



FUSS & O'NEILL

August 22, 2016

Mrs. Michelle Buck, AICP
Town of Leicester Planning Department
31 Washburn Square
Leicester, MA 01524

Re: Site Plan Modification – Response to Comments
Cherry Valley 1.0 MW PV Array
148 Henshaw Street
Town Assessor's Map 24, Lot A2 0
Leicester, Massachusetts

Dear Mrs. Buck:

On behalf of ZPT Energy Solutions, LLC, Fuss & O'Neill has prepared this letter in response to the 148 Henshaw Street Cherry Valley 1.0 MW PV Array letter, sent by Quinn Engineering, Inc., dated August 16, 2016. Our response to Quinn Engineering's additional comment is detailed below.

Site Plan Review Rules and Regulations:

1. *The panels have not been depicted on the plans. (Ref. II.A.7 and LSR 4.0.A.6).*

Response: The panels are depicted on Sheet CS-103.

2. *Existing topography is missing from the southern and western sides of the proposed work. Information depicting the extent of grading and how the proposed contours tie into the existing contours should be provided. (Ref. II.A.8 and LSR 4.0.A.7).*

Response: Contours for the southern and western sides of the proposed work were generated utilizing GIS LiDAR point cloud data, as they are outside of the survey extents. The LiDAR generated contours were found to closely match the surveyed topography and provide accuracy sufficient to clearly depict how proposed contours will tie in.

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3. *Proposed contours along the southern property boundary should tie into existing contours that extend off site, otherwise, it is not clear how the proposed grades match into the existing. As currently drafted, it appears that there is potential to create low points along the southern boundary that will trap runoff. (Ref. II.A.8 and LSR 4.0.A.7).*

Response: Proposed contours along the southern end of the property tie into the existing stone wall along the property line. As depicted on the revised Site Plan, the southern abutting property is at a higher elevation than the site and will facilitate drainage northerly across the site.

4. *The proposed volume of earthwork should be updated. (Ref. II.A.9).*

Response: Revised earthwork calculations are attached. The result of the attached earthwork volume report indicate a net fill. However, the intent of the grading is to avoid importing or exporting material from the site, and the slope within the array field may be slightly adjusted depending on the volume of soil material available.

5. *Some of the proposed cuts are in the range of 13 feet deep. A ledge outcrop is shown on the plan within the eastern portion of the grading. If blasting is required, it should be conducted in accordance with all local, state and federal requirements.*

Response: Depending on the extent of ledge encountered during site grading, either a pneumatic hammer or blasting will be utilized. Any blasting performed will be conducted in accordance with all local, state, and federal requirements.

6. *There is potential for the proposed earthwork cuts to intercept the seasonal high groundwater table. Information related to the groundwater table elevation should be provided. If abundant groundwater is present, diversion swales may be necessary and additional stabilization of the slopes beyond the proposed loam and grass seed mixture may be required.*

Response: We would like to defer conducting test pits until construction has begun and construction equipment is mobilized. Diversion swales shall be installed if seasonal high groundwater is encountered during earthwork operations.



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7. *Removal of the trailer in the southeastern portion of the grading is required. Removal should be coordinated with the trailer's owner.*

Response: Relocation of the abutting property owner's trailer has been coordinated with property owner.

Please feel free to contact me at (800) 286-2469 ext.4540 or via e-mail at AGlines@fando.com if you have any questions or require additional information regarding the proposed project.

Sincerely,

Andy G. Glines, EIT
Civil Engineer

Attachments: Site Plan Sheet CS-103
Earthwork Calculation Summary

Project File Data	Coordinate System
Name: C:\Users\pfort\Documents\Business Center - HCE\cherry_valley_8.22.16.vce	Name: Default
Size: 4 MB	Datum: WGS 1984
Modified: 8/22/2016 11:29:02 AM (UTC:-4)	Zone: Default
Time zone: Eastern Standard Time	Geoid:
Reference number:	Vertical datum:
Description:	
Comment 1:	
Comment 2:	
Comment 3:	

Earthwork Volume Report

Original surface compared to Design surface

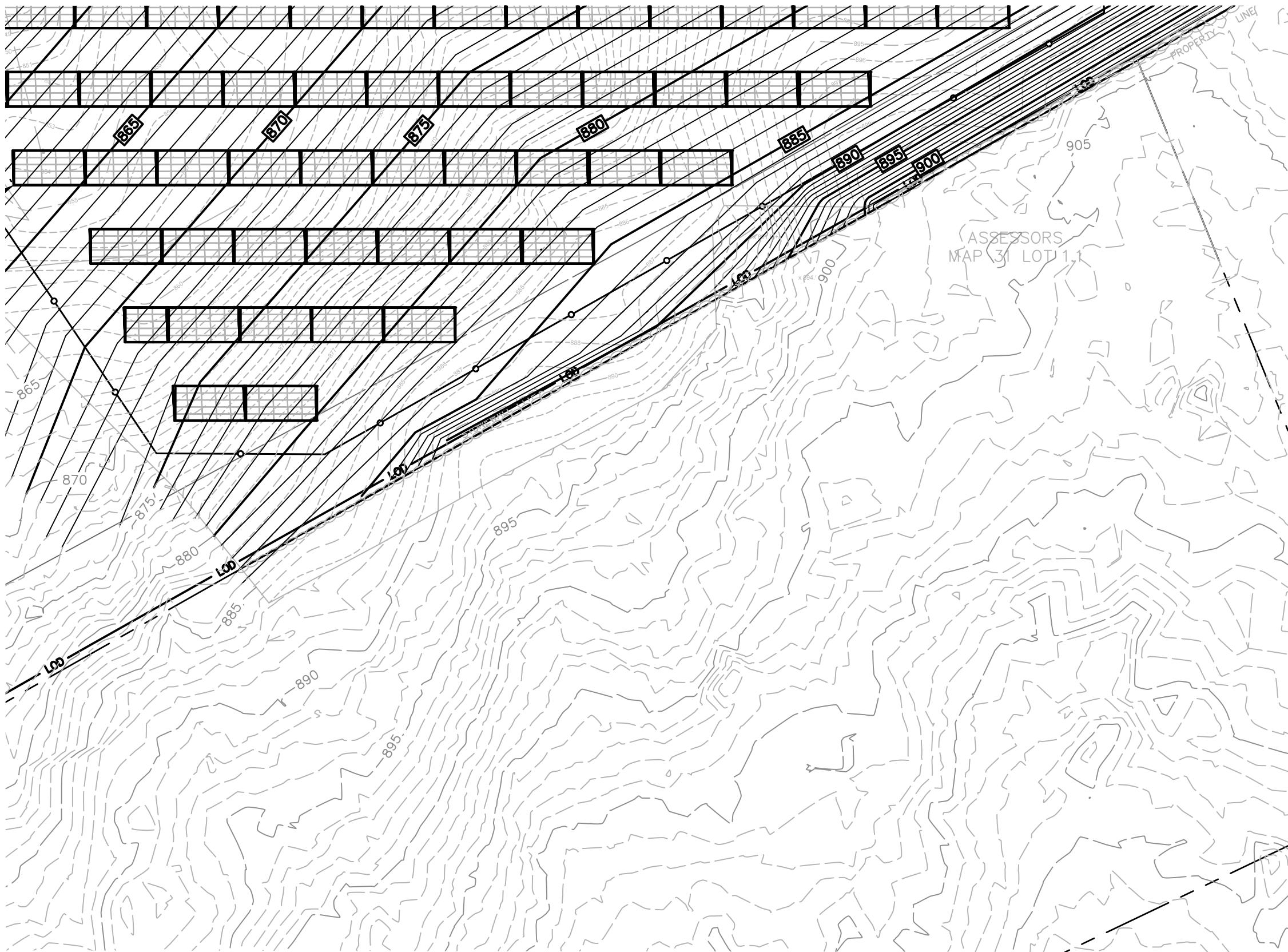
Surfaces	
exist	Classification: Original
proposed+1	Classification: Design

Volumes from Surface Geometry	
Material excavated	22,159.9 yd³
Material placed	22,493.0 yd³
Difference:	333.0 yd³

Note: The above volumes are calculated solely from the geometries of the selected surfaces. No material properties are applied to the above numbers.

Date: 8/22/2016 11:43:07 AM	Project: C:\Users\pfort\Documents\Business Center - HCE\cherry_valley_8.22.16.vce	Business Center - HCE
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File Path: J:\DWG\2016\20151249A10\Civil\Plan\20151249A10_STP01_Town Modification.dwg Layout: CS-103 Plotted: Thu, August 18, 2016 - 5:06 PM User: aglines
MS VIEW: LAYER STATE: PLOTTER: DWG TO PDF PC3 CTB File: FO STB



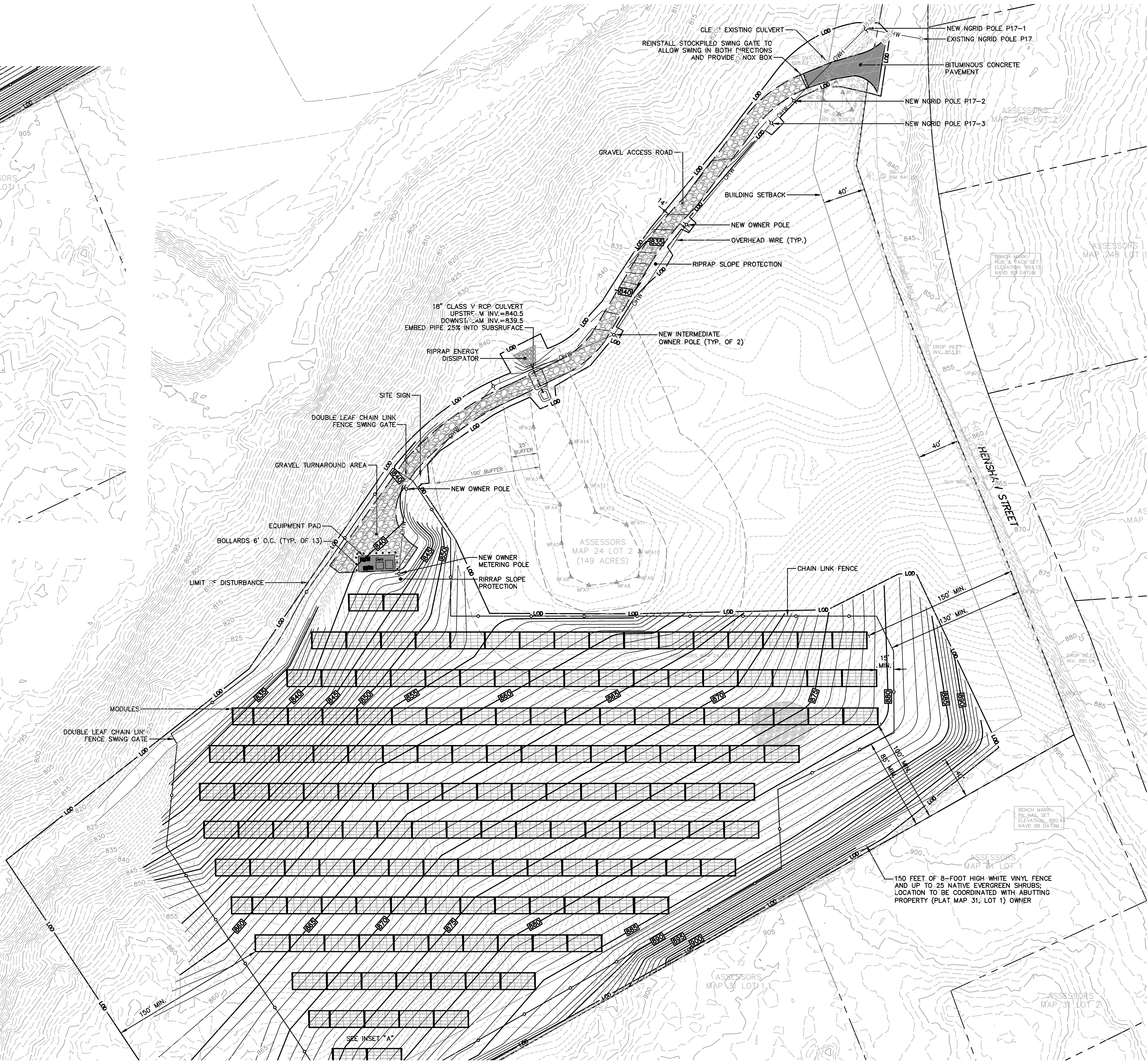
INSET "A"

ZONING CRITERIA		
REQUIREMENT	REQUIRED	PROPOSED
DISTRICT	SUBURBAN/AGRICULTURAL	LARGE-SCALE SOLAR
LOT AREA	80,000 SF (MIN)	149 AC
LOT FRONTAGE	50 FT	3,800 FT
FRONT SETBACK	40 FT	40 FT
SIDE SETBACK	40 FT	40 FT
REAR SETBACK	40 FT	N/A
BUILDING HEIGHT	35 FT	±13 FT

TOTAL SYSTEM DESCRIPTION	
MODULE MODEL	340 WATT LG
QUANTITY	4,075 MODULES
SYSTEM SIZE (DC)	1.38 MW DC
SYSTEM SIZE (AC)	1.0 MW AC
INVERTER	(2) - SGI 500XT
RACKING SYSTEM	FIXED TILT
AZIMUTH	180°
ROW SPACING	15'-0"

NOTE:
ALL AREAS TO BE SEEDED WITH "HART'S LOW GROW MIXTURE":

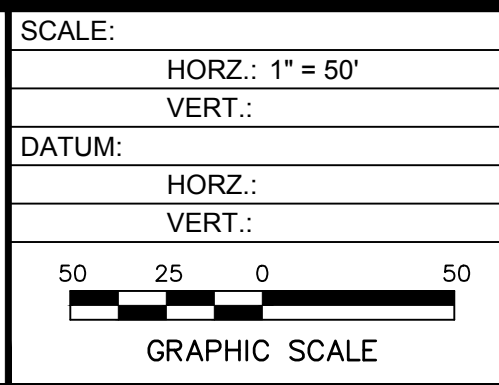
HART'S LOW GROW MIXTURE
COMPANY: THE CHAS. C. HART SEED CO.
ADDRESS: 304 MAIN STREET, WETHERFIELD, CT 06109
PH: 1-800-326-HART



No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
6.	8/17/2016	RESPONSE TO COMMENTS	AGG	SMM
5.	8/3/2016	FINAL PLAN MODIFICATION	AGG	SMM
4.	6/7/2016	FINAL PLANS	AGG	SMM
3.	6/2/2016	RESPONSE TO COMMENTS	AGG	SMM
2.	5/12/2016	RESPONSE TO COMMENTS	AGG	SMM
1.	3/23/2016	ISSUED FOR PERMITTING	AGG	SMM

SEAL

SEAL



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ZPT ENERGY SOLUTIONS, LLC

SITE PLAN

CHERRY VALLEY 1.0 MW PV ARRAY

LEICESTER MASSACHUSETTS

PROJ. No.: 20151249.A10
DATE: MARCH 2016

CS-103