

FRANKLIN SOLAR PROJECT

PERMIT APPLICATION SET

FRANKLIN, MASSACHUSETTS

DECEMBER 2018

REVISED APRIL 2019

RECEIVED

APR 26 2019

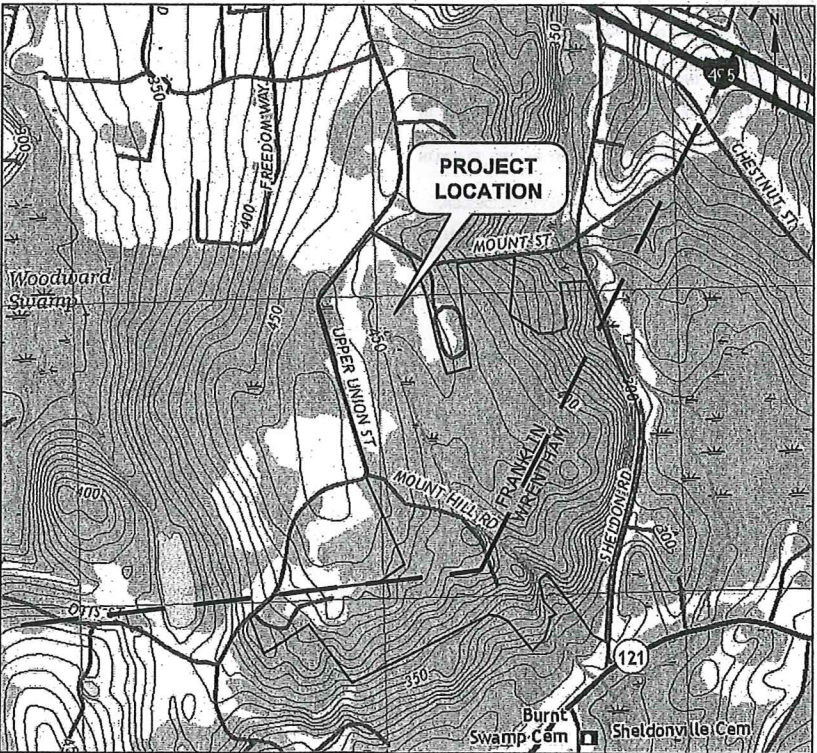
PLANNING DEPT.

REVISED

SHEET NO.	SHEET TITLE
	COVER SHEET
G-001	GENERAL NOTES & LEGEND
C-001	EXISTING CONDITIONS - OVERALL
C-002	EXISTING CONDITIONS - SOUTH
C-003	EXISTING CONDITIONS - NORTH
C-004	PROPOSED CONDITIONS - OVERALL
C-005	PROPOSED CONDITIONS - SOUTH
C-006	PROPOSED CONDITIONS - NORTH
C-007	SITE DETAILS - 1
C-008	SITE DETAILS - 2

REFERENCE DRAWINGS

SHEET NO.	SHEET TITLE
C-009	SITE DETAILS - 3 BY INDUSTRIA ENGINEERING



SCALE: 1" = 1,000'

LOCUS NOTES:

1. ALL ABUTTING FRANKLIN PARCELS ARE LOCATED IN THE RURAL RESIDENTIAL I ZONE.
2. ALL ABUTTING WRENTHAM PARCELS ARE LOCATED IN THE AGRICULTURAL AND RESIDENTIAL DISTRICT.
3. ABUTTING LAND USES ARE RESIDENTIAL.

DEVELOPER:

KEARSARGE FRANKLIN, LLC
1200 SOLDIERS FIELD ROAD
SUITE 202
BOSTON, MA 02134

LAND OWNER:

THE CISTERCIANS OF THE STRICT
OBSERVANCE IN MASSACHUSETTS, INC.
#1061 UPPER UNION STREET
FRANKLIN, MA 02038

CIVIL ENGINEER:

TIGHE & BOND
53 SOUTHAMPTON ROAD
WESTFIELD, MA 01085

Tighe & Bond

Engineers | Environmental Specialists



4-23-19

4-22-19

PERMIT SET - NOT FOR CONSTRUCTION

COMPLETE SET 11 SHEETS

PERMIT DRAWINGS- NOT FOR CONSTRUCTION



Franklin Solar
Project

Franklin
Kearsarge, LLC

Franklin,
Massachusetts

VERIFY SCALE
BAR IS 1 INCH ON
ORIGINAL DRAWING
IF NOT ONE INCH ON
THIS SHEET, ADJUST
SCALES ACCORDINGLY

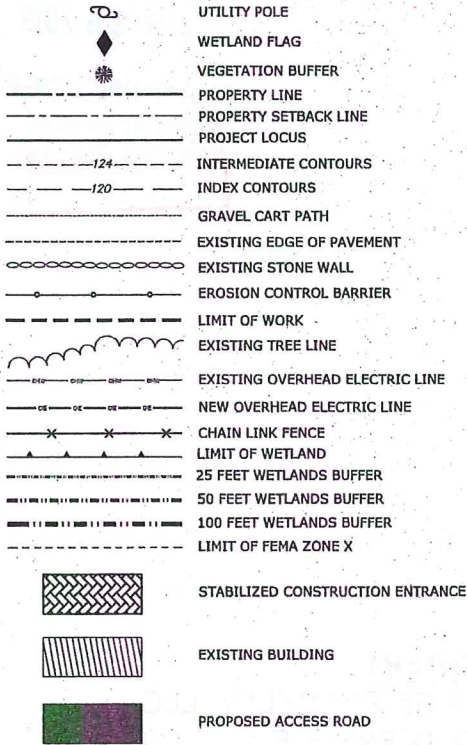
A	4/23/2019	MUNICIPAL COMMENTS
MARK	DATE	DESCRIPTION
PROJECT NO:		K-0092
DATE:		2018/12/27
FILE: Details.dwg		
DRAWN BY:		ELD
CHECKED:		BSH/JEC
APPROVED:		FJH

GENERAL NOTES & LEGEND

SCALE: NO SCALE

G-001

LEGEND



GENERAL NOTES:

- PER MASSACHUSETTS LAW, CALL 1-888-DIG-SAFE, (1-888-344-7233), THE MUNICIPALITY AND THE PROPERTY OWNER PRIOR TO ANY UNDERGROUND EXCAVATION ON SITE. THE DIG-SAFE VERIFICATION NUMBER SHALL BE SUBMITTED TO THE TOWN OF FRANKLIN PRIOR TO ANY EXCAVATION, DEMOLITION AND REMOVAL OR CONSTRUCTION WORK.
-
- FIELD VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION. IF FIELD CONDITIONS ARE OBSERVED THAT SIGNIFICANTLY VARY FROM THOSE SHOWN ON THESE PLANS, IMMEDIATELY NOTIFY THE ENGINEER FOR RESOLUTION OF THE CONFLICTING INFORMATION.
- COMPLY WITH OSHA'S LATEST STANDARDS. PROVIDE ALL REQUIREMENTS OF OSHA'S EXCAVATION STANDARDS, INCLUDING BUT NOT LIMITED TO PROVISION FOR A COMPETENT PERSON ON SITE AND ALL DOCUMENTATION REQUIRING CERTIFICATION BY A PROFESSIONAL ENGINEER.
- MAINTAIN ALL UTILITIES IN THE AREAS UNDER CONSTRUCTION. LEAVE ALL PIPES, SWALES AND STRUCTURES WITHIN THE LIMIT OF THIS CONTRACT IN CLEAN AND OPERABLE CONDITION AT THE COMPLETION OF THE WORK. TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SAND AND SILT FROM DISTURBED AREAS FROM ENTERING THE SYSTEM. CONTRACTOR IS RESPONSIBLE FOR DAMAGE SUSTAINED TO ANY EXISTING UTILITIES AND WILL MAKE REPAIRS THAT COMPLY WITH REQUIREMENTS OF OWNER OR RESPECTIVE UTILITY COMPANY.
- LOAM AND SEED ALL DISTURBED AREAS UNLESS OTHERWISE SPECIFIED.
- TEST PITS TO LOCATE EXISTING UTILITIES ARE STRONGLY ENCOURAGED AND MAY BE ORDERED BY ENGINEER.
- UNDERDRAIN SYSTEMS ARE COMMON IN AGRICULTURAL FIELDS AND ARE NOT DOCUMENTED ON SITE NOR LOCATED BY SURVEY. IF UNDERDRAINS ARE DAMAGED DURING CONSTRUCTION THEY SHALL BE REPAIRED SO EXISTING SUBSURFACE DRAINAGE SYSTEM IS FUNCTIONAL AT THE END OF THE CONSTRUCTION.

PLAN REFERENCES:

- EXISTING CONDITIONS INFORMATION USED ON THIS PROJECT WAS OBTAINED FROM AN EXISTING CONDITIONS PLAN TITLED "FRANKLIN MASSACHUSETTS" DATED NOVEMBER 12, 2018 AND PREPARED BY TAUPER LAND SURVEY INC.
- THE VERTICAL DATUM IS BASED ON NAVD 88.
- THE HORIZONTAL DATUM IS MASSACHUSETTS STATE PLANE NAD83.
- LAYOUT OF SOLAR ARRAY, INCLUDING SPACING, RACKING ARRANGEMENT, SIZE, ROAD LOCATION, AND FENCE LOCATION PROVIDED BY INDUSTRIA ENGINEERING.
- WETLAND SERIES A1 TO A60 AND B1 TO B4 WERE DELINEATED BY ECOTECH, INC. IN OCTOBER 2018.
- PROJECT WILL BE SUBJECT TO AN ORDER OF CONDITIONS ISSUED BY THE FRANKLIN CONSERVATION COMMISSION.
- ELECTRICAL DESIGN AND DETAILS TO BE PROVIDED BY OTHERS DURING FINAL DESIGN.
- FEMA ZONE X AREA CONSTITUTES AREAS OF 0.2% ANNUAL CHANCE FLOOD, PER FLOOD INSURANCE RATE MAP (FIRM) OF NORFOLK COUNTY, MAP NUMBER 25021C0317E DATED JULY 17, 2012.

EROSION CONTROL NOTES:

- INSTALL ALL EROSION CONTROL MEASURES SHOWN, SPECIFIED AND REQUIRED BY THE ENGINEER PRIOR TO ANY CONSTRUCTION OR IMMEDIATELY UPON REQUEST. MAINTAIN ALL SUCH CONTROL MEASURES UNTIL FINAL SURFACE TREATMENTS ARE IN PLACE AND/OR UNTIL PERMANENT VEGETATION IS ESTABLISHED.
- MARK WORK LIMIT LINE(S) PRIOR TO STARTING WORK. DO NOT DISTURB VEGETATION AND TOPSOIL BEYOND THE PROPOSED LIMIT LINE. COORDINATE WITH THE ENGINEER FOR THE LOCATIONS FOR THE TEMPORARY STOCKPILING OF TOPSOIL DURING CONSTRUCTION.
- FINE GRADE AND IMMEDIATELY SEED ALL SIDE SLOPES, SHOULDER AREAS, AND DISTURBED VEGETATED AREAS. ALL GRADING TO BE A MAXIMUM SLOPE OF 3:1 UNLESS OTHERWISE SHOWN, COMPACTED, AND STABILIZED.
- REMOVE AND DISPOSE OF ALL SILT TRAPPED AT BARRIERS IN UPLAND AREAS OUTSIDE BUFFER ZONES. REMOVE MATERIALS DEPOSITED IN ANY TEMPORARY SETTLING BASIN AT THE COMPLETION OF THE PROJECT. RESTORE ALL DISTURBED AREAS TO PRE-CONSTRUCTION CONDITIONS.
- REMOVE ALL SEDIMENTS FROM SILT LADEN WATER PRIOR TO RELEASE DOWNSTREAM OF THE DEWATERED AREAS.
- REMOVE ALL SEDIMENT TRACKED ON PUBLIC RIGHT-OF-WAYS AT THE END OF EACH DAY.
- ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED DURING CONSTRUCTION OF THE PROJECT. CONTRACTOR TO INSTALL ADEQUATE EROSION CONTROL TO ENSURE SITE STABILIZATION THROUGHOUT THE DURATION OF CONSTRUCTION.

PERMIT DRAWINGS- NOT FOR CONSTRUCTION

Franklin Solar Project

Franklin
Kearsarge, LLC

Franklin,
Massachusetts

VERIFY SCALE

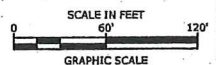
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1 INCH
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SCALES ACCORDINGLY

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DRAWN BY:		ELD
CHECKED:		BSH/JEC
APPROVED:		FJH

EXISTING CONDITIONS -
OVERALL

SCALE: 1" = 60'

C-001



SHEET C-003

RECORD OWNER:
THE CISTERCIANS OF THE STRICT OBSERVANCE IN MASSACHUSETTS
#1061 UPPER UNION STREET
DEED BOOK 2,730 PAGE 496
PLAN 134 OF 1939
ASSESSORS ID: 333-001-000-000

SHEET C-002

n/f
KERRY B. & ELENA HEARN
DEED BOOK 35,109 PAGE 120
PLAN BOOK 658 PAGE 2
PARCEL ID: 330-012-002-000

#4

Plot Date: 4/22/2019
Plotted On: Apr 23, 2019-9:21am By: JEC
Title & Bond: J:\K0092 Kaarjange Energy\Drawings\Franklin Mt St Mary\Franklin_Site.dwg

RECORD OWNER:
THE CISTERCIANS OF THE STRICT OBSERVANCE IN MASSACHUSETTS, INC.
#1061 UPPER UNION STREET
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Tighe & Bond
Engineers | Environmental Specialists
www.tighebond.com

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n/r
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DEED BOOK 35,109 PAGE 120
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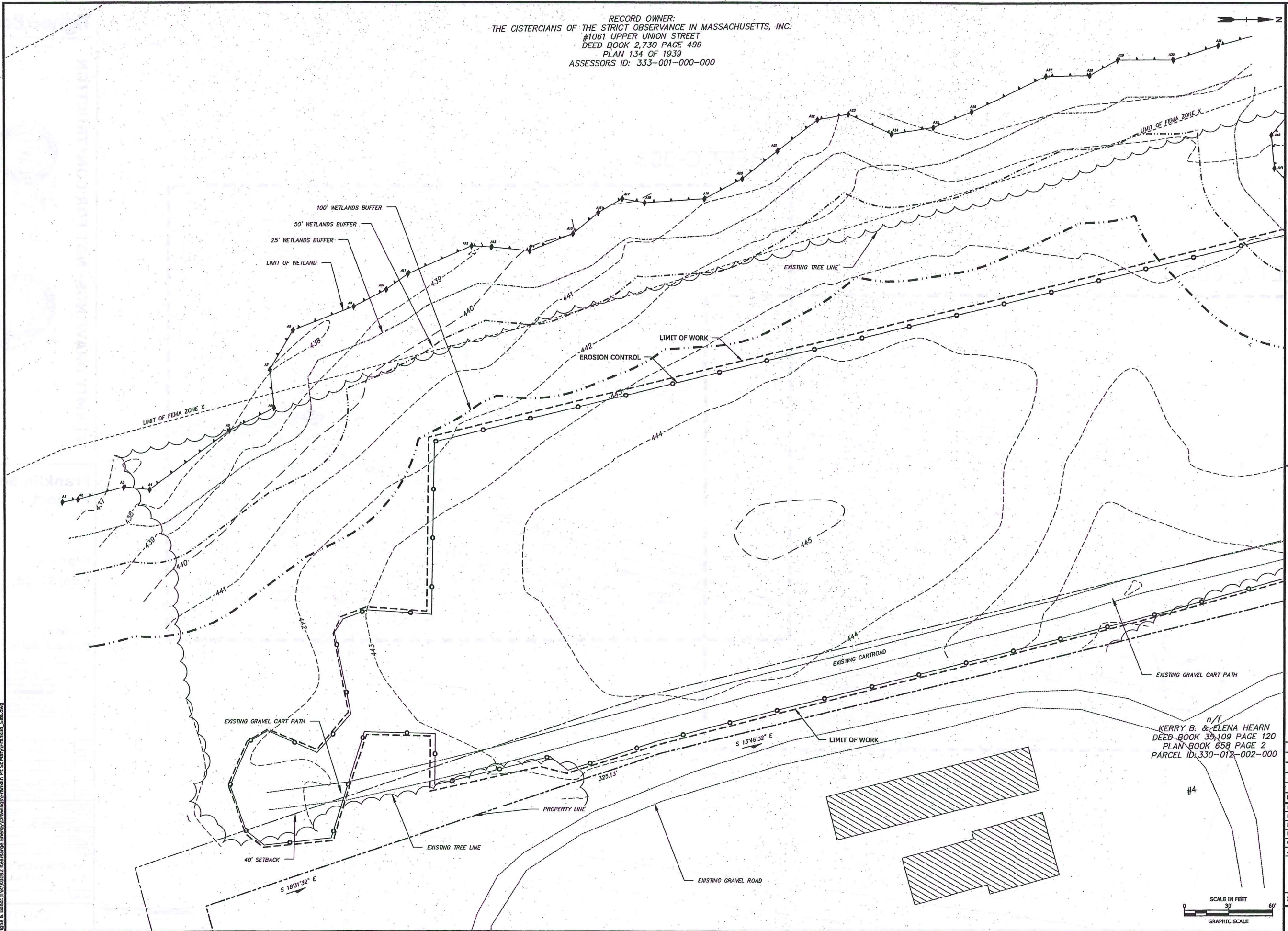
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APPROVED:	FJH	

EXISTING CONDITIONS -
SOUTH

SCALE: 1" = 30'

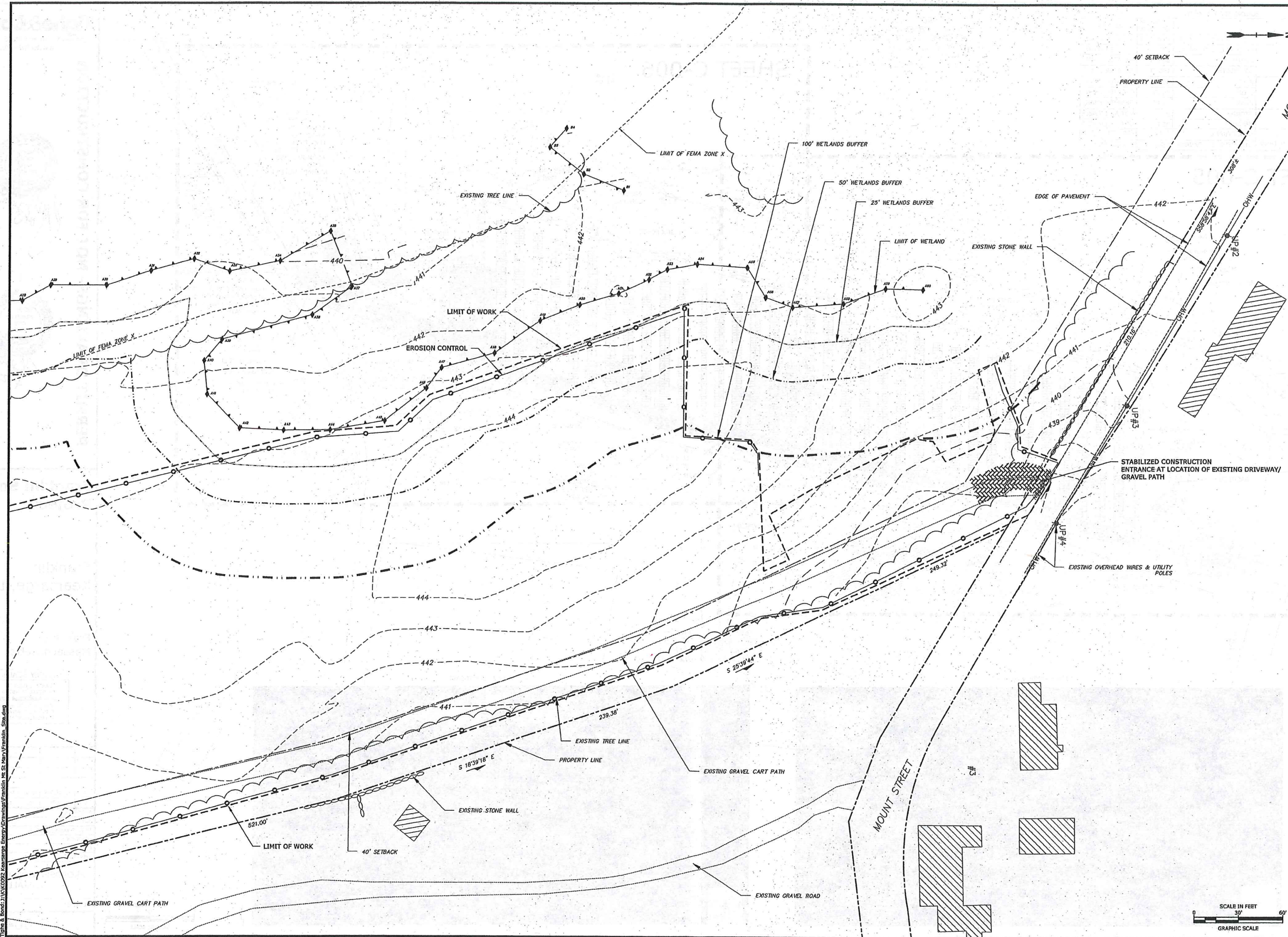
C-002

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Tighe & Bond: J:\N0092 Kearsarge Energy Drawings\Franklin ME St Mary Franklin_Site.dwg



SCALE IN FEET
0 30' 60'
GRAPHIC SCALE

Last Saved: 4/22/2019
Plotted On: Apr 23, 2019 9:21am By: JEC
Tighe & Bond 3:16\K0092 Kearsarge Energy\Drawings\Franklin MS St Mary Franklin Site.dwg



PERMIT DRAWINGS- NOT FOR CONSTRUCTION



Franklin Solar Project

Franklin
Kearsarge, LLC

Franklin,
Massachusetts

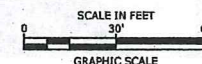
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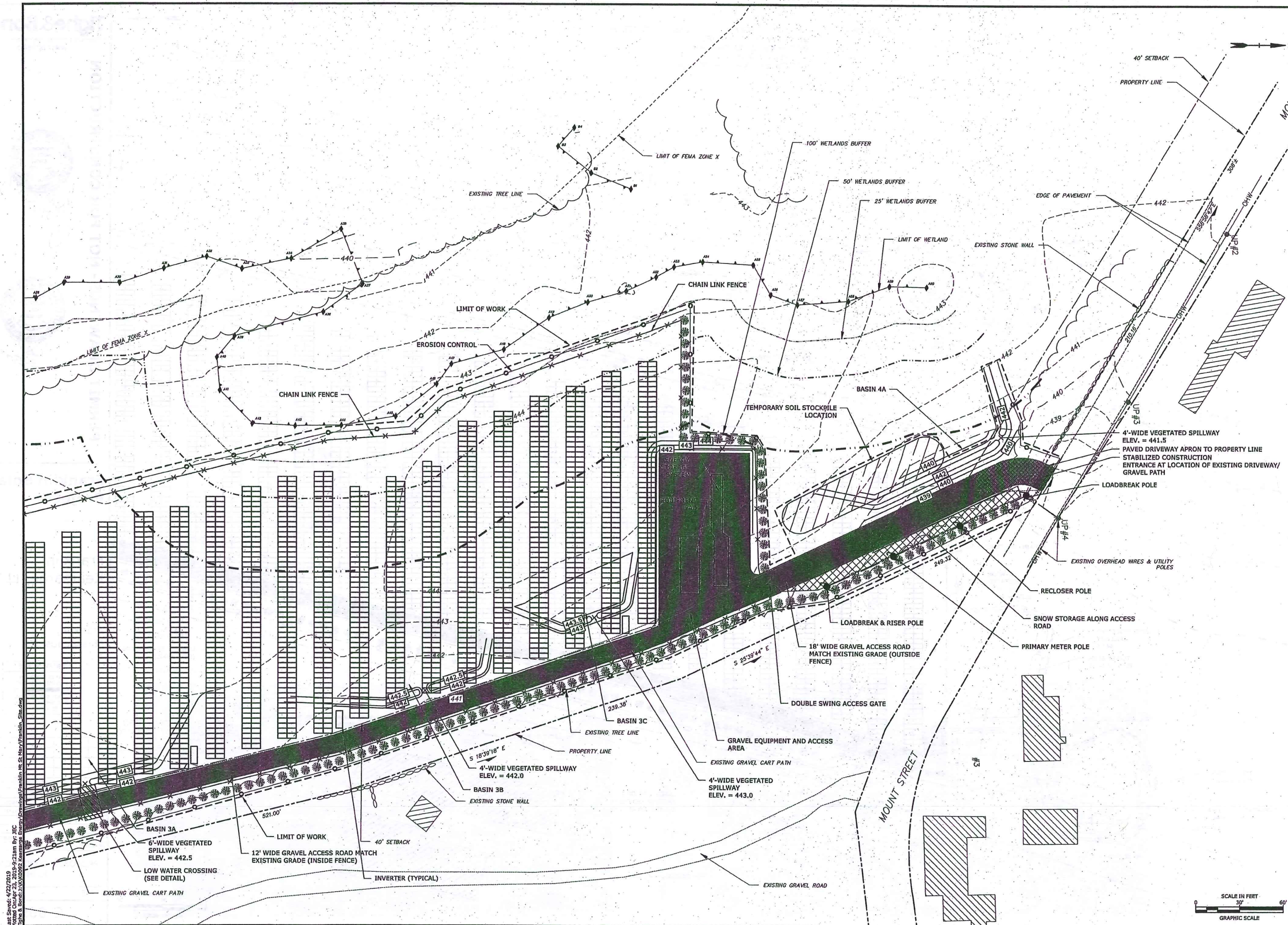
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CHECKED	BSH/JEC	
APPROVED	FJH	

EXISTING CONDITIONS -
NORTH

SCALE: 1" = 30'

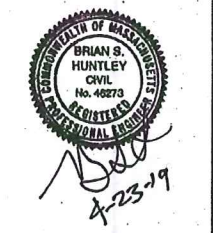
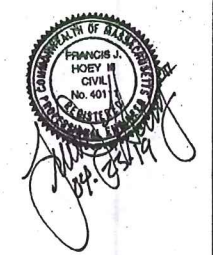
C-003





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PERMIT DRAWINGS- NOT FOR CONSTRUCTION



Franklin Solar Project

Franklin Kearsarge, LLC

Franklin, Massachusetts

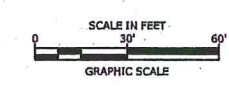
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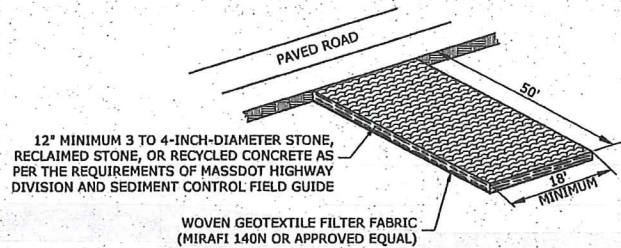
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APPROVED:	FJH	

PROPOSED CONDITIONS - NORTH

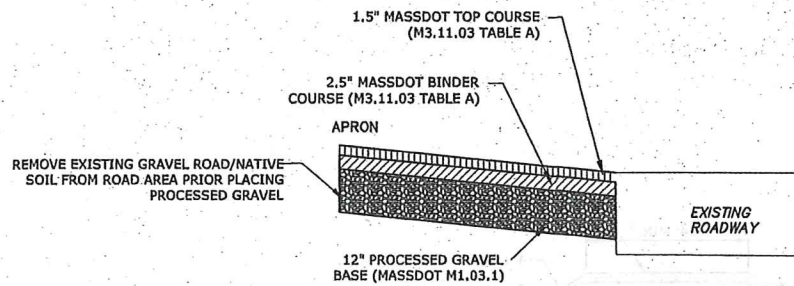
SCALE: 1" = 30'

C-006

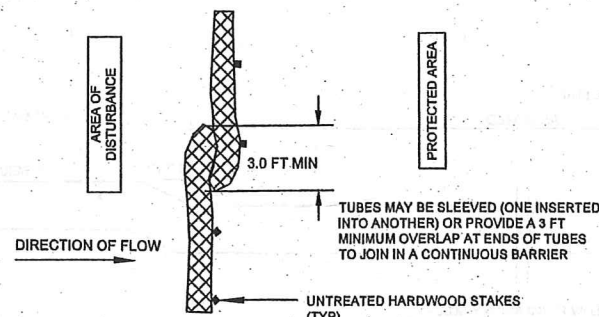
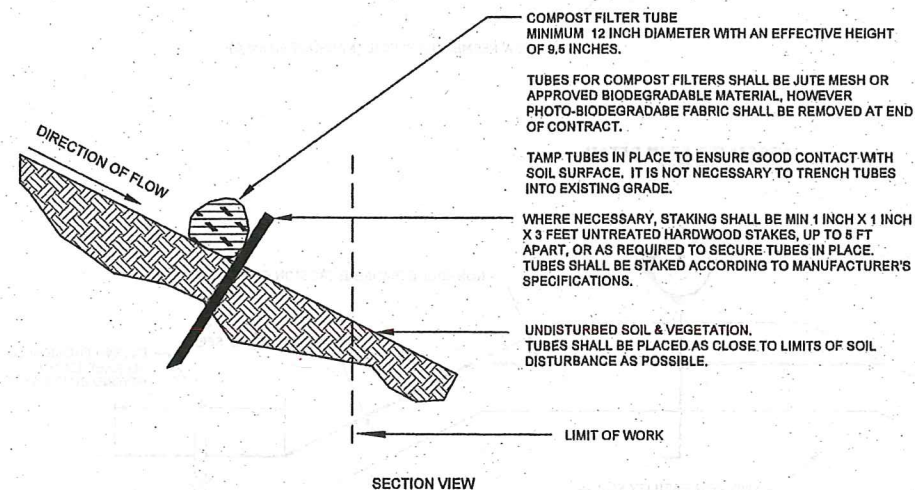




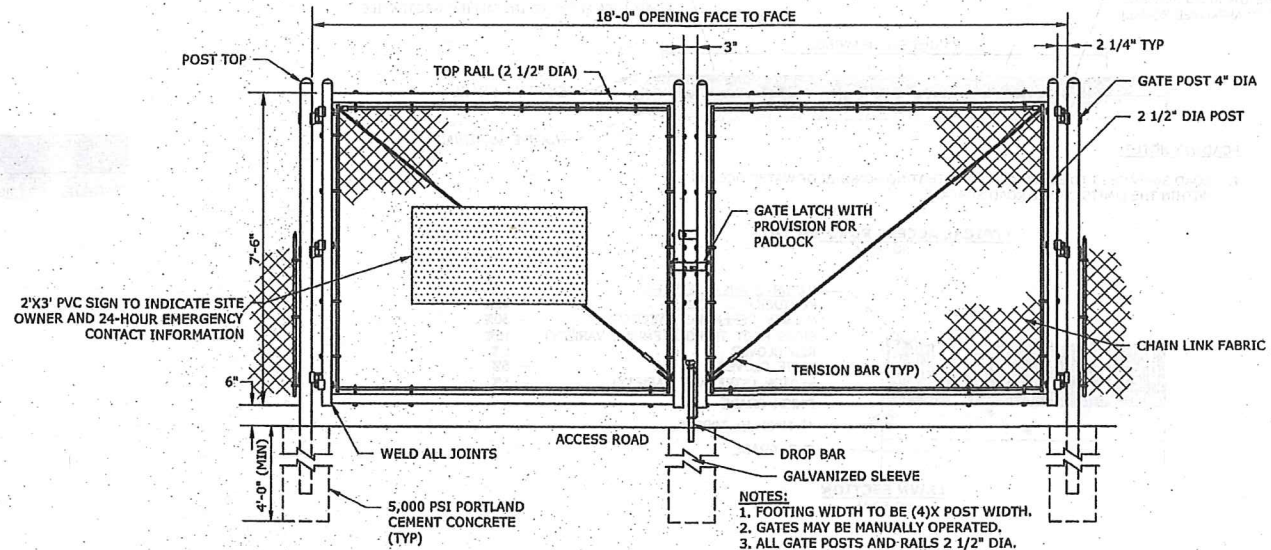
STABILIZED CONSTRUCTION ENTRANCE/EXIT
NO SCALE



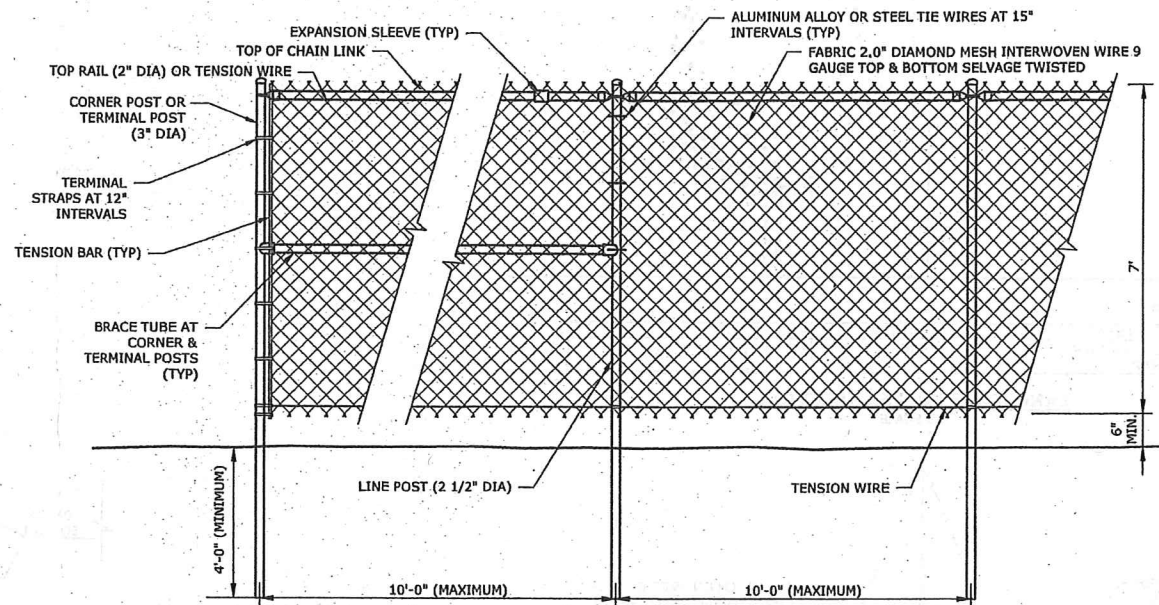
CURB CUT
NO SCALE



EROSION CONTROL BARRIER
NO SCALE



DOUBLE SWING GATE
NO SCALE

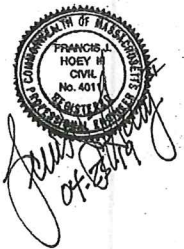


CHAIN LINK FENCE
NO SCALE

CHAIN LINK FENCING NOTES:

- UNLESS OTHERWISE NOTED ON THE SITE PLANS, ALL CHAIN LINK FENCING COMPONENTS SHALL HAVE A HOT DIPPED GALVANIZED FINISH. ANY CHIPS IN THE GALVANIZED FINISH DUE TO SITE INSTALLATION SHOULD BE MINIMIZED AND REPAIRED WITH INDUSTRIAL GRADE GALVANIZED PAINT. ALL CUT ENDS ARE TO BE FINISHED WITH INDUSTRIAL GRADE PAINT-ON GALVANIZED FINISH.
- CHAIN LINK FABRIC SHALL BE MADE OF 9 GAUGE STEEL WIRE, 2" MESH SIZE, AND HOT DIPPED GALVANIZED PRIOR TO WEAVING. THE FABRIC SHALL BE FINISHED WITH A SELVAGE TWIST TOP AND BOTTOM.
- ALL POSTS ARE TO BE PLUMB IN ALL DIRECTIONS.
- LINE POSTS TO BE HAMMER DRIVEN. POST END MUST BE CUT TO FINAL HEIGHT AFTER DRIVING IS COMPLETED. CUT END IS TO BE SQUARE AND FREE OF BENDS, MUSHROOMING, AND BURS. CUT END TO BE TREATED AS PER NOTE #1.
- LINE & TERMINAL POSTS, BRACE TUBES, TOP RAILS, & GATE POSTS SHALL ALL BE SCHEDULE 40 PIPE. REFERENCED DIAMETER IS NOMINAL.
- CHAIN LINK FENCE SHALL HAVE 1 "NO TRESPASSING" SIGN & 1 "DANGER-HIGH VOLTAGE-KEEP OUT" SIGN MOUNTED SIDE BY SIDE EVERY 100 FEET AROUND ENTIRE FENCE PERIMETER. SIGNS WILL BE 10-INCHES BY 14-INCHES.

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Franklin Kearsarge, LLC

Franklin, Massachusetts

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SITE DETAILS - 1

SCALE: AS NOTED

C-007

MINIMUM OF 12" OF PROCESSED GRAVEL (MASSDOT M1.03.1) COMPACT TO GREATER THAN 90% STANDARD PROCTOR DRY DENSITY AND VERIFY BY NUCLEAR DENSITY TESTING WOVEN GEOTEXTILE BELOW ROAD SURFACE (MIRAFI 500X OR APPROVED EQUAL)

VARIES SEE DRAWINGS

REMOVE EXISTING GRAVEL ROAD/NATIVE SOIL FROM ROAD AREA PRIOR TO INSTALLING GEOTEXTILE

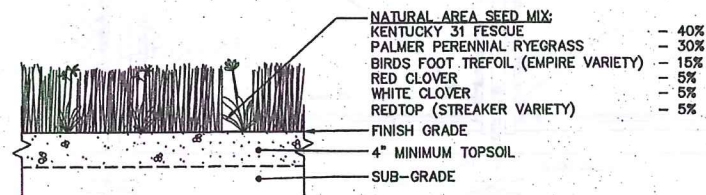
EXISTING GRADE

NATIVE MATERIAL

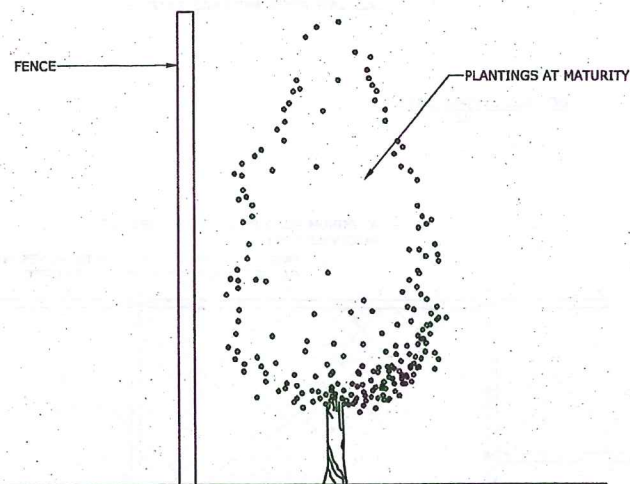
ROADWAY NOTES:

1. ROAD SURFACE IS TO BE GRADED SUCH THAT NO PONDING OF WATER OCCURS WITHIN THE LIMITS OF THE ROAD SURFACE.

TYPICAL ACCESS ROAD SECTION
NO SCALE



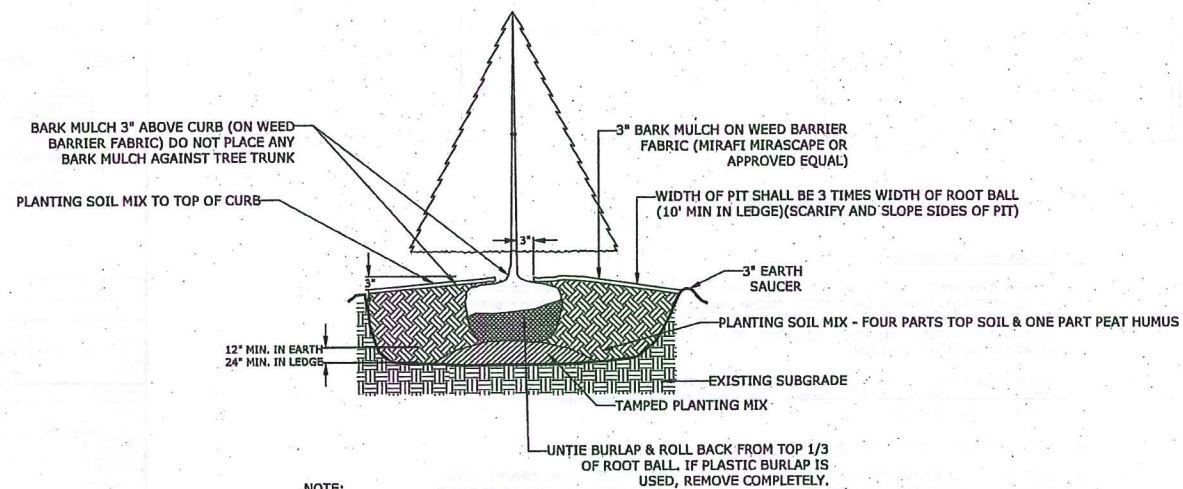
LAWN SECTION
NO SCALE



PLANT LIST

BOTANICAL NAME	COMMON NAME	SIZE	SPACING
JUNIPERUS VIRGINIANA 'SKYROCKET'	EASTERN RED CEDAR	2-3' HT.	4' O.C.

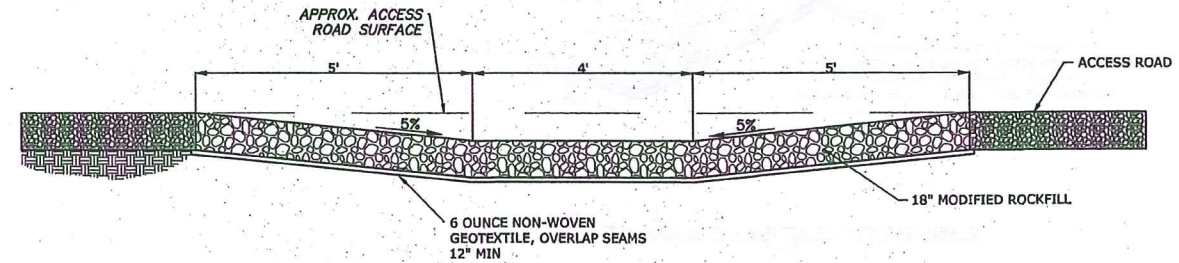
LANDSCAPE BUFFER - SECTION
NO SCALE



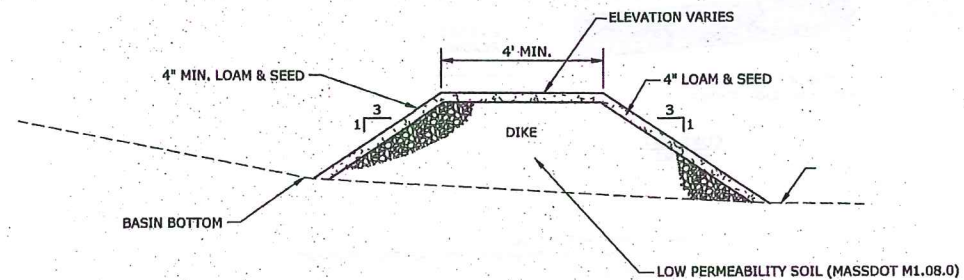
NOTE:

1. PLANT AT SAME DEPTH AS PREVIOUSLY PLANTED IN NURSERY, OR WITHIN 2" ABOVE.
2. TREEGATOR SLOW-RELEASE WATERING BAGS TO BE INSTALLED AT TIME OF PLANTING.

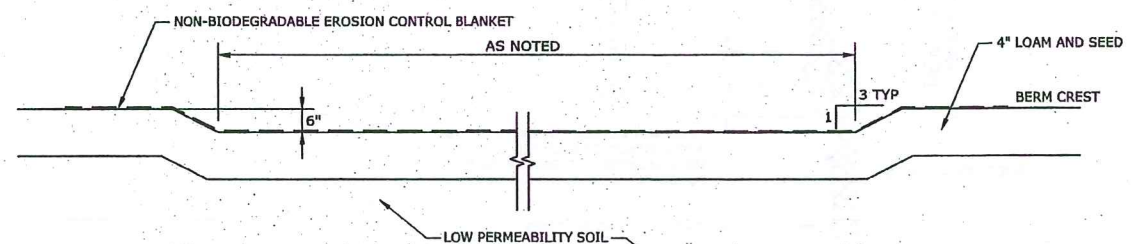
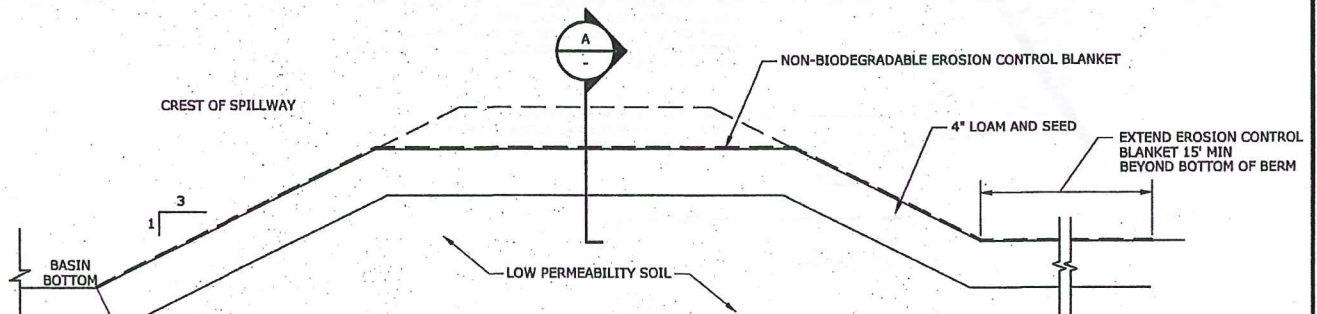
EVERGREEN TREE PLANTING
NO SCALE



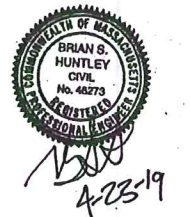
LOW WATER CROSSING
NO SCALE



VEGETATED BERM DETAIL
NO SCALE



EMERGENCY SPILLWAY
NO SCALE



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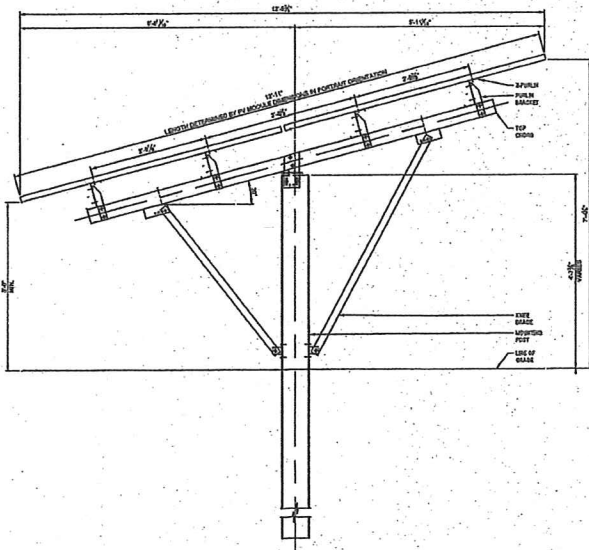
VERIFY SCALE	
BAR IS 1 INCH ON ORIGINAL DRAWING	1 INCH
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SITE DETAILS - 2

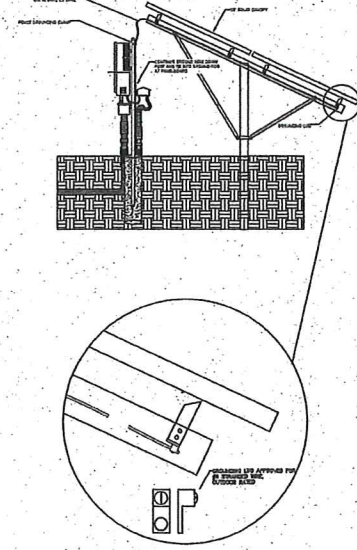
SCALE: AS NOTED

C-008



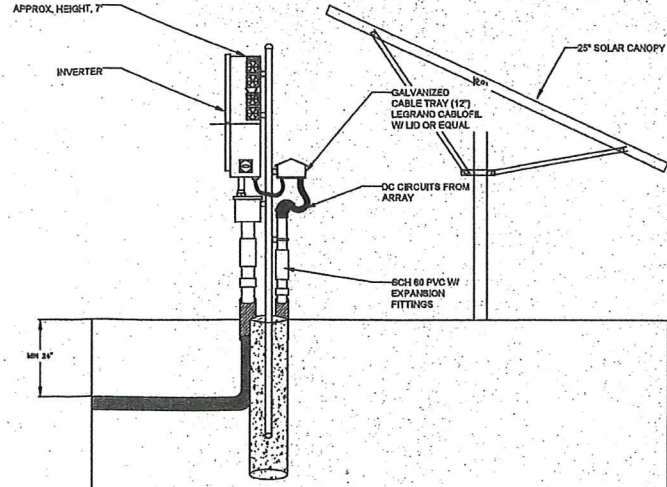
SOLAR MODULE RACKING DETAIL (TYPICAL) - SIDE VIEW

NOT TO SCALE



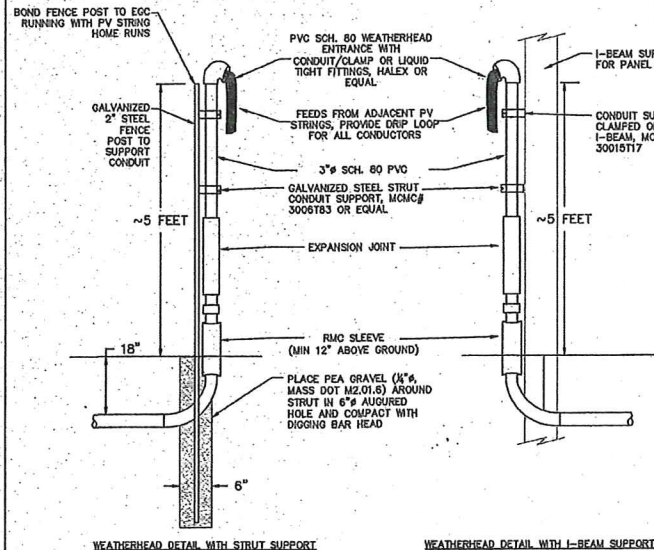
RACKING GROUNDING DETAIL (TYPICAL) - SIDE VIEW

NOT TO SCALE



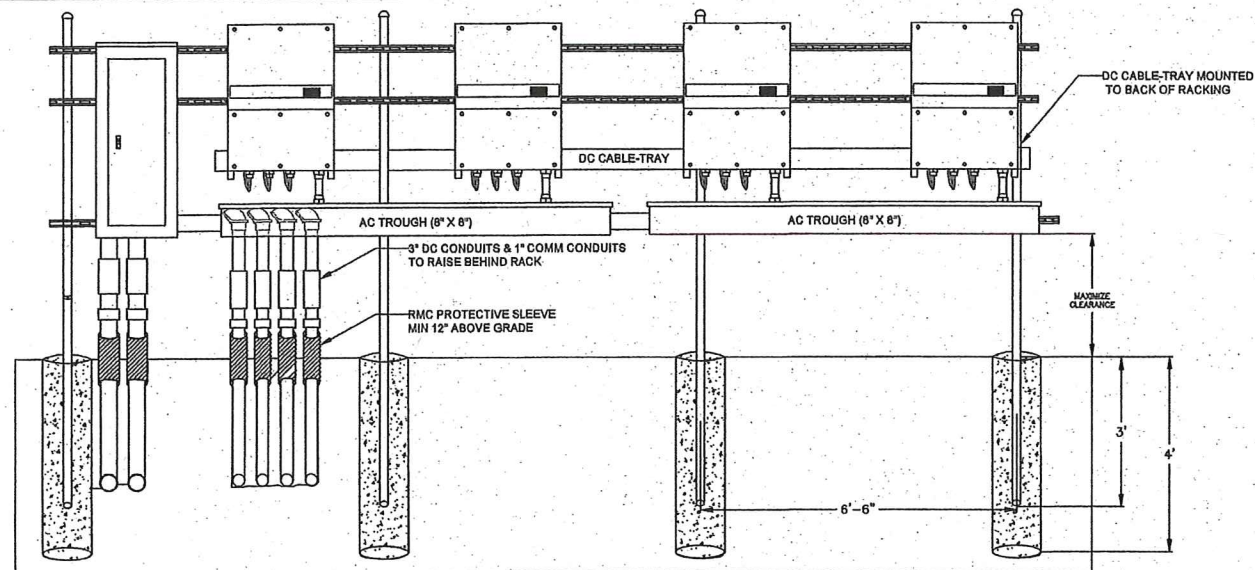
INVERTER RACK DETAIL (TYPICAL) - SIDE VIEW

NOT TO SCALE



MODULE STRING JUMPER DETAIL (TYPICAL) - SIDE VIEW

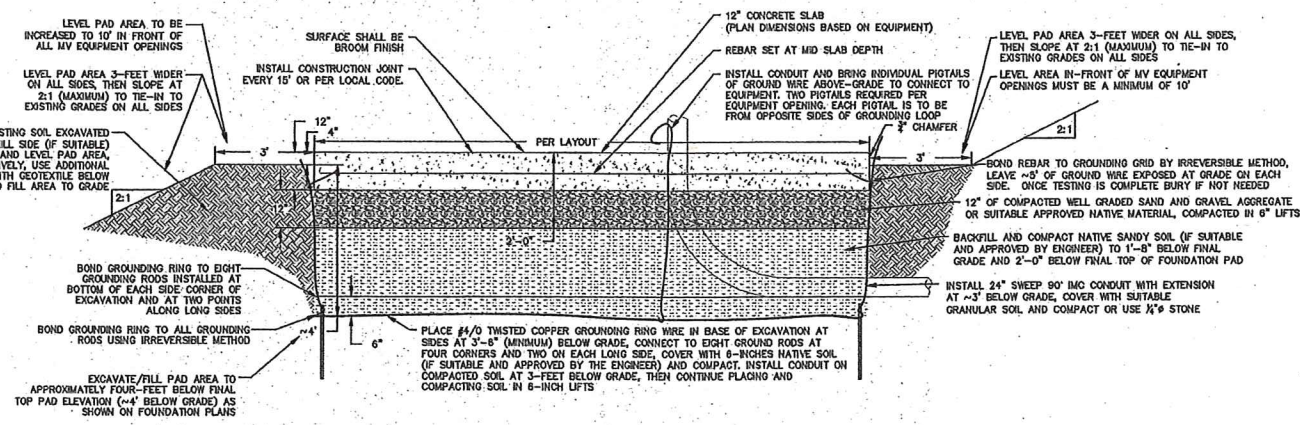
NOT TO SCALE



NOTE: INVERTER SIZING VARIES PER PROJECT, FOUNDATIONS AND RACK SPACING TO BE ADJUSTED PER PROJECT TO ACCOMMODATE, LOADING/STRUCTURAL TO BE DONE BY OTHERS PRIOR TO INSTALL

INVERTER RACK DETAIL (TYPICAL) - FRONT VIEW

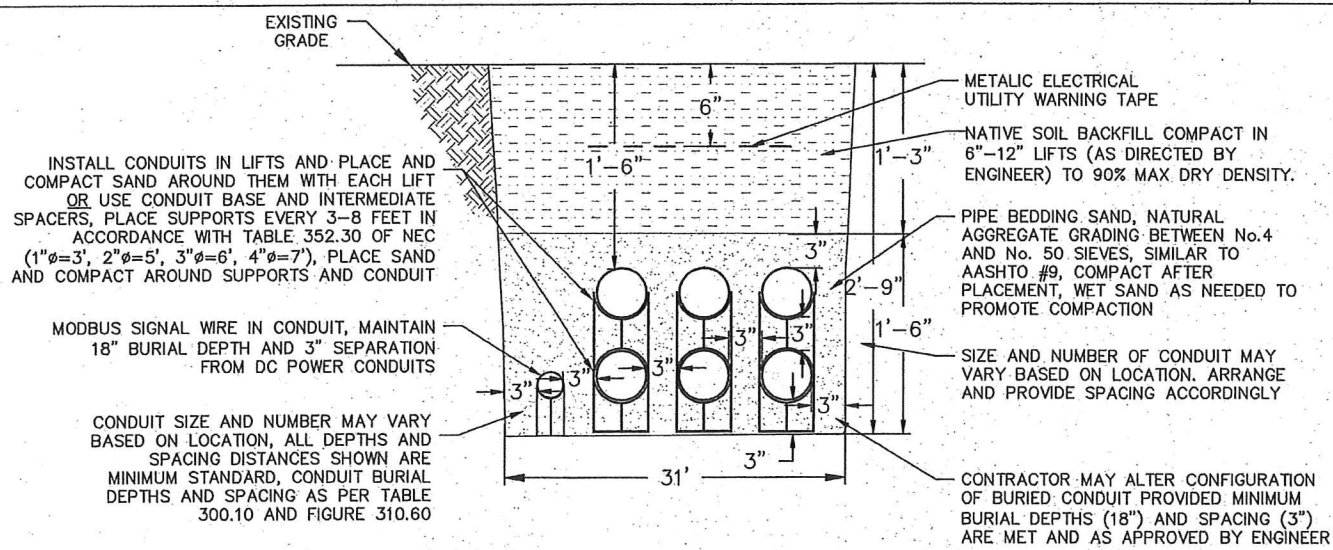
NOT TO SCALE



NOTE: EXAMPLE OF A TYPICAL EQUIPMENT PAD - LOADING/STRUCTURAL ENGINEERING TO BE DONE BY OTHERS PRIOR TO INSTALL

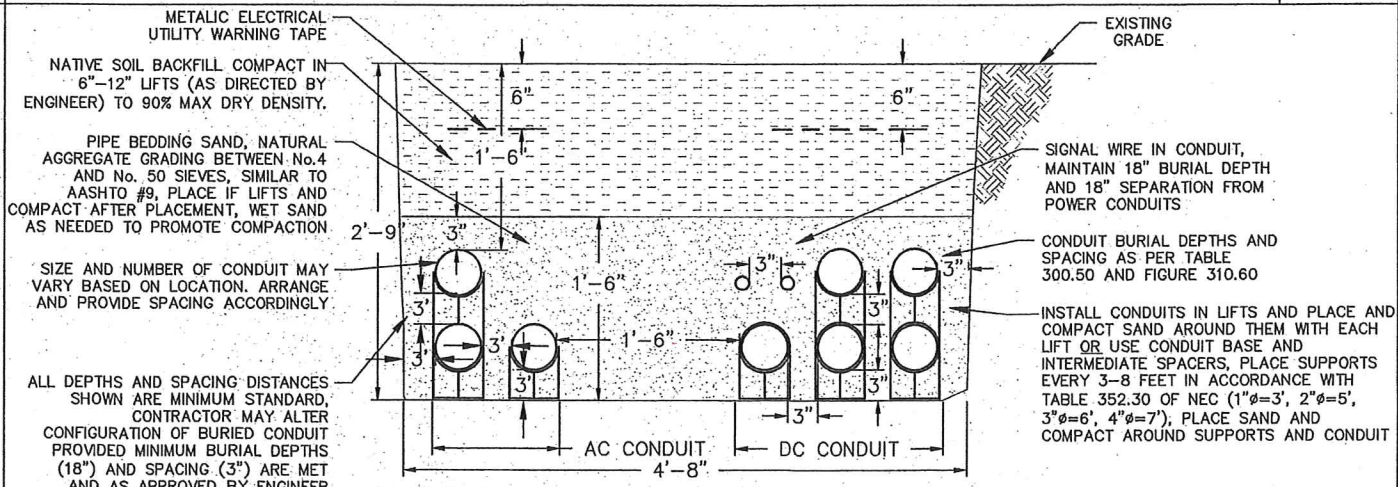
EQUIPMENT GROUNDING DETAIL (TYPICAL) - CROSS SECTION VIEW

NOT TO SCALE



DC AND COMMUNICATION CONDUIT TRENCH DETAIL (TYPICAL) - CROSS SECTIONAL VIEW

NOT TO SCALE



DC, 1000V CLASS AND COMMUNICATION CONDUIT TRENCH DETAIL (TYPICAL) - CROSS SECTIONAL VIEW

NOT TO SCALE

STAMP

NOTE: DRAFTED IN ANSI D, PRINTING AT OTHER SIZES MAY AFFECT SCALING

DESCRIPTION OF REVISION

DATE

REV. #

SITE DETAILS - 3

FRANKLIN SOLAR PROJECT

KEARSARGE ENERGY, LLC

APPLICANT

KEARSARGE ENERGY, LLC

OWNER

DESIGNED JS

CHECKED GM

DATE FEB 2019

FIGURE C-009

