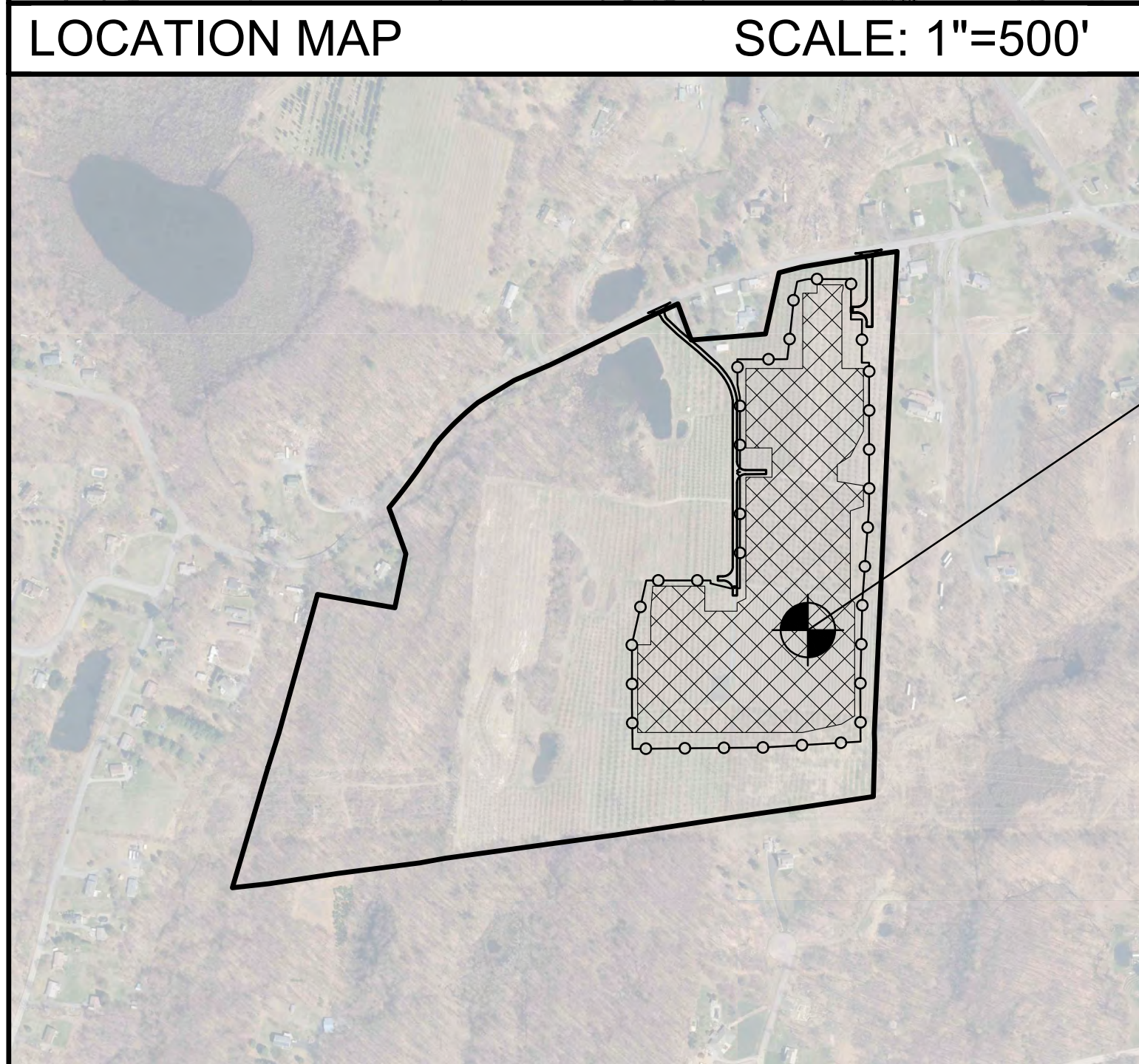


SITE LOCATION



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:



CRAWFORD & ASSOCIATES

ENGINEERING & LAND SURVEYING, PC

1 Hudson City Centre #300, Hudson New York 12534 tel: (518) 828-2700
www.crawfordandassociates.com fax: (518) 828-2723

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C&A #: 4996.26

DATE: APRIL 5, 2024
REVISED: JULY 3, 2024
REVISED: SEPTEMBER 6, 2024

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CONSTRUCTION

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

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

1. CONSTRUCTION SHALL NOT COMMENCE UNTIL APPROPRIATE PERMIT COVERAGE HAS BEEN OBTAINED.

TAX ID NUMBER: 108 3-3-21 (+/- 80 ACRES)

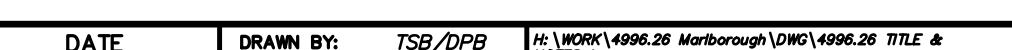
RICT RAG-1 (RURAL AGRICULTURAL DISTRICT)

¹ REQUIREMENT ALTERED FROM ZONING SCHEDULE I "LOT, YARD, AND HEIGHT REGULATIONS" PER TOWN OF MARLBOROUGH CODE 155-32.2I "STANDARDS FOR LARGE-SCALE SOLAR SYSTEMS AS A SPECIAL USE".

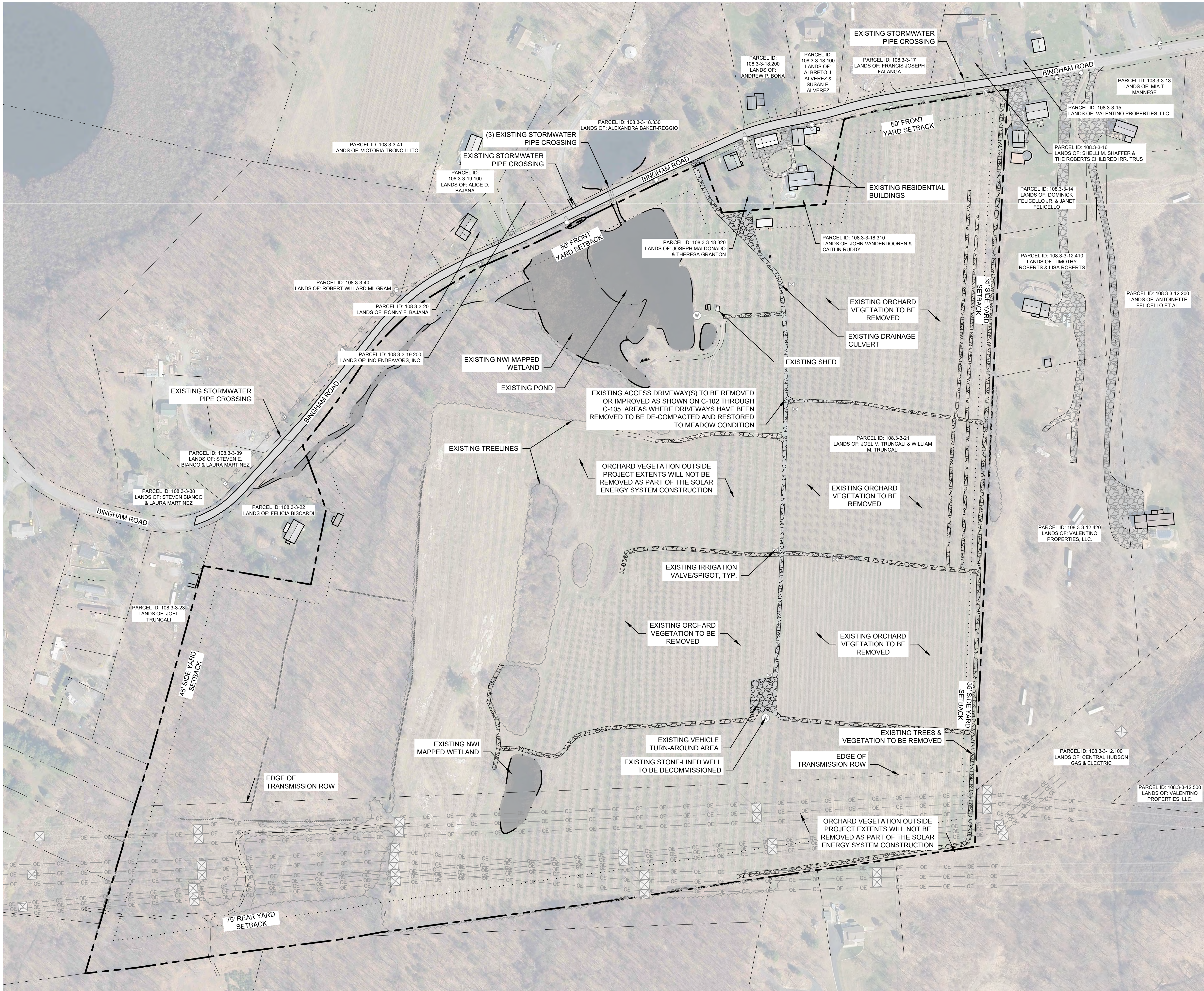
³ PROPOSED LOT COVERAGE CALCULATION INCLUDES PROPOSED DRIVEWAYS, CONCRETE EQUIPMENT PADS & MODULE AREA

ELP MARLBOROUGH SOLAR

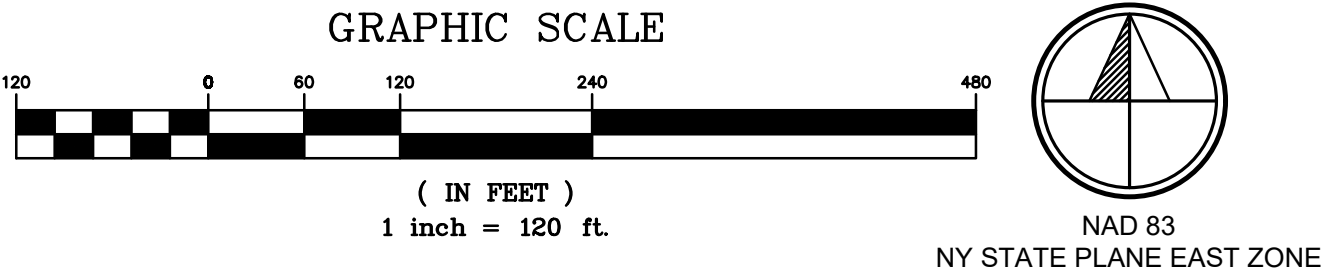
LEGEND & NOTES



VIOLATION OF THE NEW



EXISTING CONDITIONS & DEMO
SCALE: 1"=120'



- 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.
 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.
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 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 #36111C0900F.

2	REVISED PER LAYOUT UPDATE & PB COMMENT	9/6/24	DPB
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

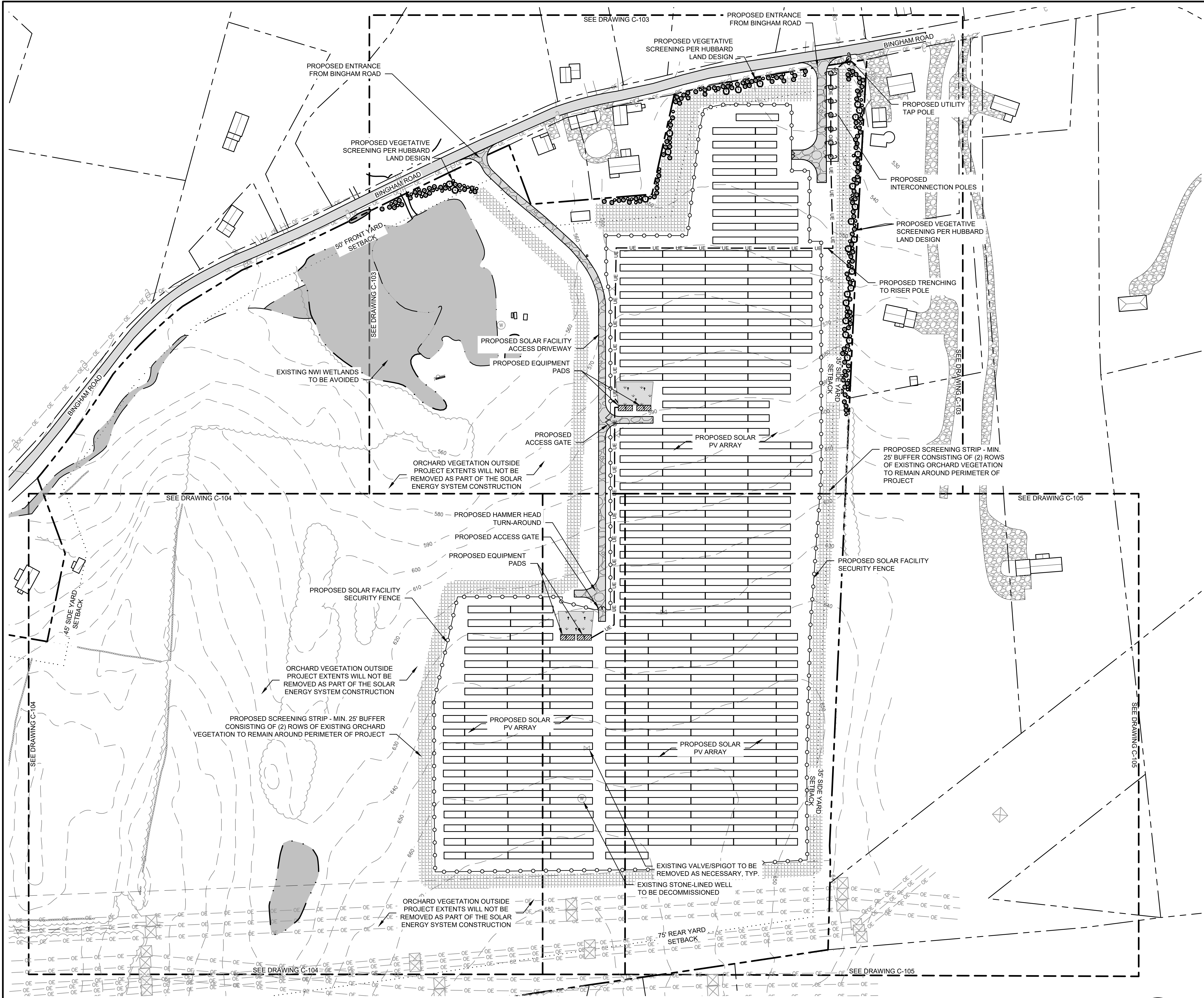
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3. PRIOR TO OPERATION OF THE SOLAR ENERGY SYSTEM, WRITTEN PROOF THAT ELECTRICAL CONNECTIONS HAVE BEEN INSPECTED AND APPROVED BY AN APPROPRIATE ELECTRICAL INSPECTION PERSON OR AGENCY, AS DETERMINED BY THE TOWN OF MARLBOROUGH WILL BE PROVIDED.
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5. 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 16.2 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.
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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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12. THE OWNER SHALL PREPARE AND COMPLY WITH A DECOMMISSIONING PLAN AS DETAILED IN THE TOWN OF MARLBOROUGH, NY SUPPLEMENTARY REGULATIONS SECTION 155-32.2J.
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	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% ¹	10.5% ³
LOT WIDTH (FT)	150'	1845'
LOT DEPTH (FT)	200'	1480'
BUILDING HEIGHT (FT), MAX	15' ²	<15'
YARD SETBACKS - MINIMUM (FT)		
FRONT	50'	50' ²
SIDE (ONE)	35'	35'
SIDE (BOTH)	80'	80'
REAR	75'	>100'

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

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

³ PROPOSED LOT COVERAGE CALCULATION INCLUDES PROPOSED DRIVEWAYS, CONCRETE EQUIPMENT PADS & MODULE AREA

REV #	DESCRIPTION	DATE	BY
2	REVISED PER LAYOUT UPDATE & PB COMMENT	9/6/24	DPB
1	UPDATES PER PLANNING BOARD COMMENT	7/3/24	TSB

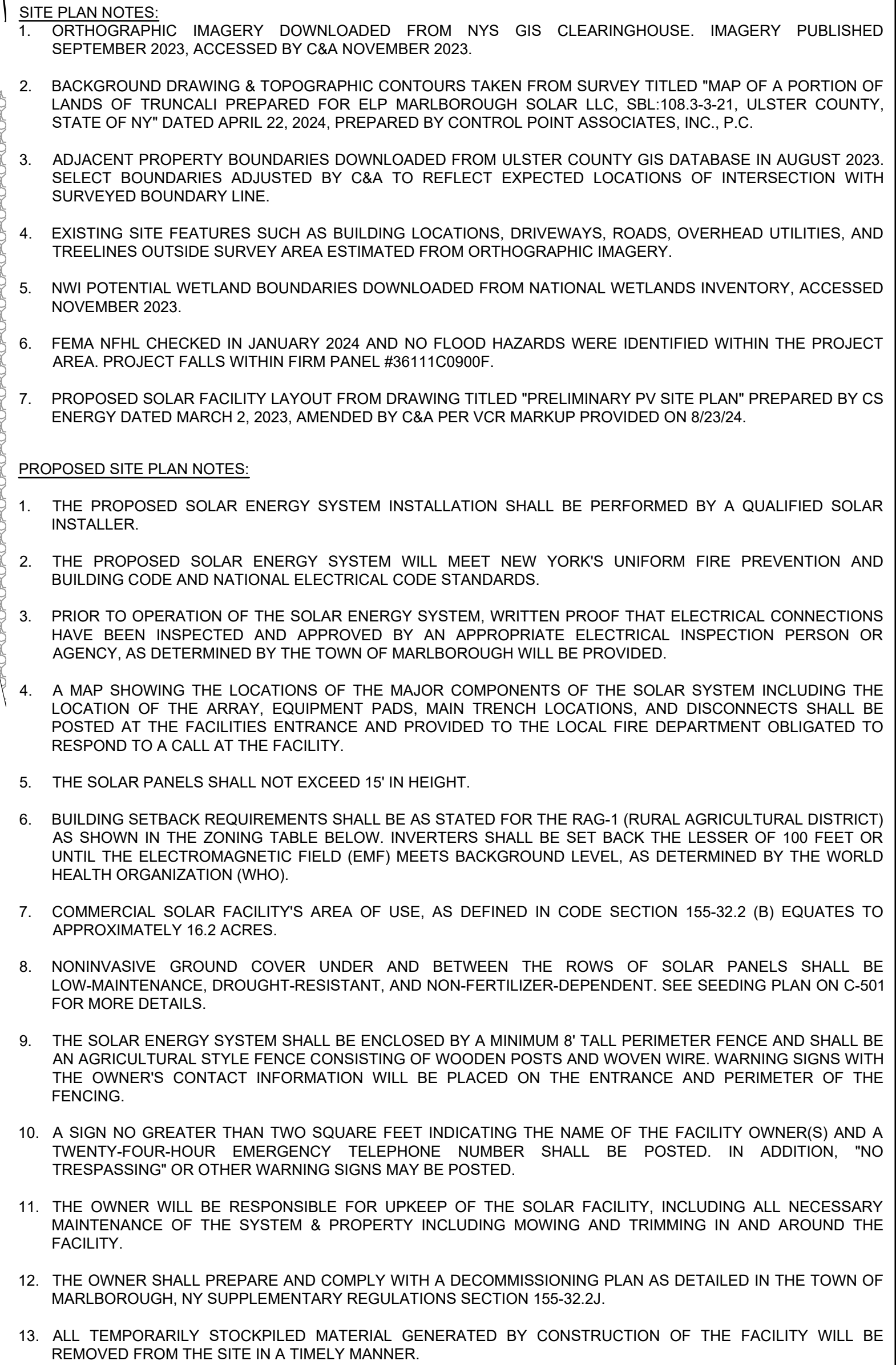
ELP MARLBOROUGH SOLAR
335 BINGHAM ROAD
TOWN OF MARLBOROUGH ULSTER COUNTY, NY

SITE PLAN
PROPOSED OVERALL LAYOUT

CRAWFORD & ASSOCIATES
ENGINEERING & LAND SURVEYING, PC
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				C&A JOB#		4996.26		DRAWING: C-102	

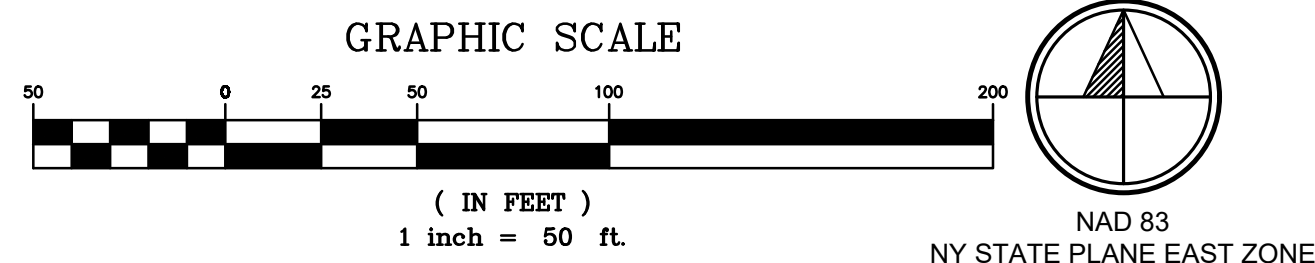


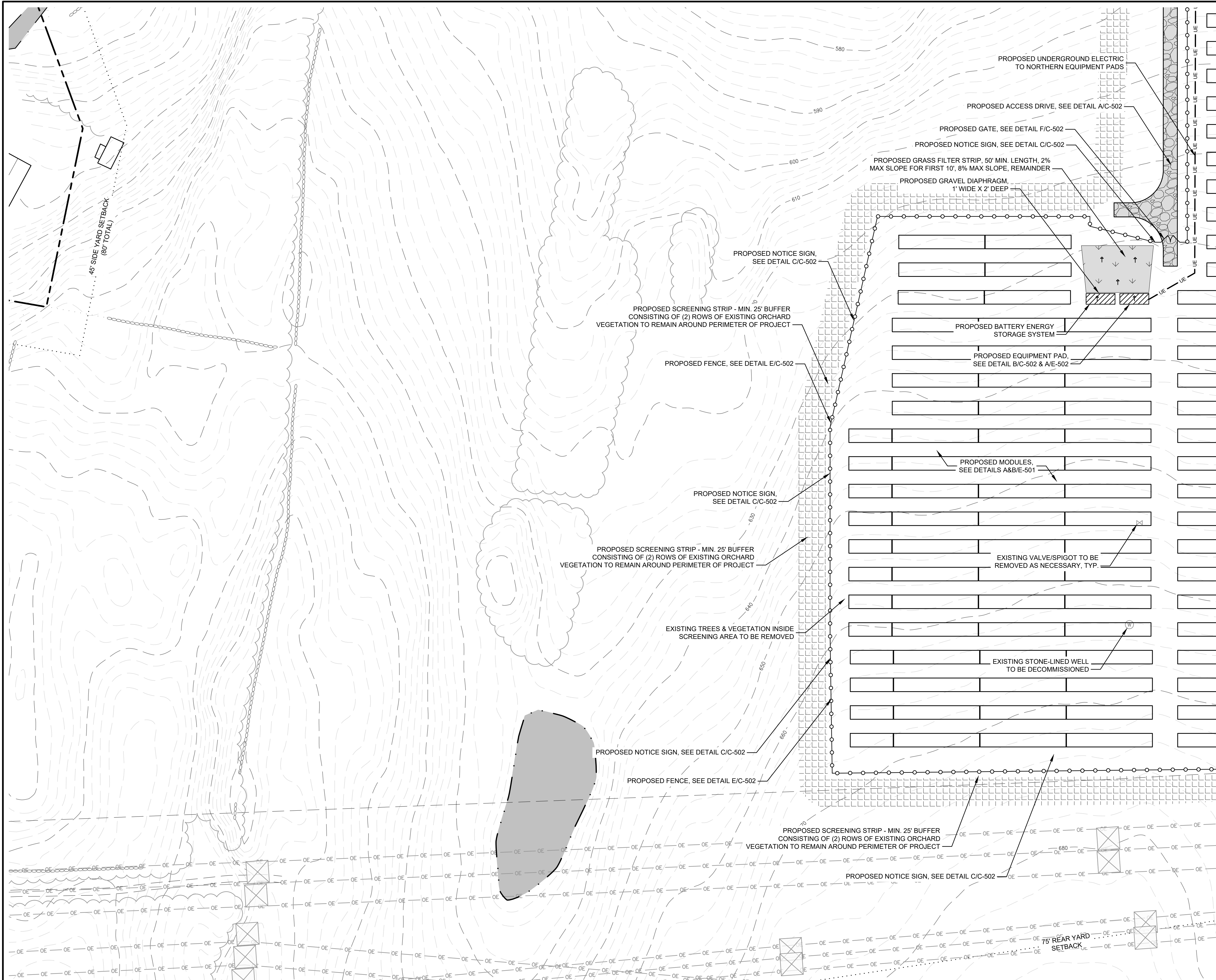
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	APPROVED BY: CJK		

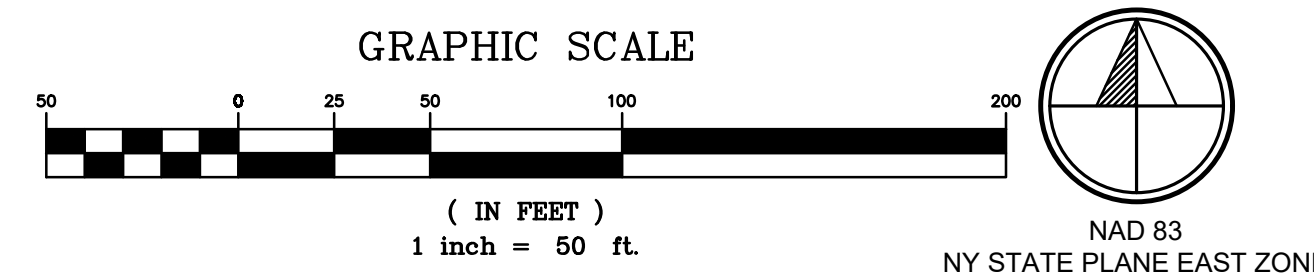




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PROPOSED GRADING & UTILITIES - 2
SCALE: 1"=40'



2	REVISED PER LAYOUT UPDATE & PB COMMENT	9/6/24	DPB
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ELP MARLBOROUGH SOLAR
335 BINGHAM ROAD
TOWN OF MARLBOROUGH ULSTER COUNTY, NY

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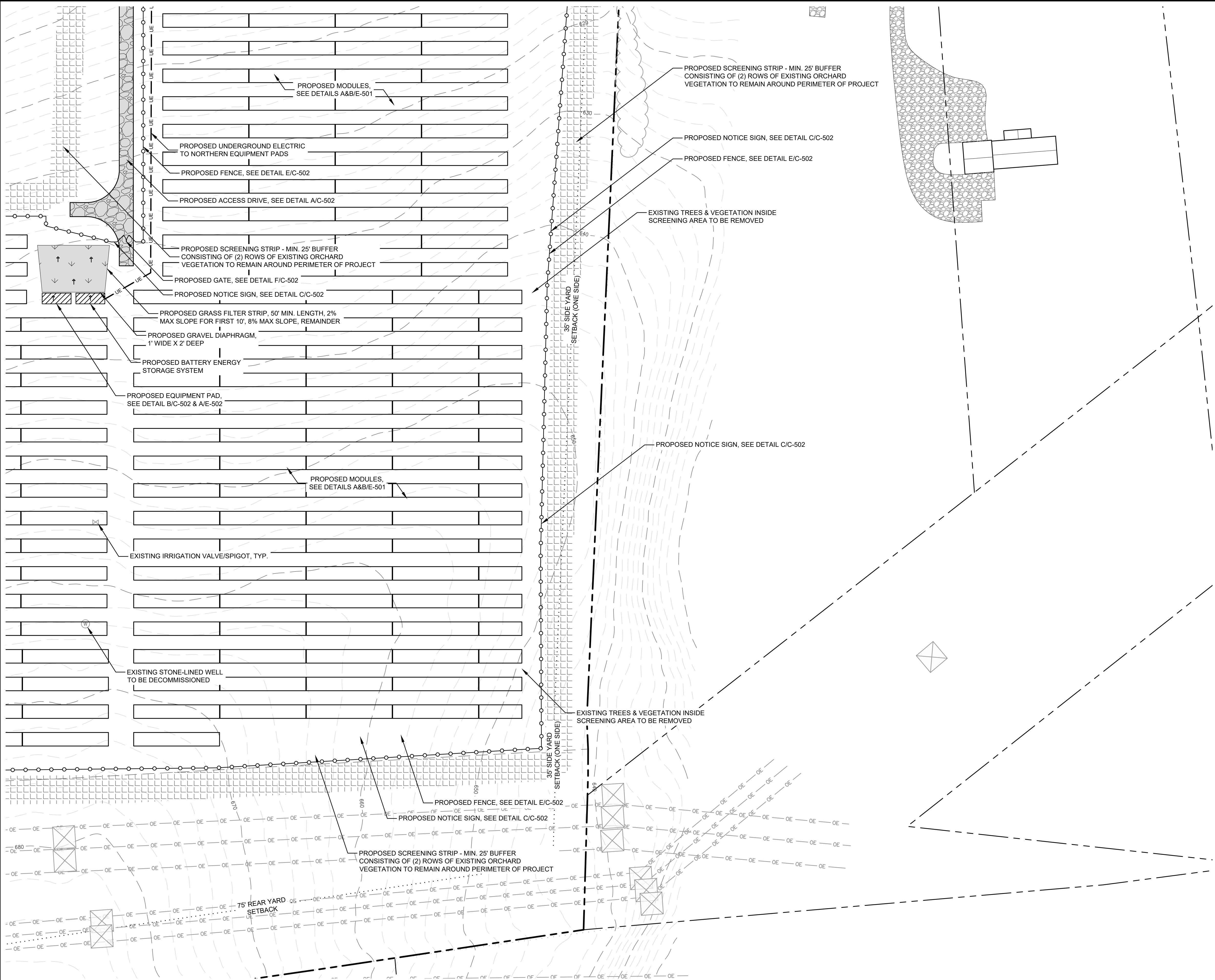
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C-104

SITE PLAN PROPOSED GRADING & UTILITIES - 2			
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ELP MARLBOROUGH SOLAR
335 BINGHAM ROAD
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DRAFT
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SITE PLAN
PROPOSED GRADING & UTILITIES - 3

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GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.

NAD 83
NY STATE PLANE EAST ZONE



- EROSION & SEDIMENT CONTROL GENERAL NOTES:**
- 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".)
 - 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.
 - 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.
 - 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.
 - 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.
 - INLET PROTECTION MEASURES SHALL BE INSTALLED AROUND STORM DRAIN INLETS TO PREVENT SEDIMENT LADEN WATER FROM ENTERING.
 - 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.
 - 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.
 - 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.
 - 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:**
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OPERATION AND MAINTENANCE OF THE NEW DEVELOPMENT PROJECT AND PROJECT ACCESS DURING CONSTRUCTION.
 - NO EARTHWORK ACTIVITIES SHALL COMMENCE UNTIL SILT FENCES AND SILT SOCKS HAVE BEEN INSTALLED AS SHOWN ON DRAWINGS.
 - AREAS TO BE LEFT EXPOSED TO EROSION FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY STABILIZED.
 - PAVED AREAS SHALL BE KEPT FREE OF SEDIMENT, AND SHALL BE CLEANED PERIODICALLY AS REQUIRED BY CONSTRUCTION ACTIVITIES.
 - CATCH BASINS, IF ANY, SHALL BE PERIODICALLY INSPECTED FOR ACCUMULATION OF SEDIMENT. ALL CATCH BASINS WITHIN THE PROJECT SHALL BE CLEANED.
 - THE CONTRACTOR IS RESPONSIBLE TO INSPECT AND REPAIR EROSION AND SEDIMENT CONTROL MEASURES AS REQUIRED TO PREVENT DAMAGE OR SEDIMENTATION.
 - 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:**
- 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.
 - TOTAL LIMITS OF DISTURBANCE (LOD), AS SHOWN, TOTALS 21.91 ACRES. LOD INCLUDES LAND CLEARING/GRUBBING, MINOR GRADING FOR ACCESS DRIVE AND EQUIPMENT PADS, TRENCHING, AND TEMPORARY E&SC MEASURES.
 - CONSTRUCTION SHALL BE COMMENCED IN ACCORDANCE WITH THE PHASING PLAN TO LIMIT DISTURBANCE OF GREATER THAN 5 ACRES, PER PHASE:
 - PHASE 1: APPROXIMATELY 4.85 ACRES OF DISTURBANCE, NOT LIMITED TO BUT INCLUDING: ESTABLISHMENT OF E&SC MEASURES (STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE, FILTER SOCK, ETC.), CLEARING/GRUBBING OF EXISTING TREES AND SHRUBS, INSTALLATION OF TEMPORARY LAYDOWN AREA, ACCESS DRIVE, UNDERGROUND ELECTRIC, UTILITY POLES, EQUIPMENT PADS AND PANEL ARRAY.
 - PHASE 2: APPROXIMATELY 4.87 ACRES OF DISTURBANCE, NOT LIMITED TO BUT INCLUDING: CLEARING/GRUBBING OF EXISTING TREES AND SHRUBS, INSTALLATION OF UNDERGROUND ELECTRIC AND PANEL ARRAY.
 - PHASE 3: APPROXIMATELY 4.72 ACRES OF DISTURBANCE, NOT LIMITED TO BUT INCLUDING: CLEARING/GRUBBING OF EXISTING TREES AND SHRUBS, INSTALLATION OF UNDERGROUND ELECTRIC AND PANEL ARRAY.
 - PHASE 4: APPROXIMATELY 2.96 ACRES OF DISTURBANCE, NOT LIMITED TO BUT INCLUDING: CLEARING/GRUBBING OF EXISTING TREES AND SHRUBS, INSTALLATION OF UNDERGROUND ELECTRIC AND PANEL ARRAY.
 - PHASE 5: APPROXIMATELY 4.54 ACRES OF DISTURBANCE, NOT LIMITED TO BUT INCLUDING: CLEARING/GRUBBING OF EXISTING TREES AND SHRUBS, INSTALLATION OF UNDERGROUND ELECTRIC, PANEL ARRAY AND FINAL STABILIZATION OF THE SITE.
 - EACH PHASE SHALL BE TEMPORARILY STABILIZED BEFORE PROCEEDING TO A SUBSEQUENT PHASE.
 - 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.
 - 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.
 - ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED AS DETAILED IN THE SEEDING PLAN ON DRAWING C-501.
 - 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.
 - 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.

2	REVISED PER LAYOUT UPDATE & PB COMMENT	9/6/24	DPB
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

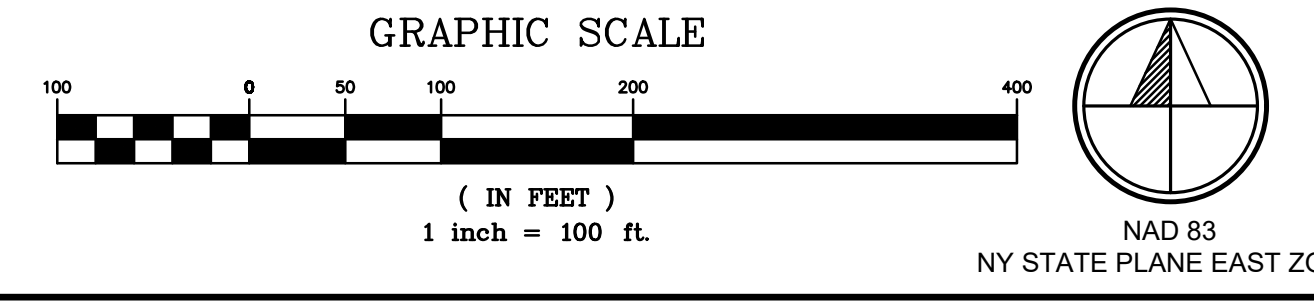
PROPOSED EROSION & SEDIMENT
CONTROL PLAN

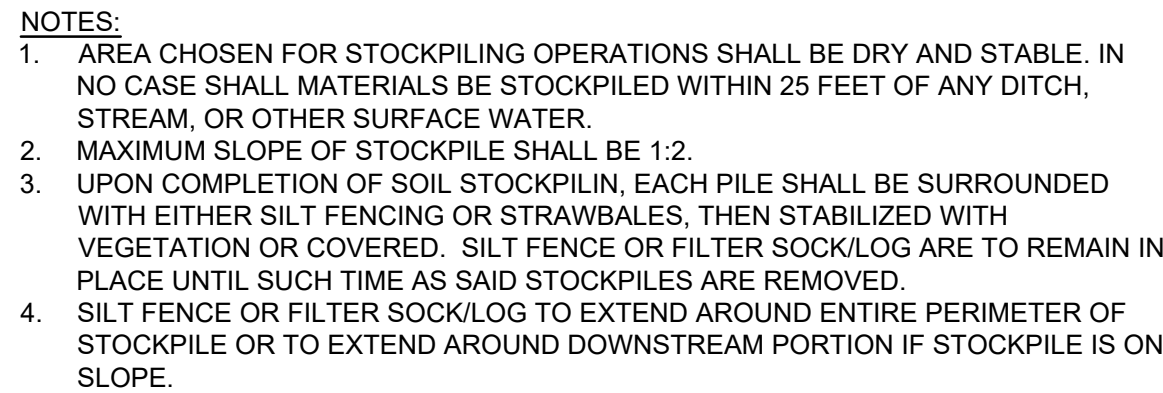


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		CHECKED BY: CJL	APPROVED BY: CJL			

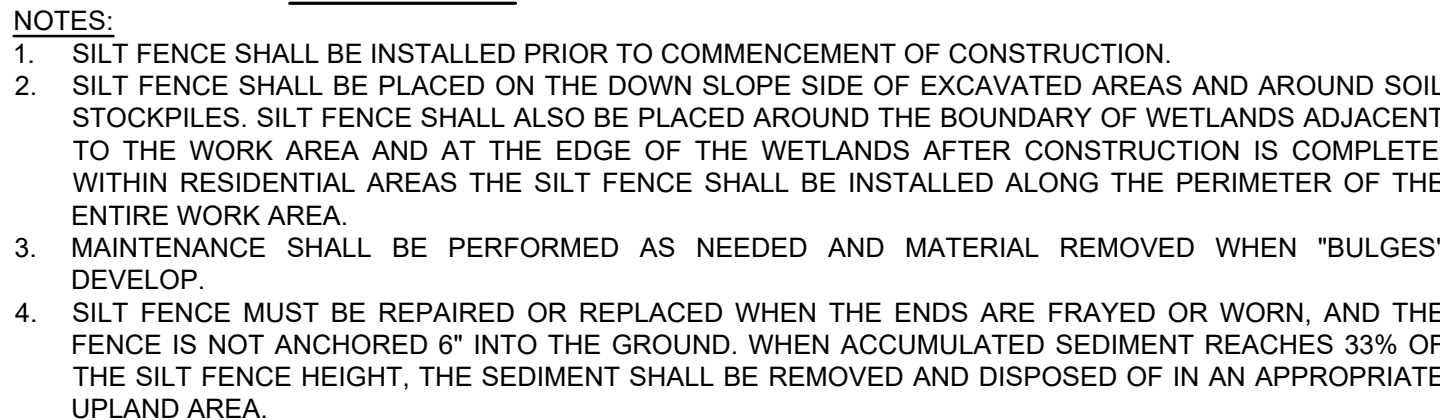
PROPOSED EROSION & SEDIMENT CONTROL PLAN
SCALE: 1"=100'





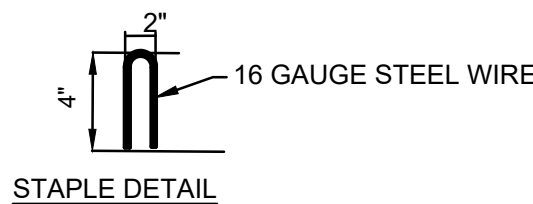
(C-501)

SCALE: N.T.S



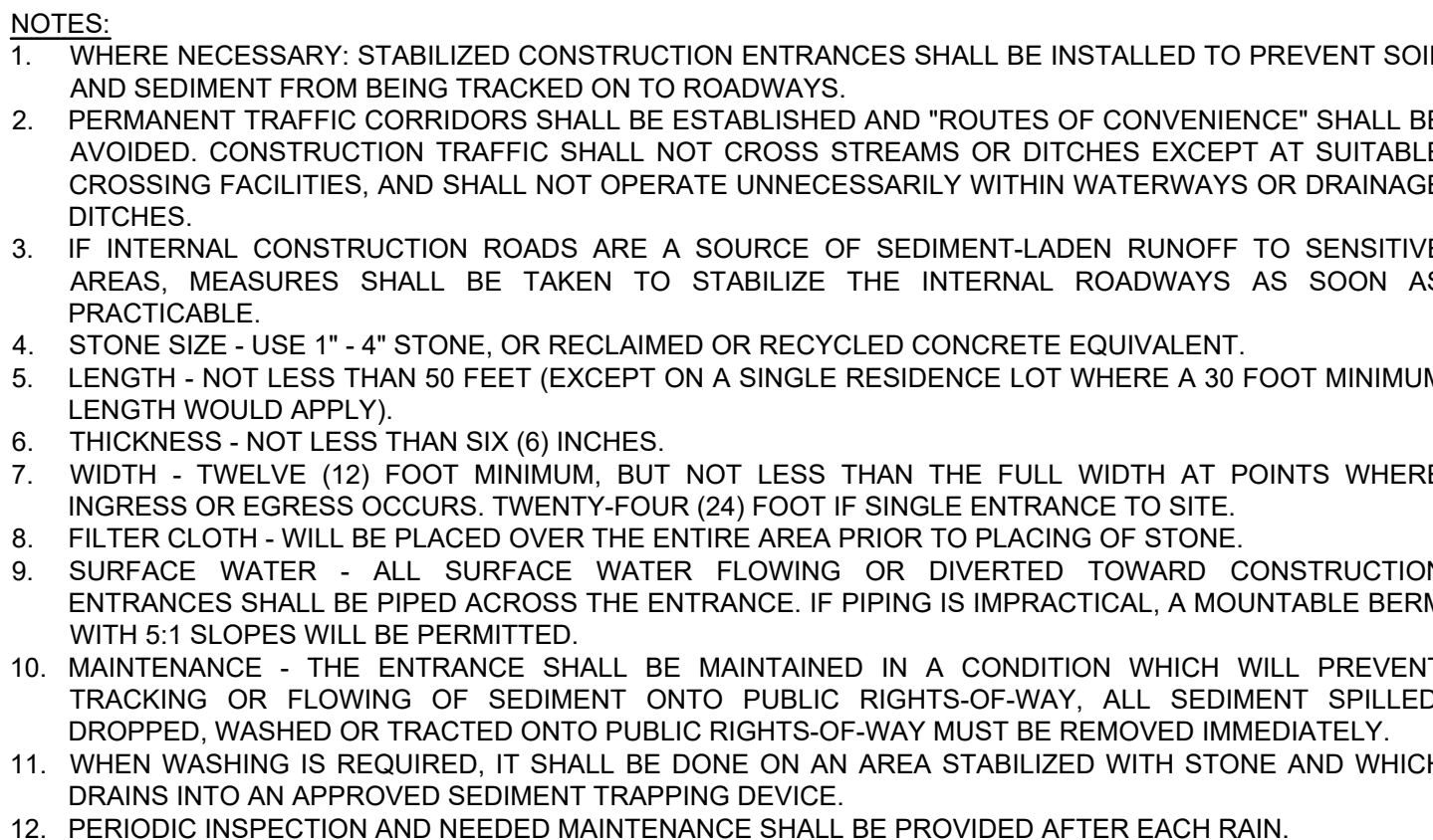
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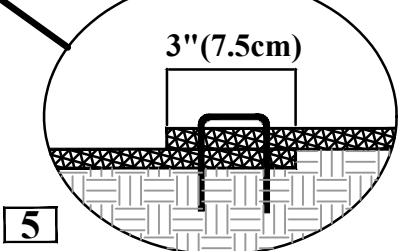
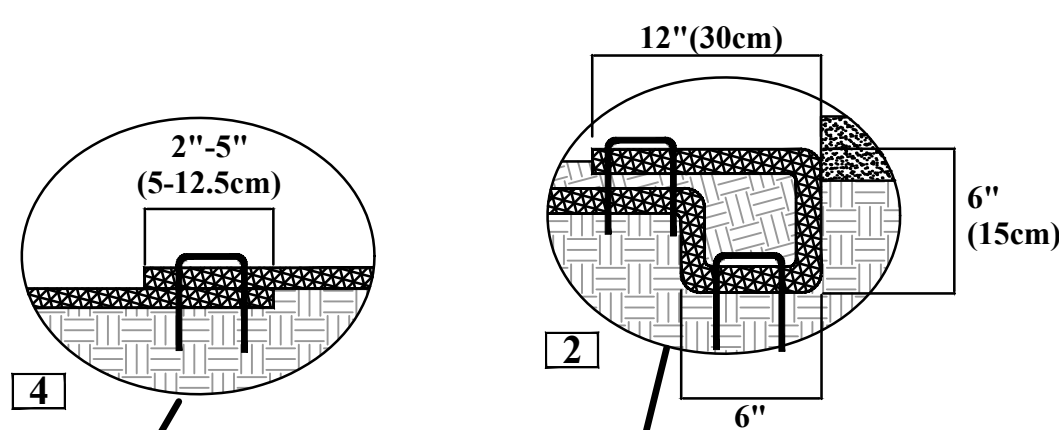
C-501

SCALE: N.T.S.



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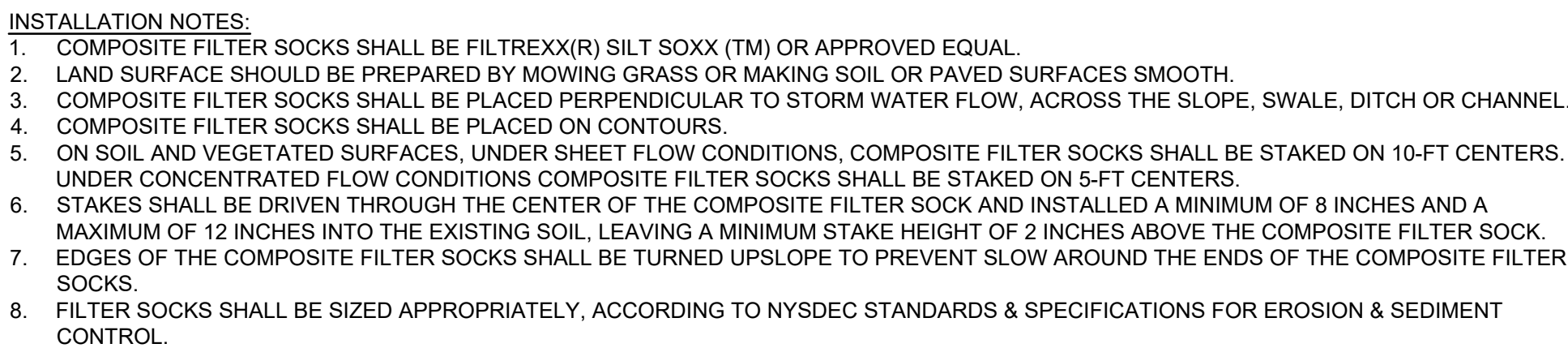
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SLOPE INSTALLATION

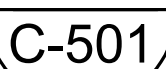
1. Prepare soil before installing rolled erosion control products (RECPs), including any necessary application of lime, fertilizer, and seed.
2. Begin at the top of the slope by anchoring the RECPs in a 6" (15cm) deep X 1' (15cm) wide trench with approximately 12" (30cm) of RECPs extended beyond the 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 stapling. Apply seed to the compacted soil and fold the remaining 12" (30cm) portion of RECPs 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 unroll with appropriate side against the soil surface. All RECPs must be securely fastened to the slope by placing staples/stakes in appropriate locations as shown in the staple pattern guide.
4. The edges of parallel RECPs must be stapled 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 (Staple style) with the overlapping 3" (7.5cm) overlap. Stitches 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 RECP's.



C-501

SCALE: N.T.S



SCALE: N.T.S

MULCHING AND SEEDING NOTES:

1. STABILIZING MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT NOT MORE THAN 14 DAYS SHALL ELAPSE WITHOUT STABILIZATION AFTER WORK HAS CEASED. ACCEPTABLE TEMPORARY STABILIZATION INCLUDES MULCH, STRAW, HAY, EROSION CONTROL FABRIC, OR OTHER FUNCTIONAL EQUIVALENT.
2. TEMPORARY EROSION CONTROL PROTECTION BY MULCHING SHALL BE CARRIED OUT WITHIN 14 DAYS OF FINAL PLACEMENT TO FINAL FINISHED GRADE IN ORDER TO AVOID ALL POSSIBLE CONTAMINATION OF RIVERS, STREAMS, OR OTHER WATERCOURSES. PLACEMENT OF JUTE MESH OVER THE MULCH IS RECOMMENDED TO PROVIDE POSITIVE "TRACKING" OF THE MULCH AND INCREASED PROTECTION AGAINST EROSION.
3. DISTURBED AREAS SHALL BE REVEGETATED IN ACCORDANCE WITH RECOMMENDATIONS CONTAINED IN THE LATEST VERSION OF THE NEW YORK GUIDELINES.
4. UNDISTURBED "MEADOW" AREAS WITHIN THE FENCED IN AREA SHALL BE OVER SEEDED ACCORDING TO THE SEEDING PLAN.
5. SEED MIX TO BE NY POLLINATOR HABITAT FRIENDLY. MIX NOT TO INCLUDE TURF GRASS AND AVOID NON-NATIVE SPECIES.

SEEDING PLAN:
SEEDING TO REDUCE EROSION AND SEDIMENT TRANSPORT AFTER CONSTRUCTION COMPLETION

SEED APPLICATION: 260 LBS. PER ACRE MINIMUM.

ERNST SOLAR FARM SEED MIX:
35% FESTUCA RUBRA (CREEPING RED FESCUE)
35% FESTUCA RUBRA SSP. COMMUTATA (CHEWINGS FESCUE)
10% FESTUCA BREVIPILO, 'BEACON' (HARD FESCUE, 'BEACON')
10% FESTUCA OVINA VAR. DURIUSCULA (F. LONGIFOLIA), 'JETTY' (HARD FESCUE, 'JETTY')
5% POA PRATENSIS, 'CORSAIR' (KENTUCKY BLUEGRASS, 'CORSAIR')
5% POA PRATENSIS, 'SHAMROCK' (KENTUCKY BLUEGRASS, 'SHAMROCK')

TEMPORARY SEEDING:
PER THE LATEST VERSION OF THE NEW YORK STANDARDS AND SPECIFICATION FOR EROSION AND SEDIMENT CONTROL, "SPRING OR LATE SUMMER OR FALL, THEN SEED THE AREA WITH RYEGRASS AT THIRTY (30) LBS PER ACRE. LATE FALL OR EARLY WINTER, THEN SEED CERTIFIED "AROSTOCK" WINTER RYE AT ONE HUNDRED (100) LBS PER ACRE. MULCH AREA WITH HAY OR STRAW AT TWO (2) TONS PER ACRE.

TURF ESTABLISHMENT:

1. TOP SOIL (4 INCHES MINIMUM) SHALL CONSIST OF NATURAL LOAM TOPSOIL, FREE FROM SUBSOIL. TOPSOIL SHALL BE OF UNIFORM QUALITY, FREE FROM HARD CLODS, STIFF CLAY, HARD PAN, SODS, PARTIALLY DISINTEGRATED STONE, OR ANY OTHER UNDESIRABLE MATERIAL.
2. THE CONTRACTOR SHALL PROVIDE NECESSARY WATERING, FERTILIZER, MULCHING, ETC., REQUIRED TO ESTABLISH AND MAINTAIN SEEDED AREAS UNTIL SAME ARE ACCEPTED BY THE OWNER'S FIELD REPRESENTATIVE.

2	REVISED PER LAYOUT UPDATE & PB COMMENT	9/6/24	DPB
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	

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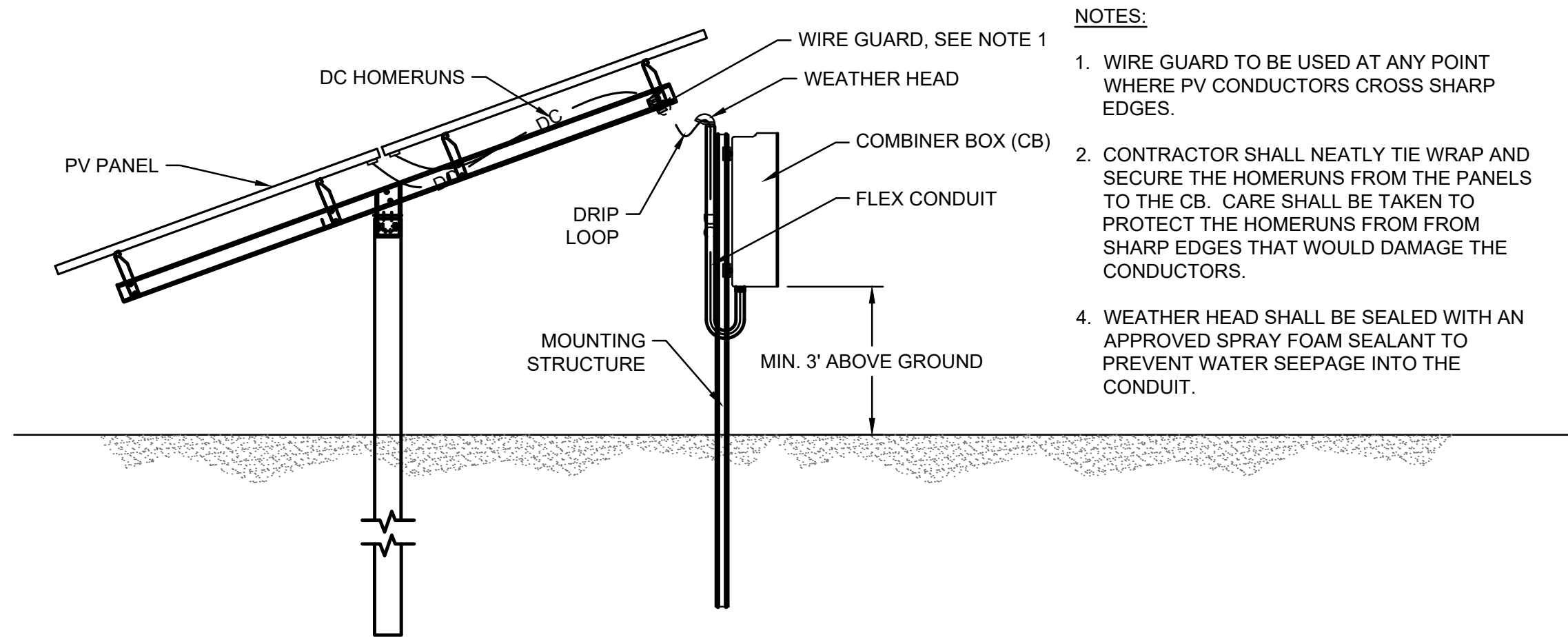
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	SCALE	CHECKED BY: CJK		
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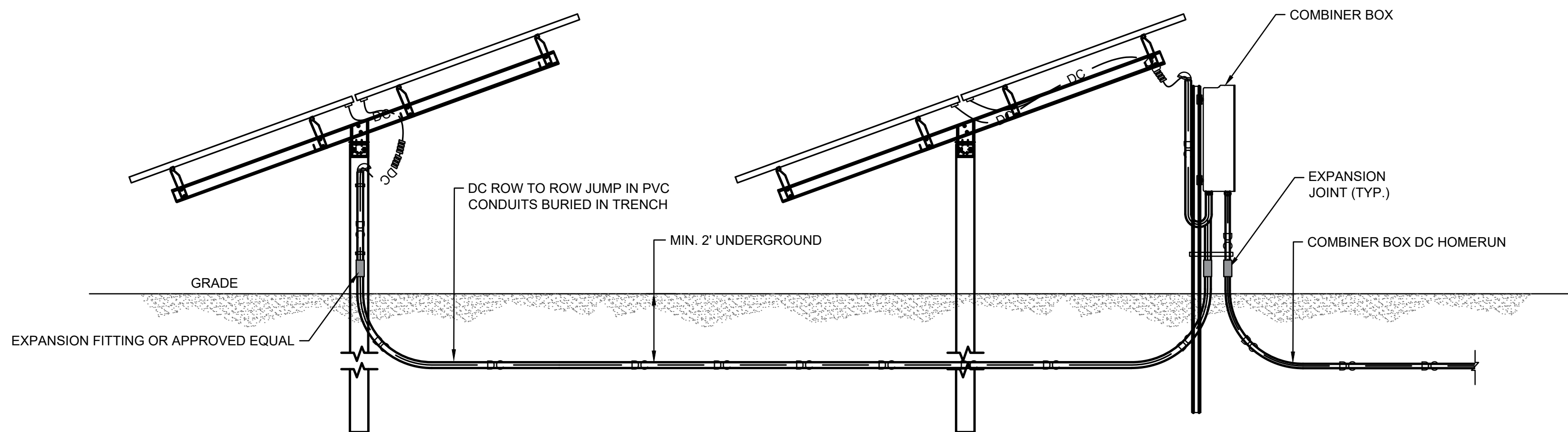


NOTES:

1. WIRE GUARD TO BE USED AT ANY POINT WHERE PV CONDUCTORS CROSS SHARP EDGES.
2. CONTRACTOR SHALL NEATLY TIE WRAP AND SECURE THE HOMERUNS FROM THE PANELS TO THE CB. CARE SHALL BE TAKEN TO PROTECT THE HOMERUNS FROM FROM SHARP EDGES THAT WOULD DAMAGE THE CONDUCTORS.
4. WEATHER HEAD SHALL BE SEALED WITH AN APPROVED SPRAY FOAM SEALANT TO PREVENT WATER SEEPAGE INTO THE CONDUIT.

A
E-501
FIXED TILT DC CONDUCTORS WIRE MANAGEMENT DETAIL

SCALE: N.T.S.

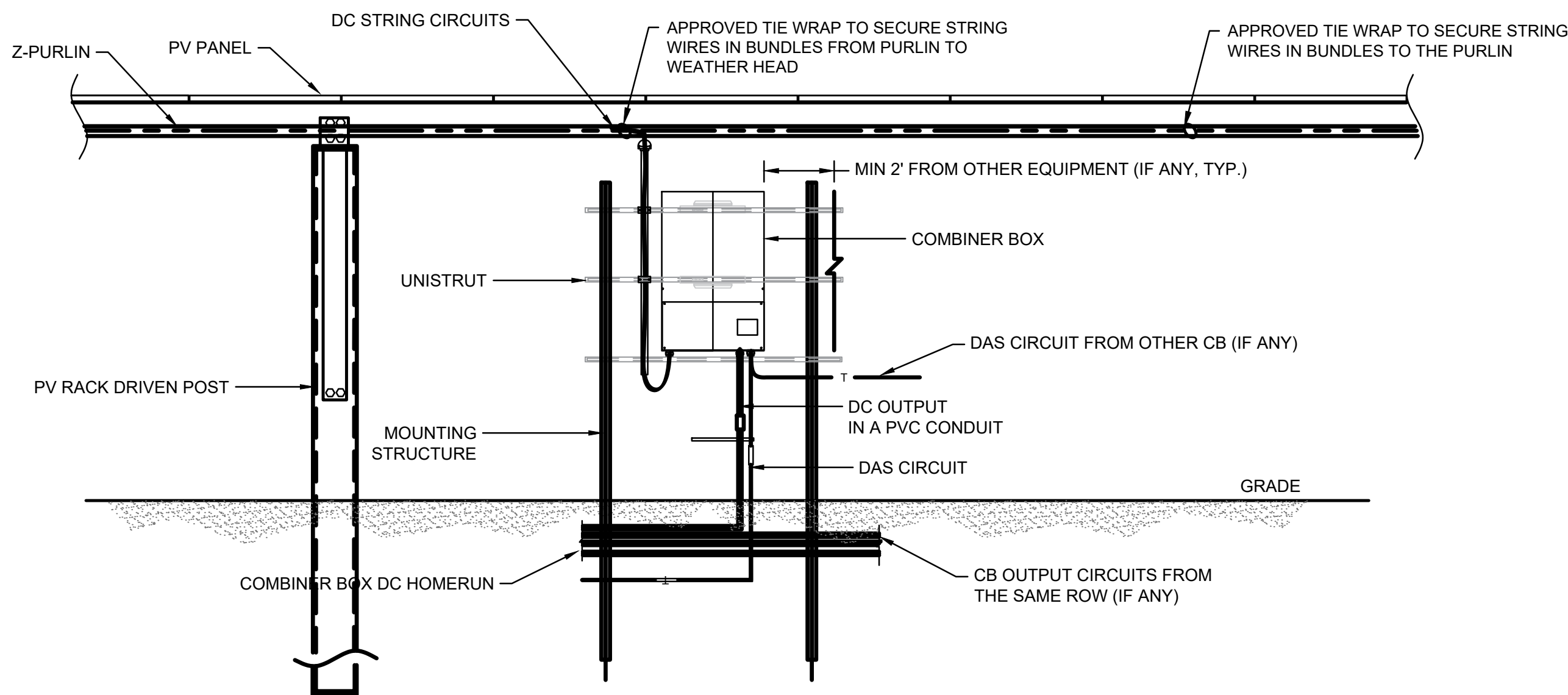


NOTE:

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

B
E-501
ROW TO ROW JUMPING DETAIL

SCALE: N.T.S.



C
E-501
EQUIPMENT MOUNTING DETAIL FRONT VIEW

SCALE: N.T.S.

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.

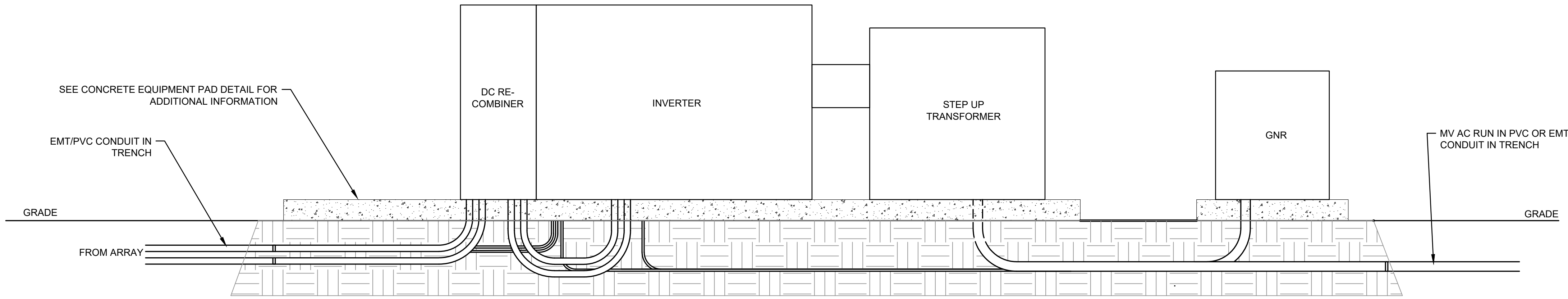
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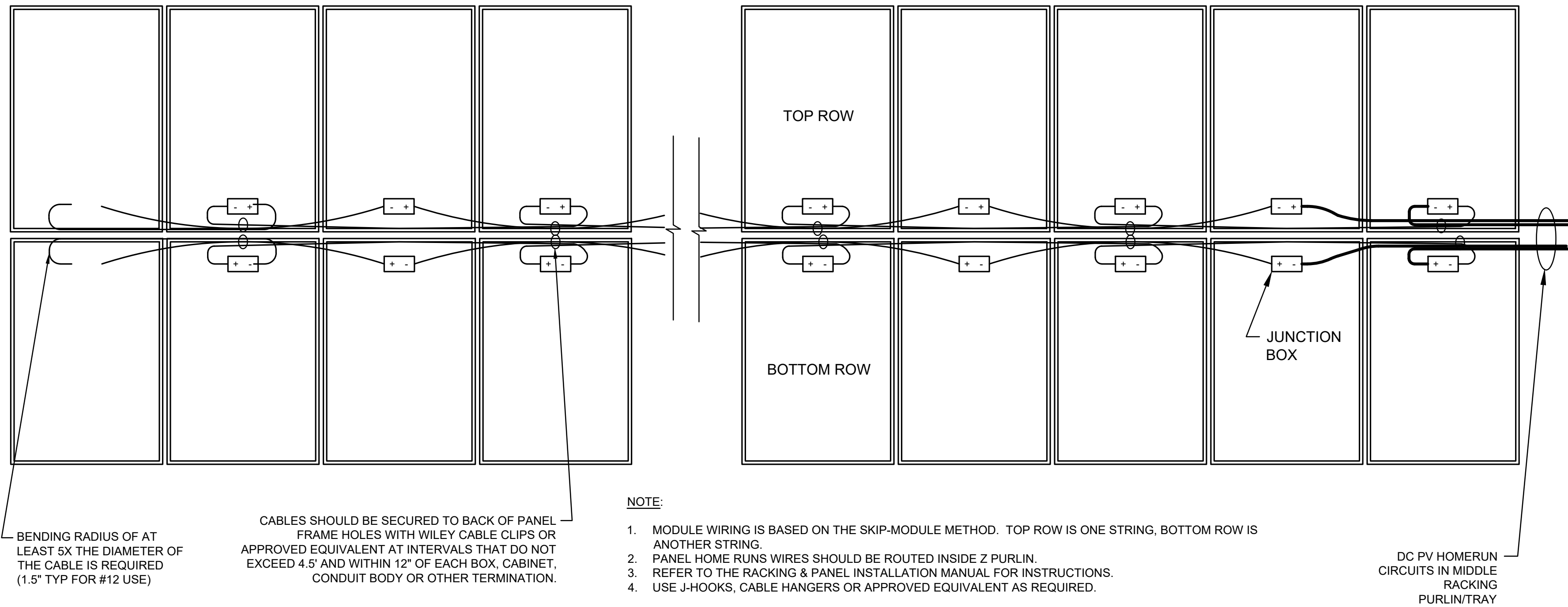
ELECTRICAL DETAILS - SHEET 1

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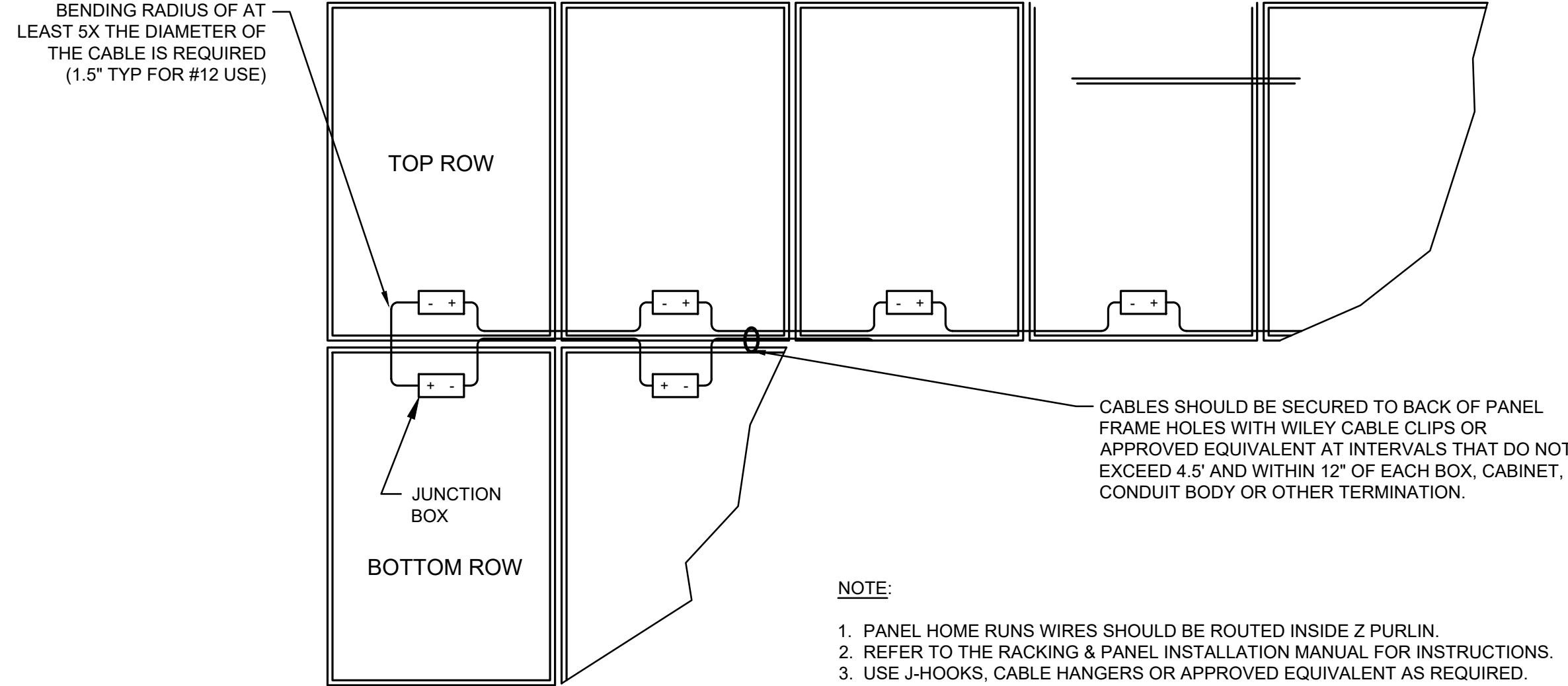
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	SCALE AS SHOWN	CHECKED BY: CJK APPROVED BY: CJK		



A
E-502 EQUIPMENT PAD WIRING MANAGEMENT
SCALE: N.T.S.



B
E-502 PANEL WIRING MANAGEMENT DETAIL (FULL RACK WITH SKIP WIRING)
SCALE: N.T.S.



C
E-502 PANEL WIRING MANAGEMENT DETAIL (HALF RACK)
SCALE: N.T.S.

- ELECTRICAL DETAIL NOTES:**
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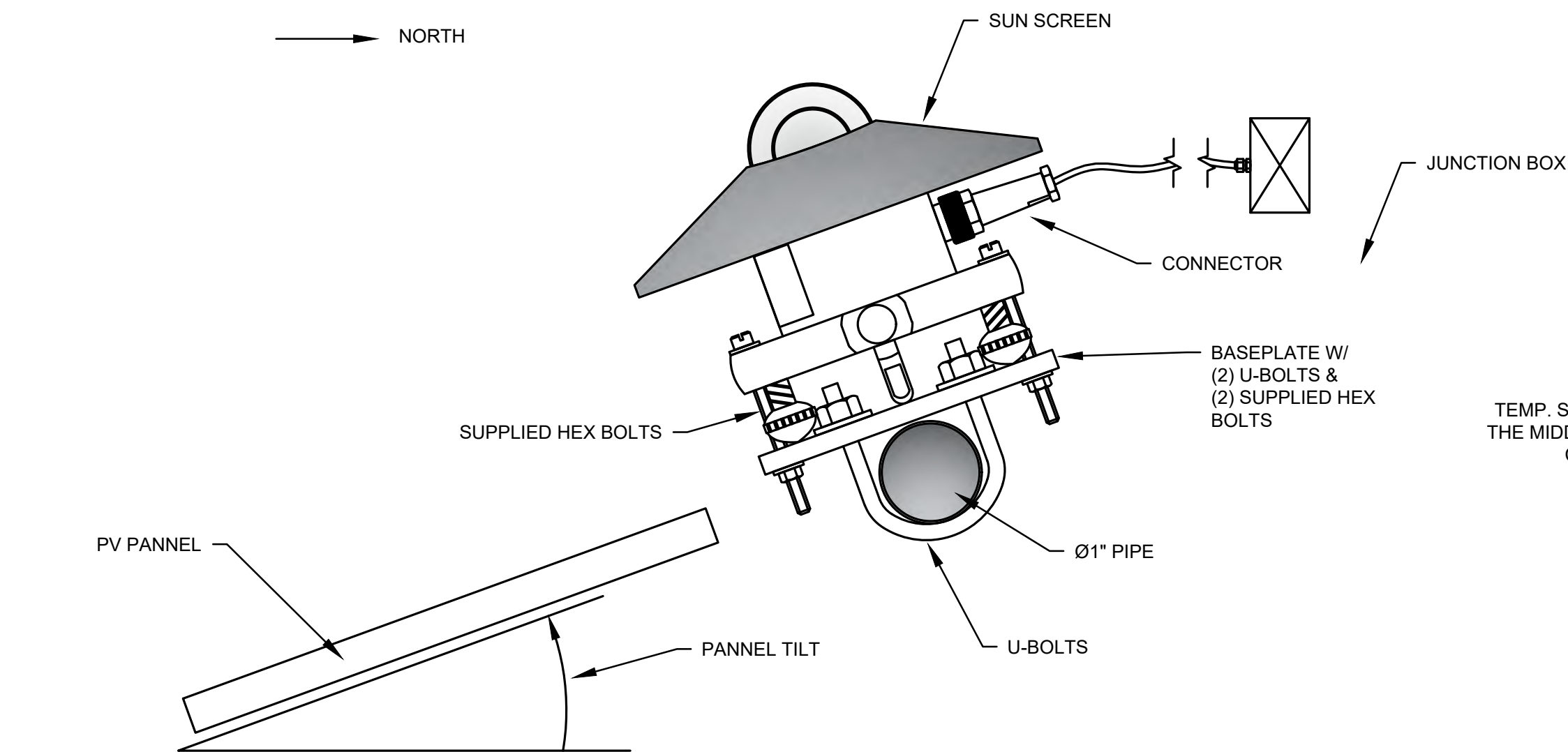
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ELECTRICAL DETAILS - SHEET 2

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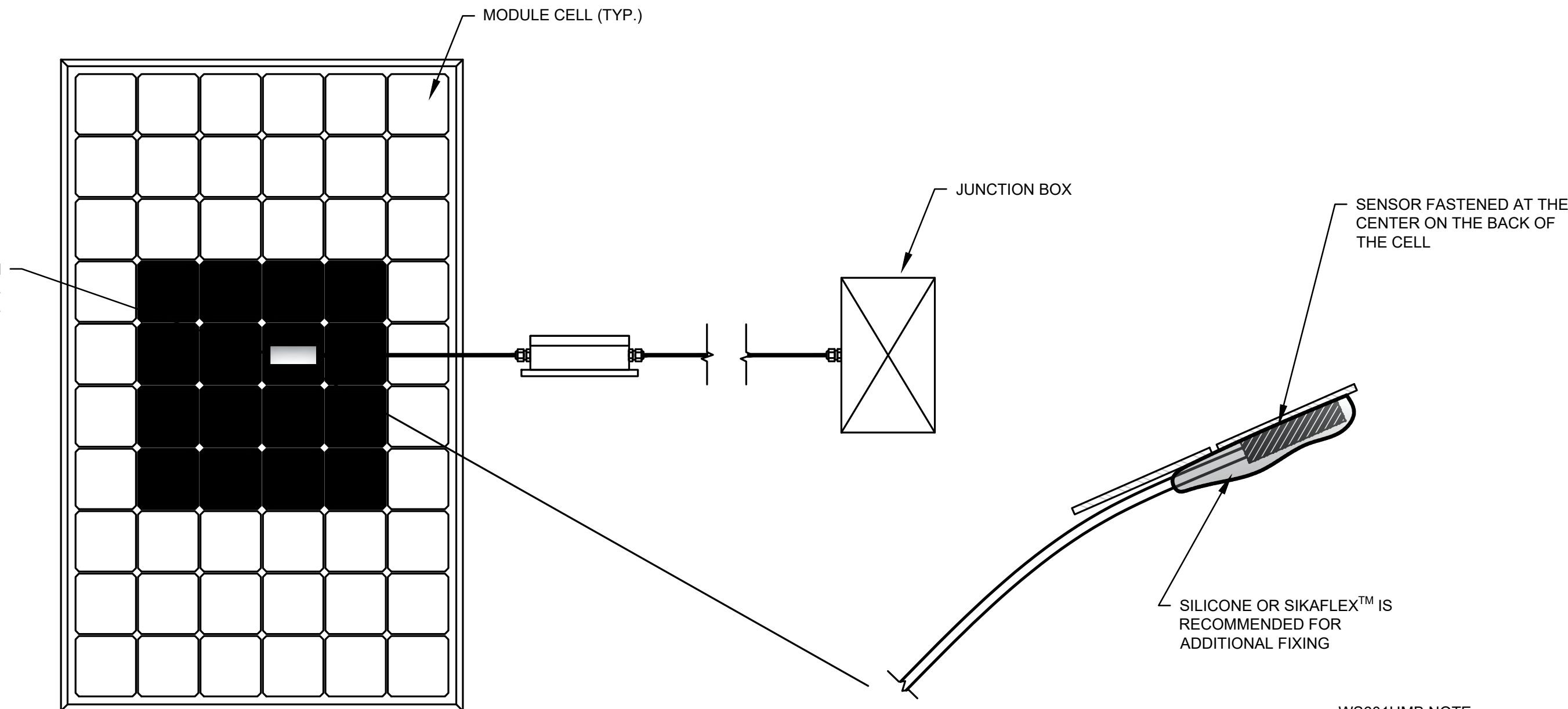
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		APPROVED BY: CJK	
		C&A JOB# 4996.26	DRAWING: E-502



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

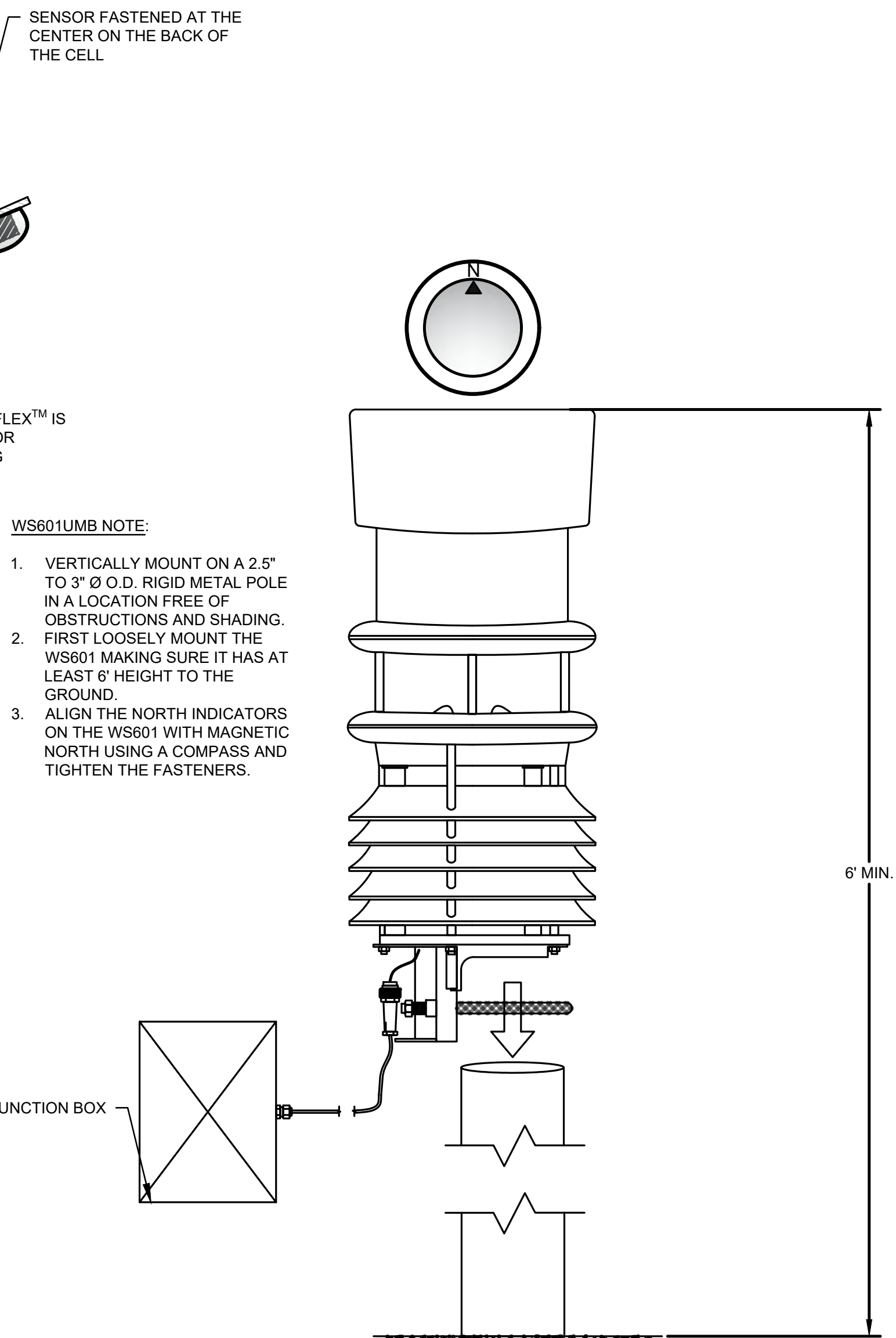
A PYRANOMETER (POA) INSTALLATION
E-503 SCALE: N.T.S.



TEMPERATURE SENSOR NOTE:

1. THE SENSOR SHALL BE PLACED ON A MODULE THAT IS AT LEAST 1 MODULE FROM THE EDGE OF THE ARRAY ON ALL SIDES WHEN POSSIBLE.
2. CLEAN THE CELL BEFORE ATTACHING A SENSOR ONTO IT.

C MODULE TEMPERATURE SENSOR INSTALLATION
E-503 SCALE: N.T.S.



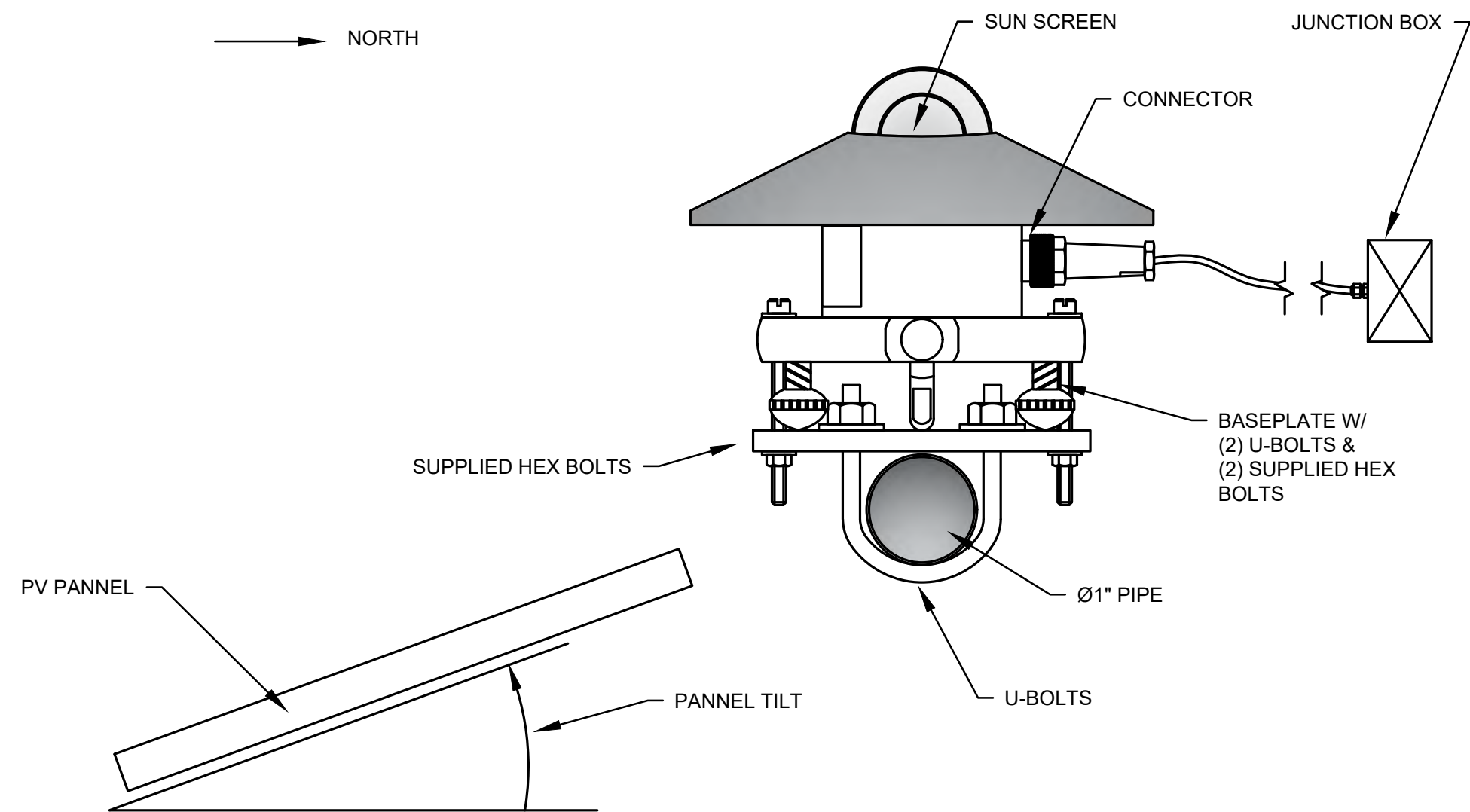
WS601UMB NOTE:

1. VERTICALLY MOUNT ON A 2.5" TO 3" Ø 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.

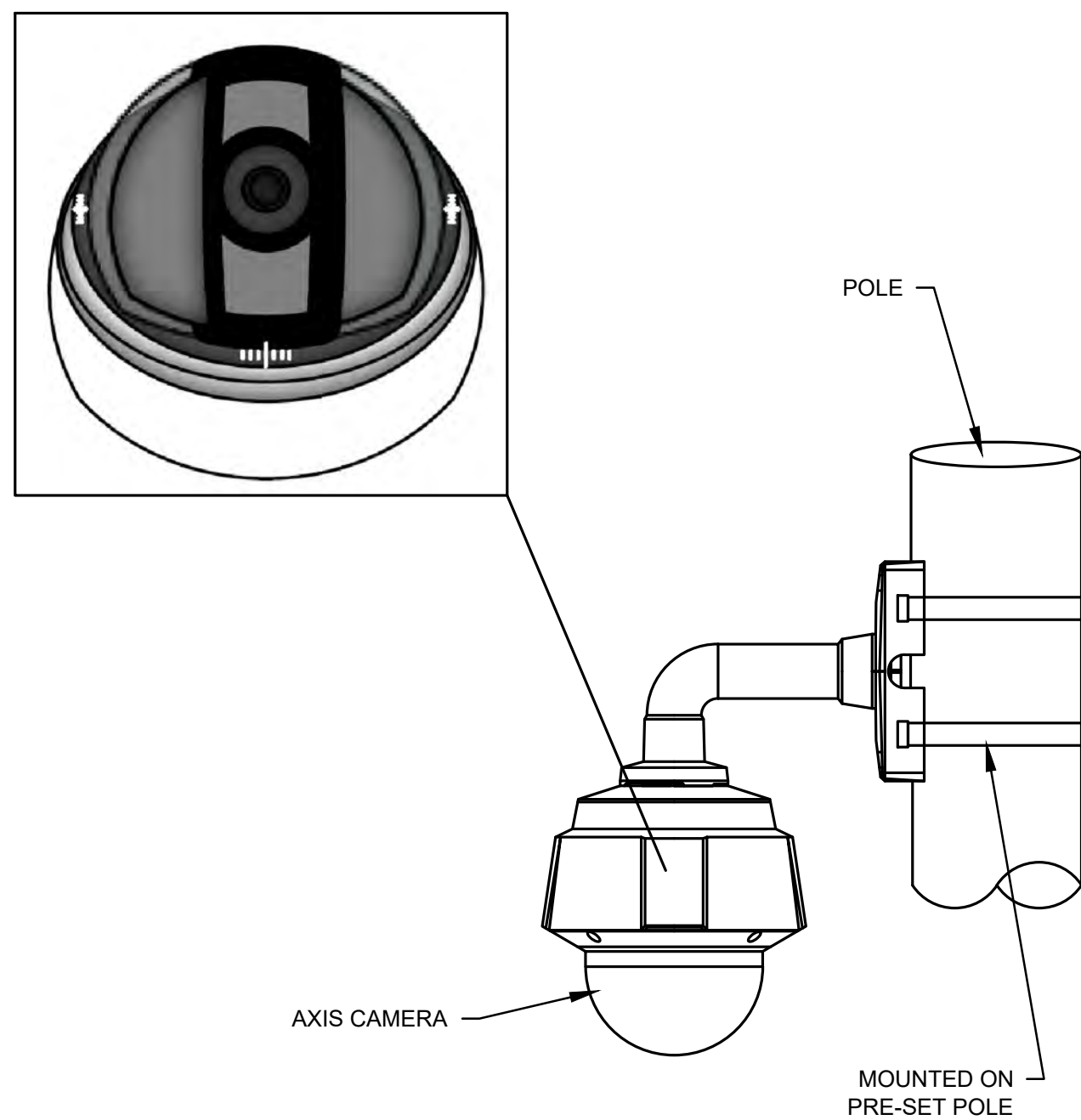
E LUFFT WS601USM INSTALLATION
E-503 SCALE: N.T.S.

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.

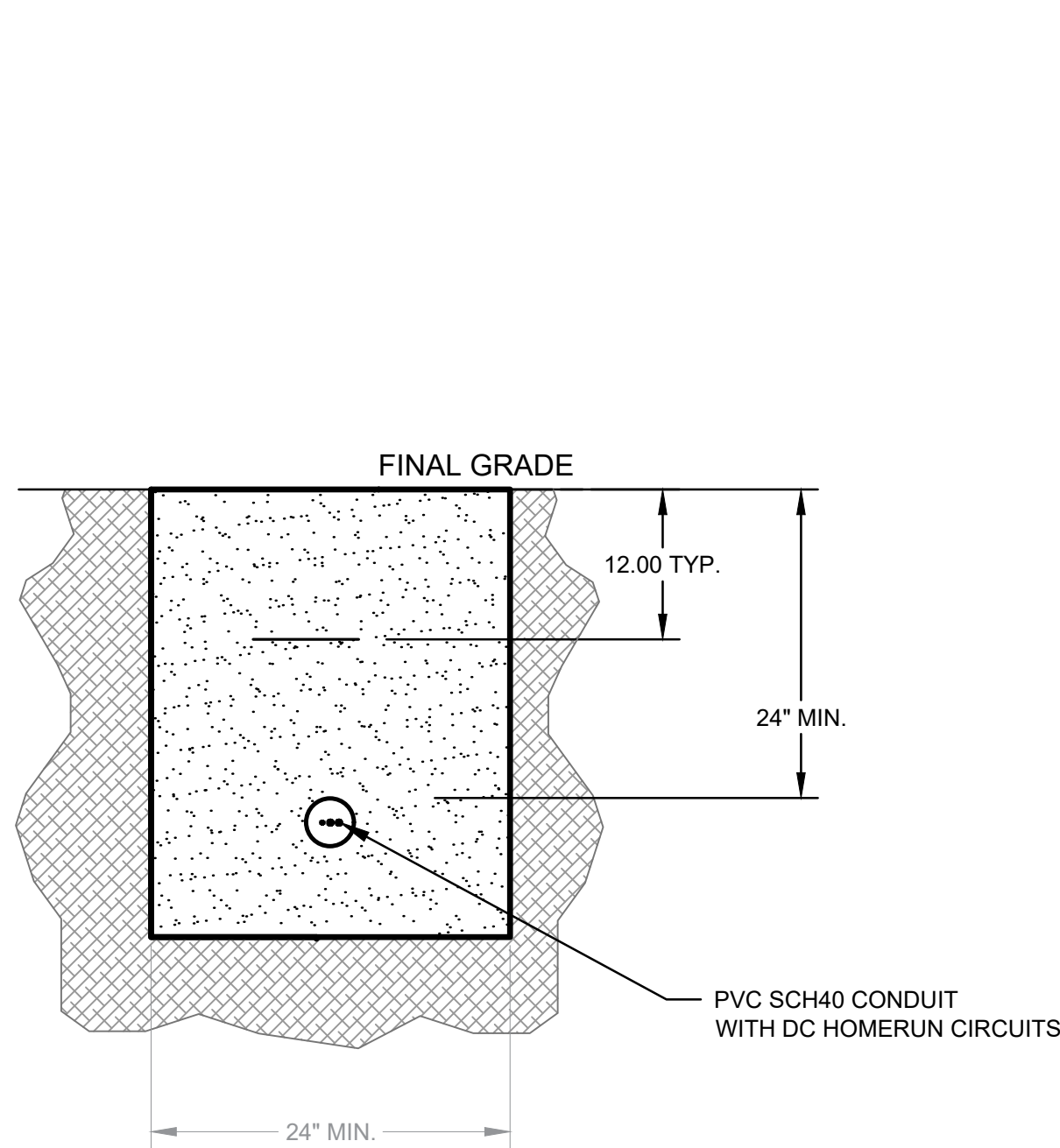


B PYRANOMETER (GHI) INSTALLATION
E-503 SCALE: N.T.S.

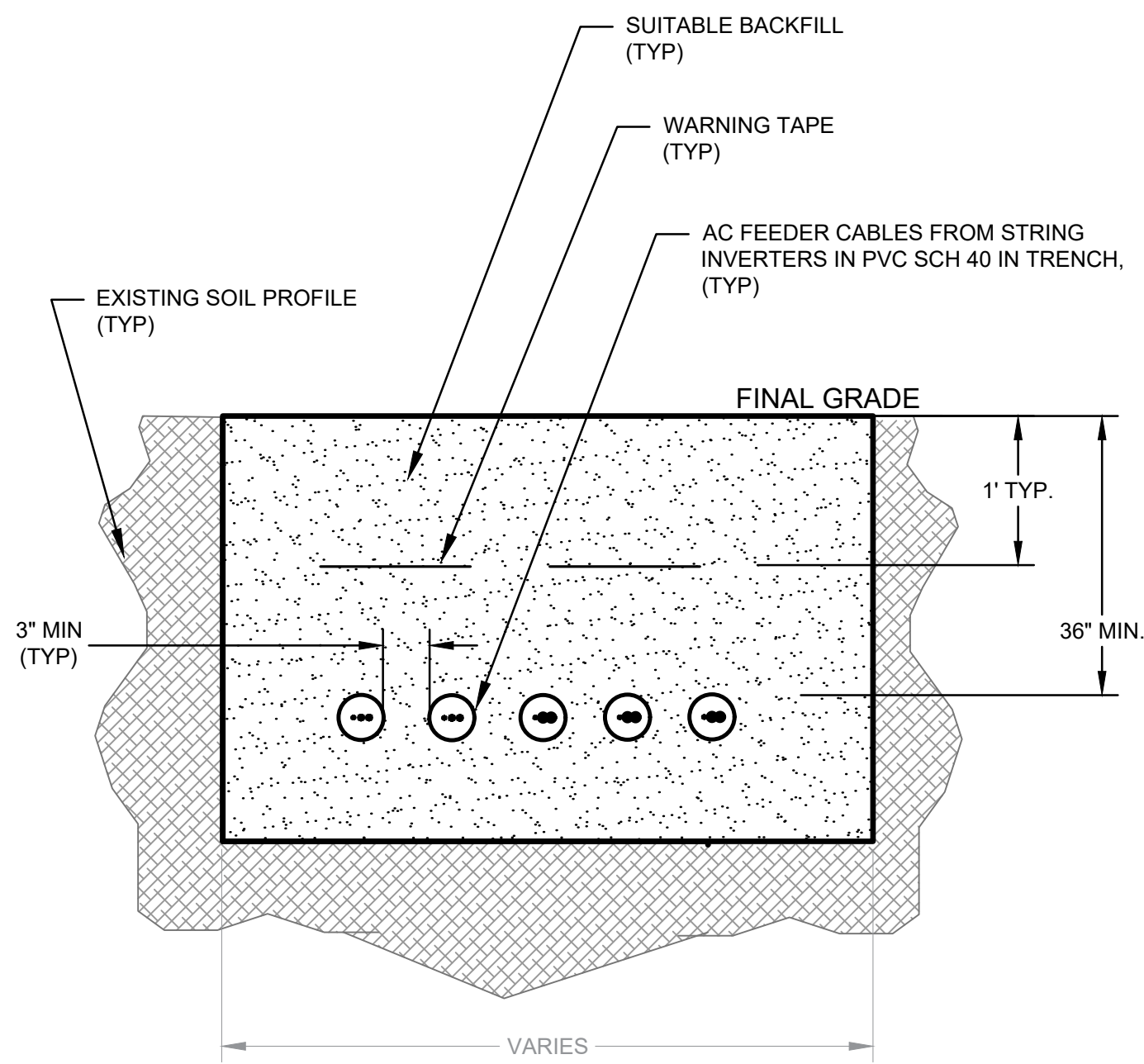


D AXIS CAMERA INSTALLATION
E-503 SCALE: N.T.S.

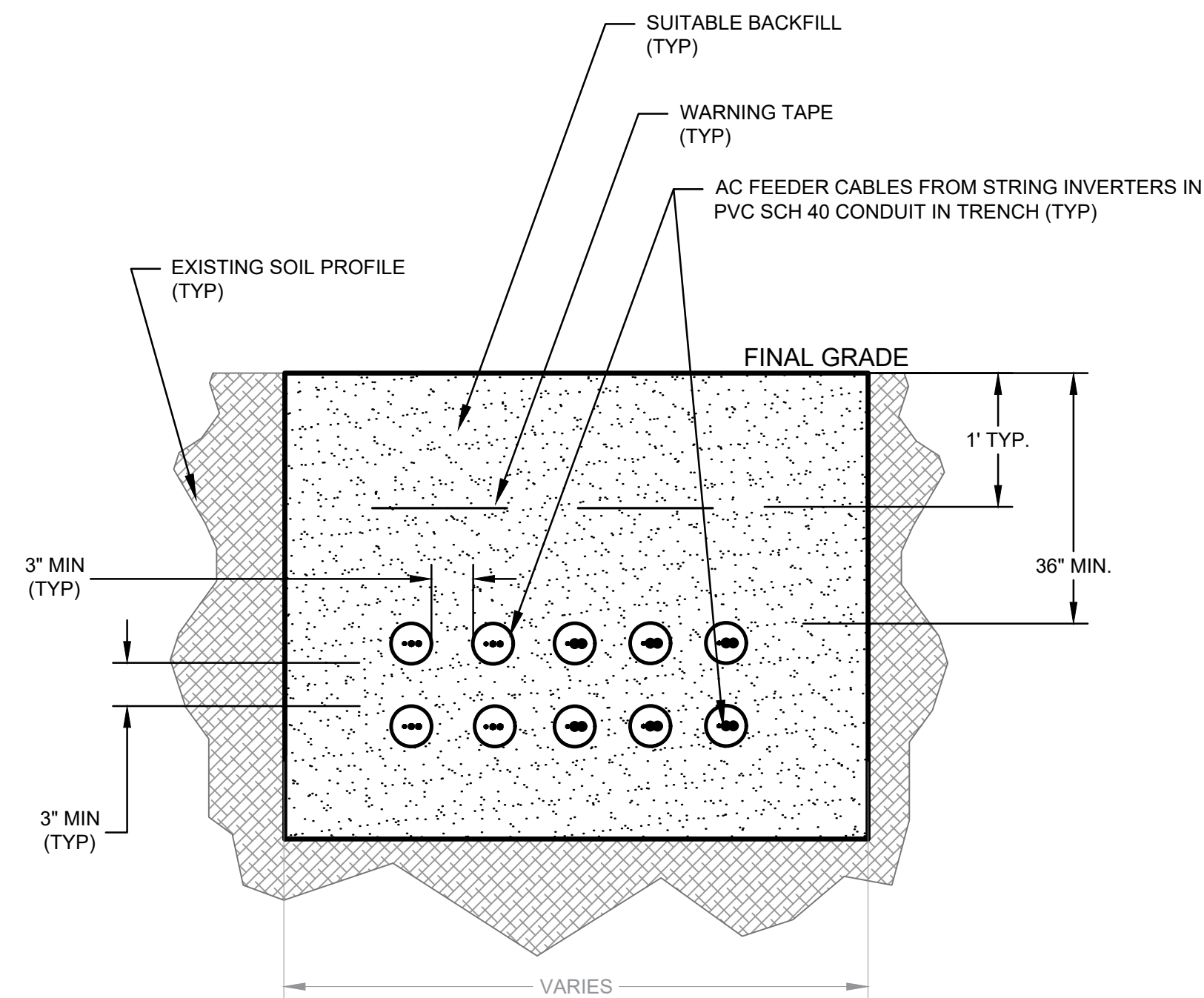
DRAFT NOT FOR CONSTRUCTION	2 REVISED PER LAYOUT UPDATE & PB COMMENT		9/6/24	DPB
	1 UPDATES PER PLANNING BOARD COMMENT		7/3/24	TSB
	REV #	DESCRIPTION	DATE	BY
	ELP MARLBOROUGH SOLAR 335 BINGHAM ROAD TOWN OF MARLBOROUGH ULSTER COUNTY, NY			
ELECTRICAL DETAILS - SHEET 3		CRAWFORD & ASSOCIATES ENGINEERING & LAND SURVEYING, PC 4411 Route 9, Suite 200, Hudson New York 12534 tel: (518) 828-2700 www.crawfordandassociates.com fax: (518) 828-2723 © COPYRIGHT		
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	4/5/2024	DESIGNED BY:	TSD/DPB	
	SCALE	CHECKED BY:	CJK	
	AS SHOWN	APPROVED BY:	CJK	
		DRAWING: E-503		



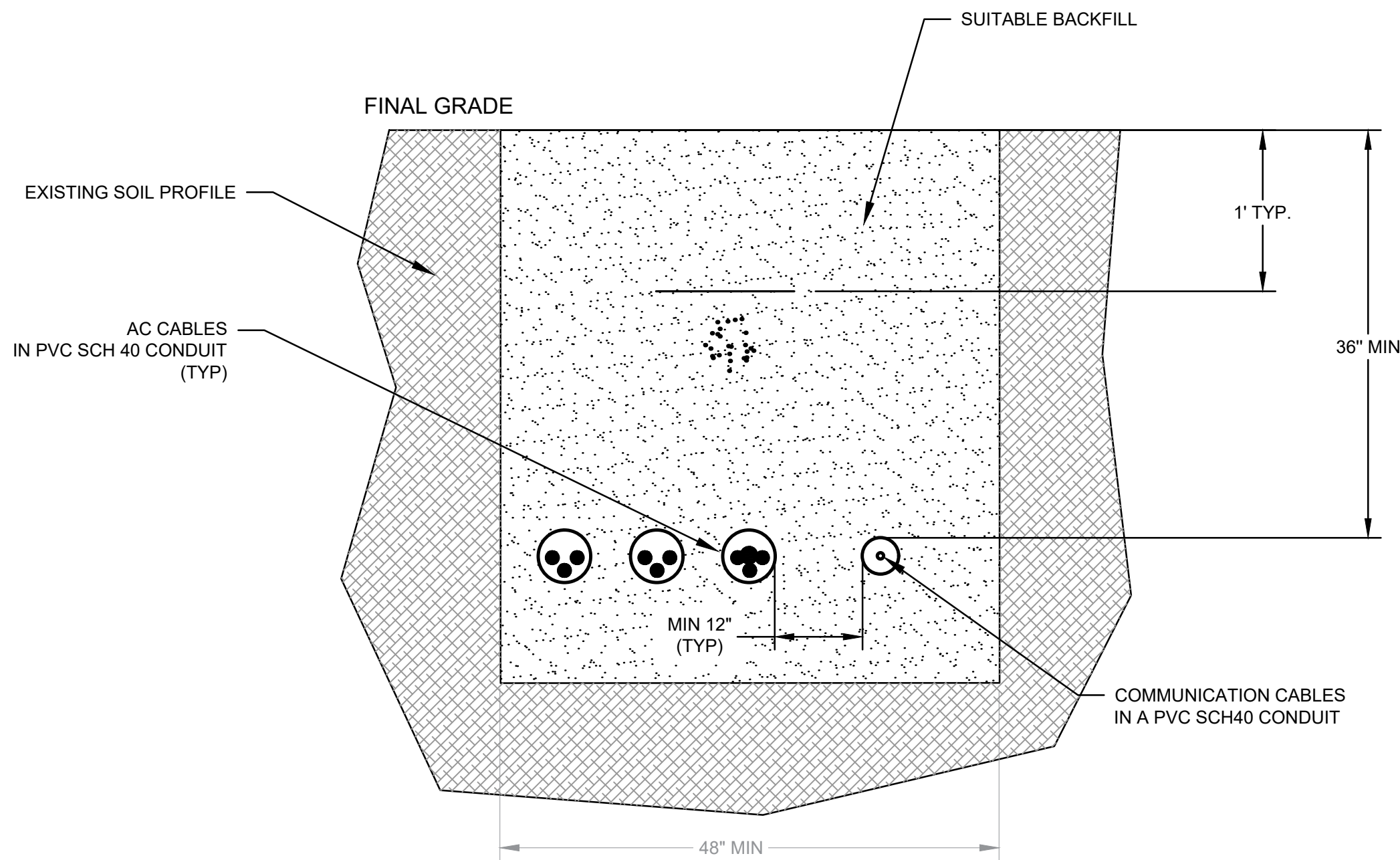
A DC HOMERUNS ROW TO ROW JUMPER TRENCH DETAIL
E-504 SCALE: N.T.S.



B AC FEEDER CIRCUITS TRENCH DETAIL (SINGLE LAYER)
E-504 SCALE: N.T.S.



C AC FEEDER CIRCUITS TRENCH DETAIL (TWO LAYERS)
E-504 SCALE: N.T.S.



D MEDIUM VOLTAGE CONDUCTORS WITH COMMUNICATIONS CABLES TRENCH DETAIL
E-504 SCALE: N.T.S.

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.

2	REVISED PER LAYOUT UPDATE & PB COMMENT	9/6/24	DPB
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 4

CRAWFORD & ASSOCIATES
ENGINEERING & LAND SURVEYING, PC
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	SCALE AS SHOWN	DESIGNED BY: TSD/DPB			
		CHECKED BY: CJK			
		APPROVED BY: CJK			