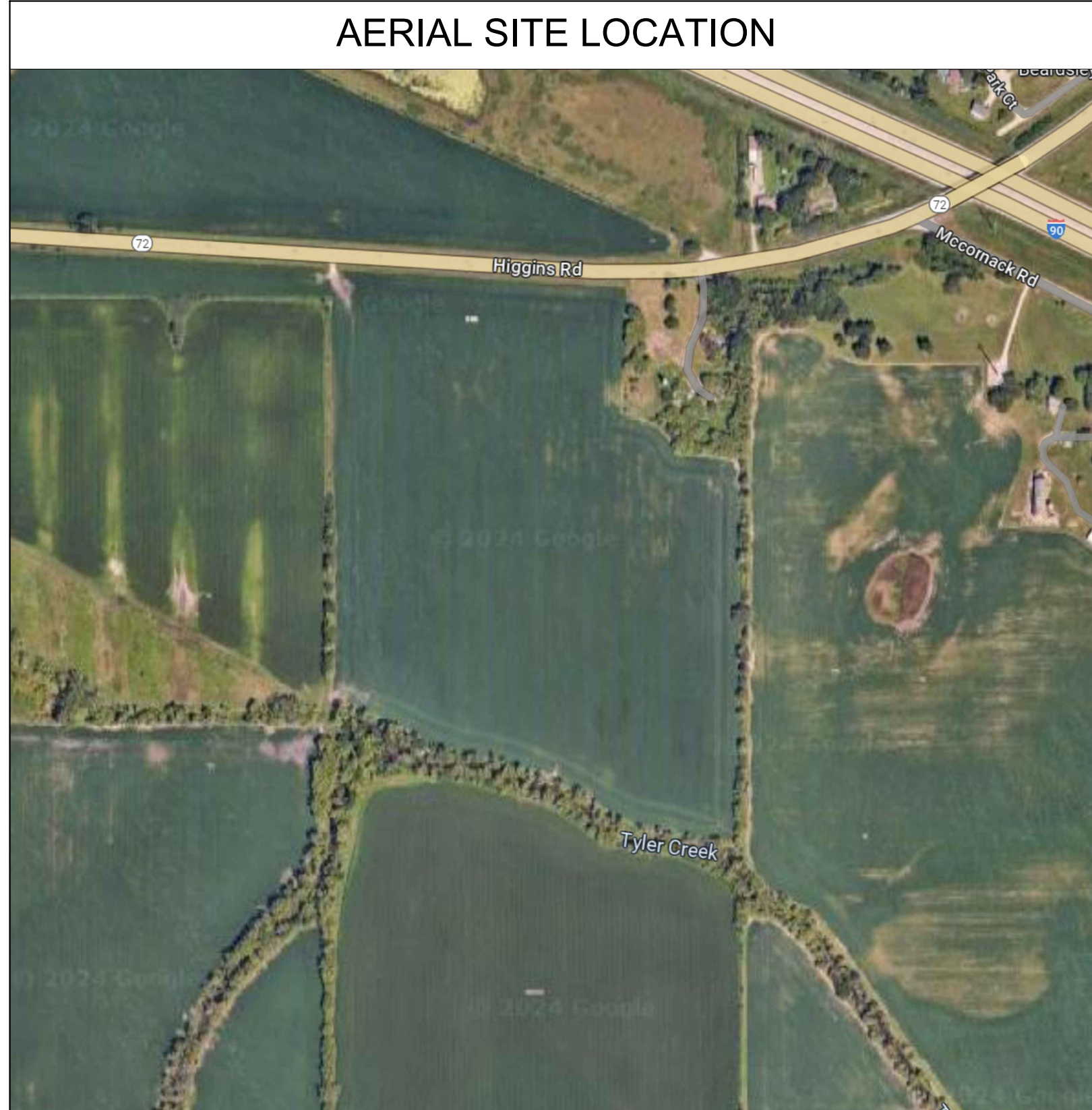


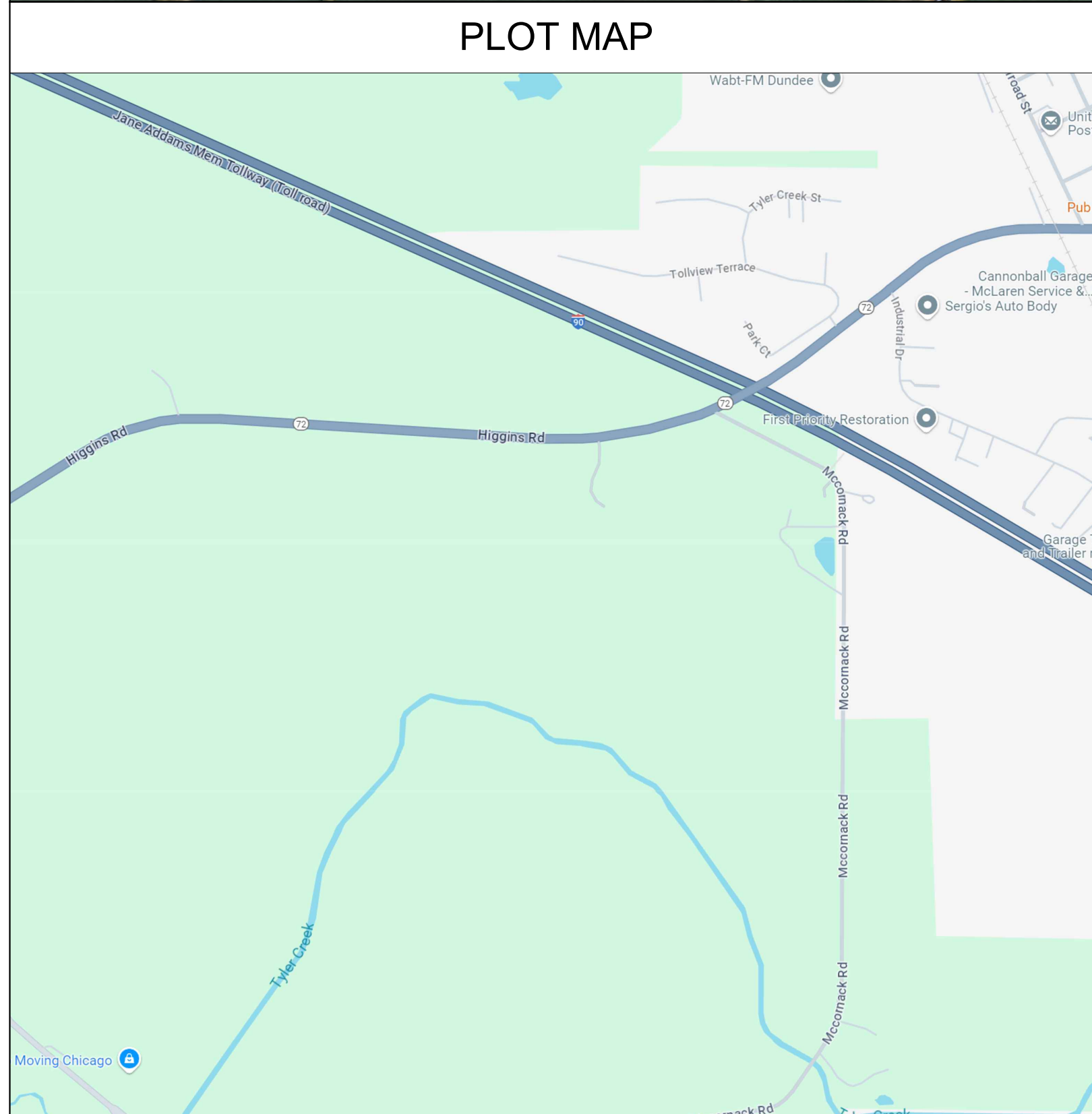
**SV CSG SUN TRUST SOLAR, LLC**  
(42.0969, -88.3865)

PV SYSTEM DETAILS	
ARRAY TYPE:	SINGLE ACCESS TRACKER (SAT)
DC SYSTEM SIZE:	6.7968 MW DC
DC SYSTEM VOLTAGE:	1500 V
AC SYSTEM SIZE:	5.000 MVA @PF=1
DC/AC RATIO:	1.35936
MODULE QTY/TYPE:	(11,520) HANWHA QCELL Q.PEAK XL-G11S SERIES
MODULE WATTAGE:	590 W
INVERTER QTY/TYPE:	(40) KACO 125 TL3 M1 WM OD (XL) 600V:120.3A
INVERTER AC OUTPUT :	(40) 125 KVA
STRING SIZE:	(24) MODULES PER STRING (480) TOTAL STRINGS
OPTIMIZER TYPE:	N/A
RACKING:	TBD
CLAMPS:	NA
AZIMUTH:	90°
INTER-ROW SPACING:	18'-0" (CENTER TO CENTER SPACING)
ARRAY TILT:	+/- 52° (SAT)
SITE INFORMATION	
FENCE LINEAR FEET:	4166' L.F.
APPROXIMATE SITE ACREAGE:	22.93 ACRES (INSIDE FENCE)
UTILITY INFORMATION	
UTILITY COMPANY:	COMED
UTILITY COMPANY CONTACT: TBD	PHONE: NA
UTILITY PROJECT MANAGER: TBD	PHONE: NA
INTERCONNECTION VOLTAGE:	12.47 KV

## AERIAL SITE LOCATION



## PLOT MAP

[illegible]

N27 W24025 PAUL CT. SUITE 100  
PEWAUKEE, WI 53072  
PHONE: (262)-547-1200  
WWW.SUNVEST.COM

ELECTRICAL ENGINEER STAMP:

PROFESSIONAL ENGINEER STAMPS

---

ISSUANCE:

*INTERCONNECTION  
PLAN SET*

LICENSED ELECTRICAL ENGINEER certifies that they prepared all the electrical "E" sheets in this drawing set.  
LICENSED STRUCTURAL ENGINEER certifies that they prepared all of the structural "S" sheets in this drawing set.  
LICENSED CIVIL ENGINEER certifies that they prepared all of the civil "C" sheets in this drawing set.

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REV	SET/DATE	REV	SET/DATE
DRAWN BY: A.W.		CHECKED BY: XXX	
SCALE: AS NOTED		JOB NO:	

SV CSG SUN TRUST  
SOLAR, LLC  
(42.0969, -88.3865)


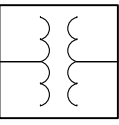

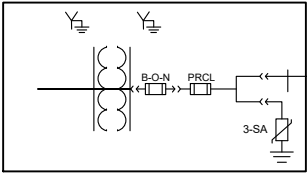

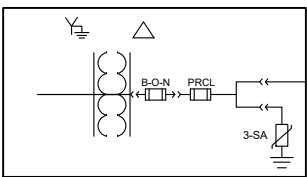

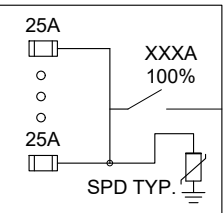





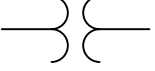

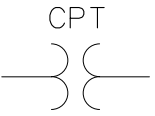

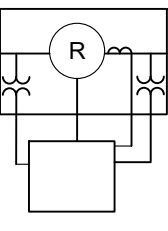
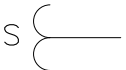
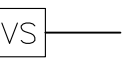


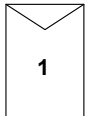
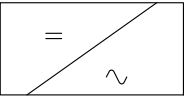

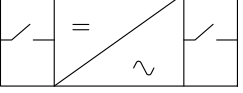

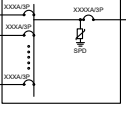

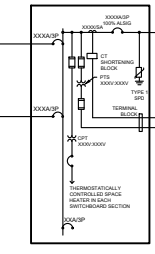
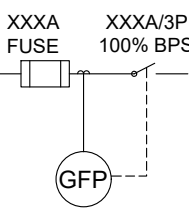
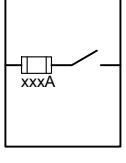
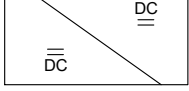
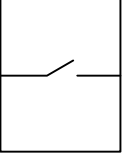
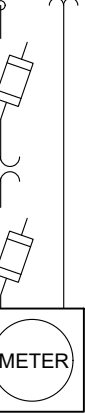
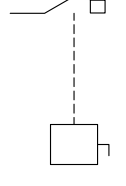
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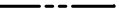
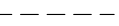
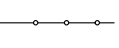

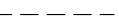
















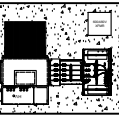
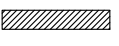




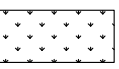



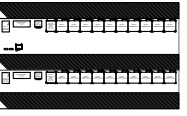
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DWG. NO.

**T-1.00**


SYMBOLS LEGEND:

ELECTRIC SYMBOLS:			
	FUSE		AUXILIARY TRANSFORMER
	SURGE PROTECTION DEVICE/ SURGE ARRESTER MOV STYLE		WYE/WYE TRANSFORMER W/ INTERNAL FUSING AND SURGE ARRESTERS
	CIRCUIT BREAKER		WYE/DELTA TRANSFORMER W/ INTERNAL FUSING AND SURGE ARRESTERS
	GROUND		STRING COMBINER BOX
	GROUNDING WYE		
	DELTA		
	MV DISCONNECT		
	NON-FUSED CUTOUT		RESISTOR
	POTENTIAL TRANSFORMER (PT)		RECLOSER W/ VACUUM INTERRUPTER
	CONTROL POWER TRANSFORMER		
	CURRENT TRANSFORMER (CT)		RECLOSER W/ MULTIFUNCTIONAL RELAY
	CURRENT SENSOR (CS)		
	VOLTAGE SENSOR (VS)		TRACKER MOTOR
	METER		PV MODULE
	INVERTER		INDICATING LIGHT
	INVERTER WITH INTEGRATED DISCONNECT		SPECIAL PURPOSE OUTLET CONNECTION
	PANELBOARD		SHUNT-TRIP
	MAIN DISTRIBUTION SWITCHBOARD		FUSED BOLTED-PRESSURE SWITCH (BPS) W/ GROUND-FAULT-PROTECTION (GFP)
	FUSED DISCONNECT		DC/DC OPTIMIZER/CONVERTER
	NON FUSED DISCONNECT		PRIMARY REVENUE METER POLE
	AIRBREAK (GOAB) DISCONNECT SWITCH		

SITE LAYOUT SYMBOLS:	
	PARCEL BOUNDARY
	PARCEL SETBACKS
	ARRAY FENCE
	WETLANDS
	WETLAND SETBACK
	FLOODPLAIN
	FLOODPLAIN SETBACK
	BUILDING
	BUILDING SETBACK
	INVERTER STRINGING (11 STRINGS)
	INVERTER STRINGING (12 STRINGS)
	INVERTER STRINGING (13 STRINGS)
	DC TRENCHING
	AC TRENCHING
	POWER UNDERGROUND
	POWER OVERHEAD
	ACCESS ROAD
	MODULE
	TORQUE TUBE
	ACCESS GATE
	UTILITY/CUSTOMER POLES
	EQUIPMENT PAD
	INVERTER RACK
	MAIN SWITCHBOARD
	TRANSFORMER
	TRACKER MOTOR
	DC COMBINER BOX
	POLLINATOR
	TREE (VEGETATION)
	SHRUB (VEGETATION)
	AUXILLARY TRANSFORMER
	BESS EQUIPMENT PAD

GENERAL NOTES/REQUIREMENTS:

- 1.1 THE WORK TO BE DONE UNDER THIS PROJECT INCLUDES PROVIDING ALL EQUIPMENT, MATERIALS, LABOR AND SERVICES NOT INCLUDED IN THE B.O.M, AND PERFORMING ALL OPERATIONS FOR COMPLETE AND OPERATING SYSTEMS. ANY WORK NOT SPECIFICALLY COVERED BUT NECESSARY TO COMPLETE THIS INSTALLATION, SHALL BE PROVIDED. ALL EQUIPMENT AND WIRING TO BE NEW AND PROVIDED UNDER THIS CONTRACT UNLESS OTHERWISE NOTED.
- 1.2 ENTIRE INSTALLATION, INCLUDING MATERIALS, EQUIPMENT AND WORKMANSHIP, SHALL CONFORM TO THE CURRENT EDITION OF THE NATIONAL ELECTRIC CODE (NEC) AS WELL AS ALL APPLICABLE LAWS AND REGULATIONS AND REGULATORY BODIES HAVING JURISDICTION OVER THIS WORK:
- 1.3 THE TERM "FURNISH" SHALL MEAN TO OBTAIN AND SUPPLY TO THE JOB SITE. THE TERM "INSTALL" SHALL MEAN TO FIX IN POSITION AND CONNECT FOR USE. THE TERM "PROVIDE" SHALL MEAN TO FURNISH AND INSTALL. THE TERM "CONTRACTOR" SHALL MEAN ELECTRICAL CONTRACTOR.
- 1.4 ONLY WRITTEN CHANGES AND/OR MODIFICATIONS APPROVED BY THE ENGINEER, CONSULTING ENGINEER OR OWNER'S REPRESENTATIVE WILL BE RECOGNIZED.
- 1.5 THE ELECTRICAL CONTRACTOR SHALL SUBMIT, FOR THE ENGINEER'S APPROVAL, DETAILED SHOP DRAWINGS OF ALL EQUIPMENT SPECIFIED.
- 1.6 CONTRACTOR SHALL COORDINATE WITH SPECIFICATIONS PROVIDED BY OTHER TRADES.
- 1.7 PROVIDE OPERATING AND MAINTENANCE MANUALS, PER SPECIFICATIONS, AND GIVE INSTRUCTIONS TO USER FOR ALL EQUIPMENT AND SYSTEMS PROVIDED UNDER THIS CONTRACT AFTER ALL ARE CLEANED AND OPERATING.
- 1.8 KEEP PREMISES FREE FROM RUBBISH. REMOVE ALL ELECTRICAL RUBBISH FROM SITE.
- 1.9 ALL WORK SHALL BE INSTALLED CONCEALED UNLESS OTHERWISE NOTED.
- 1.10 THE WORK SHALL INCLUDE ALL PANELS, DEVICES, FEEDERS AND BRANCH CIRCUIT WIRING AS REQUIRED FOR THE DISTRIBUTION SYSTEM INDICATED AND CALLED FOR ON THE DRAWINGS, REQUIRED BY SPECIFICATIONS AND AS NECESSARY FOR COMPLETE FUNCTIONAL SYSTEMS PRESENTED AND INTENDED.
- 1.11 THE CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR, TOOLS, EQUIPMENT, CONSUMABLES AND SERVICES REQUIRED FOR OBTAINING, DELIVERY, INSTALLATION, CONNECTION, DISCONNECTION, REMOVAL, RELOCATION, REPAIR, REPLACEMENT, TESTING AND COMMISSIONING OF ALL EQUIPMENT AND DEVICES INCLUDED IN OR NECESSARY FOR THE WORK, AS APPLICABLE. THIS INCLUDES SCAFFOLDING, LADDERS, RIGGING, HOISTING, ETC.
- 1.12 ELECTRICAL WORK SHALL INCLUDE ALL REQUIRED CUTTING, PATCHING AND THE FULL RESTORATION OF WALL AND FLOOR STRUCTURE AND SURFACES. ALL EQUIPMENT, WALLS, FLOORS, ETC., DISTURBED OR DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER, AT THE CONTRACTORS EXPENSE.
- 1.13 BEFORE SUBMITTING HIS BID, THE CONTRACTOR SHALL FULLY AQUAINT HIMSELF/HERSELF WITH THE JOB CONDITIONS AND DIFFICULTIES THAT WILL PERTAIN TO THE EXECUTION OF THIS WORK. SUBMISSION OF A PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT SUCH AN EXAMINATION HAS BEEN MADE. LATER CLAIMS WILL NOT BE RECOGNIZED FOR EXTRA LABOR, EQUIPMENT OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED, WHICH COULD HAVE BEEN FORESEEN HAD SUCH AN EXAMINATION BEEN MADE.
- 1.14 THE CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING UTILITIES.
- 1.15 UPON COMPLETION OF THE ELECTRICAL WORK, THE CONTRACTOR SHALL TEST THE COMPLETE ELECTRICAL SYSTEM FOR SHORTS, GROUNDS, AND PROPER OPERATION, IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE.
- 1.16 UPON COMPLETION OF WORK, THE CONTRACTOR SHALL CLEAN AND ADJUST ALL EQUIPMENT AND LIGHTING AND TEST SYSTEMS TO THE SATISFACTION OF OWNER AND ENGINEER. RESULTS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
- 1.17 THE CONTRACTOR SHALL FIELD VERIFY DIMENSIONS OF FINISHED CONSTRUCTION PRIOR TO FABRICATION AND INSTALLATION OF FIXTURES AND EQUIPMENT.
- 1.18 EXACT ROUTING OF CONDUITS AND "MC" CABLES SHALL BE DETERMINED IN THE FIELD.
- 1.19 IF THE OWNER AND/OR HIS REPRESENTATIVE CONSIDERS ANY WORK TO BE INFERIOR, THE RESPECTIVE CONTRACTOR SHALL REPLACE SAME WITH CONTRACT STANDARD WORK WITHOUT ADDITIONAL CHARGE. ALL WORK SHALL BE DONE IN A NEAT, WORKMANLIKE MANNER, LEFT CLEAN AND FREE FROM DEFECTS, AND COMPLETELY OPERABLE.
- 1.20 THE CONTRACTOR SHALL PROVIDE ALL MATERIALS AS SHOWN ON THE DRAWINGS AND/OR AS SPECIFIED. ALL MATERIALS SHALL BE NEW, AND BEAR THE UL LABEL. ALL WORK SHALL BE GUARANTEED BY THE CONTRACTOR FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF ACCEPTANCE BY THE OWNER.
- 1.21 DRAWINGS ARE TO BE CONSIDERED DIAGRAMMATIC, AND SHALL BE FOLLOWED AS CLOSELY AS CONDITIONS ALLOW TO COMPLETE THE INTENT OF THE CONTRACT. THE DRAWINGS AND SPECIFICATIONS COMPLIMENT ONE ANOTHER, AND WHAT IS SHOWN ON THE DRAWINGS AND NOT MENTIONED IN THE SPECIFICATIONS, AND VICE VERSA, IS TO BE INCLUDED IN THE SCOPE OF WORK.
- 1.22 ALL EQUIPMENT CONNECTIONS SHALL BE INSTALLED PER APPLICABLE SEISMIC REQUIRMENTS.
- 1.23 ENGINEER WILL MAKE A FINAL INSPECTION WITH THE OWNER AND CONTRACTOR AND WILL NOTIFY THE CONTRACTOR IN WRITING OF ALL PARTICULARS IN WHICH THIS INSPECTION REVEALS THAT THE WORK IS INCOMPLETE OR DEFECTIVE. THE CONTRACTOR SHALL IMMEDIATELY TAKE SUCH MEASURES AS ARE NECESSARY TO COMPLETE SUCH WORK OR REMEDY SUCH DEFICIENCIES.
- 1.24 THE CONTRACTOR SHALL PERFORM ALL EXCAVATION, TRENCHING AND BACKFILL REQUIRED FOR ELECTRICAL WORK. BACKFILL SHALL BE SUITABLE MATERIAL PROPERLY COMPACTED TO 95% DENSITY IN EACH LAYER OF SIX (6) INCH DEPTH. CONDUIT SHALL BE MINIMUM 30" BELOW FINISHED GRADE.



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PHONE: (262)-547-1200  
WWW.SUNVEST.COM

ELECTRICAL ENGINEER STAMP:

PROFESSIONAL ENGINEER STAMPS

ISSUANCE:  
**INTERCONNETION  
PLAN SET**

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DRAWN BY: A.W.		CHECKED BY: XXX	
SCALE: AS NOTED		JOB NO:	

SV CSG SUN TRUST  
SOLAR, LLC  
(42.0969, -88.3865)

SHEET TITLE  
GENERAL NOTES  
AND SYMBOLS

DWG. NO.  
**G-1.00**

GENERAL NOTES/REQUIREMENTS:

2. PROJECT COORDINATION:

- 2.1 THE CONTRACTOR SHALL VERIFY FIELD CONDITIONS AT THE SITE AND NOTIFY THE OWNER OF ANY DISCREPANCIES, PRIOR TO COMMENCING WITH THE WORK.
- 2.2 THE CONTRACTOR SHALL REVIEW AND COORDINATE WITH THE DOCUMENTS OF ALL TRADES.
- 2.3 THE CONTRACTOR SHALL FURNISH A SCHEDULE INDICATING HIS PORTION OF TIME, WITHIN THE OVERALL SCHEDULE, REQUIRED TO COMPLETE THE WORK, IN CONJUNCTION WITH ALL TRADES. ALL WORK THAT MAY AFFECT OPERATION OF BUILDING SYSTEMS SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE.
- 2.4 SHUT DOWN OF POWER SHALL BE COORDINATED WITH THE OWNER, ARCHITECT AND PROJECT MANAGER AT LEAST 14 WORKING DAYS PRIOR TO SHUT DOWN. SHUT DOWNS LONGER THAN 2 DAYS SHALL BE COORDINATED WITH THE ABOVE PERSONNEL AT LEAST ONE MONTH IN ADVANCE. TEMPORARY POWER FOR CONSTRUCTION SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR FOR SHUT DOWNS OVER 2 DAYS.
- 2.5 ALL CONDUITS AND DEVICE BOXES SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR, INCLUDING ALL TECHNOLOGY CONDUITS AND BOXES.
- 2.6 EXACT LOCATIONS OF OUTLETS AND EQUIPMENT SHALL BE COORDINATED WITH ARCHITECTURAL AND MILLWORK PLANS. ALL OUTLET AND EQUIPMENT LAYOUTS SHALL BE VERIFIED AND COORDINATED WITH WORK OF OTHER TRADES.
- 2.7 PROVIDE TEMPORARY LIGHTING AND POWER IN ACCORDANCE WITH ARTICLE 305 OF THE NEC. TEMPORARY LIGHTING FIXTURES IN UNFINISHED AREAS SHALL REMAIN CONNECTED UNTIL REMOVAL IS REQUESTED BY THE CONTRACTOR.
- 2.8 THE CONTRACTOR SHALL CONTACT THE BUILDING MANAGER TO OBTAIN A COPY OF THE GENERAL REQUIREMENTS AND/OR CONDITIONS TO BE USED FOR THIS PROJECT.

3. CONNECTORS:

- 3.1 DO NOT CROSS MATE CONNECTORS ON ANY SYSTEM. ENSURE THAT CONNECTOR SELECTION MEETS THE LEGAL BASIS THE EXCLUDE CROSS-CONNECTIONS OF:
- PRODUCT NORMS ((IEC 62852 (EN62852)) AND UL 6703 PRODUCT NORM RESP. UL 1703 MODULE NORM
  - INSTALLATION NORMS AND LOCAL REGULATIONS
  - ASSEMBLY INSTRUCTIONS OF THE MANUFACTURER

VALID PV STANDARDS (IEC 60364-7-712:2017; E343181) STATE THAT "MALE AND CONNECTORS [...] SHALL BE OF THE SAME TYPE FROM THE SAME MANUFACTURER" AND THAT UL CERTIFICATION FOR CONNECTORS ONLY APPLIES IF PRODUCTS FROM THE SAME PRODUCT FAMILY HAVE BEEN MATED

FEMALE

4. WARRANTIES:

- 4.1 ALL MATERIALS AND EQUIPMENT SHALL BE GUARANTEED IN WRITING FOR A MINIMUM OF ONE YEAR AFTER FINAL ACCEPTANCE BY OWNER.
- 4.2 WORKMANSHIP SHALL BE GUARANTEED IN WRITING FOR A MINIMUM OF 5 YEARS AFTER FINAL ACCEPTANCE BY OWNER
- 4.3 OBTAIN AND DELIVER TO THE OWNER'S REPRESENTATIVE ALL GUARANTEES AND CERTIFICATES OF COMPLIANCE.

5. PERMITS:

- 5.1 CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND INSPECTION FEES FOR ELECTRICAL WORK.

6. RACEWAYS:

- 6.1 ALL CONDUIT SHALL BE MINIMUM SIZE OF 1/2" FOR POWER CIRCUITS AND CONTROL CIRCUITS EXCEPT WHERE FLEXIBLE CONDUIT IS CALLED FOR ON PROJECT DOCUMENTS. ALL EXTERIOR EXPOSED CONDUIT SHALL BE PVC. ALL UNDERGROUND, IN SLAB OR UNDER SLAB SHALL BE SCH. 40 PVC. CHANGE TO SCH. 80 PVC CONDUIT BEFORE EXITING OUT OF UNDERGROUND SECTIONS. EMT IS ALLOWED IN INTERIOR DRY LOCATIONS WHERE NOT SUBJECT TO DAMAGE.
- 6.2 ALL FLEXIBLE CONDUIT IN WET OR DRY AREAS SHALL BE LIQUID TIGHT CONDUIT. NONMETALLIC FLEXIBLE CONDUIT IS SPECIFICALLY PROHIBITED.
- 6.3 CONDUIT SHALL BE RUN AT RIGHT ANGLES AND PARALLEL TO BUILDING LINES, SHALL BE NEATLY RACKED AND SECURELY FASTENED. JUNCTION BOXES SHALL BE PROVIDED WHERE REQUIRED TO FACILITATE INSTALLATION OF WIRES.
- 6.4 ALL CONDUIT AND ELECTRICAL EQUIPMENT SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE IN AN APPROVED MANNER.
- 6.5 ALL EMPTY RACEWAYS SHALL BE FURNISHED WITH A 200 LB. TEST NYLON DRAG LINE.
- 6.6 ARRANGEMENT OF CONDUIT AND EQUIPMENT SHALL BE AS INDICATED, UNLESS MODIFICATION IS REQUIRED TO AVOID INTERFERENCES.
- 6.7 ALL RACEWAY AND WIRING SHALL BE CONCEALED IN FINISHED AREAS. RACEWAY IN MECHANICAL ROOMS, BASEMENTS AND CRAWL SPACES MAY BE SURFACE MOUNTED.
- 6.8 FOR CONDUITS CROSSING EXPANSION JOINTS, PROVIDE EXPANSION FITTINGS FOR SIZE 1-1/4", AND LARGER. PROVIDE SECTIONS OF FLEXIBLE CONDUIT WITH GROUNDING JUMPERS FOR SIZES 1" AND SMALLER.
- 6.9 THE CONTRACTOR SHALL SEAL ALL PENETRATIONS THROUGH FIRE RATED WALLS AND FLOORS WITH APPROVED FIRE RATED SEALANT. ALL PENETRATIONS THROUGH ALL WALLS AND FLOORS SHALL BE SEALED. FOR ALL SLAB PENETRATIONS THE METHOD, DEPTHS AND LOCATIONS SHALL BE PRE-APPROVED BY THE BUILDING ENGINEER PRIOR TO THE START OF WORK.
- 6.10 THE CONTRACTOR SHALL INSTALL DETECTABLE UNDERGROUND TAPES FOR THE PROTECTION, LOCATION AND IDENTIFICATION OF UNDERGROUND CONDUIT INSTALLATION.
- 6.11 EXACT ROUTING OF CONDUITS AND CABLES SHALL BE DETERMINED IN FIELD.
- 6.12 ALL PENETRATIONS THROUGH FLOORS SHALL BE FIRE STOPPED AND SEALED WITH APPROVED SEALANT.
- 6.13 ELECTRICAL RACEWAY CONNECTIONS TO VIBRATING EQUIPMENT AND MACHINERY, SHALL BE MADE WITH FLEXIBLE LIQUID TIGHT METALLIC CONDUIT.
- 6.14 SECURE ALL SUPPORTS TO BUILDING STRUCTURE UTILIZING TOGGLE BOLTS IN HOLLOW MASONRY, EXPANSION SHIELDS OR INSERTS IN CONCRETE AND BRICK. MACHINE SCREWS IN METAL, BEAM CLAMPS IN FRAMEWORK AND WOOD SCREWS IN WOOD. NAILS, RAWL PLUGS AND WOOD PLUGS ARE NOT PERMITTED. WHERE REQUIRED BY STRUCTURE, PROVIDE THRU BOLTS AND FISH PLATES. SUPPORT RACEWAY RISERS AT EACH FLOOR LEVEL. RUN EXPOSED RACEWAYS PARALLEL WITH OR AT RIGHT ANGLES TO BUILDING LINES.
- 6.15 DO NOT RUN RACEWAYS CLOSER THAN 6 INCHES WHEN PARALLEL TO HOT WATER OR STEAM PIPES. WHEN CROSSING WATER OR STEAM PIPES CROSS A MINIMUM OF 3 INCHES ABOVE. IF CROSSING BELOW IS UNAVOIDABLE, PROVIDE DRIP SHIELDS EXTENDING 6 INCHES BEYOND THE WATER OR STEAMPIPE. BOXES INSTALLED IN PROXIMITY TO WATER OR STEAM PIPE SHALL BE RATED NEMA 4X.

7. BOXES:

- 7.1 INTERIOR JUNCTION BOXES SHALL BE SHEET STEEL. EXTERIOR JUNCTION BOXES SHALL BE NONMETALLIC, WITH SCREW COVERS. BOXES SHALL BE SUPPORTED INDEPENDENTLY OF CONDUITS.

8. WIRING:

- 8.1 ALL WIRE SHALL BE MADE OF COPPER WITH INSULATION SUITABLE FOR THE APPLICABLE ENVIRONMENT AND VOLTAGE. CONTRACTOR SHALL GET APPROVAL FOR ANY OTHER WIRE TYPE.
- 8.2 UNDER NO CIRCUMSTANCES SHALL FEEDERS BE SPLICED.
- 8.3 ALL ELECTRICAL TERMINAL TEMPERATURE RATINGS ASSUMED TO BE 75° C UNLESS SITE CONDITIONS REQUIRE OTHERWISE.
- 8.4 WIRE SIZES SHALL BE INCREASED WHERE NECESSARY TO LIMIT AC VOLTAGE DROP TO 1.5% TOTAL FROM INVERTER TO POINT OF COMMON COUPLING

9. GROUNDING:

- 9.1 PROVIDE A COMPLETE EQUIPMENT GROUND SYSTEM FOR THE ELECTRICAL SYSTEM AS REQUIRED BY ARTICLE 250 AND 690, OF THE NEC, AND AS SPECIFIED HEREIN.
- 9.2 ALL BRANCH CIRCUITS AND FEEDERS FOR POWER WIRING SHALL CONTAIN A COPPER GROUND WIRE. NO FLEXIBLE METAL CONDUIT OF ANY KIND OR LENGTH SHALL BE USED AS THE EQUIPMENT GROUNDING CONDUCTOR.

10. MECHANICAL SYSTEMS POWER:

- 10.1 DISCONNECT SWITCHES SHALL BE HEAVY DUTY, QUICK MAKE, QUICK BREAK TYPE, ENCLOSED IN A HEAVY SHEET METAL ENCLOSURE WITH HINGED INTERLOCKING COVER, IN PROPER NEMA RATED ENCLOSURES. FUSED OR NON-FUSED AS REQUIRED. DISCONNECT SWITCHES SHALL BE PROVIDED BY CONTRACTOR, EXCEPT AS NOTED ON DRAWINGS.
- 10.2 THE RATING FOR DISCONNECT SWITCHES SHALL BE THE SAME AS, OR GREATER THAN, THE PROTECTIVE DEVICE SERVING THE EQUIPMENT.
- 10.3 A STRUT FRAME SHALL BE PROVIDED AT ALL LOCATIONS WHERE STRUCTURE WILL NOT ADEQUATELY SUPPORT EQUIPMENT, OR FOR FREESTANDING EQUIPMENT.

11. PANEL BOARDS:

- 11.1 PANELBOARDS: SWITCHING UNITS SHALL BE 3 PHASE, 4 WIRE CIRCUIT BREAKER TYPE UNLESS OTHERWISE NOTED. BUS BARS SHALL BE HARD DRAWN COPPER, MINIMUM 98% CONDUCTIVITY, AND SILVER OR TIN-PLATED JOINTS. CABINETS SHALL BE GALVANIZED SHEET STEEL BACK BOX, WITH DOOR AND TRIM AND LAPPED AND WELDED CORNERS. HARDWARE SHALL BE CHROME-PLATED WITH FLUSH LOCK/LATCH HANDLE ASSEMBLY (UP TO 48 IN. HIGH DOORS) OR VAULT HANDLE, LOCK AND 3-POINT CATCH (LARGER THAN 48 IN. HIGH DOORS). HINGES SHALL BE SEMI-CONCEALED, 5-KNUCKLE STEEL WITH NONFERROUS PINS, 180-DEG OPENING, LOCATED A MAXIMUM 26 IN. ON CENTERS. PROVIDE DOOR-IN-DOOR CONSTRUCTION. MINIMUM GUTTER SPACES FOR LIGHTING PANELS SHALL BE 5- BOTTOM. DIRECTORY HOLDER SHALL BE METAL FRAME WITH CLEAR PLASTIC, TRANSPARENT COVER.
- 11.2 PROVIDE A NEW TYPE WRITTEN CIRCUIT DIRECTORY FOR EACH PANEL AFFECTED BY THIS PROJECT.
- 11.3 WHEREVER POSSIBLE, PANELBOARDS SHALL BE RECESSED IN WALL. SURFACE MOUNTED PANELBOARDS SHALL BE MOUNTED ON A PLYWOOD BACKBOARD. PLYWOOD SHALL BE MOUNTED ON TOP OF GYPSUM BOARD. PLYWOOD SHALL BE PAINTED ON ALL SIDES AND EDGES. COORDINATE WITH OWNER FOR COLOR.
- 11.4 PROVIDE LIGHTNING SURGE PROTECTION FOR MAIN SWITCHBOARD OR MAIN SERVICE PANEL BOARD. PROVIDE GROUNDING OF SURGE DEVICE PER THE NEC.
- 11.5 CONTRACTOR IS RESPONSIBLE FOR BALANCING LOADS ON ALL PHASES AND MAY ALTER ASSIGNMENT OF CIRCUITS FOR BALANCING PHASES.
- 11.6 CIRCUIT SCHEDULES ARE INTENDED TO REPRESENT THE GENERAL WIRING NEEDS OF THE EQUIPMENT SERVICED FROM THE PANEL. THE EXACT CIRCUIT ARRANGEMENT WILL BE DETERMINED BY PANEL SHOP DRAWING AND ARRANGEMENT WILL BE DETERMINED BY PANEL SHOP DRAWING AND PANELS ACTUALLY FURNISHED.

12. IDENTIFICATION:

- 12.1 REFER TO NEC LABELS DRAWING FOR LABELING REQUIREMENTS
- 12.2 INSTALL NAMEPLATES ON ALL MAJOR EQUIPMENT, INCLUDE STARTERS, TRANSFORMERS, PANELBOARDS, DISCONNECT SWITCHES AND OTHER ELECTRICAL BOXES AND CABINETS INSTALLED UNDER THIS CONTRACT.
- 12.3 APPLY CABLE/CONDUCTOR IDENTIFICATION MARKERS ON EACH CABLE AND CONDUCTOR IN EACH BOX, ENCLOSURE OR CABINET.

13. RECORD DRAWINGS:

- 13.1 THE CONTRACTOR SHALL SUBMIT SIX (6) COPIES OF SHOP DRAWINGS. THE APPROVAL OF SHOP DRAWINGS SHALL ONLY BE CONSTRUED TO APPLY TO THE GENERAL LAYOUT AND CONFORMANCE TO THE DESIGN CONCEPT OF THE PROJECT AND FOR THE COMPLIANCE WITH THE GENERAL REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL RETAIN THE RESPONSIBILITY FOR ANY DEVIATIONS FROM THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- 13.2 PROVIDE SHOP DRAWINGS FOR THE LIGHTING FIXTURES, PANEL BOARDS, CIRCUIT BREAKERS, WIRING DEVICES, FIRE ALARM DEVICES AND SEALS FOR FIRE AND WATER STOPPING.
- 13.3 DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN A RECORD SET OF INSTALLATION PRINTS. HE SHALL NEATLY AND CLEARLY RECORD ON THESE PRINTS ALL DEVIATIONS FROM THE CONTRACT DRAWINGS IN SIZES, LOCATIONS AND DETAILS.
- 13.4 UPON PROJECT COMPLETION, THE CONTRACTOR SHALL COMPLETE THE MARK UP OF ALL PROJECT DRAWINGS TO RECORD INSTALLED CONDITIONS.
- 13.5 REPRODUCIBLE "RECORD" DRAWINGS PREPARED IN CAD FORMAT SHALL BE PROVIDED AS INSTALLED CONDITIONS OF THE WORK. A FULL SIZE PRINT OUT OF THE "RECORD" DRAWING FILE SHALL BE PROVIDED AFTER COMPLETION OF THE INSTALLATION.
- 13.6 UPON COMPLETION AND ACCEPTANCE OF WORK, THE CONTRACTOR SHALL FURNISH WRITTEN INSTRUCTIONS AND EQUIPMENT MANUALS AND DEMONSTRATE THE PROPER OPERATIONS AND MAINTENANCE OF ALL EQUIPMENT AND APPARATUS FURNISHED UNDER THIS CONTRACT.

14. PROTECTION OF WORK:

- 14.1 EFFECTIVELY PROTECT ALL MATERIALS AND EQUIPMENT FROM ENVIRONMENTAL AND PHYSICAL DAMAGE UNTIL FINAL ACCEPTANCE. CLOSE AND PROTECT ALL OPENINGS DURING CONSTRUCTION. PROVIDE NEW MATERIALS AND EQUIPMENT TO REPLACE ITEMS DAMAGED.



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(800) 547-1200 www.sunvest.com

N27 W24025 PAUL CT. SUITE 100  
PEWAUKEE, WI 53072  
PHONE: (262)-547-1200  
WWW.SUNVEST.COM

ELECTRICAL ENGINEER STAMP:

PROFESSIONAL ENGINEER STAMPS

ISSUANCE:

INTERCONNETION  
PLAN SET

LICENSED ELECTRICAL ENGINEER certifies that they prepared all the electrical "E" sheets in this drawing set. LICENSED STRUCTURAL ENGINEER certifies that they prepared all of the structural "S" sheets in this drawing set. LICENSED CIVIL ENGINEER certifies that they prepared all of the civil "C" sheets in this drawing set. It should be noted that any plan sheets not identified above have been prepared and certified by others and have been included herein for informational purposes only.

10		21	
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3	09/08/2025	14	
2	08/11/2025	13	
1	06/24/2025	12	
0	05/07/2025	11	
REV	SET/DATE	REV	SET/DATE
DRAWN BY: A.W.		CHECKED BY: XXX	
SCALE: AS NOTED		JOB NO:	

SV CSG SUN TRUST  
SOLAR, LLC  
(42.0969, -88.3865)

SHEET TITLE  
GENERAL NOTES

DWG. NO.

G-2.00

SITE LAYOUT SYMBOL LEGEND:

PARCEL BOUNDARY

PARCEL SETBACKS

ARRAY FENCE

WETLANDS

WETLAND SETBACK

FLOODPLAIN

FLOODPLAIN SETBACK

BUILDING

BUILDING SETBACK

INVERTER STRINGING (11 STRINGS)

INVERTER STRINGING (12 STRINGS)

INVERTER STRINGING (13 STRINGS)

DC TRENCHING

AC TRENCHING

POWER UNDERGROUND

POWER OVERHEAD

ACCESS ROAD

MODULE

TORQUE TUBE

ACCESS GATE

UTILITY/CUSTOMER POLES

EQUIPMENT PAD

INVERTER RACK

MAIN SWITCHBOARD

TRANSFORMER

TRACKER MOTOR

DC COMBINER BOX

POLLINATOR

TREE (VEGETATION)

SHRUB (VEGETATION)

AUXILLARY TRANSFORMER

BESS EQUIPMENT PAD



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(262) 547-1200 www.sunvest.com

N27 W24025 PAUL CT. SUITE 100

PEWAUKEE, WI 53072

PHONE: (262)-547-1200

WWW.SUNVEST.COM

ELECTRICAL ENGINEER STAMP:

PROFESSIONAL ENGINEER STAMPS

ISSUANCE:

INTERCONNETION

PLAN SET

SCALE: 1" = 100'

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REV	SET/DATE	REV	SET/DATE
DRAWN BY: A.W.		CHECKED BY: XXX	
SCALE: AS NOTED		JOB NO:	

SV CSG SUN TRUST

SOLAR, LLC

(42.0969, -88.3865)

SHEET TITLE

ARRAY LAYOUT

DWG. NO.

PV-1.00

UTILITY INFORMATION		PV SYSTEM DETAILS	
UTILITY COMPANY:	COMED	ARRAY TYPE:	SINGLE AXIS TRACKER (SAT)
UTILITY COMPANY CONTACT: TBD	PHONE: NA	DC SYSTEM SIZE:	6.7968 MW DC
UTILITY PROJECT MANAGER: TBD	PHONE: NA	DC SYSTEM VOLTAGE:	1500 V
INTERCONNECTION VOLTAGE:	12.47 KV	AC SYSTEM SIZE:	5.000 MVA @PF=1
		DC/AC RATIO:	1.35936
		MODULE QTY/TYPE:	(11,520) HANWHA QCELL: Q.PEAK XL-G11S SERIES
		MODULE WATTAGE:	590W
		INVERTER QTY/TYPE:	(40) KACO 125 TL3 M1 WM OD (XL) 600:120.3A
		INVERTER AC OUTPUT :	(40) 125 KVA
		STRING SIZE:	(24) MODULES PER STRING (480) TOTAL STRINGS
		OPTIMIZER TYPE:	N/A



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ELECTRICAL ENGINEER STAMP:

PROFESSIONAL ENGINEER STAMPS

ISSUANCE:  
**INTERCONNETION  
PLAN SET**

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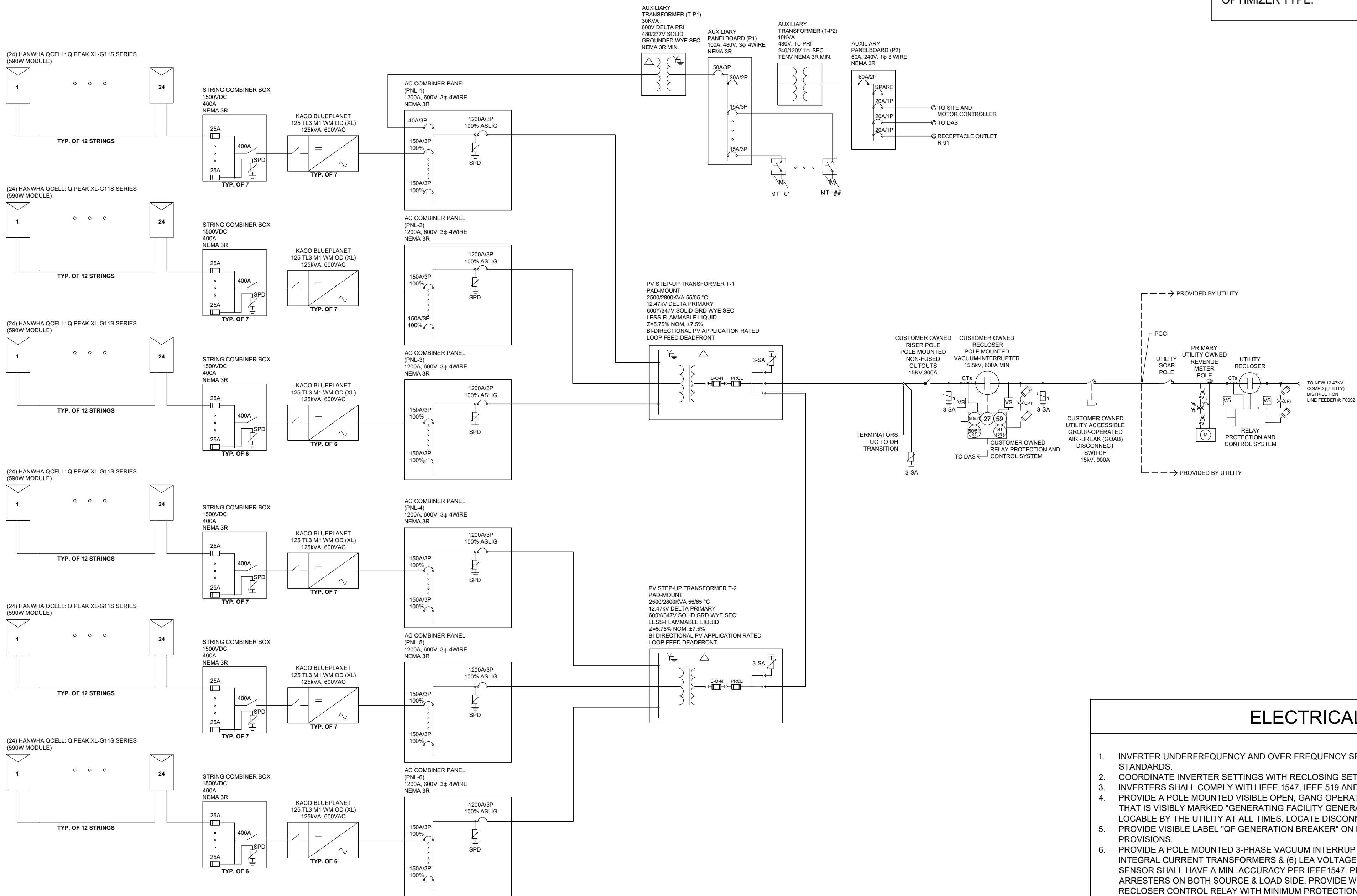
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REV	SET/DATE	REV	SET/DATE
DRAWN BY: A.W.		CHECKED BY: XXX	
SCALE: AS NOTED		JOB NO:	

**SV CSG SUN TRUST  
SOLAR, LLC**  
(42.0969, -88.3865)

SHEET TITLE  
**ONE LINE DIAGRAM**

DWG. NO.

**E-1.00**



### ELECTRICAL NOTES

- INVERTER UNDERFREQUENCY AND OVER FREQUENCY SETTINGS SHALL BE COORDINATED WITH THE UTILITY STANDARDS.
- COORDINATE INVERTER SETTINGS WITH RECLOSING SETTINGS.
- INVERTERS SHALL COMPLY WITH IEEE 1547, IEEE 519 AND UL1741.
- PROVIDE A POLE MOUNTED VISIBLE OPEN, GANG OPERATED AIR BREAK, LOAD BREAK DISCONNECT SWITCH THAT IS VISIBLY MARKED "GENERATING FACILITY GENERATION DISCONNECT " AND IS ACCESSIBLE TO AND LOCABLE BY THE UTILITY AT ALL TIMES. LOCATE DISCONNECT IN CLOSE PROXIMITY TO THE UTILITY METER.
- PROVIDE VISIBLE LABEL "OF GENERATION BREAKER" ON MAIN BREAKERS. BREAKERS SHALL HAVE LOTO PROVISIONS.
- PROVIDE A POLE MOUNTED 3-PHASE VACUUM INTERRUPTER POLYMER RECLOSER, 15.5KV 600A MIN. WITH INTEGRAL CURRENT TRANSFORMERS & (6) LEA VOLTAGE SENSORS ON BOTH SIDES OF RECLOSER. VOLTAGE SENSOR SHALL HAVE A MIN. ACCURACY PER IEEE1547. PROVIDE RECLOSER WITH 120V OPT AND SURGE ARRESTERS ON BOTH SOURCE & LOAD SIDE. PROVIDE WITH MANUFACTURER FURNISHED ADVANCED RECLOSER CONTROL RELAY WITH MINIMUM PROTECTION FUNCTIONS SHOWN AND WITH CONTROL CABLE AND POWER CABLE. PROVIDE WILDLIFE PROTECTORS. RECLOSER SHALL BE TAVRIDA ELECTRIC WITH SEL-651R RECLOSER OR APPROVED EQUAL IN STAINLESS STEEL CONTROL CABINET WITH BATTERY BACKUP AND HEATER PACKAGE. COMMUNICATE STATUS OF RECLOSER TO DAS.
- PROVIDE A PERMANENT AND WEATHERPROOF ONE-LINE DIAGRAM OF THE GENERATING FACILITY LOCATED AT THE POINT OF SERVICE CONNECTION TO THE UTILITY.
- PROVIDE MAIN TRANSFORMERS WITH EXTERNALLY ACCESSIBLE AND REPLACEABLE BAY-O-NET FUSES OR EQUIVALENT WITH SERIES CURRENT LIMITING FUSE.
- MAIN TRANSFORMERS SHALL BE RATED FOR PV APPLICATION WITH BI-DIRECTIONAL POWER FLOW CAPABILITY.
- INTERRUPTING AND WITHSTAND RATINGS SHALL BE CONFIRMED DURING CONSTRUCTION DESIGN PROCESS.
- DESIGN SHALL BE IN COMPLIANCE WITH NEC, COMED AND ALL OTHER APPLICABLE CODES AND STANDARDS.
- OVERHEAD POLE TYPE CUTOUT RATED 15.5KV NOM, 110KV BIL, 300A, 12KA ASYM. WITHSTAND RATING. CUTOUT SHALL BE HUBBELL TYPE C SOLID BLADE OR APPROVED EQUAL.
- PROVIDE A LOCAL DEDICATED SWITCH/DISCONNECT FOR MOTOR CONTROLLERS AND SITE CONTROLLERS

GENERAL LANDSCAPE AND SEEDING NOTES

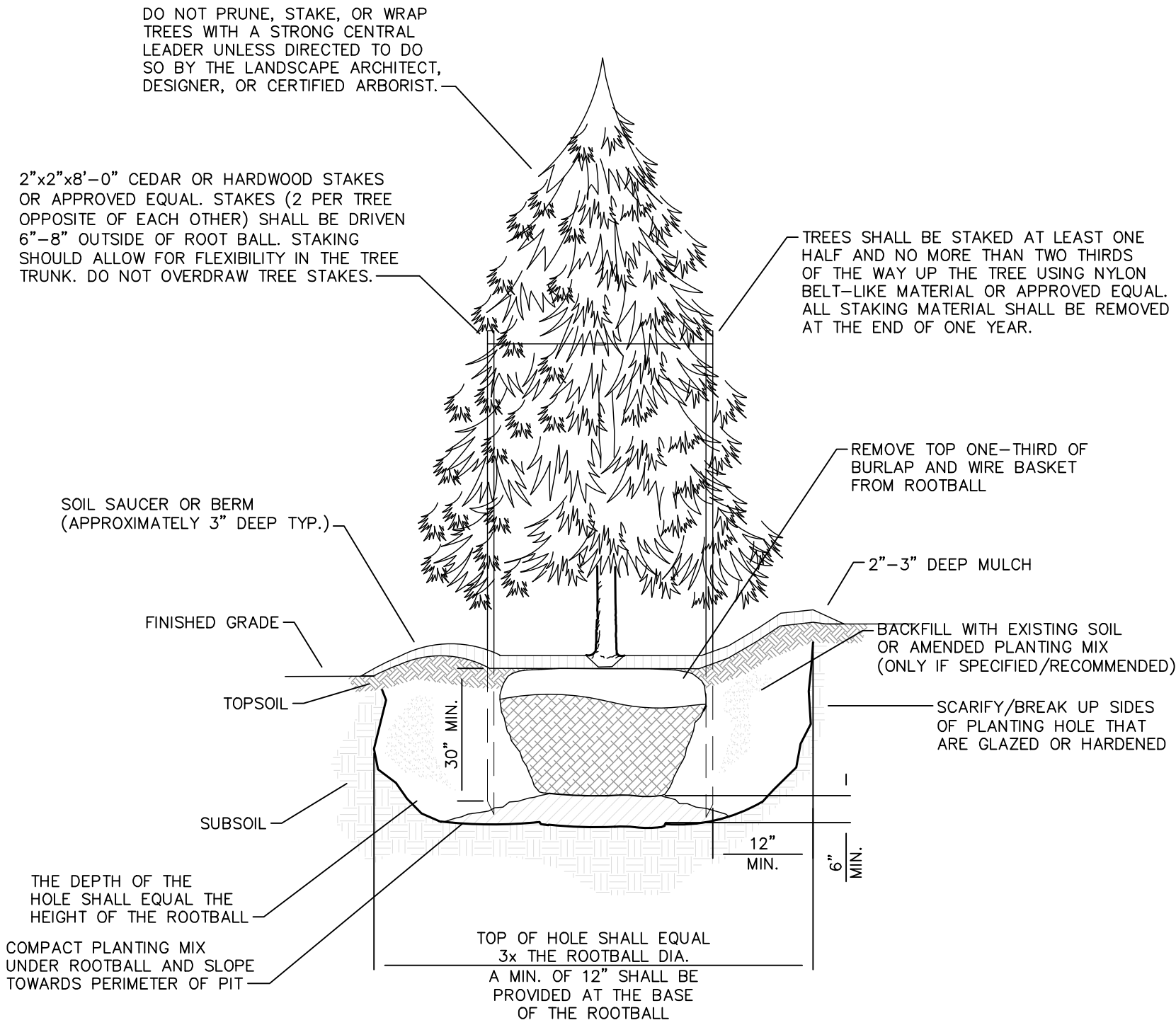
- THE LANDSCAPE PLAN AND DETAILS ARE FOR LANDSCAPING INFORMATION ONLY. PLEASE REFER TO THE SITE LAYOUT PLAN, GRADING PLAN AND/OR UTILITIES PLAN FOR ALL OTHER INFORMATION.
- THE CONTRACTOR SHALL MONITOR AND GUARANTEE THAT ALL PLANTS, TREES, AND SHRUBS SHALL BE HEALTHY AND FREE OF DISEASE FOR A PERIOD OF (1) ONE YEAR AFTER SUBSTANTIAL COMPLETION AND ACCEPTANCE BY THE OWNER. CONTRACTOR SHALL REPLACE ANY DEAD OR UNHEALTHY PLANTS AT CONTRACTOR'S EXPENSE. FINAL ACCEPTANCE SHALL BE MADE IF ALL PLANTS MEET THE GUARANTEE REQUIREMENTS INCLUDING MAINTENANCE. MAINTENANCE RESPONSIBILITIES INCLUDE INVASIVE SPECIES MONITORING, REMOVAL, AND SUPPLEMENTATION. MONITORING OF THE PROJECT SITE SHALL OCCUR IN THE SPRING AND THE FALL TO DETERMINE THE PRESENCE OF INVASIVE SPECIES. SHOULD ANY INVASIVE SPECIES BE IDENTIFIED WITHIN THE PROJECT SITE, THE INVASIVE SPECIES SHALL BE REMOVED ACCORDING TO METHODS MOST LIKELY TO BE EFFECTIVE IN CONTROLLING THAT SPECIES AND SUPPLEMENTING ITS REPLACEMENT WITH APPROPRIATE VEGETATION AND SEED MIX IDENTIFIED (AND APPROVED) ON THIS PLAN AND/OR AN APPROVED EQUAL. ADDITIONAL MAINTENANCE RESPONSIBILITIES INCLUDE: APPROVED CULTIVATING, SPRAYING, WEEDING, WATERING, TIGHTENING OF TREE STRAP GUYS, PRUNING, FERTILIZING, MULCHING, AND ANY OTHER OPERATIONS NECESSARY TO MAINTAIN PLANT VIABILITY. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER PLANTING AND CONTINUE UNTIL 90 DAYS AFTER FINAL ACCEPTANCE.
- THE CONTRACTOR SHALL SUPPLY ALL LABOR, PLANTS, APPROVED SEEDING MIX, AND MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE WORK SHOWN ON THE DRAWING(S) AND LISTED IN THE PLANT SCHEDULE(S) AND/OR SEEDING TABLE(S). IN THE EVENT OF A DISCREPANCY BETWEEN QUANTITIES SHOWN IN THE PLANT SCHEDULE AND/OR SEEDING TABLE AND THOSE REQUIRED BY THE DRAWINGS, THE LARGER SHALL APPLY. ALL PLANTS SHALL BE ACCLIMATED BY THE SUPPLY NURSERY TO THE LOCAL HARDINESS ZONE AND BE CERTIFIED THAT THE PLANTING MATERIAL HAS BEEN GROWN FOR A MINIMUM OF (2) TWO YEARS AT THE SOURCE AND OBTAINED WITHIN 200 MILES OF PROJECT SITE UNLESS OTHERWISE APPROVED BY OWNER, CERTIFIED LANDSCAPE INSPECTOR, OR LANDSCAPE ARCHITECT.
- THE LOCATIONS FOR PLANT MATERIAL ARE APPROXIMATE AND ARE SUBJECT TO FIELD ADJUSTMENT DUE TO SLOPE, VEGETATION, AND SITE FACTORS SUCH AS THE LOCATION OF ROCK OUTCROPS. PRIOR TO PLANTING THE CONTRACTOR SHALL ACCURATELY STAKE OUT THE LOCATIONS FOR ALL PLANTS. THE OWNER, CERTIFIED LANDSCAPE INSPECTOR, OR LANDSCAPE ARCHITECT SHALL APPROVE THE FIELD LOCATIONS OR ADJUSTMENTS OF THE PLANT MATERIAL.
- ALL SHRUB MASSING SHALL BE MULCHED TO A DEPTH OF 2" AND SHREDDED HARDWOOD BARK MULCH SHALL BE USED FOR SHRUB MASSING AREAS.
- NO PLANT SHALL BE PLACED IN THE GROUND BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY THE OWNER, CERTIFIED LANDSCAPE INSPECTOR, OR LANDSCAPE CONTRACTOR. STAKING THE LOCATION OF ALL TREES AND SHRUBS SHALL BE COMPLETED PRIOR TO PLANTING FOR APPROVAL BY THE OWNER, CERTIFIED LANDSCAPE INSPECTOR, OR LANDSCAPE ARCHITECT. STAKING OF THE INSTALLED TREE MUST BE COMPLETED THE SAME DAY AS IT IS INSTALLED. ALL TREES SHALL BE STAKED OR GUYED AS PER THE DETAIL. SEE LANDSCAPING PLAN(S) FOR PLANTING DETAILS.
- COORDINATE PLANT MATERIAL LOCATIONS WITH SITE UTILITIES. SEE SITE LAYOUT, GRADING AND/OR UTILITY PLANS FOR STORM, SANITARY, GAS, ELECTRIC, TELEPHONE AND WATER LINES. UTILITY LOCATIONS ARE APPROXIMATE. EXERCISE CARE WHEN DIGGING IN AREAS OF POTENTIAL CONFLICT WITH UNDERGROUND OR OVERHEAD UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE DUE TO CONTRACTOR'S NEGLIGENCE AND SHALL REPLACE OR REPAIR ANY DAMAGE AT CONTRACTOR'S EXPENSE.
- ALL PLANT MATERIAL SHALL CONFORM WITH STANDARDS SET FORTH BY THE AMERICAN ASSOCIATION OF NURSERYMEN AND THE PLANTING SCHEDULE.
- ANY TREE WRAP SHALL BE REMOVED AND PROPERLY DISPOSED OF FOLLOWING INSTALLATION.
- LANDSCAPE PLANTING PITS MUST BE FREE DRAINING, PAVEMENT, COMPACTED SUBGRADE, AND BLASTED ROCK SHALL BE REMOVED TO A DEPTH OF 2' OR TO A GREATER DEPTH IF REQUIRED BY PLANTING DETAILS OR SPECIFICATIONS. REPLACE SOIL WITH MODERATELY COMPACTED LOAM OR SANDY LOAM FREE FROM STONES AND RUBBISH 1" OR GREATER IN DIAMETER AND ANY OTHER MATERIAL HARMFUL TO PLANT GROWTH AND DEVELOPMENT. PLANTING INSTALLATION SHALL BE AS DETAILED AND CONTAIN PLANTING MIX AS SPECIFIED UNLESS RECOMMENDED OTHERWISE BY SOIL ANALYSIS.

PLANTING SOIL MIXTURE:  
2 PARTS PEAT MOSS  
5 PARTS TOPSOIL  
MYCORRIZA INOCULANT - "TRANSPLANT 1-STEP" AS MANUFACTURED BY ROOTS, INC. OR APPROVED EQUAL. USE PER MANUFACTURER'S RECOMMENDATIONS FOR TREES AND SHRUBS. FERTILIZER/LIME APPLY AS RECOMMENDED BY SOIL ANALYSIS

- TREES, AND SHRUBS: TREES AND SHRUBS SHALL BE NURSERY GROWN UNLESS OTHERWISE NOTED AND HARDY UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCATION OF THE PROJECT. THEY SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY, WITH NORMAL HABIT OF GROWTH. THEY SHALL BE SOUND, HEALTHY, VIGOROUS, WELL-BRANCHED AND DENSELY FOLIATED WHEN IN LEAF. THEY SHALL BE FREE OF DISEASE, INSECT PESTS, EGGS OR LARVAE. THEY SHALL HAVE HEALTHY AND WELL-DEVELOPED ROOT SYSTEMS. ALL TREES SHALL HAVE STRAIGHT SINGLE TRUNKS WITH THEIR MAIN LEADER INTACT UNLESS OTHERWISE STATED. THE OWNER, CERTIFIED LANDSCAPE INSPECTOR, OR LANDSCAPE ARCHITECT SHALL ONLY PERMIT SUBSTITUTIONS UPON WRITTEN APPROVAL. THEIR SIZES SHALL CONFORM TO THE MEASUREMENT SPECIFIED ON THE DRAWINGS. PLANTS LARGER THAN SPECIFIED ON THE DRAWINGS MAY BE USED IF APPROVED. THE USE OF SUCH PLANTS SHALL NOT INCREASE THE CONTRACT PRICE. ALL TREES AND SHRUBS SHALL BE MULCHED IN ACCORDANCE WITH THE RESPECTIVE PLANTING DETAIL(S) PROVIDED IN THE LANDSCAPING PLAN.
- ALL PRUNING SHALL CONFORM TO THE TREE CARE INDUSTRY ASSOCIATION (TCIA) ANSI A300 (PART 1) - 2017 PRUNING STANDARDS. PRUNING STANDARDS SHALL RECOGNIZE BUT, ARE NOT LIMITED TO, THE FOLLOWING PRUNING OBJECTIVES: MANAGE RISK, MANAGE HEALTH, DEVELOP STRUCTURE, PROVIDE CLEARANCE, MANAGE SIZE OR SHAPE, IMPROVE AESTHETICS, MANAGE PRODUCTION OF FRUIT, FLOWERS, OR OTHER PRODUCTS, AND/OR MANAGE WILDLIFE HABITAT. DEVELOPING STRUCTURE SHALL IMPROVE BRANCH AND TRUNK ARCHITECTURE, PROMOTE OR SUBORDINATE CERTAIN LEADERS, STEMS, OR BRANCHES; PROMOTE DESIRABLE BRANCH SPACING; PROMOTE OR DISCOURAGE GROWTH IN A PARTICULAR DIRECTION (DIRECTIONAL PRUNING); MINIMIZE FUTURE INTERFERENCE WITH TRAFFIC, LINES OF SIGHT, INFRASTRUCTURE, OR OTHER PLANTS; RESTORE PLANTS FOLLOWING DAMAGE; AND/OR REJUVENATE SHRUBS. PROVIDING CLEARANCE SHALL ENSURE SAFE AND RELIABLE UTILITY SERVICES; MINIMIZE CURRENT INTERFERENCE WITH TRAFFIC, LINES OF SITE, INFRASTRUCTURE, OR OTHER PLANTS; RAISE CROWN(S) FOR MOVEMENT OF TRAFFIC OR LIGHT PENETRATION; ENSURE LINES OF SIGHT OR DESIRED VIEWS; PROVIDE ACCESS TO SITES, BUILDINGS, OR OTHER STRUCTURES; AND/OR COMPLY WITH REGULATIONS.
- TOPSOIL SHALL BE INSTALLED AT A MINIMUM DEPTH OF 4 INCHES. CONTRACTOR SHALL SUBMIT TOPSOIL TO A CERTIFIED TESTING LABORATORY TO DETERMINE PH, FERTILITY, ORGANIC CONTENT AND MECHANICAL COMPOSITION. THE CONTRACTOR SHALL SUBMIT THE TEST RESULTS FROM REGIONAL EXTENSION OFFICE OF USDA TO THE OWNER, CERTIFIED LANDSCAPE INSPECTOR, OR LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL. CONTRACTOR SHALL INCORPORATE AMENDMENTS FOR GOOD PLANT GROWTH AND PROPER SOIL ACIDITY RECOMMENDED FROM THE TOPSOIL TEST.
- NO PHOSPHOROUS SHALL BE USED AT PLANTING TIME UNLESS SOIL TESTING HAS BEEN COMPLETED AND TESTED BY A HORTICULTURAL TESTING LAB AND SOIL TESTS SPECIFICALLY INDICATE A PHOSPHOROUS DEFICIENCY THAT IS HARMFUL, OR WILL PREVENT NEW LAWNS/GRASSES AND PLANTINGS FROM ESTABLISHING PROPERLY.
- IF SOIL TESTS INDICATE A PHOSPHOROUS DEFICIENCY THAT WILL IMPACT PLANT AND LAWN ESTABLISHMENT, PHOSPHOROUS SHALL BE APPLIED AT THE MINIMUM RECOMMENDED LEVEL PRESCRIBED IN THE SOIL TEST FOLLOWING ALL APPLICABLE STANDARDS, REQUIREMENTS, AND/OR REGULATIONS.
- ALL SLOPES GREATER THAN 3:1 RECEIVING A WILDFLOWER, WETLAND, AND/OR GRASS SEEDING MIXTURE SHALL BE COVERED WITH AN EROSION CONTROL BLANKET.
- ALL WILDFLOWERS AND GRASSES SOWN SHALL BE ALLOWED TO GROW TO THEIR NATURALLY OCCURRING HEIGHTS WHENEVER POSSIBLE. NATIVE WILDFLOWERS AND/OR GRASSES CAN BE MOWED/MAINTAINED (WITHIN ACCEPTABLE AREAS IDENTIFIED AND/OR APPROVED BY APPROPRIATE REGULATORY AGENCIES) AS OFTEN AS NEEDED TO KEEP THE VEGETATION AT A DESIRED AND/OR MANAGEABLE/MANICURED HEIGHT.

GENERAL MAINTENANCE NOTES

NO PESTICIDES OR HERBICIDES WILL BE USED AS PART OF GROUNDS MAINTENANCE ACTIVITIES.



EVERGREEN TREE PLANTING

NOT TO SCALE

NOTES:

- TREE PLANTING SHALL BEAR SAME RELATIONSHIP TO FINISH GRADE AS IT WAS PRE-DUG IN THE NURSERY.
- NEVER CUT THE PRIMARY LEADER.
- IT IS NOT RECOMMENDED TO AMEND THE EXISTING SOIL BEFORE BACKFILLING THE HOLE UNLESS SOIL CONDITIONS ARE POOR FOR PLANTING.
- WATER THOROUGHLY TO HELP ENSURE THE REMOVAL OF AIR POCKETS AND PROPERLY SET THE TREE.

LOW PROFILE PRAIRIE SEED MIX			
BOTANICAL NAME	COMMON NAME		PLS OUNCES/ACRE
PERMANENT GRASSES:			
Bouteloua curtipendula	Side Oats Crama		192.00
Schizachyrium scoparium	Little Bluestem		95.00
Sporobolus heterolepis	Prairie Dropseed		16.00
Total			303.00
TEMPORARY COVER:			
Avena sativa	Common Oat		360.00
Lolium multiflorum	Annual Rye		120.00
Total			480.00
FORBS:			
Allium cernuum	Nodding Wild Onion		3.00
Amorpha canescens	Lead Plant		1.00
Aquilegia canadensis	Wild Columbine		2.00
Asclepias tuberosa	Butterfly Milkweed		8.00
Astragalus canadensis	Canadian Milk Vetch		1.00
Baptisia tictica	White Wild Indigo		4.00
Chamaecrista fasciculata	Partridge Pea		16.00
Coreopsis palmata	Prairie Coreopsis		4.00
Dalea candidum	White Prairie Clover		6.00
Dalea purpurea	Purple Prairie Clover		6.00
Echinacea pallida	Pale Purple Coneflower		16.00
Kuhnia eupatorioides	False Bone-Set		3.00
Lespedeza capitata	Round-Head Bush Clover		4.00
Liatris aspera	Rough Blazing Star		4.00
Potentilla arguta	Prairie Cinquelot		0.50
Pyrolaenum virginianum	Common Mountain Mint		0.50
Rudbeckia hirta	Black-Eyed Susan		10.00
Silphium laciniatum	Prairie Dock		2.00
Solidago juncea	Early Goldenrod		0.50
Solidago rigida	Stiff Goldenrod		1.00
Tradescantia ohienis	Common Spiderwort		5.00
Verbena stricta	Hoary Vervain		3.00
Zizia aurea	Golden Alexanders		5.00
Total			49.75

INSTALL LOW PROFILE PRAIRIE SEED MIX UNDER SOLAR ARRAYS AND WITHIN THE PROPERTY BOUNDARY

LANDSCAPE MANAGEMENT PLAN

GENERAL NOTES

- GROUNDS MAINTENANCE WILL OCCUR AS NEEDED ON SITE.
- APPROPRIATE EQUIPMENT WILL BE USED FOR ALL GROUNDS MAINTENANCE ACTIVITIES. THIS SHOULD INCLUDE RIDE ALONG TRACTOR MOUNTED MOWERS, HAND AND PUSH MOWERS, HANDHELD EQUIPMENT INCLUDING BUT NOT LIMITED TO WEED WACKERS, TRIMMERS, AND HEDGERS.
- THE USE OF CHEMICALS WILL BE LIMITED TO THAT NECESSARY AND AVOIDED TO THE MAXIMUM EXTENT PRACTICABLE. ALL CHEMICAL CONTROL TREATMENTS WILL BE PERFORMED BY, OR PERFORMED UNDER THE DIRECT SUPERVISION OF, AN ILLINOIS CERTIFIED PESTICIDE APPLICATOR OR TECHNICIAN.

INVASIVE SPECIES AND WEEDS

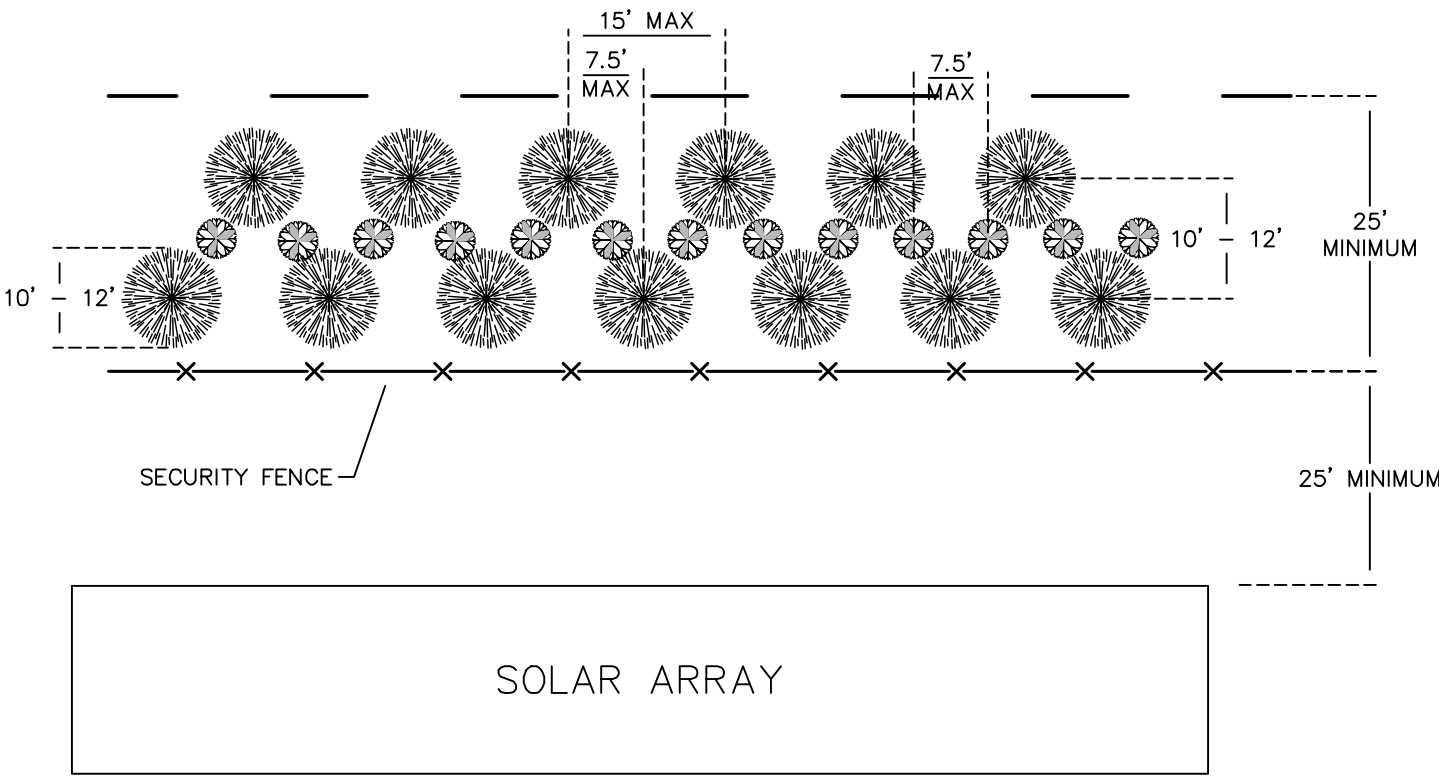
- INVASIVE SPECIES AND OTHER WEEDS WILL BE REMOVED AND CONTROLLED THROUGHOUT THE PROJECT AREA DURING OPERATION OF THE PROJECT.
- EMPHASIS WILL BE PLACED ON REMOVAL OF INVASIVE AND NOXIOUS WEED SPECIES FROM BUFFER AREAS TO MAINTAIN BUFFER HEALTH AND SCREENING PROPERTIES.

EVERGREEN PLANT LIST				
PLANT ID	PLANT QUANTITY	Scientific Name COMMON NAME	TYPE/SIZE	COMMENTS
To	103	Thuja occidentalis EMERALD GREEN	6' MIN.	B & B

SHRUB PLANT LIST				
PLANT ID	PLANT QUANTITY	Scientific Name COMMON NAME	TYPE/SIZE	COMMENTS
Vd	103	Viburnum dentatum ARROWHEAD VIBURNUM	#3 Container	

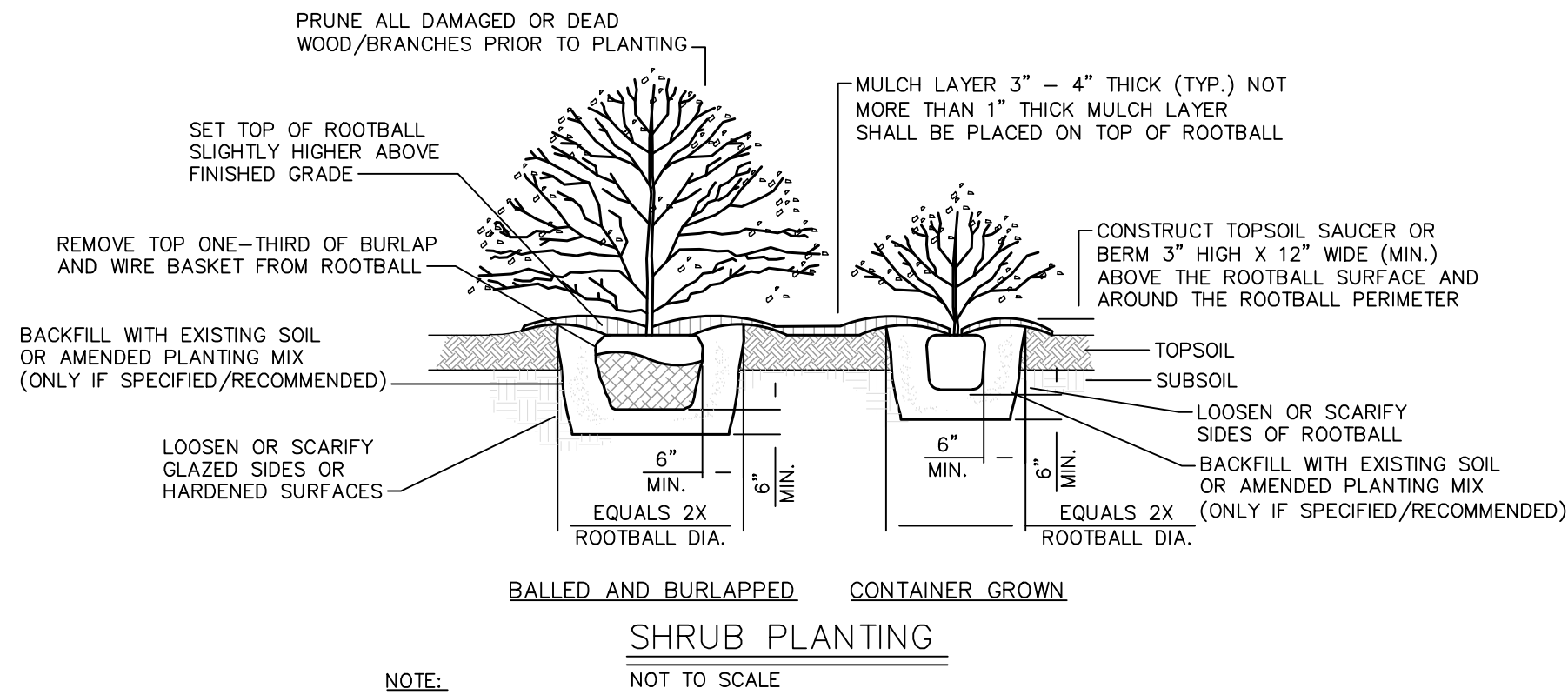
VEGETATIVE BUFFER PLANT LIST

NOT TO SCALE



VEGETATIVE BUFFER SPACING DIAGRAM

NOT TO SCALE



NOTE:

- IN AREAS WITH MASS PLANTINGS, CONTINUOUS EXCAVATION AND MULCHING PRACTICES SHALL BE IMPLEMENTED WHENEVER POSSIBLE.
- IT IS NOT RECOMMENDED TO AMEND THE EXISTING SOIL BEFORE BACKFILLING THE HOLE UNLESS SOIL CONDITIONS ARE POOR FOR PLANTING.
- WATER THOROUGHLY TO HELP ENSURE THE REMOVAL OF AIR POCKETS.



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PEWAUKEE, WI 53072  
PHONE: (262) 547-1200  
WWW.SUNVEST.COM

ELECTRICAL ENGINEER STAMP:

PROFESSIONAL ENGINEER STAMPS

ISSUANCE:

INTERCONNETION  
PLAN SET

LICENSED ELECTRICAL ENGINEER certifies that they prepared all the electrical "E" sheets in this drawing set. LICENSED STRUCTURAL ENGINEER certifies that they prepared all of the structural "S" sheets in this drawing set. LICENSED CIVIL ENGINEER certifies that they prepared all of the civil "C" sheets in this drawing set. It should be noted that any plan sheets not identified above have been prepared and certified by others and have been included herein for informational purposes only.

10		21	
9		20	
8		19	
7		18	
6		17	
5		16	
4		15	
3	09/08/2025	14	
2	08/11/2025	13	
1	06/24/2025	12	
0	05/07/2025	11	
REV	SET/DATE	REV	SET/DATE
DRAWN BY: A.W.		CHECKED BY: XXX	
SCALE: AS NOTED		JOB NO:	

SV CSG SUN TRUST  
SOLAR, LLC  
(42.0969, -88.3865)

SHEET TITLE

LANDSCAPE DETAILS

DWG. NO.

E-3.00

ELECTRICAL ENGINEER STAMP:

PROFESSIONAL ENGINEER STAMPS

ISSUANCE:

INTERCONNENTION  
PLAN SET

LICENSED ELECTRICAL ENGINEER certifies that they prepared all the electrical "E" sheets in this drawing set.  
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2	08/11/2025	13	
1	06/24/2025	12	
0	05/07/2025	11	
REV	SET/DATE	REV	SET/DATE
DRAWN BY: A.W.		CHECKED BY: XXX	
SCALE: AS NOTED		JOB NO:	

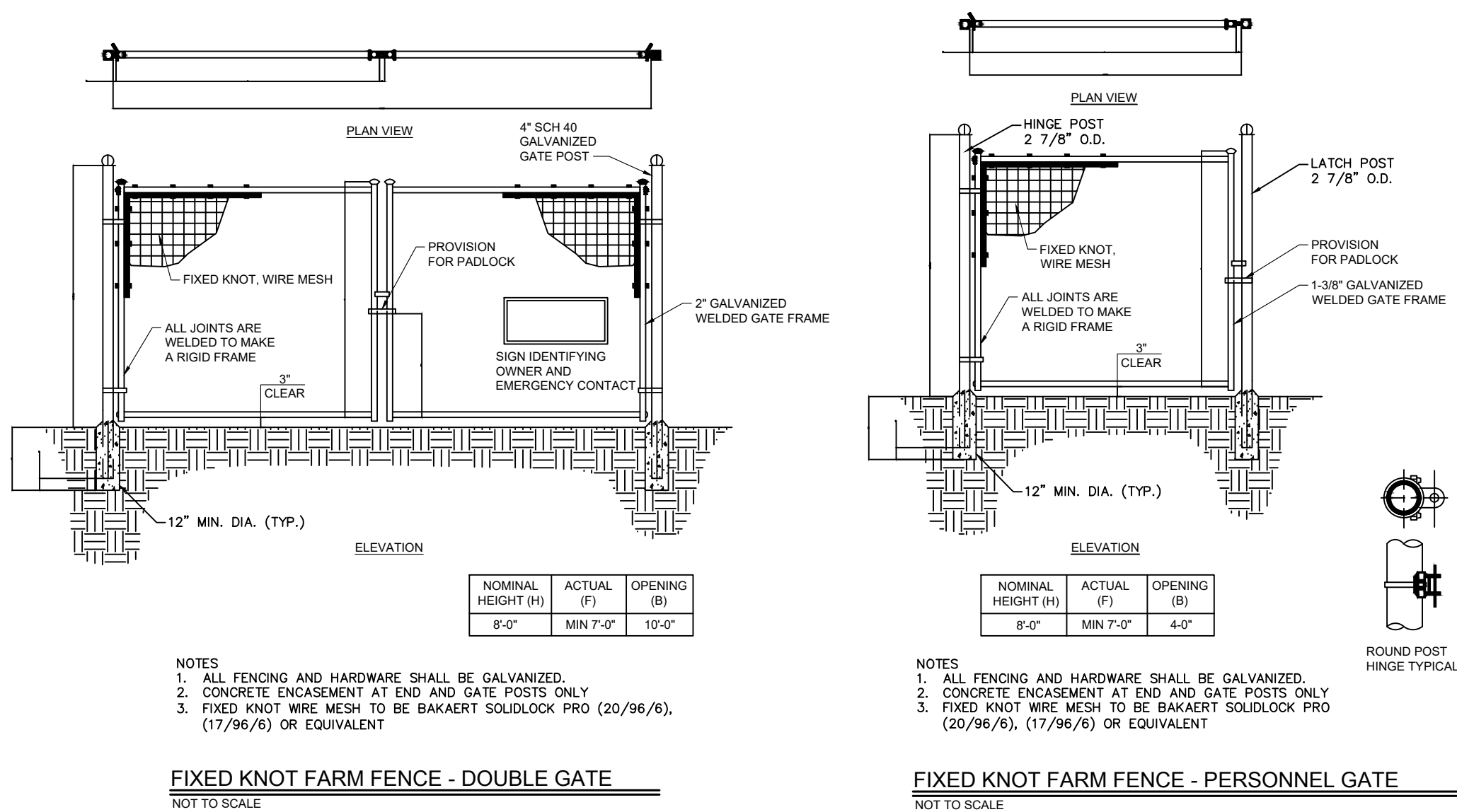
SV CSG SUN TRUST  
SOLAR, LLC  
(42.0969, -88.3865)

SHEET TITLE

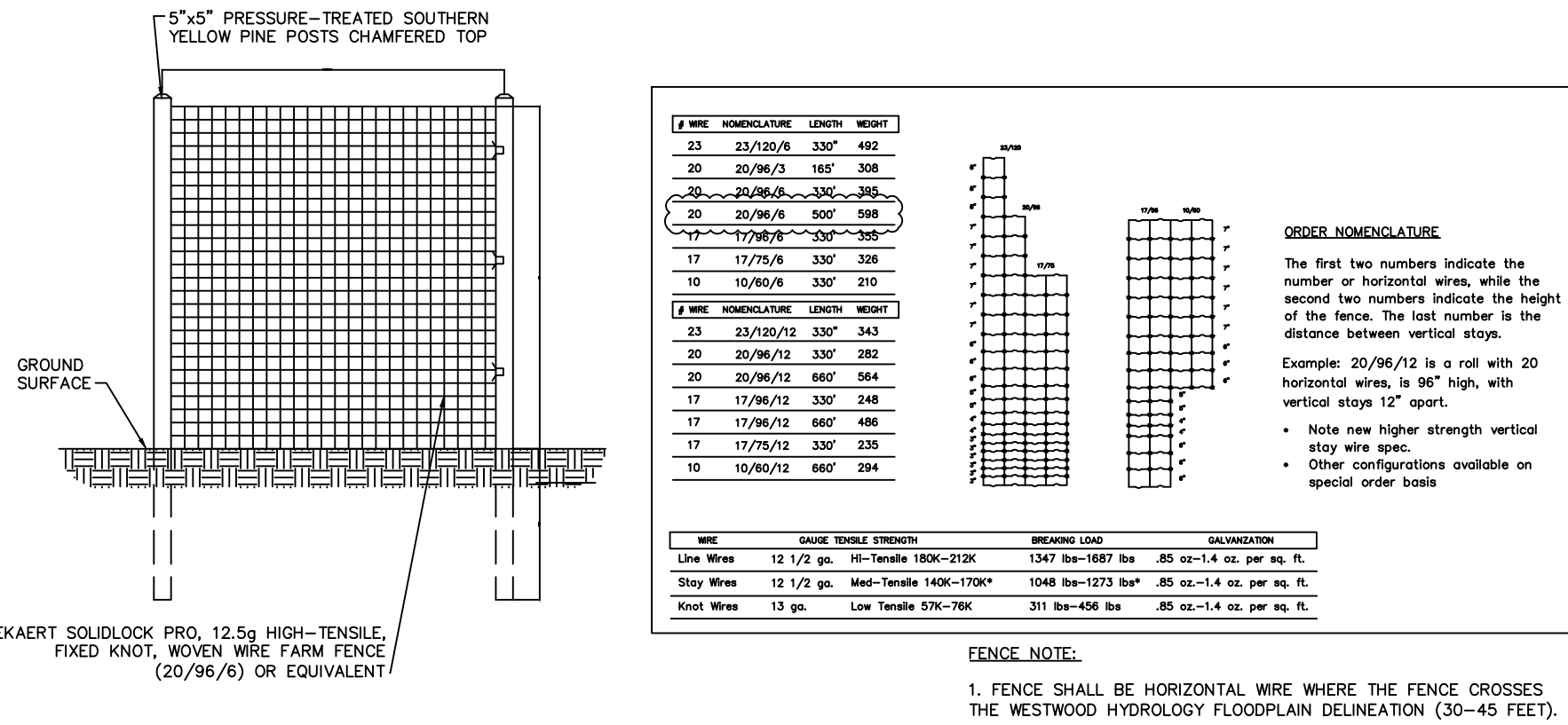
CIVIL DETAILS

DWG. NO.

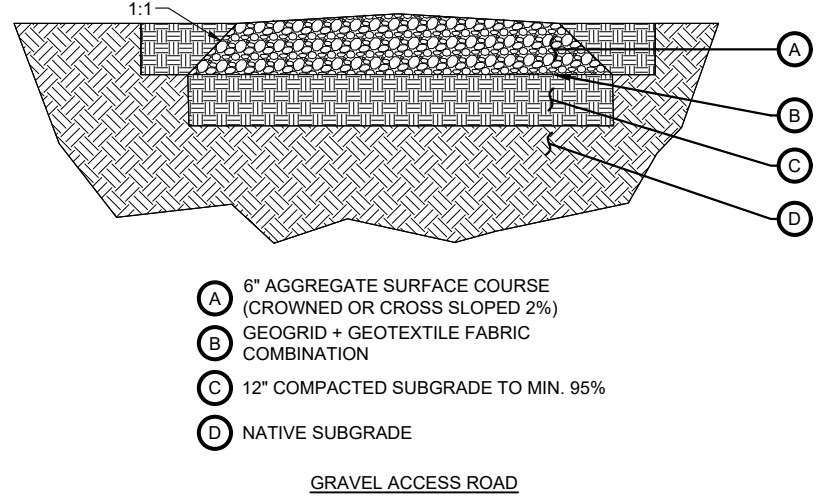
E-3.01



X  
XX.XX  
GATE



X  
XX.XX  
SECURITY FENCE  
NOT TO SCALE



X  
XX.XX  
GRAVEL ROAD DETAIL

## Q.PEAK DUO XL-G11S SERIES

590 - 605 Wp | 156 Cells  
21.7% Maximum Module Efficiency

MODEL Q-PEAK DUO XL-G11S.3/BFG



The ideal solution for:  
Ground-mounted solar power plants

**Bifacial energy yield gain of up to 21%**  
Bifacial QJANTUM solar cells make efficient use of light shining on the module rear-side for radically improved LCOE.

**Low electricity generation costs**  
QJANTUM DUO technology with optimized module layout to boost module power and improve LCOE.

**A reliable investment**  
Double glass module design enables extended lifetime with 12-year product warranty and improved 30-year performance warranty.

**Enduring high performance**  
Long term yield security with Anti-LID and Anti-PID Technology\*, Hot-Spot Protect.

**Frame for versatile mounting options**  
High-tech aluminum alloy frame protects from damage, enables use of a wide range of mounting structures and is certified regarding IEC for high snow (5400 Pa) and wind loads (2750 mph).

**Innovative all-weather technology**  
Optimal yields, whatever the weather with excellent low-light and temperature behavior.

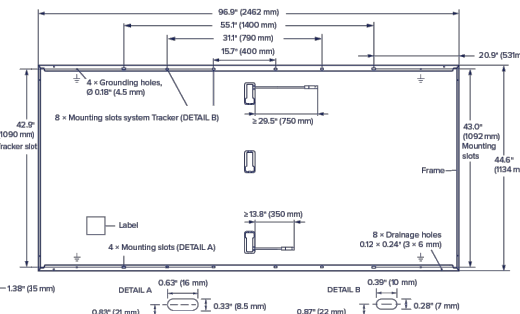
\*See data sheet on rear for further information.  
\*Anti-PID test conditions according to IEC 61215-2:2016 method B1 - 850V, 90% humidity, post-treatment according to IEC 61215-41 Ed. 2.0 (C3)  
\*See Installation Manual for instructions



## Q.PEAK DUO XL-G11S SERIES

### Mechanical Specification

Format	96.9 in x 44.6 in x 1.38 in (including frame) (2442 mm x 1134 mm x 35 mm)
Weight	76.9 lbs (34.9 kg)
Front Cover	0.08 in (2.0 mm) thermally stress-strengthened glass with anti-reflection technology
Back Cover	0.08 in (2.0 mm) semi-tempered glass
Frame	Anodized aluminum
Cell	6 x 26 monocrystalline QJANTUM solar half cells
Junction box	2 (26.38 in x 126.28 in x 65.90 in) (663.30 mm x 3216.00 mm x 1678.00 mm) Protection class IP67 with bypass diodes
Cable	4 mm <sup>2</sup> Solar cable (1) x 29.5 in (750 mm), (2) x 31.8 in (810 mm)
Connector	Standard MC4, Standard MC4-Evo2, IP68



### Electrical Characteristics

POWER CLASS	590	595	600	605
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC (POWER TOLERANCE: ±0.5% -0W)				
Power at MPP <sup>1</sup>	P <sub>MPP</sub> [W]	590	595	600
Short Circuit Current <sup>1</sup>	I <sub>sc</sub> [A]	13.74	15.04	15.07
Open Circuit Voltage <sup>1</sup>	V <sub>oc</sub> [V]	53.60	53.79	53.63
Current at MPP	I <sub>mp</sub> [A]	13.12	14.36	13.17
Voltage at MPP	V <sub>mp</sub> [V]	44.96	44.95	44.95
Efficiency <sup>2</sup>	η [%]	22.11	22.13	22.15

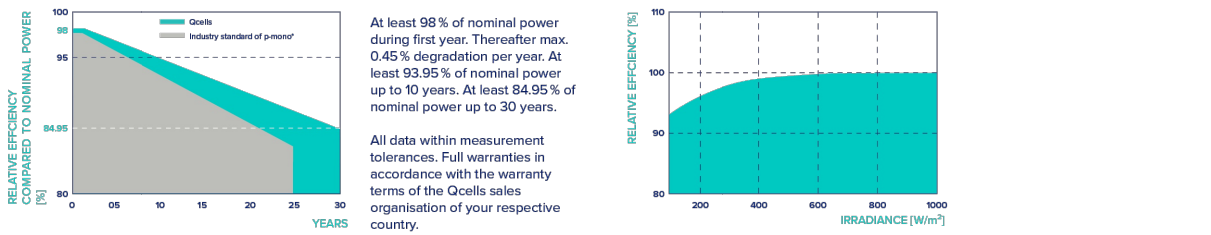
Bifaciality of P<sub>MPP</sub> and I<sub>sc</sub> 70% ± 5% - Bifaciality given for rear side irradiation on top of STC (front side) - According to IEC 60904-5-2

<sup>1</sup>Measurement tolerances P<sub>MPP</sub> ± 3%, I<sub>sc</sub> ± 5% at STC 1000 W/m<sup>2</sup>, T<sub>cell</sub> = 25 ± 2 °C, AM 1.5 according to IEC 60904-3

MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT

Power at MPP	P <sub>MPP</sub> [W]	444.2	448.0	451.8	455.5
Short Circuit Current	I <sub>sc</sub> [A]	11.07	11.09	11.11	11.20
Open Circuit Voltage	V <sub>oc</sub> [V]	50.69	50.72	50.75	50.76
Current at MPP	I <sub>mp</sub> [A]	10.34	10.38	10.45	10.51
Voltage at MPP	V <sub>mp</sub> [V]	42.97	43.15	43.24	43.33

<sup>1</sup>Measurement tolerances P<sub>MPP</sub> ± 3%, I<sub>sc</sub> ± 5% at STC 1000 W/m<sup>2</sup>, 25 ± 2 °C, AM 1.5 according to IEC 60904-3, T<sub>cell</sub> = 7000 W/m<sup>2</sup>, NMOT, spectrum AM 1.5



TEMPERATURE COEFFICIENTS	α	β	γ
Temperature Coefficient of I <sub>sc</sub>	[%/K]	+0.04	-0.27
Temperature Coefficient of P <sub>MPP</sub>	[%/K]	-0.34	+0.18 ± 0.4

### Properties for System Design

Maximum System Voltage	V <sub>sys</sub> [V]	1500
Maximum Series Fuse Rating	[A DC]	25
Max. Push Load <sup>1</sup> , Test Design	[W/m <sup>2</sup> ]	113 (5400 Pa) / 75 (3600 Pa)
Max. Pull Load <sup>1</sup> , Test Design	[W/m <sup>2</sup> ]	78 (3760 Pa) / 52 (2500 Pa)

<sup>1</sup> See Installation Manual for instructions

### Qualifications and Certificates

UL 6750-1 & UL 6750-2, CE-compliant  
IEC 61215-2:2016  
IEC 61730-2:2016  
U.S. Patent No. 9,893,295 (bifacial cells)

\* Contact your Qcells Sales Representative for details regarding the module's eligibility to be Buy American Act (BAA) compliant.

Qcells pursues minimizing paper output in consideration of the global environment.

New installation instructions must be followed. Contact our technical service for further information on approved installation of this product.

Hardware © 2022. All rights reserved. 300 Southern California Drive, Suite 300, San Jose, CA 95128, USA | TEL: +1 (408) 244-7750 | EMAIL: [info@qcells.com](mailto:info@qcells.com) | [www.qcells.com](http://www.qcells.com)

American-made photovoltaic string inverters

### The trendsetter among inverters



Features	125 TL3	155 TL3
Optimized for solar power plants with 1,500 volt modules	• Optimized for solar power plants with 1,500 volt modules	• Optimized for solar power plants with 1,500 volt modules
Extensive grid management functions	• Extensive grid management functions	• Extensive grid management functions
Special properties for extreme climatic conditions	• Special properties for extreme climatic conditions	• Special properties for extreme climatic conditions
Farsighted technical features for future requirements	• Farsighted technical features for future requirements	• Farsighted technical features for future requirements
Lean commissioning and maintenance via remote services	• Lean commissioning and maintenance via remote services	• Lean commissioning and maintenance via remote services
5 year standard warranty; optional 10 year warranty available	• 5 year standard warranty; optional 10 year warranty available	• 5 year standard warranty; optional 10 year warranty available

### Technical Data

DC Input data	125 TL3	155 TL3
MPP range	875 – 1,300 V	875 – 1,300 V
Operating range	875 – 1,450 V	875 – 1,450 V
Rated DC voltage / start voltage	900 V / 1,000 V	900 V / 1,000 V
Max. no-load voltage	1,500 V	1,500 V
Max. input current	183 A	183 A
Max. short-circuit current I <sub>sc, max</sub>	300 A	300 A
Number of MPP tracker	1	1
Connection per tracker	1 - 2	1 - 2
AC output data	125 TL3	155 TL3
Rated output	125,000 VA	155,000 VA
Max. power	137,500 VA	155,000 VA
Line voltage	600 V (3P+PE)	600 V (3P+PE)
Voltage range (Ph-Ph)	480 – 760 V	480 – 760 V
Rated frequency (range)	50 Hz / 60 Hz (45 – 65 Hz)	50 Hz / 60 Hz (45 – 65 Hz)
Rated current	3 x 120.3 A	3 x 149.5 A
Max. current	3 x 132.3 A	3 x 152.0 A
Reactive power / cos phi	0 – 100 % S <sub>nom</sub> / 0.3 ind. – 0.30 cap.	0 – 100 % S <sub>nom</sub> / 0.30 ind. – 0.30 cap.
Max. total harmonic distortion (THD)	≤ 3 %	≤ 3 %
Number of grid phases	3	3

2

American-made photovoltaic string inverters

### Technical Data (continued)

General data	125 TL3	155 TL3
Max. efficiency	99.2 %	99.1 %
Europ. efficiency	99.1 %	98.9 %
CEC efficiency	99.0 %	98.9 %
Standby consumption	< 10 W	7 W
Circuitry topology	Transformerless	Transformerless

Mechanical data	125 TL3	155 TL3
Display	LEDs	LEDs
Control units	Webserver, supports mobile devices	Webserver, supports mobile devices
Interfaces	Ethernet (Modbus TCP, Sunspec), RS485 (Modbus RTU, Sunspec, KACQ-protocol), USB, optional: 4-DI, WIRI	Ethernet (Modbus TCP, Sunspec), RS485 (KACQ-protocol), USB, optional: 4-DI, WIRI

Potential-free NOC max. 30 V / 1 A

Potential-free NOC max. 30 V / 1 A

Cable lug, max. two pairs of 240 mm<sup>2</sup> (500 MCM) Cu or Al conductors or one pair of 300 mm<sup>2</sup> (600 MCM) Cu or Al conductors

Cable lug, max. two pairs of 240 mm<sup>2</sup> (500 MCM) Cu or Al conductors

Cable lug, max. two pairs of 240 mm<sup>2</sup> (500 MCM) Cu or Al conductors

13 °F – +140 °F / 25 °C – +60 °C

0 – 100 %

9,843 ft / 3,000 m

1,640 ft / 500 m

Temperature controlled fan

IP66 / NEMA 4X

59.2 db (A)

28.3 x 27.5 x 17.7 in / 719 x 699 x 450 mm

172.4 lb / 78.2 kg

125 TL3

UL62109-1, UL1741 SA, UL1741 SB, CSA-C22.2 No. 62109-1, CSA-C22.2 No. 62109-2, CSA-C22.2 No. 1071, IEC 62109-1-2, EN 61000-6-1:2013, EN 61000-3-11:12

155 TL3

UL62109-1, UL1741 SA, UL1741 SB, CSA-C22.2 No. 62109-1, CSA-C22.2 No. 62109-2, CSA-C22.2 No. 1071, IEC 62109-1-2, EN 61000-6-1:2013, EN 61000-3-11:12

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## INNOVATIVE SOLAR UTILITY

### Utility 1500 volt Disconnect Combiner Box

Size Enclosure	Standard	Over-Size
Operating Voltage Range	0 – 1500 VDC	
Max Output Current	400 A	
Number of fused inputs	6 to 24	6 to 32
Fuse Size Range (A)	3 – 32, 40, 50A, 60, 65A (1 leg only, per NEC 2017)	
Non-fused leg	Switched (per NEC 2017)	
Input Conductor Size	10 – 8 AWG Copper only (up to 1/0 for 40 – 50A)	
No. of output conductors	1 or 2 (per polarity)	
Output Connection	Dual M12 (1/2") studs, 1.75" Spacing (Optional Mechanical Lugs)	
Max Output Conductor Size	1000 MCM (Dual 600 MCM)	
Ground Connections	(2) 2/0 + (10) 14 – 4 AWG	
Surge	Optional	
Enclosure Fiberglass (Standard)	NEMA 4X	
Dimensions H x W x D (inches)	24 x 30 x 10	Not Available
Net weight (approx.)	75 lb.	Not Available
Enclosure – Powder Coated CRS (Optional)	NEMA 3R/4	
Dimensions H x W x D (inches)	24 x 30 x 10	30 x 30 x 10
Net weight (approx.)	80 lb.	100 lb.
Environmental		
Operating temperature	-40°C to 50°C (-40°F to 122°F)	
Storage temperature	-40°C to 85°C (-40°F to 185°F)	
Certifications	UL1741, UL1669B, CSA 22.2 No. 290-15	
Standard Limited Warranty	2 Years	
Standard Features		
White exterior finish; Breather vent; Padlockable door; Door interlocked with switch; Integral mounting ears on fiberglass		



Optional: UL listed combiner cables (whips) at 8AWG or 10AWG

visit: [www.innovativesolarinc.com](http://www.innovativesolarinc.com)

ISU\_1500volt\_Combiner\_06162021

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INNOVATIVE SOLAR UTILITY



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INTERCONNETION  
PLAN SET

LICENSED ELECTRICAL ENGINEER certifies that they prepared all the electrical "E" sheets in this drawing set.  
LICENSED STRUCTURAL ENGINEER certifies that they prepared all of the structural "S" sheets in this drawing set.  
LICENSED CIVIL ENGINEER certifies that they prepared all of the civil "C" sheets in this drawing set.  
It should be noted that any plan sheets not identified above have been prepared and certified by others and have been included herein for informational purposes only.

10		21
9		20
8		19
7		18
6		17
5		16
4		15
3	09/08/2025	14
2	08/11/2025	13
1	06/24/2025	12
0	05/07/2025	11
REV	SET/DATE	REV SET/DATE
DRAWN BY: A.W.	CHECKED BY: XXX	
SCALE: AS NOTED	JOB NO:	

SV CSG SUN TRUST  
SOLAR, LLC  
(42.0969, -88.3865)

SHEET TITLE  
SPEC SHEETS

DWG. NO.

E-4.01