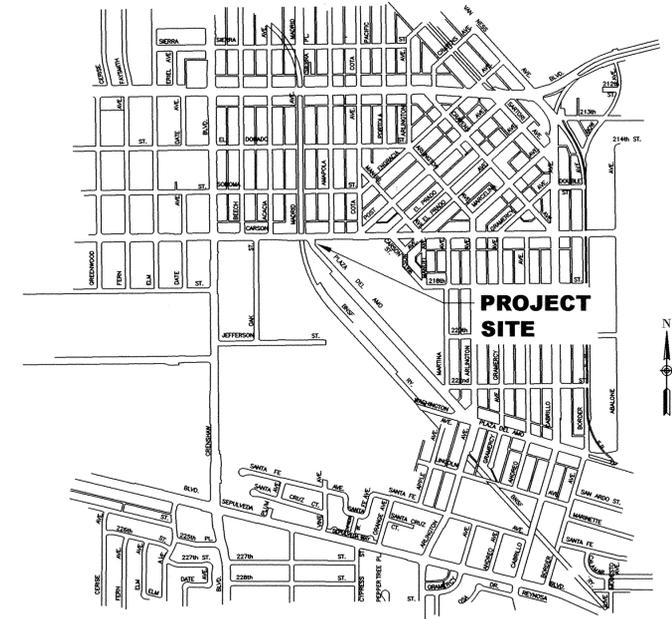


CITY OF TORRANCE

CONSTRUCTION PLANS FOR

TEEN CENTER DRAINAGE IMPROVEMENTS, CIP No. I-160

ON PLAZA DEL AMO, SOUTH OF CARSON STREET
2320 WEST CARSON STREET



VICINITY MAP

NTS

STORM DRAIN GENERAL NOTES:

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION AND SUPPLEMENTS THERETO, AS WRITTEN AND PROMULGATED BY PUBLIC WORKS STANDARDS, INC., HEREINAFTER REFERRED TO AS THE STANDARD SPECIFICATIONS, THE TORRANCE STANDARDS, AND TO THE SATISFACTION OF THE ENGINEER.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE, VERIFY DEPTH AND PROTECT ALL STRUCTURES, INCLUDING SUBSTRUCTURES, SHOWN ON THE PLAN. THE CONTRACTOR SHALL BEAR THE ENTIRE COST OF REPAIRING OR REPLACING ANY OF SAID STRUCTURES DAMAGED BY HIM/HER DURING PROSECUTION OF THE WORK. ALL REPAIRS AND REPLACEMENTS SHALL BE DONE IN THE PRESENCE OF THE INSPECTOR. ALL LOCATIONS SHOWN ON THE PLAN FOR UTILITY LINES HAVE BEEN TAKEN FROM AVAILABLE RECORDS AND THEIR COMPLETENESS AND CORRECTNESS ARE IN NO WAY GUARANTEED.
- THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT AT 811 AND ALL PUBLIC UTILITY COMPANIES AND OWNERS OF PRIVATE FACILITIES WITHIN THE AREA OF CONSTRUCTION AT LEAST 72 HOURS IN ADVANCE OF PERFORMING ANY WORK WITHIN SAID AREA.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FROM THE CITY BEFORE COMMENCING WORK. TRAFFIC CONTROL WITHIN PUBLIC STREET RIGHTS OF WAY SHALL BE IN CONFORMANCE WITH THE CALIFORNIA MUTCD MANUAL OR CITY OF TORRANCE STANDARDS FOR TRAFFIC CONTROL, LATEST EDITION. THE CONTRACTOR SHALL PROVIDE A 24-HOUR TELEPHONE NUMBER FOR EMERGENCY REPAIRS TO TRAFFIC CONTROL AND PAVEMENT MARKINGS.
- CAUTION: REVIEW APPROVED CONSTRUCTION PLAN. IF CONSTRUCTION REQUIRES WORKERS AND/OR EQUIPMENT TO BE WITHIN 6 FEET OR CRANES OR HOISTING DEVICES TO BE WITHIN 10 FEET OF OVERHEAD ELECTRIC LINES, CALL SOUTHERN CALIFORNIA EDISON CO. AT 310-783-9339 FOR PROJECTS IN RESIDENTIAL AREAS OR 310-783-9336 FOR PROJECTS IN COMMERCIAL AREAS.
- PRIOR TO COMMENCEMENT OF WORK, ALL SURVEY MONUMENTS IN THE PROJECT AREA SHALL BE LOCATED AND TIED OUT. ALL CENTERLINE MONUMENTS OR TIES LOST OR DESTROYED BY THIS WORK SHALL BE REPLACED EITHER BY A LICENSED SURVEYOR OR A CIVIL ENGINEER REGISTERED PRIOR TO JANUARY 1, 1982 AND NEW TIE SHEETS PROVIDED. METHOD OF ESTABLISHMENT SHALL BE STATED ON THE TIE SHEET.
- GRADE SHEETS PREPARED AND STAMPED BY A LICENSED ENGINEER OR SURVEYOR SHALL BE DELIVERED TO THE INSPECTOR 24 HRS PRIOR TO COMMENCEMENT OF WORK.
- THE CONTRACTOR SHALL NOTIFY THE PUBLIC WORKS DEPARTMENT AT 310-781-6900 PRIOR TO TRIMMING, REMOVING OR RELOCATING ANY EXISTING STREET TREES.
- UNLESS OTHERWISE SHOWN, ALL TRAFFIC SIGNS SHALL BE RELOCATED OR REMOVED BY THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY THE PUBLIC WORKS DEPARTMENT AT 310-781-6900 AT LEAST 2 WORKING DAYS IN ADVANCE OF THE WORK.
- IN CASE OF CONFLICT BETWEEN A CONNECTOR PIPE AND AN EXISTING UNDERGROUND LINE, THE CONNECTOR PIPE MAY BE REALIGNED OVER OR UNDER THE CONFLICTING LINE. CONNECTOR PIPE GRADES SHALL DRAIN POSITIVELY TOWARD THE MAIN LINE, AND WHERE GRADE BREAKS EXCEED FIVE DEGREES A CONCRETE COLLAR PER A.P.W.A. STD. DRAWING 380 SHALL BE CONSTRUCTED. APPROVAL FOR REALIGNMENT SHALL BE OBTAINED FROM THE COMMUNITY DEVELOPMENT/PUBLIC WORKS DIRECTOR PRIOR TO COMMENCEMENT OF WORK.
- TRENCHES CUT INTO AN EXISTING ROADWAY WITHIN THE PUBLIC RIGHT OF WAY SHALL BE BACKFILLED AND PAVED AS PER TORRANCE STANDARD T116.
- MANHOLE AND CATCH BASIN COVERS SHALL BE CAST WITH THE WORDS "TORRANCE DRAIN" FOR CITY MAINTAINED LINES AND "PRIVATE DRAIN" FOR PRIVATELY MAINTAINED LINES.
- DURING NON-CONSTRUCTION HOURS, ALL EXCAVATIONS MUST BE PLATED OR BACKFILLED EXCEPT BORE PITS WHICH SHALL BE SECURED WITH K-RAIL AND 6' HIGH CHAIN LINK FENCE PANELS SECURED IN PLACE TO THE SATISFACTION OF THE ENGINEER. PLATES SHALL BE TACK WELDED, PINNED AND/OR SECURED IN PLACE BY ANOTHER METHOD APPROVED BY THE INSPECTOR.
- THE CONTRACTOR SHALL MAKE AVAILABLE FOR THE INSPECTOR'S REVIEW, ON A DAILY BASIS, AS-BUILT DRAWINGS FOR WORK PERFORMED UP TO AND INCLUDING THE PREVIOUS DAY'S ACTIVITIES. WORK SHALL NOT BE CONSIDERED AS COMPLETE UNTIL AS-BUILT DRAWINGS ARE SUBMITTED TO AND ACCEPTED BY THE PUBLIC WORKS DIRECTOR.
- TRENCH RESURFACING SHALL BE OF THE SAME TYPE AS THE EXISTING PAVEMENT, EXCEPT IF EXISTING PAVEMENT IS A.C. OVER P.C.C., RESURFACING MAY BE FULL-DEPTH A.C.
- THE CONTRACTOR SHALL MODIFY AND/OR RESTORE EXISTING LANDSCAPE AND IRRIGATION SYSTEMS AS NECESSARY TO THE SATISFACTION OF THE PUBLIC WORKS DEPARTMENT.
- ALL PAVEMENT MARKINGS, LEGENDS AND STRIPING SHALL BE REPLACED IN KIND TO THE SATISFACTION OF THE ENGINEER WITHIN 2 WORKING DAYS OF INSTALLING THE PAVEMENT REPAIR OVER THE TRENCH.
- THE LOCATIONS, DEPTHS, SIZES AND DIMENSIONS OF UNDERGROUND AND SURFACE STRUCTURES ARE BASED ON INFORMATION PROVIDED TO THE PUBLIC WORKS DEPARTMENT, ARE APPROXIMATE, AND MAY NOT BE ACCURATE OR COMPLETE. THE STRUCTURES ARE SHOWN FOR INFORMATION TO THE CONTRACTOR BUT THE INFORMATION IS NOT TO BE CONSTRUED AS A REPRESENTATION THAT THE STRUCTURES WILL BE FOUND WHERE SHOWN, OR THAT THE STRUCTURES SHOWN ON THE PLANS REPRESENT ALL THE STRUCTURES WHICH MAY BE ENCOUNTERED. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION, DEPTH AND SIZE OF ALL UNDERGROUND FACILITIES PRIOR TO ANY CONSTRUCTION AND NOTIFY THE ENGINEER IMMEDIATELY IF ANY CONFLICT OR DISCREPANCY IS FOUND. THE CONTRACTOR SHALL POTHOLE TO DETERMINE EXACT DEPTH AND LOCATION PRIOR TO EXCAVATING.

STRIPING GENERAL NOTES:

- ALL PAVEMENT STRIPING MARKINGS AND LEGENDS SHALL BE THERMOPLASTIC.
- PAVEMENT STRIPING, MARKINGS AND LEGENDS SHALL BE PER LATEST CALTRANS STANDARD PLAN A24C.
- CONTRACTOR SHALL VERIFY ALL PLAN DIMENSIONS IN FIELD PRIOR TO INSTALLATION OF PAVEMENT STRIPING/MARKING LAYOUT ("CAT-TRACK"). SHOULD FIELD MEASUREMENTS DIFFER FROM THE PLAN, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER. NO "CAT TRACK" MARKS SHALL BE PLACED UNTIL DISCREPANCIES ARE RESOLVED.
- "CAT-TRACK" MARKS SHALL BE MADE IN CHALK AND/OR MARKING PAINT. "STRIPING" PAINT FOR THE PURPOSE OF CAT-TRACKING IS PROHIBITED.
- EXISTING PAINTED CURBS THAT CONFLICT WITH THIS PLAN SHALL BE COVERED WITH GRAY PAINT. CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO PAINTING CURB.
- PAVEMENT STRIPING/MARKING LAYOUT ("CAT-TRACK") IS SUBJECT TO THE APPROVAL OF THE ENGINEER.

ABBREVIATIONS

AC	ASPHALT CONCRETE	LACFCD	LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
BCR	BEGINNING OF CURB RETURN	MH	MANHOLE
C/L	CENTERLINE	oh	EXISTING OVERHEAD
CO	CLEANOUT	NTS	NOT TO SCALE
CF	CURB FACE	PCC	PORTLAND CEMENT CONCRETE
CONST	CONSTRUCT	PP	POWER POLE
CMP	CORRUGATED METAL PIPE	PVC	POLYVINYL CHLORIDE
CMB	CRUSHED MISCELLANEOUS BASE	RCP	REINFORCED CONCRETE PIPE
e	EXISTING ELECTRICAL	RT	RIGHT
ECR	END OF CURB RETURN	S	SLOPE
EM	ELECTRICAL METER	SD	STORM DRAIN
EX	EXISTING	SPPWC	STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION
FL	FLOW LINE	t	EXISTING TELEPHONE
FS	FINISHED SURFACE	TEL	TELEPHONE
g	EXISTING GAS	TC	TOP OF CURB
GM	GAS METER	tc	EXISTING TELEMETER CABLE
GW	GUY WIRE	TG	TOP OF GRADE
LAT	LATERAL	Typ	TYPICAL
INV	INVERT		
LT	LEFT		

LEGEND / HATCH

	SOD
	PORTLAND CEMENT CONCRETE
	ASPHALT CONCRETE
	TYPE I EMULSIFIED-AGGREGATE SLURRY

STANDARD PLANS

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION (SPPWC) (2012 EDITION & REVISIONS)

111-5	CURB RAMP
112-2	CURB AND SIDEWALK JOINTS
113-2	SIDEWALK AND DRIVEWAY REPLACEMENT
120-2	CURB AND GUTTER - BARRIER
122-2	CROSS AND LONGITUDINAL GUTTERS
300-3	CURB OPENING CATCH BASIN
380-4	CONCRETE COLLAR FOR RCP

CITY OF TORRANCE

T116-2	TRENCH BACKFILL & PAVEMENT REPAIRS
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CALTRANS

(LATEST EDITION)

A24C	PAVEMENT MARKINGS - SYMBOLS AND NUMERALS
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REFERENCES

2320 W. CARSON ST. TOPOGRAPHIC SURVEY BY DENN ENGINEERS

BENCHMARKS

CITY OF TORRANCE BENCHMARK NO. 244
CHISELED "I" IN MOST WESTERLY CURB OF MADRID AVENUE
± 58' NORTH OF C/L CARSON STREET
ELEVATION = 86.24 (1960 ADJ)

UTILITY CONTACTS

COMPANY	CONTACT	PHONE NO.
AT&T CALIFORNIA	CARL RANDOLPH	(310) 515-4029
CALIFORNIA WATER CO.	DAVID DANSEREAU	(310) 257-1446
CHEVRON	INSPECTION OFFICE	(714) 228-1500
CHEVRON	AL SUPER	(310) 669-4014
SOUTHERN CALIFORNIA GAS CO.	GALE ETHERLY	(310) 687-2020
SOUTHERN CALIFORNIA EDISON	CHAD MINTON	(310) 783-9437
TIME WARNER CABLE	CARY HANSON	(424) 212-6961
TORRANCE MUNICIPAL WATER	ALAN BERNDT	(310) 781-6900

SHEET INDEX

SHEET NO.	PLAN NO.	DESCRIPTION
1	SD-3076	TITLE SHEET
2	SD-3076	STORM DRAIN PLAN AND PROFILE
3	SD-3076	SIGNING AND STRIPING PLAN

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.

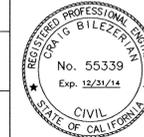


REVISIONS				
REV	DATE	BY	CHECKED	DESCRIPTION

TEEN CENTER DRAINAGE IMPROVEMENTS, I-160
ON PLAZA DEL AMO, SOUTH OF CARSON STREET
2320 WEST CARSON STREET

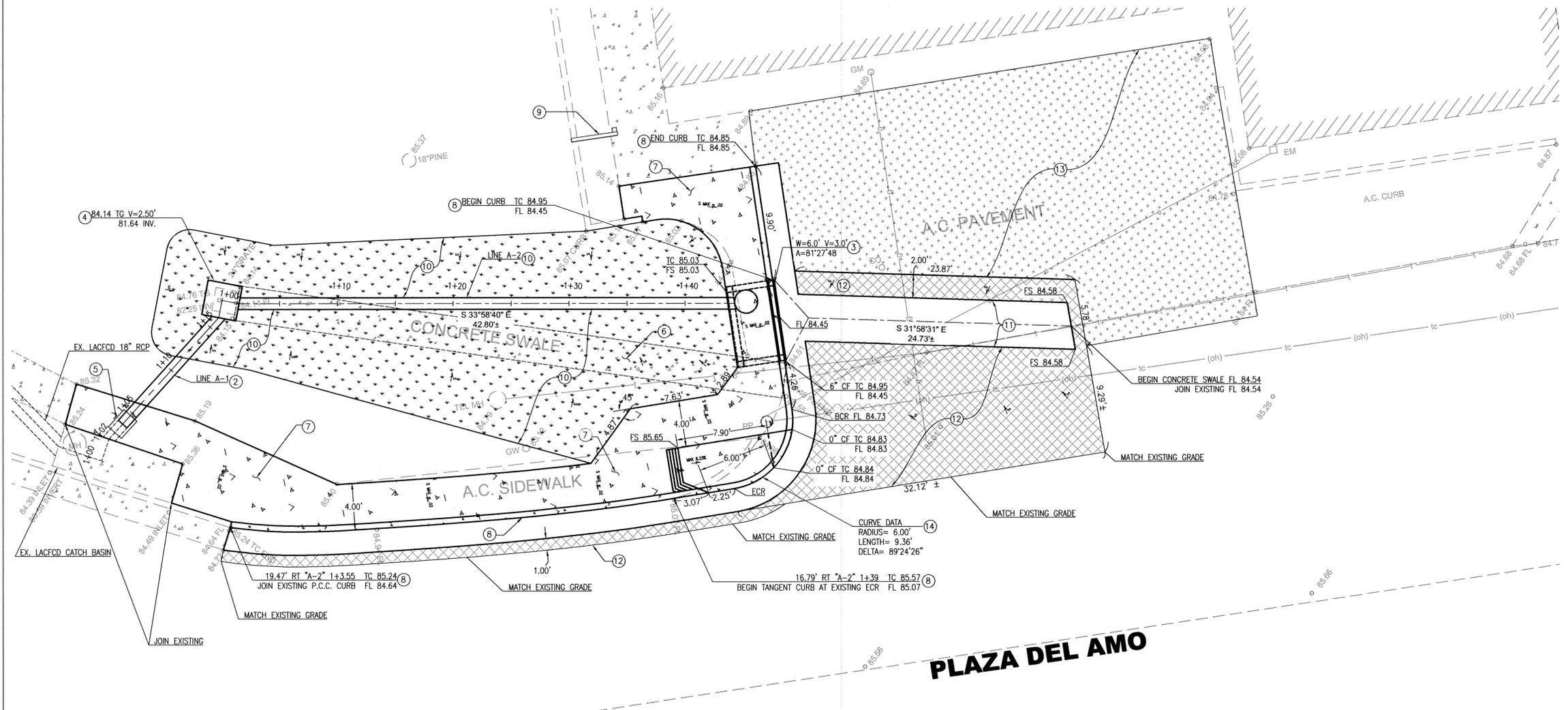
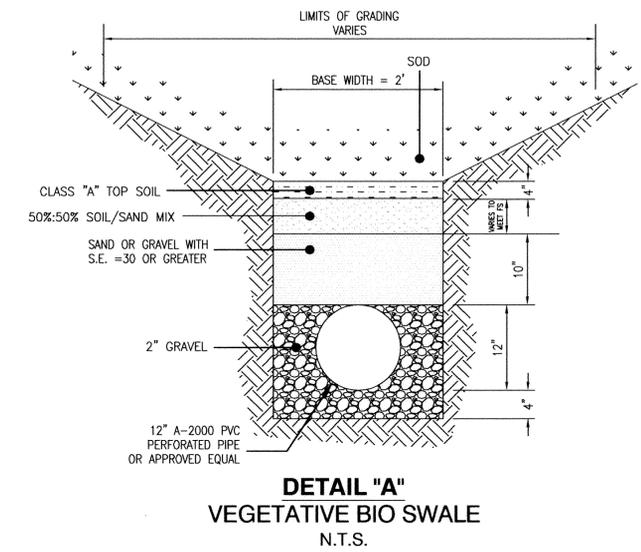
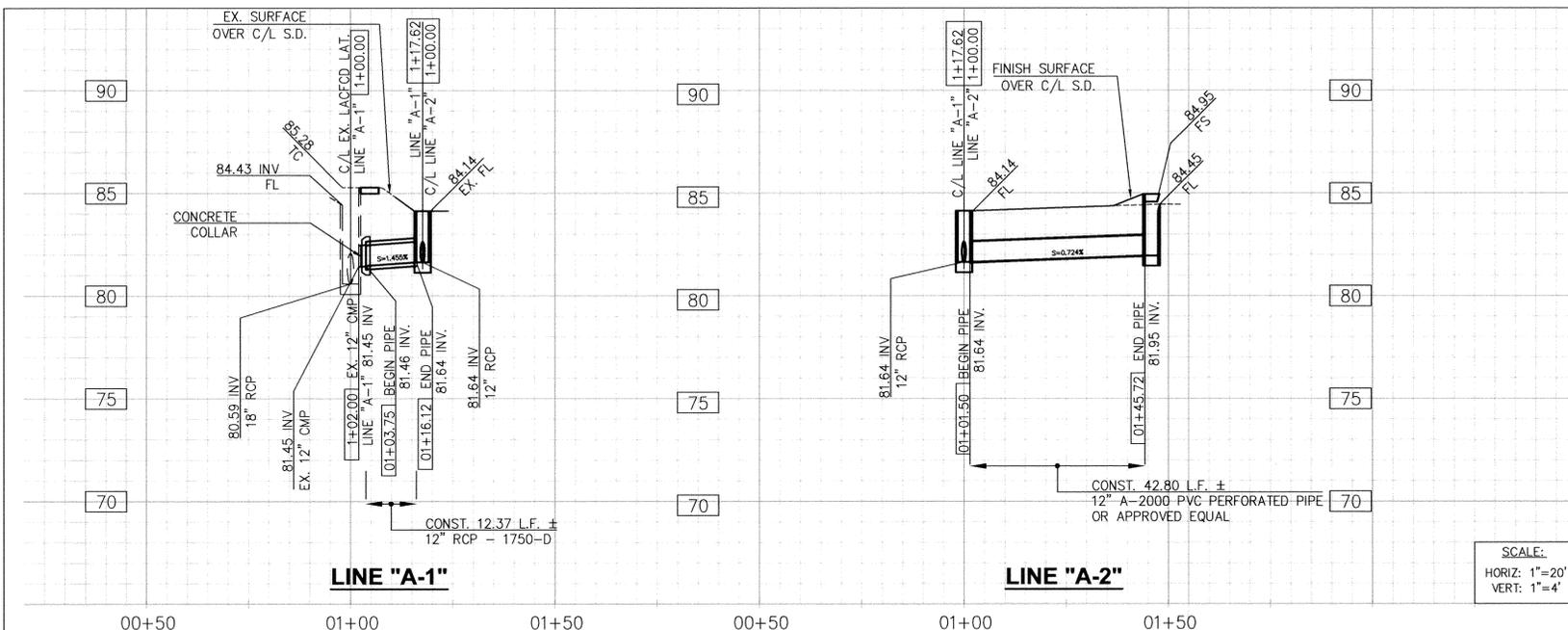
TITLE SHEET

DESIGNED BY: DG	DRAWN BY: DG
PROJECT ENGINEER: DANIEL GRUEZO, P.E.	
ENGINEERING MANAGER: JOHN DETTLE, P.E.	

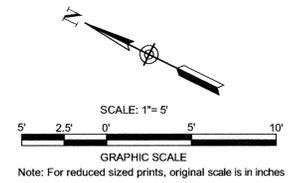


CITY OF TORRANCE PUBLIC WORKS DEPARTMENT	
APPROVED BY: 	DATE: 10/23/14
CRAIG BILEZERIAN, PE CITY ENGINEER R.C.E. NO. 55339 (EXP. 12/31/2014)	

SHEET 1 OF 3	SPECIFICATION NO. B2014-56
SCALE: AS SHOWN	SUPPLEMENTAL PLAN NO. N/A
PLAN NO. SD-3076	



- STORM DRAIN CONSTRUCTION NOTES:**
- (NOT USED)
 - EXPOSE, CUT AND REMOVE EXISTING 12" DIAMETER C.M.P. AND CONSTRUCT NEW 12" DIAMETER R.C.P. A.S.T.M. C-76 AND D-LOAD PER PLAN.
 - CONSTRUCT CURB OPENING CATCH BASIN PER S.P.P.W.C. 300-3.
 - REMOVE AND DISPOSE OF EXISTING AREA DRAIN AND CATCH BASIN. CONSTRUCT JENSEN 3.0'X3.0'X2.5' DROP INLET WITH PEDESTRIAN LOAD RATING FRAME AND GRATE ASSEMBLY OR APPROVED EQUAL.
 - CONSTRUCT CONCRETE COLLAR PER S.P.P.W.C. 380-4 AND JOIN EXISTING 12" C.M.P. TO NEW 12" R.C.P.
 - REMOVE AND DISPOSE OF EXISTING CONCRETE SWALE.
 - SAWCUT, REMOVE AND DISPOSE OF EXISTING SIDEWALK AND CONSTRUCT 3 1/2" THICK P.C.C. SIDEWALK PER S.P.P.W.C. 112-2 AND 113-2 OVER 4" C.M.B.
 - REMOVE AND DISPOSE OF EXISTING A.C. CURB AND CONSTRUCT TYPE A2-6 P.C.C. CURB AND GUTTER PER S.P.P.W.C. 120-2 ON 8" C.M.B., W=24".
 - INSTALL DOWNSPOUT EXTENSION PER DETAIL B HEREON.
 - REMOVE EXISTING LANDSCAPING. INSTALL VEGETATIVE BIO SWALE PER DETAIL A HEREON. INSTALL SOD. REPLACE IRRIGATION SYSTEM AS REQUIRED.
 - REMOVE EXISTING PAVEMENT AND UNCLASSIFIED MATERIALS TO A DEPTH OF 8" AND INSTALL LONGITUDINAL GUTTER PER S.P.P.W.C. 122-2 (LENGTH = 25'±) ON 8" C.M.B.
 - REMOVE EXISTING ASPHALT CONCRETE AND UNCLASSIFIED MATERIALS TO A DEPTH OF 3". REGRADE AND COMPACT EXISTING SUBGRADE TO 95% COMPACTION. CONSTRUCT 3" ASPHALT CONCRETE (TYPE II-C2-PG-64-10) SECTION TO MATCH FINISHED SURFACE AND ADJACENT EXISTING GRADE.
 - REMOVE ALL STRIPING, MARKINGS AND LEGENDS, APPLY CRACK SEALANT, CLEAN ALL SURFACES TO BE SLURRIED, AND APPLY TYPE I EMULSION-AGGREGATE SLURRY WITH THE ADDITION OF 2.5% LATEX. RE-STRIPE PER SHEET 3.
 - CONSTRUCT NEW CURB RAMP PER S.P.P.W.C. STD. PLAN NO. 111-5 CASE D TYPE 2 DETAIL A.
- TRAFFIC CONTROL:**
TRAFFIC CONTROL SHALL BE PER MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR TORRANCE STANDARDS.



NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.

811
Know what's below.
Call before you dig.
TWO WORKING DAYS BEFORE YOU DIG

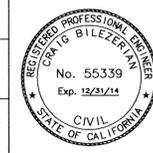
UNDERGROUND SERVICE ALERT:
ATTENTION IS DIRECTED TO THE POSSIBLE EXISTENCE OF UNDERGROUND FACILITIES NOT KNOWN OR IN A LOCATION DIFFERENT FROM THAT WHICH IS SHOWN ON THE PLANS OR IN THE SPECIAL PROVISIONS. THE CONTRACTOR SHALL TAKE STEPS TO ASCERTAIN THE EXACT LOCATION OF ALL UNDERGROUND FACILITIES PRIOR TO DOING WORK THAT MAY DAMAGE SUCH FACILITIES OR INTERFERE WITH THEIR SERVICE. BEFORE EXCAVATION, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UNDERGROUND SERVICE ALERT AT 811.

REVISIONS				
REV	DATE	BY	CHECKED	DESCRIPTION

TEEN CENTER DRAINAGE IMPROVEMENT PROJECT, I-160
ON PLAZA DEL AMO, SOUTH OF CARSON STREET
2320 WEST CARSON STREET

**STORM DRAIN PLAN AND PROFILE
LINE A-1 & LINE A-2**

DESIGNED BY: DG
DRAWN BY: DG
PROJECT ENGINEER: DANIEL GRUEZO, P.E.
ENGINEERING MANAGER: JOHN DETTLE, P.E.

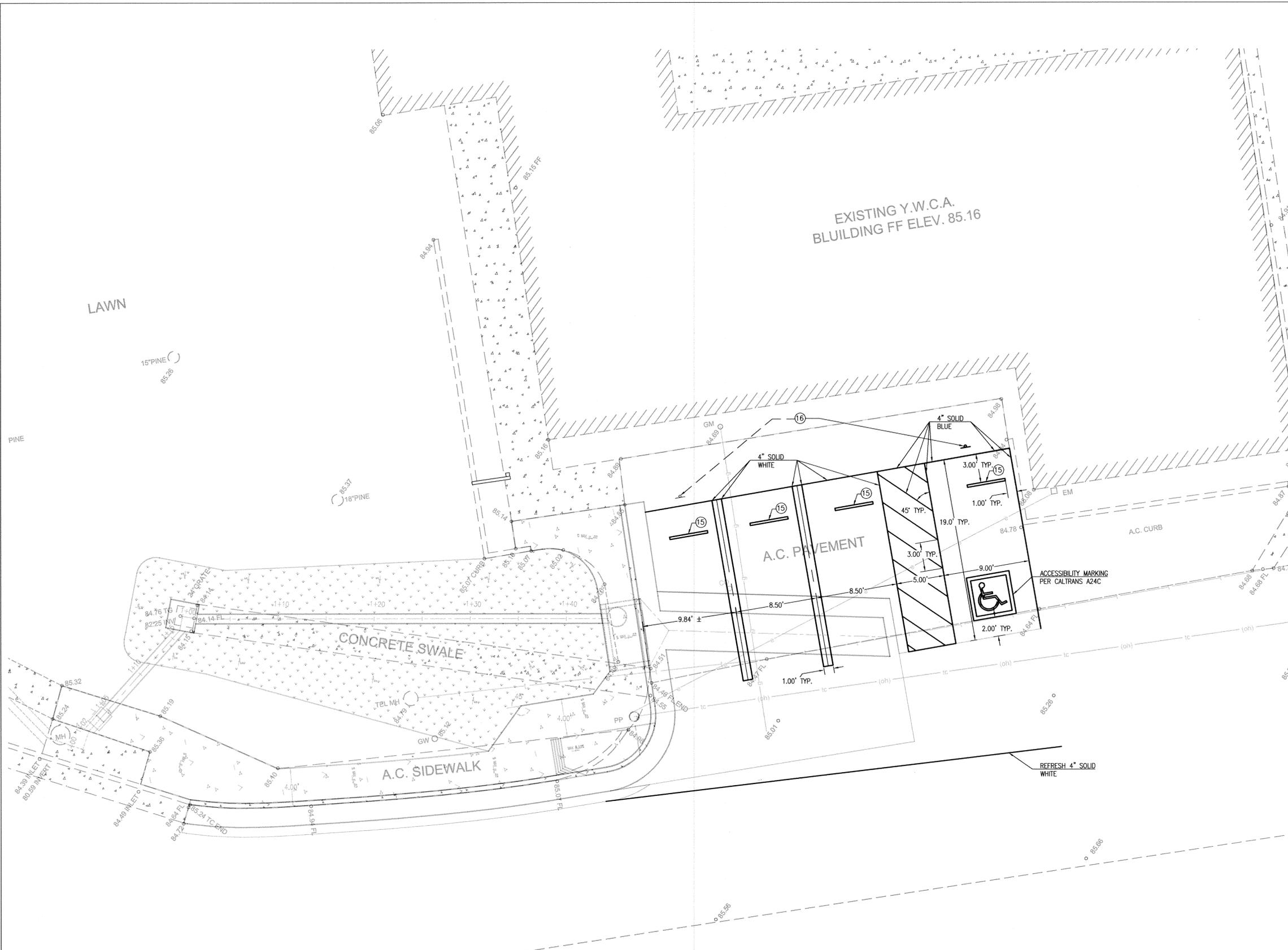


**CITY OF TORRANCE
PUBLIC WORKS DEPARTMENT**

APPROVED BY: *[Signature]*
CRAIG BILEZERIAN, PE
CITY ENGINEER
R.C.E. NO. 55339 (EXP. 12/31/2014)

SHEET **2** OF **3**
SCALE: AS SHOWN
SPECIFICATION NO. B2014-56
SUPPLEMENTAL PLAN NO. N/A
PLAN NO. **SD-3076**

DATE: 10/23/14

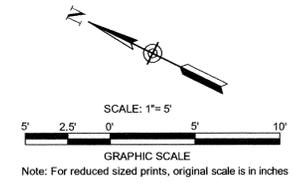


SIGNING AND STRIPING CONSTRUCTION NOTES:

- (15) REMOVE, STOCKPILE AND REINSTALL CONCRETE WHEEL STOP AND ANCHOR (TYPICAL OF 4).
- (16) REMOVE AND REINSTALL EXISTING POST AND SIGN.

TRAFFIC CONTROL:

TRAFFIC CONTROL SHALL BE PER MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR TORRANCE STANDARDS.



NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.



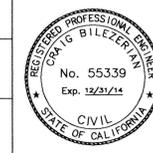
UNDERGROUND SERVICE ALERT:
 ATTENTION IS DIRECTED TO THE POSSIBLE EXISTENCE OF UNDERGROUND FACILITIES NOT KNOWN OR IN A LOCATION DIFFERENT FROM THAT WHICH IS SHOWN ON THE PLANS OR IN THE SPECIAL PROVISIONS. THE CONTRACTOR SHALL TAKE STEPS TO ASCERTAIN THE EXACT LOCATION OF ALL UNDERGROUND FACILITIES PRIOR TO DOING WORK THAT MAY DAMAGE SUCH FACILITIES OR INTERFERE WITH THEIR SERVICE.
 BEFORE EXCAVATION, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UNDERGROUND SERVICE ALERT AT 811.

REVISIONS				
REV	DATE	BY	CHECKED	DESCRIPTION

TEEN CENTER DRAINAGE IMPROVEMENT PROJECT, I-160
 ON PLAZA DEL AMO, SOUTH OF CARSON STREET
 2320 WEST CARSON STREET

SIGNING AND STRIPING PLAN

DESIGNED BY: DG
 DRAWN BY: DG
 PROJECT ENGINEER:
DANIEL GRUEZO, P.E.
 ENGINEERING MANAGER:
JOHN DETTLE, P.E.



APPROVED BY:

CRAIG BILEZERIAN, PE
 CITY ENGINEER
 R.C.E. NO. 55339 (EXP. 12/31/2014)

DATE: **10/23/14**

CITY OF TORRANCE PUBLIC WORKS DEPARTMENT

SHEET **3** OF **3**

SCALE: AS SHOWN
 SPECIFICATION NO. B2014-56

SUPPLEMENTAL PLAN NO. **N/A**

PLAN NO. **SD-3076**