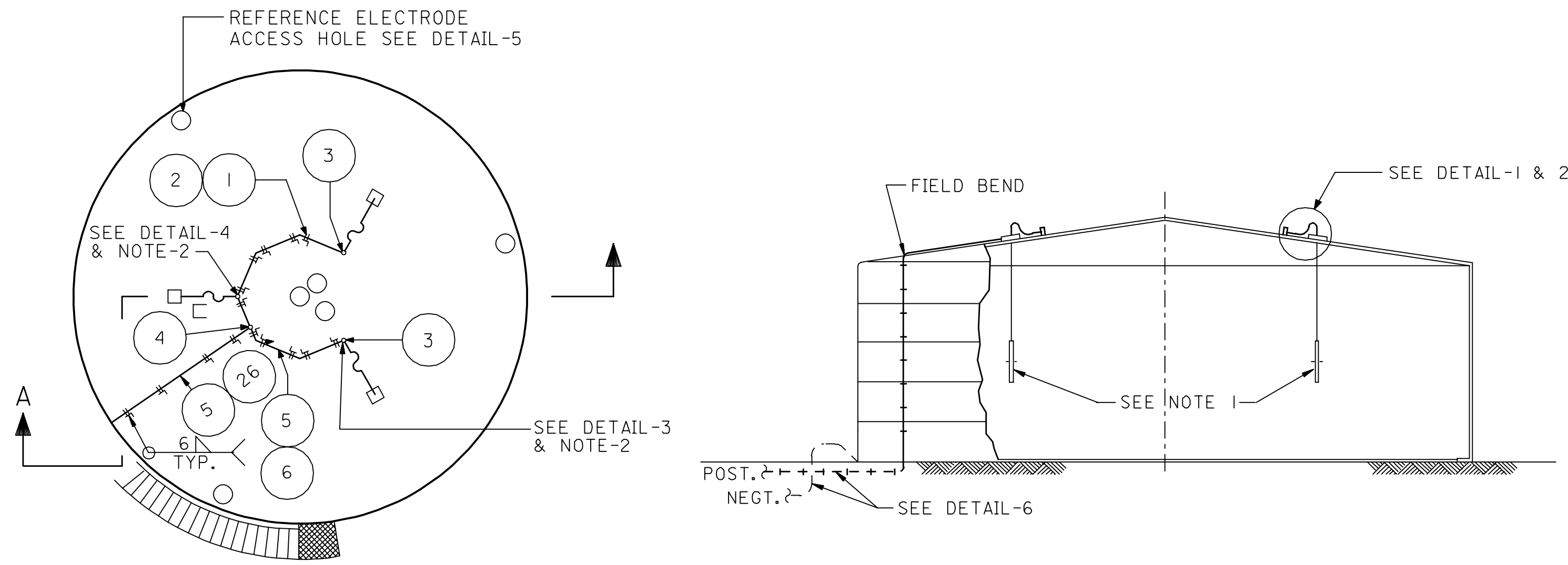
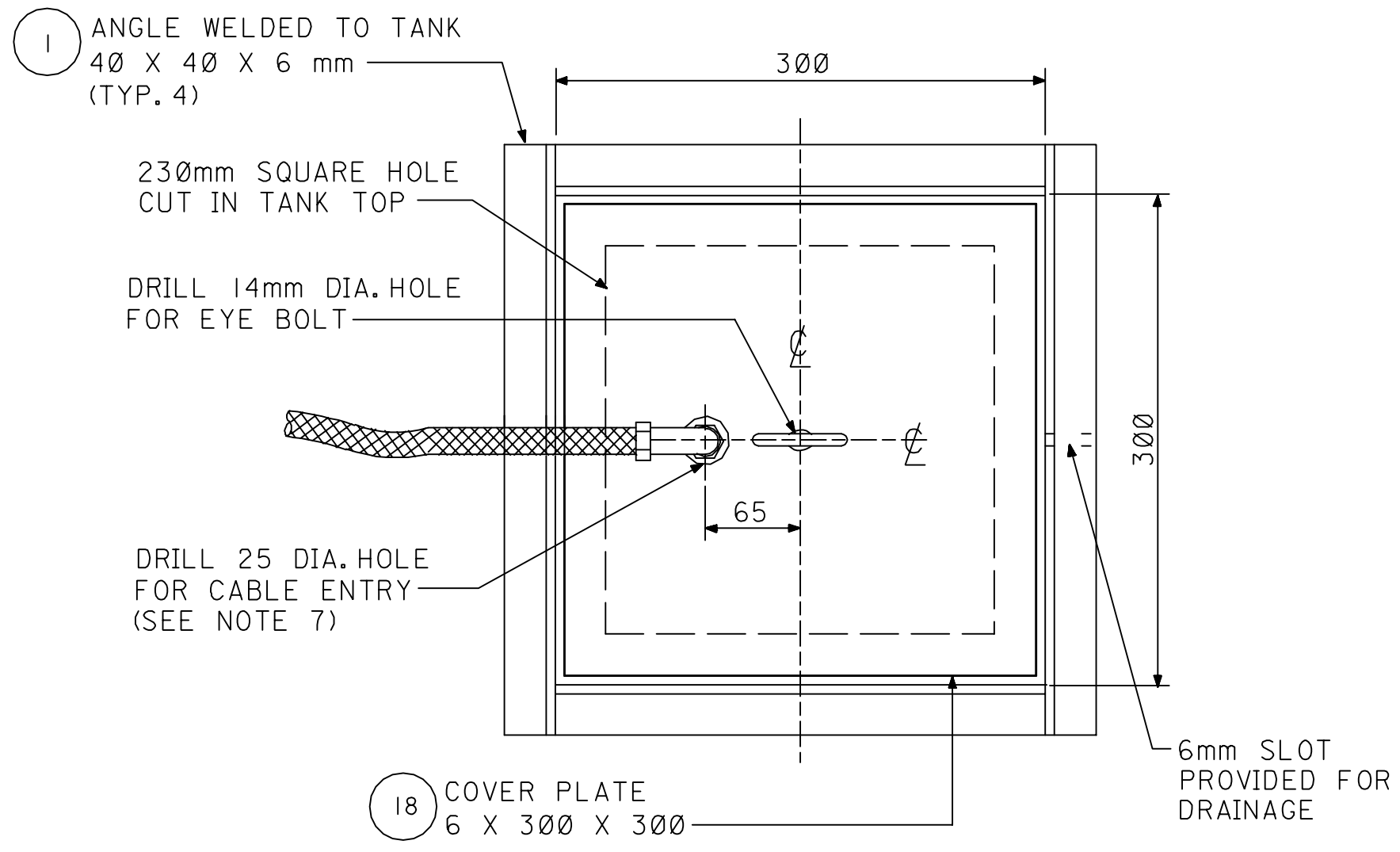


TYPICAL ANODE ARRANGEMENT ON STORAGE TANK



SECTION A - A

DETAIL-1
PLAN ON ANODE
ACCESS HATCH

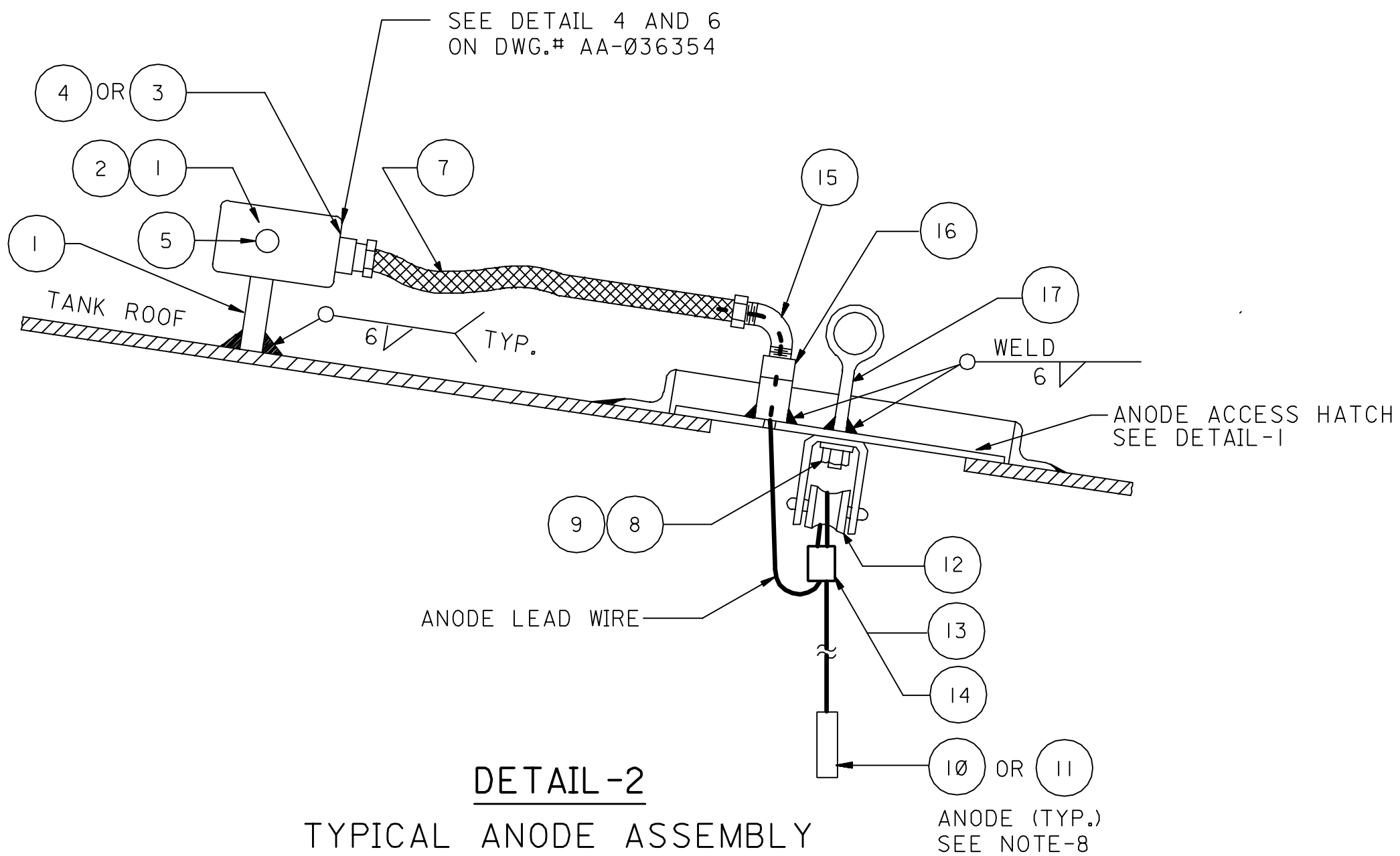


LIST OF MATERIAL

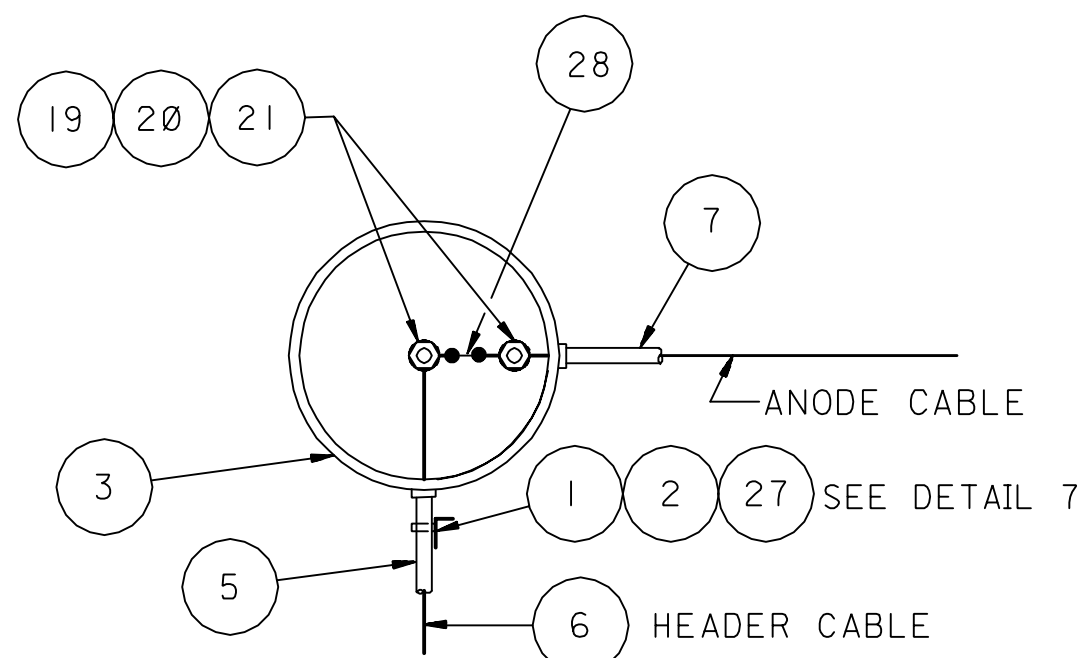
CODE	AMS NUMBER	
1	1000279745	ANGLE 1-1/2" x 1-1/2" x 1/4"
2	1000429442	SUPPORT; CONDUIT; 1"
3	1000431664	BODY; OUTLET; 1"; GUAL 36
4	1000431968	BODY; OUTLET; 1"; GUAT 37
5	1000422299	CONDUIT RIGID 1" HOT DIPPED GALVANIZED 10' LONG W/COUPLING
6	1000415535	WIRE; NO. 2 AWG RHH-RHW-USE
7	1000424557	CONDUIT; FLEXIBLE; 1"
8	1000225779	NUT; HEX. 1/2" - 13
9	1000228659	LOCK WASHER : TYPE B; 1/2"
10	1000073417	ANODE : HI SILICON CAST IRON TA-2, 46lbs., 2 3/8" x 84" LG.
11	D/C	ANODE; PLATINUM; 12 x 1500mm OR TUBULAR MMO; 16mm DIA x 500mm LG (0.63" DIA x 19.7" LG) W/ 16mm (5/8") CABLE
12	1000386072	CLEVIS : INSULATED FLAT STEEL YOKE
13	1000155909	THIMBLE; WIRE ROPE, 1/8" DIA. ROPE
14	1000170657	CLAMP; HOSE, ST. STL. WORM DRIVE TYPE
15	1000425158	ELBOW; RIGID CONDUIT; PVC COATED (90°)
16	1000424229	COUPLING : CONDUIT 1"
17	1000224533	EYEBOLT : GALVANIZED ROUND EYE 1/2" DIA.
18	1000271978	PLATE : STEEL STRUCTURAL 6mm
19	1000366267	SPLIT BOLT; 25.15-53.44 SQ. mm; STRO. MAX.
20	1000078523	TAPE; VINYL ELECTRICAL SPLICING, 0.75"; 36ft. ROLL
21	1000078558	TAPE; RUBBER ELECTRICAL SPLICING 0.75" SIZE
22	D/C	PLUG; PIPE; PVC; SQUARE HEAD; 2"
23	1000030896	BOSS; WELDING; FEMALE THREAD; 2"
24	1000421620	END BUSHING 1"
25	1000425343	ELBOW; CONDUIT; 1" 90° STANDARD RADIUS; GALVANIZED
26	1000073622	CABLE (NO. 2 AWG) HMWPE 35mm ²
27	1000429284	STRAP; CONDUIT; 2 HOLES
28	1000074000	SHUNT; WIRE; TYPE: 0.01 OHM 8 AMPS

- NOTES:
1. CP DESIGNER SHALL DETERMINE THE NUMBER, LOCATION AND DEPTH OF ANODES BASED ON TANK SIZE, WATER LEVEL VARIATION AND WATER CONDUCTIVITY AND AS REQUIRED BY SAES-X-500.
 2. CONNECT THE ANODE TO THE POSITIVE HEADER CABLE USING SPLIT BOLT CONNECTOR AND TACK SOLDER AND INSULATE THE CONNECTION WITH RUBBER AND PLASTIC SPLICING TAPE.
 3. USE PVC COATED CONDUITS AND FITTING IN PLANTS AND / OR IN COASTAL ENVIRONMENTS IN ACCORDANCE WITH SAUDI ARAMCO COATING STANDARDS.
 4. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
 5. FILE AND CHAMFER HOLES TO REMOVE ALL BURS AND ROUGH EDGES.
 6. USE PVC COATED CONDUITS FOR BELOW GROUND INSTALLATIONS.
 7. INSTALL 2 CONDUIT CLAMPS PER CONDUIT JOINT.
 8. WHEN USING THE TUBULAR MMO LIDA ANODE, SIZE THE CONDUIT ACCORDINGLY.

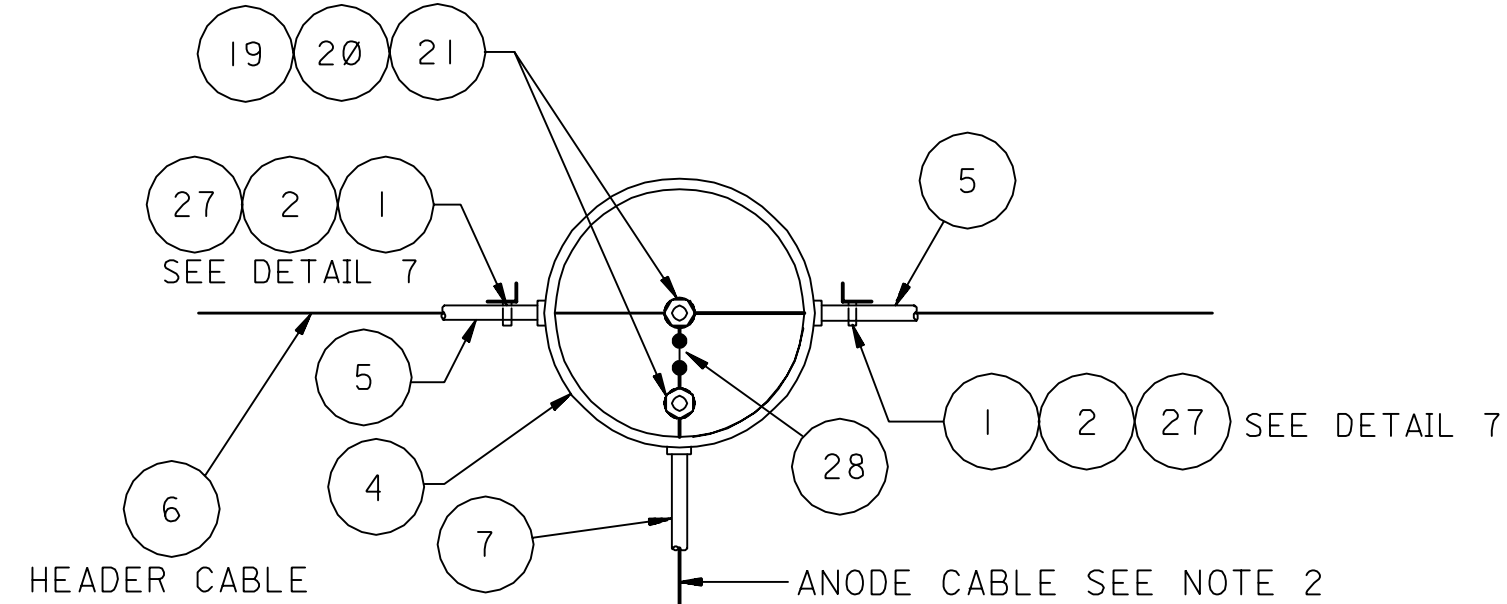
DETAIL-2
TYPICAL ANODE ASSEMBLY



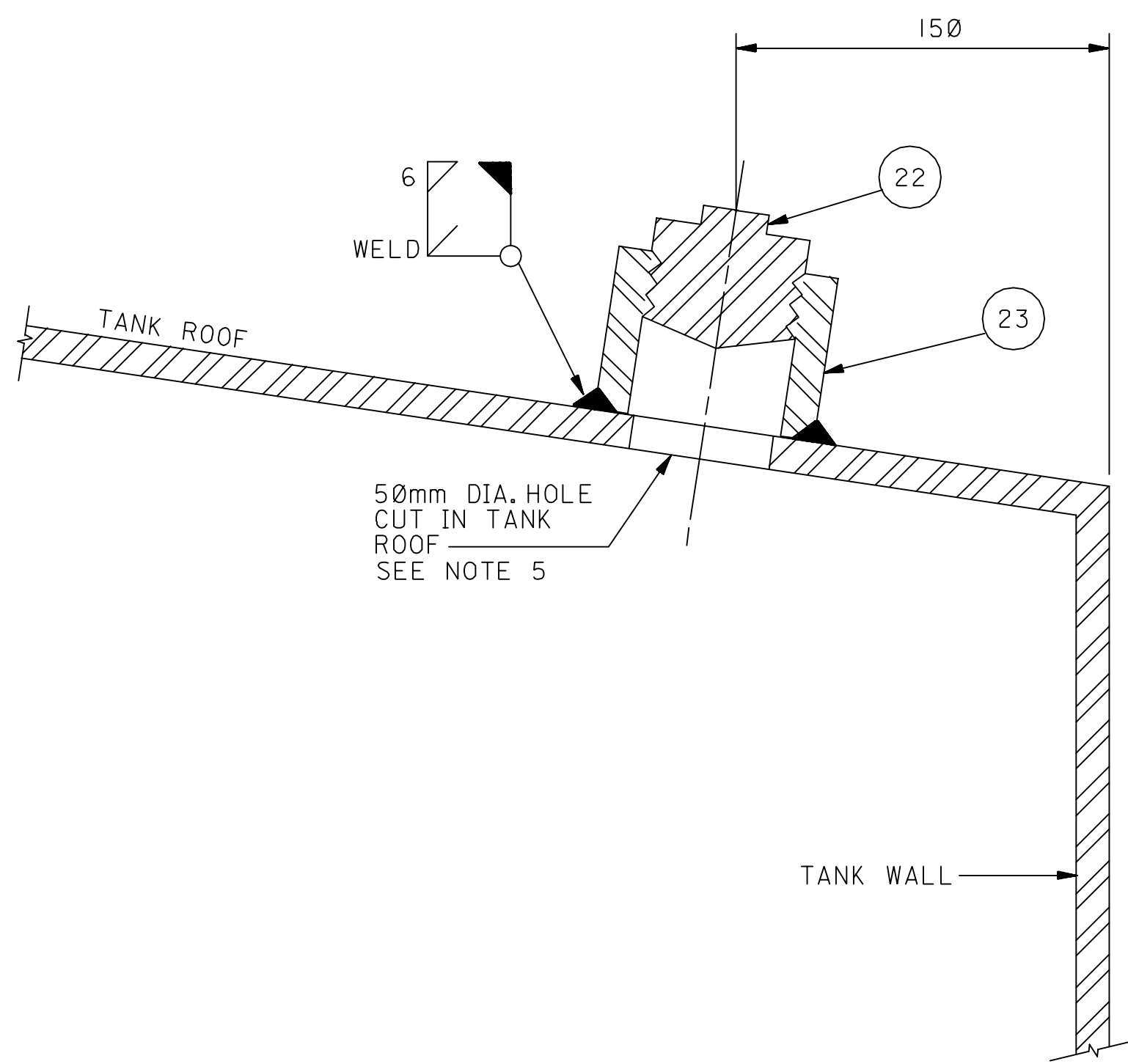
DETAIL-3
GUAL BODY
CABLE SPLICING



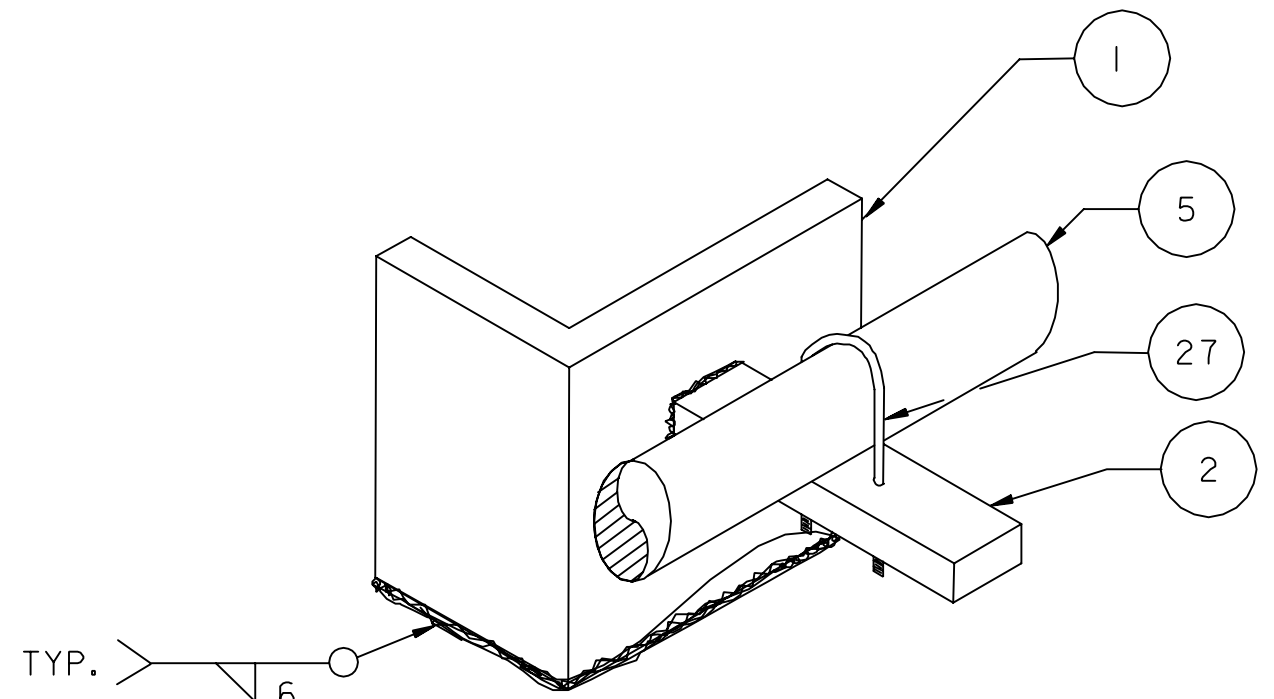
DETAIL-4
GUAT BODY
CABLE SPLICING



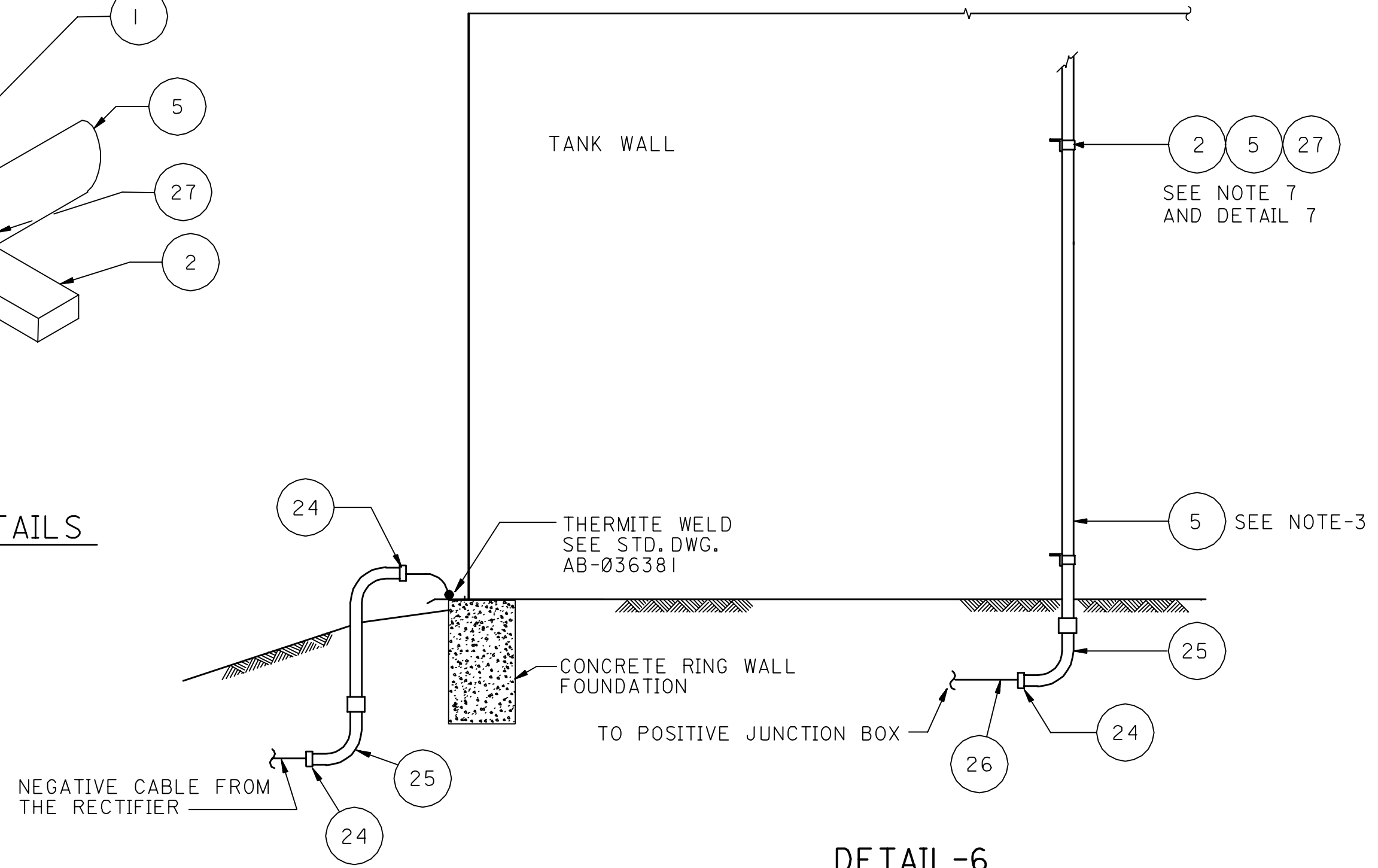
DETAIL-5
REFERENCE ELECTRODE ACCESS HOLE



DETAIL-7
CONDUIT SUPPORT DETAILS



DETAIL-6
MOUNTING DETAILS FOR CONDUIT



REFERENCE DRAWINGS

DWG. CONTROL FOR J.O.	N/A
MARKER PLATE DETAIL CATH. PROT.	AA-036351
SPLICE TERMINAL JUNCTION BOX DET	AA-036276
MOUNTING SUPPORT DETAIL CATH. PROT.	AB-036540
THERMITE WELDING OF CABLES TO PIPELINES & STRUCTURES	AB-036381

DRAWING RESPONSIBILITY:
CATHODIC PROTECTION STANDARDS COMMITTEE

SCALE: NONE

REVISION VALIDATION

THIS REVISION NO. IS COVERED, FOR ALL APPROVAL AND CERTIFICATION REQUIREMENTS, PER SAEP-334, UNDER DRAWING COMPLETION CERTIFICATE NO: 714120-0504-01

DESIGN CERTIFICATION (DESIGN AGENCY)	REVIEW FOR KEY DRAWINGS (SAUDI ARAMCO)	OTHER
ENG./DATE	CERTIFIED BY/DATE	CONST. AGENCY/DATE

REV. NO.	DATE	REVISION DESCRIPTION
01	APR04	REVISED SECTION A-A & DETAIL-3.

JOB ORDER/EWO NO. THIS REVISION IS NOT TO BE USED FOR CONSTRUCTION UNTIL CERTIFIED AND DATED

SAUDI ARABIAN OIL COMPANY			
WATER STORAGE TANKS			
IMPRESSED CURRENT-INTERNAL CATHODIC PROTECTION			
STD. DWG. SAUDI ARABIA			

PLANT NO.	INDEX	DRAWING NUMBER	SHT. NO.	REV. NO.
990	X	AA-036353	001	07