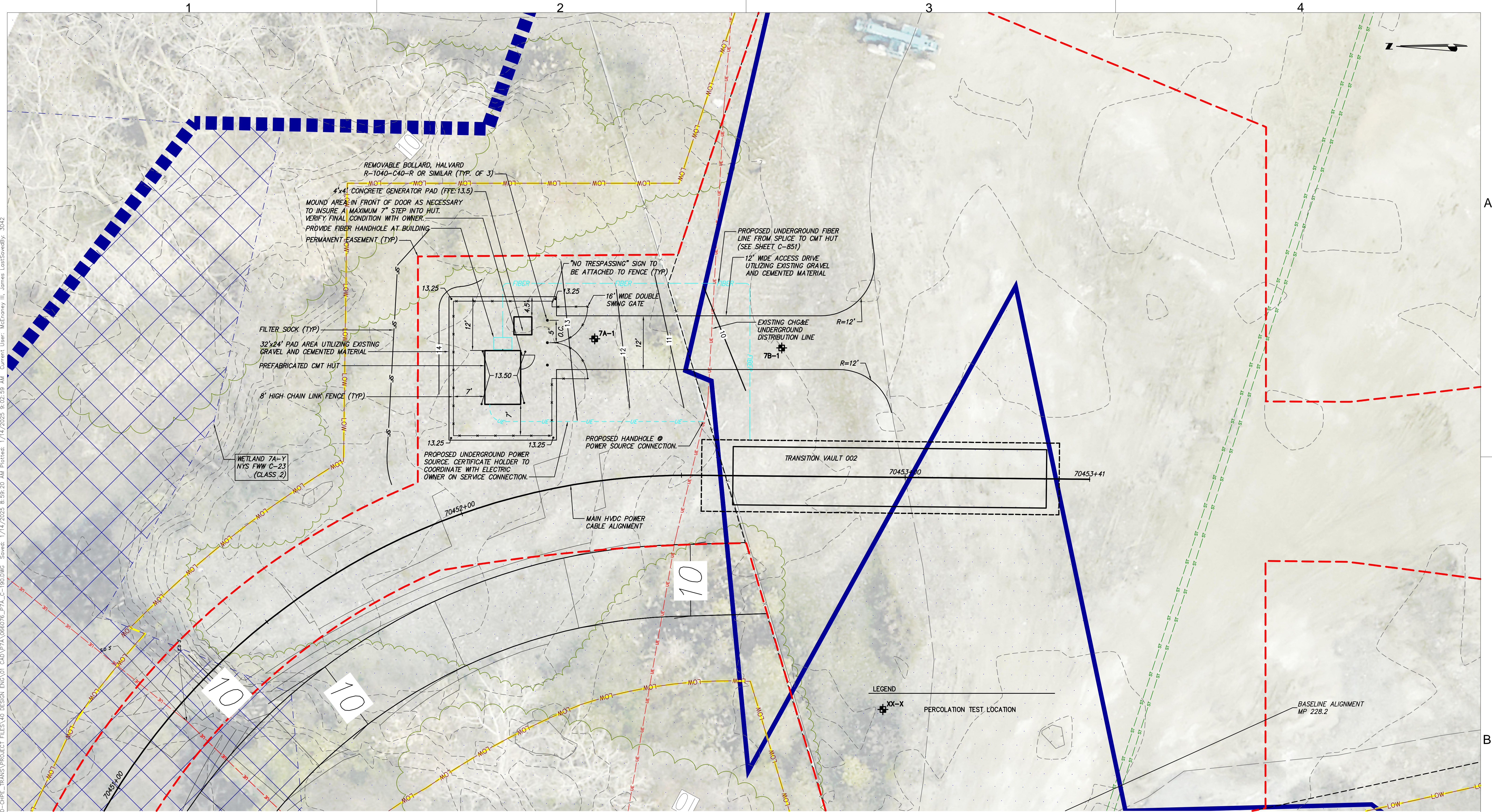



CMT HUT #2 CIVIL PLAN  
SCALE: 1" = 10'






CMT HUT #3 CIVIL PLAN  
SCALE: 1" = 10'



**CHPE**  
Champlain Hudson  
Power Express


PROJECT NO.: 21162



**Kiewit**

PROJECT NO.: 120174

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**CH2M**

III Winners Circle, PO Box 5269  
Albany, NY 12205-0269  
518.453.4500 ~ www.ch2m.com

ALTERED ON:

AFFIXED ON: 01/13/2025



STATE OF NEW YORK  
JOSEPH ROMANO  
LICENSED PROFESSIONAL ENGINEER  
081993

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No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP
0	01/13/2025	NDC-0087: ISSUED FOR CONSTRUCTION SUBMISSION	JM	JR

**CHAMPLAIN HUDSON POWER EXPRESS**  
SEGMENT 11 (PACKAGE 7A) - CSX: CATSKILL

**CMT HUT #3 CIVIL PLAN**  
TOWN OF CATSKILL

DRAWN BY: JTM  
DESIGNED BY: JTM  
APPROVED BY: JPR

SCALE AS SHOWN  
DATE: 06/19/2023  
2

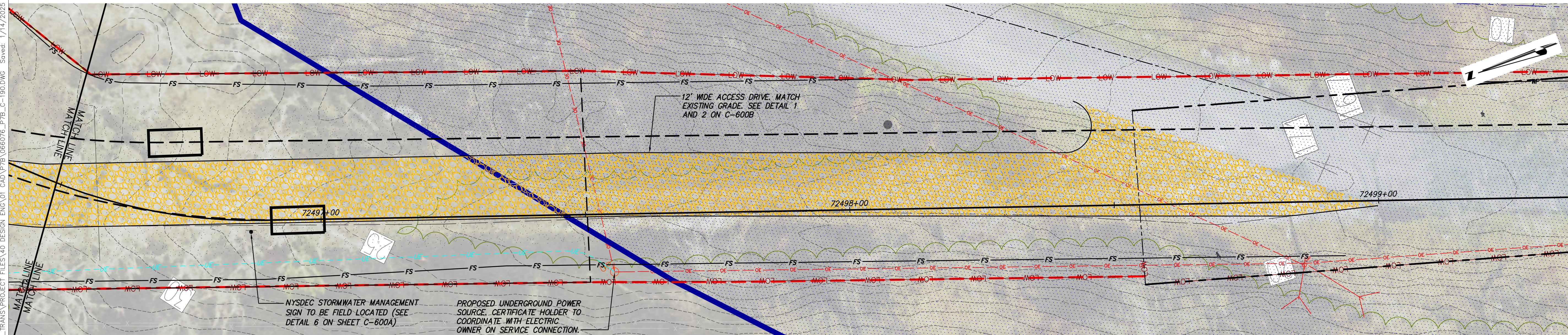
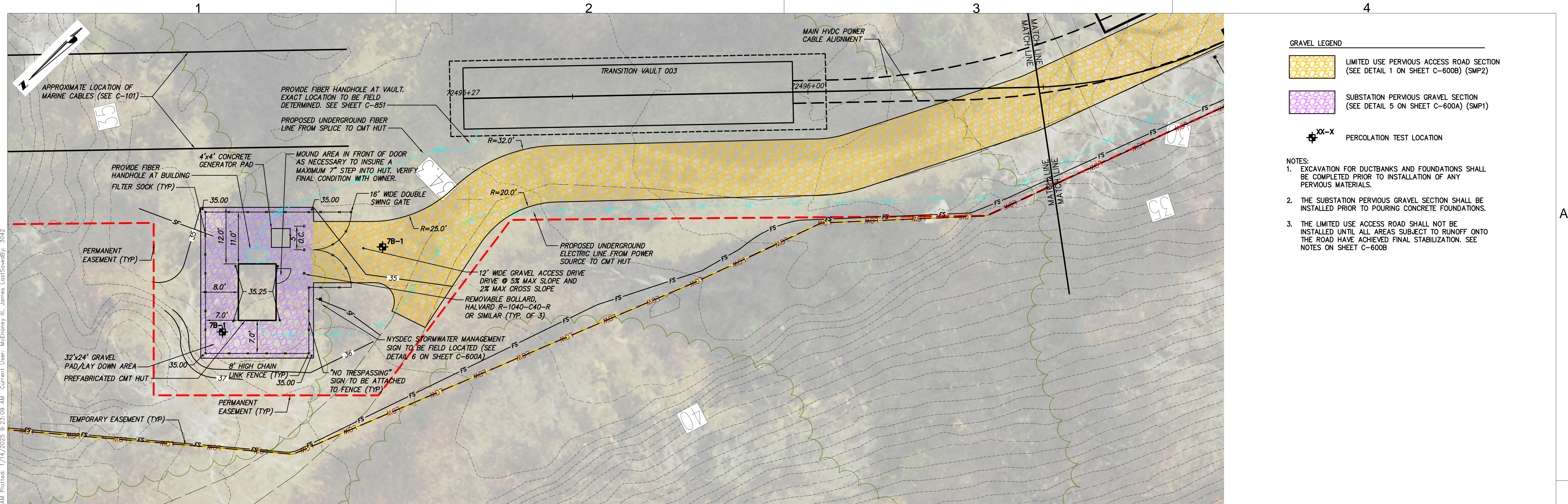
PERMIT DRAWING NO.

**C-190**

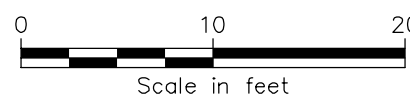
DRAWING NO.






**C-190**





CMT HUT #4 CIVIL PLAN  
SCALE: 1" = 10'

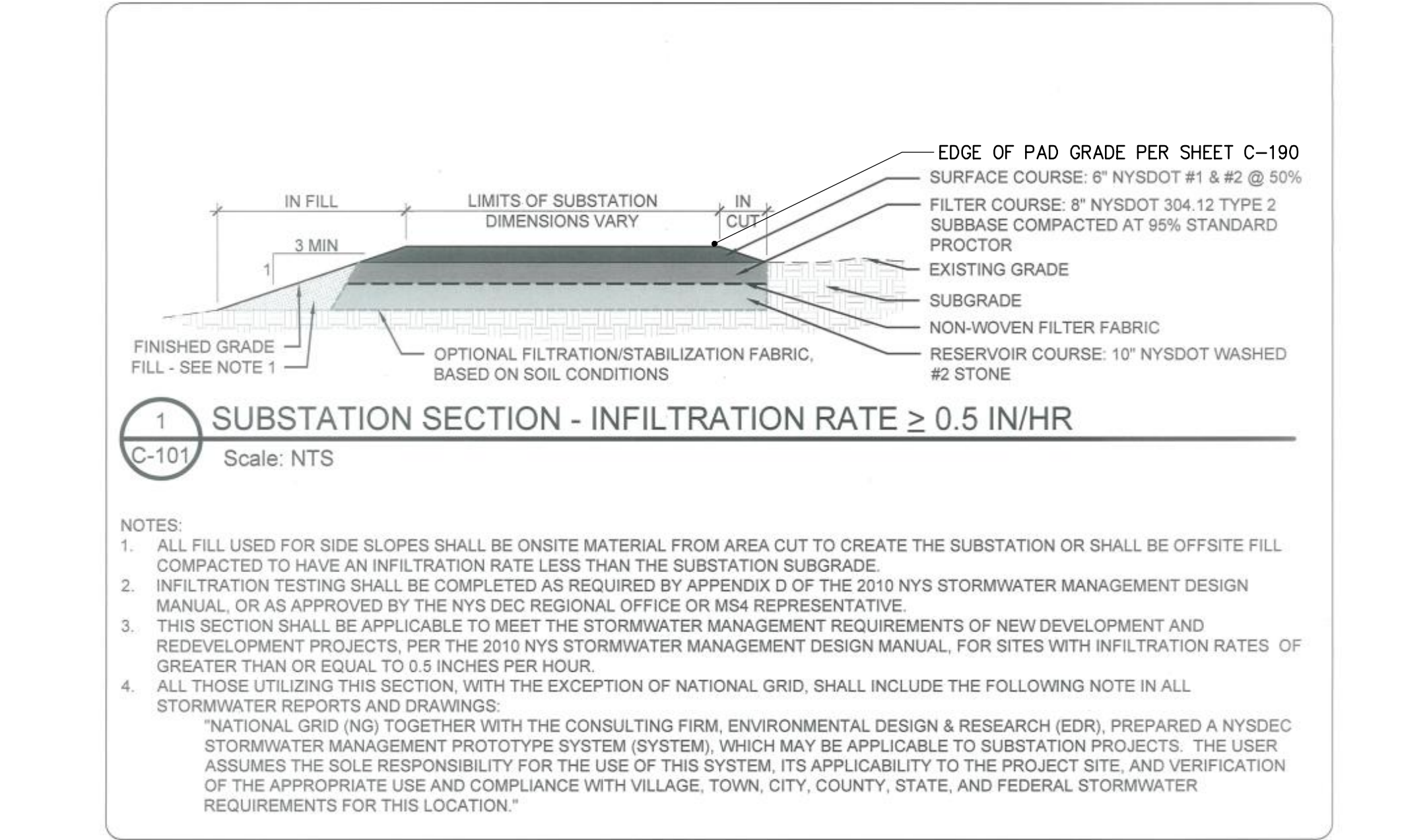
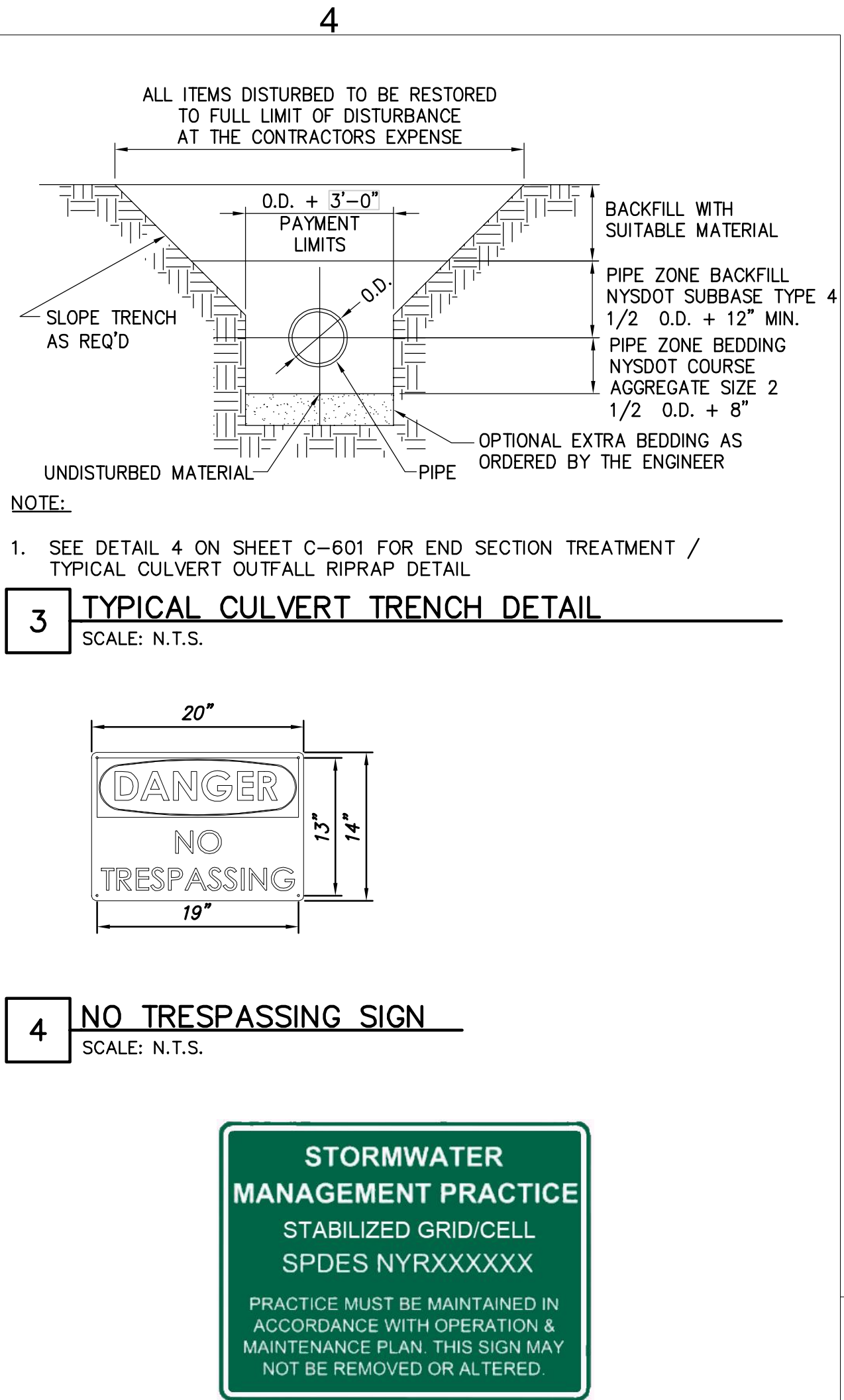
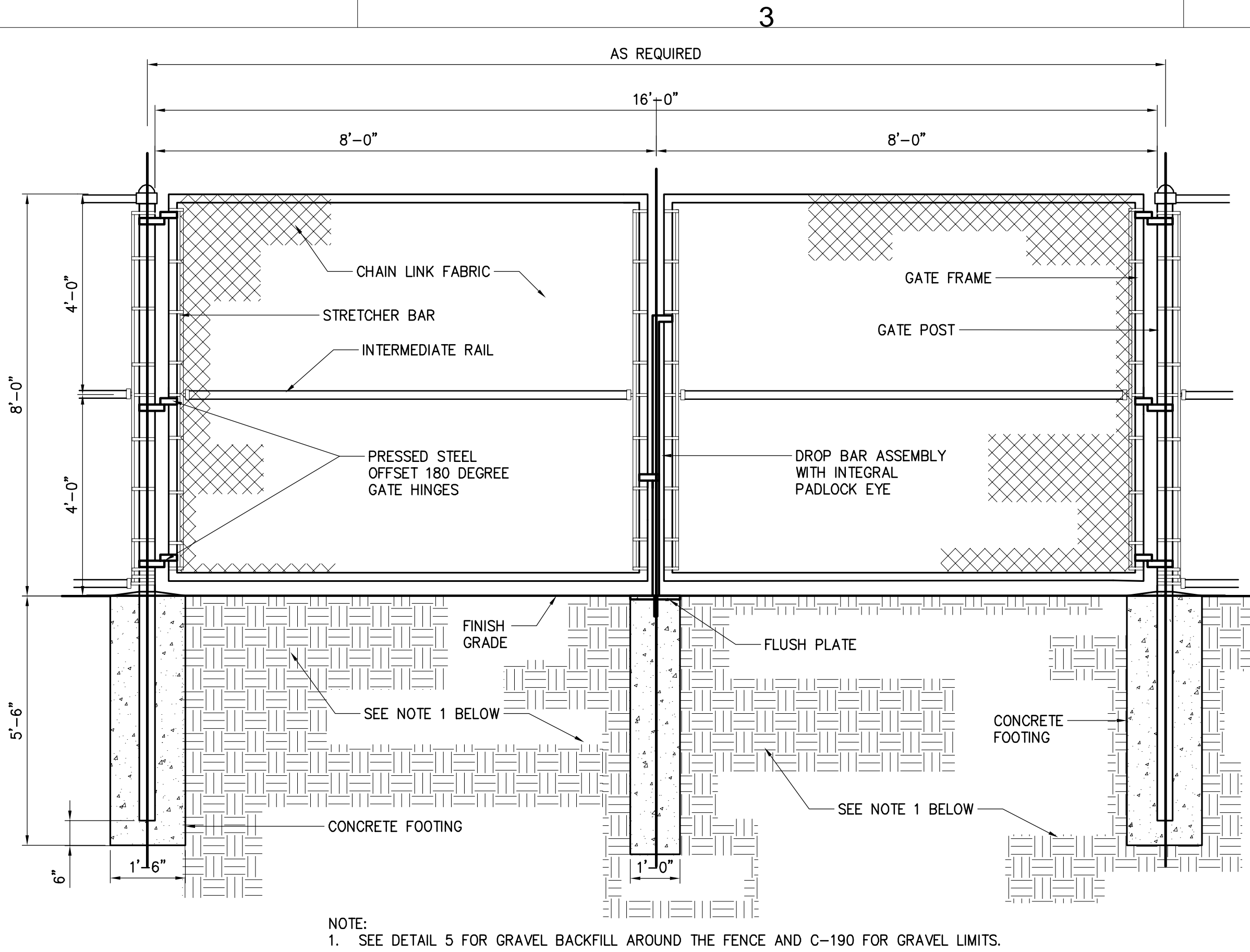
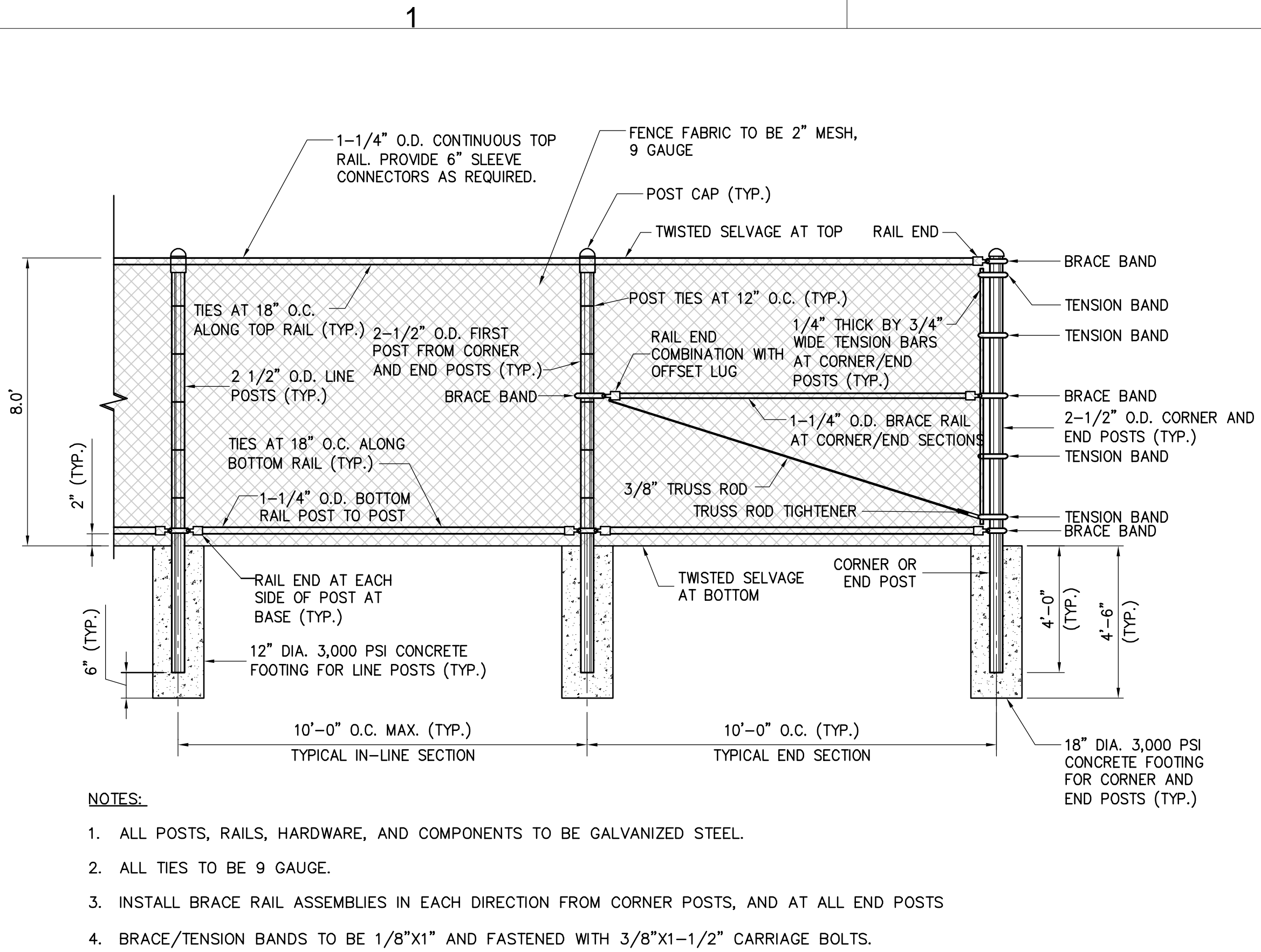


 Champlain Hudson Power Express	PROJECT NO.: 21162	PROJECT NO.: 120174 Drawing Copyright © 2024	ALTERED ON:	AFFIXED ON: 01/13/2025	 IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.	CHAMPLAIN HUDSON POWER EXPRESS SEGMENT 12 (PACKAGE 7B) - ROUTE 9W: ROCKLAND CMT HUT #4 CIVIL PLAN TOWN OF STONY POINT				PERMIT DRAWING NO. C-190
	 Kiewit	 III Winners Circle, PO Box 5269 Albany, NY 12205-0269 518.453.4500 - www.ch2m.companies.com		DRAWN BY: JTM DESIGNED BY: JTM APPROVED BY: JPR				DRAWING NO. C-190		
				SCALE AS SHOWN						
				DATE: 06/19/2023				2		



No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP
0	01/13/2025	NDC-0087: ISSUED FOR CONSTRUCTION SUBMISSION	JM	JR



File: C:\USERS\3042\DC\ACCDG\VIEW\01480-CHPE\_TRANS\PROJECT FILES\40-DESIGN-ENG\01-CAD\PMDE\UTS HUT DETAILS.DWG Saved: 1/14/2025 8:57:30 AM Plotted: 1/14/2025 8:58:35 AM Current User: McEnaney III, James LastSavedBy: 3042



**5** **SUBSTATION PERVIOUS GRAVEL SECTION**  
SCALE: N.T.S.

 <b>Champlain Hudson Power Express</b>	PROJECT NO.: 21162	PROJECT NO.: 066076	ALTERED ON:	AFFIXED ON: 01/13/2025	 <p>IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.</p>	<b>CHAMPLAIN HUDSON POWER EXPRESS</b>						PERMIT DRAWING NO.					
						<b>PREFABRICATED CMT HUT SITE DETAILS</b>						C-600A					
												DRAWING NO.					
												C-600A					
						0	01/13/2025	NDC-0087: ISSUED FOR CONSTRUCTION SUBMISSION	TZ	JPR	SCALE AS NOTED						
						No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP	DRAWN BY:	JTM	DESIGNED BY:	JTM	APPROVED BY:	JPR	DATE:



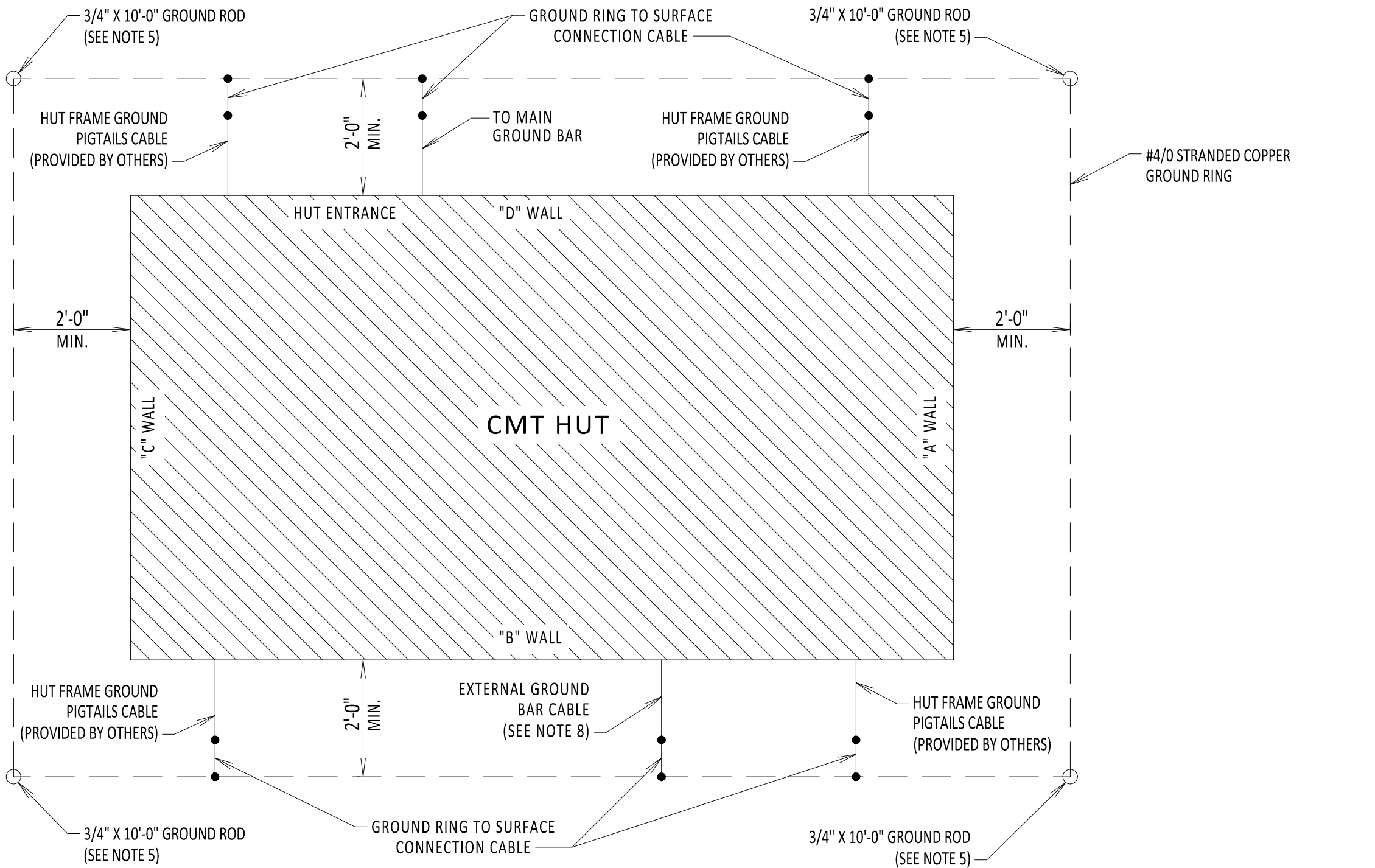
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1

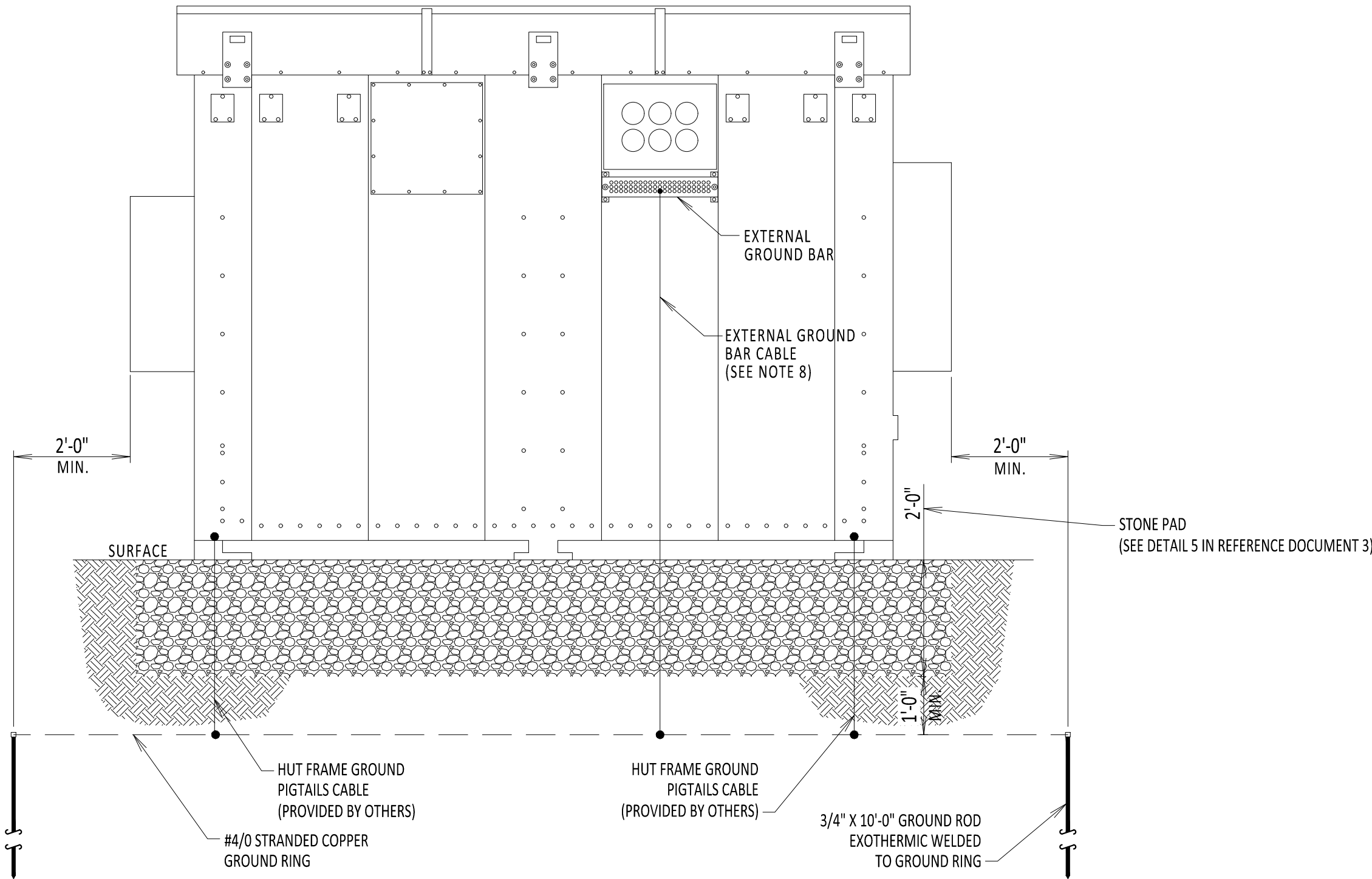
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3

4



CMT HUT  
PLAN VIEW  
NOT TO SCALE



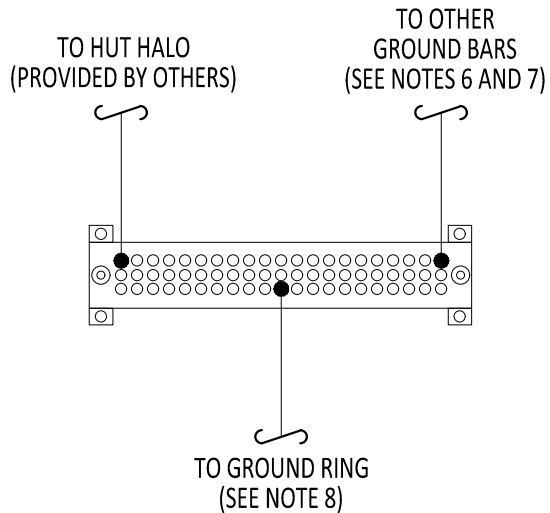
CMT HUT  
GROUNDING B WALL EXTERIOR  
NOT TO SCALE

NOTES:

1. FIELD TO SECURELY ROUTE ALL CABLE AND CONNECTIONS WITHIN AND AROUND THE CMT HUT UTILIZING THE CABLE TRAYS, DUCT BANKS AND OPENINGS.
2. FIELD TO SECURE AND SEAL ALL OPENINGS APPROPRIATELY.
3. MAINTAIN BEND RADIUS OF 8 INCHES FOR ALL GROUNDING CABLE.
4. GROUNDING CABLE WILL CONNECT TO THE GROUND RING USING AN EXOTHERMIC WELD OR A COMPRESSION CONNECTOR. SEE REFERENCE DRAWING C-803 DETAIL C FOR CONNECTOR DETAIL.
5. GROUND ROD IS EXOTHERMIC WELDED ONTO GROUND RING OR CONNECTED USING A COMPRESSION CONNECTOR. SEE REFERENCE DRAWING C-803 DETAIL C FOR CONNECTOR DETAIL.
6. GROUND BARS WITHIN THE HUT SHALL BE CONNECTED TO THE MAIN GROUND BAR. WORK DONE BY OTHERS.
7. USE TWO HOLE LUG CONNECTORS AT GROUND BAR WHEN CONNECTING TO THE COPPER CABLE.
8. MAIN GROUND BAR AND EXTERNAL GROUND BAR TO USE #4/0 STRANDED COPPER CABLE TO CONNECT TO GROUND RING.
9. FIELD TO FOLLOW REFERENCE SPECIFICATION 260526.01 - GROUNDING COMPONENTS AND INSTALLATION.

REFERENCE DOCUMENTS

LIST NO.	DOCUMENT NAME	DOCUMENT NO.
1	NKT: LUNA DXS MONITORING AND TELECOMMUNICATION ENCLOSURE DRAWING	PROVIDED BY NKT
2	TYPICAL VAULT GROUNDING DETAILS	C-803
3	PREFABRICATED CMT HUT SITE DETAILS	C-600A
4	GROUNDING COMPONENTS AND INSTALLATION SPECIFICATION	260526.01



MAIN GROUND BAR ON  
D WALL INTERIOR  
NOT TO SCALE



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0	01/13/2025	NDC-0087: ISSUED FOR CONSTRUCTION SUBMISSION	NM	MK	
No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP	

CHAMPLAIN HUDSON POWER EXPRESS

CMT HUT  
GROUNDING DIAGRAM

DRAWN BY: DLM DESIGNED BY: NM APPROVED BY: MK SCALE DATE: 01/06/2025

PERMIT DRAWING NO.

DRAWING NO.

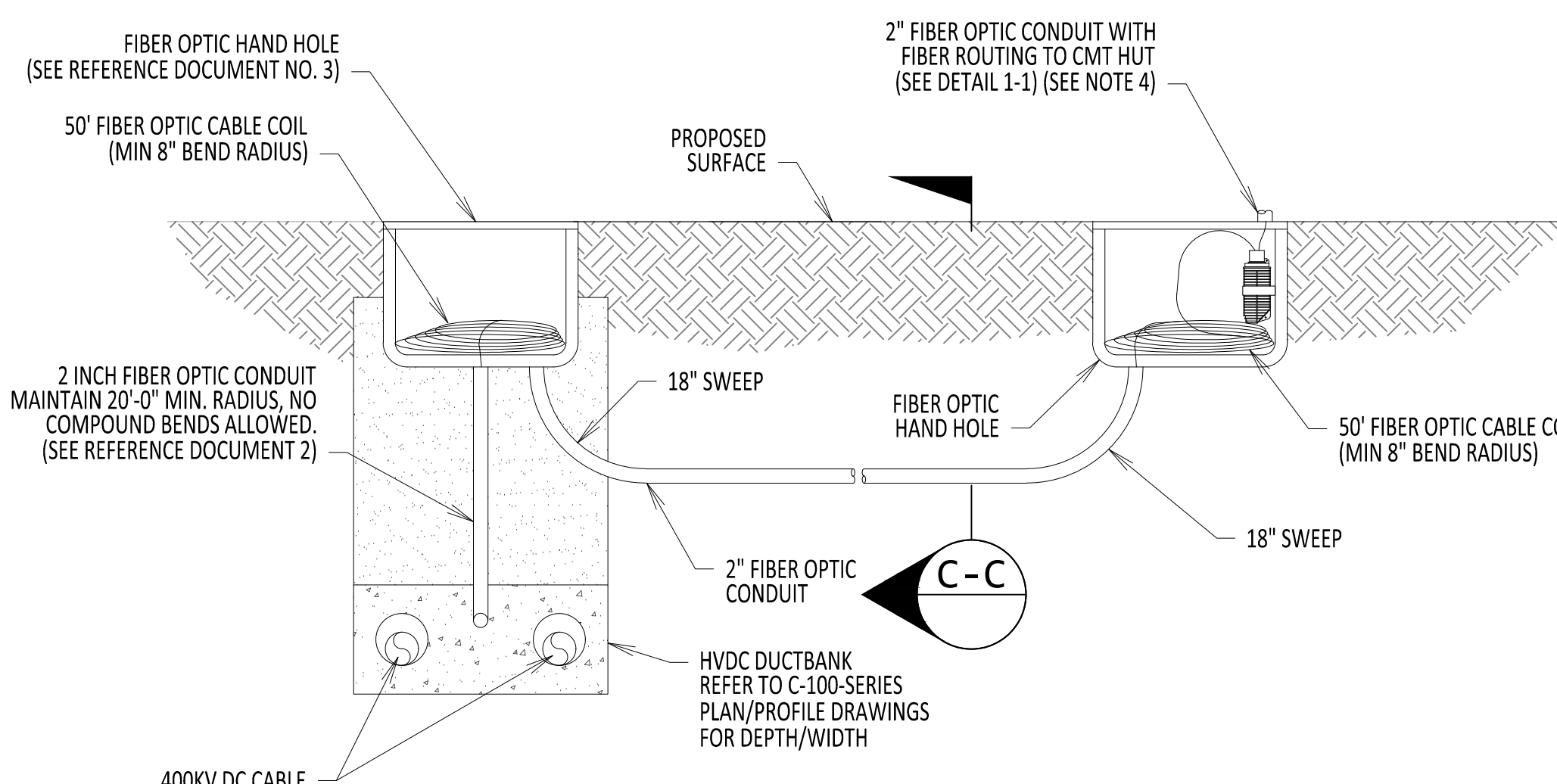
C-875



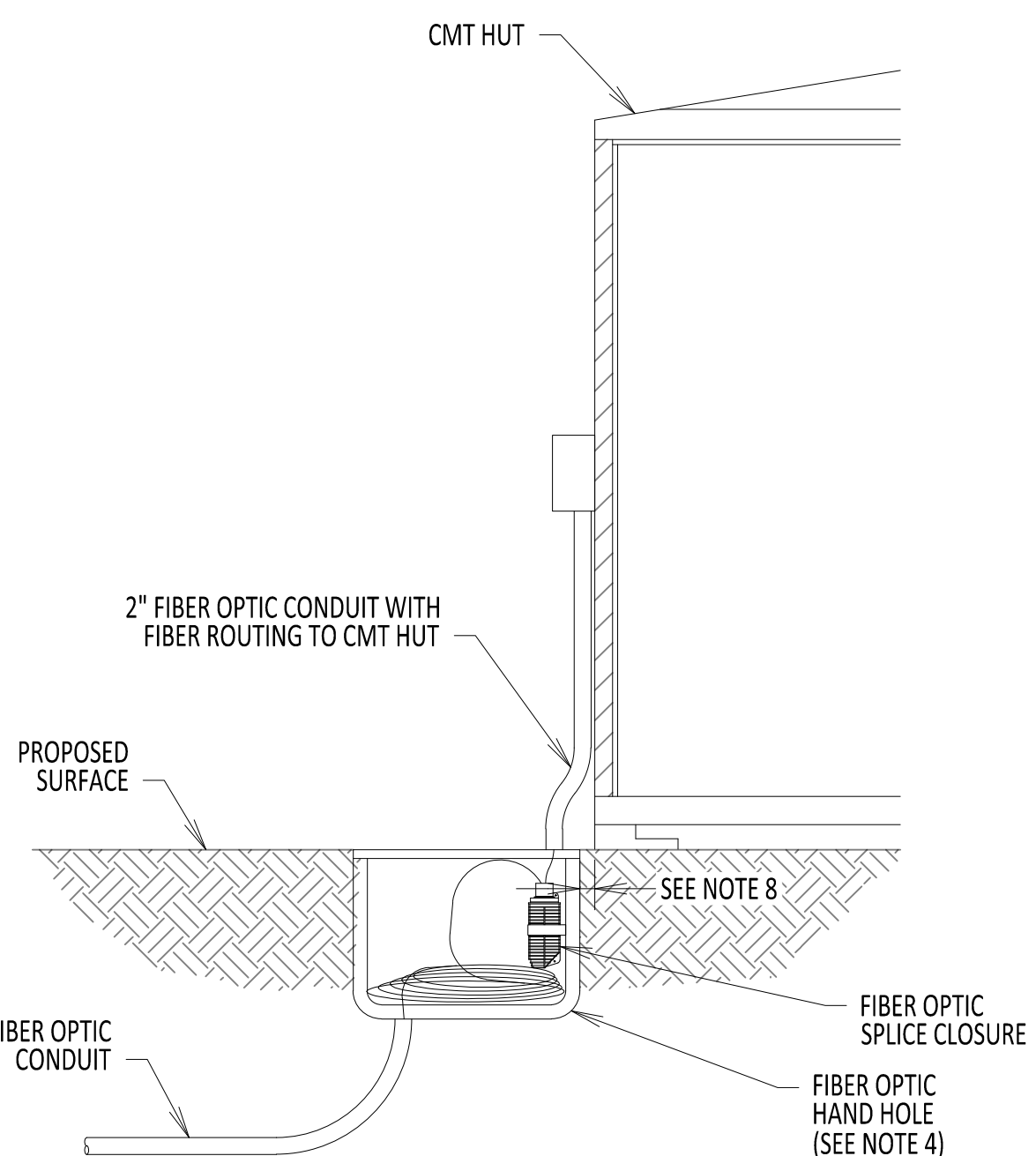
4

DRAWN BY: JTM	DESIGNED BY: JTM	APPROVED BY: JPR	SCALE	AS NOTED
			DATE:	





DETAIL 1  
TRENCH TO CMT HUT CONNECTION  
SECTION VIEW  
NOT TO SCALE

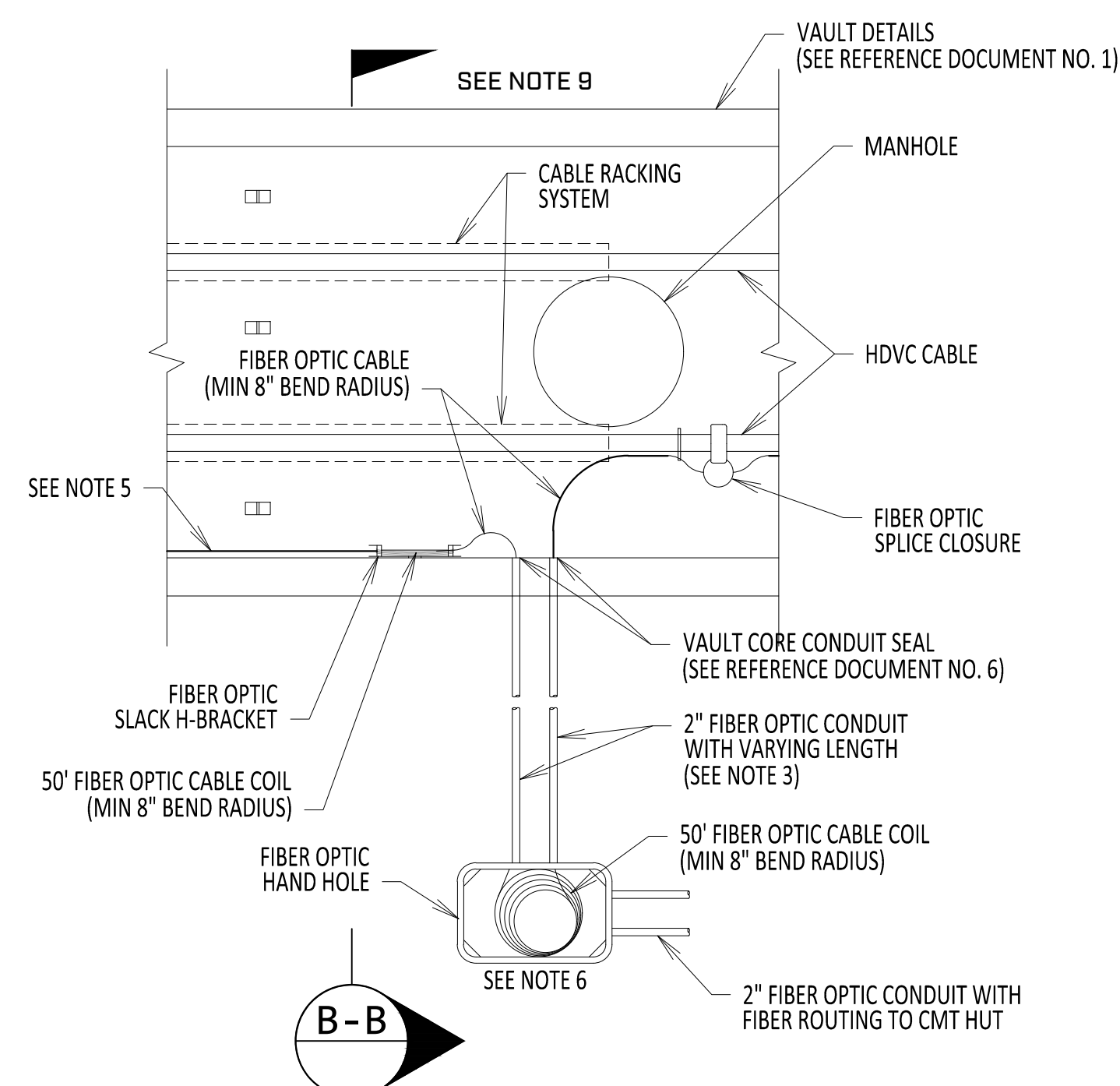


DETAIL 1-1  
CMT HUT FIBER ENTRANCE  
NOT TO SCALE

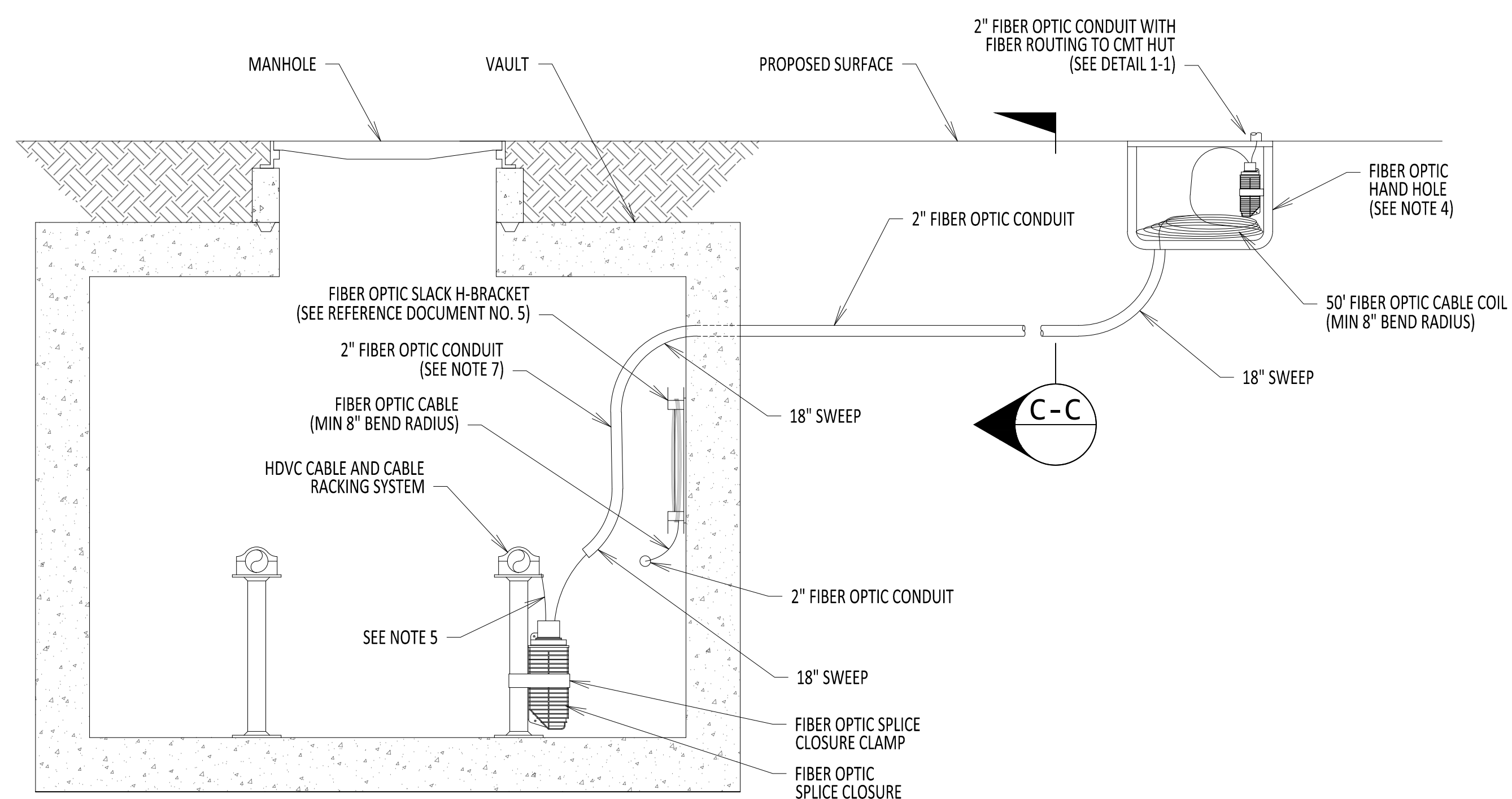
- NOTES:**
1. MAINTAIN A MINIMUM FIBER OPTIC CABLE BEND RADIUS OF 8" UNLESS OTHERWISE STATED (WHEN BENDING THE CABLE).
  2. CMT HUTS ADJACENT TO TRANSITION VAULTS TO USE DETAIL 2. CMT HUTS NOT ADJACENT TO A SPLICE TO USE DETAIL 1.
  3. SEE PLAN AND PROFILES FOR DISTANCES TO CMT HUT.
  4. (QTY 2) FIBER OPTIC SPLICE TO BE LOCATED IN HANDHOLE.
  5. FIBER IS TO BE ROUTED WITH THE NEGATIVE CONDUCTOR.
  6. ROUTING OF FIBER DIRECTION OUT OF HANDHOLE TO BE DETERMINED BY FIELD BASED ON SITE LAYOUT.
  7. FIELD TO DETERMINE SECURING METHOD OF CONDUIT TO VAULT WALL.
  8. PLACEMENT OF HANDHOLE AS CLOSE AS PRACTICAL AND FIELD TO DETERMINE.
  9. WHEN CMT HUT IS ON POSITIVE SIDE, ROUTE FIBER IN CONDUIT (QTY 2) AND SECURE TO CEILING OF VAULT WITH PIPE HANGER(S) AND MAINTAIN 18" SWEEPS.

**REFERENCE DOCUMENTS**

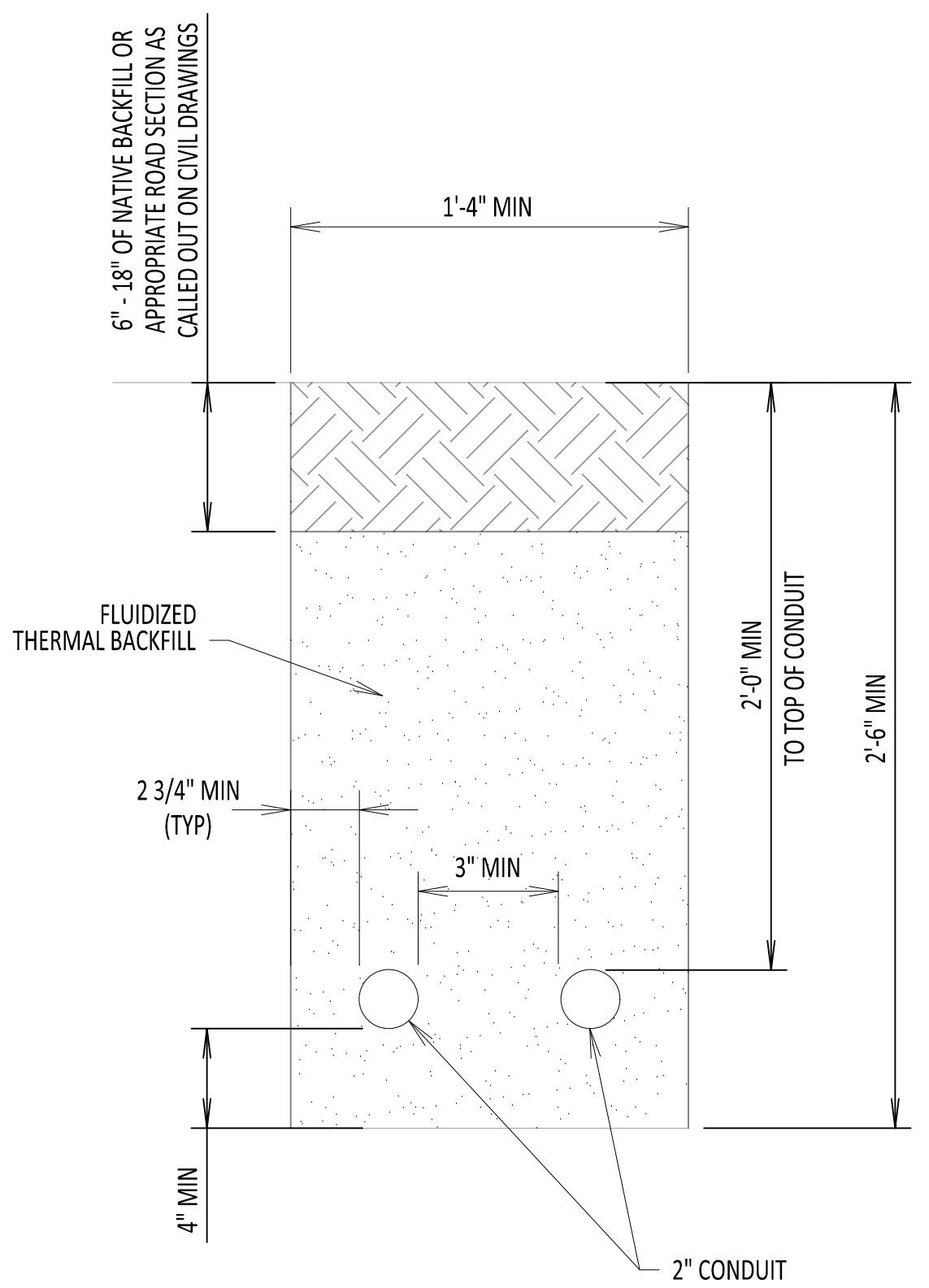
LIST NO.	DOCUMENT NAME	DOCUMENT NO.
1	TYPICAL VAULT DETAILS	C-802
2	TYPICAL OPEN PIT SPLICE DETAILS	C-808
3	FIBER OPTIC HAND HOLE DETAILS	C-854
4	FIBER OPTIC SPLICE DETAILS	C-855
5	FIBER OPTIC H-FRAME BRACKET DETAILS	C-856
6	VAULT CONNECTION DETAILS	C-812



DETAIL 2  
ENCLOSED VAULT CMT HUT CONNECTION  
PLAN VIEW  
NOT TO SCALE



SECTION B-B  
NOT TO SCALE



SECTION C-C  
NOT TO SCALE



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No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP
1	01/13/2025	NDC-00887: CMT HUT AMENDMENT	PR	MK
0	06/08/2023	ISSUED FOR CONSTRUCTION SUBMISSION	DLM	ASM

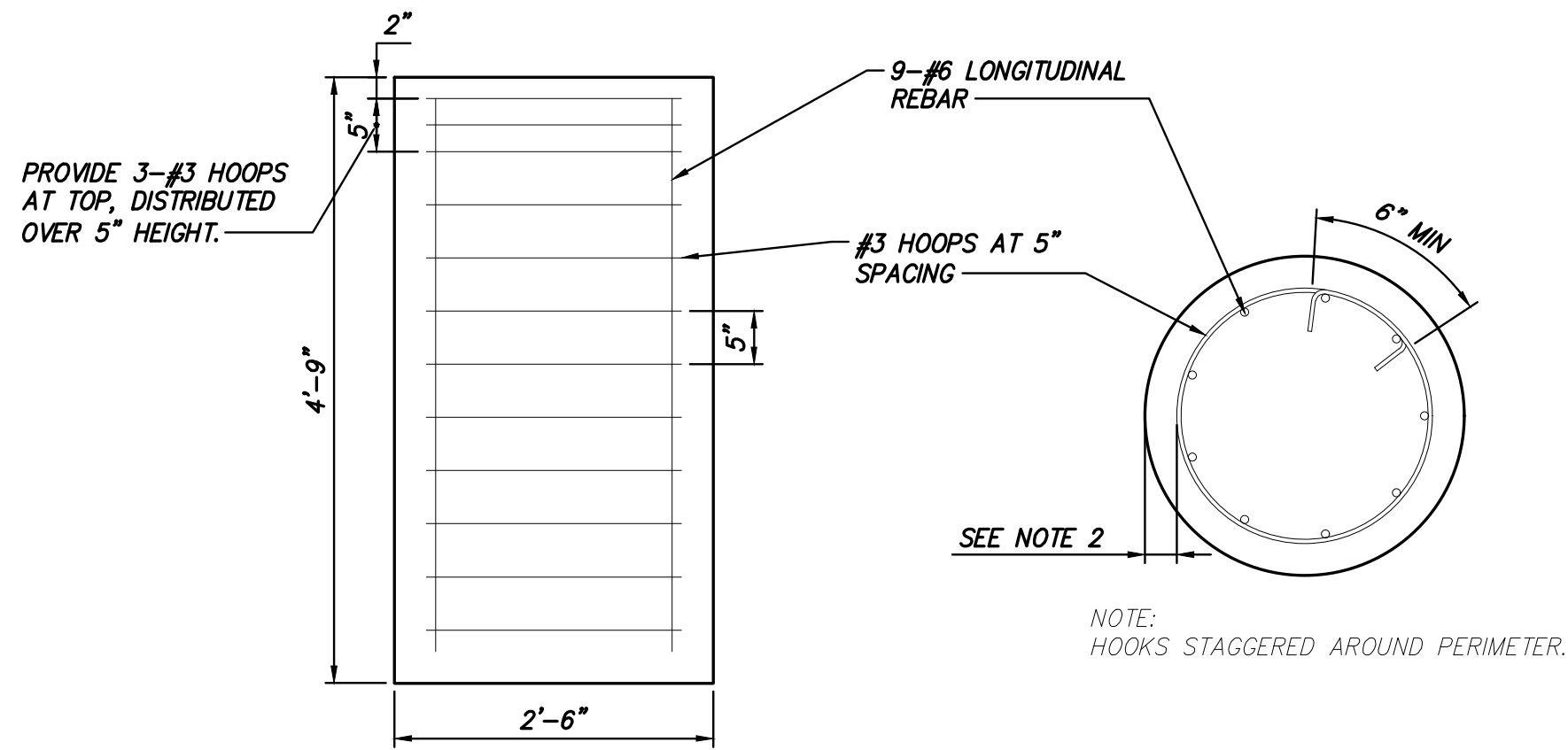
**CHAMPLAIN HUDSON POWER EXPRESS**

**CMT HUT CONNECTION  
FIBER OPTIC SPLICE AND HAND HOLE**

DRAWN BY: DLM DESIGNED BY: NM APPROVED BY: MK SCALE: 06/08/2023

PERMIT DRAWING NO.
DRAWING NO.
<b>C-851</b>



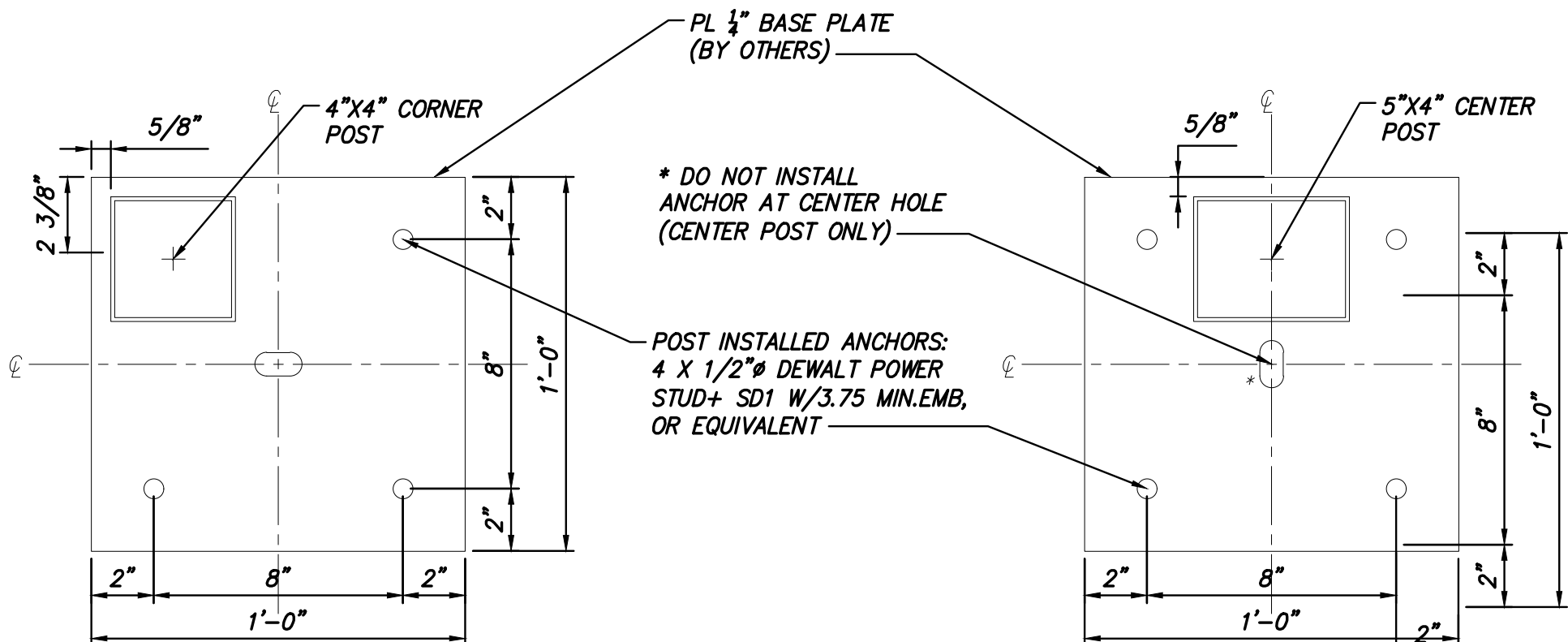


NOTES:

1. MINIMUM CONCRETE STRENGTH  $F'_{C} = 4.5$  KSI, CATEGORY F2 FREEZE-THAW EXPOSURE. STEEL REINFORCEMENT, GRADE 60 UNCOATED REBAR.
2. MINIMUM CONCRETE COVER = 3", UNO.
3. CMT HUT (SENSING STATION FOR EQUIPMENTS) IS DESIGNED AND MANUFACTURED BY OTHERS. THE REACTIONS AT EACH FOOTING LOCATION IS PROVIDED BY THE DESIGNER OF THE CMT HUT STRUCTURE:

NOTE:  
X DIRECTION, ALONG LONG WALL.  
Y DIRECTION, PERPENDICULAR TO LONG WALL

4. ALLOWABLE BEARING PRESSURE IS 1.5 KSF.
5. FROST DEPTH IS TAKEN AT 4'-0" AT ALL LOCATIONS.
6. ESTABLISH STABLE SUBGRADE CONDITIONS AS DIRECTED BY THE GEOTECHNICAL ENGINEER OR THEIR REPRESENTATIVE. BEDDING MAY BE REQUIRED AS DIRECTED BY THE GEOTECHNICAL ENGINEER OR THEIR REPRESENTATIVE BASED ON IN-SITU CONDITIONS.
7. BACKFILL PER DRAWING C-600A DETAIL 5.
8. GROUT UNDER BASE PLATE, MIN COMPRESSIVE STRENGTH 4.5KSI AT DAY ONE, 7.5KSI AT DAY 28. SIKAGROUT-212 CEMENTITIOUS HIGH PERFORMANCE GROUT MIX FOR COLUMN BASE PLATE OR SIMILAR. FOLLOW MANUFACTURER PRODUCT INSTRUCTIONS FOR MINIMUM AND MAXIMUM LAYER THICKNESS.
9. ALTERNATIVE ANCHOR BOLT CONFIGURATIONS ALLOWED WITH APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD.
10. 4'-0" x 4'-0" OFF THE SHELF CONCRETE PAD FOR SMALL PORTABLE GENERATOR, DIVERSITECH CLAD LITE 4548-3 OR SIMILAR. APPLIED LOAD (PORTABLE GENERATOR WEIGHT) NOT TO EXCEED MANUFACTURER PROVIDED PAD CAPACITY. MAXIMUM CONCENTRATED POINT LOAD ON CONCRETE PAD AS SPECIFIED BY MANUFACTURER. PAD PLACED ABOVE GRAVEL BEDDING. FOLLOW MANUFACTURER REQUIREMENTS FOR PAD USE AND GENERATOR PLACEMENT.

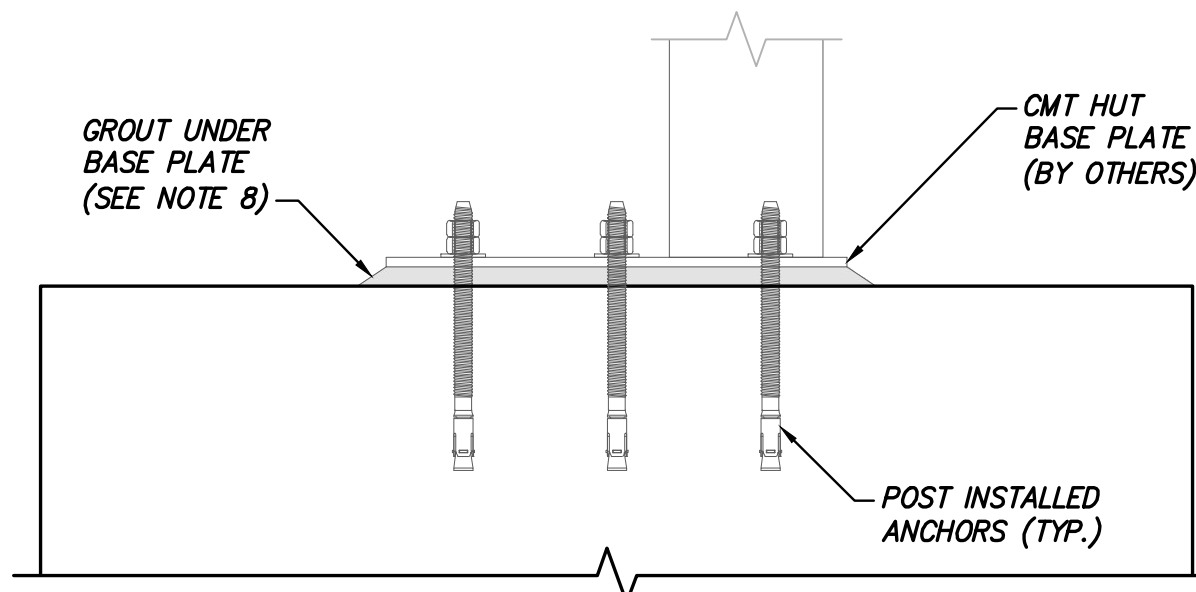


DETAIL 2 - CENTER POST ANCHOR LAYOUT  
SCALE: 1" = 5'

NOTE:  
DRILL 3 EA MIN 5/8" Ø BOLT HOLES AS SHOWN.

NOTE:  
DRILL 4 EA MIN 5/8" Ø BOLT HOLES AS SHOWN  
\* DO NOT INSTALL ANCHOR AT CENTER HOLE.

NOTE:  
GALVANIZED WIDE WASHERS FOR ALL BOLT HOLES  
F844 ANSI B18.22 TYPE A PLAIN WIDE SERIES,  
OD=1 3/8", ID=9/16", THICKNESS=0.109",  
PORTLAND BOLT OR SIMILAR.

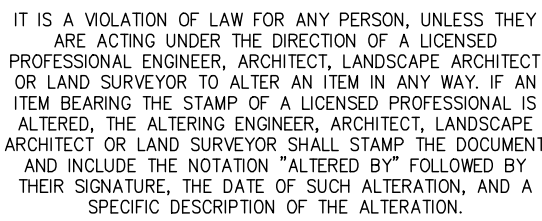


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AFFIXED ON: 01/13/2025



0	01/13/2025	NDC-0087 ISSUED FOR CONSTRUCTION SUBMISSION	TB	OO
No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP

## CMT HUT FOUNDATION DETAILS

DRAWING NO.

S-780

DRAWN BY: DRH	DESIGNED BY: JNK	APPROVED BY: OO	SCALE	AS SHOWN
			DATE:	01/06/2025