

September 7, 2018

Catherine Riiska, MS, PWS, Principal Planner
Growth Management Department
Martin County Board of County Commissioners
2401 S.E. Monterey Road
Stuart, FL 34996

Re:	Project Name:	Circle K – Revised Major Final Site Plan
	CH Project No.:	16-0804
	Project Number:	P166-002
	Application Type and Number:	D059 201700358
	Report Number:	2018_0418_C166-002_DRT_Staff_FINAL.docx

Dear Ms. Riiska:

Please accept this response letter addressing comments provided by staff on April 18th, 2018.

F. Determination of compliance with Comprehensive Growth Management Plan requirements - Growth Management Department

Unresolved Issues:

Item #1:

Consistency with Comprehensive Growth Management Plan

This application cannot be deemed to be in compliance with the Martin County Comprehensive Growth Management Plan (CGMP) until the issues identified in this report have been satisfactorily resolved.

MARTIN COUNTY, FLA., CGMP POLICY 4.1A.1. (2016)

[Applicant Response: Acknowledged.](#)

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

Unresolved Issues:

Item#1:

Structure Setbacks

Except as set forth in subsection 3.16.B, every part of every required front, side and rear setback shall be comprised of open space. MARTIN COUNTY, FLA., LDR, SECTION 3.16.A.3. (2007)

Remedy/Suggestion/Clarification:

The applicant has added the required architectural feature to the site plan but located it within the required setback area. Please relocate the architectural feature outside the required setback open space area or over an approved impervious area such as the sidewalk, as appropriate for a feature such as a shaded trellis or pedestrian arcade/arch structure. (See also examples provided to the Agent via email on 8/3/18.)

[Applicant Response: This comment was resolved at the DRC Meeting.](#)

Additional Information:**Information #1:****Required Permits**

The applicant has elected 'Option 2' regarding Agency permit submittal for a consistency review after project approval. Prior to scheduling the mandatory pre-construction meeting for construction commencement authorization, all applicable local, state, and federal approved permits are to be submitted for review by the County Administrator with remittance of a \$600.00 review fee. If an application is made to any permitting agency for a modification to a permit that was required to be issued prior to final site plan approval, the application for the permit modification must be submitted concurrently to Martin County. [Section 10.9.A., LDR, MCC]

Information #2:

No land clearing is authorized prior to the mandatory pre-construction meeting for the project. Property corners and preservation areas shall be located by a licensed land surveyor and clearly marked in the field prior to the pre-construction meeting. Authorization for clearing to install erosion control devices and preserve barricades will be granted at the pre-construction meeting. No additional land clearing shall commence until a satisfactory inspection of the required control structures and barricades has been obtained. Authorization for the relocation of gopher tortoises within the development, as provided for on state agency permits, may be granted by the Growth Management Department upon review of required permit materials. MARTIN COUNTY, FLA., LDR § 4.37

Information #3:**Timetable Of Development - Final**

The timetable of development for final site plans require all permits to be obtained within one year of approval and require all construction to be completed within two years of approval. [Martin County, Fla., LDR, Sections 10.1 and 5.32 (2016)]

H. Determination of compliance with the urban design and community redevelopment requirements – Community Development Department**Commercial Design****Unresolved Issues:****Item #1:****Major Intersections**

Developments located at an intersection of two or more arterial or collector streets shall provide a prominent architectural feature such as, but not limited to a monument, sculpture or clock tower to emphasize their location as gateways and transition within the community. MARTIN COUNTY, FLA., LDR, § 4.872.6.C (2013)

Remedy/Suggestion/Clarification:

The proposed architectural feature appears to be a sign instead of a monument, sculpture or clock tower. In addition to showing on the site plan the location of architectural feature please provide a rendering, elevations drawings and a floor plan of the required prominent architectural feature.

[Applicant Response: The architectural feature has been revised and approved by Staff.](#)

Community Redevelopment Area

The proposed project is not located within a Community Redevelopment Area. Therefore, the Community Redevelopment Area reviewer was not required to review this application. MARTIN COUNTY, FLA., LDR ARTICLE 3, DIVISION 6 (2016)

[Applicant Response: Acknowledged.](#)

I. Determination of compliance with the property management requirements – Engineering Department

No dedication of additional right of way is required or proposed by the Applicant pursuant to the Roadway Classifications set forth in Section 4.843.B, Land Development Regulations, Martin County, Fla. [2001] which includes Table 4.19.1 that lists the minimum right of way requirements. Therefore, the Applicant is not required to submit due diligence materials for review by the Martin County Real Property Division.

[Applicant Response: Acknowledged.](#)

J. Determination of compliance with environmental and landscaping requirements - Growth Management Department

**Environmental
Findings of Compliance:**

The Growth Management Department Environmental Division staff has reviewed the application and finds it in compliance with the applicable land development regulations. An upland preserve area is established as part of this development order approval and will be managed under an approved PAMP.

**Landscape
Findings of Compliance:**

The Growth Management Department staff has reviewed the application and finds it in compliance with the applicable land development regulations regarding landscaping. The applicant has proposed re-construction and expansion of an existing gas station and convenience store. The applicant has submitted landscape plans that provide 1.47 acres of landscape area which equates to 51.47% of the development area to document compliance with Section 4.663.A.1., Land Development Regulations, Martin County, Fla. (2013). Pursuant to this regulation a minimum of 20% of the total development area shall be landscaped.

Landscaped bufferyards are required between differing land uses and along certain transportation corridors. It is the intent of the code to encourage the preservation of existing vegetation for use in buffers as opposed to clearing and replanting designed landscapes. Section 4.663.B., Land Development Regulations, Martin County, Fla. (2013).

Surrounding land uses on the north, east, and south is commercial so non-compatibility buffers are not required. Land use on the west is residential. Section 3.106.D, Land Development Regulations, Martin County, Fla. (2013) requires that when vehicular service and maintenance facilities are separated from a residential use only by a local street a Type 4 buffer is required. The applicant has proposed establishment of a modified Type 4 buffer along the west property line and has submitted a request for alternative compliance in accordance with requirements of Section 4.667. This buffer is modified for a distance of 86.5 where the building extends from 1 to 14 feet into the buffer; this results in a reduction of 627.54 sq. ft. of the 24,357 sq. ft. buffer required. This reduction is necessary to address safety issues and necessary turning radii for delivery and customer travel. To compensate the applicant has proposed establishment of an enhanced buffer and wall.

Section 4.666.E. Land Development Regulations, Martin County, Fla. (2013) requires that development activity preserve at least ten percent of the total number of protected trees on the site unless it can be shown that the property would be precluded of reasonable use if the trees are not removed. To meet this requirement the applicant has submitted Landscape and Construction Plans to provide for preservation of 25 of the 45 existing protected trees on the site and the preservation and/or relocation of 21 of the existing Sabal palm on the site.

In accordance with the replacement schedule contained in Section 4.666.D, the applicant is demonstrating compliance by installation of new plantings that provide a tree credit total of 63 tree credits to mitigate for the 20 trees proposed for removal.

Section 4.663.E.1 requires that plantings within dry retention and detention stormwater areas abutting preserve areas shall be restricted to native trees, native shrubs and native groundcovers. To demonstrate compliance the applicant has proposed to plant the preserve interface with native grasses, shrubs, and trees.

[Applicant Response: Acknowledged.](#)

K. Determination of compliance with transportation requirements - Engineering Department

Findings of Compliance:

The Traffic Division of the Engineering Department finds this application in compliance.

Compliance with Adequate Public Facilities Ordinance:

Staff has reviewed the Traffic Statement prepared by O'Rourke Engineering and Planning, dated January 2018. O'Rourke Engineering and Planning stated that the site's maximum impact was assumed to be 37 directional trips during the PM peak hour. Staff finds that Cove Road is the recipient of a majority of the generated trips. The generalized service capacity of Cove Road is 880. The project impact is 2.5% of the maximum volume of that roadway. Cove Road is currently operating at a level of service C; it is anticipated to operate at level of service C at buildout (year 2020).

Applicant Response: Acknowledged.

Additional Information:

Advisory Comment:

The Florida Department of Transportation plans to start construction of intersection improvements and resurfacing of US-1 / SE Federal Highway from SE Heritage Boulevard to North of SE Salerno Road in May 2019. Preliminary maintenance of traffic plans show US-1 operating as a single lane roadway in each direction through the intersection of SE Cove Road. For updated lane closure information closer to the project commencement, please refer to www.d4fdot.com.

L. Determination of compliance with county surveyor - Engineering Department

The applicant has provided a certified boundary and topographic survey for the proposed development, pursuant to Section 10.1.F., LDR, Martin County, Fla. (2016). Therefore, the Engineering Department was not required to review this application for consistency with the Martin County Codes for survey requirements contained in Article 4, LDR, Martin County, Fla.

Applicant Response: Acknowledged.

M. Determination of compliance with engineering, storm water and flood management requirements - Engineering Department

Unresolved Issues:

Item #1:

Rights Of Way Improvements

1. Replace the proposed HDPE pipe beneath the proposed driveway connection on SR-5 with RCP.
2. A copy of the recorded maintenance easement must be provided during Post Approval.

Applicant Response: HDPE pipe replaced with RCP. Maintenance easement will be provided under separate cover.

Item #2:

Stormwater Management Post-Development

The recovery time is not acceptable because the stormwater management system recovers half of the water quality treatment volume too rapidly. The system must recover half of the water quality treatment volume between 24 hours and five days. [MARTIN COUNTY, FLA., LDR SECTION 4.385.F.4 (2015)]

Applicant Response: Stormwater control structure has been revised so that the treatment volume recovers 50% between 24 hours and 5 days.

Item #3:

Stormwater Management Construction Plans

Remove the valley curb from the SE Cove Road Driveway entrance. Cross Section B/B is inconsistent with the proposed elevations shown on the plan view. Revise section and plan view for consistency and also to provide a smoother transition onto the site.

[Applicant Response: Section B/B has been revised and valley curb removed.](#)

N. Determination of compliance with addressing and electronic file submittal requirements – Growth Management and Information Technology Departments

Addressing

Findings of Compliance:

The application has been reviewed for compliance with Division 17, Addressing, of the Martin County Land Development Regulations. Staff finds that the proposed site plan / plat complies with applicable addressing regulations. All street names are in compliance. They meet all street naming regulations in Article 4, Division 17, Land Development Regulations. Martin County, Fla. (2018).

[Applicant Response: Acknowledged.](#)

Electronic File Submittal

Findings of Compliance:

The Information Services Department staff has reviewed the electronic file submittal and finds it in compliance with the applicable county requirements.

The AutoCAD site plan was received and found to be in compliance with Section 10.2.B.5, Land Development Regulations, Martin County, Fla. (2018)

The AutoCAD site plan was in State Plane coordinates and found to be in compliance with Section 10.2.B.5, Land Development Regulations, Martin County, Fla. (2018)

O. Determination of compliance with utilities requirements - Utilities Department

Water and Wastewater Service

Unresolved Issues:

Item #1:

Drawings Must Be Approved

The construction drawings must be approved by the Utilities and Solid Waste Department prior to sign off by the Department of permit applications and agreements. [ref. Code, LDR, s.10.2.B.5. Code, LDR, Art.10]

[Applicant Response: Acknowledged.](#)

Item #2:

Must Submit Agreement

The applicant must submit an executable, final draft water and wastewater service agreement to the Growth Management Department for review by the Legal and Environmental Services departments prior to approval of the final site plan. The 'Water and Wastewater Service Agreement' must be executed and the applicable fees paid within sixty 60 days of final Martin County approval of the request.

[Applicant Response: The final draft of the water and wastewater service agreement and applicable fees was sent to James Christ on 8/31/18.](#)

Wellfield and Groundwater Protection

Findings of Compliance:

The application has been reviewed for compliance under the Wellfield Protection Program. The reviewer finds the application in compliance with the Wellfield Protection and Groundwater Protection Ordinances. [Martin County, Fla., LDR, Division 5]

Applicant Response: Acknowledged.

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

Fire Prevention

Findings of Compliance:

The Fire Prevention Bureau finds this submittal to be in compliance with the applicable provisions governing construction and life safety standards of the Florida Fire Prevention Code. This occupancy shall comply with all applicable provisions of governing codes whether implied or not in this review, in addition to all previous requirements of prior reviews.

Emergency Management

The applicant has indicated that the project is for a non-residential use pursuant to Section 10.1.F., LDR, Martin County, Fla. (2016). Therefore, this project is not anticipated to impact Martin County Emergency Management resources and Emergency Management was not required to review this application.

Applicant Response: Acknowledged.

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

Findings of Compliance:

The General Services Department staff has reviewed the application and finds it in compliance with the applicable Americans with Disability Act requirements.

Applicant Response: Acknowledged.

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

Martin County Health Department

The applicant has indicated that the proposed final site plan contains no onsite potable wells or septic disposal systems. Therefore, the Department of Health was not required to review this application for consistency with the Martin County Code requirements within the Land Development Regulations or Comprehensive Growth Management Plan. MARTIN COUNTY, FLA., LDR SECTION 10.1.F. (2016)

Applicant Response: Acknowledged.

Martin County School Board

The applicant has indicated that the proposed final site plan is for a non-residential use. Therefore, the Martin County School Board was not required to review this application for consistency with the Martin County Code requirements for school concurrency purposes. MARTIN COUNTY, FLA., LDR SECTION 10.1.F. (2016)

Applicant Response: Acknowledged.

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

Review Ongoing

Applicant Response: Acknowledged.

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

The following is a summary of the review for compliance with the standards contained in Article 5.7.D of the Adequate Public Facilities LDR for a Certificate of Adequate Public Facilities Reservation.

Potable water facilities service provider – Martin County Utilities

Source - Environmental Services Department

Findings - Pending

Reference - see Section O of this staff report

Sanitary sewer facilities service provider – Martin County Utilities

Source -Environmental Services Department

Findings - Pending

Reference - see Section O of this staff report

Solid waste facilities

Findings – In Place

Source - Growth Management Department

Stormwater management facilities

Findings - Pending

Source - Engineering Department

Reference - see Section N of this staff report

Community park facilities

Findings – N/A

Source - Growth Management Department

Roads facilities

Findings - Comply

Source - Engineering Department

Reference - see Section M of this staff report

Mass transit facilities

Findings – In Place

Source - Engineering Department

Reference - see Section L of this staff report

Public safety facilities

Findings – N/A

Source - Growth Management Department

Reference - see Section P of this staff report

A timetable for completion consistent with the valid duration of the development is to be included in the Certificate of Public Facilities Reservation. The development encompassed by Reservation Certificate must be completed within the timetable specified for the type of development.

[Applicant Response: Acknowledged.](#)

U. Post-approval requirements

Approval of the development order is conditioned upon the applicant's submittal of all required documents, executed where appropriate, to the Growth Management Department (GMD), including unpaid fees, within sixty (60) days of the final action granting approval.

Item #1:

Post Approval Requirements List: After approval the applicant will receive a letter and a Post Approval Requirements List that identifies the documents and fees required. The applicant will return the Post Approval Requirements List along with the required documents in a packet with the documents arranged in the order shown on the list.

Item #2:

Post Approval Fees: The applicant is required to pay all remaining fees when submitting the post approval packet. If an extension is granted, the fees must be paid within 60 days from the date of the development order. Checks should be made payable to Martin County Board of County Commissioners.

Item #3:

Post Approval Impact Fees: Impact fees must be paid after the development order has been approved. Submit a check made payable to Martin County Board of County Commissioners within 60 days of project approval.

Item #4:

Recording Costs: The applicant is responsible for all recording costs. The Growth Management Department will calculate the recording costs and contact the applicant with the payment amount required. Checks should be made payable to the Martin County Clerk of Court.

Item #5:

One (1) copy of the recorded warranty deed if a property title transfer has occurred since the site plan approval. If there has not been a property title transfer since the approval, provide a letter stating that no title transfer has occurred.

Item #6:

Original and one (1) copy of the current Unity of Title in standard County format if a property title transfer has occurred since the site plan approval. If there has not been a property title transfer since the approval, provide a letter stating so that no transfer has occurred.

Item #7:

Ten (10) 24" x 36" copies of the approved construction plans signed and sealed by the Engineer of Record licensed in the State of Florida. Fold to 8 by 12 inches.

Item #8:

Ten (10) copies 24" x 36" of the approved site plan and one (1) reduced copy 8 1/2" x 11".

Item #9:

Original approved site plan on Mylar or other plastic, stable material.

Item #10:

Ten (10) 24" x 36" copies of the approved landscape plan signed and sealed by a landscape architect licensed in the State of Florida.

Item #11:

One (1) digital copy of site plan in AutoCAD 2010 - 2014 drawing format (.dwg). The digital version of the site plan must match the hardcopy version as submitted.

Item #12: Original of the construction schedule.

Item #13:

Original of the Engineer's Design Certification, on the County format which is available on the Martin County website, signed and sealed by the Engineer of Record licensed in the State of Florida.

Item #14:

Original and one (1) copy or two (2) copies of the executed and signed Water and Wastewater Service Agreement with Martin County Regional Utilities and one (1) copy of the payment receipt for Capital Facility Charge (CFC) and engineering and recording fees.

[Applicant Response: 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 approval (Option 1).

Item #1:

Environmental

The following must be submitted prior to scheduling the pre-construction meeting or during the post approval process:

1. Florida Fish and Wildlife Conservation Commission (FWC) listed species (gopher tortoise) survey or relocation permit.

Applicant Response: Acknowledged. We request to have option 2 and submit all other agency permits after site plan approval.

Item #2:

Public Works

The following permits must be submitted prior to scheduling the Pre-Construction meeting:

1. FDOT Driveway / Connection Permit
2. Martin County Right of Way Use Permit
3. South Florida Water Management District (SFWMD) Environmental Resource Permit (ERP)
4. Florida Department of Transportation (FDOT) Drainage Connection Permit
5. Florida Department of Environmental Protection (FDEP) NPDES Generic Permit for Stormwater Discharge for Large and Small Construction Activities

Applicant Response: Acknowledged.

Item #3:

Wellfield and Groundwater Protection

The applicant must provide a copy of all required South Florida Water Management permits prior to scheduling the Pre-Construction meeting.

Applicant Response: Acknowledged.

X. General application information

Applicant: Circle K Stores, Inc.

Ryan Plate

12911 N Telecom Pkwy Tampa, FL 33629

Agent: Cotleur & Hearing Daniel T. Sorrow

1934 Commerce Lane, Suite 1

Jupiter, FL 33458

561-747-6336

I trust that the answers to the comments included in this resubmittal are complete and will allow this project to be approved at the earliest possible date. Please contact this office with any questions you may have in your review of this information.

Sincerely yours,



Daniel T. Sorrow, AICP, PLA, LEED AP BD+C

Cotleur & Hearing

1934 Commerce Lane, Suite 1

Jupiter, FL 33458

Circle K (US-1 & Cove Rd)
Martin County, FL

STORMWATER MANAGEMENT REPORT

5755 SE Federal Highway
Stuart, FL 34997

Parcel IDs: 55-38-41-002-033-00200-8
54-38-41-002-033-00010-8
54-38-41-002-033-00160-6

Issued: 8/7/2017
Revised: 9/4/2018

Project Number: 010133-01-011

Prepared by:
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Board of Professional Engineers, Certificate of Authorization No. 30462
Professional Surveyors and Mappers, Amended Certificate No. LB-08030

Andrew J. Petersen, P.E.
Florida License No. 75493

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1. Project Summary

1.1 Computer Programs

- Interconnected Pond Modeling Version 3 (ICPR)
- AutoCAD Civil 3D 2016
- Microsoft Excel 2013

1.2 Codes

Division 9 of Article 4 of the Martin County Land Development Regulations - Stormwater Management and Flood Control

1.3 Engineers in Responsible Charge

Andrew J. Petersen, P.E.
Florida License No. 75493
Bowman Consulting Group

I, Andrew Petersen, do certify to Martin County that the application for Final Site Plan of Circle K (US-1 & Cove Rd) has been designed in full compliance with division 9 of article 4 of the Martin County Land Development Regulations (LDR). I acknowledge that Martin County's LDR may and do include requirements that are more stringent or restrictive than the requirements of other regulatory agencies including, but not limited to, the South Florida Water Management District (SFWMD), the U.S. Army Corps of Engineers (USACOE), the U.S. Environmental Protection Agency (EPA) and the Florida Department of Environmental Protection (FDEP). Any plans, calculations, reports, or other documents submitted to Martin County or any regulatory agency in support of the application have been prepared in full recognition of and compliance with Martin County LDR.

Andrew J. Petersen, State of Florida, Professional Engineer, License # 75493.
This item has been electronically signed & sealed by Andrew J. Petersen, P.E. on 9/04/18 using a Digital Signature. Printed copies of this document are not considered signed & sealed and the signature must be verified on any electronic copies.

Signature

Date

75493

Florida Registration Number

2. Plan Purpose

The intent of this report is to demonstrate that the proposed stormwater management design complies with the conditions set forth by the South Florida Water Management District (SFWMD) and Martin County, Florida. This project qualifies for the self-certification 10-2 permit. The pre-existing condition and post development were analyzed to demonstrate that the offsite discharge for the post development is less than the pre-existing for the 25 year - 72 hour storm.

3. Site Conditions

3. Existing Conditions (Predevelopment)

The site is located on the northwest corner of US-1 & SE Cove Road. The existing 2,702 sq foot convenience store lies on a +/- 0.89 acre developed parcel. The acquired property to the north is +/-1.98 acres and is unmaintained vacant wooded land. The soil conditions of the northern parcel are type A/D and considered poorly drained in its current condition. The average elevation of this site is assumed to be 16.0' NAVD88. The seasonal high water table was found to be +/- 13.5 based on exploratory borings (see included geotechnical report). Currently, the stormwater runoff flows to the northern portion of the site and overflows onto Pine Avenue at +/- elevation 15.8'.

The developed portion of the site is mostly paved and storm runoff is directed into a retention area towards the back of the building where runoff is allowed to infiltrate into the soil. The store FFE is at elevation 19.06' NAVD88 and the lowest pavement elevation is +/-16.58'. The dry detention depth is +/-12.99'. Predevelopment conditions per Martin County standards is assumed to be 100% pervious, utilizing the conditions of the acquired vacant parcel. A CN value of 77 was based on Table 2-2c from the Technical Release-55 (second edition). This number is based on a woods with type D soil and good hydrologic conditions.

3.1 Proposed Conditions (Post-development)

The proposed development will consist of demolishing the existing gas station and constructing a +/-5,339 square foot Circle K convenience store/gas station with associated utilities, parking and landscaping on the combined parcel. The runoff generated by the proposed development will be channeled into a dry detention pond which will then outfall into the existing canal to the north of the site. A CN value of 96 was based on Martin County comments. The number is based on compacted flatwoods from the SFWMD ERP Manual for post development runoff.

3.2 Datum Reference

All elevation information provided in this stormwater report, the proposed plans and the boundary and topographic survey references the North American Vertical Datum of 1988 (NAVD88). A conversion of NGVD29 - 1.46 feet = NAVD88 was used when converting datums.

3.3 Surface Waters

No impacts to wetlands or surface waters are proposed. The canal that will be utilized for the outfall flows into an FDOT maintained canal system to the northeast.

3.4 Groundwater Elevation

Through exploratory soil borings performed by Universal Engineering Sciences (UES), (Report No. 14096) on December 5th, 2016, it was determined that the seasonal high groundwater elevation forms approximately 5.5 ft below the ground elevation. This elevation corresponds to approximately 13.5 ft NAVD88.

3.5 Flood Plain

The project lies in the FEMA flood Zone X per the FEMA Flood Insurance Rate Map Number 12085C0164G revised March 16th, 2015.

3.6 Tailwater

The design tailwater elevation of 13.38' NGVD29 (11.92 NAVD88) for the design was referenced in a drainage report for the US-1 / SR-5 widening project, FDOT Project # 89010-3500 (approved SFWMD permit #43-0112-P, Application #990611-6). The Circle K proposed outfall is a county-owned canal which flows through a box culvert under US-1 to FDOT Lateral Ditch #4 per FDOT R/W Map #89010-2500. The box culvert is located at Station 1250+50 of the plans and had a Design High Water Elevation of 4.079 meters, NGVD29. A conversion of 3.28 feet per meter and NGVD29 - 1.46 feet = NAVD88 was used.

4. Land Use Summary

4.1 Existing Site Land Uses

Area	Area Description	Square Feet	Acreage	% of Total Area
Total Basin	Impervious Area	0	0	0
	Pervious Area	119,291	2.74	100%
	Total	119,291	2.74	100.0%

Soil Type	Soil Area	Soil Class	NRCS CN
Impervious	0	A/D	98
Pervious	119,291	A/D	77
Weighted CN			77

4.2 Proposed Site Land Use Table

Area	Area Description	Square Feet	Acreage	% of Total Area
On-site Basin	Building	5,339	0.12	4.48%
	Pavement/Sidewalk	49,719	1.14	41.68%
	Open Area	47,265	1.09	39.62%
	Dry Retention Pond	16,968	0.39	14.22%
Total Basin	Impervious Area	55,058	1.26	46.15%
	Pervious Area	64,233	1.47	53.85%
	Total	119,291	2.74	100%

Soil Type	Soil Area	Soil Class	NRCS CN
Impervious	55,058	A/D	98
Pervious	64,233	A/D	96
Weighted CN			96.92

5. Objective/ Methodology

5.1 Design Criteria

South Florida Water Management District:

- Water Quality treatment volume:
 - 75% of the greater of the following:
 - 2.5 inches times the impervious area, and
 - 1 inch times the entire site
- Analysis for the 25 year–72 hour storm event
- Pond recovery requirements
 - Recovery to within 0.1' of pond bottom within 12 days

Martin County, FL:

- Water Quality treatment volume:
 - 3 inches over the entire site
- Analysis for the 25 year – 72 hour storm event
- Pond recovery requirements:
 - Half recovery within 144 hours
 - 90% recovery 288 hours

5.2 Water Quality

Water quality is to be provided by the proposed stormwater dry detention area. The required treatment volume occurs at elevation 16.84'.

Water Quality	Volume (ac-ft)
Water Quality Required	0.680
Water Quality Provided	0.680

6. Analysis and Results

The design proposes to provide a pre vs post discharge flow rate for the 25 year – 72 hour storm event volume, with full drawdown within 72 hours.

6.1 Peak Rate Attenuation

The minimum pavement grade elevation, perimeter berm elevation, and finished floor elevation were based on the 10 year – 24 hour, 25 year – 72 hour, and 100-year 72 hour storm events, respectively. The max stages of these storms are outlined below.

Minimum Elevation	Storm Event	Rainfall (in)	Calculated Elevation (NAVD88)	Design Elevation (NAVD88)
Parking Lot	10 year – 24 hour	7.0	17.52	17.55
Site Perimeter Berm	25 year – 72 hour	12.0	17.91	18.06
Finished Floor	*100 year – 72 hour	14.0	19.23	20.00

*Zero Discharge Storm Event

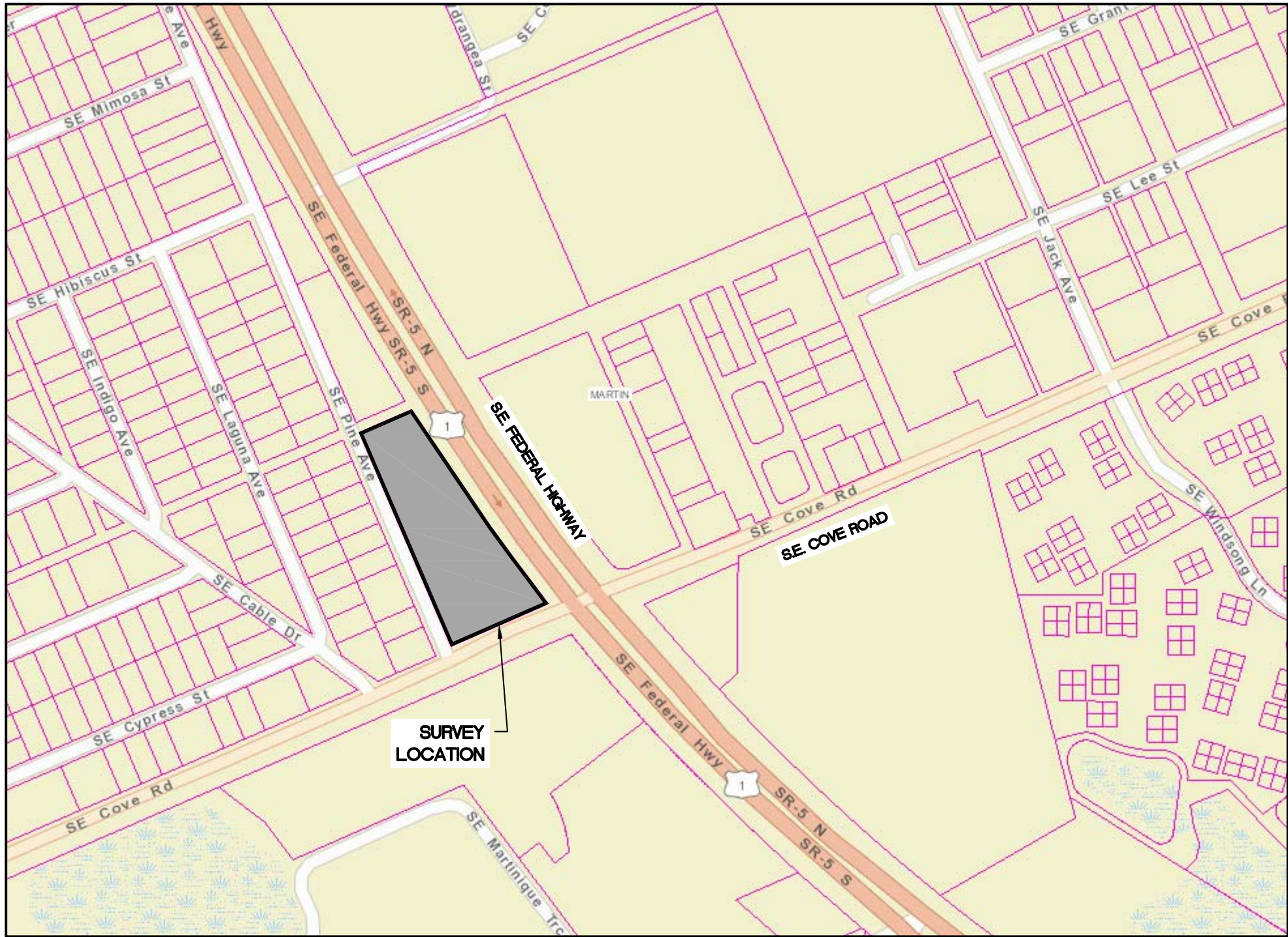
6.2 SFWMD Storm Analysis

Storm	Frequency (year)	Duration (Hours)	Discharge		Post Max. Stage (ft)
			Pre (cfs)	Post (cfs)	
SFWMD	25	72	8.56	7.36	17.91

The stormwater pond holds the required treatment volumes outlined by both Martin County and SFWMD. The 25year-72 hour storm discharges at a lower flow rate than before development. The max stage is 17.91 which is completely attenuated onsite.

6.3 Recovery Analysis

The stormwater pond recovery was analyzed using the percolation feature of ICPR, and infiltrated into the ground until recovery. Please refer to the ICPR Node Time Series reports in APPENDIX C - ICPR Analysis. Half of the pond recovers within 52.80 hours. Recovery of the stormwater pond to 0.10' from the bottom occurs at 209.28 hours, which meets the required recovery per SFWMD and Martin County criteria.



VICINITY MAP
NOT TO SCALE

LEGEND:

A	ARC LENGTH OF CURVE	R/W	RIGHT OF WAY
BFP	BACKFLOW PREVENTER	RCP	REINFORCED CONCRETE PIPE
(C)	CALCULATED DATA	S.R.	STATE ROAD
CH	CHORD OF CURVE	SV	SEWER VALVE
CM	CONCRETE MONUMENT	SWK	SIDEWALK
CO	CLEAN OUT	TOB	TOP OF BANK
CBS	CONCRETE BLOCK STRUCTURE	TYP.	TYPICAL
CHH	COMMUNICATIONS HAND HOLE	WM	WATER METER
CLP	CONCRETE LIGHT POLE	WV	WATER VALVE
CMP	CORRUGATED METAL PIPE	WPP	WOOD POWER POLE
CPP	CONCRETE POWER POLE		BOLLARD
CRB	COMMUNICATIONS RISER BOX		FIBER OPTIC MARKER
CONC.	CONCRETE		METAL LIGHT POLE
D	DELTA ANGLE OF CURVE		SANITARY MANHOLE
(D)	DEED DATA		STORM INLET
DIA.	DIAMETER		STORM MANHOLE
DNE	DO NOT ENTER		SIGN
EL.	ELEVATION		TELEPHONE MANHOLE
EM	ELECTRICAL METER		TRAFFIC SIGNAL HAND HOLE
EO	ELECTRICAL OUTLET		
ET	ELECTRICAL TRANSFORMER		
EHH	ELECTRICAL HAND HOLE		
ERB	ELECTRICAL RISER BOX		
FH	FIRE HYDRANT		
FFE	FINISHED FLOOR ELEVATION		
FIR	FOUND IRON ROD		
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION		
GA	GUY ANCHOR		
HDPE	HIGH DENSITY POLYETHYLENE PIPE		
ID.	IDENTIFICATION		
INV	INVERT		
NW	MONITOR WELL		
NES	MITERED END SECTION		
M/LP	METAL LIGHT POLE		
(M)	MEASURED DATA		
N&D	NAIL & DISK		
NAVD	NORTH AMERICAN VERTICAL DATUM		
O.R.B.	OFFICIAL RECORDS BOOK		
(P)	PLAT DATA		
PG.	PAGE		
PEB.	PEDESTRIAN		
PVC	POLYVINYL CHLORIDE PIPE		
R	RADIUS OF CURVE		

TREE LEGEND:

4"		OAK TREE WITH SIZE
4"		PALM TREE WITH SIZE
4"		PINE TREE WITH SIZE

TITLE COMMITMENT:

CHICAGO TITLE INSURANCE COMPANY
ORDER NUMBER: 5946993
EFFECTIVE DATE: JULY 20, 2016 @ 11:00 P.M.

LEGAL DESCRIPTION: (PER TITLE COMMITMENT)

PARCEL 1:

LOTS 1 THROUGH 19, INCLUSIVE, BLOCK 33, HIBISCUS PARK SUBDIVISION SECTION 2, ACCORDING TO THE MAP OR PLAT THEREOF, AS RECORDED IN PLAT BOOK 3, PAGE 27, OF THE PUBLIC RECORDS OF MARTIN COUNTY, FLORIDA.

PARCEL 2:

LOTS 20, 21 AND 22, BLOCK 33, HIBISCUS PARK SECTION 2, ACCORDING TO THE MAP OR PLAT THEREOF, AS RECORDED IN PLAT BOOK 3, PAGE 27, OF THE PUBLIC RECORDS OF MARTIN COUNTY, FLORIDA, LESS AND EXCEPTING THE FOLLOWING DESCRIBED PROPERTY CONVEYED TO MARTIN COUNTY IN OFFICIAL RECORDS BOOK 810, PAGE 981:
15' ADDITIONAL ROAD RIGHT OF WAY BEING KNOWN AS A PORTION OF LOT 22, BLOCK 33 "HIBISCUS PARK - SECTION TWO" AS RECORDED IN PLAT BOOK 3, PAGE 27, PUBLIC RECORDS OF MARTIN COUNTY, FLORIDA.

BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID LOT 22, FOR THE POINT & PLACE BEGINNING THENCE NORTH 23° 09' 32" WEST ALONG THE WEST LINE OF SAID LOT 22, A DISTANCE OF 15.00 FEET TO A POINT, THENCE NORTH 66° 18' 28" EAST A DISTANCE OF 237.25 FEET TO A POINT OF CURVE, SAID CURVE BEING CONCAVE TO THE NORTHWEST HAVING A RADIUS OF 30.00 FEET A CENTRAL ANGLE OF 104° 11' 30", THENCE IN A COUNTER CLOCKWISE DIRECTION ALONG THE ARC OF SAID CURVE A DISTANCE OF 54.55 FEET TO THE POINT OF TANGENCY OF SAID CURVE, AND BEING A POINT ON A NEW CURVE, SAID NEW CURVE BEING CONCAVE TO THE NORTHEAST HAVING A RADIUS OF 5829.65 FEET, A CENTRAL ANGLE OF 0° 31' 53", THENCE IN A COUNTER CLOCKWISE DIRECTION ALONG THE ARC OF SAID CURVE, SAID ARC ALSO BEING THE WEST RIGHT OF WAY OF U.S. HIGHWAY NO. #1 A DISTANCE OF 54.07 FEET TO A POINT ON THE SOUTH LINE OF SAID LOT 22, AND ALSO THE NORTH RIGHT OF WAY LINE OF COVE ROAD THENCE SOUTH 66° 18' 22" WEST A DISTANCE OF 279.84 FEET TO THE POINT AND PLACE OF BEGINNING.

TITLE COMMITMENT EXCEPTIONS:

SCHEDULE B - II

ITEMS 1 THRU 5 ARE STANDARD EXCEPTIONS - NO COMMENTS

- RESTRICTIONS, COVENANTS, CONDITIONS, EASEMENTS AND OTHER MATTERS AS CONTAINED ON THE PLAT OF HIBISCUS PARK SECTION 2, RECORDED IN PLAT BOOK 3, PAGE 27, OF THE PUBLIC RECORDS OF MARTIN COUNTY, FLORIDA. (AFFECTS PARCEL 1 AND PARCEL 2 - NO ISSUES TO PILOT)
- RESOLUTIONS REGARDING WATER AND WASTEWATER ASSESSMENTS RECORDED IN OFFICIAL RECORDS BOOK 1211, PAGE 2023; OFFICIAL RECORDS BOOK 1277, PAGE 2368; OFFICIAL RECORDS BOOK 1356, PAGE 1; OFFICIAL RECORDS BOOK 1442, PAGE 127; OFFICIAL RECORDS BOOK 1605, PAGE 1830; OFFICIAL RECORDS BOOK 1719, PAGE 1179; OFFICIAL RECORDS BOOK 1855, PAGE 2231 AND OFFICIAL RECORDS BOOK 1989, PAGE 1270. (AFFECTS PARCEL 1 AND PARCEL 2 - NOT PLOTTABLE)
- RESTRICTIONS AS SET FORTH ON WARRANTY DEED RECORDED IN OFFICIAL RECORDS BOOK 338, PAGE 2710, AS AMENDED BY QUIT CLAIM DEED RECORDED IN OFFICIAL RECORDS BOOK 655, PAGE 649. (AS TO LOTS 20-22) (AFFECTS PARCEL 2 - BLANKET IN NATURE - NOT SHOWN ON SURVEY)
- RESTRICTIONS AS SET FORTH ON WARRANTY DEED RECORDED IN OFFICIAL RECORDS BOOK 167, PAGE 215. (AS TO LOTS 16-19) (AFFECTS PARCEL 1 - SHOWN ON SURVEY)
- RESERVATIONS FOR STATE ROAD RIGHT OF WAY IN THE TRUSTEES OF THE INTERNAL IMPROVEMENT FUND OF THE STATE OF FLORIDA DEED NO. 164 RECORDED IN DEED BOOK 32, PAGE 156. (AFFECTS PARCEL 1 AND PARCEL 2 - NOT PLOTTABLE)
- BIKE PATH EASEMENT GRANTED TO MARTIN COUNTY AS RECORDED IN OFFICIAL RECORDS BOOK 810, PAGE 977. (AS TO LOTS 20-22) (AFFECTS PARCEL 2 - SHOWN ON SURVEY)
- ORDINANCE NUMBER 300 AMENDING COMPREHENSIVE PLAN RECORDED IN OFFICIAL RECORDS BOOK 684, PAGE 292. (AS TO LOTS 20-22) (AFFECTS PARCEL 2 - NOT PLOTTABLE)
- RIGHT OF WAYS FOR COVE ROAD AND U.S. HIGHWAY NO. 1 AS NOW LAID OUT AND EXIST. (AFFECTS PARCEL 2 - SHOWN ON SURVEY)
- RIGHTS OF TENANTS OCCUPYING ALL OR PART OF THE INSURED LAND UNDER UNRECORDED LEASES OR RENTAL AGREEMENTS. (NOT A SURVEY ISSUE)

LEGAL DESCRIPTION: (BY SURVEYOR)

A PARCEL OF LAND LYING AND BEING ALL OF LOTS 1 THROUGH 21 AND A PORTION OF LOT 22, BLOCK 33, SECTION 2, OF HIBISCUS PARK, SECTION 2 AS RECORDED IN PLAT BOOK 3, PAGE 27 OF THE MARTIN COUNTY FLORIDA PUBLIC RECORDS, SAID LANDS WERE FORMERLY A PORTION OF BLOCK 73 OF ST. LUCIE INLET FARMS SUBDIVISION AS RECORDED IN PLAT BOOK 1, PAGE 98 OF THE PALM BEACH COUNTY PUBLIC RECORDS BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING FOR REFERENCE AT AN IRON PIPE AT THE INTERSECTION OF THE CENTERLINE OF THE ROAD BETWEEN BLOCK 73 AND BLOCK 74 (30 FOOT RIGHT OF WAY) AS SHOWN ON THE PLAT OF SAID ST. LUCIE INLET FARMS AND THE COMMON LINE BETWEEN BLOCK 72 AND BLOCK 73, SAID ST. LUCIE INLET FARMS AND ALSO SHOWN ON THE PLAT OF AFORESAID HIBISCUS PARK, SECTION 2, THENCE, BEARING NORTH 66°27'39" EAST ALONG SAID CENTERLINE, A DISTANCE OF 15.00 FEET TO A POINT;
THENCE, LEAVING SAID CENTERLINE, BEARING SOUTH 23°38'49" WEST ALONG THE NORTHERN PROLONGATION OF THE WESTERLY LINE OF BLOCK 32 AND BLOCK 33 AND THEN ALONG SAID WEST LINE, A DISTANCE OF 670.59 FEET TO THE NORTHWESTERLY CORNER OF AFORESAID LOT 1, BLOCK 33 AND THE POINT OF BEGINNING OF THE HEREIN DESCRIBED PARCEL OF LAND;
SAID CORNER ALSO BEING ON THE SOUTH LINE OF AN EXISTING 30 FOOT DRAINAGE RIGHT OF WAY BETWEEN BLOCK 32 AND BLOCK 33, THENCE, BEARING NORTH 66°29'11" EAST ALONG SAID LINE, A DISTANCE OF 146.49 FEET TO THE NORTHEAST CORNER OF SAID LOT 1 AND THE WESTERLY RIGHT OF WAY LINE OF U.S. HIGHWAY NO. 1 (STATE ROAD 5) (A 200 FOOT WIDE RIGHT OF WAY) ON FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP OF STATE ROAD NO. 5, SECTION 89010-2114 AND ALSO ON SAID PLAT OF HIBISCUS PARK, SECTION 2, SAID POINT BEING ON A CURVE CONCAVE EASTERLY HAVING A RADIUS OF 5829.65 FEET, A CENTRAL ANGLE OF 05°43'28", A CHORD LENGTH OF 582.20 FEET BEARING SOUTH 35°28'49" EAST;
THENCE, ALONG THE ARC OF SAID CURVE, A DISTANCE OF 582.45 FEET TO A POINT OF REVERSE CURVE HAVING A RADIUS OF 30.00 FEET, A CENTRAL ANGLE OF 104°09'54" A CHORD LENGTH OF 47.33 FEET BEARING SOUTH 13°44'24" WEST;
THENCE, ALONG THE ARC OF SAID CURVE AND SAID RIGHT OF WAY LINE AN ARC DISTANCE OF 54.54 FEET TO A POINT LYING ON THE NORTH RIGHT OF WAY OF COVE ROAD (A 91.61 FOOT WIDE RIGHT OF WAY) AS DESCRIBED IN OFFICIAL RECORDS BOOK 810, PAGE 981, MARTIN COUNTY PUBLIC RECORDS AND ALSO ON FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP SECTION 89010-2500, LAST DATED 08/28/98;
THENCE, BEARING SOUTH 65°49'21" WEST ALONG SAID NORTH RIGHT OF WAY LINE, A DISTANCE OF 237.79 FEET TO AFORESAID WEST LINE OF BLOCK 33 AND THE EASTERLY RIGHT OF WAY LINE OF PINE AVENUE (A 50 FOOT WIDE RIGHT OF WAY) AS SHOWN ON SAID PLAT OF HIBISCUS PARK, SECTION 2;
THENCE, BEARING NORTH 23°38'49" WEST, ALONG SAID RIGHT OF WAY LINE A DISTANCE OF 609.98 FEET TO THE POINT OF BEGINNING. CONTAINING 124,791 SQUARE FEET OR 2.865 ACRES MORE OR LESS AND SUBJECT TO ANY AND ALL RESTRICTIONS, CONDITIONS AND EASEMENTS AS CONTAINED WITHIN THE CHAIN OF TITLE.

SURVEYOR'S NOTES:

- THIS IS A BOUNDARY AND TOPOGRAPHIC SURVEY AS DEFINED IN CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE. SAID SURVEY MEETS THE "STANDARDS OF PRACTICE" FOR SURVEYING AND MAPPING, AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.
- THE TOPOGRAPHIC INFORMATION IS BASED UPON A GROUND SURVEY PERFORMED IN SEPTEMBER 2016. THE CONTOUR INTERVAL IS ONE FOOT.
- THE BOUNDARY SURVEY SHOWN HEREON WAS PREPARED UTILIZING THE DESCRIPTION AS SHOWN ON THE MARTIN COUNTY PROPERTY APPRAISER WEBSITE FOR THE ADDRESSES PROVIDED BY THE CLIENT.
- THE BEARINGS SHOWN HEREON ARE BASED UPON THE NORTH AMERICAN DATUM 1983, 2011 ADJUSTMENT, FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE. THIS REFERENCE WAS ESTABLISHED BY USING TOPCON GRS RECEIVERS WITH THE TRIMBLE VIRTUAL REFERENCE NETWORK. NO LOCAL CONTROL WAS LOCATED TO USE AS A CHECK TO THIS BASIS OF BEARINGS. THE OBSERVED BEARING OF SOUTH 65°49'21" WEST FOR THE NORTHERLY RIGHT OF WAY LINE OF COVE ROAD WAS USED AS A BASIS FOR THIS SURVEY.
- THE ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AND ARE BASED UPON THE FOLLOWING DESCRIBED MARTIN COUNTY BENCHMARK:
"H.B. 1" SURVEY DISK, ELEVATION = 15.78" (NAVD 88)
THIS SURVEY WAS PERFORMED UTILIZING G.P.S.-R.T.K. PROCEDURES AND TRADITIONAL SURVEY PROCEDURES WITH REDUNDANT MEASUREMENTS, AND HAS A HORIZONTAL AND VERTICAL POSITIONAL TOLERANCE OF 0.10 FEET.
- ALL DISTANCES SHOWN HEREON ARE IN U.S. SURVEY FEET AND DECIMALS THEREOF AND ARE CALCULATED UNLESS OTHERWISE NOTED.
- THE LANDS BOUND BY THIS SURVEY ARE LOCATED WITHIN AN AREA HAVING A FLOOD ZONE DESIGNATION "X" (AREA OF MINIMAL FLOOD HAZARD) BY THE FEDERAL MANAGEMENT AGENCY (FEMA) ON FLOOD INSURANCE RATE MAP NUMBERS 12085C0164G, DATED MARCH 16, 2015, WHICH IS THE CURRENT FLOOD INSURANCE RATE MAP FOR THE COMMUNITY THIS PARCEL IS SITUATED IN.
- THE EXPECTED USE OF THE LAND BOUND BY THIS SURVEY, AS CLASSIFIED IN THE "STANDARDS OF PRACTICE" IS "COMMERCIAL" WITH THE MINIMUM LINEAR CLOSURE FOR THIS TYPE OF BOUNDARY SURVEY TO BE 1 FOOT IN 10,000 FEET (1:10,000). THE ACCURACY OBTAINED BY MEASUREMENT, OBSERVATION AND CALCULATION OF THE CLOSED GEOMETRIC FIGURE FOR THIS SURVEY WAS DETERMINED TO MEET SAID REQUIREMENT.
- THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
- ADDITIONS OR DELETIONS TO THIS SURVEY MAP OR REPORT BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
- THERE IS NO OBSERVABLE EVIDENCE OF CURRENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS.
- THERE IS NO OBSERVABLE EVIDENCE OF THE SITE BEING USED AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.

INDEX OF SHEETS:

SHEET V-1 COVER SHEET
SHEET V-2 BOUNDARY AND TOPOGRAPHIC SURVEY
NOT VALID WITHOUT ALL SHEETS LISTED IN INDEX

ACREAGE:

PARCEL 1 (LOTS 1 - 19) ±0.08 ACRES
PARCEL 2 (LOTS 20 - 22 - EXISTING CIRCLE K) ±0.78 ACRES

SURVEYOR'S CERTIFICATION:

TO: CIRCLE K STORES INC.
CHICAGO TITLE INSURANCE COMPANY

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 7(a), 8, 9, 11(a), 13, 14, 16 AND 18 OF TABLE A THEREOF.

PURSUANT TO THE ACCURACY STANDARDS AS ADOPTED BY ALTA AND NSPS AND IN EFFECT ON THE DATE OF THIS CERTIFICATION, UNDERSIGNED FURTHER CERTIFIES THAT PROPER FIELD PROCEDURES, INSTRUMENTATION AND ADEQUATE SURVEY PERSONNEL WERE EMPLOYED IN ORDER TO ACHIEVE RESULTS COMPARABLE TO THOSE OBTAINED IN THE "MINIMUM ANGLE, DISTANCE AND CLOSURE REQUIREMENTS FOR SURVEY MEASUREMENTS WHICH CONTROL LAND BOUNDARIES FOR ALTA/NSPS LAND TITLE SURVEYS."

ALSO

I FURTHER CERTIFY, TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE BOUNDARY SURVEY SHOWN HEREON WAS PREPARED IN ACCORDANCE WITH THE "STANDARDS OF PRACTICE" FOR SURVEYING AND MAPPING IN THE STATE OF FLORIDA AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

STEVEN N. BRICKLEY
PROFESSIONAL SURVEYOR AND MAPPER
FLORIDA REGISTRATION No. 6841

SEPTEMBER 15, 2017
DATE OF LAST FIELDWORK

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

BOWMAN CONSULTING GROUP, LTD., INC.
FLORIDA CERTIFICATE OF AUTHORIZATION NUMBER 8030
(LB 8030 = LICENSED BUSINESS NUMBER 8030)

Bowman
CONSULTING GROUP, LTD., INC.

Bowman Consulting Group, Ltd., Inc.
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© Bowman Consulting Group, Ltd., Inc.

ALTA BOUNDARY AND TOPOGRAPHIC SURVEY

CIRCLE K
5750 S.E. FEDERAL HIGHWAY, STUART

MARTIN COUNTY

FLORIDA

PROJECT NO.
10133-01-013

REVISIONS		
6/15/17	ADDED STORM PIPE	
9/15/17	UPDATE SURVEY/RW	

DATE	DESCRIPTION	
16 F.B.	RT DRAWN	KS CHKD

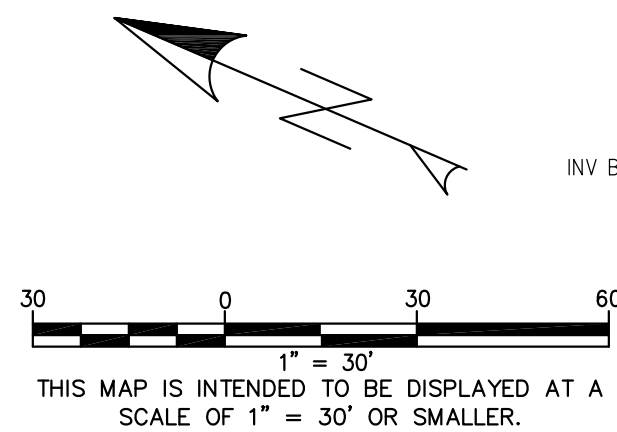
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JOB No. 10133-01-013

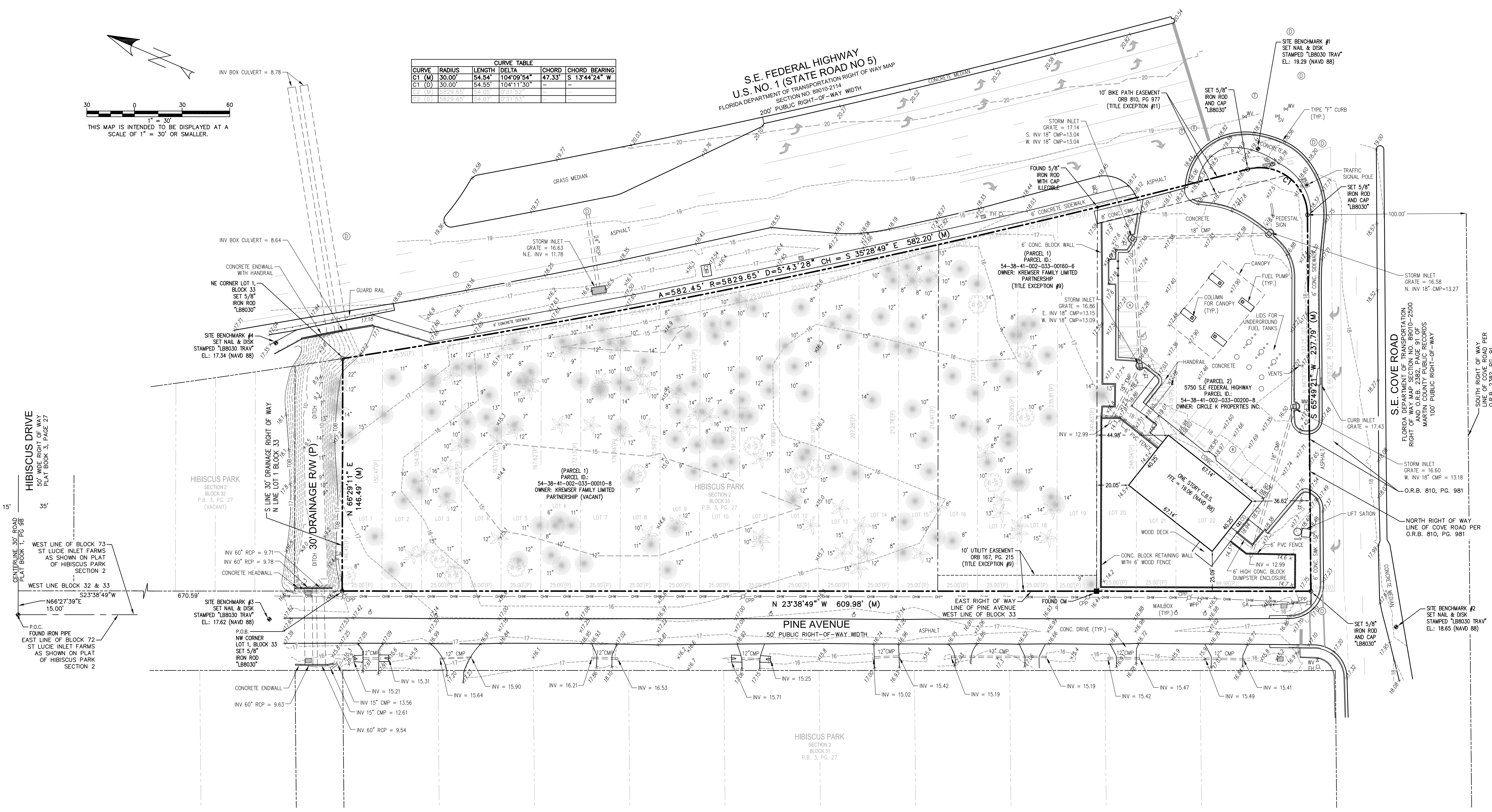
DATE: 10/13/2016

FILE: 10133-D-BP-013

SHEET **V-1**



CURVE TABLE					
CURVE	RADIUS	LENGTH	DELTA	CHORD	CHORD BEARING
C1 (M)	30.00'	54.54'	104°09'54"	47.33'	S 13°44'24" W
C1 (D)	30.00'	54.55'	104°11'30"	-	-
C2 (M)	5829.65'	54.05'	0°31'52"	-	-
C2 (D)	5829.65'	54.07'	0°31'53"	-	-



LEGEND:

- A ARC LENGTH OF CURVE
- BBP BACKFLOW PREVENTER
- (C) CALCULATED DATA
- CH CHORD OF CURVE
- CM CONCRETE MONUMENT
- CO CLEAN OUT
- CBS CONCRETE BLOCK STRUCTURE
- CHH COMMUNICATIONS HAND HOLE
- CLP CONCRETE LIGHT POLE
- CMP CORRUGATED METAL PIPE
- CPP CONCRETE POWER POLE
- CRB COMMUNICATIONS RISER BOX
- CONC. CONCRETE
- D DELTA ANGLE OF CURVE
- (D) DEED DATA
- DIA. DIAMETER
- DNE DO NOT ENTER
- EL. ELEVATION
- EM ELECTRICAL METER
- EO ELECTRICAL OUTLET
- ET ELECTRICAL TRANSFORMER

- EHH ELECTRICAL HAND HOLE
- ERB ELECTRICAL RISER BOX
- FH FIRE HYDRANT
- FFE FINISHED FLOOR ELEVATION
- FIR FOUND IRON ROD
- FDOT FLORIDA DEPARTMENT OF TRANSPORTATION
- GA GUY ANCHOR
- HOPE HIGH DENSITY POLYETHYLENE PIPE
- ID. IDENTIFICATION
- INV INVERT
- MW MONITOR WELL
- MES MITERED END SECTION
- MLP METAL LIGHT POLE
- (M) MEASURED DATA
- N&D NAIL & DISK
- NAVD NORTH AMERICAN VERTICAL DATUM
- O.R.B. OFFICIAL RECORDS BOOK
- (P) PLAT DATA
- PG. PAGE
- PED. PEDESTRIAN
- EO ELECTRICAL OUTLET
- ET ELECTRICAL TRANSFORMER

- R RADIUS OF CURVE
- R/W RIGHT OF WAY
- RCP REINFORCED CONCRETE PIPE
- S.R. STATE ROAD
- TS SEWER VALVE
- SWK SIDEWALK
- TGB TOP OF BANK
- TYP. TYPICAL
- WM WATER METER
- WV WATER VALVE
- WPP WOOD POWER POLE

- 1 CONTOUR LINE
- G GAS LINE
- CHW OVERHEAD WIRES
- SS SANITARY SEWER
- TS UNDERGROUND TRAFFIC SIGNAL
- FM FORCE MAIN
- UC UNDERGROUND COMMUNICATIONS
- E UNDERGROUND ELECTRIC
- W WATER LINE
- X SPOT ELEVATION

TREE LEGEND:

- OAK TREE WITH SIZE
- PALM TREE WITH SIZE
- PINE TREE WITH SIZE

EXISTING PARKING SPACES

- 11 - REGULAR SPACES
- 12 - HANDICAP SPACE
- 13 - TOTAL SPACES

REVISIONS		
6/15/17	ADDED STORM PIPE	
9/15/17	UPDATE SURVEY/RW	

DATE	DESCRIPTION
16 F.B.	RT KS
10/13/2016	DRAWN CHKD

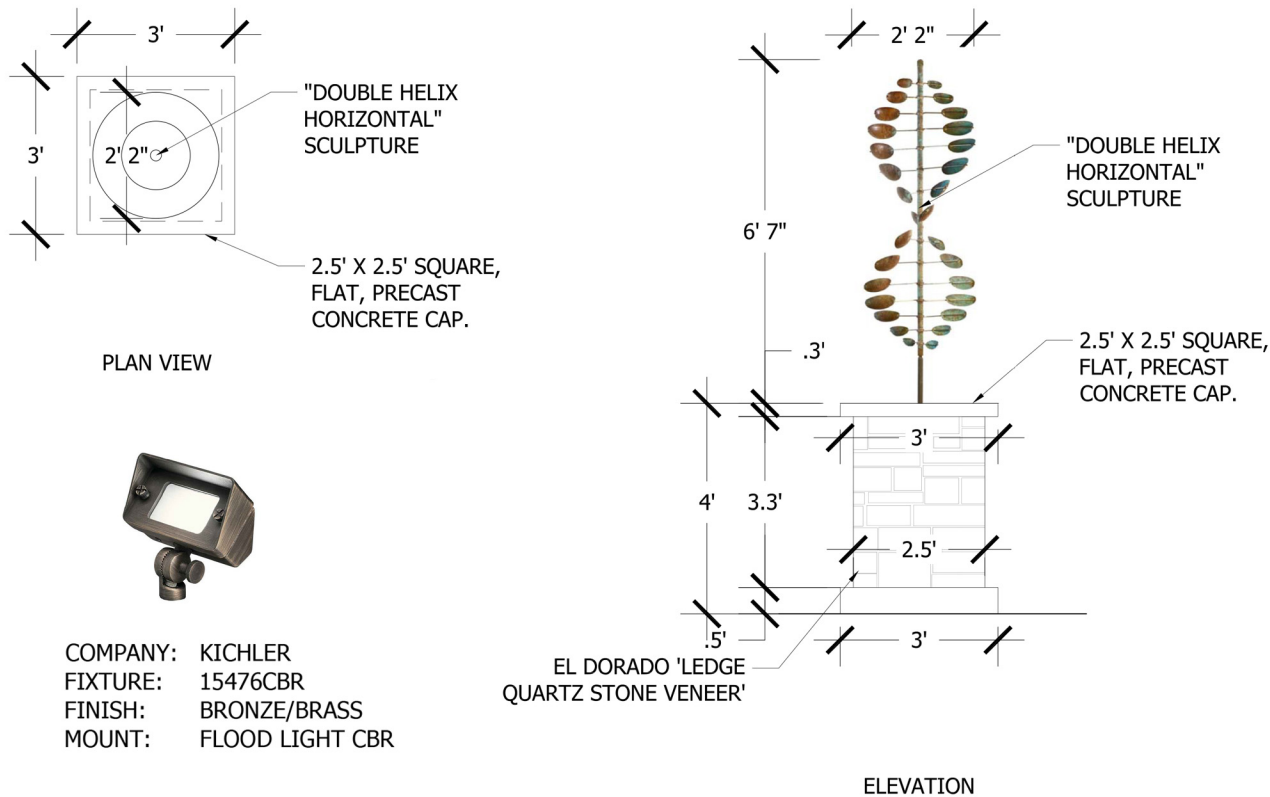
SCALE: 1" = 30'

JOB No. 10133-01-013

DATE: 10/13/2016

FILE: 10133-D-BP-013

DETAILS



6' 7"

4'

