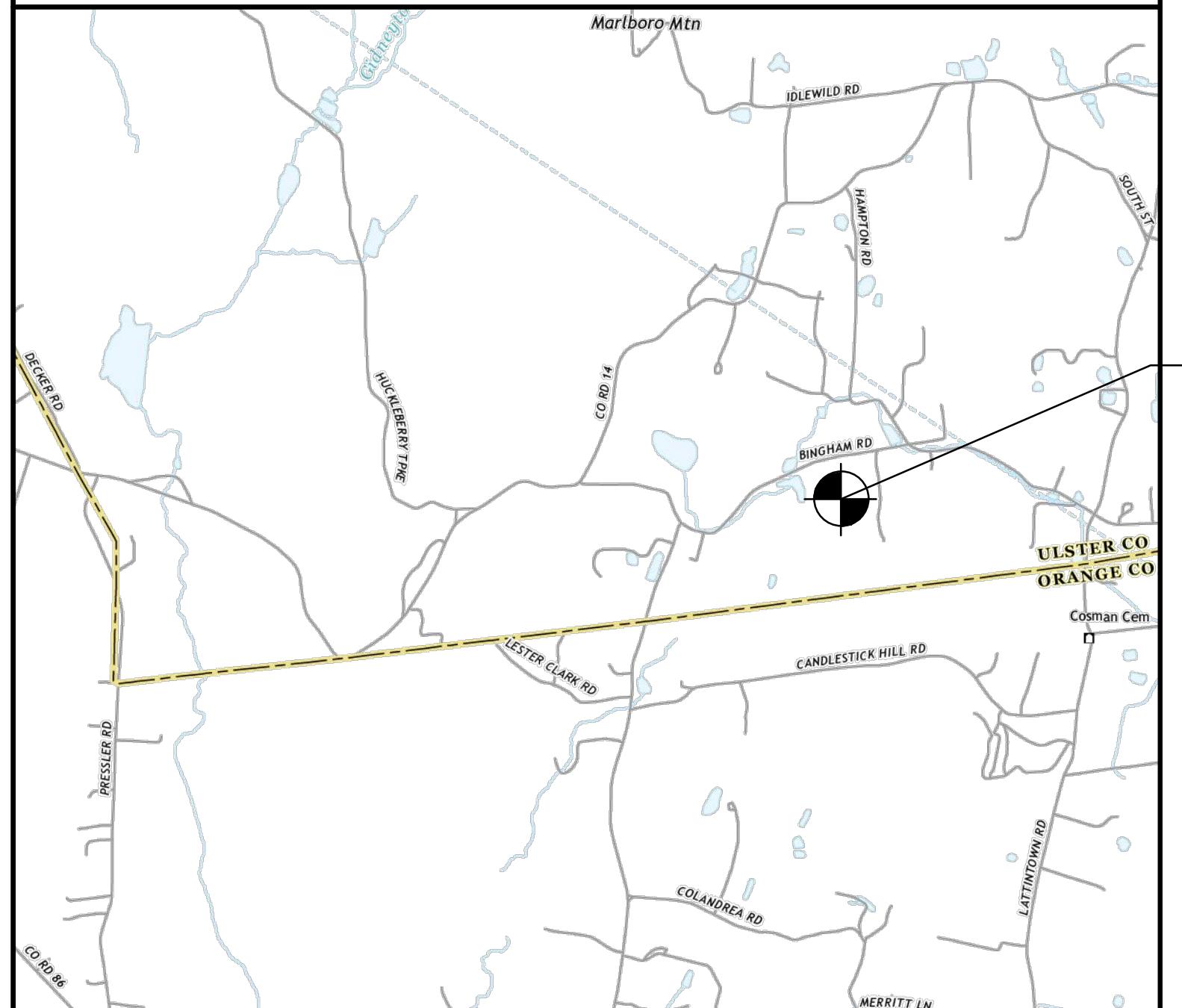


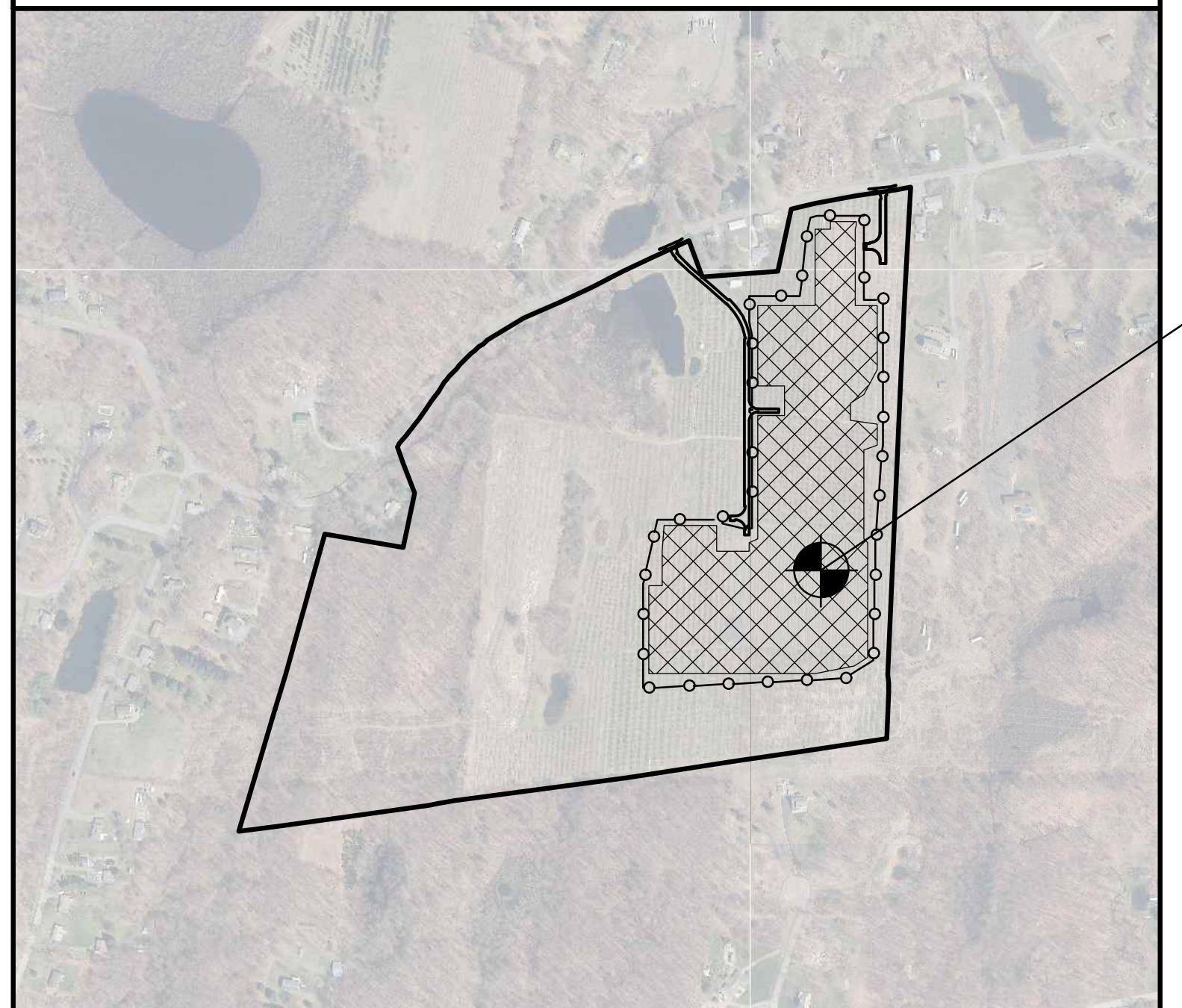
## LOCATION MAP

SCALE: 1"=2000'



## LOCATION MAP

SCALE: 1"=500'



SITE LOCATION

ARRAY LOCATION

# ELP MARLBOROUGH SOLAR

SITE ADDRESS: 335 BINGHAM ROAD, MARLBOROUGH, NY 12542

TAX MAP ID: 108.3-3-21

PROPOSED USE: LARGE SCALE SOLAR ENERGY SYSTEM (5MW-AC)

DEVELOPER:

ELP MARLBOROUGH SOLAR LLC  
14 ARROW STREET, SUITE 22  
CAMBRIDGE, MA 02138

ENGINEER:



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C&amp;A #: 4996.26

DATE: APRIL 5, 2024

REVISED: JULY 3, 2024

## DRAWINGS:

C-001 TITLE SHEET  
C-002 LEGEND & NOTES

C-101 SITE PLAN - EXISTING CONDITIONS  
C-102 SITE PLAN - PROPOSED SITE PLAN  
C-103 SITE PLAN - PROPOSED GRADING & UTILITIES - 1  
C-104 SITE PLAN - PROPOSED GRADING & UTILITIES - 2  
C-105 SITE PLAN - PROPOSED GRADING & UTILITIES - 3  
C-106 SITE PLAN - TEMPORARY EROSION & SEDIMENT CONTROL PLAN

C-501 CIVIL DETAILS - SHEET 1  
C-502 CIVIL DETAILS - SHEET 2

E-501 ELECTRICAL DETAILS - SHEET 1  
E-502 ELECTRICAL DETAILS - SHEET 2  
E-503 ELECTRICAL DETAILS - SHEET 3  
E-504 ELECTRICAL DETAILS - SHEET 4

DRAFT  
NOT FOR  
CONSTRUCTION

## LEGEND

— — — — EXISTING PROPERTY LINE		EXISTING/PROPOSED RAILROAD TRACK
— — — — PROPOSED LOT LINE		EXISTING/PROPOSED ROAD EDGE
— — — — EXISTING/PROPOSED EASEMENT / RIGHT OF WAY		EXISTING/PROPOSED ROAD CENTERLINE
· · · · · EXISTING/PROPOSED ZONING SETBACK		EXISTING/PROPOSED ROAD FOGLINE
— — — — EXISTING/PROPOSED ZONING / JURISDICTIONAL BOUNDARY		EXISTING/PROPOSED PARKING LOT EDGE
— — — — PROPOSED LIMITS OF DISTURBANCE		EXISTING/PROPOSED PARKING LOT STRIPING
STA BM 1208.50		EXISTING/PROPOSED DRIVEWAY
EXISTING SURVEY BENCHMARK (VERTICAL DATUM)		EXISTING/PROPOSED PAVEMENT HATCH
1208		EXISTING/PROPOSED SIDEWALK
1210		EXISTING/PROPOSED CURB
1208		EXISTING/PROPOSED SIGN
1210		EXISTING/PROPOSED FENCE
1208.75 + 1210.28		EXISTING/PROPOSED BOLLARD
EXISTING SOILS		EXISTING/PROPOSED UTILITY MARKER
PT1		EXISTING/PROPOSED STONE WALL
DT1		EXISTING/PROPOSED CONCRETE
SB1		EXISTING BUILDING
— — — — EXISTING WATERBODY		PROPOSED BUILDING
— — — — PROPOSED WATERBODY		EXISTING/PROPOSED RAW WATER LINE
— — — — EXISTING FLOODWAY		EXISTING/PROPOSED WATER LINE
— — — — EXISTING 100 YEAR FLOODPLAIN		EXISTING/PROPOSED WATER WELL
— — — — EXISTING 500 YEAR FLOODPLAIN		EXISTING/PROPOSED WATER HYDRANT
— — — — EXISTING FEDERAL WETLAND BOUNDARY		EXISTING/PROPOSED SANITARY SEWER LINE
— — — — EXISTING STATE WETLAND BOUNDARY		EXISTING/PROPOSED SANITARY FORCEMAIN
— — — — EXISTING STATE WETLAND 100' ADJACENT AREA		EXISTING/PROPOSED SANITARY SEWER MANHOLE
— — — — EXISTING STATE WETLAND 500' CHECKZONE		EXISTING/PROPOSED SANITARY SEWER CLEANOUT
— — — — EXISTING WETLAND HATCH		EXISTING/PROPOSED ELECTRIC
— — — — PROPOSED WETLAND/100' ADJACENT AREA IMPACT HATCH		EXISTING/PROPOSED DIRECT CURRENT ELECTRIC
— — — — PROPOSED WETLAND MITIGATION HATCH		EXISTING/PROPOSED OVERHEAD ELECTRIC
— — — — PRE/POST- DEVELOPMENT DRAINAGE AREAS		EXISTING/PROPOSED UNDERGROUND ELECTRIC
— — — — PRE/POST- DEVELOPMENT TIME OF CONCENTRATION		EXISTING/PROPOSED DATA/COMM ELECTRIC
— — — — EXISTING/PROPOSED SWALE CENTERLINE		EXISTING/PROPOSED UTILITY POLE
— — — — EXISTING/PROPOSED CULVERT W/ FLARED END SECTION		EXISTING/PROPOSED ELECTRIC TRANSFORMER
— — — — EXISTING/PROPOSED STORMWATER LINE		EXISTING/PROPOSED ELECTRIC PULL BOX
CB CB		EXISTING/PROPOSED NATURAL GAS LINE
MH MH		EXISTING/PROPOSED PROPANE LINE
VD VD		EXISTING/PROPOSED UNDERGROUND UTILITY
— — — — PROPOSED SILT FENCE		EXISTING/PROPOSED UTILITY METER
— — — — PROPOSED FILTER SOCK		EXISTING/PROPOSED UTILITY REGULATOR
— — — — EXISTING/PROPOSED TREELINE		EXISTING/PROPOSED UTILITY VALVE
— — — — EXISTING/PROPOSED CONIFER TREE		EXISTING/PROPOSED UTILITY CHECK VALVE
— — — — EXISTING/PROPOSED DECIDUOUS TREE		PROPOSED SCREENING STRIP HATCH

### SITE PLAN NOTES:

1. ORTHOGRAPHIC IMAGERY DOWNLOADED FROM NYS GIS CLEARINGHOUSE. IMAGERY PUBLISHED SEPTEMBER 2023, ACCESSED BY C&A NOVEMBER 2023.
2. BACKGROUND DRAWING & TOPOGRAPHIC CONTOURS TAKEN FROM SURVEY TITLED "MAP OF A PORTION OF LANDS OF TRUNCAL PREPARED FOR ELP MARLBOROUGH SOLAR LLC, SBL:108.3-3-21, ULSTER COUNTY, STATE OF NY" DATED APRIL 22, 2024, PREPARED BY CONTROL POINT ASSOCIATES, INC., P.C.
3. ADJACENT PROPERTY BOUNDARIES DOWNLOADED FROM ULSTER COUNTY GIS DATABASE IN AUGUST 2023. SELECT BOUNDARIES ADJUSTED BY C&A TO REFLECT EXPECTED LOCATIONS OF INTERSECTION WITH SURVEYED BOUNDARY LINE.
4. EXISTING SITE FEATURES SUCH AS BUILDING LOCATIONS, DRIVEWAYS, ROADS, OVERHEAD UTILITIES, AND TREELINES OUTSIDE SURVEY AREA ESTIMATED FROM ORTHOGRAPHIC IMAGERY.
5. NWI POTENTIAL WETLAND BOUNDARIES DOWNLOADED FROM NATIONAL WETLANDS INVENTORY, ACCESSED NOVEMBER 2023.
6. FEMA NFHL CHECKED IN JANUARY 2024 AND NO FLOOD HAZARDS WERE IDENTIFIED WITHIN THE PROJECT AREA. PROJECT FALLS WITHIN FIRM PANEL #3611C0900F.
7. PROPOSED SOLAR FACILITY LAYOUT FROM DRAWING TITLED "PRELIMINARY PV SITE PLAN" PREPARED BY CS ENERGY DATED MARCH 2, 2023, AMENDED BY C&A PER VCR INSTRUCTION.

### PROPOSED SITE PLAN NOTES:

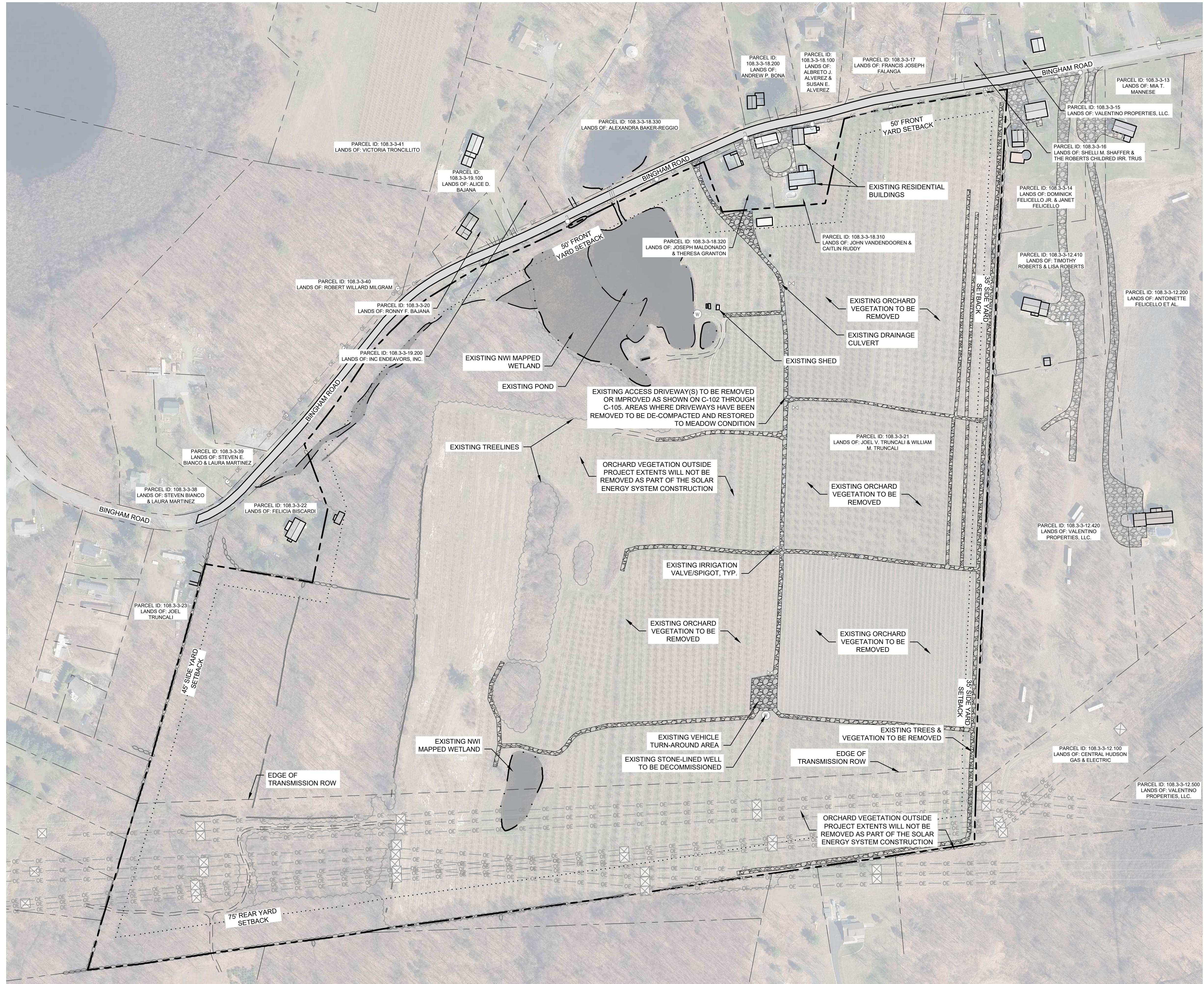
1. THE PROPOSED SOLAR ENERGY SYSTEM INSTALLATION SHALL BE PERFORMED BY A QUALIFIED SOLAR INSTALLER.
2. THE PROPOSED SOLAR ENERGY SYSTEM WILL MEET NEW YORK'S UNIFORM FIRE PREVENTION AND BUILDING CODE AND NATIONAL ELECTRICAL CODE STANDARDS.
3. PRIOR TO OPERATION OF THE SOLAR ENERGY SYSTEM, WRITTEN PROOF THAT ELECTRICAL CONNECTIONS HAVE BEEN INSPECTED AND APPROVED BY AN APPROPRIATE ELECTRICAL INSPECTION PERSON OR AGENCY, AS DETERMINED BY THE TOWN OF MARLBOROUGH WILL BE PROVIDED.
4. A MAP SHOWING THE LOCATIONS OF THE MAJOR COMPONENTS OF THE SOLAR SYSTEM INCLUDING THE LOCATION OF THE ARRAY, EQUIPMENT PADS, MAIN TRENCH LOCATIONS, AND DISCONNECTS SHALL BE POSTED AT THE FACILITIES ENTRANCE AND PROVIDED TO THE LOCAL FIRE DEPARTMENT OBLIGATED TO RESPOND TO A CALL AT THE FACILITY.
5. THE SOLAR PANELS SHALL NOT EXCEED 15' IN HEIGHT.
6. BUILDING SETBACK REQUIREMENTS SHALL BE AS STATED FOR THE RAG-1 (RURAL AGRICULTURAL DISTRICT) AS SHOWN IN THE ZONING TABLE BELOW. INVERTERS SHALL BE SET BACK THE LESSER OF 100 FEET OR UNTIL THE ELECTROMAGNETIC FIELD (EMF) MEETS BACKGROUND LEVEL, AS DETERMINED BY THE WORLD HEALTH ORGANIZATION (WHO).
7. COMMERCIAL SOLAR FACILITY'S AREA OF USE, AS DEFINED IN CODE SECTION 155-32.2 (B) EQUATES TO APPROXIMATELY 15.7 ACRES.
8. NONINVASIVE GROUND COVER UNDER AND BETWEEN THE ROWS OF SOLAR PANELS SHALL BE LOW-MAINTENANCE, DROUGHT-RESISTANT, AND NON-FERTILIZER-DEPENDENT. SEE SEEDING PLAN ON C-501 FOR MORE DETAILS.
9. THE SOLAR ENERGY SYSTEM SHALL BE ENCLOSED BY A MINIMUM 8' TALL PERIMETER FENCE AND SHALL BE AN AGRICULTURAL STYLE FENCE CONSISTING OF WOODEN POSTS AND WOVEN WIRE. WARNING SIGNS WITH THE OWNER'S CONTACT INFORMATION WILL BE PLACED ON THE ENTRANCE AND PERIMETER OF THE FENCING.
10. A SIGN NO GREATER THAN TWO SQUARE FEET INDICATING THE NAME OF THE FACILITY OWNER(S) AND A TWENTY-FOUR-HOUR EMERGENCY TELEPHONE NUMBER SHALL BE POSTED. IN ADDITION, "NO TRESPASSING" OR OTHER WARNING SIGNS MAY BE POSTED.
11. THE OWNER WILL BE RESPONSIBLE FOR UPKEEP OF THE SOLAR FACILITY, INCLUDING ALL NECESSARY MAINTENANCE OF THE SYSTEM & PROPERTY INCLUDING MOWING AND TRIMMING IN AND AROUND THE FACILITY.
12. THE OWNER SHALL PREPARE AND COMPLY WITH A DECOMMISSIONING PLAN AS DETAILED IN THE TOWN OF MARLBOROUGH, NY, SUPPLEMENTARY REGULATIONS SECTION 155-32.2.
13. ALL TEMPORARILY STOCKPILED MATERIAL GENERATED BY CONSTRUCTION OF THE FACILITY WILL BE REMOVED FROM THE SITE IN A TIMELY MANNER.

### E&SC PLAN AND CONSTRUCTION NOTES:

1. CONSTRUCTION SHALL NOT COMMENCE UNTIL APPROPRIATE PERMIT COVERAGE HAS BEEN OBTAINED UNDER NYSDEC SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITY, GP-0-20-001.
2. TOTAL LIMITS OF DISTURBANCE (LOD) INCLUDES LAND CLEARING/GRUBBING, MINOR GRADING FOR ACCESS DRIVE AND EQUIPMENT PADS, TRENCHING, AND TEMPORARY E&SC MEASURES.
3. CONSTRUCTION SHALL BE COMMENCED IN ACCORDANCE WITH A PHASING PLAN TO LIMIT DISTURBANCE OF GREATER THAN 5 ACRES PER PHASE.
4. EACH PHASE SHALL BE TEMPORARILY STABILIZED BEFORE PROCEEDING TO A SUBSEQUENT PHASE.
5. THE TEMPORARY E&SC PLAN MEASURES SHOWN HEREIN, SHALL BE PUT IN PLACE AT THE BEGINNING OF CONSTRUCTION AND REMOVED UPON FINAL STABILIZATION OF THE SITE.
6. CONSTRUCTION OF THE PANEL ARRAYS SHALL BE COMPLETED IN SUCH A WAY THAT NULLIFIES DISTURBANCE AND/OR COMPACTION OF THE IN-SITU LAND COVER (I.E. TRACKED VEHICLE TRAVELING IN AND OUT OF ROWS IS RECOMMENDED). EXISTING GROUND COVER IN THE AREA OF THE PANEL ARRAY SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
7. ALL DISTURBED AREAS SHALL BE SEADED AND MULCHED AS DETAILED IN THE SEEDING PLAN ON DRAWING C-501.
8. THE TEMPORARY PARKING AND STAGING AREA FOR CONSTRUCTION EQUIPMENT AND MATERIALS SHALL CONSIST OF STONE DUST OR A SIMILAR MATERIAL. UPON COMPLETION OF CONSTRUCTION, THE STONE DUST, OR SIMILAR, SHALL BE REMOVED UP TO BUT NOT INCLUDING REMOVAL OF THE COVERED TOPSOIL. THE AREA SHALL BE SEADED AND MULCHED ACCORDING TO THE SEED AND MULCH SPECIFICATIONS DETAILED ON THE E&SC NOTES SHEET.
9. IN HIGH TRAFFIC AREAS, THE AREA SHALL BE DE-COMPACTED PRIOR TO SEEDING TO ENSURE GROWTH OF VEGETATIVE COVER. THE AREA(S) SHALL BE DE-COMPACTED ACCORDING TO NYSDEC EROSION AND SEDIMENT CONTROL DE-COMPACTATION GUIDELINES.
10. IN AREAS OF TREE TRIMMING, NO DISTURBANCE SHALL COMMENCE WITHOUT APPROPRIATE PERMITTING FROM NYSDEC OR USACE. TREES SHALL BE TRIMMED AND/OR FLUSH CUT AS NEEDED FOR SHADING PURPOSES AND OVERALL CONSTRUCTION OF THE PROJECT. IT SHOULD BE NOTED THAT IN THESE AREAS, TREE STUMPS SHALL NOT BE REMOVED AND WASTE MATERIALS SHALL BE REMOVED WITH EQUIPMENT THAT DOES NOT RESULT IN DISTURBANCE.

SITE DATA / ZONING SUMMARY			
TAX ID NUMBER: 108.3-3-21 (+/- 80 ACRES)			
ZONING DISTRICT			RAG-1 (RURAL AGRICULTURAL DISTRICT)
USE CLASSIFICATION			LARGE SCALE SOLAR ENERGY SYSTEM (5 MW-AC)
REQUIRED	PROPOSED		
MINIMUM LOT SIZE	1 ACRE	+/-. 80 ACRES	
LOT COVERAGE, MAX.	50% <sup>1</sup>	10.5% <sup>2</sup>	
LOT WIDTH (FT)	150'	1845'	
LOT DEPTH (FT)	200'	1480'	
BUILDING HEIGHT (FT), MAX	15' <sup>3</sup>	<15'	
YARD SETBACKS - MINIMUM (FT)			
FRONT	50'	50'	
SIDE (ONE)	35'	35'	
SIDE (BOTH)	80'	80'	
REAR	75'	>100'	
<sup>1</sup> REQUIREMENT ALTERED FROM ZONING SCHEDULE I "LOT, YARD, AND HEIGHT REGULATIONS" PER TOWN OF MARLBOROUGH CODE 155-32.2 "STANDARDS FOR LARGE-SCALE SOLAR SYSTEMS AS A SPECIAL USE".			
<sup>2</sup> AN EXISTING, NON-COMFORMING, BUILDING TO REMAIN IS LOCATED APPROXIMATELY 24' FROM THE BOUNDARY LINE. THE PROPOSED SOLAR PROJECT SHALL RESPECT THE 50' ZONING SETBACK.			
<sup>3</sup> PROPOSED LOT COVERAGE CALCULATION INCLUDES PROPOSED DRIVEWAYS, CONCRETE EQUIPMENT PADS & MODULE AREA			

1	UPDATES PER PLANNING BOARD COMMENT	7/3/24	TSB
REV #	DESCRIPTION	DATE	BY
ELP MARLBOROUGH SOLAR 335 BINGHAM ROAD			
TOWN OF MARLBOROUGH			
ULSTER COUNTY, NY			
LEGEND & NOTES			
<p><b>DRAFT NOT FOR CONSTRUCTION</b></p> <p><b>CRAWFORD &amp; ASSOCIATES</b> ENGINEERING &amp; LAND SURVEYING, PC 4411 Route 9, Suite 200, Hudson New York 12534 tel: (518) 828-2700 www.crawfordandassociates.com fax: (518) 828-2723</p> <p><b>© COPYRIGHT</b></p> <p><i>If it is a violation of the New York State Education Law for any person to alter these documents in any way, unless acting under the direction of a licensed professional engineer.</i></p>			
DATE	DRAWN BY: TSB/DPB	H1WORK1996.26 Marlbrough D1W1996.26 TITLE #	
4/5/2024	DESENDED BY: TSB/DPB		
SCALE	CHECKED BY: CLK	C&A JOB#	
AS SHOWN	APPROVED BY: CLK	4996.26	
		DRAWING: C-002	



#### EXISTING CONDITIONS & DEMO

SCALE: 1"=120'

#### GRAPHIC SCALE

120 0 60 120 240  
( IN FEET )  
1 inch = 120 ft.

NAD 83  
NY STATE PLANE EAST ZONE

**SITE PLAN NOTES:**

1. ORTHOGRAPHIC IMAGERY DOWNLOADED FROM NYS GIS CLEARINGHOUSE. IMAGERY PUBLISHED SEPTEMBER 2023, ACCESSED BY C&A NOVEMBER 2023.
2. BACKGROUND DRAWING & TOPOGRAPHIC CONTOURS TAKEN FROM SURVEY TITLED "MAP OF A PORTION OF LANDS OF TRUNCALI PREPARED FOR ELP MARLBOROUGH SOLAR LLC, SBL:108.3-3-21, ULSTER COUNTY, STATE OF NY" DATED APRIL 22, 2024, PREPARED BY CONTROL POINT ASSOCIATES, INC. P.C.
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6. FEMA NFHL CHECKED IN JANUARY 2024 AND NO FLOOD HAZARDS WERE IDENTIFIED WITHIN THE PROJECT AREA. PROJECT FALLS WITHIN FIRM PANEL #36111C0900F.

1	UPDATES PER PLANNING BOARD COMMENT	7/3/24	TSB
REV #	DESCRIPTION	DATE	BY

#### ELP MARLBOROUGH SOLAR 335 BINGHAM ROAD

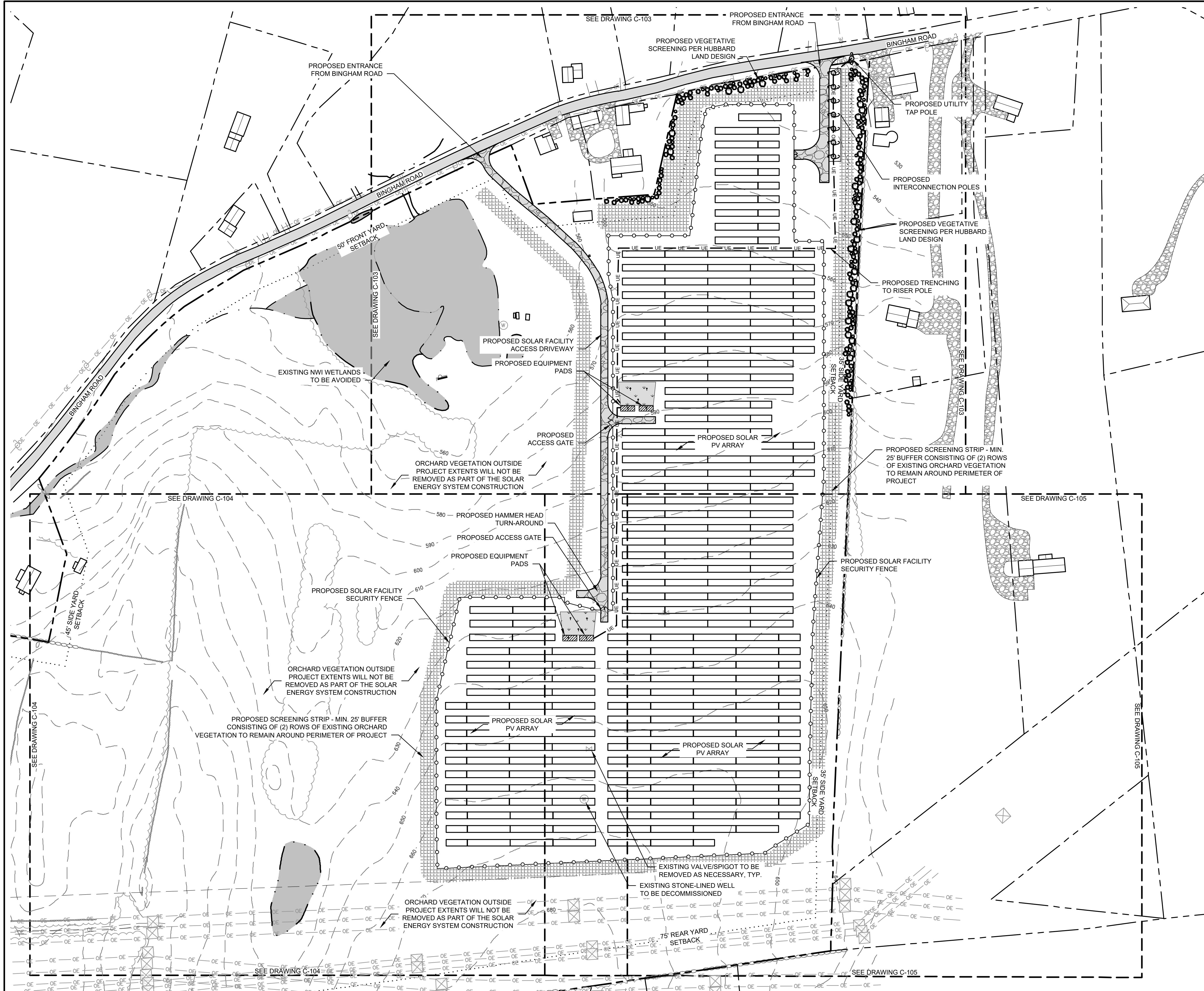
TOWN OF MARLBOROUGH ULSTER COUNTY, NY

#### SITE PLAN EXISTING CONDITIONS & DEMO

DRAFT NOT FOR CONSTRUCTION	CRAWFORD & ASSOCIATES		
	ENGINEERING & LAND SURVEYING, PC 4411 Route 9, Suite 200, Hudson New York 12534 www.crawfordandassociates.com (518) 828-2700 fax: (518) 828-2723	DATE 4/5/2024	DRAWN BY: TSB/DPB DESENSED BY: TSB/DPB
	SCALE AS SHOWN	CHECKED BY: CJK	C&A JOB# 4996.26
		APPROVED BY: CJK	DRAWING: C-101

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PROPOSED OVERALL LAYOUT

SCALE: 1" = 100'

GRAPHIC SCALE  
( IN FEET )  
1 inch = 100 ft.  
NAD 83  
NY STATE PLANE EAST ZONE

**SITE PLAN NOTES:**

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2. BACKGROUND DRAWING & TOPOGRAPHIC CONTOURS TAKEN FROM SURVEY TITLED "MAP OF A PORTION OF LANDS OF TRUNCAL PREPARED FOR ELP MARLBOROUGH SOLAR LLC, SBL:108.3-3-21, ULSTER COUNTY, STATE OF NY" DATED APRIL 22, 2024, PREPARED BY CONTROL POINT ASSOCIATES, INC. P.C.
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5. THE SOLAR PANELS SHALL NOT EXCEED 15' IN HEIGHT.
6. BUILDING SETBACK REQUIREMENTS SHALL BE AS STATED FOR THE RAG-1 (RURAL AGRICULTURAL DISTRICT) AS SHOWN IN THE ZONING TABLE BELOW. INVERTERS SHALL BE SET BACK THE LESSER OF 100 FEET OR UNTIL THE ELECTROMAGNETIC FIELD (EMF) MEETS BACKGROUND LEVEL, AS DETERMINED BY THE WORLD HEALTH ORGANIZATION (WHO).
7. COMMERCIAL SOLAR FACILITY'S AREA OF USE, AS DEFINED IN CODE SECTION 155-32.2 (B) EQUATES TO APPROXIMATELY 15.7 ACRES.
8. NONINVASIVE GROUND COVER UNDER AND BETWEEN THE ROWS OF SOLAR PANELS SHALL BE LOW-MAINTENANCE, DROUGHT-RESISTANT, AND NON-FERTILIZER-DEPENDENT. SEE SEEDING PLAN ON C-501 FOR MORE DETAILS.
9. THE SOLAR ENERGY SYSTEM SHALL BE ENCLOSED BY A MINIMUM 8' TALL PERIMETER FENCE AND SHALL BE AN AGRICULTURAL-STYLE FENCE CONSISTING OF WOODEN POSTS AND WOVEN WIRE. WARNING SIGNS WITH THE OWNER'S CONTACT INFORMATION WILL BE PLACED ON THE ENTRANCE AND PERIMETER OF THE FENCING.
10. A SIGN NO GREATER THAN TWO SQUARE FEET INDICATING THE NAME OF THE FACILITY OWNER(S) AND A TWENTY-FOUR-HOUR EMERGENCY TELEPHONE NUMBER SHALL BE POSTED. IN ADDITION, "NO TRESPASSING" OR OTHER WARNING SIGNS MAY BE POSTED.
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13. ALL TEMPORARILY STOCKPILED MATERIAL GENERATED BY CONSTRUCTION OF THE FACILITY WILL BE REMOVED FROM THE SITE IN A TIMELY MANNER.

#### SITE DATA / ZONING SUMMARY

TAX ID NUMBER: 108.3-3-21 (+/- 80 ACRES)

ZONING DISTRICT	LARGE SCALE SOLAR ENERGY SYSTEM (5 MW-AC)	
USE CLASSIFICATION	REQUIRED	PROPOSED
MINIMUM LOT SIZE	1 ACRE	+/- 80 ACRES
LOT COVERAGE, MAX.	50% <sup>1</sup>	10.5% <sup>2</sup>
LOT WIDTH (FT)	150'	1845'
LOT DEPTH (FT)	200'	1480'
BUILDING HEIGHT (FT), MAX	15 <sup>3</sup>	<15'
YARD SETBACKS - MINIMUM (FT)		
FRONT	50'	50 <sup>2</sup>
SIDE (ONE)	35'	35'
SIDE (BOTH)	80'	80'
REAR	75'	>100'

<sup>1</sup> REQUIREMENT ALTERED FROM ZONING SCHEDULE I LOT, YARD, AND HEIGHT REGULATIONS PER TOWN OF MARLBOROUGH CODE 155-32.21 "STANDARDS FOR LARGE-SCALE SOLAR SYSTEMS AS A SPECIAL USE".

<sup>2</sup> AN EXISTING, NON-COMFORMING, BUILDING TO REMAIN IS LOCATED APPROXIMATELY 24' FROM THE BOUNDARY LINE. THE PROPOSED SOLAR PROJECT SHALL RESPECT THE 50' ZONING SETBACK.

<sup>3</sup> PROPOSED LOT COVERAGE CALCULATION INCLUDES PROPOSED DRIVeways, CONCRETE EQUIPMENT PADS & MODULE AREA

1	UPDATES PER PLANNING BOARD COMMENT	7/3/24	TSB
REV #	DESCRIPTION	DATE	BY

ELP MARLBOROUGH SOLAR  
335 BINGHAM ROAD

TOWN OF MARLBOROUGH, NY  
ULSTER COUNTY, NY

#### SITE PLAN PROPOSED OVERALL LAYOUT

**DRAFT  
NOT FOR  
CONSTRUCTION**

**CRAWFORD & ASSOCIATES**  
ENGINEERING & LAND SURVEYING, PC  
4411 Route 9, Suite 200, Hudson New York 12534 tel: (518) 828-2700  
www.crawfordandassociates.com fax: (518) 828-2723

DATE	DRAWN BY:	TSB/DPB	4/5/2024	DESIGNED BY:	TSB/DPB	4/5/2024	REWORKED
SCALE	CHECKED BY:	C&A	AS SHOWN	APPROVED BY:	C&A	4996.26	DRAWING:

DATE: 4/5/2024 DRAWN BY: TSB/DPB DESIGNED BY: TSB/DPB REWORKED: 4/5/2024  
SCALE: AS SHOWN CHECKED BY: C&A APPROVED BY: C&A  
C&A JOB# 4996.26 DRAWING: C-102

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## PROPOSED GRADING & UTILITIES - 1

---

SCALE: 1"=

## GRAPHIC SCALE

### GIVING THE SCORE

NAD 83  
NY STATE PLANE EAST ZONE

**DRAFT  
NOT FOR  
CONSTRUCTION**

# SITE PLAN PROPOSED GRADING & UTILITIES - 1

---

**CRAWFORD & ASSOCIATES**  
ENGINEERING & LAND SURVEYING, PC  
4411 Route 9, Suite 200, Hudson New York 12534 tel: (518) 828-2700  
www.crawfordandassociates.com fax: (518) 828-2725

DATE 5/2024	DRAWN BY:	TSB/DPB	H:\WORK\4996.26 Marlborough\DWG\4996.26 SITE.dwg	
	DESIGNED BY:	TSB/DPB	C&A JOB# 4996.26	DRAWING: C-103
SCALE S SHOWN	CHECKED BY:	CJK		
	APPROVED BY:	CJK		

**E PLAN NOTES:**  
ORTHOGRAPHIC IMAGERY DOWNLOADED FROM NYS GIS CLEARINGHOUSE. IMAGERY PUBLISHED SEPTEMBER 2023, ACCESSED BY C&A NOVEMBER 2023.

BACKGROUND DRAWING & TOPOGRAPHIC CONTOURS TAKEN FROM SURVEY TITLED "MAP OF A PORTION OF LANDS OF TRUNCALI PREPARED FOR ELP MARLBOROUGH SOLAR LLC, SBL:108.3-3-21, ULSTER COUNTY, STATE OF NY" DATED APRIL 22, 2024, PREPARED BY CONTROL POINT ASSOCIATES, INC., P.C.

ADJACENT PROPERTY BOUNDARIES DOWNLOADED FROM ULSTER COUNTY GIS DATABASE IN AUGUST 2023. SELECT BOUNDARIES ADJUSTED BY C&A TO REFLECT EXPECTED LOCATIONS OF INTERSECTION WITH SURVEYED BOUNDARY LINE.

EXISTING SITE FEATURES SUCH AS BUILDING LOCATIONS, DRIVEWAYS, ROADS, OVERHEAD UTILITIES, AND TREELINES OUTSIDE SURVEY AREA ESTIMATED FROM ORTHOGRAPHIC IMAGERY.

NWI POTENTIAL WETLAND BOUNDARIES DOWNLOADED FROM NATIONAL WETLANDS INVENTORY, ACCESSED NOVEMBER 2023.

FEMA NFHL CHECKED IN JANUARY 2024 AND NO FLOOD HAZARDS WERE IDENTIFIED WITHIN THE PROJECT AREA. PROJECT FALLS WITHIN FIRM PANEL #36111C0900F.

PROPOSED SOLAR FACILITY LAYOUT FROM DRAWING TITLED "PRELIMINARY PV SITE PLAN" PREPARED BY CS ENERGY DATED MARCH 2, 2023, AMENDED BY C&A PER VCR INSTRUCTION.

**PROPOSED SITE PLAN NOTES:**

THE PROPOSED SOLAR ENERGY SYSTEM INSTALLATION SHALL BE PERFORMED BY A QUALIFIED SOLAR INSTALLER.

THE PROPOSED SOLAR ENERGY SYSTEM WILL MEET NEW YORK'S UNIFORM FIRE PREVENTION AND BUILDING CODE AND NATIONAL ELECTRICAL CODE STANDARDS.

PRIOR TO OPERATION OF THE SOLAR ENERGY SYSTEM, WRITTEN PROOF THAT ELECTRICAL CONNECTIONS HAVE BEEN INSPECTED AND APPROVED BY AN APPROPRIATE ELECTRICAL INSPECTION PERSON OR AGENCY, AS DETERMINED BY THE TOWN OF MARLBOROUGH WILL BE PROVIDED.

A MAP SHOWING THE LOCATIONS OF THE MAJOR COMPONENTS OF THE SOLAR SYSTEM INCLUDING THE LOCATION OF THE ARRAY, EQUIPMENT PADS, MAIN TRENCH LOCATIONS, AND DISCONNECTS SHALL BE POSTED AT THE FACILITIES ENTRANCE AND PROVIDED TO THE LOCAL FIRE DEPARTMENT OBLIGATED TO RESPOND TO A CALL AT THE FACILITY.

THE SOLAR PANELS SHALL NOT EXCEED 15' IN HEIGHT.

BUILDING SETBACK REQUIREMENTS SHALL BE AS STATED FOR THE RAG-1 (RURAL AGRICULTURAL DISTRICT) AS SHOWN IN THE ZONING TABLE BELOW. INVERTERS SHALL BE SET BACK THE LESSER OF 100 FEET OR UNTIL THE ELECTROMAGNETIC FIELD (EMF) MEETS BACKGROUND LEVEL, AS DETERMINED BY THE WORLD HEALTH ORGANIZATION (WHO).

COMMERCIAL SOLAR FACILITY'S AREA OF USE, AS DEFINED IN CODE SECTION 155-32.2 (B) EQUATES TO APPROXIMATELY 15.7 ACRES.

NONINVASIVE GROUND COVER UNDER AND BETWEEN THE ROWS OF SOLAR PANELS SHALL BE LOW-MAINTENANCE, DROUGHT-RESISTANT, AND NON-FERTILIZER-DEPENDENT. SEE SEEDING PLAN ON C-501 FOR MORE DETAILS.

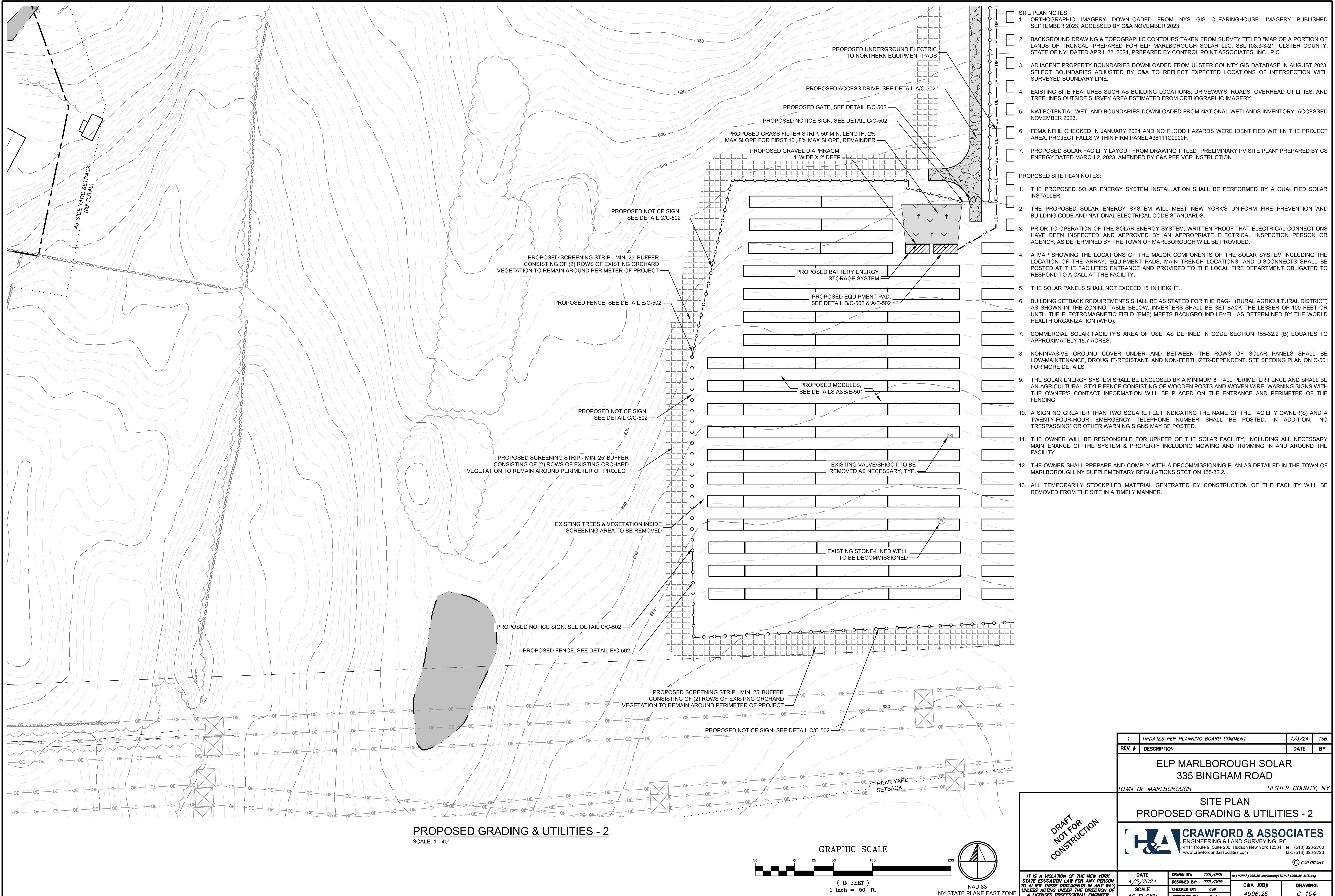
THE SOLAR ENERGY SYSTEM SHALL BE ENCLOSED BY A MINIMUM 8' TALL PERIMETER FENCE AND SHALL BE AN AGRICULTURAL STYLE FENCE CONSISTING OF WOODEN POSTS AND WOVEN WIRE. WARNING SIGNS WITH THE OWNER'S CONTACT INFORMATION WILL BE PLACED ON THE ENTRANCE AND PERIMETER OF THE FENCING.

A SIGN NO GREATER THAN TWO SQUARE FEET INDICATING THE NAME OF THE FACILITY OWNER(S) AND A TWENTY-FOUR-HOUR EMERGENCY TELEPHONE NUMBER SHALL BE POSTED. IN ADDITION, "NO TRESPASSING" OR OTHER WARNING SIGNS MAY BE POSTED.

THE OWNER WILL BE RESPONSIBLE FOR UPKEEP OF THE SOLAR FACILITY, INCLUDING ALL NECESSARY MAINTENANCE OF THE SYSTEM & PROPERTY INCLUDING MOWING AND TRIMMING IN AND AROUND THE FACILITY.

THE OWNER SHALL PREPARE AND COMPLY WITH A DECOMMISSIONING PLAN AS DETAILED IN THE TOWN OF MARLBOROUGH, NY SUPPLEMENTARY REGULATIONS SECTION 155-32.2J.

ALL TEMPORARILY STOCKPILED MATERIAL GENERATED BY CONSTRUCTION OF THE FACILITY WILL BE REMOVED FROM THE SITE IN A TIMELY MANNER.







## EROSION & SEDIMENT CONTROL GENERAL NOTES:

1. ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST VERSION OF THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL. (REFERRED TO IN REMAINING TEXT AS "THE NEW YORK GUIDELINES".)
2. THE SEDIMENT MEASURES DETAILED ON THE EROSION AND SEDIMENT CONTROL PLAN SHALL BE IN PLACE PRIOR TO CONSTRUCTION STARTUP OF CONSTRUCTION. ONCE MEASURES ARE IN PLACE, ALL MEASURES SHALL BE PROPERLY MAINTAINED AND/OR REPLACED AS NECESSARY, AND THEN REMOVED FROM THE SITE BY THE CONTRACTOR ONCE SITE IS STABILIZED.
3. FOLLOWING THE COMMENCEMENT OF CONSTRUCTION, INSPECTIONS SHALL BE CONDUCTED PER THE FOLLOWING SCHEDULE. CONTRACTORS AND SUB CONTRACTORS ARE RESPONSIBLE FOR HAVING A "TRAINED INDIVIDUAL(S)" ON SITE DAILY WHEN SOIL DISTURBANCE ACTIVITIES ARE BEING PERFORMED TO INSPECT EROSION AND SEDIMENT CONTROL MEASURES. "TRAINED INDIVIDUAL" MEANING AN EMPLOYEE FROM A CONSTRUCTION FIRM THAT HAS RECEIVED FOUR (4) HOURS OF TRAINING, WHICH HAS BEEN ENDORSED BY THE NYS DEC, SOIL AND WATER CONSERVATION DISTRICT, CPESC INC. THE TRAINED INDIVIDUAL SHALL RECEIVE FOUR (4) HOURS OF TRAINING EVERY THREE (3) YEARS.
  - FOR CONSTRUCTION SITES WHERE SOIL DISTURBANCE ACTIVITIES ARE ON-GOING, THE QUALIFIED INSPECTOR SHALL CONDUCT A SITE INSPECTION AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS.
  - FOR CONSTRUCTION SITES WHERE SOIL DISTURBANCE ACTIVITIES ARE ON-GOING AND THE OWNER OR OPERATOR HAS RECEIVED AUTHORIZATION IN ACCORDANCE WITH PART II.C.3 TO DISTURB GREATER THAN FIVE (5) ACRES OF SOIL AT ANY ONE TIME, THE QUALIFIED INSPECTOR SHALL CONDUCT AT LEAST TWO (2) SITE INSPECTIONS EVERY SEVEN (7) CALENDAR DAYS.
  - THE TWO (2) INSPECTIONS SHALL BE SEPARATED BY A MINIMUM OF TWO (2) FULL CALENDAR DAYS.
5. BASED ON THE BI-WEEKLY SITE INSPECTIONS, THE EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE SHALL BE REVISED AS SITE CONDITIONS WARRANT. THE CONTRACTOR SHALL IMPLEMENT THESE REVISIONS AS SOON AS PRACTICABLE.
6. THE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR UNTIL THE FINAL SURFACE TREATMENTS ARE INSTALLED AND THE VEGETATED AREAS HAVE BEEN STABILIZED WITH AT LEAST 80% VEGETATIVE COVER. THE PROPERTY OWNER WILL ASSUME RESPONSIBILITY FOR MAINTAINING THE EROSION AND SEDIMENT SYSTEM(S) THEREAFTER.
7. INLET PROTECTION MEASURES SHALL BE INSTALLED AROUND STORM DRAIN INLETS TO PREVENT SEDIMENT LADEN WATER FROM ENTERING.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES ONCE THE CONSTRUCTION PHASE HAS BEEN STABILIZED AND FUNCTIONING PROPERLY AS ACCEPTED BY THE ENGINEER.
9. DUST CONTROL AT DRIVING AREAS - THE SITE MAY BE SPRAYED WITH WATER UNTIL THE SURFACE IS WET. THIS IS ESPECIALLY EFFECTIVE ON HAUL ROADS AND ACCESS ROUTES.
10. THE LOCAL AHJ, NYSDEC, NYSDEP, OR THE SITE ENGINEER MAY REQUEST ADDITIONAL MEASURES TO MINIMIZE THE POTENTIAL FOR ONSITE OR OFFSITE EROSION PROBLEMS THAT MAY OCCUR DURING CONSTRUCTION.
11. COPIES OF THE SOIL EROSION AND SEDIMENT CONTROL PLANS AND SWPPP, IF APPLICABLE, MUST BE MAINTAINED ON SITE UNTIL THE SITE HAS BEEN STABILIZED.

## MAINTENANCE PLAN:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OPERATION AND MAINTENANCE OF THE NEW DEVELOPMENT PROJECT AND PROJECT ACCESS DURING CONSTRUCTION.
2. NO EARTHWORK ACTIVITIES SHALL COMMENCE UNTIL SILT FENCES AND SILT SOCKS HAVE BEEN INSTALLED AS SHOWN ON DRAWINGS.
3. AREAS TO BE LEFT EXPOSED TO EROSION FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY STABILIZED.
4. PAVED AREAS SHALL BE KEPT FREE OF SEDIMENT, AND SHALL BE CLEANED PERIODICALLY AS REQUIRED BY CONSTRUCTION ACTIVITIES.
5. CATCH BASINS, IF ANY, SHALL BE PERIODICALLY INSPECTED FOR ACCUMULATION OF SEDIMENT. ALL CATCH BASINS WITHIN THE PROJECT SHALL BE CLEANED.
6. THE CONTRACTOR IS RESPONSIBLE TO INSPECT AND REPAIR EROSION AND SEDIMENT CONTROL MEASURES AS REQUIRED TO PREVENT DAMAGE OR SEDIMENTATION.
7. UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, REMOVE AND DISPOSE OF TEMPORARY EROSION CONTROL MEASURES. CLEAN SEDIMENT AND DEBRIS FROM TEMPORARY MEASURES AND FROM PERMANENT STORM DRAIN AND SANITARY SEWER SYSTEMS.

## E&SC PLAN AND CONSTRUCTION NOTES:

1. CONSTRUCTION SHALL NOT COMMENCE UNTIL APPROPRIATE PERMIT COVERAGE HAS BEEN OBTAINED UNDER NYSDEC SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITY, GP-0-20-001.
2. TOTAL LIMITS OF DISTURBANCE (LOD) INCLUDES LAND CLEARING/GRUBBING, MINOR GRADING FOR ACCESS DRIVE AND EQUIPMENT PADS, TRENCHING, AND TEMPORARY E&SC MEASURES.
3. CONSTRUCTION SHALL BE COMMENCED IN ACCORDANCE WITH A PHASING PLAN TO LIMIT DISTURBANCE OF GREATER THAN 5 ACRES PER PHASE:
4. EACH PHASE SHALL BE TEMPORARILY STABILIZED BEFORE PROCEEDING TO A SUBSEQUENT PHASE.
5. THE TEMPORARY E&SC PLAN MEASURES SHOWN HEREIN, SHALL BE PUT IN PLACE AT THE BEGINNING OF CONSTRUCTION AND REMOVED UPON FINAL STABILIZATION OF THE SITE.
6. CONSTRUCTION OF THE PANEL ARRAYS SHALL BE COMPLETED IN SUCH A WAY THAT NULLIFIES DISTURBANCE AND/OR COMPACTION OF THE IN-SITU LAND COVER (I.E. TRACKED VEHICLE TRAVELING IN AND OUT OF ROWS IS RECOMMENDED). EXISTING GROUND COVER IN THE AREA OF THE PANEL ARRAY SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
7. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED AS DETAILED IN THE SEEDING PLAN ON DRAWING C-501.
8. THE TEMPORARY PARKING AND STAGING AREA FOR CONSTRUCTION EQUIPMENT AND MATERIALS SHALL CONSIST OF STONE DUST OR A SIMILAR MATERIAL. UPON COMPLETION OF CONSTRUCTION, THE STONE DUST, OR SIMILAR, SHALL BE REMOVED UP TO BUT NOT INCLUDING REMOVAL OF THE COVERED TOPSOIL. THE AREA SHALL BE SEEDED AND MULCHED ACCORDING TO THE SEED AND MULCH SPECIFICATIONS DETAILED ON THE E&SC NOTES SHEET.
9. IN HIGH TRAFFIC AREAS, THE AREA SHALL BE DE-COMPACTED PRIOR TO SEEDING TO ENSURE GROWTH OF VEGETATIVE COVER. THE AREA(S) SHALL BE DE-COMPACTED ACCORDING TO NYSDEC EROSION AND SEDIMENT CONTROL DE-COMPACTATION GUIDELINES.
10. IN AREAS OF TREE TRIMMING, NO DISTURBANCE SHALL COMMENCE WITHOUT APPROPRIATE PERMITTING FROM NYSDEC OR USACE. TREES SHALL BE TRIMMED AND/OR FLUSH CUT AS NEEDED FOR SHADING PURPOSES AND OVERALL CONSTRUCTION OF THE PROJECT. IT SHOULD BE NOTED THAT IN THESE AREAS, TREE STUMPS SHALL NOT BE REMOVED AND WASTE MATERIALS SHALL BE REMOVED WITH EQUIPMENT THAT DOES NOT RESULT IN DISTURBANCE.

1	UPDATES PER PLANNING BOARD COMMENT	7/3/24	TSB
REV #	DESCRIPTION	DATE	BY

# ELP MARLBOROUGH SOLAR 335 BINGHAM ROAD

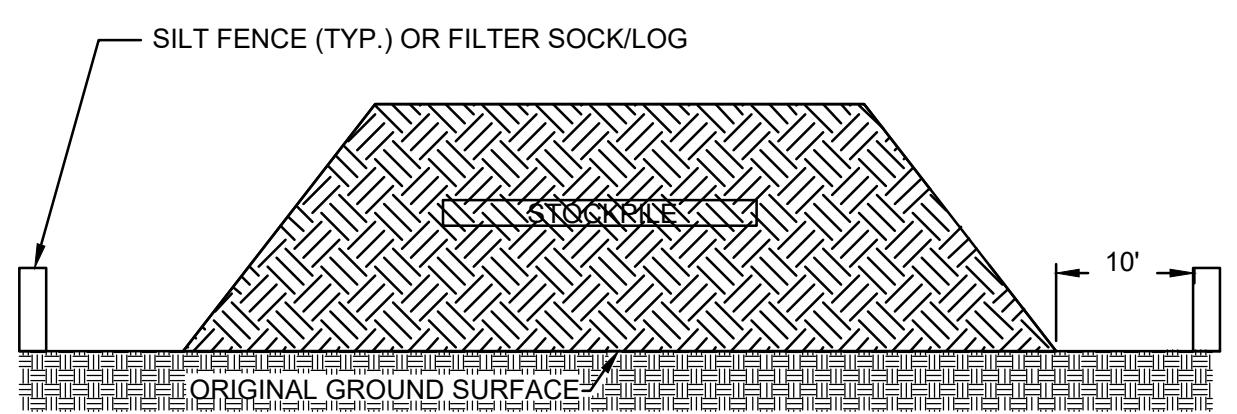
# PROPOSED EROSION & SEDIMENT CONTROL PLAN



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ZONE	<b>IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON TO ALTER THESE DOCUMENTS IN ANY WAY, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.</b>	DATE 4/5/2024	DRAWN BY: TSB/DPB	H:\WORK\4996.26 Marlborough\DWG\4996.26 SITE.dwg
			DESIGNED BY: TSB/DPB	
		SCALE AS SHOWN	CHECKED BY: CJK	<b>C&amp;A JOB#</b> 4996.26
			APPROVED BY: CJK	
		<b>DRAWING:</b> C-106		



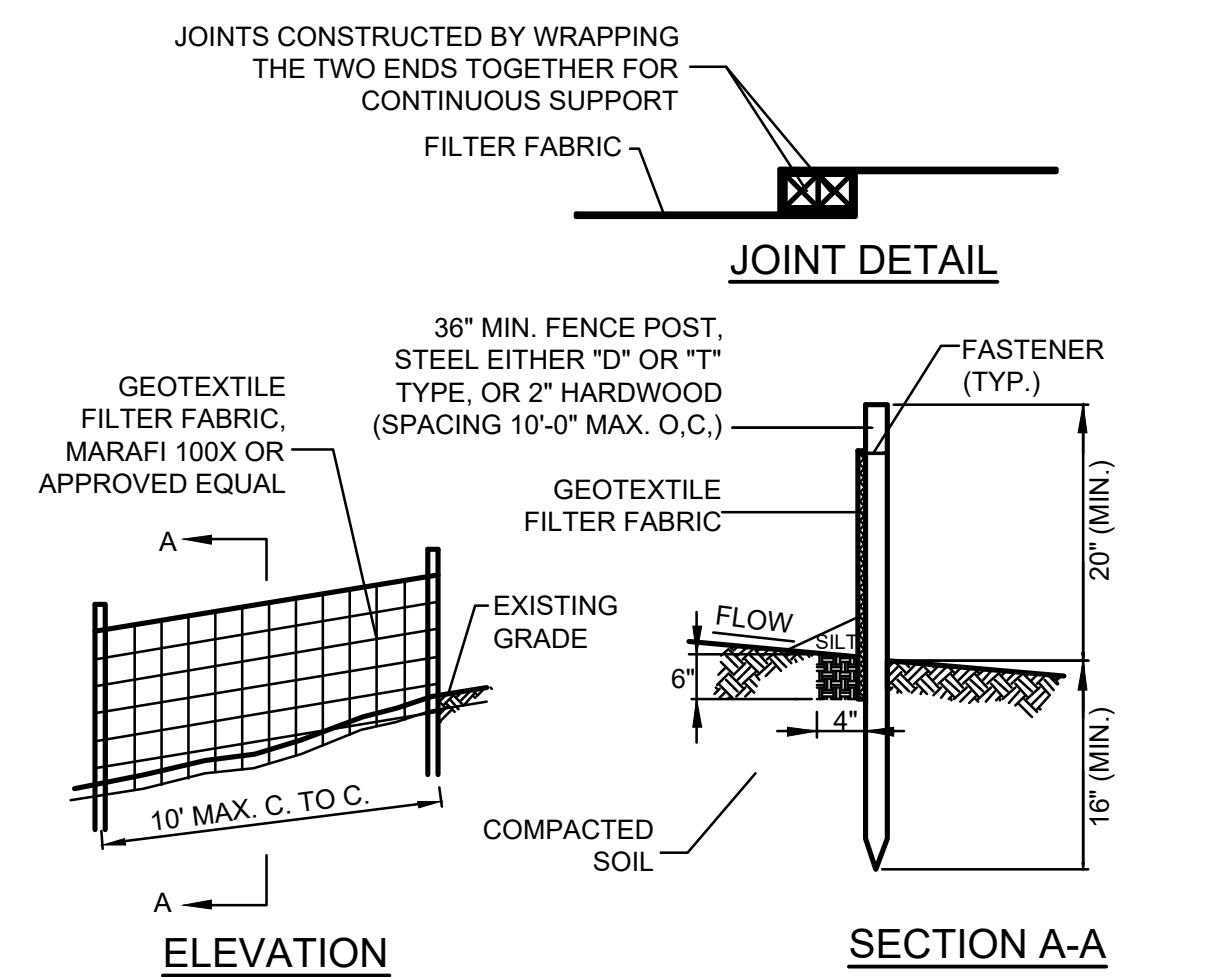
NOTES:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE. IN NO CASE SHALL MATERIALS BE STOCKPILED WITHIN 25 FEET OF ANY DITCH, STREAM, OR OTHER SURFACE WATER.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2.
3. UPON COMPLETION OF SOIL STOCKPILE, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAWBALES, THEN STABILIZED WITH VEGETATION OR COVERED. SILT FENCE OR FILTER SOCK/LOG ARE TO REMAIN IN PLACE UNTIL SUCH TIME AS SAID STOCKPILES ARE REMOVED.
4. SILT FENCE OR FILTER SOCK/LOG TO EXTEND AROUND ENTIRE PERIMETER OF STOCKPILE OR TO EXTEND AROUND DOWNSTREAM PORTION IF STOCKPILE IS ON SLOPE.

### A STABILIZED STOCKPILE DETAIL

C-501

SCALE: N.T.S.



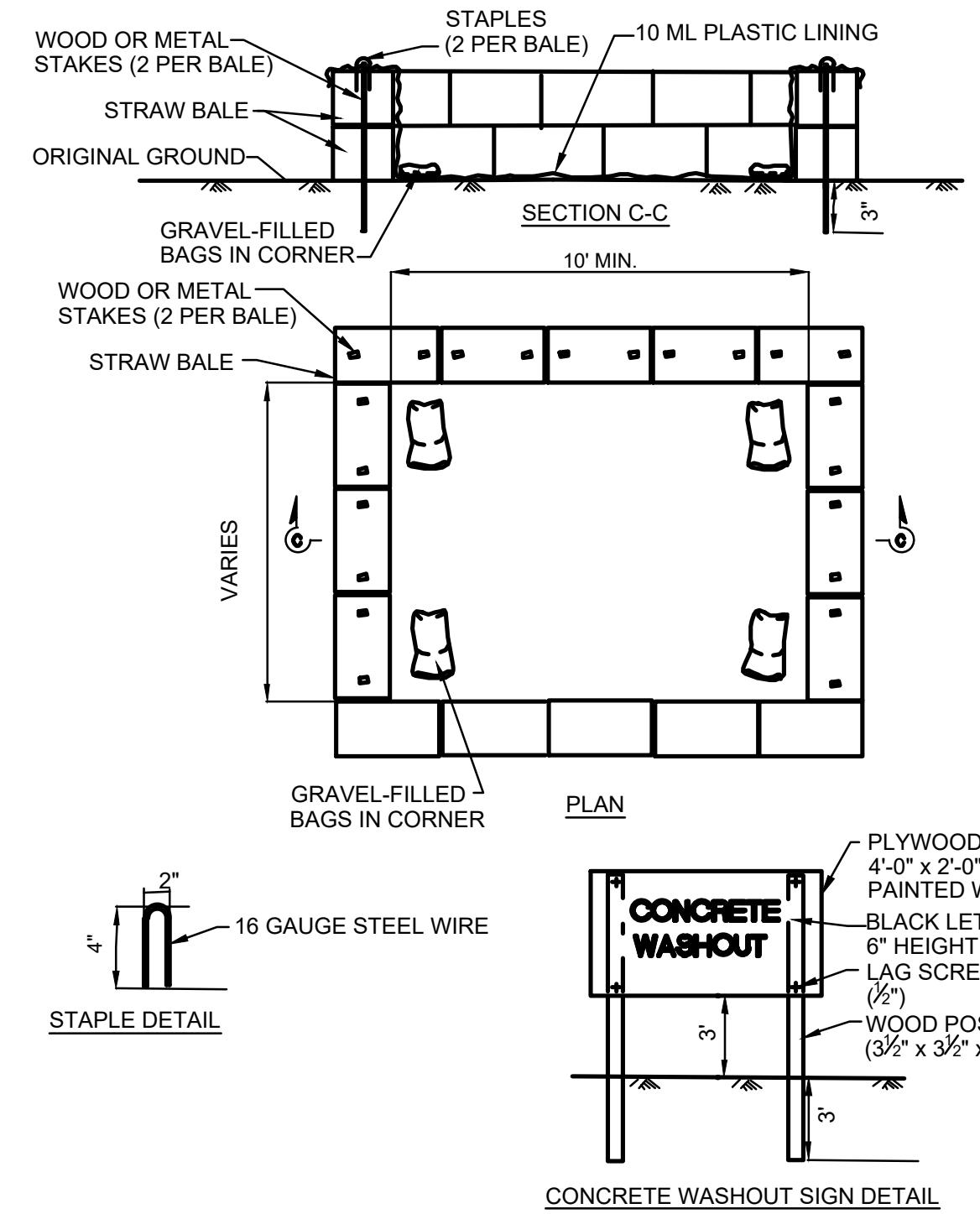
NOTES:

1. SILT FENCE SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. SILT FENCE SHALL BE PLACED ON THE DOWN SLOPE SIDE OF EXCAVATED AREAS AND AROUND SOIL STOCKPILES. SILT FENCE SHALL ALSO BE PLACED AROUND THE BOUNDARY OF WETLANDS ADJACENT TO THE WORK AREA AND AT THE EDGE OF THE WETLANDS AFTER CONSTRUCTION IS COMPLETE. WITHIN RESIDENTIAL AREAS THE SILT FENCE SHALL BE INSTALLED ALONG THE PERIMETER OF THE ENTIRE WORK AREA.
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP.
4. SILT FENCE MUST BE REPAIRED OR REPLACED WHEN THE ENDS ARE FRAYED OR WORN, AND THE FENCE IS NOT ANCHORED 6" INTO THE GROUND. WHEN ACCUMULATED SEDIMENT REACHES 33% OF THE SILT FENCE HEIGHT, THE SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROPRIATE UPLAND AREA.

### B SILT FENCE DETAIL

C-501

SCALE: N.T.S.



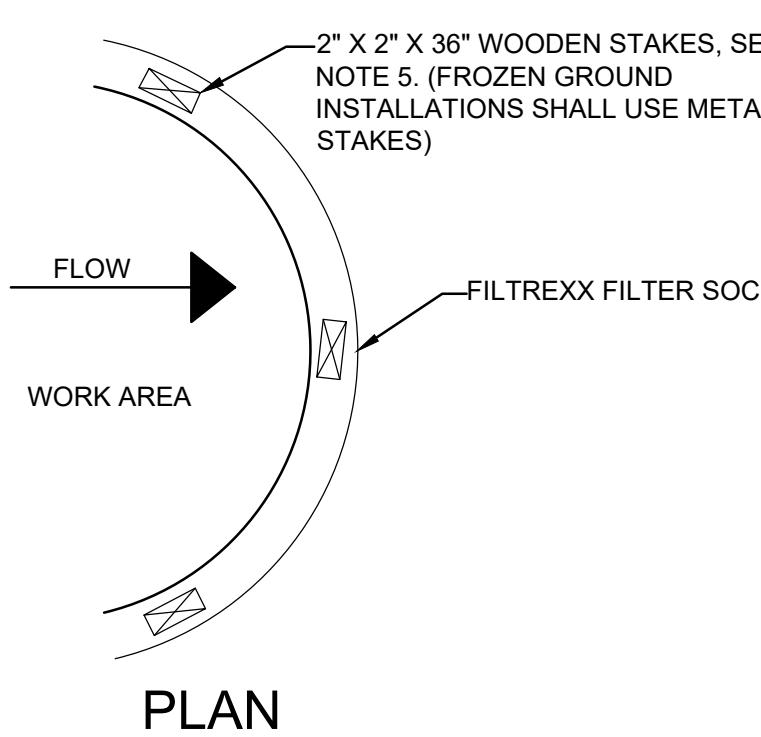
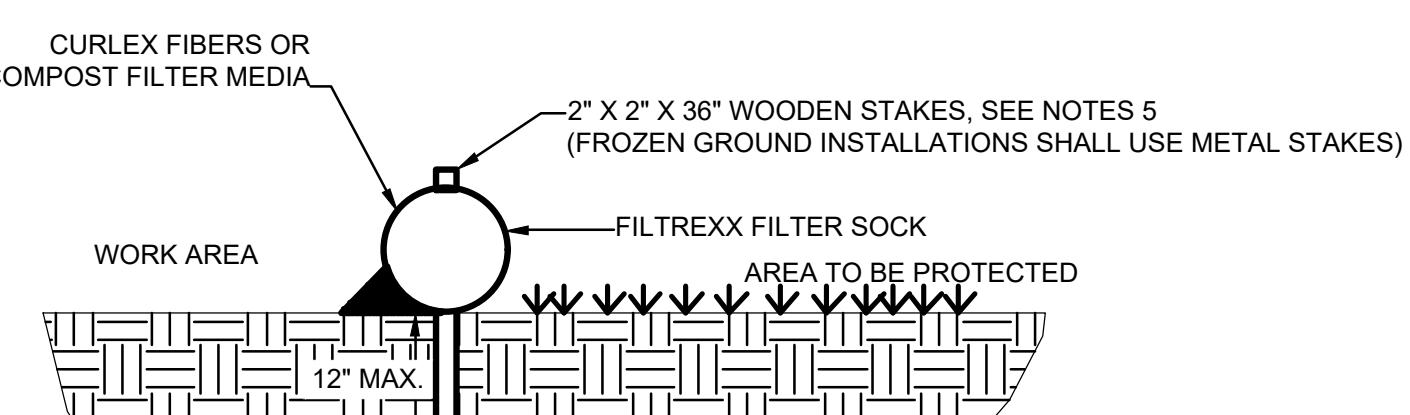
NOTES:

1. WHERE NECESSARY, STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED TO PREVENT SOIL AND SEDIMENT FROM BEING TRACKED ON TO ROADWAYS.
2. PERMANENT TRAFFIC CORRIDORS SHALL BE ESTABLISHED AND "ROUTES OF CONVENIENCE" SHALL BE AVOIDED. CONSTRUCTION TRAFFIC SHALL NOT CROSS STREAMS OR DITCHES EXCEPT AT SUITABLE CROSSING FACILITIES, AND SHALL NOT OPERATE UNNECESSARILY WITHIN WATERWAYS OR DRAINAGE DITCHES.
3. IF INTERNAL CONSTRUCTION ROADS ARE A SOURCE OF SEDIMENT-LADEN RUNOFF TO SENSITIVE AREAS, MEASURES SHALL BE TAKEN TO STABILIZE THE INTERNAL ROADWAYS AS SOON AS PRACTICABLE.
4. STONE SIZE - USE 1" - 4" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
5. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
6. THICKNESS - NOT LESS THAN SIX (6) INCHES.
7. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
8. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
9. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
10. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
11. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
12. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

### D CONSTRUCTION ENTRANCE DETAIL

C-501

SCALE: N.T.S.



### SECTION

INSTALLATION NOTES:

1. COMPOSITE FILTER SOCKS SHALL BE FILTREXX(R) SILT SOXX (TM) OR APPROVED EQUAL.
2. LAND SURFACE SHOULD BE PREPARED BY MOWING GRASS OR MAKING SOIL OR PAVED SURFACES SMOOTH.
3. COMPOSITE FILTER SOCKS SHALL BE PLACED PERPENDICULAR TO STORM WATER FLOW, ACROSS THE SLOPE, SWALE, DITCH OR CHANNEL.
4. COMPOSITE FILTER SOCKS SHALL BE STAKED ON 10-FT CENTERS.
5. ON SOIL AND VEGETATED SURFACES, UNDER SHEET FLOW CONDITIONS, COMPOSITE FILTER SOCKS SHALL BE STAKED ON 5-FT CENTERS.
6. STAKES SHALL BE DRIVEN THROUGH THE CENTER OF THE COMPOSITE FILTER SOCK AND INSTALLED A MINIMUM OF 8 INCHES AND A MAXIMUM OF 12 INCHES INTO THE EXISTING SOIL, LEAVING A MINIMUM STAKE HEIGHT OF 2 INCHES ABOVE THE COMPOSITE FILTER SOCK.
7. EDGES OF THE COMPOSITE FILTER SOCKS SHALL BE TURNED UPSLOPE TO PREVENT SLOW AROUND THE ENDS OF THE COMPOSITE FILTER SOCKS.
8. FILTER SOCKS SHALL BE SIZED APPROPRIATELY, ACCORDING TO NYSDEC STANDARDS & SPECIFICATIONS FOR EROSION & SEDIMENT CONTROL.

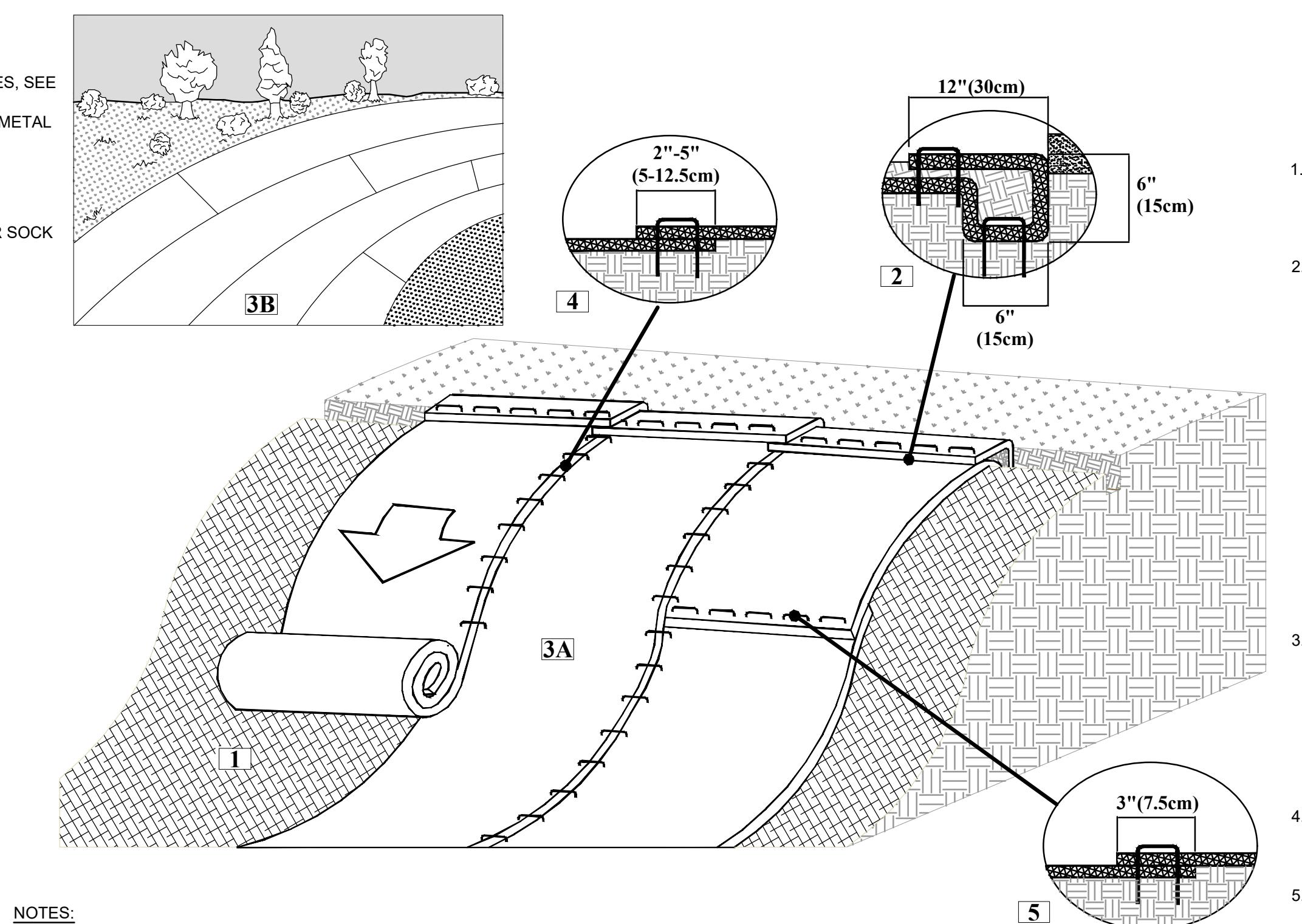
REMOVAL NOTES:

1. UPON REMOVAL OF THE COMPOSITE FILTER SOCK, THE CONTRACTOR SHALL REMOVE ALL SEDIMENT ACCUMULATION PRIOR TO THE REMOVAL OF THE COMPOSITE FILTER SOCK. THE COMPOSITE FILTER SOCKS SHALL BE REMOVED IN THEIR ENTIRETY.
2. THE DISTURBED AREA SHALL BE SEEDED, FERTILIZED, AND MULCHED TO ENSURE THE VEGETATIVE COVER IS FULLY RESTORED.
3. MONITOR THE VEGETATIVE RESTORATION AREA UNTIL EXPOSED AREAS ARE FULLY STABILIZED WITH VEGETATIVE COVER.
4. THE COMPOSITE MATERIAL MAY BE SPREAD OVER THE LANDSCAPE OR INCORPORATED INTO THE SOIL AT THE END OF THE PROJECT, THEREBY INCREASING SOIL QUALITY AND REDUCING WASTE.
5. THE SOCK MESH SHALL BE PROPERLY DISPOSED.

### E FILTER SOCK DETAIL

C-501

SCALE: N.T.S.



### NOTES:

1. SLOPE STABILIZATION MATTING SHALL BE PLACED ON ALL DISTURBED SLOPES GREATER THAN 10 PERCENT SLOPE.
2. MATTING SHALL CONSIST OF NORTH AMERICAN GREEN ROLMAX ROLLED EROSION CONTROL PRODUCT S150BN, WOVEN BIODEGRADABLE JUTE TOP AND BOTTOM NET, 100% STRAW FIBER MATRIX, OR SIMILAR.
3. ALL ROLLED EROSION CONTROL PRODUCT SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

### SLOPE INSTALLATION

1. Prepare soil before installing rolled erosion control products (RECPs), including any necessary application of lime, fertilizer, and seed.
2. Begin at the top of the slope by anchoring the RECPs in a 6"(15cm) deep X 6"(15cm) wide trench with approximately 12"(30cm) of RECPs extended beyond the up-slope portion of the trench. Anchor the RECPs with a row of staples/stakes approximately 12"(30cm) apart in the bottom of the trench. Backfill and compact the trench after staking. Apply seed to the compacted soil and fold the remaining 12"(30cm) portion of RECPs back over the seed and compacted soil. Secure RECPs over compacted soil with a row of staples/stakes spaced approximately 12"(30cm) apart across the width of the RECPs.
3. Roll the RECPs (A) down or (B) horizontally across the slope. RECPs will unfold with appropriate side against the soil surface. All RECPs must be securely fastened to soil surface by placing staples/stakes in appropriate locations as shown in the staple pattern guide.
4. The edges of parallel RECPs must be staked with approximately 2" - 5" (5-12.5cm) overlap depending on the RECPs type.
5. Consecutive RECPs spliced down the slope must be end over end (Shingle style) with an approximate 3"(7.5cm) overlap. Stake through overlapped area, approximately 12"(30cm) apart across entire RECPs width.

### NOTE:

In loose soil conditions, the use of staple or stake lengths greater than 6"(15cm) may be necessary to properly secure the RECPs.

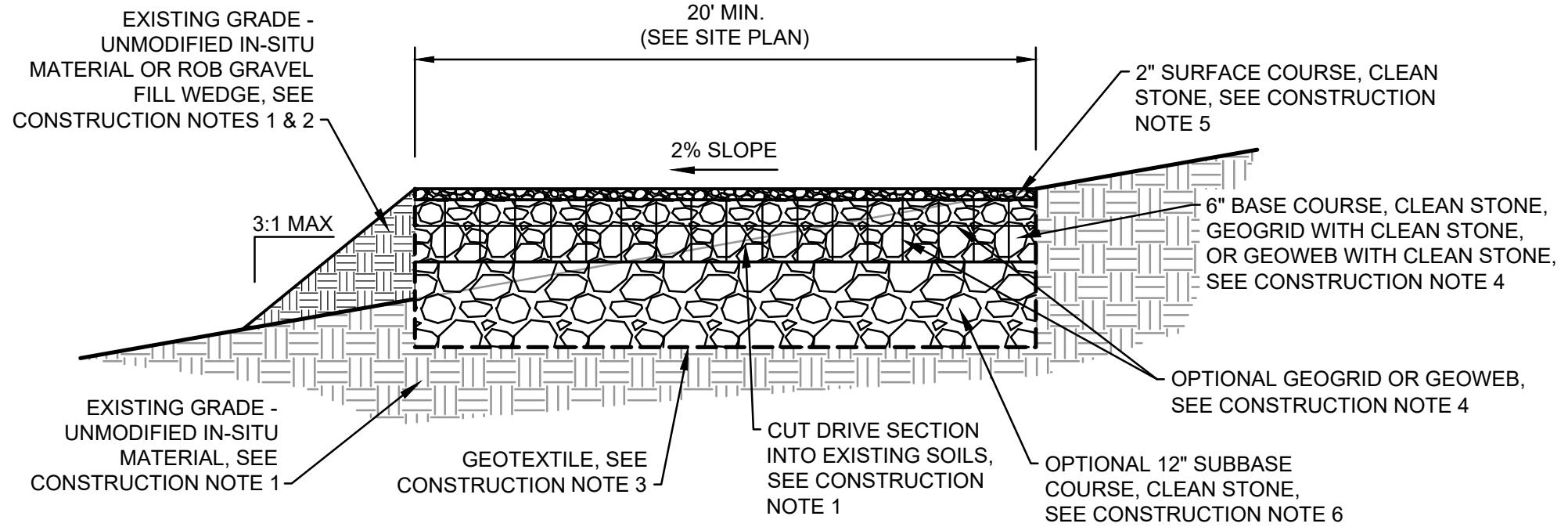
1	UPDATES PER PLANNING BOARD COMMENT	7/3/24	TSB
REV #	DESCRIPTION	DATE	BY
ELP MARLBOROUGH SOLAR 335 BINGHAM ROAD			
TOWN OF MARLBOROUGH ULSTER COUNTY, NY			
CIVIL DETAILS - SHEET 1			
CRAWFORD & ASSOCIATES ENGINEERING & LAND SURVEYING, PC 4411 Route 9, Suite 200, Hudson New York 12533 tel: (518) 828-2700 www.crawfordandassociates.com fax: (518) 828-2723			
1	DATE	DRAWN BY: TSB/DPB	4/5/2024
2	DEIGNED BY: TSB/DPB	C&K JOB#	4996.26
3	CHECKED BY: C&K	DRAWING:	C-501
4	APPROVED BY: C&K		

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**GENERAL NOTES:**

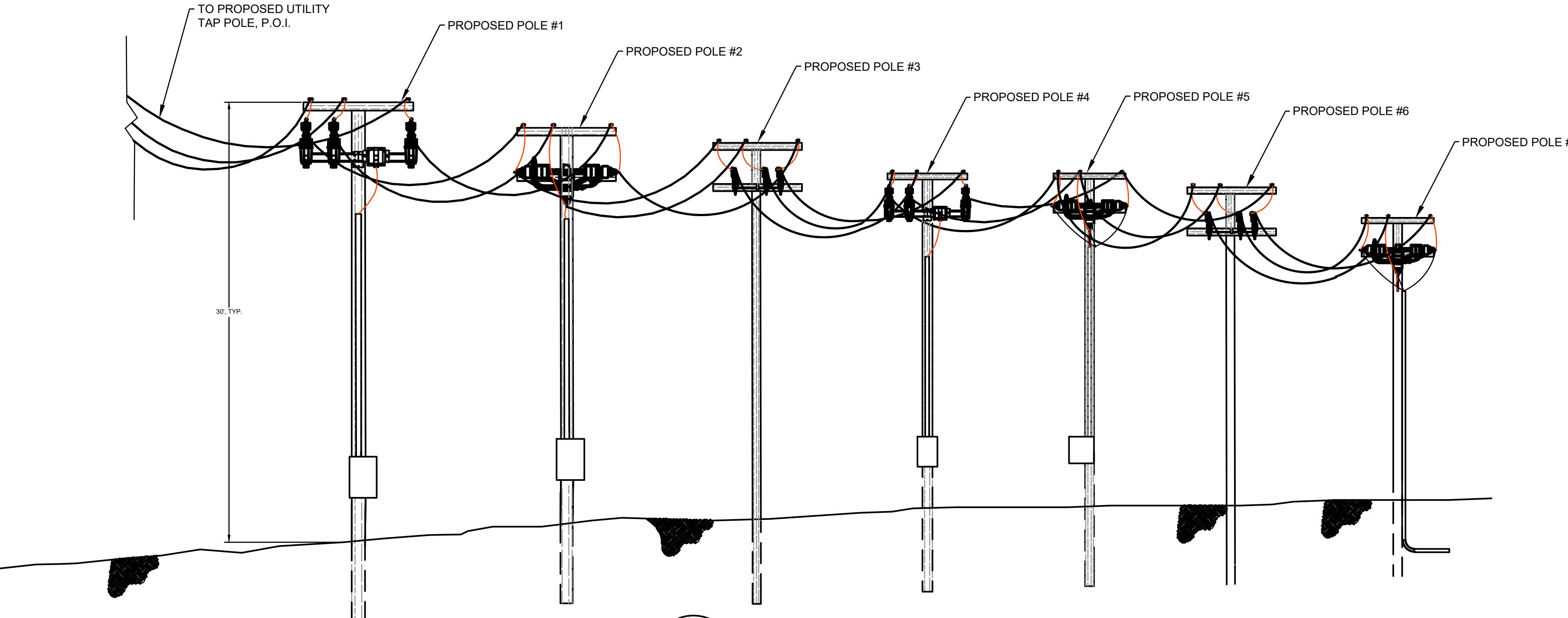
1. THIS DETAIL IS LIMITED TO CONSTRUCTION AND OCCASIONAL MAINTENANCE FOR SOLAR FACILITY PROJECTS IN NEW YORK STATE.
2. THE DRIVE SHALL NOT BE CONSTRUCTED ON NYSDOT SUBBASE MATERIAL OR EQUIVALENT.
3. CLEAN STONE SHALL NOT BE COMPAKTED WITH A VIBRATORY ROLLER, PLATE COMPACTOR, OR EQUIVALENT. STONE MAY BE DEPOSITED AND SPREAD BY A TRACKED VEHICLE. COMPAKCTION FOR ALL COURSES MAY BE PROVIDED BY A NON-VIBRATORY VEHICLE.
4. DO NOT OIL, WATER BIND, SEALCOAT, CHOKE STONE, OR OVERLAY WITH CONCRETE, ASPHALT PAVEMENT, OR ANY MATERIAL THAT WILL CREATE AN IMPERVIOUS SURFACE.
5. APPROPRIATE EROSION AND SEDIMENT CONTROL TECHNIQUES SHALL BE USED DURING CONSTRUCTION TO ENSURE THAT SEDIMENT FINES ARE NOT DEPOSITED WITHIN THE VOIDS OF THE CLEAN STONE.
6. INSTALL ALL GEOTEXTILE AND GEOWEB COMPONENTS PER MANUFACTURER. CAREFULLY PLACE MATERIAL ATOP GEOTEXTILE AND/OR FOR INFILL OF GEOWEB TO PREVENT DISTORTION AND/OR COLLAPSE OF CELLS. UTILIZE KEY CONNECTORS TO JOIN ALL GEOWEB SECTIONS. UTILIZE ANCHORS TO STABILIZE GEOWEB DURING INFILL.
7. ALL CLEAN STONE TO BE WASHED, NO FINES, SHARP-ANGLED, UNIFORM QUALITY, CRUSHED STONE PER NYSDOT SPECIFICATIONS SECTION 703-02, TABLE 703-4. SIZE DESIGNATION AS INDICATED.

**CONSTRUCTION NOTES:**

1. THE DRIVE SECTION SHALL BE CUT INTO UN-COMPAKTED IN-SITU SOIL MATERIAL. IN AREAS OF EVEN EXISTING GRADE, CUT IN SHALL BE OPTIONAL AND LIMITED TO 4" MAXIMUM. WHERE REQUIRED FOR LEVELING UNEVEN AREAS TO PROVIDE 2% CROSS SLOPE, A NATIVE SOIL OR ROB GRAVEL WEDGE, COMPACTED TO 80% MDD, MAY BE INSTALLED. WHERE DRIVE SECTION IS TO BE BUILT UP FROM EXISTING GRADE (SUCH AS FOR ATOP CULVERT CROSSINGS), NATIVE SOIL OR ROB GRAVEL FILL, COMPACTED TO 80% MDD, MAY BE INSTALLED BENEATH BASE / SUBBASE. COMPAKCTION FOR ALL COURSES MAY BE PROVIDED BY A NON-VIBRATORY VEHICLE.
2. AT LOW POINTS ALONG THE DRIVE ALIGNMENT AND/OR AT LOCATIONS INDICATED BY THE SITE PLAN, THE DRIVE SHALL BE CONSTRUCTED WITH A ROB GRAVEL FILL WEDGE ON THE DOWNSLOPE SIDE FOR DRAINAGE OF THE DRIVE SECTION.
3. GEOTEXTILE SHALL BE MIRAFI TENCATE RS 280i (OR APPROVED EQUAL) ALONG THE ENTIRE DRIVE ALIGNMENT.
4. BASE COURSE SHALL BE AS FOLLOWS:
  - 4.1. IN AREAS OF STRAIGHT ALIGNMENT AND RUNNING SLOPES LESS THAN 5%.
    - 4.1.1. PROVIDE 6" THICKNESS NYSDOT #3 CLEAN STONE WHERE EXISTING SOILS EXHIBIT ADEQUATE DRAINAGE AND/OR STABILITY.
    - 4.1.2. PROVIDE 6" THICKNESS CLEAN GABION STONE, SIZE 4"-6" WHERE EXISTING SOILS EXHIBIT FREQUENT SATURATION, SETTLING, AND/OR HEAVING.
    - 4.1.3. GEOGRID MAY BE ADDED TO EITHER OF THE ABOVE BASE COURSE OPTIONS AT LOCATIONS OF DESIRED INCREASED STABILIZATION. GEOGRID SHALL BE ADS BX124GG (OR APPROVED EQUAL). GEOGRID SHALL BE PLACED APPROXIMATELY MID-BASE COURSE DEPTH (APPROXIMATELY 3" THICKNESS BASE MATERIAL BELOW AND ABOVE GEOGRID, MINIMUM 4" TOTAL MATERIAL COVER ABOVE GEOGRID).
  - 4.2. IN AREAS OF CURVED ALIGNMENT, TURNAROUNDS, RUNNING SLOPES GREATER THAN 5%, AT LOCATIONS OF DESIRED INCREASED STABILIZATION, AND/OR AT LOCATIONS INDICATED BY THE SITE PLAN, PROVIDE 6" THICKNESS PRESTO GEOSYSTEMS GEOWEB GW30V6 (OR APPROVED EQUAL) AND INFILL WITH 6" THICKNESS NYSDOT #2 CLEAN STONE.
5. SURFACE COURSE SHALL BE 2" THICKNESS NYSDOT #1 CLEAN STONE.
6. IN AREAS WHERE EXISTING SOILS EXHIBIT FREQUENT SATURATION, SETTLING, AND/OR HEAVING, AN OPTIONAL SUBBASE COURSE MAY BE IMPLEMENTED TO IMPROVE STABILITY. OPTIONAL SUBBASE COURSE SHALL BE 12" THICKNESS CLEAN GABION STONE, SIZE 6"-12".

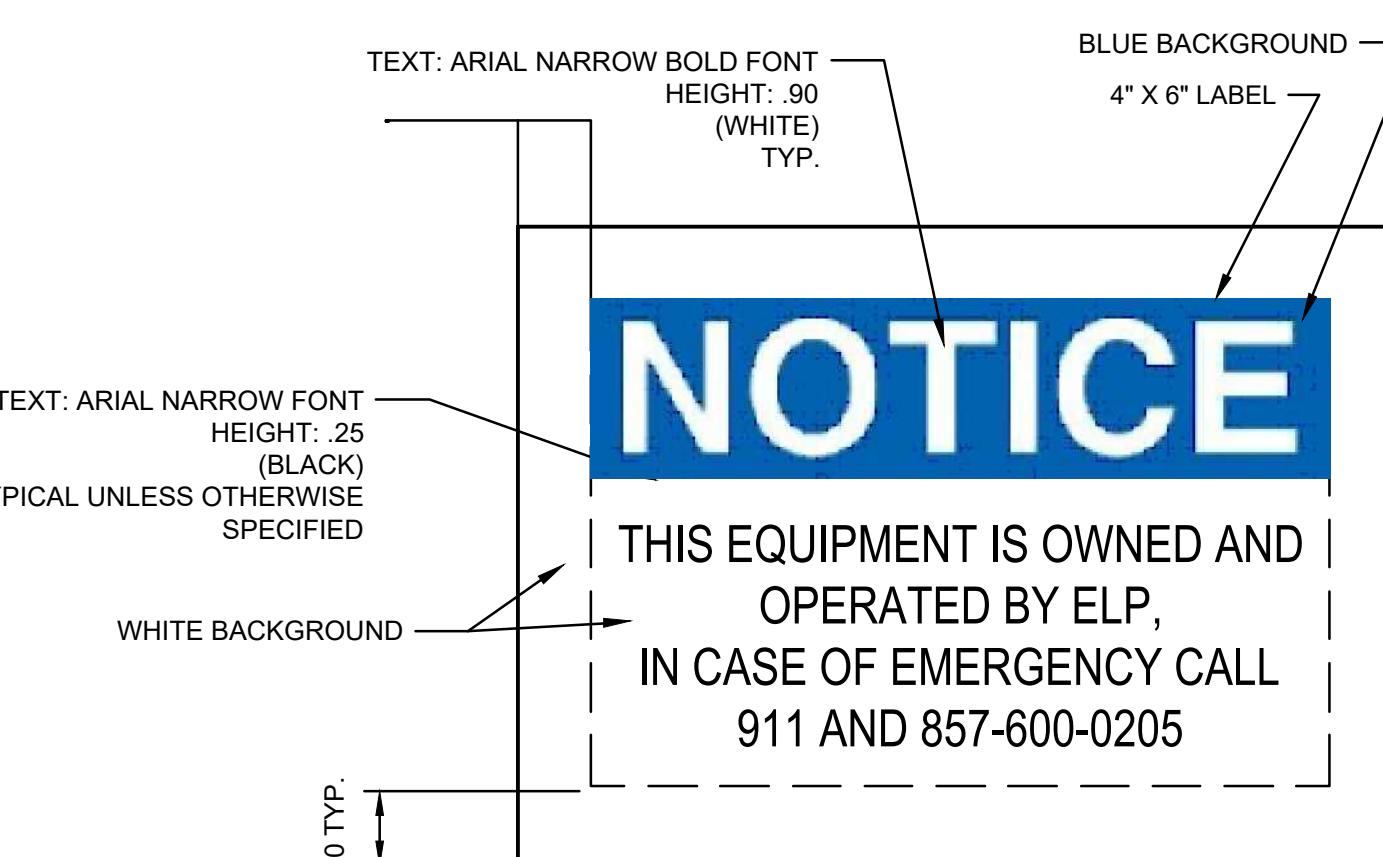
**A PERVERIOUS ACCESS DRIVE DETAIL**

SCALE: N.T.S.



**D OVERHEAD SPAN DETAIL**  
C-502

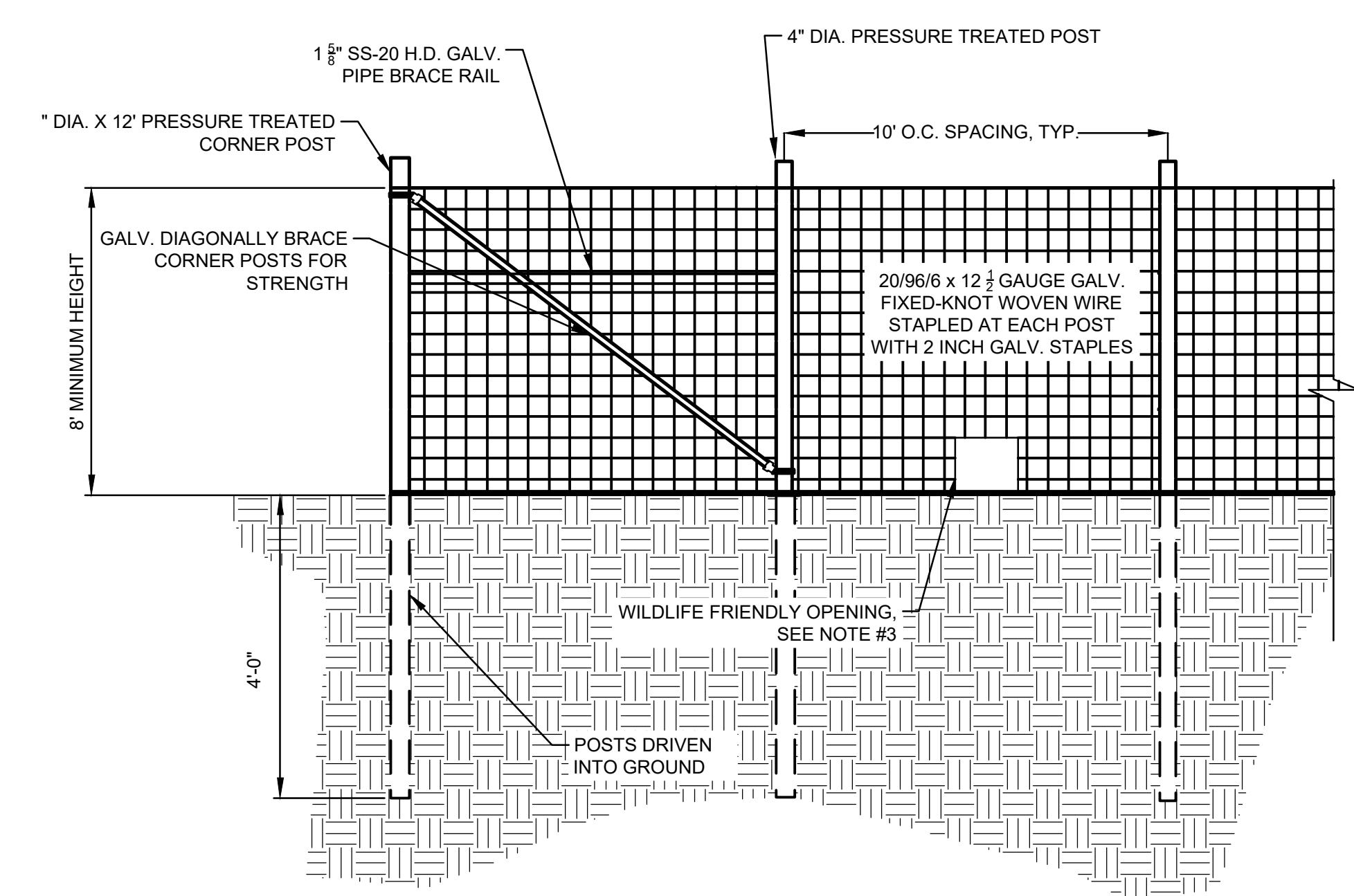
SCALE: N.T.S.



NOTES:  
1. TO BE POSTED AT ENTRANCES AND PERIMETER OF FENCING.

**C NOTICE SIGN DETAIL**  
C-502

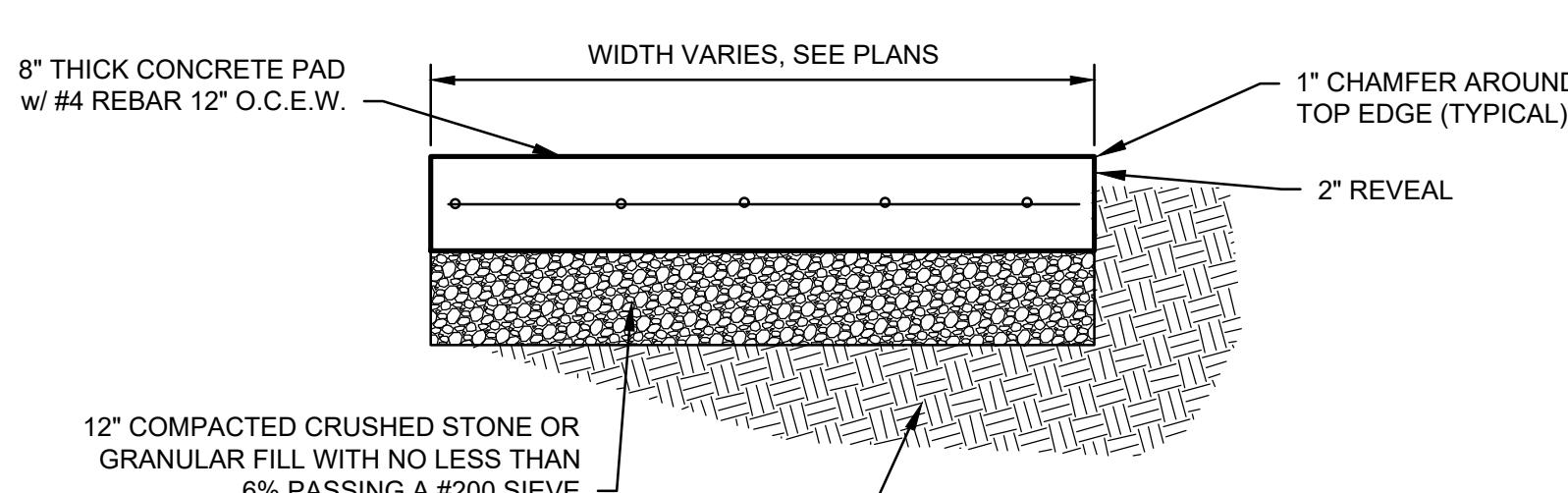
SCALE: N.T.S.



NOTES:  
1. FENCE MATERIAL SHALL BE DARK OR NON-REFLECTIVE.  
2. A GATE SHALL BE INSTALLED WHERE FENCE MEETS THE ACCESS DRIVE.  
3. A WILDLIFE FRIENDLY OPENING, MEASURING 1 FOOT X 1 FOOT, MINIMUM, SHALL BE INSTALLED AT THE BOTTOM OF FENCE, SPACED EVERY 100 LF, MINIMUM.

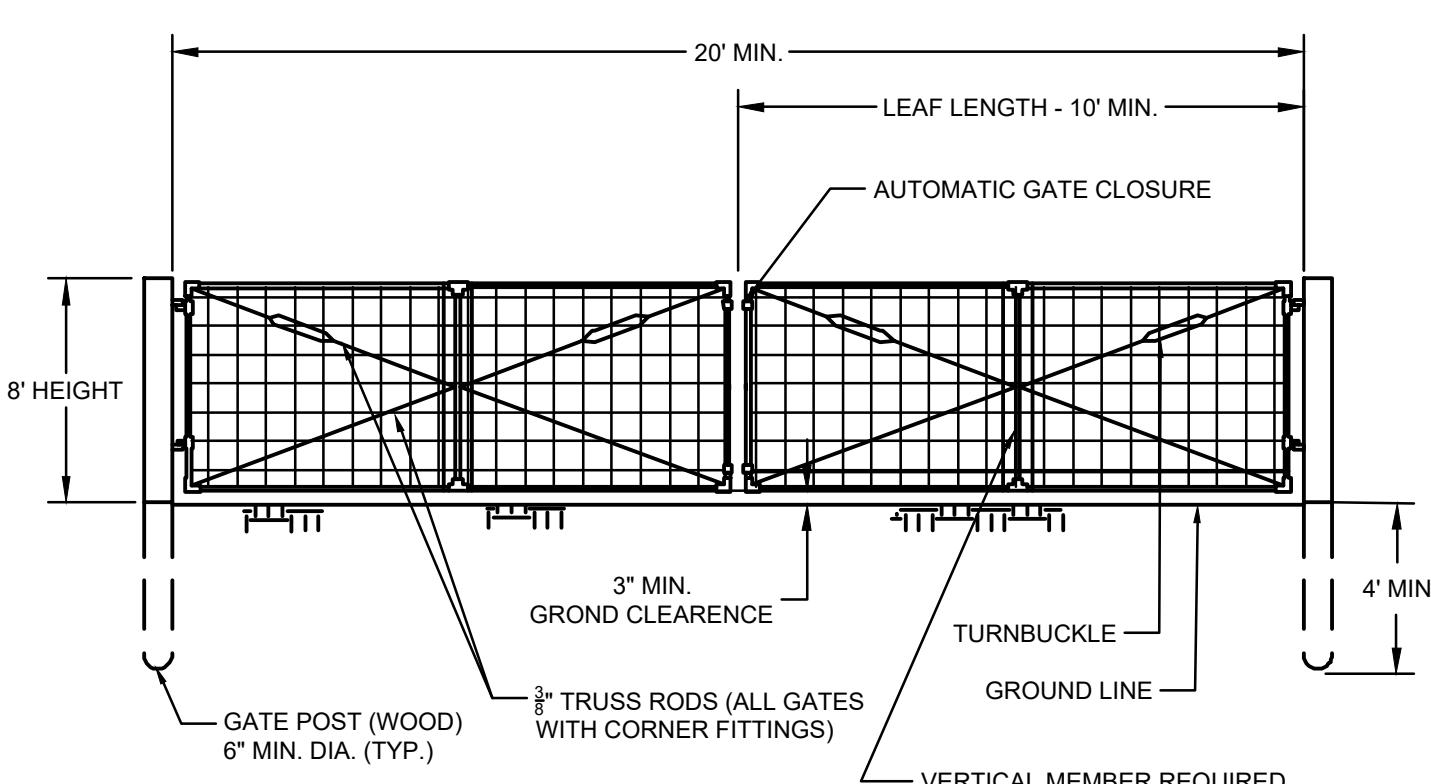
**E POST-DRIVEN FENCE DETAIL**  
C-502

SCALE: N.T.S.



**B CONCRETE PAD DETAIL**

SCALE: N.T.S.



**F GATE DETAIL**  
C-502

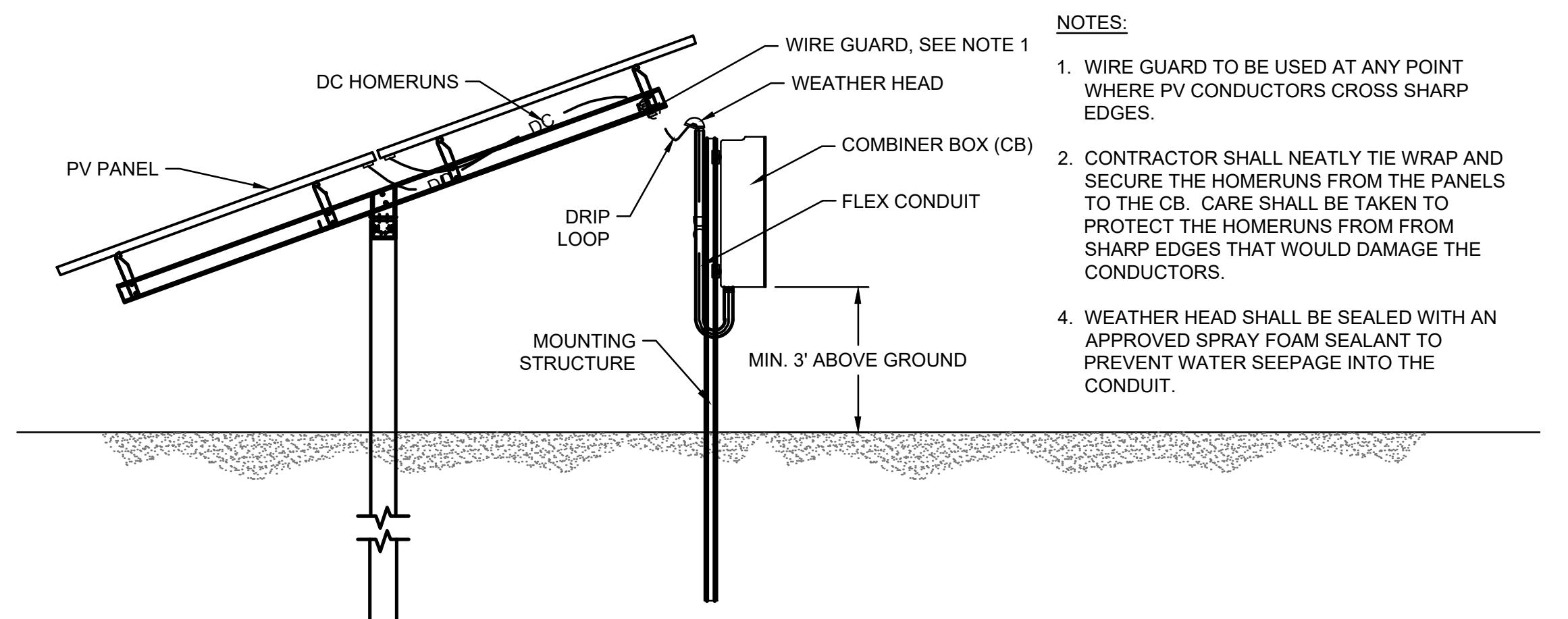
SCALE: N.T.S.

NOTES:  
1. COORDINATE KNOX BOX OR SIMILAR WITH LOCAL FIRE DEPARTMENT AS NEEDED.

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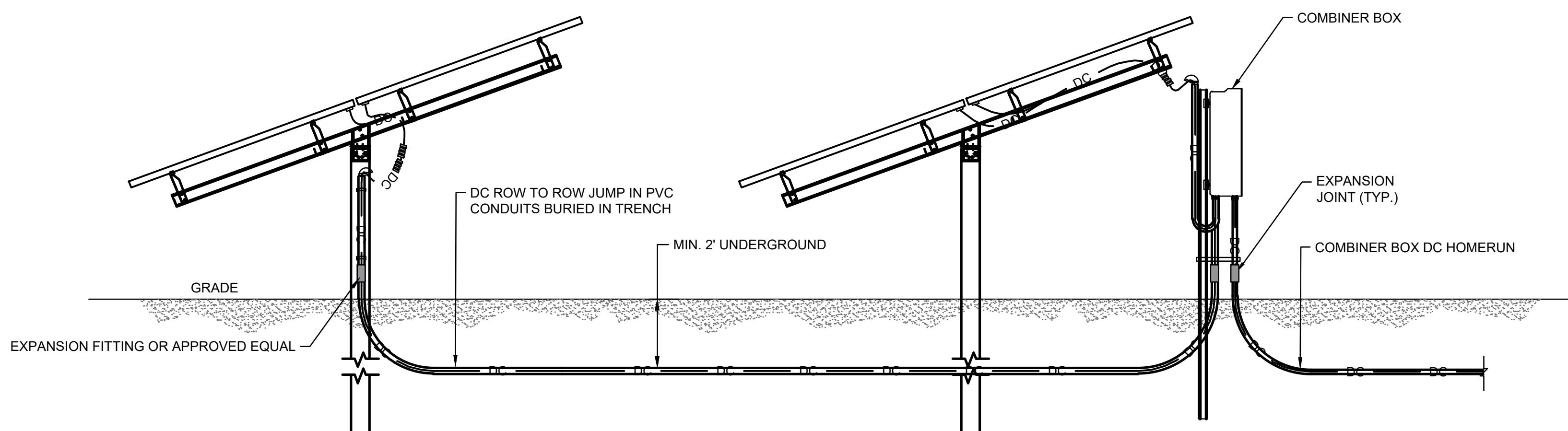
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DESIGNED BY:	TSB/DPB	TSB/DPB	TSB/DPB	TSB/DPB	TSB/DPB
CHECKED BY:	CJK	CJK	CJK	CJK	CJK
APPROVED BY:	CJK	CJK	4996.26	C-502	C-502
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**A** **FIXED TILT DC CONDUCTORS WIRE MANAGEMENT DETAIL**  
E-501

SCALE: N.T.S.

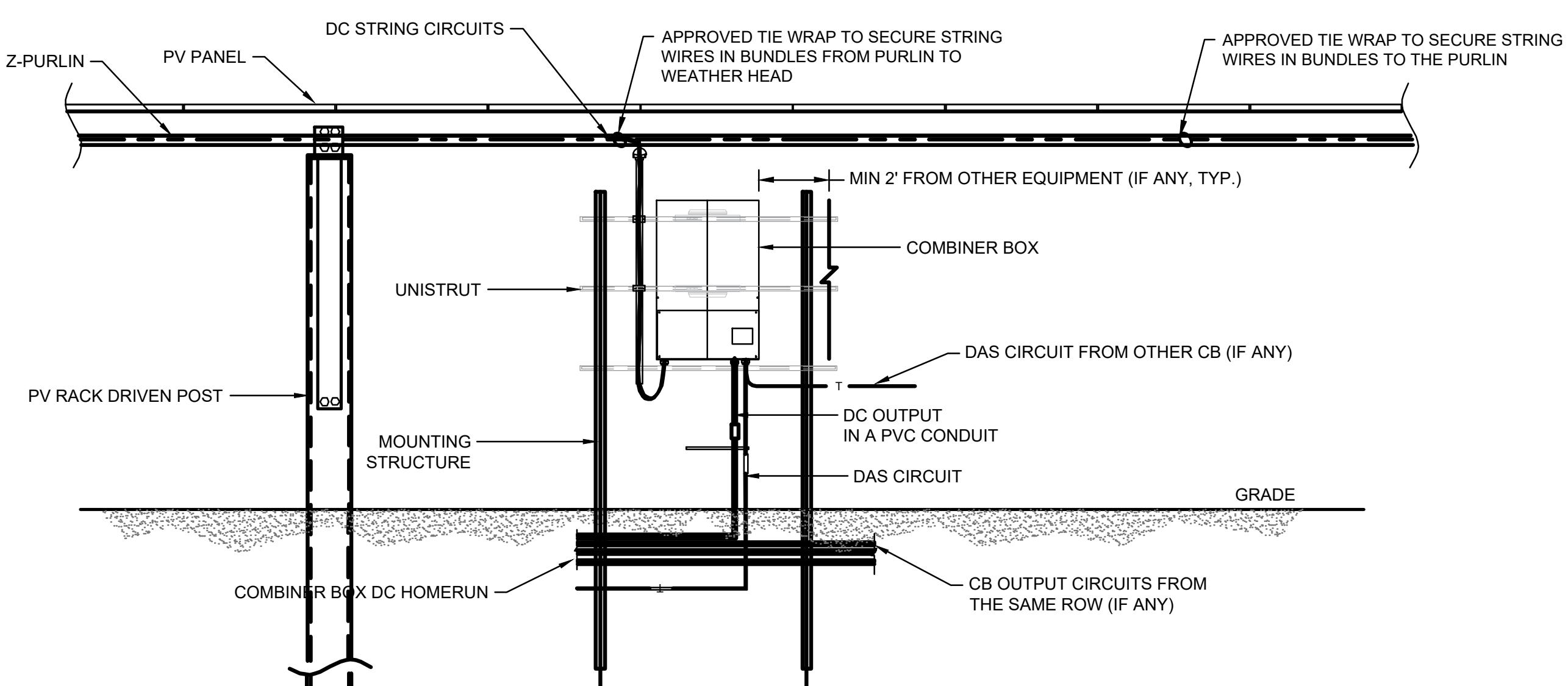


**B** **ROW TO ROW JUMPING DETAIL**  
E-501

SCALE: N.T.S.

**NOTE:**

1. ELECTRICIANS TO PROVIDE CONDUIT FITTINGS, EXPANSION FITTINGS, AND PROTECTIVE BUSHINGS AS REQUIRED
2. A WIRE MANAGEMENT TRAY OR APPROVED EQUIVALENT SHALL BE PROVIDED TO HOUSE THE EXPOSED DC CONDUCTORS AT THE COMBINER BOX RACKING STRUCTURE
3. SPLIT-WIRE LOOM SHALL BE PROVIDED WHERE CABLES COME IN CONTACT WITH SHARP EDGES, IN CASE OF LARGER GAPS BETWEEN RACKING TABLES, AND FOR ADDITIONAL PROTECTION OF EXPOSED PV WIRES AT THE COMBINER BOX MOUNTING STRUCTURE
4. COMMUNICATION CONDUITS SHALL BE PLACED AT LEAST 1' FROM EITHER AC OR DC CIRCUITS



**C** **EQUIPMENT MOUNTING DETAIL FRONT VIEW**  
E-501

SCALE: N.T.S.

**ELECTRICAL DETAIL NOTES:**

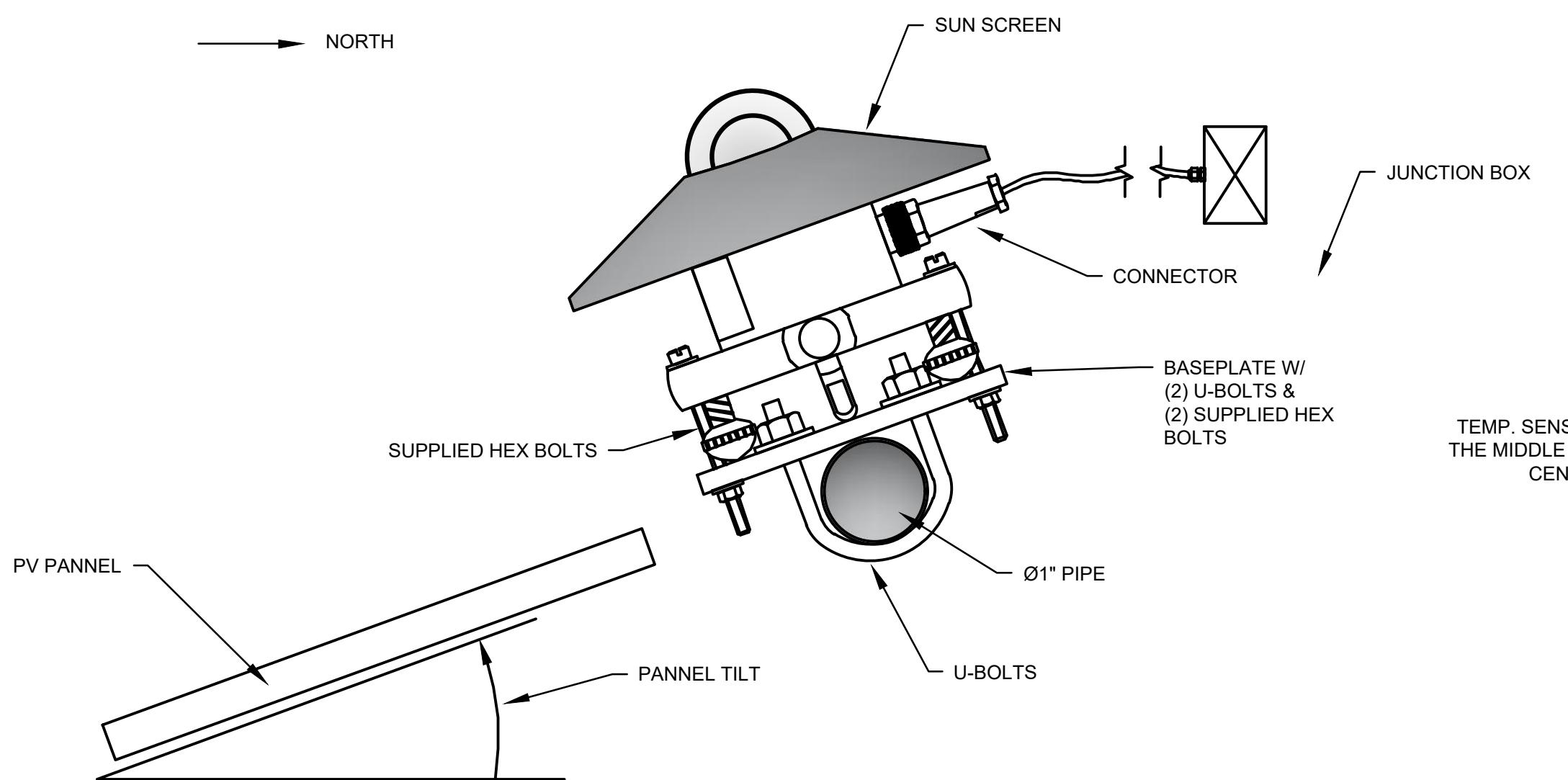
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1	UPDATES PER PLANNING BOARD COMMENT	7/3/24	TSB
REV #	DESCRIPTION	DATE	BY
ELP MARLBOROUGH SOLAR 335 BINGHAM ROAD			
TOWN OF MARLBOROUGH ULSTER COUNTY, NY			

ELECTRICAL DETAILS - SHEET 1

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4/5/2024	TSB/DPB	TSB/DPB	TSB/DPB
SCALE	CHECKED BY:	CJK	CJK
AS SHOWN	APPROVED BY:	4996.26	E-501



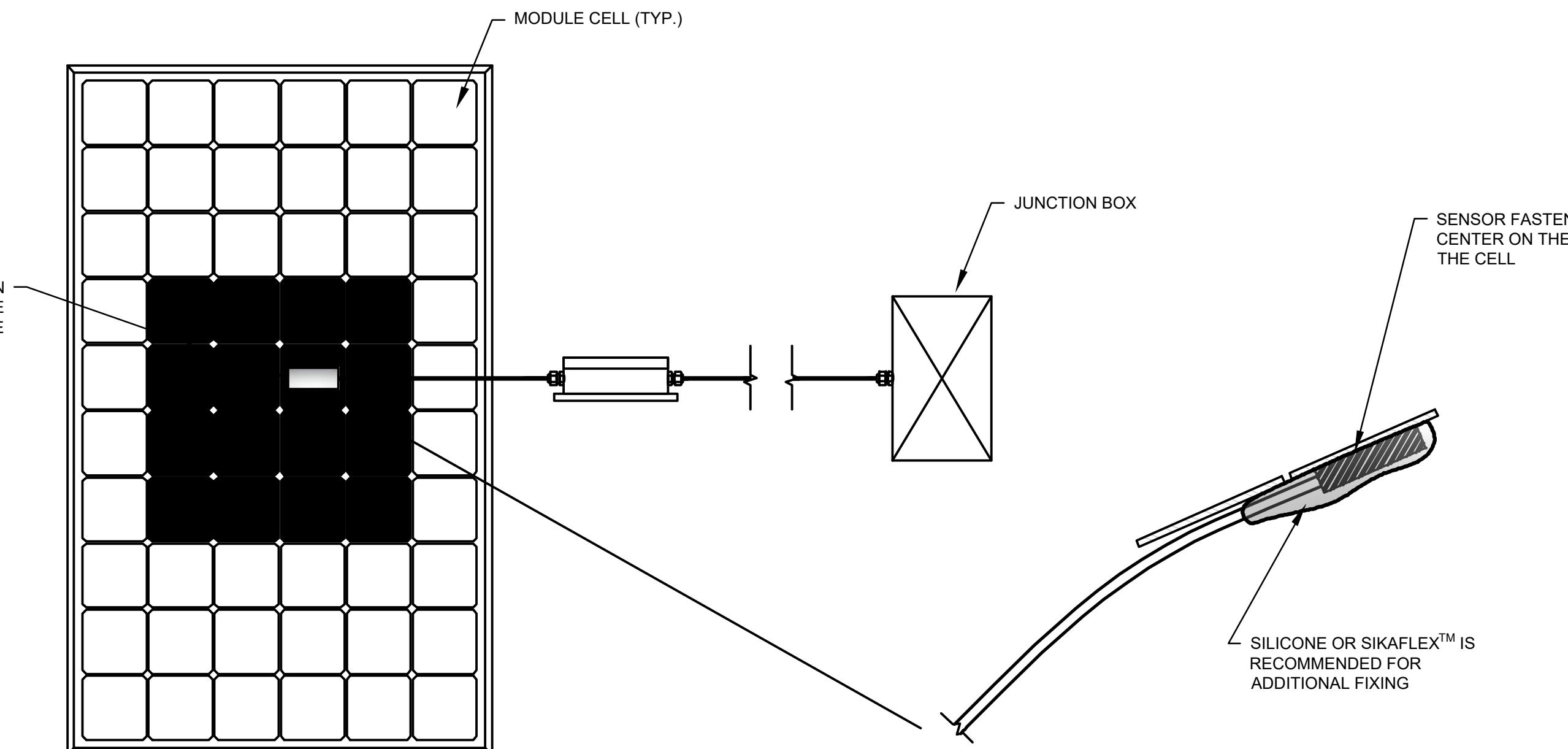


**PYRANOMETER NOTE:**

1. FOR POA PYRANOMETERS, ROTATE ASSEMBLY SO THAT THE BASEPLATE IS PARALLEL TO THE PV ARRAY AND FASTEN SNUGLY. FOR GHI PYRANOMETER, ROTATE ASSEMBLY SO THAT THE BASEPLATE IS PARALLEL TO THE GROUND.
2. PLACE PYRANOMETER ONTO THE MOUNTING BRACKET BASEPLATE AND ENSURE THEY ARE PARALLEL TO EACH OTHER USING THE LEVELING METER.
3. ELECTRICAL DETAILS REFERS TO DAS INFORMATION. IF THE SENSOR IS THE LAST DEVICE IN A MODBUS CHAIN WHICH CONSISTS OF 3 OR MORE DEVICES, THEN ADD A 120Ω RESISTOR BETWEEN THE DATA+ AND DATA- WIRES

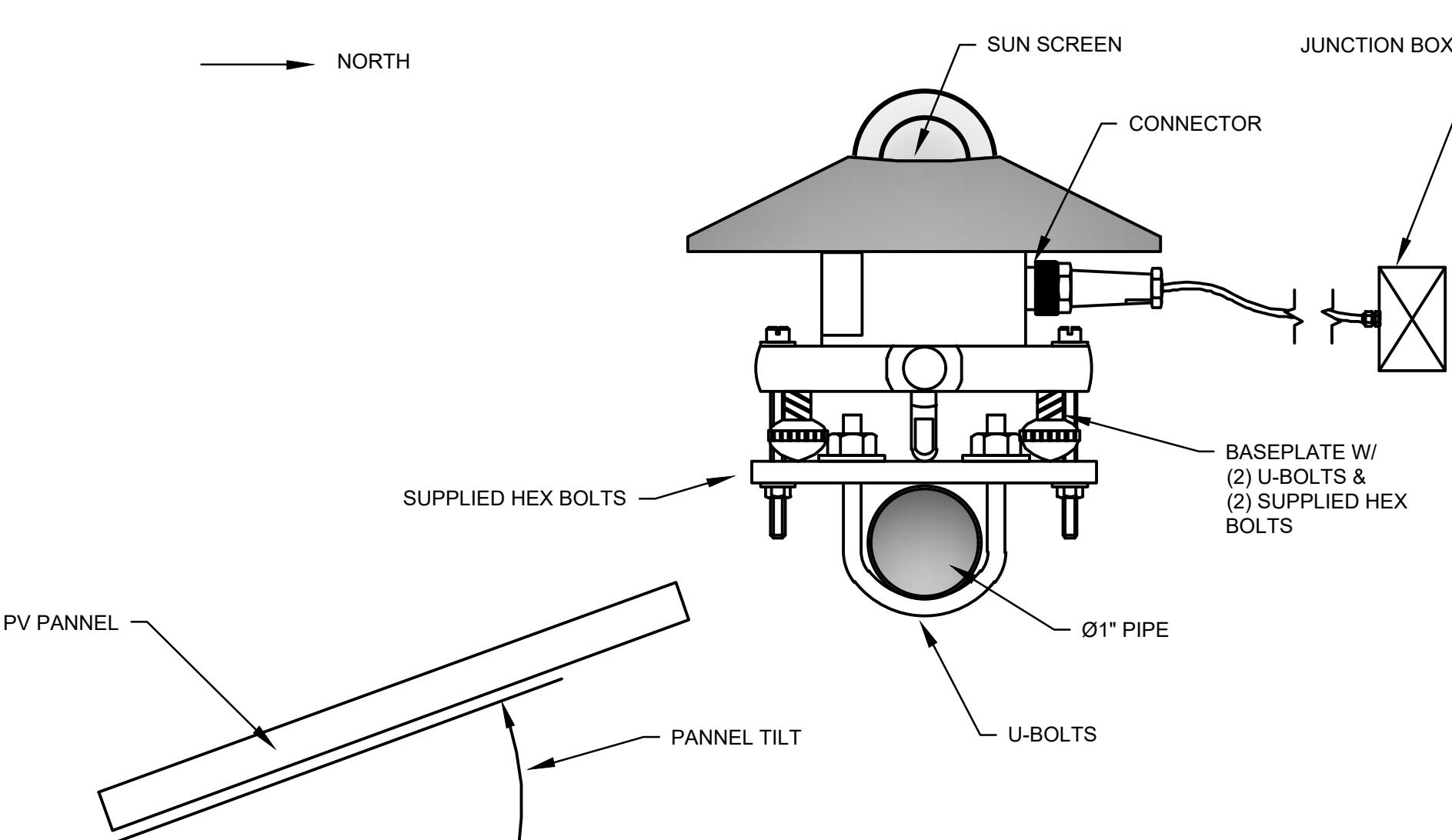
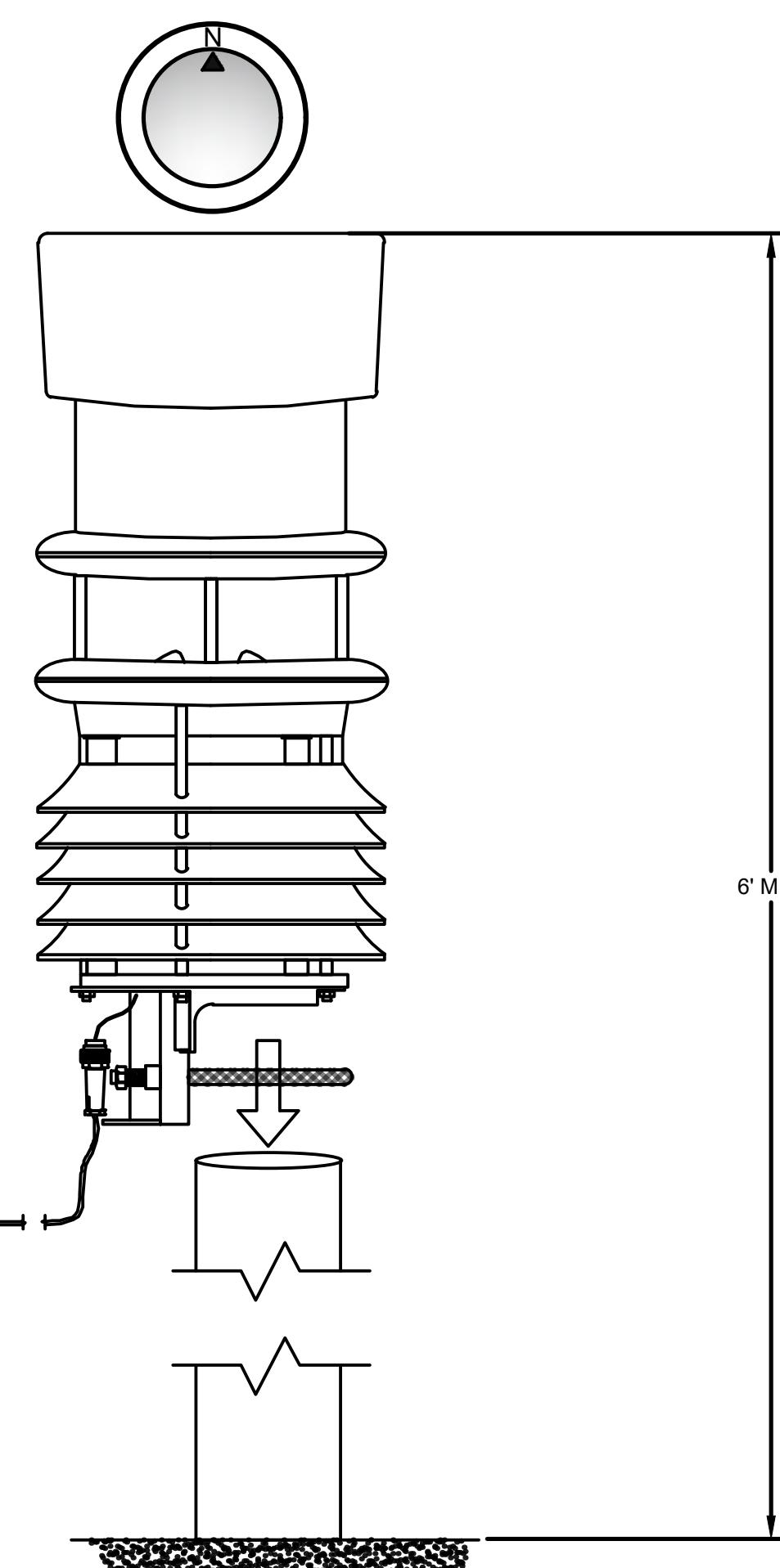
**A PYRANOMETER (POA) INSTALLATION**  
E-503

SCALE: N.T.S.



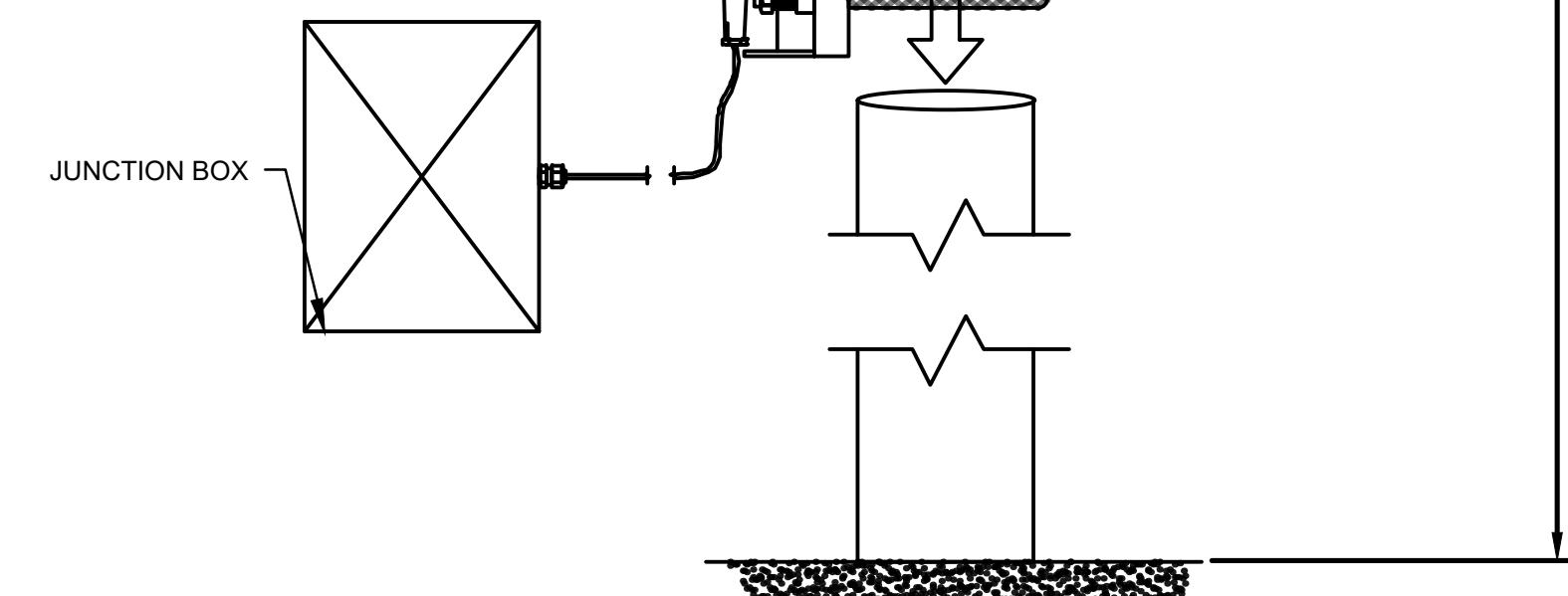
**WS601UMB NOTE:**

1. VERTICALLY MOUNT ON A 2.5" TO 3" O.D. RIGID METAL POLE IN A LOCATION FREE OF OBSTRUCTIONS AND SHADING.
2. FIRST LOOSELY MOUNT THE WS601 MAKING SURE IT HAS AT LEAST 6' HEIGHT TO THE GROUND.
3. ALIGN THE NORTH INDICATORS ON THE WS601 WITH MAGNETIC NORTH USING A COMPASS AND TIGHTEN THE FASTENERS.



**D AXIS CAMERA INSTALLATION**  
E-503

SCALE: N.T.S.



**ELECTRICAL DETAIL NOTES:**

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REV #	DESCRIPTION	DATE	BY

ELP MARLBOROUGH SOLAR  
335 BINGHAM ROAD

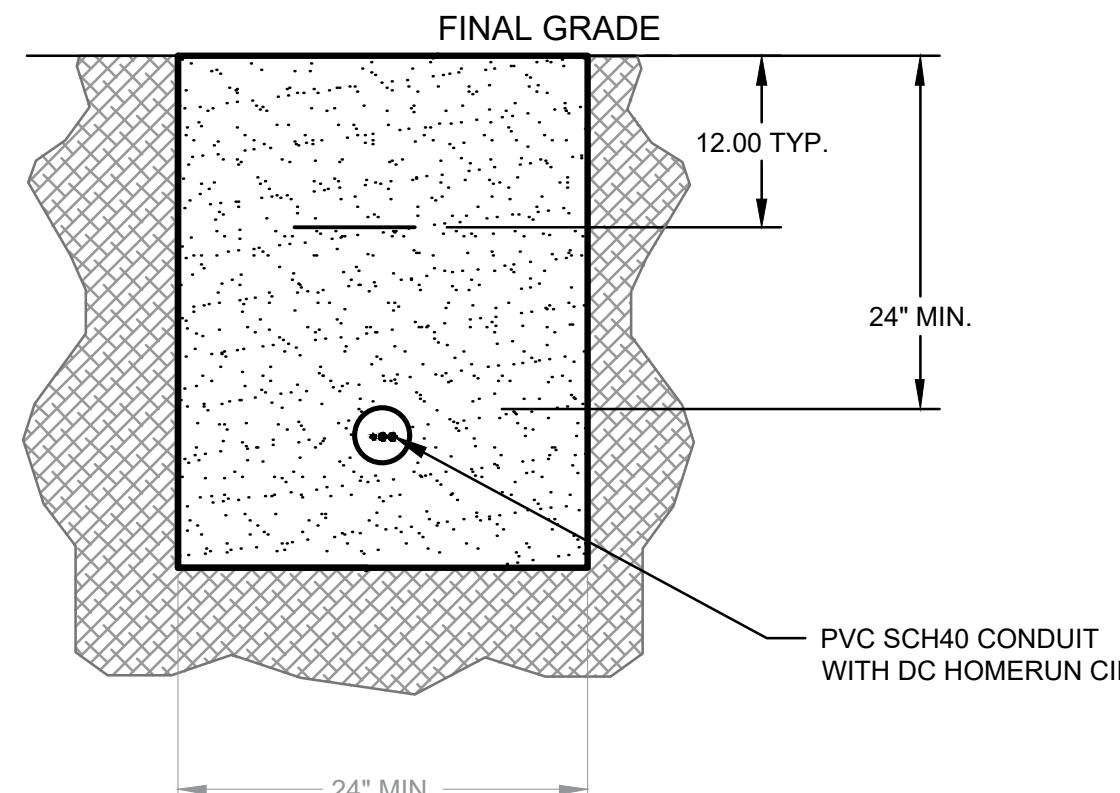
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ELECTRICAL DETAILS - SHEET 3

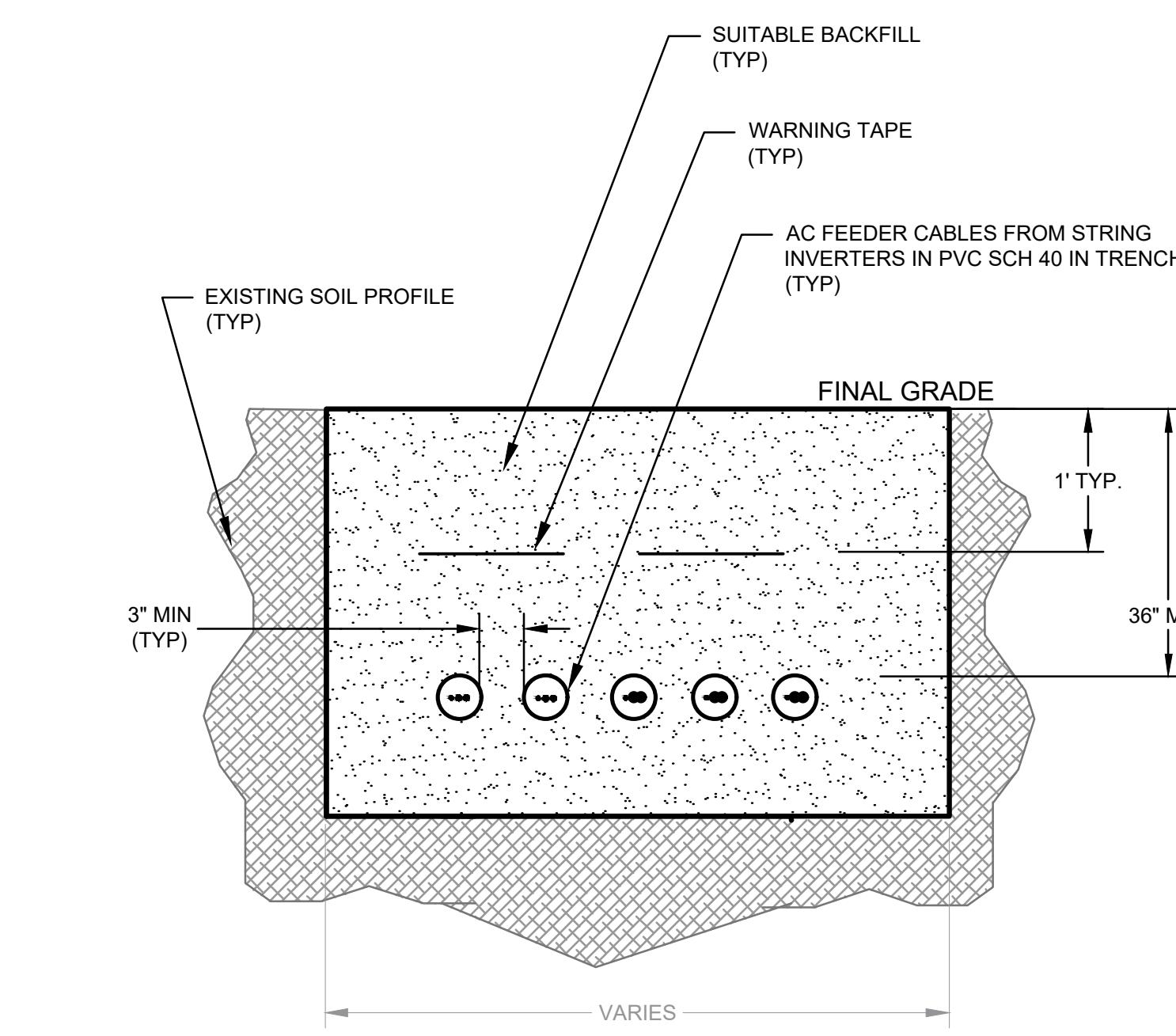
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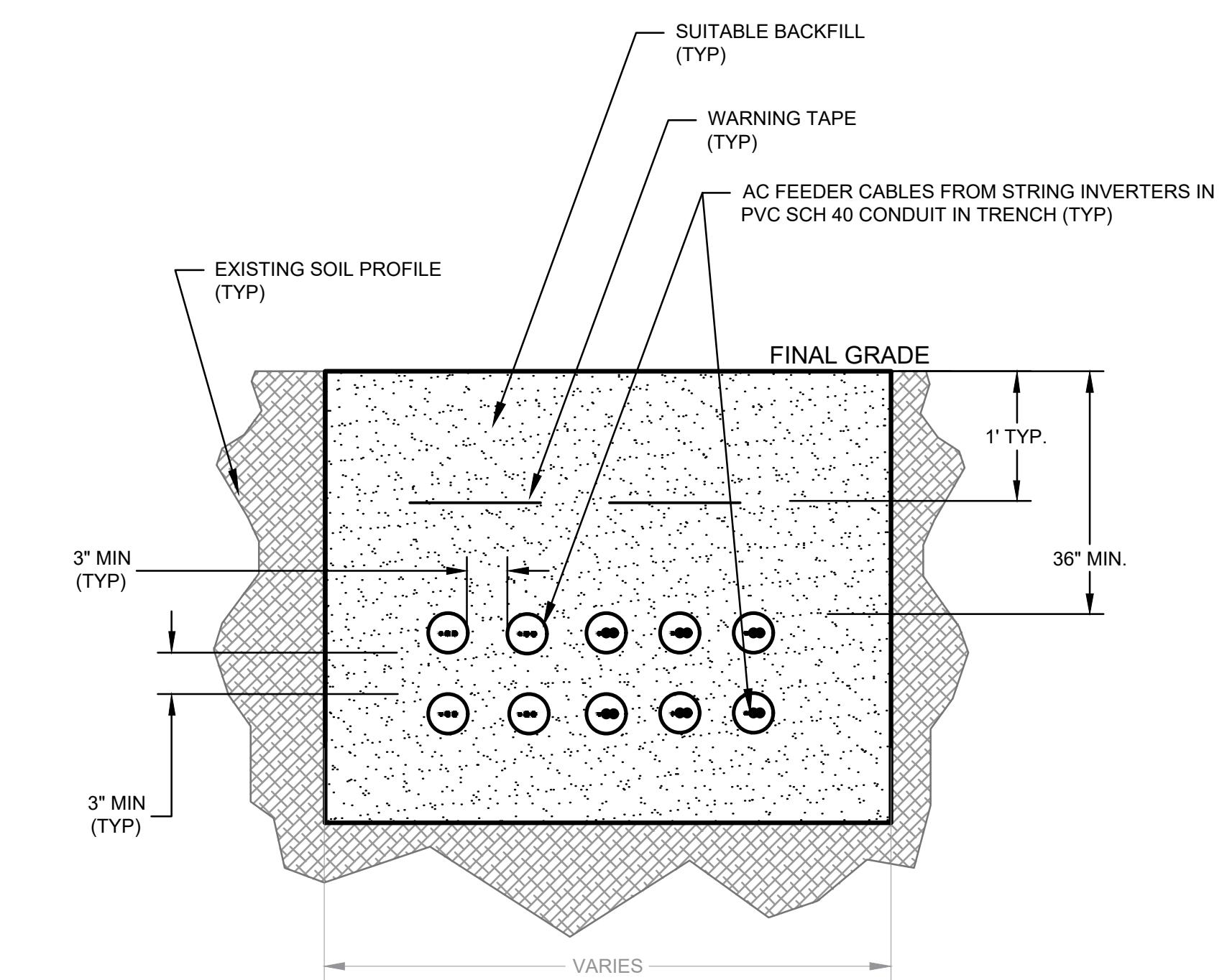
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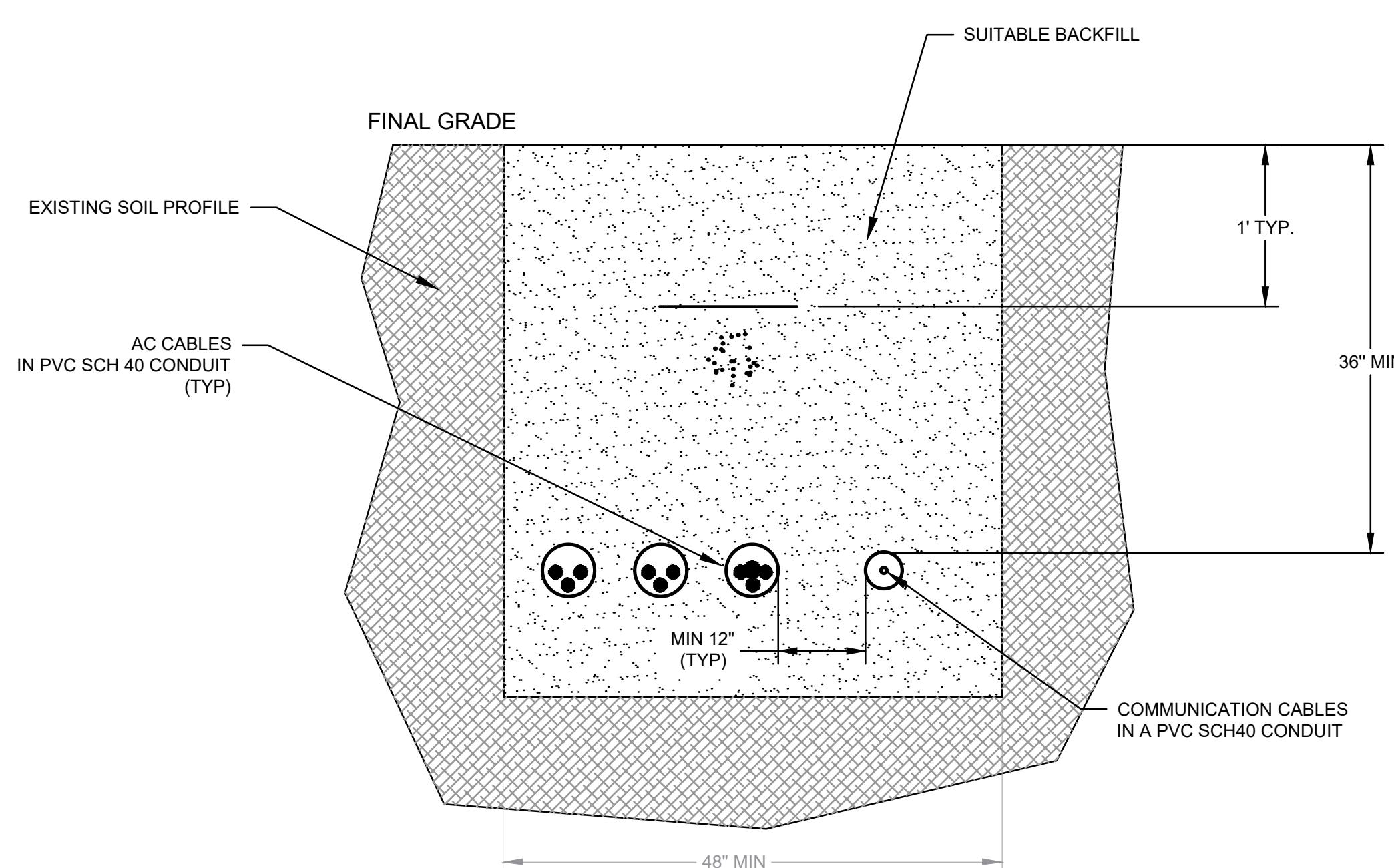
**A** DC HOMERUNS ROW TO ROW JUMPER TRENCH DETAIL  
E-504



**B** AC FEEDER CIRCUITS TRENCH DETAIL (SINGLE LAYER)  
E-504



**C** AC FEEDER CIRCUITS TRENCH DETAIL (TWO LAYERS)  
E-504



**D** MEDIUM VOLTAGE CONDUCTORS WITH COMMUNICATIONS CABLES TRENCH DETAIL  
E-504

**NOTES:**

1. ALL AC CONDUITS TO BE BURIED AT A MINIMUM OF 3'. ALL DC CONDUITS TO BE BURIED AT A MINIMUM OF 2'.
2. COMMUNICATION CABLES TO BE A MINIMUM OF 12" AWAY FROM DC AND AC CABLES.
3. WARNING TAPE TO BE METALLIC WITH THE PHRASE "CAUTION: BURIED ELECTRICAL LINES"
4. BACKFILL TO BE FREE FROM ANY ROCKS OR OTHER DELETERIOUS OBJECTS THAT ARE 3/4" IN DIAMETER OR GREATER.
5. ELECTRICIANS TO PROVIDE MATCHING FITTINGS AND EXPANSION COUPLINGS BY THE SAME MANUFACTURER AS THE CONDUIT

**ELECTRICAL DETAIL NOTES:**

1. ALL ELECTRICAL DETAILS SHOWN HAVE BEEN INCLUDED FOR GENERAL REFERENCE AND DOES NOT REPRESENT THE SPECIFIC DESIGN OF ALL ELECTRICAL AND/OR RACKING COMPONENTS. THE ELECTRICAL DESIGN AND CONSTRUCTION DRAWINGS SHALL BE REFERENCED FOR ALL ELECTRICAL COMPONENTS DURING CONSTRUCTION OF THIS PROJECT.

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ELP MARLBOROUGH SOLAR  
335 BINGHAM ROAD

TOWN OF MARLBOROUGH ULSTER COUNTY, NY

ELECTRICAL DETAILS - SHEET 4



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