

# PROPOSED LARGE SCALE, GROUND MOUNTED PHOTOVOLTAIC SOLAR ARRAY ON JOHN VERTENTE BOULEVARD IN DARTMOUTH AND NEW BEDFORD, MA

**APPLICANT:**

NBD SOLAR, LLC  
80 FRONT STREET  
MARION, MA 02738

**OWNERS:**

DARTMOUTH ASSESSORS MAP 85

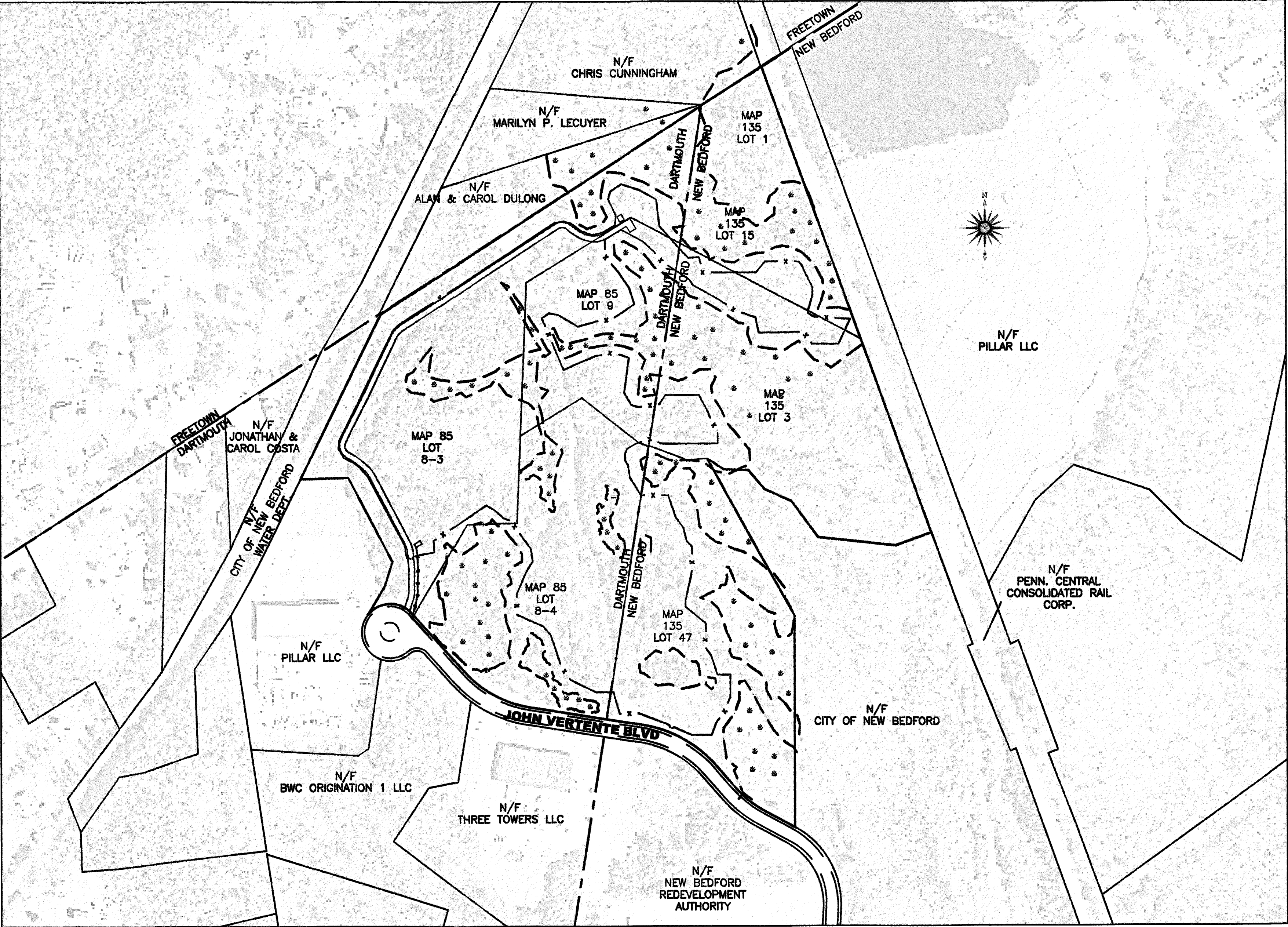
LOTS 8-3, 8-4 AND 9

NBD SOLAR, LLC  
80 FRONT STREET  
MARION, MA 02738

NEW BEDFORD ASSESSORS MAP 135

LOTS 1, 3, 15 & 47

NBD SOLAR, LLC  
80 FRONT STREET  
MARION, MA 02738



**LOCUS  
SCALE: 1"=200'**

## SCHEDULE OF DRAWINGS

SHEET #	PLAN TITLE
-	COVER SHEET
EX	OVERALL EXISTING CONDITIONS PLAN
EX-1	EXISTING CONDITIONS PLAN 1
EX-2	EXISTING CONDITIONS PLAN 2
C-1	CLEARING AND GRUBBING PLAN
C-2	OVERALL SITE PLAN
C-3	SITE PLAN 1
C-4	SITE PLAN 2
D-1	DETAIL PLAN
OP	PERMANENT OPERATION AND MAINTENANCE PLAN

## ZONING TABLES

NEW BEDFORD ZONING TABLE  
INDUSTRIAL C

ASSESSORS MAP 135  
LOTS 1, 14, 15, 47

	Allowed/Required	Proposed
Lot Area (sq ft)	0 s.f.	784,000 s.f.
Lot Width (ft)	0 s.f.	200 ft
Number of Dwelling Units Max.	N/A	0
Total Gross Floor Area (sq ft)	N/A	0
Residential Gross Floor Area (sq ft)	N/A	0
Non-Residential Gross Floor Area (sq ft)	N/A	N/A
Building Height (ft)	100 ft	8 ft PANEL
Front Setback (ft)	25 ft	25 ft
Side Setback (ft)	25 ft	25 ft
Side Setback (ft)	25 ft	25 ft
Rear Setback (ft)	25 ft	25 ft
Max. Lot Coverage by Buildings (% of Lot Area)	50%	N/A
Min. Permeable Open Space (% of Lot Area)	20%	OVER 20
Min. Green Space (% of Lot Area)	20%	OVER 20
Off-Street Parking Spaces	0	0
Van Accessible Handicap	0	0
Long-Term Bicycle Parking Spaces	0	0
Short-Term Bicycle Parking Spaces	0	0
Loading Bays	0	0

DARTMOUTH ZONING TABLE  
GENERAL INDUSTRIAL

ASSESSORS MAP 85  
LOTS 8-3, 8-4 & 9

	Allowed/Required	Proposed
Frontage (ft)	150 s.f.	OVER 700 s.f.
Lot Area (sf)	43,560 s.f.	1,045,000 s.f.
Front Setback (ft)	75 ft	75 ft
Side Setback (ft)	75 ft	75 ft
Rear Setback (ft)	75 ft	75 ft
Off-Street Parking Spaces	0	0

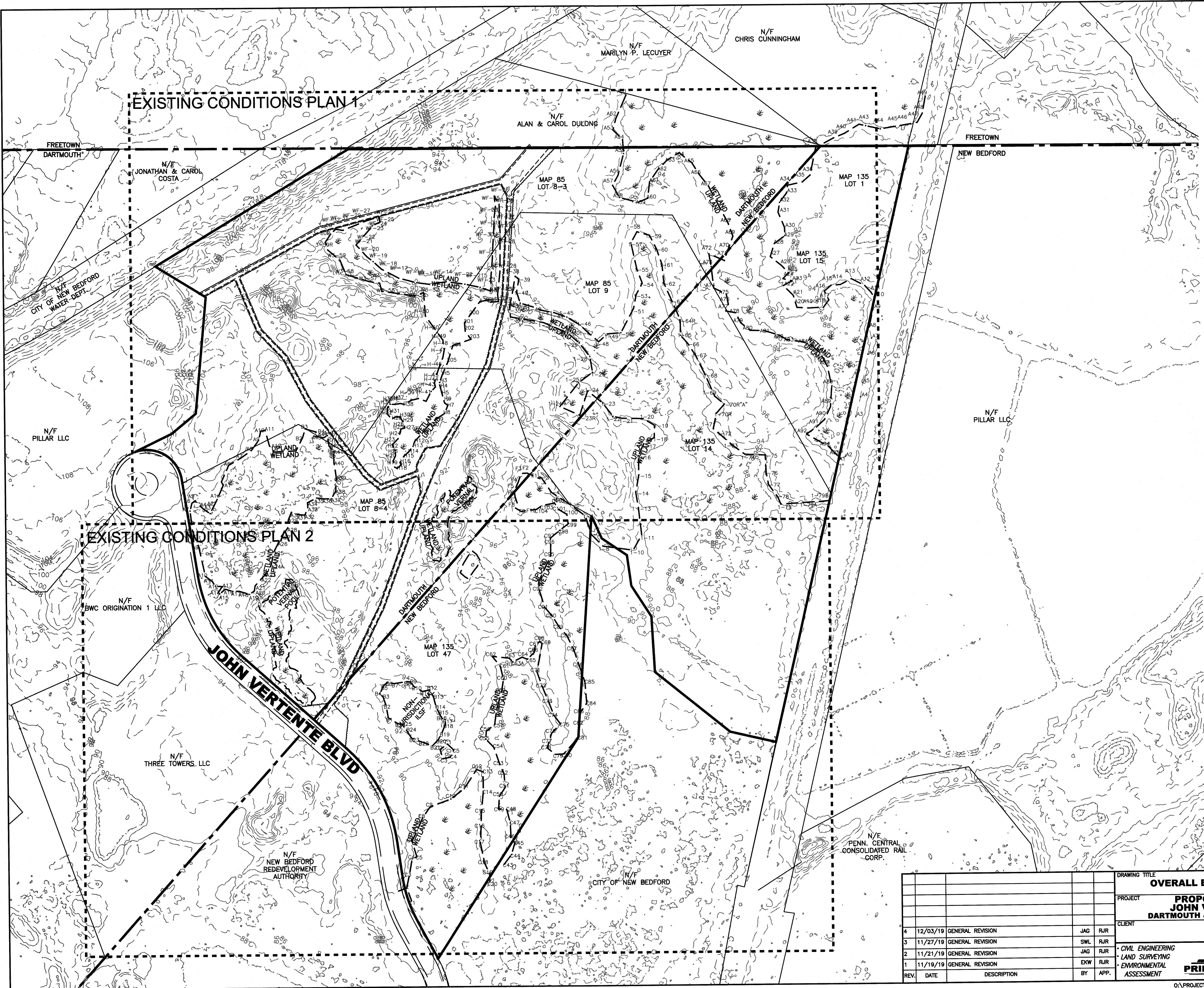
**PREPARED BY:**



CIVIL ENGINEERING—LAND SURVEYING—ENVIRONMENTAL ASSESSMENT  
P.O. BOX 1088, 350 BEDFORD STREET, LAKEVILLE, MA 02347  
TEL: 508.947.0050 FAX: 508.947.2004

**OCTOBER 25, 2019  
REVISED DECEMBER 3, 2019  
ISSUED FOR PERMITS**



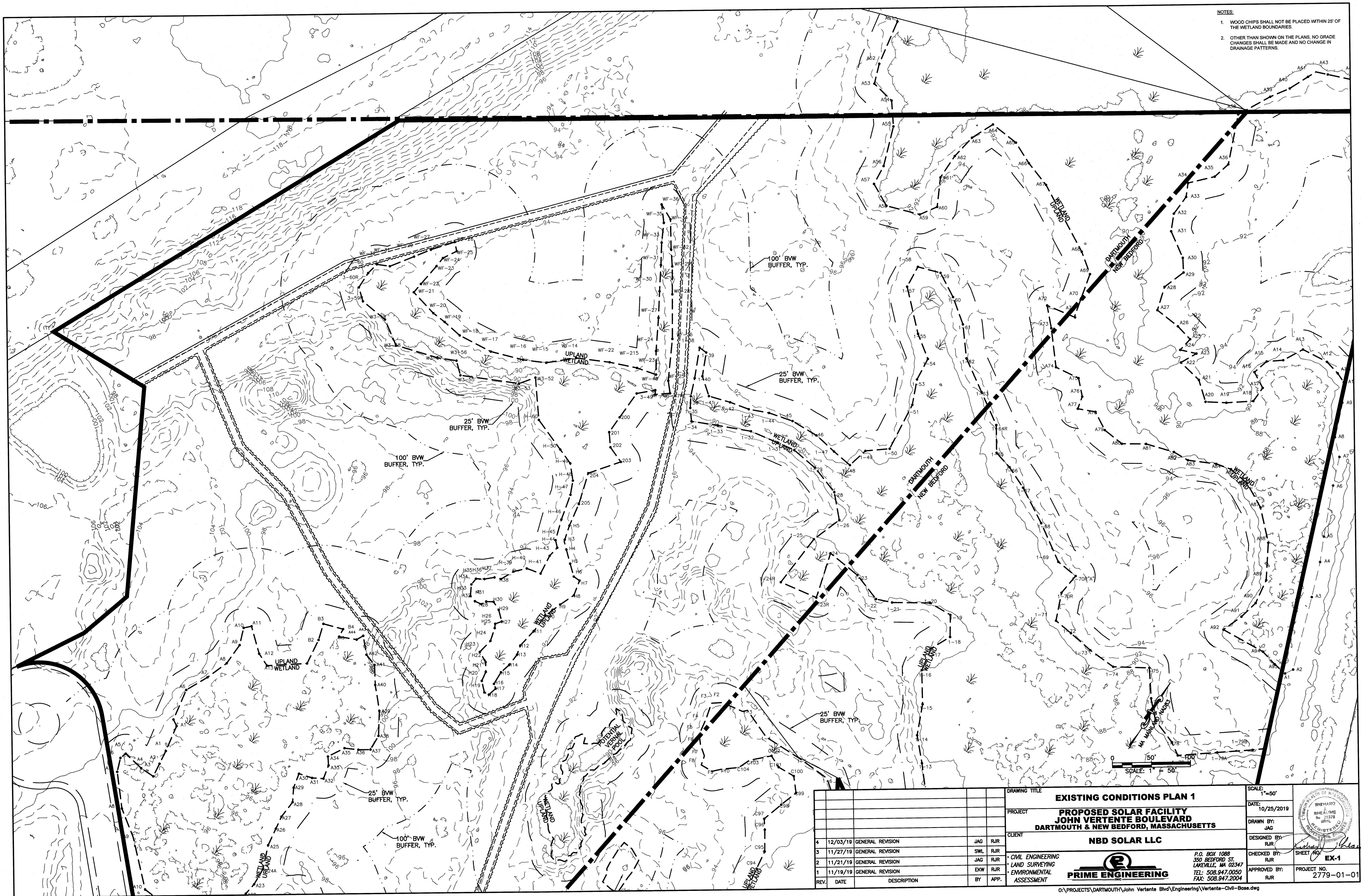


- NOTES:
1. VERTICAL DATUM IS NAVD88.
  2. ALL MONUMENTS AND PROPERTY LINE EVIDENCE SHOWN ARE OF RECORD AND NOT VERIFIED BY THIS OFFICE. ALL PROPERTY LINES SHOWN HEREON ARE TAKEN FROM DEEDS & PLANS OF RECORD ORIENTED ON AERIAL PHOTOGRAPHY FROM MASSGIS, AND THE TOWN OF DARTMOUTH AND CITY OF NEW BEDFORD GIS.
  3. TOPOGRAPHY OBTAINED FROM USGS LIDAR 2011
  4. EXISTING SITE FEATURES SHOWN INCLUDING TREELINE AND GRAVEL ROAD ARE DIGITIZED FROM AERIAL PHOTOS AND ARE APPROXIMATE.
  5. LIMIT OF POTENTIAL VERNAL POOL BASED ON COMPUTATION OF RAINFALL ON CONTRIBUTING DRAINAGE AREA AND NOT ON FLAGS SET IN FIELD.
  6. WOOD CHIPS SHALL NOT BE PLACED WITHIN 25' OF THE WETLAND BOUNDARIES.
  7. OTHER THAN SHOWN ON THE PLANS, NO GRADE CHANGES SHALL BE MADE AND NO CHANGE IN DRAINAGE PATTERNS.

DRAWING TITLE				SCALE:	
OVERALL EXISTING CONDITIONS PLAN				1"=100'	
PROJECT				DATE:	
PROPOSED SOLAR FACILITY				10/25/2019	
JOHN VERTENTE BOULEVARD				DRAWN BY:	
DARTMOUTH & NEW BEDFORD, MASSACHUSETTS				JAG	
CLIENT				DESIGNED BY:	
NBD SOLAR LLC				RJR	
CHECKED BY:				SHEET NO.	
RJR				EX	
APPROVED BY:				PROJECT NO.	
RJR				2779-01-01	
REV. DATE DESCRIPTION BY APP.				P.O. BOX 1088	
4 12/03/19 GENERAL REVISION JAG RJR				350 BEDFORD ST.	
3 11/27/19 GENERAL REVISION JAG RJR				LAKEVILLE, MA 02347	
2 11/21/19 GENERAL REVISION JAG RJR				TEL: 508.947.0050	
1 11/19/19 GENERAL REVISION EKW RJR				FAX: 508.947.2004	
PRIME ENGINEERING					

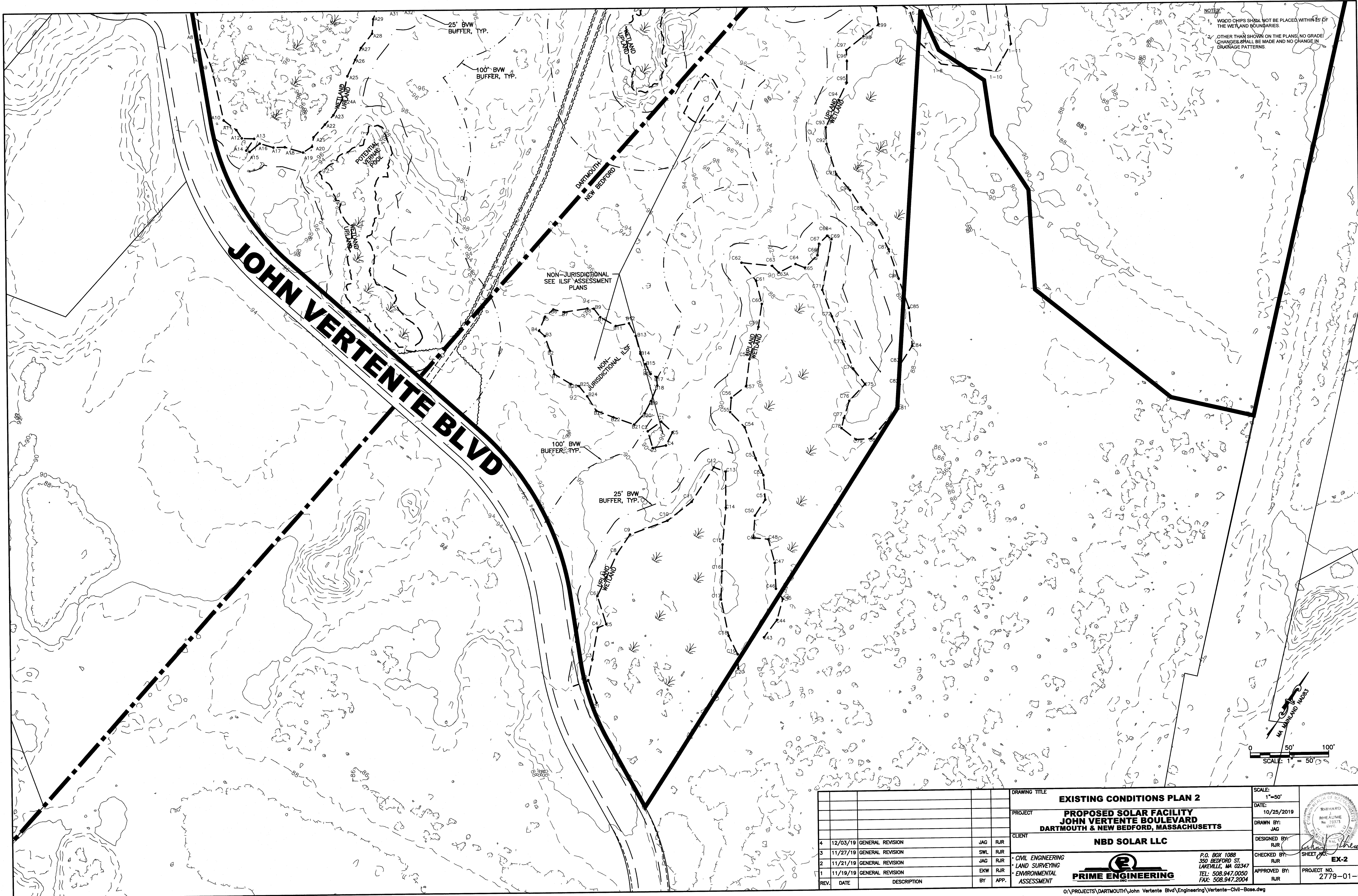


- NOTES:
1. WOOD CHIPS SHALL NOT BE PLACED WITHIN 25' OF THE WETLAND BOUNDARIES.
  2. OTHER THAN SHOWN ON THE PLANS, NO GRADE CHANGES SHALL BE MADE AND NO CHANGE IN DRAINAGE PATTERNS.

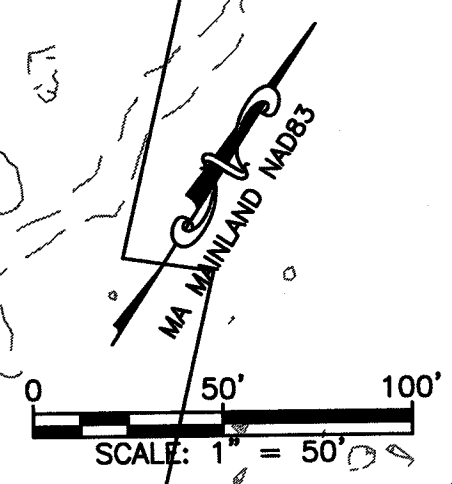



				DRAWING TITLE				EXISTING CONDITIONS PLAN 1				SCALE: 1"=50'	
				PROJECT				PROPOSED SOLAR FACILITY JOHN VERTENTE BOULEVARD DARTMOUTH & NEW BEDFORD, MASSACHUSETTS				DATE: 10/25/2019	
				CLIENT				NBD SOLAR LLC				DRAWN BY: JAG	
												DESIGNED BY: RJR	
												CHECKED BY: RJR	
												APPROVED BY: RJR	
REV				DATE				DESCRIPTION				BY	
4				12/03/19				GENERAL REVISION				JAG RJR	
3				11/27/19				GENERAL REVISION				SWL RJR	
2				11/21/19				GENERAL REVISION				JAG RJR	
1				11/19/19				GENERAL REVISION				EKW RJR	
												BY APP.	

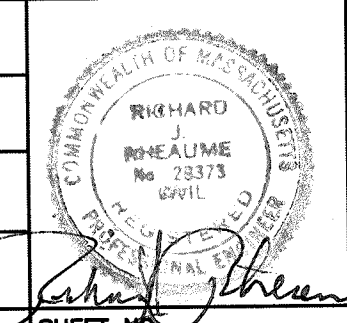




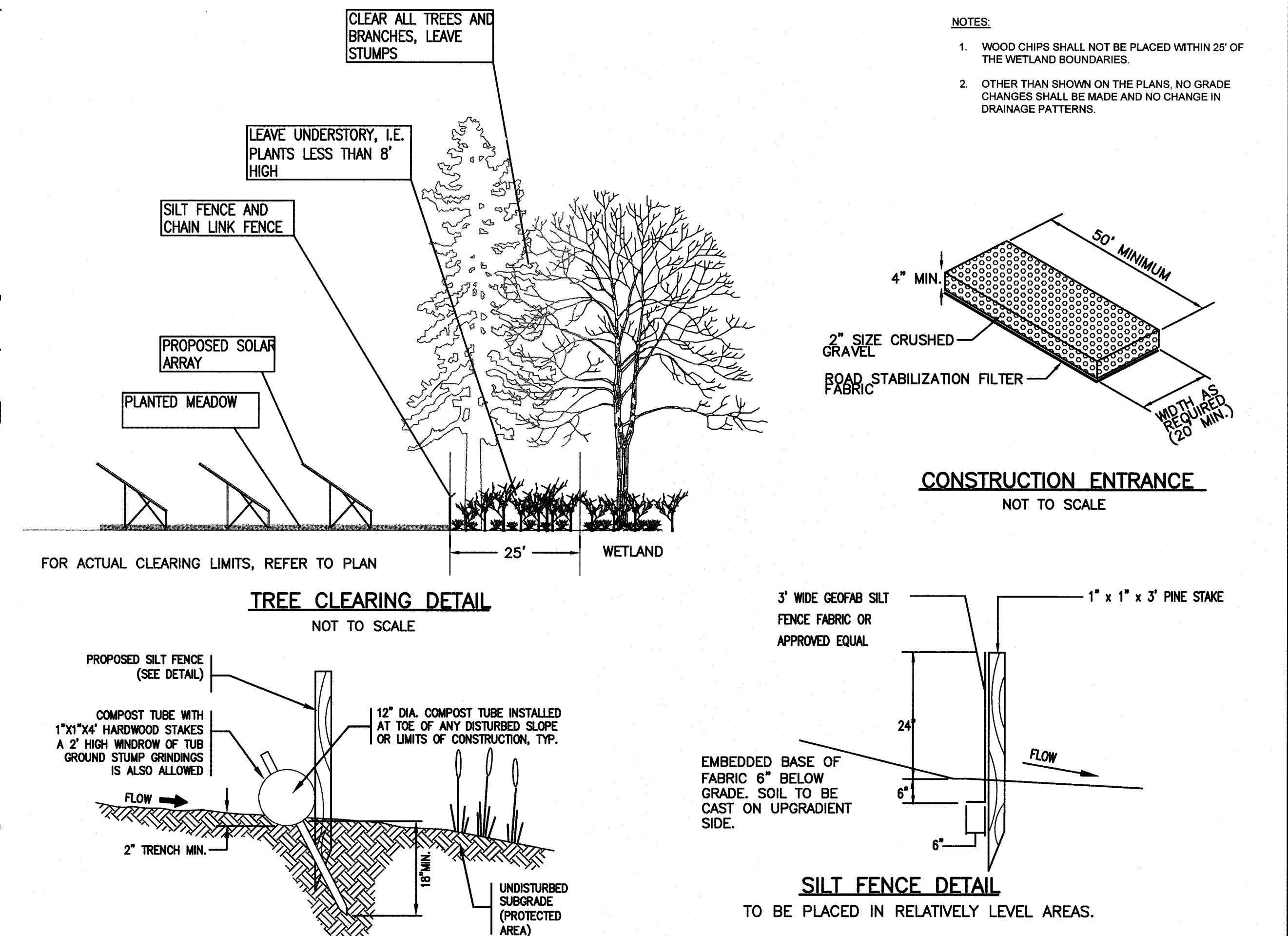
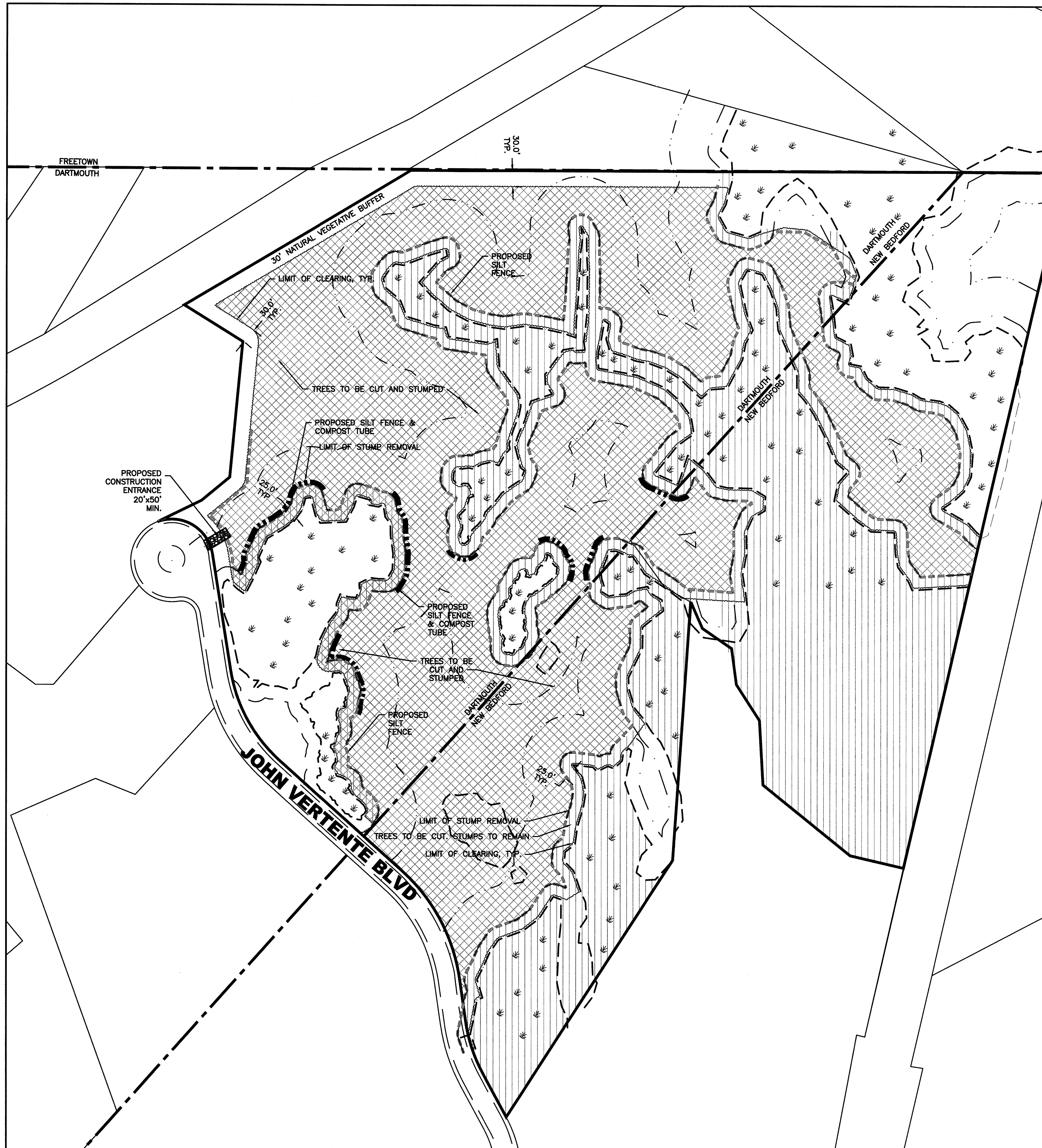
NOTES:  
1. WOOD CHIPS SHALL NOT BE PLACED WITHIN 25' OF THE WETLAND BOUNDARIES.  
2. OTHER THAN SHOWN ON THE PLANS, NO GRADE/CHANGES SHALL BE MADE AND NO CHANGE IN DRAINAGE PATTERNS.



DRAWING TITLE <b>EXISTING CONDITIONS PLAN 2</b>				SCALE: 1"=50'	
PROJECT <b>PROPOSED SOLAR FACILITY JOHN VERTENTE BOULEVARD DARTMOUTH &amp; NEW BEDFORD, MASSACHUSETTS</b>				DATE: 10/25/2019	
CLIENT <b>NBD SOLAR LLC</b>				DRAWN BY: JAG	
<div>CIVIL ENGINEERING LAND SURVEYING ENVIRONMENTAL ASSESSMENT</div> <div><b>PRIME ENGINEERING</b> INC.</div> <div>P.O. BOX 1088 350 BEDFORD ST. LAKEVILLE, MA 02347 TEL: 508.947.0050 FAX: 508.947.2004</div>				DESIGNED BY: RJR	
				CHECKED BY: RJR	
				APPROVED BY: RJR	
REV.	DATE	DESCRIPTION	BY	APP.	SHEET NO. <b>EX-2</b>
4	12/03/19	GENERAL REVISION	JAG	RJR	PROJECT NO. 2779-01-01
3	11/27/19	GENERAL REVISION	SWL	RJR	
2	11/21/19	GENERAL REVISION	JAG	RJR	
1	11/19/19	GENERAL REVISION	EKW	RJR	







- NOTES:**
1. PRIOR TO INSTALLATION, CLEAR ALL OBSTRUCTIONS INCLUDING ROCKS, CLODS, AND DEBRIS GREATER THAN ONE INCH THAT MAY INTERFERE WITH PROPER FUNCTION OF STRAW WATTLE.
  2. INSTALL STRAW WATTLES PERPENDICULAR TO THE FLOW DIRECTION AND PARALLEL TO THE SLOPE WITH THE BEGINNING AND END OF THE INSTALLATION POINTING SLIGHTLY UP THE SLOPE CREATING A "P" SHAPE AT EACH END TO PREVENT BYPASS. EXCAVATE A 4" DEEP X 6" WIDE TRENCH. EXCAVATED SOIL SHOULD BE PLACED UP-SLOPE FROM THE ANCHOR TRENCH.
  3. PLACE THE WATTLE IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT SOIL FROM THE EXCAVATED TRENCH AGAINST THE WATTLE ON THE UPHILL SIDE. ADJACENT WATTLES SHOULD TIGHTLY ABUT OR OVERLAP.
  4. SECURE WATTLES WITH 1"x1"x24" STAKES EVERY 3'-4" AND WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLE LEAVING AT LEAST 2"-3" OF STAKE EXTENDING ABOVE THE WATTLE. STAKES SHOULD BE DRIVEN PERPENDICULAR TO SLOPE FACE.
  5. STRAW WATTLE TO BE 12" DIA. MANUFACTURED BY NORTH AMERICAN GREEN OR APPROVED EQUAL.
  6. EROSION CONTROL MEASURES SHALL FOLLOW THE PERFORMANCE STANDARDS OF THE USDA SOIL CONSERVATION SERVICE, AND ANY APPLICABLE STATE/LOCAL CONSERVATION AUTHORITY.

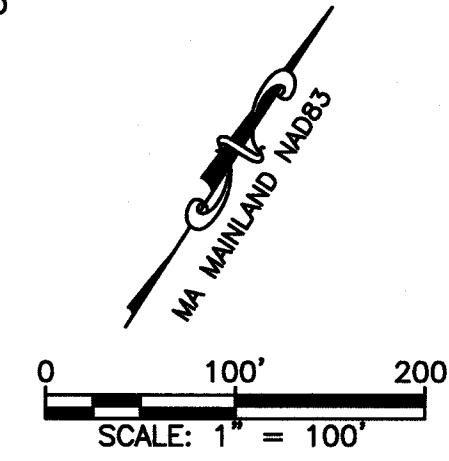
**EROSION CONTROL BARRIER**  
NOT TO SCALE

- ADDITIONAL NOTES:**
1. NO RUNOFF DURING CONSTRUCTION SHOULD BE MODIFIED FROM THE PRESENT CONDITIONS.
  2. CONTRACTOR RESPONSIBLE FOR COORDINATING SITE WORK SO THAT THE CONSTRUCTION MEETS ALL REQUIREMENTS INCLUDING PREVENTION OF EROSION AND SEDIMENT TRANSPORT.
  3. ALL BMP EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO DEMOLITION OR ANY SITE WORK.
  4. EROSION CONTROL BMPs SHALL CONFORM TO THE US EPA, NPDES, MA DEP AND MASSACHUSETTS EROSION AND SEDIMENTATION CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS.
  5. MAINTENANCE SPECIFICATIONS SHALL BE PROVIDED FOR ALL PROPOSED EROSION AND SEDIMENTATION CONTROLS.

- CONSTRUCTION SEQUENCE NOTES:**
- CONSTRUCTION MUST PROCEED IN THE FOLLOWING ORDER:
1. A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD BETWEEN THE SITE SUPERINTENDENT AND A REPRESENTATIVE FROM THE TOWN.
  2. THE CLEARING LIMITS AND STUMP REMOVAL LIMITS SHALL BE FLAGGED BY A SURVEY CREW.
  3. EROSION CONTROL ALONG THE PROPOSED ACCESS ROAD SHALL BE INSTALLED.
  4. CLEARING AND STUMPING TO TAKE PLACE TO ACCOMMODATE THE CONSTRUCTION OF THE ACCESS ROAD.
  5. THE ACCESS ROAD WILL BE CONSTRUCTED.
  6. THE REMAINING SILT FENCE SHALL BE INSTALLED.
  7. THE SEDIMENT SUMPS SHALL THEN BE INSTALLED.
  8. TREES WILL BE CUT.
  9. THE STUMPS CAN THEN BE REMOVED FROM THE DESIGNATED AREAS OR GROUND BELOW GRADE.
  10. IF THE STUMPS ARE TO BE PULLED, THEY MAY BE GROUND AND USED FOR EROSION CONTROL ON-SITE. GRINDINGS STOCKPILED ON-SITE TO BE PLACED ON PLASTIC AND SURROUNDED BY EROSION CONTROL. GRINDINGS TO BE SPREAD TO A DEPTH OF 3" OR LESS.

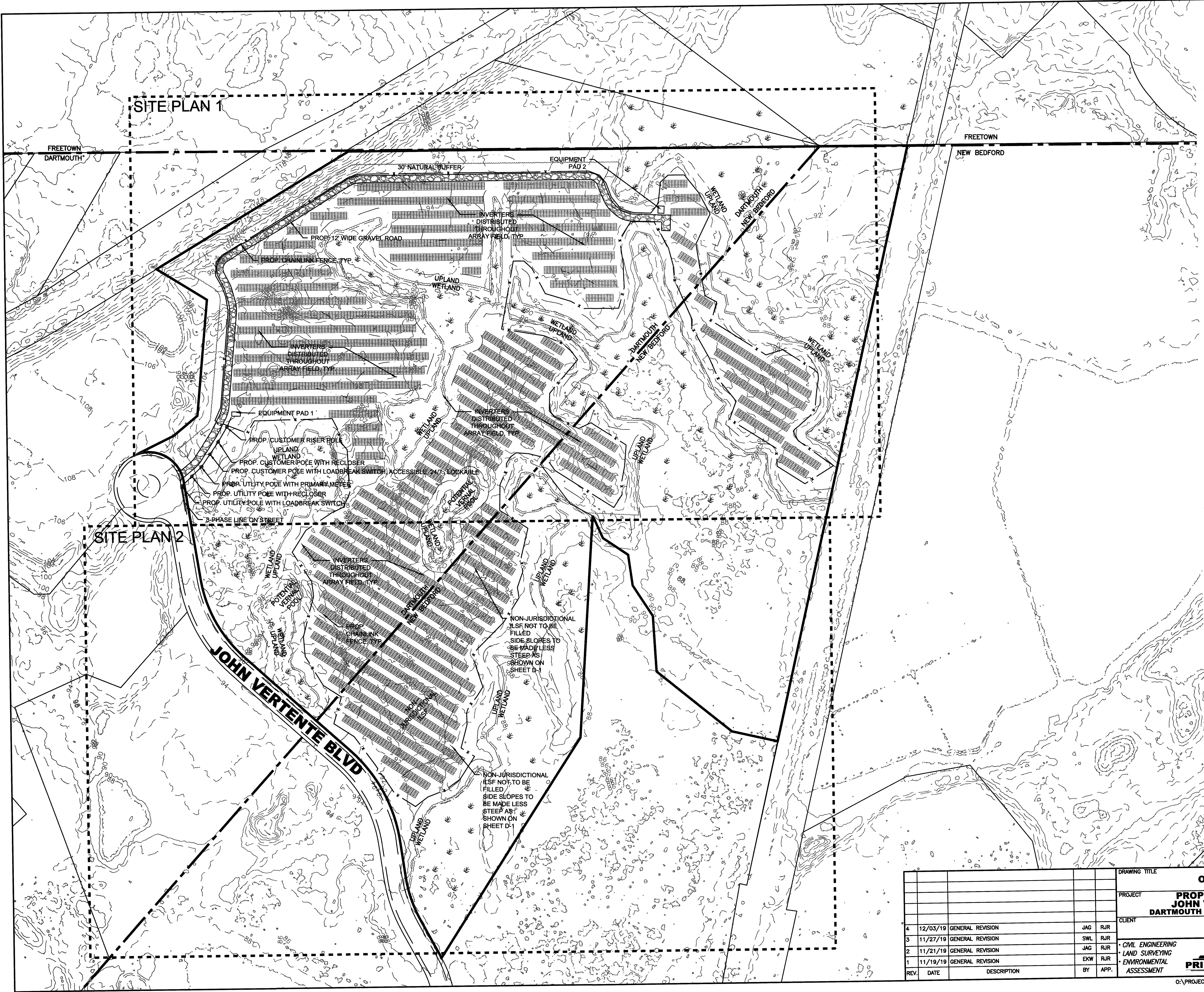
**LEGEND**

- TREES TO BE CUT & STUMPED
- TREES TO BE CUT, NOT STUMPED (LIMIT OF WORK)
- PROPOSED SILT FENCE ONLY
- PROPOSED EROSION CONTROL STRAW WATTLE (SEE DETAIL)
- PROPOSED STRAW WATTLE BACKED BY SILT FENCE (SEE DETAIL)

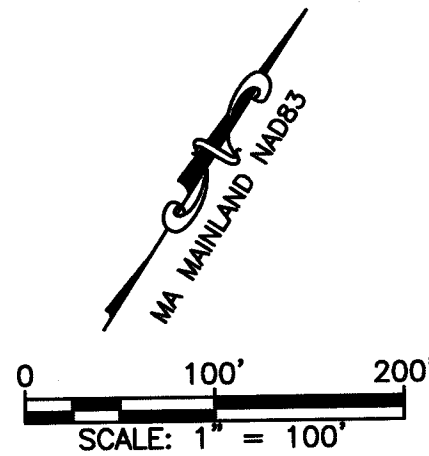


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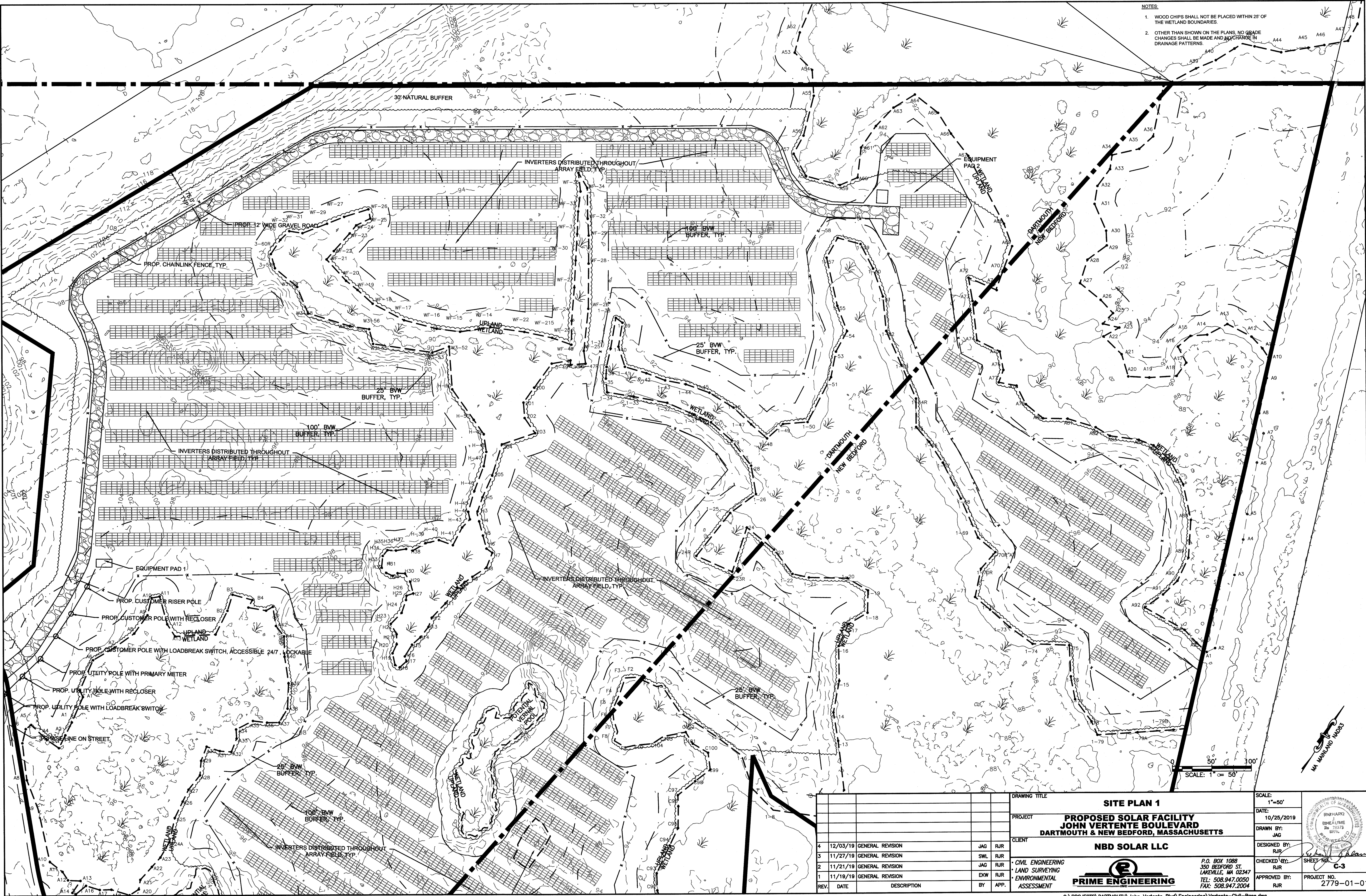


- NOTES:
1. WOOD CHIPS SHALL NOT BE PLACED WITHIN 25' OF THE WETLAND BOUNDARIES.
  2. OTHER THAN SHOWN ON THE PLANS, NO GRADE CHANGES SHALL BE MADE AND NO CHANGE IN DRAINAGE PATTERNS.
  3. THERE SHALL BE NO FILLING OF DEPRESSIONS OR GRADING WITH THE EXCEPTION OF REMOVING LARGE ROCKS AND DEBRIS WHICH HAVE BEEN HISTORICALLY DUMPED ON THE SITE. IN THE NON-JURISDICTIONAL DEPRESSIONS (IN NEW BEDFORD) THE CURRENT STEEP SLOPES WILL BE CUT BACK FROM THE TOE OF SLOPE OUTWARD FROM THE DEPRESSION AT A SLOPE OF 3:1 SO THERE IS ONLY EARTH CUT AND NO EARTH FILL.
  4. ANY MINOR MODIFICATIONS (AS DETERMINED BY THE CITY ENGINEER) TO THE INFORMATION SHOWN ON THE APPROVED SITE PLANS SHALL BE SUBMITTED TO THE CITY ENGINEER AS A MINOR PLAN REVISION FOR APPROVAL PRIOR TO THE WORK BEING PERFORMED.
  5. ANY WORK AND MATERIAL WITHIN THE CITY RIGHT-OF-WAY SHALL CONFORM TO THE CITY OF NEW BEDFORD REQUIREMENTS.
  6. ALL HANDICAP PARKING, RAMPS, AND ACCESS SHALL CONFORM TO AAB & MAAB REQUIREMENTS.
  7. ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO CONSTRUCTION. EROSION CONTROL SHALL CONFORM TO THE CITY OF NEW BEDFORD CONSERVATION COMMISSION REQUIREMENTS AS STATED IN THE ORDER OF CONDITIONS (REFER TO EROSION CONTROL PLAN PART OF SUBMISSION).
  8. ALL PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO THE MUTCD REQUIREMENTS.



DRAWING TITLE				SCALE:	
OVERALL SITE PLAN				1"=100'	
PROJECT				DATE:	
PROPOSED SOLAR FACILITY				10/25/2019	
JOHN VERTENTE BOULEVARD				DRAWN BY:	
DARTMOUTH & NEW BEDFORD, MASSACHUSETTS				JAG	
CLIENT				DESIGNED BY:	
NBD SOLAR LLC				RJR	
CHECKED BY:				SHEET NO.	
JAG				C-2	
APPROVED BY:				PROJECT NO.	
RJR				2779-01-01	
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2 11/21/19 GENERAL REVISION JAG RJR				TEL: 508.947.0050	
1 11/19/19 GENERAL REVISION EKW RJR				FAX: 508.947.2004	
CIVIL ENGINEERING				PRIME ENGINEERING	
LAND SURVEYING				ENVIRONMENTAL ASSESSMENT	





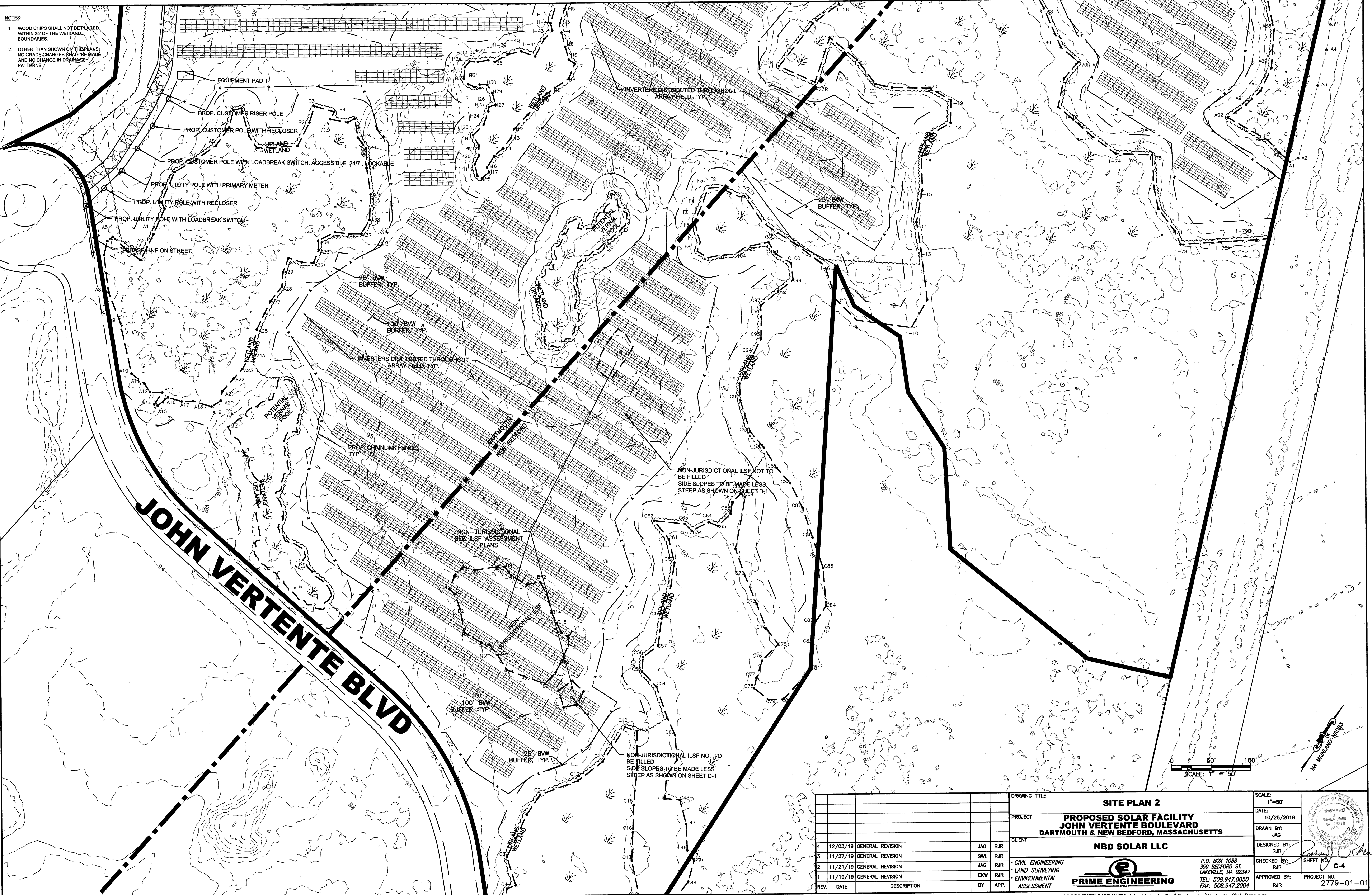
- NOTES:
1. WOOD CHIPS SHALL NOT BE PLACED WITHIN 25' OF THE WETLAND BOUNDARIES.
  2. OTHER THAN SHOWN ON THE PLANS, NO GRADE CHANGES SHALL BE MADE AND NO CHANGE IN DRAINAGE PATTERNS.


DRAWING TITLE				SCALE: 1"=50'			
PROJECT				DATE: 10/25/2019			
CLIENT				DRAWN BY: JAG			
NBD SOLAR LLC				DESIGNED BY: RJR			
CIVIL ENGINEERING LAND SURVEYING ENVIRONMENTAL ASSESSMENT				CHECKED BY: RJR			
PRIME ENGINEERING				APPROVED BY: RJR			
P.O. BOX 1088 330 BEDFORD ST. LAKEVILLE, MA 02347 TEL: 508.947.0050 FAX: 508.947.2004				SHEET NO. C-3			
PROJECT NO. 2779-01-01				PROJECT NO. 2779-01-01			

G:\PROJECTS\ Dartmouth\John Vertente Blvd\Engineering\Vertente-Civil-Base.dwg

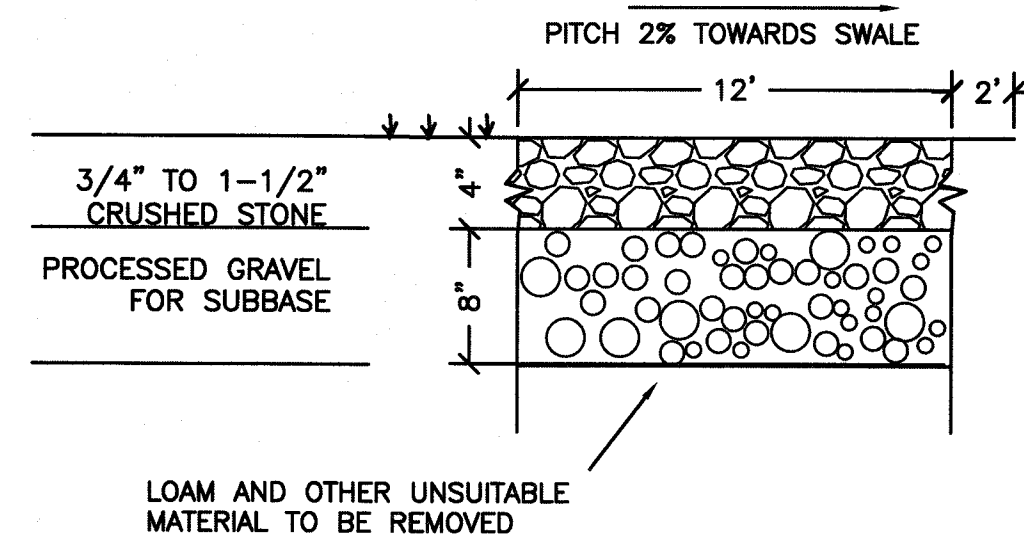
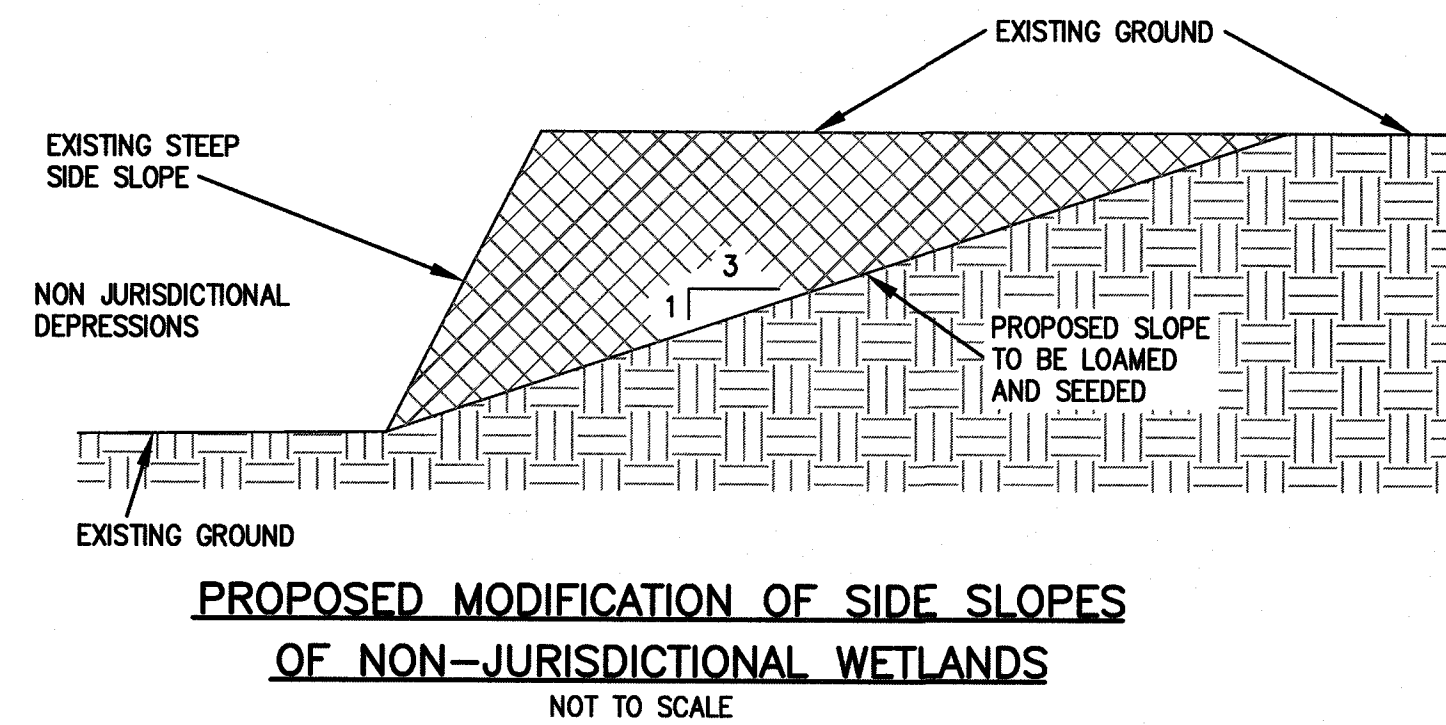


1. WOOD CHIPS SHALL NOT BE PLACED WITHIN 25' OF THE WETLAND BOUNDARIES.
2. OTHER THAN SHOWN ON THE PLANS, NO GRADE CHANGES SHALL BE MADE AND NO CHANGE IN DRAINAGE PATTERNS.



						DRAWING TITLE	SITE PLAN 2		SCALE:	1"=50'	
						PROJECT	PROPOSED SOLAR FACILITY JOHN VERTEENTE BOULEVARD DARTMOUTH & NEW BEDFORD, MASSACHUSETTS		DATE:	10/25/2019	
						CLIENT	NBD SOLAR LLC		DRAWN BY:	JAG	
4	12/03/19	GENERAL REVISION		JAG	RJR				DESIGNED BY:	RJR	
3	11/27/19	GENERAL REVISION		SWL	RJR				CHECKED BY:	RJR	
2	11/21/19	GENERAL REVISION		JAG	RJR						
1	11/19/19	GENERAL REVISION		EKW	RJR				APPROVED BY:	RJR	PROJECT NO. 2779-01-01
REV.	DATE	DESCRIPTION		BY	APP.						



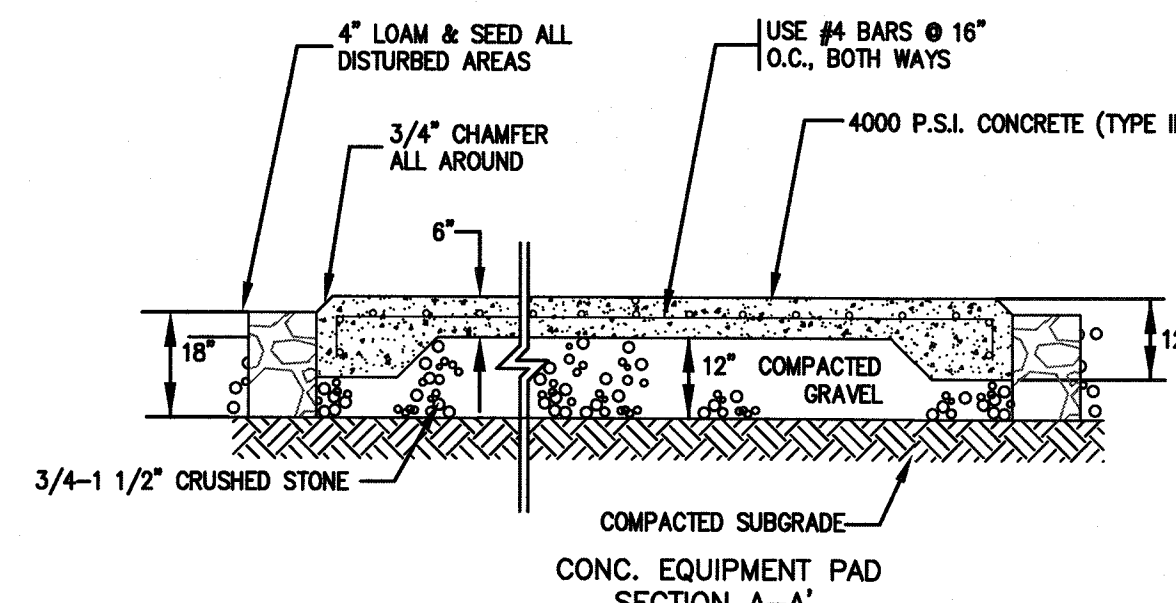
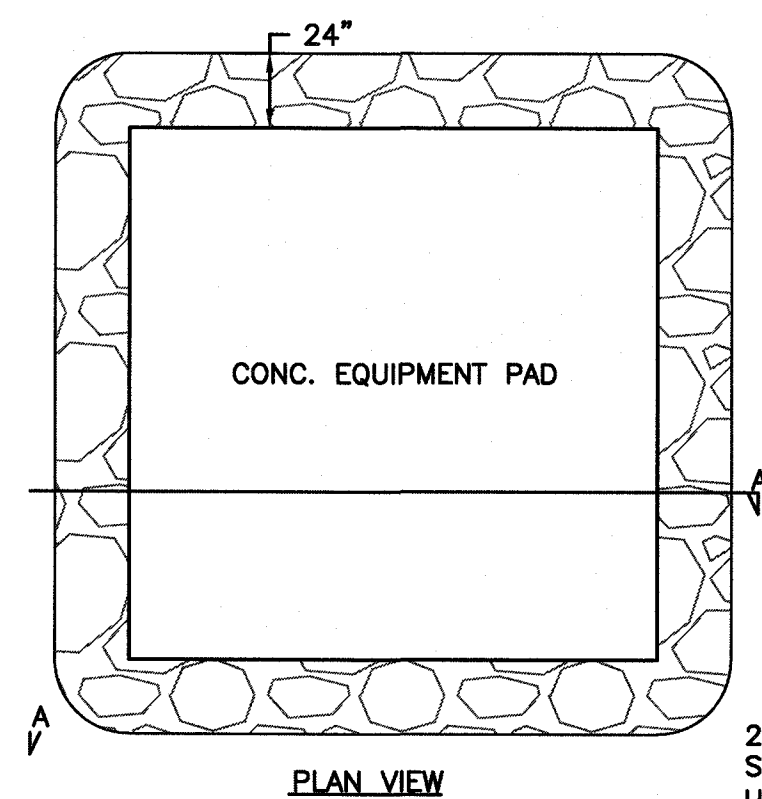
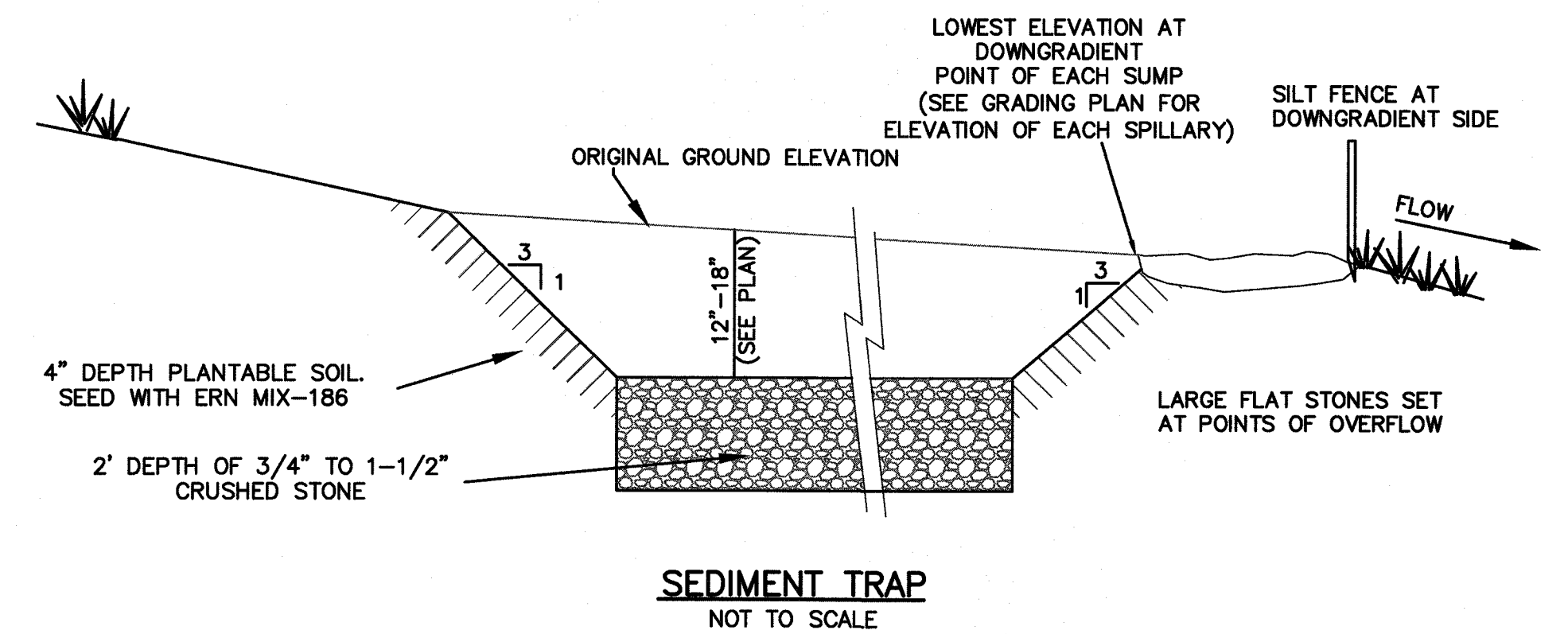


#### ACCESS ROAD NOTES & GRAVEL PATH NOTES:

THE ACCESS ROAD TO THE SOLAR ARRAY AND THE GRAVEL PATH IS TO BE MAINTAINED TO ALLOW FOR CONVENIENT AND SAFE PASSAGE FOR BOTH MAINTENANCE PERSONNEL AND EMERGENCY VEHICLES. AT A MINIMUM, THIS SHALL INCLUDE:

- MAINTENANCE OF SURFACE TO PREVENT RUTTING OR POT HOLES
- KEEPING SHOULDERS WITHIN 3' OF ROAD EDGE CLEAR OF BRUSH OR DEBRIS
- THE CLEARING OF SNOW FROM THE ENTIRE ACCESS ROAD.

MOST OF THE SITE HAS NATURAL GRAVEL AND THERE IS NO NEED FOR IMPORTING CRUSHED STONE AND GRAVEL. THE INTENT OF THIS DETAIL IS TO SPECIFY A ROAD DEPTH WHICH WILL PROVIDE A NON-RUTTING EARTHEN SURFACE. IN AREAS WHERE THE CONSTRUCTED ROAD DOES NOT PROVIDE SUCH A SURFACE, ADDITIONAL MEASURES SHALL BE TAKEN TO PROVIDE A MORE DURABLE SURFACE IN THOSE AREAS.

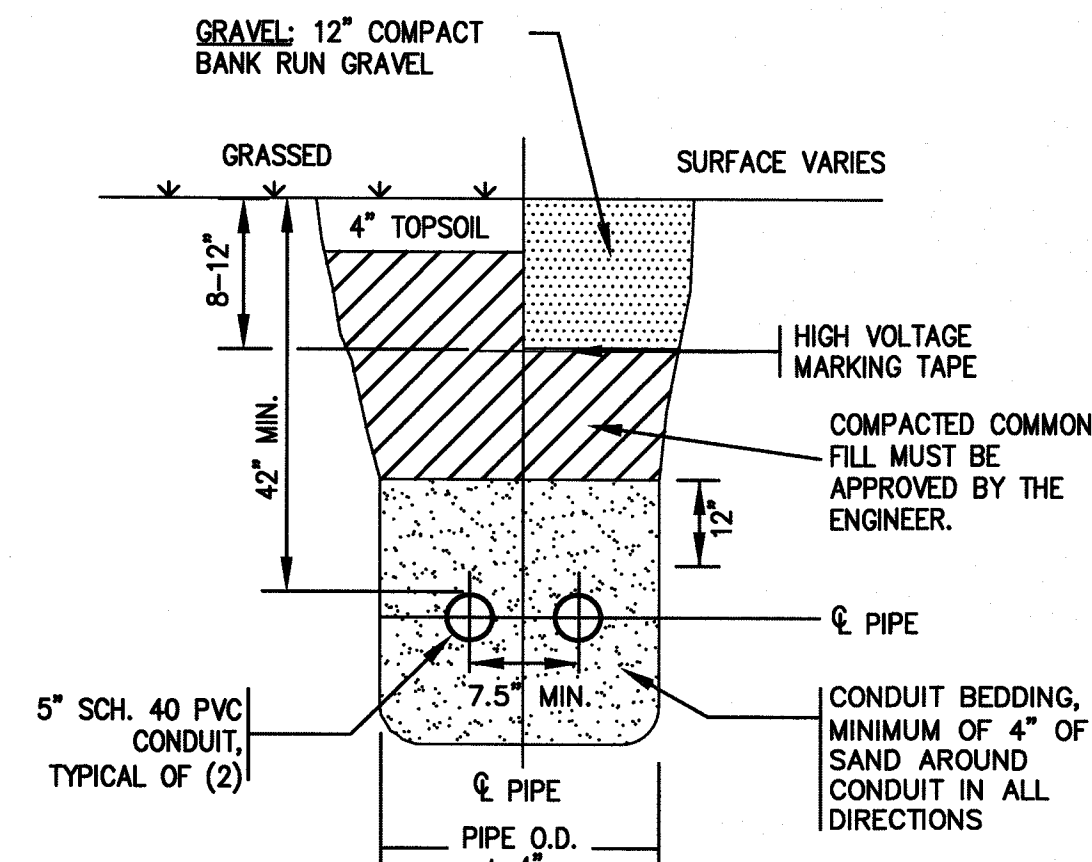


#### NOTES:

1. WIDTH AND LENGTH OF THE PAD TO BE AS INDICATED ON THE LAYOUT PLAN.
2. CONSTRUCTION JOINTS TO BE SET AT INTERVALS OF 1/4 OF LENGTH.
3. STRENGTH OF THE CEMENT CONCRETE SHALL BE 4000 P.S.I. @ 28 DAYS.
4. SEE GRADING & DRAINAGE PLAN FOR ELEVATIONS

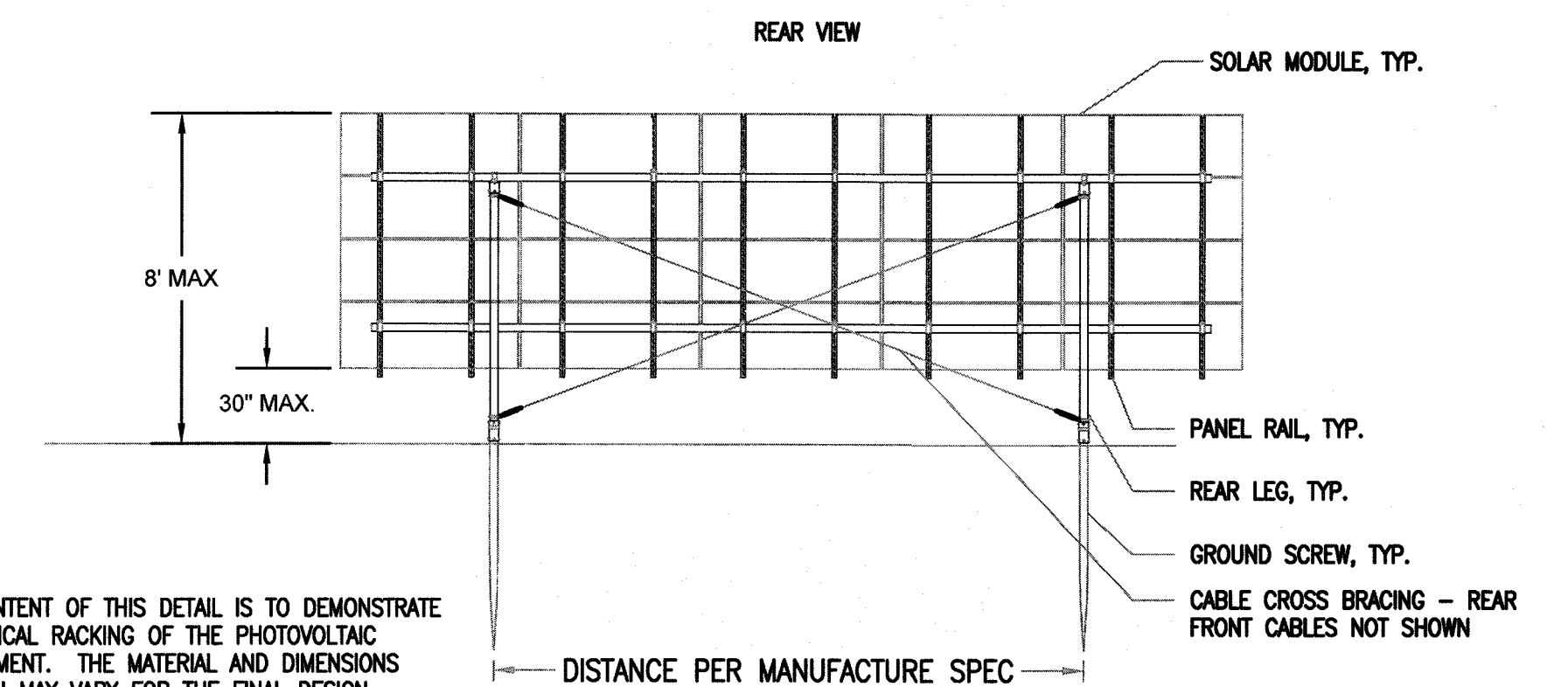
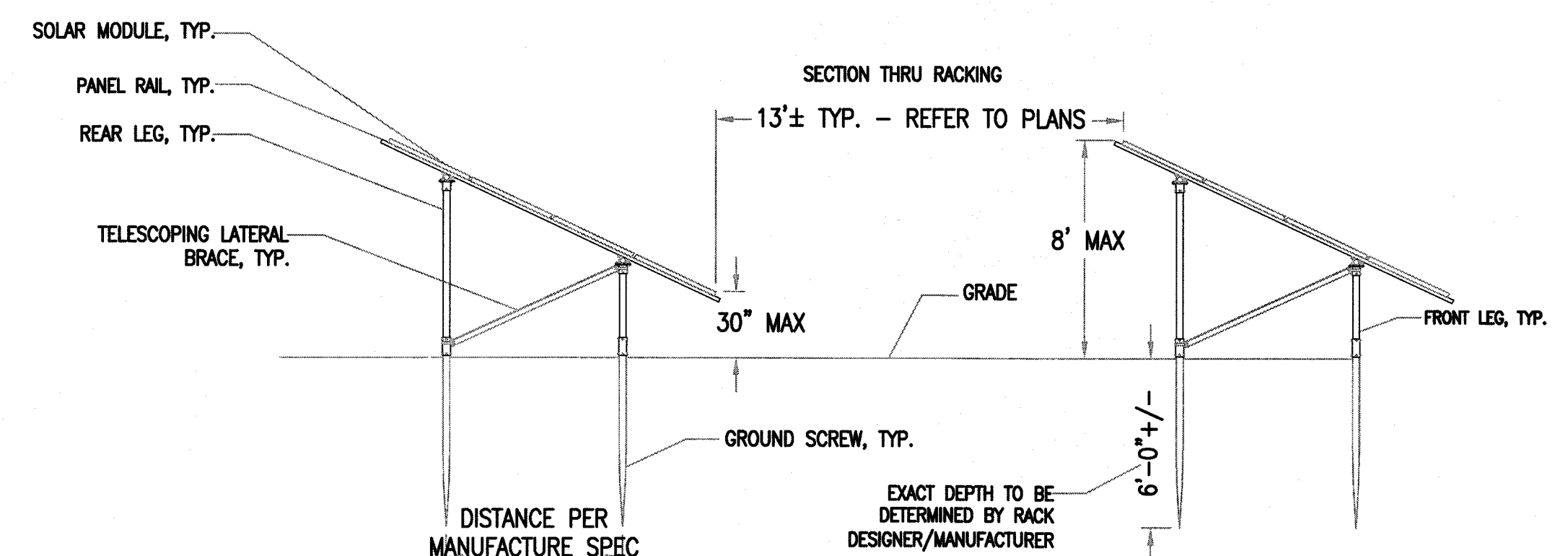
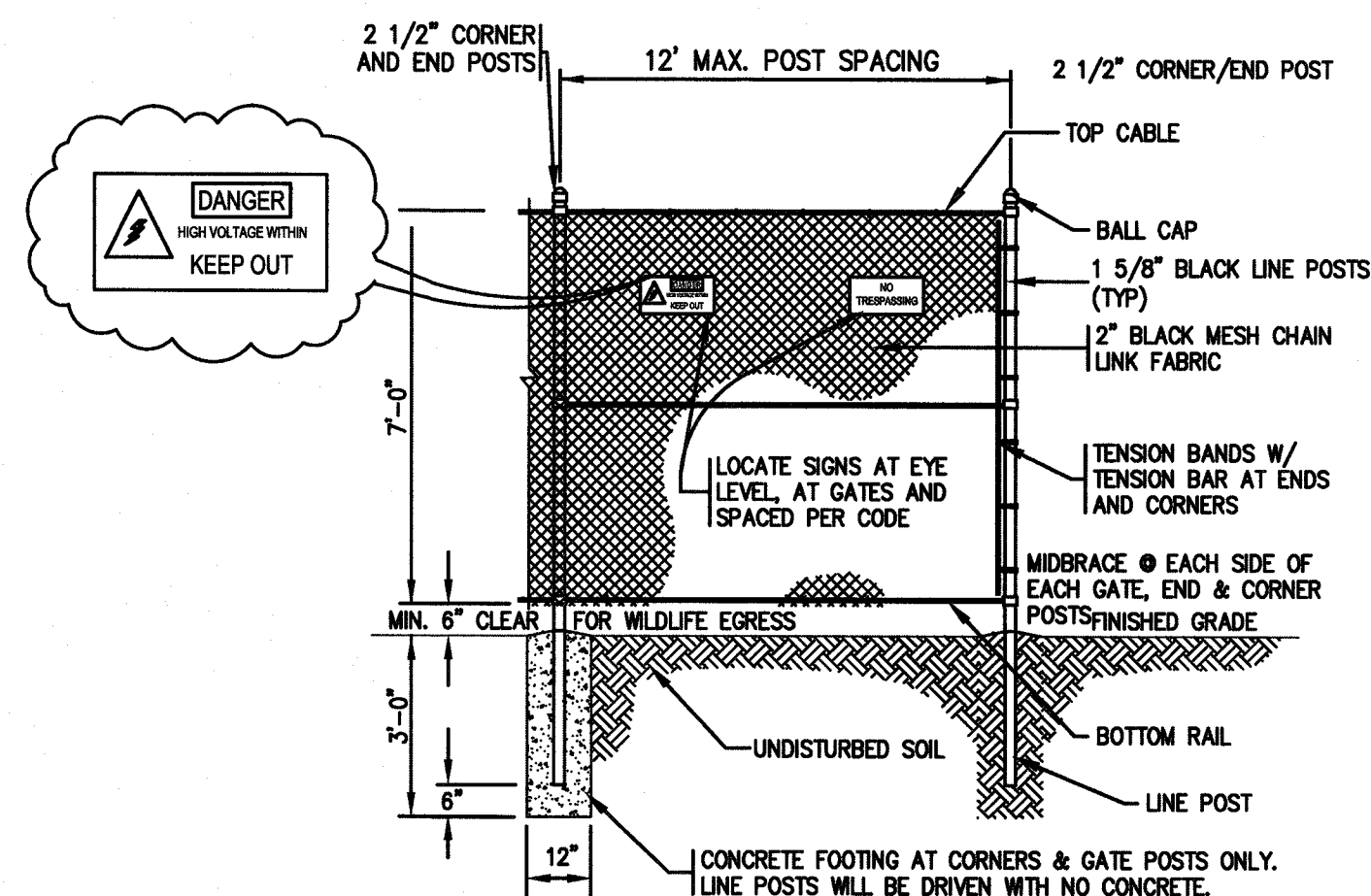
#### CONCRETE PAD DETAIL

NOT TO SCALE



#### NOTES:

1. PIPE BEDDING SHALL BE COMPACTED BEFORE PIPE INSTALLATION.
2. COMPACTION AROUND PIPE SHALL BE BY TAMPER AT 6" MAX. LIFTS.
3. MIN. COVER OVER PIPE = 3'-5"



NOTE: THE INTENT OF THIS DETAIL IS TO DEMONSTRATE A TYPICAL RACKING OF THE PHOTOVOLTAIC EQUIPMENT. THE MATERIAL AND DIMENSIONS SHOWN MAY VARY FOR THE FINAL DESIGN.

#### TYPICAL RACK ASSEMBLY

NOT TO SCALE

DRAWING TITLE				SCALE:	
DETAILS				TBD	
PROJECT				DATE:	
PROPOSED SOLAR FACILITY				TBD	
JOHN VERTENTE BOULEVARD				DRAWN BY:	
DARTMOUTH & NEW BEDFORD, MASSACHUSETTS				JAG	
CLIENT				DESIGNED BY:	
NBD SOLAR LLC				RJL	
REV.				CHECKED BY:	
DATE				RJL	
DESCRIPTION				APPROVED BY:	
BY				RJL	
APP.				PROJECT NO.	
				2779-01-01	



PERMANENT OPERATION AND MAINTENANCE PROGRAM

1.0 INTRODUCTION

The plans for the installation of a ground mounted photovoltaic solar array on John Vertente Blvd. in Dartmouth and New Bedford have been designed to protect stormwater quality. In order for this to continue in the long term, it is necessary to implement the following Long Term Operation and Maintenance Program.

2.0 RESPONSIBLE PARTY

Responsible Party: NBD Solar LLC  
80 Front Street  
Marion, MA 02738

Attention: Christian Loranger - (508) 965-8637

3.0 SOURCE CONTROL MEASURES

The most effective means of providing clean runoff is to prevent pollutants from coming into contact with the stormwater in the first place. This involves the following:

- Keeping fertilizers, stockpiles, etc. covered at all times. All such products shall be stored off-site.
- All landscaping, fertilization, and other grounds maintenance, if necessary, shall be performed by personnel who are trained to maintain grounds.
- Periodic removal of windblown debris and litter from the site.

4.0 MAINTENANCE OF STORM SYSTEM

This section presents the periodic maintenance that must be completed:

- The field shall be mowed a minimum of once per year.
- See Standard Maintenance Procedures in Attachment C-2.

5.0 SPILL PREVENTION AND RESPONSE PLAN

The project consists of inert solar panels that do not emit any pollutants. The only potential source of pollution is the grass cutting equipment which will be on site once or twice a year. The equipment will be fueled off site, therefore, there is little chance of a spill.

The Responsible Parties shall train maintenance personnel in the proper handling and cleanup of spilled hazardous substances or oil. No spilled hazardous substances or oil shall be allowed to come in contact with stormwater discharges. If such contact occurs, the stormwater discharge shall be contained on site until appropriate measures, in compliance with state and federal regulations, are taken to dispose such contaminated stormwater. It shall be the responsibility of the Responsible Party to train personnel in spill prevention and cleanup procedures.

In order to prevent or minimize the potential for a spill of hazardous substances or oil to come into contact with stormwater, the following steps shall be implemented:

- A spill control and containment kit (containing, for example, absorbent materials, rags, gloves, plastic and metal trash containers, etc.) shall be readily available.
- Manufacturer's recommended methods for spill cleanup shall be known and maintenance personnel shall be trained regarding these procedures and the location of the information and cleanup supplies.
- The Responsible Party is to ensure that hazardous waste discovered or generated at the site is disposed properly by a licensed hazardous material disposal company. The Responsible Party is responsible for not exceeding hazardous waste storage requirements mandated by the EPA or state and local authorities.

In the event of a spill of hazardous substances or oil, the following procedures must be followed:

- All measures must be taken to contain and abate the spill and to prevent the discharge of the hazardous substance or oil to stormwater or off-site.
- For spills of less than a quarter gallon of material, proceed with source control and containment. Clean-up with absorbent materials or other applicable means, unless an imminent hazard or other circumstances dictate that the spill should be treated by a professional emergency response contractor.
- For spills greater than a quarter gallon of material, immediately contact Richard J. Rheaume, LSP, Prime Engineering, Inc., P.O. Box 1088, Lakeville, MA 02347 at (508) 947-0050. Provide information on the type of material spilled, the location of the spill, the quantity spilled, and the time of the spill and proceed with prevention, containment and/or clean-up.
- Spills that exceed reportable quantities of certain substances specifically mentioned in federal regulations 40 CFR 110, 40 CFR 117, and 40 CFR 302 must be immediately reported to the EPA National Response Center at (800) 242-8802.
- The Department Head shall be the spill prevention and response coordinator. She/he shall designate who shall receive spill prevention and response training. These individuals shall become responsible for a particular phase of prevention and response. The names of these personnel should be posted in the material storage area and in the property office.

Any spill that occurs shall be documented on a Spill Report Form that is enclosed as Attachment C-1.

6.0 SNOW AND ICE REMOVAL

Snow and ice shall not be removed from panels or electrical equipment. Snow plowing of the access road to the site will be done as needed.

ATTACHMENT C-1

Blank Spill Report

SPILL REPORT

SITE ADDRESS: \_\_\_\_\_

NAME OF PERSON COMPLETING THIS FORM: \_\_\_\_\_

DATE: \_\_\_\_\_

TYPE OF MATERIAL: \_\_\_\_\_ QUANTITY: \_\_\_\_\_

DESCRIPTION OF RELEASE: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

CIRCUMSTANCES LEADING TO RELEASE: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

LOCATION OF SPILL: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

RESPONSE ACTIONS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

PERSONNEL: \_\_\_\_\_

\_\_\_\_\_

ATTACH DOCUMENTATION OF NOTIFICATIONS AND CORRECTIVE MEASURES

IMPLEMENTED TO PREVENT REOCCURRENCE

(COPY AS NEEDED)

ATTACHMENT C-2

Standard Maintenance Procedures

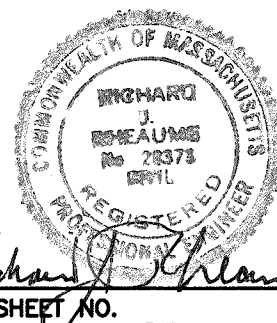
Attachment C-2

(Standard Maintenance Procedures)


Item	Preventative Maintenance Service Description	Frequency/Months Assigned
1	Visual inspection of general site conditions, PV arrays, electrical equipment, mounting structure, fence, shading, vegetation, animal damage, erosion, corrosion, and discolored panels.	Bi-Annually
2	Visual inspection and correction of facility for loose electrical connections and ground connections.	Bi-Annually
3	Visual inspection of all medium voltage transformers, including meters, oil gauge, and temperature gauge.	Annually
4	String level open circuit voltage, DC operating current tests, and I-V curve traces on 10 % of strings.	Annually
5	Switches and disconnects test to ensure they are not jammed.	Bi-Annually
6	Infrared scans on all combiner and re-combiner boxes; tighten connections; report broken terminal blocks.	Bi-Annually
7	Sensors and meters, including pyranometers, anemometers, and tilt sensors	Annually
8	Inverter preventive maintenance for inverters per manufacturer's operating guidelines	Bi-Annually
9	PV array module maintenance for modules	See below
10	Wash all panels with clear water.	Bi-Annually
11	Perform infrared scan of 10 % of modules indicated above for two types of circuitry connections: cells on the front and junction boxes on the back.	Annually
12	Vegetation mitigation within facility area	Annually
13	Written Preventative Maintenance report	Bi-Annually
14	Inspect screening trees. Replace as necessary.	Annually

ADDITIONAL NOTES:

- SEMI-ANNUAL INSPECTION OF DRIPLINE SHALL BE MADE. IF ANY EROSION HAS OCCURRED, CORRECTIVE MEASURES WILL BE IMPLEMENTED.
- TSS MONITORING IS CONDUCTED BI-ANNUALLY AND TO ENSURE THAT A CONTINGENCY PLAN IS IN PLACE TO BE IMPLEMENTED IF THE ACCEPTABLE TSS LIMITS ARE EXCEEDED.

						DRAWING TITLE <b>PERMANENT OPERATION AND MAINTENANCE PLAN</b>	SCALE: N.T.S.	
						PROJECT <b>PROPOSED SOLAR FACILITY JOHN VERTENTE BOULEVARD DARTMOUTH &amp; NEW BEDFORD, MASSACHUSETTS</b>	DATE: 10/25/2019	
						CLIENT <b>NBD SOLAR LLC</b>	DRAWN BY: JAG	
							DESIGNED BY: RJR	
							CHECKED BY: RJR	
4	12/03/19	GENERAL REVISION	JAG	RJR			APPROVED BY: RJR	SHEET NO. <b>OP</b>
3	11/27/19	GENERAL REVISION		SWL	RJR			PROJECT NO. 2779-01-01
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1	11/19/19	GENERAL REVISION	EKW	RJR				
REV.	DATE	DESCRIPTION	BY	APP.				

CIVIL ENGINEERING  
LAND SURVEYING  
ENVIRONMENTAL ASSESSMENT

**PRIME ENGINEERING**  
INC.

P.O. BOX 1088  
350 BEDFORD ST.  
LAKEVILLE, MA 02347  
TEL: 508.947.0050  
FAX: 508.947.2004