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October 4, 2018

Ms. Nicki van Vonno, AICP Growth Management Director Martin County 2401 S.E. Monterey Road Stuart, FL 33996

Re: Florida Power & Light Company

Sweetbay Solar Energy Facility Major Final Site Plan Application

Project Number: F109-002 Staff Report Reply Letter

Dear Nicki:

The following is a response to the August 31, 2018 staff report for Florida Power & Light Company's Sweetbay Solar Energy Facility Major Final Site Plan Application, as discussed at the September 06, 2018 Joint Workshop meeting. One (1) original packet and a bookmarked electronic disc identical to the original packet of the following materials are provided, along with two (2) paper copies of the plans:

- 1. Resubmittal Reply Letter
- 2. Final Site Plan
- Landscape Plan
- 4. Lake Management Plan
- 5. PAMP (includes Temporary Preserve Area Impact Restoration Plan)
- 6. Construction Plans
- 7. Special Purpose Wetland Survey
- 8. FDEP Environmental Resource Permit (Permit No. 43-0360733-002-EI)
- 9. Stormwater Report (1 hard copy provided)
- 10. Land Clearing & Erosion Control Plans
- 11. TIWCD Relief Canal Analysis
- 12. Stormwater Maintenance Plan
- 13. Project Narrative

Ms. Nicki van Vonno October 4, 2018 Page 2

Please note that only the section headings, unresolved issues and remedy/suggestion/clarification portions of the staff report have been repeated in **bold type.** Our responses follow in *italics*. Please refer to the staff report for the entire comment within each section.

Itemized Responses to Staff Report

- A. Application information *Agree*.
- B. Project description and analysis

 The approximate acreage for the project is 566 acres.
- C. Staff recommendation
 See responses to the non-comply comments below.
- D. Review Board/Committee action *Agree*.
- E. Location and site information *Agree*.
- F. Determination of compliance with Comprehensive Growth Management Plan requirements

Unresolved Issues:

Item #1: Minimum Open Space

Remedy/Suggestion/Clarification: Please move all wetland areas, the borrow pit lake, and all canal/ditch/flowway areas below the control elevation from the 'pervious' category and into the 'impervious' category. Wetlands and land locked waterbodies are not eligible towards open space provisions.

The open space data on the enclosed final site plan has been revised to exclude wetlands and permanent water bodies. Accordingly, the open space provided within the project has been reduced from approximately 97% to approximately 80%.

G. Determination of compliance with land use, site design standards, zoning and procedural requirements

Unresolved Issues:

Item #1:

Site Plan

Remedy/Suggestion/Clarification:

1. Please revise the site plan title to "Final Site Plan".

The final site plan has been revised as requested.

- 2. Please remove the "temporary construction laydown area" from the site plan that is currently shown off of the project site and on a separately owned non-contiguous property. Alternatively, please explain why this area may not be accommodated on the project site itself and submit:
- a. Authorization from the property owner,
- b. A revised site plan that shows all improvements proposed for the off-site area. Please be advised that additional comments may be forthcoming based upon receipt of additional information detailing the proposed use and development of this off-site area.

The temporary construction laydown area has been removed from the enclosed site and construction plans as requested. As discussed at the workshop, if it is determined by the site contractor that this area is needed for construction staging, then it can be approved administratively under separate application.

3. Please label and dimension the 50' setback on the north property line, which appears to be shown but not labeled or dimensioned.

The 50' setback on the north property line has been labeled and dimensioned as requested.

4. Please relocate the panels shown immediately west of WL10A outside the required 50' setback from the property line as required by Section 3.100.1.C., LDR, Martin County, Fla. (2018).

The final site plan and construction plans have been revised to relocate the panels outside the 50' setback.

5. Please revise the data table cited Maximum project sign height to 9', consistent with the requirements of Section 3.100.1.H.1., LDR, Martin County, Fla. (2018).

The maximum sign height has been revised to 9 feet as requested.

6. Please dimension the setback to the centerline of SW Allapattah Road, which is required to be a minimum of 65 feet pursuant to Section 3.16.C.1.b., Martin County, Fla. (2007).

The centerline setback has been shown and we are a minimum100' from the centerline, well in compliance of the 65' minimum.

Item #2:

Required Permits

Remedy/Suggestion/Clarification: The applicant has elected 'Option 1' regarding Agency permit submittal for review for consistency. Please submit all applicable authorizations prior to final approval of this application.

The FDEP Environmental Resource Permit No. 43-0360733-002-EI is enclosed. As per the responses to Section V. Local, State and Federal Permits, this is the only permit required prior to County Commission approval of the final site plan.

H. Determination of compliance with urban design and community redevelopment requirements

Not applicable.

I. Determination of compliance with property management requirements
The Applicant is working with the County Attorney's office regarding the donation of a
15' Right-of-Way Easement on Allapattah Road within the 50' setback on the
Applicant's property.

Agree.

J. Determination of compliance with environmental and landscaping requirements
Environmental

Unresolved Issues:

Item#1:

Property Survey Review

Please provide one or more of the following for delineated wetlands on the Boundary Survey (MARTIN COUNTY, FLA., LDR Section 4.2.C.3 (2011): 1. Boundaries of all wetlands based on approved jurisdictional determination by the state. 2. Normal wet season water elevations (Normal Pool Elevations). 3. Normal high surface water elevations (Seasonal High Elevations).

As discussed at the workshop, the wetland delineations and control elevations have been reviewed and approved by the FDEP based on approximate wet season elevations and the rim elevations of the wetlands. The approved wetland delineation and control elevations, which have been documented in the Environmental Resource Permit (ERP), are designed to maintain and enhance the wetlands' functions and value by restoring the natural hydrology of the wetlands to the maximum extent possible. A specific purpose survey identifying the approved wetland delineations and control elevations is enclosed. FDEP has verified and approved the wetland elevations delineated on the survey.

Item#2:

Master and Final Site Plan

Please provide for the following notes on the Final Site Plan:

- 1. Preserve signs will be at least 11 x 14 inches in size and will be posted in conspicuous locations along the Preserve Area boundary, at a frequency of no less than one (1) sign per 500 feet.
- 2. Graded areas adjacent to preserve areas shall not exceed a slope of one foot vertical to four feet horizontal. All slopes shall be properly stabilized upon completion of construction to the satisfaction of the County Administrator.

3. It shall be unlawful to alter the approved slopes, contours, or cross sections or to chemically mechanically, or manually remove, damage, or destroy any plants in the littoral or upland transition zone buffer areas of constructed lakes except upon the written approval of the Growth Management Director, as applicable. It is the responsibility of the owner or property owners association, its successors or assigns to maintain the required survivorship and coverage of the reclaimed upland and planted littoral and upland transition areas and to ensure ongoing removal of prohibited and invasive non-native plant species from these areas. (reference: For major or other conditional development order applications when a plat is not required and there are littoral and transition zones, the following language shall be specifically provided on the final site plan. MARTIN COUNTY, FLA., LDR Section 4.343.A.14 (2001)

The requested notes have been added to the final site plan.

Item#3:

Wetland Performance Standards Pursuant to MARTIN COUNTY, FLA., LDR Section 4.2.G. (2011), please supplement the PAMP to provide the following information:

- 1. Schedule when exotic removal and restoration planting will occur and a schedule for preserve area monitoring and reports submitted to the county.
- 2. Planting shall be complete prior to a certificate of occupancy on the primary structure of a nonresidential final site plan, if applicable. If not applicable, the preserve maintenance and monitoring schedule will be needed in order for county environmental staff to verify completion of exotic removal, replanting, etc.

As discussed at the workshop, Section 6 of the enclosed PAMP has been revised to include the following schedule of activities:

Complete exotic plant removal/restoration activities: Dec. 2020 Submit baseline monitoring report: Jan. 2021 Conduct dry season sampling: May 2021 Conduct wet season sampling: Nov. 2021 Submit 1st Annual Report: Jan. 2022 Conduct dry season sampling: May 2022 Conduct wet season sampling: Nov. 2022 Submit 2nd Annual Report: Jan. 2023

In addition, the following schedules have been added to the Landscape Plan enclosed:

Complete Residential Buffer along south property line: Dec. 2020 Complete Lake Littoral Zone and Upland Buffer: Dec. 2020

Item#4:

Wetland Design Standards

Wetland hydrology and water quality shall be maintained in accordance with the following standards, per MARTIN COUNTY, FLA., LDR Section 4.2.I. (2011):

1. Direct discharge of stormwater into wetlands or buffer zones shall be prohibited. Stormwater must be provided retention and/or detention water quality treatment prior to being discharged into wetlands or wetland buffer zones. Stormwater retention and/or detention basins shall be used to maintain post-development discharges at predevelopment levels.

- 2. Stormwater retention basins and outfall structures shall be designed to assure that the water quality, rate of runoff and seasonal runoff volumes are equal to natural conditions. Timing and volume of water discharge shall be appropriate to restore and/or maintain the natural hydroperiod.
- 3. Retention and/or detention basins shall be designed and constructed with sediment traps and litter or trash screens. The retention and/or detention basins shall be vegetated, and the use of herbicides and pesticides within the retention and/or detention basin for vegetation and insect control shall be discouraged.

Please demonstrate that the proposed wetland control elevations are appropriate to maintain or improve wetland hydrology. Staff could not locate the existing normal pool and seasonal high water elevations for the onsite wetlands on the boundary survey. Typically, the wetland water elevations are verified by the state as part of the jurisdictional determination.

As discussed at the workshop, the wetland delineations and control elevations have been reviewed and approved by the FDEP based on approximate wet season elevations and the rim elevations of the wetlands. The approved wetland delineation and control elevations, which have been documented in the Environmental Resource Permit (ERP), are designed to maintain and enhance the wetlands' functions and value by restoring the natural hydrology of the wetlands to the maximum extent possible. A specific purpose survey identifying the approved wetland delineations and control elevations is enclosed. FDEP has verified and approved the wetland elevations delineated on the survey.

Water quality standards have been provided by the design of Vegetated Natural Buffers prior to discharging into the onsite wetlands. The level of service criteria calculations are provided in response to comment in Section M, Item 3 (4).

Item#5:

Land Clearing and Erosion Control Page The following shall be included on the landclearing/erosion control page:

- 1. Location of on-site posted land clearing permit and permit box (to retain approved plan). 2. Locations of any materials to be temporarily stockpiled to include land clearing debris or excavated materials.
- 3. Include the text: 'Property corners shall be located by a licensed land surveyor and clearly marked in the field prior to the Engineering Department's pre-construction meeting for site development.'
- 4. Include the text: 'Authorization to install erosion control devices and preserve barricades will be granted at the pre-construction meeting. This authorization shall be posted on the site, in the permit box, its location shown elsewhere on this page.'
- 5. Include the text: 'No additional land clearing shall commence until a satisfactory inspection of the required erosion control barricades has been obtained.'
- 6. Include the text: 'All construction barricades and silt fences will remain in place and be monitored for compliance by the permit holder during the permitted development activities.'
- 7. Include the text: 'Prior to scheduling a final environmental inspection for the infrastructure, all barricades and erosion control devices shall be removed and disposed of by the contractor.'

Please clarify if turbidity curtains will be used to control turbidity and erosion during construction of the water control structures within wetlands and add the use of turbidity curtains to the erosion control plan if necessary.

See revised "Land Clearing & Erosion control Plans", sheet no's CE 14 and 15 that include the requested revisions.

Item#6:

Revisions to Plans based on Field Inspection

1. County environmental staff conducted a field visit on August 28, 2018. Based on that visit and information in the construction plans, there is a temporary haul road proposed between Wetlands 23B and 23A which may result in minor wetland impacts during construction. Please document how this haul road will be constructed and provide cross-sectional details in the construction plans showing the materials used. Please consider using innovative design techniques to reduce or eliminate wetland impacts instead of placement of fill or gravel in or adjacent to wetlands. Please provide information in the PAMP that this haul road will be fully restored once construction is completed.

As discussed at the workshop, additional construction and restoration details have been provided in the revised construction plans (sheet CE 20) and PAMP.

2. During the site visit, it was revealed that an area in the southeast corner of the property was misidentified as a cabbage palm hammock upland and is proposed to be preserved as uplands. However, this area is a forested bayhead and shall be protected along with a 50 foot buffer. Please revise the FLUCCS map and all associated information in the PAMP to reflect this correction. In addition, please revise the site plan and the construction plans showing this area with a buffer as preserve and revise all associated acreages and calculations on the plans.

As discussed at the workshop, it was agreed that this area would be expanded by 50 feet and identified on the final site plan, construction plans (sheets CE 13 and 14) and PAMP as a "Preserve Area", not a wetland. The existing outfall (ditch), which runs through this area and serves the adjoining subdivision, has been shown on the plans and labelled "Existing Outfall to Remain". Except for the removal of exotic plants, it was agreed that this area would not be altered or delineated as a wetland on the "state-delineated" wetland survey.

Landscape

Unresolved Issues:

Item #1:

Littoral Planting Requirements Remedy/Suggestion/Clarification:

1. A Lake Management Plan has not been provided. Provide a plan in accordance with Code requirements.

The Lake Management Plan is enclosed and included as an Appendix in the PAMP.

2. The cross-section indicates the slopes shall have a grade 4:1. Lake cross-section is not consistent with the required 10:1 slope for areas of littoral shelf as provided in Martin County Land Development Regulations. A 4:1 slope would be acceptable at control elevation for a distance of 2 feet to reach the 6" water depth and thereby reduce long periods the littoral shelf might remain exposed, however the remainder of the shelf must meet the required gradient.

As discussed at the workshop, an extended littoral zone shelf with a 10:1 slope has been provided on the east side of the lake (minimum 50% of the lake perimeter). The final site plan, construction plans (sheet CE 11 and 19), and landscape plans have been updated accordingly.

3. Proposed planting densities for aquatic littorals are also not consistent with Code requirements of an average of 2 ft. on center but instead propose 3 ft. on center density. The larger spacing results in 1 bareroot plant for each 7.8 sq. ft. compared to 3.46 sq. ft. for 2 ft. on center density; it is considered unlikely that satisfactory infill will occur. It is recommended that even a closer spacing be utilized to better ensure the ability to meet required 80% coverage.

The planting density has been revised as requested.

K. Engineering Department – Transportation requirements

Findings of Compliance:

Agree

L. Engineering Department - Survey

N/A

M. Engineering Department - Engineering, Stormwater and Flood Management

Item # 1: Right-of-way Improvements

1. Label the proposed 15 foot right-of-way easement along the frontage of SW Allapattah Road on the Major/Final Site Plan.

As requested the proposed 15-foot ROW easement has been labeled on the construction plans (sheets CE 5, 8 and 11) and Final Site plan.

2. Pursuant to Section 4.843.G., LDR, Martin County Code, in lieu of constructing a sidewalk, the applicant shall pay the cost of construction within sixty (60) calendar days of the project approval. The cost is \$25 per linear foot of property along SW Allapattah

Road, for a resultant payment of \$116,950. [MARTIN COUNTY, FLA., LDR SECTION 4.843.G]

Acknowledged.

3. Provide a site specific Site Entrance Driveway Detail for each proposed driveway connection [MARTIN COUNTY, FLA., LDR SECTION 4.845].

Site Entrance details are provided in the revised construction plans (sheet CE 24).

- 4. Revise the Site Entrance Driveway Detail to include the following [MARTIN COUNTY, FLA., LDR SECTION 4.845]:
 - a. All proposed driveway connections shall be constructed with a minimum throat width of 26 feet.
 - b. Label entry and exit side radii. The minimum entry and exit side radius is 20 feet.
 - c. Show the proposed mitered end section for the cross drain culvert.
 - d. Label invert elevations of proposed mitered end sections for the cross drain culvert.
 - e. Label contour elevations of proposed swales.
 - f. Label edge of pavement elevations at proposed connection to existing roadway. Provide adequate survey grade elevations for driveway connections.

Site Entrance details are provided in the revised construction plans (sheet CE 24).

5. Show the limits of the proposed swales to be constructed for each driveway connection [MARTIN COUNTY, FLA., LDR SECTION 4.843.D].

Site Entrance details are provided in the revised construction plans (sheet CE 24).

6. Demonstrate how the proposed swales will be constructed to ensure the adequate water storage necessary at the driveway locations. Provide adequate contour grade lines and elevations of proposed swales on construction plans and section details [MARTIN COUNTY, FLA., LDR SECTION 4.843.D].

Site Entrance details are provided in the revised construction plans (sheet CE 24).

7. Provide a section detail for the proposed swales to be constructed within the right-of-way [MARTIN COUNTY, FLA., LDR SECTION 4.843.D].

Site Entrance details are provided in the revised construction plans (sheet CE 24).

8. Provide a profile grade section for the proposed driveways demonstrating the proposed change in grade from the existing edge of pavement to the proposed pathways at the right-of-way. The maximum change in grade is 6% [MARTIN COUNTY, FLA., LDR SECTION 4.845.G].

Site Entrance details are provided in the revised construction plans (sheet CE 24).

9. Revise Driveway Section 1-1 to be consistent with Martin County Standard Detail R-10 pavement section for local roads [MARTIN COUNTY, FLA., LDR SECTION 4.843.A].

Site Entrance details are provided in the revised construction plans (sheet CE 24).

Item #2

Stormwater Management Report Pre-Development

1. Existing wetland limits should be identified on the survey. [Martin County, Fla., LDR Section 4.384.A.3.a.(1)]

The Specific purpose survey identifying the wetland limits, the existing stormwater management facilities and water levels is enclosed.

2. Existing stormwater management facilities, including pipes and control structures, should be identified on the survey with invert elevations shown. Elevations of existing drainage ditches should be identified on the survey. [Martin County, Fla., LDR Section 4.384.A.3.a.(6)]

The Specific purpose survey identifying the wetland limits, the existing stormwater management facilities and water levels is enclosed.

3. Water levels of existing ponds and wetlands, including seasonal fluctuations, should be shown on the survey. [Martin County, Fla., LDR Section 4.384.A.3.a.(4)]

The Specific purpose survey identifying the wetland limits, the existing stormwater management facilities and water levels is enclosed.

4. Wells and septic systems should be identified for the off-site properties adjacent to the SW comer of the site. [Martin County, Fla., LDR Section 4.348.A.4]

The location of the existing well and septic system at 16801 SW Morgan Street has been shown on the revised construction plans (sheet CE 11).

5. There are several locations where the project site receives discharge from, and delivers discharge to, off-site adjacent properties. Drainage basin boundaries are not limited by property lines, and should extend off-site to encompass the entire drainage area. Corresponding flow arrows and project outfall arrows should be added to the pre/post development drainage plans to depict off- site run-on and run-off, and the stormwater model should be updated accordingly. [Martin County, Fla., LDR Section 4.384.A.3.a.(5)]

The pre and post development drainage maps and stormwater modeling is reflective of the field conditions based on field surveys and personal interviews with abutting property owners. The Site is bounded on all 4 sides by developed and improved lands.

FPL has been working with nearby residents to address their questions regarding the project and drainage impacts. FPL held an "Open House" or neighborhood meeting on May 5, 2018 at the Indiantown Civic Center to solicit input from the surrounding stakeholders. Individual invitations were mailed to all property owners within 1,500 feet of the property, as well as all landowners within Little Ranch Estates, the abutting residential subdivision. Public comments were noted and individual follow-up meetings in the field were held with several property owners along the south property line.

• South Property Line

C&T and FPL conducted site visits with individual property owners to witness their drainage patterns during the month of May 2018 at 15801, 16251, 16350 and 16601 SW Morgan Street. Historical rainfalls occurred during the month, with rainfall data recorded by one of the property owners, which exceeded 22 inches for the month. We observed that the drainage at several existing properties was restricted and was ponding before discharging to the FPL property. In one location, the site drained to the south and into the abutting pond.

Additional field surveys were conducted to record the water levels in the abutting ponds and ponded areas, as well to confirm our understanding of the direction of the sheet flow, which was previously observed during Hurricane Irma. This additional information has been added to the construction plans and was then used to confirm the design grades of the prosed swale depicted on sheets CE 11, 12 and 13 of the Civil Construction Plans. Additional information was added on these sheets of the Construction Plans to address the existing areas where ponding occurred.

As confirmed by the additional surveys of the abutting landowners, the construction of the south property line swale will address the historical flows and thus the project will have no adverse impacts.

North Property Line

Interviews with the abutting landowner, who was also the previous landowner of the proposed solar site, were conducted to establish historical drainage patterns. The historical rainfall events, which occurred in May 2018, allowed us the opportunity to confirm our prior discussion with the landowner and observed drainage patterns. Survey crews, again documented that the depressional areas, as shown on sheet CE 5, located north of Wetland LK-WL1, flowed to the north, and thus will not be impacted by development of the project.

The depressional areas along the northeasterly property line, as shown on sheet CE 6 near wetlands LK-WL10B and EN-WL11, were not observed to be flowing south into the site as previously discussed with the property owner.

• East Property Line

Troup Indiantown Drainage District Relief Canal lies within the 100-foot easement along the east property line and has historically drained approximately 470 acres of the site.

6. Some stage/storage values are inconstant with the existing/proposed grades. For

example: The pre-development depressional storage for Basin 10 is listed as 6.65 acres in the stage storage table, however it appears to be only 0.81 acres when measured on the plans. Check all stage/storage tables to ensure they are consistent with existing/proposed grades.

Acknowledged, see the revised stormwater calculations.

7. Pre-development calculations (pages 161-252 of the report) are labeled as "Appendix 3 - Post Development Analysis". This should state: "Appendix 2 - Pre-Development Analysis".

Acknowledged, see the revised stormwater calculations.

Item #3

Stormwater Management Report Pre-Development

1. It is not clear how the wetland control elevations were determined, as they were not identified in the survey, nor listed in the environmental report. Provide backup documentation supporting the elevations listed on the plans and Table No. 5 (Page 20) of the stormwater report.

A specific purpose survey identifying the approved wetland delineations and control elevations is enclosed. These wetland control elevations, which are designed to maintain and restore the natural wetland hydroperiods, were established by field surveys performed by the project's environmental consulting team and then surveyed by the project's surveyor. FDEP conducted field verification and approved the wetland elevations delineated on the survey.

2. Provide supporting documents for outfall tailwater conditions. The current stormwater model indicates the same tailwater elevations for 10-year, 25-year, and 100-year storm events.

Please see the revised Stormwater Calculation, which includes the tailwater conditions for the various stormwater events.

In addition, please also find enclosed a copy of the Troup Indiantown Water Control District Relief Canal Analysis, performed by Culpepper & Terpening, Inc. dated September 24, 2018.

3. Culvert pipe WL22 in the post-development ICPR model changes pipe size from upstream to downstream.

Acknowledged, please see the revised Stormwater Calculations.

4. Martin County's water quality criterion of 3" x site impervious percentage was not calculated. [Martin County, Fla., LDR Section 4.385.F.4]

Acknowledged, please see the revised Stormwater Calculations.

5. Proposed stormwater runoff cannot directly discharge to wetlands/wetland-buffers. Water quality pre-treatment should be provided before discharge occurs. [Martin

County, Fla., LDR Section 4.385.E.1.a]

Additional grading has been added to the revised Construction Plans, see sheet CE-21to insure that water quantity treatment is provide via "Vegetated Natural Buffers" prior to sheet flowing into the wetland preserve areas.

6. Additional 125% of water quality volume should be provided if using dry detention for treatment. [Martin County, Fla., LDR Section 4.385.F.4.c.(5)]

Acknowledged, although dry detention is not being proposed for the project, a factor of 125% has been applied to determine the water quality volume required for the "Vegetated Natural Buffers".

7. The 100-year 3-day storm event as listed in Table No.3 (Page 16) of the stormwater report indicates a routed storm event. The 100-year 3-day storm should be analyzed with zero-discharge conditions. [Martin County, Fla., LDR Section 4.385.B.15.a]

Acknowledged, the 100-year 3-day event was analyzed with zero discharge. We have revised Table 3 to reflect this condition.

8. The outfall control structure table, Table No.3 (Sheet CEl 8) of the construction plans, shows structures with top of weir elevations less than the peak stage of the 25-year 3-day stormwater event. Revise "WE ELEV." to be greater than the peak stage of the 25-year 3-day storm event as summarized on Table No. 3 (Page 16) of the stormwater report. [Martin County, Fla., LDR Section 4.385.D.3.]

The Outfall Control Structure, Table 3 on sheet CE 17 has been revised.

9. Staff noticed the inverter pad elevations were designed to the 25-year 3-day storm event. Please confirm that the inverter pad elevations were not intended to meet the 100-year 3-day storm event.

The inverter is not set "On Grade." It is set on support post raised a minimum of 12" above grade or above the 100 yr. 3 day event, whichever is greater, please see Table No. 4 on sheet CE 19.

Item # 4
Stormwater Management Construction Plans

1. Revise all property line section details to demonstrate how the minimum berm elevation for the site is met. [Martin County, Fla., LDR Section 4.384.A.3]

Revised berm details are proved in the construction plans (sheet CE 18 and CE 19).

2. Provide adequate contour grade lines to demonstrate how the minimum berm elevation for the entire site is met. Label perimeter berm control throughout construction plans for each stormwater basin. [Martin County, Fla., LDR Section 4.385.A.3]

The construction plans have been revised to depict the minimum berm elevations for each basin.

3. Grading sections indicate "see plan" for elevations; however, no grade elevations are provided on the plans. [Martin County, Fla., LDR Section 4.385.A.3]

As discussed at the staff review meeting, the elevations have been provided in the plan view sections of the plans.

4. Demonstrate the proposed section F-W Flow Ways is constructed to be at least one foot above the seasonal high groundwater table for each respective flow way location. [Martin County, Fla., LDR Section 4.385.F.4.a]

The flowways are designed as part of the site's stormwater conveyance system. The flowways are designed to convey water between the wetland preserve areas, with the upstream invert located downstream of the wetland control structure and are not included as part of the stormwater treatment calculations.

5. Describe the permanent wetland impact labeled at WL-11 and WL-23/23A.

Impacts to wetland WL-11 are a permanent impact (0.13 acres), which is required in order to construct the required perimeter control berm.

Impacts to WL -23/23A are an existing condition. This is an existing path that crosses the wetlands which is proposed for limited use during construction and will be restored in accordance with the PAMP.

6. Provide a dewatering plan specifying the method of dewatering of the proposed borrow pit.

No dewatering is proposed during construction, the borrow pit will be excavated in the wet condition.

7. Label the separation to be provided between the proposed borrow pit and the existing wetland. A minimum 200 foot separation is required unless an alternate plan utilizing an impermeable barrier is approved.

As discussed at the workshop, the County's current regulations eliminate the need for a 200' separation or impermeable barrier if there is no gradient differential. The Borrow Pit design water level was set at the same normal water elevation in Wetland WL 23/23A, thus impermeable barriers or a 200' separation are not required. In addition, there is no hydraulic outfall for the Borrow Pit, thus eliminating the opportunity to have a lower water elevation than the abutting wetland.

8. The Site Data table on the Major/Final Site Plan is not consistent with the Site Data table on Sheet CE2 of the construction plans. Revise the Site Data tables to include the proposed wetlands and borrow pit/lake as impervious areas.

The Site Data table on the Final Site Plan has been revised.

9. The SWPPP plans are missing a BMP for temporary road that will be impacted by construction activities in wetland 23/23A.

The SWPP plans, sheet CE 14 and CE 15 have been revised to address the BMP for the borrow pit temporary road.

10. The substation pad dimension labeled on the Major/Final Site Plan is not consistent with the dimensions labeled within the construction plans; revise accordingly.

The substation pad (aka Solar Collector Yard) labeling on the Final Site Plan has been revised.

11. Label the finish floor elevations for all inverter pads and substation on the Major/Final Site Plan and construction plans. [Martin County, Fla., LDR Section 4.385.B]

As requested FFE have been added to the inverter on both the revised Site Plan and revised construction plans, see Table 4 on sheet CE 19.

12. The service path dimension labeled on section detail N-N is not consistent with the construction plans; revise accordingly.

The service path section detail N-N, sheet 18 has been revised to reflect the 12 foot path conditions.

13. Label the existing ditch located north of WCS-WLl in Basin-D4 as to remain or to be filled.

The revised construction plans now reflect the filling of the existing ditch, north of WCS - WL1, depicted on sheet CE 5.

14. Provide additional outfall control structure details illustrating how the proposed weir plate will be incorporated into the drainage box structure. Demonstrate how the flow water will be accepted into the proposed drainage box structure.

Additional outfall construction details have been proved on sheet CE 17.

15. Label the pipe outfall end treatments for all outfall control structures. Provide an end treatment detail on the construction plans.

The pipe outfalls and end treatments for all outfall control structures have been shown on the revised construction plans. OCS WL 12, WL 13B, WL 15, WL 16A all outfall into a ditch and are proposed to be cantilevered 2 foot into the ditch section. The outfalls into the Relief Canal are depicted on sheets CE 20 and CE 21. OCS D23B proposes to utilize an existing outfall pipe and thus no modifications are proposed.

16. Identify with the appropriate symbol OCS WL13B on the construction plans.

The OCS symbol for WL13B has been revised on sheet CE 7.

17. Demonstrate that all panel arrays can be accessed from the proposed service path. The current configuration of the service path does not appear to extend to the limits for all proposed arrays.

As shown on the panel array pictures provide to the County, grassed strips between arrays allows access to the panels.

18. Label the route of all proposed conduits from inverter pads to the substation or provide a note on the construction plans specifying that no proposed conduits shall be placed within an existing wetland or wetland buffer area.

A new note on sheet CE 2 has been added which states "No proposed conduits, collector lines nor other improvements may be constructed within the delineated wetlands and wetland buffers."

N. Determination of compliance with addressing and electronic file submittal requirements

- Growth Management and Information Technology Departments

Addressing

Findings of Compliance:

Agree

Electronic File Submittal

Findings of Compliance:

Agree

O. Determination of compliance with utilities requirements - Utilities Department

Water and Wastewater Service

Findings of Compliance:

Agree

Wellfield and Groundwater Protection

Findings of Compliance:

Agree

P. Determination of compliance with fire prevention and emergency management requirements – Fire Rescue Department

Fire Prevention

Findings of Compliance:

Agree

Q. Determination of compliance with Americans with Disability Act (ADA) requirements - General Services Department

Findings of Compliance:

Agree

R. Determination of compliance with Martin County Health Department and Martin County School Board

Martin County Health Department

N/A

Martin County School Board

N/A

S. Determination of compliance with legal requirements - County Attorney's Office

Review On-going.

T. Determination of compliance with the adequate public facilities requirements - responsible departments

Acknowledged.

U. Post-approval requirements

Item #1: Acknowledged.

Item #2: Acknowledged.

Item #3: Acknowledged.

Item #4: Acknowledged.

Item #5: Acknowledged.

Item #6: Acknowledged.

Item #7: Acknowledged.

Item #8: Acknowledged.

Item #9: Acknowledged.

Item #10: Acknowledged.

Item #11: Acknowledged.

Item #12: Acknowledged.

Item #13: Acknowledged.

Item #14: Acknowledged.

Item #15: Acknowledged.

V. Local, State, and Federal Permits

Approval of the development order is conditioned upon the applicant's submittal of all required applicable Local, State, and Federal Permits, to the Growth Management Department (GMD), prior to the development order approval as Option 1 has been elected by the applicant pursuant to Section 10.9.A., Martin County, Fla. (2017).

Item #1:

STORMWATER MGMT PERMITS The following permits must be obtained prior to approval:

1. South Florida Water Management District (SFWMD) Environmental Resource Permit (ERP)

As discussed at the workshop, the Florida Department of Environmental Protection (DEP) is the agency responsible for issuing the ERP permit for this project. The enclosed FDEP ERP No. 43-0360733-002-EI is the only permit required prior to County Commission approval.

- 2. South Florida Water Management District (SFWMD) Dewatering Permit A Dewatering permit is not required.
- 3. Florida Department of Environmental Protection (FDEP) NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities This permit will be submitted prior to the commencement of construction.
- 4. Army Corps of Engineers (ACOE) Permit (if applicable)

 This permit will be submitted prior to the commencement of construction.
- 5. Martin County Right-of-Way Use Permit

This permit will be submitted prior to the commencement of construction.

Item #2:

ENVIRONMENTAL PERMITS The following permits must be obtained prior to approval:

Ms. Nicki van Vonno October 4, 2018 Page 19

1. USACOE permit with consultation from the USFWS.

This permit will be submitted prior to the commencement of construction.

2. SFWMD or FDEP ERP permit.

See FDEP ERP enclosed.

3. FWC listed species permit or plan, if applicable, prior to commencement of construction.

This permit, if applicable, will be submitted prior to the commencement of construction.

W. Fees

Acknowledged.

X. General application information

Acknowledged.

Y. Acronyms

Acknowledged.

Z. Attachments

N/A

We believe that the above responses and revised documents satisfactorily address all staff concerns. Thank you for your cooperation in this matter. Should you have any questions or if I may be of further assistance, please do not hesitate to contact me.

Sincerely

Joshua I. Long, AICP

cc: Client

Robert S. Raynes, Jr., Esq.

Enclosures

WPB_ACTIVE 8935164.1

SPECIFIC PURPOSE WETLAND SURVEY SWEETBAY SOLAR ENERGY CENTER

LYING IN SECTIONS 19, 29 & 30, TOWNSHIP 39 SOUTH,
RANGE 39 EAST,
MARTIN COUNTY, FLORIDA

LEGAL DESCRIPTION

(AS FURNISHED BY FIDELITY NATIONAL TITLE INSURANCE COMPANY - ORDER NUMBER 6422427)

PARCEL

A PARCEL OF LAND LYING IN AND BEING A PART OF SECTION 19 AND SECTION 20, TOWNSHIP 39 SOUTH, RANGE 39 EAST, MARTIN COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF SAID SECTION 19; THENCE BEAR NORTH 00° 16′ 55" EAST ALONG THE WEST LINE OF SAID SECTION 19, A DISTANCE OF 2017.23 FEET TO THE POINT OF INTERSECTION WITH A LINE 2017.23 FEET (AS MEASURED AT RIGHT ANGLES) NORTH OF AND PARALLEL WITH THE SOUTH LINE OF SAID SECTION 19; THENCE BEAR SOUTH 89° 47′ 35" EAST ALONG SAID PARALLEL LINE, A DISTANCE OF 4094.01 FEET TO A POINT ON THE CENTERLINE OF THE TROUP INDIANTOWN DRAINAGE DISTRICT CANAL 1; THENCE BEAR SOUTH 33° 14′ 43" EAST, ALONG SAID TROUP INDIANTOWN DRAINAGE DISTRICT CANAL 1, A DISTANCE OF 2366.86 FEET TO A POINT ON THE NORTH LINE OF SAID SECTION 20; THENCE BEAR NORTH 89° 42′ 04" WEST, A DISTANCE OF 103.07 FEET TO THE SOUTHEAST CORNER OF SAID SECTION 19; THENCE BEAR NORTH 89° 47′ 35" WEST, ALONG THE NORTH LINE OF SAID SECTION 19, A DISTANCE OF 5319.73 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPT THE WEST 50.00 FEET THEREOF FOR THE RIGHT-OF-WAY OF ALLAPATTAH ROAD.

SUBJECT TO AN EASEMENT FOR THE TROUP INDIANTOWN DRAINAGE DISTRICT CANAL OVER THE EASTERLY 100 FEET THEREOF. TOGETHER WITH:

A PARCEL OF LAND LYING IN AND BEING A PART OF SECTION 30 AND SECTION 29, TOWNSHIP 39 SOUTH, RANGE 39 EAST, MARTIN COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF SAID SECTION 30; THENCE BEAR SOUTH 89° 47′ 35″ EAST ALONG THE NORTH LINE OF SAID SECTION 30, A DISTANCE OF 5319.73 FEET TO THE NORTHEAST CORNER OF SAID SECTION 30, ALSO KNOWN AS THE NORTHWEST CORNER OF SAID SECTION 29; THENCE BEAR SOUTH 89° 42′ 04″ EAST ALONG THE NORTH LINE OF SAID SECTION 29, A DISTANCE OF 103.07 FEET TO A POINT ON THE CENTERLINE OF THE TROUP INDIANTOWN DRAINAGE DISTRICT CANAL 1; THENCE BEAR SOUTH 13° 43′ 42″ EAST ALONG THE CENTERLINE OF SAID TROUP INDIANTOWN DRAINAGE DISTRICT CANAL 1, A DISTANCE OF 570.69 FEET TO THE POINT OF INTERSECTION WITH A LINE 513.12 FEET (AS MEASURED AT RIGHT ANGLES) SOUTH OF AND PARALLEL WITH THE NORTH LINE OF SAID SECTION 30; THENCE BEAR NORTH 89° 47′ 35″ WEST ALONG SAID PARALLEL LINE THROUGH SAID SECTION 29 AND INTO SAID SECTION 30, A DISTANCE OF 5549.45 FEET TO THE WEST LINE OF SAID SECTION 30; THENCE BEAR NORTH 00° 08′ 12″ EAST ALONG SAID WEST LINE OF SECTION 30. A DISTANCE OF 513.12 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPT THE WEST 50.00 FEET THEREOF FOR THE RIGHT-OF-WAY OF ALLAPATTAH ROAD.

SUBJECT TO AN EASEMENT FOR THE TROUP INDIANTOWN DRAINAGE DISTRICT CANAL OVER THE EASTERLY 100 FEET THEREOF.

PARCEL 2:

A PARCEL OF LAND LYING IN AND BEING A PART OF SECTION 29 AND SECTION 30, TOWNSHIP 39 SOUTH, RANGE 39 EAST, MARTIN COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF SAID SECTION 30; THENCE BEAR SOUTH 00° 08' 12" WEST ALONG THE WEST LINE OF SAID SECTION 30, A DISTANCE OF 513.12 FEET TO THE POINT OF INTERSECTION WITH A LINE 513.12 FEET (AS MEASURED AT RIGHT ANGLES) SOUTH OF AND PARALLEL TO THE NORTH LINE OF SAID SECTION 30, SAID POINT OF INTERSECTION ALSO BEING THE POINT OF BEGINNING; THENCE BEAR SOUTH 89' 47' 35" EAST ALONG SAID PARALLEL LINE THROUGH SAID SECTION 30 AND INTO SAID SECTION 29, A DISTANCE OF 5549.45 FEET TO A POINT IN THE CENTERLINE OF THE TROUP INDIANTOWN DRAINAGE DISTRICT CANAL 1; THENCE BEAR SOUTH 13' 43' 42" EAST, ALONG THE CENTERLINE OF SAID TROUP INDIANTOWN DRAINAGE DISTRICT CANAL 1, A DISTANCE OF 2195.43 FEET TO A POINT ON THE SOUTH LINE OF THE NORTH 1/2 OF SAID SECTION 29; THENCE BEAR NORTH 89' 37' 11" WEST ALONG THE SOUTH LINE OF THE NORTH 1/2 OF SAID SECTION 30; THENCE BEAR NORTH 89' 59' 33" WEST, ALONG THE SOUTH LINE OF THE NORTH 1/2 OF SAID SECTION 30, A DISTANCE OF 5310.09 FEET TO THE SOUTHWEST CORNER OF THE NORTH 1/2 OF SAID SECTION 30; THENCE BEAR NORTH 00' 08' 12" EAST ALONG THE WEST LINE OF SAID SECTION 30, A DISTANCE OF 2146.99 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPT THE WEST 50.00 FEET THEREOF FOR A RIGHT-OF-WAY OF ALLAPATTAH ROAD.

SUBJECT TO AN EASEMENT FOR THE TROUP INDIANTOWN DRAINAGE DISTRICT CANAL 1 OVER THE EASTERLY 100 FEET THEREOF.

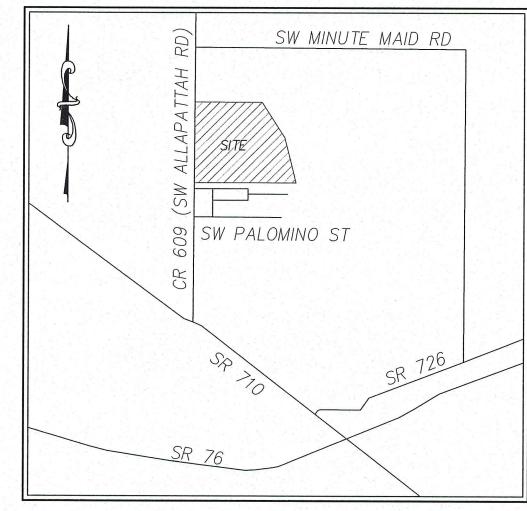
SAID LANDS COLLECTIVELY BEING MORE PARTICULARLY DESCRIBED AS SURVEYED AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF SECTION 30, TOWNSHIP 39 SOUTH, RANGE 39 EAST; THENCE RUN S89'57'53"E, A DISTANCE OF 50.00 FEET TO A POINT ON THE EAST RIGHT OF WAY LINE OF COUNTY ROAD 609, ALSO KNOWN AS ALLAPATTAH ROAD (BEING A 100 FOOT WIDE RIGHT OF WAY PER FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP, SECTION 89001–2502) AND THE POINT OF BEGINNING; THENCE RUN NO0'07'56"E ALONG SAID EAST RIGHT OF WAY A DISTANCE OF 2017.24 FEET; THENCE DEPARTING SAID EAST RIGHT OF WAY RUN S89'57'53"E, A DISTANCE OF 4055.00 FEET TO A POINT ON THE CENTERLINE OF THE TROUP INDIANTOWN DRAINAGE DISTRICT CANAL 1 (A 200 FOOT WIDE EASEMENT PER OFFICIAL RECORDS BOOK 221, PAGE 365); THENCE RUN ALONG SAID CENTERLINE THE FOLLOWING TWO (2) COURSES AND DISTANCES: \$33'25'18"E, A DISTANCE OF 2368.99 FEET; THENCE \$13'54'17"E, 2768.11 FEET TO A POINT ON THE SOUTH LINE OF THE NORTH 1/2 OF SECTION 29, TOWNSHIP 39 SOUTH, RANGE 39 EAST; THENCE DEPARTING SAID CENTERLINE RUN ALONG SAID SOUTH LINE N89'47'10"W, A DISTANCE OF 765.81 FEET TO THE SOUTHEAST CORNER OF THE NORTH 1/2 OF SECTION 30, TOWNSHIP 39 SOUTH, RANGE 39 EAST; THENCE RUN \$89'50'28"W ALONG THE SOUTH LINE OF THE NORTH 1/2 OF SAID SECTION 30, A DISTANCE OF 5262.30 FEET TO A POINT ON THE AFOREMENTIONED EAST RIGHT OF WAY LINE OF COUNTY ROAD 609; THENCE RUN ALONG SAID EAST RIGHT OF WAY NOO'02'04"W, A DISTANCE OF 2661.25 FEET TO THE POINT OF BEGINNING.

SAID LANDS CONTAINING 24,645,562 SQUARE FEET (565.78 ACRES) MORE OR LESS.



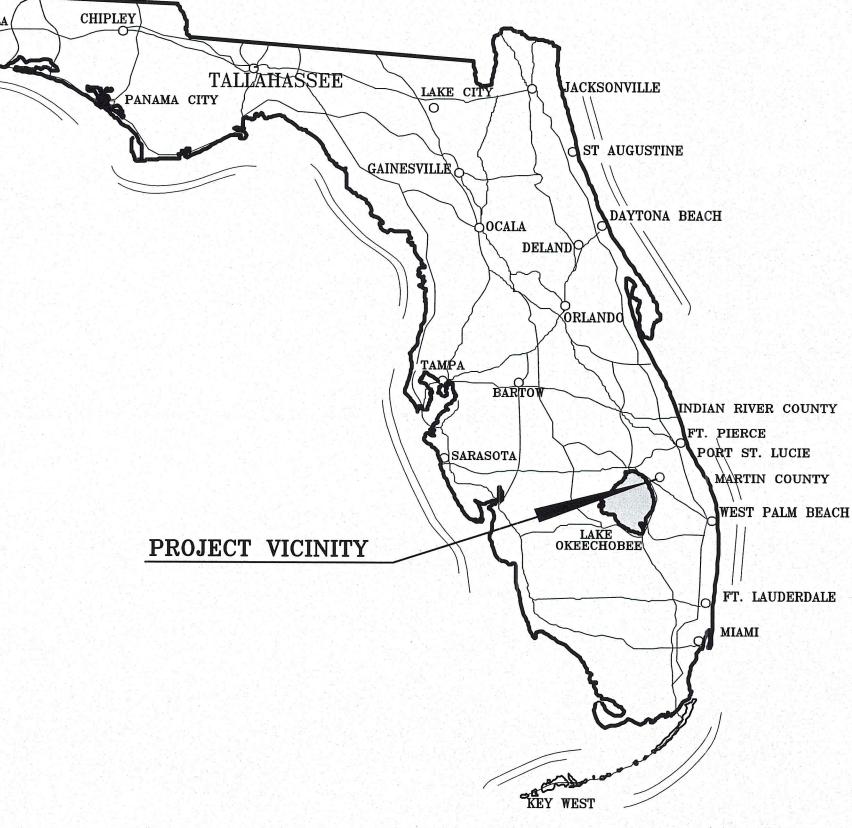
10/3/18
SIGNATURE DATE



LOCATION MAP NOT TO SCALE

NOTES:

- Not valid without the signature and the original raised seal of a Florida Licensed Surveyor and Mapper.
 Lands shown hereon were not abstracted by this office for right—of—ways, Reservations, Agreements, and/or Easements of Record. Such information should be obtained and confirmed by others through appropriate title verification.
- 3) Additions or deletions to survey maps or reports by other than the signing party or parties is prohibited without written consent of the signing party or parties.
- 4) The Specific Purpose of this survey is to locate and map Wetland Jurisdictional Delineation Locations (as determined by ECT Environmental Consulting & Technology, Inc.) in relation to the boundary of the site, in conformance with Chapter 51—17 Florida Administrative Code.
- 5) The boundary depicted hereon was provided by the client and was prepared by Dewberry, dated 8—01—2017, Project No. 50093456. This specific purpose survey is not a Boundary Survey of the site.
- 6) Coordinates of wetland flag locations shown hereon are relative to and expressed in the Florida State
 Plane Coordinate System, East Zone (901), North American Datum of 1983/2011 Adjustment US Survey Feet.
- 7) Wetland jurisdictional delineations were determined and flagged by ECT Environmental Consulting & Technology, Inc., February 07, 2018 and field verified by Florida Department of Environmental Protection (FDEP).
- 8) Wetland Control Elevations (WCE) are referenced from field elevations as established by ECT Environmental Consulting & Technology, Inc. and approved by Florida Department of Environmental Protection (FDEP).



SHEET 1 OF 3

VICINITY MAP NOT TO SCALE

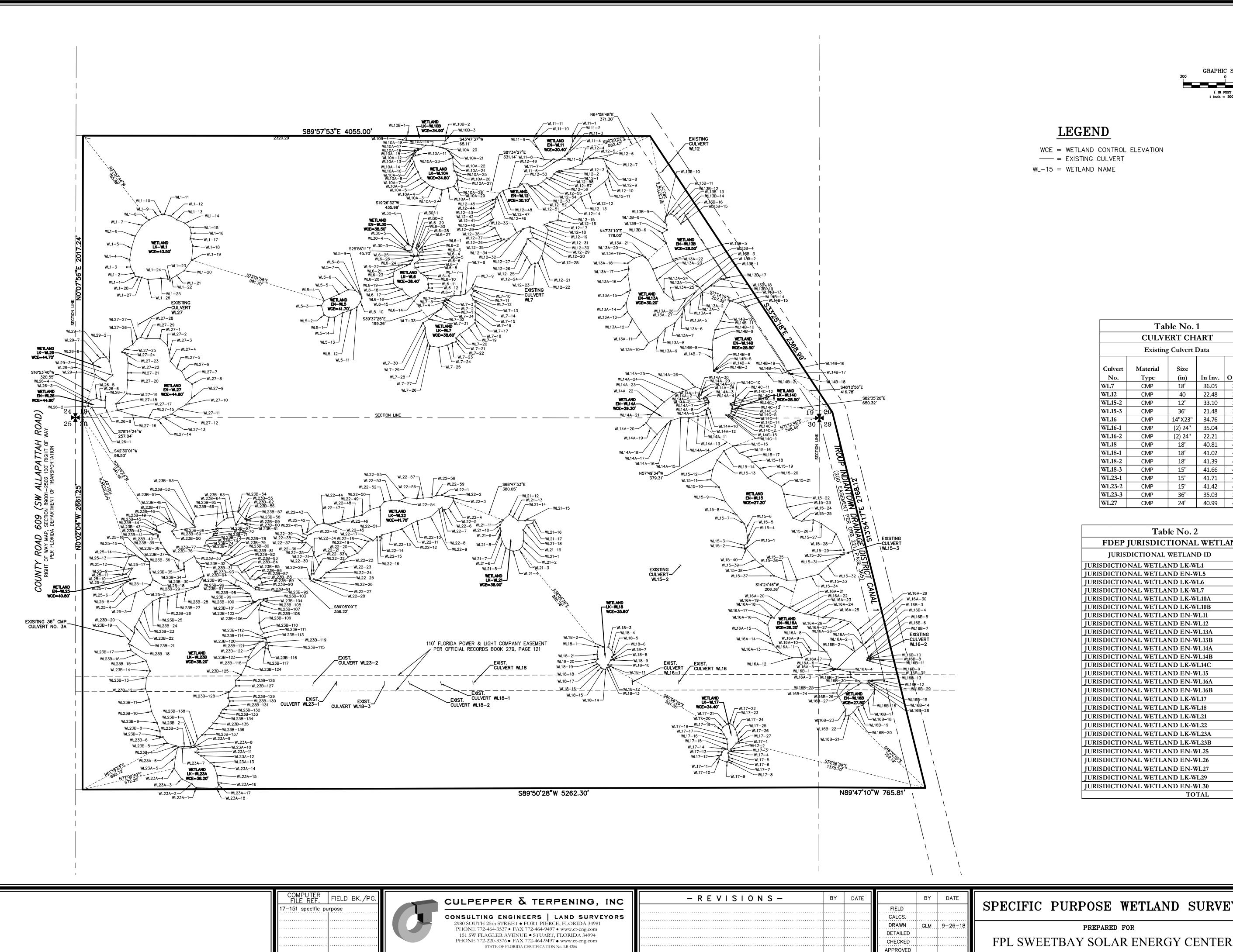
PREPARED BY

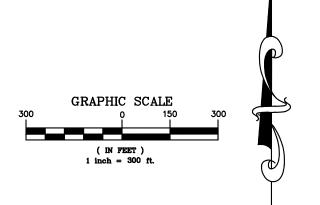
CULPEPPER & TERPENING, INC

2980 SOUTH 25th STREET
FORT PIERCE, FLORIDA 34981
PHONE 772-464-3537 FAX 772-464-9497
www.ct-eng.com
151 SW FLAGLER AVENUE
STUART, FLORIDA 34994
PHONE 772-220-3376 FAX 772-464-9497

www.ct-eng.com STATE OF FLORIDA CERTIFICATION No. LB 4286 - REVISIONS - BY DATE

FILE NAME: 17-151 SPECIFIC PURPOSE.dwg





LEGEND

WCE = WETLAND CONTROL ELEVATION ---- = EXISTING CULVERT

WL-15 = WETLAND NAME

	Tal	ole No.	1	
	CULVE	ERT CH	ART	
	Existing	g Culvert 1	Data	
Culvert	Material	Size		
No.	Туре		In Inv.	Out Inv.
WL7	CMP	(in) 18"	36.05	35.86
WL12	CMP	40	22.48	23.00
WL15-2	CMP	12"	33.10	33.41
WL15-3	CMP	36"	21.48	21.66
WL16	CMP	14"X23"	34.76	34.60
WL16-1	CMP	(2) 24"	35.04	34.91
WL16-2	CMP	(2) 24"	22.21	22.09
WL18	CMP	18"	40.81	40.37
WL18-1	CMP	18"	41.02	40.97
WL18-2	CMP	18"	41.39	41.14
WL18-3	CMP	15"	41.66	41.89
WL23-1	CMP	15"	41.71	41.92
WL23-2	CMP	15"	41.42	41.80
WL23-3	CMP	36"	35.03	35.18
WL27	CMP	24"	40.99	41.00

Table No. 2 FDEP JURISDICTIONAL WETL	ANDS
JURISDICTIONAL WETLAND ID	ACRES
JURISDICTIONAL WETLAND LK-WL1	3.81
JURISDICTIONAL WETLAND EN-WL5	0.83
JURISDICTIONAL WETLAND LK-WL6	1.05
JURISDICTIONAL WETLAND LK-WL7	2.16
JURISDICTIONAL WETLAND LK-WL10A	1.68
JURISDICTIONAL WETLAND LK-WL10B	0.22
JURISDICTIONAL WETLAND EN-WL11	0.83
JURISDICTIONAL WETLAND EN-WL12	6.04
JURISDICTIONAL WETLAND EN-WL13A	3.45
JURISDICTIONAL WETLAND EN-WL13B	2.74
JURISDICTIONAL WETLAND EN-WL14A	1.67
JURISDICTIONAL WETLAND EN-WL14B	3.98
JURISDICTIONAL WETLAND LK-WL14C	0.13
JURISDICTIONAL WETLAND EN-WL15	9.57
JURISDICTIONAL WETLAND EN-WL16A	4.18
JURISDICTIONAL WETLAND EN-WL16B	2.04
JURISDICTIONAL WETLAND LK-WL17	0.42
JURISDICTIONAL WETLAND LK-WL18	0.33
JURISDICTIONAL WETLAND LK-WL21	0.84
JURISDICTIONAL WETLAND LK-WL22	5.25
JURISDICTIONAL WETLAND LK-WL23A	1.48
JURISDICTIONAL WETLAND LK-WL23B	20.86
JURISDICTIONAL WETLAND EN-WL25	0.96
JURISDICTIONAL WETLAND EN-WL26	0.15
JURISDICTIONAL WETLAND EN-WL27	4.89
JURISDICTIONAL WETLAND LK-WL29	0.37
JURISDICTIONAL WETLAND EN-WL30	0.04
TOTAL	79.97+/

	DATE: 9-26-2018 HORIZ. SCALE: 1"=3 VERT. SCALE: N\A
PREPARED FOR	100 No. 177 1

HORIZ. SCALE: 1"=300' VERT. SCALE: N\A | JOB No. 17 - 151SHEET 2 OF 3

WL1-1 992402.76 825088.49 WL1-2 992425.37 825077.74 WL1-3 992469.86 825052.25 WL1-4 992522.37 825046.79	WL5-9 992250.52 826707.25 WL5-10 992219.86 826697.98	WL7-1 992212.27 827288.45				POINT ID NORTHING EASTING	POINT ID NORTHING EASTING	POINT ID NORTHING EASTING	POINT ID NORTHING EASTING	POINT ID NORTHING EASTING
WL1-3 992469.86 825052.25 WL1-4 992522.37 825046.79	WL5-10 992219.86 826697.98		WL10A-3 993040.06 827217.29	WL11-6 993232.13 828103.04	WL12-31 992757.36 827910.30	WL13A-9 991966.20 828826.49	WL13B-18 992384.05 829276.61	WL14B-5 991726.18 829225.90	WL15-7 990632.45 829443.72	WL16A-3 989592.32 830103.94
WL1-4 992522.37 825046.79		WL7-2 992225.82 827297.94	WL10A-4 993053.77 827191.15	WL11-7 993242.74 828078.85	WL12-32 992742.08 827860.78	WL13A-10 991928.54 828758.79	WL13B-19 992335.77 829203.99	WL14B-6 991731.81 829226.34	WL15-8 990696.55 829388.04	WL16A-4 989592.44 830103.37
	WL5-11 992182.23 826672.51	WL7-3 992239.87 827310.86	WL10A-5 993079.40 827158.67	WL11-8 993238.03 828013.87	WL12-33 992715.45 827815.50	WL13A-11 992003.57 828705.99	WL14A-1 991521.85 829121.81	WL14B-7 991816.27 829215.69	WL15-9 990792.14 829307.39	WL16A-5 989594.96 830091.80
	WL5-12 992160.57 826629.42	WL7-4 992231.58 827324.61	WL10A-6 993104.16 827128.66	WL11-9 993313.57 827970.91	WL12-34 992672.39 827760.34	WL13A-12 992098.57 828642.31	WL14A-2 991521.71 829123.83	WL14B-8 991875.67 829213.48	WL15-10 990894.83 829263.02	WL16A-6 989620.25 830048.57
WL1-5 992603.33 825060.01	WL5-13 992141.80 826569.89	WL7-5 992237.42 827326.30	WL10A-7 993149.85 827109.52	WL11-10 993372.27 827935.84	WL12-35 992667.37 827723.90	WL13A-13 992148.32 828607.08	WL14A-3 991539.57 829160.79	WL14B-9 991950.50 829218.87	WL15-11 990948.62 829203.41	WL16A-7 989660.16 830063.24
WL1-6 992689.89 825086.35	WL5-14 992110.94 826512.37	WL7-6 992266.83 827368.49	WL10A-8 993195.14 827086.14	WL11-11 993403.45 827942.90	WL12-36 992672.15 827701.47	WL13A-14 992210.41 828598.07	WL14A-4 991536.10 829172.25	WL14B-10 992020.77 829235.01	WL15-12 991022.17 829217.11	WL16A-8 989715.19 830030.56
WL1-7 992768.26 825136.56	WL6-1 992609.93 827137.66	WL7-7 992267.14 827413.67	WL10A-9 993223.97 827079.38	WL12-1 993150.92 828100.47	WL12-37 992698.43 827685.17	WL13A-15 992303.98 828627.62	WL14A-5 991526.73 829177.46	WL14B-11 992083.59 829273.23	WL15-13 991087.71 829249.80	WL16A-9 989730.00 829918.30
WL1-8 992805.92 825184.66	WL6-2 992589.86 827140.72	WL7-8 992276.75 827448.31	WL10A-10 993250.48 827064.84	WL12-2 993156.92 828117.74	WL12-38 992751.13 827658.95	WL13A-16 992416.28 828609.77	WL14A-6 991514.92 829185.79	WL14B-12 992147.82 829298.22	WL15-14 991153.88 829297.15	WL16A-10 989704.14 829913.48
WL1-9 992837.66 825245.58	WL6-3 992574.69 827122.37	WL7-9 992321.36 827493.64	WL10A-11 993267.12 827090.49	WL12-3 993172.90 828198.04	WL12-39 992767.17 827605.43	WL13A-17 992456.17 828615.67	WL14A-7 991505.55 829188.92	WL14B-13 992227.08 829341.48	WL15-15 991189.19 829364.77	WL16A-11 989675.57 829857.78
WL1-10 992845.25 825276.49	WL6-4 992550.61 827112.48	WL7-10 992309.38 827500.15	WL10A-12 993289.14 827087.34	WL12-4 993206.99 828279.25	WL12-40 992815.86 827647.90	WL13A-18 992497.03 828610.24	WL14A-8 991495.13 829185.10	WL14B-14 992211.46 829395.53	WL15-16 991137.51 829408.69	WL16A-12 989674.94 829785.68
WL1-11 992846.07 825293.73	WL6-5 992521.27 827121.09	WL7-11 992299.09 827509.87	WL10A-13 993295.19 827085.57	WL12-5 993240.02 828307.76	WL12-41 992859.63 827628.80	WL13A-19 992533.24 828656.38	WL14A-9 991459.26 829183.09	WL14B-15 992182.85 829447.94	WL15-17 991109.91 829468.05	WL16A-13 989703.71 829708.49
WL1-12 992835.21 825340.66	WL6-6 992495.98 827084.84	WL7-12 992268.08 827489.64	WL10A-14 993289.96 827092.35	WL12-6 993244.93 828339.71	WL12-42 992899.26 827653.81	WL13A-20 992551.67 828712.78	WL14A-10 991451.03 829194.71	WL14B-16 991726.18 829750.36	WL15-18 991074.60 829500.48	WL16A-14 989767.51 829649.68
WL1-13 992808.77 825384.50	WL6-7 992465.88 827088.08	WL7-13 992237.22 827503.46	WL10A-15 993306.72 827107.46	WL12-7 993245.35 828434.39	WL12-43 992932.94 827663.09	WL13A-21 992520.97 828752.57	WL14A-11 991443.30 829172.80	WL14B-17 991707.73 829762.58	WL15-19 991028.56 829552.57	WL16A-15 989818.03 829629.01
WL1-14 992782.33 825444.12	WL6-8 992424.43 827130.08	WL7-14 992221.34 827518.13	WL10A-16 993307.03 827110.14	WL12-8 993195.44 828456.57	WL12-44 992959.32 827665.90	WL13A-22 992454.56 828789.49	WL14A-12 991413.85 829179.14	WL14B-18 991707.32 829762.85	WL15-20 990960.89 829609.44	WL16A-16 989909.87 829609.47
WL1-15 992754.71 825476.56	WL6-9 992409.87 827153.83	WL7-15 992188.05 827517.58	WL10A-17 993314.94 827129.59	WL12-9 993157.96 828464.80	WL12-45 992960.38 827666.70	WL13A-23 992378.06 828819.78	WL14A-13 991401.06 829113.10	WL14B-19 991715.42 829738.10	WL15-21 990899.99 829708.40	WL16A-17 989961.03 829633.43
WL1-16 992712.14 825488.32	WL6-10 992389.86 827177.95	WL7-16 992144.65 827519.91	WL10A-18 993340.14 827163.67	WL12-10 993108.26 828471.80	WL12-46 992971.83 827675.31	WL13A-24 992288.36 828868.38	WL14A-14 991391.17 829043.70	WL14C-1 991410.91 829310.43	WL15-22 990846.54 829725.58	WL16A-18 989958.70 829653.95
WL1-17 992672.92 825481.61 WL1-18 992619.48 825499.79	WL6-11 992348.70 827182.93	WL7-17 992090.50 827519.59	WL10A-19 993339.22 827212.30	WL12-11 993079.41 828443.95	WL12-47 992997.80 827693.75	WL13A-25 992230.27 828937.81	WL14A-15 991392.25 828987.25	WL14C-2 991412.14 829334.06	WL15-23 990750.83 829749.71	WL16A-19 990013.20 829698.31
WL1-19 992518.39 825490.55	WL6-12 992318.99 827185.93	WL7-18 992070.62 827516.71	WL10A-20 993327.06 827262.29	WL12-12 992995.91 828333.35	WL12-48 993015.12 827716.26	WL13A-26 992248.23 829029.53	WL14A-16 991370.54 828918.29	WL14C-3 991422.56 829347.60	WL15-24 990672.09 829792.33	WL16A-20 990046.89 829728.09
WL1-20 992443.52 825437.57	WL6-13 992302.13 827169.17	WL7-19 992034.09 827475.05	WL10A-21 993311.17 827311.90	WL12-13 992970.14 828272.99	WL12-49 993030.95 827757.73	WL13A-27 992294.90 829098.87	WL14A-17 991349.11 828891.41	WL14C-4 991437.49 829350.72	WL15-25 990650.35 829853.24	WL16A-21 990031.12 829767.59
WL1-21 992410.18 825384.88	WL6-14 992283.32 827123.92	WL7-20 991988.29 827407.91	WL10A-22 993279.10 827342.67	WL12-14 992912.50 828206.32	WL12-50 993042.91 827827.20	WL13B-1 992293.76 829145.18	WL14A-18 991271.96 828818.76	WL14C-5 991452.77 829355.58	WL15-26 990661.77 829936.65	WL16A-22 990005.77 829810.51
WL1-22 992388.36 825347.35	WL6-15 992249.75 827061.99	WL7-21 991960.92 827383.06	WL10A-23 993251.70 827356.59	WL12-15 992862.37 828119.97	WL12-51 993063.58 827855.18	WL13B-2 992321.00 829124.32	WL14A-19 991318.38 828771.99	WL14C-6 991461.45 829358.01	WL15-27 990633.99 829993.90	WL16A-23 989988.04 829880.13
WL1-23 992371.67 825336.74	WL6-16 992272.95 827025.72	WL7-22 991935.11 827381.62	WL10A-24 993204.22 827362.31	WL12-16 992804.32 828109.03	WL12-52 993065.25 827892.49	WL13B-3 992363.79 829091.22	WL14A-20 991352.35 828741.92	WL14C-7 991475.34 829357.32	WL15-28 990562.52 830098.47	WL16A-24 989982.00 829921.23
WL1-24 992383.12 825322.70	WL6-17 992310.60 826995.73	WL7-23 991927.48 827353.89	WL10A-25 993157.03 827368.96	WL12-17 992790.46 828054.17	WL12-53 993048.34 827925.38	WL13B-4 992423.13 829017.55	WL14A-21 991414.50 828778.95	WL14C-8 991483.67 829345.86	WL15-29 990445.50 830154.63	WL16A-25 989961.59 830004.33
WL1-25 992389.00 825272.60	WL6-18 992323.11 826963.45	WL7-24 991910.63 827320.61	WL10A-26 993129.88 827387.62	WL12-18 992772.84 828012.66	WL12-54 993058.38 827968.49	WL13B-5 992522.80 828931.02	WL14A-22 991459.90 828823.92	WL14C-9 991493.05 829342.26	WL15-30 990413.55 830158.40	WL16A-26 989958.73 830074.41
WL1-26 992379.63 825177.19	WL6-19 992351.74 826935.19	WL7-25 991894.66 827257.93	WL10A-27 993094.89 827394.86	WL12-19 992734.15 828041.19	WL12-55 993082.07 828004.34	WL13B-6 992641.18 828883.84	WL14A-23 991504.04 828870.98	WL14C-10 991485.69 829371.41	WL15-31 990396.69 830125.76	WL16A-27 989943.19 830153.73
WL1-27 992395.47 825132.35	WL6-20 992403.03 826930.06	WL7-26 991905.39 827194.80	WL10A-28 993084.15 827388.31	WL12-20 992634.12 828019.44	WL12-56 993107.27 828029.34	WL13B-7 992713.80 828856.25	WL14A-24 991566.18 828952.72	WL14C-11 991536.44 829383.13	WL15-32 990331.20 830040.94	WL16A-28 989927.59 830203.02
WL1-28 992399.07 825112.52	WL6-21 992456.14 826940.71	WL7-27 991929.41 827182.05	WL10A-29 993046.32 827366.19	WL12-21 992550.76 827994.09	WL12-57 993107.48 828061.22	WL13B-8 992735.40 828891.07	WL14A-25 991585.20 829026.45	WL14C-12 991513.89 829428.47	WL15-33 990271.88 829975.21	WL16A-29 989872.24 830256.26
WL5-1 992109.72 826471.48	WL6-22 992485.81 826995.86	WL7-28 991992.83 827162.75	WL10B-1 993409.83 827034.26	WL12-22 992499.77 827967.81	WL12-58 993135.05 828083.39	WL13B-9 992773.33 828887.30	WL14A-26 991613.11 829091.28	WL14C-13 991457.76 829398.71	WL15-34 990256.72 829922.78	WL16A-30 989834.55 830275.39
WL5-2 992127.45 826437.44	WL6-23 992491.03 827051.15	WL7-29 992036.76 827160.65	WL10B-2 993408.85 827306.27	WL12-23 992495.70 827947.64	WL13A-1 992321.00 829124.32	WL13B-10 992803.42 828876.02	WL14A-27 991594.80 829142.61	WL14C-14 991407.44 829372.53	WL15-35 990230.99 829818.95	WL16B-1 989592.32 830103.94
WL5-3 992194.32 826418.47	WL6-24 992519.08 827069.38	WL7-30 992070.70 827145.08	WL10B-3 993374.05 827307.34	WL12-24 992487.68 827918.14	WL13A-2 992293.76 829145.18	WL13B-11 992835.51 828886.07	WL14A-28 991573.84 829145.16	WL14C-15 991400.96 829335.97	WL15-36 990227.44 829746.14	WL16B-2 989718.27 830231.55
WL5-4 992228.99 826439.08	WL6-25 992551.66 827082.09	WL7-31 992096.27 827189.07	WL10B-4 993376.12 827024.41	WL12-25 992540.59 827887.37	WL13A-3 992287.40 829136.27	WL13B-12 992850.00 828917.21	WL14A-29 991553.87 829132.10	WL15-1 990452.50 829447.25	WL15-37 990260.25 829656.17	WL16B-3 989766.03 830294.61
WL5-5 992275.21 826544.62	WL6-26 992548.27 827103.52	WL7-32 992129.15 827219.08	WL11-1 993403.12 828209.40	WL12-26 992580.11 827854.80	WL13A-4 992225.10 829057.75	WL13B-13 992837.19 828942.37	WL14A-30 991537.37 829110.64	WL15-2 990456.96 829447.19	WL15-38 990329.17 829578.69	WL16B-4 989765.46 830294.78 WL16B-5 989739.93 830316.58
WL5-6 992307.67 826608.35	WL6-27 992581.02 827110.20	WL7-33 992168.69 827275.79	WL11-2 993372.57 828217.62	WL12-27 992633.49 827880.88	WL13A-5 992181.76 829012.15	WL13B-14 992811.60 828965.91	WL14B-1 991709.53 829716.30	WL15-3 990478.36 829441.71	WL15-39 990376.10 829519.78	
WL5-7 992302.89 826658.38	WL6-28 992596.16 827102.15	WL7-34 992199.56 827293.55	WL11-3 993309.60 828194.30	WL12-28 992671.36 827892.99 WL12-29 992679.74 827934.77	WL13A-6 992134.99 828998.47	WL13B-15 992778.15 828988.64 WL13B-16 992835.31 829021.37	WL14B-2 991714.99 829601.83 WL14B-3 991713.95 829253.50	WL15-4 990492.25 829464.15	WL15-40 990454.55 829457.24	WL16B-6 989681.01 830332.38 WL16B-7 989671.20 830326.35
WL5-8 992276.74 826696.78	WL6-29 992607.07 827094.86	WL10A-1 993034.19 827325.22	WL11-4 993263.28 828159.68		WL13A-7 992068.80 828946.06			WL15-5 990531.36 829466.56	WL16A-1 989766.03 830294.61	
	WL6-30 992616.89 827108.98	WL10A-2 993021.07 827282.78	WL11-5 993237.00 828117.40	WL12-30 992722.33 827914.53	WL13A-8 992031.79 828880.26	WL13B-17 992392.67 829312.69	WL14B-4 991724.64 829225.78	WL15-6 990599.47 829456.46	WL16A-2 989718.27 830231.55	WL16B-8 989657.55 830320.14

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WL16B-9	989649.43	830338.86	WL17-13	989000.37	829282.91
WL16B-10	989670.68	830343.99	WL17-14	989019.29	829307.41
WL16B-11	989656.75	830411.75	WL17-15	989018.26	829321.87
WL16B-12	989508.49	830443.48	WL17-16	989055.29	829322.21
WL16B-13	989511.34	830333.03	WL17-17	989091.00	829317.68
WL16B-14	989492.99	830336.13	WL17-18	989125.18	829298.22
WL16B-15	989490.08	830371.34	WL17-19	989154.79	829279.49
WL16B-16	989440.62	830374.88	WL17-20	989177.61	829288.52
WL16B-17	989369.93	830327.34	WL17-21	989199.13	829320.46
WL16B-18	989334.81	830290.13	WL17-22	989204.32	829338.95
WL16B-19	989322.10	830252.42	WL17-23	989191.87	829359.41
WL16B-20	989285.15	830223.62	WL17-24	989165.57	829378.90
WL16B-21	989260.46	830192.62	WL17-25	989123.63	829392.04
WL16B-22	989257.28	830167.38	WL17-26	989091.52	829402.50
WL16B-23	989304.66	830168.34	WL17-27	989073.83	829400.13
WL16B-24	989422.25	830103.82	WL18-1	989750.01	828397.56
WL16B-25	989492.87	830129.89	WL18-2	989751.77	828434.56
WL16B-26	989489.43	830192.48	WL18-3	989749.99	828471.13
WL16B-27	989493.73	830280.50	WL18-4	989727.70	828494.01
WL16B-28	989489.64	830324.14	WL18-5	989695.43	828507.36
WL16B-29	989508.84	830330.96	WL18-6	989679.48	828496.54
WL16B-30	989506.78	830266.80	WL18-7	989666.61	828505.81
WL16B-31	989535.94	830206.08	WL18-8	989660.29	828501.82
WL16B-32	989571.33	830200.11	WL18-9	989658.06	828488.03
WL17-1	989060.51	829384.05	WL18-10	989623.19	828468.59
WL17-2	989019.14	829347.27	WL18-11	989613.95	828480.71
WL17-3	989007.79	829349.16	WL18-12	989608.63	828476.33
WL17-4	989005.63	829336.28	WL18-13	989603.22	828459.17
WL17-5	988989.79	829326.11	WL18-14	989589.83	828450.98
WL17-6	988960.98	829332.68	WL18-15	989592.47	828435.72
WL17-7	988941.48	829331.44	WL18-16	989601.48	828416.50
WL17-8	988931.85	829324.81	WL18-17	989621.06	828406.49
WL17-9	988926.91	829319.30	WL18-18	989630.37	828390.92
WL17-10	988946.92	829263.85	WL18-19	989644.94	828379.56
WL17-11	988966.27	829262.42	WL18-20	989665.43	828395.63
WL17-12	988977.60	829276.51	WL18-21	989697.69	828390.92

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WL21-1	990509.51	827864.83
WL21-2	990469.63	827855.71
WL21-3	990446.71	827834.51
WL21-4	990435.51	827790.41
WL21-5	990456.26	827737.93
WL21-6	990506.84	827711.82
WL21-7	990552.31	827697.78
WL21-8	990578.50	827702.80
WL21-9	990601.79	827695.96
WL21-10	990624.48	827697.17
WL21-11	990658.85	827717.96
WL21-12	990699.77	827762.94
WL21-13	990682.47	827788.44
WL21-14	990656.30	827822.20
WL21-15	990654.83	827872.29
WL21-16	990659.45	827942.91
WL21-17	990637.71	827929.15
WL21-18	990624.79	827886.40
WL21-19	990587.19	827862.51
WL22-1	990837.96	827280.64
WL22-2	990827.70	827304.27
WL22-3	990818.36	827362.31
WL22-4	990796.30	827363.63
WL22-5	990741.60	827329.21
WL22-6	990732.03	827294.76
WL22-7	990748.47	827280.09
WL22-8	990735.77	827260.05
WL22-9	990682.29	827199.30
WL22-10	990653.88	827104.78
WL22-11	990634.75	827063.99
WL22-12	990594.84	826994.06
WL22-13	990571.70	826920.89
WL22-14	990551.63	826849.96
WL22-15	990538.24	826837.57
WL22-16	990538.23	826816.36
WL22-17	990513.13	826789.31

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WL22-18	990506.85	826752.33
WL22-19	990455.86	826709.02
WL22-20	990422.55	826677.06
WL22-21	990393.10	826608.34
WL22-22	990351.88	826557.51
WL22-23	990304.09	826497.64
WL22-24	990283.26	826451.24
WL22-25	990245.02	826416.78
WL22-26	990228.53	826378.31
WL22-27	990236.05	826366.48
WL22-28	990225.50	826345.84
WL22-29	990237.68	826337.93
WL22-30	990274.88	826348.23
WL22-31	990275.37	826365.48
WL22-32	990336.37	826401.13
WL22-33	990390.99	826376.39
WL22-34	990406.95	826365.37
WL22-35	990465.30	826349.78
WL22-36	990498.04	826309.24
WL22-37	990496.79	826282.28
WL22-38	990510.05	826280.28
WL22-39	990525.68	826309.81
WL22-40	990549.38	826318.90
WL22-41	990562.79	826287.02
WL22-42	990570.89	826317.19
WL22-43	990623.65	826385.12
WL22-44	990636.48	826434.49
WL22-45	990632.20	826455.52
WL22-46	990633.42	826493.27
WL22-47	990659.38	826564.25
WL22-48	990680.77	826653.48
WL22-49	990695.25	826709.88
WL22-50	990734.73	826766.28
WL22-51	990754.25	826838.01
WL22-52	990790.04	826868.08
WL22-53	990800.26	826917.94

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WL22-54	990796.63	826975.23
WL22-55	990818.71	827016.82
WL22-56	990813.64	827103.83
WL22-57	990816.42	827148.25
WL22-58	990819.79	827208.31
WL22-59	990834.06	827235.01
WL23A-1	988743.85	825521.96
WL23A-2	988771.80	825491.11
WL23A-3	988806.98	825419.03
WL23A-4	988882.38	825365.56
WL23A-5	988960.63	825373.68
WL23A-6	989033.43	825391.09
WL23A-7	989025.56	825424.16
WL23A-8	989029.48	825481.11
WL23A-9	989040.32	825518.75
WL23A-10	989019.12	825537.43
WL23A-11	988997.15	825515.85
WL23A-12	988972.83	825557.03
WL23A-13	988921.76	825625.21
WL23A-14	988900.03	825650.72
WL23A-15	988832.54	825673.22
WL23A-16	988780.71	825678.65
WL23A-17	988761.34	825685.47
WL23A-18	988741.05	825668.41
WL23B-1	989049.57	825511.69
WL23B-2	989040.15	825488.72
WL23B-3	989037.70	825438.23
WL23B-4	989042.83	825380.60
WL23B-5	989062.91	825316.37
WL23B-6	989106.69	825284.49
WL23B-7	989109.43	825264.64
WL23B-8	989147.30	825264.29
WL23B-9	989208.43	825242.98
WL23B-10	989288.54	825203.62
WL23B-11	989376.73	825186.37
WL23B-12	989453.43	825159.68

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WL23B-13	989532.06	825167.33
WL23B-14	989578.34	825193.54
WL23B-15	989653.52	825163.85
WL23B-16	989698.32	825093.83
WL23B-17	989726.72	825055.9
WL23B-18	989773.79	825040.3
WL23B-19	989791.50	825050.63
WL23B-20	989851.33	825079.94
WL23B-21	989895.10	825084.38
WL23B-22	989948.51	825113.5
WL23B-23	990019.03	825146.86
WL23B-24	990077.80	825210.47
WL23B-25	990102.77	825263.55
WL23B-26	990110.68	825322.03
WL23B-27	990133.62	825389.07
WL23B-28	990147.57	825451.20
WL23B-29	990184.80	825536.73
WL23B-30	990259.06	825576.62
WL23B-31	990331.03	825556.34
WL23B-32	990359.59	825529.73
WL23B-33	990399.56	825509.12
WL23B-34	990353.50	825433.83
WL23B-35	990305.36	825434.83
WL23B-36	990310.75	825396.33
WL23B-37	990369.86	825400.39
WL23B-38	990409.33	825329.67
WL23B-39	990494.03	825270.28
WL23B-40	990551.70	825249.0
WL23B-41	990554.59	825215.04
WL23B-42	990557.77	825217.32
WL23B-43	990573.00	825265.20
WL23B-44	990587.71	825239.93
WL23B-45	990614.52	825239.0
WL23B-46	990651.94	825329.9
WL23B-47	990645.59	825342.5

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WL23B-49	990608.53	825376.02
WL23B-50	990578.62	825349.05
WL23B-51	990609.55	825516.37
WL23B-52	990647.83	825501.04
WL23B-53	990685.87	825519.21
WL23B-54	990724.75	825824.75
WL23B-55	990716.79	825823.75
WL23B-56	990665.15	825872.84
WL23B-57	990668.24	825882.76
WL23B-58	990659.47	825886.68
WL23B-59	990656.81	825883.61
WL23B-60	990633.72	825886.94
WL23B-61	990637.85	825851.84
WL23B-62	990624.57	825806.62
WL23B-63	990677.36	825791.39
WL23B-64	990674.03	825746.80
WL23B-65	990661.62	825722.89
WL23B-66	990615.11	825667.09
WL23B-67	990597.58	825676.91
WL23B-68	990595.52	825665.41
WL23B-69	990583.67	825676.58
WL23B-70	990561.41	825649.01
WL23B-71	990547.04	825644.18
WL23B-72	990528.10	825620.04
WL23B-73	990512.33	825595.91
WL23B-74	990473.22	825582.56
WL23B-75	990474.17	825610.02
WL23B-76	990425.72	825640.68
WL23B-77	990418.31	825705.25
WL23B-78	990402.27	825707.83
WL23B-79	990410.39	825755.00
WL23B-80	990394.38	825778.69
WL23B-81	990369.66	825726.09
WL23B-82	990336.76	825771.86
WL23B-83	990332.39	825818.89
WL23B-84	990285.15	825849.05

POINT ID	NORTHING	EASTING	POINT ID	NORTHING	EASTIN
WL23B-85	990289.39	825875.15	WL23B-121	989776.60	825963
WL23B-86	990240.18	825906.72	WL23B-122	989743.89	825937
WL23B-87	990233.54	825945.53	WL23B-123	989681.13	825898
WL23B-88	990243.36	825981.76	WL23B-124	989616.72	825878
WL23B-89	990209.53	825992.21	WL23B-125	989551.14	825843
WL23B-90	990192.90	825973.22	WL23B-126	989512.77	825805
WL23B-91	990177.27	825945.66	WL23B-127	989472.76	825806
WL23B-92	990161.15	825947.54	WL23B-128	989429.51	825756
WL23B-93	990187.75	825914.23	WL23B-129	989386.69	825752
WL23B-94	990231.81	825811.75	WL23B-130	989364.30	825762
WL23B-95	990194.04	825795.03	WL23B-131	989329.03	825752
WL23B-96	990185.05	825829.27	WL23B-132	989303.18	825712
WL23B-97	990168.71	825845.96	WL23B-133	989278.70	825698
WL23B-98	990131.79	825904.15	WL23B-134	989255.64	825687
WL23B-99	990112.51	825913.08	WL23B-135	989205.36	825645
WL23B-100	990079.55	825927.80	WL23B-136	989169.27	825615
WL23B-101	990073.59	825943.24	WL23B-137	989121.50	825565
WL23B-102	990090.50	825971.47	WL23B-138	989090.33	825533
WL23B-103	990094.96	826005.49	WL25-1	990194.90	825193
WL23B-104	990089.09	826005.65	WL25-2	990162.32	825145
WL23B-105	990082.93	826003.61	WL25-3	990139.66	825090
WL23B-106	990067.58	825982.36	WL25-4	990111.01	825023
WL23B-107	990050.32	825984.88	WL25-5	990150.21	824996
WL23B-108	990017.84	825971.23	WL25-6	990197.42	825000
WL23B-109	989922.78	825974.52	WL25-7	990228.02	825052
WL23B-110	989877.51	825987.13	WL25-8	990253.38	825037
WL23B-111	989848.82	826006.27	WL25-9	990313.64	825065
WL23B-112	989832.17	825983.73	WL25-10	990273.43	825020
WL23B-113	989816.95	826016.04	WL25-11	990273.25	824996
WL23B-114	989806.89	826022.81	WL25-12	990313.19	825007
WL23B-115	989761.73	826039.49	WL25-13	990396.34	825044
WL23B-116	989739.06	826037.95	WL25-14	990404.72	825087
WL23B-117	989742.39	826017.34	WL25-15	990364.12	825154
WL23B-118	989764.28	826021.18	WL25-16	990362.99	825189
WL23B-119	989782.46	826023.29	WL25-17	990285.03	825193
WL23B-120	989791.59	825998.97	WL25-18	990232.90	825213

POINT ID	NORTHING	EASTING
WL26-1	991465.18	824775.45
WL26-2	991474.95	824747.64
WL26-3	991498.14	824754.99
WL26-4	991516.14	824768.94
WL26-5	991529.61	824811.54
WL26-6	991517.11	824843.29
WL26-7	991516.04	824873.28
WL26-8	991462.23	824872.96
WL27-1	991957.62	825264.87
WL27-2	991908.91	825317.27
WL27-3	991855.48	825331.25
WL27-4	991794.13	825338.70
WL27-5	991744.38	825384.40
WL27-6	991723.62	825418.84
WL27-7	991664.26	825449.43
WL27-8	991632.94	825494.75
WL27-9	991531.64	825490.94
WL27-10	991485.41	825449.77
WL27-11	991454.27	825396.25
WL27-12	991416.56	825346.40
WL27-13	991395.55	825286.53
WL27-14	991372.74	825253.08

WL27-15 | 991390.43 | 825183.20 | WL27-16 | 991411.21 | 825068.22 | WL27-17 | 991444.92 | 824960.52 WL27-18 | 991490.69 | 824947.69 WL27-19 991563.10 825025.76 WL27-20 991660.91 825033.52 WL27-21 | 991712.59 | 825033.28 WL27-22 991784.91 825036.46 WL27-23 991841.49 825025.76 WL27-24 991861.29 824992.00 WL27-25 991881.74 825010.72 WL27-26 991914.73 825068.63 WL27-27 | 991955.01 | 825100.24 | WL27-28 991966.17 825125.59

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17-151 specific pu	rpose



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- REVISIONS -	BY	DATE	
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FIELD		
CALCS.		
DRAWN	GLM	9-26-18
DETAILED		
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APPROVED		

SPECIFIC	PURPOSE	WETLAND	SURVEY	
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DATE: 9-26-2018 HORIZ. SCALE: VERT. SCALE: N\A

PREPARED FOR FPL SWEETBAY SOLAR ENERGY CENTER

JOB No. 17-151 SHEET 3 OF 3



FPL SWEETBAY SOLAR ENERGY CENTER



ITEM 17 - STORMWATER MAINTENANCE PLAN

OCTOBER 2018

C&T Project No. 17-151 Certificate of Authorization No. 4286

PREPARED BY

Culpepper & Terpening, Inc 2980 South 25th Street Fort Pierce, Florida Tel. (772) 464-3537 www.ct-eng.com

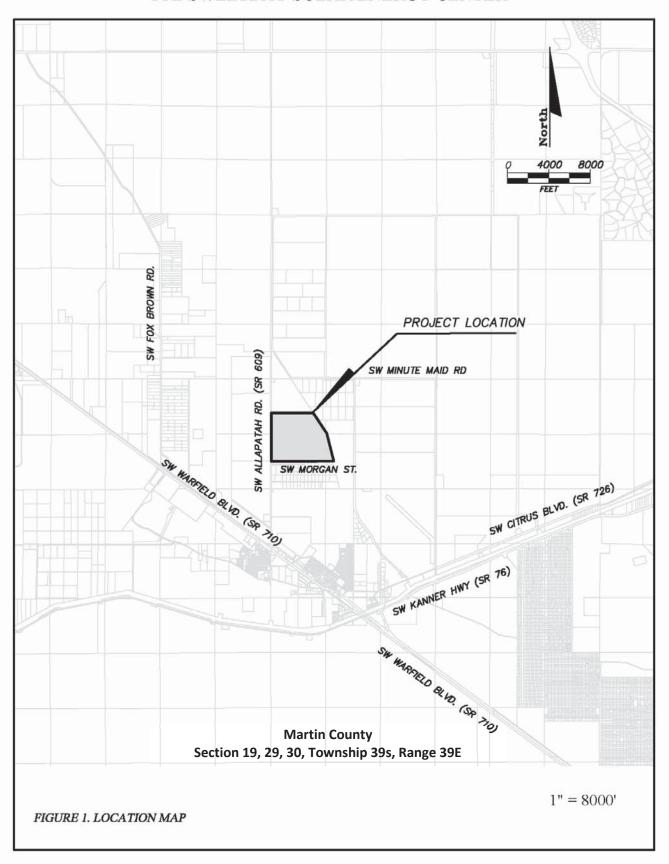
PREPARED FOR

Florida Power & Light a Next Era Energy Company 700 Universe Blvd Juno Beach, FL 33408 www.fpl.com



Florida Engineering No. 24276 EOR Responsibility: 100% (Pages 1 - 7) This item has been digitally signed and sealed by James Parker Terpening, PE on 10/02/018 using a Digital Signature. Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies.

FPL SWEETBAY SOLAR ENERGY CENTER



PROJECT

The Florida Power & Light Company (FPL), in an effort to expand renewable energy sources is proposing to construct 491± acres of solar photovoltaic panel fields on an approximately ± 566-acre site in Martin County, Florida. The remaining acreage will be undeveloped open space uplands and wetlands.

The Project includes the photovoltaic panel fields, a 1.80-acre substation yard, stabilized access paths, a 5-acre lake and drainage control structures & culverts.

Operations inspections shall be conducted monthly to assure that the stormwater management system functions as designed. Spot inspections after heavy rainfall events shall also be performed.

THE DRAINGE SYSTEM

The site contains seventeen (17) drainage basins. There are no off-site areas that drain to the site's stormwater management system. The existing drainage system consists of a combination of overland sheet flow, flow ways and drainage control structures. An overview of the drainage system is depicted in Figure 2 "Post – Development Basin Map".

The drainage system is designed to convey the site stormwater runoff overland via sheet flow into the flow ways and wetland systems. To ensure wetland hydration, eleven (11) Wetland Control Structures (WCS) were constructed and are depicted below in Table 1 "Wetland Control Structures" (see next page).

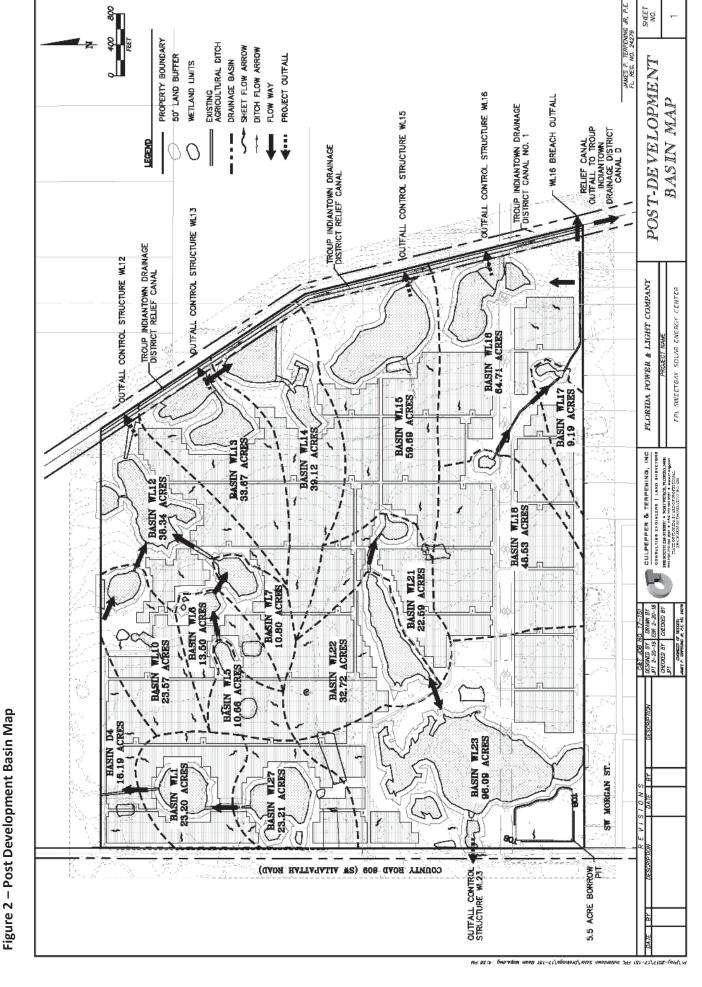
The site has six (6) drainage outfalls as depicted on Figure 2 "Post – Development Basin Map". The outfalls are as follows:

- Basin WL12 has a weir control structure prior to discharging to the (TIDD) Relief Canal;
- Basin WL13 has a weir control structure prior to discharging to the (TIDD) Relief Canal;
- Basin WL14 has a flow way connecting to Basin WL 13;
- Basin WL15 has a weir control structure prior to discharging to the (TIDD) Relief Canal;
- Basin WL16 has a weir control structure prior to discharge to the (TIDD) Relief Canal;
- Basin WL23 has a weir control structure prior to discharge under SW Allapattah Rd; and
- The south swale, which parallels the south property line, discharges thru a natural connection to the (TIDD) Relief Cannel.

The south swale is provided to drainage relief to the neighboring properties. The weir control structures for each Basin are depicted below in Table 2 "Outfall Control Structures" (see next page).

				To	Table No. 1						
			W	WETLAND CONTROL STRUCTURES	NTROL ST	3UCTURES					
			Elevation in NAVD	AVD				Dim	Dimension in Feet	eet	
Structure ID	Wetland Limits	Buffer Line	Design WCE	Flow	WE	ЭМ	18	ВН	Ξ	Μ	7
WCS-WL1	44.0	45.3	43.50	42.00	45.45	43.50	0.50	1.80	6.30	32	20.00
WCS-WL5	42.2	42.5	41.70	40.20	43.00	41.70	0.50	06.0	5.40	32	20.00
WCS-WL6	39.0	40.5	38.60	36.90	40.75	38.60	2.00	1.70	6.40	32	20.00
WCS-WL7	39.2	39.8	38.60	37.10	40.30	38.60	0.50	1.00	5.50	32	20.00
WCS-WL10A	35.0	36.5	34.60	33.10	37.00	34.60	99:0	1.80	6.30	32	20.00
WCS-WL12	30.0	31.5	30.10	27.50	32.60	30.10	1.00	1.00	09.9	32	20.00
WCS-WL17	34.6	35.4	34.40	32.90	36.30	34.40	0.50	08.0	5.30	32	20.00
WCS-WL18	36.0	36.7	35.60	34.10	37.90	35.60	0.50	06.0	5.40	32	20.00
WCS-WL21	38.9	39.6	38.90	37.40	40.35	38.90	0.33	0.50	5.00	32	20.00
WCS-WL22	42.1	42.0	41.70	40.20	42.70	41.70	0.33	0.30	4.80	32	20.00
WCS-WL27	44.8	45.2	44.60	43.10	45.50	44.56	99.0	0.10	4.60	32	20.00

				OE	27.00	NA	NA	26.20	NA
			VD)	BE	30.10	28.50	27.20	NA	38.20
			Elevations (NAVD)	NE	31.10	29.50	28.20	27.20	39.20
			Elevati	WE	32.60	30.50	29.70	29.50	40.20
				Design WCE	30.10	28.50	27.20	26.20	38.20
		R		BH (Inches)	12	12	12	AN	12
		WEIR		BL (Inches)	30	30	36	NA	30
	OUTFALL CONTROL STRUCTURE		ions	NH (Inches)	18	12	18	28	12
2			Dimensions	NL (Inches)	42	42	48	36	42
Table No. 2				Orifice (Inches)	3" Diam	NA	NA	6" Diam	AN
	OUTFALL			L (inches)	48	48	54	09	48
			Elevations (NAVD)	Downstream	22.5	22.5	21.0	22.0	35.0
		GE PIPE		Upstream	23.0	23.0	21.5	22.5	37.0
		DISCHARGE PIPE	Pipe	Length (Feet)	06	06	06	06	64
				Matl.	ACMP	ACMP	ACMP	ACMP	ACMP
				Size (Inches)	42	30	98	Twin 24	36
			Structure	Ω	OCS-WL12	OCS-WL13B	OCS-WL15	OCS-WL16A	OCS-D23B



OPERATIONS INSPECTIONS

Operations inspections shall be conducted monthly to assure that the stormwater management system functions as designed. Spot inspections after heavy rainfall events shall also be performed.

The following features of the stormwater management system should be inspected during each visitation. An inspection report form is provided in the back of this manual.

A. Maintenance of Vegetation and Grassed Areas

All grassed areas shall be mowed regularly and maintained free from bare earth conditions to prevent erosion. Grass clippings shall be collected and disposed of properly.

The need for vegetation removal or spraying should be determined. Grassed areas such as swales and retention area banks should also be inspected to determine the need for mowing, reseeding or fertilization. Any areas where erosion has occurred should be repaired new sod. Other materials may necessary based on the frequency of erosion.

If bare earth conditions are observed, an "Unsatisfactory" comment shall be noted in Items 2, 4 or 5 below and a comment should be noted in the Remarks section.

B. Control Structures

System control structures should be inspected to ensure that no obstructions to flow (i.e., debris) exist that would reduce the rate of flow of the system. The structural condition of the weirs, inlets, and bleeders should also be inspected for evidence of seepage, settlement, or concrete deterioration. Sediment deposits located in the vicinity of the inlets should be routinely noted.

Inspect all surfaces of the control structure tie-in berm to confirm that erosion has not occurred in and that specified ground cover is in condition.

If unsatisfactory concrete conditions, seepage, or sediment conditions are observed, an "Unsatisfactory" comment should be noted in Item 1 below and a comment should be noted in the Remarks section.

C. Conveyance System

The conveyance system, which includes flow ways, and ditches, should be inspected to ensure erosion has not occurred and that specified ground cover is in good condition. Culverts shall also be visually inspected for silt and debris. If silt and debris is found, the pipes will be cleaned and flushed to ensure that all material has been removed.

If seepage, restricted flows or excessive sediments are noted, an "Unsatisfactory" comment shall be placed in Item 3 below and a comment should be entered in the Remarks section.

CHECKLIST

Operation and Maintenance Inspection Record Storm Water Management System

Name of Project: **FPL Sweetbay Solar Energy Center Project** Location: SW Allapattah Rd., Martin County, Florida Type of Inspection: Date of Inspection: **Anticipated Operation:** Satisfactory_____ Unsatisfactory_____ 1. Control Structures Inspection Corrective Action required: YES NO Action taken: 2. Grassed Areas Inspection Corrective Action required: YES NO Action taken: 3. Conveyance System Inspection Corrective Action required: YES NO Action taken: 4. Lake Inspection Corrective Action required: YES NO Action taken: 5. Perimeter Berm Inspection Corrective Action required: YES NO Action taken: 6. Exotics Species Corrective Action required: YES NO Action taken: IF AN UNSATISFACTORY CONDITION EXISTS, IT IS TO BE REPORTED TO THE PROJECT MANAGER IMMEDIATELY TO DETERMINE THE CAUSE AND PRESCRIBE A SOLUTION TO THE PROBLEM. **REMARKS:** Signature of Inspector

Name of Inspector



Our File Number: 00011490.00127 Writer's Direct Dial Number: (772) 288-1980 Writer's Direct Fax Number: (772) 288-0610 Writer's E-Mail Address: rraynes@gunster.com

June 20, 2018 October 3, 2018

VIA HAND DELIVERY

Ms. Nicki van Vonno, AICP, Director Martin County Growth Management Department 2401 SE Monterey Road Stuart, FL 34996

Re: Florida Power & Light Company

Sweetbay 74.5 MW Photovoltaic Solar Center

Project Narrative Statement

Dear Nicki:

It is our pleasure to submit on behalf of our client, Florida Power & Light Company ("FPL"), a Major Master & Final Site Plan Review application to construct a 74.5 MW Photovoltaic Solar Center ("Facility") in southwestern Martin County. The Facility has the capacity to serve approximately 15,000 homes with clean renewable energy. The emissions reduction is equivalent to removing 12,000 cars from the road each year. This proposed Project is located on property which is located approximately 1½ miles north of SW Warfield Boulevard on the east side of SW Allapattah Road in unincorporated Martin County, Florida. The property consists of four (4) tax parcels totaling approximately 5665 acres, the location of which is shown on Exhibit "A." The land is undeveloped and currently supports agricultural uses.

The Facility will create clean, renewable energy by converting sunlight via photovoltaic solar arrays into direct current (DC) electricity and converting it into alternating current (AC) utilizing power inverters. The zero-emissions electricity is then carried to the collector substation where the voltage is boosted for transmission through the electric grid. As outlined in the Martin County Comprehensive Plan, Section 10.12.B(1)(d), solar energy qualifies as a Green Development and as such we are requesting Expedited Staff Review.

Land Use and Zoning

The Future Land Use designation in the Martin County Comprehensive Plan for the property is Agricultural. The property contains two zoning designations. The northernmost property contains a General Agricultural ("AG-20A") zoning designation. The remaining three parcels south of the AG-20A parcel contain an Agricultural ("A-2") zoning designation. Both, AG-20A & A-2 zoning districts are compatible with the Agricultural land use designation.

The Facility has been designed in accordance with the Martin County Comprehensive Growth Management Plan and Land Development Regulations including the following Comprehensive Plan policies and sections of the code specifically applicable to Solar Energy Facilities:

Objective 4.8C. To allow and encourage renewable energy resources such as wind and solar technologies in all future land use designations.

Policy 4.8C.1. Alternative energy in appropriate zoning districts. As the technology for wind, solar and other forms of power generation advance, the Land Development Regulations shall be revised to permit different forms of power generation in appropriate zoning districts.

Policy 4.8C.3. Solar Farms. Solar panels producing renewable energy may be counted toward open space requirements in the Agricultural future land use designation when the solar panels are mounted above ground and a permeable surface is maintained under the panels. Wetlands and landlocked water bodies may be used in calculating open space. Accessory structures, such as transformers, substations and energy storage equipment shall not be counted toward open space requirements.

Section 3.3. Glossary of Terms.

Solar Energy Facilities (Solar Farm). A production facility for electric power that utilizes photovoltaic modules (panels) to convert solar energy to electricity whereby the electricity that is produced is delivered to the transmission system and consumed off-site. Solar farms consist principally of photovoltaic modules, a mounting/racking system, power inverters, transformers, and associated components. Solar generation is generally the principal use of the property but solar farms may also include administration/maintenance buildings, transmission lines, substations, energy storage equipment and related accessory uses and structures.

Section 3.100.1. Solar Energy Facilities (Solar Farms)

- **Sec. 3.100.1.A.** Solar energy facilities (Solar farms) shall be considered a permitted use within the AG-20A and A-2 zoning districts.
- Sec. 3.100.1.B. Minimum parcel size shall be 20 acres.
- **Sec. 3.100.1.C.** Except for security fencing, project signs and access paths, no solar farm structure, equipment or building shall be located within 50 feet of the property line.
- **Sec. 3.100.1.D.** Except for required landscaping adjacent to residential uses, administrative buildings and associated paved parking and vehicular use areas, solar farms shall be exempt from all other landscape requirements.
- **Sec. 3.100.1.E.** Within the first 25 feet of the 50' setback adjacent to residential uses, native shrubs and grasses shall be retained to provide a minimum 6' high, 50% opaque screen of vegetation. If existing native vegetation is not sufficient to meet this requirement, then supplemental native shrubs may be utilized to meet this requirement.
- **Sec. 3.100.1.F.** Retention of existing vegetation and/or temporary fencing and screening may be required where appropriate to minimize impacts during construction.
- **Sec. 3.100.1.G.** Security fencing are exempt from the requirements of Section 3.16 and 3.204.
- **Sec. 3.100.1.H.** The following maximum height provisions shall apply:
 - 1. Project signs: 9 feet
 - 2. Solar panels or modules: 15 feet
 - 3. Buildings: 25 feet
- **Sec. 3.100.1.I.** The maximum height provisions do not apply to transmission lines or substations, which are regulated under Section 3.104.E.

Sec. 3.100.1.J. For purposes of calculating the 50% open space requirement for agricultural land uses, the area of the solar panels and transmission lines shall be considered open space.

Sec. 3.100.1.K. A minimum 20' wide, clear access way with a 12' wide, stabilized access path shall be permitted for access, maintenance and operation of solar facilities and transmission lines.

Sec. 3.100.1.L. A minimum 20' wide, stabilized access path shall be permitted for access, maintenance and operation of administration buildings, accessory buildings and substations.

Section 3.104. Utilities

Sec. 3.104.B. Setbacks. Electric utility substations, excluding any associated distribution or transmission lines, shall be set back at least:

- 1. One hundred feet from any lot line where the adjoining lot is zoned for residential use.
- 2. Fifty feet from any lot line where the adjoining lot is zoned for any nonresidential other than another public utility use.
- 3. Five hundred feet from any PC zoning district or any designated public conservation area.

Sec. 3.104.C. Bufferyards.

In addition to any other bufferyard requirements set forth in Article 4, electrical utility substations shall provide a bufferyard along any street. The bufferyard type shall be determined based on the use or zoning of the property on the opposite side of the right-of-way as if there were no intervening right-of-way.

Compliance Statement

The proposed final site plan and landscape plans document compliance with all Comprehensive Plan policies and applicable land development regulations. The proposed substation, which is integral to the project, will be developed north of the existing overhead transmission lines. It is located internal to the project, approximately 900 feet from the south property line, which is the nearest residential use, and more than 1,750 feet from the nearest street, i.e. SW Allapattah Road. Preserve areas, intervening uses and buffer areas along the residential use, will effectively screen the substation and no additional bufferyards are proposed or required.

Ms. Nicki van Vonno, AICP, Director June 20, 2018October 3, 2018 Page 5

Siting and Design

An existing FPL transmission line bisects the property. The existing transmission line eliminates the need to extend power lines to serve the Project, thus avoiding potential environmental impacts associated with new rights-of-way for transmission lines. Power distributed by the Project is fed into the grid, which in turn can be utilized directly by all of FPL's 4.8 million customers.

The Project has been designed as set forth on the Master/Final Site Plan by Lucido & Associates to be consistent with surrounding uses. The low impact construction and operation of the Project is consistent with the surrounding agricultural uses in the area. The Project is located on existing agricultural land which has already been disturbed from its original natural setting to provide for agriculture. The solar panels have been strategically arranged to avoid environmentally sensitive areas and wetlands. The solar panels stand approximately two feet off the ground and are approximately six to eight feet in height.

Solar facilities are very quiet, low traffic generating uses. Typically, the only maintenance associated with a solar facility is vegetation management, along with asneeded component repairs and maintenance. There are minimal health or safety risks associated with the facility, and such risks are primarily associated with energized electrical equipment, which will be located within a fenced perimeter. The solar panels emit no odors or chemicals and all electricity conducted by the panels is distributed to the substation through insulated, buried lines.

Construction and Operation

The solar panels are assembled on site onto racks which are supported by metal "U" beams driven into the ground. The only land disturbance associated with the Project is for the access paths, stormwater management facilities and a substation. The internal pathways will be constructed at grade, as non-paved private paths for the exclusive use of maintenance personnel.

During construction FPL will maintain those roadways located outside the development and utilized by contractors, in a safe and passable way. Construction activities and deliveries to the site will generally occur during the daylight hours from 7am to 9pm during the construction period. Construction of a site this size will typically be accomplished in 10 months. Physical security at the site entrance will be maintained by security fencing and security guards during normal construction operating hours. Gates will be secured outside of normal working hours.

Ms. Nicki van Vonno, AICP, Director June 20, 2018October 3, 2018 Page 6

As noted, the Project is an un-manned facility. After construction the only vehicular traffic to the site will be for maintenance vehicles, and as such there is no minimum parking, loading or bicycle needs for the Project. The facility is gated and not lit, with the exception of security lighting around the substation control building.

FPL looks forward to working with the County on this renewable energy facility.

Best regards,

Robert S. Raynes, Jr., Esq

cc: Client

Joshua I. Long, AICP