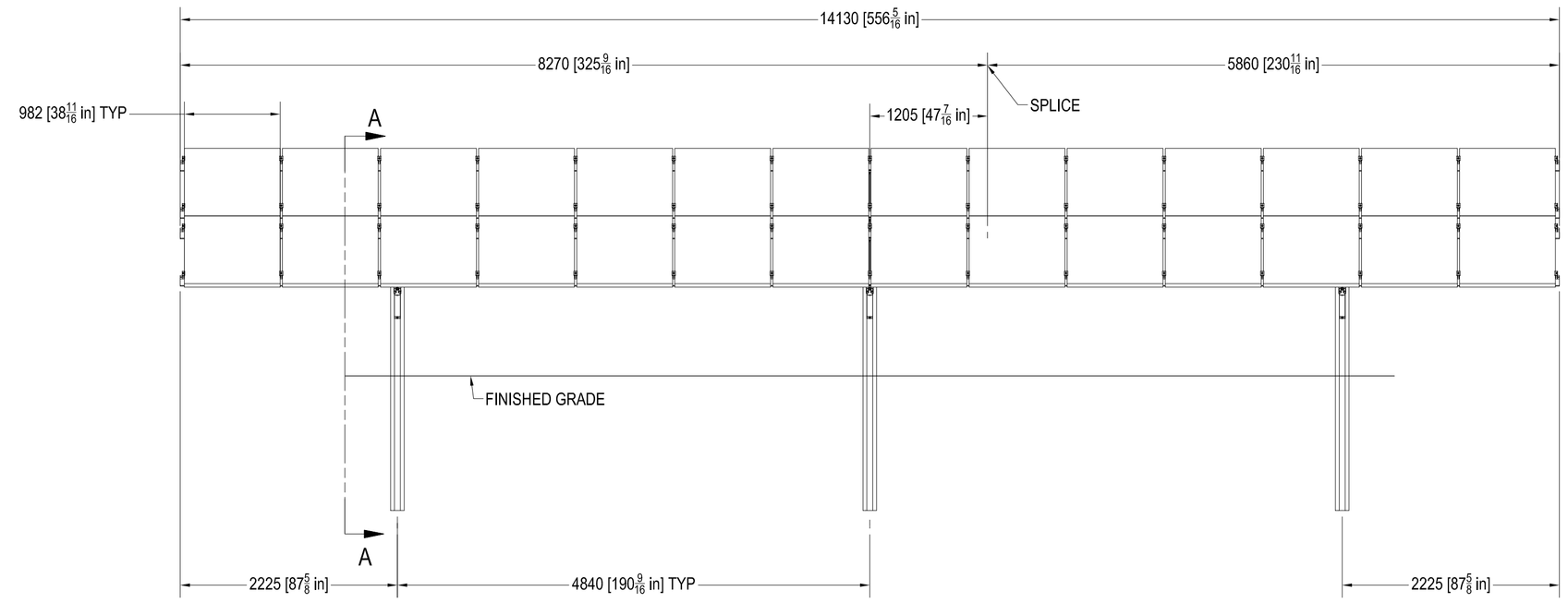
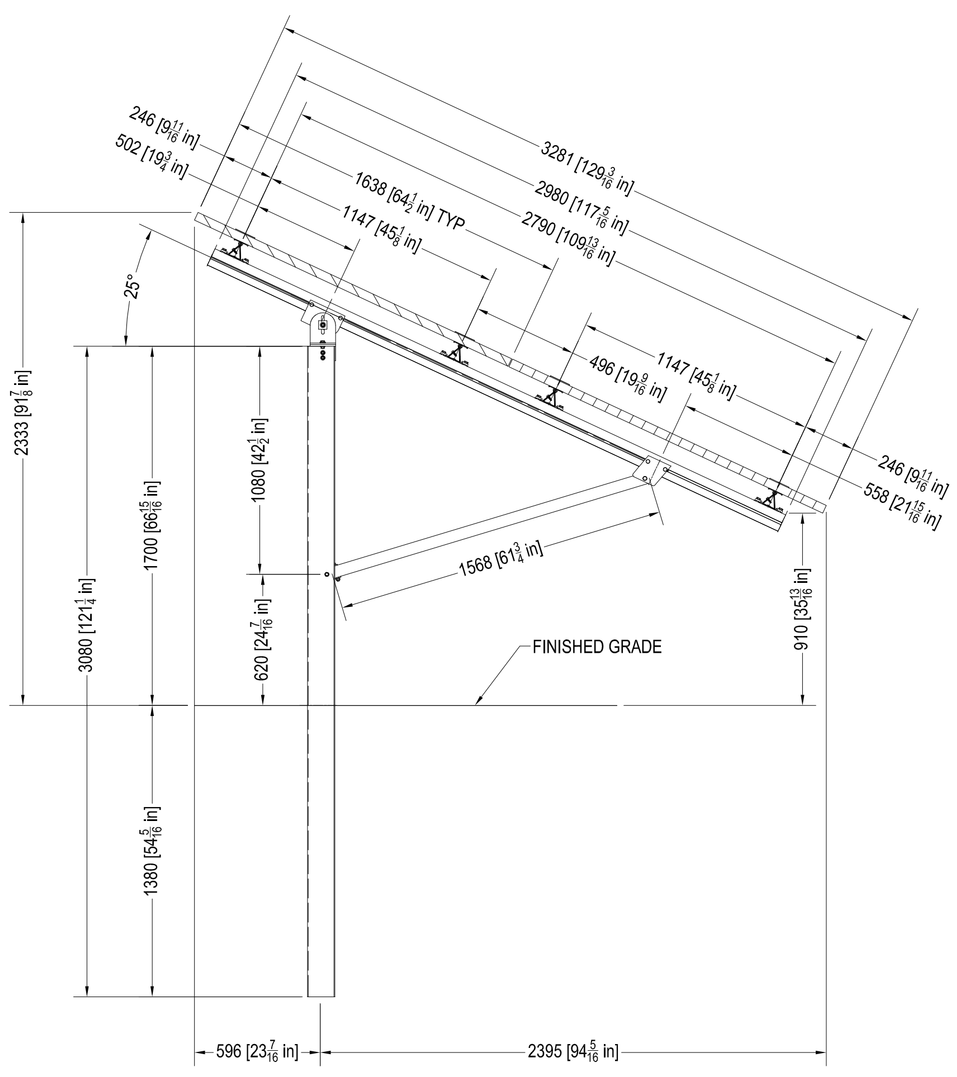
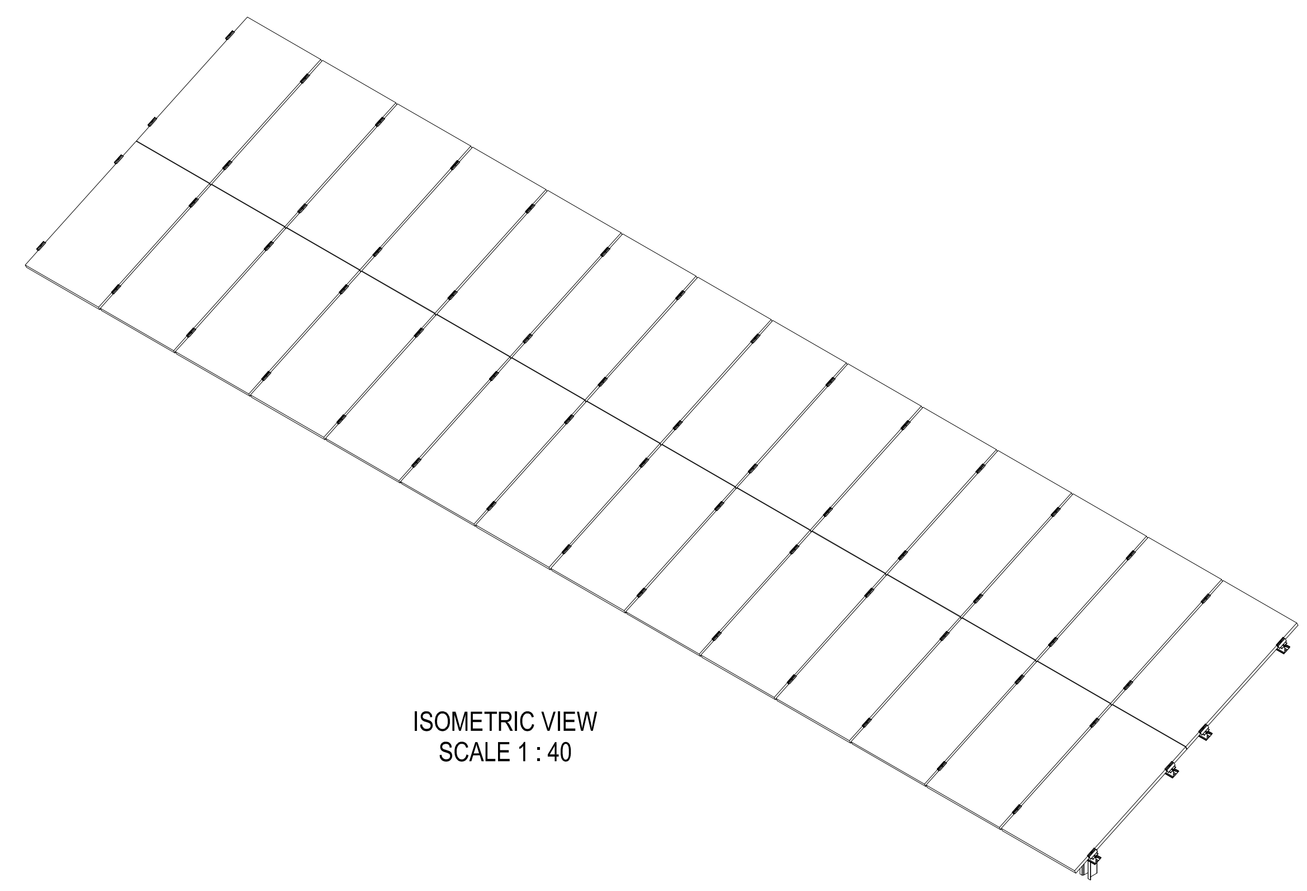


FRONT ELEVATION
SCALE 1 : 40



SECTION A-A
SCALE 1 : 20



ISOMETRIC VIEW
SCALE 1 : 40

DESIGN CRITERIA:
2012 NORTH CAROLINA BUILDING CODE

LOADS:
MODULE DEAD LOAD = 2.42 PSF
SNOW LOAD = 9.9 PSF (BASED ON 20 PSF GROUND SNOW LOAD)
Is= 0.80 Ce= 0.90 Ct= 1.20 Cs= 0.82

WIND DESIGN:
DESIGN BASED UPON WIND TUNNEL TEST REPORT # RC 1127/0510-e
BASIC WIND SPEED = 90 MPH (3 SECOND GUST).
EXPOSURE: C
Iw = 0.87

INSTALLATION TOLERANCES:
LATERAL POST PLACEMENT IS ±5.0"
TOTAL LATERAL DEVIATION OF POSTS WITHIN AN ARRAY IS ±5.0"
POST HEIGHT VARIATION TOLERANCE IS ±0.40"
POST VERTICALITY TOLERANCE <2.0" IN ALL DIRECTIONS
POST ROTATIONAL TOLERANCE <±7.0°
ARRAY TILT ANGULAR TOLERANCE ±1.0°

GENERAL:
1. THE STRUCTURAL CONSTRUCTION DOCUMENTS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OR SEQUENCE OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. THE STRUCTURAL ENGINEER SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S MEANS, METHODS, TECHNIQUES, SEQUENCES FOR PROCEDURE OF CONSTRUCTION, OR THE SAFETY PRECAUTIONS AND THE PROGRAMS INCIDENT THERE TO (NOR SHALL OBSERVATION VISITS TO THE SITE INCLUDE INSPECTION OF THESE ITEMS). THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF ALL SCAFFOLDING, BRACING AND SHORING.
2. WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE LATEST EDITION AND/OR ADDENDA.

ALUMINUM:
1. ALL ALUMINUM SHALL CONFORM WITH THE LATEST ALUMINUM DESIGN HANDBOOK.
2. ALL ALUMINUM SECTIONS SHALL BE:
a. SEMI-HOLLOWS AND HOLLOWS SHALL BE 6105-T5, 6005A-T6, OR 6005-T5
b. SOLIDS SHALL BE 6063-T6

STEEL:
1: ALL BOLTS AND WASHERS SHALL BE 304 STAINLESS STEEL CLASS 2 (A2-70).
2. ALL NUTS SHALL BE 316 STAINLESS STEEL CLASS 2 (A4-70)

TORQUE:
TORX BOLT FOR RAPID 2+ MODULE CLAMPS IS 14 N-M (10.5 FT-LBS)
M6 AND 1/4" BOLT TORQUE IS 6 N-M (4.5 FT-LBS)
M8 AND 5/16" BOLT TORQUE IS 14 N-M (10.5 FT-LBS)
M10 AND 3/8" BOLT TORQUE IS 30 N-M (23 FT-LBS)
M12 AND 1/2" BOLT TORQUE IS 50 N-M (37 FT-LBS)
M16 AND 5/8" BOLT TORQUE IS 121 N-M (89 FT-LBS)
M20 AND 3/4" BOLT TORQUE IS 244 N-M (180 FT-LBS)

NOTE: RECOMMENDED SPEED FOR INSTALLATION OF SELF-DRILLING 1/4" DIAMETER SCREWS IS 1200-1800 RPMS.

MODULE SIZE:
RACKING SYSTEM DESIGNED FOR MODULE SIZE: 1638 mm x 982 mm x 40 mm
VERTICAL MODULE GAP: 23 mm
HORIZONTAL MODULE GAP: 5 mm

FOUNDATIONS:
1. FOUNDATION DESIGN IS BASED UPON GEOTECHNICAL REPORT/TESTING REQUIREMENTS BY TERRACON; PROJECT NO: 70139153
ALL CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE GEOTECHNICAL REPORT.

2. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR ANY GEOTECHNICAL ASPECTS OF THIS PROJECT. IF THE INSTALLER NOTICES ANY SOIL THAT HAS DIFFERENT DRIVING CHARACTERISTICS THAN EXISTED FOR TESTED DRIVEN POSTS, CONTACT THE ENGINEER IMMEDIATELY.

7/10/13

NO.	DRAWN:	CHECKED:	REVIEWED:	APPROVED:	REVISIONS:
0	BosmJa 6/19/2013				New Drawing
1	BushBr 6/25/2013				Update Terracon Geotech Information
2	BosmJa 7/1/2013				Added Project Number
3					
4					
5					
6					
7					
8					

Client:
Strata Solar (NC)
1119 US 15 501 Hwy South Ste 101
Chapel Hill, NC 27517

SCHLETTER
3761 E. FARNUM PLACE | TUCSON, AZ 85706
TEL: (520) 289 - 8700 | FAX: (520) 289 - 8695
EMAIL: MAIL@SCHLETTER.US
WWW.SCHLETTER.US

Ground Mount FS 2V x 14 25°
Interior Racking Structure
Dimensions and Specifications
ISSUED BY: SCHLETTER INC.
PROPRIETARY AND CONFIDENTIAL

Project Site:
Whitecross Farm
Whitecross Rd
Chapel Hill, NC 27516

Drawing Number:
v2132.01
JOB NUMBER: V
SHEET: 1 of 2
SCALE:
SEE DRAWING VIEWS

SCHNEIDER
STRUCTURAL ENGINEERS
FIRM DEDICATION TO STRUCTURAL INNOVATION
1700 E. Ft. Lowell Rd #109 | Tucson, AZ 85719 | 520.512.8183 | www.sastructural.com
Project Number: 113346

UNLESS THIS DRAWING IS SIGNED AND SEALED BY A LICENSED STRUCTURAL ENGINEER, IT IS A PRELIMINARY DESIGN AND SHALL NOT BE USED FOR CONSTRUCTION.