



July 23, 2020

Thomas J. Kravitz, Town Planner
Town of North Smithfield
83 Green Street
Slatersville, RI 02896

Re: Old Smithfield Road Solar
Master Plan Submission

Dear Mr. Kravitz,

On behalf of the applicant, WED North Smithfield One, LLC, Green Development has prepared this narrative in support of the Master Plan Submission to the Town of North Smithfield for review by the Planning Board. This narrative is intended as a master plan level overview of the existing conditions of the site and the overall proposed solar energy project.

Existing Conditions

Site Location:

The project site is located on Plat 13 Lot 26 on Old Smithfield Road within an REA (Rural Estate Agriculture) Zoning district as per the Town's official zoning map (referenced in the 2019 Comprehensive Plan update). The lot has been surveyed by National Land Surveyors Developers, Inc. and is 53.41 acres. The property includes an existing house and outbuildings associated with the farm. There are two other residential structures on separate lots as shown on the survey. The areas of the proposed solar array are partially open field and partially wooded.

An existing paved driveway provides access to the existing homes from Old Smithfield Road and will also provide access to the proposed solar array. There are four forested wetlands areas (Wetland Series A, B, C, and D/E) throughout the site that have been delineated by DiPrete Engineering. Currently, all stormwater flows overland across the open field/meadow and wooded areas toward the surrounding forested wetlands areas. Existing drainage patterns are proposed to be maintained.

Soils :

The soils on-site consist of various types of Canton and Charlton which are of Hydrologic Group B soils. The following table details the soils found on-site (Reference: Soil Survey of Rhode Island, USDA Soil Conservation Service).

Soil Name	Description
CaC	Canton-Charlton-Rock Outcrop Complex, 3 to 15 Percent Slopes



CeC	Canton and Charlton Fine Sandy Loams, Very Rocky, 3 to 15 Percent Slopes
ChC	Canton and Charlton Very Stony Fine Sandy loams, 8 to 15 Percent Slopes
CkC	Canton and Charlton Extremely Stony Fine Sandy Loams, 3 to 15 Percent Slopes
Rf	Ridgebury, Whitman, and Leicester Extremely Stony Fine Sandy Loams

Agricultural Lands / Topography/Vegetation/Wetlands:

The site consists of existing cleared open fields and wooded areas. There are four forested wetlands areas (Wetland Series A, B, C, and D/E) throughout the site that have been delineated by DiPrete Engineering. Currently, all stormwater flows overland across the open field/meadow and wooded areas toward the surrounding forested wetlands areas. Existing drainage patterns are proposed to be maintained.

Structures, Access and Past and Present Use of the Site:

An existing paved driveway provides access to the existing homes from Old Smithfield Road. The Pacheco Family has lived and worked on the property for 7 generations since 1841. From the 1950s thru the late 1970s the family raised Hereford Cattle for beef. The property has also historically been used for raising horses, growing hay, and logged for forestry. The site has several structures including a dwelling, a barn and a small kennel building. Currently the parcel is home to High on a Hill Herb Farm, High on a Hill Boarding Kennel, Blackstone Valley Apiaries, and RI Red chickens. The parcel is an active participant in the Farm Forest and Open Space (FFOS) program and actively working under a Forest Management Plan. The site has an active forestry management plan and there have been historic and recent forestry activity on the property as per the plan.

Natural Heritage Area:

The site is not located within a Natural Heritage Area.

Historic:

A portion of the site is located within the Smithfield Road Historic District. Additionally, a historic dwelling is located on the site. However, no work is proposed within the Historic District. Additionally, a 500' minimum buffer is maintained around the historic dwelling.

Zoning:

The site is zoned as REA (Rural Estate Agriculture). The minimum lot size for development within this district is 120,000 SF. A front yard setback of 40 feet, a side yard setback of 25 feet and a rear yard setback of 40 feet are required of all development within this designation. Per section 5.7.5 (d and g) of the Town of North Smithfield Zoning Ordinance, these setbacks are increased to 100 feet for the front, side, and rear yards. The following chart has been prepared to depict the Town's setbacks for the REA district. These setbacks have been incorporated in the plan set for preliminary planning purposes along with additional setbacks established by the solar ordinance. This zoning district allows for the solar use as a permitted use requiring a special use permit.



ZONING DISTRICT	RA (RURAL RESIDENTIAL)
USE:	OTHER PERMITTED USE
MINIMUM LOT AREA:	120,000 SF
MINIMUM FRONTAGE AND LOT WIDTH:	300'
MINIMUM FRONT YARD:	40' (*100')
MINIMUM SIDE YARD:	25' (*100')
MINIMUM REAR YARD:	40' (*100')
MAXIMUM STRUCTURE HEIGHT:	35'
MAXIMUM HEIGHT OF ACCESSORY STRUTURE:	25' *Zoning
MAXIMUM HEIGHT OF SOLAR PANEL:	15'
MAXIMUM BUILDING COVERAGE:	20%

Ordinance Section 5.7.5 (d) setbacks

Proposed Development

Description:

The applicant proposes to construct an approximate 2 MW (AC) solar energy project on the site. The proposed solar installation consists of ground-mounted solar panel modules. Additionally, it will include transformers, inverters, switch-gear, an underground electrical cable connecting the solar panels to the electrical equipment, and newly installed utilities to interconnect with the National Grid circuit. The dimensions of each solar panel are approximately 77.2" tall by 39" wide. The panels will be mounted on pile driven supports at a height typically between 9' and 12' typically and no more than allowed by the solar ordinance (15'). Final design and terrain will dictate the final installed height. Additionally, a 7' high fence will be installed.

While additional detail will be forthcoming as the project progresses, the area within the fenced solar array is proposed with pollinator/wildflower habitat to support and expand the apiary use currently on the property. Fencing will be raised a minimum of 6" to allow small wildlife to also utilize the area under and around the solar array as habitat area.

The property has an existing dwelling and a variance will be required due to the 53.41 acre property not being vacant. All other aspects of the ordinance are met. The proposed solar array (panels and inter-row spacing) will not exceed the 6 acre threshold established in the zoning ordinance. The proposed solar array will be located 500' or greater from the historic structure onsite. This proposal will support the preservation of the remainder of the property and support the apiary use that is present onsite with a wildflower/pollinator habitat within the solar array. The project will not be visible to any neighbors on Old Smithfield Road, which was of clear importance in past proposals on this property.

Green Development LLC | 2000 Chapel View Boulevard, Suite 500 | Cranston, RI 02920 | 401.295.4998

www.green-ri.com

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Preliminary Drainage Analysis:

The site will be designed in accordance with the Rhode Island Stormwater Design and Installation Standards Manual (RISDISM) and all applicable Town of North Smithfield requirements. A detailed soil erosion and sediment control and stormwater management report will be developed and submitted to the RIDEM Office of Water Resources when a Preliminary Determination Application is filed. This will also be submitted to the Town for review at the preliminary stage.

Today, stormwater runoff from the site discharges to various wetlands located throughout the project limits. In order to meet the requirements of the Rhode Island Department of Environmental Management (RIDEM) and the RISDISM, the various wetlands will act as design points for pre and post development analysis. The major design points will be fully analyzed to mitigate stormwater from pre development to post development conditions.

Sewer Disposal/Public Water: The proposed solar development does not require sewage waste disposal. Temporary facilities will be utilized and regularly maintained during the construction phase while work is ongoing. The proposed solar development does not require public water or private wells for the construction or operation of the facility.

Population and School Age Children: Unlike a residential development project, the proposed solar project will not result in an increase in population or school age children.

Zoning (Solar) Ordinance:

The following items in Sections 5.7.5-5.7.7 are specifically addressed:

5.7.5 Requirements for Ground-Mounted Solar Photovoltaic Systems

(a) Special use permit /historic- A special use permit is required for the proposed solar project. The proposed solar system is not located within a 500-foot radius of a historic structure based on the RI Historical Preservation and Heritage Commission website and National Register of Historic Places.

(b) Requirements – The requirements outlined in the solar ordinance are incorporated in this submission as outlined in this section.

(c) Area/coverage limitations- The parcel is a minimum of 6 acres in size; however, the property is not vacant and a variance is requested. The proposed solar array does not exceed 6 acres (the lesser of 6 acres or 30% of the gross lot area is required).

(d) Setbacks - A minimum 100' setback from property lines is maintained and the project will comply with required setbacks by state environmental regulations.

(e) Reflection/Noise/Impacts

(1) Solar Reflection (Glare – addressed in impact section 9.0).

(2) The project will comply with the noise generation limitation as per 5.7.5(e)(2) (see below)



(3) See Impacts in section in 9.0

(f) Wildlife, fauna and migratory – A pollinator mix is proposed within the solar array fence to provide habitat value that will benefit birds, small wildlife that can access below the raised fence limits of the solar array, and bees in support of the active apiary on this property. The array is proposed with a wildlife corridor for larger wildlife as discussed at the pre-application stage of review.

(g) Visual Buffer and Setback – All components are setback a minimum of 100' from exterior property lines. Additional detail on buffering will be provided at the preliminary design stage by the project landscape architect.

(h) Fencing – A 7' chain link security fence is proposed to surround the solar project and equipment. Locked gates are proposed to restrict access with a lock box provided to the fire department in the event emergency access is needed.

(i) Signs – The proposed signage will consist of required National Electric Code warning and informational signage. Signage will be mounted on the fence and equipment areas within the array as needed. No other signage is proposed.

(j) Maximum Height – The proposed panels, equipment and components for the solar array will not exceed fifteen feet.

(k) Utility Connections and Electrical Components – Except as required by National Grid the utility connections onsite for the solar photovoltaic system shall be installed underground. Transformers and inverters will be proposed on concrete pads within the solar array.

(l) Appurtenant structures – Appurtenant structures including equipment shelters, transformers, and substation will be located within security fencing.

(m) Environmental Sensitivity – The site design strives to maximize the use of existing cleared areas onsite for the proposed solar array while also preserving the 500' historic structure setback. The proposed plan protects wetlands areas and allows for significant portions of the site to remain natural and undeveloped. Best management practices will be implemented during and following construction to protect surrounding wetlands and watersheds from degradation. Soils and rock disturbed onsite will be re-used and will not be moved off-site.

n) Other considerations – A special use permit is required for the solar project and a variance for the lot not being vacant is required.

(o) Maintenance – A detailed operation and maintenance plan will be provided as part of the preliminary plan submission. The plan will comply with the requirements of this section.

(p) On-site Inspections and Construction Control – This section relates to the construction phase. The required certifications will be provided as part of the construction and building permit process.

(q) Liability Insurance – The applicant shall provide documentation of the necessary general liability insurance during the construction phase at the building permit application stage.

5.7.6 Ground -Mounted Solar Photovoltaic System Procedure and Submission Requirements

(a) Pre-application conference - A preapplication meeting was held with the Town Planner on June 4, 2018 and a preapplication meeting was held with the Planning Board on December 5, 2019.



(b) Site Plan Review- The applicant proposes following a major land development review process in lieu of the Site Plan review process outlined in this ordinance. The Site Plan Review (Preliminary) will require substantial effort and expense with RIDEM submissions, etc. The goal of the applicant is to proceed with the master plan and zoning stages before proceeding to the next stage.

(c) Application procedure – The requirements outlined in this section are incorporated including:

- * identification of land owners and entities operating, owning, and constructing the systems
- * Plat and lot numbers and owners of existing parcels that are proposed to remain
- * Current use of the parcel and abutting parcels and aerial views of the surrounding area
- * Stamped plan showing the location of the solar project

(d) Additional information provided to the Zoning Board of Review – The additional requirements in this section will be prepared and submitted with the zoning special use /variance application.

Section 5.7.7 Improvement Guarantees for Ground-Mounted Solar Photovoltaic Systems

(a) Definition and Purpose – This section defines improvement guarantees for public improvements.

(b) General Procedures – In accordance with the ordinance and prior to final approval the applicant will obtain and provide the planning board with an improvement guarantee for public improvements deemed applicable on this project.

Impacts

Lighting – The solar facility does not require artificial lighting as part of the project, so no lighting impacts are proposed.

Landscaping – A detailed landscape plan will be prepared at the Preliminary stage of design that will outline standards for preservation, buffering, and new plantings if needed.

Visual /Scenic Views- The existing vegetation along the perimeter of the Site will be utilized as buffers to restrict views into the solar project on the property and preserve the scenic and rural character along all roadways near and around the site. The solar project is set back a minimum of 780 feet from Old Smithfield Road to the southwest. Green will plant additional buffers to coincide with some pre-existing taller vegetation.

Air and Noise Pollution – This project will not create any significant emissions of smoke, dust, fumes, or other noxious gasses. The only possible source of emissions would be from heavy equipment during the construction of the site. Dust produced during construction will be controlled by utilizing a water wagon and/or other means as deemed acceptable by the Town and per the Soil Erosion and Sediment Control Plan. Since this is a temporary condition, no adverse effects to air quality are expected.

The proposed solar array will conform to the requirements outlined in the overlay district. Some noise will be generated from the equipment during daytime operation and we will follow the protocol outlined in the overlay district regulations to assess noise and baseline conditions once site preparation activities have been completed.



Water Quality – The impacts of the proposed development on water quality can be divided into two phases; construction and post construction/occupancy. During the construction phase, soil erosion will be controlled with silt fence, straw wattles, temporary sediment basins, and vigorous re-vegetation. In the post construction/occupancy phases, BMP's such as grass swales and stone areas will provide water quality for the proposed gravel roadways. The proposed solar panels produce no sediments or pollutants.

Wells/Blasting – The nearest wells onsite are approximately 250' and 500' respectively from the proposed solar array. Conceptual proposed grading is incorporated in the master plan submission and the site design is proposed to avoid the steep slopes. At this time blasting is not anticipated. Soil evaluations will be performed in the areas of proposed drainage basins as well as grading areas to evaluate the conceptual design and grading and minimize or avoid the need for any blasting.

Police and Fire – The project will not require an office or manned building and will be monitored remotely with periodic visits by technicians to troubleshoot and/or perform routine equipment checks. Police and fire responses are expected to be low for this installation given it is a secure facility with locked gates and fencing. A lock box is commonly provided on these projects in the event emergency access is needed.

Recreation – The site is currently private property and does not abut public recreational areas. No impact on recreational areas is proposed.

Road Maintenance – The existing driveway access and internal access driveways as well as associated BMP's will be privately maintained as outlined in leases with the owners.

Traffic – There will be construction traffic for the various construction activities including tree removal and processing, construction vehicles, construction materials brought onto the site (concrete, sand, etc.), and solar/electrical components when installation takes place, trash removal, etc. The final facility once construction is complete will generate very low traffic volume with only periodic site visits by technicians to check or troubleshoot equipment and/or grounds maintenance crews to maintain vegetation, etc.

Glare – "A common misconception about solar photovoltaic (PV) panels is that they inherently cause or create 'too much' glare, posing a nuisance to neighbors and a safety risk for pilots. While solar PV systems can produce glare, light absorption - rather than reflection - is central to the function of solar PV panels. This fact sheet describes the basic issues surrounding glare from solar PV panels, the new Federal Aviation Administration guidance, and the implications for local governments."

Reference : <https://www.energy.gov/eere/solar/downloads/solar-pv-and-glare-factsheet>

Also :

"While in certain situations the glass surfaces of solar PV systems can produce glint (a momentary flash of bright light) and glare (a reflection of bright light for a longer duration), light absorption, rather than reflection, is central to the function of a solar PV panel - to absorb solar radiation and convert it to electricity. Solar PV panels are constructed of dark-colored (usually blue or black) materials and are covered with anti-reflective coatings. Modern PV panels reflect as little as two percent of incoming sunlight, about the same as water and less than soil or even wood shingles



(SEIA/Sandia 2013). Some of the concern and misconception is likely due to the confusion between solar PV systems and concentrated solar power (CSP) systems. CSP systems typically use an array of mirrors to reflect sunlight to heat water or other fluids to create steam that turns an electric generator. These typically involve large ground-mounted reflectors, usually in remote desert locations, and are not installed in residential or commercial areas or near airports."

Reference: http://solaroutreach.org/wp-content/uploads/2014/06/Solar-PV-and-Glare-_Final.pdf

Given the site location and extensive natural wooded buffers between the site and homes in the surrounding area glare impacts are not anticipated.

Thermal – Thermal impacts resulting from the construction and operation of the solar array are not proposed. A study in the UK concluded that large solar parks cause up to 5.2 degrees Celsius cooling under the panels during the summer and up to 1.7 degrees Celsius warming during the winter.

Reference: IOP Publishing Environmental Research Letters "Solar park microclimate and vegetation management effects on grassland carbon cycling" by Alona Armstrong, Nicholas J Ostle, and Jeanette Whitaker published July 13, 2016.

Likewise, the Commonwealth of Massachusetts concluded that "there is no solar 'heat island' effect cause by the functioning of solar arrays".

Reference: June 2015 Massachusetts Department of Energy Resources "Clean Energy Results Question & Answers Ground-Mounted Solar Photovoltaic Systems"

Fiscal – The project will be required to pay the Town \$5,000 per MW annually while the asset is in operation.

This submission is intended for Master Plan discussion of the solar concept on this property. If you have any further questions on this submission feel free to contact us.

Sincerely,

A handwritten signature in blue ink, appearing to read "Kevin C. Morin".

Kevin C. Morin, PE

Director of Engineering & Project Development

Green Development, LLC

cc: John Mancini, Mancini Carter, PC
Eric Prive, PE DiPrete Engineering

Attachment 1 – Application, Checklist, Copy of Check



APPENDIX B: APPLICATION FOR SUBDIVISION AND LAND DEVELOPMENT PROJECTS

The undersigned owner of land hereby requests to be placed on the agenda of the North Smithfield Planning Board and state that the required information detailed in the Subdivision Regulations of the Town of North Smithfield have been presented to the Administrative Officer.

Ruth Pacheco, Trustee of the Joseph F. and Ruth S. Pacheco Living Trust is hereby designated as the person to whom legal process may be served in condition with any proceedings arising out of this application. I/We also certify that the undersigned is the owner of the property designed below:

Name of Project: GD NS Old Smithfield Solar I Date: 5/19/2020

Classification

- ☐ Minor
☐ Major

Type of Project

- ☐ Administrative
☐ Subdivision
☒ Land Development Project

Review Stage

- ☐ Pre-Application/Concept
☒ Master Plan
☐ Preliminary Plan
☐ Final Plan

1. Assessor's Plat(s) 13 Assessor's Lot(s) 26

2. Number of Lots: 1 3. Zoning Designation(s): RA

4. Street Name: Old Smithfield Road

5. Divider/ Developer: WED North Smithfield One, LLC

6. Divider's/ Developer's Name: Mark DePasquale

(Please Print)

Divider's/ Developer's Name: _____

(Signature)

7. Names, addresses, and signatures of all persons with 10% or more interest:

(Signature)

Ruth Pacheco 836 Old Smithfield Road North Smithfield, RI

(Please Print)

WED North Smithfield One, LLC 2000 Chapel View Blvd, Suite
500 Cranston, RI 02920

(Please Print)

8. Surveyor/ Engineer/ Attorney/ Representative: DiPrete Engineering (Engineer)

Name: Eric Prive, PE eprive@diprete-eng.com

Address: Two Stafford Court, Cranston RI 02920

Daytime Telephone # 401-943-1000 Facsimile # 401-464-6006

Remittance Advice

Check: 1197 Paid by: Green Development LLC Our Account #:
 Date: 07/14/20 Paid to: Town of North Smithfield Vendor Code: TOW200
 Amount: 625.00

Inv. Date	Invoice No.	Job Number	Inv. Amount	Discount	Amount Paid	Retention	Remarks
07/14/20	7/14/20	19-02-018	625.00	0.00	625.00	0.00	Master Plan Filing Fee
Check Totals			625.00	0.00	625.00	0.00	

THE REVERSE SIDE OF THIS DOCUMENT INCLUDES MICROPRINTED ENDORSEMENT LINES AND ARTIFICIAL WATERMARK - HOLD AT AN ANGLE TO VIEW



GREEN DEVELOPMENT, LLC
 2000 CHAPEL VIEW BLVD. • SUITE 500
 CRANSTON, RI 02920

HARBORONE BANK
 53-8137/2113

DATE

CHECK NO.

1197

07/14/20

1197

PAY **SIX HUNDRED TWENTY-FIVE AND XX / 100 DOLLARS

\$ **625.00

PAY TO THE ORDER OF
 Town of North Smithfield
 One Main Street
 Slatersville, RI 02876

VOID AFTER 90 DAYS

AUTHORIZED SIGNATURE

[Handwritten Signature]



⑈001197⑈ ⑆211381372⑆ ⑈3561505847⑈

THIS DOCUMENT IS PRINTED ON TONER ADHESION PAPER

HEAT SENSITIVE RED IMAGE DISAPPEARS WITH HEAT

**H. MASTER PLAN CHECKLIST
MAJOR LAND DEVELOPMENT PROJECTS AND MAJOR SUBDIVISIONS
CONSERVATION DEVELOPMENTS**

The applicant shall submit to the Administrative Officer at least ten (10) blue-line or photocopies of all master plan maps and information required below. Plans must be no larger than 24" x 36". The scale and number of all plans shall be sufficient to clearly show all of the information required and shall be subject to the approval of the Administrative Officer. All plan sheets and related documents must be provided in portable document format (PDF) files as well. Plans shall include a certification that all plans and improvements conform to a minimum Class IV standard of the State of Rhode Island and Providence Plantations, Board of Registration for Professional Engineers and Board of Registration of Land Surveyors.

The following information shall be presented in the form of a written narrative report, supplemented as necessary with drawings, sketches or plans to convey intent. The narrative report shall include reduced sets of all drawings and plans required below on maximum 11" x 17" sheets. Initially, the applicant shall submit to the Administrative Officer at least ten (10) blue-line or photocopies of preliminary plan maps required below. The number of reduced copies of the plans and narrative report shall be determined by the Administrative Officer, based upon the required distribution to the Planning Board, and other agencies listed in Supporting Materials, below.

Every submission must also be accompanied by an Application for Approval of a Major Land Development Project or Major Subdivision, as contained in Appendix B.

At a minimum, required information includes the following:

1. Site Base Map (see below).
2. Existing Resources and Site Analysis Map. See Section 4-1 (O).
3. Site Context Map. See Section 4-1 (F).
4. Sketch Plan Overlay Sheet. See Section 4-1 (E).*
5. Conventional Yield Plan. See Section 4-1 (H).*
- * Required for Conservation Developments only
6. Proposed Conditions Map (Conventional Subdivisions only).

BASE MAP

All Master Plan Drawing(s) required by this Checklist shall show the following information (if applicable):

A. All maps required by this Checklist shall show the following information (if applicable):

1. ✓ Name and location of the proposed subdivision.
2. ✓ Name and address of property owner and applicant.
3. ✓ Name, address and telephone number of engineer and/or land surveyor.
4. ✓ Date of plan preparation, with revision date(s) (if any).

5. ☒ Graphic scale and true north arrow. Legend to explain any graphic representations or symbols on the plan.
6. ☒ Inset locus map at 1" = 2000' exact or approximate scale so labeled.
7. ☒ Plat and lot number(s) of the land being subdivided.
8. ☒ Zoning district(s) of the land being subdivided. (If more than one district, zoning boundary lines must be shown.)
9. ☒ Perimeter boundary lines of the subdivision, in heavy shaded line, drawn so as to distinguish them from other property lines.
10. ☒ Area of the subdivision parcel(s) and proposed number of buildable lots.
11. ☒ Location and dimensions of existing property lines within or forming the perimeter of the subdivision parcel(s).
12. ☒ Easements and rights-of-way within or adjacent to the subdivision parcel(s).
13. ☒ Location, width and names of existing streets within and immediately adjacent to the subdivision parcel.
14. ☒ Names of abutting property owners and property owners immediately across any adjacent streets.

EXISTING RESOURCES AND SITE ANALYSIS MAP

The information required in Section 4-1 (O) shall be shown on the Existing Resources and Site Analysis Map(s), and shall be subject to the approval of the Administrative Officer. This information may be based on the information provided at the Pre-application stage of review (Checklist C), with updates as required.

A. Topography and Slopes

15. ☒ Existing contours at intervals of two or five feet elevation relative to sea level.
16. ☒ Slope map, with slopes grouped according to three categories based on development suitability: <15%, 15-25% and over 25%. Steeper slopes should be shown in progressively darker colors or shades of gray.

B. Natural Resource Inventory

17. ☒ Location of land unsuitable for development as defined in the Zoning Ordinance, including wetlands, ponds, streams, ditches, drains, special aquatic sites, vernal pools. Wetland locations do not need to be verified by RIDEM.
18. ☒ Vegetative cover on the property, indicating any unfragmented forest tracts
19. ☒ Soils map, indicating any prime farmland soils, and any land in active agricultural use.
20. ☒ Geologic formations
21. ☒ Ridge lines of existing hills
22. ☒ Wellhead protection areas for public or community drinking water wells
23. ☒ Groundwater Aquifer Overlay District (Town)
24. ☒ 100-year floodplains as shown on federal flood protection maps

25. n/a State, regional, or community greenways and greenspace priorities
26. n/a State-designed Natural Heritage Sites (RIDEM)

C. Cultural Resource Inventory

27. ✓ Approximate location of man-made features such as roads, structures, outbuildings, roads or trails, and other such features on the parcel
28. ✓ Historically significant sites or structures
29. ✓ State or locally-designated historic sites, districts, cemeteries or landscapes
30. ✓ Location of any stone walls within or forming the perimeter of the site
31. n/a Archaeological sites
32. n/a Scenic road corridors and state-designated scenic areas
33. ✓ Viewshed analysis

D. Recreational Resource Inventory

34. ✓ Existing hiking, biking and bridle trails within and adjacent to site
35. ✓ Boat launches, lake and stream access points, beaches and water trails
36. ✓ Existing play fields and playgrounds on or adjacent to the site

E. Utilities and Infrastructure

37. ✓ Size and approximate location of public or private water lines
38. ✓ Size and approximate location of public or private sewer lines
39. ✓ Gas service
40. ✓ Electrical service
41. ✓ Telephone, cable, and other communication services
42. ✓ Width and surfacing material of existing road(s) at access points
43. ✓ Existing drainage and drainage structures, such as culverts and pipes, etc.

SITE CONTEXT MAP

The Contextual Analysis process is described in detail in Section 4-1 (F) and in the design process Section 4-1 (D), Step 2 of these Regulations. This information may be based on the information provided at the Pre-application stage of review (Checklist C), with updates as required.

44. ✓ Site Context Map
45. ✓ Soils Map of surrounding area. See Supporting Materials, No. 4.

SKETCH PLAN OVERLAY SHEET (Conservation Developments) (Not Applicable)

The applicant shall present initial proposals for development, using a conceptual sketch plan(s) for development. This information may be based on the information provided at the Pre-application stage of review (Checklist C), with updates as required.

46. _____ Identification of areas proposed for development
47. _____ Location of proposed open space areas
48. _____ Initial layout of streets
49. _____ Land Unsuitable for Development, as defined in the Zoning Ordinance

CONVENTIONAL YIELD PLAN (Conservation Developments) (Not Applicable)

An updated Conventional Yield Plan, as discussed at the Pre-application stage of review shall be presented for further review by the Planning Board, if required.

50. Conventional Yield Plan, if modified from Pre-application review

PROPOSED CONDITIONS MAP(S) (Conventional Subdivisions)

For conventional subdivisions, the applicant shall submit the following information in lieu of a Sketch Plan Overlay Sheet and Conventional Yield Plan:

1. ✓ Proposed improvement including streets, lots, lot lines, with approximate lot areas and dimensions. Proposed lot lines shall be drawn so as to distinguish them from existing property lines.
2. ✓ Grading plan in sufficient detail to show proposed contours for all grading proposed for onsite construction of drainage facilities and grading upon individual lots if part of proposed subdivision improvements (if applicable).
3. ✓ Proposed utilities plan, including sewer, water, gas, electric, phone, cable TV, fire alarm, hydrant, utility poles, or other proposed above or underground utilities, as applicable.
4. n/a Location, dimension and area of any land proposed to be dedicated to the Town for use as open space, conservation or recreation.
5. ✓ Base flood elevation data
6. ✓ Certification by a Registered Land Surveyor that all interior and perimeter lot lines and street lines of the land being subdivided have been designed to conform to Class 1 survey requirement and are certified as being correct
7. ✓ Rectangular box showing zoning district(s), dimensional requirements for each district, and the minimum dimensions actually provided.

SUPPORTING MATERIALS

The applicant shall submit to the Administrative Officer a narrative report providing a general description of the existing physical environment and existing use(s) of the property along with a general description of the uses and type of development proposed by the applicant. The narrative report shall include reduced copies of all plan required above plus items 3-11, below:

1. ✓ Administrative (filing) Fee: 600 Plus No. of Lots 1 x Per/lot
Fee \$25.00= 625.00 Total Fee CH# 1197

2. Project Review Fee (if required)

3. ✓ An aerial photograph or blue line copy of an existing aerial photograph of the proposed subdivision parcel and surrounding area

4. ✓ A copy of the soils map of the subdivisions parcel and surrounding area, and general analysis of soil types and suitability for the development proposed. If any prime agricultural soils are within the subdivision parcel(s), the soils map shall be marked to show the location of said prime agricultural soils

5. n/a An estimate of the approximate population of the proposed subdivision
6. n/a An estimate of the number of school-aged children to be housed in the proposed subdivision
7. n/a Fiscal impact statement (if required)
8. n/a Proposed phasing, if any
9. ☒ A narrative detailing potential neighborhood impacts
10. n/a Open Space Use and Management Plan. See Section 4-1 (K) 5. (Required for Conservation Developments only)
11. n/a Written request for waivers of subdivision standards as per Section 7-2.
12. _____ Copy of Plan in digital format. (AutoCAD 2007 or newer) (Upon Certificate of Completeness)
13. _____ Initial written comments on the Master Plan from the following agencies

A. _____	Planning Department	Date: _____
B. _____	Public Works Department	Date: _____
C. _____	Sewer Department	Date: _____
D. _____	Building Inspector	Date: _____
E. _____	Fire Department	Date: _____
F. _____	Town Solicitor	Date: _____
G. _____	Conservation Commission	Date: _____
H. _____	Police Department	Date: _____
I. _____	Other (specify) _____	Date: _____

Adjacent Communities (specify):

A. _____	Date: _____
B. _____	Date: _____
C. _____	Date: _____
D. _____	Date: _____
E. _____	Date: _____

State Agencies:

A. _____	Environmental Management	Date: _____
B. _____	Transportation	Date: _____
C. _____	Other (specify)	Date: _____

Federal Agencies:

A. _____	U.S. Army Corps Engineers	Date: _____
B. _____	FEMA	Date: _____

Attachment 2 – Abutters List and Radius Map

Parcel ID: 013-023
**VELASQUEZ AMADO &
CHRISTINA L DUCHARME T
259 RIVER AVE
PROVIDENCE RI 02908**

Parcel ID: 013-023-A
**VELASQUEZ AMADO &
CHRISTINA L DUCHARME
259 RIVER AVE
PROVIDENCE RI 02908**

Parcel ID: 013-025
**SOUZA FAMILY LTD PARTNERSHIP
956 OLD SMITHFIELD RD
N SMITHFIELD RI 02896**

Parcel ID: 013-025-A
**SOUZA FAMILY LIMITED
PARTNERSHIP
956 OLD SMITHFIELD RD
N SMITHFIELD RI 02896**

Parcel ID: 013-026
**PACHECO RUTH S TRUSTEE
836 OLD SMITHFIELD ROAD
N SMITHFIELD RI 02896**

Parcel ID: 013-027
**PELOQUIN HARRIET A TRUSTEE
760 OLD SMITHFIELD ROAD
N SMITHFIELD RI 02896**

Parcel ID: 013-036
**JALETTE SOLANGE S
LIFE ESTATE
785 OLD SMITHFIELD RD
N SMITHFIELD RI 02896**

Parcel ID: 013-037
**DELASANTA JEFFREY A ET AL
825 OLD SMITHFIELD RD
NO SMITHFIELD RD RI 02896**

Parcel ID: 013-067
**MENCARINI BARBARA L
782 OLD SMITHFIELD RD
NO SMITHFIELD RI 02896**

Parcel ID: 013-119
**LEVY ALISON
909 OLD SMITHFIELD RD
N SMITHFIELD RI 02896**

Parcel ID: 013-126
**PACHECO RUTH S TRUSTEE
836 OLD SMITHFIELD ROAD
N SMITHFIELD RI 02896**

Parcel ID: 013-128
**PACHECO RUTH S TRUSTEE
836 OLD SMITHFIELD ROAD
N SMITHFIELD RI 02896**

Parcel ID: 013-135
**MATCHETT LINDSEY G
764 OLD SMITHFIELD RD
N SMITHFIELD RI 02896**

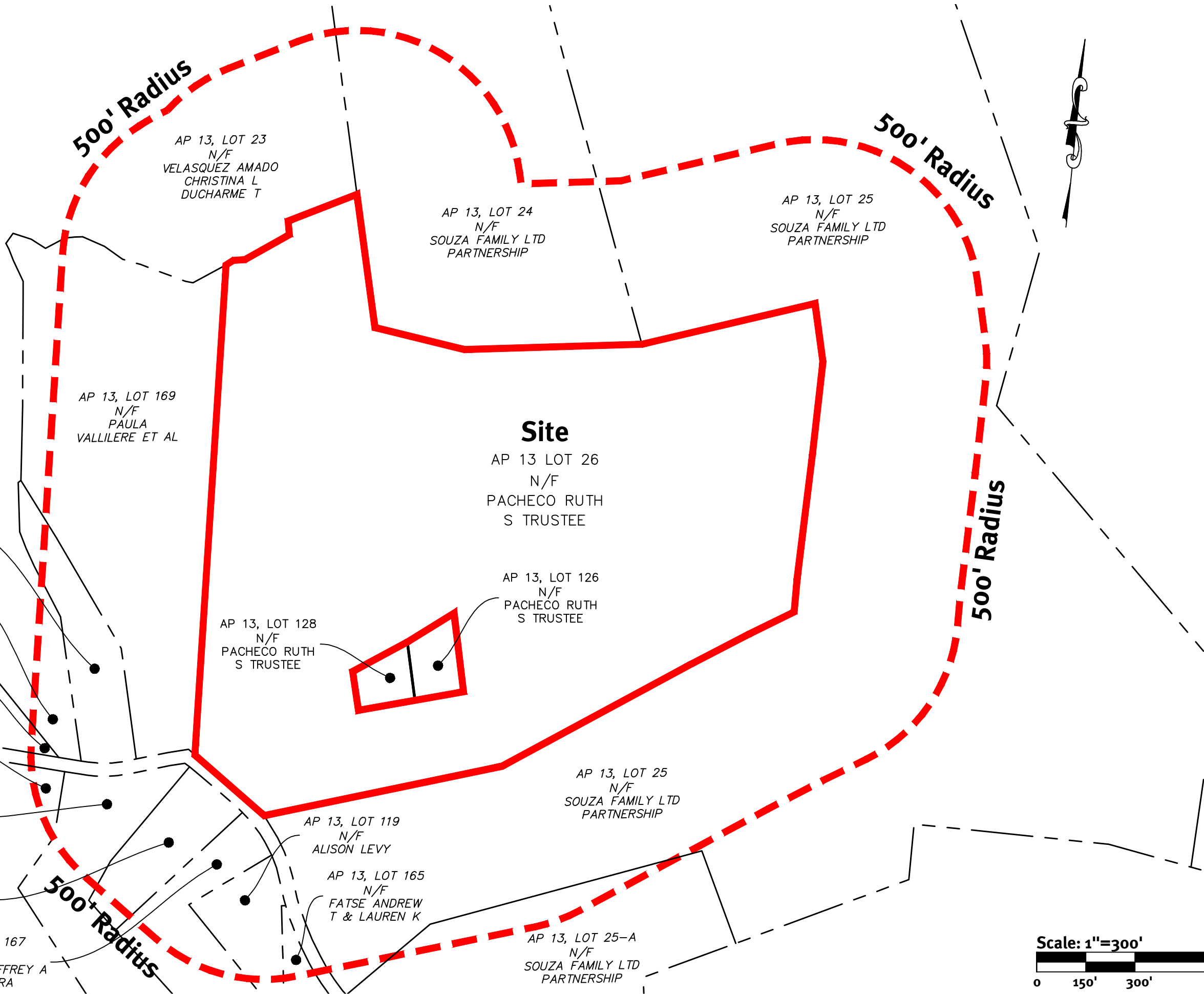
Parcel ID: 013-163
**WILSON PAUL & MARIE
765 OLD SMITHFIELD ROAD
N SMITHFIELD RI 02896**

Parcel ID: 013-165
**FATSE ANDREW T & LAUREN K
927 OLD SMITHFIELD RD
N SMITHFIELD RI 02896**

Parcel ID: 013-167
**DELASANTA JEFFREY A ET AL
825 SMITHFIELD RD
NO SMITHFIELD RI 02896**

Parcel ID: 013-169
**VALLILERE PAULA J ET AL
796 OLD SMITHFIELD RD
N SMITHFIELD RI 02896**

Marc Viggiani, Water Superintendent
Woonsocket Water
1500 Manville Road
P.O. Box B
Woonsocket, RI 02895



Attachment 3 – Reduced Plans

Master Plan Submission

GD NS Old Smithfield Solar I

Old Smithfield Road
North Smithfield, Rhode Island

Assessor's Plat 13 Lot 26



Sheet Index

- 1 Cover Sheet
- 2 Aerial Half Mile Radius & USGS Map
- 3 Existing Analysis Plan
- 4 Site Layout Plan
- 1 of 1 Property Line Survey

Cover Sheet

GD NS Old Smithfield Solar I

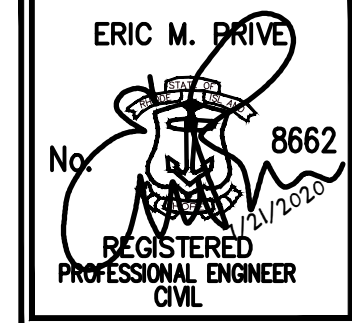
Assessor's Plat 13, Lot 26
North Smithfield, Rhode Island

Applicant

WED North Smithfield One, LLC

2000 Chapel View Blvd, Suite 500, Cranston, RI 02920
tel (401) 295-4998

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This regulatory submission set shall not be used for construction purposes unless stamped 'Issued for Construction' and signed by a DiPrete Engineering representative.

The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

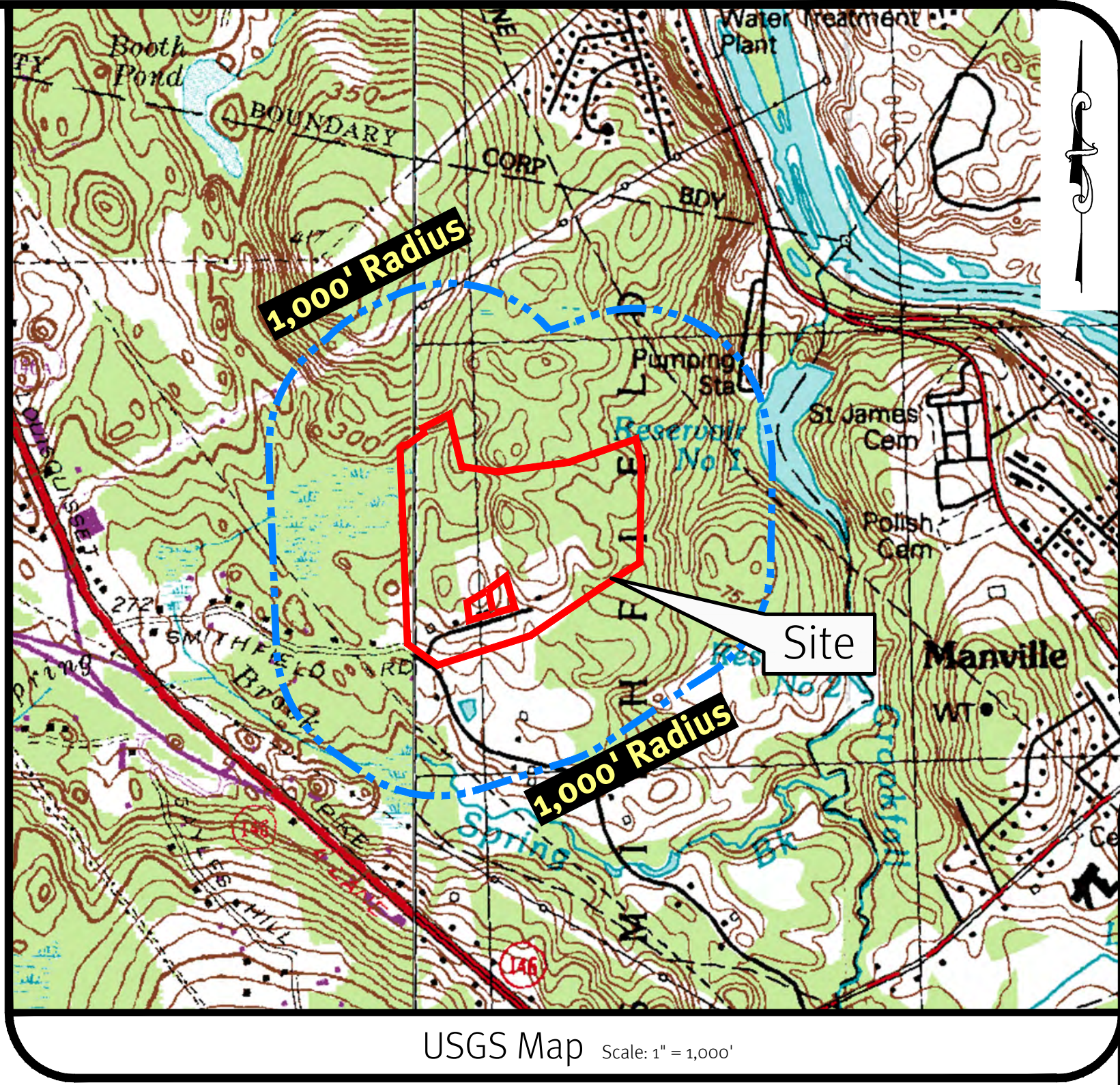
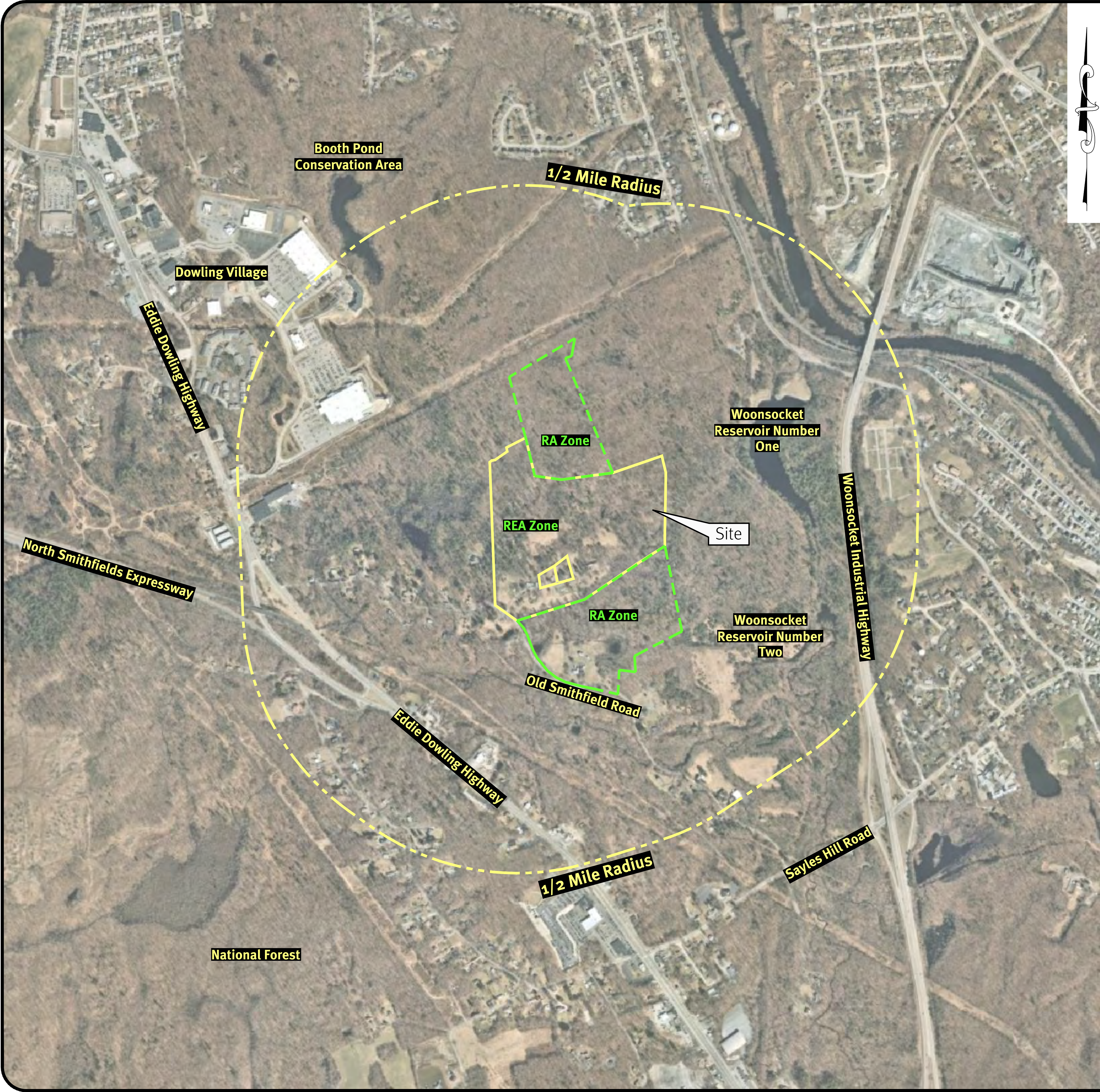
No.	Date	Description	By	Design By: K.C.M.
1	7/21/2020	Master Plan Submission	S.E.H.	
2	10/02/2019	Pre-Application Submission	J.A.R.	

 DiPrete Engineering

Two Stafford Court Cranston, RI 02920
tel (401) 943-1000 fax (401) 664-6006 www.diprete-eng.com

Boston • Providence • Newport

z:\main\projects\0601-010 old smithfield road\autocad drawings\0601-010-mstr - solar.dwg Plotted: 7/21/2020



Legend:

- PROPERTY LINE
- 1000' RADIUS LINE
- HALF MILE RADIUS LINE
- ZONE LINE

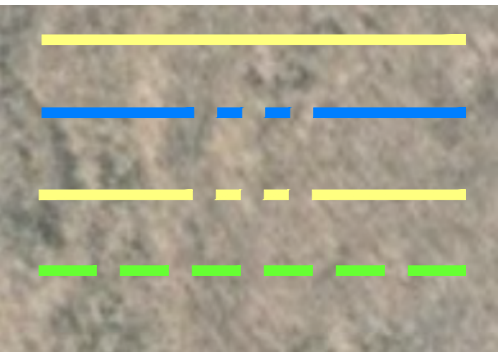
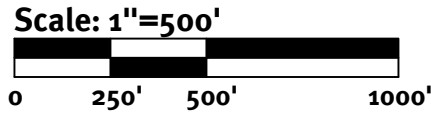


Photo obtained from the NearMAP 2020 database.



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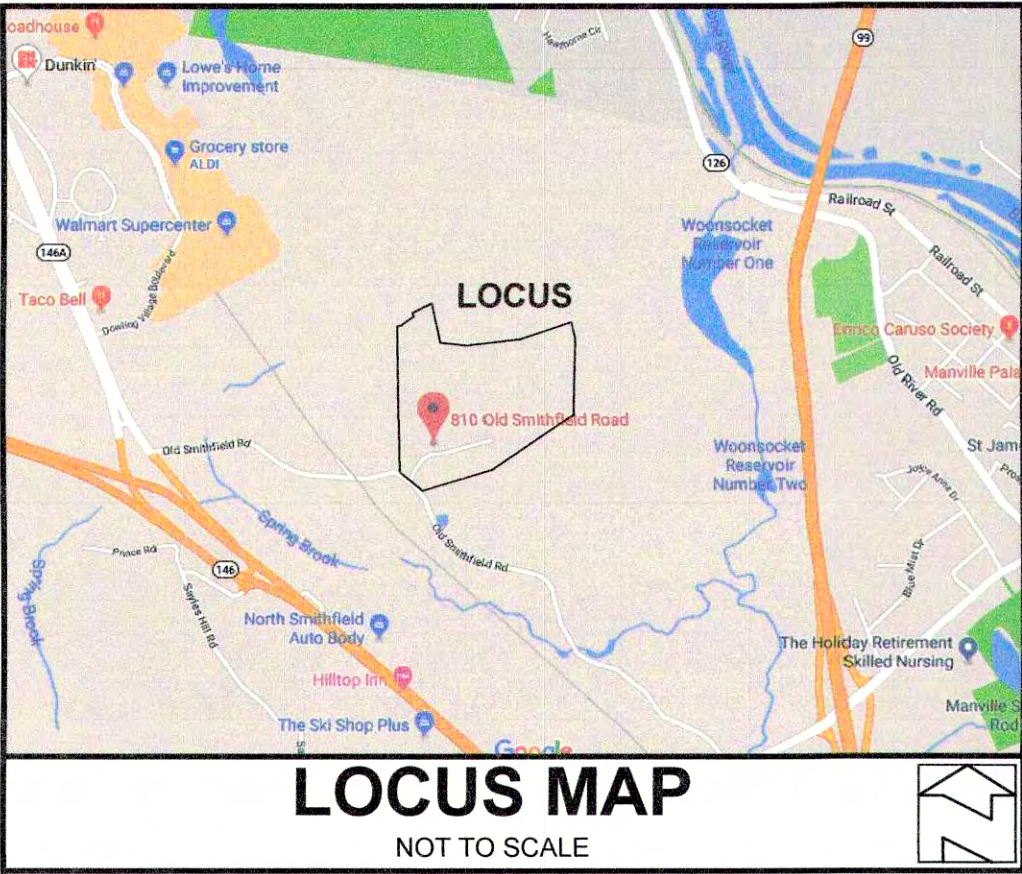
The contractor is responsible for all of the means, methods, safety precautions and requirements, and OSHA conformance in the implementation of this plan and design.

1	7/21/2020	Master Plan Submission	S.E.H.	
2	10/27/2019	Pre-Application Submission	J.A.R.	By:
Drawn By: D.R.N.		Description	Design By: K.C.M.	

Aerial Half Mile & USGS Map
GD NS Old Smithfield Solar I
Assessor's Plat 13, Lot 26
North Smithfield, Rhode Island

WED North Smithfield One, LLC
2000 Chapel View Blvd, Suite 500, Cranston, RI 02920
tel 401 295-4998

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NO.	DATE	DESCRIPTION	BY

ZONING CRITERIA

ZONING DISTRICT	RA (AKA RR)
MINIMUM LOT AREA	65,000 SQ. FT.
MINIMUM LOT FRONTAGE	200'
MINIMUM FRONT YARD SETBACK	40'
MINIMUM SIDE YARD SETBACK	25'
MINIMUM REAR YARD SETBACK	40'
MAXIMUM BUILDING COVERAGE	25%
MAXIMUM BUILDING HEIGHT	35'

LEGEND
NOT TO SCALE

—	BOUNDARY
—	ABUTTER
○	STONEWALL
●	IRON PIN
□	BOUND
⊙	DRILL HOLE

PLAN REFERENCES:

1. A PLAN ENTITLED "PLAN OF LAND, NORTH SMITHFIELD, RI BELONGING TO CAROL ALLEN ET UX BEING EASTERLY PART OF SIMEON C. ALLEN FARM DEC. 1964 SCALE 1IN = 100FT. STANLEY H. MOWRY SURVEYOR" SHELF 28
2. A PLAN ENTITLED "PLAN OF LAND, NORTH SMITHFIELD, RI BELONGING TO HAROLD ALLEN ET UX BEING WESTERLY PART OF SIMEON C. ALLEN FARM DEC. 1964 SCALE 1IN = 100FT. STANLEY H. MOWRY SURVEYOR" SHELF 28
3. A PLAN ENTITLED "DIVISION OF LAND OWNED BY PETER A. & BARBARA L. VOSE NORTH SMITHFIELD, RHODE ISLAND DECEMBER 1991 SCALE 1 INCH EQUALS 80 FEET BY NORBERT A. THERIEN PLS" CAB 1A
4. A PLAN ENTITLED "ADMINISTRATIVE SUBDIVISION PLAN AP 13 LOT 169 - LEO & SHARON MAYEWSKI 769 OLD SMITHFIELD ROAD NORTH SMITHFIELD, RI 02896, AP 13 LOT 67 - BARBARA L. MENCARINI 782 OLD SMITHFIELD ROAD NORTH SMITHFIELD, RI 02896, BY DAVID M. GARRIGAN PLS #1580 CUMBERLAND, RI 02864" BOOK 1 PAGE 213

THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO SECTION 9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATIONS FOR PROFESSIONAL LAND SURVEYORS NOVEMBER 25, 2015 AS FOLLOWS:

TYPE OF SURVEY: COMPREHENSIVE BOUNDARY SURVEY
MEASUREMENT SPECIFICATION: CLASS 1 STANDARD

PURPOSE OF SURVEY: BOUNDARY SURVEY FOR AP 13 LOT 26

BY: Norbert A. Therien DATE: 4/15/19
NORBERT A. THERIEN, PLS NO. 1739

AP 13 LOT 169
N/F PAULA J. VALLIERE ET AL
D.B.806 PG.262

AP 13 LOT 67

AP 13 LOT 23
N/F AMADO VELASQUEZ &
CHRISTINA L. DUCHARME
D.B.261 PG.559

AP 13 LOT 24
N/F SOUZA FAMILY LTD PARTNERSHIP
D.B.277 PG.693

AP 13 LOT 25
N/F SOUZA FAMILY LTD PARTNERSHIP
D.B.277 PG.693

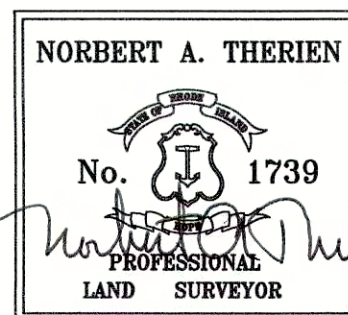
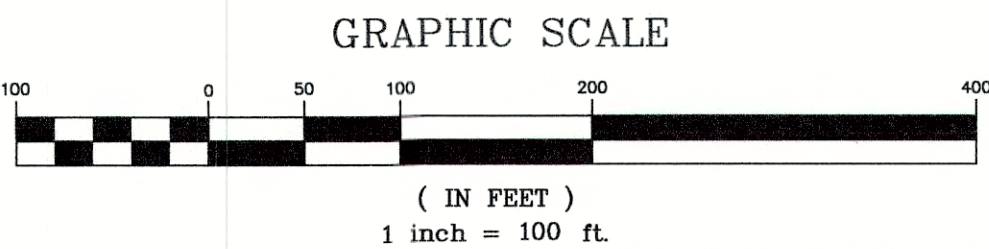
AP 13 LOT 26
N/F RUTH S. PACHECO TRUSTEE
D.B.164 PG.729

EXISTING AREA
2,326,670 SQ. FT.
53.4130 ACRES

AP 13 LOT 126
N/F RUTH S. PACHECO TRUSTEE
D.B.164 PG.731
EXISTING AREA
31,712 SQ. FT.
0.7280 ACRES

AP 13 LOT 128
N/F RUTH S. PACHECO TRUSTEE
D.B.164 PG.729
EXISTING AREA
26,438 SQ. FT.
0.6070 ACRES

AP 13 LOT 25
N/F SOUZA FAMILY LTD PARTNERSHIP
D.B.277 PG.693



RUTH S. PACHECO TRUSTEE
AP 13 LOTS 26, 126 & 128
810,826 & 836 OLD SMITHFIELD ROAD
NORTH SMITHFIELD, RHODE ISLAND

PROPERTY LINE SURVEY

DRAWN BY: J.E.S.	CHECKED BY: N.A.T.	FIELD BY: M.A.&J.S.
APRIL 2019	JOB No. 2019-45	SHEET 1 OF 1