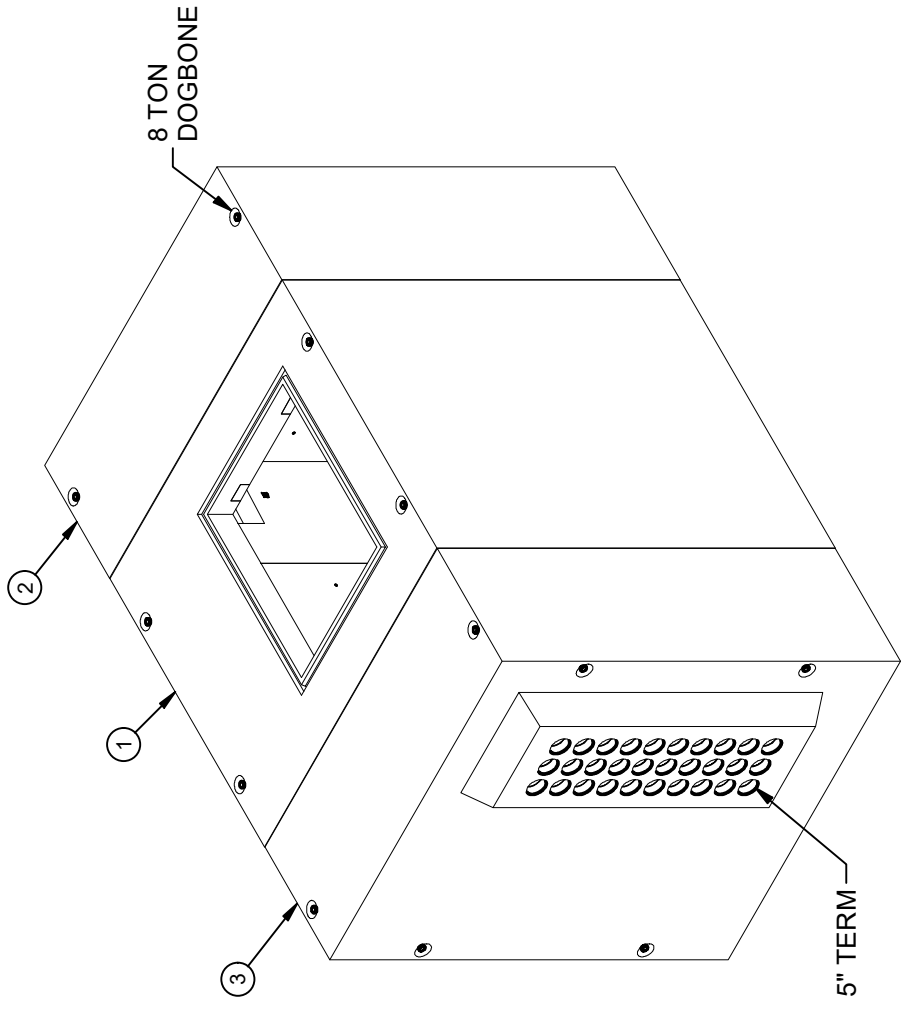


**NOTES:**

- STANDARDS. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION, WITH 2022 CALTRANS AMENDMENTS, CITY OF LOS ANGELES BUREAU OF ENGINEERING STANDARD PLAN S-601, LATEST, MANUAL PART H, LADWP P 178, ASTM C-857. STRUCTURAL CALCS FOR BOX: #33718B.
- MATERIAL. CONCRETE, F'c=5,500 PSI. MIX TO INCLUDE FLY ASH AND DCI. REINFORCEMENT PER ASTM A-706, Fy=60,000.
- LOADS. VERTICAL LIVE LOAD: AASHTO HL-93. LIVE LOAD SURCHARGE: PER LA BOE PART H, FIGURE H 374.2A. MINIMUM 80 PSF (TO BOTTOM OF VAULT) OR LADWP P 178 (104 PSF). SOIL LATERAL LOADS: 40 PCF (DRY), 81 PCF (SATURATED), SATURATED SOIL CONDITIONS 3'-0" BELOW GRADE. SOIL BEARING CAPACITY = 1,500 PSF. DESIGN SOIL DENSITY IS 120 PCF.
- LOADS NOT INCLUDED. DESIGN DOES NOT INCLUDE COOPER E-80 RAILROAD LOADS OR LATERAL OR SURCHARGE LOADS THAT ARE PRODUCED BY FOOTING OR FOUNDATIONS ADJACENT TO THE STRUCTURE. THIS SUBSTRUCTURE SHALL BE KEPT AT LEAST IN A 1:1 RATIO AWAY FROM ALL FOOTINGS AND FOUNDATIONS, UNLESS THE ENGINEER OF RECORD APPROVES IN WRITING.
- INSTALLATION. VAULT TO BE PLACED ON WELL COMPACTED SOIL WITH MIN. 6" DEPTH OF TAMPED CRUSHED AGGREGATE BASE FOR EASE OF INSTALLATION AND EVEN LOAD DISTRIBUTION USING A VIBRATORY PLATE COMPACTOR IN A MIN. OF TWO PASSES. BASE TO EXTEND 12" BEYOND THE STRUCTURE. BASE MATERIAL IN ACCORDANCE WITH SECTION 200-2.2 OF THE SSPWC (GREEN BOOK) PER LADWP SPECIFICATION NO. 104.
- VAULTS LONGITUDINAL DIRECTION (14' LENGTH) SHALL BE INSTALLED PARALLEL TO THE TRAVEL DIRECTION OF THE STREET TO AVOID INTERFERENCE WITH ADJACENT UTILITIES.
- EACH CONCRETE SECTION SHALL BE MARKED ON THE INSIDE & OUTSIDE WITH "JENSEN PRECAST", THE DESIGNATION "DWI/FA-CN", AND THE DATE OF THE POUR.
- EACH CONCRETE SECTION SHALL HAVE CAST-IN ON THE INSIDE "JENSEN", THE YEAR, AND THE DESIGNATION "FA-CN".
- NO SHARP OR ROUGH EDGES ON THE TERMINATORS ENTERING THE VAULT.
- K45-VN12-12T VAULT NECK AND COVER, WITH APPROVED CAST IRON COVER TO BE USED WITH THIS VAULT.
- EACH PIECE TO BE STENCILIED WITH ITS PART NO.
- MINIMUM EXCAVATION SIZE: 10'-2" X 16'-2" X DEPTH REQ'D.
- DO NOT BREAK 18" X 18" KNOCKOUT UNTIL VAULT IS SET.

**BILL OF MATERIALS**

ITEM	UNIT QTY	QTY	PART NUMBER	DESCRIPTION	MASS (lb)
1	1	1	100013011	Tunnel Vault 96W x 112H x 96L Center LADWP H-171	24934
2	1	1	100009765	Tunnel Vault TV112 End - Tongue 96Wx112Hx36L LADWP H-171 AT	18179
3	1	1	100009767	Tunnel Vault TV112 End - Tongue 96Wx112Hx36L LADWP H-171 BT	18179
4	1	8	100007114	ROD THREADED COIL YELLOW DIP 3/4 X 20"	
5	1	16	100008121	WASHER 3X3X.5 W.875 HOLE GALV	
6	1	16	100007010	HEX COIL NUT 3/4-4.5 POST YELLOW DIP	
7	4,000 gal	4,000 gal	100006420	COATING PAINT LATEX WHITE	
8	1,000 ul	1,000 ul	100005749	SEALANT JOINT BUTYL RUBBER ASTM C-990 AND M198 CS-102 1IN EQUIV X14.5FT PER BOX 118FT	



**ISO VIEW**

LIFTING NOTES	
■ THIS CONCRETE PRODUCT IS DESIGNED TO BE LIFTED WITH 4 EQUALLY LOADED RIGGINGS LEGS MIN. 90° SLING ANGLE, MEASURED FROM HORIZONTAL.	
BURY DEPTH:	1.0' - 4.0' to Top
WATER LEVEL:	3.0'
DESIGN SPEC:	ASTM C857, ACI 318
AGENCY:	LADWP
APPROX. WEIGHT:	61327.49 Lbs
LOADING SPEC:	AASHTO HL-93
AGENCY SPEC:	H-171 G-1A-14'

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
C	ADDED LENGTH OF VAULT TO AGENCY SPEC & DESCRIPTION	10/19/2022	

DESCRIPTION:	Tunnel Vault 96112 Layout Assembly LADWP H-171 G-1A-14' Int. Coating - White Latex Paint
PART NUMBER:	100013330
CREATED:	10/17/2022
LAYOUT REVIEW	
DRAWN BY:	J. Prado
MODIFIED:	10/19/2022

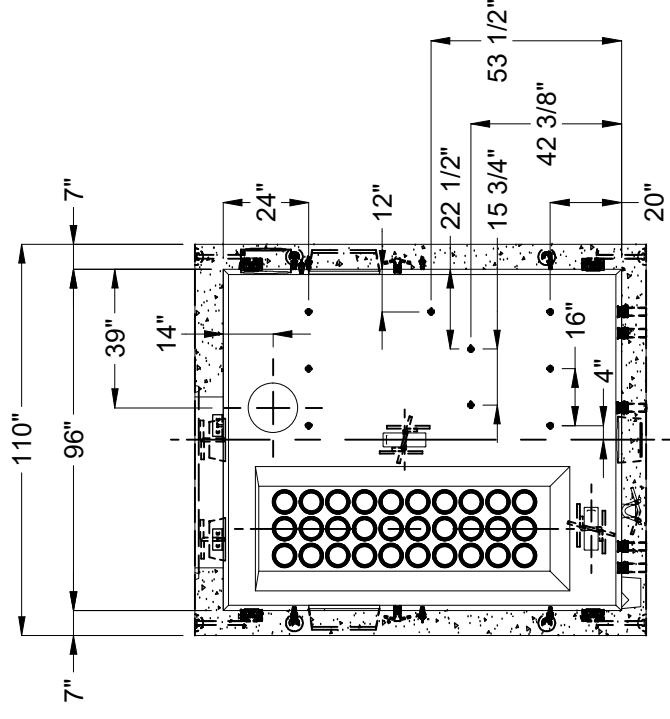
  

REV:	C-10
SHEET:	3
	1 OF 2

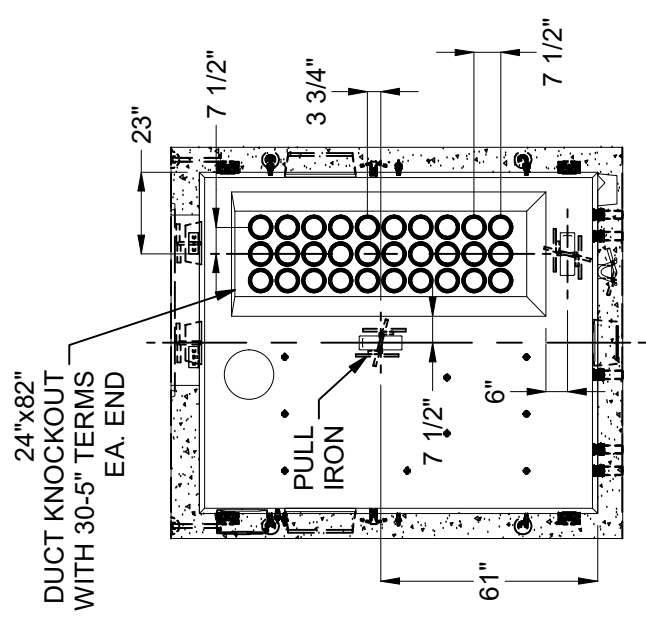
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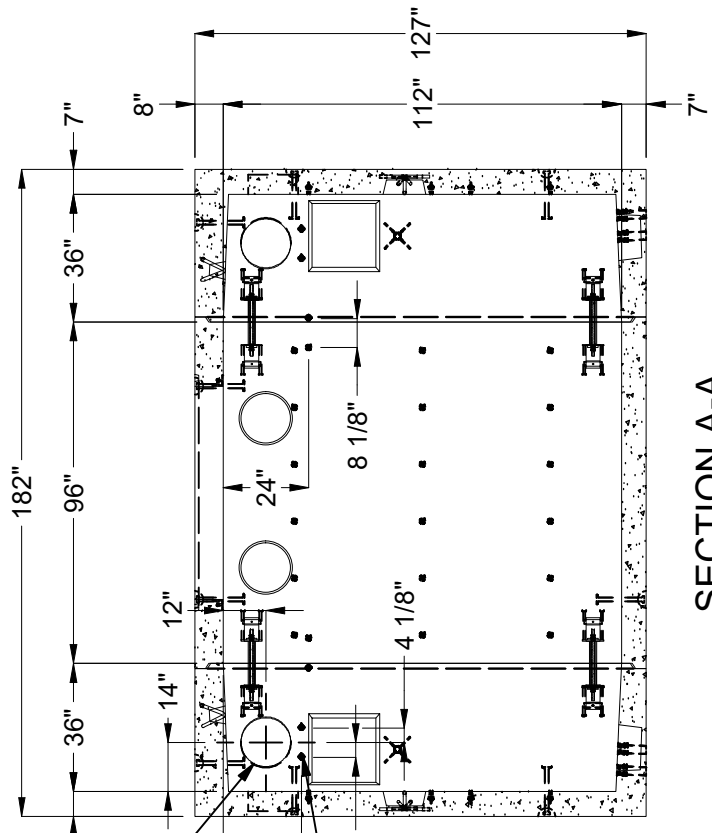
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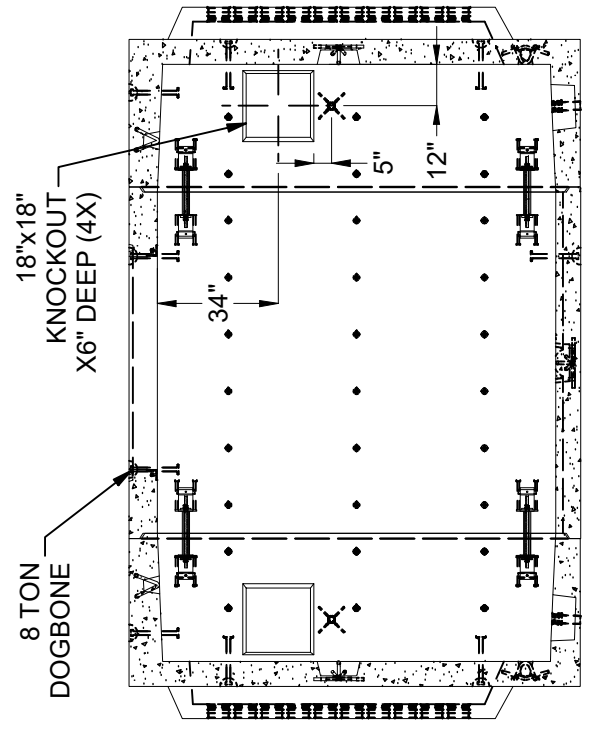
SECTION B-B



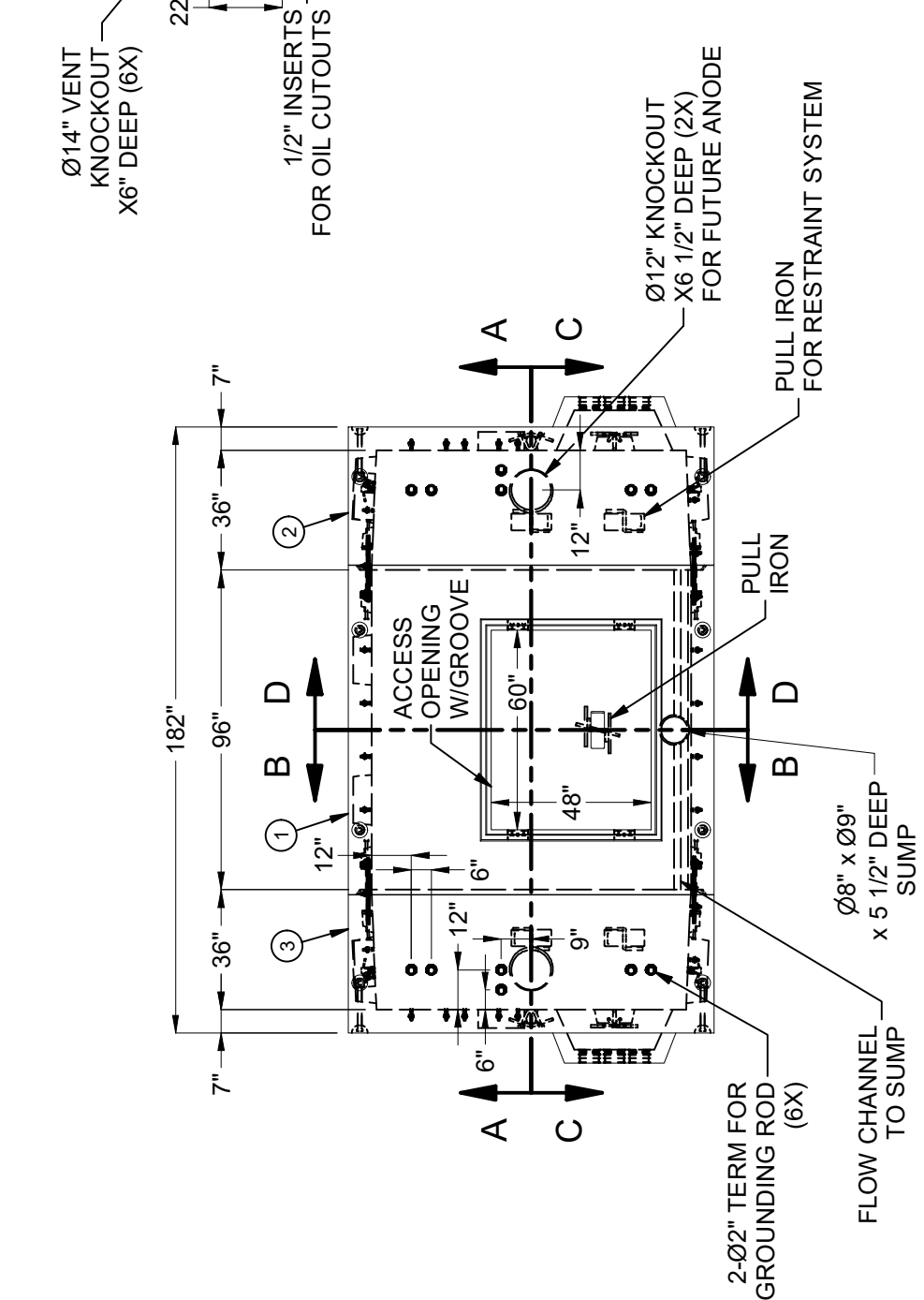
SECTION D-D



SECTION A-A



SECTION C-C



PLAN VIEW

BURY DEPTH:	1.0' - 4.0' to Top	DESCRIPTION:	Tunnel Vault 96112 Layout Assembly LADWP H-171 G-1A-14' Int. Coating - White Latex Paint	REV:	C-104
WATER LEVEL:	3.0'	APPROX. WEIGHT:	61327.49 Lbs	SHEET:	2 OF 2
DESIGN SPEC:	ASTM C857, ACI 318	LOADING SPEC:	AASHTO HL-93	LAYOUT REVIEW	
AGENCY:	LADWP	AGENCY SPEC:	H-171 G-1A-14'	DRAWN BY:	J. Prado
				MODIFIED:	10/19/2022
				PART NUMBER:	100013330
				CREATED:	10/17/2022

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