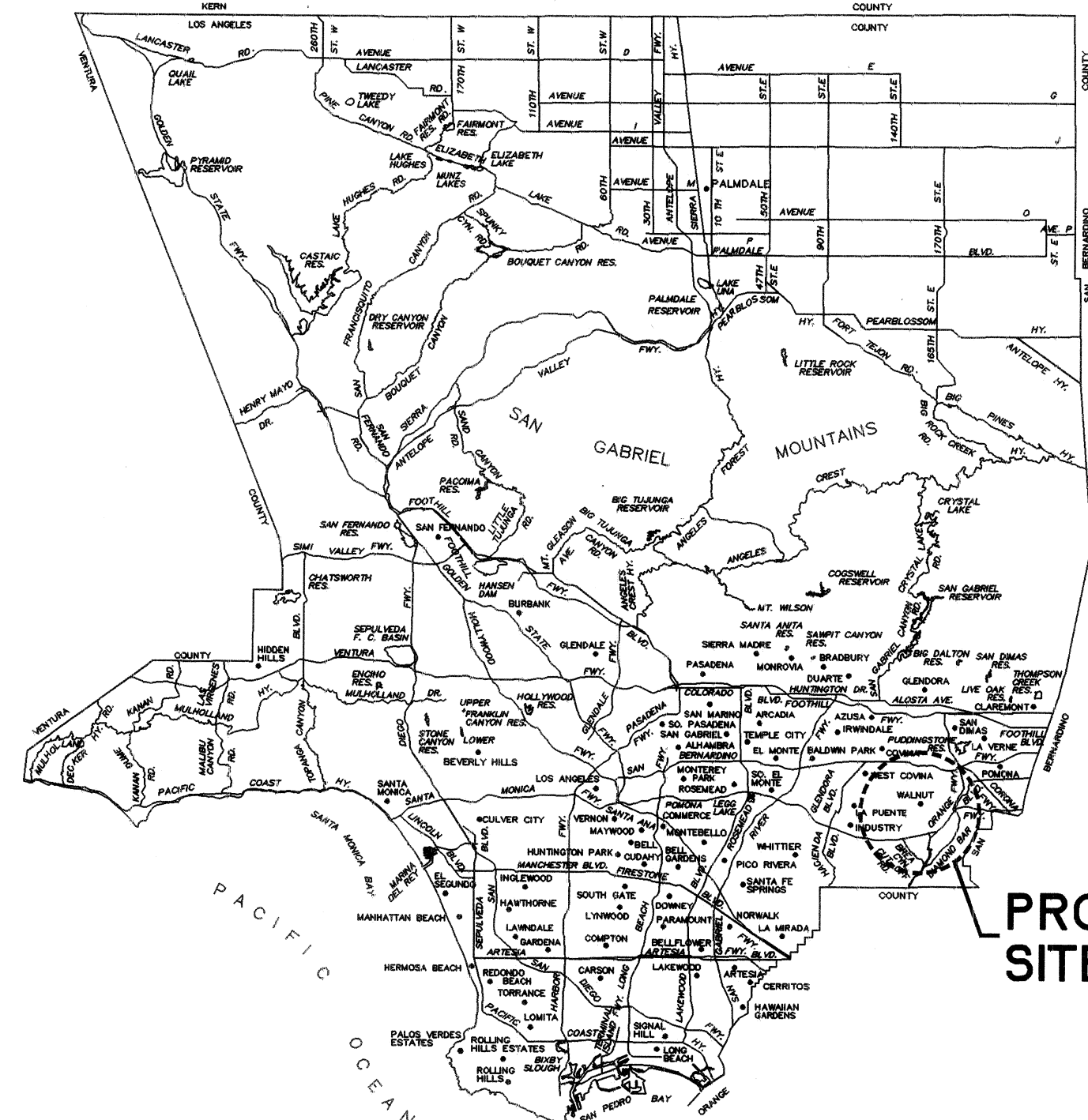


# CITY OF WALNUT STORM DRAIN IMPROVEMENTS PASEO DEL PRADO MTD 1557

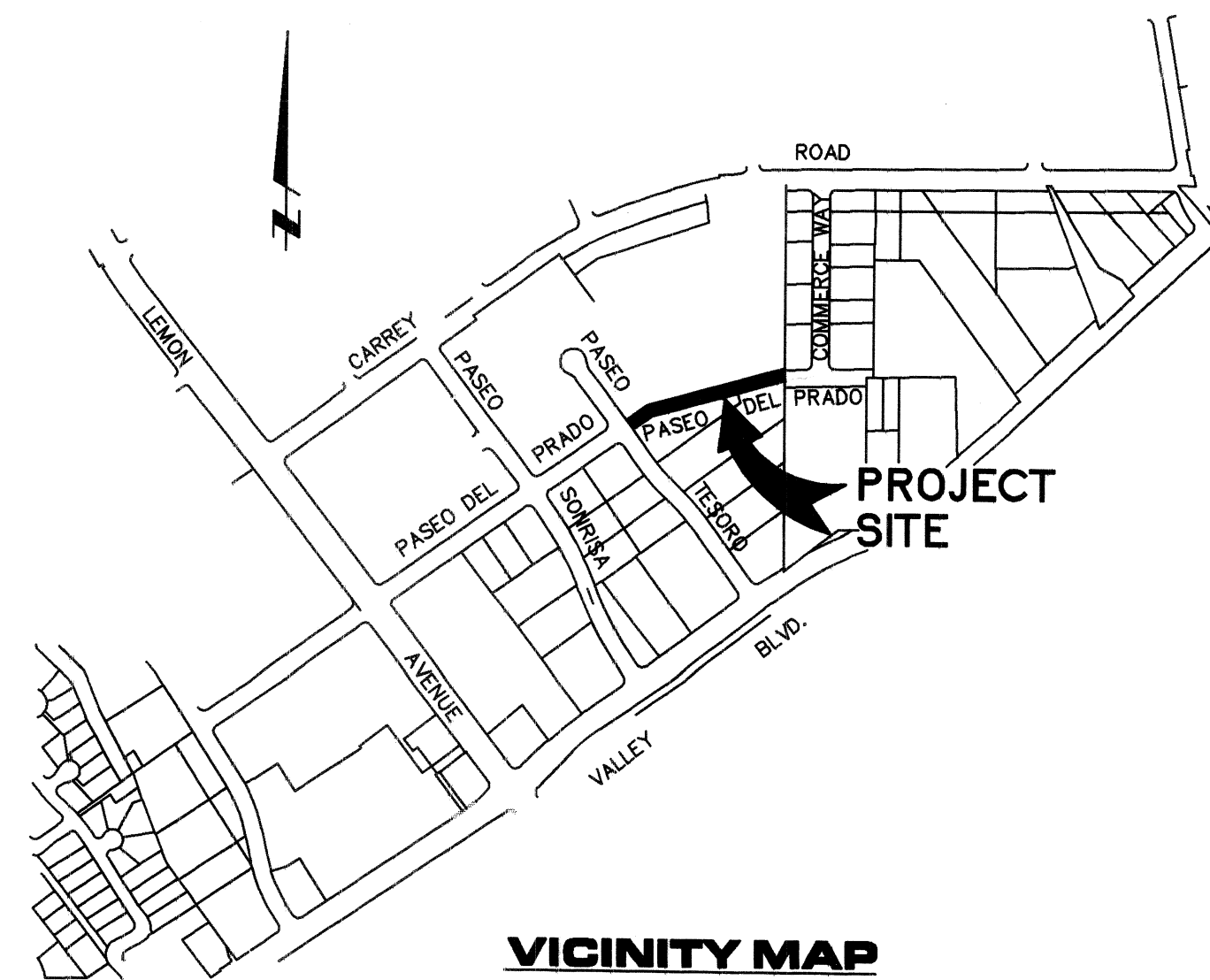
## INDEX TO PROJECT DRAWINGS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	GENERAL NOTES, WATER QUALITY NOTES, DETAILS
3	PLAN AND PROFILE



T.G. PAGE NO. 679, F-1  
**LOCATION MAP**

**PROJECT SITE**



**VICINITY MAP**  
SCALE: 1" = 500'

**PROJECT SITE**

### STORMWATER POLLUTION CONTROL REQUIREMENTS FOR STORM DRAIN CONSTRUCTION

- A. NOTES:
- Eroded sediments and other pollutants must be retained on site and may not be transported from the site via sheet flow, swales, area drains, natural drainage courses, or wind.
  - Stockpiles of earth and other construction related materials must be protected from being transported from the site by the forces of wind or water.
  - Fuels, oils, solvents, and other toxic materials must be stored in accordance with their listing and are not to contaminate the soil and surface waters. All approved storage containers are to be protected from the weather. Spills must be cleaned up immediately and disposed of in a proper manner. Spills may not be washed into the drainage system.
  - Excess or waste concrete may not be washed into the public way or any other drainage system. Provisions shall be made to retain concrete wastes on site until they can be disposed of as solid waste.
  - Trash and construction-related solid wastes must be deposited into a covered receptacle to prevent contamination of rainwater and dispersal by wind.
  - Sediments and other materials may not be tracked from the site by vehicle traffic. The construction entrance roadways must be stabilized so as to inhibit sediments from being deposited into the public way. Accidental depositions must be swept up immediately and may not be washed down by rain or other means.
  - Any slopes with disturbed soils or denuded of vegetation must be stabilized so as to inhibit erosion by wind and water.
- B. The following BMPs as outlined in, but not limited to, the Best Management Practice Handbook, California Stormwater Quality Task Force, Sacramento, California 1993, or the latest revised edition, may apply during construction (additional measures may be required if deemed appropriate by inspector):

### LIST OF STANDARD DRAWINGS

#### LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS

DWG. NO.	DESCRIPTION
<b>MISCELLANEOUS</b>	
LACDPW 3053-0	Reinforced Concrete Box Culvert
LACDPW 3080-1	Pipe Bedding in Trenches
LACDPW 3090-0	Shoring for Excavations
LACDPW 3091-0	Sample Sheet
LACDPW 3093-0	Soil Classification System

#### LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

DWG. NO.	DESCRIPTION
<b>MISCELLANEOUS</b>	
LACFCD 2-D171	Standard A-615 Reinforcing Bars
LACFCD 2-D264	Adjustable Protection Bar Stirrup
LACFCD 2-D157	Catch Basin Reinforcement for Round Manholes
LACFCD 2-D264	Adjustable Protection Bar Stirrup

#### AMERICAN PUBLIC WORKS ASSOCIATION

STD. PLAN	TITLE
<b>CATCH BASIN, INLETS, AND APPURTENANCES</b>	
APWA 300-1	Catch Basin
APWA 312-1	Manhole Frame and Cover
APWA 316-0	Protection Bar
APWA 309-0	Reinforcement
APWA 308-0	Connections for Pipes 12 Inches Through 72 Inches

APWA 313-0 Local Depressions at Catch Basins

<b>MANHOLES</b>	
APWA 323-0	Manhole No. 3 (Concrete Box)
APWA 324-0	Manhole Shaft

<b>MISCELLANEOUS</b>	
APWA 224-0	Pipe Support Across Trenches
APWA 635-1	Standard Drop Step
APWA 630-1	Frame and Cover
APWA 225-0	Blanket Protection for Pipes
APWA 334-0	Junction Structure No. 3
APWA 636-0	Polypropylene Plastic Step
APWA 341-0	Transition Structure No. 2
APWA 342-0	Transition Structure No. 1

- CA001 - DEWATERING OPERATIONS
- CA002 - PAVING OPERATIONS
- CA003 - STRUCTURE CONSTRUCTION AND PAINTING
- CA010 - MATERIAL DELIVERY AND STORAGE
- CA012 - SPILL PREVENTION AND CONTROL
- CA020 - SOLID WASTE MANAGEMENT
- CA021 - HAZARDOUS WASTE MANAGEMENT
- CA023 - CONCRETE WASTE MANAGEMENT
- CA030 - VEHICLE AND EQUIPMENT CLEANING
- CA031 - VEHICLE AND EQUIPMENT FUELING
- CA032 - VEHICLE AND EQUIPMENT MAINTENANCE
- CA040 - EMPLOYEE/SUBCONTRACTOR TRAINING
- ESC01 - SCHEDULING
- ESC02 - PRESERVATION OF EXISTING VEGETATION
- ESC10 - SEEDING AND PLANTING
- ESC11 - MULCHING
- ESC20 - GEOTEXTILES AND MATS
- ESC21 - DUST CONTROLS
- ESC22 - TEMPORARY STREAM CROSSING
- ESC23 - CONSTRUCTION ROAD STABILIZATION
- ESC24 - STABILIZED CONSTRUCTION ENTRANCE
- ESC30 - EARTH DIKE
- ESC31 - TEMPORARY DRAINS AND SWALES
- ESC32 - SLOPE DRAIN
- ESC40 - OUTLET PROTECTION
- ESC41 - CHECK DAMS
- ESC50 - SILT FENCE
- ESC51 - STRAW BALE BARRIERS
- ESC52 - SAND BAG BARRIER
- ESC53 - BRUSH OR ROCK FILTER
- ESC54 - STORM DRAIN INLET PROTECTION

### CONSTRUCTION NOTES & QUANTITY ESTIMATE

①	CONSTRUCT SINGLE CONCRETE BOX CULVERT SIZE 6'-0"W X 4'-0"H PER L.A.C.D.P.W. STD. 3053-0.	464 L.F.
②	CONSTRUCT TRANSITION STRUCTURE NO. 2 PER A.P.W.A. STD. 341-0.	1 EA.
③	CONSTRUCT TRANSITION STRUCTURE NO. 1 PER A.P.W.A. STD. 342-0.	1 EA.
④	CONSTRUCT JUNCTION STRUCTURE NO. 3 PER A.P.W.A. STD. 334-0.	3 EA.
⑤	CONSTRUCT 21" R.C.P. - 2000D.	42 L.F.
⑥	CONSTRUCT 18" R.C.P. - 2000D.	50 L.F.
⑦	CONSTRUCT CATCH BASIN (WIDTH = 7') PER A.P.W.A. STD. 300-0.	2 EA.
⑧	CONSTRUCT MANHOLE NO. 3 PER A.P.W.A. STD. 323-0.	1 EA.
⑨	REMOVE EXISTING INLET STRUCTURE (INCLUDING HEADWALL, WINGWALL, ENTRY SLAB, TRASH RACK AND FENCING).	L.S.
⑩	CONSTRUCT LOCAL DEPRESSION, CASE E PER A.P.W.A. STD. 313-0.	68 S.F.
⑪	CONSTRUCT BLANKET PROTECTION PER A.P.W.A. STD. 225-0.	1 EA.

### 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 SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THIS DRAWING.

*David G. Gilbertson* 3/9/98  
REGISTERED CIVIL ENGINEER NO. 46624 DATE

**BENCH MARK:**  
CG 4913 ELEV.=527.735  
L. & BR IN E'LY. CURB PASEO TESORO 300 M.M. NORTH OF B.C.R., 7.3 M. EAST OF CENTERLINE & 23.8 M. NORTH OF CENTERLINE VALLEY BLVD.

**IMPORTANT NOTICE**  
Section 4216/4217 of the Government Code requires a Dig Alert Identification Number be issued before a "Permit to Excavate" will be valid. For your Dig Alert I.D. Number call Underground Service Alert TOLL FREE 1-800-422-4133 Two working days before you dig.

APPROVED:  
BY: *Ronald A. ...* 3-4-98  
CITY ENGINEER DATE

NO.	REVISION	REVISED BY	APPROVED BY	DATE

REGISTERED PROFESSIONAL ENGINEER  
DAVID G. GILBERTSON  
NO. 46624  
Exp. 8/30/99  
CIVIL  
STATE OF CALIFORNIA  
*David G. Gilbertson* 3/4/98  
DAVID G. GILBERTSON DATE

**STORM DRAIN PLANS IN  
MTD 1557**  
CITY OF WALNUT

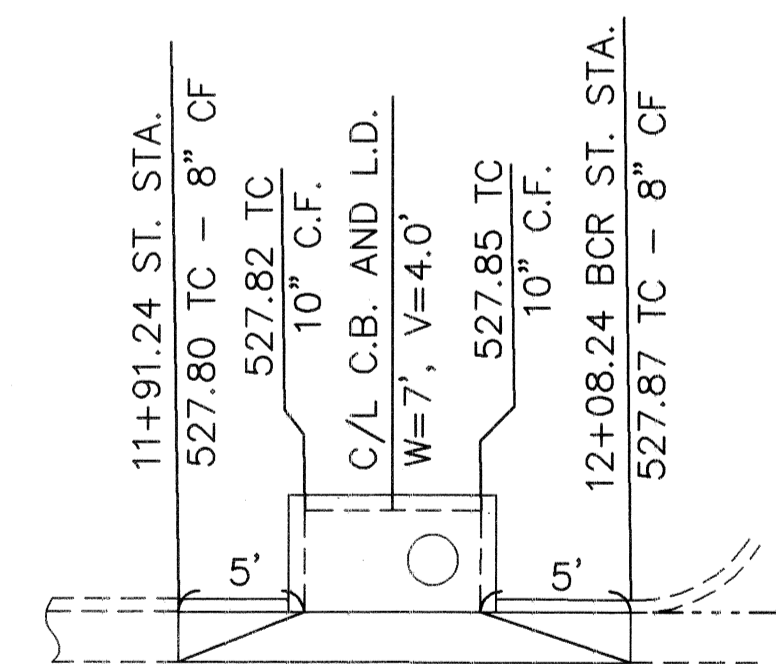
PLAN PREPARED BY:  
**RKA**  
**Civil Engineers Inc.**  
388 S. Lemon Creek Drive, Suite E Walnut, California 91789  
(909) 594-9702 (818) 331-8323 Fax (909) 594-2658

178542SD.DWG 1/16/98 SHEET 1 OF 3

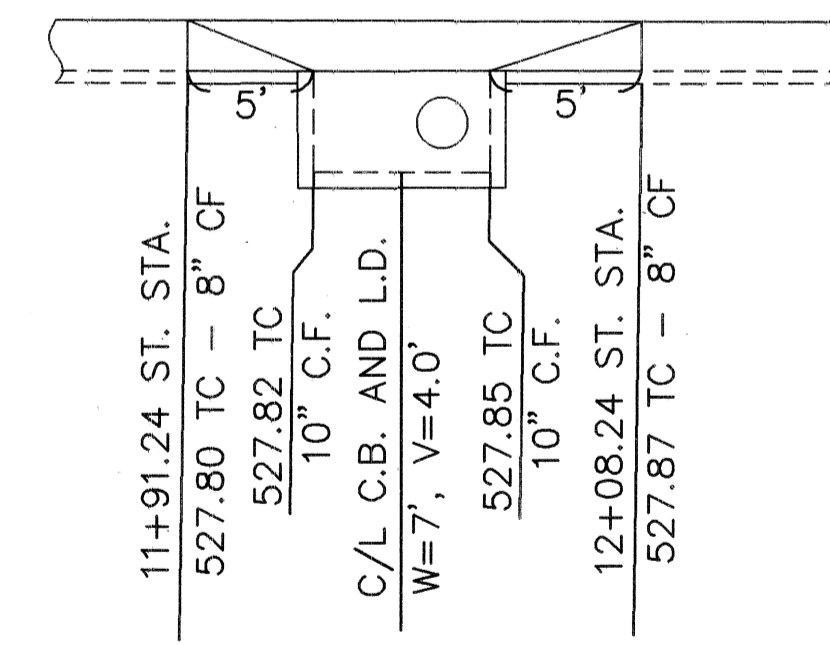
**GENERAL NOTES:**

1. A permit shall be obtained and all fees and deposits for construction inspection shall be paid to the Department of Public Works at the Permit Counter, 900 South Fremont Avenue, 8th Floor, prior to starting work under this contract. Also, all other required permits, such as Road Excavation Permits, must be obtained prior to starting work.
2. The contractor shall contact the District Office listed on the "Application for Storm Drain Construction Inspection Form I" to arrange for an acceptable construction start date.
3. Approval of this plan by the County of Los Angeles does not constitute a representation to the accuracy of the location, or the existence or nonexistence of any underground utility, pipe or structure within the limits of this project. This note applies to all sheets.
4. All work shall be in accordance with the latest adopted edition of the "Standard Specifications for Public Works Construction," including supplements, and shall be prosecuted only in the presence of the Director of Public Works/City Engineer.
5. 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.
6. Elevations are in feet above U.S.C. & G.S. Mean Sea Level Datum of 1929, unless otherwise indicated.
7. No concrete shall be placed until the forms and reinforcing steel have been placed, inspected and approved.
8. All structural concrete shall be Portland cement concrete with an ultimate 28 day compressive strength of 3250 psi unless otherwise noted.
9. Transverse reinforcement and transverse joints shall be placed at right angles (or radial) to the conduit centerline except as otherwise shown on the drawings.
10. All steel adjacent to face of concrete shall have a 2-1/2-inch clearance unless otherwise specified.
11. Reinforcement shall be deformed bars of intermediate grade steel, per ASTM A-615-Grade 60.
12. All bar bends and hooks shall conform to the American Concrete Institute "Manual of Standard practice."
13. Dimensions from face of concrete to steel are to centerline of steel unless otherwise noted.
14. All steel that is to be continuous shall have a minimum lap of 30 bar diameters or 18 inches, whichever is greater.
15. All construction joints in the footing or slabs and walls shall be in the same plane. No staggering of joints will be permitted.
16. All exposed edges shall be finished with a 3/4-inch chamfer.
17. 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.
18. Concrete backfill is required when the pipe has less than one foot of cover. The concrete backfill shall consist of 1:3:5 mix, Portland cement concrete poured from wall to wall of trench and from bottom of trench to a minimum of 4 inches over the top of the pipe.
19. All pipes shall be placed in trench in natural ground and/or compacted fill. The ground level before the trenching shall be at least 3 feet above the top of the pipe elevation, or at finish surface elevation, whichever is less.
20. All backfill and fills outside of street right of way shall be compacted to 90 percent of maximum density as determined by ASTM Soil Compaction Test D 1557-78 Method "D" unless otherwise specified. This shall be certified by a geotechnical engineer. This certification shall be submitted to the City Engineer prior to acceptance of the work by the County.
21. All backfill and fills within street rights of way shall be compacted in accordance with City requirements unless otherwise noted and inspected by the City. The soil compaction shall be certified by a geotechnical engineer.
22. Pipe bedding shall be:  
In accordance with Los Angeles County Department of Public Works Standard Plan No. 3092 unless otherwise noted.  
OR  
According to Standard Plan No. 3080, Case III, except bell and spigot pipe which shall be Case II bedding, unless otherwise shown. "W" values shall be as specified on Standard Plan No. 3080 for Case III bedding, Notes 3 (a), 3 (b), and 3 (c). If the "W" value at the tip of the pipe is exceeded, the bedding shall be modified, and/or pipe of additional strength shall be provided. The proposed modification shall be approved by the Department.
23. Pipe shall be embedded 5 inches into all structures including inlet and head walls, unless otherwise specified.
24. "Unless otherwise specified in the profile on these plans, the pipe shall be manufactured with a minimum concrete cover over the steel in the invert of 0.75 inches for RCP up to 96 inches in diameter and 1.25 inches for pipe greater than 96 inches in diameter."
25. All catch basins within the dedicated street right of way shall be constructed per Standard Plans for Public Works Construction.
26. The contractor shall provide to the satisfaction of the City Engineer and the Director of Public Works a drainage system for contributory flows to be operable at all times until this storm drain system is accepted for maintenance. The design of the drainage system must be prepared under the direction of a Civil Engineer.
27. All references on this plan to the County Engineer, Road Department, or Flood Control District shall apply to the appropriate elements of the Department of Public Works.
28. Existing utilities shall be maintained in place by the contractor, unless otherwise noted.
29. Where the utilities are indicated on the Drawings to be supported, said supports shall be in accordance with Standard Plans for Public Works Construction No. 224 unless otherwise indicated.
30. 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.
31. Manholes Nos. 1, 2, 3, and 4, shall use the Standard Plans for Public Works Construction No. 630 for the "Frame and Cover" and No. 635 for the "Standard Drop Step."
32. This storm drain will not be field accepted until the streets have been paved, manholes brought to grade, and the system cleaned to the satisfaction of the Director of Public Works.
33. A NPDES Permit from the Regional Water Quality Control Board is required before any discharge of non-storm water into the storm drain is allowed.
34. The latest revised standard plan or drawing shall be used unless otherwise noted.

HYDRAULIC ELEMENT TABLE					
LINE	PIPE REACH		SECTION	Q <sub>25</sub> (cfs)	VELOCITY
	FROM STA.	TO STA.			
A	0+00.00	0+16.00	4' W x 4.5' H	196.9	11.09
A	0+16.00	0+44.56	6' W x 4' H	196.9	21.86
A	0+44.56	3+02.56	6' W x 4' H	194.5	8.19
A	3+02.56	5+05.75	6' W x 4' H	187.1	7.88
A-1	0+00.00	0+47.25	21"	7.4	3.08



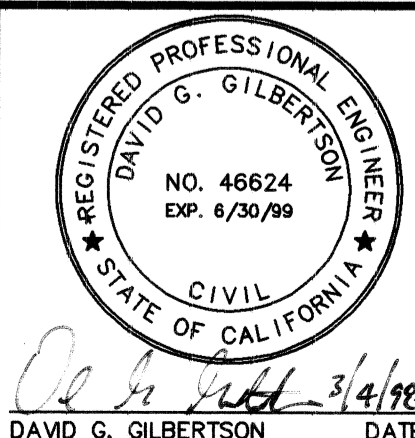
**DETAIL A**  
N.T.S.



**DETAIL B**  
N.T.S.

APPROVED:  
BY: *David G. Gilbertson* 3-4-98  
CITY ENGINEER DATE

NO.	REVISION	REVISED BY	APPROVED BY	DATE



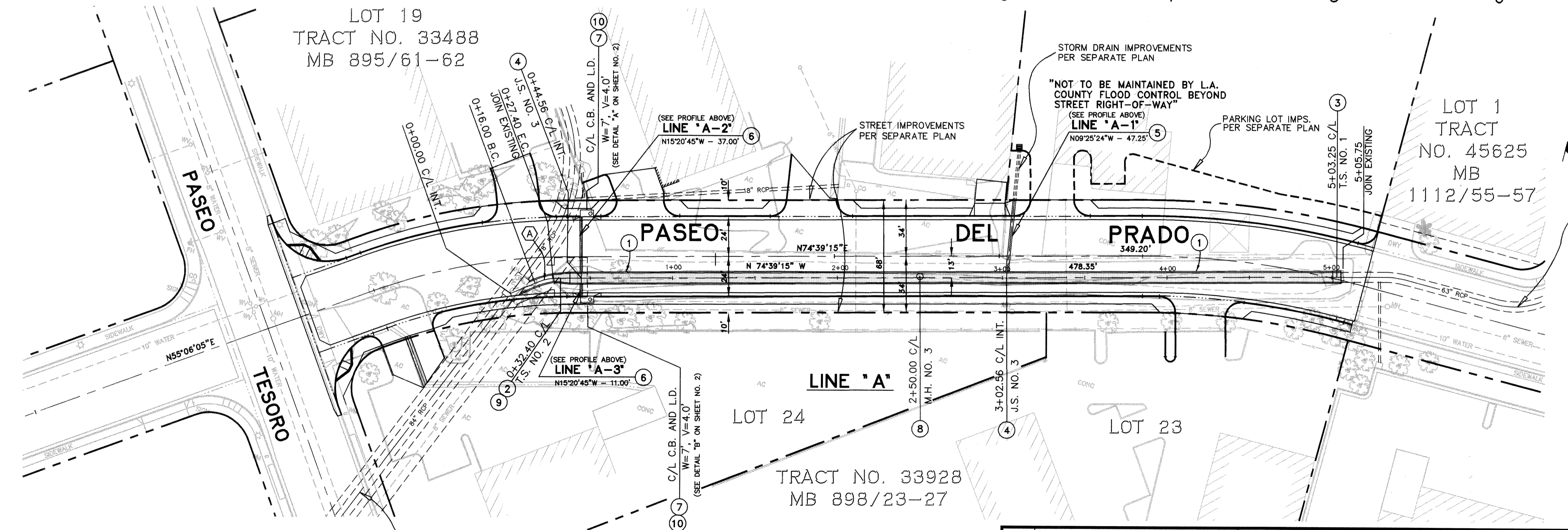
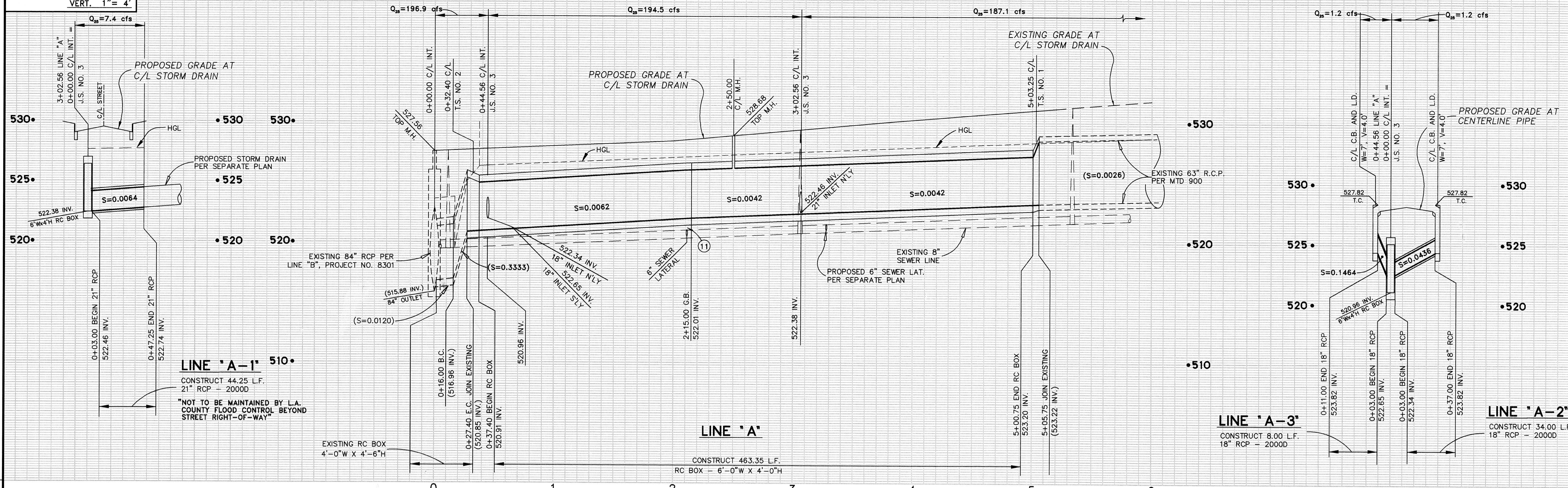
**STORM DRAIN PLANS IN MTD 1557**  
CITY OF WALNUT

PLAN PREPARED BY:  
**RKA**  
**Civil Engineers Inc.**  
398 S. Lemon Creek Drive, Suite E Walnut, California 91789  
(909) 594-9702 (818) 331-8323 Fax (909) 594-2658

178542SD.DWG 1/16/98

SHEET 2 OF 3

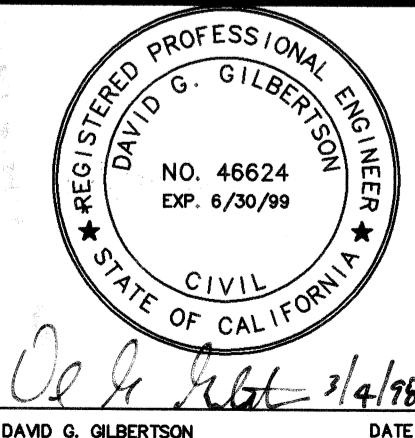
SCALE: HOR. 1" = 40'  
VERT. 1" = 4'



NO.	DELTA	RADIUS	LENGTH	TAN
(A)	14°30'57"	45.00'	11.40'	5.73'

APPROVED:  
BY: *[Signature]* 3-4-98  
CITY ENGINEER DATE

NO.	REVISION	REVISED BY	APPROVED BY	DATE



- ### CONSTRUCTION NOTES
- CONSTRUCT SINGLE CONCRETE BOX CULVERT SIZE 6'-0"W X 4'-0"H PER L.A.C.D.P.W. STD. 3053-0.
  - CONSTRUCT TRANSITION STRUCTURE NO. 2 PER A.P.W.A. STD. 341-0.
  - CONSTRUCT TRANSITION STRUCTURE NO. 1 PER A.P.W.A. STD. 342-0.
  - CONSTRUCT JUNCTION STRUCTURE NO. 3 PER A.P.W.A. STD. 334-0.
  - CONSTRUCT 21" R.C.P. - 2000D.
  - CONSTRUCT 18" R.C.P. - 2000D.
  - CONSTRUCT CATCH BASIN (WIDTH = 7') PER A.P.W.A. STD. 300-0.
  - CONSTRUCT MANHOLE NO. 3 PER A.P.W.A. STD. 323-0.
  - REMOVE EXISTING INLET STRUCTURE (INCLUDING HEADWALL, WINGWALL, ENTRY SLAB, TRASH RACK AND FENCING).
  - CONSTRUCT LOCAL DEPRESSION, CASE E PER A.P.W.A. STD. 313-0.
  - CONSTRUCT BLANKET PROTECTION PER A.P.W.A. STD. 225-0.

STORM DRAIN PLANS IN MTD 1557  
CITY OF WALNUT  
PLAN PREPARED BY:  
**RKA**  
Civil Engineers Inc.  
388 S. Lemon Creek Drive, Suite E, Walnut, California 91789  
(909) 594-9702 (818) 331-8323 Fax (909) 594-2658

188C