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## I. Land Use Analysis/ Zoning Justification

### Statement of Proposed Change

The following proposal is a rezoning application for parcel 0503700000 (“Subject Parcel”). The parcel is 24.53 gross acres in size and is located at 21000 NE 40<sup>th</sup> Street in Levy County, Florida. Through this application, the applicant requests to make the following change to the City’s Zoning Map.

- Rezoning: Propose to change the zoning district from Industrial to Public Facilities.

### Land Use Assessment

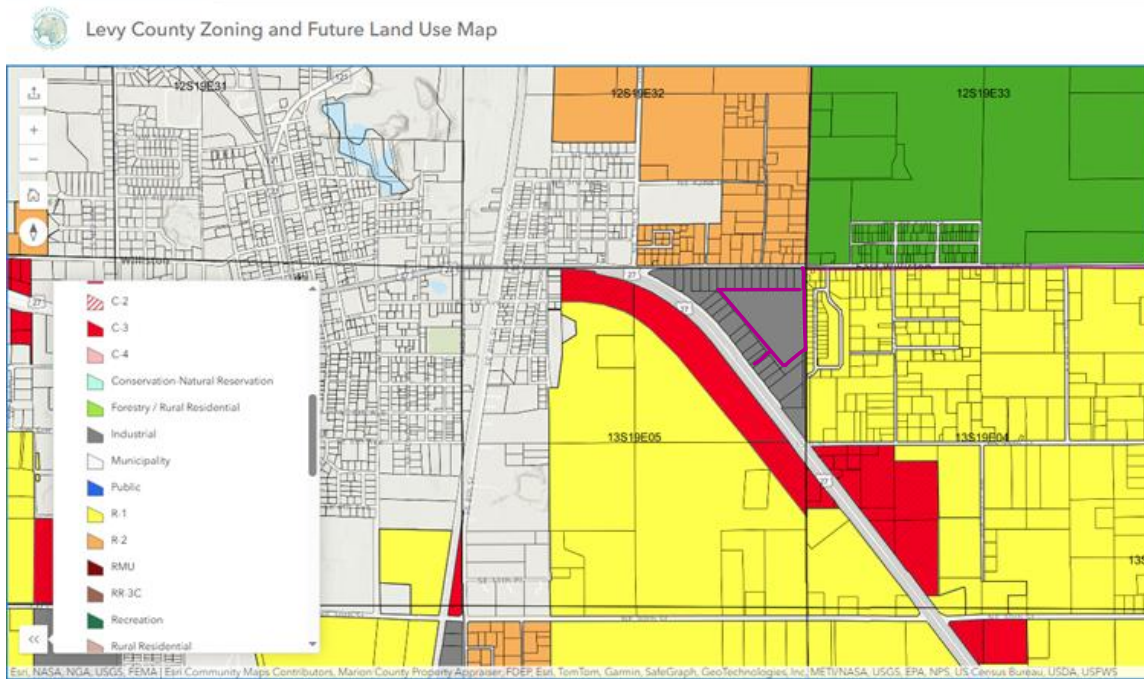
#### Current and Proposed Use

The subject parcel’s current and proposed use is a Sports Complex. In 2004, the City of Williston purchased the parcel with a Florida Recreation Development Assistance Program (FRDAP) grant and has since maintained the park. In 2022, the City secured an Africana-American Historical and Cultural grant from the Department of State to further enhance and expand the site’s improvements.

As shown on Map 1 and Table 1, the subject parcel is located within an area that includes a variety of existing residential and industrial zoning districts. The proposed Zoning Map Amendment to Public Facilities serves as a logical transition between industrial uses to the north and west and lower-density residential uses to the east.

The current zoning does not allow for the proposed use. Industrial zoning is intended for manufacturing, assembly, processing, packaging, storage and distribution of products, warehouses, wholesale distribution centers, construction contractors/trades offices, etc. It’s development regulations, such as lot coverage and parking requirements, are designed for industrial operations and create constraints for recreational or park-related uses. Reclassifying the property to Public Facilities zoning removes the limitations and accommodates park and recreational uses.

## Map 1: Current Zoning/Use



**Table 1: Current Zoning/Use**

Location	Zoning	Current Use
Subject Property	Industrial	Sports Complex
North	Industrial	Industrial
West	Industrial	Industrial
South	Industrial	Industrial
East	Residential	Residential



## II Public Facilities Impact/Concurrency Analysis

Cornelius Williams Park is not a new use nor is it a new development. Currently, the park is utilized for soccer and softball tournaments, for community events, and as a playground and open space for residents. However, with improvements and increased public utilization, there may be impact. This impact will be minimal and is summarized in this section.

### **Roadway System**

The Levy County Traffic Circulation Element Policy 2.2 establishes level of service standards (LOS) for County and non- Strategic Intermodal System (SIS) roads as LOS C.

*There is no indication that the LOS on NE 40<sup>th</sup> Street will be affected by this project.*

### **Potable Water**

The LOS for potable water supply shall be 150 gallons per capita for residential developments.

*There is no indication that the LOS will be affected by this project.*

### **Sanitary Sewer**

The minimum level of service for sanitary sewer systems is 100 gallons per capita per day for residential development, or an equivalent residential unit (ERU) for non-residential development. If the municipal jurisdiction committing to providing sanitary sewer service adopts a higher level of service, then the higher level of service shall apply.

*There is no indication that the LOS will be affected by this project.*

### **Solid Waste**

The minimum level of service for solid waste is 2.8 pounds per capita per day for residential development, or an ERU for non-residential development.

*There is no indication that the LOS will be affected by this project.*

### **Stormwater Drainage and Treatment**

The minimum LOS for drainage for both quantity and quality are those that would comply with the quantity and quality water management district standards contained in the Florida Administrative Code for the water management district in which the proposed development is located.



*The City of Williston has met the above standards and has acquired a permit from the SWFWMD for the project.*

### III. Comprehensive Plan Consistency

Designating the Cornelius Williams Sports Complex from Industrial to Public Facilities is consistent with the Levy County Comprehensive Plan in the following ways:

#### **Capital Improvements Element - Consistent**

##### **Capital Improvement Guidelines**

**Policy 1.1** The County will identify capital improvement needs by using adopted level of service standards and guidelines in the Transportation, Recreation and Open Space, Infrastructure and Public-School Facilities Elements.

*Those levels of service will be met or exceeded and will be discussed in more detail in this assessment.*

#### **Coastal Management Element – Not applicable**

#### **Conservation Element - Consistent**

##### **Objective 1 Air Quality**

Protect and maintain the air quality for the benefit of all citizens by meeting or exceeding State Air Quality Standards. Open Space and Tree Protection.

**Policy 1.1** Enhance air quality by preserving trees, natural vegetation and open spaces through provisions in the land development regulations for tree preservation, buffering, and recreation and open space.

**Policy 3.1** The level of service standard for Open Space is one hundred (100) acres per one thousand (1,000) persons.

*Encouraging available open space as recreational areas assists the county in this Objective.*



### **Economic Element – Consistent**

**Goal:** Promote the growth of a strong, stable and prosperous economy through public and private economic development initiatives that preserve and enhance a high quality of life for the residents while protecting the natural, recreational, historical and cultural resources of the County.

### **Objective 4 Protection of Rural and Environmental Quality**

**Policy 4.2** Levy County will provide multiple options for agricultural, aquacultural, industrial and recreation related development through the Land Development Regulations.

### **Resource and Cultural Based Recreational Development and Activities**

**Policy 4.5** Develop a plan to market recreational, historical and cultural resources at a local, regional and national level.

**Policy 4.6** Levy County, in coordination with municipalities and Chambers of Commerce, shall encourage promotion of activities for civic festivals to attract tourists.

*This park has plans for a museum to preserve the history and culture of Williston and Levy County. Improving the property with utilities and parking will allow for additional space for festivals to attract tourists.*

### **Environmental Protection - Consistent**

**Policy 4.7** Growth and development plans will be coordinated with appropriate regulatory and non-regulatory agencies to protect the quality of natural resources.

**Policy 4.8** Promote eco-tourism through the development and improvement of public recreational opportunities and recreational initiatives including, but not limited to, the Tri-County Nature Coast Greenway.

*The project will be completed with local and state agencies to protect natural resources and add to Levy County's recreational tourism.*

### **Future Land Use Element - Consistent**

**Public and Institutional Facilities:** This category provides for public buildings and grounds. This land use is permitted within a Municipal Service District or within rural areas outside of the Municipal Service District boundary.



*Cornelius Williams Park is located in the City of Williston's MSD.*

## **Housing Element – Not Applicable**

### **Recreation and Open Space Element - Consistent**

**Goal:** Maintain and improve activity and resource-based recreation facilities and open space systems to meet the future needs of residents in Levy County.

#### **Objective 1 Public Park and Recreation**

Ensure that park and recreational opportunities are adequately provided and available to the public including, access to beaches, shoreline, and other waterways, at the adopted level of service to accommodate the County's population growth.

#### **Park and Recreation Level of Service Standards**

**Policy 1.1** The level of service will be measured by summing the total County and public owned acreage by park type and dividing by the current estimates of County population in the unincorporated areas.

**Policy 1.2** The level standard of service for public parks and recreation shall be two (2) acres per one thousand (1,000) persons. The County shall incorporate adopted level of service standards in the land development regulations to ensure that no development will lower the level of service below adopted standards.

**Policy 1.3** Roadways, parking and other facilities will be properly maintained and improved based on recreational demands and Transportation Circulation Element scheduling and regulatory agencies during the permitting process to ensure the protection of the County's natural resources.

#### **Objective 2 Public and Private Recreation**

**Policy 2.4** The following park types and sizes shall be utilized as guidelines and may be the basis for the providing of recreational sites for public acquisitions and by proposed developments of a certain size, density, and intensity.



### **Community Park**

Description - a park located near major roadways, and designed to serve the needs of more than one neighborhood.

Standard - Three (3) acres per one thousand (1,000) persons.

Minimum Size - Twenty-five (25) acres

The LOS for Levy County open space is 100 acres per 1,000 persons. According to the March 25, 2025 Comprehensive Plan Background and Data Analysis Update Report, created by Infrastructure Consulting and Engineering, the population in Levy County is 45,706 and is projected to be 47,823 in 2029. This would mean the LOS would be 4,782 acres. However, the LOS for a community park is 3 acres per 1,000 persons.

*Cornelius Williams Park is currently included in Levy County's inventory of recreational space for community parks.*

### **Infrastructure Element – Consistent Stormwater Management Level of Service**

**Policy 1.2** Stormwater management facilities shall meet the following level of service standards and guidelines:

**A. Standard:** The design of stormwater management facilities shall comply with the applicable Water Management District standards for stormwater quantity (i.e., F.A.C.).

Chapter 62-330 for Suwannee River Water Management District (SRWMD) and Southwest Florida Water Management District (SWFWMD).

Guideline: On-site post development stormwater management and runoff conditions shall not exceed the rate and volume of pre-development conditions.

**B. Standard:** Water discharge treatment shall be consistent with F.A.C. Chapter 62-330.  
Guideline: Discharge equal to ambient conditions, with treatment of the first one (1) inch.



**Policy 1.3** All developments shall comply with the provisions of the Land Development Code regulating stormwater and floodplain management.

*The City of Williston has met the above standards and has acquired a permit from the SWFWMD for the project.*

**Transportation Circulation Element – Consistent**

**Goal:** Maintain a safe and efficient Levy County transportation network for all users by providing adequate transportation facilities and ensuring that roadways operate at an adoptable level of service standards.

*All Levy County and Florida Department of Transportation objectives and policies will be met or exceeded.*

**Intergovernmental Coordination Element – Consistent**

**Objective 4 Intergovernmental Coordination/Development Review**

Establish a development review process to ensure that the impacts of development proposed in the Levy County Comprehensive Plan upon development in adjacent municipalities, adjacent counties, the region, and the state are coordinated with these jurisdictions and regional and state regulatory agencies.

*Levy County will be the reviewer of development plans for the project's improvements.*

**Private Property Rights Element – Not Applicable**

**Public School Facilities Element - Not Applicable**

**Springs Protection Element - Consistent**

**Goal 1:** Protect 1st and 2nd magnitude springs and spring shed areas as fragile resources necessary for sustaining the community's quality of life.

*All project improvements and development will follow the Objectives and Polices of this Goal.*



#### IV. Public Facilities Impact/Concurrency Analysis

The sportsplex at Cornelius Williams Park will need upgrades to a large portion of the property. The additional access will be for concessions, the museum, irrigation, ADA bathrooms, and drinking fountains. Currently, the amount and size of the water mains and sewer force main are not sufficient for the master plan that the City of Williston will be implementing. In order to provide the necessary infrastructure for this project to proceed, it will be imperative to lay new water mains and develop a gravity sewer line through the center and eastern edges of the Cornelius Williams Park. Stormwater is another area of utility upgrades necessary for the completion of the master plan.

The City of Williston will be supplying and maintaining these utilities. A complete concurrency impact analysis will be provided during the Site and Development review.



## V. List of Attachments

Attachment A: Zoning Map Amendment Application

Attachment B: Agent Authorization

Attachment C: Property Deed

Attachment D: Proof of Paid Taxes

Attachment E: Legal Description (Also Supplied in Microsoft Word Format)

Attachment F: Vicinity Map

Attachment G: Soil Survey

Attachment H: Site Photographs



## Attachment A

### Zoning Map Amendment Application



## Zoning Map Amendment Checklist

Incomplete application packets will not be accepted.

\*additional fees may be due for the costs of engineers, legal counsel, or other professional consultants that are retained by the County in connection with review of any application or permit.\*

### TO BE SUPPLIED AT THE TIME OF SUBMISSION:

12 paper application packets and 1 electronic version containing the following, to the Levy County Planning and Zoning Department at, 320 Mongo Street, Bronson, Florida, for processing.

- This Checklist:** Please ensure checklist is complete and all items are in the specified order.
- Zoning Map Amendment application**
- Agent Authorization**
- Property Deed:** The most recent one pertaining to the proposed amendment property; obtained from the Clerk of the Circuit Court's Office.
- Proof of Paid Taxes**
- Legal description in Microsoft Word format**
- Comprehensive Plan Consistency Analysis**
- Public Facilities Impact/Concurrency Analysis**
- Land Use Analysis**
- Soil Survey**
- Justification Statement (WHEN CHANGING TO RESIDENTIAL USE ONLY):** A justification statement addressing Future Land Use Element Policy 9.2 of the Comprehensive Plan, which requires that the County-wide allocation of residential and non-residential land use categories on the Future Land Use Map be based upon the assessments listed below. The justification should be supported by data and analysis that demonstrate the following:



1. That there is a need for the requested residential land use category. The need should be based upon circumstances such as projected population, shifts in demographic trends, changes in availability of land, existing development patterns, and development potentials.

2. That the requested residential land use category is environmentally suitable for the property.

3. That the requested residential land use category can be supported by available public facilities.

**Document Existing Conditions and Compatibility with Adjacent Property:** Document in writing how the proposed change of land use and zoning will be compatible with the adjoining development and the proposed zoning district where it is to be located.

**Property Appraiser's Aerial Photograph with Parcel Overlay:** Highlight using a color or pattern to identify the subject property clearly, taking care to obscure as little information as possible.

**Additional Supporting Documentation:** Any additional supporting information provided by the applicant such as: Traffic studies, environmental studies, provision of public facilities, etc.

**Four or More Photographs at the Proposed Amendment Site:** Photographs showing site views from the subject property looking north, south, east and west.

**Property Maps:** All required maps and information can be obtained at the Levy County Property Appraiser's Office.

1. Identify the subject property clearly using a color or pattern
2. Identify all surrounding streets / roads
3. Identify all existing uses within 300 feet of the subject property's boundary using the following descriptive types: Residential, Commercial, Industrial, Recreation, Agriculture (livestock/crops), Silviculture (timber harvesting), or Undeveloped.
4. Identify the Future Land Use Map designation and zoning classifications for adjacent properties



### Zoning Map Amendment Application

Petition Number: \_\_\_\_\_

Amendment Fee Paid: \_\_\_\_\_

Submittal Date: \_\_\_\_\_

Concurrent FLU Amendment  Yes  No

Acceptance Date: \_\_\_\_\_

#### Applicant Information

Applicant(s)/Agent(s) Name City of Williston

Address 50 NW Main Street, Williston, FL 32696

Phone 352-528-3060 Email city.manager@willistonfl.org

#### Owner Information

Owner(s) Name City of Williston

Address 50 NW Main Street, Williston, FL 32696

Phone 352-528-3060 Email city.manager@willistonfl.org

#### Parcel Information

Parcel ID(s) 0503700000

Total Acreage 24.53 Subdivision Name (If applicable) Land Near Marion County (5.1)

Physical Location Address 21000 NE 40 Street, Williston, FL 32696

#### Request

	Existing	Proposed
Use of Property	Recreational	Public Services
FLUM Designation	Industrial	Industrial
Zoning Designation	Industrial	Public Services



Levy County Board of County Commission  
Planning and Zoning Department  
320 Mongo Street, Bronson, Florida, 32621  
Office: 352.486.5203

**OWNER VERIFICATION**

I hereby certify that the information contained in this application and its supplements are true and correct, and that I am the legal owner of the above described property.

J.P. Beaudet  
Owner(s) Signature

11/25/25  
Date

\_\_\_\_\_  
Owner(s) Signature

\_\_\_\_\_  
Date

STATE OF FLORIDA COUNTY OF Levy the foregoing instrument was acknowledged before me by means of  physical presence or  online notarization this 25<sup>th</sup> day of November, 20 25. Individual identified by:  Personal Knowledge  Satisfactory Evidence: Type: \_\_\_\_\_

Laticia F. Wright  
Signature of Notary Public - State of Florida

Stamp:



**CERTIFICATION**

The undersigned has read and understands the application, and has received, read, and understands the Instructions & Submission requirements. It is agreed and understood that the undersigned will be held responsible for the accuracy of the application and information submitted. The undersigned hereby attests to the fact that the parcel number(s) and legal description(s) provided is/are the true and proper identification of the area for which the petition is being submitted. Signatures of all owners and their agent are required on this form. Signatures by other than the owner(s) will be accepted only with notarized proof of authorization by the owner(s).

J.P. Beaudet  
Owner/Agent Signature

11/25/25  
Date

STATE OF FLORIDA COUNTY OF Levy the foregoing instrument was acknowledged before me by means of  physical presence or  online notarization this 25<sup>th</sup> day of November, 20 25. Individual identified by:  Personal Knowledge  Satisfactory Evidence: Type: \_\_\_\_\_

Laticia F. Wright  
Signature of Notary Public - State of Florida

Stamp:





## Attachment B

### Agent Authorization



Levy County Board of County Commission  
Planning and Zoning Department  
320 Mongo Street, Bronson, Florida, 32621  
Office: 352.486.5203

**AGENT AUTHORIZATION FORM**

City of Williston hereby give Laura Jones  
Property Owner's Name Representative's Name

the authority to act as my Authorized Agent on the following parcel:

Parcel ID 0503700000

Sue L. Beaudet  
Property Owner Printed Name

Sue L. Beaudet  
Property Owner Signature

11/25/25  
Date

\_\_\_\_\_  
Property Owner Printed Name

\_\_\_\_\_  
Property Owner Signature

\_\_\_\_\_  
Date

STATE OF FLORIDA COUNTY OF Levy County – The foregoing instrument was acknowledged before me by means

of  physical presence or  online notarization this 25<sup>th</sup> day of November, 20 25.

By: Sue L. Beaudet (Printed Name of Individual Acknowledging) Individual  
identified by:  Personal Knowledge  Satisfactory Evidence: Type: \_\_\_\_\_

Laticia F. Wright  
Signature of Notary Public - State of Florida

Laticia F. Wright  
Printed Name of Notary Public or Stamp

Stamp:





## Attachment C

### Property Deed



LT1-2-437280-1



LT2-917-739-2

11/30/2004 11:51AM  
DEED STAMPS CL: CAS

\$1,330.00

Prepared by and return to:  
Norm D. Fugate, P.A.  
P. O. Box 98  
Williston, FL 32696  
352-528-0019  
File Number: 1619

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## Warranty Deed

**This Warranty Deed** made this 24th day of November, 2004 between **Mary J. Rutland, an unmarried widow and surviving spouse of Hal S. Rutland, deceased** whose post office address is 5800 NE 200 Ave, Williston, FL 32694, grantor, and **City of Williston, a Florida municipal corporation** whose post office address is **P. O. Drawer 160, Williston, FL 32696**, grantee:

(Whenever used herein the terms "grantor" and "grantee" include all the parties to this instrument and the heirs, legal representatives, and assigns of individuals, and the successors and assigns of corporations, trusts and trustees)

**Witnesseth**, that said grantor, for and in consideration of the sum of TEN AND NO/100 DOLLARS (\$10.00) and other good and valuable considerations to said grantor in hand paid by said grantee, the receipt whereof is hereby acknowledged, has granted, bargained, and sold to the said grantee, and grantee's heirs and assigns forever, the following described land, situate, lying and being in **Levy County, Florida** to-wit:

See Exhibit "A" attached hereto and made a part hereof

Subject to covenants, conditions, restrictions, easements, reservations and limitations of record, if any.

**Together** with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

**To Have and to Hold**, the same in fee simple forever.

**And** the grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except taxes accruing subsequent to **December 31, 2003**.

**In Witness Whereof**, grantor has hereunto set grantor's hand and seal the day and year first above written.

Signed, sealed and delivered in our presence:

Jennifer L. Munden  
Witness Name: JENNIFER L. MUNDEN

Mary J. Rutland (Seal)  
Mary J. Rutland

Stephanie L. Rich  
Witness Name: Stephanie L. Rich

State of Florida  
County of Levy

The foregoing instrument was acknowledged before me this 24th day of November, 2004 by Mary J. Rutland, who  is personally known or  has produced a driver's license as identification.

[Notary Seal]



Stephanie L. Rich  
MY COMMISSION # DD077231 EXPIRES  
December 9, 2005  
BONDED THRU TROY FAIR INSURANCE, INC.

Stephanie L. Rich  
Notary Public

Printed Name: Stephanie L. Rich

My Commission Expires: 12-9-05

# Exhibit A

*Attached to and made a part thereof that certain Warranty Deed from Mary J. Rutland to City of Williston, Florida dated this 24<sup>th</sup> day of November, 2004.*

Part of lands described in O.R.B. 93, page 628, of the public records of Levy County, Florida; being the Northeast ¼ of Section 5, Township 13 South, Range 19 East, Levy County, Florida, lying North and East of U.S. Highway No. 27 (a.k.a. State Road No. 500) AND lying South of N.E. 40th Street (a.k.a. Levy County Road No. 318); LESS AND EXCEPT the following: O.R.B. 251, page 685; O.R.B. 251, page 689; O.R.B. 93, page 775; and Eastern Acres, as recorded in plat book 6, page 31; all of the public records of Levy County, Florida; being more particularly described as follows:

Commence at a railroad spike found at the Northeast corner of said Section 5, and run thence South 00°13'13"West, along the East line of said Section, a distance of 33.00 feet to the South right-of-way line of said N.E. 40th Street and the Point-of-Beginning of the herein described parcel; thence continue South 00°13'13"West, along said East line and along the West line of Lincoln Heights Revised, as recorded in plat book 3, page 26, said public records, (said line also being said West line's Northern and Southern extension thereof), a distance of 2129.85 feet to the Northeast corner of said O.R.B. 93, page 775; thence North 89°46'50"West, along the North line of said O.R.B. 93, page 775, a distance of 49.73 feet to the Southeast corner of Lot 32, said Eastern Acres; thence North 00°13'13"East, along the East line of said Lot 32 and it's Northern extension thereof AND along the East line of said O.R.B. 251, page 685 AND along the East line of said O.R.B. 251, page 689, a distance of 881.24 feet to the Northeast corner of said O.R.B. 251, page 689; thence South 52°33'12"West, along the Northern line of said O.R.B. 251, page 689, a distance of 455.62 feet to the Easternmost corner of Lot 28, said Eastern Acres; thence North 37°26'45"West, along the Northeastern line of Lots 25 thru 28, said Eastern Acres, a distance of 528.42 feet to the Northernmost corner of said Lot 25; thence South 52°32'34"West, a distance of 329.45 feet to the Westernmost corner of said Lot 25 and the Northerly right-of-way line of said U.S. Highway No. 27; thence North 35°34'26"West, along said Northerly right-of-way line, a distance of 60.04 feet to the Southernmost corner of Lot 24, said Eastern Acres; thence North 52°32'53"East, a distance of 327.57 feet to the Easternmost corner of said Lot 24; thence North 37°27'57"West, along the Northeastern line of Lots 17 thru 24, said Eastern Acres, a distance of 318.30 feet; thence North 40°01'40"West, along said Northeastern line, a distance of 627.06 feet to the Southeast corner of Lot 11, said Eastern Acres; thence South 89°49'03"East, along the South line of Lots 1 thru 10, said Eastern Acres, a distance of 1320.18 feet to the Southeast corner of said Lot 1; thence North 00°08'21"East, a distance of 329.81 feet to the Northeast corner of said Lot 1 and the said South right-of-way line of N.E. 40th Street; thence South 89°49'03"East, along said South right-of-way line, a distance of 49.89 feet to the said Point-of-Beginning.

Parcel Identification Number: 05037-000-00



LT1-2-437280-1



LT2-917-739-2

11/30/2004 11:51AM  
DEED STAMPS CL: CAS

\$1,330.00

Prepared by and return to:  
Norm D. Fugate, P.A.  
P. O. Box 98  
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(Whenever used herein the terms "grantor" and "grantee" include all the parties to this instrument and the heirs, legal representatives, and assigns of individuals, and the successors and assigns of corporations, trusts and trustees)

**Witnesseth**, that said grantor, for and in consideration of the sum of TEN AND NO/100 DOLLARS (\$10.00) and other good and valuable considerations to said grantor in hand paid by said grantee, the receipt whereof is hereby acknowledged, has granted, bargained, and sold to the said grantee, and grantee's heirs and assigns forever, the following described land, situate, lying and being in **Levy County, Florida** to-wit:

See Exhibit "A" attached hereto and made a part hereof

Subject to covenants, conditions, restrictions, easements, reservations and limitations of record, if any.

**Together** with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

**To Have and to Hold**, the same in fee simple forever.

**And** the grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances, except taxes accruing subsequent to **December 31, 2003**.

**In Witness Whereof**, grantor has hereunto set grantor's hand and seal the day and year first above written.

Signed, sealed and delivered in our presence:

Jennifer L. Munden  
Witness Name: JENNIFER L. MUNDEN

Mary J. Rutland (Seal)  
Mary J. Rutland

Stephanie L. Rich  
Witness Name: Stephanie L. Rich

State of Florida  
County of Levy

The foregoing instrument was acknowledged before me this 24th day of November, 2004 by Mary J. Rutland, who  is personally known or  has produced a driver's license as identification.

[Notary Seal]



Stephanie L. Rich  
MY COMMISSION # DD077231 EXPIRES  
December 9, 2005  
BONDED THRU TROY FAIR INSURANCE, INC.

Stephanie L. Rich  
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Printed Name: Stephanie L. Rich

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*Attached to and made a part thereof that certain Warranty Deed from Mary J. Rutland to City of Williston, Florida dated this 24<sup>th</sup> day of November, 2004.*

Part of lands described in O.R.B. 93, page 628, of the public records of Levy County, Florida; being the Northeast ¼ of Section 5, Township 13 South, Range 19 East, Levy County, Florida, lying North and East of U.S. Highway No. 27 (a.k.a. State Road No. 500) AND lying South of N.E. 40th Street (a.k.a. Levy County Road No. 318); LESS AND EXCEPT the following: O.R.B. 251, page 685; O.R.B. 251, page 689; O.R.B. 93, page 775; and Eastern Acres, as recorded in plat book 6, page 31; all of the public records of Levy County, Florida; being more particularly described as follows:

Commence at a railroad spike found at the Northeast corner of said Section 5, and run thence South 00°13'13"West, along the East line of said Section, a distance of 33.00 feet to the South right-of-way line of said N.E. 40th Street and the Point-of-Beginning of the herein described parcel; thence continue South 00°13'13"West, along said East line and along the West line of Lincoln Heights Revised, as recorded in plat book 3, page 26, said public records, (said line also being said West line's Northern and Southern extension thereof), a distance of 2129.85 feet to the Northeast corner of said O.R.B. 93, page 775; thence North 89°46'50"West, along the North line of said O.R.B. 93, page 775, a distance of 49.73 feet to the Southeast corner of Lot 32, said Eastern Acres; thence North 00°13'13"East, along the East line of said Lot 32 and it's Northern extension thereof AND along the East line of said O.R.B. 251, page 685 AND along the East line of said O.R.B. 251, page 689, a distance of 881.24 feet to the Northeast corner of said O.R.B. 251, page 689; thence South 52°33'12"West, along the Northern line of said O.R.B. 251, page 689, a distance of 455.62 feet to the Easternmost corner of Lot 28, said Eastern Acres; thence North 37°26'45"West, along the Northeastern line of Lots 25 thru 28, said Eastern Acres, a distance of 528.42 feet to the Northernmost corner of said Lot 25; thence South 52°32'34"West, a distance of 329.45 feet to the Westernmost corner of said Lot 25 and the Northerly right-of-way line of said U.S. Highway No. 27; thence North 35°34'26"West, along said Northerly right-of-way line, a distance of 60.04 feet to the Southernmost corner of Lot 24, said Eastern Acres; thence North 52°32'53"East, a distance of 327.57 feet to the Easternmost corner of said Lot 24; thence North 37°27'57"West, along the Northeastern line of Lots 17 thru 24, said Eastern Acres, a distance of 318.30 feet; thence North 40°01'40"West, along said Northeastern line, a distance of 627.06 feet to the Southeast corner of Lot 11, said Eastern Acres; thence South 89°49'03"East, along the South line of Lots 1 thru 10, said Eastern Acres, a distance of 1320.18 feet to the Southeast corner of said Lot 1; thence North 00°08'21"East, a distance of 329.81 feet to the Northeast corner of said Lot 1 and the said South right-of-way line of N.E. 40th Street; thence South 89°49'03"East, along said South right-of-way line, a distance of 49.89 feet to the said Point-of-Beginning.

Parcel Identification Number: 05037-000-00



## Attachment D

### Proof of Paid Taxes

HONORABLE MICHELE LANGFORD  
REAL ESTATE

LEVY COUNTY

ACCOUNT NUMBER: 05037-000-00 2025

ASSESSED VALUE: 165,925

EXEMPTIONS: \* SEE BELOW \*

TAX DISTRICT: SW

TAXABLE VALUE: 0

TAXING AUTHORITY	MILLAGE RATE	EXEMPTIONS	TAXABLE VALUE	TAXES	
COUNTY BOARD OF CO COMMISSIONERS	8.7500		165,925	414,209	0.00
SCHOOL SCHOOL - STATE	3.0840		290,067	290,067	0.00
SCHOOL - LOCAL	1.5000		290,067	290,067	0.00
SCHOOL-BASIC DISC	.7480		290,067	290,067	0.00
WATER SWFWMD	.1831		165,925	746,059	0.00
			COUNTY ASSESSED:	165,925	SCHOOL ASSESSED: 290,067

EXEMPTION: WATER EX CITY  
14.26510 0.00

LEVYING AUTHORITY	PURPOSE	RATES/BASIS	AMOUNT
		NON AD VALOREM ASSESSMENTS:	0.00
		COMBINED TAXES & ASSESSMENTS TOTAL:	0.00
		21000 NE 40 ST	

PROPERTY:  
ADDR: 21000 NE 40 ST  
05-13-19 0024.53 ACRES TR IN  
NE1/4 NORTH & EAST OF US 27 OR  
BOOK 917 PAGE 739 & SOUTHESTERLY  
60 FT OF L 26 ESTRN ACRES ORB

\* NO TAXES DUE \* \* \* \* \* NO TAXES DUE \* \* \* \* \* NO TAXES DUE \* \* \* \* \*

HONORABLE MICHELE LANGFORD  
REAL ESTATE  
LEVY COUNTY

\* NO TAXES DUE \* \* \* \* \* NO TAXES DUE \* \* \* \* \* NO TAXES DUE \* \* \* \* \*

EX-TYPE	ESCROW	MILLAGE	TAXES LEVIED	REMIT PAYMENT IN U.S. FUNDS TO:
		SW		

VALUES AND EXEMPTIONS	TAXES	0.00	HONORABLE MICHELE LANGFORD
COUNTY ASMT	165,925 TOTAL	0.00	310 SCHOOL ST
COUNTY TXBL	0		BRONSON, FL 32621
SCHOOL ASMT	290,067		
SCHOOL TXBL	0		
WATER EX	165,925		21000 NE 40 ST
CITY	290,067		

05-13-19 0024.53 ACRES TR IN  
NE1/4 NORTH & EAST OF US 27 OR  
BOOK 917 PAGE 739 & SOUTHESTERLY  
60 FT OF L 26 ESTRN ACRES ORB

05037-000-00 2025  
WILLISTON CITY OF  
PO DRAWER 160  
WILLISTON, FL 32696



## Attachment E

Legal Description

(Also Supplied in Microsoft Word Format)

Description: (ORB 917, PG 739)

Part of lands described in O.R.B. 93, page 628, of the public records of Levy County, Florida; being the Northeast ¼ of Section 5, Township 13 South, Range 19 East, Levy County, Florida, lying North and East of U.S. Highway No. 27 (a.k.a. State Road No. 500) AND lying South of N.E. 40th Street (a.k.a. Levy County Road No. 318); LESS AND EXCEPT the following: O.R.B. 251, page 685; O.R.B. 251, page 689; O.R.B. 93, page 775; and Eastern Acres, as recorded in plat book 6, page 31; all of the public records of Levy County, Florida; being more particularly described as follows:

Commence at a railroad spike found at the Northeast corner of said Section 5, and run thence South 00°13'13"West, along the East line of said Section, a distance of 33.00 feet to the South right-of-way line of said N.E. 40th Street and the Point-of-Beginning of the herein described parcel; thence continue South 00°13'13"West, along said East line and along the West line of Lincoln Heights Revised, as recorded in plat book 3, page 26, said public records, (said line also being said West line's Northern and Southern extension thereof), a distance of 2129.85 feet to the Northeast corner of said O.R.B. 93, page 775; thence North 89°46'50"West, along the North line of said O.R.B. 93, page 775, a distance of 49.73 feet to the Southeast corner of Lot 32, said Eastern Acres; thence North 00°13'13"East, along the East line of said Lot 32 and it's Northern extension thereof AND along the East line of said O.R.B. 251, page 685 AND along the East line of said O.R.B. 251, page 689, a distance of 881.24 feet to the Northeast corner of said O.R.B. 251, page 689; thence South 52°33'12"West, along the Northern line of said O.R.B. 251, page 689, a distance of 455.62 feet to the Easternmost corner of Lot 28, said Eastern Acres; thence North 37°26'45"West, along the Northeastern line of Lots 25 thru 28, said Eastern Acres, a distance of 528.42 feet to the Northernmost corner of said Lot 25; thence South 52°32'34"West, a distance of 329.45 feet to the Westernmost corner of said Lot 25 and the Northerly right-of-way line of said U.S. Highway No. 27; thence North 35°34'26"West, along said Northerly right-of-way line, a distance of 60.04 feet to the Southernmost corner of Lot 24, said Eastern Acres; thence North 52°32'53"East, a distance of 327.57 feet to the Easternmost corner of said Lot 24; thence North 37°27'57"West, along the Northeastern line of Lots 17 thru 24, said Eastern Acres, a distance of 318.30 feet; thence North 40°01'40"West, along said Northeastern line, a distance of 627.06 feet to the Southeast corner of Lot 11, said Eastern Acres; thence South 89°49'03"East, along the South line of Lots 1 thru 10, said Eastern Acres, a distance of 1320.18 feet to the Southeast corner of said Lot 1; thence North 00°08'21"East, a distance of 329.81 feet to the Northeast corner of said Lot 1 and the said South right-of-way line of N.E. 40th Street; thence South 89°49'03"East, along said South right-of-way line, a distance of 49.89 feet to the said Point-of-Beginning.

Containing 24.526 Acres, more or less.

LESS AND EXCEPT 60 foot wide strip of land per ORB 1489, PG 615.

Description: (ORB 1432, PG 652)

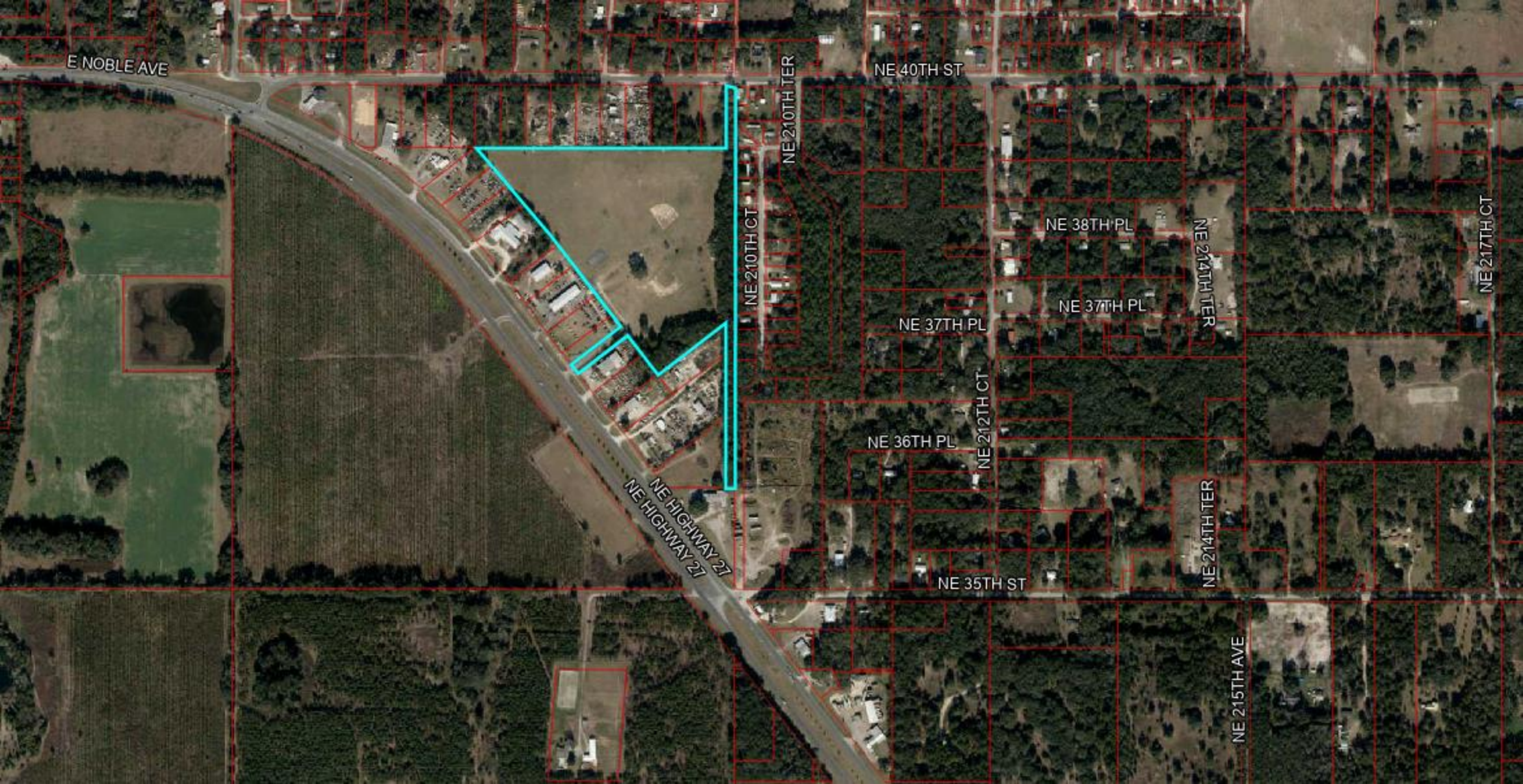
The Southerly 60 feet of Lot 26, Eastern Acres, according to the plat thereof, as recorded in Plat Book 6, Page 31 of the Public Records of Levy County, Florida; Lying in the Northeast 1/4 of Section 5, Township 13 South, Range 19 East, Levy County, Florida; being more particularly described as follows:

Begin at the Westernmost corner of said Lot 26 and run thence North 37°27'20"West, along the Northerly right-of-way line of U.S. Highway No. 27 (a.k.a. State Road No. 500), a distance of 60.00 feet; thence North 52°33'15"East, a distance of 329.95 feet to the Northeasterly line of said Lot 26; South 37°26'45"East, along said Northeasterly line, a distance of 60.00 to the Easternmost corner of said Lot 26; thence South 52°33'15"West, a distance of 329.94 feet to the said Point-of-Beginning.



## Attachment F

### Vicinity Map



E NOBLE AVE

NE 40TH ST

NE 210TH CT  
NE 210TH TER

NE 38TH PL

NE 214TH TER

NE 217TH CT

NE 37TH PL

NE 37TH PL

NE 36TH PL

NE 212TH CT

NE HIGHWAY 27  
NE HIGHWAY 27

NE 214TH TER

NE 35TH ST

NE 215TH AVE



## Attachment G

### Soil Survey



***Engineering & Consulting, Inc.***

**SUMMARY REPORT OF A  
GEOTECHNICAL SITE EXPLORATION**

**CORNELIUS WILLIAMS PARK  
WILLISTON, LEVY COUNTY, FLORIDA**

**GSE PROJECT NO. 16105**

Prepared For:

**WRIGHT-PIERCE**

JUNE 2023



June 30, 2023

Walter A. Nickel, P.E.  
Wright-Pierce  
601 S Lake Destiny Drive #290  
Maitland, Florida 32751

Subject: Summary Report of a Geotechnical Site Exploration  
**Cornelius Williams Park**  
Williston, Levy County, Florida  
GSE Project No. 16105

GSE Engineering & Consulting, Inc. (GSE) is pleased to submit this geotechnical site exploration report for the above referenced project.

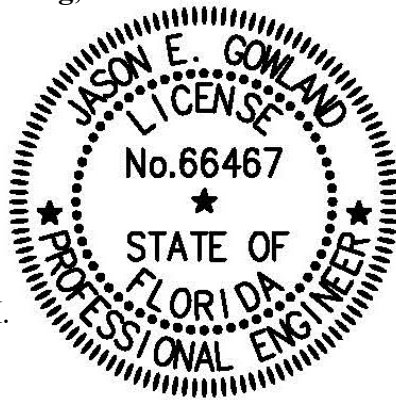
Presented herein are the findings and conclusions of our exploration, including the geotechnical parameters and recommendations to assist with pavement and stormwater management designs.

GSE appreciates this opportunity to have assisted you on this project. If you have any questions or comments concerning this report, please contact us.

Sincerely,

**GSE Engineering & Consulting, Inc.**

Cassandra R. Lindeman, E.I.  
Staff Engineer



This item has been digitally signed and sealed by  
  
on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Jason E. Gowland, P.E.  
Principal Engineer  
Florida Registration No. 66467

CRL / JEG: hmp  
Q:\Projects\16105 Cornelius Williams Park\16105.docx

Distribution: Addressee (1 - Electronic)  
File (1)

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1. Project Site Location Map
2. Site Plan Showing Approximate Locations of Field Tests

## **1.0 INTRODUCTION**

### **1.1 General**

GSE Engineering & Consulting, Inc. (GSE) has completed this geotechnical exploration for the proposed Cornelius Williams Park improvements located in Williston, Levy County, Florida. This exploration was performed in accordance with GSE Proposal No. 2023-027 dated January 12, 2023. Mr. Ryan T. Wingard, P.E., Vice President of Wright-Pierce authorized our services on May 26, 2023.

### **1.2 Project Description**

This project will consist of sports park improvements. The site is located north of US 27 south of CR 318 in Williston, Levy County, Florida (Figure 1). You provided information about the project and a site plan illustrating the locations of the proposed improvements and requested boring locations.

This portion of the project consists of pavement and stormwater management design. We understand the remaining infrastructure will be explored and designed at a later date.

A recent aerial photograph of the site was obtained and reviewed. The site plan and aerial photograph were used in preparation of this exploration and report.

### **1.3 Purpose**

The purpose of this geotechnical exploration was to determine the general subsurface conditions, evaluate these conditions with respect to the proposed construction, and prepare geotechnical parameters and recommendations to assist with pavement and stormwater management designs.

## **2.0 FIELD AND LABORATORY TESTS**

### **2.1 General Description**

The procedures used for field sampling and testing are in general accordance with industry standards of care and established geotechnical engineering practices for this geographic region. This exploration consisted of performing two (2) Standard Penetration Test (SPT) borings to depths of 20 feet below land surface (bls) within the proposed pavement areas and eight (8) auger borings to depths of 15 feet bls within the proposed stormwater management facilities.

The soil borings were performed at the approximate locations as shown on Figure 2. The borings were located at the site using the provided site plan, Global Positioning System (GPS) coordinates, and obvious site features as reference. The boring locations should be considered approximate. The soil borings were performed on June 7, 2023.

### **2.2 Auger Borings**

The auger borings were performed in accordance with ASTM D1452. The borings were performed with flight auger equipment that was rotated into the ground in a manner that reduces soil disturbance. After penetrating to the required depth, the auger was retracted and the soils collected on the auger flights were field classified and placed in sealed containers. Representative samples of each stratum were retained from the auger boring. Results from the auger borings are provided in Section 5.1.

### **2.3 Standard Penetration Test Borings**

The soil borings were performed with a drill rig employing flight auger drilling techniques and Standard Penetration Testing (SPT) in accordance with ASTM D1586. The SPTs were performed continuously to 10 feet and at 5-foot intervals thereafter. Soil samples were obtained at the depths where the SPTs were performed. The soil samples were classified in the field, placed in sealed containers, and returned to our laboratory for further evaluation.

After drilling to the sampling depth, the standard two-inch O.D. split-barrel sampler was seated by driving it 6 inches into the undisturbed soil. Then the sampler was driven an additional 12 inches by blows of a 140-pound hammer falling 30 inches. The number of blows required to produce the next 12 inches of penetration were recorded as the penetration resistance (N-value). These values and the complete SPT boring logs are provided in Section 5.2.

Upon completion of the sampling, the boreholes were abandoned in accordance with Water Management District guidelines.

### **2.4 Soil Laboratory Tests**

The soil samples recovered from the soil borings were returned to our laboratory, and examined to confirm the field descriptions. Representative samples were then selected for laboratory testing. The laboratory tests consisted of nine (9) percent soil fines passing the No. 200 sieve determinations, nine (9) natural moisture content determinations, one (1) Atterberg Limits tests, and four (4) constant head hydraulic conductivity tests. These tests were performed in order to aid in classifying the soils and to further evaluate their engineering properties. The laboratory tests are provided in Section 5.3.

## 3.0 FINDINGS

### 3.1 Surface Conditions

Mr. Jason E. Gowland, P.E. with GSE visited the site on May 30, 2023 to observe the site conditions and mark the boring locations.

The site is currently open and is used as a park. The southwest portion of the site is bordered by existing businesses. The area to the north of the site consists of a tree line and an existing towing business. The area to the east of the site contains a tree line and existing residences.

The topography at the site is relatively level. Regional topography is gently to moderately sloping. The Williston USGS Topographic Map indicates the ground surface elevations at the site are near 75 feet NGVD29<sup>1</sup>.

### 3.2 Subsurface Conditions

The locations of the auger and SPT borings are provided on Figure 2. Complete logs for the borings are provided in Sections 5.1 and 5.2. Descriptions for the soils encountered are accompanied by the Unified Soil Classification System symbol (SM, SP-SM, etc.) and are based on visual examination of the recovered soil samples and the laboratory tests performed. Stratification boundaries between the soil types should be considered approximate, as the actual transition between soil types may be gradual.

The auger borings within the proposed stormwater management facilities encountered variable soil conditions across the site. Generally, the borings initially encountered 1 to 5.5 feet of poorly graded sand (SP) and sand with silt (SP-SM). The sandy soils were underlain by interbedded layers of limestone and clay-rich soils consisting of clayey and very clayey sands (SC, SC/CL), sandy clay, clay with sand, and clay (CL/CH) to the explored depths of 15 feet bls. Borings P-1 and P-6 do vary slightly from this generalization. Boring P-1 encountered limestone at the surface to a depth of 7 feet bls and was underlain by 8 feet of clay to the explored depth of 15 feet bls. Boring P-6 encountered only 0.7 feet of poorly graded sand (SP) before penetrating limestone from 0.7 feet bls to the explored depth of 15 feet bls.

The SPT borings located within the proposed pavement areas encountered conditions similar to those in the auger borings. Boring B-1 initially encountered 6 feet of clay with sand (CL/CH). The clay with sand (CL/CH) was underlain by poorly graded sand (SP) to a depth of 13.5 feet bls. At 13.5 feet bls, B-1 encountered 6.5 feet of limestone to the explored depth of 20 feet bls. Boring B-2 initially encountered 2 feet of sand with silt (SP-SM). Below the sand with silt (SP-SM), B-2 encountered interbedded layers of very clayey sand (SC/CL), clay (CL/CH), and limestone to the explored depth of 20 feet bls.

The sandy soils encountered (SP, SP-SM) are generally in a loose to medium dense condition with N-values ranging from 8 to 14 blows per foot. The very clayey sand (SC/CL) encountered is generally in a medium dense condition with an N-value of 13 blows per foot. The clay-rich (CL/CH) soils encountered are generally in a stiff condition with N-values ranging from 9 to 14 blows per foot. The limestone encountered is generally in a very soft to very hard condition with N-values ranging from 6 to 66 blows per foot.

---

<sup>1</sup> United States Geological Survey, Williston Quadrangle, 1976.

The groundwater table was not encountered in the auger and SPT borings at the time of our investigation.

### **3.3 Review of Published Data**

The majority of the site is mapped as two soil series by the Soil Conservation Service (SCS) Soil Survey for Levy County<sup>2</sup>. The following soil descriptions are from the Soil Survey.

***Jonesville-Otela-Seaboard complex, 1 to 5 percent slopes*** – This map unit consists of a well-drained, moderately deep Jonesville soil; a moderately well-drained, very deep Otela soil; and a moderately well-drained, shallow or very shallow Seaboard soil. These nearly level to gently sloping soils are on karst uplands. Individual areas are generally irregular in shape and range from 5 to more than 10,000 acres in size.

Typically, the surface layer of the Jonesville soil is gray fine sand about 5 inches thick. The subsurface layer is pale brown fine sand to a depth of about 14 inches and very pale brown fine sand to a depth of 27 inches. The subsoil is brownish yellow sandy clay loam to a depth of about 35 inches. Limestone bedrock is at a depth of about 35 inches.

Typically, the surface layer of the Otela soil is grayish brown fine sand about 4 inches thick. The subsurface layer is light gray fine sand to a depth of about 22 inches, brownish yellow fine sand to a depth of 40 inches, very pale brown fine sand to a depth of 50 inches, and brownish yellow fine sand to a depth of 58 inches. The subsoil is yellowish brown sandy clay loam to a depth of 66 inches. Limestone bedrock is at a depth of about 66 inches.

Typically, the surface layer of the Seaboard soil is dark grayish brown fine sand about 8 inches thick. The underlying material is pale brown fine sand to a depth of about 17 inches. Limestone bedrock is at a depth of about 17 inches.

Generally, the mapped areas average about 48 percent Jonesville and similar soils, 25 percent Otela and similar soils, and 16 percent Seaboard and similar soils. The components of this map unit are so intermingled that it is not practical to map them separately at the scale used in mapping. However, the proportions of the Jonesville, Otela, and Seaboard soils and of the similar soils are fairly consistent in most mapped areas.

On 95 percent of the acreage mapped as Jonesville-Otela-Seaboard complex, 1 to 5 percent slopes, Jonesville, Otela, Seaboard, and similar soils make up about 82 to 96 percent of the mapped areas. Dissimilar soils make up about 4 to 18 percent. On 5 percent of the acreage, the dissimilar soils make up more than 18 percent of the mapped areas.

Included in mapping are soils that are similar to the Jonesville soil but do not have a loamy subsoil or do not have bedrock within a depth of 40 inches. Also included are soils that are similar to the Otela soil but do not have a seasonal high-water table within a depth of 72 inches, have a dark surface layer that is more than 10 inches thick, or have bedrock at a depth of 45 to 60 inches. Also included are soils that are similar to the Seaboard soil but have a loamy subsoil that overlies the bedrock, have a dark surface layer that overlies the bedrock or that is more than 10 inches thick, or have less than 5 percent silt and clay in the subsurface layer.

---

<sup>2</sup> Soil Survey of Levy County, Florida. Soil Conservation Service, U.S. Department of Agriculture.

Dissimilar soils that are included with the Jonesville, Otela, and Seaboard soils in mapping occur as small areas of Bushnell, Candler, Levyville, Lutterloh, Mabel, Moriah, and Tavares soils; small areas of strongly sloping soils; and areas of rock outcrop on the edges of sinkholes. Bushnell, Candler, Levyville, Lutterloh, Mabel, Moriah, and Tavares soils are in positions on the landscape similar to those of the Jonesville, Otela, and Seaboard soils. Bushnell and Mabel soils have a clayey subsoil within a depth of 20 inches. They are somewhat poorly drained. Candler and Tavares soils are sandy to a depth of 80 inches or more. Levyville soils have a loamy subsoil within a depth of 20 inches. Moriah and Lutterloh soils are somewhat poorly drained.

Throughout the year the seasonal high-water table is below the bedrock in the Jonesville and Seaboard soils. It is perched at a depth of 42 to 72 inches for 1 to 4 months during most years in the Otela soil. Permeability is moderately slow or moderate in the Jonesville soil, moderate in the Otela soil, and rapid in the Seaboard soil. Available water capacity is very low in the Jonesville and Seaboard soils and low in the Otela soil.

***Pedro-Jonesville-Shadeville complex, 0 to 5 percent slopes*** – This map unit consists of a well-drained, shallow or very shallow Pedro soil; a well-drained, moderately deep Jonesville soil; and a moderately well drained, deep or very deep Shadeville soil. These nearly level to gently sloping soils are on karst uplands. Individual areas are generally irregular in shape and range from 5 to more than 6,000 acres in size.

Typically, the surface layer of the Pedro soil is dark grayish brown fine sand about 8 inches thick. The subsurface layer is brownish yellow fine sand to a depth of about 11 inches. The subsoil is dark yellowish brown fine sandy loam to a depth of about 15 inches. Soft, unconsolidated limestone that can be dug with a spade is at a depth of about 15 inches. Harder limestone bedrock is at a depth of about 21 inches.

Typically, the surface layer of the Jonesville soil is dark gray fine sand about 9 inches thick. The subsurface layer is a mixture of very pale brown and light gray fine sand to a depth of about 31 inches. The subsoil is dark yellowish brown fine sandy loam to a depth of about 35 inches. Limestone bedrock is at a depth of about 35 inches.

Typically, the surface layer of the Shadeville soil is dark grayish brown fine sand to a depth of about 10 inches. The subsurface layer is a mixture of pale brown and yellowish-brown fine sand to a depth of about 23 inches. The subsoil is yellowish brown sandy clay loam to a depth of about 45 inches. Limestone bedrock is at a depth of about 45 inches.

Generally, the mapped areas average about 61 percent Pedro and similar soils, 19 percent Jonesville and similar soils, and 17 percent Shadeville and similar soils. The components of this map unit are so intermingled that it is not practical to map them separately at the scale used in mapping. However, the proportions of the Pedro, Jonesville, and Shadeville soils and of the similar soils are fairly consistent in most mapped areas.

On 95 percent of the acreage mapped as Pedro-Jonesville-Shadeville complex, 0 to 5 percent slopes, Pedro, Jonesville, Shadeville, and similar soils make up about 91 to 100 percent of the mapped areas. Dissimilar soils make up less than 9 percent. On 5 percent of the acreage, the dissimilar soils make up more than 9 percent of the mapped areas.

Included in mapping are soils that are similar to the Pedro soil but have bedrock within a depth of 6 inches, do not have limestone within a depth of 20 inches, have a surface layer of loamy fine sand or fine sandy loam, or have a surface layer that contains more than 1 percent gravel. Also included are soils that are similar to the Pedro and Jonesville soils but do not have a subsoil, contain an average of more than 35 percent clay throughout the subsoil, have a perched seasonal high-water table, or do not have a consolidated bedrock within a depth of 40 inches. Also included are soils that are similar to the Shadeville soil but do not have bedrock within a depth of 72 inches, contain more than 35 percent clay in the upper 20 inches of the subsoil, have a dark surface layer that is more than 10 inches thick, or have a seasonal high-water table that is perched at a depth 20 to 48 inches.

Dissimilar soils that are included with the Pedro, Jonesville, and Shadeville soils in mapping occur as small areas of Candler, Hicoria, Lutterloh, Otela, and Tavares soils. Also included are small areas of rock outcrop and rock pits and areas of sloping soils on the edges of sinkholes. Candler, Lutterloh, Otela, and Tavares soils are in positions on the landscape similar to those of the Pedro, Jonesville, and Shadeville soils. Hicoria soils are in depressions. Candler and Tavares are sandy to a depth of 80 inches or more. Lutterloh and Otela soils are sandy to a depth of 40 to 80 inches. Lutterloh soils are somewhat poorly drained.

The seasonal high-water table is below the bedrock in the Pedro and Jonesville soils throughout the year. It is perched at a depth of 48 to 72 inches in the Shadeville soil for 1 to 3 months during most years. Permeability is moderately rapid in the Pedro soil, moderately slow or moderate in the Jonesville soil, and moderate in the Shadeville soil. Available water capacity is very low in the Pedro and Jonesville soils and low in the Shadeville soil.

### **3.4 Laboratory Soil Analysis**

Selected soil samples recovered from the soil borings were analyzed for the percent soil fines passing the No. 200 sieve, natural moisture content, Atterberg Limits, and hydraulic conductivity. Samples selected for laboratory testing were collected at depths ranging from near-surface to 8 feet bls. These tests were performed to confirm visual soil classification and evaluate their engineering properties. The complete laboratory report is provided in Section 5.3.

The laboratory tests indicate the tested soils consist of sand with silt (SP-SM), clayey sand (SC), very clayey sand (SC/CL), sandy clay (CL/CH), and clay (CL/CH). The tested sand with silt (SP-SM) contains approximately 4.6 to 7.9 percent soil fines passing the No. 200 sieve with natural moisture contents of about 2.7 to 6.5 percent. The tested clayey sand (SC) contains approximately 21 percent soil fines passing the No. 200 sieve with a natural moisture content of about 13 percent. The tested very clayey sand (SC/CL) contains approximately 41 percent soil fines passing the No. 200 sieve with a natural moisture content of about 20 percent. The tested sandy clay (CL/CH) contains approximately 62 to 63 percent soil fines passing the No. 200 sieve with natural moisture contents of about 27 to 29 percent. The tested clay (CL/CH) contains approximately 85 percent soil fines passing the No. 200 sieve with a natural moisture content of about 38 percent.

Atterberg Limits tests indicate the tested sandy clay (CL/CH) has a Liquid Limit (LL) value of 52, a Plastic Limit (PL) value of 20, and a Plasticity Index (PI) value of 32. This corresponds to a material with marginal potential ( $50 < LL < 60$  and  $25 < PI < 35$ ) for expansive behavior<sup>3</sup>.

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<sup>3</sup> U.S. Department of the Army USA, 1983, Foundations in Expansive Soils, TM 5-818-7, p. 4-1.

***Cornelius Williams Park***

*Williston, Levy County, Florida*

*GSE Project No. 16105*

The constant head hydraulic conductivity test results indicate the near-surface sand with silt (SP-SM) has hydraulic conductivity values of 1.4 to 6.3 feet per day.

## **4.0 EVALUATION AND RECOMMENDATIONS**

### **4.1 General**

The following recommendations are made based upon our understanding of the proposed construction, a review of the attached soil borings and laboratory test data, and experience with similar projects and subsurface conditions. If plans or the location of proposed construction changes from those discussed previously, GSE requests the opportunity to review and possibly amend our recommendations with respect to those changes.

The performance of site improvements may be sensitive to their post-construction relationship to site groundwater levels, seepage zones, or soil/rock characteristics exposed at final site grades. GSE recommends that use of boring information for final design of all site improvements be predicated on proper horizontal and vertical control of borings.

In this section of the report, we present our geotechnical parameters and recommendations to assist with pavement and stormwater management designs as well as our general site preparation guidelines.

### **4.2 Groundwater**

The groundwater table was not encountered in the borings at the time of our exploration. Limestone was encountered in several of the borings, indicating the site is perforated. A temporarily perched water table may develop on top of the clay-rich soils after periods of heavy and seasonal rainfall. Estimates for the perched water tables are shown on the individual boring logs. Undercutting the clay-rich soils will lower the perched groundwater table. For your modeling purposes, however, we recommend using the potentiometric surface of the Floridan Aquifer at an elevation of approximately 40 feet<sup>4</sup> NGVD29.

### **4.3 Flexible Pavement**

Overall soil conditions encountered by our borings at this site are suitable for supporting conventional limerock base and asphalt wearing surface pavements. We have not been provided the anticipated traffic loading conditions; therefore, the following pavement component recommendations should be used only as guidelines. The below recommendations are intended to be minimums. Increasing base course and asphalt thicknesses would increase the design life of the pavement.

We recommend a minimum separation of 24 inches be present between the bottom of the base course and the top of the clay-rich soils containing greater than about 25 percent soil fines. This separation appears to be present near boring B-2. However, B-1 encountered clay-rich soils near the surface to a depth of 6 feet bls. A roadway grading plan is not available at this time. The presence of shallow clay-rich soils is expected to be sporadic and not easily predicted without a grading plan.

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<sup>4</sup> Potentiometric Surface of the Upper Floridan Aquifer, September 2019; Fowler III and Albritton, P.G. #3061

In areas where the minimum 24-inch separation is not able to be achieved through grading design, we recommend these soils be undercut. The undercut should extend a minimum of 24 inches beneath the bottom of the base course. The undercut should extend laterally until the clay-rich soils are no longer encountered and free-draining sandy soils have been penetrated. The undercut should be backfilled with either on-site or imported sandy free-draining soils containing less than 10 percent soil fines. The backfill should be placed in maximum 24-inch loose lifts that are compacted to a minimum 95 percent of the Modified Proctor maximum dry density (ASTM D1557). You should consider underdrains in areas that are undercut to evacuate perched water from the area.

#### **4.3.1 Stabilized Subgrade**

If a crushed limerock or recycled concrete base is used, we recommend a stabilized subgrade be located beneath the base. The stabilized subgrade should have a minimum Limerock Bearing Ratio (LBR) of 40, with minimum thicknesses of 6 inches for automobile parking areas and 12 inches for driveways.

The stabilized subgrade can be imported material or a mixture of imported and on-site material. If a mix is proposed, a mix design should be performed to determine the optimum mix proportions. The stabilized subgrade should be compacted to a minimum of 98 percent of the Modified Proctor maximum dry density (ASTM D1557) for soils with less than 15 percent fines content. Soils with 15 percent or greater fines content should be compacted to 100 percent of the Standard Proctor maximum dry density (ASTM D698).

#### **4.3.2 Base Course**

The base course can consist of either crushed limerock, soil cement, or recycled concrete. If you should use a soil cement base course, a stabilized subgrade is not required.

Limerock should have an LBR of at least 100, be obtained from a FDOT approved source and meet FDOT gradation requirements. The base course thickness should be a minimum of 6 inches in automobile parking areas, and 8 inches in driveway areas. The base course should be compacted to at least 98 percent of the Modified Proctor maximum dry density (ASTM D1557). We recommend a minimum 24 inches separation between the bottom of the limerock base course and the estimated seasonal high-water table. If site grading does not allow for this separation, we recommend undercutting and/or underdrains be considered.

Soil cement can consist of an imported material or a blend of the on-site soils and cement. A mix design should be performed to determine the optimum cement content. We recommend the soil cement have a minimum 28-day compressive strength of 500 psi. Soil cement can be blended off-site (in a pug mill) or on site. Soil cement pills should be cast from each day's production to verify the recommended compressive strength has been achieved at 28 days. We recommend the soil cement base course be a minimum of 8 inches thick throughout the project. We recommend a minimum 18 inches separation between the bottom of the soil cement base course and the estimated seasonal high-water table. If site grading does not allow for this separation, we recommend undercutting and/or underdrains be considered.

Recycled concrete should have an LBR of at least 150, be obtained from a FDOT approved source and meet FDOT gradation requirements. The base course thickness should be a minimum of 8 inches. The base course should be compacted to at least 98 percent of the Modified Proctor maximum dry density (ASTM D1557). We recommend a minimum 12 inches separation between the bottom of the recycled concrete base course and the estimated seasonal high-water table. If site grading does not allow for this separation, we recommend undercutting and/or underdrains be considered.

#### **4.3.3 Wearing Surface**

The asphalt-wearing surface should consist of an FDOT Type SP Hot Mix Asphalt mixture. For automobile parking areas, the thickness should be a minimum of 1.5 inches. For driveway areas, the thickness should be a minimum of 2 inches. The asphalt-wearing surface should consist of an SP-12.5 mix. The asphalt should be compacted to at least 95 percent of the mix design density.

The constructability of differing asphalt thicknesses may be difficult, and having a uniform 2-inch-thick asphalt wearing surface may be more practical.

#### **4.4 Site Preparation**

The soils at this site should be suitable for supporting the proposed construction using normal, good practice site preparation procedures. The following recommendations are our general guidelines for site preparation.

##### **4.4.1 Stripping**

Strip the construction limits and 10 feet beyond the perimeter of all grass, roots, topsoil, pavement, and other deleterious materials. You should expect to strip to depths of 12 or more inches. Deeper stripping will likely be necessary due to major root systems present at the site.

##### **4.4.2 Dewatering**

Temporary dewatering is not expected to be necessary for this project. However, if needed, we anticipate dewatering can be accomplished with sumps placed near the construction area, or with underdrains connected to a vacuum pump.

In any case, the site should always be graded to promote runoff and limit the amount of ponding. Localized ponding of stormwater is expected without proper grading during construction, and could render previously acceptable surfaces unacceptable.

##### **4.4.3 Proof-Rolling**

Proof-roll the subgrade with heavy rubber-tired equipment, such as a loaded front-end loader or dump truck, to identify any loose or soft zones not found by the soil borings. The proof-rolling should be monitored by a geotechnical engineer or qualified technician. Undercut or otherwise treat these zones as recommended by the geotechnical engineer in this report.

##### **4.4.4 Proof Compaction**

Compact the subgrade to a density of at least 95 percent of the Modified Proctor maximum dry density (ASTM D1557). The specified compaction should be obtained to a depth of 1 foot below the foundation bottoms and the existing grade prior to placing fill. Vibratory roller equipment should not be used within approximately 100 feet of existing structures. Lighter “walk-behind” compaction equipment may be used to achieve the degree of compaction.

Should clayey sand be encountered at the bearing surface, this material should be probed and visually confirmed to be unyielding in the upper 12 inches in lieu of density testing. If the foundation excavations penetrate the clayey sand, the excavation should be performed in a manner that reduces soil disturbance. Clayey sand soils (with fines content in excess of 15 percent) that are removed and replaced or appreciably disturbed need to be re-compacted to 98 percent of the Standard Proctor maximum dry density (ASTM D698).

#### **4.4.5 Fill Placement**

Imported fill placed to raise the site grades should consist of clean sand having less than 10 percent passing the No. 200 sieve. On-site soils meeting the requirements of Section 4.7 may also be used as structural fill. The fill should be placed in maximum 12-inch loose lifts that are compacted to at least 95 percent of the Modified Proctor maximum dry density (ASTM D1557). If lighter “walk-behind” compaction equipment is used, this may require lifts of 4 inches or less to achieve the required degree of compaction.

#### **4.5 Quality Control and Construction Materials Testing**

It should be noted that the geotechnical engineering design does not end with the advertisement of the construction documents. As the geotechnical engineer of record, GSE is the most qualified to perform the construction materials testing that will be required for this project. The benefits of having the geotechnical engineer of record also perform the construction materials testing are numerous. If GSE continues to be involved with the project through construction, we will be able to constantly re-evaluate and possibly alter our geotechnical recommendations in a timely and cost-effective manner once final design and construction techniques are developed. This often results in cost savings for the project.

We recommend a compaction test be performed for each 10,000 square feet of pavement area per foot of fill or native material, or a minimum of three tests each, whichever is greater. Test all footing excavations to a depth of 12 inches at the frequencies stated above.

#### **4.6 Stormwater Management**

The soil conditions within the proposed stormwater management facilities are somewhat variable. The borings generally encountered a surficial layer of poorly graded sand and sand with silt underlain by interbedded layers of clayey and very clayey sand, sandy clay, clay with sand, clay, and limestone to the explored depths of 15 feet bls. Boring P-1 encountered 7 feet of limestone at the surface underlain by clay to the explored depth of 15 feet bls. Boring P-6 encountered 0.7 feet of poorly graded sand before penetrating limestone to the explored depth of 15 feet bls.

Limestone was encountered in a majority of the borings, indicating the site is perforated. Limestone was encountered at relatively shallow depths in some of the borings and as deep as 10 feet bls in P-7. We recommend the basins be over-excavated a minimum of 3 feet and backfilled with clean sands (imported or mixed with native sands) to help the stormwater infiltrate down into deeper pockets of sand and limestone encountered in the borings. Clay-rich soils (with fine contents greater than 30 percent passing the No. 200 sieve) over-excavated from the pond bottoms should be discarded or used in green areas.

The water table was not encountered in the auger borings at the time of our exploration. A temporarily perched water table may develop on top of the clay-rich soils after periods of heavy rainfall. The recommended over-excavation will lower the depth of the perched water table. For your modeling purposes, we recommend using the potentiometric surface of the Floridan Aquifer at an elevation of approximately 40 feet NGVD29.

The laboratory permeability tests indicate the surficial layer of sand with silt has hydraulic conductivity values of 1.4 to 6.3 feet per day. The underlying very clayey sand, sandy clay, clay with sand, and clay are expected to be confining soils; however, these soils appear to be perforated. Imported clean sand fill should have permeability values on the order of 20 feet per day.

Based upon our findings and test results and the recommendations above, our recommended soil parameters for the stormwater management design in the explored areas are presented below. The recommended parameters consider the results of the permeability tests, wash 200 determinations, and our experience with these types of soils. The parameters below do not consider a factor of safety.

#### ***Proposed Stormwater Management Facilities***

1. Base elevation of effective or mobilized aquifer (average depth of confining layer) equal to greater than 15 feet bls.
2. Unsaturated vertical infiltration rate of 10\* feet per day.
3. Horizontal hydraulic conductivity equal to 15\* feet per day.
4. Specific yield (fillable porosity) of 25 percent.
5. Average seasonal high groundwater table depth equal to the potentiometric surface of the Floridan Aquifer at an elevation of approximately 40 feet NGVD29.

\*Based upon the existing site soils, a mix of imported clean sand backfill, and the porous nature of the exposed limestone.

As stated above, we recommend the basin bottoms be over-excavated a minimum of 3 feet and backfilled with the on-site and imported sands and sands with silt (SP, SP-SM) having a maximum of 12 percent soil fines passing the No. 200 sieve. The intent of this undercutting and replacement is to provide a more uniform sand “blanket” at the basin bottom that allows the migration of water to the deeper deposits of sand and limestone. This sand blanket will also reduce the potential for clay-fines leaching out of the soils when water is present in the basin that can result in a thin layer of confining type material on the basin bottom that can reduce the effectiveness of the basin. The 3 feet of cover is required by the water management district for karst sensitive areas.

#### **4.7 Fill Suitability**

The soils encountered at this site within the explored depths range from sands (SP) to clays (CL/CH). A discussion of the suitability for reuse as structural fill for each soil classification according to the Unified Soil Classification System (USCS) designation is provided below.

SP, SP/SM – Sands (SP) and sand with silt (SP/SM) have less than 5 percent and 12 percent soil fines passing the No. 200 sieve, respectively, and are typically well draining soils that are suitable for reuse as structural fill. The sands with silt may require moisture conditioning (drying) to make the material more workable. These soils will require stockpiling and drying before they are reused if they are excavated from below the water table.

SM – Silty sands (SM) can have between 12 percent and 50 percent soil fines passing the No. 200 sieve. Silty sands are typically non-plastic or have low plasticity, and can be reused as structural fill with precautions. Silty sands can be moisture sensitive and difficult to work and compact and can rut if the moisture content is near or above the optimum moisture content. We recommend these soils be moisture conditioned (dried) so that the moisture content during use is at or below the optimum moisture content. Aerating and exposure to the sun is typically the most effective methods of drying these soils. It may not be practical to reuse these materials during the wet season, as frequent rain showers may not allow these soils to dry to a workable moisture content. Suitable silty sands are limited to soil having less than 30 percent soil fines passing the No. 200 sieve. Silty sands with more than 30 percent soil fines are especially moisture sensitive, and are not recommended for reuse as structural fill. These soils will behave more as sandy silt, and for this reason, very silty sands having more than 30 percent soil fines passing the No. 200 sieve have been assigned a dual classification of SM/ML. Silty sand soils that are excavated from below the water table are not recommended for reuse as structural fill due to the amount of time that will be required to dry these soils to a workable condition.

SC – Clayey sand (SC) soils can have between 12 percent and 50 percent soil fines passing the No. 200 sieve. Clayey sands can have a high range of plasticity, varying from a PI of 7 or greater and plotting above the A-line to highly plastic. Friable clayey sands are typically suitable for use as structural fill with precautions. Clayey sands will be moisture sensitive and difficult to work and compact and can rut during placement if the moisture content is near or above the natural moisture content. We recommend these soils be moisture conditioned (dried) so that the moisture content during use is at or below the optimum moisture content. Aerating and exposure to the sun is typically the most effective methods of drying these soils. It may not be practical to reuse these materials during the wet season, as frequent rain showers may not allow these soils to dry to a workable moisture content. Suitable clayey sands are limited to soil having less than 30 percent soil fines passing the No. 200 sieve. Clayey sands with more than 30 percent soil fines passing the No. 200 sieve are especially moisture sensitive and are typically highly plastic, and are not recommended for reuse as structural fill. These soils will behave more as sandy clay, and for this reason, very clayey sands having more than 30 percent soil fines passing the No. 200 sieve have been assigned a dual classification of SC/CH or SC/CL. Clayey sand soils that are excavated from below the water table are not recommended for reuse as structural fill due to the amount of time that will be required to dry these soils to a workable condition.

ML, MH, CL, CH – Silts and clays are not suitable materials for reuse as structural fill.

When using on-site soils as fill materials, we recommend the silty and clayey sand soils (SM, SC) be used in the lower depths of the fill. Sand and sand with silt (SP, SP-SM) should be used in the upper portions of the fill. We recommend a minimum of 2 feet of sand (SP, SP-SM) cover the silty and clayey sand fill materials to reduce the potential for soggy surface conditions due to the low permeability characteristics of the silty and clayey sand materials.

## **5.0 FIELD DATA**

## **5.1 Auger Boring Logs**



GSE Engineering  
 5590 SW 64th St  
 Gainesville, FL 32608  
 Telephone: 3523773233

CLIENT Wright-Pierce

PROJECT NAME Cornelius Williams Park

PROJECT NUMBER 16105

PROJECT LOCATION Willison, Levy County, Florida

DATE PERFORMED 6/7/2023 **BORING NUMBER P-1**  
 DRILLING CONTRACTOR Whitaker Drilling, Inc.  
 GROUND WATER LEVELS: LOGGED BY WDI  
 ▼ AT TIME OF DRILLING NE CHECKED BY CRL  
 ▽ ESTIMATED SEASONAL HIGH 6.5 ft. perched  
 NOTES \_\_\_\_\_

DATE PERFORMED 6/7/2023 **BORING NUMBER P-2**  
 DRILLING CONTRACTOR Whitaker Drilling, Inc.  
 GROUND WATER LEVELS: LOGGED BY WDI  
 ▼ AT TIME OF DRILLING NE CHECKED BY CRL  
 ▽ ESTIMATED SEASONAL HIGH 0.5 ft. perched  
 NOTES \_\_\_\_\_

AB 2 PORTRAIT - GINT STD US.GDT - 6/15/23 11:16 - Q:\PROJECTS\16105 CORNELIUS WILLIAMS PARK\16105 ACAD\16105 BORINGS.GPJ

DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION	DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0.0			(LS) LIMESTONE with lenses of clayey SAND	0.0			(SP-SM) Brown SAND with silt
2.5		AU 1		1.0		AU 1	
5.0				2.5			(CL/CH) Brown and orange sandy CLAY with trace limestone
7.5		AU 2	(CL/CH) Brown and orange CLAY	5.0		AU 2	%PASS-200 = 62 MC = 27
10.0			%PASS-200 = 85 MC = 38	7.5			
12.5		AU 3		8.0		AU 3	(LS) LIMESTONE with lenses of clayey SAND
15.0			Bottom of borehole at 15.0 feet.	10.0			(LS) LIMESTONE
				11.5			
				15.0		AU 4	
				15.0			Bottom of borehole at 15.0 feet.

(Continued Next Page)



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CLIENT Wright-Pierce

PROJECT NAME Cornelius Williams Park

PROJECT NUMBER 16105

PROJECT LOCATION Willison, Levy County, Florida

DATE PERFORMED 6/7/2023 **BORING NUMBER P-3**  
 DRILLING CONTRACTOR Whitaker Drilling, Inc.  
 GROUND WATER LEVELS: LOGGED BY WDI  
 ▼ AT TIME OF DRILLING NE CHECKED BY CRL  
 ▽ ESTIMATED SEASONAL HIGH 9.5 ft. perched  
 NOTES \_\_\_\_\_

DATE PERFORMED 6/7/2023 **BORING NUMBER P-4**  
 DRILLING CONTRACTOR Whitaker Drilling, Inc.  
 GROUND WATER LEVELS: LOGGED BY WDI  
 ▼ AT TIME OF DRILLING NE CHECKED BY CRL  
 ▽ ESTIMATED SEASONAL HIGH 1.0 ft. perched  
 NOTES \_\_\_\_\_

AB 2 PORTRAIT - GINT STD US.GDT - 6/15/23 11:16 - Q:\PROJECTS\16105 CORNELIUS WILLIAMS PARK\16105 ACAD\16105 BORINGS.GPJ

DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION	DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0.0				0.0			
		AU 1	(SP-SM) Brown and gray SAND with silt			AU 1	(SP-SM) Brown and gray SAND with silt
			%PASS-200 = 7.9 MC = 2.7 $k_f = 3.1 \text{ ft/day}$				▽ %PASS-200 = 4.6 MC = 3.4 $k_f = 6.3 \text{ ft/day}$
2.5			(LS) LIMESTONE with sand	2.5			(CL/CH) Brown and orange CLAY with limestone 1.5
		AU 2				AU 2	
5.0				5.0			
			(LS) LIMESTONE with lenses of clayey SAND				
		AU 3				AU 3	(LS) LIMESTONE with lenses of clayey sand 7.5
7.5				7.5			
10.0			(CL/CH) Brown, gray, and orange CLAY	10.0			
		AU 4				AU 4	(LS) LIMESTONE 13.0
12.5				12.5			
15.0			Bottom of borehole at 15.0 feet.	15.0			Bottom of borehole at 15.0 feet. 15.0

(Continued Next Page)



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CLIENT Wright-Pierce

PROJECT NAME Cornelius Williams Park

PROJECT NUMBER 16105

PROJECT LOCATION Willison, Levy County, Florida

DATE PERFORMED 6/7/2023 **BORING NUMBER P-5**  
 DRILLING CONTRACTOR Whitaker Drilling, Inc.  
 GROUND WATER LEVELS: LOGGED BY WDI  
 ▼ AT TIME OF DRILLING NE CHECKED BY CRL  
 ▼ ESTIMATED SEASONAL HIGH 2.0 ft, perched  
 NOTES \_\_\_\_\_

DATE PERFORMED 6/7/2023 **BORING NUMBER P-6**  
 DRILLING CONTRACTOR Whitaker Drilling, Inc.  
 GROUND WATER LEVELS: LOGGED BY WDI  
 ▼ AT TIME OF DRILLING NE CHECKED BY CRL  
 ▼ ESTIMATED SEASONAL HIGH > 15 ft  
 NOTES \_\_\_\_\_

AB 2 PORTRAIT - GINT STD U.S.GDT - 6/15/23 11:16 - Q:\PROJECTS\16105 CORNELIUS WILLIAMS PARK\16105 ACAD\16105 BORINGS.GPJ

DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION	DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0.0				0.0			
		AU 1	(SP-SM) Brown and gray SAND with silt				(SP) Brown SAND
2.5			$\nabla$ %PASS-200 = 7.8 MC = 6.5 $k_h = 2.4 \text{ ft/day}$	2.5			0.7
		AU 2	(SC/CL) Brown and orange very clayey SAND			AU 1	(LS) LIMESTONE
5.0			%PASS-200 = 41 MC = 20	5.0			
		AU 3	(LS) LIMESTONE			AU 2	
7.5				7.5			
		AU 4				AU 3	
10.0				10.0			
12.5				12.5			
15.0			Bottom of borehole at 15.0 feet.	15.0			Bottom of borehole at 15.0 feet.

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CLIENT Wright-Pierce

PROJECT NAME Cornelius Williams Park

PROJECT NUMBER 16105

PROJECT LOCATION Willison, Levy County, Florida

DATE PERFORMED 6/7/2023 **BORING NUMBER P-7**

DRILLING CONTRACTOR Whitaker Drilling, Inc.

GROUND WATER LEVELS: LOGGED BY WDI

▼ AT TIME OF DRILLING NE CHECKED BY CRL

▽ ESTIMATED SEASONAL HIGH 5.0 ft, perched

NOTES \_\_\_\_\_

DATE PERFORMED 6/7/2023 **BORING NUMBER P-8**

DRILLING CONTRACTOR Whitaker Drilling, Inc.

GROUND WATER LEVELS: LOGGED BY WDI

▼ AT TIME OF DRILLING NE CHECKED BY CRL

▽ ESTIMATED SEASONAL HIGH 5.0 ft, perched

NOTES \_\_\_\_\_

AB 2 PORTRAIT - GINT STD US.GDT - 6/15/23 11:16 - Q:\PROJECTS\16105 CORNELIUS WILLIAMS PARK\16105 ACAD\16105 BORINGS.GPJ

DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION	DEPTH (ft)	GRAPHIC LOG	SAMPLE TYPE NUMBER	MATERIAL DESCRIPTION
0.0			(SP-SM) Brown SAND with silt	0.0			(SP-SM) Brown SAND with silt
2.5		AU 1	%PASS-200 = 7.8 MC = 4.9 $k_n = 1.4 \text{ ft/day}$	2.5		AU 1	(SP-SM) Brown SAND with silt
5.0				5.0		AU 2	(SC) Brown and orange clayey SAND
7.5		AU 2	(CL/CH) Brown and orange CLAY with trace of limestone	7.5		AU 3	(CL/CH) Brown and orange CLAY
10.0		AU 3	(LS) Sandy LIMESTONE	10.0		AU 4	
15.0			Bottom of borehole at 15.0 feet.	15.0			Bottom of borehole at 15.0 feet.

## **5.2 Standard Penetration Test Soil Boring Logs**



GSE Engineering  
 5590 SW 64th St  
 Gainesville, FL 32608  
 Telephone: 3523773233

# BORING NUMBER B-1

**CLIENT** Wright-Pierce **PROJECT NAME** Cornelius Williams Park  
**PROJECT NUMBER** 16105 **PROJECT LOCATION** Willison, Levy County, Florida  
**DATE STARTED** 6/7/23 **COMPLETED** 6/7/23 **GROUND ELEVATION** \_\_\_\_\_ **HOLE SIZE** \_\_\_\_\_  
**DRILLING CONTRACTOR** Whitaker Drilling, Inc. **GROUND WATER LEVELS:**  
**DRILLING METHOD** Flight Auger **▼ AT TIME OF DRILLING** NE  
**LOGGED BY** WDI **CHECKED BY** CRL **▽ ESTIMATED SEASONAL HIGH** 0.0 ft  
**NOTES** \_\_\_\_\_

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲								
											20	40	60	80					
0	▽	(CL) Stiff gray, brown, and orange sandy CLAY																	
5				SPT 1	4-5-6 (11)														
				SPT 2	3-4-5 (9)														
				SPT 3	5-6-8 (14)	52	20	32	63	29									
6		(SP) Loose to medium dense tan SAND		SPT 4	6-7-7 (14)														
				SPT 5	5-6-7 (13)														
				SPT 6	7-4-4 (8)														
10																			
			13.5	SPT 7	3-3-3 (6)														
15		(LS) Very soft sandy LIMESTONE																	
				SPT 8	3-4-3 (7)														
20		Bottom of borehole at 20.0 feet.	20																

SPT BORINGS - GINT STD US\_GDT - 6/15/23 11:15 - Q:\PROJECTS\16105 CORNELIUS WILLIAMS PARK\16105 ACAD\16105 BORINGS.GPJ



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 5590 SW 64th St  
 Gainesville, FL 32608  
 Telephone: 3523773233

# BORING NUMBER B-2

**CLIENT** Wright-Pierce **PROJECT NAME** Cornelius Williams Park

**PROJECT NUMBER** 16105 **PROJECT LOCATION** Willison, Levy County, Florida

**DATE STARTED** 6/7/23 **COMPLETED** 6/7/23 **GROUND ELEVATION** \_\_\_\_\_ **HOLE SIZE** \_\_\_\_\_

**DRILLING CONTRACTOR** Whitaker Drilling, Inc. **GROUND WATER LEVELS:**

**DRILLING METHOD** Flight Auger **▼ AT TIME OF DRILLING** NE

**LOGGED BY** WDI **CHECKED BY** CRL **▽ ESTIMATED SEASONAL HIGH** 5.5 ft, perched

**NOTES** \_\_\_\_\_

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	CONTACT DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX	PERCENT PASS NO. 200 SIEVE	MOISTURE CONTENT, %	▲ SPT N VALUE ▲									
											20	40	60	80						
0		(SP-SM) Medium dense brown and gray SAND with silt																		
2		(LS) Soft LIMESTONE w/ lenses of clayey sand	2	SPT 1	7-7-6 (13)															
				SPT 2	10-11-6 (17)															
5				SPT 3	7-8-9 (17)															
6		(CL/CH) Stiff to very stiff brown and orange CLAY with trace of limestone	6	SPT 4	7-8-6 (14)															
7.5		(LS) Moderately hard sandy LIMESTONE	7.5	SPT 5	8-7-12 (19)															
8.5		(SC/CL) Medium dense brown and orange very clayey SAND	8.5	SPT 6	6-6-7 (13)															
10																				
12.5		(LS) Moderately hard to very hard LIMESTONE	12.5																	
15				SPT 7	15-15-11 (26)															
20				SPT 8	30-40-26 (66)															
		Bottom of borehole at 20.0 feet.	20																	

SPT BORINGS - GINT STD US\_GDT - 6/15/23 11:15 - Q:\PROJECTS\16105 CORNELIUS WILLIAMS PARK\16105 ACAD\16105 BORINGS.GPJ

### **5.3 Laboratory Results**



**Engineering & Consulting, Inc.**

### SUMMARY REPORT OF LABORATORY TEST RESULTS


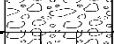




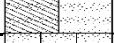
















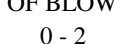
Project Number: 16105

Project Name: Cornelius Williams Park

Boring Number	Depth (ft)	Soil Description	Natural Moisture Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	Percent Passing No. 200 Sieve	Organic Content (%)	Hydraulic Conductivity (ft/day)	Unified Soil Classification
P-3	0-1.5	Brown and gray SAND with silt	2.7				7.9		3.1	SP-SM
P-4	0-1.5	Brown and gray SAND with silt	3.4				4.6		6.3	SP-SM
P-5	0.5-2.5	Brown and gray SAND with silt	6.5				7.8		2.4	SP-SM
P-7	2-4	Brown SAND with silt	4.9				7.8		1.4	SP-SM
P-1	7-7.5	Brown and orange CLAY	38				85			CL/CH
P-2	3-3.5	Brown and orange sandy CLAY with trace limestone	27				62			CL/CH
P-5	3-3.5	Brown and orange very clayey SAND	20				41			SC/CL
P-8	3-3.5	Brown and orange clayey SAND	13				21			SC
B-1	4-5.5	Gray, brown, and orange sandy CLAY	29	52	20	32	63			CL

## **5.4 Key to Soil Classification**

## KEY TO SOIL CLASSIFICATION CHART

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests				SYMBOLS		GROUP NAME	
				GRAPHIC	LETTER		
COARSE-GRAINED SOILS More than 50% retained on No. 200 sieve	Gravels	Clean Gravels	$Cu \geq 4$ and $1 \leq Cc \leq 3$		<b>GW</b>	Well graded GRAVEL	
	More than 50% of coarse fraction retained on No. 4 sieve	Less than 5% fines	$Cu < 4$ and/or $1 > Cc > 3$		<b>GP</b>	Poorly graded GRAVEL	
		Gravels with fines	Fines classify as ML or MH		<b>GM</b>	Silty GRAVEL	
		More than 12% fines	Fines classify as CL or CH		<b>GC</b>	Clayey GRAVEL	
		Sands	Clean Sands	$Cu \geq 6$ and $1 \leq Cc \leq 3$		<b>SW</b>	Well graded SAND
	50% or more of coarse fraction passes No. 4 sieve	Less than 5% fines	$Cu < 6$ and/or $1 > Cc > 3$		<b>SP</b>	Poorly graded SAND	
		Sand with fines	Fines classify as ML or MH		<b>SP-SM</b>	SAND with silt	
		5% ≤ fines < 12%	Fines classify as CL or CH		<b>SP-SC</b>	SAND with clay	
		Sand with fines	Fines classify as ML or MH		<b>SM</b>	Silty SAND	
		12% ≤ fines < 30%	Fines classify as CL or CH		<b>SC</b>	Clayey SAND	
		Sand with fines	Fines classify as ML or MH		<b>SM</b>	Very silty SAND	
		30% fines or more	Fines classify as CL or CH		<b>SC</b>	Very clayey SAND	
		FINE-GRAINED SOILS 50% or more passes the No. 200 sieve	Clays	inorganic	$50\% \leq \text{fines} < 70\%$		<b>CL/CH</b>
	$70\% \leq \text{fines} < 85\%$				<b>CL/CH</b>	CLAY with sand	
$\text{fines} \geq 85\%$				<b>CL/CH</b>	CLAY		
Silts and Clays Liquid Limit less than 50	inorganic		$PI > 7$ and plots on/above "A" line		<b>CL</b>	Lean CLAY	
	$PI < 4$ or plots below "A" line			<b>ML</b>	SILT		
	organic		Liquid Limit - oven dried < 0.75		<b>OL</b>	Organic clay	
	Liquid Limit - not dried			<b>OL</b>	Organic silt		
Silts and Clays Liquid Limit 50 or more	inorganic		$PI$ plots on or above "A" line		<b>CH</b>	Fat CLAY	
	$PI$ plots below "A" line			<b>MH</b>	Elastic SILT		
	organic		Liquid Limit - oven dried < 0.75		<b>OH</b>	Organic clay	
	Liquid Limit - not dried		<b>OH</b>	Organic silt			
HIGHLY ORGANIC SOILS	Primarily organic matter, dark in color, and organic odor				<b>PT</b>	PEAT	

### CORRELATION OF PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY

No. OF BLOWS, N	RELATIVE DENSITY	No. OF BLOWS, N	CONSISTENCY
0 - 4	Very Loose	0 - 2	Very Soft
5 - 10	Loose	3 - 4	Soft
SANDS:	Medium dense	5 - 8	Firm
	Dense	9 - 15	Stiff
OVER 50	Very Dense	16 - 30	Very Stiff
		31 - 50	Hard
		OVER 50	Very Hard

No. OF BLOWS, N	RELATIVE DENSITY
0 - 8	Very Soft
9 - 18	Soft
LIMESTONE:	Moderately Hard
19 - 32	Hard
33 - 50	Very Hard
OVER 50	

### SAMPLE GRAPHIC TYPE LEGEND



Location of SPT Sample



Location of Auger Sample

### PARTICLE SIZE IDENTIFICATION

BOULDERS:	Greater than 300 mm
COBBLES:	75 mm to 300 mm
GRAVEL:	Coarse - 19.0 mm to 75 mm
	Fine - 4.75 mm to 19.0 mm
SANDS:	Coarse - 2.00 mm to 4.75 mm
	Medium - 0.425 mm to 2.00 mm
	Fine - 0.075 mm to 0.425 mm
SILTS & CLAYS:	Less than 0.075 mm

### LABORATORY TEST LEGEND

LL	=	Liquid Limit, %
PL	=	Plastic Limit, %
PI	=	Plasticity Index, %
% PASS - 200	=	Percent Passing the No. 200 Sieve
MC	=	Moisture Content, %
ORG	=	Organic Content, %
$k_h$	=	Horizontal Hydraulic Conductivity, ft/day

## **6.0 LIMITATIONS**

### **6.1 Warranty**

This report has been prepared for our client for his exclusive use, in accordance with generally accepted soil and foundation engineering practices, and makes no other warranty either expressed or implied as to the professional advice provided in the report.

### **6.2 Auger and SPT Borings**

The determination of soil type and conditions was performed from the ground surface to the maximum depth of the borings, only. Any changes in subsurface conditions that occur between or below the borings would not have been detected or reflected in this report.

Soil classifications that were made in the field are based upon identifiable textural changes, color changes, changes in composition or changes in resistance to penetration in the intervals from which the samples were collected. Abrupt changes in soil type, as reflected in boring logs and/or cross sections may not actually occur, but instead, be transitional.

Depth to the water table is based upon observations made during the performance of the auger and SPT borings. This depth is an estimate and does not reflect the annual variations that would be expected in this area due to fluctuations in rainfall and rates of evapotranspiration.

### **6.3 Site Figures**

The measurements used for the preparation of the figures in this report were made using the provided site plan and by estimating distances from existing structures and site features. Figures in this report were not prepared by a licensed land surveyor and should not be interpreted as such.

### **6.4 Unanticipated Soil Conditions**

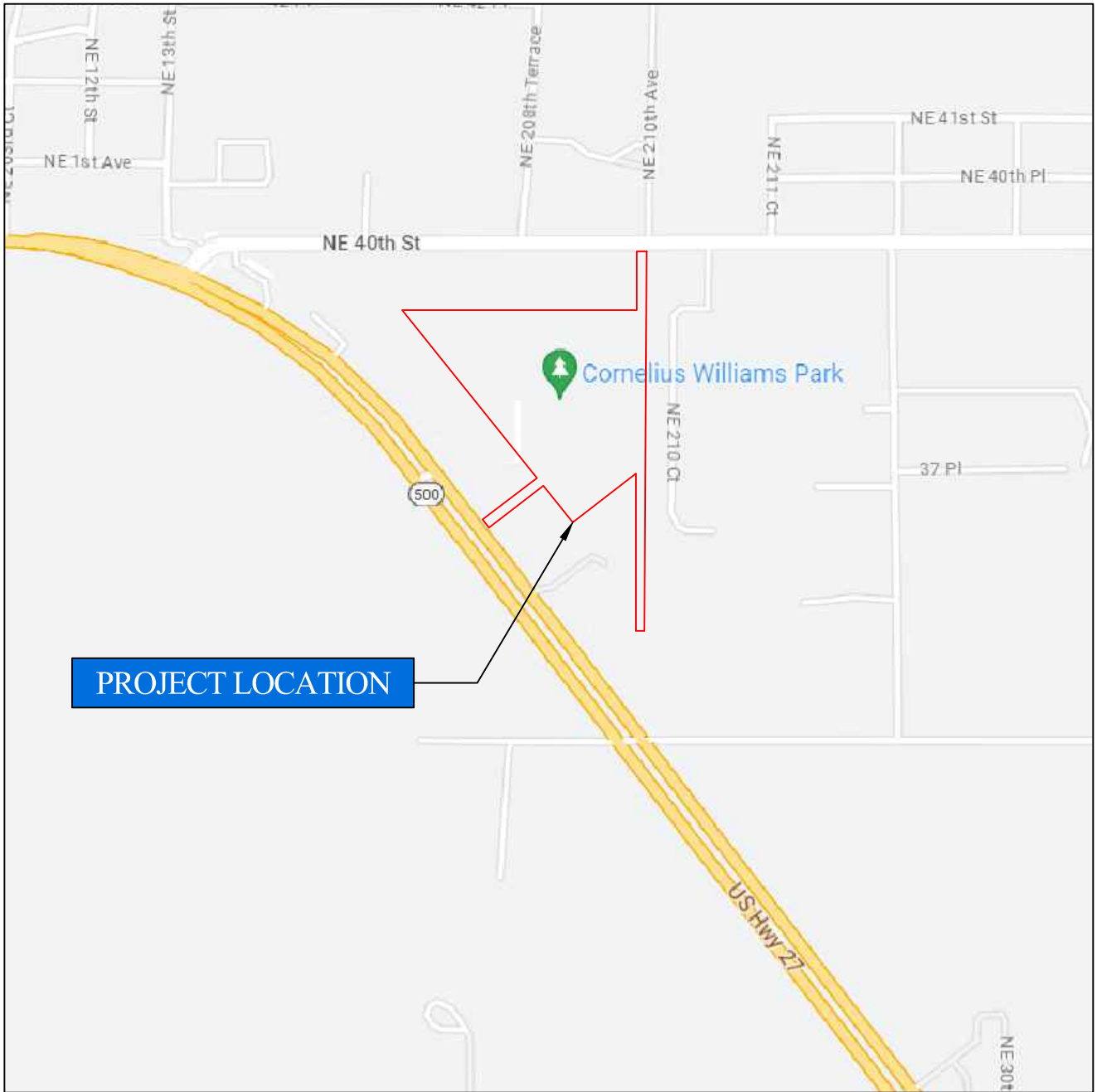
The analysis and recommendations submitted in this report are based upon the data obtained from soil borings performed at the locations indicated on Figure 2. This report does not reflect any variations that may occur between these borings.

The nature and extent of variations between borings may not become known until excavation begins. If variations appear, we may have to re-evaluate our recommendations after performing on-site observations and noting the characteristics of any variations.

### **6.5 Misinterpretation of Soil Engineering Report**

GSE Engineering & Consulting, Inc. is responsible for the conclusions and opinions contained within this report based upon the data relating only to the specific project and location discussed herein. If others make the conclusions or recommendations based upon the data presented, those conclusions or recommendations are not the responsibility of GSE.

## **FIGURES**



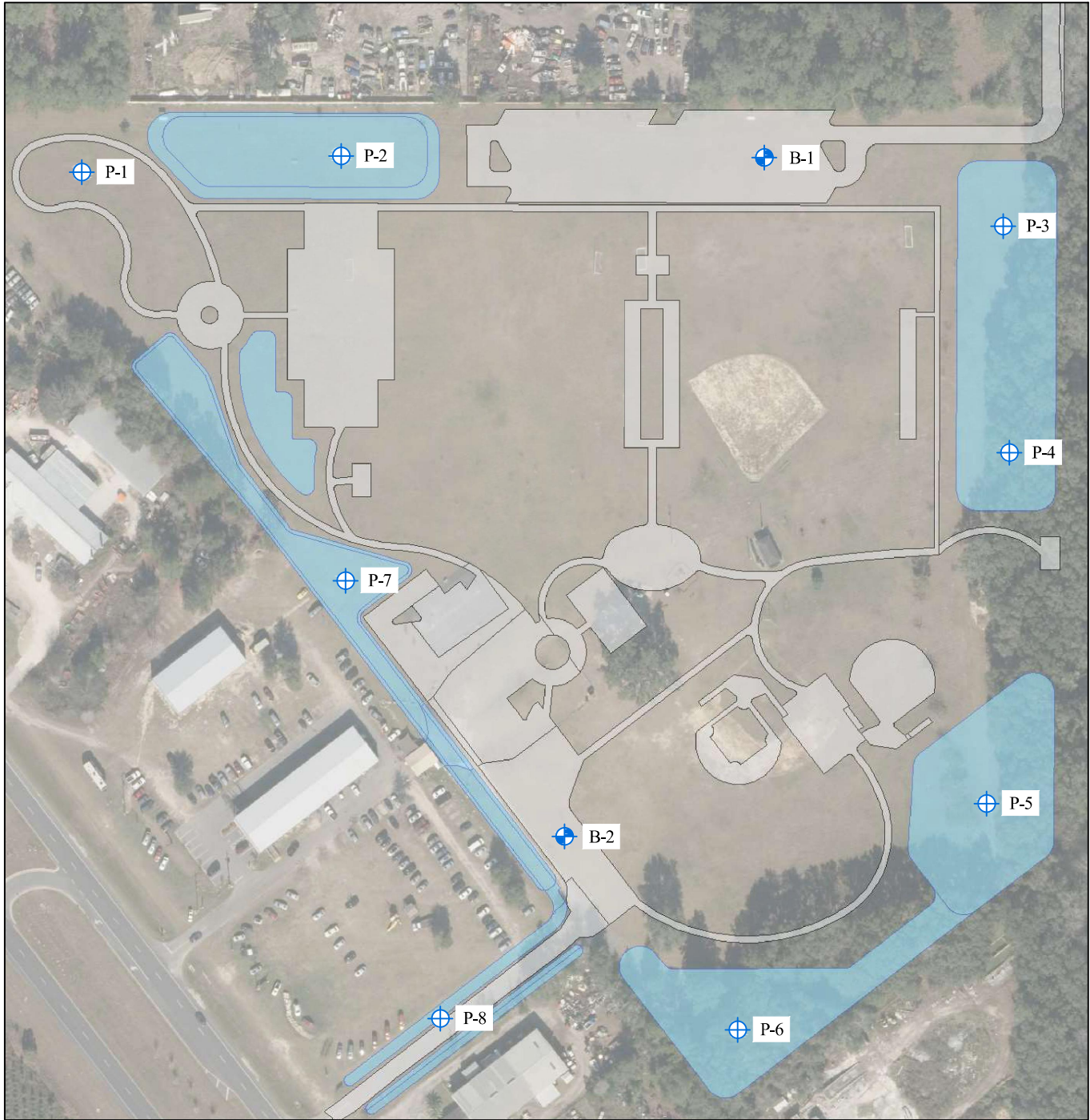
CORNELIUS WILLIAMS PARK  
 WILLISTON, LEVY COUNTY, FLORIDA  
 GSE PROJECT NO. 16105

PROJECT SITE LOCATION MAP



DESIGNED BY : CRL  
 CHECKED BY : JEG  
 DRAWN BY : EEW

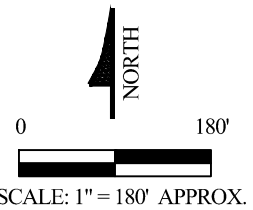


FIGURE  
 1



**LEGEND:**

-  SPT BORING
-  AUGER BORING



CORNELIUS WILLIAMS PARK  
 WILLISTON, LEVY COUNTY, FLORIDA  
 GSE PROJECT NO. 16105

**SITE PLAN SHOWING APPROXIMATE LOCATIONS OF  
 FIELD TESTS**

DESIGNED BY : CRL  
 CHECKED BY : JEG  
 DRAWN BY : EEW



FIGURE  
 2



## Attachment H

### Site Photographs

