

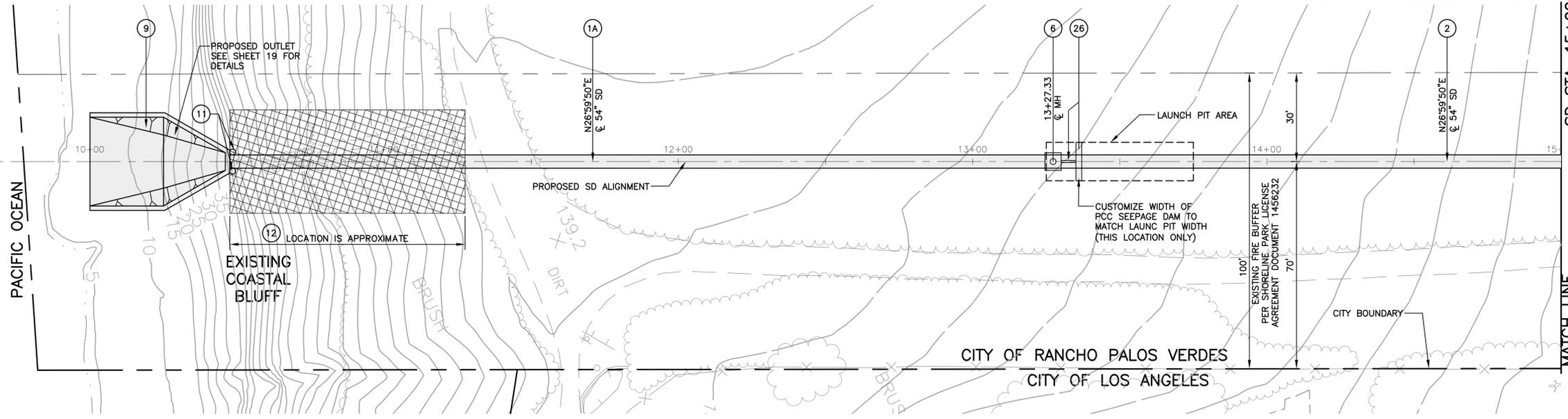
SCALE
 HORIZ: 1"=20'
 VERT: 1"=10'

CONSTRUCTION NOTES

- ① CONSTRUCT 54" I.D. CCFRPM PIPE ("HOBAS" PIPE OR APPROVED EQUAL), 1.21-INCH THICK WALL, WITH FLUSH RELINING BELL-SPIGOT JOINT PER TYPICAL SLANT DRAIN HAND-MINED TUNNEL SECTION 1A ON SHEET 19.
- ② CONSTRUCT 54" I.D. CCFRPM PIPE ("HOBAS" PIPE OR APPROVED EQUAL), 1.05-INCH THICK WALL, WITH FWC COUPLING PER OPEN TRENCH SECTION ON SHEET 20.

CONSTRUCTION NOTES (CONTD)

- ⑥ CONSTRUCT MANHOLE STRUCTURE PER MODIFIED STD PLAN NO. 320-1, L=5.5', D1=D2=54", MODIFICATION: CONSTRUCT CCFRPM PIPE CONTINUOUS THROUGH MANHOLE STRUCTURE FROM INVERT TO SPRING LINE. CUT MINIMUM SIZE "HATCH" FROM TOP HALF OF PIPE TO ALLOW MANHOLE ACCESS. CONSTRUCT PRESSURE MANHOLE FRAME AND COVER PER SPPWC STD PLAN NO. 329-1.
- ⑧ CONSTRUCT VELOCITY REDUCER CONTROL RING WITH SHOP INSTALLED 6-INCH THICK REINFORCED FIBERGLASS INSIDE 54" I.D. CCFRPM PIPE PER DETAIL 8 ON SHEET 19. PLACE RING MID-WAY IN 20-FOOT LONG PIPE LENGTHS. STATION LOCATION CALL-OUTS ON PROFILE ARE APPROXIMATE AND CAN SHIFT AS LONG AS NUMBER OF RINGS AND SPACING IS MAINTAINED.
- ⑧A CONSTRUCT CONCRETE TRENCH SUPPORT BACKFILL PER DETAIL 8A ON SHEET 19. APPLIES TO VELOCITY REDUCER RINGS IN OPEN TRENCH REACH.
- ⑨ CONSTRUCT REINFORCED CONCRETE OUTLET STRUCTURE, HEADWALL, WARPED WINGWALLS AND BEACH APRON PER MODIFIED CALTRANS STD PLAN D86B. MODIFIED PER DETAIL 9 ON SHEET 19. H=XX'+/-, DIA=54" I.D., SLOPE =2:1. (XX" INVERT SLAB, 6' DEEP 3' WIDE CUTOFF WALL ALL AROUND). CONSTRUCT DRAINAGE WEEPHOLES AT 8' MAX SPACING ALONG WINGWALLS PER CALTRANS STD B0-3, DETAIL 3-1.
- ⑩ CONSTRUCT 4' POST AND CABLE RAILING IN TOP OF OUTLET HEADWALL AND WINGWALLS PER CALTRANS STD B11-47. USE PRE-APPROVED CORROSION RESISTANT STEEL MATERIALS ONLY.
- ⑪ CONSTRUCT PERMANENT XX" DIAMETER PCC SOLDIER PILE TOTAL LENGTH=XX', EMBEDDED XX' (UNDISTURBED), RETAINING XX' (TEMPORARY), RETAINING XX' (PERMANENT). CENTER WXXXXX STEEL BEAM PER DETAIL 11 ON SHEET 19. TOP OF PILE EQUALS TOP OF HEADWALL. PLACE TEMPORARY 1-INCH STEEL PLATE LAGGING BEHIND SOLDIER PILES TO SPAN BLUFF FACE EXCAVATION WIDTH UNTIL PERMANENT OUTLET STRUCTURE IS CONSTRUCTED.
- ⑫ PRIOR TO EXCAVATION TO BLUFF BOTTOM, SECURE SURROUNDING BLUFF WITH PRE-APPROVED SURFICIAL SLOPE STABILIZATION BARRIER SYSTEM, SUCH AS "GEOBRUGG" ROCK FALL BARRIER STEEL WIRE MESH ANCHORED ONTO BLUFF OR APPROVED EQUAL.
- ⑳ CONSTRUCT LEAN PCC SEEPAGE DAM IN MAIN LINE STORM DRAIN TRENCH PER DETAIL 26 ON SHEET 20, COMPLETE WITH 8" PVC (SCH 40) RELIEF SYSTEM TO ADJACENT DOWNSTREAM MANHOLE.



60% DESIGN PLANS
 NOT FOR CONSTRUCTION
 NOVEMBER 1, 2011



PLAN PREPARED BY:
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 Irvine, CA 92614 (949) 655-3900
 RANDALL G. BERRY RCE #44642 DATE

CITY OF RANCHO PALOS VERDES
 RON DRAGOO SENIOR ENGINEER DATE
 RCE: 54924

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED RGB/EGR/PL
 DRAWN EGR/PL
 CHECKED RGB
 DATE OCT 11

CITY OF RANCHO PALOS VERDES

SAN RAMON STORM DRAIN
 PLAN AND PROFILE
 STA 10+00 TO STA 15+00

SHEET 2 OF 31
 SHT. 2
 PRJ NO. XXXXX