

August 26, 2016

Via Hand Delivery

Melanie A. Bachman
Acting Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **Petition No. 1234 –SolarCity Corporation – Petition for Declaratory Ruling for Construction, Maintenance and Operation of a Solar Photovoltaic Electric Generating Facility at Becton Dickinson & Company, 7 Grace Way, North Canaan, Connecticut**

Development and Management Plan Submission

Dear Ms. Bachman:

Enclosed please find fifteen (15) copies of the following:

1. Development and Management (“D&M”) Plans for the approved electric generating facility at 7 Grace Way in North Canaan, Connecticut incorporating the additional information required by the Council’s conditions of approval 1.a) through 1.h). Also enclosed are four (4) full size (24” x 36”) sets of the D&M plans.
2. Final determination from the Connecticut Department of Energy and Environmental Protection dated August 22, 2016.
3. Resume of Dean Gustafson, Professional Soil Scientist and Senior Wetland Biologist with All-Points Technology Corporation. SolarCity proposes to have Mr. Gustafson act as the independent environmental inspector throughout construction of the North Canaan solar facility.

Melanie A. Bachman
August 26, 2016
Page 2

Together, this information constitutes the final D&M Plan submission for the approved solar photovoltaic electric generating facility in North Canaan, Connecticut.

We respectfully request that this D&M Plan submission be reviewed and placed on the next available Siting Council agenda for approval. Please contact me if you have any questions or require any additional information.

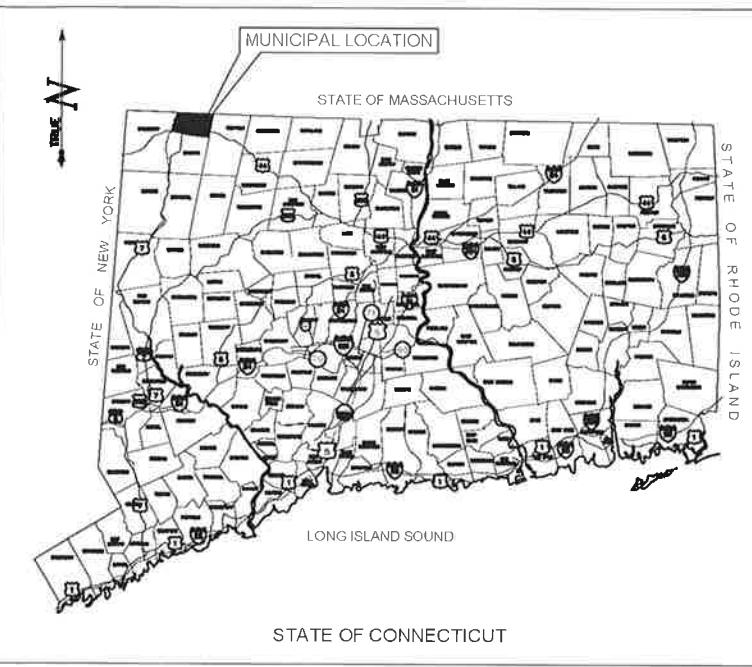
Sincerely,



Kenneth C. Baldwin

KCB/kmd
Enclosures
Copy to:

Douglas E. Humes, Jr., First Selectman, Town of North Canaan
Ruth Mulcahy, Zoning Enforcement Officer, Town of North Canaan
Steve Allyn, Planning and Zoning Chairman, Town of North Canaan
Matthew Freund, Chairman, Inland Wetlands Conservation Commission,
Town of North Canaan
Patricia Allyn Mechare, First Selectman, Town of Canaan
Fred Laser, Planning and Zoning Chairman, Town of Canaan
Michael Owen O'Neil, Zoning Officer, Town of Canaan
Ellery Sinclair, Chairman, Inland Wetlands Commission, Town of Canaan



DEVELOPMENT & MANAGEMENT PLAN

SOLAR CITY

BECTON, DICKINSON, & CO.

SOLAR PANEL FACILITY

**7 GRACE WAY
NORTH CANAAN, CT 06018**

DRAWING INDEX

- CV-1 COVER SHEET & INDEX
- EX-0 OVERALL EXISTING CONDITIONS PLAN
- EX-1 TO EX-7 EXISTING CONDITIONS PLANS
- SP-0 OVERALL SITE PLAN
- SP-1 TO SP-3 SITE PLANS
- GD-0 OVERALL GRADING & DRAINAGE PLAN
- GD-1 TO GD-3 GRADING & DRAINAGE PLANS
- EC-0 OVERALL SEDIMENTATION & EROSION CONTROL PLAN
- EC-1 TO EC-3 SEDIMENTATION & EROSION CONTROL PLANS
- DN-1 DETAIL SHEET
- DN-2 SEDIMENTATION & EROSION CONTROL NOTES & DETAIL SHEET
- DN-3 NOTES & SPECIFICATIONS
- DN-4 ENVIRONMENTAL NOTES & SPECIFICATIONS
- ROOF PLANS (BY OTHERS)

SITE INFORMATION

SITE NAME: "BECTON, DICKINSON, & CO. - CANAAN LREC"
 PROJECT LOCATION: 7 GRACE WAY
 NORTH CANAAN, CT 06018

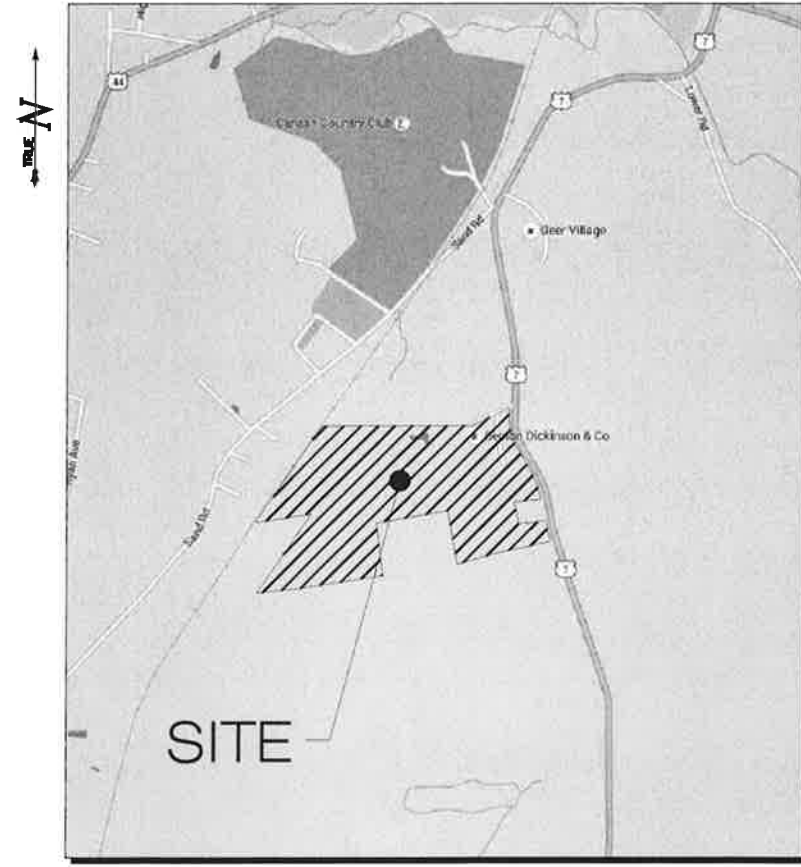
SITE TYPE/DESCRIPTION: ADD (1) ROOF MOUNTED SOLAR PANEL ARRAY (PLANS UNDER SEPARATE COVER BY OTHERS) & (2) GROUND MOUNTED SOLAR PANEL ARRAYS W/ ASSOCIATED GRAVEL ACCESS DRIVES & EQUIPMENT. ADD CHAIN LINK FENCE TO SURROUND NEW FACILITY & ELECTRIC INTERCONNECTION FROM NEW FACILITY TO EXIST. ELECTRICAL GRID.

PROPERTY OWNER: BECTON, DICKINSON, & CO.
 1 BECTON DRIVE
 FRANKLIN LAKES, NJ 07417

ENGINEER CONTACT: BRAD PARSONS
 (860) 663-1697 x208

LATITUDE: 42°00'30"N
 LONGITUDE: 73°20'13"W
 ELEVATION: 662± AMSL

ZONE: I-ZONE (INDUSTRIAL)
 FEMA FIRM DESIGNATION: PANEL #0901490014C - ZONE X
 TOTAL SITE ACREAGE: 77.13 ACRES
 TOTAL DISTURBED AREA: 9.65± ACRES



LOCATION MAP
SCALE: 1"=1000'

SolarCity

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PERMIT DOCUMENTS

NO	DATE	REVISION
0	08/12/16	D&M PLAN FOR REVIEW: BJP
1	08/25/16	D&M PLAN ISSUED
2		
3		
4		
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DESIGN PROFESSIONALS OF RECORD

PROF: BRADLEY J. PARSONS P.E.
 COMP: ALL-POINTS TECHNOLOGY CORPORATION
 ADD: 3 SADDLEBROOK DRIVE
 KILLINGWORTH, CT 06419

OWNER: BECTON, DICKINSON & COMPANY
 ADDRESS: 1 BECTON DRIVE
 FRANKLIN LAKES, NJ 07417
 (201) 847-6800

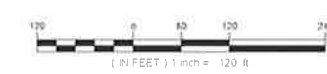
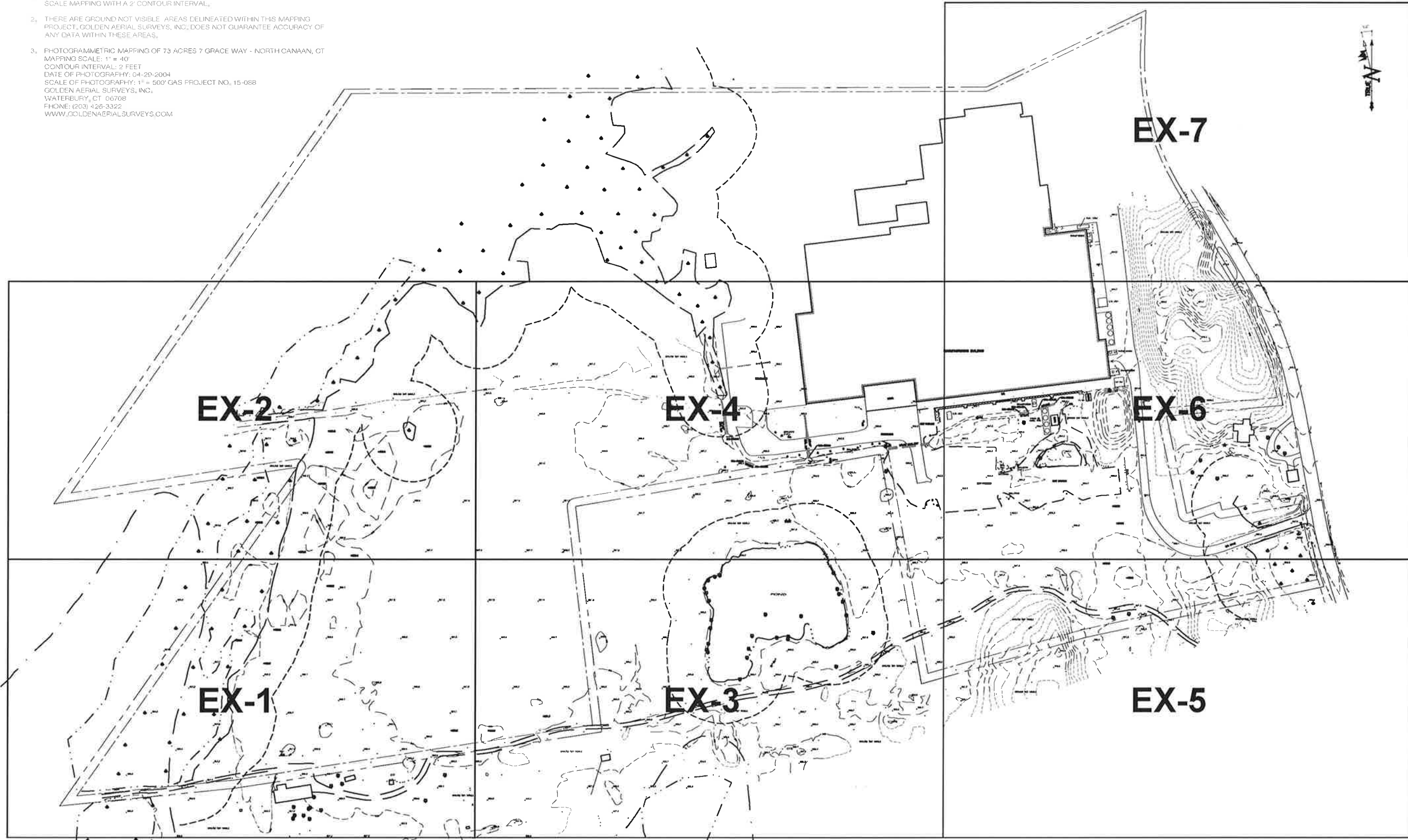
SITE	7 GRACE WAY
ADDRESS:	NORTH CANAAN, CT 06018
APT FILING NUMBER:	CT478120
	DRAWN BY: CSH
DATE:	08/12/16
	CHECKED BY: BJP

SHEET TITLE:
COVER SHEET & INDEX

SHEET NUMBER:
CV-1

SURVEY NOTES:

1. THIS MAPPING MEETS NATIONAL MAP ACCURACY STANDARDS FOR CLASS II 40 SCALE MAPPING WITH A 2' CONTOUR INTERVAL.
2. THERE ARE GROUND NOT VISIBLE AREAS DELINEATED WITHIN THIS MAPPING PROJECT, GOLDEN AERIAL SURVEYS, INC., DOES NOT GUARANTEE ACCURACY OF ANY DATA WITHIN THESE AREAS.
3. PHOTOGRAMMETRIC MAPPING OF 73 ACRES 7 GRACE WAY - NORTH CANAAN, CT
 MAPPING SCALE: 1" = 40'
 CONTOUR INTERVAL: 2 FEET
 DATE OF PHOTOGRAPHY: 04-29-2004
 SCALE OF PHOTOGRAPHY: 1" = 500' GAS PROJECT NO., 15-088
 GOLDEN AERIAL SURVEYS, INC.
 WATERBURY, CT 06708
 PHONE: (203) 426-3322
 WWW.GOLDENAERIALSURVEYS.COM



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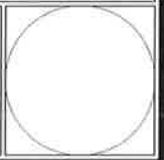
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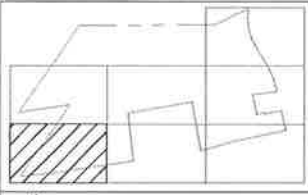
SHEET TITLE:

**OVERALL
 EXISTING CONDITIONS
 PLAN**

SHEET NUMBER:

EX-0





KEY PLAN

LEGEND:

- PROPERTY LINE
- - - BUILDING SETBACK LINE
- EDGE OF WATER
- . - . - . EDGE OF VERNAL POOL
- - - WETLAND LINE
- - - 100' WETLAND SETBACK LINE
- - - 100-YEAR FEMA FLOOD LINE
- - - GROUND NOT VISIBLE
- - - EDGE OF UNPAVED DRIVEWAY
- x - x - CHAIN LINK FENCE
- - - TREELINE
- - - 2' CONTOUR
- - - 10' CONTOUR
- - - APPROXIMATE 2' CONTOUR
- - - APPROXIMATE 10' CONTOUR
- - - TRAIN TRACKS
- MONITORING WELL
- UTILITY POLE
- FIRE HYDRANT
- SIGN
- TREE

MATCHLINE: SEE PLAN EX-2



MATCHLINE: SEE PLAN EX-3

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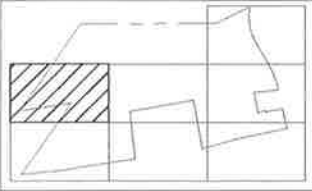
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APT FILING NUMBER: CT478120

DATE: 08/12/16
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SHEET TITLE:
EXISTING CONDITIONS PLAN

SHEET NUMBER:
EX-1



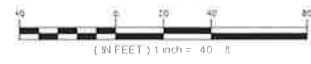
KEY PLAN

LEGEND:

- — — — — PROPERTY LINE
- — — — — BUILDING SETBACK LINE
- - - - - EDGE OF WATER
- - - - - EDGE OF VERNAL POOL
- - - - - WETLAND LINE
- - - - - 100' WETLAND SETBACK LINE
- - - - - 100-YEAR FEMA FLOOD LINE
- - - - - GROUND NOT VISIBLE
- - - - - EDGE OF UNPAVED DRIVEWAY
- x - x - CHAIN LINK FENCE
- . - . - TREELINE
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- - - - - 10' CONTOUR
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- - - - - APPROXIMATE 10' CONTOUR
- - - - - TRAIN TRACKS
- MONITORING WELL
- UTILITY POLE
- FIRE HYDRANT
- SIGN
- TREE



MATCHLINE: SEE PLAN EX-1



MATCHLINE: SEE PLAN EX-4

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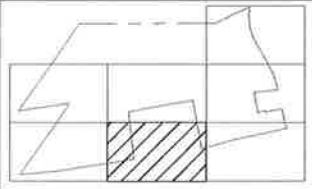
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SHEET TITLE:

EXISTING CONDITIONS PLAN

SHEET NUMBER:

EX-2



KEY PLAN

MATCHLINE: SEE PLAN EX-4



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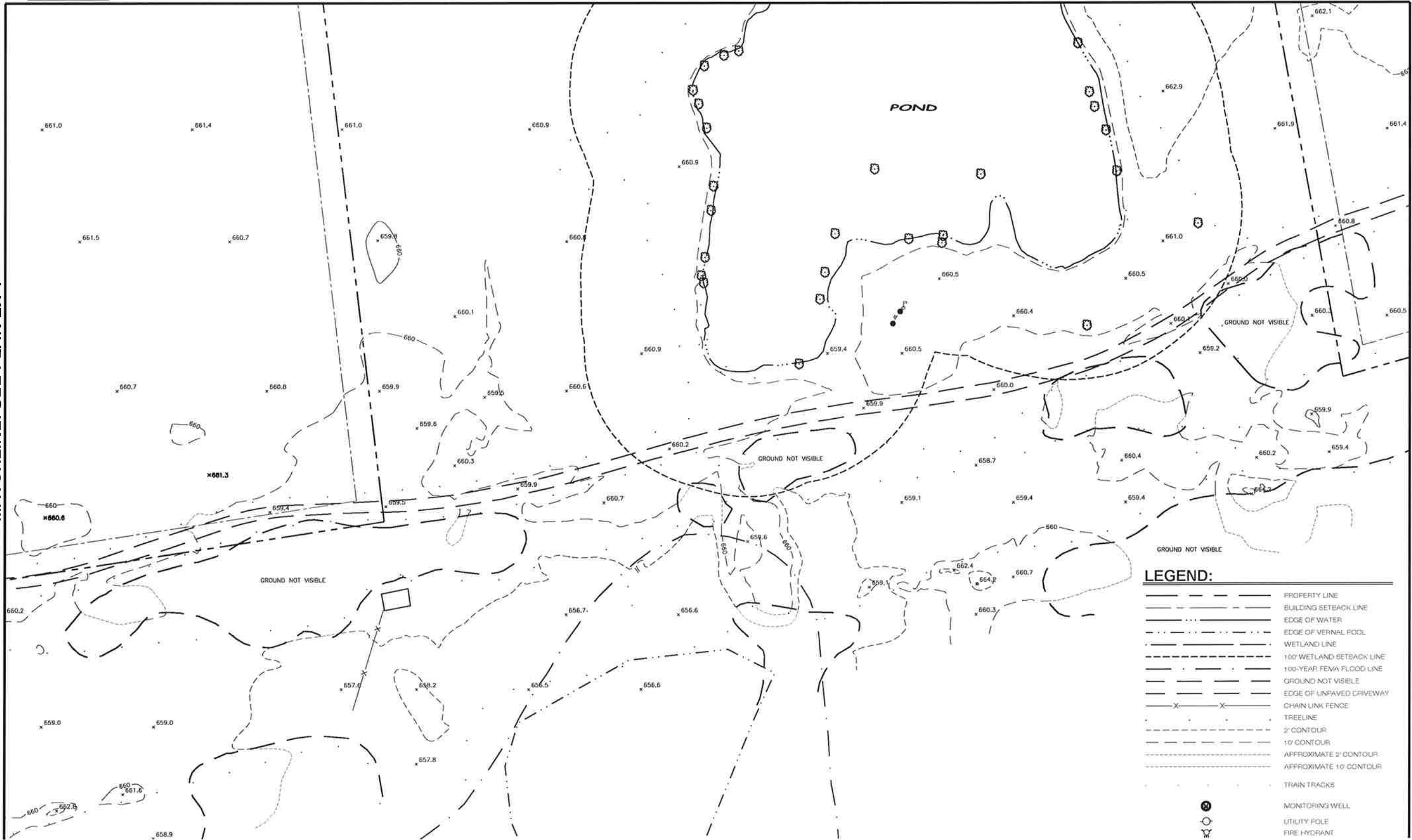


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MATCHLINE: SEE PLAN EX-1

MATCHLINE: SEE PLAN EX-5



LEGEND:

- PROPERTY LINE
- BUILDING SETBACK LINE
- EDGE OF WATER
- EDGE OF VERNAL POOL
- WETLAND LINE
- 100' WETLAND SETBACK LINE
- 100-YEAR FEMA FLOOD LINE
- GROUND NOT VISIBLE
- EDGE OF UNPAVED DRIVEWAY
- CHAIN LINK FENCE
- TREELINE
- 2' CONTOUR
- 10' CONTOUR
- APPROXIMATE 2' CONTOUR
- APPROXIMATE 10' CONTOUR
- TRAIN TRACKS
- MONITORING WELL
- UTILITY POLE
- FIRE HYDRANT
- SIGN
- TREE

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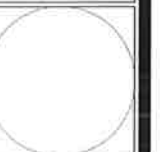
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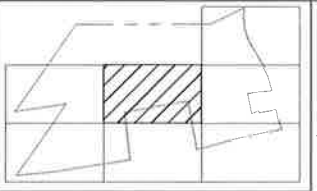
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EXISTING CONDITIONS PLAN

SHEET NUMBER:

EX-3





KEY PLAN

LEGEND:

- PROPERTY LINE
- BUILDING SETBACK LINE
- EDGE OF WATER
- EDGE OF VERNAL POOL
- WETLAND LINE
- 100' WETLAND SETBACK LINE
- 100-YEAR FEMA FLOOD LINE
- GROUND NOT VISIBLE
- EDGE OF UNPAVED DRIVEWAY
- CHAIN LINK FENCE
- TREELINE
- 2' CONTOUR
- 10' CONTOUR
- APPROXIMATE 2' CONTOUR
- APPROXIMATE 10' CONTOUR
- TRAIN TRACKS
- MONITORING WELL
- UTILITY POLE
- FIRE HYDRANT
- SIGN
- TREE

MATCHLINE: SEE PLAN EX-2



MATCHLINE: SEE PLAN EX-6

MATCHLINE: SEE PLAN EX-3



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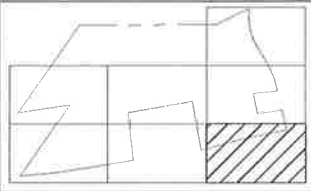
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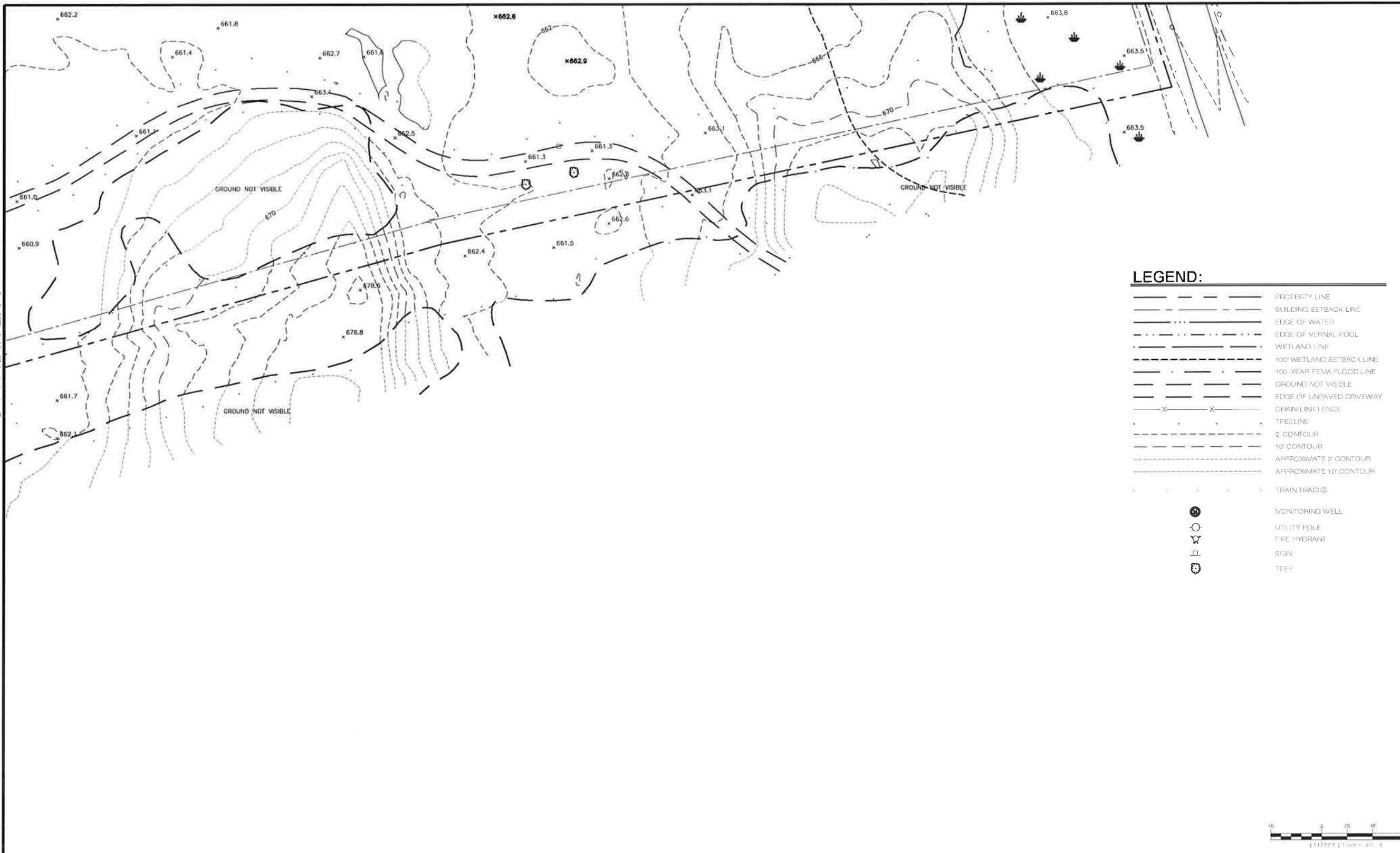
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KEY PLAN

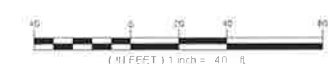
MATCHLINE: SEE PLAN EX-6

MATCHLINE: SEE PLAN EX-3



LEGEND:

- PROPERTY LINE
- BUILDING SETBACK LINE
- EDGE OF WATER
- EDGE OF VERNAL POOL
- WETLAND LINE
- 100' WETLAND SETBACK LINE
- 100-YEAR FEMA FLOOD LINE
- GROUND NOT VISIBLE
- EDGE OF UNPAVED DRIVEWAY
- x-x- CHAIN LINK FENCE
- TREELINE
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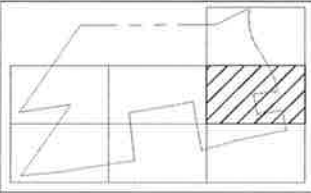
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EX-5



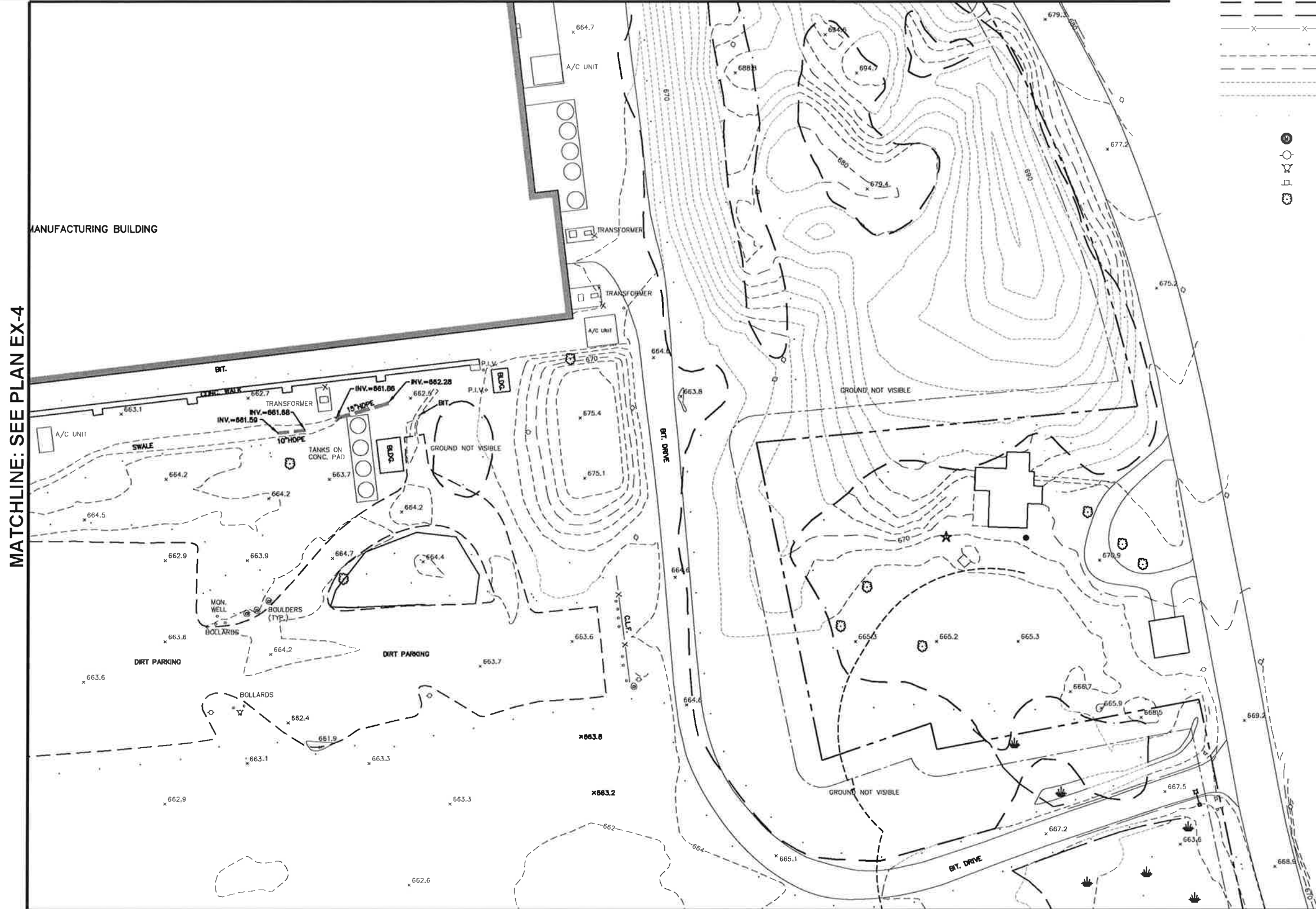
KEY PLAN

MATCHLINE: SEE PLAN EX-7



LEGEND:

- PROPERTY LINE
- BUILDING SETBACK LINE
- EDGE OF WATER
- EDGE OF VERNAL POOL
- WETLAND LINE
- 100' WETLAND SETBACK LINE
- 100-YEAR FEMA FLOOD LINE
- GROUND NOT VISIBLE
- EDGE OF UNPAVED DRIVEWAY
- CHAIN LINK FENCE
- TREELINE
- 2' CONTOUR
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- APPROXIMATE 10' CONTOUR
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MATCHLINE: SEE PLAN EX-4

MATCHLINE: SEE PLAN EX-5



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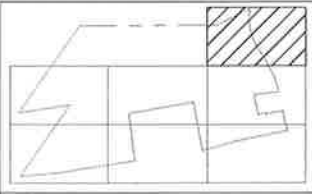
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 PLAN

SHEET NUMBER:
 EX-6



KEY PLAN

LEGEND:

- — — — — PROPERTY LINE
- — — — — BUILDING SETBACK LINE
- — — — — EDGE OF WATER
- · — · — · — EDGE OF VERNAL POOL
- · — · — · — WETLAND LINE
- · — · — · — 100' WETLAND SETBACK LINE
- · — · — · — 100-YEAR FEMA FLOOD LINE
- · — · — · — GROUND NOT VISIBLE
- — — — — EDGE OF UNPAVED DRIVEWAY
- x — x — x — CHAIN LINK FENCE
- x — x — x — TREELINE
- · — · — · — 2' CONTOUR
- · — · — · — 10' CONTOUR
- · — · — · — APPROXIMATE 2' CONTOUR
- · — · — · — APPROXIMATE 10' CONTOUR
- x — x — x — TRAIN TRACKS
- ⊙ MONITORING WELL
- UTILITY POLE
- ⊕ FIRE HYDRANT
- SIGN
- ⊗ TREE



MATCHLINE: SEE PLAN EX-6

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1	08/25/16	D&M PLAN ISSUED
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DESIGN PROFESSIONALS OF RECORD

PROF: BRADLEY J. PARSONS P.E.
 COMP: ALL-POINTS TECHNOLOGY CORPORATION
 ADD: 3 SADDLEBROOK DRIVE
 KILLINGWORTH, CT 06419

OWNER: BECTON, DICKINSON & COMPANY
 ADDRESS: 1 BECTON DRIVE
 FRANKLIN LAKES, NJ 07417
 (201) 847-6800

SITE: 7 GRACE WAY
 ADDRESS: NORTH CANAAN, CT 06018

APT FILING NUMBER: CT478120

DRAWN BY: CSH

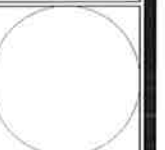
DATE: 08/12/16 CHECKED BY: BJP

SHEET TITLE:

**EXISTING CONDITIONS
PLAN**

SHEET NUMBER:

EX-7



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DESIGN PROFESSIONALS OF RECORD

PROF: BRADLEY J. PARSONS P.E.
 COMP: ALL-POINTS TECHNOLOGY CORPORATION
 ADD: 3 SADDLEBROOK DRIVE
 KILLINGWORTH, CT 06419

OWNER: BECTON, DICKINSON & COMPANY
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 FRANKLIN LAKES, NJ 07417
 (201) 847-6800

SITE ADDRESS: 7 GRACE WAY
 NORTH CANAAN, CT 06018

APT FILING NUMBER: CT478120

DRAWN BY: CSH

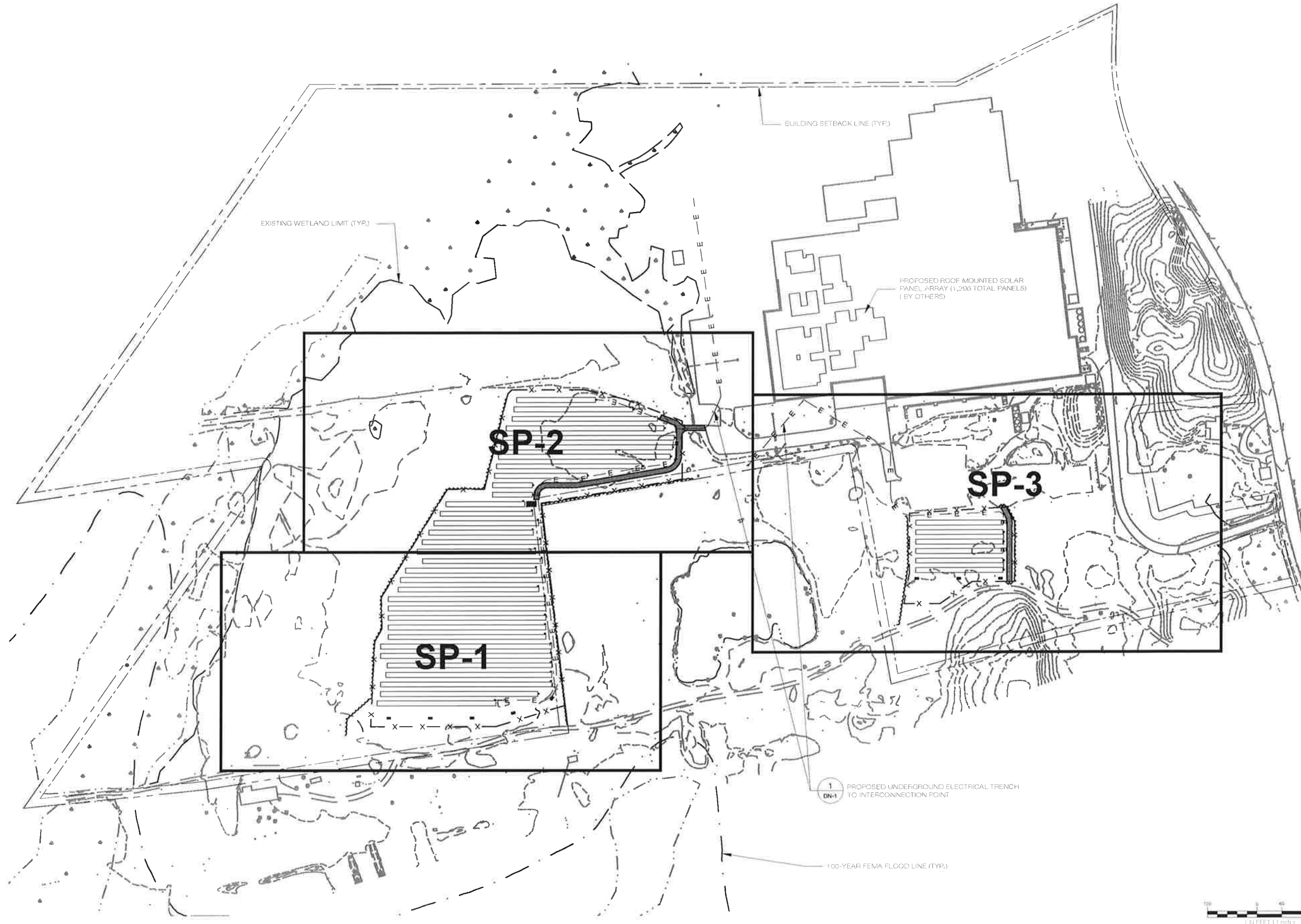
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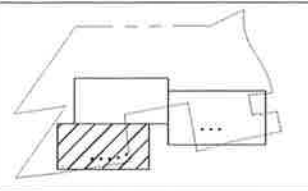
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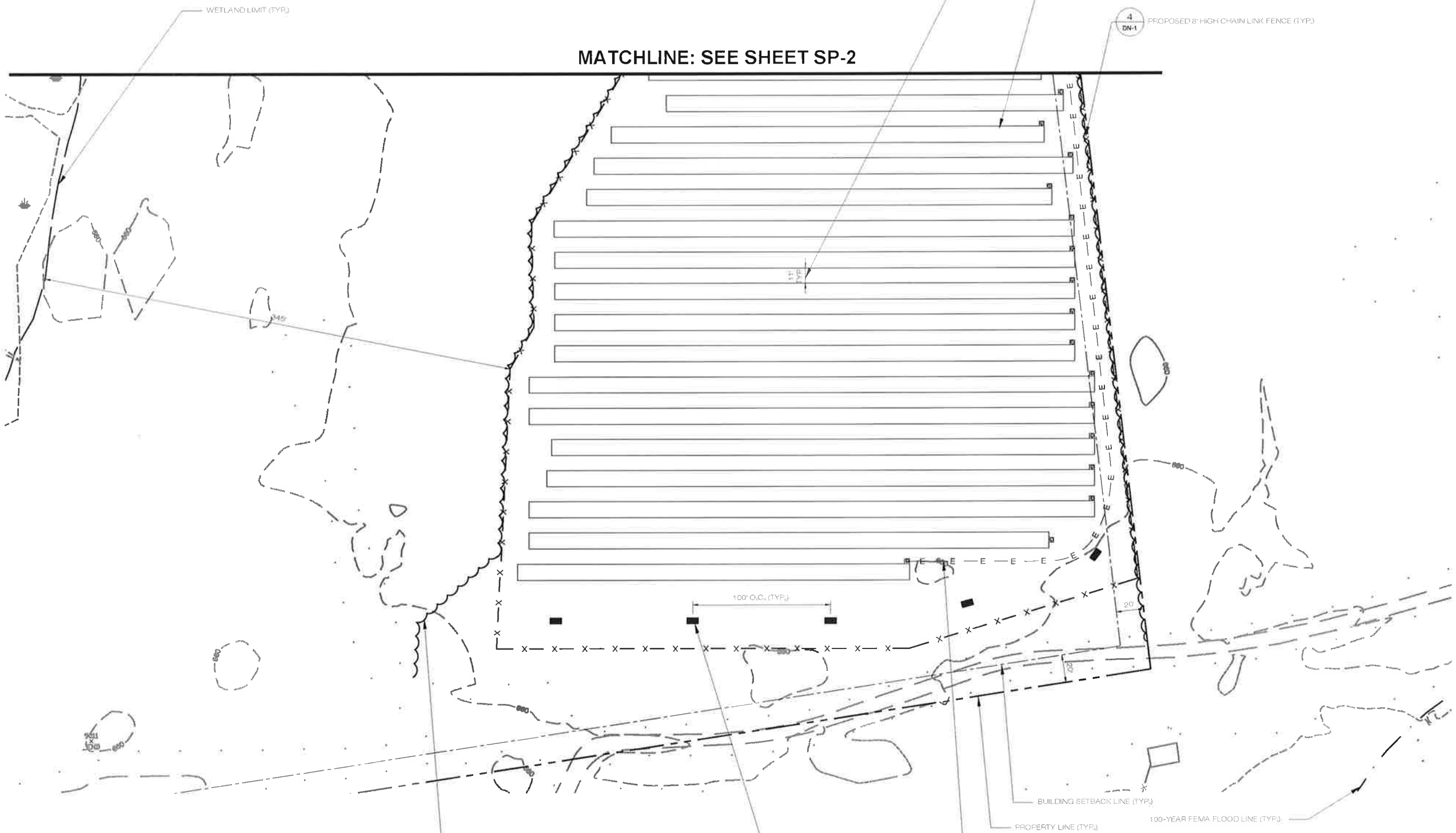
SHEET NUMBER:

SP-0





KEY PLAN



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DESIGN PROFESSIONALS OF RECORD

PROF: BRADLEY J. PARSONS P.E.
 COMP: ALL-POINTS TECHNOLOGY CORPORATION
 ADD: 3 SADDLEBROOK DRIVE
 KILLINGWORTH, CT 06419

OWNER: BECTON, DICKINSON & COMPANY
 ADDRESS: 1 BECTON DRIVE
 FRANKLIN LAKES, NJ 07417
 (201) 847-6800

SITE ADDRESS: 7 GRACE WAY
 NORTH CANAAN, CT 06018

APT FILING NUMBER: CT478120

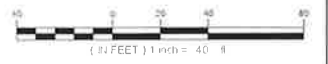
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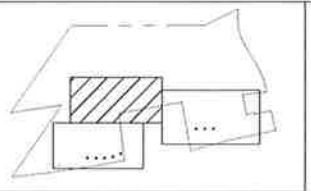
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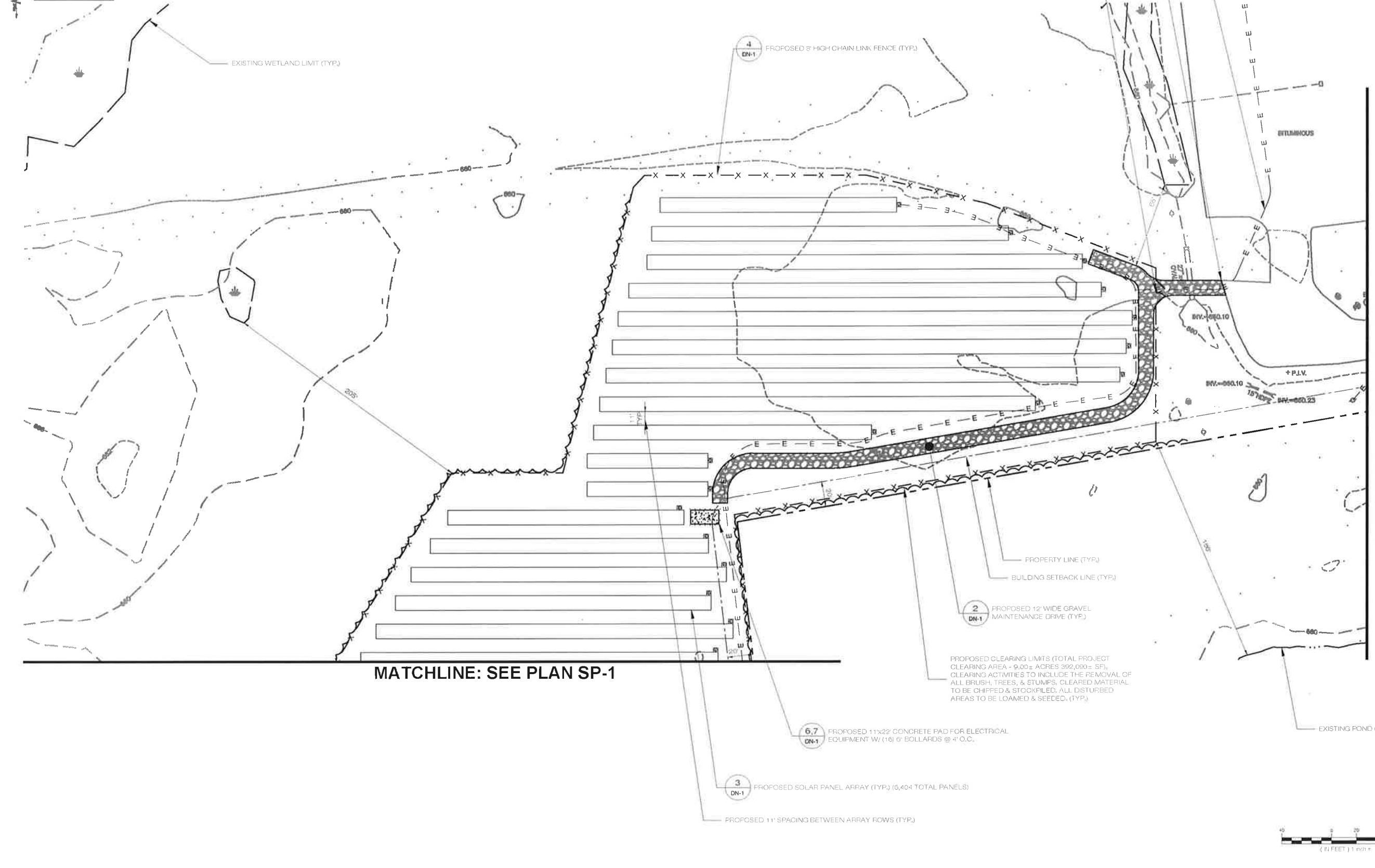
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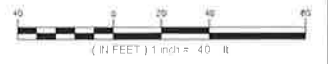


KEY PLAN



MATCHLINE: SEE PLAN SP-1

MATCHLINE: SEE PLAN SP-3



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DESIGN PROFESSIONALS OF RECORD
 PROF: BRADLEY J. PARSONS P.E.
 COMP: ALL-POINTS TECHNOLOGY CORPORATION
 ADD: 3 SADDLEBROOK DRIVE
 KILLINGWORTH, CT 06419

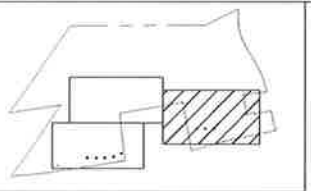
OWNER: BECTON, DICKINSON & COMPANY
 ADDRESS: 1 BECTON DRIVE
 FRANKLIN LAKES, NJ 07417
 (201) 847-6800

SITE 7 GRACE WAY
 ADDRESS: NORTH CANAAN, CT 06018

APT FILING NUMBER: CT478120
DRAWN BY: CSH
DATE: 08/12/16 **CHECKED BY:** BJP

SHEET TITLE:
SITE PLAN

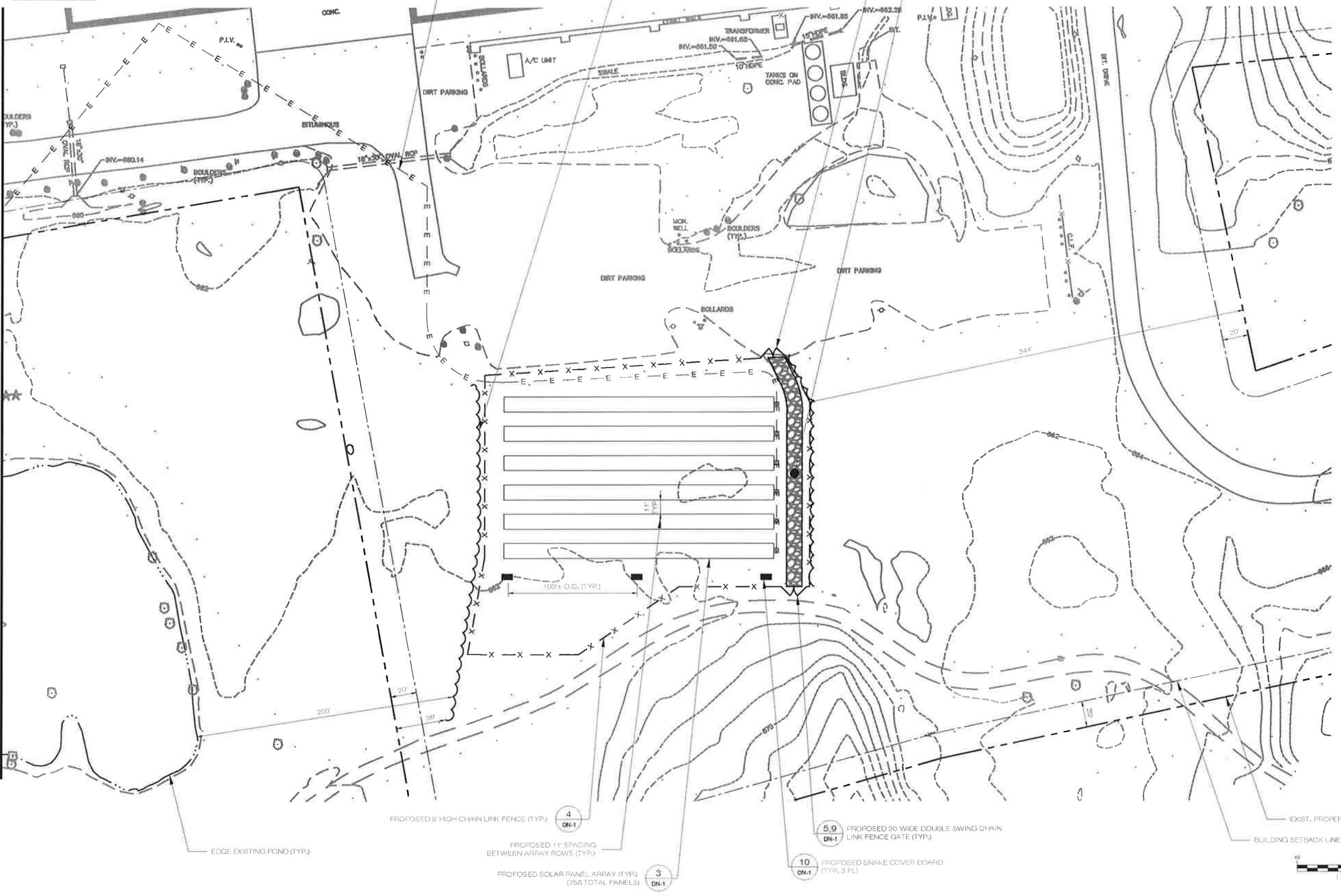
SHEET NUMBER:
SP-2



KEY PLAN

MATCHLINE: SEE PLAN SP-2

PROPOSED CLEARING LIMITS (TOTAL PROJECT CLEARING AREA - 9.00± ACRES 392,000± SF). CLEARING ACTIVITIES TO INCLUDE THE REMOVAL OF ALL BRUSH, TREES, & STUMPS, CLEARED MATERIAL TO BE CHIPPED & STOCKPILED, ALL DISTURBED AREAS TO BE LOAMED & SEEDDED, (TYP.)



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 FAX: (860) 663-0935
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DESIGN PROFESSIONALS OF RECORD

PROF: BRADLEY J. PARSONS P.E.
 COMP: ALL-POINTS TECHNOLOGY CORPORATION
 ADD: 3 SADDLEBROOK DRIVE
 KILLINGWORTH, CT 06419

OWNER: BECTON, DICKINSON & COMPANY
 ADDRESS: 1 BECTON DRIVE
 FRANKLIN LAKES, NJ 07417
 (201) 847-6800

SITE ADDRESS: 7 GRACE WAY
 NORTH CANAAN, CT 06018

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 DATE: 08/12/16
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SHEET TITLE:

SITE PLAN

SHEET NUMBER:

SP-3





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DESIGN PROFESSIONALS OF RECORD

PROF: BRADLEY J. PARSONS, P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION
ADD: 3 SADDLEBROOK DRIVE
KILLINGWORTH, CT 06419

OWNER: BECTON, DICKINSON & COMPANY
ADDRESS: 1 BECTON DRIVE
FRANKLIN LAKES, NJ 07417
(201) 847-6800

SITE ADDRESS: 7 GRACE WAY
NORTH CANAAN, CT 06018

APT FILING NUMBER: CT478120

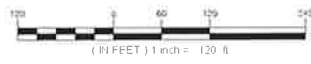
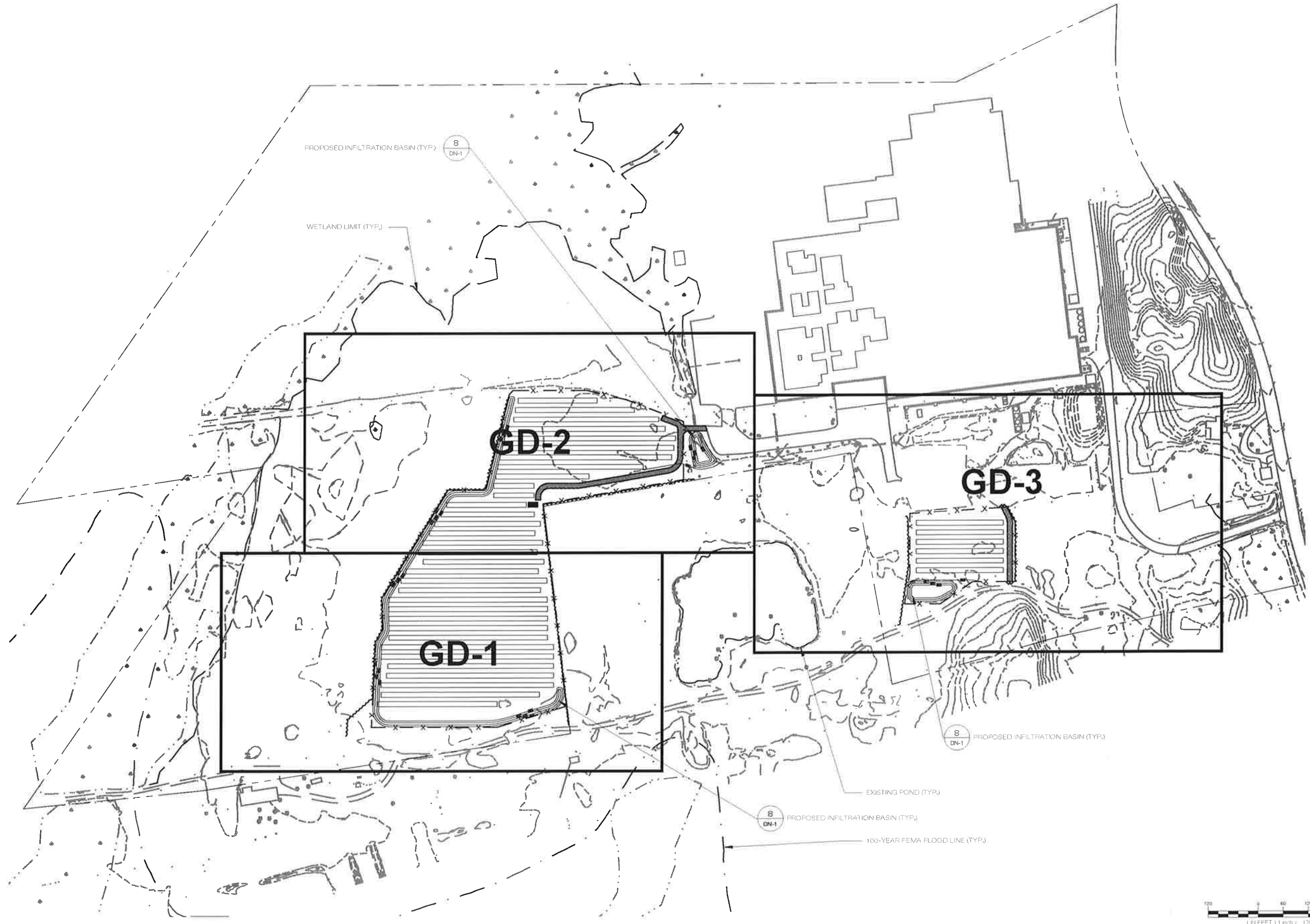
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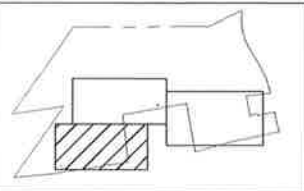
SHEET TITLE:

**OVERALL
GRADING & DRAINAGE
PLAN**

SHEET NUMBER:

GD-0

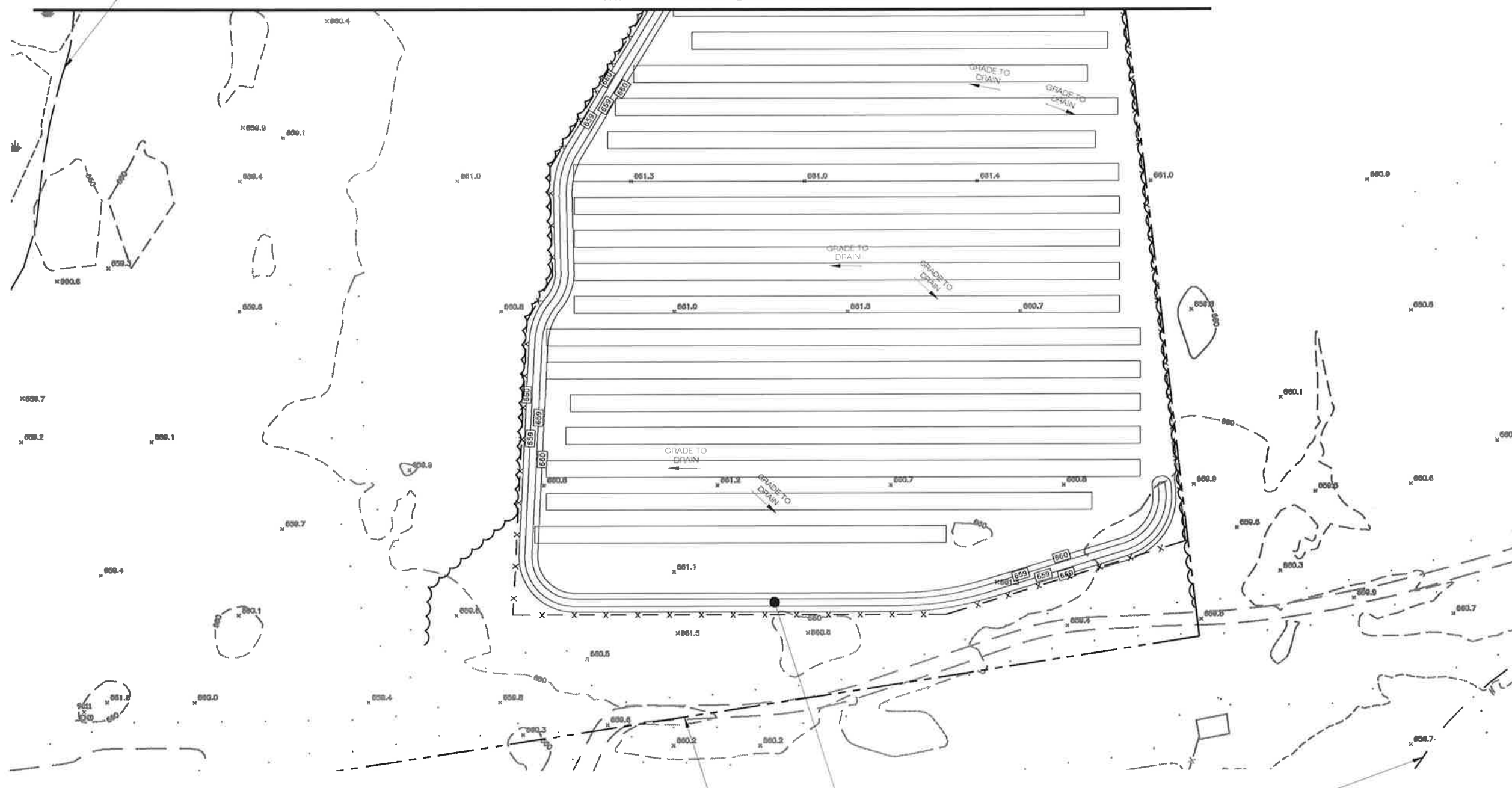




KEY PLAN

EXISTING WETLAND LIMIT (TYP.)

MATCHLINE: SEE PLAN GD-2



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 PROF: BRADLEY J. PARSONS P.E.
 COMP: ALL-POINTS TECHNOLOGY CORPORATION
 ADD: 3 SADDLEBROOK DRIVE
 KILLINGWORTH, CT 06419

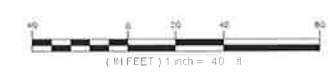
OWNER: BECTON, DICKINSON & COMPANY
 ADDRESS: 1 BECTON DRIVE
 FRANKLIN LAKES, NJ 07417
 (201) 847-6800

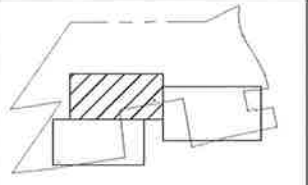
SITE ADDRESS: 7 GRACE WAY
 ADDRESS: NORTH CANAAN, CT 06018

APT FILING NUMBER: CT478120
DRAWN BY: CSH
DATE: 08/12/16 **CHECKED BY:** BJP

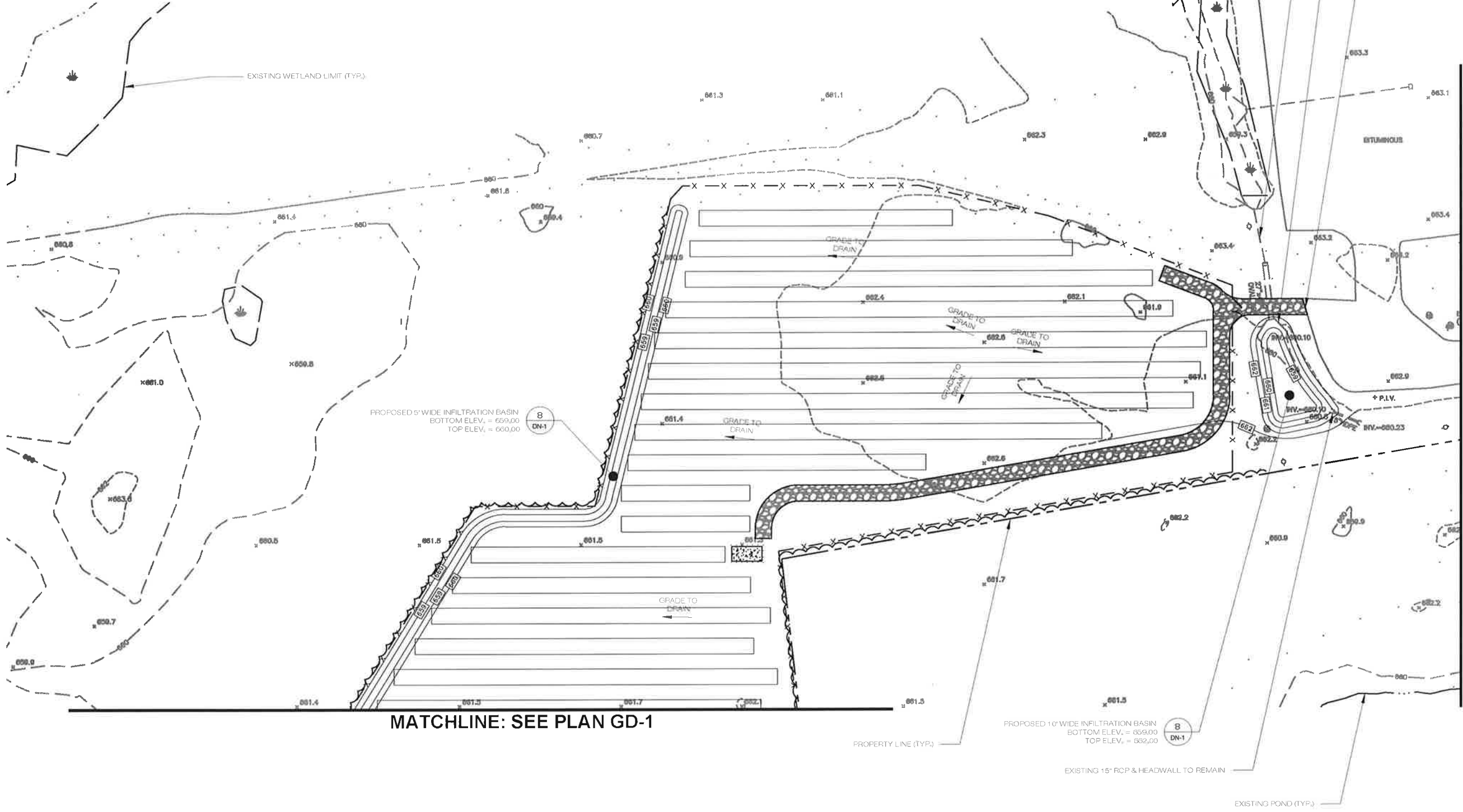
SHEET TITLE:
GRADING & DRAINAGE PLAN

SHEET NUMBER:
GD-1





KEY PLAN



MATCHLINE: SEE PLAN GD-1

MATCHLINE: SEE PLAN GD-3

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NO.	DATE	REVISION
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DESIGN PROFESSIONALS OF RECORD
 PROF: BRADLEY J. PARSONS P.E.
 COMP: ALL-POINTS TECHNOLOGY CORPORATION
 ADD: 3 SADDLEBROOK DRIVE
 KILLINGWORTH, CT 06419

OWNER: BECTON, DICKINSON & COMPANY
 ADDRESS: 1 BECTON DRIVE
 FRANKLIN LAKES, NJ 07417
 (201) 847-6800

SITE: 7 GRACE WAY
 ADDRESS: NORTH CANAAN, CT 06018

APT FILING NUMBER: CT478120

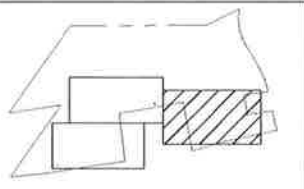
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SHEET TITLE:
 GRADING & DRAINAGE PLAN

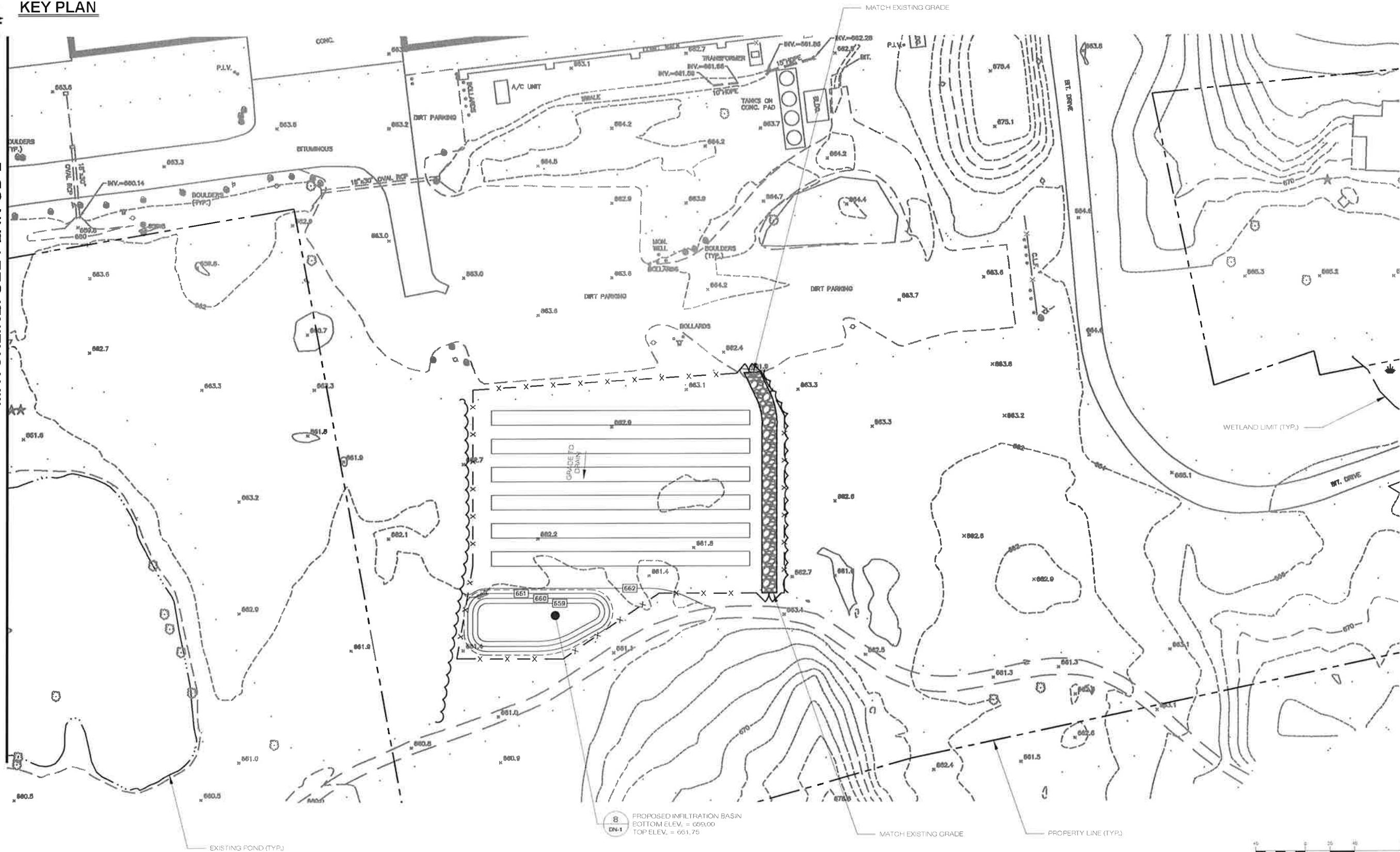
SHEET NUMBER:
 GD-2





KEY PLAN

MATCHLINE: SEE PLAN GD-2



8
DN-1
PROPOSED INFILTRATION BASIN
BOTTOM ELEV. = 669.00
TOP ELEV. = 661.75



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DESIGN PROFESSIONALS OF RECORD

PROF: BRADLEY J. PARSONS P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION
ADD: 3 SADDLEBROOK DRIVE
KILLINGWORTH, CT 06419

OWNER: BECTON, DICKINSON & COMPANY
ADDRESS: 1 BECTON DRIVE
FRANKLIN LAKES, NJ 07417
(201) 847-8800

SITE ADDRESS: 7 GRACE WAY
NORTH CANAAN, CT 06018

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SHEET TITLE:
GRADING & DRAINAGE PLAN

SHEET NUMBER:
GD-3

CONSTRUCTION DOCUMENTS

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DESIGN PROFESSIONALS OF RECORD

PROF: BRADLEY J. PARSONS P.E.
 COMP: ALL-POINTS TECHNOLOGY CORPORATION
 ADD: 3 SADDLEBROOK DRIVE
 KILLINGWORTH, CT 06419

OWNER: BECTON, DICKINSON & COMPANY
 ADDRESS: 1 BECTON DRIVE
 FRANKLIN LAKES, NJ 07417
 (201) 847-6800

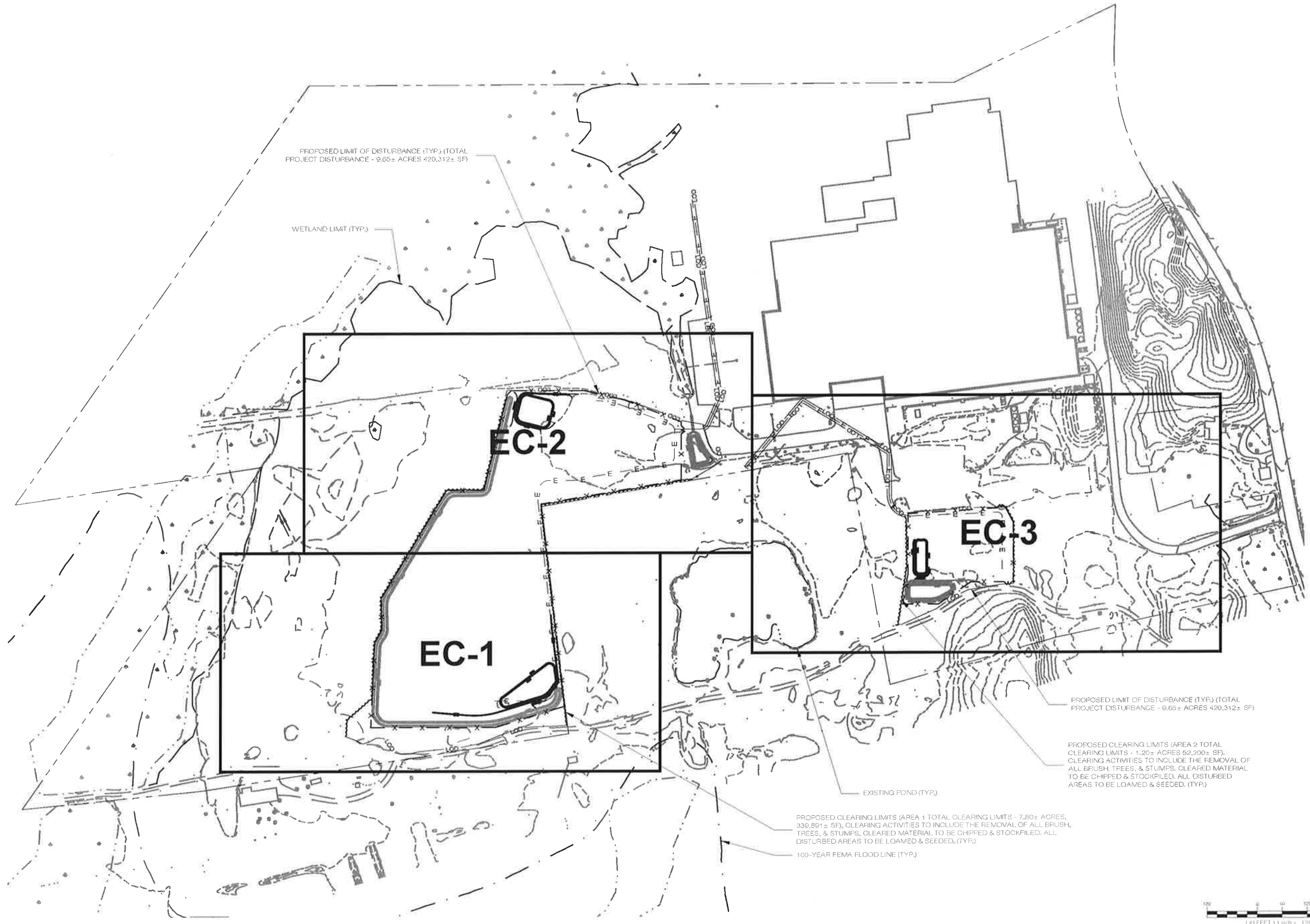
SITE: 7 GRACE WAY
 ADDRESS: NORTH CANAAN, CT 06018

APT FILING NUMBER: CT478120

DATE: 08/12/16
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SHEET TITLE:
**OVERALL
 SEDIMENTATION &
 EROSION CONTROL
 PLAN**

SHEET NUMBER:
EC-0



PROPOSED LIMIT OF DISTURBANCE (TYP.) (TOTAL PROJECT DISTURBANCE - 9.65± ACRES 420,312± SF)

WETLAND LIMIT (TYP.)

EC-2

EC-1

EC-3

PROPOSED LIMIT OF DISTURBANCE (TYP.) (TOTAL PROJECT DISTURBANCE - 9.65± ACRES 420,312± SF)

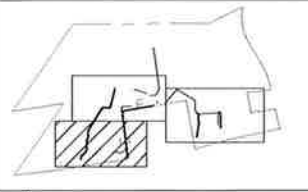
PROPOSED CLEARING LIMITS (AREA 1 TOTAL CLEARING LIMITS - 7.80± ACRES, 336,891± SF), CLEARING ACTIVITIES TO INCLUDE THE REMOVAL OF ALL BRUSH, TREES, & STUMPS, CLEARED MATERIAL TO BE CHIPPED & STOCKPILED, ALL DISTURBED AREAS TO BE LOAMED & SEEDED, (TYP.)

100-YEAR FEMA FLOOD LINE (TYP.)

PROPOSED CLEARING LIMITS (AREA 2 TOTAL CLEARING LIMITS - 1.20± ACRES 52,200± SF), CLEARING ACTIVITIES TO INCLUDE THE REMOVAL OF ALL BRUSH, TREES, & STUMPS, CLEARED MATERIAL TO BE CHIPPED & STOCKPILED, ALL DISTURBED AREAS TO BE LOAMED & SEEDED, (TYP.)

EXISTING POND (TYP.)

1" = 120'



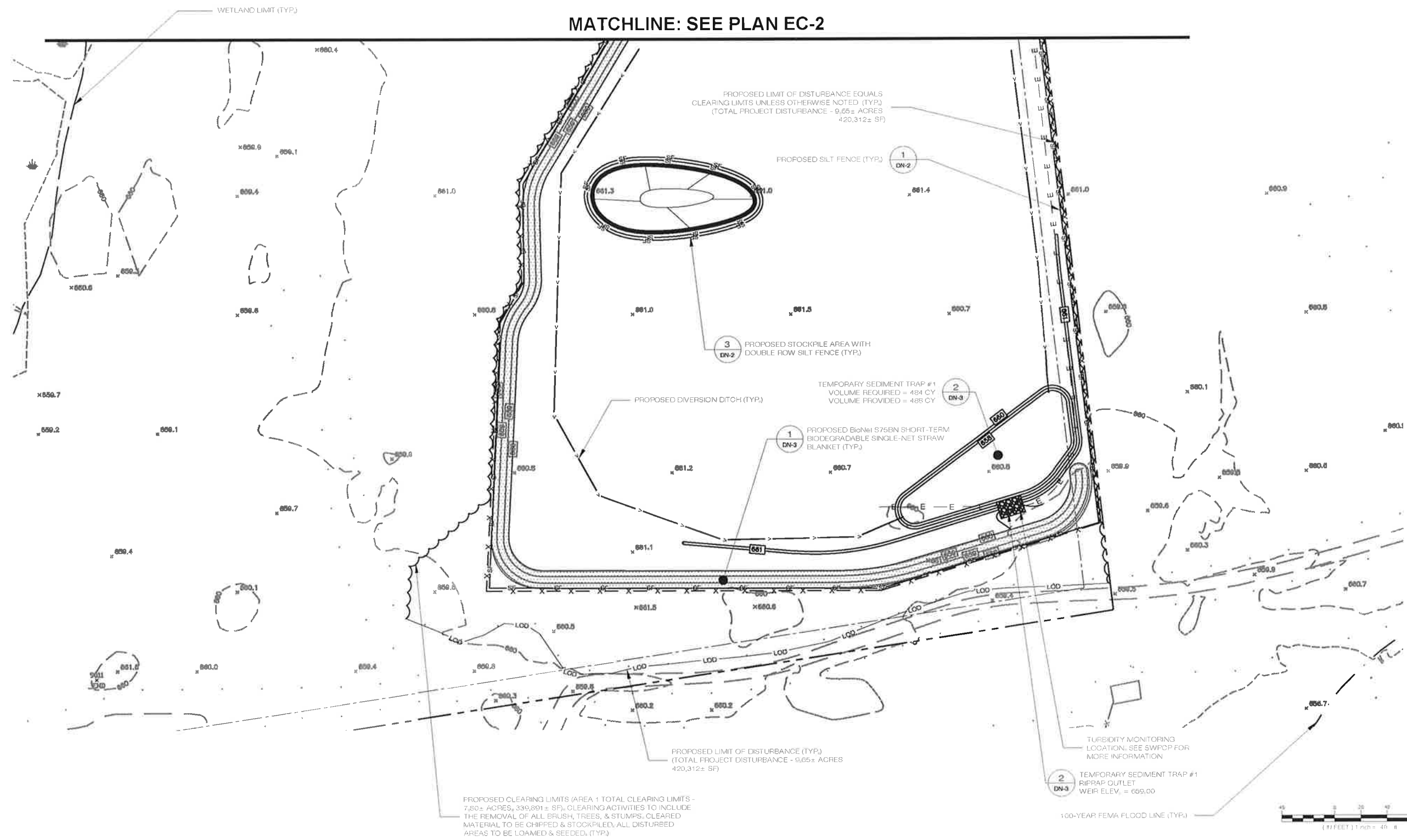
KEY PLAN

LEGEND:

- LOD — PROPOSED LIMIT OF DISTURBANCE
- SF — SF — PROPOSED SILT FENCE
- Wavy Line — PROPOSED CLEARING LIMITS/ LIMITS OF DISTURBANCE
- X — X — X — X — PROPOSED CHAIN LINK FENCE
- [Hatched Box] PROPOSED CONSTRUCTION ENTRANCE
- [Circular with Spokes] PROPOSED MATERIAL STOCKPILE
- [Grid Pattern] PROPOSED EROSION CONTROL BLANKET



MATCHLINE: SEE PLAN EC-2



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 KILLINGWORTH, CT 06419 FAX: (860) 663-0235
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 KILLINGWORTH, CT 06419

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 FRANKLIN LAKES, NJ 07417
 (201) 847-6800

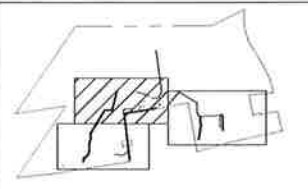
SITE ADDRESS: 7 GRACE WAY
 NORTH CANAAN, CT 06018

APT FILING NUMBER: CT478120

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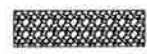


SHEET TITLE:
SEDIMENTATION & EROSION CONTROL PLAN

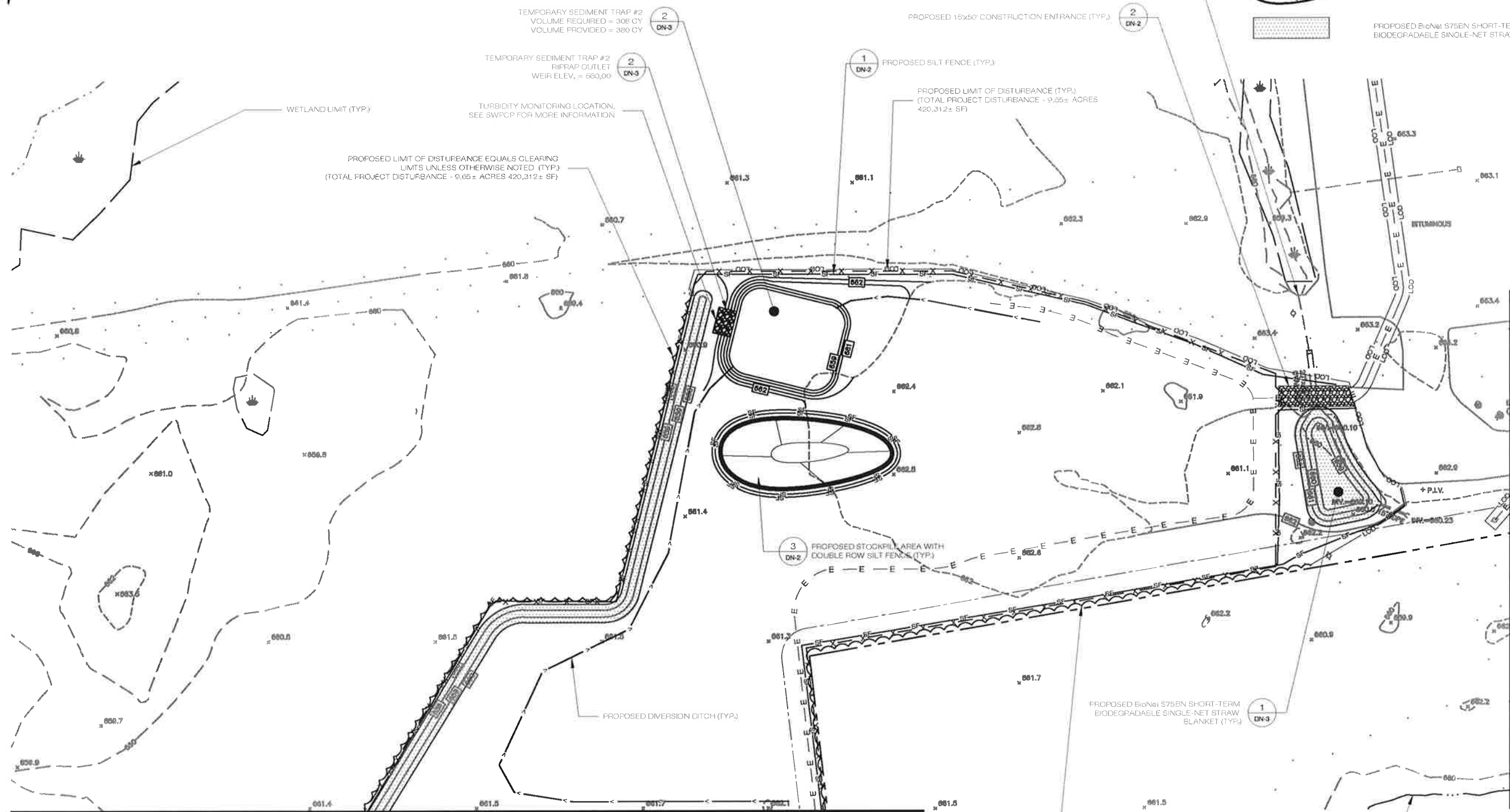
SHEET NUMBER:
EC-1



KEY PLAN

LEGEND:

- LOD PROPOSED LIMIT OF DISTURBANCE
- SF PROPOSED SILT FENCE
- PROPOSED CLEARING LIMITS/ LIMITS OF DISTURBANCE
- X-X-X-X PROPOSED CHAIN LINK FENCE
 PROPOSED CONSTRUCTION ENTRANCE
 PROPOSED MATERIAL STOCKPILE
 PROPOSED BioNet S75BN SHORT-TERM BIODEGRADABLE SINGLE-NET STRAW BLANKET



MATCHLINE: SEE PLAN EC-1

MATCHLINE: SEE PLAN EC-3

PROPOSED CLEARING LIMITS (AREA 1 TOTAL CLEARING LIMITS - 7.80± ACRES, 339,891± SF), CLEARING ACTIVITIES TO INCLUDE THE REMOVAL OF ALL BRUSH, TREES, & STUMPS, CLEARED MATERIAL TO BE CHIPPED & STOCKPILED, ALL DISTURBED AREAS TO BE LOAMED & SEEDED, (TYP.)



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KILLINGWORTH, CT 06119 FAX: (860) 663-0935
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DESIGN PROFESSIONALS OF RECORD
 PROF: BRADLEY J. PARSONS P.E.
 COMP: ALL-POINTS TECHNOLOGY CORPORATION
 ADD: 3 SADDLEBROOK DRIVE
 KILLINGWORTH, CT 06419

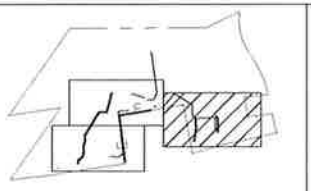
OWNER: BECTON, DICKINSON & COMPANY
 ADDRESS: 1 BECTON DRIVE
 FRANKLIN LAKES, NJ 07417
 (201) 847-6800

SITE ADDRESS: 7 GRACE WAY
 NORTH CANAAN, CT 06018

APT FILING NUMBER: CT478120
 DRAWN BY: CSH
 DATE: 08/12/16 CHECKED BY: BJP

SHEET TITLE:
SEDIMENTATION & EROSION CONTROL PLAN

SHEET NUMBER:
EC-2



KEY PLAN

MATCHLINE: SEE PLAN EC-2

LEGEND:

- LOD PROPOSED LIMIT OF DISTURBANCE
- SF PROPOSED SILT FENCE
- PROPOSED CLEARING LIMITS/ LIMITS OF DISTURBANCE
- PROPOSED CHAIN LINK FENCE
- PROPOSED CONSTRUCTION ENTRANCE
- PROPOSED MATERIAL STOCKPILE
- PROPOSED EROSION CONTROL BLANKET



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ALL-POINTS TECHNOLOGY CORPORATION

3 SADDLEBROOK DRIVE PHONE: (860) 693-1697
 KILLINGWORTH, CT 06419 FAX: (860) 693-0935
 WWW.ALLPOINTSTECH.COM

CONSTRUCTION DOCUMENTS

NO	DATE	REVISION
0	08/12/16	D&M PLAN FOR REVIEW: BJP
1	08/25/16	D&M PLAN ISSUED
2		
3		
4		
5		
6		



DESIGN PROFESSIONALS OF RECORD

PROF: BRADLEY J. PARSONS P.E.
 COMP: ALL-POINTS TECHNOLOGY CORPORATION
 ADD: 3 SADDLEBROOK DRIVE
 KILLINGWORTH, CT 06419

OWNER: BECTON, DICKINSON & COMPANY
 ADDRESS: 1 BECTON DRIVE
 FRANKLIN LAKES, NJ 07417
 (201) 847-6800

SITE ADDRESS: 7 GRACE WAY
 NORTH CANAAN, CT 06018

APT FILING NUMBER: CT478120

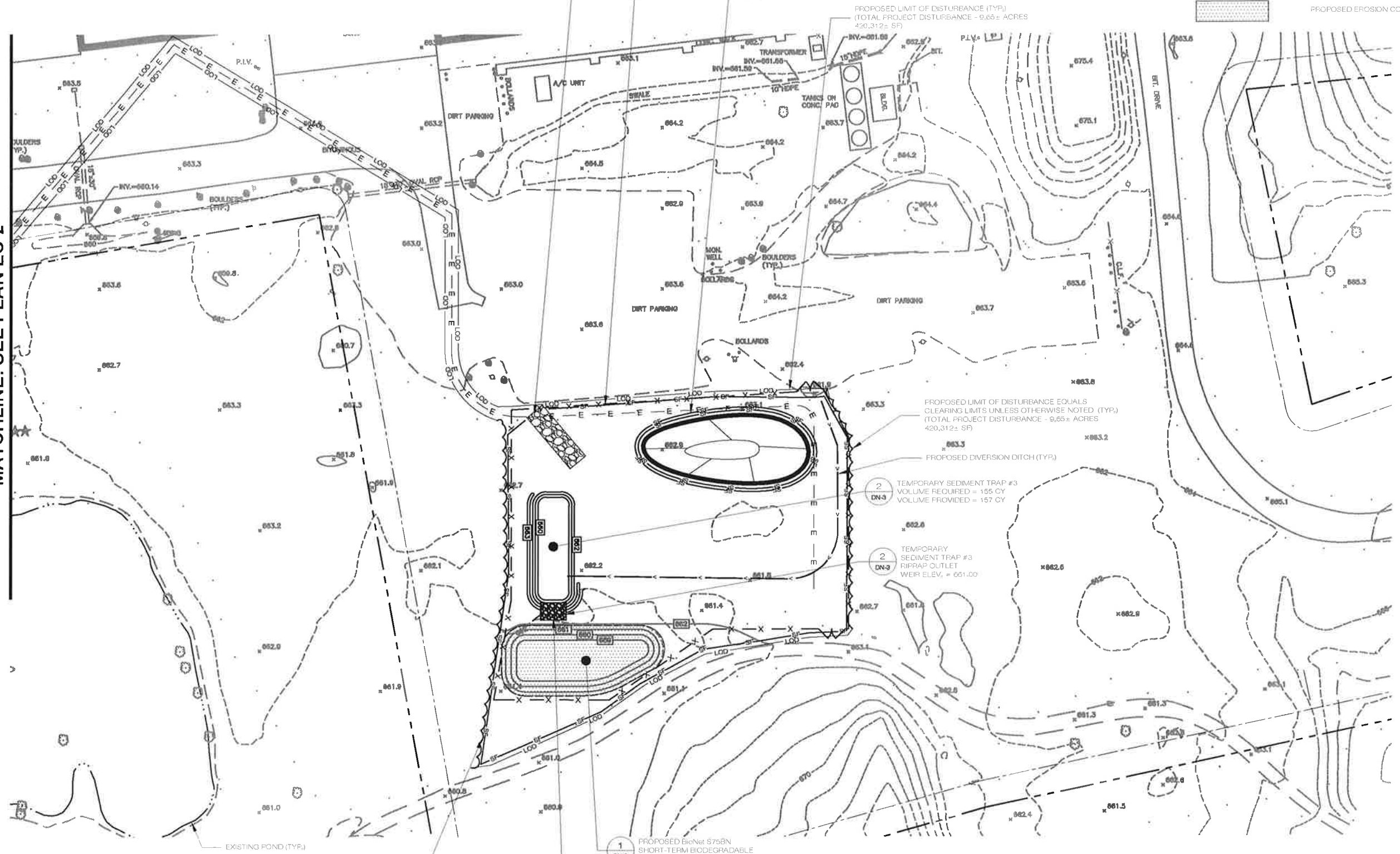
DATE: 08/12/16 DRAWN BY: CSH
 CHECKED BY: BJP

SHEET TITLE:

SEDIMENTATION & EROSION CONTROL PLAN

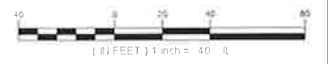
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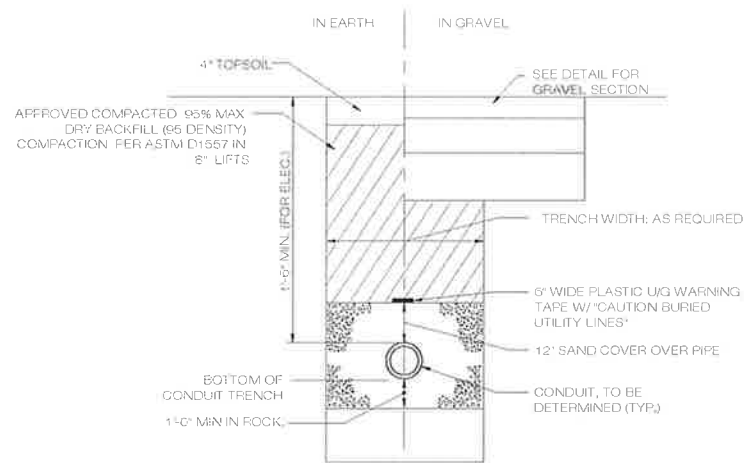
EC-3



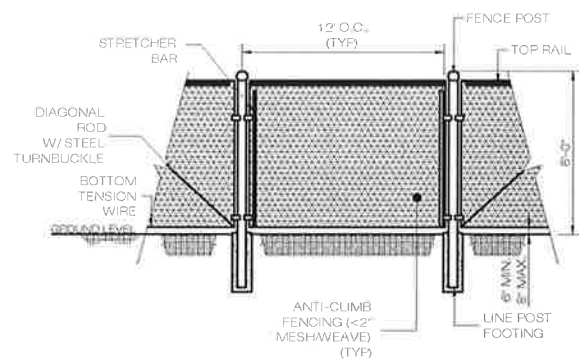
PROPOSED CLEARING LIMITS (AREA 2 TOTAL CLEARING LIMITS - 1.20± ACRES
 52,200± SF). CLEARING ACTIVITIES TO INCLUDE THE REMOVAL OF ALL BRUSH,
 TREES, & STUMPS. CLEARED MATERIAL TO BE CHIPPED & STOCKPILED. ALL
 DISTURBED AREAS TO BE LOAMED & SEEDED. (TYP.)

TURBIDITY MONITORING LOCATION, SEE
 SWPOP FOR MORE INFORMATION

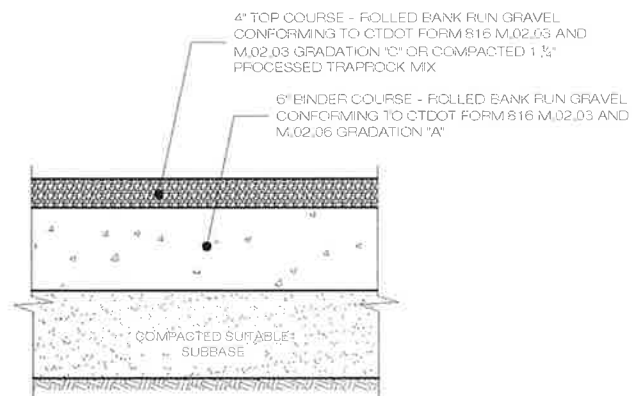




1 ELECTRICAL TRENCH DETAIL
SCALE: N.T.S.

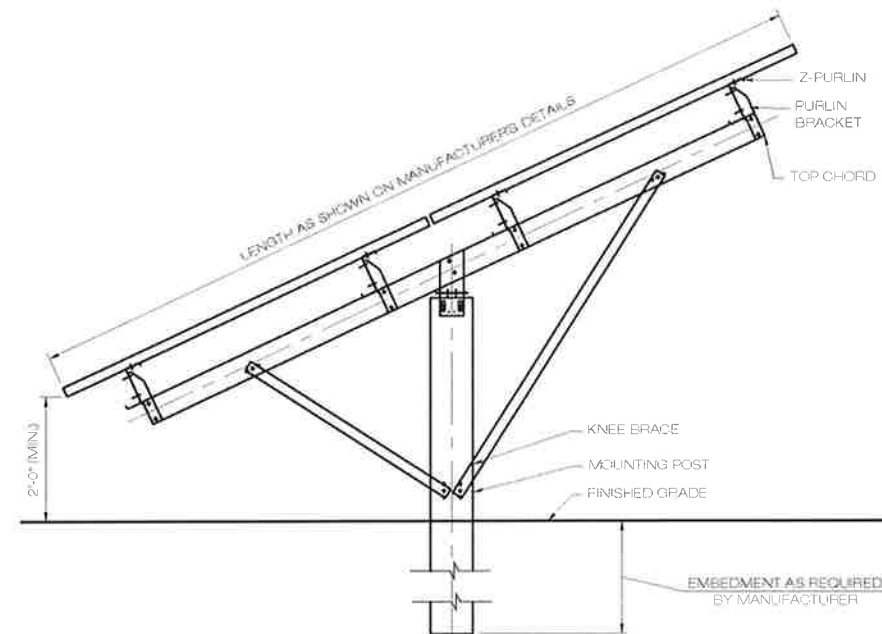


4 CHAIN-LINK FENCING DETAIL
SCALE: N.T.S.

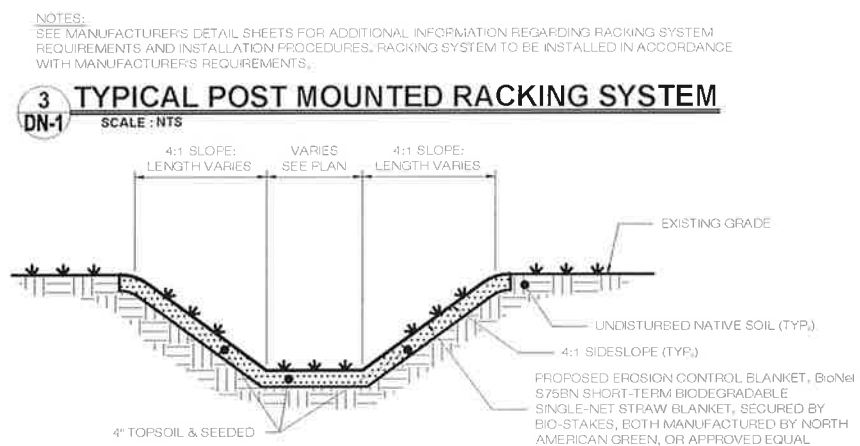


2 GRAVEL ACCESS DRIVE SECTION
SCALE: N.T.S.

- NOTES:
 1. SUBBASE MAY CONSIST OF NATIVE MATERIALS IF FOUND ACCEPTABLE BY THE ENGINEER, SUBBASE TO BE COMPACTED TO 95% MAX DRY DENSITY.
 2. SUBBASE IS TO BE FREE FROM DEBRIS AND UNSUITABLE MATERIALS.

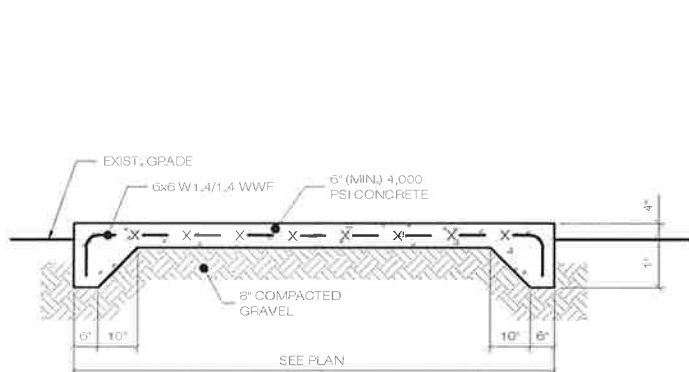


3 TYPICAL POST MOUNTED RACKING SYSTEM
SCALE: N.T.S.

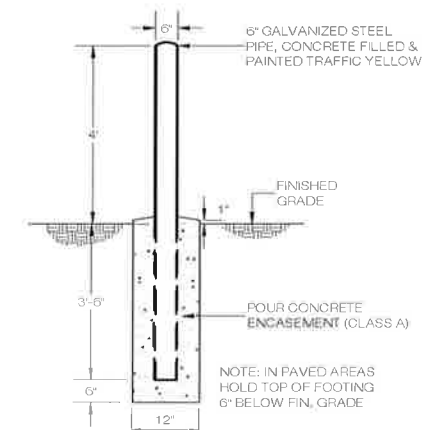


- NOTES:
 SEED MIX TO BE NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR MOIST SITES ON THE BOTTOM OF THE BASIN AND NEW ENGLAND EROSION/RESTORATION MIX FOR DRY SITES ON THE SIDE SLOPES.

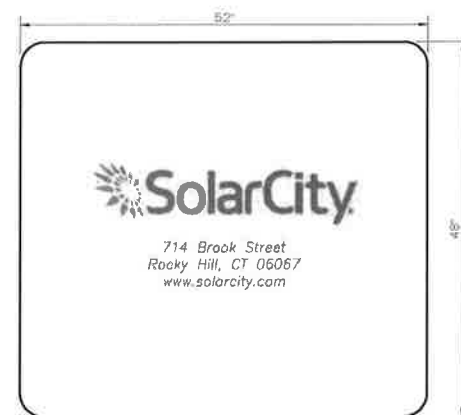
8 GRASS LINED INFILTRATION BASIN
SCALE: N.T.S.



6 CONCRETE EQUIPMENT PAD
SCALE: 1/2" = 1'-0"



7 BOLLARD DETAIL
SCALE: N.T.S.



9 IDENTIFICATION SIGNAGE
SCALE: N.T.S.



- NOTES:
 1. COVER BOARDS SHALL BE INSTALLED AROUND SP-1 AND SP-3 AS SHOWN ON THE SITE PLANS TO PROVIDE HABITAT FOR SMOOTH GREEN SNAKE DURING THIS SPECIES SEASONAL ACTIVE PERIOD (MAY THROUGH NOVEMBER).
 2. COVER BOARDS SHALL CONSIST OF EITHER EXTERIOR-GRADE PLYWOOD (4' X 8' SHEETS) OR CORRUGATED ROOFING/SIDING PANELS OF SIMILAR SIZE.
 3. THE LABEL "SNAKE COVER BOARD - DO NOT REMOVE OR DISTURB" SHALL BE PAINTED ON THE TOP SIDE OF EACH BOARD.
 4. COVER BOARDS SHALL REMAIN IN PLACE FROM MAY THROUGH OCTOBER, BUT CAN BE LEFT IN PLACE THROUGHOUT THE FALL AND WINTER IF NEEDED.
 5. AREAS WHERE COVER BOARDS ARE LOCATED SHALL BE MOWED NO MORE THAN ONCE PER SEASON.
 6. IF MOWING OCCURS BETWEEN MAY AND OCTOBER, THE COVER BOARDS SHALL BE REMOVED A MINIMUM OF ONE DAY PRIOR TO MOWING AND RESET ONCE ALL MOWING HAS BEEN COMPLETED.

10 SNAKE COVER BOARD
SCALE: N.T.S.

SolarCity

3055 Clearview Way, San Mateo, CA 94402
 T: (650) 538-1028 | F: (650) 638-1029
 (888)-SOL-CITY (765-2489) | www.solarcity.com

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DESIGN PROFESSIONALS OF RECORD

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 ADDRESS: 3 SADDLEBROOK DRIVE, KILLINGWORTH, CT 06419

OWNER: BECTON, DICKINSON & COMPANY
 ADDRESS: 1 BECTON DRIVE, FRANKLIN LAKES, NJ 07417
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APT FILING NUMBER: CT478120

DRAWN BY: CSH

DATE: 08/12/16 CHECKED BY: BJP

SHEET TITLE:

DETAIL SHEET

SHEET NUMBER:

DN-1

SITE PLAN NOTES

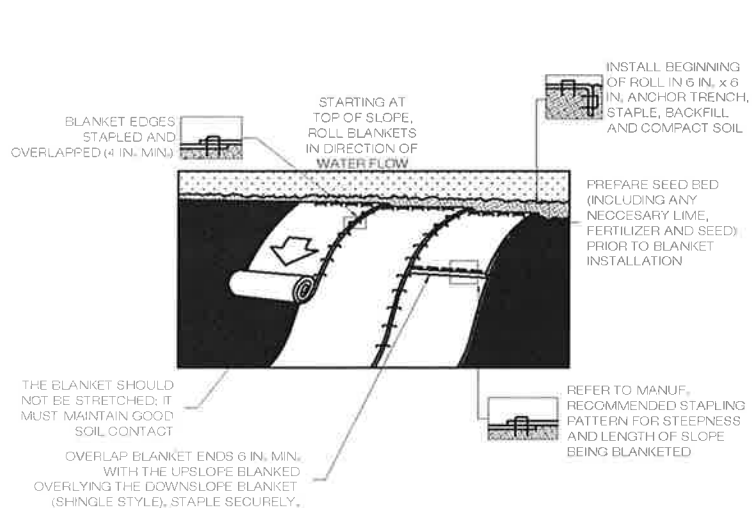
- ALL CONSTRUCTION SHALL COMPLY WITH SOLAR CITY STANDARDS, TOWN OF NORTH CANAAN STANDARDS, CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS IN THE ABOVE REFERENCED INCREASING HIERARCHY. IF SPECIFICATIONS ARE IN CONFLICT, THE MORE STRINGENT SPECIFICATION SHALL APPLY. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE OSHA, FEDERAL, STATE AND LOCAL REGULATIONS.
- THE OWNER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY ZONING PERMITS REQUIRED BY GOVERNMENT AGENCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN ALL TOWN OF NORTH CANAAN CONSTRUCTION PERMITS, INCLUDING CONNECTICUT DOT PERMITS. THE CONTRACTOR SHALL POST ALL BONDS, PAY ALL FEES, PROVIDE PROOF OF INSURANCE AND PROVIDE TRAFFIC CONTROL NECESSARY FOR THIS WORK.
- REFER TO PLANS, DETAILS AND REPORTS PREPARED BY ALL-POINTS TECHNOLOGY CORPORATION FOR ADDITIONAL INFORMATION. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS IN THE FIELD AND CONTACT THE 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 BEGINNING CONSTRUCTION. ANY CONFLICT BETWEEN THE DRAWINGS AND SPECIFICATIONS SHALL BE CONFIRMED WITH THE OWNER'S CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRODUCTS, MATERIALS PER PLANS AND SPECIFICATIONS TO THE OWNER AND ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY TO THE SITE. ALLOW A MINIMUM OF 14 WORKING DAYS FOR REVIEW.
- THE CONTRACTOR SHALL FOLLOW THE RECOMMENDED SEQUENCE OF CONSTRUCTION NOTES PROVIDED ON THE EROSION CONTROL PLAN OR SUBMIT AN ALTERNATE PLAN FOR APPROVAL BY THE ENGINEER PRIOR TO CONSTRUCTION.
- SHOULD ANY UNKNOWN OR INCORRECTLY LOCATED EXISTING PIPING OR OTHER UTILITY BE UNCOVERED DURING EXCAVATION, CONSULT THE CIVIL ENGINEER IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH WORK IN THIS AREA.
- DO NOT INTERRUPT EXISTING UTILITIES SERVING 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 MUNICIPALITY. INTERRUPTIONS SHALL ONLY OCCUR AFTER ACCEPTABLE TEMPORARY SERVICE HAS BEEN PROVIDED.
- THE CONTRACT LIMIT IS THE PROPERTY LINE UNLESS OTHERWISE SPECIFIED OR SHOWN ON THE CONTRACT DRAWINGS.
- 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.
- THE CONTRACTOR SHALL RESTORE ANY DRAINAGE STRUCTURE, PIPE, CONDUIT, PAVEMENT, CURBING, SIDEWALKS, LANDSCAPED AREAS OR SIGNAGE DISTURBED DURING CONSTRUCTION TO THEIR ORIGINAL CONDITION OR BETTER, AS APPROVED BY THE ENGINEER.
- THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORDS OF ALL CONSTRUCTION (INCLUDING UNDERGROUND UTILITIES) TO THE OWNER AT THE END OF CONSTRUCTION.
- 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 OF PERSONNEL OR TO SUPERVISE SAFETY AND DO NOT VOLUNTARILY ASSUME ANY SUCH DUTY OR RESPONSIBILITY.
- THE CONTRACTOR SHALL COMPLY WITH OSHA CFR 29 PART 1926 FOR EXCAVATION TRENCHING AND TRENCH PROTECTION REQUIREMENTS.
- EXISTING TOPOGRAPHY IS BASED ON THE DRAWING TITLED "EXISTING CONDITIONS PLAN" SCALE 1"=40', DATED 02-15-16 BY "GOLDEN AERIAL SURVEYS, INC."
- ALTERNATIVE METHODS AND PRODUCTS, OTHER THAN THOSE SPECIFIED, MAY BE USED IF REVIEWED AND APPROVED BY THE OWNER, ENGINEER, AND APPROPRIATE REGULATORY AGENCY PRIOR TO INSTALLATION DURING THE BIDDING/CONSTRUCTION PROCESS.
- INFORMATION ON EXISTING UTILITIES AND STORM DRAINAGE SYSTEMS HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY PROVIDER AND MUNICIPAL 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 UTILITIES AND STORM DRAINAGE SYSTEMS INCLUDING SERVICES. PRIOR TO DEMOLITION OR CONSTRUCTION, THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" 72 HOURS BEFORE COMMENCEMENT OF WORK AT 1-800-922-4455 AND VERIFY ALL UTILITY AND STORM DRAINAGE SYSTEM LOCATIONS.
- THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF SECTION 22A-174-19(b)(3)(c) OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES THAT LIMIT IDLING OF MOBILE SOURCES TO THREE MINUTES.
- THE CONTRACTOR SHALL USE OFF-ROAD CONSTRUCTION EQUIPMENT THAT MEETS THE LATEST EPA OR CALIFORNIA AIR RESOURCES BOARD OF STANDARDS. IF NOT ABLE TO MEET THESE, THE CONTRACTOR'S EQUIPMENT SHALL HAVE THE BEST AVAILABLE CONTROLS ON DIESEL EMISSIONS INCLUDING BUT NOT LIMITED TO RETRO-FITTING WITH DIESEL OXIDATION CATALYST PARTICULATE FILTERS AND USE OF ULTRA LOW SULFUR FUEL.
- NO CONSTRUCTION OR DEMOLITION SHALL BEGIN UNTIL APPROVAL OF THE FINAL PLANS IS GRANTED BY ALL GOVERNING AND REGULATORY AGENCIES.
- A SOUTH-WESTERN PORTION OF THE EXISTING PROPERTY IS LOCATED WITHIN A FEMA DESIGNATED FLOOD HAZARD AREA. HOWEVER, THE PROJECT AREA IS NOT LOCATED WITHIN A FEMA DESIGNATED FLOOD HAZARD AREA.
- THERE ARE WETLANDS LOCATED ON THE SITE AS INDICATED ON THE PLANS. WETLAND BOUNDARIES WERE FLAGGED AND LOCATED BY ALL-POINTS TECHNOLOGY LICENSED SENIOR WETLANDS SCIENTIST.

GRADING AND DRAINAGE NOTES

- THIS GRADING AND DRAINAGE DRAWINGS ARE INTENDED TO DESCRIBE GRADING AND DRAINAGE ONLY. REFER TO SITE PLAN FOR GENERAL INFORMATION, AND DETAIL SHEETS FOR DETAILS.
- THE CONTRACTOR SHALL PRESERVE EXISTING VEGETATION WHERE POSSIBLE AND/OR AS NOTED ON THE DRAWINGS. REFER TO EROSION CONTROL PLAN FOR LIMIT OF DISTURBANCE AND EROSION CONTROL NOTES.
- TOPSOIL SHALL BE STRIPPED AND STOCKPILED ON SITE FOR USE IN FINAL LANDSCAPING.
- VERTICAL DATUM IS NGV DATUM '83.
- CLEARING LIMITS SHALL BE PHYSICALLY MARKED IN THE FIELD AND APPROVED BY THE TOWN OF CANAAN AGENT PRIOR TO THE START OF WORK ON THE SITE.
- PROPER CONSTRUCTION PROCEDURES SHALL BE FOLLOWED ON ALL IMPROVEMENTS WITHIN THIS PARCEL SO AS TO PREVENT THE SILING OF ANY WATERCOURSE OR WETLANDS IN ACCORDANCE WITH THE REGULATIONS 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT POLLUTION CONTROL MANUAL. IN ADDITION, THE CONTRACTOR SHALL STRICTLY ADHERE TO THE EROSION CONTROL PLAN CONTAINED HEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE TO POST ALL BONDS AS REQUIRED BY THE LOCAL MUNICIPALITIES WHICH WOULD GUARANTEE THE PROPER IMPLEMENTATION OF THE PLAN.
- ALL SITE WORK, MATERIALS OF 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 STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION 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 6" LIFTS TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 1557 AT 95% PERCENT OF OPTIMUM MOISTURE CONTENT.
- ALL DISTURBANCE INCURRED TO PUBLIC, MUNICIPAL, COUNTY, STATE PROPERTY DUE TO CONSTRUCTION SHALL BE RESTORED TO ITS PREVIOUS CONDITION OR BETTER, TO THE SATISFACTION OF THE TOWN OF NORTH CANAAN AND STATE OF CONNECTICUT.
- IF IMPACTED OR CONTAMINATED SOIL IS ENCOUNTERED BY THE CONTRACTOR, THE CONTRACTOR SHALL SUSPEND EXCAVATION WORK OF IMPACTED SOIL AND NOTIFY THE OWNER AND/OR OWNER'S ENVIRONMENTAL CONSULTANT PRIOR TO PROCEEDING WITH FURTHER WORK IN THE IMPACTED SOIL LOCATION UNTIL FURTHER INSTRUCTED BY THE OWNER AND/OR OWNER'S ENVIRONMENTAL CONSULTANT.

UTILITIES NOTES

- CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE TOWN OF NORTH CANAAN TO SECURE CONSTRUCTION PERMITS AND FOR PAYMENT OF FEES FOR STREET CUTS AND CONNECTIONS TO EXISTING UTILITIES.
- THIS PLAN DETAILS SITE INSTALLED PIPES UP TO THE PROPOSED FENCE LINE. REFER TO DRAWINGS BY SOLAR CITY FOR INTERCONNECTION TO EXISTING ELECTRICAL GRID. SITE CONTRACTOR SHALL SUPPLY AND INSTALL PIPE ADAPTERS AS NECESSARY AT BUILDING CONNECTION POINT OR AT EXISTING UTILITY OR PILE CONNECTION POINT. THESE DETAILS ARE NOT INCLUDED IN THE SITE DEVELOPMENT AND MANAGEMENT PLANS.
- THE CONTRACTOR SHALL VISIT THE SITE AND VERIFY THE ELEVATION AND LOCATION OF ALL UTILITIES BY VARIOUS MEANS PRIOR TO BEGINNING ANY EXCAVATION. TEST FITS SHALL BE DUG AT ALL LOCATIONS WHERE PROPOSED SANITARY SEWERS AND 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 ENGINEER IN THE EVENT OF ANY DISCOVERED OR UNFORESEEN CONFLICTS BETWEEN EXISTING AND PROPOSED SANITARY SEWERS, STORM PIPING AND UTILITIES SO THAT AN APPROPRIATE MODIFICATION MAY BE MADE.
- UTILITY CONNECTION DESIGN AS REFLECTED ON THE PLAN MAY CHANGE SUBJECT TO UTILITY PROVIDER AND GOVERNING AUTHORITY STAFF REVIEW.
- 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.
- 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, AND DEMOLITION UNLESS OTHERWISE STATED IN THE PROJECT SPECIFICATIONS MANUAL AND/OR GENERAL CONDITIONS OF THE CONTRACT.
- 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 OWNER HAVING JURISDICTION.
- ALL PIPES SHALL BE LAID ON STRAIGHT ALIGNMENTS AND EVEN GRADES USING A PIPE LASER OR OTHER ACCURATE METHOD.
- RELOCATION OF UTILITY PROVIDER FACILITIES, SUCH AS POLES, SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY PROVIDER.
- THE CONTRACTOR SHALL PROVIDE PIPE BACKFILL IN 6" 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.
- CONTRACTOR TO PROVIDE STEEL SLEEVES AND ANNULAR SPACE SAND FILL FOR UTILITY PIPE AND CONDUIT CONNECTIONS UNDER FOOTINGS.
- BUILDING UTILITY PENETRATIONS AND LOCATIONS ARE SHOWN FOR THE CONTRACTOR'S INFORMATION AND SHALL BE VERIFIED WITH THE BUILDING MEP DRAWINGS AND WITH THE OWNER'S CONSTRUCTION MANAGER.
- ALL UTILITY CONSTRUCTION IS SUBJECT TO INSPECTION FOR APPROVAL PRIOR TO BACKFILLING, IN ACCORDANCE WITH THE APPROPRIATE UTILITY PROVIDER REQUIREMENTS.
- 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. A 6-INCH TO 18-INCH VERTICAL CLEARANCE BETWEEN SANITARY SEWER PIPING AND STORM PIPING SHALL REQUIRE CONCRETE ENCASEMENT OF THE PROPOSED SANITARY PIPING.
- SITE CONTRACTOR SHALL PROVIDE ALL BENDS, FITTINGS, ADAPTERS, ETC., AS REQUIRED FOR PIPE CONNECTIONS TO BUILDING STUB CUTS, INCLUDING ROOF/FOOTING DRAIN CONNECTIONS TO ROOF LEADERS AND TO STORM DRAINAGE SYSTEM.
- THE CONTRACTOR SHALL RESTORE ANY UTILITY STRUCTURE, PIPE, CONDUIT, PAVEMENT, CURBING, SIDEWALKS, DRAINAGE STRUCTURE, SWALE OR LANDSCAPED AREAS DISTURBED DURING CONSTRUCTION, TO THEIR ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE OWNER AND TOWN OF NORTH CANAAN.
- INFORMATION ON EXISTING UTILITIES AND STORM DRAINAGE HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY PROVIDER AND MUNICIPAL RECORD MAPS AND/OR FIELD SURVEY, AND IS NOT GUARANTEED CORRECT OR COMPLETE. UTILITIES AND STORM DRAINAGE ARE SHOWN TO ALERT THE CONTRACTOR TO THEIR PRESENCE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES AND STORM DRAINAGE INCLUDING SERVICES. CONTACT "CALL BEFORE YOU DIG" AT (800) 922-4455 72 HOURS PRIOR TO CONSTRUCTION AND VERIFY ALL UNDERGROUND AND OVERHEAD UTILITY AND STORM DRAINAGE 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.
- 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.
- ELECTRIC SERVICES SHALL BE INSTALLED UNDERGROUND. THE CONTRACTOR SHALL PROVIDE AND INSTALL AND BACKFILL PVC CONDUITS FOR ELECTRIC SERVICE. REFER TO ELECTRICAL PLANS AND WIRE SCHEDULE FOR ACTUAL NUMBER AND LOCATION OF CONDUITS. 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 COMPANY 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 CONCRETE ENCASEMENT ON PRIMARY ELECTRIC CONDUITS IF REQUIRED BY ELECTRIC PROVIDER.
- ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE OWNER, ENGINEER, AND APPROPRIATE REGULATORY AGENCIES PRIOR TO INSTALLATION.
- THE CONTRACTOR SHALL MAINTAIN ALL FLOWS AND UTILITY CONNECTIONS TO EXISTING BUILDINGS WITHOUT INTERRUPTION UNLESS UNLAWFULLY AUTHORIZED TO DISCONNECT BY THE OWNER, THE CIVIL ENGINEER, UTILITY PROVIDERS AND GOVERNING AUTHORITIES.

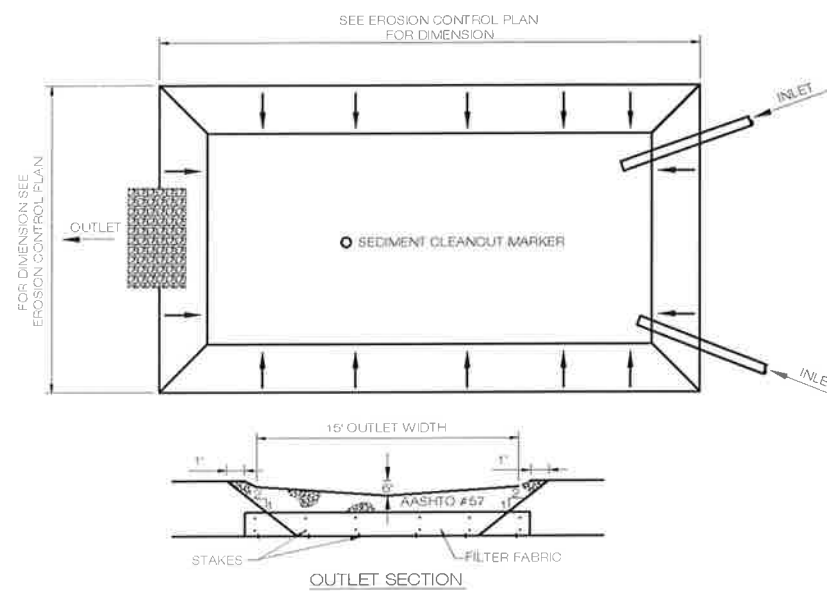


- SEQUENCE OF CONSTRUCTION**
- PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECPs), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
 - BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECPs IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECPs EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECPs WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO THE COMPACTED SOIL AND FOLD THE REMAINING 12" PORTION OF RECPs BACK OVER THE SEED AND COMPACTED SOIL. SECURE RECPs OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECPs.
 - ROLL THE RECPs DOWN HORIZONTALLY ACROSS THE SLOPE. RECPs WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECPs MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE.
 - THE EDGES OF PARALLEL RECPs MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON THE RECPs TYPE.
 - CONSECUTIVE RECPs SPICED DOWN THE SLOPE MUST BE END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA APPROXIMATELY 12" APART ACROSS ENTIRE RECPs WIDTH.

- NOTES**
- PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.
 - SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS. BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.
 - THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
 - BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA, DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

1 EROSION CONTROL BLANKET STEEP SLOPES

SCALE: 1" = 10' N.T.S.



2 TEMPORARY SEDIMENT TRAP DETAIL

SCALE: N.T.S.

SolarCity

3055 Clearview Way, San Mateo, CA 94402
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3 SADDLEBROOK DRIVE PHONE: (860) 663-1697
MILLINGWORTH, CT 06419 FAX: (860) 663-0935
WWW.ALLPOINTSTECH.COM

CONSTRUCTION DOCUMENTS

NO	DATE	REVISION
0	08/12/16	D&M PLAN FOR REVIEW: BJP
1	08/25/16	D&M PLAN ISSUED
2		
3		
4		
5		
6		



DESIGN PROFESSIONALS OF RECORD

PROF: BRADLEY J. PARSONS, P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION
ADD: 3 SADDLEBROOK DRIVE
KILLINGWORTH, CT 06419

OWNER: BECTON, DICKINSON & COMPANY
ADDRESS: 1 BECTON DRIVE
FRANKLIN LAKES, NJ 07417
(201) 847-6800

SITE: 7 GRACE WAY
ADDRESS: NORTH CANAAN, CT 06018

APT FILING NUMBER: CT478120

DRAWN BY: CSH
DATE: 08/12/16 CHECKED BY: BJP

SHEET TITLE: NOTES & SPECIFICATIONS

SHEET NUMBER:

DN-3

ENVIRONMENTAL NOTES

RARE SPECIES PROTECTION PROGRAM

BLUE-SPOTTED SALAMANDER COMPLEX, SPOTTED TURTLE AND WOOD TURTLE, ALL STATE SPECIAL CONCERN SPECIES AFFORDED PROTECTION UNDER THE CONNECTICUT ENDANGERED SPECIES ACT, ARE KNOWN TO OCCUR WITHIN THE VICINITY OF THE SITE. THE FOLLOWING PROTECTIVE MEASURES SATISFY REQUIREMENTS FROM THE CONNECTICUT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION (CTDEEP) WILDLIFE DIVISION AND FOLLOW PROTOCOLS DEVELOPED FROM PREVIOUS RARE SPECIES CONSULTATIONS AND STATE-APPROVED PROTECTION PLANS. THIS PROTECTION PLAN IS VALID FOR ONE YEAR FROM THE DATE OF CTDEEP'S LETTER, AT WHICH POINT IF CONSTRUCTION HAS NOT BEEN INITIATED A NEW NATURAL DIVERSITY DATA BASE REVIEW REQUEST FROM CTDEEP IS REQUIRED.

IT IS OF THE UTMOST IMPORTANCE THAT THE CONTRACTOR COMPLIES WITH THE REQUIREMENT FOR IMPLEMENTATION OF THESE PROTECTIVE MEASURES AND THE EDUCATION OF ITS EMPLOYEES AND SUBCONTRACTORS PERFORMING WORK ON THE PROJECT SITE. THE RARE SPECIES PROTECTION PLAN SHALL BE IMPLEMENTED IF WORK WILL OCCUR DURING THE SALAMANDERS AND TURTLES' ACTIVE PERIODS (MARCH 1 TO NOVEMBER 15). ALL-POINTS TECHNOLOGY CORPORATION, P.C. ("APT") WILL SERVE AS THE ENVIRONMENTAL MONITOR FOR THIS PROJECT TO ENSURE THAT THESE PROTECTION MEASURES ARE IMPLEMENTED PROPERLY AND WILL PROVIDE AN EDUCATION SESSION ON RARE SPECIES THAT MAY BE ENCOUNTERED AND THE PROJECT'S PROXIMITY TO SENSITIVE WILDLIFE HABITAT RESOURCES PRIOR TO THE START OF CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL CONTACT DEAN GUSTAFSON, SENIOR ENVIRONMENTAL SCIENTIST AT APT, AT LEAST 5 BUSINESS DAYS PRIOR TO THE PRE-CONSTRUCTION MEETING. MR. GUSTAFSON CAN BE REACHED BY PHONE AT (650) 633-1197 EXT. 201 OR VIA EMAIL AT DGUSTAFSON@ALLPOINTSTECH.COM.

THE PROPOSED PROTECTION PROGRAM CONSISTS OF SEVERAL COMPONENTS: EDUCATION OF ALL CONTRACTORS AND SUBCONTRACTORS PRIOR TO INITIATION OF WORK ON THE SITE; PROTECTIVE MEASURES; PERIODIC INSPECTION OF THE CONSTRUCTION PROJECT; AND, REPORTING.

1. SALAMANDER TREE CLEARING RESTRICTION

a. IN ORDER TO MINIMIZE IMPACTS ON SALAMANDERS, TREE CLEARING SHALL OCCUR BETWEEN NOVEMBER 15TH THROUGH FEBRUARY 1ST.

b. IF TREE CLEARING IS NOT PERFORMED DURING THE NOVEMBER 15TH THROUGH FEBRUARY 1ST PERIOD, SWEEPS OF THE ENTIRE CONSTRUCTION AREA SHALL BE PERFORMED BY THE ENVIRONMENTAL MONITOR DURING THE MORNING PRIOR TO EACH DAY'S TREE CLEARING ACTIVITIES. SALAMANDER SWEEPS SHALL BE PERFORMED ON A DAILY BASIS UNTIL TREE CLEARING ACTIVITIES HAVE BEEN COMPLETED.

2. ISOLATION MEASURES & SEDIMENTATION AND EROSION CONTROLS

a. PLASTIC NETTING USED IN A VARIETY OF EROSION CONTROL PRODUCTS (I.E., EROSION CONTROL BLANKETS, FIBER ROLLS [WATTLES], REINFORCED SILT FENCE) HAS BEEN FOUND TO ENTANGLE WILDLIFE, INCLUDING REPTILES, AMPHIBIANS, BIRDS AND SMALL MAMMALS, BUT PARTICULARLY SNAKES. NO PERMANENT EROSION CONTROL PRODUCTS OR REINFORCED SILT FENCE WILL BE USED ON THE SOLARITY CORPORATION PROJECT. TEMPORARY EROSION CONTROL PRODUCTS WILL USE EITHER EROSION CONTROL BLANKETS AND FIBER ROLLS COMPOSED OF PROCESSED FIBERS MECHANICALLY BOUND TOGETHER TO FORM A CONTINUOUS MATRIX (NETLESS) OR NETTING COMPOSED OF PLANAR WOVEN NATURAL BIODEGRADABLE FIBER TO AVOID MINIMIZE WILDLIFE ENTANGLEMENT.

b. INSTALLATION OF SEDIMENTATION AND EROSION CONTROLS, REQUIRED FOR EROSION CONTROL COMPLIANCE AND CREATION OF A BARRIER TO POSSIBLE MIGRATING/DISPERSING SALAMANDERS AND TURTLES, SHALL BE PERFORMED BY THE CONTRACTOR FOLLOWING CLEARING ACTIVITIES AND PRIOR TO ANY EARTHWORK. THE ENVIRONMENTAL MONITOR WILL INSPECT THE WORK ZONE AREA PRIOR TO AND FOLLOWING EROSION CONTROL BARRIER INSTALLATION TO ENSURE THE AREA IS FREE OF SALAMANDERS AND TURTLES AND DOCUMENT BARRIERS HAVE BEEN SATISFACTORILY INSTALLED. THE INTENT OF THE BARRIER IS TO SEGREGATE THE MAJORITY OF THE WORK ZONE AND ISOLATE IT FROM FORAGING/MIGRATING/DISPERSING SALAMANDERS, TURTLES, SNAKES AND OTHER HERPETOFAUNA. SOMETIMES COMPLETE ISOLATION OF A WORK ZONE IS NOT FEASIBLE DUE TO ACCESSIBILITY NEEDS AND LOCATIONS OF STAGING/MATERIAL STORAGE AREAS, ETC. IF COMPLETE ISOLATION OF THE WORK ZONE IS NOT PRACTICAL, THEY WILL BE POSITIONED TO DEFLECT MIGRATING/DISPERSAL ROUTES AWAY FROM THE WORK ZONE TO MINIMIZE POTENTIAL ENCOUNTERS WITH SALAMANDERS, TURTLES, SNAKES AND OTHER HERPETOFAUNA.

c. THE CONTRACTOR IS RESPONSIBLE FOR DAILY INSPECTIONS OF THE SEDIMENTATION AND EROSION CONTROLS FOR TEARS OR BREECHEES AND ACCUMULATION LEVELS OF SEDIMENT, PARTICULARLY FOLLOWING STORM EVENTS THAT GENERATE A DISCHARGE. APT WILL PROVIDE PERIODIC INSPECTIONS OF THE SEDIMENTATION AND EROSION CONTROLS THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES ONLY AS IT PERTAINS TO PROTECTION OF RARE SPECIES. THIRD PARTY MONITORING OF SEDIMENTATION AND EROSION CONTROLS WILL BE PERFORMED BY OTHER PARTIES, AS NECESSARY, UNDER APPLICABLE LOCAL, STATE AND/OR FEDERAL REGULATIONS.

d. THE EXTENT OF THE SEDIMENTATION AND EROSION CONTROLS WILL BE AS SHOWN ON THE SITE PLANS. THE CONTRACTOR SHALL HAVE ADDITIONAL SEDIMENTATION AND EROSION CONTROLS STOCKPILED ON SITE SHOULD FIELD OR CONSTRUCTION CONDITIONS WARRANT EXTENDING THE CONTROLS AS DIRECTED BY APT.

e. NO EQUIPMENT, VEHICLES OR CONSTRUCTION MATERIALS SHALL BE STORED OUTSIDE OF THE SEDIMENTATION AND EROSION CONTROLS WITHIN 100 FEET OF WETLANDS OR WATERCOURSES.

f. ALL SEDIMENTATION AND EROSION CONTROLS SHALL BE REMOVED WITHIN 30 DAYS OF COMPLETION OF WORK AND PERMANENT STABILIZATION OF SITE SOILS SO THAT REPTILE AND AMPHIBIAN MOVEMENT BETWEEN UPLANDS AND WETLANDS IS NOT RESTRICTED.

3. CONTRACTOR EDUCATION

a. PRIOR TO WORK ON SITE, THE CONTRACTOR SHALL ATTEND AN EDUCATIONAL SESSION AT THE PRE-CONSTRUCTION MEETING WITH APT. THIS ORIENTATION AND EDUCATIONAL SESSION WILL CONSIST OF AN INTRODUCTORY MEETING WITH APT PROVIDING PHOTOS OF BLUE-SPOTTED SALAMANDER COMPLEX, SPOTTED TURTLE AND WOOD TURTLE EMPHASIZING THE NON-AGGRESSIVE NATURE OF THESE SPECIES, THE ABSENCE OF NEED TO DESTROY ANIMALS THAT MIGHT BE ENCOUNTERED AND THE NEED TO FOLLOW PROTECTIVE MEASURES AS DESCRIBED IN SECTION 5 BELOW. WORKERS WILL ALSO BE PROVIDED INFORMATION REGARDING THE IDENTIFICATION OF OTHER SALAMANDERS, TURTLES, SNAKES AND COMMON HERPETOFAUNA SPECIES THAT COULD BE ENCOUNTERED.

b. THE EDUCATION SESSION WILL ALSO FOCUS ON MEANS TO DISCRIMINATE BETWEEN THE SPECIES OF CONCERN AND OTHER NATIVE SPECIES TO AVOID UNNECESSARY "FALSE ALARMS". ENCOUNTERS WITH ANY SPECIES OF SALAMANDERS, TURTLES OR SNAKES WILL BE DOCUMENTED.

c. THE CONTRACTOR WILL BE PROVIDED WITH CELL PHONE AND EMAIL CONTACTS FOR THE APT ENVIRONMENTAL MONITOR TO IMMEDIATELY REPORT ANY ENCOUNTERS WITH BLUE-SPOTTED SALAMANDER COMPLEX, SPOTTED TURTLE AND WOOD TURTLE. EDUCATIONAL POSTER MATERIALS WILL BE PROVIDED BY APT AND DISPLAYED ON THE JOB SITE TO MAINTAIN WORKER AWARENESS AS THE PROJECT PROGRESSES.

4. PETROLEUM MATERIALS STORAGE AND SPILL PREVENTION

a. CERTAIN PRECAUTIONS ARE NECESSARY TO STORE PETROLEUM MATERIALS, REFUEL AND CONTAIN AND PROPERLY CLEAN UP ANY INADVERTENT FUEL OR PETROLEUM (I.E., OIL, HYDRAULIC FLUID, ETC.) SPILL TO AVOID POSSIBLE IMPACT TO NEARBY HABITATS.

b. A SPILL CONTAINMENT KIT CONSISTING OF A SUFFICIENT SUPPLY OF ABSORBENT PADS AND ABSORBENT MATERIAL WILL BE MAINTAINED BY THE CONTRACTOR AT THE CONSTRUCTION SITE THROUGHOUT THE DURATION OF THE PROJECT. IN ADDITION, A WASTE DRUM WILL BE KEPT ON SITE TO CONTAIN ANY USED ABSORBENT PADS/MATERIAL FOR PROPER AND TIMELY DISPOSAL OFF SITE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL LAWS.

c. THE FOLLOWING PETROLEUM AND HAZARDOUS MATERIALS STORAGE AND REFUELING RESTRICTIONS AND SPILL RESPONSE PROCEDURES WILL BE ADHERED TO BY THE CONTRACTOR.

i. PETROLEUM AND HAZARDOUS MATERIALS STORAGE AND REFUELING

- REFUELING OF VEHICLES OR MACHINERY SHALL OCCUR A MINIMUM OF 100 FEET FROM WETLANDS OR WATERCOURSES AND SHALL TAKE PLACE ON AN IMPERVIOUS PAD WITH SECONDARY CONTAINMENT DESIGNED TO CONTAIN FUELS.
- ANY FUEL OR HAZARDOUS MATERIALS THAT MUST BE KEPT ON SITE SHALL BE STORED ON AN IMPERVIOUS SURFACE UTILIZING SECONDARY CONTAINMENT A MINIMUM OF 100 FEET FROM WETLANDS OR WATERCOURSES.

ii. INITIAL SPILL RESPONSE PROCEDURES

- STOP OPERATIONS AND SHUT OFF EQUIPMENT.
- REMOVE ANY SOURCES OF SPARK OR FLAME.
- CONTAIN THE SOURCE OF THE SPILL.
- DETERMINE THE APPROXIMATE VOLUME OF THE SPILL.
- IDENTIFY THE LOCATION OF NATURAL FLOW PATHS TO PREVENT THE RELEASE OF THE SPILL TO SENSITIVE NEARBY WATERWAYS OR WETLANDS.
- ENSURE THAT FELLOW WORKERS ARE NOTIFIED OF THE SPILL.

iii. SPILL CLEAN UP & CONTAINMENT

- OBTAIN SPILL RESPONSE MATERIALS FROM THE ON-SITE SPILL RESPONSE KIT. PLACE ABSORBENT MATERIALS DIRECTLY ON THE RELEASE AREA.
- LIMIT THE SPREAD OF THE SPILL BY PLACING ABSORBENT MATERIALS AROUND THE PERIMETER OF THE SPILL.
- ISOLATE AND ELIMINATE THE SPILL SOURCE.
- CONTACT THE APPROPRIATE LOCAL, STATE AND/OR FEDERAL AGENCIES, AS NECESSARY.
- CONTACT A DISPOSAL COMPANY TO PROPERLY DISPOSE OF CONTAMINATED MATERIALS.

iv. REPORTING

- COMPLETE AN INCIDENT REPORT.
- SUBMIT A COMPLETED INCIDENT REPORT TO THE TOWN OF CHESHIRE.

5. RARE SPECIES PROTECTIVE MEASURES

a. PRIOR TO THE START OF CONSTRUCTION EACH DAY, THE CONTRACTOR SHALL SEARCH THE ENTIRE WORK AREA FOR SALAMANDERS AND TURTLES.

b. IF A SALAMANDER OR TURTLE IS FOUND, IT SHALL BE IMMEDIATELY MOVED, UNHARMED, AND PLACED JUST OUTSIDE OF THE ISOLATION BARRIER IN THE SAME APPROXIMATE DIRECTION IT WAS HEADING. TURTLES SHOULD BE HANDLED BY CAREFULLY GRASPED IN BOTH HANDS, ONE ON EACH SIDE OF THE SHELL, BETWEEN THE TURTLES' FORELIMBS AND THE HIND LIMBS. SALAMANDERS HAVE SOFT, DELICATE SKIN AND SHOULD BE HANDLED GENTLY WITH A CLEAN DAMP PLASTIC BAG OR CLEAN WET HANDS.

c. SPECIAL CARE SHALL BE TAKEN BY THE CONTRACTOR DURING EARLY MORNING AND EVENING HOURS SO THAT POSSIBLE BASKING OR FORAGING TURTLES ARE NOT HARMED BY CONSTRUCTION ACTIVITIES.

6. HERBICIDE AND PESTICIDE RESTRICTIONS

a. THE USE OF HERBICIDES AND PESTICIDES AT THE PROPOSED SOLAR FACILITY SHALL BE AVOIDED WHEN POSSIBLE. IN THE EVENT HERBICIDES AND/OR PESTICIDES ARE REQUIRED AT THE PROPOSED FACILITY, THEIR USE WILL BE USED IN ACCORDANCE WITH INTEGRATED PEST MANAGEMENT ("IPM") PRINCIPLES WITH PARTICULAR ATTENTION TO MINIMIZE APPLICATIONS WITHIN 100 FEET OF WETLAND OR WATERCOURSE RESOURCES. NO APPLICATIONS OF HERBICIDES OR PESTICIDES ARE ALLOWED WITHIN ACTUAL WETLAND OR WATERCOURSE RESOURCES.

7. REPORTING

a. DAILY COMPLIANCE MONITORING REPORTS (BRIEF NARRATIVE AND APPLICABLE PHOTOS) DOCUMENTING EACH APT INSPECTION WILL BE SUBMITTED BY APT TO SOLARITY CORPORATION FOR COMPLIANCE VERIFICATION. ANY OBSERVATIONS OF SALAMANDERS OR TURTLES WILL BE INCLUDED IN THE REPORTS.

b. FOLLOWING COMPLETION OF THE CONSTRUCTION PROJECT, APT WILL PROVIDE A COMPLIANCE MONITORING SUMMARY REPORT TO SOLARITY CORPORATION DOCUMENTING IMPLEMENTATION OF THE RARE SPECIES PROTECTION PROGRAM, MONITORING AND ANY SPECIES OBSERVATIONS. SOLARITY CORPORATION WILL PROVIDE A COPY OF THE COMPLIANCE MONITORING SUMMARY REPORT TO THE CONNECTICUT SITING COUNCIL FOR COMPLIANCE VERIFICATION.

c. ANY OBSERVATIONS OF BLUE-SPOTTED SALAMANDER COMPLEX, SPOTTED TURTLE AND WOOD TURTLE WILL BE REPORTED TO CTDEEP BY APT, WITH PHOTO-DOCUMENTATION (IF POSSIBLE) AND WITH SPECIFIC INFORMATION ON THE LOCATION AND DISPOSITION OF THE ANIMAL.

SMOOTH GREEN SNAKE HABITAT ENHANCEMENT: COVER BOARD GUIDELINES

- COVER BOARDS SHALL BE INSTALLED AROUND SP-1 AND SP-3 AS SHOWN ON THE SITE PLANS TO PROVIDE HABITAT FOR SMOOTH GREEN SNAKE DURING THIS SPECIES SEASONAL ACTIVE PERIOD (MAY THROUGH NOVEMBER).
- COVER BOARDS SHALL CONSIST OF EITHER EXTERIOR-GRADE PLYWOOD (4' X 8' SHEETS) OR CORRUGATED ROOFING/SIDING PANELS OF SIMILAR SIZE.
- THE LABEL "SNAKE COVER BOARD - DO NOT REMOVE OR DISTURB" SHALL BE PAINTED ON THE TOP SIDE OF EACH BOARD.
- COVER BOARDS SHALL REMAIN IN PLACE FROM MAY THROUGH OCTOBER, BUT CAN BE LEFT IN PLACE THROUGHOUT THE FALL AND WINTER IF NEEDED.
- AREAS WHERE COVER BOARDS ARE LOCATED SHALL BE MOWED NO MORE THAN ONCE PER SEASON.
- IF MOWING OCCURS BETWEEN MAY AND OCTOBER, THE COVER BOARDS SHALL BE REMOVED A MINIMUM OF ONE DAY PRIOR TO MOWING AND RESET ONCE ALL MOWING HAS BEEN COMPLETED.

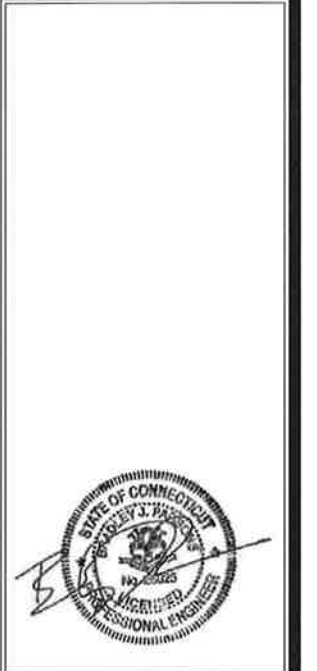
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3055 Clearview Way, San Mateo, CA 94402
T: (650) 638-1028 | F: (650) 638-1029
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**ALL-POINTS
TECHNOLOGY CORPORATION**

3 SADDLEBROOK DRIVE PHONE: (603) 663-1697
KILLINGWORTH, CT 06419 FAX: (603) 663-0935
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CONSTRUCTION DOCUMENTS		
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DESIGN PROFESSIONALS OF RECORD
PROF: BRADLEY J. PARSONS P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION
ADD: 3 SADDLEBROOK DRIVE
KILLINGWORTH, CT 06419

OWNER: BECTON, DICKINSON & COMPANY
ADDRESS: 1 BECTON DRIVE
FRANKLIN LAKES, NJ 07417
(201) 847-6800

SITE: 7 GRACE WAY
ADDRESS: NORTH CANAAN, CT 06018

APT FILING NUMBER: CT478120

DRAWN BY: CSH
DATE: 08/12/16
CHECKED BY: BJP

SHEET TITLE:
ENVIRONMENTAL NOTES & SPECIFICATIONS

SHEET NUMBER:
DN-4



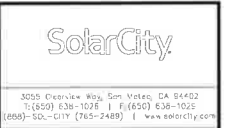
MOUNTING PLANE I.D.
 MP1
 BY 7/17/12
 # OF MODULES: 1,206
 ROOFING: PV2
 AVG. HEIGHT (FT): 25

- LEGEND**
- (N) PHOTOVOLTAIC MODULE W/ ZEP ZS PEAK SUPPORT & BALLAST
 - (N) ZEP POSITIVE ATTACHMENT
 - (N) EQUIPMENT RACK WITH LOAD CENTER
 - (N) EQUIPMENT RACK
 - (E) SKYLIGHT
 - (E) OPERABLE SKYLIGHT
 - (E) HVAC UNIT
 - (E) VENT PIPE
 - (E) ROOF ACCESS HATCH
 - (E) EXHAUST FAN
 - ACCESS PATHWAY/SETBACK

ROOF STRUCTURAL PLAN NOTES:

THE DESIGN FOR THE ADDITION OF SOLAR PANELS ON THE ROOFTOP IS BASED ON THE FOLLOWING ASSUMPTIONS, WHICH SHOULD BE VERIFIED BY THE GENERAL CONTRACTOR AND OWNER BEFORE INSTALLATION IS COMMENCED:

- NO STRUCTURAL MODIFICATIONS HAVE BEEN MADE TO THE ORIGINAL BUILDING, WITHOUT BEING SPECIFICALLY IDENTIFIED ON THESE PLANS. IF AT ANY TIME THE EXISTING STRUCTURAL CONDITIONS OF THE BUILDING APPEAR TO DEVIATE FROM WHAT IS SHOWN ON THIS PLAN, WORK SHALL BE STOPPED, AND THE ENGINEER SHALL BE CONTACTED BEFORE WORK PROCEEDS FURTHER.
- NO RE-ROOFING HAS BEEN PERFORMED ON THE BUILDING, UNLESS SPECIFICALLY INDICATED ON PLAN. IF IT IS DETERMINED THAT RE-ROOFING HAS OCCURRED AND HAS NOT BEEN INDICATED ON PLAN, WORK SHALL BE STOPPED, AND THE ENGINEER SHALL BE CONTACTED BEFORE CONTINUING WORK.
- NO STRUCTURAL MEMBERS ARE DAMAGED OR DEGRADED. IF IT IS DETERMINED THAT ANY STRUCTURAL MEMBERS ARE DAMAGED OR DEGRADED, WORK SHALL BE STOPPED, AND THE ENGINEER SHALL BE CONTACTED BEFORE WORK PROCEEDS FURTHER.
- NO SIGNIFICANT ADDITIONAL DEAD LOADS HAVE BEEN PLACED ON THE ROOF OR HUNG FROM THE ROOF STRUCTURE BELOW SINCE THE TIME OF ORIGINAL CONSTRUCTION UNLESS SPECIFICALLY IDENTIFIED WITHIN THESE CONSTRUCTION DOCUMENTS. SIGNIFICANT LOADS INCLUDE ANY ITEMS OVER 200 POUNDS SUPPORTED OVER THE ROOF OR ANY ITEMS HUNG FROM INDIVIDUAL FRAMING MEMBERS OVER 75 POUNDS. NO SOLAR PANEL SHALL BE LOCATED IN AREAS IDENTIFIED AS HAVING ADDITIONAL DEAD LOADS. IF IT IS DETERMINED THAT ANY ADDITIONAL DEAD LOADS ARE PRESENT ON THE ROOF WITHOUT BEING SPECIFICALLY IDENTIFIED, WORK SHALL BE STOPPED, AND THE ENGINEER SHALL BE CONTACTED BEFORE WORK PROCEEDS FURTHER.
- THE EXISTING ROOF DRAINAGE SYSTEM IS ADEQUATE AND PROPERLY MAINTAINED TO ENSURE THAT WATER ACCUMULATION AND PONDING ON THE ROOF DOES NOT OCCUR. IF IT APPEARS THAT THE EXISTING ROOF DRAINAGE SYSTEM IS INADEQUATE OR HAS NOT BEEN PROPERLY MAINTAINED (I.E. EVIDENCE OF PRIOR WATER PONDING ON ROOF), WORK SHALL BE STOPPED, AND THE ENGINEER SHALL BE CONTACTED BEFORE WORK PROCEEDS FURTHER.



3025 Chenoweth Way, San Diego, CA 92108
 T: (650) 638-1028 | F: (650) 638-1029
 (800)-SOL-CITY (765-7489) | www.solarcity.com

OWNER: BECTON, DICKINSON, & CO - CANAAN ZREC
 736.56 KW GROUND AND ROOF MOUNTED PV SYSTEM
 CONTRACTOR: Becton, Dickinson, & CO - Canaan ZREC
 7 Grace Way
 North Canaan, CT
 860-824-2715



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REVISIONS

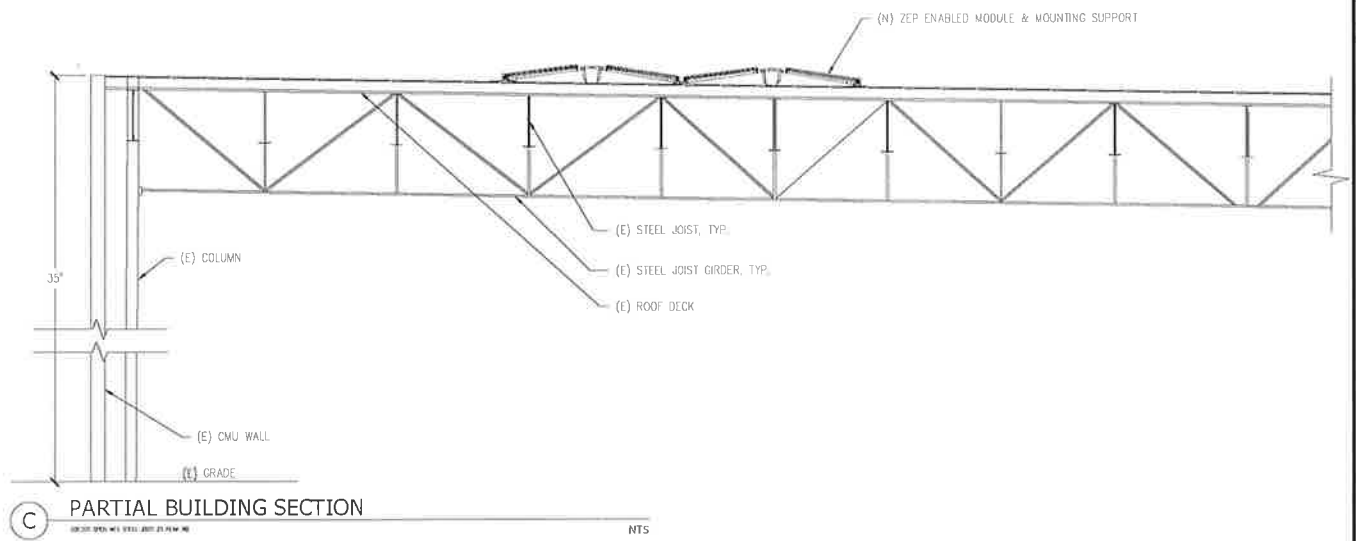
REV	BY	DATE	COMMENTS

JOB DETAILS

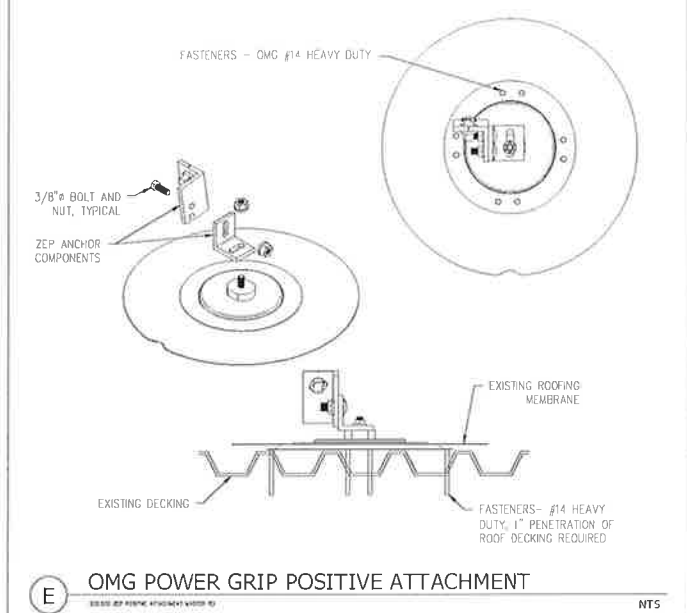
PROJECT:	Litchfield
PROJECT NO.:	(2376) TRINA SOLAR # TSM-310P04.18
WORKING SYSTEM:	ZS PEAK & GROUND MOUNT
WARRANTY:	(22) FERROUS # Syma 24.0-3.480
DESIGNED BY:	ANDREW D. WHITE
PROJECT ENGINEER:	ANDREW D. WHITE
DATE:	6/18/2015
PROJECT TYPE:	PPA
PROJECT NAME:	STRUCTURAL ROOF PLAN
PROJECT NUMBER:	JB-0602825-00
SHEET:	PV 9
OF:	0

STRUCTURAL ROOF PLAN

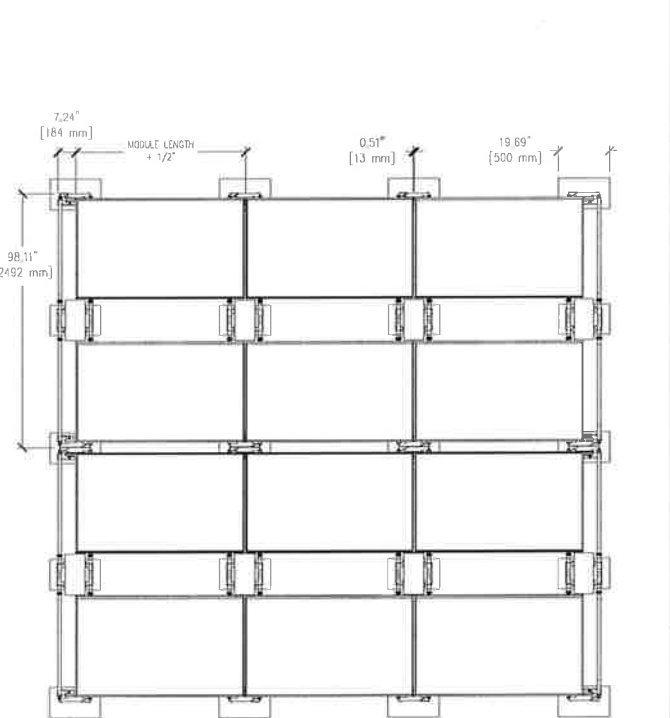




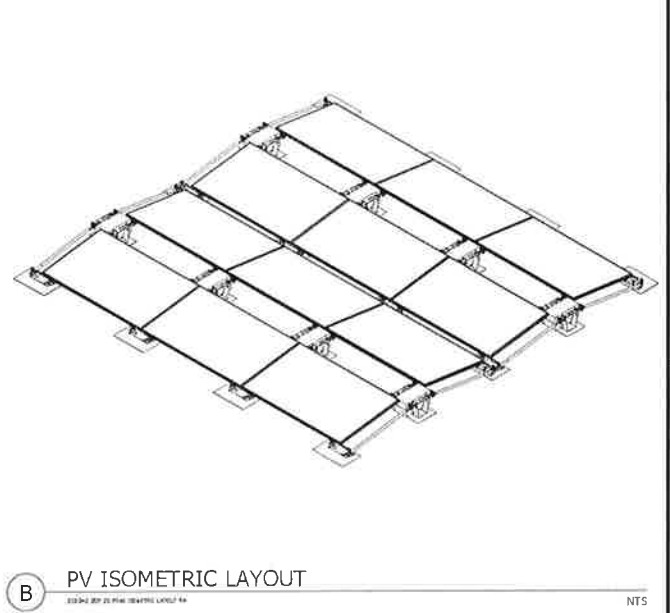
C PARTIAL BUILDING SECTION
SECTION SHOWN WITH ZEP ENABLED PV SYSTEM NTS



E OMG POWER GRIP POSITIVE ATTACHMENT
SECTION SHOWN WITH ZEP ENABLED PV SYSTEM NTS



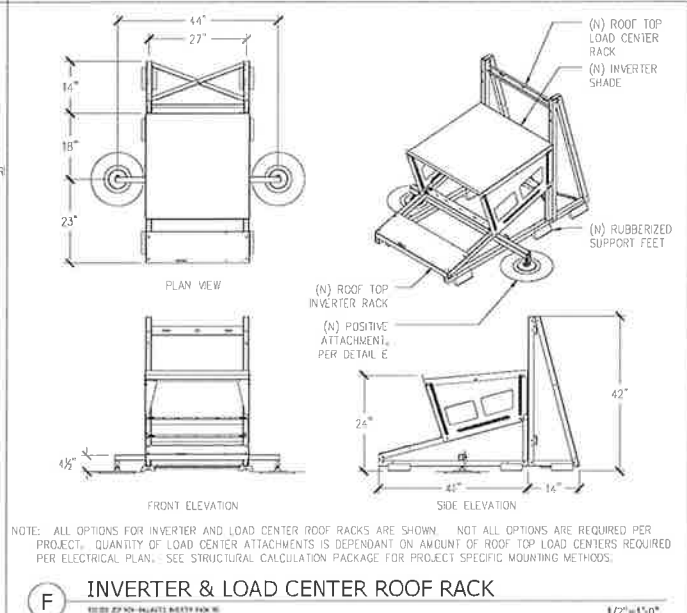
D PV MODULE LAYOUT
SECTION SHOWN WITH ZEP POSITIVE ATTACHMENT NTS



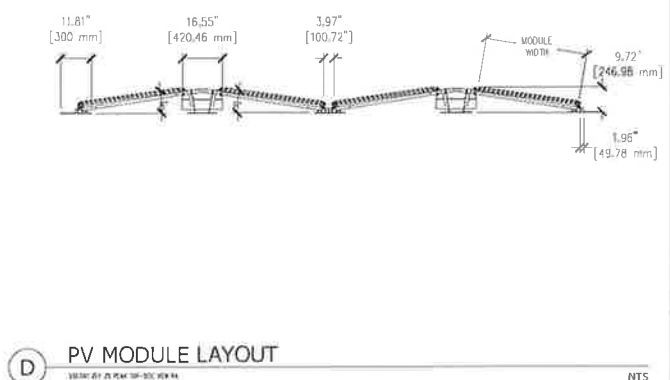
B PV ISOMETRIC LAYOUT
SECTION SHOWN WITH ZEP POSITIVE ATTACHMENT NTS



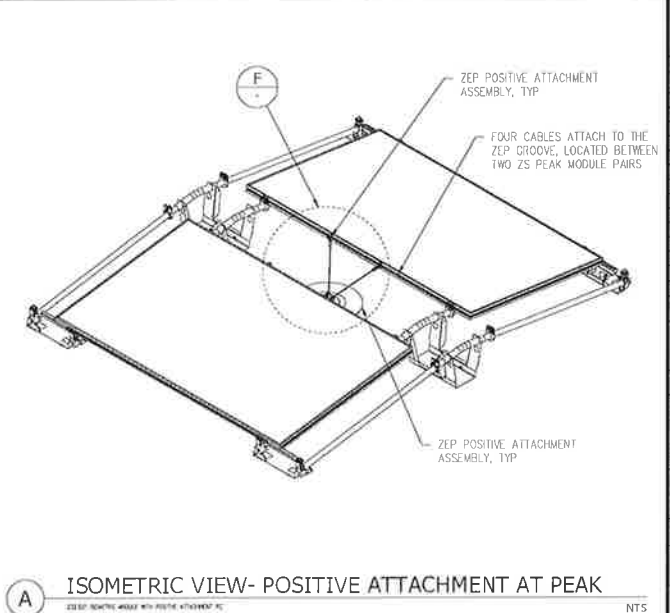
G OMG POWER GRIP POSITIVE ATTACHMENT
SECTION SHOWN WITH ZEP ENABLED PV SYSTEM NTS



F INVERTER & LOAD CENTER ROOF RACK
SECTION SHOWN WITH ZEP POSITIVE ATTACHMENT 1/2\"/>



D PV MODULE LAYOUT
SECTION SHOWN WITH ZEP POSITIVE ATTACHMENT NTS



A ISOMETRIC VIEW- POSITIVE ATTACHMENT AT PEAK
SECTION SHOWN WITH ZEP POSITIVE ATTACHMENT NTS

NOTE: ALL OPTIONS FOR INVERTER AND LOAD CENTER ROOF RACKS ARE SHOWN. NOT ALL OPTIONS ARE REQUIRED PER PROJECT. QUANTITY OF LOAD CENTER ATTACHMENTS IS DEPENDANT ON AMOUNT OF ROOF TOP LOAD CENTERS REQUIRED PER ELECTRICAL PLAN. SEE STRUCTURAL CALCULATION PACKAGE FOR PROJECT SPECIFIC MOUNTING METHODS.

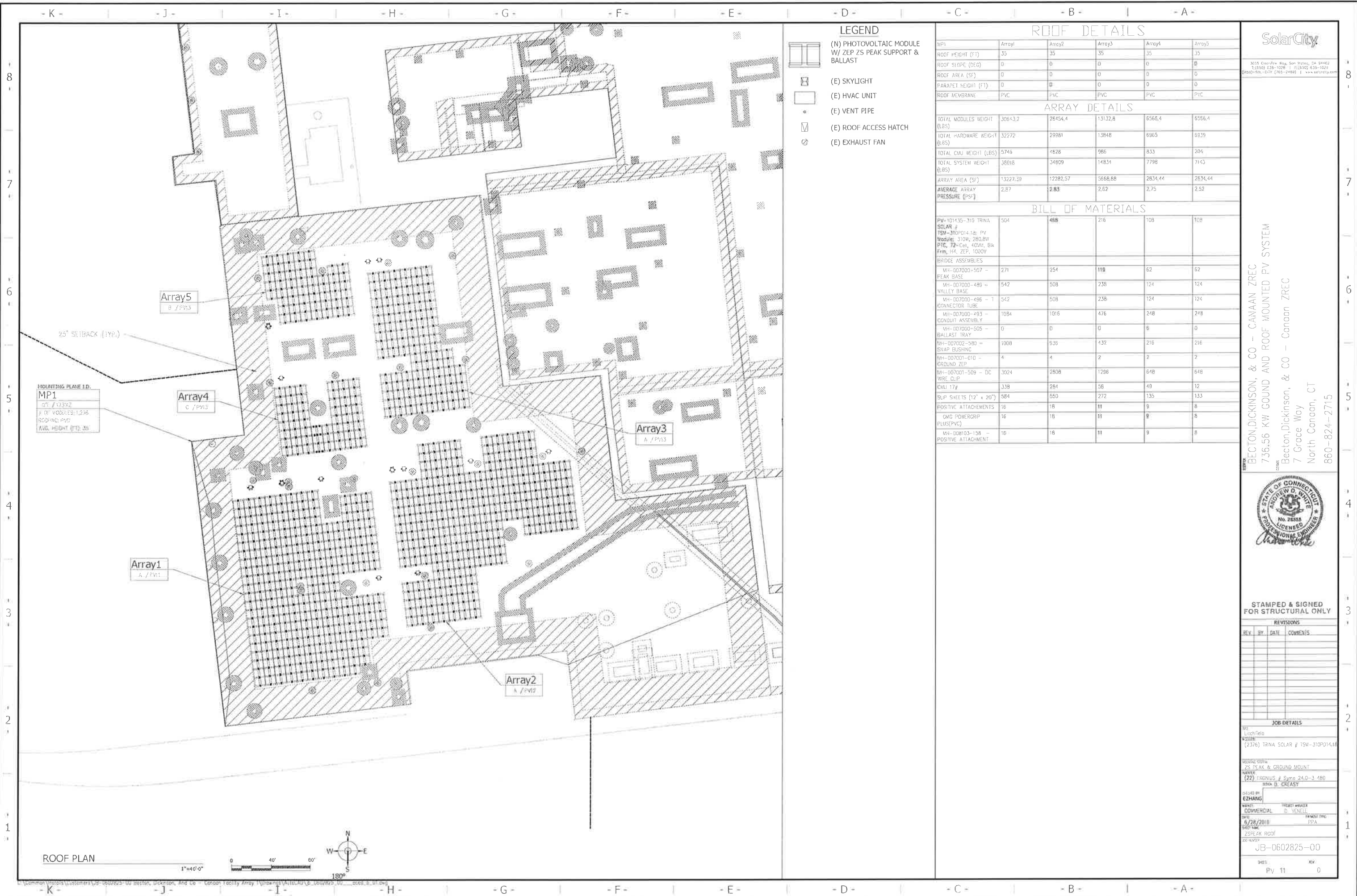
OWNER: BECTON, DICKINSON, & CO - CANAAN ZREC
 736.56 KW GROUND AND ROOF MOUNTED PV SYSTEM
 PROJECT: Becton, Dickinson, & CO - Canaan ZREC
 7 Grace Way
 North Canaan, CT
 860-824-2715



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REVISIONS			
NO.	BY	DATE	COMMENTS

JOB DETAILS			
PROJECT:	Litchfield		
ADDRESS:	(2375) TRINA SOLAR # TSM-310PD14,18		
WORKING SYSTEM:	ZS PEAK & GROUND MOUNT		
INVERTER:	(22) FRONIUS # Symo 24.0-3 480		
DESIGNER:	ANDREW D. WHITE		
DESIGNED BY:	EZHANG		
DATE:	6/28/2016	PROJECT NUMBER:	D. WHITE
DATE:	6/28/2016	PERMIT TYPE:	PPA
PROJECT NAME:	STRUCTURAL DETAILS & INVERTER RACKS		
FOR REFERENCE:	JB-0602825-00		
SHEET:	PV 10	TOTAL SHEETS:	0



- LEGEND**
- (N) PHOTOVOLTAIC MODULE W/ ZEP ZS PEAK SUPPORT & BALLAST
 - (E) SKYLIGHT
 - (E) HVAC UNIT
 - (E) VENT PIPE
 - (E) ROOF ACCESS HATCH
 - (E) EXHAUST FAN

ROOF DETAILS

MP1	Array1	Array2	Array3	Array4	Array5
ROOF HEIGHT (FT)	35	35	35	35	35
ROOF SLOPE (DEG)	0	0	0	0	0
ROOF AREA (SF)	0	0	0	0	0
PARKET HEIGHT (FT)	0	0	0	0	0
ROOF MEMBRANE	PVC	PVC	PVC	PVC	PVC

ARRAY DETAILS

TOTAL MODULES WEIGHT (LBS)	30643.2	26454.4	13132.8	6566.4	6566.4
TOTAL HARDWARE WEIGHT (LBS)	32272	29981	13848	6965	6939
TOTAL CMU WEIGHT (LBS)	5746	4626	986	833	204
TOTAL SYSTEM WEIGHT (LBS)	38018	34809	14831	7798	7143
ARRAY AREA (SF)	13227.39	12282.57	5668.88	2634.44	2634.44
AVERAGE ARRAY PRESSURE (PSF)	2.87	2.83	2.62	2.75	2.52

BILL OF MATERIALS

	Array1	Array2	Array3	Array4	Array5
PV-101435-310 TRINA SOLAR # TSM-310P014 1lb PV Module, 310W, 260.BV PTC, 72" Cel, 40MM, Bk Frm, Hk, ZEP, 1000V	504	468	216	108	108
BRIDGE ASSEMBLIES					
MH-007000-507 - PEAK BASE	271	254	118	62	62
MH-007000-489 - VALLEY BASE	542	508	238	124	124
MH-007000-496 - 1 CONNECTOR TUBE	542	508	238	124	124
MH-007000-493 - CONDUIT ASSEMBLY	1084	1016	476	248	248
MH-007000-505 - BALLAST TRAY	0	0	0	6	0
MH-007002-580 - SNAP BUSHING	1000	936	432	216	216
MH-007001-010 - GROUND ZEP	4	4	2	2	2
MH-007001-509 - DC WIRE CLIP	3024	2808	1296	648	648
CMU 17#	339	264	58	49	12
SLIP SHEETS (12" x 20")	584	550	272	135	133
POSITIVE ATTACHMENTS	16	18	11	9	8
OMG POWERGRIP PLUS(PVC)	16	18	11	9	8
MH-008103-158 - POSITIVE ATTACHMENT	16	16	11	9	8

MOUNTING PLANE I.D.
 MP1
 DT / 12342
 J OF VOBRES-1234
 ROOFING: PVD
 AVG. HEIGHT (FT): 35

Array5
B / PV13

Array4
C / PV13

Array3
A / PV13

Array1
A / PV11

Array2
A / PV12

ROOF PLAN

1"=40'-0"



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 736.56 KW GROUND AND ROOF MOUNTED PV SYSTEM
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 860-824-2715

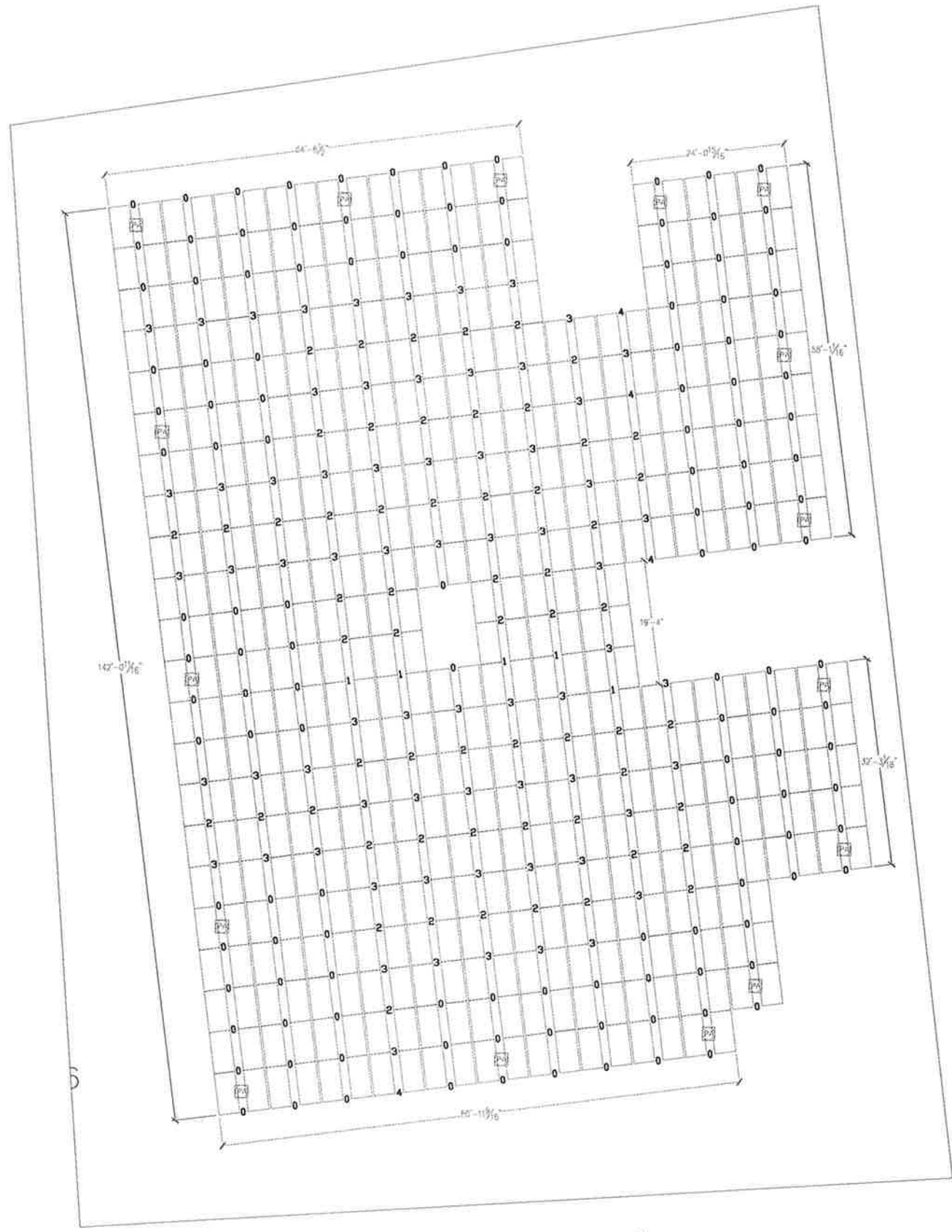


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REVISIONS

REV	BY	DATE	COMMENTS

JOB DETAILS
 PROJECT: Litchfield
 ADDRESS: (2376) TRINA SOLAR # TSM-310P014,16
 WORKING TITLE: ZS PEAK & GROUND MOUNT
 DRAWING NUMBER: (22) ERONUS # Spec 24.0-3.4RD
 DRAWN BY: BOB D. CREESEY
 CHECKED BY: EZHANG
 WORKSHEET NUMBER: D. VENELE
 DATE: 6/28/2018
 PROJECT TYPE: PPA
 DRAWING TITLE: ZSPEAK ROOF
 JOB NUMBER: JB-0602825-00
 SHEET: Py 11 REV: 0



(A) ROOF PLAN - ARRAY 1

NOTE: NUMBER ON ARRAYS INDICATE
PLACEMENT LOCATION OF 17# 2'X8'X16"
SOLID CONCRETE BALLAST BLOCKS

LEGEND

(N) PHOTOVOLTAIC MODULE
W/ ZEP ZS PEAK SUPPORT &
BALLAST

(N) ZEP POSITIVE
ATTACHMENT

**ROOF
DETAILS**

MPI	Array1
ROOF HEIGHT (FT)	35
ROOF SLOPE (DEG)	0
ROOF AREA (SF)	0
PARAPET HEIGHT (FT)	0
ROOF MEMBRANE	PVC

ARRAY DETAILS

TOTAL MODULES WEIGHT (LBS)	30643.2
TOTAL HARDWARE WEIGHT (LBS)	32272
TOTAL CWU WEIGHT (LBS)	5746
TOTAL SYSTEM WEIGHT (LBS)	38018
ARRAY AREA (SF)	13227.39
AVERAGE ARRAY PRESSURE (PSF)	2.87

BILL OF MATERIALS

PV-101435-310 TRINA SOLAR #	504
TSM-310P014 18 PV Module, 310W, 28L28V, P14, 72-Cel, 40MM, Blk Frm, H4, ZEP, 1000V	
BRIDGE ASSEMBLIES	
MH-007000-507 - PEAK BASIC	271
MH-007000-488 - VALLEY BASE	542
MH-007000-496 - 1 CONNECTOR TUBE	542
MH-007000-493 - CONDUIT ASSEMBLY	1084
MH-007000-505 - BALLAST TRAY	0
MH-007000-580 - SNAP BUSHING	1008
MH-007001-010 - GROUND ZEP	4
MH-007001-509 - DC WIRE CLIP	3024
CWU 17#	338
SLIP SHEETS (12" x 20")	584
POSITIVE ATTACHMENTS	16
DMC POWERGRIP PLUS(PVC)	16
MH-008103-158 - POSITIVE ATTACHMENT	16

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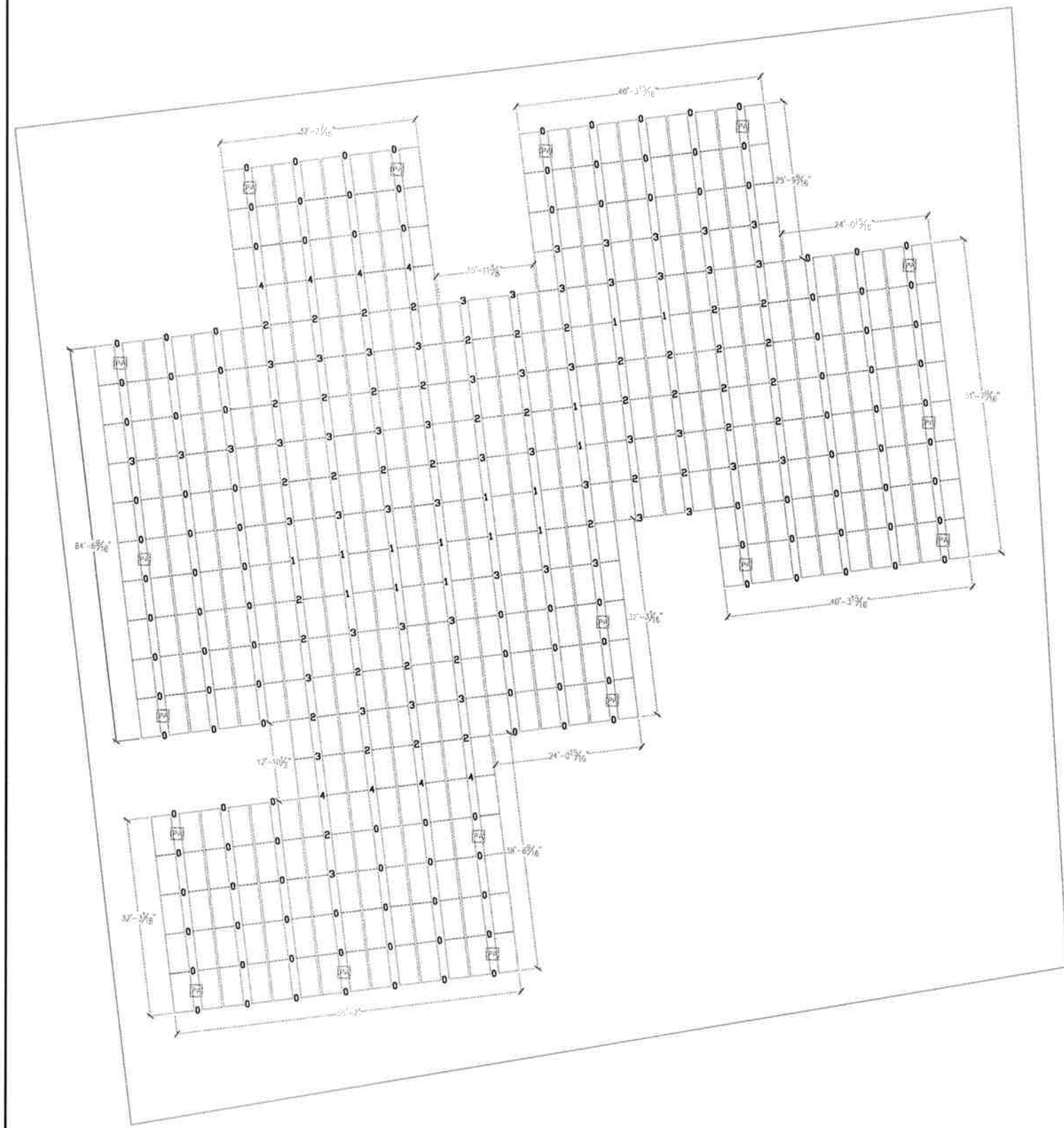
REV	BY	DATE	COMMENTS

JOB DETAILS

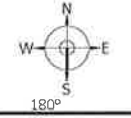
PROJECT: Litchfield
STATE: (2376) TRINA SOLAR # TSM-310P014.18

WORKING SYSTEM: ZS PEAK & GROUND MOUNT
PROJECT NUMBER: (22) ERDNUS # Syme 24-D-3 480
OWNER: DAN O. CREASY

DESIGNED BY: EDHANG
DRAWN BY: D. VENEU
DATE: 6/28/2016
SHEET: PV 12
JOB NUMBER: JB-0602825-00



A ROOF PLAN - ARRAY 2



NOTE: NUMBER ON ARRAYS INDICATE PLACEMENT LOCATION OF 17# 2'X8'X16" SOLID CONCRETE BALLAST BLOCKS

LEGEND

(N) PHOTOVOLTAIC MODULE
W/ ZEP ZS PEAK SUPPORT & BALLAST

(N) ZEP POSITIVE ATTACHMENT

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ROOF DETAILS

MP1	Array2
ROOF HEIGHT (FT)	.35
ROOF SLOPE (DEG)	0
ROOF AREA (SF)	0
PARAPET HEIGHT (FT)	0
ROOF MEMBRANE	PVC

ARRAY DETAILS

TOTAL MODULES WEIGHT (LBS)	28454.4
TOTAL HARDWARE WEIGHT (LBS)	29981
TOTAL CMU WEIGHT (LBS)	4828
TOTAL SYSTEM WEIGHT (LBS)	34809
ARRAY AREA (SF)	12282.57
AVERAGE ARRAY PRESSURE (PSF)	2.83

BILL OF MATERIALS

PV-101435-310 TRINA SOLAR # TSM-310P014 18: PV Module, 310W, 280 BW, PTC, 72-Cell, 40MM, Blk, Frm, H4, ZEP, 1000V	468
BRIDGE ASSEMBLIES	
MH-007000-507 - PEAK BASE	254
MH-007000-489 - VALLEY BASE	508
MH-007000-490 - CONNECTOR TUBE	508
MH-007000-493 - CONDUIT ASSEMBLY	1016
MH-007000-505 - BALLAST TRAY	0
MH-007002-580 - SNAP BUSHING	936
MH-007001-010 - GROUND ZEP	4
MH-007001-509 - DC WIRE CLIP	2808
CMU 17#	284
SLIP SHEETS (12" x 20")	550
POSITIVE ATTACHEMENTS	18
OMG POWERGRIP PLUS(PVC)	18
MH-008103-158 - POSITIVE ATTACHMENT	18

BECTON, DICKINSON, & CO - CANAAN ZREC
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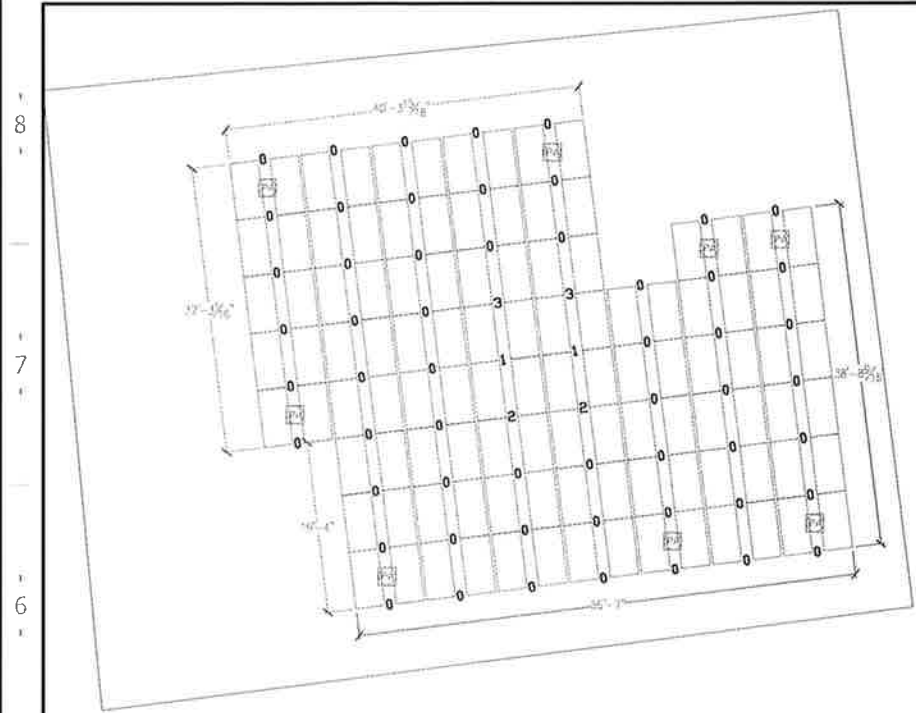
REV	BY	DATE	COMMENTS

JOB DETAILS

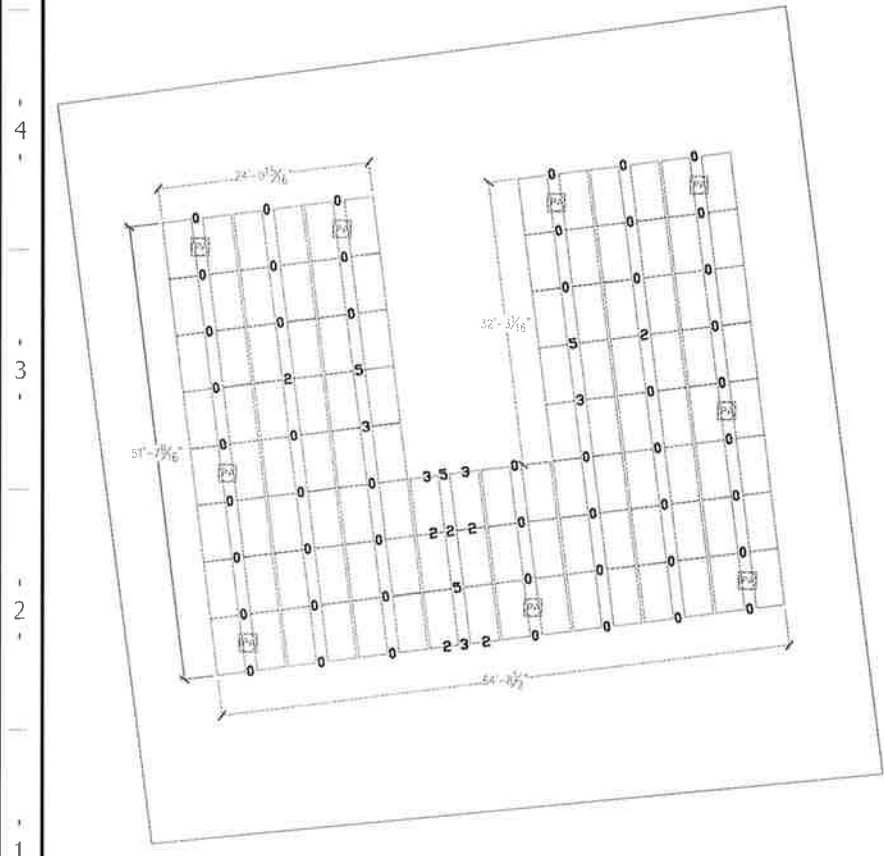
REV: Litchfield
PROJECT: (2376) TRINA SOLAR # TSM-310P014, 18

MARKING SYSTEM: ZS PEAK & GROUND MOUNT
PROJECT: (22) FERONILUS # Syma 24.0-3-480
DESIGNER: D. CREASY

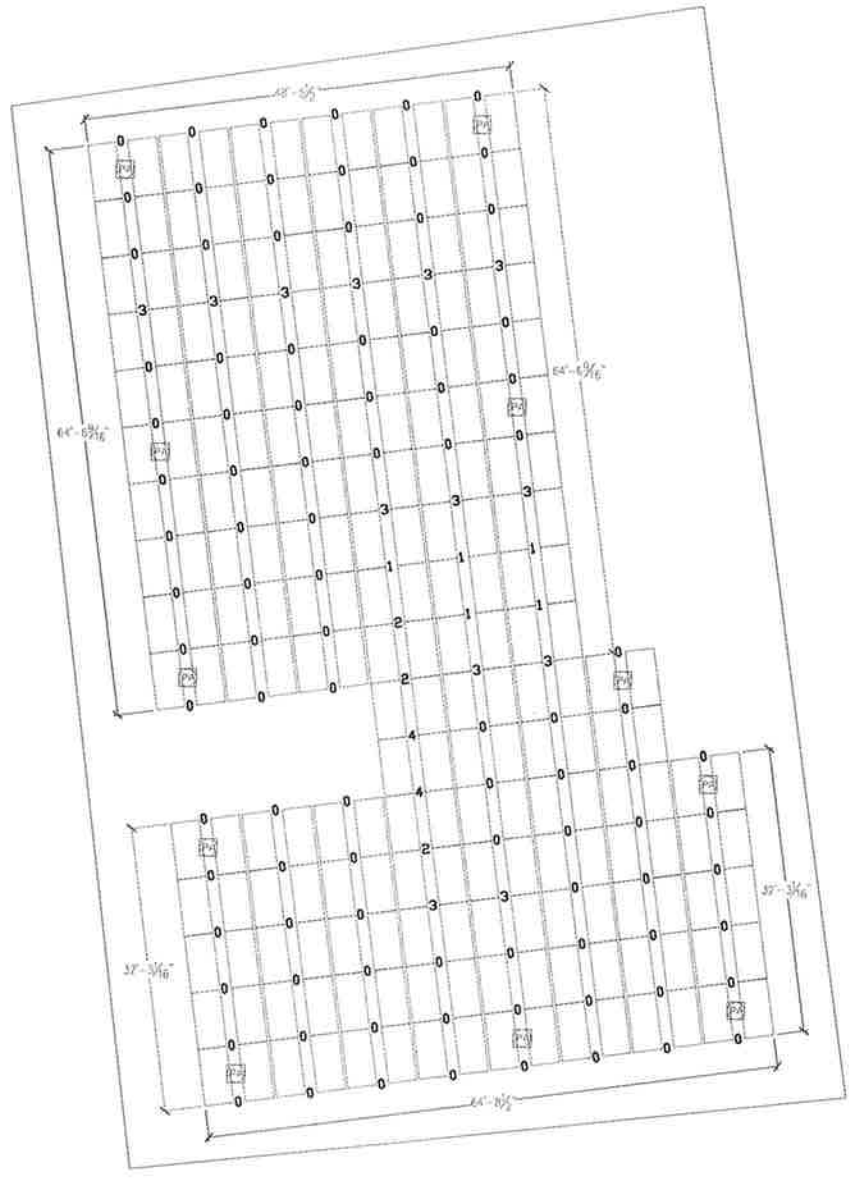
DESIGNER: EZHANG
PROJECT MANAGER: D. VENELL
DATE: 6/28/2016
SHEET NAME: ZSPEAK ARRAY
JOB NUMBER: JB-0602825-00
SHEET: PV 13 REV: 0



B ROOF PLAN - ARRAY 5
1"=10'



C ROOF PLAN - ARRAY 4
1"=10'



A ROOF PLAN - ARRAY 3
1"=10'



LEGEND
 (N) PHOTOVOLTAIC MODULE
 (N) ZEP POSITIVE ATTACHMENT

NOTE: NUMBER ON ARRAYS INDICATE
 PLACEMENT LOCATION OF 17# 2"X8"X16"
 SOLID CONCRETE BALLAST BLOCKS

ROOF DETAILS

MPI	Array1	Array4	Array5
ROOF HEIGHT (FT)	.35	.35	.35
ROOF SLOPE (DEG)	0	0	0
ROOF AREA (SF)	0	0	0
PARAPET HEIGHT (FT)	0	0	0
ROOF MEMBRANE	PVC	PVC	PVC

ARRAY DETAILS

TOTAL MODULES WEIGHT (LBS)	13132.8	6566.4	6566.4
TOTAL HARDWARE WEIGHT (LBS)	1394.8	697.4	697.4
TOTAL CMU WEIGHT (LBS)	986	833	204
TOTAL SYSTEM WEIGHT (LBS)	14834	7798	7143
ARRAY AREA (SF)	5668.88	2834.44	2834.44
AVERAGE ARRAY PRESSURE (PSF)	2.62	2.75	2.57

BILL OF MATERIALS

PV-101435-310 TRINA SOLAR # 15M-310P014 IE PV Module, 310W, 280.8W PTC, 72-Cell, 40MM, Blk Frm, H4, ZEP, 1000V	216	108	108
MH-007000-507 - PEAK BASE	119	62	62
MH-007000-489 - VALLEY BASE	238	124	124
MH-007000-496 - 1 CONNECTOR TUBE	238	124	124
MH-007000-493 - CONDUIT ASSEMBLY	476	248	248
MH-007000-505 - BALLAST TRAY	0	6	0
MH-007002-580 - SNAP BUSHING	432	216	216
MH-007001-010 - GROUND PEG	2	2	2
MH-007001-509 - DC WIRE CLIP	1296	648	648
CMU 17#	58	49	12
SLIP SHEETS (12" x 20")	272	136	133
POSITIVE ATTACHEMENTS	11	8	8
OMC POWERGRIP PLUS(PVC)	11	8	8
MH-008103-158 - POSITIVE ATTACHMENT	11	8	8

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REV	BY	DATE	COMMENTS

JOB DETAILS
 PC Litchfield
 PROJECT (2378) TRINA SOLAR # 15M-310P014 IE
 WORKING SYSTEM
 ZEP PEAK & GROUND MOUNT
 MODEL (22) FRONIUS # Symo 24.0-3 480
 DESIGNER: J. CREASY
 CHECKED BY: EZHANG
 PROJECT COMMERCIAL
 DATE: 6/28/2018
 SHEET NAME: ZEP PEAK ARRAY
 JOB NUMBER: JB-0602825-00
 SHEET: PV 14 REV: 0



Connecticut Department of

**ENERGY &
ENVIRONMENTAL
PROTECTION**

August 22, 2016

Mr. Dean Gustafson
All-Points Technology Corporation, P.C.
3 Saddlebrook Drive
Killingworth, CT 06419
dgustafson@allpointstech.com

Project: Installation of a Solar Array at Becton Dickinson and Company Located at 7 Grace Way in North Canaan, Connecticut, Connecticut
NDDDB Determination No.: 201601990

Dear Dean,

I have re-reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map you provided for the proposed Installation of a Solar Array at Becton Dickinson and Company Located at 7 Grace Way in North Canaan, Connecticut, Connecticut. Thank you for including a site survey report and assessing the potential impacts to from this project on the state listed species we provided as part of Preliminary Assessment NDDDB # 2015000171. Our NDDDB Program plant ecologist, Mr. Nelson DeBarros has determined there will be no adverse impacts of this project on any state-listed plant species. Thank you for including the protection strategies and best management protocols that will be in place to protect the blue spotted salamander “complex”, smooth green snake, wood and spotted turtles from project impacts. I concur with your findings that the proposed solar project will not result in adverse effect to State-listed species if the rare species protection program and the reduction in the project footprint are implemented as outlined in your August 10, 2016 correspondence and attached to this letter. This determination is good for two years. Please re-submit an NDDDB Request for Review if the scope of work changes or if work has not begun on this project by August 22, 2018.

Natural Diversity Data Base information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection’s Natural History Survey and cooperating units of DEEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substitutes for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available.

Please contact me if you have further questions at (860) 424-3592, or dawn.mckay@ct.gov . Thank you for consulting the Natural Diversity Data Base.

Sincerely,

Dawn M. McKay
Environmental Analyst 3

Attachment 5

Rare Species Protection Program

ENVIRONMENTAL NOTES

Rare Species Protection Program

Blue-spotted Salamander Complex, Spotted Turtle and Wood Turtle, all State Special Concern species afforded protection under the Connecticut Endangered Species Act, are known to occur within the vicinity of the site. The following protective measures satisfy requirements from the Connecticut Department of Energy & Environmental Protection ("CTDEEP") Wildlife Division and follow protocols developed from previous rare species consultations and state-approved protection plans. This protection plan is valid for one year from the date of CTDEEP's letter, at which point if construction has not been initiated a new Natural Diversity Data Base review request from CTDEEP is required.

It is of the utmost importance that the Contractor complies with the requirement for implementation of these protective measures and the education of its employees and subcontractors performing work on the project site. The rare species protection plan shall be implemented if work will occur during the salamander's and turtles' active periods (March 1 to November 15). All-Points Technology Corporation, P.C. ("APT") will serve as the Environmental Monitor for this project to ensure that these protection measures are implemented properly and will provide an education session on rare species that may be encountered and the project's proximity to sensitive wildlife habitat resources prior to the start of construction activities. The Contractor shall contact Dean Gustafson, Senior Environmental Scientist at APT, at least 5 business days prior to the pre-construction meeting. Mr. Gustafson can be reached by phone at (860) 663-1697 ext. 201 or via email at dgustafson@allpointstech.com.

The proposed protection program consists of several components: education of all contractors and sub-contractors prior to initiation of work on the site; protective measures; periodic inspection of the construction project; and, reporting.

1. Salamander Tree Clearing Restriction

- a. In order to minimize impacts on salamanders, tree clearing shall occur between November 15th through February 1st.
- b. If tree clearing is not performed during the November 15th through February 1st period, sweeps of the entire construction area shall be performed by the Environmental Monitor during the morning prior to each day's tree clearing activities. Salamander sweeps shall be performed on a daily basis until tree clearing activities have been completed.

2. Isolation Measures & Sedimentation and Erosion Controls

- a. Plastic netting used in a variety of erosion control products (i.e., erosion control blankets, fiber rolls [wattles], reinforced silt fence) has been found to entangle wildlife, including reptiles, amphibians, birds and small mammals, but particularly snakes. No permanent erosion control products or reinforced silt fence will be used on the SolarCity Corporation project. Temporary erosion control products will use either erosion control blankets and fiber rolls composed of processed fibers mechanically bound together to form a continuous matrix (netless) or netting composed of planar woven natural biodegradable fiber to avoid/minimize wildlife entanglement.
- b. Installation of sedimentation and erosion controls, required for erosion control compliance and creation of a barrier to possible migrating/dispersing salamanders and turtles, shall be performed by the Contractor following clearing activities and prior to any earthwork. The Environmental Monitor will inspect the work zone area prior to and following erosion control barrier installation to ensure the area is free of salamanders and turtles and document barriers have been satisfactorily installed.

The intent of the barrier is to segregate the majority of the work zone and isolate it from foraging/migrating/dispersing salamanders, turtles, snakes and other herpetofauna. Oftentimes complete isolation of a work zone is not feasible due to accessibility needs and locations of staging/material storage areas, etc. If complete isolation of the work zone is not practical, they will be positioned to deflect migrating/dispersal routes away from the work zone to minimize potential encounters with salamanders, turtles, snakes and other herpetofauna.

- c. The Contractor is responsible for daily inspections of the sedimentation and erosion controls for tears or breeches and accumulation levels of sediment, particularly following storm events that generate a discharge. APT will provide periodic inspections of the sedimentation and erosion controls throughout the duration of construction activities only as it pertains to protection of rare species. Third party monitoring of sedimentation and erosion controls will be performed by other parties, as necessary, under applicable local, state and/or federal regulations.
- d. The extent of the sedimentation and erosion controls will be as shown on the site plans. The Contractor shall have additional sedimentation and erosion controls stockpiled on site should field or construction conditions warrant extending the controls as directed by APT.
- e. No equipment, vehicles or construction materials shall be stored outside of the sedimentation and erosion controls within 100 feet of wetlands or watercourses.
- f. All sedimentation and erosion controls shall be removed within 30 days of completion of work and permanent stabilization of site soils so that reptile and amphibian movement between uplands and wetlands is not restricted.

3. Contractor Education

- a. Prior to work on site, the Contractor shall attend an educational session at the pre-construction meeting with APT. This orientation and educational session will consist of an introductory meeting with APT providing photos of Blue-spotted Salamander Complex, Spotted Turtle and Wood Turtle emphasizing the non-aggressive nature of these species, the absence of need to destroy animals that might be encountered and the need to follow Protective Measures as described in Section 5 below. Workers will also be provided information regarding the identification of other salamanders, turtles, snakes and common herpetofauna species that could be encountered.
- b. The education session will also focus on means to discriminate between the species of concern and other native species to avoid unnecessary "false alarms". Encounters with any species of salamanders, turtles or snakes will be documented.
- c. The Contractor will be provided with cell phone and email contacts for the APT Environmental Monitor to immediately report any encounters with Blue-spotted Salamander Complex, Spotted Turtle and Wood Turtle. Educational poster materials will be provided by APT and displayed on the job site to maintain worker awareness as the project progresses.

4. Petroleum Materials Storage and Spill Prevention

- a. Certain precautions are necessary to store petroleum materials, refuel and contain and properly clean up any inadvertent fuel or petroleum (i.e., oil, hydraulic fluid, etc.) spill to avoid possible impact to nearby habitats.

- b. A spill containment kit consisting of a sufficient supply of absorbent pads and absorbent material will be maintained by the Contractor at the construction site throughout the duration of the project. In addition, a waste drum will be kept on site to contain any used absorbent pads/material for proper and timely disposal off site in accordance with applicable local, state and federal laws.
- c. The following petroleum and hazardous materials storage and refueling restrictions and spill response procedures will be adhered to by the Contractor.
 - i. Petroleum and Hazardous Materials Storage and Refueling
 - 1. Refueling of vehicles or machinery shall occur a minimum of 100 feet from wetlands or watercourses and shall take place on an impervious pad with secondary containment designed to contain fuels.
 - 2. Any fuel or hazardous materials that must be kept on site shall be stored on an impervious surface utilizing secondary containment a minimum of 100 feet from wetlands or watercourses.
 - ii. Initial Spill Response Procedures
 - 1. Stop operations and shut off equipment.
 - 2. Remove any sources of spark or flame.
 - 3. Contain the source of the spill.
 - 4. Determine the approximate volume of the spill.
 - 5. Identify the location of natural flow paths to prevent the release of the spill to sensitive nearby waterways or wetlands.
 - 6. Ensure that fellow workers are notified of the spill.
 - iii. Spill Clean Up & Containment
 - 1. Obtain spill response materials from the on-site spill response kit. Place absorbent materials directly on the release area.
 - 2. Limit the spread of the spill by placing absorbent materials around the perimeter of the spill.
 - 3. Isolate and eliminate the spill source.
 - 4. Contact the appropriate local, state and/or federal agencies, as necessary.
 - 5. Contact a disposal company to properly dispose of contaminated materials.
 - iv. Reporting
 - 1. Complete an incident report.
 - 2. Submit a completed incident report to the Town of Cheshire.

5. Rare Species Protective Measures

- a. Prior to the start of construction each day, the Contractor shall search the entire work area for salamanders and turtles.
- b. If a salamander or turtle is found, it shall be immediately moved, unharmed, and placed just outside of the isolation barrier in the same approximate direction it was

heading. Turtles should be handled by carefully grasped in both hands, one on each side of the shell, between the turtle's forelimbs and the hind limbs. Salamanders have soft, delicate skin and should be handled gently with a clean damp plastic bag or clean wet hands.

- c. Special care shall be taken by the Contractor during early morning and evening hours so that possible basking or foraging turtles are not harmed by construction activities.

6. Herbicide and Pesticide Restrictions

- a. The use of herbicides and pesticides at the proposed solar facility shall be avoided when possible. In the event herbicides and/or pesticides are required at the proposed facility, their use will be used in accordance with Integrated Pest Management ("IPM") principles with particular attention to minimize applications within 100 feet of wetland or watercourse resources. No applications of herbicides or pesticides are allowed within actual wetland or watercourse resources.

7. Reporting

- a. Daily Compliance Monitoring Reports (brief narrative and applicable photos) documenting each APT inspection will be submitted by APT to SolarCity Corporation for compliance verification. Any observations of salamanders or turtles will be included in the reports.
- b. Following completion of the construction project, APT will provide a Compliance Monitoring Summary Report to SolarCity Corporation documenting implementation of the rare species protection program, monitoring and any species observations. SolarCity Corporation will provide a copy of the Compliance Monitoring Summary Report to the Connecticut Siting Council for compliance verification.
- c. Any observations of Blue-spotted Salamander Complex, Spotted Turtle and Wood Turtle will be reported to CTDEEP by APT, with photo-documentation (if possible) and with specific information on the location and disposition of the animal.

Smooth Green Snake Habitat Enhancement: Cover Board Guidelines

1. Cover boards shall be installed around SP-1 and SP-3 as shown on the site plans to provide habitat for smooth green snake during this species seasonal active period (May through November).
2. Cover boards shall consist of either exterior-grade plywood (4' x 8' sheets) or corrugated roofing/siding panels of similar size.
3. The label "snake cover board – do not remove or disturb" shall be painted on the top side of each board.
4. Cover boards shall remain in place from May through October, but can be left in place throughout the fall and winter if needed.
5. Areas where cover boards are located shall be mowed no more than once per season.
6. If mowing occurs between May and October, the cover boards shall be removed a minimum of one day prior to mowing and reset once all mowing has been completed.

Date: August 10, 2016

To: Nelson DeBarros (nelson.debarros@ct.gov)
Laura Saucier (laura.saucier@ct.gov)
Dawn McKay (dawn.mckay@ct.gov)

From: Dean Gustafson, Senior Environmental Scientist

Re: NDDB Determination No: 201601990
Proposed SolarCity Becton Dickinson PV Solar Facility ("Site")
7 Grace Way
North Canaan, Connecticut

On behalf of SolarCity Corporation ("SolarCity"), All-Points Technology Corporation, P.C. ("APT") is submitting additional information in association with a Request for a Natural Diversity Data Base ("NDDB") State-listed species review filed back on February 8, 2016 for the referenced Site. APT was notified on March 21, 2016 that the request was assigned to Nelson DeBarros and Laura Saucier for review of site survey results and best management practices proposed for this Site (and included in the previously submitted review request) to protect the State-listed species in the vicinity of this Site. No responses from either Mr. DeBarros or Ms. Saucier have been received to date.

RARE PLANTS

The NDDB determination letter issued in 2015 (NDDB No. 201500171) identified the following vascular plant species potentially occurring on the Site:

- *Asplenium montanum* Mountain spleenwort
- *Asplenium ruta-muraria* Wallrue spleenwort
- *Carex alopecoidea* Foxtail sedge
- *Carex aquatilis var. aquatilis* Sedge
- *Carex castanea* Chestnut-colored sedge
- *Coeloglossum viride* Long-bracted green orchid
- *Desmodium cuspidatum* Large-bracted tick-trefoil
- *Uvularia grandiflora* Large-flowered bellwort

One state-listed plant species (Large-flowered bellwort) was previously documented south of the Site within the transmission line corridor. Reportedly, no additional listed plant species were observed during the July 6, 2015 survey. Ken Metzler, a field ecologist experienced in identifying rare species in Connecticut, performed an investigation of the Site for the occurrence of the above listed rare plant species on June 2, 2016. The results of Mr. Metzler's investigation revealed that the Site does not support suitable habitat for any of the listed plant species. Therefore, no likely adverse impact to these listed plant species will result from the proposed solar project. A copy of Mr. Metzler's report, dated June 16, 2016, is provided in Attachment 1.

RARE WILDLIFE

The 2015 NDDB letter also listed the following vertebrates:

- *Ambystoma laterale* Blue-spotted salamander
- *Empidonax alhorum* Alder flycatcher
- *Liochlorophis vernalis* Smooth green snake
- *Lota* Burbot
- *Rana pipiens* Northern leopard frog

APT and Eric Davison, wildlife biologist with Davison Environmental, conducted several surveys during the early spring of 2016 to assess the Site's potential to support these State-listed rare wildlife. A summary of those findings is provided below.

Blue-Spotted Salamander

The blue-spotted salamander complex (*Ambystoma laterale complex*) is a medium-sized mole salamander with a narrow head, dark black ground coloration with bright blue flecks. Throughout southern New England, hybridization with the Jefferson Salamander (*Ambystoma jeffersonianum*) has occurred, resulting in a variety of genotypes and corresponding phenotypes (Klemens, 1993). Blue-spotted salamanders favor herbaceous-dominated floodplain wetlands for breeding but also breed in riparian wooded swamps. This species was observed in several of the vernal pools on the Site during an early spring 2016 vernal pool investigation performed by APT and Davison Environmental.

Blue-spotted salamander complex was confirmed breeding within Vernal Pools 1, 2 and 4 and it is likely this species also breeds in Vernal Pool 3 due to its close proximity and suitable conditions. Vernal Pools 1, 2 and 3 are located north of a rail spur on the Site and within a large wetland system that is part of the northerly extension of Robbins Swamp. The northerly limits of these pools were defined by a change in surface hydrology (lack of standing water or very shallow water) and a lack of egg masses. Refer to the Vernal Pool Analysis Map provided in Attachment 2 for vernal pool and wetland locations.

As a result of these findings, the scale of the proposed solar project was reduced in order to provide a suitable buffer to nearby blue-spotted salamander complex breeding and terrestrial habitats. Based on the presence of nearby wetland and vernal pool resources, and the potential for impacts, the solar project was reconfigured and reduced in size by ± 4.5 acres (and eliminated nearly 6.5 acres of additional ground disturbance). No wetlands or watercourses will be directly impacted by the Project. The closest construction activity to a wetland or watercourse resource would occur within approximately 70 feet (south) of the eastern end of Wetland 1 where it adjoins the developed portions of the Site. However, this portion of Wetland 1 is physically separated from the proposed solar project by an elevated rail line. More importantly, the project's limits of disturbance will be set back a minimum of 345 feet to the remaining portions of Wetland 1. No activities will occur within 200 feet of Wetland 2 or within ± 500 feet of Wetland 3.

Since the proposed solar project will not disturb wetland resources or 100-foot vernal pool envelopes and a significant buffer is maintained to blue-spotted salamander complex breeding areas that also preserves terrestrial habitat, no likely adverse impact to this listed species will result from the proposed solar project.

Other Listed Species Identified by NDDB

The potential for the Site to support the other vertebrate species identified by CTDEEP (alder flycatcher, smooth green snake, burbot and northern leopard frog) is limited due to the fact that three of these species are associated with early-successional habitats (i.e., non-forested habitats) and the other cold water streams, all of which do not occur within or immediately adjacent to the Site. These species were identified in the NDDB query based on their known occurrence within the overall Robbins Swamp wetland system. However, suitable habitat for these species lays offsite. A more detailed discussion of these species is provided below.

Alder Flycatcher

The alder flycatcher (*Empidonax alnorum*) is a State-listed avian species of special concern that inhabits wet thickets, breeding in brushy and shrubby wetlands (Lowther, 1999). Small patches of suitable habitat lie within the early-successional utility right-of-way south of the Site, with more optimal habitat lying in the large open canopy wetlands which lie a considerable distance north and south of the Site. The proposed solar project will not impact the early-successional utility right-of-way south of the Site. Therefore, no likely adverse impact to this listed species will result from the proposed solar project.

Smooth Green Snake

The smooth green snake (*Opheodrys vernalis*) is a species of special concern. Green snake favor open, un-forested habitats including meadows, pastures, fens, coastal grasslands, and mountaintop balds, but can also be found in transitional and lightly forested habitats such as grassy old fields with scattered shrubs and trees, as well as oak-pitch pine woodlands (Klemens, 1993). Suitable habitat for smooth green snake lies along the utility line corridor to the south of the Site as well as within the hunting club property to the south. The proposed solar project will not impact the early-successional utility right-of-way south of the Site. Therefore, no likely adverse impact to this listed species will result from the proposed solar project.

Habitat enhancement for smooth green snake is proposed in the form of placement of snake cover boards along the south side of the two proposed solar array fields (refer to Site Plan Sheets SP-1 and SP-3). This habitat enhancement is in response to a condition of the Connecticut Siting Council ("Council") decision on Petition No. 1234, dated July 26, 2016. A copy of the Council's ruling is provided in Attachment 3. Details of the smooth green snake habitat enhancement cover boards are provided in Attachment 4.

Burbot

Burbot (*Lota lota*) is a State-listed endangered fish species typically restricted to colder water similar to lake trout. Burbot is a member of the cod family and typically lives in freshwater deep lakes and cool water streams, which contain rock and log shelters. Suitable burbot habitat includes cold water streams, unrestricted free-flowing streams and large rivers and their associated riparian zones. Burbot primarily feed on crayfish, aquatic insects and smaller fish species. No suitable burbot habitat exists on the Site. Therefore, no likely adverse impact to this listed species will result from the proposed solar project.

Northern Leopard Frog

The northern leopard frog (*Lithobates pipiens*) is a species of special concern. In southern New England, Leopard Frogs are restricted to open, grassy habitats either along the floodplain of a large stream or river, in wetlands around the margins of large lakes, or in meadows adjoining tidal wetlands (Klemens 1993). While leopard frogs are known to occur in the larger Robbins Swamp system, no suitable habitat was found on the Site. The wetlands present are forested and lack marsh vegetation favored by this species. Suitable leopard frog habitat lies adjacent to floodplain wetlands associated with the Hollenbeck and Housatonic Rivers. Therefore, considering the Site does not support suitable northern leopard frog habitat, no likely adverse impact to this listed species will result from the proposed solar project.

Listed Species Not Identified by NDDB

Spotted Turtle and Wood Turtle

Although not directly observed during the vernal pool survey, based on the habitat conditions present at the Site two additional State-listed turtle species are potentially present. Unusually cold weather blanketed the State prior to and during the early spring 2016 vernal pool survey efforts which decreased the likelihood of observing reptiles such as the spotted turtle and wood turtle.

The spotted turtle (*Clemmys guttata*) is a vernal pool associated species recently listed as a species of special concern in the State. The habitats present on the Site, particularly Wetland 1 and the adjacent forested habitat, represent suitable habitat for this species. Suitable open and early-successional habitats used for nesting and basking can be found within the railroad bed and the utility right-of-way located primarily on the adjacent parcels to the west and south.

Another species of special concern, wood turtle (*Glyptemys insculpta*) are also known to occur in the watershed (Klemens, 1993). The Site contains no perennial streams which are the primary habitat used by wood turtle. Therefore, significant Site use is not anticipated. However, given the known movement patterns of this species, utilization of the western portions of the Site in particular cannot be ruled out.

With the incorporation of a turtle protection program during construction activities, details provided below, no likely adverse impact to these listed species will result from the proposed solar project.

RARE SPECIES PROTECTION PROGRAM

As a result of the identification of blue-spotted salamander complex in the vicinity of the Site and the potential for spotted turtle and wood turtle to be present, a rare species protection program is proposed to be implemented during construction to avoid the potential for impact to these State-listed species. The proposed protection program would consist of several components: education of all contractors and sub-contractors prior to initiation of work on the site; protective measures; periodic inspection of the construction project; and, reporting. Details of the rare species protection program are provided in Attachment 5.

CONCLUSION

Based on the information contained herein, we respectfully request a determination from the DEEP that it concurs with these findings that the proposed solar project would not result in a likely adverse effect to State-listed species.

If you have any questions regarding the above-referenced information, please feel free to contact me by telephone at (860) 663-1697 ext. 201 or via email at dgustafson@allpointstech.com.

All-Points Technology Corporation, P.C.

A handwritten signature in blue ink that reads "Dean Gustafson". The signature is written in a cursive style with a large initial "D" and "G".

Dean Gustafson
Senior Environmental Scientist

Enclosures

Attachment 1
Metzler Rare Plant Survey Report
June 16, 2016

Kenneth J. Metzler
Consulting Field Ecologist/Botanist
18 Baxter Road, Willington, CT 06279
860 487-0881 (h), 860 933-3158 (c)
kmetzler@snet.net

All Points Technology, P. C.
3 Saddlebrook Drive
Killingworth, CT 06419

16 June 2016

To Whom It May Concern,

This report summarizes the results of my June 1, 2016 rare plant survey and potential habitat assessment for the proposed Solar City array located on property owned by Becton Dickinson, and Company, located at 7 Grace Way, North Canaan, Connecticut. This report is supplemental to a previous report conducted by TRC Solutions 650 Suffolk Street, Wannalancit Mills, Lowell, Massachusetts, on July 6, 2015 (TRC 2015).

I am a retired plant ecologist and botanist with nearly 40 years of experience in rare plants surveys and assessments and plant community classification in the northeastern United States, the majority of that time working as an ecologist for the State Geological and Natural History Survey of Connecticut (resume attached).

In May of 2016 I was asked to:

- 1) Conduct a field survey for any of the below-listed State-listed^{*} plants that occur or could occur in the two areas that will be impacted by the construction of solar arrays depicted in Figure 1.
- 2) Attempt to assess whether, in my opinion, potential habitat exists in, or adjacent to, the impacted area for any of the Connecticut State-listed plants that were identified in a communication from Dawn McKay (2015) Connecticut

* "State-listed plants" are those species listed in the Regulations of the State of Connecticut R.C.S.A. Sec. 22a-306-4 through 22a-306-6 as "Endangered Species", "Threatened Species", or "Species of Special Concern"

Department of Energy and Environmental Protection's Natural Diversity Data Base (CTDEEP-NDDB) to Leonard Engineering, Inc. in January 2015 (Table 1); and

- 3) Develop, if possible, suggestions for an approach to construction and mitigation measures that would maximize the likelihood that the solar array could be constructed without significant harm to any known rare plant occurrences at the site.

Site Conditions:

Prior to visiting the site, I reviewed all environmental data (CTECO 2016) and previous correspondence (TRC 2015) concerning this project. Since the proposed facility is immediately adjacent to and forming an upland border to Robbins Swamp, I paid particular attention to the geology, soils, and previous descriptions of the vegetation of the site. Robbins Swamp is a unique environmental resource; a large calcareous wetland with a variety of habitats, including an outstanding representative Red Maple – Black Ash calcareous forest, a calcareous fen, and the alluvial floodplain of the Hollenbeck River. All of these habitats are of conservation concern, both in Connecticut and throughout much of New England. Consequently, this wetland complex is habitat for a large number of State-listed plants and animals, many of which were listed as having potential for being impacted by the proposed development. For these reasons, this wetland complex is largely protected by both the State of Connecticut and several non-profit conservation organizations.

Upon reviewing the geologic and soils map, it became evident that the site is largely upland, composed of a variety of glacio-fluvial sediments, deposited into the Robbins Swamp basin by glacial melt waters that flowed into a historic glacial lake known as Glacial Lake Hollenbeck. Once drained, this lake basin filled with the organic sediments that form present day Robbins Swamp, with the fringing sand and gravel deposits becoming the upland areas that were eventually colonized by many of the tree species present there today. In contrast to the calcareous influence of the underlying bedrock on Robbins Swamp, the depth and nature of these sediments masks this effect on the upland soils of this site, resulting in a soil chemistry that is acidic. This soil chemistry is, in turn, reflected by the forest species that grow on the site.

Current Site Description:

In a previous report, the two areas of impact (Figure 1) were characterized as an “old growth forest”, dominated by an over story of maple, ash, tulip poplar, various oaks, and softwoods such as Eastern hemlock and white pine. When I visited the site, both areas

were significantly cleared of marketable timber with the remaining oak and hemlock trees underlain by a tangle of slash and low growing mountain laurel (*Kalmia latifolia*), with maple leaf viburnum (*Viburnum acerifolium*), beaked hazel (*Corylus cornuta*), and wild sarsaparilla (*Aralia nudicaulis*) characteristic (Figure 2). Several low growing shrubs such as low bush blueberry (*Vaccinium pallidum*) and were also present. Herbaceous plants also occurred throughout with ferns; e.g. New York fern (*Thelypteris noveboracensis*) and sensitive fern (*Onoclea sensibilis*) the most conspicuous. Referring to the Connecticut Vegetation Classification (Metzler and Barrett 2006), this site is best characterized as a variant of the Northern Red Oak / Mapleleaf Viburnum community, a mesic forest vegetation type that is widespread throughout southern New England on a variety of acidic glacial tills and glaciofluvial deposits. Based upon the photographs in the TRC report, the size of the cut stumps, and the multiple trunk growth on the uncut oaks (oak species tend to “stump sprout” after cutting, growing as trees with multiple stems arising from a single base), there is no evidence that the site contained an “old growth forest” as reported by TRC (2015). A photograph of the adjacent uncut forest is depicted in Figure 3.

State-listed Species Survey:

The site was surveyed for Connecticut State-listed plant species using a visual approach with several walking paths taken through the two areas where the solar arrays are proposed. The adjacent, uncut forested area outside the proposed development was also surveyed. **No Connecticut State-listed plants were observed and no habitats that would support any of the species listed in Table 1 were found.** In addition, a re-survey of the population of large flowered bellwort (*Uvularia grandiflora*, Connecticut State Endangered) was conducted along the power line ROW south of the site. This population was observed and mapped by a qualified botanist (TRC 2015) and occurs on the edge of the ROW south and outside of the proposed impact area, buffered from development by a border of intact forest (Figure 4). This population occurs in a cleared ROW with several visible marble outcrops providing the necessary soil chemistry for this plant to thrive. No similar habitat was found in the areas of proposed impact. A full list of vascular plant species that occur on this site can be found in the TRC report (2015).

Table 1. Survey Target Plant Species at Proposed Solar City array located at 7 Grace Way, North Canaan, Connecticut

	SCIENTIFIC NAME	COMMON NAME	CONNECTICUT STATUS	HABITAT AFFINITY IN CONNECTICUT
1	<i>Asplenium montanum</i>	Mountain spleenwort	SC	Acidic cliffs
2	<i>Asplenium ruta-muraria</i>	Wallrue spleenwort	T	Calcareous cliffs
3	<i>Carex alopecoides</i>	Foxtail sedge	T	Wet open forests and marshes, often calcareous
4	<i>Carex aquatilis</i> var. <i>aquatilis</i>	Sedge	SC	Calcareous marshes and fens
5	<i>Carex castanea</i>	Chestnut-colored sedge	E	Calcareous marshes and fens
6	<i>Coeloglossum viride</i>	Long-bracted green orchid	E	Mesic to wet forests, swamps and fens
7	<i>Desmodium cuspidatum</i>	Large-bracted tick-trefoil	E	Open rocky slopes, dry fields and powerline ROWs
8	<i>Uvularia grandiflora</i>	Large-flowered bellwort	E	Mesic, deciduous calcareous forests

Figure 1. Present Location of Solar Arrays



Attachment B: Detailed Site Map
 Proposed Becton Dickinson Solar Project
 7 Grace Way
 North Canaan, Connecticut

- Legend**
- Site Boundary
 - Proposed Project Area (+/- 16 acres)
 - Proposed Fenced Facility (+/- 12 acres)
 - Proposed Gravel Area
 - Proposed Underground Trench (to be determined)
 - Existing Tree Line/Proposed Clearing Limit
 - Proposed Solar Array
 - Proposed Electrical
 - Vernal Pool
 - CTDEEP Watercourse
 - Wetland Boundary
 - Wetland Area
 - Railroad
 - FEMA 100-Year Flood Line
 - CTDEEP Natural Diversity Database



Map Author: Source: 2012 Aerial Photography (CTCOG)
 Map Scale: 1 inch = 500 feet Map Date: February 2016

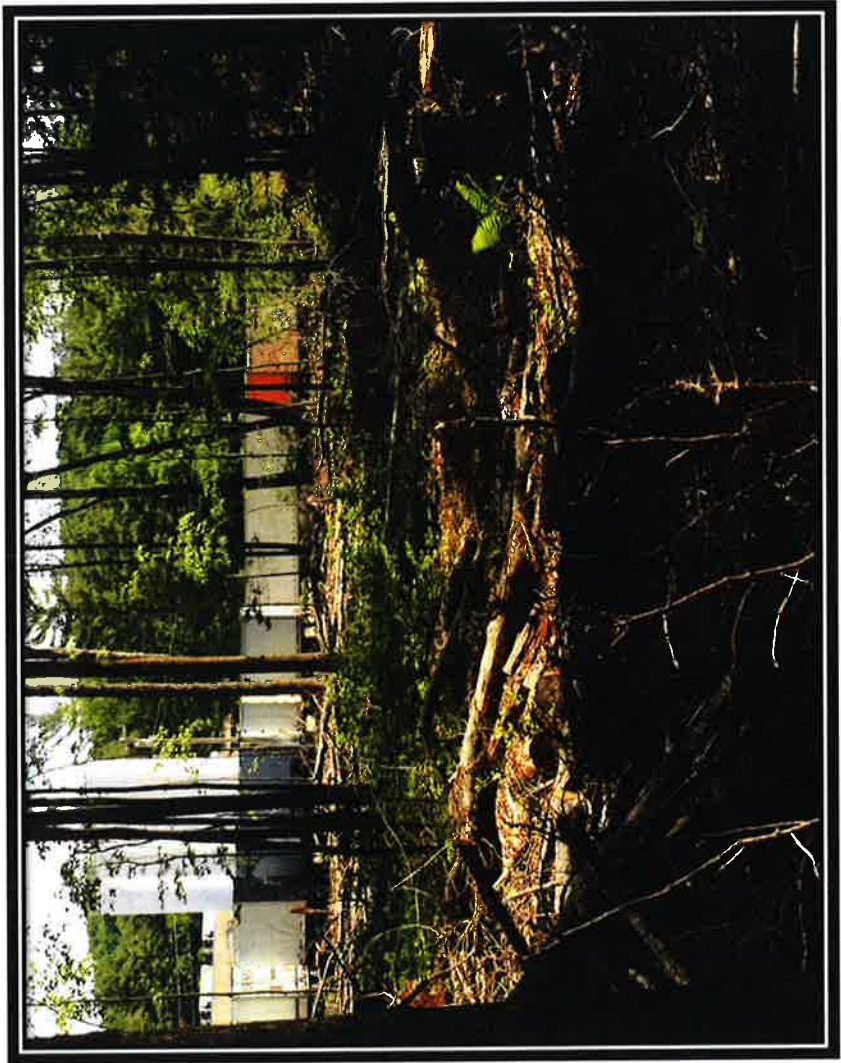


Figure 2. Photographs of Solar Array sites after logging



Figure 3. Photographs of Uncut Adjacent Forest

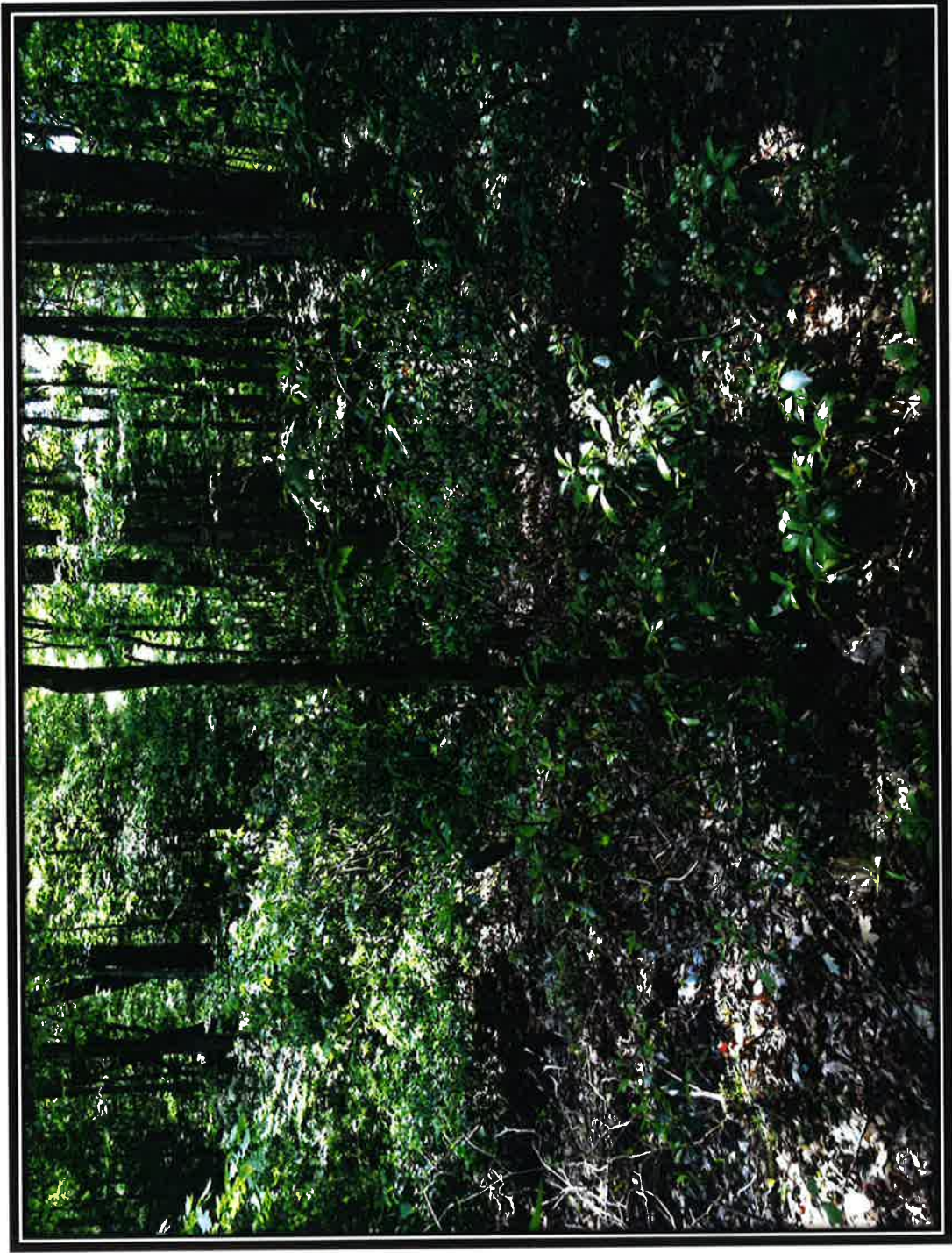
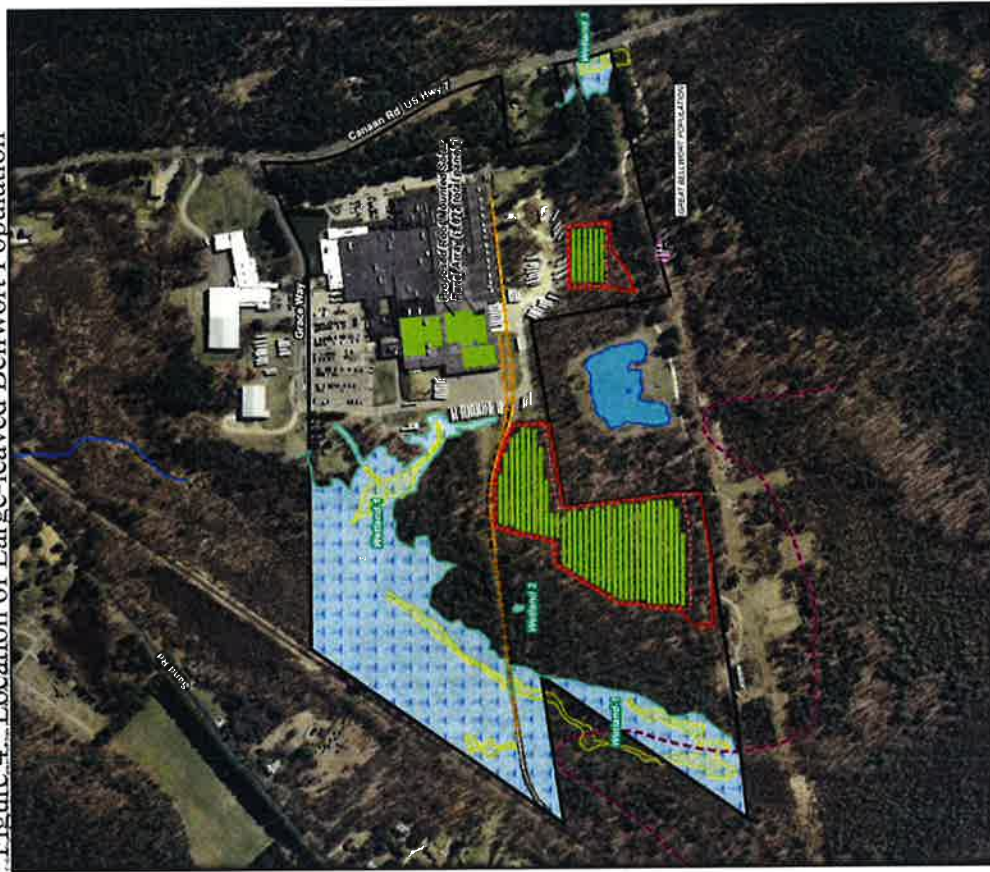


Figure 4. Location of Large-leaved Bellwort Population



Legend

- Site Boundary
- Project Area (and limit of denclearing: 29 acres)
- Ground-mounted Fenced Facility (+/- 8 acres)
- Solar Module Array
- Electrical Equipment
- Wetland Boundary
- Wetland Area (within Site Boundary)

State-Listed Rare Plant Species

- Vernal Pool
- CTDEEP Watercourse
- State-Listed Plant Location (TRC)
- FEMA 100-Year Flood Line

Proposed Solar Facility
7 Grace Way
North Canaan, Connecticut



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RESUME

KENNETH J. METZLER

18 Baxter Road

Willington, Connecticut 06279

(860) 487-0881

Education: B.S. 1973 University of Connecticut, Storrs, CT (Botany)
M.S. 1977 University of Connecticut, Storrs, CT (Plant Ecology)

Research Interests: Plant/soil relationships, landscape ecology, vegetation classification, wetlands.

Experience: 2010-present Environmental Consultant. Provides technical assistance to government agencies, conservation organizations, and other entities on botanical, ecological, and habitat-related concerns (See attached list of reports for recent awards).

2006-present Adjunct Professor, Environmental Education/Science Education Department, Southern Connecticut State University, New Haven. Teaches Ecosystems and Environmental Concerns (EVE 532). The focus of the course is how the ecosystems in which we live are changing and how the presence of man has influenced both the process and progression of these changes.

1978-2009 Ecologist (retired), Connecticut Geological and Natural History Survey, Department of Environmental Protection. Responsible for preparing a natural community classification for Connecticut, compiling a digital map of the distribution of critical habitats, the description and classification of the vegetation, assisting in the preparation of the State Endangered and Threatened plant species list, developing an invasive plant species management program, environmental review, supervising seasonal field personnel, and technical assistance as related.

1977 Field Ecologist, Connecticut Geological and Natural History Survey, Department of Environmental Protection.

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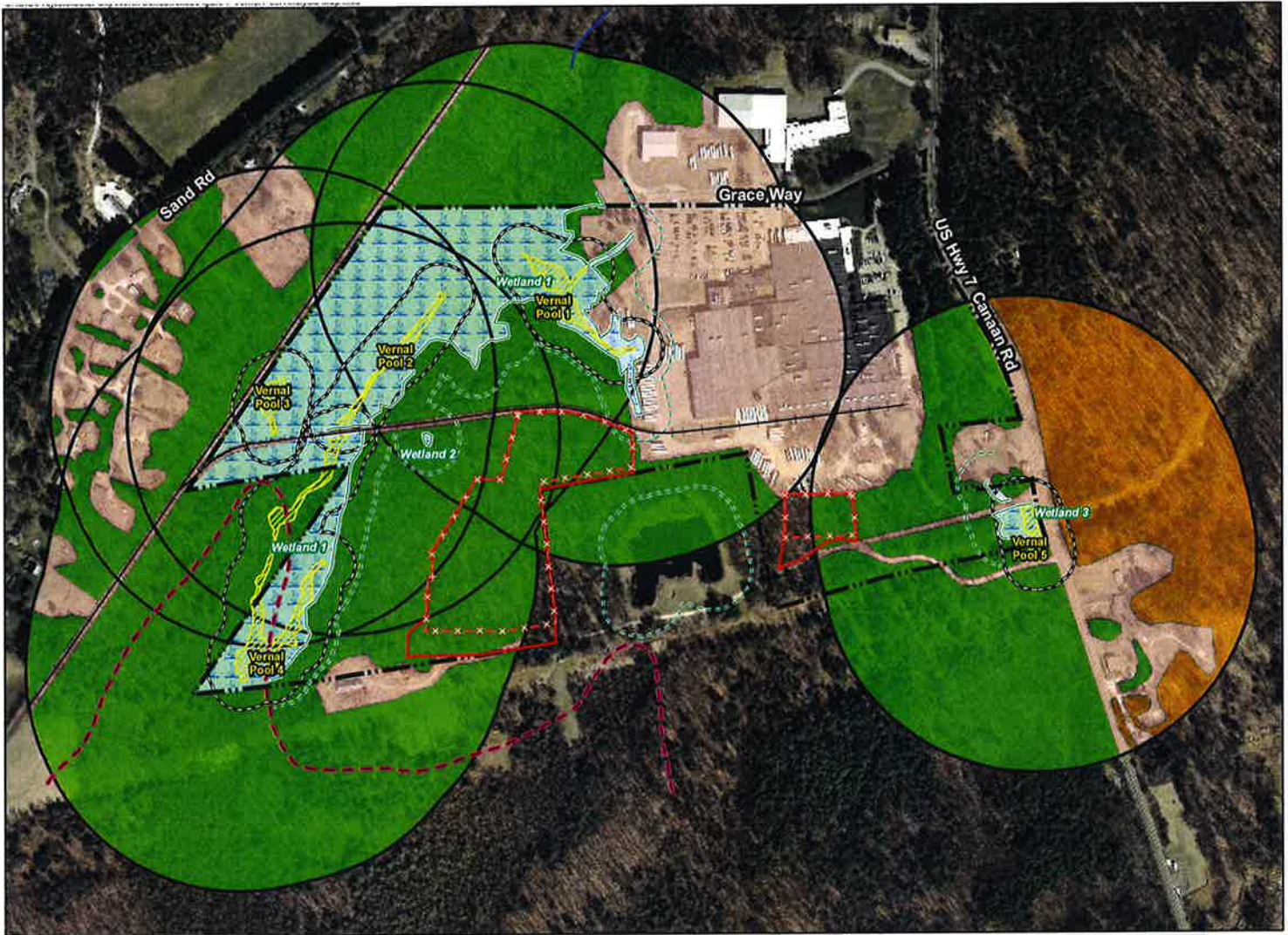
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Attachment 2

Vernal Pool Analysis Map



Vernal Pool 1 100' Vernal Pool Envelope: ±4.24 acres 100'-750' Critical Terrestrial Habitat Area: ±58 acres		
No Impact to 100' Vernal Pool Envelope		
Developed	±1.08 acres	25%
Undeveloped	±3.16 acres	75%
Existing Critical Terrestrial Habitat Areas:		
Developed	±21 acres	36%
Undeveloped	±37 acres	64%
Proposed Critical Terrestrial Habitat Areas:		
Developed	±24.45 acres	42%
Undeveloped	±33.55 acres	58%

Vernal Pool 3 100' Vernal Pool Envelope: ±2 acres 100'-750' Critical Terrestrial Habitat Area: ±47 acres		
No Impact to 100' Vernal Pool Envelope		
Developed	±0.2 acres	10%
Undeveloped	±1.8 acres	90%
Existing Critical Terrestrial Habitat Areas:		
Developed	±10.7 acres	23%
Undeveloped	±36.3 acres	77%
Proposed Critical Terrestrial Habitat Areas:		
Developed	±11.1 acres	24%
Undeveloped	±35.9 acres	76%

Vernal Pool 5 100' Vernal Pool Envelope: ±2.08 acres 100'-750' Critical Terrestrial Habitat Area: ±47 acres		
No Impact to 100' Vernal Pool Envelope		
Developed	±0.77 acres	37%
Undeveloped	±1.16 acres	56%
Restricted Habitat	±0.15 acres	7%
Existing Critical Terrestrial Habitat Areas:		
Developed	±10.2 acres	22%
Undeveloped	±20.5 acres	43%
Restricted Habitat	±16.3 acres	35%
Proposed Critical Terrestrial Habitat Areas:		
Developed	±10.8 acres	23%
Undeveloped	±19.9 acres	42%
Restricted Habitat	±16.3 acres	35%

Vernal Pool 2 100' Vernal Pool Envelope: ±4 acres 100'-750' Critical Terrestrial Habitat Area: ±58 acres		
No Impact to 100' Vernal Pool Envelope		
Developed	±0.2 acres	5%
Undeveloped	±3.8 acres	95%
Existing Critical Terrestrial Habitat Areas:		
Developed	±8 acres	14%
Undeveloped	±50 acres	86%
Proposed Critical Terrestrial Habitat Areas:		
Developed	±12.3 acres	21%
Undeveloped	±45.7 acres	79%

Vernal Pool 4 100' Vernal Pool Envelope: ±8.2 acres 100'-750' Critical Terrestrial Habitat Area: ±71 acres		
No Impact to 100' Vernal Pool Envelope		
Developed	±0.2 acres	2%
Undeveloped	±8 acres	97%
Existing Critical Terrestrial Habitat Areas:		
Developed	±8 acres	11%
Undeveloped	±63 acres	89%
Proposed Critical Terrestrial Habitat Areas:		
Developed	±13.9 acres	20%
Undeveloped	±57.1 acres	80%

Legend

- Site Boundary
 - Project Area (and limit of demo/clearing; ±9 acres)
 - Ground-mounted Fenced Facility (+/- 8 acres)
 - Railroad
 - CTDEEP Watercourse
 - FEMA 100-Year Flood Line
 - Wetland Boundary
 - 100' Wetland Buffer
 - Wetland Area (within Site Boundary)
 - Vernal Pool
 - 100' Vernal Pool Envelope
 - 100'-750' Critical Terrestrial Habitat Area
- Habitat Type**
- Developed
 - Undeveloped
 - Restricted Habitat

Vernal Pool Analysis Map

Proposed Solar Facility
7 Grace Way
North Canaan, Connecticut

Map Notes:
Base Map Source: 2012 Aerial Photograph (CTECO)
Map Scale: 1 inch = 600 feet
Map Date: June 2016



Attachment 3
Connecticut Siting Council decision
Petition No. 1234, dated July 26, 2016



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

CERTIFIED MAIL RETURN RECEIPT REQUESTED

July 26, 2016

Kenneth C. Baldwin, Esq.
Joey Lee Miranda, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597

RE: **PETITION NO. 1234** - SolarCity Corporation petition for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed construction, maintenance and operation of a 2.8 Megawatt Solar Photovoltaic Electric Generating facility located at Becton, Dickinson & Company, 7 Grace Way, North Canaan, Connecticut.

Dear Attorneys Baldwin and Miranda:

At a public meeting held on July 21, 2016, the Connecticut Siting Council (Council) considered and ruled that the above-referenced proposal would not have a substantial adverse environmental effect, and pursuant to Connecticut General Statutes § 16-50k, would not require a Certificate of Environmental Compatibility and Public Need, with the following conditions:

1. The Petitioner shall prepare a Development and Management Plan (D&M) for this site in compliance with Sections 16-50j-60 through 16-50j-62 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served on the Towns of North Canaan and Canaan for comment and submitted to and approved by the Council prior to the commencement of facility construction and shall include:
 - a) A final site plan including, but not limited to, the electrical utility connections from solar arrays;
 - b) Fence design including an anti-climb security fence around high voltage equipment or, if the Petitioner elects to fence the entire areas of the solar arrays, anti-climb fencing should be at a height of at least eight feet and raised six inches above grade to accommodate migration of small species;
 - c) Consideration of installation of 4-foot by 8-foot plywood sheets in moat areas around arrays to improve habitat for the smooth green snake;
 - d) Plans to perform tree clearing November 15th through February 1st to minimize impacts on salamanders or, in the alternative conduct a daily (?) sweep of the entire construction area for salamanders and, if found they should be moved out of construction area;
 - e) Final determination from the Connecticut Department of Energy and Environmental Protection and compliance with any recommended mitigation measures;
 - f) Name and resume of an independent environmental inspector for Council review and approval;
 - g) Use of off-road construction equipment that meets the latest EPA or California Air Resources Board standards, or in the alternative, equipment with the best available controls on diesel emissions, including, but not limited to, retrofitting with diesel oxidation catalysts, particulate filters and use of ultra-low sulfur fuel; and
 - h) Compliance with the provisions of Section 22a-174-18(b)(3)(C) of the Regulations of Connecticut State Agencies that limit the idling of mobile sources to 3 minutes.
2. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed within three years from the date of the mailing of the Council's decision, this decision shall be void, and the facility owner/operator shall dismantle the facility and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's decision shall not be counted in calculating this deadline. Authority to monitor and modify this schedule is delegated to the Executive Director. The

facility owner/operator shall provide written notice to the Executive Director of any schedule changes as soon as is practicable;

- Any request for extension of the time period to fully construct the facility shall be filed with the Council not later than 60 days prior to the expiration date of this decision and shall be served on all parties and intervenors, if applicable, and the Town of North Canaan;
- Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
- The facility owner/operator shall remit timely payments associated with annual assessments and invoices submitted by the Council for expenses attributable to the facility under Conn. Gen. Stat. §16-50v;
- This Declaratory Ruling may be transferred, provided the facility owner/operator/transferor is current with payments to the Council for annual assessments and invoices under Conn. Gen. Stat. §16-50v and the transferee provides written confirmation that the transferee agrees to comply with the terms, limitations and conditions contained in the Declaratory Ruling, including timely payments to the Council for annual assessments and invoices under Conn. Gen. Stat. §16-50v; and
- If the facility owner/operator is a wholly owned subsidiary of a corporation or other entity and is sold/transferred to another corporation or other entity, the Council shall be notified of such sale and/or transfer and of any change in contact information for the individual or representative responsible for management and operations of the facility within 30 days of the sale and/or transfer.

This decision is under the exclusive jurisdiction of the Council and is not applicable to any other modification or construction. All work is to be implemented as specified in the petition dated June 15, 2016 and additional information received on July 11, 2016.

Enclosed for your information is a copy of the staff report on this project.

Very truly yours,



Robert Stein
Chairman

RS/MP/lm

Enclosure: Staff Report dated July 21, 2016

- c: The Honorable Douglas E. Humes, Jr., First Selectman, Town of North Canaan
 Ruth Mulcahy, Zoning Enforcement Officer, Town of North Canaan
 Steve Allyn, Planning and Zoning Chairman, Town of North Canaan
 Matthew Freund, Chairman, Inland Wetlands Conservation Commission, Town of North Canaan
 Honorable Patricia Allyn Mechare, First Selectman, Town of Canaan
 Fred Laser, Planning and Zoning Chairman, Town of Canaan
 Michael Owen O'Neil, Zoning Officer, Town of Canaan
 Ellery Sinclair, Chairman, Inland Wetlands Commission, Town of Canaan
 Becton, Dickinson & Company, 7 Grace Way, North Canaan
 Nichole Seidell, Director, Environmental Planning, SolarCity Corporation

Petition No. 1234
SolarCity Corporation
7 Grace Way, North Canaan
Staff Report
July 21, 2016

Introduction

On June 15, 2016, SolarCity Corporation (SolarCity or Petitioner) submitted a petition to the Connecticut Siting Council (Council) for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need (Certificate) is required for the construction, operation and maintenance of a 2.28 megawatt (MW) direct current (DC) or approximately 2.05 MW alternating current (AC) solar photovoltaic generating facility at the Becton, Dickinson & Company (BDC) located at 7 Grace Way, North Canaan, Connecticut. Council member Robert Hannon, and Christina Walsh and Michael Perrone of the Council staff visited the site on July 8, 2016 to review this proposal. Michael Libertine, All Points Technology Corporation, P.C. (APT); Matthew Gustafson, APT; Eric Lebatte, APT; Kieran Siao, SolarCity; Dylan Venell, SolarCity; and Todd Piskuru, Engineering Manager, BDC also attended the field review.

Municipal Consultation

Representatives for the Petitioner met with local officials from the Town of North Canaan during December 2015 to discuss the project. On or about June 14, 2016, the Petitioner provided formal notice to the Town of North Canaan, the Town of Canaan (located within 2,500 feet of the proposed project), as well as other State and local officials and agencies. To date, the Council has not received any comments.

The Town of Canaan (located within 2500 feet of the proposed project that is physically located in the Town of North Canaan) Inland Wetlands and Conservation Commission submitted comments on July 18, 2016 indicating concerns over the potential environmental impacts to Robbins Swamp and requesting an “acknowledged guarantee” of oversight over the proposed project.

State Agency Comments

By letter dated July 19, 2016, the Connecticut Department of Transportation provided comments requesting that SolarCity obtain a Highway Encroachment Permit for any work performed within the State Route 7 right-of-way.

Public Benefit

The project would be a “grid-side distributed resources” facility, as defined in Connecticut General Statutes (CGS) § 16-1(a)(37). CGS § 16a-35k establishes the State’s energy policy, including the goal to “develop and utilize renewable energy resources, such as solar and wind energy, to the maximum practicable extent.” The 2013 Connecticut Comprehensive Energy Strategy emphasizes low- or no-emission sources of electric generation and development of more distributed generation. The proposed facility is distributed generation. Specifically, the proposed facility will contribute to fulfilling the State’s Renewable Portfolio Standard as a zero emission Class I renewable energy source.

Proposed Site

The project would be located on the southern portion of a 77.1-acre parcel owned by BDC. The subject property currently hosts BDC's 387,000 square foot medical products manufacturing, distribution and warehouse facility in the northeast portion of the parcel. Railroad tracks running in an east-west direction roughly bisect the property into northern and southern portions. The southern, western and extreme eastern portions of the property are undeveloped and are wooded. Wetlands exist near the southeastern and southwestern corners of the parcel. A larger wetland system is located in the northwestern portion of the parcel.

The subject property is located in the southwestern portion of North Canaan and is located in the Town's Industrial Zone. To the north of the subject property is another industrial use. An existing electric transmission line corridor and the Northwest Connecticut Rod and Gun Club property are located to the south. An active rail line and low density residential development is located to the west. A residential parcel, Route 7, and undeveloped land is located to the east of the subject property.

Proposed Project

The solar field would include two ground-mounted arrays totaling 2.28 MW DC or 1.72 MW AC on fixed rack systems oriented to the south. The southwestern array would have 6,404 solar panels. The southeastern array would have 756 solar panels. The ground-mounted arrays would have a total area of about 7.67 acres. A total of 9.37 acres would have to be cleared to accommodate the ground facility and minimize shading. These panels would be tilted on an angle of 25 degrees with the horizontal. The top edges of the ground-mounted solar panels would be approximately eight feet above ground level (agl). The bottom edges of the ground-mounted solar panels would be approximately two feet agl. The solar panel racking systems would be supported by steel mounting posts and concrete footings. The footings would be installed to a depth of five feet below grade.

One roof-mounted solar array with 1,672 solar panels is also proposed. It would total 0.469 MW DC or about 0.336 MW AC. The top edges of the rooftop solar array would be about 10 inches above the top of the roof. The bottom edges of the rooftop solar array would be about 2 inches above the top of the roof. The rooftop panels would also be fixed and oriented to the south, except at a smaller angle of about eight degrees above the horizontal.

The solar electric system will be tied directly into the main electric infrastructure of BDC, resulting in a net metering application. Electric utility connections from the ground-mounted arrays to the building would be underground. Electric utility connections from the rooftop arrays would connect directly to the building's electrical system. BDC would first consume the electricity produced by the proposed solar facility. If BDC requires additional electricity, it would draw from the existing utility service. If BDC does not utilize all of the electricity produced by the solar facility, the surplus power would be fed back into the distribution system. SolarCity's utility interconnection application is in process. SolarCity is awaiting the results of the interconnection study with Eversource.

The project would utilize an eight-foot tall security fence with two-inch mesh to separately surround the southwestern ground-mounted array and the southeastern ground-mounted array. The Petitioner has considered the use of a smaller mesh size as an anti-climbing measure, but believes that the proposed two-inch mesh size is adequate for their security purposes.

The Petitioner would utilize existing access to the BDC property from Grace Way. The Petitioner would construct a 12-foot wide gravel access drive (with a total length of roughly 600 feet) from the existing paved area near the railroad tracks to the eastern side of the southwestern array. Similarly,

the Petitioner would construct a 12-foot wide gravel access drive from an existing developed parking area to the north to the southeastern array, for a distance of about 240 feet.

Environment, Cultural and Scenic Values

The 9.37 acres of trees to be cleared results in the removal of roughly 1,818 trees, primarily consisting of oak and hemlock. SolarCity had a comprehensive carbon debt analysis performed. While the loss of trees necessarily reduces carbon capturing ability, the carbon dioxide emissions reductions due to the solar power displacing more traditional generation (which includes fossil-fueled generation) results in a “carbon payback period” of slightly less than three years of projected solar energy production. Council staff notes that, for the simple comparison of the lost carbon sequestration effects of tree removal versus the displacement of non-baseload traditional electric generation, the “carbon payback period” can often be very rapid, on the order of days. However, SolarCity had a more conservative/comprehensive analysis performed that included the carbon emissions associated with the production of the photovoltaic modules and associated equipment. Nevertheless, the end result is that the proposed project will provide a long-term net carbon dioxide reduction benefit for the environment.

Approximately 1,000 cubic yards of cut and approximately 1,000 cubic yards of fill would be required to grade the project. No excess material would be trucked off of the site.

A stormwater management plan has been developed by APT in accordance with the *2004 Connecticut Stormwater Quality Manual*. The proposed infiltration basins would reduce peak runoff flow rates for all major storm events and also treat the runoff. As a result, the proposed development would not result in adverse stormwater impacts to surrounding areas and properties.

A Decommissioning Plan was included in the Petition and has provisions for project removal in the event that the project is permanently removed from service. The expected life of the solar facility is 35 years. The current Power Purchase Agreement (PPA) between SolarCity and BDC is for 20 years.

The project is located within a Connecticut Department of Energy and Environmental Protection (DEEP) GA groundwater classification area. Designated uses in GA-classified areas include existing private and potential public or private supplies of drinking water and base flow for hydraulically-connected surface water bodies. However, the proposed project is not located within a DEEP-designated Aquifer Protection Area. The entire project would be located outside of both the 100-year and the 500-year flood zones.

There are three wetlands in proximity to the project. Wetland 1 is part of a broad complex of wetlands that includes the northerly extent of a large wetland system locally known as Robbins Swamp. Wetland 1, located near the western limits of the subject parcel, is approximately 70 feet from the clearing/grading limits of the southwestern ground-mounted array at its nearest point. Wetland 2 is a small isolated forested wetland pocket located east of Wetland 1. Wetland 2, located just south of the railroad tracks in the southwestern portion of the subject parcel, is approximately 203 feet from the southwestern array fenceline at its nearest point. Wetland 3 consists of two depressional wetland pockets that generally drain south. Wetland 3, located near the southeastern limits of the subject parcel, is approximately 494 feet from the eastern fenceline of the southeastern ground-mounted array at its closest point. Potential short-term impacts to wetlands associated the project would be minimal with proper erosion and sedimentation controls (E&S Controls), which would be designed in accordance with the *2002 Connecticut Guidelines for Erosion and Sedimentation Control*. Staff suggests including a condition that the final E&S Controls Plan be provided in the D&M Plan. Potential long-term secondary impacts to wetland resources are minimized by the fact that the facility would be unstaffed and avoids the installation of impervious surfaces, and the

Petitioner would treat the majority of the surface around the solar installation with native grass/vegetation.

APT performed vernal pool surveys in March 2016. Survey methods included visual surveys, live trapping, chorus surveys and cover searching. One vernal pool invertebrate indicator species was observed, the fairy shrimp. Three amphibian vernal pool indicator species were confirmed as breeding on the property: the wood frog; the spotted salamander; and the blue-spotted salamander complex. The blue-spotted salamander complex is a State-listed Species of Special Concern. Five adult specimens were collected from the site under a DEEP Scientific Collector’s Permit for future genetic analysis. These specimens will be catalogued at the American Museum of Natural History in New York. Additionally, a Special Animal Survey Form was completed and submitted to DEEP documenting the observations.

A total of five vernal pools were identified. All five vernal pools were cryptic vernal pools embedded within larger wetland systems. Vernal Pools 1 through 4 are embedded within Wetland 1, and Vernal Pool 5 is embedded within Wetland 3. All five vernal pools meet the biological criteria of Tier 1 vernal pools under the Calhoun and Klemens 2002 Best Development Practices – Conserving Pool-Breeding Amphibians in Residential and Commercial Developments in the Northeastern United States (2002 BDPs). The five vernal pools have existing development within their 100-foot Vernal Pool Envelopes (VPE). Vernal Pools 1 through 5 have existing percent development in the VPEs of 25 percent, 5 percent, 10 percent, 2 percent, and 37 percent, respectively. However, no additional development is proposed within the VPEs for Vernal Pools 1 through 5. The area ranging from 100 feet to 750 feet from a vernal pool is known as the Critical Terrestrial Habitat (CTH). The 2002 BDPs require limiting development to not more than 25 percent of the CTH area. See Vernal Pool CTH table below.

<u>Vernal Pool</u>	Percent Existing CTH Development	Percent Increase in CTH Development as Proposed	Percent Increase in Original Layout	Percent Change Reconfigured Project	Total Post-Development CTH Final
1	36%	6%	8%	-2%	42%
2	14%	8%	11%	-3%	22%
3	23%	1%	2%	-1%	24%
4	11%	9%	10%	-1%	20%
5	22%	1%	3%	-2%	23%

Accordingly, Vernal Pools 2 through 5 are compliant with the 2002 BDPs because the percentages of post-development areas to their CTH areas are all less than 25 percent. However, Vernal Pool 1 is not compliant because the total post-development would be 42 percent of the CTH area. See attached Figure 2.

To compensate for the additional development in the Vernal Pool 1 CTH, the Petitioner is proposing a Vernal Pool Mitigation Plan (VPMP). The proposed VPMP strategy is to improve these historically filled wetland areas bordering Vernal Pool 1, which contains existing impacts within the eastern portions of both the VPE and the CTH, primarily in the form of existing development associated with the BDC facility. The Petitioner notes that, per the 2002 BDPs, the first 100 feet bordering a vernal pool is the most critical for protection. Areas bordering Vernal Pool 1 were overlain with spoils likely originating from the digging of a drainage ditch that feeds the wetland system supporting this resource. Enhancement of historically filled wetland areas bordering Vernal Pool 1 would include the spreading/leveling of any large fill piles placed in Wetland 1. (See attached Figure 3.) Any mature trees would be protected during the enhancement. Existing invasive shrubs

would be treated and eradicated prior to the planting of the enhancement area. In addition, considering that these filled areas are compacted, the surface would be broken up using a tiller or suitable alternative to allow for easier plant growth. In areas where trees will be planted, additional placement of topsoil will be utilized to assist plant tree survivorship.

Subsequently, upland forest plantings would be installed throughout the enhancement area to stabilize and re-vegetate the affected areas. A planting plan would be developed under the direction of an environmental professional experienced in wetland mitigation/enhancement that would promote the regeneration of the terrestrial forest habitat. Enhanced terrestrial areas would be protected by a leaf, straw or other suitable alternative mulch and under sown with the seed mix “New England Conservation Seed Mix” or an approved substitute. In addition, signage would be installed at the edge of the enhancement areas identifying them as protected and sensitive to promote the prevention of potential future impacts and degradation.

APT assessed the potential presence of several State-listed plant species identified by DEEP in their letter dated January 12, 2015 regarding the Natural Diversity Database (NDDB). These plant species are the following: mountain spleenwort; wallrue spleenwort; foxtail sedge; sedge; chestnut-colored sedge; long-bracted green orchid; large-bracted tick-trefoil; and large-flowered bellwort. Further investigation by a field ecologist experienced with State-listed plant species found that the project area does not support suitable habitat for any of the listed plant species.

DEEP’s letter also listed five vertebrate species: blue-spotted salamander, a State-listed Species of Special Concern for the “complex” type and State-listed Endangered for diploid populations; alder flycatcher, a State-listed avian Species of Special Concern; smooth green snake, a State-listed Species of Special Concern; burbot, a State-listed fish Endangered Species; and northern leopard frog, a State-listed Species of Special Concern.

While the blue-spotted salamander was found on the subject property, this species favors herbaceous-dominated floodplain wetlands for breeding, but also breeds in riparian wooded swamps. The potential for project-related impacts to the other vertebrate species identified by DEEP is limited due to the fact that these species are associated with early-successional habitats (i.e. non-forested habitats) which do not occur within or immediately adjacent to the proposed project area. In February 2016, APT submitted an updated request to DEEP for an updated NDDB review. No response has been received to date.

Notwithstanding, the Petitioner proposes wildlife impact mitigation in the form of habitat enhancement measures which include a narrow strip of land between the perimeter fence and the newly-created forest edge that would remain clear. This area can be managed for wildlife by restricting mowing on a rotational basis every 4 to 7 years. This would create a “soft” ecotone that would provide cover and habitat for a number of “edge” species.

Finally, with respect to federally-listed species, the northern long-eared bat is a federally-listed Threatened Species which may occur in the vicinity of the site. However, APT has reviewed the U.S. Fish and Wildlife Service’s *Northern Long-Eared Bat 4(d) Rule for Non-Federal Activities Key* and found that the proposed project would not result in an adverse impact to the northern long-eared bat. However, the Petitioner proposes conducting tree removal activities only between October 1 and March 31 when NLEB are in hibernation. This restriction would also serve to avoid disturbance to breeding bird species during periods of high bird activity.

No historic resources listed on or eligible for listing on the National Register of Historic Places exist within ½ mile of the subject property. However, the State Historic Preservation Office (SHPO) has requested that SolarCity have a professional cultural resources reconnaissance survey performed.

Heritage has performed such survey and recommended no additional fieldwork in the project area. The results of Heritage's assessment has been provided to SHPO.

The proposed project is expected to meet the DEEP noise standards at the property boundaries.

The nearest residence to the southeastern array is located approximately 512 feet to the east and on Route 7. No residences are located in the vicinity of the southwestern array or the rooftop array.

The roof-mounted array would be approximately 750 feet west of Route 7. This array would be set back sufficiently from abutting properties and public roads and would not be expected to be visible from most off-site locations. The western ground-mounted array would be set back sufficiently from abutting properties and public roads such that it would not be visible from off-site locations. Views of the eastern ground-mounted array may be possible from one the nearest residence on Route 7 during leaf-off conditions. However, the top edges of the solar panels would be about equal to the height of the fence (i.e. eight feet) and thus would not protrude above the fenced compound.

SolarCity estimates that the project would take about three to four weeks to construct upon securing all necessary permits and approvals including Council review and approval of the D&M Plan. Construction hours would typically occur Monday through Saturday, 7:00 a.m. to 7:00 p.m. Noise related to construction would be exempt per DEEP noise regulations.

Conclusion

The Petitioner contends that pursuant to CGS § 16-50k(a), the Siting Council shall approve by declaratory ruling the construction or location of "any customer-side distributed resources project or facility or grid-side distributed resources project or facility with a capacity of not more than sixty-five megawatts, as long as such project meets air and water quality standards of the Department of Energy and Environmental Protection." The proposed project meets these criteria. The proposed project will not produce air emissions, will not utilize water to produce electricity, was designed to minimize wetland impacts, and furthers the State's energy policy by developing and utilizing renewable energy resources and distributed energy resources. In addition, as demonstrated above, the proposed project will not have a substantial adverse environmental effect.

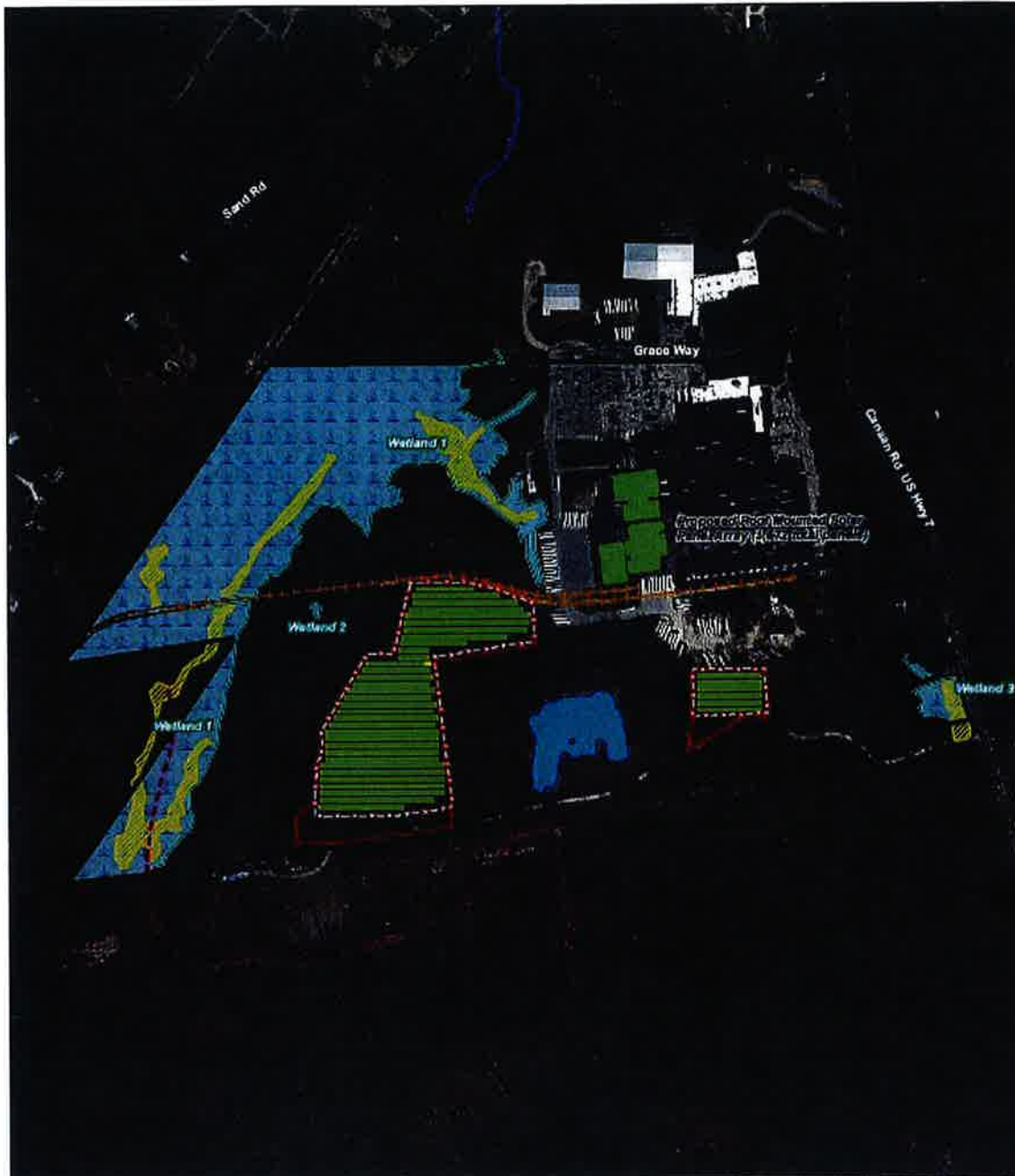
Recommendations

Staff recommends inclusion of the following conditions:

1. The Petitioner shall prepare a Development and Management Plan (D&M) for this site in compliance with Sections 16-50j-60 through 16-50j-62 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served on the Towns of North Canaan and Canaan for comment and submitted to and approved by the Council prior to the commencement of facility construction and shall include:
 - a) A final site plan including, but not limited to, the electrical utility connections from solar arrays;
 - b) Final determination from the Connecticut Department of Energy and Environmental Protection and compliance with any recommended mitigation measures;
 - c) Name and resume of an independent environmental inspector for Council review and approval;

- d) Use of off-road construction equipment that meets the latest EPA or California Air Resources Board standards, or in the alternative, equipment with the best available controls on diesel emissions, including, but not limited to, retrofitting with diesel oxidation catalysts, particulate filters and use of ultra-low sulfur fuel; and
- e) Compliance with the provisions of Section 22a-174-18(b)(3)(C) of the Regulations of Connecticut State Agencies that limit the idling of mobile sources to 3 minutes.

Figure 1 - Proposed Site Layout



Legend

- Site Boundary
- Project Area (and limit of demo/clearing; ±9 acres)
- Ground-mounted Fenced Facility (± 8 acres)
- Solar Module Array
- Electrical Equipment
- Wetland Boundary
- Wetland Area (within Site Boundary)
- Vernal Pool
- CTDEEP Watercourse
- Railroad
- FEMA 100-Year Flood Line

**Figure 5
 Proposed Conditions Map**

Proposed Solar Facility
 7 Grace Way
 North Canaan, Connecticut

Map Notes:
 Base Map Source: 2012 Aerial Photograph (CTDEEP)
 Map Scale: 1 inch = 430 feet | Map Date: June 2016



Figure 2 - Vernal Pool Analysis Map



Vernal Pool 1 100' Vernal Pool Envelope: 24.34 acres 100'-750' Critical Terrestrial Habitat Area: 488 acres			Vernal Pool 3 100' Vernal Pool Envelope: 63 acres 100'-750' Critical Terrestrial Habitat Area: 547 acres			Vernal Pool 2 100' Vernal Pool Envelope: 23.88 acres 100'-750' Critical Terrestrial Habitat Area: 507 acres		
No Impact to 100' Vernal Pool Envelope			No Impact to 100' Vernal Pool Envelope			No Impact to 100' Vernal Pool Envelope		
Developed	±1.08 acres	25%	Developed	±0.2 acres	10%	Developed	±0.77 acres	37%
Undeveloped	±3.18 acres	75%	Undeveloped	±1.8 acres	90%	Undeveloped	±1.18 acres	58%
Existing Critical Terrestrial Habitat Areas:			Existing Critical Terrestrial Habitat Areas:			Existing Critical Terrestrial Habitat Areas:		
Developed	±24 acres	38%	Developed	±90.7 acres	75%	Developed	±50.3 acres	33%
Undeveloped	±37 acres	64%	Undeveloped	±38.3 acres	77%	Undeveloped	±30.5 acres	43%
Proposed Critical Terrestrial Habitat Areas:			Proposed Critical Terrestrial Habitat Areas:			Proposed Critical Terrestrial Habitat Areas:		
Developed	±29.49 acres	41%	Developed	±11.1 acres	24%	Developed	±10.3 acres	23%
Undeveloped	±30.55 acres	58%	Undeveloped	±35.9 acres	70%	Undeveloped	±18.5 acres	42%
Vernal Pool 4 100' Vernal Pool Envelope: 41 acres 100'-750' Critical Terrestrial Habitat Area: 388 acres			Vernal Pool 4 100' Vernal Pool Envelope: 48.3 acres 100'-750' Critical Terrestrial Habitat Area: 474 acres					
No Impact to 100' Vernal Pool Envelope			No Impact to 100' Vernal Pool Envelope					
Developed	±0.2 acres	2%	Developed	±0.2 acres	2%			
Undeveloped	±3.8 acres	90%	Undeveloped	±8 acres	97%			
Existing Critical Terrestrial Habitat Areas:			Existing Critical Terrestrial Habitat Areas:					
Developed	±3 acres	14%	Developed	±8 acres	11%			
Undeveloped	±38 acres	90%	Undeveloped	±83 acres	69%			
Proposed Critical Terrestrial Habitat Areas:			Proposed Critical Terrestrial Habitat Areas:					
Developed	±32.3 acres	79%	Developed	±13.9 acres	50%			
Undeveloped	±45.7 acres	70%	Undeveloped	±37.1 acres	60%			

- Legend**
- Site Boundary
 - Project Area (and limit of demo/clearing; ±9 acres)
 - Ground-mounted Fenced Facility (±8 acres)
 - Railroad
 - CTDEEP Watercourse
 - FEMA 100-Year Flood Line
 - Wetland Boundary
 - 100' Wetland Buffer
 - Wetland Area (within Site Boundary)
 - Vernal Pool
 - 100' Vernal Pool Envelope
 - 100'-750' Critical Terrestrial Habitat Area
- Habitat Type**
- Developed
 - Undeveloped
 - Restricted Habitat

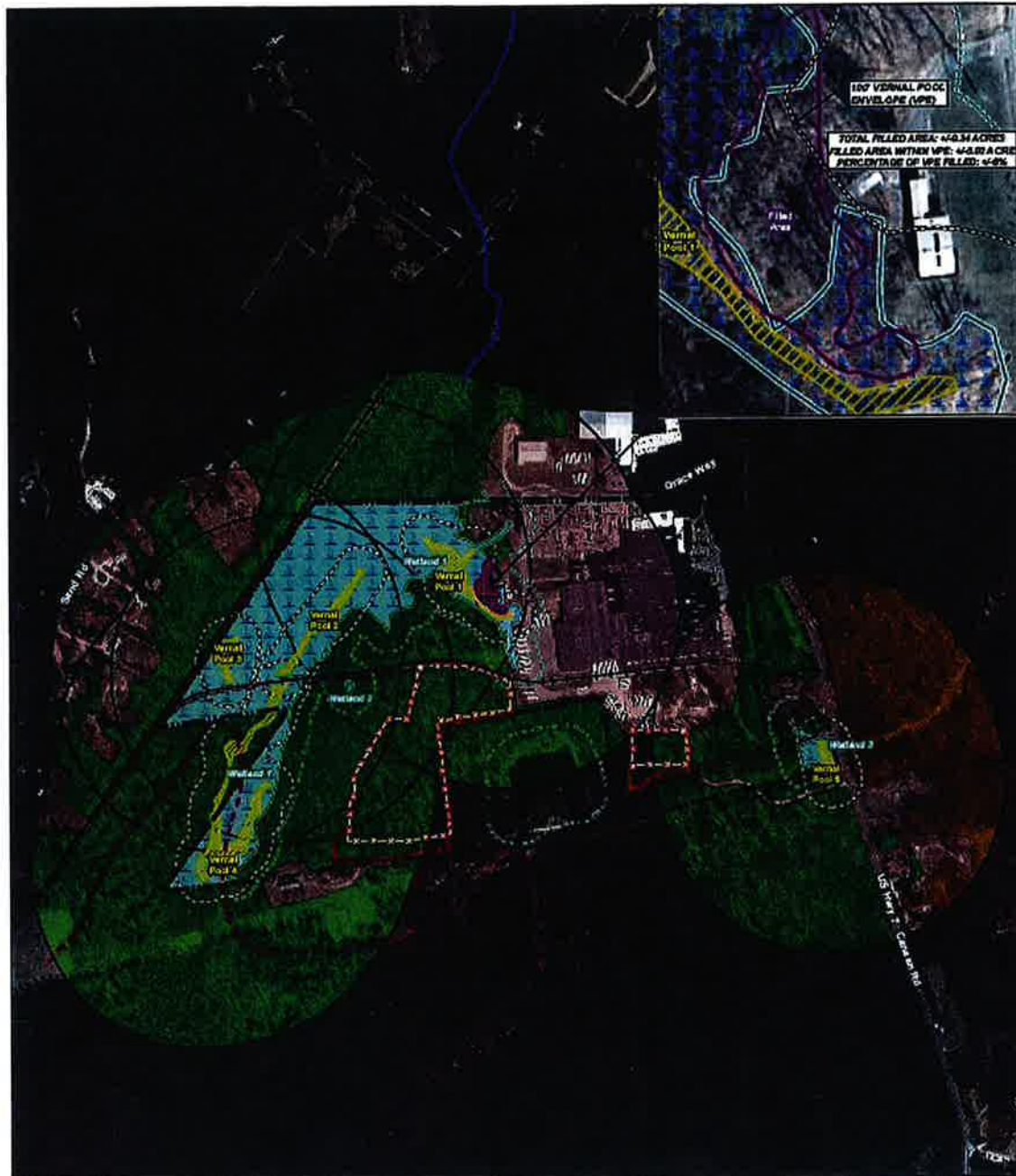
Map Notes:
Base Map Source: 2017 Aerial/Photograph ©GIS DOY
Map Scale: 1 inch = 500 feet
Map Date: June 2016



Figure 7
Vernal Pool Analysis Map
Proposed Solar Facility
7 Grace Way
North Canaan, Connecticut



Figure 3 - Vernal Pool Mitigation Plan



- Legend**
- Site Boundary
 - Project Area (and limit of demo/clearing; 49 acres)
 - Ground-mounted Fenced Facility (+/- 8 acres)
 - Railroad
 - CTDEEP Watercourse
 - FEMA 100-Year Flood Line
 - Wetland Boundary
 - 100' Wetland Buffer
 - Wetland Area (within Site Boundary)
 - Vernal Pool
 - 100' Vernal Pool Envelope
 - 100'-750' Critical Terrestrial Habitat Area
 - Developed Habitat
 - Undeveloped Habitat
 - Restricted Habitat
 - Proposed Mitigation Area (+/- 0.34 acres)

Map Notes:
 Base Map Source: 2012 Aerial Photograph ©TRC CO
 Map Scale: 1 inch = 100 feet
 Map Date: June 2016



Figure 8
Restoration and Mitigation Areas
 Proposed Solar Facility
 7 Grace Way
 North Canaan, Connecticut



Attachment 4
Smooth Green Snake Cover Board Details

SolarCity

3090 Chabot Ave. Ste. 400, Fremont, CA 94538
Tel: 925.225.1200 Fax: 925.225.1201
www.solarcity.com



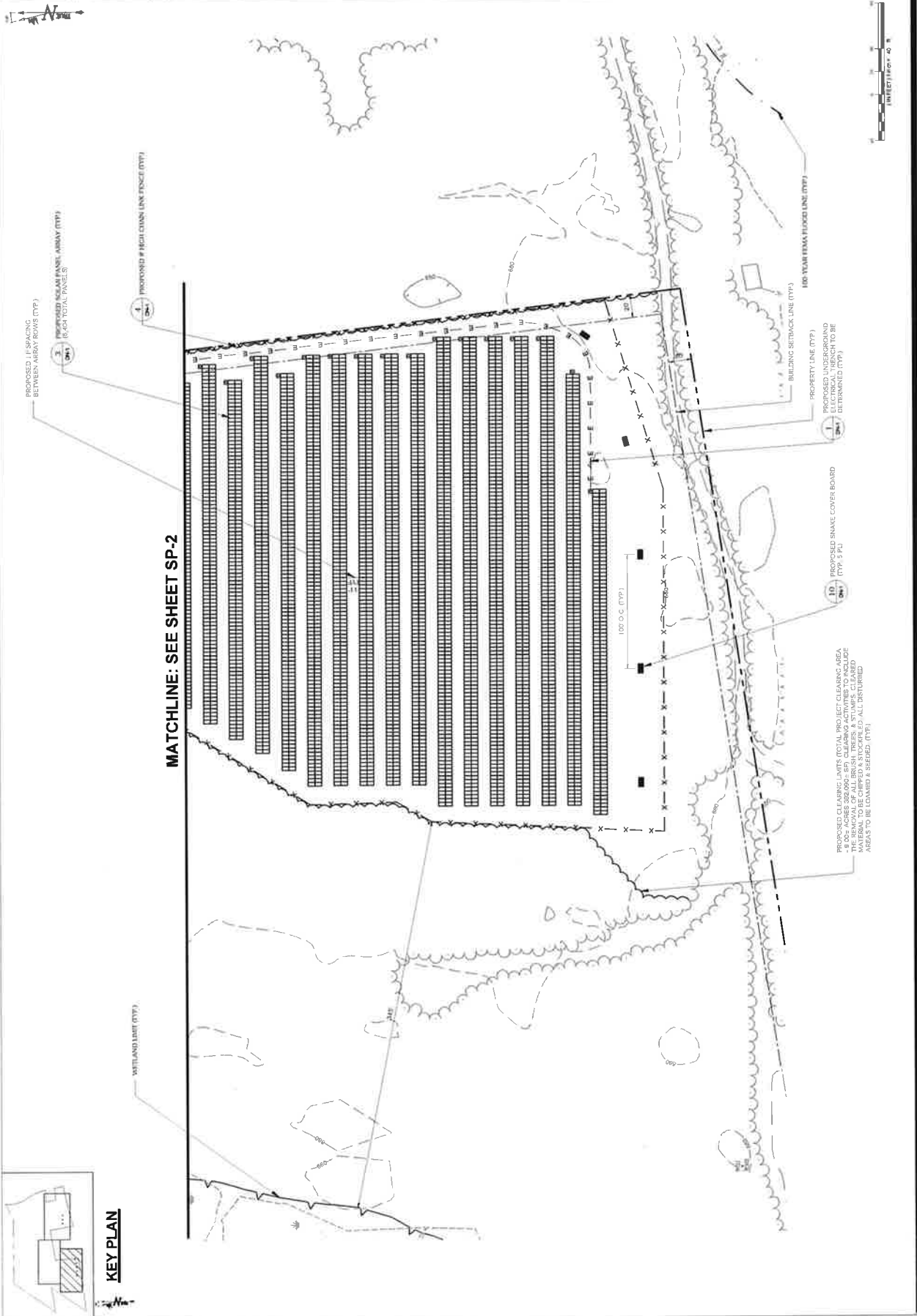
CONSTRUCTION DOCUMENTS	
NO.	DATE / REVISION
1	09/12/18 FOR CONSTRUCTION, RUP
2	
3	
4	
5	
6	

DESIGN PROFESSIONALS OF RECORD
 PROJ. SCOTT M. CHASSE, P.E.
 COMP. ALL-POINTS TECHNOLOGY
 10000 WILSON AVENUE, SUITE 100
 KILLINGWORTH, CT 06418
 OWNER: BECTON, DICKINSON &
 FRANKLIN LAMES, NJ 07417
 ADDRESS: 1 BECTON DRIVE
 FRANKLIN LAMES, NJ 07417
 (973) 847-2800

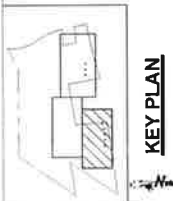
SITE
 ADDRESS: 7 GRACE WAY
 NORTH CANAAN, CT 06460
 APT. FILING NUMBER: CT141820
 DRAWN BY: CSB
 DATE: 09/12/18 CHECKED BY: D.J.P.

SHEET TITLE:
 SITE PLAN

SHEET NUMBER:
 SP-1



MATCHLINE: SEE SHEET SP-2



KEY PLAN

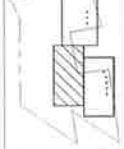
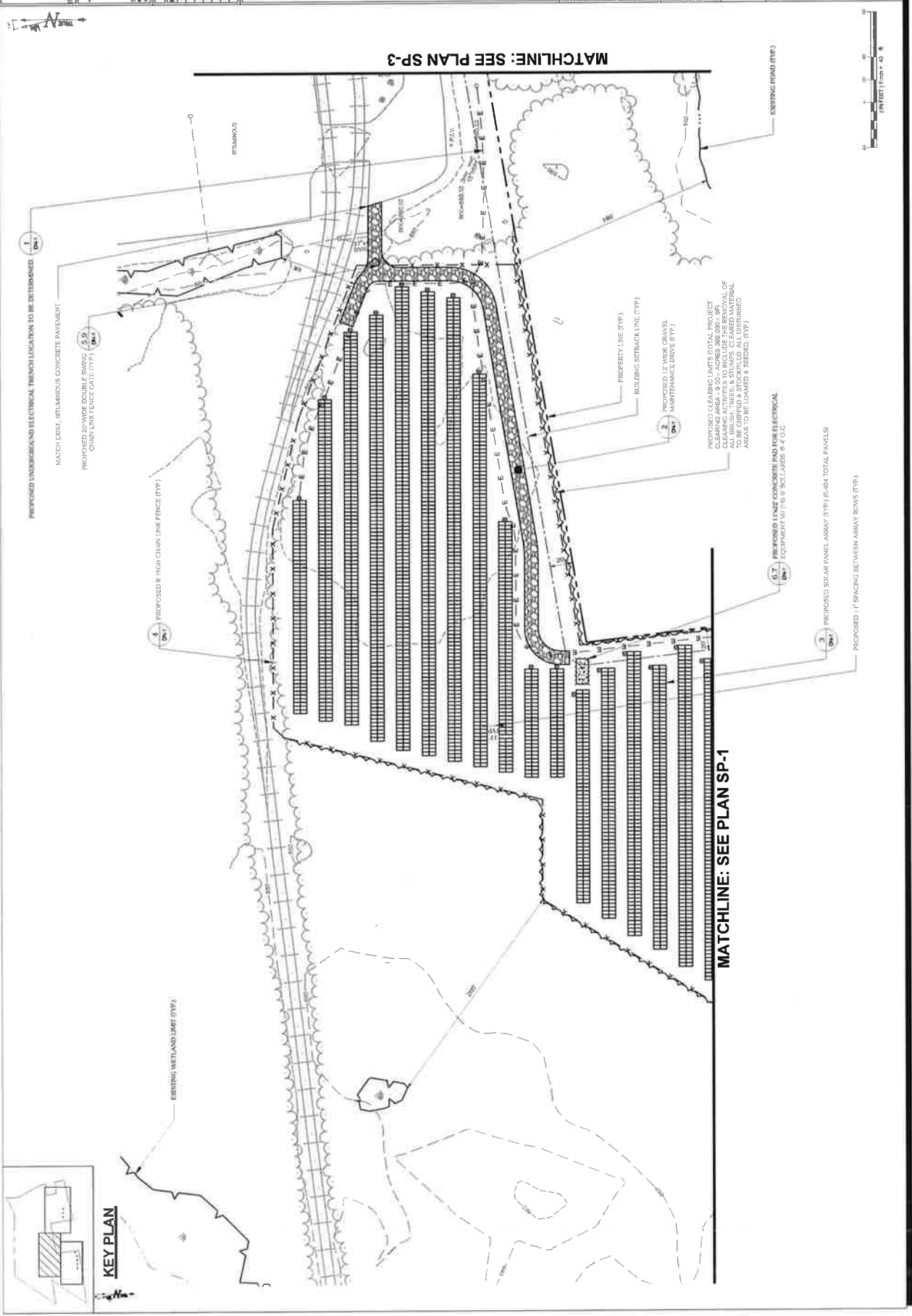
NO.	DATE	REVISION
1		ISSUE FOR CONSTRUCTION SLP
2		
3		
4		
5		
6		

REGION PROFESSIONALS OF RECORD	
NAME:	SCOTT M. CHASE, P.E.
COMP:	ALL-POINTS TECHNOLOGY CORPORATION
ADD:	KELLOGGWOOD, CT 06419
OWNER:	BESTON, JOHNSON & COMPANY, INC.
ADDRESS:	FRANKLIN LAKES, NJ 07417
PHONE:	(201) 947-8800

SITE:	7 GRACE WAY
ADDRESS:	NORTH CANAAN, CT 06019
APT FILING NUMBER:	CT17173
DRAWN BY:	CSH
DATE:	09/12/16
CHECKED BY:	SLP

SHEET TITLE:
SITE PLAN

SHEET NUMBER:
SP-2



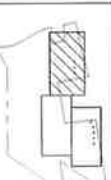
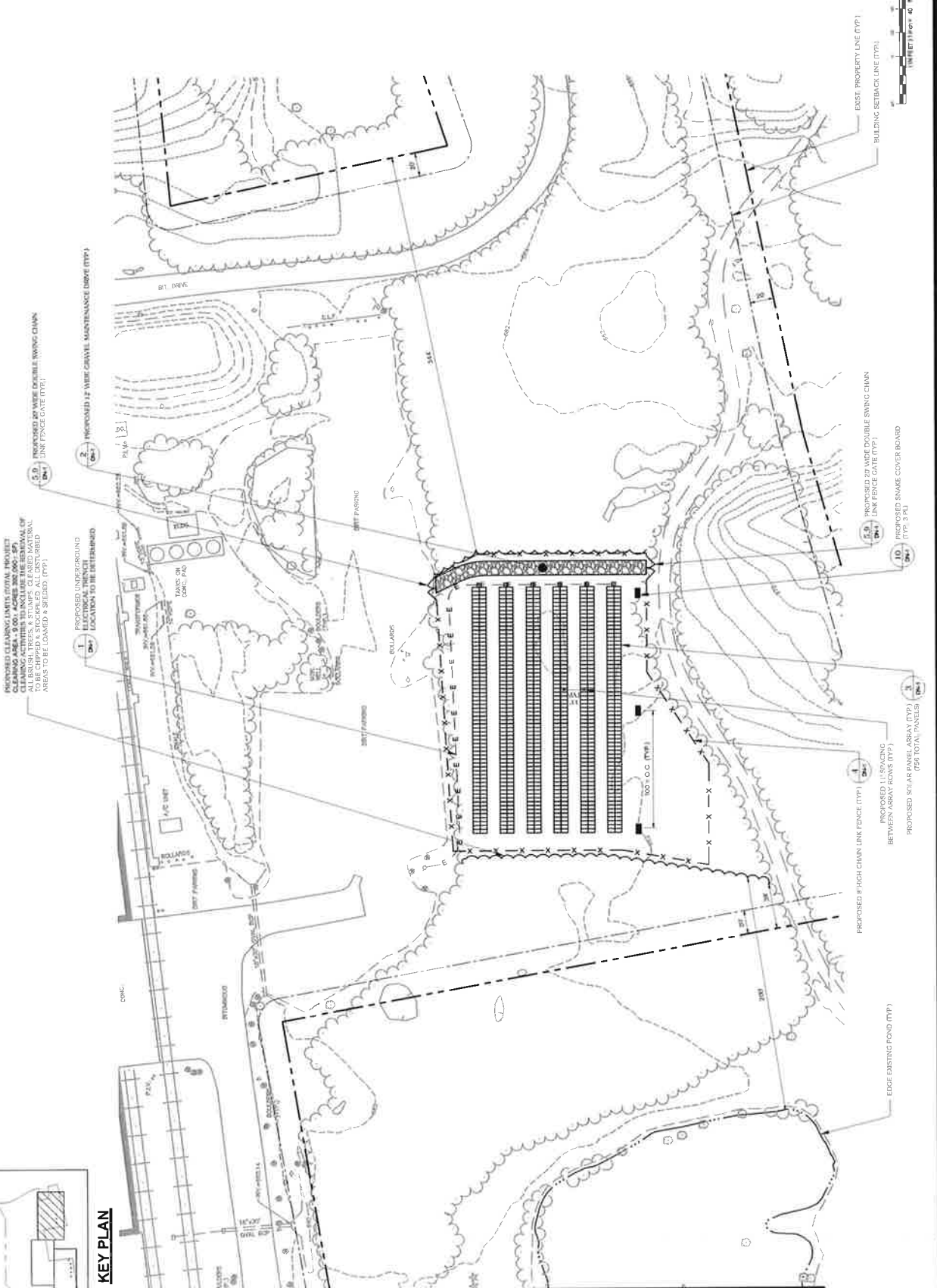
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NO.	DATE / REVISION
1	DESIGNS FOR CONSTRUCTION B.P.
2	REVISED FOR CONC. PAD
3	
4	
5	

DESIGN PROFESSIONALS OF RECORD:
 PROJECT ARCHITECT: SCOTT M. CHASE & E
 COMPANY: ALL-POINTS TECHNOLOGY CORPORATION
 ADDRESS: 111 HILLWORTH, CT 06118
 OWNER: BECTON, JOHNSON & COMPANY
 ADDRESS: 7 GRACE WAY
 ADDRESS: NORTH CANAAN, CT 06018
 APT. FILING NUMBER: CT41920

DATE: 08/27/14
 CHECKED BY: B.P.
 DRAWN BY: CSH

SHEET TITLE:
SITE PLAN

SHEET NUMBER:
SP-3



KEY PLAN

MATCHLINE: SEE PLAN SP-2

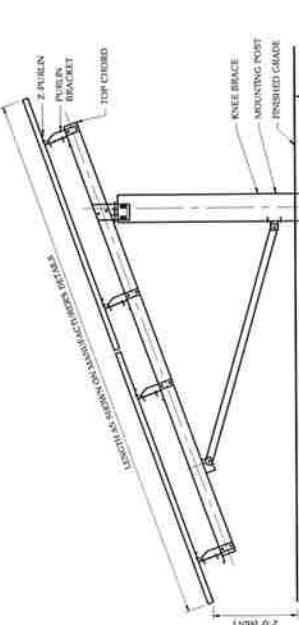
CONSTRUCTION DOCUMENTS		
NO.	DATE	REVISION
1		FOR CONSTRUCTION B.P.
2		
3		
4		
5		
6		

DESIGN PROFESSIONALS OF RECORD
 PRINC: SCOTT M. CHASSE P.E.
 COMPANY: ALL-POINTS TECHNOLOGY CORPORATION
 ADDRESS: 3000 CHAPEL HILL WAY
 KILLBUCK, OHIO 44130
 OWNER: SECTION, DICKINSON & COMPANY ENGINEERS
 ADDRESS: 7 GRACE WAY
 FRANKLIN LAKES, NJ 07417
 (908) 477-6800

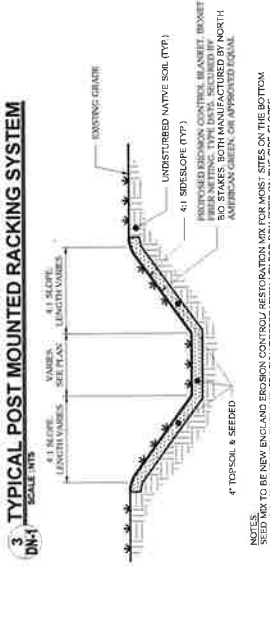
SITE: 7 GRACE WAY
 ADDRESS: NORTH GANAM, CT 06019
 A/P FILING NUMBER: CT1718120
 DRAWN BY: CSB
 DATE: 06/13/16
 CHECKED BY: B.P.

SHEET TITLE:
DETAIL SHEET

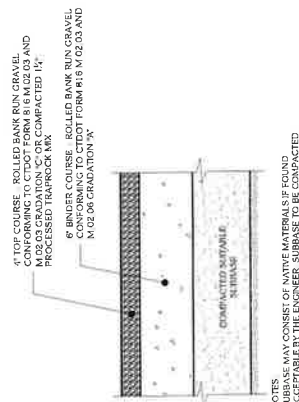
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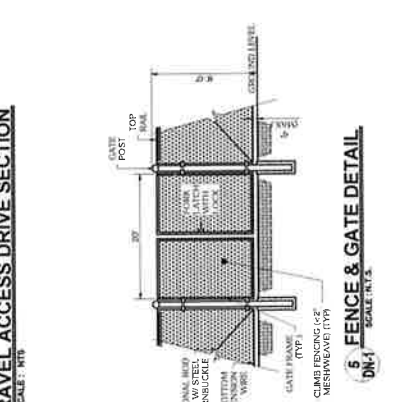
NOTES:
 1. SEE MANUFACTURER DETAIL SHEETS FOR ADDITIONAL INFORMATION REGARDING RACKING SYSTEM WITH MANUFACTURER'S DIMENSIONS, RACKING SYSTEM TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
 2. UNDISTURBED NATIVE SOIL (TYP.)
 3. INDICATED EROSION CONTROL BLANKET, BOXES THEIR SETTING TYPE DETS. SELECTED BY THE ENGINEER. MAY BE EITHER NORTH AMERICAN GREEN, OR APPROVED EQUAL.



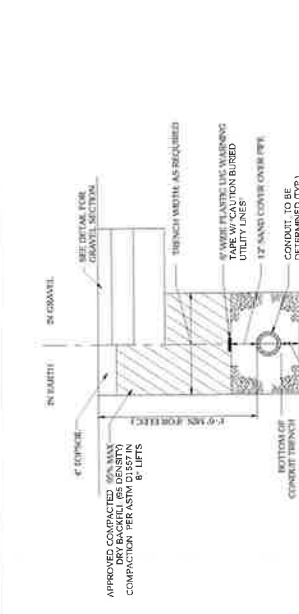
NOTES:
 1. SLOPE SHALL BE NEW ENGLAND EROSION CONTROL RESTORATION MIX FOR MOST SITES ON THE BOTTOM OF THE BASIN AND NEW ENGLAND EROSION RESTORATION MIX FOR DRY SITES ON THE SIDE SLOPES.



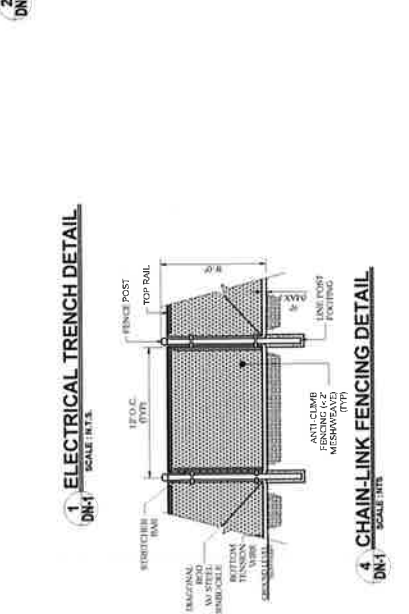
NOTES:
 1. SUBBASE MAY CONSIST OF NATIVE MATERIALS IF FOUND ACCEPTABLE BY THE ENGINEER. SUBBASE TO BE COMPACTED TO 95% MAX. DRY DENSITY.
 2. MATERIALS TO BE FREE FROM DEBRIS AND UNSUITABLE.



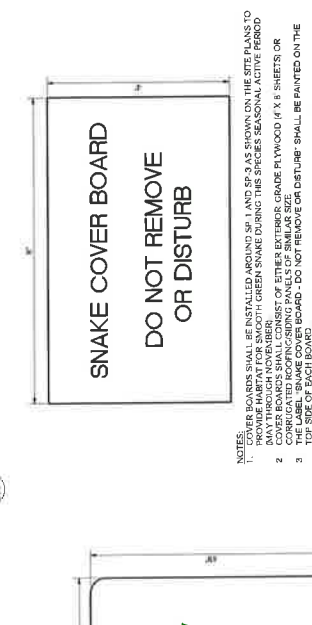
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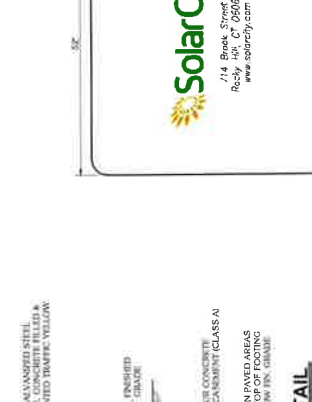
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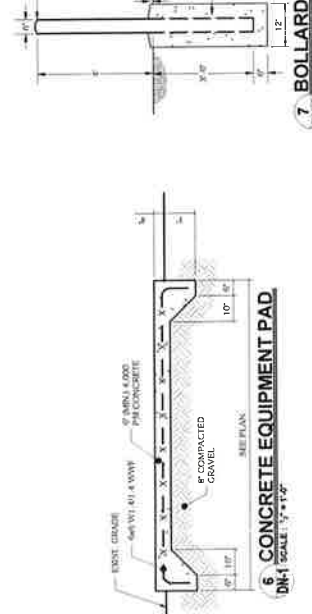
NOTES:
 1. SLOPE SHALL BE NEW ENGLAND EROSION CONTROL RESTORATION MIX FOR MOST SITES ON THE BOTTOM OF THE BASIN AND NEW ENGLAND EROSION RESTORATION MIX FOR DRY SITES ON THE SIDE SLOPES.



NOTES:
 1. COVER BOARDS SHALL BE INSTALLED AROUND SF 1 AND SF 3 AS SHOWN ON THE SITE PLANS TO PROVIDE HARBOR FOR SMOOTH GREEN SNAKE DURING THE SPECIES SEASONAL ACTIVE PERIOD.
 2. COVER BOARDS SHALL CONSIST OF EITHER EXTERIOR GRADE PLYWOOD (4 X 8 SHEETS OR 4 X 6 SHEETS) OR 2\"/>



NOTES:
 1. SIGNS TO BE MOUNTED ON GATES AT ALL ENTRANCES.
 2. SIGNS TO BE RATED FOR OUTDOOR ENVIRONMENTS.



NOTES:
 1. SLOPE SHALL BE NEW ENGLAND EROSION CONTROL RESTORATION MIX FOR MOST SITES ON THE BOTTOM OF THE BASIN AND NEW ENGLAND EROSION RESTORATION MIX FOR DRY SITES ON THE SIDE SLOPES.

Attachment 5

Rare Species Protection Program

ENVIRONMENTAL NOTES

Rare Species Protection Program

Blue-spotted Salamander Complex, Spotted Turtle and Wood Turtle, all State Special Concern species afforded protection under the Connecticut Endangered Species Act, are known to occur within the vicinity of the site. The following protective measures satisfy requirements from the Connecticut Department of Energy & Environmental Protection ("CTDEEP") Wildlife Division and follow protocols developed from previous rare species consultations and state-approved protection plans. This protection plan is valid for one year from the date of CTDEEP's letter, at which point if construction has not been initiated a new Natural Diversity Data Base review request from CTDEEP is required.

It is of the utmost importance that the Contractor complies with the requirement for implementation of these protective measures and the education of its employees and subcontractors performing work on the project site. The rare species protection plan shall be implemented if work will occur during the salamander's and turtles' active periods (March 1 to November 15). All-Points Technology Corporation, P.C. ("APT") will serve as the Environmental Monitor for this project to ensure that these protection measures are implemented properly and will provide an education session on rare species that may be encountered and the project's proximity to sensitive wildlife habitat resources prior to the start of construction activities. The Contractor shall contact Dean Gustafson, Senior Environmental Scientist at APT, at least 5 business days prior to the pre-construction meeting. Mr. Gustafson can be reached by phone at (860) 663-1697 ext. 201 or via email at dgustafson@allpointstech.com.

The proposed protection program consists of several components: education of all contractors and sub-contractors prior to initiation of work on the site; protective measures; periodic inspection of the construction project; and, reporting.

1. Salamander Tree Clearing Restriction

- a. In order to minimize impacts on salamanders, tree clearing shall occur between November 15th through February 1st.
- b. If tree clearing is not performed during the November 15th through February 1st period, sweeps of the entire construction area shall be performed by the Environmental Monitor during the morning prior to each day's tree clearing activities. Salamander sweeps shall be performed on a daily basis until tree clearing activities have been completed.

2. Isolation Measures & Sedimentation and Erosion Controls

- a. Plastic netting used in a variety of erosion control products (i.e., erosion control blankets, fiber rolls [wattles], reinforced silt fence) has been found to entangle wildlife, including reptiles, amphibians, birds and small mammals, but particularly snakes. No permanent erosion control products or reinforced silt fence will be used on the SolarCity Corporation project. Temporary erosion control products will use either erosion control blankets and fiber rolls composed of processed fibers mechanically bound together to form a continuous matrix (netless) or netting composed of planar woven natural biodegradable fiber to avoid/minimize wildlife entanglement.
- b. Installation of sedimentation and erosion controls, required for erosion control compliance and creation of a barrier to possible migrating/dispersing salamanders and turtles, shall be performed by the Contractor following clearing activities and prior to any earthwork. The Environmental Monitor will inspect the work zone area prior to and following erosion control barrier installation to ensure the area is free of salamanders and turtles and document barriers have been satisfactorily installed.

The intent of the barrier is to segregate the majority of the work zone and isolate it from foraging/migrating/dispersing salamanders, turtles, snakes and other herpetofauna. Oftentimes complete isolation of a work zone is not feasible due to accessibility needs and locations of staging/material storage areas, etc. If complete isolation of the work zone is not practical, they will be positioned to deflect migrating/dispersal routes away from the work zone to minimize potential encounters with salamanders, turtles, snakes and other herpetofauna.

- c. The Contractor is responsible for daily inspections of the sedimentation and erosion controls for tears or breaches and accumulation levels of sediment, particularly following storm events that generate a discharge. APT will provide periodic inspections of the sedimentation and erosion controls throughout the duration of construction activities only as it pertains to protection of rare species. Third party monitoring of sedimentation and erosion controls will be performed by other parties, as necessary, under applicable local, state and/or federal regulations.
- d. The extent of the sedimentation and erosion controls will be as shown on the site plans. The Contractor shall have additional sedimentation and erosion controls stockpiled on site should field or construction conditions warrant extending the controls as directed by APT.
- e. No equipment, vehicles or construction materials shall be stored outside of the sedimentation and erosion controls within 100 feet of wetlands or watercourses.
- f. All sedimentation and erosion controls shall be removed within 30 days of completion of work and permanent stabilization of site soils so that reptile and amphibian movement between uplands and wetlands is not restricted.

3. Contractor Education

- a. Prior to work on site, the Contractor shall attend an educational session at the pre-construction meeting with APT. This orientation and educational session will consist of an introductory meeting with APT providing photos of Blue-spotted Salamander Complex, Spotted Turtle and Wood Turtle emphasizing the non-aggressive nature of these species, the absence of need to destroy animals that might be encountered and the need to follow Protective Measures as described in Section 5 below. Workers will also be provided information regarding the identification of other salamanders, turtles, snakes and common herpetofauna species that could be encountered.
- b. The education session will also focus on means to discriminate between the species of concern and other native species to avoid unnecessary "false alarms". Encounters with any species of salamanders, turtles or snakes will be documented.
- c. The Contractor will be provided with cell phone and email contacts for the APT Environmental Monitor to immediately report any encounters with Blue-spotted Salamander Complex, Spotted Turtle and Wood Turtle. Educational poster materials will be provided by APT and displayed on the job site to maintain worker awareness as the project progresses.

4. Petroleum Materials Storage and Spill Prevention

- a. Certain precautions are necessary to store petroleum materials, refuel and contain and properly clean up any inadvertent fuel or petroleum (i.e., oil, hydraulic fluid, etc.) spill to avoid possible impact to nearby habitats.

- b. A spill containment kit consisting of a sufficient supply of absorbent pads and absorbent material will be maintained by the Contractor at the construction site throughout the duration of the project. In addition, a waste drum will be kept on site to contain any used absorbent pads/material for proper and timely disposal off site in accordance with applicable local, state and federal laws.
- c. The following petroleum and hazardous materials storage and refueling restrictions and spill response procedures will be adhered to by the Contractor.
 - i. Petroleum and Hazardous Materials Storage and Refueling
 - 1. Refueling of vehicles or machinery shall occur a minimum of 100 feet from wetlands or watercourses and shall take place on an impervious pad with secondary containment designed to contain fuels.
 - 2. Any fuel or hazardous materials that must be kept on site shall be stored on an impervious surface utilizing secondary containment a minimum of 100 feet from wetlands or watercourses.
 - ii. Initial Spill Response Procedures
 - 1. Stop operations and shut off equipment.
 - 2. Remove any sources of spark or flame.
 - 3. Contain the source of the spill.
 - 4. Determine the approximate volume of the spill.
 - 5. Identify the location of natural flow paths to prevent the release of the spill to sensitive nearby waterways or wetlands.
 - 6. Ensure that fellow workers are notified of the spill.
 - iii. Spill Clean Up & Containment
 - 1. Obtain spill response materials from the on-site spill response kit. Place absorbent materials directly on the release area.
 - 2. Limit the spread of the spill by placing absorbent materials around the perimeter of the spill.
 - 3. Isolate and eliminate the spill source.
 - 4. Contact the appropriate local, state and/or federal agencies, as necessary.
 - 5. Contact a disposal company to properly dispose of contaminated materials.
 - iv. Reporting
 - 1. Complete an incident report.
 - 2. Submit a completed incident report to the Town of Cheshire.

5. Rare Species Protective Measures

- a. Prior to the start of construction each day, the Contractor shall search the entire work area for salamanders and turtles.
- b. If a salamander or turtle is found, it shall be immediately moved, unharmed, and placed just outside of the isolation barrier in the same approximate direction it was

heading. Turtles should be handled by carefully grasped in both hands, one on each side of the shell, between the turtle's forelimbs and the hind limbs. Salamanders have soft, delicate skin and should be handled gently with a clean damp plastic bag or clean wet hands.

- c. Special care shall be taken by the Contractor during early morning and evening hours so that possible basking or foraging turtles are not harmed by construction activities.

6. Herbicide and Pesticide Restrictions

- a. The use of herbicides and pesticides at the proposed solar facility shall be avoided when possible. In the event herbicides and/or pesticides are required at the proposed facility, their use will be used in accordance with Integrated Pest Management ("IPM") principles with particular attention to minimize applications within 100 feet of wetland or watercourse resources. No applications of herbicides or pesticides are allowed within actual wetland or watercourse resources.

7. Reporting

- a. Daily Compliance Monitoring Reports (brief narrative and applicable photos) documenting each APT inspection will be submitted by APT to SolarCity Corporation for compliance verification. Any observations of salamanders or turtles will be included in the reports.
- b. Following completion of the construction project, APT will provide a Compliance Monitoring Summary Report to SolarCity Corporation documenting implementation of the rare species protection program, monitoring and any species observations. SolarCity Corporation will provide a copy of the Compliance Monitoring Summary Report to the Connecticut Siting Council for compliance verification.
- c. Any observations of Blue-spotted Salamander Complex, Spotted Turtle and Wood Turtle will be reported to CTDEEP by APT, with photo-documentation (if possible) and with specific information on the location and disposition of the animal.

Smooth Green Snake Habitat Enhancement: Cover Board Guidelines

1. Cover boards shall be installed around SP-1 and SP-3 as shown on the site plans to provide habitat for smooth green snake during this species seasonal active period (May through November).
2. Cover boards shall consist of either exterior-grade plywood (4' x 8' sheets) or corrugated roofing/siding panels of similar size.
3. The label "snake cover board – do not remove or disturb" shall be painted on the top side of each board.
4. Cover boards shall remain in place from May through October, but can be left in place throughout the fall and winter if needed.
5. Areas where cover boards are located shall be mowed no more than once per season.
6. If mowing occurs between May and October, the cover boards shall be removed a minimum of one day prior to mowing and reset once all mowing has been completed.

DEAN GUSTAFSON
Professional Soil Scientist
Senior Wetland Biologist

All-Points Technology Corporation, P.C.
3 Saddlebrook Drive
Killingworth, CT 06419
860-663-1697 Ext. 201
dgustafson@allpointstech.com

General Background

Mr. Gustafson has been the lead scientist on well over 1,000 development projects in Connecticut and Western Massachusetts. In addition to his 28 years of providing wetland consulting in capacity as a "Professional Soil Scientist" and "Senior Wetland Biologist" his expertise includes the identification of flora and fauna and evaluation of wildlife habitat functions in both wetland and terrestrial systems. Mr. Gustafson has applied this knowledge on hundreds of projects performing wildlife habitat evaluations and focused avian, mammalian, invertebrate and herpetofauna surveys using both active and passive methods. Mr. Gustafson has also performed targeted surveys for sensitive, rare and listed species that have resolved numerous potential rare species conflicts with proposed developments in coordination with state and federal agencies. In addition, Mr. Gustafson has extensive experience in performing herpetological surveys including vernal pool investigations and evaluations. His experience includes NEPA/CEPA documentation, wetlands (delineation, evaluation, mitigation design, monitoring, stream restoration, and local, state and federal permitting), water-quality investigations, coastal-zone-management studies, natural-resource and ecological evaluations.

Mr. Gustafson has particular expertise in wetland identification, soil mapping, soil classification, vegetative and hydrology surveys, and wetland impact assessment, mitigation design and oversight. He also has extensive experience in local, state, and federal wetland permitting, having worked on over 100 Connecticut Siting Council dockets along with providing expert testimony at Council hearings over the past 12 years. Mr. Gustafson has consulted on numerous projects which involve soils related issues such as erosion and sediment control planning, vegetative soil stabilization and storm water management BMP evaluation and selection. He has served as the Environmental Compliance Monitor on several Connecticut Siting Council approved projects. Mr. Gustafson's water quality experience includes stormwater studies for compliance with National Pollution Discharge Elimination System (NPDES), Section 401 Water Quality Certification, and the 2004 Connecticut DEP Stormwater Quality Manual.

Representative Projects

CPV Towantic Energy Center, Oxford, CT

Lead scientist responsible for performing wetland investigations, wetland evaluations, wetland mitigation design and rare species surveys for a proposed 785 MW dual-fueled combined cycle electric generating facility. Dean prepared the federal wetland permit application and secured Section 404 and 401 authorizations from the Army Corps of Engineers New England Division and Connecticut Department of Energy & Environmental Protection, respectively. Dean was also responsible for developing a wetland mitigation plan, which consisted of two constructed stormwater wetland systems to compensate for the project's unavoidable wetland impacts, as well as coordinating regulatory approval for payment into the Audubon CT In Lieu Fee Wetland Mitigation Program. Dean provided supporting application materials to the Connecticut Siting Council and expert testimony at numerous hearings. Currently providing rare species compliance monitoring during construction for protection of eastern box turtle, a state-listed species, along with protection of other herpetofauna.

Environmental Compliance Monitor, Verizon Wireless Facility, Plymouth, Connecticut

Dean is currently serving as the Environmental Monitor for construction of a Verizon Wireless communication facility to ensure compliance with a Certificate of Environmental Compatibility and Public Need issued by the Connecticut Siting Council. Monitoring responsibilities include protection of the following rare species: eastern box turtle, wood turtle, whip-poor-will and northern long-eared bat. Dean is responsible for inspection of animal isolation barriers, implementation of the turtle protection plan, turtle

sweeps, and development and implementation of a contractor awareness program to stress the environmentally sensitive nature of the proposed project.

Environmental Siting and Permitting Services, Commercial Solar Farms, Connecticut

In 2014-2015, Dean served as Senior Scientist on six approved commercial solar projects ranging in size from 4 MW to 20 MW. Dean assisted in preparation of environmental documents to support Petition filings to the Connecticut Siting Council. Documents included: wetland delineations; vernal pool studies and impact evaluations; habitat and wildlife assessments; breeding bird surveys and development of rare species protective measures. Dean is currently responsible as the Senior Technical Advisor for and implementation of compliance monitoring for protection of rare species, vernal pool species and wetland habitats during construction.

Environmental Compliance Monitor, Verizon Wireless Facility, Bloomfield, Connecticut

Dean is currently serving as the Environmental Monitor for construction of a Verizon Wireless communication facility to ensure compliance with authorizations received from the Connecticut Siting Council and Connecticut Department of Energy & Environmental Protection. Monitoring responsibilities include protection of rare species (eastern box turtle and wood turtle) and vernal pool species and habitats. Dean is responsible for inspection of animal isolation barriers, implementation of the turtle protection plan, turtle and vernal pool species sweeps, and development and implementation of a contractor awareness program to stress the environmentally sensitive nature of the proposed project.

Environmental Compliance Monitor, Structure Replacement Project, Montague/Leverett, Massachusetts

Dean was the Environmental Compliance Monitor in accordance with Massachusetts Department of Environmental Protection 401 Water Quality Certificate permit conditions for 345-kV structure replacement project. Monitoring included installation of wooden timber swamp mats across a 65-acre beaver impoundment for the removal of eight existing wooden structures and replacement with four steel structures. Environmentally sensitive compliance monitoring across this approximate 3,500 linear foot span included monitoring of drilling activities for deep caisson foundations within wetlands including in the middle of the beaver impoundment. Developed containment means and methods to allow the contractor to work efficiently without causing unauthorized discharge into sensitive wetland resources. The project was successfully completed without a single environmental or permit non-compliance incident.

Environmental Compliance Monitor, Structure Replacement Project, Hampden, Massachusetts

Dean served as the Environmental Compliance Monitor for Western Massachusetts Electric Company to ensure compliance with permit conditions from the Massachusetts Department of Environmental Protection Section 401 Water Quality Certificate permit and U.S. Army Corps of Engineers Section 404 permit for a 345 kV structure replacement project. Monitoring included installation of wooden timber swamp mats over a large organic marsh that contained two vernal pools. A translocation plan was developed to move herpetofauna inhabiting the vernal pool in order to allow the project to proceed without schedule delay and minimize wildlife impact. In addition, the project required daily morning sweeps along the access road for Eastern Box Turtle to protect a known population of this rare turtle species from construction equipment traveling each day to the structure replacement site. The project was completed without a single environmental or permit non-compliance incident.

Environmental Monitor, Verizon Wireless Facility, Woodstock, Connecticut

Dean served as the Senior Environmental Monitor for construction of a Verizon Wireless communication facility to ensure compliance with a Certificate of Environmental Compatibility and Public Need issued by the Connecticut Siting Council. Monitoring responsibilities include inspection of erosion and sedimentation controls, vernal pool protection plan implementation, amphibian and reptile sweeps, and development and implementation of a contractor awareness program to stress the environmentally sensitive nature of the proposed project.

On Call Environmental Services, Northeast Utilities Transmission Group

From 2004 through 2012, while with another employer, Dean served as Task Manager on two NUSCO environmental siting and permitting on-call contracts. During that time, he provided technical support on

several Connecticut projects, including: assessing and permitting bulk power substations, transmission lines/structures, underground utility installations, and existing facilities requiring upgrades. Dean assisted with pre-acquisition due diligence activities; site development feasibility assessments; natural resources inventories of existing flora and fauna; vernal pool studies and assessments; habitat evaluations; wetland delineations, assessments, mitigation designs, and permit compliance monitoring; site layout and design evaluations; erosion and sediment control planning and construction monitoring; vegetative soil stabilization and storm water management BMP evaluations and selection; preparation of technical documents; and, coordination with State and local agencies.

Circuit Separation Project, Wetland Mitigation Monitoring, Manchester, CT

Dean provided peer review of federal wetland permit application materials and proposed wetland mitigation plan. This work also included development of a wetland mitigation implementation plan as well as providing wetland creation construction oversight and compliance monitoring of native wetland plantings for wetland enhancement areas and invasive species removal. Providing ongoing 5-year post construction monitoring services to document compliance with federal wetland permit required wetland mitigation performance standards. Several corrective actions have been developed during the course of the post construction monitoring period to successfully attain performance standards.

Millstone Line Separation Project, Waterford, CT

Dean was responsible for providing environmental services on this project including wetland delineation, evaluation, and mitigation, rare species investigations and mitigation, vernal pool evaluations, habitat mapping, and preparation of permit plans. Permitting documentation was prepared for the following agency approvals: Connecticut Siting Council (Petition), U.S. Army Corps of Engineers (Section 404 Category 2 CT General Permit), and Connecticut Department of Energy and Environmental Protection (Section 401 Category 2 CT General Permit).

Employment History

Vanasse Hangen Brustlin, Inc., 54 Tuttle Place, Middletown, Connecticut

- Natural Resource Group Leader 1997 to 2012

Atlantic Environmental Services, Inc./GEI Consultants, Colchester, Connecticut

- Senior Project Scientist 1992 to 1997

Soil Science & Environmental Services, Cheshire, Connecticut

- Professional Soil Scientist 1988 to 1992

Education	B.S. University of Massachusetts, Plant and Soil Sciences, 1988 Graduate coursework, University of New Hampshire
Affiliations	Member, Lebanon Inland Wetlands and Watercourses Commission, since 1995. Member, Connecticut Audubon Society
Registration	Professional Soil Scientist, Society of Soil Scientists of Southern New England, since 1988. Connecticut Association of Wetland Scientists. Association of Massachusetts Wetland Scientists.
Certifications	OSHA Hazardous Water Operations and Emergency Response (HAZWOPER) Training (29 CFR 1910.120)