TOWN OF HEBRON
CONSERVATION COMMISSION AGENDA
REGULAR MEETING (VIRTUAL)
Thursday, June 12, 2025, 7:30 P.M.
Town Office Building, 15 Gilead Street, Hebron, CT

REGULAR MEETING (VIRTUAL)

TOWN OF HEBRON
CONSERVATION COMMISSION Regular Meeting (Virtual)

Jun 12, 2025, 7:30 – 10:30 PM (America/New_York)

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REGULAR MEETING OF June 12, 2025

I. Call to Order/Roll Call

A. Seating of Alternate

II. Approval of Minutes – Regular Meeting – May 8, 2025

III. Additions to the Agenda

IV. Recognition of Guests: Opportunity for citizens to briefly address the Commission on non-agenda items.

V. Violations

VI. Pending Applications

VII. New Applications

A. **Petition 2025-7; 59 Jones Street, c/o Damon Weiss, JD Solar Solutions for Easter Seals DBA Oak Hill, Installation of a 92' x 240' x 9' Solar Array within 0.30 Acres of Upland Review Area**

TOWN OF HEBRON
CONSERVATION COMMISSION
AGENDA (cont.)
REGULAR MEETING (VIRTUAL)
Thursday, June 12, 2025, 7:30 P.M.
Town Office Building, 15 Gilead Street, Hebron, CT

VIII. Wetlands Agent Approvals

IX. Pre-applications

X. New Business

XI. Other Pertinent Business

A. Environmental Review Team Survey Progress Report re: O'Conner Open Space Parcel
B. Hebron Day

XII. Correspondence

XIII. Liaison Reports

A. Open Space Land Acquisition Committee
B. Salmon River Watershed Partnership
C. Hebron Trail Rangers

XIV Adjournment

Next Regular Meeting – July 10, 2025 (Virtual)

JC/dmg

TOWN OF HEBRON
CONSERVATION COMMISSION
Regular Meeting (Virtual)
Thursday, May 8, 2025 - 7:30 PM

MINUTES

ATTENDANCE:
Members Present: Tom Loto (Chair), Chris Frey (Vice-Chair), Dan Seremet, Joanna Chester, Jasmin Okugic

Staff Present: Jim Cordier, Matt Bordeaux

Guests: Jim Celio, Bob Russo, Ellen Bartlett, Wendy Sears, Mark Reynolds, Mac McCorrison, Travis Savy

I. Call to Order/Roll Call

T. Loto called the meeting to order at 7:34 p.m. with all members present.

II. Approval of Minutes – April 10, 2025 (Regular Meeting)

Motion by J. Chester and seconded by J. Okugic to approve the regular meeting minutes of April 10th, 2025 as submitted. The motion passed unanimously (5-0).

III. Additions to the Agenda

J. Cordier requested the addition of two items. The first, to be added under section VII (New Applications), is an application for construction of an equine clinic, with potential disturbance within the upland review area (URA). The second is a pre-application discussion concerning access to and partial clearing of a parcel on Old Colchester Road for the purposes of determining site feasibility for residential dwellings. The Commission agreed to add both items.

IV. Recognition of Guests

A. **Jim Celio** – stated he is a broker in town, and briefed the Commission on activity related to site testing of a parcel. The lot is at the end of Old Colchester Road, and is situated between two areas of special concern. To conduct thorough testing and determine the site's feasibility for possible development, the owner wishes to clear invasives and brush to access the rear of the parcel. Wetlands were flagged within the past few weeks, and all activity would occur within the central corridor between the areas of concern. J. Celio assured the Commission all testing is being done to ensure compliance and suitability prior to returning with a full application. The Commission expressed no concerns at this time, and thanked J. Celio for his presentation.

V. Violations

None.

VI. Pending Applications

None.

VII. New Applications

A. <u>Petition 2025–05</u> – Church Street, Parcel 18.2 (Lot 2) by Wendy and Scott Sears for construction of an equine veterinary clinic with associated parking and stormwater management basin, with 0.2 acres of activity within an Upland Review Area

M. Reynolds, principal engineer representing the applicant, reviewed site layout, topography, and proposed improvements. Like recent applications for adjacent sites, the lot contains wetlands at the rear of the parcel, and will contain drainage basins to manage and mitigate stormwater impacts. Activity is proposed on 0.28 acres within the review area. Following a question from J. Chester, M. Reynolds noted the site is within the sewer district, with no septic system proposed. Once an appropriate location is determined, an on-site well will provide water. Commissioners sought further detail on drainage, topography, and stormwater basin details.

Motion by D. Seremet and seconded by J. Chester to approve <u>Petition 2025–05</u>, with the following conditions:

1. **Town staff to be notified to inspect Erosion Controls prior to and during construction.**
2. **All Town and Town Engineer comments are to be addressed.**
3. **Work with Town staff to determine appropriate plantings for around detention basin.**
4. **Placards will be placed at the current woods line in the upland review area.**
5. **A conservation seed mix will be used in the two drainage detention areas.**

The motion passed unanimously (5-0).

VIII. Wetlands Agent Approvals

None.

IX. Pre-Applications

A. Discussion of a Preliminary Plan to Construct a 20,000 SF Building and Gravel Parking Lot (Outside of the Regulated Area) with Accompanying Stormwater

Basin (Within the Upland Review Area and Outside of a Nearby Wetland Area) on Lot 10-10, Vicinity of 612 Church Street (Savy Brothers)

Town Planner M. Bordeaux noted the collaboration of multiple town entities and stakeholders, including a prior land swap between the Town and Savy & Sons (which included this parcel), and rezoning of the parcel by the Planning and Zoning Commission. Savy & Sons, the potential applicant, is located on Church Street, and seeks to expand their successful and growing business with the construction of a 20,000 SF building and surrounding gravel lot. B. Russo and E. Bartlett of CLA Engineers reviewed conceptual site plans, noting the stormwater basin and a small portion of the parking lot is within the URA. They are seeking Commission input on behalf of the potential applicant prior to preparing a full application. T. Loto inquired about previous wetlands violations on the site, a summary of which would likely be included with application materials, per M. Bordeaux. Following a question from J. Chester, T. Savy stated the building would house heavy equipment (such as trucks, trailers, skid steer, and mini excavators) which is currently stored outside. No fuel would be stored onsite. J. Chester requested information on possible species of special concern as noted in the Natural Diversity Data Base (NDDB), which would also be included with application materials. T. Loto asked if the parking or any part of the plan might be shifted further from the URA.

X. New Business

None.

XI. Other Pertinent Business

A. Environmental Review Team Survey Progress Report re: O'Conner Open Space Parcel

J. Cordier reviewed recent survey findings, and noted a full report will likely be completed in five to six months.

XII. Correspondence

Included in the agenda, with limited further discussion.

A. Correspondence, dated April 10, 2025, from J. Cordier to the Hebron Creative Collective re: "A Garden of Movement Project";

B. Notice of Decision, dated April 10, 2025, from the Conservation Commission to Corrine Thurstan re; Petition 2025-4, 179 Grayville Road, Construction of Inground Swimming Pool;

- **C.** Notice of Decision, dated April 10, 2025, from the Conservation Commission to James Grossman re: Elimination of a Condition of Approval for Petition 2010-5, Hillside Drive / Church Street, Subdivision;
- **D.** Notice of Legal Action, dated April 10, 2025, from the Conservation Commission to the Town Clerk and Rivereast News Bulletin, re: Petition 2025-4, 179 Grayville Road, Construction of an Inground Swimming Pool and Petition 2010-5, Hillside Drive / Church Street, Elimination of a Condition of Approval for a Subdivision Project;
- **E.** Correspondence, dated April 15, 2025, from D. Godbout to Conservation Commission Members Re: Updated Conservation Member Contact Information;
- **F.** Correspondence, dated May 1, 2025, from J. Cordier to the Conservation Commission Re: Draft Standard Operating Procedures for Tree Removal.

XIII. Liaison Reports

A. Open Space Land Acquisition Committee

No report. There was brief discussion on OSLAC funding in the approved budget, as well as a potential target parcel.

B. Salmon River Watershed Partnership

No update.

C. Hebron Trail Rangers

J. Chester reported on a roadside cleanup coordinated between the Trail Rangers, Green Committee, and AHM, as well as upcoming events including a Trail Day celebration on June 7th, and a hike at 1 p.m. (after the native plant swap) at Burnt Hill Park.

XIV. Adjournment

Motion by J. Okugic and seconded by T. Loto to adjourn. The motion passed unanimously (5-0).

The next regular meeting will be June 12th.
Meeting adjourned at 10:00 p.m.

Respectfully submitted,
Hannah Walcott (Board Clerk)

APPLICATION

Inland Wetlands and Watercourses Permit

CONSERVATION COMMISSION
TOWN OF HEBRON
15 Gilead Street
Hebron, CT 06248
(860) 228-5971
fax: (860)228-5980

File No.
Received
Approved
Denied
Fee Paid

Site Location 59 Jones Street Assessors Map ____ Lot ____ Zone ____
Street Address 59 Jones st Total Parcel Acreage 97 Total Area of Wetlands Disturbance ____

Owner of Record Easter Seal DBA Oak Hill Telephone (H) 860-242-2255 (W)
Address 120 Holcomb st Mailing Address 120 Holcomb st
Address Hartford CT 06112 Mailing Address Hartford CT 06112

Applicant Damon Weiss Telephone (H) 917-749-1918 (W)
Address PO Box 503 Mailing Address PO Box 503
Address Manchester CT 06045 Mailing Address Manchester CT 06045

Agent/Lessee ____ Telephone (H) ____ (W) ____
Address ____ Mailing Address ____
Address ____ Mailing Address ____

To the Conservation Commission:

I, Damon Weiss, hereby apply for and Inland Wetlands and Water Courses Permit, pursuant to Section(s) ____ of the Hebron Inland Wetlands and Watercourse Regulations for: (describe proposed regulated activities) 284 KW Solar ground array, Maximum 9 feet high 92' x 240' for total 22,000 sq feet. 55 foot set back from State land border. No concrete used. Helical Screws.

92W x 240L = 22,080 SF. 22,080 SF x 60 % = 13,248 SF. 13,248 SF / 43,560 SF in an acre = 0.304 acre of 100 ft Upland Review area being affected

The undersigned hereby applies for an Inland Wetland and Watercourses permit for the property described herein and confirms that:

1) He is familiar with the currently effective Inland Wetlands and Watercourses Regulations, Town of Hebron.

2) The statements and representation contained herein and in all supporting documents are true to the best of his knowledge.

3) By making this application, he gives his permission to the Conservation Commission or its representative to enter the portions of the applicant's premises which are the subject of this application for the purpose of inspection and investigation and otherwise evaluating the merits of the application.

Signature of Owner (s) — Thomas P. Tierney (Easter Seals)

Signature of Agent/Lessee

Signature of Applicant — JD Solar

NOTICE: This application shall be in compliance with Section 7 of the Hebron Inland Wetlands and Watercourses Regulations and accompanied by the required fee, assessors field card, 12 copies of a certified plot plan bearing the raised seal of the Engineer and Surveyor licensed in the State of Connecticut, evidence of good standing with the Tax Collector's office and other materials as may be required by the Town of Hebron Zoning Regulations and or building code, names and addresses of all property owners within 200 feet of the boundaries of the subject parcel keyed to a map delineating a 200 foot radius around the subject site, the limits of clearing, location of adjacent wells, septic systems, ponds, wetlands, watercourses and/or other information as may be required by policies of the Conservation Commission.

Connecticut Department of
ENERGY & ENVIRONMENTAL PROTECTION

GIS CODE #: _ _ _ _ _ _ _ _ _ _
For DEEP Use Only

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

Statewide Inland Wetlands & Watercourses Activity Reporting Form

Please complete - print clearly - and mail this form in accordance with the instructions on pages 2 and 3 to: Wetlands Management Section, Inland Water Resources Division, CT DEEP, 79 Elm Street – 3rd Floor, Hartford, CT 06106

PART I: To Be Completed By the Municipal Inland Wetlands Agency Only

1. DATE ACTION WAS TAKEN (enter one year and month): Year _____ Month _____
2. ACTION TAKEN (enter one code letter): _____
3. WAS A PUBLIC HEARING HELD (check one)? Yes ____ No ____
4. NAME OF AGENCY OFFICIAL VERIFYING AND COMPLETING THIS FORM:

   (type name) _____ (signature) _____

PART II: To Be Completed By the Municipal Inland Wetlands Agency or the Applicant

5. TOWN IN WHICH THE ACTION IS OCCURRING (type name): Amston

   Does this project cross municipal boundaries (check one)? Yes ____ No X

   If Yes, list the other town(s) in which the action is occurring (type name(s)): _____, _____
6. LOCATION (see directions for website information): USGS Quad Map Name: _____ or Quad Number: _____

   Subregional Drainage Basin Number: _____
7. NAME OF APPLICANT, VIOLATOR OR PETITIONER (type name): Daman Weiss
8. NAME & ADDRESS/LOCATION OF PROJECT SITE (type information): 59 Jones Street

   Briefly describe the action/project/activity (check and type information): Temporary ____ Permanent X

   Description: Solar ground array connected to existing service
9. ACTIVITY *PURPOSE* CODE (enter one code letter): ____
10. ACTIVITY *TYPE* CODE(S) (enter up to four code numbers): ____, ____, ____, ____
11. WETLAND / WATERCOURSE AREA ALTERED (type in acres or linear feet as indicated):

    Wetlands: ____ acres Open Water Body: ____ acres Stream: ____ linear feet
12. UPLAND AREA ALTERED (type in acres as indicated): ____ acres
13. AREA OF WETLANDS / WATERCOURSES RESTORED, ENHANCED OR CREATED (type in acres as indicated): ____ acres

PART III: To Be Completed By the DEEP

DATE RECEIVED: DATE RETURNED TO DEEP:

FORM COMPLETED: YES NO FORM CORRECTED / COMPLETED: YES NO

REV. 3/2013

I HAVE REVIEWED THE WETLANDS BOUNDARIES AS SHOWN ON THIS PLAN AND AM OF THE OPINION THAT THEY REPRESENT THE SOIL BOUNDARIES MARKED BY ME IN THE FIELD.

RICHARD SNARSKI, CERTIFIED SOIL SCIENTIST, #1975

Ground Array Solar; Easter Seals
JD Solar Solutions

SOLAR ARRAY: 92W x 240L = 22,080 SF. 22,080 SF x 60 % = 13,248 SF. 13,248 SF / 43,560 SF in an acre = 0.304 acre of 100 ft Upland Review area being affected

55' Setback from State Line

SURVEY NOTES:

1.) STONE WALLS AND FENCES MAY VARY BETWEEN PRINCIPLE COURSES SHOWN

2.) STREETLINE DETERMINED AS 25' FROM THE CENTERLINE OF JONES STREET

3.) THE SOUTHERN BOUNDARY LINE DETERMINED AS THE CENTERLINE OF ABANDONED GREYVILLE ROAD. RIGHTS TO ACCESS AS RECORDS APPEAR.

4.) RIGHTS TO LIMITED EMERGENCY ACCESS EXIST ACROSS LAND N/F CHRISTOPHER S. MERKENT & JENNIFER L. PERSON. SEE REFERENCE MAP #1 FOR DETAILS

5.) JONES STREET POND SHOWN AS TRACED FROM AERIAL PHOTOGRAPHY

6.) PORTIONS OF THE BOUNDARY ALONG CONNECTICUT STATE FOREST LAND WERE DETERMINED BY TREES TAGGED AS "STATE FOREST BOUNDARY"

PROPERTY AREA
4,225,628 Ft²
97.01 ACRES

N/F
STATE OF CONNECTICUT
SALMON RIVER STATE PARK

N/F
KRISTINA A. & JOSEPH B. STEVENS

N/F
BENJAMIN C. STABA, ET AL

N/F
CHRISTOPHER S. MERKENT & JENNIFER L. PERSON

JONES STREET POND

JONES STREET

WETLANDS

PROPOSED AREA OF SOLAR ARRAY
92' X 240' (9' HIGH)
MINIMUM 10' FROM SEPTIC

100' WETLAND SETBACK

LEACHING FIELD #1

APPROXIMATE LEACHING FIELD #2

APPROXIMATE APPARENT SEPTIC AREA

MAIN BUILDING

GAZEBO

SHED

PAVILION

CHILDREN'S CABIN

NATURE CABIN

PROPANE TANKS

EFFLUENT PUMP STATION

CLIMBING WALL

LOG BUILDING

PROPERTY LINE - CENTERLINE ABANDONED ROADWAY GREYVILLE ROAD

LEGEND

- UTILITY POLE
- PROPERTY ANGLE POINT
- BOUNDARY TREE (AS NOTED)
- WELL
- IRON PIN (AS NOTED)
- WATER GATE
- LIGHT POST
- BREATHER PIPE
- HYDRANT
- LAWN DRAIN
- MANHOLE
- CLEANOUT
- POWER VAULT
- TELECOM/ELECTRICAL CONTROL BOX
- WETLAND FLAG

REFERENCE NOTE

THIS SURVEY AND MAP HAVE BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300B-1 THROUGH 20-300B-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" ADOPTED FOR USE BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996.

THE TYPE OF SURVEY IS "WETLANDS MAP".

THE BOUNDARY DETERMINATION CATEGORY IS "DEPENDENT RESURVEY".

THE HORIZONTAL ACCURACY CONFORMS TO "C" STANDARDS.

REFERENCE MAPS:

BOUNDARY SURVEY PREPARED FOR EASTER SEALS CONNECTICUT INC. - 59 JONES STREET - HEBRON, CONNECTICUT - SCALE 1" = 100' - FEBRUARY 10, 2016 - BY DUTCH & ASSOCIATES

"TO MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON."

CHARLES R. DUTCH, L.S. 15776 LICENSE NUMBER

STATE OF CONNECTICUT CHARLES R. DUTCH No. 15776 LICENSED LAND SURVEYOR

PROPOSED SOLAR ARRAY

PREPARED FOR

EASTER SEALS CONNECTICUT INC.

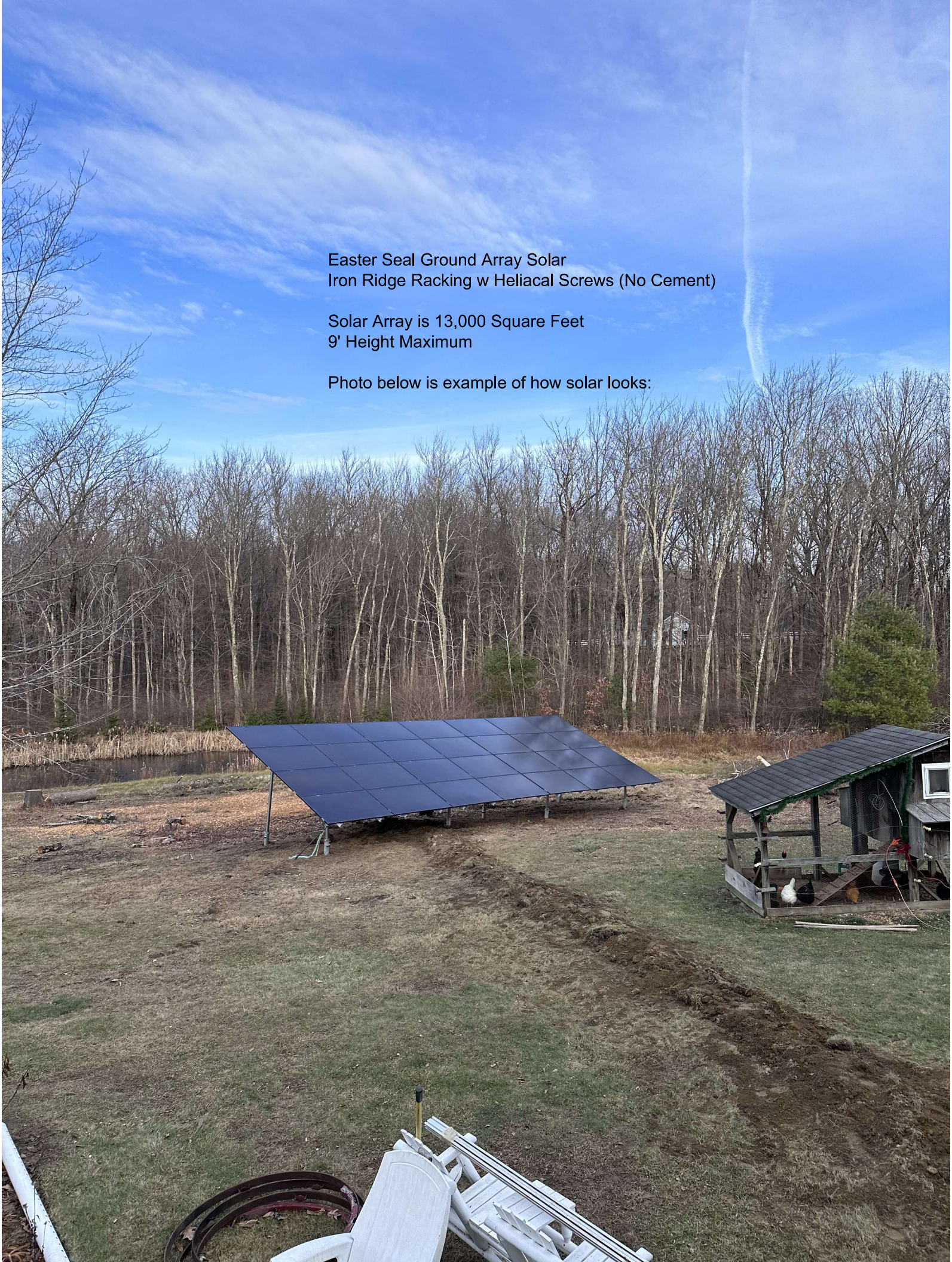
59 JONES STREET - HEBRON, CONNECTICUT
SCALE 1" = 100' - MAY 28, 2025

0 100' 200'

DUTCH & ASSOCIATES
LAND SURVEYORS
392 SOUTH MAIN STREET, COLCHESTER, CONN.
PHONE: (860) 537-3465

JOB NO. 15-147

Traverse PC


Easter Seal Ground Array Solar
Iron Ridge Racking w Heliacal Screws (No Cement)
Solar Array is 13,000 Square Feet
9' Height Maximum
Photo below is example of how solar looks:

Datasheet

IRONRIDGE

Ground Mount System

All-Terrain Mounting

The IronRidge Ground Mount System combines our XR100 or XR1000 rails with locally-sourced steel pipes or mechanical tubing, to create a cost-effective structure capable of handling any site or terrain challenge.

Installation is simple with only a few structural components and no drilling, welding, or heavy machinery required. In addition, the system works with a variety of foundation options—including concrete piers, ground screws, helical or driven piles, and above-ground ballast blocks.

Rugged Construction

Engineered steel and aluminum components ensure durability.

PE Certified

Pre-stamped engineering letters available in most states.

UL 2703 Listed System

Meets newest effective UL 2703 standard.

Design Software

Online tool generates engineering values and bill of materials.

Flexible Architecture

Multiple foundation and array configuration options.

25-Year Warranty

Products guaranteed to be free of impairing defects.

Datasheet

360° Product Tour
Visit ironridge.com

Substructure

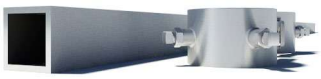
Top Caps

Connect vertical and cross pipes.

Bonded Rail Connectors

Attach and bond Rail Assembly to cross pipes.

Diagonal Braces



Optional Brace provides additional support.

Cross Pipe & Piers

Steel pipes or mechanical tubing for substructure.

Rail Assembly

XR100/XR1000 Rails

Curved rails increase spanning capabilities.

UFOs

Universal Fastening Objects bond modules to rails.

Stopper Sleeves

Snap onto the UFO to turn into a bonded end clamp.

CAMO

Bond modules to rails while staying completely hidden.

Resources

Design Assistant

Go from rough layout to fully engineered system. For free.

Go to ironridge.com/design

NABCEP Certified Training

Earn free continuing education credits, while learning more about our systems.

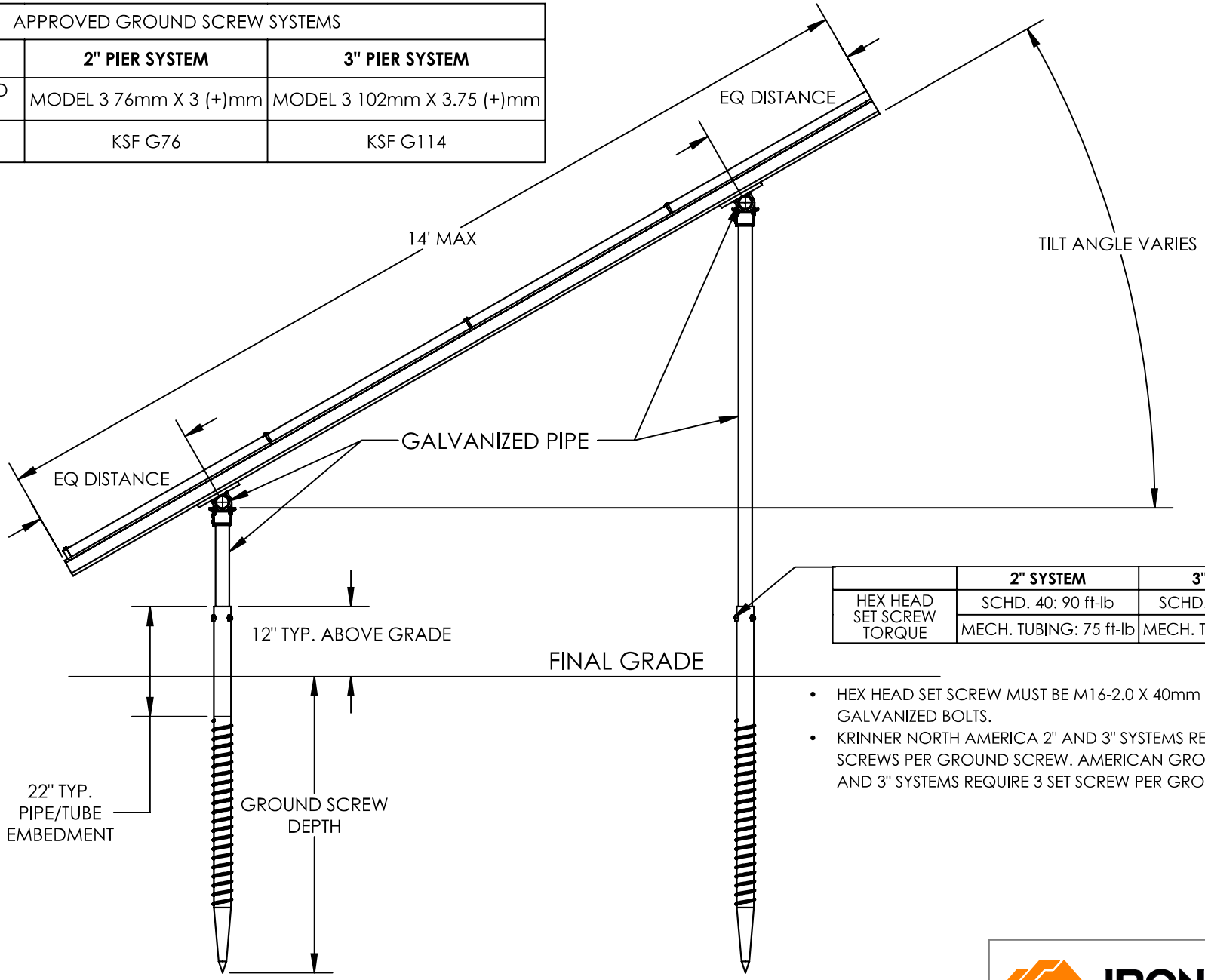
Go to ironridge.com/training

EXHIBIT: EX-0020

GROUND SCREW FOUNDATION DETAILS

4/19/2021

APPROVED GROUND SCREW SYSTEMS		
MANUFACTURER	**2" PIER SYSTEM**	**3" PIER SYSTEM**
AMERICAN GROUND SCREW	MODEL 3 76mm X 3 (+)mm	MODEL 3 102mm X 3.75 (+)mm
KRINNER NORTH AMERICA	KSF G76	KSF G114



	2" SYSTEM	**3" SYSTEM**
HEX HEAD SET SCREW TORQUE	SCHD. 40: 90 ft-lb	SCHD. 40: 120 ft-lb
	MECH. TUBING: 75 ft-lb	MECH. TUBING: 90 ft-lb

- HEX HEAD SET SCREW MUST BE M16-2.0 X 40mm HOT-DIP GALVANIZED BOLTS.
- KRINNER NORTH AMERICA 2" AND 3" SYSTEMS REQUIRE 4 SET SCREWS PER GROUND SCREW. AMERICAN GROUND SCREW 2" AND 3" SYSTEMS REQUIRE 3 SET SCREW PER GROUND SCREW.

NOTE:
THE ATTACHED SPAN TABLES ARE BASED ON USING A DRILLED GROUND SCREW FOUNDATION SYSTEM. OTHER FOUNDATION SYSTEMS (EG. HELICAL PILES, DRIVEN PIERS) ARE PERMISSIBLE BUT MAY REQUIRE ADDITIONAL BRACING AND/OR REDUCED SPAN.
PLEASE CONTACT IRONRIDGE FOR MORE INFORMATION.

IRONRIDGE

GROUND MOUNT SYSTEM, 4 SOLAR MODULE ROWS

SIZE	DWG. NO.	REV.
A	EX-0020	A
SCALE:1:25	WEIGHT:	SHEET 6 OF 6

solis
ussales@solisinverters.com

S6-GC(25-60)K-US

Solis Three Phase Grid-Tied Inverters

Efficient

- Max. efficiency 98.8% (CEC efficiency 98.5%)
- String current up to 20A
- 3/4 MPPT design, supports multiple orientation system design
- Night time PID recovery function, increases overall system yield (optional)
- Wide voltage range and low startup voltage

Safe

- Type 4X, C5 Anti-Corrosion Level
- AFCI protection, proactively reduces fire risk
- Intelligent redundant fan-cooling
- Integrated module level rapid shutdown transmitter
- High quality components from globally recognized suppliers
- Integrated DC and AC disconnects

Smart

- Equipped with external power control interface, supporting zero output power control
- Intelligent string monitoring, smart I-V curve scan
- Supports RS485, Ethernet, WiFi, Cellular
- Scan to register on SolisCloud, supports remote upgrade and control

Economic

- > 1.5 DC/AC ratio
- Supports high power modules for lower installation costs
- Separable AC wiring box

Models:

S6-GC25K-US / S6-GC33K-US
S6-GC36K-US / S6-GC40K-US
S6-GC50K-US / S6-GC60K-US

Ordering: S6-GC(25-60)K-US

- APST (APS MLRSD Transmitter)
- RSS (Tigo MLRSD Transmitter)
- NEPT (NEP MLRSD Transmitter)

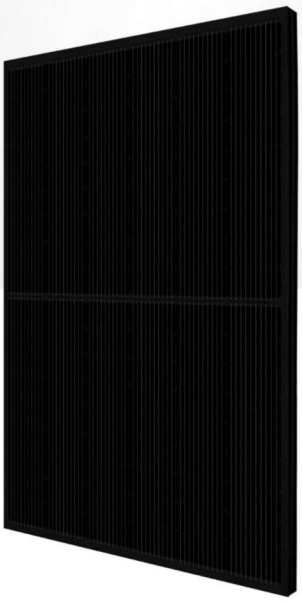
DATASHEET

S6-GC(25-60)K-US

Models	25K	33K	36K	40K	50K	60K
Input DC						
Max. input voltage	1000 V					
Rated voltage	720 V					
Start-up voltage	180 V					
MPPT voltage range	180-1000 V					
Max. input current	3*40 A				4*40 A	
Max. short circuit current	3*63 A				4*63 A	
MPPT number/Max. input strings number	3/6				4/8	
Output AC						
Rated output power	25 kW	33 kW	36 kW	40 kW	50 kW	60 kW
Max. apparent output power	27.5 kVA	36.3 kVA	39.6 kVA	44 kVA	55 kVA	66 kVA
Max. output power	27.5 kW	36.3 kW	39.6 kW	44 kW	55 kW	66 kW
Rated grid voltage	3Φ/PE, 480 V					
Rated grid frequency	60 Hz					
Max. output current	33.1 A	43.7 A	47.6 A	52.9 A	66.2 A	79.4 A
Power factor	>0.99 (0.8 leading - 0.8 lagging)					
THDi	<3%					
Efficiency						
Max. efficiency	98.8%					
CEC efficiency	98.5%					
Protection						
DC reverse-polarity protection	Yes					
Short circuit protection	Yes					
Output over current protection	Yes					
Surge protection	DC Type II / AC Type II					
Grid monitoring	Yes					
Anti-islanding protection	Yes					
Temperature protection	Yes					
Strings monitoring	Yes					
I/V Curve scanning	Yes					
Integrated AFCI (DC arc-fault circuit protection)	Yes					
Integrated PID recovery	Optional					
Integrated DC switch	Yes					
Integrated AC switch	Yes					
General Data						
Dimensions (W*H*D)	30.9*21.6*12.6 in (784*549*320 mm)					
Weight	96.3 lbs (43.7 kgs)		105.4 lbs (47.8 kgs)		108.7 lbs (49.3 kgs)	110.5 lbs (50.1 kgs)
Topology	Transformerless					
Self-consumption (night)	<1 W					
Relative humidity	0-100%					
Operating ambient temperature range	-13°F to 140°F (-25°C to 60°C)					
Ingress protection	TYPE 4X					
Cooling concept	Natural convection					
Max. operation altitude	13,120 ft (4000 m)					
Compliance	UL1741SB, UL1741SA, IEEE 1547-2018, UL1699B, UL1998, FCC Part15 ClassB, California Rule 21, Heco Rule 14H, NEC 690.12-2020, CAN/CSA C22.2107.1-1					
Features						
DC connection	MC4 connector					
AC connection	OT terminal (4 AWG to 3/0 AWG)					
Display	LCD					
Communication	Modbus RTU (Sunspec compliant), RS485, Optional: Cellular, Wi-Fi					

NEW

CanadianSolar



HiKu6 (All-Black)

ALL BLACK MONO PERC

380 W ~ 405 W

CS6R-380|385|390|395|400|405MS-HL

MORE POWER

405 W — Module power up to 405 W
Module efficiency up to 20.7 %

Lower LCOE & system cost

Comprehensive LID / LeTID mitigation technology, up to 50% lower degradation

Better shading tolerance

MORE RELIABLE

Minimizes micro-crack impacts

Heavy snow load up to 8100 Pa, wind load up to 5000 Pa*

* For detailed information, please refer to the Installation Manual.

25 Years — **Industry Leading Product Warranty on Materials and Workmanship***

25 Years — **Linear Power Performance Warranty***

1st year power degradation no more than 2%
Subsequent annual power degradation no more than 0.55%

*Subject to the terms and conditions contained in the applicable Canadian Solar Limited Warranty Statement. Also this 25-year limited product warranty is available only for products installed and operating on residential rooftops in certain regions.

MANAGEMENT SYSTEM CERTIFICATES*

ISO 9001:2015 / Quality management system
ISO 14001:2015 / Standards for environmental management system
ISO 45001: 2018 / International standards for occupational health & safety

PRODUCT CERTIFICATES*

IEC 61215 / IEC 61730 / CE
CEC listed (US California) / FSEC (US Florida)
UL 61730 / IEC 61701 / IEC 62716
Take-e-way

* The specific certificates applicable to different module types and markets will vary, and therefore not all of the certifications listed herein will simultaneously apply to the products you order or use. Please contact your local Canadian Solar sales representative to confirm the specific certificates available for your Product and applicable in the regions in which the products will be used.

CSI SOLAR (USA) CO., LTD. is committed to providing high quality solar photovoltaic modules, solar energy and battery storage solutions to customers. The company was recognized as the No. 1 module supplier for quality and performance/price ratio in the IHS Module Customer Insight Survey. Over the past 20 years, it has successfully delivered over 70 GW of premium-quality solar modules across the world.

CSI SOLAR (USA) CO., LTD.
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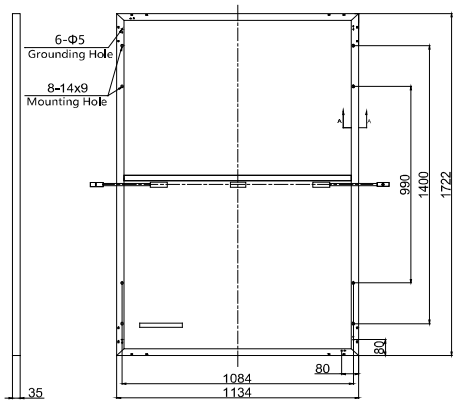
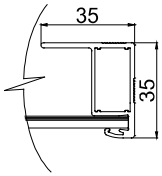
ENGINEERING DRAWING (mm)

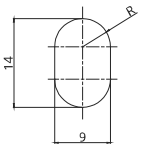
Rear View



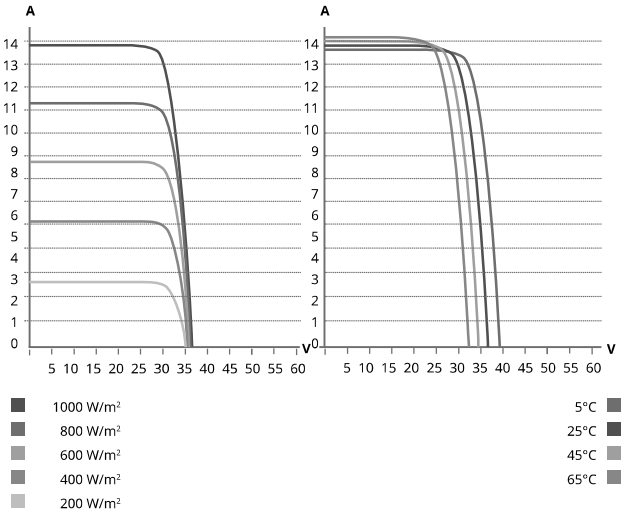
Frame Cross Section A-A



Mounting Hole



CS6R-400MS-HL / I-V CURVES



ELECTRICAL DATA | STC*

CS6R-380/385/390/395/400/405MS-HL

Nominal Max. Power (Pmax)	380 W	385 W	390 W	395 W	400 W	405 W
Opt. Operating Voltage (Vmp)	30.0 V	30.2 V	30.4 V	30.6 V	30.8 V	31.0 V
Opt. Operating Current (Imp)	12.69 A	12.77 A	12.84 A	12.91 A	12.99 A	13.07 A
Open Circuit Voltage (Voc)	36.0 V	36.2 V	36.4 V	36.6 V	36.8 V	37.0 V
Short Circuit Current (Isc)	13.55 A	13.63 A	13.70 A	13.77 A	13.85 A	13.93 A
Module Efficiency	19.5%	19.7%	20.0%	20.2%	20.5%	20.7%
Operating Temperature	-40°C ~ +85°C					
Max. System Voltage	1000V (IEC/UL)					
Module Fire Performance	TYPE 2 (UL 61730 1000V) or CLASS C (IEC 61730)					
Max. Series Fuse Rating	25 A					
Application Classification	Class A					
Power Tolerance	0 ~ + 10 W					

* Under Standard Test Conditions (STC) of irradiance of 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C.

MECHANICAL DATA

Specification	Data
Cell Type	Mono-crystalline
Cell Arrangement	108 [2 X (9 X 6)]
Dimensions	1722 × 1134 × 35 mm (67.8 × 44.6 × 1.38 in)
Weight	22.4 kg (49.4 lbs)
Front Cover	3.2 mm tempered glass with anti-reflective coating
Frame	Anodized aluminium alloy,
J-Box	IP68, 3 bypass diodes
Cable	4 mm² (IEC), 12 AWG (UL)
Connector	T6, MC4, MC4-EVO2 or MC4-EVO2A
Cable Length (Including Connector)	1550 mm (61.0 in) (+) / 1100 mm (43.3 in) (-)*
Per Pallet	30 pieces
Per Container (40' HQ)	780 pieces

* For detailed information, please contact your local Canadian Solar sales and technical representatives.

ELECTRICAL DATA | NMOT*

CS6R-380/385/390/395/400/405MS-HL

Nominal Max. Power (Pmax)	284 W	288 W	291 W	295 W	299 W	303 W
Opt. Operating Voltage (Vmp)	28.1 V	28.3 V	28.4 V	28.6 V	28.8 V	29.0 V
Opt. Operating Current (Imp)	10.12 A	10.19 A	10.26 A	10.33 A	10.39 A	10.45 A
Open Circuit Voltage (Voc)	33.9 V	34.1 V	34.2 V	34.4 V	34.6 V	34.7 V
Short Circuit Current (Isc)	10.91 A	10.98 A	11.05 A	11.11 A	11.17 A	11.23 A

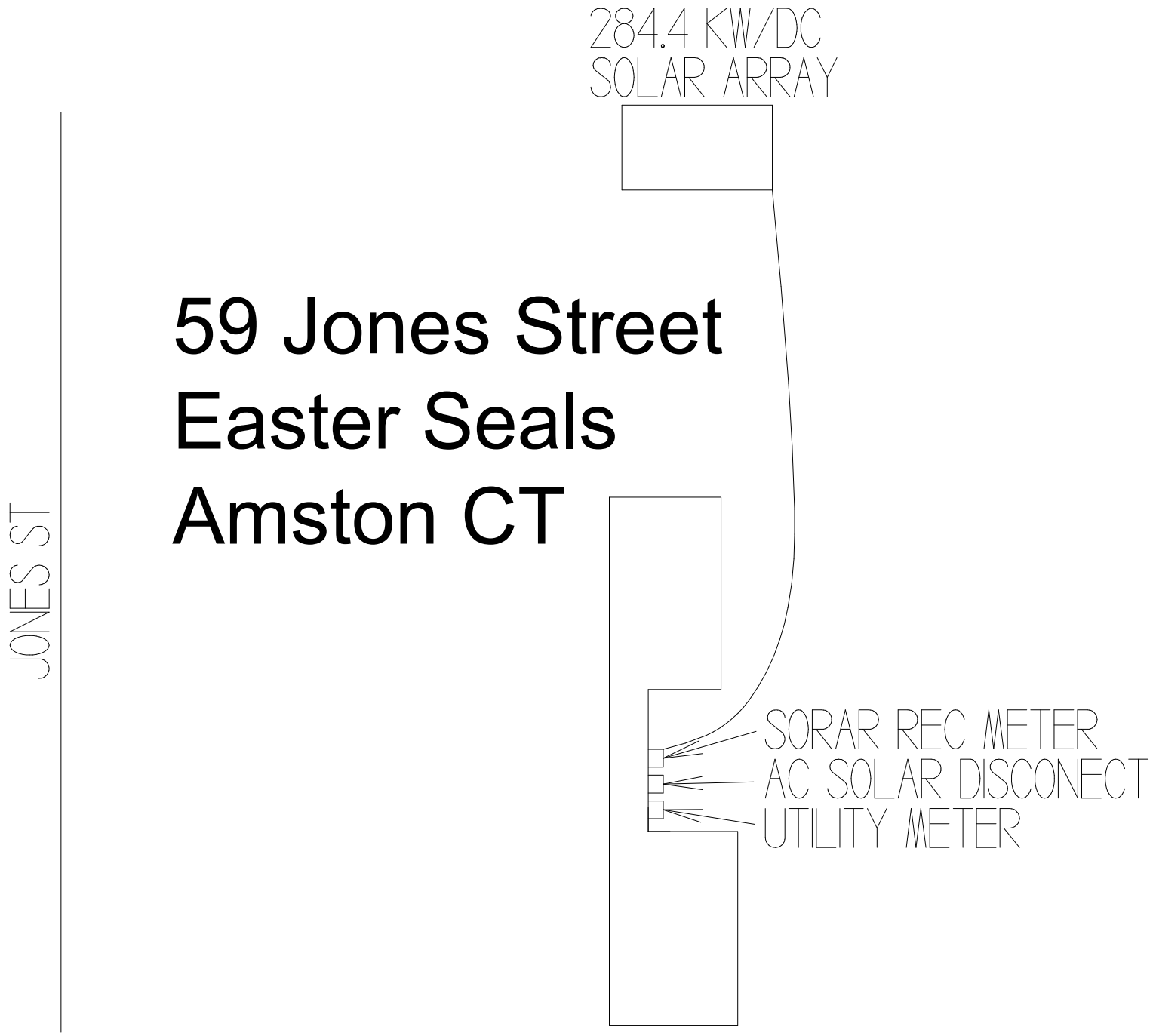
* Under Nominal Module Operating Temperature (NMOT), irradiance of 800 W/m², spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

TEMPERATURE CHARACTERISTICS

Specification	Data
Temperature Coefficient (Pmax)	-0.34 % / °C
Temperature Coefficient (Voc)	-0.26 % / °C
Temperature Coefficient (Isc)	0.05 % / °C
Nominal Module Operating Temperature	42 ± 3°C

PARTNER SECTION

* The specifications and key features contained in this datasheet may deviate slightly from our actual products due to the on-going innovation and product enhancement. CSI Solar Co., Ltd. reserves the right to make necessary adjustment to the information described herein at any time without further notice.
Please be kindly advised that PV modules should be handled and installed by qualified people who have professional skills and please carefully read the safety and installation instructions before using our PV modules.


284.4 KW/DC
SOLAR ARRAY
59 Jones Street
Easter Seals
Amston CT
JONES ST
SORAR REC METER
AC SOLAR DISCONECT
UTILITY METER