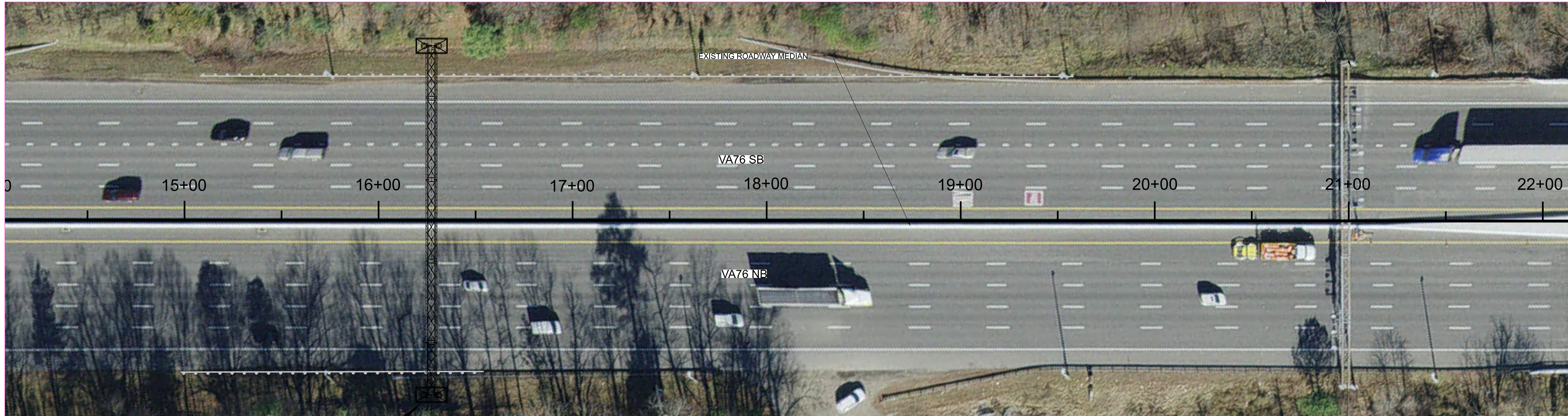


PROJECT LOCATION

POWHITE PKWAY GANTRY LOCATION

EXISTING GANTRY



PROPOSED GANTRY

455'-0"

POWHITE PKWAY GANTRY PLAN

DRAFT

- NOTES:
1. FOR GENERAL NOTES, SEE DRAWING S-3
 2. FOR STRUCTURES DETAILS . SEE DRAWING S-4 & S-6
 3. FOR FOUNDATION DETAILS SEE DRAWING S-7

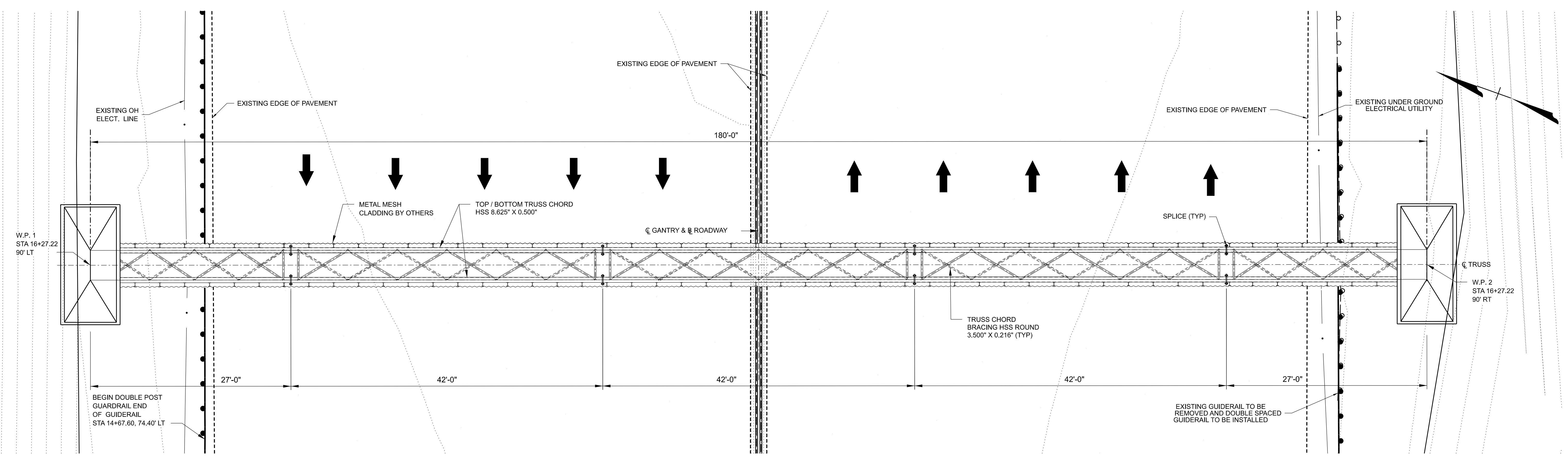
ID	DATE	BY	DESCRIPTION

PROJECT	RICHMOND METROPOLITAN TRANSPORTATION AUTHORITY RMTA
DRAWN BY	G. Garayburu
CHECKED BY	L. Sun
APPROVED	S. Lee

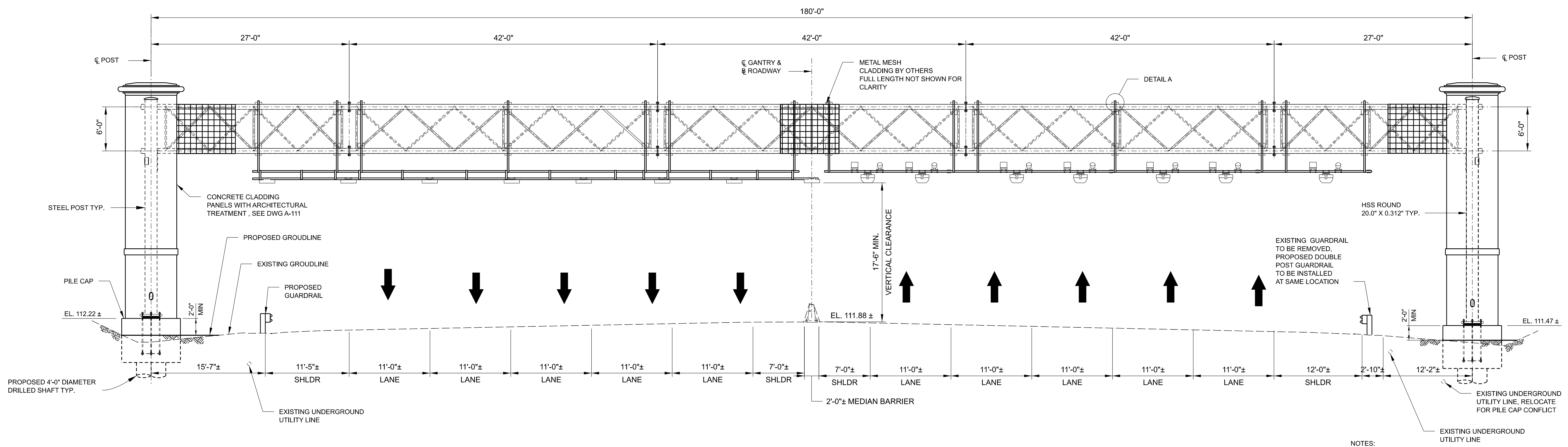
SCALE	
TITLE	GANTRY SITE PLAN

DATE	10/16/2024
SHEET	S-1

--	--



PLAN

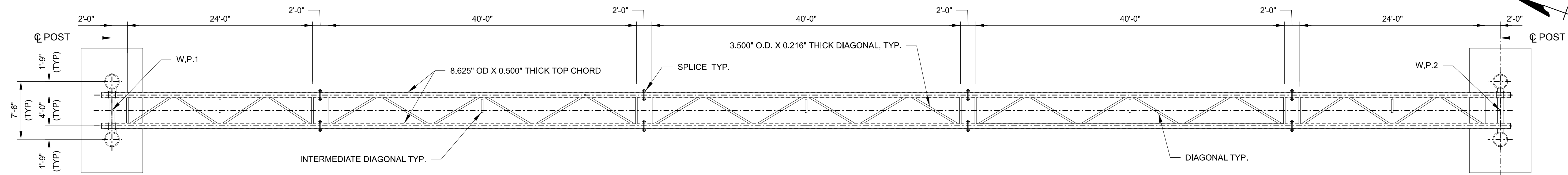


ELEVATION

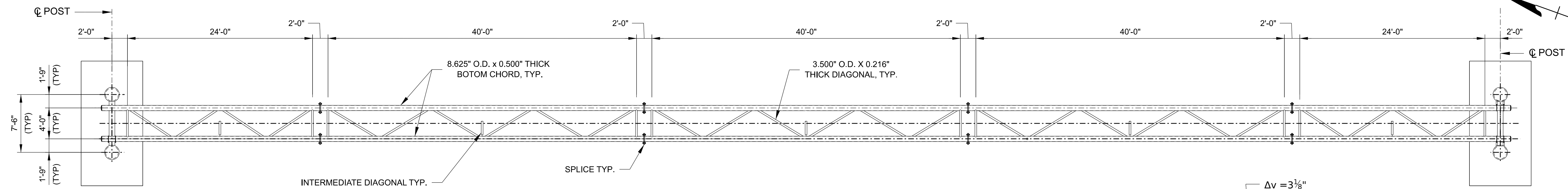
DRAFT

- NOTES:
1. FOR GENERAL NOTES, SEE DWG. S-3.
 2. FOR DETAILS, SEE DWG. S-4 TO S-5.
 3. FOR FOUNDATION, SEE DWG S-6.
 4. FOR DETAIL A, SEE DWG S-5.
 5. FOR WORK POINTS, SEE DWG S-4.
 6. FOR AET EQUIPMENTS, SEE EQUIPMENT LAYOUT DRAWINGS FOR DETAILS.

				PROJECT	RICHMOND METROPOLITAN TRANSPORTATION AUTHORITY RMTA			DESIGNED BY	G. Garayburu	SCALE		DATE	10/16/2024
				APPROVED BY	I. Sun			TITLE	GANTRY PLAN AND ELEVATION			DRAWN BY	
				DATE				DATE				DATE	10/16/2024
				BY				DATE				DATE	10/16/2024
				DESCRIPTION				DATE				DATE	10/16/2024
								DATE				DATE	10/16/2024
								DATE				DATE	10/16/2024
								DATE				DATE	10/16/2024
								DATE				DATE	10/16/2024

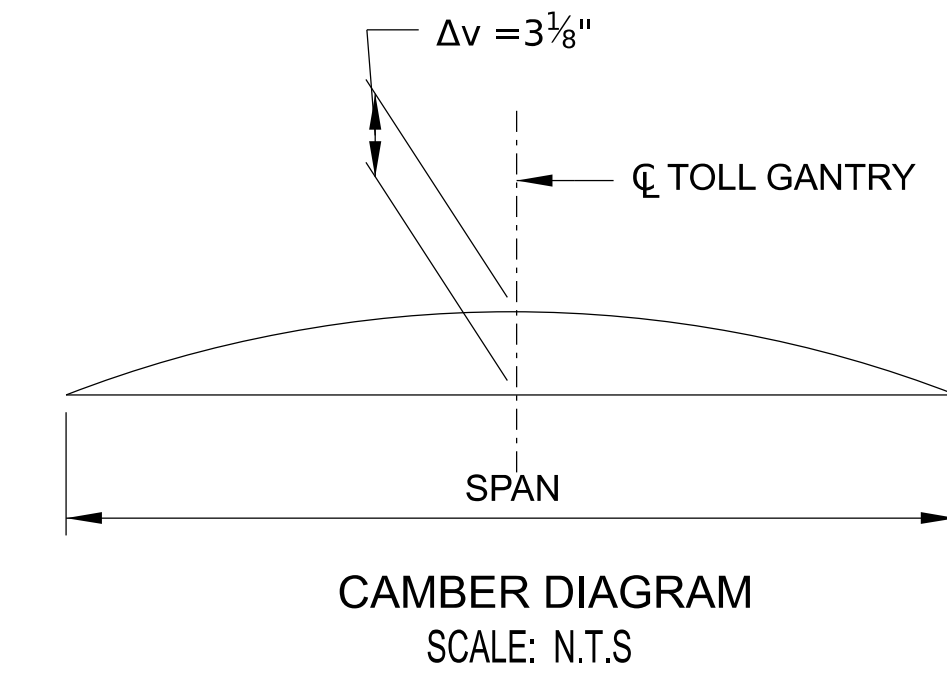


TOP CHORD PLAN
SCALE: 1/2" = 1'-0"

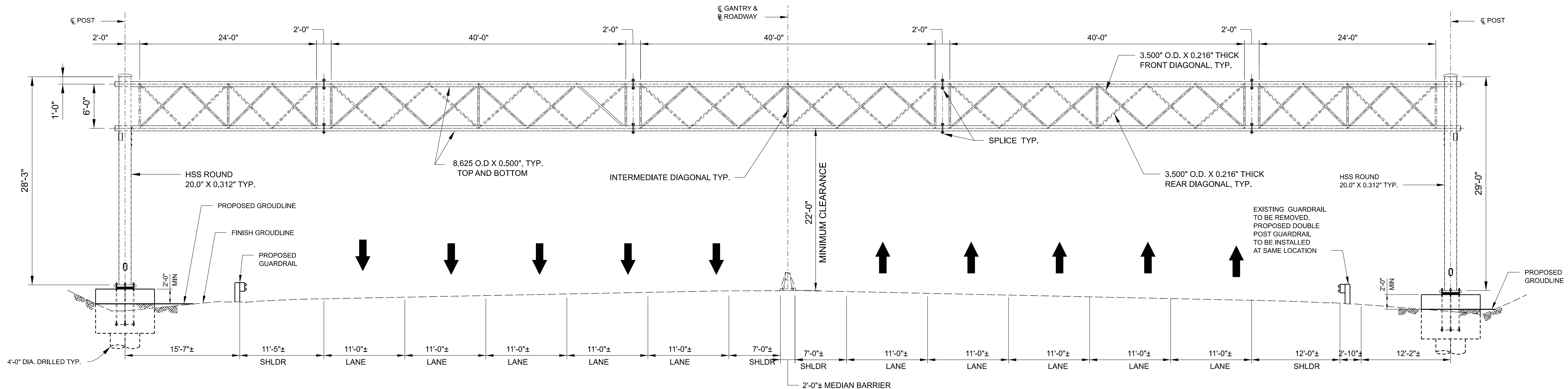


BOTTOM CHORD PLAN
SCALE: 1/2" = 1'-0"

WORKING POINT DATA				
MARK	STATION	OFFSET	NORTHING	EASTING
W.P. 1	16+27.22	90.00 LT	3720554.806	11772825.136
W.P. 2	16+27.22	90.00 RT	3720412.708	11772935.625



CAMBER DIAGRAM
SCALE: N.T.S



OVERHEAD GANTRY STRUCTURE ELEVATION
SCALE: 1/2" = 1'-0"

DRAFT



ID	DATE	BY	DESCRIPTION

PROJECT: RICHMOND METROPOLITAN TRANSPORTATION AUTHORITY RMTA

DRAWN BY: G. Garayburu
 VERIFIED BY: L. Sun
 APPROVED: S. Lee

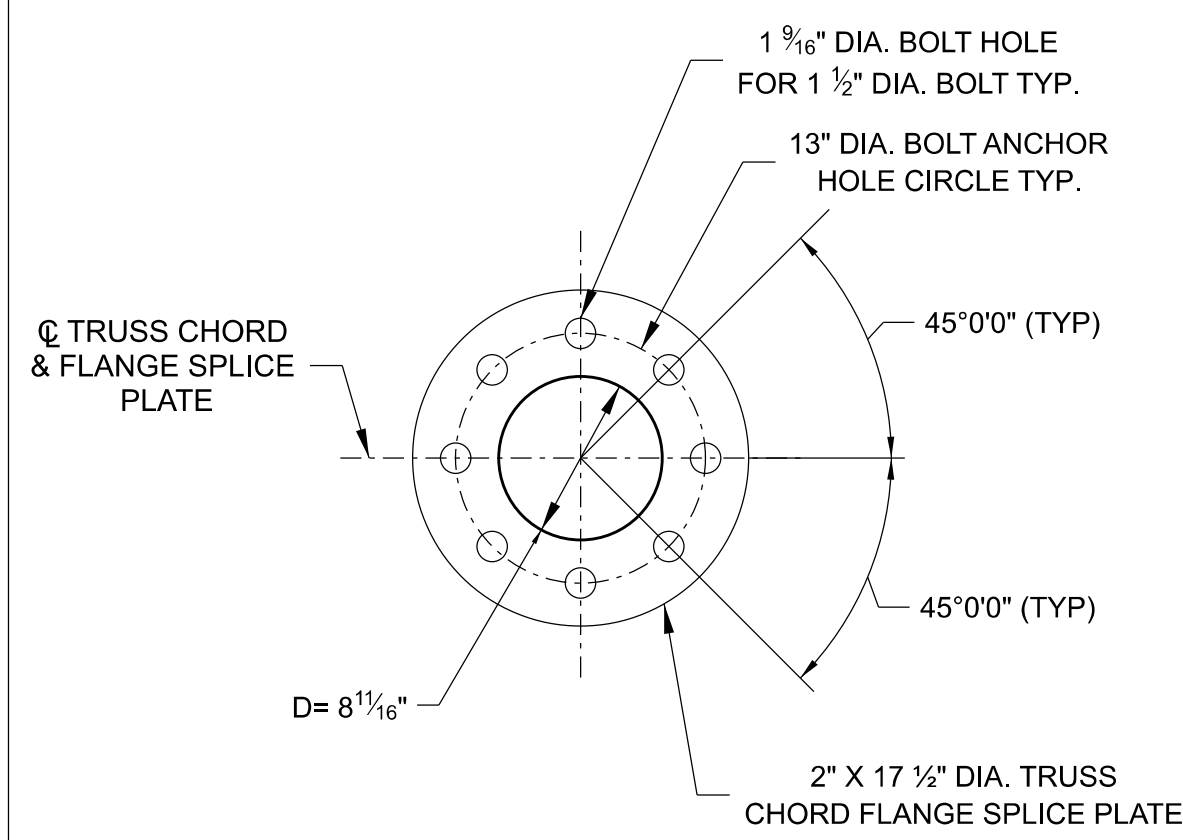
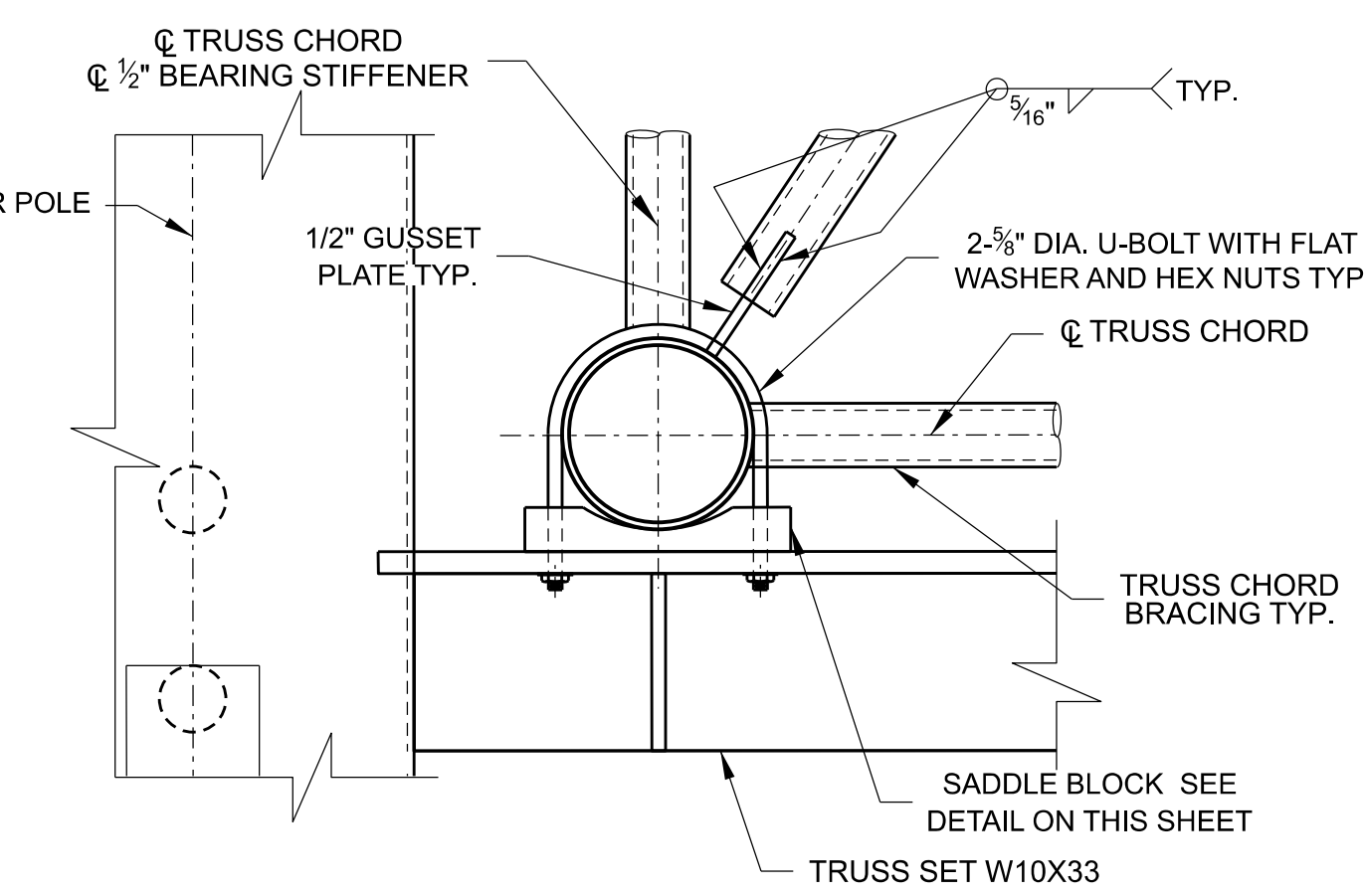
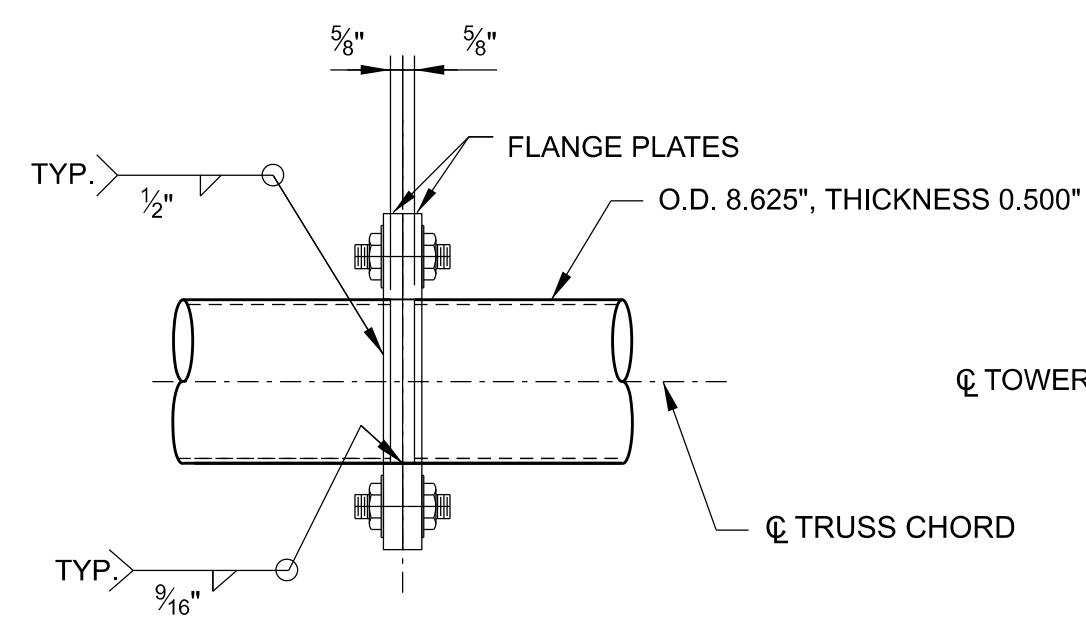
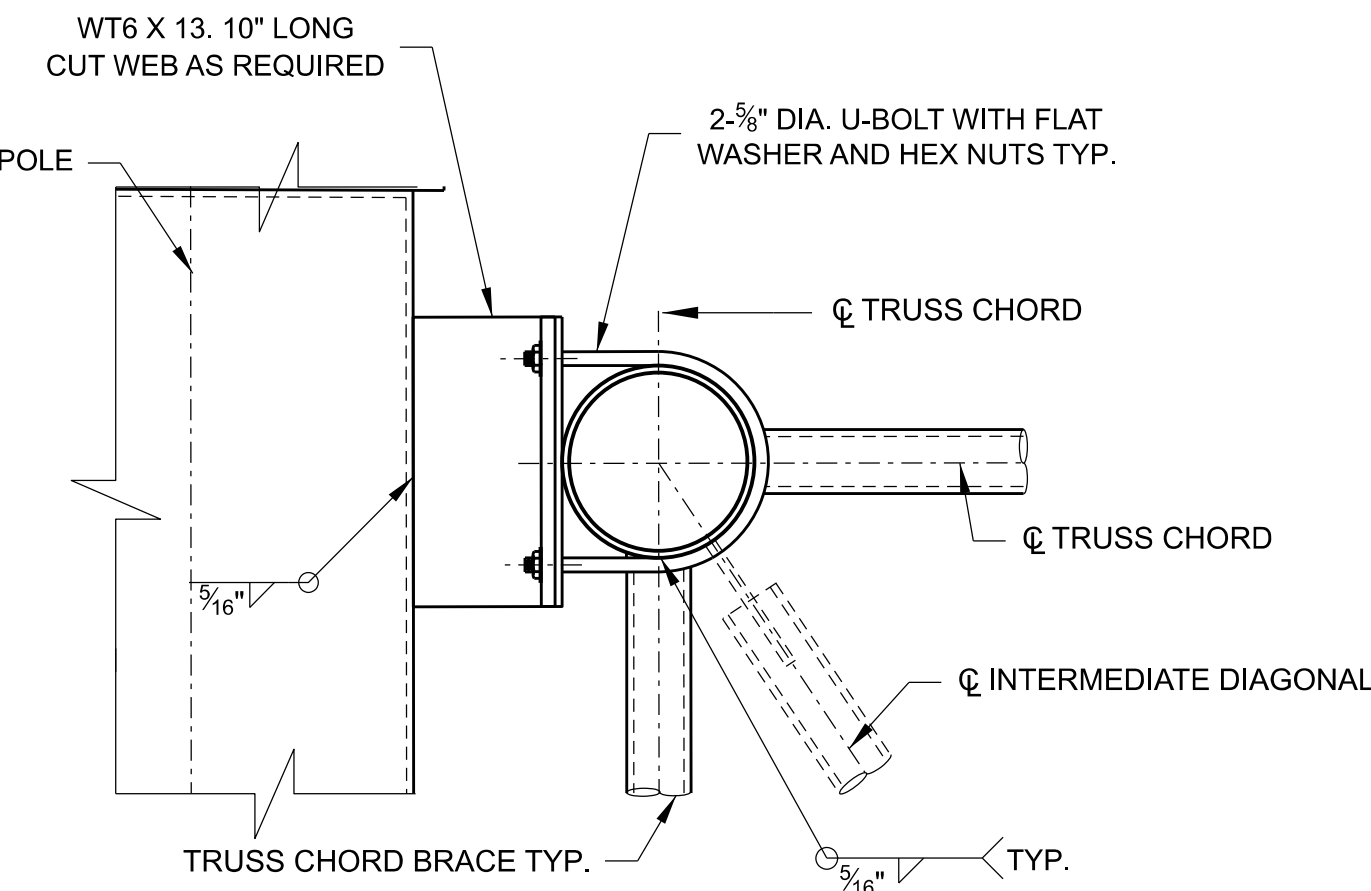
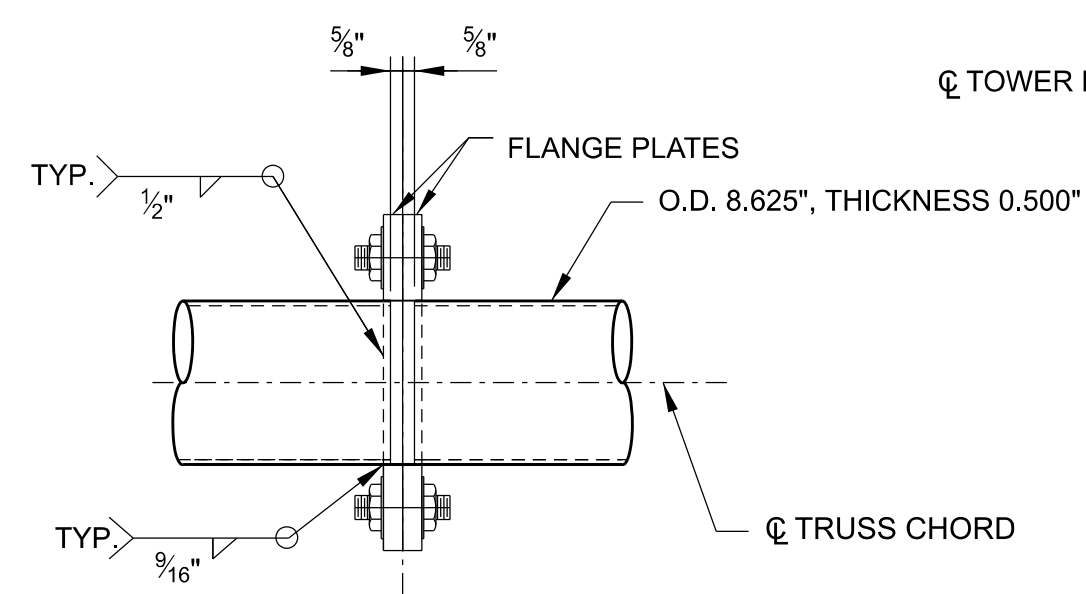
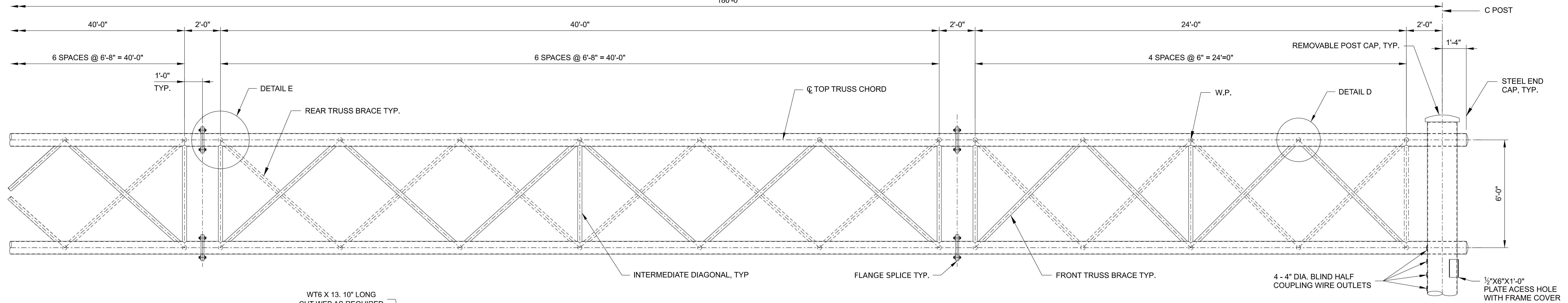
SCALE: 1/2" = 1'-0"

TITLE: GANTRY DETAILS 1

DATE: 10/16/2024
 SHEET: S-4

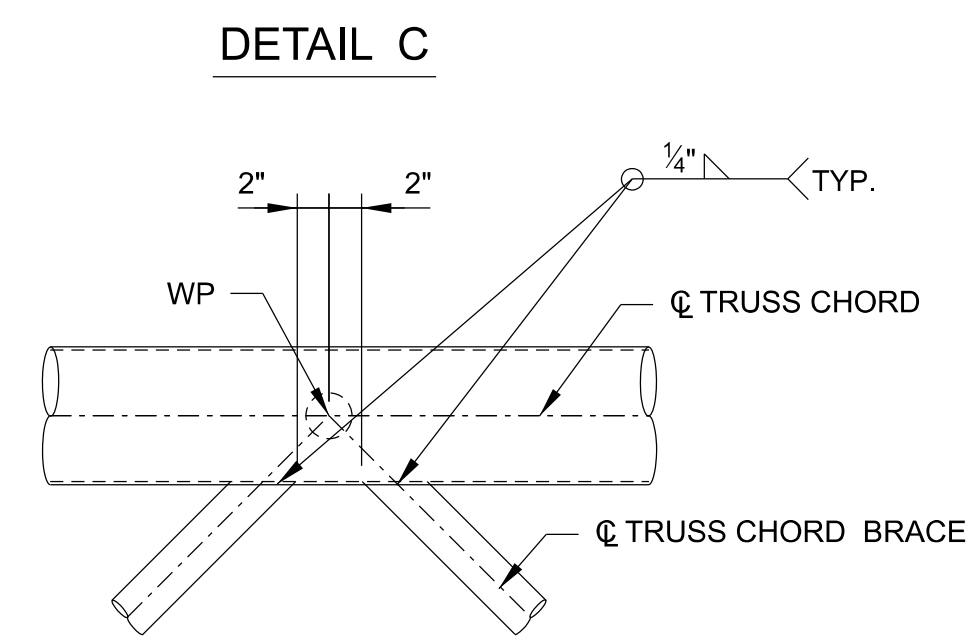
PROJECT: RICHMOND METROPOLITAN TRANSPORTATION AUTHORITY RMTA

180'-0"



TRUSS CHORD FLANGE SPLICE DETAIL

DRAFT

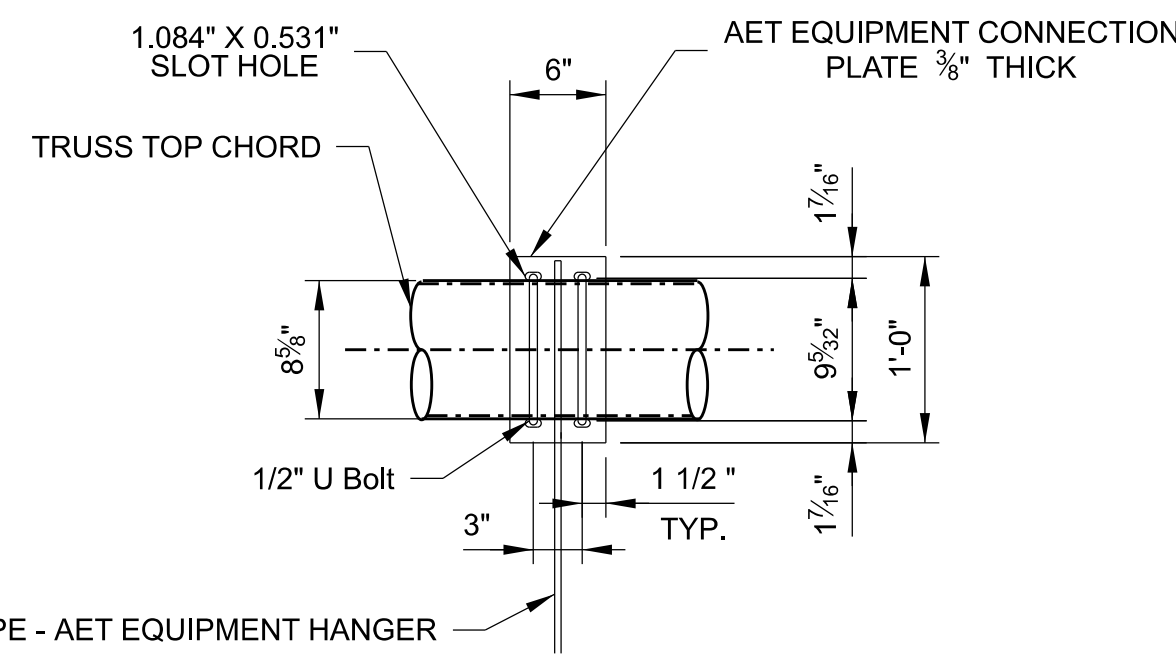


DETAIL E
SCALE 1"=1'-0"

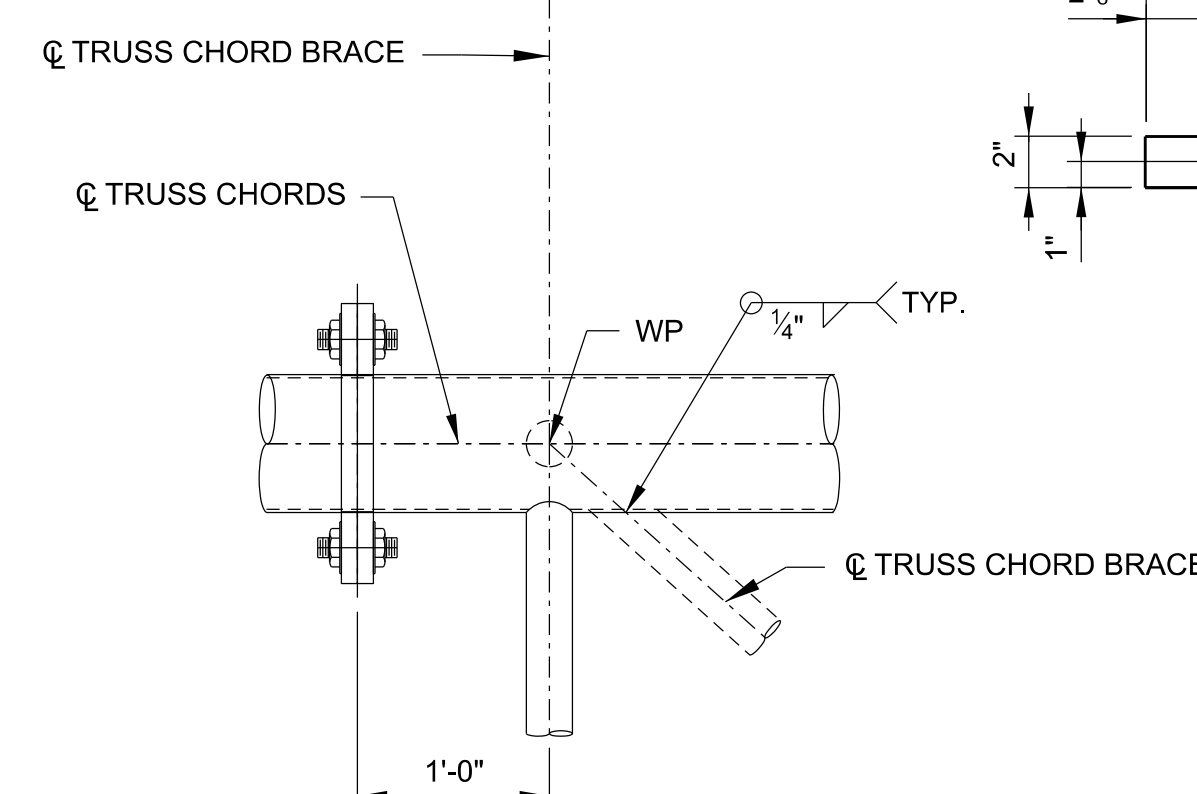
PARTIAL TRUSS ELEVATION

SCALE 3/8"=1'-0"

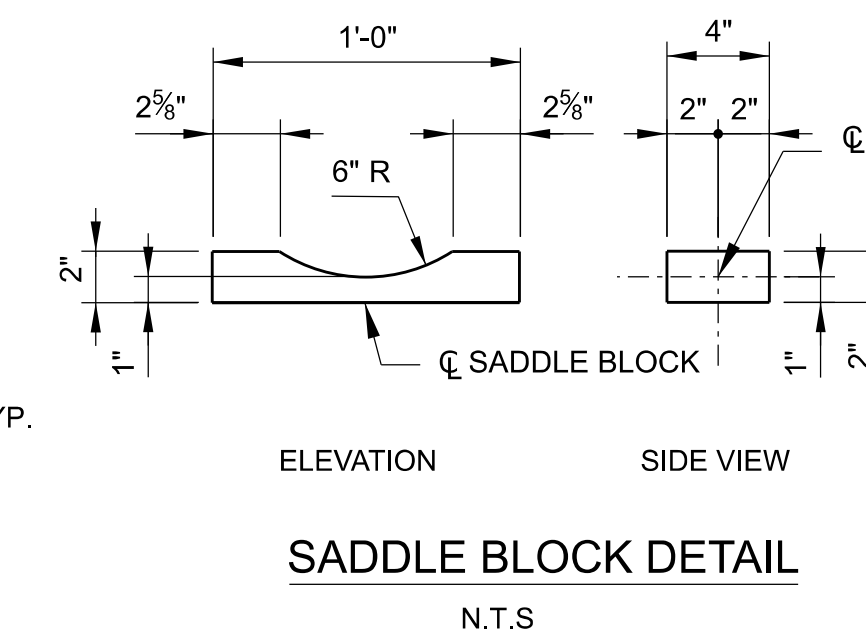
NOTE:
A-TO-B WILL PROVIDE INSTALLATION SEQUENCE AND CONNECTION DETAILS OF EQUIPMENT HANGER FRAME TO THE TRUSS.



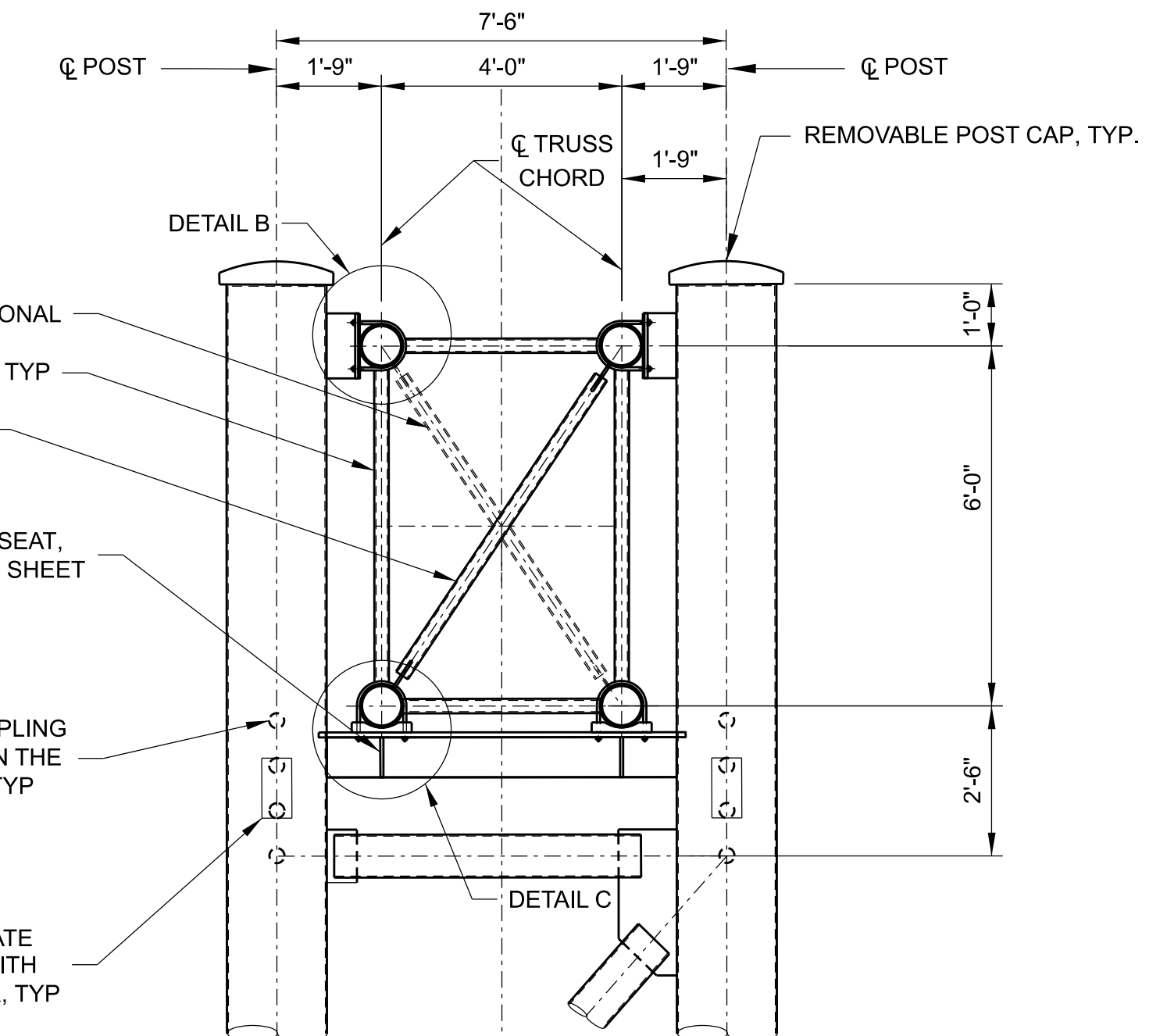
DETAIL A
AET EQUIPMENT TO TRUSS CONNECTION DETAILS
SCALE 1"=1'-0"



DETAIL E
SCALE 1"=1'-0"

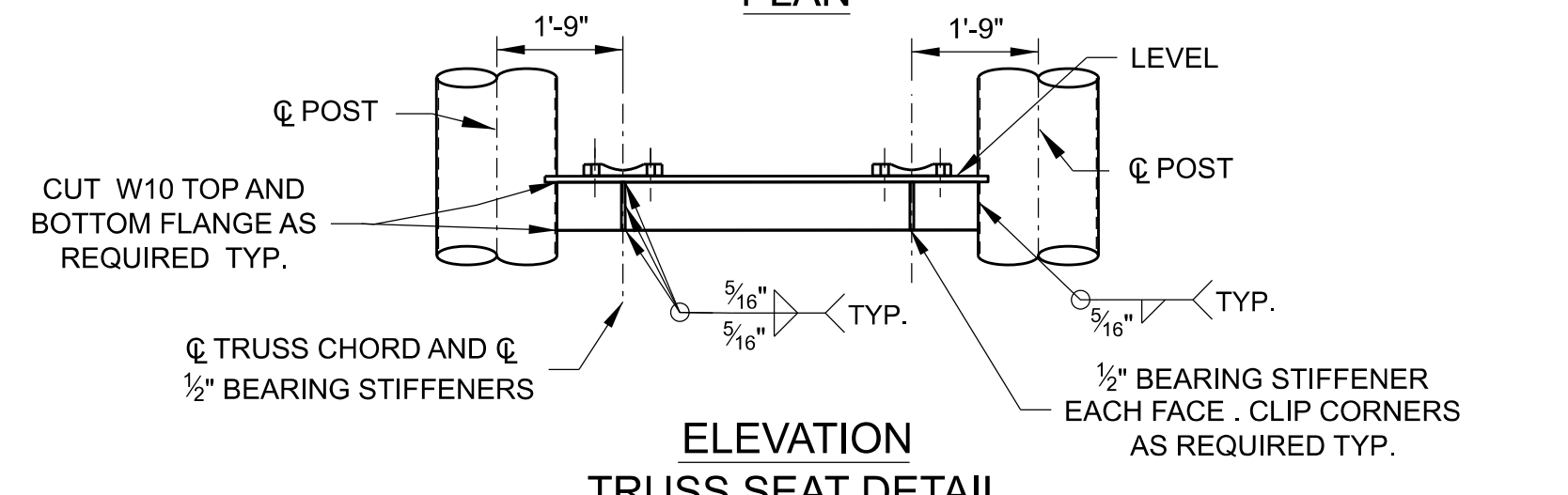
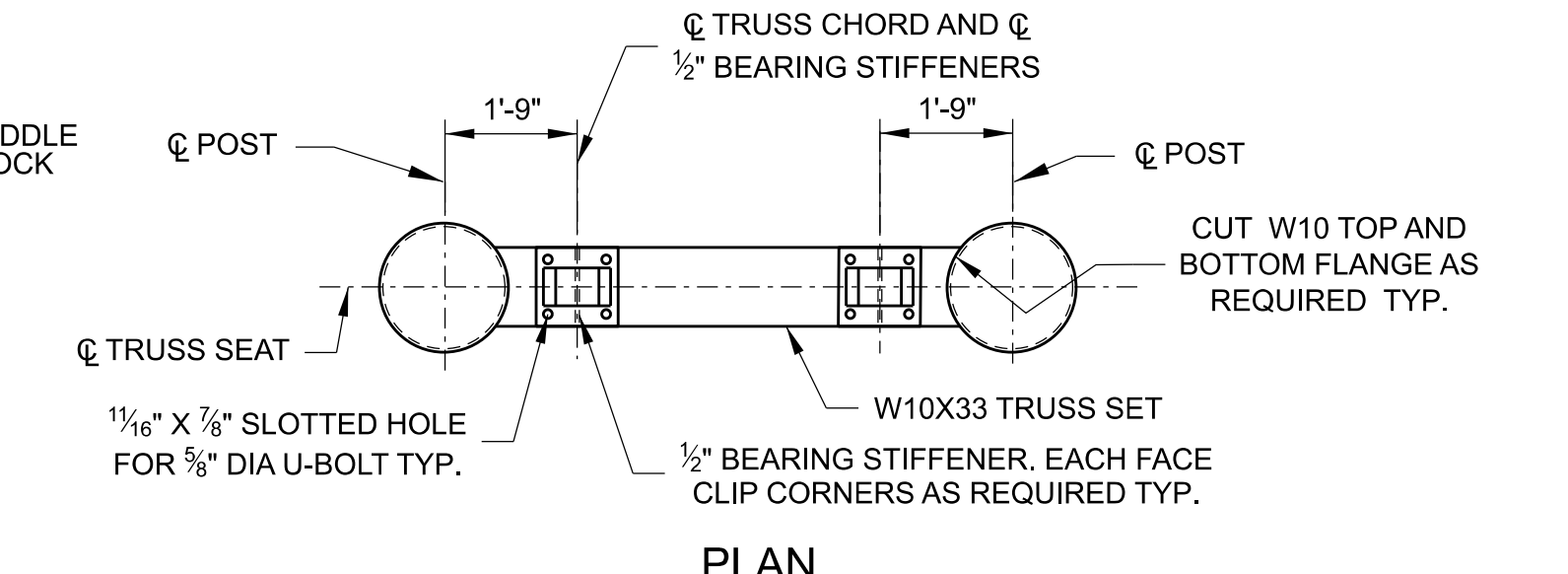


SADDLE BLOCK DETAIL
N.T.S.



PARTIAL SIDE ELEVATION

SCALE 1/2"=1'-0"



ELEVATION
TRUSS SEAT DETAIL
SCALE 1/2"=1'-0"



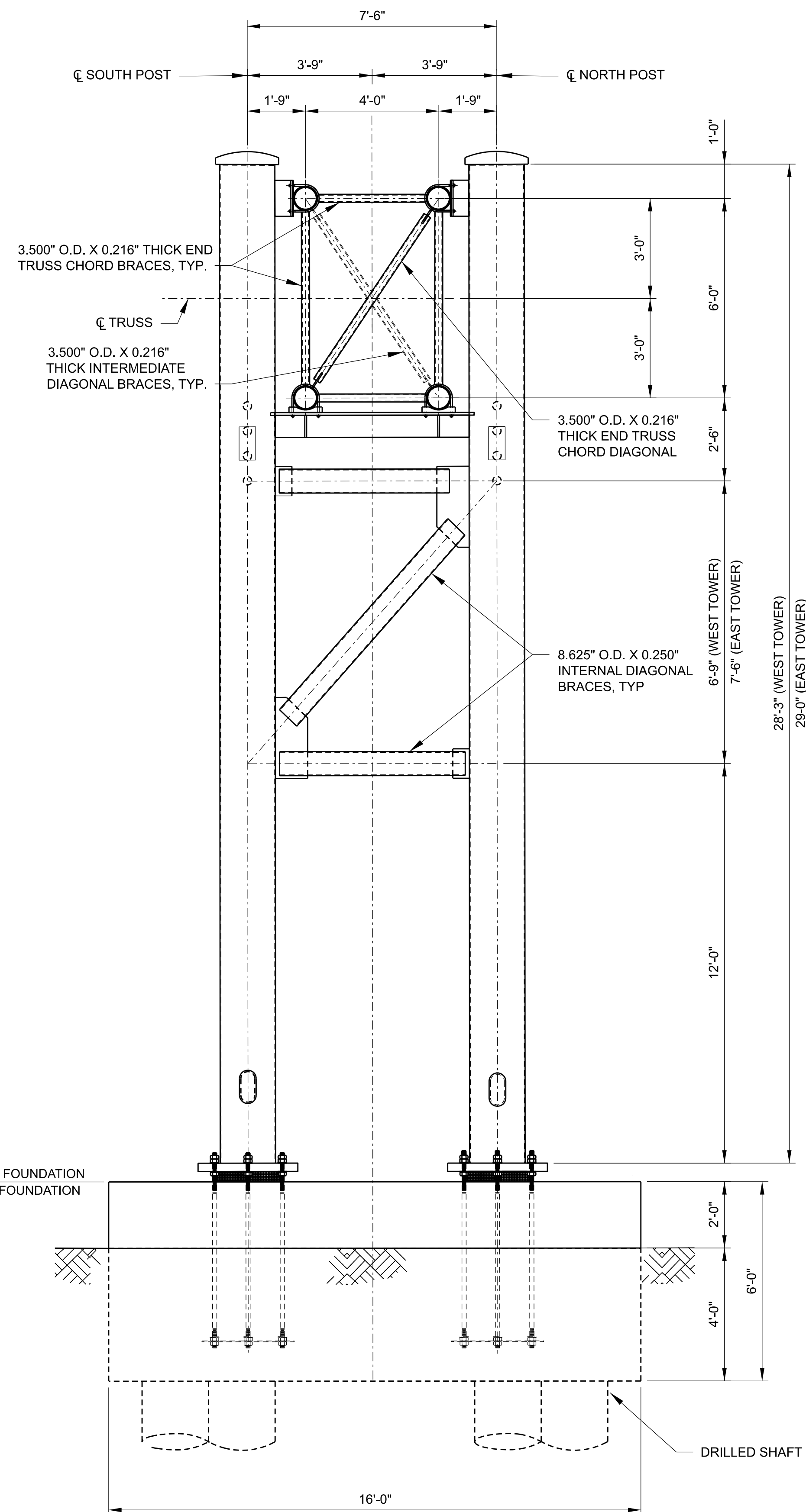
NO.	DATE	BY	DESCRIPTION

PROJECT: RICHMOND METROPOLITAN TRANSPORTATION AUTHORITY RMTA

DRAWN BY: G. Garayburu
 CHECKED BY: L. Sun
 APPROVED BY: S. Lee

SCALE: 1/2"=1'-0"
 TITLE: GANTRY DETAILS 2

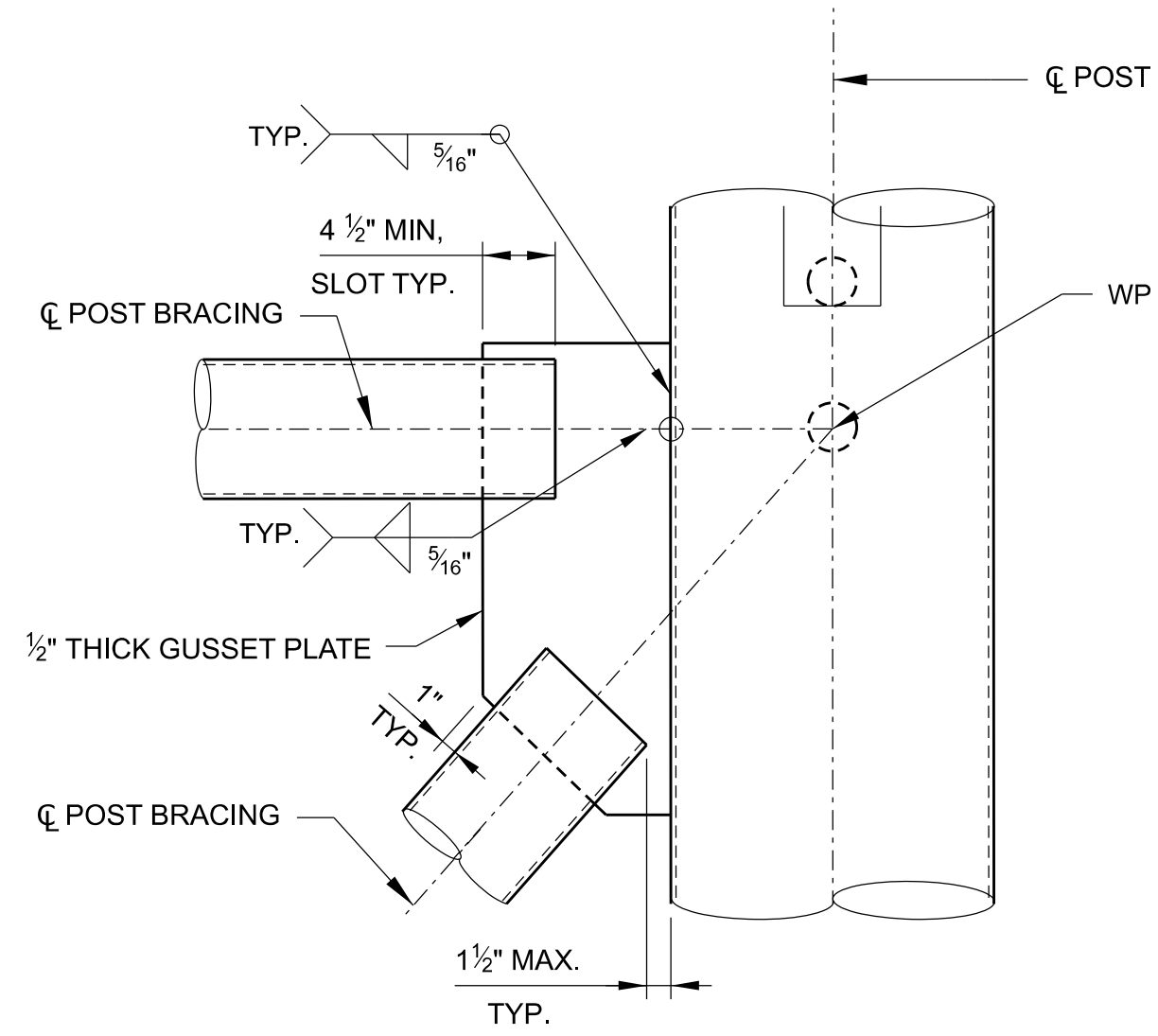
DATE: 10/16/2024
 SHEET: S-5



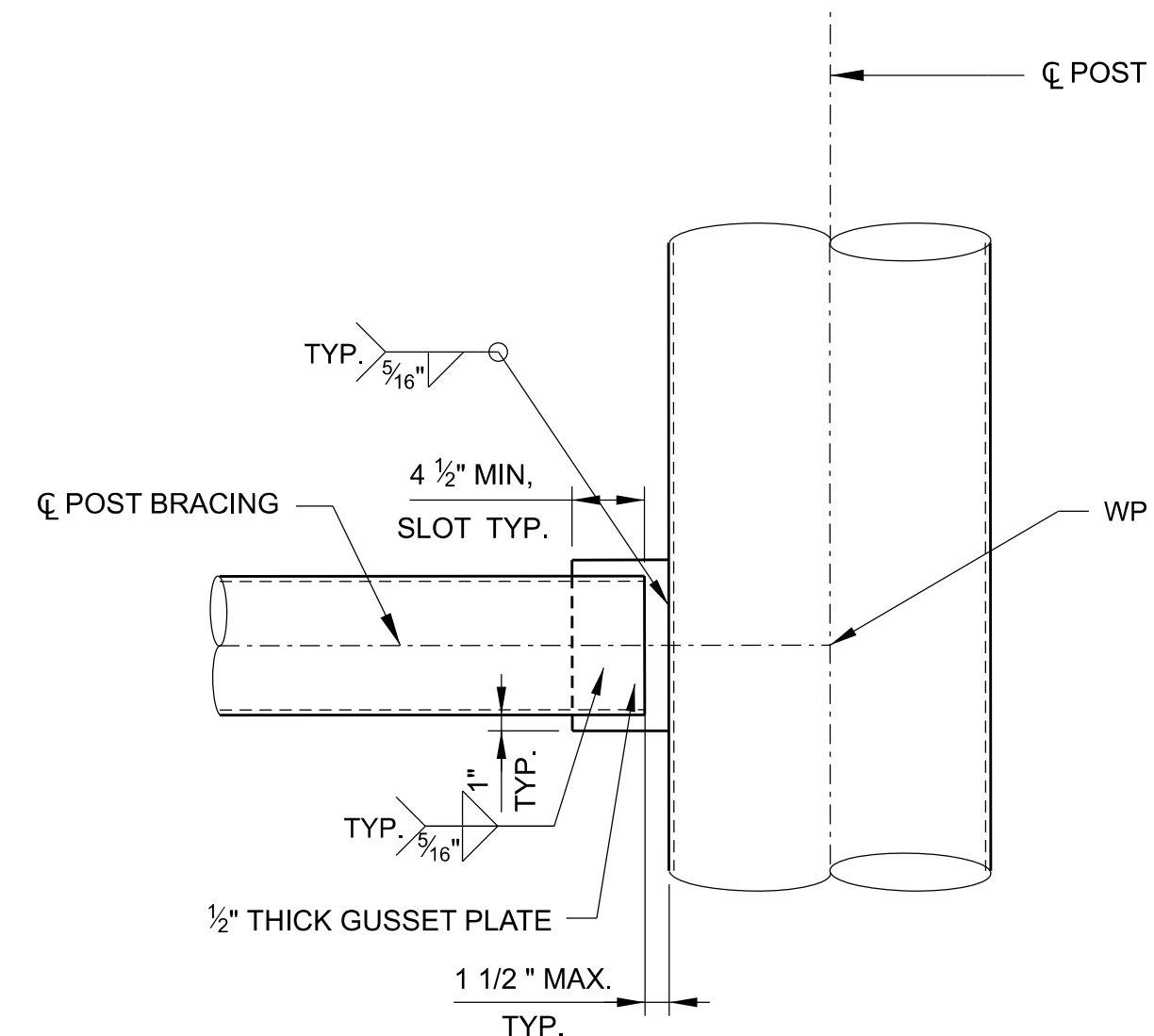
EL. 112.22 ± WEST FOUNDATION
EL. 111.47 ± EAST FOUNDATION

DRAFT

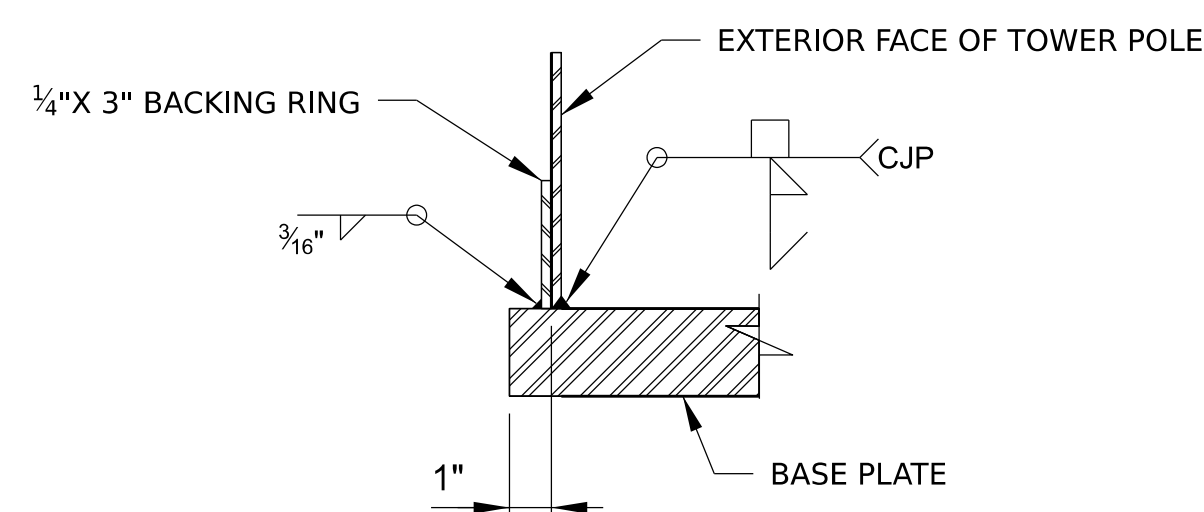
POST ELEVATION
POSTS AT NB SHOWN, SB SIMILAR
SCALE = 1/2" = 1'-0"



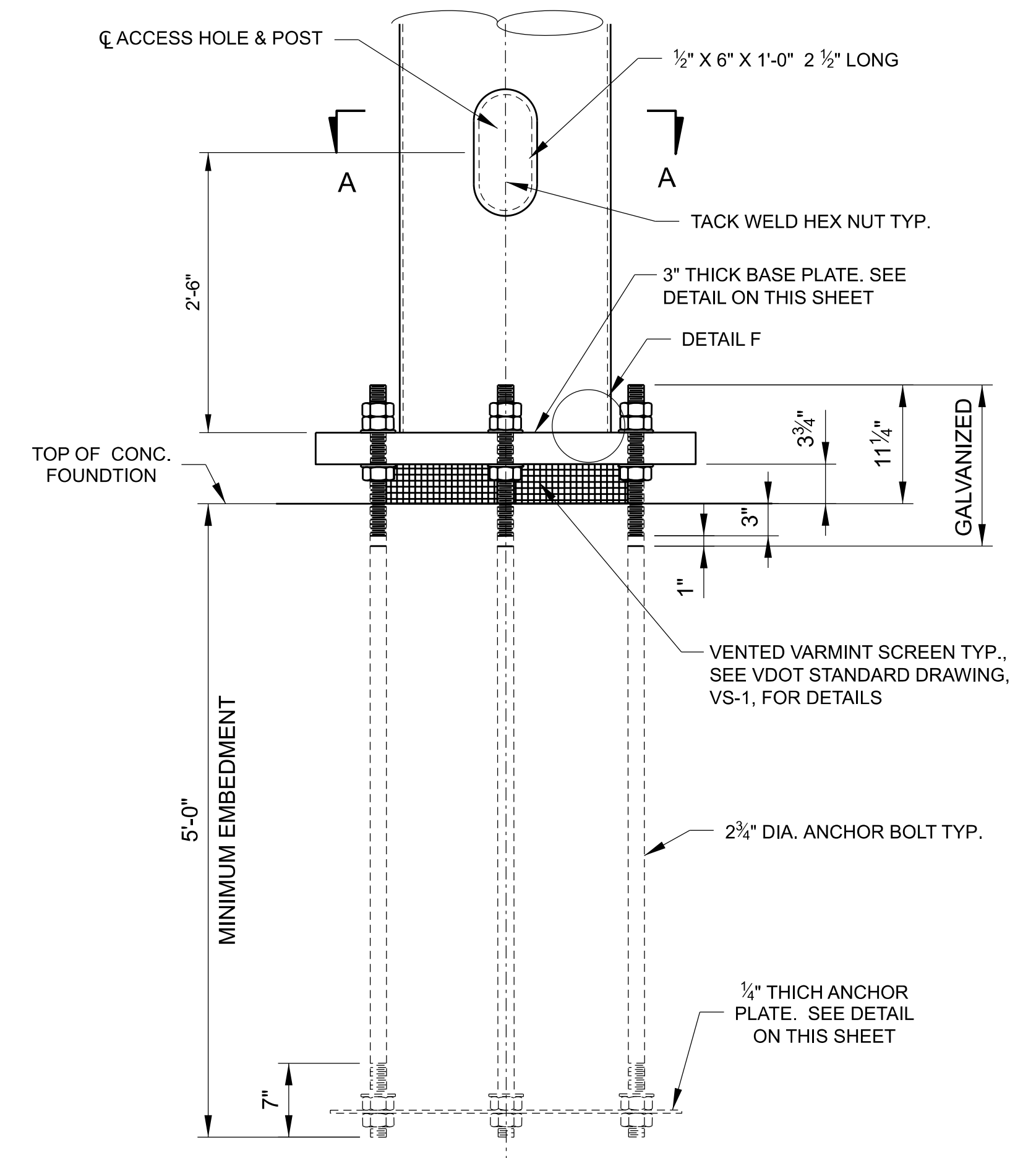
END BRACE DUAL CONNECTION
SCALE = 3/8" = 1'-0"



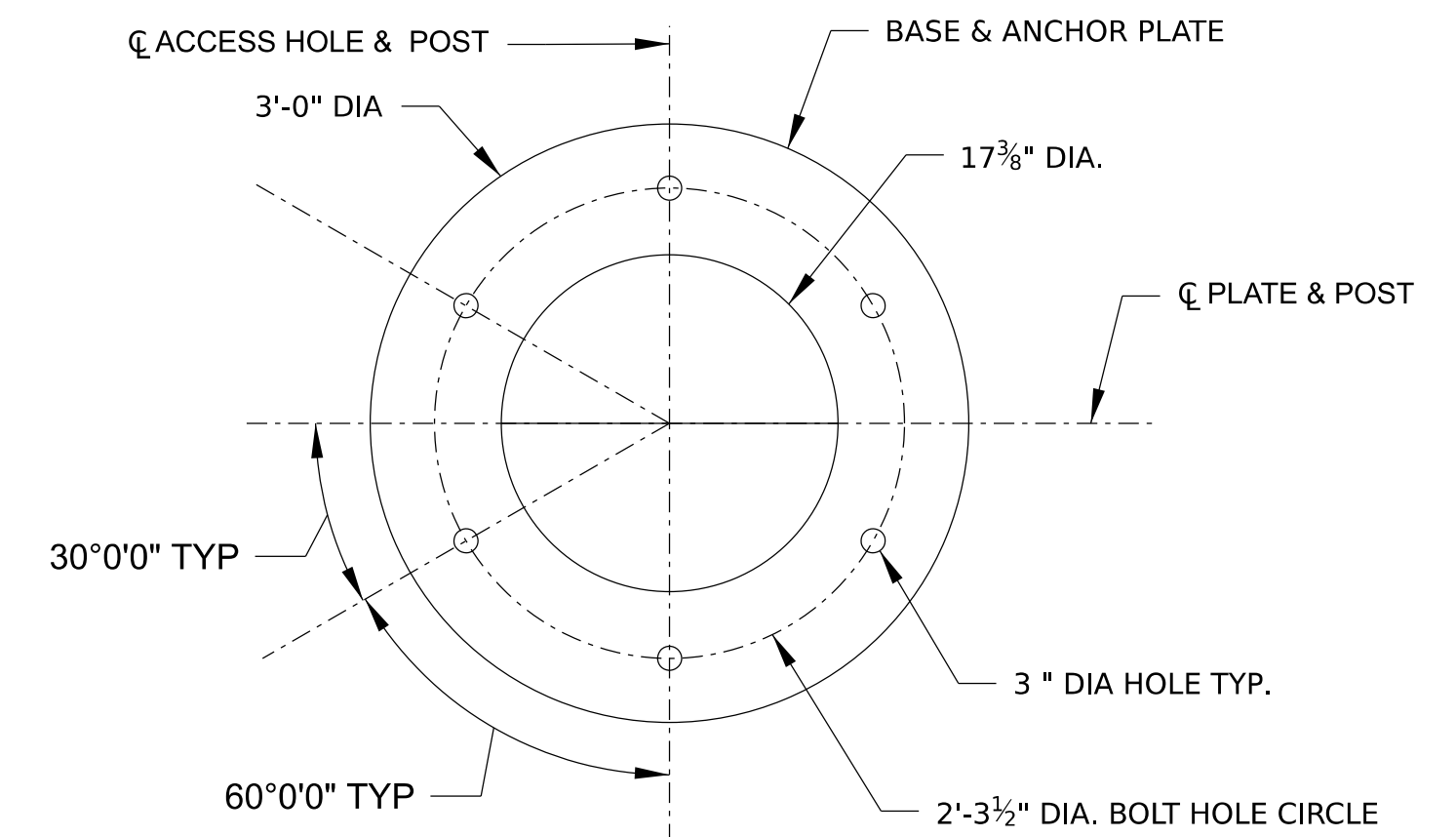
POST BRACING DETAIL
END BRACE SINGLE CONNECTION
SCALE = 3/8" = 1'-0"



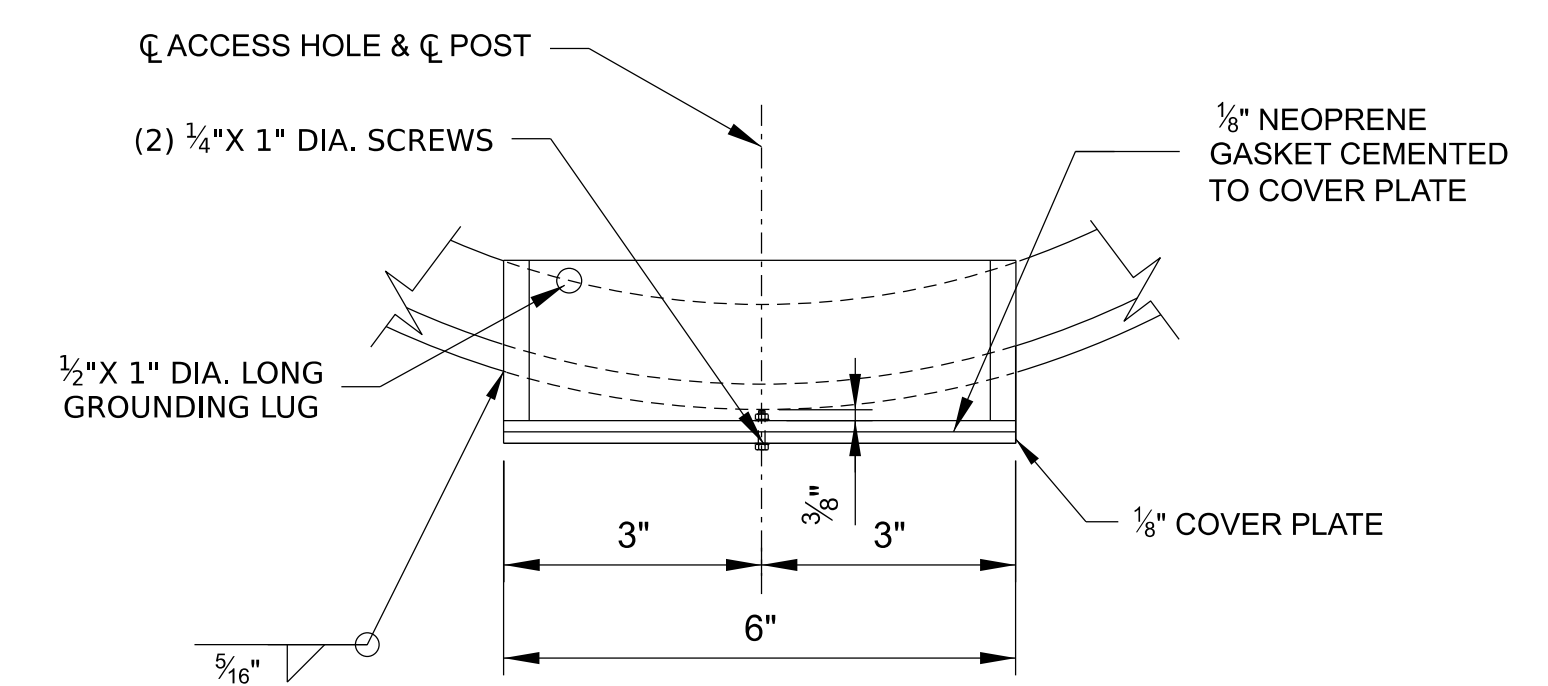
DETAIL F
BASE PLATE TO POLE WELD DETAIL



POST BRACING DETAIL
SCALE = 3/8" = 1'-0"



BASE & ANCHOR PLATE DETAIL



SECTION A-A
ACCESS HOLE DETAIL



NO.	DATE	BY	DESCRIPTION

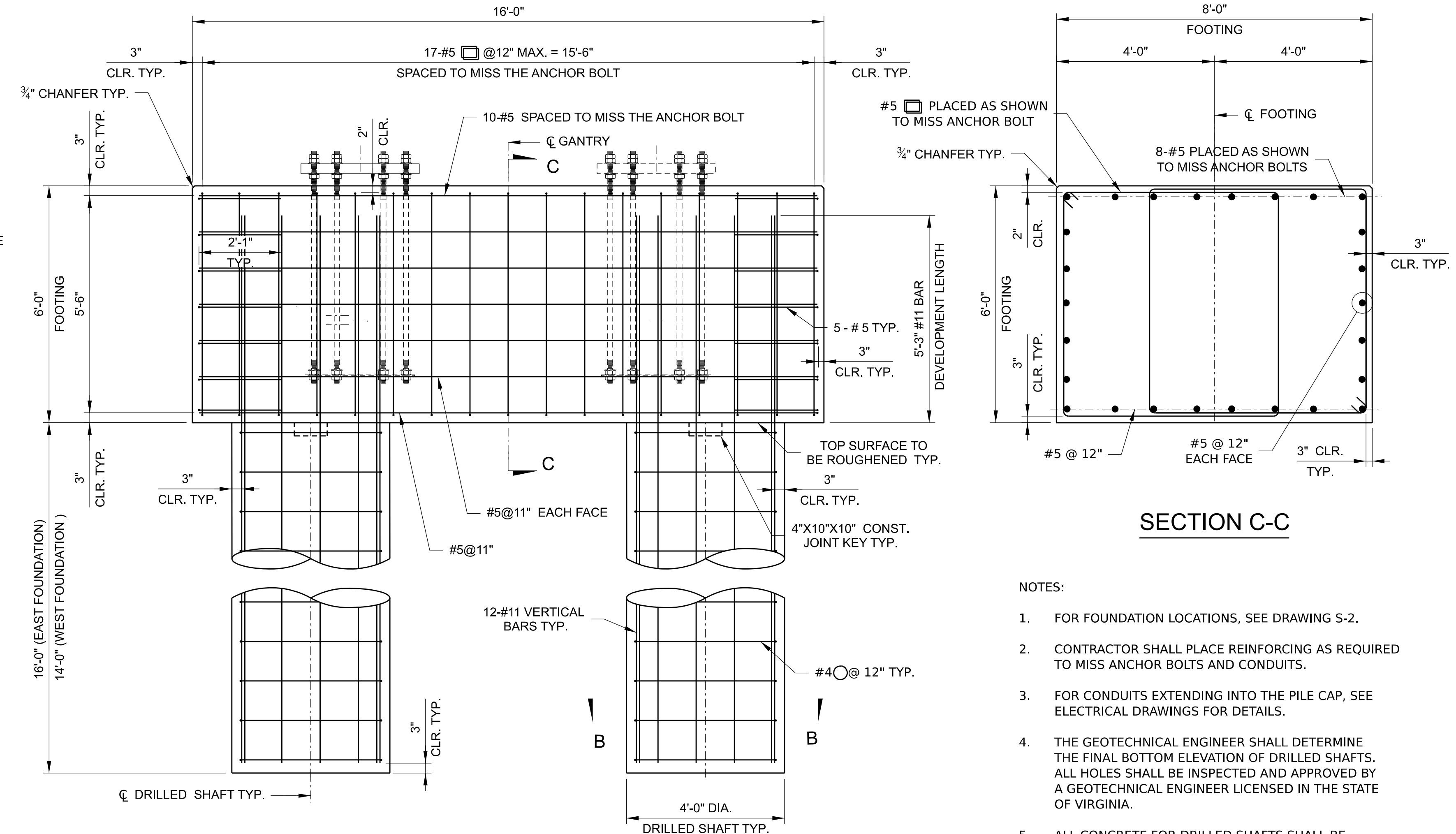
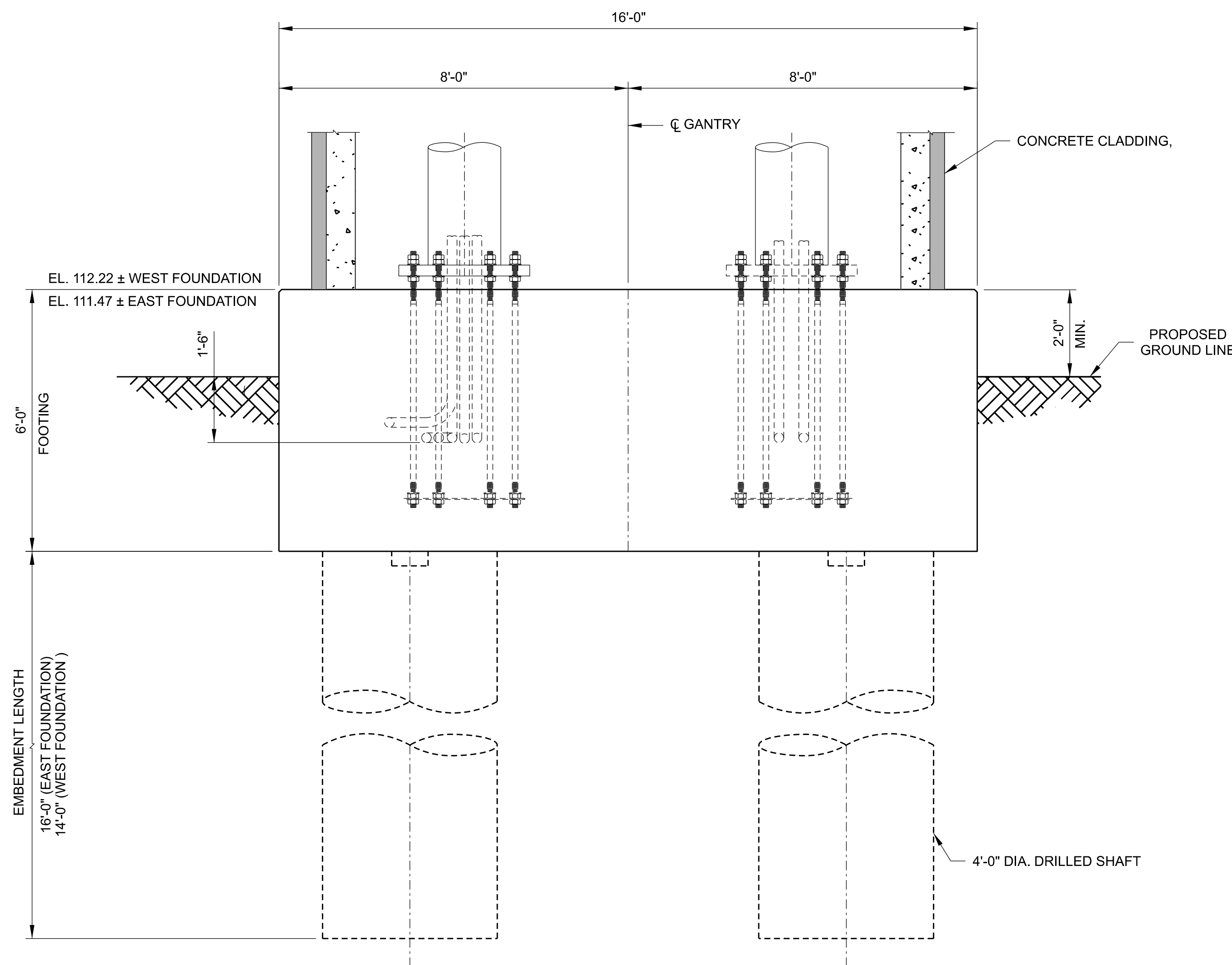
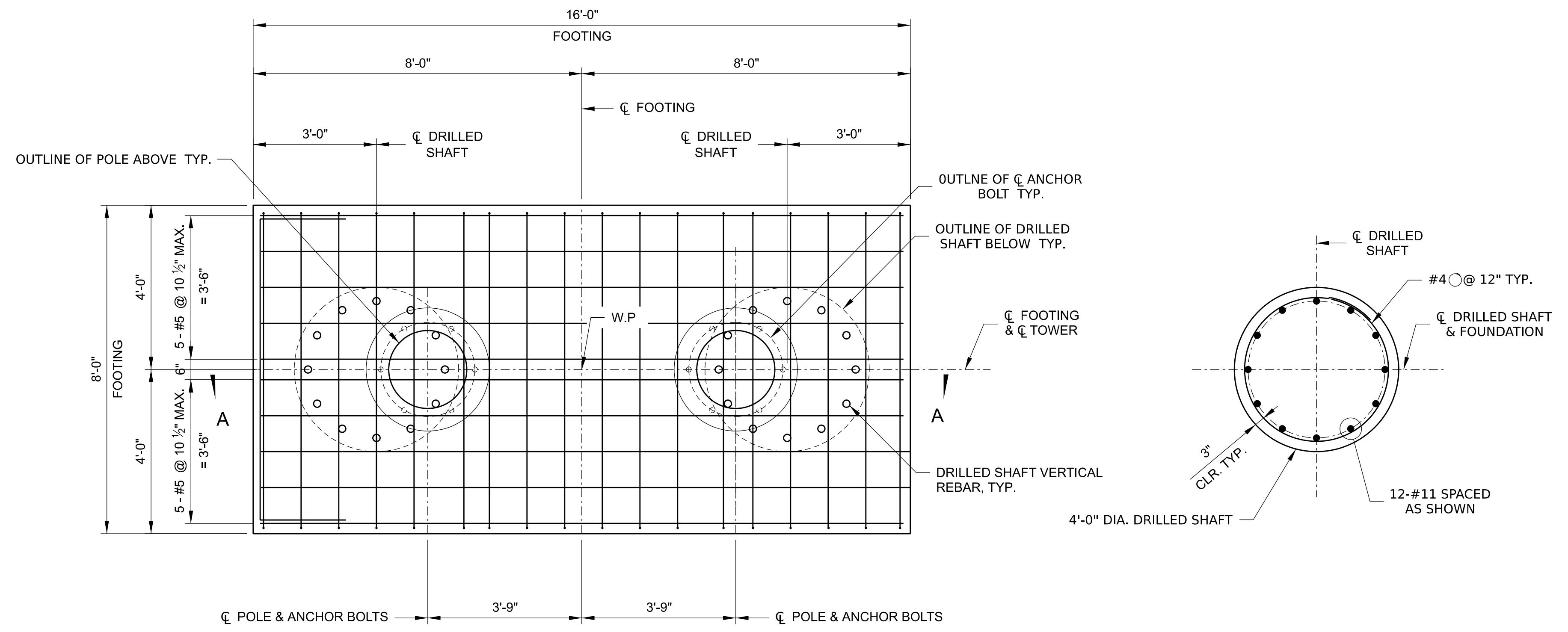
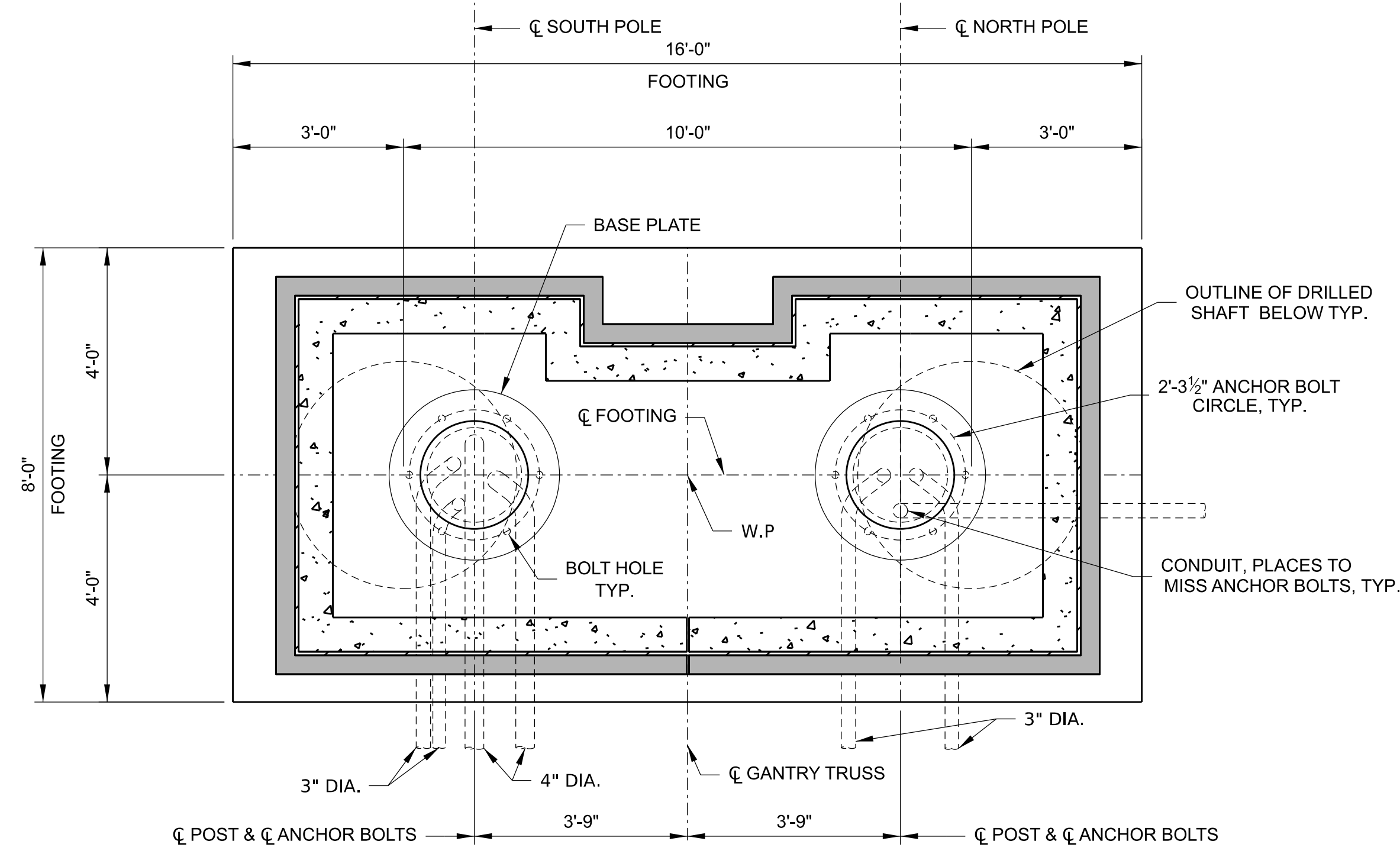
**RICHMOND METROPOLITAN
TRANSPORTATION AUTHORITY
RMTA**

DESIGNED BY: G. Garayburu
CHECKED BY: L. Sun
APPROVED BY: S. Lee

SCALE: TITLE: SHEET: S-6

GANTRY DETAILS 3

DATE: 10/16/2024	DESIGNED BY: G. Garayburu
SHEET: S-6	CHECKED BY: L. Sun
	APPROVED BY: S. Lee



- NOTES:
- FOR FOUNDATION LOCATIONS, SEE DRAWING S-2.
 - CONTRACTOR SHALL PLACE REINFORCING AS REQUIRED TO MISS ANCHOR BOLTS AND CONDUITS.
 - FOR CONDUITS EXTENDING INTO THE PILE CAP, SEE ELECTRICAL DRAWINGS FOR DETAILS.
 - THE GEOTECHNICAL ENGINEER SHALL DETERMINE THE FINAL BOTTOM ELEVATION OF DRILLED SHAFTS. ALL HOLES SHALL BE INSPECTED AND APPROVED BY A GEOTECHNICAL ENGINEER LICENSED IN THE STATE OF VIRGINIA.
 - ALL CONCRETE FOR DRILLED SHAFTS SHALL BE CLASS A3 (3500 PSI).

DRAFT



ELEVATION
CONDUITS IN PILE CAP

RICHMOND METROPOLITAN
TRANSPORTATION AUTHORITY
RMTA

SECTION A-A

GANTRY FOOTING DETAILS

DATE	10/16/2024
BY	S-7

ETS Engineering and Testing Services, Inc
 5226 Indian River Road
 Virginia Beach, Virginia, 23464
 Telephone: 757-306-1040
 Fax: 757-306-1042

BORING NUMBER B-1 South Bound PAGE 1 OF 1

CLIENT HNTB Corporation PROJECT NAME New AET Gantry-Powhite Parkway
 PROJECT NUMBER ETS-24E120 PROJECT LOCATION Richmond, VA
 DATE STARTED 5/13/24 COMPLETED 5/13/24 GROUND ELEVATION _____ HOLE SIZE 3 inches
 DRILLING CONTRACTOR FDI GROUND WATER LEVELS: _____
 DRILLING METHOD MUD AT TIME OF DRILLING --- Dry
 LOGGED BY S.Raut,EIT CHECKED BY R. Acharya, PhD, PE AT END OF DRILLING ---
 NOTES _____ AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲			
								PL	MC	LL	
								20	40	60	80
								☐ FINES CONTENT (%) ☐			
								20	40	60	80
0		5" TOPSOIL									
		(SM) IGM, Tan brown-orange f-c silty SAND with trace clay, very dense, moist Refusal @1.75 ft	SPT 1	57	4-12-28-50/3"						
		(SP-SM) IGM, Tan brown-orange f-c poorly graded SAND with silt, very dense, moist	SPT 2	89	22-50/3"						
			SPT 3	80	30-50/4"						
			SPT 4	100	50/4"						
			SPT 5	57	14-50/1"						
			NR 6	0	50/2"						
			NR 7	0	50/2"						

Bottom of borehole at 20.0 feet.

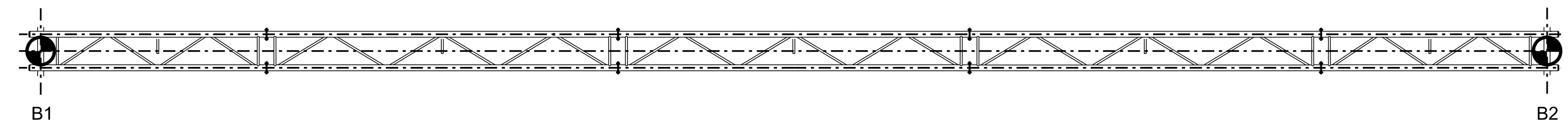
ETS Engineering and Testing Services, Inc
 5226 Indian River Road
 Virginia Beach, Virginia, 23464
 Telephone: 757-306-1040
 Fax: 757-306-1042

BORING NUMBER B-2 North Bound PAGE 1 OF 1

CLIENT HNTB Corporation PROJECT NAME New AET Gantry-Powhite Parkway
 PROJECT NUMBER ETS-24E120 PROJECT LOCATION Richmond, VA
 DATE STARTED 5/13/24 COMPLETED 5/13/24 GROUND ELEVATION _____ HOLE SIZE 3 inches
 DRILLING CONTRACTOR FDI GROUND WATER LEVELS: _____
 DRILLING METHOD MUD AT TIME OF DRILLING --- Dry
 LOGGED BY S.Raut,EIT CHECKED BY R. Acharya, PhD, PE AT END OF DRILLING ---
 NOTES _____ AFTER DRILLING ---

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	DRY UNIT WT. (pcf)	▲ SPT N VALUE ▲			
								PL	MC	LL	
								20	40	60	80
								☐ FINES CONTENT (%) ☐			
								20	40	60	80
0		3" TOPSOIL									
		(SM) IGM, Tan brown-orange f-c silty SAND with trace clay, medium dense to very dense, moist	SPT 42		1-2-9-13 (11)						
			SPT 50		15-31-41-23 (72)						
			SPT 42		13-12-17-21 (29)						
		(SP-SM) IGM, Tan brown-orange f-c poorly graded SAND with silt, very dense, moist	SPT 100		50/3"						
			SPT 67		50/3"						
		Light tan gray -white GRANITE, RQD (%) = 31.8, RMR rating= "POOR ROCK" 11.5'-13.5'- highly weathered, very soft, intensely factured, uniaxial compressive strength = 0 psi	RC (35)								
		13.5'-15.0'-lightly weathered, moderately hard, highly factured, average uniaxial compressive strength =5730 psi									
		Slightly Weathered moderately hard light tan gray -white GRANITE, RQD (%) = 68.8, RMR rating= "FAIR ROCK", moderately factured, average uniaxial compressive strength =6300 psi	RC (69)								

Bottom of borehole at 20.0 feet.



DRAFT

BORING LOG LOCATION
SCALE: 1/4" = 1'-0"



ID	DATE	BY	DESCRIPTION

PROJECT: **RICHMOND METROPOLITAN TRANSPORTATION AUTHORITY RMTA**

DESIGNED BY: G.Garayburu
 CHECKED BY: L.Sun
 APPROVED: S.Lee

SCALE: _____ TITLE: **BORING LOGS**

DATE: 10/16/2024
 SHEET: S-8

PROJECT MANAGER _____
 SURVEYED BY, DATE _____
 DESIGN BY _____
 SUBSURFACE UTILITY BY, DATE _____

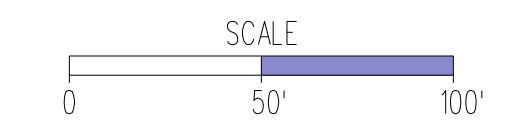
REVISED	STATE	STATE		SHEET NO.
	ROUTE	PROJECT		
	VA.		RMTA AET TOLL GANTRY	03

ROADWAY DESIGN

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



Draft



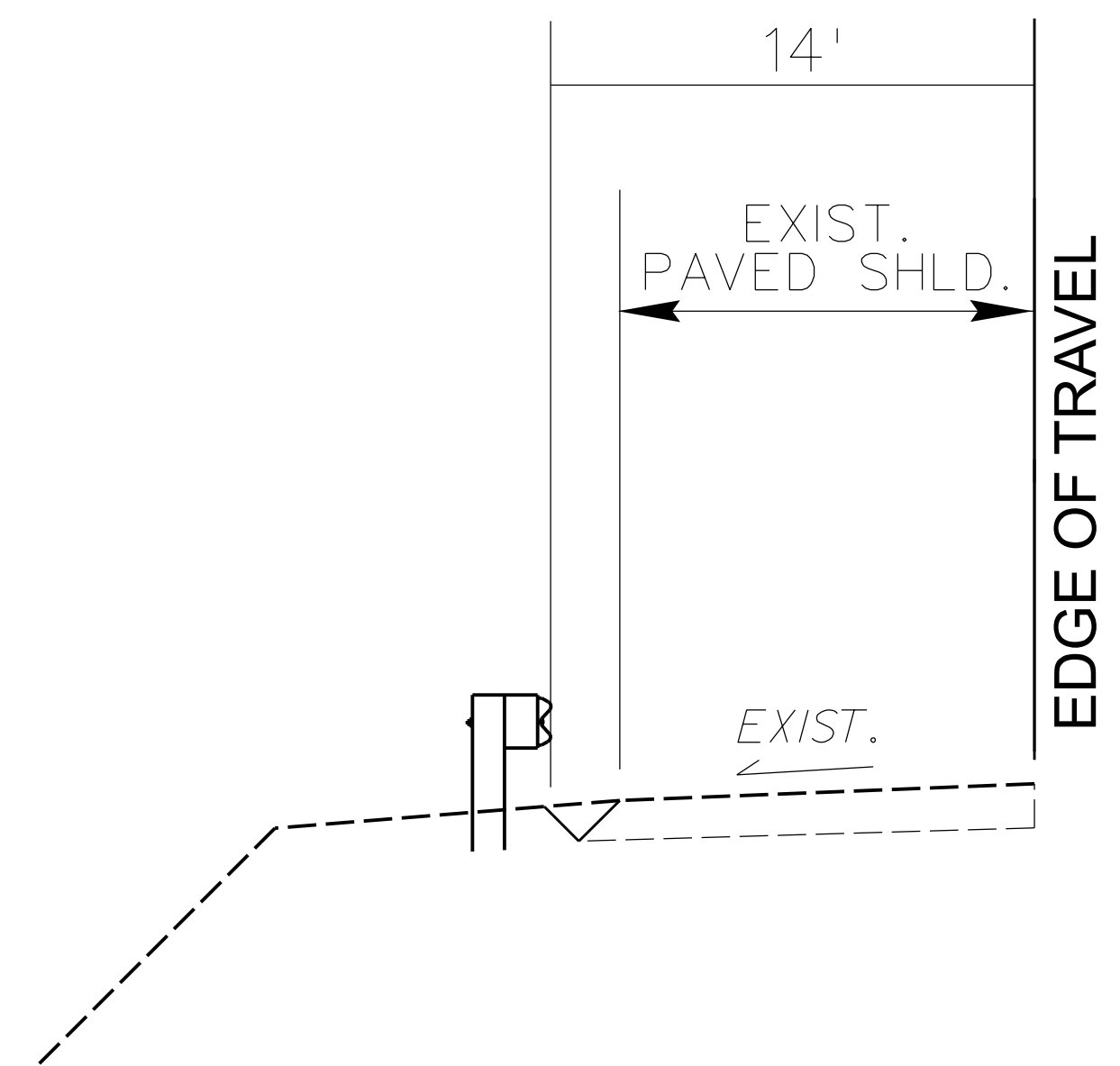
	PROJECT	SHEET NO.
--	---------	-----------

PROJECT MANAGER _____
 SURVEYED BY, DATE _____
 DESIGN BY _____
 SUBSURFACE UTILITY BY, DATE _____

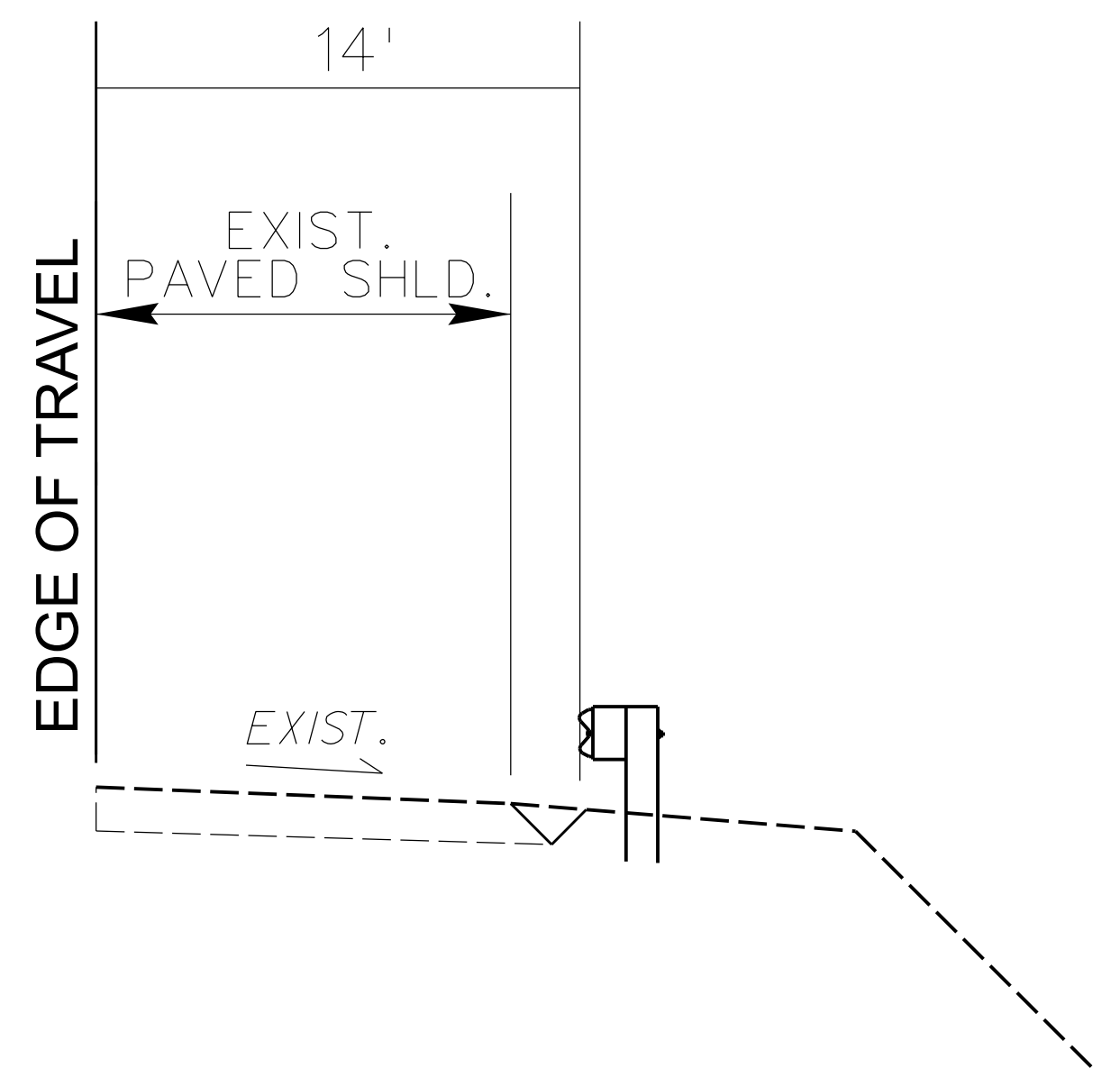
REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.		RMTA AET TOLL GANTRY	02

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

-L- GUARDRAIL PLACEMENT



STA. 11+55.10 TO 18+05.10 LT



STA. 12+18.04 TO 15+18.04 RT

PLACE GUARDRAIL IN ACCORDANCE WITH VDOT STANDARD DRAWING 507.02

GUARDRAIL REMOVAL

LINE	STATION	STATION	LT/RT	LENGTH (LF)
-L-	11+55	13+01	LT	146.14
-L-	16+52	18+05	LT	152.68
-L-	14+85	15+18	RT	33.38
TOTAL				332
SAY				340

NEW GR-2 GUARDRAIL

LINE	STATION	STATION	LT/RT	LENGTH (LF)
-L-	11+55.10	13+60.00	LT	204.90
-L-	14+45.70	14+67.60	LT	21.90
-L-	15+42.60	18+05.10	LT	262.50
-L-	12+18.04	14+43.04	RT	225.00
TOTAL				714.30
SAY				720.00

GUARDRAIL TERMINALS

LINE	TYPE	STATION	LT/RT	EA
-L-	TL-3	13+60.00	LT	1
-L-	GR-7	14+08.00	LT	1
TOTAL				2

NEW GR-2A GUARDRAIL

LINE	STATION	STATION	LT/RT	LENGTH (LF)
-L-	14+67.60	15+42.60	LT	75.00
-L-	14+43.04	15+18.04	RT	75.00
TOTAL				150.00
SAY				150.00

\$DGN\$
\$DGNLEV

\$REF001\$
\$LEV001

\$REF002\$
\$LEV002

\$REF003\$
\$LEV003

\$REF004\$
\$LEV004

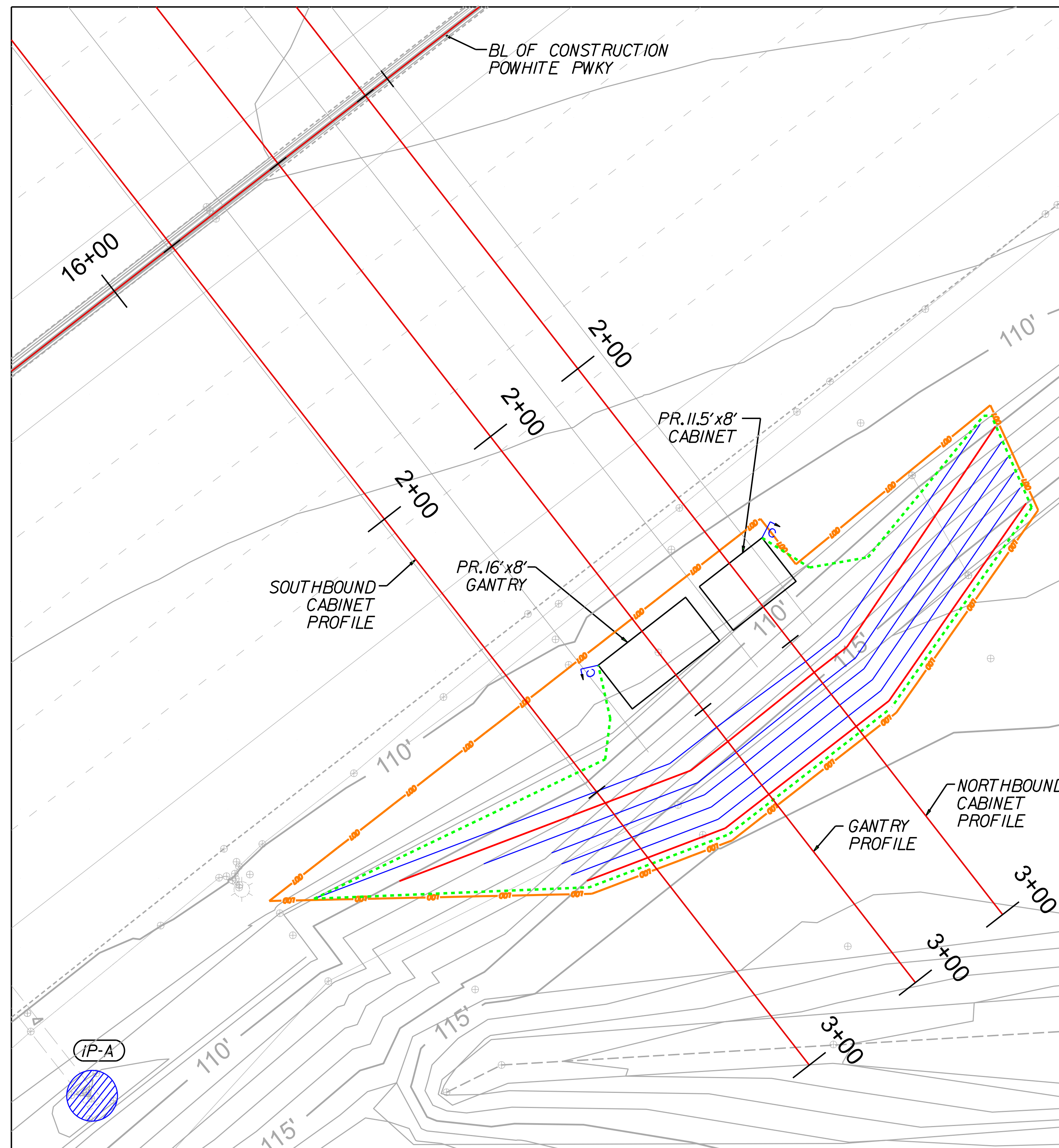
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\$LEV005

\$REF006\$
\$LEV006

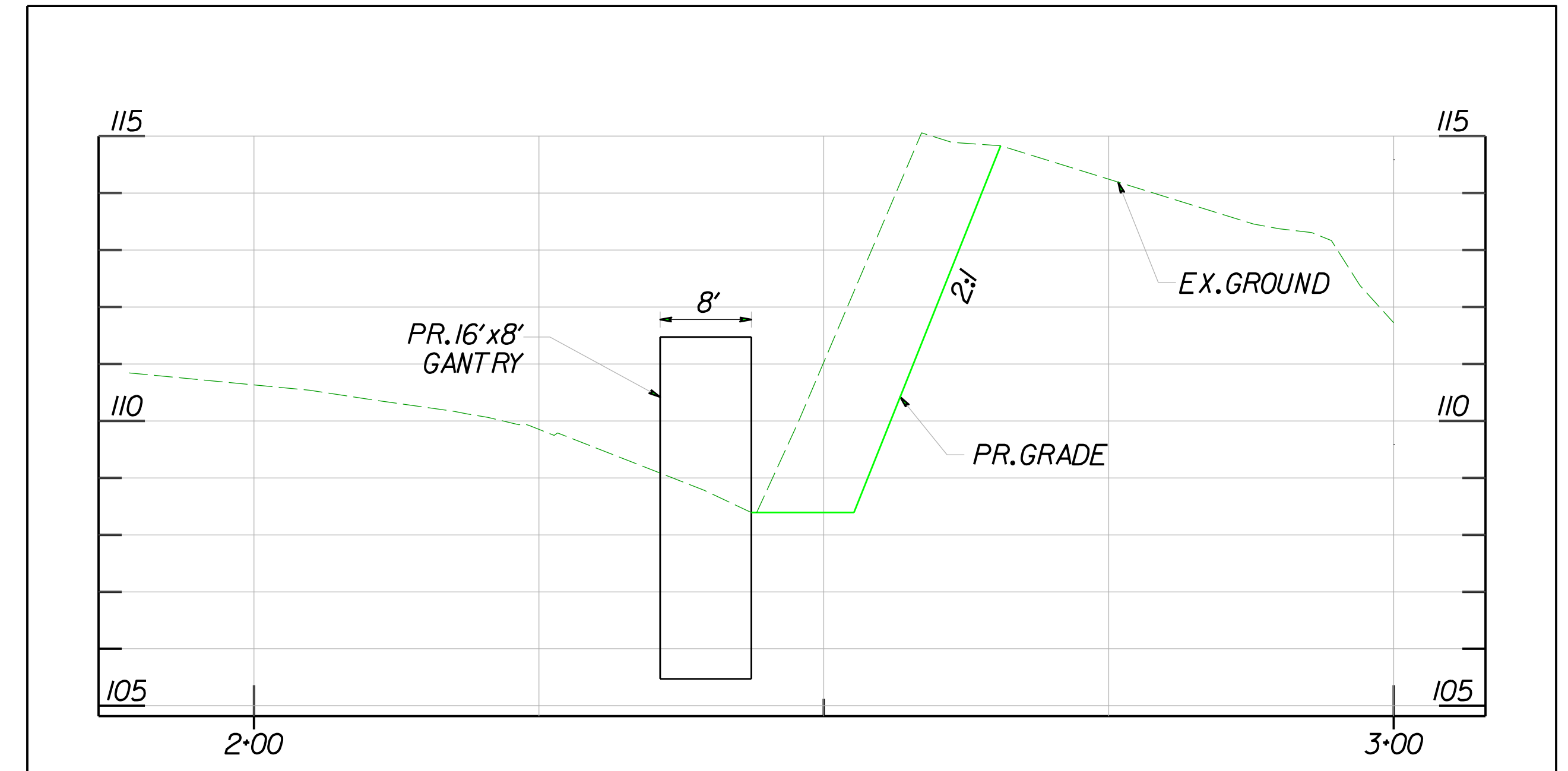
PROJECT MANAGER _____
SURVEYED BY, DATE _____
DESIGN BY _____
SUBSURFACE UTILITY BY, DATE _____

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	76		

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

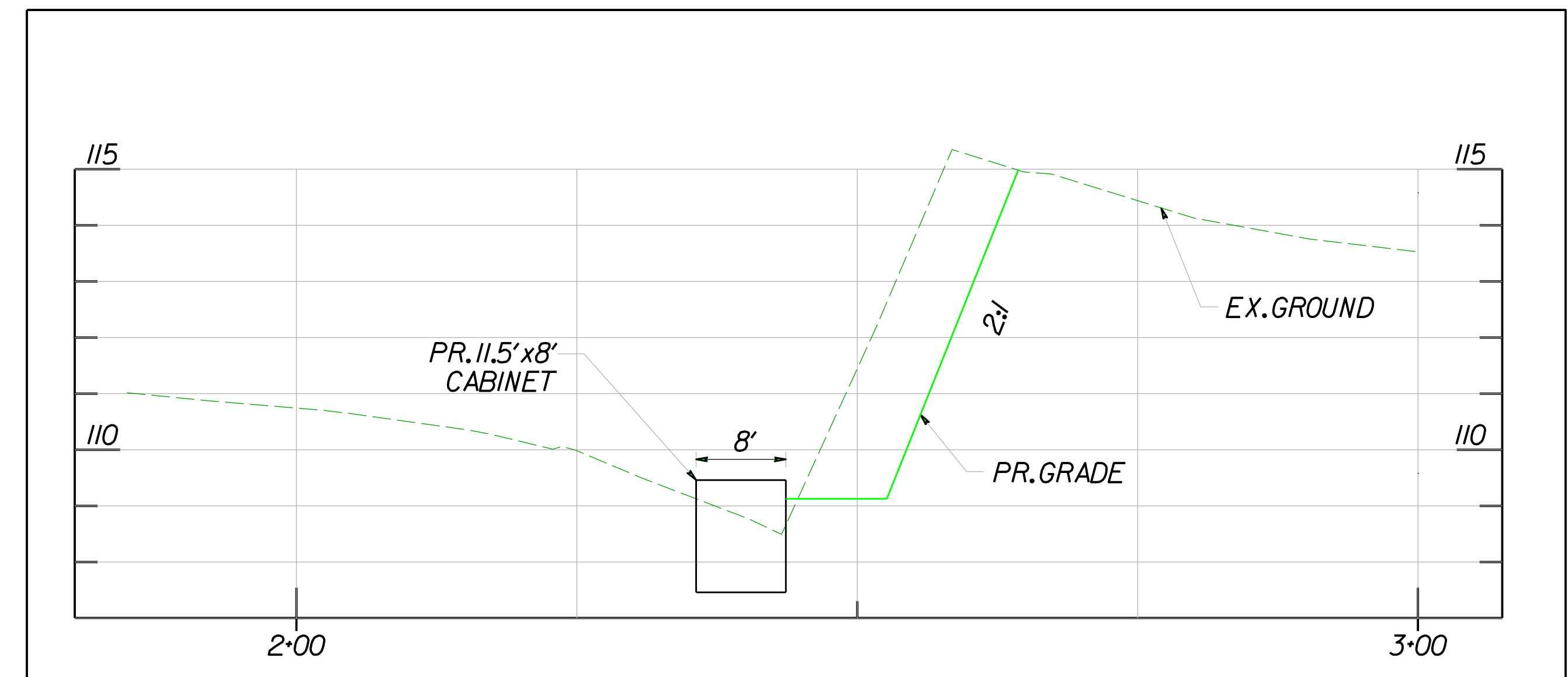


NORTHBOUND GANTRY AND CABINET PLAN



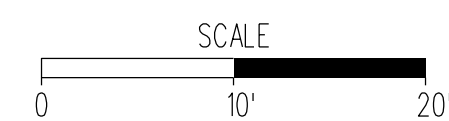
NORTHBOUND GANTRY PROFILE

H: 1"=10'
V: 1"=2'



NORTHBOUND CABINET PROFILE

H: 1"=10'
V: 1"=2'



(IP-A) DENOTES INLET PROTECTION, TYPE A; VDOT ST'D EC-6

DRAFT
NOT FOR CONSTRUCTION

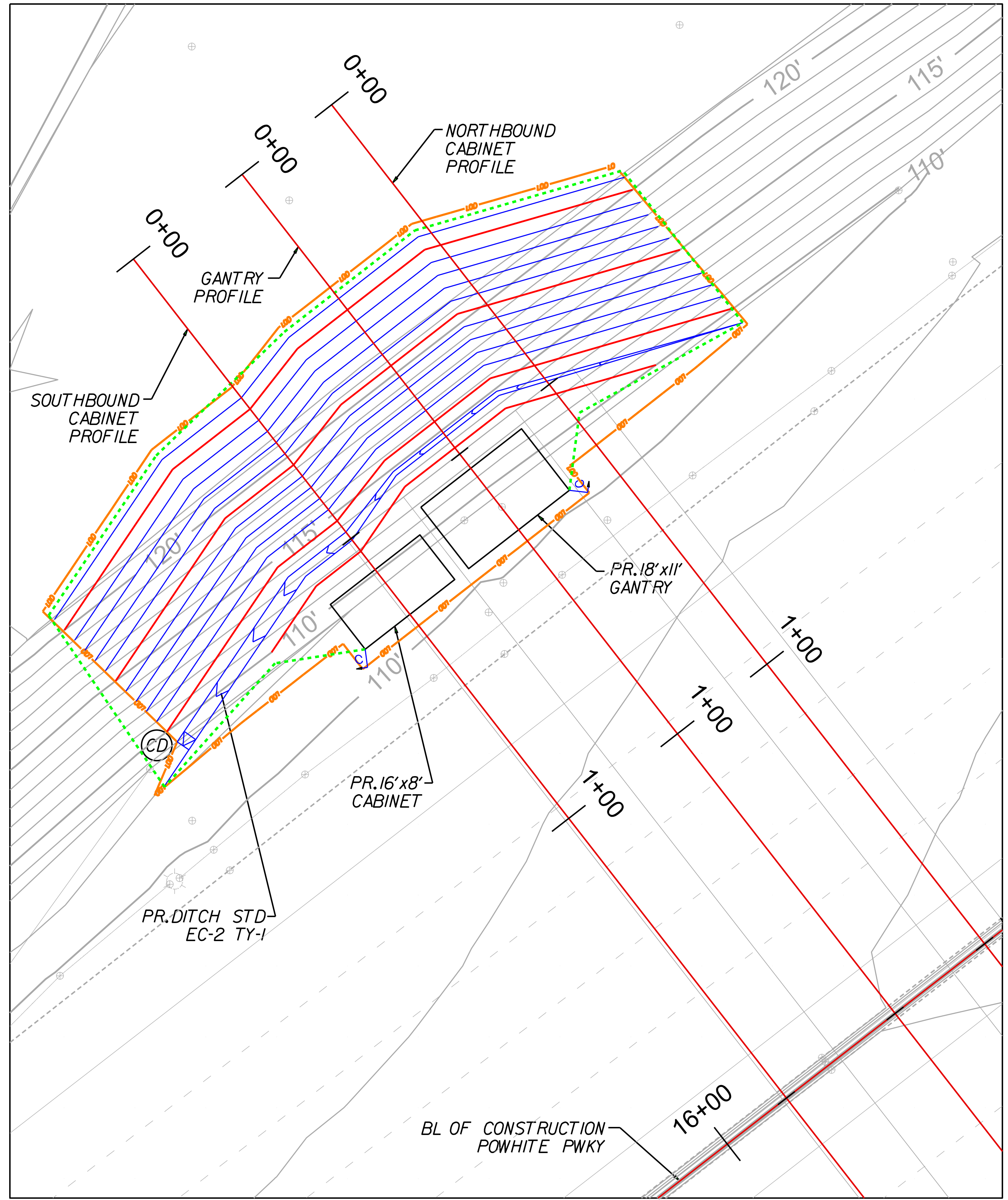
\$TIME\$ \$AMP\$

SHEET NO.

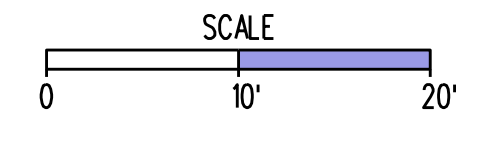
PROJECT MANAGER _____
 SURVEYED BY, DATE _____
 DESIGN BY _____
 SUBSURFACE UTILITY BY, DATE _____

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	76		

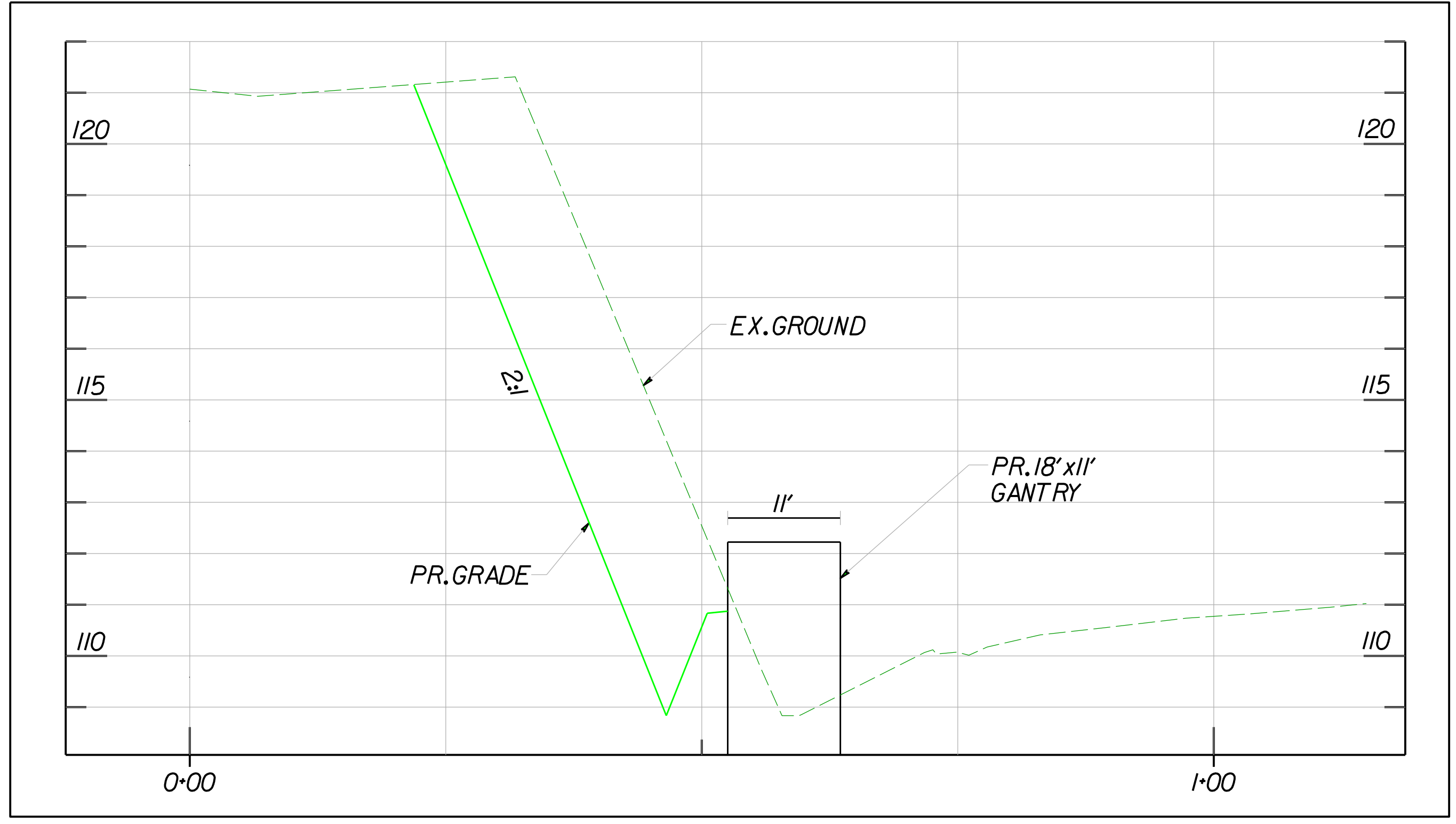
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



SOUTHBOUND GANTRY AND CABINET PLAN

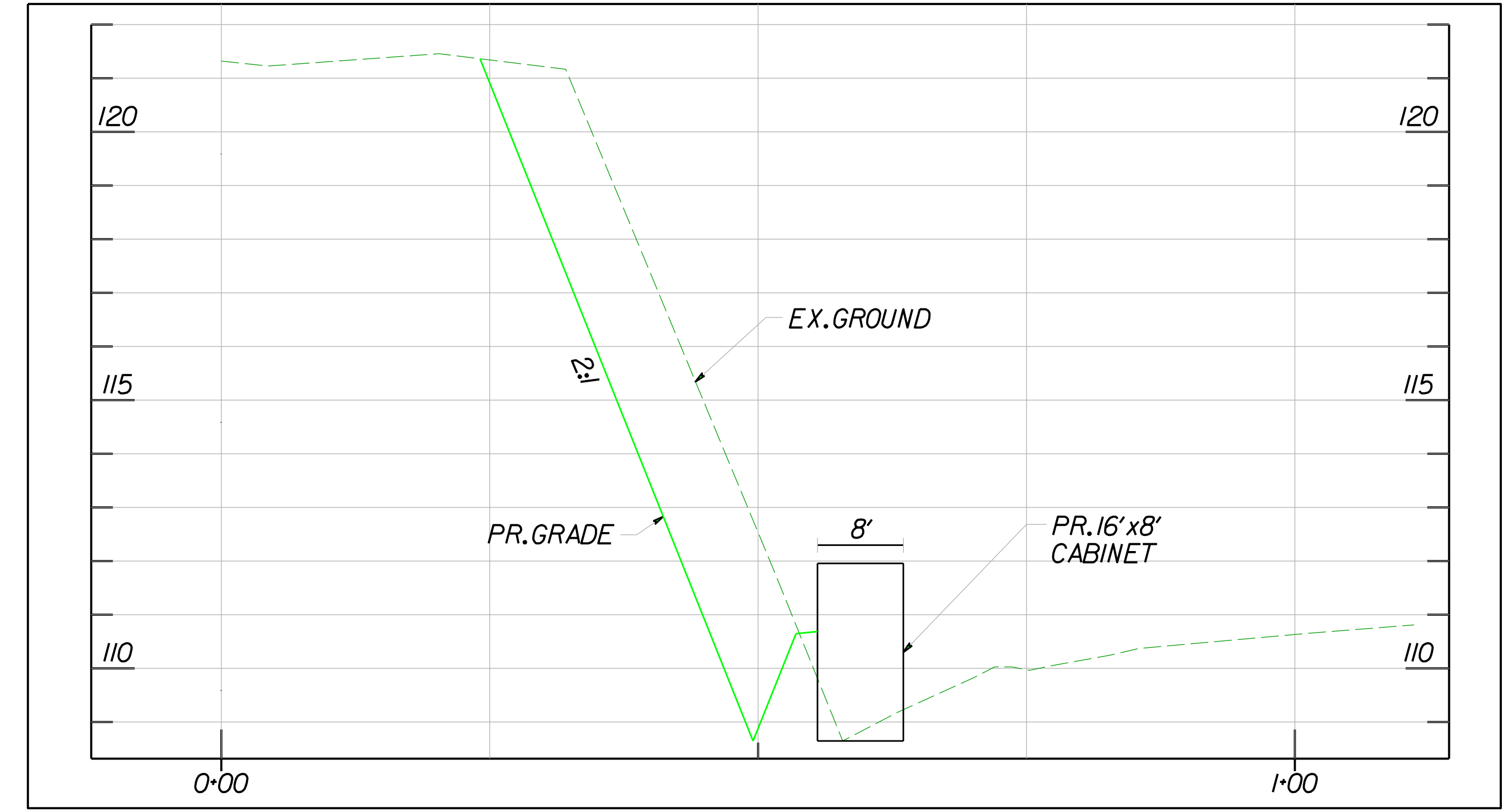


(CD) DENOTES ROCK CHECK DAM, TYPE II, VDOT ST'D EC-4.



SOUTHBOUND GANTRY PROFILE

H: 1"=10'
 V: 1"=2'



SOUTHBOUND CABINET PROFILE

H: 1"=10'
 V: 1"=2'

DRAFT
 NOT FOR CONSTRUCTION

PROJECT MANAGER _____
SURVEYED BY, DATE _____
DESIGN BY _____
SUBSURFACE UTILITY BY, DATE _____

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	76	Powhite Parkway Gantry MOT Plan	

Traffic Management Plan

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

GENERAL NOTES

- THIS WORK CONSISTS OF THE MAINTENANCE AND PROTECTION OF THE TRAVELING PUBLIC APPROACHING THE CONSTRUCTION AREA AND WITHIN THE LIMITS OF THE CONSTRUCTION.
- MAINTAIN THE SAFETY OF PEDESTRIANS AT ALL TIMES WITHIN THE LIMITS OF CONSTRUCTION AND APPROACHING THE CONSTRUCTION AREA.
- SUBMIT, TO THE RMTA REPRESENTATIVE, CONTRACTOR'S PROPOSED TRAFFIC CONTROL OPERATIONS DURING CONSTRUCTION FOR APPROVAL PRIOR TO THE BEGINNING OF ANY WORK. ENSURE THAT ALL TRAFFIC CONTROL OTHER THAN THAT DEPICTED HEREIN IS IN ACCORDANCE WITH THE STANDARDS INDICATED BELOW.
- FURNISH, ERECT, PLACE, MAINTAIN AND REMOVE WHEN WARRANTED ALL NECESSARY TRAFFIC CONTROL SIGNS, MARKINGS AND DEVICES AND MAINTAIN TRAFFIC DURING HOURS OF CONSTRUCTION AND AT ALL OTHER TIMES IN ACCORDANCE WITH THE METHODS INDICATED ON THESE DRAWINGS AND THE FOLLOWING:
 1. THE SPECIAL PROVISIONS OF THE CONTRACT.
 2. MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (2009 EDITION).
 3. Virginia Work Area Protection Manual, 2011 Edition Rev 2.1: Nov 1, 2020.
- REFER TO SPECIAL PROVISION MAINTENANCE AND PROTECTION OF TRAFFIC DURING CONSTRUCTION GENERAL REQUIREMENTS, WITHIN THE PROJECT CONTRACT, FOR ADDITIONAL INFORMATION PERTAINING TO THE TRAFFIC CONTROL FOR THIS PROJECT.
- REFER TO THE CONSTRUCTION REQUIREMENTS, CONSTRUCTION RESTRICTIONS AND HOLIDAY RESTRICTIONS, WITHIN THE PROJECT CONTRACT, FOR ADDITIONAL INFORMATION PERTAINING TO THIS CONTRACT.
- IMMEDIATELY UPON COMPLETION OF THE WORK, REMOVE ALL WORK ZONE TRAFFIC CONTROL DEVICES WHICH WILL REMAIN THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED IN THE SPECIAL PROVISIONS OF THE CONTRACT. THE DEPARTMENT WILL REMOVE ANY TRAFFIC CONTROL DEVICES ERECTED BY DEPARTMENT FORCES.
- COVER ALL SIGNS NOT IN USE AND/OR CONFLICTING SIGNS. UNCOVER THE APPLICABLE SIGNS AS DIRECTED BY THE DEPARTMENT REPRESENTATIVE.
- MAINTAIN A MINIMUM OF 250 FEET BETWEEN ALL REGULATORY, WARNING AND DESTINATION SIGNS (TEMPORARY AND PERMANENT).
- THESE PLANS ARE NOT INTENDED TO RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY FOR THE PROTECTION OF THE PUBLIC AND THE CONSTRUCTION PERSONNEL. THE STANDARDS PRESCRIBED HEREIN ARE MINIMUMS AND ADDITIONAL PROTECTION MAY BE NEEDED IF UNANTICIPATED CONDITIONS ARE ENCOUNTERED DURING THE LIFE OF THE PROJECT. THE CONTRACTOR IS EXPECTED TO CONSTANTLY REVIEW THESE PLANS FOR ADEQUACY AND TO RECOMMEND CHANGES FOR THE DEPARTMENT REPRESENTATIVE'S APPROVAL WHEN INADEQUACIES ARE DISCOVERED.
- RETAIN A SUFFICIENT AMOUNT OF THE FOLLOWING SIGNS AVAILABLE IN CASE THEIR USE BECOMES NECESSARY: W20-10 "BE PREPARED TO STOP" AND W20-7A "FLAGGER SYMBOL". THESE SIGNS ARE NOT INTENDED TO BE PART OF THE REQUIRED NORMAL TRAFFIC CONTROL OR A SUPPLEMENT THERETO.
- NOTIFY THE RMTA'S REPRESENTATIVE AT LEAST TWO WEEKS PRIOR TO MODIFYING EXISTING TRAFFIC PATTERNS. ALL MODIFICATIONS MUST BE APPROVED BY THE RMTA'S REPRESENTATIVE.
- INSTALL AND MAINTAIN TRAFFIC CONTROL SIGNS AND DEVICES IN NEW CONDITION THROUGHOUT THE DURATION OF THE PROJECT.
- DELINEATE EVERY PIECE OF TEMPORARY BARRIER. THIS IS INCIDENTAL TO THE ITEM.
- ENSURE THAT ALL SPECIAL SIGNS HAVE AN APPROPRIATE SIZED BLACK BORDER, CORNER RADII, AND ORANGE MARGIN.
- MAINTAIN EXISTING LANE WIDTHS UNLESS OTHERWISE APPROVED.
- CRASHWORTHY END TREATMENTS MUST BE IN PLACE AT ALL TIMES DURING THE INSTALLATION, RELOCATION OR REMOVAL OF TEMPORARY BARRIER TO PREVENT EXPOSURE OF BLUNT ENDS TO TRAFFIC.
- ALL LONG TERM CONSTRUCTION SIGNING TO BE MOUNTED ON TYPE III BARRICADES UNLESS OTHERWISE NOTED.
- ALL WORK IS TO BE PERFORMED IN THE LEGAL RIGHT-OF-WAY.

- CONTRACTOR TO COORDINATE WITH THE RMTA'S REPRESENTATIVE TO COORDINATE TRAFFIC CONTROL ACTIVITIES WITH ON-GOING PROJECTS WITHIN OR ADJACENT TO THE PROPOSED WORK.
- THE MAXIMUM PERMITTED LENGTH OF A WORK ZONE IS TWO MILES. THE MINIMUM DISTANCE BETWEEN SUCCESSIVE WORK ZONE TRAFFIC CONTROL IS 2 MILES (LAST DEVICE TO FIRST DEVICE)
- PROVIDE PROTECTION TO MOTORISTS AND PEDESTRIANS FROM FALLING DEBRIS AT ALL TIMES.
- ARRANGE OPERATIONS TO MINIMIZE INCONVENIENCE OF THE TRAVELING PUBLIC TO THE EXTENT PRACTICAL.

ALLOWABLE CLOSURE TIMES:

- NB Weekday 10AM-5PM (Cones can start being placed at 10AM)
- SB Weekday 6AM-3PM (Cones can start being placed at 6AM)

Legends



Wall Barrier



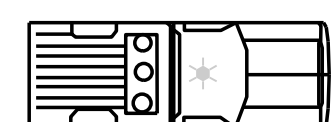
Sign



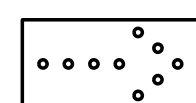
Channelizing Device



Railroad Crossing



Truck Mounted Attenuator



Arrow Board



Impact Attenuator



Existing Guardrail



Type III Barricade

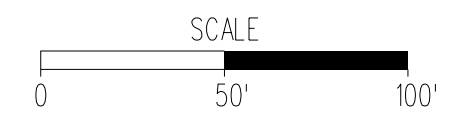
PROJECT MANAGER _____
SURVEYED BY, DATE _____
DESIGN BY _____
SUBSURFACE UTILITY BY, DATE _____

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	76	Powhite Parkway Gantry MOT Plan	

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



MATCH LINE 1J(3)

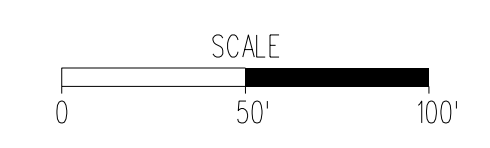
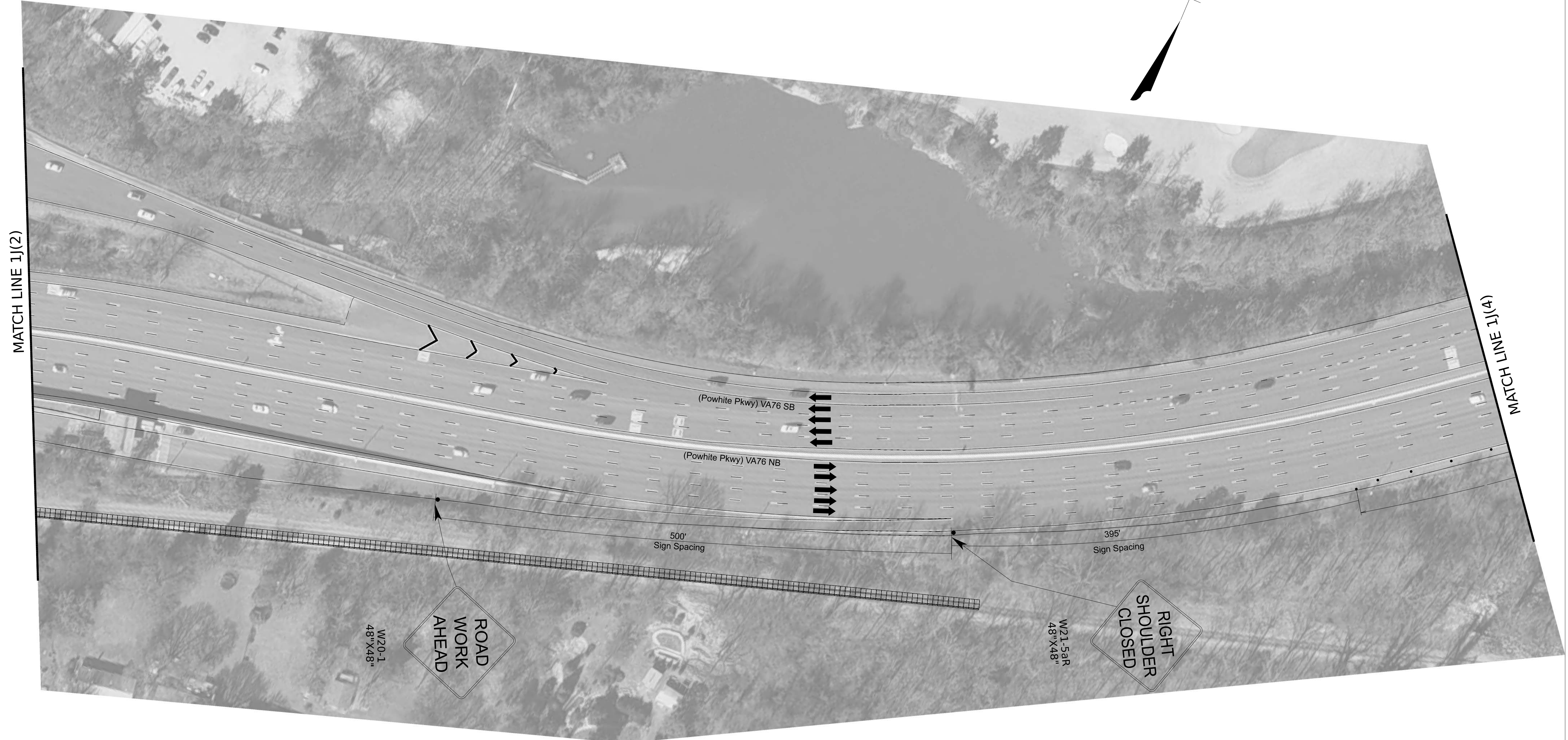
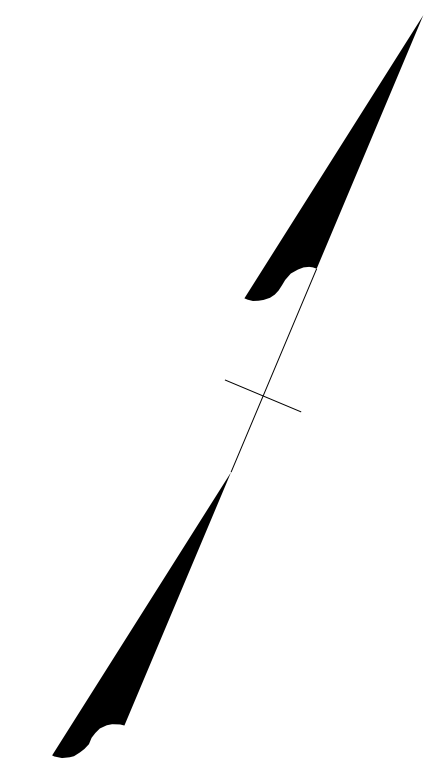


PROJECT Powhite Parkway Gantry MOT Plan	SHEET NO. 1J(2)
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PROJECT MANAGER _____
SURVEYED BY, DATE _____
DESIGN BY _____
SUBSURFACE UTILITY BY, DATE _____

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	76	Powhite Parkway Gantry MOT Plan	

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

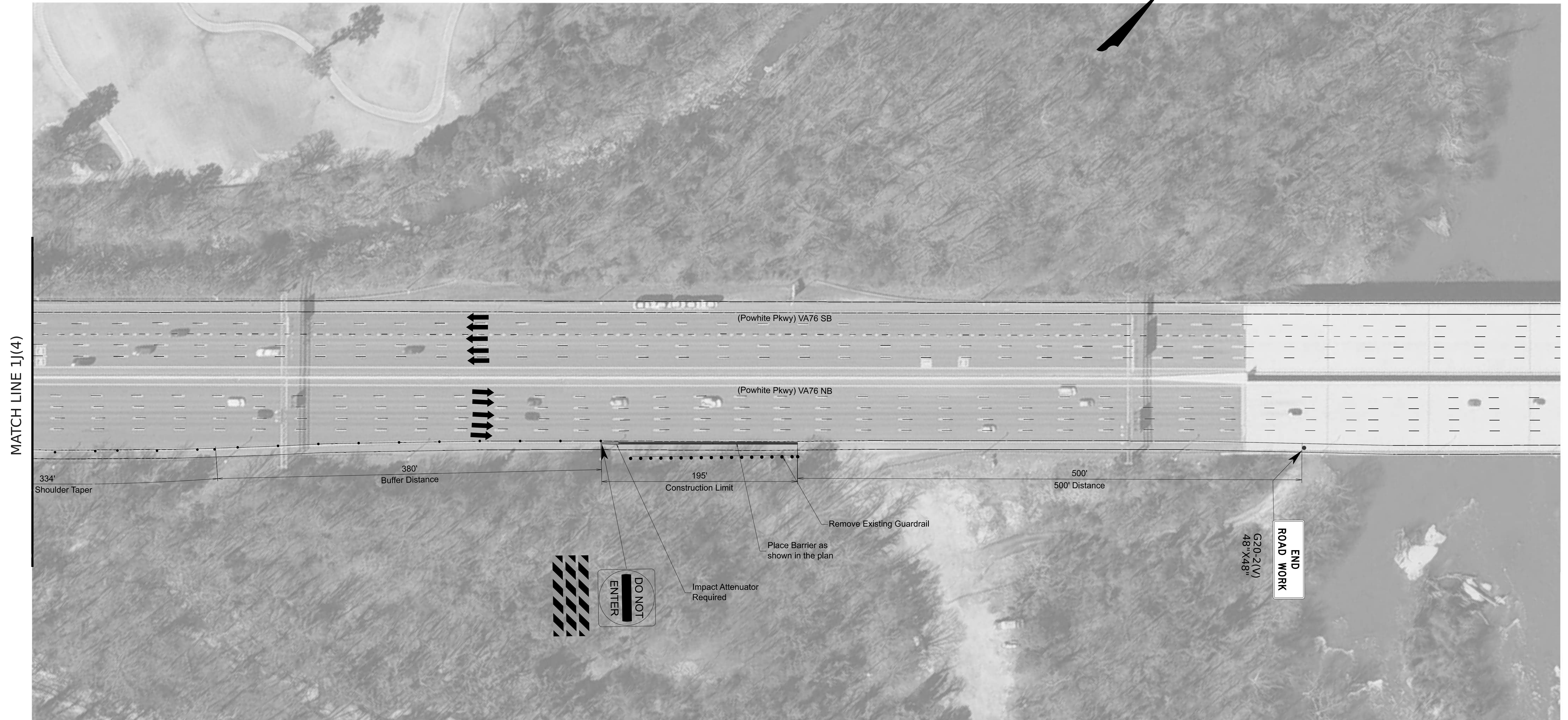
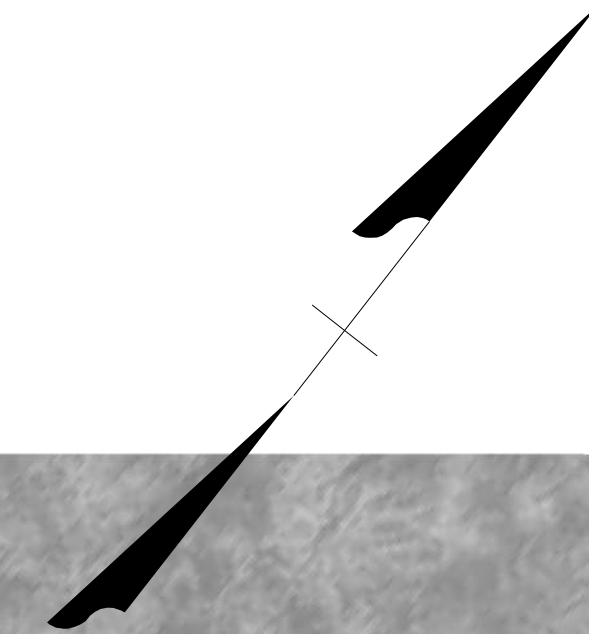


PROJECT Powhite Parkway Gantry MOT Plan	SHEET NO. 1J(3)
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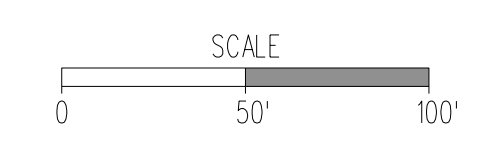
PROJECT MANAGER _____
 SURVEYED BY, DATE _____
 DESIGN BY _____
 SUBSURFACE UTILITY BY, DATE _____

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	76	Powhite Parkway Gantry MOT Plan	

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



MATCH LINE 1J(4)

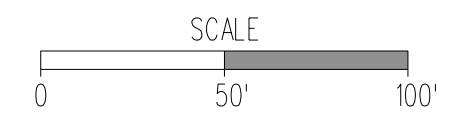
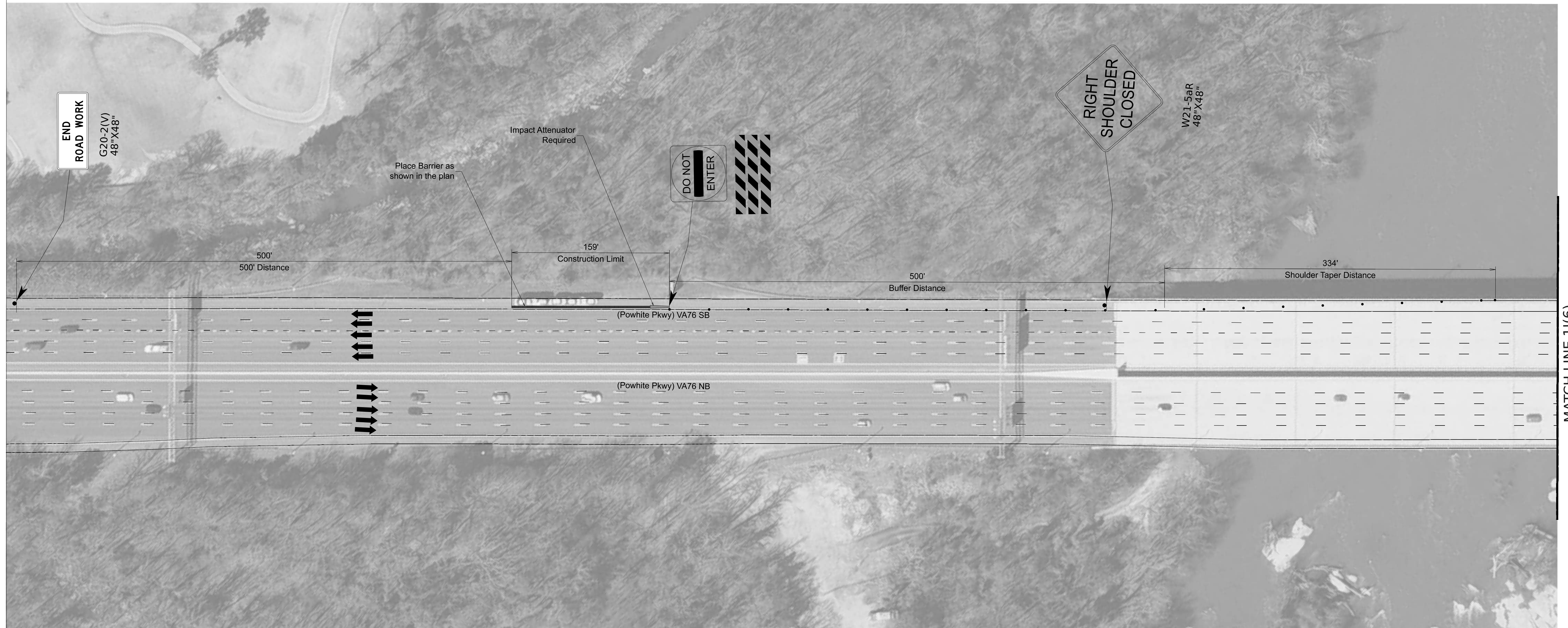
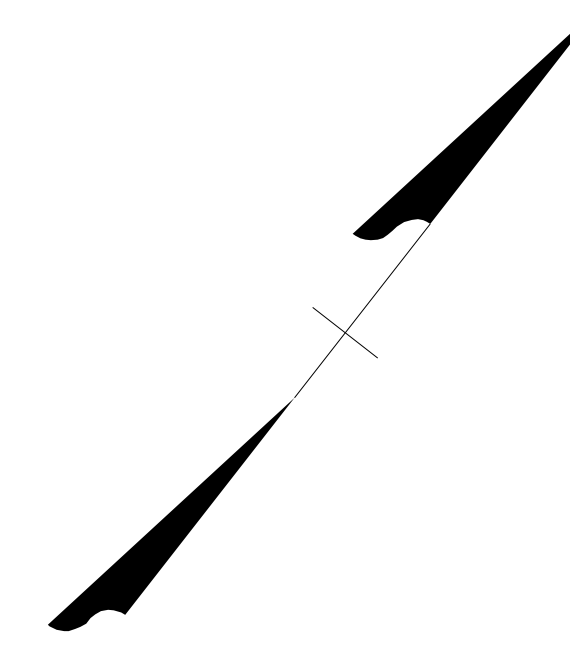


PROJECT	SHEET NO.
Powhite Parkway Gantry MOT Plan	1J(4)

PROJECT MANAGER _____
 SURVEYED BY, DATE _____
 DESIGN BY _____
 SUBSURFACE UTILITY BY, DATE _____

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	76	Powhite Parkway Gantry MOT Plan	

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

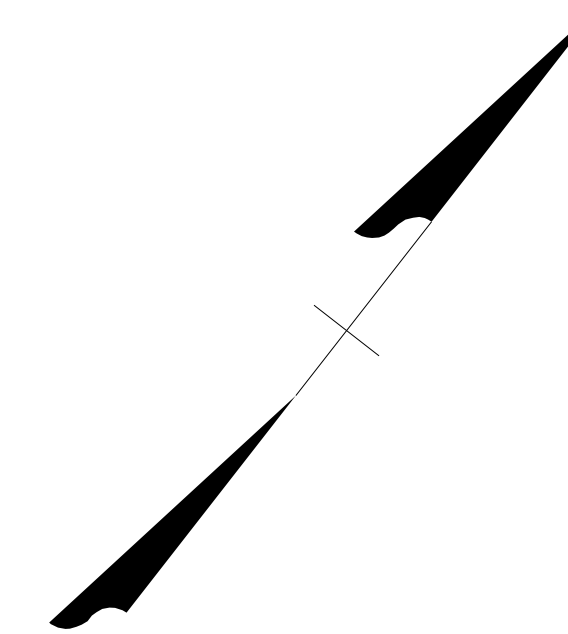


PROJECT	SHEET NO.
Powhite Parkway Gantry MOT Plan	1J(5)

PROJECT MANAGER _____
SURVEYED BY, DATE _____
DESIGN BY _____
SUBSURFACE UTILITY BY, DATE _____

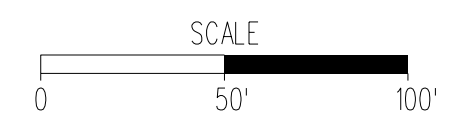
REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	76	Powhite Parkway Gantry MOT Plan	

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



MATCH LINE 1J(5)

MATCH LINE 1J(7)

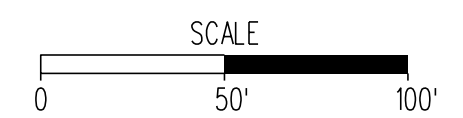
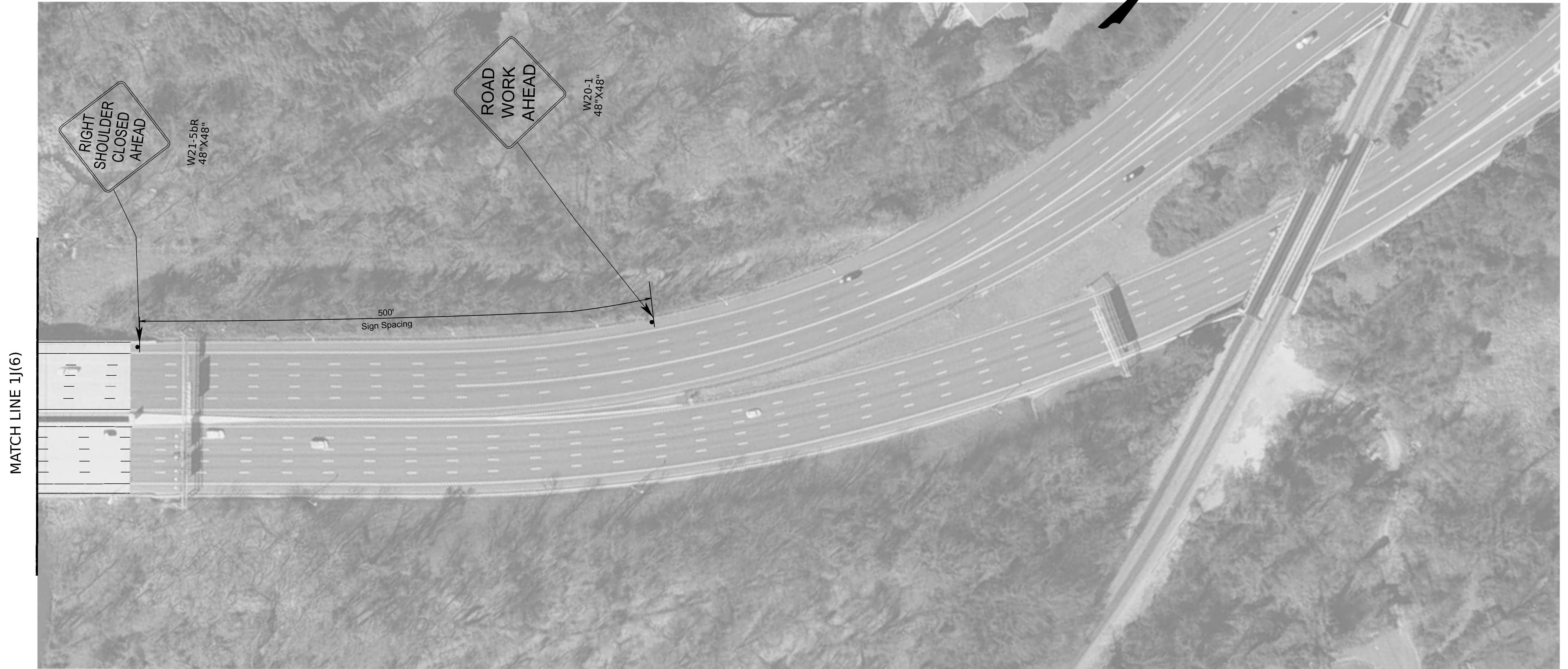
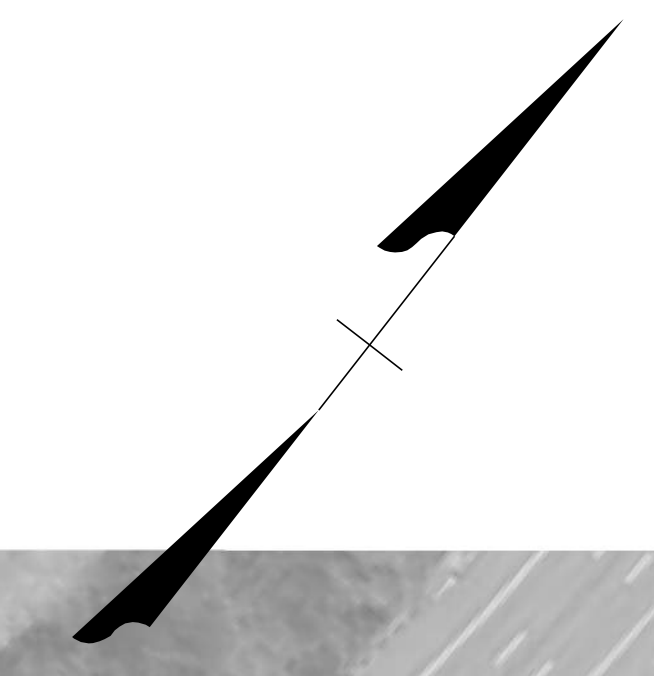


PROJECT Powhite Parkway Gantry MOT Plan	SHEET NO. 1J(6)
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PROJECT MANAGER _____
SURVEYED BY, DATE _____
DESIGN BY _____
SUBSURFACE UTILITY BY, DATE _____

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	76	Powhite Parkway Gantry MOT Plan	1J(7)

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT



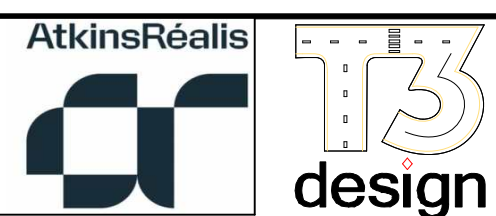
PROJECT Powhite Parkway Gantry MOT Plan	SHEET NO. 1J(7)
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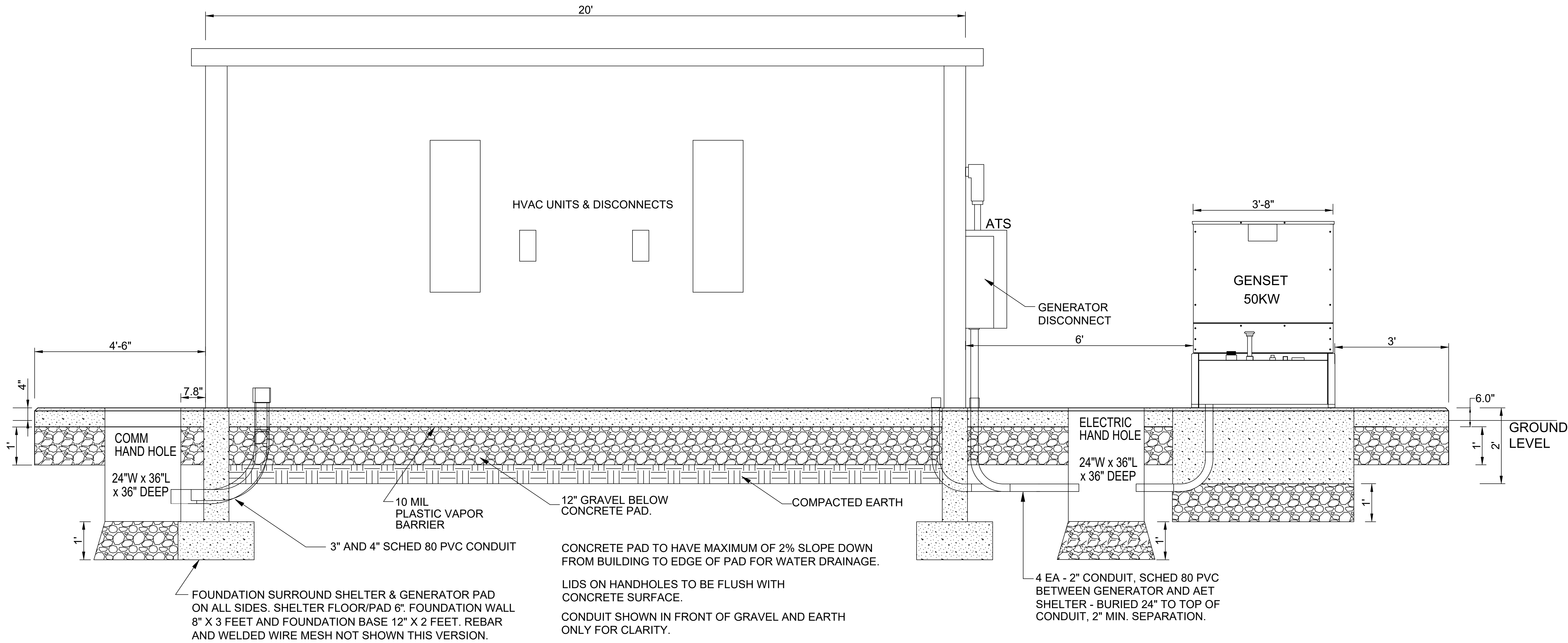


ID	DATE	BY	DESCRIPTION

**RICHMOND METROPOLITAN
TRANSPORTATION AUTHORITY
RMTA**

DESIGNED BY	SCALE	TITLE	DATE	REVISION	DATE	DESCRIPTION

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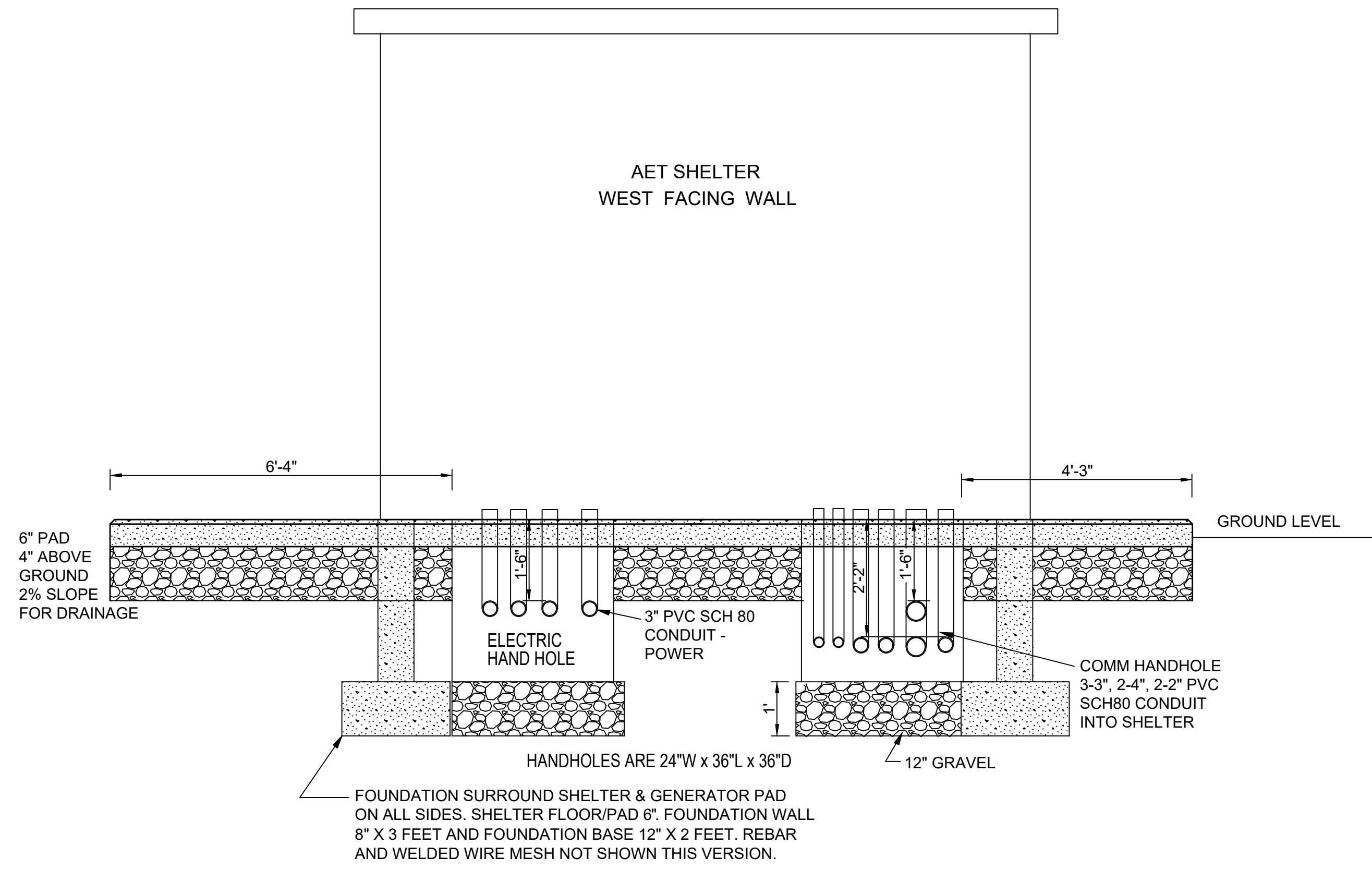


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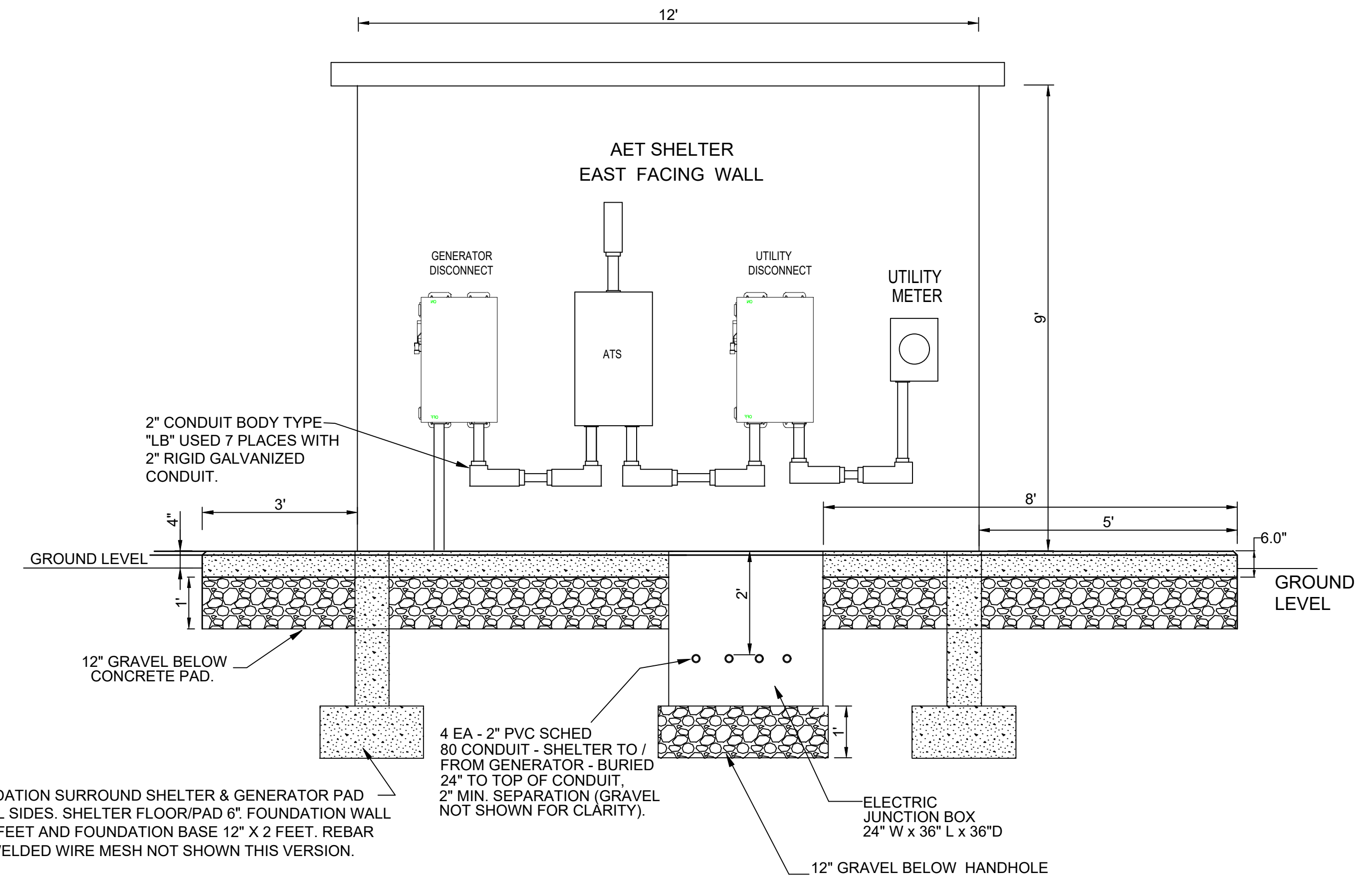
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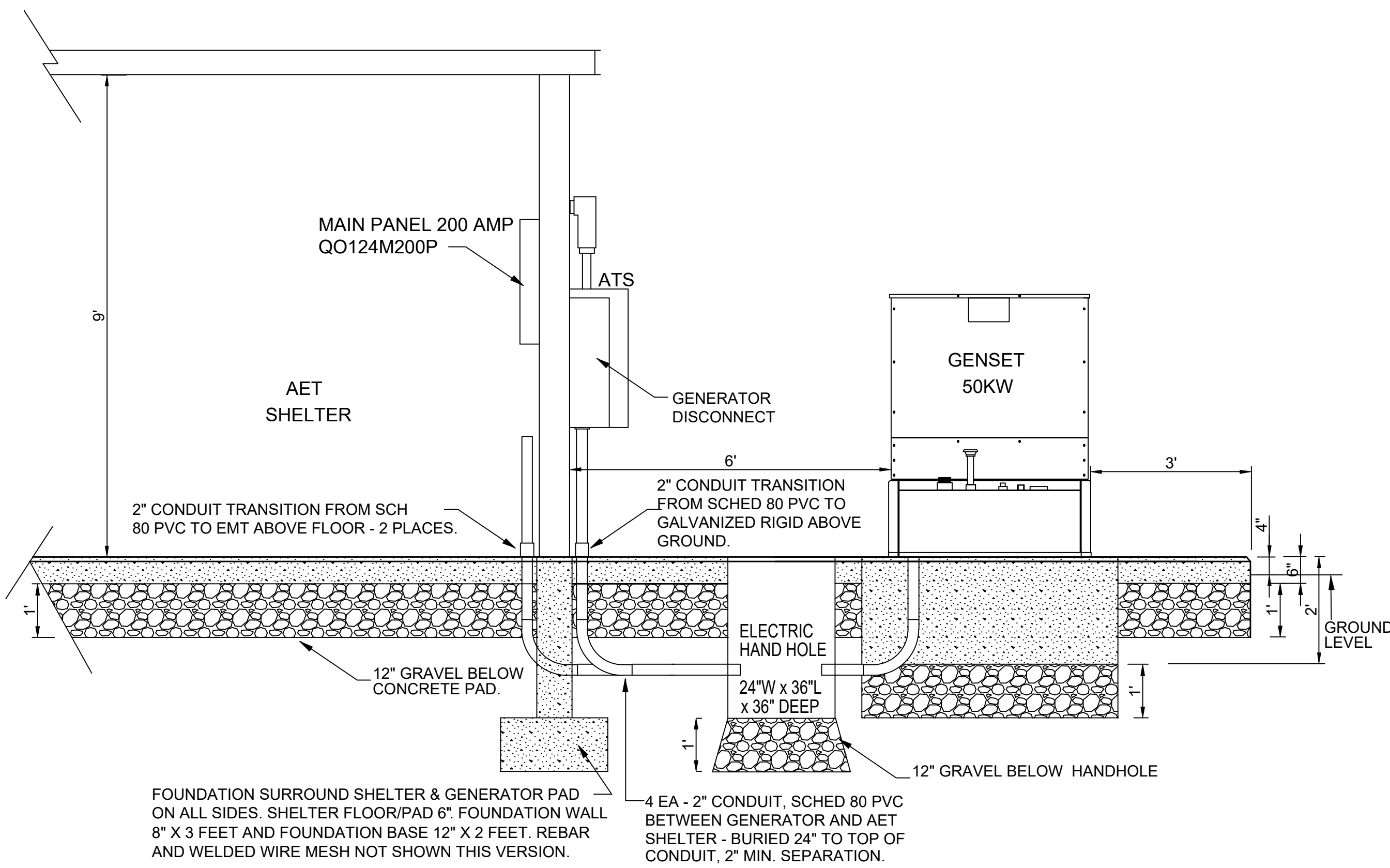
SHEET - D



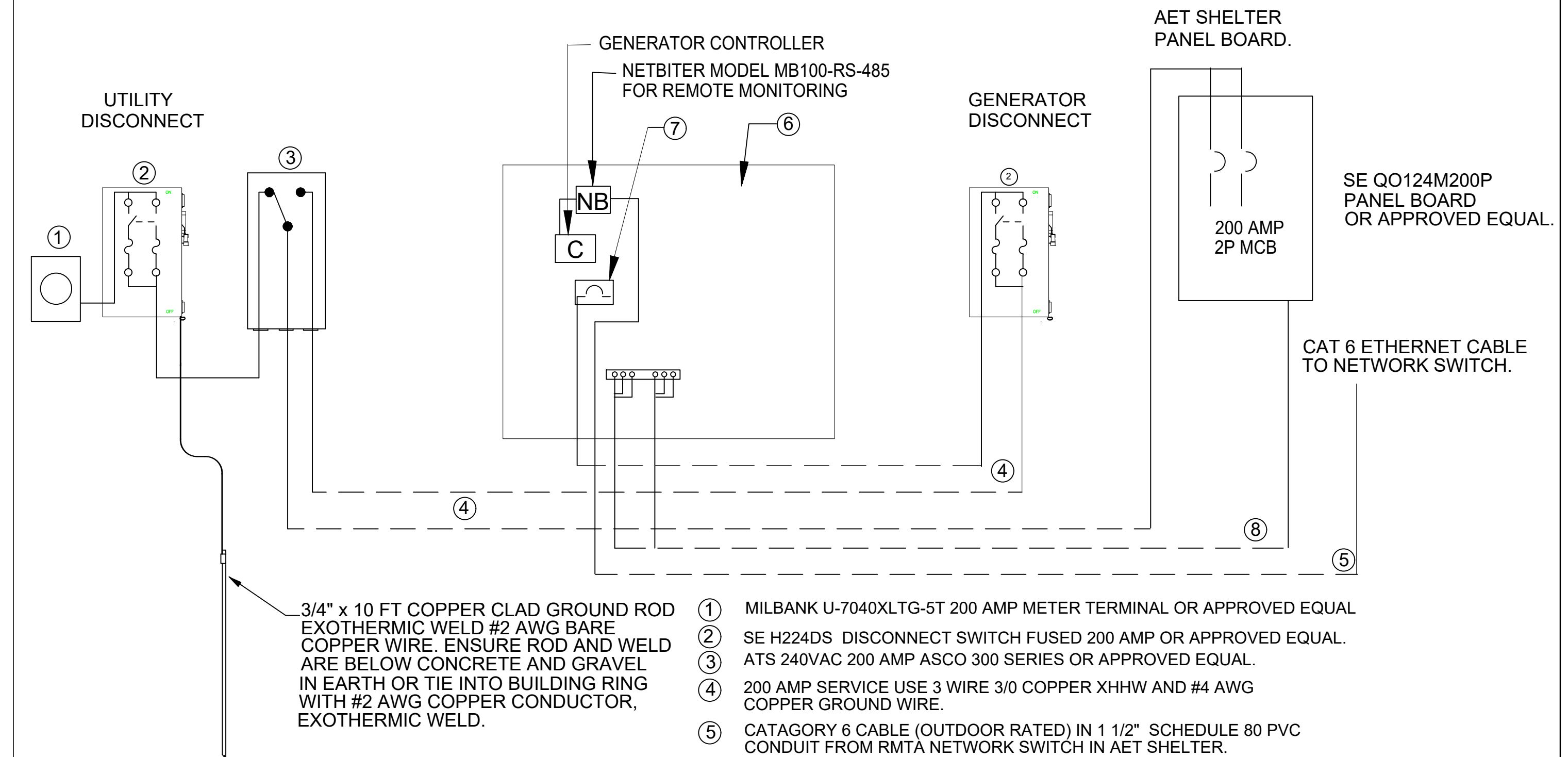
1 WEST END VIEW SHELTER & PAD
NO SCALE



2 EAST END VIEW SHELTER & PAD
NO SCALE



3 PARTIAL SIDE VIEW SHELTER, GENSET & PAD
NO SCALE

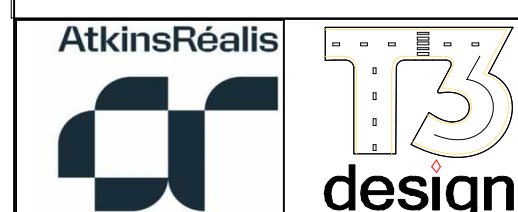


4 ELECTRICAL SCHEMATIC
NO SCALE

- 1 MILBANK U-7040XLTG-5T 200 AMP METER TERMINAL OR APPROVED EQUAL
- 2 SE H224DS DISCONNECT SWITCH FUSED 200 AMP OR APPROVED EQUAL.
- 3 ATS 240VAC 200 AMP ASCO 300 SERIES OR APPROVED EQUAL.
- 4 200 AMP SERVICE USE 3 WIRE 3/0 COPPER XHHW AND #4 AWG COPPER GROUND WIRE.
- 5 CATAGORY 6 CABLE (OUTDOOR RATED) IN 1 1/2" SCHEDULE 80 PVC CONDUIT FROM RMTA NETWORK SWITCH IN AET SHELTER.
- 6 DIESEL GENERATOR, 50KW, 240VAC SINGLE PHASE WITH 200 AMP MAIN CB, 137 GALLON FUEL TANK (29 HR RUN TIME), SOUND ATTENUATED AND WEATHER PROTECTED LEVEL II ENCLOSURE, MTU DS50, CAT D50GC, CUMMINS C50 D6, OR APPROVED EQUAL.
- 7 240 VOLT, 2 POLE, 200 AMP GENERATOR MOUNTED CIRCUIT BREAKER.
- 8 2 - #12 AWG COPPER XHHW & 1 - #12 AWG COPPER GROUND FOR BATTERY CHARGER, AND 2 - #12 AWG COPPER XHHW & 1 - #12 AWG COPPER GROUND FOR BLOCK HEATER, AND 2 - #14 AWG XHHW FOR ENGINE START. ALL IN 2" SCHEDULE 80 PVC CONDUIT FROM AET SHELTER PANEL.

NOT FOR CONSTRUCTION

DRAFT



NO	DATE	BY	DESCRIPTION

RICHMOND METROPOLITAN
TRANSPORTATION AUTHORITY
RMTA

DESIGNED BY	SCALE	DATE
COPIED BY	N.T.S.	
VERIFIED BY		
APPROVED		

AET SHELTER AND 50KW GENSET
LAYOUT ON CONCRETE PAD

DOC NO	DATE	REVISED
REV NO	SHEET	

DRAFT

HANDHOLE (JB) - ALL COMM CONDUIT TO BE BURIED AT 25" DEPTH LESS THE 4" SPARE TO BE @ 18" DEPTH.

HANDHOLE/JB 24" W x 36" L 36" DEEP 1 - COMM & 1 - ELECTRIC

COMM

4" SPARE TO BE BURIED AT HIGHER DEPTH THAN 2" BELOW.

ELECTRIC

3" SPARE SHOWN LEFT END. TOP OF HANDHOLES (LID) TO BE FLUSH WITH TOP SURFACE OF CONCRETE PAD.

HANDHOLE (JB) - ALL ELECTRIC CONDUIT TO BE BURIED AT 18" DEPTH INCLUDES SPARE.

COMM CONDUIT STUB-UPS 3-3", 2-4", 2-2"

ELECTRIC CONDUIT STUB-UPS, 3-3"

CABINET #1

CABINET #2 30"W x 48"D

CABINET #3

LADDER RACK TO BE A MINIMUM OF 6" ABOVE CABINETS.

INSIDE DIMENSIONS 11'-2" x 19'-2" WITH 9' HEIGHT (FLOOR TO CEILING)

MGB

ELECTRIC CONDUIT STUB-UPS, 2-2"

LOAD CENTER

GEN DST, ATS, SVC DST

HANDHOLE/JB 24" W x 36" L 36" DEEP ELECTRIC

GENERATOR

CONCRETE SHELTER PAD IS 38'-8" x 20', 4" ABOVE GROUND LEVEL.

CABINETS ARE TRIPPLITE SR48UBDPWD OR APPROVED EQUAL WITH SCRCABLERINGVRT CABLE MANAGEMENT

CABLE RUNWAYS ARE CHATWORTH PRODUCTS 11252-712 (BLACK) OR APPROVED EQUAL

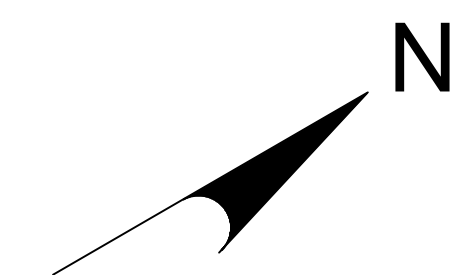
MAIN GROUND BUSS BAR CHATSWORTH PRODUCTS 40158-020 4"x20"x1/4" OR APPROVED EQUAL

LOAD CENTER SCHNEIDER ELECTRIC QO124M200 24 CKT OR APPROVED EQUAL

AET SHELTER EASI-SET 12' x 20' WITH R13 INSULATED WALLS OR APPROVED EQUAL

WALLS ARE 7" THICK AND COMPOSED OF 3" CONCRETE, 2" INSULATION, WITH PLYWOOD COVERING.

HAND HOLES ARE QUAZITE POLYMER CONCRETE, PG2436BA36 OR APPROVED EQUAL WITH SINGLE PIECE LID.



NOT FOR CONSTRUCTION

DRAFT



NO.	DATE	BY	DESCRIPTION

RICHMOND METROPOLITAN TRANSPORTATION AUTHORITY
RMTA

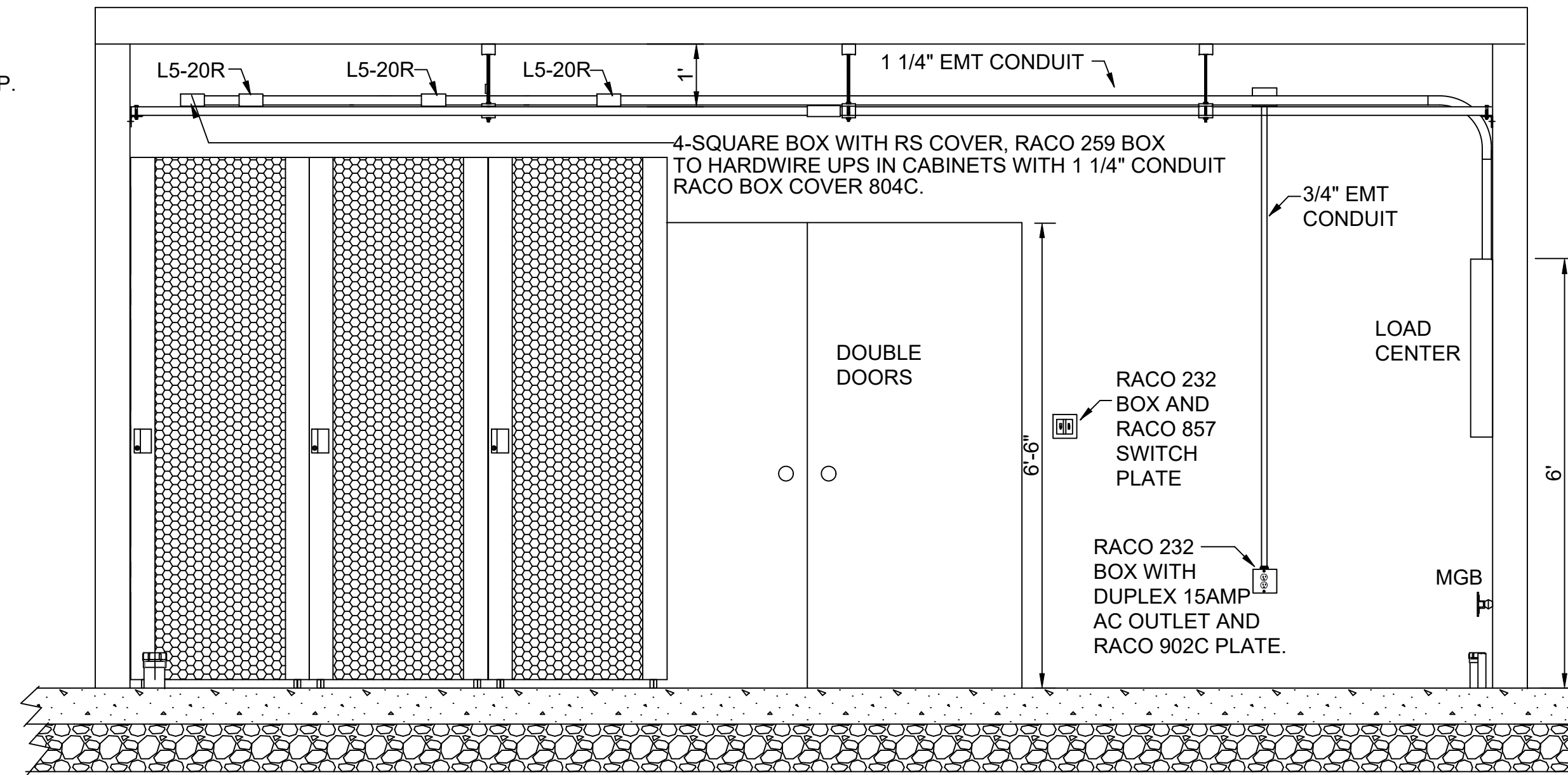
DESIGNED BY	SCALE	TITLE
CHECKED BY	N.T.S.	AET SHELTER INTERNAL / EXTERNAL LAYOUT WITH COMPONENTS AND GENERATOR ON PAD.
APPROVED BY		

DOC NO	DATE	STAMP/INITIAL
REV NO	SHEET	

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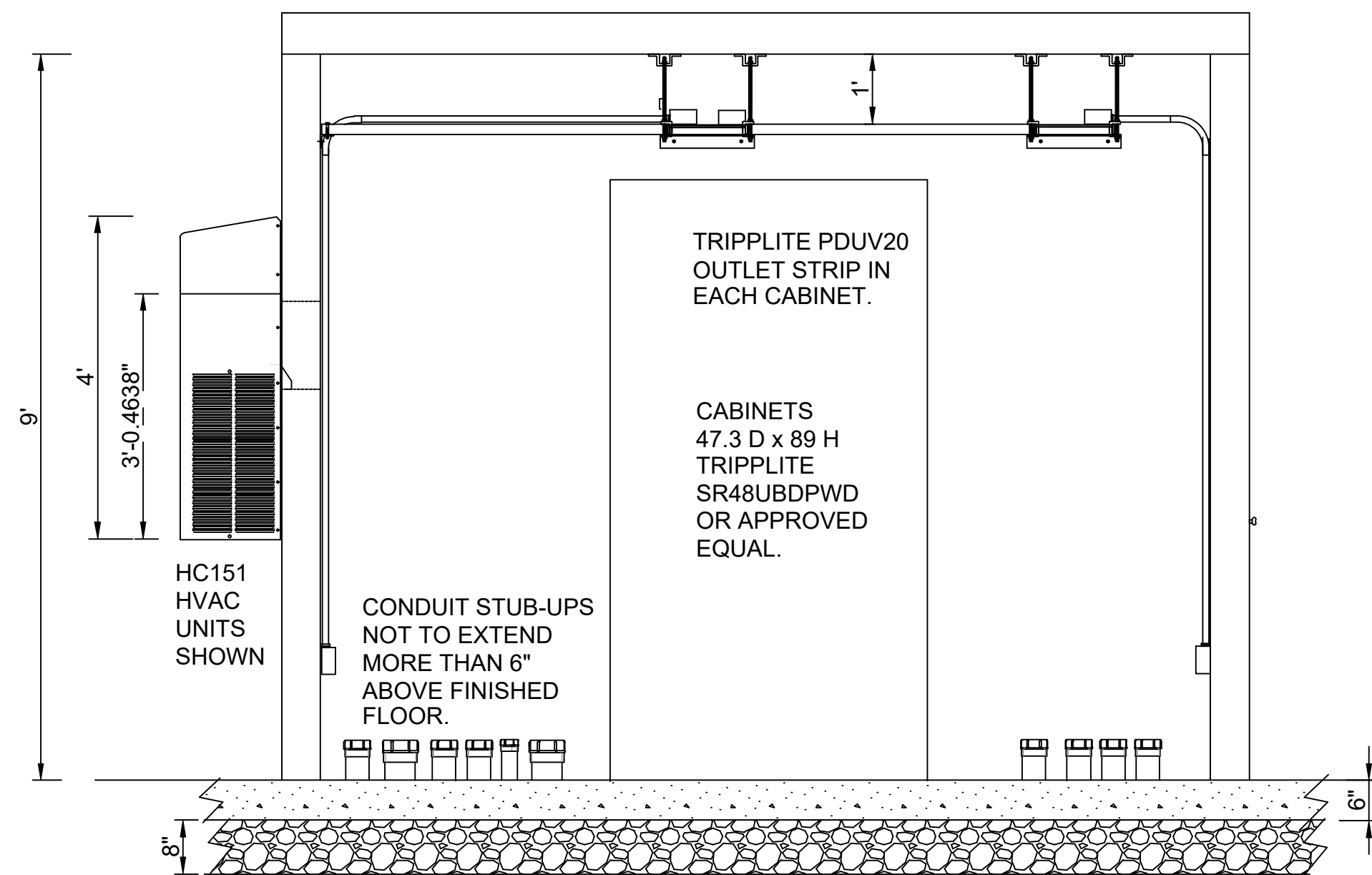
ALL EMT CONDUIT TO USE COMPRESSION FITTINGS - FITTINGS MAY NOT BE SHOWN - 3/4" RACO 2913, 1 1/4" RACO 2925.
L5-20R SHOWN ARE INSTALLED IN RACO 232 4-SQUARE DEEP BOX WITH 811C COVER AND LEVITON L5-20R RECEPTACLE.

L5-20R FOR EACH CABINET & TRIPPLITE PDUV20 OUTLET STRIP.

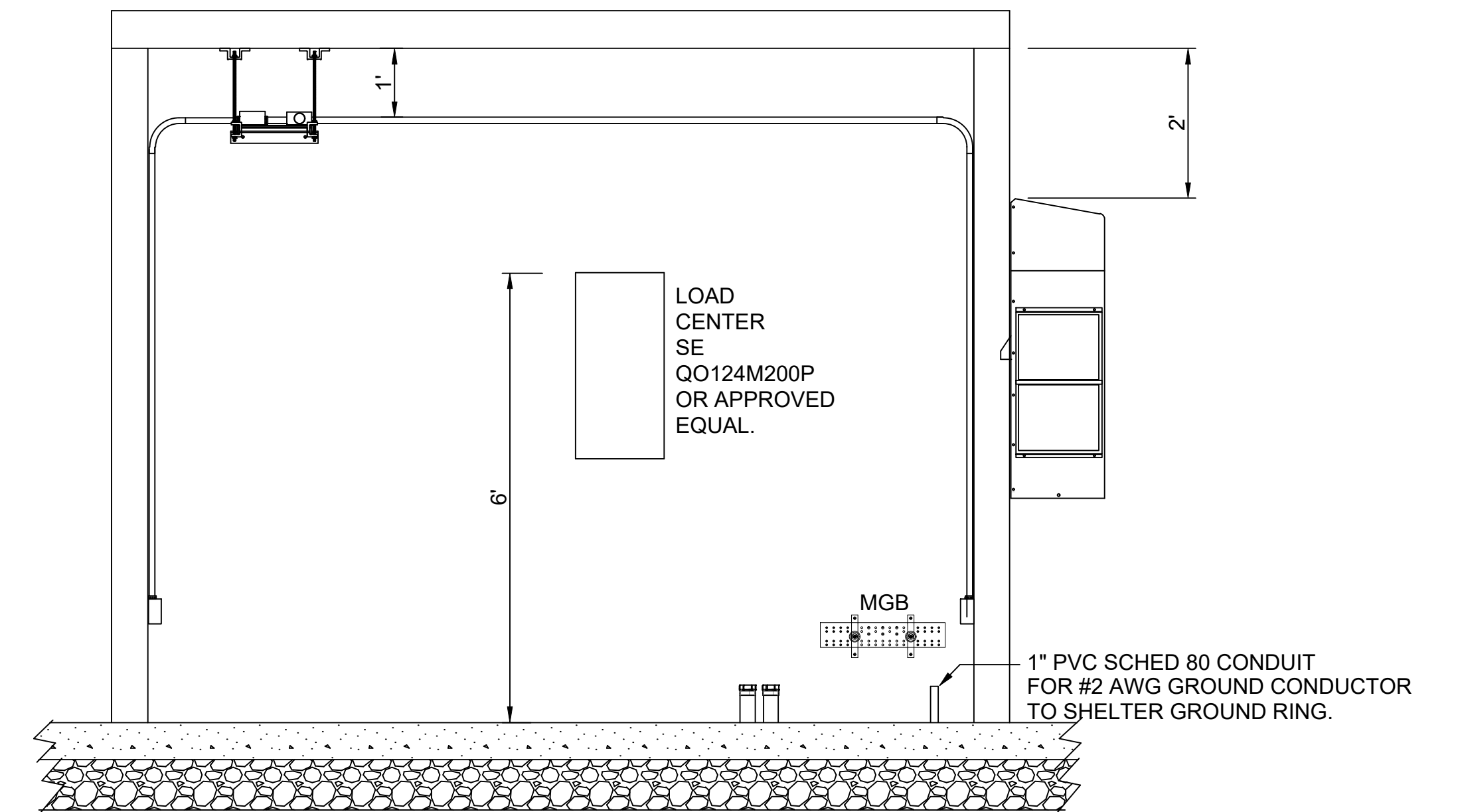


LOOKING TO NORTH WALL OF SHELTER

REFER TO DRAWING "AET SHELTER_LAYOUT_INTERNAL_EXTERNAL_WITH_COMPONENTS_20241206.DWG" FOR TOP DOWN VIEW OF FLOOR PLAN AND INTERIOR LAYOUT OF SHELTER.



LOOKING TO WEST WALL OF SHELTER



LOOKING TO EAST WALL OF SHELTER

NOT FOR CONSTRUCTION

DRAFT

ID	DATE	BY	DESCRIPTION

DRAWN BY	
CHECKED BY	
VERIFIED BY	
APPROVED	

TITLE	
TASK	

DOC NO.		DATE		STAMP/INITIAL
REV NO.		DATE		

DRAFT

COMM CONDUIT STUB-UPS
3-3", 2-4", 2-2"

ELECTRIC CONDUIT STUB-UPS, 4-3"

* RACO 259 BOX
FOR 1 1/4" CONDUIT
TO RUN 120VAC
70 AMP CIRCUITS
TO UPS UNITS.

L5-20R
3 PLACES
ABOVE
CABLE
TRAY.

SPOTLIGHT
LED

2 EACH - VH221NSDGL
30 AMP DUAL POLE
FUSED 240 VAC
DISCONNECT SWITCHES
FOR HVAC UNITS.

PLT-80033
65W LED LIGHT
8840 LUMEN
16.1" X 11.8"
6 PLACES

LIGHT SWITCH FOR CEILING LIGHTING
SHALL BE LEVITON ILLUMATECH
DIMMER SWITCH IP710-040-DOZ OR
APPROVED EQUAL.

CABLE TRAY TO BE A
MINIMUM OF 6" ABOVE
CABINETS AND 12" BELOW
CEILING.

LED SPOTLIGHT
80W COLOR SELECT
PLT-13142 - 2 PLACES

INSIDE DIMENSIONS 11'-2" x 19'-2"
WITH 9' HEIGHT (FLOOR TO CEILING)

ELECTRIC CONDUIT
STUB-UPS, 2-2"

MGB

LOAD CENTER

UTILITY SERVICE
240VAC 200 AMP.

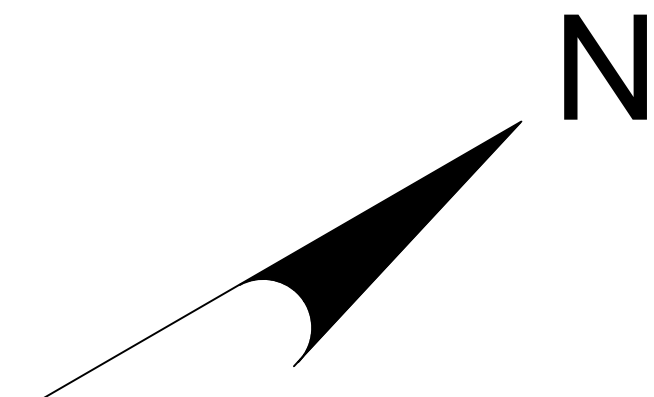
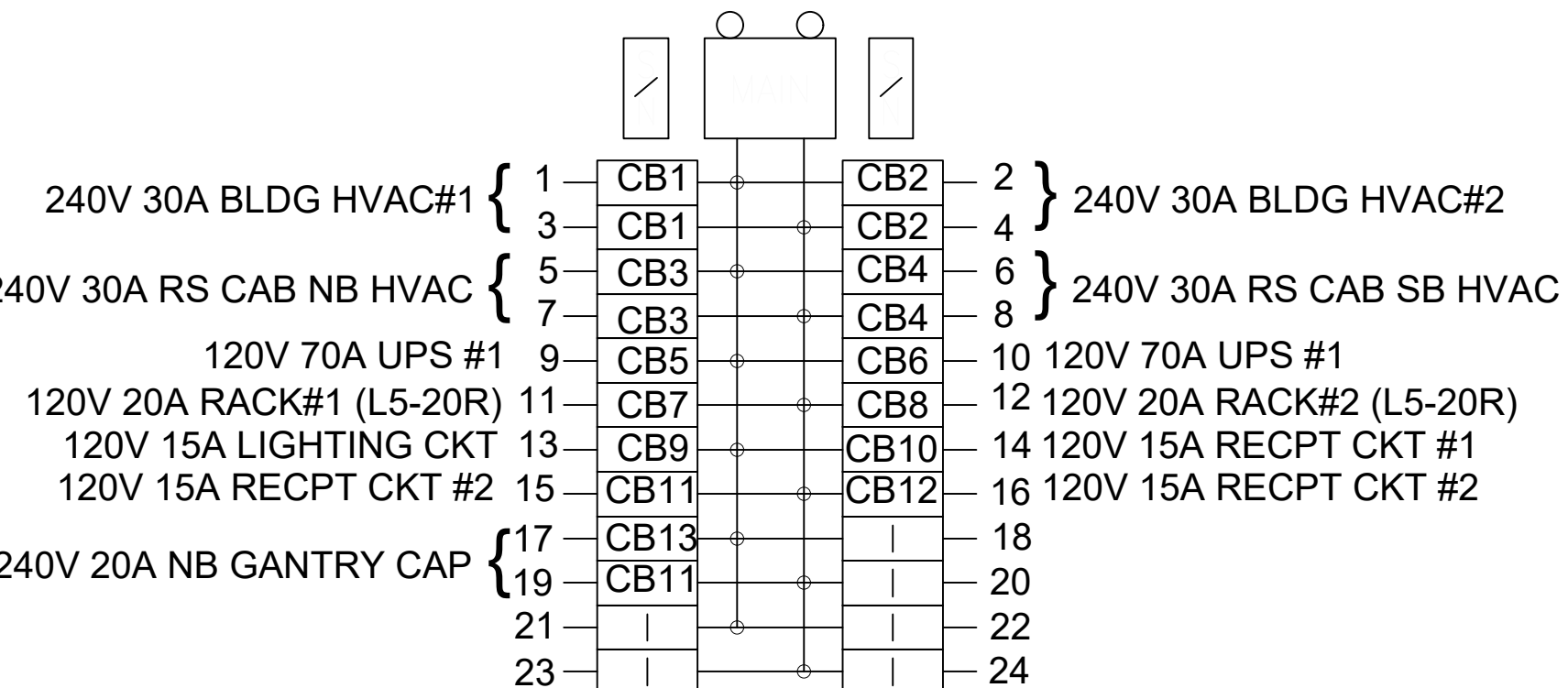
CABLE RUNWAYS ARE
CHATSWORTH PRODUCTS
11252-712 (BLACK)
OR APPROVED EQUAL

MAIN GROUND BUSS BAR
CHATSWORTH PRODUCTS
40158-020 4"x20"x1/4"
OR APPROVED EQUAL

LOAD CENTER
SCHNEIDER ELECTRIC
QO124M200 24 CKT
OR APPROVED EQUAL

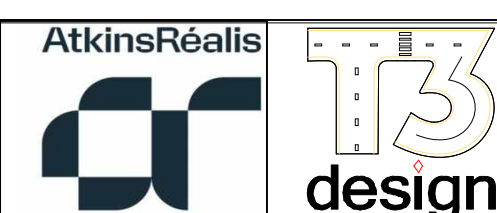
RACO 232 - 4 SQUARE, DEEP BOX WITH
RACO 811C COVER FOR L5-20R OUTLET &
LEVITON 2310 - L5-20R OUTLET (3 EA)
RACK 232 - 4 SQUARE, DEEP BOX WITH
RACO 902C DUAL GANG COVER (4 EA)
RACO 232 - 4 SQUARE, DEEP BOX WITH
RACO RS BLANK COVER (1 EA)
RACO 5320 SINGLE GANG WEATHERPROOF BOX WITH
RACO 5180 DUAL GANG COVER AND
LEVITON GFCI - (2 EACH)
RACO 2913 - 3/4" EMT COMPRESSION FITTINGS
RACK 1826 - 1 1/2" EMT COMPRESSION FITTINGS
RACO 857 - DUAL SWITCH PLATE (1 EA) AND
RACO 232 - 4 SQUARE, DEEP BOX (1 EA)
RACO 233 - 4 SQUARE, DEEP BOX WITH
8 EA 1"KO (5 EACH)

LIGHTS - CEILING MOUNT PLT SOLUTIONS PLT80033 LED
(6 EACH). EXTERIOR LED SPOTLIGHTS, PLT-13142 80W
COLOR SELECT (2 EACH) - OR APPROVED EQUAL.



NOT FOR CONSTRUCTION

DRAFT



NO.	DATE	BY	DESCRIPTION

PROJECT: **RICHMOND METROPOLITAN TRANSPORTATION AUTHORITY RMTA**

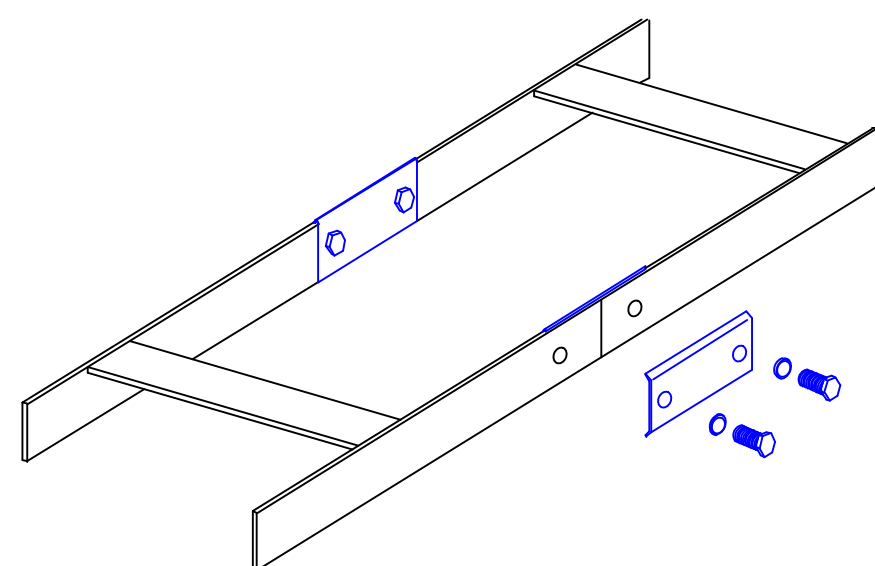
DESIGNED BY: **N.T.S.**

TITLE: **AET SHELTER ELECTRICAL LAYOUT - SCHEMATIC & PARTIAL PART NUMBERS.**

DATE	REVISION	DESCRIPTION

DRAFT

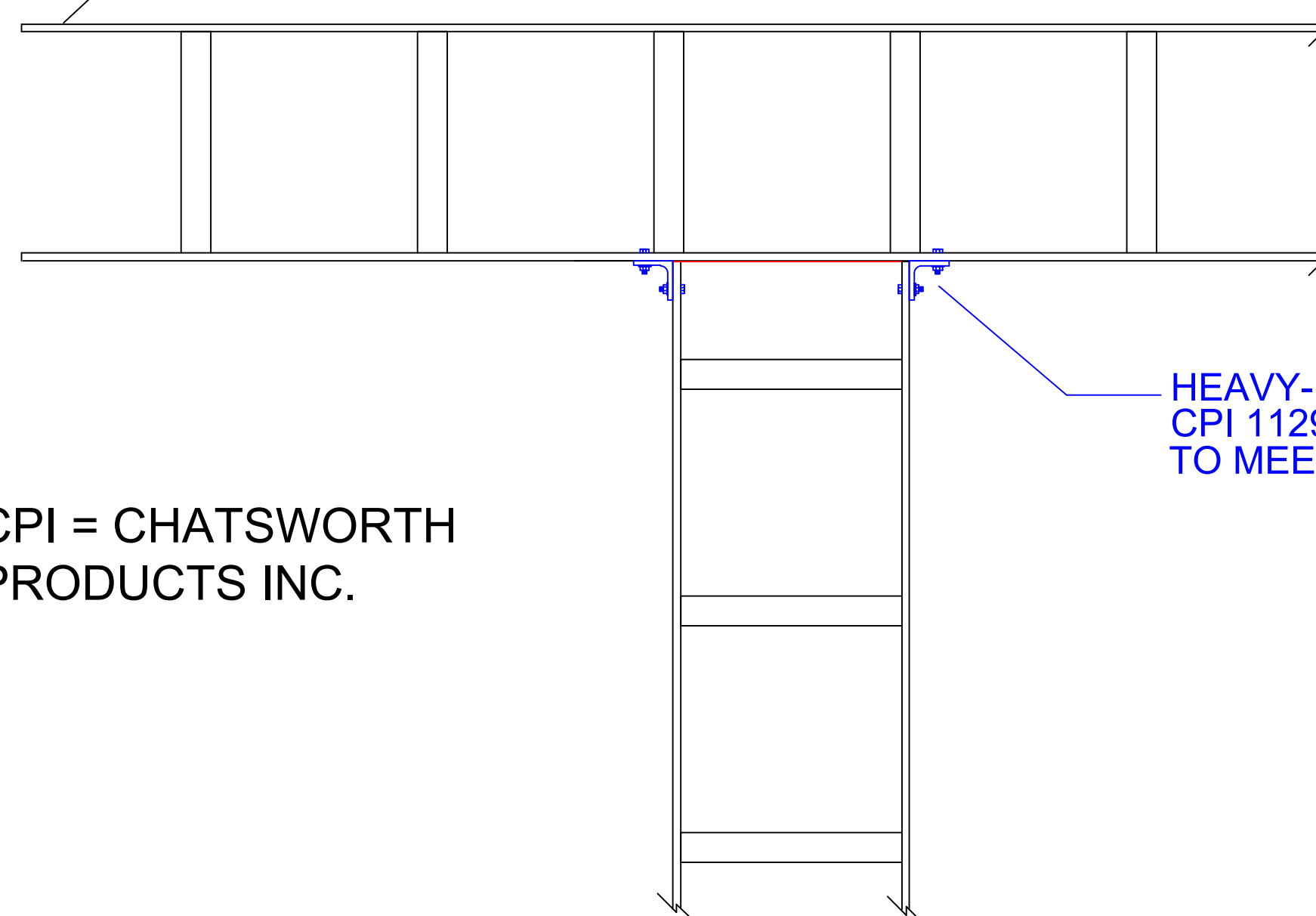
CPI 11299-X01 OR EQUAL
HEAVY-DUTY BUTT-SPLICE KIT
MEETS SEISMIC REQUIREMENTS.



DETAIL "A" - HEAVY DUTY BUTT-SPLICE KIT

N.T.S.

CABLE RUNWAY CPI 11252-712 OR APPORVED EQUAL

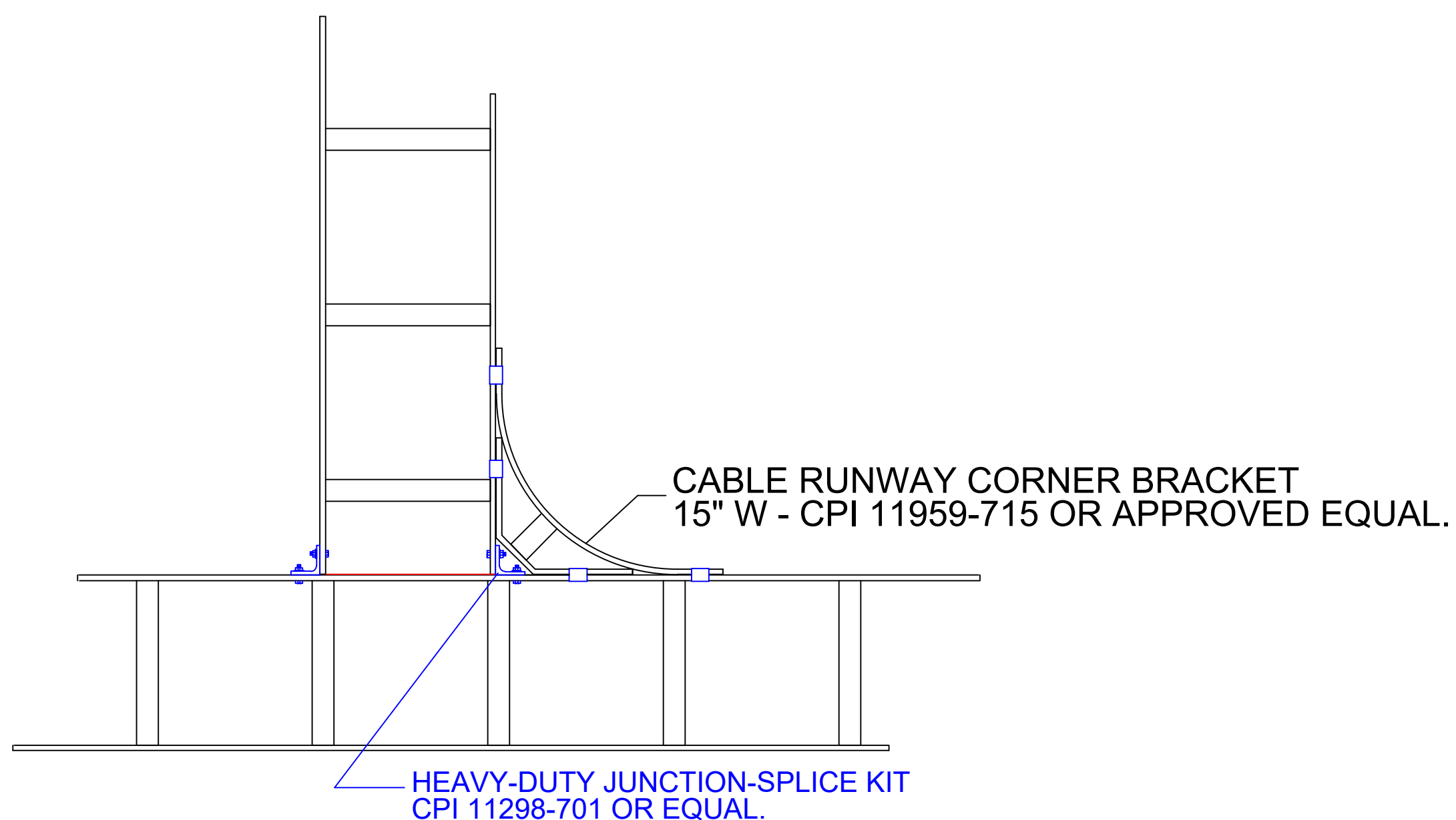


HEAVY-DUTY JUNCTION-SPLICE KIT
CPI 11298-701 OR EQUAL -
TO MEET SEISMIC REQUIREMENTS.

CPI = CHATSWORTH
PRODUCTS INC.

DETAIL "B" - LADDER RACK JUNCTION

N.T.S.



CABLE RUNWAY CORNER BRACKET
15" W - CPI 11959-715 OR APPROVED EQUAL.

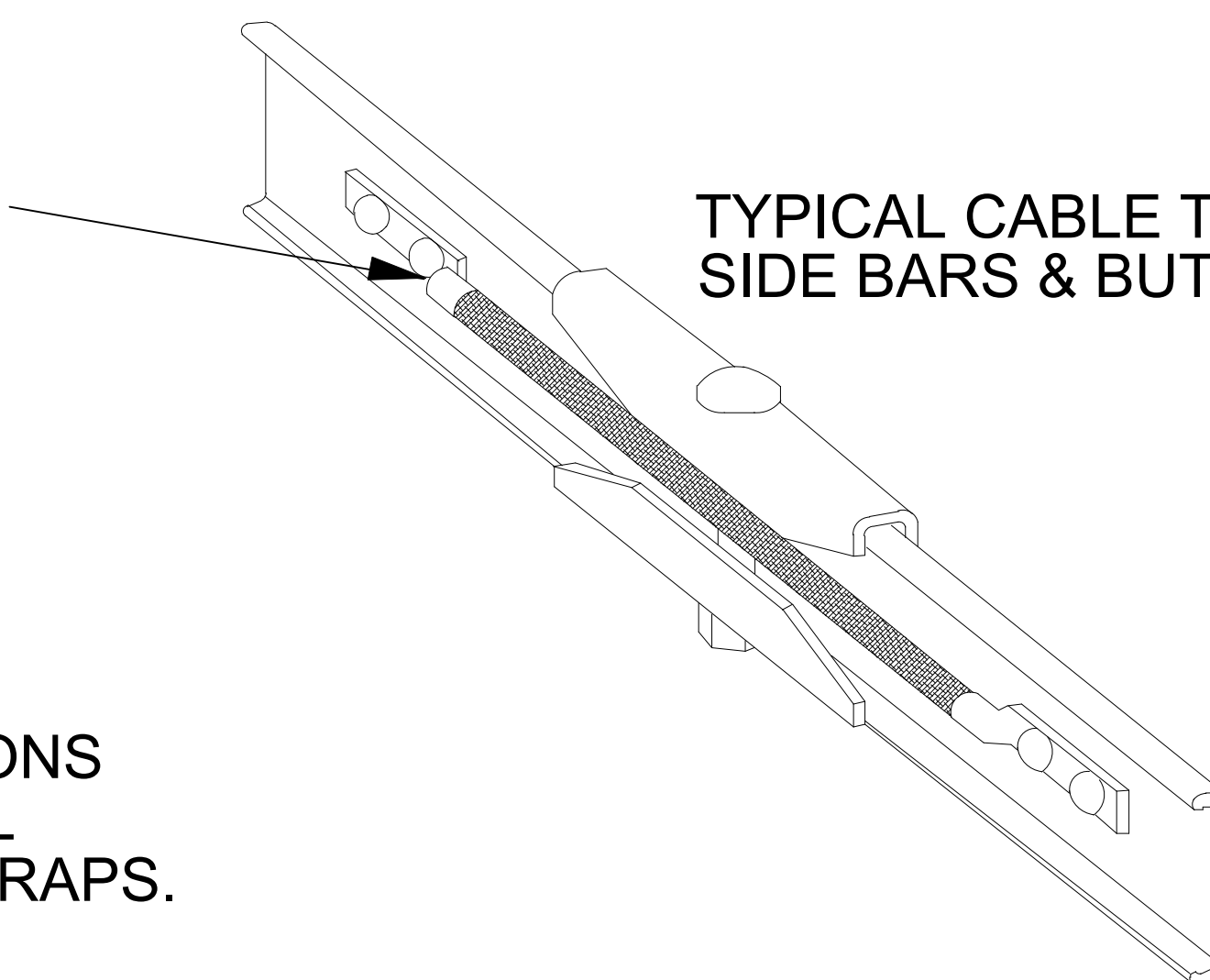
HEAVY-DUTY JUNCTION-SPLICE KIT
CPI 11298-701 OR EQUAL.

DETAIL "C" - LADDER RACK JUNCTION W/ CORNER BRACKET

N.T.S.

#6 AWG MINIMUM, INSULATED
COPPER CONDUCTOR WITH
TWO HOLE GROUND LUGS
IRREVESIBLE CRIMP.

TYPICAL CABLE TRAY
SIDE BARS & BUTT SPLICE



ALL CABLE TRAY INTERSECTIONS
OF MAJOR COMPONENTS WILL
MAKE USE OF GROUNDING STRAPS.

DETAIL "D" - BONDING CABLE TRAY SECTIONS

N.T.S.

DRAFT

NO.	DATE	BY	DESCRIPTION

DESIGN BY	CCOFFEE
VERIFIED BY	
APPROVED	

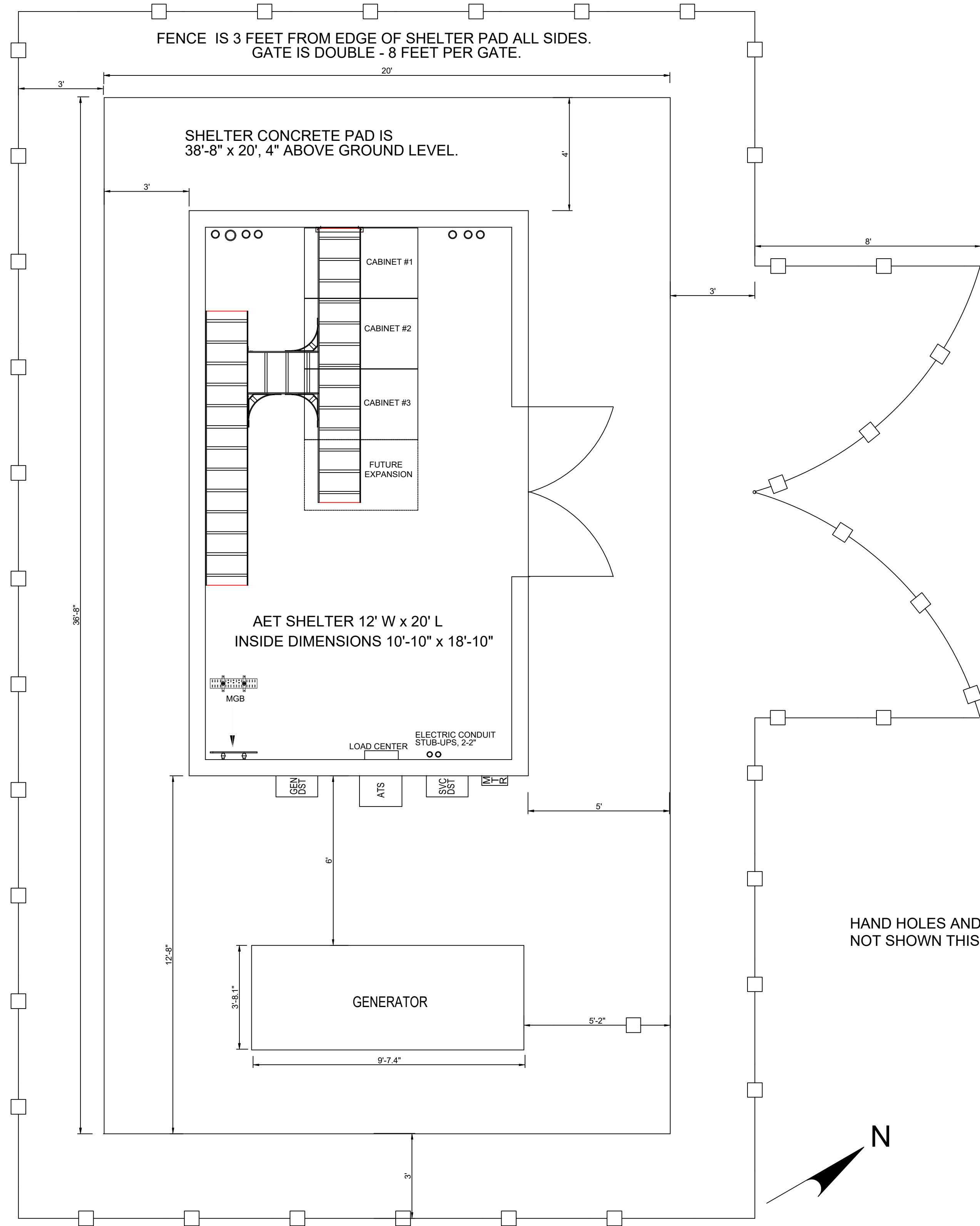
SCALE
N.T.S.

TITLE	AET SHELTER LADDER RACK DETAILS
TOTAL	

AET SHELTER LADDER
RACK DETAILS

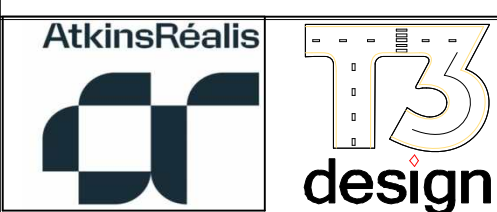
NO.	DATE	DESCRIPTION

DRAFT



NOT FOR CONSTRUCTION

DRAFT



NO.	DATE	BY	DESCRIPTION

**RICHMOND METROPOLITAN
TRANSPORTATION AUTHORITY
RMTA**

DRAWN BY
CHECKED BY
VERIFIED BY
APPROVED

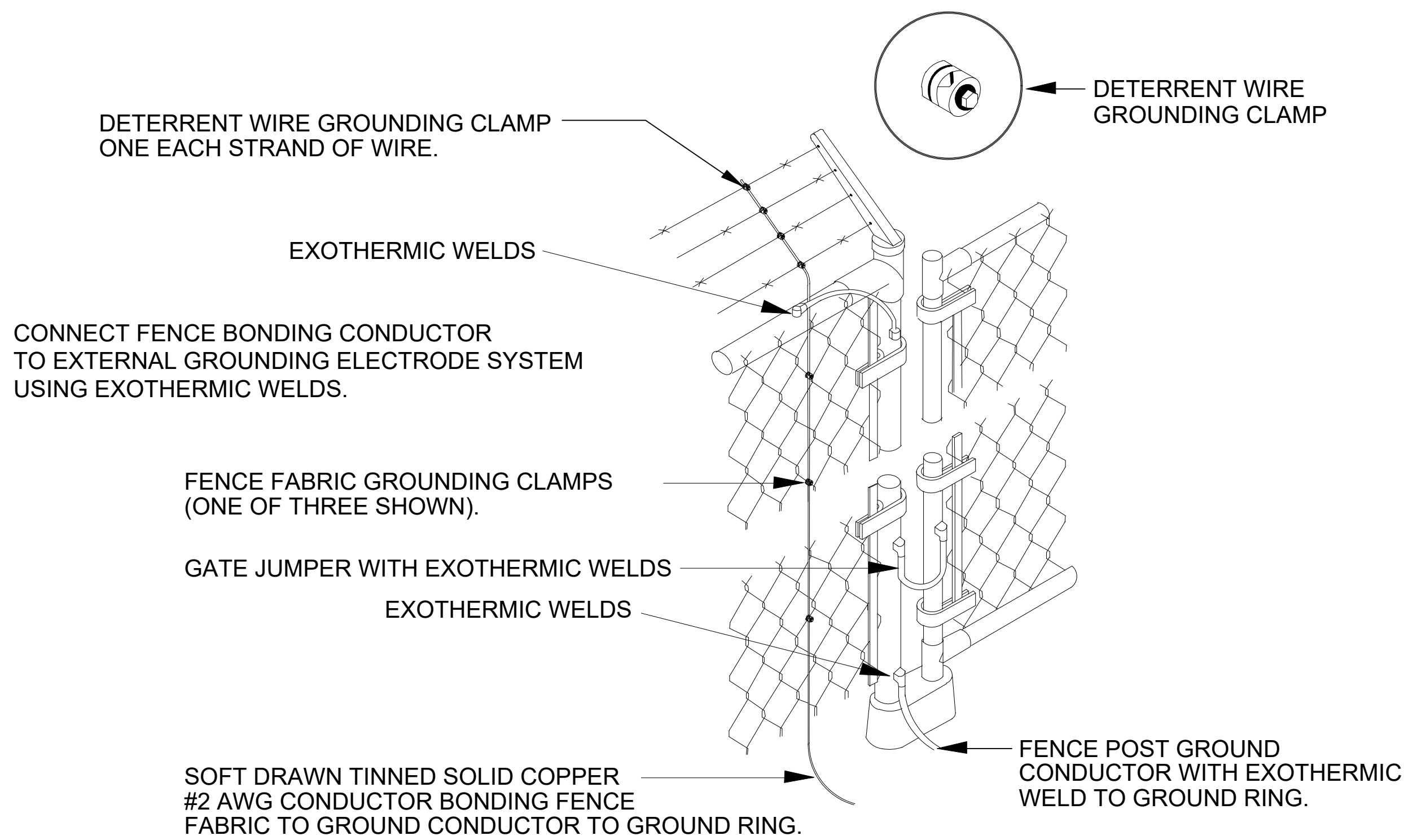
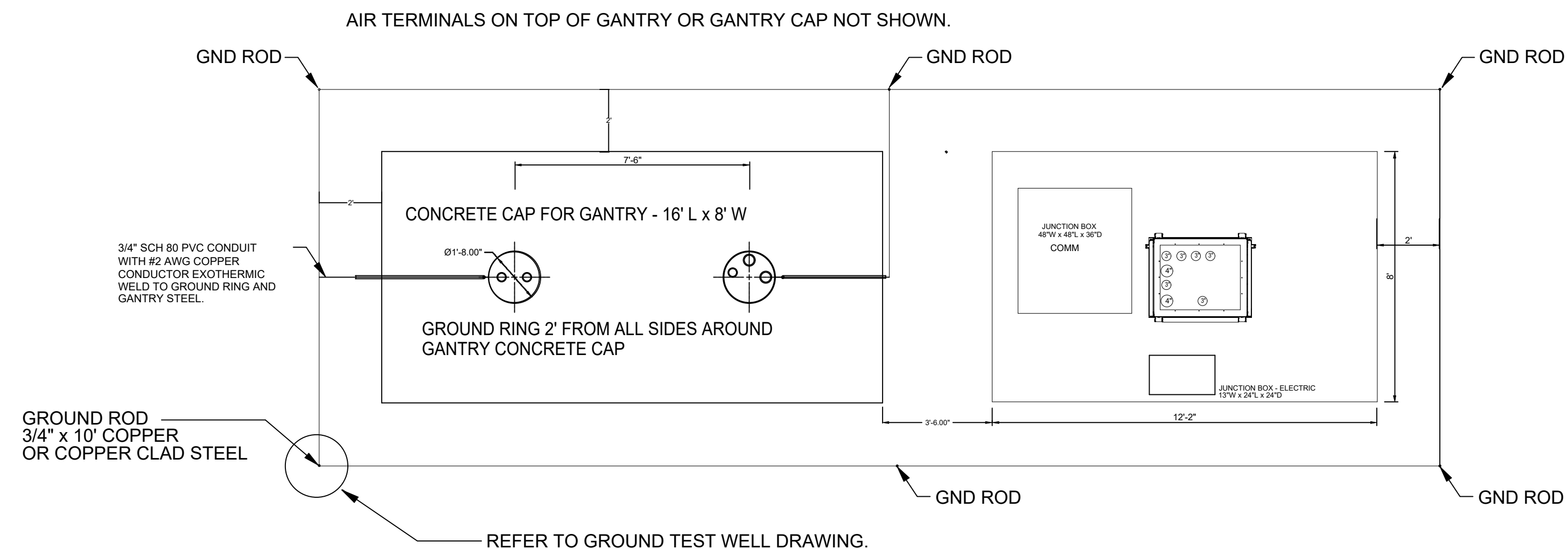
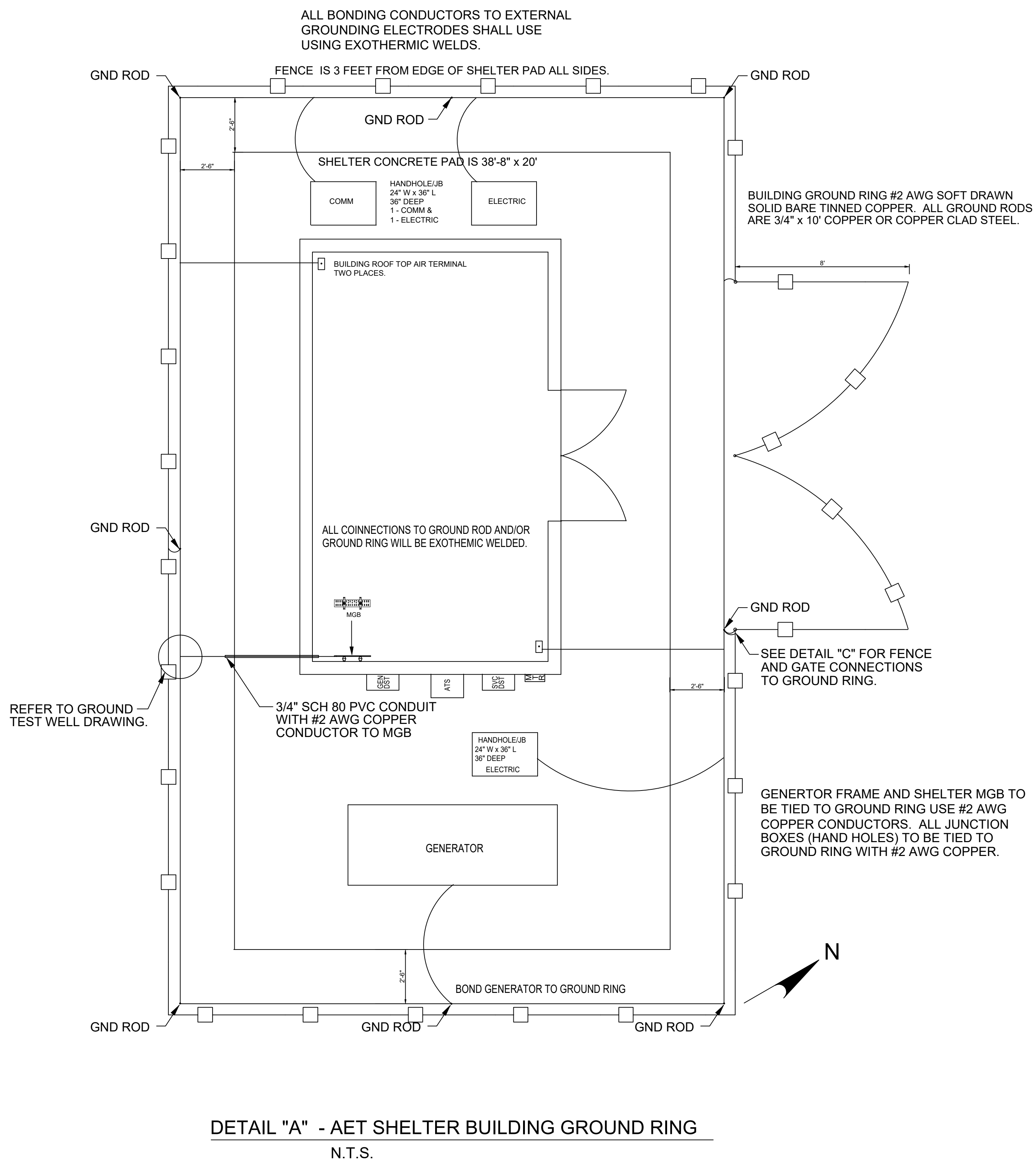
SCALE
N.T.S.

TITLE
TOTAL

**AET SHELTER LAYOUT WITH CONCRETE
PAD AND FENCE.**

DOC NO.	DATE	REVISION	SHEET	TOTAL SHEETS

DRAFT

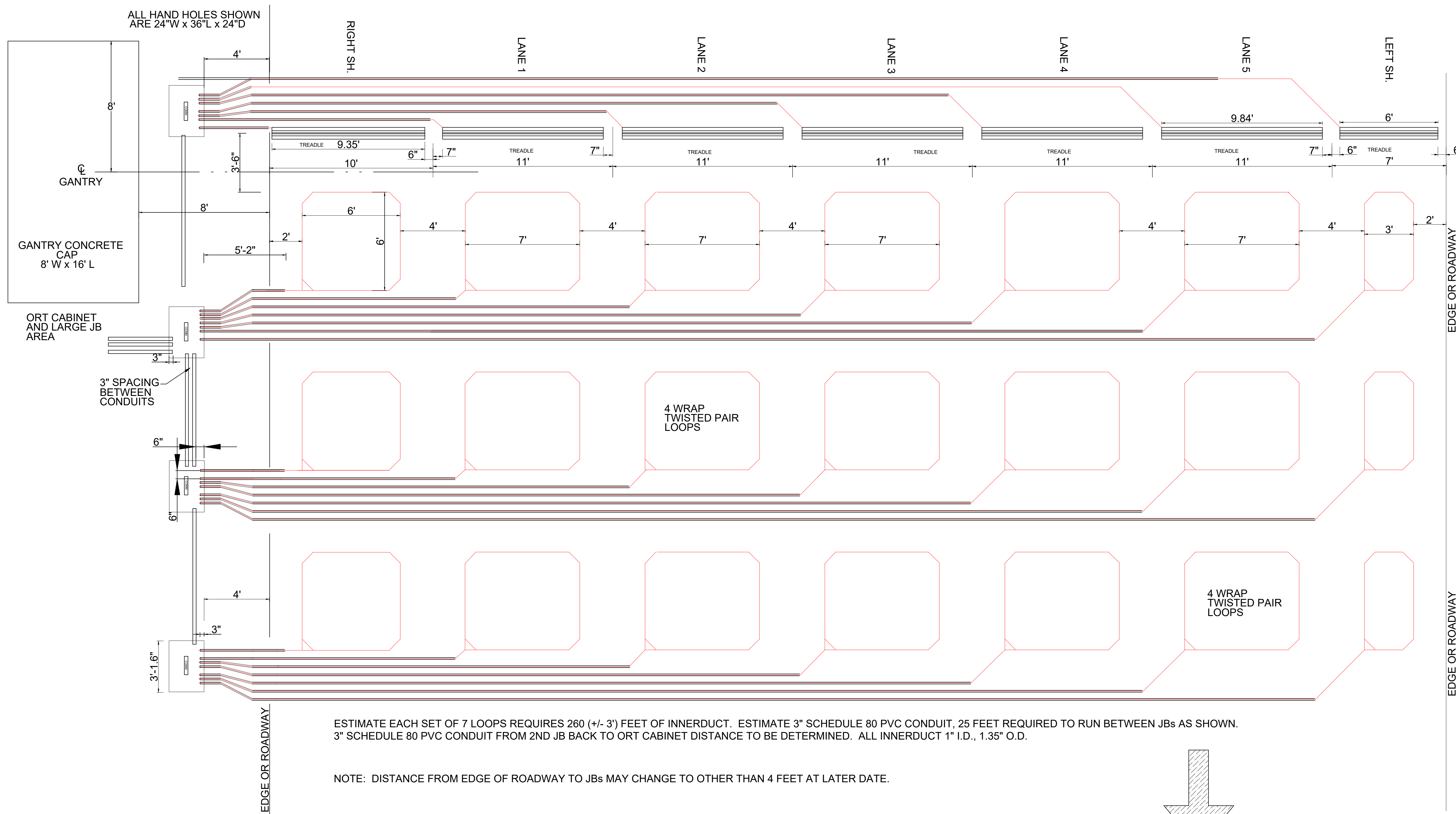


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NOT FOR CONSTRUCTION

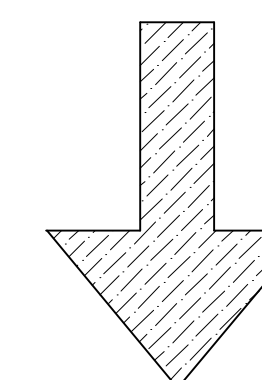
NO.	DATE	BY	DESCRIPTION

DRAFT



ESTIMATE EACH SET OF 7 LOOPS REQUIRES 260 (+/- 3') FEET OF INNERDUCT. ESTIMATE 3" SCHEDULE 80 PVC CONDUIT, 25 FEET REQUIRED TO RUN BETWEEN JB'S AS SHOWN. 3" SCHEDULE 80 PVC CONDUIT FROM 2ND JB BACK TO ORT CABINET DISTANCE TO BE DETERMINED. ALL INNERDUCT 1" I.D., 1.35" O.D.

NOTE: DISTANCE FROM EDGE OF ROADWAY TO JB'S MAY CHANGE TO OTHER THAN 4 FEET AT LATER DATE.



NORTHBOUND

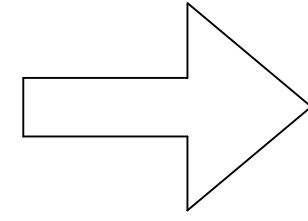
NOT FOR CONSTRUCTION

DRAFT

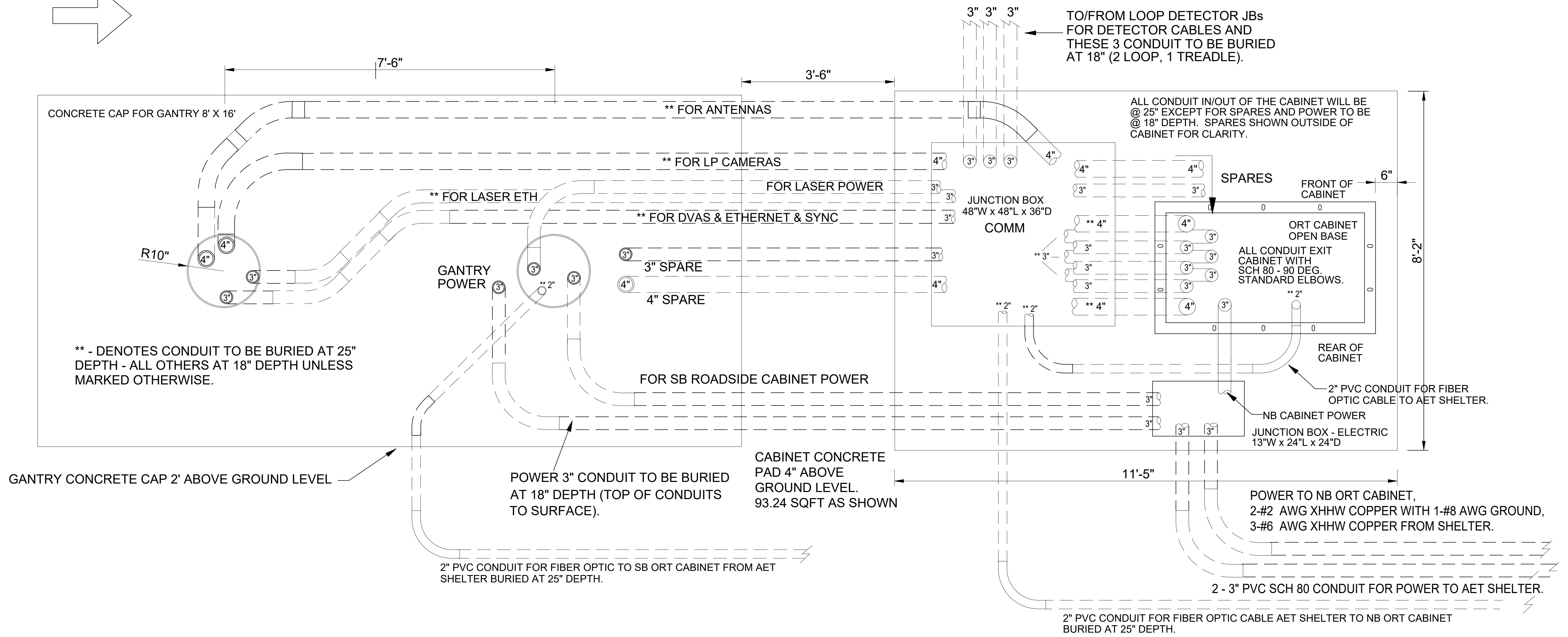
ID	DATE	BY	DESCRIPTION

DRAFT

NORTHBOUND

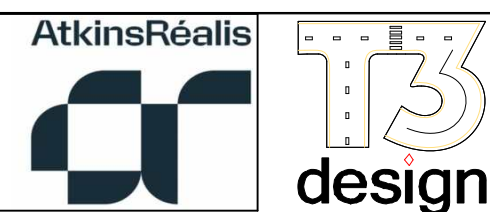


ROADWAY IS 8 FEET FROM THIS SIDE OF GANTRY CAP



NOT FOR CONSTRUCTION

DRAFT



NO.	DATE	BY	DESCRIPTION

PROJECT

RICHMOND METROPOLITAN TRANSPORTATION AUTHORITY
RMTA

DESIGNED BY: COFFEE

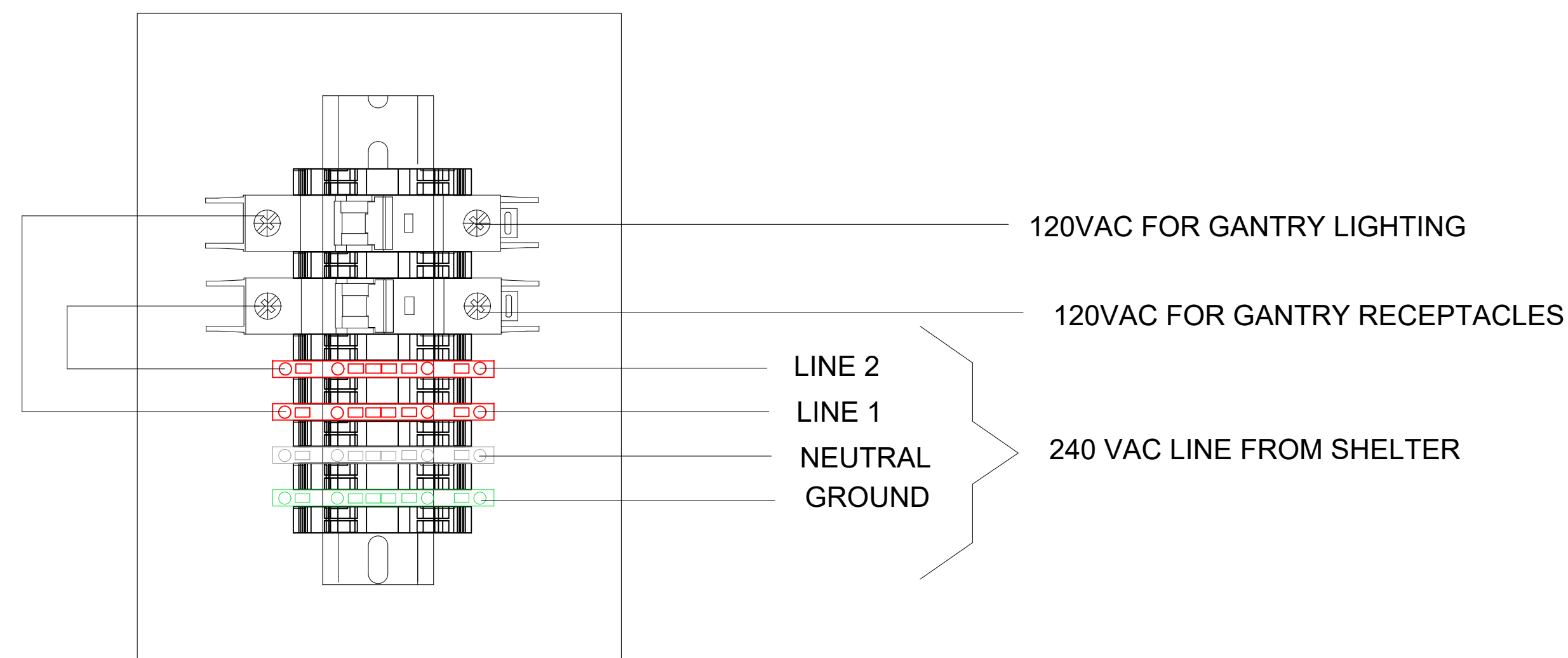
SCALE: N.T.S

DATE:

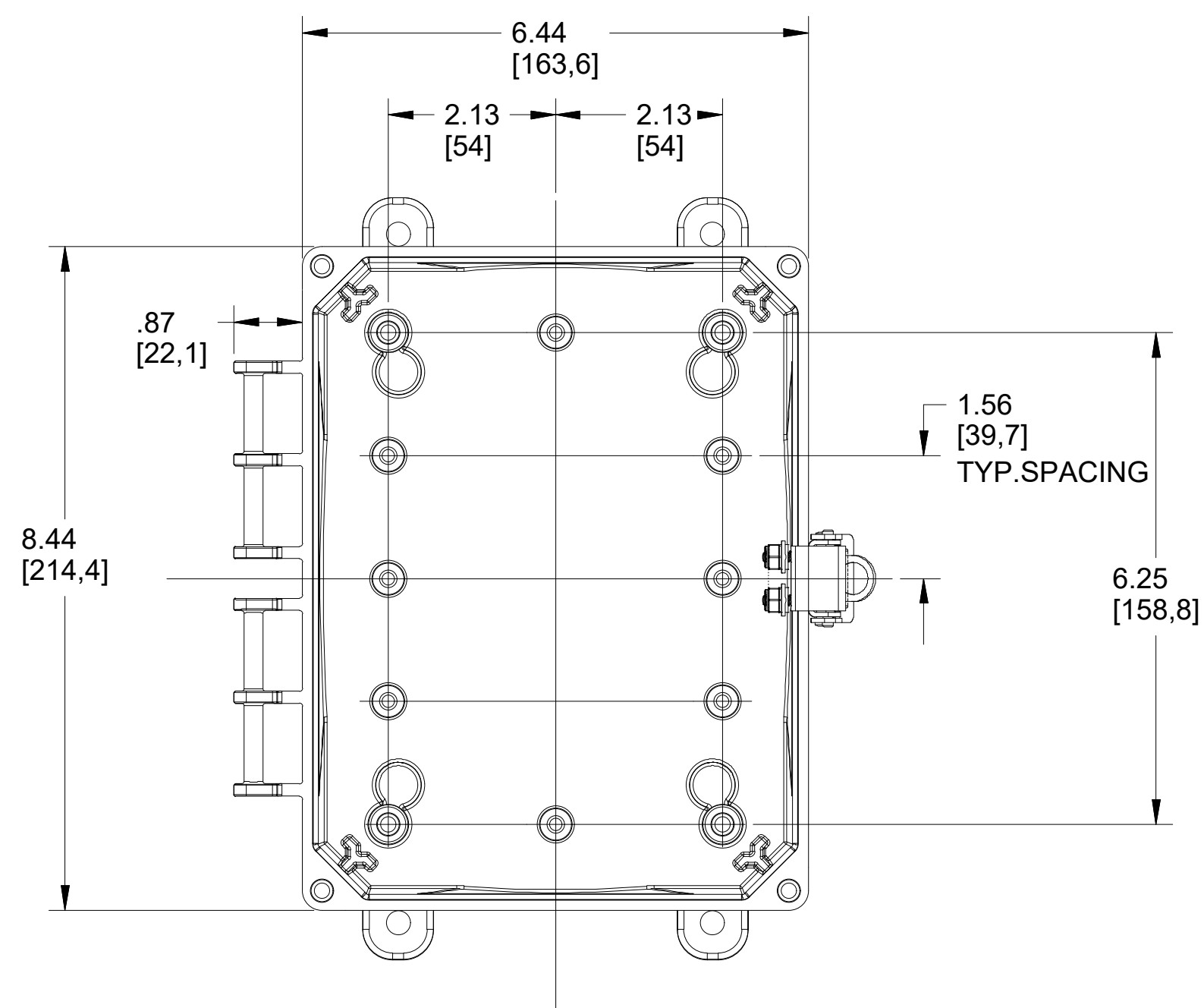
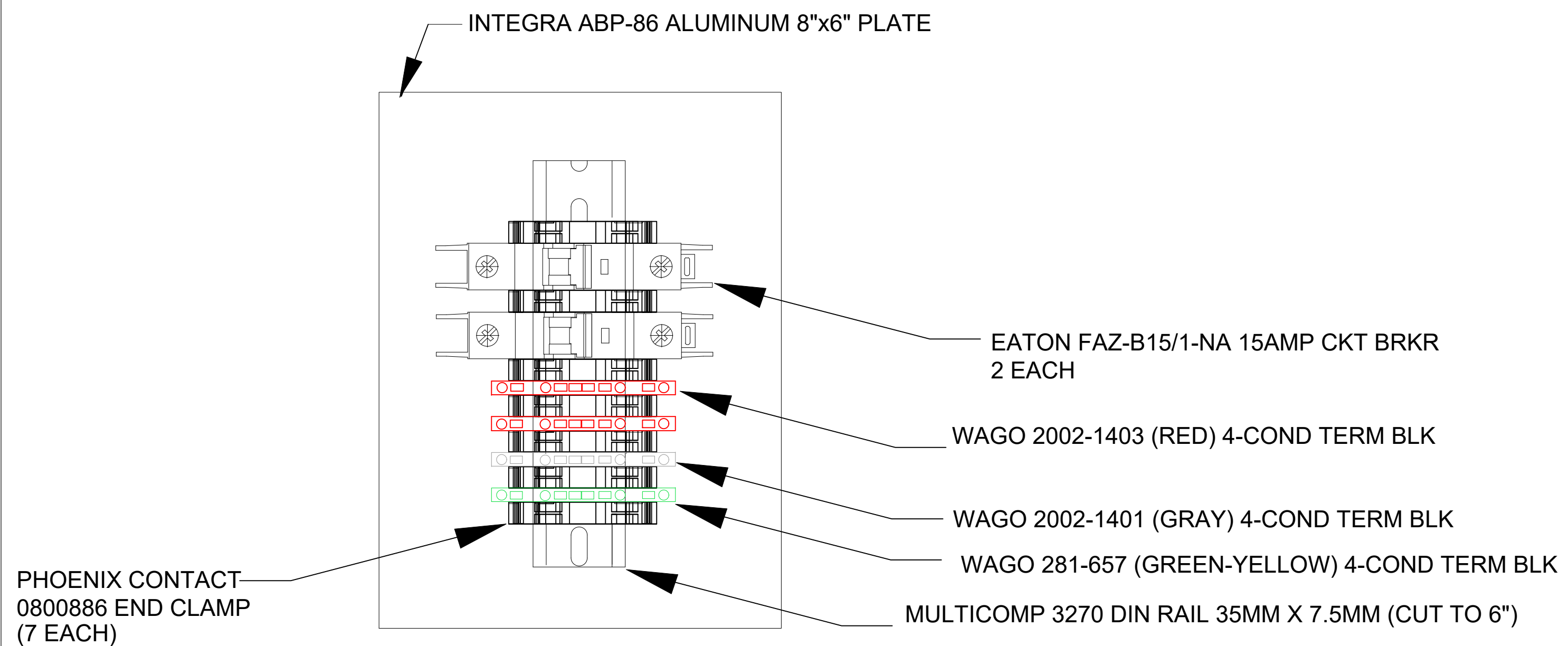
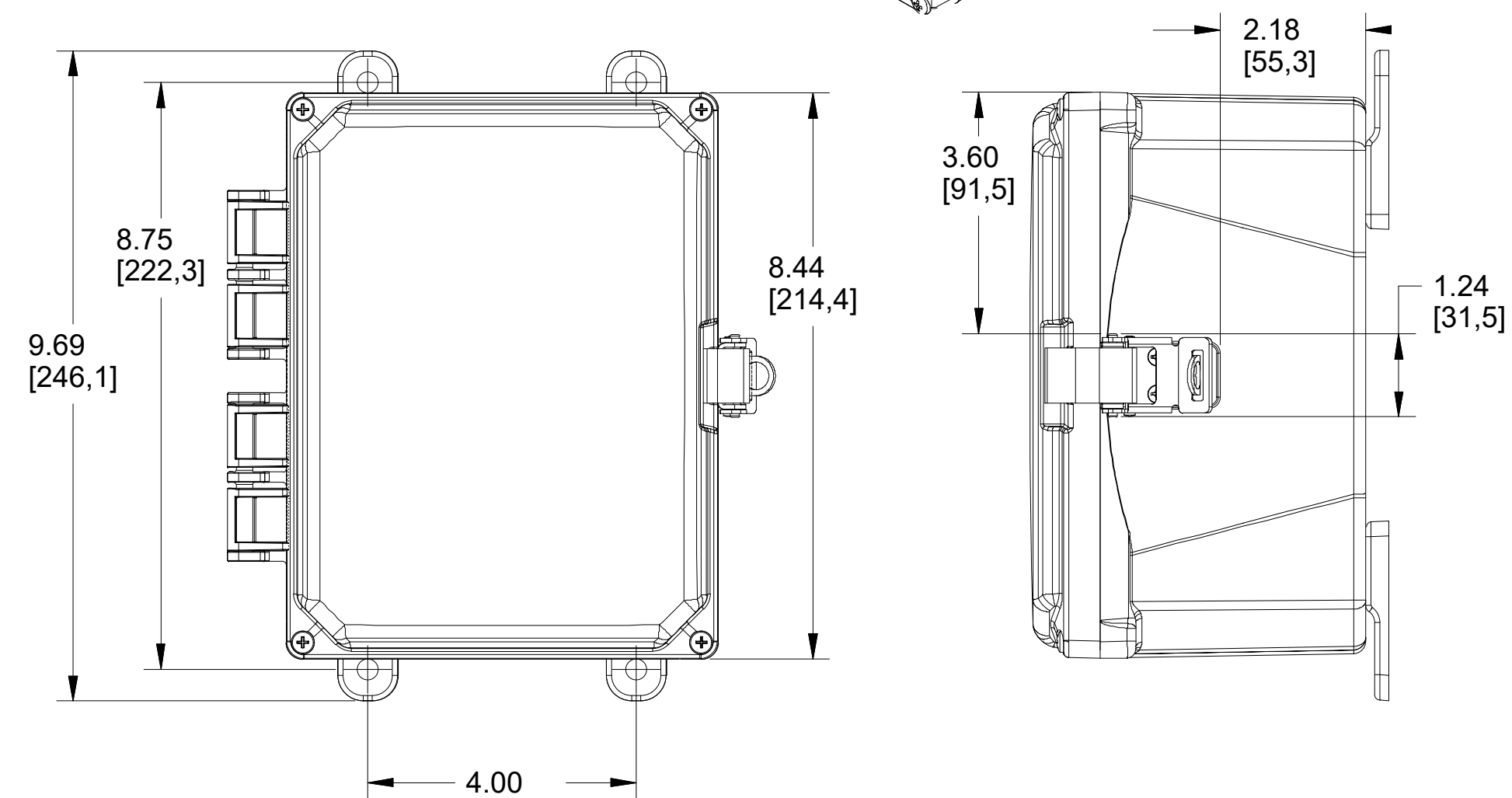
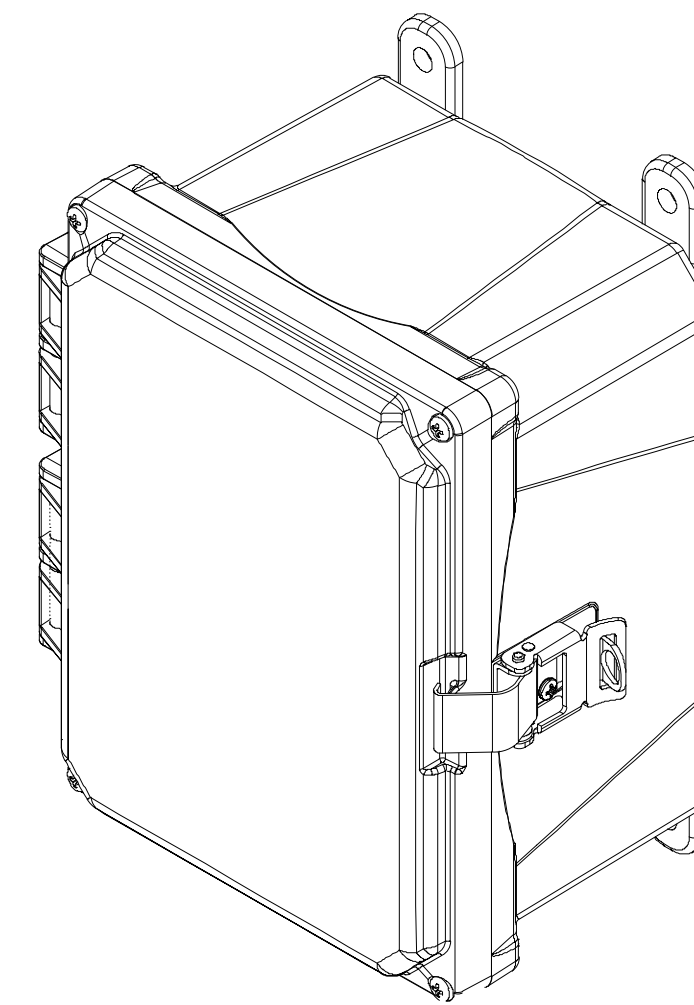
TITLE: NB GANTRY CAP & ORT CABINET WITH CONDUITS & JUNCTION BOXES.

NO.	DATE	BY	DESCRIPTION

DRAFT



INTEGRA
ENCLOSURES
H8064HLL
WITH
ABP-86
ALUMINUM
PLATE



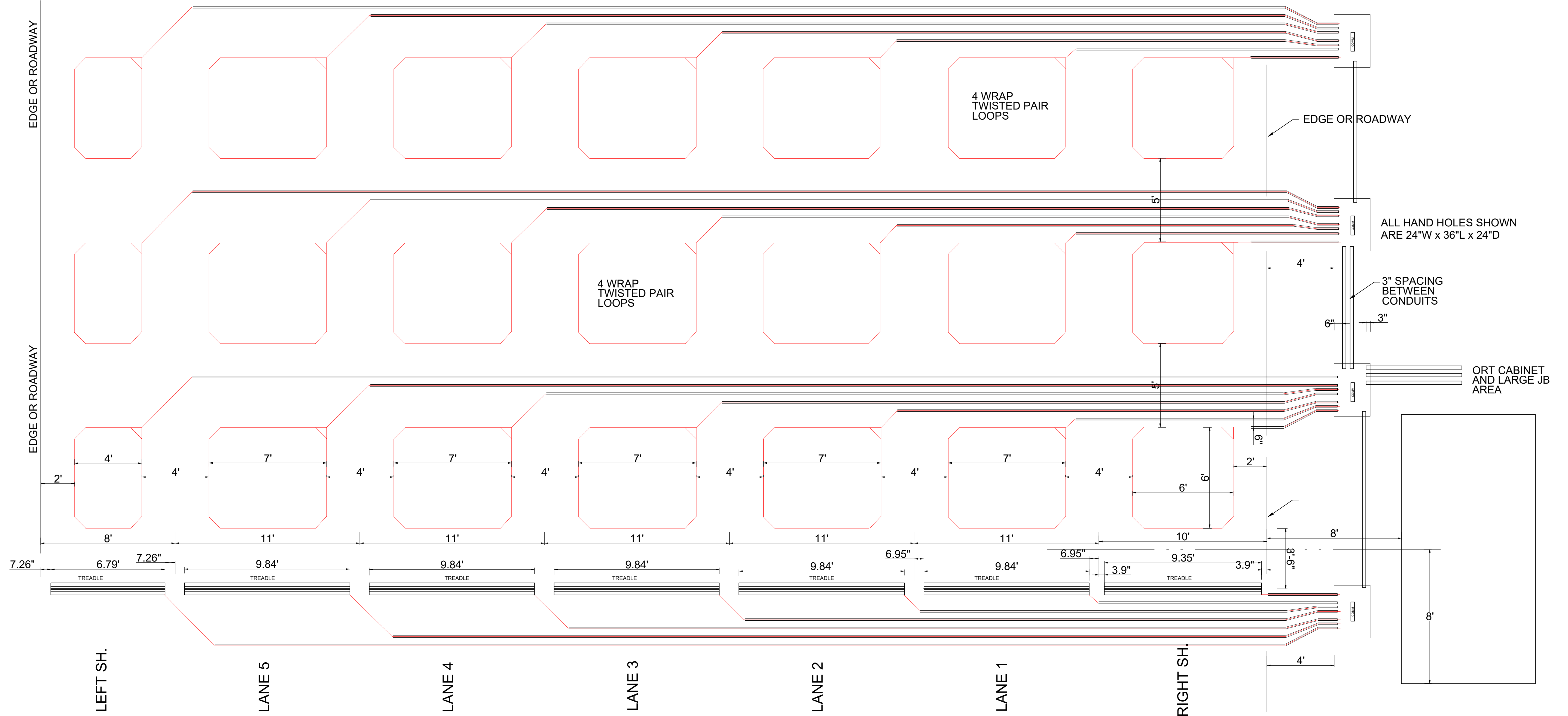
DRAFT

ID	DATE	BY	DESCRIPTION

DESIGNED BY	SCALE	TITLE
CHECKED BY	N.T.S.	AET GANTRY CAP ELECTRICAL POWER DISTRIBUTION BOX WITH ELECTRICAL SCHEMATIC DIAGRAM.
APPROVED BY		

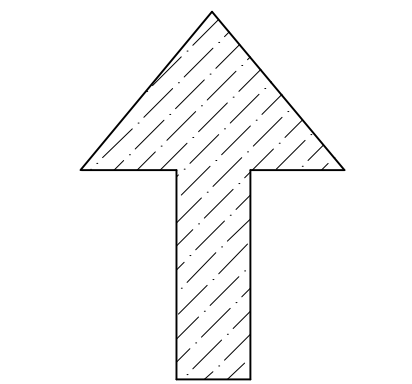
DATE	

DRAFT

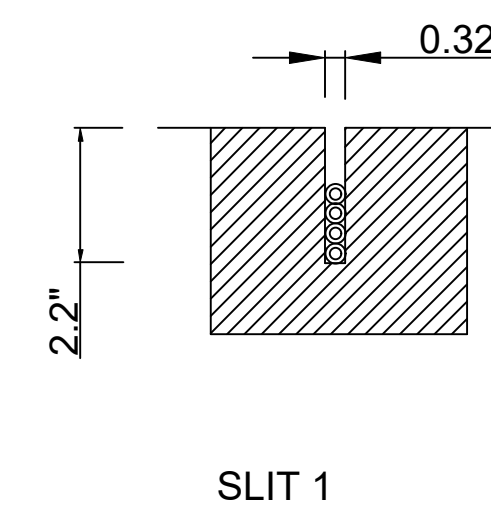


ESTIMATE EACH SET OF 7 LOOPS REQUIRES 260 (+/-3') FEET OF INNERDUCT. ESTIMATE 3" SCHEDULE 80 PVC CONDUIT, 25 FEET REQUIRED TO RUN BETWEEN JBs AS SHOWN. 3" SCHEDULE 80 PVC CONDUIT FROM 3RD JB BACK TO ORT CABINET DISTANCE TO BE DETERMINED. ALL INNERDUCT 1" I.D., 1.35" O.D. AT END OF INNERDUCT RUN PRIOR TO LOOP, BEND AND EXTEND INNERDUCT 4" ABOVE ROADWAY SURFACE.

NOTE: DISTANCE FROM EDGE OF ROADWAY TO JBs MAY CHANGE TO OTHER THAN 4 FEET AT LATER DATE.

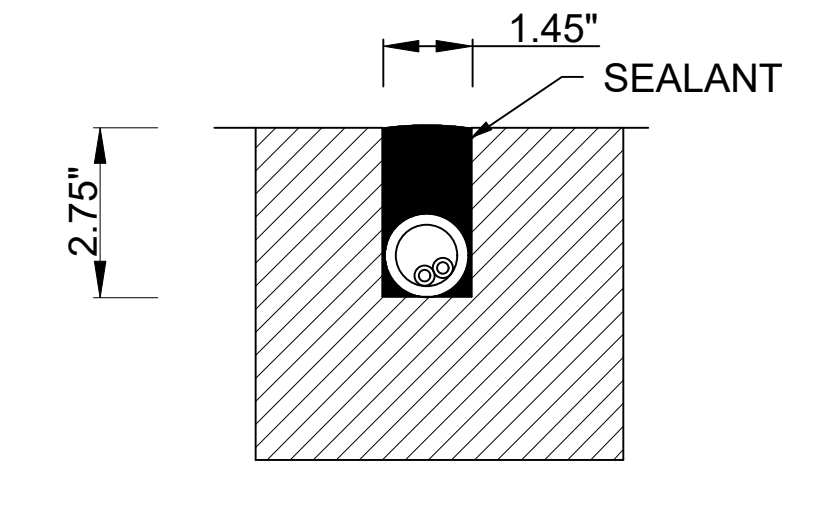


SOUTHBOUND



SLIT 1

FOR LOOP DETECTOR TWISTED PAIR CABLES



SLIT 2

FOR LOOP DETECTOR FEED IN CABLE.

DRAFT NOT FOR CONSTRUCTION



ID	DATE	BY	DESCRIPTION

RICHMOND METROPOLITAN
TRANSPORTATION AUTHORITY
RMTA

DESIGNED BY
C/OFFEE
CHECKED BY
TOLER
APPROVED

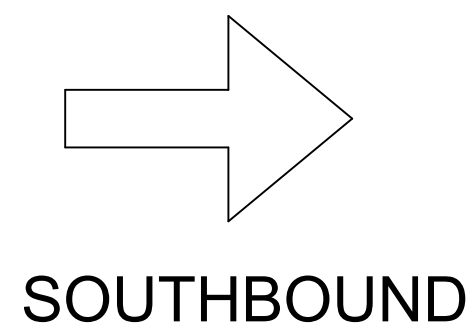
SCALE
N.T.S.

TITLE
SOUTHBOUND ROADWAY LOOPS WITH
CONDUIT AND JBs, OVERHEAD VIEW.

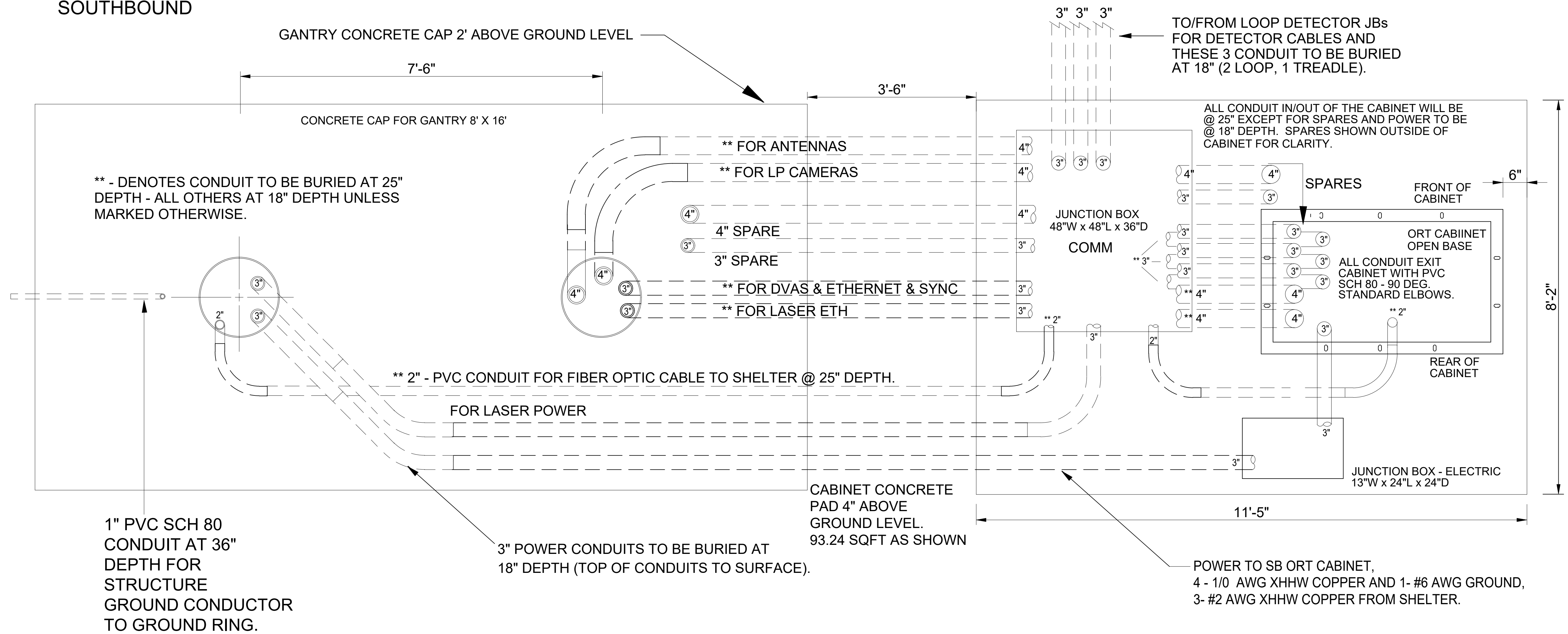
DATE
SHEET

DATE
SHEET

DRAFT

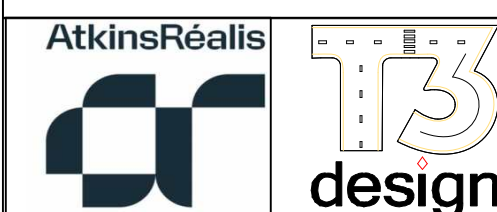


ROADWAY IS 8 FEET FROM THIS SIDE OF GANTRY CAP



NOT FOR CONSTRUCTION

DRAFT



NO.	DATE	BY	DESCRIPTION

RICHMOND METROPOLITAN TRANSPORTATION AUTHORITY
RMTA

DRAWN BY: COOPER
CHECKED BY:
APPROVED:

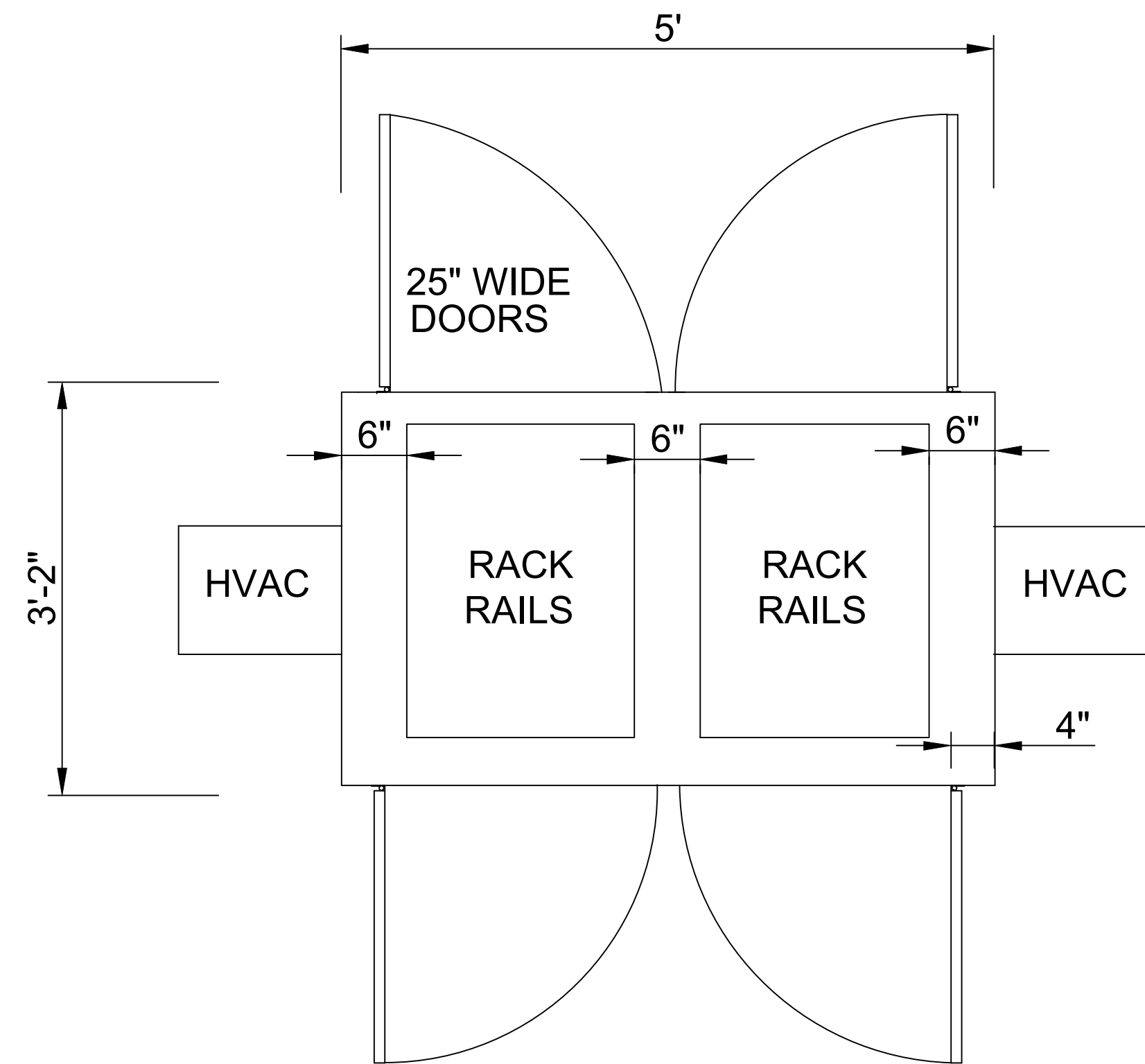
SCALE: N.T.S.

PROJECT: SB GANTRY CAP & ORT CABINET WITH CONDUITS & JUNCTION BOXES.

TITLE: SB GANTRY CAP & ORT CABINET WITH CONDUITS & JUNCTION BOXES.

NO.	DATE	DESCRIPTION

DRAFT

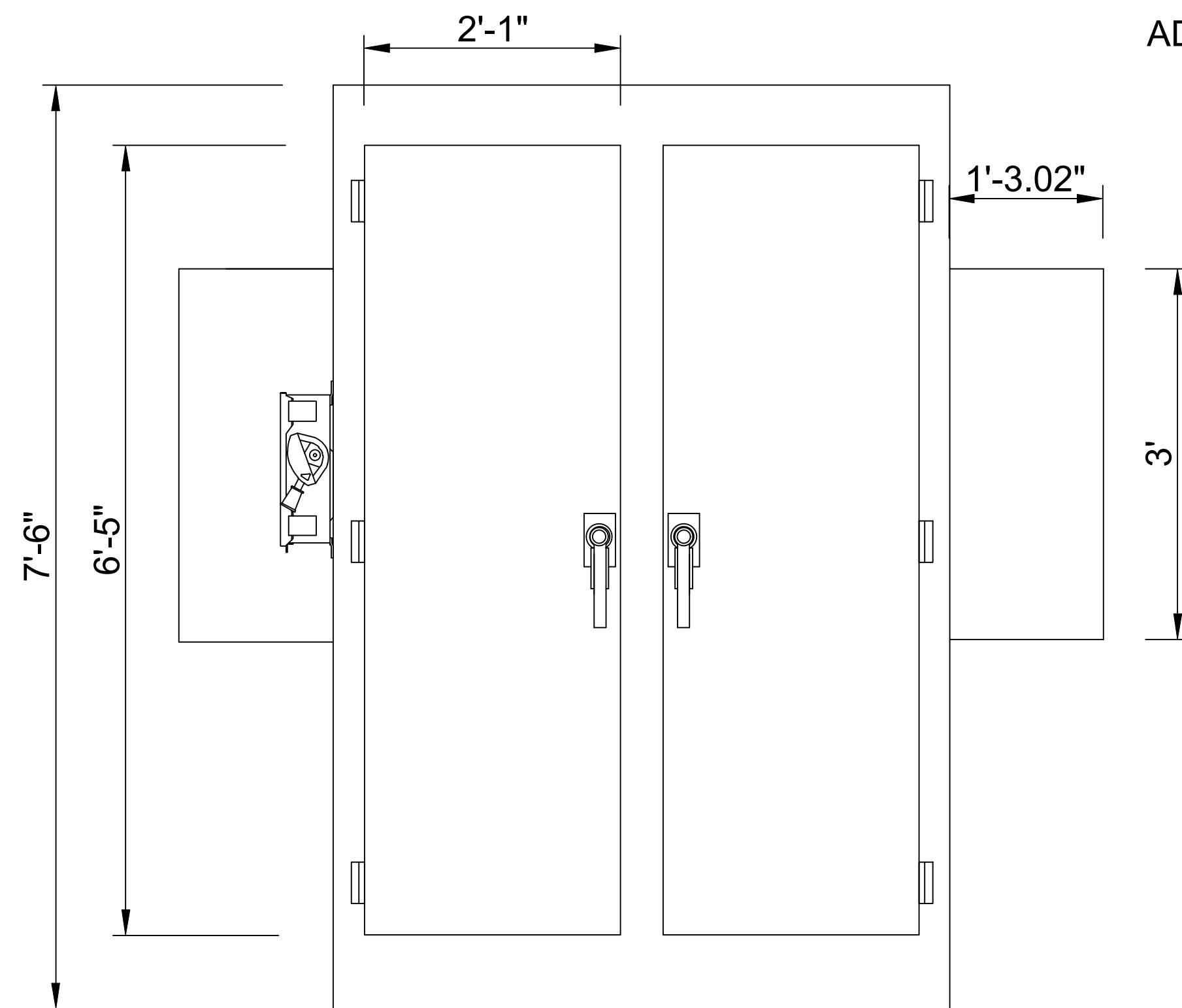


DOOR 25" WIDTH OPENING 24",
DOOR 77" HIGH OPENING 76".
DOOR OPENINGS ARE NOT SHOWN.

CABINET DOORS ARE 1" IN DEPTH AND CABINET
BODY IS 36" DEPTH, EQUALING 38" TOTAL.
HVAC SHOWN THERMAL EDGE NE08023604, 15.02" W
x 11.8" D x 36" H.
42 RU RACK RAILS (EIA-310) INTERNAL.

HVAC UNIT MOUNTED EACH END WILL MAKE USE OF
CABINET MOUNTED LEAD/LAG CONTROLLER

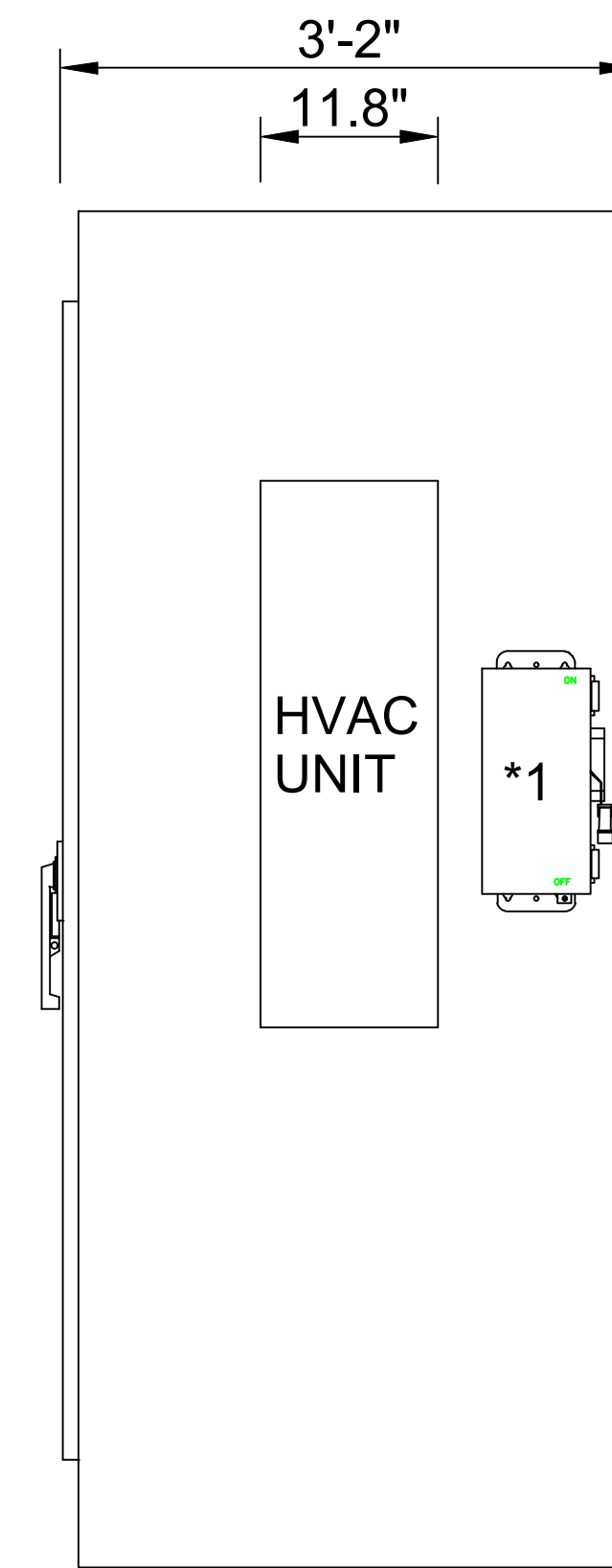
CABINET IS NEMA 4X - 0.125" ALLUMINUM POWDER COATED BEIGE
ADD 1" TO HEIGHT FOR SUN SHIELD



FRONT VIEW - DOOR WIDTH 26"

*1 - SE VH221NDSGL FUSED
DISCONNECT SWITCH TO
BE PROVIDED AND INSTALLED
BY OTHERS. INSTALLED WITH
TWO 30 AMP CLASS H FUSES.

HVAC UNIT MOUNTED
EACH END.

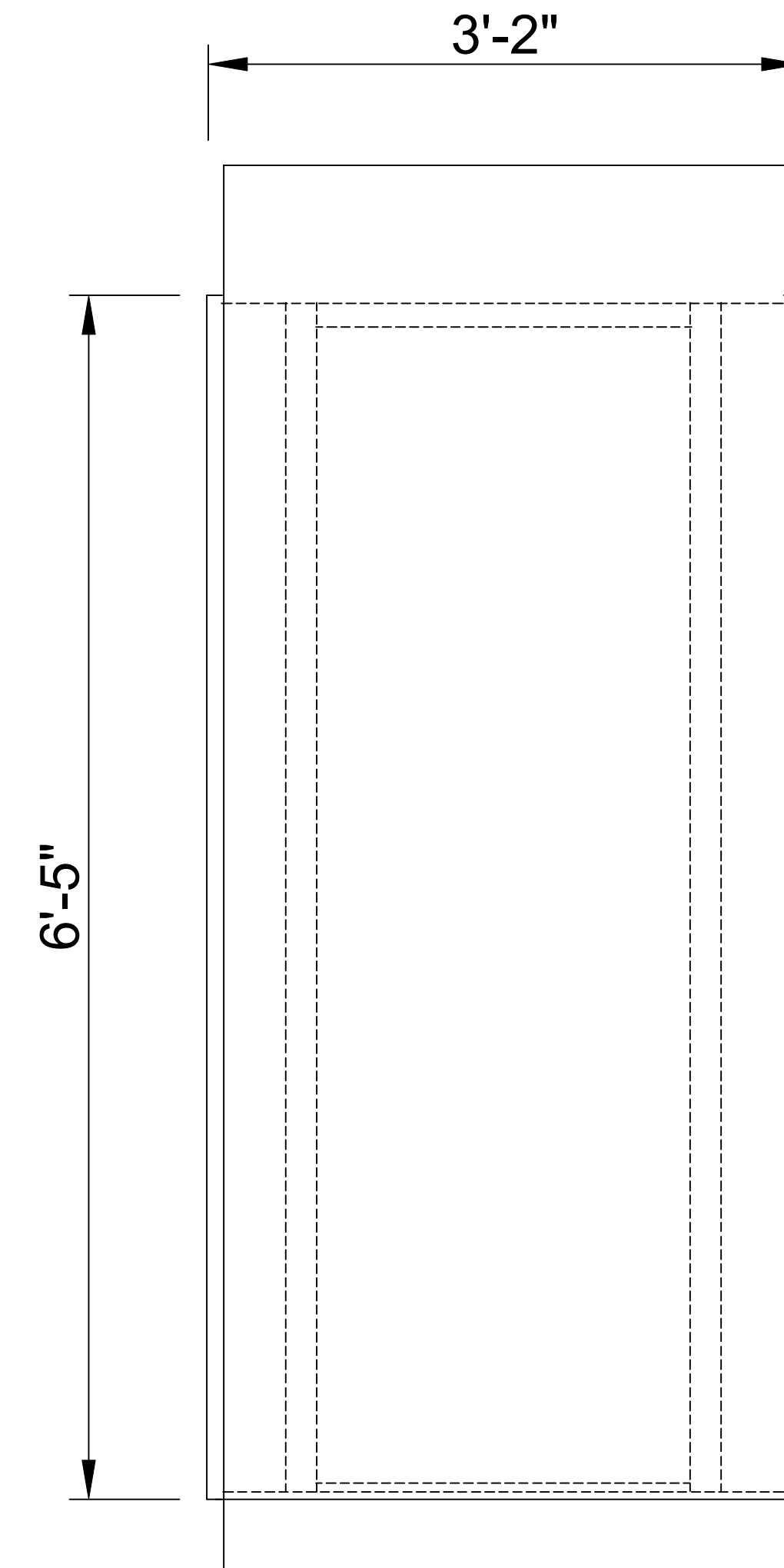
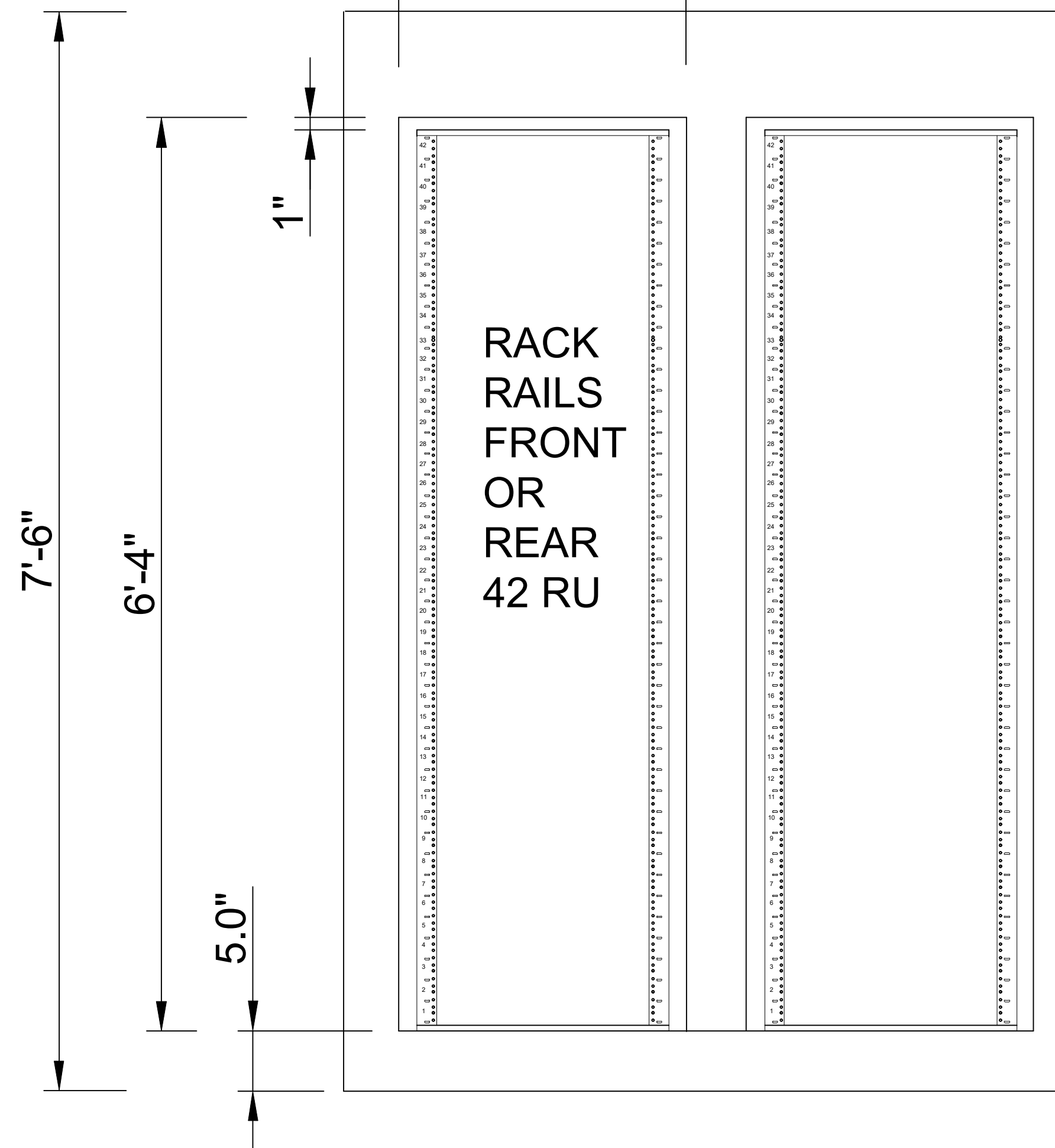
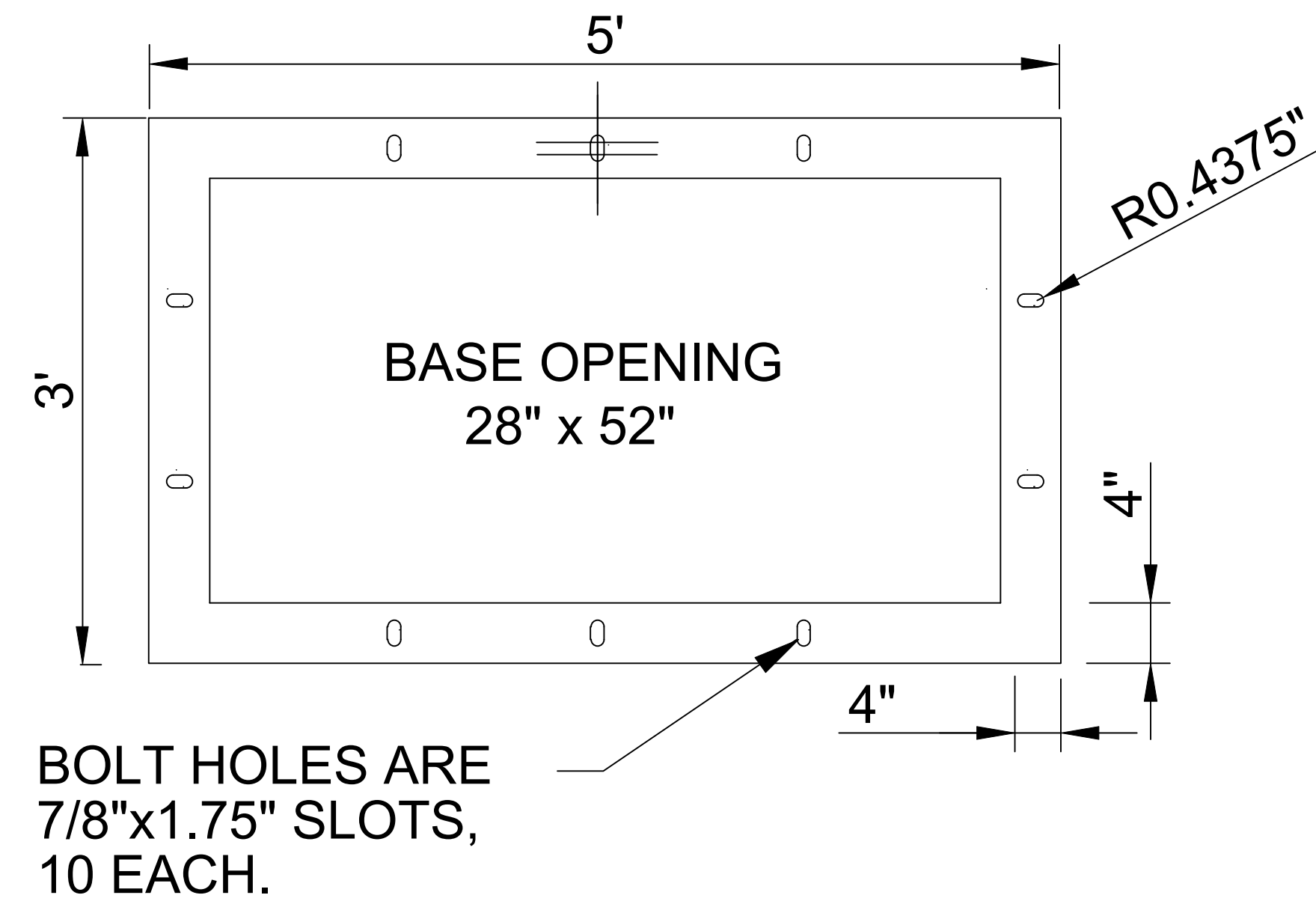
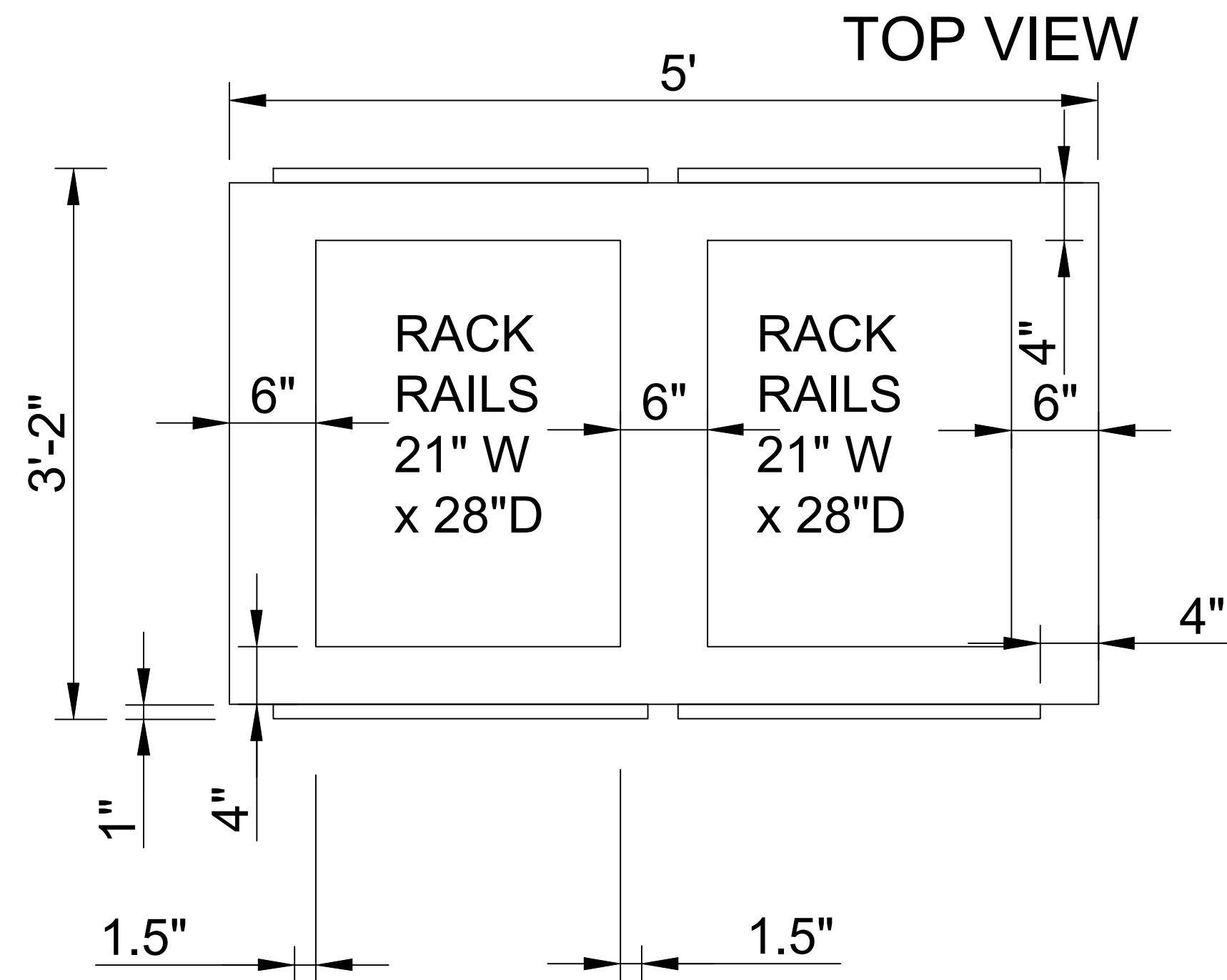


RIGHT END VIEW

DRAFT

REV	DATE	BY	DESCRIPTION

DRAFT



DOOR 25" WIDTH OPENING 24",
DOOR 77" HIGH OPENING 76".
DOORS ARE NOT SHOWN.

FRONT VIEW

END VIEW

DRAFT

ID	DATE	BY	DESCRIPTION

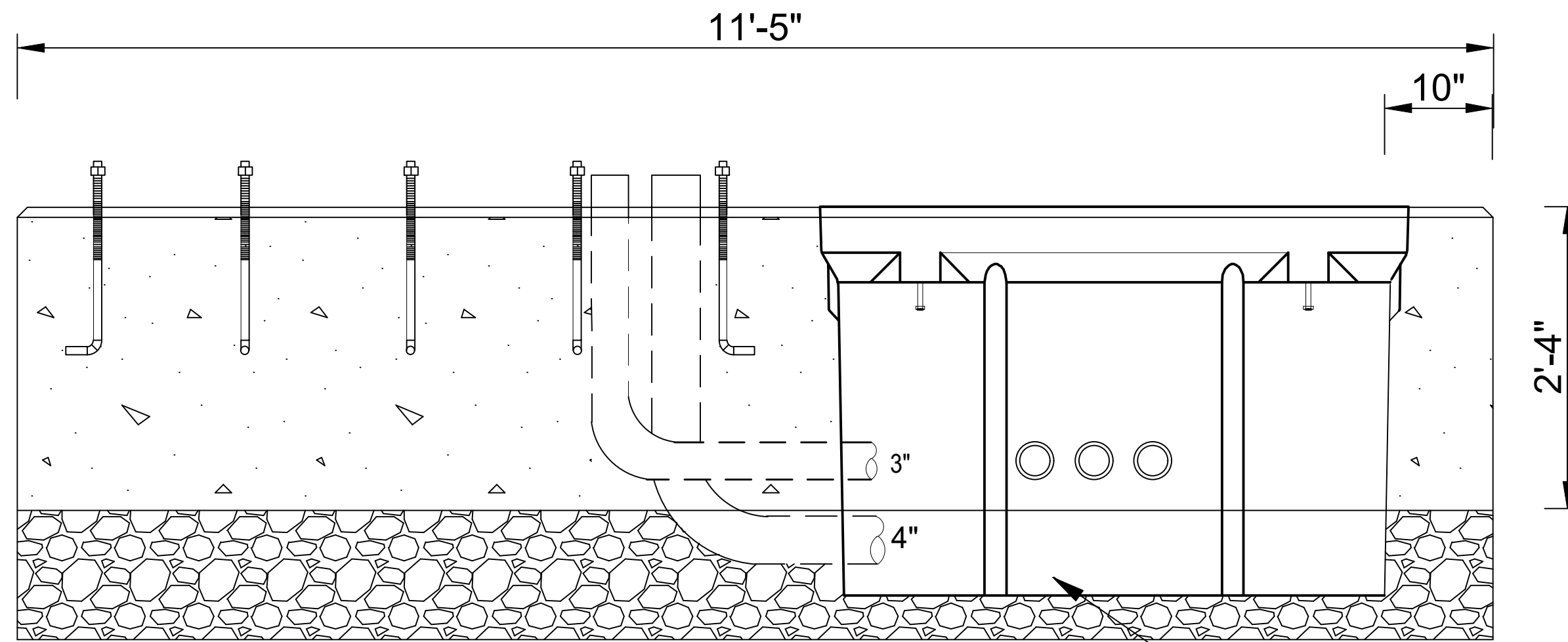
DRAFT

TOP VIEW - REFER TO NB_GANTRY-CAP_ORT-CABINET_CONDUITS_JBs (date).DWG
OR SB_GANTRY-CAP_ORT-CABINET_CONDUITS_JBs (date).DWG

ANCHOR BOLTS: L HOOK ANCHOR, 0.625 IN. DIA, HOT DIP GAL.,
18 IN BODY LG, 5/8"-11 THREAD SIZE, STEEL, 3 IN HOOK

NOT ALL CONDUIT SHOWN

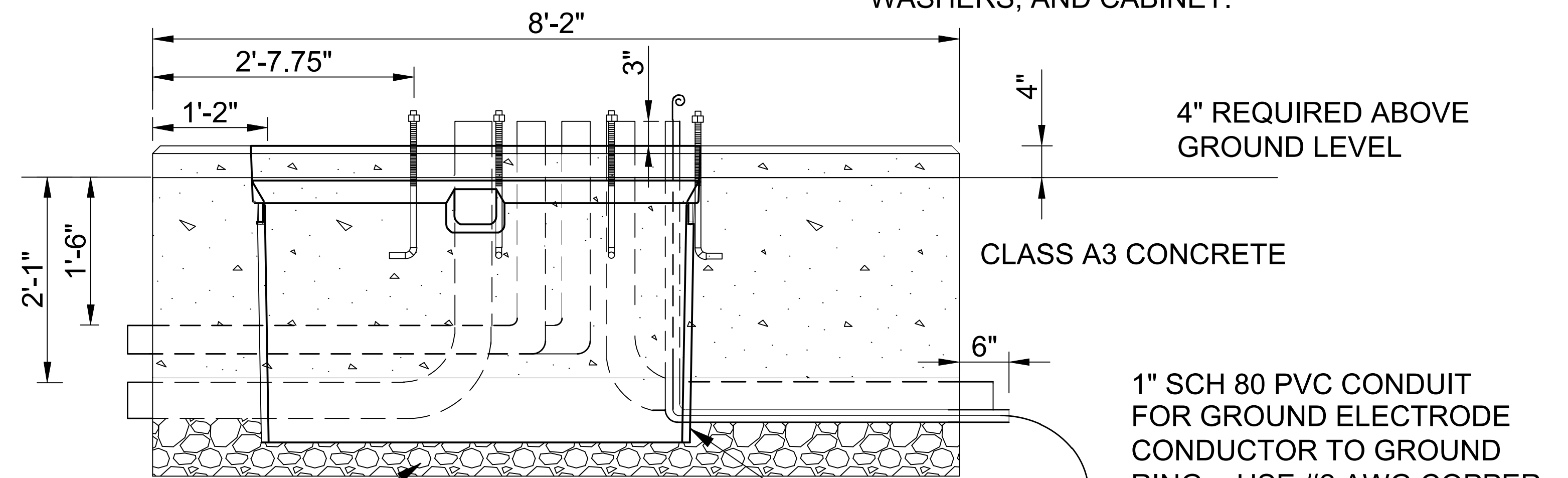
THE ANCHOR BOLTS SHALL BE
EXTENDED 1/4" TO 3/4" ABOVE
THE TOP OF THE NUT AFTER
INSTALLATION OF THE NUTS,
WASHERS, AND CABINET.



NOT ALL GRAVEL OR
CONCRETE SHOWN
FOR CLARITY.

FRONT VIEW

HAND HOLE (JB)
48" x 48" x 36" DEEP
ACTUAL SIZE IS
50.25" x 50.25" x 36" DEEP
QUAZITE PG4848BA36 OR
APPROVED EQUAL.



BACKFILL WITH
NO. 25 OR 26 AGGR. TO
12" BELOW FOUNDATION.

END VIEW

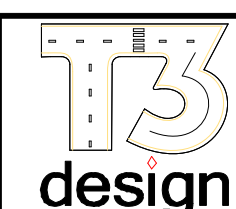
HAND HOLE (JB)
48" x 48" x 36" DEEP

4" REQUIRED ABOVE
GROUND LEVEL

CLASS A3 CONCRETE

1" SCH 80 PVC CONDUIT
FOR GROUND ELECTRODE
CONDUCTOR TO GROUND
RING - USE #2 AWG COPPER

DRAFT



ID	DATE	BY	DESCRIPTION

**RICHMOND METROPOLITAN
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APPROVED BY

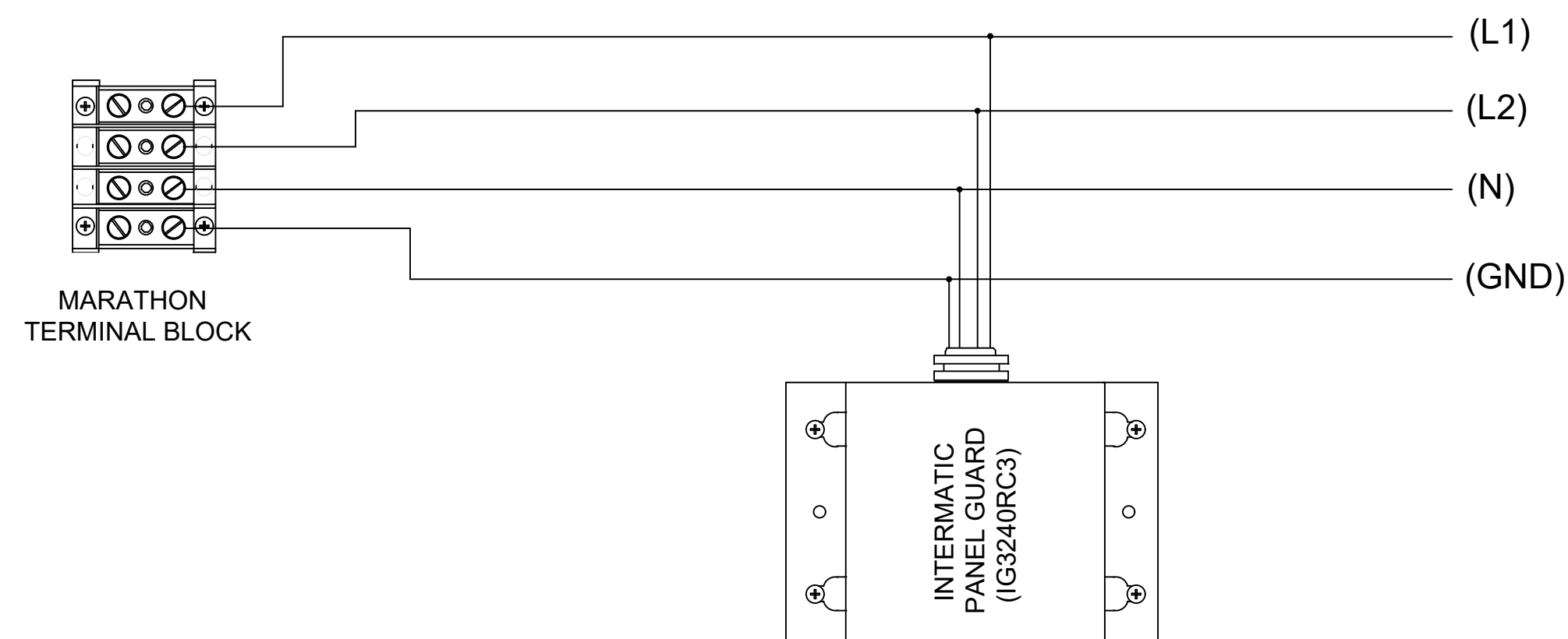
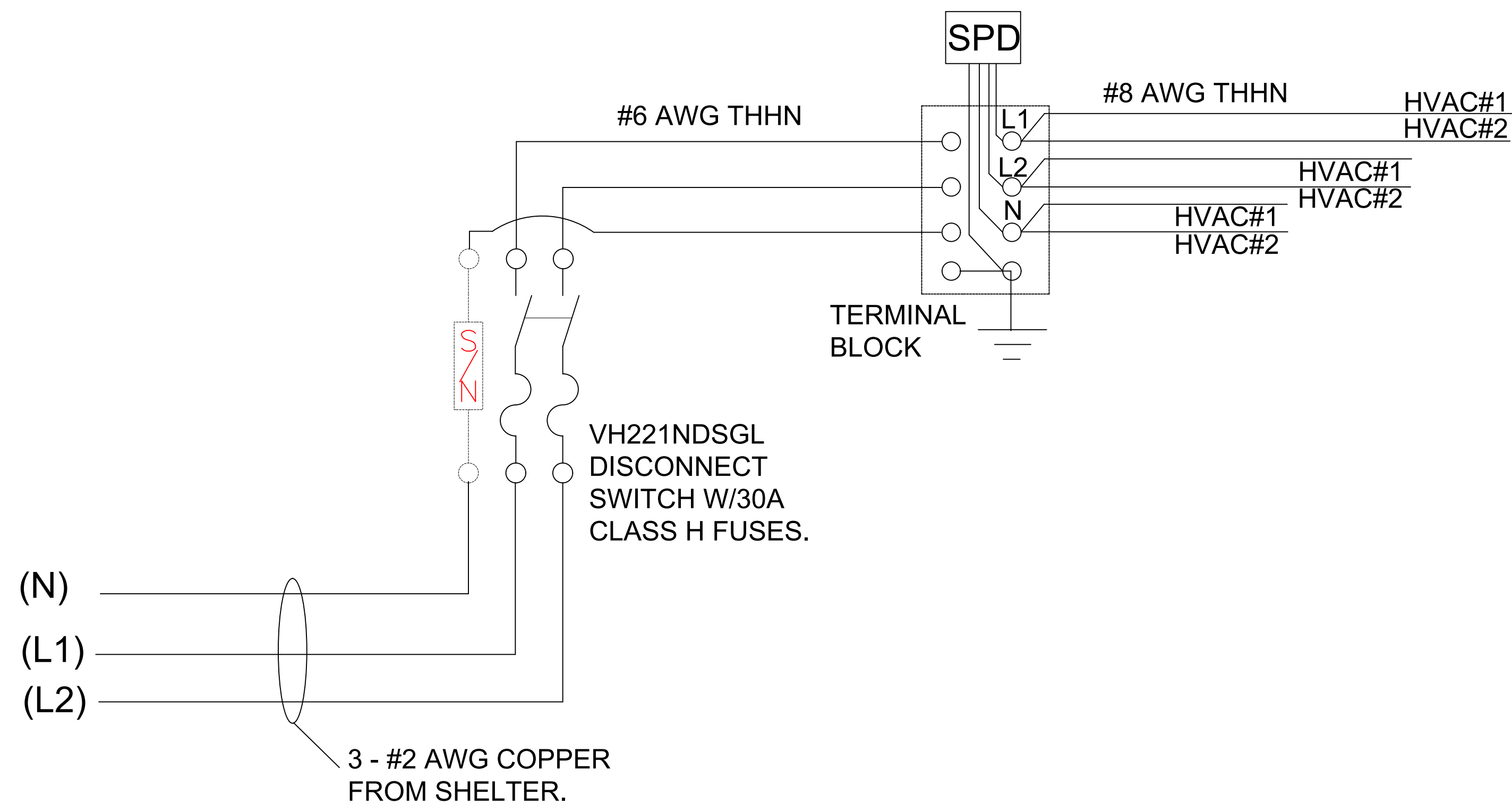
SCALE
N.T.S

TITLE

OPEN ROAD TOLLING (ORT) CABINET
FOUNDATION WITH HAND HOLE AND
CONDUIT.

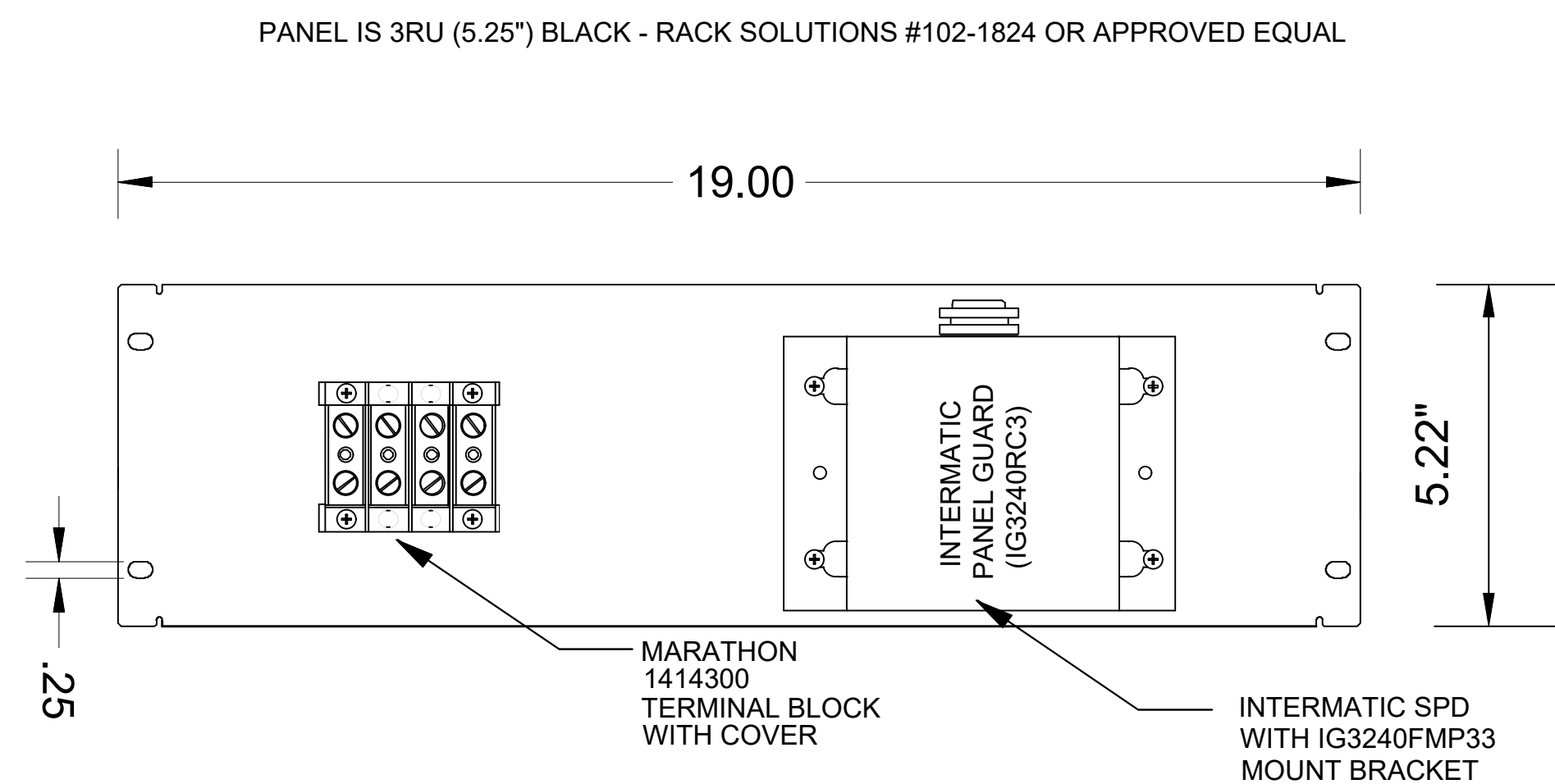
DOC NO.	DATE	REVISION

DRAFT



DETAIL A - ELECTRICAL SCHEMATIC

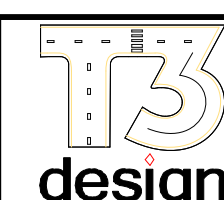
INSTALLER TO USE PARTS SHOWN OR APPROVED EQUALS.



DETAIL B - PHYSICAL LAYOUT

INSTALLER TO USE PARTS SHOWN OR APPROVED EQUALS.

DRAFT



NO.	DATE	BY	DESCRIPTION

RICHMOND METROPOLITAN TRANSPORTATION AUTHORITY RMTA

DESIGNED BY	
CHECKED BY	
APPROVED BY	

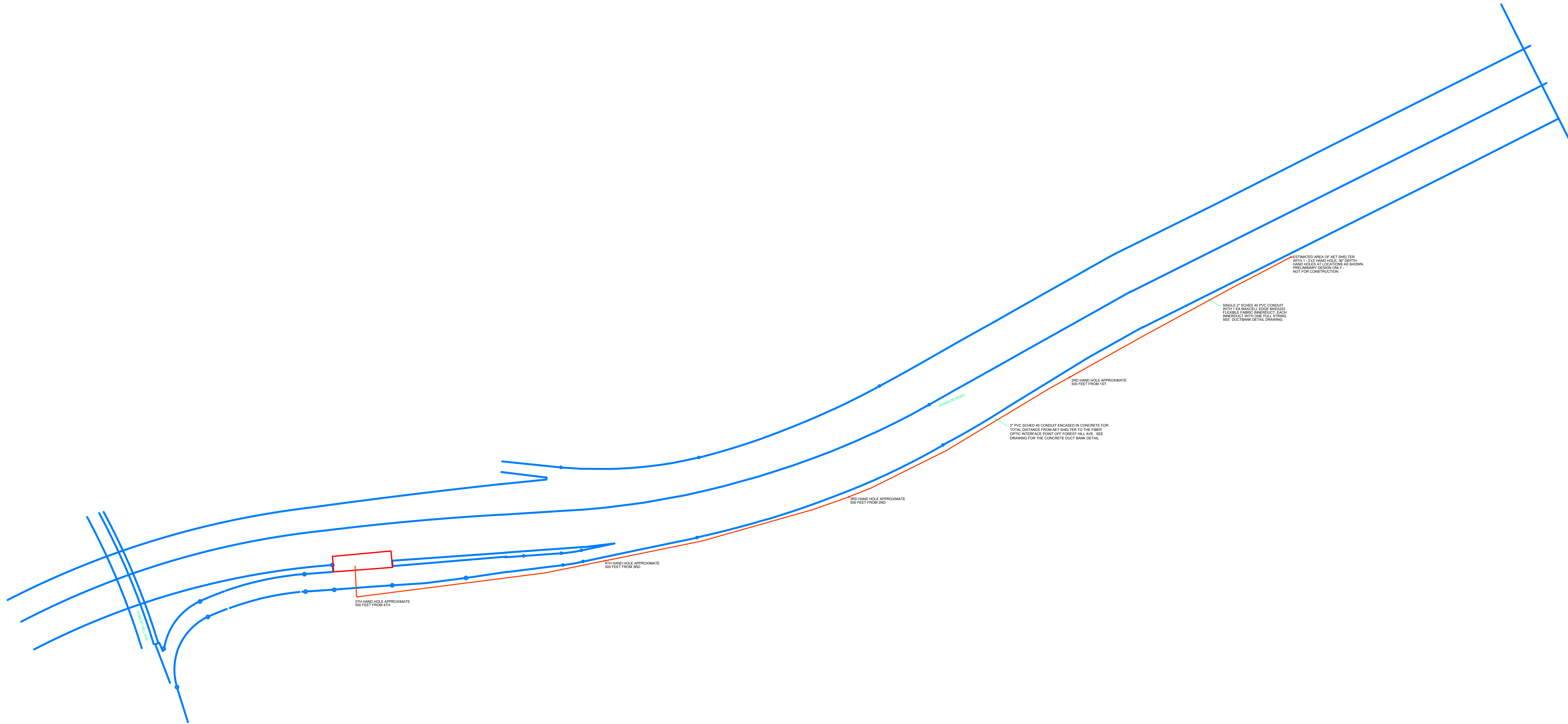
SCALE: N.T.S

TITLE	
TOTAL	

ROADSIDE CABINET 240VAC HVAC CIRCUIT PROTECTION - SCHEMATIC & PANEL PHYSICAL LAYOUT.

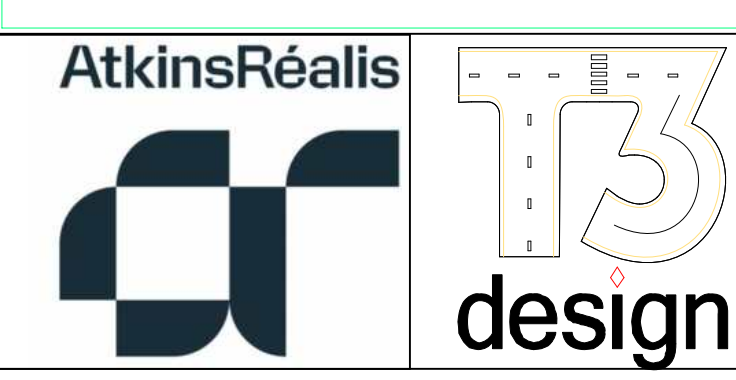
DOC NO		DATE	
REV NO		SHEET	

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DRAFT

DRAFT



ID	DATE	BY	DESCRIPTION

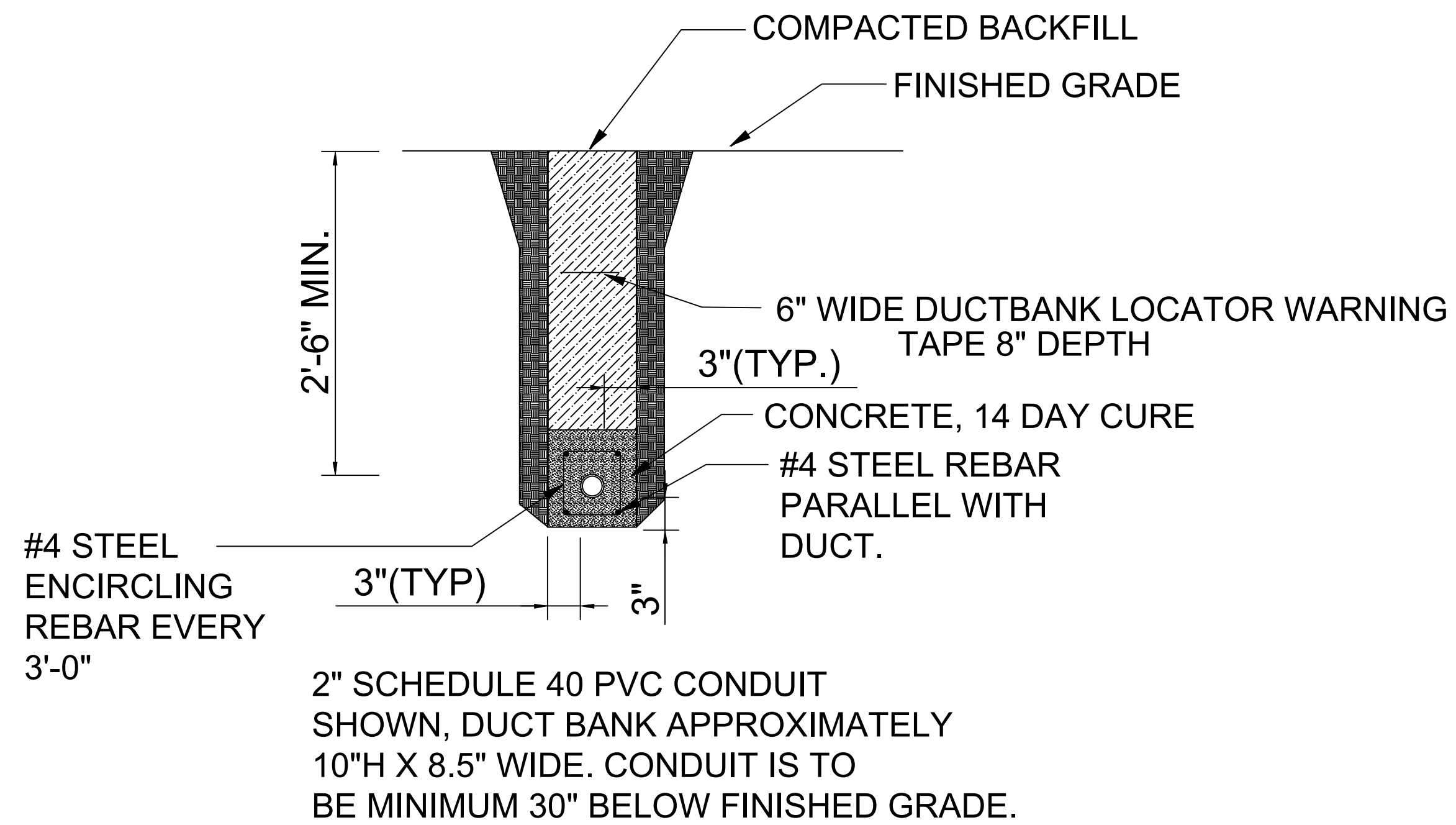
PROJECT
**RICHMOND METROPOLITAN
 TRANSPORTATION AUTHORITY
 RMTA**

SCALE
N.T.S.

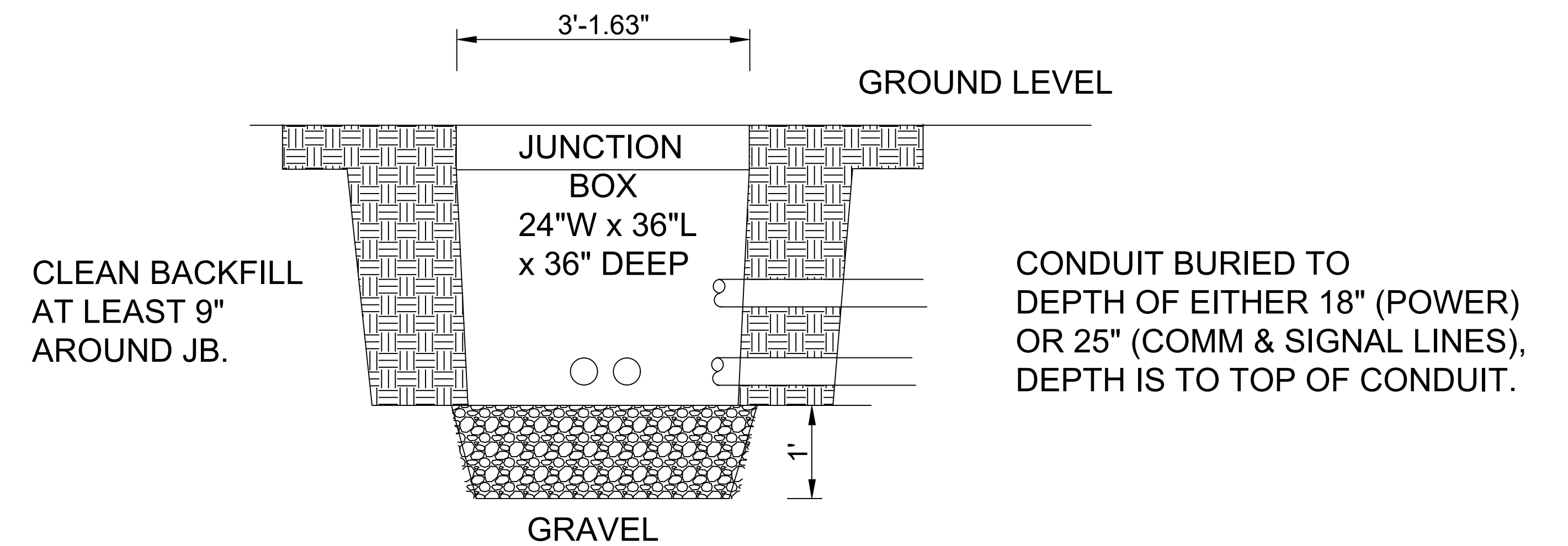
TITLE
**COMM DUCT BANK FOR FIBER
 OPTIC CABLE ALONG ROAD
 WAY TO AET SHELTER**

DOC NO	DATE	DRAWN BY
REV NO	DATE	DESCRIPTION

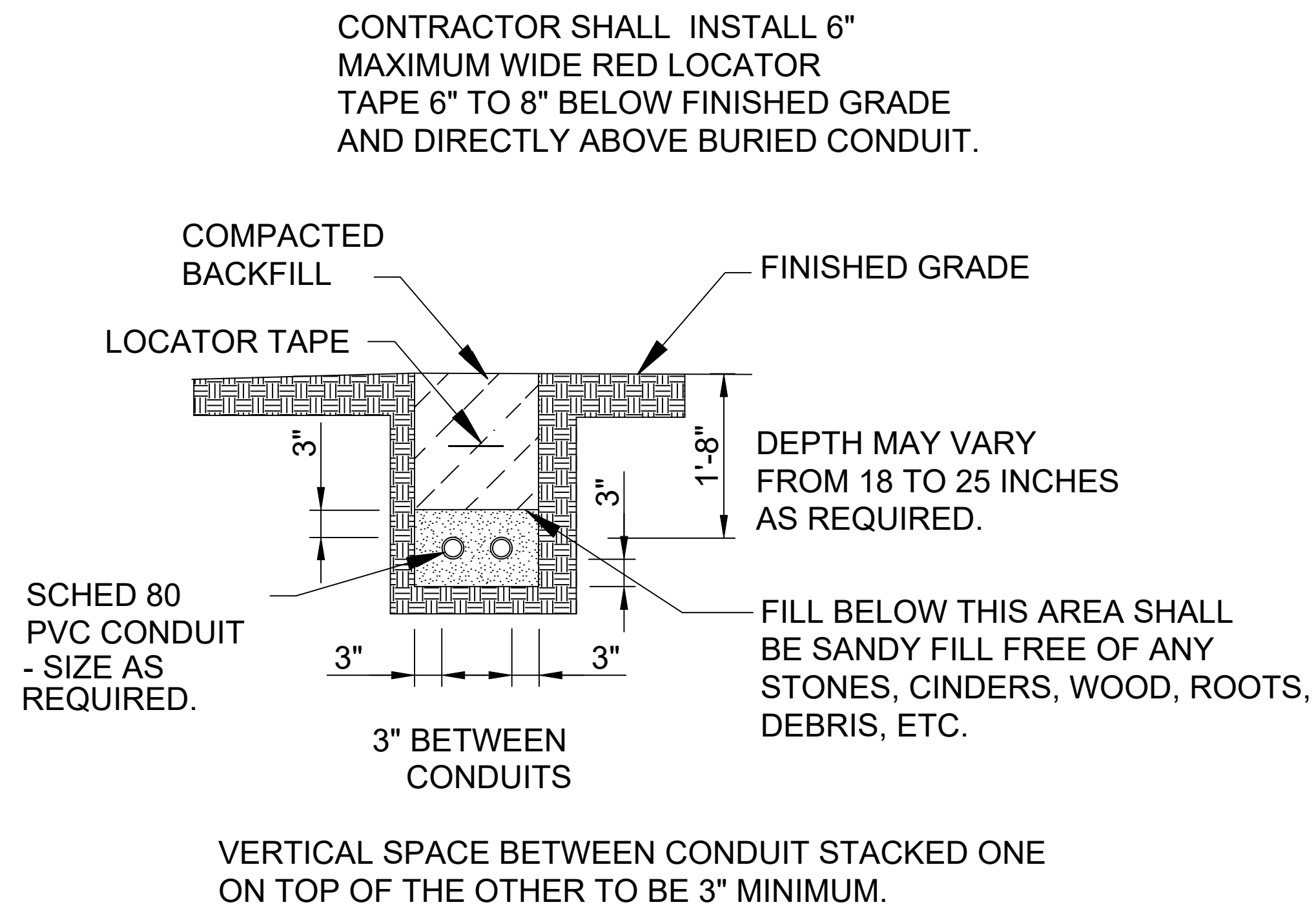
DRAFT



TYPICAL CONCRETE ENCASED COMMUNICATION DUCT BANK - N.T.S.



TYPICAL - POLYMER CONCRETE HAND HOLE WITH LID, QUAZITE PG2436BA36 OR APPROVED EQUAL.



VERTICAL SPACE BETWEEN CONDUIT STACKED ONE ON TOP OF THE OTHER TO BE 3\"/>

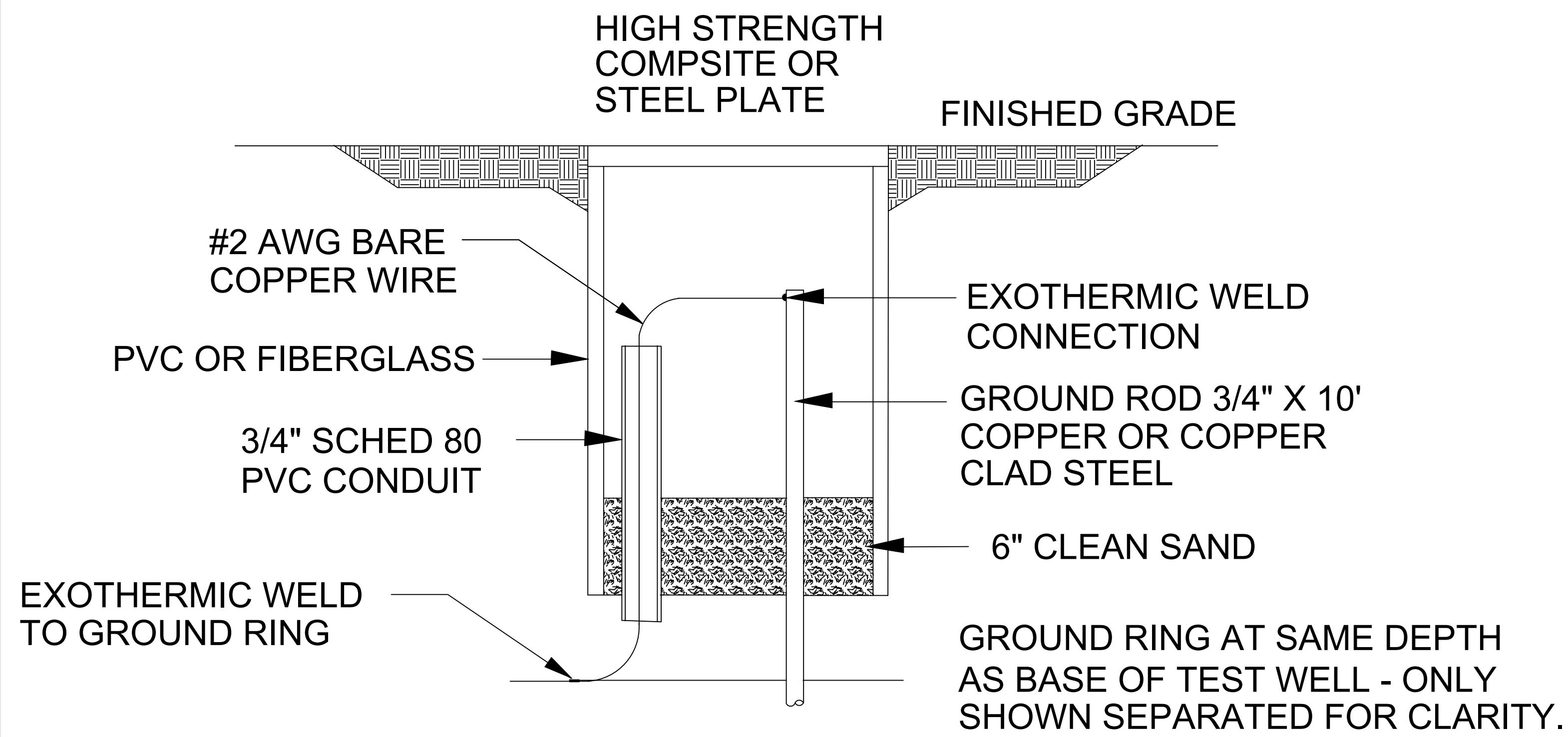
NOT FOR CONSTRUCTION

DRAFT

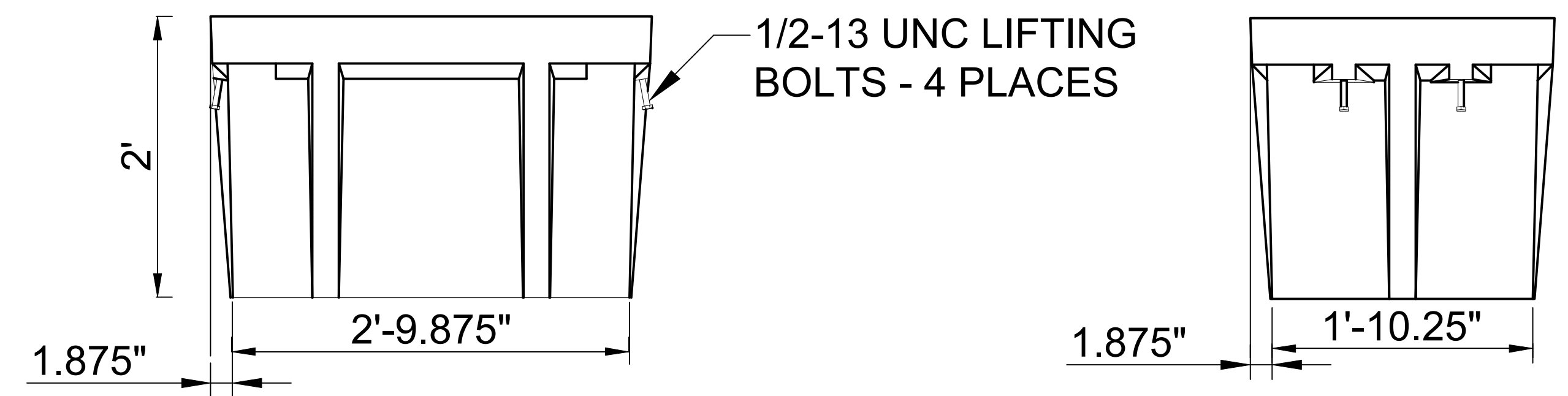
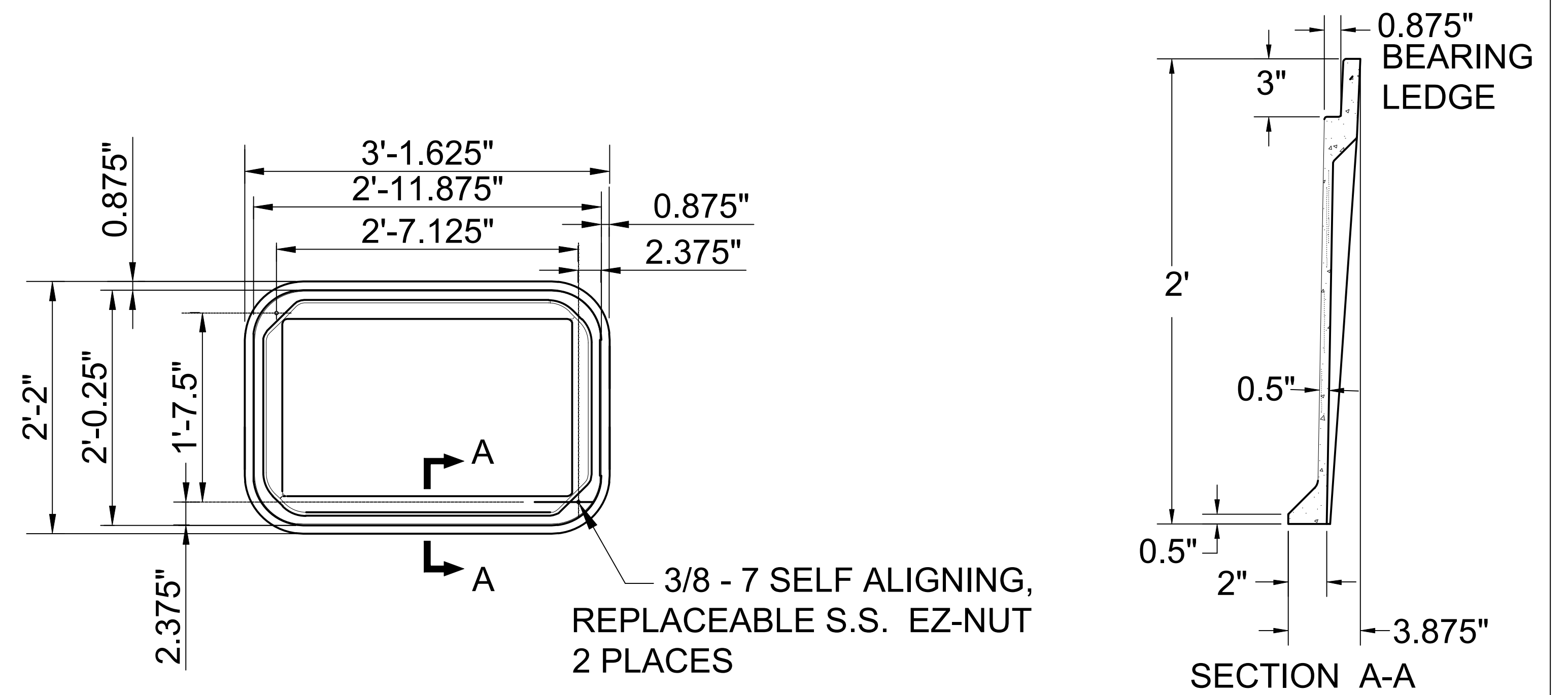
ID	DATE	BY	DESCRIPTION

DRAWN BY CODRFFEE	SCALE	TITLE
CHECKED BY		
APPROVED		

DRAFT

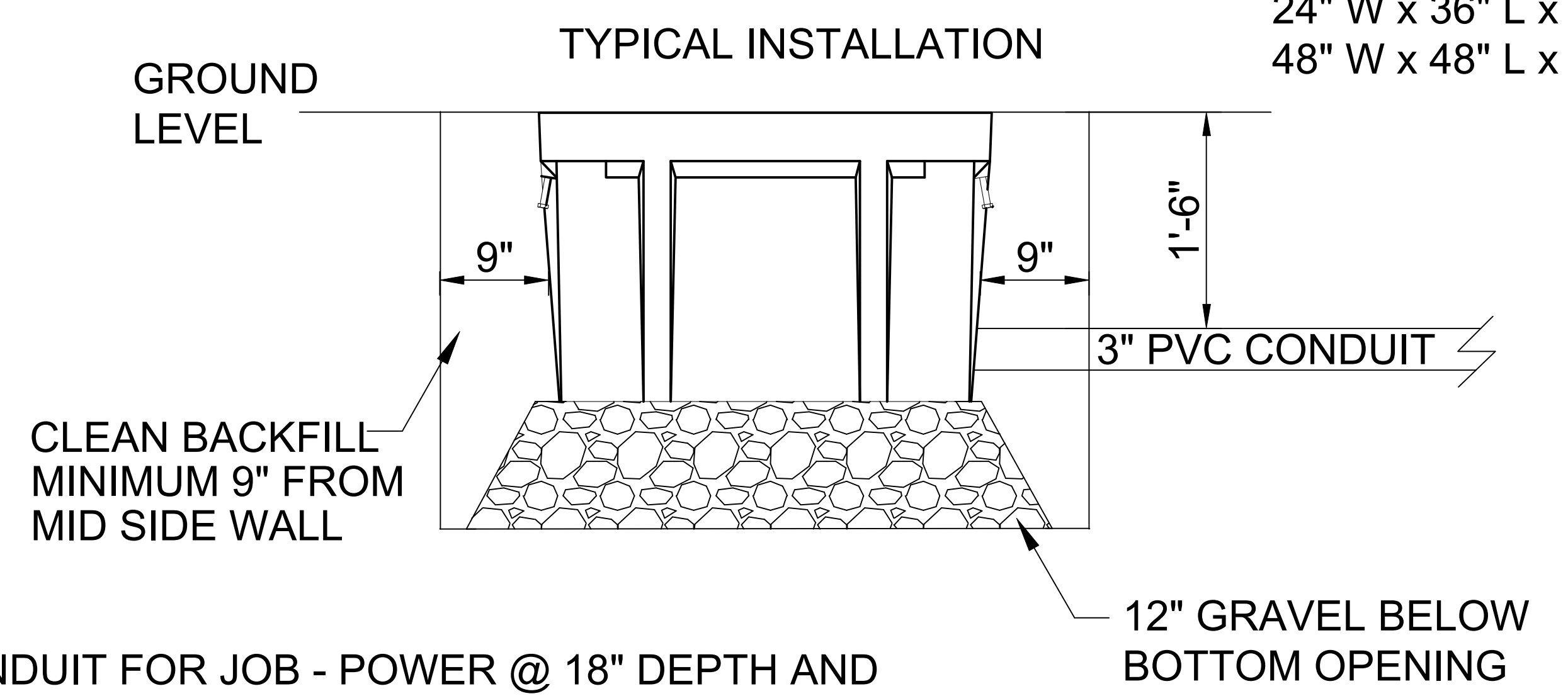


DETAIL A - 24" W x 36" D GROUND TEST WELL
N.T.S.



HAND HOLE - QUAZITE PG2436BA24 SHOWN

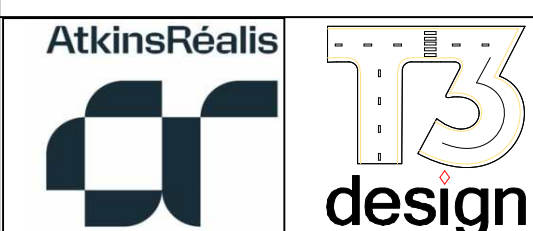
HAND HOLES FOR JOB
13" W x 24" L x 24" DEEP
24" W x 36" L x 24" DEEP
24" W x 36" L x 36" DEEP
48" W x 48" L x 36" DEEP



ALL CONDUIT FOR JOB - POWER @ 18" DEPTH AND
ALL SIGNAL CONDUIT @ 25" DEPTH UNLESS
NOTED OTHERWISE.

DETAIL B - HAND HOLE TYPICAL
N.T.S.

DRAFT



NO.	DATE	BY	DESCRIPTION

**RICHMOND METROPOLITAN
TRANSPORTATION AUTHORITY
RMTA**

DESIGNED BY
CHECKED BY
APPROVED

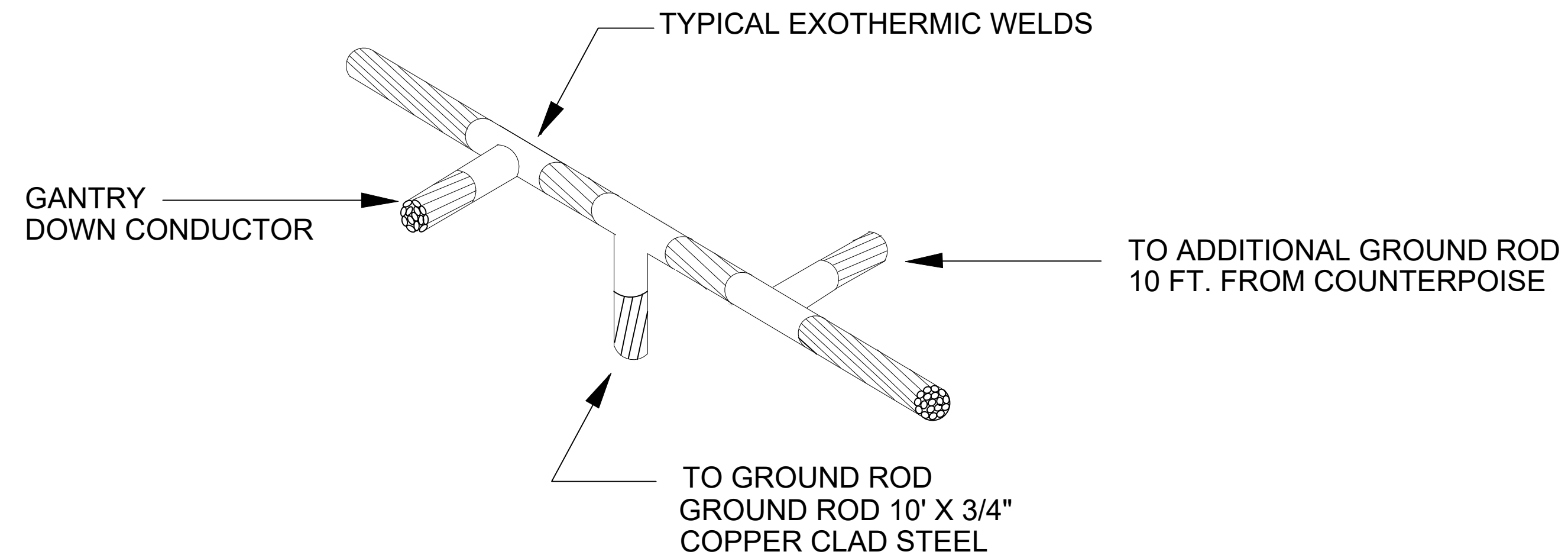
SCALE: N.T.S.
TITLE: GROUND TEST WELL DETAIL AND
HAND HOLE TYPICAL DETAIL

NO.	DATE	BY	DESCRIPTION

DRAFT

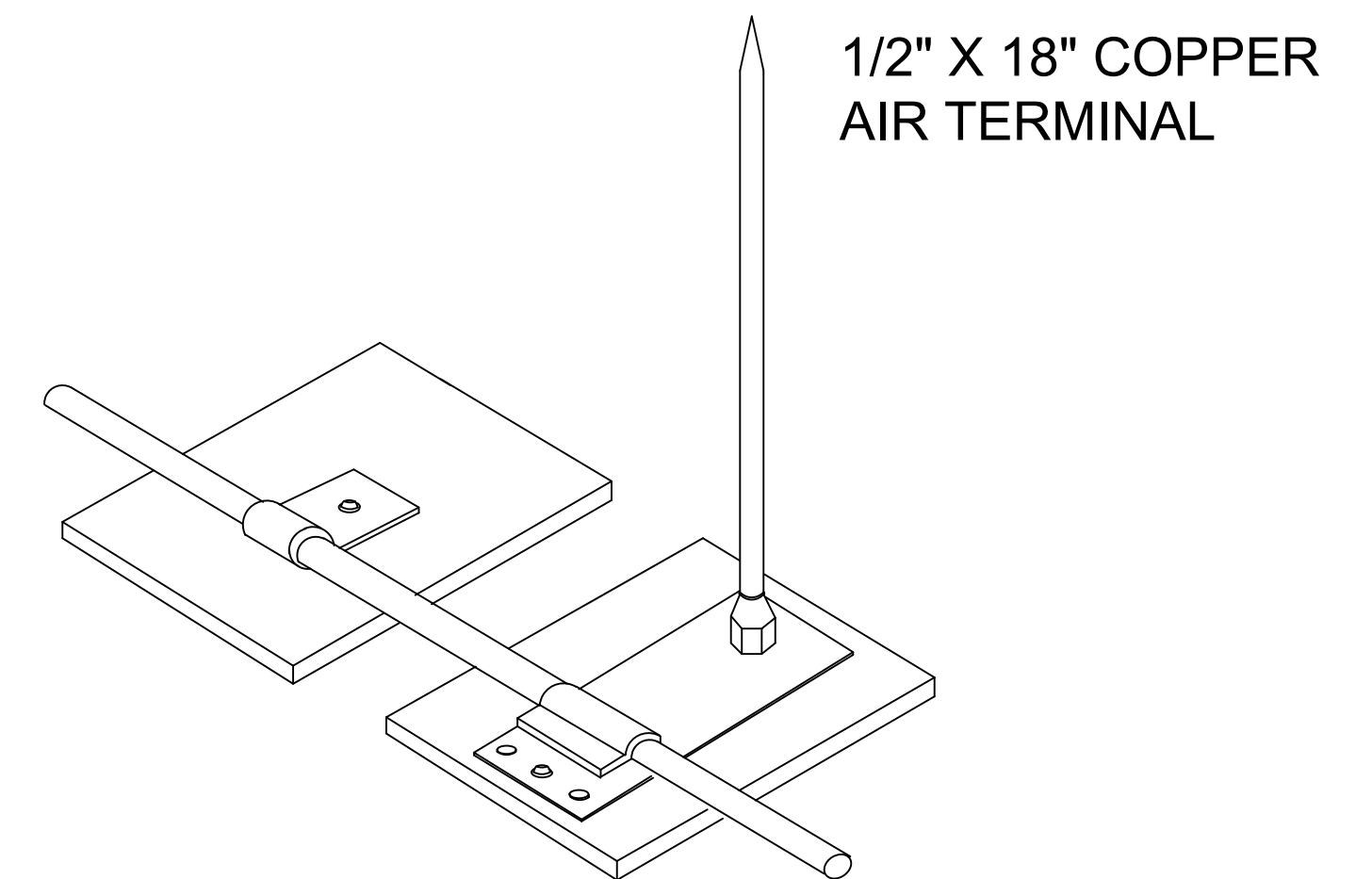
SITE COUNTERPOISE (GROUND RING)

ALL CONNECTIONS TO COUNTERPOISE OR GROUND RODS SHALL BE EXOTHERMIC WELDED.



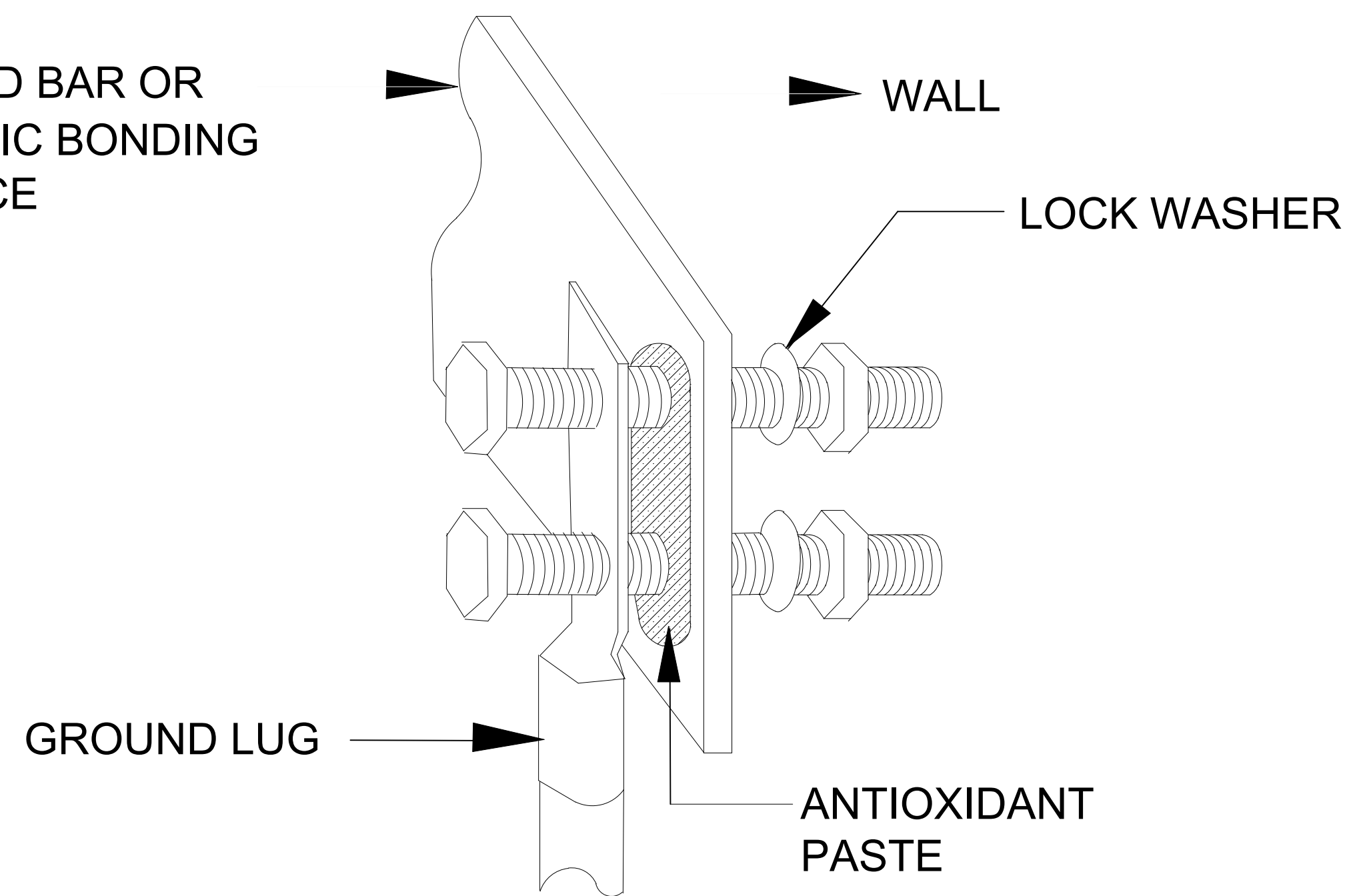
DETAIL "A" - GROUND TERMINATION TO COUNTERPOISE
N.T.S.

MAIN LIGHTNING CONDUCTOR #2 AWG COPPER, STRANDED & JACKETED.

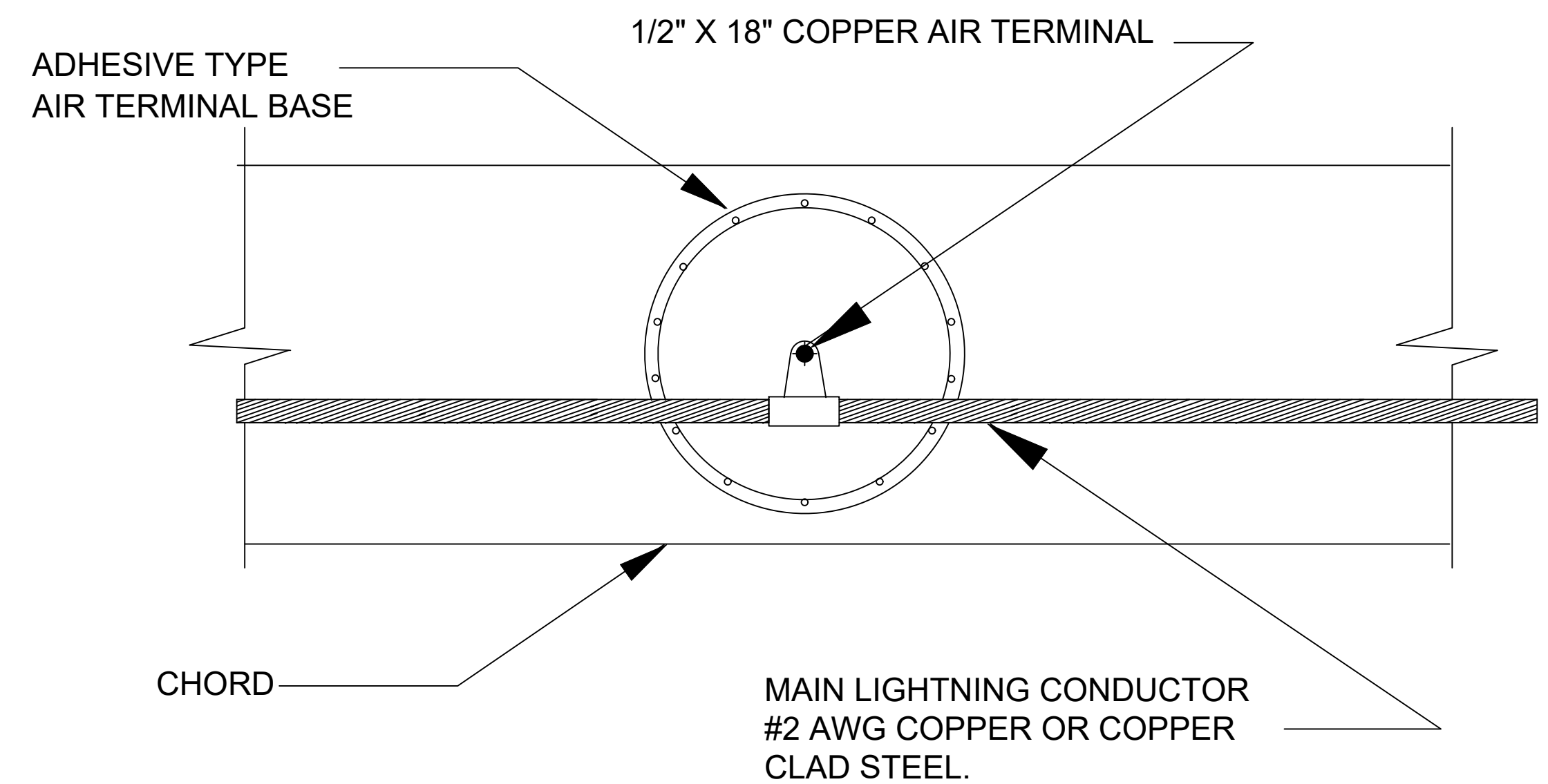


DETAIL "B" - ROOF TOP MOUNT AIR TERMINAL
N.T.S.

GROUND BAR OR METALLIC BONDING SURFACE



DETAIL "C" - PROPER CONNECTION TO GROUND BAR AND WASHER LOCATION
N.T.S.



DETAIL "D" - LIGHTNING AIR TERMINAL ON GANTRY CORD
N.T.S.

DRAFT

NO.	DATE	BY	DESCRIPTION