MICHAUD LAW GROUP
RENEWABLE ENERGY LAW IS OUR BUSINESS

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May 28, 2021

VIA CERTIFIED MAIL AND ELECTRONIC FILING

Melanie A. Bachman
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

RE: **PETITION NO. 1431** – SunJet Energy, LLC petition for a declaratory ruling, pursuant to Connecticut General Statutes § 4-176 and § 16-50k, for the proposed construction, maintenance and operation of a 1.99-megawatt AC solar photovoltaic electric generating facility and associated electrical interconnection located at 0, 78 and 84 Thomson Road in Bethlehem, Connecticut: **Compliance Filing (Decision Conditions)**

Dear Executive Director Bachman:

On April 9, 2021, the Connecticut Siting Council ("Council") issued a declaratory ruling in favor of Petition No. 1431 ("Declaratory Ruling"). Subsequently, SunJet Energy, LLC ("SunJet"), transferred its interests in the above-referenced solar project to TRITEC Americas, LLC ("TRITEC").

TRITEC hereby submits documents in compliance with Condition Items 2 through 4.

Please contact me if you have any questions.

Respectfully submitted,

TRITEC Americas, LLC

By: Paul R. Michaud
Paul R. Michaud

Its Attorney

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

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

Bureau of Materials Management and Compliance Assurance

Notice of Permit Authorization

May, 27 2021

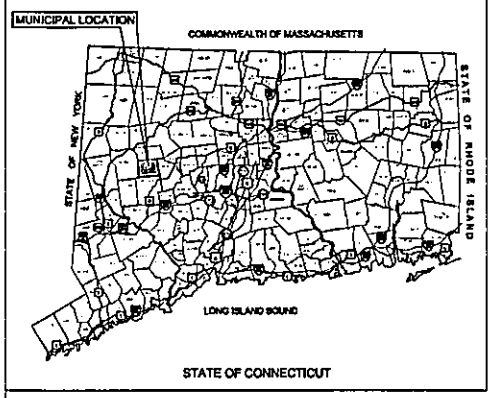
PAUL MICHAUD
SUNJET ENERGY LLC
28 Pocotopaug Dr
East Hampton, CT 06424-1377

Subject: General Permit Registration for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities
Application NO.: 202011676

PAUL MICHAUD:

The Department of Energy and Environmental Protection, Water Permitting and Enforcement Division of the Bureau of Materials Management and Compliance Assurance, has completed the review of the Bethlehem Solar 1&2, LLC (located at 78 Thomson Rd, Bethlehem) registration for the **General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities, effective 10/1/13 (general permit)** . The project is compliant with the requirements of the general permit and the discharge(s) associated with this project is (are) authorized to commence as of the date of this letter. Permit No. GSN003633 has been assigned to authorize the stormwater discharge(s) from this project.

Questions can be emailed to deep.stormwater@ct.gov.



BETHLEHEM SOLAR ONE & TWO, LLC

"BETHLEHEM SOLAR ONE & TWO, LLC"

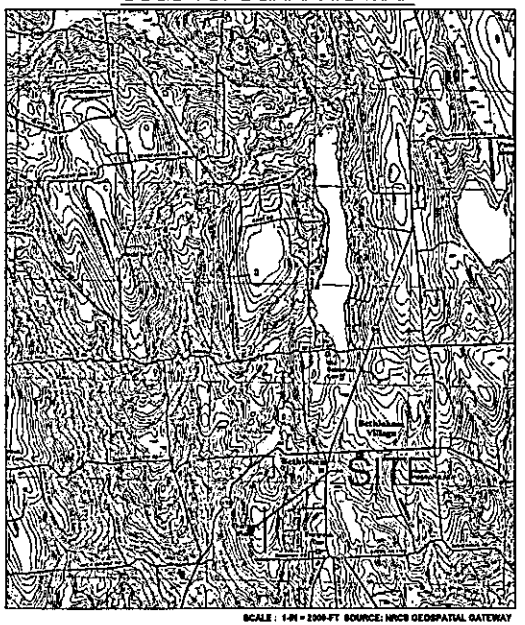
78 THOMSON ROAD
BETHLEHEM, CT

LIST OF DRAWINGS

SITE INFORMATION

SITE NAME:	"BETHLEHEM SOLAR ONE & TWO, LLC"
LOCATION:	78 THOMSON ROAD BETHLEHEM, CT
SITE TYPE/DESCRIPTION:	ADD (1) GROUND MOUNTED SOLAR PANEL ARRAY W/ ASSOCIATED EQUIPMENT.
PROPERTY OWNER:	LEONARD & TESSIE ASSARD 78 THOMSON ROAD BETHLEHEM, CT 06751
APPLICANT:	BETHLEHEM SOLAR ONE & TWO, LLC 28 POCOTOPAUG DRIVE EAST HAMPTON, CT 06424
ENGINEER CONTACT:	KEVIN A. MCCAFFERY, P.E. (860) 663-1697 x226
LATITUDE:	41° 37' 56" N
LONGITUDE:	73° 13' 8" W
ELEVATION:	750-830± AMSL
MAP-LOT:	10-6/038
ZONE:	N/A
EXISTING LAND USE:	720 FARM TILLABLE C
PROPOSED LAND USE:	ENERGY PRODUCTION
TOTAL SITE ACREAGE:	77.37± AC.
TOTAL DISTURBED AREA:	11.64± AC.
APPROX. VOLUME OF CUT:	3,500± CY
APPROX. VOLUME OF FILL:	800 ± CY
APPROX. NET VOLUME:	2,700 ± CY OF CUT
PROP. GRAVEL ACCESS ROAD:	320± LINEAR FEET
PROP. SILT FENCE:	1,545± LINEAR FEET
TREE CLEARING AREA:	2,765± SQUARE FEET
EFFECTIVE IMPERVIOUS AREA:	4,350± SQUARE FEET

USGS TOPOGRAPHIC MAP



SCALE : 1-IN = 2000-FT SOURCE: NRCS GEOSPATIAL GATEWAY

BETHLEHEM SOLAR
ONE & TWO, LLC
28 POCOTOPAUG DRIVE
EAST HAMPTON, CT 06424

ALL-POINTS TECHNOLOGY CORPORATION

CSC PERMIT SET

NO	DATE	REVISION
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2		
3		
4		
5		
6		

DESIGN PROFESSIONAL OF RECORD

PROF: KEVIN A. MCCAFFERY, PE
COMP: ALL-POINTS TECHNOLOGY CORPORATION
ADD: 567 VAUXHALL STREET EXTENSION - SUITE 311 WATERFORD, CT 06385

OWNER: LEONARD, TESSIE, KENNETH & JENNIFER ASSARD
ADDRESS: 78 THOMSON ROAD BETHLEHEM, CT 06751

BETHLEHEM SOLAR
ONE & TWO, LLC

SITE ADDRESS: 78 THOMSON ROAD BETHLEHEM, CT

APT FILING NUMBER: CT342118

DRAWN BY: DRA

DATE: 09/24/2020 CHECKED BY: KAM

SHEET TITLE:

TITLE SHEET & INDEX

SHEET NUMBER:

T-1

GENERAL NOTES

1. ALL CONSTRUCTION SHALL COMPLY WITH PROJECT DEVELOPER STANDARDS, TOWN OF BETHLEHEM STANDARDS, CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS IN THE ABOVE REFERENCED INCREASING HIERARCHY. IF SPECIFICATIONS ARE IN CONFLICT, THE MORE STRINGENT SPECIFICATION SHALL APPLY.
2. IF NO PROJECT CONSTRUCTION SPECIFICATION PACKAGE IS PROVIDED BY THE PROJECT DEVELOPER OR THEIR REPRESENTATIVE, THE CONTRACTOR SHALL COMPLY WITH THE MANUFACTURER, TOWN OF BETHLEHEM, OR CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, AND BE IN ACCORDANCE WITH ALL APPLICABLE OSHA, FEDERAL, STATE AND LOCAL REGULATIONS.
3. THE PROJECT DEVELOPER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY ZONING AND STORMWATER PERMITS REQUIRED BY GOVERNMENT AGENCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN ALL TOWN OF BETHLEHEM CONSTRUCTION PERMITS. THE CONTRACTOR SHALL POST ALL BONDS, PAY ALL FEES, PROVIDE PROOF OF INSURANCE AND PROVIDE TRAFFIC CONTROL NECESSARY FOR THIS WORK.
4. REFER TO PLANS, DETAILS AND REPORTS PREPARED BY ALL-POINTS TECHNOLOGY CORPORATION FOR ADDITIONAL INFORMATION. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS IN THE FIELD AND CONTACT THE PROJECT DEVELOPER IF THERE ARE ANY QUESTIONS OR CONFLICTS REGARDING THE CONSTRUCTION DOCUMENTS AND/OR FIELD CONDITIONS SO THAT APPROPRIATE REVISIONS CAN BE MADE PRIOR TO BIDDING/CONSTRUCTION. ANY CONFLICT BETWEEN THE DRAWINGS AND SPECIFICATIONS SHALL BE CONFIRMED WITH THE PROJECT DEVELOPERS CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION.
5. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRODUCTS, MATERIALS PER PLANS AND SPECIFICATIONS TO THE PROJECT DEVELOPER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY TO THE SITE. ALLOW A MINIMUM OF 14 WORKING DAYS FOR REVIEW.
6. SHOULD ANY UNKNOWN OR INCORRECTLY LOCATED EXISTING PIPING OR OTHER UTILITY BE UNCOVERED DURING EXCAVATION, CONSULT THE PROJECT DEVELOPER IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH WORK IN THIS AREA.
7. DO NOT INTERRUPT EXISTING UTILITIES SERVICING FACILITIES OCCUPIED AND USED BY THE PROJECT DEVELOPER OR OTHERS DURING OCCUPIED HOURS, EXCEPT WHEN SUCH INTERRUPTIONS HAVE BEEN AUTHORIZED IN WRITING BY THE PROJECT DEVELOPER AND THE LOCAL MUNICIPALITY. INTERRUPTIONS SHALL ONLY OCCUR AFTER ACCEPTABLE TEMPORARY SERVICE HAS BEEN PROVIDED.
8. THE CONTRACT LIMIT IS THE PROPERTY LINE UNLESS OTHERWISE SPECIFIED OR SHOWN ON THE CONTRACT DRAWINGS.
9. THE CONTRACTOR SHALL ABIDE BY ALL OSHA, FEDERAL, STATE AND LOCAL REGULATIONS WHEN OPERATING CRANES, BOOMS, HOISTS, ETC. IN CLOSE PROXIMITY TO OVERHEAD ELECTRIC LINES. IF CONTRACTOR MUST OPERATE EQUIPMENT CLOSE TO ELECTRIC LINES, CONTACT POWER COMPANY TO MAKE ARRANGEMENTS FOR PROPER SAFEGUARDS. ANY UTILITY COMPANY FEES SHALL BE PAID FOR BY THE CONTRACTOR.
10. THE CONTRACTOR SHALL COMPLY WITH OSHA CFR 29 PART 1926 FOR EXCAVATION TRENCHING AND TRENCH PROTECTION REQUIREMENTS.
11. THE ENGINEER IS NOT RESPONSIBLE FOR SITE SAFETY MEASURES TO BE EMPLOYED DURING CONSTRUCTION. THE ENGINEER HAS NO CONTRACTUAL DUTY TO CONTROL THE SAFEST METHODS OR MEANS OF THE WORK, JOB SITE RESPONSIBILITIES, SUPERVISION OF PERSONNEL OR TO SUPERVISE SAFETY AND DO NOT VOLUNTARILY ASSUME ANY SUCH DUTY OR RESPONSIBILITY.
12. THE CONTRACTOR SHALL RESTORE ANY DRAINAGE STRUCTURE, PIPE, CONDUIT, PAVEMENT, CURBING, SIDEWALKS, LANDSCAPED AREAS OR SIGNAGE DISTURBED DURING CONSTRUCTION TO THEIR ORIGINAL CONDITION OR BETTER, AS APPROVED BY THE PROJECT DEVELOPER OR BETHLEHEM.
13. THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORDS OF ALL CONSTRUCTION (INCLUDING UNDERGROUND UTILITIES) TO THE PROJECT DEVELOPER AT THE END OF CONSTRUCTION.
14. ALTERNATIVE METHODS AND PRODUCTS, OTHER THAN THOSE SPECIFIED, MAY BE USED IF REVIEWED AND APPROVED BY THE PROJECT DEVELOPER, ENGINEER, AND APPROPRIATE REGULATORY AGENCY PRIOR TO INSTALLATION DURING THE BIDDING/CONSTRUCTION PROCESS.
15. INFORMATION ON EXISTING UTILITIES AND STORM DRAINAGE SYSTEMS HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY PROVIDER AND MUNICIPAL RECORD MAPS AND/OR FIELD SURVEY AND IS NOT GUARANTEED CORRECT OR COMPLETE. UTILITIES AND STORM DRAINAGE SYSTEMS ARE SHOWN TO ALERT THE CONTRACTOR TO THEIR PRESENCE AND THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES AND STORM DRAINAGE SYSTEMS INCLUDING SERVICES. PRIOR TO DEMOLITION OR CONSTRUCTION, THE CONTRACTOR SHALL CONTACT "DIG SAFE" 72 HOURS BEFORE COMMENCEMENT OF WORK AT "811" AND VERIFY ALL UTILITY AND STORM DRAINAGE SYSTEM LOCATIONS.
16. NO CONSTRUCTION OR DEMOLITION SHALL BEGIN UNTIL APPROVAL OF THE FINAL PLANS IS GRANTED BY ALL GOVERNING AND REGULATORY AGENCIES.

SITE PLAN NOTES

1. THE SURVEY WAS PROVIDED BY SMITH & COMPANY SURVEYORS AND ENGINEERS, INC. DATED OCTOBER, 2019.
2. THERE ARE WETLANDS AND WATERWAYS LOCATED ON THE SITE AS INDICATED ON THE PLANS. BOUNDARIES WERE FLAGGED AND LOCATED VIA GPS BY APT IN JUNE 2020 FOR THE WETLAND OFFSITE TO THE WEST. OTHER BOUNDARIES WERE ESTIMATED BY AERIAL AND SOIL MAP INTERPRETATION.
3. THE CONTRACTOR SHALL FOLLOW THE RECOMMENDED SEQUENCE OF CONSTRUCTION NOTES PROVIDED ON THE EROSION CONTROL PLAN OR SUBMIT AN ALTERNATE PLAN FOR APPROVAL BY THE ENGINEER AND/OR PERMITTING AGENCIES PRIOR TO THE START CONSTRUCTION. ALLOW A MINIMUM OF 14 WORKING DAYS FOR REVIEW.
4. PROPER CONSTRUCTION PROCEDURES SHALL BE FOLLOWED ON ALL IMPROVEMENTS WITHIN THIS PARCEL SO AS TO PREVENT THE SILTING OF ANY WATERCOURSE OR BVWS IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS. IN ADDITION, THE CONTRACTOR SHALL ADHERE TO 'EROSION CONTROL PLAN' CONTAINED HEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE TO POST ALL BONDS AS REQUIRED BY GOVERNMENT AGENCIES WHICH WOULD GUARANTEE THE PROPER IMPLEMENTATION OF THE PLAN.
5. ALL SITE WORK, MATERIALS OF CONSTRUCTION, AND CONSTRUCTION METHODS FOR EARTHWORK AND STORM DRAINAGE WORK, SHALL CONFORM TO THE SPECIFICATIONS AND DETAILS AND APPLICABLE SECTIONS OF THE PROJECT SPECIFICATIONS MANUAL. OTHERWISE THIS WORK SHALL CONFORM TO THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION AND PROJECT GEOTECHNICAL REPORT IF THERE IS NO PROJECT SPECIFICATIONS MANUAL. ALL FILL MATERIAL UNDER STRUCTURES AND PAVED AREAS SHALL BE PER THE ABOVE STATED APPLICABLE SPECIFICATIONS, AND/OR PROJECT GEOTECHNICAL REPORT, AND SHALL BE PLACED IN ACCORDANCE WITH THE APPLICABLE SPECIFICATIONS UNDER THE SUPERVISION OF A QUALIFIED PROFESSIONAL ENGINEER. MATERIAL SHALL BE COMPACTED IN 8" LIFTS TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 1557 AT 95% PERCENT OF OPTIMUM MOISTURE CONTENT.
6. ALL DISTURBANCE INCURRED TO PUBLIC, MUNICIPAL, COUNTY, STATE PROPERTY DUE TO CONSTRUCTION SHALL BE RESTORED TO ITS PREVIOUS CONDITION OR BETTER, TO THE SATISFACTION OF THE TOWN OF BETHLEHEM AND STATE OF CONNECTICUT.
7. IF IMPACTED OR CONTAMINATED SOIL IS ENCOUNTERED BY THE CONTRACTOR, THE CONTRACTOR SHALL SUSPEND EXCAVATION WORK OF IMPACTED SOIL AND NOTIFY THE PROJECT DEVELOPER AND/OR PROJECT DEVELOPERS ENVIRONMENTAL CONSULTANT PRIOR TO PROCEEDING WITH FURTHER WORK IN THE IMPACTED SOIL LOCATION UNTIL FURTHER INSTRUCTED BY THE PROJECT DEVELOPER AND/OR PROJECT DEVELOPER'S ENVIRONMENTAL CONSULTANT.

UTILITY NOTES

1. CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE TOWN OF BETHLEHEM TO SECURE CONSTRUCTION PERMITS AND FOR PAYMENT OF FEES FOR STREET CUTS AND CONNECTIONS TO EXISTING UTILITIES.
2. REFER TO DRAWINGS BY PROJECT DEVELOPER FOR THE ONSITE ELECTRICAL DRAWINGS AND INTERCONNECTION TO EXISTING ELECTRICAL GRID. SITE CONTRACTOR SHALL SUPPLY AND INSTALL PIPE ADAPTERS AS NECESSARY AT BUILDING CONNECTION POINT OR AT EXISTING UTILITY OR PIPE CONNECTION POINT. THESE DETAILS ARE NOT INCLUDED IN THESE PLANS.
3. UTILITY LOCATIONS AND PENETRATIONS ARE SHOWN FOR THE CONTRACTORS INFORMATION AND SHALL BE VERIFIED WITH THE ELECTRICAL ENGINEER AND THE PROJECT DEVELOPERS CONSTRUCTION MANAGER PRIOR TO THE START OF CONSTRUCTION.
4. THE CONTRACTOR SHALL VISIT THE SITE AND VERIFY THE ELEVATION AND LOCATION OF ALL UTILITIES BY VARIOUS MEANS PRIOR TO BEGINNING ANY EXCAVATION. TEST PITS SHALL BE DUG AT ALL LOCATIONS WHERE PROP. SANITARY SEWERS AND WHERE PROP. STORM PIPING WILL CROSS EXISTING UTILITIES, AND THE HORIZONTAL AND VERTICAL LOCATIONS OF THE UTILITIES SHALL BE DETERMINED. THE CONTRACTOR SHALL CONTACT THE PROJECT DEVELOPER IN THE EVENT OF ANY DISCOVERED OR UNFORESEEN CONFLICTS BETWEEN EXISTING AND PROPOSED SANITARY SEWERS, STORM PIPING AND UTILITIES SO THAT AN APPROPRIATE MODIFICATION MAY BE MADE.
5. UTILITY CONNECTION DESIGN AS REFLECTED ON THE PLAN MAY CHANGE SUBJECT TO UTILITY PROVIDER AND GOVERNING AUTHORITY STAFF REVIEW.
6. THE CONTRACTOR SHALL ENSURE THAT ALL UTILITY PROVIDERS AND GOVERNING AUTHORITY STANDARDS FOR MATERIALS AND CONSTRUCTION METHODS ARE MET. THE CONTRACTOR SHALL PERFORM PROPER COORDINATION WITH THE RESPECTIVE UTILITY PROVIDER.
7. THE CONTRACTOR SHALL ARRANGE FOR AND COORDINATE WITH THE RESPECTIVE UTILITY PROVIDERS FOR SERVICE INSTALLATIONS AND CONNECTIONS. THE CONTRACTOR SHALL COORDINATE WORK TO BE PERFORMED BY THE VARIOUS UTILITY PROVIDERS AND SHALL PAY ALL FEES FOR CONNECTIONS, DISCONNECTIONS, RELOCATIONS, INSPECTIONS, AND DEMOLITION UNLESS OTHERWISE STATED IN THE PROJECT SPECIFICATIONS MANUAL AND/OR GENERAL CONDITIONS OF THE CONTRACT.
8. ALL EXISTING PAVEMENT WHERE UTILITY PIPING IS TO BE INSTALLED SHALL BE SAW CUT. AFTER UTILITY INSTALLATION IS COMPLETED, THE CONTRACTOR SHALL INSTALL TEMPORARY AND/OR PERMANENT PAVEMENT REPAIR AS DETAILED ON THE DRAWINGS OR AS REQUIRED BY THE TOWN OF BETHLEHEM.
9. ALL PIPES SHALL BE LAID ON STRAIGHT ALIGNMENTS AND EVEN GRADES USING A PIPE LASER OR OTHER ACCURATE METHOD.
10. RELOCATION OF UTILITY PROVIDER FACILITIES, SUCH AS POLES, SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY PROVIDER.
11. THE CONTRACTOR SHALL COMPACT PIPE BACKFILL IN 8" LIFTS ACCORDING TO THE PIPE BEDDING DETAILS. TRENCH BOTTOM SHALL BE STABLE IN HIGH GROUNDWATER AREAS. A PIPE FOUNDATION SHALL BE USED PER THE TRENCH DETAILS AND IN AREAS OF ROCK EXCAVATION.
12. CONTRACTOR TO PROVIDE STEEL SLEEVES AND ANNULAR SPACE SAND FILL FOR UTILITY PIPE AND CONDUIT CONNECTIONS UNDER FOOTINGS.
13. ALL UTILITY CONSTRUCTION IS SUBJECT TO INSPECTION FOR APPROVAL PRIOR TO BACKFILLING, IN ACCORDANCE WITH THE APPROPRIATE UTILITY PROVIDER REQUIREMENTS.
14. A ONE-FOOT MINIMUM VERTICAL CLEARANCE BETWEEN WATER, GAS, ELECTRICAL, AND TELEPHONE LINES AND STORM PIPING SHALL BE PROVIDED. A SIX-INCH MINIMUM CLEARANCE SHALL BE MAINTAINED BETWEEN STORM PIPING AND SANITARY SEWER. A 6-INCH TO 18-INCH VERTICAL CLEARANCE BETWEEN SANITARY SEWER PIPING AND STORM PIPING SHALL REQUIRE CONCRETE ENCASEMENT OF THE PROP. SANITARY PIPING.
15. THE CONTRACTOR SHALL RESTORE ANY UTILITY STRUCTURE, PIPE, CONDUIT, PAVEMENT, CURBING, SIDEWALKS, DRAINAGE STRUCTURE, SWALE OR LANDSCAPED AREAS DISTURBED DURING CONSTRUCTION, TO THEIR ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE PROJECT DEVELOPER AND TOWN OF BETHLEHEM.
16. INFORMATION ON EXISTING UTILITIES AND STORM DRAINAGE HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY PROVIDER AND MUNICIPAL RECORD MAPS AND/OR FIELD SURVEY, AND IS NOT GUARANTEED CORRECT OR COMPLETE. UTILITIES AND STORM DRAINAGE ARE SHOWN TO ALERT THE CONTRACTOR TO THEIR PRESENCE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES AND STORM DRAINAGE INCLUDING SERVICES. CONTACT 'DIG SAFE' AT 811 72 HOURS PRIOR TO CONSTRUCTION AND VERIFY ALL UNDERGROUND AND OVERHEAD UTILITY AND STORM DRAINAGE LOCATIONS. THE CONTRACTOR SHALL EMPLOY THE USE OF A UTILITY LOCATING COMPANY TO PROVIDE SUBSURFACE UTILITY ENGINEERING CONSISTING OF DESIGNATING UTILITIES AND STORM PIPING ON PRIVATE PROPERTY WITHIN THE CONTRACT LIMIT AND CONSISTING OF DESIGNATING AND LOCATING WHERE PROP. UTILITIES AND STORM PIPING CROSS EXISTING UTILITIES AND STORM PIPING WITHIN THE CONTRACT LIMITS.
17. THE CONTRACTOR SHALL ARRANGE AND COORDINATE WITH UTILITY PROVIDERS FOR WORK TO BE PERFORMED BY UTILITY PROVIDERS. THE CONTRACTOR SHALL PAY ALL UTILITY FEES UNLESS OTHERWISE STATED IN THE PROJECT SPECIFICATION MANUAL AND GENERAL CONDITIONS, AND REPAIR PAVEMENTS AS NECESSARY.
18. ELECTRIC DRAWINGS AND REQUIREMENTS ARE NOT INCLUDED AS PART OF THIS DRAWING SET AND SHOULD BE OBTAINED FROM THE PROJECT DEVELOPER.
19. ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE PROJECT DEVELOPER, ENGINEER, AND APPROPRIATE REGULATORY AGENCIES PRIOR TO INSTALLATION.
20. THE CONTRACTOR SHALL MAINTAIN ALL FLOWS AND UTILITY CONNECTIONS TO EXISTING BUILDINGS WITHOUT INTERRUPTION UNLESS/UNTIL AUTHORIZED TO DISCONNECT BY THE PROJECT DEVELOPER, TOWN OF BETHLEHEM, UTILITY PROVIDERS AND GOVERNING AUTHORITIES.

GENERAL LEGEND

	EXISTING	PROPOSED
PROPERTY LINE		
BUILDING SETBACK		
SOLAR SETBACK		
EASEMENT		
TREE LINE		
WETLAND		
WETLAND BUFFER		
VERNAL POOL		
VERNAL POOL BUFFER		
WATERCOURSE		
WATERCOURSE BUFFER		
MAJOR CONTOUR		
MINOR CONTOUR		
UNDERGROUND ELECTRIC		E E
OVERHEAD ELECTRIC	OH OH	OH OH
GAS LINE		
WATER LINE	W W	W W
WATER QUALITY SWALE		
FENCE		X X X
LIMIT OF DISTURBANCE		LOD
SILT FENCE		SF SF

BETHLEHEM SOLAR ONE & TWO, LLC
28 POCOTOPAUG DRIVE
EAST HAMPTON, CT 06424

ALL-POINTS TECHNOLOGY CORPORATION
567 VAUXHALL STREET EXTENSION - SUITE 311
WATERFORD, CT 06385 PHONE: [illegible]
WWW.ALLPOINTSTECH.COM FAX: [illegible]

CSC PERMIT SET

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DESIGN PROFESSIONAL OF RECORD

PROF: KEVIN A. MCCAFFERY, PE
COMP: ALL-POINTS TECHNOLOGY CORPORATION
ADD: 567 VAUXHALL STREET EXTENSION - SUITE 311 WATERFORD, CT 06385

OWNER: LEONARD, TESSIE, KENNETH & JENNIFER ASSARD
ADDRESS: 78 THOMSON ROAD BETHLEHEM, CT 06751

BETHLEHEM SOLAR ONE & TWO, LLC

SITE ADDRESS: 78 THOMSON ROAD BETHLEHEM, CT

APT FILING NUMBER: CT[illegible]

DRAWN BY: DRA

DATE: [illegible]

CHECKED BY: KAM

SHEET TITLE: GENERAL NOTES

SHEET NUMBER: GN-1

ENVIRONMENTAL NOTES - RESOURCE PROTECTION MEASURES

WETLAND PROTECTION PLAN

AS A RESULT OF THE PROPOSED FACILITY'S LOCATION IN THE VICINITY OF WETLANDS, THE FOLLOWING BEST MANAGEMENT PRACTICES ("BMPS") ARE RECOMMENDED TO AVOID UNINTENTIONAL IMPACT TO WETLAND HABITATS DURING CONSTRUCTION ACTIVITIES. COMPLETE DETAILS OF THE RECOMMENDED BMPS ARE PROVIDED BELOW, WHICH WILL BE INCORPORATED INTO THE CONSTRUCTION DRAWINGS TO ENSURE THE CONTRACTOR IS FULLY AWARE OF THE PROJECT'S ENVIRONMENTALLY SENSITIVE SETTING.

A WETLAND SCIENTIST FROM ALL-POINTS TECHNOLOGY CORP. ("APT") EXPERIENCED IN COMPLIANCE MONITORING OF CONSTRUCTION ACTIVITIES WILL SERVE AS THE ENVIRONMENTAL MONITOR FOR THIS PROJECT TO ENSURE THAT THE FOLLOWING BMPS ARE IMPLEMENTED PROPERLY. THIS PROTECTION PROGRAM SHALL BE IMPLEMENTED REGARDLESS OF TIME OF YEAR THE CONSTRUCTION ACTIVITIES OCCUR. ALL-POINTS TECHNOLOGY CORPORATION, P.C. ("APT") WILL SERVE AS THE ENVIRONMENTAL MONITOR FOR THIS PROJECT TO ENSURE THAT WETLAND PROTECTION MEASURES ARE IMPLEMENTED PROPERLY. THE CONTRACTOR SHALL CONTACT DEAN GUSTAFSON, SENIOR WETLAND SCIENTIST AT APT, AT LEAST 5 BUSINESS DAYS PRIOR TO THE PRE-CONSTRUCTION MEETING. MR. GUSTAFSON CAN BE REACHED BY PHONE AT (860) [illegible] OR VIA EMAIL AT DGUSTAFSON@ALLPOINTSTECH.COM.

THE PROPOSED WETLAND PROTECTION PROGRAM CONSISTS OF SEVERAL COMPONENTS INCLUDING: USE OF APPROPRIATE EROSION CONTROL MEASURES TO CONTROL AND CONTAIN EROSION WHILE AVOIDING/MINIMIZING WILDLIFE ENTANGLEMENT; PERIODIC INSPECTION AND MAINTENANCE OF EROSION CONTROLS FOR THE PURPOSES OF ENSURING PROTECTION OF WETLAND RESOURCES; EDUCATION OF ALL CONTRACTORS AND SUB-CONTRACTORS PRIOR TO INITIATION OF WORK ON THE SITE; PROTECTIVE MEASURES, AND REPORTING.

1. CONTRACTOR EDUCATION:

a. PRIOR TO WORK ON SITE AND INITIAL DEPLOYMENT/MOBILIZATION OF EQUIPMENT AND MATERIALS, THE CONTRACTOR SHALL ATTEND AN EDUCATIONAL SESSION AT THE PRE-CONSTRUCTION MEETING WITH THE ENVIRONMENTAL MONITOR. THIS ORIENTATION AND EDUCATIONAL SESSION WILL CONSIST OF INFORMATION STRESSING THE ENVIRONMENTALLY SENSITIVE NATURE OF THE PROJECT AND PROXIMITY TO WETLAND RESOURCES AND THE NEED TO ENSURE THEIR PROTECTION THROUGHOUT THE DURATION OF THE CONSTRUCTION.

b. THE ENVIRONMENTAL MONITOR WILL ALSO POST CAUTION SIGNS THROUGHOUT THE PROJECT SITE AND MAINTAIN THEM FOR THE DURATION OF CONSTRUCTION TO PROVIDE NOTICE OF THE ENVIRONMENTALLY SENSITIVE NATURE OF THE WORK AREA.

c. THE CONTRACTOR WILL BE PROVIDED WITH THE ENVIRONMENTAL MONITOR'S CELL PHONE AND EMAIL CONTACT INFORMATION TO IMMEDIATELY REPORT ANY FAILURES OF EROSION CONTROLS OR RELEASES OF SEDIMENT INTO NEARBY WETLANDS.

2. EROSION AND SEDIMENTATION CONTROLS

a. PLASTIC NETTING WITH LARGE MESH OPENINGS (> 1/4") USED IN A VARIETY OF EROSION CONTROL PRODUCTS (I.E., EROSION CONTROL BLANKETS, FIBER ROLLS (WATTLES), REINFORCED SILT FENCE) HAS BEEN FOUND TO ENTANGLE WILDLIFE, INCLUDING REPTILES, AMPHIBIANS, BIRDS AND SMALL MAMMALS. NO PERMANENT EROSION CONTROL PRODUCTS OR REINFORCED SILT FENCE WILL BE USED ON THE PROJECT. TEMPORARY EROSION CONTROL PRODUCTS THAT WILL BE EXPOSED AT THE GROUND SURFACE REPRESENT A POTENTIAL FOR WILDLIFE ENTANGLEMENT WILL USE EITHER EROSION CONTROL BLANKETS AND FIBER ROLLS COMPOSED OF PROCESSED FIBERS MECHANICALLY BOUND TOGETHER TO FORM A CONTINUOUS MATRIX (NETLESS) OR NETTING WITH A MESH SIZE < 1/4" SUCH AS THAT TYPICALLY USED IN COMPOST FILTER SOCKS TO AVOID/MINIMIZE WILDLIFE ENTANGLEMENT.

b. INSTALLATION OF EROSION AND SEDIMENTATION CONTROLS, REQUIRED FOR EROSION CONTROL COMPLIANCE, SHALL BE PERFORMED BY THE CONTRACTOR FOLLOWING CLEARING ACTIVITIES AND PRIOR TO ANY EARTHWORK IN ACCORDANCE WITH THE PROJECT SITE PLANS. THE ENVIRONMENTAL MONITOR WILL INSPECT THE WORK ZONE AREA PRIOR TO AND FOLLOWING EROSION CONTROL BARRIER INSTALLATION TO ENSURE IT HAS BEEN SATISFACTORILY INSTALLED PRIOR TO THE INITIATION OF EARTHWORK.

c. THE CONTRACTOR SHALL HAVE ADDITIONAL BARRIER FENCING SHOULD FIELD CONDITIONS WARRANT EXTENDING THE FENCING AS DIRECTED BY THE ENVIRONMENTAL MONITOR.

d. IN ADDITION TO REQUIRED DAILY INSPECTION BY THE CONTRACTOR, THE FENCING WILL BE INSPECTED BY THE CONTRACTOR FOR TEARS OR BREECHES IN THE FABRIC FOLLOWING INSTALLATION AND FOLLOWING STORM EVENTS THAT PRODUCE A DISCHARGE. INSPECTIONS WILL BE CONDUCTED PERIODICALLY BY THE ENVIRONMENTAL MONITOR THROUGHOUT THE COURSE OF THE CONSTRUCTION PROJECT.

e. ALL EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS OF COMPLETION OF WORK AND PERMANENT STABILIZATION OF SITE SOILS. IF FIBER ROLLS/WATTLES, STRAW BALES, OR OTHER NATURAL MATERIAL EROSION CONTROL PRODUCTS ARE USED, SUCH DEVICES WILL NOT BE LEFT IN PLACE TO BIODEGRADE AND SHALL BE PROMPTLY REMOVED AFTER SOILS ARE STABLE SO AS NOT TO CREATE A BARRIER TO MIGRATING WILDLIFE. SEED FROM SEEDING OF SOILS SHALL NOT BE SPREAD OVER FIBER ROLLS/WATTLES AS IT MAKES THEM HARDER TO REMOVE ONCE SOILS ARE STABILIZED BY VEGETATION.

3. PETROLEUM MATERIALS STORAGE AND SPILL PREVENTION

a. CERTAIN PRECAUTIONS ARE NECESSARY TO STORE PETROLEUM MATERIALS, REFUEL AND CONTAIN AND PROPERLY CLEAN UP ANY INADVERTENT FUEL OR PETROLEUM (I.E., OIL, HYDRAULIC FLUID, ETC.) SPILL DUE TO THE PROJECT'S LOCATION IN PROXIMITY TO SENSITIVE WETLAND RESOURCES.

b. A SPILL CONTAINMENT KIT CONSISTING OF A SUFFICIENT SUPPLY OF ABSORBENT PADS AND ABSORBENT MATERIAL WILL BE MAINTAINED BY THE CONTRACTOR AT THE CONSTRUCTION SITE THROUGHOUT THE DURATION OF THE PROJECT. IN ADDITION, A WASTE DRUM WILL BE KEPT ON SITE TO CONTAIN ANY USED ABSORBENT PADS/MATERIAL FOR PROPER AND TIMELY DISPOSAL OFF SITE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL LAWS.

c. THE FOLLOWING PETROLEUM AND HAZARDOUS MATERIALS STORAGE AND REFUELING RESTRICTIONS AND SPILL RESPONSE PROCEDURES WILL BE ADHERED TO BY THE CONTRACTOR.

i. PETROLEUM AND HAZARDOUS MATERIALS STORAGE AND REFUELING

1. REFUELING OF VEHICLES OR MACHINERY SHALL TAKE PLACE ON AN IMPERVIOUS PAD WITH SECONDARY CONTAINMENT DESIGNED TO CONTAIN FUELS.
2. ANY REFUELING DRUMS/TANKS OR HAZARDOUS MATERIALS THAT MUST BE KEPT ON SITE SHALL BE STORED ON AN IMPERVIOUS SURFACE UTILIZING SECONDARY CONTAINMENT A MINIMUM OF 100 FEET FROM WETLANDS OR WATERCOURSES.

ii. INITIAL SPILL RESPONSE PROCEDURES

1. STOP OPERATIONS AND SHUT OFF EQUIPMENT.
2. REMOVE ANY SOURCES OF SPARK OR FLAME.
3. CONTAIN THE SOURCE OF THE SPILL.
4. DETERMINE THE APPROXIMATE VOLUME OF THE SPILL.
5. IDENTIFY THE LOCATION OF NATURAL FLOW PATHS TO PREVENT THE RELEASE OF THE SPILL TO SENSITIVE NEARBY WATERWAYS OR WETLANDS.
6. ENSURE THAT FELLOW WORKERS ARE NOTIFIED OF THE SPILL.

iii. SPILL CLEAN UP & CONTAINMENT

1. OBTAIN SPILL RESPONSE MATERIALS FROM THE ON-SITE SPILL RESPONSE KIT. PLACE ABSORBENT MATERIALS DIRECTLY ON THE RELEASE AREA.
2. LIMIT THE SPREAD OF THE SPILL BY PLACING ABSORBENT MATERIALS AROUND THE PERIMETER OF THE SPILL.
3. ISOLATE AND ELIMINATE THE SPILL SOURCE.
4. CONTACT THE APPROPRIATE LOCAL, STATE AND/OR FEDERAL AGENCIES, AS NECESSARY.
5. CONTACT A DISPOSAL COMPANY TO PROPERLY DISPOSE OF CONTAMINATED MATERIALS.

iv. REPORTING

1. COMPLETE AN INCIDENT REPORT.
2. SUBMIT A COMPLETED INCIDENT REPORT TO LOCAL, STATE AND FEDERAL AGENCIES, AS REQUIRED.

4. REPORTING

a. INSPECTION REPORTS (BRIEF NARRATIVE AND APPLICABLE PHOTOS) WILL BE PREPARED BY THE ENVIRONMENTAL MONITOR DOCUMENTING EACH INSPECTION AND SUBMITTED TO THE PERMITTEE FOR COMPLIANCE VERIFICATION. ANY NON-COMPLIANCE OBSERVATIONS OF EROSION CONTROL MEASURES OR EVIDENCE OF EROSION OR SEDIMENT RELEASE WILL BE IMMEDIATELY REPORTED TO THE PERMITTEE AND ITS CONTRACTOR AND INCLUDED IN THE REPORTS.

b. ANY INCIDENTS OF RELEASE OF SEDIMENT OR OTHER MATERIALS INTO WETLAND RESOURCE AREAS SHALL BE REPORTED BY THE PERMITTEE WITHIN 24 HOURS TO THE CONNECTICUT SITING COUNCIL.

c. ANY OBSERVATIONS OF RARE SPECIES WILL BE REPORTED TO THE CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION'S NATURAL DIVERSITY DATA BASE PROGRAM.

d. FOLLOWING COMPLETION OF THE PROJECT, A SUMMARY REPORT WILL BE PREPARED BY THE ENVIRONMENTAL MONITOR DOCUMENTING COMPLIANCE WITH THE WETLAND PROTECTION PLAN AND SUBMITTED TO THE PERMITTEE, WHO SHALL SUBMIT A COPY TO THE CONNECTICUT SITING COUNCIL.

RARE GRASSLAND BIRD SPECIES PROTECTION PROGRAM

THE PROJECT IS LOCATED WITHIN AND PROXIMATE TO RARE GRASSLAND BIRD SPECIES HABITAT. AS A RESULT, THE FOLLOWING PROTECTIVE MEASURES SHALL BE FOLLOWED TO HELP AVOID IMPACT TO LISTED SPECIES.

THE FOLLOWING TWO STATE-LISTED BIRDS OCCUR AND POTENTIALLY BREED ON THE PROJECT SITE: BOBOLINK (DOLICHONYX ORYZIVORUS) AND SAVANNAH SPARROW (PASSERCULUS SANDWICHENSIS). THESE SPECIES ARE SMALL (APPROXIMATELY 6" IN HEIGHT) MIGRATORY SONGBIRDS THAT INHABIT GRASSLANDS, HAYFIELDS OR OTHER OPEN TREELESS HABITATS WITH LITTLE TO NO WOODY SHRUB COVER. THEY ARRIVE ON THE BREEDING GROUNDS IN EARLY TO MID-MAY AND ESTABLISH WELL-CONCEALED NESTS ON OR CLOSE TO THE GROUND AMONGST TALL GRASSY COVER.

THE GRASSLAND BIRD SPECIES PROTECTION MEASURES INCLUDED HEREIN SATISFY REQUIREMENTS FROM THE CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION ("DEEP") WILDLIFE DIVISION IN ACCORDANCE WITH THEIR NATURAL DIVERSITY DATA BASE ("NDDB") DETERMINATION LETTER (NO. [illegible]) DATED JUNE 18, 2020. THIS DETERMINATION IS VALID UNTIL JUNE 18, 2022 PROVIDED THE SCOPE OF THE PROJECT HAS NOT CHANGED AND WORK HAS BEGUN ON THE PROJECT PRIOR TO THE EXPIRATION DATE. THIS PROTECTION PLAN ALSO SATISFIES CONDITION #3 IN THE CONNECTICUT SITING COUNCIL'S DECLARATORY RULING OF THIS PROJECT, IDENTIFIED AS PETITION NO. 1431, ISSUED APRIL 9, 2021.

IT IS OF THE UTMOST IMPORTANCE THAT CONTRACTOR COMPLY WITH THE REQUIREMENT FOR IMPLEMENTATION OF THESE PROTECTIVE MEASURES AND THE EDUCATION OF ITS EMPLOYEES AND SUBCONTRACTORS PERFORMING CONSTRUCTION AND MAINTENANCE WORK AT THE PROJECT SITE. THE WETLAND PROTECTION MEASURES SHALL BE IMPLEMENTED AND MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES UNTIL PERMANENT STABILIZATION OF SITE SOILS HAS OCCURRED.

TO AVOID IMPACT TO THESE RARE GRASSLAND BIRD SPECIES, IT IS RECOMMENDED THAT CONSTRUCTION IN SUITABLE GRASSLAND HABITAT BE PERFORMED OUTSIDE OF THE SENSITIVE BREEDING SEASON (APRIL 1 THROUGH AUGUST 30). HOWEVER, IF THIS IS NOT POSSIBLE, THE RARE GRASSLAND BIRDS PROTECTIVE MEASURES DURING CONSTRUCTION SHOULD BE FOLLOWED TO HAVE THE LEAST IMPACT ON STATE-LISTED GRASSLAND BIRD SPECIES.

ALL-POINTS TECHNOLOGY CORPORATION, P.C. ("APT") WILL SERVE AS THE ENVIRONMENTAL MONITOR FOR THIS PROJECT TO ENSURE THAT PROTECTION MEASURES DURING CONSTRUCTION WORK ARE IMPLEMENTED PROPERLY. APT WILL PROVIDE AN EDUCATION SESSION FOR THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION ACTIVITIES ON RARE GRASSLAND BIRD SPECIES THAT MAY BE ENCOUNTERED DUE TO THE PROJECT'S LOCATION WITHIN AND ADJACENT TO POTENTIALLY SENSITIVE HABITAT. THE CONTRACTOR SHALL CONTACT DEAN GUSTAFSON, SENIOR BIOLOGIST AT APT, AT LEAST 5 BUSINESS DAYS PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES. MR. GUSTAFSON CAN BE REACHED BY PHONE AT (860) [illegible] OR VIA EMAIL AT DGUSTAFSON@ALLPOINTSTECH.COM.

THIS PROTECTION PROGRAM CONSISTS OF SEVERAL COMPONENTS: EDUCATION OF ALL CONTRACTORS AND SUB-CONTRACTORS PRIOR TO INITIATION OF WORK ON THE SITE; PROTECTIVE MEASURES, PERIODIC INSPECTION OF THE CONSTRUCTION PROJECT, AND REPORTING.

1. RARE GRASSLAND BIRDS PROTECTIVE MEASURES DURING CONSTRUCTION

a. IF CONSTRUCTION ACTIVITIES ARE TO OCCUR DURING THE ACTIVE PEAK BREEDING SEASON FOR RARE GRASSLAND BIRD SPECIES (MAY 30 TO AUGUST 30), SURVEYS (MAXIMUM OF FOUR (4) SURVEYS WILL BE PERFORMED) WILL BE REQUIRED TO AVOID IMPACT TO BREEDING STATE-LISTED GRASSLAND BIRD SPECIES AS FOLLOWS.

b. IF CONSTRUCTION STARTS BEFORE, BUT IS ANTICIPATED TO EXTEND BEYOND, MAY 30TH (INTO THE BOBOLINK BREEDING SEASON), APT WILL PERFORM A BREEDING BIRD SURVEY STARTING IN LATE MAY WITH PERIODIC SURVEYS (MAXIMUM OF FOUR (4) SURVEYS WILL BE PERFORMED) THROUGHOUT THE DURATION OF CONSTRUCTION TO DOCUMENT NO GRASSLAND BIRD SPECIES NESTS ARE BEING ESTABLISHED. IF AN ACTIVE NEST IS IDENTIFIED, A 400-FOOT BUFFER RESTRICTING ANY DISTURBANCE WOULD BE ESTABLISHED AROUND THE NEST UNTIL THE JUVENILE BIRDS HAVE FLEDGED.

c. IF CONSTRUCTION IS PROPOSED TO START AFTER MAY 30TH BUT BEFORE AUGUST 30TH, A GRASSLAND BIRD BREEDING SURVEY WOULD BE PERFORMED BY APT PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES. IF AN ACTIVE NEST IS IDENTIFIED, A 400-FOOT BUFFER RESTRICTING ANY DISTURBANCE WOULD BE ESTABLISHED AROUND THE NEST UNTIL THE JUVENILE BIRDS HAVE FLEDGED. IF NO NEST IS FOUND, THE RULES NOTED IN B. ABOVE WOULD APPLY.

d. FOR MAINTENANCE OF THE FACILITY ONCE CONSTRUCTION HAS BEEN COMPLETED, MOWING ACTIVITIES SHOULD BE RESTRICTED AS OUTLINED IN SECTION 3. SITE MANAGEMENT PROTECTION MEASURES (MOWING).

2. REPORTING

a. DAILY COMPLIANCE MONITORING REPORTS (BRIEF NARRATIVE AND APPLICABLE PHOTOS) DOCUMENTING EACH APT INSPECTION DURING CONSTRUCTION WILL BE SUBMITTED BY APT TO TRITEC AMERICAS FOR COMPLIANCE VERIFICATION. ANY OBSERVATIONS OF TURTLES, BOBOLINK, WETLAND IMPACTS, OR CORRECTIVE ACTIONS WILL BE INCLUDED IN THE REPORTS. THE REPORTS WILL DOCUMENT IMPLEMENTATION OF THIS RARE GRASSLAND BIRDS PROTECTION PROGRAM, MONITORING OBSERVATIONS AND ANY SPECIES OBSERVATIONS. TRITEC AMERICAS WILL PROVIDE COPIES OF THE COMPLIANCE MONITORING REPORTS TO THE CONNECTICUT SITING COUNCIL FOR COMPLIANCE VERIFICATION.

b. ANY OBSERVATIONS OF RARE GRASSLAND BIRD SPECIES OR ANY OTHER RARE SPECIES WILL BE REPORTED TO CTDEEP BY APT ON THE APPROPRIATE SPECIAL ANIMAL REPORTING FORM, WITH PHOTO-DOCUMENTATION (IF POSSIBLE) AND SPECIFIC INFORMATION ON THE LOCATION AND DISPOSITION OF THE ANIMAL.

3. SITE MANAGEMENT PROTECTION MEASURES (MOWING)

a. THE FOLLOWING MEASURES ARE INTENDED FOR IMPLEMENTATION WITHIN THE FENCED SOLAR-POWERED GENERATION FACILITY. THE LIKELIHOOD OF NESTING OCCURRING WITHIN THE FENCED COMPOUND, AND AMONGST THE ARRAYS THEMSELVES, IS LOW. HOWEVER, THESE BIRDS MAY BREED IN THE CONTIGUOUS GRASSLAND HABITAT ADJACENT TO THE FACILITY AND THEREFORE WOULD BE SUBJECT TO SECONDARY IMPACTS SUCH AS NOISE OR VISUAL DISTURBANCE THAT MAY AFFECT NESTING. ADDITIONALLY, THERE IS THE POTENTIAL FOR ADULTS AND FLEDGLINGS TO FEED WITHIN THE FENCED COMPOUND.

b. BREEDING PERIOD: PROVIDED BELOW ARE THE TYPICAL BREEDING PERIODS IN THE STATE.

CT BIRD ATLAS SAFE DATES:

COMMON NAME	APPROXIMATE BREEDING PERIOD*
BOBOLINK	[illegible] TO [illegible]
SAVANNAH SPARROW	[illegible] TO [illegible]

*DATES BASED ON "SAFE DATES" PROVIDED IN THE CT BIRD ATLAS. DUE TO SEASONAL VARIATIONS BASED ON WEATHER AND BIOGEOGRAPHICAL REGION, A TWO-WEEK BUFFER PERIOD SHOULD BE CONSIDERED AT BOTH THE START AND END OF THE BREEDING SEASON TO BE CONSERVATIVE.

c. BREEDING BEGINS IN EARLY MAY, EGGS INCUBATE IN JUNE AND JULY, AND FLEDGLINGS DEVELOP FROM JULY THROUGH AUGUST. ANY MOWING CONDUCTED DURING THOSE PERIODS HAS THE POTENTIAL TO IMPACT NESTS OR DEVELOPING NESTLINGS OR DISTURB NESTING BIRDS ADJACENT TO THE FACILITY.

d. TIMING OF MOWING/VEGETATION MAINTENANCE: IF POSSIBLE, MOWING SHOULD BE AVOIDED FROM MAY 15TH THROUGH AUGUST 15TH TO MINIMIZE IMPACTS TO NESTING BIRDS. FOR THE BENEFIT OF BIRDS AS WELL AS TERRESTRIAL WILDLIFE, MOWING CONDUCTED ONCE PER SEASON IS OPTIMAL, AFTER OCTOBER 15TH WHEN MOST SPECIES HAVE ENTERED FALL/WINTER DORMANCY.

e. MOWING TYPE/METHOD:

1. MOWER SPEED: MOWING AT SLOW SPEEDS WILL ALLOW ANIMALS TO REACT AND MOVE OUT OF THE FIELD.
2. MOWING STYLE: AVOID FLAIL MOWER HEADS WITH GUIDE SAFE THAT RIDE ALONG THE GROUND. SICKLE BAR MOWERS WILL HAVE THE LEAST IMPACT IF MOWING EVERY 1-5 YEARS.
3. MOWING HEIGHT: IF MOWING DURING THE BREEDING SEASON, RETENTION OF MOWING STUBBLE AT A MINIMUM HEIGHT OF 7 INCHES WILL REDUCE MORTALITY AND WILL LEAVE IMPORTANT COVER FOR WILDLIFE.
4. DIRECTIONALITY: IF MOWING DURING THE BREEDING SEASON IS NECESSARY, START MOWING CLOSEST TO THE ARRAYS AND MOVE OUTWARD TOWARD THE EDGE OF THE ARRAY FIELD.

f. PRE-MOWING NEST SURVEYS: IF MOWING OUTSIDE OF THE NESTING SEASON IS NOT POSSIBLE, A PRE-MOWING INSPECTION BY AN ORNITHOLOGIST IS RECOMMENDED TO CONFIRM THAT NO NESTS ARE PRESENT WITHIN THE MOWING LIMITS. THAT SURVEY SHOULD OCCUR NO MORE THAN ONE WEEK PRIOR TO THE START OF MOWING. ANY ACTIVITY BY TARGET SPECIES SHOULD BE FIELD FLAGGED AND/OR CONVEYED TO THE CONTRACTOR. IF A NEST SITE IS OBSERVED WITHIN THE MOWING LIMITS, NO MOWING SHOULD OCCUR WITHIN 100 FEET OF THE NEST SITE UNTIL IT IS INACTIVE AND THE FLEDGLINGS ARE FULLY MOBILE.

BETHLEHEM SOLAR ONE & TWO, LLC
28 POCOTOPAUG DRIVE
EAST HAMPTON, CT 06424

ALL-POINTS TECHNOLOGY CORPORATION
567 VAUXHALL STREET EXTENSION - SUITE 311
WATERFORD, CT 06385 PHONE: [illegible]
WWW.ALLPOINTSTECH.COM FAX: [illegible]

CSC PERMIT SET

NO	DATE	REVISION
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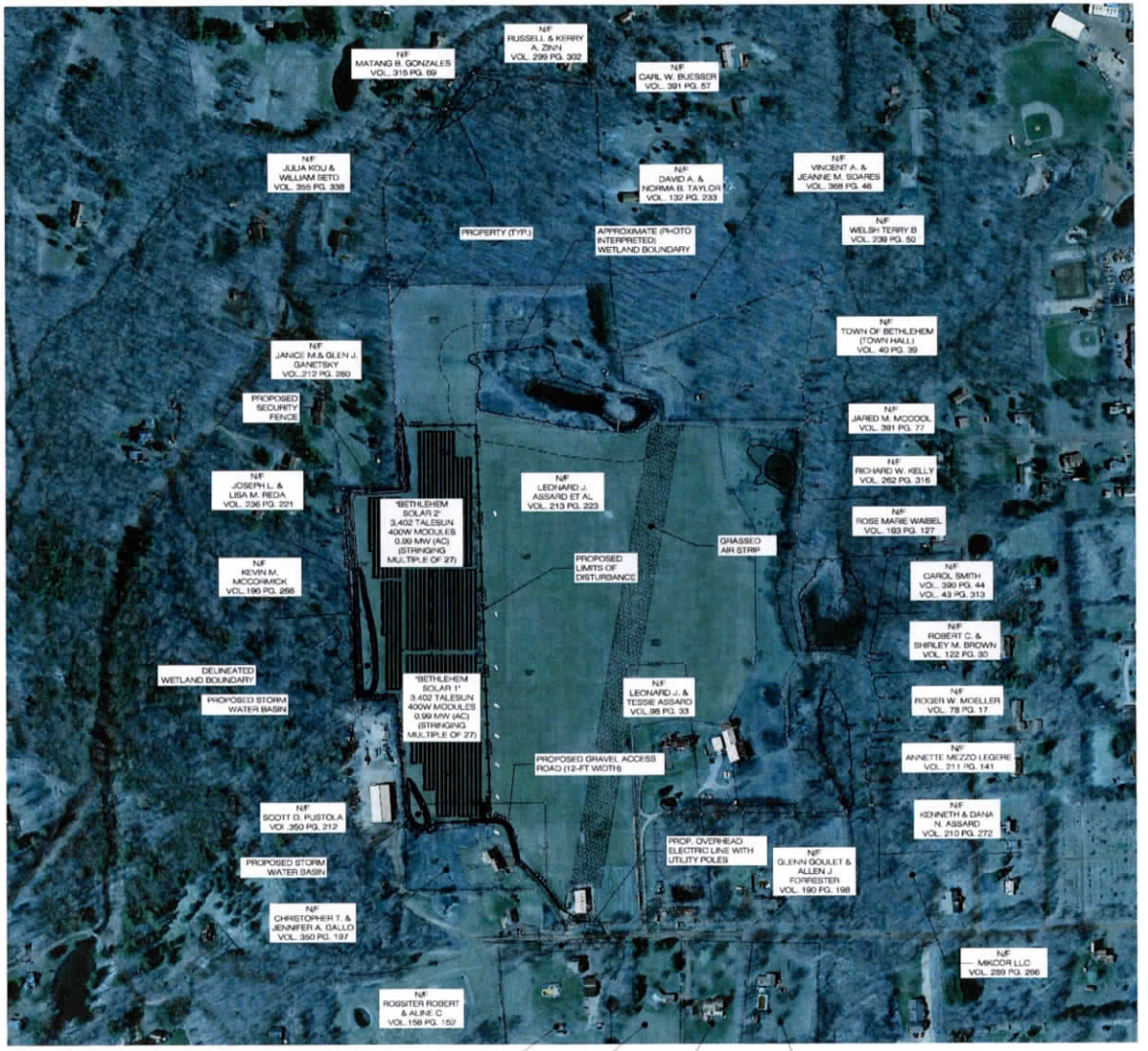
DESIGN PROFESSIONAL OF RECORD
PROF: KEVIN A. MCCAFFERY, PE
COMP: ALL-POINTS TECHNOLOGY CORPORATION
ADD: 567 VAUXHALL STREET EXTENSION - SUITE 311 WATERFORD, CT 06385

OWNER: LEONARD, TESSIE, KENNETH & JENNIFER ASSARD
ADDRESS: 76 THOMSON ROAD BETHLEHEM, CT 06751

BETHLEHEM SOLAR ONE & TWO, LLC
SITE ADDRESS: 76 THOMSON ROAD BETHLEHEM, CT
APT FILING NUMBER: CT[illegible]
DRAWN BY: DRA
DATE: [illegible]
CHECKED BY: KAB

SHEET TITLE:
ENVIRONMENTAL NOTES

SHEET NUMBER:
EN-1



DESIGN TABLE

MODULE MODEL - TALESUN 400W TRACKERS

INTER-ROW SPACING - 7'-10"

PROP. AZIMUTH - ±0 DEGREES

OVERALL SITE PLAN

(IN FEET) 1 inch = 200 ft.

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CSC PERMIT SET

NO	DATE	REVISION
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DESIGN PROFESSIONAL OF RECORD

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SITE ADDRESS: 78 THOMSON ROAD BETHLEHEM, CT

APT FILING NUMBER: CT562110

DRAWN BY: DRA

DATE: 09/04/2020 CHECKED BY: KAM

SHEET TITLE: OVERALL SITE PLAN

SHEET NUMBER: OP-1

STATE OF CONNECTICUT KEVIN A. MCCAFFERY 25071 LICENSED PROFESSIONAL ENGINEER

EROSION CONTROL NOTES

EROSION AND SEDIMENT CONTROL PLAN NOTES

1. THE CONTRACTOR SHALL CONSTRUCT ALL SEDIMENT AND EROSION CONTROLS IN ACCORDANCE WITH THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, LATEST EDITION, IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, AND AS DIRECTED BY THE TOWN OF BETHLEHEM, PERMITTEE, AND/OR SWPCP MONITOR. ALL PERIMETER SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF CLEARING AND GRUBBING AND DEMOLITION OPERATIONS.

2. THESE DRAWINGS ARE ONLY INTENDED TO DESCRIBE THE SEDIMENT AND EROSION CONTROL MEASURES FOR THIS SITE. SEE CONSTRUCTION SEQUENCE FOR ADDITIONAL INFORMATION. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE EROSION & SEDIMENT CONTROL PLAN ARE SHOWN AS REQUIRED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL EROSION CONTROL MEASURES ARE CONFIGURED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION OF SOILS AND PREVENT THE TRANSPORT OF SEDIMENTS AND OTHER POLLUTANTS TO STORM DRAINAGE SYSTEMS AND/OR WATERCOURSES. ACTUAL SITE CONDITIONS OR SEASONAL AND CLIMATIC CONDITIONS MAY WARRANT ADDITIONAL CONTROLS OR CONFIGURATIONS, AS REQUIRED, AND AS DIRECTED BY THE PERMITTEE AND/OR SWPCP MONITOR. REFER TO SITE PLAN FOR GENERAL INFORMATION AND OTHER CONTRACT PLANS FOR APPROPRIATE INFORMATION.

3. A BOND OR LETTER OF CREDIT MAY BE REQUIRED TO BE POSTED WITH THE GOVERNING AUTHORITY FOR THE EROSION CONTROL INSTALLATION AND MAINTENANCE.

4. THE CONTRACTOR SHALL APPLY THE MINIMUM EROSION & SEDIMENT CONTROL MEASURES SHOWN ON THE PLAN IN CONJUNCTION WITH CONSTRUCTION SEQUENCING, SUCH THAT ALL ACTIVE WORK ZONES ARE PROTECTED. ADDITIONAL AND/OR ALTERNATIVE SEDIMENT AND EROSION CONTROL MEASURES MAY BE INSTALLED DURING THE CONSTRUCTION PERIOD IF FOUND NECESSARY BY THE CONTRACTOR, OWNER, SITE ENGINEER, MUNICIPAL OFFICIALS, OR ANY GOVERNING AGENCY. THE CONTRACTOR SHALL CONTACT THE OWNER AND APPROPRIATE GOVERNING AGENCIES FOR APPROVAL IF ALTERNATIVE CONTROLS OTHER THAN THOSE SHOWN ON THE PLANS ARE PROPOSED BY THE CONTRACTOR.

5. THE CONTRACTOR SHALL TAKE EXTREME CARE DURING CONSTRUCTION SO AS NOT TO DISTURB UNPROTECTED WETLAND AREAS OR INSTALLED SEDIMENTATION AND EROSION CONTROL MEASURES. THE CONTRACTOR SHALL INSPECT ALL SEDIMENT AND EROSION CONTROLS WEEKLY AND WITHIN 24 HOURS OF A STORM WITH A RAINFALL AMOUNT OF 0.25 INCHES OR GREATER TO VERIFY THAT THE CONTROLS ARE OPERATING PROPERLY AND MAKE REPAIRS AS NECESSARY IN A TIMELY MANOR.

6. THE CONTRACTOR SHALL KEEP A SUPPLY OF EROSION CONTROL MATERIAL (SILT FENCE, COMPOST FILTER SOCK, EROSION CONTROL BLANKET, ETC.) ON-SITE FOR PERIODIC MAINTENANCE AND EMERGENCY REPAIRS.

7. ALL FILL MATERIAL PLACED ADJACENT TO ANY WETLAND AREA SHALL BE GOOD QUALITY, WITH LESS THAN 5% FINES PASSING THROUGH A #200 SIEVE (BANK RUN), SHALL BE PLACED IN MAXIMUM ONE FOOT LIFTS, AND SHALL BE COMPACTED TO 95% MAX. DRY DENSITY MODIFIED PROCTOR OR AS SPECIFIED IN THE CONTRACT SPECIFICATIONS.

8. PROTECT EXISTING TREES THAT ARE TO BE SAVED BY FENCING, ORANGE SAFETY FENCE, CONSTRUCTION TAPE, OR EQUIVALENT FENCING/TAPE. ANY LIMB TRIMMING IS SOULD BE DONE AFTER CONSULTATION WITH AN ARBORIST AND BEFORE CONSTRUCTION BEGINS IN THAT AREA. FENCING SHALL BE MAINTAINED AND REPAIRED DURING CONSTRUCTION.

9. CONSTRUCTION ENTRANCES (ANTI-TRACKING PADS) SHALL BE INSTALLED PRIOR TO ANY SITE EXCAVATION OR CONSTRUCTION ACTIVITY AND SHALL BE MAINTAINED THROUGHOUT THE DURATION OF ALL CONSTRUCTION IF REQUIRED. THE LOCATION OF THE TRACKING PADS MAY CHANGE AS VARIOUS PHASES OF CONSTRUCTION ARE COMPLETED. CONTRACTOR SHALL ENSURE THAT ALL VEHICLES EXITING THE SITE ARE PASSING OVER THE ANTI-TRACKING PADS PRIOR TO EXISTING.

10. ALL CONSTRUCTION SHALL BE CONTAINED WITHIN THE LIMIT OF DISTURBANCE, WHICH SHALL BE MARKED WITH SILT FENCE, SAFETY FENCE, HAY BALES, RIBBONS, OR OTHER MEANS PRIOR TO CLEARING. CONSTRUCTION ACTIVITY SHALL REMAIN ON THE UPHILL SIDE OF THE SEDIMENT BARRIER UNLESS WORK IS SPECIFICALLY CALLED FOR ON THE DOWN-HILL SIDE OF THE BARRIER.

11. NO CUT OR FILL SLOPES SHALL EXCEED 2:1 EXCEPT WHERE STABILIZED BY ROCK FACED EMBANKMENTS OR EROSION CONTROL BLANKETS. ALL SLOPES SHALL BE SEEDED AND BANKS WILL BE STABILIZED IMMEDIATELY UPON COMPLETION OF FINAL GRADING UNTIL TURF IS ESTABLISHED.

12. DIRECT ALL DEWATERING PUMP DISCHARGE TO A SEDIMENT CONTROL DEVICE CONFORMING TO THE GUIDELINES WITHIN THE APPROVED LIMIT OF DISTURBANCE IF REQUIRED. DISCHARGE TO STORM DRAINS OR SURFACE WATERS FROM SEDIMENT CONTROLS SHALL BE CLEAR AND APPROVED BY THE PERMITTEE OR MUNICIPALITY.

13. THE CONTRACTOR SHALL MAINTAIN A CLEAN CONSTRUCTION SITE AND SHALL NOT ALLOW THE ACCUMULATION OF RUBBISH OR CONSTRUCTION DEBRIS ON THE SITE. PROPER SANITARY DEVICES SHALL BE MAINTAINED ON-SITE AT ALL TIMES AND SECURED APPROPRIATELY. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID THE SPILLAGE OF FUEL OR OTHER POLLUTANTS ON THE CONSTRUCTION SITE AND SHALL ADHERE TO ALL APPLICABLE POLICIES AND REGULATIONS RELATED TO SPILL PREVENTION AND RESPONSE/CONTAINMENT.

14. MINIMIZE LAND DISTURBANCES. SEED AND MULCH DISTURBED AREAS WITH TEMPORARY MIX AS SOON AS PRACTICABLE (2 WEEK MAXIMUM UNSTABILIZED PERIOD) USING PERENNIAL RYEGRASS AT 40 LBS PER ACRE. MULCH ALL CUT AND FILL SLOPES AND SWALES WITH LOOSE HAY AT A RATE OF 2 TONS PER ACRE. IF NECESSARY, REPLACE LOOSE HAY ON SLOPES WITH EROSION CONTROL BLANKETS OR JUTE CLOTH. MODERATELY GRADED AREAS, ISLANDS, AND TEMPORARY CONSTRUCTION STAGING AREAS MAY BE HYDROSEEDED WITH TACKIFIER.

15. SWEEP AFFECTED PORTIONS OF OFF SITE ROADS ONE OR MORE TIMES A DAY (OR LESS FREQUENTLY IF TRACKING IS NOT A PROBLEM) DURING CONSTRUCTION. FOR DUST CONTROL, PERIODICALLY MOISTEN EXPOSED SOIL SURFACES WITH WATER ON UNPAVED TRAVELWAYS TO KEEP THE TRAVELWAYS DAMP. CALCIUM CHLORIDE MAY ALSO BE APPLIED TO ACCESS ROADS. DUMP TRUCK LOADS EXITING THE SITE SHALL BE COVERED.

16. VEGETATIVE ESTABLISHMENT SHALL OCCUR ON ALL DISTURBED SOIL, UNLESS THE AREA IS UNDER ACTIVE CONSTRUCTION. IT IS COVERED IN STONE OR SCHEDULED FOR PAVING WITHIN 30 DAYS. TEMPORARY SEEDING OR NON-LIVING SOIL PROTECTION OF ALL EXPOSED SOILS AND SLOPES SHALL BE INITIATED WITHIN THE FIRST 7 DAYS OF SUSPENDING WORK IN AREAS TO BE LEFT LONGER THAN 30 DAYS.

17. MAINTAIN ALL PERMANENT AND TEMPORARY SEDIMENT CONTROL DEVICES IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD. UPON COMPLETION OF WORK SWEEP CONCRETE PADS, CLEAN THE STORMWATER MANAGEMENT SYSTEMS AND REMOVE ALL TEMPORARY SEDIMENT CONTROLS ONCE THE SITE IS FULLY STABILIZED AND APPROVAL HAS BEEN RECEIVED FROM PERMITTEE OR THE MUNICIPALITY.

18. SEEDING MIXTURES SHALL BE NEW ENGLAND SEMI-SHADE GRASS AND FORBS MIX (SEE SITE DETAILS SHEET DN-1), OR APPROVED EQUAL BY OWNER.

CONSTRUCTION OPERATION AND MAINTENANCE PLAN - BY CONTRACTOR

E&S MEASURE	INSPECTION SCHEDULE	MAINTENANCE REQUIRED
CONSTRUCTION ENTRANCE	DAILY	PLACE ADDITIONAL STONE, EXTEND THE LENGTH OR REMOVE AND REPLACE THE STONE. CLEAN PAVED SURFACES OF TRACKED SEDIMENT.
COMPOST FILTER SOCK	WEEKLY & WITHIN 24 HOURS OF RAINFALL > 0.25"	REPAIR/REPLACE WHEN FAILURE OR DETERIORATION IS OBSERVED.
SILT FENCE	WEEKLY & WITHIN 24 HOURS OF RAINFALL > 0.25"	REPAIR/REPLACE WHEN FAILURE OR DETERIORATION IS OBSERVED. REMOVE SILT WHEN IT REACHES 1/2 THE HEIGHT OF THE FENCE.
TOPSOIL/BORROW STOCKPILES	DAILY	REPAIR/REPLACE SEDIMENT BARRIERS AS NECESSARY.
TEMPORARY SEDIMENT BASIN (W/ BAFFLES)	WEEKLY & WITHIN 24 HOURS OF RAINFALL > 0.5"	REMOVE SEDIMENT ONCE IT HAS ACCUMULATED TO ONE HALF OF MINIMUM REQUIRED VOLUME OF THE WET STORAGE, DEWATERING AS NEEDED, RESTORE TRAP TO ORIGINAL DIMENSIONS, REPAIR/REPLACE BAFFLES WHEN FAILURE OR DETERIORATION IS OBSERVED.
TEMPORARY SEDIMENT TRAP (W/O BAFFLES)	WEEKLY & WITHIN 24 HOURS OF RAINFALL > 0.5"	REMOVE SEDIMENT ONCE IT HAS ACCUMULATED TO ONE HALF OF MINIMUM REQUIRED VOLUME OF THE WET STORAGE, DEWATERING AS NEEDED, RESTORE TRAP TO ORIGINAL DIMENSIONS, REPAIR/REPLACE BAFFLES WHEN FAILURE OR DETERIORATION IS OBSERVED.
TEMPORARY SOIL PROTECTION	WEEKLY & WITHIN 24 HOURS OF RAINFALL > 0.25"	REPAIR ERODED OR BARE AREAS IMMEDIATELY. RESEED AND MULCH.

SEDIMENT & EROSION CONTROL NARRATIVE

1. THE PROJECT INVOLVES THE CONSTRUCTION OF A GROUND MOUNTED SOLAR PANEL FACILITY WITH ASSOCIATED EQUIPMENT, INCLUDING THE CLEARING, GRUBBING AND GRADING OF APPROXIMATELY 11.84± ACRES OF EXISTING LOT.

THE PROPOSED PROJECT INVOLVES THE FOLLOWING CONSTRUCTION:

A. CLEARING, GRUBBING, AND GRADING OF EXISTING LOT.
B. CONSTRUCTION OF 6,804 GROUND MOUNTED SOLAR PANELS AND ASSOCIATED EQUIPMENT.
B. THE STABILIZATION OF DISTURBED AREAS WITH PERMANENT VEGETATIVE TREATMENTS.

2. FOR THIS PROJECT, THERE ARE APPROXIMATELY 11.84± ACRES OF THE SITE BEING DISTURBED WITH NEGLIGIBLE INCREASE IN THE IMPERVIOUS AREA OF THE SITE, AS ALL ACCESS THOUGH THE SITE WILL BE GRAVEL. IMPERVIOUS AREAS ARE LIMITED TO THE CONCRETE PADS FOR ELECTRICAL EQUIPMENT.

3. THE PROJECT SITE, AS MAPPED IN THE SOIL SURVEY OF STATE OF CONNECTICUT (NRCS, VERSION 18, SEP 13, 2019), CONTAINS MAP UNIT 3 (HYDROLOGIC SOIL GROUP D), 80 (HYDROLOGIC SOIL GROUP B), AND 84 & 85 (HYDROLOGIC SOIL GROUP C) SOILS. A GEOTECHNICAL ENGINEERING REPORT HAS BEEN COMPLETED.

4. IT IS ANTICIPATED THAT CONSTRUCTION WILL BE COMPLETED IN APPROXIMATELY 3-4 MONTHS.

5. REFER TO THE CONSTRUCTION SEQUENCING AND EROSION AND SEDIMENTATION NOTES FOR INFORMATION REGARDING SEQUENCING OF MAJOR OPERATIONS IN THE ON-SITE CONSTRUCTION PHASES.

6. STORMWATER MANAGEMENT DESIGN CRITERIA UTILIZES THE APPLICABLE SECTIONS OF THE 2004 CONNECTICUT STORMWATER QUALITY MANUAL AND THE TOWN OF BETHLEHEM STANDARDS, TO THE EXTENT POSSIBLE AND PRACTICABLE FOR THIS PROJECT ON THIS SITE. EROSION AND SEDIMENTATION MEASURES ARE BASED UPON ENGINEERING PRACTICE, JUDGEMENT AND THE APPLICABLE SECTIONS OF THE CONNECTICUT EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS, LATEST EDITION.

7. DETAILS FOR THE TYPICAL STORMWATER MANAGEMENT AND EROSION AND SEDIMENTATION MEASURES ARE SHOWN ON THE PLAN SHEETS OR PROVIDED AS SEPARATE SUPPORT DOCUMENTATION FOR REVIEW IN THIS PLAN.

8. CONSERVATION PRACTICES TO BE USED DURING CONSTRUCTION:
   A. STAGED CONSTRUCTION;
   B. MINIMIZE THE DISTURBED AREAS TO THE EXTENT PRACTICABLE DURING CONSTRUCTION;
   C. STABILIZE DISTURBED AREAS WITH TEMPORARY OR PERMANENT MEASURES AS SOON AS POSSIBLE, BUT NO LATER THAN 7-DAYS FOLLOWING DISTURBANCE;
   D. MINIMIZE IMPERVIOUS AREAS,
   E. UTILIZE APPROPRIATE CONSTRUCTION EROSION AND SEDIMENTATION MEASURES.

9. THE FOLLOWING SEPARATE DOCUMENTS ARE TO BE CONSIDERED A PART OF THE EROSION AND SEDIMENTATION PLAN:
   A. STORMWATER MANAGEMENT REPORT DATED AUGUST 2020.
   B. SWPCP DATED AUGUST 2020

SUGGESTED CONSTRUCTION SEQUENCE

THE FOLLOWING SUGGESTED SEQUENCE OF CONSTRUCTION ACTIVITIES IS PROJECTED BASED UPON ENGINEERING JUDGEMENT AND BEST MANAGEMENT PRACTICES. THE CONTRACTOR MAY ELECT TO ALTER THE SEQUENCING TO BEST MEET THE CONSTRUCTION SCHEDULE, THE EXISTING SITE ACTIVITIES AND WEATHER CONDITIONS. SHOULD THE CONTRACTOR ALTER THE CONSTRUCTION SEQUENCE OR ANY EROSION AND SEDIMENTATION CONTROL MEASURES THEY SHALL MODIFY THE STORMWATER POLLUTION CONTROL PLAN ("SWPCP") AS REQUIRED BY THE GENERAL PERMIT. MAJOR CHANGES IN SEQUENCING AND/OR METHODS MAY REQUIRE REGULATORY APPROVAL PRIOR TO IMPLEMENTATION.

1. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING, PHYSICALLY FLAG THE LIMITS OF DISTURBANCE IN THE FIELD AS NECESSARY TO FACILITATE THE PRE-CONSTRUCTION MEETING.

2. CONDUCT A PRE-CONSTRUCTION MEETING TO DISCUSS THE PROPOSED WORK AND EROSION AND SEDIMENTATION CONTROL MEASURES. THE MEETING SHOULD BE ATTENDED BY THE OWNER, THE OWNER'S REPRESENTATIVE(S), THE GENERAL CONTRACTOR, DESIGNATED SUB-CONTRACTORS AND THE PERSON, OR PERSONS, RESPONSIBLE FOR THE IMPLEMENTATION, OPERATION, MONITORING AND MAINTENANCE OF THE EROSION AND SEDIMENTATION MEASURES. THE CONSTRUCTION PROCEDURES FOR THE ENTIRE PROJECT SHALL BE REVIEWED AT THIS MEETING.

3. NOTIFY CALL BEFORE YOU DIG AT 1-800-922-4455, AS REQUIRED, PRIOR TO THE START OF CONSTRUCTION.

4. REMOVE EXISTING IMPEDIMENTS AS NECESSARY AND PROVIDE MINIMAL CLEARING AND GRUBBING TO INSTALL THE REQUIRED CONSTRUCTION ENTRANCE(S).

5. CLEAR ONLY AS NEEDED TO INSTALL THE PERIMETER EROSION AND SEDIMENTATION CONTROL MEASURES AND, IF APPLICABLE, TREE PROTECTION. ALL WETLAND AREAS SHALL BE PROTECTED BEFORE MAJOR CONSTRUCTION BEGINS.

6. INSTALL PERIMETER EROSION CONTROL.

7. INSTALL EROSION CONTROL BELOW EQUIPMENT AREA AND INSTALL CONCRETE EQUIPMENT PADS AND CONDUITS PROTECTED BY THESE CONTROLS.

8. INSTALL TEMPORARY SEDIMENT BASINS, GRAVEL STABILIZED ACCESS ROADS, AND ASSOCIATED SWALES. UPON COMPLETION OF THE INSTALLATION AND STABILIZATION OF THE BASINS AND SWALES, UP GRADIENT WORK CAN PROCEED.

9. UPON COMPLETION OF THE INSTALLATION OF EACH OF THE TEMPORARY SEDIMENT BASINS, THE AREA ABOVE THE BASIN CAN HAVE THE REMAINING ARRAY AREA CLEARING AND GRUBBING COMPLETED AS REQUIRED. REMOVE AND DISPOSE OF DEMOLITION DEBRIS OFF-SITE IN ACCORDANCE WITH APPLICABLE LAWS.

10. TEMPORARILY SEED DISTURBED AREAS NOT UNDER CONSTRUCTION FOR THIRTY (30) DAYS OR MORE.

11. INSTALL REMAINING ELECTRICAL CONDUIT.

12. INSTALL RACKING POSTS FOR GROUND MOUNTED SOLAR PANELS.

13. INSTALL GROUND MOUNTED SOLAR PANELS AND COMPLETE ELECTRICAL INSTALLATION.

14. AFTER SUBSTANTIAL COMPLETION OF THE INSTALLATION OF THE SOLAR PANELS, COMPLETE REMAINING SITE WORK, INCLUDING ANY REQUIRED LANDSCAPE SCREENING, AND STABILIZE ALL DISTURBED AREAS.

15. FINE GRADE, RAKE, SEED AND MULCH ALL REMAINING DISTURBED AREAS.

16. AFTER THE SITE IS STABILIZED AND WITH THE APPROVAL OF THE PERMITTEE AND TOWN OF BETHLEHEM AGENT, REMOVE PERIMETER EROSION AND SEDIMENTATION CONTROLS.

BETHLEHEM SOLAR ONE & TWO, LLC
28 POCOTOPAUG DRIVE
EAST HAMPTON, CT 06424

ALL-POINTS TECHNOLOGY CORPORATION
567 VAUXHALL STREET EXTENSION - SUITE 311
WATERFORD, CT 06385 PHONE: (860)-663-1697
WWW.ALLPOINTSTECH.COM FAX: (860)-663-0935

CSC PERMIT SET

NO:	DATE	REVISION
0	09/28/21	FOR CONSTRUCTION: KAM
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DESIGN PROFESSIONAL OF RECORD

PROF: KEVIN A. MCCAFFERY, PE
COMP: ALL-POINTS TECHNOLOGY CORPORATION
ADD: 567 VAUXHALL STREET EXTENSION - SUITE 311 WATERFORD, CT 06385

OWNER: LEONARD, TESSIE, KENNETH & JENNIFER ASSARD
ADDRESS: 76 THOMSON ROAD BETHLEHEM, CT 06751

BETHLEHEM SOLAR ONE & TWO, LLC

SITE ADDRESS: 76 THOMSON ROAD; BETHLEHEM, CT

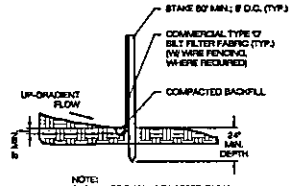
APT FILING NUMBER: CT063116

DRAWN BY: GRA

DATE: 09/24/2020 CHECKED BY: KAM

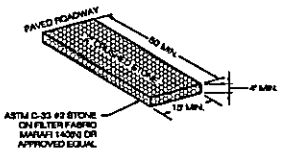
SHEET TITLE:
SEDIMENTATION & EROSION CONTROL NOTES

SHEET NUMBER:
EC-1

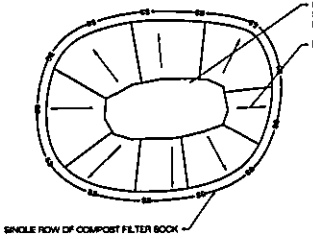


NOTE:
SILT FENCE SHALL BE LAPPED ONLY WHEN NECESSARY PER THE MANUFACTURER RECOMMENDATIONS.

1 EC-7 SILT FENCE DETAIL
SCALE : N.T.S.

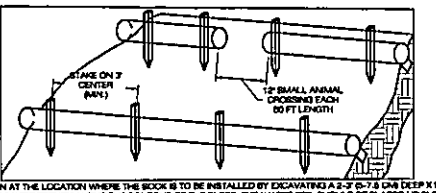


CONSTRUCTION ENTRANCE DETAIL
2 EC-2 SCALE : N.T.S.



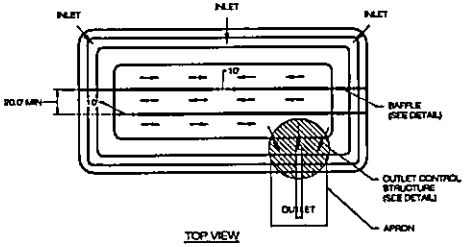
NOTES:
1. ALL EXISTING EXCAVATED MATERIAL THAT IS NOT TO BE REUSED IN THE WORK IS TO BE IMMEDIATELY REMOVED FROM THE SITE AND PROPERLY DISPOSED OF.
2. BOIL/AGGREGATE STOCKPILE SITES TO BE WHERE SHOWN ON THE DRAWINGS.
3. RESTORE STOCKPILE SITES TO PRE-EXISTING PROJECT CONDITION AND RESEED AS REQUIRED.
4. STOCKPILE HEIGHTS MUST NOT EXCEED 35'. STOCKPILE SLOPES MUST BE 2:1 OR FLATTER.

3 EC-9 MATERIALS STOCKPILE DETAIL
SCALE : N.T.S.

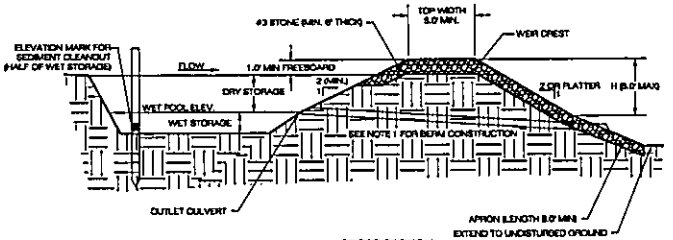


1. BEGIN AT THE LOCATION WHERE THE SOCK IS TO BE INSTALLED BY EXCAVATING A 2-3" (5-7.6 CM) DEEP X 9" (22.9 CM) WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UP SLOPE FROM THE ANCHOR TRENCH.
2. PLACE THE SOCK IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT SOIL FROM THE EXCAVATED TRENCH AGAINST THE SOCK ON THE UPHILL SIDE. SOCKS SHALL BE INSTALLED IN 50 FT CONTINUOUS LENGTHS WITH ADJACENT SOCKS TIGHTLY ABUT. EVERY 50 FT THE SOCK ROW SHALL BE SPACED 12 INCHES CLEAR, END TO END, FOR AMPHIBIAN AND REPTILE TRAVEL. THE OPEN SPACES SHALL BE STAGGERED MID LENGTH OF THE NEXT DOWN GRADIENT SOCK.
3. SECURE THE SOCK WITH 18-24" (45.7-61 CM) STAKES EVERY 3-4' (0.9 - 1.2 M) AND WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE SOCK LEAVING AT LEAST 2-3" (5-7.6 CM) OF STAKE EXTENDING ABOVE THE SOCK. STAKES SHOULD BE DRIVEN PERPENDICULAR TO THE SLOPE FACE.

COMPOST FILTER SOCK SEDIMENTATION CONTROL BARRIER
4 EC-4 SCALE : N.T.S.



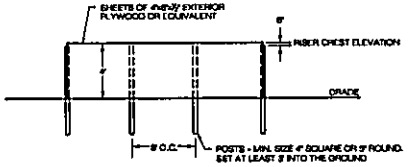
TOP VIEW



CROSS SECTION

NOTES:
1. CONSTRUCT TEMPORARY SEDIMENT BASIN BERMS AND SIDEWALLS PER THE GRASS LINED BASIN DETAIL.
2. SEDIMENT BAFFLES SHALL BE INSTALLED AS SHOWN ON EC-3 TO EC-5.
3. SEE TSB SIZING TABLE FOR WET AND DRY STORAGE VOLUMES.

5 EC-7 TEMPORARY SEDIMENT BASIN
SCALE : N.T.S.



6 EC-5 SEDIMENT TRAP BAFFLE
SCALE : N.T.S.

TEMPORARY SEDIMENT BASIN SIZING TABLE

BASIN NAME	DRAINAGE AREA (AC)	REQ. DRY VOLUME (CF)	REQ. WET VOLUME (CF)	PROP. BTM. ELEV. (FT)	PROP. CULVERT ELEV. (FT)	PROP. WEIR CREST ELEV. (FT)	PROP. TOP ELEV. (FT)	DRY VOL. PROVIDED (CF)	WET VOL. PROVIDED (CF)	TOTAL VOL. PROVIDED (CF)
TSB-1	3.18	2,540	5,080	700.00	701.50	702.00	704.00	2,550	6,195	8,745
TSB-2	8.86	6,924	13,848	705.00	706.50	707.00	709.00	7,479	18,496	25,975

BETHLEHEM SOLAR ONE & TWO, LLC
28 POCOTOPAUG DRIVE
EAST HAMPTON, CT 06424

ALL-POINTS TECHNOLOGY CORPORATION
167 VALLEVALE STREET EXTENSION - SUITE 311
WATERFORD, CT 06385 PHONE: (860) 663-1697
WWW.ALLPOINTSTECH.COM FAX: (860) 663-1935

CSC PERMIT SET

NO	DATE	REVISION
0	06/28/21	FOR CONSTRUCTION: KAM
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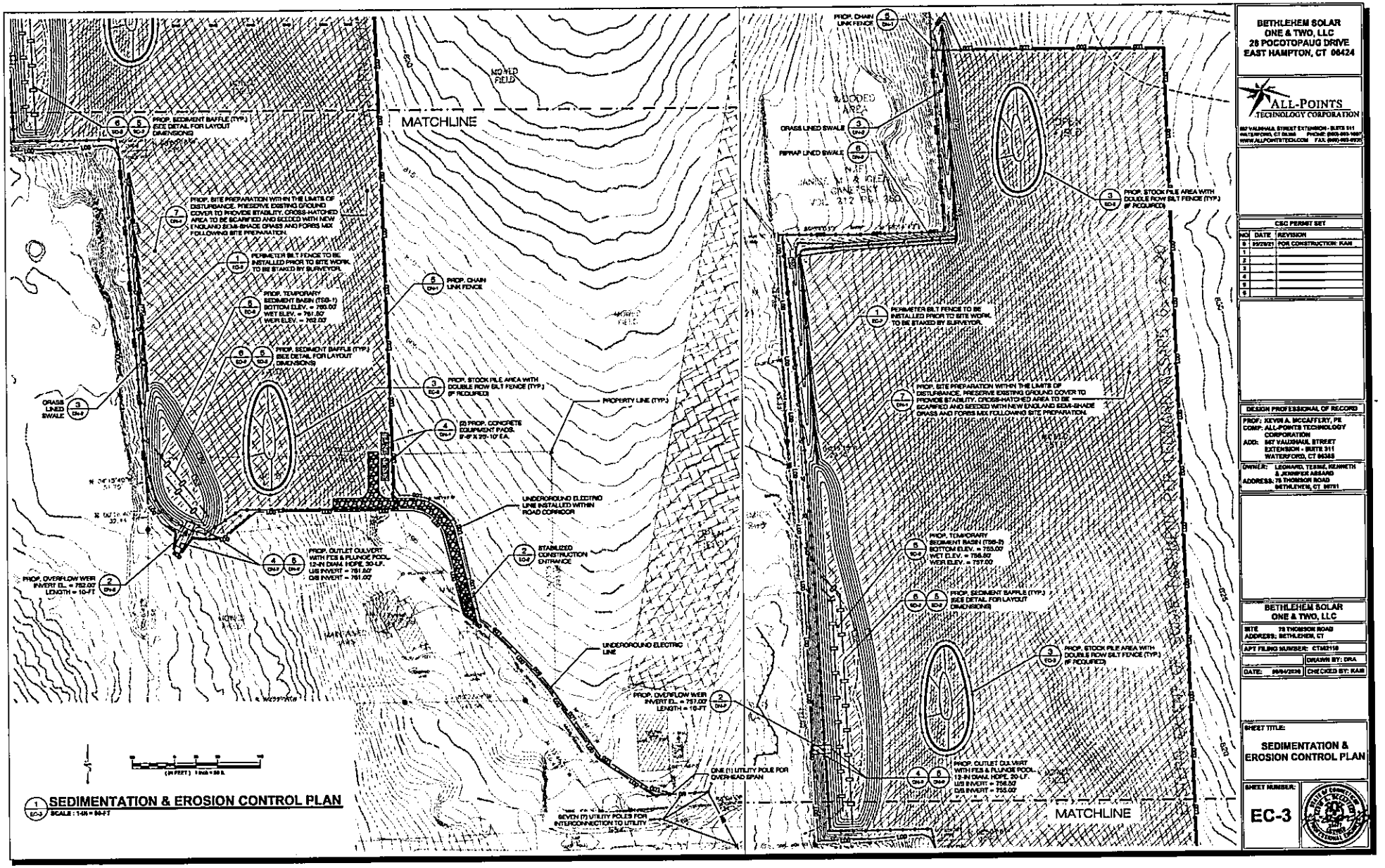
DESIGN PROFESSIONAL OF RECORD
PROF: KEVIN A. MCCAFFERY, PE
COMP: ALL-POINTS TECHNOLOGY CORPORATION
ADD: 567 VALLEVALE STREET EXTENSION • SUITE 311 WATERFORD, CT 06385

OWNER: LEONARD, TESSNE, KENNETH & JENNIFER ASSARO
ADDRESS: 78 THOMSON ROAD BETHLEHEM, CT 06751

BETHLEHEM SOLAR ONE & TWO, LLC
SITE ADDRESS: 78 THOMSON ROAD BETHLEHEM, CT
APT FILING NUMBER: CTM2119
DRAWN BY: DRA
DATE: 06/04/2020 CHECKED BY: KAM

SHEET TITLE:
SEDIMENTATION & EROSION CONTROL DETAILS

SHEET NUMBER:
EC-2



SEDIMENTATION & EROSION CONTROL PLAN

SCALE : 1-IN = 50-FT

BETHLEHEM SOLAR ONE & TWO, LLC
28 POCOTOPAUG DRIVE
EAST HAMPTON, CT 06424

ALL-POINTS TECHNOLOGY CORPORATION
857 VAUGHAN STREET EXTENSION - SUITE 311
WATERFORD, CT 06385 PHONE: (860) 663-1697
WWW.ALLPOINTSTECH.COM FAX: (860) 663-0935

CSC PERMIT SET

NO	DATE	REVISION
0	09/29/21	FOR CONSTRUCTION: KAH
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DESIGN PROFESSIONAL OF RECORD

PROF: KEVIN A. MCCAFFERY, PE
COMP: ALL-POINTS TECHNOLOGY CORPORATION
ADD: 857 VAUGHAN STREET EXTENSION - SUITE 311 WATERFORD, CT 06385

OWNER: LEONARD, TERRIE, KENNETH & JENNIFER ABBARD
ADDRESS: 78 THOMSON ROAD BETHLEHEM, CT 06751

BETHLEHEM SOLAR ONE & TWO, LLC

SITE ADDRESS: 78 THOMSON ROAD, BETHLEHEM, CT

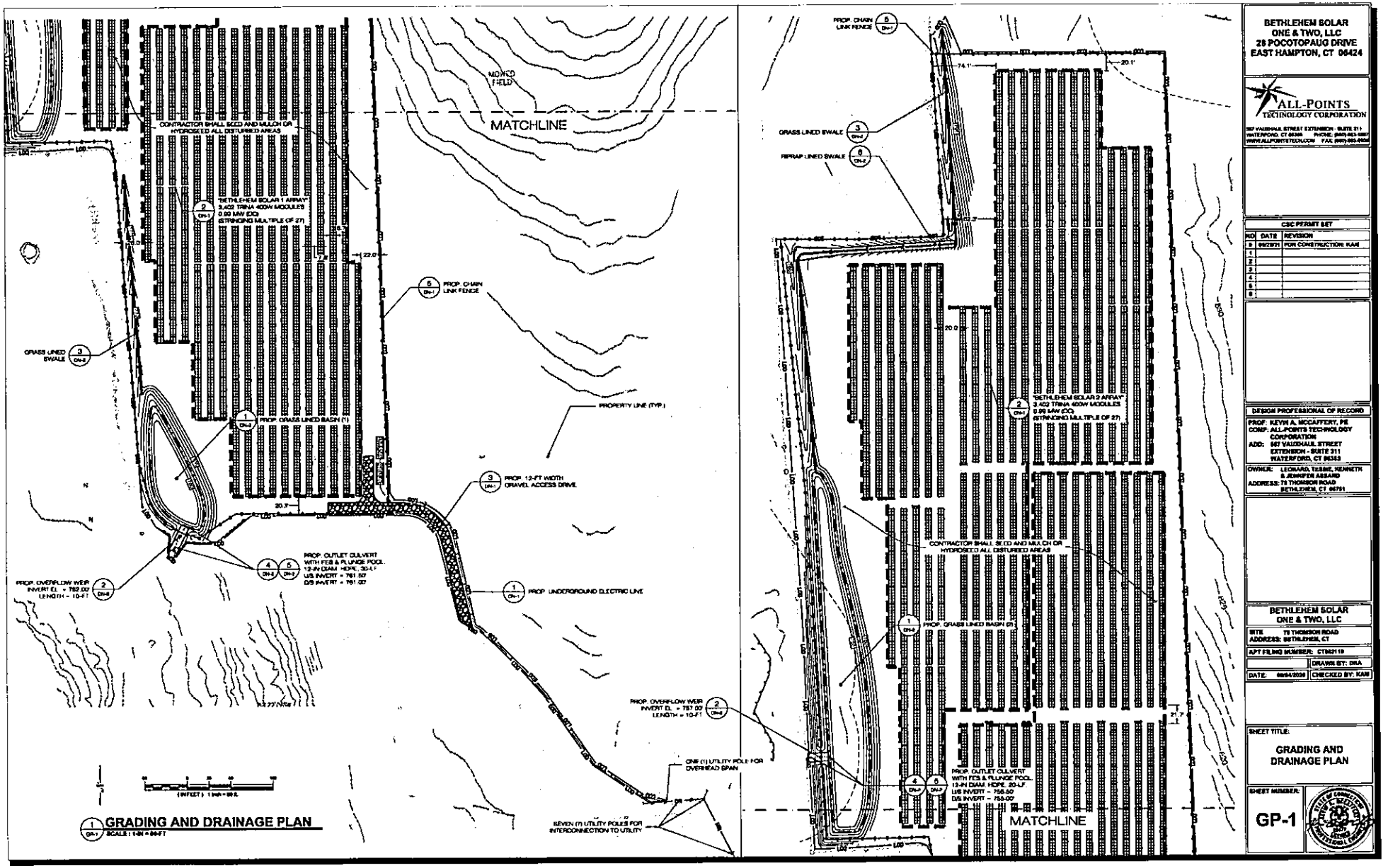
APT FILING NUMBER: CTM2118

DRAWN BY: DRA

DATE: 09/29/2021 CHECKED BY: KAH

SHEET TITLE:
SEDIMENTATION & EROSION CONTROL PLAN

SHEET NUMBER:
EC-3



1 GRADING AND DRAINAGE PLAN
SCALE: 1-IN = 60-FT

BETHLEHEM SOLAR
ONE & TWO, LLC
28 POCOTOPAUG DRIVE
EAST HAMPTON, CT 06424

ALL-POINTS TECHNOLOGY CORPORATION
587 VALLEYHAUL STREET EXTENSION - SUITE 311
WATERFORD, CT 06385 PHONE: (860) 663-1697
WWW.ALLPOINTSTECH.COM FAX: (860) 663-0935

CSC PERMIT SET

NO	DATE	REVISION
0	06/2021	FOR CONSTRUCTION: KAH
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DESIGN PROFESSIONAL OF RECORD
PROF. KEVIN A. MCCAFFERY, PE
CONF: ALL-POINTS TECHNOLOGY CORPORATION
ADD: 587 VALLEYHAUL STREET EXTENSION - SUITE 311 WATERFORD, CT 06385

OWNER: LEONARD, TESSIE, KENNETH & JENNIFER ASSARD
ADDRESS: 78 THOMSON ROAD BETHLEHEM, CT 06751

BETHLEHEM SOLAR
ONE & TWO, LLC

SITE ADDRESS: 78 THOMSON ROAD BETHLEHEM, CT

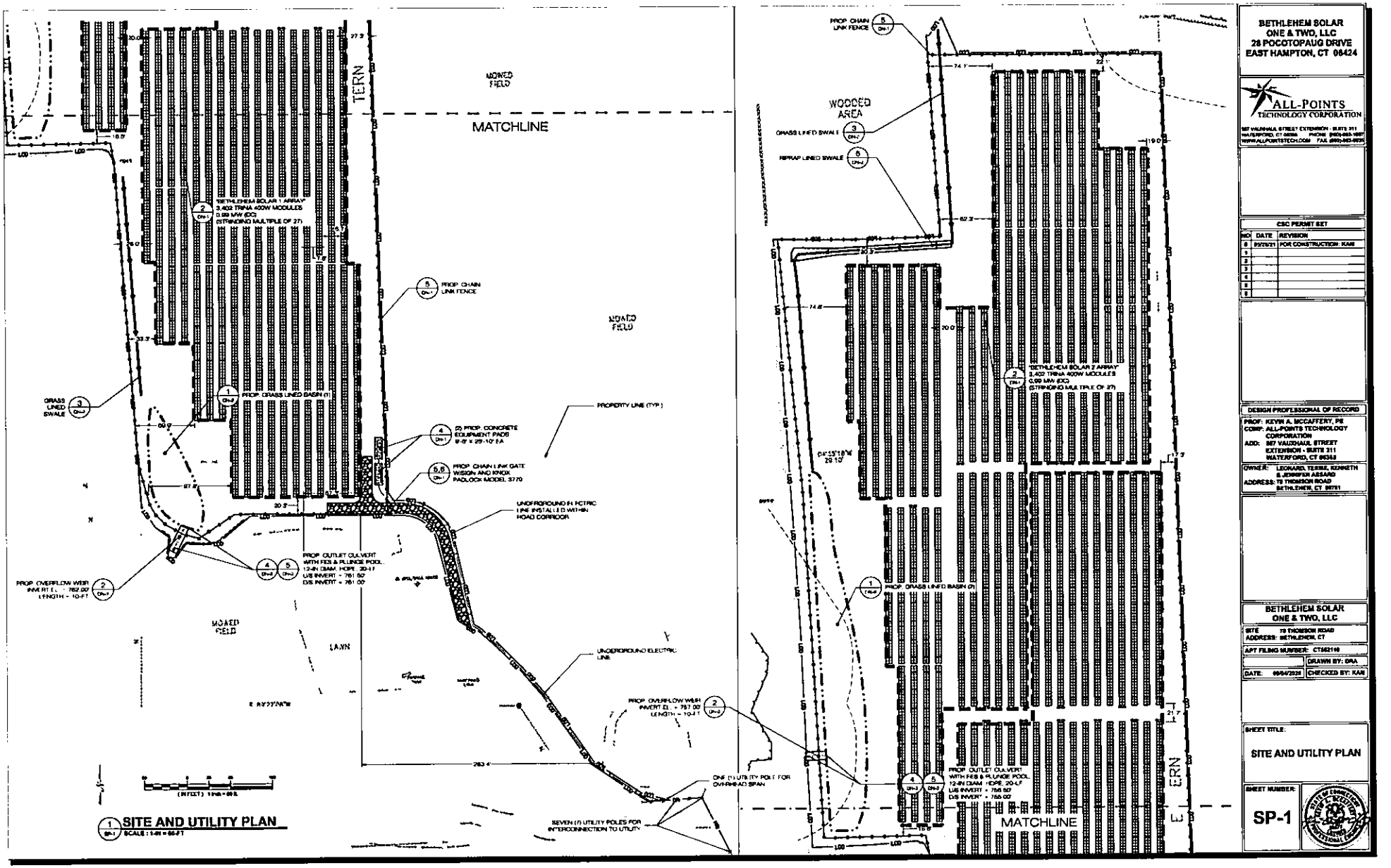
APT FILING NUMBER: CTM21119

DRAWN BY: DRA

DATE: 06/04/2021 CHECKED BY: KAH

SHEET TITLE:
GRADING AND DRAINAGE PLAN

SHEET NUMBER:
GP-1



BETHLEHEM SOLAR ONE & TWO, LLC
28 POCOTOPAUG DRIVE
EAST HAMPTON, CT 06424

ALL-POINTS TECHNOLOGY CORPORATION

CSC PERMIT SET

NO	DATE	REVISION
0	5/27/21	FOR CONSTRUCTION: KAH
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DESIGN PROFESSIONAL OF RECORD

PROF: KEVIN A. MCCAFFERY, PE
CORP: ALL-POINTS TECHNOLOGY CORPORATION
ADD: 567 VAUXHAUL STREET EXTENSION - SUITE 311 WATERFORD, CT 06385

OWNER: LEONARD, TERRIE, KENNETH & JENNIFER ASSARD
ADDRESS: 78 THOMSON ROAD BETHLEHEM, CT 06751

BETHLEHEM SOLAR ONE & TWO, LLC

SITE ADDRESS: 78 THOMSON ROAD BETHLEHEM, CT

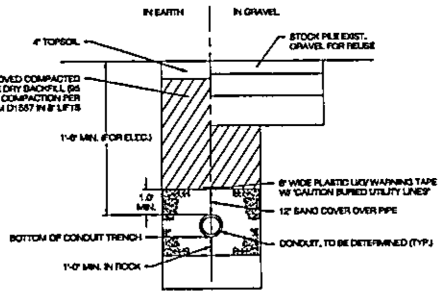
APT FILING NUMBER: CT-562119

DRAWN BY: DRA

DATE: 05/04/2021 CHECKED BY: KAH

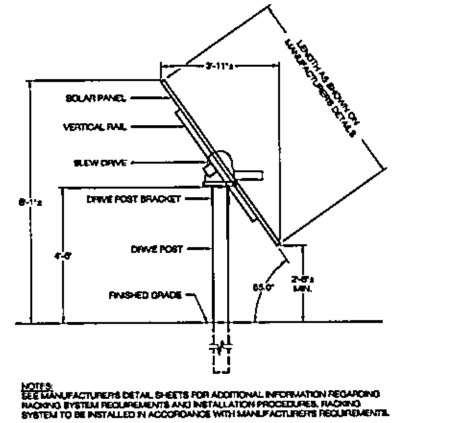
SHEET TITLE:
SITE AND UTILITY PLAN

SHEET NUMBER:
SP-1



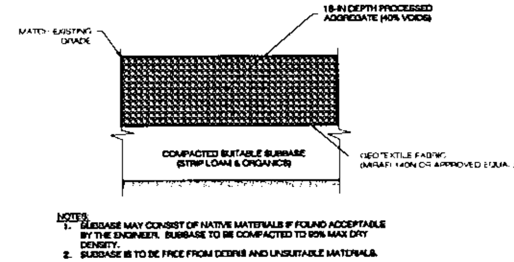
IN EARTH
IN GRAVEL
4" TOPSOIL
STOCK PILE EXIST. GRAVEL FOR REUSE
APPROVED COMPACTED 95% MAX DRY BACKFILL (95 DENSITY) COMPACTION PER ASTM D1557 IN 8" LIFTS
1'-6" MIN. (FOR ELEC.)
6" WIDE PLASTIC UG WARNING TAPE W/ "CAUTION BURIED UTILITY LINES"
1.0' MIN.
12" SAND COVER OVER PIPE
BOTTOM OF CONDUIT TRENCH
CONDUIT, TO BE DETERMINED (TYP.)
1'-0" MIN. IN ROCK

1 ELECTRICAL TRENCH DETAIL
DN-1 SCALE: N.T.S.



NOTES:
SEE MANUFACTURER'S DETAIL SHEETS FOR ADDITIONAL INFORMATION REGARDING RACKING SYSTEM REQUIREMENTS AND INSTALLATION PROCEDURES. RACKING SYSTEM TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.

2 TYPICAL TRACKER POST MOUNTED RACKING SYSTEM
DN-1 SCALE: N.T.S.



NOTES:
1. SUBBASE MAY CONSIST OF NATIVE MATERIALS IF FOUND ACCEPTABLE BY THE ENGINEER. SUBBASE TO BE COMPACTED TO 95% MAX DRY DENSITY.
2. SUBBASE IS TO BE FREE FROM DEBRIS AND UNSUITABLE MATERIALS.

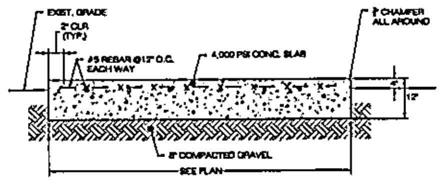
3 GRAVEL ACCESS DRIVE SECTION
DN-1 SCALE: N.T.S.

BETHLEHEM SOLAR ONE & TWO, LLC

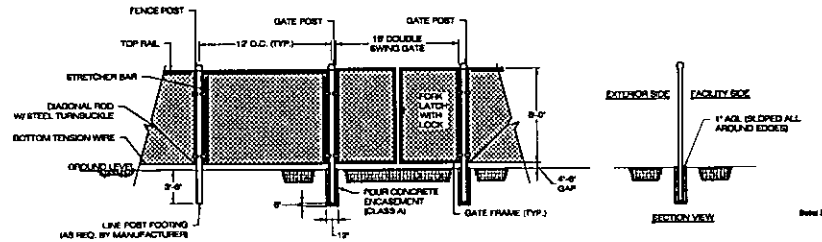
IN CASE OF EMERGENCY CALL T.B.D.

NOTES:
EMERGENCY CALL NUMBER TO BE PROVIDED ONCE DETERMINED.

6 NOTIFICATION SIGN DETAIL
DN-1 SCALE: N.T.S.



4 CONCRETE EQUIPMENT PAD
DN-1 SCALE: N.T.S.



FENCE POST
TOP RAIL
STRETCHER BAR
DIAGONAL ROD W/ STEEL TURNBUCKLE
BOTTOM TENSION WIRE
GROUND LEVEL
LINE POST FOOTING (AS REQ. BY MANUFACTURER)
GATE POST
12' O.C. (TYP.)
16' DOUBLE SWING GATE
FORK LATCH WITH LOCK
8'-0"
4"-6" GAP
3'-6"
POUR CONCRETE ENCASEMENT (CLASS A)
GATE FRAME (TYP.)
EXTERIOR SIDE
FACILITY SIDE
1" AGL (SLOPED ALL AROUND EDGES)
SECTION VIEW

5 CHAIN-LINK FENCE & GATE DETAIL
DN-1 SCALE: N.T.S.

Ernst Conservation Seeds
8884 Mercer Pike
Meadville, PA 16335
(800) 873-3321 Fax (814) 336-5191
www.ernstseed.com

Showy Northeast Native Wildflower Mix - ERNMX-153-1

	Botanical Name	Common Name	Price/lb
[illegible]	[illegible]	Purple Coneflower	[illegible]
[illegible]	[illegible]	Lanceleaf Coreopsis	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	Partridge Pea, PA Ecotype	[illegible]
7.00 %	[illegible]	Oxeye Sunflower, PA Ecotype	[illegible]
[illegible]	[illegible]	Ohio Spiderwort, PA Ecotype	[illegible]
[illegible]	[illegible]	Marsh Blazing Star	[illegible]
[illegible]	[illegible]	Aromatic Aster, PA Ecotype	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	Golden Alexanders, PA Ecotype	[illegible]
[illegible]	[illegible]	Smooth Blue Aster, NY Ecotype	[illegible]
[illegible]	[illegible]	New England Aster, PA Ecotype	[illegible]
[illegible]	[illegible]	Blue False Indigo, Southern WV Ecotype	[illegible]
[illegible]	[illegible]	Butterfly Milkweed	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	Wild Senna, VA & WV Ecotype	[illegible]
[illegible]	[illegible]	Wild Bergamot, [illegible]	[illegible]
[illegible]	[illegible]	Gray Goldenrod, PA Ecotype	[illegible]
[illegible]	[illegible]	Blackroot, VA Ecotype	[illegible]
[illegible]	[illegible]	White Avens, PA Ecotype	[illegible]
[illegible]	[illegible]	Tall White Beardtongue, PA Ecotype	[illegible]
[illegible]	[illegible]	Tall Coreopsis, PA Ecotype	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	Hairy Beardtongue	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]

Mix Price/lb Bulk [illegible]

Seeding Rate: [illegible]

Pollinator Favorites; Uplands & Meadows

Contains the showiest native forbs common in the Northeast. Excellent for wildlife food and shelter, including pollinators. Mix formulations are subject to change without notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will not.

7 SEMI-SHADE MIX
DN-1 SCALE: N.T.S.

BETHLEHEM SOLAR ONE & TWO, LLC
28 POCOTOPAUG DRIVE
EAST HAMPTON, CT 06424

ALL-POINTS TECHNOLOGY CORPORATION
567 VAUXHALL STREET EXTENSION - SUITE 311 WATERFORD, CT 06385 PHONE: (860) 663-1697
WWW.ALLPOINTSTECH.COM FAX: (860) 663-0935

CSC PERMIT SET

NO	DATE	REVISION
0	09/28/21	FOR CONSTRUCTION: KAM
1		
2		
3		
4		
5		
6		

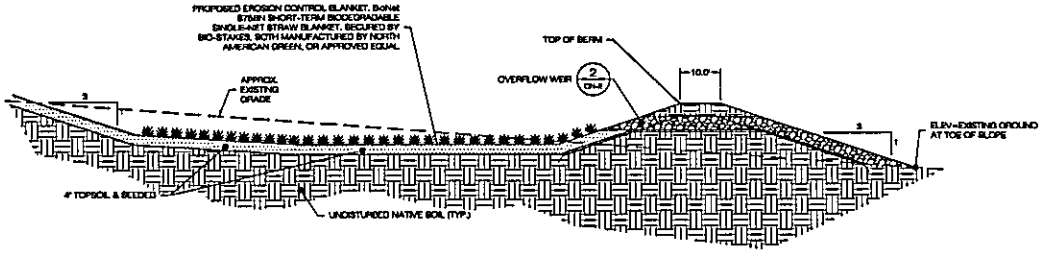
DESIGN PROFESSIONAL OF RECORD
PROF: KEVIN A. MCCAFFERY, PE
COMP: ALL-POINTS TECHNOLOGY CORPORATION
ADD: 567 VAUXHALL STREET EXTENSION - SUITE 311 WATERFORD, CT 06385

OWNER: LEONARD, TESSIE, KENNETH & JENNIFER ASSARD
ADDRESS: 78 THOMSON ROAD BETHLEHEM, CT 06751

BETHLEHEM SOLAR ONE & TWO, LLC
SITE ADDRESS: 78 THOMSON ROAD BETHLEHEM, CT
APT FILING NUMBER: CT562110
DRAWN BY: DRA
DATE: 08/04/2020 CHECKED BY: KAM

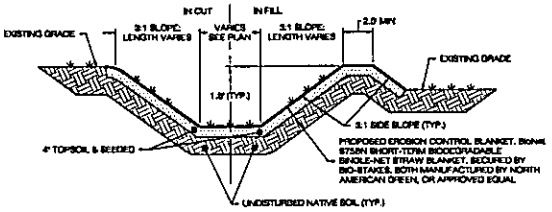
SHEET TITLE:
SITE DETAILS

SHEET NUMBER:
DN-1



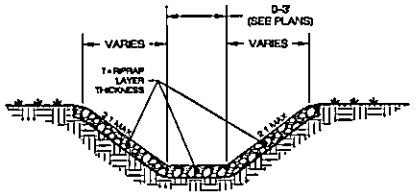
NOTES:
- SEED MIX TO BE NEW ENGLAND EROSION CONTROL/ RESTORATION MIX FOR MOIST SITES ON THE BOTTOM OF THE BASIN AND NEW ENGLAND EROSION/RESTORATION MIX FOR DRY SITES ON THE SIDE SLOPES.
- FOR CONVERTING TEMPORARY SEDIMENT BASIN TO INFILTRATION BASIN, REMOVE BAFFLES, CLEAN OUT SEDIMENT, RESHAPE AS REQUIRED. SEE PLANS FOR BASIN DEPTHS AND ELEVATIONS.
- INSPECT AND CLEAN PIPES.

1 DN-2 GRASS LINED BASIN
SCALE : N.T.S.



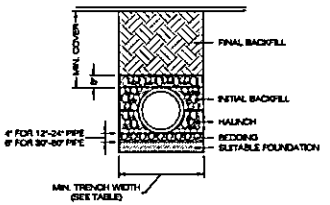
NOTES:
1. SEED MIX TO BE NEW ENGLAND EROSION CONTROL/ RESTORATION MIX FOR MOIST SITES ON THE BOTTOM OF THE BASIN AND NEW ENGLAND EROSION/RESTORATION MIX FOR DRY SITES ON THE SIDE SLOPES.
2. 9" DEPTH VARIES FROM 1.9', SEE PLAN CALLOUTS.

3 DN-2 GRASS LINED SWALE
SCALE : N.T.S.



NOTES:
1. T=1.5 TIMES THE MAXIMUM STONE SIZE BUT NOT LESS THAN 12 INCHES.
2. THE TOTAL HEIGHT OF THE LINING IS DEPENDENT UPON THE DESIGN DEPTH OF FLOW PLUS RUNUP DUE TO CHANNEL CURVATURE, PLUS FREEBOARD
3. IN CHANNELS WITH SIGNIFICANT BOTTOM WIDTHS LOW FLOW CHANNELS MAY BE INCORPORATED
4. SIDE SLOPES STEEPER THAN 2:1 OR SLOPES WITH UNSUITABLE MATERIAL WILL REQUIRE ADDITIONAL ANALYSIS.
5. STONE CHECK DAMS SHALL BE INSTALLED IN ALL SWALES

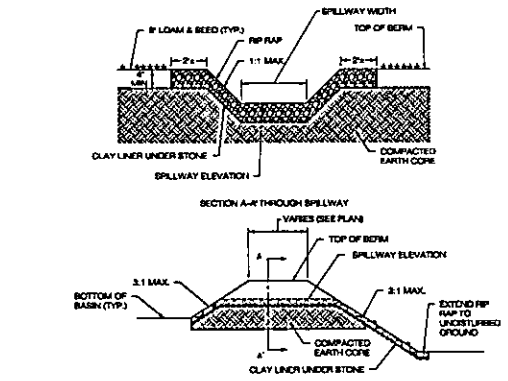
6 DN-2 RIPRAP LINED SWALE
SCALE : NTS



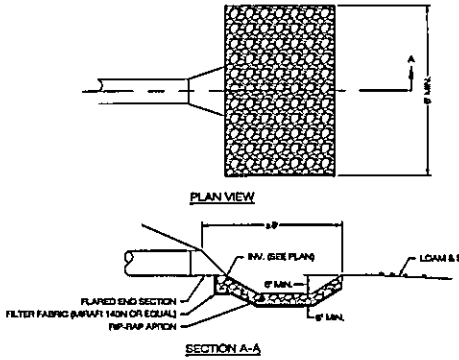
RECOMMENDED MIN. TRENCH WIDTH	
PIPE DIA.	MIN. TRENCH WIDTH
6"	2'3"
8"	2'6"
10"	2'8"
12"	2'9"
15"	3'4"
18"	3'9"
24"	4'8"
30"	5'5"
36"	6'4"
48"	8'0"
60"	9'6"

NOTES:
1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION.
2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER, AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-900mm).
5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
6. MINIMUM COVER, MINIMUM COVER, H, IN NON- TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOTATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

4 DN-2 HDPE STORM DRAINAGE TRENCH DETAIL
SCALE : N.T.S.



2 DN-2 OVERFLOW WEIR DETAIL
SCALE : N.T.S.



5 DN-2 FLARED END SECTION/PLUNGE POOL
SCALE : N.T.S.

BETHLEHEM SOLAR ONE & TWD, LLC
28 POCOTOPAUG DRIVE
EAST HAMPTON, CT 06424

ALL-POINTS TECHNOLOGY CORPORATION
267 VAUXHALL STREET EXTENSION - SUITE 311
WATERFORD, CT 06385 PHONE: (860)-663-1697
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CSC PERMIT SET

NO	DATE	REVISION
0	09/28/21	FOR CONSTRUCTION: KAH
1		
2		
3		
4		
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DESIGN PROFESSIONAL OF RECORD
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COMP: ALL-POINTS TECHNOLOGY CORPORATION
ADD: 567 VAUXHALL STREET EXTENSION • SUITE 311 WATERFORD, CT 06385

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ADDRESS: 78 THOMSON ROAD BETHLEHEM, CT 06751

BETHLEHEM SOLAR ONE & TWD, LLC
SITE ADDRESS: 78 THOMSON ROAD, BETHLEHEM, CT
APT FILING NUMBER: CTH0118
DRAWN BY: DRA
DATE: 09/24/2021 CHECKED BY: KAH

SHEET TITLE:
SITE DETAILS

SHEET NUMBER:
DN-2

SOLAR FLEXRACK
A Division of Northern States Metals

Prepared For:

Swinerton Renewables

Bethlehem 1 & 2

SFDC ID# 13328

1x81 TDP 2.0 - Structural Calculations
84 Thomson Road – Bethlehem, CT 06751

SOLAR FLEXRACK
A Division of Northern States Metals

A product of Northern States Metals (NSM)

3207 Innovation Place, Youngstown, Ohio, 44509-4023

STATE OF CONNECTICUT
BRIAN M. FLOOD
29323
LICENSED
PROFESSIONAL ENGINEER

Prepared By: KK Checked By:

Rev 0

SOLAR FLEXRACK

Solar FlexRack Engineering Analysis

Table of Contents

Customer:	Swinerton Renewable Energy
SFDC ID #:	13328
Project/Location:	Tritec Bethlehem - Bethlehem, CT 06751
Date/Engineer:	12/29/20 - NES

SOLAR FLEXRACK
A Division of Northern States Metals

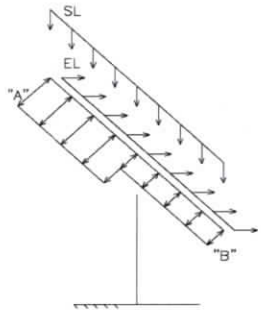
Solar Flexrack Loading Analysis

Configuration Data

Configuration 1:	1x81 TDP 2.0	Configuration 2:	1x54 TDP 2.0
Horiz. Length (N-S):	273.43 ft	Horiz. Length (N-S):	182.75 ft
Array Surface Area:	1815.70 ft²	Array Surface Area:	1213.54 ft²
Number of Posts:	13	Number of Posts:	9

Design Data Summary

Module Length:	6.64 ft
Solar Panel Dead Load:	2.63 psf
Max Stow Wind Speed:	107 mph
Max Operation:	35 mph
Snow Load:	35 psf
Ground Clearance:	24.62 in
Exposure Category:	C
Building Classification:	I



Snow Load Parameters

Flat Roof Snow Load, P_f:	Pf=0.7*Ce*Ct*I*Pg
Sloped Roof Snow Load, P_s:	Ps = Pf*Cs
Snow Exposure Category, Ce:	0.9
Snow Thermal Factor, Ct:	1.2
Snow Importance Factor, I:	0.8
P_s:	21.17 psf
Snow Density:	18.55 pcf
Snow Height:	22.64 in

Snow Load Design

Tilt Angle	C_s	P_s psf
0 - 15	1.00	21.17
20	0.91	19.26
25	0.82	17.36
30	0.73	15.45
35	0.64	13.55
40	0.55	11.64
45	0.46	9.74
50	0.37	7.83
55	0.28	5.93

Wind Load Parameters

Exposure Coefficient, Kz:	0.85
Topographic Factor, Kzt:	1.00
Wind Directionality Factor, Kd:	0.85
Elevation Factor, Ke:	1

Wind Load: $qh = 0.00256*kz*kzt*kd*V^2$

qh_{Inclt}	21.18 psf
qh_{35}	3.77 psf

n:	2.9 Hz
Dampening Ratio:	2.50 %
nL/V_{clt}:	0.158
nL/V_{35}:	0.375

Wind Load Design

Perimeter Loading

Stow Position

	Static								Inertial								
Tilt Angle	A Distribution	B Distribution	GCp Up	GCp Dn	A*qz*GCp Up	B*qz*GCp Up	A*qz*GCp Dn	B*qz*GCp Dn	A Distribution	B Distribution	Mod. Factor	GCp Up	GCp Dn	A*qz*GCp Up	B*qz*GCp Up	A*qz*GCp Dn	B*qz*GCp Dn
0	2.00	0.00	-0.33	0.23	-14.14	0.00	9.74	0.00	1.19	0.81	0.58	-0.92	0.81	-23.19	-15.71	20.57	13.94

Tilted Position (35 mph max)

	Static								Inertial								
Tilt Angle	A Distribution	B Distribution	GCp Up	GCp Dn	A*qz*GCp Up	B*qz*GCp Up	A*qz*GCp Dn	B*qz*GCp Dn	A Distribution	B Distribution	Mod. Factor	GCp Up	GCp Dn	A*qz*GCp Up	B*qz*GCp Up	A*qz*GCp Dn	B*qz*GCp Dn
5	1.95	0.05	-0.50	0.46	-3.67	-0.10	3.38	0.10	1.45	0.55	0.32	-0.82	0.78	-4.51	-1.70	4.28	1.61
10	1.89	0.11	-0.67	0.58	-4.79	-0.28	4.13	0.24	1.45	0.55	0.32	-0.99	0.90	-5.45	-2.05	4.93	1.86
15	1.84	0.17	-0.62	0.76	-4.29	-0.39	5.24	0.47	2.00	0.00	0.08	-0.70	0.83	-5.26	0.00	6.30	0.00
20	1.78	0.22	-0.69	0.77	-4.60	-0.57	5.15	0.64	2.00	0.00	0.08	-0.76	0.84	-5.76	0.00	6.37	0.00
25	1.73	0.28	-0.69	0.71	-4.46	-0.71	4.61	0.73	2.00	0.00	0.08	-0.76	0.79	-5.76	0.00	5.93	0.00
30	1.67	0.33	-0.69	0.65	-4.35	-0.86	4.11	0.81	2.00	0.00	0.08	-0.77	0.73	-5.79	0.00	5.51	0.00
35	1.62	0.39	-0.69	0.77	-4.22	-1.01	4.72	1.13	2.00	0.00	0.08	-0.77	0.85	-5.81	0.00	6.43	0.00
40	1.56	0.44	-0.75	0.72	-4.43	-1.25	4.23	1.19	2.00	0.00	0.08	-0.83	0.80	-6.27	0.00	6.00	0.00
45	1.51	0.50	-0.76	0.75	-4.31	-1.42	4.27	1.40	2.00	0.00	0.08	-0.84	0.83	-6.32	0.00	6.25	0.00
50	1.45	0.55	-0.76	0.75	-4.16	-1.58	4.11	1.56	2.00	0.00	0.08	-0.84	0.83	-6.32	0.00	6.25	0.00
55	1.40	0.61	-0.82	0.83	-4.34	-1.88	4.39	1.90	2.00	0.00	0.08	-0.90	0.91	-6.81	0.00	6.87	0.00

Seismic Load Parameters / Design

S_S:	0.199	S_{DS}: $S_{DS} = (2/3) \times F_a \times S_S$		Site Class:	D
S_1:	0.054	S_{DS}:	0.212	Seismic Design Category:	B
Site Coefficient, F_a:	1.600	S_{D1}: $S_{D1} = (2/3) \times F_v \times S_1$			
Site Coefficient, F_v:	2.400	S_{D1}:	0.086	Seismic Response Coefficient, CS:	0.106
Response Modification Coefficient, R:	2	Cu =	1.7	Panel Seismic Load, V = C_S x (Panel DL)	
Importance Factor, I_E:	1	TL =	6	V =	0.279 psf

This Base Shear Value represents the seismic effect of the panel weight on the rack. This Base Shear includes 20% of the design snow load when the flat roof snow load exceeds 30 psf per AISC. A separate term in the Risa load combination accounts for the remaining Dead Load caused by member self-weight.

Note: GCp values for 20° and 45° were not given in results from RWDI and are assumed to be the higher value of the two adjacent values.

Loading analysis and design in accordance with wind and snow load information obtained from ASCE 7-16 Minimum Design Loads for Building and Other Structures

Disclaimer:
The use of the topographic factor, Kzt, requires project engineer to evaluate based on specific site topographic conditions.

(Global) Model Settings

Display Sections for Member Calcs	20
Max Internal Sections for Member Calcs	191
Include Shear Deformation?	Yes
Increase Nailing Capacity for Wind?	Yes
Include Warping?	Yes
Trans Load Btwn Intersecting Wood Wall?	Yes
Area Load Mesh (in^2)	1
Merge Tolerance (in)	.25
P-Delta Analysis Tolerance	0.50%
Include P-Delta for Walls?	Yes
Automatically Iterate Stiffness for Walls?	Yes
Max Iterations for Wall Stiffness	3
Gravity Acceleration (in/sec^2)	386.4
Wall Mesh Size (in)	12
Eigensolution Convergence Tol. (1.E-)	4
Vertical Axis	Y
Global Member Orientation Plane	XZ
Static Solver	Sparse Accelerated
Dynamic Solver	Accelerated Solver

Hot Rolled Steel Code	AISC 15th(360-16): ASD
Adjust Stiffness?	Yes(Iterative)
RISAConnection Code	AISC 15th(360-16): ASD
Cold Formed Steel Code	AISI S100-16: ASD
Wood Code	None
Wood Temperature	< 100F
Concrete Code	None
Masonry Code	None
Aluminum Code	None - Building
Stainless Steel Code	None

Number of Shear Regions	4
Region Spacing Increment (in)	4
Biaxial Column Method	Exact Integration
Parme Beta Factor (PCA)	.65
Concrete Stress Block	Rectangular
Use Cracked Sections?	Yes
Use Cracked Sections Slab?	No
Bad Framing Warnings?	No
Unused Force Warnings?	Yes
Min 1 Bar Diam. Spacing?	No
Concrete Rebar Set	REBAR_SET_ASTMA615
Min % Steel for Column	1
Max % Steel for Column	8

(Global) Model Settings, Continued

Seismic Code	ASCE 7-16
Seismic Base Elevation (in)	Not Entered
Add Base Weight?	Yes
Ct X	.02
Ct Z	.02
T X (sec)	Not Entered
T Z (sec)	Not Entered
R X	2
R Z	2
Ct Exp. X	.75
Ct Exp. Z	.75
SD1	.086
SDS	.212
S1	.054
TL (sec)	6
Risk Cat	I or II
Drift Cat	Other
Om Z	2
Om X	2
Cd Z	2
Cd X	2
Rho Z	1
Rho X	1

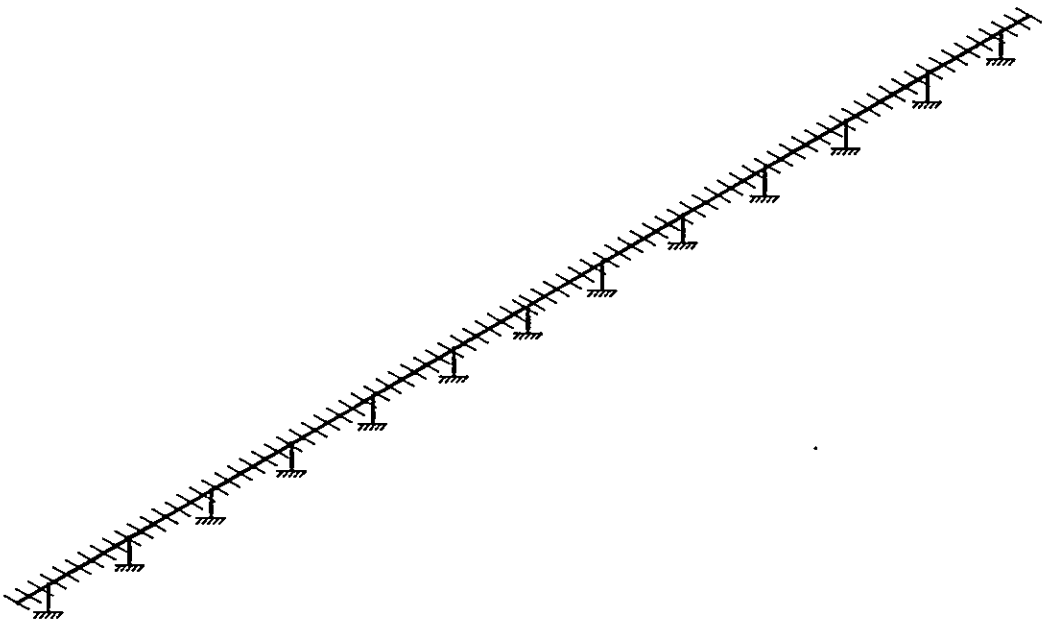
SOLAR FLEX RACK
A Division of Northern States Metals
3207 INNOVATION PLACE - YOUNGSTOWN, OH 44509-4023
PHONE: (330) 799-1855 - FAX: (330) 799-2074

Company : Northern States Metals
Designer : KK
Job Number : 13328
Model Name : 1x81 TDP 2.0

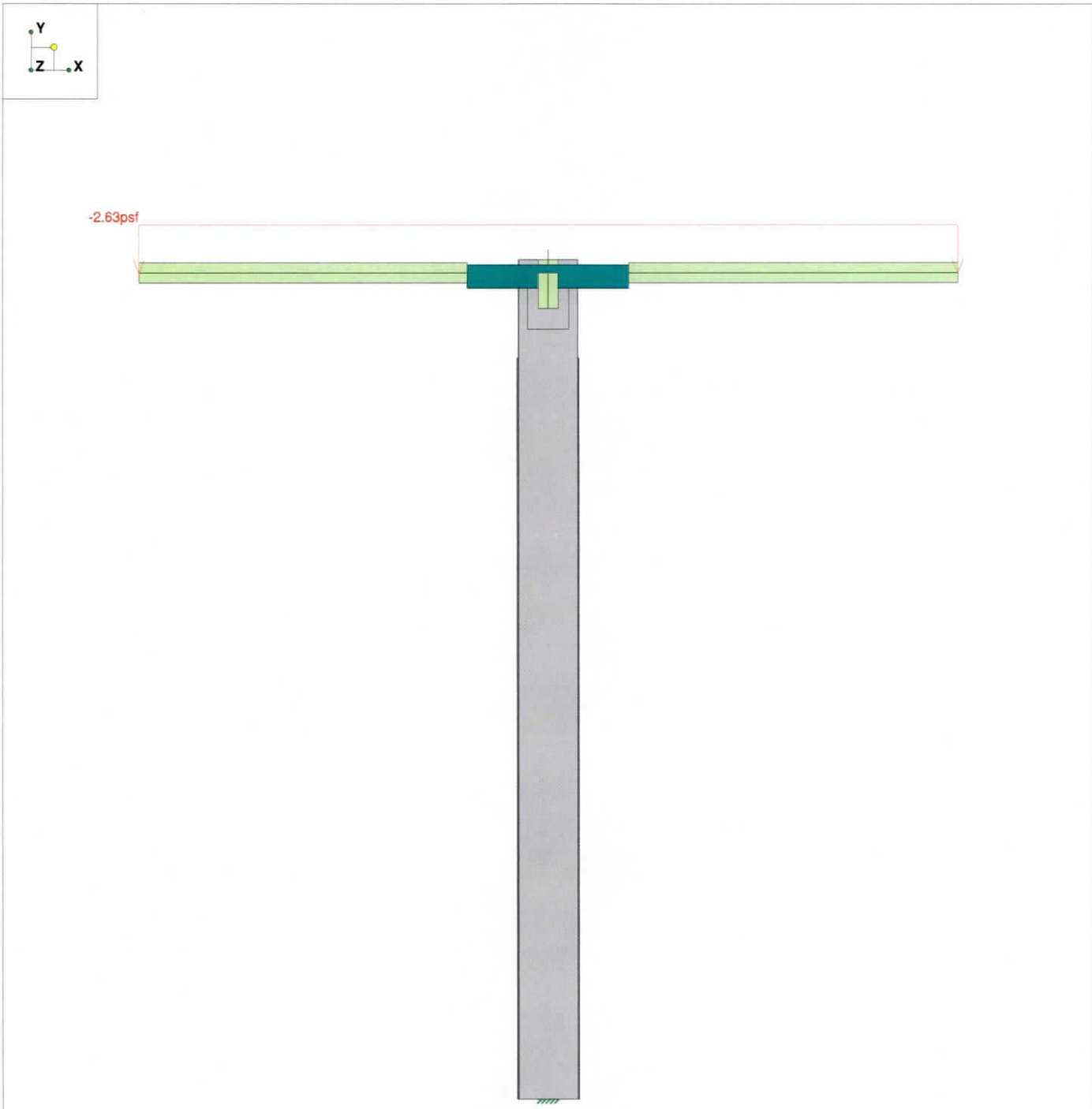
Feb 2, 2021
2:44 PM
Checked By:_____

Load Combinations

	Description	Solve	PDelta	SRSS	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Fa...	...	F...	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1		Yes	Y		DL	1																		
2	IBC 16-10	Yes	Y		DL	1	SL	1																
3	IBC 16-12 (A)	Yes	Y		DL	1	WL+X	.6																
4	IBC 16-12 (B)	Yes	Y		DL	1	WL-X	.6																
5	IBC 16-13 (A) (static wind)	Yes	Y		DL	1	OL1	.45	SL	.75														
6	IBC 16-13 (B) (static wind)	Yes	Y		DL	1	OL2	.45	SL	.75														
7	Total WL + 0.25 SL	Yes	Y		DL	1	WL+X	.45	SL	.25														
8	Total WL + 0.25 SL	Yes	Y		DL	1	WL-X	.45	SL	.25														
9	IBC 16-15 (A)	Yes	Y		DL	.6	WL+X	.6																
10	IBC 16-15 (B)	Yes	Y		DL	.6	WL-X	.6																
11	Seismic																							
12	IBC 16-12 C (A)	Yes	Y		DL	1	ELX	.7			Sds*DL	.14												
13	IBC 16-12 C (B)	Yes	Y		DL	1	ELX	-.7			Sds*DL	.14												
14	IBC 16-12 (D) (A)	Yes	Y		DL	1	ELZ	.7			Sds*DL	.14												
15	IBC 16-12 (D) (B)	Yes	Y		DL	1	ELZ	-.7			Sds*DL	.14												
16	IBC 16-14 (A) (A)	Yes	Y		DL	1	ELX	.525	SL	.75	Sds*DL	.105												
17	IBC 16-14 (A) (B)	Yes	Y		DL	1	ELX	-.525	SL	.75	Sds*DL	.105												
18	IBC 16-14 (B) (A)	Yes	Y		DL	1	ELZ	.525	SL	.75	Sds*DL	.105												
19	IBC 16-14 (B) (B)	Yes	Y		DL	1	ELZ	-.525	SL	.75	Sds*DL	.105												
20	IBC 16-16 (A) (A)	Yes	Y		DL	.6	ELX	.7			Sds*DL	-.14												
21	IBC 16-16 (A) (B)	Yes	Y		DL	.6	ELX	-.7			Sds*DL	-.14												
22	IBC 16-16 (B) (A)	Yes	Y		DL	.6	ELZ	.7			Sds*DL	-.14												
23	IBC 16-16 (B) (B)	Yes	Y		DL	.6	ELZ	-.7			Sds*DL	-.14												
24	DEAD		Y		DL	1																		
25	SNOW		Y		SL	1																		
26	WIND + x		Y		WL+X	1																		
27	WIND-X		Y		WL-X	1																		
28	Overstrength Design																							
29	IBC 16-12 C (A)		Y		DL	1	ELX	1.4			Sds*DL	.14												
30	IBC 16-12 C (B)		Y		DL	1	ELX	-1.4			Sds*DL	.14												
31	IBC 16-12 (D) (A)		Y		DL	1	ELZ	1.4			Sds*DL	.14												
32	IBC 16-12 (D) (B)		Y		DL	1	ELZ	-1.4			Sds*DL	.14												
33	IBC 16-14 (A) (A)		Y		DL	1	ELX	1.05	SL	.75	Sds*DL	.105												
34	IBC 16-14 (A) (B)		Y		DL	1	ELX	-1.05	SL	.75	Sds*DL	.105												
35	IBC 16-14 (B) (A)		Y		DL	1	ELZ	1.05	SL	.75	Sds*DL	.105												
36	IBC 16-14 (B) (B)		Y		DL	1	ELZ	-1.05	SL	.75	Sds*DL	.105												
37	IBC 16-16 (A) (B)		Y		DL	.6	ELX	1.4			Sds*DL	-.14												
38	IBC 16-16 (A) (B)		Y		DL	.6	ELX	-1.4			Sds*DL	-.14												
39	IBC 16-16 (B) (A)		Y		DL	.6	ELZ	1.4			Sds*DL	-.14												



Northern States Metals		SK - 1
KK	1x81 TDP 2.0 0°	Feb 2, 2021 at 2:50 PM
13328	Isometric View	21.0202 - 1x81 TDP 2.0 - 0° - Trina...



Loads: BLC 2, Solar Panels

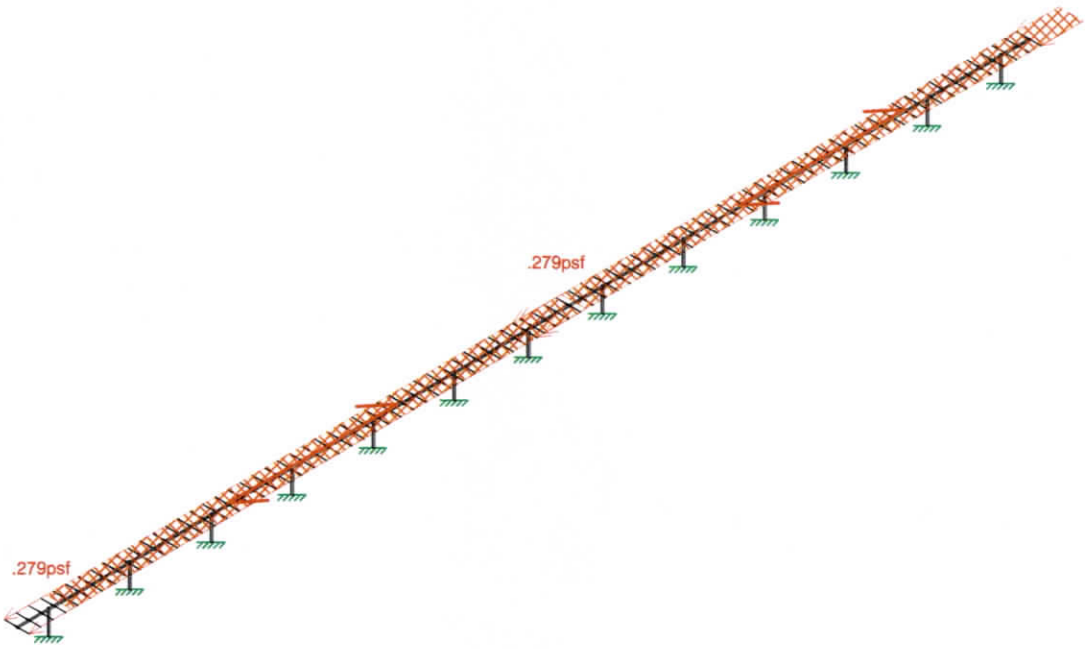
Northern States Metals		SK - 2
KK	1x81 TDP 2.0 0°	Feb 2, 2021 at 2:51 PM
13328	Solar Panel Dead Load	21.0202 - 1x81 TDP 2.0 - 0° - Trina...

Loads: BLC 3, Snow

Northern States Metals		SK - 3
KK	1x81 TDP 2.0 0°	Feb 2, 2021 at 2:58 PM
13328	Projected Snow Load	21.0202 - 1x81 TDP 2.0 - 0° - Trina...

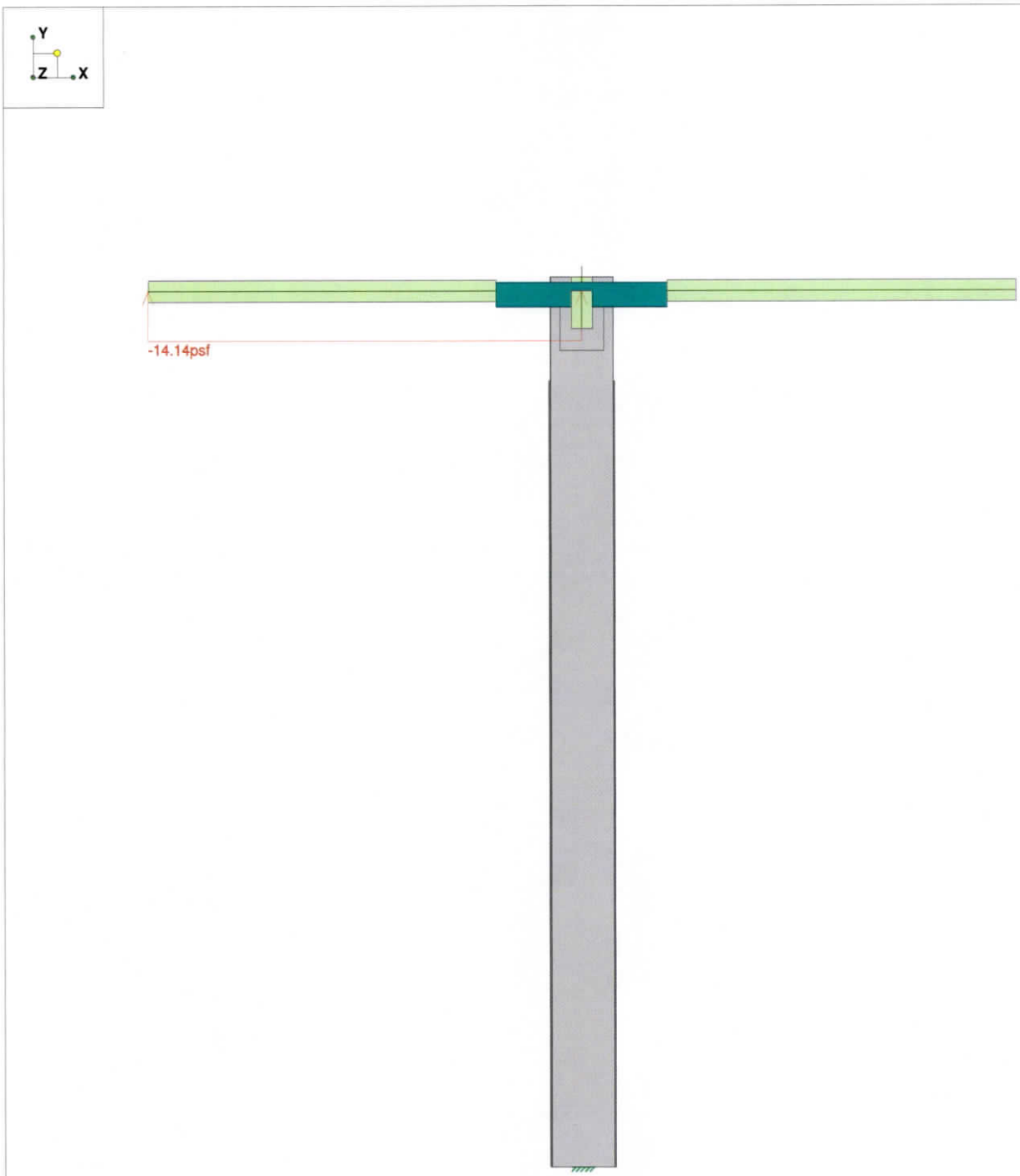
Loads: BLC 4, Seismic X

Northern States Metals		SK - 4
KK	1x81 TDP 2.0 0°	Feb 2, 2021 at 3:26 PM
13328	Seismic ELX Load	21.0202 - 1x81 TDP 2.0 - 0° - Trina...



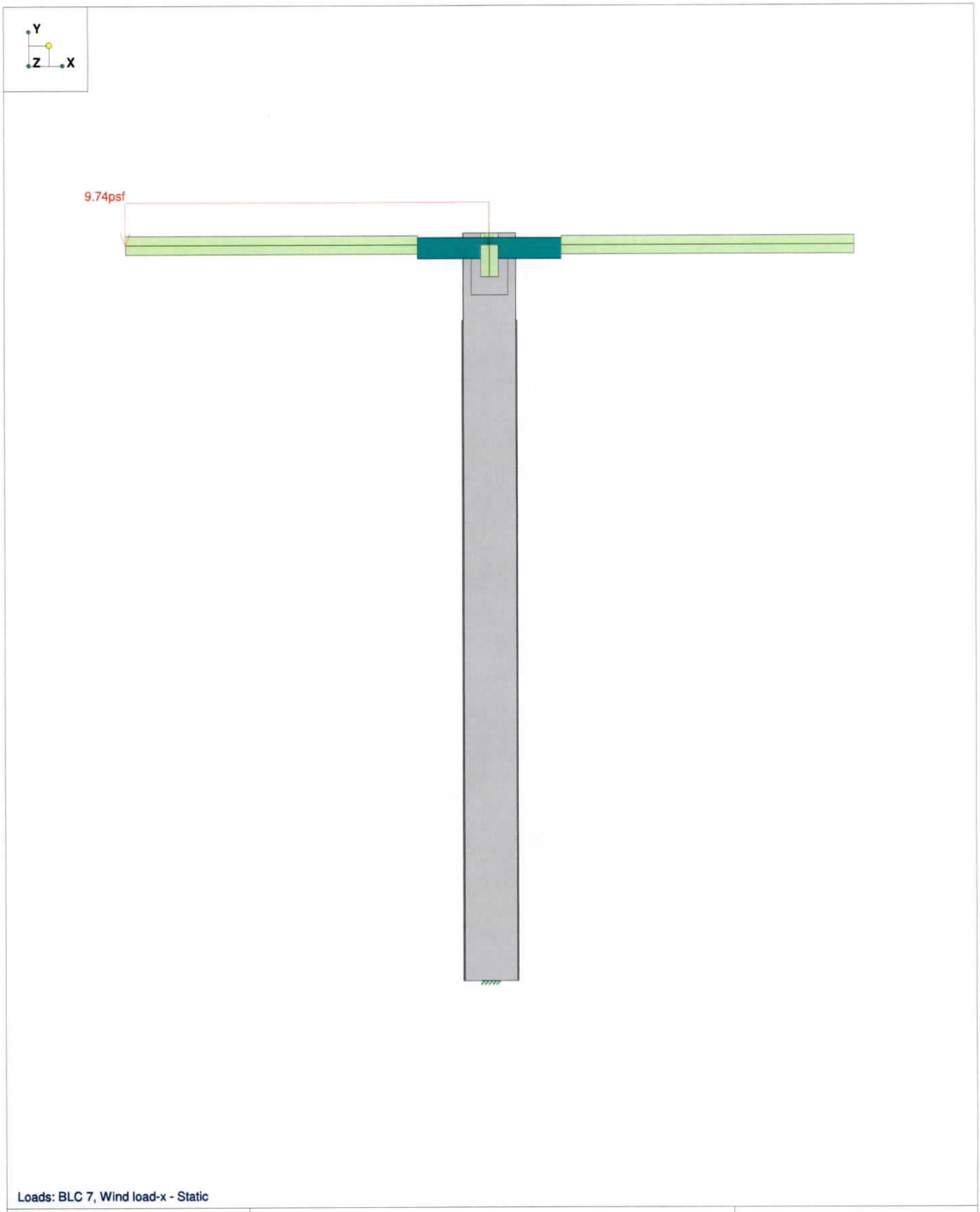
Loads: BLC 5, Seismic Z

Northern States Metals		SK - 5
KK	1x81 TDP 2.0 0°	Feb 2, 2021 at 3:27 PM
13328	Seismic ELZ Load	21.0202 - 1x81 TDP 2.0 - 0° - Trina...



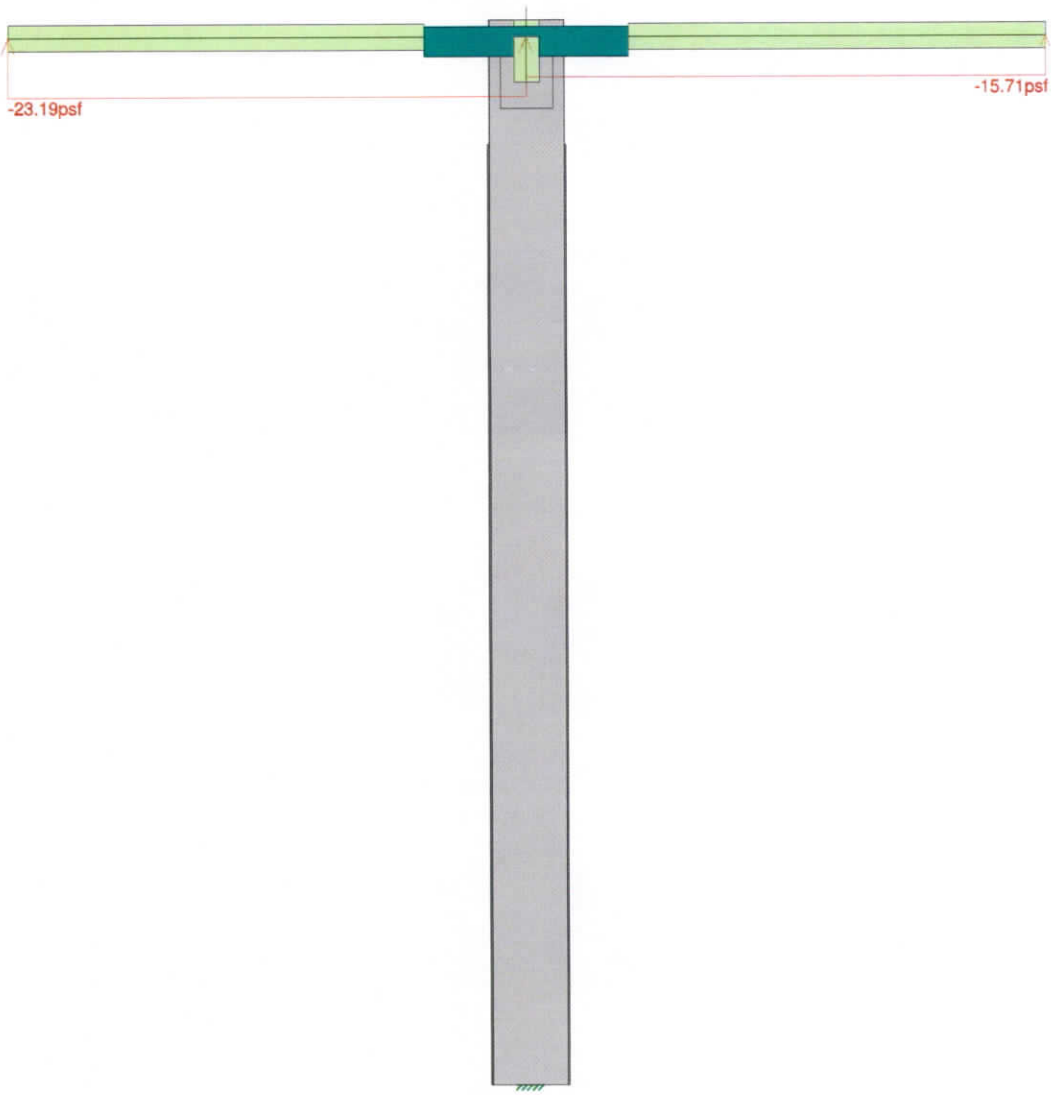
Loads: BLC 6, Wind Load+X - Static

Northern States Metals		SK - 6
KK	1x81 TDP 2.0 0°	Feb 2, 2021 at 3:28 PM
13328	Ststic Wind Uplift Load	21.0202 - 1x81 TDP 2.0 - 0° - Trina...



Loads: BLC 7, Wind load-x - Static

Northern States Metals		SK - 7
KK	1x81 TDP 2.0 0°	Feb 2, 2021 at 3:29 PM
13328	Static Wind Downward Load	21.0202 - 1x81 TDP 2.0 - 0° - Trina...



Loads: BLC 8, Wind +X Total

Northern States Metals		SK - 8
KK	1x81 TDP 2.0 0°	Feb 2, 2021 at 3:29 PM
13328	Inertial Wind Uplift Load	21.0202 - 1x81 TDP 2.0 - 0° - Trina...

Loads: BLC 9, Wind -X Total

Northern States Metals		SK - 9
KK	1x81 TDP 2.0 0°	Feb 2, 2021 at 3:30 PM
13328	Inertial Wind Downward Load	21.0202 - 1x81 TDP 2.0 - 0° - Trina...

Envelope AISC 15th(360-16): ASD Steel Code Checks

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	Pnc/om [lb]	Pnt/om [lb]	Mnyy/om ...	Mnzz/om ...	Cb	Eqn
1	TUBE 1	4x4x10ga Gator Shield	.897	1654.768	5	.647	1654.768	y	5	11230.313	68239.521	96547.249	96547.249	1	H3-6
2	TUBE 2	4x4x10ga Gator Shield	.885	0	5	.637	0	y	5	11230.313	68239.521	96547.249	96547.249	1	H3-6
3	DRIVE POST	W6X15	.316	72	5	.009	0	z	14	110767.2...	132634.7...	130006.5...	304369.8...	1	H1-1b
4	IDLER 8	W6x7	.111	0	2	.003	0	y	12	33631.962	59946.647	35079.306	106083.9...	1	H1-1b*
5	IDLER 5	W6x7	.110	0	2	.003	0	y	12	33631.962	59946.647	35079.306	106083.9...	1	H1-1b*
6	IDLER 10	W6x7	.110	0	2	.003	0	y	13	33631.962	59946.647	35079.306	106083.9...	1	H1-1b*
7	IDLER 2	W6x7	.110	0	2	.003	0	y	13	33631.962	59946.647	35079.306	106083.9...	1	H1-1b*
8	IDLER 3	W6x7	.109	0	2	.003	0	y	13	33631.962	59946.647	35079.306	106083.9...	1	H1-1b*
9	IDLER 4	W6x7	.109	0	2	.003	0	y	13	33631.962	59946.647	35079.306	106083.9...	1	H1-1b*
10	IDLER 9	W6x7	.109	0	2	.003	0	y	13	33631.962	59946.647	35079.306	106083.9...	1	H1-1b*
11	IDLER 11	W6x7	.105	0	2	.003	0	y	13	33631.962	59946.647	35079.306	106083.9...	1	H1-1b*
12	IDLER 6	W6x7	.105	0	2	.004	0	y	5	33631.962	59946.647	35079.306	106083.9...	1	H1-1b*
13	IDLER 7	W6x7	.104	0	2	.004	0	y	5	33631.962	59946.647	35079.306	106083.9...	1	H1-1b*
14	IDLER 1	W6x7	.098	0	2	.003	0	y	13	33631.962	59946.647	35079.306	106083.9...	1	H1-1b*
15	IDLER 12	W6x7	.085	0	2	.002	0	y	13	33631.962	59946.647	35079.306	106083.9...	1	H1-1b*

SOLAR FLEX RACK
A Division of Northern States Metals
3207 INNOVATION PLACE - YOUNGSTOWN, OH 44509-4023
PHONE: (330) 799-1855 - FAX: (330) 799-2074

Company : Northern States Metals
Designer : KK
Job Number : 13328
Model Name : 1x81 TDP 2.0 0°

Feb 2, 2021
3:36 PM
Checked By:_____

Envelope AISI S100-16: ASD Cold Formed Steel Code Checks

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	Pn/Om[l...	Tn/Om[l...	Mnyy/O...	Mnzz/O...	Vny/...	Vnz/...	Cb	Eqn
1	VP 75	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
2	VP 81	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
3	VP 10	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
4	VP 62	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
5	VP 23	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
6	VP 68	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
7	VP 55	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
8	VP 30	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
9	VP 17	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
10	VP 49	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
11	VP 36	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
12	VP 37	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
13	VP 48	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
14	VP 4	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
15	VP 3	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
16	VP 16	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
17	VP 80	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
18	VP 29	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
19	VP 56	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
20	VP 69	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
21	VP 24	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
22	VP 61	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
23	VP 11	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
24	VP 76	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
25	VP 74	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
26	VP 38	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
27	VP 47	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
28	VP 9	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
29	VP 63	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
30	VP 22	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
31	VP 67	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
32	VP 18	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
33	VP 54	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
34	VP 31	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
35	VP 79	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
36	VP 5	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
37	VP 50	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
38	VP 35	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
39	VP 77	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1

Envelope AISI S100-16: ASD Cold Formed Steel Code Checks (Continued)

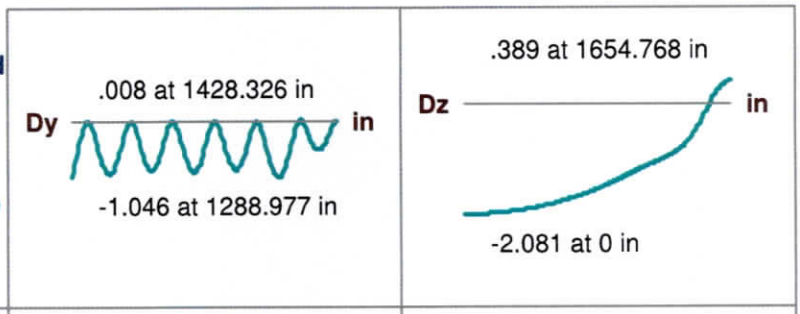
	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	Pn/Om[l...	Tn/Om[l...	Mnyy/O...	Mnzz/O...	Vny/...	Vnz/...	Cb	Eqn
40	VP 45	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
41	VP 40	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
42	VP 39	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
43	VP 46	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
44	VP 28	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
45	VP 15	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
46	VP 57	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
47	VP 25	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
48	VP 78	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
49	VP 60	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
50	VP 12	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
51	VP 70	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
52	VP 73	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
53	VP 64	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
54	VP 66	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
55	VP 21	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
56	VP 8	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
57	VP 19	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
58	VP 6	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
59	VP 53	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
60	VP 32	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
61	VP 27	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
62	VP 58	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
63	VP 14	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
64	VP 26	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
65	VP 59	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
66	VP 51	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
67	VP 34	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
68	VP 13	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
69	VP 65	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
70	VP 20	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
71	VP 71	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
72	VP 7	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
73	VP 72	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
74	VP 52	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
75	VP 33	V - HU - 2.25x0.045x1.25	.917	7.874	2	.083	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
76	VP 44	V - HU - 2.25x0.045x1.25	.885	7.874	2	.080	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
77	VP 2	V - HU - 2.25x0.045x1.25	.885	7.874	2	.080	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
78	VP 41	V - HU - 2.25x0.045x1.25	.885	7.874	2	.080	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
79	VP 82	V - HU - 2.25x0.045x1.25	.885	7.874	2	.080	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1

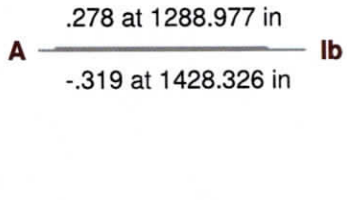
Envelope AISI S100-16: ASD Cold Formed Steel Code Checks (Continued)

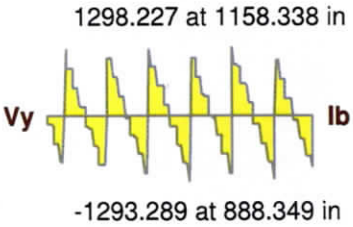
	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	Pn/Om[l...	Tn/Om[l...	Mnyy/O...	Mnzz/O...	Vny/...	Vnz/...	Cb	Eqn
80	VP 42	V - HU - 2.25x0.045x1.25	.457	7.874	2	.042	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
81	VP 83	V - HU - 2.25x0.045x1.25	.457	7.874	2	.042	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
82	VP 43	V - HU - 2.25x0.045x1.25	.457	7.791	2	.042	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1
83	VP 1	V - HU - 2.25x0.045x1.25	.457	7.791	2	.042	7.874	z	2	6669.907	10333.3...	5784.073	2928.521	773...	3197.7	1	F3.1-1

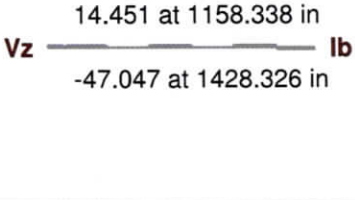
Column: ***TUBE 1***

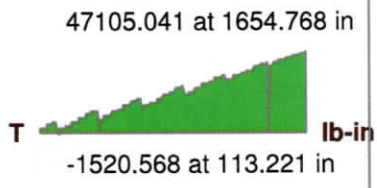
Shape: **4x4x10ga Gator Shield**
Material: **GatorShield Gr 55**
Length: **1654.768 in**
I Joint: **N5**
J Joint: **N22**
LC 5: IBC 16-13 (A) (static wind)
Code Check: **0.897 (bending)**
Report Based On 191 Sections

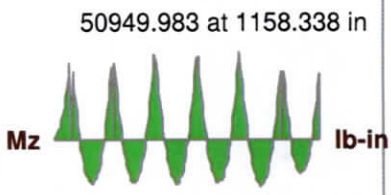


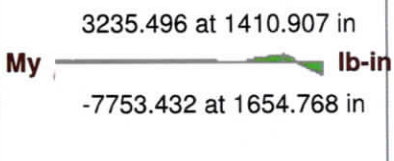


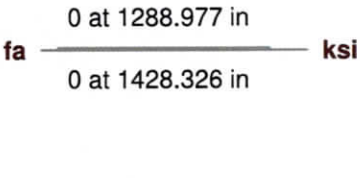


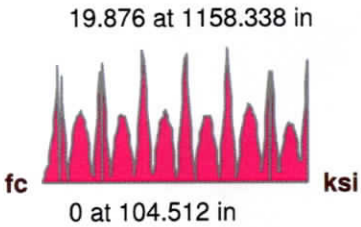


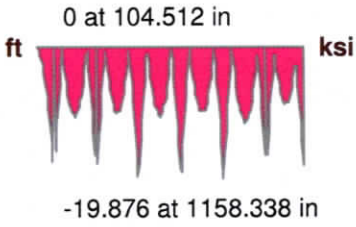












AISC 15th(360-16): ASD Code Check

Direct Analysis Method

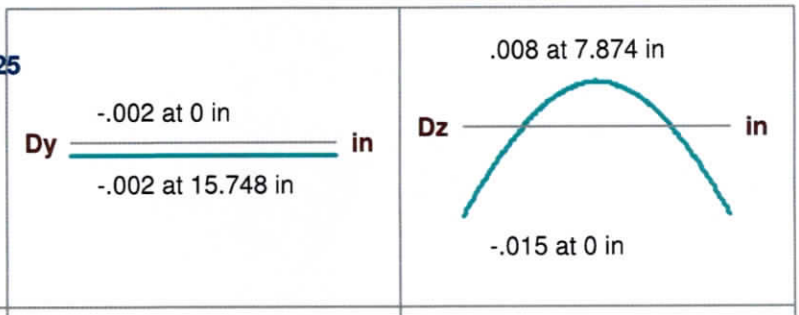
Max Bending Check	**0.897**	Max Shear Check	**0.647 (y)**
Location	**1654.768 in**	Location	**1654.768 in**
Equation	**H3-6**	Max Defl Ratio	**L/1707**

Bending Flange	**Non-Compact**	Compression Flange	**Non-Slender**
Bending Web	**Compact**	Compression Web	**Non-Slender**

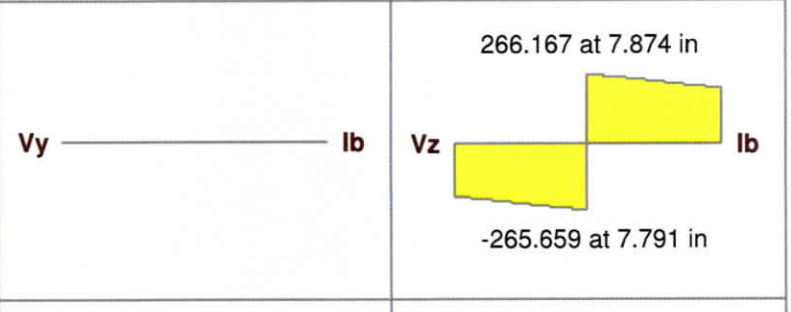
			y-y	z-z
Fy	**55 ksi**	Lb	**263 in**	**263 in**
Pnc/om	**11230.313 lb**	Lc/r	**166.529**	**166.529**
Pnt/om	**68239.521 lb**			
Mny/om	**96547.249 lb-in**	L Comp Flange	**263 in**	
Mnz/om	**96547.249 lb-in**	L-torque	**1654.768 in**	
Vny/om	**19054.319 lb**	Tau_b	**1**	
Vnz/om	**19054.319 lb**			
Tn/om	**78967.258 lb-in**			
Cb	**1**			

Beam: ***VP 75***

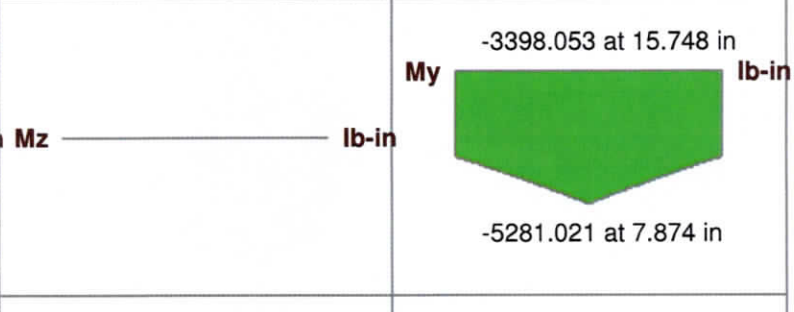
Shape: **V - HU - 2.25x0.045x1.25**
Material: **A653 Grade 50**
Length: **15.748 in**
I Joint: **N516A**
J Joint: **N517A**
LC 2: IBC 16-10
Code Check: **0.917 (bending)**
Report Based On 191 Sections



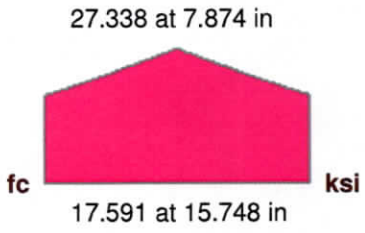
A ——— lb

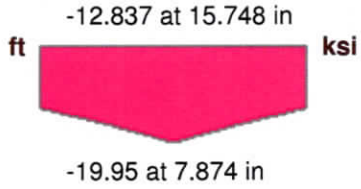


T ——— lb-in



fa ——— ksi





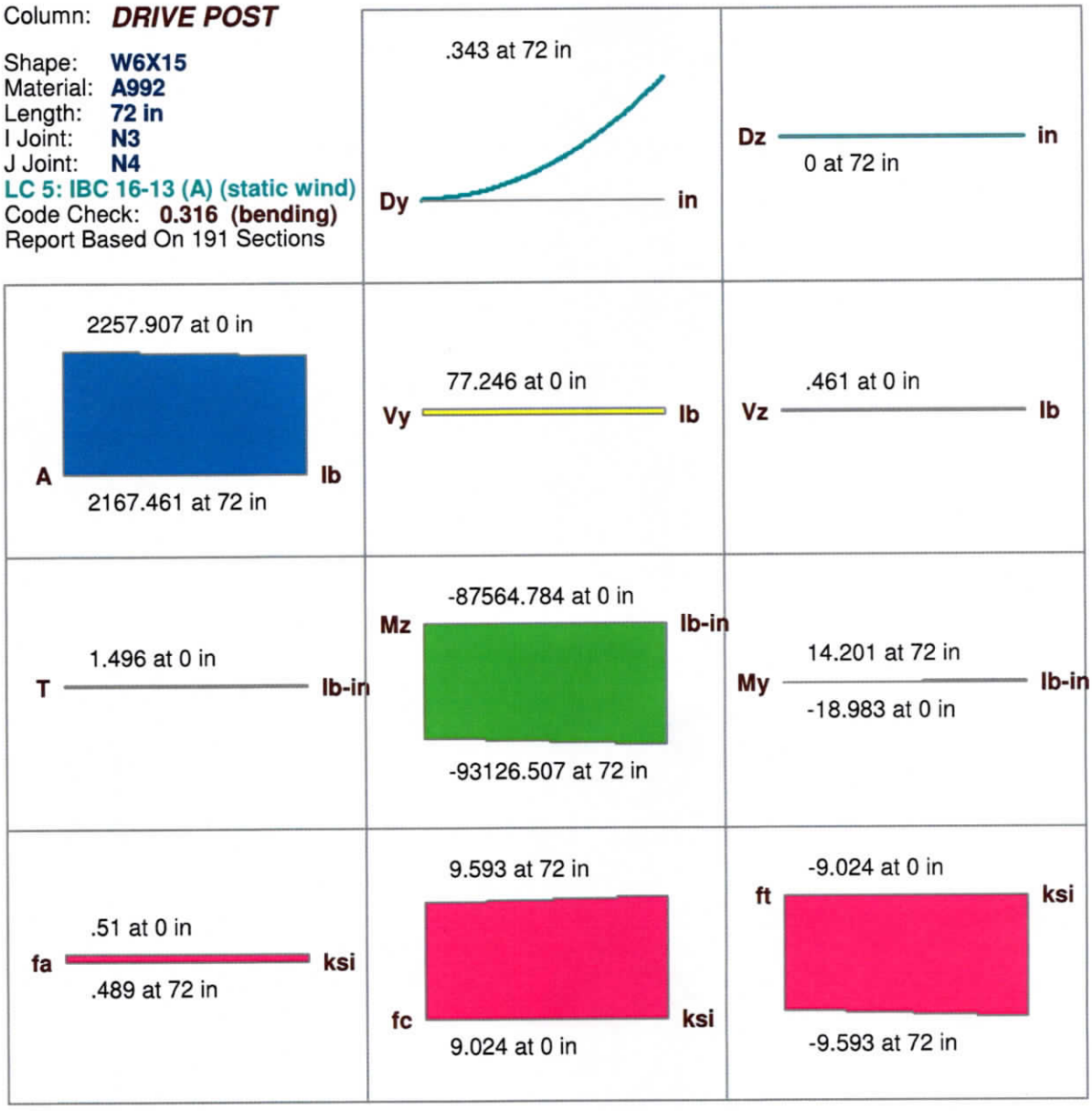
AISI S100-16: ASD Code Check

Max Bending Check	**0.917**	Max Shear Check	**0.083 (z)**	Max Defl Ratio	**L/10000**
Location	**7.874 in**	Location	**7.874 in**	Location	**0 in**
Equation	**F3.1-1**			Span	**NA**
Gov.∅ Equation	**F3.1**				

			y-y	z-z		
R (I6.2.1)	**Not Used**	Lb	**15.748 in**	**15.748 in**	A eff. (Fy)	**.267 in^2**
Fy	**50 ksi**	KL/r	**18.456**	**18.616**	A eff. (Fn)	**.277 in^2**
Pn/Ω	**6669.907 lb**				Iy eff.	**.251 in^4**
Tn/Ω	**10333.343 lb**	L Comp Flange		**15.748 in**	Sy eff. (L)	**.193 in^3**
Mny/Ω	**5784.073 lb-in**	L-torque		**15.748 in**	Sy eff. (R)	**.265 in^3**
Mnz/Ω	**2928.521 lb-in**				Iz eff.	**.189 in^4**
Vny/Ω	**773.85 lb**				Sz eff. (T)	**.098 in^3**
Vnz/Ω	**3197.7 lb**				Sz eff. (B)	**.11 in^3**
Cb	**1**					

Column: ***DRIVE POST***

Shape: **W6X15**
Material: **A992**
Length: **72 in**
I Joint: **N3**
J Joint: **N4**
LC 5: IBC 16-13 (A) (static wind)
Code Check: **0.316 (bending)**
Report Based On 191 Sections



AISC 15th(360-16): ASD Code Check

Direct Analysis Method

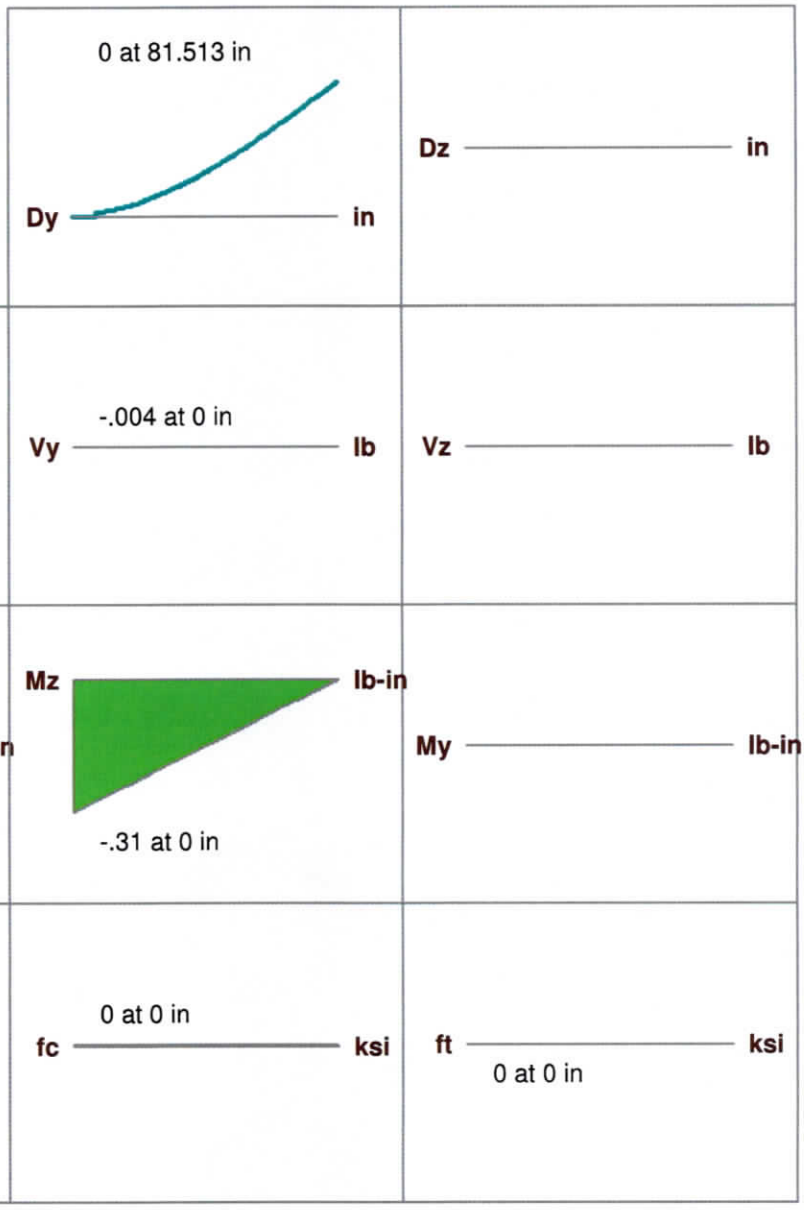
Max Bending Check	**0.316**	Max Shear Check	**0.003 (y)**
Location	**72 in**	Location	**40.926 in**
Equation	**H1-1b**	Max Defl Ratio	**L/210**

Bending Flange	**Non-Compact**	Compression Flange	**Non-Slender**
Bending Web	**Compact**	Compression Web	**Non-Slender**

			y-y	z-z
Fy	**50 ksi**	Lb	**72 in**	**72 in**
Pnc/om	**110767.287 lb**	Lc/r	**49.64**	**28.092**
Pnt/om	**132634.731 lb**			
Mny/om	**130006.559 lb-in**	L Comp Flange	**72 in**	
Mnz/om	**304369.867 lb-in**	L-torque	**72 in**	
Vny/om	**27554 lb**	Tau_b	**1**	
Vnz/om	**55954.491 lb**			
Cb	**1**			

Column: ***IDLER 8***

Shape: **W6x7**
Material: **A992**
Length: **81.513 in**
I Joint: **N563A**
J Joint: **N564A**
LC 2: IBC 16-10
Code Check: **0.111 (bending)**
Report Based On 191 Sections



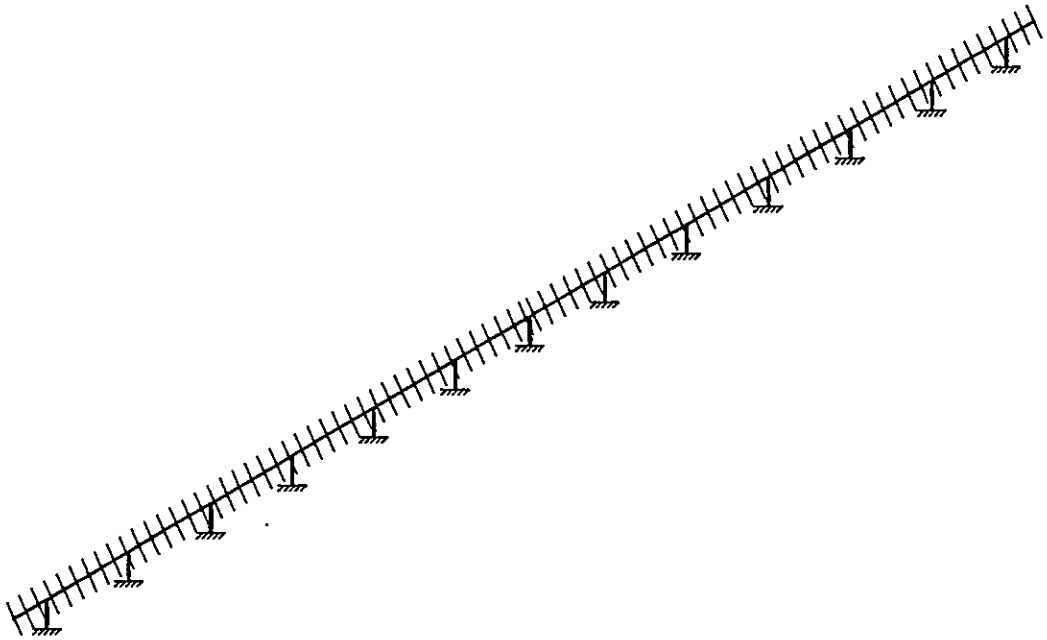
AISC 15th(360-16): ASD Code Check

Direct Analysis Method

Max Bending Check	**0.111**	Max Shear Check	**0.000 (y)**
Location	**0 in**	Location	**0 in**
Equation	**H1-1b***	Max Defl Ratio	**L/10000**

Bending Flange	**Non-Compact**	Compression Flange	**Non-Slender**	
Bending Web	**Compact**	Compression Web	**Slender**	**Ae=2.002 in2**

			y-y	z-z
Fy	**50 ksi**	Lb	**81.513 in**	**81.513 in**
Pnc/om	**33631.962 lb**	Lc/r	**88.909**	**33.359**
Pnt/om	**59946.647 lb**			
Mny/om	**35079.306 lb-in**	L Comp Flange	**81.513 in**	
Mnz/om	**106083.974 lb-in**	L-torque	**81.513 in**	
Vny/om	**14891.76 lb**	Tau_b	**1**	
Vnz/om	**23356.886 lb**			
Cb	**1**			



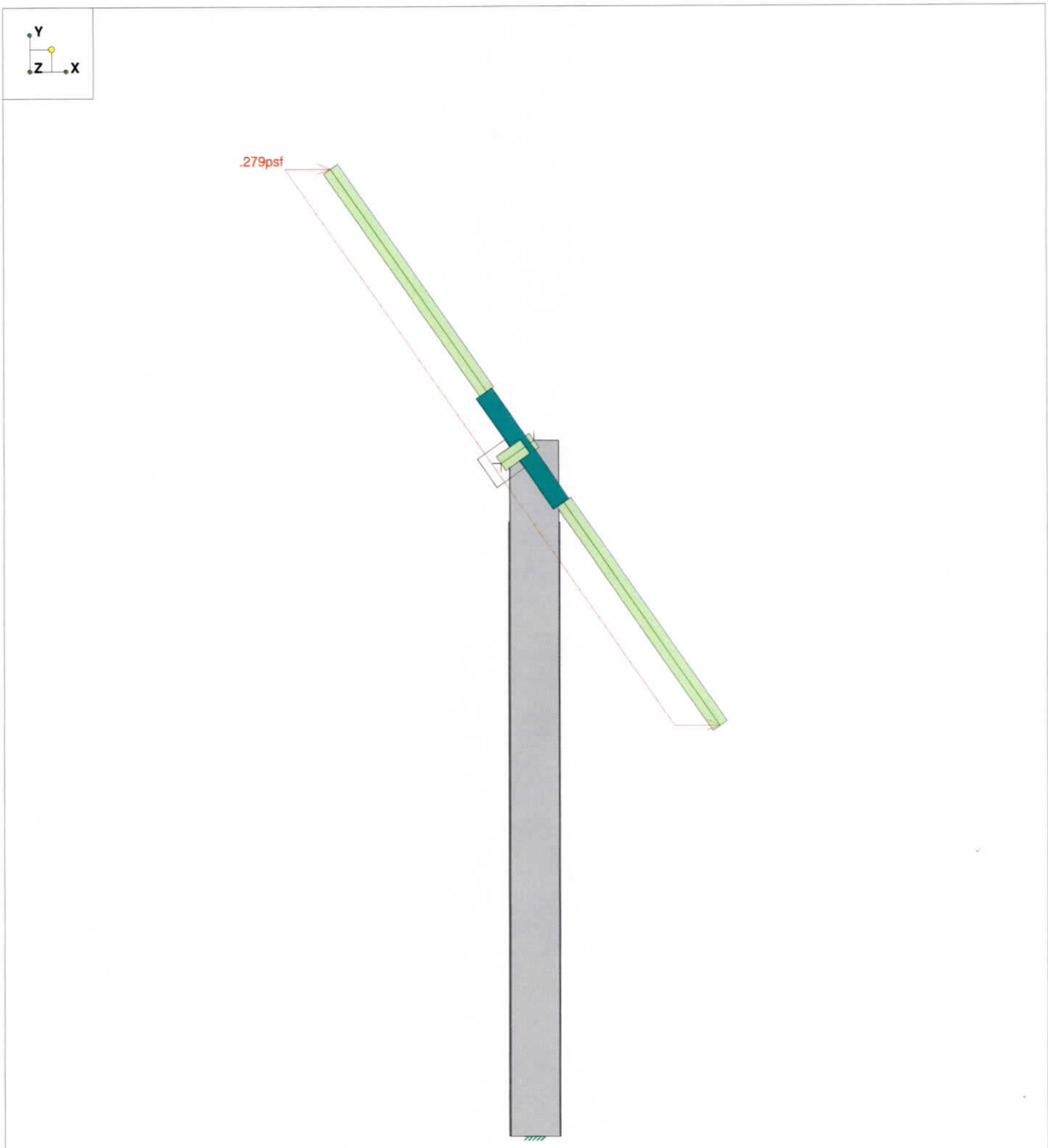
Northern States Metals		SK - 10
KK	1x81 TDP 2.0 55°	Feb 2, 2021 at 4:33 PM
13328	Isometric View	21.0202 - 1x81 TDP 2.0 - 55° - Trin...

Loads: BLC 2, Solar Panels

Northern States Metals		SK - 11
KK	1x81 TDP 2.0 55°	Feb 2, 2021 at 4:34 PM
13328	Solar Panel Dead Load	21.0202 - 1x81 TDP 2.0 - 55° - Trin...

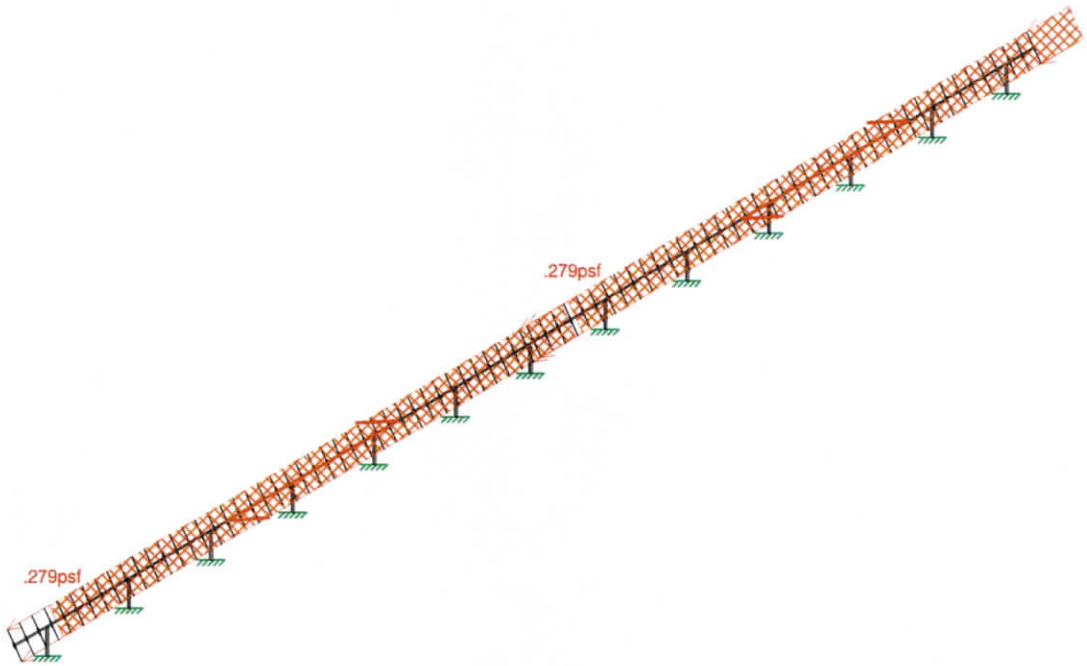
Loads: BLC 3, Snow

Northern States Metals		SK - 12
KK	1x81 TDP 2.0 55°	Feb 2, 2021 at 4:34 PM
13328	Projected Snow Load	21.0202 - 1x81 TDP 2.0 - 55° - Trin...



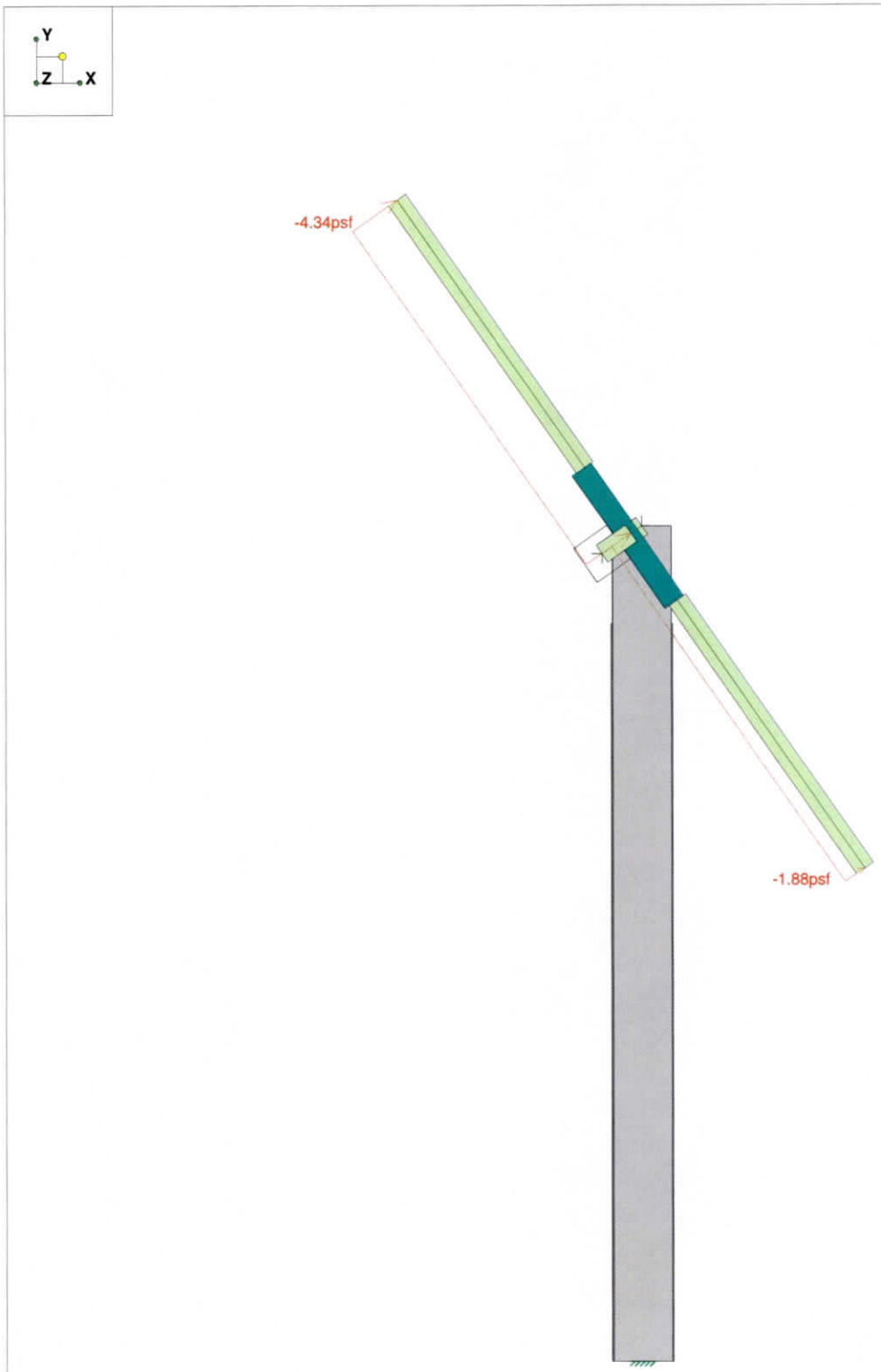
Loads: BLC 4, Seismic X

Northern States Metals		SK - 13
KK	1x81 TDP 2.0 55°	Feb 2, 2021 at 4:35 PM
13328	Seismic ELX Load	21.0202 - 1x81 TDP 2.0 - 55° - Trin...



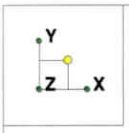
Loads: BLC 5, Seismic Z

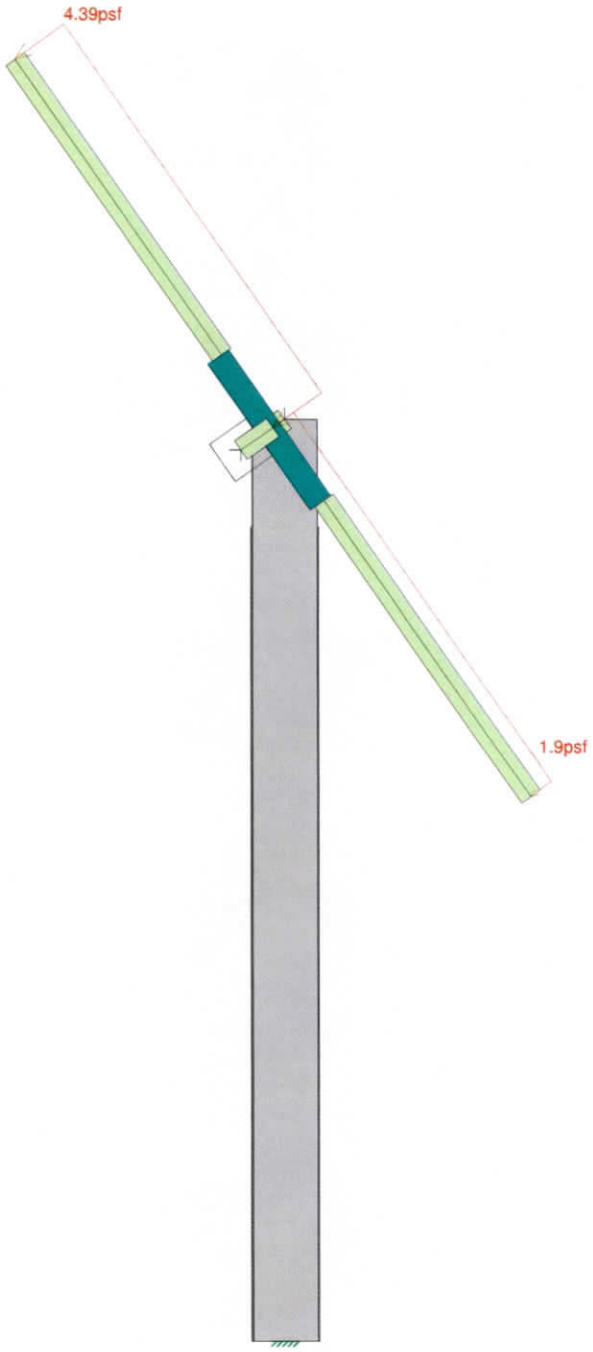
Northern States Metals		SK - 14
KK	1x81 TDP 2.0 55°	Feb 2, 2021 at 4:35 PM
13328	Seismic ELZ Load	21.0202 - 1x81 TDP 2.0 - 55° - Trin...



Loads: BLC 6, Wind Load+X - Static

Northern States Metals		SK - 15
KK	1x81 TDP 2.0 55°	Feb 2, 2021 at 4:37 PM
13328	Static Wind Uplift Load	21.0202 - 1x81 TDP 2.0 - 55° - Trin...



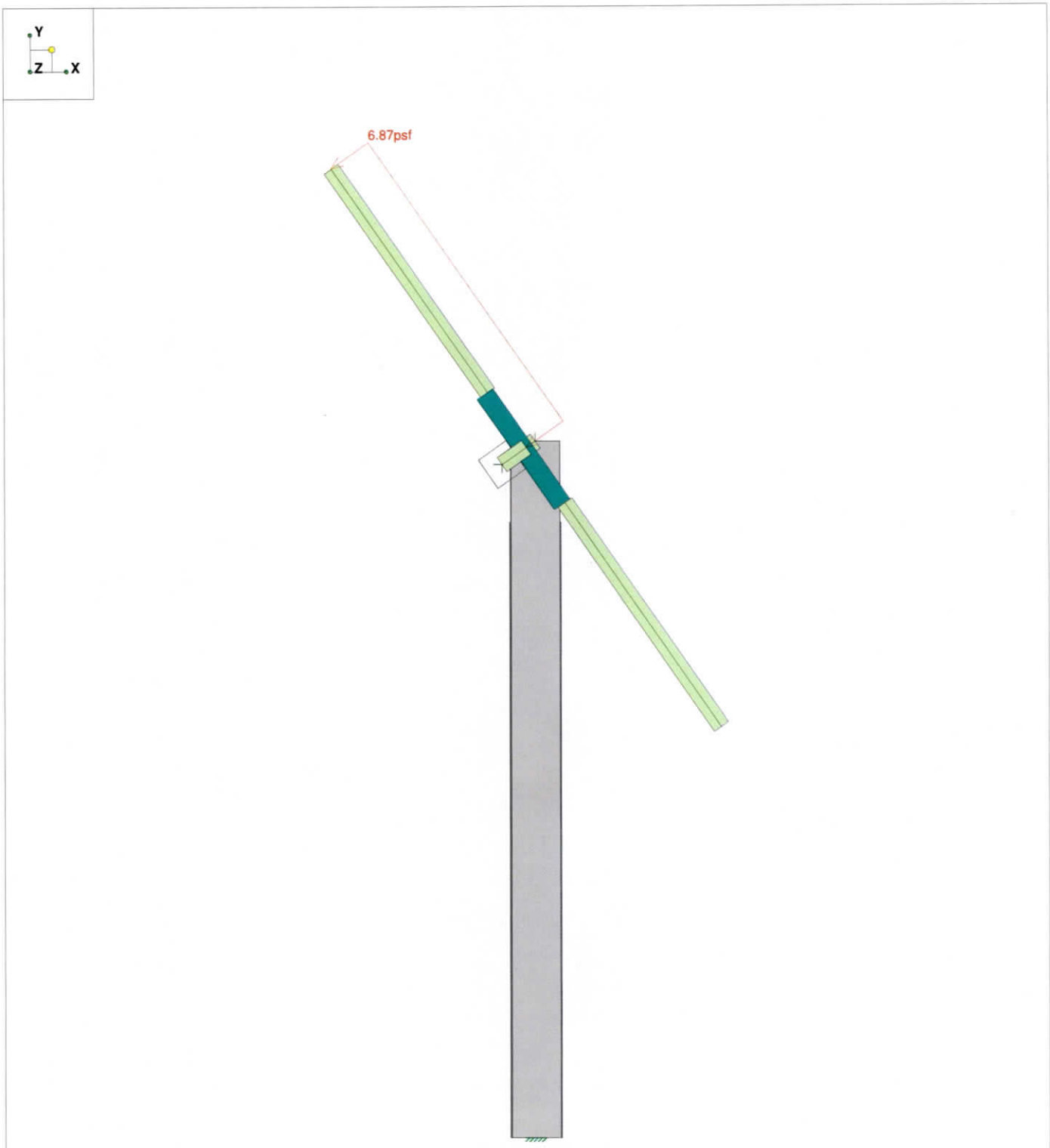


Loads: BLC 7, Wind load-x - Static

Northern States Metals		SK - 16
KK	1x81 TDP 2.0 55°	Feb 2, 2021 at 4:38 PM
13328	Static Wind Downward Load	21.0202 - 1x81 TDP 2.0 - 55° - Trin...

Loads: BLC 8, Wind +X Total

Northern States Metals		SK - 17
KK	1x81 TDP 2.0 55°	Feb 2, 2021 at 4:39 PM
13328	Inertial Wind Uplift Load	21.0202 - 1x81 TDP 2.0 - 55° - Trin...



Loads: BLC 9, Wind -X Total

Northern States Metals		SK - 18
KK	1x81 TDP 2.0 55°	Feb 2, 2021 at 4:40 PM
13328	Inertial Wind Downward Load	21.0202 - 1x81 TDP 2.0 - 55° - Trin...

Envelope AISC 15th(360-16): ASD Steel Code Checks

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	Pnc/om [lb]	Pnt/om [lb]	Mnyy/om ...	Mnzz/om ...	Cb	Eqn
1	TUBE 1	4x4x10ga Gator Shield	.487	1654.768	4	.516	1654.768	y	4	11230.313	68239.521	96547.249	96547.249	1	H3-6
2	TUBE 2	4x4x10ga Gator Shield	.475	0	4	.505	0	y	4	11230.313	68239.521	96547.249	96547.249	1	H3-6
3	DRIVE POST	W6X15	.311	0	4	.012	39.79	z	14	110767.2...	132634.7...	130006.5...	304369.8...	1	H1-1b
4	IDLER 7	W6x7	.221	0	4	.018	0	y	4	33631.962	59946.647	35079.306	106083.9...	1	H1-1b
5	IDLER 6	W6x7	.221	0	4	.018	0	y	4	33631.962	59946.647	35079.306	106083.9...	1	H1-1b
6	IDLER 10	W6x7	.204	0	4	.017	0	y	4	33631.962	59946.647	35079.306	106083.9...	1	H1-1b
7	IDLER 4	W6x7	.203	0	4	.017	0	y	4	33631.962	59946.647	35079.306	106083.9...	1	H1-1b
8	IDLER 2	W6x7	.203	0	4	.017	0	y	4	33631.962	59946.647	35079.306	106083.9...	1	H1-1b
9	IDLER 9	W6x7	.203	0	4	.017	0	y	4	33631.962	59946.647	35079.306	106083.9...	1	H1-1b
10	IDLER 3	W6x7	.202	0	4	.017	0	y	4	33631.962	59946.647	35079.306	106083.9...	1	H1-1b
11	IDLER 8	W6x7	.196	0	4	.016	0	y	3	33631.962	59946.647	35079.306	106083.9...	1	H1-1b
12	IDLER 5	W6x7	.196	0	4	.016	0	y	3	33631.962	59946.647	35079.306	106083.9...	1	H1-1b
13	IDLER 11	W6x7	.194	0	4	.016	0	y	4	33631.962	59946.647	35079.306	106083.9...	1	H1-1b
14	IDLER 1	W6x7	.180	0	4	.015	0	y	4	33631.962	59946.647	35079.306	106083.9...	1	H1-1b
15	IDLER 12	W6x7	.156	0	4	.013	0	y	4	33631.962	59946.647	35079.306	106083.9...	1	H1-1b

Envelope AISI S100-16: ASD Cold Formed Steel Code Checks

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	Pn/Om[l...	Tn/Om[l...	Mnyy/O...	Mnzz/O...	Vny/...	Vnz/...	Cb	Eqn
1	VP 3	V - HU - 2.25x0.045x1.25	.271	7.791	4	.024	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
2	VP 5	V - HU - 2.25x0.045x1.25	.271	7.791	4	.024	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
3	VP 4	V - HU - 2.25x0.045x1.25	.270	7.791	4	.024	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
4	VP 6	V - HU - 2.25x0.045x1.25	.270	7.791	4	.024	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
5	VP 8	V - HU - 2.25x0.045x1.25	.270	7.791	4	.024	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
6	VP 7	V - HU - 2.25x0.045x1.25	.270	7.791	4	.024	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
7	VP 9	V - HU - 2.25x0.045x1.25	.269	7.791	4	.024	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
8	VP 10	V - HU - 2.25x0.045x1.25	.269	7.791	4	.024	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
9	VP 81	V - HU - 2.25x0.045x1.25	.268	7.791	4	.024	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
10	VP 80	V - HU - 2.25x0.045x1.25	.268	7.791	4	.024	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
11	VP 79	V - HU - 2.25x0.045x1.25	.268	7.791	4	.024	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
12	VP 11	V - HU - 2.25x0.045x1.25	.268	7.791	4	.024	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
13	VP 77	V - HU - 2.25x0.045x1.25	.268	7.791	4	.024	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
14	VP 78	V - HU - 2.25x0.045x1.25	.268	7.791	4	.024	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
15	VP 12	V - HU - 2.25x0.045x1.25	.267	7.791	4	.024	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
16	VP 76	V - HU - 2.25x0.045x1.25	.267	7.791	4	.024	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
17	VP 75	V - HU - 2.25x0.045x1.25	.267	7.791	4	.023	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
18	VP 13	V - HU - 2.25x0.045x1.25	.266	7.791	4	.023	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
19	VP 74	V - HU - 2.25x0.045x1.25	.266	7.791	4	.023	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
20	VP 14	V - HU - 2.25x0.045x1.25	.266	7.791	4	.023	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
21	VP 73	V - HU - 2.25x0.045x1.25	.266	7.791	4	.023	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
22	VP 15	V - HU - 2.25x0.045x1.25	.266	7.791	4	.023	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
23	VP 72	V - HU - 2.25x0.045x1.25	.265	7.791	4	.023	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
24	VP 16	V - HU - 2.25x0.045x1.25	.265	7.791	4	.023	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
25	VP 71	V - HU - 2.25x0.045x1.25	.264	7.791	4	.023	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
26	VP 70	V - HU - 2.25x0.045x1.25	.264	7.791	4	.023	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
27	VP 69	V - HU - 2.25x0.045x1.25	.263	7.791	4	.023	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
28	VP 17	V - HU - 2.25x0.045x1.25	.263	7.791	4	.023	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
29	VP 18	V - HU - 2.25x0.045x1.25	.262	7.791	4	.023	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
30	VP 68	V - HU - 2.25x0.045x1.25	.262	7.791	4	.023	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
31	VP 2	V - HU - 2.25x0.045x1.25	.262	7.791	4	.023	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
32	VP 67	V - HU - 2.25x0.045x1.25	.261	7.791	4	.023	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
33	VP 19	V - HU - 2.25x0.045x1.25	.261	7.791	4	.023	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
34	VP 20	V - HU - 2.25x0.045x1.25	.260	7.791	4	.023	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
35	VP 66	V - HU - 2.25x0.045x1.25	.260	7.791	4	.023	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
36	VP 21	V - HU - 2.25x0.045x1.25	.259	7.791	4	.023	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
37	VP 82	V - HU - 2.25x0.045x1.25	.259	7.791	4	.023	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
38	VP 65	V - HU - 2.25x0.045x1.25	.259	7.791	4	.023	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
39	VP 22	V - HU - 2.25x0.045x1.25	.258	7.791	4	.023	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1

Envelope AISI S100-16: ASD Cold Formed Steel Code Checks (Continued)

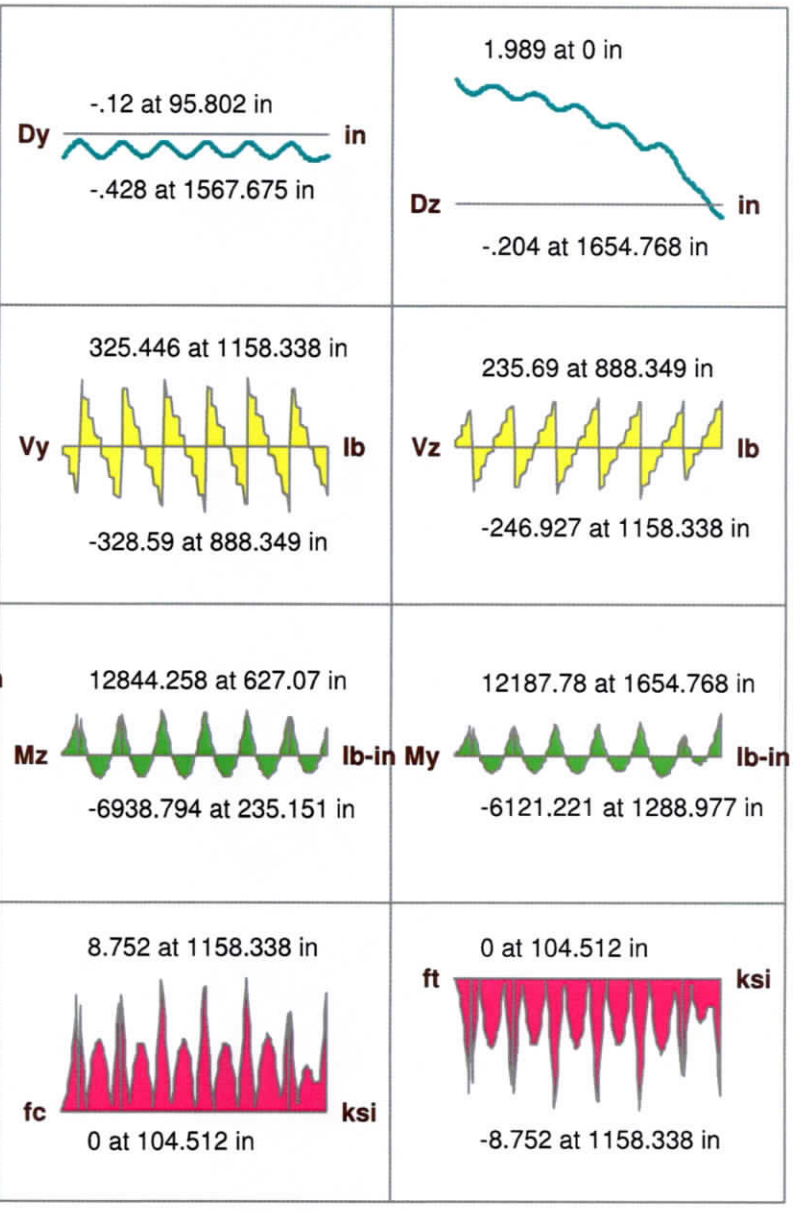
	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	Pn/Om[l...	Tn/Om[l...	Mnyy/O...	Mnzz/O...	Vny/...	Vnz/...	Cb	Eqn
40	VP 64	V - HU - 2.25x0.045x1.25	.258	7.791	4	.023	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
41	VP 63	V - HU - 2.25x0.045x1.25	.257	7.791	4	.023	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
42	VP 23	V - HU - 2.25x0.045x1.25	.257	7.791	4	.023	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
43	VP 62	V - HU - 2.25x0.045x1.25	.256	7.791	4	.023	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
44	VP 24	V - HU - 2.25x0.045x1.25	.255	7.791	4	.023	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
45	VP 61	V - HU - 2.25x0.045x1.25	.254	7.791	4	.022	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
46	VP 25	V - HU - 2.25x0.045x1.25	.254	7.791	4	.022	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
47	VP 60	V - HU - 2.25x0.045x1.25	.253	7.791	4	.022	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
48	VP 26	V - HU - 2.25x0.045x1.25	.252	7.791	4	.022	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
49	VP 59	V - HU - 2.25x0.045x1.25	.251	7.791	4	.022	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
50	VP 27	V - HU - 2.25x0.045x1.25	.251	7.791	4	.022	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
51	VP 58	V - HU - 2.25x0.045x1.25	.250	7.791	4	.022	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
52	VP 28	V - HU - 2.25x0.045x1.25	.250	7.791	4	.022	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
53	VP 57	V - HU - 2.25x0.045x1.25	.249	7.791	4	.022	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
54	VP 29	V - HU - 2.25x0.045x1.25	.248	7.791	4	.022	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
55	VP 56	V - HU - 2.25x0.045x1.25	.247	7.791	4	.022	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
56	VP 30	V - HU - 2.25x0.045x1.25	.246	7.791	4	.022	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
57	VP 55	V - HU - 2.25x0.045x1.25	.245	7.791	4	.022	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
58	VP 31	V - HU - 2.25x0.045x1.25	.244	7.791	4	.022	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
59	VP 54	V - HU - 2.25x0.045x1.25	.244	7.791	4	.022	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
60	VP 32	V - HU - 2.25x0.045x1.25	.242	7.791	4	.021	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
61	VP 53	V - HU - 2.25x0.045x1.25	.242	7.791	4	.021	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
62	VP 33	V - HU - 2.25x0.045x1.25	.241	7.791	4	.021	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
63	VP 52	V - HU - 2.25x0.045x1.25	.240	7.791	4	.021	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
64	VP 34	V - HU - 2.25x0.045x1.25	.239	7.791	4	.021	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
65	VP 51	V - HU - 2.25x0.045x1.25	.239	7.791	4	.021	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
66	VP 35	V - HU - 2.25x0.045x1.25	.237	7.791	4	.021	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
67	VP 50	V - HU - 2.25x0.045x1.25	.237	7.791	4	.021	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
68	VP 36	V - HU - 2.25x0.045x1.25	.235	7.791	4	.021	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
69	VP 49	V - HU - 2.25x0.045x1.25	.235	7.791	4	.021	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
70	VP 37	V - HU - 2.25x0.045x1.25	.233	7.791	4	.021	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
71	VP 48	V - HU - 2.25x0.045x1.25	.232	7.791	4	.021	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
72	VP 38	V - HU - 2.25x0.045x1.25	.230	7.791	4	.020	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
73	VP 47	V - HU - 2.25x0.045x1.25	.230	7.791	4	.020	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
74	VP 39	V - HU - 2.25x0.045x1.25	.228	7.791	4	.020	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
75	VP 46	V - HU - 2.25x0.045x1.25	.228	7.791	4	.020	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
76	VP 40	V - HU - 2.25x0.045x1.25	.226	7.791	4	.020	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
77	VP 45	V - HU - 2.25x0.045x1.25	.226	7.791	4	.020	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
78	VP 41	V - HU - 2.25x0.045x1.25	.216	7.791	4	.019	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
79	VP 44	V - HU - 2.25x0.045x1.25	.216	7.791	4	.019	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1

Envelope AISI S100-16: ASD Cold Formed Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	Pn/Om[l...	Tn/Om[l...	Mnyy/O...	Mnzz/O...	Vny/...	Vnz/...	Cb	Eqn
80	VP 1	V - HU - 2.25x0.045x1.25	.136	7.791	4	.012	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
81	VP 83	V - HU - 2.25x0.045x1.25	.134	7.791	4	.012	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
82	VP 43	V - HU - 2.25x0.045x1.25	.111	7.791	4	.010	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1
83	VP 42	V - HU - 2.25x0.045x1.25	.110	7.791	4	.010	7.791	z	4	6669.907	10333.3...	5783.63	2928.521	773...	3197.7	1	H1.2-1

Column: ***TUBE 1***

Shape: **4x4x10ga Gator Shield**
Material: **GatorShield Gr 55**
Length: **1654.768 in**
I Joint: **N5**
J Joint: **N22**
LC 4: IBC 16-12 (B)
Code Check: **0.516 (shear)**
Report Based On 191 Sections



AISC 15th(360-16): ASD Code Check

Direct Analysis Method

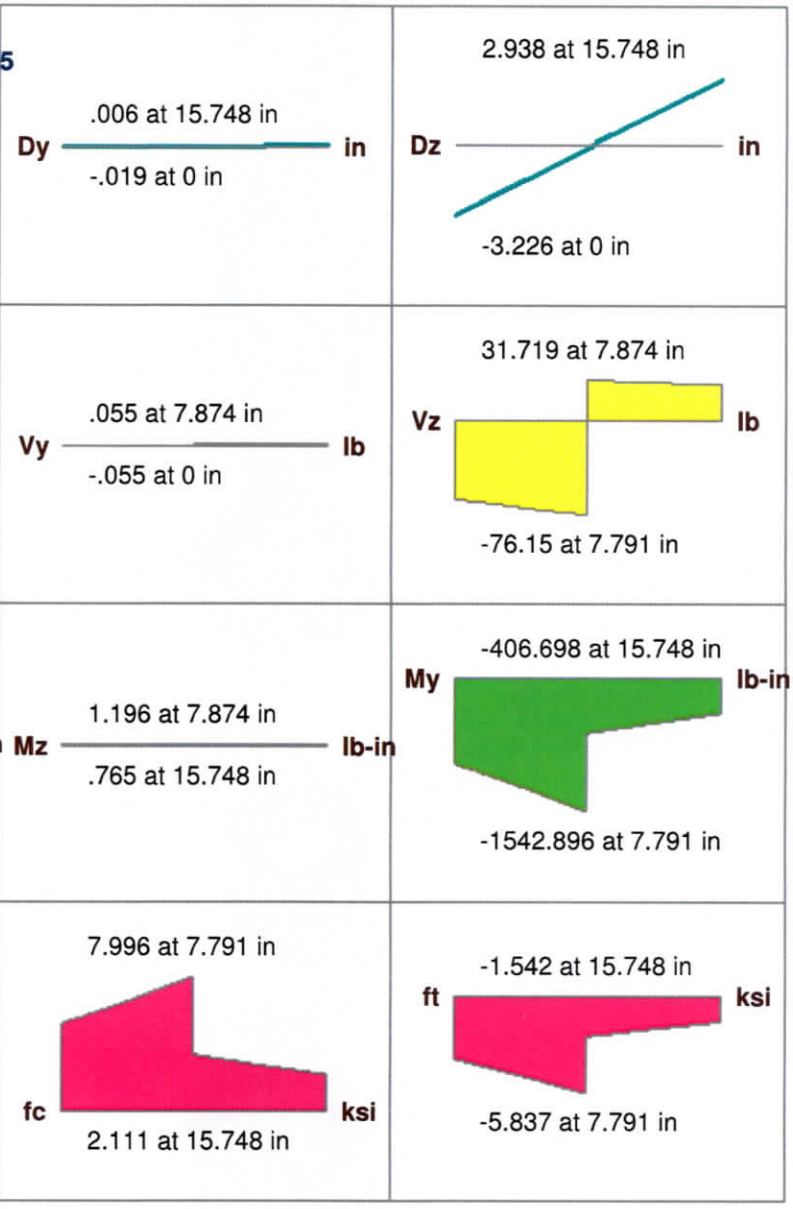
Max Bending Check	**0.487**	Max Shear Check	**0.516 (y)**
Location	**1654.768 in**	Location	**1654.768 in**
Equation	**H3-6**	Max Defl Ratio	**L/2614**

Bending Flange	**Non-Compact**	Compression Flange	**Non-Slender**
Bending Web	**Compact**	Compression Web	**Non-Slender**

			y-y	z-z
Fy	**55 ksi**	Lb	**263 in**	**263 in**
Pnc/om	**11230.313 lb**	Lc/r	**166.529**	**166.529**
Pnt/om	**68239.521 lb**			
Mny/om	**96547.249 lb-in**	L Comp Flange	**263 in**	
Mnz/om	**96547.249 lb-in**	L-torque	**1654.768 in**	
Vny/om	**19054.319 lb**	Tau_b	**1**	
Vnz/om	**19054.319 lb**			
Tn/om	**78967.258 lb-in**			
Cb	**1**			

Beam: ***VP 3***

Shape: **V - HU - 2.25x0.045x1.25**
Material: **A653 Grade 50**
Length: **15.748 in**
I Joint: **N582**
J Joint: **N583**
LC 4: IBC 16-12 (B)
Code Check: **0.271 (bending)**
Report Based On 191 Sections



AISI S100-16: ASD Code Check

Max Bending Check	**0.271**	Max Shear Check	**0.024 (z)**	Max Defl Ratio	**L/10000**
Location	**7.791 in**	Location	**7.791 in**	Location	**0 in**
Equation	**H1.2-1**			Span	**NA**
Gov.∅ Equation	**F3.1**				

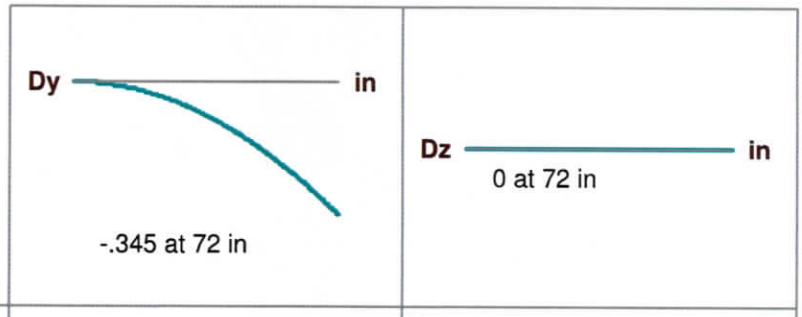
R (I6.2.1) **Not Used**

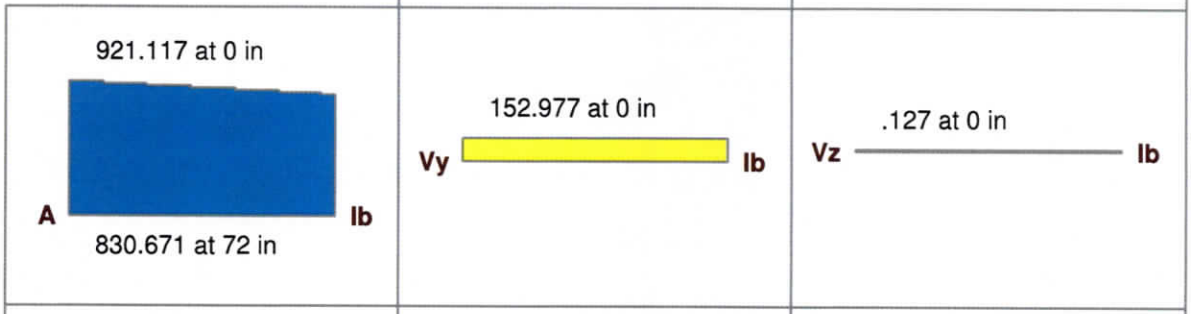
			y-y	z-z
Fy	**50 ksi**	Lb	**15.748 in**	**15.748 in**
Pn/Ω	**6669.907 lb**	KL/r	**18.456**	**18.616**
Tn/Ω	**10333.343 lb**			
Mny/Ω	**5783.63 lb-in**	L Comp Flange	**15.748 in**	
Mnz/Ω	**2928.521 lb-in**	L-torque	**15.748 in**	
Vny/Ω	**773.85 lb**			
Vnz/Ω	**3197.7 lb**			
Cb	**1**			

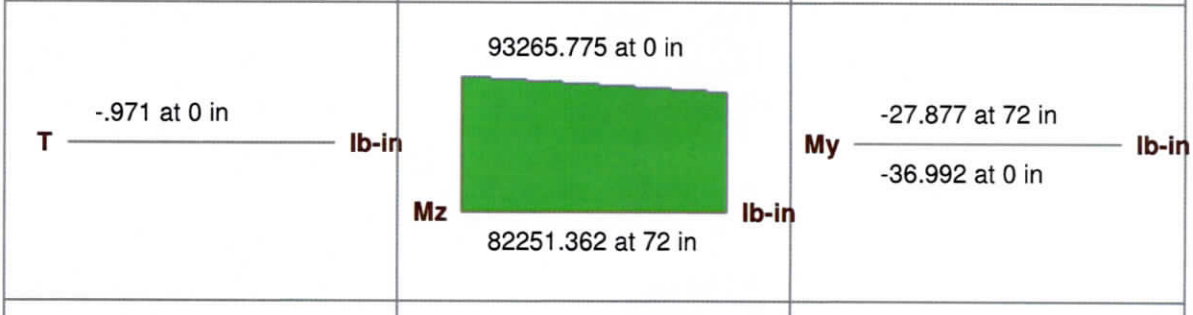
A eff. (Fy)	**.267 in^2**
A eff. (Fn)	**.277 in^2**
Iy eff.	**.251 in^4**
Sy eff. (L)	**.265 in^3**
Sy eff. (R)	**.193 in^3**
Iz eff.	**.189 in^4**
Sz eff. (T)	**.11 in^3**
Sz eff. (B)	**.098 in^3**

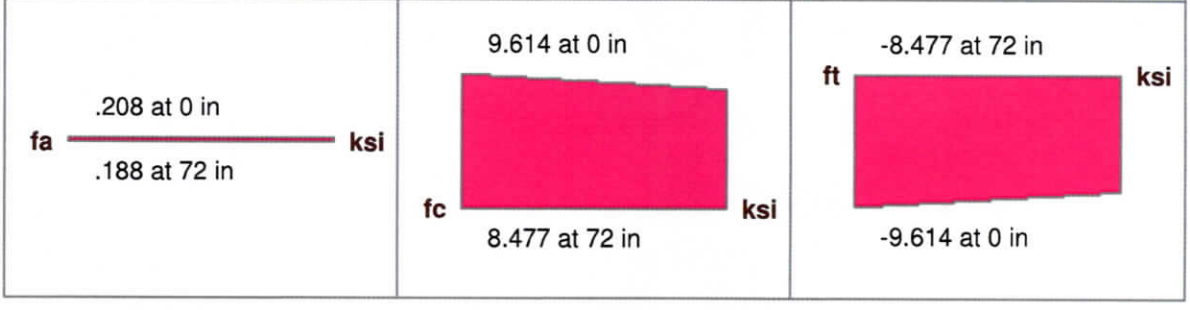
Column: ***DRIVE POST***

Shape: **W6X15**
Material: **A992**
Length: **72 in**
I Joint: **N3**
J Joint: **N4**
LC 4: IBC 16-12 (B)
Code Check: **0.311 (bending)**
Report Based On 191 Sections









AISC 15th(360-16): ASD Code Check

Direct Analysis Method

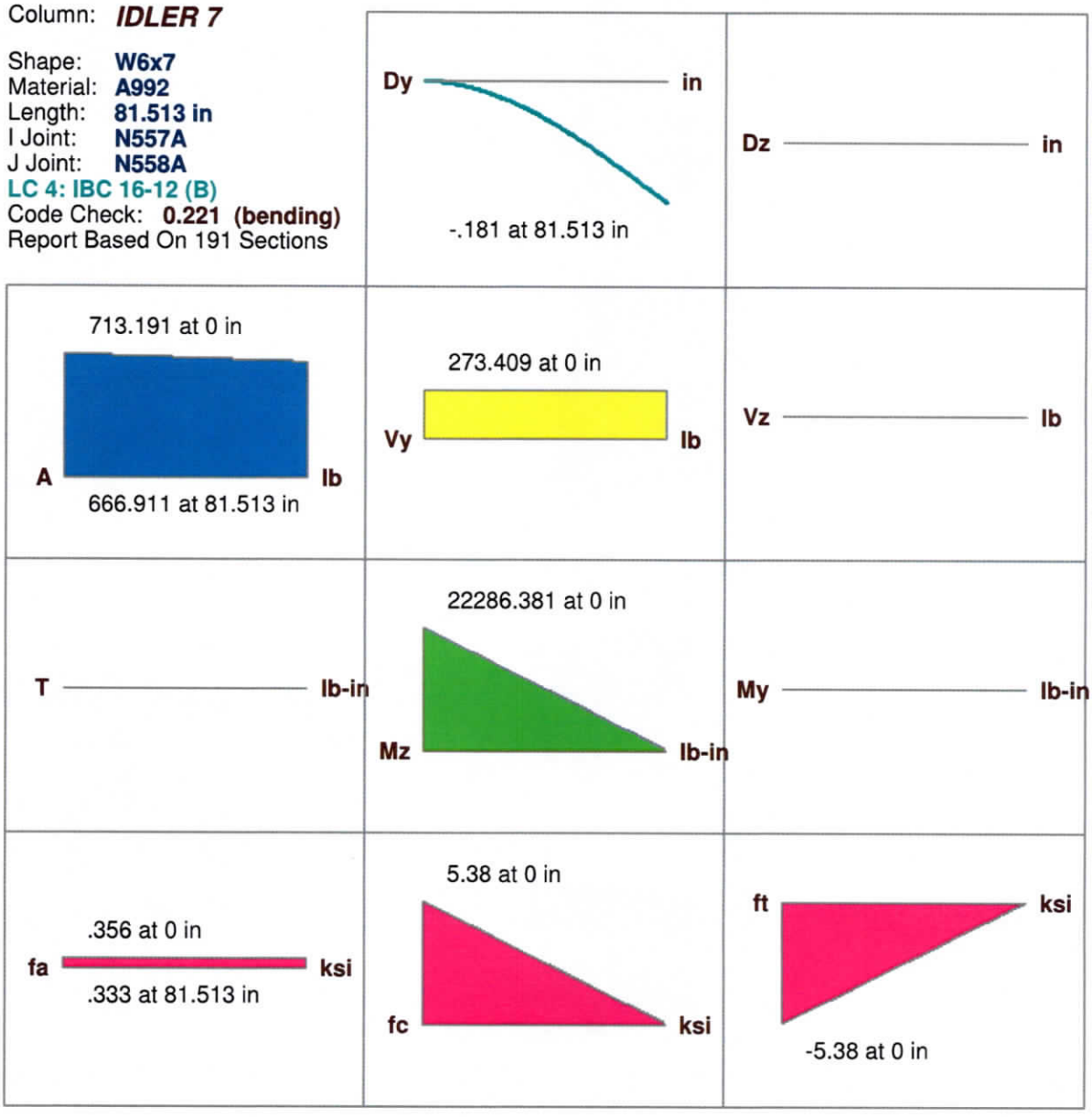
Max Bending Check	**0.311**	Max Shear Check	**0.006 (y)**
Location	**0 in**	Location	**40.926 in**
Equation	**H1-1b**	Max Defl Ratio	**L/208**

Bending Flange	**Non-Compact**	Compression Flange	**Non-Slender**
Bending Web	**Compact**	Compression Web	**Non-Slender**

			y-y	z-z
Fy	**50 ksi**	Lb	**72 in**	**72 in**
Pnc/om	**110767.287 lb**	Lc/r	**49.64**	**28.092**
Pnt/om	**132634.731 lb**			
Mny/om	**130006.559 lb-in**	L Comp Flange	**72 in**	
Mnz/om	**304369.867 lb-in**	L-torque	**72 in**	
Vny/om	**27554 lb**	Tau_b	**1**	
Vnz/om	**55954.491 lb**			
Cb	**1**			

Column: ***IDLER 7***

Shape: **W6x7**
Material: **A992**
Length: **81.513 in**
I Joint: **N557A**
J Joint: **N558A**
LC 4: IBC 16-12 (B)
Code Check: **0.221 (bending)**
Report Based On 191 Sections



AISC 15th(360-16): ASD Code Check

Direct Analysis Method

Max Bending Check	**0.221**	Max Shear Check	**0.018 (y)**
Location	**0 in**	Location	**0 in**
Equation	**H1-1b**	Max Defl Ratio	**L/450**

Bending Flange	**Non-Compact**	Compression Flange	**Non-Slender**	
Bending Web	**Compact**	Compression Web	**Slender**	**Ae=2.002 in2**

			y-y	z-z
Fy	**50 ksi**	Lb	**81.513 in**	**81.513 in**
Pnc/om	**33631.962 lb**	Lc/r	**88.909**	**33.359**
Pnt/om	**59946.647 lb**			
Mny/om	**35079.306 lb-in**	L Comp Flange	**81.513 in**	
Mnz/om	**106083.974 lb-in**	L-torque	**81.513 in**	
Vny/om	**14891.76 lb**	Tau_b	**1**	
Vnz/om	**23356.886 lb**			
Cb	**1**			