

PROJECT TEAM

RECORD OWNER

DAVIS FARMS TRUST
P.O. BOX 305
BOLTON, MA 01740

RECORD APPLICANT

SYNCARPHA STILL RIVER, LLC.
645 MADISON AVENUE, 14TH FLOOR
NEW YORK, NY 10022

RENEWABLE ENERGY MASSACHUSETTS, LLC.
17 ARLINGTON STREET
CAMBRIDGE, MA 02140

LAND PLANNERS/CIVIL ENGINEER

BEALS ASSOCIATES, INC.
2 THIRTEENTH STREET
CHARLESTOWN, MA 02129

ELECTRICAL ENGINEERS

POWER ENGINEERS, LLC.
37 FOX DEN ROAD
KINGSTON, MA 02364-2150

SITE PLAN APPROVAL/SPECIAL PERMIT PLANS FOR BOLTON 2 SOLAR PROJECT 125 STILL RIVER ROAD - LOT 2A BOLTON, MASSACHUSETTS



LOCUS MAP

SCALE: 1" = 500'

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C-763.01

ORIGINAL ISSUE DATE:
APRIL 3, 2015

SCALE:
N.T.S.

REVISIONS:	DATE:
CONTROL PLANS	5.20.15

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PATH:S:\Data\C-763.01 Bolton\Autocad\Special Permit\Bolton Solar Array
Special Permit Planset 4.1.15.DWG

GENERAL NOTES:

- NO DRAWINGS ISSUED ELECTRONICALLY SHALL BE USED FOR CONSTRUCTION PURPOSES. ALL ELECTRONIC MEDIA IS PROVIDED OUT OF COURTESY ONLY AND MAY NOT BE USED FOR PUBLICATION, DISTRIBUTION OR ADAPTATION WITHOUT EXPRESS WRITTEN CONSENT FROM BEALS ASSOCIATES, INC.
- THESE PLANS AND SPECIFICATIONS ARE INTENDED TO BE EXPLANATORY OF THE WORK TO BE COMPLETED AND OF EACH OTHER. SHOULD ANY OMISSION, ERROR, OR DISCREPANCIES APPEAR, THEY SHALL BE SUBJECT TO CORRECTION AND INTERPRETATION BY THE DESIGN ENGINEER, THEREBY DEFINING AND FULFILLING THE INTENT OF THE PLANS.
- NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES IN THE DOCUMENTS. WORK THAT PROCEEDS WITHOUT NOTIFYING THE ENGINEER IS AT THE CONTRACTOR'S OWN RISK. COSTS OF ANY CHANGES REQUIRED BY THE ENGINEER OF SAID WORK SHALL BE SOLELY BORNE BY THE CONTRACTOR.
- WHERE THE EXISTING UTILITIES ARE FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
- ALL CONSTRUCTION SHALL CONFORM TO ALL CODES AND REGULATIONS HAVING JURISDICTION OVER THIS PROJECT, INCLUDING BUT NOT LIMITED TO THE COMMONWEALTH OF MASSACHUSETTS BUILDING CODE, ADA, ETC.
- ALL EXISTING UTILITIES SHOWN ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED PRIOR TO CONSTRUCTION ACTIVITIES.
- ALL WORK SHALL BE PERFORMED WITH THE HIGHEST STANDARDS OF THE INDUSTRY.
- THE CONTRACTOR SHALL DISPOSE OF HAZARDOUS MATERIALS AND CONSTRUCTION BY-PRODUCTS IN COMPLIANCE WITH LOCAL, STATE, AND FEDERAL LAWS.
- THE CONTRACTOR SHALL AT ALL TIMES KEEP THE SITE CLEAR OF ACCUMULATED WASTE MATERIALS OR RUBBISH GENERATED BY THEIR ACTIVITIES. UPON COMPLETION OF WORK, ALL DEBRIS, SUPPLIES, AND EQUIPMENT SHALL BE REMOVED.
- THE CONTRACTOR SHALL VISIT THE SITE AND DETERMINE ALL BASE BUILDING CONDITIONS PRIOR TO COMMENCING WORK.
- PRIOR TO CONSTRUCTION, CONTRACTORS SHALL SUBMIT A JOB SCHEDULE TO BE DISCUSSED AND PERFORMED IN ACCORDANCE WITH TARGET DATES PROVIDED AND SUBJECT TO OWNER APPROVAL.
- UNLESS OTHERWISE NOTED, WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS.
- LATERAL DISTANCE TO ALL BUFFER ZONES AND CRITICAL AREAS TO BE VERIFIED PRIOR TO CONSTRUCTION ACTIVITIES.
- AT THE PERIMETER OF NEW CONSTRUCTION ACTIVITIES, THE PROPOSED CONDITION SHALL MEET WITH THE EXISTING CONDITIONS UNLESS OTHERWISE NOTED.
- AREAS OUTSIDE OF THE LIMIT OF WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
- PROPOSED UTILITIES INSTALLED BY PRIVATE UTILITY COMPANIES, SUCH AS GAS, ELECTRIC AND TELEPHONE, SHALL BE SUBJECT TO ALTERATION AND ADJUSTMENT. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION COORDINATION WITH THE INSTALLERS.
- UNLESS OTHERWISE NOTED, LOAM AND SEED ALL DISTURBED AREAS.
- SEDIMENT DEPOSITED IN ANY DRAINAGE SYSTEM SHALL BE REMOVED BY THE CONTRACTOR UPON COMPLETION OF CONSTRUCTION ACTIVITIES.
- EROSION AND SEDIMENTATION CONTROL DEVICES TO BE INSTALLED DOWN-GRADIENT OF THE LIMIT OF WORK AND/OR AS SHOWN ON THE PLANS AS NECESSARY.
- ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO CONSTRUCTION. EROSION CONTROL SHALL DENOTE THE LIMIT OF WORK UNLESS OTHERWISE NOTED.
- ALL PROPOSED WORK AND MATERIALS LOCATED WITHIN THE PUBLIC RIGHT OF WAY SHALL CONFORM TO THE CITY/TOWN STANDARDS AND REGULATIONS. A STREET OPENING PERMIT SHALL BE OBTAINED FOR ALL SUCH WORK AS NECESSARY.
- ANY DISCREPANCIES IN EXISTING CONDITIONS WILL BE REPORTED BY THE CONTRACTOR TO THE DESIGN ENGINEER PRIOR TO ADDITIONAL CONSTRUCTION ACTIVITIES.
- TOPOGRAPHY SHALL BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION.

PLAN NOTES:

- PROPERTY LINE DATA COMPILED FROM MULTIPLE SOURCES INCLUDING, BUT NOT LIMITED TO WORCESTER COUNTY REGISTRY OF DEEDS, TOWN OF BOLTON ASSESSOR'S DATA AND PLANS OBTAINED FROM DAVID E. ROSS ASSOCIATES PREPARED FOR THE CURRENT OWNER. FOR ADDITIONAL INFORMATION, REFER TO PLAN OF LAND, APPROVAL NOT REQUIRED PLAN, PREPARED BY DAVID E. ROSS ASSOCIATES, SUBMITTED UNDER SEPARATE COVER.
- TOPOGRAPHIC INFORMATION OBTAINED FROM STATE OF MASSACHUSETTS GIS DATA, GOOGLE EARTH DATA, DAVID E. ROSS ASSOCIATES SURVEY DATA AND OTHER SOURCES FROM THE WORCESTER COUNTY REGISTRY OF DEEDS AND IS NOT THE RESULT OF A COMPREHENSIVE ON THE GROUND TOPOGRAPHIC SURVEY.
- BENCHMARK TO BE ESTABLISHED IN THE FIELD PRIOR TO CONSTRUCTION.
- THE PROJECT SITE DOES NOT APPEAR TO BE WITHIN ANY REGULATED NATURAL RESOURCE AREAS OR THEIR BUFFERS BASED ON MASSACHUSETTS GIS DATA AND FIELD REVIEWS CONDUCTED DURING DECEMBER, 2011 BY BEALS ASSOCIATES, INC. STAFF.
- THE PROJECT SITE IS NOT WITHIN NATURAL HERITAGE ESTIMATED OR PRIORITY HABITAT AREAS BASED ON THE CURRENT NATURAL HERITAGE MAPPING.
- THE PROPERTY IS NOT LOCATED WITHIN MAPPED FLOOD ZONES BASED ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP FOR WORCESTER COUNTY, MASSACHUSETTS, PANEL 459 OF 1075, MAP NUMBER 25027C0459E EFFECTIVE JULY 4, 2011.
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- ANY DISCREPANCIES IN EXISTING CONDITIONS SHALL BE REPORTED TO BY THE CONTRACTOR TO THE DESIGN ENGINEER PRIOR TO ADDITIONAL CONSTRUCTION ACTIVITIES.
- UPON CONCLUSION OF THE OPERATION OF THE SOLAR ENERGY FACILITY ALL SURFACE AND SUBSURFACE UTILITIES AND IMPROVEMENTS SHALL BE REMOVED. SITE CONDITIONS SHALL BE RESTORED TO PREDEVELOPMENT CONDITIONS, INCLUDING RESTORATION OF THE LAND TO AGRICULTURAL CONDITIONS.

LOT REQUIREMENTS:

A COMMERCIAL SOLAR PHOTOVOLTAIC RENEWABLE ENERGY INSTALLATION MAY BE PERMITTED ON A LOT WHICH CONTAINS AN AREA NOT LESS THAN FOUR ACRES AND MEETS SETBACKS AND MAXIMUM LOT COVERAGE UNDER "OTHER USES" OF THE DIMENSIONAL REGULATIONS IN §250-13.

THE TOTAL AREA OF LOT 2A IS 48.00 ACRES, WHICH IS IN EXCESS OF THE REQUIREMENT OF FOUR (4) ACRES. CONFORMANCE TO §250-13 IS DEMONSTRATED IN THE TABLE BELOW:

CRITERIA	REQUIRED	PROVIDED
MINIMUM FRONTAGE	200 FEET	1,721.2 FEET
MINIMUM FRONT YARD	150 FEET	242.5 FEET
MINIMUM OTHER YARDS	50 FEET	16 FEET (SEE VARIANCE)
MINIMUM LOT WIDTH AT 100' DEPTH	150 FEET	276.1 FEET
MAXIMUM LOT COVERAGE (BUILDINGS/IMPERVIOUS)	8% / 50%	1.0% / 3.4%

A VARIANCE REQUEST WAS HEARD AND APPROVED BY THE TOWN OF BOLTON ZONING BOARD OF APPEALS TO ALLOW THE SIDE YARD SETBACK FOR LOT 2A TO BE REDUCED TO ZERO ALONG THE COMMON BOUNDARY BETWEEN LOT 1A AND LOT 2A. A COPY OF THE ZBA APPROVAL IS INCLUDED IN ATTACHMENT E OF THE NARRATIVE.

ABANDONMENT AND REMOVAL:

ABANDONMENT:
 ABSENT NOTICE OF A PROPOSED DATE OF DECOMMISSIONING OR WRITTEN NOTICE OF EXTENUATING CIRCUMSTANCES, THE COMMERCIAL SOLAR PHOTOVOLTAIC RENEWABLE ENERGY INSTALLATION SHALL BE CONSIDERED ABANDONED WHEN IT FAILS TO OPERATE FOR MORE THAN ONE YEAR WITHOUT THE WRITTEN CONSENT OF THE SPECIAL PERMIT AND SITE PLAN APPROVAL GRANTING AUTHORITIES. IF THE OWNER OR OPERATOR OF THE COMMERCIAL SOLAR PHOTOVOLTAIC RENEWABLE ENERGY INSTALLATION FAILS TO REMOVE THE INSTALLATION IN ACCORDANCE WITH THE REQUIREMENTS OF THIS SECTION WITHIN 150 DAYS OF ABANDONMENT OR THE PROPOSED DATE OF DECOMMISSIONING THE TOWN MAY ENTER THE PROPERTY AND PHYSICALLY REMOVE THE INSTALLATION.

REMOVAL REQUIREMENTS:
 ANY COMMERCIAL SOLAR PHOTOVOLTAIC RENEWABLE ENERGY INSTALLATION WHICH HAS REACHED THE END OF ITS USEFUL LIFE OR HAS BEEN ABANDONED SHALL BE REMOVED. THE OWNER OR OPERATOR SHALL PHYSICALLY REMOVE THE INSTALLATION NO MORE THAN 150 DAYS AFTER THE DATE OF DISCONTINUED OPERATIONS. THE OWNER OR OPERATOR SHALL NOTIFY THE SPECIAL PERMIT AND SITE PLAN APPROVAL GRANTING AUTHORITIES BY CERTIFIED MAIL OF THE PROPOSED DATE OF DISCONTINUED OPERATIONS AND PLANS FOR REMOVAL.

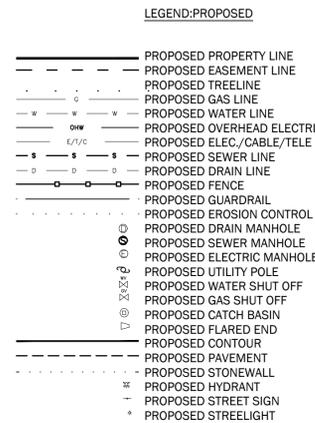
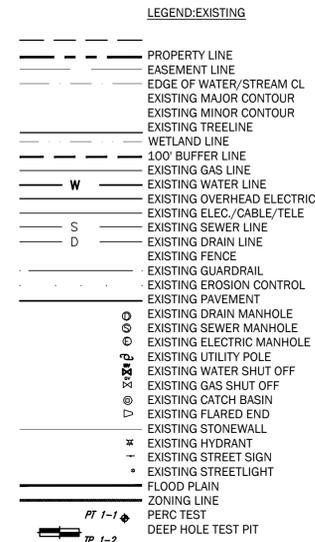
DECOMMISSIONING SHALL CONSIST OF:
 PHYSICAL REMOVAL OF ALL COMMERCIAL SOLAR PHOTOVOLTAIC RENEWABLE ENERGY INSTALLATION STRUCTURES, EQUIPMENT, SECURITY BARRIERS, AND TRANSMISSION LINES FROM THE SITE.

DISPOSAL OF ALL SOLID AND HAZARDOUS WASTE IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL WASTE DISPOSAL REGULATIONS.

STABILIZATION OR REVEGETATION OF THE SITE AS NECESSARY TO MINIMIZE EROSION. THE SPECIAL PERMIT AND SITE PLAN APPROVAL GRANTING AUTHORITIES MAY ALLOW THE OWNER OR OPERATOR TO LEAVE LANDSCAPING OR DESIGNATED BELOW-GRADE FOUNDATIONS IN ORDER TO MINIMIZE EROSION AND DISRUPTION TO VEGETATION.

FINANCIAL SURETY:

PRIOR TO THE ISSUANCE OF A BUILDING PERMIT, THE APPLICANT SHALL PROVIDE A NON-CANCELLABLE SURETY BOND OR OTHER FORM OF SURETY APPROVED BY THE PLANNING BOARD, IN AN AMOUNT DETERMINED TO BE ADEQUATE BY THE PLANNING BOARD TO COVER THE COST OF REMOVAL AND SITE RESTORATION. THE APPLICANT SHALL SUBMIT A FULLY INCLUSIVE ESTIMATE OF THE COSTS ASSOCIATED WITH REMOVAL, PREPARED BY A QUALIFIED ENGINEER. THE AMOUNT SHALL INCLUDE AN ESCALATOR FOR CALCULATING INCREASED REMOVAL COSTS DUE TO INFLATION. THE SURETY SHALL BE MAINTAINED BY THE DEVELOPERS FOR THE LIFE SPAN OF THE FACILITY, WITH ANNUAL CERTIFICATION NOTICES FROM THE SURETY COMPANY SUBMITTED TO THE PLANNING BOARD.



Construction Sequence - Solar Energy Facility
125 Still River Road Lot 2A
Bolton, MA

Construction of the proposed project will proceed as follows:

- The limit of work line shown on the approved plans will be clearly marked with flags and stakes.
- Install construction entrance and erosion control measures prior to operating heavy equipment on the site.
- Any and all materials associated with the construction of the solar energy facility shall be stockpiled on the site.
- Scarify existing fields and over-sow cover crop of low-growing vegetation (i.e. alfalfa, red clover, white clover, crown vetch, hairy vetch, buckwheat, and birdsfoot trefoil).
- Install construction and maintenance drives as shown on plans.
- Install 8 foot chain link fence (or equal) at limit of work.
- Install supports for photovoltaic panels.
- Install photovoltaic panels.
- Construct electrical conduit connecting panel arrays.
- Construct infrastructure for the collection of electricity generated by the photovoltaic panels (i.e. inverters and transfer station).
- No pesticides, herbicides or fertilizers will be used during the construction or future operation and maintenance of the facility.
- Upon abandonment or discontinued use of the Solar Energy Facility, all surface and subsurface utilities and improvements shall be removed. Site conditions shall be restored to predevelopment conditions, including agricultural conditions.

BOLTON 2 SOLAR PROJECT

Record Owner
Davis Farms Trust
 P.O. Box 305
 Bolton, MA 01740

Record Applicant
Syncarpha Still River, LLC.
 645 Madison Avenue, 14th Floor
 New York, NY 10022

Renewable Energy Massachusetts, LLC.
 17 Arlington Street
 Cambridge, MA 02140

Civil Engineer/Land Planners
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 2 Thirteenth Street
 Charlestown, MA 02129
 T. 617.242.1120
 F. 617.242.1190

PV - Solar Electrical Engineers
Power Engineers, LLC.
 37 Fox Den Road
 Kingston, MA 02364-2150



SITE PLAN APPROVAL/SPECIAL PERMIT PLANS

PROJECT NUMBER: C-763.01

April 3, 2015

REVISIONS:

NO.	DESCRIPTION	DATE
1	PER PEER REVIEW	5.1.15
2	CONTROL PLANS	5.20.15

SCALE: NTS

DRAWING NAME:

GENERAL NOTES AND LEGEND

DRAWING NUMBER:

C-001

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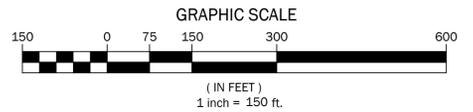
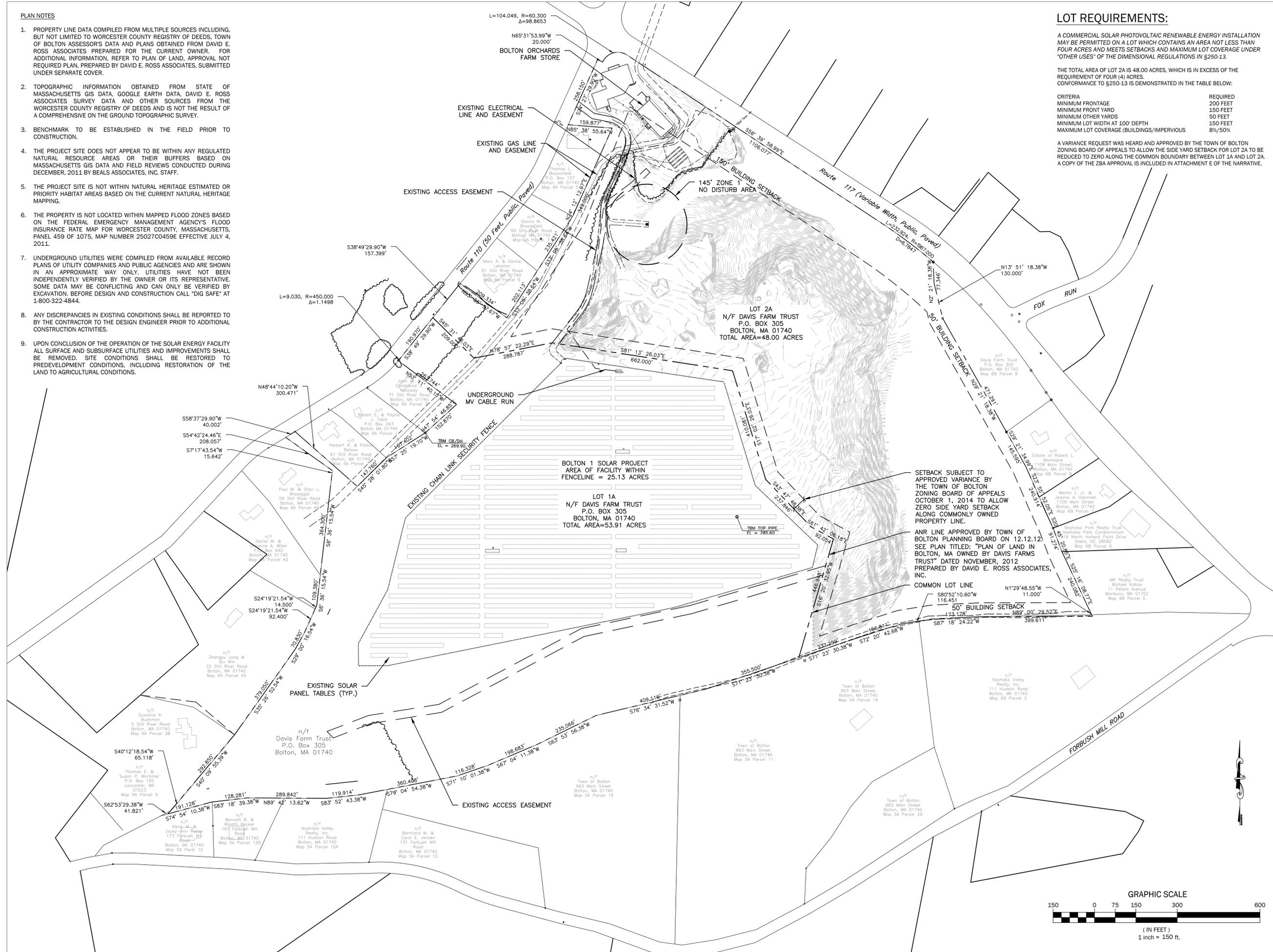
SCALE: 1" = 150'

DRAWING NAME:

EXISTING CONDITIONS PLAN

DRAWING NUMBER:

C-100



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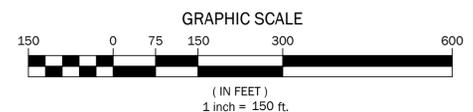
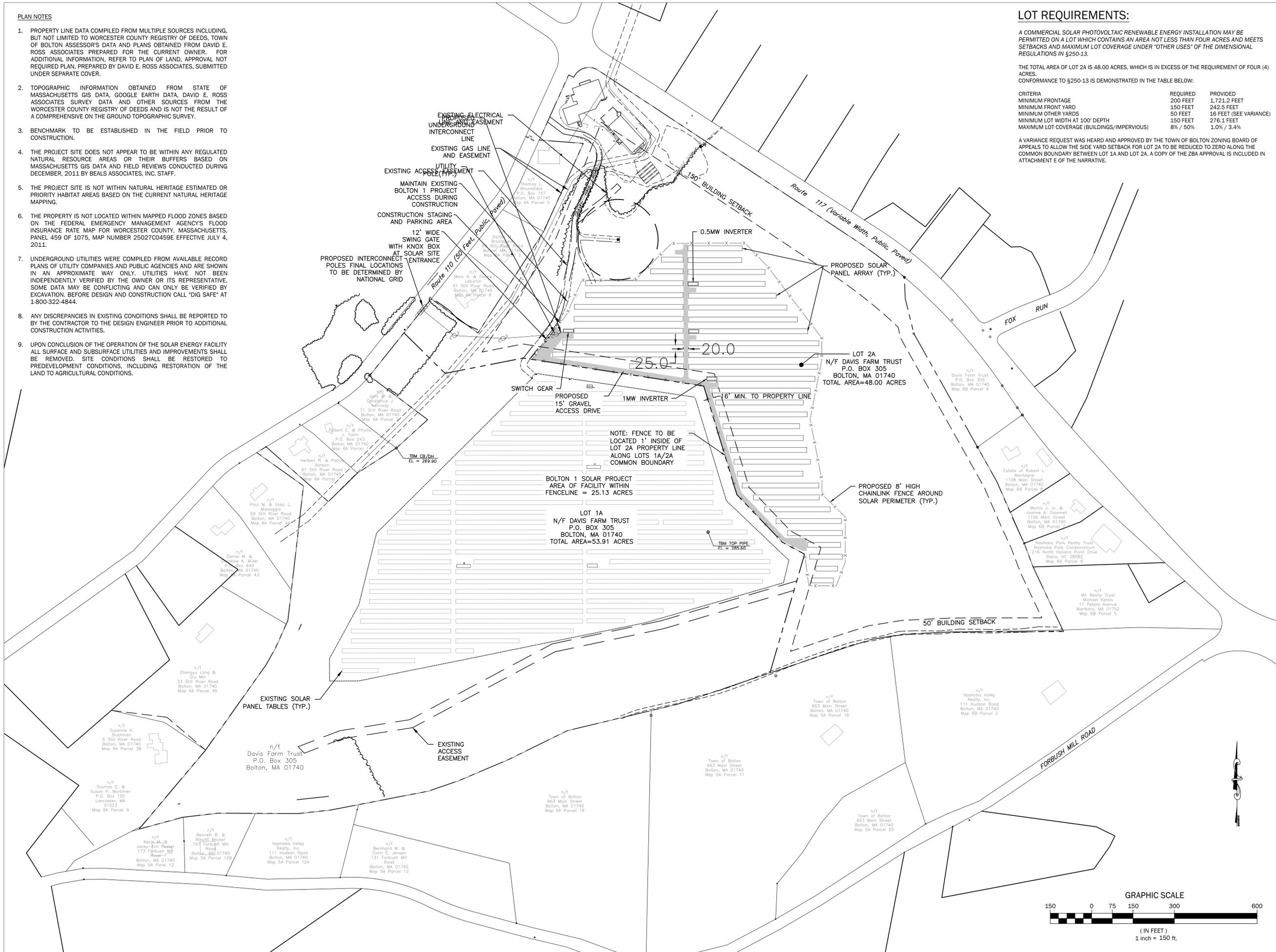
SCALE: 1" = 150'

DRAWING NAME:

OVERALL SITE PLAN

DRAWING NUMBER:

C-200



BOLTON 2 SOLAR PROJECT

Record Owner
Davis Farms Trust
 P.O. Box 305
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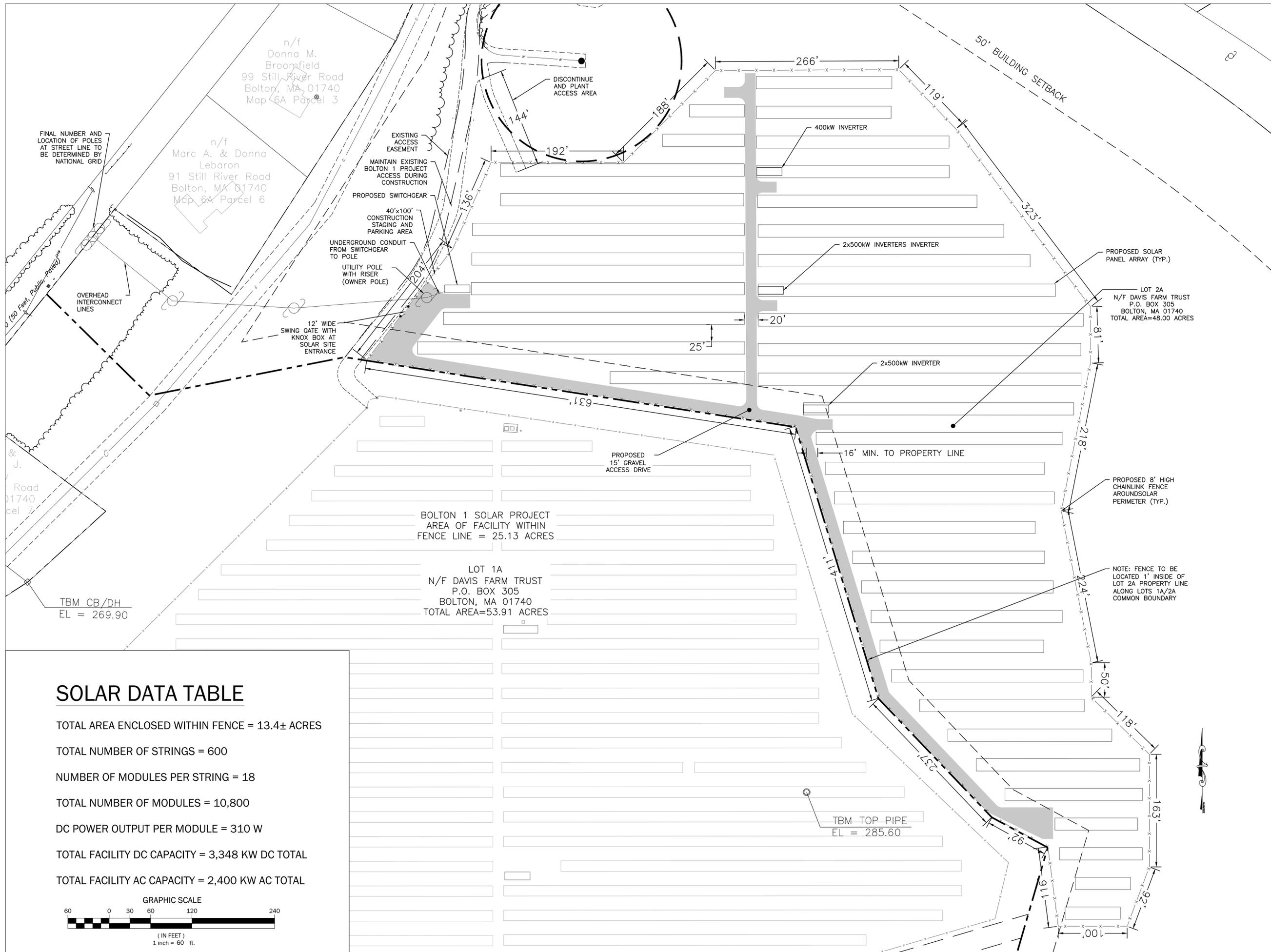
SCALE: 1" = 60'

DRAWING NAME:

60 SCALE SITE PLAN

DRAWING NUMBER:

C-201



FINAL NUMBER AND LOCATION OF POLES AT STREET LINE TO BE DETERMINED BY NATIONAL GRID

n/f Donna M. Broomfield
 99 Still River Road
 Bolton, MA 01740
 Map 6A Parcel 3

n/f Marc A. & Donna Lebaron
 91 Still River Road
 Bolton, MA 01740
 Map 6A Parcel 6

DISCONTINUE AND PLANT ACCESS AREA

EXISTING ACCESS EASEMENT

MAINTAIN EXISTING BOLTON 1 PROJECT ACCESS DURING CONSTRUCTION

PROPOSED SWITCHGEAR

40'x100' CONSTRUCTION STAGING AND PARKING AREA

UNDERGROUND CONDUIT FROM SWITCHGEAR TO POLE

UTILITY POLE WITH RISER (OWNER POLE)

12' WIDE SWING GATE WITH KNOX BOX AT SOLAR SITE ENTRANCE

PROPOSED 15' GRAVEL ACCESS DRIVE

PROPOSED SOLAR PANEL ARRAY (TYP.)

LOT 2A
 N/F DAVIS FARM TRUST
 P.O. BOX 305
 BOLTON, MA 01740
 TOTAL AREA=48.00 ACRES

PROPOSED 8' HIGH CHAINLINK FENCE AROUND SOLAR PERIMETER (TYP.)

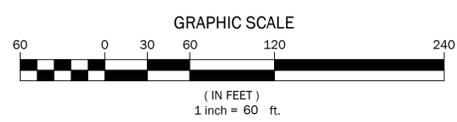
NOTE: FENCE TO BE LOCATED 1' INSIDE OF LOT 2A PROPERTY LINE ALONG LOTS 1A/2A COMMON BOUNDARY

BOLTON 1 SOLAR PROJECT
 AREA OF FACILITY WITHIN FENCE LINE = 25.13 ACRES

LOT 1A
 N/F DAVIS FARM TRUST
 P.O. BOX 305
 BOLTON, MA 01740
 TOTAL AREA=53.91 ACRES

SOLAR DATA TABLE

- TOTAL AREA ENCLOSED WITHIN FENCE = 13.4± ACRES
- TOTAL NUMBER OF STRINGS = 600
- NUMBER OF MODULES PER STRING = 18
- TOTAL NUMBER OF MODULES = 10,800
- DC POWER OUTPUT PER MODULE = 310 W
- TOTAL FACILITY DC CAPACITY = 3,348 KW DC TOTAL
- TOTAL FACILITY AC CAPACITY = 2,400 KW AC TOTAL



TBM CB/DH
 EL = 269.90

TBM TOP PIPE
 EL = 285.60

**BOLTON 2
 SOLAR PROJECT**

Record Owner
Davis Farms Trust
 P.O. Box 305
 Bolton, MA 01740

Record Applicant
Syncarpha Still River, LLC.
 645 Madison Avenue, 14th Floor
 New York, NY 10022

Renewable Energy Massachusetts, LLC.
 17 Arlington Street
 Cambridge, MA 02140

Civil Engineer/Land Planners
Beals Associates, Inc.
 2 Thirteenth Street
 Charlestown, MA 02129
 T. 617.242.1120
 F. 617.242.1190

PV - Solar Electrical Engineers
Power Engineers, LLC.
 37 Fox Den Road
 Kingston, MA 02364-2150



**SITE PLAN
 APPROVAL/
 SPECIAL PERMIT
 PLANS**

PROJECT NUMBER: C-763.01

April 3, 2015

REVISIONS:

1	PER PEER REVIEW	5.1.15
2	CONTROL PLANS	5.20.15

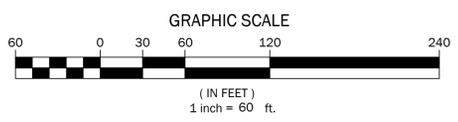
SCALE: 1" = 60'

DRAWING NAME:

**EROSION AND
 SEDIMENT
 CONTROL PLAN**

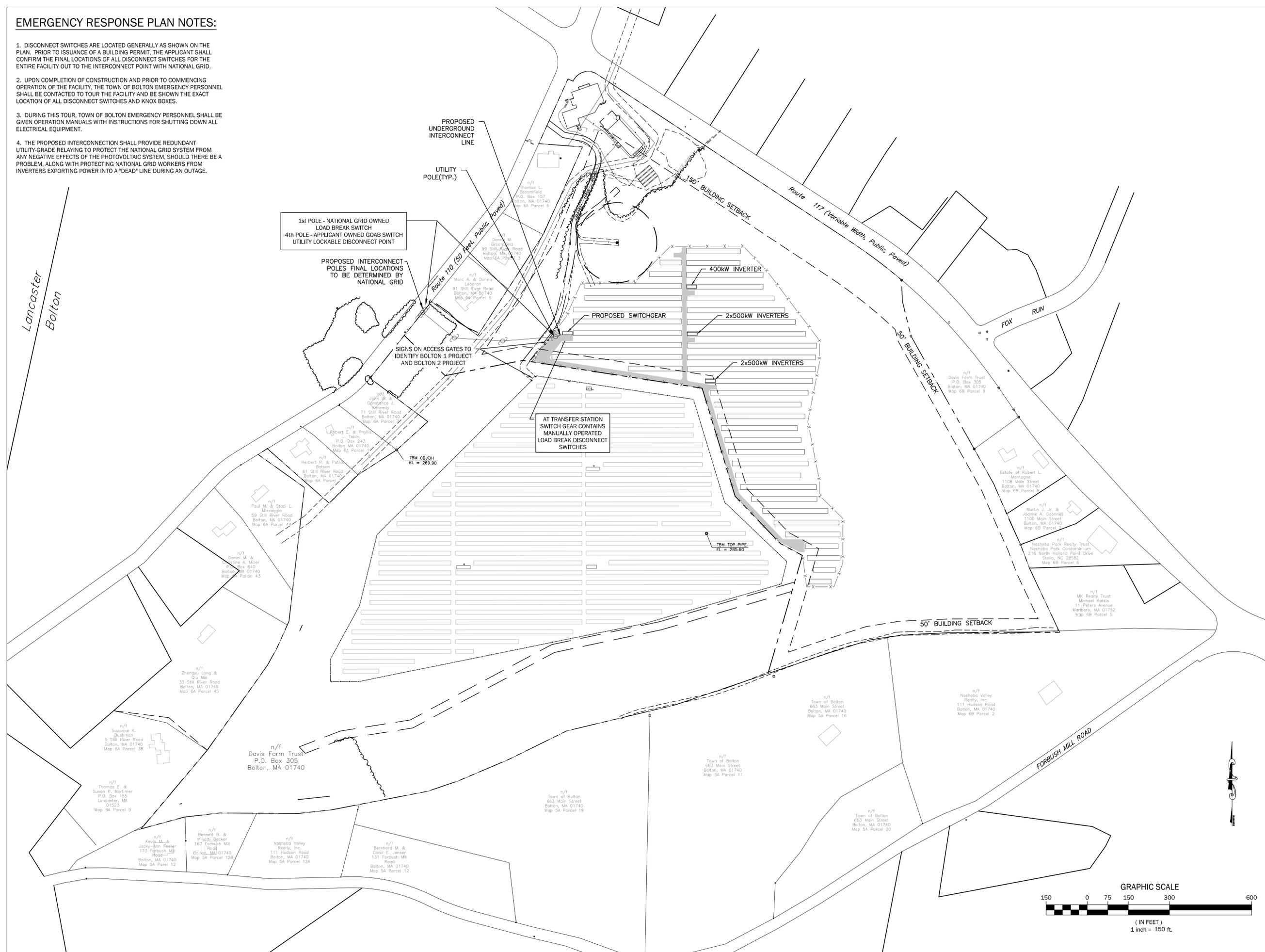
DRAWING NUMBER:

C-301



EMERGENCY RESPONSE PLAN NOTES:

1. DISCONNECT SWITCHES ARE LOCATED GENERALLY AS SHOWN ON THE PLAN. PRIOR TO ISSUANCE OF A BUILDING PERMIT, THE APPLICANT SHALL CONFIRM THE FINAL LOCATIONS OF ALL DISCONNECT SWITCHES FOR THE ENTIRE FACILITY OUT TO THE INTERCONNECT POINT WITH NATIONAL GRID.
2. UPON COMPLETION OF CONSTRUCTION AND PRIOR TO COMMENCING OPERATION OF THE FACILITY, THE TOWN OF BOLTON EMERGENCY PERSONNEL SHALL BE CONTACTED TO TOUR THE FACILITY AND BE SHOWN THE EXACT LOCATION OF ALL DISCONNECT SWITCHES AND KNOX BOXES.
3. DURING THIS TOUR, TOWN OF BOLTON EMERGENCY PERSONNEL SHALL BE GIVEN OPERATION MANUALS WITH INSTRUCTIONS FOR SHUTTING DOWN ALL ELECTRICAL EQUIPMENT.
4. THE PROPOSED INTERCONNECTION SHALL PROVIDE REDUNDANT UTILITY GRADE RELAYING TO PROTECT THE NATIONAL GRID SYSTEM FROM ANY NEGATIVE EFFECTS OF THE PHOTOVOLTAIC SYSTEM. SHOULD THERE BE A PROBLEM, ALONG WITH PROTECTING NATIONAL GRID WORKERS FROM INVERTERS EXPORTING POWER INTO A "DEAD" LINE DURING AN OUTAGE.



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SITE PLAN APPROVAL/SPECIAL PERMIT PLANS

PROJECT NUMBER: C-763.01

April 3, 2015

REVISIONS:

1	PER PEER REVIEW	5.1.15
2	CONTROL PLANS	5.20.15

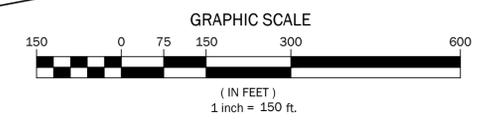
SCALE: 1" = 150'

DRAWING NAME:

EMERGENCY RESPONSE PLAN

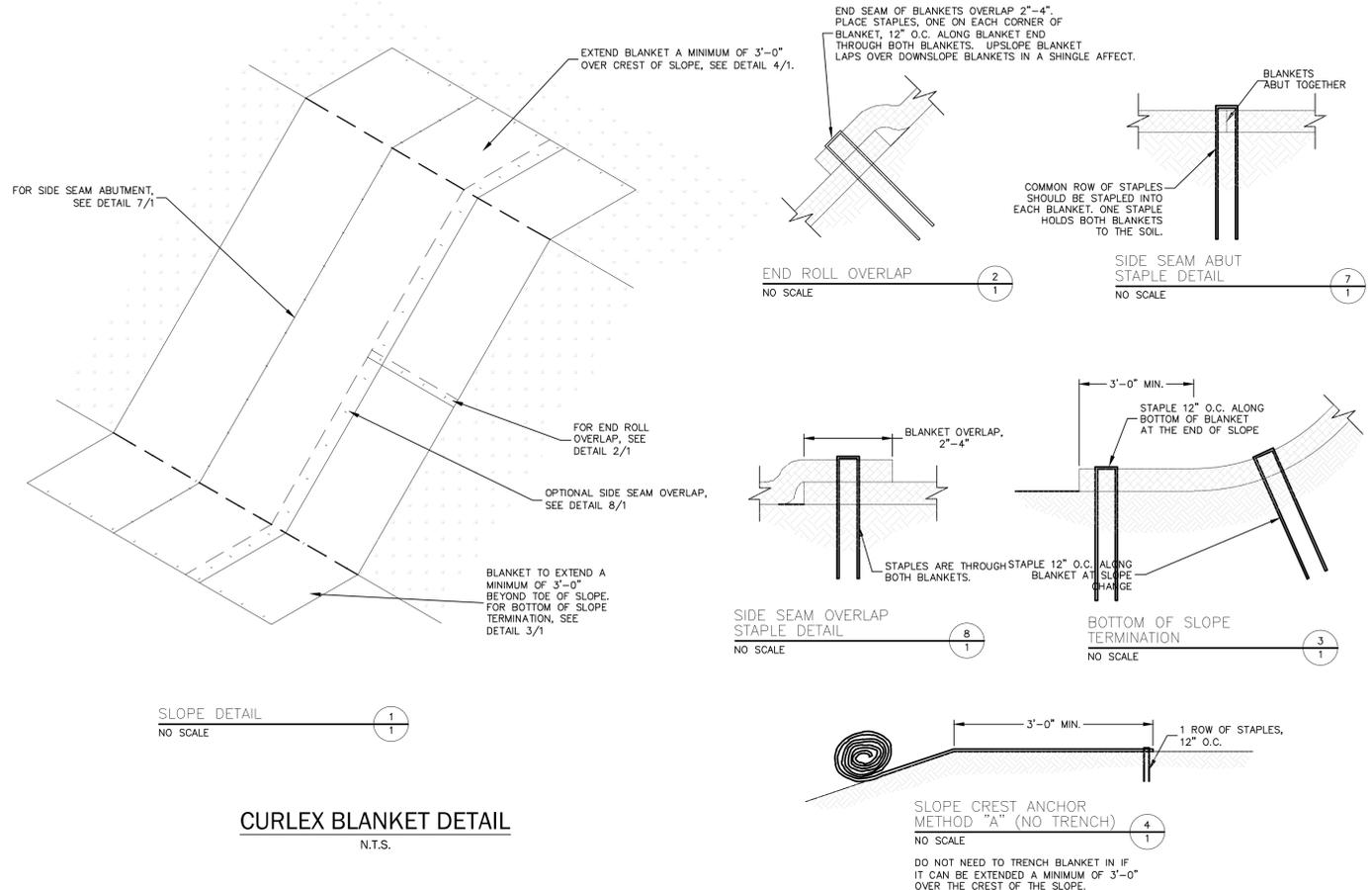
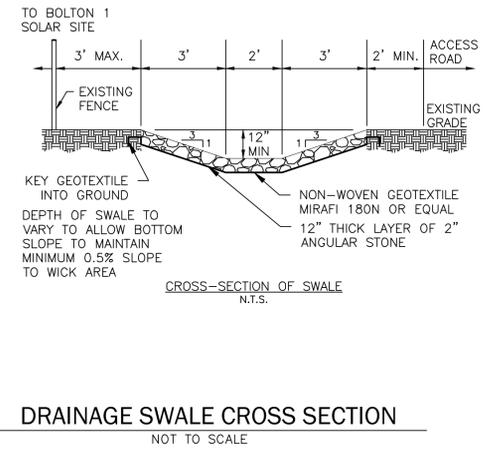
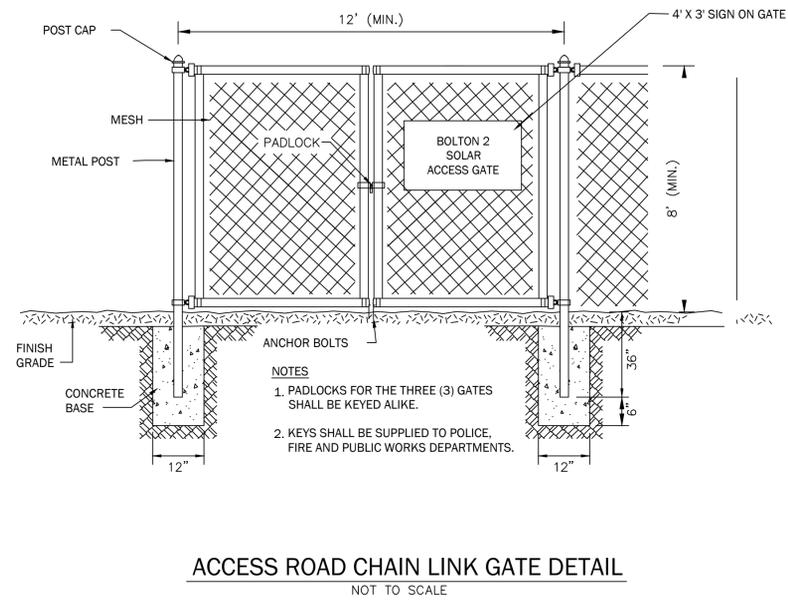
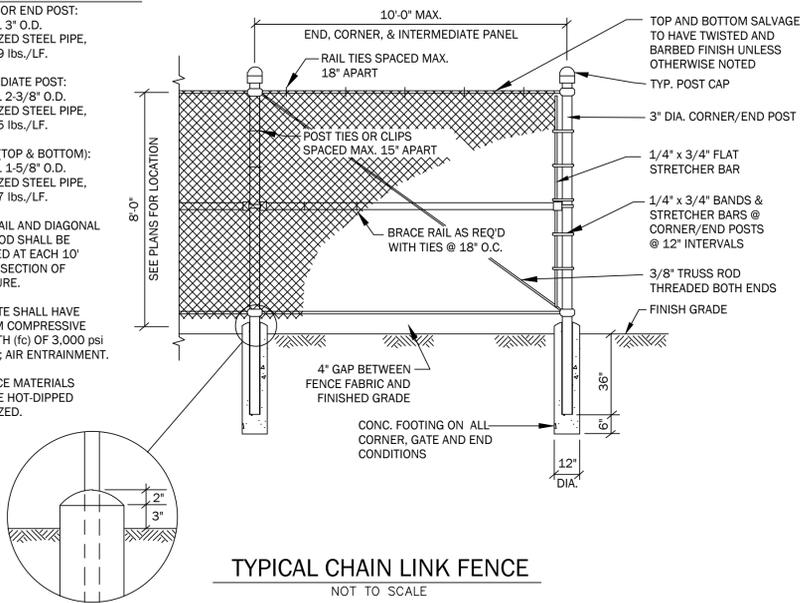
DRAWING NUMBER:

C-400

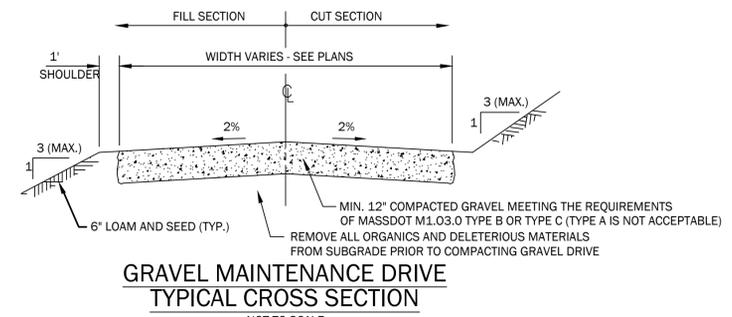
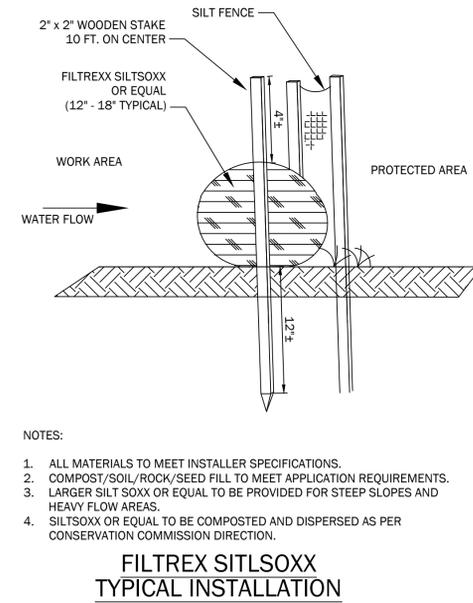
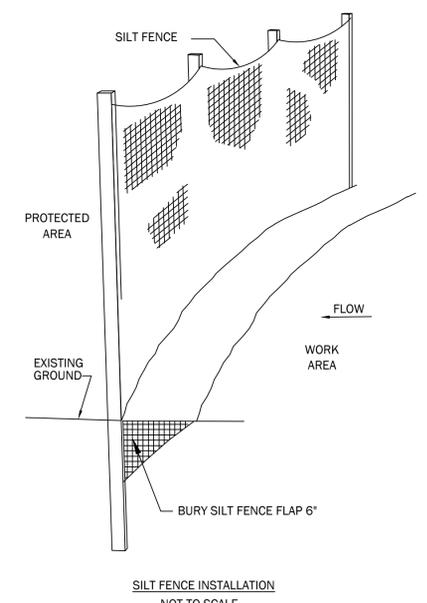
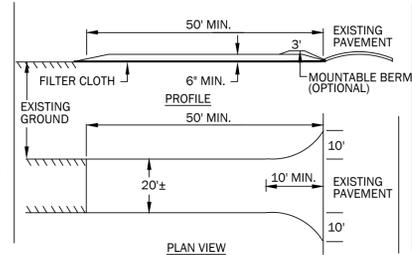


NOTES:

- CORNER OR END POST: NOMINAL 3" O.D. GALVANIZED STEEL PIPE, MIN. 5.79 lbs./LF.
- INTERMEDIATE POST: NOMINAL 2-3/8" O.D. GALVANIZED STEEL PIPE, MIN. 3.65 lbs./LF.
- BRACES (TOP & BOTTOM): NOMINAL 1-5/8" O.D. GALVANIZED STEEL PIPE, MIN. 2.27 lbs./LF.
- BRACE RAIL AND DIAGONAL BRACE ROD SHALL BE INSTALLED AT EACH 10' CORNER SECTION OF ENCLOSURE.
- CONCRETE SHALL HAVE MINIMUM COMPRESSIVE STRENGTH (f_c) OF 3,000 psi WITH 6% AIR ENTRAINMENT.
- ALL FENCE MATERIALS SHALL BE HOT-DIPPED GALVANIZED.



- NOTES:**
- STONE FOR A STABILIZED CONSTRUCTION ENTRANCE SHALL BE 1 TO 2 INCH STONE, RECLAIMED STONE, OR RECYCLED CONCRETE EQUIVALENT.
 - THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 50 FEET, EXCEPT FOR A SINGLE RESIDENTIAL LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.
 - THE THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES.
 - THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF THE ENTRANCE WHERE INGRESS OR EGRESS OCCURS OR 10 FEET, WHICH EVER IS GREATER.
 - GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE. FILTER CLOTH IS NOT REQUIRED FOR A SINGLE FAMILY RESIDENCE LOT.
 - ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
 - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED PROMPTLY.



BOLTON 2 SOLAR PROJECT

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Davis Farms Trust
P.O. Box 305
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Record Applicant
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Kingston, MA 02364-2150



SITE PLAN APPROVAL/SPECIAL PERMIT PLANS

PROJECT NUMBER: C-763.01

April 3, 2015

REVISIONS:

1	ADD GRAVEL SPEC	4.15.15
2	PER PEER REVIEW	5.1.15
3	CONTROL PLANS	5.20.15

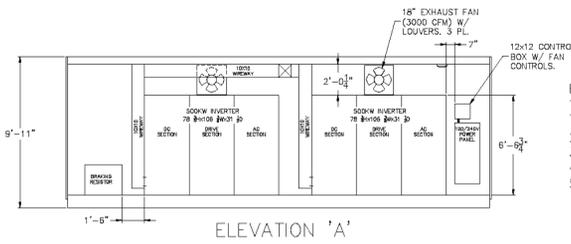
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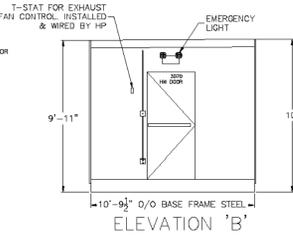
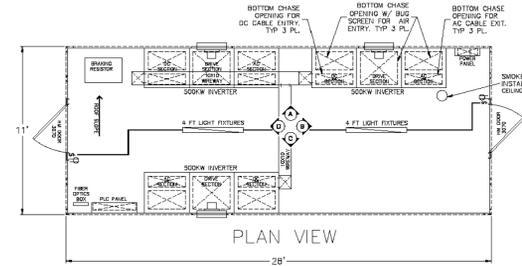
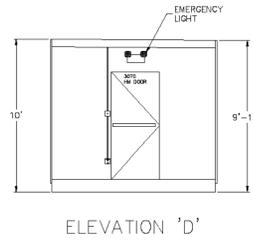
DETAILS - 1

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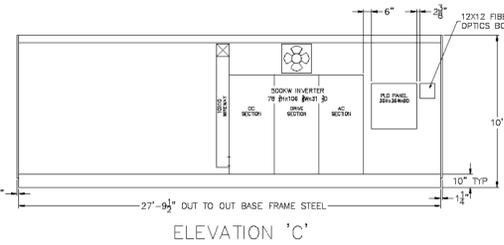
C-500



- Enclosure Options:
1. Stucco Embossed Aluminum Siding - Pueblo Tan
 2. Painted 3/4" Fire Resistant Plywood Floors
 3. Purchased Metal Doors
 4. Membrane Roof - White
 5. Insulated Walls & Ceiling (R4.2).



APPROX WGT: 27,000 LBS.

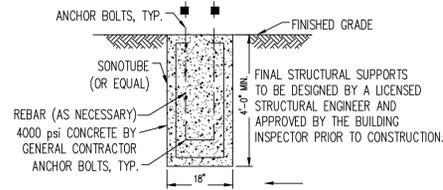


SOLAR INVERTER

FOR ILLUSTRATIVE PURPOSES ONLY
NOT FOR CONSTRUCTION

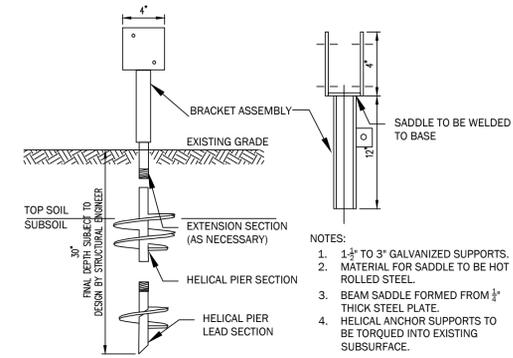
REVISION RECORD				SIEMENS PV ANYWHERE, USA	
REV	DATE	BY	DESCRIPTION	DATE	BY
1	04/03/15	EC	RELEASED FOR PERM	04/03/15	EC

Hill PHOENIX		A CROWN COMPANY	
700 SHERMAN ROAD, CHARLOTTE, GA 30013		5102-ED-1500	
PHONE (770) 285-3100 FAX (770) 285-3078		1 OF 5	



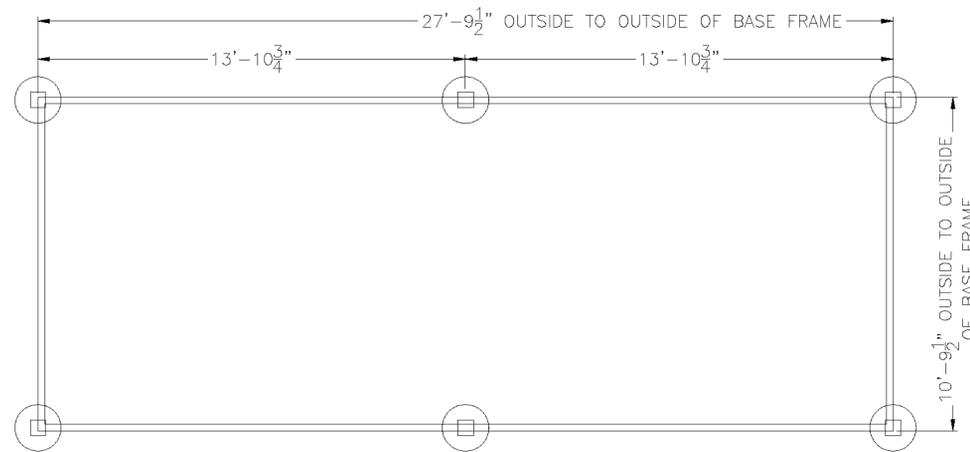
NOTE:
FINAL DESIGN OF ANCHORS AND SUPPORTS TO BE DESIGNED BY LICENSED STRUCTURAL ENGINEER AND APPROVED BY THE BUILDING INSPECTOR PRIOR TO CONSTRUCTION.

TYPICAL PIER DETAIL (OR EQUAL)
NOT TO SCALE



NOTE:
FINAL DESIGN OF ANCHORS AND SUPPORTS TO BE DESIGNED BY LICENSED STRUCTURAL ENGINEER AND APPROVED BY THE BUILDING INSPECTOR PRIOR TO CONSTRUCTION.

SOLAR PANEL SUPPORT SECTION (OR EQUAL)
NOT TO SCALE



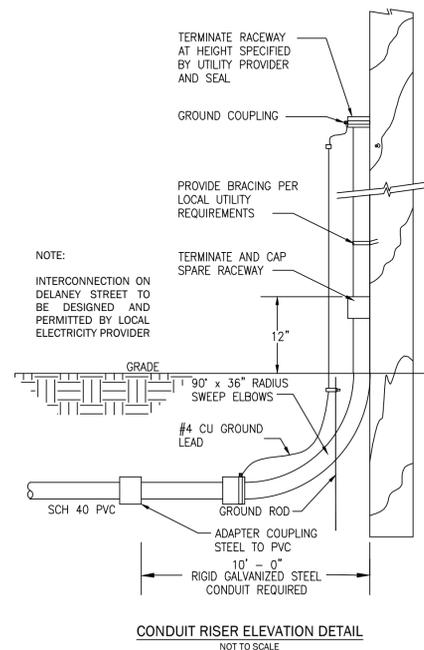
SUPPORT PIER LAYOUT

SUPPORT PIER SPACING

FOR ILLUSTRATIVE PURPOSES ONLY
NOT FOR CONSTRUCTION

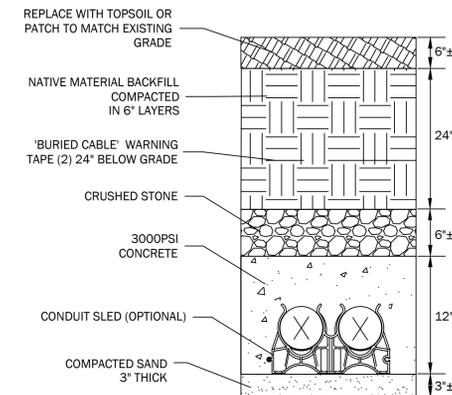
REVISION RECORD				SIEMENS PV ANYWHERE, USA	
REV	DATE	BY	DESCRIPTION	DATE	BY
1	04/03/15	EC	RELEASED FOR PERM	04/03/15	EC

Hill PHOENIX		A CROWN COMPANY	
700 SHERMAN ROAD, CHARLOTTE, GA 30013		5102-ED-1500	
PHONE (770) 285-3100 FAX (770) 285-3078		1 OF 5	



NOTE:
INTERCONNECTION ON DELANEY STREET TO BE DESIGNED AND PERMITTED BY LOCAL ELECTRICITY PROVIDER

CONDUIT RISER ELEVATION DETAIL
NOT TO SCALE



NOTES:
1. THIS DETAIL SHALL BE USED ONLY FOR THE UNDERGROUND LINES BETWEEN THE TRANSFER STATIONS AND THE EXISTING GRID.
2. UNDERGROUND ELECTRICAL LINES FROM PANEL TO PANEL AND BETWEEN OTHER APPURTENANCES MAY BE INSTALLED IN CONDUIT THAT IS DIRECT BURIED WITHOUT CONCRETE.
3. IN ALL CIRCUMSTANCES, ALL UNDERGROUND ELECTRICAL CONDUIT SHALL FEATURE "BURIED ABEL" WARNING TAPE 24" BELOW GRADE.

INTERCONNECT LINE ELECTRICAL CONDUIT DUCTBANK
NOT TO SCALE

BOLTON 2 SOLAR PROJECT

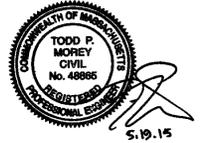
Record Owner
Davis Farms Trust
P.O. Box 305
Bolton, MA 01740

Record Applicant
Syncarpha Still River, LLC.
845 Madison Avenue, 14th Floor
New York, NY 10022

Renewable Energy Massachusetts, LLC.
17 Arlington Street
Cambridge, MA 02140

Civil Engineer/Land Planners
Beals Associates, Inc.
2 Thirteenth Street
Charlestown, MA 02129
T. 617.242.1120
F. 617.242.1190

PV - Solar Electrical Engineers
Power Engineers, LLC.
37 Fox Den Road
Kingston, MA 02364-2150



SITE PLAN APPROVAL/SPECIAL PERMIT PLANS

PROJECT NUMBER: C-763.01

April 3, 2015

REVISIONS:		
NO.	DESCRIPTION	DATE
1	PER PEER REVIEW	5.1.15
2	CONTROL PLANS	5.20.15

SCALE: NTS

DRAWING NAME:

DETAILS - 2

DRAWING NUMBER:

C-501

**BOLTON 2
 SOLAR PROJECT**

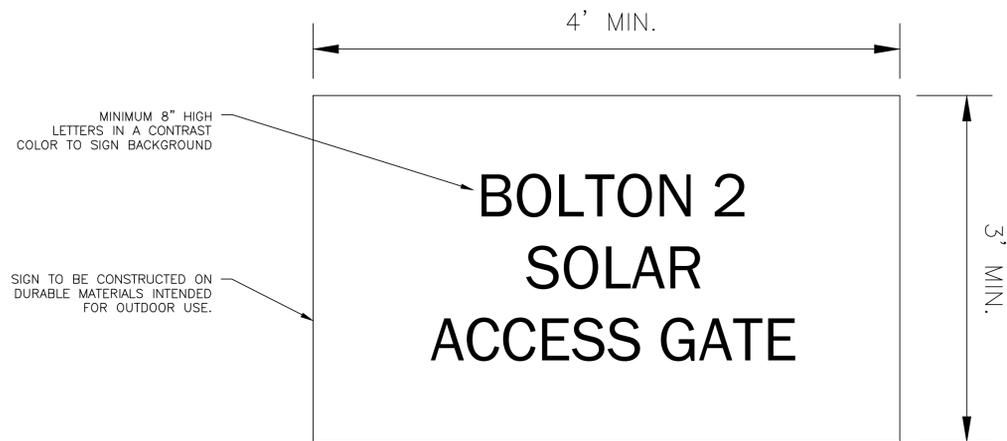
Record Owner
Davis Farms Trust
 P.O. Box 305
 Bolton, MA 01740

Record Applicant
Syncarpha Still River, LLC.
 645 Madison Avenue, 14th Floor
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NOTE:
 PROVIDE TWO SIGNS. ONE SIGN
 SHALL BE FOR THE BOLTON 1
 SOLAR PROJECT AND THE OTHER
 SIGN SHALL BE FOR THE BOLTON 2
 SOLAR PROJECT.

SIGNS SHALL BE MOUNTED ON THE
 ACCESS GATES WITH UNOBSTRUCTED
 VISIBILITY TO EMERGENCY
 PERSONNEL.

TYPICAL ACCESS GATE SIGN
 NOT TO SCALE



**SITE PLAN
 APPROVAL/
 SPECIAL PERMIT
 PLANS**

PROJECT NUMBER: C-763.01

April 3, 2015

REVISIONS:

NO.	DESCRIPTION	DATE
1	PER PEER REVIEW	5.1.15
2	CONTROL PLANS	5.20.15

SCALE: NTS

DRAWING NAME:

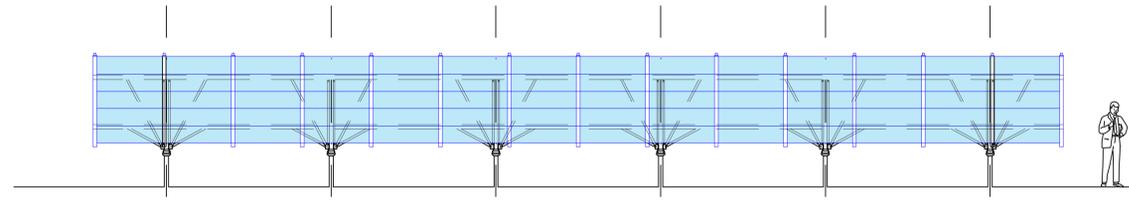
DETAILS - 3

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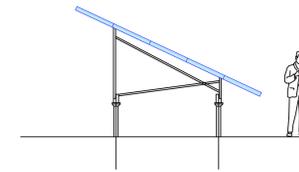
C-502



TYPICAL REGULATORY SIGNAGE
 NOT TO SCALE



FRONT VIEW



LEFT SIDE VIEW

NOTE: COMPARISONS ARE FOR ILLUSTRATION OF APPROXIMATE PANEL HEIGHTS ONLY. THE DETAILS ARE NOT INTENDED TO REFLECT EXACT PANEL DIMENSIONS



QUARTECH
MAX POWER CS6X
300 | 305 | 310P

Canadian Solar's new Quartech modules have significantly raised the standard of module efficiency in the solar industry. They introduced innovative four busbar cell technology, which demonstrates higher power output and higher system reliability. Worldwide, our customers have embraced this next generation of modules for their excellent performance, superior reliability and enhanced value.

NEW TECHNOLOGY

- Reduces cell series resistance
- Reduces stress between cell interconnectors
- Improves module conversion efficiency
- Improves product reliability

KEY FEATURES

- Higher energy yield**
 - Outstanding performance at low irradiance
 - Maximum energy yield at low NOCT
 - Improved energy production through reduced cell series resistance

- Increased system reliability**
 - Long term system reliability with IP67 junction box
 - Enhanced system reliability in extreme temperature environment with special cell level stress release technology

- Extra value to customers**
 - Positive power tolerance up to 5 W
 - Stronger 40 mm robust frame to hold snow load up to 5400 Pa and wind load up to 2400 Pa
 - Anti-glare project evaluation
 - Salt mist, ammonia and blowing sand resistance apply to seaside, farm and desert environments

CANADIAN SOLAR INC.
545 Speedvale Avenue West, Guelph, Ontario N1K 1E6, Canada, www.canadiansolar.com, support@canadiansolar.com

25 years insurance-backed warranty
non-cancellable, immediate warranty insurance
linear power output warranty

10 years product warranty on materials
and workmanship

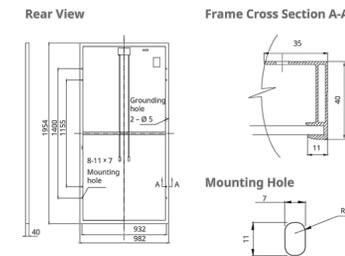
MANAGEMENT SYSTEM CERTIFICATES
ISO 9001:2008 / Quality management system
ISO/TS 16949:2009 / The automotive industry quality management system
ISO 14001:2004 / Standards for environmental management system
OHSAS 18001:2007 / International standards for occupational health & safety

PRODUCT CERTIFICATES
IEC 61215 / IEC 61730: VDE / MCS / CE / SIL / KEMCO / CEC AUI/CQC / INMETRO
UL 1703 / IEC 61215 performance: CEC listed (US) / FSEC (US Florida)
UL 1703: CSA / IEC 61701 ED2: VDE / IEC 62716: TUV / IEC60068-2-68: SGS
PV CYCLE (EU) / UNI9177 Reaction to Fire: Class 1



CANADIAN SOLAR INC. is committed to providing high quality solar products, solar system solutions and services to customers around the world. As a leading manufacturer of solar modules and PV project developer with about 8 GW of premium quality modules deployed around the world since 2011, Canadian Solar Inc. (NASDAQ:CSIQ) is one of the most bankable solar companies worldwide.

MODULE / ENGINEERING DRAWING (mm)



ELECTRICAL DATA / STC*

Electrical Data CS6X	300P	305P	310P
Nominal Max. Power (Pmax)	300 W	305 W	310 W
Opt. Operating Voltage (Vmp)	36.1 V	36.3 V	36.4 V
Opt. Operating Current (Imp)	8.30 A	8.41 A	8.52 A
Open Circuit Voltage (Voc)	44.6 V	44.8 V	44.9 V
Short Circuit Current (Isc)	8.87 A	8.97 A	9.08 A
Module Efficiency	15.63%	15.90%	16.16%
Operating Temperature	-40°C ~ +85°C		
Max. System Voltage	1000 V (IEC) or 1000 V (UL) or 600 V (UL)		
Module Fire Performance	TYPE 1 (UL 1703) or CLASS C (IEC61730)		
Max. Series Fuse Rating	15 A		
Application Classification	Class A		
Power Tolerance	0 ~ + 5 W		

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

ELECTRICAL DATA / NOCT*

Electrical Data CS6X	300P	305P	310P
Nominal Max. Power (Pmax)	218 W	221 W	225 W
Opt. Operating Voltage (Vmp)	32.9 V	33.1 V	33.2 V
Opt. Operating Current (Imp)	6.61 A	6.68 A	6.77 A
Open Circuit Voltage (Voc)	41.0 V	41.2 V	41.3 V
Short Circuit Current (Isc)	7.19 A	7.27 A	7.36 A

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

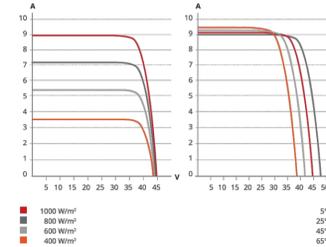
PERFORMANCE AT LOW IRRADIANCE

Industry leading performance at low irradiance, +96.0% module efficiency from an irradiance of 1000 W/m² to 200 W/m² (AM 1.5, 25°C).

As there are different certification requirements in different markets, please contact your sales representative for the specific certificates applicable to your products. The specification and key features described in this datasheet may deviate slightly and are not guaranteed. Due to on-going innovation, research and product enhancement, Canadian Solar Inc. reserves the right to make any adjustment to the information described herein at any time without notice. Please always obtain the most recent version of the datasheet which shall be duly incorporated into the binding contract made by the parties governing all transactions related to the purchase and sale of the products described herein.

CANADIAN SOLAR INC., December 2014. All rights reserved, PV Module Product Datasheet 1 V5.0_EN
Caution: Please read safety and installation instructions before using the product.

CS6X-305P / I-V CURVES



MODULE / MECHANICAL DATA

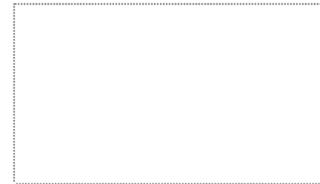
Specification	Data
Cell Type	Poly-crystalline, 6 inch
Cell Arrangement	72 (6 × 12)
Dimensions	1954 × 982 × 40 mm (76.93 × 38.7 × 1.57 in)
Weight	22 kg (48.5 lbs)
Front Cover	3.2 mm tempered glass
Frame Material	Anodized aluminium alloy
J-BOX	IP67, 3 diodes
Cable	4 mm ² (IEC) or 4 mm ² & 12 AWG (UL) or 600 V (UL)
Connectors	MC4 or MC4 comparable
Stand. Packaging	24 pcs, 608 kg (quantity & weight per pallet)
Module Pieces per Container	528 pcs (40'HQ)

** The CS6X with cable of 1300 mm is only for Canadian market.

TEMPERATURE CHARACTERISTICS

Specification	Data
Temperature Coefficient (Pmax)	-0.43% / °C
Temperature Coefficient (Voc)	-0.34% / °C
Temperature Coefficient (Isc)	0.065% / °C
Nominal Operating Cell Temperature	45±2°C

PARTNER SECTION



TYPICAL PANEL DETAIL

BOLTON 2 SOLAR PROJECT

Record Owner
Davis Farms Trust
P.O. Box 305
Bolton, MA 01740

Record Applicant
Syncharpha Still River, LLC.
645 Madison Avenue, 14th Floor
New York, NY 10022

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SITE PLAN APPROVAL/SPECIAL PERMIT PLANS

PROJECT NUMBER: C-763.01

April 3, 2015

REVISIONS:

NO.	DESCRIPTION	DATE
1	PER PEER REVIEW	5.1.15
2	CONTROL PLANS	5.20.15

SCALE: NTS

DRAWING NAME:

DETAILS - 4

DRAWING NUMBER:

C-503