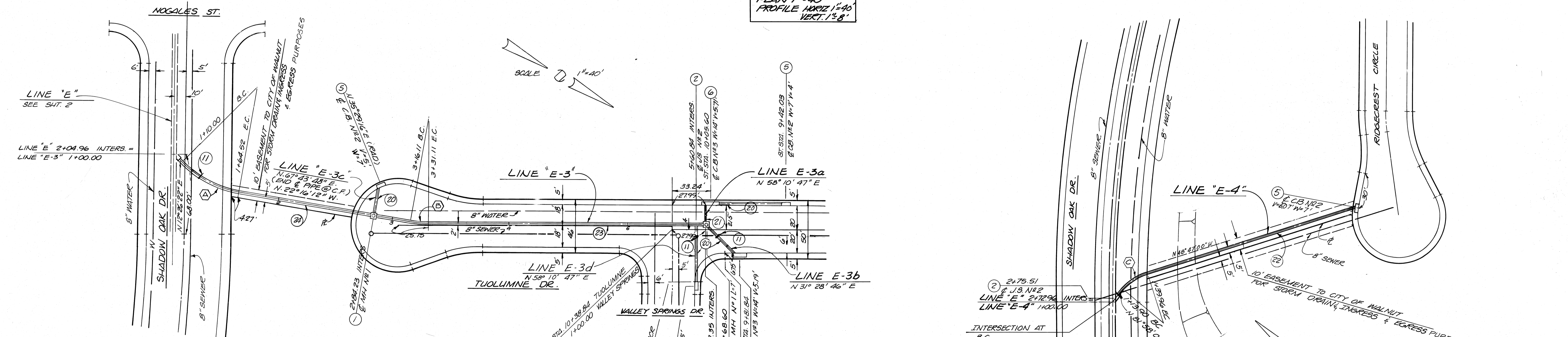
**129D**

TR. 36673	STORM DRAIN IMPROVEMENTS	SHEET 4 OF 5
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WPC 183



SCALE  
 PLAN 1"=40'  
 PROFILE HORIZ 1"=40'  
 VERT. 1"=8'



**CONSTRUCTION NOTES**

- ① CONST. MH N#1 PER LACFCD STD 2-D102
- ② CONST. J.S. N#2 PER LACFCD STD 2-D112
- ③ CONST. C.B. N#2 PER LACFCD STD 2-D162
- ④ CONST. C.B. N#3 PER LACFCD STD 2-D163
- ⑤ CONST. CONC. COLLAR PER LACFCD STD 2-D393
- ⑥ INSTALL 18" RCP (SEE PROFILE FOR D-LOAD)
- ⑦ INSTALL 21" RCP (SEE PROFILE FOR D-LOAD)
- ⑧ INSTALL 24" RCP (SEE PROFILE FOR D-LOAD)
- ⑨ INSTALL 27" RCP (SEE PROFILE FOR D-LOAD)
- ⑩ INSTALL 30" RCP (SEE PROFILE FOR D-LOAD)

CURVE DATA				
Δ	R	L	T	
A 34° 42' 34"	90	54.52'	28.13'	
B 9° 33' 01"	90	15.00'	7.52'	
C 33° 11' 06"	45	26.06'	13.41'	

REVISIONS			
REVISED PROFILE OF LINES E-3a, E-3b, & E-3c TO AGREE WITH PLAN	REVISED T.C. ELEV., V-DEPTH, AND TOP OF MH. ELEV. TO AGREE WITH STREET PLANS.	REVISED BY: <i>[Signature]</i> RE NO. 25167 DATE 12/11/80	REVISED BY: <i>[Signature]</i> RE NO. 25167 DATE 12/11/80
REVISED BY: <i>[Signature]</i> RE NO. 25167 DATE 11/11/80	REVISED BY: <i>[Signature]</i> RE NO. 25167 DATE 12/11/80	REVISED BY: <i>[Signature]</i> RE NO. 25167 DATE 12/11/80	REVISED BY: <i>[Signature]</i> RE NO. 25167 DATE 12/11/80

CITY OF WALNUT APPROVED <i>[Signature]</i> 8/28/80 CITY ENGINEER FRANK SALFINGER RE 12225	PLANS PREPARED BY: <b>Hunsaker Associates Inc.</b> Planning, Engineering & Surveying (714) 754-1011 3001 Red Hill, Building VI, Suite 212, Costa Mesa, CA 92626	CITY OF WALNUT STORM DRAIN IMPROVEMENTS MISCELLANEOUS TRANSFER DRAIN N# 903 LINE "E-3" & LINE "E-4" 129E
	TR. 36673	