

SYSTEM DESCRIPTION	
MODULE TYPE	HYUNDAI HIS-S390PI
QUANTITY	7,290 MODULES (270 STRINGS 27)
SYSTEM SIZE (DC)	2,843.1 kW
MOUNTING SYSTEM	ARRAY TECHNOLOGIES DURATRACK v3
TILT ANGLE	-52" TO 52"
ARRAY AZIMUTH	180"
MONITORING SYSTEM	ALSOENERGY
INVERTERS	[16] DELTA M125HV
SYSTEM SIZE (AC)	2,000 kW

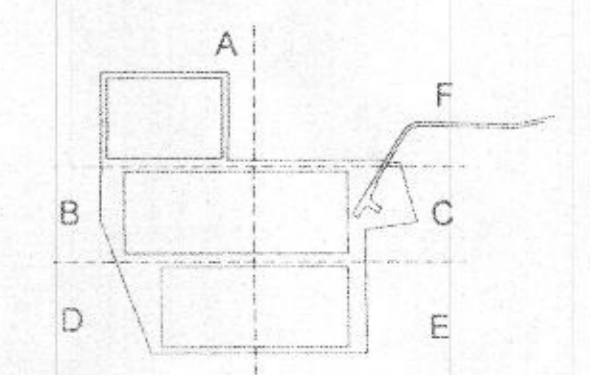
**STANDARD SOLAR**  
 5511 Gaithe Road, Suite 100  
 Rockville, MD 20850  
 301-444-1200  
 www.standard-solar.com

PROFESSIONAL ENGINEER  
 CERTIFICATION

*[Signature]*

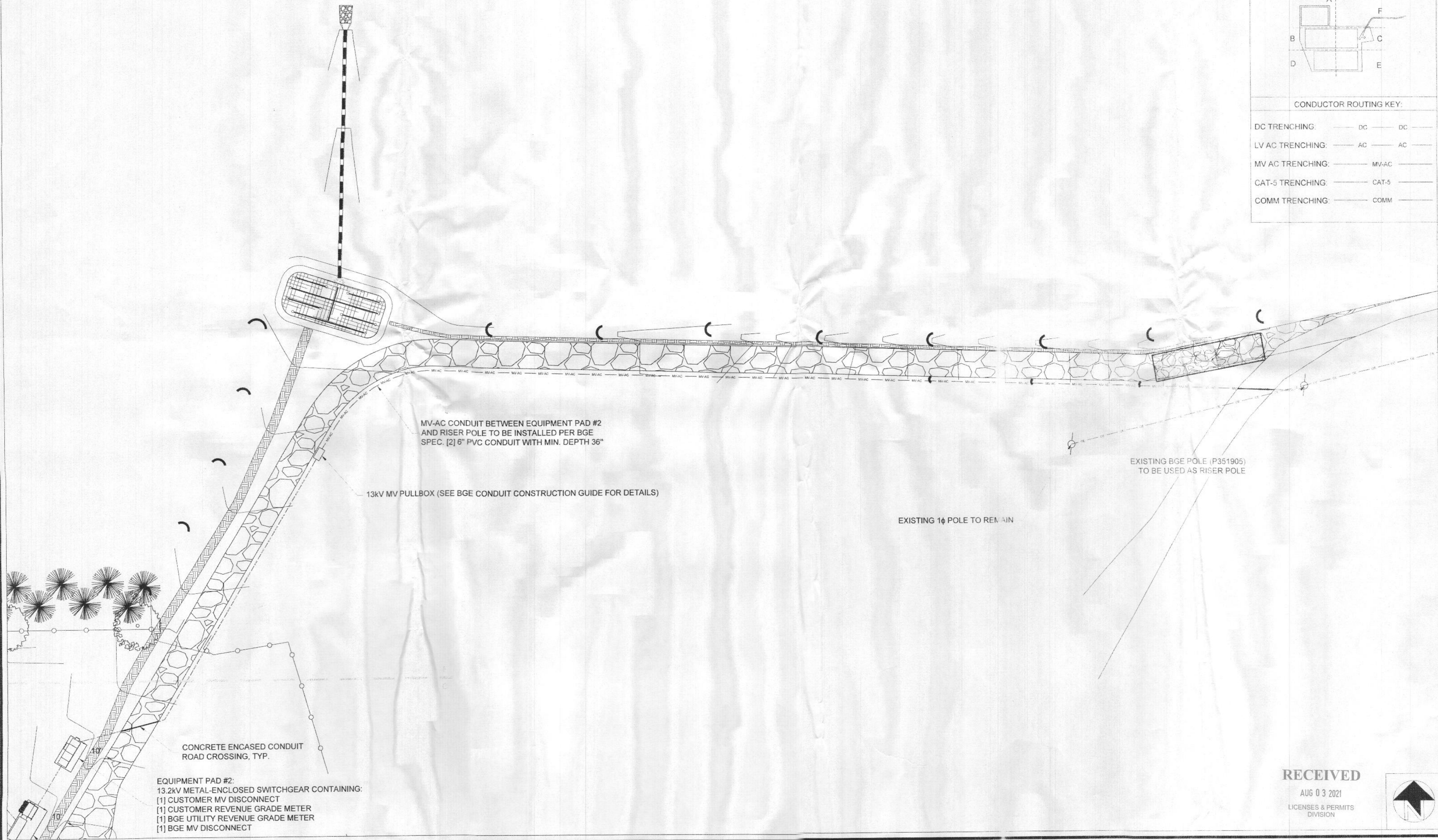
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 LICENSE # 45483  
 EXP. DATE 06/24/2025

ARRAY SECTION MAP



CONDUCTOR ROUTING KEY:

DC TRENCHING:	DC	DC
LV AC TRENCHING:	AC	AC
MV AC TRENCHING:	MV-AC	
CAT-5 TRENCHING:	CAT-5	
COMM TRENCHING:	COMM	



MV-AC CONDUIT BETWEEN EQUIPMENT PAD #2 AND RISER POLE TO BE INSTALLED PER BGE SPEC. [2] 6" PVC CONDUIT WITH MIN. DEPTH 36"

13kV MV PULLBOX (SEE BGE CONDUIT CONSTRUCTION GUIDE FOR DETAILS)

EXISTING BGE POLE (P351905) TO BE USED AS RISER POLE

EXISTING 14" POLE TO REMAIN

CONCRETE ENCASED CONDUIT ROAD CROSSING, TYP.

EQUIPMENT PAD #2:  
 13.2kV METAL-ENCLOSED SWITCHGEAR CONTAINING:  
 [1] CUSTOMER MV DISCONNECT  
 [1] CUSTOMER REVENUE GRADE METER  
 [1] BGE UTILITY REVENUE GRADE METER  
 [1] BGE MV DISCONNECT

PROJECT TITLE  
 OER - METALMARK

PROJECT ADDRESS  
 688 SYKESVILLE ROAD, SYKESVILLE, MD 21784

SHEET TITLE  
 PARTIAL ELECTRICAL F

ISSUED SET / REVISIONS

REV	DATE
30%	4/6/2021
60%	6/8/2021
100%	6/24/2021

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PROJECT NUMBER  
 20-228

DRAWN BY  
 TJA

APPROVED BY  
 NAG

DATE  
 6/24/2021

ORIGINAL SHEET SIZE  
 36X24  
 SHOULD MEASURE 1"

SCALE  
 1" = 20'

RECEIVED  
 AUG 03 2021  
 LICENSES & PERMITS  
 DIVISION



E1.7

**SYSTEM DESCRIPTION**

MODULE TYPE:	HYUNDAI HIS-S390PI
QUANTITY:	7,290 MODULES (270 STRINGS 27)
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TILT ANGLE:	-52° TO 52°
ARRAY AZIMUTH:	180°
MONITORING SYSTEM:	ALSOENERGY
INVERTERS:	[16] DELTA M125HV
SYSTEM SIZE (AC):	2,000 kW

FENCE GROUNDING ELECTRODE, TYP.  
(LOCATED AT EACH CORNER POST, GATE  
POST, AND WHERE FENCE EXCEEDS 500'  
CONTINUOUS SPAN.) (SEE E3.4 DETAILS 7 & 8)



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Rockville, MD 20850  
301-944-1200  
www.StandardSolar.com

PROFESSIONAL ENGINEER  
CERTIFICATION  
*[Signature]*  
I CERTIFY THAT THESE DOCUMENTS  
OR THE PARTS THEREOF WERE PREPARED  
BY ME, THE ENGINEER, OR UNDER MY  
SUPERVISION AND I AM A LICENSED  
PROFESSIONAL ENGINEER UNDER  
THE LAWS OF THE STATE OF  
MARYLAND  
LICENSE # 45431  
EXP. DATE 06/30/2022

PROJECT TITLE  
OER - METALMARK  
PROJECT ADDRESS  
688 SYKESVILLE ROAD, SYKESVILLE, MD 21784  
SHEET TITLE  
GROUNDING PLAN

REV	DATE
30%	4/8/2021
50%	6/8/2021
IFP	9/24/2021

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STANDARD SOLAR, INC.

PROJECT NUMBER  
20-228

DRAWN BY  
TJA

APPROVED BY  
NAG

DATE  
6/24/2021

ORIGINAL SHEET SIZE  
36X24  
SHOULD MEASURE 1"

SCALE  
1" = 60'

DRAWING  
**E1.8**

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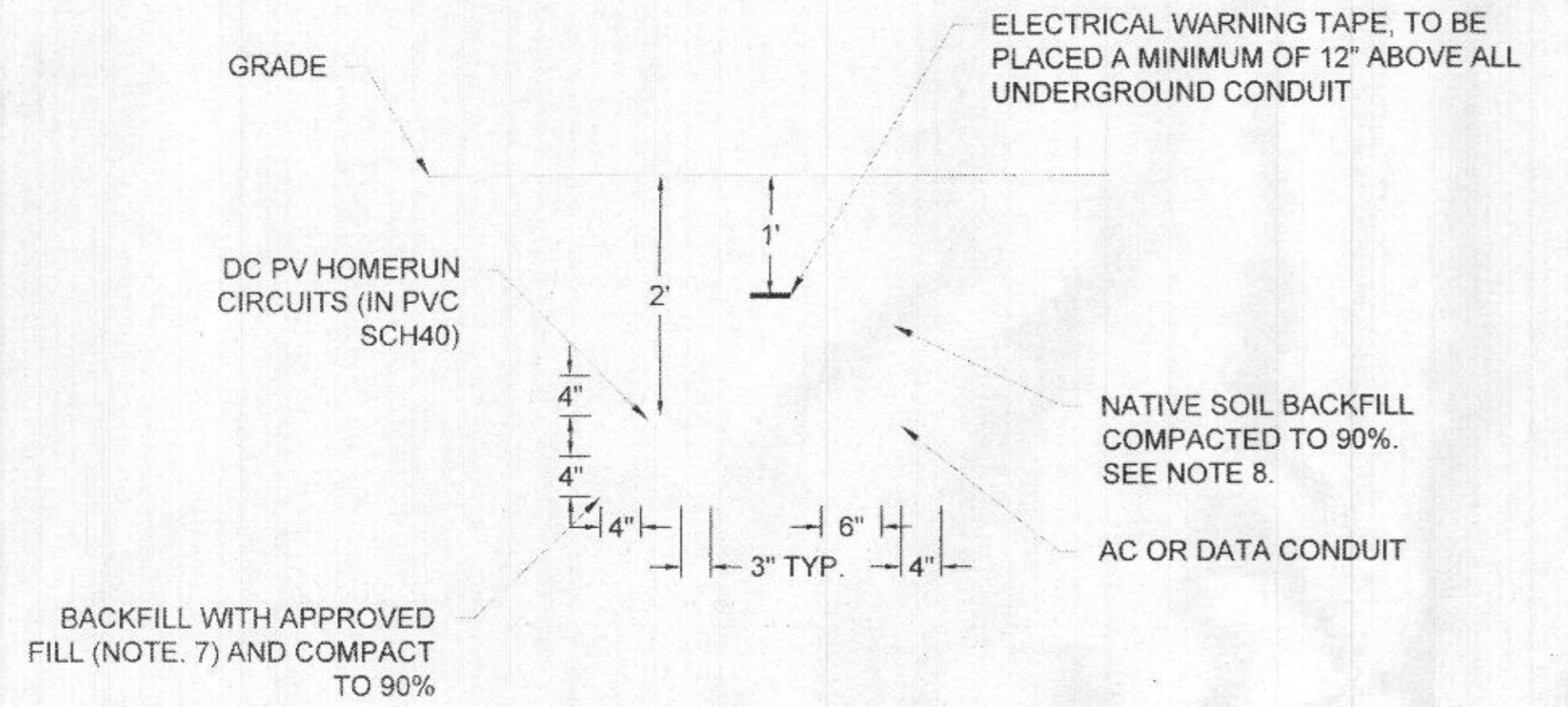


ISSUED SET / REVISIONS	
REV	DATE
30%	4/6/2021
90%	6/8/2021
100%	6/24/2021

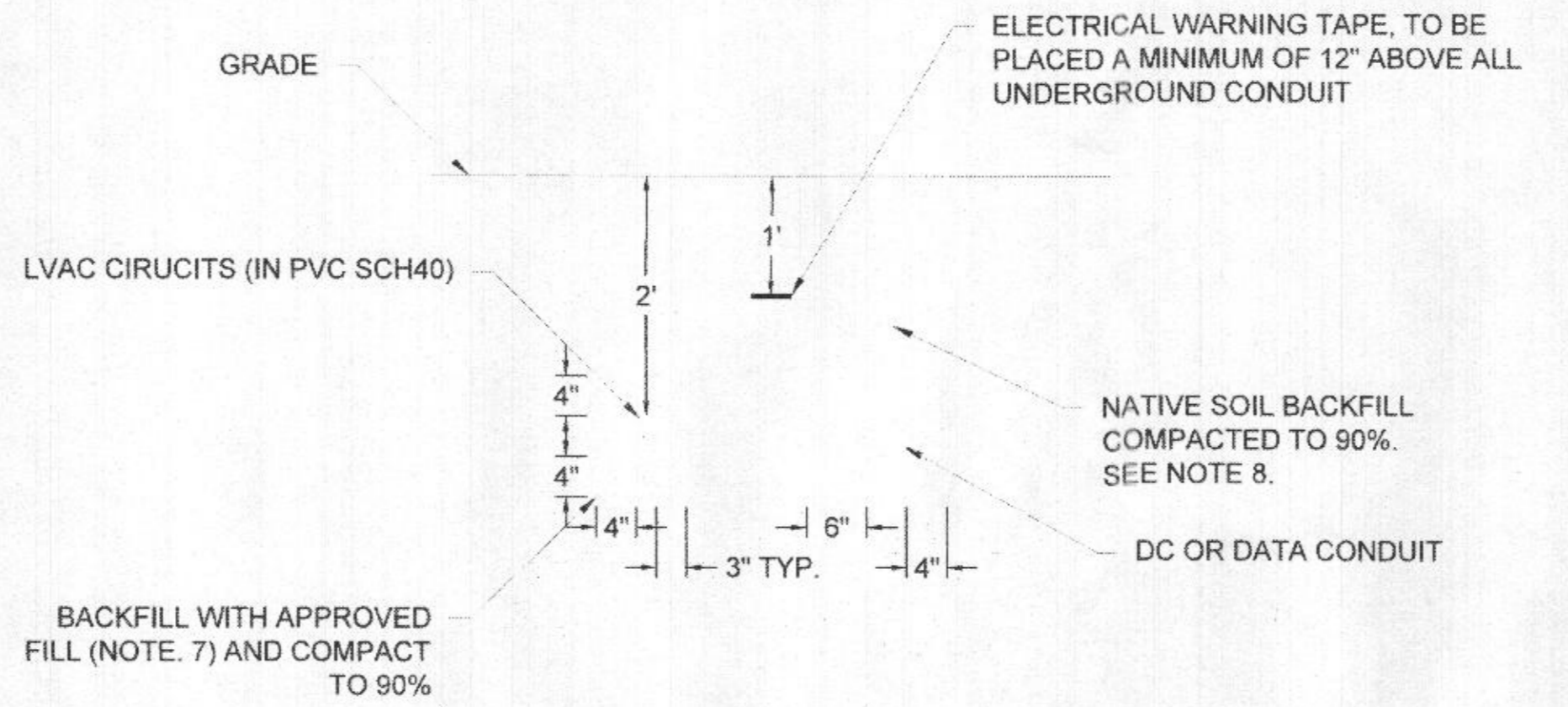
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PROJECT NUMBER	20-228
DRAWN BY	TJA
APPROVED BY	NAG
DATE	6/24/2021
ORIGINAL SHEET SIZE	36X24 SHOULD MEASURE 1"
SCALE	AS NOTED
DRAWING	E3.1

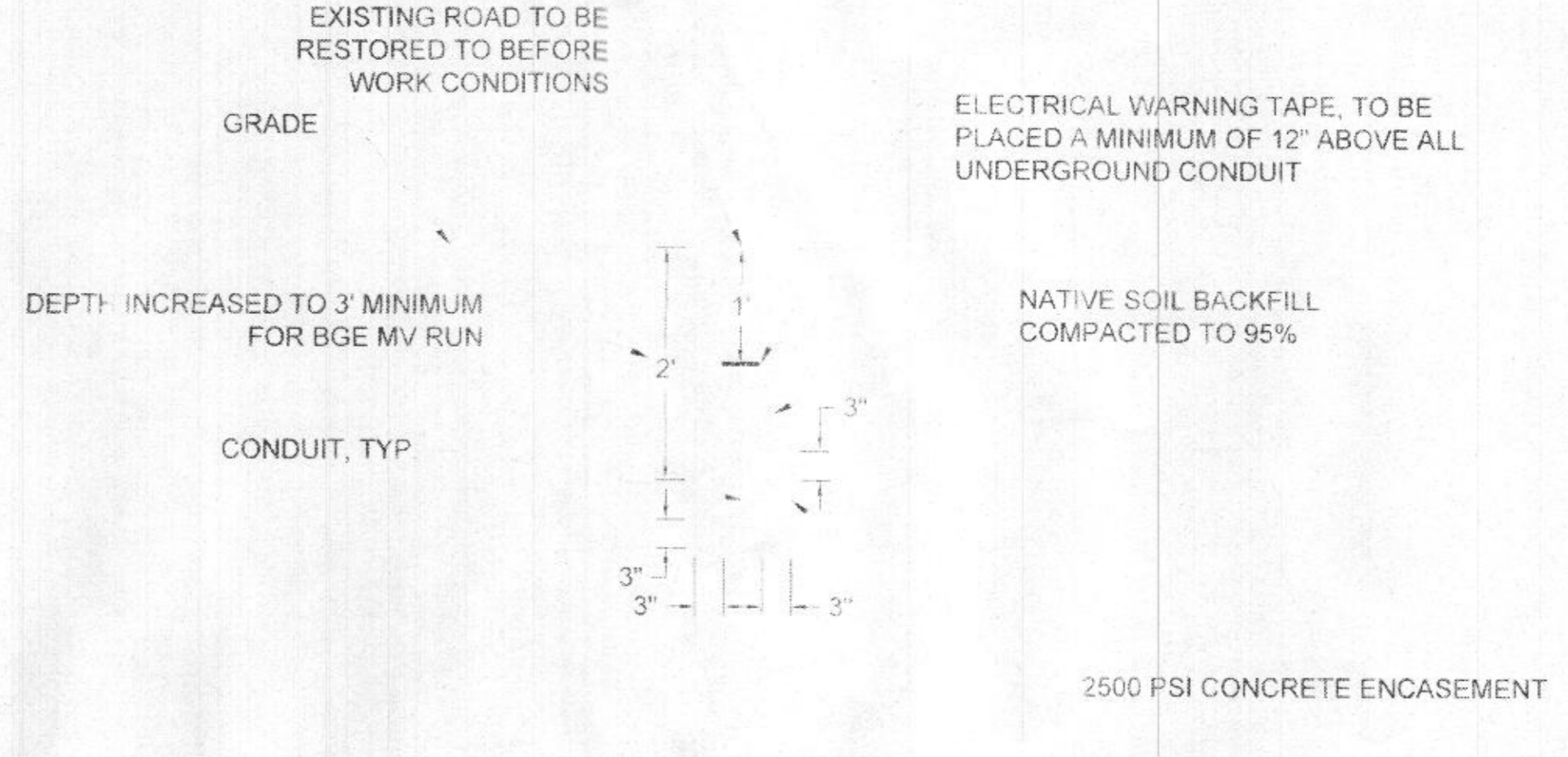
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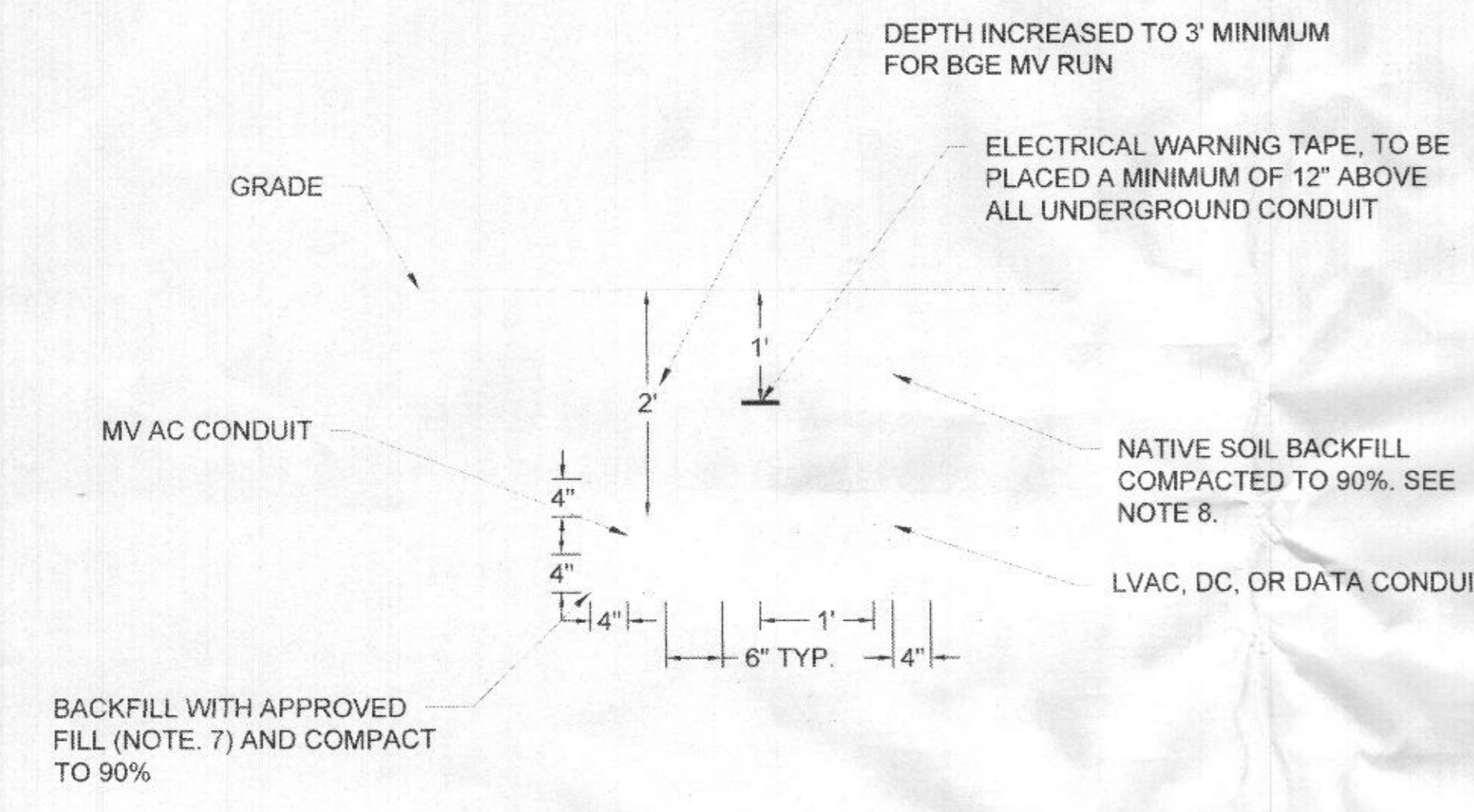
**1 DC TRENCH DETAILS**  
 SCALE: 3/4" = 1'-0"



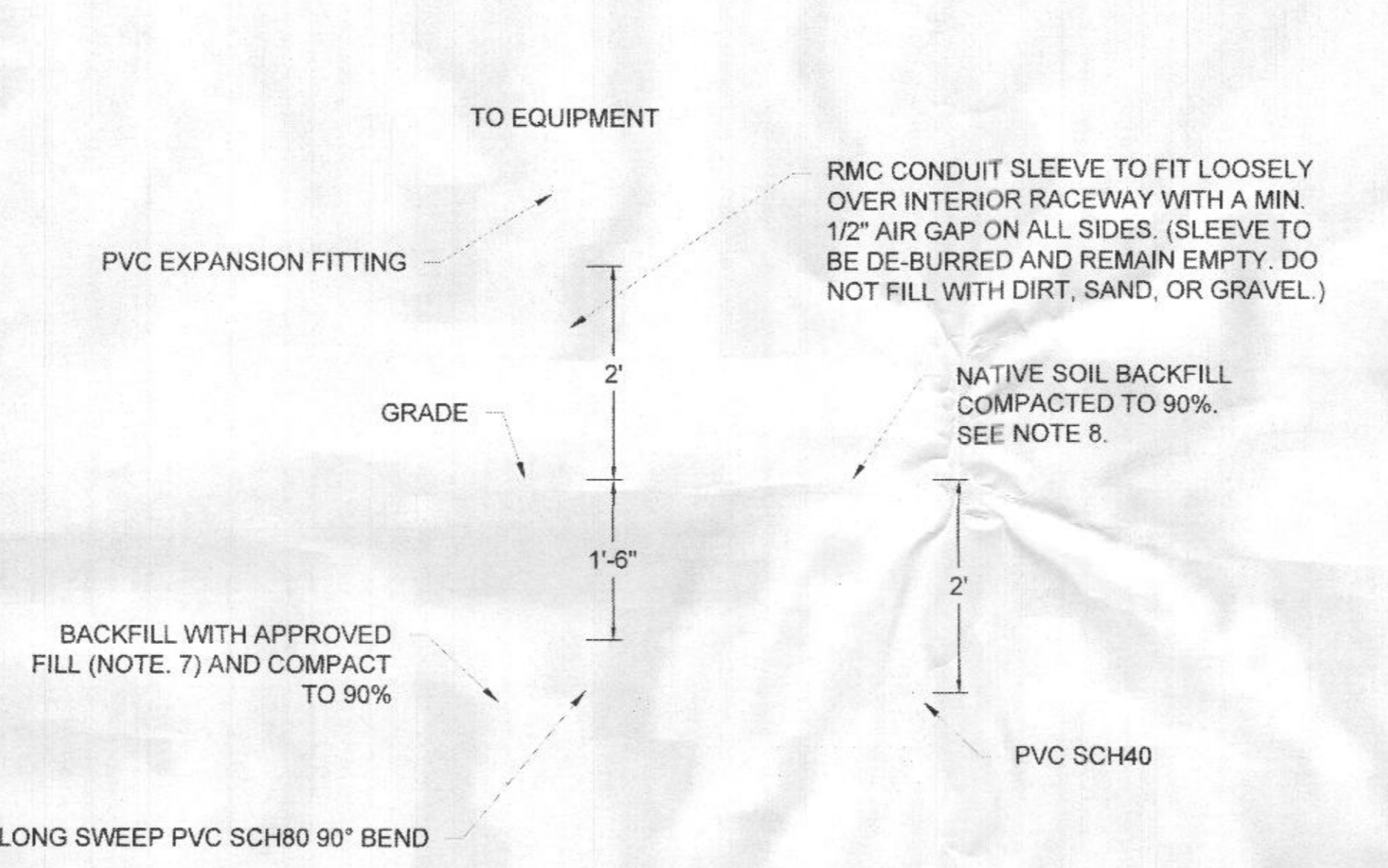
**2 LVAC TRENCH DETAILS**  
 SCALE: 3/4" = 1'-0"



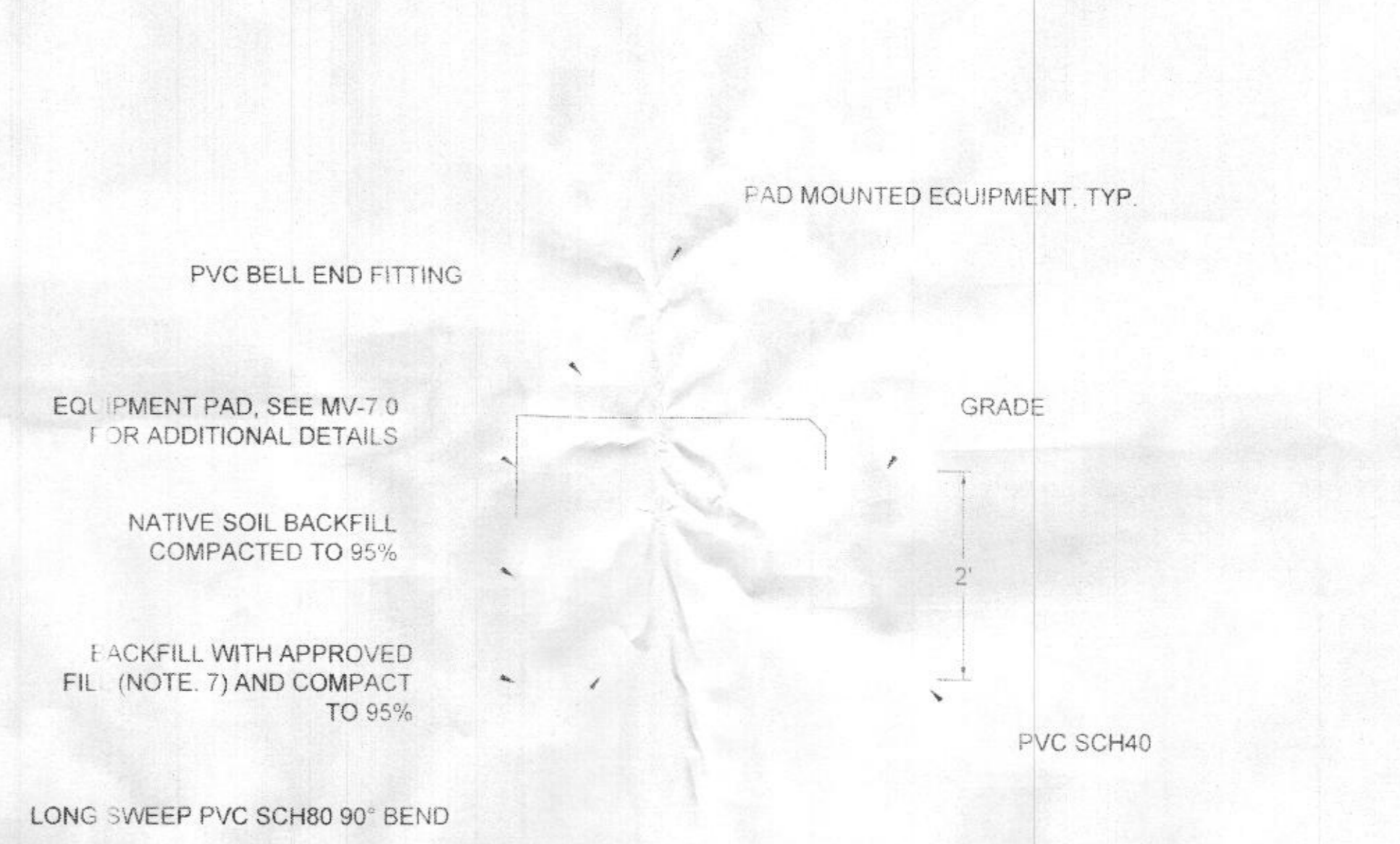
**3 CONDUIT ROAD CROSSING DETAIL**  
 SCALE: 3/4" = 1'-0"



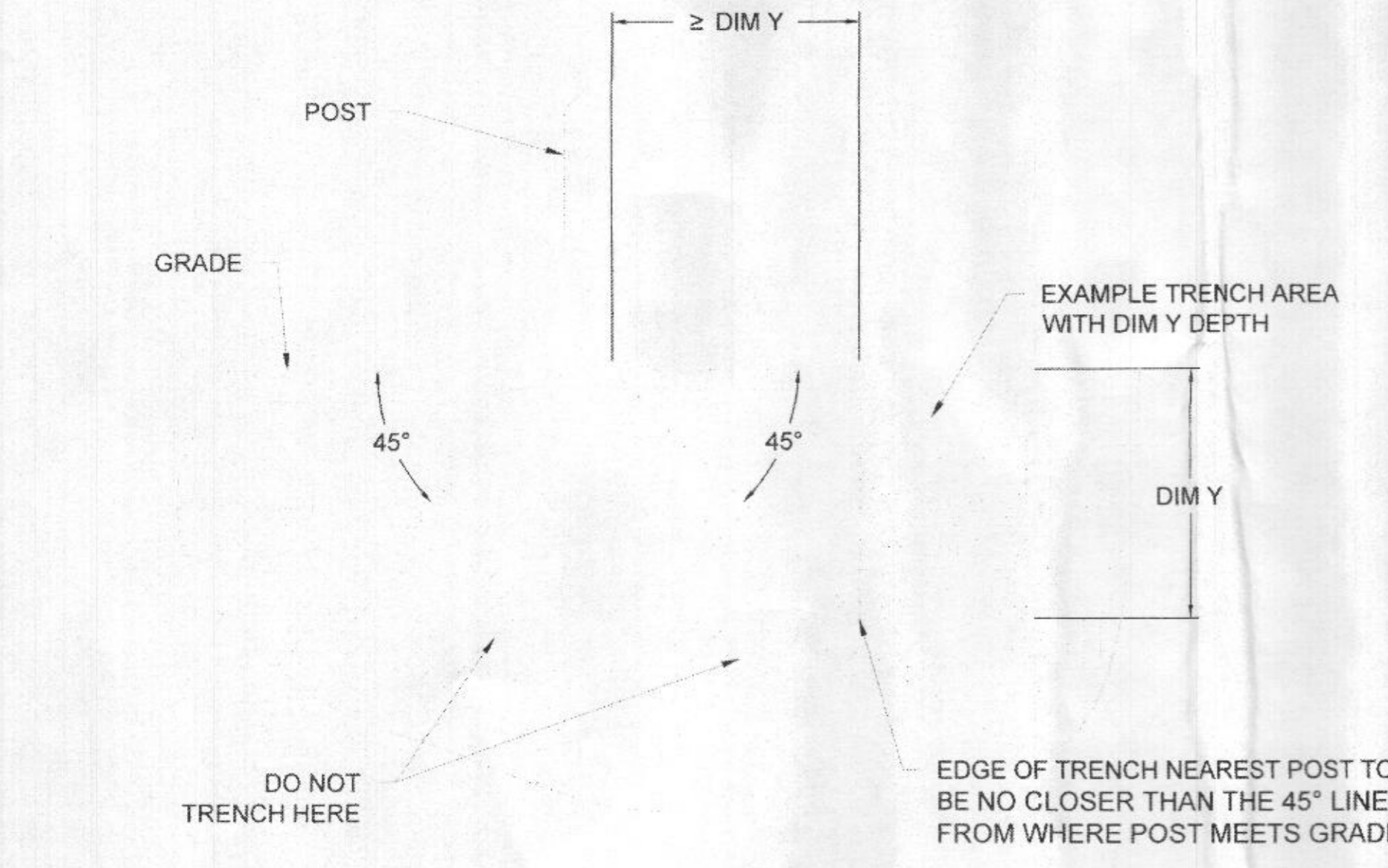
**4 MV TRENCH DETAILS**  
 SCALE: 3/4" = 1'-0"



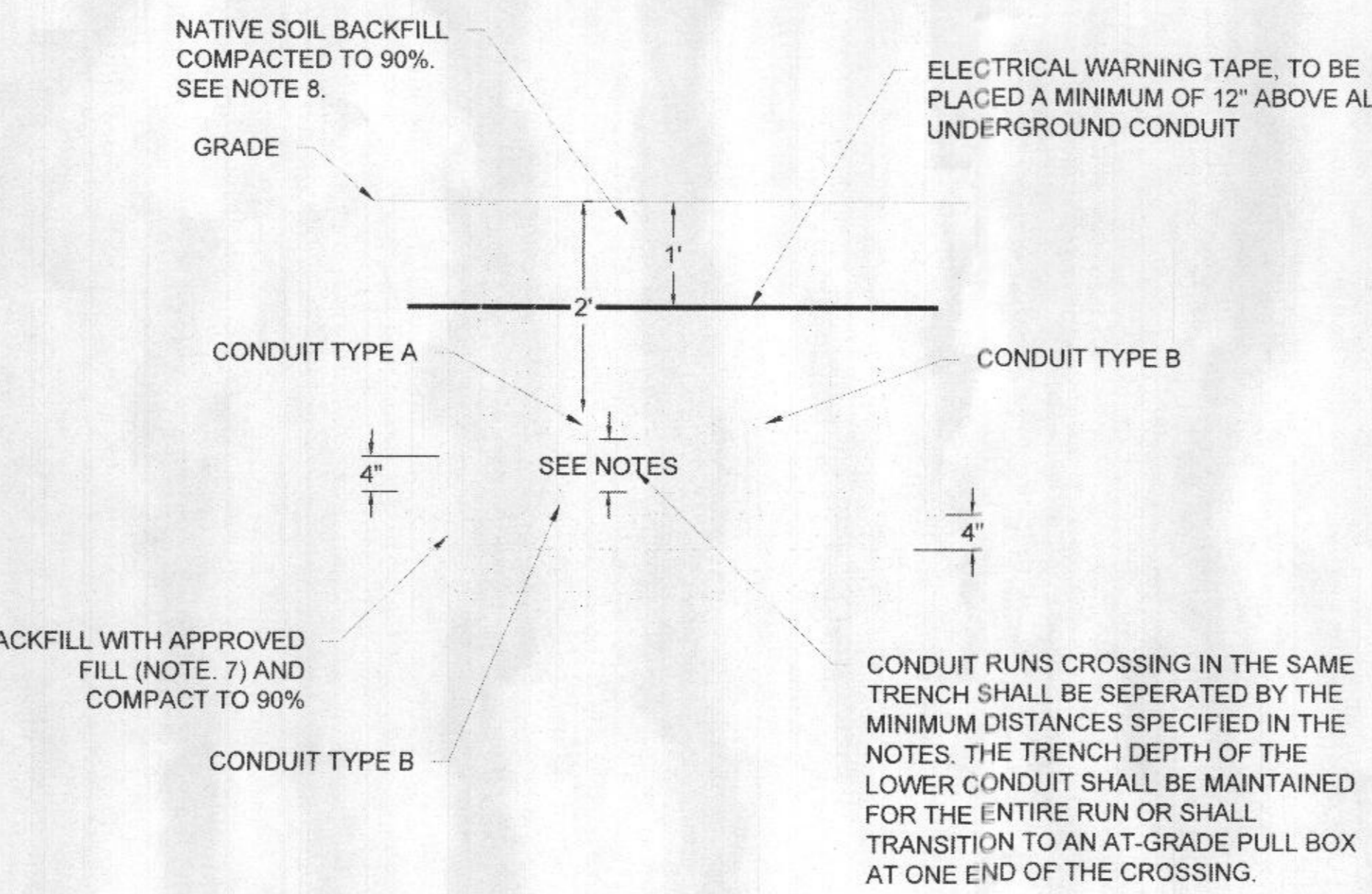
**5 CONDUIT EMERGING FROM GRADE DETAIL**  
 SCALE: 3/4" = 1'-0"



**6 EQUIPMENT PAD CONDUIT DETAIL**  
 SCALE: 3/4" = 1'-0"

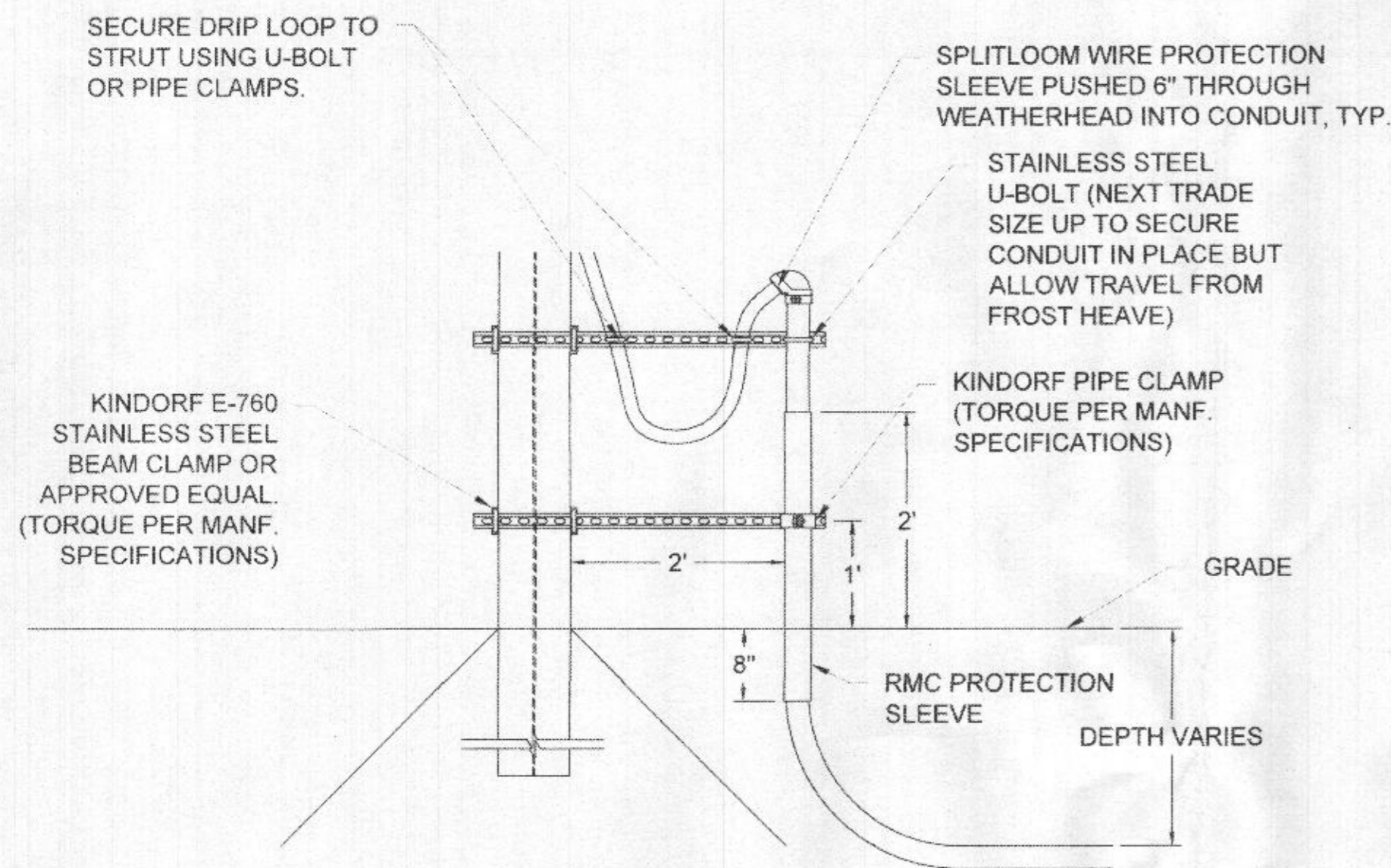


**7 TRENCH CLEARANCE TO RACKING POST**  
 SCALE: NTS

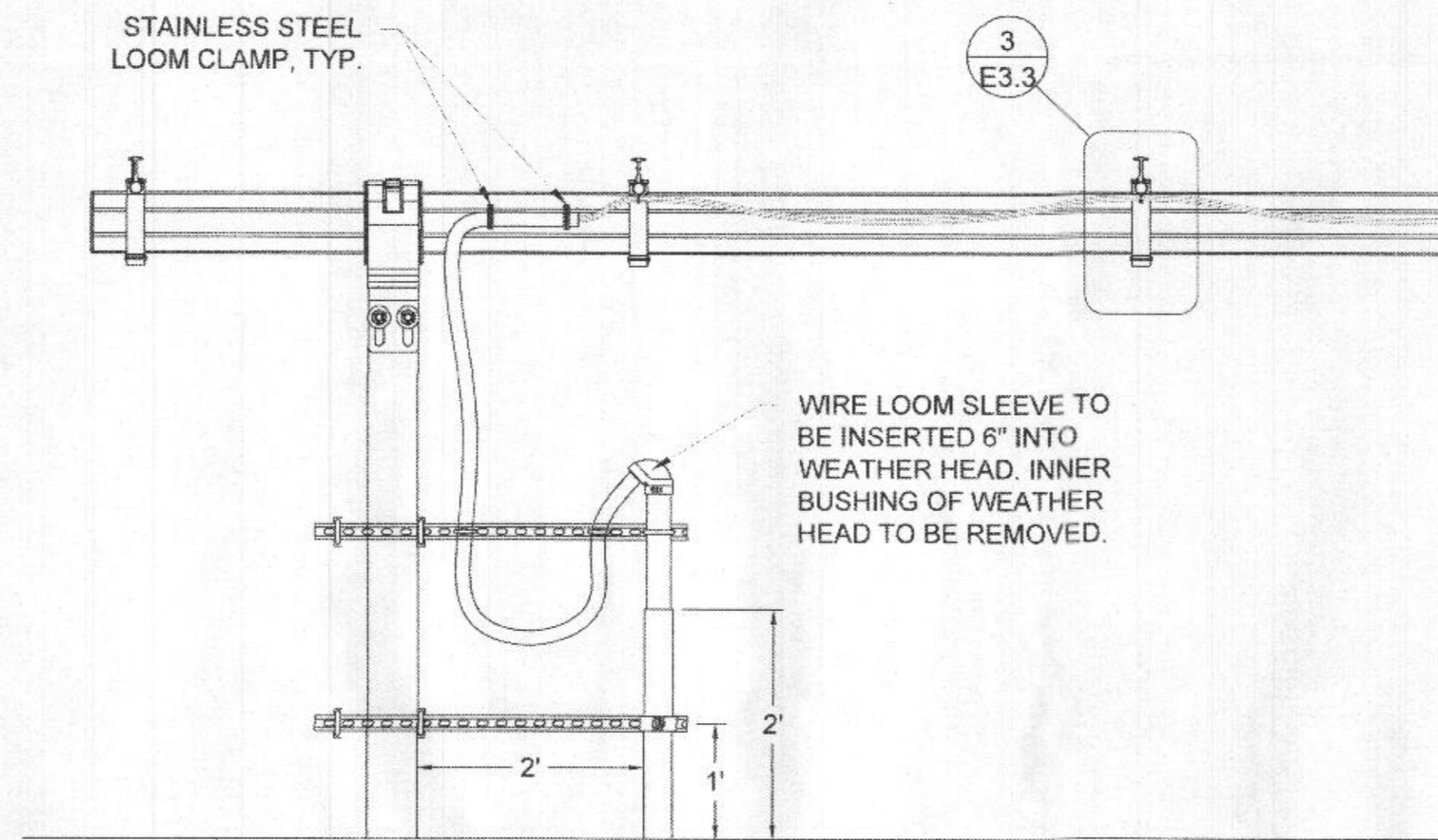


**8 CONDUIT CROSSING DETAIL**  
 SCALE: 3/4" = 1'-0"

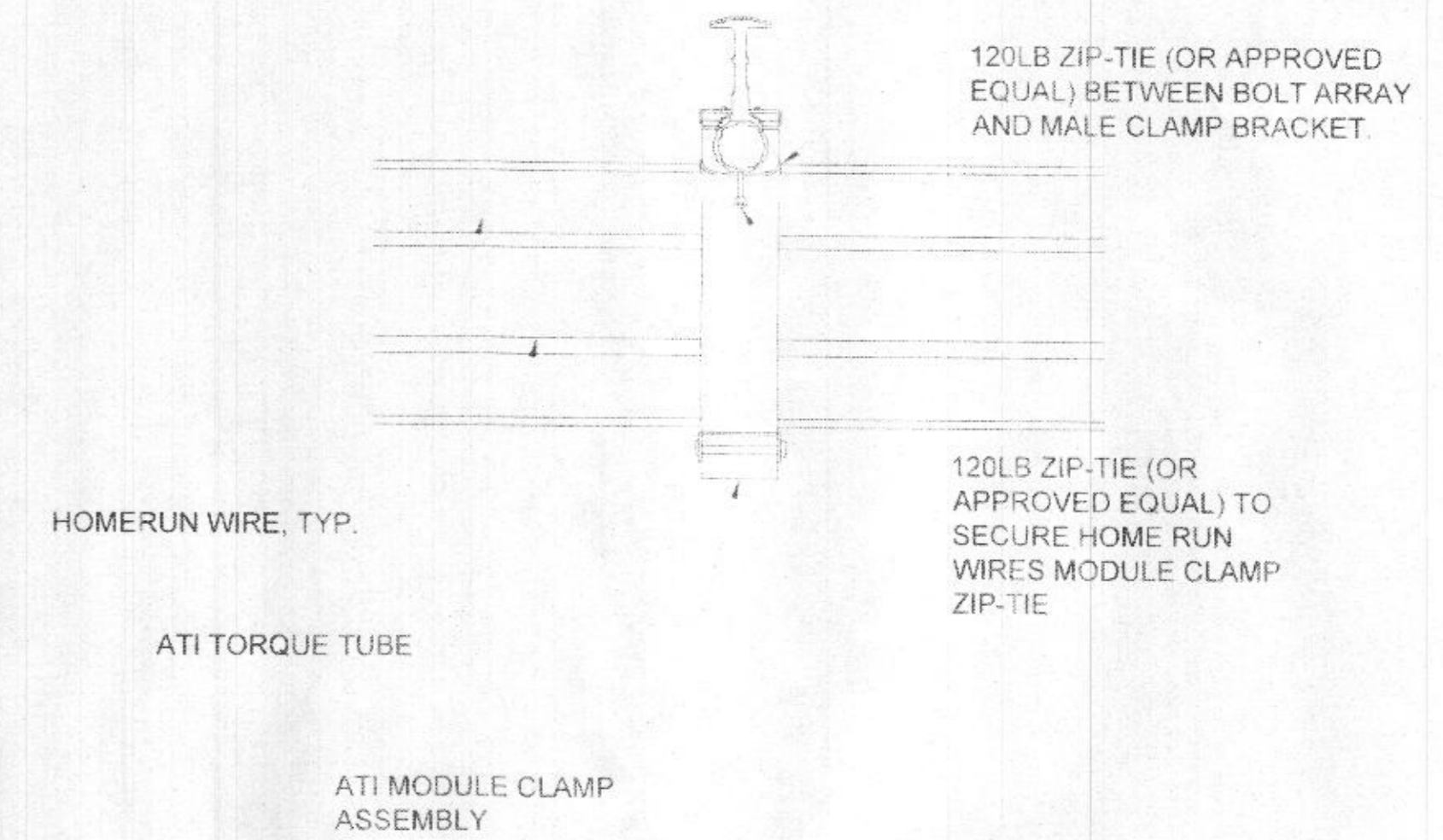
- TRENCH NOTES:**
- CAUTION TO CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INVESTIGATING AND VERIFYING THE ACTUAL LOCATION AND DEPTH OF ALL EXISTING UNDERGROUND FACILITIES AT LEAST 48 HOURS IN ADVANCE OF PERFORMING ANY WORK. CONTRACTOR TO VERIFY TRENCHING DOES NOT OCCUR ON LANDFILL CAP.
  - ASSUMED RHO = 120°C-cm/W.
  - CONDUITS CONTAINING SIMILAR VOLTAGE CLASSES SHOULD HAVE A MINIMUM 3" SPACING BETWEEN ADJACENT RUNS. SPACING BETWEEN CONDUITS OF DIFFERENT VOLTAGE CLASSES SHALL HAVE A MINIMUM 6" SPACING BETWEEN ADJACENT RUNS.
  - ALL TRENCHES SHALL BE COMPACTED TO 90% RELATIVE COMPACTION. TRENCHES WITHIN 5' OF PIERS, FOOTINGS, ROADS OR OTHER STRUCTURES SHALL BE COMPACTED TO 95% FULL DEPTH.
  - TRENCHES GREATER THAN 18" IN WIDTH SHALL CONTAIN ADDITIONAL ELECTRICAL WARNING TAPE.
  - CABLES IN TRENCHES SHALL NOT BE STACKED WITHOUT ENGINEERING APPROVAL. IF STACKED CONDUITS ARE APPROVED, CONDUIT SPACERS MUST BE INSTALLED.
  - CLEAN FILL MATERIAL SHALL BE SCREENED TO A MAXIMUM 1/4" SIZE. ALL ORGANIC AND MAN-MADE MATERIAL SHALL BE REMOVED.
  - CONDUIT SHALL BE SCH40 BELOW GRADE, SCH80 BEGINNING AT BOTTOM OF 90° BEND, AND SCH80 FROM THE BEND TO THE EXPANSION FITTING.



1 ARRAY CONDUIT STUB-UP DETAIL  
3/4" = 1'-0"



2 TRACKER HOME RUN DETAIL  
3/4" = 1'-0"



3 TRACKER HOME RUN ATTACHEMENT DETAIL  
NOT TO SCALE

STANDARD  
S LAR

200 Energy Smart Business  
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301-444-1200  
www.StandardSolar.com

PROFESSIONAL ENGINEER  
CERTIFICATION

*[Signature]*  
I, *[Name]*, hereby certify that these documents  
were prepared or supervised by  
me, and that I am a duly licensed  
Professional Engineer under the  
laws of the State of  
Maryland.  
LICENSE # 45431  
EXP. DATE: 06/19/2022

PROJECT TITLE  
CER - METALMARK  
PROJECT ADDRESS  
686 SYKESVILLE ROAD, SYKESVILLE, MD 21784  
SHEET TITLE  
CONDUIT MOUNTING DETAILS

ISSUED SET / REVISIONS

REV	DATE
30%	4/6/2021
50%	6/8/2021
IFP	6/24/2021

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STANDARD SOLAR, INC.

PROJECT NUMBER

20-228

DRAWN BY

TJA

APPROVED BY

NAG

DATE

6/24/2021

ORIGINAL SHEET SIZE

36x24  
SHOULD MEASURE 1"

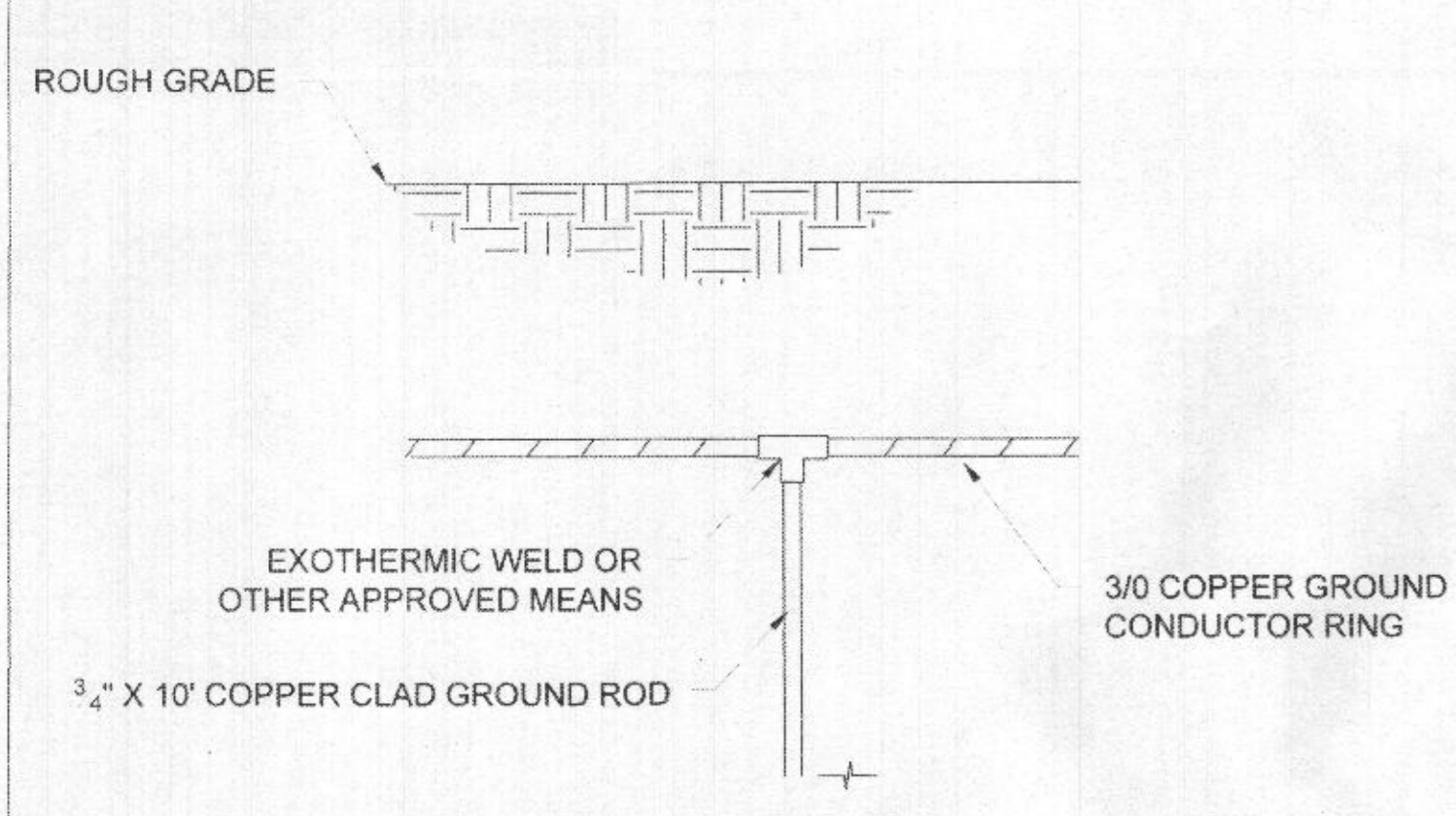
SCALE

AS NOTED

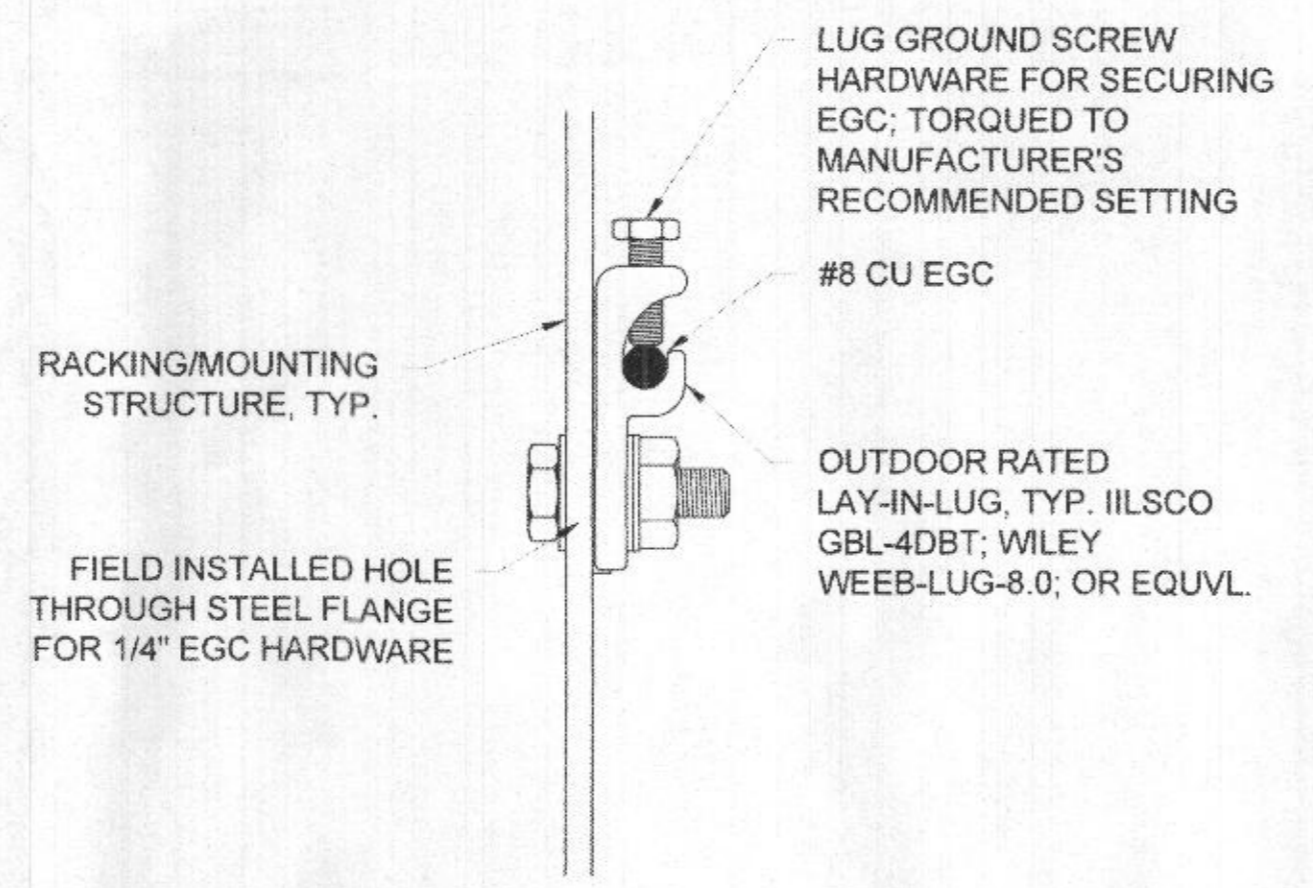
DRAWING

E3.3

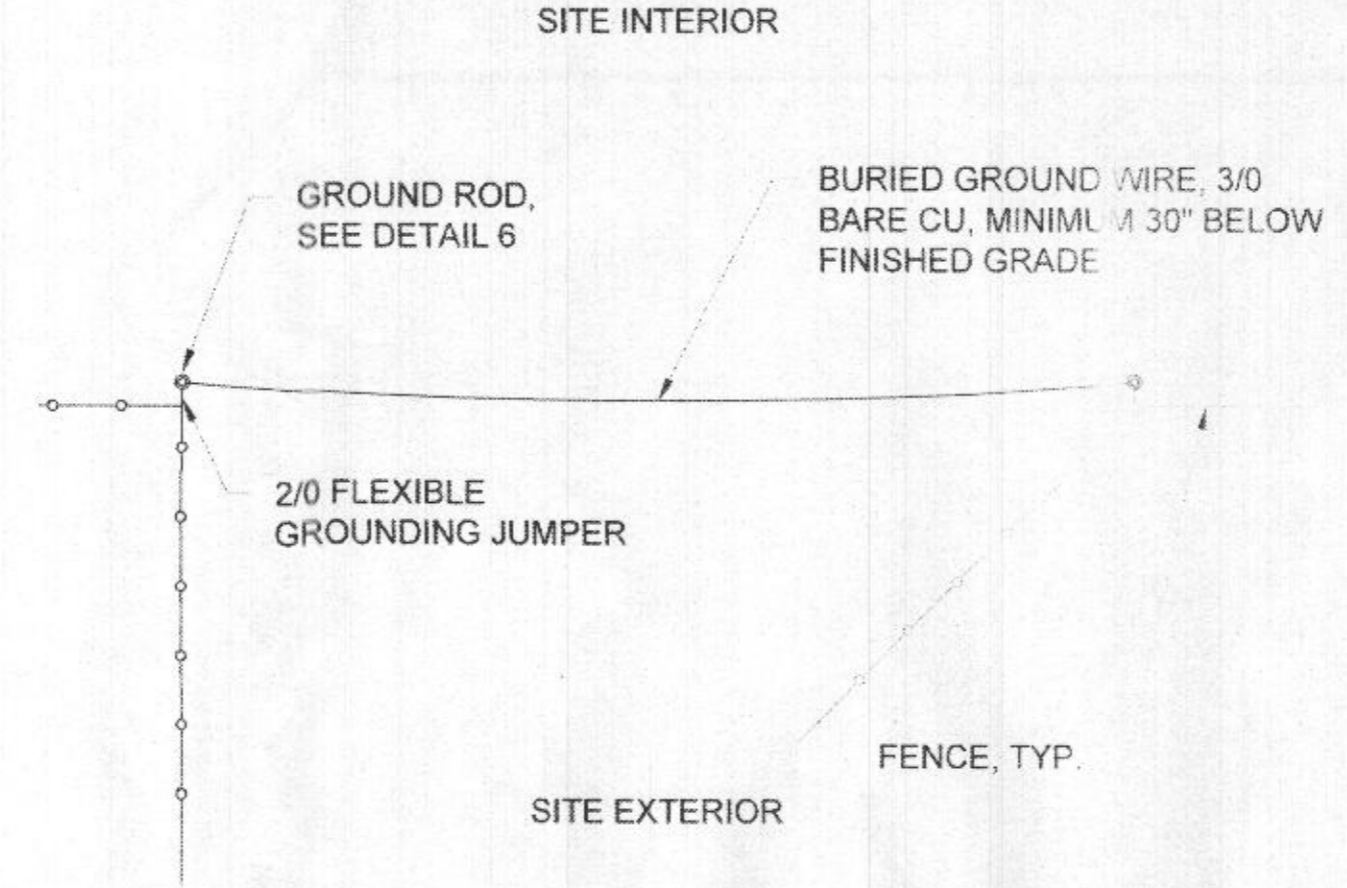
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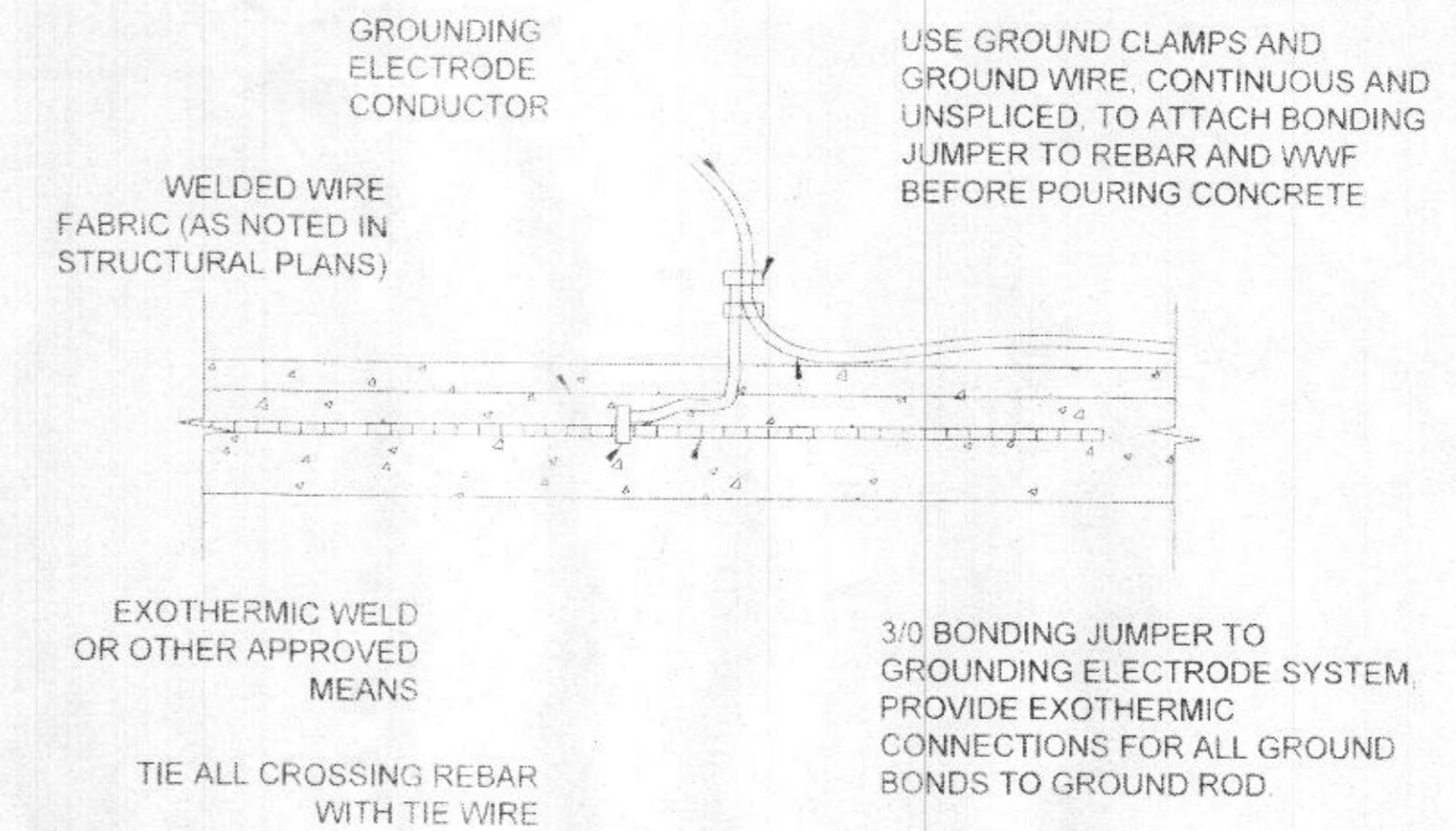
1 GROUND ROD INSTALLATION DETAIL  
SCALE: NTS



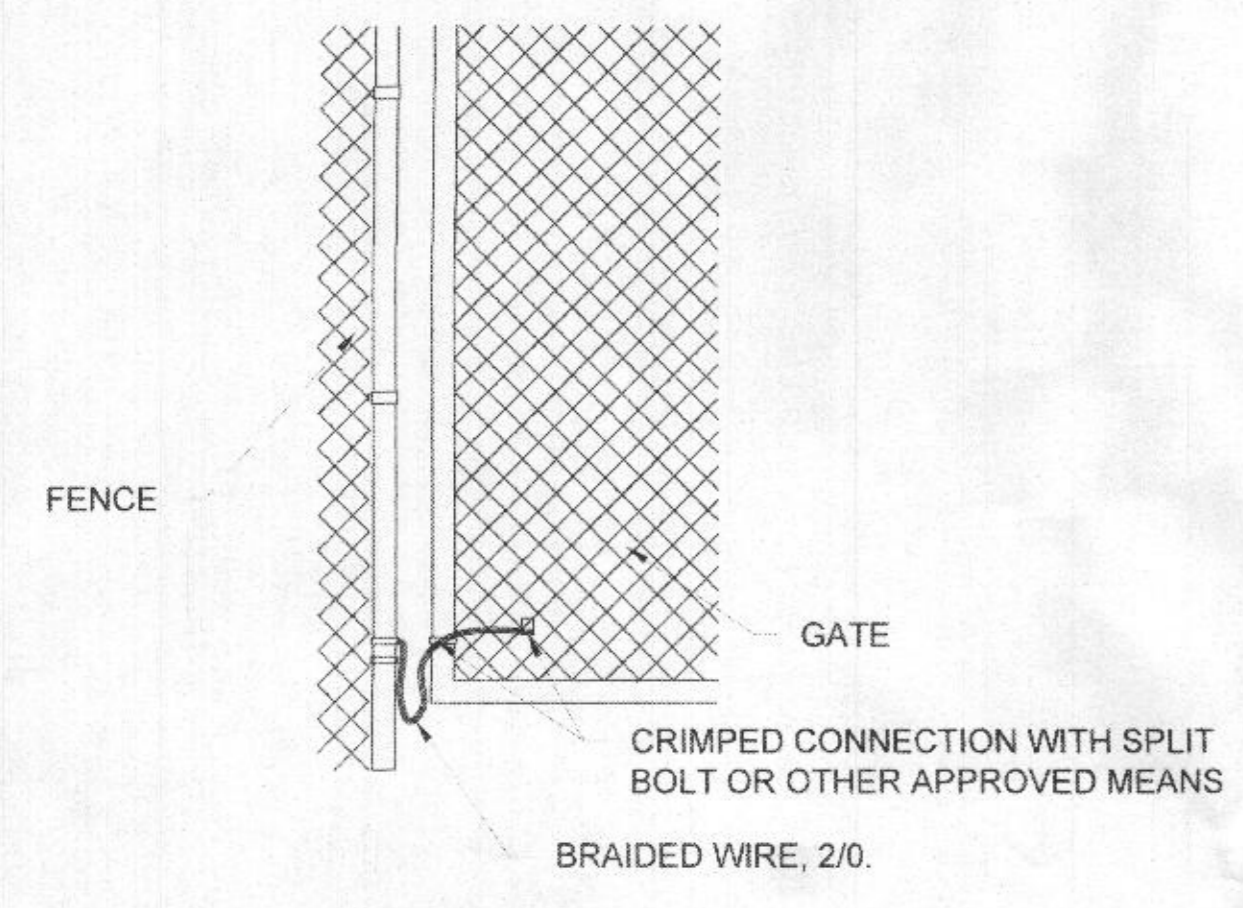
2 GROUND LUG DETAIL  
SCALE: NTS



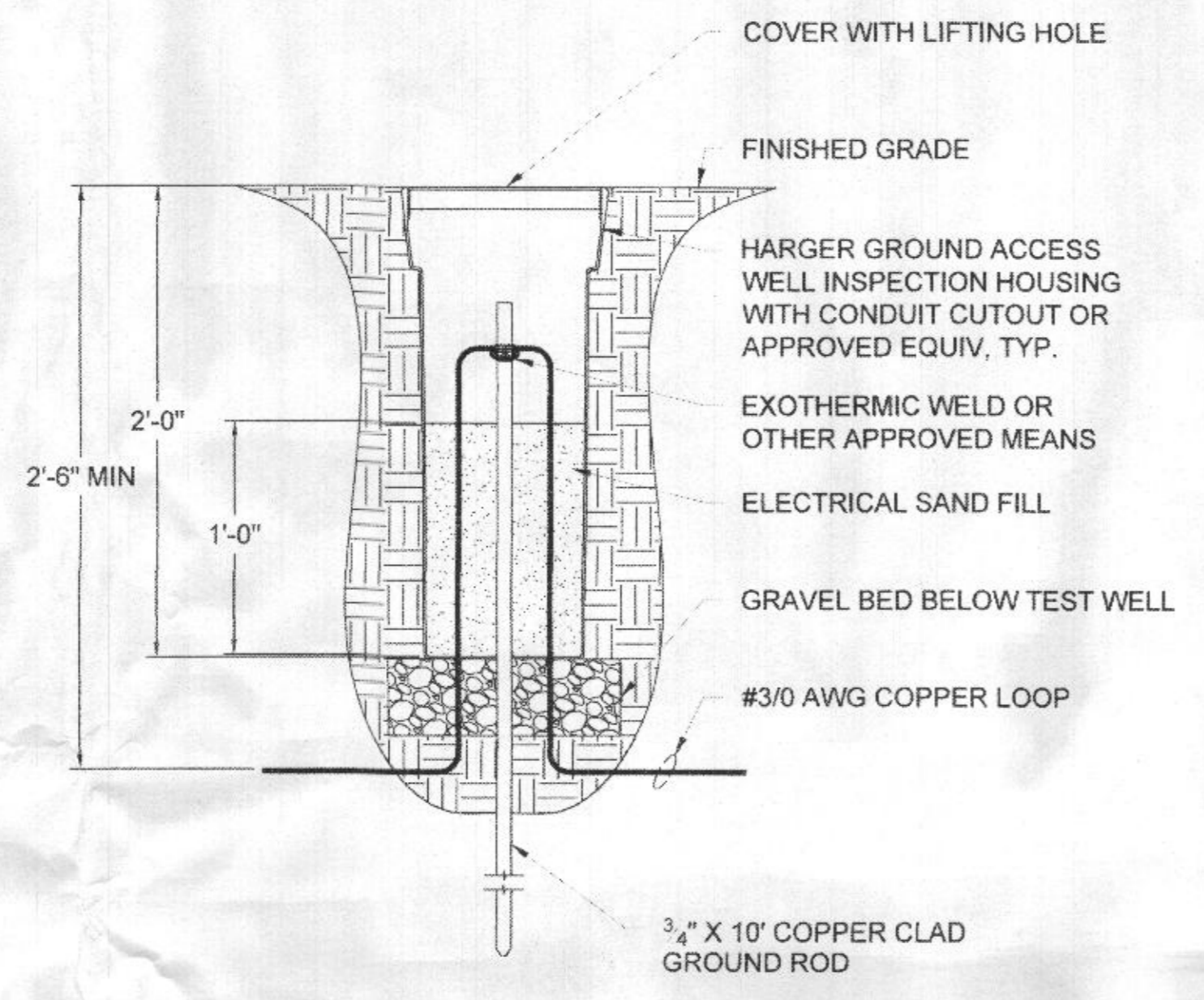
3 GATE GROUND RING DETAIL  
SCALE: NTS



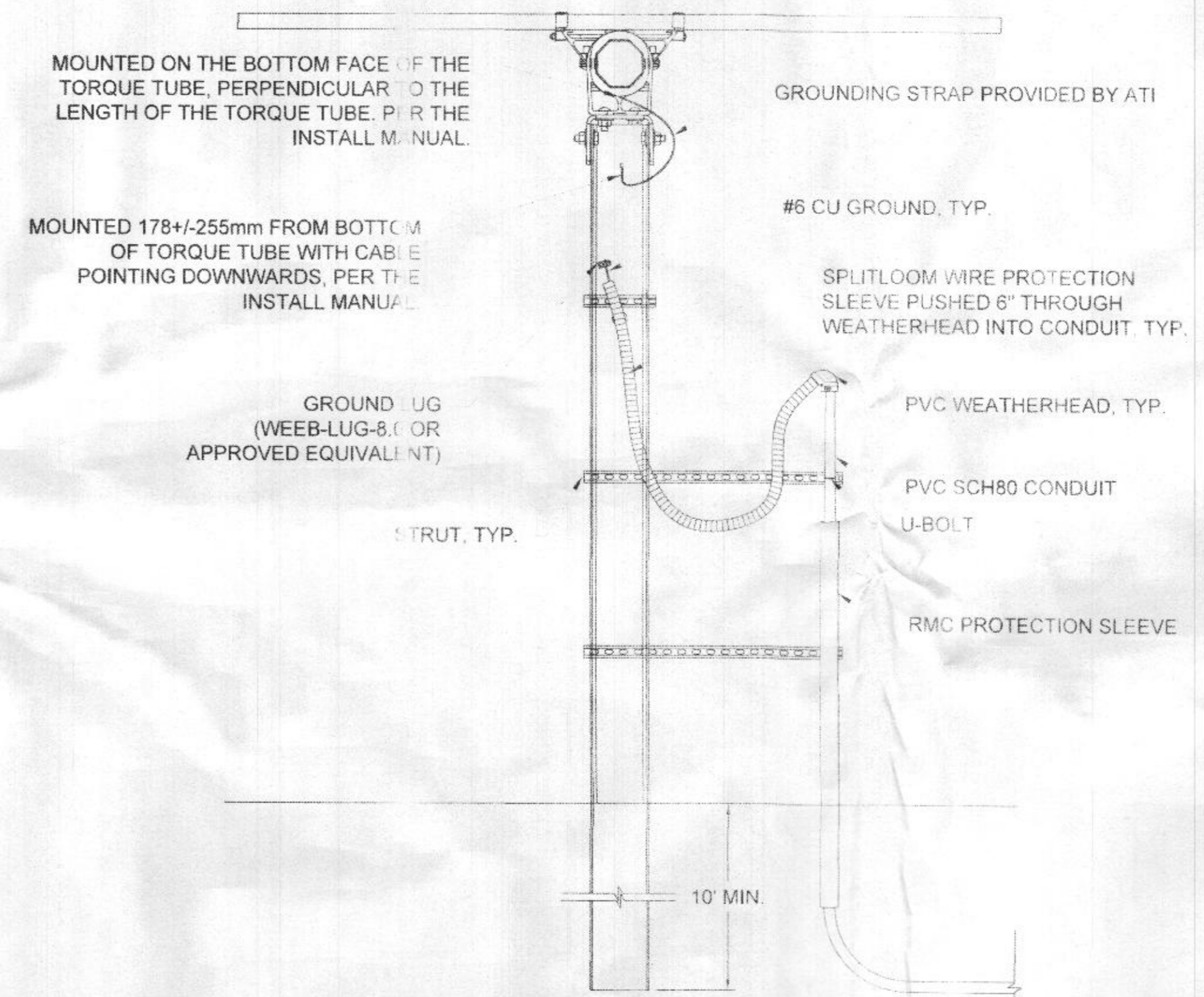
4 CONCRETE PAD BONDING DETAIL  
SCALE: NTS



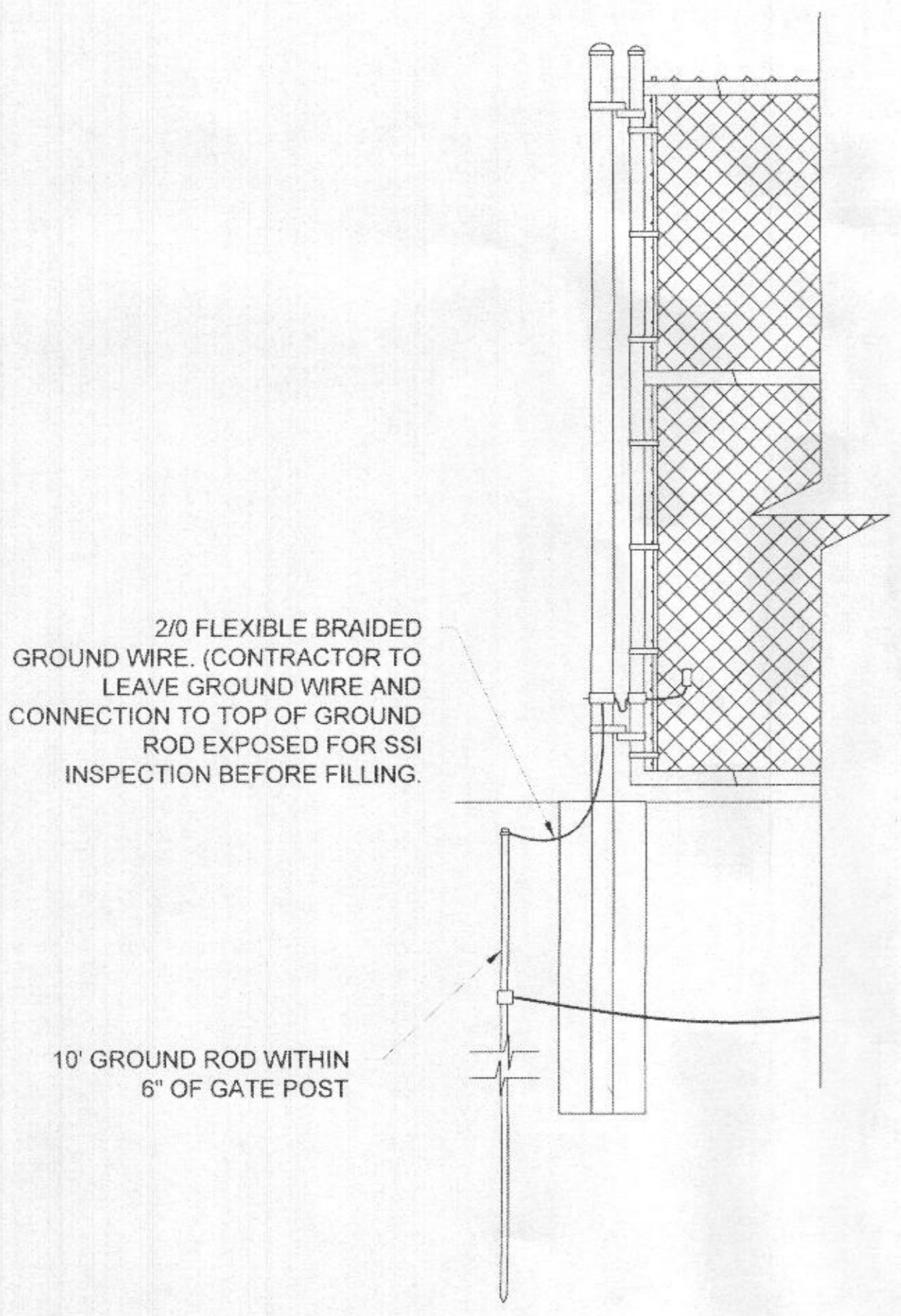
5 GATE GROUNDING DETAIL  
SCALE: NTS



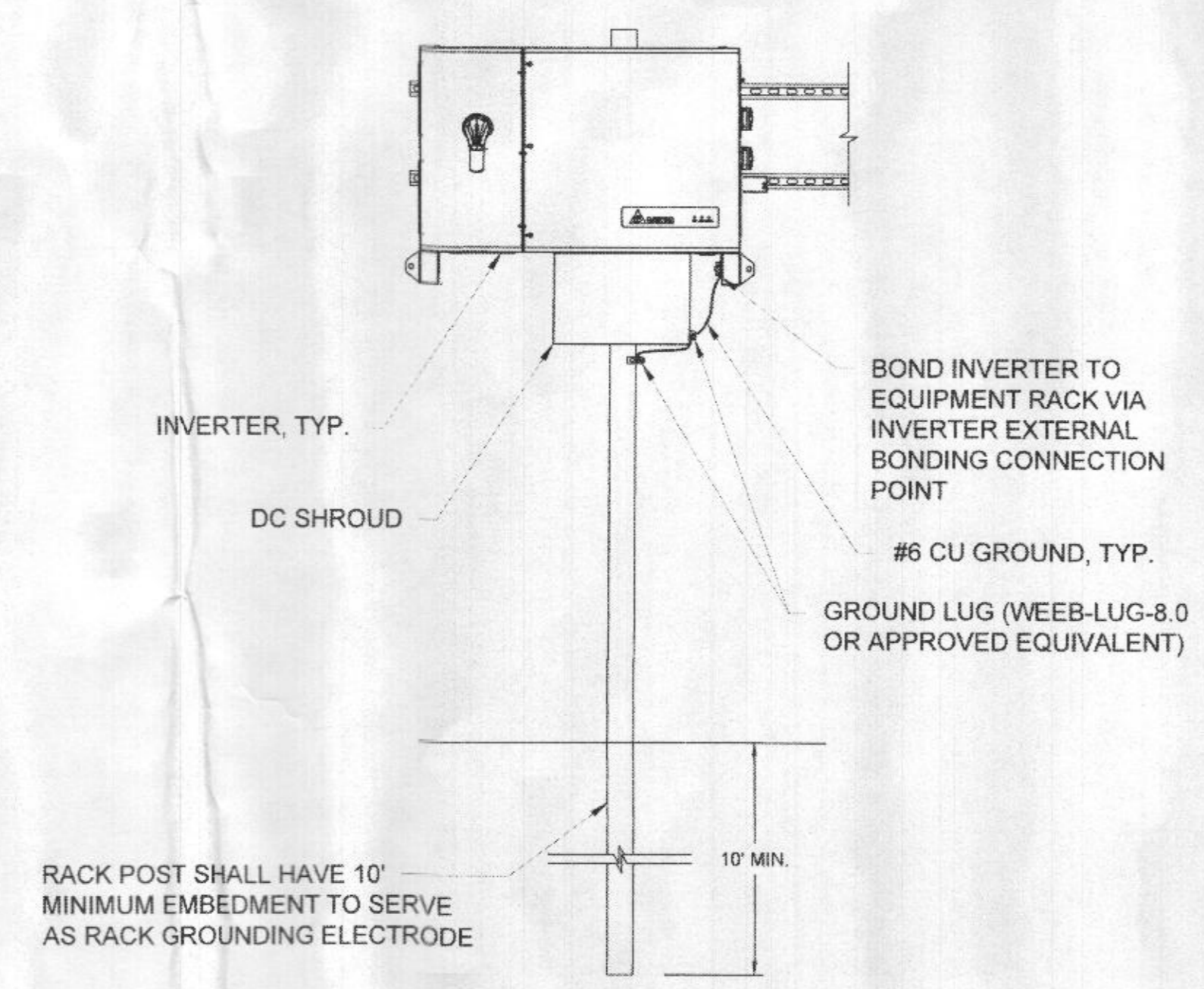
6 GROUNDING TEST WELL DETAIL  
SCALE: NTS



9 TRACKER RACK GROUNDING DETAIL  
SCALE: NTS



7 ACCESS GATE GROUNDING DETAIL  
SCALE: NTS



8 INVERTER/RACK BONDING DETAIL  
SCALE: NTS

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Clean Energy. Smart Business.  
530 Gardner Road, Suite 900  
Rockville, MD 20850  
301-944-1200  
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PROFESSIONAL ENGINEER  
CERTIFICATION

*John*

STATE OF MARYLAND  
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LICENSE # 45453  
EXP. DATE: 05/30/2022

PROJECT TITLE  
SOLAR - METALMARK

PROJECT ADDRESS  
688 SYKESVILLE ROAD, SYKESVILLE, MD 21784

SHEET TITLE  
GROUNDING DETAILS - SINGLE AXIS TRACKER

ISSUED SET / REVISIONS	
REV	DATE
30%	4/6/2021
50%	6/8/2021
IFP	6/24/2021

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PROJECT NUMBER  
20-228

DRAWN BY  
TJA

APPROVED BY  
NAG

DATE  
6/24/2021

ORIGINAL SHEET SIZE  
36X24  
SHOULD MEASURE 1"

SCALE  
AS NOTED

DRAWING

RECEIVED  
AUG 03 2021  
LICENSES & PERMITS  
DIVISION

E3.4