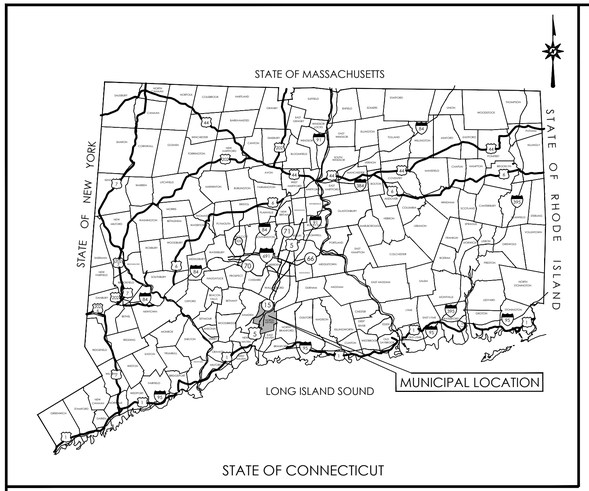
Appendix A

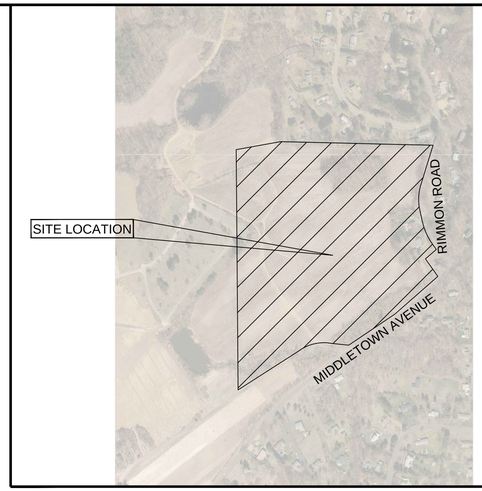
SUBMISSION TO CONNECTICUT SITING COUNCIL

4.98 MW (AC) PHOTOVOLTAIC INSTALLATION

700 MIDDLETOWN AVENUE NORTH HAVEN, CT



LOCATION MAP
N.T.S.



VICINITY MAP
SCALE: 1"=500'

700 MIDDLETOWN AVENUE
MAP #48 LOTS 46, 47, 51
NORTH HAVEN, CT 06473

PREPARED FOR:

GREENSKIES RENEWABLE ENERGY
180 JOHNSON STREET
MIDDLETOWN, CT 06457

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CAD FILE: CV17D351601
XREF(S): XXXXXXXX

PREPARED BY:

ARCHITECTURE
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ENVIRONMENTAL
LAND SURVEYING
BL Companies

355 RESEARCH PARKWAY
MERIDEN, CONNECTICUT 06450
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DEVELOPER:
GREENSKIES RENEWABLE ENERGY
180 JOHNSON STREET
MIDDLETOWN, CT 06457
(860) 398-5408

OWNER:
CATHOLIC CEMETERY ASSOCIATION
700 MIDDLETOWN AVEMIE
NORTH HAVEN, CT 06473

SUBCONSULTANTS:

GEOTECHNICAL ENGINEER:
TERRACON
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ROCKY HILL, CT
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DATES

SUBMISSION DATE: APRIL 6, 2018
REVISION:

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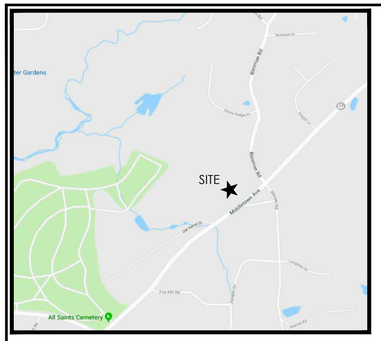
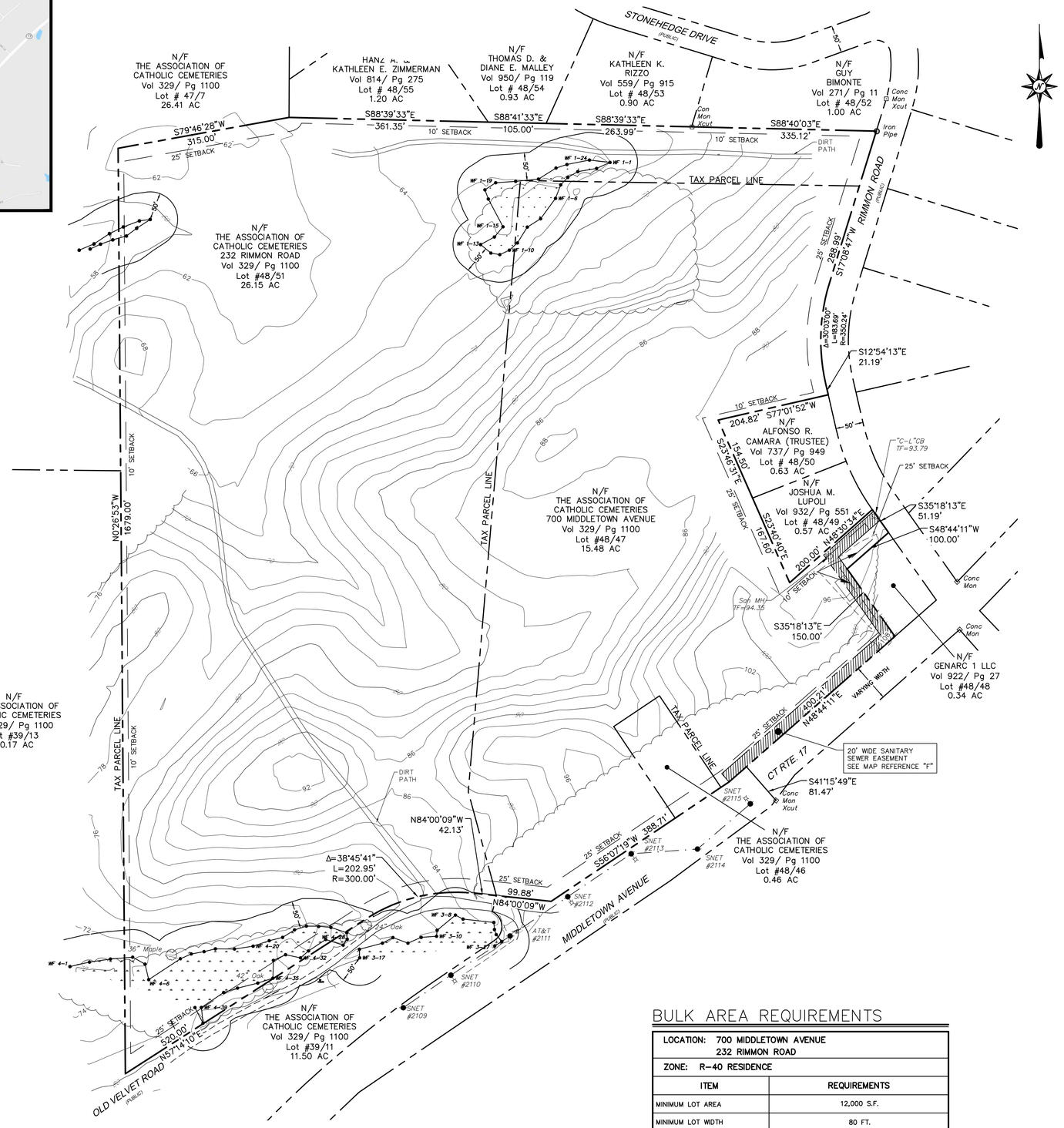


LOCATION MAP

NOT TO SCALE



BULK AREA REQUIREMENTS

LOCATION: 700 MIDDLETOWN AVENUE 232 RIMMON ROAD	
ZONE: R-40 RESIDENCE	
ITEM	REQUIREMENTS
MINIMUM LOT AREA	12,000 S.F.
MINIMUM LOT WIDTH	80 FT.
MINIMUM FRONT SETBACK	25 FT.
MINIMUM SIDE SETBACK	10 FT.
MINIMUM REAR SETBACK	25 FT.
MAXIMUM BUILDING HEIGHT	25 FT.
MAXIMUM BUILDING COVERAGE	25%

GRAPHIC SCALE

100 50 0 100

SCALE IN FEET

GENERAL NOTES

1. A) THIS MAP HAS BEEN PREPARED IN ACCORDANCE WITH THE REGULATIONS OF CONNECTICUT STATE AGENCIES, SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996.

   B) THIS PLAN CONFORMS TO HORIZONTAL ACCURACY CLASS A-2 AND A TOPOGRAPHIC ACCURACY CLASS T-2.

   C) BOUNDARY DETERMINATION IS BASED UPON A RESURVEY.

   D) THE TYPE OF SURVEY PERFORMED IS A PROPERTY SURVEY AND IS INTENDED TO DEPICT EXISTING CONDITIONS WITH RESPECT TO MONUMENTATION FOUND, STRUCTURES, EASEMENTS, ENCROACHMENTS, VISIBLE UTILITIES, ROADWAYS AND CONTOURS.

2. NORTH ARROW AND BEARINGS REFER TO NAD 83 AND ARE BASED ON GPS READINGS TAKEN ON JANUARY 25, 2018 USING ACORN.

   ELEVATIONS REFER TO NAVD 88 AND ARE BASED ON GPS OBSERVATIONS TAKEN ON JANUARY 25, 2018 USING ACORN.

3. PARCEL IS LOCATED IN A FLOOD HAZARD AREA "X", (AREAS DETERMINED TO BE OUTSIDE 100/500-YEAR FLOOD) AS DEPICTED ON F.I.R.M. COMMUNITY PANEL NO. 09009C0452J PANEL 0452 OF 0635 REVISED: MAY 16, 2017.

4. THE UNDERGROUND UTILITIES DEPICTED HAVE BEEN PLOTTED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES DEPICTED COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES DEPICTED ARE IN THE EXACT LOCATION INDICATED THOUGH THEY ARE PLOTTED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY EXPOSED THE UNDERGROUND UTILITIES. PER CONNECTICUT STATE LAW THE CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF EXCAVATION. CALL BEFORE YOU DIG 1-800-922-4455.

MAP REFERENCE(S)

A. "CONNECTICUT STATE HIGHWAY DEPARTMENT, RIGHT OF WAY MAP, TOWN OF NORTH HAVEN, NEW HAVEN-MIDDLETOWN ROAD FROM VELVET LANE EASTERLY TO CLINTONVILE ROAD. ROUTE NO. 114, SCALE: 1"=40', DATE: APR. 30, 1930, REV: JANUARY 23, 1968. NUMBER 761, SHEET 2 OF 2."

B. "CONNECTICUT STATE HIGHWAY DEPARTMENT, RIGHT OF WAY MAP, TOWN OF NORTH HAVEN, MIDDLETOWN ROAD FROM THE CLINTONVILLE ROAD EASTERLY TO THE NORTH BRANFORD TOWN LINE. ROUTE NO. 114, SCALE:1"=40', DATE: APR. 30, 1929, REV: JANUARY 24, 1968. NUMBER 720, SHEET 1 OF 1."

C. "SUBDIVISION PLAN, PROPERTY OF ALBERT AND ANGELINA ANNUNZIATTA, RIMMON ROAD, NORTH HAVEN, CONN. DATE: MARCH 26, 1968, SCALE: 1"=100', SHEET 1 OF 2." PREPARED BY: JOSEPH B. BURNS, P.E. & L.S. (N.H.T.C. MAP NO. I-30 SHEET 1).

D. "SUBDIVISION PLAN, BUBBLING WELLS ACRES, SECTION TWO, PROPERTY TO BE CONVEYED TO CAMERA ASSOCIATES, RIMMON ROAD, NORTH HAVEN, CONNECTICUT, DATE: SEPT. 30, 1972, SCALE: 1"=50'." PREPARED BY: JOSEPH B. BURNS P.E. & L.S. (N.H.T.C. MAP NO. I-395).

E. "BUBBLING WELLS ACRES, RESUBDIVISION-LOT 2, SECTION ONE, PROPERTY OF HANS H. AND MARGARET . BOHLMANN, NORTH HAVEN, CONN. DATE: OCT. 1973 REV: MAY 1974, SCALE: 1"=50'." PREPARED BY: CHAS. H. MILLER, P.E. & L.S. (N.H.T.C. MAP NO. I-484).

F. "TOWN OF NORTH HAVEN, PERMANENT SANITARY SEWER EASEMENT ACROSS PROPERTY OF CATHOLIC CEMETARY ASSOCIATION OF THE ARCHDIOCESE OF HARTFORD INC., MIDDLETOWN AVE. NORTH HAVEN, CONN., DATE: APRIL 1, 1980, SCALE: 1"=40'." PREPARED BY: SALVATORE C. FAZZINO P.E. (N.H.T.C. MAP NO. I-886A).

LEGEND

- Property Line
- Property Line Abutter
- Easement Line
- Setback Line
- Limit of Wetlands
- Wetlands/Marsh
- Treeline
- Brushline
- 50 Major Contour
- Minor Contour
- Guide Rail
- Overhead Wires
- S S Sanitary Sewer
- Storm Sewer
- Utility Pole
- Utility Pole w/ Light
- CB Catch Basin
- MH Manhole
- Sign
- Deciduous Tree
- Coniferous Tree

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

ROBERT H. ROPER L.S. #18469

NO CERTIFICATION IS EXPRESSED OR IMPLIED UNLESS THIS MAP BEARS THE ORIGINAL SIGNATURE AND EMBOSSED SEAL OF THE ABOVE NAMED LAND SURVEYOR.

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LANDS OF THE ASSOCIATION OF CATHOLIC CEMETERIES

700 MIDDLETOWN AVENUE
NORTH HAVEN, CONNECTICUT

REVISIONS

No.	Date	Desc.

Surveyed	A.C.
Drawn	A.C.
Reviewed	R.R.
Scale	1"=100'
Project No.	17D3516
Date	03/30/18
Field Book	581

CAD File: BS17D351601

Title

PROPERTY SURVEY MAP

Sheet No.

BS-1

Xref (s) : XY17D351601 - XX04CXXXXX

Apr 04, 2018 11:49am oschaffer G:\JOB\17\17D3516\DWG\BS17D351601.dwg
Layout: BLY 24X36

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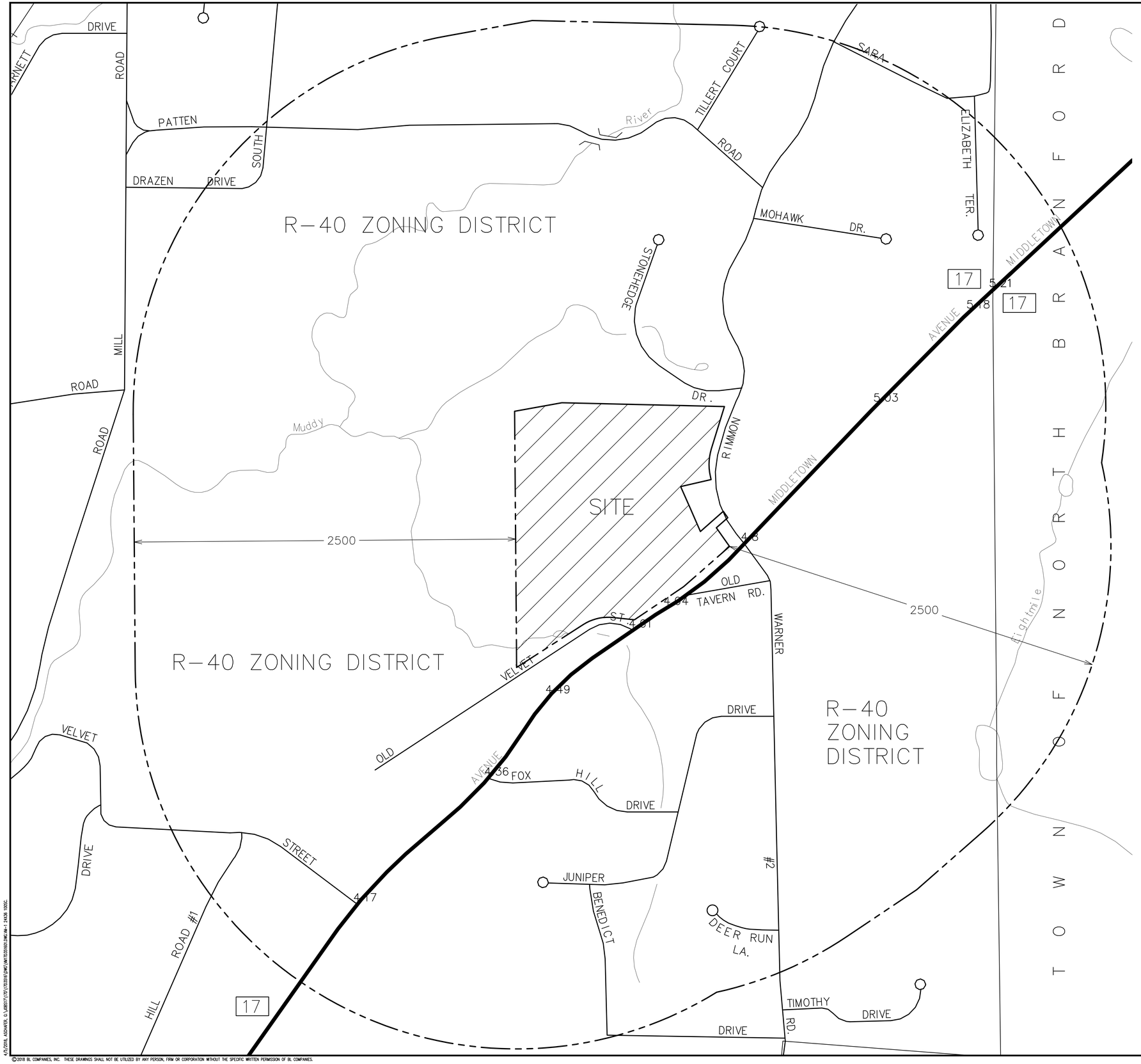

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PHOTOVOLTAIC INSTALLATION

700 MIDDLETOWN AVENUE
NORTH HAVEN, CONNECTICUT

REVISIONS
No. Date Desc.

Designed	J.P.E.
Drawn	M.P.S.
Reviewed	M.P.S.
Scale	1"=300'
Project No.	1703516
Date	04/06/2018
CAD File:	VM17D351601

Title

VICINITY MAP

Sheet No.

VM-1

Xref Ogb : X:\17D351601 ; X:\17D351601 ; B:\17D351601 ; 100_LMC-TRU ; kenstab1 ; EDM

4/5/2018, ADSHAFER, G:\JOBS\17\17D351601\DWG\VM\17D351601.DWG Model | 24x36 ANSI-C

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SITE WORK GENERAL NOTES

1. THESE PLANS ARE FOR PERMITTING PURPOSES ONLY AND ARE NOT FOR CONSTRUCTION.
2. ALL CONSTRUCTION SHALL COMPLY WITH THE PROJECT SPECIFICATION MANUAL; GREENSKIES RENEWABLE ENERGY, MUNICIPAL STANDARDS AND SPECIFICATIONS, AND CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS, 2010 ADA STANDARDS, AND STATE BUILDING CODE IN THE ABOVE REFERENCED INCREASING HIERARCHY. IF SPECIFICATIONS ARE IN CONFLICT, THE MORE STRINGENT SPECIFICATION SHALL APPLY. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE OSHA, FEDERAL, STATE AND LOCAL REGULATIONS.
3. REFER TO OTHER PLANS BY OTHER DISCIPLINES, DETAILS AND PROJECT MANUAL FOR ADDITIONAL INFORMATION. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS IN THE FIELD AND CONTACT THE CIVIL ENGINEER 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. ANY CONFLICT BETWEEN THE DRAWINGS AND SPECIFICATIONS SHALL BE CONFIRMED WITH THE DEVELOPER'S CONSTRUCTION MANAGER PRIOR TO BIDDING.
4. DO NOT INTERRUPT EXISTING UTILITIES SERVICING FACILITIES OCCUPIED AND USED BY THE OWNER OR OTHERS DURING OCCUPIED HOURS EXCEPT WHEN SUCH INTERRUPTIONS HAVE BEEN AUTHORIZED IN WRITING BY THE OWNER AND THE LOCAL MUNICIPALITIES. INTERRUPTIONS SHALL ONLY OCCUR AFTER ACCEPTABLE TEMPORARY SERVICE HAS BEEN PROVIDED.
5. 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.
6. THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORD DRAWINGS OF ALL CONSTRUCTION (INCLUDING UNDERGROUND UTILITIES AND STORMWATER SYSTEM) TO THE DEVLOPER AT THE END OF CONSTRUCTION.
7. 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 OR TO SUPERVISE SAFETY AND DOES NOT VOLUNTARILY ASSUME ANY SUCH DUTY OR RESPONSIBILITY.
8. THE CONTRACTOR SHALL COMPLY WITH CFR 29 PART 1926 FOR EXCAVATION, TRENCHING, AND TRENCH PROTECTION REQUIREMENTS.
9. INFORMATION ON EXISTING UTILITIES AND STORM DRAINAGE SYSTEMS HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY COMPANY AND MUNICIPAL OR COUNTY OR STATE 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 UNDERGROUND AND OVERHEAD UTILITIES AND STORM DRAINAGE SYSTEMS INCLUDING SERVICES. PRIOR TO DEMOLITION OR CONSTRUCTION, THE CONTRACTOR SHALL CONTACT CT CALL BEFORE YOU DIG (CBYD) 72 HOURS BEFORE COMMENCEMENT OF WORK AT CT (800) 922-4455 OR AT 811 AND VERIFY ALL UTILITY AND STORM DRAINAGE SYSTEM 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 PROPOSED UTILITIES AND STORM PIPING CROSS EXISTING UTILITIES AND STORM PIPING WITHIN THE CONTRACT LIMITS.
10. DO NOT SCALE DRAWINGS. DIMENSIONS GOVERN OVER SCALED DIMENSIONS.
11. IF PLANS AND OR SPECIFICATIONS ARE IN CONFLICT, THE MOST COSTLY SHALL APPLY.
12. ALL CONTRACTORS AND SUBCONTRACTORS SHALL OBTAIN COMPLETE DRAWING PLAN SETS FOR BIDDING AND CONSTRUCTION. PLAN SETS OR PLAN SET ELECTRONIC POSTINGS SHALL NOT BE DISASSEMBLED INTO PARTIAL PLAN SETS FOR USE BY CONTRACTORS AND SUBCONTRACTORS OF INDIVIDUAL TRADES. IT SHALL BE THE CONTRACTOR'S AND SUBCONTRACTOR'S RESPONSIBILITY TO OBTAIN COMPLETE PLAN SETS OR COMPLETE PLAN SET ELECTRONIC POSTINGS FOR USE IN BIDDING AND CONSTRUCTION.
13. ALL NOTES AND DIMENSIONS DESIGNATED "TYPICAL" APPLY TO ALL LIKE OR SIMILAR CONDITIONS THROUGHOUT THE PROJECT.
14. CONTRACTOR(S) TO TAKE AND VERIFY ALL DIMENSIONS AND CONDITIONS OF THE WORK AND BE RESPONSIBLE FOR COORDINATION OF SAME. FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK.
15. BL COMPANIES WILL PREPARE FINAL CONSTRUCTION DOCUMENTS SUITABLE FOR BIDDING AND CONSTRUCTION. PROGRESS SETS OF THESE DOCUMENTS ARE NOT SUITABLE FOR THOSE PURPOSES. IF CLIENT ELECTS TO SOLICIT BIDS OR ENTER INTO CONSTRUCTION CONTRACTS UTILIZING CONSTRUCTION DOCUMENTS THAT ARE NOT YET FINAL, CONSULTANT SHALL NOT BE RESPONSIBLE FOR ANY COSTS OR DELAY ARISING AS A RESULT.
16. NO CONSTRUCTION OR DEMOLITION SHALL BEGIN UNTIL APPROVAL OF THE FINAL PLANS IS GRANTED BY ALL GOVERNING AND REGULATORY AGENCIES.
17. THE DEVELOPER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY ZONING PERMITS REQUIRED BY GOVERNMENT AGENCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT AND OBTAIN FROM MUNICIPAL SOURCES ALL CONSTRUCTION PERMITS, INCLUDING STATE DOT PERMITS, SEWER AND WATER CONNECTION PERMITS, AND ROADWAY CONSTRUCTION PERMITS. THE CONTRACTOR SHALL POST ALL BONDS, PAY ALL FEES, PROVIDE PROOF OF INSURANCE AND PROVIDE TRAFFIC CONTROL NECESSARY FOR THIS WORK EXCEPT CTDOT ENCROACHMENT PERMIT BOND.
18. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRODUCTS AND MATERIALS PER PLANS AND SPECIFICATIONS TO THE DEVELOPER AND CIVIL ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY TO THE SITE. ALLOW A MINIMUM OF 14 WORKING DAYS FOR REVIEW.
19. THE CONTRACTOR SHALL FOLLOW THE SEQUENCE OF CONSTRUCTION NOTES PROVIDED ON THE SEDIMENT AND EROSION CONTROL PLAN AND THE STORMWATER POLLUTION CONTROL PLAN.
20. SHOULD ANY UNCHARTED OR INCORRECTLY CHARTED, EXISTING PIPING OR OTHER UTILITY BE UNCOVERED DURING EXCAVATION, CONSULT THE CIVIL ENGINEER IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH WORK IN THIS AREA.
21. ALL SITE DIMENSIONS ARE REFERENCED TO THE FACE OF CURBS OR EDGE OF PAVING AS APPLICABLE UNLESS OTHERWISE NOTED.
22. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC DEVICES FOR PROTECTION OF VEHICLES AND PEDESTRIANS CONSISTING OF DRUMS, BARRIERS, SIGNS, LIGHTS, FENCES, TEMPORARY WALKWAYS, TRAFFIC CONTROLLERS AND UNIFORMED TRAFFIC OFFICERS AS REQUIRED OR AS ORDERED BY THE ENGINEER OR AS REQUIRED BY THE LOCAL GOVERNING AUTHORITIES OR AS REQUIRED BY PERMIT STIPULATIONS OR AS REQUIRED BY THE DEVELOPER. CONTRACTOR SHALL MAINTAIN ALL TRAFFIC LANES AND PEDESTRIAN WALKWAYS FOR USE AT ALL TIMES UNLESS WRITTEN APPROVAL FROM THE APPROPRIATE GOVERNING AGENCY IS GRANTED.
23. TRAFFIC CONTROL SIGNAGE SHALL CONFORM TO THE STATE DOT STANDARD DETAIL SHEETS AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. SIGNS SHALL BE INSTALLED PLUMB WITH THE EDGE OF THE SIGN 2' OFF THE FACE OF THE CURB, AND WITH 7' VERTICAL CLEARANCE UNLESS OTHERWISE DETAILED OR NOTED.
24. REFER TO DETAIL SHEETS FOR GRAVEL ACCESS ROAD AND BITUMINOUS DRIVE ENTRANCES INFORMATION.
25. THE CONTRACT LIMIT IS THE PROPERTY LINE UNLESS OTHERWISE SPECIFIED OR SHOWN ON THE CONTRACT DRAWINGS.
26. THE CONTRACTOR SHALL RESTORE ANY UTILITY STRUCTURE, DRAINAGE STRUCTURE, PIPE, UTILITY, PAVEMENT, CURBS, SIDEWALKS, LANDSCAPED AREAS, SWALE, PAVEMENT MARKINGS, OR SIGNAGE DISTURBED DURING DEMOLITION AND/OR CONSTRUCTION TO THEIR ORIGINAL CONDITION OR BETTER, AS APPROVED BY THE CIVIL ENGINEER, AND TO THE SATISFACTION OF THE DEVELOPER AND TOWN OF NORTH HAVEN.
27. EXISTING BOUNDARY AND TOPOGRAPHY IS BASED ON DRAWING TITLED "LANDS OF THE ASSOCIATION OF CATHOLIC CEMETERIES, 700 MIDDLETOWN AVENUE, NORTH HAVEN, CONNECTICUT, PROPERTY SURVEY MAP, SHEET BS-1" SCALE 1"=100', DATED 03/30/2018, PREPARED BY BL_COMPANIES INC.
28. ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE DEVELOPER, CIVIL ENGINEER, AND APPROPRIATE REGULATORY AGENCY PRIOR TO INSTALLATION DURING THE BIDDING PROCESS.
29. CTDOT ENCROACHMENT PERMIT, IF REQUIRED, SHALL BE OBTAINED BY CONTRACTOR WHO SHALL PAY ALL FEES, PROVIDE PROOF OF INSURANCE AND PROVIDE TRAFFIC PROTECTION NECESSARY FOR THE WORK. THE DEVELOPER SHALL POST CTDOT ENCROACHMENT PERMIT BOND.
30. AN EROSION CONTROL BOND IS REQUIRED TO BE POSTED BY THE CONTRACTOR BEFORE THE START OF ANY ACTIVITY ON OR OFF SITE. THE AMOUNT OF THE EROSION CONTROL BOND WILL BE DETERMINED BY THE AUTHORITY HAVING JURISDICTION.
31. NO PART OF THE PROJECT PARCEL IS LOCATED WITHIN ANY FEMA DESIGNATED FLOOD HAZARD AREAS.
32. THERE ARE WETLANDS LOCATED ON THE SITE AS INDICATED BY FIELD REVIEW CONDUCTED BY ERIC DAVISON, CERTIFIED PROFESSIONAL WETLAND SCIENTIST, AND REGISTERED SOIL SCIENTIST, OF DAVIDSON ENVIRONMENTAL, ON 12/16/17 AND FIELD LOCATED BY BL COMPANIES.
33. CONSTRUCTION OCCURRING ON THIS SITE SHALL COMPLY WITH NFPA 241 STANDARD FOR SAFEGUARDING CONSTRUCTION, ALTERATION AND DEMOLITION OPERATIONS, AND CHAPTER 16 OF NFPA 1 UNIFORM FIRE CODE.
34. CONTRACTOR SHALL SECURE ANY PERMITS, PAY ALL FEES AND PERFORM CLEARING AND GRUBBING AND DEBRIS REMOVAL PRIOR TO COMMENCEMENT OF GRADING OPERATIONS. CLEARING AND GRUBBING OF EXISTING VEGETATION SHALL OCCUR FOR EACH PHASE AS OUTLINED ON THE SEDIMENTATION AND EROSION CONTROL PLANS.
35. SEDIMENT AND EROSION CONTROLS AS SHOWN ON THE SEDIMENT AND EROSION CONTROL PLAN SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO START OF CLEARING AND GRUBBING OPERATIONS FOR EACH PHASE.
36. REMOVE AND DISPOSE OF ANY SIDEWALKS, FENCES, STAIRS, WALLS, DEBRIS AND RUBBISH REQUIRING REMOVAL FROM THE WORK AREA IN AN APPROVED OFF SITE LANDFILL, BY AN APPROVED HAULER. HAULER SHALL COMPLY WITH ALL REGULATORY REQUIREMENTS.
37. THE CONTRACTOR SHALL SECURE ALL PERMITS FOR HIS DEMOLITION AND DISPOSAL OF HIS DEMOLITION MATERIAL TO BE REMOVED FROM THE SITE. THE CONTRACTOR SHALL POST BONDS AND PAY PERMIT FEES AS REQUIRED. BUILDING DEMOLITION CONTRACTOR SHALL BE RESPONSIBLE FOR PERMITS AND DISPOSAL OF ALL BUILDING DEMOLITION DEBRIS IN AN APPROVED OFF-SITE LANDFILL.
38. ASBESTOS OR HAZARDOUS MATERIAL, IF FOUND ON SITE, SHALL BE REMOVED BY A LICENSED HAZARDOUS MATERIAL CONTRACTOR.
39. THE CONTRACTOR SHALL PREPARE ALL MANIFEST DOCUMENTS AS REQUIRED PRIOR TO COMMENCEMENT OF DEMOLITION.
40. THE CONTRACTOR SHALL CUT AND PLUG, OR ARRANGE FOR THE APPROPRIATE UTILITY PROVIDER TO CUT AND PLUG ALL SERVICE PIPING AT THE STREET LINE OR AT THE MAIN, AS REQUIRED BY THE UTILITY PROVIDER, OR AS OTHERWISE NOTED OR SHOWN ON THE CONTRACT DRAWINGS. ALL SERVICES MAY NOT BE SHOWN ON THIS PLAN. THE CONTRACTOR SHALL INVESTIGATE THE SITE PRIOR TO BIDDING TO DETERMINE THE EXTENT OF SERVICE PIPING TO BE REMOVED, CUT OR PLUGGED. THE CONTRACTOR SHALL PAY ALL UTILITY PROVIDER FEES FOR ABANDONMENTS AND REMOVALS.
41. THE CONTRACTOR SHALL PROTECT ALL IRON PINS, MONUMENTS AND PROPERTY CORNERS DURING DEMOLITION AND CONSTRUCTION ACTIVITIES. ANY CONTRACTOR DISTURBED PINS, MONUMENTS, AND OR PROPERTY CORNERS, ETC. SHALL BE RESET BY A LICENSED LAND SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.
42. THE CONTRACTOR SHALL STABILIZE THE SITE AND KEEP EROSION CONTROL MEASURES IN PLACE UNTIL THE COMPLETION OF HIS WORK, AS REQUIRED OR DEEMED NECESSARY BY THE ENGINEER OR DEVELOPER'S REPRESENTATIVE. THE SITE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE MAINTENANCE OF EXISTING EROSION AND SEDIMENTATION CONTROLS AND FOR INSTALLATION OF ANY NEW SEDIMENT AND EROSION CONTROLS AS PER THE SEDIMENT AND EROSION CONTROL PLAN, AT THAT TIME.
43. IF IMPACTED OR CONTAMINATED SOIL IS ENCOUNTERED BY THE CONTRACTOR, THE CONTRACTOR SHALL SUSPEND EXCAVATION WORK OF IMPACTED SOIL AND NOTIFY THE DEVELOPER AND/OR DEVELOPER'S ENVIRONMENTAL CONSULTANT PRIOR TO PROCEEDING WITH FURTHER WORK IN THE IMPACTED SOIL LOCATION UNTIL FURTHER INSTRUCTED BY THE DEVELOPER AND/OR DEVELOPER'S ENVIRONMENTAL CONSULTANT.
44. BACK FILL DEPRESSIONS, COMPACT, FERTILIZE, SEED AND MULCH DISTURBED AREAS NOT SUBJECT TO FURTHER SITE CONSTRUCTION. EMPLOY WATERING EQUIPMENT FOR DUST CONTROL.
45. THE CONTRACTOR SHALL REPAIR PAVEMENTS BY INSTALLING TEMPORARY AND PERMANENT PAVEMENTS IN PUBLIC RIGHTS OF WAYS AS REQUIRED BY LOCAL GOVERNING AUTHORITIES AND THE STATE, AS NEEDED, AND PER PERMIT REQUIREMENTS.
46. NO WORK ON THIS SITE SHALL BE INITIATED BY THE CONTRACTOR UNTIL A PRE-CONSTRUCTION MEETING WITH DEVELOPER AND THE CIVIL ENGINEER IS PERFORMED. THE CONTRACTOR SHOULD BE AWARE OF ANY SITE INFORMATION AVAILABLE SUCH AS GEOTECHNICAL AND ENVIRONMENTAL REPORTS. THE CONTRACTOR SHALL HAVE CALL BEFORE YOU DIG MARK OUTS OF EXISTING UTILITIES COMPLETED PRIOR TO MEETING.
47. THE CONTRACTOR SHALL ARRANGE FOR AND INSTALL TEMPORARY OR PERMANENT UTILITY CONNECTIONS WHERE INDICATED ON PLAN OR AS REQUIRED. MAINTAIN UTILITY SERVICES TO BUILDINGS OR TO SERVICES TO REMAIN. CONTRACTOR TO COORDINATE WITH UTILITY PROVIDERS FOR INSTALLATION AND PAY UTILITY PROVIDER FEES.
48. THE CONTRACTOR SHALL NOT COMMENCE DEMOLITION OR UTILITY DISCONNECTIONS UNTIL AUTHORIZED TO DO SO BY THE DEVELOPER.
49. THE CONTRACTOR SHALL INSTALL TEMPORARY SHEETING OR SHORING AS NECESSARY TO PROTECT EXISTING AND NEW UTILITIES AS NEEDED DURING CONSTRUCTION. SHEETING OR SHORING SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER, LICENSED IN THIS STATE AND EVIDENCE OF SUCH SUBMITTED TO THE DEVELOPER PRIOR TO INSTALLATION.
50. NO SALVAGE SHALL BE PERMITTED UNLESS PAID TO THE DEVELOPER AS A CREDIT.
51. THE CONTRACTOR SHALL PRESERVE EXISTING VEGETATION WHERE POSSIBLE AND/OR AS NOTED ON DRAWINGS. REFER TO SEDIMENT AND EROSION CONTROL PLAN FOR LIMIT OF DISTURBANCE AND EROSION CONTROL NOTES.
52. TOPSOIL SHALL BE STRIPPED FROM GRAVEL ACCESS ROAD AREA AND STOCKPILED ON SITE FOR USE IN FINAL LANDSCAPING.
53. SUBGRADE SHALL BE FORMED WITH REMOVAL AND REPLACEMENT OF FILL AND REMOVAL AND REPLACEMENT OF UNSUITABLE AND SOFT SUBGRADE MATERIAL AS ORDERED BY THE GEOTECHNICAL ENGINEER. SEE GEOTECHNICAL REPORT AND EARTHWORK SPECIFICATIONS FOR FURTHER DESCRIPTION.
54. THE CONTRACTOR SHALL COMPACT FILL IN LIFT THICKNESS PER THE GEOTECHNICAL REPORT UNDER ALL PARKING, BUILDING, DRIVE, AND STRUCTURE AREAS TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557 (MODIFIED PROCTOR TEST), OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
55. UNDERDRAINS SHALL BE ADDED, IF DETERMINED NECESSARY IN THE FIELD BY THE DEVELOPER/GEOTECHNICAL ENGINEER, AFTER SUBGRADE IS ROUGH GRADED.
56. VERTICAL DATUM IS NAVD 88.
57. CLEARING LIMITS SHALL BE PHYSICALLY MARKED IN THE FIELD AND APPROVED BY THE TOWN OF NORTH HAVEN AGENT PRIOR TO THE START OF WORK ON THE SITE.
58. PROPER CONSTRUCTION PROCEDURES SHALL BE FOLLOWED ON ALL IMPROVEMENTS WITHIN THIS PARCEL SO AS TO PREVENT THE SILTING OF ANY WATERCOURSE OR WETLANDS IN ACCORDANCE WITH THE REGULATIONS OF THE CT DEEP AND THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, LATEST EDITION. IN ADDITION, THE CONTRACTOR SHALL STRICTLY ADHERE TO THE SEDIMENT AND EROSION CONTROL PLAN CONTAINED HEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE TO POST ALL BONDS AS REQUIRED BY THE TOWN OF NORTH HAVEN, WHICH WOULD GUARANTEE THE PROPER IMPLEMENTATION OF THE PLAN.
59. ALL SITE WORK, MATERIALS OR 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 CONNECTICUT DEPARTMENT OF TRANSPORTATION SPECIFICATIONS 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 LIFT THICKNESSES PER THE PROJECT GEOTECHNICAL REPORT TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 1557 AT MOISTURE CONTENT INDICATED IN PROJECT GEOTECHNICAL REPORT.
60. ALL DISTURBANCE INCURRED TO TOWN, AND STATE PROPERTY DUE TO CONSTRUCTION SHALL BE RESTORED TO ITS PREVIOUS CONDITION OR BETTER, TO THE SATISFACTION OF THE MUNICIPALITY, STATE AS APPLICABLE FOR THE LOCATION OF THE WORK.
61. ALL CONSTRUCTION WITHIN A DOT RIGHT OF WAY SHALL COMPLY WITH ALL DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS.
62. THE UTILITY PLAN DETAILS SITE INSTALLED PIPES UP TO 5' FROM THE PROPOSED TRANSFORMER LOCATIONS. REFER TO PHOTOVOLTAIC PROTECTION, CONTROL AND SCADA SCHEMATIC PLAN SHEET PV-1. SITE CONTRACTOR SHALL SUPPLY AND INSTALL PIPE ADAPTERS AS NECESSARY AT EXISTING UTILITY OR PIPE CONNECTION POINT.
63. 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 PROPOSED STORM PIPING WILL CROSS EXISTING UTILITIES, AND THE HORIZONTAL AND VERTICAL LOCATIONS OF THE UTILITIES SHALL BE DETERMINED. THE CONTRACTOR SHALL CONTACT THE CIVIL ENGINEER IN THE EVENT OF ANY DISCOVERED OR UNFORESEEN CONFLICTS BETWEEN EXISTING AND PROPOSED STORM PIPING AND UTILITIES SO THAT AN APPROPRIATE MODIFICATION MAY BE MADE.
64. UTILITY CONNECTION DESIGN AS REFLECTED ON THE PLAN MAY CHANGE SUBJECT TO UTILITY PROVIDER AND GOVERNING AUTHORITY STAFF REVIEW.
65. 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.
66. 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 UNLESS OTHERWISE STATED IN THE PROJECT SPECIFICATIONS MANUAL AND/OR GENERAL CONDITIONS OF THE CONTRACT.
67. 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 DEVELOPER OR TOWN OF NORTH HAVEN.
68. ALL PIPES SHALL BE LAID ON STRAIGHT ALIGNMENTS AND EVEN GRADES USING A PIPE LASER OR OTHER ACCURATE METHOD.
69. RELOCATION OF UTILITY PROVIDER FACILITIES SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY PROVIDER.
70. THE CONTRACTOR SHALL COMPACT THE 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.
71. CONTRACTOR TO PROVIDE STEEL SLEEVES AND SWEEPS AND ANNULAR SPACE SAND FILL FOR UTILITY PIPE AND CONDUIT CONNECTIONS AT TRANSFORMERS, AND STEEL RISERS AT UTILITY POLES IN ACCORDANCE WITH THE REQUIREMENTS OF UNITED ILLUMINATING.
72. ALL PUBLIC UTILITY CONSTRUCTION IS SUBJECT TO INSPECTION FOR APPROVAL PRIOR TO BACKFILLING, IN ACCORDANCE WITH THE APPROPRIATE UTILITY PROVIDER REQUIREMENTS.
73. 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 WITH A CONCRETE ENCASEMENT. AN 18-INCH TO 6-INCH VERTICAL CLEARANCE BETWEEN SANITARY SEWER PIPING AND STORM PIPING SHALL REQUIRE CONCRETE ENCASEMENT OF THE PROPOSED PIPING.
74. 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.
75. ELECTRIC, AND TELECOMMUNICATIONS SERVICES SHALL BE INSTALLED UNDERGROUND FROM SERVICE POLE SNET #2112 AT THE INTERSECTION OF OLD VELVET ROAD AND MIDDLETOWN AVENUE. THE CONTRACTOR SHALL PROVIDE AND INSTALL AND BACKFILL 2-4 INCH PVC CONDUITS FOR ELECTRIC SERVICE PRIMARY, PVC CONDUITS FOR ELECTRICAL SECONDARY PER PV-1 ELECTRICAL PLANS (SCHEDULE 80 UNDER PAVEMENT, SCHEDULE 40 IN NON PAVEMENT AREAS). SERVICES MAY BE INSTALLED IN A COMMON TRENCH WITH 12" CLEAR SPACE BETWEEN. MINIMUM COVER IS 36" ON ELECTRIC CONDUITS. SERVICES SHALL BE MARKED WITH MAGNETIC LOCATOR TAPE AND SHALL BE BEDDED, INSTALLED, AND BACKFILLED IN ACCORDANCE WITH ELECTRIC UTILITY PROVIDER STANDARDS. GALVANIZED STEEL ELECTRICAL CONDUIT SHALL BE USED AT POLE AND TRANSFORMER LOCATIONS. INSTALL HANDHOLES AS REQUIRED TO FACILITATE INSTALLATION AND AS REQUIRED BY UTILITY PROVIDER. INSTALL TRAFFIC LOAD QUALIFIED HANDHOLES IN VEHICULAR AREAS. INSTALL CONCRETE ENCASEMENT ON PRIMARY ELECTRIC CONDUITS IF REQUIRED BY ELECTRIC UTILITY PROVIDER.
76. PIPING SHALL BE LAID FROM DOWNGRADIENT END OF PIPE RUN IN AN UPGRADIENT DIRECTION WITH BELL END FACING UPGRADE IN THE DIRECTION OF PIPE LAYING.
77. ALL RCP SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-76; ALL RCP SHALL BE CLASS IV UNLESS OTHERWISE SHOWN. JOINTS SHALL CONFORM TO THE REQUIREMETNS OF ASTM C-443.
78. HIGH DENSITY POLYETHYLENE (HDPE) STORM SEWER 12" OR GREATER IN DIAMETER SHALL BE HI-Q SURE-LOK 10.8 PIPE AS MANUFACTURED BY HANCOR INC. OR APPROVED EQUAL. HDPE PIPE SHALL HAVE SMOOTH INTERIOR AND CORRUGATED EXTERIOR AND SHALL MEET THE REQUIREMENTS OF AASHTO M294, TYPE S. PIPE SECTIONS SHALL BE JOINED WITH BELL-AND-SPIGOT JOINT MEETING THE REQUIREMENTS OF AASHTO M294. THE BELL SHALL BE AN INTEGRAL PART OF THE PIPE AND PROVIDE A MINIMUM PULL-APART STRENGTH OF 400 POUNDS. THE JOINT SHALL BE WATERTIGHT ACCORDING TO THE REQUIREMENTS OF ASTM D3212. GASKETS SHALL BE MADE OF POLYISOPRENE MEETING THE REQUIREMENTS OF ASTM F477. ALTERNATIVE HDPE PIPE MAY BE USED IF APPROVED BY THE ENGINEER AND OWNER'S CONSTRUCTION MANAGER PRIOR TO ORDERING.

DEFINITIONS

MUNICIPALITY SHALL MEAN THE TOWN OF NORTH HAVEN

COUNTY SHALL MEAN NEW HAVEN COUNTY

STATE SHALL MEAN CONNECTICUT

WATER UTILITY PROVIDER SHALL MEAN SOUTH CENTRAL CONNECTICUT REGIONAL WATER AUTHORITY

SANITARY UTILITY PROVIDER SHALL MEAN TOWN OF NORTH HAVEN

GAS UTILITY PROVIDER SHALL MEAN SOUTHERN CONNECTICUT GAS

TELECOMMUNICATIONS UTILITY PROVIDER SHALL MEAN FRONTIER

ELECTRIC UTILITY PROVIDER SHALL MEAN UNITED ILLUMINATING CORPORATION

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PHOTOVOLTAIC INSTALLATION
700 MIDDLETOWN AVENUE
NORTH HAVEN, CONNECTICUT

REVISIONS

No.	Date	Desc.

Designed	A.J.S.
Drawn	A.J.S.
Reviewed	J.J.S.
Scale	NONE
Project No.	17D3516
Date	04/06/2018
CAD File:	GN17D351601

Title
GENERAL NOTES

Sheet No.
GN-1

Xref (s): ; BD17D351601

4/6/2018, ASCHAFER, G:\JOBS17\17D\17D3516\DWG\GN17D351601.DWG,GN-1 24X36.

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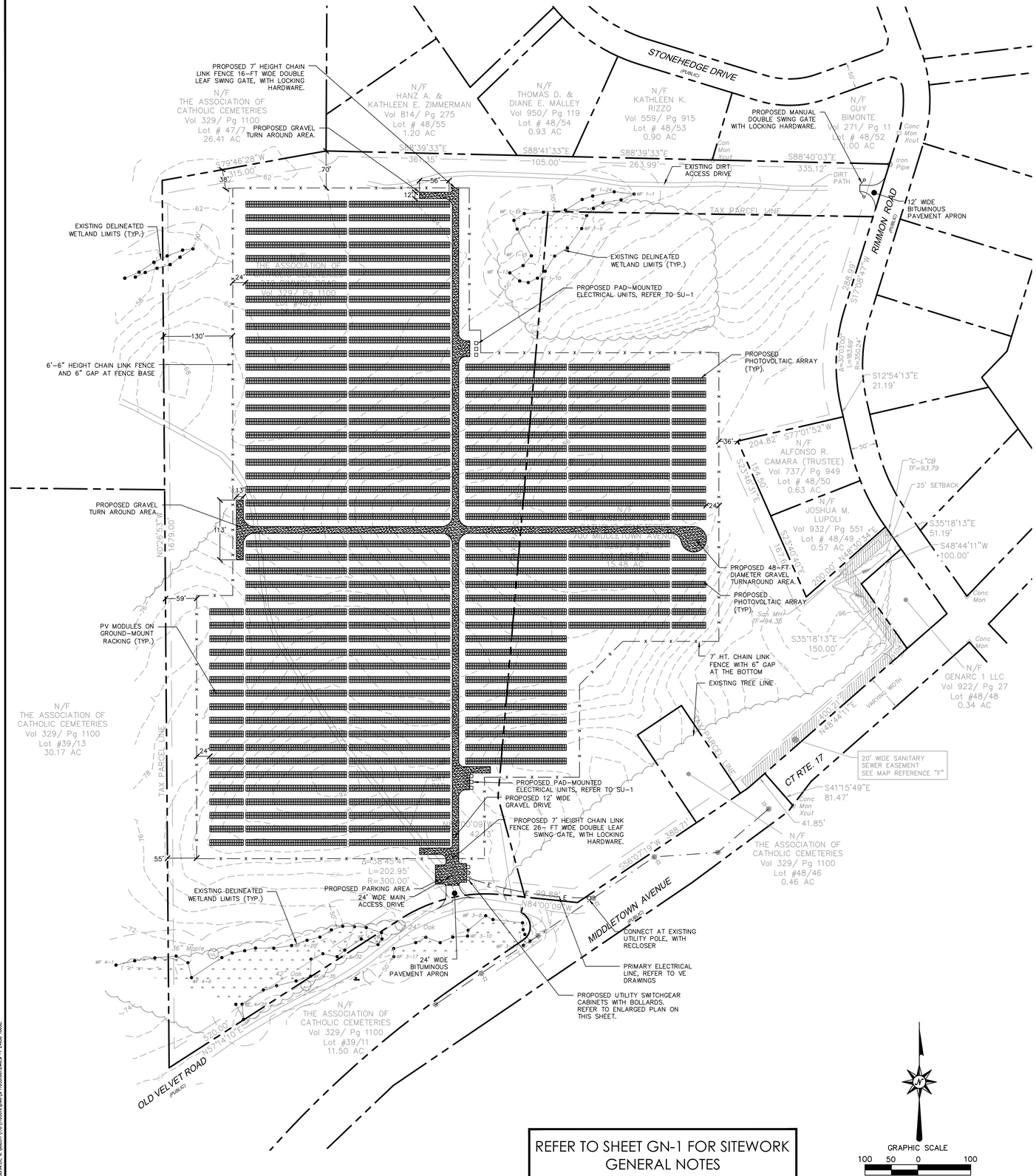
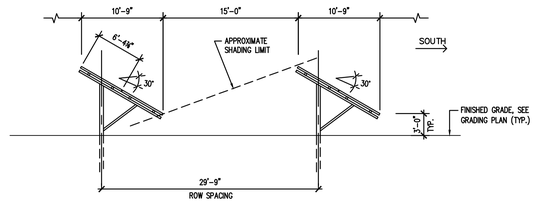


REFER TO SHEET GN-1 FOR SITEWORK GENERAL NOTES



RACKING SECTION (DRIVEN POST)

N.T.S.

ARRAY SYSTEM INFORMATION

ITEM #	ITEM	PROPOSED
1	TOTAL WATTAGE	5.62 MW DC 4.98 MW AC
2	PANEL TYPE	340 W
3	TOTAL PANELS	17,568
4	PANEL TILT	30°

ZONING TABLE

LOCATION: 700 MIDDLETOWN AVENUE, NORTH HAVEN, CONNECTICUT

ZONE: R-40 (RESIDENCE)

OTHER REGULATORY BOUNDARIES: NONE

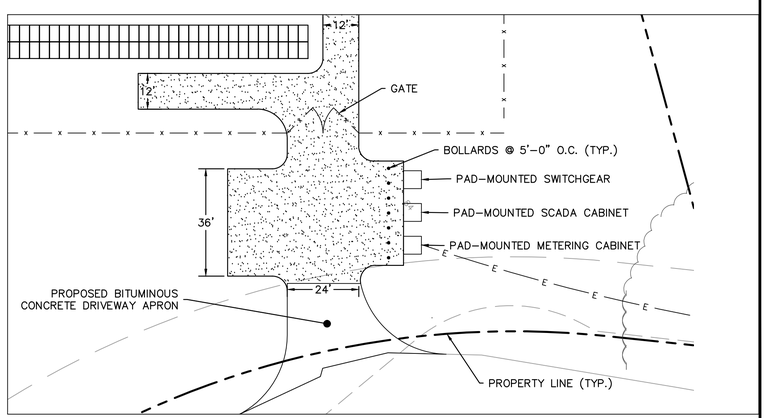
USE: SOLAR ENERGY FARM

ITEM #	ITEM	REQUIREMENTS	EXISTING	PROPOSED
1	MINIMUM LOT AREA	40,000 S.F.	1,139,094 S.F. + 674,309 = 1,813,403 S.F. (41.63 ACRES)	UNCHANGED
2	MINIMUM LOT WIDTH	150 FEET	–	UNCHANGED
3	MIN. FRONT SETBACK FOR BUILDING	50 FEET	–	UNCHANGED
4	MIN. SIDE SETBACK FOR BUILDING	25 FEET	–	UNCHANGED
5	MIN. REAR SETBACK FOR BUILDING	25 FEET	–	UNCHANGED
6	MAXIMUM BUILDING HEIGHT	35 FEET	–	UNCHANGED
7	MAXIMUM BUILDING COVERAGE	15%	±20,000SF = 1.10%	UNCHANGED

NOTES:
1. PROPERTY DATA BASED OFF INFORMATION OBTAINED FROM TOWN OF NORTH HAVEN ONLINE GIS DATA AND INTERPOLATIONS FROM ASSOCIATED MAPPING.

LEGEND

- EXISTING PROPERTY LINE
- EXISTING TREE CANOPY
- PROPOSED TREE CANOPY
- E — PRIMARY ELECTRICAL LINE, REFER TO SE SERIES DRAWINGS
- x — CHAIN LINK FENCE
- GROUND MOUNTED PHOTOVOLTAIC (PV) MODULES
- GRAVEL DRIVE
- WETLAND FLAGS



ENTRANCE DETAIL

N.T.S.

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PHOTOVOLTAIC INSTALLATION
700 MIDDLETOWN AVENUE
NORTH HAVEN, CONNECTICUT

REVISIONS
No. Date Desc.

Designed	A.J.S.
Drawn	A.J.S.
Reviewed	M.P.S.
Scale	1"=100'
Project No.	1703516
Date	04/06/2018
CAD File:	SP1703516O1

Title
SITE PLAN

Sheet No.
SP-1

Xref (s) : XN1703560I ; XN1703560I ; BN1703560I ; XN1703560I

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GRADING AND DRAINAGE LEGEND

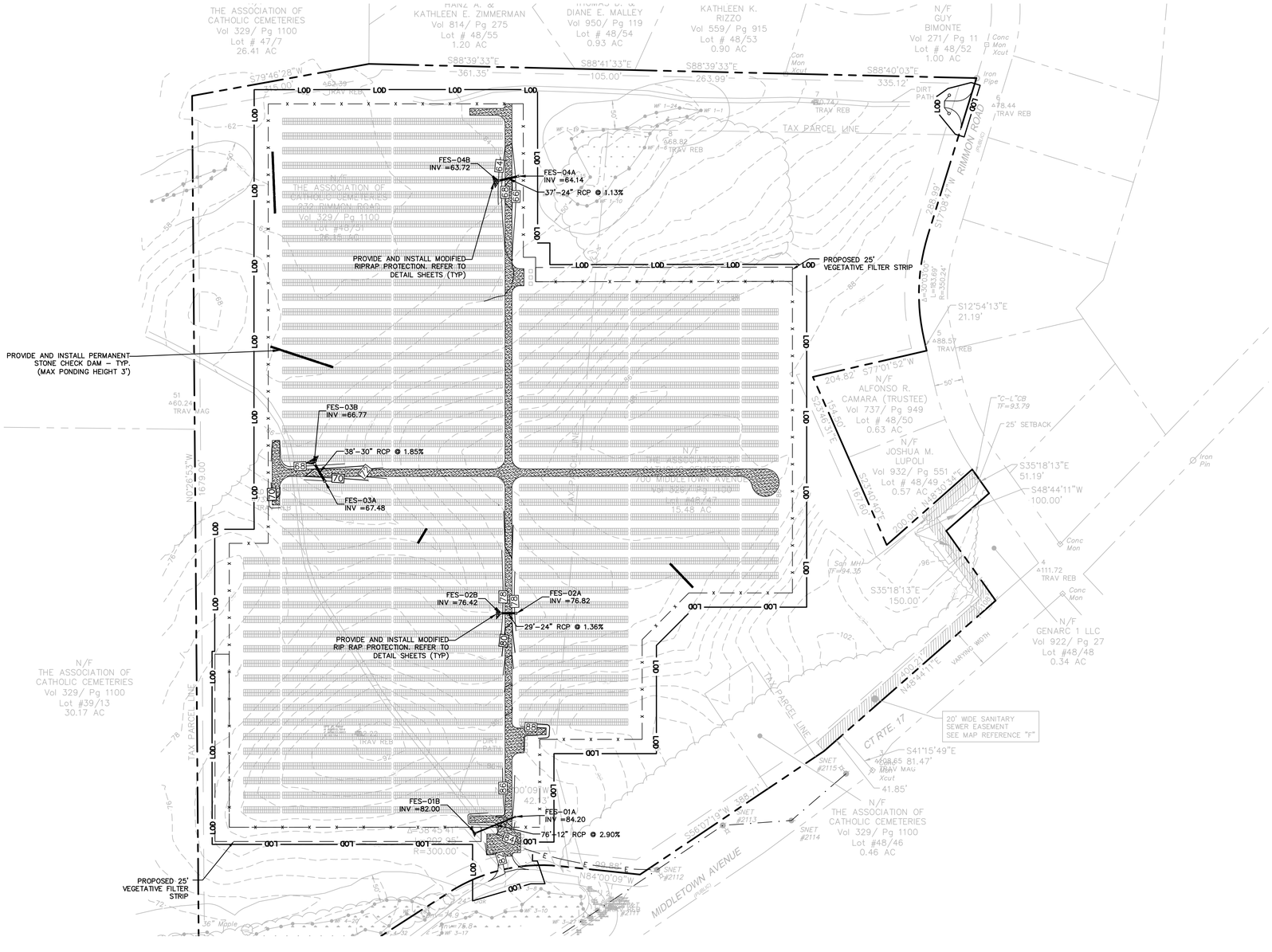
PROPERTY LINE	
LIMIT OF DISTURBANCE LINE AND CONTRACT LIMIT LINE	LOD
STORM LINE FLARED END	
END WALL OR HEADWALL	
PROPOSED CONTOUR LINE	228
PROPOSED SPOT ELEVATION	x 100.00
PROPOSED SURFACE SLOPE	2%
ELECTRIC LINE	E E
ELECTRIC AND TELECOMMUNICATIONS LINES	E/T
OVERHEAD LINE	OH OH
TRANSFORMER	T
HYDRANT	
UTILITY POLE	
RIPRAP PROTECTION	

STORM PIPE LENGTH CHART

PIPE TABLE				
LINE ID	STRUCTURE TO STRUCTURE	LENGTH	SLOPE	SIZE & TYPE
PIPE – 1	FES–01A TO FES–01B	76 LF	2.90%	12" RCP
PIPE – 2	FES–02A TO FES–02B	29 LF	1.36%	24" RCP
PIPE – 3	FES–03A TO FES–03B	38 LF	1.85%	30" RCP
PIPE – 4	FES–04A TO FES–04B	37 LF	1.13%	24" RCP

STORM STRUCTURE CHART

STRUCTURE TABLE	
STRUCTURE ID	STRCUTURE DETAILS
FES–01A	INV = 84.20
FES–01B	INV = 82.00
FES–02A	INV = 76.82
FES–02B	INV = 76.42
FES–03A	INV = 67.48
FES–03B	INV = 66.77
FES–04A	INV = 64.14
FES–04B	INV = 63.72



REFER TO SHEET GN-1 FOR SITEWORK GENERAL NOTES

GRAPHIC SCALE
100 50 0 100
SCALE IN FEET

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PHOTOVOLTAIC INSTALLATION
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REVISIONS

No.	Date	Desc.

Designed	A.J.S.
Drawn	A.J.S.
Reviewed	J.J.S.
Scale	1"=100'
Project No.	17D3516
Date	04/06/2018
CAD File:	GD17D3516O1

Title
GRADING AND DRAINAGE PLAN

Sheet No.
GD-1

Xref Dp: : B17D3516-01-24x36 : XY17D3516O1 : XC17D3516O2 : XC17D3516O1 : XC17D3516O4

4/5/2018, ASCHAFER, G:\JOBS\17D\17D3516\DWG\GD17D3516O1.DWG,GD-1 - 24X36 MODEL

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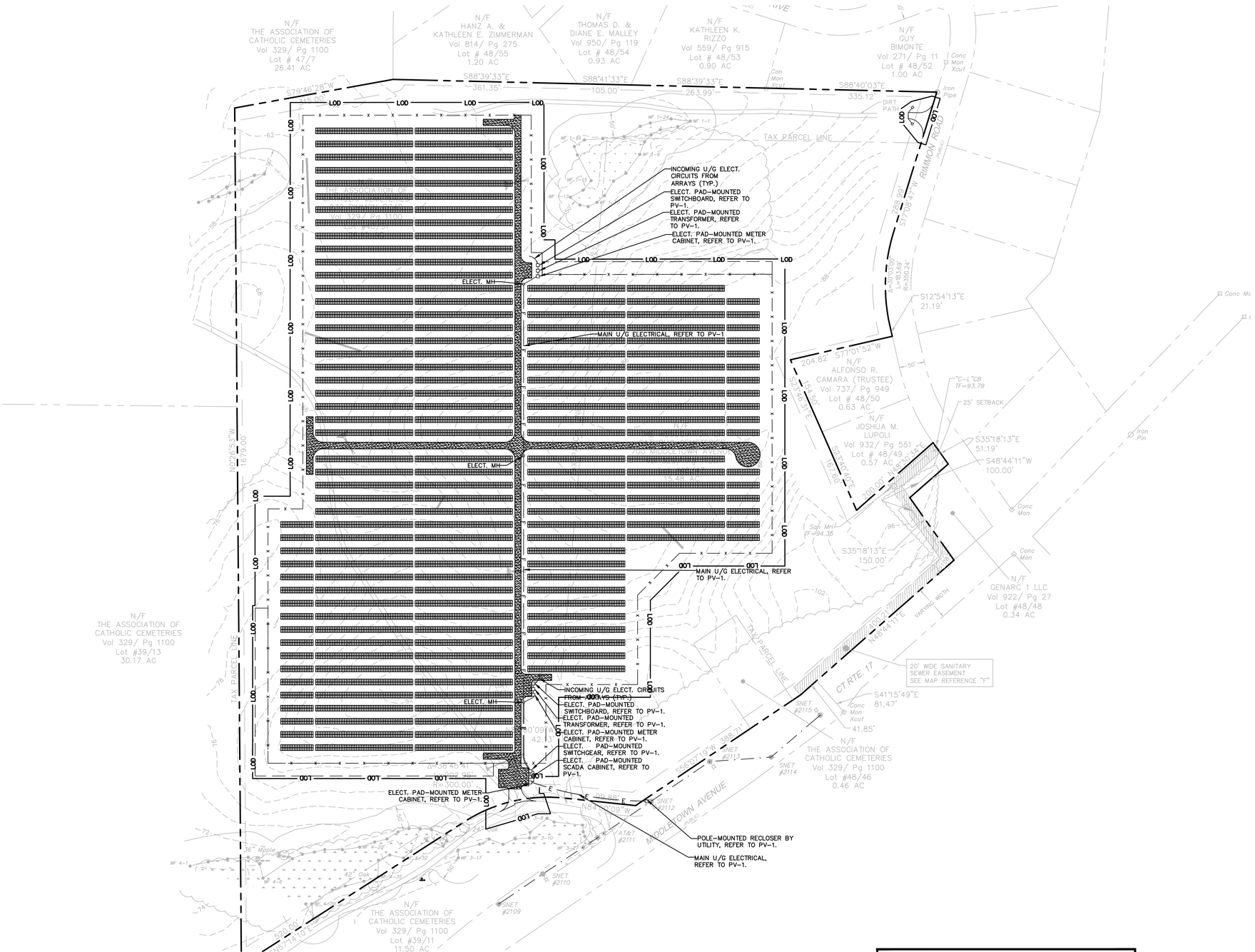
SITE UTILITIES LEGEND

PROPERTY LINE	
PROPOSED LIMIT OF DISTURBANCE LINE	LOD
ELECTRIC LINE	E E
OVERHEAD LINE	OH OH
TRANSFORMER	T
STORM LINE	

NOTE

CONTRACTOR SHALL CONFIRM LOCATION, SIZE, CONDITION AND ELEVATION OF ALL UTILITY LATERAL STUBS, WATER MAINS, GAS MAINS AND ELECTRICAL SERVICES.



REFER TO SHEET GN-1 FOR SITEWORK GENERAL NOTES

GRAPHIC SCALE
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SCALE IN FEET

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No.	REVISIONS Date	Desc.

Designed	A.J.S.
Drawn	A.J.S.
Reviewed	J.J.S
Scale	1"=100'
Project No.	17035.16
Date	04/06/2018
CAD File:	SU17D351601

Title

SITE UTILITIES PLAN

Sheet No.

SU-1

Xref (s) : B017D351601 ; X01703516O1 ; XH17D351601 ; X02703516O1 ; X03703516O3 ; X04703516O2 ; X05703516O4

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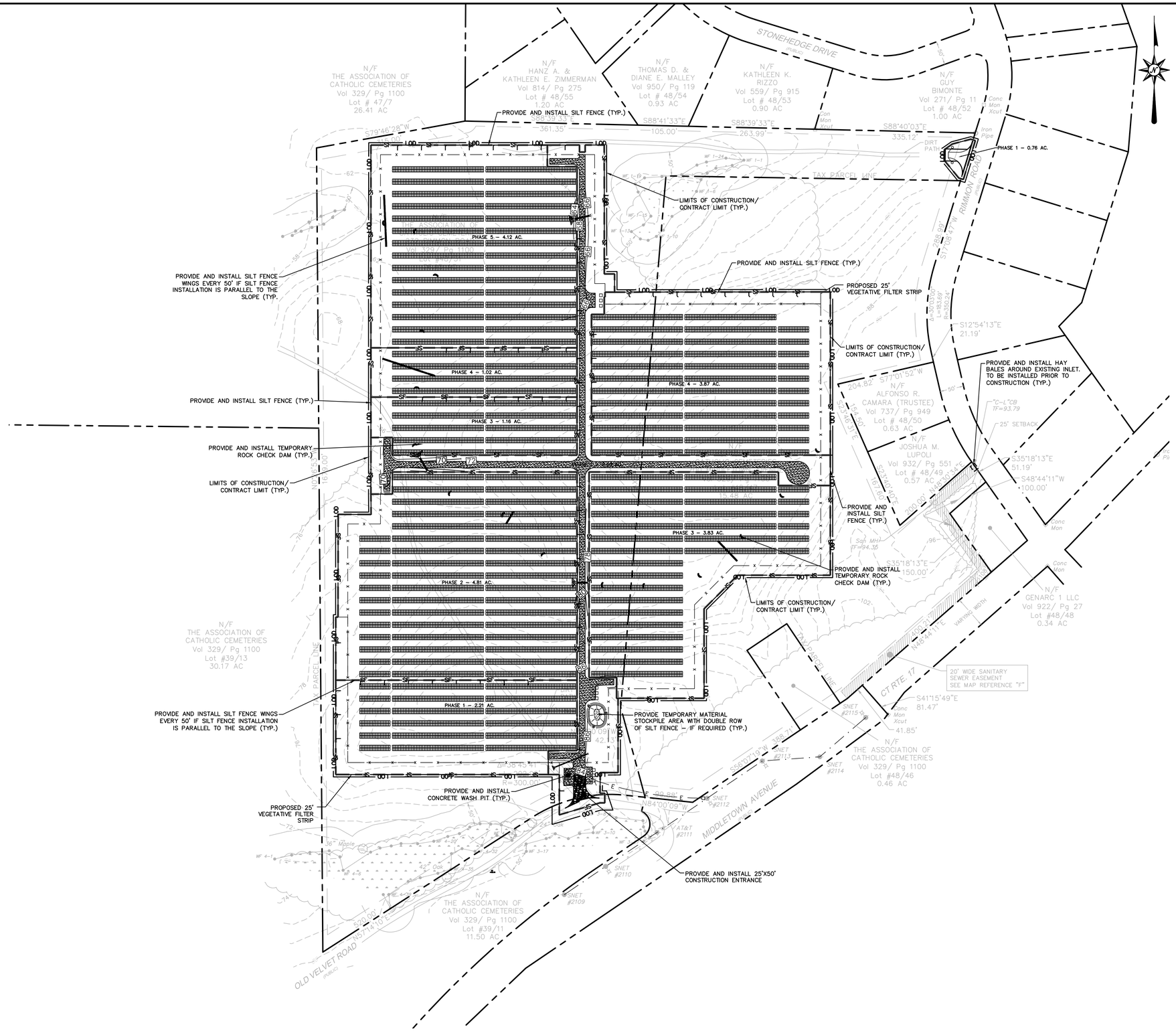
EROSION CONTROL LEGEND:

CONTROL MEASURE	ILLUSTRATION
STONE CHECK DAMS	
SILT FENCE	SF
CONSTRUCTION ENTRANCE	
LIMIT OF DISTURBANCE LINE AND CONTRACT LIMIT LINE	LOD
STOCKPILE AREA WITH DOUBLE ROW OF SILT FENCE (IF REQUIRED)	
HAY BALES AT CATCH BASINS	



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PHOTOVOLTAIC INSTALLATION

700 MIDDLETOWN AVENUE
NORTH HAVEN, CONNECTICUT

REVISIONS No.	Date	Desc.

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Drawn	A.J.S.
Reviewed	J.J.S.
Scale	1"=100'
Project No.	17D3516
Date	04/06/2018
CAD File:	EC17D351601

Title

OVERALL SEDIMENT AND EROSION CONTROL PLAN

Sheet No.

EC-1

Xref (s): - B017D3516-01-24x36.; XC17D351601.; XC17D351602.; XC17D351603.; XC17D351604.; XY17D351601.; XC17D351601

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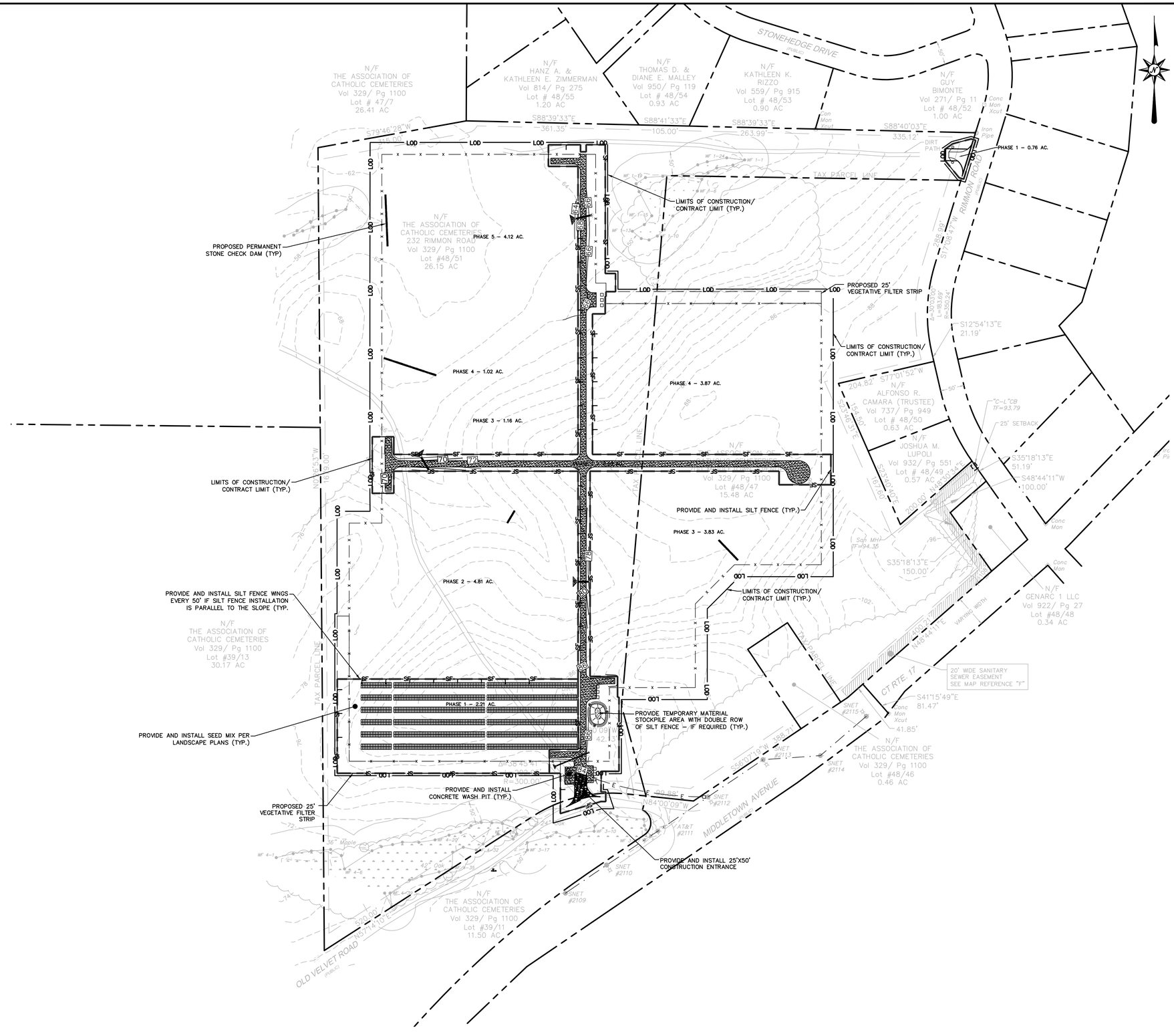
EROSION CONTROL LEGEND:

CONTROL MEASURE	ILLUSTRATION
STONE CHECK DAMS	
SILT FENCE	SF
CONSTRUCTION ENTRANCE	
LIMIT OF DISTURBANCE LINE AND CONTRACT LIMIT LINE	LOD
STOCKPILE AREA WITH DOUBLE ROW OF SILT FENCE (IF REQUIRED)	



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PHOTOVOLTAIC INSTALLATION

700 MIDDLETOWN AVENUE
NORTH HAVEN, CONNECTICUT

REVISIONS No.	Date	Desc.

Designed	A.J.S.
Drawn	A.J.S.
Reviewed	J.J.S.
Scale	1"=100'
Project No.	17D3516
Date	04/06/2018
CAD File:	EC17D3516O1

Title

PHASE I SEDIMENT AND EROSION CONTROL PLAN

Sheet No.

EC-2

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Xref Ogb : ; EC17D3516-01-24x36 ; XY17D3516O1 ; XC17D3516O4 ; XC17D3516O2 ; XC17D3516O1

EROSION CONTROL LEGEND:

CONTROL MEASURE	ILLUSTRATION
STONE CHECK DAMS	
SILT FENCE	SF
LIMIT OF DISTURBANCE LINE AND CONTRACT LIMIT LINE	LOD

REFERENCE LINE - SEE SHEET EC-4

PHASE 4 – 1.02 AC.

MATCHLINE - SEE SHEET EC-4

MATCHLINE - SEE SHEET EC-4

PHASE 1 – 2.33 AC.

PROVIDE AND INSTALL TEMPORARY ROCK CHECK DAM (TYP.)

PROVIDE AND INSTALL SEED MIX PER LANDSCAPE PLANS (TYP.)

PROVIDE AND INSTALL PERMANENT STONE CHECK DAM; MAXIMUM HEIGHT 3' (TYP.)

PROVIDE AND INSTALL SILT FENCE (TYP.)

PHASE 2 – 4.81 AC.

PROVIDE AND INSTALL SILT FENCE WINGS EVERY 50' IF SILT FENCE INSTALL PARALLEL WITH THE SLOPE (TYP.)

PROVIDE AND INSTALL SILT FENCE (TYP.)

DIRT PATH

GRAPHIC SCALE
40 20 0 40
SCALE IN FEET

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Land Surveying

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355 Research Parkway
Meriden, CT 06450
(203) 630-1406
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PHOTOVOLTAIC INSTALLATION

700 MIDDLETOWN AVENUE
NORTH HAVEN, CONNECTICUT

REVISIONS

No.	Date	Desc.

Designed	A.J.S.
Drawn	A.J.S.
Reviewed	J.J.S.
Scale	1"=40'
Project No.	17D3516
Date	04/06/2018
CAD File:	EC17D3516O1

Title

PHASE 2 SEDIMENT AND EROSION CONTROL PLAN

Sheet No.

EC-3

Xref Cpt : B017D3516-01-24x36 : X17D3516O1 : XY17D3516O1 : X17D3516O4 : X17D3516O2 : X17D3516O1

4/5/2018, ASCHAFER, G:\JOBS\17D\17D3516\DWG\ES\17D3516O1.MES<-> (PHASE 2) 24X36 ANSI.

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EROSION CONTROL LEGEND:

CONTROL MEASURE	ILLUSTRATION
STONE CHECK DAMS	
SILT FENCE	SF
LIMIT OF DISTURBANCE LINE AND CONTRACT LIMIT LINE	LOD

REFERENCE LINE - SEE SHEET EC-6

PHASE 4 – 1.02 AC.

PHASE 3 – 1.16 AC.

PROVIDE AND INSTALL SEED MIX PER LANDSCAPE PLANS (TYP.)

PROVIDE AND INSTALL SILT FENCE (TYP.)

PROPERTY LINE (TYP.)

MATCHLINE - SEE SHEET EC-6

PHASE 2 – 4.81 AC.

PHASE 1 – 2.21 AC.

DIRT PATH

MATCHLINE - SEE SHEET EC-6

PHASE 3 – 3.83 AC.

PROVIDE AND INSTALL PERMANENT STONE CHECK DAM MAXIMUM HEIGHT 3', (TYP.)

LIMITS OF CONSTRUCTION/ CONTRACT LIMIT (TYP.)

PROVIDE AND INSTALL SILT FENCE (TYP.)

PROVIDE AND INSTALL SEED MIX PER LANDSCAPE PLANS (TYP.)

PROVIDE AND INSTALL TEMPORARY ROCK CHECK DAM (TYP.)

LIMITS OF CONSTRUCTION/ CONTRACT LIMIT (TYP.)

PROVIDE AND INSTALL SEED MIX PER LANDSCAPE PLANS (TYP.)

PROVIDE AND INSTALL SILT FENCE (TYP.)

GRAPHIC SCALE
40 20 0 40
SCALE IN FEET

Architecture
Engineering
Environmental
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Project No.	17D3516
Date	04/06/2018
CAD File:	EC17D351601

Title

PHASE 3 SEDIMENT AND EROSION CONTROL PLAN

Sheet No.

EC-4

Xref Dgn: ; E017D3516-01-24x36 ; XM17D351601 ; XY17D351601 ; XC17D351604 ; XC17D351602 ; XZ17D351601

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EROSION CONTROL LEGEND:

CONTROL MEASURE	ILLUSTRATION
STONE CHECK DAMS	
SILT FENCE	SF
CONSTRUCTION ENTRANCE	
LIMIT OF DISTURBANCE LINE AND CONTRACT LIMIT LINE	LOD

PHASE 5 – 4.12 AC.

PHASE 4 – 1.02 AC.

PHASE 4 – 3.87 AC.

REFERENCE LINE - SEE SHEET EC-4

MATCHLINE - SEE SHEET EC-4

MATCHLINE - SEE SHEET EC-4

LIMITS OF CONSTRUCTION/ CONTRACT LIMIT (TYP.)

PROVIDE AND INSTALL SILT FENCE WINGS EVERY 50' IF SILT FENCE INSTALLATION IS PARALLEL TO THE SLOPE (TYP.)

PROVIDE AND INSTALL SEED MIX PER LANDSCAPE PLANS (TYP.)

PROVIDE AND INSTALL SILT FENCE (TYP.)

PROVIDE AND INSTALL PERMANENT STONE CHECK DAM, MAXIMUM HEIGHT 3' (TYP.)

PROVIDE AND INSTALL TEMPORARY ROCK CHECK DAM (TYP.)

PROVIDE AND INSTALL SILT FENCE WINGS EVERY 50' IF SILT FENCE INSTALLATION IS PARALLEL TO THE SLOPE (TYP.)

PROVIDE AND INSTALL ROCK CHECK DAM (TYP.)

GRAPHIC SCALE
40 20 0 40
SCALE IN FEET

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REVISIONS

No.	Date	Desc.

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Reviewed	J.J.S.
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Date	04/06/2018
CAD File:	EC17D351601

Title

PHASE 4 SEDIMENT AND EROSION CONTROL PLAN

Sheet No.

EC-5

4/9/2018, ASCHAFER, Q:\JOBS\17\17D3516\CAD\EC\17D3516EC17D351601.DWG, EC-5 (PHASE 4) ANSI B, 40SC.

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Xref (s) : B17D3516-01-24x36 : X17D351601 : X17D351604 : X17D351602 : X17D351601

EROSION CONTROL LEGEND:

CONTROL MEASURE	ILLUSTRATION
STONE CHECK DAMS	
SILT FENCE	SF
CONSTRUCTION ENTRANCE	
LIMIT OF DISTURBANCE LINE AND CONTRACT LIMIT LINE	LOD

PROVIDE AND INSTALL SILT FENCE (TYP.)

PROVIDE AND INSTALL SEED MIX PER LANDSCAPE PLANS (TYP.)

LIMITS OF CONSTRUCTION/ CONTRACT LIMIT (TYP.)

PROVIDE AND INSTALL PERMANENT STONE CHECK DAM. MAXIMUM HEIGHT 3' (TYP.)

PROVIDE AND INSTALL SILT FENCE WINGS EVERY 50' IF SILT FENCE INSTALLATION IS PARALLEL TO THE SLOPE (TYP.)

PROVIDE AND INSTALL TEMPORARY ROCK CHECK DAM (TYP.)

PHASE 5 – 4.12 AC.

PROVIDE AND INSTALL SEED MIX PER LANDSCAPE PLANS (TYP.)

PROVIDE AND INSTALL SILT FENCE WINGS EVERY 50' IF SILT FENCE INSTALLATION IS PARALLEL TO THE SLOPE (TYP.)

REFERENCE LINE - SEE SHEET EC-4

PHASE 4 – 1.02 AC.

MATCHLINE - SEE SHEET EC-4

PHASE 4 – 3.87 AC.

MATCHLINE - SEE SHEET EC-4

GRAPHIC SCALE
40 20 0 40
SCALE IN FEET

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CAD File:	EC17D3516O1

Title
PHASE 5 SEDIMENT AND EROSION CONTROL PLAN

Sheet No.
EC-6

Xref (s) : : B017D3516-01-24x36 : : XY17D3516O1 : : XC17D3516O4 : : XC17D3516O2 : : XZ17D3516O1

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4/6/2018, ASCHAFER, J:\JOBS\17\17D3516\DWG\SD\17D3516O1.DWG,EC-6 (PHASE 5) 24X36 ARCH

SEDIMENT AND EROSION CONTROL NOTES

SEDIMENT AND EROSION CONTROL NOTES – CONNECTICUT

SEDIMENT & EROSION CONTROL NARRATIVE
THE SEDIMENT AND EROSION CONTROL PLAN WAS DEVELOPED TO PROTECT THE EXISTING ROADWAY AND STORM DRAINAGE SYSTEMS, ADJACENT PROPERTIES, AND ANY ADJACENT WETLAND AREA AND ANY ADJACENT WATER COURSE FROM SEDIMENT LADEN SURFACE RUNOFF AND EROSION. A CONSTRUCTION SEQUENCE IS PROVIDED TO PROVIDE SURFACE RUNOFF EROSION CONTROLS PRIOR TO THE BEGINNING OF PROJECT DEMOLITION AND/OR CONSTRUCTION.

CONSTRUCTION SCHEDULE
THE ANTICIPATED STARTING DATE FOR CONSTRUCTION IS LATER 2018_WITH COMPLETION ANTICIPATED LATE SPRING 2018. APPROPRIATE SEDIMENT AND EROSION CONTROL MEASURES AS DESCRIBED HEREIN SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF ALL CONSTRUCTION ACTIVITY PER PHASE. SCHEDULE WORK TO MINIMIZE THE LENGTH OF TIME THAT BARE SOIL WILL BE EXPOSED.

CONTINGENCY EROSION PLAN
THE CONTRACTOR SHALL INSTALL ALL SPECIFIED SEDIMENT AND EROSION CONTROL MEASURES AND WILL BE REQUIRED TO MAINTAIN THEM IN THEIR INTENDED FUNCTIONING CONDITION. THE AGENTS OF THE TOWN OF NORTH HAVEN AND/OR CIVIL ENGINEER SHALL HAVE THE AUTHORITY TO REQUIRE SUPPLEMENTAL MAINTENANCE OR ADDITIONAL MEASURES IF FIELD CONDITIONS ARE ENCOUNTERED BEYOND WHAT WOULD NORMALLY BE ANTICIPATED.

CONSTRUCTION SEQUENCE
REFER TO INDIVIDUAL PHASE SEQUENCE THIS SHEET FOR SPECIFIC INFORMATION
THE FOLLOWING CONSTRUCTION SEQUENCE IS RECOMMENDED:
1. CONTACT TOWN OF NORTH HAVEN AGENT AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR REGULATED ACTIVITY ON THIS PROJECT.

2. CLEARING LIMITS SHALL BE PHYSICALLY MARKED IN THE FIELD AND APPROVED BY THE TOWN OF NORTH HAVEN AGENT PRIOR TO THE START OF WORK ON THE SITE. INSTALL TREE PROTECTION AND PERIMETER SILT FENCE.

3. CONSTRUCT STONE CONSTRUCTION ENTRANCE ANTI-TRACKING PADS AT CONSTRUCTION ENTRANCES/EXITS AND INSTALL FILTER FABRIC AROUND GRATES OF CATCH BASINS OR INSTALL SILT SACKS ON CATCH BASIN INLETS ON OFF SITE ROADS. INSTALL SILT FENCE AND OTHER EROSION CONTROL DEVICES INDICATED ON THESE PLANS AT PERIMETER OF PROPOSED SITE DISTURBANCE AND INSTALL ALL EROSION CONTROL MEASURES AND TREE PROTECTION INDICATED ON THESE PLANS. INSTALL SEDIMENT BASINS AND SEDIMENT TRAPS IF REQUIRED AT LOW AREAS OF SITE OR AS ORDERED BY THE ENGINEER OR AS SHOWN ON THESE PLANS.

4. CLEAR AND GRUB SITE. STOCKPILE CHIPS. STOCKPILE TOPSOIL FROM GRAVEL ACCESS ROAD AREA. INSTALL SEDIMENT AND EROSION CONTROLS AT STOCKPILES.

5. INSTALL SILT FENCE, CONSTRUCT DIVERSION SWALES AS NEEDED. COMMENCE INSTALLATION OF STORM DRAINAGE CULVERTS.

6. CONSTRUCTION STAKING OF FENCING, UTILITIES, ACCESS DRIVES, AND PARKING AREAS.

7. COMMENCE BOX OUT OF GRAVEL ACCESS ROAD EARTHWORK. INSTALL ADDITIONAL SEDIMENT AND EROSION CONTROLS AS WORK PROGRESSES AND CONTINUE STORM DRAINAGE SYSTEM CONSTRUCTION, TOPSOIL AND SEED SLOPES WHICH HAVE ACHIEVED FINAL SITE GRADING.

8. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.

9. BEFORE DISPOSING OF SOIL OR RECEIVING BORROW FOR THE SITE, THE CONTRACTOR MUST PROVIDE EVIDENCE THAT EACH SPOIL OR BORROW AREA HAS A SEDIMENT AND EROSION CONTROL PLAN APPROVED BY THE MUNICIPALITY AND WHICH IS BEING IMPLEMENTED AND MAINTAINED. THE CONTRACTOR SHALL ALSO NOTIFY THE MUNICIPALITY IN WRITING OF ALL RECEIVING SPOIL AND BORROW AREAS WHEN THEY HAVE BEEN IDENTIFIED.

10. CONTINUE INSTALLATION OF STORM DRAINAGE CULVERTS AS SUBGRADE ELEVATIONS ARE ACHIEVED.

11. THROUGHOUT CONSTRUCTION SEQUENCE, REMOVE SEDIMENT FROM BEHIND SILT FENCES, HAY BALES AND OTHER EROSION CONTROL DEVICES, AND FROM SEDIMENT BASINS AND SEDIMENT TRAPS AS REQUIRED. REMOVAL SHALL BE ON A PERIODIC BASIS (EVERY SIGNIFICANT RAINFALL OF 0.25 INCH OR GREATER). INSPECTION OF SEDIMENT AND EROSION CONTROL MEASURES SHALL BE ON A WEEKLY BASIS AND AFTER EACH RAINFALL OF 0.25 INCHES OR GREATER. SEDIMENT COLLECTED SHALL BE DEPOSITED AND SPREAD EVENLY UPLAND ON SLOPES DURING CONSTRUCTION.

12. INSTALL UTILITIES. COMPLETE STORM DRAINAGE SYSTEM.

13. CONSTRUCT GRAVEL ACCESS ROAD, TURNAROUND AREAS, AND PARKING AREAS SUBGRADE.

14. CONSTRUCT ENTRANCE APRON.

15. PLACE 4" TOPSOIL ON SLOPES OF DISTURBED AREAS AFTER ACCESS ROAD IS COMPLETED. FERTILIZE AND SEED. SEED MIXTURE TO BE INSTALLED APRIL 15, – JUNE 1 USE EROSION CONTROL BLANKETS AS REQUIRED OR ORDERED FOR SLOPES GREATER THAN 3:1 AND AS SHOWN ON LANDSCAPE PLANS OR EROSION CONTROL PLANS. FOR TEMPORARY STABILIZATION BEYOND SEEDING DATES USE ANNUAL RYE AT 4.0 LBS/1,000 S.F. FERTILIZE WITH 10-10-10 AT 1.0 LBS. OF NITROGEN PER 1,000 S.F. AND LIME AT 100 LBS/1,000 S.F. (MAX.).

16. LANDSCAPE INTERIOR NON-PAVED AREAS, AND PERIMETER AREAS.

17. CLEAN STORM DRAINAGE PIPE OF DEBRIS AND SEDIMENT.

18. UPON DIRECTION OF THE TOWN OF NORTH HAVEN AGENT, SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED FOLLOWING STABILIZATION OF THE SITE.

OPERATION REQUIREMENTS

CLEARING AND GRUBBING OPERATIONS
1. ALL SEDIMENT AND EROSION CONTROL MEASURES, INCLUDING THE CONSTRUCTION OF TEMPORARY SEDIMENTATION BASINS, IF NEEDED, AND STONE CONSTRUCTION ENTRANCE ANTI-TRACKING PADS, WILL BE INSTALLED PRIOR TO THE START OF CLEARING AND GRUBBING OPERATIONS.

2. FOLLOWING INSTALLATION OF ALL SEDIMENT AND EROSION CONTROL MEASURES, THE CONTRACTOR SHALL NOT PROCEED WITH GRADING, FILLING OR OTHER CONSTRUCTION OPERATIONS UNTIL THE ENGINEER HAS INSPECTED AND APPROVED ALL INSTALLATIONS.

3. THE CONTRACTOR SHALL TAKE EXTREME CARE DURING CLEARING AND GRUBBING OPERATIONS SO AS NOT TO DISTURB UNPROTECTED WETLAND AREAS OR SEDIMENT AND EROSION CONTROL DEVICES.

4. FOLLOWING THE COMPLETION OF CLEARING AND GRUBBING OPERATIONS, ALL AREAS SHALL BE STABILIZED WITH TOPSOIL AND SEEDING OR CRUSHED STONE AS SOON AS PRACTICAL.

GRAVEL ACCESS ROAD OPERATIONS

1. DURING THE REMOVAL AND/OR PLACEMENT OF EARTH AS INDICATED ON THE GRADING PLAN, TOPSOIL SHALL BE STRIPPED FROM THE PROPOSED GRAVEL ACCESS ROAD AREA AND APPROPRIATELY STOCKPILED FOR REUSE.

2. ALL STOCKPILED TOPSOIL SHALL BE SEEDED, MULCHED WITH HAY, AND ENCLOSED BY A SILTATION FENCE.

FILLING OPERATIONS

1. PRIOR TO FILLING, ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE PROPERLY IMPLEMENTED, MAINTAINED AND FULLY INSTALLED, AS DIRECTED BY THE ENGINEER AND AS SHOWN ON THIS PLAN.

2. ALL FILL MATERIAL ADJACENT TO ANY WETLAND AREAS, IF APPLICABLE TO THIS PROJECT, SHALL BE GOOD QUALITY, WITH LESS THAN 5% FINES PASSING THROUGH A #200 SIEVE (BANK RUN), SHALL BE PLACED IN LIFT THICKNESSES NOT GREATER THAN THAT SPECIFIED IN PROJECT SPECIFICATIONS AND/OR THE PROJECT GEOTECHNICAL REPORT. LIFTS SHALL BE COMPACTED TO 95% MAX. DRY DENSITY MODIFIED PROCTOR OR AS SPECIFIED IN THE CONTRACT SPECIFICATIONS OR IN THE GEOTECHNICAL REPORT.

3. AS GENERAL GRADING OPERATIONS PROGRESS, ANY TEMPORARY DIVERSION DITCHES SHALL BE RAISED OR LOWERED, AS NECESSARY, TO DIVERT SURFACE RUNOFF TO THE SEDIMENT BASINS OR SEDIMENT TRAPS.

PLACEMENT OF STORM DRAINAGE AND UTILITIES OPERATIONS.

1. SILT FENCES SHALL BE INSTALLED AT THE DOWNHILL SIDES OF EXCAVATIONS, MUD PUMP DISCHARGES, AND UTILITY TRENCH MATERIAL STOCKPILES. HAY BALES/STRAW BALES MAY BE USED IF SHOWN ON THE SEDIMENT AND EROSION CONTROL PLANS OR IF DIRECTED BY THE CIVIL ENGINEER.

FINAL GRADING AND PAVING OPERATIONS

1. ALL INLET AND OUTLET PROTECTION SHALL BE PLACED AND MAINTAINED AS SHOWN ON SEDIMENT AND EROSION CONTROL PLANS AND DETAILS, AND AS DESCRIBED IN SPECIFICATIONS AND AS DESCRIBED HEREIN.

2. NO CUT OR FILL SLOPES SHALL EXCEED 2:1 EXCEPT WHERE STABILIZED BY ROCK FACED EMBANKMENTS OR EROSION CONTROL BLANKETS, OR JUTE MESH AND VEGETATION. ALL SLOPES SHALL BE SEEDED, AND ANY ROAD OR DRIVEWAY SHOULDER AND BANKS SHALL BE STABILIZED IMMEDIATELY UPON COMPLETION OF FINAL GRADING UNTIL TURF IS ESTABLISHED.

3. PAVEMENT SUB-BASE AND BASE COURSES SHALL BE INSTALLED OVER AREAS TO BE PAVED AS SOON AS FINAL SUB-GRADES ARE ESTABLISHED AND UNDERGROUND UTILITIES AND STORM DRAINAGE SYSTEMS HAVE BEEN INSTALLED.

4. AFTER CONSTRUCTION OF PAVEMENT, TOPSOIL, FINAL SEED, MULCH AND LANDSCAPING, REMOVE ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES ONLY AFTER ALL AREAS HAVE BEEN PAVED AND/OR GRASS HAS BEEN WELL ESTABLISHED AND THE SITE IS STABLE AND HAS BEEN INSPECTED AND APPROVED BY THE MUNICIPALITY AND/OR COUNTY SOILS CONSERVATION DISTRICT AND/OR INLAND WETLANDS COMMISSION (INSERT APPLICABLE AGENCY NAME).

INSTALLATION OF SEDIMENTATION AND EROSION CONTROL MEASURES

I. SILTATION FENCE
A. DIG A SIX INCH TRENCH ON THE UPHILL SIDE OF THE DESIGNATED FENCE LINE LOCATION.

B. POSITION THE POST AT THE BACK OF THE TRENCH (DOWNHILL SIDE), AND HAMMER THE POST AT LEAST 1.5 FEET INTO THE GROUND.

C. LAY THE BOTTOM SIX INCHES OF THE FABRIC INTO THE TRENCH TO PREVENT UNDERMINING BY STORM WATER RUN-OFF.

D. BACKFILL THE TRENCH AND COMPACT.

II. HAY BALES/STRAW BALES
A. BALES SHALL BE PLACED IN A SINGLE ROW, LENGTHWISE, ORIENTED PARALLEL TO THE CONTOUR, WITH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER.

B. BALES SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED THE WIDTH OF A BALE AND THE LENGTH OF THE PROPOSED BARRIER TO A MINIMUM DEPTH OF FOUR INCHES. AFTER THE BALES ARE STAKED, THE EXCAVATED SOIL SHALL BE BACKFILLED AGAINST THE BARRIER.

C. EACH BALE SHALL BE SECURELY ANCHORED BY AT LEAST TWO (2) STAKES.

D. THE GAPS BETWEEN BALES SHALL BE WEDGED WITH STRAW TO PREVENT WATER LEAKAGE.

E. THE BARRIER SHALL BE EXTENDED TO SUCH A LENGTH THAT THE BOTTOMS OF THE END BALES ARE HIGHER IN ELEVATION THAN THE TOP OF THE LOWEST MIDDLE BALE, TO ENSURE THAT RUN-OFF WILL FLOW EITHER THROUGH OR OVER THE BARRIER, BUT NOT AROUND IT.

OPERATION AND MAINTENANCE OF SEDIMENT AND EROSION
CONTROL MEASURES
I. SILTATION FENCE
A. ALL SILTATION FENCES SHALL BE INSPECTED AS A MINIMUM WEEKLY OR AFTER EACH RAINFALL. ALL DETERIORATED FABRIC AND DAMAGED POSTS SHALL BE REPLACED AND PROPERLY REPOSITIONED IN ACCORDANCE WITH THIS PLAN.

B. SEDIMENT DEPOSITS SHALL BE REMOVED FROM BEHIND THE FENCE WHEN THEY EXCEED A HEIGHT OF ONE FOOT.

II. HAY BALES/STRAW BALES
A. ALL HAY BALE/STRAW BALE RINGS SHALL BE INSPECTED FOLLOWING EACH RAINFALL. REPAIR OR REPLACEMENT SHALL BE PROMPTLY MADE AS NEEDED.

B. DEPOSITS SHALL BE REMOVED AND CLEANED-OUT IF ONE HALF OF THE ORIGINAL HEIGHT OF THE BALES BECOMES FILLED WITH SEDIMENT.

III. SEDIMENT BASINS/SEDIMENT TRAPS, (IF NEEDED)
A. CONTRACTOR TO KEEP WEEKLY CHECKLIST LOGS FOR INSPECTIONS OF ALL SEDIMENT AND EROSION CONTROL DEVICES AND HAVE THEM READILY AVAILABLE ON-SITE AT ALL TIMES FOR INSPECTION BY THE TOWN OF NORTH HAVEN AUTHORITIES OR ENGINEER.

B. ALL SEDIMENT BASINS AND/OR SEDIMENT TRAPS, IF NEEDED, SHALL BE INSPECTED FOLLOWING EACH RAINFALL. REPAIR OF SLOPES SHALL BE PROMPTLY MADE AS NEEDED.

C. SEDIMENT DEPOSITS SHALL BE REMOVED FROM SEDIMENT BASINS AND/OR SEDIMENT TRAPS WHEN THEY EXCEED A HEIGHT OF ONE FOOT UNLESS OTHERWISE INDICATED ON THE EROSION CONTROL PLANS AND DETAILS TO BE AT A SPECIFIC ELEVATION PER CLEAN OUT MARKERS.

D. SEDIMENT SHALL BE DISPOSED OF ON-SITE OR AS DIRECTED BY THE ENGINEER AND LOCAL GOVERNING OFFICIALS. SEE SEDIMENT AND EROSION CONTROL NOTES HEREIN REGARDING DISPOSAL REQUIREMENTS FOR OFF SITE SPOIL DISPOSAL.

SEDIMENT AND EROSION CONTROL PLAN
1. HAY BALE/STRAW BALE FILTERS WILL BE INSTALLED AT ALL CULVERT OUTLETS IF CULVERT OUTLETS ARE APPLICABLE TO THIS PROJECT AND SILTATION FENCE INSTALLED ALONG THE TOE OF ALL CRITICAL CUT AND FILL SLOPES.

2. CULVERT DISCHARGE AREAS WILL BE PROTECTED WITH RIP RAP CHANNELS. ENERGY DISSIPATORS WILL BE INSTALLED AS SHOWN ON THESE PLANS AND AS NECESSARY.

3. CATCH BASINS WILL BE PROTECTED WITH HAY BALE/STRAW BALE FILTERS, SILT SACKS, SILTATION FENCE, OR OTHER INLET PROTECTION DEVICES PER DETAILS, THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL ALL DISTURBED AREAS ARE THOROUGHLY STABILIZED.

4. ALL SEDIMENT AND EROSION CONTROL MEASURES WILL BE INSTALLED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE CTDEEP 2004 GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL LATEST EDITION.

5. SEDIMENT AND EROSION CONTROL MEASURES WILL BE INSTALLED PRIOR TO CONSTRUCTION WHENEVER POSSIBLE.

6. ALL CONTROL MEASURES WILL BE MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE DEMOLITION AND CONSTRUCTION PERIOD UNTIL THE SITE IS DETERMINED TO BE STABILIZED BY THE AUTHORITY HAVNG JURISDICTION.

7. ADDITIONAL CONTROL MEASURES WILL BE INSTALLED DURING THE CONSTRUCTION PERIOD, IF NECESSARY OR REQUIRED OR AS DIRECTED BY THE CIVIL ENGINEER OR BY THE AUTHORITY HAVING JURISDICTION.

8. SEDIMENT REMOVED FROM EROSION CONTROL STRUCTURES WILL BE DISPOSED IN A MANNER WHICH IS CONSISTENT WITH THE INTENT AND REQUIREMENTS OF THE SEDIMENT AND EROSION CONTROL PLANS, NOTES, AND DETAILS.

9. GREENSKIES RENEWABLE ENERGY IS ASSIGNED THE RESPONSIBILITY FOR IMPLEMENTING THIS SEDIMENT AND EROSION CONTROL PLAN. THIS RESPONSIBILITY INCLUDES THE INSTALLATION AND MAINTENANCE OF CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED ON THE CONSTRUCTION SITE OF THE REQUIREMENTS AND OBJECTIVES OF THE PLAN, NOTIFICATION OF THE MUNICIPALITY AND/OR COUNTY SOILS CONSERVATION DISTRICT AND/OR INLAND WETLANDS COMMISSION (INSERT APPLICABLE AGENCY NAME) OFFICE OR AUTHORITY HAVING JURISDICTION OF ANY TRANSFER OF THIS RESPONSIBILITY AND FOR CONVEYING A COPY OF THE SEDIMENT AND EROSION CONTROL PLAN IF THE TITLE TO THE LAND IS TRANSFERRED.

SEDIMENT AND EROSION CONTROL NOTES
1. THE SEDIMENT AND EROSION CONTROL PLAN IS ONLY INTENDED TO DESCRIBE THE SEDIMENT AND EROSION CONTROL TREATMENT FOR THIS SITE. SEE SEDIMENT AND EROSION CONTROL DETAILS AND CONSTRUCTION SEQUENCE. REFER TO SITE PLAN FOR GENERAL INFORMATION AND OTHER CONTRACT PLANS FOR APPROPRIATE INFORMATION.

2. CHRIS PALMER OF GREENSKIES RENEWABLE ENERGY IS RESPONSIBLE FOR IMPLEMENTING THIS SEDIMENT AND EROSION CONTROL PLAN, AND CAN BE REACHED AT #860-398-5408. THIS RESPONSIBILITY INCLUDES THE PROPER INSTALLATION AND MAINTENANCE OF SEDIMENT AND EROSION CONTROL MEASURES, INFORMING ALL PARTIES ENGAGED WITH CONSTRUCTION ON THE SITE OF THE REQUIREMENTS AND OBJECTIVES OF THIS PLAN, INFORMING THE TOWN OF NORTH HAVEN OR INLAND WETLANDS AGENCY OF ANY TRANSFER OF THIS RESPONSIBILITY, AND FOR CONVEYING A COPY OF THE SEDIMENT & EROSION CONTROL PLAN IF THE TITLE TO THE LAND IS TRANSFERRED.

3. AN EROSION CONTROL BOND MAY BE REQUIRED TO BE POSTED WITH THE TOWN OF NORTH HAVEN TO ENSURE IMPLEMENTATION OF THE SEDIMENT AND EROSION CONTROL MEASURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE POSTING OF THIS BOND AND FOR INQUIRIES TO THE TOWN OF NORTH HAVEN FOR INFORMATION ON THE METHOD, TYPE AND AMOUNT OF THE BOND POSTING UNLESS OTHERWISE DIRECTED BY THE OWNER.

4. VISUAL SITE INSPECTIONS SHALL BE CONDUCTED WEEKLY, AND AFTER EACH MEASURABLE PRECIPITATION EVENT OF 0.25 INCHES OR GREATER BY QUALIFIED PERSONNEL, TRAINED AND EXPERIENCED IN SEDIMENT AND EROSION CONTROL, TO ASCERTAIN THAT THE SEDIMENT AND EROSION CONTROL (E&S) BMPS ARE OPERATIONAL AND EFFECTIVE IN PREVENTING POLLUTION. A WRITTEN REPORT OF EACH INSPECTION SHALL BE KEPT, AND INCLUDE:
A) A SUMMARY OF THE SITE CONDITIONS, E&S BMPS, AND COMPLIANCE; AND
B) THE DATE, TIME, AND THE NAME OF THE PERSON CONDUCTING THE INSPECTION
C) TURBIDITY TESTING AS REQUIRED BY THE GENERAL PERMIT (NPDES)

5. THE CONTRACTOR SHALL CONSTRUCT ALL SEDIMENT AND EROSION CONTROLS IN ACCORDANCE WITH THE CTDEEP 2004 GUIIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL LATEST EDITION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, AND AS DIRECTED BY THE TOWN OF NORTH HAVEN. THE CONTRACTOR SHALL KEEP A COPY OF THE GUIDELINES ON-SITE FOR REFERENCE DURING CONSTRUCTION.

6. ADDITIONAL AND/OR ALTERNATIVE SEDIMENT AND EROSION CONTROL MEASURES MAY BE INSTALLED DURING THE CONSTRUCTION PERIOD IF FOUND NECESSARY BY THE CONTRACTOR, DEVELOPER, SITE ENGINEER, TOWN OF NORTH HAVEN, OR GOVERNING AGENCIES. THE CONTRACTOR SHALL CONTACT THE OWNER AND APPROPRIATE GOVERNING AGENCIES FOR APPROVAL IF ALTERNATIVE CONTROLS OTHER THAN THOSE SHOWN ON THE PLANS ARE PROPOSED.

7. THE CONTRACTOR SHALL INSPECT ALL SEDIMENT AND EROSION CONTROLS BEFORE AND AFTER EACH STORM (0.25 INCHES OR GREATER RAINFALL), OR AT LEAST WEEKLY, TO VERIFY THAT THE CONTROLS ARE OPERATING PROPERLY AND MAKE REPAIRS WHERE NECESSARY.

8. THE CONTRACTOR SHALL KEEP AN ADEQUATE SUPPLY OF SEDIMENT AND EROSION CONTROL MATERIAL (HAY BALES, SILT FENCE, JUTE MESH, RIP RAP, ETC.) ON-SITE FOR MAINTENANCE AND EMERGENCY REPAIRS.

9. PROTECT EXISTING TREES THAT ARE TO BE SAVED BY FENCING AT THE DRIP LINE OR AS SHOWN WITH SNOW FENCE, ORANGE SAFETY FENCE, OR EQUIVALENT FENCING. ANY LIMB TRIMMING SHOULD BE DONE BEFORE CONSTRUCTION BEGINS IN THAT AREA; FENCING SHALL BE MAINTAINED AND REPAIRED DURING CONSTRUCTION.

10. INSTALL PERIMETER SEDIMENT AND EROSION CONTROLS PRIOR TO CLEARING OR CONSTRUCTION. 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 SILT FENCE UNLESS WORK IS SPECIFICALLY CALLED FOR ON THE DOWNHILL SIDE OF THE FENCE.

11. STONE CONSTRUCTION ENTRANCE ANTI-TRACKING PADS SHALL BE INSTALLED AT START OF CONSTRUCTION AND MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION. THE LOCATION OF THE TRACKING PADS MAY CHANGE AS VARIOUS PHASES OF CONSTRUCTION ARE COMPLETED.

12. TOPSOIL FROM THE GRAVEL ACCESS ROAD AREA SHALL BE STRIPPED AND STOCKPILED FOR USE IN FINAL LANDSCAPING. ALL EARTH STOCKPILES SHALL HAVE HAY BALES OR SILT FENCE AROUND THE LIMIT OF PILE. PILES SHALL BE TEMPORARILY SEEDED IF PILE IS TO REMAIN IN PLACE FOR MORE THAN ONE (1) MONTH.

13. SEDIMENT BASINS AND SEDIMENT TRAPS, IF PROVIDED, SHALL PROVIDE 134 CUBIC YARDS OF SEDIMENT STORAGE PER DISTURBED ACRE CONTRIBUTING TO THE BASIN. PROVIDE BASIN VOLUMES FOR ALL DISTURBANCE ON SITE.

14. COMPLY WITH REQUIREMENTS OF CGS SECTION 22A 430B, FOR STORMWATER DISCHARGE FROM CONSTRUCTION ACTIVITIES AND WITH CTDEEP RECORD KEEPING AND INSPECTION REQUIREMENTS.

15. STONE CONSTRUCTION ENTRANCE ANTI-TRACKING PADS SHALL BE INSTALLED PRIOR TO ANY ON SITE EXCAVATION AND SHALL BE MAINTAINED DURING ALL DEMOLITION, EXCAVATION AND CONSTRUCTION ACTIVITIES.

16. MINIMIZE LAND DISTURBANCES. SEED AND MULCH DISTURBED AREAS WITH TEMPORARY MIX AS SOON AS PRACTICABLE (ONE 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.

17. MAINTAIN EXISTING PAVED AREAS FOR CONSTRUCTION STAGING FOR AS LONG AS POSSIBLE.

18. SILT FENCE AND OTHER SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH CONTRACT DRAWINGS AND MANUFACTURER'S RECOMMENDATIONS PRIOR TO WORK IN ANY UPLAND AREAS.

19. EXCAVATED MATERIAL FROM TEMPORARY SILT TRAPS MUST BE STOCKPILED ON UPHILL SIDE OF SILT FENCE.

20. INSTALL SILT FENCE ACCORDING TO MANUFACTURER'S INSTRUCTION, PARTICULARLY, BURY LOWER EDGE OF FABRIC INTO GROUND. SILT FENCE SHALL BE TENCATE ENVIROFENCE, PROPEX GEOTEX OR EQUIVALENT APPROVED BY THE CIVIL ENGINEER. FILTER FABRIC USED SHALL BE MIRAFI 100X OR APPROVED EQUIVALENT. SEE SPECIFICATIONS FOR FURTHER INFORMATION.

21. WHERE INDICATED ON SEDIMENT AND EROSION CONTROL PLANS USE NEW HAY/STRAW BALES AND REPLACE THEM WHENEVER THEIR CONDITION DETERIORATES BEYOND REASONABLE USABILITY. STAKE BALES SECURELY INTO GROUND AND BUTT TIGHTLY TOGETHER TO PREVENT UNDERCUTTING AND BYPASSING.

22. INSTALL TEMPORARY DIVERSION DITCHES, PLUNGE POOLS, SEDIMENT BASINS, SEDIMENT TRAPS, CONCRETE WASTE PITS AND DEWATERING PITS AS SHOWN AND AS NECESSARY DURING VARIOUS PHASES OF CONSTRUCTION TO CONTROL RUNOFF UNTIL UPHILL AREAS ARE DETERMINED TO BE STABILIZED BY THE AUTHORITY HAVING JURISDICTION. LOCATION OF TEMPORARY SEDIMENT BASINS WILL REQUIRE REVIEW AND APPROVAL BY THE CIVIL ENGINEER AND AUTHORITY HAVING JURISDICTION.

23. DIRECT ALL DEWATERING PUMP DISCHARGE TO A SEDIMENT CONTROL DEVICE SUCH AS TEMPORARY PITS, SEDIMENT TRAP, SEDIMENT BASINS OR GRASS FILTERS WITHIN THE APPROVED LIMIT OF DISTURBANCE. DISCHARGE TO STORM DRAINAGE SYSTEM OR SURFACE WATERS FROM SEDIMENT CONTROLS SHALL BE CLEAR.

24. SWEEP AFFECTED PORTIONS OF OFF SITE ROADS ONE OR MORE TIMES A DAY (OR LESS FREQUENTLY IF TRACKING IS NOT A PROBLEM) DURING CONSTRUCTION. OTHER DUST CONTROL MEASURES TO BE USED AS NECESSARY INCLUDE WATERING DOWN DISTURBED AREAS, USING CALCIUM CHLORIDE, AND COVERING LOADS ON DUMP TRUCKS.

25. PERIODICALLY CHECK ACCUMULATED SEDIMENT LEVELS IN THE SEDIMENT BASINS AND SEDIMENT TRAPS, IF UTILIZED, DURING CONSTRUCTION AND CLEAN ACCUMULATED SILT WHEN NECESSARY OR WHEN ONE FOOT OF SEDIMENT HAS ACCUMULATED OR PER SPECIFIC CLEANOUT MARKER ELEVATION. CLEAN ACCUMULATED SEDIMENT FROM CATCH BASIN SUMPS AS NECESSARY AND AS DIRECTED BY THE CIVIL ENGINEER OR OWNER'S CONSTRUCTION REPRESENTATIVE. REMOVE ACCUMULATED SEDIMENT FROM BEHIND HAY/STRAW BALES AND SILT FENCE WHEN LEVEL REACHES HALF THE HEIGHT OF THE BALE OR ONE FOOT AT SILT FENCE. DISPOSE OF SEDIMENT LEGALLY EITHER ON OR OFF SITE.

26. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.

27. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG OR EQUIVALENT SEDIMENT REMOVAL FACILITY, OVER UNDISTURBED VEGETATED AREAS.

28. ALL EXCAVATED MATERIAL SHALL BE PLACED ON THE HIGH SIDE OF UTILITY AND STORM PIPE TRENCHES SO AS TO ALLOW THE TRENCH TO INTERCEPT ALL SILT LADEN RUNOFF.

29. CONTRACTOR SHALL ONLY EXCAVATE AS MUCH UTILITY AND STORM PIPE TRENCH WORK AS CAN BE COMPLETED, BACKFILLED AND STABILIZED IN ONE DAY SO AS TO LIMIT THE AMOUNT OF OPEN, DISTURBED TRENCHING.

30. ANY STOCKPILES OF STRIPPED MATERIALS ARE TO BE PERIODICALLY SPRAYED WITH WATER OR A CRUSTING AGENT TO STABILIZE POTENTIALLY WIND-BLOWN MATERIAL. HAUL ROADS BOTH INTO AND AROUND THE SITE ARE TO BE SPRAYED AS NEEDED TO SUPPRESS DUST. TRUCKS HAULING IMPORT FILL MATERIAL ARE TO BE TARPED TO AID IN THE CONTROL OF AIRBORNE DUST. DURING HIGH WIND EVENTS (20 TO 30 MPH SUSTAINED) CONSTRUCTION ACTIVITY SHALL BE LIMITED OR CEASED IF DUST CANNOT BE CONTROLLED BY WETTING.

31. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM OF 70% UNIFORM PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING OR OTHER MOVEMENTS UNLESS OTHERWISE DETERMINED BY THE AUTHORITY HAVING JURISDICTION.

32. MAINTAIN ALL PERMANENT AND TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD. UPON COMPLETION OF WORK SWEEP PARKING LOT AND REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROLS WHEN AUTHORIZED BY AUTHORITY HAVING JURISDICTION. FILE NOT (NOTICE OF TERMINATION) WITH AUTHORITY HAVING JURISDICTION RESPONSIBLE FOR REGULATING STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES PER NPDES.

PHASING CONSTRUCTION SEQUENCING

1. CONDUCT A PRECONSTRUCTION MEETING

2. PHASE I – INSTALLATION OF GRAVEL ACCESS ROAD AND SOLAR ARRAY SYSTEM
   - 2.1. INSTALL EROSION CONTROL SILT FENCE NEAR THE DRIVEWAY ENTRANCE ON OLD VELVET ROAD.
   - 2.2. INSTALL EROSION CONTROL ANTI-TRACKING PAD AT PROPOSED CONSTRUCTION ENTRANCES AS MENTIONED ABOVE.
   - 2.3. INSTALL EROSION CONTROL SILT FENCE OUTSIDE OF THE LIMITS OF GRADING ASSOCIATED WITH THE PROPOSED GRAVEL ACCESS ROAD AND FIRST SECTION OF THE SOLAR ARRAY SYSTEM.
   - 2.4. PERFORM CLEARING AND GRUBBING ACTIVITIES WITHIN THE LIMITS OF THE SILT FENCE FOR PHASE 1.
   - 2.5. INSTALL CHAIN-LINK PERIMETER FENCE. IF CLEARING AND GRUBBING OR MINOR GRADING IS REQUIRED FOR THE INSTALLATION OF THE PROPOSE FENCE, ADDITIONAL SILT FENCE SHALL BE INSTALLED DOWNSLOPE OF THE PROPOSED IMPROVEMENTS.
   - 2.6. GRADE PROPOSED GRAVEL ACCESS ROAD AND INSTALL FINISHED ROADWAY MATERIALS.
   - 2.7. CONCURRENTLY, INSTALL STORMWATER INFRASTRUCTURE AND REQUIRED RIP RAP AT EACH STORMWATER CROSSING AS DEPICTED ON THE GRADING AND DRAINAGE PLANS.
   - 2.8. AS EACH SECTION OF THE GRAVEL ACCESS ROAD AND ASSOCIATED INFRASTRUCTURE IS COMPLETED, THE CONTRACTOR SHALL IMMEDIATELY STABILIZE THE DISTURBED AREAS OUTSIDE OF THE GRAVEL ROADWAY PER THE CONSTRUCTION PLANS.
   - 2.9. IF REQUIRED, SEPARATE TEMPORARY STOCKPILE AREAS FOR STRIPPED TOPSOIL AND EARTH SHALL BE PROVIDED WITH THE PROPER EROSION CONTROL MEASURES AND REMAIN AVAILABLE THROUGHOUT THE DURATION OF THE PROJECT.
   - 2.10. INSTALL FIRST SECTION OF THE SOLAR ARRAY SYSTEM. CONSTRUCTION ACTIVITIES INCLUDE, BUT NOT LIMITED TO, POST HOLE DIGGING, TRENCHING AND BACKFILLING OF ELECTRICAL CONDUIT, INSTALLATION OF GRAVEL DRIP STRIP, AND FINAL INSTALLATION OF THE SOLAR PANELS.
   - 2.11. SEED ALL DISTURBED AREAS PER THE CONSTRUCTION PLANS.
   - 2.12. ALL EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL IT IS DETERMINED BY THE ENGINEER OF RECORD THAT THE DISTURBED AREA HAS BEEN STABILIZED. ANY EROSION CONTROL MEASURES THAT HAVE A DUAL PURPOSE FOR MORE THAN ONE PHASE SHALL REMAIN IN PLACE UNTIL BOTH PHASES ARE COMPLETE. THE CONTRACTOR SHALL REFER TO THE EROSION CONTROL CONSTRUCTION PLANS FOR ALL OVERLAPPING PHASED EROSION CONTROL MEASURES.
   - 2.13. PROCEED TO PHASE 2.

3. PHASE 2 – INSTALL SECOND SECTION OF THE SOLAR ARRAY SYSTEM
   - 3.1. INSTALL EROSION CONTROL FENCE AROUND PERIMETER OF PHASE 2
   - 3.2. INSTALL EROSION CONTROL ROCK CHECK DAMS AS NOTED ON THE CONSTRUCTION PLANS.
   - 3.3. INSTALL SECOND SECTION OF THE SOLAR ARRAY SYSTEM. CONSTRUCTION ACTIVITIES INCLUDE, BUT NOT LIMITED TO, POST HOLE DIGGING, TRENCHING AND BACKFILLING OF ELECTRICAL CONDUIT, INSTALLATION OF GRAVEL DRIP STRIP, AND FINAL INSTALLATION OF THE SOLAR PANELS.
   - 3.4. SEED ALL DISTURBED AREAS PER THE CONSTRUCTION PLANS.
   - 3.5. ALL EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL IT IS DETERMINED BY THE ENGINEER OF RECORD THAT THE DISTURBED AREA HAS BEEN STABILIZED. ANY EROSION CONTROL MEASURES THAT HAVE A DUAL PURPOSE FOR MORE THAN ONE PHASE SHALL REMAIN IN PLACE UNTIL BOTH PHASES ARE COMPLETE. THE CONTRACTOR SHALL REFER TO THE EROSION CONTROL CONSTRUCTION PLANS FOR ALL OVERLAPPING PHASED EROSION CONTROL MEASURES.
   - 3.6. UPON THE COMPLETION (AS DETERMINED BY THE ENGINEER OF RECORD) OF PHASE 1 AND PHASE 2, THE CONTRACTOR SHALL REMOVE ANY UNNECESSARY PHASE 1 EROSION CONTROL MEASURES THAT ARE DIRECTLY ADJACENT TO PHASE 2 AND ANY EROSION CONTROL MEASURES NOTED IN PHASE 2 THAT WILL NOT BE REQUIRED FOR SUBSEQUENT PHASES.
   - 3.7. PROCEED TO PHASE 3

4. PHASE 3 – INSTALL THIRD SECTION OF THE SOLAR ARRAY SYSTEM
   - 4.1. INSTALL EROSION CONTROL FENCE AROUND PERIMETER OF PHASE 3
   - 4.2. INSTALL EROSION CONTROL ROCK CHECK DAMS AS NOTED ON THE CONSTRUCTION PLANS.
   - 4.3. INSTALL THIRD SECTION OF THE SOLAR ARRAY SYSTEM. CONSTRUCTION ACTIVITIES INCLUDE, BUT NOT LIMITED TO, POST HOLE DIGGING, TRENCHING AND BACKFILLING OF ELECTRICAL CONDUIT, INSTALLATION OF GRAVEL DRIP STRIP, AND FINAL INSTALLATION OF THE SOLAR PANELS.
   - 4.4. SEED ALL DISTURBED AREAS PER THE CONSTRUCTION PLANS.
   - 4.5. ALL EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL IT IS DETERMINED BY THE ENGINEER OF RECORD THAT THE DISTURBED AREA HAS BEEN STABILIZED. ANY EROSION CONTROL MEASURES THAT HAVE A DUAL PURPOSE FOR MORE THAN ONE PHASE SHALL REMAIN IN PLACE UNTIL BOTH PHASES ARE COMPLETE. THE CONTRACTOR SHALL REFER TO THE EROSION CONTROL CONSTRUCTION PLANS FOR ALL OVERLAPPING PHASED EROSION CONTROL MEASURES.
   - 4.6. UPON THE COMPLETION (AS DETERMINED BY THE ENGINEER OF RECORD) OF PHASE 1, PHASE 2, AND PHASE 3, THE CONTRACTOR SHALL REMOVE ANY UNNECESSARY EROSION CONTROL MEASURES FROM THE PREVIOUS PHASES THAT ARE DIRECTLY ADJACENT TO PHASE 3 AND ANY EROSION CONTROL MEASURES NOTED IN PHASE 3 THAT WILL NOT BE REQUIRED FOR SUBSEQUENT PHASES.
   - 4.7. PROCEED TO PHASE 4

5. PHASE 4 – INSTALL FOURTH SECTION OF THE SOLAR ARRAY SYSTEM
   - 5.1. INSTALL EROSION CONTROL FENCE AROUND PERIMETER OF PHASE 4
   - 5.2. INSTALL FOURTH SECTION OF THE SOLAR ARRAY SYSTEM. CONSTRUCTION ACTIVITIES INCLUDE, BUT NOT LIMITED TO, POST HOLE DIGGING, TRENCHING AND BACKFILLING OF ELECTRICAL CONDUIT, INSTALLATION OF GRAVEL DRIP STRIP, AND FINAL INSTALLATION OF THE SOLAR PANELS.
   - 5.3. SEED ALL DISTURBED AREAS PER THE CONSTRUCTION PLANS.
   - 5.4. ALL EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL IT IS DETERMINED BY THE ENGINEER OF RECORD THAT THE DISTURBED AREA HAS BEEN STABILIZED. ANY EROSION CONTROL MEASURES THAT HAVE A DUAL PURPOSE FOR MORE THAN ONE PHASE SHALL REMAIN IN PLACE UNTIL BOTH PHASES ARE COMPLETE. THE CONTRACTOR SHALL REFER TO THE EROSION CONTROL CONSTRUCTION PLANS FOR ALL OVERLAPPING PHASED EROSION CONTROL MEASURES.
   - 5.5. UPON THE COMPLETION (AS DETERMINED BY THE ENGINEER OF RECORD) OF PHASE 1, PHASE 3, AND PHASE 4, THE CONTRACTOR SHALL REMOVE ANY UNNECESSARY EROSION CONTROL MEASURES FROM THE PREVIOUS PHASES THAT ARE DIRECTLY ADJACENT TO PHASE 4 AND ANY EROSION CONTROL MEASURES NOTED IN PHASE 4 THAT WILL NOT BE REQUIRED FOR SUBSEQUENT PHASES.
   - 5.6. PROCEED TO PHASE 5

6. PHASE 5 – INSTALL FIFTH SECTION OF THE SOLAR ARRAY SYSTEM
   - 6.1. INSTALL EROSION CONTROL FENCE AROUND PERIMETER OF PHASE 5
   - 6.2. INSTALL FIFTH SECTION OF THE SOLAR ARRAY SYSTEM. CONSTRUCTION ACTIVITIES INCLUDE, BUT NOT LIMITED TO, POST HOLE DIGGING, TRENCHING AND BACKFILLING OF ELECTRICAL CONDUIT, INSTALLATION OF GRAVEL DRIP STRIP, AND FINAL INSTALLATION OF THE SOLAR PANELS.
   - 6.3. SEED ALL DISTURBED AREAS PER THE CONSTRUCTION PLANS.
   - 6.4. ALL EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL IT IS DETERMINED BY THE ENGINEER OF RECORD THAT THE DISTURBED AREA HAS BEEN STABILIZED. ANY EROSION CONTROL MEASURES THAT HAVE A DUAL PURPOSE FOR MORE THAN ONE PHASE SHALL REMAIN IN PLACE UNTIL BOTH PHASES ARE COMPLETE. THE CONTRACTOR SHALL REFER TO THE EROSION CONTROL CONSTRUCTION PLANS FOR ALL OVERLAPPING PHASED EROSION CONTROL MEASURES.
   - 6.5. UPON THE COMPLETION (AS DETERMINED BY THE ENGINEER OF RECORD) OF PHASE 1, PHASE 4, AND PHASE 5, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.

7. ALL POST-CONSTRUCTION STORMWATER STRUCTURES, OUTFALLS, AND INLETS SHALL BE CLEANED OF CONSTRUCTION SEDIMENT AND ANY REMAINING SILT FENCE SHALL BE REMOVED PRIOR TO FILING OF THE "NOTICE OF TERMINATION FORM"

8. PERFORM PROJECT CLEANUP. ALL CONSTRUCTION EQUIPMENT, MATERIALS, AND DEBRIS SHALL BE REMOVED COMPLETE FROM THE SITE.

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REVISIONS

No.	Date	Desc.

Designed	A.J.S.
Drawn	A.J.S.
Reviewed	J.J.S.
Scale	NONE
Project No.	17D3516
Date	04/06/2018
CAD File:	EC17D351601

Title
SEDIMENT AND EROSION CONTROL NOTES

Sheet No.
EC-7

Xref (s): ; BD17D3516-01-24x36 ; XC17D351601 ; XY17D351601 ; XC17D351604 ; XC17D351602 ; XZ17D351601

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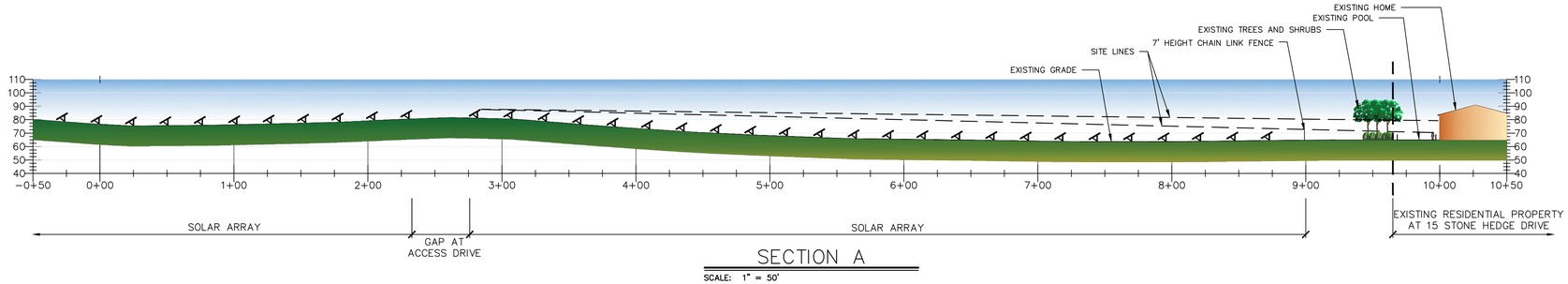

SECTION A

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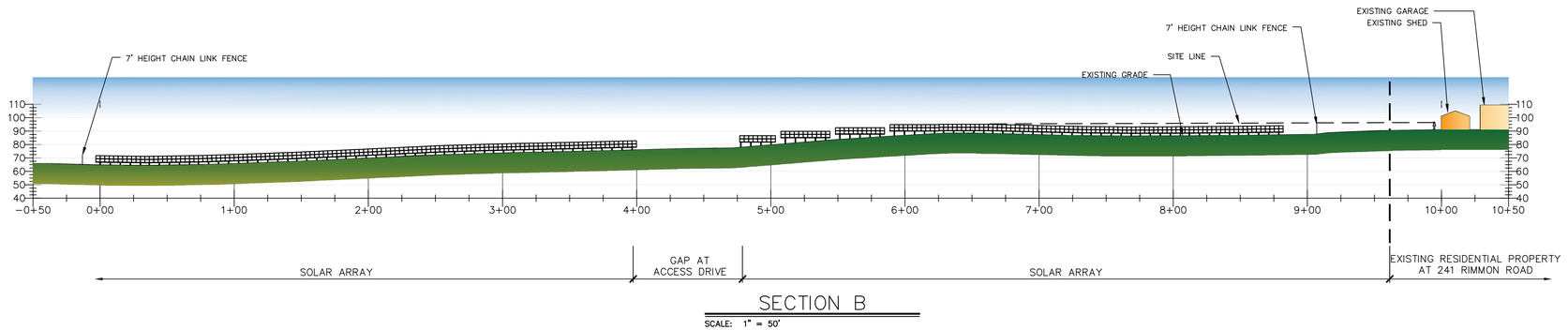

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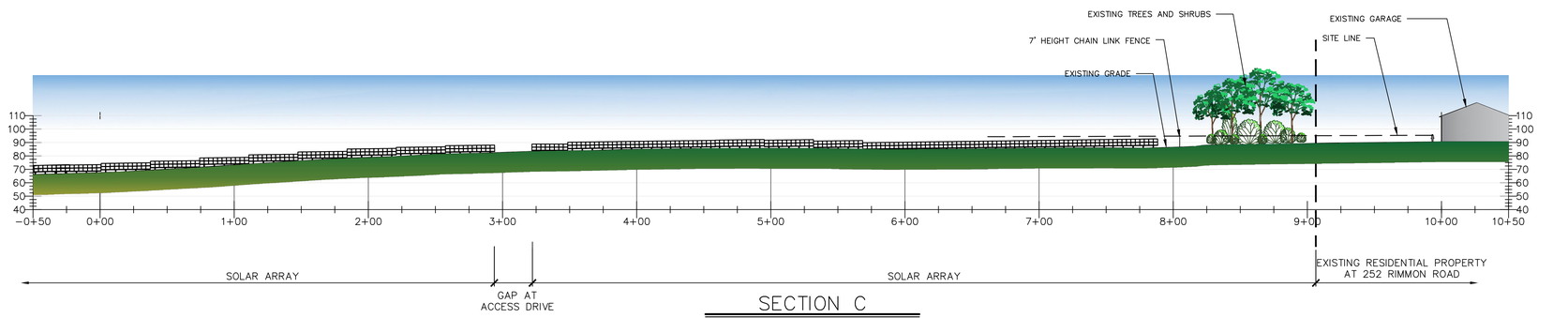

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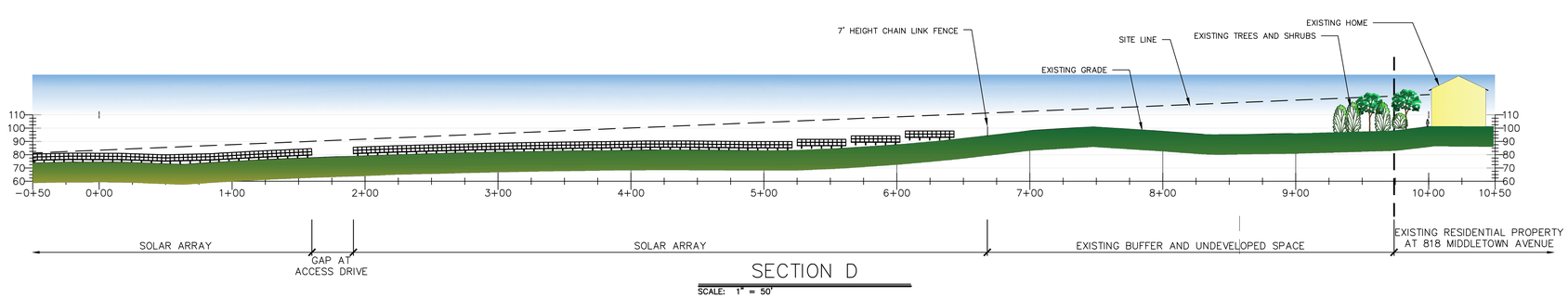

SECTION D

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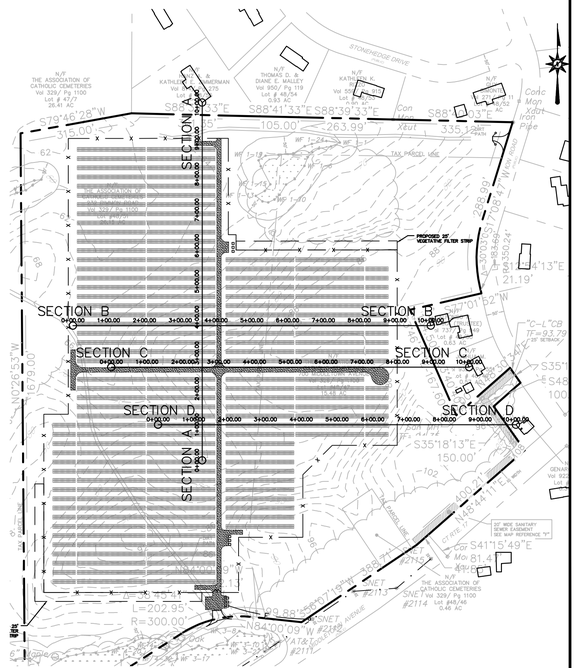

SCALE: 1" = 200'

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No.	REVISIONS Date	Desc.

Designed	J.P.E.
Drawn	J.P.E.
Reviewed	
Scale	AS SHOWN
Project No.	17D3516
Date	04/06/2018
CAD File:	CS17D3516O1

Title

SITE CROSS SECTIONS

Sheet No.

CS-1

Xref (s): - 18017D3516O1 - X17D3516O1 - X17D3516O1

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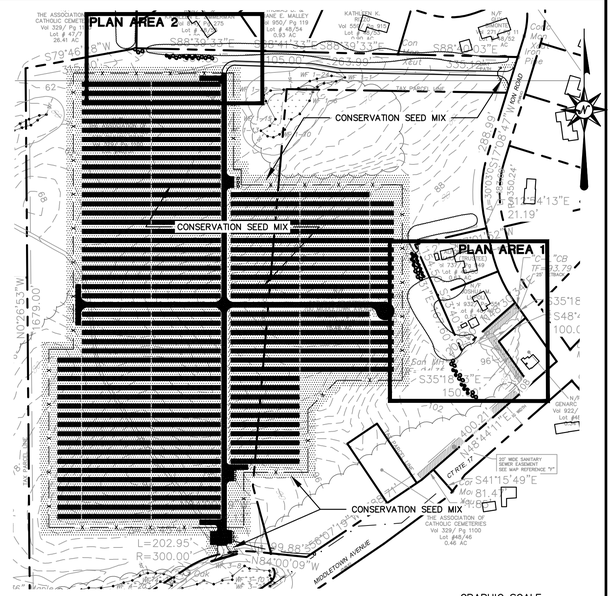
PLAN AREA 1

1" = 20'



OVERALL PLAN

1" = 200'

LANDSCAPE PLANT SCHEDULE

TREES

KEY	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	COMMENTS
JV	20	Juniperus virginiana	Eastern Red Cedar	B&B	8'-10' HT. MIN.	FULL
PS	25	Pinus strobus	Eastern White Pine	B&B	8'-10' HT. MIN.	FULL
SHRUBS						
RM	12	Rhododendron maximum	Rosebay Rhododendron	B&B	4' HT. MIN.	FULL

LEGEND

PATTERN	DESCRIPTION
	CONSERVATION SEED MIX (REFER TO SEED MIX ON SHEET LL-3)

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NORTH HAVEN, CONNECTICUT

REVISIONS No.	Date	Desc.

Designed	J.P.E.
Drawn	J.P.E.
Reviewed	M.P.S.
Scale	1"=100'
Project No.	17D3516
Date	04/06/2018
CAD File:	LL17D351601

Title

LANDSCAPE PLAN

Sheet No.

LL-1

Xref (s) : XW17D351601 : XC17D351601 : XB17D351601 : XZ17D351601 : XL17D351601

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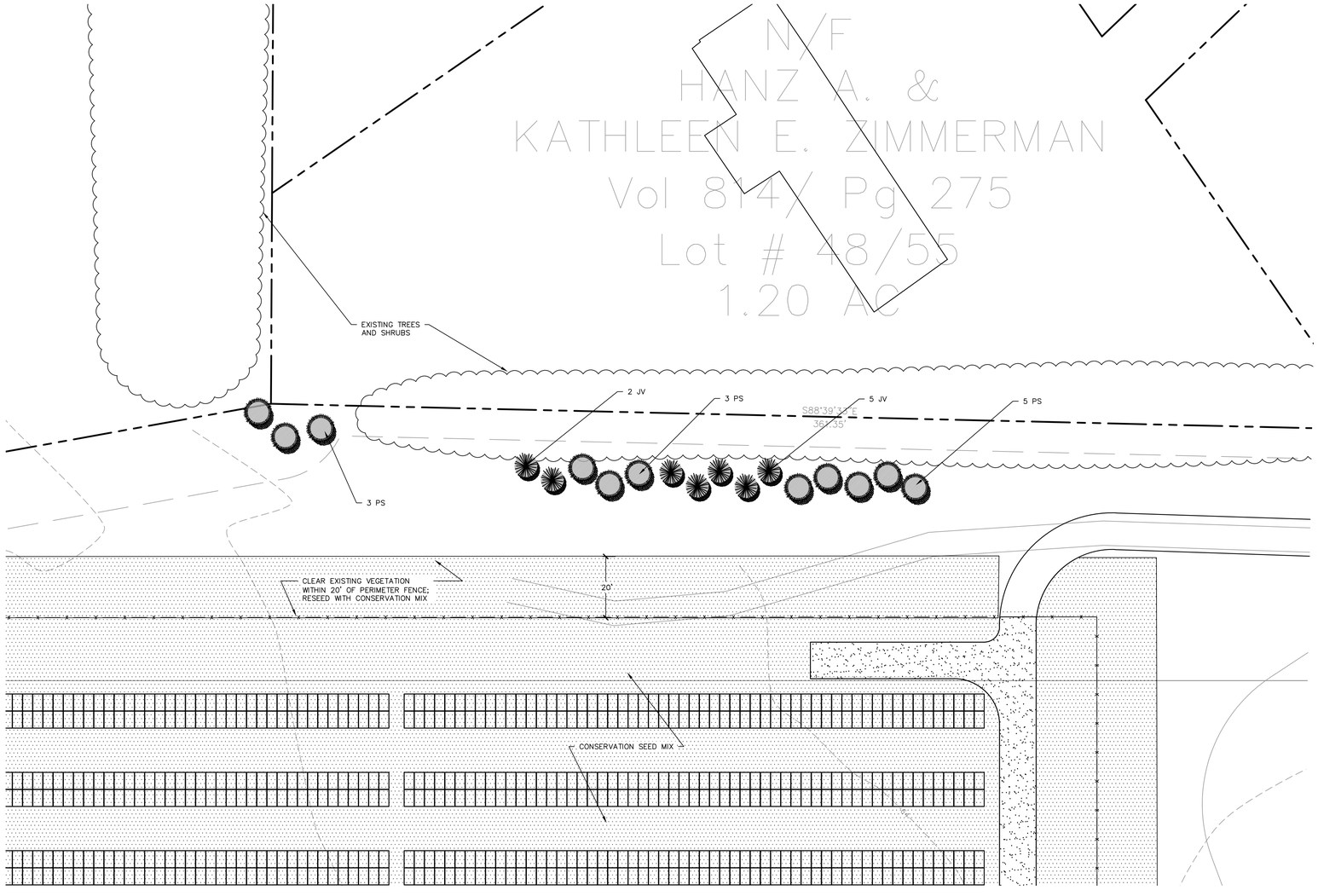

PLAN AREA 2

1" = 20'

GRAPHIC SCALE
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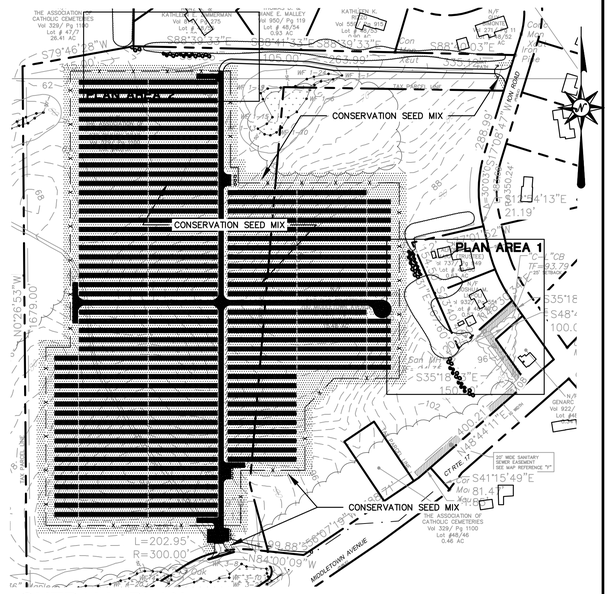
SCALE IN FEET



OVERALL PLAN

1" = 200'

GRAPHIC SCALE
200 100 0 200
SCALE IN FEET

LANDSCAPE PLANT SCHEDULE

TREES

KEY	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	COMMENTS
JV	20	Juniperus virginiana	Eastern Red Cedar	B&B	8'–10' HT. MIN.	FULL
PS	25	Pinus strobus	Eastern White Pine	B&B	8'–10' HT. MIN.	FULL

SHRUBS

KEY	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	COMMENTS
RM	12	Rhododendron maximum	Rosebay Rhododendron	B&B	4' HT. MIN.	FULL

LEGEND

PATTERN	DESCRIPTION
	CONSERVATION SEED MIX (REFER TO SEED MIX ON SHEET LL–3)

Architecture
Engineering
Environmental
Land Surveying

BL Companies

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Meriden, CT 06450
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PHOTOVOLTAIC INSTALLATION
700 MIDDLETOWN AVENUE
NORTH HAVEN, CONNECTICUT

REVISIONS

No.	Date	Desc.

Designed	J.P.E.
Drawn	J.P.E.
Reviewed	M.P.S.
Scale	1"=100'
Project No.	17D3516
Date	04/06/2018
CAD File:	LL17D3516O1

Title

LANDSCAPE PLAN

Sheet No.

LL–2

4/5/2018, MMCKEE, K:\JOBS\17D\17D3516\DWG\LL17D3516O1.DWG,LL-2 24X36,

Xref: Op : X:\17D3516O1 : X:\17D3516O1 : B01\17D3516O1 : X2\17D3516O1 : X4\17D3516O1

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LANDSCAPE NOTES

1. THE LANDSCAPE PLAN AND DETAIL SHEET ARE FOR LANDSCAPING INFORMATION ONLY. REFER TO THE OTHER PLANS FOR ALL OTHER INFORMATION.

2. COORDINATE PLANT MATERIAL LOCATIONS WITH SITE UTILITIES. UTILITY LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE. EXERCISE CARE WHEN DIGGING IN AREAS OF POTENTIAL CONFLICT WITH UNDERGROUND OR OVERHEAD UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE DUE TO CONTRACTOR'S NEGLIGENCE AND SHALL REPLACE OR REPAIR ANY DAMAGE AT CONTRACTOR'S EXPENSE. PRIOR TO DIGGING AND INSTALLATION OF PLANT MATERIAL, THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" 72 HOURS BEFORE COMMENCEMENT OF WORK AT "(800) 922-4455" AND VERIFY ALL UTILITY SYSTEM LOCATIONS.

3. THE LOCATIONS FOR PLANT MATERIAL ARE APPROXIMATE AND ARE SUBJECT TO FIELD ADJUSTMENT DUE TO UTILITY LOCATIONS AND SITE CONDITIONS. THE CONTRACTOR SHALL ACCURATELY STAKE OUT THE LOCATIONS FOR ALL PLANTS FOR THE REVIEW, ADJUSTMENT, AND APPROVAL OF OWNER OR LANDSCAPE ARCHITECT PRIOR TO PLANTING.

4. THE CONTRACTOR SHALL GUARANTEE THAT ALL PLANTS SHALL BE HEALTHY AND FREE OF DISEASE FOR A PERIOD OF ONE YEAR OR JUNE 1ST OF THE YEAR FOLLOWING INSTALLATION, WHICHEVER IS LONGER, AFTER SUBSTANTIAL COMPLETION AND ACCEPTANCE BY OWNER OR LANDSCAPE ARCHITECT. CONTRACTOR SHALL REPLACE ANY DEAD OR UNHEALTHY PLANTS AT CONTRACTOR'S EXPENSE. PLANT MATERIAL REPLACEMENTS SHALL BE GUARANTEED FOR ONE FULL YEAR FROM DATE OF REPLACEMENT. REPLACEMENT PLANTS SHALL BE THE SAME AS SPECIFIED FOR THE ORIGINAL PLANTING. REPLACEMENTS SHALL BE MADE AS MANY TIMES AS NECESSARY TO ENSURE HEALTHY PLANTS. FINAL ACCEPTANCE SHALL BE MADE IF ALL PLANTS MEET THE GUARANTEE REQUIREMENTS INCLUDING MAINTENANCE. MAINTENANCE RESPONSIBILITIES INCLUDE CULTIVATING, SPRAYING, WEEDING, WATERING, TIGHTENING GUYS, PRUNING, FERTILIZING, MULCHING, AND ANY OTHER OPERATIONS NECESSARY TO MAINTAIN PLANT VIABILITY. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER PLANTING AND CONTINUE UNTIL THE END OF THE GUARANTEE PERIOD.

5. THE CONTRACTOR SHALL SUPPLY ALL LABOR, PLANTS, AND MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE WORK SHOWN ON THE DRAWINGS AND LISTED IN THE PLANT SCHEDULE. IN THE EVENT OF A DISCREPANCY BETWEEN QUANTITIES SHOWN IN THE PLANT SCHEDULE AND THOSE REQUIRED BY THE DRAWINGS, THE LARGER SHALL APPLY. ALL PLANTS SHALL BE ACCLIMATED BY THE SUPPLY NURSERY TO THE LOCAL HARDINESS ZONE AND BE CERTIFIED THAT THE PLANTING MATERIAL HAS BEEN GROWN FOR A MINIMUM OF TWO YEARS AT THE SOURCE AND OBTAINED WITHIN 200 MILES OF PROJECT SITE UNLESS OTHERWISE APPROVED BY OWNER OR LANDSCAPE ARCHITECT.

6. PLANTS SHALL HAVE TAGS THAT IDENTIFY PLANT GENUS, SPECIES, CULTIVAR (IF APPLICABLE), PLANT COMMON NAME, NAME OF SOURCE NURSERY, AND SIZE OF PLANT FOR REVIEW OF OWNER OR LANDSCAPE ARCHITECT.

7. NO PLANT SHALL BE PLACED IN THE GROUND BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT. STAKING THE LOCATION OF ALL TREES AND SHRUBS SHALL BE COMPLETED PRIOR TO PLANTING FOR APPROVAL BY THE OWNER OR LANDSCAPE ARCHITECT.

8. FINAL GRADES SHALL BLEND SMOOTHLY WITH EXISTING GRADES, AND TOP AND BOTTOM OF SLOPES SHALL BE ROUNDED.

9. ALL TREE AND SHRUB MASSINGS SHALL BE MULCHED TO A DEPTH OF 3". MULCH SHALL BE UNCOLORED TRIPLE-SHREDDED HARDWOOD BARK MULCH, AGED AT LEAST 6 MONTHS.

10. IF TREE STAKING IS PROPOSED, TREE STAKING MUST BE COMPLETED THE SAME DAY AS THE TREE IS INSTALLED. ALL TREES SHALL BE STAKED OR GUYED PER DETAIL.

11. LANDSCAPE PLANTING AREAS MUST BE FREE DRAINING. PAVEMENT, COMPACTED SUBGRADE, DEAD OR DYING PLANT MATERIAL, BLASTED ROCK, STONES GREATER THAN 1" IN DIAMETER, AND ANY OTHER MATERIAL HARMFUL TO PLANT GROWTH AND DEVELOPMENT SHALL BE REMOVED FROM AREAS TO BE LANDSCAPED AS REQUIRED BY PLANTING DETAILS OR SPECIFICATIONS.

12. PLANTING SOIL:

DEPTH: PLANTING SOIL SHALL BE INSTALLED AT A MINIMUM DEPTH OF 4" OR AS NOTED IN THE LANDSCAPE DETAILS.

TESTING: CONTRACTOR SHALL SUBMIT (2) SOIL SAMPLES PER SOIL STOCKPILE TO A CERTIFIED TESTING LABORATORY TO DETERMINE ACIDITY, ORGANIC CONTENT, MECHANICAL ANALYSIS, AVAILABLE NUTRIENTS (N,P,K,Ca,Mg,S,Fe,Mn,Zn,Cu,B,Al,Pb) AND NECESSARY AMENDMENTS TO SOIL. THE CONTRACTOR SHALL SUBMIT THE TEST RESULTS TO THE OWNER OR LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL. TEST RESULTS SHALL RECOMMEND AMENDMENTS THAT WILL ALTER THE SOIL CHARACTERISTICS SUCH THAT THE CHARACTERISTICS DESCRIBED BELOW ARE ACHIEVED AND THE SPECIFIED PLANTS (CONTRACTOR TO PROVIDE LIST TO TESTING LABORATORY) WILL ACHIEVE PROPER GROWTH THAT IS NEITHER DEFICIENT NOR EXCESSIVE. THE CONTRACTOR SHALL INCORPORATE THESE AMENDMENTS AT NO INCREASE IN CONTRACT PRICE.

CHARACTERISTICS: PLANTING SOIL MAY CONSIST OF EXISTING ON-SITE SOILS, AMENDED ON-SITE SOILS, OR IMPORTED SOILS MEETING THE FOLLOWING CRITERIA:

A. NOT TO CONTAIN MATERIALS HARMFUL TO PLANT LIFE, TO BE CLEAN, FERTILE, FRIABLE, AND WELL DRAINING. ALL PLANTING SOIL SHALL BE FREE OF ANY SUBSOIL EARTH CLODS, SODS, STONES OVER 1" IN ANY DIMENSION, STICKS, ROOTS, WEEDS, LITTER AND OTHER DELETERIOUS MATERIAL. PLANTING SOIL SHALL BE UNIFORM IN QUALITY AND TEXTURE.
B. PLANTING SOIL SHALL HAVE THE FOLLOWING OPTIMUM RANGES UNLESS OTHERWISE APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT.

ORGANIC CONTENT	3% – 6% FOR LAWN OR GRASS AREAS. 4% – 8% FOR TREE AND SHRUB PLANTERS. (BY LOSS OF IGNITION AT 375 C METHOD OF TESTING)
PH	6.0 – 7.3

C. NUTRIENT LEVELS SHALL BE ACHIEVED BY THE CONTRACTOR'S ADDITION OF AMENDMENTS TO THE PLANTING SOIL TO MEET THE OPTIMUM NUTRIENT LEVELS SPECIFIED IN THE TESTING LABORATORY REPORT FOR EACH OF PLANTS TO BE INSTALLED.
D. SOIL SHALL BE COMPACTED TO A SURFACE PENETRATION RESISTANCE OF 75–125 LBS/SQ.IN.
E. SOIL MAY BE TREATED FOR WEEDS WITH PRE-EMERGENT OR POST-EMERGENT HERBICIDE, AS NEEDED AND AS APPROPRIATE FOR THE APPLICATION SEASON OR LOCATION, OR ELIMINATE GROWTH OF UNWANTED PLANT MATERIAL. APPLY HERBICIDES IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. HERBICIDE APPLICATOR MUST BE LICENSED IN THE STATE OF CONNECTICUT, AND PERFORM APPLICATIONS IN ACCORDANCE WITH LOCAL REQUIREMENTS, PERMITTING STIPULATIONS, AND ANY OTHER RESTRICTIONS INCLUDING AND IN EXCESS OF STATE AND FEDERAL REGULATIONS.
F. PROPOSED TOPSOIL SHALL MEET THE USDA SOILS TEXTURAL PERCENTAGES OF SAND, SILT, AND CLAY FOR FOLLOWING CLASSIFICATIONS:
   - LOAM
   - SANDY LOAM WHERE SAND DOES NOT EXCEED 70% AND CLAY IS NOT LESS THAN 5%.
   - SANDY CLAY LOAM WHERE SAND DOES NOT EXCEED 70% AND CLAY IS LESS THAN 28%.
G. BIORETENTION SOILS: SOIL TO BE INSTALLED IN RETENTION BASINS, PONDS, OR OTHER STORMWATER MANAGEMENT ENVIRONS SHALL MEET THE ABOVE DESCRIBED CHARACTERISTICS AND AS FOLLOWS:
   - SOIL SHALL NOT CONTAIN MORE THAN 20% CLAY AND LESS THAN 40% SILT.
   - SOIL SHALL HAVE AN INFILTRATION RATE BETWEEN 1/2" AND 3" PER HOUR.
H. MODIFICATION TO THE PLANTING SOIL CHARACTERISTICS DESCRIBED ABOVE MAY BE SUBMITTED FOR APPROVAL BY THE LANDSCAPE ARCHITECT. CONTRACTOR MUST DEMONSTRATE PROPOSED CHARACTERISTICS ARE EQUAL TO OR SUPERIOR TO THE SPECIFIED CHARACTERISTICS WITH RESPECT TO SUPPORTING PLANT GROWTH, AND STORMWATER MANAGEMENT.

12. PLANTING AMENDMENTS:
APPLY FERTILIZER AND OTHER AMENDMENTS AS RECOMMENDED FOR EACH PLANTING AREA BY SOIL ANALYSIS. APPLY AMENDMENTS IN A MANNER CONSISTENT WITH MANUFACTURER'S RECOMMENDATIONS. ANY ORGANIC AMENDMENTS SHALL HAVE A pH BETWEEN 4.5 AND 5.5 UNLESS OTHERWISE RECOMMENDED.

13. PLANT REQUIREMENTS: ALL PLANTS SHALL CONFORM IN SIZE AND GRADE TO THE AMERICAN STANDARD FOR NURSERY STOCK, ANSI Z60.1 (LATEST EDITION). ALL PLANTS SHALL MEET THE ADDITIONAL REQUIREMENTS SET FORTH BELOW AND IN WRITTEN SPECIFICATIONS AS APPLICABLE. ALL TREES AND SHRUBS SHALL HAVE BEEN GROWN AT A COMMERCIAL NURSERY WITHIN 200 MILES OF THE PROJECT SITE UNLESS OTHERWISE APPROVED BY OWNER OR LANDSCAPE ARCHITECT. THEY SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY. THEY SHALL BE HEALTHY, SYMMETRICAL, EVENLY AND DENSELY BRANCHED, AND DENSELY FOLIATED WHEN IN LEAF. THEY SHALL BE FREE OF BARK INJURY, DISEASE, AND INSECT PESTS. ALL TREES SHALL HAVE A STRAIGHT TRUNK WITH A SINGLE MAIN LEADER UNLESS OTHERWISE CHARACTERISTIC OF THE SPECIES OR VARIETY. THE OWNER OR LANDSCAPE ARCHITECT WILL ALLOW SUBSTITUTIONS ONLY UPON WRITTEN APPROVAL. SIZES SHALL CONFORM TO THE MEASUREMENT SPECIFIED ON THE DRAWINGS. PLANTS LARGER THAN SPECIFIED MAY BE USED IF APPROVED, BUT THE USE OF SUCH PLANTS SHALL NOT INCREASE THE CONTRACT PRICE. ALL OVERSTORY TREES PLANTED ALONG PARKING AREAS, SIDEWALKS AND PEDESTRIAN ACCESSES SHALL NOT BRANCH BELOW 7' FEET IF THE TREE CALIPER IS 3" INCHES OR GREATER. ALL PLANT MATERIALS ARE SUBJECT TO INSPECTION AND ACCEPTANCE BY THE OWNER OR LANDSCAPE ARCHITECT AT THE NURSERY SOURCE. THE CONTRACTOR SHALL COORDINATE SOURCE VISITS WITH THE LANDSCAPE ARCHITECT AND SHALL ACCOMPANY THE OWNER AND/OR LANDSCAPE ARCHITECT FOR ALL INSPECTIONS. CERTIFICATES OF COMPLIANCE WITH SPECIFICATIONS ARE REQUIRED FOR ALL PLANTS.

14. INSPECTION AND REVIEW:
ALL PLANT MATERIAL SHALL BE SUBJECT TO INSPECTION AND ACCEPTANCE BY THE OWNER OR LANDSCAPE ARCHITECT AT THE NURSERY SOURCE OR PLACE OF GROWTH. THE CONTRACTOR SHALL COORDINATE WITH THE LANDSCAPE ARCHITECT ON A SCHEDULE FOR SOURCE VISITS AND ACCOMPANY THE OWNER OR LANDSCAPE ARCHITECT FOR ALL SOURCE INSPECTIONS. CERTIFICATES OF COMPLIANCE ARE REQUIRED FOR ALL PLANT MATERIALS.
PHOTOGRAPHIC REVIEW OF PLANT MATERIAL IS ACCEPTABLE IF APPROVED BY LANDSCAPE ARCHITECT. PHOTOGRAPHS MUST BE PROVIDED IN QUANTITY AND VARIETY TO ALLOW LANDSCAPE ARCHITECT SUFFICIENT INFORMATION TO MAKE A REASONABLE DETERMINATION AS TO THE PLANTS' QUALITY. OWNER AND LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT PLANT MATERIAL DELIVERED TO THE SITE BUT PREVIOUSLY ACCEPTED IF DAMAGED OR NOT PROPERLY MAINTAINED DURING THE DELIVERY PROCESS.

15. PLANTING SEASONS (UNLESS OTHERWISE APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT)

	SPRING	FALL
EVERGREEN TREES AND SHRUBS	APRIL 1 TO JUNE 15	SEPTEMBER 1 TO OCTOBER 15
SEED MIXES	PER MANUFACTURERS RECOMMENDATIONS OR AS LISTED IN SEED MIX NOTES	

16. SEEDING MIXTURES:
SEE SEED MIX NOTES. SEEDED AREA SHALL BE ACCEPTED WHEN SEED AREA ACHIEVES 90% COVERAGE.

17. ALL SLOPES STEEPER THAN 3:1 RECEIVING A SEED MIX SHALL BE COVERED WITH AN EROSION CONTROL BLANKET OF STRAW FIBER AND BIODEGRADABLE OR PHOTODEGRADABLE NETTING.

18. UNLESS OTHERWISE NOTED IN DRAWING SET, NEW TREELINES SHALL EQUAL CLEARING AND GRUBBING LIMIT FOR CONSTRUCTION.

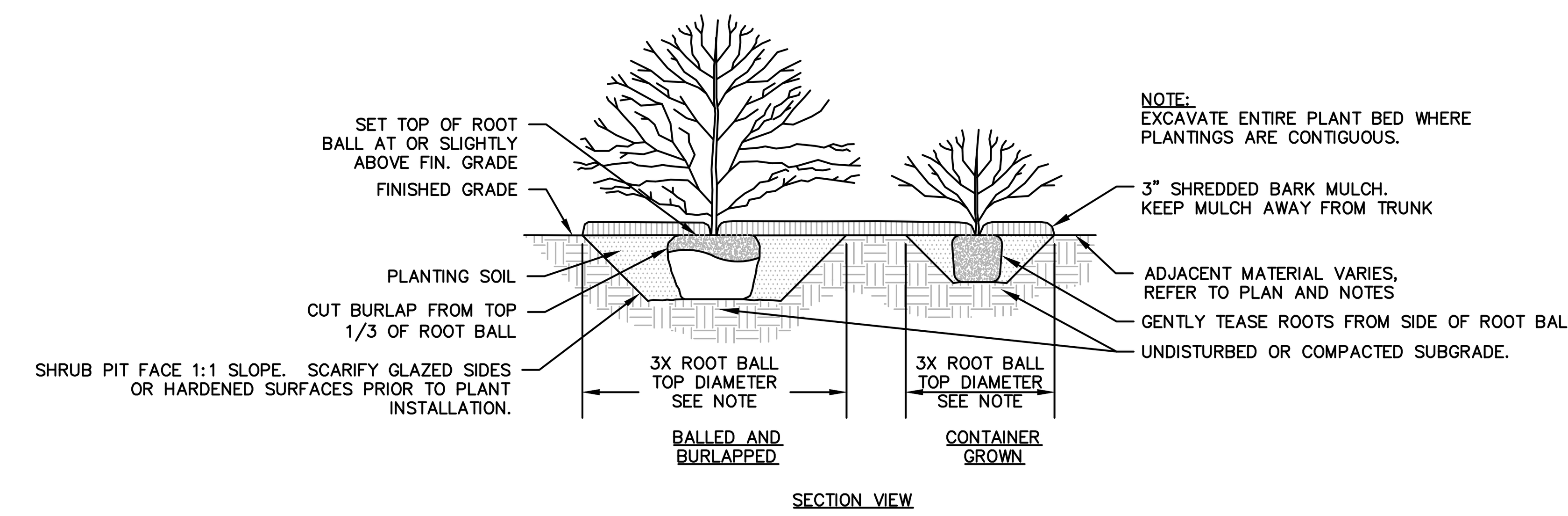
ALL DISTURBED AREAS NOT OTHERWISE DEVELOPED SHALL BE SEEDED WITH THE CONSERVATION SEED MIX.

SEED MIX NOTES

CONSERVATION SEED MIX –
NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DRY SITES
NEW ENGLAND WETLAND PLANTS INC. OR APPROVED EQUAL

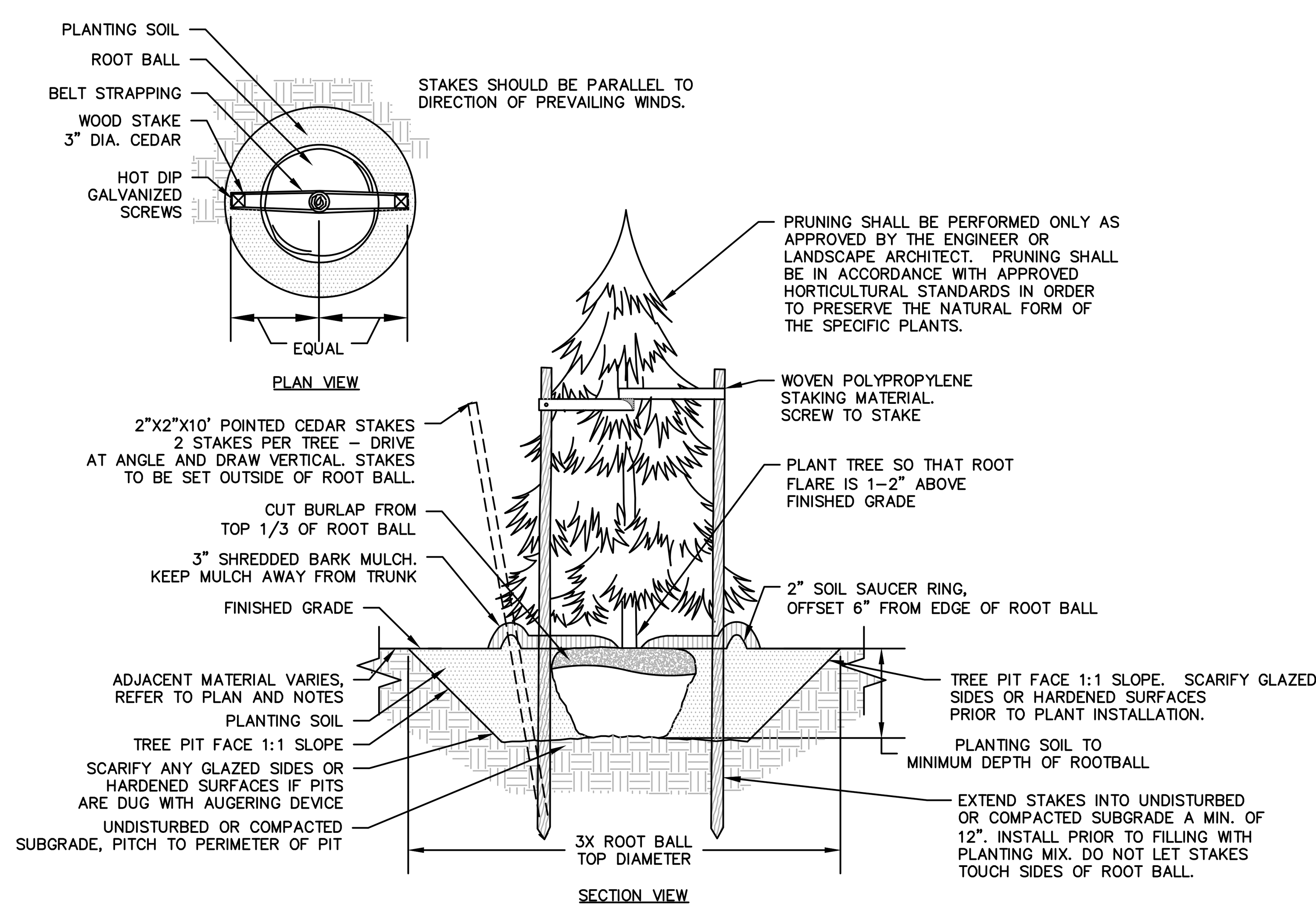
SPECIES: VIRGINIA WILD RYE (ELYMUS VIRGINICUS), LOLIUM MULTIFLORUM (ANNUAL RYEGRASS), LOLIUM PERENNE (PERENNIAL RYEGRASS), LITTLE BLUESTEM (SCHIZACHYRIUM SCOPARIUM), RED FESCUE (FESTUCA RUBRA), SWITCH GRASS (PANICUM VIRGATUM), INDIAN GRASS (SORGHASTRUM NUTANS), UPLAND BENTGRASS (AGROSTIS PERENNANS).

APPLICATION RATE: 35 LBS/ ACRE (1 LB PER 1,250 SF)



SHRUB PLANTING

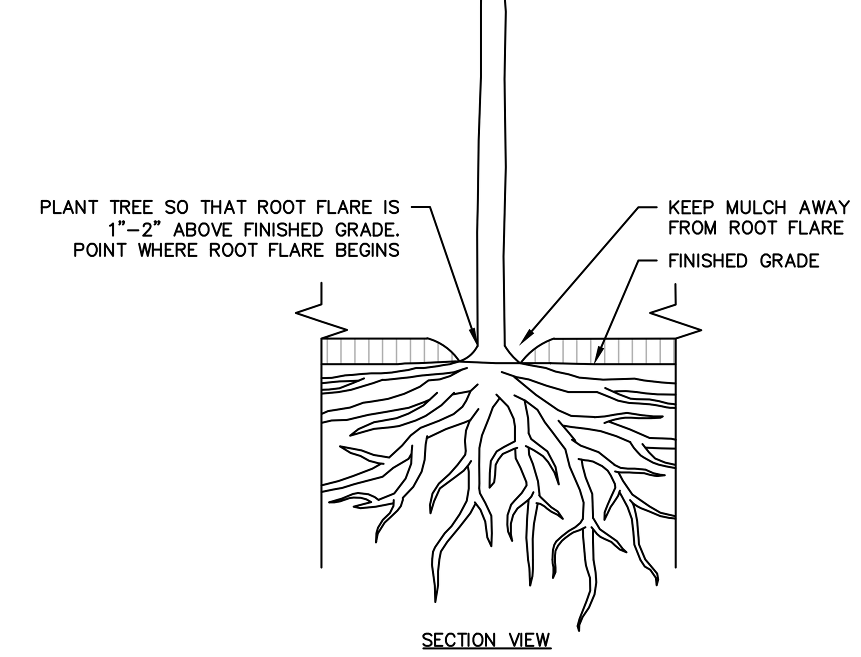
N.T.S



NOTES:
1. STAKING FOR TREES ON 4:1 SLOPES OR LESS TO BE PERFORMED AT CONTRACTOR'S DISCRETION.
2. WOVEN POLYPROPYLENE STAKING MATERIAL SHALL BE DEEPROOT ARBORTIE (GREEN) OR APPROVED EQUIVALENT. MATERIAL SHALL BE LOOPED AROUND TREE THROUGH EACH OTHER, TWISTED, AND SECURED TO THE STAKE. INSTALL SPECIFIED MATERIAL IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS.
3. BEFORE IN HOLE, REMOVE BOTTOM OF CAGE. ONCE IN HOLE, REMOVE REST OF CAGE FROM ROOT BALL. REMOVE TWINE AND BURLAP FROM TOP 1/3 OF ROOT BALL – SCORE REMAINING 2/3 OF BURLAP. IF BURLAP IS SYNTHETIC OR HAS BEEN TREATED WITH ANTI-DESSICENT, COMPLETELY REMOVE IT FROM ROOT BALL.

EVERGREEN TREE PLANTING

N.T.S



ROOT FLARE DIAGRAM

N.T.S

PHOTOVOLTAIC INSTALLATION
700 MIDDLETOWN AVENUE
NORTH HAVEN, CONNECTICUT

Architecture
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REVISIONS No.	Date	Desc.

	J.P.E.
Designed	J.P.E.
Drawn	M.P.S.
Reviewed	M.P.S.
Scale	
Project No.	17D3516
Date	04/06/2018
CAD File:	LL17D351601

Title
LANDSCAPE NOTES AND DETAILS

Sheet No.
LL-3

Xref (s): ; XY17D351601 ; XC17D351601 ; BD17D351601 ; XZ17D351601 ; XL17D351601

4/5/2018, LWHOLEY, G:\JOBS17\17D\17D3516\DWG\LL17D351601.DWG,LL-3 24X36.

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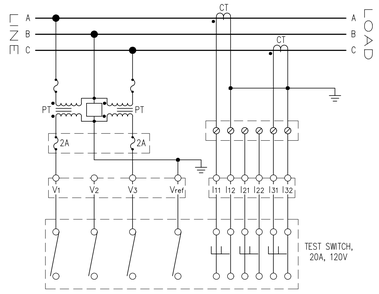
FOR INTERCONNECTION APPLICATION PURPOSES.
NOT FOR CONSTRUCTION.

RISER DIAGRAM GENERAL NOTES:

1. WORK ASSOCIATED WITH THIS SCOPE SHALL BE PERFORMED BY A CONTRACTOR WHO IS LICENSED IN THE STATE OF THE PROJECT TO INSTALL PHOTOVOLTAIC SYSTEMS.
2. ALL WORK SHALL BE IN STRICT ACCORDANCE WITH THE LATEST ADOPTED VERSIONS OF ALL LOCAL, STATE, AND NATIONAL CODES, INCLUDING ALL ORDINANCES AND LAWS APPLICABLE TO THIS JURISDICTION.
3. ALL CONNECTIONS AND CONFIGURATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S WIRING DIAGRAMS AND INSTALLATION INSTRUCTIONS.
4. POLARITY OF ALL COMPONENTS SHALL MATCH DESIGNATIONS AS DIRECTED BY MANUFACTURER'S REPRESENTATIVE.
5. SET INVERTER OVER/UNDER FREQUENCY SETTINGS AND OVER/UNDER VOLTAGE SETTINGS TO VALUES NOTED IN TABLES ON THIS SHEET.
6. SET PRIMARY SWITCH.
7. PADMOUNTED UNDERGROUND DISTRIBUTION SWITCHGEAR S&C VISTA SWITCHGEAR OR EQUIVALENT, 15KV SYSTEM CLASS, 95BIL, 3 PHASE, 600A MAXIMUM CONTINUOUS CURRENT. SEE ONE-LINE DIAGRAM FOR ADDITIONAL REQUIREMENTS.
8. PADMOUNTED METERING ENCLOSURE PER UTILITY COMPANY REQUIREMENTS, 15KV NOMINAL VOLTAGE, 600 AMPERE CONTINUOUS RATING, 95kV BIL, CT RATED TO BE 300:5 WITH 0.3% ACCURACY AND THE PT RATED TO BE 8kV:120V.
9. EXISTING UTILITY VOLTAGE SHOWN IS ASSUMED, AND SHALL BE VERIFIED DURING THE DESIGN PHASE.



1 **TYPICAL 3-LINE UTILITY METER WIRING SCHEMATIC**
SCALE: N.T.S.

LEGEND

	CIRCUIT BREAKER
	TRANSFORMER
PT'S	POTENTIAL TRANSFORMER
CT'S	CURRENT TRANSFORMER
	GROUND
	FAULT INTERUPTER
R	RELAY: 27 PROTECTIVE RELAY – UNDER VOLTAGE 59 PROTECTIVE RELAY – OVER VOLTAGE 81O PROTECTIVE RELAY – OVER FREQUENCY 81U PROTECTIVE RELAY – UNDER FREQUENCY 86 PROTECTIVE RELAY – MANUAL RESET LOCKOUT RELAY
R	RELAY
M	MOTOR OPERATOR
INV	INVERTER
A	AMPERES
P	POLES
ø	PHASE
W	WIRE
V	VOLTS
KV	VOLTS x1000
SPD	SURGE PROTECTION DEVICE
LC	LOAD CENTER
KVA	KILO-VOLT AMPERES
	FUSE

SYSTEM INFORMATION

PROJECT TITLE	SOLAR INSTALLATION
AC SYSTEM/DC SYSTEM	4.98 MW AC/ 5.97 MW DC

PRIMARY SWITCH TRIP SETTINGS

BASE VOLTAGE	PROTECTIVE RELAY	TRIP SETTING	VOLTAGE (VAC)	CLEARING TIME (s)
120V	27-1	50%	60.0V	0.16
	27-2	88%	105.6V	2.00
	59-1	110%	132.0V	1.00
	59-2	120%	144.0V	0.16

PRIMARY SWITCH TRIP SETTINGS

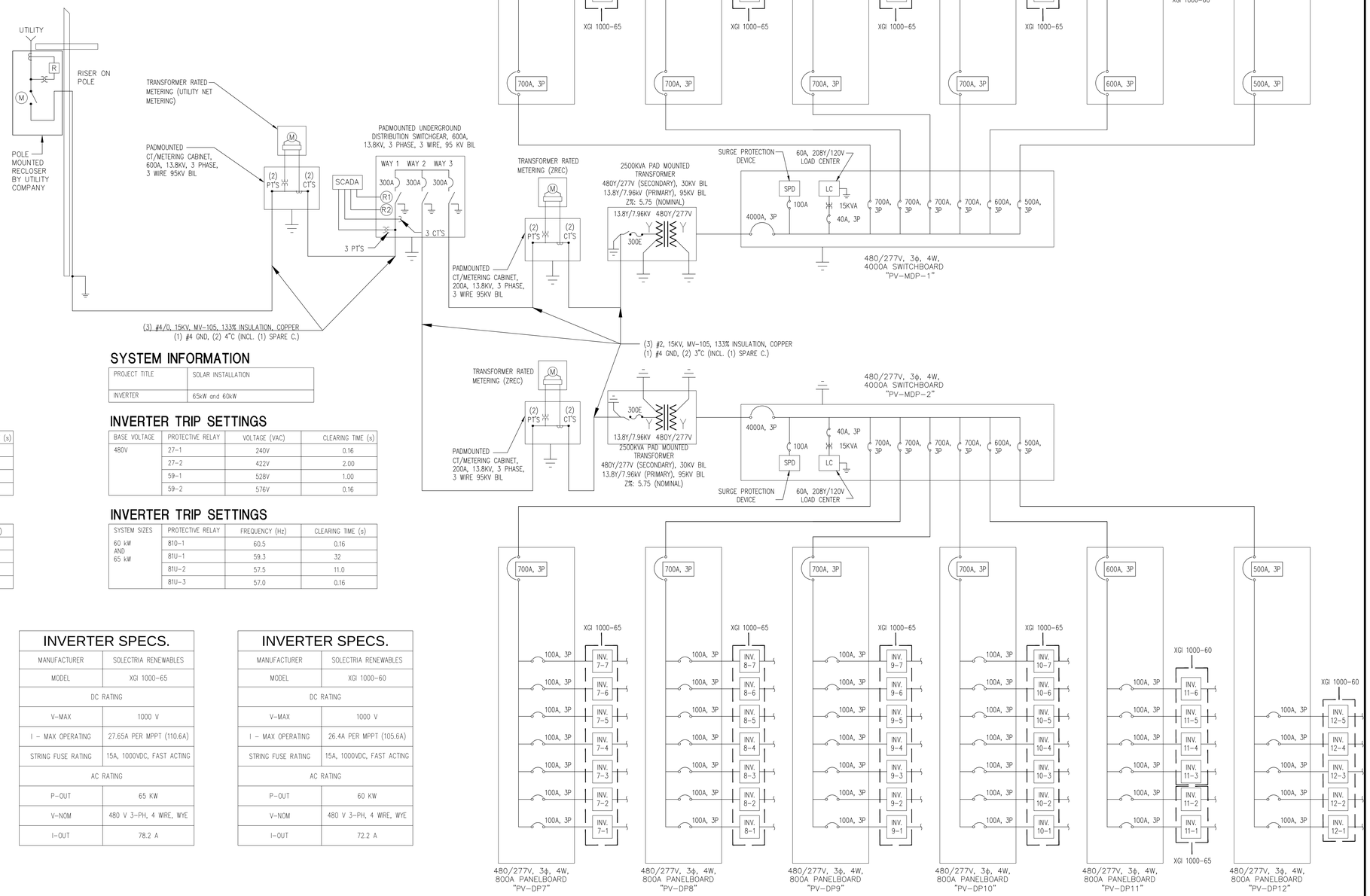
SYSTEM SIZE	PROTECTIVE RELAY	FREQUENCY (Hz)	CLEARING TIME (s)
4.98 MW	81O-1	60.5	0.16
	81U-1	59.3	32
	81U-2	57.5	11.0
	81U-3	57.0	0.16

PV MODULE SPEC

MANUFACTURER	JINKO SOLAR
MODEL	JKM340M-72-V
PEAK POWER WATTS	340W
MAXIMUM POWER VOLTAGE	38.7V
MAXIMUM POWER CURRENT	8.79A
OPEN CIRCUIT VOLTAGE	47.1V
SHORT CIRCUIT CURRENT	9.24A

UTILITY INFORMATION

UTILITY SUBSTATION	VOLTAGE	CIRCUIT NUMBER
QUINNIPIAC	13.8 KV	#1542



SYSTEM INFORMATION

PROJECT TITLE	SOLAR INSTALLATION
INVERTER	65kW and 60kW

INVERTER TRIP SETTINGS

BASE VOLTAGE	PROTECTIVE RELAY	VOLTAGE (VAC)	CLEARING TIME (s)
480V	27-1	240V	0.16
	27-2	422V	2.00
	59-1	528V	1.00
	59-2	576V	0.16

INVERTER TRIP SETTINGS

SYSTEM SIZES	PROTECTIVE RELAY	FREQUENCY (Hz)	CLEARING TIME (s)
60 kW AND 65 kW	81O-1	60.5	0.16
	81U-1	59.3	32
	81U-2	57.5	11.0
	81U-3	57.0	0.16

INVERTER SPECS.

MANUFACTURER	SOLECTRIA RENEWABLES
MODEL	XGI 1000-65
DC RATING	
V-MAX	1000 V
I – MAX OPERATING	27.65A PER MPPT (110.6A)
STRING FUSE RATING	15A, 1000VDC, FAST ACTING
AC RATING	
P-OUT	65 KW
V-NOM	480 V 3-PH, 4 WIRE, WYE
I-OUT	78.2 A

INVERTER SPECS.

MANUFACTURER	SOLECTRIA RENEWABLES
MODEL	XGI 1000-60
DC RATING	
V-MAX	1000 V
I – MAX OPERATING	26.4A PER MPPT (105.6A)
STRING FUSE RATING	15A, 1000VDC, FAST ACTING
AC RATING	
P-OUT	60 KW
V-NOM	480 V 3-PH, 4 WIRE, WYE
I-OUT	72.2 A

2 **ONE LINE POWER DIAGRAM**
SCALE: N.T.S.

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STATE OF CONNECTION — STEVEN M. CZAPIGA — No. 28903 — LICENSED PROFESSIONAL ENGINEER

REVISIONS

No.	Date	Desc.
1.	2/23/18	REVISED PER UI COMMENTS.

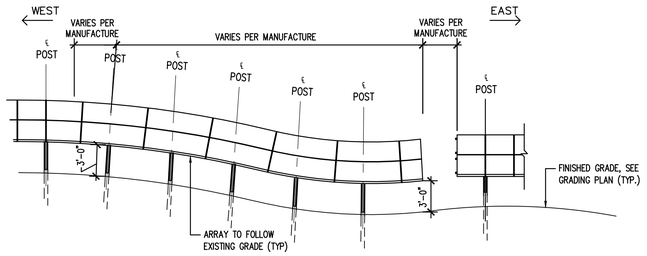
Designed	SC/CJA
Drawn	CJA
Reviewed	SC
Scale	AS NOTED
Project No.	17D3516
Date	07/25/2017
CAD File:	PV17D3516-01

PHOTOVOLTAIC INSTALLATION
700 MIDDLETOWN AVENUE
NORTH HAVEN, CONNECTICUT

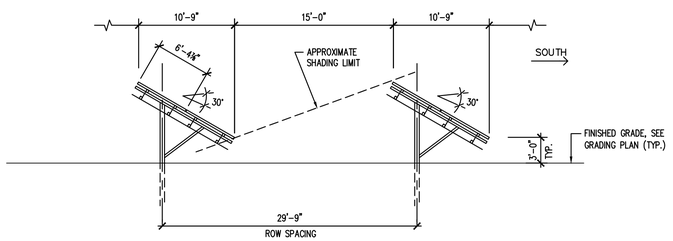
Title: PHOTOVOLTAIC PROTECTION, CONTROL AND SCADA SCHEMATIC

Sheet No.
PV-1

4/5/2018, CHENG, G:\2017\17D3516\DWG\PV17D3516-01CNC.PIP-1
Xref (s): - 1BD17D3502



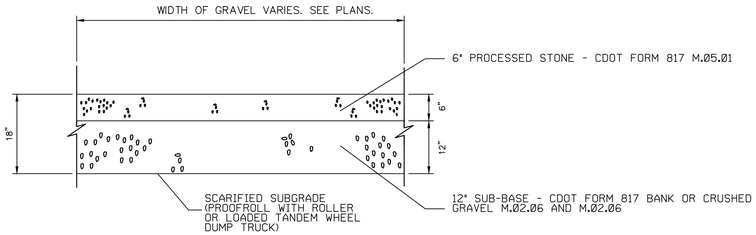
PHOTOVOLTAIC SOUTH ELEVATION -SLOPE VARIES



TYPICAL PHOTOVOLTAIC ROW SPACING

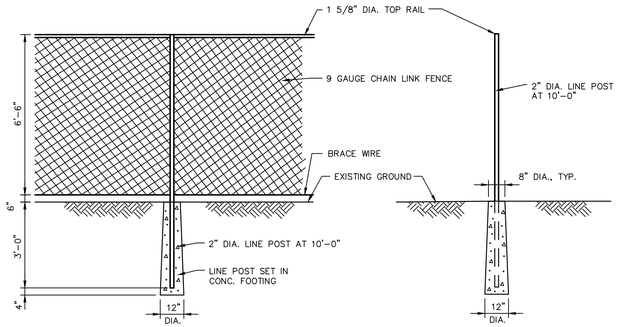
SOLAR PANEL CLUSTER DETAIL

N.T.S



PROPOSED GRAVEL DRIVEWAY

N.T.S

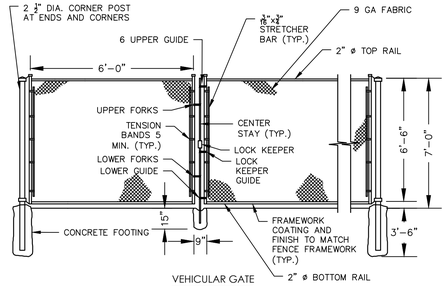


FRONT VIEW

SIDE VIEW

CHAIN LINK FENCE DETAIL

N.T.S



DOUBLE SWING GATE AND POSTS SHALL BE IN ACCORDANCE WITH ASTM F 900.

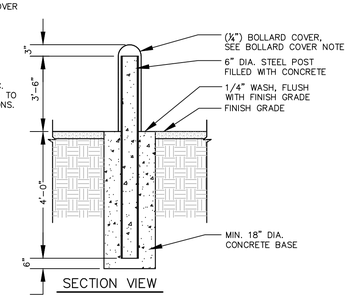
7' HIGH CHAIN LINK FENCE WITH 6' WIDE GATES

N.T.S

BOLLARD COVER NOTE:
MANUFACTURER: IDEALSHIELD®
ADDRESS: 2525 CLARK STREET, DETROIT, MI 48209
PHONE: 1-866-825-8659
MODULE: (¼") 6" BOLLARD COVER
COLOR: DARK GREEN
HEIGHT: 42"

OR APPROVED EQUAL

LAYOUT NOTE:
SPACE BOLLARDS 4' O.C., OFFSET 2' O.C. FROM EDGE OF CONCRETE PADS. REFER TO SE SERIES PLANS FOR BOLLARD LOCATIONS.



SECTION VIEW

BOLLARD AT CONCRETE PADS

N.T.S

GENERAL NOTES

DESIGNED IN ACCORDANCE WITH THE CONNECTICUT STATE BUILDING CODE, CONSISTING OF THE 2003 IBC WITH STATE AMENDMENTS.

IF ANY FIELD CONDITIONS PRECLUDE COMPLIANCE WITH THESE DRAWINGS AND/OR CONDITIONS SPECIFIED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND SHALL NOT PROCEED WITH THE AFFECTED WORK.

TYPICAL DETAILS AND NOTES SHOWN HEREIN SHALL APPLY UNLESS SPECIFICALLY SHOWN OR NOTED OTHERWISE. CONSTRUCTION DETAILS NOT FULLY SHOWN OR NOTED SHALL BE SIMILAR TO DETAILS SHOWN FOR SIMILAR CONDITIONS.

ALL UNDERGROUND UTILITY LOCATIONS SHALL BE VERIFIED PRIOR TO STARTING EXCAVATION WORK. CALL BEFORE YOU DIG (ONE-CALL) 72 HOURS MINIMUM PRIOR TO STARTING ANY EXCAVATION AT 811.

WORK AREAS SHALL BE MARKED, FENCED, AND OTHERWISE SECURED SO AS TO PROVIDE PROPER PROTECTION FOR THE PUBLIC, AND AS REQUIRED BY THE BUILDING INSPECTOR.

CONCRETE PAD DESIGN BASED ON PRESUMPTIVE BEARING VALUES OF THE ANTICIPATED SOILS.

RACKING LOADS:
PROPOSED RACKING SHALL BE DESIGNED BY THE RACKING MANUFACTURER, UTILIZING THE FOLLOWING LOADS:

PROPOSED SOLAR MODULES – 2.5 POUNDS PER SQUARE FOOT

SNOW LOADS:
GROUND SNOW LOAD = 30 PSF (PER CT SUPPLEMENT)
FLAT ROOF SNOW LOAD = 30 PSF (MIN. PER CT SUPPLEMENT)
SLOPED ROOF SNOW LOAD – PER ASCE 7-02
UNBALANCED SNOW LOAD – PER ASCE 7-02

WIND LOADS:
BASIC WIND SPEED (3-SEC. GUST) = 115 MPH (CT AMMENDMENT)
IMPORTANCE FACTOR = 1.0
EXPOSURE = "C"

SEISMIC LOADS:
SEISMIC CATEGORY "B"

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PHOTOVOLTAIC INSTALLATION
700 MIDDLETOWN AVENUE
NORTH HAVEN, CONNECTICUT

REVISIONS
No. Date Desc.

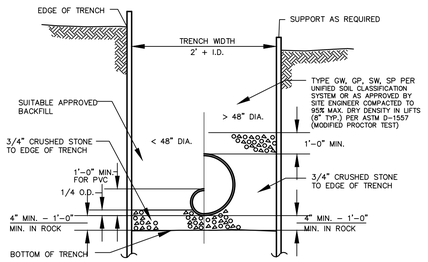
Designed A.J.S.
Drawn A.J.S.
Reviewed J.J.S
Scale NONE
Project No. 1703516
Date 04/06/2018
CAD File: DN1703516O1

Title
DETAIL SHEET

Sheet No.
DN-1

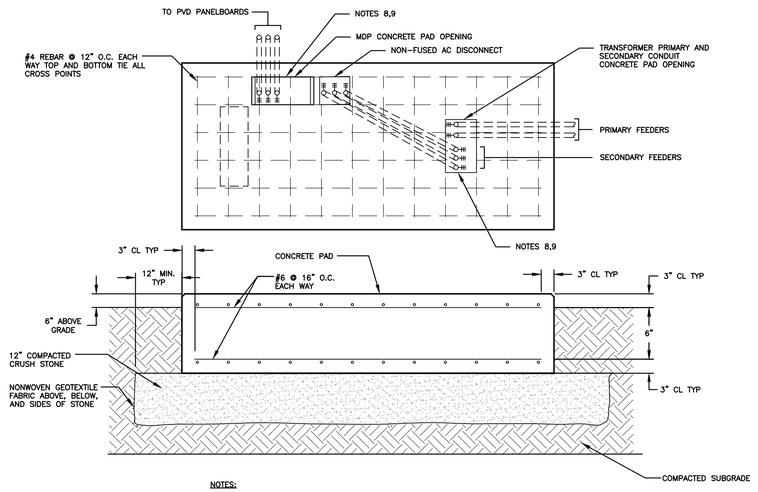
Xref (s): I:\B\1703516-01-24x36\

4/6/2018, ADOWERS, G:\JOBS\17\1703516\DWG\DN\1703516O1.DWG,DN-1, 1:24.00



TYPICAL STORM SEWER TRENCH SECTION

N.T.S



NOTES:

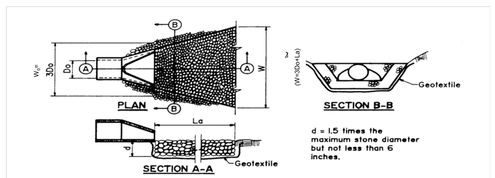
1. INSPECT AND COMPACT ALL SOIL. PROVIDE 12" BASE 3/4" CRUSHED STONE, COMPACTED.
2. ALL EXPOSED EDGES SHALL BE 3/4" CHAMFER.
3. CONCRETE SHALL BE AIR ENTRAINED 5-7%, 4000 PSI @ 28 DAY.
4. LENGTH AND WIDTH OF PAD TO PER MANUFACTURE REQUIREMENTS.
5. ANCHOR EQUIPMENT TO CONCRETE PAD WITH 8-1/2"ø HILTI STAINLESS STEEL KWIK BOLT TZ. PROVIDE QUANTITY OF ANCHORS SPACED EVENLY ON EACH SIDE OF EQUIPMENT AS REQUIRED.
6. THE TOP SURFACE SHALL BE SMOOTH AND LEVEL.
7. THE FOUNDATION SHALL BE INSTALLED ON A FIRM, LEVEL, AND COMPACTED BASE OF 12" OF CRUSHED STONE.
8. RGS CONDUIT SWEEP (36" MIN. BEND RADIUS) INTO EQUIPMENT BASE TYPICAL. SEE ONE-LINE DIAGRAM FOR ADDITIONAL REQUIREMENTS. CONDUIT STUB UPS SHALL BE ARRANGED TO CENTER OF EQUIPMENT COMPARTMENT OPENING AND CLOSEST TO FRONT AS POSSIBLE. COORDINATE REQUIREMENTS WITH APPROVED EQUIPMENT SHOP DRAWINGS. PROVIDE BELL END FITTING AT THE END OF EACH CONDUIT SWEEP.
9. GROUNDING BUSHING AT END OF RGS CONDUIT SWEEP. #2 BARE COPPER GROUNDING CONDUCTOR. BOND TO CONDUIT GROUNDING BUSHING AND EQUIPMENT GROUND BUS BY MECHANICAL MEANS. (TYPICAL FOR EACH CONDUIT).
10. COORDINATE EXACT CONCRETE PAD OPENINGS WITH APPROVED EQUIPMENT SHOP DRAWINGS.
11. ALL SPARE CONDUITS SHALL HAVE NEPTCO WL 1800 WOVEN 3/8" (ARAMID) MULE TAPE AND SHALL BE SEALED FOR WATER TIGHT SEAL AT BOTH ENDS OF CONDUIT.

TYPICAL PHOTOVOLTAIC SYSTEM EQUIPMENT CONCRETE PAD DETAIL

N.T.S

Riprap Apron Outlet Protection (Maximum Tailwater Condition)

PROJECT NAME:	Greenskies Renewable Energy		
LOCATION:	North Haven, CT		
PREPARED BY:	A. Schafer	DATE:	3/22/2018
LAST REVISED BY:		DATE:	

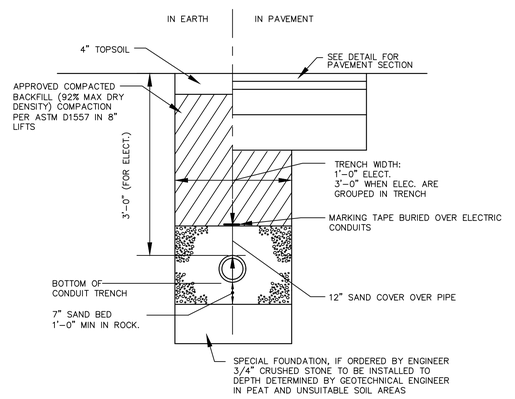


OUTLET NO.	PIPE DIA. Do (in.)	Q (CFS)	W_a (in)	d_{50} STONE SIZE (IN.)	q	La (ft)	W (ft)	T_w	d_{MAX} (in)	INV.
FES-01B	12	3.38	36	3	1.1	3.4	10.4	3.60	5	82.00
FES-02B	24	18.03	72	3	3.0	6.4	20.5	3.03	5	76.42
FES-03B	30	28.86	90	3	3.8	7.3	25.4	1.12	5	66.77
FES-04B	24	21.55	72	3	3.6	7.6	21.0	3.53	5	63.72

The design Q used shall be the 50-year storm discharge rate

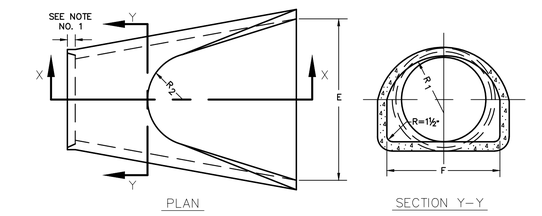
RIPRAP OUTLET PROTECTION

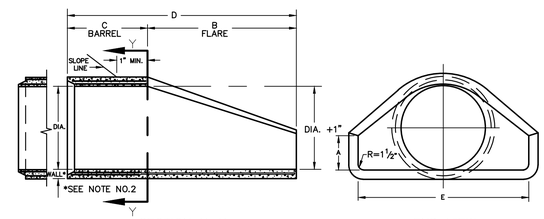
N.T.S



ELECTRICAL TRENCH DETAIL

N.T.S





NOTES

1. JOINT SHALL BE TONGUE AND GROOVE OR BELL AND SPIGOT AS REQUIRED TO CONFORM TO PIPE INSTALLED.
2. WALL THICKNESS SHALL CONFORM TO PIPE THICKNESS.

DIMENSIONS FOR REINFORCED CONCRETE CULVERT END									FLARE REINFORCEMENT	
DIA.	A	B	C	D	E	F	R_1	R_2	ONE LAYER ONLY IN CENTER OF WALL MIN. AREA OF LONGITUDINALS SQ. IN PER FT.	MIN. AREA OF TRANSVERSE STEEL SQ. IN PER FT.
12"	4"	2'-0"	4'-0⅜"	0'-0⅜"	2'-0"	1'-7⅝"	10⅛"	9"	0.048	0.048
15"	6"	2'-3"	3'-10"	6'-1"	2'-6"	2'-0⅝"	1'-0⅞"	11"	0.054	0.054
18"	9"	2'-3"	3'-10"	6'-1"	3'-0"	2'-3"	1'-3⅝"	1'-0"	0.060	0.060
21"	9"	2'-11"	3'-3"	6'-1"	3'-6"	2'-7½"	1'-4"	1'-1"	0.066	0.066
24"	9½"	3'-7½"	2'-8"	6'-1½"	4'-0"	2'-9¼"	1'-4⅝"	1'-2"	0.072	0.072
30"	1'-0"	4'-8"	1'-7⅝"	6'-1⅝"	5'-0"	3'-1"	1'-6½"	1'-3"	0.084	0.084
36"	1'-3"	5'-3"	2'-10⅝"	6'-1⅝"	6'-0"	3'-11⅜"	1'-9⅝"	1'-8"	0.096	0.096
42"	1'-6"	5'-3"	2'-11"	8'-2"	6'-6"	4'-3⅞"	2'-1½"	1'-10"	0.108	0.108
48"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	4'-8½"	2'-4½"	1'-10"	0.120	0.120
54"	2'-3"	5'-5"	2'-11"	8'-4"	7'-6"	5'-5½"	2'-9½"	2'-0"	0.132	0.132
60"	2'-6"	5'-0"	3'-3"	8'-5"	8'-0"	6'-0½"	3'-0⅝"	2'-0"	0.144	0.144

REINFORCED CONCRETE CULVERT END

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PHOTOVOLTAIC INSTALLATION
700 MIDDLETOWN AVENUE
NORTH HAVEN, CONNECTICUT

REVISIONS

No.	Date	Desc.

Designed	A.J.S.
Drawn	A.J.S.
Reviewed	J.J.S.
Scale	NONE
Project No.	1703516
Date	04/06/2018
CAD File:	DN1703516.01

Title

DETAIL SHEET

Sheet No.

DN-2

Xref (s) : BD1703516-01-24x36

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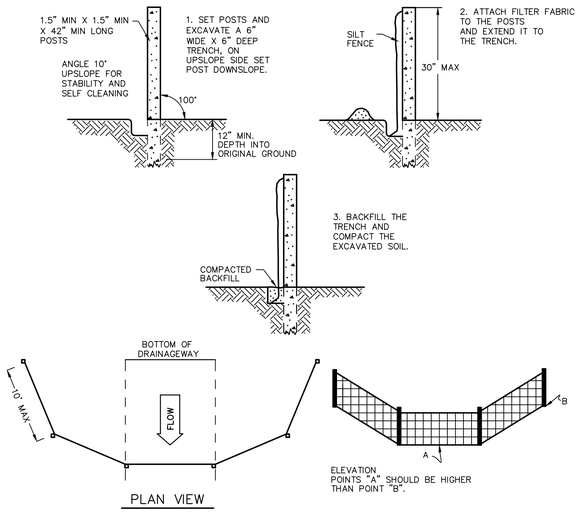
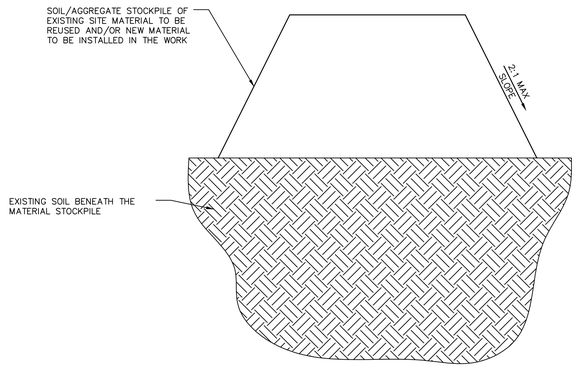
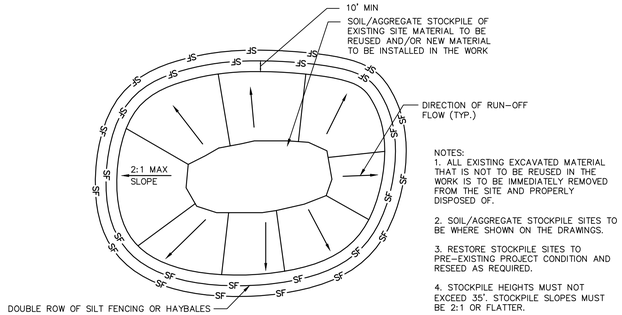


SILT FENCE BARRIER

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.

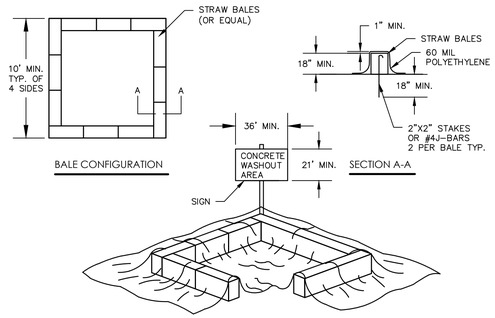
2. SOIL/AGGREGATE STOCKPILE SITES TO BE WHERE SHOWN ON THE DRAWINGS.

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.

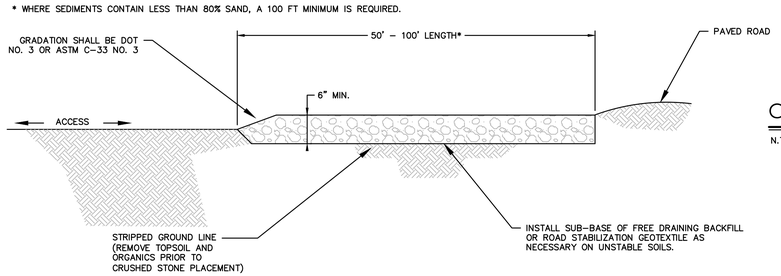
MATERIALS STOCKPILE DETAILS

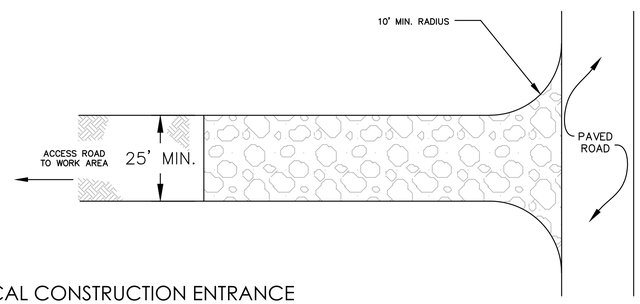
N.T.S



CONCRETE WASH PIT

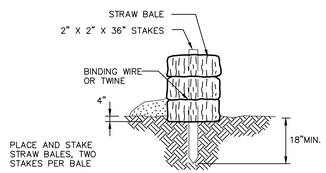
N.T.S





TYPICAL CONSTRUCTION ENTRANCE

N.T.S



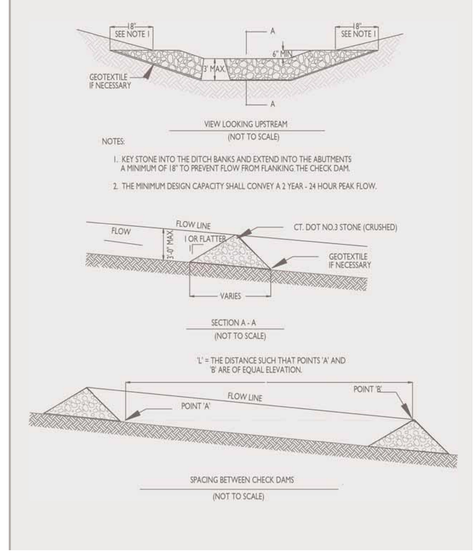
STRAW BALE BARRIERS SHOULD NOT BE USED FOR MORE THAN 3 MONTHS

SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE ABOVE GROUND HEIGHT OF THE BARRIER.

ANY SECTION OF STRAW BALE BARRIER WHICH HAS BEEN UNDERMINED OR TOPPED MUST BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET.

STRAW BALE DETAIL

N.T.S



STONE (ROCK) CHECK DAM DETAIL

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700 MIDDLETOWN AVENUE
NORTH HAVEN, CONNECTICUT

No.	Date	Desc.

Designed	A.J.S.
Drawn	A.J.S.
Reviewed	J.J.S
Scale	NONE
Project No.	17D3516
Date	04/06/2018
CAD File:	DN17D351601

Title

DETAILS SHEET

Sheet No.

DN-3

Xref (s) : B017D3516-01-24x36

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