Shrub Oak International School

DTS • PROVIDENT
Intelligent Land Use

DTS Provident Design Engineering, LLP
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Charles 'Carlito' Holt, P.E., PTOE
Brian Dempsey, P.E., PTOE, RSP1

June 23, 2022

Mr. Richard Fon, Chairman
and Members of the Planning Board
Yorktown Community and Cultural Center (YCCC)
1974 Commerce Street, Room 222
Yorktown Heights, New York 10598

Re: Shrub Oak International School
3151 Stony Street
Section 26.05, Block 1, Lot 4

Dear Chairman Fon and Members of the Planning Board:

The Shrub Oak International School (School) is anticipating an increased enrollment for this fall and will require additional parking spaces be provided for their staff currently identified as Phase 2 of the Proposed Project Phasing Plan currently under review by the Planning Board. See Figure No. 1. These parking spaces are similar to those shown on the approved 2018 Site Plan. To allow the School to be able to provide the necessary parking for staff by this September, we respectfully request the Planning Board consider allowing the School to proceed to improve the additional parking in the area highlighted on the attached site plan.

We look forward to meeting with the Board to discuss the parking improvements and the proposed amendments at their June 27, 2022, meeting.

Very truly yours,

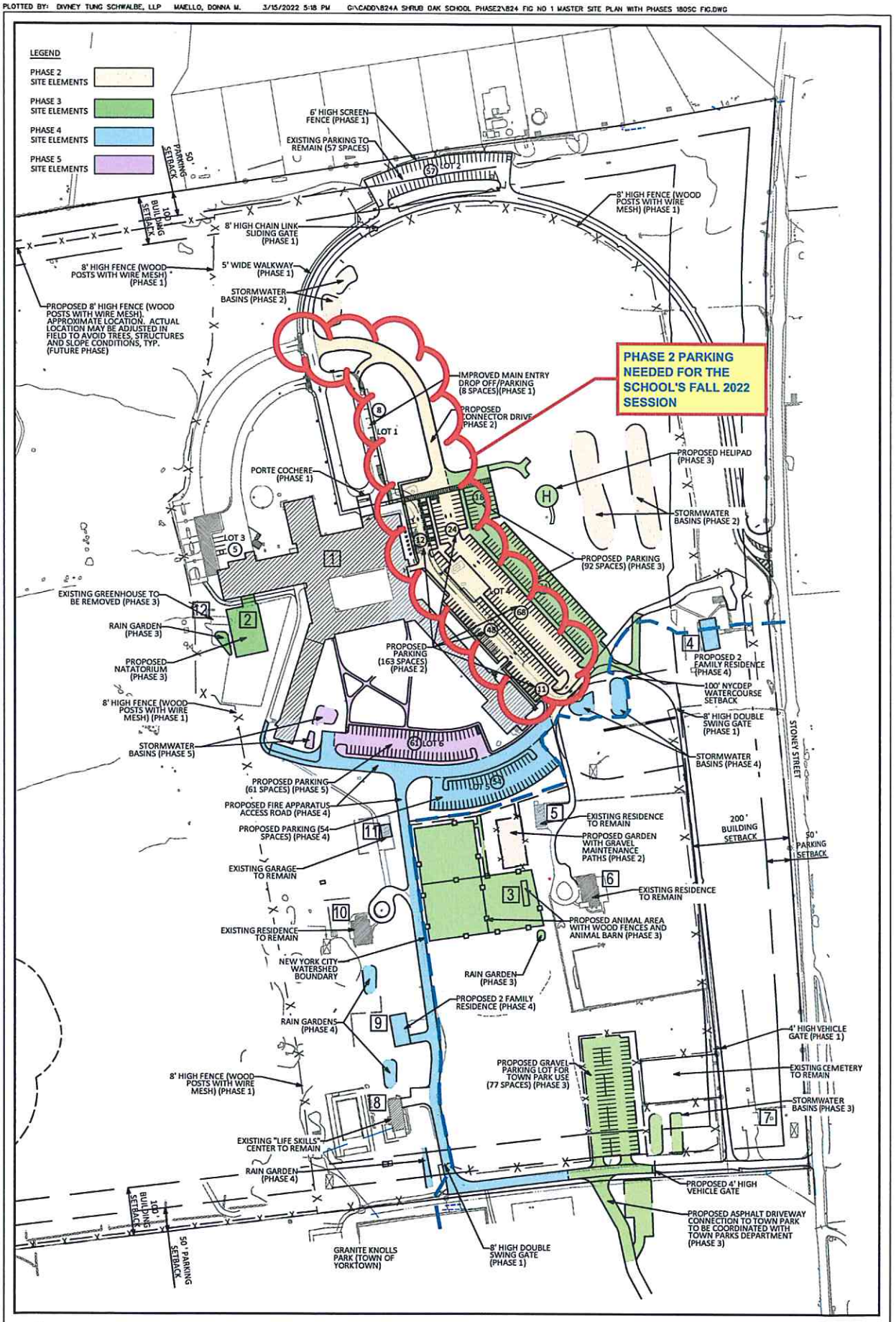
DTS Provident Design Engineering, LLP

Gerhard Schwalbe

Gerhard M. Schwalbe, PE
Partner

Enclosures
cc: Brian Koffler
David Steinmetz, Esq.
Erik Kaeyer, AIA
Donna Maiello, PLA

PLOTTED BY: DIVNEY TUNG SCHWALBE, LLP MAELLO, DONNA M. 3/15/2022 5:18 PM G:\CADD\824A SHRUB OAK SCHOOL PHASE2\824 FIG NO 1 MASTER SITE PLAN WITH PHASES 1805C FIG.DWG



N

0 90 180

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PROPOSED PROJECT PHASING PLAN

SHRUB OAK INTERNATIONAL SCHOOL
TOWN OF YORKTOWN, NY

FIGURE NO. 1
DATE: 03/16/22

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May 19, 2022

Ms. Robyn Steinberg
Yorktown Community and Cultural Center (YCCC)
1974 Commerce Street
Room 222
Yorktown Heights, NY 10598

Re: Shrub Oak International School
3151 Stony Street
Section 26.05, Block 1, Lot 4

Dear Ms. Steinberg,

Please find attached three copies of the Shrub Oak International School Site Plan, last dated May 18, 2022 and a Draft Stormwater Summary Report Dated May 13, 2022, for review by the Town Engineer, Dan Ciarcia, P.E. These plans include some minor changes to the stormwater systems based on the most recent soil tests that were conducted on March 22 and 23, 2022.

The information contained in the Report, supplements the previously completed Phase 1 SWPPP, dated April 20, 2018 and as approved by Michael Quinn, P.E. on May 30, 2018. The Report, once approved and including any revisions, will be inserted into an updated SWPPP for final acceptance by the Town Engineer.

Should you need any additional information please let us know.

Very Truly Yours,
DTS Provident Design Engineering, LLP

Gerhard Schwalbe

Gerhard M. Schwalbe, PE
Partner

cc: Brian Koffler
David Steinmetz, Esq.
Erik Kaeyer, AIA
Donna Maiello, ASLA, RLA

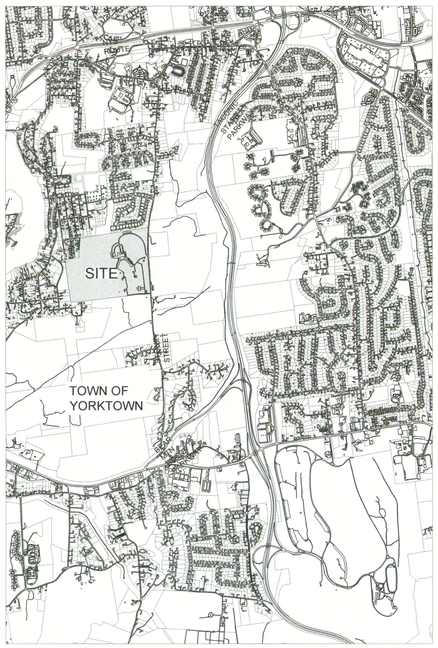
SHRUB OAK INTERNATIONAL SCHOOL

Town of Yorktown, New York

APPLICATION FOR SITE PLAN AMENDMENT

APRIL 6, 2018
REVISED: APRIL 20, 2018
REVISED: MAY 30, 2018 (Issued For Signature)

LOCATION MAP



Site Parcel ID: 26.05-1-4

ZONING COMPLIANCE ANALYSIS

ZONING COMPLIANCE TABLE (PHASE 1)

Address: 3151 Stoney Street, Shrub Oak, NY

Zoning District: Special Permit for Parochial, Private Elementary and High Schools, Colleges and Seminaries within R1-160

Tax Map Parcel ID: 26.5-1-4 & 26.6-1-2

Description	Required/ Permitted		Existing		Proposed	
Minimum Lot Area (SF)	160,000	sf	5,540,396	sf	5,540,396	sf
Minimum Lot Area (Acres)	32.89	ac	127.2	ac	127.2	ac
Junior High or High School	15	ac				
Dormitory (1000 sf/beds; 300 beds)	6.89	ac				
Single Family House (160,000 sf/house; 3 SF homes)	11.02	ac				
Minimum Lot Width at Main Building Line	200	ft	2,153	ft	2,153	ft
Minimum Lot Depth	200	ft	1,700	ft	1,700	ft
Front Yard (Street) Setback	200	ft	89 (a)	ft	89/200 (b)	ft
Side Yard/Rear Yard Setback	100	ft	50 (a)	ft	50/100 (b)	ft
Parking Setback	50	ft	12 (a)	ft	12/50 (c)	ft
Maximum Building Height						
Main building	35	ft	> 35 (a)	ft	>35/35 (b)	ft
Accessory Building or Structure	15	ft	>15 (a)	ft	>15/15 (b)	ft
Minimum Usable Floor Area of Dwelling Unit	1,200		NA		NA	
Maximum Building Coverage	20%		2%		2%	
Road Frontage	200	ft	NA		NA	
Junior High or High School	400	ft	2,234	ft	2,234	ft
College	500	ft	2,234	ft	2,234	ft
Required Parking Spaces	92 (d)	sp	108	sp	106	sp

Notes:

(a) There are existing non-conforming structures on site which are to remain.
(b) New buildings will meet setback requirements.
(c) New parking areas will meet setback requirements.
(d) Per 6/26/17 Approval Resolution, 344 parking spaces are required to serve 300 students.
In Phase 1, with up to 80 students (=26.7% of 300), the required number of parking spaces would be 92 spaces.

Source: Town of Yorktown, www.ecode360.com, 3/9/18.

LIST OF DRAWINGS

SITE DRAWINGS

APPROVED
on the 22 day of May 2018
Planning Board, Town of Yorktown, NY
by Resolution Number 18 - 04
Date 5-30-2018
Chairman

OWNER / APPLICANT
Shrub Oak International School
3151 Stoney Street
Shrub Oak, NY 10547

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3063 Route 9
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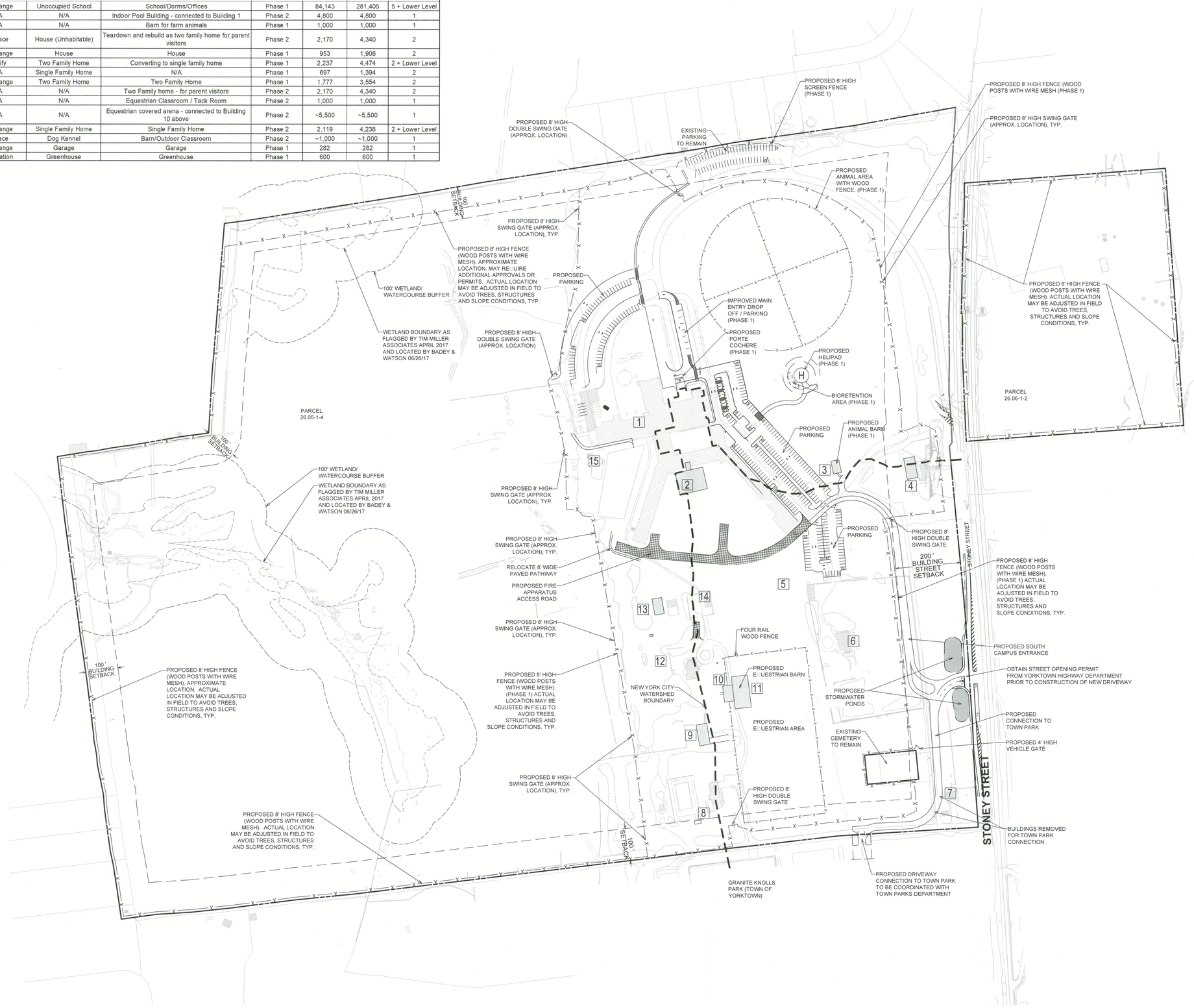
SUMMARY OF EXISTING AND PROPOSED CAMPUS BUILDINGS

BUILDING KEY	STRUCTURE STATUS	DISPOSITION	EXISTING OR PREVIOUS USE	PROPOSED USE	PROJECT PHASE	STRUCTURE FOOTPRINT (SF)	GROSS FLOOR AREA (SF)	NUMBER OF STORIES
1	Existing	No Change	Unoccupied School	School/Dorms/Offices	Phase 1	84,143	281,405	5 + Lower Level
2	Proposed	N/A	N/A	Indoor Pool Building - connected to Building 1	Phase 2	4,800	4,800	1
3	Proposed	N/A	N/A	Barn for farm animals	Phase 1	1,000	1,000	1
4	Existing	Replace	House (Unhabitable)	Teardown and rebuild as two family home for parent visitors	Phase 2	2,170	4,340	2
5	Existing	No Change	House	House	Phase 1	953	1,906	2
6	Existing	Modify	Two Family Home	Converting to single family home	Phase 1	2,237	4,474	2 + Lower Level
7	Demolished	N/A	Single Family Home	N/A	Phase 1	697	1,394	2
8	Existing	No Change	Two Family Home	Two Family Home	Phase 1	1,777	3,554	2
9	Proposed	N/A	N/A	Two Family home - for parent visitors	Phase 2	2,170	4,340	2
10	Proposed	N/A	N/A	Equestrian Classroom / Tack Room	Phase 2	1,000	1,000	1
11	Proposed	N/A	N/A	Equestrian covered arena - connected to Building 10 above	Phase 2	~5,500	~5,500	1
12	Existing	No Change	Single Family Home	Single Family Home	Phase 2	2,119	4,238	2 + Lower Level
13	Demolished	Replace	Dog Kennel	Barn/Outdoor Classroom	Phase 2	~1,000	~1,000	1
14	Existing	No Change	Garage	Garage	Phase 1	282	282	1
15	Existing	Restoration	Greenhouse	Greenhouse	Phase 1	600	600	1



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Town of Yorktown, New York

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BADEY & WATSON SURVEYING & ENGINEERING, P.C.
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Cold Spring, NY 10516

APPROVED
Resolution Number 18-04
Date May 22, 2018

N 0 60 120 240

SCALE: 1" = 120'

REVISIONS:

NO.	DATE	ISSUE
	04/20/18	REVISED PER PLAN REFINEMENTS
	05/30/18	ISSUED FOR PLANNING BOARD SIGNATURE

DRAWING TITLE:

MASTER SITE PLAN

STATE OF NEW YORK · GERARD MARTIN SMITH · 084469 · LICENSED PROFESSIONAL ENGINEER

DRAWN BY:	CHECKED BY:
SBK	GMS
PROJECT NO.	DATE:
824	04/06/18

DRAWING NO.

SP-0.0

NEW LIGHT, TYP.
6' HIGH WOOD SHADOWBOX FENCE
PARKING NOTIFICATION SIGN
EXISTING OVERFLOW PARKING AREA TO REMAIN RE-STRIPE AND IMPROVE EXISTING PAVEMENT AS REQUIRED
8' HIGH CHAIN DOUBLE SWING GATE
ENTRY NOTIFICATION SIGN (WHEN GATE IS CLOSED)
PARKING NOTIFICATION SIGN
4' WIDE SWING GATE (APPROX. LOCATION), TYP.
EXIST NOTIFICATION SIGN
NEW PROJECT SIGN
8' HIGH FENCE (WOOD POSTS WITH WIRE MESH), TYP.
4" DOUBLE YELLOW CENTER LINE
NEW FARM ANIMAL EDUCATION CENTER
NEW LIGHT, TYP.
NEW 5' WIDE CONCRETE SIDEWALK, TYP.
NEW CONCRETE CURB, TYP.
NEW LIGHT, TYP.
NEW PEDESTRIAN RAMP, TYP.
DIRECTIONAL SIGN
12" WIDE WHITE STOP BAR
NEW 6' WIDE CROSSWALK, TYP.
NEW 12" STOP BAR, TYP.
SWING GATE (APPROX. LOCATION), TYP.
EXISTING ASPHALT PAVEMENT TO REMAIN
NEW ASPHALT PAVEMENT, TYP.
NEW CONCRETE CURB, TYP.
NEW STRIPING, TYP.
EXISTING STRIPING TO BE REMOVED
EXISTING CONCRETE CURB TO BE REPLACED
8' HIGH FENCE (WOOD POSTS WITH WIRE MESH), TYP.
EXISTING DRAINAGE SWALE TO REMAIN
WHITE CROSS HATCHING
NEW PORT-COCHERE TO BE CONSTRUCTED AT FRONT ENTRANCE
EXISTING ASPHALT PAVEMENT TO REMAIN
EXISTING CONCRETE SIDEWALK TO BE REPLACED
NEW TRAFFIC SIGNAGE, TYP.
END NEW CURB
NEW LIGHT, TYP.
EXISTING FLAG POLE TO REMAIN
4" WHITE EDGE LINE THIS AREA
NEW 115' Ø FINAL APPROACH & TAKE OFF SAFETY AREA
NEW 85' Ø FINAL APPROACH & TAKE OFF AREA (FATO)
800 SF BIORETENTION AREA
NEW 46' Ø CONCRETE HELIPAD TOUCHDOWN AND LIFTOFF AREA (TLOF)
NEW SINGLE SOLID WHITE LINE, TYP.
NEW ASPHALT PAVEMENT, TYP.
ACCESSIBLE PARKING, TYP.
INFORMATIONAL SIGN
NEW ASPHALT WALKWAY / DRIVEWAY
TWO RAIL WOOD FENCE
NEW CONCRETE DUMPSTER PAD
FIRE TANK
8' WIDE DOUBLE SWING GATE (APPROX. LOCATION)
MAIN BUILDING ENTRANCE
BUILDING ENTRANCE
INFORMATIONAL SIGNAGE
EDGE OF EXISTING PAVEMENT
PAVEMENT TO BE OVERLAYED WITH 1 ½" ASPHALT
EXISTING LANDSCAPED COURTYARD
8' WIDE GRAVEL PATHWAY CONNECTION
EXTENT OF PHASE 1 INTERNAL BUILDING IMPROVEMENTS
EXISTING GREENHOUSE TO BE RENOVATED
ANIMAL BARN
5' WIDE GRAVEL PATH
NEW YORK CITY WATERSHED BOUNDARY
NEW YORK CITY WATERSHED BOUNDARY
4' WIDE SWING GATE (APPROX. LOCATION), TYP.
MATCHLINE (SEE SHEET SP-1.2)
MATCHLINE (SEE SHEET SP-1.2)
ROAD R.O.W. WIDENING STRIP (TYP.)
25' FROM CENTER LINE
STONEY STREET
NEW SIGN
NEW MOUNTABLE CONCRETE CURB MEDIAN
NEW STOP SIGN & KEEP RIGHT SIGN
NEW STRIPING (TYP.)

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Cold Spring, NY 10516

APPROVED
Resolution Number 18 - 04
Date May 22, 2018

N 0 20 40 80
SCALE: 1" = 40'

REVISIONS

NO.	DATE	ISSUE
1	04/20/18	REVISED PER PLAN REFINEMENTS
2	05/30/18	ISSUED FOR PLANNING BOARD SIGNATURE

DRAWING TITLE:

LAYOUT PLAN (PHASE 1 CONSTRUCTION)

STATE OF NEW YORK · BENJAMIN MARTIN SWALBE · 064469 · LICENSED PROFESSIONAL ENGINEER

DRAWN BY:	CHECKED BY:
SBK/RCC	GMS
PROJECT NO.	DATE:
824	04/06/18

DRAWING NO.

SP-1.1

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Town of Yorktown, New York

OWNER / APPLICANT

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Resolution Number 18-04
Date May 22, 2018

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SCALE: 1" = 40'

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STATE OF NEW YORK · GERHARD MARTIN SCHWALBE · 084469 · LICENSED PROFESSIONAL ENGINEER

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PROJECT NO. 824	DATE: 04/06/18

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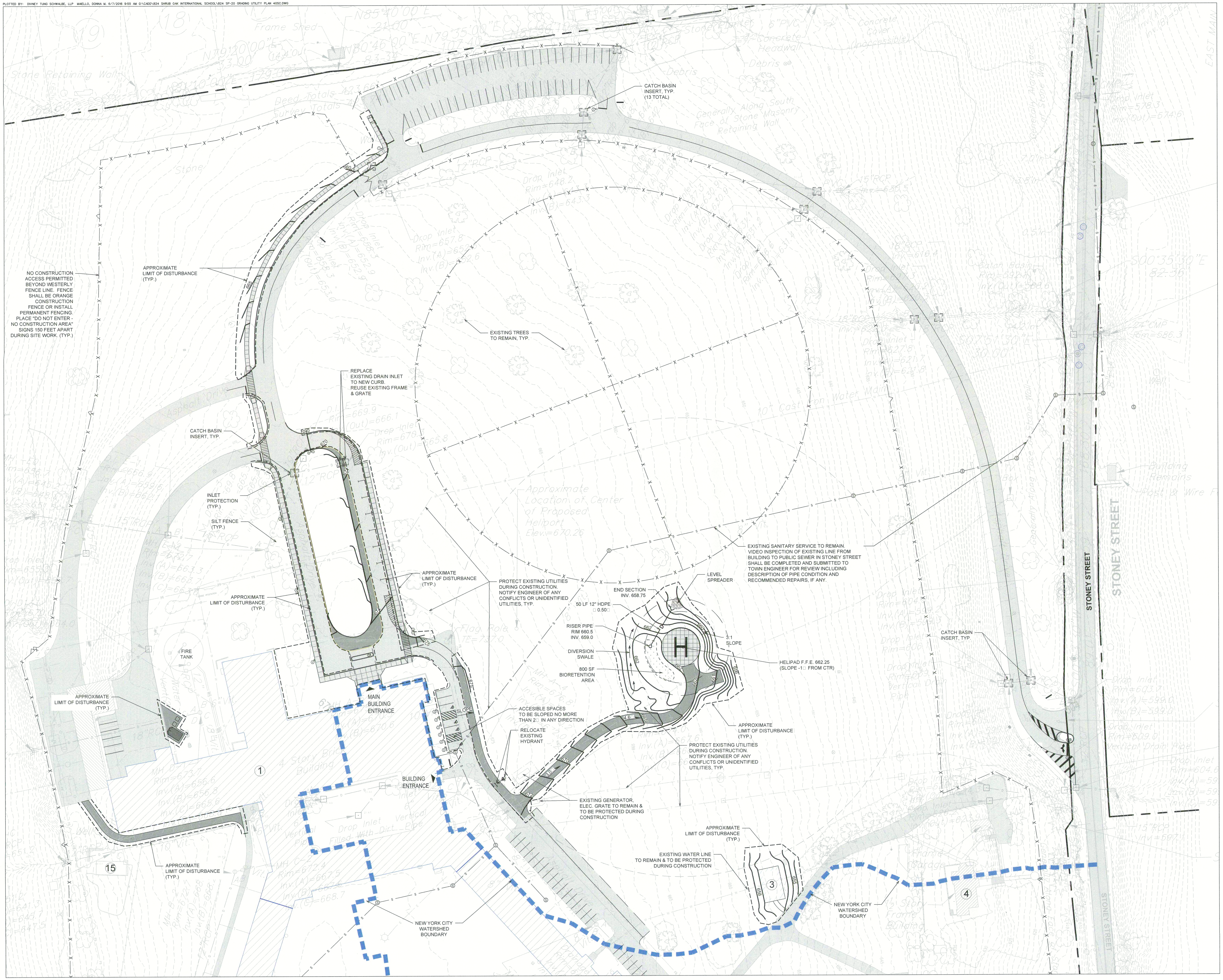
SP-1.2

PLOTTED BY: DIVNEY TUNG SCHWALBE, LLP MAIELLO, DONNA M. 6/7/2016 9:55 AM G:\CADD\824 SHRUB OAK INTERNATIONAL SCHOOL\824 SP-20 GRADING UTILITY PLAN 40SC.DWG



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DRAWING TITLE:

SITE GRADING AND UTILITY PLAN (PHASE 1 CONSTRUCTION)

STATE OF NEW YORK GERHARD MARTIN SCHWALBE 084469 LICENSED PROFESSIONAL ENGINEER

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PROJECT NO. 824	DATE: 04/06/18

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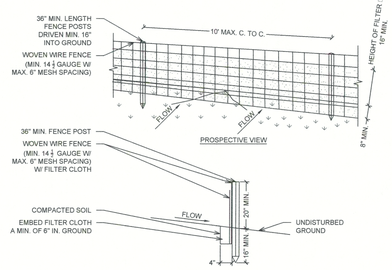
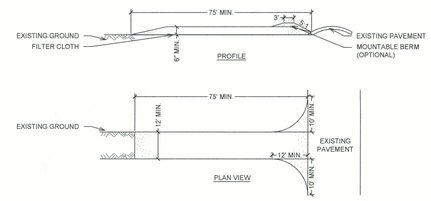


CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. FILTER CLOTH TO BE TO BE FASTENED SECURELY TO WOVEN WIRE. FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 12 ½ GAUGE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED E□UIVALENT.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED E□UIVALENT.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

SILT FENCE
SCALE: N.T.S.

1

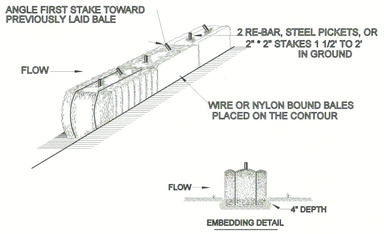


CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 2" MIN. STONE, OR RECLAIMED OR RECYCLED CONCRETE E□UIVALENT.
2. LENGTH - NOT LESS THAN 75 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS RE□UIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE
SCALE: N.T.S.

2

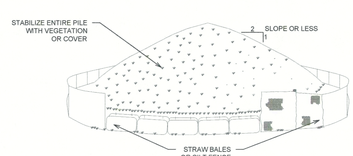


INSTALLATION NOTES

1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BAR ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.

HAY BALES
SCALE: N.T.S.

3



NOTE:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAW BALES, THEN STABILIZED AS NOTED.
4. TEMPORARILY STABILIZE AS NOTED IN SPECIFICATIONS.

SOIL STOCKPILING
SCALE: N.T.S.

4

1. DESCRIPTION OF WORK
PROVIDE ALL MEANS NECESSARY TO INSTALL, INSPECT AND MAINTAIN, AND REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE DRAWINGS AND AS RE□UIRED TO MINIMIZE THE EROSION AND UNSPECIFIED TRANSPORT OF SOIL FROM THE SITE.

2. □UALITY ASSURANCE
2.1. GENERAL
2.1.1. INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE DRAWINGS OR NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROLS - AUGUST 2005 OR LATEST REVISION THERETO.
2.1.2. GRADE AND MAINTAIN SITE AT ALL TIMES SUCH THAT ALL STORM WATER RUNOFF FROM DISTURBED AREAS IS DIVERTED TO SOIL EROSION AND SEDIMENTATION CONTROL FACILITIES.
2.1.3. NO CHANGES TO THE SOIL EROSION AND SEDIMENTATION CONTROL PLAN SHALL BE MADE WITHOUT APPROVAL OF THE OWNER'S REPRESENTATIVE. NO MORE THAN ONE ACRE OF SOIL CAN BE DISTURBED AT ANYTIME. ALL DISTURBED AREAS SHALL BE PROTECTED BY EROSION AND SEDIMENT CONTROL MEASURES.
2.1.4. THE CONTRACTOR SHALL COMPLY WITH APPLICABLE FEDERAL STATE, LOCAL REGULATIONS RELATING TO THE PREVENTION AND ABATEMENT OF POLLUTION.
2.2. PRODUCT DATA: SUBMIT MANUFACTURER'S CATALOGUE CUTS, SPECIFICATIONS AND INSTALLATION INSTRUCTIONS FOR SILT FENCES, FILTER FABRICS, EROSION CONTROL BLANKETS, TRASH RACKS, ANTI-SEEP COLLARS, SEDIMENT TRAP RISER AND BARREL PIPES, AND DEVIATERING DEVICES.

3. WORK SCHEDULE
3.1. PRE-CONSTRUCTION PHASE
3.1.1. INSTALL STABILIZED CONSTRUCTION ANTI-TRACKING PAD AT ALL CONSTRUCTION ENTRANCES MEETINGS A PAVED SURFACE.
3.1.2. PRIOR TO EARTHWORK OPERATIONS, INSTALL PERIMETER SILT FENCE AND STABILIZED CONSTRUCTION ENTRANCE.
3.1.3. PROTECT EXISTING UNDERGROUND UTILITIES AND STORM PIPE TO REMAIN IN PLACE MAINTAINING ELEVATIONS.
3.1.4. GRADE OUT TO LOW POINTS AND INSTALL AND MAINTAIN TEMPORARY DEWATERING SYSTEMS IF RE□UIRED.
3.1.5. COVER EXISTING OPEN GRATES ON STORM DRAIN STRUCTURES SHOWN TO REMAIN WITHIN THE STOCKPILE AREA TO PREVENT SOIL INTRUSION.
3.2. CONSTRUCTION PHASE
3.2.1. PROVIDE NECESSARY MEANS TO INSPECT AND MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES AS RE□UIRED TO MINIMIZE THE EROSION AND UNSPECIFIED TRANSPORT OF SOIL AND UNTIL THEIR REMOVAL AS SPECIFIED. INSPECT MEASURES DAILY AND WITHIN 24 HOURS OF THE END OF A 0.5 INCH OR GREATER STORM EVENT. STABILIZED AREAS WILL BE INSPECTED MONTHLY UNTIL THE ENTIRE SITE IS STABILIZED. MAINTENANCE SHOULD COMMENCE WITHIN 24 HOURS AND BE COMPLETED WITHIN 5 CALENDAR DAYS OF DETERMINING ITS NEED.
3.2.2. PROVIDE NECESSARY DUST CONTROL WITH WATER AND/OR WIND BARRIERS TO MINIMIZE FUGITIVE DUST
3.2.3. KEEP PAVED SURFACES SWEPT CLEAN AT ALL TIMES
3.2.4. TEMPORARILY STABILIZE AS SPECIFIED AND AS RE□UIRED ALL INACTIVE AREAS TO REDUCE DISTURBED AREAS.
3.2.5. FOLLOWING FINISH GRADING, INSTALL TEMPORARY OR PERMANENT STABILIZATION.
3.2.6. POST CONSTRUCTION PHASE:
3.2.6.1. STABILIZE WATERSHED AND HAVE OWNER'S REPRESENTATIVE REVIEW AND APPROVE.
3.2.6.2. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE TO REMAIN IN PLACE PENDING START OF PERMANENT CONSTRUCTION ON-SITE OR AS OTHERWISE DIRECTED BY EITHER THE OWNER'S REPRESENTATIVE AND VILLAGE ENGINEER.

4. PRODUCTS AND EXECUTION
4.1. NO PUMPING OR DEWATERING INTO THE EXISTING STORM SEWER MAIN WITHOUT PRE-FILTERING.
4.2. SILT FENCE: SILT FENCE FABRIC SHALL BE MIRAFI 100X OR E□UAL. WOOD POSTS SHALL BE OF SOUND □UALITY HARDWOOD, A MINIMUM 36 INCHES LONG AND TWO INCHES S□UARE. METAL POSTS SHALL BE STANDARD T AND U SECTION WEIGHING NOT LESS THAN ONE POUND PER LINER FOOT. WIRE FENCE BACKING SHALL BE A MINIMUM 14 GAGE WITH A MAXIMUM SIX INCH MESH OPENING AND SECURELY ATTACHED TO FENCE POSTS. POSTS SHALL EXTEND A MINIMUM OF 12 INCHES INTO THE GROUND.
4.3. STABILIZED CONSTRUCTION ENTRANCE: THE FILTER FABRIC SHALL BE MIRAFI 600X OR E□UAL. THE CONTRACTOR SHALL BE KEEP THE ROADWAYS WITHIN THE PROJECT CLEAR OF SOIL AND DEBRIS AND IS RESPONSIBLE FOR ANY STREET CLEANING NECESSARY DURING THE COURSE OF THE PROJECT.
4.4. TEMPORARY STABILIZATION:
4.4.1. ESTABLISHMENT OF TEMPORARY GRASS COVER: PREPARE SEED BED, SCARIFY IF COMPACTED, REMOVE DEBRIS AND OBSTACLES SUCH AS ROCKS AND STUMPS, AND SEED WITHIN 24 HOURS. AMEND SOIL, LIME SOIL TO PH OF 6.0 AND FERTILIZE AT A RATE OF 14 LBS. PER 1,000 S□UARE FEET WITH A 5-10-10 OR E□UIVALENT FERTILIZER. WORK AMENDMENTS AS A MINIMUM OF 4 INCHES INTO SOIL. IF SEEDING IN OCTOBER / NOVEMBER SEED SHALL BE CERTIFIED AROOSTOOK WINTER RYE □ 100 LBS. PER ACRE, OTHERWISE SEED SHALL BE RYEGRASS (ANNUAL OR PERENNIAL) □ 30 LBS. PER ACRE.
4.4.2. TREAT ALL DISTURBED AREAS WITHIN 500 FEET OF AN INHABITED BUILDING AS NECESSARY TO PROVIDE DUST CONTROL. CONFORM TO ALL LOCAL AND STATE REGULATIONS GOVERNING THESE ACITIVITIES.
4.4.3. INSTALL TEMPORARY STABILIZATION WITHIN 24 HOURS AFTER THE END OF CONSTRUCTION ACTIVITIES IN AN AREA UNLESS THERE IS SNOW COVER OR CONSTRUCTION ACTIVITIES WILL RESUME WITHIN 14 DAYS.
4.4.4. CONSTRUCTION VEHICLES: WASH DOWN ALL CONSTRUCTION VEHICLES AND COVER WITH TARPAULINS AS NECESSARY TO PREVENT VEHICLE TRANSPORT OF SEDIMENT OFF-SITE.
4.4.5. PROVIDE MEASURES FOR TRUCK AND TOOL WASH WATER TO BE TREATED PRIOR TO DISCHARGE TO NATURAL AREAS.
4.4.6. NO UNFILTERED DISCHARGE FROM ANY STABILIZED AREA SHALL BE ALLOWED TO ENTER ANY PERMANENT DRAINAGE OR FILTRATION FACILITIES.

EROSION & SEDIMENT CONTROL SPECIFICATIONS
SCALE: N.T.S.

8

- CONSTRUCTION OPERATIONS SHOULD BE SCHEDULES TO MINIMIZE THE AMOUNT OF AREA DISTURBED AT ONE TIME.
- BUFFER AREAS OF VEGETATION SHOULD BE LEFT WHERE PRACTICAL.
- TEMPORARY OR PERMANENT STABILIZATION MEASURES SHALL BE INSTALLED.

A. NON-DRIVING AREAS
THESE AREAS USE PRODUCTS AND MATERIALS APPLIED OR PLACED ON SOIL SURFACES TO PREVENT AIRBORNE MIGRATION OF SOIL PARTICLES.

1.VEGETATIVE COVER

FOR DISTURBED AREAS NOT SUBJECT TO TRAFFIC, VEGETATION PROVIDES THE MOST PRACTICAL METHOD OF DUST CONTROL.

2.MULCH (INCLUDING GRAVEL MULCH)

MULCH OFFERS A FAST EFFECTIVE MEANS OF CONTROLLING DUST. THIS CAN ALSO INCLUDE ROLLED EROSION CONTROL BLANKETS.

B. DRIVING AREAS
THESE AREAS UTILIZE WATER AND BARRIERS TO PREVENT DUST MOVEMENT FROM THE TRAFFIC SURFACES INTO THE AIR.

1. SPRINKLING
THE SITE MAY BE SPRAYED WITH WATER UNTIL THE SURFACE IS WET. THIS IS ESPECIALLY EFFECTIVE ON HAUL ROADS AND ACCESS ROUTES.

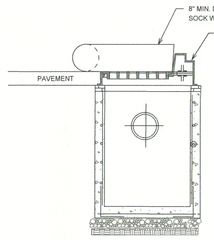
2. BARRIERS
WOVEN GEOTEXTILES CAN BE PLACED ON THE DRIVING SURFACE TO EFFECTIVELY REDUCE DUST THROW AND PARTICLE MIGRATION ON HAUL ROADS. STONE CAN ALSO BE USED FOR CONSTRUCTION ROADS FOR EFFECTIVE DUST CONTROL.

3. WINDBREAK
A SILT FENCE OR SIMILAR BARRIER CAN CONTROL AIR CURRENT A INTERVALS EQUAL TO TEN TIMES THE BARRIER HEIGHT. PRESERVE EXISTING WIND BARRIER VEGETATION AS MUCH AS PRACTICAL.

MAINTENANCE
MAINTAIN DUST CONTROL MEASURES THROUGH DRY WEATHER PERIODS UNTIL ALL DISTURBED AREAS ARE STABILIZED

DUST CONTROL NOTES
SCALE: N.T.S.

5

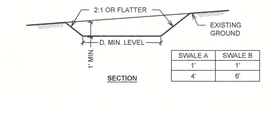


CATCH BASIN INLET PROTECTION
SCALE: N.T.S.

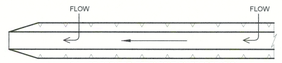
6

INSTALLATION NOTES:

1. ALL TEMPORARY SWALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
2. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO SEDIMENT TRAPPING DEVICE.
3. DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITY.
4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
5. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE AND CROSS SECTION AS RE□UIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
6. FILLS SHALL BE COMPACTED BE EARTH MOVING E□UIPMENT.
7. ALL EARTH REMOVED AND NOT NEEDED FOR CONSTRUCTION SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE FUNCTIONING OF THE SWALE.
8. INSPECTION AND MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.
9. STABILIZATION SHALL BE AS PER THE CHART BELOW.



SWALE A	SWALE B
1'	1'
4'	6'



PLAN OUTLET AS RE□UIRED SEE ITEM 8 BELOW

FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL GRADE	A (5 AC. OR LESS)	B (5 AC. - 10 AC.)
1	0 - 3.0□	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0□	SEED AND STRAW MULCH	SEED AND JUTE MESH LINED - RIPRAP 2"
3	5.1-8.0□	SEED AND JUTE MESH LINED - RIPRAP 2")	LINED - RIPRAP 4-8"
4	8.1-20□	LINED - RIPRAP 4-8"	ENGINEERED DESIGN

TEMPORARY DIVERSION SWALE
SCALE: N.T.S.

7

TITLE
SCALE: N.T.S.

9

TITLE
SCALE: N.T.S.

10

TITLE
SCALE: N.T.S.

11

TITLE
SCALE: N.T.S.

12

TITLE
SCALE: N.T.S.

13

TITLE
SCALE: N.T.S.

14

TITLE
SCALE: N.T.S.

15

SHRUB OAK INTERNATIONAL SCHOOL

Town of Yorktown, New York

OWNER / APPLICANT

SHRUB OAK INTERNATIONAL SCHOOL
3151 Stoney Street
Shrub Oak, NY 10547

PLANNER, CIVIL ENGINEER, LANDSCAPE ARCHITECT

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BADEY & WATSON SURVEYING & ENGINEERING, P.C.
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Cold Spring, NY 10516

APPROVED
Resolution Number 18 - 04
Date May 22, 2018

REVISIONS

NO.	DATE	ISSUE
	05/30/18	ISSUED FOR PLANNING BOARD SIGNATURE

DRAWING TITLE:

EROSION AND SEDIMENT CONTROL DETAILS (PHASE 1 CONSTRUCTION)

STATE OF NEW YORK · LICENSED · GERARD MARTIN SCHNEIDER · 084469 · PROFESSIONAL ENGINEER

DRAWN BY:	CHECKED BY:
SBK	GMS
PROJECT NO.	DATE:
824	04/06/18

DRAWING NO.

SP-5.2

EXISTING TREE TO REMAIN, TYP.

PROPOSED EVERGREEN SHRUBS

5 PP
7 PG

3 IM 2 IM 3 PP

5 PO
3 PG

5 PP

6 PG
7 JV

5 PO

8 PO

3 PG
3 IA

3 JV

5 PG
3 PP

LIMIT OF DISTURBANCE

BUFFER SCREENING - IN THE AREA BETWEEN THE EXISTING PARKING AREA AND THE PROPERTY LINE A SCREEN BUFFER SHALL BE PROVIDED. THE SCOPE OF THE WORK WILL INCLUDE THE FOLLOWING,

1. REMOVE ALL DEAD TREES, INVASIVE PLANT SPECIES, LEAF LITTER AND DEBRIS
2. SUPPLEMENT AREA WITH CLEAN TOPSOIL TO CREATE A UNIFORM PLANTING AREAS WHERE POSSIBLE
3. PLANT NEW EVERGREEN TREES IN BETWEEN EXISTING TREES. ADJUSTMENT TO TREE LOCATIONS WILL BE RE□UIRED TO AVOID DISTURBING EXISTING TREES
4. INSTALL NEW 6FT HIGH SHADOW BOX FENCE GENERALLY 4 FEET FROM THE CURB LINE.
5. PROVIDE 6 INCHES OF MULCH OVER ENTIRE AREA

MEADOW / LAWN TO REMAIN

EXISTING TREE TO REMAIN, TYP.

ALL NEW AND DISTURBED LAWN AREAS TO BE POWER RAKED, TOPSOILED, SEEDED AND MULCHED WITH SUN/SHADE MIX, TYP.

LIMIT OF DISTURBANCE

LANDSCAPED AREA WITH SHRUBS, PERENNIALS & ORNAMENTAL GRASSES

FOUNDATION PLANTING

LIMIT OF DISTURBANCE

BIORETENTION AREA

ALL NEW AND DISTURBED LAWN AREAS TO BE POWER RAKED, TOPSOILED, SEEDED AND MULCHED WITH SUN/SHADE MIX, TYP.

MEADOW / LAWN TO REMAIN

EXISTING TREES TO BE REMOVED (TYP.)

ALL NEW AND DISTURBED LAWN AREAS TO BE POWER RAKED, TOPSOILED, SEEDED AND MULCHED WITH SUN/SHADE MIX, TYP.

STONEY STREET

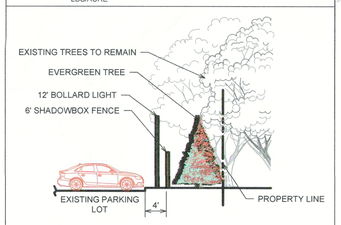
PLANT SCHEDULE

EVERGREEN TREES	□TY.	BOTANICAL NAME / COMMON NAME	SIZE
IA	3	ILEX OPACA / AMERICAN HOLLY	6' - 8' HGT.
IM	5	ILEX X MESEREAE / DRAGON LADY HOLLY	6' - 8' HGT.
JV	10	JUNIPERUS VIRGINIANA / EASTERN RED CEDAR	8' - 10' HGT.
PG	24	PICEA GLAUCA / WHITE SPRUCE	8' - 10' HGT.
PO	18	PICEA OMORIKA / SERBIAN SPRUCE	8' - 10' HGT.
PP	16	PICEA PUNGENS / COLORADO SPRUCE	8' - 10' HGT.

NOTE:
FINAL POSITION OF TREES TO BE DETERMINED IN FIELD BY LANDSCAPE ARCHITECT

BIORETENTION AREA SEED MIX

BIORETENTION AREA SEED MIX — 802 SF
RETENTION BASIN FLOOR MIX - LOW MAINTENANCE AS SUPPLIED BY ERNST SEED (ERNMX-126). SEED AT 1 LB PER 1000 S□. FT. WITH SECALE CEREALE/GRAIN RYE AS COVER CROP. SEED AT 30 LBS/ACRE



SECTION A

SHRUB OAK INTERNATIONAL SCHOOL

Town of Yorktown, New York

OWNER / APPLICANT

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3063 Route 9
Cold Spring, NY 10516

APPROVED
Resolution Number 18-04
Date May 22, 2018

N 0 20 40 80

SCALE: 1" - 40'

REVISIONS

NO.	DATE	ISSUE
	05/30/18	ISSUED FOR PLANNING BOARD SIGNATURE

DRAWING TITLE:

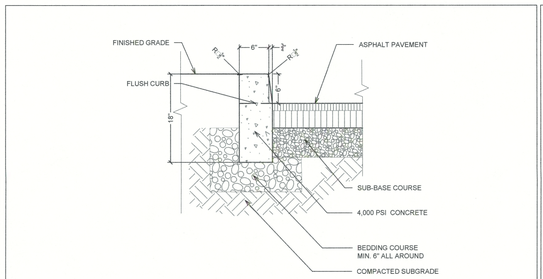
LANDSCAPE PLAN (PHASE 1 CONSTRUCTION)

STATE OF NEW YORK · EDWARD MARTIN SCHWALBE III · LICENSED PROFESSIONAL ENGINEER · 064469

DRAWN BY:	CHECKED BY:
SBK	GMS
PROJECT NO.	DATE:
824	04/06/18

DRAWING NO.

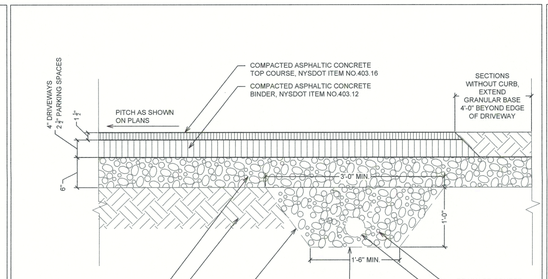
SP-3.0



NOTE:
1. EXPOSED SURFACES TO HAVE BROOM FINISH
2. PROVIDE ½" PREMOLDED EXPANSION JOINT AND SEALANT EVERY 20' O.C.
3. PROVIDE ½" PREMOLDED EXPANSION JOINT AND SEALANT WHEN CONCRETE PAVEMENT ABUTS CONCRETE CURB
4. MOUNTABLE CONCRETE CURBS TO BE NYSDOT MODEL M150, 9" WIDE, 2" VERTICAL, 6" EXPOSED REVEAL HEIGHT, 18" TOTAL HEIGHT

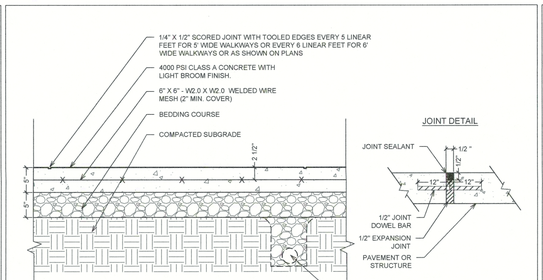
CONCRETE CURB
SCALE: N.T.S.

1



NEW ASPHALT PAVEMENT
SCALE: N.T.S.

2

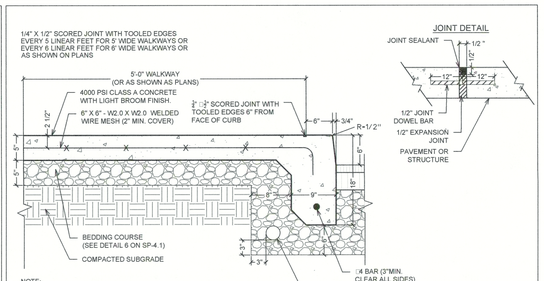


NOTE:
EXPANSION JOINTS WITH JOINT SEALANT TO BE SPACED AT 20' O.C. FOR 5' WIDE WALKWAYS AND 24' O.C. FOR 6' WIDE WALKWAYS PROVIDE 1/2" EXPANSION JOINT WITH SEALANT BETWEEN CONCRETE WALKWAYS AND CONCRETE CURBS AND STRUCTURES

USE INTEGRAL CURB AND SIDEWALK DETAIL WHERE CURB ADJACENT TO WALKWAY

CONCRETE PAVEMENT (SIDEWALK)
SCALE: N.T.S.

3



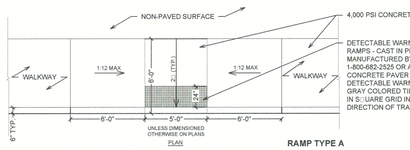
NOTE:
EXPANSION JOINTS WITH JOINT SEALANT TO BE SPACED AT 20' O.C. FOR 5' WIDE WALKWAYS AND 24' O.C. FOR 6' WIDE WALKWAYS

PROVIDE 1/2" EXPANSION JOINT WITH SEALANT BETWEEN ABUTTING CONCRETE WALKWAYS, CONCRETE CURBS, BUILDINGS AND OTHER STRUCTURES.

INTEGRAL CURB AND SIDEWALK TO BE INSTALLED WHEREVER CONCRETE CURB AND CONCRETE WALKWAY ARE ADJACENT INCLUDING AT ACCESSIBLE RAMPS (WHERE CURB WOULD BE FLUSH WITH GRADE PER PEDESTRIAN RAMP DETAILS).

INTEGRAL CURB AND SIDEWALK
SCALE: N.T.S.

4



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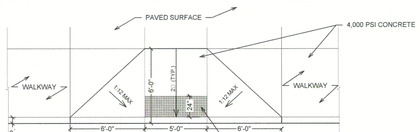

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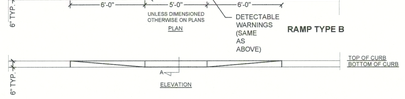

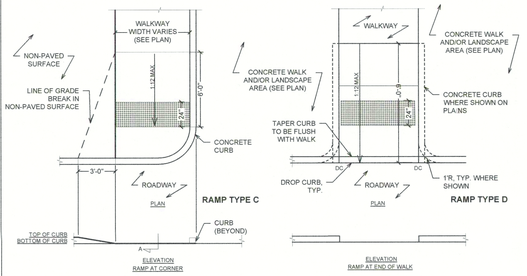

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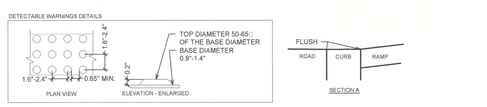


PEDESTRIAN RAMPS
SCALE: N.T.S.

9

2.1 SOIL MATERIALS (SEE SPECIFICATION 312010 FOR COMPETE SOIL MATERIAL AND EARTHWORK INFORMATION)

A. GENERAL: PROVIDE BORROW SOIL MATERIALS WHEN SUFFICIENT SATISFACTORY SOIL MATERIALS ARE NOT AVAILABLE FROM EXCAVATIONS.

B. SATISFACTORY SOILS: SOIL CLASSIFICATION GROUPS GW, GP, GM, SW, AND SP ACCORDING TO ASTM D 2487, OR A COMBINATION OF THESE GROUPS□FREE OF ROCK OR GRAVEL LARGER THAN 3 INCHES IN ANY DIMENSION, DEBRIS, WASTE, FROZEN MATERIALS, VEGETATION, AND OTHER DELETERIOUS MATTER.

C. UNSATISFACTORY SOILS: SOIL CLASSIFICATION GROUPS SM, GC, SC, CL, ML, OL, CH, MH, OH, AND PT ACCORDING TO ASTM D 2487, OR A COMBINATION OF THESE GROUPS.
1. UNSATISFACTORY SOILS ALSO INCLUDE SATISFACTORY SOILS NOT MAINTAINED WITHIN 2 PERCENT OF OPTIMUM MOISTURE CONTENT AT TIME OF COMPACTION.
2. UNSATISFACTORY MATERIALS ALSO INCLUDE MATERIALS BELOW STRUCTURES AND/OR FOUNDATIONS DETERMINED BY OWNER'S REPRESENTATIVES TO BE UNSATISFACTORY BEARING MATERIALS.

D. SUBBASE COURSE: NATURALLY OR ARTIFICIALLY GRADED MIXTURE OF NATURAL OR CRUSHED GRAVEL, CRUSHED STONE, AND NATURAL OR CRUSHED SAND□MEETING NYSDOT SPECIFICATION FOR NYSDOT ITEM 304.11 SUBBASE COURSE TYPE I. THE USE OF RECYCLED MATERIAL FROM ANY OFF-SITE SOURCE WILL NOT BE PERMITTED AND RECYCLED MATERIAL FROM ONSITE DEMOLITION MAY NOT BE USED WITHOUT WRITTEN AUTHORIZATION FROM THE OWNER.

E. STRUCTURAL FILL: NATURALLY OR ARTIFICIALLY GRADED MIXTURE OF NATURAL OR CRUSHED GRAVEL, CRUSHED STONE, AND NATURAL OR CRUSHED SAND□ASTM D 2940□WITH AT LEAST 90 PERCENT PASSING A 1-½" (37.5-MM) SIEVE AND NOT MORE THAN 12 PERCENT PASSING A NO. 200 (0.075-MM) SIEVE.

F. BEDDING COURSE: NATURALLY OR ARTIFICIALLY GRADED MIXTURE OF NATURAL OR CRUSHED GRAVEL, CRUSHED STONE, AND NATURAL OR CRUSHED SAND□ASTM D 2940□EXCEPT WITH 100 PERCENT PASSING A 1-INCH (25-MM) SIEVE AND 0 TO 5 PERCENT PASSING A NO.8 (2.36-MM) SIEVE.

G. DRAINAGE COURSE: NARROWLY GRADED MIXTURE OF WASHED CRUSHED STONE, OR CRUSHED OR UNCRUSHED GRAVEL□ASTM D 448□: COARSE-AGGREGATE GRADING SIZE 57□WITH 100 PERCENT PASSING A 1-½" (37.5-MM) SIEVE AND 0 TO 5 PERCENT PASSING A NO.8 (2.36-MM) SIEVE.

H. FILTER MATERIAL: NARROWLY GRADED MIXTURE OF NATURAL OR CRUSHED GRAVEL, OR CRUSHED STONE AND NATURAL SAND□ASTM D 448□ COARSE-AGGREGATE GRADING SIZE 67□WITH 100 PERCENT PASSING A 1" (25-MM) SIEVE AND 0 TO 5 PERCENT PASSING A NO.4 (4.75-MM) SIEVE.

I. TRAP ROCK: NARROWLY GRADED MIXTURE OF WASHED CRUSHED STONE ASTM D 448□COARSE-AGGREGATE GRADING SIZE 1□WITH 100 PERCENT PASSING A 4-INCH (100-MM) SIEVE AND 0 TO 15 PERCENT PASSING A 1-½" (37.5-MM) SIEVE.

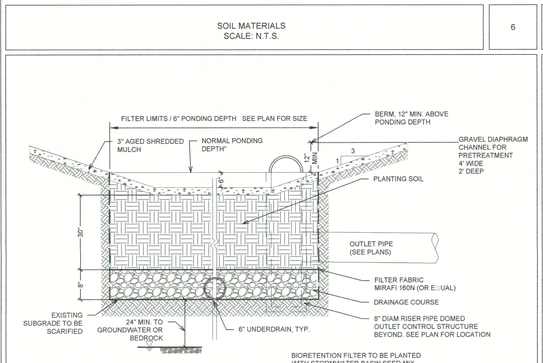
J. SAND: ASTM C 33□FINE AGGREGATE.

K. TOPSOIL□SEE PLANTING MEDIA PREPARATION AND PLACEMENT SPECIFICATION.

L. RECYCLED IMPORT MATERIAL NOT PERMITTED ONSITE WITHOUT WRITTEN APPROVAL BY TOWN OF CORTLANDT.

SOIL MATERIALS
SCALE: N.T.S.

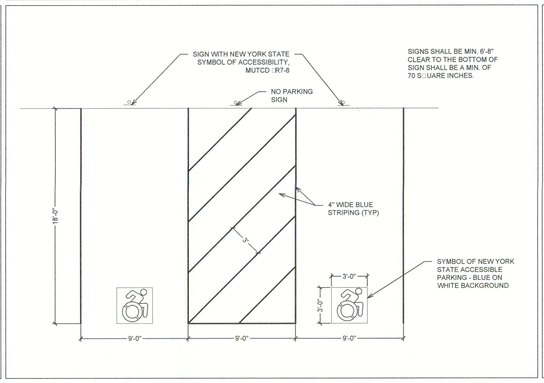
6



BIORETENTION FILTER TO BE PLANTED WITH STORMWATER BASIN SEED MIX. SEE SITE LANDSCAPE PLAN.

STORMWATER BIORETENTION FILTER
SCALE: N.T.S.

10



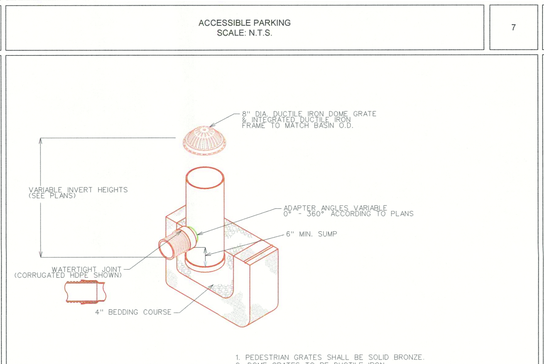
ACCESSIBLE PARKING
SCALE: N.T.S.

7

INTENTIONALLY BLANK

DETAIL
SCALE: N.T.S.

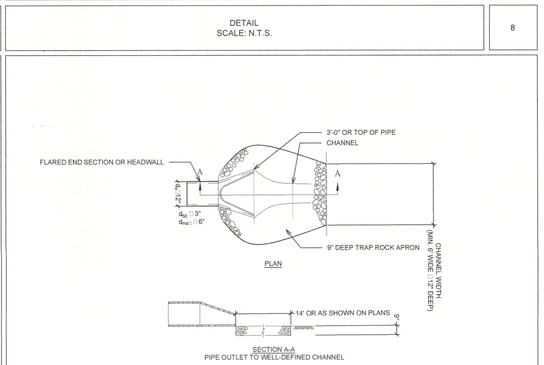
8



1. PEDESTRIAN GRATES SHALL BE SOLID BRONZE.
2. DOME GRATES TO BE DUCTILE IRON.
3. FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
4. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS.
5. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP□ & PVC SEWER.
6. DRAIN BASINS AS MANUFACTURED BY NYOPLAST OR APPROVED EQUAL.

OUTLET CONTROL STRUCTURE
SCALE: N.T.S.

11



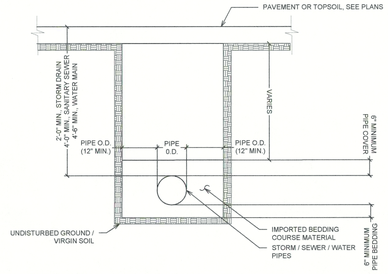
END SECTION ENERGY DISSIPATOR
SCALE: N.T.S.

12

NOTE:
ALL PAINTED CROSSWALK MARKINGS SHALL BE WHITE.

PEDESTRIAN CROSSWALK
SCALE: N.T.S.

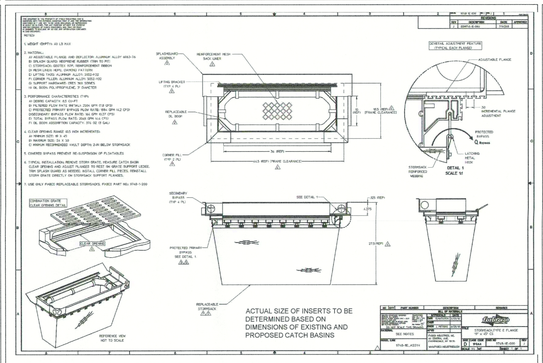
13



NOTES:
1. WHEN PIPES ARE TO BE INSTALLED IN FILL SECTIONS, THE CONTRACTOR SHALL INSTALL CRUSHED STONE, GRAVEL OR APPROVED STRUCTURAL FILL.
2. BACKFILL TO 95□ RELATIVE MATERIAL COMPACTED DRY DENSITY AT OPTIMUM MOISTURE UNDER PAVED AREAS AND 90□ UNDER LANDSCAPED AREAS (TYP.)
3. BACKFILL WITH 90PSI FLOWABLE CONCRETE IN TOWN R.O.W. (K-CRETE)
4. K-CRETE BACKFILL SHALL BE USED IN ALL TRENCHING (SANITARY SEWER AND WATER MAIN) LOCATED WITHIN THE EXISTING PAVEMENT. PRIOR TO THE PLACEMENT OF THE K-CRETE BACKFILL, THE PIPE SHALL BE SURROUNDED WITH A MINIMUM OF 12-INCHES OF NYSDOT ITEM 304.05 OR CLEAN SAND AS DIRECTED BY THE UTILITY OWNER. THE REMAINDER OF THE TRENCH (UP TO THE BOTTOM OFPAVEMENT SECTION) SHALL THEN CONSIST OF K-CRETE.
5. REFER ALSO TO DETAIL 5, SHEET CD-8.1 (SAW-CUT PAVEMENT KEY-IN) FOR TRENCHING WITHIN EXISTING PAVEMENT.

TRENCH DETAIL (STORM / SEWER / WATER)
SCALE: N.T.S.

14

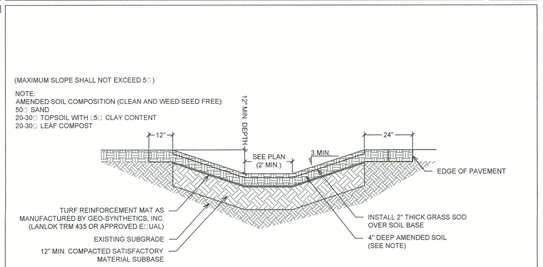


CATCH BASIN INSERT
SCALE: N.T.S.

15

(MAXIMUM SLOPE SHALL NOT EXCEED 5□)

NOTE:
AMENDED SOIL COMPOSITION (CLEAN AND WEED SEED FREE):
50□ SAND
20-30□ TOPSOIL WITH □5□ CLAY CONTENT
20-30□ LEAF COMPOST



GRASS SWALE
SCALE: N.T.S.

15

SHRUB OAK INTERNATIONAL SCHOOL

Town of Yorktown, New York

OWNER / APPLICANT

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PLANNER, CIVIL ENGINEER, LANDSCAPE ARCHITECT

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Cold Spring, NY 10516

APPROVED
Resolution Number 18 .04
Date May 22, 2018

REVISIONS

NO.	DATE	ISSUE
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	05/30/18	ISSUED FOR PLANNING BOARD SIGNATURE

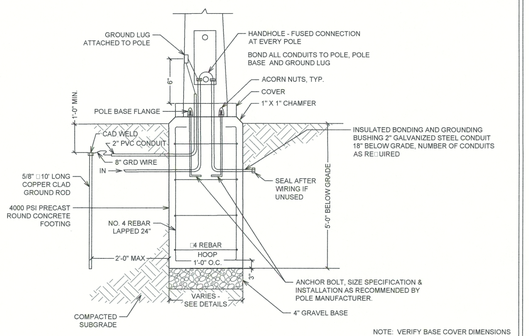
DRAWING TITLE:

SITE AND UTILITY DETAILS (PHASE 1 CONSTRUCTION)

DRAWN BY:	CHECKED BY:
SBK	GMS
PROJECT NO.	DATE:
824	04/06/18

DRAWING NO.

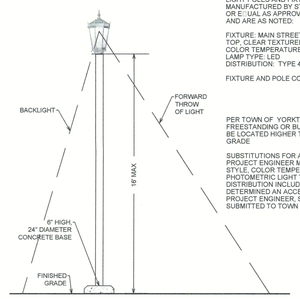
SP-4.1



NOTE: VERIFY BASE COVER DIMENSIONS PRIOR TO POLE BASE FABRICATION

LIGHT POLE FOUNDATION
SCALE: N.T.S.

1



LIGHT POLES AND FIXTURES SHALL BE AS MANUFACTURED BY STERNBERG LIGHTING OR E□UAL AS APPROVED BY PROJECT ENGINEER AND ARE AS NOTED:

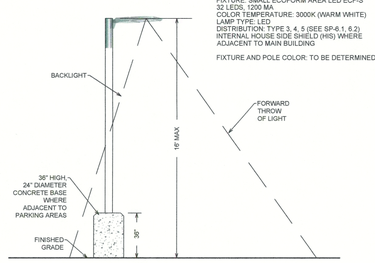
FIXTURE: MAIN STREET SERIES, MS80SALED, POST TOP, CLEAR TEXTURED ACRYLIC (CTA) LENS
COLOR TEMPERATURE: 3000K
LAMP TYPE: LED
DISTRIBUTION: TYPE 4

FIXTURE AND POLE COLOR: BLACK

PER TOWN OF YORKTOWN ZONING CODE (200-6), NO FREESTANDING OR BUILDING MOUNTED LIGHTS MAY BE LOCATED HIGHER THAN 16' ABOVE FINISHED GRADE

SUBSTITUTIONS FOR APPROVAL REVIEW BY PROJECT ENGINEER MUST HAVE SIMILAR FIXTURE STYLE, COLOR TEMPERATURE AND SIMILAR PHOTOMETRIC LIGHT TEMPLATE/ FOOTCANDLE DISTRIBUTION INCLUDING B-U-G RATING. IF DETERMINED AN ACCEPTABLE SUBSTITUTION BY PROJECT ENGINEER, SUBSTITUTION TO BE SUBMITTED TO TOWN FOR REVIEW AND APPROVAL.

MAIN ENTRANCE OVAL AREA LIGHTING (STERNBERG)

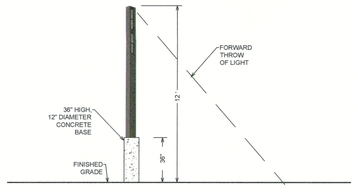


LIGHT POLES AND FIXTURES SHALL BE AS MANUFACTURED BY PHILIPS GARDCO OR E□UAL AS APPROVED BY PROJECT ENGINEER AND ARE AS NOTED:

FIXTURE: SMALL ECOFORM AREA LED ECF-S
32 LEDS, 1200 MA
COLOR TEMPERATURE: 3000K (WARM WHITE)
LAMP TYPE: LED
DISTRIBUTION: TYPE 3, 4, 5 (SEE SP-6.1, 6.2)
INTERNAL HOUSE SIDE SHIELD (HIS) WHERE ADJACENT TO MAIN BUILDING

FIXTURE AND POLE COLOR: TO BE DETERMINED

DRIVEWAY / PARKING LOT LIGHTING (ECF)

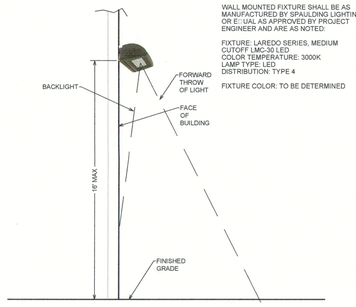


TALL BOLLARD FIXTURE SHALL BE AS MANUFACTURED BY LIGMAN LIGHTING OR E□UAL AS APPROVED BY PROJECT ENGINEER AND ARE AS NOTED:

FIXTURE: LIGHT LINEAR VT
UVT-20003 105W LED LOW GLARE
COLOR TEMPERATURE: 3000K
LAMP TYPE: LED
DISTRIBUTION: TYPE 4

FIXTURE COLOR: TO BE DETERMINED

TALL BOLLARD LIGHT (LIGMAN)



WALL MOUNTED FIXTURE SHALL BE AS MANUFACTURED BY SPAULDING LIGHTING OR E□UAL AS APPROVED BY PROJECT ENGINEER AND ARE AS NOTED:

FIXTURE: LAREDO SERIES, MEDIUM CUTOFF LMC-30 LED
COLOR TEMPERATURE: 3000K
LAMP TYPE: LED
DISTRIBUTION: TYPE 4

FIXTURE COLOR: TO BE DETERMINED

WALL MOUNTED LIGHT (SPAULDING)

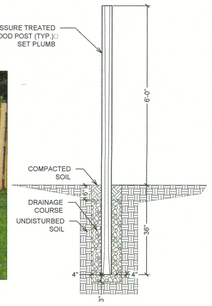
SITE LIGHTING
SCALE: N.T.S.

3

6' HIGH WOOD SHADOWBOX FENCE WHERE SHOWN ON PLANS

ALL WOOD TO BE PRESSURE TREATED

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL BY ARCHITECT, ENGINEER AND OWNER PRIOR TO CONSTRUCTION



WOOD POST (TYP.)

SHADOWBOX SCREEN FENCE
SCALE: N.T.S.

4

8' HIGH PERIMETER FENCE WHERE SHOWN ON PLANS; PRESSURE TREATED WOOD POSTS WITH WIRE MESH FABRIC; INSTALL FABRIC ON INSIDE OF FENCE

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL BY ARCHITECT, ENGINEER AND OWNER PRIOR TO CONSTRUCTION

PERIMETER FENCE
SCALE: N.T.S.

5

6

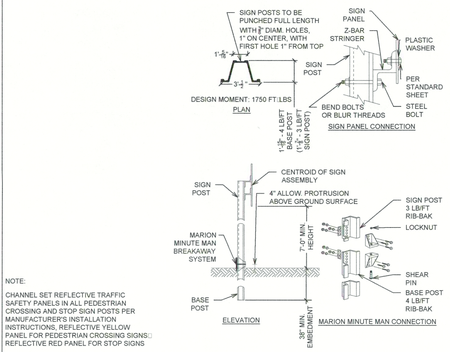
7

SIGN LEGEND

NO.	DESCRIPTION	IMAGE	MUTCD NO.	SIZE
1	STOP SIGN	STOP	R1-1C	30"X30"
2	DO NOT ENTER	DO NOT ENTER	R5-1	30"X30"
3	RESERVED PARKING VAN ACCESSIBLE	RESERVED PARKING VAN ACCESSIBLE	R7-8 WITH R-7-8P	12"X18" WITH 12"X6"
4	NO PARKING	NO PARKING ANY TIME	R7-1D	12"X18"
5	ONE WAY	ONE WAY	R6-1(L)	36"X12"
6	NO LEFT TURN		R3-2	30X30
7	RIGHT TURN ONLY		R4-8	18"X24"
8	KEEP RIGHT	KEEP RIGHT	R4-7bR	18"X24"

SIGN SCHEDULE
SCALE: N.T.S.

8



NOTE:

CHANNEL SET REFLECTIVE TRAFFIC SAFETY PANELS IN ALL PEDESTRIAN CROSSING AND STOP SIGN POSTS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS; REFLECTIVE YELLOW PANEL FOR PEDESTRIAN CROSSING SIGNS□ REFLECTIVE RED PANEL FOR STOP SIGNS

SIGNAGE
SCALE: N.T.S.

9

10

11

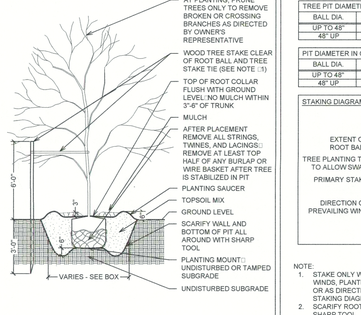
TREE PIT DIAMETER	
BALL DIA.	MIN. PIT WIDTH
UP TO 48"	BALL DIA. +2"
48" UP	1.3/4 □ BALL DIA.

PIT DIAMETER IN COMPACTED SOIL	
BALL DIA.	MIN. PIT WIDTH
UP TO 48"	BALL DIA. +5"
48" UP	2 □ BALL DIA.

STAKING DIAGRAM

TREE CAL	NO. OF STAKES	SECONDARY STAKE LOCATION
2"-4"	2	180 DEGREES
4"-6"	3	120 DEGREES

EXTENT OF ROOT BALL
TREE PLANTING TIE TO ALLOW SWAY
PRIMARY STAKE
DIRECTION OF PREVAILING WIND
SECONDARY STAKES
TREE TRUNK
120°



NOTE:
1. STAKE ONLY WHERE TREES ARE EXPOSED TO STRONG WINDS, PLANTED SLOPE IS GREATER THAN OR E□UAL TO 3:1 OR AS DIRECTED BY OWNER'S REPRESENTATIVE. SEE STAKING DIAGRAM.
2. SCARIFY ROOT BALL OF CONTAINER STOCK ALL AROUND WISHARP TOOL

DECIDUOUS TREE AND SHRUB PLANTING
SCALE: N.T.S.

12

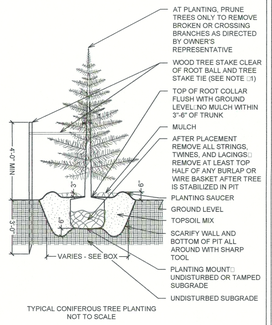
TREE PIT DIAMETER	
BALL DIA.	MIN. PIT WIDTH
UP TO 48"	BALL DIA. +2"
48" UP	1.3/4 □ BALL DIA.

PIT DIAMETER IN COMPACTED SOIL	
BALL DIA.	MIN. PIT WIDTH
UP TO 48"	BALL DIA. +5"
48" UP	2 □ BALL DIA.

STAKING DIAGRAM

TREE CAL	NO. OF STAKES	SECONDARY STAKE LOCATION
2"-4"	2	180 DEGREES
4"-6"	3	120 DEGREES

EXTENT OF ROOT BALL
TREE PLANTING TIE TO ALLOW SWAY
PRIMARY STAKE
DIRECTION OF PREVAILING WIND
SECONDARY STAKES
TREE TRUNK
120°

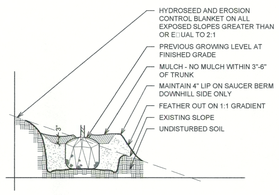


NOTE:
1. STAKE ONLY WHERE TREES ARE EXPOSED TO STRONG WINDS, PLANTED SLOPE IS GREATER THAN OR E□UAL TO 3:1 OR AS DIRECTED BY OWNER'S REPRESENTATIVE. SEE STAKING DIAGRAM.
2. SCARIFY ROOT BALL OF CONTAINER STOCK ALL AROUND W SHARP TOOL.

TYPICAL CONIFEROUS TREE PLANTING
NOT TO SCALE

EVERGREEN TREE PLANTING
SCALE: N.T.S.

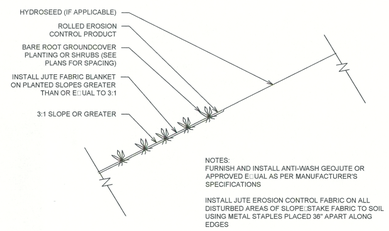
13



NOTE:
1. PLANTS SET VERTICALLY, NOT PERPENDICULAR TO SLOPE
2. EROSION CONTROL BLANKET FOR SEEDED AREAS TO BE "LANDLOK CS2" AS MANUFACTURED BY CONTECH CONSTRUCTION PRODUCTS, INC. OR APPROVED E□UAL
3. EROSION CONTROL BLANKET FOR PLANTED SLOPES TO BE JUTE MESH BLANKET OR APPROVED E□UAL

SLOPE PLANTING
SCALE: N.T.S.

14



NOTES:
FURNISH AND INSTALL ANTI-WASH GEOJUTE OR APPROVED E□UAL AS PER MANUFACTURER'S SPECIFICATIONS

INSTALL JUTE EROSION CONTROL FABRIC ON ALL DISTURBED AREAS OF SLOPE□STAKE FABRIC TO SOIL USING METAL STAPLES PLACED 36" APART ALONG EDGES

INSTALL 3" DEPTH OF MULCH THROUGHOUT AREA OVER JUTE FABRIC

SLOPE STABILIZATION
SCALE: N.T.S.

15

SHRUB OAK INTERNATIONAL SCHOOL

Town of Yorktown, New York

OWNER / APPLICANT

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3151 Stoney Street
Shrub Oak, NY 10547

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SURVEYOR

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3063 Route 9
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APPROVED
Resolution Number 18 - 04
Date May 22, 2018

REVISIONS

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	05/30/18	ISSUED FOR PLANNING BOARD SIGNATURE

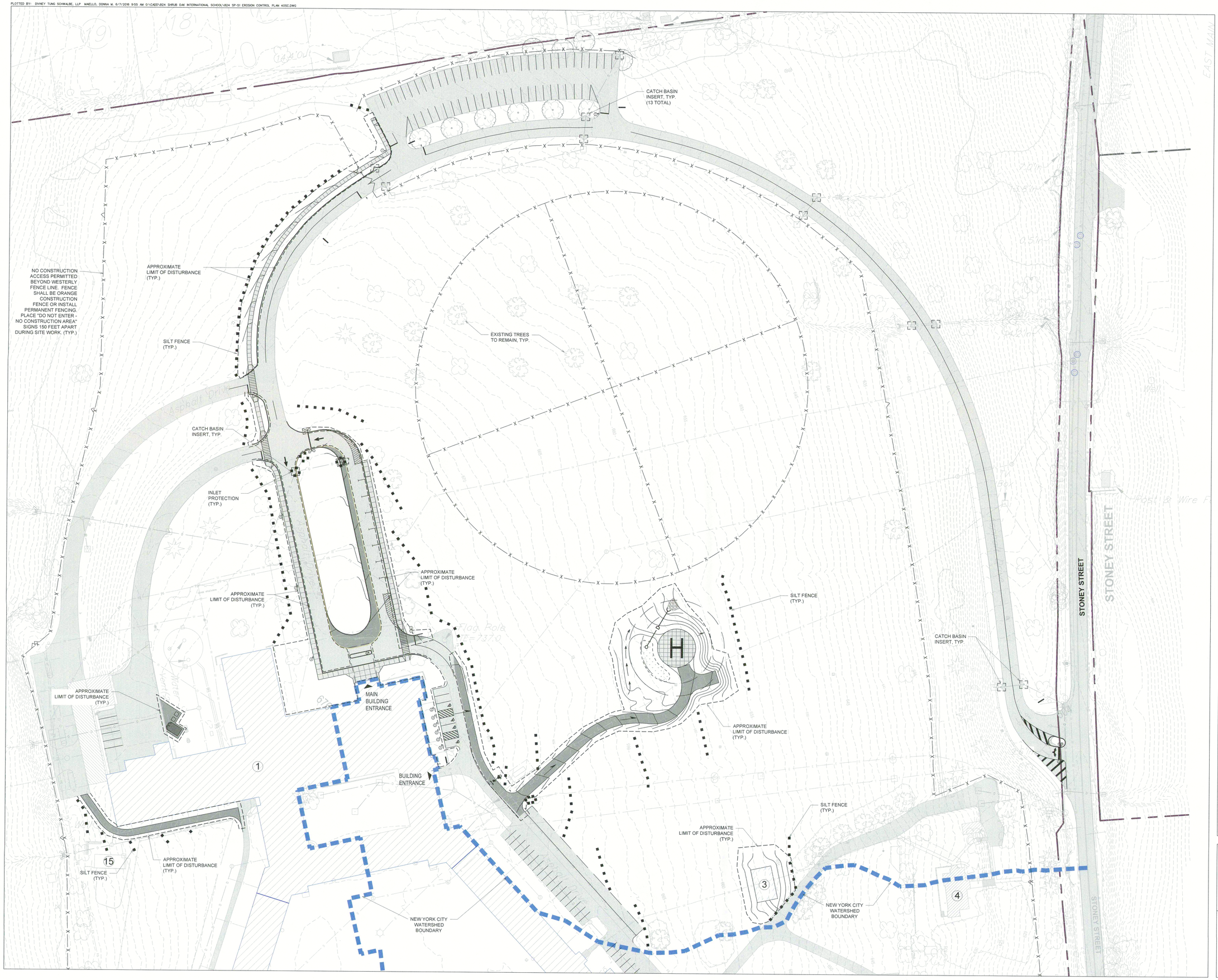
DRAWING TITLE:

SITE AND UTILITY DETAILS (PHASE 1 CONSTRUCTION)

DRAWN BY:	CHECKED BY:
SBK	GMS
PROJECT NO.	DATE:
824	04/06/18

DRAWING NO.

SP-4.2



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SURVEYOR

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3063 Route 9
Cold Spring, NY 10516

APPROVED
Resolution Number 18 - 04
Date May 22, 2018

N 0 20 40 80
SCALE: 1" = 40'

REVISIONS

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DRAWING TITLE:

EROSION AND SEDIMENT CONTROL PLAN (PHASE 1 CONSTRUCTION)

STATE OF NEW YORK · BERNARD MARTIN SCOTT III · LICENSED PROFESSIONAL ENGINEER · 084489

DRAWN BY:	CHECKED BY:
RCC	GMS
PROJECT NO.	DATE:
824	04/06/18

DRAWING NO.

SP-5.1

NOTE:
1. POINT BY POINT CALCULATIONS SHOWN INCLUDE A LIGHT LOSS FACTOR OF 0.85

12' TALL, SINGLE SIDED BOLLARD LIGHT, TYP.

LIGMAN TYPE 4

ECF TYPE 4 DOUBLE AT 90 DEGREES

ECF TYPE 5

ECF TYPE 3

16' TALL POLE MOUNTED DRIVEWAY/PARKING LOT DOWNLIGHT, TYP.

STERNBERG TYPE 4, CTA

16' TALL POLE MOUNTED LANTERN STYLE LIGHT AROUND OVAL, TYP.

MAIN BUILDING ENTRANCE

BUILDING ENTRANCE

ECF TYPE 4 HIS

16' HIGH (MAX.) WALL MOUNTED DOWNLIGHTS AROUND BUILDING PERIMETER, TYP. (LAREDO TYPE 4).

NEW YORK CITY WATERSHED BOUNDARY

STONEY STREET

MATCHLINE (SEE SHEET SP-6.2)

MATCHLINE (SEE SHEET SP-6.2)

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White Plains, NY 10601

SURVEYOR

BADEY & WATSON SURVEYING & ENGINEERING, P.C.
3063 Route 9
Cold Spring, NY 10516

APPROVED
Resolution Number 18 - 04
Date May 22, 2018

N 0 20 40 80

SCALE: 1" = 40'

REVISIONS

NO.	DATE	ISSUE
	04/20/18	REVISED PER PLAN REFINEMENTS
	05/30/18	ISSUED FOR PLANNING BOARD SIGNATURE

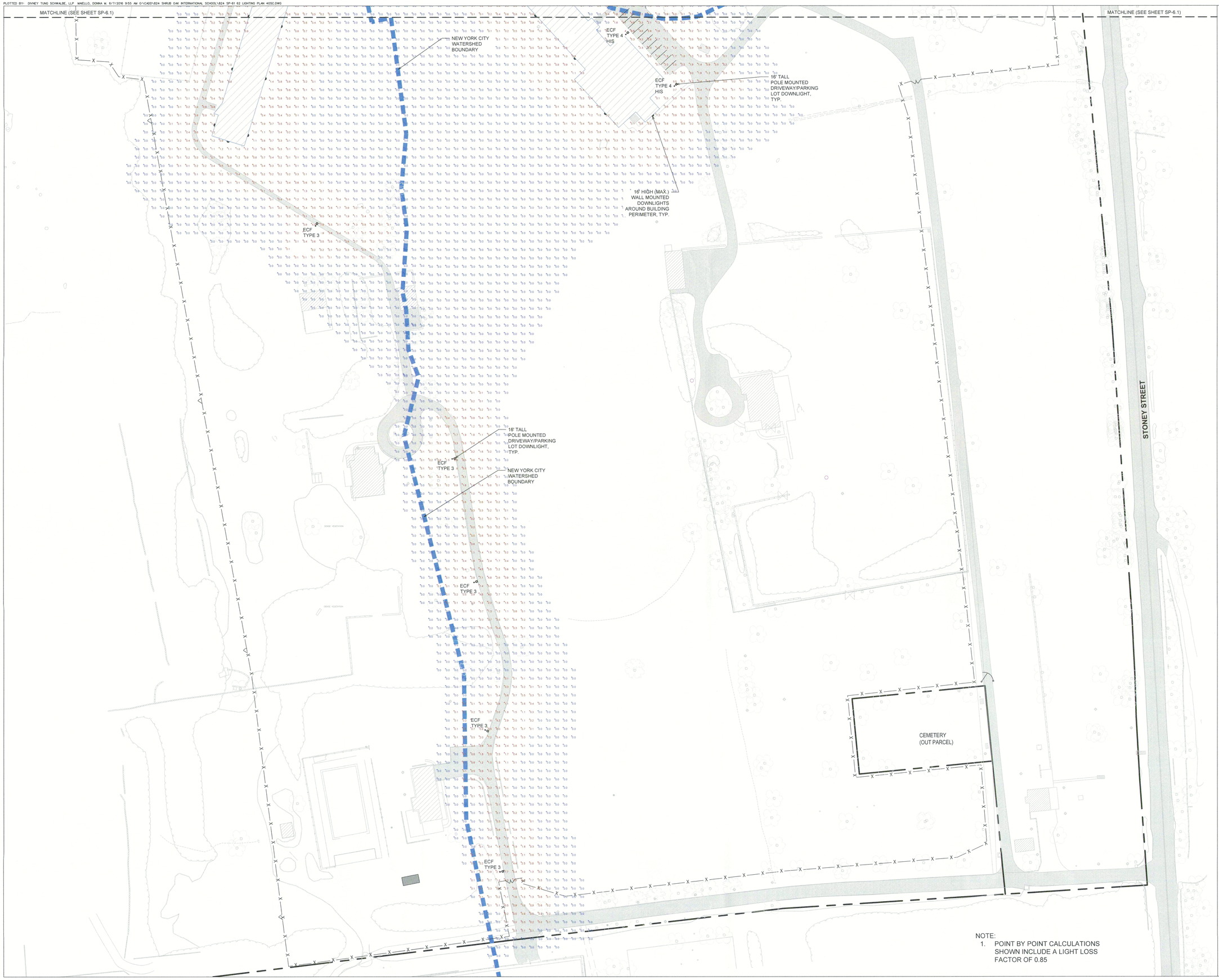
DRAWING TITLE:

SITE LIGHTING PLAN (PHASE 1 CONSTRUCTION)

DRAWN BY:	CHECKED BY:
SBK/RCC	GMS
PROJECT NO.	DATE:
824	04/06/18

DRAWING NO.

SP-6.1



NOTE:
1. POINT BY POINT CALCULATIONS SHOWN INCLUDE A LIGHT LOSS FACTOR OF 0.85

SHRUB OAK INTERNATIONAL SCHOOL

Town of Yorktown, New York

OWNER / APPLICANT

SHRUB OAK INTERNATIONAL SCHOOL
3151 Stoney Street
Shrub Oak, NY 10547

PLANNER, CIVIL ENGINEER, LANDSCAPE ARCHITECT

DIVNEY • TUNG • SCHWALBE
Intelligent Land Use

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	05/30/18	ISSUED FOR PLANNING BOARD SIGNATURE

DRAWING TITLE:

SITE LIGHTING PLAN (PHASE 1 CONSTRUCTION)

STATE OF NEW YORK · BERNARD MARTIN SMITH · 084469 · LICENSED PROFESSIONAL ENGINEER

DRAWN BY:	CHECKED BY:
SBK/RCC	GMS
PROJECT NO.	DATE:
824	04/06/18

DRAWING NO.

SP-6.2

GEOGRAPHIC INDEX 41-18-33.0, 73-50-08.0

Drawing Name: LS23231__R12_V04 Layout: SHEET1 W.O. No. 23231, 23347, 23385, 23472, 23725, 24074 Checked by GJW Spell checked by JFT Drawn by DAP/JFT Closed by GJW/JWR On 12-14-16 T.M. 26.5-1-4 & 26.6-1-2

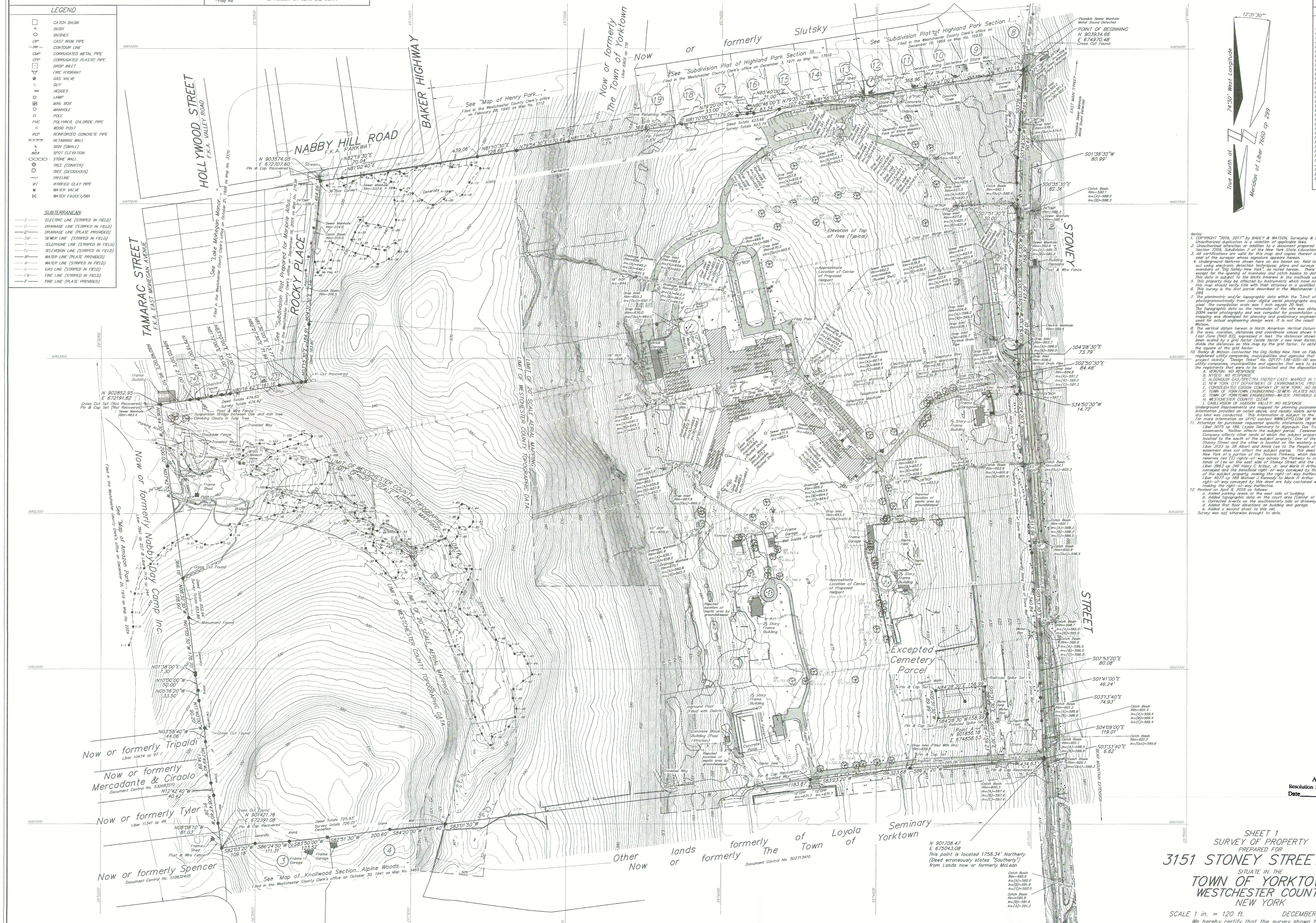
UNDERGROUND WARNING –– CODE RULE 753

NEW YORK STATE INDUSTRIAL CODE 753 REQUIRES EXCAVATORS TO CALL THE DIG SAFELY NEW YORK ORGANIZATION (DIAL 811) AT LEAST 2, BUT NO MORE THAN 10 WORKING DAYS PRIOR TO AN EXCAVATION. NON-MEMBER UTILITIES MUST BE CONTACTED SEPARATELY.

WETLANDS LEGEND

Flag / A-60 / Flag No.

Wetland boundary flags as set by Steven Marino of Tim Miller Associates, Inc. during April 2017, and located by Badey & Watson on June 26, 2017.



Notes
1. COPYRIGHT "2016, 2017" by BADEY & WATSON, Surveying & Engineering, P.C. All Rights Reserved. Unauthorized duplication is a violation of applicable laws.
2. Unauthorized alteration or addition to a document prepared by a licensed land surveyor is a violation of Section 7209, Subdivision 2 of the New York State Education Law.
3. All certifications are valid for this map and copies thereof only if said map or copies bear the embossed seal of the surveyor whose signature appears hereon.
4. Underground features shown here on are based on: field location of surface evidence and surface mark out using electronic detection techniques; plans and surveys provided by owner; and data obtained from members of "Dig Safely New York", as noted hereon. There were no subsurface investigations of any kind, except for the opening of manholes and catch basins to determine pipe sizes, direction of flow and inverts. This data is subject to the limits inherent in the methods used.
5. This property may be affected by instruments which have not been provided to these surveyors. Users of this map should verify title with their attorney or a qualified title examiner.
6. This survey is the first parcel described in the Westchester County Clerk's Liber 7660 of deeds at page 299.
7. The planimetric and/or topographic data within the "Limit of 20 Scale Aerial Mapping" hereon was compiled photogrammetrically from color digital aerial photographs acquired during April 2008, with a nominal 2-inch pixel. The compilation scale was 1 inch equals 20 feet.
The topographic data on the remainder of the site was obtained from Westchester County. It is based on 2004 aerial photography and was compiled for presentation at a scale of 1 inch equals 100 feet. The mapping was developed for planning and preliminary engineering purposes, only. It is not intended to be used for actual engineering design work. It is not the result of surveying and mapping efforts by Badey & Watson.
8. The vertical datum hereon is North American Vertical Datum of 1988 (NAVD 1988).
9. The area, meridian, distances and coordinate values shown hereon refer to the New York Coordinate System, East Zone (NAD 83), expressed in feet. The distances shown on this map are grid distances. They have been scaled by a grid factor (scale factor x sea level factor) of 0.99991591. To obtain ground distances divide the distances on this map by the grid factor. To obtain ground area divide the area on this map by the square of the grid factor.
10. Badey & Watson contacted the Dig Safely New York on February 17, 2017 and requested a list of registered utility companies, municipalities and agencies that might have underground facilities in the project vicinity. "Design Ticket" No. 02177-139-035-00 was issued by the UFPO for this project listing utility companies, municipalities and agencies that were to be contacted by the UFPO. Following is a list of the registrants that were to be contacted and the disposition related thereto as of April 11, 2017.
    A. VERIZON: NO RESPONSE
    B. NYSEG: NO RESPONSE
    C. ALGONQUIN GAS/SPECTRA ENERGY EAST: MARKED IN FIELD
    D. NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION: CLEAR
    E. CONSOLIDATED EDISON COMPANY OF NEW YORK: NO RESPONSE
    F. TOWN OF YORKTOWN ENGINEERING–SEWER: PLATES NOT PROVIDED
    G. TOWN OF YORKTOWN ENGINEERING–WATER: PROVIDED GIS PLATES
    H. WESTCHESTER COUNTY: CLEAR
    I. CABLEVISION OF HUDSON VALLEY: NO RESPONSE
Underground improvements are mapped for planning purposes only. Mapping of these facilities is based on information provided as noted above, and readily visible surface evidence. No subsurface investigation of any kind was conducted. This information is subject to the limitations inherent in this methodology. For more information on UFPO contact WWW.UFPO.COM OR WWW.DIGSAFELYNEWYORK.COM.
11. Attorneys for purchaser requested specific statements regarding 4 easements. They are as follows:
Liber 5075 cp 189, Loyola Seminary to Algonquin Gas Transmission Company – The deed describes two easements. Neither affects the subject parcel. Easements obtained by Algonquin Gas Transmission Company affects other lands of which the subject property was formerly a part. The easements are located to the south of the subject property. One of the easements is located on the easterly side of Stoney Street and the other is located on the westerly side.
Liber 3123 cp 28 Albert and Annie Lee to The People of the State of New York – The described easement does not affect the subject parcel. This deed memorializes an acquisition by the State of New York of a portion of the Taconic Parkway, which lies well to the east of Stoney Street. The deed reserves two (2) rights-of-way across the Parkway to construct driveways between the then remaining lands of Lee on the east side of Stoney Street and the Parkway Pavement.
Liber 3963 cp 346 Harry C Arthur, Jr. and Marie H Arthur to Michael J Kennedy – Both the parcel conveyed and the beneficial right-of-way conveyed by this deed are fully contained within the bounds of the subject property, making the right-of-way ineffective.
Liber 4077 cp 189 Michael J Kennedy to Marie H Arthur – Both the parcel conveyed and the beneficial right-of-way conveyed by this deed are fully contained within the bounds of the subject property, making the right-of-way ineffective.
12. Revised on April 9, 2018 as follows:
    a. Added parking areas at the east side of building.
    b. Added topographic data on the court area (Center of Building)
    c. Corrected inverts on the southeasterly side of driveway.
    d. Added first floor elevations on building and garage.
    e. Added a second sheet to this set.
Survey was not otherwise brought to date.

APPROVED
Resolution Number 18-04
Date May 22, 2018

SHEET 1
SURVEY OF PROPERTY
PREPARED FOR
3151 STONEY STREET, LLC
SITUATE IN THE
TOWN OF YORKTOWN
WESTCHESTER COUNTY
NEW YORK

SCALE 1 in. = 120 ft. DECEMBER 14, 2016

We hereby certify that the survey shown hereon was completed by us on December 14, 2016 that this map was completed on December 15, 2016 and that this survey has been prepared in accordance with the existing Code of Practice for Land Surveys adopted by The New York State Association of Professional Land Surveyors, Inc.
Brought to date on August 30, 2017.
Revised on April 9, 2018. See Note 12.

BADEY & WATSON
Surveying & Engineering, P.C.
by
NEW YORK STATE LICENSED LAND SURVEYOR
LICENSE No. 50389

STATE OF NEW YORK · JENNIFER W REAP · 50389 · LICENSED LAND SURVEYOR

PRINTED
MAY 11 2018
BADEY & WATSON
Surveying & Engineering, P.C.

This map was prepared for the exclusive use of and is certified only to:

SHRUB OAK INTERNATIONAL SCHOOL, LLC
3151 STONEY STREET, LLC
COUNTY OF WESTCHESTER INDUSTRIAL DEVELOPMENT AGENCY
PHOENIX HOUSE FOUNDATION, INC.

FIRST AMERICAN TITLE INSURANCE COMPANY
through its agent Omni Title Agency
but only for use in connection with their
Title No. 1610-2970584

METROPOLITAN COMMERCIAL BANK
its successors and/or assigns but only
ATIMA in mortgages to it by 3151 STONEY STREET, LLC

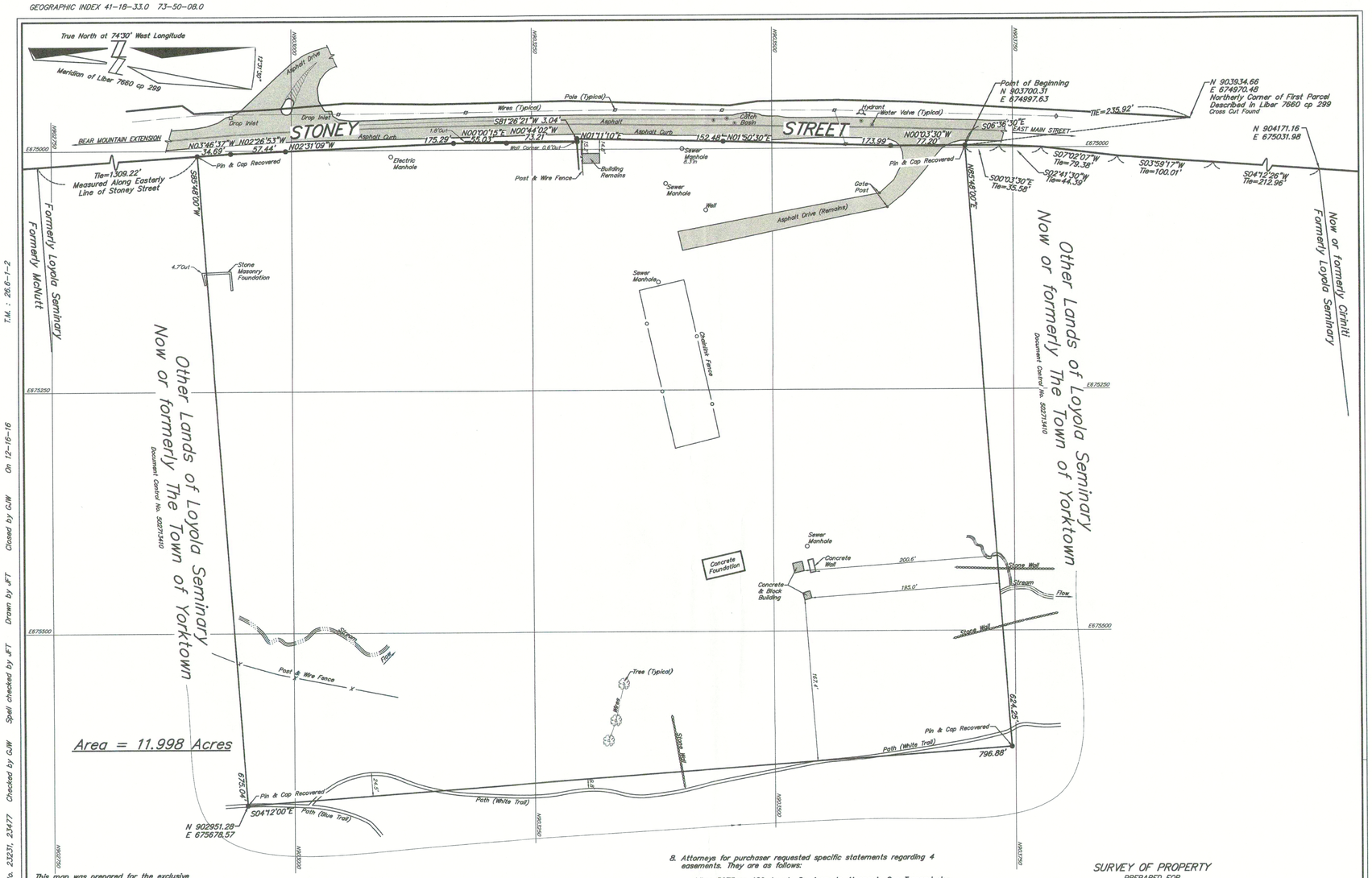
Area = 127.190 Acres
which excludes 0.329 acres in Cemetery Exception

GRAPHIC SCALE
(IN FEET)
1 inch = 120 ft.

BADEY & WATSON
Surveying & Engineering, P.C.
3063 Route 9
Cold Spring, NY 10516
www.Badey-Watson.com
845.265.9217
845.265.4428 (Fax)
877.3.141593 (Toll Free)

FILE No. 16-180

GEOGRAPHIC INDEX 41-18-33.0 73-50-08.0



This map was prepared for the exclusive use of and is certified only to:

3151 STONEY STREET, LLC
COUNTY OF WESTCHESTER INDUSTRIAL DEVELOPMENT AGENCY
PHOENIX HOUSE FOUNDATION, INC.

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through its agent Omni Title Agency
its successors and/or assigns, but only
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METROPOLITAN COMMERCIAL BANK
its successors and/or assigns but
only ATIMA in mortgages to it by
3151 STONEY STREET, LLC

BADEY & WATSON
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3063 Route 9
Cold Spring, NY 10516
www.Badey-Watson.com

845.265.9217
845.265.4428 (Fax)
877. 3.141593 (Toll Free)

Notes

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3. All certifications are valid for this map and copies thereof only if said map or copies bear the embossed seal of the surveyor whose signature appears hereon.
4. If underground improvements, easements, or encroachments exist and are neither visible during normal field survey operations nor described in instruments provided to these surveyors, they may not be shown on this map.
5. This property may be affected by instruments which have not been provided to these surveyors. Users of this map should verify title with their attorney or a qualified title examiner.
6. This survey is the parcel described in the Westchester County Clerk's Liber 7660 of deeds at page 299 (Gofton, Referee to Phoenix House Foundation, Inc.).
7. The area, meridian, distances and coordinate values shown hereon refer to the New York Coordinate System, East Zone (NAD 83), expressed in feet. The distances shown on this map are grid distances. They have been scaled by a grid factor (scale factor x sea level factor) of 0.99991591. To obtain ground distances divide the distances on this map by the grid factor. To obtain ground area divide the area on this map by the square of the grid factor.
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Liber 3963 cp 346, Harry C Arthur, Jr. and Marie H Arthur to Michael J Kennedy – This deed does not affect the subject property. Both the parcel conveyed and the beneficial right-of-way lie on the west side of Stoney Street.

Liber 4077 cp 199 Michael J Kennedy to Marie H Arthur – This deed does not affect the subject property. Both the parcel conveyed and the beneficial right-of-way lie on the west side of Stoney Street.

SURVEY OF PROPERTY
PREPARED FOR

3151 STONEY STREET, LLC

SITUATE IN THE

TOWN OF YORKTOWN
WESTCHESTER COUNTY
NEW YORK

SCALE 1 in. = 50 ft. DECEMBER 15, 2016

We hereby certify that the survey shown hereon was completed by us on December 15, 2016 that this map was completed on December 16, 2016 and that this survey has been prepared in accordance with the existing Code of Practice for Land Surveys adopted by The New York State Association of Professional Land Surveyors, Inc. Brought to date on August 30, 2017.

BADEY & WATSON
Surveying & Engineering, P.C.

by _____
NEW YORK STATE LICENSED LAND SURVEYOR
LICENSE No. 50389

FILE No. 16-180

APPROVED
Resolution Number 18.04
Date May 22, 2018

APPROVED
Resolution Number _____
Date _____

Drawing Name: LS23231A_R05_V04 Layout: SURVEY W.O. No. 23231, 23477 Checked by GJW Spell checked by JFT Drawn by JFT Closed by GJW On 12-16-16 T.M. : 26.6-1-2

Dell Avenue Solar

ZARIN & STEINMETZ

Jody T. Cross •
jcross@zarin-steinmetz.com
• Also admitted in CT

June 15, 2022

Via Electronic Mail & Overnight Mail
Hon. Richard Fon, Chairman
And Members of the Planning Board
Town of Yorktown
363 Underhill Avenue
Yorktown Heights, NY 10598

Re: Dell Ave. Solar Farm
Application for Site Plan and Special Use Permit
Tax Map Parcel 70.15-1-2 & 70.11-1-16 ("Property")

Dear Chairman Fon and members of the Planning Board:

We represent B & M Management Company, Inc. ("B&M"), the owner of the above-referenced Property, and SCS Dell 014136 Yorktown, LLC ("Applicant"), in connection with the above-referenced application for a solar farm. More specifically, the Applicant is seeking Site Plan Approval and a Special Use Permit for a 3,625 kWac fixed-tilt ground mount solar energy system, with associated facilities. ("Solar Project"). The Applicant respectfully requests to be placed on your Board's June 27, 2022 agenda for consideration of the Solar Project.

In connection with the Application, enclosed please find the following documents:

#	Document	Prepared By	Dated
1	Project Application Commercial Site Fee Schedule	Yorktown	2022-06-07
2	Project Introduction – Dell Avenue Solar Farm	SCS	2022-06-15
3	Site Plan Application Form	SCS	2022-06-15
4	Special Use Permit Application Form	SCS	2022-06-15
5	Large-Scale Solar Addendum Form	SCS	2022-06-15
6	Electrical Single-Line Diagram	SCS	2022-06-07
7	Site Plan Set	TRC	2022-06-14
8	Line of Sight Analysis	TRC	2022-06-14
9	Full Environmental Assessment Form (EAF)	SCS / TRC	2022-06-14
10	MS4 SWM / Tree Permit Application, incl. SWM Narrative	SCS / TRC	2022-06-14
11	Tree Survey Report	TRC	2022-06-15

12	Preliminary Tree Loss Mitigation Plan	TRC	2022-06-15
13	Carbon Sequestration for Tree Loss Calculation	SCS	2022-06-15
14	Operations & Maintenance Plan	SCS	2022-06-15
15	Decommissioning Plan	TRC	2022-06-14
16	Executed Property Lease Agreement	SCS	2021-03-26

As you may recall, the Applicant was last before you on April 26, 2021. At that time, the Applicant provided conceptual drawings for initial consideration, and to commence the review and SEQRA process. The Board declared its intent to act as Lead Agency at that meeting. We understand that all involved agencies were notified of said intent by letter, dated May 7, 2021.

Since that time, the Applicant has undertaken the necessary studies and analyses to prepare a full set of Plans and application materials for the Solar Project, which are being submitted herewith. We note that although the Applicant's original submission last year included a 3.743MW / ~15MWh (4hr) battery energy storage system ("BESS"), that portion of the Solar Project is no longer being pursued. However, although no such system is proposed at this time or imminently, as will be evident on the Plans, the Applicant intends to provide sufficient information to the Board to allow for a potential future addition of a BESS.

The Applicant's Team looks forward to answering any questions your Board may have at its June 27, 2022 meeting, and to working with your Board and Staff to bring this laudable Solar Project to the Town.

If you require any additional information in the interim, please do not hesitate to contact either of the undersigned. Thank you for your consideration.

Respectfully submitted,

ZARIN & STEINMETZ

By: _____
David S. Steinmetz
Jody T. Cross

cc: John Tegeder, R.A., Director of Planning
Robyn A. Steinberg, AICP, Town Planner
Matt Matthews, B & M Management Company, Inc.
SCS Dell 014136 Yorktown, LLC

SCS Dell 014136 Yorktown, LLC
Sol Customer Solutions, LLC
1101 Connecticut Ave NW, Second Floor
Washington, DC 20036

June 15, 2022

Town of Yorktown Planning Board
1974 Commerce St
Yorktown Heights, NY 10598

Dell Avenue Solar Farm
Project Introduction

Dear Planning Board Members,

The Dell Avenue Solar Farm is a 3,625 kWac fixed-tilt ground mount solar energy system and its associated facilities such as gravel access roads, chain-link fence, electrical equipment, stormwater management features, and landscaping. The project design also takes into account electrical and site plan considerations for a not yet planned battery energy storage system (BESS). The BESS is a *potential* future option that may be pursued after the solar array has been commercialized and operational, dependent on future state or local incentives specifically related to battery storage. The project, SCS Dell 014136 Yorktown LLC, earnestly seeks site plan and special use permit approvals from the Town of Yorktown Planning Board in accordance with Yorktown's commitment to green practices and its goal of promoting long-term sustainability.

Consistent with the Town Code, the project is characterized as a large-scale solar energy system between one and five megawatt AC capacity and will not exceed a land area larger than 20 acres. The project's limits of disturbance will be confined to 14.1 acres on a site encompassing a total acreage of 62.3 acres, owned by B&M Management Company Inc. The solar array area itself is expected to cover 9.1 acres and the height of any given module will not exceed 10 feet tall. The proposed site is situated immediately east of Dell Ave and adheres to R1-160 zone standards in conjunction with the large-scale solar code.

Dell Avenue Solar Farm commenced the project application process last year with a conceptual site plan and special use permit submission dated April 14, 2021 that also included a Short Environmental Assessment Form with the intent of determining SEQRA lead agency declaration. In the time since, the project has awaited and secured utility interconnection permission and community solar credit incentives. The project team eagerly looks forward to continuing its application and collaboratively undergoing the final planning review process with the Town of Yorktown Planning Board, the respective review bodies, and the Yorktown public.

Who Are We?

Sol Systems, LLC is a leading national solar energy firm that works with customers and partners to create a just energy transition. Sol Systems has built an established reputation of integrity and reliability across its development, infrastructure, and environmental commodity businesses. To date, the firm is operating and building over 1 GW of solar projects valued at more than $1 billion for Fortune 100 companies, municipalities, counties, utilities, universities, schools, and more. Formed in 2008, Sol Systems has been providing solar energy solutions for over 14 years and is strongly committed to developing & financing solar projects paired with community and environmental impact.

In 2019, Sol Systems and Arevon Energy formed a joint venture: Sol Customer Solutions, LLC (SCS). SCS combines Arevon Energy's significant balance sheet with Sol Systems' deep development expertise to create a platform that can efficiently develop, build, and operate energy generation assets. The partnership is focused on deploying institutional capital to offer some of the most competitive and compelling renewable energy solutions for municipal, commercial, corporate, and educational customers.

Sol Systems has developed 25 MWdc of solar projects in New York over the last decade ranging in size from 0.2 MW to 6.1 MW involving ground mount, rooftop, and carport systems, including a recent suite of 5 projects in Westchester County. SCS stands out compared to other developers thanks to four key differentiators:

1. **Vertically Integrated, Long-Term Partner**: Sol's joint venture with Arevon Energy vertically integrates the firm from development through long-term asset ownership. Sol will remain the main point of contact throughout the asset's life and will serve as a long-term partner to host communities.
2. **Financial Capability**: Sol's joint venture with Arevon, a renewable energy developer, owner & operator backed by APG and the CA State Teachers' Retirement System with almost 10 GW of renewables under management, allows the partnership to source guaranteed in-house capital for all aspects of the project, creating financing certainty.
3. **Industry Leading Expertise in Community Solar Project Development and Asset Management**: Sol's asset management team currently manages over 670 MW of solar across the US and Sol's current development pipeline includes at least 15MW-dc of community solar projects in the Northeast. Sol also works closely with Arevon's asset management team who manages and operates over 100 systems, totaling over 7,300 MW in the United States.
4. **Solar & Battery Storage Development Experience in New York**: Sol is an expert in solar development throughout New York, including in Westchester County and upstate. The Sol team has 25 MWdc of projects across the state that are either in development or fully operational.

Our mission is to work with customers and partners to create opportunities that support the social, economic, and environmental well-being of our communities. This mission is guided by the principles of sustainability, community impact, and collective action. We are proud and humbled to advance the Dell Avenue Solar Farm project as an opportunity for the Town of Yorktown to protect its public health and welfare by: taking advantage of a safe, abundant, carbon-free, and non-polluting energy resource; decreasing the cost of energy to its community constituents; reducing reliance on fossil fuels and curtailing their GHG emissions; and improving energy grid resiliency.

Project Purpose

New York is among the most ambitious states leading the nation's climate agenda through bold clean energy initiatives. The state's Climate Leadership & Community Protection Act (Climate Act) accelerates New York toward a mandate of a carbon-free power grid by 2040 with an interim goal of reaching 70% renewable electricity generation before 2030[1]. With a top-level objective to reduce GHG emissions down to 15% of 1990 levels by the year 2050, New York endeavors to deploy 6,000 MW of distributed solar capacity by 2025[1]. Anchored by its Clean Energy Standard, the state level agenda is unambiguous and scaling up solar energy is pivotal to success.

The Town of Yorktown values its naturalized areas and rural character, and it seeks to adopt renewable energy solutions – while curtailing fossil fuel emissions – to protect its public health and welfare. The Dell Avenue Solar Farm embodies New York state climate priorities, aligns with Yorktown's commitment to long-term focused sustainability infrastructure, and respects the Town's efforts to maintain enriching environmental quality.

The project is regretful to remove trees and looks forward to mutually working alongside the Town's Tree Conservation Advisory Committee on a shared solution. The project is limiting tree clearing to what is necessary for constructability and maintenance – no additional trees will be removed for the sake of increasing sunlight exposure to the solar arrays. It is anticipated that on the order of 1,000 trees across 14 acres require clearing for the solar site, yet the expected benefit of the project's avoided GHG emissions each year equal the carbon sequestration value of over 2,000 acres of U.S. forests. Proceeding with this solar project means that *each year* of its operation is equivalent to roughly 33,000 tree seedlings grown for 10 years. More information is available in the attached Preliminary Tree Mitigation Plan and Carbon Sequestration Calculations.

Overall GHG emissions displacement and carbon footprint reduction is the intention of the long-term sustainability sought by the Dell Avenue Solar Farm. Sol Systems is deeply devoted to social good and proud of the impact that will come from this community solar approach. The project will generate carbon-free renewable electricity for the residences and small businesses in Yorktown all the while increasing tax revenue for the Town.

Project Vision

The project, through the site plan application and special use permit review process, is dedicated to building a strong, collaborative relationship with the Town of Yorktown, the Planning Board, its respective review bodies, and the general public. This partnership will carry on beyond the development timeline into the construction phase and continue for the operational lifetime of the solar project, including eventual decommissioning. Sol Systems is uniquely structured to be the sole, long-term face of the Dell Avenue Solar Farm from start to finish. As such, our commitment to Yorktown extends into every aspect of the project and, with environmental and civil engineering expertise from TRC Companies, we're confidently well-positioned to design, build, operate, and maintain a world-class facility.

Based on diligence to date on the site location, its geographical/topographical constraints, initial environmental & wildlife assessments, proactive discussions with the New York Natural Heritage Program and U.S. Fish & Wildlife Service, including and early dialogue

with Yorktown Planning Board representatives, the project team has established several tenets core to decision-making on site plan development:

1. **No wetland impact.** There will be no work, tree clearance, or other disturbances in the delineated wetlands nor in their adjacent 100' buffer zone. Hence, a Wetland Permit Application is not foreseen. Due to the environmental sensitivity of the site overall, native & naturalized vegetation mixes, tree species, and pollinator habitats are envisioned to promote and foster a meadowland environment amidst the solar.
2. **No to very limited visual impact.** Initial site visits and line-of-sight analyses indicate little to no adverse affect on visuals & aesthetics from frontage roads (Saw Mill River Rd), public trails (North County Trailway), and nearby properties (at Dell Ave and at Hog Hill Rd). The civil site plan set includes a Landscape Plan addressing landscape screening and buffering
3. **As little as possible tree impact.** Site constraints minimize the available acreage adequate for solar arrays with sufficient space for constructability and maintenance needs. With the project fence line established, the limits-of-clearing boundary has been pushed up as close to it as possible to save as many existing trees as can be. Tree shading impacts to the solar energy system performance have been taken into account to the detriment of the overall electricity production in the name of preserving trees. Shading impacts are on the order of 3-4 times more severe on this project than is typical for Sol Systems ground mount projects.
4. **Only essential impervious surfaces to minimize stormwater impact.** Where possible, pervious surfaces will be utilized to reduce overall stormwater impact. This includes eliminating access roads beyond the minimum essential to asset maintenance, employing pervious gravel access roads (in lieu of paved), and using gravel pads under some equipment. The total impervious surface area incorporated into stormwater management (SWM) calculations includes a potential battery energy storage system (BESS) concrete equipment pad, therefore the SWM features proposed will be over-designed if the BESS never materializes in the future.

In conclusion, Sol Systems – through its Sol Customer Solutions entity SCS Dell 014136 Yorktown LLC – is excited to put forth the following site plan application and special use permit for Yorktown Planning Board review and comment. We look forward to working together to develop a welcome, meaningful, and successful Dell Avenue Solar Farm project that delivers long-lasting benefits to The Town of Yorktown and members of the community.

References

1. New York State. (2020). *New York State's Climate Act: Our Progress.* The Government of the State of New York. https://climate.ny.gov/Our-Progress

TOWN OF YORKTOWN
PLANNING BOARD

Albert A. Capellini Community and Cultural Center, 1974 Commerce Street, Yorktown Heights, New York 10598. Phone (914) 962-6565. Fax (914) 962-3986

APPLICATION FOR SITE PLAN APPROVAL

Date June 15, 2022

1. **Name of Project:** Dell Avenue Solar Farm

2. **Tax Map Designation (Section, Block, Lot)** 70.11-01-16
   70.15-01-02

3. **Zone:** R1-160 **Total Acreage:** 62.33

4. **Is a statement of easements relating to property attached?** ☐ Yes ☑ None exist

5. **Project narrative (brief description of proposed development):**
   3,625 kWac fixed-tilt ground mount solar energy system and associated facilities:
   gravel access roads, fence, electrical equipment, stormwater management features, landscaping, etc.

6. **Contact Person - CHOOSE ONLY ONE:**
   ☑ Applicant ☐ Owner ☐ Architect ☐ Wetland Scientist
   ☐ Attorney ☐ Engineer ☐ Surveyor ☐ Landscape Architect

7. **Applicant**

Name	SCS Dell 014136 Yorktown, LLC
Firm	Sol Customer Solutions, LLC
Address	1101 Connecticut Ave NW, Second Floor, Washington, DC, 20036
Phone	202-527-8402
Fax	---
Email	erick.alvesdesa@solsystems.com; rennie.friedman@solsystems.com

8. **Owner of Record**

Name	B&M Management Company, LLC
Firm	B&M Management Company, LLC
Address	199 Elm St, New Canaan, CT, 06840
Phone	203-536-2928
Fax	203-966-5703
Email	mattshouses@aol.com

9. **Attorney**

Name	David Steinmetz; Jody Cross
Firm	Zarin & Steinmetz
Address	81 Main St, Suite 415, White Plains, NY, 10601
Phone	914-682-7800
Fax	914-683-5490
Email	david@zarin-steinmetz.com; jcross@zarin-steinmetz.com

10. **Engineer**

Name	Steven Meersma, P.E.
Firm	TRC Companies, Inc.
Address	1430 Broadway, 10th Floor, New York, NY, 10018
Phone	212-221-8374
Fax	212-221-7840
Email	smeersma@trccompanies.com
Lic. No.	076572-1

11. **Surveyor**

Name	Robert Brown, L.S.
Firm	Land Design Associates Engineering, Surveying, & Landscape Architecture, D.P.C.
Address	350 Motor Parkway, Suite 206, Hauppauge, NY, 11788
Phone	631-549-4744
Fax	631-617-6257
Email	eo@ldadpc.com
Lic. No.	49128

12. **Architect**

Name	N/A
Firm	
Address	
Phone	
Fax	
Email	
Lic. No.	

13. **Wetland Scientist/Specialist**

Name	Colin Duncan
Firm	TRC Companies, Inc.
Address	650 Suffolk St, Suite 200, Lowell, MA, 01854
Phone	978-228-3965
Fax	978-453-1995
Email	cduncan@trccompanies.com

14. **Landscape Architect**

Name	George Turner, Jr.
Firm	TRC Companies, Inc.
Address	10 Maxwell Dr, Suite 200, Clifton Park, NY, 12065
Phone	518-232-5833
Fax	518-348-1194
Email	gturner@trccompanies.com
Lic. No.	N/A

15. **Is this project within 500 feet of the Town line?** ☑ Yes ☐ No
16. **Is this project within 500 feet of the Putnam County line?** ☐ Yes ☑ No
17. **Is this project within the Sustainable Development Study Area?** ☐ Yes ☑ No

18. **Is this project within 500 feet of:**
    - The right-of-way of any existing or proposed state or county road? ☑ Yes ☐ No
    - The boundary of an existing or proposed state or county park or any state or county recreation area? ☐ Yes ☑ No
    - The boundary of state or county-owned land on which a public building/ institution is located? ☐ Yes ☑ No
    - An existing or proposed county drainage line? ☐ Yes ☑ No
    - The boundary of a farm located in an agricultural district? ☐ Yes ☑ No

19. **Does the entire development plan for this project propose the disturbance of more than 5,000 SF of land? Note: If project is phased, include all phases in determination.** ☑ Yes ☐ No

20. **This project requires the following permits or approvals from the Town of Yorktown:**
    - ☐ Wetland Permit
    - ☑ Stormwater Permit
    - ☑ Tree Permit
    - ☑ Planning Board special permit: Large-Scale Solar Special Use Permit
    - ☐ Town Board variance or approval: _____
    - ☐ Zoning Board of Appeals variance or special permit: _____

21. This project requires the following permits or approvals from other outside agencies:

- ☐ Westchester County Board of Health
- ☑ NYC DEP
- ☑ NYS DEC
- ☑ Other: NY State Historic Preservation Office (SHPO) Review; NY Natural Heritage Program (NHP) Review

22. This parcel is in the following districts:

School District	Yorktown Central	Water District	New Castle / Stanwood
Fire District	Yorktown Heights	Sewer District	N/A

A Short or Full EAF with the original signature of the applicant must be attached to this application when submitted.

The applicant agrees to comply with the requirements of the Road Specifications, the Land Use Regulations, Zoning Ordinance, Tree Removal and Excavation ordinance, and any additions or amendments thereto.

The applicant agrees to execution and delivery of deeds and required documents for reserved parks/recreation/open space/drainage control, roads and road widening strips and descriptions of easements at the time of the public hearing. Such execution and delivery shall not operate to vest title of said property in the Town of Yorktown until such dedication is accepted in the form of a resolution adopted by the Town Board at a regular meeting of said Board.

The execution and delivery of the deeds to the roads in the proposed subdivision as provided for by the terms of the deeds to the roads in the proposed subdivision as provided for by the terms of the approving resolution shall not operate to vest title of said roads in the Town of Yorktown until such deed is accepted in the form of a resolution adopted by the Town Board at regular meeting of said Board.

Applicant

RENNIE FRIEDMAN
NAME (PLEASE PRINT)

DocuSigned by:
Rennie Friedman
BF80F12E0E70401...
SIGNATURE

June 7, 2022
DATE

Owner of Record

B+M Management
NAME (PLEASE PRINT)

A.B. Mgmt
SIGNATURE

6/8/22
DATE

Note: If the property owner is not the applicant for this application, in addition to the signature above, the owner of the property must also complete and have notarized one of the owner affidavits on the following page.

Note: By signing this document the owner of the subject property grants permission for Town Officials to enter the property for the purpose of reviewing this application.

REFER TO AFFIDAVITS ON THE FOLLOWING PAGES

ONE OF THE FOLLOWING AFFIDAVITS MUST BE COMPLETED

****

AFFIDAVIT TO BE COMPLETED BY OWNER, OTHER THAN CORPORATION

STATE OF NEW YORK; COUNTY OF WESTCHESTER SS. :

_____, being duly sworn, deposes and says that he is the owner in fee of the property described in the foregoing application for consideration of preliminary plat, and that the statements contained therein are true to the best of his knowledge and belief.

_____

Sworn before me this
_____ date of _____, 20__

_____
Notary Public

****

AFFIDAVIT TO BE COMPLETED BY CORPORATION OWNER

Connecticut Fairfield
STATE OF ~~NEW YORK~~; COUNTY OF ~~WESTCHESTER~~ SS.: New Canaan

Harvey Matthews, being duly sworn, deposes and says that he resides at 119 Elm Street New Canaan CT 06840 in the County of Fairfield and State of Connecticut. That he is the owner of BNM Management the corporation which is owner in fee of the property described in the foregoing application for Solen farm and that the statements contained therein are true to the best of his knowledge and belief.

_____

Sworn before me this
8th date of June, 2022.

_____
Notary Public

SHAZARD BRIAN SAHAI
Notary Public, State of Connecticut
My Commission Expires Sept. 30, 2024

****

AFFIDAVIT TO BE COMPLETED BY AGENT OF OWNER

STATE OF NEW YORK; COUNTY OF WESTCHESTER SS. :

_____, being duly sworn, deposes and says that he is the agent named in the foregoing application for _____ and that he has been duly authorized by the owner in fee to make such application and that foregoing statements are true to the best of his knowledge and belief.

_____

Sworn before me this
_____ date of _____, 20 __

_____
Notary Public

F:\Office\WordPerfect\APPLICATION FORMS\APPSITEPLAN.wpd
Last updated: December 2011

TOWN OF YORKTOWN
PLANNING BOARD

Yorktown Community and Cultural Center, 1974 Commerce Street, Yorktown Heights, New York 10598, Phone (914) 962-6565, Fax (914) 962-3986

SPECIAL USE PERMIT APPLICATION

If this application is not being made in conjunction with a request for site plan approval from the Planning Board, a site plan/plot plan and Short EAF must also be submitted with this application. The required fee is $625.00 for new applications and $312.00 for requests to renew an existing permit.

Date June 15, 2022

1. **Tax Map Designation (Section, Block, Lot)** 70.11-01-16; 70.15-01-02

2. **Property Address** Dell Avenue, Yorktown, NY

3. **Zone:** R1-160 **Total Acreage:** 62.33

4. **Indicate requested special use permit:**

☐	§300-21(8)(a)[1]	Outdoor service in commercial districts.
☐	§300-40	Bus passenger shelters.
☐	§300-54	Religious institutions, social, cultural, charitable and recreational nonprofit uses.
☐	§300-55	Parochial, private elementary and high schools, colleges and seminaries.
☐	§300-69	Valet parking at banquet halls.
☐	§300-71	New and/or used car automobile sales.
☐	§300-73.1(A)(2)	Permanent seasonal outdoor sales in commercial districts.
☐	§300-75	Warehouse or storage in retail shopping centers.
☐	§300-78	Cemeteries.
☐	§300-79	Self-storage centers.
☐	§300-80	Sidewalk cafes. (outdoor dining for more than 12 seats)
☐	§300-81.1	Helistops.
☐	§300-81.2	Accessory recycling facilities.
☑	§300-81.4	Large-Scale Solar Power Generation Systems and Facilities
☐	§300-81.5	Tier 2 Battery Energy Storage Systems
☐	§300-238.1	Multifamily dwelling units in the Country Commercial Zone.

5. **Description of proposed use (if applying for outdoor dining, indicate proposed dining area square footage and number of seats):**

3,625 kWac fixed-tilt ground mount solar energy system and associated facilities: gravel access roads, fence, electrical equipment, stormwater management features, landscaping, etc.

6. **Applicant**

Name	SCS Dell 014136 Yorktown, LLC
Firm	Sol Customer Solutions, LLC
Address	1101 Connecticut Ave NW, Second Floor, Washington, DC, 20036
Phone	202-527-8402
Email	erick.alvesdosa@solsystems.com; rennie.friedman@solsystems.com

7. **Owner of Record**

Name	B&M Management Company, LLC
Firm	B&M Management Company, LLC
Address	199 Elm St, New Canaan, CT, 06840
Phone	203-536-2928
Email	mattshouses@aol.com

In the event the permit is issued, the undersigned applicant will comply with all provisions of the Code of the Town of Yorktown and all other applicable laws, codes, rules and regulations of any Federal, State or County Government, bureau or department thereof, having jurisdiction over said premises and the use to be conducted thereat.

Applicant	Owner of Record
DocuSigned by: Rennie Friedman BF80F12E0E70401...	H.B. Matthews for B+M management
SIGNATURE	SIGNATURE
Rennie Friedman	H.B. Matthews
PRINT NAME	PRINT NAME
June 7, 2022	6/8/22
DATE	DATE

Note: By signing this document the owner of the subject property grants permission for Town Officials to enter the property for the purpose of reviewing this application.

F:\Office\WordPerfect\Application Forms\APP-SpecialPermit.wpd
This form last updated: September 2020

TOWN OF YORKTOWN PLANNING BOARD

Large Scale Solar Power Generation Systems & Facilities

Special Permit Application Addendum

GENERAL PROJECT INFORMATION

Project Name: Dell Avenue Solar Farm

Section, Block, Lot: 70.11-01-16; 70.15-01-02 Zone: R1-160

Existing Site Use: ☑ Residential ☐ Commercial ☐ Agriculture

Is Applicant? ☐ Property Owner ☑ Lessee

Proposed Lot Coverage: 14.1

PROVIDE THE TOTAL SYSTEM CAPACITY RATING

A Large Scale Solar Energy system is a Solar Energy System that exceeds 20 kW DC as rated by its nameplate capacity. The maximum system capacity and the maximum area of land upon which the system shall be erected are as follows:

(1) Up to one megawatt AC on an area of land no larger than 10 acres, excluding any easement for accessing the parcel; or over 1 but not to exceed 5 Megawatt AC on an area of land no larger than 20 acres, excluding any easement for accessing the parcel.

Total System Capacity Rating: 3,625 MW Power Rating_____ kW (Select One) ☑ AC or ☐ DC

SELECT INSTALLATION TYPE

☑ Ground ☐ Rooftop

PROPOSED SOLAR ENERGY SYSTEM INSTALLATION INFORMATION

Sponsor Company

Contact Name: SCS Dell 014136 Yorktown, LLC

Business Name: Sol Customer Solutions, LLC

Address: 1101 Connecticut Ave NW, Second Floor, Washington, DC, 20036

Phone: 202-527-8402

Email: erick.alvesdesa@solsystems.com; rei

Contractor/Installation Company

Contact Name TBD

Business Name _____

Address _____

Phone _____

Email _____

PROPOSED OWNER AND/OR OPERATOR (IF DIFFERENT FROM ABOVE)

Name Same as Sponsor Company (above)

Firm _____

Address _____

Phone _____

Email _____

SUBMITTAL REQUIREMENTS

In order to submit a complete permit application for a new large-scale solar power generation system, the applicant must include:

a) Completed Planning Board Special Use Permit Application with this Large Scale Solar Power Generation System Addendum.
b) A special permit application fee of **$625.00** paid by check made payable to the Town of Yorktown.
c) Required documents as listed in Section 300-84.1(F):
   - Equipment specification sheets shall be submitted for all photovoltaic panels, significant components, mounting systems, and inverters that are to be installed.
   - A property Operation and Maintenance Plan shall be submitted.
   - A carbon sequestration for tree loss calculation.
   - Proposed tree loss mitigation, if applicable.
   - A Decommissioning Plan
d) All site plan application requirements pursuant to Section 300-85/1(I) of the Town of Yorktown Town Code.

TOWN OF YORKTOWN - ENGINEERING DEPARTMENT
MS4 STORMWATER MANAGEMENT PERMIT APPLICATION
WETLAND PERMIT APPLICATION and/or TREE PERMIT APPLICATION

Please Submit via Mail or In-Person to the Engineering Department:
Original Signed Application, Applicable Fees, Short or Long Environmental Assessment Form, Two (2) Sets of Plans / Maps

Please Email PDF copies of the Application, EAF and Set of Plans to:
louise@yorktownny.org

If your project is before the Planning Board or Town Board for any type of new construction, site plan or subdivision, all of the above must be submitted to the Engineering Department.

Submission to any other department will delay the application review and permit issuance process.

Please contact us at 962-5722, ext. 220 or 219 with any questions.

Thank you for your cooperation.

TOWN OF YORKTOWN - ENGINEERING DEPARTMENT
MS4 STORMWATER MANAGEMENT PERMIT APPLICATION
WETLAND PERMIT APPLICATION and/or TREE PERMIT APPLICATION

Section 70.15; 70.11

Block 1; 1

Lot # 2; 16

Approval Authority: TE [ ] PB [ ] TB [ ]

Application #: _____

Date Received: _____

Date Issued: _____

Date Expires: _____

Fee Paid: $ _____

Job Site Address: Dell Ave

City/State/Zip: Yorktown NY 10514

NOTE: Application, Fee, Short/Long Form EAF, Map/Survey to be submitted to the Engineering

APPLICANT:

YOUR NAME: SCS Dell 014136 Yorktown, LLC

COMPANY: Sol Customer Solutions, LLC

ADDRESS: 1101 Connecticut Ave NW, 2nd Floor

Washington, DC ZIP 20036

PHONE: (202) 527-8402

EMAIL: erick.alvesdesa@solsystems.com

OWNER:

YOUR NAME: B&M Management Company, ~~LLC~~ Inc

COMPANY: B&M Management Company, ~~LLC~~ Inc

ADDRESS: 199 Elm Street

New Canaan, CT ZIP 06840

PHONE: (203) 536-2928

EMAIL: mattshouses@aol.com

APPROVED PLANS AND PERMIT SHALL BE ON-SITE AT ALL TIMES

Select One	Type	Approval Authority	Cost
☐	Wetland/Watercourse/Buffer Area Permit (Administrative)	Town Engineer	$800.00
☐	Wetland/Watercourse/Buffer Area Permit	Town Board/Planning Board	$1,800.00
☐	Renewal of Wetlands/Watercourse/Buffer Area Permit (1 Year)	Town Engineer	$150.00
☐	MS4 Stormwater Management Permit (Administrative)	Town Engineer	$300.00
☑	MS4 Stormwater Management Permit	Town Board/Planning Board	$1,500.00
☐	Renewal of a MS4 Stormwater Management Permit (1 Year)	Town Engineer	$150.00
☑	Tree Permit	Town Engineer	$0.00

Application fees are doubled with issuance of a Stop Work Order/Notice of Violation as per Town Code.

PROPOSED ACTIVITY - If not located in wetland/wetland buffer (skip to 2b)

1. Description of wetlands (check all that apply):

a. Lake/pond	☐	Control area of lake/pond	☐
b. Stream/River/Brook	☐	Control area of stream/river/brook	☐
c. Wetlands	☐	Control area of wetlands	☐

2a. Description of activity in the wetland and/or wetland buffer. Describe the proposed work including the following: i.e. maintenance, construction of dwelling, addition, driveway, culverts, including size and location.

N/A

2b. Stormwater/Excavation - Description of proposed activity:

This Project will obtain permit coverage under the "New York State Department of Environmental Conservation (NYSDEC) State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity" General Permit GP-0-20-001. As a precursor to obtaining the permit coverage, a Stormwater Pollution Prevention Plan (SWPPP) will be developed. The peak runoff rates for the pre-development and post-development conditions will be analyzed to aid in maintaining the pre-development runoff rates. Stormwater runoff for the Project will be collected and conveyed to stormwater quality and quantity control practices such as dry swales and bioretention facilities. See attached narrative.

3. Tree Removal:

Amount of trees and/or stumps to be removed: 1,055
Sizes; approximate DBH: Average DBH is 15.7 inches. See attached tree report.
Species of trees to be removed (i.e. Birch, Spruce - if known): Primarily sugar maple and red oak. See attached tree report.
Reason for removal: Dell Avenue Solar Farm. See attached tree report.
Trees marked In field (trees must be marked prior to inspection): Yes: ☐ **No:** ☑
Tree removal contractor: TBD

Attach survey/sketch indicating property boundaries, existing structures, driveways, roadways and location of existing trees. Trees must be marked in the field before inspection.

4. PROPERTY OWNER CONSENT: If another entity (e.g. contractor, consultant) is applying on the owner's behalf, the PROPERTY OWNER is to complete, sign and date this authorization:

I, B&M Management Company, ~~LLC~~ Inc **hereby authorize** SCS Dell 014136 Yorktown, LLC **to apply for this Stormwater/Wetland Permit/Tree Permit on my behalf.**

Signature: A. B. [signature] **Date:** June 14, 2022

No application will be processed without the above-mentioned, required information.

GENERAL CONDITIONS

1. The permittee is responsible for maintaining an active application. If no activity occurs within a six (6) month period, as measured from the date of application, the application will become null and void. Applications fees are non-refundable.

2. The Town of Yorktown reserves the right to modify, suspend or revoke this permit at any time after due notice when:
   a. Scope of the project is exceeded or a violation of any condition of the permit or provision of the law pertinent regulations are found; or
   b. Permit was obtained by misrepresentation or failure to disclose relevant facts; or
   c. Newly discovered information or significant physical changes are discovered.

3. The permittee is responsible for keeping the permit active by requesting renewal from the Approval Authority. Any supplemental information that may be required by the Approval Authority, including forms and fees, must be submitted 30 days prior to the expiration date. The expiration date is one year from the date the bond is paid to the Engineering Department. In accordance with Chapter 178 of the Town Code, Freshwater Wetlands, Section 178-16 -Expiration of a Permit.

4. This permit shall not be construed as conveying to the applicant any right to trespass upon private lands or interfere with the riparian rights of others in order to perform the permitted work or as authorizing the impairment of any right, title or interest in real or personal property held or vested in person not party to this permit.

5. The permittee is responsible for obtaining any other permits, approvals, easements and right-of-way, which may be required.

6. Any modification of this permit granted by the Approval Authority must be in writing and attached hereto.

7. Granting of this permit does not relieve the applicant of the responsibility of obtaining any other permission, consent or approval from the U.S. Army Corps of Engineers, N.Y.C. Department of Environmental Protection, N.Y.S. Department of Environmental Conservation or local government, which may be required.

Erick Alves de Sa

PRINT NAME

Erick Alves de Sa Digitally signed by Erick Alves de Sa Date: 2022.06.14 12:56:50 -04'00'

SIGNATURE OF APPLICANT

June 14, 2022

DATE

Daniel A. Ciarcia, P.E.
Acting Town Engineer

Matthew Slater
Town Supervisor

TOWN OF YORKTOWN
ENGINEERING DEPARTMENT

Town of Yorktown Town Hall, 363 Underhill Avenue, Yorktown Heights, New York 10598

CERTIFICATION OF PROJECT COMPLETION

Date: _____

Project Name: _____

Project Location: _____

Permit Number(s): _____

Check/Bond # & Amount (If Applicable) _____

Street Name(s) To Be Dedicated (If Applicable) _____

The undersigned hereby certifies that the work for the above referenced project has been completed in accordance with the terms and conditions of the Town approval resolution and/or the Town permit terms and conditions.

Owner, Engineer or Authorized Representative:

(signed)_____
Printed Name:
Title:
Company:

Yorktown Engineering Department

Date Received: _____

Date Accepted: _____

Disposition: _____

SOL SYSTEMS DELL AVE. SOLAR STORMWATER MANAGEMENT NARRATIVE

This Project will obtain permit coverage under the "New York State Department of Environmental Conservation (NYSDEC) State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity" General Permit GP-0-20-001, effective January 29, 2020 through January 28, 2025. The NYSDEC requires coverage under GP-0-20-001 for any "construction activities involving soil disturbances of one or more acres".

The proposed Project is considered new development and will result in greater than 1 acre of soil disturbance and involve construction of limited impervious surfaces (i.e., concrete equipment foundations in two areas). As a precursor to obtaining the permit coverage, a Stormwater Pollution Prevention Plan (SWPPP) will be developed in accordance with the technical requirements contained in the New York State Standards and Specifications for Erosion and Sediment Control (SSESC) and the New York State Stormwater Management Design Manual (SMDM). The SWPPP will therefore address both erosion and sediment controls and post-construction stormwater management practices (SMPs) designed in conformance with the permit. Additionally, the SWPPP will be developed in recognition of the NYSDEC Memorandum Solar Panel Construction Stormwater Permitting/SWPPP Guidance dated April 6, 2018.

Since the Project is located within the New York City Watershed, the SWPPP will also address the additional requirements of the Rules and Regulations for the Protection from Contamination, Degradation and Pollution of the New York City Water Supply and Its Sources of the Rules of the City of New York and will be subject to New York City Department of Environmental Protection review and approval.

The Project is located within the Town of Yorktown, a regulated Municipal Separate Storm Sewer System (MS4). As such, the SWPPP will be prepared in accordance with applicable requirements of the Town of Yorktown, Chapter 248, Stormwater Management and Erosion and Sediment Control and will be subject to the review and approval of the Town.

Prior to the commencement of construction activities, temporary erosion and sediment controls will be installed in accordance with the approved SWPPP to prevent erosion of the soils and prevent water quality degradation in wetlands and waterbodies. Erosion and sediment controls will be used to limit, control, and mitigate construction-related impacts. The stormwater management and pollution controls will include practices that involve runoff control, soil stabilization practices, and sediment control.

The peak runoff rates for the pre-development and post-development conditions will be analyzed to aid in maintaining the pre-development runoff rates. Regulating the runoff rate will minimize the impacts to adjacent and downstream properties and waterbodies and minimize impacts to the stormwater runoff quality. The most-likely runoff reduction technique to be used for the Project is:

- Porous Pavement: Pervious types of pavements that provide an alternative to conventional paved surfaces, designed to infiltrate rainfall through the surface, thereby reducing stormwater runoff from a site and providing some pollutant uptake in the underlying soils. Pervious access roads are planned to be constructed instead of the traditional gravel drives.

Stormwater runoff for the Project will be collected and conveyed to stormwater quality and quantity control practices. Due to the widespread presence of shallow bedrock across the site, stormwater infiltration practices are not considered feasible. Rather, a number of dry swales and bioretention

facilities operating in series are the most likely means to treat changes to runoff characteristics generated by the Project.

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: Dell Avenue Solar Farm		
Project Location (describe, and attach a general location map): Dell Ave Yorktown, Westchester County, New York, Tax Parcels: 70.11-01-16, 70.15-01-02		
Brief Description of Proposed Action (include purpose or need): SCS Dell 014136 Yorktown, LLC is seeking site plan approval from the Yorktown Planning Board for a 3,625 kWac fixed-tilt ground mount solar energy system and associated facilities such as gravel access roads, chain-link fence, electrical equipment, stormwater management features, landscaping, etc. The project design also takes into account electrical and site plan considerations for a not yet planned battery energy storage system (BESS). The BESS is a potential future option that may be pursued after the solar array has been commercialized and operational, dependent on future state or local incentives specifically related to battery storage. The area is currently zoned as a one-family residential district (R1-160).		
Name of Applicant/Sponsor: SCS Dell 014136 Yorktown, LLC	Telephone: 202-527-8402 E-Mail: erick.alvesdesa@solsystems.com	
Address: 1101 Connecticut Ave NW, Second Floor		
City/PO: Washington	State: DC	Zip Code: 20036
Project Contact (if not same as sponsor; give name and title/role): Erick Alves de Sa, Project Development Manager, Sol Customer Solutions (SCS)	Telephone: 202-527-8402 E-Mail: erick.alvesdesa@solsystems.com	
Address: 1101 Connecticut Ave NW, Second Floor		
City/PO: Washington	State: DC	Zip Code: 20036
Property Owner (if not same as sponsor): B & M Management Company, Inc.	Telephone: 203-536-2928 E-Mail: mattshouses@aol.com	
Address: 199 Elm St		
City/PO: New Canaan	State: CT	Zip Code: 06840

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Council, Town Board, or Village Board of Trustees ☐Yes ☑No		
b. City, Town or Village Planning Board or Commission ☑Yes ☐No	Yorktown Planning Board - Site Plan and Special Use Permit Approvals	June 15, 2022 (actual)
c. City, Town or Village Zoning Board of Appeals ☐Yes ☑No		
d. Other local agencies ☐Yes ☑No		
e. County agencies ☐Yes ☑No		
f. Regional agencies ☑Yes ☐No	NYCDEP - SWPPP	August 2022 (projected)
g. State agencies ☑Yes ☐No	NYSDEC - SPDES General Permit	August 2022 (projected)
h. Federal agencies ☐Yes ☑No		

i. Coastal Resources.

i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes ☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes ☑No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes ☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes ☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑Yes ☐No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☐Yes ☑No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☑Yes ☐No

If Yes, identify the plan(s):

Westchester County Croton Watershed Plan

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes ☑No

If Yes, identify the plan(s):

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
R1-160: one-family residential

b. Is the use permitted or allowed by a special or conditional use permit? ☑ Yes ☐ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☑ No
If Yes,
i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? Yorktown Central School District

b. What police or other public protection forces serve the project site?
Yorktown Police Department

c. Which fire protection and emergency medical services serve the project site?
Yorktown Heights Fire Department; Yorktown Volunteer Ambulance Corp.

d. What parks serve the project site?
Kitchawan Preserve

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Solar electricity generation (commercial)

b. a. Total acreage of the site of the proposed action? 62.33 acres
b. Total acreage to be physically disturbed? 14.1 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 16 +/- acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☐ Yes ☑ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
ii. Is a cluster/conservation layout proposed? ☐ Yes ☐ No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: 9 months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? ☐ Yes ☑ No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase				
At completion of all phases				

g. Does the proposed action include new non-residential construction (including expansions)? ☑ Yes ☐ No

If Yes,

i. Total number of structures N/A

ii. Dimensions (in feet) of largest proposed structure: Max. 10' height; N/A width; and N/A length

iii. Approximate extent of building space to be heated or cooled: N/A square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☐ Yes ☑ No

If Yes,

i. Purpose of the impoundment: _____

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☐ Other specify:

_____

iii. If other than water, identify the type of impounded/contained liquids and their source.

N/A

iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres

v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete):

_____

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? ☐ Yes ☑ No
(Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)

If Yes:

i .What is the purpose of the excavation or dredging? _____

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): _____
- Over what duration of time? _____

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

_____

_____

i*v.* Will there be onsite dewatering or processing of excavated materials? ☐ Yes ☐ No
If yes, describe. _____

_____

v. What is the total area to be dredged or excavated? _____acres

vi. What is the maximum area to be worked at any one time? _____ acres

vii. What would be the maximum depth of excavation or dredging? _____ feet

viii. Will the excavation require blasting? ☐ Yes ☐ No

ix. Summarize site reclamation goals and plan: _____

_____

_____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☐ Yes ☑ No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): _____

_____

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

_____

_____

_____

_____

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☐Yes ☐No

If Yes, describe: _____

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☐ Yes ☐No

If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____

_____

- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

_____

c. Will the proposed action use, or create a new demand for water? ☐Yes ☑No

If Yes:

i. Total anticipated water usage/demand per day: _____ gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☐Yes ☐No

If Yes:

- Name of district or service area: _____
- Does the existing public water supply have capacity to serve the proposal? ☐ Yes ☐ No
- Is the project site in the existing district? ☐ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☐ No
- Do existing lines serve the project site? ☐ Yes ☐ No

iii. Will line extension within an existing district be necessary to supply the project? ☐Yes ☐No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

_____

- Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☐No

If, Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

_____

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☐ Yes ☑No

If Yes:

i. Total anticipated liquid waste generation per day: _____ gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____

_____

_____

iii. Will the proposed action use any existing public wastewater treatment facilities? ☐Yes ☐No

If Yes:

- Name of wastewater treatment plant to be used: _____
- Name of district: _____
- Does the existing wastewater treatment plant have capacity to serve the project? ☐Yes ☐No
- Is the project site in the existing district? ☐Yes ☐No
- Is expansion of the district needed? ☐Yes ☐No

- Do existing sewer lines serve the project site? ☐Yes ☐No
- Will a line extension within an existing district be necessary to serve the project? ☐Yes ☐No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐Yes ☐No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

_____

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑Yes ☐No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or 0.05 acres (impervious surface)

_____ Square feet or 62.33 acres (parcel size)

ii. Describe types of new point sources. Stornwater runofff from solar panels

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

Stormwater will flow off panels to the ground and drain as normal to surface water on and around the site. Appropriate stormwater management controls will be implemented during construction. Permanent stormwater management features to include bioretention ponds, dry swales, etc.

- If to surface waters, identify receiving water bodies or wetlands: _____
- Will stormwater runoff flow to adjacent properties? ☑Yes ☐No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☑Yes ☐No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☐Yes ☑No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐Yes ☑No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐Yes ☐No

ii. In addition to emissions as calculated in the application, the project will generate:

- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

_____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

_____

_____

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☐Yes ☑No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☐ Morning ☐ Evening ☐Weekend ☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____

_____

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? ☐Yes ☐No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

_____

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes ☐No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☐Yes ☑No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

_____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

_____

iii. Will the proposed action require a new, or an upgrade, to an existing substation? ☐Yes ☐No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 7:00am-5:00pm
- Saturday: _____
- Sunday: _____
- Holidays: _____

ii. During Operations:

- Monday - Friday: Daylight Solar Elec. Generation
- Saturday: Daylight Solar Elec. Generation
- Sunday: Daylight Solar Elec. Generation
- Holidays: Daylight Solar Elec. Generation

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☐ Yes ☑ No

If yes:

i. Provide details including sources, time of day and duration:

_____

_____

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☐ No

Describe: _____

_____

n. Will the proposed action have outdoor lighting? ☐ Yes ☑ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

_____

_____

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☐ No

Describe: _____

_____

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

_____

_____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally, describe the proposed storage facilities:_____

_____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☑ Yes ☐ No

If Yes:

i. Describe proposed treatment(s):

Potential for herbicides in solar array area to promote healthy pollinator-friendly vegetation mix.

_____

_____

_____

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☐ Yes ☑ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: _____ tons per _____ (unit of time)
- Operation : _____ tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: _____

  _____
- Operation: _____

  _____

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: _____

  _____
- Operation: _____

  _____

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☐ Industrial ☐ Commercial ☑ Residential (suburban) ☐ Rural (non-farm)
☑ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe:

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	0	0.1	+0.1
• Forested	48.2	34.1	-14.1
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0	0	0
• Agricultural (includes active orchards, field, greenhouse etc.)	0	0	0
• Surface water features (lakes, ponds, streams, rivers, etc.)	1	1	0
• Wetlands (freshwater or tidal)	13	13	0
• Non-vegetated (bare rock, earth or fill)	0.1	0.1	0
• Other Describe: Solar Panel Array Areas	0	9.1	+9.1
Gravel Access Roads (pervious)	0	0.6	+0.6
Other project areas within limits of disturbance (SWM features, drainage ditches, etc.)	0	4.3	+4.3

c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☑ No

i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☐ Yes ☑ No

If Yes,

i. Identify Facilities:

_____

_____

e. Does the project site contain an existing dam? ☐ Yes ☑ No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

_____

_____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Has the facility been formally closed? ☐ Yes ☐ No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

_____

_____

iii. Describe any development constraints due to the prior solid waste activities: _____

_____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

_____

_____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐ Yes ☑ No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐ Yes ☐ No

☐ Yes – Spills Incidents database Provide DEC ID number(s): _____

☐ Yes – Environmental Site Remediation database Provide DEC ID number(s): _____

☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures:_____

_____

_____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☐ Yes ☑ No

If yes, provide DEC ID number(s): _____

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

_____

_____

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☐ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☐ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? 0 to > 16 feet

b. Are there bedrock outcroppings on the project site? ☑ Yes ☐ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? 0.2 %

c. Predominant soil type(s) present on project site: Charlton loam ____%
_____ ____%
_____ ____%

d. What is the average depth to the water table on the project site? Average: 0 to >16 feet

e. Drainage status of project site soils:
☑ Well Drained: 70 % of site
☑ Moderately Well Drained: 20 % of site
☑ Poorly Drained 10 % of site

f. Approximate proportion of proposed action site with slopes:
☐ 0-10%: 50 % of site
☐ 10-15%: 20 % of site
☐ 15% or greater: 30 % of site

g. Are there any unique geologic features on the project site? ☐ Yes ☑ No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☑ Yes ☐ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☑ Yes ☐ No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☑ Yes ☐ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name 864-463.1 Classification B(TS)
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name Federal Waters Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☑ No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐ Yes ☑ No

j. Is the project site in the 100-year Floodplain? ☐ Yes ☑ No

k. Is the project site in the 500-year Floodplain? ☑ Yes ☐ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐ Yes ☑ No
If Yes:

i. Name of aquifer: _____

m. Identify the predominant wildlife species that occupy or use the project site:
Typical local wildlife

n. Does the project site contain a designated significant natural community? ☐ Yes ☑ No
If Yes:
i. Describe the habitat/community (composition, function, and basis for designation):
ii. Source(s) of description or evaluation:
iii. Extent of community/habitat:
- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☑ Yes ☐ No

If Yes:
i. Species and listing (endangered or threatened):
Bald Eagle, Bog Turtle, Indiana Bat

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐ Yes ☑ No

If Yes:
i. Species and listing:

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐ Yes ☑ No
If yes, give a brief description of how the proposed action may affect that use:

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐ Yes ☑ No
If Yes, provide county plus district name/number:

b. Are agricultural lands consisting of highly productive soils present? ☐ Yes ☑ No
i. If Yes: acreage(s) on project site?
ii. Source(s) of soil rating(s):

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐ Yes ☑ No
If Yes:
i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature
ii. Provide brief description of landmark, including values behind designation and approximate size/extent:

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐ Yes ☑ No
If Yes:
i. CEA name:
ii. Basis for designation:
iii. Designating agency and date:

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? ☐ Yes ☑ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District

ii. Name: _____

iii. Brief description of attributes on which listing is based:

_____

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☑ Yes ☐ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☑ Yes ☐ No

If Yes:

i. Describe possible resource(s): Phase I Archaeological Study, Croton Overlook: Town of Yorktown, Westchester County, New York

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☐ Yes ☑ No

If Yes:

i. Identify resource: _____

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____

iii. Distance between project and resource: _____ miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

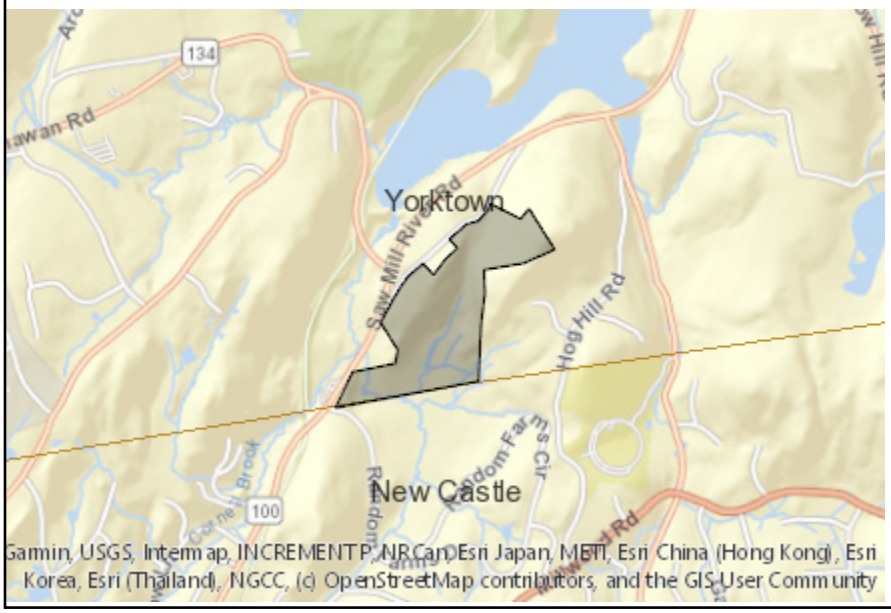
Applicant/Sponsor Name SCS Dell 014136 Yorktown, LLC Date June 14, 2022

Signature DocuSigned by: Erick Alves de Sa F24937F39FAE461... Title Project Development Mgr, Sol Customer Solutions

PRINT FORM

EAF Mapper Summary Report

Tuesday, May 31, 2022 9:38 AM



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.

B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Yes - Digital mapping data are not available for all Special Planning Districts. Refer to EAF Workbook.
C.2.b. [Special Planning District - Name]	NYC Watershed Boundary
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	No
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	Yes
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.iv [Surface Water Features - Stream Name]	864-463.1
E.2.h.iv [Surface Water Features - Stream Classification]	B(TS)
E.2.h.iv [Surface Water Features - Wetlands Name]	Federal Waters
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No

E.2.h. [500 Year Floodplain]	Yes
E.2.l. [Aquifers]	No
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	Yes
E.2.o. [Endangered or Threatened Species - Name]	Bald Eagle
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No

Agency Use Only [If applicable]

Project :

Date :

Full Environmental Assessment Form
Part 2 - Identification of Potential Project Impacts

Part 2 is to be completed by the lead agency. Part 2 is designed to help the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency's reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

If the lead agency is a state agency **and** the action is in any Coastal Area, complete the Coastal Assessment Form before proceeding with this assessment.

Tips for completing Part 2:

- Review all of the information provided in Part 1.
- Review any application, maps, supporting materials and the Full EAF Workbook.
- Answer each of the 18 questions in Part 2.
- If you answer "**Yes"** to a numbered question, please complete all the questions that follow in that section.
- If you answer "**No"** to a numbered question, move on to the next numbered question.
- Check appropriate column to indicate the anticipated size of the impact.
- Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box "Moderate to large impact may occur."
- The reviewer is not expected to be an expert in environmental analysis.
- If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- When answering a question consider all components of the proposed activity, that is, the "whole action".
- Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- Answer the question in a reasonable manner considering the scale and context of the project.

1. Impact on Land
Proposed action may involve construction on, or physical alteration of, the land surface of the proposed site. (See Part 1. D.1)
If "Yes", answer questions a - j. If "No", move on to Section 2.

☐ NO ☑ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may involve construction on land where depth to water table is less than 3 feet.	E2d	☑	☐
b. The proposed action may involve construction on slopes of 15% or greater.	E2f	☑	☐
c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.	E2a	☑	☐
d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material.	D2a	☑	☐
e. The proposed action may involve construction that continues for more than one year or in multiple phases.	D1e	☑	☐
f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).	D2e, D2q	☑	☐
g. The proposed action is, or may be, located within a Coastal Erosion hazard area.	B1i	☑	☐
h. Other impacts: _____ _____		☑	☐

2. Impact on Geological Features

The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1. E.2.g)

☑ NO ☐ YES

If "Yes", answer questions a - c. If "No", move on to Section 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Identify the specific land form(s) attached: _____ _____	E2g	□	□
b. The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark. Specific feature: _____	E3c	□	□
c. Other impacts: _____ _____		□	□

3. Impacts on Surface Water

The proposed action may affect one or more wetlands or other surface water bodies (e.g., streams, rivers, ponds or lakes). (See Part 1. D.2, E.2.h)

☑ NO ☐ YES

If "Yes", answer questions a - l. If "No", move on to Section 4.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may create a new water body.	D2b, D1h	□	□
b. The proposed action may result in an increase or decrease of over 10% or more than a 10 acre increase or decrease in the surface area of any body of water.	D2b	□	□
c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.	D2a	□	□
d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.	E2h	□	□
e. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.	D2a, D2h	□	□
f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.	D2c	□	□
g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).	D2d	□	□
h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.	D2e	□	□
i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.	E2h	□	□
j. The proposed action may involve the application of pesticides or herbicides in or around any water body.	D2q, E2h	□	□
k. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.	D1a, D2d	□	□

l. Other impacts: _____ _____		☐	☐

4. Impact on groundwater

The proposed action may result in new or additional use of ground water, or may have the potential to introduce contaminants to ground water or an aquifer. (See Part 1. D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t)

☑ NO ☐ YES

If "Yes", answer questions a - h. If "No", move on to Section 5.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.	D2c	☐	☐
b. Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. Cite Source: _____	D2c	☐	☐
c. The proposed action may allow or result in residential uses in areas without water and sewer services.	D1a, D2c	☐	☐
d. The proposed action may include or require wastewater discharged to groundwater.	D2d, E2l	☐	☐
e. The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.	D2c, E1f, E1g, E1h	☐	☐
f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.	D2p, E2l	☐	☐
g. The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.	E2h, D2q, E2l, D2c	☐	☐
h. Other impacts: _____ _____		☐	☐

5. Impact on Flooding

The proposed action may result in development on lands subject to flooding. (See Part 1. E.2)

☐ NO ☑ YES

If "Yes", answer questions a - g. If "No", move on to Section 6.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in development in a designated floodway.	E2i	☑	☐
b. The proposed action may result in development within a 100 year floodplain.	E2j	☑	☐
c. The proposed action may result in development within a 500 year floodplain.	E2k	☑	☐
d. The proposed action may result in, or require, modification of existing drainage patterns.	D2b, D2e	☑	☐
e. The proposed action may change flood water flows that contribute to flooding.	D2b, E2i, E2j, E2k	☑	☐
f. If there is a dam located on the site of the proposed action, is the dam in need of repair, or upgrade?	E1e	☑	☐

g. Other impacts: _____ _____		☑	☐

6. Impacts on Air

The proposed action may include a state regulated air emission source. (See Part 1. D.2.f., D.2.h, D.2.g) ☑ NO ☐ YES

If "Yes", answer questions a - f. If "No", move on to Section 7.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels:			
i. More than 1000 tons/year of carbon dioxide (CO_2)	D2g	☐	☐
ii. More than 3.5 tons/year of nitrous oxide (N_2O)	D2g	☐	☐
iii. More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs)	D2g	☐	☐
iv. More than .045 tons/year of sulfur hexafluoride (SF_6)	D2g	☐	☐
v. More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflourocarbons (HFCs) emissions	D2g	☐	☐
vi. 43 tons/year or more of methane	D2h	☐	☐
b. The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous air pollutants.	D2g	☐	☐
c. The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs. per hour, or may include a heat source capable of producing more than 10 million BTU's per hour.	D2f, D2g	☐	☐
d. The proposed action may reach 50% of any of the thresholds in "a" through "c", above.	D2g	☐	☐
e. The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.	D2s	☐	☐
f. Other impacts: _____ _____		☐	☐

7. Impact on Plants and Animals

The proposed action may result in a loss of flora or fauna. (See Part 1. E.2. m.-q.) ☑ NO ☐ YES

If "Yes", answer questions a - j. If "No", move on to Section 8.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2o	☐	☐
b. The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.	E2o	☐	☐
c. The proposed action may cause reduction in population, or loss of individuals, of any species of special concern or conservation need, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2p	☐	☐
d. The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.	E2p	☐	☐

e. The proposed action may diminish the capacity of a registered National Natural Landmark to support the biological community it was established to protect.	E3c	☐	☐
f. The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community. Source: _____	E2n	☐	☐
g. The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.	E2m	☐	☐
h. The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat. Habitat type & information source: _____ _____	E1b	☐	☐
i. Proposed action (commercial, industrial or recreational projects, only) involves use of herbicides or pesticides.	D2q	☐	☐
j. Other impacts: _____ _____		☐	☐

8. Impact on Agricultural Resources

The proposed action may impact agricultural resources. (See Part 1. E.3.a. and b.) ☑ NO ☐ YES

If "Yes", answer questions a - h. If "No", move on to Section 9.

	Relevant Part I Question(s)	**No, or small impact may occur**	**Moderate to large impact may occur**
a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.	E2c, E3b	☐	☐
b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).	E1a, Elb	☐	☐
c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.	E3b	☐	☐
d. The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District, or more than 10 acres if not within an Agricultural District.	E1b, E3a	☐	☐
e. The proposed action may disrupt or prevent installation of an agricultural land management system.	El a, E1b	☐	☐
f. The proposed action may result, directly or indirectly, in increased development potential or pressure on farmland.	C2c, C3, D2c, D2d	☐	☐
g. The proposed project is not consistent with the adopted municipal Farmland Protection Plan.	C2c	☐	☐
h. Other impacts: _____		☐	☐

9. Impact on Aesthetic Resources

The land use of the proposed action are obviously different from, or are in sharp contrast to, current land use patterns between the proposed project and a scenic or aesthetic resource. (Part 1. E.1.a, E.1.b, E.3.h.)

☐ NO ☑ YES

If "Yes", answer questions a - g. If "No", go to Section 10.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.	E3h	☑	☐
b. The proposed action may result in the obstruction, elimination or significant screening of one or more officially designated scenic views.	E3h, C2b	☑	☐
c. The proposed action may be visible from publicly accessible vantage points: i. Seasonally (e.g., screened by summer foliage, but visible during other seasons) ii. Year round	E3h	 ☑ ☑	 ☐ ☐
d. The situation or activity in which viewers are engaged while viewing the proposed action is: i. Routine travel by residents, including travel to and from work ii. Recreational or tourism based activities	E3h E2q, E1c	 ☑ ☑	 ☐ ☐
e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.	E3h	☑	☐
f. There are similar projects visible within the following distance of the proposed project: 0-1/2 mile ½ -3 mile 3-5 mile 5+ mile	D1a, E1a, D1f, D1g	☑	☐
g. Other impacts: _____ _____		☑	☐

10. Impact on Historic and Archeological Resources

The proposed action may occur in or adjacent to a historic or archaeological resource. (Part 1. E.3.e, f. and g.)

☐ NO ☑ YES

If "Yes", answer questions a - e. If "No", go to Section 11.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on the National or State Register of Historical Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places.	E3e	☑	☐
b. The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.	E3f	☑	☐
c. The proposed action may occur wholly or partially within, or substantially contiguous to, an archaeological site not included on the NY SHPO inventory. Source: _____	E3g	☑	☐

d. Other impacts: _____ _____		☑	☐
e. If any of the above (a-d) are answered "Moderate to large impact may occur", continue with the following questions to help support conclusions in Part 3:			
i. The proposed action may result in the destruction or alteration of all or part of the site or property.	E3e, E3g, E3f	☐	☐
ii. The proposed action may result in the alteration of the property's setting or integrity.	E3e, E3f, E3g, E1a, E1b	☐	☐
iii. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.	E3e, E3f, E3g, E3h, C2, C3	☐	☐

11. Impact on Open Space and Recreation

The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan.
(See Part 1. C.2.c, E.1.c., E.2.q.)
If "Yes", answer questions a - e. If "No", go to Section 12.

☑ NO ☐ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in an impairment of natural functions, or "ecosystem services", provided by an undeveloped area, including but not limited to stormwater storage, nutrient cycling, wildlife habitat.	D2e, E1b E2h, E2m, E2o, E2n, E2p	□	□
b. The proposed action may result in the loss of a current or future recreational resource.	C2a, E1c, C2c, E2q	□	□
c. The proposed action may eliminate open space or recreational resource in an area with few such resources.	C2a, C2c E1c, E2q	□	□
d. The proposed action may result in loss of an area now used informally by the community as an open space resource.	C2c, E1c	□	□
e. Other impacts: _____ _____		□	□

12. Impact on Critical Environmental Areas

The proposed action may be located within or adjacent to a critical environmental area (CEA). (See Part 1. E.3.d)
If "Yes", answer questions a - c. If "No", go to Section 13.

☑ NO ☐ YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA.	E3d	□	□
b. The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA.	E3d	□	□
c. Other impacts: _____ _____		□	□

13. Impact on Transportation

The proposed action may result in a change to existing transportation systems. ☑ NO ☐ YES
(See Part 1. D.2.j)
If "Yes", answer questions a - f. If "No", go to Section 14.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Projected traffic increase may exceed capacity of existing road network.	D2j	☐	☐
b. The proposed action may result in the construction of paved parking area for 500 or more vehicles.	D2j	☐	☐
c. The proposed action will degrade existing transit access.	D2j	☐	☐
d. The proposed action will degrade existing pedestrian or bicycle accommodations.	D2j	☐	☐
e. The proposed action may alter the present pattern of movement of people or goods.	D2j	☐	☐
f. Other impacts: _____ _____		☐	☐

14. Impact on Energy

The proposed action may cause an increase in the use of any form of energy. ☑ NO ☐ YES
(See Part 1. D.2.k)
If "Yes", answer questions a - e. If "No", go to Section 15.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action will require a new, or an upgrade to an existing, substation.	D2k	☐	☐
b. The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.	D1f, D1q, D2k	☐	☐
c. The proposed action may utilize more than 2,500 MWhrs per year of electricity.	D2k	☐	☐
d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.	D1g	☐	☐
e. Other Impacts: _____ _____			

15. Impact on Noise, Odor, and Light

The proposed action may result in an increase in noise, odors, or outdoor lighting. ☑ NO ☐ YES
(See Part 1. D.2.m., n., and o.)
If "Yes", answer questions a - f. If "No", go to Section 16.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may produce sound above noise levels established by local regulation.	D2m	☐	☐
b. The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.	D2m, E1d	☐	☐
c. The proposed action may result in routine odors for more than one hour per day.	D2o	☐	☐

d. The proposed action may result in light shining onto adjoining properties.	D2n	☐	☐
e. The proposed action may result in lighting creating sky-glow brighter than existing area conditions.	D2n, E1a	☐	☐
f. Other impacts: _____ _____		☐	☐

16. Impact on Human Health

The proposed action may have an impact on human health from exposure to new or existing sources of contaminants. (See Part 1.D.2.q., E.1. d. f. g. and h.) ☑ NO ☐ YES

If "Yes", answer questions a - m. If "No", go to Section 17.

	Relevant Part I Question(s)	No,or small impact may cccur	Moderate to large impact may occur
a. The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community.	E1d	☐	☐
b. The site of the proposed action is currently undergoing remediation.	E1g, E1h	☐	☐
c. There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action.	E1g, E1h	☐	☐
d. The site of the action is subject to an institutional control limiting the use of the property (e.g., easement or deed restriction).	E1g, E1h	☐	☐
e. The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environment and human health.	E1g, E1h	☐	☐
f. The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health.	D2t	☐	☐
g. The proposed action involves construction or modification of a solid waste management facility.	D2q, E1f	☐	☐
h. The proposed action may result in the unearthing of solid or hazardous waste.	D2q, E1f	☐	☐
i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste.	D2r, D2s	☐	☐
j. The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste.	E1f, E1g E1h	☐	☐
k. The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures.	E1f, E1g	☐	☐
l. The proposed action may result in the release of contaminated leachate from the project site.	D2s, E1f, D2r	☐	☐
m. Other impacts: _____ _____			

17. Consistency with Community Plans

The proposed action is not consistent with adopted land use plans. ☑ NO ☐ YES
(See Part 1. C.1, C.2. and C.3.)
If "Yes", answer questions a - h. If "No", go to Section 18.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action's land use components may be different from, or in sharp contrast to, current surrounding land use pattern(s).	C2, C3, D1a E1a, E1b	☐	☐
b. The proposed action will cause the permanent population of the city, town or village in which the project is located to grow by more than 5%.	C2	☐	☐
c. The proposed action is inconsistent with local land use plans or zoning regulations.	C2, C2, C3	☐	☐
d. The proposed action is inconsistent with any County plans, or other regional land use plans.	C2, C2	☐	☐
e. The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.	C3, D1c, D1d, D1f, D1d, Elb	☐	☐
f. The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.	C4, D2c, D2d D2j	☐	☐
g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)	C2a	☐	☐
h. Other: _____ _____		☐	☐

18. Consistency with Community Character

The proposed project is inconsistent with the existing community character. ☑ NO ☐ YES
(See Part 1. C.2, C.3, D.2, E.3)
If "Yes", answer questions a - g. If "No", proceed to Part 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.	E3e, E3f, E3g	☐	☐
b. The proposed action may create a demand for additional community services (e.g. schools, police and fire)	C4	☐	☐
c. The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.	C2, C3, D1f D1g, E1a	☐	☐
d. The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.	C2, E3	☐	☐
e. The proposed action is inconsistent with the predominant architectural scale and character.	C2, C3	☐	☐
f. Proposed action is inconsistent with the character of the existing natural landscape.	C2, C3 E1a, E1b E2g, E2h	☐	☐
g. Other impacts: _____ _____		☐	☐

PRINT FULL FORM

Agency Use Only [IfApplicable]

Project :

Date :

Full Environmental Assessment Form
Part 3 - Evaluation of the Magnitude and Importance of Project Impacts
and
Determination of Significance

Part 3 provides the reasons in support of the determination of significance. The lead agency must complete Part 3 for every question in Part 2 where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.

Based on the analysis in Part 3, the lead agency must decide whether to require an environmental impact statement to further assess the proposed action or whether available information is sufficient for the lead agency to conclude that the proposed action will not have a significant adverse environmental impact. By completing the certification on the next page, the lead agency can complete its determination of significance.

Reasons Supporting This Determination:

To complete this section:

- Identify the impact based on the Part 2 responses and describe its magnitude. Magnitude considers factors such as severity, size or extent of an impact.
- Assess the importance of the impact. Importance relates to the geographic scope, duration, probability of the impact occurring, number of people affected by the impact and any additional environmental consequences if the impact were to occur.
- The assessment should take into consideration any design element or project changes.
- Repeat this process for each Part 2 question where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.
- Provide the reason(s) why the impact may, or will not, result in a significant adverse environmental impact
- For Conditional Negative Declarations identify the specific condition(s) imposed that will modify the proposed action so that no significant adverse environmental impacts will result.
- Attach additional sheets, as needed.

Determination of Significance - Type 1 and Unlisted Actions

SEQR Status: ☐ Type 1 ☑ Unlisted

Identify portions of EAF completed for this Project: ☑ Part 1 ☑ Part 2 ☐ Part 3

Upon review of the information recorded on this EAF, as noted, plus this additional support information

_____

_____

_____

and considering both the magnitude and importance of each identified potential impact, it is the conclusion of the _____ as lead agency that:

☐ A. This project will result in no significant adverse impacts on the environment, and, therefore, an environmental impact statement need not be prepared. Accordingly, this negative declaration is issued.

☐ B. Although this project could have a significant adverse impact on the environment, that impact will be avoided or substantially mitigated because of the following conditions which will be required by the lead agency:

_____

_____

_____

_____

There will, therefore, be no significant adverse impacts from the project as conditioned, and, therefore, this conditioned negative declaration is issued. A conditioned negative declaration may be used only for UNLISTED actions (see 6 NYCRR 617.7(d)).

☐ C. This Project may result in one or more significant adverse impacts on the environment, and an environmental impact statement must be prepared to further assess the impact(s) and possible mitigation and to explore alternatives to avoid or reduce those impacts. Accordingly, this positive declaration is issued.

Name of Action:	
Name of Lead Agency:	
Name of Responsible Officer in Lead Agency:	
Title of Responsible Officer:	
Signature of Responsible Officer in Lead Agency:	Date:
Signature of Preparer (if different from Responsible Officer)	Date:

For Further Information:

Contact Person:

Address:

Telephone Number:

E-mail:

For Type 1 Actions and Conditioned Negative Declarations, a copy of this Notice is sent to:

Chief Executive Officer of the political subdivision in which the action will be principally located (e.g., Town / City / Village of)
Other involved agencies (if any)
Applicant (if any)
Environmental Notice Bulletin: http://www.dec.ny.gov/enb/enb.html

PRINT FULL FORM

SITE PLAN SET

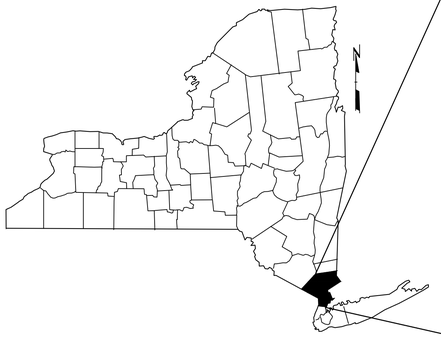
DELL AVENUE SOLAR FARM

DELL AVENUE, YORKTOWN, NEW YORK 10514

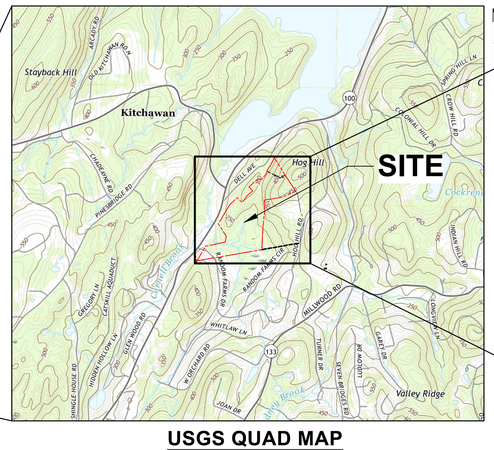
PREPARED FOR: SOL SYSTEMS, LLC
1101 CONNECTICUT AVENUE NW, 2ND FLOOR
WASHINGTON, DC 20036

PREPARED BY: TRC ENGINEERS, INC.
1430 BROADWAY, 10TH FLOOR
NEW YORK, NEW YORK 10018

DATE: JUNE 14, 2022

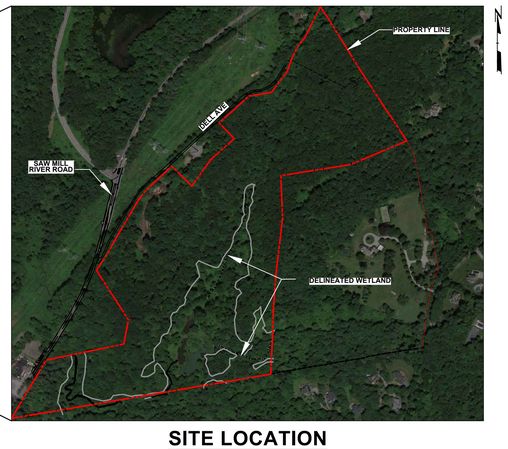


NEW YORK



USGS QUAD MAP

SCALE: 1:2000'
IMAGE SOURCE: U.S.GEOLOGICAL SURVEY MAPS
PARCEL DATA: WESTCHESTER TAX MAP



SITE LOCATION

SCALE: 1:500'
IMAGE SOURCE: GOOGLE EARTH PRO
PARCEL DATA: WESTCHESTER TAX MAP

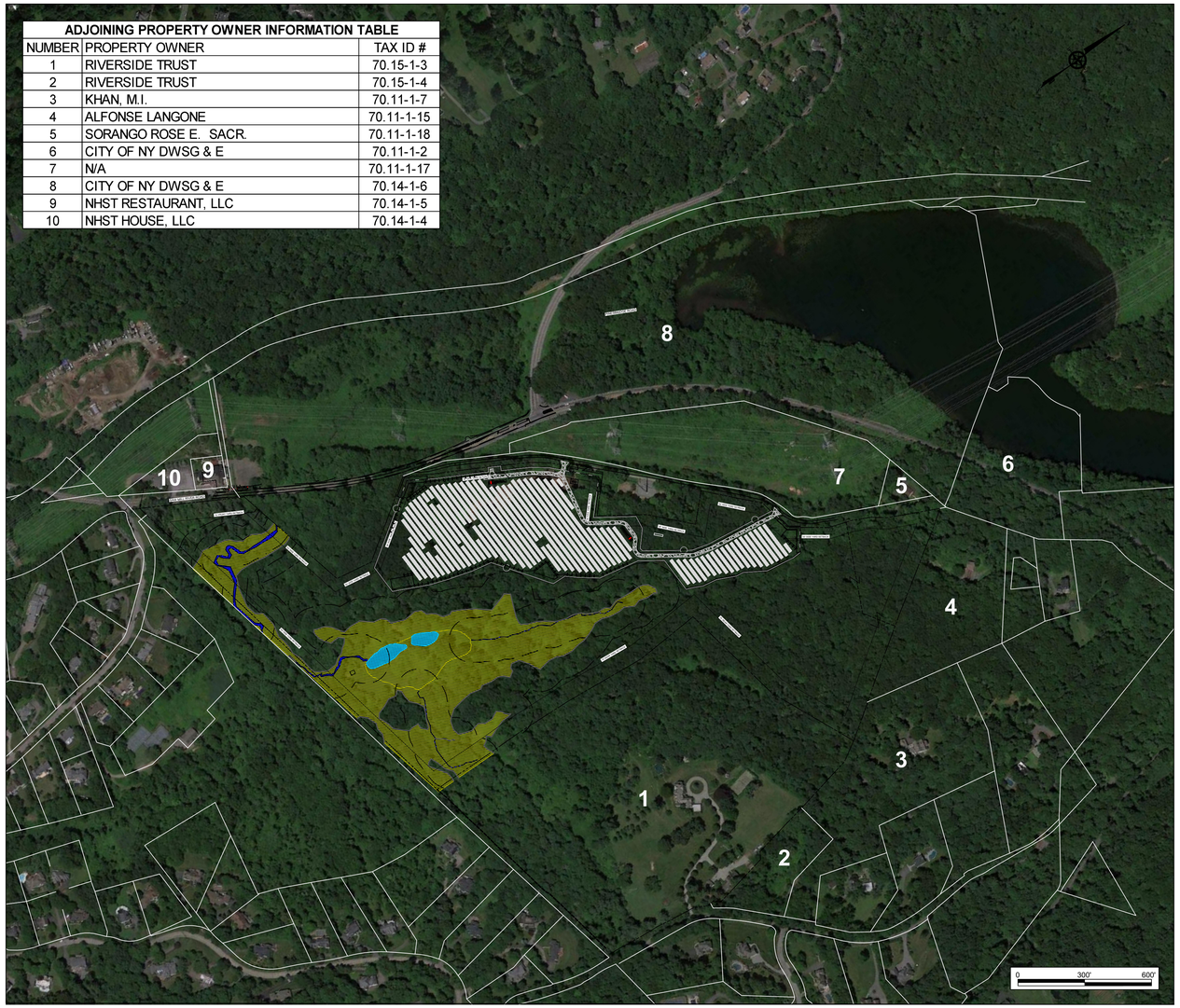
SHEET INDEX

SOLSYSTEMS

TRC

1430 Broadway,10th Floor
New York, NY 10018
Phone: 212.221.7822
www.TRCcompanies.com

ADJOINING PROPERTY OWNER INFORMATION TABLE		
NUMBER	PROPERTY OWNER	TAX ID #
1	RIVERSIDE TRUST	70.15-1-3
2	RIVERSIDE TRUST	70.15-1-4
3	KHAN, M.I.	70.11-1-7
4	ALFONSE LANGONE	70.11-1-15
5	SORANGO ROSE E. SACR.	70.11-1-18
6	CITY OF NY DWSG & E	70.11-1-2
7	N/A	70.11-1-17
8	CITY OF NY DWSG & E	70.14-1-6
9	NHST RESTAURANT, LLC	70.14-1-5
10	NHST HOUSE, LLC	70.14-1-4



LAND USE INFORMATION			
LAND USE	UNIT	EXISTING	PROPOSED
TOTAL PARCEL AREA	ACRES	62.3	62.3
UNDISTURBED AREA	ACRES	62.3	48.2
DISTURBED AREA	ACRES	N/A	14.1
SOLAR AREA	ACRES	N/A	9.1
WETLAND AREA	ACRES	13.3	13.3

TAX ID #	PROPERTY OWNER	SITE ADDRESS
70.15-1-2 70.11-01-16	B & M MANAGEMENT CO.	70.15-01-02 & 70.11-01-16 DELL AVENUE YORKTOWN, NY, 10514

ZONING CODE DESCRIPTION	ZONING CODE REQUIREMENT	PROPOSED PROJECT
ZONING DESIGNATION	R1-160	R1-160
MINIMUM LOT AREA (SQUARE FEET)	160,000	2,663,201
MINIMUM LOT WIDTH (FEET)	200	2,890
MINIMUM LOT DEPTH (FEET)	200	416
MAXIMUM BUILDING HEIGHT (FEET)	MAIN BUILDING - 35 / ACCESSSORY BUILDING OR STRUCTURE -15	NOT APPLICABLE (EQUIPMENT HEIGHT IS NOT MORE THAN 10 FEET)
FRONT YARD DEPTH (FEET)	75	116
SIDE YARD DEPTH (FEET)	50	50
REAR YARD DEPTH (FEET)	75	147
ROAD FRONTAGE (FEET)	200	1,610

GENERAL NOTES

1. THE PROJECT HORIZONTAL COORDINATES SYSTEM IS BASED ON NAD83 NEW YORK STATE PLANE (US SURVEY FEET, EAST ZONE, NY83-E). ELEVATIONS ARE BASED ON NAVD88 (US SURVEY FEET).
2. TOPOGRAPHY SHOWN ON THESE PLANS WAS COMPLETED BY LAND DESIGN ASSOCIATES ENGINEERING, SURVEYING AND LAND ARCHITECTURE D.P.C. USING A BASE & ROVER RTKGPS SYSTEM TO DEVELOP CONTOURS AT A 2 FOOT INTERVAL.
3. PROJECT PROPERTY BOUNDARIES ARE BASED ON INFORMATION PROVIDED BY LAND DESIGN ASSOCIATES ENGINEERING, SURVEYING AND LAND ARCHITECTURE D.P.C. LAND SURVEYING FROM A SURVEY COMPLETED IN OCTOBER 2019.
4. EXISTING UTILITIES ARE APPROXIMATE AND SHOULD BE VERIFIED BY CONTRACTOR. DIG SAFELY NEW YORK (811) SHALL BE NOTIFIED A MINIMUM OF 72-HOURS PRIOR TO COMMENCING ANY EXCAVATION.
5. THIS IS A PRELIMINARY DESIGN PLAN PROVIDED FOR PERMITTING ONLY. FINAL DESIGN SHALL BE MODIFIED TO SUPPORT CONSTRUCTION, MATCH FINAL ELECTRICAL INTERCONNECTION STUDIES, EQUIPMENT PURCHASED, AND POSSIBLE PERMIT CONSTRAINTS REVEALED DURING PROJECT'S REVIEW.
6. ALL WORK DETAILED ON THESE PLANS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, AND ANY OTHER APPLICABLE TECHNICAL REPORTS. WHERE INDICATED, STATE AND/OR LOCAL CODES AND STANDARD SPECIFICATIONS SHALL APPLY.
7. THE CONTRACTOR SHALL ABIDE BY ALL LOCAL, STATE, AND FEDERAL LAWS, RULES AND REGULATIONS WHICH APPLY TO THE CONSTRUCTION OF THESE IMPROVEMENTS, INCLUDING STATE AND FEDERAL REQUIREMENTS.
8. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITY LINES WITHIN OR ADJACENT TO THE CONSTRUCTION AREA. ANY DAMAGE TO EXISTING FACILITIES CAUSED BY CONSTRUCTION ACTIVITY SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
9. CONSTRUCTION SHALL NOT OCCUR IN ANY PUBLIC RIGHTS OF WAY, PUBLIC OR PRIVATE EASEMENTS, BEYOND THE LIMITS OF DISTURBANCE, OR OUTSIDE THE PROPERTY LIMITS WITHOUT NECESSARY PERMITS AND APPROVALS. ANY PUBLIC OR PRIVATE PROPERTY OR IMPROVEMENTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER AT THE COST OF THE CONTRACTOR.
10. OVERNIGHT PARKING OF CONSTRUCTION EQUIPMENT SHALL NOT OBSTRUCT DRIVEWAYS OR DESIGNATED TRAFFIC LANES. THE CONTRACTOR SHALL NOT STORE ANY EQUIPMENT OR MATERIAL WITHIN THE PUBLIC RIGHT OF WAY. OVERNIGHT PARKING OF CONSTRUCTION VEHICLES ON PRIVATE PROPERTY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
11. ALL PROPERTY CORNERS OR MONUMENTS DESTROYED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. ALL PROPERTY CORNERS MUST BE RESET BY A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF NEW YORK.
12. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DRAINAGE THROUGHOUT THE CONSTRUCTION OF THE PROJECT.
13. CONTRACTOR SHALL FIELD FIT ALL PROPOSED CULVERT INVERTS TO PROVIDE POSITIVE DRAINAGE IN THE DIRECTION OF EXISTING SLOPES. ALL CULVERTS TO BE INSTALLED AT ADEQUATE DEPTHS AND TO DAYLIGHT. INLETS AND OUTLETS OF ALL CULVERTS TO BE STABILIZED WITH RIP RAP IN ACCORDANCE WITH EROSION CONTROL PLAN.
14. THE CONTRACTOR SHALL SECURE PERMITS FROM THE STATE, COUNTY, AND TOWN AUTHORITIES AS NECESSARY BEFORE DRIVING CONSTRUCTION EQUIPMENT OVER AND ACROSS STATE, COUNTY OR TOWN MAINTAINED ROADS.
15. ALL WORK IN THE PUBLIC RIGHT OF WAYS SHALL CONFORM WITH THE NEW YORK DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS, CONSTRUCTION AND MATERIALS", DATED JANUARY 1, 2019 OR CURRENT EDITION.
16. WETLANDS AND WATERCOURSES SHOWN IN THIS PLAN ARE SUBJECT TO FUTURE CONFIRMATION BY NYSDEC.
17. THE EROSION AND SEDIMENTATION CONTROL MEASURES FOR THIS PROJECT SHALL BE IN COMPLIANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED FOR THE PROJECT.
18. TREES AND OTHER VEGETATION IN AREAS OF IDENTIFIED CLEARING AND GRUBBING MAY BE REDUCED TO CHIPS BY THE USE OF CHIPPING MACHINES OR STUMP GRINDER AND BE PREPARED FOR USE AS EROSION CONTROL MIX. ALL OTHER CHIPS AND WOOD WASTE RESULTING FROM CLEARING AND GRUBBING OPERATIONS SHALL BE DISPOSED OF OFF-SITE AT AN APPROPRIATELY LICENSED FACILITY AND IN A MANNER AS APPROVED BY THE OWNER.
19. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO AVOID DAMAGE TO EXISTING IMPROVEMENTS AND FACILITIES TO REMAIN IN PLACE. THE CONTRACTOR IS RESPONSIBLE FOR REPAIR AND REPLACEMENT OF DAMAGED ITEMS AS A RESULT OF CONSTRUCTION OF THE PROPOSED FACILITY.
20. THE WORK SHALL BE CARRIED OUT NEAR AND UNDER ENERGIZED EQUIPMENT. EXTREME CAUTION IS REQUIRED AT ALL TIMES. THE CONTRACTOR SHALL STRICTLY FOLLOW ALL APPLICABLE SAFETY REQUIREMENTS.
21. EARTHWORK: UNLESS EXPLICITLY STATED OTHERWISE, REFER TO THE LATEST EDITION OF THE STATE OF NEW YORK, DEPARTMENT OF TRANSPORTATION, STANDARDS SPECIFICATIONS, CONSTRUCTION AND MATERIALS, FOR GENERAL REQUIREMENTS, PRODUCTS, AND EXECUTION RELATED TO THE COMPLETION OF PROPOSED WORK.
22. THE LIMITS OF DISTURBANCE SHALL BE FIELD STAKED BY A LICENSED LAND SURVEYOR PRIOR TO THE START OF WORK. A COPY OF THE STAKEOUT SKETCH SHALL BE PROVIDED TO THE TOWN OF YORKTOWN.
23. PRIOR TO THE ISSUANCE OF A BUILDING PERMIT, THE APPLICANT SHALL SUBMIT A NOTICE OF INTENT (N.O.I.) TO THE NYSDEC AND PROVIDE PROOF OF COVERAGE UNDER THE SPDES GENERAL PERMIT FOR CONSTRUCTION ACTIVITIES TO THE TOWN OF YORKTOWN.
24. ANY IMPORTED SOIL SHALL MEET THE NYSDEC STANDARDS OF UNRESTRICTED FILL AND BE SUITABLE FOR RESIDENTIAL USE. CONSTRUCTION DEBRIS IS NOT PERMITTED TO BE IMPORTED. ANY MATERIAL MEETING THE NYSDEC DEFINITION OF BENEFICIAL USE SHALL BE CERTIFIED AS SUCH BY THE DESIGN PROFESSIONAL OF RECORD. NOTIFY THE TOWN OF YORKTOWN PRIOR TO IMPORT. SOIL TESTING MAY STILL BE REQUIRED.
25. PRIOR TO THE BACKFILLING OF ANY STORM WATER BEST MANAGEMENT PRACTICE, DOTS-ENGINEERING SHALL BE NOTIFIED TO PERFORM AN INSPECTION. CONTACT ENGINEERING AT 914-734-1060 TO SCHEDULE AN INSPECTION.
26. THE APPLICANT IS AWARE THAT THE ENTIRE SITE MUST BE 100% STABILIZED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY. DISTURBED AREAS SHALL BE RESTORED AND STABILIZED APPROPRIATELY AND IN A TIMELY MANNER. APPLICANT SHALL SUBMIT A NOTICE OF TERMINATION FOR THE SPDES GENERAL PERMIT.
27. PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY, AN "AS-BUILT" SURVEY PREPARED BY A LICENSED PROFESSIONAL LAND SURVEYOR OF THE PROPERTY SHALL BE SUBMITTED TO THE DEPARTMENT OF TECHNICAL SERVICES.
28. ALL DEMOLITION DEBRIS INCLUDING FOUNDATIONS AND SLABS SHALL BE LAWFULLY DISPOSED OF OFF-SITE. ROCK FROM WALLS SHALL BE STOCKPILED ON-SITE.
29. ELECTRICAL DESIGN PROVIDED HEREON WAS PREPARED BY SOL SYSTEMS, LLC.
30. ABSOLUTELY NO RECYCLED MATERIAL SHALL BE PERMITTED ONSITE. ONLY EARTHEN MATERIAL OR NATURAL STONE IS PERMITTED TO BE USED AS FILL. ALL FILL SHALL BE TESTED IN ACCORDANCE WITH APPLICABLE NYSDEC RULES AND REGULATIONS AND SHALL BE CERTIFIED AS UNRESTRICTED FOR RESIDENTIAL USE, CERTIFIED BY A PROFESSIONAL ENGINEER PRIOR TO IMPORTATION ON SITE, AND SHALL BE FROM A CERTIFIED VIRGIN SOURCE.

PRELIMINARY DRAFT- NOT FOR CONSTRUCTION

TRC
1430 Broadway, 10th Floor
New York, NY 10018
Phone: 212.221.7822
www.TRCcompanies.com
TRC Project No: 431302.0000.0005

SOL SYSTEMS
Sol Systems, LLC
1101 Connecticut Avenue NW
2nd Floor
Washington, DC 200036

STATE OF NEW YORK
STEVEN DONALD MEERSMA
LICENSED PROFESSIONAL ENGINEER
076878

Revisions:

No.	Date:

Drawn by: A. REXROAT
Checked by: S. MEERSMA
Approved by: C. DUNCAN

SCS DELL 014136 YORKTOWN, LLC
DELL AVENUE SOLAR FARM
FIXED-TILT GROUND MOUNT SOLAR ENERGY SYSTEM
DELL AVENUE, YORKTOWN, NEW YORK 10514

Contract No: 431302
Scale: AS SHOWN
Date: JUNE 14, 2022
Sheet: GENERAL NOTES
Drawing No: G-102

MAP REFERENCES:

1. SURVEY COMPLETED BY LAND DESIGN ASSOCIATES ENGINEERING, SURVEYING AND LAND ARCHITECTURE D.P.C OF HAUPPAGE, NEW YORK DATED MAY 29, 2021.
2. THE PROJECT HORIZONTAL COORDINATES SYSTEM IS BASED ON NAD83 NEW YORK STATE PLANE (US SURVEY FEET, EAST ZONE, NY83-E). ELEVATIONS ARE BASED ON NAVD88 (US SURVEY FEET).

LEGEND:

- 420 — EXISTING MAJOR CONTOUR (FEET)
- 418 — EXISTING MINOR CONTOUR (FEET)
- PARCEL LINE
- STREAM
- 100-FOOT NYSDEC ADJACENT WETLAND BUFFER
- 50-FOOT NYSDEC ADJACENT STREAM BUFFER
- 100-FOOT NYSDEC ADJACENT STREAM BUFFER
- STONE WALL
- TREE LINE
- TRAIL
- ROCK — ROCKS
- DELINEATED STREAM LINE
- DELINEATED WETLAND
- DELINEATED SURFACE WATER
- TREE LOCATION AND TREE NUMBER

LEGAL DESCRIPTION
SECTION 70.11 BLOCK 1 LOT 16 AND SECTION 70.15 BLOCK 1 LOT 2
TOWN OF YORKTOWN, COUNTY OF WESTCHESTER, NY

ALL THAT CERTAIN PLOT, PIECES OR PARCEL OF LAND, SITUATE, LYING AND BEING IN THE SOUTHERLY SIDE OF SAW MILL RIVER ROAD IN THE TOWN OF YORKTOWN, COUNTY OF WESTCHESTER, STATE OF NEW YORK, AND BEING MORE PARTICULARLY DESCRIBED IN TWO (2) PARCELS AS FOLLOWS:

BEGINNING AT A POINT ON THE SOUTHERLY SIDE OF SAW MILL RIVER ROAD SAID POINT BEING DETERMINED AS FOLLOWS, STARTING AT A POINT ON THE SOUTHERLY SIDE OF SAW MILL RIVER ROAD SAID POINT BEING FORMED BY THE INTERSECTION OF THE DIVIDING LINE BETWEEN LANDS NOW OR FORMERLY OF GABRIEL AND LANDS OF CONSOLIDATED EDISON CO. WITH THE SAID SOUTHERLY SIDE OF SAW MILL RIVER ROAD;

THENCE from starting point in a northeasterly direction and along the southerly side of Saw Mill River Road;
North 44 degrees 40 minutes 30 seconds East for a distance of 104.35 feet to the aforementioned point of beginning;

THENCE from said point of beginning in a northeasterly direction and along the southerly side of Saw Mill River Road;
North 41 degrees 19 minutes 50 seconds East for a distance of 471.28 feet (deed) 473.56 feet (survey) to a corner and lands of the City of New York, said lands of the City of New York being shown as Parcel 160, Sheet 15, on Maps of New Croton Reservoir;

THENCE in an easterly direction and along the dividing line between lands of City of New York and lands of Gabriel;
North 88 degrees 59 minutes 00 seconds East for a distance of 554.57 feet (deed) North 88 degrees 57 minutes 25 seconds East 554.62 feet (survey) to a corner;

THENCE still along the aforementioned dividing line;
North 21 degrees 50 minutes 20 seconds (deed) 21 degrees 48 minutes 45 seconds (survey) East for a distance of 171.48 feet and North 22 degrees 06 minutes 10 seconds West for a distance of 413.59 feet (deed) North 22 degrees 06 minutes 45 seconds West for a distance of 413.21 feet (survey) to a corner and the southerly side of Dell Avenue;

THENCE in a northeasterly direction and along the southerly side of Dell Avenue, the following courses and distances;
North 43 degrees 56 minutes 40 seconds East for a distance of 133.90 feet;
North 40 degrees 07 minutes 10 seconds East for a distance of 186.22 feet;
North 41 degrees 15 minutes 50 seconds East for a distance of 258.22 feet;
North 49 degrees 26 minutes 30 seconds East for a distance of 88.58 feet;
North 57 degrees 50 minutes 10 seconds East for a distance of 237.07 feet to a corner and lands now or formerly of Adam;

THENCE in a southerly direction and along the dividing line between lands of Adam and lands of Gabriel;
South 34 degrees 53 minutes 30 seconds East for a distance of 196.79 feet to a corner;

THENCE in a northeasterly direction;
North 46 degrees 16 minutes 30 seconds East for a distance of 227.20 feet and
North 58 degrees 57 minutes 20 seconds East for a distance of 219.85 feet to a corner;

THENCE in a northwesterly direction, still along the aforementioned dividing line;
North 33 degrees 02 minutes 20 seconds West for a distance of 152.78 feet to a corner and the southerly side of Dell Avenue;

THENCE in a northeasterly direction and along the southerly side of Dell Avenue, the following courses;
North 58 degrees 55 minutes 20 seconds East for a distance of 281.76 feet;
South 88 degrees 36 minutes 50 seconds East for a distance of 157.46 feet;
North 47 degrees 33 minutes 10 seconds East for a distance of 185.48 feet;
North 30 degrees 17 minutes 30 seconds East for a distance of 105.27 feet;
North 33 degrees 00 minutes 30 seconds East for a distance of 90.62 feet;
North 49 degrees 43 minutes 00 seconds East for a distance of 70.52 feet;
North 37 degrees 32 minutes 30 seconds East for a distance of 242.23 feet to a corner and lands now or formerly of Dearborn;

THENCE to a southerly direction and along the dividing line between lands of Dearborn and lands of Gabriel;
South 22 degrees 47 minutes 00 seconds East for a distance of 111.57 feet;
South 21 degrees 05 minutes 10 seconds East for a distance of 400.52 feet;
South 22 degrees 12 minutes 30 seconds East for a distance of 310.32 feet;
South 23 degrees 53 minutes 10 seconds East for a distance of 113.24 feet to lands now or formerly of Mino;

THENCE still southerly direction and along the dividing line between lands of Mino and lands of Gabriel;
South 22 degrees 23 minutes 30 seconds East for a distance of 179.29 feet to a corner and lands now or formerly of Crawford;

THENCE in a westerly direction and along the dividing line between lands of Crawford and lands of Gabriel;
South 77 degrees 48 minutes 40 seconds West for a distance of 425.77 feet;
North 88 degrees 22 minutes 30 seconds West for a distance of 492.84 feet to a corner;

THENCE in a southerly direction still along the aforementioned dividing line, the following courses and distances;
South 08 degrees 32 minutes 10 seconds West for a distance of 302.15 feet;
South 17 degrees 26 minutes 30 seconds West for a distance of 378.44 feet;
South 14 degrees 56 minutes 50 seconds West for a distance of 261.92 feet;
South 12 degrees 20 minutes 50 seconds West for a distance of 181.34 feet;
South 13 degrees 33 minutes 50 seconds West for a distance of 212.08 feet;
South 11 degrees 28 minutes 50 seconds West for a distance of 54.91 feet to a corner;

THENCE in a westerly direction and through lands of Gabriel and approximately along the Town lines between the Towns of New Castle and Yorktown;
North 88 degrees 59 minutes 17 seconds (deed) West for a distance of 1837.73 feet;
North 89 degrees 02 minutes 22 seconds (calculated) West for a distance of 1839.27 feet to the southerly side of Saw Mill River Road and the point or place of BEGINNING.

WCTM#: 70.11-1-16 & 70.15-1-2

EXCEPTIONS:
1. Survey Attached
2. Boundary line agreement effects extreme southeast corner of parcel not part of current Deed of Record.
3. Assignment of leases and rents to bank to secure mortgage.
4. Matter of Foreclosure.
5. Matter of Foreclosure.
6. Matter of Foreclosure.
7. Tax search N/A see report.

NOTES:
1. NO PART OF THE SUBJECT PROPERTY LIES IN A SPECIAL FLOOD HAZARD AREA OR FLOOD HAZARD OR FLOOD PLAIN, HOWEVER DESIGNATED, AS DETERMINED BY OR IN ACCORDANCE WITH CRITERIA ESTABLISHED BY THE FEDERAL INSURANCE ADMINISTRATION OR AS DEFINED BY OR IN ACCORDANCE WITH CRITERIA ESTABLISHED BY ANY GOVERNMENTAL AUTHORITY HAVING JURISDICTION. (FLOOD ZONE X)
2. LOCATIONS AND EXISTENCE OF ANY SUBSURFACE UTILITIES AND/OR STRUCTURES, NOT READILY VISIBLE, ARE NOT CERTIFIED.
3. NO ENCROACHMENTS AFFECT SUBJECT PROPERTY EXCEPT AS SHOWN
4. THE USE OF THE PROPERTY IS PERMITTED IN ITS ZONE.
5. PROPERTY HAS PUBLIC ACCESS TO ALL ADJACENT STREETS AS PUBLIC

NOTE:UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING), SECTION 7209 (2), IT IS A VIOLATION FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

NOT FOR CONSTRUCTION

0 120' 240'

SHEET SIZE: 24" BY 36"
(DRAWING MAY BE PRINTED AT REDUCED SIZE)

PRELIMINARY DRAFT- NOT FOR CONSTRUCTION

TRC
1430 Broadway, 10th Floor
New York, NY 10018
Phone: 212.221.7822
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TRC Project No: 431302.0000.0005

SOLSYSTEMS
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1101 Connecticut Avenue NW
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Washington, DC 200036

STATE OF NEW YORK
STEVEN DONALD MEERSMA
LICENSED PROFESSIONAL ENGINEER
076572

Revisions:

No.	Date:

Drawn by: A. REXROAT

Checked by: S. MEERSMA

Approved by: C. DUNCAN

SCS DELL 014136 YORKTOWN, LLC
DELL AVENUE SOLAR FARM
FIXED-TILT GROUND MOUNT SOLAR ENERGY SYSTEM
DELL AVENUE, YORKTOWN, NEW YORK 10514

Contract No: 431302

Scale: AS SHOWN

Date: JUNE 14, 2022

Sheet: EXISTING FEATURES

Drawing No: C-101

LEGEND:

- EXISTING MAJOR CONTOUR (FEET) — 420
- EXISTING MINOR CONTOUR (FEET) — 418
- PARCEL LINE
- LIMIT OF DISTURBANCE — LOD
- STREAM
- 100-FOOT NYSDEC ADJACENT AREA
- 50-FOOT NYSDEC ADJACENT STREAM BUFFER
- 100-FOOT NYSDEC ADJACENT STREAM BUFFER
- STONE WALL
- PROTECTED WOODLAND BOUNDARY
- TRAIL
- ROCKS — ROCK
- DELINEATED STREAM LINE
- DELINEATED WETLAND
- DELINEATED SURFACE WATER
- STONE WALL TO BE REMOVED
- RETAINING WALL TO BE REMOVED
- ACCESS DRIVE TO BE REMOVED
- TRAIL TO BE REMOVED
- ROCKS TO BE REMOVED — ROCK
- STRUCTURES TO BE REMOVED
- AREA OF TREE CLEARING WITHIN THE PROTECTED WOODLAND
- AREA OF TREE CLEARING OUTSIDE THE PROTECTED WOODLAND
- TREE LOCATION AND TREE NUMBER
- TREE LOCATION AND TREE NUMBER TO BE CLEARED

MAP REFERENCES:

1. SURVEY COMPLETED BY LAND DESIGN ASSOCIATES ENGINEERING, SURVEYING AND LAND ARCHITECTURE D.P.C OF HAUPPAGE, NEW YORK DATED MAY 29, 2021.
2. THE PROJECT HORIZONTAL COORDINATES SYSTEM IS BASED ON NAD83 NEW YORK STATE PLANE (US SURVEY FEET, EAST ZONE, NY83-E). ELEVATIONS ARE BASED ON NAVD88 (US SURVEY FEET).

TREE NOTES:

1. TREE LOCATIONS REFERENCE A TREE IDENTIFICATION REPORT BY TRC ENGINEERS, INC. DATED JUNE 2022.
2. APPROXIMATELY 1,055 TREES ARE TO BE REMOVED.

0 120' 240'

SHEET SIZE: 24" BY 36"
(DRAWING MAY BE PRINTED AT REDUCED SIZE)

PRELIMINARY DRAFT- NOT FOR CONSTRUCTION

TRC
1430 Broadway, 10th Floor
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www.TRCcompanies.com
TRC Project No: 431302.0000.0005

SOL SYSTEMS
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1101 Connecticut Avenue NW
2nd Floor
Washington, DC 200036

STATE OF NEW YORK
STEVEN DONALD MEERSMA
070572
LICENSED PROFESSIONAL ENGINEER

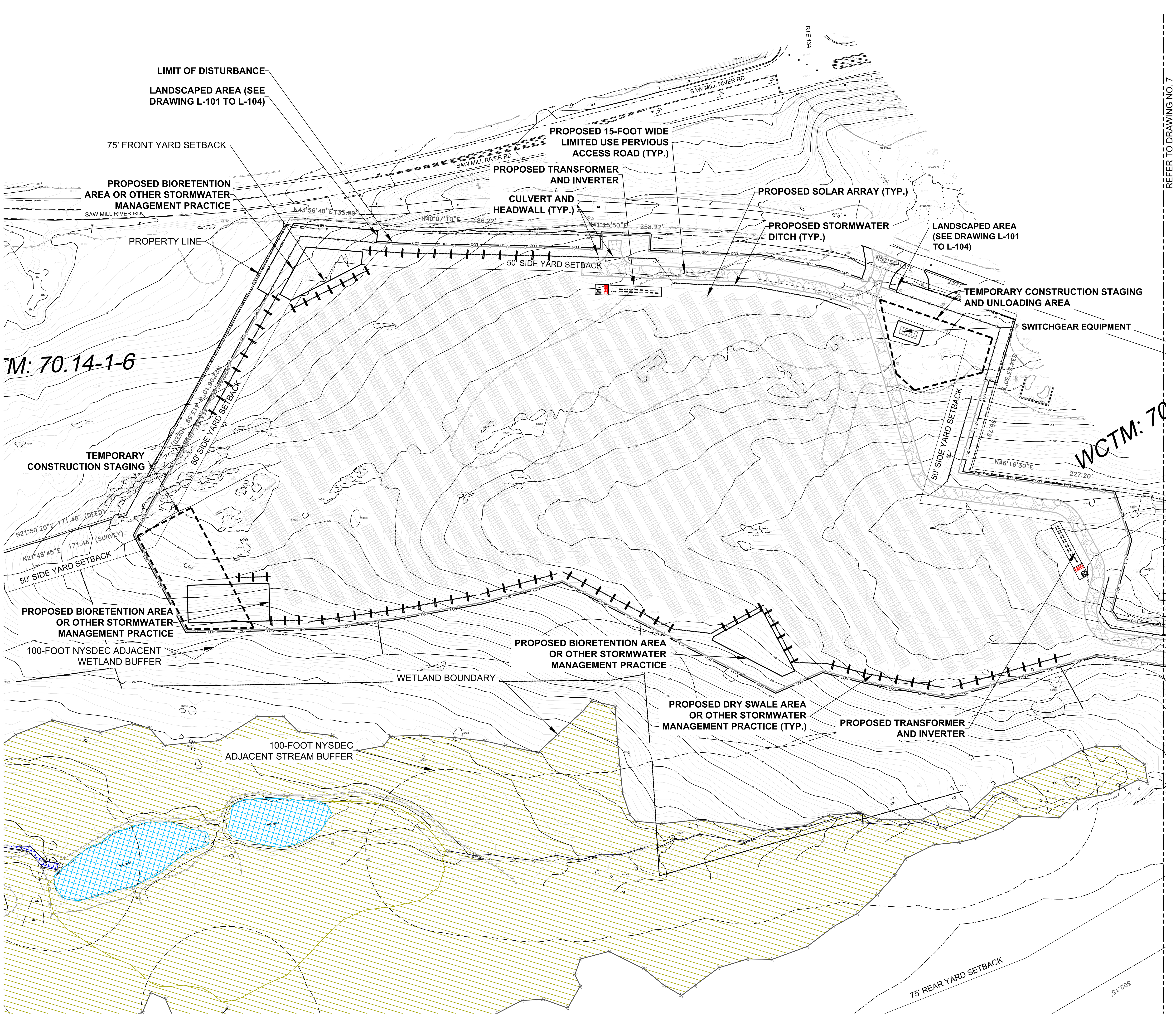
Revisions:

No.	Date:

Drawn by: A. REXROAT
Checked by: S. MEERSMA
Approved by: C. DUNCAN

SCS DELL 014136 YORKTOWN, LLC
DELL AVENUE SOLAR FARM
FIXED-TILT GROUND MOUNT SOLAR ENERGY SYSTEM
DELL AVENUE, YORKTOWN, NEW YORK 10514

Contract No: 431302
Scale: AS SHOWN
Date: JUNE 14, 2022
Sheet: DEMOLITION PLAN
Drawing No: C-102



LEGEND:

420	EXISTING MAJOR CONTOUR (FEET)
418	EXISTING MINOR CONTOUR (FEET)
	PARCEL LINE
LOD — LOD	LIMIT OF DISTURBANCE
	STREAM
	100-FOOT NYSDEC ADJACENT AREA
	50-FOOT NYSDEC ADJACENT STREAM BUFFER
	100-FOOT NYSDEC ADJACENT STREAM BUFFER
	STONE WALL
	TREE LINE
	TRAIL
ROCK	ROCKS
	DELINEATED STREAM LINE
	DELINEATED WETLAND
	DELINEATED SURFACE WATER
	15' WIDE ACCESS ROAD

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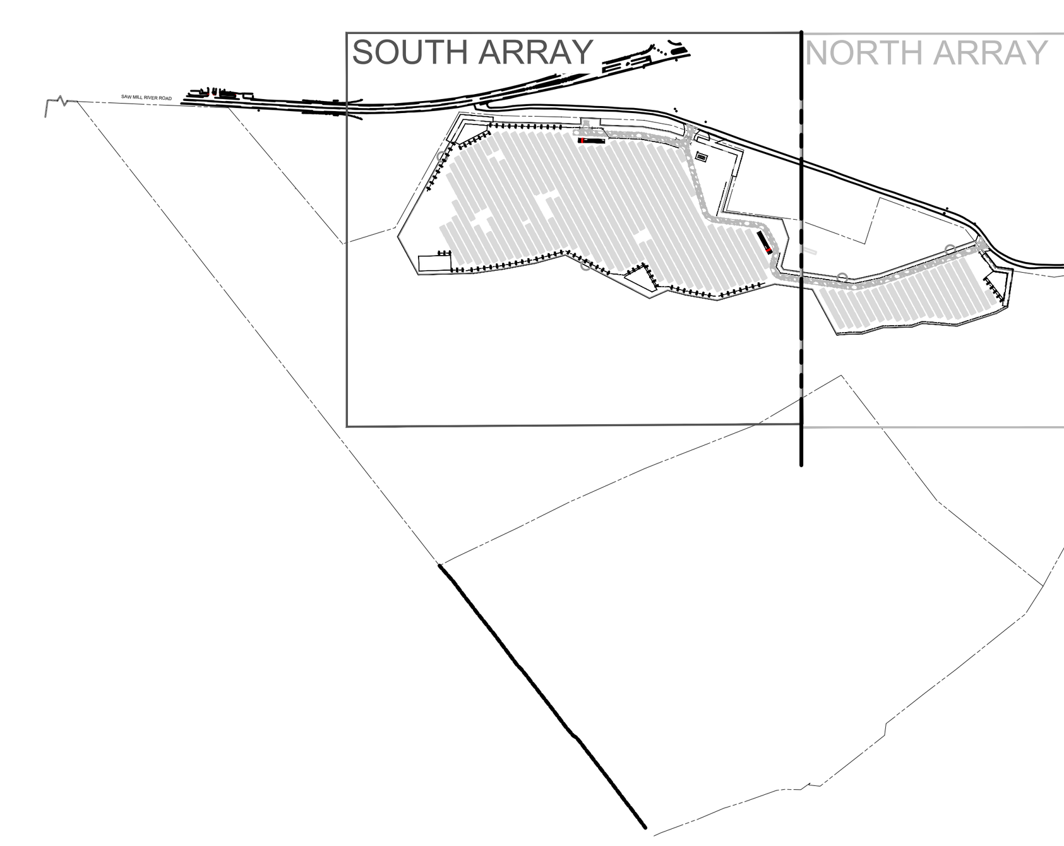
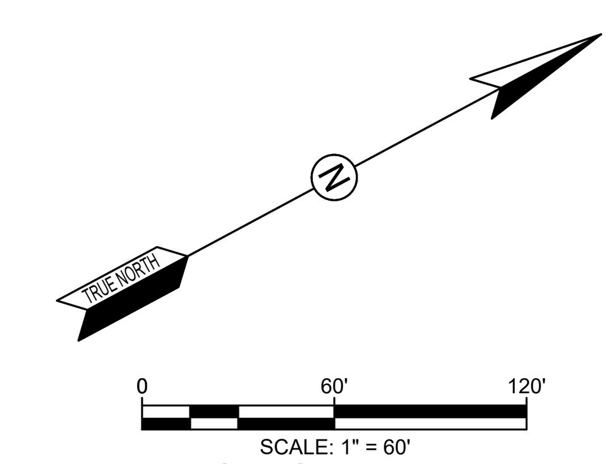
   - NATIONAL ELECTRICAL SAFETY CODE - IEEE C2-2017
   - ANSI/UL STANDARD FOR ENERGY STORAGE SYSTEMS AND EQUIPMENT - STANDARD 9540
   - STANDARD FOR THE INSTALLATION OF STATIONARY ENERGY STORAGE SYSTEMS - NFPA 855
   - BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE - ACI 318-14



KEY PLAN
NTS



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Revisions:

No.	Date:

Drawn by: A. REXROAT
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SCS DELL 014136 YORKTOWN, LLC
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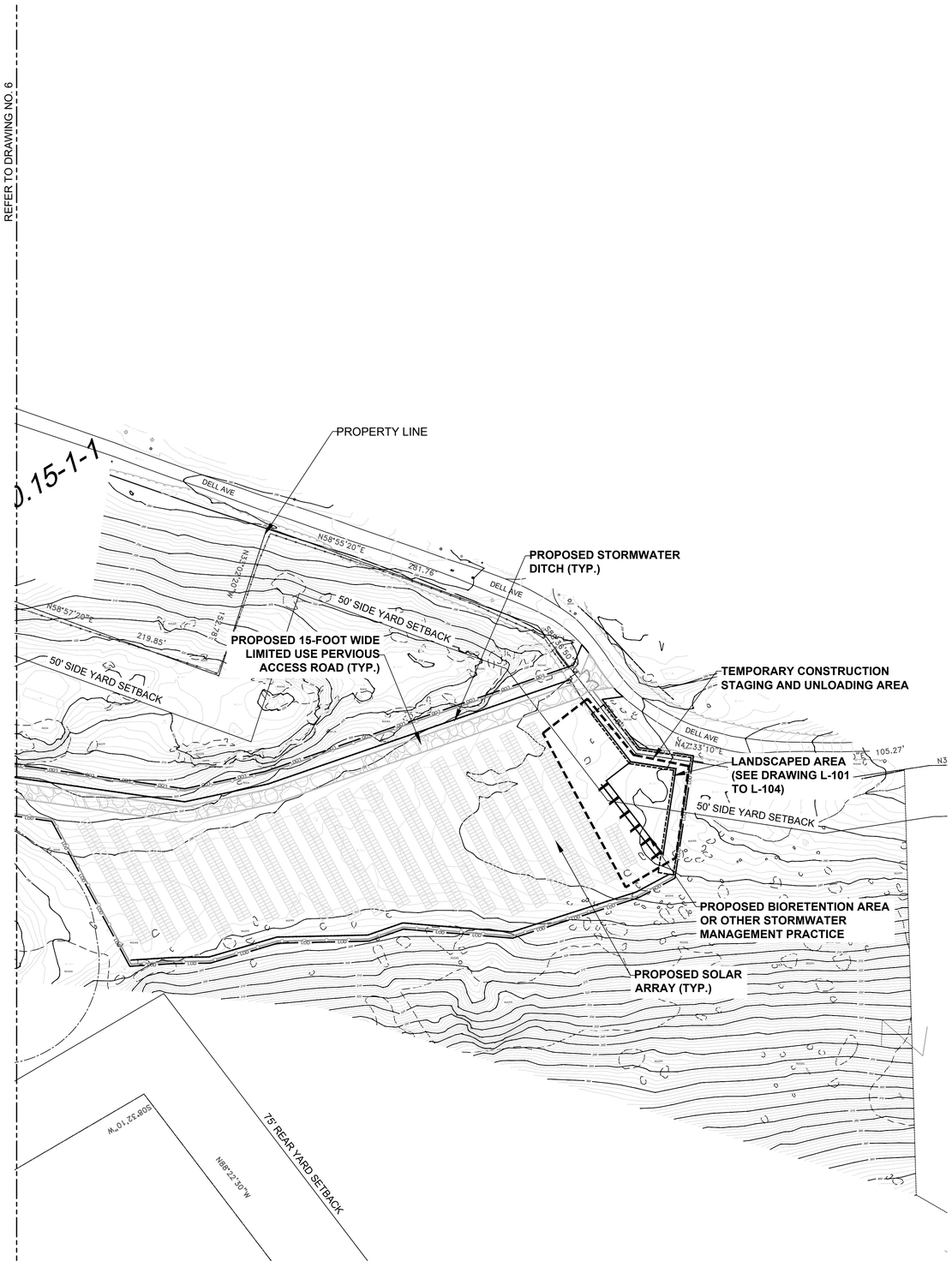
DELL AVENUE, YORKTOWN, NEW YORK 10514

Contract No: 431302
Scale: AS SHOWN
Date: JUNE 14, 2022
Sheet: SITE PLAN - SOUTH
Drawing No: C-103



LEGEND:

- 420 — EXISTING MAJOR CONTOUR (FEET)
- 418 — EXISTING MINOR CONTOUR (FEET)
- PARCEL LINE
- LOD — LOD — LIMIT OF DISTURBANCE
- STREAM
- 100-FOOT NYSDEC ADJACENT AREA
- 50-FOOT NYSDEC ADJACENT STREAM BUFFER
- 100-FOOT NYSDEC ADJACENT STREAM BUFFER
- STONE WALL
- TREE LINE
- TRAIL
- ROCK — ROCKS
- DELINEATED STREAM LINE
- DELINEATED WETLAND
- DELINEATED SURFACE WATER
- 15' WIDE ACCESS ROAD

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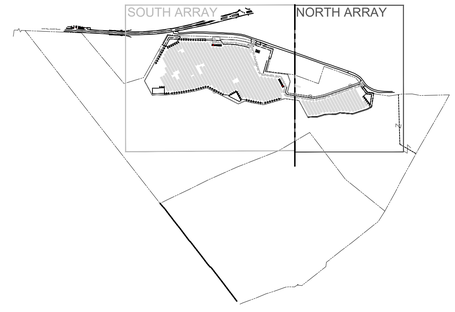
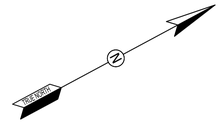


KEY PLAN
NTS



0 60' 120'
SCALE: 1" = 60'
SHEET SIZE: 24" BY 36"

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STATE OF NEW YORK
STEVEN DONALD MEERSMA
076572
LICENSED PROFESSIONAL ENGINEER

Revisions:

No.	Date:

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Checked by: S. MEERSMA
Approved by: C. DUNCAN

SCS DELL 014136 YORKTOWN, LLC
DELL AVENUE SOLAR FARM
FIXED-TILT GROUND MOUNT SOLAR ENERGY SYSTEM
DELL AVENUE, YORKTOWN, NEW YORK 10514

Contract No: 431302
Scale: AS SHOWN
Date: JUNE 14, 2022
Sheet: SITE PLAN - NORTH
Drawing No: C-104

LIMIT OF DISTURBANCE

LANDSCAPED AREA (SEE DRAWING L-101 TO L-104)

75' FRONT YARD SETBACK

PROPOSED BIORETENTION AREA OR OTHER STORMWATER MANAGEMENT PRACTICE

PROPERTY LINE

PROPOSED 15-FOOT WIDE LIMITED USE PERVIOUS ACCESS ROAD (TYP.)

PROPOSED TRANSFORMER AND INVERTER

CULVERT AND HEADWALL (TYP.)

PROPOSED SOLAR ARRAY (TYP.)

PROPOSED STORMWATER DITCH (TYP.)

LANDSCAPED AREA (SEE DRAWING L-101 TO L-104)

50' SIDE YARD SETBACK

TEMPORARY CONSTRUCTION STAGING AND UNLOADING AREA

SWITCHGEAR EQUIPMENT

TEMPORARY CONSTRUCTION STAGING

50' SIDE YARD SETBACK

PROPOSED BIORETENTION AREA OR OTHER STORMWATER MANAGEMENT PRACTICE

100-FOOT NYSDEC ADJACENT WETLAND BUFFER

WETLAND BOUNDARY

PROPOSED BIORETENTION AREA OR OTHER STORMWATER MANAGEMENT PRACTICE

PROPOSED DRY SWALE AREA OR OTHER STORMWATER MANAGEMENT PRACTICE (TYP.)

PROPOSED TRANSFORMER AND INVERTER

100-FOOT NYSDEC ADJACENT STREAM BUFFER

75' REAR YARD SETBACK

REFER TO DRAWING NO. 7

M: 70.14-1-6

WCTM: 70

LEGEND:

- 420 — EXISTING MAJOR CONTOUR (FEET)
- 418 — EXISTING MINOR CONTOUR (FEET)
- 220 — PROPOSED MAJOR CONTOUR (FEET)
- PROPOSED MINOR CONTOUR (FEET)
- PARCEL LINE
- LOD — LOD — LIMIT OF DISTURBANCE
- STREAM
- 100-FOOT NYSDEC ADJACENT AREA
- 50-FOOT NYSDEC ADJACENT STREAM BUFFER
- 100-FOOT NYSDEC ADJACENT STREAM BUFFER
- STONE WALL
- TREE LINE
- TRAIL
- ROCK — ROCKS
- DELINEATED STREAM LINE
- DELINEATED WETLAND
- DELINEATED SURFACE WATER
- 15' WIDE ACCESS ROAD

MAP REFERENCES:

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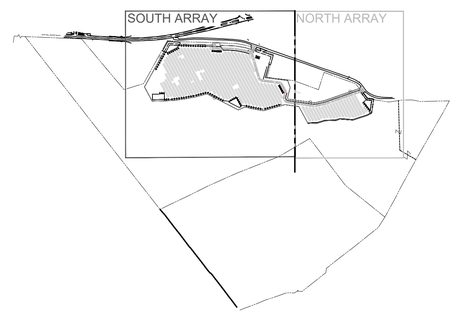
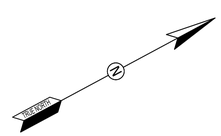


KEY PLAN
NTS



SCALE: 1" = 60'
SHEET SIZE: 24" BY 36"

PRELIMINARY DRAFT- NOT FOR CONSTRUCTION

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1430 Broadway, 10th Floor
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Phone: 212.221.7822
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TRC Project No.: 431302.0000.0005

SOLSYSTEMS
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Washington, DC 200036

STATE OF NEW YORK
STEVEN DONALD MEERSMA
075572
LICENSED PROFESSIONAL ENGINEER

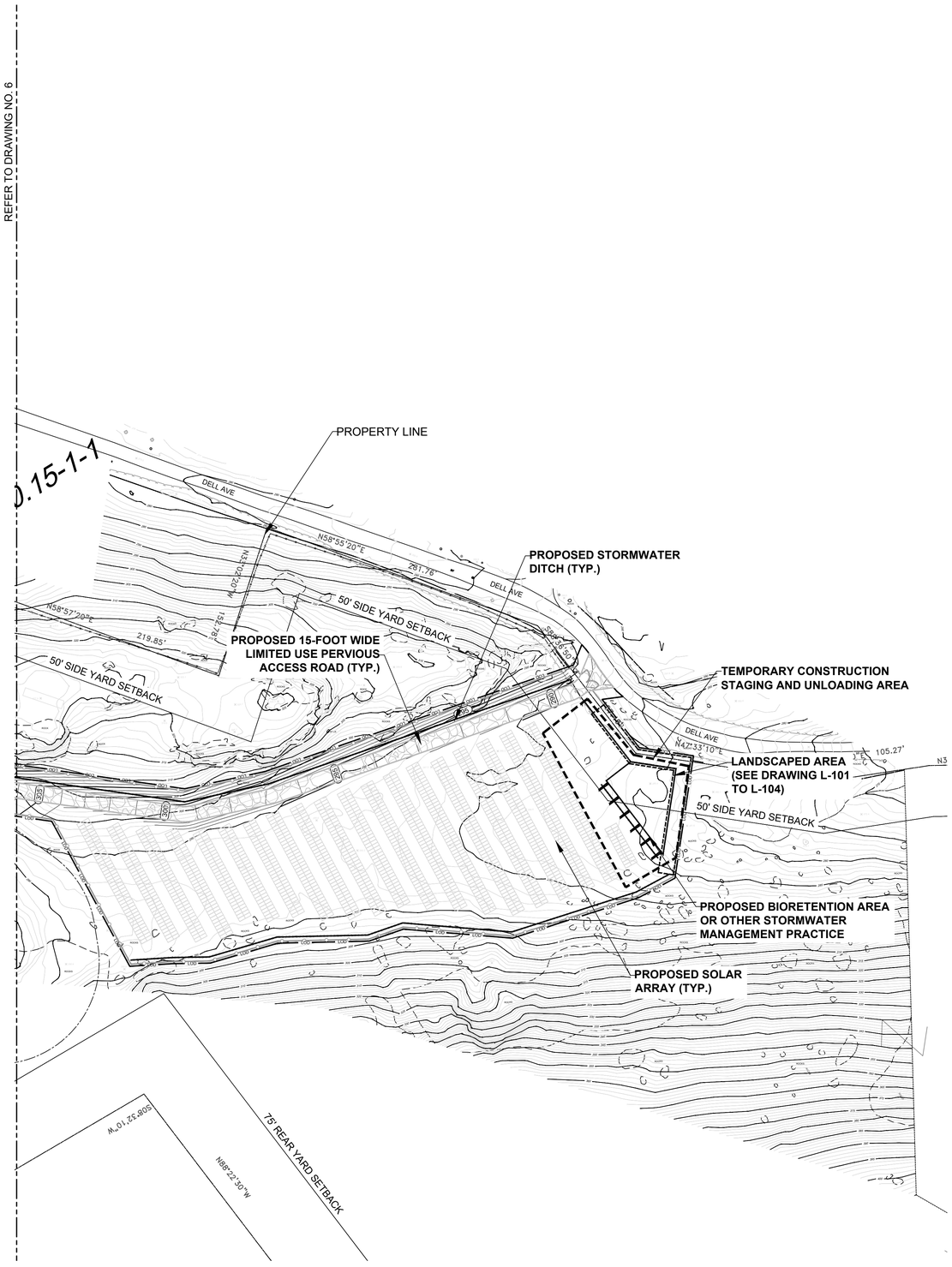
Revisions:

No.	Date:

Drawn by: A. REXROAT
Checked by: S. MEERSMA
Approved by: C. DUNCAN

SCS DELL 014136 YORKTOWN, LLC
DELL AVENUE SOLAR FARM
FIXED-TILT GROUND MOUNT SOLAR ENERGY SYSTEM
DELL AVENUE, YORKTOWN, NEW YORK 10514

Contract No: 431302
Scale: AS SHOWN
Date: JUNE 14, 2022
Sheet: GRADING PLAN - SOUTH
Drawing No: C-105



LEGEND:

- 420 — EXISTING MAJOR CONTOUR (FEET)
- 418 — EXISTING MINOR CONTOUR (FEET)
- 220 — PROPOSED MAJOR CONTOUR (FEET)
- PROPOSED MINOR CONTOUR (FEET)
- PARCEL LINE
- LOD — LOD — LIMIT OF DISTURBANCE
- STREAM
- 100-FOOT NYSDEC ADJACENT AREA
- 50-FOOT NYSDEC ADJACENT STREAM BUFFER
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- 15' WIDE ACCESS ROAD

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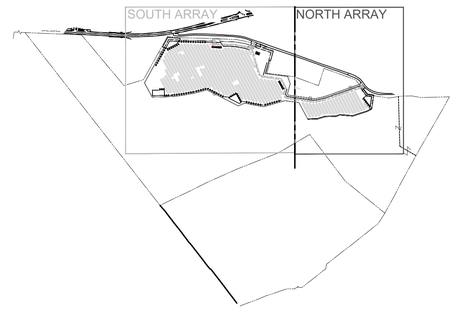
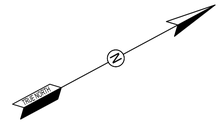


KEY PLAN
NTS



0 60' 120'
SCALE: 1" = 60'
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No.	Date:

Drawn by: A. REXROAT
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SCS DELL 014136 YORKTOWN, LLC
DELL AVENUE SOLAR FARM
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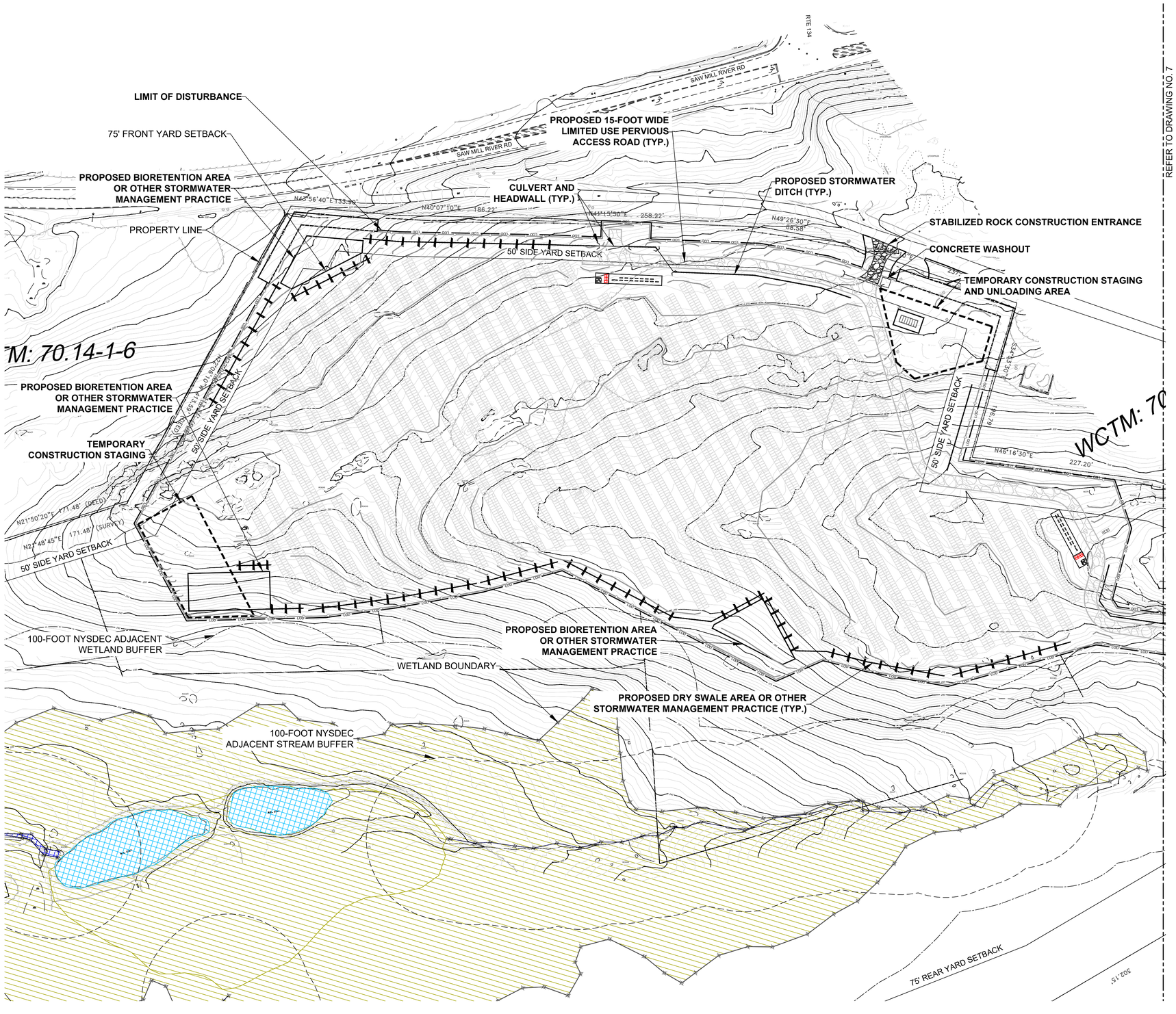
Contract No: 431302
Scale: AS SHOWN
Date: JUNE 14, 2022
Sheet: GRADING PLAN - NORTH
Drawing No: C-106



LEGEND:

- 420 — EXISTING MAJOR CONTOUR (FEET)
- 418 — EXISTING MINOR CONTOUR (FEET)
- PARCEL LINE
- LOD — LOD — LIMIT OF DISTURBANCE
- STREAM
- 100-FOOT NYSDEC ADJACENT AREA
- 50-FOOT NYSDEC ADJACENT STREAM BUFFER
- 100-FOOT NYSDEC ADJACENT STREAM BUFFER
- STONE WALL
- TREE LINE
- TRAIL
- ROCK — ROCKS
- DELINEATED STREAM LINE
- DELINEATED WETLAND
- DELINEATED SURFACE WATER
- 15' WIDE ACCESS ROAD
- STABILIZED CONSTRUCTION ENTRANCE
- TEMPORARY CONSTRUCTION STAGING AREA
- COMPOST FILTER SOCK

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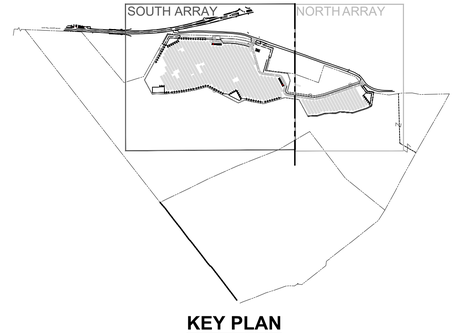
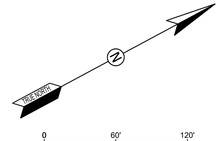


KEY PLAN
NTS



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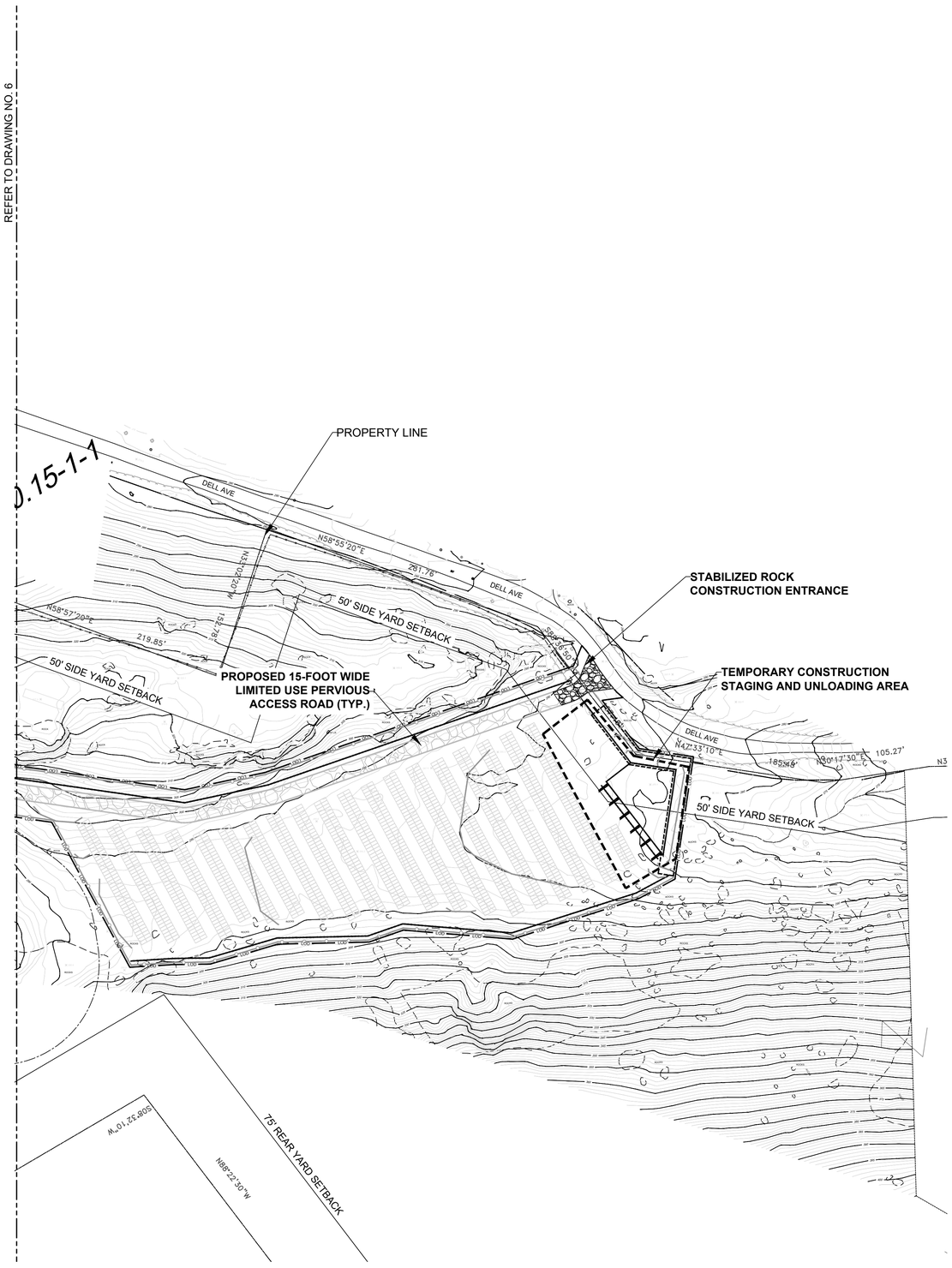
Contract No: 431302
Scale: AS SHOWN
Date: JUNE 14, 2022
Sheet: E&SC PLAN - SOUTH
Drawing No: C-107



LEGEND:

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- 418 — EXISTING MINOR CONTOUR (FEET)
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- LOD — LOD — LIMIT OF DISTURBANCE
- STREAM
- 100-FOOT NYSDEC ADJACENT AREA
- 50-FOOT NYSDEC ADJACENT STREAM BUFFER
- 100-FOOT NYSDEC ADJACENT STREAM BUFFER
- STONE WALL
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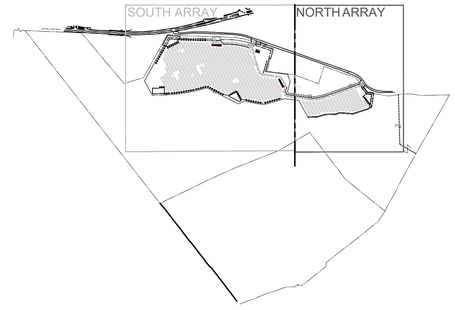
- ROCK — ROCKS
- DELINEATED STREAM LINE
- DELINEATED WETLAND
- DELINEATED SURFACE WATER
- 15' WIDE ACCESS ROAD
- STABILIZED CONSTRUCTION ENTRANCE
- TEMPORARY CONSTRUCTION STAGING AREA
- SF — COMPOST FILTER SOCK

MAP REFERENCES:

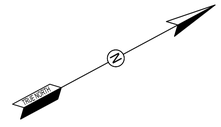
1. SURVEY COMPLETED BY LAND DESIGN ASSOCIATES ENGINEERING, SURVEYING AND LAND ARCHITECTURE D.P.C OF HAUPPAGE, NEW YORK DATED MAY 29, 2021.
2. THE PROJECT HORIZONTAL COORDINATES SYSTEM IS BASED ON NAD83 NEW YORK STATE PLANE (US SURVEY FEET, EAST ZONE, NY83-EF). ELEVATIONS ARE BASED ON NAVD88 (US SURVEY FEET).

GENERAL NOTES:

1. LOCATIONS AND DIMENSIONS OF PHYSICAL FEATURES AND PROPERTY BOUNDARIES ARE APPROXIMATE.
2. THE PROJECT SHALL BE DESIGNED IN COMPLIANCE WITH ALL APPLICABLE CODES, STANDARDS, AND REQUIREMENTS, INCLUDING BUT NOT LIMITED TO:
   - TOWN OF YORKTOWN CODES
   - 2020 FIRE CODE OF NEW YORK STATE (FCNYS 2020)
   - 2020 BUILDING CODE OF NEW YORK STATE (BCNYS 2020)
   - 2019 ENERGY STORAGE SYSTEM SUPPLEMENT - NEW YORK STATE
   - 2018 INTERNATIONAL BUILDING CODE (IBC 2018)
   - NATIONAL ELECTRICAL CODE - NFPA 70
   - NATIONAL ELECTRICAL SAFETY CODE - IEEE C2-2017
   - ANSI/UL STANDARD FOR ENERGY STORAGE SYSTEMS AND EQUIPMENT - STANDARD 9540
   - STANDARD FOR THE INSTALLATION OF STATIONARY ENERGY STORAGE SYSTEMS - NFPA 855
   - BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE - ACI 318-14



KEY PLAN
NTS



0 60' 120'
SCALE: 1" = 60'
SHEET SIZE: 24" BY 36"

NOTE:
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PRELIMINARY DRAFT- NOT FOR CONSTRUCTION

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www.TRCcompanies.com
TRC Project No.: 431302.0000.0005

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STATE OF NEW YORK
STEVEN DONALD MEERSMA
075572
LICENSED PROFESSIONAL ENGINEER

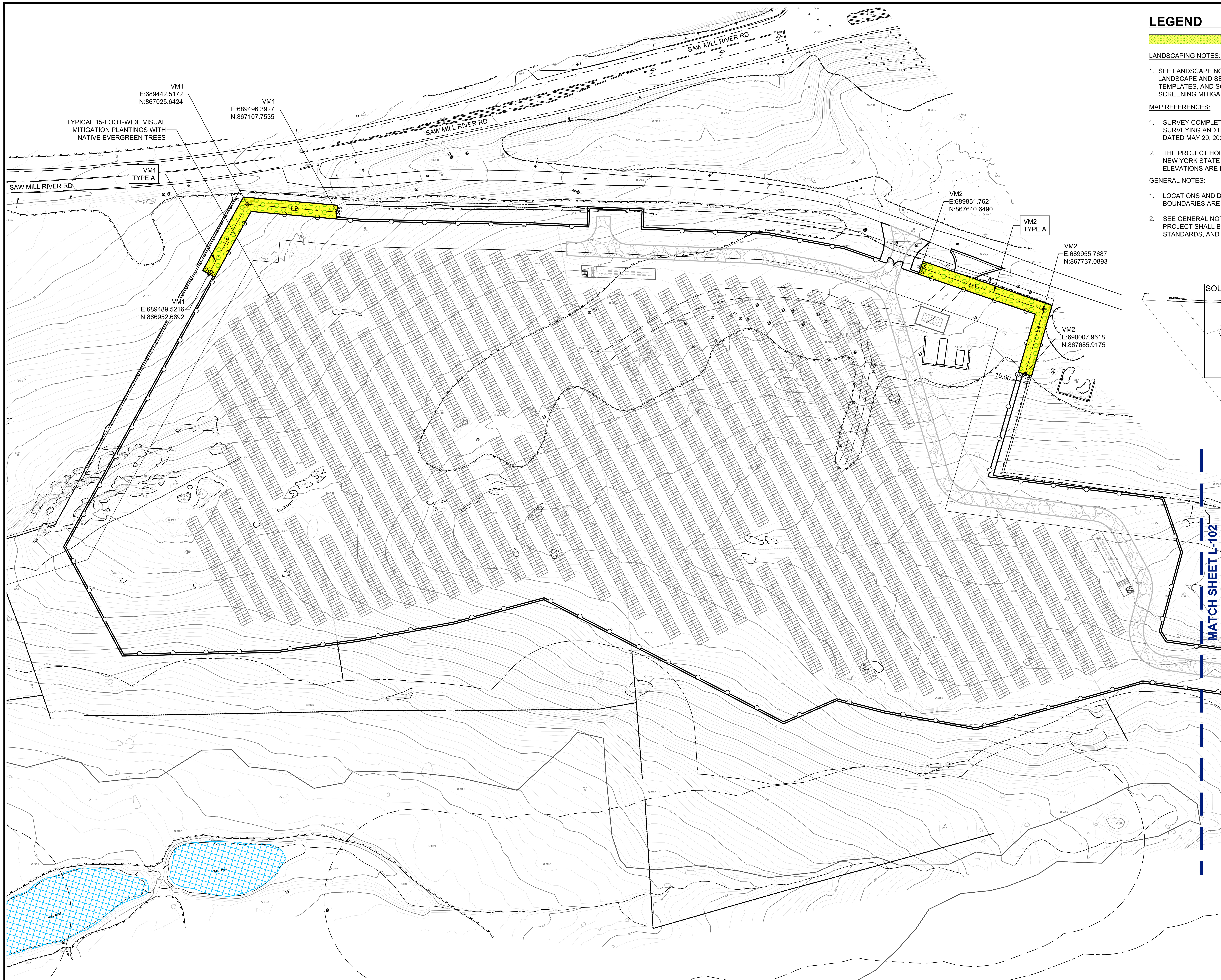
Revisions:

No.	Date:

Drawn by: A. REXROAT
Checked by: S. MEERSMA
Approved by: C. DUNCAN

SCS DELL 014136 YORKTOWN, LLC
DELL AVENUE SOLAR FARM
FIXED-TILT GROUND MOUNT SOLAR ENERGY SYSTEM
DELL AVENUE, YORKTOWN, NEW YORK 10514

Contract No: 431302
Scale: AS SHOWN
Date: JUNE 14, 2022
Sheet: E&SC PLAN - NORTH
Drawing No: C-108



LEGEND

PROPOSED LANDSCAPING FEATURES

VISUAL MITIGATION TYPE A:
VM-1 AND VM-2

LANDSCAPING NOTES:

1. SEE LANDSCAPE NOTES & DETAILS SHEETS L-103 TO L-104 FOR GENERAL LANDSCAPE AND SEEDING NOTES; SOLAR SEED MIX; PLANTING DETAILS, TEMPLATES, AND SCHEDULES; AND COORDINATE VEGETATIVE BUFFER / SCREENING MITIGATION TABLES.

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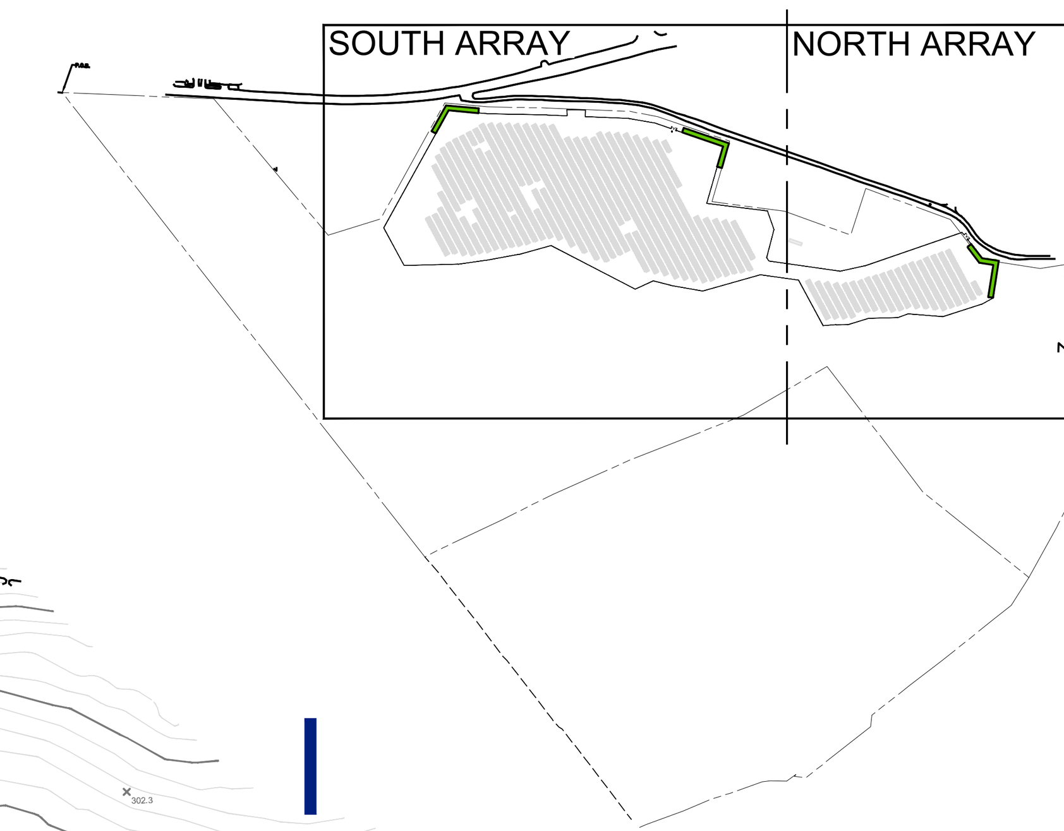
GENERAL NOTES:

1. LOCATIONS AND DIMENSIONS OF PHYSICAL FEATURES AND PROPERTY BOUNDARIES ARE APPROXIMATE.

2. SEE GENERAL NOTES #2, SHEET C-103 (SITE PLAN - SOUTH) THAT THE PROJECT SHALL BE DESIGNED IN COMPLIANCE WITH ALL APPLICABLE CODES, STANDARDS, AND REQUIREMENTS.



KEY PLAN
NTS

SCALE: 1" = 50'
SHEET SIZE: 24" BY 36"

NOTE:
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Revisions:

No.	Date:

Drawn by: G. TURNER
Checked by: M. ROSS
Approved by: C. DUNCAN

SCS DELL 014136 YORKTOWN, LLC
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FIXED-TILT GROUND MOUNT SOLAR ENERGY SYSTEM
DELL AVENUE, YORKTOWN, NEW YORK 10514

Contract No: 431302
Scale: AS SHOWN
Date: JUNE 14, 2022
Sheet: LANDSCAPE PLAN - SOUTH
Drawing No: L-101

LEGEND

PROPOSED LANDSCAPING FEATURES

VISUAL MITIGATION TYPE A: VM-3

LANDSCAPING NOTES:

1. SEE LANDSCAPE NOTES & DETAILS SHEETS L-103 TO L-104 FOR GENERAL LANDSCAPE AND SEEDING NOTES; SOLAR SEED MIX; PLANTING DETAILS, TEMPLATES, AND SCHEDULES; AND COORDINATE VEGETATIVE BUFFER / SCREENING MITIGATION TABLES.

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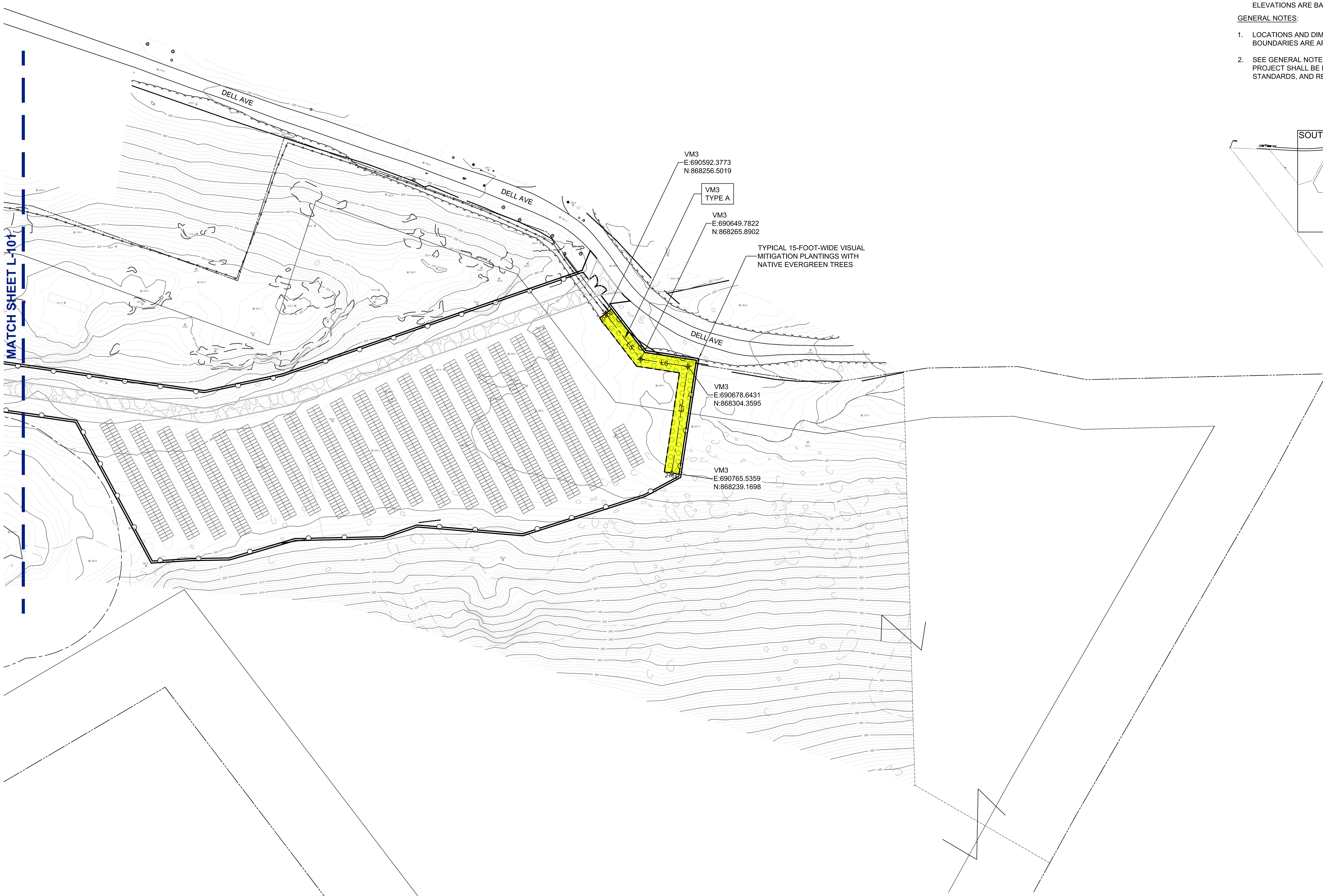
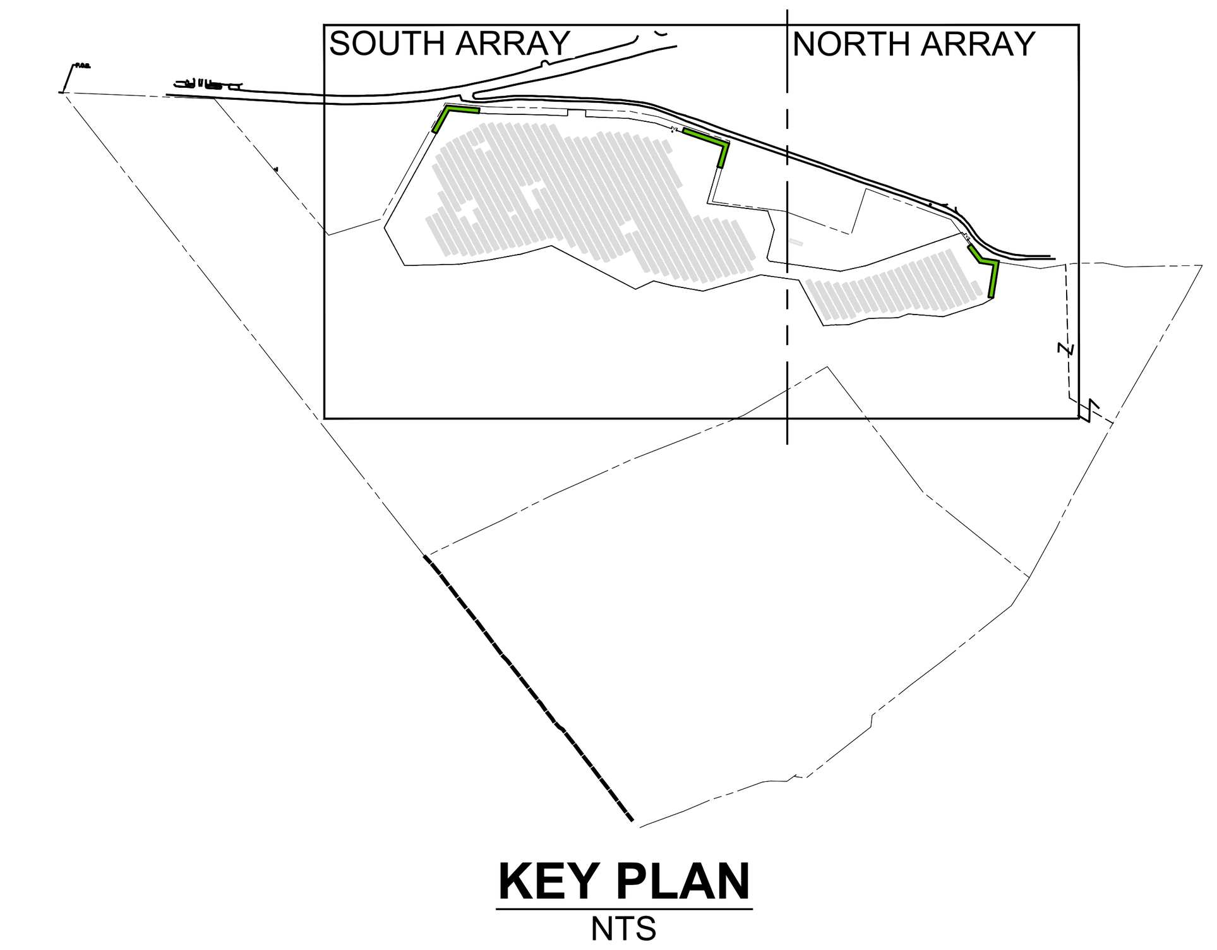
GENERAL NOTES:

1. LOCATIONS AND DIMENSIONS OF PHYSICAL FEATURES AND PROPERTY BOUNDARIES ARE APPROXIMATE.
2. SEE GENERAL NOTES #2, SHEET C-103 (SITE PLAN - SOUTH) THAT THE PROJECT SHALL BE DESIGNED IN COMPLIANCE WITH ALL APPLICABLE CODES, STANDARDS, AND REQUIREMENTS.





KEY PLAN
NTS

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Contract No: 431302

Scale: AS SHOWN

Date: JUNE 14, 2022

Sheet: LANDSCAPE PLAN - NORTH

Drawing No: L-102

GENERAL LANDSCAPE AND SEEDING NOTES

1. THE LANDSCAPE PLAN AND DETAILS ARE FOR LANDSCAPING INFORMATION ONLY. PLEASE REFER TO THE SITE LAYOUT PLAN, GRADING PLAN AND/OR UTILITIES PLAN FOR ALL OTHER INFORMATION.
2. THE CONTRACTOR SHALL MONITOR AND GUARANTEE THAT ALL PLANTS, TREES, AND SHRUBS SHALL BE HEALTHY AND FREE OF DISEASE FOR A PERIOD OF (1) ONE YEAR AFTER SUBSTANTIAL COMPLETION AND ACCEPTANCE BY THE OWNER. CONTRACTOR SHALL REPLACE ANY DEAD OR UNHEALTHY PLANTS AT CONTRACTOR'S EXPENSE. FINAL ACCEPTANCE SHALL BE MADE IF ALL PLANTS MEET THE GUARANTEE REQUIREMENTS INCLUDING MAINTENANCE. MAINTENANCE RESPONSIBILITIES INCLUDE INVASIVE SPECIES MONITORING, REMOVAL, AND SUPPLEMENTATION. MONITORING OF THE PROJECT SITE SHALL OCCUR IN THE SPRING AND THE FALL TO DETERMINE THE PRESENCE OF INVASIVE SPECIES. SHOULD ANY INVASIVE SPECIES BE IDENTIFIED WITHIN THE PROJECT SITE, THE INVASIVE SPECIES SHALL BE REMOVED ACCORDING TO METHODS MOST LIKELY TO BE EFFECTIVE IN CONTROLLING THAT SPECIES AND SUPPLEMENTING ITS REPLACEMENT WITH APPROPRIATE VEGETATION AND SEED MIX IDENTIFIED (AND APPROVED) ON THIS PLAN AND/OR AN APPROVED EQUAL. ADDITIONAL MAINTENANCE RESPONSIBILITIES INCLUDE: APPROVED CULTIVATING, SPRAYING, WEEDING, WATERING, TIGHTENING OF TREE STRAP GUYS, PRUNING, FERTILIZING, MULCHING, AND ANY OTHER OPERATIONS NECESSARY TO MAINTAIN PLANT VIABILITY. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER PLANTING AND CONTINUE UNTIL 90 DAYS AFTER FINAL ACCEPTANCE. WATERING OF THE LANDSCAPE BUFFER AREAS SHALL BE IMPLEMENTED BY THE USE OF A WATERING TRUCK.
3. THE CONTRACTOR SHALL SUPPLY ALL LABOR, PLANTS, APPROVED SEEDING MIX, AND MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE WORK SHOWN ON THE DRAWING(S) AND LISTED IN THE PLANT SCHEDULE(S) AND/OR SEEDING TABLE(S). IN THE EVENT OF A DISCREPANCY BETWEEN QUANTITIES SHOWN IN THE PLANT SCHEDULE AND/OR SEEDING TABLE AND THOSE REQUIRED BY THE DRAWINGS, THE LARGER SHALL APPLY. ALL PLANTS SHALL BE ACCLIMATED BY THE SUPPLY NURSERY TO THE LOCAL HARDINESS ZONE AND BE CERTIFIED THAT THE PLANTING MATERIAL HAS BEEN GROWN FOR A MINIMUM OF (2) TWO YEARS AT THE SOURCE AND OBTAINED WITHIN 200 MILES OF PROJECT SITE UNLESS OTHERWISE APPROVED BY OWNER, CERTIFIED LANDSCAPE INSPECTOR, OR LANDSCAPE ARCHITECT.
4. THE LOCATIONS FOR PLANT MATERIAL ARE APPROXIMATE AND ARE SUBJECT TO FIELD ADJUSTMENT DUE TO SLOPE, VEGETATION, AND SITE FACTORS SUCH AS THE LOCATION OF ROCK OUTCROPS. PRIOR TO PLANTING THE CONTRACTOR SHALL ACCURATELY STAKE OUT THE LOCATIONS FOR ALL PLANTS. THE OWNER, CERTIFIED LANDSCAPE INSPECTOR, OR LANDSCAPE ARCHITECT SHALL APPROVE THE FIELD LOCATIONS OR ADJUSTMENTS OF THE PLANT MATERIAL.
5. ALL SHRUB MASSING AREAS SHALL BE MULCHED TO A DEPTH OF 2" WITH SHREDDED HARDWOOD BARK MULCH.
6. NO PLANT SHALL BE PLACED IN THE GROUND BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY THE OWNER, CERTIFIED LANDSCAPE INSPECTOR, OR LANDSCAPE CONTRACTOR. STAKING THE LOCATION OF ALL TREES AND SHRUBS SHALL BE COMPLETED PRIOR TO PLANTING FOR APPROVAL BY THE OWNER, CERTIFIED LANDSCAPE INSPECTOR, OR LANDSCAPE ARCHITECT. STAKING OF THE INSTALLED TREE MUST BE COMPLETED THE SAME DAY AS IT IS INSTALLED. ALL TREES SHALL BE STAKED OR GUYED AS PER THE DETAIL. SEE LANDSCAPING PLAN(S) FOR PLANTING DETAILS.
7. COORDINATE PLANT MATERIAL LOCATIONS WITH SITE UTILITIES. SEE SITE LAYOUT, GRADING AND/OR UTILITY PLANS FOR STORM, SANITARY, GAS, ELECTRIC, TELEPHONE AND WATER LINES. UTILITY LOCATIONS ARE APPROXIMATE. EXERCISE CARE WHEN DIGGING IN AREAS OF POTENTIAL CONFLICT WITH UNDERGROUND OR OVERHEAD UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE DUE TO CONTRACTOR'S NEGLIGENCE AND SHALL REPLACE OR REPAIR ANY DAMAGE AT CONTRACTOR'S EXPENSE.
8. LANDSCAPE PLANTING PITS MUST BE FREE DRAINING. PAVEMENT, COMPACTED SUBGRADE, AND BLASTED ROCK SHALL BE REMOVED TO A DEPTH OF 2' OR TO A GREATER DEPTH IF REQUIRED BY PLANTING DETAILS OR SPECIFICATIONS. REPLACE SOIL WITH MODERATELY COMPACTED LOAM OR SANDY LOAM FREE FROM STONES AND RUBBISH 1" OR GREATER IN DIAMETER AND ANY OTHER MATERIAL HARMFUL TO PLANT GROWTH AND DEVELOPMENT. PLANTING INSTALLATION SHALL BE AS DETAILED AND CONTAIN PLANTING MIX AS SPECIFIED UNLESS RECOMMENDED OTHERWISE BY SOIL ANALYSIS.

   PLANTING SOIL MIXTURE:
   2 PARTS PEAT MOSS
   5 PARTS TOPSOIL
   MYCORRHIZA INOCULANT - "TRANSPLANT 1-STEP" AS MANUFACTURED BY ROOTS, INC. OR APPROVED EQUAL. USE PER MANUFACTURER'S RECOMMENDATIONS FOR TREES AND SHRUBS. FERTILIZER/LIME APPLY AS RECOMMENDED BY SOIL ANALYSIS

   - TREES, AND SHRUBS: TREES AND SHRUBS SHALL BE NURSERY GROWN UNLESS OTHERWISE NOTED AND HARDY UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCATION OF THE PROJECT. THEY SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY, WITH NORMAL HABIT OF GROWTH. THEY SHALL BE SOUND, HEALTHY, VIGOROUS, WELL-BRANCHED AND DENSELY FOLIATED WHEN IN LEAF. THEY SHALL BE FREE OF DISEASE, INSECT PESTS, EGGS OR LARVAE. THEY SHALL HAVE HEALTHY AND WELL-DEVELOPED ROOT SYSTEMS. ALL TREES SHALL HAVE STRAIGHT SINGLE TRUNKS WITH THEIR MAIN LEADER INTACT. THE OWNER, CERTIFIED LANDSCAPE INSPECTOR, LANDSCAPE ARCHITECT SHALL ONLY PERMIT SUBSTITUTIONS UPON WRITTEN APPROVAL. THEIR SIZES SHALL CONFORM TO THE MEASUREMENT SPECIFIED ON THE DRAWINGS. PLANTS LARGER THAN SPECIFIED ON THE DRAWINGS MAY BE USED IF APPROVED. THE USE OF SUCH PLANTS SHALL NOT INCREASE THE CONTRACT PRICE. ALL TREES AND SHRUBS SHALL BE MULCHED IN ACCORDANCE WITH THE RESPECTIVE PLANTING DETAIL(S) PROVIDED IN THE LANDSCAPING PLAN.
   - ALL PRUNING SHALL CONFORM TO THE TREE CARE INDUSTRY ASSOCIATION (TCIA) ANSI A300 (PART 1) - 2017 PRUNING STANDARDS. PRUNING STANDARDS SHALL RECOGNIZE BUT, ARE NOT LIMITED TO, THE FOLLOWING PRUNING OBJECTIVES: MANAGE RISK, MANAGE HEALTH, DEVELOP STRUCTURE, PROVIDE CLEARANCE, MANAGE SIZE OR SHAPE, IMPROVE AESTHETICS, MANAGE PRODUCTION OF FRUIT, FLOWERS, OR OTHER PRODUCTS, AND/OR MANAGE WILDLIFE HABITAT. DEVELOPING STRUCTURE SHALL IMPROVE BRANCH AND TRUNK ARCHITECTURE, PROMOTE OR SUBORDINATE CERTAIN LEADERS, STEMS, OR BRANCHES; PROMOTE DESIRABLE BRANCH SPACING; PROMOTE OR DISCOURAGE GROWTH IN A PARTICULAR DIRECTION (DIRECTIONAL PRUNING); MINIMIZE FUTURE INTERFERENCE WITH TRAFFIC, LINES OF SIGHT, INFRASTRUCTURE, OR OTHER PLANTS; RESTORE PLANTS FOLLOWING DAMAGE; AND/OR REJUVENATE SHRUBS. PROVIDING CLEARANCE SHALL ENSURE SAFE AND RELIABLE UTILITY SERVICES; MINIMIZE CURRENT INTERFERENCE WITH TRAFFIC, LINES OF SITE, INFRASTRUCTURE, OR OTHER PLANTS; RAISE CROWN(S) FOR MOVEMENT OF TRAFFIC OR LIGHT PENETRATION; ENSURE LINES OF SIGHT OR DESIRED VIEWS; PROVIDE ACCESS TO SITES, BUILDINGS, OR OTHER STRUCTURES; AND/OR COMPLY WITH REGULATIONS.
   - TOPSOIL SHALL BE INSTALLED AT A MINIMUM DEPTH OF 4 INCHES. CONTRACTOR SHALL SUBMIT TOPSOIL TO A CERTIFIED TESTING LABORATORY TO DETERMINE PH, FERTILITY, ORGANIC CONTENT AND MECHANICAL COMPOSITION. THE CONTRACTOR SHALL SUBMIT THE TEST RESULTS FROM REGIONAL EXTENSION OFFICE OF USDA TO THE OWNER, CERTIFIED LANDSCAPE INSPECTOR, OR LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL. CONTRACTOR SHALL INCORPORATE AMENDMENTS FOR GOOD PLANT GROWTH AND PROPER SOIL ACIDITY RECOMMENDED FROM THE TOPSOIL TEST.
   - NO PHOSPHOROUS SHALL BE USED AT PLANTING TIME UNLESS SOIL TESTING HAS BEEN COMPLETED AND TESTED BY A HORTICULTURAL TESTING LAB AND SOIL TESTS SPECIFICALLY INDICATE A PHOSPHOROUS DEFICIENCY THAT IS HARMFUL, OR WILL PREVENT NEW LAWNS/GRASSES AND PLANTINGS FROM ESTABLISHING PROPERLY.
   - IF SOIL TESTS INDICATE A PHOSPHOROUS DEFICIENCY THAT WILL IMPACT PLANT AND LAWN ESTABLISHMENT, PHOSPHOROUS SHALL BE APPLIED AT THE MINIMUM RECOMMENDED LEVEL PRESCRIBED IN THE SOIL TEST FOLLOWING ALL APPLICABLE STANDARDS, REQUIREMENTS, AND/OR REGULATIONS.
   - ALL SLOPES GREATER THAN 3:1 RECEIVING A WILDFLOWER, WETLAND, AND/OR GRASS SEEDING MIXTURE SHALL BE COVERED WITH AN EROSION CONTROL BLANKET.
   - ALL WILDFLOWERS AND GRASSES SOWED SHALL BE ALLOWED TO GROW TO THEIR NATURALLY OCCURRING HEIGHTS WHENEVER POSSIBLE. NATIVE WILDFLOWERS AND/OR GRASSES CAN BE MOWED/MAINTAINED (WITHIN ACCEPTABLE AREAS IDENTIFIED AND/OR APPROVED BY APPROPRIATE REGULATORY AGENCIES) AS OFTEN AS NEEDED TO KEEP THE VEGETATION AT A DESIRED AND/OR MANAGEABLE/MANICURED HEIGHT.
9. NON-NATIVE PLANT SPECIES SHALL NOT TOTAL MORE THAN 50% OF ALL PLANTINGS. INVASIVE SPECIES SHALL NOT BE PERMITTED.
10. PLANT MATERIALS SHALL NOT INCLUDE MORE THAN 25% OF ANY SINGLE SPECIES. THE PLANTINGS SHALL INCLUDE A MIX OF EVERGREEN AND DECIDUOUS TREES, UNDERSTORY TREES, SHRUBS, AND FLOWERING HERBACEOUS LAYER.
11. ALL PLANT MATERIAL SHALL CONFORM TO THE PLAN SIZE SPECIFICATIONS AS ESTABLISHED BY THE AMERICAN STANDARD FOR NURSERY STOCK LATEST EDITION.

LEGEND - OVERALL PLANTING TOTALS

LANDSCAPE PLANTING SCHEDULE — VISUAL MITIGATION PLANTING TEMPLATE TYPES A

EVERGREEN TREES

SYMBOL	BOTANICAL NAME/ COMMON PLANT NAME	QUANTITY	SIZE	ROOT	MATURE HEIGHT
JV	JUNIPERUS VIRGINIANA EASTERN RED CEDAR	20	5'-6' HT.	B&B	40'-50' HT.
PG	PICEA GLAUCA WHITE SPRUCE	29	5'-6' HT.	B&B	40'-60' HT.
TO	THUJA OCCIDENTALIS NORTHERN WHITE CEDAR	17	5'-6' HT.	B&B	40'-50' HT.

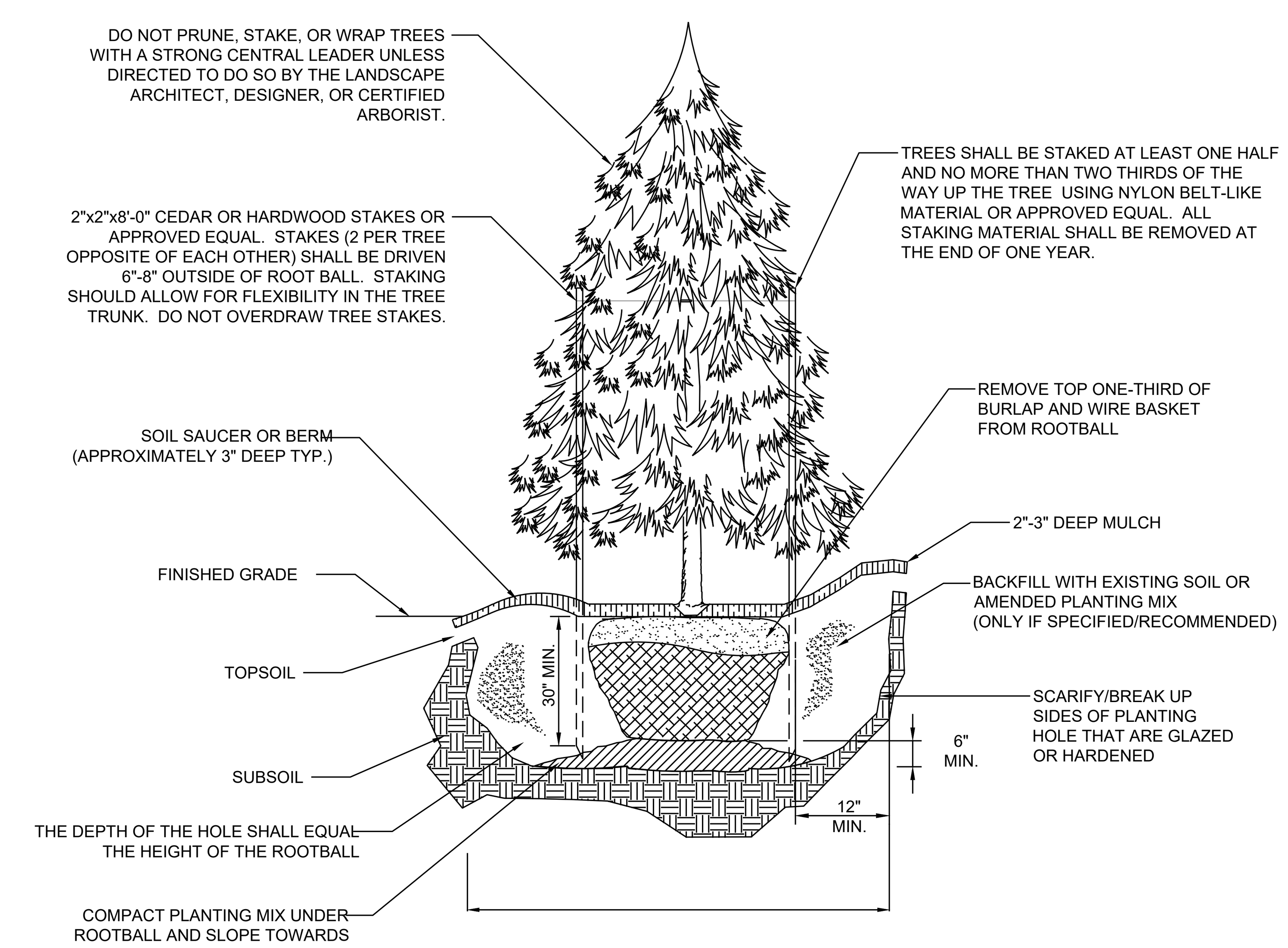
"PRELIMINARY SEED MIX"

FLOWERING HERBACEOUS LAYER / NORTHEAST NATIVE POLLINATOR SEED MIX

SOLAR SEED MIX: FUZZ & BUZZ MIX - STANDARD - ERNMX-146

MIX CONCENTRATION	BOTANICAL NAME	COMMON NAME	RATE (LBS/ACRE)	RATE (LBS/1000 FT²)
26.40%	LOLIUM PERENNE, 'CRAVE' TETRAPLOID	PERENNIAL RYEGRASS, 'CRAVE', TETRAPLOID	40	.92
20.80%	DACTYLIS GLOMERATA, 'PENNLATE'	ORCHARDGRASS, 'PENNLATE'		
18.90%	POA PRATENSIS, 'GINGER'	KENTUCKY BLUEGRASS, 'GINGER' (PASTURE TYPE)		
17.00%	FESTUCA ELATIOR X LOLIUM PERENNE, DUO	FESTULOLIUM, 'DUO'		
5.70%	TRIFOLIUM HYBRIDUM	ALSIKE CLOVER		
4.80%	TRIFOLIUM PRATENSE, MEDIUM, VARIETY NOT STATED	RED CLOVER, MEDIUM, VARIETY NOT STATED		
2.00%	LOTUS CORNICULATUS, 'LEO'	BIRD'S FOOT TREFOIL, 'LEO'		
1.30%	CICHORIUM INTYBUS	BLUE CHICORY		
1.00%	CHRYSANTHEMUM LEUCANTHEMUM	OXEYE DAISY		
0.90%	COREOPSIS LANCEOLATA	LANCELEAF COREOPSIS		
0.80%	CHAMAECRISTA FASCICULATA, PA ECOTYPE	PARTRIDGE PEA, PA ECOTYPE		
0.40%	SOLIDAGO NEMORALIS, PA ECOTYPE	GRAY GOLDENROD, PA ECOTYPE		
SEEDING RATE: EXPECT TO APPLY ABOUT 40 LBS PER ACRE WITH A COVER CROP OF ANNUAL RYEGRASS 12 LBS/ACRE				

NOTE:
NATIVE POLLINATOR SEED MIXES ARE INTENDED TO PROVIDE A EXCELLENT WILDLIFE FOOD AND SHELTER THAT WILL ATTRACT A VARIETY OF POLLINATORS AND SONGBIRDS. THE NATIVE WILDFLOWERS AND GRASSES IN THIS MIX PROVIDE AN ATTRACTIVE DISPLAY OF COLOR FROM SPRING TO FALL. POLLINATOR SEED MIXES ARE INTENDED TO PROVIDE NECTAR AND FOOD SOURCES FOR A VARIETY OF POLLINATORS AND LARVA. THESE MIXES ARE COMPRISED OF A FAIRLY EVEN MIX OF NATIVE AND/OR INDIGENOUS WILDFLOWERS AND GRASSES. THE POLLINATOR SEED MIX IS INTENDED TO BE SOWN INSIDE OF THE SOLAR ARRAY FIELD AND ADJACENT TO THE PERIMETER FENCE.



EVERGREEN TREE PLANTING DETAIL
N.T.S.

0 1' 2'
SCALE: 1" = 1'
SHEET SIZE: 24" BY 36"

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STATE OF NEW YORK — STEVEN DONALD MEERSMA — 076572-1 — LICENSED PROFESSIONAL ENGINEER

Revisions:	
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Approved by: C. DUNCAN

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Sheet: LANDSCAPE NOTES, & DETAILS
Drawing No: L-103

"PRELIMINARY PLANTING SCHEME"

VISUAL MITIGATION PLANTING TEMPLATE - TYPE A

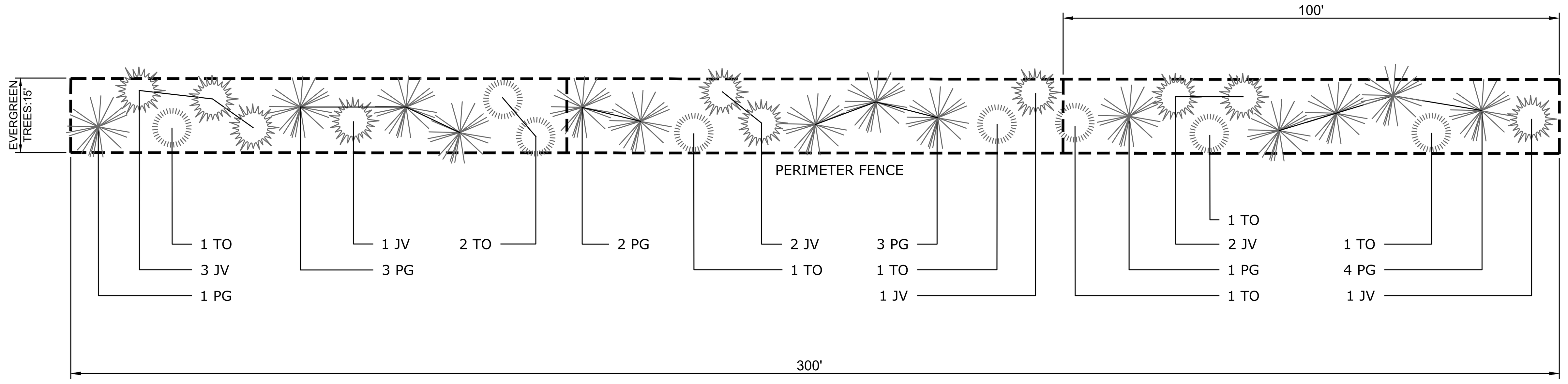
N.T.S.

LEGEND

VISUAL MITIGATION PLANTING TYPE "A":

BUFFER TYPE "A" NOTE:

1. SEE GENERAL SEEDING AND LANDSCAPE NOTES FOR ADDITIONAL PLANTING REQUIREMENTS AND SEED MIXTURE.
2. THE 15-FOOT-WIDE PROPOSED BUFFER TYPE "A" WILL BE A MIX OF NATIVE EVERGREEN TREES ARRANGED TO FORM A NATURAL APPEARANCE AND CONTINUOUS SOLID SCREEN. SEE THE PLANTING TEMPLATE FOR ARRANGEMENT OF PLANTS AND THE PLANT SCHEDULES FOR TYPE AND SIZE.
3. THE PROPOSED BUFFER TREATMENT MEETS THE GENERAL LANDSCAPING REQUIREMENTS PER THE TOWN OF YORKTOWN CODE FOR SOLAR POWER GENERATION SYSTEM AND FACILITIES SECTION 300-81.4 - E. (3) (E).
   - A GROUND MOUNTED SOLAR ENERGY SYSTEM SHALL BE FULLY SCREENED FROM ADJACENT RESIDENTIAL PROPERTIES, STREETS OR ROADS ON WHICH IT FRONT OR IS VISIBLE FROM, AND ANY OTHER VIEWS WHICH THE PLANNING BOARD DETERMINES IS NECESSARY.
4. THIS BUFFER IS LOCATED ALONG THE FOLLOWING:
   - ALONG PUBLIC ROAD FRONTAGE/STREET RIGHT-OF-WAY
   - FACING A RESIDENTIAL PROPERTY



LEGEND

VISUAL MITIGATION PLANTING TEMPLATE - TYPE A

LANDSCAPE PLANTING SCHEDULE (15' EVERGREEN VISUAL BUFFER/SCREENING EFFORT)

DECIDUOUS AND EVERGREEN TREES

JV	JUNIPERUS VIRGINIANA EASTERN RED CEDAR	10	5'-6' HT.	B&B	40'-50' HT.
PG	PICEA GLAUCA WHITE SPRUCE	14	5'-6' HT.	B&B	40'-60' HT.
TO	THUJA OCCIDENTALIS NORTHERN WHITE CEDAR	8	5'-6' HT.	B&B	40'-50' HT.

VISUAL MITIGATION PLANTING SCHEDULE - TYPE A

LEGEND - TYPE A TOTALS

LANDSCAPE PLANTING SCHEDULE — VISUAL MITIGATION PLANTING TEMPLATE TYPE A

EVERGREEN TREES

SYMBOL	BOTANICAL NAME/ COMMON PLANT NAME	QUANTITY	SIZE	ROOT	MATURE HEIGHT
JV	JUNIPERUS VIRGINIANA EASTERN RED CEDAR	20	5'-6' HT.	B&B	40'-50' HT.
PG	PICEA GLAUCA WHITE SPRUCE	29	5'-6' HT.	B&B	40'-60' HT.
TO	THUJA OCCIDENTALIS NORTHERN WHITE CEDAR	17	5'-6' HT.	B&B	40'-50' HT.

LEGEND - VM1

PLANTING TEMPLATE TYPE A

LANDSCAPE PLANTING SCHEDULE — TOTAL MITIGATION LENGTH = 185 LF

EVERGREEN TREES

SYMBOL	BOTANICAL NAME/ COMMON PLANT NAME	QUANTITY	SIZE	ROOT	MATURE HEIGHT
JV	JUNIPERUS VIRGINIANA EASTERN RED CEDAR	6	5'-6' HT.	B&B	40'-50' HT.
PG	PICEA GLAUCA WHITE SPRUCE	9	5'-6' HT.	B&B	40'-60' HT.
TO	THUJA OCCIDENTALIS NORTHERN WHITE CEDAR	5	5'-6' HT.	B&B	40'-50' HT.

LEGEND - VM2

PLANTING TEMPLATE TYPE A

LANDSCAPE PLANTING SCHEDULE — TOTAL MITIGATION LENGTH = 215 LF

EVERGREEN TREES

SYMBOL	BOTANICAL NAME/ COMMON PLANT NAME	QUANTITY	SIZE	ROOT	MATURE HEIGHT
JV	JUNIPERUS VIRGINIANA EASTERN RED CEDAR	7	5'-6' HT.	B&B	40'-50' HT.
PG	PICEA GLAUCA WHITE SPRUCE	10	5'-6' HT.	B&B	40'-60' HT.
TO	THUJA OCCIDENTALIS NORTHERN WHITE CEDAR	6	5'-6' HT.	B&B	40'-50' HT.

LEGEND - VM3

PLANTING TEMPLATE TYPE A

LANDSCAPE PLANTING SCHEDULE — TOTAL MITIGATION LENGTH = 215 LF

EVERGREEN TREES

SYMBOL	BOTANICAL NAME/ COMMON PLANT NAME	QUANTITY	SIZE	ROOT	MATURE HEIGHT
JV	JUNIPERUS VIRGINIANA EASTERN RED CEDAR	7	5'-6' HT.	B&B	40'-50' HT.
PG	PICEA GLAUCA WHITE SPRUCE	10	5'-6' HT.	B&B	40'-60' HT.
TO	THUJA OCCIDENTALIS NORTHERN WHITE CEDAR	6	5'-6' HT.	B&B	40'-50' HT.

VISUAL MITIGATION PLANTING COORDINATE TABLES - TYPE A

VM1 - VEGETATIVE BUFFER / SCREEN MITIGATION TABLE

NUMBER	MITIGATION TYPE	LENGTH	LINE/CHORD DIRECTION	START EASTING, NORTHING	END EASTING, NORTHING
L1	TYPE A	87	N32° 47' 12.82"W	E:689489.5216, N:866952.6692	E:689442.5172, N:867025.6424
L2	TYPE A	98	N33° 16' 12.18"E	E:689442.5172, N:867025.6424	E:689496.3927, N:867107.7535

VM2 - VEGETATIVE BUFFER / SCREEN MITIGATION TABLE

NUMBER	MITIGATION TYPE	LENGTH	LINE/CHORD DIRECTION	START EASTING, NORTHING	END EASTING, NORTHING
L3	TYPE A	142	N47° 09' 42.18"E	E:689851.7621, N:867640.6490	E:689955.7687, N:867737.0893
L4	TYPE A	73	S45° 33' 57.82"E	E:689955.7687, N:867737.0893	E:690007.9618, N:867685.9175

VM3 - VEGETATIVE BUFFER / SCREEN MITIGATION TABLE

NUMBER	MITIGATION TYPE	LENGTH	LINE/CHORD DIRECTION	START EASTING, NORTHING	END EASTING, NORTHING
L5	TYPE A	58	N80° 42' 42.18"E	E:690592.3773, N:868256.5019	E:690649.7822, N:868265.8902
L6	TYPE A	48	N36° 52' 42.18"E	E:690649.7822, N:868265.8902	E:690678.6431, N:868304.3595
L7	TYPE A	109	S53° 07' 17.82"E	E:690678.6431, N:868304.3595	E:690765.5359, N:868239.1698

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STATE OF NEW YORK — STEVEN DONALD MEREMA — 078572-1 — LICENSED PROFESSIONAL ENGINEER

Revisions:

No.	Date:

Drawn by: G. TURNER

Checked by: M. ROSS

Approved by: C. DUNCAN

SCS DELL 014136 YORKTOWN, LLC
DELL AVENUE SOLAR FARM
FIXED-TILT GROUND MOUNT SOLAR ENERGY SYSTEM
DELL AVENUE, YORKTOWN, NEW YORK 10514

Contract No: 431302

Scale: AS SHOWN

Date: JUNE 14, 2022

Sheet: LANDSCAPE PLANTING TEMPLATE, & SCHEDULES

Drawing No: L-104

GENERAL NOTES:

1. USE OF THIS DETAIL/CRITERION IS LIMITED TO ACCESS ROADS USED ON AN OCCASIONAL BASIS ONLY (I.E. PROVIDE ACCESS FOR MOWING, EQUIPMENT REPAIR OR MAINTENANCE, ETC.).
2. LIMITED USE PERVIOUS ACCESS ROAD IS LIMITED TO LOW IMPACT IRREGULAR MAINTENANCE ACCESS ASSOCIATED WITH RENEWABLE ENERGY PROJECTS IN NEW YORK STATE.
3. REMOVE STUMPS, ROCKS AND DEBRIS AS NECESSARY. FILL VOIDS TO MATCH EXISTING NATIVE SOILS AND COMPACTION LEVEL.
4. REMOVED TOPSOIL MAY BE SPREAD IN ADJACENT AREAS AS DIRECTED BY THE PROJECT ENGINEER. COMPACT TO THE DEGREE OF THE NATIVE INSITU SOIL. DO NOT PLACE IN AN AREA THAT IMPEDES STORMWATER DRAINAGE.
5. GRADE ROADWAY, WHERE NECESSARY, TO NATIVE SOIL AND DESIRED ELEVATION. MINOR GRADING FOR CROSS SLOPE CUT AND FILL MAY BE REQUIRED.
6. REMOVE REFUSE SOILS AS DIRECTED BY THE PROJECT ENGINEER. DO NOT PLACE IN AN AREA THAT IMPEDES STORMWATER DRAINAGE.
7. ROADWAY WIDTH ABOVE MINIMUM TO BE DETERMINED BY CLIENT.
8. THE LIMITED USE PERVIOUS ACCESS ROAD CROSS SLOPE SHALL BE 2% IN MOST CASES AND SHOULD NOT EXCEED 6%. THE LONGITUDINAL SLOPE OF THE ACCESS DRIVE SHOULD NOT EXCEED 15%.
9. THE LIMITED USE PERVIOUS ACCESS ROAD IS NOT INTENDED TO BE UTILIZED FOR CONSTRUCTION WHICH MAY SUBJECT THE ACCESS TO SEDIMENT TRACKING. THIS SPECIFICATION IS TO BE DEVELOPED FOR POST-CONSTRUCTION USE. SOIL RESTORATION PRACTICES MAY BE APPLICABLE TO RESTORE CONSTRUCTION RELATED COMPACTION TO PRE-EXISTING CONDITIONS AND SHOULD BE VERIFIED BY SOIL PENETROMETER READINGS. THE PENETROMETER READINGS SHALL BE COMPARED TO THE RESPECTIVE RECORDED READINGS TAKEN PRIOR TO CONSTRUCTION, EVERY 100 LINEAR FEET ALONG THE PROPOSED ROADWAY.
10. TO ENSURE THAT SOIL IS NOT TRACKED ONTO THE LIMITED USE PERVIOUS ACCESS ROAD, IT SHALL NOT BE USED BY CONSTRUCTION VEHICLES TRANSPORTING SOIL, FILL MATERIAL, ETC. IF THE LIMITED USE PERVIOUS ACCESS IS COMPLETED DURING THE INITIAL PHASES OF CONSTRUCTION, A STANDARD NEW YORK STATE STABILIZED CONSTRUCTION ACCESS SHALL BE CONSTRUCTED AND UTILIZED TO REMOVE SEDIMENT FROM CONSTRUCTION VEHICLES AND EQUIPMENT PRIOR TO ENTERING THE LIMITED USE PERVIOUS ACCESS ROAD FROM ANY LOCATION ON, OR OFF SITE. MAINTENANCE OF THE PERVIOUS ACCESS ROAD WILL BE REQUIRED IF SEDIMENT IS OBSERVED WITHIN THE CLEAN STONE.
11. THE LIMITED USE PERVIOUS ACCESS ROAD SHALL NOT BE CONSTRUCTED OR USED UNTIL ALL AREAS SUBJECT TO RUNOFF ONTO THE PERVIOUS ACCESS HAVE ACHIEVED FINAL STABILIZATION.
12. PROJECTS SHOULD AVOID INSTALLATION OF THE LIMITED USE PERVIOUS ACCESS ROAD IN POORLY DRAINED AREAS, HOWEVER IF NO ALTERNATIVE LOCATION IS AVAILABLE, THE PROJECT SHALL UTILIZE WOVEN GEOTEXTILE MATERIAL AS DETAILED IN FOLLOWING NOTES.
13. THE DRAINAGE DITCH IS OFFERED IN THE DETAIL FOR CIRCUMSTANCES WHEN CONCENTRATED FLOW COULD NOT BE AVOIDED. THE INTENTION OF THIS DESIGN IS TO MINIMIZE ALTERATIONS TO HYDROLOGY, HOWEVER WHEN DEALING WITH 5%-15% GRADES NOT PARALLEL TO THE CONTOUR, A ROADSIDE DITCH MAY BE REQUIRED. THE NYS STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROLS FOR GRASSED WATERWAYS AND VEGETATED WATERWAYS ARE APPLICABLE FOR SIZING AND STABILIZATION. DIMENSIONS FOR THE GRASSED WATERWAY SPECIFICATION WOULD BE DESIGNED FOR PROJECT SPECIFIC HYDROLOGIC RUNOFF CALCULATIONS, AND A SEPARATE DETAIL FOR THE SPECIFIC GRASSED WATERWAY WOULD BE INCLUDED IN THIS PRACTICE. RUNOFF DISCHARGES WILL BE SUBJECT TO THE OUTLET REQUIREMENTS OF THE REFERENCED STANDARD. INCREASED POST-DEVELOPMENT RUNOFF FROM THE ASSOCIATED ROADSIDE DITCH MAY REQUIRE ADDITIONAL PRACTICES TO ATTENUATE RUNOFF TO PRE-DEVELOPMENT CONDITIONS.
14. IF A ROADSIDE DITCH IS NOT UTILIZED TO CAPTURE RUNOFF FROM THE ACCESS ROAD, THE PERVIOUS ACCESS ROAD WILL HAVE A WELL-ESTABLISHED PERENNIAL VEGETATIVE COVER, WHICH SHALL CONSIST OF UNIFORM VEGETATION (I.E. BUFFER), 20 FEET WIDE AND PARALLEL TO THE DOWN GRADIENT SIDE OF THE ACCESS ROAD. POST-CONSTRUCTION OPERATION AND MAINTENANCE PRACTICES WILL MAINTAIN THIS VEGETATIVE COVER TO ENSURE FINAL STABILIZATION FOR THE LIFE OF THE ACCESS ROAD.
15. THE DESIGN PROFESSIONAL MUST ACCOUNT FOR THE LIMITED USE PERVIOUS ACCESS ROAD IN THEIR SITE ASSESSMENT/HYDROLOGY ANALYSIS. IF THE HYDROLOGY ANALYSIS SHOWS THAT THE HYDROLOGY HAS BEEN ALTERED FROM PRE- TO POST-DEVELOPMENT CONDITIONS (SEE APPENDIX A OF GP-0-20-001 FOR THE DEFINITION OF "ALTER THE HYDROLOGY..."), THE DESIGN MUST INCLUDE THE NECESSARY DETENTION/RETENTION PRACTICES TO ATTENUATE THE RATES (10 AND 100 YEAR EVENTS) TO PRE-DEVELOPMENT CONDITIONS.

GEOGRID MATERIAL NOTES:

1. THE GEOGRID, OR COMPARABLE PRODUCT, IS INTENDED FOR USE FOR ALL CONDITIONS, IN ORDER TO ASSIST IN MATERIAL SEPARATION FROM NATIVE SOILS AND PRESERVE ACCESS LOADS.
2. GRAVEL FILL MATERIAL SHALL CONSIST OF 1-2" CLEAN, DURABLE, SHARP-ANGLED CRUSHED STONE OF UNIFORM QUALITY, MEETING THE SPECIFICATIONS OF NYSDOT ITEM 703-02, SIZE DESIGNATION 3-5 OF TABLE 703-4. STONE MAY BE PLACED IN FRONT OF, AND SPREAD WITH, A TRACKED VEHICLE. GRAVEL SHALL NOT BE COMPACTED.
3. GEOGRID SHALL BE MIRAFI BXG110 OR APPROVED EQUAL. GEOGRID SHALL BE DESIGNED BASED ON EXISTING SOIL CONDITIONS AND PROPOSED HAUL ROAD SLOPES.
4. IF MORE THAN ONE ROLL WIDTH IS REQUIRED, ROLLS SHOULD OVERLAP A MINIMUM OF NINE INCHES.
5. REFER TO MANUFACTURER'S SPECIFICATION FOR PROPER TYING AND CONNECTIONS.
6. LIMITED USE PERVIOUS ACCESS ROAD SHALL BE TOP DRESSED AS REQUIRED WITH ONLY 1-2" CRUSHED STONE MEETING NYSDOT ITEM 703-02 SPECIFICATIONS.

BASIS OF DESIGN: TENCATE MIRAFI BXG110 GEOGRIDS; 365 SOUTH HOLLAND DRIVE, PENDERGRASS, GA;800-685-9990 OR 706-693-2226; WWW.MIRAFI.COM

GEOWEB MATERIAL NOTES:

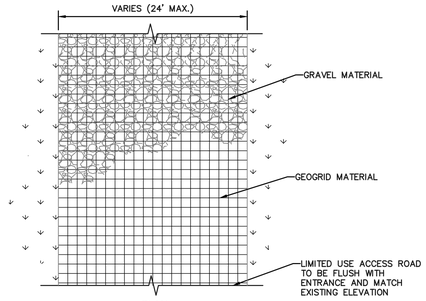
1. THE GEOWEB, OR COMPARABLE PRODUCT, IS SUGGESTED FOR USE ON ROAD PROFILES EXCEEDING 10%. THE GEOWEB PRODUCT IS INTENDED TO LIMIT SHIFTING STONE MATERIAL DURING USE.
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. WHERE REQUIRED, A NATIVE SOIL WEDGE SHALL BE PLACED TO ACCOMMODATE ROAD CROSS SLOPE OF 2%. NATIVE SOIL SHALL BE COMPACTED TO MATCH EXISTING SOIL CONDITIONS.
4. GRAVEL FILL MATERIAL SHALL CONSIST OF 1-2" CLEAN, DURABLE, SHARP-ANGLED CRUSHED STONE OF UNIFORM QUALITY, MEETING THE SPECIFICATIONS OF NYSDOT ITEM 703-02, SIZE DESIGNATION 3-5 OF TABLE 703-4. STONE MAY BE PLACED IN FRONT OF, AND SPREAD WITH, A TRACKED VEHICLE. GRAVEL SHALL NOT BE COMPACTED.
5. GEOWEB SYSTEM SHALL BE PRESTO GEOSYSTEM GEOWEB OR APPROVED EQUAL. GEOWEB SHALL BE DESIGNED BASED ON EXISTING SOIL CONDITIONS AND PROPOSED HAUL ROAD SLOPES.
6. LIMITED USE PERVIOUS ACCESS ROAD SHALL BE TOP DRESSED AS REQUIRED WITH ONLY 1-2" CRUSHED STONE, SIZE 3A, MEETING NYSDOT ITEM 703-02 SPECIFICATIONS.
7. THE TOP EDGES OF ADJACENT CELL WALLS SHALL BE FLUSH WHEN CONNECTING. ALIGN THE I-SLOTS FOR INTERLEAF AND END TO END CONNECTIONS. THE GEOWEB PANELS SHALL BE CONNECTED WITH ATRA KEYS AT EACH INTERLEAD AND END TO END CONNECTIONS. REFER TO MANUFACTURER'S SPECIFICATION FOR PROPER INSTALLATION, TYING, ANCHORING, AND CONNECTIONS.

BASIS OF DESIGN: PRESTO GEOSYSTEMS GEOWEB; 670 NORTH PERKINS STREET, APPLETON, WI; 800-548-3424 OR 920-738-1222; INFO@PRESTOGEO.COM; WWW.PRESTOGEO.COM

WOVEN GEOTEXTILE MATERIAL NOTES:

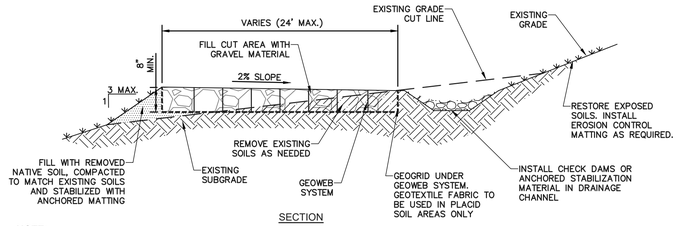
1. SPECIFIED GEOTEXTILE WILL ONLY BE UTILIZED IN PLACID SOILS. PLACID SOILS CONSIST OF POORLY DRAINED SOILS COMPOSED OF FINELY TEXTURED PARTICLES AND ARE PRONE TO RUTTING. PLACID SOILS ARE TYPICALLY PRESENT IN LOW-LYING AREAS WITH HYDROLOGIC SOILS GROUP (HSG) OF C OR D, OR AS SPECIFIED BY AN ENGINEER, ENVIRONMENTAL SCIENTIST, SOIL SCIENTIST, OR GEOTECHNICAL DATA.
2. THE CONCERN FOR POTENTIAL REDUCTION OF NATIVE INFILTRATION RATES DUE TO THE GEOTEXTILE MATERIAL WOULD NOT BE A SIGNIFICANT CONCERN IN POORLY DRAINED SOILS WHERE SEGREGATION OF PERVIOUS STONE AND NATIVE MATERIALS IS CRUCIAL FOR LONG TERM OPERATION AND MAINTENANCE.

BASIS OF DESIGN: TENCATE MIRAFI RSI-SERIES WOVEN GEOSYNTHETICS; 365 SOUTH HOLLAND DRIVE, PENDERGRASS, GA;800-685-9990 OR 706-693-2226; WWW.MIRAFI.COM



LIMITED USE PERVIOUS ACCESS ROAD – 0% TO 10% SLOPES

NOT TO SCALE

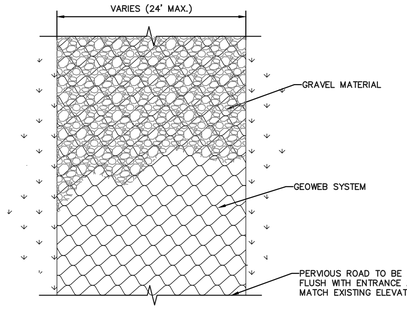


NOTE:

1. THE ROADSIDE DITCH SHALL BE DESIGNED IN ACCORDANCE WITH THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROLS FOR GRASSED AND VEGETATED WATERWAYS. ADDITIONAL DETAILS WILL BE PROVIDED SPECIFIC TO THE SITE DESIGN.

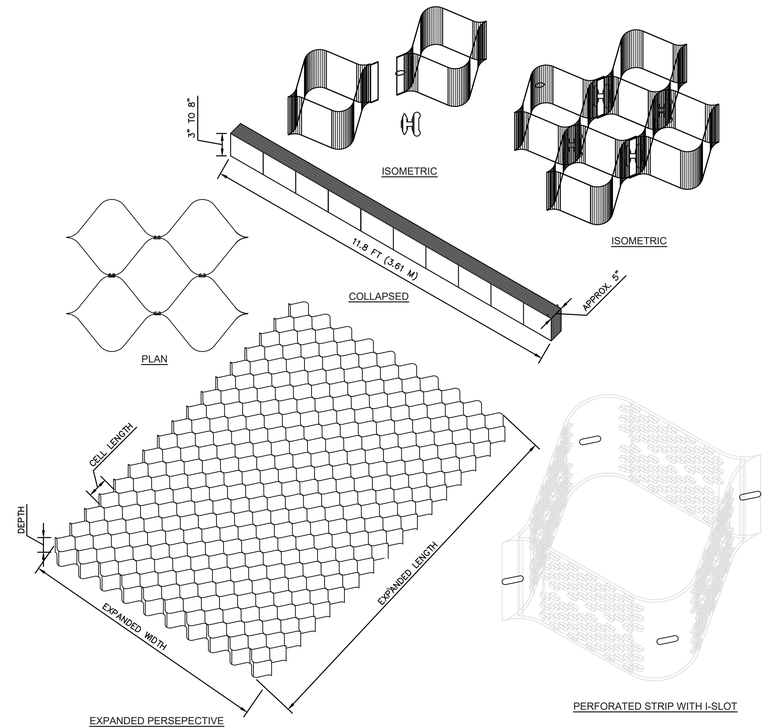
LIMITED USE PERVIOUS ACCESS ROAD – 10% AND GREATER SLOPES WITH DITCH

NOT TO SCALE



LIMITED USE PERVIOUS ACCESS ROAD – 10% AND GREATER SLOPES

NOT TO SCALE



GEOWEB SYSTEM

NOT TO SCALE

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STATE OF NEW YORK – STEVEN DONALD MEERSMA – 078872 – LICENSED PROFESSIONAL ENGINEER

Revisions:

No.	Date:

Drawn by: A. REXROAT

Checked by: S. MEERSMA

Approved by: C. DUNCAN

SCS DELL 014136 YORKTOWN, LLC
DELL AVENUE SOLAR FARM
FIXED-TILT GROUND MOUNT SOLAR ENERGY SYSTEM
DELL AVENUE, YORKTOWN, NEW YORK 10514

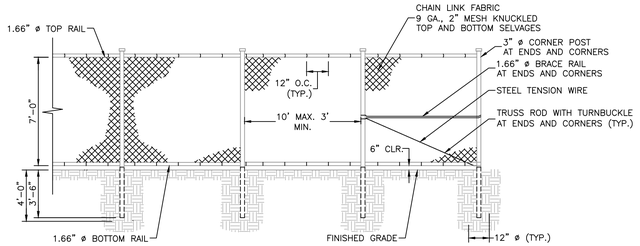
Contract No: 431302

Scale: AS SHOWN

Date: JUNE 14, 2022

Sheet: DETAIL SHEET 1

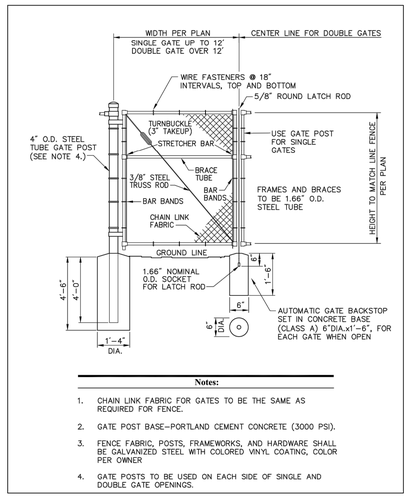
Drawing No: D-101



FENCE INSTALLATION NOTES

- **THE OPENINGS IN THE LINKS SHALL BE A MAXIMUM OF 2"**

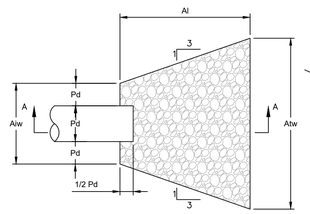
CHAIN LINK FENCE DETAIL
NOT TO SCALE



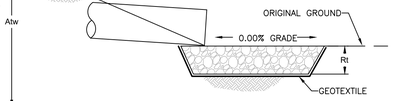
Notes:

1. CHAIN LINK FABRIC FOR GATES TO BE THE SAME AS REQUIRED FOR FENCE.
2. GATE POST BASE–PORTLAND CEMENT CONCRETE (3000 PSI).
3. FENCE FABRIC, POSTS, FRAMEWORKS, AND HARDWARE SHALL BE GALVANIZED STEEL WITH COLORED VINYL COATING, COLOR PER OWNER
4. GATE POSTS TO BE USED ON EACH SIDE OF SINGLE AND DOUBLE GATE OPENINGS.

CHAIN LINK GATE DETAIL
NOT TO SCALE



PLAN VIEW



SECTION A–A

NOTES:

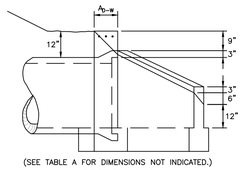
ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.

ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

EXTEND RIPRAP ON BACK SIDE OF APRON TO AT LEAST 1/2 DEPTH OF PIPE ON BOTH SIDES TO PREVENT SCOUR AROUND THE PIPE.

RIP RAP OUTLET PROTECTION
NOT TO SCALE

PIPE DIA Pd (IN)	RIPRAP SIZE D_{50} (IN)	RIPRAP THICK. Rt (IN)	APRON LENGTH Al (FT)	APRON INITIAL WIDTH Aiw (FT)	APRON TERMINAL WIDTH Atw (FT)
12	9	18	12	4	10



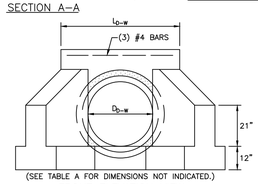
(SEE TABLE A FOR DIMENSIONS NOT INDICATED.)

SECTION A–A

TABLE A

PIPE DIAM	L	W	A
18"&<	4.0'	4.0'	12"
24"	4.6'	4.25'	12"
36"	5.8'	4.6'	12"
42"	6.3'	5.8'	12"
48"	6.9'	6.9'	12"
54"	7.5'	8.0'	12"
60"	8.1'	9.2'	15"
72"	9.2'	11.5'	15"

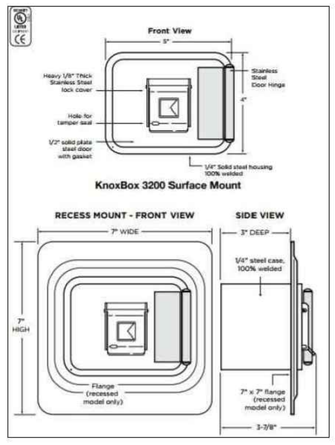
NOTES:
- CONCRETE SHALL BE CLASS "AA"
- EXPOSED EDGES SHALL BE CHAMFERED ONE (1) INCH



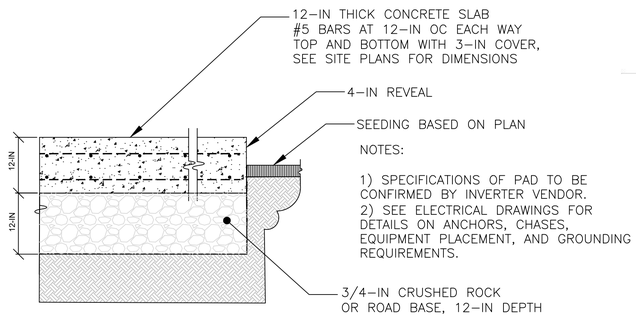
(SEE TABLE A FOR DIMENSIONS NOT INDICATED.)

FRONT ELEVATION VIEW

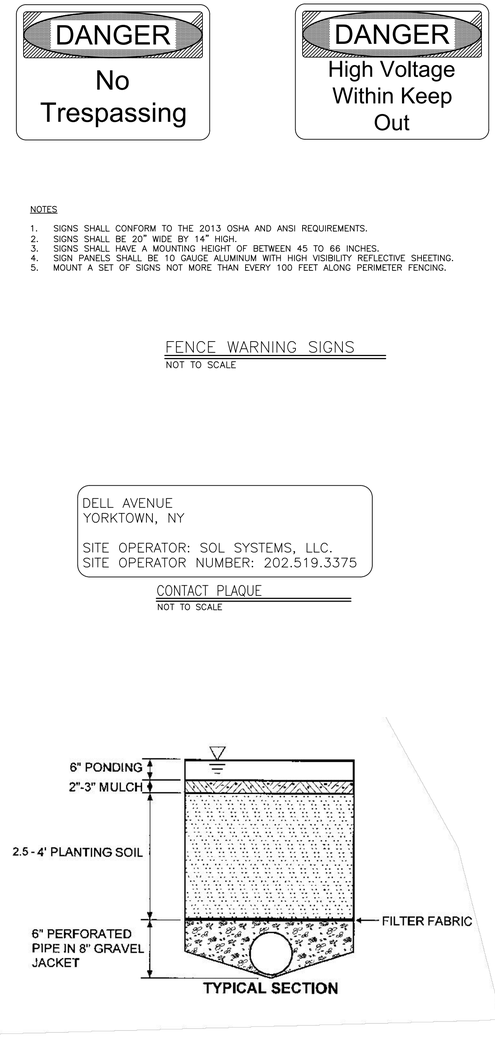
NOTE: ALL ENDWALLS AND HEADWALLS SHALL HAVE A TRASH SCREEN (SEE DETAIL)



KNOX BOX
NOT TO SCALE



CONCRETE PAD (ELECTRICAL EQUIP. TYP.)
NOT TO SCALE



NOTES

1. SIGNS SHALL CONFORM TO THE 2013 OSHA AND ANSI REQUIREMENTS.
2. SIGNS SHALL BE 20" WIDE BY 14" HIGH.
3. SIGNS SHALL HAVE A MOUNTING HEIGHT OF BETWEEN 45 TO 66 INCHES.
4. SIGN PANELS SHALL BE 10 GAUGE ALUMINUM WITH HIGH VISIBILITY REFLECTIVE SHEETING.
5. MOUNT A SET OF SIGNS NOT MORE THAN EVERY 100 FEET ALONG PERIMETER FENCING.

FENCE WARNING SIGNS
NOT TO SCALE

DELL AVENUE
YORKTOWN, NY

SITE OPERATOR: SOL SYSTEMS, LLC.
SITE OPERATOR NUMBER: 202.519.3375

CONTACT PLAQUE
NOT TO SCALE

TYPICAL SECTION

BIORETENTION PROFILE
NOT TO SCALE

BIORETENTION – SOIL SPECIFICATIONS

1. SOIL MEDIA COMPOSITION SHALL BE A UNIFORM MIXTURE OF 50% TO 70% SAND (ASTM C–33) AND 50% TO 30% ORGANIC MATERIAL (TOPSOIL) BY VOLUME. THE MEDIA BLEND SHALL CONTAIN SHALL AVERAGE OF 5% ORGANIC MATTER SUCH AS COMPOST OR PEAT, AND BE FREE OF STONES, STUMPS, ROOTS, WOODY MATERIAL OVER 2" IN DIAMETER, ANIMAL WASTE, BRUSH, OR SEEDS FROM NOXIOUS WEEDS.
2. THE SOIL MEDIA SHALL CONTAIN LESS THAN 5% CLAY, HAVE A pH RANGE OF 5.2 TO 7.6, AND A LOW PHOSPHORUS INDEX (BETWEEN 0 AND 25). A PERMEABILITY OF AT LEAST 1.0 FEET PER DAY (0.5"/HR) IS REQUIRED. ONLY COMPOST OR PEAT SHALL BE USED AS A SOIL AMENDMENT TO INCREASE ORGANIC CONTENT AS REQUIRED.
3. THE SOIL MEDIA SHALL BE TESTED FOR TOTAL PHOSPHORUS CONTENT AT A QUALIFIED LABORATORY, ONE THAT IS CERTIFIED BY THE NEW YORK STATE DEPARTMENT OF HEALTH (NYSDOH) ENVIRONMENTAL LABORATORY APPROVAL PROGRAM (ELAP) TO TEST SOIL FOR TOTAL PHOSPHORUS.
4. ACCEPTANCE OF THE SOIL MEDIA SHALL BE BASED UPON THE CONTRACTOR OR SUPPLIER PROVIDING TO THE ENGINEER COPIES OF TESTING RESULTS CERTIFYING THAT THE SAND GRADATION, TOPSOIL GRADATION, ORGANIC MATTER CONTENT, pH, PERMEABILITY, AND TOTAL PHOSPHORUS CONTENT ALL CONFORM TO THE STATED REQUIREMENTS.

PRELIMINARY DRAFT- NOT FOR CONSTRUCTION

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2nd Floor
Washington, DC 200036

STATE OF NEW YORK · STEVEN DONALD MEERSMA · 076572 · LICENSED PROFESSIONAL ENGINEER

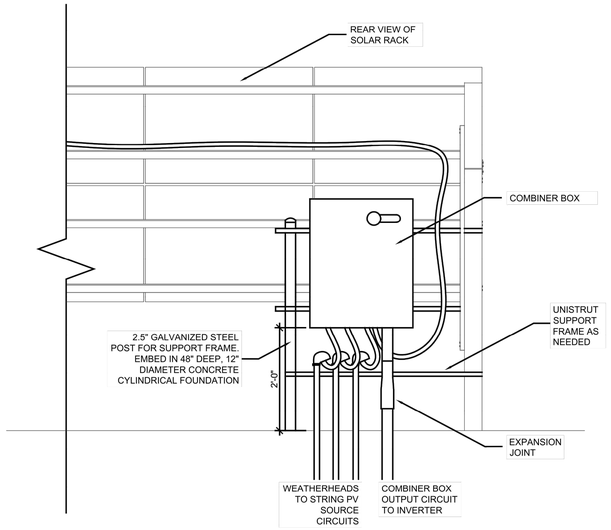
Revisions:

No.	Date:

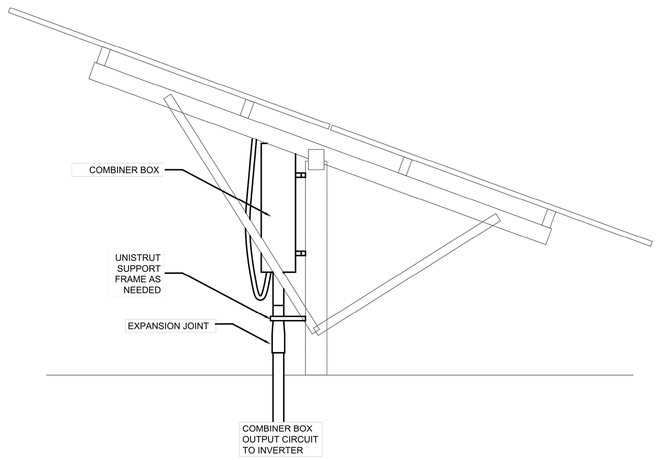
Drawn by: A. REXROAT
Checked by: S. MEERSMA
Approved by: C. DUNCAN

SCS DELL 014136 YORKTOWN, LLC
DELL AVENUE SOLAR FARM
FIXED-TILT GROUND MOUNT SOLAR ENERGY SYSTEM
DELL AVENUE, YORKTOWN, NEW YORK 10514

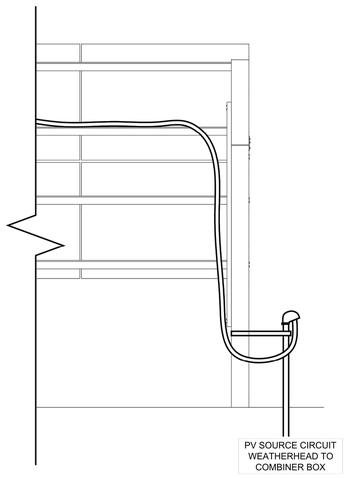
Contract No: 431302
Scale: AS SHOWN
Date: JUNE 14, 2022
Sheet: DETAIL SHEET 2
Drawing No: D-102



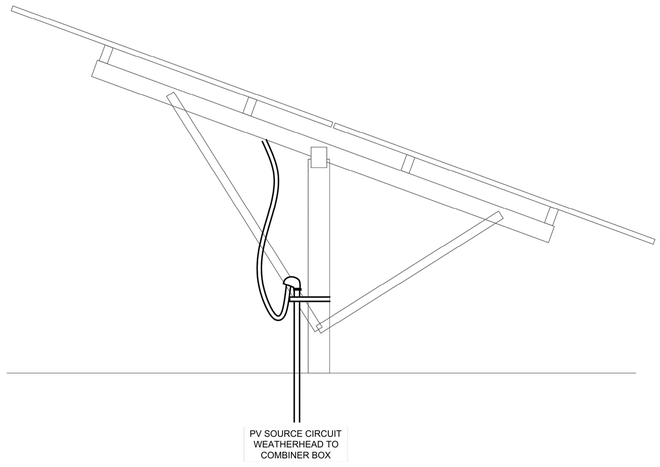
1 E-412 COMBINER BOX FRONT 3/4" = 1'-0"



2 E-412 COMBINER BOX SIDE 3/4" = 1'-0"



3 E-412 STRING CONDUIT WEATHERHEAD 3/4" = 1'-0"



4 E-412 STRING CONDUIT WEATHERHEAD SIDE 3/4" = 1'-0"

NOTE: UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING), SECTION 7209 (2), IT IS A VIOLATION FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.
NOT FOR CONSTRUCTION

PRELIMINARY DRAFT- NOT FOR CONSTRUCTION

TRC
1430 Broadway, 10th Floor
New York, NY 10018
Phone: 212.221.7822
www.TRCcompanies.com
TRC Project No: 431302.0000.0005

SOLSYSTEMS
Sol Systems, LLC
1101 Connecticut Avenue NW
2nd Floor
Washington, DC 200036

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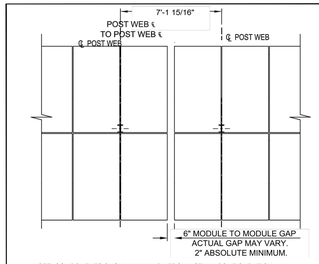
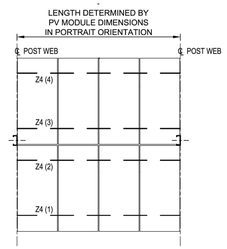
Contract No: 431302
Scale: AS SHOWN
Date: JUNE 14, 2022
Sheet: DETAIL SHEET 3
Drawing No: D-103

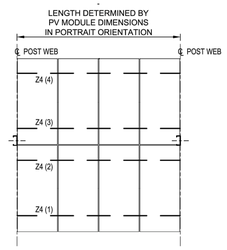


NOTE: COMPONENTS SHOWN MAY VARY FROM ACTUAL CONFIGURATION.
SEE INDIVIDUAL BAY PLANS THIS SHEET FOR MORE DETAILED PLANS.
INSTALL EXTENDED POST TOP ASSEMBLY AT EITHER SIDE OF ROW BREAK PER DETAIL A1/SG501.

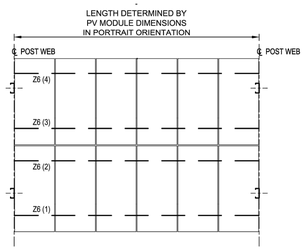
G9 SCALE: NONE — **"B" ROW BREAK DETAIL**

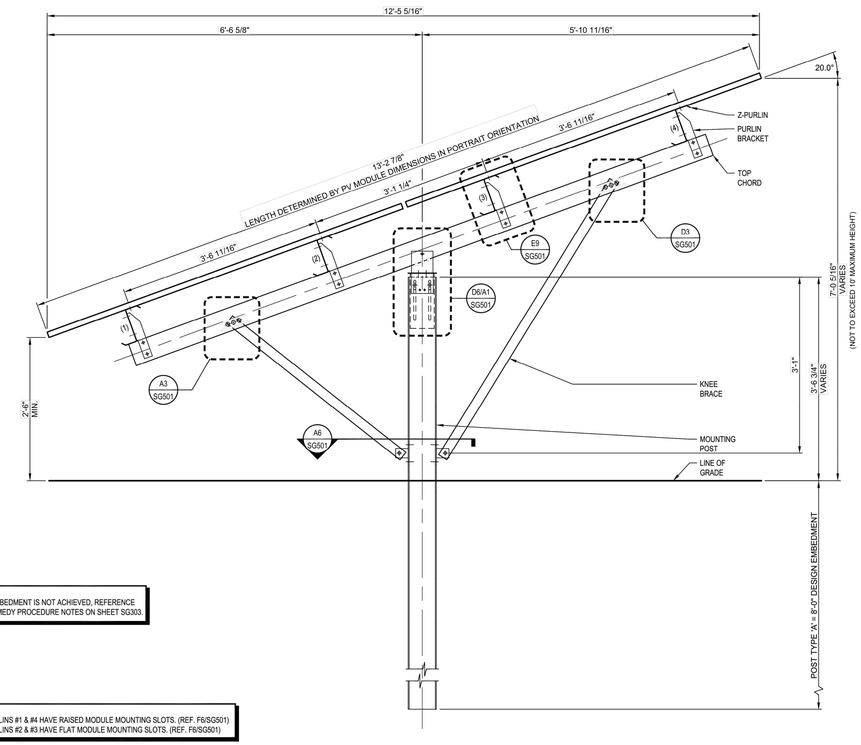


E3 SCALE: 1/4" = 1'-0" — **4P2 BAY PLAN VIEW**



C3 SCALE: 1/4" = 1'-0" — **5P2 BAY PLAN VIEW**





NOTE:
IF DESIGN EMBEDMENT IS NOT ACHIEVED, REFERENCE REFUSAL REMEDY PROCEDURE NOTES ON SHEET SG303.

NOTE:
1. Z-PURLINS #1 & #4 HAVE RAISED MODULE MOUNTING SLOTS. (REF. F6/SGS01)
2. Z-PURLINS #2 & #3 HAVE FLAT MODULE MOUNTING SLOTS. (REF. F6/SGS01)

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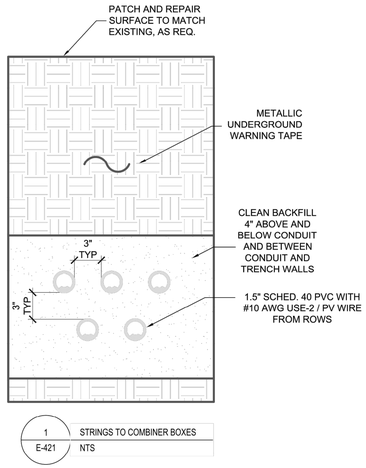
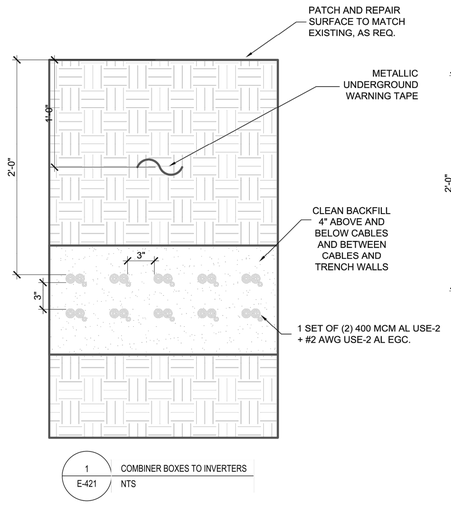
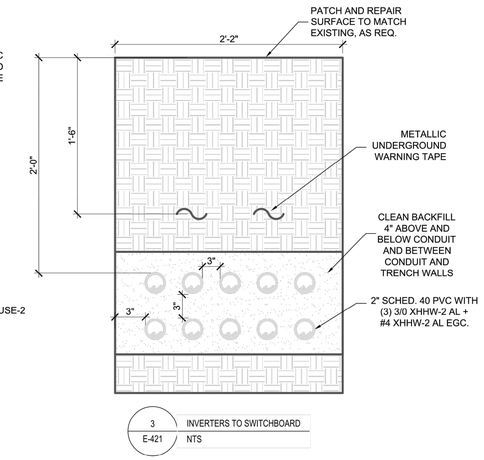
Scale: AS SHOWN
Date: JUNE 14, 2022
Sheet: DETAIL SHEET 4
Drawing No: D-104



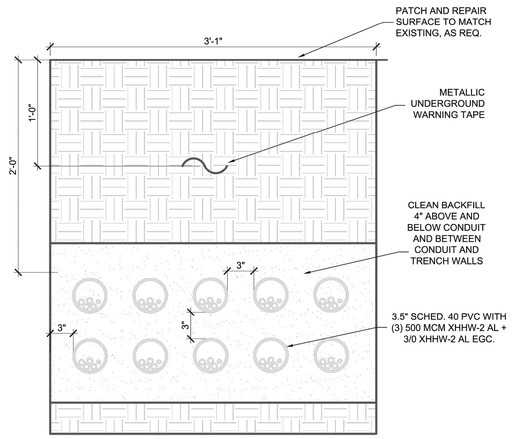
1 E-421 STRINGS TO COMBINER BOXES NTS



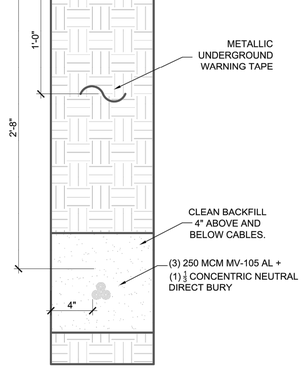
1 E-421 COMBINER BOXES TO INVERTERS NTS



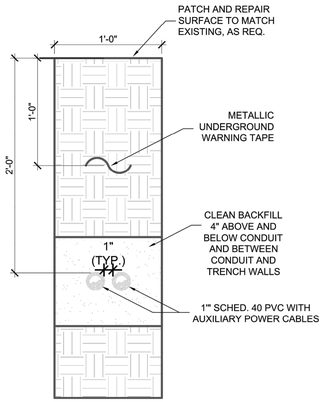
3 E-421 INVERTERS TO SWITCHBOARD NTS



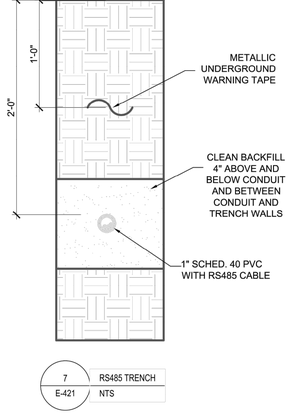
4 E-421 SWITCHBOARD TO TRANSFORMER NTS



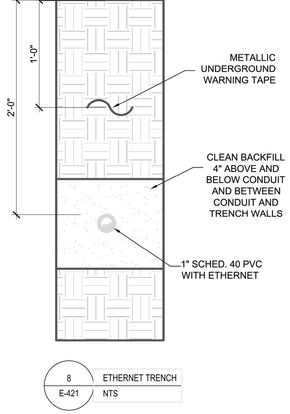
9 E-421 TRANSFORMER TO POLE NTS



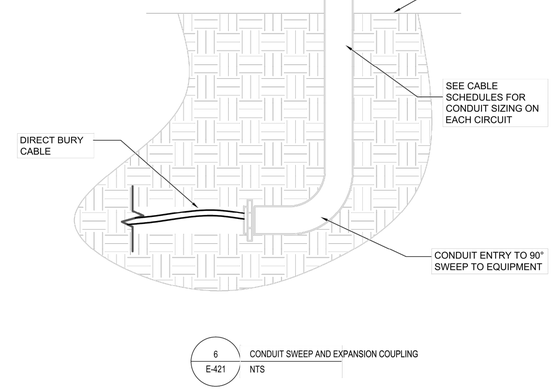
5 E-421 AUXILIARY POWER TRENCH NTS



7 E-421 RS485 TRENCH NTS



8 E-421 ETHERNET TRENCH NTS



6 E-421 CONDUIT SWEEP AND EXPANSION COUPLING NTS

GENERAL NOTES:

1. THE BEDDING AND PADDING BACKFILL MATERIAL SHALL BE EXCAVATED SOIL FREE OF ROCKS AND ORGANIC MATERIAL (NO ROCKS THAN WHAT WILL PASS THROUGH A 3/8" SCREEN).
2. FINAL BACKFILL SHALL BE COMPACTED TO NO LESS THAN 95% STANDARD PROCTOR DENSITY. COMPACTION SHALL BE ACHIEVED THROUGH MECHANICAL MEANS IN LIFTS AS NECESSARY TO MEET REQUIRED DENSITY. MAXIMUM DENSITY AND IN PLACE DENSITY SHALL BE DETERMINED BY ASTM D--698 AND D-1556 RESPECTIVELY. NATIVE FILL FOR TRENCH SHALL BE SCREENED WITH NO GREATER THAN 2" WITH SUFFICIENT GRADATION TO ACHIEVE THE TARGET COMPACTION WITHOUT VOIDS.
3. SELECT SCREENED BACKFILL WILL BE REQUIRED IN ROCKY AREAS WHERE NATIVE MATERIAL IS NOT AVAILABLE.
4. CUT CABLE ENDS SHALL BE CAPPED DURING STORAGE AND CONSTRUCTION BEFORE TERMINATED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATION TO PREVENT WATER INTRUSION.
5. ACTUAL CONDUIT ROUTING SHALL BE SHOWN ON THE "AS BUILT" DOCUMENTATION.
6. ALL CABLE AND CONDUIT ROUTING SHALL COMPLY WITH MINIMUM BEND RADII REQUIREMENTS IN NEC CH 9 TABLE 2.
7. ALL CONDUIT TO BE SEALED WITH STANDARD NEOPRENE OR RUBBER PLUG.
8. ANY TRENCHING OR EXCAVATION WITHIN 36" OF ANY RACK SUPPORT POST REQUIRES THE ORIGINAL SOIL AND COMPACTION TO 95% STANDARD PROCTOR DENSITY.
9. ROUTE ALL COMMUNICATIONS CABLE RUNS AT LEAST 8 INCHES FROM ANY POWER CABLE RUNS.

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Contract No: 431302
Scale: AS SHOWN
Date: JUNE 14, 2022
Sheet: DETAIL SHEET 5
Drawing No: D-105

CPS

Datasheet

100/125kW, 1500Vdc String Inverters for North America

New

CPS SCH100/125KTL-DO/US-600

The 100 & 125kW high power CPS three phase string inverters are designed for ground mount applications. The units are high performance, advanced and reliable inverters designed specifically for the North American environment and grid. High efficiency at 99.1% peak and 98.5% CEC, wide operating voltages, broad temperature ranges and a NEMA Type 4X enclosure enable this inverter platform to operate at high performance across many applications. The CPS 100/125kW products ship with the Standard or Centralized Wire-box, each fully integrated and separable with AC and DC disconnect switches. The Standard Wire-box inlcudes touch safe fusing for up to 20 strings. The CPS Flex Gateway enables communication, controls and remote product upgrades.

Key Features

- NFPA 70, NEC 2014 and 2017 compliant
- Touch safe DC Fuse holders adds convenience and safety
- CPS Flex Gateway enables remote FW upgrades
- Integrated AC & DC disconnect switches
- 1 MPPT with 20 fused inputs for maximum flexibility
- Copper and Aluminum compatible AC connections
- NEMA Type 4X outdoor rated, tough tested enclosure
- Advanced Smart-Grid features (CA Rule 21 certified)
- kVA Headroom yields 100kW @ 0.9PF and 125kW @ 0.95PF
- Generous 1.87 and 1.5 DC/AC Inverter Load Ratios
- Separable wire-box design for fast service
- Standard 5 year warranty with extensions to 20 years

100/125KTL Standard Wire-box

100/125KTL Centralized Wire-box

This device complies with part 15 of the FCC Rules

Chint Power Systems America
6800 Koll Center Parkway, Suite 235 Pleasanton, CA 94566
Tel: 855-584-7168 Mail: AmericaSales@chintpower.com Web: www.chintpowersystems.com

CPS

Technical Data

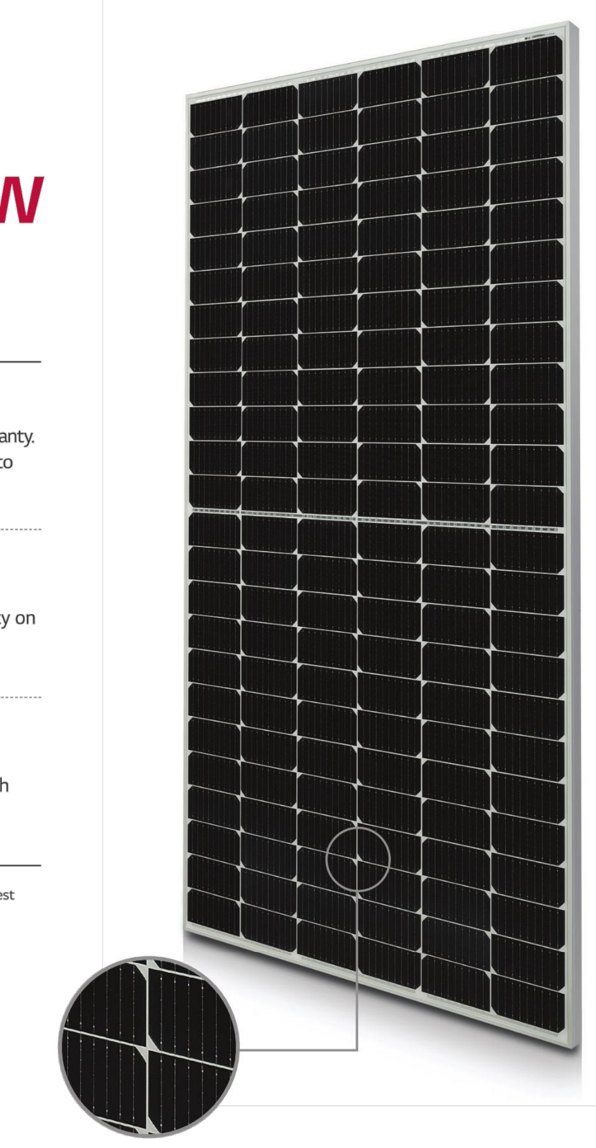
Model Name	CPS SCH100KTL-DO/US-600	CPS SCH125KTL-DO/US-600
DC Input		
Max. PV Power	187.5kW	
Max. DC Input Voltage	1500V	
Operating DC Input Voltage Range	860-1450Vdc	
Start-up DC Input Voltage / Power	900V / 250W	
Number of MPP Trackers	1	
MPPT Voltage Range[1]	870-1300Vdc	
Max. PV Input Current (Isc x1.25)	275A	
Number of DC Inputs	20 PV source circuits, pos. & neg. fused (Standard Wire-box) 1 PV output circuit, 1-2 terminations per pole, non-fused (Centralized Wire-box)	
DC Disconnection Type	Load-rated DC switch	
DC Surge Protection	Type II MOV (with indicator/remote signaling), Up=2.5kV, In=20kA (8/20uS)	
AC Output		
Rated AC Output Power	100kW	125kW
Max. AC Output Power[2]	100kVA (111KVA @ PF>0.9)	125kVA (132KVA @ PF>0.95)
Rated Output Voltage	600Vac	
Output Voltage Range[3]	528-660Vac	
Grid Connection Type[4]	3Φ / PE / N (Neutral optional)	
Max. AC Output Current @600Vac	96.2/106.8A	120.3/127.0A
Rated Output Frequency	60Hz	
Output Frequency Range[3]	57-63Hz	
Power Factor	>0.99 (±0.8 adjustable)	>0.99 (±0.8 adjustable)
Current THD	<3%	
Max. Fault Current Contribution (1-cycle RMS)	41.47A	
Max. OCPD Rating	150A	175A
AC Disconnection Type	Load-rated AC switch	
AC Surge Protection	Type II MOV (with indicator/remote signaling), Up=2.5kV, In=20kA (8/20uS)	
System		
Topology	Transformerless	
Max. Efficiency	99.1%	
CEC Efficiency	98.5%	
Stand-by / Night Consumption	<4W	
Environment		
Enclosure Protection Degree	NEMA Type 4X	
Cooling Method	Variable speed cooling fans	
Operating Temperature Range	-22°F to +140°F / -30°C to +60°C (derating from +113°F / +45°C)	
Non-Operating Temperature Range[5]	-40°F to +158°F / -40°C to +70°C maximum	
Operating Humidity	0-100%	
Operating Altitude	8202ft / 2500m (no derating)	
Audible Noise	<65dBA@1m and 25°C	
Display and Communication		
User Interface and Display	LED Indicators, WiFi + APP	
Inverter Monitoring	Modbus RS485	
Site Level Monitoring	CPS Flex Gateway (1 per 32 inverters)	
Modbus Data Mapping	SunSpec/CPS	
Remote Diagnostics / FW Upgrade Functions	Standard / (with Flex Gateway)	
Mechanical		
Dimensions (WxHxD)	45.28x24.25x9.84in (1150x616x250mm) with Standard Wire-box 39.37x24.25x9.84in (1000x616x250mm) with Centralized Wire-box	
Weight	Inverter: 121lbs / 55kg; Wire-box: 55lbs / 25kg (Standard Wire-box); 33lbs / 15kg (Centralized Wire-box)	
Mounting / Installation Angle	15 - 90 degrees from horizontal (vertical or angled)	
AC Termination	M10 Stud Type Terminal [3Φ] (Wire range:1/0AWG - 500kcmil CU/AL, Lugs not supplied) Screw Clamp Terminal Block [N] (#12 - 1/0AWG CU/AL)	
DC Termination	Screw Clamp Fuse Holder (Wire range: #12 - #6AWG CU) - Standard Wire-box Busbar, M10 Bolts (Wire range: #1AWG - 500kcmil CU/AL (1 termination per pole), #1AWG - 300kcmil CU/AL (2 terminations per pole), Lugs not supplied) - Centralized Wire-box	
Fused String Inputs	20A fuses provided (Fuse values of 15A or 20A acceptable)	
Safety		
Safety and EMC Standard	UL1741-SA-2016, CSA-C22.2 NO.107.1-01, IEEE1547a-2014; FCC PART15	
Selectable Grid Standard	IEEE 1547a-2014, CA Rule 21, ISO-NE	
Smart-Grid Features	Volt-RideThru, Freq-RideThru, Ramp-Rate, Specified-PF, Volt-VAr, Freq-Watt, Volt-Watt	
Warranty		
Standard[6]	5 years	
Extended Terms	10, 15 and 20 years	

1) See user manual for further information regarding MPPT Voltage Range when operating at non-unity PF
2) "Max. AC Apparent Power" rating valid within MPPT voltage range and temperature range of -30°C to +40°C (-22°F to +104°F) for 100KW PF ≥0.9 and 125KW PF ≥0.95
3) The "Output Voltage Range" and "Output Frequency Range" may differ according to the specific grid standard.
4) Wye neutral-grounded, Delta may not be corner-grounded.
5) See user manual for further requirements regarding non-operating conditions.
6) 5 year warranty effective for units purchased after October 1st, 2019.

LG NeON®H

The LG NeON®H is one of the most powerful and versatile modules on the market today. The LG NeON®H is equipped with N-type cells and half-cut technology to increase power and efficiency. The LG NeON®H includes a 25-year product and 90.6% performance warranty for higher performance and reliability.

450W | 445W | 440W



144cell

FEATURES

90.6% in year 25

Enhanced Performance Warranty
LG NeON®H comes with an enhanced performance warranty. After 25 years of use, the LG NeON®H is guaranteed to provide at least 90.6% of initial performance.

25 YEARS WARRANTY

Industry-Leading Product Warranty
LG offers an industry-leading 25 year product warranty on the NeON®H.

Reliable Quality
LG NeON®H offers reliable and proven quality through rigorous testing*.

* LG is subject to rigorous quality verification through PVEL PQP test. The PVEL PQP includes test sequences examining both the reliability and performance characteristics of PV modules.

About LG Electronics
LG is transforming today's solar landscape, offering high-efficiency solar panels for customers who demand high performance, reliability and consistently strong energy yield from a brand they can trust. LG's modules feature high power outputs, outstanding durability, appealing aesthetics and high-efficiency technology.

LG Life's Good

LG NeON®H

LG450N2W-E6 / LG445N2W-E6 / LG440N2W-E6

General Data

Cell Properties (Material / Type)	Monocrystalline / N-type
Cell Maker	LG
Cell Configuration	144 Cells (6 x 24)
Number of Busbars	9 EA
Module Dimensions (L x W x H)	2,110 x 1,042 x 40 mm
Weight	22 kg
Glass (Material)	Tempered Glass with AR coating
Backsheet (Color)	White
Frame (Material)	Anodized Aluminium
Junction Box (Protection Degree)	IP 68 with 3 Bypass Diodes
Cables (Length)	1,400 mm x 2 EA
Connector (Type / Maker)	MC4 / Stäubli

Certifications and Warranty

Certifications	IEC 61215-1 / -1-1 / 2:2016, IEC 61730-1 / 2:2016, UL 61730-1:2017, UL 61730-2:2017
	ISO 9001, ISO 14001
	OHSAS 18001
Salt Mist Corrosion Test	IEC 61701 : 2011 Severity 6
Ammonia Corrosion Test	IEC 62716 : 2013
Module Fire Performance	Type 1 (UL 61730)
Fire Rating	Class C (UL 790)
Solar Module Product Warranty	25 Years
Solar Module Output Warranty	Linear Warranty*

* 1) First years : 98.5%, 2) After 1st year : -0.33% / year, 3) 90.6% for 25 years

Temperature Characteristics

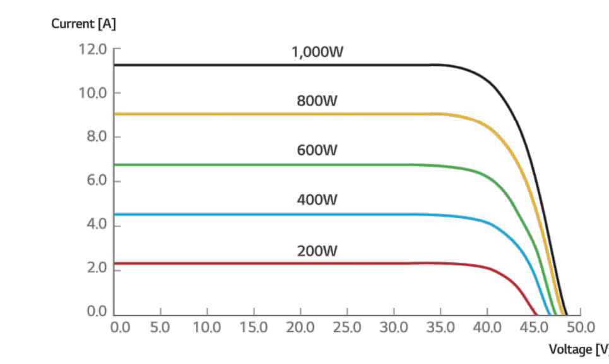
NMOT*	[°C]	42 ± 3
Pmax	[%/°C]	-0.33
Voc	[%/°C]	-0.26
Isc	[%/°C]	0.04

* NMOT (Nominal Module Operating Temperature)
: Irradiance 800W/m², Ambient temperature 20℃, Wind speed 1m/s, Spectrum AM 1.5

Electrical Properties (NMOT)

Model		LG450N2W-E6	LG445N2W-E6	LG440N2W-E6
Maximum Power (Pmax)	[W]	341	336	332
MPP Voltage (Vmpp)	[V]	39.40	39.10	38.80
MPP Current (Impp)	[A]	8.64	8.60	8.57
Open Circuit Voltage (Voc)	[V]	46.90	46.60	46.30
Short Circuit Current (Isc)	[A]	9.13	9.08	9.02

I-V Curves



Electrical Properties (STC*)

Model		LG450N2W-E6	LG445N2W-E6	LG440N2W-E6
Maximum Power (Pmax)	[W]	450	445	440
MPP Voltage (Vmpp)	[V]	41.8	41.5	41.2
MPP Current (Impp)	[A]	10.79	10.74	10.70
Open Circuit Voltage (Voc, ± 5%)	[V]	49.7	49.4	49.1
Short Circuit Current (Isc, ± 5%)	[A]	11.34	11.27	11.20
Module Efficiency	[%]	20.5	20.2	20.0
Power Tolerance	[%]	0 ~ +3		

* STC (Standard Test Condition)
: Irradiance 1,000W/m², Cell temperature 25℃, AM 1.5 , Measure Tolerance : ± 3 %

Operating Conditions

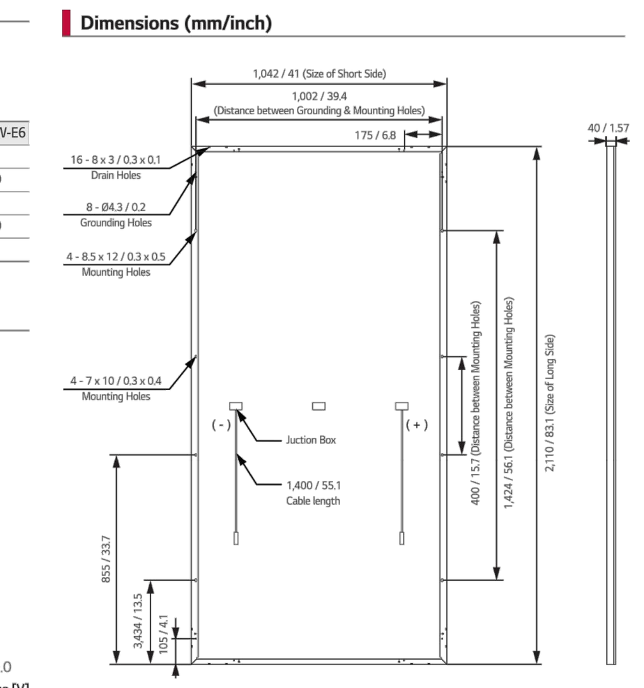
Operating Temperature	[°C]	-40 ~ +85
Maximum System Voltage	[V]	1,000(IEC) / 1,500(UL)
Maximum Series Fuse Rating	[A]	20
Mechanical Test Load* (Front)	[Pa]	5,400
Mechanical Test Load* (Rear)	[Pa]	3,000

* Based on IEC 61215-2 : 2016 (Test Load = Design Load x Safety Factor(1.5))

Packaging Configuration

Number of Modules Per Pallet	[EA]	25
Number of Modules Per 40ft HQ Container	[EA]	550
Packaging Box Dimensions (L x W x H)	[mm]	2,160 x 1,120 x 1,213
Packaging Box Gross Weight	[kg]	588

Dimensions (mm/inch)



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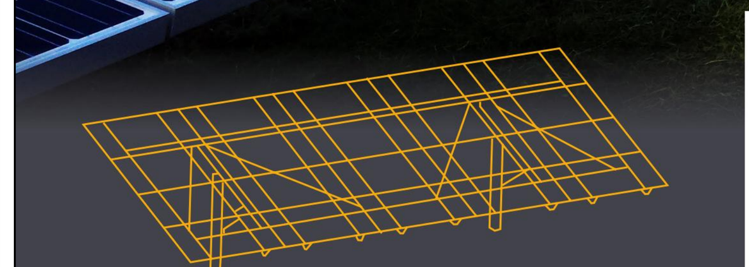
Energy Business Division
LG Twin Towers, 128 Yeoui-daero, Yeongdeungpo-gu, Seoul 07336, Korea
www.lg-solar.com

Product specifications are subject to change without notice.

THE FLEXRACK SERIES G3-X

SOLAR FLEXRACK
A Division of Northern States Metals

156 FlexRack Series G3P-X racks
1.9MW Nixon Farms Project | West Friendship, MD



+ TURN-KEY SERVICES

We're here for you because we care about your projects. From engineering to installation, you can also leverage our expert turn-key services on any job from start to finish.

Contact us to see how our team of project engineers, field techs, geologists and other specialists can help make sure your next project is a success.

Pick your preference

Solar Developers and EPCs demand choices and continued innovation to maintain their leadership position. The Field Assembled G3-X Ground Rack joins our flagship Pre-assembled G3L and G2P series as the latest advancement in our ongoing quest to provide products which meet project-specific needs. Solar FlexRack stands alone as the only racking company able to provide you with these options.

Easy assembly

The G3-X system is easily staged on the jobsite, can be assembled in the field by crews of nearly any skill level, and has been third-party verified for speed of installation by The Industrial Time Study Institute, Inc. Multiple pre-drilled holes, slot to slot connections, and generous construction tolerances make the G3-X an efficient and adaptable model on the jobsite.

Seamless flexibility

The G3-X, available in both Portrait and Landscape orientations, leverages the knowledge gained in delivering nearly 1 GW of pre-assembled ground mounts into a racking system which is assembled in the field. This product is a perfect fit for projects where labor costs are low and field assembly is preferred.

Intelligent design

The series G3-X is value-engineered by our professional team of best-in-class engineers to optimize materials and limit components to create a cost-effective solution. Our field engineering team will work with you personally to ensure that whatever system you choose will be the most cost effective solution for your project needs.

Bankability

Solar FlexRack is a product of Northern States Metals, a full service manufacturer with over 40 years of experience. With close to 1 GW of installed capacity Solar FlexRack has the experience and sustainability to be a reliable partner for your next successful solar project. The G3-X series also comes standard with a 20 year warranty.

Experience the Flex

CALL US TO FIND OUT HOW THIS GROUNDBREAKING RACK CAN IMPROVE HOW YOU DO SOLAR
1.888.380.8138 | SOLARFLEXRACK.COM

SOLAR FLEXRACK
A Division of Northern States Metals

FLEXRACK SERIES G3-X | Specifications

MATERIALS	
Hardware	Mounting hardware is Magni 560 coated standard. Stainless available upon request.
Racking Structure	G 90 galvanized steel standard. Higher coatings available for high corrosion areas
Foundations	Hot Dipped Galvanized
DESIGN	
Orientation	Landscape or Portrait
Tilt Angle	5° - 45° (custom tilts can be accommodated)
Adjustability	20% E/W Landscape, 20% E/W Portrait
Wind Speed	Any
Snow Load	Any
Module Accommodation	Any 60 or 72 cell framed module along with any frameless module
Module Mounting Type	Direct bolt to vertical rails (bonded connection)
Foundation Accommodation	W-Section, SmartPost, Round Post, Helical Pier, Ballast
Warranty	20 Years
CERTIFICATIONS AND TESTING	
UL Compliance	UL 2703 (Issue 2) compliant.
Wind Tunnel Testing	CPP third party testing laboratory
Structural Connection Testing	Accutek Testing Laboratory
Code Compliance	Racks are designed using local environmental loads (wind, snow, and seismic) per the governing and/or local building codes
Finite Element Modeling	Risa 3D
Engineering	PE stamped drawings and calculations
SERVICES	
Geotechnical Engineering	Field investigation and engineering, laboratory testing, engineering analysis, push/pull tests, foundation design
Structural/Civil Engineering	Preliminary investigation, engineering, layout
Installation	Foundation, racking, module, and module pre-wiring

Solar FlexRack, a division of Northern States Metals, is an integrated solar company that offers custom-designed, fixed tilt ground mount and single-axis solar tracking systems in the commercial, community solar and utility-scale solar mounting industries. Solar FlexRack offers full turnkey packages including engineering, geotechnical, pullout testing, field, layout, and installation services to address the actual site conditions of an installation and provide a full scope of services from design to delivery and installation. Solar FlexRack has completed over 2 GW of solar racking installations in 40 states across America and five countries globally.

For more information on Solar FlexRack visit: www.solarflexrack.com

NOTE:

NOTE:
FINAL EQUIPMENT SELECTIONS TO BE DETERMINED DURING DETAILED ENGINEERING DESIGN.

NOTE: UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING), SECTION 7209 (2), IT IS A VIOLATION FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.
NOT FOR CONSTRUCTION

PRELIMINARY DRAFT- NOT FOR CONSTRUCTION

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1430 Broadway, 10th Floor
New York, NY 10018
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TRC Project No: 431302.0000.0005

SOLSYSTEMS
Sol Systems, LLC
1101 Connecticut Avenue NW
2nd Floor
Washington, DC 200036

Revisions:

No.	Date:

Drawn by: A. REXROAT
Checked by: S. MEERSMA
Approved by: C. DUNCAN

SCS DELL 014136 YORKTOWN, LLC
DELL AVENUE SOLAR FARM
FIXED-TILT GROUND MOUNT SOLAR ENERGY SYSTEM
DELL AVENUE, YORKTOWN, NEW YORK 10514

Contract No: 431302
Scale: AS SHOWN
Date: JUNE 14, 2022
Sheet: DETAIL SHEET 6
Drawing No: D-106

EROSION CONTROL MEASURES

EROSION AND SEDIMENT CONTROL MEASURES SHALL CONSIST OF NON–WOVEN FILTER FABRIC MATERIAL WITH A WIRE MESH BACKING, OR A WOVEN FABRIC (SILT FENCE). ALL MATERIAL SHALL BE NEW AND FREE FROM DEFECTS THAT WOULD COMPROMISE THE EFFECTIVENESS OF THE CONTROL MEASURES, AFTER COMPLETION, ALL MATERIAL SHALL BE DISPOSED PROPERLY. LOCATION OF EROSION AND SEDIMENT CONTROL STRUCTURES CAN BE SEEN ON THE SITE PLAN. NOTE: ALL WATER CONTROL MEASURES ARE LOCATED DOWN–GRADIENT FROM DISTRIBUTED STREET. IF TOPSOIL IS TO BE STORED IN AN AREA NOT SHOWN ON THE SITE PLAN, DUE TO UNFORESEEN EVENTS, PRIOR TO STORING, THE DOWN–GRADIENT PERIMETER OF THE STORAGE AREA SHALL BE PROPERLY PROTECTED PER THE SPECIFICATIONS DETAILED ON THIS PLAN.

CONSTRUCTION HOUSEKEEPING

CONTRACTOR SHALL MAINTAIN THE PROJECT SITES IN ACCORDANCE WITH THE FOLLOWING PERFORMANCE STANDARDS:

MATERIAL STOCKPILING: MATERIAL RESULTING FROM CLEARING AND GRUBBING, GRADING, AND OTHER CONSTRUCTION ACTIVITIES, OR NEW MATERIAL DELIVERED TO THE SITE, SHALL BE STOCKPILED UPSLOPE OF DISTURBED AREAS. THE STOCKPILE AREAS SHALL HAVE THE PROPER EROSION AND SEDIMENT CONTROLS INSTALLED TO PREVENT MIGRATION OF SEDIMENTS AND MATERIALS.

STAGING, STORAGE, AND MARSHALLING AREAS: CONSTRUCTION MATERIALS AND EQUIPMENT SHALL BE STORED IN DESIGNATED STAGING AREAS AS INDICATED ON THE CONSTRUCTION DRAWINGS OR AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE, OR ENGINEER. STAGING, STORAGE, AND MARSHALLING AREAS SHALL BE LOCATED IN AN AREA THAT MINIMIZES IMPACTS TO STORMWATER QUALITY. CHEMICALS, SOLVENTS FERTILIZERS, AND OTHER TOXIC MATERIALS SHALL BE COLLECTED AND DISPOSED OF AT AN APPROVED SOLID WASTE OR CHEMICAL DISPOSAL FACILITY. BULK STORAGE OF FUEL MATERIALS WILL BE STAGED AT THE PROJECT MARSHALLING YARD PER SAFETY DATA SHEET (SDS) SPECIFICATION AND ENVIRONMENTAL HEALTH AND SAFETY STANDARDS, WHICHEVER IS MORE RESTRICTIVE.

EQUIPMENT CLEANING AND MAINTENANCE: ALL ONSITE CONSTRUCTION VEHICLES SHALL BE MONITORED FOR LEAKS AND SHALL RECEIVE REGULAR PREVENTATIVE MAINTENANCE TO REDUCE THE RISK OF LEAKAGE. ANY EQUIPMENT LEAKING OIL, FUEL, OR HYDRAULIC OIL SHALL BE REPAIRED OR REMOVED FROM THE PROJECT SITE IMMEDIATELY. STORAGE, PARKING, MAINTENANCE, AND SERVICING OF CONSTRUCTION VEHICLES SHALL BE A MINIMUM OF 200–FEET FROM A WETLAND , WATERBODY, OR OTHER ECOLOGICALLY SENSITIVE AREA AND STORMWATER CONVEYANCE FEATURES OR WATER QUALITY TREATMENT BMPS. PETROLEUM PRODUCTS AND HYDRAULIC FLUIDS THAT ARE NOT IN VEHICLES SHALL BE STORED IN TIGHTLY SEALED CONTAINERS THAT ARE CLEARLY LABELED. ALL GASOLINE, DIESEL FUEL, OR OTHER FUEL STORAGE VESSELS WITH GREATER THAN 25–GALLON SHELL CAPACITY MUST HAVE SECONDARY CONTAINMENT CONSTRUCTED OF AN IMPERVIOUS MATERIAL CAPABLE OF CONTAINING A MINIMUM OF 110% OF THE SHELL CAPACITY.

DEBRIS AND OTHER MATERIALS: CONTRACTOR SHALL MANAGE ALL LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER TO PREVENT MATERIALS FROM BECOMING A SOURCE OF POLLUTION. ALL DEMOLITION WASTE, DEBRIS, AND RUBBISH GENERATED DURING CONSTRUCTION OF THE PROJECT SHALL BE PROPERLY REMOVED FROM THE SITE AS IT OCCURS. ALL MATERIALS SHALL BE PROPERLY DISPOSED OF OFF–SITE IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.THE CONTRACTOR SHALL PAY PARTICULAR ATTENTION TO THE PROPER HANDLING, STORAGE, AND DISPOSAL OF HAZARDOUS SUBSTANCES.

TRENCH OR FOUNDATION DEWATERING: TRENCH DEWATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFER DAMS, PONDS, SUMPS, BASINS, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVILY SILTED AND HINDERS CORRECT AND SAFE CONSTRUCTION PRACTICES. THE CONTRACTOR SHALL REMOVE COLLECTED WATER FROM THE PONDED AREAS, EITHER THROUGH GRAVITY OR PUMPING, IN A MANNER THAT SPREADS IT THROUGH NATURAL WOODED OR VEGETATED BUFFERS OR TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT LADEN WATER FROM DEWATERING TO FLOW OVER DISTURBED AREAS OF THE PROJECT SITES. OTHER MEASURES OR METHODS MAY BE UTILIZED AS REVIEWED AND APPROVED BY THE ENGINEER.

NON–STORMWATER DISCHARGES: CONTRACTOR SHALL IDENTIFY AND PREVENT CONTAMINATION BY NON–STORMWATER DISCHARGES.

CONCRETE WASHOUT AREAS: DESIGNATED CONCRETE WASHOUT AREAS SHALL BE PROVIDED AS NEEDED TO ALLOW CONCRETE TRUCKS TO WASHOUT OR DISCHARGE SURPLUS CONCRETE AND WASH WATER ONSITE. CONCRETE WASHOUT AREAS SHALL BE A DIKED IMPERVIOUS AREA LOCATED A MINIMUM OF 100 FEET FROM A DRAINAGE WAY, WATERBODY, WETLAND AREA, OR INFILTRATION BMP. CONCRETE WASHOUT AREAS SHALL HAVE PROPER SIGNAGE AND BE CONSTRUCTED TO PREVENT CONTACT BETWEEN WASHWATER AND STORMWATER. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTATION AND MAINTENANCE OF CONCRETE WASHOUT AREAS. CONCRETE WASHOUT AREAS SHALL NOT BE FILLED BEYOND 95 OF DESIGN CAPACITY AND SHALL BE CLEANED OUT ONCE 75% CAPACITY HAS BEEN MET UNLESS A NEW FACILITY HAS BEEN CONSTRUCTED.

ADDITIONAL REQUIREMENTS: COMPLETION OF THE WORK WILL REQUIRE FREQUENT ACCESS TO VARIOUS PORTIONS OF THE PROJECT AREA FROM STATE AND LOCAL ROADWAYS. CONTRACTOR SHALL MONITOR PUBLIC ROADWAYS AND SHALL CLEAN PAVEMENT BY MEANS NECESSARY IN THE EVENT THAT SEDIMENT OR TRACKING IS OBSERVED. SIGNAGE SHALL BE POSTED AT INTERSECTIONS OF PROJECT ACCESS ROADS AND PUBLIC WAYS, STATING COMPANY NAME AND 24–HOUR CONTACT PHONE NUMBER.

TEMPORARY STABILIZATION FOR FROZEN CONDITIONS

SITE STABILIZATION: MULCHING SHOULD BE TRACKED INTO SOIL PRIOR TO FROZEN CONDITIONS, OR ANCHORED WITH NATURAL FIBER NETTING. APPLICATION OF MULCHING SHOULD BE PERFORMED PRIOR TO SIGNIFICANT SNOW FALL. IF STRAW MULCH ALONE IS USED FOR TEMPORARY STABILIZATION, IT SHALL BE APPLIED AT DOUBLE THE STANDARD RATE OF 2 TONS PER ACRE, MAKING THE APPLICATION RATE 4 TONS PER ACRE. OTHER MANUFACTURED MULCHES SHOULD BE APPLIED AT DOUBLE THE MANUFACTURER'S RECOMMENDED RATE. IN AREAS WHERE SOIL DISTURBANCE ACTIVITY HAS TEMPORARILY OR PERMANENTS CEASED, THE APPLICATION OF SOIL STABILIZATION MEASURES SHOULD BE INITIATED BY THE END OF NEXT BUSINESS DAY AND COMPLETED WITHIN THREE DAYS. ACCUMULATED SNOW AND FROZEN CONDITIONS ALONE ARE NOT CONSIDERED STABILIZATION.

SLOPES: ALL SLOPES AND GRADES MUST BE PROPERLY STABILIZED WITH APPROVED METHODS. ROLLED EROSION CONTROL PRODUCTS MUST BE USED ON ALL SLOPES GREATER THAN 3H:1V, OR WHERE CONDITIONS FOR EROSION DICTATE SUCH MEASURES.

SETBACKS: A MINIMUM 25–FOOT BUFFER SHALL BE MAINTAINED FROM ALL PERIMETER CONTROLS SUCH AS SILT FENCE. MARK SILT FENCE WITH TALL STAKES THAT ARE VISIBLE ABOVE THE SNOW PACK. EDGES OF DISTURBED AREAS THAT DRAIN TO A WATERBODY WITHIN 100–FEET WILL HAVE 2 ROWS OF SILT FENCE, 5–FEET APART, INSTALLED ALONG THE CONTOUR.

SOIL STOCKPILES: STOCKPILED SOILS MUST BE PROTECTED BY THE USE OF ESTABLISHED VEGETATION, ANCHORED –DOWN MULCH, ROLLED EROSION CONTROL PRODUCTS, OR OTHER DURABLE COVERING. SEDIMENT CONTROLS MUST BE INSTALLED DOWNSLOPE OF THE PILE TO CONTROL SEDIMENTATION TO UNDISTURBED LOCATIONS.

CONSTRUCTION ENTRANCE: ALL ENTRANCE AND EXIT LOCATIONS TO THE SITE MUST BE PROPERLY STABILIZED AND MUST BE MAINTAINED TO ACCOMMODATE SNOW MANAGEMENT AS SET FORTH IN THE NEW YORK SSESC.

SNOW MANAGEMENT: SNOW MANAGEMENT SHALL NOT DESTROY OR DEGRADE EROSION AND SEDIMENT CONTROL PRACTICES. PLOWING PERFORMED SHOULD NOT MIGRATE PLACED CRUSHED STONE OR ACCUMULATED MATTING DEBRIS WITHIN WATERBODIES, CONVEYANCES OR PROTECTED AREAS. PREPARE A SNOW MANAGEMENT PLAN WITH ADEQUATE STORAGE FOR SNOW AND CONTROL OF MELT WATER, REQUIRING CLEARED SNOW TO BE STORED IN A MANNER NOT AFFECTING ONGOING CONSTRUCTION ACTIVITIES. ENLARGE AND STABILIZE ACCESS POINTS TO PROVIDE FOR SNOW MANAGEMENT AND STOCKPILING. DRAINAGE STRUCTURES MUST BE KEPT OPEN AND FREE OF SNOW AND ICE DAMS. ALL DEBRIS OR ICE DAMS FROM PLOWING OPERATIONS THAT RESTRICT FLOW OF RUNOFF AND MELT WATER SHALL BE REMOVED.

FROST HEAVES: HEAVING FROST, FROZEN GROUND, WINTER CONDITIONS AND EQUIPMENT CAN AFFECT EROSION AND SEDIMENTATION CONTROL PRACTICES. EROSION AND SEDIMENTATION CONTROL DEVICES SHALL BE CHECKED FOR DAMAGE BY TRAINED CONTRACTOR AND QUALIFIED INSPECTORS. DEFICIENCIES SHALL BE REPAIRED AND OR INSTALLED MEASURES SHALL BE REPLACED AS DEEMED NECESSARY. THIS IS ESPECIALLY IMPORTANT DURING THAWING PERIODS AND PRIOR TO SPRING RAIN EVENTS.

WINTER SHUTDOWN: IN THE EVENT OF TEMPORARY SHUTDOWN TO SOIL DISTURBING ACTIVITIES UNDER WINTER CONDITIONS, TEMPORARY STABILIZATION MEASURES SHALL BE IMPLEMENTED TO ALL DISTURBED AREAS AND SWPPP INSPECTIONS CAN BE REDUCED TO A MONTHLY FREQUENCY. THE CONTRACTOR SHALL REFER TO SOIL STABILIZATION MEASURES IN ACCORDANCE WITH THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (NOVEMBER 2016) AND SPDES GENERAL PERMIT GP–0–20–001.

PERMANENT CONSTRUCTION AREA SEEDING

FINAL STABILIZATION SHOULD BE IMPLEMENTED AT THE COMPLETION OF EACH PHASE. ONCE CONSTRUCTION IS COMPLETE, EXPOSED SOILS REQUIRE FINAL AND PERMANENT STABILIZATION. SOILS SHOULD BE GRADED SMOOTH AND LEVEL TO ELIMINATE RUTTING AND CONCENTRATED FLOWS, PONDING AND UNEVEN SURFACES FOR FUTURE MAINTENANCE ACTIVITIES. UNIMPROVED AREAS SHOULD BE RESTORED TO ORIGINAL GRADE UNLESS PERMITTED AND PLANNED FOR REQUIRED FUTURE MAINTENANCE. CONSERVED STOCKPILED TOPSOIL SHOULD BE UTILIZED FOR TOPDRESSING GRADED SUB–SOILS AT EXCAVATION LOCATIONS. ANY SEVERELY COMPACTED SECTIONS WILL REQUIRE TILLING OR DISKING TO PROVIDE AN ADEQUATE ROOTING ZONE, TO A MINIMUM DEPTH OF 12". THE SEEDBED MUST BE PREPARED TO ALLOW GOOD SOIL TO SEED CONTACT, WITH THE SOIL NOT TOO SOFT AND NOT TOO COMPACT. ADEQUATE SOIL MOISTURE MUST BE PRESENT TO ACCOMPLISH THIS. IF SURFACE IS POWDER DRY OR STICKY WET, POSTPONE OPERATIONS UNTIL MOISTURE CHANGES TO A FAVORABLE CONDITION. REMOVE ALL STONES AND OTHER DEBRIS FROM THE SURFACE THAT ARE GREATER THAN 4 INCHES, OR THAT WILL INTERFERE WITH FUTURE MOWING OR MAINTENANCE.

SOIL AMENDMENTS SHOULD BE INCORPORATED INTO THE UPPER 2 INCHES OF SOIL WHEN FEASIBLE. THE SOIL SHOULD BE TESTED TO DETERMINE THE AMOUNTS OF AMENDMENTS NEEDED. APPLY GROUND AGRICULTURAL LIMESTONE TO ATTAIN A PH OF 6.0 IN THE UPPER 2 INCHES OF SOIL. IF SOIL MUST BE FERTILIZED BEFORE RESULTS OF A SOIL TEST CAN BE OBTAINED TO DETERMINE FERTILIZER NEEDS, APPLY COMMERCIAL FERTILIZER AT 600 LBS. PER ACRE OF 5–5 –10 OR EQUIVALENT.

IF SOILS ARE SOFT, MECHANICAL MULCHING MAY NOT BE AVAILABLE DUE TO THE INEVITABLE RUTTING WITH MULCHING EQUIPMENT.

ANY UPLAND AREAS THAT ARE DISTURBED SHALL BE STABILIZED USING PERMANENT SEED MIX AS SPECIFIED IN THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (SSESC), UNLESS DIRECTED OTHERWISE IN ASSOCIATED PERMITTING DOCUMENTS.

PROJECT CONSTRUCTION SEQUENCING NOTES

THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION SEQUENCING OR CONSTRUCTION PHASING PLAN FOR OWNER APPROVAL THAT COMPLIES WITH THE PERMITTING REQUIREMENTS, THE PROJECT SWPPP, AND OTHER REQUIREMENTS AS IDENTIFIED BY LOCAL AND STATE AUTHORITIES. THE PLAN SHALL SHOW THAT ACTIVE LAND DISTURBANCE WILL BE LIMITED TO LESS THAN FIVE (5) CONTIGUOUS ACRES AND SHALL ADEQUATELY DISCUSS, BUT NOT BE LIMITED TO, THE FOLLOWING ITEMS:

1. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS FOR TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL MEASURES AS OUTLINED IN THE PROJECT SWPPP OR AS DIRECTED BY THE OWNER.
2. PRIOR TO STARTING ANY WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL OBTAIN ALL PERMITS, NOTIFY CITY OFFICIALS OF CONSTRUCTION COMMENCEMENT, AND SUBMIT CONSTRUCTION TIMETABLE.
3. PRIOR TO COMMENCING ONSITE EARTHWORK ACTIVITIES, THE CONTRACTOR SHALL ESTABLISH THE CONSTRUCTION WORKSPACE LIMITS AND IDENTIFY AND MARK SENSITIVE RESOURCES.
4. THE CONTRACTOR SHALL INSTALL ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL BEST MANAGEMENT PRACTICES (BMPs) IN ORDER TO PROTECT DOWN GRADIENT AREAS. WHERE APPROPRIATE, DIVERSION BMPs SHALL BE IMPLEMENTED TO DIRECT RUNOFF FROM UPGRADIENT AREAS AROUND THE PROJECT SITE.
5. ON–SITE CONSTRUCTION SEQUENCE SHALL START WITH THE MINIMUM AMOUNT OF CLEARING REQUIRED TO INSTALL EROSION CONTROL MEASURES. THIS INCLUDES, SILTATION FENCING, ANTI–TRACK PADS (STABILIZED CONSTRUCTION ENTRANCE), AND OTHER MEASURES NOTED ON THE PLAN. NO WORK SHALL TAKE PLACE UNTIL THE OWNER'S REPRESENTATIVE HAS INSPECTED AND APPROVED INSTALLED MEASURES.
6. AFTER PERMANENT EROSION AND SEDIMENTATION CONTROL MEASURES WITHIN THE CURRENT PHASE OF WORK ARE INSTALLED AND FUNCTIONING, THE CONTRACTOR SHALL OBTAIN OWNER APPROVAL BEFORE BEGINNING EARTHWORK IN THE SUBSEQUENT PHASE.
7. AFTER EROSION CONTROL MEASURES ARE INSTALLED THE TYPICAL SEQUENCE SHALL BE AS FOLLOWS:

a. REMOVE VEGETATION FROM PROPOSED DEVELOPMENT AREA. ALL STUMPS AND WOOD SHALL BE TAKEN OFF–SITE AND DISPOSED ACCORDINGLY.
b. REMOVE AND STOCKPILE TOPSOIL AFTER EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED. THE TOPSOIL SHALL BE SEEDED IMMEDIATELY AFTER STOCKPILING IN ORDER TO STABILIZE THE SLOPE AND LIMIT SEDIMENT RUNOFF. STOCKPILED TOPSOIL SHALL BE SEEDED AND MULCHED WHEN IT IS TO BE STORED MORE THAN 30 DAYS FROM TIME OF STOCKPILING. THE SITE CAN NOW BE REFORMED TO PROPOSED FINAL ELEVATIONS (LESS TOPSOIL DEPTH).
c. PROCEED WITH ALL WORK DEPICTED ON THE DEMOLITION PLAN, IF ANY.
d. PREPARE AND COMPACT SUBGRADE (IF AND AS DIRECTED) AND INSTALL DRAINAGE AND STORMWATER BMP'S IN ACCORDANCE WITH "GRADING AND STORMWATER MANAGEMENT PLAN".
e. EXCAVATE SOIL TO THE DEPTH NECESSARY TO CONSTRUCT GRAVEL ACCESS ROAD AND POROUS ASPHALT PAVEMENT. ALL REMOVED TOPSOIL SHALL BE UTILIZE ON SITE AS LOAM FOR GRASS AREAS. NO SOILS SHALL BE REMOVED FROM THE SUBJECT PROPERTY.
f. COMPLETE REMAINING GRADING REQUIRED AS SHOWN ON THE GRADING PLANS. INSTALL EROSION CONTROL MATTING ON ALL SLOPES OF 3H:1V OR GREATER (IF ANY), THEN SEED AND MULCH THE AREA.
g. INSTALL CONCRETE UTILITY PADS, FOOTINGS, PHOTOVOLTAIC PANELS, UTILITY POLES, FENCE AND GATES AND OTHER IMPROVEMENTS PER THE PLAN.
h. LOAM AND SEED FRONT YARD AND ALL REMAINING DISTURBED AREAS. UTILIZE EXISTING SITE SOIL WHERE POSSIBLE.
i. REMOVE ALL EROSION AND SEDIMENT STRUCTURES AFTER FINAL STABILIZATION AND ACCEPTANCE. IF STABILIZATION DOES NOT OCCUR (INCLUDING DUE TO SEASONAL CONDITIONS) IN ALL AREAS BEFORE CONTRACTOR HAS SATISFIED ALL OTHER CONDITIONS TO FINAL ACCEPTANCE, CONTRACTOR SHALL PROVIDE A PLAN (INCLUDING APPROPRIATE PERFORMANCE ASSURANCES) TO THE OWNER'S REPRESENTATIVE TO REMOVE SUCH EROSION CONTROL MEASURES AFTER STABILIZATION (AND ALLOWING CONTRACTOR TO ACHIEVE FINAL ACCEPTANCE), FOR ACCEPTANCE IN THE SOLE AND ABSOLUTE DISCRETION BY THE OWNER'S REPRESENTATIVE.
j. DURING THIS TIME ALL EROSION AND SEDIMENT STRUCTURES SHALL BE MAINTAINED IN PROPER WORKING ORDER. DISTURBED AREAS SHALL BE KEPT TO A MINIMUM AND SHALL ONLY TAKE PLACE WHERE IMMEDIATELY REQUIRED TO FURTHER CONSTRUCTION. IT IS DESIRABLE FOR AN EROSION PREVENTION TO MINIMIZE DISTURBED AREAS. FINAL GRADING AND SEEDING SHALL TAKE PLACE AS SOON AS PRACTICAL.

MULCH ANCHORING REQUIREMENTS

ON SLOPES GREATER THEN 3 PERCENT, STRAW MULCH WILL BE FIRMLY ANCHORED INTO SOIL UTILIZING ONE OF THE FOLLOWING METHODS:

- CRIMPING WITH A STRAIGHT OR NOTCHED MULCH CRIMPING TOOL;
- TRACK WALKING WITH DEEP–CLEATED EQUIPMENT OPERATING UP AND DOWN THE SLOPE (MULCH CRIMPED PERPENDICULAR TO THE SLOPE) ON SLOPES <25 PERCENT;
- APPLICATION OF MULCH NETTING;
- APPLICATION OF 500 LB./ACRE OF WOOD FIBER MULCH OVER STRAW/HAY MULCH; AND
- COMMERCIALLY AVAILABLE TACKIFIERS (EXCEPT WITHIN 100 FEET OF WATERBODIES OR WETLANDS).

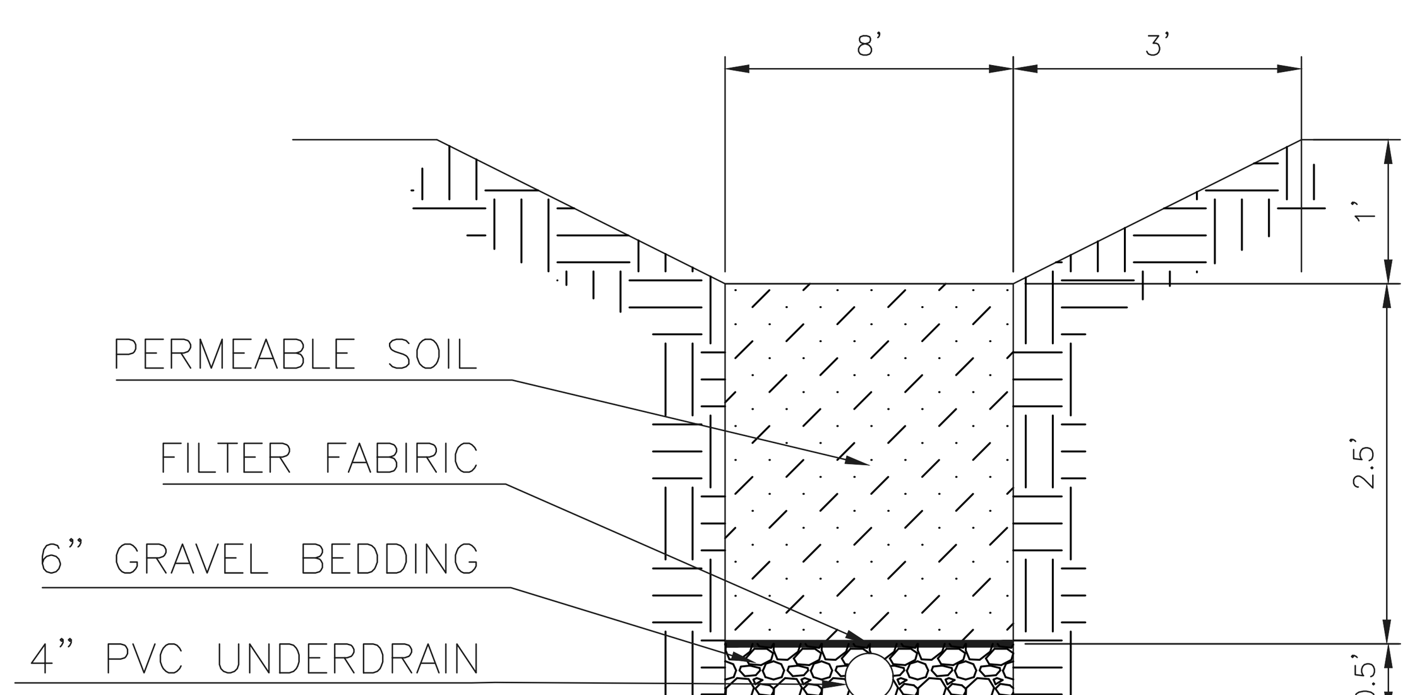
CONSTRUCTION LITTER CONTROL

DURING CONSTRUCTION, ALL WRAPPING, BOXES, SCRAPS OF BUILDING MATERIAL, AND OTHER LITTER ITEMS SHALL BE DISPOSED OF PROPERLY BY USE OF DUMPSTER OR CARTED AWAY. THE SITE SHALL BE INSPECTED AND CLEANED DAILY DURING CONSTRUCTION.

PROTECTION OF POST–CONSTRUCTION STORMWATER BMPs

POST–CONSTRUCTION STORMWATER BMPs DESIGNED FOR WATER QUALITY TREATMENT SHALL NOT BE USED AS A SEDIMENT CONTROL DEVICES DURING CONSTRUCTION PHASE OF THE PROJECT. WHEN POSSIBLE, POST CONSTRUCTION STORMWATER BMP INSTALLATION SHALL OCCUR AFTER FINAL STABILIZATION IS ACHIEVED IN UPGRADIENT AREAS.

CONSTRUCTION PHASE STORMWATER SHALL BE DIVERTED AROUND POST–CONSTRUCTION STORMWATER QUALITY BMPs UNTIL FINAL STABILIZATION IS ACHIEVED IN UPGRADIENT AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF BMP FILTER MATERIAL IN THE EVENT CONSTRUCTION PHASE STORMWATER IS DISCHARGED TO CONSTRUCTED BMPs. NATURE AND DEGREE OF REPAIR SHALL BE AS DIRECTED BY THE OWNER.

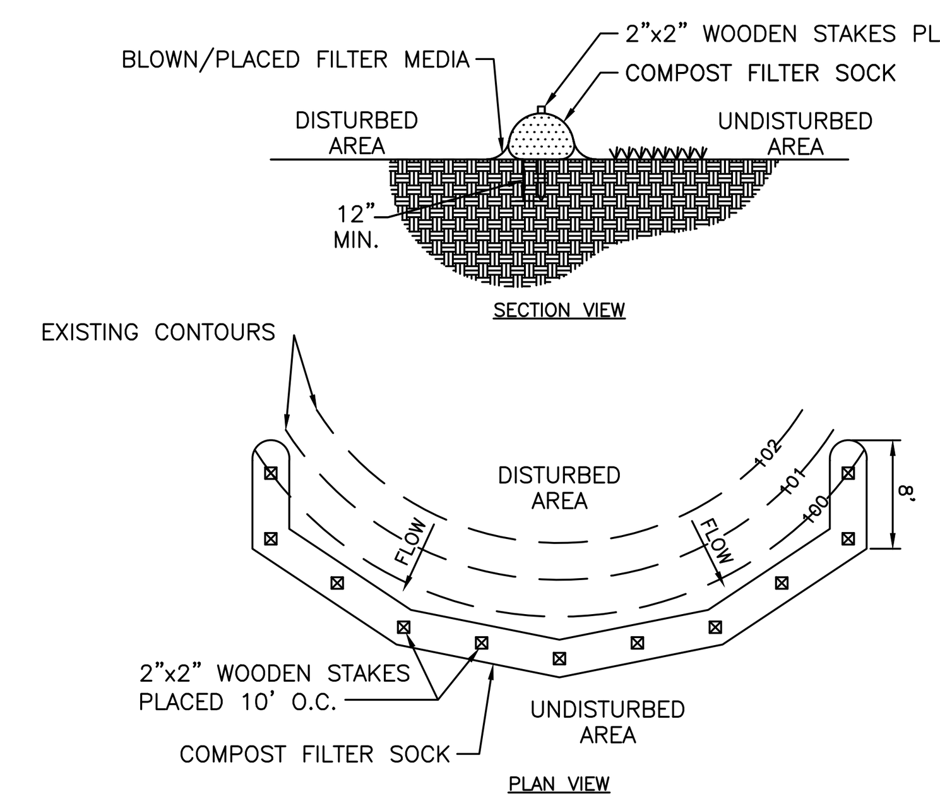


NOTES:

1. PERMEABLE SOIL TO MEET REQUIREMENTS IN NEW YORK STATE STORMWATER MANAGEMENT DESIGN MANUAL APPENDIX H.
2. MAINTAIN GRASS HEIGHT OF 4" TO 6" WITHIN DRY SWALE.
3. GRAVEL BEDDING TO CONSIST OF AASHTO NO. 2 STONE.
4. FILTER FABRIC TO BE MIRAFI 140N OR EQUAL.

DRY SWALE SECTION

NOT TO SCALE



COMPOST FILTER SOCK

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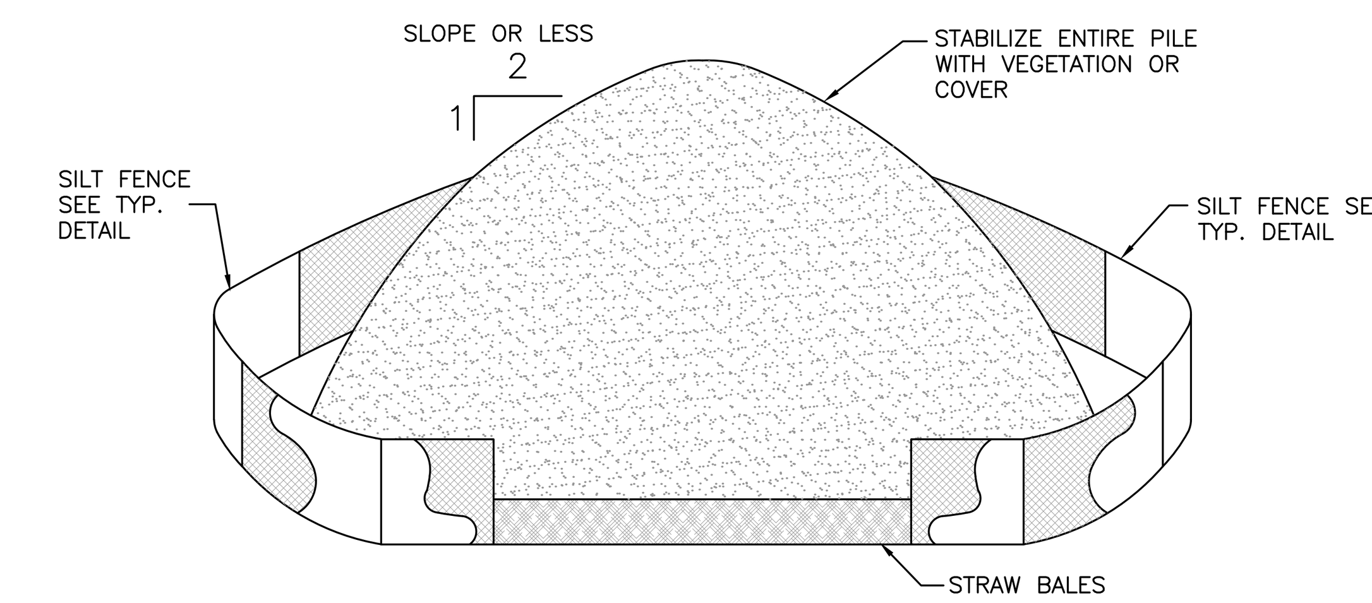
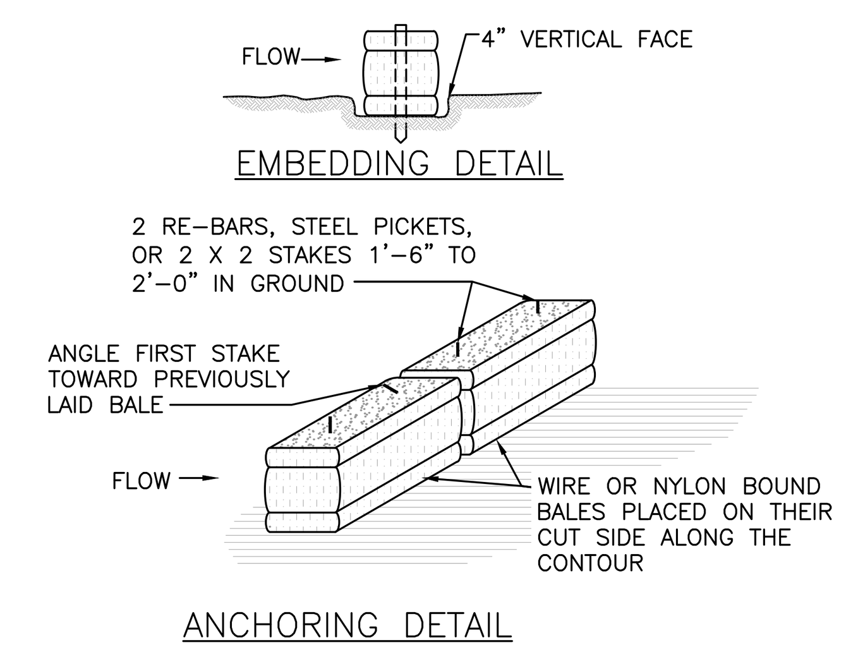


INSTALLATION NOTES:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2H:1V.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAW BALES, THEN STABILIZED WITH VEGETATION OR COVERED.

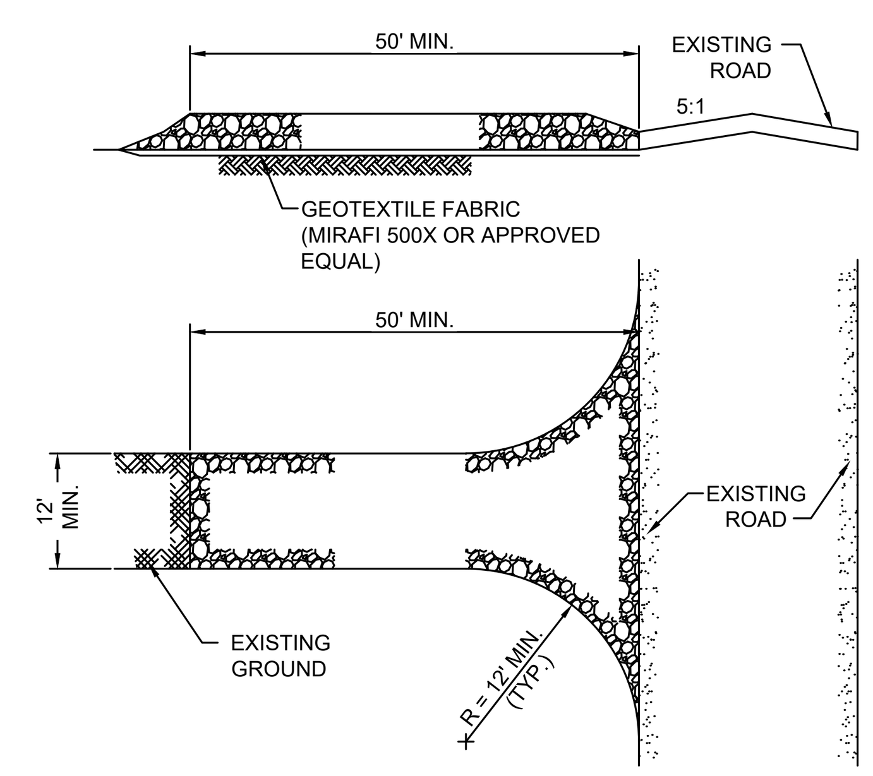
TYPICAL SOIL STOCKPILE

NOT TO SCALE



STRAW BALE BARRIER

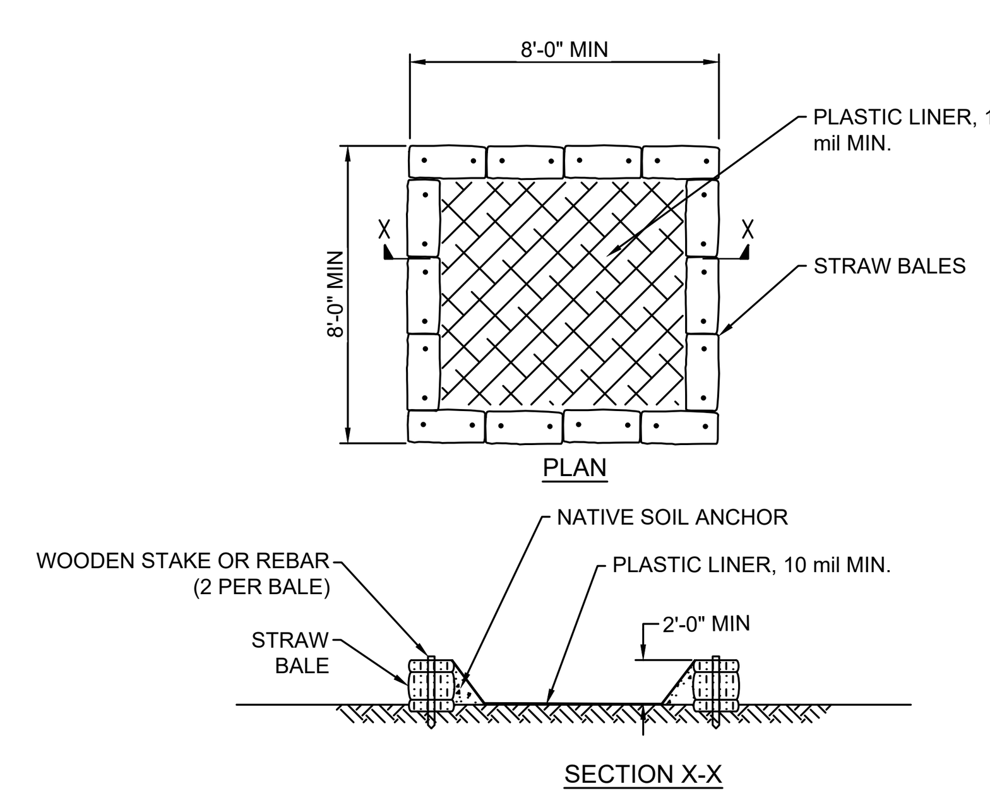
NOT TO SCALE



1. WIDTH OF STABILIZED CONSTRUCTION ENTRANCE VARIES PER LOCATION. PROVIDE WIDTHS AS INDICATED ON PLAN SET.
2. STONE SIZE - USE 1" - 4" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
3. LENGTH - NOT LESS THAN 50 FEET.
4. THICKNESS - NOT LESS THAN SIX (6) INCHES.
5. WIDTH - TWELVE (12) FOOT MIN. BUT NOT LESS THAN THE FULL ROAD WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. PROVIDE TWENTY-FOUR (24) FOOT WIDTH IF THERE IS ONLY A SINGLE ENTRANCE TO SITE.
6. GEOTEXTILE - SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE.
7. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
8. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
9. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

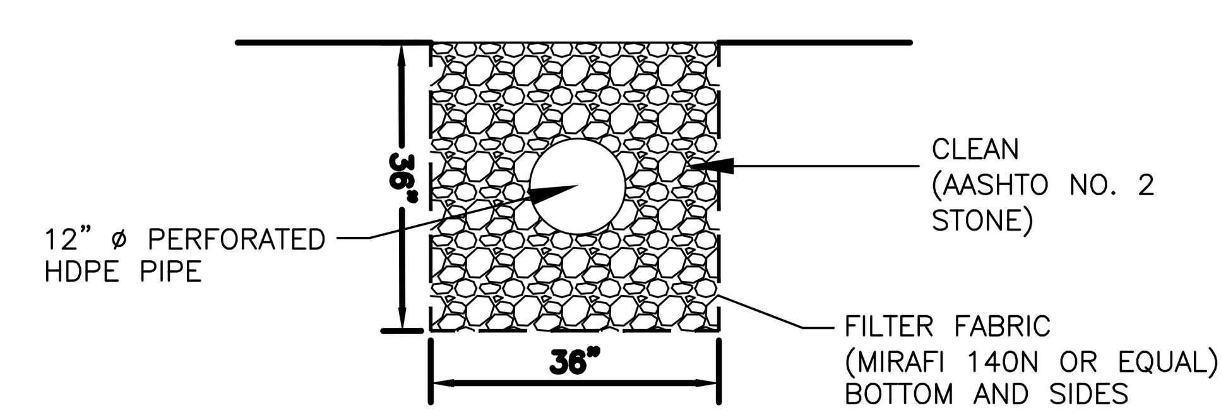


NOTES:

1. SUMP(S) SHALL BE LOCATED NEAR WORK SITES BUT SHALL BE PLACED AS FAR AWAY FROM WETLANDS, BUFFERS AND DRAINAGE SWALES AS PRACTICAL.
2. SUMP(S) SHALL BE CLEANED AND WASTE CONCRETE REMOVED AND PROPERLY DISPOSED OF PERIODICALLY AND UPON COMPLETION OF WORK.
3. A SIGN SHALL BE INSTALLED INDICATING "CONCRETE WASHOUT".

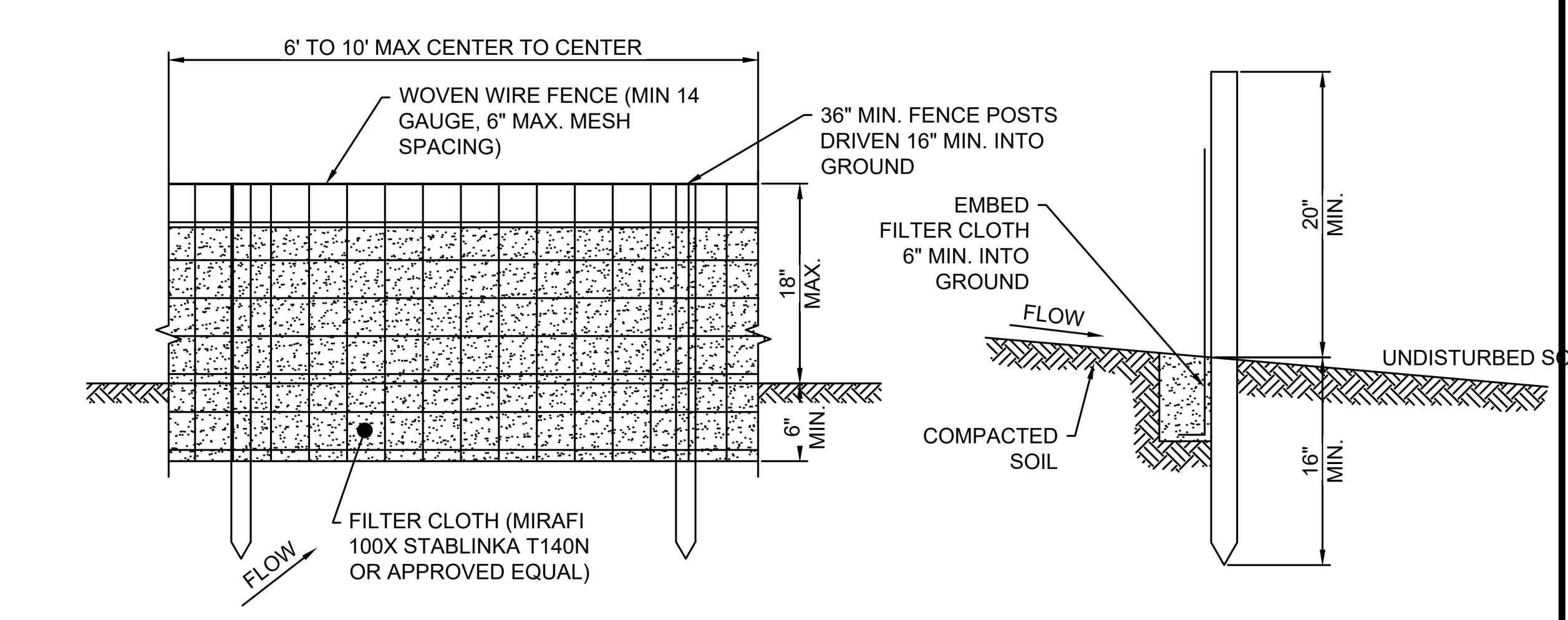
CONCRETE WASHOUT AREA

NOT TO SCALE



STORMWATER DIAPHRAGM

NOT TO SCALE



1. WOVEN WIRE FENCE SHALL BE FASTENED TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH SHALL BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MIDSECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN BUILD-UP REACHES ⅓ THE HEIGHT OF THE FENCE.

POSTS:	STEEL "T" OR "U" TYPE OR 2" HARDWOOD.
FENCE:	WOVEN WIRE. 14½ GA 6" MAX MESH OPENING.
FILTER CLOTH:	FILTER X, MIRAFI 100X. STABLINKA T140N OR APPROVED EQUAL.
PREFABRICATED UNIT:	ENVIROFENCE OR APPROVED EQUAL

SILT FENCE DETAILS

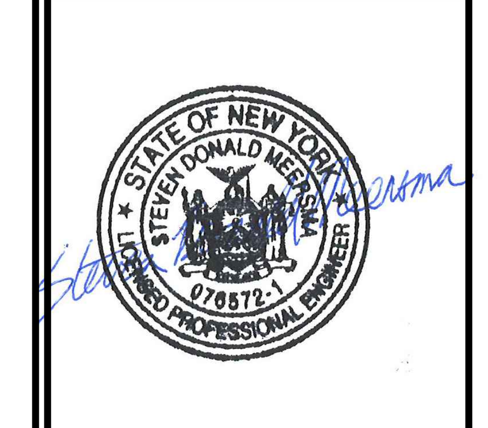
NOT TO SCALE

NOTE: UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING), SECTION 7209 (2), IT IS A VIOLATION FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT. NOT FOR CONSTRUCTION

PRELIMINARY DRAFT- NOT FOR CONSTRUCTION

TRC
1430 Broadway, 10th Floor
New York, NY 10018
Phone: 212.221.7822
www.TRCcompanies.com
TRC Project No: 431302.0000.0005

SOLSYSTEMS
Sol Systems, LLC
1101 Connecticut Avenue NW
2nd Floor
Washington, DC 200036



Revisions:	
No.	Date:

Drawn by: A. REXROAT

Checked by: S. MEERSMA

Approved by: C. DUNCAN

SCS DELL 014136 YORKTOWN, LLC
DELL AVENUE SOLAR FARM
FIXED-TILT GROUND MOUNT SOLAR ENERGY SYSTEM
DELL AVENUE, YORKTOWN, NEW YORK 10514

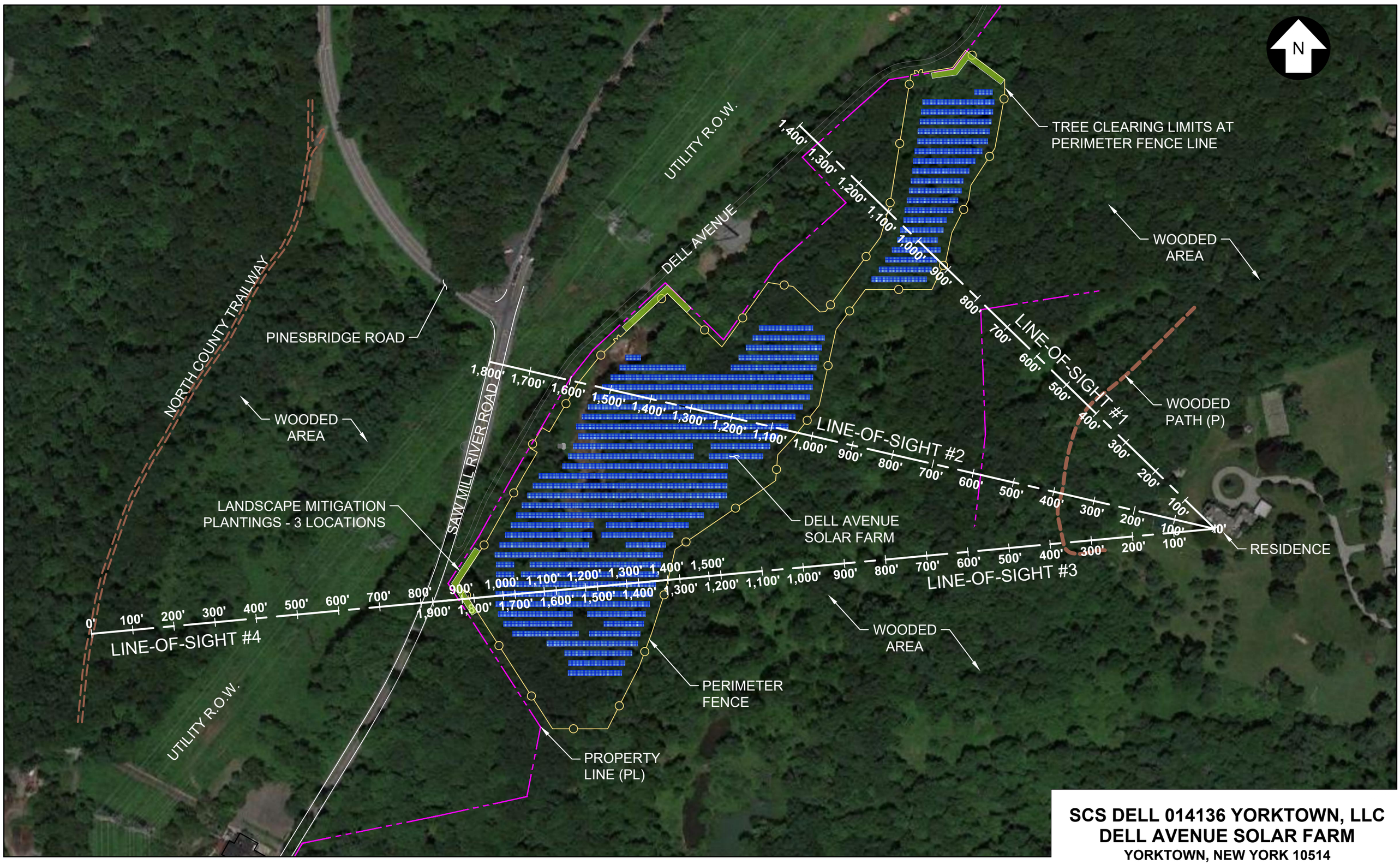
Contract No: 431302

Scale: AS SHOWN

Date: JUNE 14, 2022

Sheet: DETAIL SHEET 7

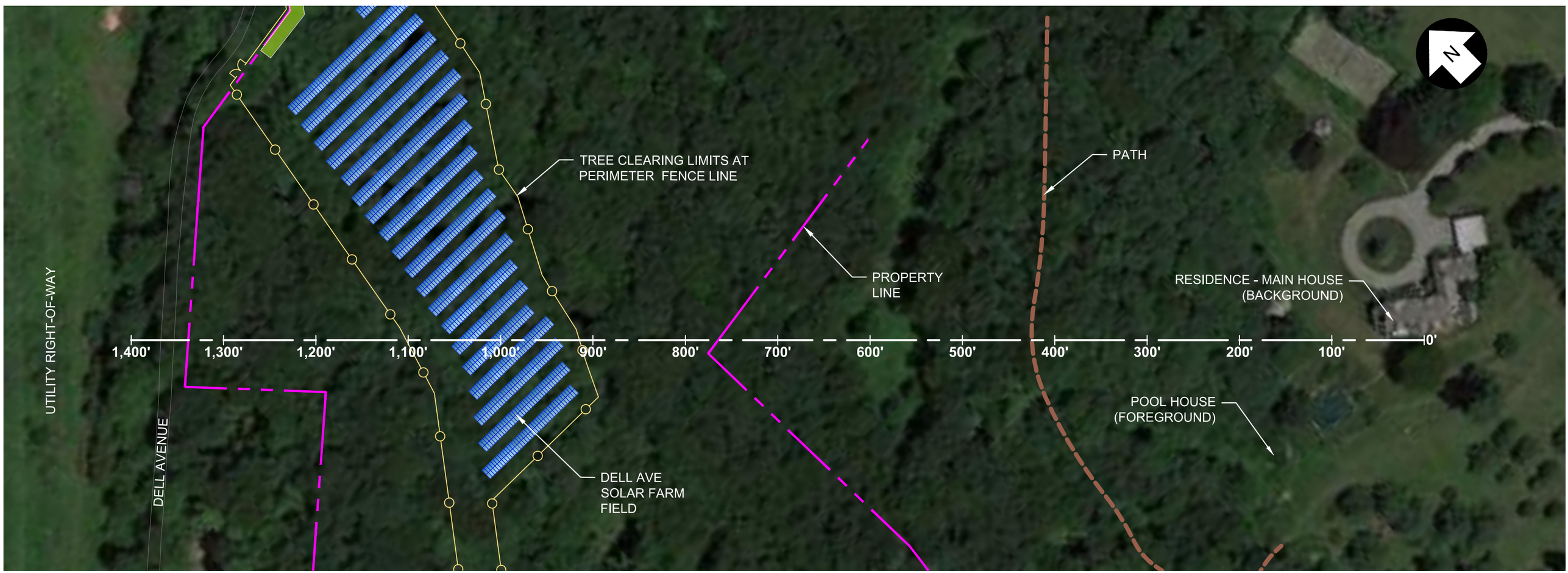
Drawing No: D-107



SCS DELL 014136 YORKTOWN, LLC
DELL AVENUE SOLAR FARM
YORKTOWN, NEW YORK 10514
JUNE 14, 2022 ◆ REVISION 0

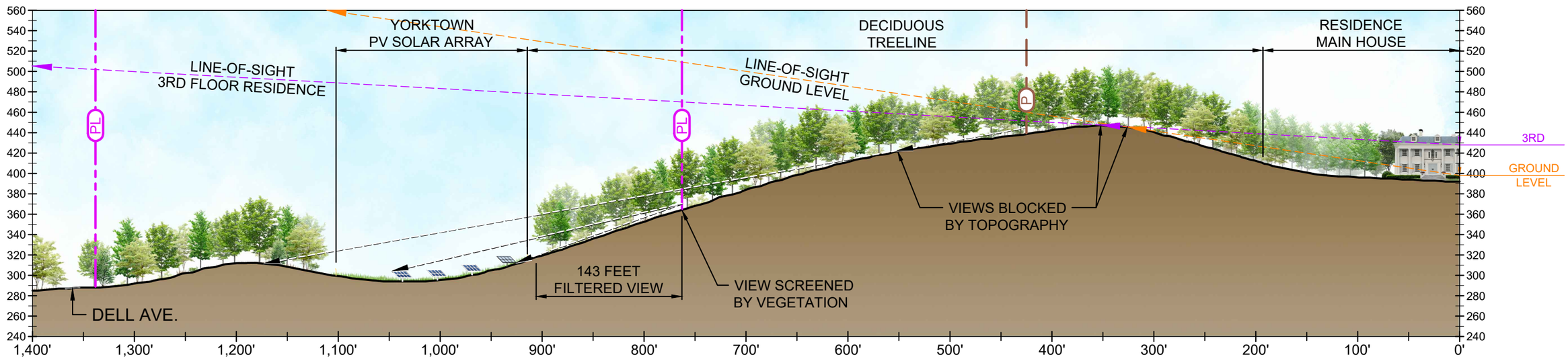
OVERALL PLAN VIEW: LINE-OF-SIGHT #1, #2, #3, & 4
PRELIMINARY DRAWINGS (06/14/2022)

0 200' 400'



PLAN VIEW: LINE-OF-SIGHT #1 (STA: 0 TO 1,400)

0 100' 200'



1 PROFILE VIEW: LINE-OF-SIGHT #1 (STA: 0 TO 1,400)

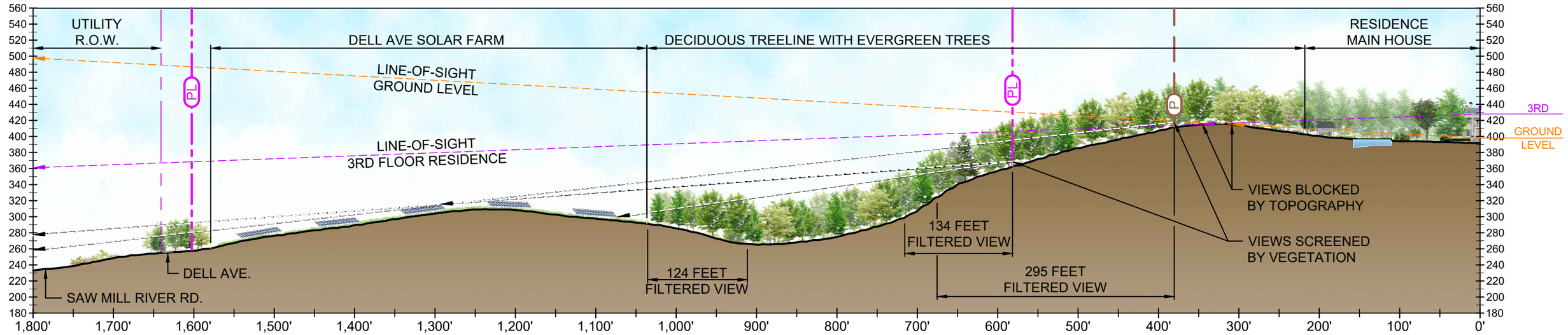
0 100' 200'

PRELIMINARY DRAWINGS (06/14/2022)

Horizontal and Vertical Scale - 1 : 1

PLAN VIEW: LINE-OF-SIGHT #2 (STA: 0 TO 1,800)

0 120' 240'

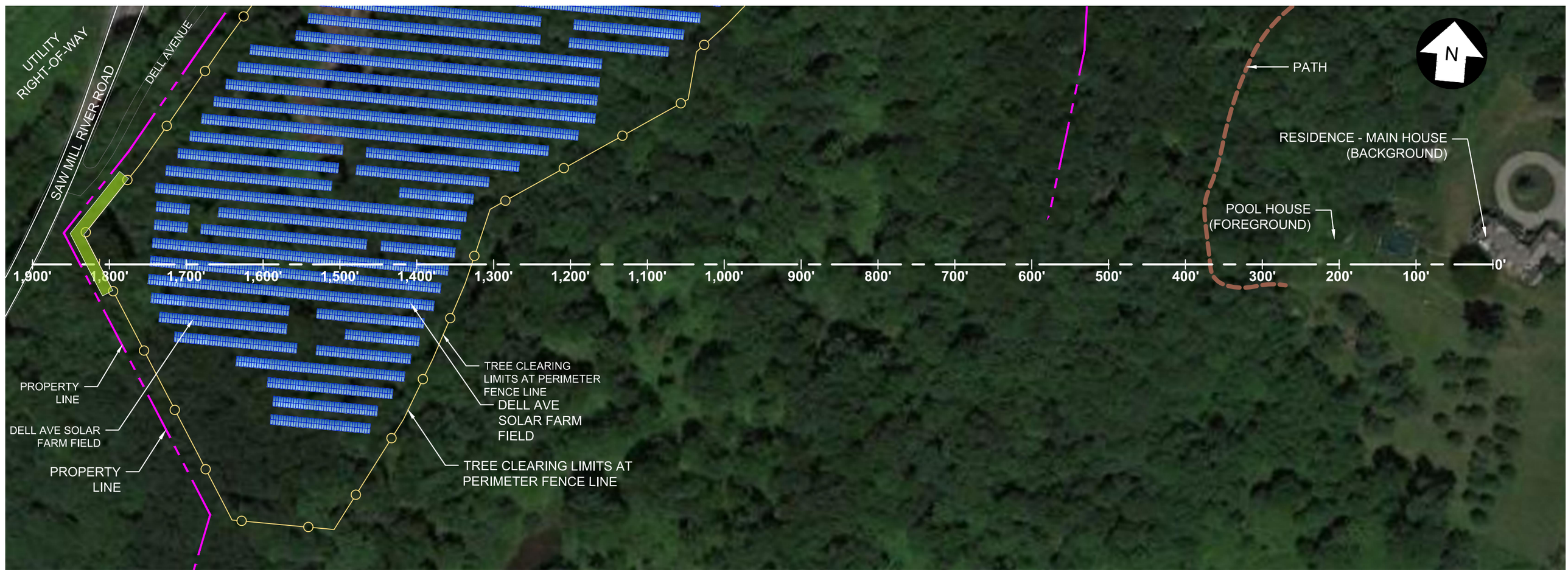


2 PROFILE VIEW: LINE-OF-SIGHT #2 (STA: 0 TO 1,800)

0 120' 240'

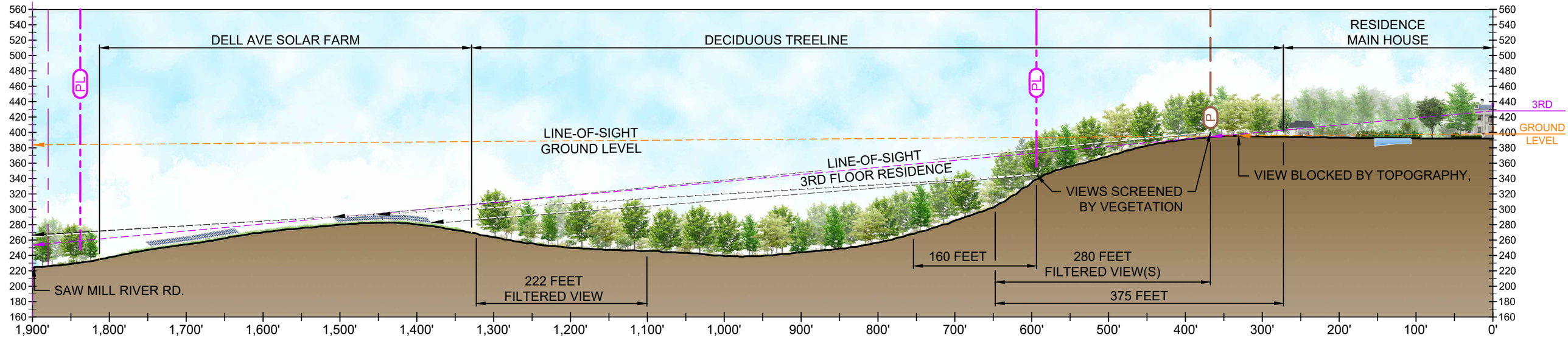
Horizontal and Vertical Scale - 1 : 1

PRELIMINARY DRAWINGS (06/14/2022)



PLAN VIEW: LINE-OF-SIGHT #3 (STA: 0 TO 1,900)

0 120' 240'



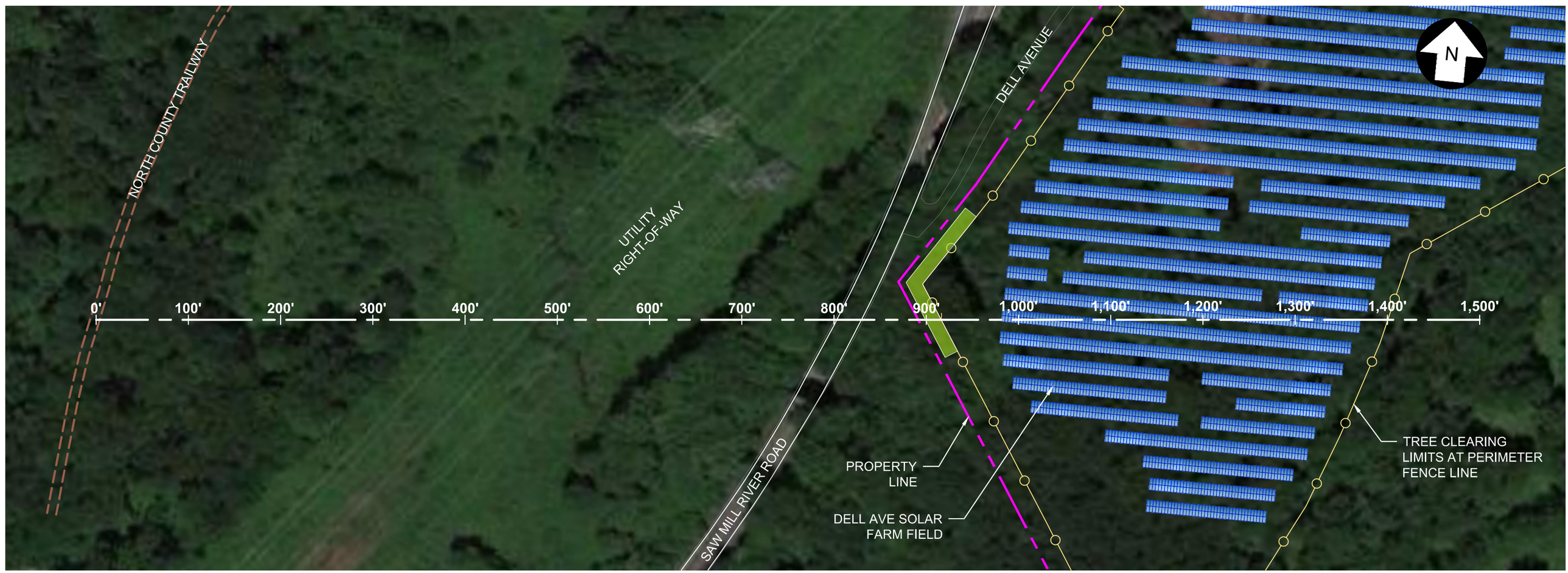
PROFILE VIEW: LINE-OF-SIGHT #3 (STA: 0 TO 1,900)

0 120' 240'

Horizontal and Vertical Scale - 1 : 1

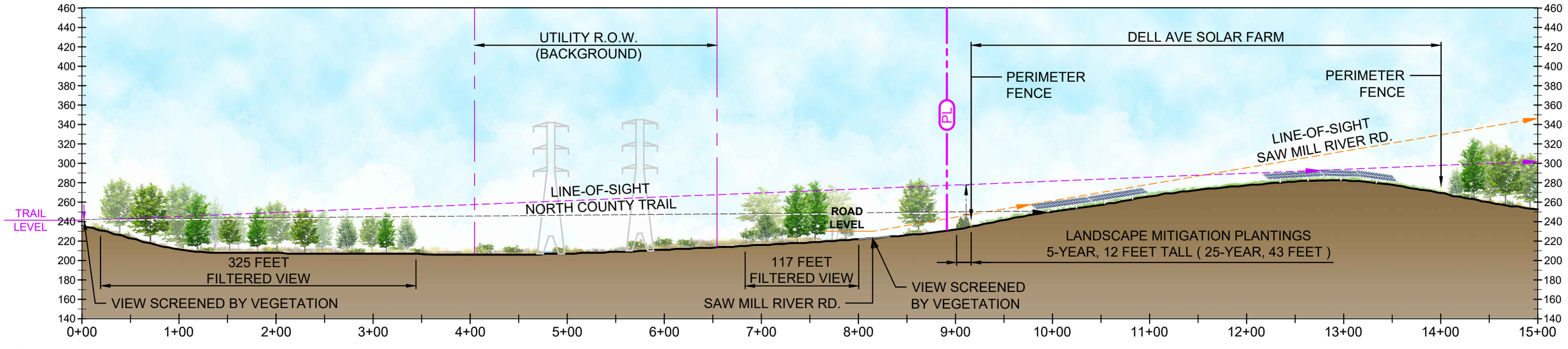
3

PRELIMINARY DRAWINGS (06/14/2022)



PLAN VIEW: LINE-OF-SIGHT #4 (STA: 0+00 TO 15+00)

0 100' 200'



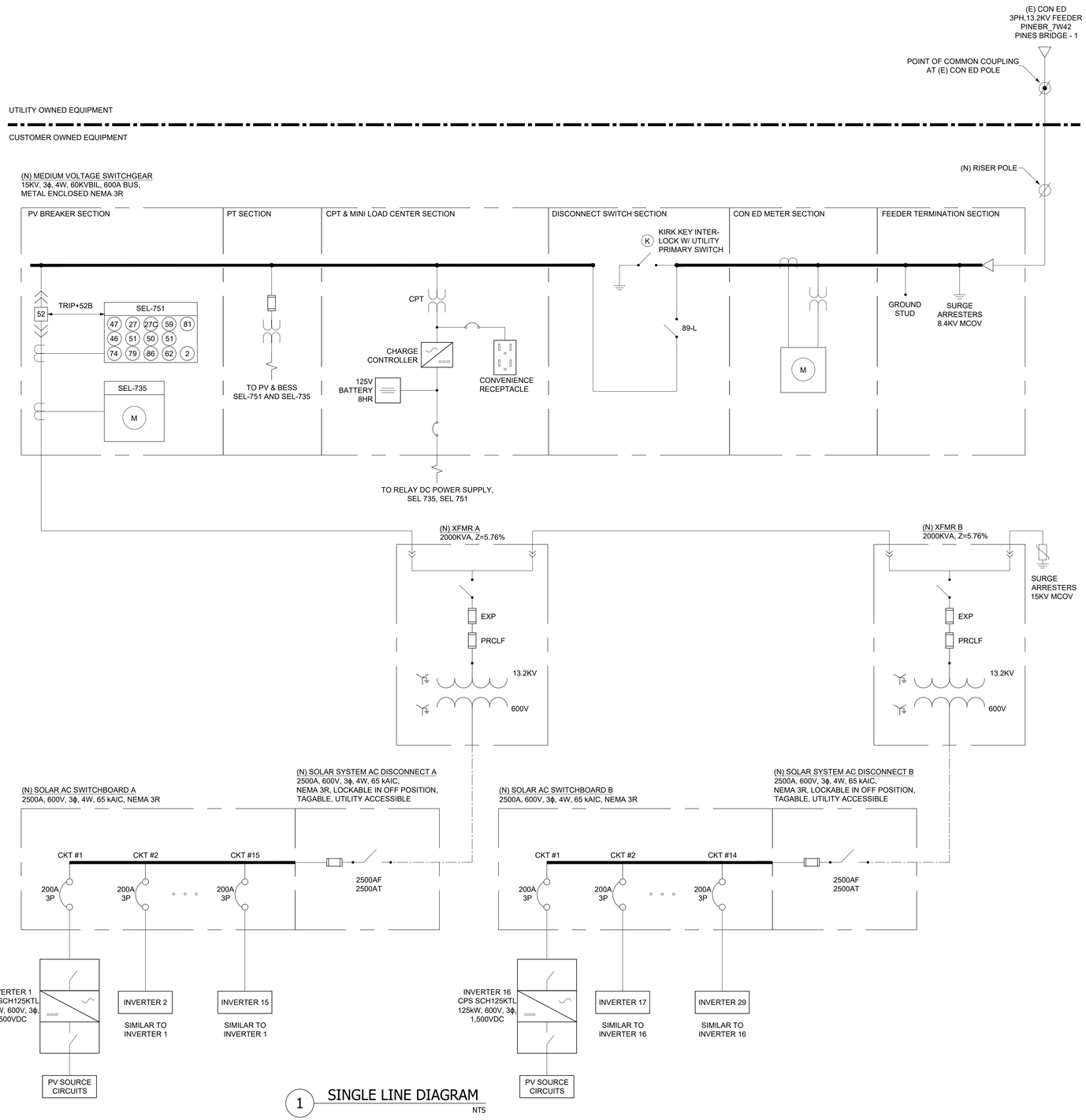
4

PROFILE VIEW: LINE-OF-SIGHT #4 (STA: 0+00 TO 15+00)

0 100' 200'

PRELIMINARY DRAWINGS (06/14/2022)

Horizontal and Vertical Scale - 1 : 1

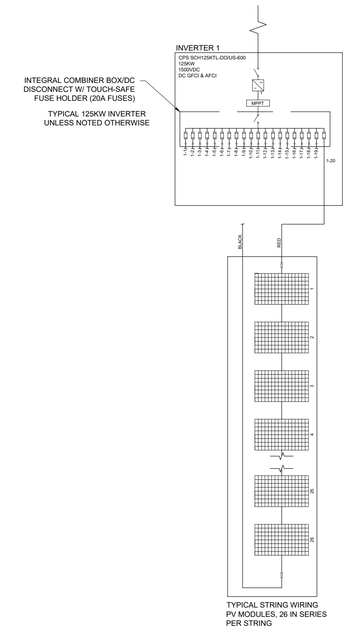


1 SINGLE LINE DIAGRAM
NTS

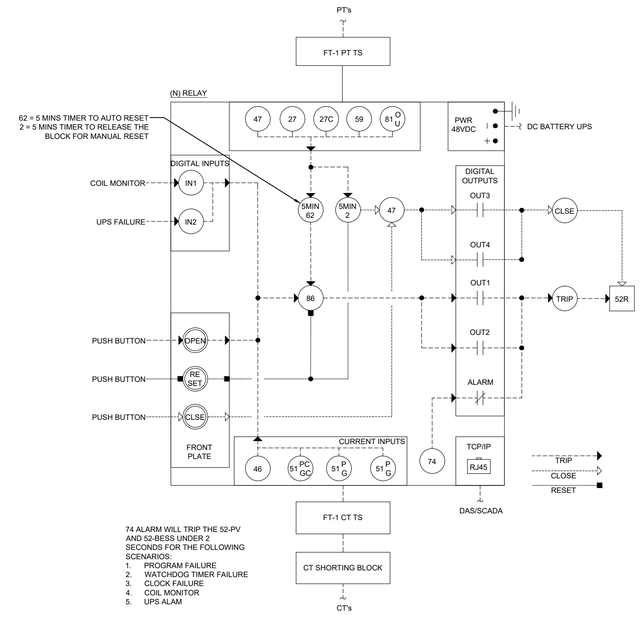
SYSTEM DESIGN CRITERIA	
BUILDING DESIGN CRITERIA	
DESIGN WIND SPEED	114 MPH
DESIGN SNOW LOAD	30 PSF (GROUND)
RISK CATEGORY	II
ELEVATION	237 FT.
SOURCE	HAZARDS.ATCOUNCIL.ORG
DESIGN TEMPERATURE	
DESIGN TEMPERATURE HIGH	32°C
DESIGN TEMPERATURE LOW	-17°C

GENERAL NOTES
1. (N) INDICATES NEW EQUIPMENT. (E) INDICATES EXISTING EQUIPMENT
2. HTME FOLLOWS CONED EO-10215 AND MS350
3. ALL NOTED SYSTEM SIZES AND MODULE QUANTITIES ARE PRELIMINARY ESTIMATES.

SOLAR PV SYSTEM DETAILS	
TOTAL SOLAR PV SYSTEM METRICS	
TOTAL DC SYSTEM SIZE (KW-DC)	4,329 KW-DC
TOTAL AC SYSTEM SIZE (KW-AC)	3,625 KW-AC
DC:AC RATIO	1.19
POCC / POI VOLTAGE	13.2 KV
PV MODULE DATA	
MODULE MANUFACTURER	TBD
MODULE MODEL	TBD
MODULE RATED POWER (W)	450W OR EQUIVALENT
DC SYSTEM VOLTAGE (V)	1500V
MODULES PER STRING	26
STRING QUANTITY	370
MODULE QUANTITY	9,620
PV INVERTER DATA	
INVERTER MANUFACTURER	CHINT POWER SYSTEMS
INVERTER MODEL	SCH125KTL-DO/US-600
INVERTER RATED POWER (KW-AC)	125 KW-AC
INVERTER OUTPUT VOLTAGE	600V
INVERTER QUANTITY	29
PV RACKING CONFIGURATION	
SYSTEM TYPE	GROUND MOUNT
MANUFACTURER	TBD
MODEL	TBD
ROW SPACING	11'
GROUND COVERAGE RATIO	58.6%



2 TYPICAL INVERTER DETAIL
NTS



3 RELAY FUCTIONAL DIAGRAM
NTS

REV	TITLE	DB	CB	Date
NEW	PERMIT SUBMISSION	JPC	SLS	6/7/2022
1				
2				
3				
4				
5				
6				

SOLSYSTEMS
Sol Systems, LLC
1101 Connecticut Ave. NW, 2nd Floor
Washington, DC 200036

DRAWING STATUS: CONCEPTUAL DESIGN

PRELIMINARY AND NOT FOR CONSTRUCTION

PROJECT NAME: DELL AVE SOLAR FARM

PROJECT ADDRESS: DELL AVE
YORKTOWN, NY 10514

DESIGNED BY:	JPC
CHECKED BY:	SLS
DATE:	6/7/2022
DWG SCALE:	N.T.S.

PROJECT NUMBER: 014136

DRAWING TITLE: SINGLE LINE DIAGRAM

DRAWING NUMBER: E2.0

Sol Systems, LLC

Dell Ave
Yorktown, Westchester County, New York

Prepared For:

Prepared By:

TRC Companies
650 Suffolk Street, Suite 200
Lowell, MA 01854

Tree Survey Report (Preliminary)

June 15, 2022

Table of Contents

1.0 INTRODUCTION

SCS Dell 014136 Yorktown, LLC proposes to construct and operate the Dell Avenue Solar Farm Project, a 3,625 kWac fixed-tilt ground mount solar energy system and associated facilities (the Project) on property located on Dell Ave in the Town of Yorktown, Westchester County, New York. The Project Site consists of two parcels totaling 62.33 acres (parcel IDs 70.11-1-16, 70.15-1-2). A figure depicting the Project Site overlaying United States Geological Survey (USGS) maps are presented as Figure 1. Site plans have been submitted to the Town Planning Board.

The purpose of this tree survey was to document protected trees within the anticipated 14.1-acre Limit of Disturbance (LOD) for a tree permit application in accordance with Chapter 270 of the Yorktown Town Code. Protected trees are defined by the Town of Yorktown as trees equal to or greater than 8 inches in diameter at breast height (DBH). A tree permit is required for:

- The removal of 10 protected trees or more, in an area of 10,000 square feet or more in a calendar year;
- Removal of any specimen tree (i.e., any tree with a DBH of 24 inches or more);
- Land conversion, which is the disturbance of 1,000 square feet or more of protected woodland (i.e., a woodland 10,000 square feet or greater in area regardless of individual property boundaries) and the subsequent permanent alteration of the site such that a woodland can no longer regenerate on the site in its altered state. Such permanent alteration may include, but is not limited to, paving or installation of other impervious surfaces, soil removal, soil compaction, or intentional flooding; and,
- A woodland disturbance equal to or greater than 10,000 square feet or 6 percent of the area of protected woodlands existing on a parcel of land, whichever is greater, notwithstanding any requirement for a permit under Chapter 248: Stormwater Management and Erosion and Sediment Control.

Disturbance in a protected woodland that is within a wetland and/or a 100-foot wetland buffer requires a wetland permit under Chapter 178: Freshwater Wetlands.

1.1 Report Purpose

This document presents the results of a tree survey performed by TRC on behalf of Sol Systems on April 28, 2021; April 29, 2021; May 25, 2021; May 26, 2021; June 10, 2021; June 11, 2021; and June 17, 2021.

2.0 ECOLOGICAL REGION

The Project Site is located within the Eastern Broadleaf Forest (Oceanic) Province Ecological Region (Bailey 1995). Ecological Regions are large areas of similar climate where ecological communities occur in predictable patterns (Bailey 1995). The New York Department of Environmental Conservation (NYSDEC) further divides the state into Ecological Zones.

Ecological Zones are defined by general similarities in the ecosystem such as climate, soil, hydrology, vegetation, hydrology, geology and physiography (Bryce et al. 2010). These Ecological Zones are further classified into a hierarchy of Major Zones and Minor Zones. The Project Site is located within the NYSDEC-designated Major Zone D Hudson Valley and the Central Hudson Minor Zone (Will et al. 1982). The forest communities of the Ecological Region and Ecological Zones are described in further detail below.

The Eastern Broadleaf Forest (Oceanic) Province Ecological Region is characterized by temperate deciduous forests dominated by tall broadleaf trees (Bailey 1995). The NYSDEC Major Zone D – Hudson Valley is part of the oak-northern hardwood natural vegetation area. (Will et al. 1982). The forest type of the Central Hudson Minor Zone is characterized as northern hardwoods and pioneer hardwoods.

3.0 METHODS

Tree DBH was measured using diameter measuring tapes. Trees with a DBH equal to or greater than 8 inches were identified and recorded on a hand-held global positioning system (GPS) unit. If a tree was unable to be identified to the species level, it was categorized as unknown. Trees were noted as dead if they had excessively exfoliating bark, brittle branches, exposed decaying inner wood, deep holes, or lacked a crown. Trees equal to or greater than 8 inches DBH were marked with a horizontal line on the trunk using a different colored spray paint for each surveyor (e.g., white, green, red, and blue) and located with a hand-held GPS unit with reported sub-meter accuracy. The average and standard deviation (SD) in DBH for all trees and each tree species were calculated using Microsoft Excel. The SD was calculated using the following formula:

$$SD = \sqrt{\frac{\sum(x - \bar{x})^2}{n}}$$

In the formula above, Σ means the "sum of," x is each tree's diameter, $\bar{x}$ is the average diameter of all trees, and n is the number of all trees. The SD represents the variability of tree diameters; therefore, a lower SD means that most of the tree diameters are close to the average tree diameter. A higher SD means that the individual tree diameters are more spread out from the average tree diameter. These numbers have been provided to paint a quantitative picture of species compostion onsite.

4.0 RESULTS

A total of 1,055 trees with a DBH equal to or greater than 8 inches were identified in the LOD. There were 114 specimen trees (10.8 percent of all the trees surveyed). The LOD had a tree density of 75 trees per acre and the average tree DBH was 15.6 in. (SD = 6.7). A total of 20 tree taxa, including unknown trees, were identified. Sugar maple (Acer saccharum) and northern red oak (Quercus rubra) were the most common trees identified, with a 44.3 and 17.3 percent frequency of occurrence respectively. Tulip trees (*Lirodendron tulipifera*) overall were the largest

trees measured with an average DBH of 25.5 inches (SD = 18.9). The largest single tree recorded was a tulip tree, which had a DBH of 92 inches. It should be noted that this tulip tree split three times at the base of the trunk. The largest single tree that did not split, was a sugar maple with a DBH of 48.5 inches.

Summary statistics for the tree survey by tree status are in Table 1. Statistics for the tree survey by species identified are in Table 2. A comprehensive list of all trees identified are in Appendix A.

Table 1. Summary Statistics of Trees Greater than 8 inches DBH by Status

Tree Status	Number of Trees	Frequency of Occurrence (%)	Average DBH (inches)	Standard Deviation DBH (inches)
Alive	1,007	95.5	15.6	6.7
Dead	48	4.5	16.2	4.7
Total	**1,055**	**100.0**	**15.6**	**6.7**

Table 2. Summary Statistics of Trees Greater than 8 inches DBH by Species

Scientific Name	Common Name	Number of trees	Frequency of Occurrence (%)	Average DBH (inches)	Standard Deviation DBH (inches)
Acer rubrum	Red Maple	80	7.6	14.1	6.0
Acer saccharum	Sugar Maple	467	44.3	13.4	5.0
Amelanchier arborea	Common Serviceberry	1	0.1	12.3	0.0
Betula lenta	Black Birch	88	8.3	15.3	6.0
Carya glabra	Pig Nut Hickory	21	2.0	17.0	5.1
Carya ovata	Shagbark Hickory	59	5.6	15.1	5.0
Fagus grandifolia	American Beech	7	0.7	12.7	3.7
Fraxinus americana	White Ash	3	0.3	17.2	1.5
Juglans cinerea	White Walnut	2	0.2	21.7	2.1
Liriodendron tulipifera	Tulip Tree	15	1.4	25.5	18.9
Nyssa sylvatica	Black Gum	1	0.1	8.0	0.0
Ostrya virginiana	American Hophornbeam	1	0.1	19.0	0.0
Pinus strobus	Eastern White Pine	1	0.1	17.0	0.0
Populus deltoides	Eastern Cottonwood	15	1.4	16.6	4.0
Prunus serotina	Black Cherry	4	0.4	12.3	2.3
Quercus alba	White Oak	90	8.5	18.7	5.8
Quercus montana	Chestnut Oak	2	0.2	13.5	3.5
Quercus rubra	Northern Red Oak	183	17.3	20.2	6.9
Sassafras albidum	Sassafras	12	1.1	15.7	3.7
Total		**1,055**	**100.0**	**15.6**	**6.7**

5.0 CONCLUSIONS

TRC surveyed 1,055 trees with DBH equal to or greater than 8 inches within a 14.1-acre LOD within the 62.33-acre Project Site. Based on the forest composition of the LOD, the forest community most resembles a beech-maple mesic forest (Edinger et al. 2014). This forest

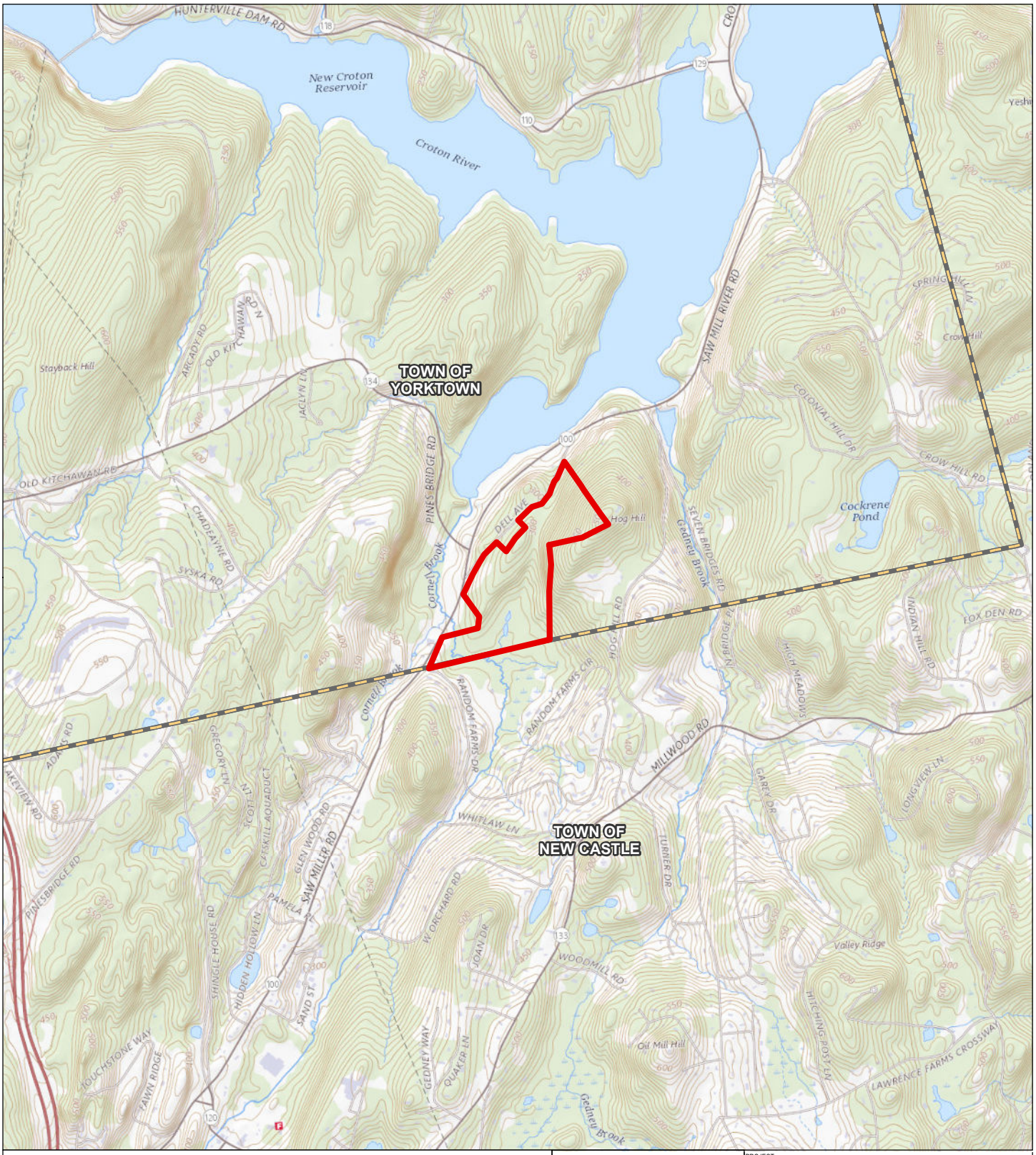
community is ranked as demonstrably or apparently secure in New York State (Edinger et al. 2014).

6.0 REFERENCES

Bailey, R.G. 1995. *Description of the ecoregions of the United States*. Miscellaneous Publication No. 1391. Second edition, revised. Washington, DC: USDA Forest Service.

Edinger, G.J., et al. 2014. Ecological Communities of New York State, Second Edition. New York Heritage Program, NYS Department of Environmental Conservation, Albany, NY, 160 pp.

Will, G., Stumvoll, R., Gotie, R., Smith, E. 1982. The Ecological Zones of Northern New York. New York Fish and Game Journal 29: 1-15.



SITE BOUNDARY

MUNICIPAL BOUNDARY

0 1,000 2,000

Feet

1:24,000
1 Inch = 2,000 Feet

N

Base Map: USGS Topo Maps, Exri; Data Sources: TRC, Esri

PROJECT: **SOL SYSTEMS DELL AVE**

TOWN OF YORKTOWN
WESTCHESTER COUNTY, NY

TITLE: **SITE LOCATION MAP**

DRAWN BY:	S. MOTURI	PROJECT NO:	431302
CHECKED BY:	M. REGAN		
APPROVED BY:	C. DUNCAN		
DATE:	JUNE 2022		

FIGURE 1

Wannalancit Mills
650 Suffolk Street
Lowell, MA 01854
(978-970-5600)

APPENDIX A
Tree Inventory

Tree ID	Common Name	Scientific Name	Status	DBH (inches)	Date Surveyed
2	White Oak	*Quercus alba*	ALIVE	11.0	4/28/2021
3	White Oak	*Quercus alba*	ALIVE	9.3	4/28/2021
4	Sugar Maple	*Acer saccharum*	ALIVE	11.0	4/28/2021
5	Sugar Maple	*Acer saccharum*	ALIVE	8.0	4/28/2021
6	Shagbark Hickory	*Carya ovata*	ALIVE	12.9	4/28/2021
7	Shagbark Hickory	*Carya ovata*	ALIVE	28.7	4/28/2021
8	White Oak	*Quercus alba*	ALIVE	19.3	4/28/2021
9	Unknown	Unknown	DEAD	13.7	4/28/2021
10	White Oak	*Quercus alba*	ALIVE	14.1	4/28/2021
11	Sugar Maple	*Acer saccharum*	ALIVE	16.7	4/28/2021
12	Sugar Maple	*Acer saccharum*	ALIVE	8.6	4/28/2021
13	Shagbark Hickory	*Carya ovata*	ALIVE	16.5	4/28/2021
14	Sugar Maple	*Acer saccharum*	ALIVE	11.3	4/28/2021
16	Sugar Maple	*Acer saccharum*	ALIVE	8.8	4/28/2021
17	Sugar Maple	*Acer saccharum*	ALIVE	8.8	4/28/2021
18	White Oak	*Quercus alba*	ALIVE	22.4	4/28/2021
23	Black Birch	*Betula lenta*	ALIVE	20.2	4/28/2021
24	White Oak	*Quercus alba*	DEAD	18.3	4/28/2021
25	Sugar Maple	*Acer saccharum*	ALIVE	18.8	4/28/2021
26	Sugar Maple	*Acer saccharum*	ALIVE	13.7	4/28/2021
27	Sugar Maple	*Acer saccharum*	ALIVE	9.8	4/28/2021
28	Sugar Maple	*Acer saccharum*	ALIVE	17.8	4/28/2021
29	Sugar Maple	*Acer saccharum*	ALIVE	11.1	4/28/2021
30	Sugar Maple	*Acer saccharum*	ALIVE	16.3	4/28/2021
31	Sugar Maple	*Acer saccharum*	ALIVE	8.9	4/28/2021
32	Sugar Maple	*Acer saccharum*	ALIVE	8.9	4/28/2021
33	Sugar Maple	*Acer saccharum*	ALIVE	24.7	4/28/2021
34	Sugar Maple	*Acer saccharum*	ALIVE	14.1	4/28/2021
35	Sugar Maple	*Acer saccharum*	ALIVE	9.8	4/28/2021
36	Sugar Maple	*Acer saccharum*	ALIVE	14.2	4/28/2021
37	Sugar Maple	*Acer saccharum*	ALIVE	13.9	4/28/2021
38	Sugar Maple	*Acer saccharum*	ALIVE	14.2	4/28/2021
39	Sugar Maple	*Acer saccharum*	ALIVE	17.0	4/28/2021
40	Sugar Maple	*Acer saccharum*	ALIVE	14.2	4/28/2021
41	Sugar Maple	*Acer saccharum*	ALIVE	13.0	4/28/2021
42	Sugar Maple	*Acer saccharum*	ALIVE	12.5	4/28/2021
43	Sugar Maple	*Acer saccharum*	ALIVE	12.2	4/28/2021
44	Sugar Maple	*Acer saccharum*	ALIVE	8.5	4/28/2021
45	Sugar Maple	*Acer saccharum*	ALIVE	11.4	4/28/2021
46	Sugar Maple	*Acer saccharum*	ALIVE	9.0	4/28/2021
47	White Oak	*Quercus alba*	ALIVE	23.2	4/28/2021
48	White Oak	*Quercus alba*	ALIVE	22.7	4/28/2021
49	White Oak	*Quercus alba*	ALIVE	16.9	4/28/2021
50	Red Maple	*Acer rubrum*	ALIVE	9.8	4/28/2021
51	Red Maple	*Acer rubrum*	ALIVE	11.4	4/28/2021
57	White Oak	*Quercus alba*	DEAD	15.5	4/28/2021

Tree ID	Common Name	Scientific Name	Status	DBH (inches)	Date Surveyed
58	Sugar Maple	*Acer saccharum*	ALIVE	13.5	4/28/2021
59	Sugar Maple	*Acer saccharum*	ALIVE	21.0	4/28/2021
60	Sugar Maple	*Acer saccharum*	ALIVE	14.6	4/28/2021
61	Sugar Maple	*Acer saccharum*	ALIVE	21.6	4/28/2021
62	Sugar Maple	*Acer saccharum*	ALIVE	13.8	4/28/2021
63	Sugar Maple	*Acer saccharum*	ALIVE	10.2	4/28/2021
64	Sugar Maple	*Acer saccharum*	ALIVE	27.0	4/28/2021
65	Sugar Maple	*Acer saccharum*	ALIVE	21.0	4/28/2021
66	Sugar Maple	*Acer saccharum*	ALIVE	13.2	4/28/2021
67	Sugar Maple	*Acer saccharum*	DEAD	13.7	4/28/2021
68	Sugar Maple	*Acer saccharum*	ALIVE	10.9	4/28/2021
69	White Oak	*Quercus alba*	ALIVE	17.1	4/28/2021
70	Sugar Maple	*Acer saccharum*	ALIVE	16.2	4/28/2021
71	Red Maple	*Acer rubrum*	ALIVE	9.3	4/28/2021
72	Red Maple	*Acer rubrum*	ALIVE	15.8	4/28/2021
73	Red Maple	*Acer rubrum*	ALIVE	13.4	4/28/2021
74	Red Maple	*Acer rubrum*	ALIVE	13.2	4/28/2021
75	Sugar Maple	*Acer saccharum*	ALIVE	15.9	4/28/2021
76	Sugar Maple	*Acer saccharum*	ALIVE	9.0	4/28/2021
77	Sugar Maple	*Acer saccharum*	DEAD	12.1	4/28/2021
78	Sugar Maple	*Acer saccharum*	DEAD	13.2	4/28/2021
79	Black Birch	*Betula lenta*	ALIVE	9.8	4/28/2021
80	Sugar Maple	*Acer saccharum*	ALIVE	15.8	4/28/2021
81	Sugar Maple	*Acer saccharum*	ALIVE	10.6	4/28/2021
82	White Oak	*Quercus alba*	ALIVE	13.8	4/28/2021
83	Black Birch	*Betula lenta*	ALIVE	14.8	4/28/2021
84	White Oak	*Quercus alba*	ALIVE	25.5	4/28/2021
85	Sugar Maple	*Acer saccharum*	ALIVE	8.0	4/28/2021
86	Sugar Maple	*Acer saccharum*	ALIVE	12.0	4/28/2021
87	Sugar Maple	*Acer saccharum*	ALIVE	13.4	4/28/2021
88	Sugar Maple	*Acer saccharum*	ALIVE	24.0	4/28/2021
89	Sugar Maple	*Acer saccharum*	ALIVE	9.6	4/28/2021
90	White Oak	*Quercus alba*	DEAD	24.0	4/28/2021
91	White Oak	*Quercus alba*	DEAD	17.2	4/28/2021
92	Sugar Maple	*Acer saccharum*	ALIVE	16.0	4/28/2021
93	White Oak	*Quercus alba*	DEAD	21.5	4/28/2021
94	White Oak	*Quercus alba*	DEAD	14.0	4/28/2021
95	White Oak	*Quercus alba*	DEAD	24.0	4/28/2021
96	Sugar Maple	*Acer saccharum*	ALIVE	9.5	4/28/2021
97	Sugar Maple	*Acer saccharum*	ALIVE	11.8	4/28/2021
98	Sugar Maple	*Acer saccharum*	ALIVE	16.0	4/28/2021
99	Sugar Maple	*Acer saccharum*	ALIVE	14.5	4/28/2021
100	White Oak	*Quercus alba*	DEAD	20.0	4/28/2021
101	White Oak	*Quercus alba*	ALIVE	21.9	4/28/2021
102	White Oak	*Quercus alba*	ALIVE	24.0	4/28/2021
103	Sugar Maple	*Acer saccharum*	ALIVE	11.7	4/28/2021

Tree ID	Common Name	Scientific Name	Status	DBH (inches)	Date Surveyed
104	Sugar Maple	*Acer saccharum*	ALIVE	10.0	4/28/2021
105	White Oak	*Quercus alba*	ALIVE	18.1	4/28/2021
106	Sugar Maple	*Acer saccharum*	ALIVE	10.6	4/28/2021
107	White Oak	*Quercus alba*	ALIVE	37.9	4/28/2021
108	White Oak	*Quercus alba*	ALIVE	24.9	4/28/2021
110	White Oak	*Quercus alba*	ALIVE	26.1	4/28/2021
111	White Oak	*Quercus alba*	ALIVE	19.5	4/28/2021
113	White Oak	*Quercus alba*	ALIVE	11.1	4/28/2021
114	Sugar Maple	*Acer saccharum*	ALIVE	13.1	4/28/2021
117	White Oak	*Quercus alba*	ALIVE	10.7	4/28/2021
132	Sugar Maple	*Acer saccharum*	ALIVE	8.0	4/28/2021
133	White Oak	*Quercus alba*	ALIVE	18.2	4/28/2021
134	Sugar Maple	*Acer saccharum*	ALIVE	8.0	4/28/2021
135	Sugar Maple	*Acer saccharum*	ALIVE	14.1	4/28/2021
136	Sugar Maple	*Acer saccharum*	ALIVE	15.3	4/28/2021
137	Sugar Maple	*Acer saccharum*	ALIVE	9.5	4/28/2021
138	Sugar Maple	*Acer saccharum*	ALIVE	12.3	4/28/2021
139	Sugar Maple	*Acer saccharum*	ALIVE	8.0	4/28/2021
140	Sugar Maple	*Acer saccharum*	ALIVE	11.2	4/28/2021
141	Sugar Maple	*Acer saccharum*	ALIVE	14.8	4/28/2021
142	Sugar Maple	*Acer saccharum*	ALIVE	10.2	4/28/2021
143	Sugar Maple	*Acer saccharum*	ALIVE	8.7	4/28/2021
144	Black Birch	*Betula lenta*	ALIVE	10.9	4/28/2021
145	Sugar Maple	*Acer saccharum*	ALIVE	8.7	4/28/2021
146	Sugar Maple	*Acer saccharum*	ALIVE	13.1	4/28/2021
147	Sugar Maple	*Acer saccharum*	ALIVE	25.7	4/28/2021
148	Sugar Maple	*Acer saccharum*	ALIVE	24.1	4/28/2021
149	Sugar Maple	*Acer saccharum*	ALIVE	15.4	4/28/2021
150	Shagbark Hickory	*Carya ovata*	DEAD	8.5	4/28/2021
151	Sugar Maple	*Acer saccharum*	ALIVE	11.5	4/28/2021
152	Shagbark Hickory	*Carya ovata*	ALIVE	15.3	4/28/2021
153	Sugar Maple	*Acer saccharum*	ALIVE	12.4	4/28/2021
154	Red Maple	*Acer rubrum*	ALIVE	16.1	4/28/2021
155	Sugar Maple	*Acer saccharum*	ALIVE	13.1	4/28/2021
156	Black Birch	*Betula lenta*	ALIVE	19.5	4/28/2021
157	Sugar Maple	*Acer saccharum*	ALIVE	13.0	4/28/2021
158	Sugar Maple	*Acer saccharum*	ALIVE	9.1	4/28/2021
159	White Oak	*Quercus alba*	DEAD	19.5	4/28/2021
160	White Oak	*Quercus alba*	DEAD	19.2	4/28/2021
161	Sugar Maple	*Acer saccharum*	ALIVE	27.5	4/28/2021
162	Black Birch	*Betula lenta*	ALIVE	15.5	4/28/2021
163	Black Birch	*Betula lenta*	ALIVE	19.0	4/28/2021
164	White Oak	*Quercus alba*	ALIVE	24.3	4/28/2021
165	White Oak	*Quercus alba*	ALIVE	19.6	4/28/2021
166	Sugar Maple	*Acer saccharum*	ALIVE	9.3	4/28/2021
167	Shagbark Hickory	*Carya ovata*	ALIVE	19.8	4/28/2021

Tree ID	Common Name	Scientific Name	Status	DBH (inches)	Date Surveyed
168	Black Birch	*Betula lenta*	ALIVE	15.5	4/28/2021
169	Black Birch	*Betula lenta*	ALIVE	13.1	4/28/2021
174	Sugar Maple	*Acer saccharum*	ALIVE	22.6	4/28/2021
175	Sugar Maple	*Acer saccharum*	ALIVE	48.5	4/28/2021
176	Sugar Maple	*Acer saccharum*	ALIVE	12.4	4/28/2021
177	Sugar Maple	*Acer saccharum*	ALIVE	12.7	4/28/2021
178	Sugar Maple	*Acer saccharum*	ALIVE	14.6	4/28/2021
179	Sugar Maple	*Acer saccharum*	ALIVE	8.9	4/28/2021
180	Sugar Maple	*Acer saccharum*	ALIVE	15.0	4/28/2021
181	Sugar Maple	*Acer saccharum*	ALIVE	8.7	4/28/2021
182	Black Birch	*Betula lenta*	ALIVE	16.0	4/28/2021
183	Black Birch	*Betula lenta*	ALIVE	10.6	4/28/2021
184	White Ash	*Fraxinus americana*	DEAD	15.2	4/28/2021
185	White Ash	*Fraxinus americana*	DEAD	17.4	4/28/2021
186	White Ash	*Fraxinus americana*	DEAD	18.9	4/28/2021
187	Black Birch	*Betula lenta*	ALIVE	10.4	4/28/2021
188	Black Birch	*Betula lenta*	ALIVE	16.1	4/28/2021
189	Red Maple	*Acer rubrum*	ALIVE	14.3	4/28/2021
190	White Oak	*Quercus alba*	ALIVE	17.3	4/28/2021
191	White Oak	*Quercus alba*	ALIVE	17.2	4/28/2021
193	Sugar Maple	*Acer saccharum*	DEAD	9.7	4/29/2021
195	Shagbark Hickory	*Carya ovata*	ALIVE	27.6	4/29/2021
196	Shagbark Hickory	*Carya ovata*	ALIVE	15.2	4/29/2021
200	White Oak	*Quercus alba*	ALIVE	24.6	4/29/2021
203	White Oak	*Quercus alba*	ALIVE	18.5	4/29/2021
204	Sugar Maple	*Acer saccharum*	ALIVE	17.7	4/29/2021
205	Red Maple	*Acer rubrum*	ALIVE	8.9	4/29/2021
207	White Oak	*Quercus alba*	ALIVE	18.6	4/29/2021
209	White Oak	*Quercus alba*	ALIVE	19.0	4/29/2021
211	White Oak	*Quercus alba*	ALIVE	8.0	4/29/2021
212	White Oak	*Quercus alba*	ALIVE	11.0	4/29/2021
213	White Oak	*Quercus alba*	ALIVE	27.8	4/29/2021
215	Sugar Maple	*Acer saccharum*	ALIVE	9.2	4/29/2021
217	Sugar Maple	*Acer saccharum*	ALIVE	8.0	4/29/2021
219	Red Maple	*Acer rubrum*	ALIVE	8.0	4/29/2021
220	Sugar Maple	*Acer saccharum*	ALIVE	13.2	4/29/2021
222	Sugar Maple	*Acer saccharum*	DEAD	9.0	4/29/2021
223	Sugar Maple	*Acer saccharum*	ALIVE	12.6	4/29/2021
225	White Oak	*Quercus alba*	ALIVE	12.1	4/29/2021
227	Red Maple	*Acer rubrum*	ALIVE	11.5	4/29/2021
229	Sugar Maple	*Acer saccharum*	DEAD	15.8	4/29/2021
230	Sugar Maple	*Acer saccharum*	ALIVE	14.0	4/29/2021
232	Sugar Maple	*Acer saccharum*	ALIVE	13.0	4/29/2021
234	Red Maple	*Acer rubrum*	ALIVE	19.4	4/29/2021
235	Red Maple	*Acer rubrum*	ALIVE	18.9	4/29/2021
237	Sugar Maple	*Acer saccharum*	ALIVE	12.9	4/29/2021

Tree ID	Common Name	Scientific Name	Status	DBH (inches)	Date Surveyed
238	Sugar Maple	*Acer saccharum*	DEAD	15.2	4/29/2021
240	Sugar Maple	*Acer saccharum*	ALIVE	15.4	4/29/2021
241	Sugar Maple	*Acer saccharum*	ALIVE	8.9	4/29/2021
244	Sugar Maple	*Acer saccharum*	ALIVE	12.5	4/29/2021
246	Sugar Maple	*Acer saccharum*	ALIVE	14.8	4/29/2021
248	White Oak	*Quercus alba*	DEAD	15.5	4/29/2021
249	Sugar Maple	*Acer saccharum*	ALIVE	8.0	4/29/2021
251	Sugar Maple	*Acer saccharum*	ALIVE	14.8	4/29/2021
252	Sugar Maple	*Acer saccharum*	ALIVE	13.7	4/29/2021
254	Sugar Maple	*Acer saccharum*	ALIVE	20.6	4/29/2021
256	Sugar Maple	*Acer saccharum*	DEAD	8.7	4/29/2021
258	Sugar Maple	*Acer saccharum*	ALIVE	12.2	4/29/2021
260	White Oak	*Quercus alba*	ALIVE	21.0	4/29/2021
261	Sugar Maple	*Acer saccharum*	ALIVE	9.6	4/29/2021
263	Sugar Maple	*Acer saccharum*	ALIVE	14.6	4/29/2021
264	Sugar Maple	*Acer saccharum*	ALIVE	12.1	4/29/2021
265	Sugar Maple	*Acer saccharum*	ALIVE	10.8	4/29/2021
267	White Oak	*Quercus alba*	ALIVE	16.0	4/29/2021
270	Sugar Maple	*Acer saccharum*	ALIVE	10.7	4/29/2021
273	Sugar Maple	*Acer saccharum*	ALIVE	10.8	4/29/2021
353	Sugar Maple	*Acer saccharum*	ALIVE	8.2	4/29/2021
355	White Oak	*Quercus alba*	ALIVE	17.4	4/29/2021
358	Sugar Maple	*Acer saccharum*	ALIVE	13.5	4/29/2021
371	White Oak	*Quercus alba*	ALIVE	8.9	4/29/2021
373	White Oak	*Quercus alba*	ALIVE	9.6	4/29/2021
376	White Oak	*Quercus alba*	ALIVE	18.3	4/29/2021
378	White Oak	*Quercus alba*	DEAD	20.7	4/29/2021
380	White Oak	*Quercus alba*	ALIVE	24.9	4/29/2021
381	Sugar Maple	*Acer saccharum*	ALIVE	10.7	4/29/2021
383	Sugar Maple	*Acer saccharum*	ALIVE	9.8	4/29/2021
387	White Oak	*Quercus alba*	ALIVE	19.0	4/29/2021
393	Sugar Maple	*Acer saccharum*	ALIVE	12.6	4/29/2021
399	Sugar Maple	*Acer saccharum*	ALIVE	19.7	4/29/2021
426	Sugar Maple	*Acer saccharum*	ALIVE	9.1	4/29/2021
427	Sugar Maple	*Acer saccharum*	ALIVE	19.8	4/29/2021
433	Sugar Maple	*Acer saccharum*	ALIVE	25.7	4/29/2021
445	White Oak	*Quercus alba*	DEAD	19.4	4/29/2021
496	Sugar Maple	*Acer saccharum*	ALIVE	14.5	4/29/2021
498	Sugar Maple	*Acer saccharum*	ALIVE	9.9	4/29/2021
500	Sugar Maple	*Acer saccharum*	ALIVE	9.8	4/29/2021
503	White Oak	*Quercus alba*	ALIVE	27.5	4/29/2021
504	White Oak	*Quercus alba*	ALIVE	15.2	4/29/2021
506	Sugar Maple	*Acer saccharum*	ALIVE	16.6	4/29/2021
507	Sugar Maple	*Acer saccharum*	ALIVE	11.1	4/29/2021
532	Tulip Tree	*Liriodendron tulipifera*	ALIVE	24.0	5/25/2021
533	Sugar Maple	*Acer saccharum*	ALIVE	14.5	5/25/2021

Tree ID	Common Name	Scientific Name	Status	DBH (inches)	Date Surveyed
535	Sugar Maple	*Acer saccharum*	ALIVE	14.4	5/25/2021
536	Sugar Maple	*Acer saccharum*	ALIVE	15.3	5/25/2021
537	Sugar Maple	*Acer saccharum*	ALIVE	15.3	5/25/2021
538	Northern Red Oak	*Quercus rubra*	ALIVE	22.8	5/25/2021
540	Northern Red Oak	*Quercus rubra*	ALIVE	23.7	5/25/2021
542	Black Birch	*Betula lenta*	ALIVE	23.0	5/25/2021
543	Red Maple	*Acer rubrum*	ALIVE	21.5	5/25/2021
547	Red Maple	*Acer rubrum*	ALIVE	18.0	5/25/2021
557	Shagbark Hickory	*Carya ovata*	ALIVE	17.0	5/25/2021
560	Red Maple	*Acer rubrum*	ALIVE	9.0	5/25/2021
563	Sugar Maple	*Acer saccharum*	ALIVE	22.0	5/25/2021
566	Sugar Maple	*Acer saccharum*	ALIVE	19.0	5/25/2021
567	Sugar Maple	*Acer saccharum*	ALIVE	14.0	5/25/2021
570	Shagbark Hickory	*Carya ovata*	ALIVE	12.0	5/25/2021
575	Sugar Maple	*Acer saccharum*	ALIVE	11.0	5/25/2021
576	Sugar Maple	*Acer saccharum*	ALIVE	12.0	5/25/2021
578	Sugar Maple	*Acer saccharum*	ALIVE	8.0	5/25/2021
580	Pig Nut Hickory	*Carya glabra*	ALIVE	25.0	5/25/2021
581	White Oak	*Quercus alba*	ALIVE	9.0	5/25/2021
582	White Oak	*Quercus alba*	ALIVE	17.0	5/25/2021
583	Red Maple	*Acer rubrum*	ALIVE	20.5	5/25/2021
584	Northern Red Oak	*Quercus rubra*	ALIVE	34.0	5/25/2021
585	White Oak	*Quercus alba*	ALIVE	21.0	5/25/2021
586	White Oak	*Quercus alba*	ALIVE	20.0	5/25/2021
587	Sugar Maple	*Acer saccharum*	ALIVE	10.0	5/25/2021
588	Pig Nut Hickory	*Carya glabra*	ALIVE	17.0	5/25/2021
589	Northern Red Oak	*Quercus rubra*	ALIVE	23.0	5/25/2021
590	Sugar Maple	*Acer saccharum*	ALIVE	16.0	5/25/2021
591	Red Maple	*Acer rubrum*	ALIVE	22.5	5/25/2021
592	Pig Nut Hickory	*Carya glabra*	ALIVE	15.0	5/25/2021
593	Sugar Maple	*Acer saccharum*	ALIVE	11.0	5/25/2021
594	Sugar Maple	*Acer saccharum*	ALIVE	14.5	5/25/2021
595	Northern Red Oak	*Quercus rubra*	ALIVE	12.0	5/25/2021
596	Pig Nut Hickory	*Carya glabra*	ALIVE	16.0	5/25/2021
597	Sugar Maple	*Acer saccharum*	ALIVE	16.0	5/25/2021
598	Pig Nut Hickory	*Carya glabra*	ALIVE	17.0	5/25/2021
599	Sugar Maple	*Acer saccharum*	ALIVE	13.0	5/25/2021
600	Northern Red Oak	*Quercus rubra*	ALIVE	14.0	5/25/2021
601	Red Maple	*Acer rubrum*	ALIVE	11.4	5/25/2021
602	Black Birch	*Betula lenta*	ALIVE	16.3	5/25/2021
603	Black Birch	*Betula lenta*	ALIVE	8.3	5/25/2021
604	Northern Red Oak	*Quercus rubra*	ALIVE	15.0	5/25/2021
605	Sugar Maple	*Acer saccharum*	ALIVE	26.0	5/25/2021
606	Sugar Maple	*Acer saccharum*	ALIVE	10.0	5/25/2021
607	Red Maple	*Acer rubrum*	ALIVE	8.0	5/25/2021
608	Sugar Maple	*Acer saccharum*	ALIVE	9.5	5/25/2021

Tree ID	Common Name	Scientific Name	Status	DBH (inches)	Date Surveyed
609	Red Maple	*Acer rubrum*	ALIVE	15.5	5/25/2021
610	Black Birch	*Betula lenta*	ALIVE	8.0	5/25/2021
611	Sugar Maple	*Acer saccharum*	ALIVE	15.5	5/25/2021
612	Northern Red Oak	*Quercus rubra*	ALIVE	27.0	5/25/2021
613	Sugar Maple	*Acer saccharum*	ALIVE	11.5	5/25/2021
614	Sugar Maple	*Acer saccharum*	ALIVE	17.0	5/25/2021
615	Sugar Maple	*Acer saccharum*	ALIVE	8.0	5/25/2021
616	Red Maple	*Acer rubrum*	ALIVE	17.0	5/25/2021
617	Pig Nut Hickory	*Carya glabra*	ALIVE	8.0	5/25/2021
618	Shagbark Hickory	*Carya ovata*	ALIVE	8.0	5/25/2021
619	Red Maple	*Acer rubrum*	ALIVE	12.0	5/25/2021
620	Sugar Maple	*Acer saccharum*	ALIVE	8.0	5/25/2021
621	Sugar Maple	*Acer saccharum*	ALIVE	10.5	5/25/2021
622	Shagbark Hickory	*Carya ovata*	ALIVE	18.0	5/25/2021
623	Red Maple	*Acer rubrum*	ALIVE	9.0	5/25/2021
624	White Oak	*Quercus alba*	ALIVE	19.0	5/25/2021
625	Northern Red Oak	*Quercus rubra*	ALIVE	14.2	5/25/2021
626	Red Maple	*Acer rubrum*	ALIVE	11.0	5/25/2021
627	Sugar Maple	*Acer saccharum*	ALIVE	20.0	5/25/2021
629	Sugar Maple	*Acer saccharum*	ALIVE	13.0	5/25/2021
632	Sugar Maple	*Acer saccharum*	ALIVE	9.0	5/25/2021
633	Shagbark Hickory	*Carya ovata*	ALIVE	24.0	5/25/2021
650	American Beech	*Fagus grandifolia*	ALIVE	12.0	5/25/2021
653	Black Birch	*Betula lenta*	ALIVE	19.0	5/25/2021
657	American Beech	*Fagus grandifolia*	ALIVE	16.0	5/25/2021
661	Sugar Maple	*Acer saccharum*	ALIVE	14.0	5/25/2021
662	American Beech	*Fagus grandifolia*	ALIVE	20.0	5/25/2021
664	Sugar Maple	*Acer saccharum*	ALIVE	10.0	5/25/2021
666	Sugar Maple	*Acer saccharum*	ALIVE	8.0	5/25/2021
668	Sugar Maple	*Acer saccharum*	ALIVE	36.0	5/25/2021
671	Sugar Maple	*Acer saccharum*	ALIVE	14.0	5/25/2021
674	Sugar Maple	*Acer saccharum*	ALIVE	13.0	5/25/2021
677	Shagbark Hickory	*Carya ovata*	ALIVE	11.0	5/25/2021
679	Sugar Maple	*Acer saccharum*	ALIVE	15.0	5/25/2021
682	Sugar Maple	*Acer saccharum*	ALIVE	11.0	5/25/2021
683	Sugar Maple	*Acer saccharum*	ALIVE	15.0	5/25/2021
686	Black Birch	*Betula lenta*	ALIVE	8.0	5/25/2021
688	Sugar Maple	*Acer saccharum*	ALIVE	23.0	5/25/2021
689	Northern Red Oak	*Quercus rubra*	ALIVE	27.5	5/25/2021
690	Eastern White Pine	*Pinus strobus*	ALIVE	17.0	5/25/2021
691	Red Maple	*Acer rubrum*	ALIVE	12.0	5/25/2021
692	Chestnut Oak	*Quercus montana*	ALIVE	10.0	5/25/2021
693	American Beech	*Fagus grandifolia*	ALIVE	10.2	5/25/2021
694	Northern Red Oak	*Quercus rubra*	ALIVE	29.0	5/25/2021
695	Black Birch	*Betula lenta*	ALIVE	16.0	5/25/2021
696	Northern Red Oak	*Quercus rubra*	ALIVE	10.3	5/25/2021

Tree ID	Common Name	Scientific Name	Status	DBH (inches)	Date Surveyed
697	Red Maple	*Acer rubrum*	ALIVE	13.0	5/25/2021
698	Northern Red Oak	*Quercus rubra*	ALIVE	9.0	5/25/2021
699	Northern Red Oak	*Quercus rubra*	ALIVE	19.5	5/25/2021
700	Northern Red Oak	*Quercus rubra*	ALIVE	13.0	5/25/2021
701	Red Maple	*Acer rubrum*	ALIVE	14.5	5/25/2021
702	Northern Red Oak	*Quercus rubra*	ALIVE	13.0	5/25/2021
703	Red Maple	*Acer rubrum*	ALIVE	15.5	5/25/2021
704	Sugar Maple	*Acer saccharum*	ALIVE	9.0	5/25/2021
705	Red Maple	*Acer rubrum*	ALIVE	18.0	5/25/2021
706	Sugar Maple	*Acer saccharum*	ALIVE	18.5	5/25/2021
707	Northern Red Oak	*Quercus rubra*	ALIVE	32.0	5/25/2021
708	Shagbark Hickory	*Carya ovata*	ALIVE	19.0	5/25/2021
709	Shagbark Hickory	*Carya ovata*	ALIVE	12.0	5/25/2021
710	Sugar Maple	*Acer saccharum*	ALIVE	10.0	5/25/2021
711	Northern Red Oak	*Quercus rubra*	ALIVE	16.0	5/25/2021
712	Black Birch	*Betula lenta*	ALIVE	9.5	5/25/2021
713	Black Birch	*Betula lenta*	ALIVE	8.0	5/25/2021
714	Northern Red Oak	*Quercus rubra*	ALIVE	41.5	5/25/2021
715	Northern Red Oak	*Quercus rubra*	ALIVE	25.0	5/25/2021
716	Northern Red Oak	*Quercus rubra*	ALIVE	39.3	5/25/2021
717	Black Birch	*Betula lenta*	ALIVE	14.0	5/25/2021
718	Northern Red Oak	*Quercus rubra*	ALIVE	21.2	5/25/2021
720	Shagbark Hickory	*Carya ovata*	ALIVE	13.0	5/25/2021
721	Black Birch	*Betula lenta*	ALIVE	16.5	5/25/2021
722	Black Birch	*Betula lenta*	ALIVE	14.0	5/25/2021
723	Black Birch	*Betula lenta*	ALIVE	13.0	5/25/2021
724	Sugar Maple	*Acer saccharum*	ALIVE	13.0	5/25/2021
725	Sugar Maple	*Acer saccharum*	ALIVE	10.0	5/25/2021
726	Sugar Maple	*Acer saccharum*	ALIVE	15.0	5/25/2021
727	Red Maple	*Acer rubrum*	ALIVE	17.0	5/25/2021
728	Red Maple	*Acer rubrum*	ALIVE	15.0	5/25/2021
729	Sugar Maple	*Acer saccharum*	ALIVE	9.0	5/25/2021
730	Sugar Maple	*Acer saccharum*	DEAD	22.0	5/25/2021
731	Black Birch	*Betula lenta*	ALIVE	20.0	5/25/2021
732	Northern Red Oak	*Quercus rubra*	ALIVE	31.0	5/25/2021
733	Red Maple	*Acer rubrum*	ALIVE	12.5	5/25/2021
734	Sugar Maple	*Acer saccharum*	ALIVE	8.0	5/25/2021
735	Black Birch	*Betula lenta*	ALIVE	11.0	5/25/2021
736	Sugar Maple	*Acer saccharum*	ALIVE	16.0	5/25/2021
737	Northern Red Oak	*Quercus rubra*	ALIVE	31.5	5/25/2021
738	Sugar Maple	*Acer saccharum*	ALIVE	9.0	5/25/2021
739	Red Maple	*Acer rubrum*	ALIVE	14.0	5/25/2021
740	Sugar Maple	*Acer saccharum*	ALIVE	19.0	5/25/2021
741	Sugar Maple	*Acer saccharum*	ALIVE	11.0	5/25/2021
742	Sugar Maple	*Acer saccharum*	ALIVE	14.0	5/25/2021
743	Northern Red Oak	*Quercus rubra*	ALIVE	23.0	5/25/2021

Tree ID	Common Name	Scientific Name	Status	DBH (inches)	Date Surveyed
744	Sugar Maple	*Acer saccharum*	ALIVE	16.0	5/25/2021
745	Sugar Maple	*Acer saccharum*	ALIVE	29.0	5/25/2021
746	Sugar Maple	*Acer saccharum*	ALIVE	9.0	5/25/2021
747	Sugar Maple	*Acer saccharum*	ALIVE	37.0	5/25/2021
748	Sugar Maple	*Acer saccharum*	ALIVE	11.0	5/25/2021
749	Sugar Maple	*Acer saccharum*	ALIVE	27.0	5/25/2021
750	Sugar Maple	*Acer saccharum*	ALIVE	15.0	5/25/2021
751	Black Birch	*Betula lenta*	ALIVE	15.0	5/25/2021
752	Sugar Maple	*Acer saccharum*	ALIVE	23.0	5/25/2021
753	Sugar Maple	*Acer saccharum*	ALIVE	11.0	5/25/2021
754	Sugar Maple	*Acer saccharum*	ALIVE	18.0	5/25/2021
755	Black Birch	*Betula lenta*	DEAD	8.0	5/25/2021
756	Northern Red Oak	*Quercus rubra*	ALIVE	26.0	5/25/2021
757	Sugar Maple	*Acer saccharum*	ALIVE	19.5	5/26/2021
758	Sugar Maple	*Acer saccharum*	ALIVE	20.0	5/26/2021
759	Black Birch	*Betula lenta*	ALIVE	13.0	5/26/2021
760	Sugar Maple	*Acer saccharum*	ALIVE	14.5	5/26/2021
761	Sugar Maple	*Acer saccharum*	ALIVE	9.0	5/26/2021
762	Sugar Maple	*Acer saccharum*	ALIVE	13.0	5/26/2021
763	Northern Red Oak	*Quercus rubra*	ALIVE	14.0	5/26/2021
764	Sugar Maple	*Acer saccharum*	ALIVE	14.0	5/26/2021
765	Northern Red Oak	*Quercus rubra*	ALIVE	33.0	5/26/2021
766	Sugar Maple	*Acer saccharum*	ALIVE	15.0	5/26/2021
767	Northern Red Oak	*Quercus rubra*	ALIVE	9.0	5/26/2021
768	Black Birch	*Betula lenta*	ALIVE	22.0	5/26/2021
769	Northern Red Oak	*Quercus rubra*	ALIVE	12.0	5/26/2021
770	Northern Red Oak	*Quercus rubra*	ALIVE	23.0	5/26/2021
771	Northern Red Oak	*Quercus rubra*	ALIVE	17.0	5/26/2021
772	Chestnut Oak	*Quercus montana*	ALIVE	17.0	5/26/2021
773	Northern Red Oak	*Quercus rubra*	ALIVE	29.0	5/26/2021
774	Northern Red Oak	*Quercus rubra*	ALIVE	22.5	5/26/2021
775	Sugar Maple	*Acer saccharum*	ALIVE	19.0	5/26/2021
776	White Oak	*Quercus alba*	ALIVE	9.5	5/26/2021
777	Black Birch	*Betula lenta*	ALIVE	9.0	5/26/2021
778	Sugar Maple	*Acer saccharum*	ALIVE	27.0	5/26/2021
779	Northern Red Oak	*Quercus rubra*	ALIVE	17.0	5/26/2021
780	Northern Red Oak	*Quercus rubra*	ALIVE	14.5	5/26/2021
781	Northern Red Oak	*Quercus rubra*	ALIVE	12.0	5/26/2021
782	Northern Red Oak	*Quercus rubra*	ALIVE	15.0	5/26/2021
783	Northern Red Oak	*Quercus rubra*	ALIVE	14.0	5/26/2021
784	Sugar Maple	*Acer saccharum*	ALIVE	9.5	5/26/2021
785	Sugar Maple	*Acer saccharum*	ALIVE	8.0	5/26/2021
786	American Beech	*Fagus grandifolia*	ALIVE	11.0	5/26/2021
787	Sugar Maple	*Acer saccharum*	ALIVE	8.0	5/26/2021
788	Sugar Maple	*Acer saccharum*	ALIVE	9.0	5/26/2021
789	Black Cherry	*Prunus serotina*	ALIVE	13.8	5/26/2021

Tree ID	Common Name	Scientific Name	Status	DBH (inches)	Date Surveyed
790	Sugar Maple	*Acer saccharum*	ALIVE	14.0	5/26/2021
791	Sugar Maple	*Acer saccharum*	ALIVE	13.0	5/26/2021
792	Sugar Maple	*Acer saccharum*	ALIVE	15.0	5/26/2021
793	Shagbark Hickory	*Carya ovata*	ALIVE	14.0	5/26/2021
794	Sugar Maple	*Acer saccharum*	ALIVE	20.0	5/26/2021
795	Sugar Maple	*Acer saccharum*	ALIVE	10.0	5/26/2021
796	Sugar Maple	*Acer saccharum*	ALIVE	11.0	5/26/2021
797	Sugar Maple	*Acer saccharum*	ALIVE	17.0	5/26/2021
798	Sugar Maple	*Acer saccharum*	ALIVE	26.0	5/26/2021
799	Sugar Maple	*Acer saccharum*	ALIVE	12.0	5/26/2021
800	Red Maple	*Acer rubrum*	ALIVE	9.3	5/26/2021
801	Sugar Maple	*Acer saccharum*	ALIVE	9.0	5/26/2021
802	Sugar Maple	*Acer saccharum*	ALIVE	21.0	5/26/2021
803	Northern Red Oak	*Quercus rubra*	ALIVE	27.7	5/26/2021
804	Northern Red Oak	*Quercus rubra*	ALIVE	11.0	5/26/2021
805	Sugar Maple	*Acer saccharum*	ALIVE	17.0	5/26/2021
806	Northern Red Oak	*Quercus rubra*	ALIVE	16.0	5/26/2021
807	Sugar Maple	*Acer saccharum*	ALIVE	8.7	5/26/2021
808	Sugar Maple	*Acer saccharum*	ALIVE	8.0	5/26/2021
809	Northern Red Oak	*Quercus rubra*	ALIVE	21.0	5/26/2021
810	Northern Red Oak	*Quercus rubra*	ALIVE	17.5	5/26/2021
811	Sugar Maple	*Acer saccharum*	ALIVE	19.0	5/26/2021
812	Northern Red Oak	*Quercus rubra*	ALIVE	15.0	5/26/2021
813	Northern Red Oak	*Quercus rubra*	ALIVE	14.0	5/26/2021
814	Sugar Maple	*Acer saccharum*	ALIVE	9.0	5/26/2021
816	Northern Red Oak	*Quercus rubra*	ALIVE	19.0	5/26/2021
817	Northern Red Oak	*Quercus rubra*	ALIVE	19.0	5/26/2021
818	Sugar Maple	*Acer saccharum*	ALIVE	9.0	5/26/2021
846	American Beech	*Fagus grandifolia*	ALIVE	8.0	5/26/2021
847	Red Maple	*Acer rubrum*	ALIVE	8.0	5/26/2021
849	Sugar Maple	*Acer saccharum*	ALIVE	8.0	5/26/2021
850	Black Birch	*Betula lenta*	ALIVE	8.0	5/26/2021
851	Northern Red Oak	*Quercus rubra*	ALIVE	8.0	5/26/2021
853	Red Maple	*Acer rubrum*	ALIVE	8.0	5/26/2021
854	Red Maple	*Acer rubrum*	ALIVE	8.0	5/26/2021
855	Black Gum	*Nyssa sylvatica*	ALIVE	8.0	5/26/2021
856	Red Maple	*Acer rubrum*	ALIVE	8.0	5/26/2021
858	Sugar Maple	*Acer saccharum*	ALIVE	8.0	5/26/2021
860	Northern Red Oak	*Quercus rubra*	ALIVE	8.0	5/26/2021
862	Sugar Maple	*Acer saccharum*	ALIVE	12.4	5/26/2021
863	Northern Red Oak	*Quercus rubra*	ALIVE	16.7	5/26/2021
864	Northern Red Oak	*Quercus rubra*	ALIVE	20.0	5/26/2021
867	Sugar Maple	*Acer saccharum*	ALIVE	13.5	5/26/2021
869	Northern Red Oak	*Quercus rubra*	ALIVE	25.5	5/26/2021
870	Sassafras	*Sassafras albidum*	ALIVE	11.0	5/26/2021
871	Black Birch	*Betula lenta*	ALIVE	23.0	5/26/2021

Tree ID	Common Name	Scientific Name	Status	DBH (inches)	Date Surveyed
872	Sugar Maple	*Acer saccharum*	ALIVE	11.0	5/26/2021
873	Northern Red Oak	*Quercus rubra*	ALIVE	18.5	5/26/2021
874	Northern Red Oak	*Quercus rubra*	ALIVE	19.0	5/26/2021
875	Sugar Maple	*Acer saccharum*	ALIVE	13.7	5/26/2021
877	Northern Red Oak	*Quercus rubra*	ALIVE	17.5	5/26/2021
878	Black Birch	*Betula lenta*	ALIVE	8.3	5/26/2021
879	Black Birch	*Betula lenta*	ALIVE	8.2	5/26/2021
881	Northern Red Oak	*Quercus rubra*	ALIVE	12.2	5/26/2021
883	Black Birch	*Betula lenta*	ALIVE	16.0	5/26/2021
885	Black Birch	*Betula lenta*	ALIVE	9.5	5/26/2021
886	Black Birch	*Betula lenta*	DEAD	29.0	5/26/2021
887	Sugar Maple	*Acer saccharum*	ALIVE	23.0	5/26/2021
888	Sugar Maple	*Acer saccharum*	ALIVE	8.0	5/26/2021
889	Northern Red Oak	*Quercus rubra*	ALIVE	11.7	5/26/2021
890	Red Maple	*Acer rubrum*	ALIVE	16.0	5/26/2021
891	Sugar Maple	*Acer saccharum*	ALIVE	8.0	5/26/2021
892	Black Birch	*Betula lenta*	ALIVE	14.4	5/26/2021
893	White Oak	*Quercus alba*	ALIVE	9.0	5/26/2021
894	Sugar Maple	*Acer saccharum*	ALIVE	12.0	5/26/2021
895	Eastern Cottonwood	*Populus deltoides*	ALIVE	13.3	5/26/2021
896	Sugar Maple	*Acer saccharum*	ALIVE	8.0	5/26/2021
897	Eastern Cottonwood	*Populus deltoides*	ALIVE	16.2	5/26/2021
898	Sugar Maple	*Acer saccharum*	ALIVE	8.0	5/26/2021
899	Eastern Cottonwood	*Populus deltoides*	ALIVE	14.3	5/26/2021
900	Sugar Maple	*Acer saccharum*	ALIVE	9.5	5/26/2021
901	Black Birch	*Betula lenta*	ALIVE	9.6	5/26/2021
902	Black Birch	*Betula lenta*	ALIVE	10.0	5/26/2021
903	Sugar Maple	*Acer saccharum*	ALIVE	10.0	5/26/2021
904	Black Birch	*Betula lenta*	ALIVE	15.0	5/26/2021
905	Northern Red Oak	*Quercus rubra*	ALIVE	20.0	5/26/2021
906	Eastern Cottonwood	*Populus deltoides*	ALIVE	27.0	5/26/2021
907	American Beech	*Fagus grandifolia*	ALIVE	12.0	5/26/2021
908	Eastern Cottonwood	*Populus deltoides*	ALIVE	23.5	5/26/2021
909	Northern Red Oak	*Quercus rubra*	ALIVE	16.0	5/26/2021
910	Eastern Cottonwood	*Populus deltoides*	ALIVE	20.5	5/26/2021
911	Sugar Maple	*Acer saccharum*	ALIVE	15.0	5/26/2021
912	Sugar Maple	*Acer saccharum*	ALIVE	13.3	5/26/2021
913	Sugar Maple	*Acer saccharum*	ALIVE	10.0	5/26/2021
914	Black Birch	*Betula lenta*	ALIVE	12.5	5/26/2021
915	Sugar Maple	*Acer saccharum*	ALIVE	8.0	5/26/2021
916	Sugar Maple	*Acer saccharum*	ALIVE	9.0	5/26/2021
917	Sugar Maple	*Acer saccharum*	ALIVE	10.0	5/26/2021
918	Black Birch	*Betula lenta*	ALIVE	9.7	5/26/2021
919	White Oak	*Quercus alba*	ALIVE	18.0	5/26/2021
920	Black Birch	*Betula lenta*	ALIVE	10.7	5/26/2021
921	Northern Red Oak	*Quercus rubra*	ALIVE	9.8	5/26/2021

Tree ID	Common Name	Scientific Name	Status	DBH (inches)	Date Surveyed
922	Black Birch	*Betula lenta*	ALIVE	15.0	5/26/2021
923	Sugar Maple	*Acer saccharum*	ALIVE	17.0	5/26/2021
924	Sugar Maple	*Acer saccharum*	ALIVE	20.0	5/26/2021
925	Black Birch	*Betula lenta*	ALIVE	13.2	5/26/2021
926	Sugar Maple	*Acer saccharum*	ALIVE	9.4	5/26/2021
927	Northern Red Oak	*Quercus rubra*	ALIVE	23.0	5/26/2021
928	Northern Red Oak	*Quercus rubra*	ALIVE	19.3	5/26/2021
929	Northern Red Oak	*Quercus rubra*	ALIVE	9.7	5/26/2021
930	Sassafras	*Sassafras albidum*	ALIVE	12.0	5/26/2021
931	Northern Red Oak	*Quercus rubra*	ALIVE	18.3	5/26/2021
932	Sugar Maple	*Acer saccharum*	ALIVE	14.0	5/26/2021
933	Sugar Maple	*Acer saccharum*	ALIVE	13.0	5/26/2021
934	Sugar Maple	*Acer saccharum*	ALIVE	10.0	5/26/2021
935	Sugar Maple	*Acer saccharum*	ALIVE	13.3	5/26/2021
936	Sassafras	*Sassafras albidum*	ALIVE	21.0	5/26/2021
937	Sugar Maple	*Acer saccharum*	ALIVE	25.4	5/26/2021
938	Sassafras	*Sassafras albidum*	ALIVE	14.0	5/26/2021
939	Sassafras	*Sassafras albidum*	DEAD	15.0	5/26/2021
940	Northern Red Oak	*Quercus rubra*	ALIVE	22.8	5/26/2021
941	Sassafras	*Sassafras albidum*	ALIVE	11.0	5/26/2021
942	Black Birch	*Betula lenta*	ALIVE	11.2	5/26/2021
943	Sugar Maple	*Acer saccharum*	ALIVE	11.3	5/26/2021
944	Sassafras	*Sassafras albidum*	DEAD	14.0	5/26/2021
945	Shagbark Hickory	*Carya ovata*	ALIVE	9.6	5/26/2021
946	Sugar Maple	*Acer saccharum*	ALIVE	11.0	5/26/2021
947	Red Maple	*Acer rubrum*	ALIVE	18.0	5/26/2021
948	Sugar Maple	*Acer saccharum*	ALIVE	8.0	5/26/2021
949	Shagbark Hickory	*Carya ovata*	ALIVE	11.5	5/26/2021
950	Red Maple	*Acer rubrum*	ALIVE	8.0	5/26/2021
951	Pig Nut Hickory	*Carya glabra*	ALIVE	25.0	5/26/2021
952	Pig Nut Hickory	*Carya glabra*	ALIVE	14.5	5/26/2021
953	Sugar Maple	*Acer saccharum*	ALIVE	10.7	5/26/2021
954	Shagbark Hickory	*Carya ovata*	ALIVE	13.0	5/26/2021
955	Shagbark Hickory	*Carya ovata*	ALIVE	11.0	5/26/2021
956	Shagbark Hickory	*Carya ovata*	ALIVE	16.0	5/26/2021
957	Northern Red Oak	*Quercus rubra*	ALIVE	18.6	5/26/2021
958	Sugar Maple	*Acer saccharum*	ALIVE	15.0	5/26/2021
959	Red Maple	*Acer rubrum*	ALIVE	10.3	5/26/2021
960	Northern Red Oak	*Quercus rubra*	DEAD	15.0	5/26/2021
961	Sugar Maple	*Acer saccharum*	ALIVE	10.8	5/26/2021
962	Sugar Maple	*Acer saccharum*	ALIVE	13.0	5/26/2021
963	Sugar Maple	*Acer saccharum*	ALIVE	10.1	5/26/2021
964	Sugar Maple	*Acer saccharum*	ALIVE	14.0	5/26/2021
965	Sugar Maple	*Acer saccharum*	ALIVE	20.0	5/26/2021
966	Sugar Maple	*Acer saccharum*	ALIVE	8.3	5/26/2021
967	Sugar Maple	*Acer saccharum*	ALIVE	8.3	5/26/2021

Tree ID	Common Name	Scientific Name	Status	DBH (inches)	Date Surveyed
968	White Oak	*Quercus alba*	ALIVE	20.0	5/26/2021
969	Sugar Maple	*Acer saccharum*	ALIVE	13.0	5/26/2021
970	Tulip Tree	*Liriodendron tulipifera*	ALIVE	13.6	5/26/2021
971	Sugar Maple	*Acer saccharum*	ALIVE	8.1	5/26/2021
972	Sugar Maple	*Acer saccharum*	ALIVE	17.0	5/26/2021
973	Red Maple	*Acer rubrum*	ALIVE	12.7	5/26/2021
974	Sugar Maple	*Acer saccharum*	ALIVE	12.0	5/26/2021
976	Sugar Maple	*Acer saccharum*	ALIVE	13.0	5/26/2021
978	White Oak	*Quercus alba*	ALIVE	19.0	5/26/2021
980	White Oak	*Quercus alba*	ALIVE	14.0	5/26/2021
981	Sugar Maple	*Acer saccharum*	ALIVE	17.0	5/26/2021
983	Sugar Maple	*Acer saccharum*	DEAD	16.0	5/26/2021
986	White Oak	*Quercus alba*	ALIVE	24.0	5/26/2021
987	Sugar Maple	*Acer saccharum*	ALIVE	18.0	5/26/2021
989	Sugar Maple	*Acer saccharum*	ALIVE	15.0	5/26/2021
992	Sugar Maple	*Acer saccharum*	ALIVE	16.0	5/26/2021
993	Sugar Maple	*Acer saccharum*	ALIVE	8.0	5/26/2021
1008	Sugar Maple	*Acer saccharum*	ALIVE	14.0	5/26/2021
1009	Tulip Tree	*Liriodendron tulipifera*	ALIVE	9.0	5/26/2021
1010	Tulip Tree	*Liriodendron tulipifera*	ALIVE	15.0	5/26/2021
1012	Tulip Tree	*Liriodendron tulipifera*	ALIVE	15.0	5/26/2021
1013	Sugar Maple	*Acer saccharum*	ALIVE	11.0	5/26/2021
1016	Sugar Maple	*Acer saccharum*	ALIVE	17.0	5/26/2021
1017	Sugar Maple	*Acer saccharum*	ALIVE	14.0	5/26/2021
1019	Sugar Maple	*Acer saccharum*	ALIVE	15.0	5/26/2021
1022	White Oak	*Quercus alba*	ALIVE	26.0	5/26/2021
1024	Northern Red Oak	*Quercus rubra*	ALIVE	23.0	5/26/2021
1025	Sugar Maple	*Acer saccharum*	ALIVE	12.0	5/26/2021
1026	Sassafras	*Sassafras albidum*	ALIVE	15.0	5/26/2021
1027	Shagbark Hickory	*Carya ovata*	ALIVE	9.0	5/26/2021
1028	Sugar Maple	*Acer saccharum*	ALIVE	12.0	5/26/2021
1029	Black Birch	*Betula lenta*	ALIVE	30.0	5/26/2021
1030	Black Birch	*Betula lenta*	ALIVE	43.0	5/26/2021
1031	Sassafras	*Sassafras albidum*	ALIVE	23.0	5/26/2021
1032	Sugar Maple	*Acer saccharum*	ALIVE	17.0	5/26/2021
1033	Sassafras	*Sassafras albidum*	ALIVE	15.0	5/26/2021
1034	Sugar Maple	*Acer saccharum*	ALIVE	11.0	5/26/2021
1035	Northern Red Oak	*Quercus rubra*	ALIVE	17.0	5/26/2021
1040	Shagbark Hickory	*Carya ovata*	ALIVE	21.5	5/26/2021
1041	Sugar Maple	*Acer saccharum*	ALIVE	10.4	5/26/2021
1042	Sugar Maple	*Acer saccharum*	ALIVE	13.7	5/26/2021
1043	White Oak	*Quercus alba*	DEAD	19.0	5/26/2021
1044	Sugar Maple	*Acer saccharum*	ALIVE	8.3	5/26/2021
1045	Sugar Maple	*Acer saccharum*	ALIVE	9.2	5/26/2021
1046	Sugar Maple	*Acer saccharum*	ALIVE	8.0	5/26/2021
1047	Sugar Maple	*Acer saccharum*	ALIVE	8.2	5/26/2021

Tree ID	Common Name	Scientific Name	Status	DBH (inches)	Date Surveyed
1048	Northern Red Oak	*Quercus rubra*	ALIVE	22.4	5/26/2021
1049	Sugar Maple	*Acer saccharum*	ALIVE	15.3	5/26/2021
1050	Sugar Maple	*Acer saccharum*	ALIVE	14.5	5/26/2021
1051	White Oak	*Quercus alba*	ALIVE	18.0	5/26/2021
1052	Eastern Cottonwood	*Populus deltoides*	ALIVE	14.2	5/26/2021
1053	Eastern Cottonwood	*Populus deltoides*	ALIVE	14.0	5/26/2021
1054	Sugar Maple	*Acer saccharum*	ALIVE	10.0	5/26/2021
1055	Sugar Maple	*Acer saccharum*	ALIVE	13.0	5/26/2021
1056	Sugar Maple	*Acer saccharum*	ALIVE	9.0	5/26/2021
1057	Sugar Maple	*Acer saccharum*	ALIVE	10.7	5/26/2021
1058	Eastern Cottonwood	*Populus deltoides*	ALIVE	13.3	5/26/2021
1059	Pig Nut Hickory	*Carya glabra*	ALIVE	19.0	5/26/2021
1060	Sugar Maple	*Acer saccharum*	ALIVE	8.7	5/26/2021
1061	Eastern Cottonwood	*Populus deltoides*	ALIVE	13.6	5/26/2021
1062	Sugar Maple	*Acer saccharum*	ALIVE	17.0	5/26/2021
1063	Northern Red Oak	*Quercus rubra*	ALIVE	16.3	5/26/2021
1064	Northern Red Oak	*Quercus rubra*	ALIVE	12.5	5/26/2021
1065	Red Maple	*Acer rubrum*	ALIVE	22.0	5/26/2021
1066	Sugar Maple	*Acer saccharum*	ALIVE	8.0	5/26/2021
1067	Sugar Maple	*Acer saccharum*	ALIVE	14.0	5/26/2021
1068	Black Birch	*Betula lenta*	ALIVE	13.3	5/26/2021
1069	Eastern Cottonwood	*Populus deltoides*	ALIVE	14.0	5/26/2021
1070	Red Maple	*Acer rubrum*	DEAD	12.0	5/26/2021
1071	Sugar Maple	*Acer saccharum*	ALIVE	9.0	5/26/2021
1072	Tulip Tree	*Liriodendron tulipifera*	ALIVE	14.0	5/26/2021
1073	Sugar Maple	*Acer saccharum*	ALIVE	12.0	5/26/2021
1074	Black Birch	*Betula lenta*	ALIVE	10.0	5/26/2021
1075	Red Maple	*Acer rubrum*	ALIVE	10.4	5/26/2021
1076	Red Maple	*Acer rubrum*	ALIVE	9.4	5/26/2021
1077	Northern Red Oak	*Quercus rubra*	ALIVE	34.0	5/26/2021
1078	Eastern Cottonwood	*Populus deltoides*	ALIVE	13.7	5/26/2021
1079	Red Maple	*Acer rubrum*	ALIVE	19.5	5/26/2021
1080	Shagbark Hickory	*Carya ovata*	ALIVE	18.0	5/26/2021
1081	Eastern Cottonwood	*Populus deltoides*	ALIVE	18.0	5/26/2021
1082	Sugar Maple	*Acer saccharum*	ALIVE	18.0	5/26/2021
1083	Black Birch	*Betula lenta*	ALIVE	11.2	5/26/2021
1084	Pig Nut Hickory	*Carya glabra*	DEAD	13.0	5/26/2021
1085	Black Birch	*Betula lenta*	ALIVE	8.4	5/26/2021
1086	Eastern Cottonwood	*Populus deltoides*	ALIVE	17.3	5/26/2021
1087	Eastern Cottonwood	*Populus deltoides*	ALIVE	16.0	5/26/2021
1088	Black Birch	*Betula lenta*	ALIVE	11.5	5/26/2021
1089	Sugar Maple	*Acer saccharum*	ALIVE	29.0	5/26/2021
1090	Black Birch	*Betula lenta*	ALIVE	8.6	5/26/2021
1091	Black Birch	*Betula lenta*	ALIVE	11.6	5/26/2021
1092	Red Maple	*Acer rubrum*	ALIVE	16.0	5/26/2021
1093	Red Maple	*Acer rubrum*	ALIVE	12.0	5/26/2021

Tree ID	Common Name	Scientific Name	Status	DBH (inches)	Date Surveyed
1094	White Oak	*Quercus alba*	ALIVE	13.0	5/26/2021
1095	Black Birch	*Betula lenta*	ALIVE	14.0	5/26/2021
1096	Sugar Maple	*Acer saccharum*	ALIVE	10.0	5/26/2021
1097	Black Birch	*Betula lenta*	ALIVE	14.5	5/26/2021
1098	Shagbark Hickory	*Carya ovata*	ALIVE	16.0	5/26/2021
1099	Sugar Maple	*Acer saccharum*	ALIVE	10.0	5/26/2021
1100	Shagbark Hickory	*Carya ovata*	ALIVE	11.0	5/26/2021
1101	Northern Red Oak	*Quercus rubra*	ALIVE	27.2	5/26/2021
1102	Shagbark Hickory	*Carya ovata*	ALIVE	9.0	5/26/2021
1103	Shagbark Hickory	*Carya ovata*	ALIVE	9.0	5/26/2021
1104	Sugar Maple	*Acer saccharum*	ALIVE	8.7	5/26/2021
1105	Sassafras	*Sassafras albidum*	DEAD	17.0	5/26/2021
1106	Shagbark Hickory	*Carya ovata*	ALIVE	19.5	5/26/2021
1107	Shagbark Hickory	*Carya ovata*	ALIVE	15.0	5/26/2021
1108	Pig Nut Hickory	*Carya glabra*	ALIVE	28.5	5/26/2021
1109	Sugar Maple	*Acer saccharum*	ALIVE	9.0	5/26/2021
1110	Sugar Maple	*Acer saccharum*	ALIVE	10.0	5/26/2021
1111	Sugar Maple	*Acer saccharum*	ALIVE	29.2	5/26/2021
1112	Sugar Maple	*Acer saccharum*	ALIVE	19.7	5/26/2021
1113	Sugar Maple	*Acer saccharum*	ALIVE	17.8	5/26/2021
1114	Shagbark Hickory	*Carya ovata*	ALIVE	19.7	5/26/2021
1115	Pig Nut Hickory	*Carya glabra*	DEAD	21.0	5/26/2021
1116	Sugar Maple	*Acer saccharum*	ALIVE	14.0	5/26/2021
1117	Sugar Maple	*Acer saccharum*	ALIVE	15.5	5/26/2021
1118	Sugar Maple	*Acer saccharum*	ALIVE	21.0	5/26/2021
1119	Northern Red Oak	*Quercus rubra*	ALIVE	20.0	5/26/2021
1120	Black Birch	*Betula lenta*	ALIVE	18.0	5/26/2021
1121	Pig Nut Hickory	*Carya glabra*	ALIVE	23.0	5/26/2021
1122	Northern Red Oak	*Quercus rubra*	ALIVE	34.7	5/26/2021
1123	Northern Red Oak	*Quercus rubra*	ALIVE	13.0	5/26/2021
1124	Pig Nut Hickory	*Carya glabra*	ALIVE	10.0	5/26/2021
1125	Sugar Maple	*Acer saccharum*	ALIVE	9.0	5/26/2021
1126	Northern Red Oak	*Quercus rubra*	ALIVE	25.0	5/26/2021
1127	Shagbark Hickory	*Carya ovata*	ALIVE	13.0	5/26/2021
1129	Sugar Maple	*Acer saccharum*	ALIVE	17.5	5/26/2021
1131	Pig Nut Hickory	*Carya glabra*	ALIVE	17.5	5/26/2021
1173	Shagbark Hickory	*Carya ovata*	ALIVE	12.0	5/26/2021
1174	Shagbark Hickory	*Carya ovata*	ALIVE	13.0	5/26/2021
1175	Northern Red Oak	*Quercus rubra*	ALIVE	11.8	5/26/2021
1176	White Oak	*Quercus alba*	ALIVE	22.4	5/26/2021
1177	Shagbark Hickory	*Carya ovata*	ALIVE	15.7	5/26/2021
1178	Black Birch	*Betula lenta*	ALIVE	11.0	5/26/2021
1179	Black Birch	*Betula lenta*	ALIVE	15.6	5/26/2021
1180	Black Birch	*Betula lenta*	ALIVE	10.3	5/26/2021
1181	Northern Red Oak	*Quercus rubra*	ALIVE	32.0	5/26/2021
1182	Sugar Maple	*Acer saccharum*	ALIVE	10.4	5/26/2021

Tree ID	Common Name	Scientific Name	Status	DBH (inches)	Date Surveyed
1183	Northern Red Oak	*Quercus rubra*	ALIVE	26.0	5/26/2021
1184	Shagbark Hickory	*Carya ovata*	ALIVE	12.5	5/26/2021
1185	Sugar Maple	*Acer saccharum*	ALIVE	18.5	5/26/2021
1186	Sugar Maple	*Acer saccharum*	ALIVE	18.4	5/26/2021
1187	Shagbark Hickory	*Carya ovata*	ALIVE	8.4	5/26/2021
1188	Shagbark Hickory	*Carya ovata*	ALIVE	15.7	5/26/2021
1189	Shagbark Hickory	*Carya ovata*	ALIVE	25.0	5/26/2021
1190	Black Birch	*Betula lenta*	ALIVE	11.3	5/26/2021
1191	Sugar Maple	*Acer saccharum*	ALIVE	27.5	5/26/2021
1192	Sugar Maple	*Acer saccharum*	ALIVE	20.4	5/26/2021
1193	Shagbark Hickory	*Carya ovata*	ALIVE	12.2	5/26/2021
1194	Northern Red Oak	*Quercus rubra*	ALIVE	20.2	5/26/2021
1195	Sugar Maple	*Acer saccharum*	ALIVE	22.0	5/26/2021
1196	Sugar Maple	*Acer saccharum*	ALIVE	8.5	5/26/2021
1198	White Oak	*Quercus alba*	ALIVE	14.0	5/26/2021
1212	Sugar Maple	*Acer saccharum*	ALIVE	21.5	5/26/2021
1213	Red Maple	*Acer rubrum*	ALIVE	16.7	5/26/2021
1214	Sugar Maple	*Acer saccharum*	ALIVE	8.0	5/26/2021
1215	Sugar Maple	*Acer saccharum*	ALIVE	23.0	5/26/2021
1216	Northern Red Oak	*Quercus rubra*	ALIVE	26.5	5/26/2021
1217	Sugar Maple	*Acer saccharum*	ALIVE	10.8	5/26/2021
1218	Northern Red Oak	*Quercus rubra*	ALIVE	19.4	5/26/2021
1219	White Oak	*Quercus alba*	ALIVE	9.2	5/26/2021
1220	Northern Red Oak	*Quercus rubra*	ALIVE	34.2	5/26/2021
1221	Sugar Maple	*Acer saccharum*	ALIVE	29.0	5/26/2021
1224	White Walnut	*Juglans cinerea*	ALIVE	19.6	5/26/2021
1225	Sugar Maple	*Acer saccharum*	ALIVE	31.0	5/26/2021
1230	Sugar Maple	*Acer saccharum*	ALIVE	12.8	5/26/2021
1231	Tulip Tree	*Liriodendron tulipifera*	ALIVE	28.4	5/26/2021
1234	Sugar Maple	*Acer saccharum*	ALIVE	13.5	5/26/2021
1235	Sugar Maple	*Acer saccharum*	ALIVE	10.7	5/26/2021
1236	Sugar Maple	*Acer saccharum*	ALIVE	17.5	5/26/2021
1237	Black Birch	*Betula lenta*	ALIVE	17.5	5/26/2021
1238	Tulip Tree	*Liriodendron tulipifera*	ALIVE	23.6	5/26/2021
1239	Sugar Maple	*Acer saccharum*	ALIVE	9.0	5/26/2021
1240	Sugar Maple	*Acer saccharum*	ALIVE	11.0	5/26/2021
1241	White Oak	*Quercus alba*	ALIVE	17.4	5/26/2021
1242	Black Birch	*Betula lenta*	ALIVE	13.1	5/26/2021
1243	Tulip Tree	*Liriodendron tulipifera*	ALIVE	27.9	5/26/2021
1244	Sugar Maple	*Acer saccharum*	ALIVE	9.1	5/26/2021
1245	Sugar Maple	*Acer saccharum*	ALIVE	9.5	5/26/2021
1246	Black Birch	*Betula lenta*	ALIVE	27.7	5/26/2021
1247	Black Birch	*Betula lenta*	ALIVE	19.2	5/26/2021
1248	Black Birch	*Betula lenta*	ALIVE	14.7	5/26/2021
1250	Tulip Tree	*Liriodendron tulipifera*	ALIVE	25.6	5/26/2021
1252	Tulip Tree	*Liriodendron tulipifera*	ALIVE	92.0	5/26/2021

Tree ID	Common Name	Scientific Name	Status	DBH (inches)	Date Surveyed
1253	Red Maple	*Acer rubrum*	ALIVE	33.7	5/26/2021
1254	White Walnut	*Juglans cinerea*	ALIVE	23.8	5/26/2021
1255	Sugar Maple	*Acer saccharum*	ALIVE	11.8	5/26/2021
1256	Sugar Maple	*Acer saccharum*	ALIVE	12.2	5/26/2021
1257	Sugar Maple	*Acer saccharum*	ALIVE	11.5	5/26/2021
1258	Sugar Maple	*Acer saccharum*	ALIVE	9.8	5/26/2021
1259	White Oak	*Quercus alba*	ALIVE	19.8	5/26/2021
1261	White Oak	*Quercus alba*	ALIVE	17.9	5/26/2021
1262	Sugar Maple	*Acer saccharum*	ALIVE	10.3	5/26/2021
1263	Sugar Maple	*Acer saccharum*	ALIVE	8.2	5/26/2021
1264	Sugar Maple	*Acer saccharum*	ALIVE	12.8	5/26/2021
1265	Sugar Maple	*Acer saccharum*	ALIVE	11.8	5/26/2021
1266	Sugar Maple	*Acer saccharum*	ALIVE	8.3	5/26/2021
1267	Sugar Maple	*Acer saccharum*	ALIVE	10.7	5/26/2021
1268	Sugar Maple	*Acer saccharum*	ALIVE	13.7	5/26/2021
1269	Sugar Maple	*Acer saccharum*	ALIVE	8.7	5/26/2021
1270	Sugar Maple	*Acer saccharum*	ALIVE	12.3	5/26/2021
1271	Tulip Tree	*Liriodendron tulipifera*	ALIVE	24.3	5/26/2021
1272	White Oak	*Quercus alba*	ALIVE	19.0	5/26/2021
1273	Tulip Tree	*Liriodendron tulipifera*	ALIVE	15.0	5/26/2021
1276	Sugar Maple	*Acer saccharum*	ALIVE	9.7	5/26/2021
1277	Sugar Maple	*Acer saccharum*	ALIVE	9.4	5/26/2021
1278	Sugar Maple	*Acer saccharum*	ALIVE	15.2	5/26/2021
1279	Sugar Maple	*Acer saccharum*	ALIVE	9.5	5/26/2021
1280	Red Maple	*Acer rubrum*	ALIVE	42.7	5/26/2021
1281	Sugar Maple	*Acer saccharum*	ALIVE	17.5	5/26/2021
1282	Sugar Maple	*Acer saccharum*	ALIVE	9.3	5/26/2021
1283	Sugar Maple	*Acer saccharum*	ALIVE	8.9	5/26/2021
1284	Tulip Tree	*Liriodendron tulipifera*	ALIVE	30.4	5/26/2021
1285	Sugar Maple	*Acer saccharum*	ALIVE	12.8	5/26/2021
1286	Tulip Tree	*Liriodendron tulipifera*	ALIVE	25.0	5/26/2021
1287	Black Birch	*Betula lenta*	ALIVE	16.7	5/26/2021
1288	Sugar Maple	*Acer saccharum*	ALIVE	16.0	5/26/2021
1289	Northern Red Oak	*Quercus rubra*	ALIVE	16.1	5/26/2021
1290	Black Cherry	*Prunus serotina*	DEAD	9.4	5/26/2021
1291	Sugar Maple	*Acer saccharum*	ALIVE	13.7	5/26/2021
1292	Sugar Maple	*Acer saccharum*	ALIVE	20.5	5/26/2021
1293	Sugar Maple	*Acer saccharum*	ALIVE	13.4	5/26/2021
1294	Sugar Maple	*Acer saccharum*	ALIVE	12.0	5/26/2021
1296	Red Maple	*Acer rubrum*	ALIVE	11.0	5/26/2021
1297	Sugar Maple	*Acer saccharum*	ALIVE	11.8	5/26/2021
1298	Sugar Maple	*Acer saccharum*	ALIVE	9.2	5/26/2021
1299	Sugar Maple	*Acer saccharum*	ALIVE	10.5	5/26/2021
1300	Sugar Maple	*Acer saccharum*	ALIVE	11.4	5/26/2021
1301	Sugar Maple	*Acer saccharum*	ALIVE	9.5	5/26/2021
1302	Sugar Maple	*Acer saccharum*	ALIVE	8.5	5/26/2021

Tree ID	Common Name	Scientific Name	Status	DBH (inches)	Date Surveyed
1303	Sugar Maple	*Acer saccharum*	ALIVE	17.5	5/26/2021
1304	Red Maple	*Acer rubrum*	ALIVE	17.4	5/26/2021
1305	Red Maple	*Acer rubrum*	ALIVE	9.0	5/26/2021
1306	Northern Red Oak	*Quercus rubra*	ALIVE	22.3	5/26/2021
1307	Black Cherry	*Prunus serotina*	ALIVE	15.2	5/26/2021
1308	Sugar Maple	*Acer saccharum*	ALIVE	13.9	5/26/2021
1309	Sugar Maple	*Acer saccharum*	ALIVE	16.5	5/26/2021
1310	Red Maple	*Acer rubrum*	ALIVE	8.6	5/26/2021
1311	Red Maple	*Acer rubrum*	ALIVE	9.1	5/26/2021
1312	Sugar Maple	*Acer saccharum*	DEAD	13.8	5/26/2021
1313	Red Maple	*Acer rubrum*	ALIVE	9.0	5/26/2021
1314	Red Maple	*Acer rubrum*	ALIVE	14.7	5/26/2021
1315	Northern Red Oak	*Quercus rubra*	ALIVE	14.4	5/26/2021
1316	Sugar Maple	*Acer saccharum*	ALIVE	15.6	6/10/2021
1317	White Oak	*Quercus alba*	ALIVE	17.6	6/10/2021
1318	White Oak	*Quercus alba*	ALIVE	18.1	6/10/2021
1319	Northern Red Oak	*Quercus rubra*	ALIVE	26.2	6/10/2021
1320	Sugar Maple	*Acer saccharum*	ALIVE	16.5	6/10/2021
1321	Northern Red Oak	*Quercus rubra*	ALIVE	21.2	6/10/2021
1322	Black Birch	*Betula lenta*	ALIVE	21.5	6/10/2021
1323	White Oak	*Quercus alba*	ALIVE	18.8	6/10/2021
1324	Sugar Maple	*Acer saccharum*	ALIVE	8.8	6/10/2021
1325	Northern Red Oak	*Quercus rubra*	ALIVE	26.9	6/10/2021
1326	Northern Red Oak	*Quercus rubra*	ALIVE	19.8	6/10/2021
1327	Sugar Maple	*Acer saccharum*	ALIVE	10.3	6/10/2021
1328	Sugar Maple	*Acer saccharum*	ALIVE	9.7	6/10/2021
1329	Red Maple	*Acer rubrum*	ALIVE	12.5	6/10/2021
1330	White Oak	*Quercus alba*	ALIVE	9.7	6/10/2021
1331	Sugar Maple	*Acer saccharum*	ALIVE	17.8	6/10/2021
1332	Red Maple	*Acer rubrum*	ALIVE	13.8	6/10/2021
1333	Shagbark Hickory	*Carya ovata*	ALIVE	13.1	6/10/2021
1334	Shagbark Hickory	*Carya ovata*	ALIVE	10.5	6/10/2021
1335	Sugar Maple	*Acer saccharum*	ALIVE	13.2	6/10/2021
1336	Sugar Maple	*Acer saccharum*	ALIVE	12.1	6/10/2021
1337	Northern Red Oak	*Quercus rubra*	ALIVE	23.5	6/10/2021
1338	Northern Red Oak	*Quercus rubra*	ALIVE	28.1	6/10/2021
1339	Sugar Maple	*Acer saccharum*	ALIVE	9.9	6/10/2021
1340	Northern Red Oak	*Quercus rubra*	ALIVE	22.2	6/10/2021
1341	Pig Nut Hickory	*Carya glabra*	ALIVE	19.2	6/10/2021
1342	Sugar Maple	*Acer saccharum*	ALIVE	12.9	6/10/2021
1343	Northern Red Oak	*Quercus rubra*	ALIVE	22.5	6/10/2021
1344	White Oak	*Quercus alba*	ALIVE	22.5	6/10/2021
1345	Shagbark Hickory	*Carya ovata*	ALIVE	16.2	6/10/2021
1346	Shagbark Hickory	*Carya ovata*	ALIVE	16.3	6/10/2021
1347	Sugar Maple	*Acer saccharum*	ALIVE	12.1	6/10/2021
1348	Northern Red Oak	*Quercus rubra*	ALIVE	24.6	6/10/2021

Tree ID	Common Name	Scientific Name	Status	DBH (inches)	Date Surveyed
1349	Sugar Maple	*Acer saccharum*	ALIVE	17.8	6/10/2021
1350	Shagbark Hickory	*Carya ovata*	DEAD	16.0	6/10/2021
1351	Pig Nut Hickory	*Carya glabra*	ALIVE	16.8	6/10/2021
1352	Black Cherry	*Prunus serotina*	ALIVE	10.8	6/10/2021
1353	Sugar Maple	*Acer saccharum*	ALIVE	12.3	6/10/2021
1354	Sugar Maple	*Acer saccharum*	ALIVE	12.3	6/10/2021
1355	Sugar Maple	*Acer saccharum*	ALIVE	13.4	6/10/2021
1356	Sugar Maple	*Acer saccharum*	ALIVE	13.6	6/10/2021
1357	Red Maple	*Acer rubrum*	ALIVE	12.1	6/10/2021
1358	Shagbark Hickory	*Carya ovata*	ALIVE	10.7	6/10/2021
1359	Shagbark Hickory	*Carya ovata*	ALIVE	10.0	6/10/2021
1360	Shagbark Hickory	*Carya ovata*	ALIVE	8.6	6/10/2021
1361	Northern Red Oak	*Quercus rubra*	ALIVE	20.1	6/10/2021
1362	Sugar Maple	*Acer saccharum*	ALIVE	11.4	6/10/2021
1363	Sugar Maple	*Acer saccharum*	ALIVE	17.2	6/10/2021
1364	Sassafras	*Sassafras albidum*	ALIVE	20.0	6/10/2021
1365	Northern Red Oak	*Quercus rubra*	ALIVE	19.7	6/10/2021
1366	Northern Red Oak	*Quercus rubra*	ALIVE	23.1	6/10/2021
1367	Northern Red Oak	*Quercus rubra*	ALIVE	30.2	6/10/2021
1368	Northern Red Oak	*Quercus rubra*	ALIVE	22.4	6/10/2021
1369	Northern Red Oak	*Quercus rubra*	ALIVE	23.2	6/10/2021
1370	Northern Red Oak	*Quercus rubra*	ALIVE	16.0	6/10/2021
1371	Northern Red Oak	*Quercus rubra*	ALIVE	16.8	6/10/2021
1372	Northern Red Oak	*Quercus rubra*	ALIVE	19.4	6/10/2021
1373	Northern Red Oak	*Quercus rubra*	ALIVE	19.1	6/10/2021
1374	Northern Red Oak	*Quercus rubra*	ALIVE	17.2	6/10/2021
1375	Sugar Maple	*Acer saccharum*	ALIVE	8.5	6/10/2021
1376	Northern Red Oak	*Quercus rubra*	ALIVE	40.5	6/10/2021
1377	Sugar Maple	*Acer saccharum*	ALIVE	9.6	6/10/2021
1378	Sugar Maple	*Acer saccharum*	ALIVE	10.6	6/10/2021
1379	Unknown	Unknown	DEAD	13.3	6/10/2021
1380	Northern Red Oak	*Quercus rubra*	ALIVE	27.3	6/10/2021
1381	Northern Red Oak	*Quercus rubra*	ALIVE	12.5	6/10/2021
1382	White Oak	*Quercus alba*	ALIVE	19.9	6/10/2021
1383	Northern Red Oak	*Quercus rubra*	ALIVE	22.5	6/10/2021
1384	Pig Nut Hickory	*Carya glabra*	ALIVE	13.4	6/10/2021
1397	Sugar Maple	*Acer saccharum*	ALIVE	9.1	6/10/2021
1398	Sugar Maple	*Acer saccharum*	ALIVE	15.5	6/10/2021
1399	Northern Red Oak	*Quercus rubra*	ALIVE	16.5	6/10/2021
1400	Northern Red Oak	*Quercus rubra*	ALIVE	9.7	6/10/2021
1401	Sugar Maple	*Acer saccharum*	ALIVE	15.5	6/10/2021
1402	Sugar Maple	*Acer saccharum*	ALIVE	10.6	6/10/2021
1403	Sugar Maple	*Acer saccharum*	ALIVE	9.2	6/10/2021
1404	Northern Red Oak	*Quercus rubra*	ALIVE	17.3	6/10/2021
1405	Sugar Maple	*Acer saccharum*	ALIVE	8.0	6/10/2021
1406	Northern Red Oak	*Quercus rubra*	ALIVE	35.5	6/10/2021

Tree ID	Common Name	Scientific Name	Status	DBH (inches)	Date Surveyed
1407	Sugar Maple	*Acer saccharum*	ALIVE	17.7	6/10/2021
1408	Sugar Maple	*Acer saccharum*	ALIVE	10.4	6/10/2021
1409	Northern Red Oak	*Quercus rubra*	ALIVE	29.2	6/10/2021
1410	Northern Red Oak	*Quercus rubra*	ALIVE	19.1	6/10/2021
1411	Northern Red Oak	*Quercus rubra*	ALIVE	20.2	6/10/2021
1412	Northern Red Oak	*Quercus rubra*	ALIVE	18.2	6/10/2021
1413	Northern Red Oak	*Quercus rubra*	ALIVE	33.0	6/10/2021
1414	Northern Red Oak	*Quercus rubra*	ALIVE	21.3	6/10/2021
1415	Northern Red Oak	*Quercus rubra*	ALIVE	29.0	6/10/2021
1416	Northern Red Oak	*Quercus rubra*	ALIVE	17.9	6/10/2021
1417	Northern Red Oak	*Quercus rubra*	ALIVE	18.7	6/10/2021
1418	Northern Red Oak	*Quercus rubra*	ALIVE	21.1	6/10/2021
1419	Northern Red Oak	*Quercus rubra*	ALIVE	14.2	6/10/2021
1420	Northern Red Oak	*Quercus rubra*	ALIVE	14.7	6/10/2021
1421	Northern Red Oak	*Quercus rubra*	ALIVE	13.2	6/10/2021
1422	Northern Red Oak	*Quercus rubra*	ALIVE	16.6	6/10/2021
1423	Northern Red Oak	*Quercus rubra*	ALIVE	14.1	6/10/2021
1424	Northern Red Oak	*Quercus rubra*	ALIVE	21.2	6/10/2021
1425	Northern Red Oak	*Quercus rubra*	ALIVE	15.3	6/10/2021
1426	Northern Red Oak	*Quercus rubra*	ALIVE	13.4	6/10/2021
1427	Northern Red Oak	*Quercus rubra*	ALIVE	11.2	6/10/2021
1428	Northern Red Oak	*Quercus rubra*	ALIVE	13.4	6/10/2021
1429	Sugar Maple	*Acer saccharum*	ALIVE	10.4	6/10/2021
1431	Northern Red Oak	*Quercus rubra*	ALIVE	27.9	6/10/2021
1432	White Oak	*Quercus alba*	ALIVE	16.0	6/10/2021
1433	Northern Red Oak	*Quercus rubra*	ALIVE	18.5	6/10/2021
1437	Sugar Maple	*Acer saccharum*	ALIVE	14.2	6/10/2021
1439	Northern Red Oak	*Quercus rubra*	ALIVE	12.6	6/10/2021
1440	Sugar Maple	*Acer saccharum*	ALIVE	9.0	6/10/2021
1444	Northern Red Oak	*Quercus rubra*	ALIVE	20.1	6/10/2021
1445	White Oak	*Quercus alba*	ALIVE	22.2	6/10/2021
1448	Sugar Maple	*Acer saccharum*	ALIVE	21.3	6/10/2021
1449	Black Birch	*Betula lenta*	ALIVE	24.5	6/10/2021
1450	Sugar Maple	*Acer saccharum*	ALIVE	10.0	6/10/2021
1451	White Oak	*Quercus alba*	ALIVE	35.2	6/10/2021
1452	Sugar Maple	*Acer saccharum*	ALIVE	9.0	6/10/2021
1454	Red Maple	*Acer rubrum*	ALIVE	15.0	6/11/2021
1455	Sugar Maple	*Acer saccharum*	ALIVE	10.7	6/11/2021
1456	Sugar Maple	*Acer saccharum*	ALIVE	17.0	6/11/2021
1459	Northern Red Oak	*Quercus rubra*	ALIVE	25.6	6/11/2021
1460	Sugar Maple	*Acer saccharum*	ALIVE	13.7	6/11/2021
1461	Sugar Maple	*Acer saccharum*	ALIVE	10.0	6/11/2021
1462	Northern Red Oak	*Quercus rubra*	ALIVE	32.8	6/11/2021
1463	American Hophornbeam	*Ostrya virginiana*	ALIVE	19.0	6/11/2021
1464	Unknown	Unknown	DEAD	10.4	6/11/2021
1465	Sugar Maple	*Acer saccharum*	ALIVE	11.5	6/11/2021

Tree ID	Common Name	Scientific Name	Status	DBH (inches)	Date Surveyed
1467	Black Birch	*Betula lenta*	ALIVE	19.6	6/11/2021
1468	Black Birch	*Betula lenta*	ALIVE	22.4	6/11/2021
1469	Sugar Maple	*Acer saccharum*	ALIVE	8.9	6/11/2021
1470	Sugar Maple	*Acer saccharum*	ALIVE	8.9	6/11/2021
1471	Sugar Maple	*Acer saccharum*	ALIVE	8.0	6/11/2021
1472	Sugar Maple	*Acer saccharum*	ALIVE	8.0	6/11/2021
1473	Shagbark Hickory	*Carya ovata*	ALIVE	12.8	6/11/2021
1474	Northern Red Oak	*Quercus rubra*	ALIVE	25.4	6/11/2021
1475	Red Maple	*Acer rubrum*	ALIVE	17.9	6/11/2021
1476	Sugar Maple	*Acer saccharum*	ALIVE	11.0	6/11/2021
1477	Sugar Maple	*Acer saccharum*	ALIVE	9.7	6/11/2021
1478	Northern Red Oak	*Quercus rubra*	DEAD	22.0	6/11/2021
1479	Sugar Maple	*Acer saccharum*	ALIVE	13.0	6/11/2021
1480	Sugar Maple	*Acer saccharum*	ALIVE	14.2	6/11/2021
1481	Sugar Maple	*Acer saccharum*	ALIVE	11.5	6/11/2021
1482	Sugar Maple	*Acer saccharum*	ALIVE	13.4	6/11/2021
1483	Northern Red Oak	*Quercus rubra*	ALIVE	17.0	6/11/2021
1484	Sugar Maple	*Acer saccharum*	ALIVE	8.0	6/11/2021
1485	Sugar Maple	*Acer saccharum*	ALIVE	16.5	6/11/2021
1486	Northern Red Oak	*Quercus rubra*	ALIVE	20.3	6/11/2021
1487	Sugar Maple	*Acer saccharum*	ALIVE	17.0	6/11/2021
1488	Northern Red Oak	*Quercus rubra*	ALIVE	17.7	6/11/2021
1489	Sugar Maple	*Acer saccharum*	ALIVE	9.2	6/11/2021
1490	Northern Red Oak	*Quercus rubra*	ALIVE	17.0	6/11/2021
1491	Northern Red Oak	*Quercus rubra*	ALIVE	21.4	6/11/2021
1492	Black Birch	*Betula lenta*	ALIVE	14.8	6/11/2021
1493	Northern Red Oak	*Quercus rubra*	ALIVE	13.2	6/11/2021
1494	Red Maple	*Acer rubrum*	ALIVE	18.5	6/11/2021
1495	Black Birch	*Betula lenta*	ALIVE	14.7	6/11/2021
1496	Pig Nut Hickory	*Carya glabra*	ALIVE	11.8	6/11/2021
1497	Northern Red Oak	*Quercus rubra*	ALIVE	22.5	6/11/2021
1498	Northern Red Oak	*Quercus rubra*	ALIVE	34.7	6/11/2021
1499	Black Birch	*Betula lenta*	ALIVE	9.4	6/11/2021
1500	Sugar Maple	*Acer saccharum*	ALIVE	12.0	6/11/2021
1501	Sugar Maple	*Acer saccharum*	ALIVE	9.6	6/11/2021
1502	Shagbark Hickory	*Carya ovata*	ALIVE	12.7	6/11/2021
1503	Sugar Maple	*Acer saccharum*	ALIVE	11.1	6/11/2021
1504	Black Birch	*Betula lenta*	ALIVE	25.2	6/11/2021
1505	Northern Red Oak	*Quercus rubra*	ALIVE	26.2	6/11/2021
1506	Black Birch	*Betula lenta*	DEAD	11.4	6/11/2021
1507	Shagbark Hickory	*Carya ovata*	ALIVE	12.8	6/11/2021
1508	Black Birch	*Betula lenta*	ALIVE	20.2	6/11/2021
1509	Sugar Maple	*Acer saccharum*	ALIVE	10.6	6/11/2021
1510	Northern Red Oak	*Quercus rubra*	ALIVE	27.5	6/11/2021
1511	Northern Red Oak	*Quercus rubra*	ALIVE	17.1	6/11/2021
1512	Northern Red Oak	*Quercus rubra*	ALIVE	10.6	6/11/2021

Tree ID	Common Name	Scientific Name	Status	DBH (inches)	Date Surveyed
1513	Black Birch	*Betula lenta*	ALIVE	18.7	6/11/2021
1514	Red Maple	*Acer rubrum*	ALIVE	8.4	6/11/2021
1515	Red Maple	*Acer rubrum*	ALIVE	14.9	6/11/2021
1516	Red Maple	*Acer rubrum*	ALIVE	9.1	6/11/2021
1517	Red Maple	*Acer rubrum*	ALIVE	11.3	6/11/2021
1518	Northern Red Oak	*Quercus rubra*	ALIVE	14.5	6/11/2021
1519	Red Maple	*Acer rubrum*	ALIVE	8.5	6/11/2021
1520	Sugar Maple	*Acer saccharum*	ALIVE	8.0	6/11/2021
1521	Red Maple	*Acer rubrum*	ALIVE	8.2	6/11/2021
1522	Sugar Maple	*Acer saccharum*	ALIVE	15.0	6/11/2021
1523	Northern Red Oak	*Quercus rubra*	ALIVE	14.9	6/11/2021
1524	Northern Red Oak	*Quercus rubra*	ALIVE	30.2	6/11/2021
1525	Northern Red Oak	*Quercus rubra*	ALIVE	11.7	6/11/2021
1526	Red Maple	*Acer rubrum*	ALIVE	12.4	6/11/2021
1527	Sugar Maple	*Acer saccharum*	ALIVE	14.2	6/11/2021
1528	Sugar Maple	*Acer saccharum*	ALIVE	10.7	6/11/2021
1529	Sugar Maple	*Acer saccharum*	ALIVE	10.4	6/11/2021
1530	Northern Red Oak	*Quercus rubra*	ALIVE	18.1	6/11/2021
1531	Sugar Maple	*Acer saccharum*	ALIVE	10.4	6/11/2021
1532	Pig Nut Hickory	*Carya glabra*	ALIVE	11.6	6/11/2021
1533	Sugar Maple	*Acer saccharum*	ALIVE	14.8	6/11/2021
1534	Northern Red Oak	*Quercus rubra*	DEAD	24.0	6/11/2021
1535	Shagbark Hickory	*Carya ovata*	ALIVE	15.4	6/11/2021
1536	Black Birch	*Betula lenta*	ALIVE	24.1	6/11/2021
1537	Sugar Maple	*Acer saccharum*	ALIVE	8.7	6/11/2021
1538	Sugar Maple	*Acer saccharum*	ALIVE	15.2	6/11/2021
1539	Sugar Maple	*Acer saccharum*	ALIVE	20.1	6/11/2021
1540	Sugar Maple	*Acer saccharum*	ALIVE	8.3	6/11/2021
1541	Sugar Maple	*Acer saccharum*	ALIVE	10.2	6/11/2021
1542	Black Birch	*Betula lenta*	ALIVE	20.0	6/11/2021
1543	White Oak	*Quercus alba*	ALIVE	19.9	6/11/2021
1544	Sugar Maple	*Acer saccharum*	ALIVE	9.3	6/11/2021
1545	Sugar Maple	*Acer saccharum*	ALIVE	14.0	6/11/2021
1546	Sugar Maple	*Acer saccharum*	ALIVE	9.2	6/11/2021
1547	Northern Red Oak	*Quercus rubra*	ALIVE	20.6	6/11/2021
1548	Sugar Maple	*Acer saccharum*	ALIVE	10.6	6/11/2021
1549	Sugar Maple	*Acer saccharum*	ALIVE	15.9	6/11/2021
1550	Sugar Maple	*Acer saccharum*	ALIVE	8.5	6/11/2021
1551	Sugar Maple	*Acer saccharum*	ALIVE	10.2	6/11/2021
1553	Sugar Maple	*Acer saccharum*	ALIVE	13.1	6/11/2021
1554	Sugar Maple	*Acer saccharum*	ALIVE	12.4	6/11/2021
1555	Red Maple	*Acer rubrum*	ALIVE	12.5	6/11/2021
1556	Red Maple	*Acer rubrum*	ALIVE	8.3	6/11/2021
1557	Sugar Maple	*Acer saccharum*	ALIVE	13.9	6/11/2021
1558	Red Maple	*Acer rubrum*	ALIVE	11.6	6/11/2021
1559	Red Maple	*Acer rubrum*	ALIVE	18.5	6/11/2021

Tree ID	Common Name	Scientific Name	Status	DBH (inches)	Date Surveyed
1560	Sugar Maple	*Acer saccharum*	ALIVE	16.0	6/11/2021
1561	Common Serviceberry	*Amelanchier arborea*	ALIVE	12.3	6/11/2021
1562	Black Birch	*Betula lenta*	ALIVE	17.2	6/11/2021
1563	Black Birch	*Betula lenta*	DEAD	22.2	6/11/2021
1564	Sugar Maple	*Acer saccharum*	ALIVE	8.6	6/11/2021
1565	Red Maple	*Acer rubrum*	ALIVE	21.9	6/11/2021
1566	Sugar Maple	*Acer saccharum*	ALIVE	10.4	6/11/2021
1567	Sugar Maple	*Acer saccharum*	ALIVE	12.8	6/11/2021
1568	Sugar Maple	*Acer saccharum*	DEAD	16.5	6/11/2021
1569	Sugar Maple	*Acer saccharum*	ALIVE	11.0	6/11/2021
1570	Red Maple	*Acer rubrum*	ALIVE	33.3	6/11/2021
1571	White Oak	*Quercus alba*	ALIVE	38.8	5/26/2021
1572	Pig Nut Hickory	*Carya glabra*	ALIVE	14.0	6/17/2021
1594	Black Birch	*Betula lenta*	ALIVE	21.0	6/17/2021
1601	Shagbark Hickory	*Carya ovata*	ALIVE	20.1	6/17/2021
1603	Sugar Maple	*Acer saccharum*	ALIVE	23.4	6/17/2021
1631	Northern Red Oak	*Quercus rubra*	ALIVE	20.0	6/17/2021
1632	Northern Red Oak	*Quercus rubra*	ALIVE	16.0	6/17/2021
1634	Northern Red Oak	*Quercus rubra*	ALIVE	15.0	6/17/2021
1636	Northern Red Oak	*Quercus rubra*	ALIVE	14.0	6/17/2021
1637	Northern Red Oak	*Quercus rubra*	ALIVE	13.7	6/17/2021
1639	Northern Red Oak	*Quercus rubra*	ALIVE	8.8	6/17/2021
1641	Northern Red Oak	*Quercus rubra*	ALIVE	16.5	6/17/2021
1644	Northern Red Oak	*Quercus rubra*	ALIVE	25.0	6/17/2021
1645	Northern Red Oak	*Quercus rubra*	ALIVE	16.3	6/17/2021
1650	Northern Red Oak	*Quercus rubra*	ALIVE	28.6	6/17/2021
1651	Northern Red Oak	*Quercus rubra*	ALIVE	8.6	6/17/2021
1652	Northern Red Oak	*Quercus rubra*	ALIVE	14.4	6/17/2021
1653	Northern Red Oak	*Quercus rubra*	ALIVE	21.7	6/17/2021
1654	Northern Red Oak	*Quercus rubra*	ALIVE	11.3	6/17/2021
1658	Northern Red Oak	*Quercus rubra*	ALIVE	24.4	6/17/2021
1660	Northern Red Oak	*Quercus rubra*	ALIVE	24.5	6/17/2021
1665	Northern Red Oak	*Quercus rubra*	ALIVE	24.6	6/17/2021
1808	Sugar Maple	*Acer saccharum*	ALIVE	9.1	6/17/2021
1818	Northern Red Oak	*Quercus rubra*	ALIVE	25.0	6/17/2021
1838	Shagbark Hickory	*Carya ovata*	ALIVE	21.2	6/17/2021
1853	Shagbark Hickory	*Carya ovata*	ALIVE	14.0	6/17/2021
1855	Northern Red Oak	*Quercus rubra*	ALIVE	13.4	6/17/2021
1858	Shagbark Hickory	*Carya ovata*	ALIVE	25.4	6/17/2021
1870	Shagbark Hickory	*Carya ovata*	ALIVE	25.0	6/17/2021
1873	Sugar Maple	*Acer saccharum*	ALIVE	9.0	6/17/2021
1878	Sugar Maple	*Acer saccharum*	ALIVE	21.6	6/17/2021
1882	Sugar Maple	*Acer saccharum*	ALIVE	16.8	5/25/2021

SCS Dell 014136 Yorktown, LLC

Dell Avenue Solar Farm
Yorktown, Westchester County, New York

Prepared For:

SOLSYSTEMS

Prepared By:

TRC

TRC Companies
650 Suffolk Street, Suite 200
Lowell, MA 01854

Tree Mitigation Plan (Preliminary)

June 15, 2022

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1.0 INTRODUCTION

1.1 Project Description and Purpose

SCS Dell 014136 Yorktown, LLC proposes to construct and operate the Dell Avenue Solar Farm Project, a 3,625 kWac fixed-tilt ground mount solar energy system and associated facilities (the Project) on property located on Dell Ave in the Town of Yorktown, Westchester County, New York. The Project Site consists of two parcels totaling 62.33 acres (parcel IDs 70.11-1-16, 70.15-1-2). A figure depicting the Project Site overlaying United States Geological Survey (USGS) maps are presented as Figure 1. Site plans have been submitted to the Town Planning Board.

The Project will produce renewable energy that will provide global, national, statewide, and local benefits. The global community's increased focus, demand, commitment, and development of clean renewable energy resources are being driven by immediate and long-term concerns for the environment, energy reliability, and security.

Clean renewable sources of energy produced domestically, such as the Project, also reduce the United States' need for oil imports, reducing its dependency on foreign nations to meet this demand, and thereby enhancing national energy security. Domestically produced energy also keeps money at home, enhancing the national economy and strengthening the dollar. As the United States' solar industry grows, so does its benefits to the national economy. There are now nearly 174,000 solar workers in the United States employed at 6,100 businesses in every state, injecting life into the United States' economy (Solar Energy Industries Association, 2021).

In June 2019, New York State passed the New York Climate Leadership and Community Protection Act, which outlines the state's clean energy goals. As stated on the New York State Energy Research and Development Authority's website, New York State has some of the most aggressive energy and climate goals in the country, including:

- The Clean Energy Standard (CES), a mandate to get 70 percent of New York's electricity from renewable sources by 2030;
- A proposed target of 100-percent carbon-free electricity by 2040;
- A 40-percent reduction in greenhouse gas emissions by 2030 (using 1990 as a baseline); and
- A proposed target of 6,000 MW in distributed solar deployment by 2025.

The Project will support the CES's goals, which aim to "fight climate change, reduce harmful air pollution, and ensure a diverse and reliable low carbon energy supply" (New York State Energy Research and Development Authority, 2021). Renewable energy facilities, such as the Project, will offset the need to import fossil fuels and assist the state in reaching its goal of having 70 percent of its energy production from renewable resources.

The Hudson Valley is part of a high-demand or high "load" area in New York that does not have access to many major hydropower resources or wind energy projects. However, there is still

unutilized land in the Hudson Valley, such as the Project Site, available for developing solar generating facilities, or SGFs (Scenic Hudson, 2019). Therefore, SGFs, such as the Project, can help reach the goal "to rapidly transition the Hudson Valley to a sustainable, low-carbon region increasingly powered by renewable energy in order to mitigate climate change, while protecting and preserving the region's invaluable scenic, historic, agricultural, environmental and economic resources (Scenic Hudson, 2018)."

The Project will contribute electrical power from a renewable resource to the local grid, providing clean electricity to residences and business in Yorktown. The Project will also provide increased tax revenue for the Town of Yorktown.

The Project consists of arrays of solar panels accessed by pervious gravel drives. The arrays will consist of rows of solar panels installed aboveground on a metal racking framework. In addition, a small number of concrete pads for electric equipment will be installed.

Areas under and between the solar panels will be seeded with low-growth plants. Other areas throughout the Project are proposed to be seeded with pollinator-friendly species of wildflowers to encourage the presence of pollinating insects and other small wildlife. The existing forested areas on the boundaries of the Project, outside the Limit of Disturbance (LOD), will be left undisturbed. This existing vegetation will provide a visual barrier that will obscure views of the Project from adjacent properties. Shrubs and trees planted around the perimeter of the solar array will increase this visual barrier.

The total LOD, including the solar arrays, access drive, electrical equipment pads, tree clearing, and construction laydown areas, is 23 percent (14.1 acres) of the Project Site. The Project will convert 22 percent (12.3 acres) of existing protected at the Project Site into meadow habitat, access drive, and concrete equipment pads.

The siting principles in *Clean Energy, Green Communities: A Guide to Siting Renewable Energy in the Hudson Valley* (Scenic Hudson, 2018) were taken into consideration during Project planning. The Project has been carefully designed to meet the following design goals:

- Avoid wetlands and 100-foot adjacent areas to wetlands;
- Minimize impacts to steep slopes;
- Maintain a 200-foot setback from residences;
- Minimize tree clearing and cut and fill; and
- Minimize demand on local services.

1.1.1 Tree Inventory

TRC surveyed 1,007 alive protected trees and 48 dead trees with DBH equal to or greater than 8 inches within the 14.1-acre LOD. The tree locations are presented in Figure 2 – Sheet C-101 Existing Features, which is excerpted from the Site Plan set. The results of the tree survey have been submitted to the Town Planning Board.

1.2 Project Setting

The Project Site is within the Manhattan Prong Physiographic Province of New York State. This Physiographic Province is defined by low, hilly terrain with a gentle relief (New York State Geological Survey, 2018).

As shown on the USGS Ossining, NY 7.5-minute quadrangle, the Project Site is defined by a valley dipping gently to the southwest between a ridge along the western portion of the Project Site and a hill, known as Hog Hill, in the northeastern corner of the Project Site (see Figure 1). The valley broadens out in the southern portion of the Project Site where it reaches its lowest elevation of approximately 220 feet above mean sea level (AMSL). A saddle is between the ridge and Hog Hill in the northern portion of the Project Site. The terrain slopes steeply to the east from the saddle to Hog Hill. The highest elevation is approximately 510 feet AMSL at the top of Hog Hill in the northeastern corner of the Project Site. Despite the presence of sections of steeper terrain, the average slope across the entire Project Site is approximately 5 percent, and the Project Site's topography would be considered gently sloping.

The Project Site resides in the Eastern Broadleaf Forest (Oceanic) Province and Lower New England Section ecoregions of the United States as defined by the USDA Forest Service (Bailey, 1995).

Ecoregions are ecosystems of regional extent. The USDA identifies ecoregions by ecosystem characteristics into the following classifications:

- Domains: the largest ecosystem, which are groups of related climates and are differentiated based on precipitation and temperature.
- Divisions: represent the climates within domains and are differentiated based on precipitation levels and patterns, as well as temperature.
- Provinces: Subdivisions of divisions, which are differentiated based on vegetation or other natural land covers.
- Sections: Subdivisions of provinces based on terrain features, sections are the finest level of detail described for each subregion.
- Mountainous Areas: Mountainous regions that exhibit different ecological zones based on elevation.

The Eastern Broadleaf Forest (Oceanic) Province is characterized by a temperate deciduous forest dominated by tall broadleaf trees. Forest vegetation in this province is divided into three major associations: mixed mesophytic, Appalachian oak, and pine-oak (Bailey, 1995). The forest vegetation of the Lower New England Section includes oak-hickory, white-red-jack pine, maple-beech-birch, and aspen-birch cover types (McNab et al., 2007).

Similarly, the NYSDEC has divided New York State into specific ecological regions (Ecozones). Boundaries of the Ecozones of New York State were derived from Will et al. (1982) and Dickinson (1983) and then further modified by the NYSDEC. The Ecozones of New York State have been classified into Major and Minor Zones. The Project Site is located within the Manhattan Hills Major Zone, which does not have any Minor Zones. The Manhattan Hills Major Zone is in the oak natural vegetation zone and young stands of pioneer hardwoods and oaks are common.

1.3 Ecological Communities

Recent aerial orthoimagery of the Project Site and surrounding vicinity, obtained from Google Earth and Environmental Systems Research Institute, Inc., indicates that the Project Site is covered by temperate deciduous forest and wetlands.

The ecological community, as defined by *Ecological Communities of New York State* (Edinger et al., 2014), identified at the LOD was a beech-maple mesic forest. According to the New York Natural Heritage Program (NYNHP), beech-maple mesic forests are considered apparently secured in the state. Based on information from the New York State Department of Environmental Conservation (NYSDEC) Environmental Resource Mapper (ERM), there are no significant natural communities at the Project Site or within its immediate vicinity.

Based on the criteria in the *Biodiversity Assessment Manual for the Hudson River Estuary Corridor* (Kiviat and Stevens, 2001), the woodland present at the LOD can be classified as a mature mesophytic forest. This habitat can be identified by a forest where the majority of trees are equal to or greater than 12 inches DBH (Kiviat and Stevens, 2001). TRC identified 677 trees with a DBH equal to or greater than 12 inches within the LOD, which accounted for 64 percent of all protected trees identified.

The Project Site is part of a core forest. Core forests are defined as interior forest areas at least 100 meters from the edge of an unfragmented forest patch that is at least 100 acres. A forest condition index was developed by the Hudson River Estuary Program to assess the condition, connectivity, stress, and ecosystem value of forest patches at least 100 acres (Conley et al., 2019). The forest condition index of the Project Site is within the bottom 20th percentile of forest patches within the Hudson River Estuary. This low forest condition index indicates that while the Project Site is part of a larger forest patch with a core forest, it has limited connectivity with other large forest patches, provides limited habitat and ecosystem value, and has experienced environmental stressors from surrounding human activity and development.

The forest at the Project Site is representative of forests in the area. The Project Site likely has a history of human disturbance. Rock walls were observed at the Project Site. Overall, the habitats found at the Project Site are entirely consistent with the surrounding landscape.

2.0 IMPACTS

The proposed solar array will be located within the existing protected woodland at the Project Site. Clearing of the protected woodland at the Project Site will be required for the solar array and

associated facilities. Some areas along the fence surrounding the solar array will be replanted with wildlife-friendly native trees, shrubs, and pollinator-friendly wildflowers.

Based on TRC's tree inventory and the Project's LOD, it is estimated that 1,007 protected trees will be removed from the Project Site (see Figures 2A and 2B). Tree clearing for the solar array will convert 12.3 acres of the protected woodland at the Project Site to a meadow. Edge forest is defined as forested land within 100 meters of the edge of a forest (Conley et al., 2019). Tree clearing will convert a portion of core forest at the Project Site to edge forest. As mentioned previously, the core forest at the Project Site is already in the bottom 20th percentile in terms for forest condition; therefore, it is not a high-quality core forest.

Following construction, the solar array field will be seeded with a mix of grasses. The vegetation will be mowed as needed to keep the vegetation below the solar panels. A pollinator-friendly seed mix of grasses and native wildflowers will be used in designated pocket areas to be determined outside of the solar array field and adjacent to the perimeter fence.

An herbaceous layer of vegetation will remain underneath the panels, in between the panel rows, and the general surrounding area. Therefore, solar projects do not create the same impervious cover that other types of development do, such as parking lots and buildings. The minimal impervious features associated with solar projects are mitigated with post-construction stormwater design features such as bioretention areas or other stormwater management practices. The impervious features, such as equipment pads, are considered when designing the project and stormwater control as to avoid altering surrounding wetland hydrology.

Native plant species will be used for planting under and around the arrays, which will prevent the introduction of exotic/invasive species. Best Management Practices (BMPs) from the Stormwater Pollution Prevention Plan (SWPPP) will also limit the spread of invasive species. The Project will not result in a major increase in impervious features and these features are considered when modeling the water runoff and designing the SWPPP. Stormwater will flow off panels and drain to the ground as normal.

This Project will include a perimeter chain link fence to discourage trespassing and access of large animals onto the Project. The perimeter fence will have a gap off the ground to allow smaller animals to pass through the Project and inhabit the facility following construction. Large animals will still have access to the remaining portion of the Project Site not enclosed by the perimeter fence.

3.0 MITIGATION

In accordance with Chapter 270 of the Town Code of Yorktown, the Project requires a tree mitigation plan in order to obtain a tree removal permit for land conversion and woodland disturbance greater than 6 percent of the protected woodland at the Project Site.

3.1 Tree Reforestation

The proposed landscaping plan includes planting 179 new native evergreen trees. A summary of the trees to be planted are provided in Table 1. The locations of the trees to planted on-site are included in the landscaping plan part of the site plan.

Table 1. Proposed Tree Plantings

Species Name	Common Name	Quantity
Juniperus virginiana	Eastern Red Cedar	20
Picea glauca	White Spruce	29
Thuja occidentalis	Northern White Cedar	17

The proposed trees shall be planted during appropriate timeframes and stages throughout the construction of the Project so that the reforestation efforts are completed simultaneously with the installation of the solar panels to the best extent possible.

3.2 Yorktown Tree Bank Fund Payment

According to Chapter 270 of the Town Code of Yorktown, payment into the Tree Bank Fund may be used in lieu of replacing lost protected tree or disturbance to a protected tree. Based on the payment of $100 for every protected tree removed, $100,700 is required to compensate for the 1,007 alive protected trees to be removed as part of the Project. Based on the payment of $300 for every 5,000 square feet of protected woodland disturbed, $32,147.28 is required to compensate for the 12.3 acres (535,788 square feet) of protected woodland to be disturbed as part of the Project. Sol Systems proposes to make a contribution of $132,847.28 to the Yorktown Tree Bank Fund to compensate for the removal of protected trees and protected woodland disturbance.

4.0 CONCLUSION

The Project Site is part of a core forest; however, this forest has a low forest condition index. The functions and values of the protected woodland at the Project Site have been limited due to human activity and development in the surrounding vicinity.

The Project has been carefully designed to minimize impacts. Only 20 percent (12.3 acres) of the protected woodland at the Project Site will be converted to pollinator-enhanced meadow habitat benefiting various wildlife species. Sol Systems will contribute $132,847.28 to the Town of Yorktown Tree Bank Fund to mitigate for protected tree removal and disturbance of protected woodland for the Project as required by the Planning Board.

5.0 REFERENCES

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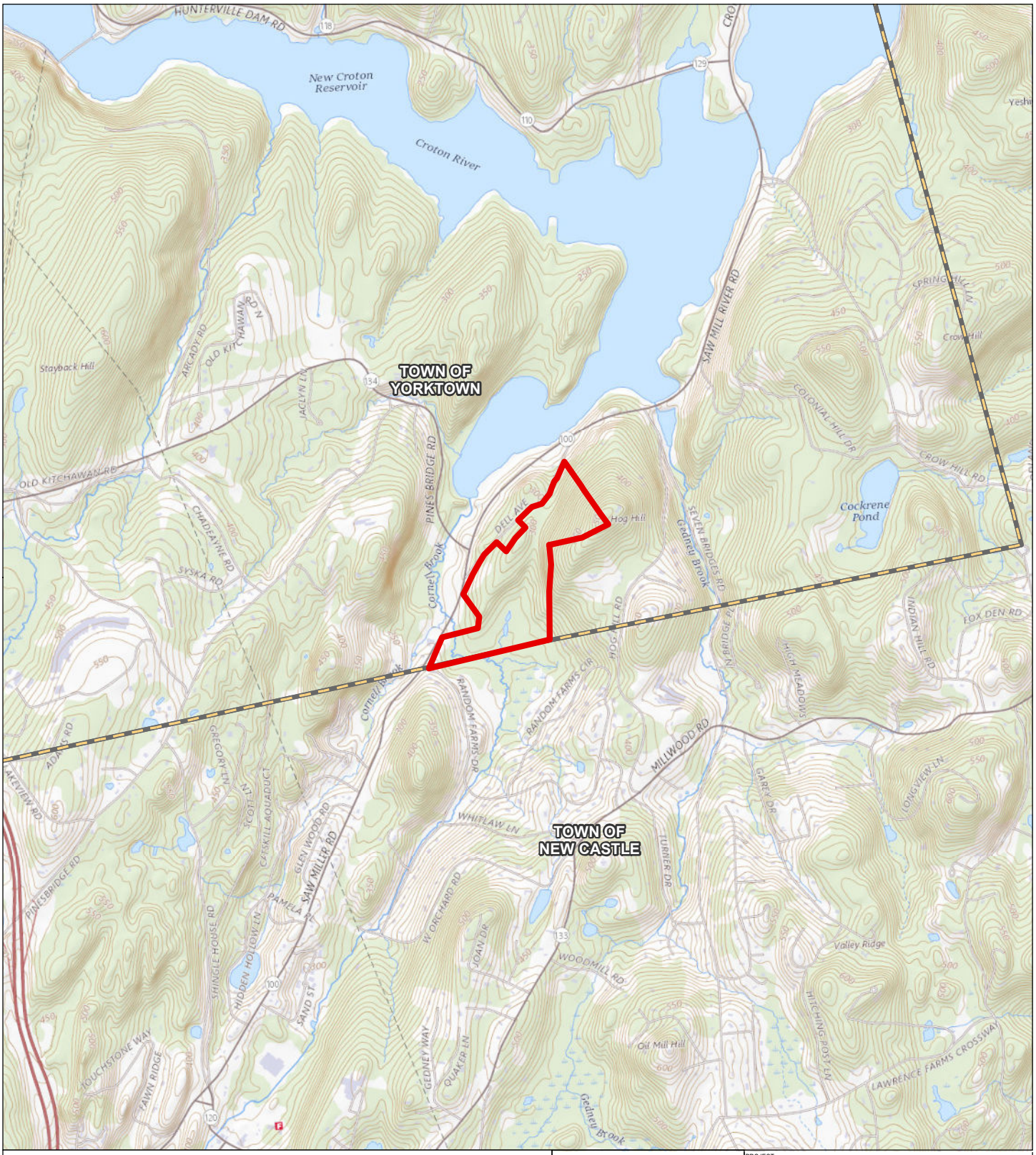
FIGURES



SITE BOUNDARY

MUNICIPAL BOUNDARY

0 1,000 2,000

Feet

1:24,000
1 Inch = 2,000 Feet

N

Base Map: USGS Topo Maps, Exri; Data Sources: TRC, Esri

PROJECT: **SOL SYSTEMS DELL AVE**

TOWN OF YORKTOWN
WESTCHESTER COUNTY, NY

TITLE: **SITE LOCATION MAP**

DRAWN BY:	S. MOTURI	PROJECT NO:	431302
CHECKED BY:	M. REGAN		
APPROVED BY:	C. DUNCAN		
DATE:	JUNE 2022		

FIGURE 1

Wannalancit Mills
650 Suffolk Street
Lowell, MA 01854
(978-970-5600)

MAP REFERENCES:

1. SURVEY COMPLETED BY LAND DESIGN ASSOCIATES ENGINEERING, SURVEYING AND LAND ARCHITECTURE D.P.C OF HAUPPAGE, NEW YORK DATED MAY 29, 2021.
2. THE PROJECT HORIZONTAL COORDINATES SYSTEM IS BASED ON NAD83 NEW YORK STATE PLANE (US SURVEY FEET, EAST ZONE, NY83-E). ELEVATIONS ARE BASED ON NAVD88 (US SURVEY FEET).

LEGEND:

- 420 — EXISTING MAJOR CONTOUR (FEET)
- 418 — EXISTING MINOR CONTOUR (FEET)
- PARCEL LINE
- STREAM
- 100-FOOT NYSDEC ADJACENT WETLAND BUFFER
- 50-FOOT NYSDEC ADJACENT STREAM BUFFER
- 100-FOOT NYSDEC ADJACENT STREAM BUFFER
- STONE WALL
- TREE LINE
- TRAIL
- ROCK — ROCKS
- DELINEATED STREAM LINE
- DELINEATED WETLAND
- DELINEATED SURFACE WATER
- TREE LOCATION AND TREE NUMBER

LEGAL DESCRIPTION
SECTION 70.11 BLOCK 1 LOT 16 AND SECTION 70.15 BLOCK 1 LOT 2
TOWN OF YORKTOWN, COUNTY OF WESTCHESTER, NY

ALL THAT CERTAIN PLOT, PIECES OR PARCEL OF LAND, SITUATE, LYING AND BEING IN THE SOUTHERLY SIDE OF SAW MILL RIVER ROAD IN THE TOWN OF YORKTOWN, COUNTY OF WESTCHESTER, STATE OF NEW YORK, AND BEING MORE PARTICULARLY DESCRIBED IN TWO (2) PARCELS AS FOLLOWS:

BEGINNING AT A POINT ON THE SOUTHERLY SIDE OF SAW MILL RIVER ROAD SAID POINT BEING DETERMINED AS FOLLOWS, STARTING AT A POINT ON THE SOUTHERLY SIDE OF SAW MILL RIVER ROAD SAID POINT BEING FORMED BY THE INTERSECTION OF THE DIVIDING LINE BETWEEN LANDS NOW OR FORMERLY OF GABRIEL AND LANDS OF CONSOLIDATED EDISON CO. WITH THE SAID SOUTHERLY SIDE OF SAW MILL RIVER ROAD;

THENCE from starting point in a northeasterly direction and along the southerly side of Saw Mill River Road;
North 44 degrees 40 minutes 30 seconds East for a distance of 104.35 feet to the aforementioned point of beginning;

THENCE from said point of beginning in a northeasterly direction and along the southerly side of Saw Mill River Road;
North 41 degrees 19 minutes 50 seconds East for a distance of 471.28 feet (deed) 473.56 feet (survey) to a corner and lands of the City of New York, said lands of the City of New York being shown as Parcel 160, Sheet 15, on Maps of New Croton Reservoir;

THENCE in an easterly direction and along the dividing line between lands of City of New York and lands of Gabriel;
North 88 degrees 59 minutes 00 seconds East for a distance of 554.57 feet (deed) North 88 degrees 57 minutes 25 seconds East 554.62 feet (survey) to a corner;

THENCE still along the aforementioned dividing line;
North 21 degrees 50 minutes 20 seconds (deed) 21 degrees 48 minutes 45 seconds (survey) East for a distance of 171.48 feet and North 22 degrees 06 minutes 10 seconds West for a distance of 413.59 feet (deed) North 22 degrees 06 minutes 45 seconds West for a distance of 413.21 feet (survey) to a corner and the southerly side of Dell Avenue;

THENCE in a northeasterly direction and along the southerly side of Dell Avenue, the following courses and distances;
North 43 degrees 56 minutes 40 seconds East for a distance of 133.90 feet;
North 40 degrees 07 minutes 10 seconds East for a distance of 186.22 feet;
North 41 degrees 15 minutes 50 seconds East for a distance of 258.22 feet;
North 49 degrees 26 minutes 30 seconds East for a distance of 88.58 feet;
North 57 degrees 50 minutes 10 seconds East for a distance of 237.07 feet to a corner and lands now or formerly of Adam;

THENCE in a southerly direction and along the dividing line between lands of Adam and lands of Gabriel;
South 34 degrees 53 minutes 30 seconds East for a distance of 196.79 feet to a corner;

THENCE in a northeasterly direction;
North 46 degrees 16 minutes 30 seconds East for a distance of 227.20 feet and
North 58 degrees 57 minutes 20 seconds East for a distance of 219.85 feet to a corner;

THENCE in a northwesterly direction, still along the aforementioned dividing line;
North 33 degrees 02 minutes 20 seconds West for a distance of 152.78 feet to a corner and the southerly side of Dell Avenue;

THENCE in a northeasterly direction and along the southerly side of Dell Avenue, the following courses;
North 58 degrees 55 minutes 20 seconds East for a distance of 281.76 feet;
South 88 degrees 36 minutes 50 seconds East for a distance of 157.46 feet;
North 47 degrees 33 minutes 10 seconds East for a distance of 185.48 feet;
North 30 degrees 17 minutes 30 seconds East for a distance of 105.27 feet;
North 33 degrees 00 minutes 30 seconds East for a distance of 90.62 feet;
North 49 degrees 43 minutes 00 seconds East for a distance of 70.52 feet;
North 37 degrees 32 minutes 30 seconds East for a distance of 242.23 feet to a corner and lands now or formerly of Dearborn;

THENCE to a southerly direction and along the dividing line between lands of Dearborn and lands of Gabriel;
South 22 degrees 47 minutes 00 seconds East for a distance of 111.57 feet;
South 21 degrees 05 minutes 10 seconds East for a distance of 400.52 feet;
South 22 degrees 12 minutes 30 seconds East for a distance of 310.32 feet;
South 23 degrees 53 minutes 10 seconds East for a distance of 113.24 feet to lands now or formerly of Mino;

THENCE still southerly direction and along the dividing line between lands of Mino and lands of Gabriel;
South 22 degrees 23 minutes 30 seconds East for a distance of 179.29 feet to a corner and lands now or formerly of Crawford;

THENCE in a westerly direction and along the dividing line between lands of Crawford and lands of Gabriel;
South 77 degrees 48 minutes 40 seconds West for a distance of 425.77 feet;
North 88 degrees 22 minutes 30 seconds West for a distance of 492.84 feet to a corner;

THENCE in a southerly direction still along the aforementioned dividing line, the following courses and distances;
South 08 degrees 32 minutes 10 seconds West for a distance of 302.15 feet;
South 17 degrees 26 minutes 30 seconds West for a distance of 378.44 feet;
South 14 degrees 56 minutes 50 seconds West for a distance of 261.92 feet;
South 12 degrees 20 minutes 50 seconds West for a distance of 181.34 feet;
South 13 degrees 33 minutes 50 seconds West for a distance of 212.08 feet;
South 11 degrees 28 minutes 50 seconds West for a distance of 54.91 feet to a corner;

THENCE in a westerly direction and through lands of Gabriel and approximately along the Town lines between the Towns of New Castle and Yorktown;
North 88 degrees 59 minutes 17 seconds (deed) West for a distance of 1837.73 feet;
North 89 degrees 02 minutes 22 seconds (calculated) West for a distance of 1839.27 feet to the southerly side of Saw Mill River Road and the point or place of BEGINNING.

WCTM#: 70.11-1-16 & 70.15-1-2

EXCEPTIONS:
1. Survey Attached
2. Boundary line agreement effects extreme southeast corner of parcel not part of current Deed of Record.
3. Assignment of leases and rents to bank to secure mortgage.
4. Matter of Foreclosure.
5. Matter of Foreclosure.
6. Matter of Foreclosure.
7. Tax search N/A see report.

NOTES:
1. NO PART OF THE SUBJECT PROPERTY LIES IN A SPECIAL FLOOD HAZARD AREA OR FLOOD HAZARD OR FLOOD PLAIN, HOWEVER DESIGNATED, AS DETERMINED BY OR IN ACCORDANCE WITH CRITERIA ESTABLISHED BY THE FEDERAL INSURANCE ADMINISTRATION OR AS DEFINED BY OR IN ACCORDANCE WITH CRITERIA ESTABLISHED BY ANY GOVERNMENTAL AUTHORITY HAVING JURISDICTION. (FLOOD ZONE X)
2. LOCATIONS AND EXISTENCE OF ANY SUBSURFACE UTILITIES AND/OR STRUCTURES, NOT READILY VISIBLE, ARE NOT CERTIFIED.
3. NO ENCROACHMENTS AFFECT SUBJECT PROPERTY EXCEPT AS SHOWN
4. THE USE OF THE PROPERTY IS PERMITTED IN ITS ZONE.
5. PROPERTY HAS PUBLIC ACCESS TO ALL ADJACENT STREETS AS PUBLIC

FIGURE 1

0 120' 240'

SHEET SIZE: 24" BY 36"
(DRAWING MAY BE PRINTED AT REDUCED SIZE)

NOTE:UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING), SECTION 7209 (2), IT IS A VIOLATION FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

NOT FOR CONSTRUCTION

PRELIMINARY DRAFT- NOT FOR CONSTRUCTION

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1430 Broadway, 10th Floor
New York, NY 10018
Phone: 212.221.7822
www.TRCcompanies.com

TRC Project No: 431302.0000.0005

SOLSYSTEMS
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Washington, DC 200036

STATE OF NEW YORK
STEVEN DONALD MEERSMA
LICENSED PROFESSIONAL ENGINEER
076572

Revisions:

No.	Date:

Drawn by: A. REXROAT

Checked by: S. MEERSMA

Approved by: C. DUNCAN

SCS DELL 014136 YORKTOWN, LLC
DELL AVENUE SOLAR FARM
FIXED-TILT GROUND MOUNT SOLAR ENERGY SYSTEM
DELL AVENUE, YORKTOWN, NEW YORK 10514

Contract No: 431302

Scale: AS SHOWN

Date: JUNE 14, 2022

Sheet: EXISTING FEATURES

Drawing No: C-101

SCS Dell 014136 Yorktown, LLC
Sol Customer Solutions, LLC
1101 Connecticut Ave NW, Second Floor
Washington, DC 20036

June 15, 2022

Town of Yorktown Planning Board
1974 Commerce St
Yorktown Heights, NY 10598

Dell Avenue Solar Farm
Carbon Sequestration for Tree Loss Calculation

Preliminary Draft

GREENHOUSE GAS (GHG) EQUIVALENCIES CALCULATOR

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)

Source:

https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator

Methodology:

Energy Data, Kilowatt-Hours Avoided

GHG emissions from fossil fuel electricity generation avoided by renewable energy

Calculations:

Preliminary predictive performance models for the Dell Avenue Solar Farm forecast the project to generate 5,343 MWh per year of renewable, emission-free solar electricity. For the sake of this early-stage calculation, call it 5,000 MWh/yr.

In a business-as-usual (BAU) case, this 5,000 MWh/yr of local electricity demand would be met by the current electricity fuel mix of the regional power grid. The latest data[1] from regulated utility CECONY (Consolidated Edison Company of New York) indicates that their fuel mix allocated by the NYISO (New York Independent System Operator) consists of 57% fossil gas produced electricity. Other fossil-fuel sources to the fuel mix can be considered negligible contributions: 0.1% coal, 0.1% oil, 1.3% other. Note that solar accounts for only 0.4% of the current mix.

Thus, the Dell Avenue Solar Farm will displace 2,850 MWh/yr (57% of 5,000 MWh/yr) of fossil gas electricity generation and its associated greenhouse gas (GHG) emissions. According to the EPA's GHG Equivalencies Calculator, each 2,850 MWh of fossil gas electricity generation equates to 2,020 metric tons of CO_2-equivalent emissions (MTCO2e)[2].

Every 2,000 MTCO2e is equivalent to the carbon sequestered by 33,000 tree seedlings grown for 10 years, or by 2,300 acres of U.S. forests in one year. The Dell Avenue Solar Farm provides an opportunity to avoid these annual carbon emissions every year it is in operation.

To further put this into perspective, the 2,000 MTCO2e GHG emissions per year avoided by the project is equivalent to nearly 400 homes' annual electricity consumption. The basis for the above calculation is further corroborated by the EPA Avoided Emissions and Generation Tool (AVERT) which also notes a 57% figure for non-renewable electricity generation for Upstate New York (NYUP)[3].

Additional to the above data comparison between the proposed project and traditional business-as-usual fossil fuel electricity generation, exists the USDA/USFS CUFR CTCC tool. This detailed approach to quantifying carbon sequestration in vegetation models each individual tree one-by-one. At this stage in the application review process, Sol Systems believes the GHG equivalencies methodology is a sufficient order-of-magnitude representation of the climate benefits of the Dell Avenue Solar Farm.

The U.S. Forest Service's Center for Urban Forest Research (CUFR) Tree Carbon Calculator (CTCC) tool is available via the United States Department of Agriculture website: https://www.fs.usda.gov/ccrc/tool/cufr-tree-carbon-calculator-ctcc

References:

1. ConEdision, Inc. (2021). *2021 Sustainability Report: Operational Excellence - Fuel Mix and Generating Capacity*. Consolidated Edison Company of New York. https://lite.conedison.com/ehs/2021-sustainability-report/operational-excellence/fuel-mix-and-generating-capacity/
2. EPA. (n.d.). *Greenhouse Gas Equivalencies Calculator*. United States Environmental Protection Agency. https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator
3. EPA. (2022). *Avoided Emissions and Generation Tool AVERT*. United States Environmental Protection Agency. https://www.epa.gov/avert/avert-web-edition

SCS Dell 014136 Yorktown, LLC
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June 15, 2022

Town of Yorktown Planning Board
1974 Commerce St
Yorktown Heights, NY 10598

Dell Avenue Solar Farm
Operations & Maintenance Plan
Preliminary Draft

SCOPE OF MAINTENANCE SERVICES – by maintenance provider to Sol Customer Solutions

1. Monitoring, Reporting, & Inventory	Frequency
Configuration, Onboarding, & Training	Included
Active Site Monitoring (Remote)	Daily
DC Health Analysis	Monthly
Maintain Spare Parts	Included
Warranty Enforcement	Included

2. Site Property Inspection/Maintenance	Frequency
Site Host Relations	As necessary
Perimeter & Fence Inspection	Annually
Erosion Inspection	Annually
Site Security Systems Inspection	Annually
Signage & Labels Inspection	Annually
Vegetation Management	Refer to narrative at bottom
Panel Washing	TBD
Mid-Year Site Inspection	Included
On-Site Emergency Key Lock Box	Included

3. DC Systems	Frequency
Racking Inspections	As recommended by manufacturer
Ballast Blocks	If applicable
Module Inspections	Annually
Broken Module Replacement	As necessary
Wire Inspections	Annually
Combiner Box & Re-Combiner Inspections	If applicable
Combiner Box & Re-Combiner Torque Inspections	If applicable
DC Electrical Balance-of-System	Annually

4. AC Systems	Frequency
Inverters	As recommended by manufacturer
Inverter Air Filters & Transformer Heat Sinks	As recommended by manufacturer or Annually
AC Panelboards & Disconnects	Annually
Transformers	As recommended by manufacturer or Annually
AC Disconnect	Annually
Switchgear	Annually
AC Electrical Balance-of-System	Annually
MV Equipment	If applicable

5. DAS/SCADA Inspections	Frequency
General DAS Inspection	Annually
Sensor Verification	Annually
Pyranometers & Reference Cells	At least twice per year
Pyranometer Calibration	As recommended by manufacturer
Data/Instrument Accuracy & Communications Verification	As recommended by manufacturer

6. Testing	Frequency
Module Level Thermal Audits	Annually
Thermal Imaging	Annually
Transformer Oil Testing	If applicable
Point-to-Point Testing	Annually (5%)

7. Corrective Maintenance	Frequency
Remote Troubleshooting	Included
Remote Equipment Resets	Included
On-Site Troubleshooting, Repairs, Diagnostics	Included
On-Site Resets	Included
Corrective Maintenance	Included
Parts Procurement	TBD
Corrective Maintenance Exclusions	TBD

VEGETATION MANAGEMENT – by maintenance provider to Sol Customer Solutions

For the Dell Avenue Solar Farm, Sol Systems recommends a mixture of native and naturalized grasses and legumes. Due to the site's shallow bedrock, moisture availability and retention will be limited. To support pollinator-friendly species, seed mixes such as or similar to Round Seed Panic Grass, Clover, Black Eyed Susan, and Birds Foot Trefoil are recommended. These grasses and flowers provide value to pollinators and stabilize the soil. Sol Systems will include pollinator-friendly plants in the mix and the final seed mix will be determined based on site conditions, timing of seeding, and availability of seeds.

Vegetation management of a pollinator-friendly site is accomplished through a combination of mowing and herbicide treatment. Long-term maintenance is performed by a vetted firm with conservation and ecology expertise on staff to assess on-site conditions and this same firm is typically that which first seeded the site during the construction phase. Typically, a site will be fully mowed several times in the first three years of growth. This technique, meant to mimic a prescribed burn on a meadow, limits the presence of invasive species while allowing for establishment of native species. Some targeted herbicide application may occur in these early years to manage specific invasive species. In later years, once vegetation is established, maintenance will focus on fewer, more targeted mowing events and some herbicide application. This will manage invasive species in the long term, while allowing the native / naturalized meadow to grow. Vegetation on solar sites is typically allowed to grow to the height of the leading edge of the solar module.

Sol Systems is also willing to explore additional benefits to the site such as the opportunity to add artificial or human-made nesting structures for bees and other pollinators to the perimeters of the site.

Attached is an example of a suitable seed mix to be considered for this site.

[Final selections are to be determined during detailed engineering design]

Ernst Conservation Seeds
8884 Mercer Pike
Meadville, PA 16335
(800) 873-3321 Fax (814) 336-5191
www.ernstseed.com

Date: March 21, 2021

Fuzz & Buzz Mix - Standard - ERNMX-146

	Botanical Name	Common Name
26.40 %	*Lolium perenne, 'Crave', Tetraploid*	Perennial Ryegrass, 'Crave', Tetraploid
20.80 %	*Dactylis glomerata, 'Pennlate'*	Orchardgrass, 'Pennlate'
18.90 %	*Poa pratensis, 'Ginger'*	Kentucky Bluegrass, 'Ginger' (pasture type)
17.00 %	*Festuca elatior x Lolium perenne, Duo*	Festulolium, 'Duo'
5.70 %	*Trifolium hybridum*	Alsike Clover
4.80 %	*Trifolium pratense, Medium, Variety Not Stated*	Red Clover, Medium, Variety Not Stated
2.00 %	*Lotus corniculatus, 'Leo'*	Bird's Foot Trefoil, 'Leo'
1.30 %	*Cichorium intybus*	Blue Chicory
1.00 %	*Chrysanthemum leucanthemum*	Oxeye Daisy
0.90 %	*Coreopsis lanceolata*	Lanceleaf Coreopsis
0.80 %	*Chamaecrista fasciculata, PA Ecotype*	Partridge Pea, PA Ecotype
0.40 %	*Solidago nemoralis, PA Ecotype*	Gray Goldenrod, PA Ecotype

100.00 %

Seeding Rate: Expect to apply about 40 lbs per acre with a cover crop of annual ryegrass 12 lbs/acre

Forage & Pasture Sites; Solar Sites

650 Suffolk St., Suite 200
Lowell, MA 01854

T 978.970.5600
TRCcompanies.com

June 14, 2022

Town of Yorktown Planning Board
1974 Commerce Street
Yorktown Heights, NY 10598

Re: Preliminary Decommissioning Cost Estimate, Dell Avenue Solar Farm
Dell Ave., Yorktown, NY 10514

Dear Planning Board Members:

TRC Engineers Inc., on behalf of Sol Systems, LLC (Applicant), is pleased to present the enclosed preliminary decommissioning cost estimate as part of the SCS Dell 014136 Yorktown, LLC site plan and special use permit applications. The Dell Avenue Solar Farm is planned as a 3,625 kWac fixed-tilt ground mount solar energy system and associated facilities on the 62.33-acre site located off of Dell Ave in Yorktown, NY (the Project). The arrays are divided into two (2) sectors and located within fenced areas with access gates. The attached decommissioning cost was prepared by a Professional Engineer licensed in New York.

This opinion of probable cost is based on the engineer's experience in the design and construction of energy facilities and is subject to final engineering, if applicable. Costs have been split between plant disassembly, site restoration, and salvage, which reflect the overall decommissioning process. This opinion assumes a third-party contractor experienced in the construction and decommissioning of PV facilities will lead the effort. The reported costs include labor, materials, taxes, insurance, transport costs, equipment rental, contractor's overhead, and contractor's profit. Labor costs have been estimated using regional labor rates and labor efficiencies from the Bureau of Labor Statistics, along with previous decommission plan estimates completed for similar projects.

The PV plant will first be disassembled, removing the above- and below-grade components. This removal includes, but not limited to, complete removal of gravel surfaces and site concrete, along with removal of above ground and any buried cables and all underground conduit. These costs include the regarding of all disturbed removal areas, as well as the backfilling and stabilization of all trenches.

The disturbed site is expected to be re-seeded with native or naturalized grasses and vegetation. Planting trees, shrubs, and other woody vegetation (re-forestation) or other beautification is not included in the costs. The decommissioning estimate is prepared with an assumption that re-grading of the entire site is not required. The earth-moving equipment required to regrade the site would likely trigger additional permits. Salvage values have been estimated using publicly available data from https://www.scrapmonster.com, industry-provided actual salvage values, and previous experience with similar solar projects.

Finally, all associated structures will be demolished and removed from the site within 90 days for recycling or disposal after the end of energy production or proposed date of decommissioning.

The decommission estimate includes labor costs and credits for salvaging project materials in 2022 and at the end of a 25-year lifespan. Inflation, if included in this estimate, a 2.5 percent annual increase in labor costs, and a 1 percent annual increase in salvage value was assumed. Based on the attached decommissioning estimate, the demolition costs minus salvage value will cost at minimum $62,600 at the end of the 25-year span for the solar project, more, or more depending on the salvageable value of the material at site. As a conservative approach accounting for fluctuations in future salvage value, factoring-in 50% of the projected salvage value would yield a preliminary decommissioning cost estimate of $154,900. Both of these values are shown on the attached estimate.

TRC Engineers, Inc.

_____ _____

Steve Meersma, P.E. Date
Principal

TRC Engineers, Inc.

DECOMMISSIONING COST ANALYSIS
SOL SYSTEMS, DELL AVE SOLAR

	DESCRIPTION OF ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COST (2022)	TOTAL COST (After 25 Years)**	LOGIC
	I. DISASSEMBLY & DISPOSAL						
	Photovoltaic Modules	9,536	EA	$3.73	$35,521.60	$65,855.06	* Use Crew A-5 (2 Laborers; .25 Truck Driver; .25 Flatbed Truck) = $1,192/day. Assume 20 modules/hr/laborer. 8 hr shift.
	Inverter(s)	2	EA	$298.00	$596.00	$1,104.95	* Use Crew A-5 (2 Laborers; .25 Truck Driver; .25 Flatbed Truck) = $1,192/day. Assume crews can remove 4/day.
	Transformer(s)	2	EA	$298.00	$596.00	$1,104.95	* Use Crew A-5 (2 Laborers; .25 Truck Driver; .25 Flatbed Truck) = $1,192/day. Assume crews can remove 4/day.
	Racking Frame	177	EA	$26.49	$4,677.74	$8,672.27	* Use Crew A-5 (2 Laborers; .25 Truck Driver; .25 Flatbed Truck) = $1,192/day. Assume crews can remove 45/day. Each frame contains 54 modules.
	Racking Posts	1,413	EA	$19.87	$28,066.45	$52,033.63	* Use Crew A-5 (2 Laborers; .25 Truck Driver; .25 Flatbed Truck) = $1,192/day. Assume crews can remove 60/day. Each frame consists of 8 posts.
	Low Voltage Wiring	24,311	LF	$0.12	$2,897.81	$5,372.38	* Use Crew A-5 (2 Laborers; .25 Truck Driver; .25 Flatbed Truck) = $1,192/day. Assume crews can remove 10,000 LF/day.
	Gravel (Access Drive)	973	CY	$6.90	$6,709.81	$12,439.61	* Use Crew B-3B (2 Laborers; 1 Equip Oper; 1 Truck Driver; 1 Backhoe; 1 Dump Trk) = $3,448/day. Assume crews can remove 500 CY/day.
	Medium Voltage Wiring	1,925	LF	$0.24	$458.80	$850.59	* Use Crew A-5 (2 Laborers; .25 Truck Driver; .25 Flatbed Truck) = $1,192/day. Assume crews can remove 5000 LF/day.
	Fence	4,861	LF	$1.19	$5,794.31	$10,742.33	* Use Crew A-5 (2 Laborers; .25 Truck Driver; .25 Flatbed Truck) = $1,192/day. Assume crews can remove 1000 LF/day.
	General Demolition	0.2	WK	$3,000.00	$600.00	$1,112.37	* Use Crew B-3B (2 Laborers); Assumes can complete in one day
	Landscaping Removal	All		$5,000.00	$5,000.00	$9,269.72	* Estimate includes one crew (2 Laborers); 2 days with required equipment for removal
	Stormwater Management Feature	392	CY	$18.80	$7,370.91	$13,665.25	* Use Crew B-17 +4 trucks (2 Laborers; 1 Equip Oper; 4 Truck Driver; 1 Backhoe; 4 Dump Truck) = $5,641/day. Assume 300 CY/day, 1hr cycle
	Foundation Removal	2	EA	$2,860.50	$5,721.00	$10,606.41	*Use Crew B-17 (2 Laborers; 1 Equip Oper; 1 Truck Driver; 1 Backhoe; 1 Dump Truck) = $2860.50/day. Assume 1/day
				SUBTOTAL	**$104,010.43**	**$192,829.52**	
	II. SITE RESTORATION						
	Re-Seeding	10.8	AC	$2,400.00	$25,920.00	$48,054.23	* Cost includes: Seed species (native types) and labor: Spraying; Disking; Planting; Mulch; One man & machine
	Re-Grading	992	CY	$3.45	$3,420.42	$6,341.26	* Cost includes 2 Laborers; 1 Equip Oper; 1 Truck Driver; 1 Backhoe; 1 Dump Trk) = $3,448/day. Assume crews can grade 2000 CY/day.
				SUBTOTAL	**$29,340.42**	**$54,395.49**	
	III. SALVAGE						
	Photovoltaic Modules	9059	EA	$8.58	$77,726.22	$99,678.59	We Recycle Solar
	Inverter(s)	2	EA	$16.00	$32.00	$41.04	Scrapmonster
	Transformer(s)	2	EA	$1,700.00	$3,400.00	$4,360.27	Scrapmonster
	Racking Frame (Steel)	246,030	LBS	$0.12	$29,523.60	$37,862.01	Scrapmonster
	Racking Posts (Steel)	107049.6	LBS	$0.12	$12,845.95	$16,474.06	Scrapmonster
	Low Voltage Wiring (Insulated cable)	15802	LBS	$0.95	$15,011.90	$19,251.74	Scrapmonster
	Medium Voltage Wiring (Insulated cable)	3,734	LBS	$0.95	$3,547.30	$4,549.17	Scrapmonster
	Chain Link Fence (Steel)	15555	LBS	$0.12	$1,866.60	$2,393.79	Scrapmonster
				SUBTOTAL	**$143,953.57**	**$184,610.67**	
							Legend:
		TOTAL DEMOLITION COST			**$133,350.85**	**$247,225.01**	* = Costs derived from RS Means Heavy Site estimating manual
		SALVAGE VALUE CREDIT			**$143,953.57**	**$184,610.67**	** = Assumes 2.5% annual increase in labor costs and 1% annual increase in salvage value
	TOTAL DECOMMISSIONING AMOUNT =					**$62,614.35**	

SOLAR FACILITIES OPTION TO LEASE AND LEASE AGREEMENTS

This SOLAR FACILITIES OPTION TO LEASE AND LEASE AGREEMENT (this "***Agreement***") is made as of March 26, 2021 (the "***Effective Date***") by and between B&M Management Company, LLC, a Connecticut limited liability company ("**Owner**" or "***Landlord***") and SCS Dell 014136 Yorktown, LLC, a Delaware limited liability company ("***Tenant***"). Landlord and Tenant are sometimes individually referred to as a "***Party***" and collectively as the "***Parties***."

RECITALS

WHEREAS, Landlord is the fee owner of certain real property located east of the intersection of NYS Routes 134 and 100, designated on the Town of Yorktown Tax Map as parcels 70.15-1-2 and 70.11-1.16, more particularly described in **Exhibit A** attached hereto (the "***Property***"); and

WHEREAS, Landlord desires to lease a portion of the Property to Tenant, more particularly described in **Exhibit B** attached hereto (the "***Premises***"), for the development, construction, operation and maintenance of a solar electric generation facility, more particularly described in **Exhibit C** attached hereto (the "***System***"), and associated uses necessary or ancillary thereto;

NOW, THEREFORE, in consideration of the promises and the mutual covenants contained herein, the sufficiency of which is acknowledged by both Parties, the Parties do hereby agree as follows:

ARTICLE I
OPTION TO LEASE, LEASE AND EASEMENTS

1.1 Grant and Exercise of Option.

(a) Grant of Option. Landlord grants Tenant an exclusive, irrevocable option to lease the Premises (the "***Option***"), which Option shall be in effect during the Development Period (as defined herein) for so long as the Option Price (as defined herein) is paid to Landlord by Tenant as set forth in Section 3.1. Tenant may, at its sole option, terminate this Agreement at any time during the Development Period by providing written notice to the Landlord, as set forth below. Any payments made to Landlord during the Development Period and before termination shall be non-refundable and deemed Landlord's property. Landlord may terminate this Agreement at any time during the Development Period if Tenant fails to make any payment of the Option Price, when due, as required during the Development Period and Landlord has provided written notice (email to the following email address being sufficient: projectdev@solsystems.com) of such failure to Tenant and provided thirty (30) days to cure such failure.

(b) Exercise of Option. Tenant may exercise its Option by giving written notice of such exercise to Landlord (the "***Option Notice***") at any time during the Development Period provided however that the Option Notice must be delivered on or before the expiration of the Development Period, time being of the essence. Landlord and Tenant agree that as of the effective date set forth in the Option Notice, the date of the lease granted hereunder in accordance with

Section 1.2 shall commence (the "***Lease Commencement Date***") and the Development Period shall automatically terminate. If Tenant does not exercise such Option, then this Agreement shall terminate at the end of the Development Period, as set forth in Section 2.2, Landlord shall be entitled to retain any all payments made hereunder and this Agreement shall be of no further force or effect and all rights, duties and obligations of Landlord and Tenant under this Agreement shall terminate, except those that specifically survive termination of this Agreement

1.2 Lease of Premises. If Tenant exercises the Option set forth in Section 1.1 during the Development Period, then effective upon the Lease Commencement Date, in consideration of the rents, covenants and agreements hereinafter reserved and contained on the part of Tenant to be observed and performed, the Landlord demises and leases the Premises to Tenant, and Tenant hereby rents and leases the Premises from Landlord, subject to the terms and conditions of this Agreement for the following purposes (collectively, the "***Permitted Use***"): (a) to monitor, test and evaluate the Premises for solar energy generation, including without limitation, conducting studies of solar radiation, solar energy, soils, and other meteorological and geotechnical data; and (b) to install, operate, maintain, improve, repair replace and remove from time to time the System. Tenant shall have exclusive use and possession of the Premises. Tenant acknowledges and agrees that Landlord has not made, and will not make, any representation concerning whether the Premises may be used for its intended purpose and Tenant covenants that Tenant will not use, suffer or permit any person to use the Premises for any unlawful purpose and shall not permit any nuisance or waste upon the Premises. The provisions of this Section 1.2 shall be binding upon Tenant's successors, assigns and shall not be waived by any consent to an assignment or subletting or otherwise. The provisions of this paragraph shall survive termination or expiration of this Agreement.

1.3 Access Easement. Landlord hereby grants to Tenant for the Term (as defined herein), an easement (the "***Access Easement***") over, across and on such portion of the Property, if necessary, for ingress to and egress from the System and the Transmission Facilities by means of any existing roads and lanes, or by such route or routes as Tenant may construct from time to time, provided that if Tenant is unable to construct a road or lane on the Premises and instead is required to traverse a portion of the Property not subject to the lease, Tenant must first obtain Landlord's consent which shall not be unreasonably withheld. In connection therewith, the location of said proposed access on the Property shall not unnecessarily interfere with Landlord's use of or intended future use of the Property not subject to the lease and shall be located in close proximity to the Premises in a location mutually agreeable between the Parties.

1.4 Temporary Construction Easement. Landlord hereby grants to Tenant during the Construction Period and the Decommissioning Period (in each case as defined herein), a temporary easement (the "***Temporary Construction Easement***") over, across and on that portion of the Property designated as the Temporary Construction Easement on **Exhibit B** attached hereto for the storage and assemblage of materials to construct, erect, install, maintain, operate, repair and remove the System, provided Tenant is unable to utilize the Premises for this purpose. Tenant must first obtain Landlord's consent, which shall not be unreasonably withheld. In connection therewith, the location of said proposed access on the Property shall not unnecessarily interfere with Landlord's use of or intended future use of the Property not subject to the lease and shall be located in close proximity to the Premises in a location mutually agreeable between the Parties. The rights herein granted shall include the non-exclusive right to the unobstructed access to the

Temporary Construction Easement by Tenant, its agents, employees and contractors with all manner of men, machinery, supplies and equipment reasonably required for the construction, reconstruction or removal of the System on or from the Premises.

1.5 Transmission Easement. Landlord hereby grants to Tenant one or more easements ("***Transmission Easements***") over, across and on such portions of the Property as will be notified to Landlord by Tenant, provided said Transmission Easements are located in close proximity to the Premises and do not unreasonably interfere with Landlord's use or intended future use of the Property, for electrical transmission and/or distribution and communications lines and related equipment, as further described on **Exhibit C** attached hereto ("***Transmission Facilities***"). Any such Transmission Easement will contain all of the rights and privileges granted to Tenant in relation to the System as set forth in this Agreement. The term of the Transmission Easements will be the same as the Term of this Agreement unless earlier terminated pursuant to the terms herein or upon the occurrence of an Event of Default by Tenant resulting from Tenant's failure to pay of rent, and will not expire or be terminable by Landlord under any other circumstances. Tenant will have the right to assign or convey all or any portion of any Transmission Easement to a third party that owns, operates and/or maintains the Transmission Facilities, or any other person in accordance with the terms hereof.

1.6 Solar Easement. Landlord hereby grants and conveys to Tenant an exclusive easement on, over and across the Property for the following purposes (such easement, the "***Solar Easement***"): granting open and unobstructed access to the sun and prohibiting any obstruction to the open and unobstructed access to the sun throughout the entire Premises to and for the benefit of the area existing horizontally three hundred sixty degrees (360°) from any point where the System is or may be located at any time from time to time (such point referred to as a "***Site***") and for a distance from the Site to the boundaries of the Premises, together vertically through all space located above the surface of the Premises, that is, one hundred eighty degrees (180°) or such greater number or numbers of degrees as may be necessary to extend from each point on and along a line drawn along the surface from each point along the exterior boundary of the Premises through each Site to each point and on and along such line to the opposite exterior boundary of the Premises.

1.7 Burdens Run With and Against the Land. The burdens of the Access Easement, the Temporary Construction Easement, the Solar Easement and the Transmission Easement (the "***Easements***") and all other rights granted to Tenant in this Agreement will run with and against the Property so long as the Lease remains in effect and will be a charge and burden on the Property and will be binding upon and against Landlord and its successors, assigns, transferees, permittees, licensees, lessees, employees and agents until this Agreement is terminated. The Agreement and the Easements will inure to the benefit of Tenant and its successors, assigns, transferees, permittees, licensees, lessees, and all persons claiming under them.

ARTICLE II
TERM

2.1 Entire Term. The "***Term***" of this Agreement shall consist of the Development Period together with, if Tenant exercises the applicable Option, the Construction Period, the Operating Period, the Decommissioning Period and the Renewal Term.

2.2 Development Period. The "***Development Period***" means the period commencing on the Effective Date and expiring on the earlier of: (i) the date specified by Tenant in the Option Notice, or (ii|) the date that is twelve (12) months after the Effective Date; provided, however, that the initial twelve (12) month period shall be automatically extended by an additional six (6) months if Tenant has not yet received the "Community Credit" (as defined by NYSERDA) for the System and such delay is not attributable to Tenant. If Tenant determines, in its discretion, during the Development Period that the Property is not appropriate for Tenant's intended use, then Tenant may terminate this Agreement upon written notice to Landlord before the expiration of the Development Period. Neither Landlord nor Tenant makes any representation or warranty as to the likelihood that the System will be approved by the agencies with approval jurisdiction over said System, or that it will be installed on the Property. If this Agreement is terminated during the Development Period, then and in such event, all Parties shall thereupon be relieved of further liability and obligations hereunder.

2.3 Construction Period. The "***Construction Period***" means the period commencing on the earlier date to occur of (i) the date specified by Tenant in a notice of intent to begin the Construction Period and (ii) six (6) months from the day after the conclusion of the Development Period; provided, however that so long as Tenant is using commercially reasonable efforts to diligently complete construction, the initial six (6) month period shall be automatically extended until the commencement of the Operating Period.

2.4 Operating Period. The "***Operating Period***" means the period commencing on the Commercial Operation Date and continuing for a period of twenty-five (25) years after the commencement thereof, unless terminated earlier or extended in writing signed by both parties as provided herein. The "***Commercial Operation Date***" means the date on which Tenant notifies Landlord in writing that all testing and commissioning of the System has been successfully completed, the local electric power distribution company has issued permission to operate for the System and Tenant can start producing electricity for sale.

2.5 Decommissioning Period. The "***Decommissioning Period***" means the period commencing on the expiration of the Operating Period (including any extensions thereof), and continuing for a period of one hundred eighty (180) days thereafter.

2.6 Renewal Term. Tenant shall have the right, provided that no Event of Default by Tenant has occurred and is continuing hereunder, to extend the Operating Period for two (2) additional periods of five (5) years each upon mutual agreement of both Parties (collectively, the "***Renewal Term***"). To exercise its option to renew the term for the Renewal Term(s), Tenant must deliver a written extension notice to Landlord ninety (90) days prior to the expiration of the Operating Period (the "**Renewal Notice**") and Landlord shall provide Tenant notice thirty (30) days after receipt of the Renewal Notice if it elects to extend the term. The terms of the Agreement during the Renewal Term will be the same terms and conditions applicable during the Operating Period, except as specifically provided herein. If Tenant fails timely to deliver the extension notice, this Lease will terminate at the end of the Decommissioning Period (the "***Expiration Date***").

ARTICLE III
RENT

[redacted]

ARTICLE IV
USE

4.1 Development Period Permitted Uses. During the Development Period, Tenant or its representatives (at Tenant's sole cost and expense) shall have the right of access to the Premises for the purpose of installing equipment, (provided that such equipment does not interfere with Landlord's use of the Premises in any way), making surveys, physical inspections and investigations, including but not limited to solar and environmental studies considered necessary by Tenant in connection with its proposed use of the Premises (collectively the "***Investigations***"). Tenant will provide Landlord with reasonable prior notification (which may be delivered electronically or by facsimile), of any entry on the Premises. In the event Tenant elects to conduct invasive geotechnical and environmental testing and sampling (collectively "***Invasive***

Investigations"), so long as same are conducted by appropriately qualified professionals, a Scope of Work is prepared in accordance with prevailing industry standards and is provided in advance that includes the proposed locations of any testing, sampling and investigations, and the insurance that is required under Exhibit E herein is obtained naming the Landlord as an additional insured provided that neither Tenant nor its representatives shall not perform any Invasive Investigations at the Property without the prior written consent of Landlord with respect to each separate Scope of Work, which consent may be withheld in the reasonable discretion of Seller. Tenant shall repair any and all damages to the Property caused by its entry upon the Premises. Tenant shall make every reasonable effort not to interfere with Landlord or Landlord's use of the Premises. Tenant will comply with Applicable Law (as defined below) relating to Tenant's use or occupancy of the Premises and the System and the operation thereof. Without limiting the provisions of this Article IV, Landlord acknowledges and agrees that the Tenant's use of the Premises during the Development Period may be accomplished by Tenant or one or more third parties authorized by Tenant. Landlord shall provide reasonable cooperation and accommodation for any such third party to perform any activity contemplated by this Agreement. Tenant agrees to indemnify against and hold Landlord harmless from any claims, demands, damages, losses, liabilities, suits, actions, costs and expenses, including, without limitation, reasonable attorney's fees, arising out of or in connection with or related to any entry upon the Premises by Tenant, or any agents, contractors, or employees of Tenant during the Development Period, provided, however, that Tenant shall not incur any obligation or liability to Landlord or any third party with respect to any pre-existing environmental conditions at, on or near the Premises as a result of any such entry and testing.

(A)_ Tenant hereby agrees to indemnify, defend and hold Landlord, its officers, shareholders, partners, members, directors, employees, attorneys and agents harmless from and against any and all liability, loss, cost, judgment, claim, damage or expense (including, without limitation, reasonable attorneys' fees and expenses) (collectively, "***Access Claims***"), to the extent resulting from or arising out of physical damage to property or physical injury to any person, and in each case to the extent caused by Tenant's (or Lessee's employees', agents', representatives' and subcontractors') negligence or willful misconduct on the Premises. The foregoing indemnification shall survive the termination of this Agreement.

(B) As a condition precedent to Tenant or its representatives entering the Property in connection with any Investigations, Tenant and its contractors and subcontractors that will enter onto the Property shall maintain or cause to be maintained, at their sole cost and expense, the insurance coverage set forth in Exhibit E. Tenant shall deliver evidence of such insurance coverage to Landlord prior to the commencement of the first Investigation and upon Landlord's request proof of continued coverage prior to any subsequent Investigation.

(C) Tenant shall provide Landlord with copies of any final laboratory test reports resulting from samples collected during the Investigation(s) as soon as reasonably practicable after the results are available (with no right of reliance except to the extent Landlord expressly obtains such right from the applicable vendor). Tenant shall also provide Landlord with completed reports (with no right of reliance except to the extent Landlord expressly obtains such right from the applicable vendor), as soon as reasonably practicable before such reports are submitted to any governmental authorities. If petroleum or any Hazardous Materials are discovered on or under the Property, Tenant shall promptly notify Landlord. Tenant shall make reasonable and good faith

effort to confer with Landlord prior to making any required or mandatory report to a governmental authority.

4.2 Permitted Use During Lease.

(a) Commencing on the Commencement Date, Tenant shall use the Premises for the Permitted Use. Tenant will comply with Applicable Law (as defined below) relating to Tenant's use or occupancy of the Premises and the System and the operation thereof. Without limiting the provisions of this Article IV, Landlord acknowledges and agrees that the Permitted Use may, without Landlord's consent, be accomplished by Tenant or one or more third parties authorized by Tenant. Landlord shall provide reasonable cooperation and accommodation for any such third party to perform any activity contemplated by this Agreement. Tenant's use of the Premises is subject to the following:

(i) present and future zoning laws, ordinances, resolutions, approvals, permits, and regulations of the municipality in which the Premises lies, and all present and future ordinance, laws, regulations, approvals, permits, and orders of any governmental authority (including maintaining any required licenses and authorizations), now or hereafter having jurisdiction, so long as they permit or otherwise regulate the use of the Premises;

(ii) the condition and state of repair of the Premises as the same may be on the Effective Date; and

(iii) full compliance by Tenant in all respects with Applicable Law.

(b) An authorized representative of Tenant shall have access to the Premises twenty-four (24) hours per day, seven (7) days per week, during the Term.

(c) In connection with the Permitted Use, Tenant shall install a fence around the System and shall have the right to provide such other reasonable security measures, including the posting of warning signs, as Tenant may deem, in its reasonable discretion, are or may be necessary for the protection of the System or to prevent injury or damage to persons or property, subject in all cases to Landlord's normal security procedures and Landlord's access rights. Tenant shall provide screening if required by the municipality and any trees permitted to be cut by Tenant on the Premises shall be removed by the Tenant, including all stumps (if required under Applicable Law or if reasonable best practices require such removal) and debris. If the Tenant is required to remove any stonewalls on the Premises, Tenant may do so provided that any such stones/materials are stockpiled on the Property and not destroyed or removed entirely from the site.

(d) For purposes of this Agreement, "***Applicable Law***" means any constitutional provision, law, statute, rule, regulation, ordinance, treaty, order, decree, judgment, decision, certificate, holding, injunction, registration, license, franchise, permit, authorization, guideline, governmental approval, consent or requirement of any governmental authority having jurisdiction over such person or its property, enforceable at law or in equity, including the interpretation and administration thereof by such governmental authority.

4.3 System Construction, Installation and Operation.

(a) Landlord hereby consents to the construction of the System by Tenant on the Premises, including, without limitation, solar panels, mounting substrates or supports, wiring and connections, power inverters, service equipment, monitoring equipment, metering equipment and utility interconnections. Prior to the installation of the System, Tenant shall deliver to Landlord the final construction designs and plans (the "***Construction Plans***"), and shall deliver notice of any material changes thereto to Landlord.

(b) Tenant shall also have the right from time to time during the Term: (i) to install and operate the System on the Premises in accordance with the Construction Plans; (ii) to maintain, clean, repair, replace and dispose of part or all of the System; (iii) to add or remove the System or any part thereof; and (iv) to perform (or cause to be performed) all tasks necessary or appropriate, as reasonably determined by Tenant.

4.4 Removal. During the Decommissioning Period, Tenant shall at its sole cost and expense, remove the System from the Property, including all foundations, to a depth of three (3) feet below grade, and any associated equipment or personal property owned by Tenant, and restore forthwith the Premises to their original condition, ordinary wear and tear excluded. Any damage to electrical systems and their appurtenances and any other connections, to the extent caused by Tenant or its Contractors, shall be forthwith fully repaired and shall not be considered ordinary wear and tear; provided, however, that Landlord shall be responsible for all such decommissioning costs and expense, and shall indemnify and reimburse Tenant therefore, in the event that Tenant terminates this Agreement as a result of an Event of Default by Landlord's hereunder; provided, however, that prior to such termination, Tenant shall provide additional written notice to Landlord and Landlord shall have an additional thirty (30) days to cure such Event of Default (in addition to the applicable cure period set forth in Section 10.1). Tenant may set-off against any amounts owed to Landlord hereunder any decommissioning costs for which Landlord is responsible. Tenant shall maintain a decommissioning bond if required under applicable law.

ARTICLE V
COVENANTS

5.1 Representations and Covenants of Landlord.

(a) Landlord represents and warrants that Landlord has good and marketable fee simple title to the Property. There are no encumbrances or liens (including other tenancies) against the Premises except those which are listed on **Exhibit G** attached hereto. Landlord shall obtain a non-disturbance agreement ("***NDA***") from any third party who has, or obtains during the Term, a lienholder interest in the Premises, including any lenders (each, a "***Holder***"), which NDA shall (i) acknowledge and consent to this Agreement and Tenant's rights in the System and the Premises, (ii) acknowledge that the Holder has no interest in the System and shall not gain any interest in the System by virtue of the parties' performance or breach of this Agreement, and (iii) subordinates any lien (recorded or unrecorded) and any other right or interest of the Holder in the Premises to this Agreement in all respects, including without limitation any amendments, modifications, expansions or extensions hereof.

(b) Tenant shall maintain and repair all utilities installed by Tenant on the Premises.

(c) Landlord will not cause, and will not permit its employees, invitees, agents or contractors to cause, the electrical system at the Premises to shut down, temporarily or otherwise, unless same is necessary as the result of an emergency.

(d) Landlord will not, and will not permit its employees, invitees, agents or contractors to, conduct activities on, in or about the Property or the Premises that Landlord knows or reasonably should know may damage, impair or otherwise adversely affect the System or its function. Further, Landlord will not, and will not permit its employees, invitees, agents or contractors to conduct maintenance to the Premises, or to undertake other activities, that are reasonably likely to damage, impair or otherwise adversely affect the System or its function. Landlord shall take all reasonable steps to limit access to the Premises to Tenant and Tenant's employees, invitees, agents and representatives.

(e) Landlord represents and warrants that the execution and delivery by Landlord of, and the performance of its obligations under, this Agreement have been duly authorized by all necessary action, do not and will not require any further consent or approval of any other person, and do not contravene any provision of, or constitute a default under, any indenture, mortgage or other material agreement binding on Landlord, or any valid order of any court, or regulatory agency or other body having authority to which Landlord is subject. This Agreement constitutes a legal and valid obligation of Landlord, enforceable against Landlord, except as may be limited by bankruptcy, reorganization, insolvency, bank moratorium or laws relating to or affecting creditors' rights generally and general principles of equity whether such enforceability is considered in a proceeding in equity or at law, and as may be otherwise provided for in the Agreement.

(f) Landlord acknowledges and agrees that the free and unobstructed flow of sunlight ("***Insolation***") is essential to the value to Tenant of the leasehold interest granted hereunder, and is a material inducement to Tenant in entering into this Agreement. Accordingly, and pursuant to Section 1.6, Landlord shall not permit any interference with Insolation reaching the Premises. Without limiting the foregoing, Landlord shall not construct or permit to be constructed any structure on the Property that could adversely affect Insolation levels, permit the growth of foliage that could adversely affect Insolation levels, or emit or permit the emission of suspended particulate matter, smoke, fog or steam or other air-borne impediments to Insolation. If Landlord becomes aware of any potential development or other activity on adjacent or nearby properties that could diminish the Insolation to the Premises, Landlord shall advise Tenant of such information and reasonably cooperate with Tenant in measures to preserve existing levels of Insolation at the Premises. Notwithstanding any other provision of this Agreement, the Parties agree that (i) Tenant would be irreparably harmed by a breach of the provisions of this Section 5.1(h), (ii) an award of monetary damages would be inadequate to remedy such a breach, and (iii) Tenant shall be entitled to seek equitable relief, including specific performance, to compel compliance with the provisions of this Section 5.1(h). In addition, Landlord hereby grants to Tenant the right, to trim, prune, top or otherwise control the growth of any tree, shrub, plant or other vegetation on the Property to the extent it prevents or otherwise obstructs Insolation to the Premises at its sole cost and expense in accordance with Applicable Laws, provided said company

that Tenant engages to trim, prune or top any tree on the Property has a licensed arborist on staff or is otherwise approved by Landlord.

(g) Landlord will cooperate with Tenant and use its best effort to assist Tenant, at no cost to Landlord, in obtaining and maintaining any permits or approvals required in connection with the installation, operation and maintenance of the System on the Premises.

5.2 Representations and Covenants of Tenant.

(a) Tenant represents and warrants that the execution and delivery by Tenant of, and the performance of its obligations under, this Agreement have been duly authorized by all necessary action, do not and will not require any further consent or approval of any other person, and do not contravene any provision of, or constitute a default under, any indenture, mortgage or other material agreement binding on Tenant, or any valid order of any court, or regulatory agency or other body having authority to which Tenant is subject. This Agreement constitutes a legal and valid obligation of Tenant, enforceable against Tenant, except as may be limited by bankruptcy, reorganization, insolvency, bank moratorium or laws relating to or affecting creditors' rights generally and general principles of equity whether such enforceability is considered in a proceeding in equity or at law, and as may be otherwise provided for in the Agreement.

(b) Tenant shall take good care of the Premises and the System, ordinary wear and tear excepted, and conduct all required maintenance and make all repairs thereto. Except as otherwise expressly provided herein, Landlord shall have no duty or liability to Tenant with respect to the maintenance, repair or security of the Premises or the System.

(c) Except as expressly provided in Section 5.1(b), Tenant shall make all arrangements for and pay directly to the entity providing the service, before delinquent, all charges for all utilities and services furnished to or used by it, including without limitation, electricity, water, telephone/internet service, trash collection and connection charges. In the event that Tenant desires to undertake maintenance, repair, upgrade, replacement or security activities with respect to electrical transmission or distribution lines owned by Landlord, Tenant may do so at Tenant's expense subject to the approval of Landlord, which shall not be unreasonably withheld, conditioned or delayed.

(d) Tenant represents that, except for the need to trim, prune, top or otherwise control the growth of certain vegetation on the Property, the existing conditions of the Premises are acceptable and provide for unobstructed flow of Insolation for the purposes stated hereunder. Further, Tenant is aware of surrounding and abutting and adjacent properties and in their opinion said properties do not interfere, as of the Effective Date, with the conditions necessary for the Tenant to construct, own, operate or maintain the System.

(e) Tenant will, at its sole cost an expense, obtain any permits or approvals required in connection with the installation, operation and maintenance of the System on the Premises. In connection therewith, Tenant represents that it will use commercially reasonable efforts to pursue all approvals necessary for and in connection with its intended use.

ARTICLE VI
TITLE AND TRANSFER RESTRICTIONS

6.1 Title to System. Subject to the rights provided to Landlord pursuant to this Agreement, the System and all alterations, additions, improvements or installations made thereto by Tenant and all Tenant property used in connection with the installation, operation and maintenance of the System is, and shall remain, the personal property of Tenant ("***Tenant Property***"). In no event shall any Tenant Property be deemed a fixture, nor shall Landlord, nor anyone claiming by, through or under Landlord (including but not limited to any present or future mortgagee of the Property) have any rights in or to the Tenant Property at any time except as otherwise provided herein. Landlord shall have no ownership or other interest in the System or other equipment or personal property of Tenant installed on the Premises, and Tenant may remove all or any portion of the System at any time and from time to time. Without limiting the generality of the foregoing, Landlord hereby waives any statutory or common law lien that it might otherwise have in or to the System or any portion thereof. The System may not be sold, leased, assigned, mortgaged, pledged or otherwise alienated or encumbered by Landlord.

6.2 Liens.

(a) Landlord shall not suffer or permit the System or the Premises to become subject to any lien or encumbrance for debt of any kind (including without limitation, any mechanic's, laborer's or materialman's lien) that may be owed by or demanded of Landlord. Landlord will promptly give Tenant written notice of such lien and will promptly take such action as is necessary or appropriate to have the lien discharged and removed of record. Landlord shall be solely responsible for any and all costs and expenses incurred in discharging and releasing such lien.

(b) Tenant shall not directly or indirectly cause, create, incur, assume or suffer to exist any mortgage, pledge, lien (including, without limitation, lender's, mechanics', labor or materialman's lien), charge, security interest, encumbrance or claim on or with respect to the Property (other than the System or any interest therein). Tenant will promptly give Landlord written notice of any such lien and will promptly take such action as is necessary or appropriate to have the lien discharged and removed of record. Tenant shall be solely responsible for any and all costs and expenses incurred in discharging and releasing such lien.

(c) If any mechanic's, laborer's or materialman's lien shall at any time be filed against the Property, the Premises or the System, the Party responsible for the discharge thereof (the "***Discharging Party***") shall, within ten (10) Business Days after receiving notice of the filing thereof, cause such lien to be discharged of record by payment, deposit, bond, insurance, order of court of competent jurisdiction or otherwise. If the Discharging Party shall fail to cause such lien to be discharged within the period aforesaid, then, in addition to any other right or remedy, the other Party may, but shall not be obligated to, discharge the same either by paying the amount claimed to be due or by procuring the discharge of such lien by deposit or by bonding. Any amount so paid by such Party and costs and expenses reasonably incurred by such Party in connection therewith, together with interest in the amount of 2.5% per month from the respective dates of making the payment or incurring the cost and expenses, shall be paid by the Discharging Party within ten (10) Business Days of the Discharging Party's receipt of an invoice therefor.

6.3 Right of First Offer.

(a) If, at any time during the Term, Landlord intends to offer to sell the Premises or any part thereof or interest therein to a third party, other than to any entity controlling, controlled by, or under common control with Landlord (an "***Exempt Transferee***"), then Landlord shall, prior to any offering, deliver to Tenant written notice of the terms and conditions upon which Landlord intends to offer the Premises for sale. Provided that no Event of Default has occurred and is continuing hereunder, Tenant shall have the right to purchase the Premises (or such part thereof or interest therein) on the terms set forth in the notice from Landlord by giving written notice of Tenant's intention to purchase to Landlord within twenty (20) business days after receiving notice from Landlord. In the event that Tenant fails to notify Landlord within said twenty (20) day period of Tenant's election to exercise its right to purchase, or in the event Tenant notifies Landlord within said period that Tenant will not exercise its right to purchase, Landlord may proceed to sell the Premises (or such part thereof or interest therein) to any third party after the expiration of such twenty (20) day period, but only on substantially the same terms and conditions as were set forth in the notice from Landlord to Tenant. Any material change in such terms and conditions shall be deemed a new offer and Landlord shall not consummate any sale to a third party without first submitting the terms and conditions of the current offer to Tenant and Tenant shall have twenty (20) business days after receipt of said notice in which to elect to exercise its right to purchase. Tenant's right to purchase as described herein shall survive a conveyance to a third party or to an Exempt Transferee.

(b) In the event Tenant exercises its right to purchase, on the date which Landlord and Tenant consummate the purchase and sale of the Premises, Tenant shall deliver to Landlord the purchase price and Landlord shall deliver to Tenant a Special Warranty Deed recordable in the State of New York and such Bill of Sale or assignment as shall be customary. Tenant and Landlord shall each pay transfer and recording taxes, if any, in accordance with the laws of the State of New York. If the law is silent as to the allocation of such transfer and recording taxes, such taxes shall be allocated between Tenant, as purchaser, and Landlord, as seller, in accordance with the customary practice of the county in which the Premises are located. Landlord shall execute such affidavits or certificates as Tenant may request and as may be required by Tenant's title company in order to enable the title company to issue an owner's title insurance policy to Tenant.

ARTICLE VII
QUIET ENJOYMENT

Landlord covenants and agrees that Tenant, provided Tenant remains in compliance with its obligations under this Agreement, shall lawfully and quietly have, hold, occupy and enjoy the Premises and an uninterrupted right of ingress and egress across the Property to the extent necessary to effectuate the purposes of this Agreement and agree to in accordance with the terms hereof throughout the entire term of this Agreement, free from any claim of any Person of superior title thereto without hindrance to, interference with or molestation of Tenant's use and enjoyment thereof, whether by Landlord or any of its agents, employees or independent contractors or by any Person having or claiming an interest in the Permitted Areas.

ARTICLE VIII
TAXES

8.1 Landlord Taxes and Assessments. Landlord will pay, when due, all real property taxes and assessments levied against the Premises and all personal property taxes and assessments levied against any property and improvements owned by Landlord and located on the Premises. If Landlord fails to pay any such taxes or assessments when due, Tenant may, at its option, pay those taxes and assessments and any accrued interest and penalties, and either seek reimbursement from Landlord or deduct the amount of its payment from any rent or other amount otherwise due to Landlord from Tenant.

8.2 Tenant Taxes and Assessments. Tenant will pay all personal property taxes and assessments levied against the System when due, including any such taxes based on electricity production (the "***Tenant Personal Property Taxes***"). If the real property taxes assessed to such Premises increase solely as a result of the installation of the System on the Premises, Tenant will pay or reimburse Landlord an amount equal to the increase to the extent caused by such installation (collectively with the Tenant Personal Property Taxes", the "***Tenant Taxes***") no later than fifteen (15) days prior to the date each year on which the applicable real estate taxes are due to be paid, *provided* that not less than thirty (30) days prior to such due date Landlord provides Tenant with copies of the applicable current and past statements of real estate taxes payable for the Premises and any related information (to the extent such information is available) demonstrating that the installation of the System resulted in the increase in real estate taxes for which Landlord is requiring payment or reimbursement from Tenant. Landlord and Tenant agree jointly to use commercially reasonable efforts to cause the Premises not to be reclassified from its present zoning classification or exemption as a result of this Agreement. Tenant estimates that the amount of any Tenant Taxes will be the amount set forth on **Exhibit H** (the "***Estimated Annual PILOT***"). If the actual annual Tenant Taxes differ from the Estimated Annual PILOT, then the Operating Period Rent due shall be adjusted as set forth in **Exhibit H**.

8.3 Tax Contest. Either Party may contest the validity or amount of any levied taxes, assessments or other charges for which each is responsible under this Agreement as long as such contest is pursued in good faith and with due diligence and the party contesting the tax, assessment or charge has paid the obligation in question or established adequate reserves to pay the obligation in the event of an adverse determination.

ARTICLE IX PRIOR USES

9.1 In granting this Agreement, Landlord does not seek to make Tenant liable for any past, present or future contamination or pollution or breach of any Applicable Law pertaining to the use, storage and disposal of Hazardous Materials, if any, located on or related to the Property, including the Premises and the land beneath, unless brought to the Property by or on behalf of Tenant. Accordingly, Landlord agrees to assume full responsibility for any liability or cleanup obligations for any contamination or pollution or breach of Applicable Law pertaining to the use, storage and disposal of Hazardous Materials, related to the Property, including the Premises, unless brought to the Property by Tenant. For purposes of this Article IX, "***Hazardous Materials***" means any chemical, waste or other substance (A) which now or hereafter becomes defined as or included in the definition of "hazardous substances," "hazardous wastes," "hazardous materials,"

"extremely hazardous wastes," "restricted hazardous wastes," "toxic substances," "toxic pollutants," "pollution," "pollutants," "regulated substances," or words of similar import under any Applicable Laws pertaining to the environment, health, safety or welfare, (B) which is declared to be hazardous, toxic, or polluting by any Governmental Authority, (C) exposure to which is now or hereafter prohibited, limited or regulated by any Governmental Authority, (D) the storage, use, handling, disposal or release of which is restricted or regulated by any Governmental Authority, or (E) for which remediation or cleanup is required by any Governmental Authority.

9.2 *Landlord Representation*. Landlord represents to the best of its knowledge that at the time it executes this Agreement, no Hazardous Materials exist or have been released on, in or under the Property in violation of Applicable Law.

9.3 *Tenant Responsibilities*. Tenant agrees and shall cause its contractors to agree to use and dispose of any Hazardous Materials brought to the Property by Tenant or its contractors in accordance with all Applicable Laws.

9.4 If Tenant or its contractors discover any Hazardous Materials existing on the Property during the Term that Tenant reasonably believes requires removal or remediation, or that otherwise impairs or prevents installation and testing of the System, Tenant shall promptly notify Landlord, and Tenant may, in its sole discretion, suspend installation, testing or operation of the System until such time as Landlord has removed the Hazardous Materials and remediated the Property in accordance with applicable standards and requirements under Applicable Law taking into consideration Tenant's use of the Property, provided however that in the event such Hazardous Materials migrate onto the Property from an adjacent property and such migration is not caused by Landlord, then Landlord shall have no such obligation to remediate and Tenant shall have the option to terminate the Lease. Tenant shall have no responsibility or liability in respect of Hazardous Materials existing at the Property (other than any Hazardous Materials brought to the Property by or on behalf of Tenant). If Landlord (a) does not agree on a schedule and terms to remediate the Hazardous Materials within five (5) days following the discovery of such Hazardous Materials at the Property or (b) does not remediate within twenty (21) days, then either such failure shall be an Event of Default, Landlord shall be liable for damages as a defaulting Party under Article X, and Tenant may terminate this Agreement.

ARTICLE X

EVENTS OF DEFAULT; INSURANCE; INDEMNIFICATION

10.1 Events of Default. The following shall each constitute an "***Event of Default***" by a Party:

(a) The Party fails to perform or comply with any covenant or agreement set forth in this Agreement (other than those specified in clauses (b), (c), (d) and (e) of this Section 10.1) and such failure continues for a period of thirty (30) days after receipt of written notice thereof from the other Party; *provided*, *however*, if the defaulting Party proceeds with due diligence during such thirty (30) day period to cure such breach and is unable by reason of the nature of the work involved using commercially reasonable efforts to cure the same within the said thirty (30) days, the defaulting Party's time to do so shall be extended by the time reasonably necessary to

cure the same; *provided further*, that if such breach cannot, due to it is nature and despite diligent efforts, be cured within ninety (90) days, the non-defaulting Party may terminate this Agreement under this Article X.

(b) Fraud or intentional misrepresentation by the Party with respect to any of the representations, covenants or agreements of this Agreement.

(c) The Party: (i) is dissolved (other than pursuant to a consolidation, amalgamation or merger); (ii) becomes insolvent or is unable to pay its debts or fails (or admits in writing its inability) generally to pay its debts as they become due; (iii) makes a general assignment, arrangement or composition with or for the benefit of its creditors; (iv) has instituted against it a proceeding seeking a judgment of insolvency or bankruptcy or any other relief under any bankruptcy or insolvency law or other similar law affecting creditor's rights, or a petition is presented for its winding-up, reorganization or liquidation, which proceeding or petition is not dismissed, stayed or vacated within forty-five (45) Business Days thereafter; (v) commences a voluntary proceeding seeking a judgment of insolvency or bankruptcy or any other relief under any bankruptcy or insolvency law or other similar law affecting creditors' rights; (vi) seeks or consents to the appointment of an administrator, provisional liquidator, conservator, receiver, trustee, custodian or other similar official for it or for all or substantially all of its assets; (vii) has a secured party take possession of all or substantially all of its assets, or has a distress, execution, attachment, sequestration or other legal process levied, enforced or sued on or against all or substantially all of its assets; (viii) causes or is subject to any event with respect to it which, under the applicable laws of any jurisdiction, has an analogous effect to any of the events specified in clauses (i) to (vii) inclusive; or (ix) takes any action in furtherance of, or indicating its consent to, approval of, or acquiescence in, any of the foregoing acts.

(d) The Party assigns this Agreement in whole or in part in violation of Article XII.

10.2 Force Majeure. If by reason of Force Majeure, either Party is unable to carry out, either in whole or in part, any of its obligations contained herein except payment of any monetary sum due and owing, such Party shall not be deemed to be in default during the continuation of such inability, *provided* that: (a) the non-performing Party promptly gives the other Party hereto written notice describing the particulars of the occurrence and the anticipated period of delay; (b) the suspension of performance be of no greater scope and of no longer duration than is required by the Force Majeure event; (c) no obligations of the Party which were to be performed prior to the occurrence causing the suspension of performance shall be excused as a result of the occurrence; and (e) the non-performing Party shall use commercially reasonable efforts to remedy with all reasonable dispatch the cause or causes preventing it from carrying out its obligations. Notwithstanding anything to the contrary in this Agreement, in the event a Force Majeure event continues for a period of two hundred seventy (270) consecutive days or more, either Party may terminate this Agreement. Upon termination of this Agreement by either Party pursuant to this Section 10.2, neither Party shall have any obligation or financial liability to the other Party as a result of such termination. "***Force Majeure***" means any event or circumstances beyond the reasonable control of and without the fault or negligence of the Party claiming Force Majeure and shall include, without limitation, an act of god; war (declared or undeclared); sabotage; riot; insurrection; civil unrest or disturbance; military or guerilla action; terrorism; economic sanction

or embargo; civil strike, work stoppage, slow-down, or lock-out; explosion; fire; earthquake; abnormal weather condition or actions of the elements; hurricane; flood; lightning; wind; drought; the binding order of any Governmental Authority (provided that such order has been resisted in good faith by all reasonable legal means); the failure to act on the part of any Governmental Authority (provided that such action has been timely requested and diligently pursued); and unavailability of electricity from the utility grid, equipment, supplies or products (but not to the extent that any such availability of any of the foregoing results from the failure of the Party claiming Force Majeure to have exercised reasonable diligence).

10.3 Termination for Default. Upon the occurrence of an Event of Default, the non-defaulting Party may (unless such Event of Default was fully cured by the defaulting Party before receipt of written notice of default hereunder) give written notice to the defaulting Party specifying such Event of Default and such notice may state that this Agreement and the Term shall expire and terminate on a date specified in such notice, which shall be at least five (5) business days after the giving of such notice, and upon any termination date specified in such notice, this Agreement shall terminate as though such date were the date originally set forth herein for the termination hereof without penalty or liability to the terminating Party; *provided*, *however*, that if the non-defaulting Party does not exercise its right to terminate pursuant to this Section 10.3 within ninety (90) days after its discovery of an Event of Default, then the non-defaulting Party shall lose the right to terminate this Agreement with respect to the occurrence of such Event of Default and such Event of Default shall be deemed cured.

10.4 Remedies. Subject to the limitations set forth in this Agreement, Landlord and Tenant each reserve and shall have all rights and remedies available to it at law or in equity with respect to the performance or non-performance of the other Party hereto under this Agreement. Each Party agrees that it has a duty, under law, to mitigate damages that it may incur as a result of the other Party's non-performance under this Agreement.

10.5 Insurance. Each Party will procure and maintain insurance as its own cost and expense, and all in accordance with the coverage requirements set forth in **Exhibit E** attached hereto. Each Party shall provide certificates of insurance to the other during the Term certifying that such coverages shall remain in effect for the duration of this Agreement.

10.6 Indemnification.

(a) General. Each Party (the "**Indemnifying Party**") shall defend, indemnify and hold harmless the other Party and the directors, officers, shareholders, partners, members, agents and employees of such other Party, and the respective affiliates of each thereof (collectively, the "**Indemnified Parties**"), from and against all loss, damage, expense, liability and other claims, including court costs and reasonable attorneys' fees (collectively, "**Liabilities**") resulting from any third party actions relating to the breach of any representation or warranty set forth in this Agreement and from injury to or death of persons, and damage to or loss of property to the extent caused by or arising out of the negligent acts or omissions of, or the willful misconduct of, the Indemnifying Party (or its contractors, agents or employees) in connection with this Agreement; provided, however, that nothing herein shall require the Indemnifying Party to indemnify the Indemnified Party for any Liabilities to the extent caused by or arising out of the negligent acts or omissions of, or the willful misconduct of, the Indemnified Party; and, provided, further, that

Tenant's aggregate liability to Landlord under this Agreement with respect to any and all Liabilities shall not exceed the amount that Tenant actually recovers from the insurance policies it is required to obtain and maintain pursuant to Section 10.5 and Tenant shall have no obligation to Landlord and/or any other Indemnified Parties in excess of such amounts.

(b) Notice and Participation in Third Party Claims. The Indemnified Party shall give the Indemnifying Party written notice with respect to any Liability asserted by a third party (a "***Claim***"), as soon as possible upon the receipt of information of any possible Claim or of the commencement of such Claim. The Indemnifying Party may assume the defense of any Claim, at its sole cost and expense, with counsel designated by the Indemnifying Party and reasonably satisfactory to the Indemnified Party. The Indemnified Party may, however, select separate counsel if both Parties are defendants in the Claim and such defense or other form of participation is not reasonably available to the Indemnifying Party. The Indemnifying Party shall pay the reasonable attorneys' fees incurred by such separate counsel until such time as the need for separate counsel expires. The Indemnified Party may also, at the sole cost and expense of the Indemnifying Party, assume the defense of any Claim if the Indemnifying Party fails to assume the defense of the Claim within a reasonable time. Neither Party shall settle any Claim covered by this Section 10.6(b) unless it has obtained the prior written consent of the other Party, which consent shall not be unreasonably withheld or delayed. The Indemnifying Party shall have no liability under this Section 10.6(b) for any Claim for which such notice is not provided if that the failure to give notice prejudices the Indemnifying Party.

(c) Environmental Indemnification. Tenant shall indemnify, defend and hold harmless all of Landlord's Indemnified Parties from and against all Liabilities arising out of or relating to the existence at, on, above, below or near the Premises of any Hazardous Material to the extent deposited, spilled or otherwise caused by Tenant or any of its contractors or agents; provided, however, that Tenant shall not be obligated to indemnify, defend and hold Landlord harmless from any Liabilities arising in connection with Hazardous Materials released or existing on the Premises prior to the Effective Date of this Lease ("***Pre-Existing Conditions***"). Landlord shall indemnify, defend and hold harmless all of Tenant's Indemnified Parties from and against all Liabilities arising out of or relating to the existence at, on, above, below or near the Premises of any Hazardous Material, except to the extent deposited, spilled or otherwise caused by (i) Tenant or any of its contractors or agents or (ii) a third-party after the Lease Commencement Date, and subject to Landlord's obligations for Pre-Existing Conditions. Each Party shall promptly notify the other Party if it becomes aware of any Hazardous Material on or about the Premises or the Premises generally or any deposit, spill or release of any Hazardous Material.

ARTICLE XI
LIMITATION OF LIABILITY

EXCEPT FOR INDEMNIFICATION OBLIGATIONS SET FORTH IN SECTION 10.6, OR A BREACH OF THIS AGREEMENT DUE TO THE GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF EITHER PARTY, NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL, OR PUNITIVE DAMAGES OF ANY CHARACTER, RESULTING FROM A BREACH OF THE PROVISIONS OF THIS AGREEMENT, IRRESPECTIVE OF WHETHER CLAIMS

OR ACTIONS FOR SUCH DAMAGES ARE BASED UPON CONTRACT, WARRANTY, NEGLIGENCE, STRICT LIABILITY OR ANY OTHER THEORY AT LAW OR EQUITY.

ARTICLE XII
ASSIGNMENT

12.1 General.

(a) This Agreement may not be assigned in whole or in part by either Party without the prior written consent of the other Party, which consent shall not be unreasonably withheld, conditioned or delayed. This Agreement shall be binding on and inure to the benefit of the successors and permitted assignees.

(b) Tenant shall at all times have the right to sell, assign, encumber, transfer or grant equal or subordinate rights and interests (including co-leases, separate leases, subleases, licenses or similar rights (however denominated)) in, its leasehold estate in the Premises (the "***Leasehold Estate***") and/or any or all right or interest in this Agreement, or any or all right or interest of Tenant in the Premises or in System, to one or more persons (an **"*Assignee***"), in each case with Landlord's consent, which consent shall not be unreasonably withheld, conditioned or delayed; provided, however, that any and all such transfers shall be subject to all of the terms, covenants and conditions of this Agreement. Notwithstanding the foregoing, no Landlord consent shall be required for (1) an assignment by Tenant to an affiliate made prior to the Commercial Operation Date, (2) any assignment by Tenant made after the Commercial Operation Date to an assignee who (i) has (or is managed by an entity or will contract with another entity that has) experience comparable to Tenant's experience in the operation and maintenance of solar photovoltaic systems similar to the System, (ii) is as financially capable of performing Tenant's obligations under this Agreement (considering such assignee's own financial wherewithal and that of such assignee's direct or indirect parent) as Tenant is at the time of such transfer, and (iii) agrees in writing to assume Tenant's obligations hereunder, and (3) any change in ownership of Tenant, and the foregoing right to assignment under this section shall run with and against the property for the duration of the Term. Tenant shall notify Landlord in writing of any such sale, assignment, transfer or grant. Upon Tenant's assignment of its entire interest hereunder as to all or any portion of the Premises, or as may otherwise be provided in the applicable sale, assignment, transfer or grant document, Landlord shall recognize the Assignee as Tenant's proper successor, the Assignee shall have all of the assigned rights, benefits and obligations of Tenant under and pursuant to this Agreement, and Tenant shall be relieved of all of its obligations relating to the assigned interests under this Agreement that relate to acts or omissions that occur or accrue following the effective date of such sale, assignment, transfer or grant.

12.2 Financing Parties. In the event that any mortgage, deed of trust or other security interest in this Agreement or the System is entered into by Tenant or an Assignee, including a sale-leaseback (i.e., a transaction in which Tenant sells its interest in this Agreement and/or the System and then leases those interests back from the purchaser) (a "***Leasehold Mortgage***"), then any person who is the mortgagee or beneficiary of a Leasehold Mortgage, including the purchaser in a sale-leaseback transaction (a "***Leasehold Mortgagee***") shall, for so long as its Leasehold Mortgage is in existence and until the lien thereof has been extinguished, be entitled to the protections set forth in this Article XII (inclusive of clauses (a) through (f) below). Tenant or any Leasehold

Mortgagee shall send written notice to Landlord of the name and address of any such Leasehold Mortgagee, as well as any change of the name or address of any Leasehold Mortgagee.

(a) Leasehold Mortgagee's Right to Possession, Right to Acquire and Right to Assign. A Leasehold Mortgagee shall have the absolute right: (i) to assign its security interest; (ii) to enforce its lien and acquire title to the Leasehold Estate by any lawful means; (iii) to take possession of and operate the System, the Leasehold Estate or any portion thereof and to perform all obligations to be performed by Tenant hereunder, or to cause a receiver to be appointed to do so; and (iv) to acquire the Leasehold Estate by foreclosure or by an assignment in lieu of foreclosure and thereafter to assign or transfer the Leasehold Estate to a third party. Tenant's consent shall not be required for the acquisition of the encumbered leasehold or subleasehold estate by a third party who acquires the same by or subsequent to foreclosure or assignment in lieu of foreclosure.

(b) Notice of Default; Opportunity to Cure. As a precondition to exercising any rights or remedies as a result of any alleged default by Tenant, Landlord shall give written notice of the default to each Leasehold Mortgagee or other person who provides debt or equity financing for the development, construction, ownership, operation or maintenance of the System (including, without limitation, any back-leverage financing provided to any direct or indirect owner of equity interests in Tenant or any tax equity investment in the System) (collectively, "***Financing Parties***") concurrently with delivery of such notice to Tenant, specifying in detail the alleged event of default and the required remedy; provided that Tenant shall notify Landlord in writing of the name and address of such Financing Party. In the event Tenant gives such a written notice of default, the following provisions shall apply:

(i) A "**monetary default**" means failure to pay when due any fee, payment, real property taxes, insurance premiums or other monetary obligation of Tenant under this Agreement; any other event of default is a "non-monetary default."

(ii) The Financing Party shall have the same period after receipt of notice of default to remedy the default, or cause the same to be remedied, as is given to Tenant after Tenant's receipt of notice of default, plus, in each instance, the following additional time periods (in addition to those set forth in Section 10.1 herein): (i) sixty (60) days after receipt of the notice of default in the event of any monetary default; and (ii) sixty (60) days after receipt of the notice of default in the event of any non-monetary default, provided that such period shall be extended for the time reasonably required to complete such cure, including the time required for the Financing Party to perfect its right to cure such non-monetary default by obtaining possession of the Premises (including possession by a receiver) or by instituting foreclosure proceedings, provided the Financing Party acts with reasonable and continuous diligence. The Financing Party shall have the absolute right to substitute itself for Tenant and perform the duties of Tenant hereunder for purposes of curing such defaults. Tenant expressly consents to such substitution, agrees to accept such performance, and authorizes the Financing Party (or its employees, agents, representatives or contractors) to enter upon the Premises to complete such performance with all the rights, privileges and obligations of the original Tenant hereunder. Tenant shall not, and shall have no right to, terminate this Agreement prior to expiration of the cure periods available to a Financing Party as set forth above.

(iii) During any period of possession of the Premises by a Financing Party (or a receiver requested by such Financing Party) and/or during the pendency of any foreclosure proceedings instituted by a Financing Party, the Financing Party shall pay or cause to be paid all other monetary charges payable by Tenant hereunder which have accrued and are unpaid at the commencement of said period and those which accrue thereafter during said period. Following acquisition of Tenant's Leasehold Estate by a Financing Party or its assignee or designee as a result of either foreclosure or acceptance of an assignment in lieu of foreclosure, or by a purchaser at a foreclosure sale, this Agreement shall continue in full force and effect and the Financing Party or party acquiring title to Tenant's Leasehold Estate shall, as promptly as reasonably possible, commence the cure of all defaults hereunder and thereafter diligently process such cure to completion, whereupon Landlord's right to terminate this Agreement based upon such defaults shall be deemed waived; provided, however, the Financing Party or party acquiring title to Tenant's Leasehold Estate shall not be required to cure those non-monetary defaults, if any, which are not reasonably susceptible of being cured or performed by such party ("***Non-Curable Defaults***"). Non-Curable Defaults shall be deemed waived by Landlord upon completion of foreclosure proceedings or acquisition of Tenant's interest in this Agreement by such party.

(iv) Any Financing Party or other party who acquires Tenant's Leasehold Estate pursuant to foreclosure or assignment in lieu of foreclosure shall not be liable to perform the obligations imposed on Tenant by this Agreement incurred or accruing after such party no longer has ownership of the Leasehold Estate or possession of the Premises.

(v) Neither the bankruptcy nor the insolvency of Tenant shall be grounds for terminating this Agreement as long as the rent and all other obligations of Tenant hereunder are paid or performed by or on behalf of Tenant or the Financing Party in accordance with the terms of this Agreement.

(vi) Nothing herein shall be construed to extend this Agreement beyond the Term or to require a Financing Party to continue foreclosure proceedings after the default has been cured. If the default is cured and the Financing Party discontinues foreclosure proceedings, this Agreement shall continue in full force and effect.

(c) New Lease Agreement. If this Agreement terminates because of Tenant's default or if the Leasehold Estate is foreclosed, or if this Agreement is rejected or disaffirmed pursuant to bankruptcy law or other law affecting creditors' rights, Landlord shall, upon written request from any Financing Party within ninety (90) days after such event, enter into a new lease agreement for the Premises, on the following terms and conditions:

(i) The term of the new lease agreement shall commence on the date of termination, foreclosure, rejection or disaffirmance and shall continue for the remainder of the Term of this Agreement, at the same fees and payments and subject to the same terms and conditions as set forth in this Agreement.

(ii) The new lease agreement shall be executed within thirty (30) days after receipt by Landlord of written notice of the Financing Party's election to enter into a new lease agreement, provided said Financing Party: (i) pays to Landlord all fees and payments and other monetary charges payable by Tenant under the terms of this Agreement up to the date of

execution of the new lease agreement, as if this Agreement had not been terminated, foreclosed, rejected or disaffirmed; and (ii) performs all other obligations of Tenant under the terms of this Agreement, to the extent performance is then due and susceptible of being cured and performed by the Financing Party; and (iii) agrees in writing to perform, or cause to be performed, all non-monetary obligations which have not been performed by Tenant that are reasonably susceptible of being performed by the Financing Party and would have accrued under this Agreement up to the date of commencement of the new lease agreement. Any new lease agreement granted to the Financing Party shall enjoy the same priority as this Agreement over any lien, encumbrances or other interest created by Landlord.

(iii) At the option of the Financing Party, the new lease agreement may be executed by a designee of such Financing Party without the Financing Party assuming the burdens and obligations of Tenant thereunder.

(iv) If more than one Financing Party makes a written request for a new lease agreement pursuant hereto, the new lease agreement shall be delivered to the Financing Party requesting such new lease agreement whose Leasehold Mortgage is prior in lien or as otherwise agreed to by Landlord and the Financing Parties, and the written request of any other Financing Party whose lien is subordinate shall be void and of no further force or effect.

(v) The provisions of this Article XII shall survive the termination, rejection or disaffirmance of this Agreement and shall continue in full force and effect thereafter to the same extent as if this Article were a separate and independent contract made by Tenant, Landlord and such Financing Party, and, from the effective date of such termination, rejection or disaffirmation of this Agreement to the date of execution and delivery of such new lease agreement, such Financing Party may use and enjoy said Premises without hindrance by Landlord or any person claiming by, through or under Landlord, provided that all of the conditions for a new lease agreement as set forth herein are complied with.

(d) Financing Parties' Consent to Amendment, Termination or Surrender. Notwithstanding any provision of this Agreement to the contrary, the parties agree that this Agreement shall not be modified or amended and Landlord shall not accept a surrender of the Premises or any part thereof or a cancellation or release of this Agreement from Tenant prior to expiration of the Term without the prior written consent of all Financing Parties. This provision is for the express benefit of and shall be enforceable by such Financing Parties.

(e) No Waiver. No payment made to Landlord by a Financing Party shall constitute an agreement that such payment was, in fact, due under the terms of this Agreement; and a Financing Party having made any payment to Landlord pursuant to Landlord's wrongful, improper or mistaken notice or demand shall be entitled to the return of any such payment.

(f) Further Amendments. At Tenant's request, Landlord shall amend this Agreement to include any provision which may reasonably be requested by a Financing Party; provided, however, that such amendment does not impair any of Landlord's rights under this Agreement or materially increase the burdens or obligations of Landlord hereunder. Upon request of any Financing Party, Landlord shall execute any additional instruments reasonably required to evidence such Financing Party's rights under this Agreement.

ARTICLE XIII
MISCELLANEOUS PROVISIONS

13.1 Governing Law; Dispute Resolution.

(a) Governing Law. This Agreement and the rights and duties of the Parties hereunder shall be governed by and shall be construed, enforced and performed in accordance with the laws of the New York without regard to principles of conflicts of law.

(b) Dispute Resolution.

(i) The Parties shall attempt in good faith to resolve promptly any dispute arising out of or relating to this Agreement. Any Party may give the other Party a written notice of any dispute not so resolved in the normal course of business. Within thirty (30) days after delivery of such notice, representatives of the Parties with full settlement authority shall meet at a mutually acceptable time and place and thereafter as often as they reasonably deem necessary, to exchange relevant information and to attempt to resolve the dispute.

(ii) If the dispute has not been resolved by negotiations within sixty (60) days following the notice provided for in clause (i) above, or if the Parties fail to meet within the thirty (30) day period set forth in clause (i), then each of the Parties hereby irrevocably consents and agrees that any legal action or proceedings with respect to this Agreement may be brought in any of the state or federal courts located in the State of New York in the Borough of Manhattan having subject matter jurisdiction. The prevailing party in any dispute arising out of this Agreement shall be entitled to reasonable attorneys' fees and costs.

(iii) EACH PARTY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY SUIT, ACTION, CLAIM OR PROCEEDING RELATING TO THIS AGREEMENT.

13.2 Severability. If any article, section, phrase or portion of this Agreement is, for any reason, held or adjudged to be invalid, illegal or unenforceable by any court of competent jurisdiction, such article, section, phrase, or portion so adjudged will be deemed separate, severable and independent and the remainder of this Agreement will be and remain in full force and effect and will not be invalidated or rendered illegal or unenforceable or otherwise affected by such adjudication, provided the basic purpose of this Agreement and the benefits to the Parties are not substantially impaired.

13.3 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original and all of which shall constitute one and the same agreement. Signatures sent via facsimile, electronic mail or by other form of electronic means shall be deemed originals for all purposes.

13.4 Entire Agreement, Amendments and Waivers. This Agreement constitutes the entire agreement between the Parties with respect to the subject matter hereof, and supersedes the terms of any previous agreements or understandings, oral or written. This Agreement may not be amended, changed, modified, or altered unless such amendment, change, modification, or alteration is in writing and signed by both of the Parties to this Agreement or their successor in interest. This Agreement inures to the benefit of and is binding upon the Parties and their respective successors and permitted assigns. Either Party's waiver of any breach or failure to enforce any of the terms of this Agreement shall not affect or waive that Party's right to enforce any other term of this Agreement.

13.5 Further Assurances. Either Party shall execute and deliver such further instruments as may be reasonably requested by the other Party in order to carry out the terms of this Agreement.

13.6 Notices. All notices and other formal communications which either Party may give to the other under or in connection with this Agreement shall be in writing (except where expressly provided for otherwise), shall be effective upon delivery, and shall be sent by any of the following methods: hand delivery; reputable overnight courier; certified mail, return receipt requested; or facsimile transmission.

The communications shall be sent to the following addresses:

If to Tenant:

SCS Dell 014136 Yorktown, LLC c/o Sol Customer Solutions, LLC
1101 Connecticut Ave, NW - Second Floor
Washington, DC 20036
Attention: General Counsel
Phone: (202) 349-2085
Email: general.counsel@solsystems.com

If to Landlord:

B&M Management Company, LLC
199 Elm Street
New Canaan, CT 06840
Phone: (203) 536-2928
Email: mattshouses@aol.com

With a copy to:

Zarin & Steinmetz
81 Main Street, Suite 415
White Plains, New York 10601
Attention: Lisa F. Smith, Esq.

Any Party may change its address and contact person for the purposes of this Section 13.6 by giving notice thereof in the manner required herein.

13.7 Estoppel**.** Either Party hereto, without charge, at any time and/or from time to time, within ten (10) Business Days after receipt of a written request by the other Party hereto, shall deliver a written instrument, duly executed, certifying to such requesting Party, or any other person, firm or corporation specified by such requesting party:

(a) That this Agreement is unmodified and in full force and effect, or if there has been any modification, that the same is in full force and effect as so modified, and identifying any such modification;

(b) Whether or not to the knowledge of any such Party there are then existing any offsets or defenses in favor of such Party against enforcement of any of the terms, covenants and conditions of this Agreement and, if so, specifying the same and also whether or not to the knowledge of such Party the other Party has observed and performed all of the terms, covenants and conditions on its part to be observed and performed, and if not, specifying the same;

(c) Such other factual information as may be reasonably requested by a Party hereto.

In the event that Landlord is requested to provide any certifications aside from the ones specifically set forth in Sections 13.7(a) – (c) above, Tenant shall pay, in advance, the reasonable, documented, third-party attorney's fees to be incurred by Landlord to fulfill said request. Any written instrument given hereunder may be relied upon by the recipient of such instrument in good faith, except to the extent the recipient has actual knowledge of facts contained in the certificate to the contrary.

13.8 Memorandum of Lease. Tenant and Landlord shall execute in recordable form and Tenant shall then record a memorandum of this Agreement in the form attached hereto as **Exhibit F**. Landlord hereby consents to the recordation of the interest of an assignee in the Premises. Upon the expiration or earlier termination of this Agreement in accordance with the terms hereof, Tenant (or it's assignee) shall promptly record a termination of such memorandum.

[Signature page to follow]

IN WITNESS WHEREOF, the Parties have executed this Agreement under seal as of the Effective Date.

LANDLORD:

B&M Management Company, LLC,
a Connecticut limited liability company

By: _____
Name: Harvey B. Matthews, III
Title: President

TENANT:

SCS Dell 014136 Yorktown, LLC,
a Delaware limited liability company

DocuSigned by:
By: James Machulak
EC4CB8C0FC8D433...
Name: James Machulak
Title: Authorized Signatory

EXHIBIT A

DESCRIPTION OF THE PROPERTY

Address:

Certain real property located east of the intersection of NYS Routes 134 and 100, designated on the Town of Yorktown Tax Map as parcels 70.15-1-2 and 70.11-1.16.

Legal Description:

Tenant to provide post-lease execution when a full legal description is available through ALTA survey and title report.

EXHIBIT B

DESCRIPTION OF PREMISES

Description of the Premises:

Tenant to provide a legal description of the Premises after lease agreement execution, after conducting an ALTA survey.

Description of the Temporary Construction Easement:

Tenant to provide a description of the temporary construction easement after Agreement execution, after conducting an ALTA survey.

EXHIBIT C

DESCRIPTION OF SYSTEM

Description of the System:

As used in this Agreement, the term "***System***" shall include the solar energy generating equipment and energy storage equipment, including any structural elements to physically support the solar modules incorporated therein, including but not limited to the vertical support poles or upright piers, trellis structures, trusses or purlins on which the modules are mounted, concrete or similar anchors or plugs, and mounting hardware used to attach solar modules and other electrical components to the Premises, as well as overhead and/or underground electrical transmission and communications lines, electric transformers, energy storage facilities, telecommunications equipment, power generation facilities and substations to be operated in conjunction with the solar energy generating equipment installations, roads, and related improvements, facilities and equipment including all necessary and proper foundations, footings, crossarms and other appliances and fixtures for use in connection with said equipment, wires and cables on, along and in the Premises.

As used in this Agreement, the term "***Transmission Facilities***" means electrical transmission and/or distribution and communications lines and related cables, wires, conduit, circuit breakers and transformers, and any and all necessary and proper facilities, fixtures, and additional equipment any way related to or associated with any of the foregoing for the transmission and delivery of electrical energy. Transmission Facilities will be deemed to be part of the System.

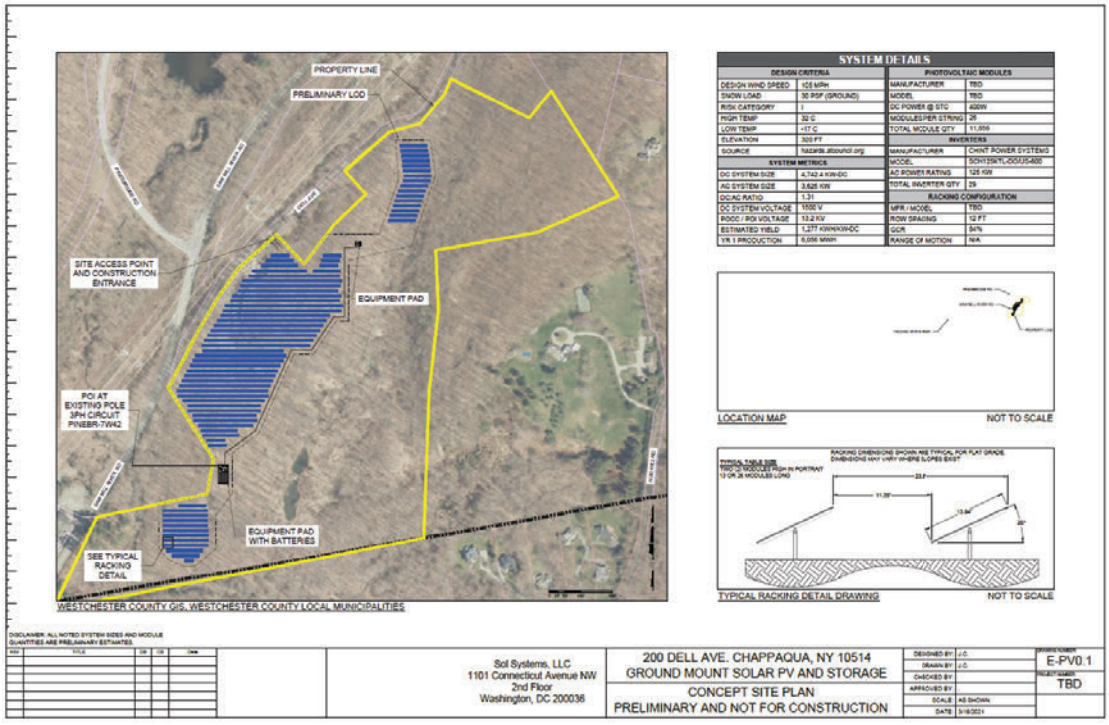

EXHIBIT D

PROVIDED UTILITIES

Landlord shall provide access to the following utilities:

None

EXHIBIT E

INSURANCE OBLIGATIONS

EXHIBIT F
MEMORANDUM OF SOLAR FACILITIES OPTION TO LEASE, LEASE AND EASEMENT [1]

THIS MEMORANDUM OF SOLAR FACILITIES OPTION TO LEASE, LEASE AND EASEMENT ("**Memorandum of Lease and Easement**") is dated as of the __ day of [month], 2021 by and between B&M Management Company, LLC, a Connecticut limited liability company (hereinafter "**Landlord**"), and SCS Dell 014136 Yorktown, LLC, a Delaware limited liability company, and its successors and assigns (hereinafter "**Tenant**").

RECITALS:

A. Landlord and Tenant have entered into that certain Solar Facilities Option to Lease and Lease Agreement (as thereafter amended or assigned, the "**Lease Agreement**"), dated March ___, 2021 (the "**Effective Date**") whereby Landlord has agreed to lease to Tenant certain real property in the County of Westchester, State of New York, and being more particularly described in Schedule A attached hereto and made a part hereof (the "**Premises**"), together with certain easement rights across certain real property in the County of Westchester, State of New York, and being more particularly described in Schedule B attached hereto and made a part hereof (the "**Property**").

B. The parties wish to give notice of the existence of such Lease Agreement.

NOW THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, the parties hereto agree as follows:

1. Landlord and Tenant have entered into the Lease Agreement to lease and demise the Premises and Property for solar energy purposes and to grant certain transmission, access and solar easements. Pursuant to the Lease Agreement, Tenant has the exclusive right to use the Premises for solar energy purposes, together with certain related transmission, solar, access and other easement rights and other rights related to the Premises, all as more fully described in the Lease Agreement. Solar energy purposes means converting solar energy into electrical energy and collecting and transmitting the electrical energy so converted, together with any and all activities related thereto.

2. The initial term of the Lease Agreement commences on the Effective Date and expires on the earlier of: (i) the Lease Commencement Date specified by Tenant in a notice of intent to exercise its option to lease the Premises, or (ii) the date that is twelve (12) months after the Effective Date, provided, however, that the initial twelve (12) month period may be extended by up to an additional six (6) months (the "**Development Period**"). The Lease Agreement may automatically be extended for a **"Construction Period"** commencing upon the earlier of (i) the date specified by Tenant in a notice intent to begin the Construction Period and (ii) six (6) months from the day after the conclusion of the Development Period and continuing until the commencement of the Operating Period. The Lease Agreement may automatically be extended for an "**Operating**

[1] NTD: Ensure that document conforms to state specific requirements for recordation, including top margin and any transfer tax notation.

Period" commencing on the date on which Tenant notifies Landlord in writing that all testing and commissioning of the System has been successfully completed, the local electric power distribution company has issued permission to operate for the System and Tenant can start producing electricity for sale ("**Commercial Operation Date**") and continuing for a period of twenty-five (25) years, which Tenant may extend for two (2) additional periods of five (5) years each upon mutual agreement of parties. Following the Operating Period, the Lease Agreement shall continue for an additional one hundred eight (180) days (the **"Decommissioning Period"**). The terms of the Lease Agreement, including limitations and extensions thereto, is more fully described in the Lease Agreement.

3. Landlord will have no ownership or other interest in any solar facility installed on the Premises by Tenant and Tenant may remove such solar facility at any time.

4. If, at any time during the Term, Landlord intends to offer to sell the Premises or any part thereof or interest therein to a third party, other than to any entity controlling, controlled by, or under common control with Landlord (an "***Exempt Transferee***"), then Landlord shall, prior to any offering, deliver to Tenant written notice of the terms and conditions upon which Landlord intends to offer the Premises for sale. Tenant shall have the right to purchase the Premises (or such part thereof or interest therein) on the terms set forth in the notice from Landlord by giving written notice of Tenant's intention to purchase to Landlord within twenty (20) business days after receiving notice from Landlord. In the event that Tenant fails to notify Landlord within said twenty (20) day period of Tenant's election to exercise its right to purchase, or in the event Tenant notifies Landlord within said period that Tenant will not exercise its right to purchase, Landlord may proceed to sell the Premises (or such part thereof or interest therein) to any third party after the expiration of such twenty (20) day period, but only on substantially the same terms and conditions as were set forth in the notice from Landlord to Tenant. Any material change in such terms and conditions shall be deemed a new offer and Landlord shall not consummate any sale to a third party without first submitting the terms and conditions of the current offer to Tenant and Tenant shall have twenty (20) business days after receipt of said notice in which to elect to exercise its right to purchase. Tenant's right to purchase as described herein shall survive a conveyance to a third party or to an Exempt Transferee.

5. Landlord has granted an easement ("**Access Easement**") over, across and on a portion of the Property for ingress to and egress from the System by means of any existing roads and lanes, or by such route or routes as Tenant may construct from time to time as further described in the Lease Agreement.

6. Landlord has granted one or more easements ("**Transmission Easements**") on, over and across a portion of the Property as will be agreed upon by Landlord by Tenant for electrical transmission and/or distribution and communications lines and related equipment as further described in the Lease Agreement.

7. Landlord has granted an exclusive easement ("**Solar Easement**") on, over and across a portion of the Property for open and unobstructed access to the sun as further described in the Lease Agreement.

8. The Lease Agreement and the easement and rights granted Tenant therein will

burden the Premises and the Property and will run with the land. The Lease Agreement will inure to the benefit of and be binding upon Landlord and Tenant and, to the extent provided in any assignment or other transfer under the Lease Agreement, any assignee of Tenant, and their respective heirs, transferees, successors and assigns, and all persons claiming under them.

9. This Memorandum of Lease and Easement has been executed and delivered by the parties for the purpose of recording and giving notice of the lease and easement rights in accordance with the terms, covenants and conditions of the Lease Agreement.

10. The terms and conditions of the Lease Agreement are incorporated by reference into this Memorandum of Lease and Easement as if set forth fully herein at length. In the event of any conflict between the terms and provisions of the Lease Agreement and this Memorandum of Lease and Easement, the Lease Agreement will control.

[SIGNATURES AND ACKNOWLEDGEMENTS ON FOLLOWING PAGE(S)]

IN WITNESS WHEREOF, the undersigned have caused this instrument to be executed as of the __ day of [month], 2021.

LANDLORD

B&M Management Company, LLC,
a Connecticut limited liability company

By:_____

Name: _____

Title: _____

STATE OF _____)
) ss.
COUNTY OF _____)

The foregoing instrument was acknowledged before this ____ day of _____, 2021, by B&M Management Company, LLC for the purposes herein expressed.

_____
Notary Public

TENANT

SCS Dell 014136 Yorktown, LLC,
a Delaware limited liability company

By:_____

Name: _____

Title: _____

STATE OF _____)
) ss.
COUNTY OF _____)

The foregoing instrument was acknowledged before this ____ day of _____, 2021, by _____, the _____ of and SCS Dell 014136 Yorktown, LLC, a Delaware limited liability company, on behalf of the limited liability company for the purposes herein expressed.

_____
Notary Public

Prepared by and after
Recording return to:

SCS Dell 014136 Yorktown, LLC
c/o Sol Customer Solutions, LLC
1101 Connecticut Ave, NW - Second Floor
Washington, DC 20036
Attention: General Counsel

Schedule A

TO MEMORANDUM OF SOLAR FACILITIES OPTION TO LEASE, LEASE AND EASEMENT

Insert Legal Description of Premises:

Insert aerial view of Premises (Premises shown in red):

Schedule B

TO MEMORANDUM OF SOLAR FACILITIES OPTION TO LEASE, LEASE AND EASEMENT

Insert Legal Description of Property:

Insert aerial view of Property (Property shown in red):

EXHIBIT G

PERMITTED ENCUMBRANCES

[redacted]

EXHIBIT H

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]