



TOWN OF PUTNAM

TOWN HALL
200 SCHOOL STREET
PUTNAM, CONNECTICUT 06260

Inland Wetland Commission Meeting
Hybrid Meeting July 13, 2022 7:00 P.M.
Municipal Complex Room 201 Second Floor

Join Zoom Meeting

<https://us06web.zoom.us/j/82902629591?pwd=V3FFSWVqRFBveTdla0pZRmJ1WjFtdz09>

Meeting ID: 829 0262 9591

Computer Passcode: 4XCuRf

Dial by your location

+1 929 205 6099 US (New York)

Meeting ID: 829 0262 9591

Phone Passcode: 546193

Find your local number: <https://us06web.zoom.us/j/kcJJjCISRS>

Roll Call:

Agenda:

Seating of alternates:

Review minutes of the June 8, 2022 meeting. VOTE REQUIRED

Correspondence:

Public Participation:

Agent Report:

New Business:

Application # 2022-03 Michael Hyatt – 532 Liberty Highway - Filling, excavation and pond construction- create flat areas for more recreational area. Wetland Creation/ restoration. Agricultural area for livestock.

Application # 2022-04 Valta Energy – 4 Kennedy Drive – Installation of photovoltaic cell array.

Application # 2022-05 Valta Energy – 83 Park Road - Installation of photovoltaic cell array.

Election of Officers- Discussion

Other Business: POSSIBLE VOTE REQUIRED

Accepting of New Applications if applicable for the August 10, 2022 meeting.

123 Park Rd., 123 Park Road LLC Additional self-storage buildings

Adjournment.



TOWN OF PUTNAM

TOWN HALL
200 SCHOOL STREET
PUTNAM, CONNECTICUT 06260

Inland Wetland Commission Meeting Minutes
June 8, 2022 7:00 P.M.
Municipal Complex Room 201 Second Floor

Agent to assign a Temporary Chairperson.

Theodore Altmeier volunteered.

Present: Theodore Altmeier – Acting Chairman, Walter Irwin, Adam Paquin
Alternates-Shannon O'Shea and Christine Main

Motion by Shannon O'Shea to seat both alternates as voting members, second by Adam Paquin. ALL WERE IN FAVOR.

Agenda:

Review minutes of the March 9, 2022 meeting.

Motion by Shannon O'Shea to accept the minutes, second by Adam Paquin. ALL WERE IN FAVOR

Correspondence: None

Public Participation: None

Agent Report:

51 Providence Pike, Burger King-Design engineer was held up by the surveyor-working on plans

21 Providence Pike, Dunkin Donuts-On hold waiting on dry weather

644 School Street, Mobil Station-As built survey compared to designed detention basin are half of what was designed. Waiting for to hear back from applicant

481 River Road, Daniels Levesque & Melissa Fitzpatrick-Activities have stopped.

122 David Circle Reynolds-Filling the rear yard, upland review area, activities have stopped. J & D Civil Engineers are working on the plans.

New Business:

Election of Officers- Discussion – Motion by Walter Irwin to table to the July meeting, second by Shannon O'Shea

Other Business:

Accepting of New Applications if applicable for the July 13, 2022 meeting.

532 Liberty Highway Residential Site Motion by Christine Main to accept for the July 13, 2022 meeting,
second by Shannon O'Shea. ALL WERE IN FAVOR

4 Kennedy Drive – Solar Site Motion by Shannon O'Shea to accept for the July 13, 2022 meeting,
Second by Walter Irwin. ALL WERE IN FAVOR

83 Park Road – Solar Site Motion by Shannon O'Shea to accept for the July 13, 2022 meeting,
Second by Walter Irwin. ALL WERE IN FAVOR

Motion by Christine Main to adjourn at 7:24 P.M., second by Walter Irwin. ALL WERE IN FAVOR.

Respectfully submitted by Brenda Roy.

Please note these minutes have not been accepted by the Commission and will be placed on their next meeting agenda.



INLAND WETLAND COMMISSION

APPENDIX A

APPLICATION FOR PERMIT

This application is for the use of inland wetlands and water courses.

The meetings are held on the second Wednesday of every month at 7:00pm in the Town Hall. If an on-site inspection is canceled due to inclement weather, the applicant is asked to call the office at 963-6803 30 minutes before the scheduled inspection to see if or when the inspection will be held.

Name of Applicant Michael Hyatt
Applicant's Address 532 Liberty Highway
Phone # 401 651 8722
Owner of Land Michael Hyatt & Jessica Brown
Owner's Address 532 Liberty Highway

Location and description of proposed activity: Front yard, side yard, back yard.
excavator front yard flat, fill and level rear & side yards, dig pond
to create a cut in flood zone so fill can be added in other
area of flood zone to square off pond and create addition Rec area
Activity & Purpose Code and agricultural area for livestock

Please **CHECK** one in each column that best describes the activity proposed.

Code	Activity Type	Code	Activity Purpose
☒ 1	Filling	☒ A	Residential Improvement by homeowner
☒ 2	Excavation	☐ B	New residential development - single family
☒ 3	Land Clearing	☐ C	New residential development - multi- family/condo
☐ 4	Stream Channel	☐ D	Commercial/Industrial Uses
☐ 5	Stream Stabilization	☐ E	Municipal Improvements
☐ 6	Stream Clearance	☐ F	Utility Company Improvements
☐ 7	Culverting	☒ G	Agriculture, Forestry or Conservation
☐ 8	Und. Grd. Util.	☒ H	Wetland Creation/Restoration
☐ 9	Roadway Construction	☐ I	Storm Water/Flood Control
☐ 10	Drainage Improvements	☐ J	Erosion/Sediment Control
☐ 11	Pond Dredge/Dam Construction	☒ K	Recreation/Boating/Navigation
☐ 12	Activity Buffer/Set Back Area	☐ L	Routine Maintenance
☒ 13	Other: Please describe: <u>pond construction</u>		

INLAND WETLAND COMMISSION

APPENDIX A Continued

Project Name (if applicable)

Home Improvements

Estimate of Linear Footage affecting Wetlands

100 linear feet

Affected number of acres in which Wetlands are part of
the impacted area for Multi-Family, Condos and
Commercial Development

TO BE COMPLETED BY THE COMMISSION

Application Number

Date of Receipt

26 2022
JUN 2 2022
By paid in full remaining balance
M.O. PAID
\$40.00
64.00

Application Approved (date)

Conditions of approval if applicable

Application Denied (date)

Reason(s) for Denial

Signature of Chairman or Secretary of Commission

Date

THIS DOCUMENT CONTAINS A TRUE WATERMARK - HOLD UP TO LIGHT TO VIEW

WesternUnionWU WESTERN UNION FINANCIAL SERVICES INC. - ISSUER - Denver, Colorado
Payable at Wells Fargo Bank Grand Junction - Downtown, N.A., Grand Junction, Colorado

MONEY ORDER

22-001797043

Walmart

A 134423 D 053122
T 1334 196
220017970435 L 001980

\$60.00

PAY EXACTLY SIXTY DOLLARS AND NO CENTS

PAY TO THE ORDER OF Inland Wetland

53a Liberty Hwy
Param Ct 06260

PAYMENT FOR ACCT. #

PURCHASER'S SIGNATURE

PURCHASER BY SIGNING YOU AGREE TO THE TERMS ON THE REVERSE SIDE

602100100: 122001797043

THIS DOCUMENT CONTAINS A TRUE WATERMARK - HOLD UP TO LIGHT TO VIEW

WesternUnionWU WESTERN UNION FINANCIAL SERVICES INC. - ISSUER - Denver, Colorado
Payable at Wells Fargo Bank Grand Junction - Downtown, N.A., Grand Junction, Colorado

MONEY ORDER

19-385523213

A 132875 D 052622
T 0958 17
193855232134 L 000727

\$40.00

PAY EXACTLY FORTY DOLLARS AND NO CENTS

PAY TO THE ORDER OF Inland Wetland Commission

53a Liberty Hwy
Param Ct 06260

PAYMENT FOR ACCT. #

PURCHASER'S SIGNATURE

PURCHASER BY SIGNING YOU AGREE TO THE TERMS ON THE REVERSE SIDE

602100100: 193855232134



NORTHEAST DISTRICT DEPARTMENT OF HEALTH

69 SOUTH MAIN STREET, UNIT 4, BROOKLYN, CT 06234

860-774-7350/FAX 860-774-1308 WWW.NDDH.ORG

May 12, 2022

Michael Hyatt & Jessica Biron
532 Liberty Highway
Putnam, CT 06260

B100/APPLICATION

SUBJECT: FILE #22000298 -- LIBERTY HGWY #532, MAP #26, LOT #69, PUTNAM, CT

Dear Michael Hyatt & Jessica Biron:

On May 09, 2022 this department received an application proposing the addition of a 15' above ground pool and roof drain leaders to your property.

Based on the information provided and paperwork in our files this request has been approved under the following conditions:

1. Maintain a minimum of 10 feet from the existing septic tank and leach field with the proposed above ground pool.
2. Septic system to be taped off during construction to ensure proper separating distance is maintained and to protect from heavy traffic or storage of building materials in this area.

Approval is being granted under Section 19-13-B100a of the CT Public Health Code. This approval is given with the understanding that you will provide proper care and maintenance of the existing system (the septic tank is to be pumped every 3 years).

THE OWNER IS RESPONSIBLE TO SEEK PROPER AUTHORIZATION FROM ALL TOWN AGENCIES PRIOR TO START OF CONSTRUCTION.

Should you have any questions, please do not hesitate to contact this office.

Sincerely,

Maureen Marcoux, RS
Senior Sanitarian-NDDH

cc: Putnam Building Official

GENERAL CONSTRUCTION NOTES

1. LOCATIONS OF SUBSTANCES TO BE REMOVED FROM THE SITE SHALL BE INDICATED BY A DOTTED LINE AND THE REMOVAL SHALL BE COMPLETED PRIOR TO THE START OF CONSTRUCTION. THE REMOVAL SHALL BE COMPLETED PRIOR TO THE START OF CONSTRUCTION. THE REMOVAL SHALL BE COMPLETED PRIOR TO THE START OF CONSTRUCTION.
2. THE CONSTRUCTION OF THE FLOOD ZONE SHALL BE IN ACCORDANCE WITH THE FLOOD ZONE MAP. THE CONSTRUCTION OF THE FLOOD ZONE SHALL BE IN ACCORDANCE WITH THE FLOOD ZONE MAP. THE CONSTRUCTION OF THE FLOOD ZONE SHALL BE IN ACCORDANCE WITH THE FLOOD ZONE MAP.
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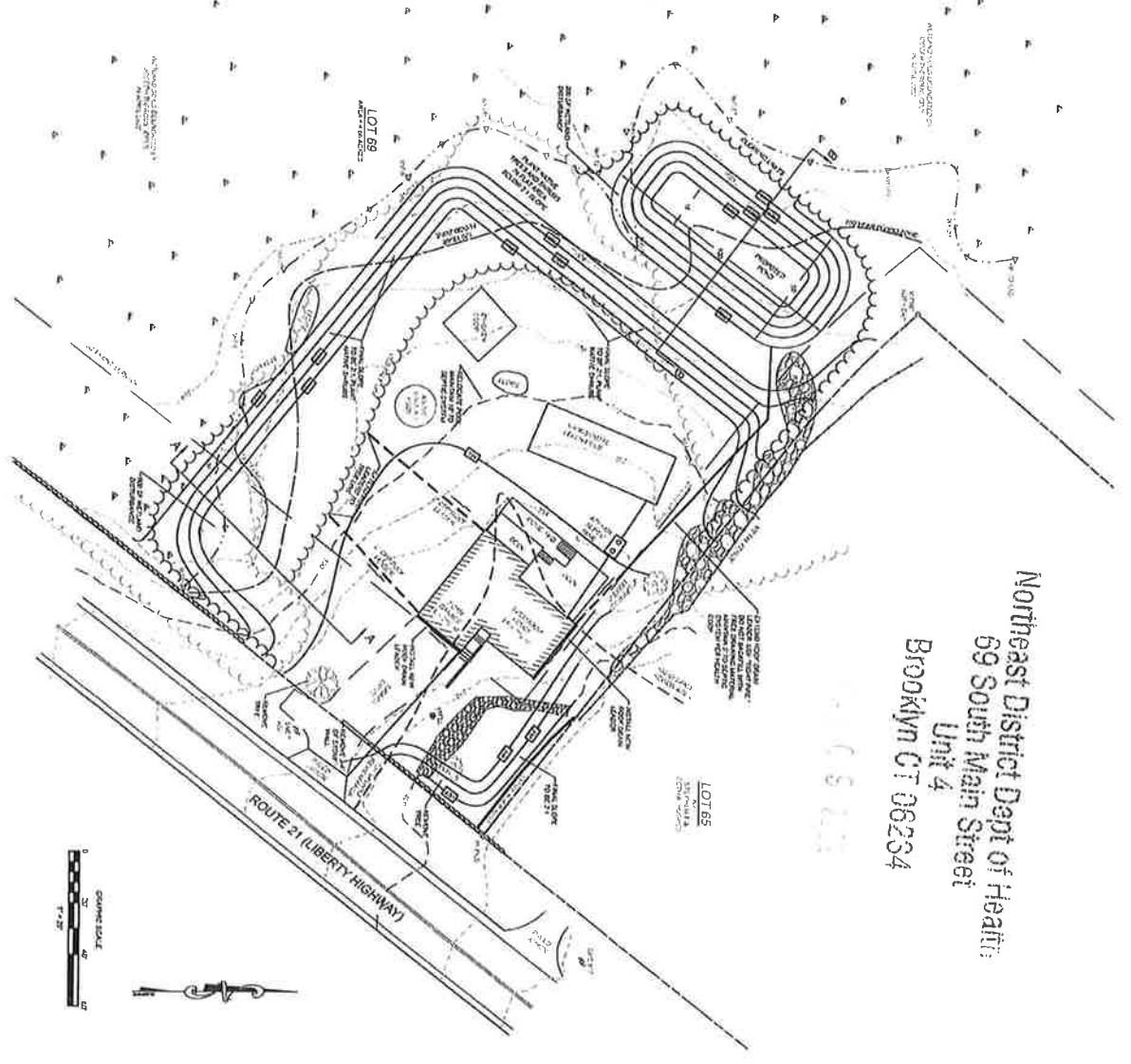
FLOOD ZONE NOTES

1. PORTIONS OF THE PROPERTY ARE WITHIN A 100 YEAR FLOOD ZONE. THE FLOOD ZONE MAP DATED OCTOBER 15, 1988, SHOWS THE 100 YEAR FLOOD ZONE FOR THIS AREA AT ELEVATION 100.00. THE FLOOD ZONE MAP DATED OCTOBER 15, 1988, SHOWS THE 100 YEAR FLOOD ZONE FOR THIS AREA AT ELEVATION 100.00.
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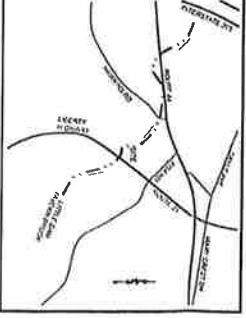
PROPERTY OWNER: MICHAEL HYATT
ADDRESS: 69 SOUTH MAIN STREET
CITY: BROOKLYN, CT 06234
STATE: CT
FLOOD ZONE MAP DATED OCTOBER 15, 1988, SHOWS THE 100 YEAR FLOOD ZONE FOR THIS AREA AT ELEVATION 100.00.

THE FLOOD ZONE MAP DATED OCTOBER 15, 1988, SHOWS THE 100 YEAR FLOOD ZONE FOR THIS AREA AT ELEVATION 100.00. THE FLOOD ZONE MAP DATED OCTOBER 15, 1988, SHOWS THE 100 YEAR FLOOD ZONE FOR THIS AREA AT ELEVATION 100.00.

APPROVED
MAINE WITNESS COMMISSION
DATE: _____



Northeast District Dept of Health
69 South Main Street
Unit 4
Brooklyn CT 06234



SURVEY NOTES

1. THE SURVEY WAS CONDUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONNECTICUT SURVEYING ACT AND THE REQUIREMENTS OF THE STATE OF CONNECTICUT. THE SURVEY WAS CONDUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONNECTICUT SURVEYING ACT AND THE REQUIREMENTS OF THE STATE OF CONNECTICUT.
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DESIGNED BY: MICHAEL HYATT
DATE: MAY 3, 2022
CHECKED BY: MICHAEL HYATT
DATE: MAY 3, 2022

LEGEND

- 1. 100 YEAR FLOOD ZONE
- 2. 500 YEAR FLOOD ZONE
- 3. PROPOSED LOT LINES
- 4. EXISTING LOT LINES
- 5. EXISTING BUILDING FOOTPRINTS
- 6. EXISTING DRIVEWAYS
- 7. EXISTING STREETS
- 8. EXISTING UTILITIES
- 9. EXISTING FENCE LINES
- 10. EXISTING SETBACK LINES
- 11. EXISTING EASEMENTS
- 12. EXISTING RIGHTS OF WAY
- 13. EXISTING ADJACENT PROPERTIES
- 14. EXISTING ADJACENT WATER BODIES
- 15. EXISTING ADJACENT AIRPORTS
- 16. EXISTING ADJACENT HIGHWAYS
- 17. EXISTING ADJACENT RAILROADS
- 18. EXISTING ADJACENT AIRPORTS
- 19. EXISTING ADJACENT HIGHWAYS
- 20. EXISTING ADJACENT RAILROADS

SITE DEVELOPMENT PLAN

PREPARED FOR
MICHAEL HYATT
69 SOUTH MAIN STREET
BROOKLYN, CT 06234

J&D ENGINEERS, LLC
401 MCQUILL ROAD
BROOKLYN, CT 06234

DESIGNED BY: MICHAEL HYATT
CHECKED BY: MICHAEL HYATT

JOB NO: 22116
SCALE: 1" = 20'

DATE: MAY 3, 2022
SHEET: 1 OF 2

GENERAL CONSTRUCTION NOTES:

- LOCATIONS OF UNDERGROUND UTILITIES HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. THE CONTRACTOR SHALL NOTIFY CALL BEFORE YOU DIG AND FIELD VERIFY THE LOCATION, DEPTH AND ALIGNMENT OF ALL EXISTING PIPES, CABLES, ETC.
- CONSTRUCTION SHALL BE IN CONFORMANCE WITH CONDOT FORM 818 UNLESS OTHERWISE NOTED ON THE PLANS. UTILITY INSTALLATION SHALL BE IN CONFORMANCE WITH THE APPROPRIATE UTILITY COMPANY.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION WITH EACH UTILITY AND ALL COSTS ASSOCIATED WITH THE PROTECTION OF EXISTING FACILITIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN IN SERVICE ALL EXISTING PIPING UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
- TYPICAL DETAILS SHOWN ARE TO ILLUSTRATE THE ENGINEER'S INTENT AND ARE NOT PRESENTED AS A SOLUTION TO ALL CONSTRUCTION PROBLEMS ENCOUNTERED IN THE FIELD. THE CONTRACTOR MAY SUBMIT PROPOSALS FOR ALTERNATE METHODS TO SUIT FIELD CONDITIONS.

FLOOD ZONE NOTES

- PORTIONS OF THIS PROPERTY ARE WITHIN A 100 YEAR FLOOD ZONE, PER FIRM 090194-0010-B, DATED OCTOBER 19, 1988.
- THE FIRM SHOWS THE 100 YEAR FLOOD ZONE FOR THIS AREA AT ELEVATION 385 - 389, USING THE NGVD 29 DATUM.
- CONVERTED TO THE CURRENT NAVD 88 DATUM, THE FLOOD ZONE IS APPROXIMATELY EQUAL TO ELEVATION 384 - 388.
- THE TOTAL AMOUNT OF FILL WITHIN THE FLOOD ZONE IS ESTIMATED AT 250 CUBIC YARDS. THE TOTAL AMOUNT OF CUT WITHIN THE FLOOD ZONE IS ESTIMATED AT 425 CUBIC YARDS. THE CUT VOLUME IS 70% GREATER THAN THE FILL VOLUME. THEREFORE THIS PROJECT WILL RESULT IN A NET INCREASE OF FLOOD WATER STORAGE.

PROPERTY OWNER
MICHAEL HYATT &
JESSICA BIRON

REFERENCE DEED
PUTNAM LAND RECORDS
VOL. 824 PG. 823

ASSESSORS REFERENCE
MAP 26 LOT 69

ZONING INFORMATION:
ZONE: R-40
MINIMUM LOT AREA: 40,000 S.F.
MINIMUM FRONTAGE: 200'
MINIMUM FRONT YARD: 50'
MINIMUM SIDE YARD: 20'
MINIMUM REAR YARD: 40'

WETLAND SOILS DELINEATED BY
JOSEPH THEROUX, CPSS
IN APRIL 2022

LOT 69
AREA = 4.68 ACRES

WETLAND SOILS DELINEATED BY
JOSEPH THEROUX, CPSS
IN APRIL 2022

LOT 65
N/F
STEPHEN T. &
SETH A. HUGHES

LOCATION MAP
1" = 1000'

SURVEY NOTES

1. THIS MAP HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE "STANDARD FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996.

SURVEY TYPE: GENERAL LOCATION AND TOPOGRAPHIC

BOUNDARY DETERMINATION CATEGORY: N/A

HORIZONTAL ACCURACY: CLASS B
VERTICAL ACCURACY: CLASS T2

DATUM: NAD83, NAVD88 OBTAINED WITH LEICA GS-16 GNSS

PURPOSE: TO OBTAIN A WETLAND PERMIT FOR EARTHWORK WITHIN THE UPLAND REVIEW AREA AND FLOOD ZONE

2. REFERENCE PLAN: "PLOT PLAN TO CORRECT AN ILLEGAL SUBDIVISION, REMAINING LAND OF EDWIN R. AND RACHEL E. ROLLER, CONN. ROUTE 21 A.K.A. CONVERSE ROAD, PUTNAM, CONN." DATED AUGUST 1987, SCALE 1" = 40'. PREPARED BY MESSIER AND ASSOCIATES. ON FILE WITH THE TOWN CLERK'S OFFICE AS MAP NUMBER 884.

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

Dennis R. Blanchette 12107
DENNIS R. BLANCHETTE DATE LICENSE #

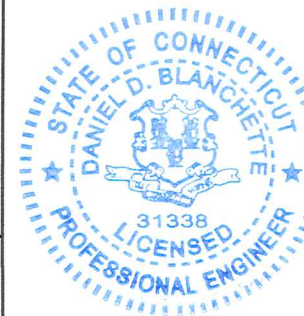
THIS MAP IS NOT VALID WITHOUT A LIVE SIGNATURE
© 2022 J&D CIVIL ENGINEERS, LLC

LEGEND

	ANGLE POINT
	EXISTING IRON ROD DRILL HOLE
	EXISTING PROPERTY LINE
	BUILDING SETBACK
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED CONTOUR LINE
	STONE WALL
	TREELINE
	FENCE
	EDGE OF WETLANDS
	UPLAND REVIEW AREA
	100 YEAR FLOOD ZONE
	EROSION CONTROL DEVICES

SITE DEVELOPMENT PLAN
PREPARED FOR
MICHAEL HYATT
532 LIBERTY HIGHWAY, PUTNAM, CT
MAP 26 LOT 69

J&D CIVIL
ENGINEERS, LLC
401 RAVENELLE ROAD
N. GROSVENORDALE, CT 06255
860-923-2920



DESIGNED: DDB
CHECKED: JAB

REVISIONS:

JOB NO: 22116

DATE: MAY 3, 2022

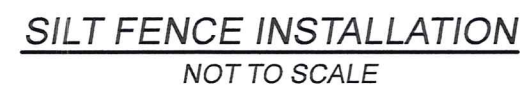
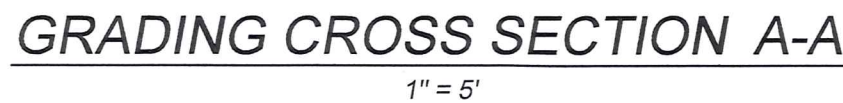
SCALE: 1" = 20'

SHEET: 1 OF 2

APPROVED
INLAND WETLANDS COMMISSION

CHAIRMAN

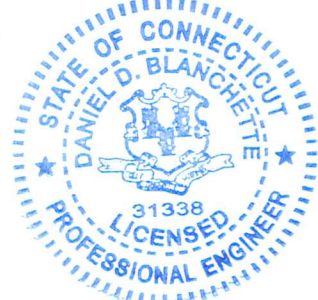
DATE



1. ALL EROSION AND SEDIMENT CONTROL SHALL BE IN ACCORDANCE WITH THE "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL 2002."
2. THE OWNER IS RESPONSIBLE FOR COMPLIANCE WITH THIS EROSION CONTROL PLAN.
3. THE GOAL OF EROSION CONTROL ON THIS PROJECT SHALL BE ENSURING THAT NO ERODED SEDIMENT TRAVELS BEYOND THE PROPERTY BOUNDARIES, OR INTO THE ADJACENT RIVER OR WETLANDS.
4. IF CONDITIONS WARRANT IT, THE OWNER SHALL INSTALL ADDITIONAL EROSION CONTROL DEVICES BEYOND WHAT IS INDICATED ON THE PLAN TO MEET THE GOALS OF EROSION CONTROL.
5. THE OWNER SHALL INSTALL EROSION CONTROL MEASURES CONSISTING OF SILT FENCE, SILT SOCK, HAY BALES, OR WOOD CHIPS WHERE INDICATED ON THE PLANS PRIOR TO THE START OF EXCAVATION.
6. THE EXCAVATOR SHALL CONTACT THE TOWN OF PUTNAM FOR INSPECTION OF EROSION CONTROL DEVICES PRIOR TO EXCAVATION. EROSION CONTROL DEVICES SHALL BE INSPECTED WEEKLY AND AFTER EVERY RAINFALL GREATER THAN 1" AND REPLACED PROMPTLY IF NEEDED.
7. EROSION CONTROL DEVICES WILL REMAIN IN PLACE UNTIL PERMANENT VEGETATION IS ESTABLISHED.
8. DISTURBED AREAS SHALL BE KEPT TO A MINIMUM, AND SEEDED OR STABILIZED WITH TEMPORARY MULCH AS SOON AS POSSIBLE.
9. ALL PROPOSED EXCAVATION SHALL BE PERFORMED DURING THE DRY SEASON (JULY THROUGH NOVEMBER) AND/OR WHEN THE GROUND WATER ELEVATION IS LOW.
10. THE DEWATERING BAG SHALL BE PLACED IN THE UPLANDS. IN THE LAWN FOLLOW ALL MANUFACTURER'S INSTRUCTIONS REGARDING THE DEWATERING BAG, AND REPLACE AS NECESSARY.

1. A LICENSED SURVEYOR SHALL STAKE THE LIMITS OF EXCAVATION IN THE FIELD.
2. INSTALL EROSION CONTROL DEVICES AS SHOWN ON THE SITE PLAN.
3. CUT ADDITIONAL TREES AS SHOWN ON THE SITE PLAN.
4. REMOVE STUMPS AND SHRED OR DISPOSE OF OFF SITE. NO STUMPS SHALL BE BURIED ON SITE.
5. STRIP TOPSOIL FROM FIRST QUADRANT AND STOCKPILE.
6. PERFORM ROUGH CUTS AND FILLS ACROSS FIRST QUADRANT. ALL FILL SHALL BE PLACED IN 6 INCH LIFTS AND THOROUGHLY COMPACTED TO PREVENT SETTLING OR EROSION. ANY SATURATED SOILS SHALL BE ALLOWED TO DRAIN ON SITE BEFORE BEING PLACED AND COMPACTED.
7. INSTALL PIPES FOR GUTTER DOWNSPOUTS AS NEEDED.
8. PERFORM FINE GRADING FOR THE FIRST QUADRANT, AS SHOWN ON THE SITE PLAN. ALL PROPOSED CONTOURS ARE INTENDED TO REPRESENT FINAL GRADES.
9. SPREAD TOPSOIL ON FIRST QUADRANT, WITH A MINIMUM THICKNESS OF 4 INCHES, AND HYDROSEED.
10. PLANT NATIVE SHRUBS (SWEET PEPPER BUSH, BLUEBERRY, WINTERBERRY, SERVICEBERRY, ARROWWOOD VIBURNUM, MOUNTAIN LAUREL, WITCH HAZEL, ETC.) IN THE FIRST QUADRANT, AS SHOWN ON THE SITE PLAN.
11. REPEAT FOR NEXT THREE QUADRANTS.
12. ONCE TURF IS ESTABLISHED, REMOVE EROSION CONTROL DEVICES.

JOB NO: 22116	DATE: MAY 3, 2022
SCALE: 1" = 20'	SHEET: 2 OF 2





24941 Dana Point Harbor Drive, Suite C220
Dana Point, CA 92629

Mr. Bruce Fitzback
Land Use Agent
Town of Putnam
200 School Street
Putnam, CT 06260

RE: Inland Wetland Commission Application for Permit – 4 Kennedy Drive Solar Facility

Dear Mr. Fitzback:

Please find enclosed three (3) copies of an Inland Wetland application and supporting materials for the construction of a solar array at 4 Kennedy Drive. Also enclosed is a check in the amount of \$160.00 for the application fees.

I am requesting that this application be placed on the 6/8 Commission meeting agenda. Please let me know if you will require additional information.

Sincerely,

Colleen DeBenedetto
Development Project Manager
Valta Energy, LLC
colleen@valtaenergy.com
508.463.5303



INLAND WETLAND COMMISSION

APPENDIX A

APPLICATION FOR PERMIT

This application is for the use of inland wetlands and water courses.

The meetings are held on the second Wednesday of every month at 7:00pm in the Town Hall. If an on-site inspection is canceled due to inclement weather, the applicant is asked to call the office at 963-6803 30 minutes before the scheduled inspection to see if or when the inspection will be held.

Name of Applicant Valta Energy

Applicant's Address 24941 Dana Point Harbor Drive, Suite C, Dana Point, CA 92629

Phone # 508.463.5303

Owner of Land Town of Putnam

Owner's Address 200 School Street, Putnam, CT 06260

Location and description of proposed activity: Valta Energy is proposing to construct an array of photovoltaic cells in the center of the Town of Putnam sewage treatment plant property located at 4 Kennedy Drive, Putnam, CT. Installation will include PV cell array, footings and a fence surrounding the array. Racks will be installed on a driven pile system, with grass beneath the array. Staw wattles will be placed around the fenced area. Trenched underground electric connection. There are no wetlands within the proposed activities.

Activity & Purpose Code

Please **CHECK** one in each column that best describes the activity proposed.

<u>Code</u>	<u>Activity Type</u>	<u>Code</u>	<u>Activity Purpose</u>
☐	1 Filling	☐	A Residential Improvement by homeowner
☐	2 Excavation	☐	B New residential development - single family
☐	3 Land Clearing	☐	C New residential development - multi- family/condo
☐	4 Stream Channel	☐	D Commercial/Industrial Uses
☐	5 Stream Stabilization	☒	E Municipal Improvements
☐	6 Stream Clearance	☐	F Utility Company Improvements
☐	7 Culverting	☐	G Agriculture, Forestry or Conservation
☐	8 Und. Grd. Util.	☐	H Wetland Creation/Restoration
☐	9 Roadway Construction	☐	I Storm Water/Flood Control
☐	10 Drainage Improvements	☐	J Erosion/Sediment Control
☐	11 Pond Dredge/Dam Construction	☐	K Recreation/Boating/Navigation
☐	12 Activity Buffer/Set Back Area	☐	L Routine Maintenance
☒	13 Other: Please describe: <u>Installation of photovoltaic cell array.</u>		

INLAND WETLAND COMMISSION

APPENDIX A *Continued*

Project Name (if applicable) 4 Kennedy Drive

Estimate of Linear Footage affecting Wetlands 0 feet - no wetlands within proposed activities.

Affected number of acres in which Wetlands are part of the impacted area for Multi-Family, Condos and Commercial Development N/A

TO BE COMPLETED BY THE COMMISSION

Application Number _____ Date of Receipt 6/2/2022 ck # 177

Application Approved (date) _____

Conditions of approval if applicable _____

Application Denied (date) _____

Reason(s) for Denial _____

Signature of Chairman or Secretary of Commission

Date

INLAND WETLAND COMMISSION

APPENDIX A *Continued*

Application Procedure

1. Applicant will have a map showing the property boundaries, any wetlands on the property, proposed buildings, septic area, drainage if applicable and the dimension between these areas in scale 1" - 200' or less
2. Applicant must provide an approximate estimate of the linear footage of the wetlands that are affected by said proposal. This is for multi-family, condominiums or commercial development. Contact with the Zoning Official may clarify the nature of your project
3. Applicant must provide an approximate estimate of the number of acres that are affected by said proposal dealing with multi-family, condominiums and commercial development in which wetlands are part of that impacted area within the watershed.
4. Applicant will supply a copy of the soil scientist report with the application to the Wetlands Commission to be reviewed at the meeting by the Commission.
5. Applicant will have the soil scientist number the wetland flags and record the numbers of the flags on the site plan according to their location in the field. The location on the site map must match the field location.
6. If the applicant's estimates are not accurate, payment of the correct amount must be made before the Wetlands final approval of the application.
7. And any other information deemed necessary by the Commission.

Fee Schedule

1.	Permitted and non-regulated	\$40.00
2.	One lot regulated	\$40.00
3.	Regulated Area	
	Two (2) - Ten (10) lots	\$100.00
	Ten (10) - Twenty (20) lots	\$200.00
	Over Twenty (20+) lots	\$300.00
4.	Multi-Family/Condominium Regulated area	
	Zero (0) to Five (5) Acres	\$50.00
	Per linear foot of wetlands additional	\$0.35
	Over Five (5) acres	\$100.00
	Per linear foot of wetlands additional	\$0.35
5.	Commercial	
	Zero (0) to Five (5) Acres	\$100.00
	Per linear foot of wetlands additional	\$0.50
	Over Five (5) acres	\$300.00
	Per linear foot of wetlands additional	\$0.50

All applications must be submitted one week prior to the regularly scheduled monthly meeting.

COLLEEN CRONIN DEBENEDETTO
1158 BROAD ROCK RD.
SOUTH KINGSTOWN, RI 02879-1848

5-7017/2110

177

DATE 5-31-22

PAY TO THE
ORDER OF

Town of Putnam \$ 160.00
One hundred sixty and 00/100 DOLLARS  Security Features
Included
Details on Back

 Citizens

MEMO

4 Kennedy Dr. - IWC AP Colleen Cronin DeBenedetto
Colleen Cronin DeBenedetto MP



Inland Water Resources Division
Department of Environmental Protection
79 Elm Street, 3rd Floor
Hartford, CT 06106-5127
www.ct.gov/dep

GIS CODE #: _____
For DEP Use Only

Statewide Inland Wetlands & Watercourses Activity Reporting Form

Complete, print, **sign**, and mail this form in accordance with the instructions on pages 2 and 3.

PART I: To Be Completed By The Municipal Inland Wetlands Agency Only

1. DATE ACTION WAS TAKEN (use drop-down box): Year Month
2. ACTION TAKEN (use drop-down box):
3. WAS A PUBLIC HEARING HELD? (select one only) ☐ Yes ☐ No
4. NAME OF AGENCY OFFICIAL VERIFYING AND COMPLETING THIS FORM:
(print): (signature) _____

PART II: To Be Completed By The Municipal Inland Wetlands Agency Or The Applicant

5. TOWN IN WHICH THE ACTION IS OCCURRING: Putnam
Does this project cross municipal boundaries? (select one only) ☐ Yes ☒ No
If Yes, list the other town(s) in which the action is occurring:
6. LOCATION: USGS Quad Map Name (see hyperlink): Putnam
Quad Number (see hyperlink): 28
Subregional Drainage Basin Number (see hyperlink): 3700
7. NAME OF APPLICANT, VIOLATOR OR PETITIONER: Valta Energy
8. NAME & ADDRESS/LOCATION OF PROJECT SITE: Waste Water Treatment Facility, 4 Kennedy Dr.

Briefly describe the action/project/activity: ☐ Temporary ☒ Permanent
Installation of solar array
9. ACTIVITY PURPOSE CODE (Use drop-down box): P
10. ACTIVITY TYPE CODE(S) (Use drop-down box) 1, 2, 14
11. WETLAND / WATERCOURSE AREA ALTERED [must be provided in acres or linear feet as indicated]:
Wetlands: 0 acres Open Water Body: 0 acres Stream: 0 linear feet
12. UPLAND REVIEW AREA ALTERED [must be provided in acres]: .81 acres
13. AREA OF WETLANDS AND / OR WATERCOURSES RESTORED, ENHANCED OR CREATED: 0 acres
[must be provided in acres]

PART III: To Be Completed By The DEP

DATE RECEIVED: DATE RETURNED TO DEP:
FORM COMPLETED: ☐ YES ☐ NO FORM CORRECTED / COMPLETED: ☐ YES ☐ NO

JMM WETLAND CONSULTING SERVICES, LLC

23 Horseshoe Ridge Road
Newtown, CT 06482

Phone: 203-364-0345
Mobile: 203-994-3428
james@jmmwetland.com
jmmwetland.com

September 15, 2021

Mr. Dean Martin
Martin Surveying Associates, LLC
201 Christian Lane, Suite D
Berlin, CT 06037

RE: *Site Investigation*
4 Kennedy Drive, Putnam, Connecticut
Proposed Solar Array

JMM Job # 21-2879-PUT-1

Dear Mr. Martin:

Per your request, Mr. James McManus of JMM Wetland Consulting Services, LLC (JMM) conducted a site visit at the above-referenced site on August 18th, 2021. The purpose of the investigation was to verify the absence or the presence of regulated wetland areas in accordance with the State of Connecticut Statutes. Specifically, JMM reviewed an area within the southwestern portion of the City of Putnam Water Pollution Control Facility (WPCA), in Putnam, CT (i.e., JMM Study Area). Currently, the study area is undeveloped and mix of maintained lawn and meadow areas with scattered sapling sized trees and shrubs (see photos 1-4).

The soil types within the study area were found to be disturbed throughout. The disturbed upland soils would be mapped as the Udorthents-Urban Land (306) mapping unit.

Udorthents-Urban Land (306). This soil mapping unit consists of well drained to moderately well drained soils that have been altered by cutting, filling, or grading. The areas either have had two feet or more of the upper part of the original soil removed or have more than two feet of fill material on top of the original soil. *Udorthents-Urban Land* or *Made Land* soils can be found on any soil parent material but are typically fluvial on glacial till plains and outwash plains and stream terraces.

JMM carefully reviewed the study area with the use of a mini-excavator and with a hand-held soil auger and spade to a minimum depth of 4-feet. It was determined that no poorly or very poorly drained soils or regulated watercourses were identified within these very disturbed soils.

Please call us if you have any questions on the above or need further assistance.

Respectfully submitted,

JMM WETLAND CONSULTING SERVICES, LLC

A handwritten signature in black ink, appearing to read 'James M. McManus', with a long horizontal flourish extending to the right.

James M. McManus, MS, CPSS
Certified Professional Soil Scientist (No. 15226)

Attachments: Photos 1-4, NRCS Web Soil Survey



necog

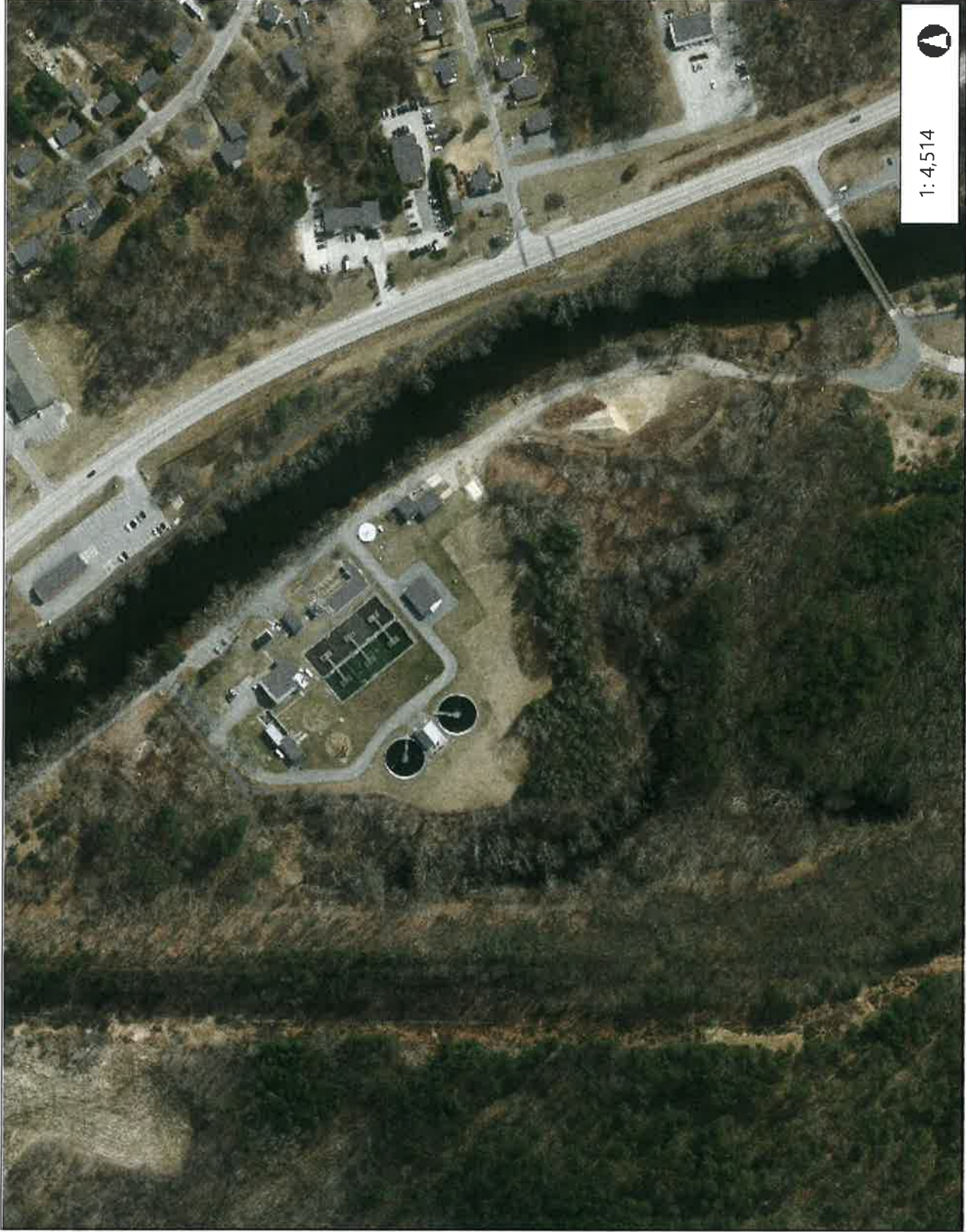
North Carolina



- Legend
- Town
 - Buildings 2012
 - Parcels

Notes

Enter Map Description



1: 4,514



0.1 0 0.07 0.1 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere
© Latitude Geographics Group Ltd.

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.
THIS MAP IS NOT TO BE USED FOR NAVIGATION



Photo 1: View of proposed solar array area (JMM photo taken 8/18/2021);
facing southeasterly



Photo 2: View of proposed solar array area (JMM photo taken 8/18/2021);
facing northwesterly



Photo 3: View of proposed solar array area (JMM photo taken 8/18/2021); facing southeasterly



Photo 4: View of soil pit showing the disturbed nature of the soil within the study area (JMM photo taken 8/18/2021)

Soil Map—State of Connecticut
(4 Kennedy Drive, Putnam, CT)



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

MAP LEGEND

 Area of Interest (AOI)	 Spoil Area
 Soils	 Stony Spot
 Soil Map Unit Polygons	 Very Stony Spot
 Soil Map Unit Lines	 Wet Spot
 Soil Map Unit Points	 Other
Special Point Features	 Special Line Features
 Blowout	Water Features
 Borrow Pit	 Streams and Canals
 Clay Spot	Transportation
 Closed Depression	 Rails
 Gravel Pit	 Interstate Highways
 Gravelly Spot	 US Routes
 Landfill	 Major Roads
 Lava Flow	 Local Roads
 Marsh or swamp	Background
 Mine or Quarry	 Aerial Photography
 Miscellaneous Water	
 Perennial Water	
 Rock Outcrop	
 Saline Spot	
 Sandy Spot	
 Severely Eroded Spot	
 Sinkhole	
 Slide or Slip	
 Sodid Spot	

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut
Survey Area Data: Version 20, Jun 9, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

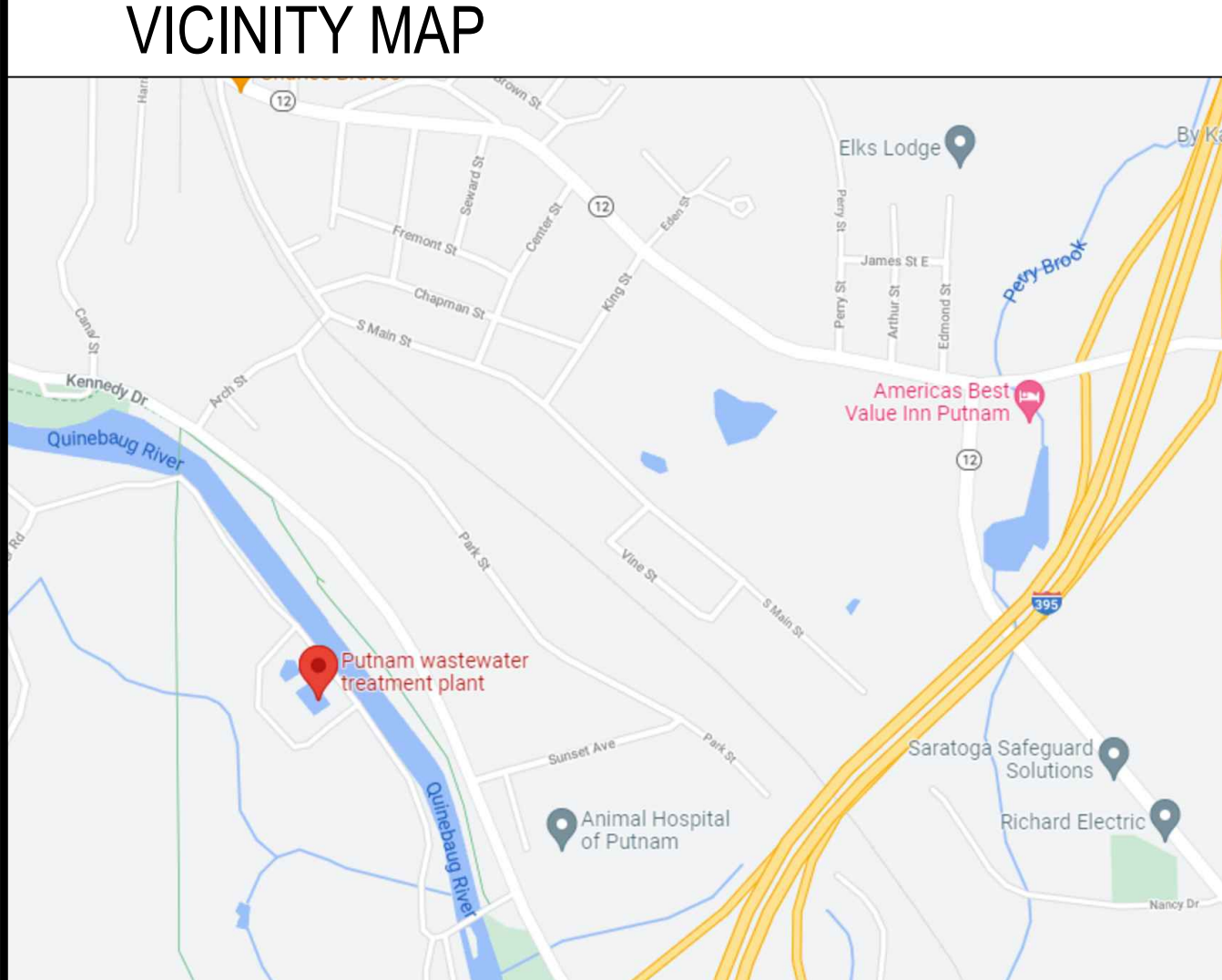
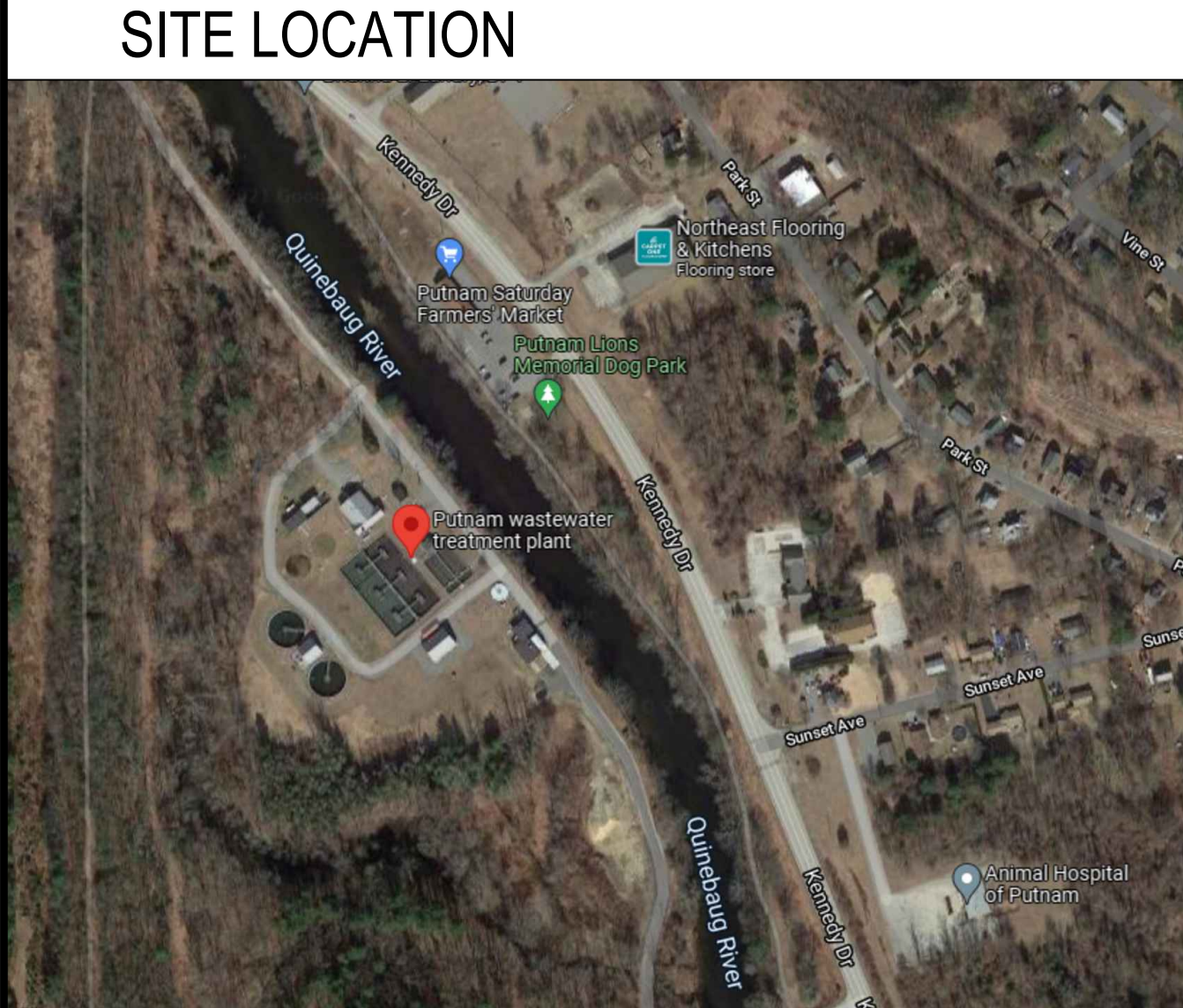
Date(s) aerial images were photographed: Apr 8, 2011—Apr 9, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

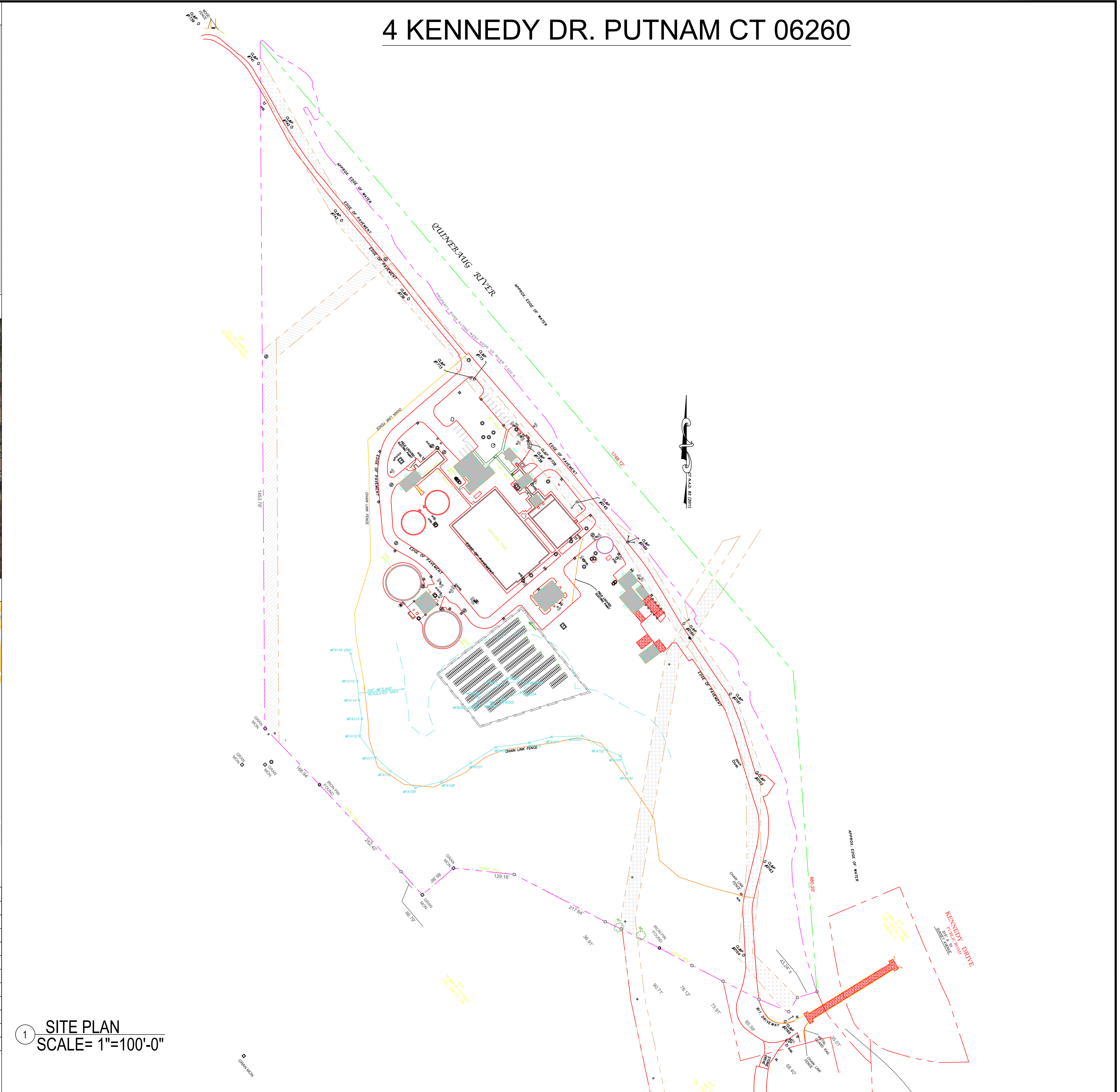
Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
3	Ridgebury, Leicester, and Whitman soils, 0 to 8 percent slopes, extremely stony	0.1	0.0%
23A	Sudbury sandy loam, 0 to 5 percent slopes	1.3	0.8%
34A	Merrimac fine sandy loam, 0 to 3 percent slopes	12.5	8.2%
38A	Hinckley loamy sand, 0 to 3 percent slopes	9.9	6.5%
38C	Hinckley loamy sand, 3 to 15 percent slopes	47.7	31.1%
38E	Hinckley loamy sand, 15 to 45 percent slopes	0.6	0.4%
62C	Canton and Charlton fine sandy loams, 3 to 15 percent slopes, extremely stony	18.4	12.0%
62D	Canton and Charlton fine sandy loams, 15 to 35 percent slopes, extremely stony	0.0	0.0%
73E	Charlton-Chatfield complex, 15 to 45 percent slopes, very rocky	6.0	3.9%
102	Pootatuck fine sandy loam	15.5	10.1%
103	Rippowam fine sandy loam	10.6	6.9%
108	Saco silt loam	2.8	1.8%
306	Udorthents-Urban land complex	20.1	13.1%
W	Water	7.7	5.0%
Totals for Area of Interest		153.2	100.0%

SYSTEM SPECS & INFORMATION	
Project Info	
PV Module	(700) JINKO JKM395M-72HL-TV
Inverter #1	(1) SOLAREEDGE SE100KUS
Inverter #2	(1) SOLAREEDGE SE66.6KUS
Inverter #3	(2) SOLAREEDGE SE40KUS
Racking	RBI SOLAR
DC WATTS	276.5kW
AC WATTS	246.6kW
CEC-AC	267.5kW
Azimuth	139
Tilt	15
Min. Temp.	-19°C
ASHRAE 2% AVG. TEMP	32°C
Utility Grid	National Grid



SHEET INDEX	
E-1	TITLE SHEET
E-1.1	GENERAL NOTES
E-2.1	SITE PLAN DETAIL
E-2.2	SITE PLAN DETAIL
E-3.1	DC STRING DETAILS
E-4.1	SINGLE LINE
E-4.2	ELECTRICAL CALCS
E-5.1	LABELING
E-5.2	LABELING
E-5.3	SPEC SHEETS
E-5.4	SPEC SHEETS



1 SITE PLAN
SCALE= 1"=100'-0"

CPM

CLEAN POWER
MANAGEMENT

CLEAN POWER
MANAGEMENT

24941 DANA POINT HARBOR DR
SUITE C220
DANA POINT, CA 92629
469-735-2234

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SEAL:

S

SAVANT
Engineering, LLC

5064 Roswell Road, Suite D-301
Sandy Springs GA 30342 770.319.7400
Project 16037 ©2016

PROJECT:

4 KENNEDY DR.
4 KENNEDY DR. PUTNAM
CT 06260

APN: 037-081

OWNER:

-

24941 DANA POINT HARBOR
DRIVE, C220 DANA POINT,
CA 92629

Revisions:

1	05/16/22	Added limit of disturbance and straw wattle to site plan
2	06/28/22	Added tree removal line, relocated array and limit of disturbance.

Drawn By: ADRIAN CISNEROS

Checked By:

Date: 11/16/21

Job No.:

Sheet Title:

TITLE SHEET

Sheet No.:

E-1

1. IN EVERY PULL BOX, TERMINAL BOX AND AT ALL PLACES WHERE WIRES MAY NOT BE READILY IDENTIFIED BY NAMEPLATE MARKINGS ON THE EQUIPMENT TO WHICH THEY CONNECT, IDENTIFY EACH CIRCUIT WITH A PLASTIC LABEL OR TAG FOR NUMBER, POLARITY OF PHASE.
2. THE LAYOUT OF CONDUIT SHOWN IN THESE PLANS IS INDICATIVE ONLY. THE CONTRACTOR SHALL ROUTE AND LOCATE THE CONDUITS TO SUIT SITE CONDITIONS BUT SHALL NOT EXCEED THE MAXIMUM CONDUCTOR LENGTHS IDENTIFIED ON WIRE SCHEDULE. CONTRACTOR WILL COORDINATE ALL CHANGES IN WIRING AND CONDUIT WITH ENGINEER.
3. BENDS SHALL NOT DAMAGE THE RACEWAY OR SIGNIFICANTLY CHANGE THE INTERNAL DIAMETER OF RACEWAYS (NO KINKS).
4. SUPPORT CONDUCTORS IN VERTICAL CONDUITS IN ACCORDANCE WITH REQUIREMENTS IN NEC 300.19
5. INSTALL AL WIRING MATERIALS IN A NEAT WORKMANLIKE MANNER. USE GOOD TRADE PRACTICE, AS REQUIRED BY CHAPTER 3 OF THE NEC AND ANS/NECA 1-2000. 'STANDARD PRACTICES FOR GOOD WORKMANSHIP IN ELECTRICAL CONTRACTING'
6. INSTALL CONDUIT TO MAINTAIN PROPER CLEARANCES AND IN A NEAT INCONSPICUOUS MANNER, RUN PARALLEL AND AT RIGHT ANGLES TO STRUCTURAL MEMBERS OR OTHER CONDUITS. PROVIDE BOXES, FITTINGS AND BENDS FOR CHANGES IN DIRECTION. FASTEN CONDUIT SECURELY IN PLACE. CONDUCTORS' INSULATION IT IS BEING USED WITH.
7. SUPPORT CONDUIT USING STEEL PIPE STRAPS OAE, LAY-IN ADJUSTABLE HANGERS, M CLEVIS HANGERS OR SPLIT HANGERS. HANGER SPACING SHALL BE INSTALLED PER NEC REQUIREMENTS FOR THE TYPE OF CONDUIT BEING INSTALLED. USE APPROVED BEAM CLAMPS FOR CONNECTION TO STRUCTURAL MEMBERS.
8. PROVIDE PULL, JUNCTION OR CHRISTY BOXES WHERE REQUIRED TO FACILITATE THE INSTALLATION OF WIRING IN ADDITION TO THOSE ON THE DRAWINGS. BENDS IN CONDUITS BETWEEN PULL BOXES SHALL NOT EXCEED THE EQUIVALENT OF FOUR 90 DEGREE BENDS.
9. WHEN FIELD CUTTING IS REQUIRED THE CONDUIT SHALL BE CUT SQUARE AND DEBURRED.
10. CONDUIT SIZES NOT SPECIFIED SHOULD CONFORM TO NEC SPECIFICATIONS, TO INCLUDE FILL FACTOR AND DERATING FOR NUMBER OF CONDUCTORS WITH A MINIMUM CONDUIT SIZE BEING 3/4".
11. THE WIRING MINIMUM SIZE SHALL BE #12 AWG.
12. SAFETY REGULATION (LOCK OUT - TAG OUT, ETC) IS THE FULL RESPONSIBILITY OF THE CONTRACTOR DURING CONSTRUCTION.
13. THE WIRING SIZE IS BASED ON THE ESTIMATED CONDUIT ROUTING SHOWN IN THIS DRAWING PACKAGE. SHOULD THE CONDUITS LENGTH INCREASE DUE TO LOCATION OF SOURCE AND/OR ROUTING THE CONDUITS AND THE CONDUCTORS MAY NEED BE RESIZED. PLEASE CONTACT THE ENGINEER PRIOR TO MAKING ANY FIELD CHANGES
14. ALL WIRING IN CONDUIT SHALL BE THWN-2 FOR 90 DEGREE CELSIUS APPLICATIONS. USE BARE COPPER FOR GROUND FOR AL EXTERNAL GROUNDING. USE 2/RHW2/PV WIRE OR APPROVED EQUIVALENT SHALL BE USED FOR ALL EXPOSED OR HOMERUN WIRING
15. FOR INTER CONNECTION VIA BUS TAP:
 - OVERCURRENT PROTECTION (SWITCHING DEVICE AND MEANS OF DISCONNECT) MUST BE LOCATED PER NEC 240.21
 - A. THE CONDUCTORS SHALL BE CRIMPED WITH A CRIMP-ON TERMINAL LUG, MANUFACTURED BY ILSCO, BURNDY, OAE. THE TERMINAL LUG SHALL HAVE IDENTIFICATION OR COLOR CODING TO MATCH THE CONDUCTOR SIZE. TERMINAL LUGS SHALL HAVE LONG BARRELS TO PROVIDE 2 CRIMPS PER TERMINAL LUG PER CONDUCTOR.
 - B. CRIMPED TERMINAL LUGS SHALL BE CONSTRUCTED OF PURE COPPER AND TIN PLATED FOR HIGH CONDUCTIVITY AND RATED FOR 600V AT 90 DEGREES CELSIUS
 - C. THE CRIMP MUST BE MADE WITH THE MANUFACTURER'S APPROVED TOOL DEVICE TO ACHIEVE THE PROPER CRIMP CONNECTION.
 - D. USE STAINLESS STEEL HARDWARE WITH THE FASTENER TORQUED TO MANUFACTURERS RECOMMENDATIONS ON ALL THREE PHASES TO COMPLY WITH ARTICLE 110.14 OF THE 2020 NEC.
 - E. MINIMUM BEND RADIUS SHALL BE OBSERVED TO MAINTAIN GOOD CONDUCTOR QUALITY AND WIRE MANAGEMENT IN THE LOAD CENTER OR TRANSFORMER. IF THIS BEND RADIUS IS TOO CONSTRICTING, USE A 90 DEGREE CRIMP-ON LUG MANUFACTURED BY ILSCO, BURNDY, OAE. 90 DEGREE CRIMP-ON LUG MUST BE INSTALLED WITH RATED INSULATION THAT MEETS OR EXCEEDS THE CONDUCTORS' INSULATION IT IS BEING USED WITH. IT IS RECOMMENDED THAT ACCEPTABLE CLEARANCES ARE MAINTAINED WIT THIS BUS TAP FOR SAFE, CONTINUOUS OPERATION.
 - F. FOLLOW MANUFACTURERS GUIDELINES OR THE APPLICABLE AHJ, FOR MODIFICATION OF BUS BAR(S)
16. ALL CONDUITS SHALL BE FREE OF ANY OBSTRUCTIONS AND PROPERLY SECURED BEFORE WIRE IS PULLED.
17. ELECTRICAL CONTRACTOR TO PROVIDE SIGNAGE TO ALL ELECTRIC BOXES, JUNCTION BOXES, PULL BOXES, DC DISCONNECTS, CONDUIT RUNS, AC DISCONNECTS, SUB PANELS, AND MAIN SERVICES PER NEC ARTICLE 690.
18. MEGGER TESTING: MEGGER (INSULATION) TEST ALL CONDUCTORS AT 1000V TO 5 MEGAOMHS BETWEEN THE CONDUCTOR UNDER TEST AND GROUND WIRE. CONDUCT TEST AFTER WIRE IS PULLED THROUGH THE CONDUIT BUT BEFORE TERMINATING TO THE MODULES, COMBINERS, DISCONNECTS OR INVERTERS. **DO NOT MEGGER THE SOLAR MODULES AS THIS WILL LIKELY DAMAGE THEIR INTERNAL DIODES MEGGERING IS INTENDED FOR ALL CONDUCTORS INSTALLED BY THE ELECTRICAL CONTRACTOR.**
19. ALL UNDERGROUND ELECTRICAL WORK SHALL BE DONE WITH CARE. LOCATE EXISTING UTILITIES, IRRIGATION LINES AND OTHERS BEFORE COMMENCING UNDERGROUND WORK. CONTACT UNDERGROUND SERVICE ALERT "USA(WITHIN 48 HOURS OF ANY UNDERGROUND WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNDERGROUND WORK PERFORMED.

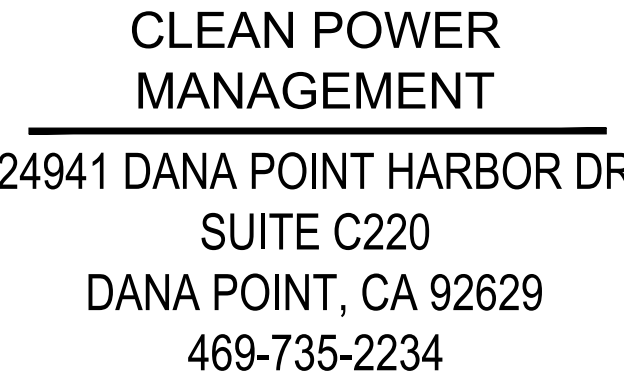
1. REFER TO THE MODULE MANUAL FOR MORE DETAILS ON RIGGING, UNPACKING, HANDLING, PLANNING AND INSTALLATION.
2. THE MODULES MAY BE SHIPPED WITH SEVERAL MODULES PER BOX, TAKE CARE WHEN OPENING THE BOX TO ENSURE THAT ALL MODULES ARE SECURELY HANDLED.
3. NEVER LEAVE A MODULE UNSUPPORTED OR UNSECURED. THE CONTRACTOR IS RESPONSIBLE FOR ALL MATERIAL HANDLING ON THE JOBSITE.

1. BEFORE CLOSING DISCONNECTS OR ATTEMPTING TO ENERGIZE THE INVERTERS, THE FOLLOWING COMMISSIONING PROCEDURE SHALL BE COMPLETED:
 - A. CHECK THE OPEN CIRCUIT VOLTAGE (VOC) AND POLARITY (+/-) OF EACH SOURCE CIRCUIT. RECORD THE VALUES ON THE COMMISSIONING RECORD DOCUMENTS
 - B. CHECK THE SHORT CIRCUIT CURRENT (ISC) FOR EACH SOURCE CIRCUIT. RECORD THE VALUES ON COMMISSIONING RECORD DOCUMENTS.
 - C. CHECK THAT ALL FUSES, DISCONNECTS AND OTHER BALANCE OF SYSTEM COMPONENTS ARE RATED FOR 600VDC AND THE APPROPRIATE CURRENT CAPACITY.
 - D. COMPLETE A VISUAL INSPECTION OF ALL THE MODULES TO CHECK FOR BROKEN GLASS, FRAYED WIRES, EXPOSED CONDUCTORS AND ANY OTHER PROBLEMS THAT MAY CAUSE A FAULT.
 - E. PRIOR TO INSTALLATION ALL FUSES SHALL BE TESTED FOR CONTINUITY.

1. THIS CHECKLIST MUST BE COMPLETED BY THE CONTRACTOR PRIOR TO COMMISSIONING:
 - A. CHECK THAT THE INVERTER IS PROPERLY GROUNDED, AS DESCRIBED BY THE MANUFACTURER AND THESE INSTRUCTIONS.
 - B. CHECK THE INVERTER DC INPUT VOLTAGE (VOC) FROM THE SOLAR ARRAY FOR PROPER POLAR, INSIDE THE INVERTER CABINET.
 - C. CHECK DC INPUT VOLTAGE (VOC) IS WITHIN THE PROPER RANGE IN THE INVERTER CABINET AS DEFINED BY THE INVERTER RATING LABEL AND ACCOMPANIED MANUAL.
 - D. CHECK AC INPUT VOLTAGE IS IN THE PROPER PHASE SEQUENCE (CLOCKWISE) IF APPLICABLE.
 - E. CHECK THAT THE AC GRID VOLTAGE, AT THE INVERTER AC TERMINALS, IS WITHIN THE PROPER RANGE DEFINED BY THE INVERTER RATING LABEL AND ACCOMPANIED MANUAL.
 - F. FOLLOW START-UP SEQUENCE IN MANUFACTURER'S OPERATION AND MAINTENANCE MANUAL.
 - G. VERIFY THAT ALL CONDUCTOR TERMINATION AND FASTENER TORQUE MEET LISTED SPECIFICATIONS.

1. NFPA70 (NEC) AND IBC, OR LOCAL CODES AS REQUIRED. COMPLIANCE FOR INSTALLATION AND WORKMANSHIP.
2. LABEL EQUIPMENT WITH PERMANENT WEATHERPROOF LABELS. COMPLY WITH NEC ART. 690.7, 690.17, AND 690.53 ESPECIALLY. LABEL UTILITY DISCONNECT AND SOLAR METER.
3. IDENTIFY BOTH ENDS OF WIRES WITH PERMANENT WIRE MARKERS.
4. THE POINT OF CONNECTION SHALL COMPLY WITH NFPA 70 ARTICLE 690.64(B)(2).
5. LIMIT TOTAL VOLTAGE DROP TO LESS THAN 3% INCLUDING ALL DC AND AC CIRCUITS (PROVIDE CALCULATIONS FOR WORST CIRCUIT). PREFERRED IS 2% DC AND 1%AC.
6. INSTALLATION OF ALL COMPONENTS COMPLETED IN WORKMANLIKE MANNER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
7. USE 90°C OR HIGHER WET RATED WIRE FOR ALL EXTERIOR CONDUITS, WITH APPROPRIATE DERATINGS FOR TEMPERATURE AND OTHER FACTORS.
8. FUSES AND WIRES BETWEEN TRANSFORMER AND POINT OF INTERCONNECTION SIZED FOR TRANSFORMER IN-RUSH CURRENT (OCCURS DAILY DUE TO NIGHT-TIME DISCONNECT).
9. ALL DC MATERIALS (FUSES, EQUIPMENT, CONNECTORS, WIRES, ETC.) TO BE UL LISTED FOR 600VDC OR 1000VDC WHERE APPLICABLE.
10. ALL DISCONNECTS AND COMBINERS TO BE SECURED FROM UNAUTHORIZED/UNQUALIFIED PERSONNEL. (MAY BE WITH LOCK OR LOCATION) AND ALL SOURCES L.O.T.O. BEFORE COMMISSIONING.
11. ALL EXPOSED CABLES, SUCH AS MODULE LEADS TO BE SECURED WITH UV RATED PLASTIC OR OTHER APPROVED SUNLIGHT RESISTANT MEANS WITH A 25 YEAR LIFE.
12. ALL FASTENERS TO BE UV RESISTANT PLASTIC AND ASSEMBLED TO ISOLATE COPPER CONDUCTORS FROM DIRECT CONTACT WITH ALUMINUM COMPONENTS.
13. STRUCTURES AND SYSTEM LAYOUT MUST ACCOMMODATE EASY ACCESS FOR TROUBLESHOOTING AND MAINTENANCE.
14. NO WIRE NUTS SHALL BE USED IN SYSTEM CONNECTION POINTS.
15. CONNECTORS TO BE TORQUED PER DEVICE LISTING AFTER TREATING THREADS WITH ANTIOXIDANT OR ANTISEIZE. CAMMED OUT SET SCREWS SHALL BE REPLACED. HEX OR SQUARE DRIVE SOCKET HEAD SCREWS ARE RECOMMENDED.
16. SPLIT BOLTS/SPLICES/CONNECTORS SHALL BE INSULATED WITH APPROVED MEANS, UL LISTED ELECTRICAL TAPE ALONE IS NOT SUITABLE AS THE ONLY INSULATION MEANS. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR APPLICATION OF INSULATING PRODUCT.
17. STRUCTURE FINISH TO BE CONSISTENT WITH 25 YEAR DESIGN LIFE WITH MINIMAL MAINTENANCE. ACCEPTABLE UNISTRUT FINISHES ARE THOSE COATING WITH DEMONSTRATED 25 YEAR LIFE.
18. ANODIZED ALUMINUM. HOT DIPPED GALVANIZED STEEL, AND STAINLESS STEEL ARE

19. ALL FIELD WELDS OR CUT SURFACES REQUIRE FIELD TOUCH UP TO MAINTAIN FINISH COATING. CUT GALVANIZED/ZINC COVERED SURFACES SHALL BE COATED WITH A COLD ZINC PRODUCT APPLIED IN AN APPROVED MANNER.
20. ALL WELDING TO BE COMPLETED BY WELDERS CERTIFIED AND CURRENT IN THE TYPE OF WELDING BEING COMPLETED.
21. ALL ELECTRICAL WORK TO BE COMPLETED BY QUALIFIED ELECTRICIANS OR APPRENTICES WORKING UNDER THE DIRECT SUPERVISION OF A QUALIFIED ELECTRICIAN EQUIVALENT IN EXPERIENCE TO A JOURNEYMAN OR MASTER ELECTRICIAN
22. STRUCTURE MUST ALLOW FOR UNRESTRICTED AIRFLOW AROUND MODULES AND THE MODULE FRAME
23. PULL SPLICE BOXES SHALL BE LISTED FOR PURPOSE AND INSTALLED IN A WORKMANLIKE MANNER. DIRECT BURIAL RATED CONNECTORS SHALL BE USED FOR CONDUCTORS.
24. GROUNDING SYSTEM WILL USE LISTED COMPONENTS INCLUDING GROUND RODS, GROUNDING LUGS/CLAMPS AND OTHER DEVICES RATED FOR DIRECT BURIAL WHEN EXPOSED TO THE ELEMENTS.
25. MODULES SHALL BE GROUNDED WITH EQUIPMENT GROUNDING CONDUCTOR USING THE LISTED MEANS AS DESCRIBED IN THE MODULE INSTALLATION MANUAL. MECHANICAL CONNECTORS SHALL BE RATED FOR DIRECT BURIAL.
26. CONCRETE SHALL BE CURED FOR A MINIMUM OF SEVEN (7) DAYS BEFORE LOADING, UNLESS THE RESPONSIBLE CHARGE ENGINEER CERTIFIES LOADING BEFORE INITIAL CURE, OR SPECIFIES A LONGER CURE TIME
27. TOP ENTRY CONDUITS WILL BE ROUTED SO WATER BUILDUP DOES NOT FALL ON ELECTRICAL/ELECTRONIC EQUIPMENT.
28. ALL CONDUIT ENTRY AND EXITS FROM ENCLOSURES WILL BE SEALED WITH MATERIAL LISTED FOR PURPOSE SUCH AS FIRE STOP OR DUCT SEAL
29. FIELD ASSEMBLY OF MC CABLES WILL BE EXECUTED BY CERTIFIED PERSONNEL ACCORDING TO MANUFACTURER'S GUIDELINES.
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32. PER NEC STANDARD COLORS FOR WIRE SHALL BE USED. WHITE FOR THE GROUNDED CONDUCTOR, GREEN FOR EQUIPMENT GROUND, AND ALL OTHER COLORS NEEDED FOR PHASING.
33. ALL PVC CONDUIT SHALL BE SCHEDULE 80 WHERE SUBJECT TO DAMAGE, OTHERWISE SCHEDULE. ALL EMT CONDUIT RUNS SHALL USE RAINTIGHT COMPRESSION FITTINGS.



SEAL:



APN: 037-081

OWNER

Revisions:

Drawn By:	Checked By:
ADRIAN CISNEROS	
Date:	Job No.:
11/16/21	
Sheet Title:	

Sheet No.:

E-1.1



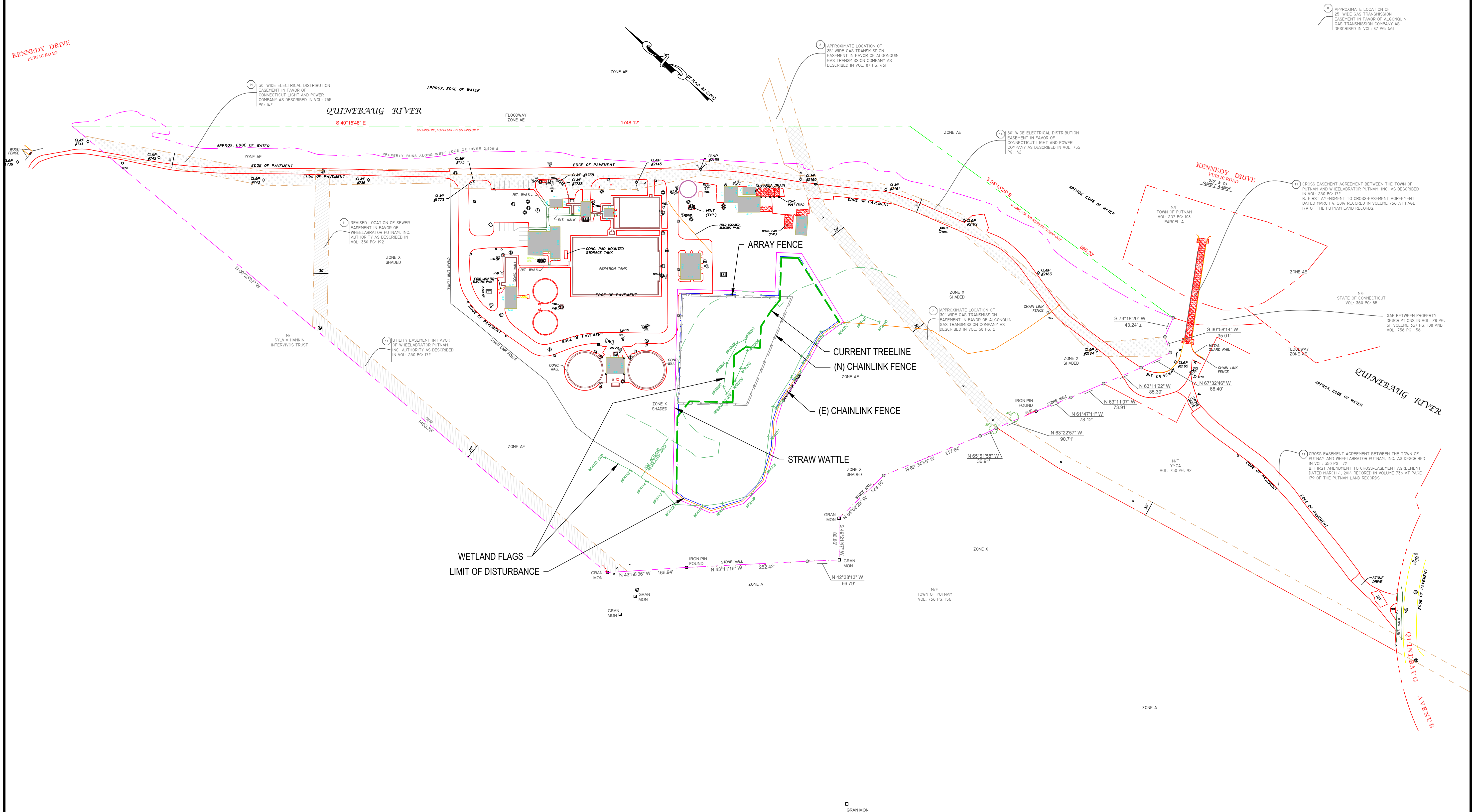
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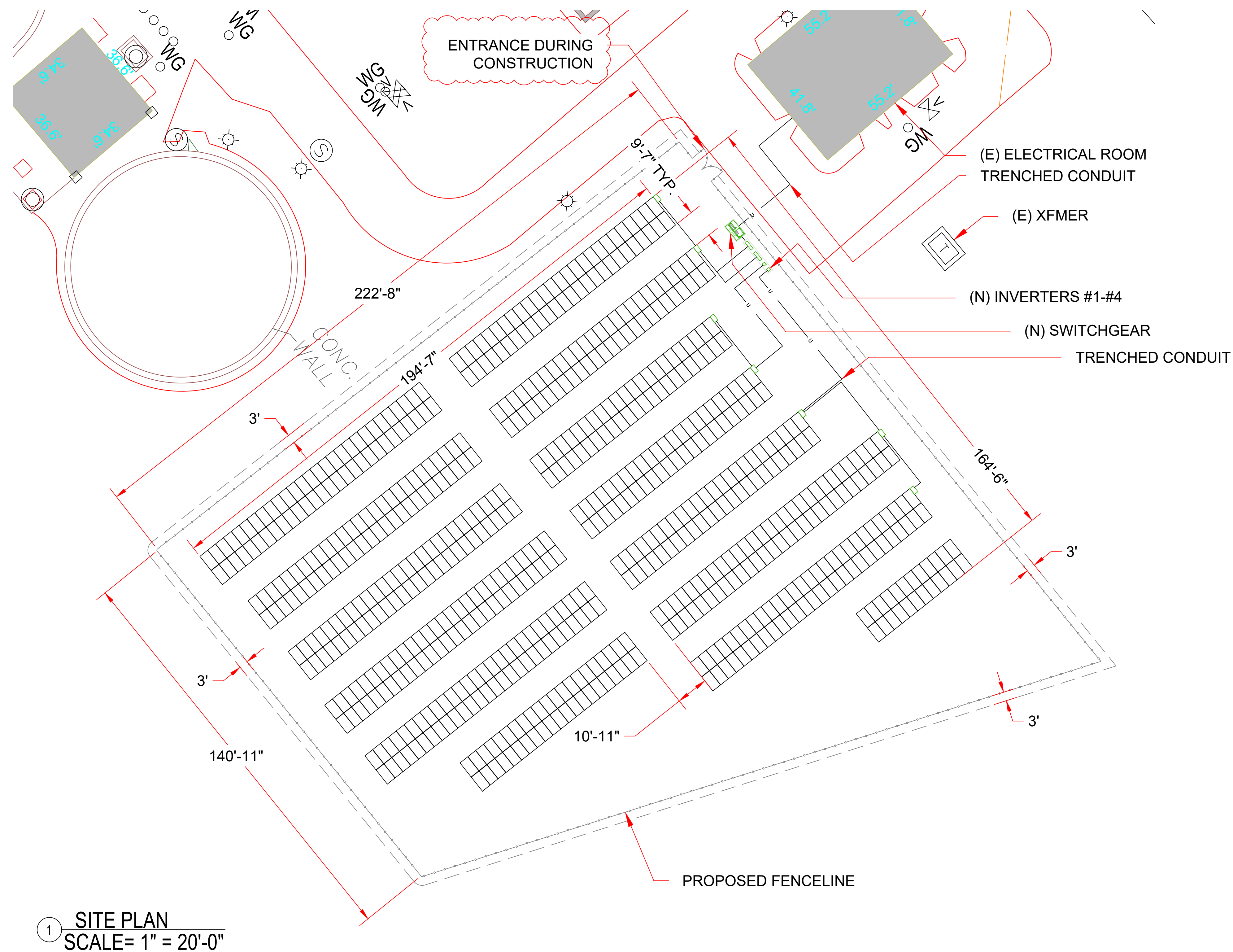


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Engineering, LLC

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Sandy Springs GA 30342 770.319.7400
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E-2.1





**CLEAN POWER
MANAGEMENT**
24941 DANA POINT HARBOR DR
SUITE C220
DANA POINT, CA 92629
469-735-2234

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SEAL:



PROJECT:

4 KENNEDY DR.
4 KENNEDY DR. PUTNAM
CT 06260

APN: 037-081

OWNER:

24941 DANA POINT HARBOR
DRIVE, C220 DANA POINT,
CA 92629

Revisions:

[illegible]

Drawn By: ADRIAN CISNEROS

Date: 11/16/21 Job No.:

Sheet Title:

SITE PLAN DETAIL

Sheet No.:

E-2.2

ELECTRICAL NOTES:

1. ELECTRICAL EQUIPMENT SHALL BE LISTED OR CERTIFIED BY A CITY OF CYPRUS
RECOGNIZED ELECTRICAL TESTING LABORATORY OR APPROVED BY THE
DEPARTMENT.
2. IN EVERY PULL BOX, TERMINAL BOX AND AT ALL PLACES WHERE WIRES MAY NOT BE
READILY IDENTIFIED BY NAMEPLATE MARKINGS ON THE EQUIPMENT TO WHICH THEY
CONNECT, IDENTIFY EACH CIRCUIT WITH A PLASTIC LABEL OR TAG FOR NUMBER,
POLARITY OF PHASE.
3. THE LAYOUT OF CONDUIT SHOWN IN THESE PLANS IS INDICATIVE ONLY. THE
CONTRACTOR SHALL ROUTE AND LOCATE THE CONDUITS TO SUIT SITE CONDITIONS
BUT SHALL NOT EXCEED THE MAXIMUM CONDUCTOR LENGTHS IDENTIFIED ON WIRE
SCHEDULE. CONTRACTOR WILL COORDINATE ALL CHANGES IN WIRING AND CONDUIT
WITH ENGINEER.
4. BENDS SHALL NOT DAMAGE THE RACEWAY OR SIGNIFICANTLY CHANGE THE
INTERNAL DIAMETER OF RACEWAYS (NO KINKS).
5. SUPPORT CONDUCTORS IN VERTICAL CONDUITS IN ACCORDANCE WITH
REQUIREMENTS IN NEC 300.19
6. INSTALL AL WIRING MATERIALS IN A NEAT WORKMANLIKE MANNER. USE GOOD
TRADE PRACTICE. AS REQUIRED BY CHAPTER 3 OF THE NEC AND ANSI/NECA 1-2000
'STANDARD PRACTICES FOR GOOD WORKMANSHIP IN ELECTRICAL CONTRACTING'.
7. INSTALL CONDUIT TO MAINTAIN PROPER CLEARANCES AND IN A NEAT
INCONSPICUOUS MANNER. RUN PARALLEL AND AT RIGHT ANGLES TO STRUCTURAL
MEMBERS OR OTHER CONDUITS. PROVIDE BOXES, FITTINGS AND BENDS FOR
CHANGES IN DIRECTION. FASTEN CONDUIT SECURELY IN PLACE. CONDUCTORS'
INSULATION IT IS BEING USED WITH.
8. SUPPORT CONDUIT USING STEEL PIPE STRAPS OAE, LAY-IN ADJUSTABLE
HANGERS, M CLEVIS HANGERS OR SPLIT HANGERS. HANGER SPACING SHALL BE
INSTALLED PER NEC REQUIREMENTS FOR THE TYPE OF CONDUIT BEING INSTALLED.
USE APPROVED BEAM CLAMPS FOR CONNECTION TO STRUCTURAL MEMBERS.
9. PROVIDE PULL, JUNCTION OR CHRISTY BOXES WHERE REQUIRED TO FACILITATE
THE INSTALLATION OF WIRING IN ADDITION TO THOSE ON THE DRAWINGS. BENDS IN
CONDUITS BETWEEN PULL BOXES SHALL NOT EXCEED THE EQUIVALENT OF FOUR 90
DEGREE BENDS.
10. WHEN FIELD CUTTING IS REQUIRED THE CONDUIT SHALL BE CUT SQUARE AND
DEBURRED.
11. CONDUIT SIZES NOT SPECIFIED SHOULD CONFORM TO NEC SPECIFICATIONS, TO
INCLUDE FILL FACTOR AND DERATING FOR NUMBER OF CONDUCTORS WITH A
MINIMUM CONDUIT SIZE BEING ¾".
12. THE WIRING MINIMUM SIZE SHALL BE #12 AWG.
13. SAFETY REGULATION (LOCK OUT - TAG OUT, ETC) IS THE FULL RESPONSIBILITY OF
THE CONTRACTOR DURING CONSTRUCTION.
14. THE WIRING SIZE IS BASED ON THE ESTIMATED CONDUIT ROUTING SHOWN IN THIS
DRAWING PACKAGE. SHOULD THE CONDUITS LENGTH INCREASE DUE TO LOCATION
OF SOURCE AND/OR ROUTING THE CONDUITS AND THE CONDUCTORS MAY NEED BE
RESIZED. PLEASE CONTACT THE ENGINEER PRIOR TO MAKING ANY FIELD CHANGES
15. ALL WIRING IN CONDUIT SHALL BE THWN-2 FOR 90 DEGREE CELSIUS APPLICATIONS.
USE BARE COPPER FOR GROUND FOR AL EXTERNAL GROUNDING. USE 2/RHW2/PV
WIRE OR APPROVED EQUIVALENT SHALL BE USED FOR ALL EXPOSED OR HOMERUN
WIRING
16. FOR INTER CONNECTION VIA BUS TAP:
- OVERCURRENT PROTECTION (SWITCHING DEVICE AND MEANS OF DISCONNECT)
MUST BE LOCATED PER NEC 240.21
 - A. THE CONDUCTORS SHALL BE CRIMPED WITH A CRIMP-ON TERMINAL LUG,
MANUFACTURED BY ILSCO, BURNDY, OAE. THE TERMINAL LUG SHALL HAVE
IDENTIFICATION OR COLOR CODING TO MATCH THE CONDUCTOR SIZE.
TERMINAL LUGS SHALL HAVE LONG BARRELS TO PROVIDE 2 CRIMPS PER
TERMINAL LUG PER CONDUCTOR.
 - B. CRIMPED TERMINAL LUGS SHALL BE CONSTRUCTED OF PURE COPPER AND
TIN PLATED FOR HIGH CONDUCTIVITY AND RATED FOR 600V AT 90 DEGREES
CELSIUS
 - C. THE CRIMP MUST BE MADE WITH THE MANUFACTURER'S APPROVED TOOL
DEVICE TO ACHIEVE THE PROPER CRIMP CONNECTION.
 - D. USE STAINLESS STEEL HARDWARE WITH THE FASTENER TORQUED TO
MANUFACTURERS RECOMMENDATIONS ON ALL THREE PHASES TO COMPLY
WITH ARTICLE 110.14 OF THE 2020 NEC.
 - E. MINIMUM BEND RADIUS SHALL BE OBSERVED TO MAINTAIN GOOD
CONDUCTOR QUALITY AND WIRE MANAGEMENT IN THE LOAD CENTER OR
TRANSFORMER. IF THIS BEND RADIUS IS TOO CONSTRICTING, USE A 90
DEGREE CRIMP-ON LUG MANUFACTURED BY ILSCO, BURNDY, OAE. 90
DEGREE CRIMP-ON LUG MUST BE INSTALLED WITH RATED INSULATION THAT
MEETS OR EXCEEDS THE CONDUCTORS' INSULATION IT IS BEING USED WITH.
IT IS RECOMMENDED THAT ACCEPTABLE CLEARANCES ARE MAINTAINED WIT
THIS BUS TAP FOR SAFE, CONTINUOUS OPERATION.
 - F. FOLLOW MANUFACTURERS GUIDELINES OR THE APPLICABLE AHJ, FOR
MODIFICATION OF BUS BAR(S)
16. ALL CONDUITS SHALL BE FREE OF ANY OBSTRUCTIONS AND PROPERLY SECURED
BEFORE WIRE IS PULLED.
17. ELECTRICAL CONTRACTOR TO PROVIDE SIGNAGE TO ALL ELECTRIC BOXES,
JUNCTION BOXES, PULL BOXES, DC DISCONNECTS, CONDUIT RUNS, AC
DISCONNECTS, SUB PANELS, AND MAIN SERVICES PER NEC ARTICLE 690.
18. MEGGER TESTING: MEGGER (INSULATION) TEST ALL CONDUCTORS AT 1000V TO 5
MEGAOHMS BETWEEN THE CONDUCTOR UNDER TEST AND GROUND WIRE.
CONDUCT TEST AFTER WIRE IS PULLED THROUGH THE CONDUIT BUT BEFORE
TERMINATING TO THE MODULES, COMBINERS, DISCONNECTS OR INVERTERS. **DO
NOT MEGGER THE SOLAR MODULES AS THIS WILL LIKELY DAMAGE THEIR INTERNAL
DIODES MEGGERING IS INTENDED FOR ALL CONDUCTORS INSTALLED BY THE
ELECTRICAL CONTRACTOR.**
19. ALL UNDERGROUND ELECTRICAL WORK SHALL BE DONE WITH CARE. LOCATE
EXISTING UTILITIES, IRRIGATION LINES AND OTHERS BEFORE COMMENCING

UNDERGROUND WORK. CONTACT UNDERGROUND SERVICE ALERT *USA(WITHIN 48 HOURS OF ANY UNDERGROUND WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNDERGROUND WORK PERFORMED.

MODULE INSTALLATION NOTES:

1. REFER TO THE MODULE MANUAL FOR MORE DETAILS ON RIGGING, UNPACKING, HANDLING, PLANNING AND INSTALLATION.
2. THE MODULES MAY BE SHIPPED WITH SEVERAL MODULES PER BOX, TAKE CARE WHEN OPENING THE BOX TO ENSURE THAT ALL MODULES ARE SECURELY HANDLED.
3. NEVER LEAVE A MODULE UNSUPPORTED OR UNSECURED. THE CONTRACTOR IS RESPONSIBLE FOR ALL MATERIAL HANDLING ON THE JOBSITE.

SOLAR ARRAY COMMISSIONING

1. BEFORE CLOSING DISCONNECTS OR ATTEMPTING TO ENERGIZE THE INVERTERS, THE FOLLOWING COMMISSIONING PROCEDURE SHALL BE COMPLETED:
 - A. CHECK THE OPEN CIRCUIT VOLTAGE (VOC) AND POLARITY (+/-) OF EACH SOURCE CIRCUIT. RECORD THE VALUES ON THE COMMISSIONING RECORD DOCUMENTS
 - B. CHECK THE SHORT CIRCUIT CURRENT (ISC) FOR EACH SOURCE CIRCUIT RECORD THE VALUES ON COMMISSIONING RECORD DOCUMENTS.
 - C. CHECK THAT ALL FUSES, DISCONNECTS AND OTHER BALANCE OF SYSTEM COMPONENTS ARE RATED FOR 600VDC AND THE APPROPRIATE CURRENT CAPACITY.
 - D. COMPLETE A VISUAL INSPECTION OF ALL THE MODULES TO CHECK FOR BROKEN GLASS, FRAYED WIRES, EXPOSED CONDUCTORS AND ANY OTHER PROBLEMS THAT MAY CAUSE A FAULT.
 - E. PRIOR TO INSTALLATION ALL FUSES SHALL BE TESTED FOR CONTINUITY.

INVERTER COMMISSIONING:

1. THIS CHECKLIST MUST BE COMPLETED BY THE CONTRACTOR PRIOR TO COMMISSIONING:
 - A. CHECK THAT THE INVERTER IS PROPERLY GROUNDED, AS DESCRIBED BY THE MANUFACTURER AND THESE INSTRUCTIONS.
 - B. CHECK THE INVERTER DC INPUT VOLTAGE (VOC) FROM THE SOLAR ARRAY FOR PROPER POLAR, INSIDE THE INVERTER CABINET.
 - C. CHECK DC INPUT VOLTAGE (VOC) IS WITHIN THE PROPER RANGE IN THE INVERTER CABINET AS DEFINED BY THE INVERTER RATING LABEL AND ACCOMPANIED MANUAL.
 - D. CHECK AC INPUT VOLTAGE IS IN THE PROPER PHASE SEQUENCE (CLOCKWISE) IF APPLICABLE.
 - E. CHECK THAT THE AC GRID VOLTAGE, AT THE INVERTER AC TERMINALS, IS WITHIN THE PROPER RANGE DEFINED BY THE INVERTER RATING LABEL AND ACCOMPANIED MANUAL.
 - F. FOLLOW START-UP SEQUENCE IN MANUFACTURER'S OPERATION AND MAINTENANCE MANUAL.
 - G. VERIFY THAT ALL CONDUCTOR TERMINATION AND FASTENER TORQUE MEET LISTED SPECIFICATIONS.

ADDITIONAL SOLAR-360 INSTALLATION STANDARDS

1. NFPA70 (NEC) AND IBC, OR LOCAL CODES AS REQUIRED. COMPLIANCE FOR INSTALLATION AND WORKMANSHIP.
2. LABEL EQUIPMENT WITH PERMANENT WEATHERPROOF LABELS. COMPLY WITH NEC ART. 690.7, 690.17, AND 690.53 ESPECIALLY. LABEL UTILITY DISCONNECT AND SOLAR METER.
3. IDENTIFY BOTH ENDS OF WIRES WITH PERMANENT WIRE MARKERS.
4. THE POINT OF CONNECTION SHALL COMPLY WITH NFPA 70 ARTICLE 690.64(B)(2).
5. LIMIT TOTAL VOLTAGE DROP TO LESS THAN 3% INCLUDING ALL DC AND AC CIRCUITS (PROVIDE CALCULATIONS FOR WORST CIRCUIT). PREFERRED IS 2% DC AND 1%AC.
6. INSTALLATION OF ALL COMPONENTS COMPLETED IN WORKMANLIKE MANNER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
7. USE 90°C OR HIGHER WET RATED WIRE FOR ALL EXTERIOR CONDUITS, WITH APPROPRIATE DERATINGS FOR TEMPERATURE AND OTHER FACTORS.
8. FUSES AND WIRES BETWEEN TRANSFORMER AND POINT OF INTERCONNECTION SIZED FOR TRANSFORMER IN-RUSH CURRENT (OCCURS DAILY DUE TO NIGHT-TIME DISCONNECT).
9. ALL DC MATERIALS (FUSES, EQUIPMENT, CONNECTORS, WIRES, ETC.) TO BE UL LISTED FOR 600VDC OR 1000VDC WHERE APPLICABLE.
10. ALL DISCONNECTS AND COMBINERS TO BE SECURED FROM UNAUTHORIZED/UNQUALIFIED PERSONNEL. (MAY BE WITH LOCK OR LOCATION) AND ALL SOURCES L.O.T.O. BEFORE COMMISSIONING.
11. ALL EXPOSED CABLES, SUCH AS MODULE LEADS TO BE SECURED WITH UV RATED PLASTIC OR OTHER APPROVED SUNLIGHT RESISTANT MEANS WITH A 25 YEAR LIFE.
12. ALL FASTENERS TO BE UV RESISTANT PLASTIC AND ASSEMBLED TO ISOLATE COPPER CONDUCTORS FROM DIRECT CONTACT WITH ALUMINUM COMPONENTS.
13. STRUCTURES AND SYSTEM LAYOUT MUST ACCOMMODATE EASY ACCESS FOR TROUBLESHOOTING AND MAINTENANCE.
14. NO WIRE NUTS SHALL BE USED IN SYSTEM CONNECTION POINTS.
15. CONNECTORS TO BE TORQUED PER DEVICE LISTING AFTER TREATING THREADS WITH ANTIOXIDANT OR ANTISEIZE. CAMMED OUT SET SCREWS SHALL BE REPLACED. HEX OR SQUARE DRIVE SOCKET HEAD SCREWS ARE RECOMMENDED.
16. SPLIT BOLTS/SPLICES/CONNECTORS SHALL BE INSULATED WITH APPROVED MEANS, UL LISTED ELECTRICAL TAPE ALONE IS NOT SUITABLE AS THE ONLY INSULATION MEANS. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR APPLICATION OF INSULATING PRODUCT.
17. STRUCTURE FINISH TO BE CONSISTENT WITH 25 YEAR DESIGN LIFE WITH MINIMAL

MAINTENANCE. ACCEPTABLE UNISTRUT FINISHES ARE THOSE COATING WITH DEMONSTRATED 25 YEAR LIFE.

18. ANODIZED ALUMINUM, HOT DIPPED GALVANIZED STEEL, AND STAINLESS STEEL ARE ACCEPTABLE MATERIALS. ALL OTHER FINISHES REQUIRE JUSTIFICATION WITH DETAILS ON MAINTENANCE REQUIREMENT DURING THE 25 YEAR LIFE.
19. ALL FIELD WELDS OR CUT SURFACES REQUIRE FIELD TOUCH UP TO MAINTAIN FINISH COATING. CUT GALVANIZED/ZINC COVERED SURFACES SHALL BE COATED WITH A COLD ZINC PRODUCT APPLIED IN AN APPROVED MANNER.
20. ALL WELDING TO BE COMPLETED BY WELDERS CERTIFIED AND CURRENT IN THE TYPE OF WELDING BEING COMPLETED.
21. ALL ELECTRICAL WORK TO BE COMPLETED BY QUALIFIED ELECTRICIANS OR APPRENTICES WORKING UNDER THE DIRECT SUPERVISION OF A QUALIFIED ELECTRICIAN EQUIVALENT IN EXPERIENCE TO A JOURNEYMAN OR MASTER ELECTRICIAN
22. STRUCTURE MUST ALLOW FOR UNRESTRICTED AIRFLOW AROUND MODULES AND THE MODULE FRAME
23. PULL SPLICE BOXES SHALL BE LISTED FOR PURPOSE AND INSTALLED IN A WORKMANLIKE MANNER. DIRECT BURIAL RATED CONNECTORS SHALL BE USED FOR CONDUCTORS.
24. GROUNDING SYSTEM WILL USE LISTED COMPONENTS INCLUDING GROUND RODS, GROUNDING LUGS/CLAMPS AND OTHER DEVICES RATED FOR DIRECT BURIAL WHEN EXPOSED TO THE ELEMENTS.
25. MODULES SHALL BE GROUNDED WITH EQUIPMENT GROUNDING CONDUCTOR USING THE LISTED MEANS AS DESCRIBED IN THE MODULE INSTALLATION MANUAL. MECHANICAL CONNECTORS SHALL BE RATED FOR DIRECT BURIAL.
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33. ALL PVC CONDUIT SHALL BE SCHEDULE 80 WHERE SUBJECT TO DAMAGE, OTHERWISE SCHEDULE. ALL EMT CONDUIT RUNS SHALL USE RAINTIGHT COMPRESSION FITTINGS.



CLEAN POWER
MANAGEMENT

24941 DANA POINT HARBOR DR
SUITE C220
DANA POINT, CA 92629
469-735-2234

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SEAL:



PROJECT: PROJ-1263

83 PARK RD
83 PARK RD, PUTNAM, CT
06260

APN: 037-074

OWNER

XXX

XXX

Revisions

[illegible]

Drawn By: A. CISNEROS
Checked By: XXX

Date: _____ Job No.: _____

Sheet Title

GENERAL NOTES

Sheet No.:

E-1.1



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E-2

1 SITE PLAN DETAIL
SCALE: 1" = 20'

OFFICE COPY



24941 Dana Point Harbor Drive, Suite C220
Dana Point, CA 92629

Mr. Bruce Fitzback
Land Use Agent
Town of Putnam
200 School Street
Putnam, CT 06260

RE: Inland Wetland Commission Application for Permit – 83 Park Road Solar Facility

Dear Mr. Fitzback:

Please find enclosed three (3) copies of an Inland Wetland application and supporting materials for the construction of a solar array at 83 Park Road. Also enclosed is a check in the amount of \$160.00 for the application fees.

I am requesting that this application be placed on the 6/8 Commission meeting agenda. Please let me know if you will require additional information.

Sincerely,

Colleen DeBenedetto
Development Project Manager
Valta Energy, LLC
colleen@valtaenergy.com
508.463.5303



INLAND WETLAND COMMISSION

APPENDIX A

APPLICATION FOR PERMIT

This application is for the use of inland wetlands and water courses.

The meetings are held on the second Wednesday of every month at 7:00pm in the Town Hall. If an on-site inspection is canceled due to inclement weather, the applicant is asked to call the office at 963-6803 30 minutes before the scheduled inspection to see if or when the inspection will be held.

Name of Applicant Valta Energy

Applicant's Address 24941 Dana Point Harbor Drive, Suite C, Dana Point, CA 92629

Phone # 404-409-4418

Owner of Land Town of Putnam

Owner's Address 200 School Street, Putnam, CT 06260

Location and description of proposed activity: Valta Energy is proposing to construct an array of photovoltaic cells on the northeastern portion of the Town of Putnam Water treatment Facility and Wellfield property located at 83 Park Road, Putnam, CT. Installation will include a photovoltaic cell array, footings, and a fence surrounding the array. The racks will be installed on a driven pile system, with grass beneath the array. Straw wattles will be placed around the fenced area to mitigate any potential erosion during construction activities.

This array will be connected to the national electric grid for North America via a trenched conduit.

Activity & Purpose Code

Please **CHECK** one in each column that best describes the activity proposed.

<u>Code</u>	<u>Activity Type</u>	<u>Code</u>	<u>Activity Purpose</u>
☐	1 Filling	☐	A Residential Improvement by homeowner
☐	2 Excavation	☐	B New residential development - single family
☐	3 Land Clearing	☐	C New residential development - multi- family/condo
☐	4 Stream Channel	☐	D Commercial/Industrial Uses
☐	5 Stream Stabilization	☒	E Municipal Improvements
☐	6 Stream Clearance	☐	F Utility Company Improvements
☐	7 Culverting	☐	G Agriculture, Forestry or Conservation
☐	8 Und. Grd. Util.	☐	H Wetland Creation/Restoration
☐	9 Roadway Construction	☐	I Storm Water/Flood Control
☐	10 Drainage Improvements	☐	J Erosion/Sediment Control
☐	11 Pond Dredge/Dam Construction	☐	K Recreation/Boating/Navigation
☐	12 Activity Buffer/Set Back Area	☐	L Routine Maintenance
☒	13 Other: Please describe:		<u>Installation of photovoltaic cell array</u>

INLAND WETLAND COMMISSION

APPENDIX A *Continued*

Project Name (if applicable) 83 Park Road

Estimate of Linear Footage affecting Wetlands 0 feet - note: project will occur approximately 100 feet or more from delineated wetlands and 200+ feet from an area depicted as a green belt protection area in the IWWC Regulations (2007)

Affected number of acres in which Wetlands are part of the impacted area for Multi-Family, Condos and Commercial Development N/A

TO BE COMPLETED BY THE COMMISSION

Application Number _____ Date of Receipt 6-2-2022 ck# 175

Application Approved (date) _____

Conditions of approval if applicable _____

Application Denied (date) _____

Reason(s) for Denial _____

Signature of Chairman or Secretary of Commission

Date

INLAND WETLAND COMMISSION

APPENDIX A *Continued*

Application Procedure

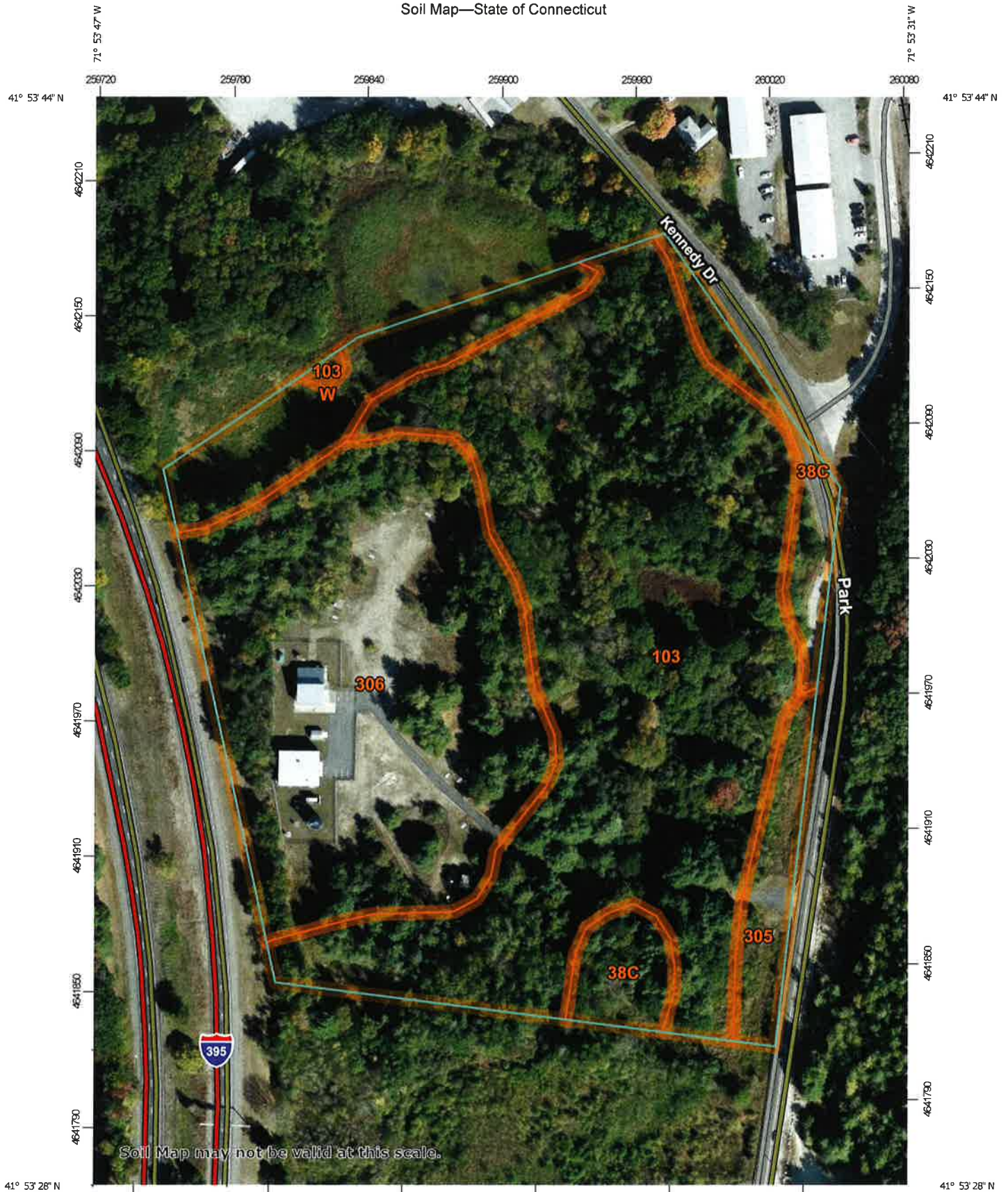
1. Applicant will have a map showing the property boundaries, any wetlands on the property, proposed buildings, septic area, drainage if applicable and the dimension between these areas in scale 1" - 200' or less
2. Applicant must provide an approximate estimate of the linear footage of the wetlands that are affected by said proposal. This is for multi-family, condominiums or commercial development. Contact with the Zoning Official may clarify the nature of your project
3. Applicant must provide an approximate estimate of the number of acres that are affected by said proposal dealing with multi-family, condominiums and commercial development in which wetlands are part of that impacted area within the watershed.
4. Applicant will supply a copy of the soil scientist report with the application to the Wetlands Commission to be reviewed at the meeting by the Commission.
5. Applicant will have the soil scientist number the wetland flags and record the numbers of the flags on the site plan according to their location in the field. The location on the site map must match the field location.
6. If the applicant's estimates are not accurate, payment of the correct amount must be made before the Wetlands final approval of the application.
7. And any other information deemed necessary by the Commission.

Fee Schedule

1.	Permitted and non-regulated	\$40.00
2.	One lot regulated	\$40.00
3.	Regulated Area	
	Two (2) - Ten (10) lots	\$100.00
	Ten (10) - Twenty (20) lots	\$200.00
	Over Twenty (20+) lots	\$300.00
4.	Multi-Family/Condominium Regulated area	
	Zero (0) to Five (5) Acres	\$50.00
	Per linear foot of wetlands additional	\$0.35
	Over Five (5) acres	\$100.00
	Per linear foot of wetlands additional	\$0.35
5.	Commercial	
	Zero (0) to Five (5) Acres	\$100.00
	Per linear foot of wetlands additional	\$0.50
	Over Five (5) acres	\$300.00
	Per linear foot of wetlands additional	\$0.50

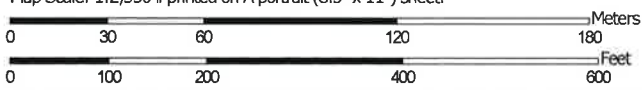
All applications must be submitted one week prior to the regularly scheduled monthly meeting.

Soil Map—State of Connecticut



Soil Map may not be valid at this scale.

Map Scale: 1:2,350 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

4/28/2022
Page 1 of 3

MAP LEGEND

Area of Interest (AOI)	Soils	Special Point Features	Water Features	Transportation	Background
Area of Interest (AOI)	Soil Map Unit Polygons	Blowout	Streams and Canals	Rails	Aerial Photography
Soil Map Unit Lines	Soil Map Unit Points	Borrow Pit	Interstate Highways	US Routes	
Soil Map Unit Polygons	Soil Map Unit Lines	Clay Spot	Major Roads	Local Roads	
Soil Map Unit Points	Closed Depression	Gravel Pit	Gravelly Spot		
	Gravelly Spot	Landfill	Lava Flow		
	Marsh or swamp	Mine or Quarry	Miscellaneous Water		
	Perennial Water	Rock Outcrop	Saline Spot		
	Sandy Spot	Severely Eroded Spot	Sinkhole		
	Slide or Slip	Sodic Spot			

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut
Survey Area Data: Version 21, Sep 7, 2021

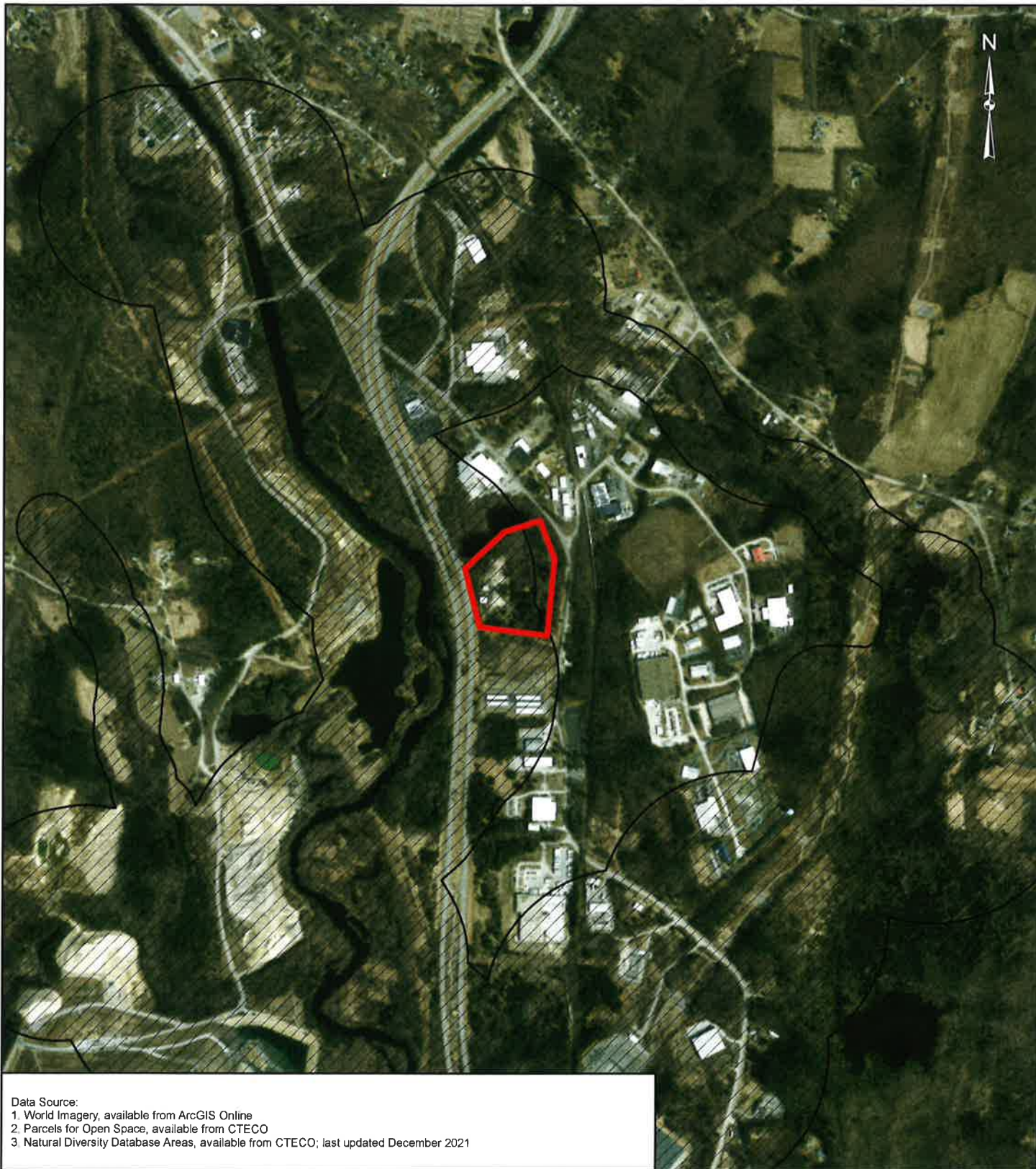
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 14, 2011—Oct 1, 2020

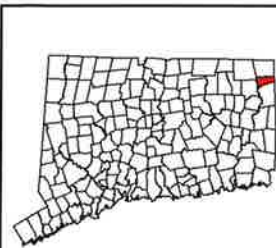
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
38C	Hinckley loamy sand, 3 to 15 percent slopes	1.2	6.1%
103	Rippowam fine sandy loam	10.2	50.3%
305	Udorthents-Pits complex, gravelly	0.7	3.6%
306	Udorthents-Urban land complex	6.7	33.2%
W	Water	1.4	6.9%
Totals for Area of Interest		20.2	100.0%



Data Source:
 1. World Imagery, available from ArcGIS Online
 2. Parcels for Open Space, available from CTECO
 3. Natural Diversity Database Areas, available from CTECO; last updated December 2021



Location Map

Legend

- Approximate Site Location
- Natural Diversity Area

0 600 1,200 Feet

Disclaimer: This map is not the product of a Professional Land Survey. It was created by Fuss & O'Neill, Inc. for general reference, informational, planning and guidance use, and is not a legally authoritative source as to location of natural or manmade features. Proper interpretation of this map may require the assistance of appropriate professional services. Fuss & O'Neill, Inc. makes no warranty, express or implied, related to the spatial accuracy, reliability, completeness, or currentness of this map.

SITE MAP

83 Park Road

Putnam

Connecticut



**Att.
B**



Connecticut Department of

**ENERGY &
ENVIRONMENTAL
PROTECTION**

April 19, 2022

Kristin Connell
Fuss & O'Neill, Inc
146 Hartford Rd
Manchester, CT 06040
kconnell@fando.com

NDDB DETERMINATION NUMBER: 202204676

Project: Solar field installation on the northeastern portion of the Town of Putnam Water Pollution Control Authority (WPCA) property located at 83 Park Road, Putnam

Expiration: April 19, 2024

I have reviewed Natural Diversity Database (NDDB) maps and files regarding this project. I do not anticipate negative impacts to State-listed species (RCSA Sec. 26-306) resulting from your proposed activity at the site. **This determination is good for 2 years.**

Natural Diversity Database information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Natural History Survey and cooperating units of DEEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Database should not be substitutes for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Database as it becomes available. The result of this review does not preclude the possibility that listed species may be encountered on site and that additional action may be necessary to remain in compliance with certain state permits.

Please contact me if you have further questions at shannon.kearney@ct.gov . Thank you for consulting the Natural Diversity Database.

Sincerely,

/s/ Shannon B. Kearney
Wildlife Biologist

Abutting Property Information

PARCEL ID	PARCEL ADDRESS	PROPERTY OWNER 1	PROPERTY OWNER 2	MAILING ADDRESS	CITY	STATE	ZIP
038-060	77 INDUSTRIAL PARK RD	LABONTE PROPERTIES LLC		34 PARK RD	PUTNAM	CT	06260
038-066	60 PARK RD	PUTNAM TOWN OF		200 SCHOOL ST	PUTNAM	CT	06260
037-062	29 PARK RD	TEGRANT DIVERSIFIED BRANDS INC	C/O TAX DEPT	1 N 2ND ST TAX B 04	HARTSVILLE	SC	29550
044-011	123 PARK RD	123 PARK ROAD LLC		123 PARK RD	PUTNAM	CT	06260
045-002	104 PARK RD	VALLEY STREET INVESTMENTS LLC		PO BOX 130	NORTH WINDHAM	CT	06256
Subject Parcel Information							
037-074	83 PARK RD	PUTNAM TOWN OF	WATER WELLS WPCA	200 SCHOOL ST	PUTNAM	CT	06260

Information obtained from <https://www.mainstreetmaps.com/ct/putnam/public.asp>, accessed on May 3, 2022.

COLLEEN CRONIN DEBENEDETTO
1158 BROAD ROCK RD.
SOUTH KINGSTOWN, RI 02879-1848

5-7017/2110

175

DATE 5-31-22

PAY TO THE
ORDER OF

Town of Putnam \$ 100.00
One hundred sixty and 00/100 DOLLARS  Security Features
Include
Details on Back

***Citizens**

MEMO

83 Park Rd - WCA AP

 MP



Statewide Inland Wetlands & Watercourses Activity Reporting Form

Please complete and mail this form in accordance with the instructions.
If completing by hand - please print and use the [pdf version](#).
Incomplete or incomprehensible forms will be mailed back to the municipal inland wetlands agency.

PART I: Must Be Completed By The Inland Wetlands Agency

1. DATE ACTION WAS TAKEN: year: [Click Here for Year](#) month: [Click Here for Month](#)
2. CHOOSE ACTION TAKEN (see instructions for code): [Click Here to Choose a Code](#)
3. WAS A PUBLIC HEARING HELD (check one)? yes ☐ no ☐
4. NAME OF AGENCY OFFICIAL VERIFYING AND COMPLETING THIS FORM:
(type name) _____ (signature) _____

PART II: To Be Completed By The Inland Wetlands Agency Or The Applicant

5. TOWN IN WHICH THE ACTIVITY IS OCCURRING (type name): Putnam
does this project cross municipal boundaries (check one)? yes ☐ no ☒
if yes, list the other town(s) in which the activity is occurring (type name(s)): _____
6. LOCATION (click on hyperlinks for information): [USGS quad map name](#): Putnam or [quad number](#): 28
[subregional drainage basin number](#): 3700
7. NAME OF APPLICANT, VIOLATOR OR PETITIONER (type name): Valta Energy
8. NAME & ADDRESS OF ACTIVITY / PROJECT SITE (type information): WaterTreatment Facility, Wellfield 83 Park Rd
briefly describe the action/project/activity (check and type information): temporary ☐ permanent ☒ description: Installation of solar array
9. ACTIVITY PURPOSE CODE (see instructions for code): P
10. ACTIVITY TYPE CODE(S) (see instructions for codes): 1, 2, 14, [Click for Code](#)
11. WETLAND / WATERCOURSE AREA ALTERED (see instructions for explanation, type acres or linear feet as indicated):
wetlands: 0.00 acres open water body: 0 acres stream: 0.00 linear feet
12. UPLAND AREA ALTERED (type acres as indicated): 0.77 acres
13. AREA OF WETLANDS / WATERCOURSES RESTORED, ENHANCED OR CREATED (type acres as indicated): 0.00 acres

DATE RECEIVED:

PART III: To Be Completed By The DEEP

DATE RETURNED TO DEEP:

FORM COMPLETED: YES NO

FORM CORRECTED / COMPLETED: YES NO

JMM WETLAND CONSULTING SERVICES, LLC

23 Horseshoe Ridge Road
Newtown, CT 06482
Phone: 203-364-0345

REPORT DATE: August 5, 2021
PAGE 1 OF 3

ON-SITE SOIL INVESTIGATION REPORT

PROJECT NAME & SITE LOCATION:

Project Site
83 Park Road
Putnam, Connecticut

JMM Job No.: 21-2880-PUT-2

Field Investigation Date(s): 8/5/2021

Field Investigation Method(s):

- ☒ Spade and Auger
☐ Backhoe Test Pits
☐ Other: _____

REPORT PREPARED FOR:

Mr. Dean Martin
Martin Surveying Associates, LLC
201 Christian Lane, Suite D
Berlin, CT 06037

Field Conditions:

Weather: Rain, 70's
Soil Moisture: Moist
Snow Depth: N/A
Frost Depth: N/A

Purpose of Investigation:

- ☒ Wetland Delineation/Flagging in Field
☐ Wetland Mapping on Sketch Plan or Topographic Plan
☐ High Intensity Soil Mapping by Soil Scientist
☒ Medium Intensity Soil Mapping from USDA-NRCS Web Soil Survey Maps
☐ Other: _____

Base Map Source: USDA-NRCS Web Soil Survey (attached)

Wetland Boundary Marker Series: JMM-1 to JMM-12 and JMM-A-1 to JMM-A-9

General Site Description/Comments: The overall site is located west of Park Road, and east of I-395, in Putnam, CT. Specifically, JMM reviewed only a portion of the overall property for regulated wetlands at this time (i.e., JMM Study Area). The study area is roughly 200-feet to the north, south, east, and west of the proposed solar array location (see Figure 1, attached for approximate location of study area). Currently, the study area is comprised of existing structures associated with the well field facility, maintained lawn, weedy/meadow areas, gravel/paved parking areas and drives, scattered trees and shrubs, and forested upland and wetland areas, which include 2 man-made lakes along the northern property/study area boundaries. The soil types within the study area were found to be mainly disturbed; however, undisturbed soils were noted. The undisturbed soils are derived from glacial outwash (i.e., stratified sand and gravel) deposits. The undisturbed upland soils are comprised of the moderately well drained Ninigret (701) soil series. The disturbed upland and wetland soils were mapped as the Udorthents-Urban Land complex (306) and Aquents (308w) mapping units. The undisturbed wetland soils were identified as the poorly drained Walpole (13) soil series. The regulated areas associated with the study area consist of 2 man-made lakes and their associated shallow marsh and wooded swamp lake edge located along the northern portion of the study area (JMM-#-series) and a seasonally saturated to seasonally flooded wooded swamp located in the eastern part of the study area (JMM-A-series). Typical vegetation observed within the regulated areas included such species as, red maple, spicebush, multiflora rose, buckthorn, sedges, sensitive fern, cinnamon fern, Asiatic bittersweet, and poison ivy, to name a few.

ON-SITE SOIL INVESTIGATION REPORT (CONTINUED)

PROJECT NAME & SITE LOCATION: Project Site
83 Park Road, Putnam, CT

SOIL MAP UNITS**Wetland Soils**

Walpole sandy loam (13). This series consists of deep, poorly drained soils formed in sandy water deposited glacial outwash materials. They are nearly level to gently sloping soils on glaciofluvial landforms, typically in shallow drainage ways and low-lying positions on stream terraces and outwash plains. The soils formed in loamy over stratified sandy and gravelly outwash derived from a variety of acid rocks. Typically, these soils have a very dark brown sandy loam surface layer 6 inches thick. The subsoil from 6 to 23 inches is mottled, grayish brown sandy loam. The substratum from 23 to 60 inches is mottled, light brownish gray, gravelly loamy sand and gravelly sand.

Aquents (308w). This soil map unit consists of poorly drained and very poorly drained disturbed land areas. They are most often found on landscapes, which have been subject to prior filling and/or excavation activities. In general, this soil map unit occurs where two or more feet of the original soil surface has been filled over, graded or excavated. The *Aquents* are characterized by a seasonal to prolonged high ground water table and either support or are capable of supporting wetland vegetation. *Aquents* are recently formed soils, which have an aquic moisture regime. An aquic moisture regime is associated with a reducing soil environment that is virtually free of dissolved oxygen because the soil is saturated by groundwater or by water of the capillary fringe. The key feature is the presence of a ground water table at or very near to the soil surface for a period of fourteen days or longer during the growing season.

Upland Soils

Ninigret fine sandy loam (701). This series consists of very deep moderately well drained soils formed in a coarse-loamy mantle underlain by sandy water deposited glacial outwash materials. They are nearly level to gently sloping soils on glaciofluvial landforms, typically in slight depressions and broad drainage ways. The soils formed in loamy over stratified sandy and gravelly outwash derived from a variety of acid rocks. Typically, these soils have a very dark grayish brown fine sandy loam surface layer 8 inches thick. The subsoil from 8 to 26 inches is yellowish brown fine sandy loam with mottles below 16 inches. The substratum from 26 to 60 inches is mottled, pale brown, loose, stratified loamy sand.

Udorthents-Urban Land mapping complex (306). This soil mapping unit consists of well drained to moderately well drained soils that have been altered by cutting, filling, or grading. The areas either have had two feet or more of the upper part of the original soil removed or have more than two feet of fill material on top of the original soil. *Udorthents-Urban Land* or Made Land soils can be found on any soil parent material but are typically fluvial on glacial till plains and outwash plains and stream terraces.

ON-SITE SOIL INVESTIGATION REPORT (CONTINUED)

PROJECT NAME & SITE LOCATION: Project Site
83 Park Road, Putnam, CT

SOIL MAP UNITS

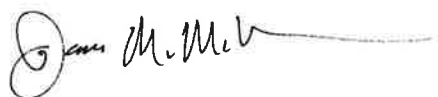
See previous page

Any accompanying soil logs and soil maps, and the on-site soil investigation narrative are in accordance with the taxonomic classification of the National Cooperative Soil Survey of the USDA Natural Resource Conservation Service, and with the Connecticut Soil Legend (DEP Bulletin No.5, 1983). Jurisdictional wetland boundaries were delineated pursuant to the Connecticut General Statutes (CGS Sections 22a-36 to 22a-45), as amended. The site investigation was conducted and/or reviewed by the undersigned Registered Soil Scientist(s) [registered with the Society of Soil Scientists of Southern New England (SSSSNE) in accordance with the standards of the Federal Office of Personnel Management].

All wetland boundary lines established by the undersigned Soil Scientist are subject to change until officially adopted by, local, state, and federal regulatory agencies.

Respectfully submitted,

JMM WETLAND CONSULTING SERVICES, LLC



James M. McManus, MS, CPSS
Certified Professional Soil Scientist
Field Investigator/Reviewer



North Carolina



- Legend
- Town
 - Buildings 2012
 - Parcels

1: 4,514



Notes

Enter Map Description

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

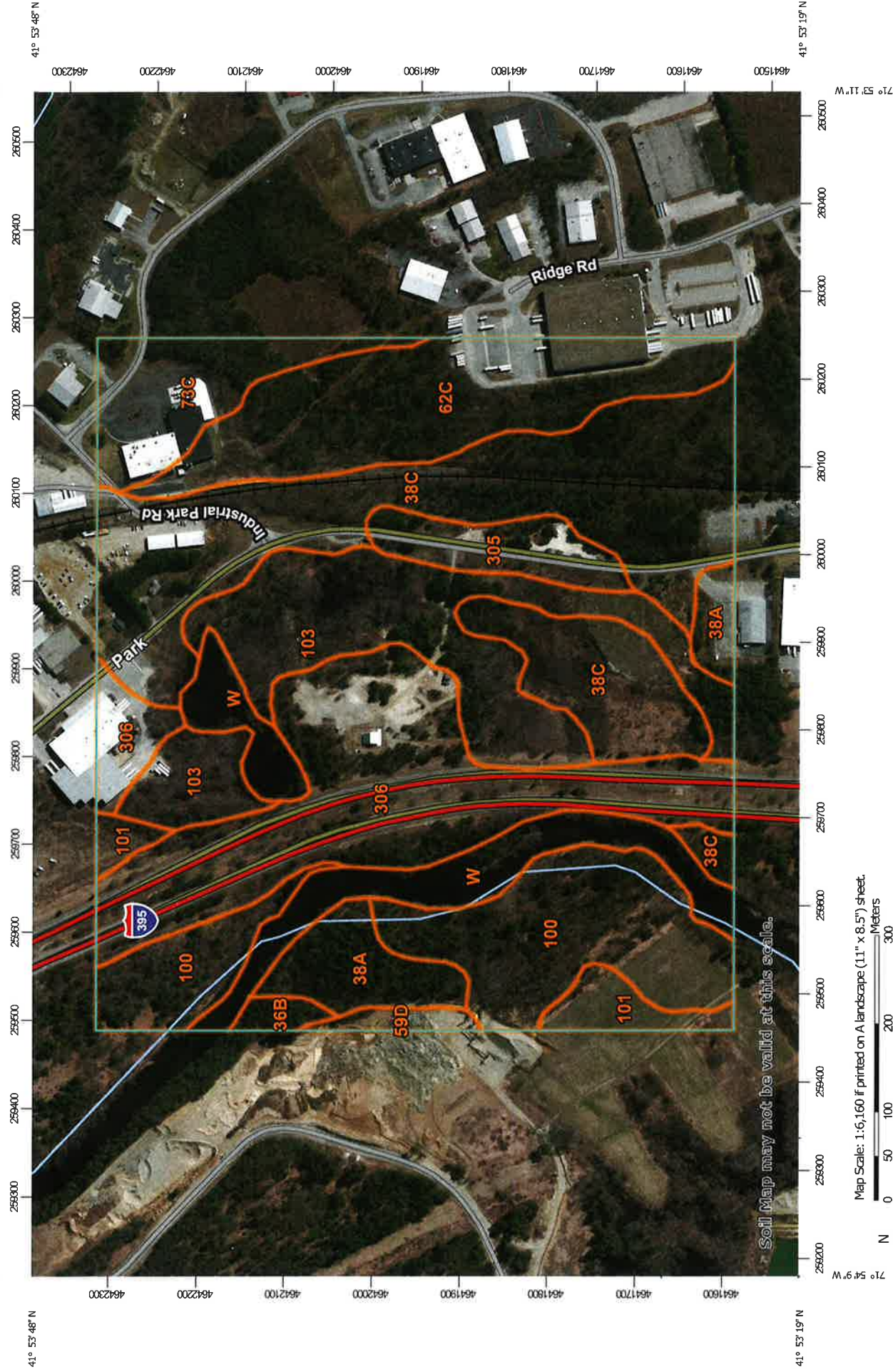
THIS MAP IS NOT TO BE USED FOR NAVIGATION

0.1 Miles



WGS_1984_Web_Mercator_Auxiliary_Sphere
© Latitude Geographics Group Ltd.

Soil Map—State of Connecticut (83 Park Road, Putnam, CT)



Map Scale: 1:6,160 if printed on A landscape (11" x 8.5") sheet.

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)		Area of Interest (AOI)	
Soils	  	Soils	    
Special Point Features	               	Special Point Features	               
Water Features	               	Water Features	               
Transportation	               	Transportation	               
Background	               	Background	               

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.sc.egov.usda.gov>

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut
Survey Area Data: Version 20, Jun 9, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 8, 2011—Apr 9, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
36B	Windsor loamy sand, 3 to 8 percent slopes	0.9	0.6%
38A	Hinckley loamy sand, 0 to 3 percent slopes	5.8	4.0%
38C	Hinckley loamy sand, 3 to 15 percent slopes	32.8	23.0%
59D	Gloucester gravelly sandy loam, 15 to 35 percent slopes, extremely stony	1.0	0.7%
62C	Canton and Charlton fine sandy loams, 3 to 15 percent slopes, extremely stony	16.2	11.4%
73C	Charlton-Chatfield complex, 0 to 15 percent slopes, very rocky	7.0	4.9%
100	Suncook loamy fine sand	17.2	12.1%
101	Occum fine sandy loam	3.1	2.2%
103	Rippowam fine sandy loam	19.2	13.5%
305	Udorthents-Pits complex, gravelly	4.2	2.9%
306	Udorthents-Urban land complex	25.0	17.6%
W	Water	10.0	7.0%
Totals for Area of Interest		142.3	100.0%

COLLEEN CRONIN DEBENEDETTO
1158 BROAD ROCK RD.
SOUTH KINGSTOWN, RI 02879-1848

5-7017/2110

175

DATE

5-31-22

PAY TO THE
ORDER OF

Town of Pitman

\$ 160.00

One hundred sixty and 00/100

DOLLARS



Security Features
Included
Details on Back

Citizens

MEMO

83 Park Rd - Wicup

[Signature]

MP

[Handwritten signature]

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