



## WATER CONTROL PLAN

Unit of Development  
No.1A  
Hobe St. Lucie Conservancy District

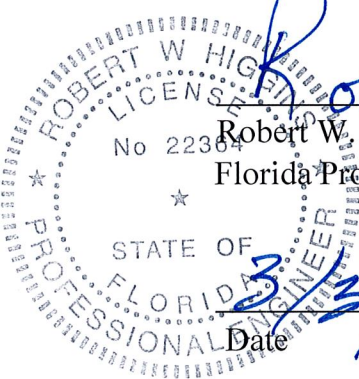
December 2021  
February 2022  
Revised - March 2022

Prepared by:  
Higgins Engineering, Inc.

07-18.8

## Engineer's Certification

I hereby certify, as a Professional Engineer in the State of Florida, that the information in this Water Control Plan for Hobe St. Lucie Conservancy District Unit of Development No. 1A was assembled under my direct responsible charge. The information provided herein was based in part on the information that was available and obtained from sources identified in this Water Control Plan. This Plan is not intended or represented to be suitable for any reuse without specific verification or adoption by the Engineer. This Certification is provided in accordance with the Florida Board of Professional Engineers' Rule on Certification under Chapter 61G15-29, Florida Administrative Code.

  
Robert W. Higgins, P.E.  
Florida Professional Engineer No. 22364  
3/31/22  
Date

Higgins Engineering, Inc.  
4623 Forest Hill Blvd, Ste 13 West  
Palm Beach, FL 33415

(Reproductions are not valid unless signed,  
Dated and embossed with an Engineer's Seal)

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## **Exhibits**

### **Exhibit No.**

1. HSLCD Units of Development Location Map
2. Map and Legal Description for HSLCD Unit of Development No. 1A
  - 2-1 HSLCD Location Map
  - 2-2 Legal Description
3. Offsite Drainage Areas
4. Water Control System Map
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## **I. Introduction**

### **A. General**

The Hobe-St. Lucie Conservancy District (“HSLCD”) was created pursuant to Final Judgment Incorporating Drainage District by the Circuit Court, Nineteenth Judicial Circuit, Martin County, Florida, Civil Action 2297. The Final Judgment was signed by Circuit Judge C. Pfeiffer Trowbridge at Stuart, Florida, on March 1, 1972. The Court action was taken based on the Petition filed in the Court by Hobe Grove Associates, LTD., a limited partnership, and D. Frederick Barton for the creation of a drainage district in Martin County, Florida, under and pursuant to provisions of Chapter 298, Florida Statutes, and known as the General Drainage Law.

An Order to Extend HSLCD Boundaries, dated March 8, 1979, with a subsequent Clerical Correction in the Order to Extend HSLCD Boundaries, dated March 25, 1979, amended the Final Judgment that created the HSLCD on March 1, 1972.

Legislative action in 2005, Chapter 2005-339, Laws of Florida, codified the HSLCD Special Acts and amended the boundaries of HSLCD. The additional lands (also known as Greenridge) were designated as HSLCD's Unit of Development No. 5.

Legislative action in 2007, Chapter 2007-296, Laws of Florida, amended the boundary of HSLCD. The boundary to HSLCD's Unit of Development No. 5 was revised to include the lands from the 2007 legislative action.

Chapter 2005-339, Laws of Florida, sets forth the powers of HSLCD. This Water Control Plan provides for supplying irrigation water to the agricultural properties, water conservation, drainage of properties, and maintenance of the roads within HSLCD.

HSLCD is governed by a 3-member Board of Supervisors, each member of which holds office for a three-year term. The terms of the Supervisors are staggered so that no more than one Supervisor is elected at the Annual Landowners Meeting held in June of each year. At the Annual Landowners Meeting, any landowner owning an acre or fraction thereof of property within HSLCD's jurisdictional boundary is entitled to vote, on an owned acreage basis, for each Supervisor position then subject to election.

HSLCD's Board of Supervisors meets regularly in June of each year for an Annual Supervisors Meeting. The Board also meets throughout the year as needed for advertised meetings to conduct HSLCD business.

## **B. Authorization**

HSLCD's Board of Supervisors Approved and Confirmed Unit of Development No. 1 on April 13, 2007. The Water Control Plan for Unit of Development No. 1, dated April 2007, and Engineer's Report was approved on June 29, 2007. HSLCD's Board of Supervisors subsequently authorized the preparation of the Amended Water Control Plan, the Second Amended Water Control Plan, and the Third Amended Water Control Plan for Unit of Development No. 1. The Amended Water Control Plan and Engineer's Report for Unit of Development No. 1 was approved and confirmed on June 26, 2008. The Second Amended Water Control Plan and Engineer's Report for Unit of Development No. 1 was approved and confirmed on August 20, 2009. The Third Amended Water Control Plan dated August 2021, and Engineer's Report, dated November 2021 for Unit of Development No.1 to be approved and confirmed in the future pursuant to Chapter 298 F.S.

HSLCD's Board of Supervisors authorized the preparation of the Water Control Plan for Unit of Development No. 1A ("the Plan") on August 4, 2021.

Unit of Development No. 1A means that a certain parcel of land located in Martin County, Florida, containing approximately 1,530.89 acres and more particularly described as Tracts A and D as set forth in the Hobe Sound Equestrian Plat recorded in Plat Book 17, Page 79, Public Records of Martin County, Florida together with the improved property known as the Hobe Sound Polo Club, as set forth on the Plat recorded in Plat Book 16, Page 78. Public Records of Martin County, Florida.

## **C. Acknowledgements**

This Water Control Plan for Unit of Development No. 1A is based in part on data and information contained in the Third Amended Water Control Plan for Unit of Development No 1, dated August 2021.

## **D. Purpose and Scope**

The purpose of this Water Control Plan is to modify the Unit of Development No. 1A HSLCD improvements/facilities currently operated and/or maintained by HSLCD. Existing District facilities will be modified, and new facilities constructed, as necessary, to facilitate further changes in development plans for the proposed Discovery PUD subdivision and to accommodate a new golf course and ancillary facilities.

This Water Control Plan provides for the proposed project that will be developed by Discovery Land Company and will consist of a maximum of 317 residential units on 1,530.89 acres, which

equates to a gross residential density of approximately 1 unit per 5 acres. The residential lots will be surrounded by approximately 200-acres of lakes, an 18-hole Golf Course, and more than 124.41 acres of native wetland and upland habitat that will be restored adjacent to the Atlantic Ridge Preserve State Park. The lake front amenities include a Golf and Clubhouse with ten golf suites and an Outdoor Family Recreation and Sports Park. The Golf Course will also feature two driving range facilities, a Par 3 mini course, and Clubhouse with teaching and practice facility.

The existing Polo Club equestrian uses the polo fields along the Bridge Road frontage which will be maintained and enhanced by additional support facilities including expansion of the existing Equestrian/Polo club facilities, addition of equestrian-orientated neighborhood, and riding trails throughout the project. A Right of Way dedicated to HSLCD from Bridge Road to the Atlantic Ridge Preserve State Park along the east boundary of the project will be constructed.

The proposed golf course and residential lots will be graded significantly higher than existing grade. The proposed topography for these will have elevations in the range of 45 feet NAVD which will require approximately 30 feet of fill above existing grade.

The project proposes the use of a potable water distribution system and wastewater collection system. The utility provider will be South Martin Regional Utilities by way of water main and force main extension improvements. Tract will be dedicated to HSLCD for future use. These features are planned to enter the site from the North.

## **E. Land in Unit of Development No. 1A**

The land area within Unit of Development No. 1A encompasses approximately 1,530.89 acres and is located in the unincorporated area of Martin County, Florida. All of Unit of Development No. 1A lies within the original HSLCD Unit 1. A location map of Unit of Development No. 1A in relation to the boundaries of HSLCD is shown in Exhibit 1. The legal description and map for this Unit of Development is shown in Exhibits 2-1 and 2-2.

The proposed project is located within Unit of Development No. 1A, north of Bridge Road, roughly one mile east of the I-95 Interchange in unincorporated Martin County, Florida. The project includes all of the Hobe Sound Polo Club recorded plat, which consists of approximately 1,307-acres, and Tract A and D of the Hobe Sound Equestrian club recorded plat, which consist of approximately 223 acres. The Hobe Sound Polo Club, consisting of 50 twenty acres lots, was partially constructed.

The property changed to "Rural Lifestyle Development" land use but shall be converted from 50 twenty acre lots to the afore mentioned ranch sites and golf course and supporting facilities.



## **F. Lands outside HSLCD Boundaries Receiving Services**

Lands that are outside the boundaries of Unit of Development No. 1A that connect with the water control system within the Unit of Development No. 1A are illustrated in Exhibit 3. Lands outside HSLCD boundaries shall continue to receive drainage services, although some modifications to the existing system are required under this plan as illustrated in Exhibits 4-1, 4-2 and 4-3.

Thomas Produce is a 300-acre agricultural site located to the southeast of Unit of Development No. 1A. These lands connect with the water control system within, and receive drainage services through, the Unit. Water drains through a 48" culvert to the internal lake system where 1 inch of water quality treatment will occur.

Atlantic Ridge Preserve State Park is a 4,886-acre preserve located between U.S. 1 (Federal Highway) and the South Fork of the St. Lucie River, at the north end of the Unit of Development No. 1A. It passes water from the east side of the Unit, along the canal on the north of the Unit, to the Outfall Canal OC-1 (see Exhibit 3) via a flow through wetland preserve, then flows continuing westward to Outfall Canal OC-1, which will be reconstructed.

At the south end of Unit of Development No. 1A, the "South Fork Canal" passes water from Lands South of Unit of Development No. 1A to the internal lake system. The flows will be piped along the west boundary. These lands drained through the HSLCD prior to the construction of any water management system and continue to do so without an agreement or permit.

## **II. Existing Conditions in the Unit of Development No. 1A Area**

### **A. Topography**

USGS Quad Sheet Gomez shows elevations ranging between 15 and 17 feet National Geodetic Vertical Datum 1929 ("NGVD 1929") for the area within the Unit of Development No. 1A boundaries. Unit of Development No. 1A generally slopes downward from south to the north.

The existing onsite soils are predominantly Wabasso Sand, Riviera Fina Sand, Pineda Sand, Floridiana Fina Sand (depressional), and Riviera Fine Sand (depressional). The soils characteristics are nearly level, poorly drained sands with water tables strongly influenced by the conveyance features in and around the site. The site was developed for citrus crops many years ago but is presently a partially completed Hobe Sound Polo Club.

The site consists of existing roads, swales, and canals that provide site drainage and limit the elevation of the water table onsite. The elevation of the Seasonal High-Water Table (SHWT) is

estimated to be between 7.0 and 8.0 feet NAVD based on data from previously permitted projects on this site and is heavily influenced by the perimeter canals. The average SHWT determined by recent project specific borings will be used for the control elevation for the post-development condition which will be 8.5 ft. NAVD. The Grove Golf Club, which is adjacent to this site, maintains a control elevation of 6.0 feet NAVD.

## **B. Land Use and Zoning**

The historic land use within Unit of Development No. 1A is primarily agricultural land use. The previous land use is residential twenty-acre ranch sites, a proposed golf course, and ancillary facilities.

Unit of Development No. 1A is located in the unincorporated area of Martin County, Florida. The Martin County Zoning classification for the Unit of Development No. 1A area is listed as A-1 (Agricultural). The proposed land use is to be a PUD.

## **C. History of Water Control for the Area**

The design criteria for the water control system is listed below. This information is based on the design criteria contained in the HSLCD Unit 1 Water Control Plan, dated April 2007.

A series of water control plan amendments for the existing Unit 1 development have been updated since 2007 (see next page).

### **a. Channel Design Criteria — Drainage**

The drainage capacity of the system is designed for the peak removal of 4 inches of surface water in 24 hours, at flood stages. The basic average design capacity is 2 inches removal in 24 hours, with channel stages maintaining a 2-foot freeboard. All channels are designed with a 1:1 side slope. Grades and cross sections are designed for a maximum flow velocity of 2 feet per second. Culverts are designed for a velocity of 2 to 4 feet per second, and of a size that will create a head of no more than 0.2 feet within the length of the culvert at full flow. Channel sections and grades are designed to preserve a free water table in the adjacent soil of 48 inches below the ground surface if possible.

### **b. Channel Design Criteria — Irrigation**

The HSLCD drainage channel system is also available for use for the distribution of irrigation waters. The capacity of the channel system is the normal movement of 2 inches of surface water in 24 hours. The irrigation supply is generally designed for an application rate of not more than 1 inch in 24 hours. The channel system capacity exceeds the capacity required for the movement of irrigation water.

**c. Irrigation Water Supply**

The irrigation water is supplied from ground water wells, internal lakes, and from the St. Lucie (SFWMD C-44) Canal. A pump station at the C-44 delivers water to Unit 2, then on to Unit 3, and lastly, northward into Unit 1A. Refer to the Water Control Plans for Unit of Development Nos. 1, 2 and 3 and the South Florida Water Management District Water Use Permit No. 43-00057-W for existing well locations and capacities (see Exhibit 6), under this plan two (2) existing wells are for supplemental golf course irrigation water and will remain.

HSLCD has an irrigation supply pump station on the St. Lucie (C-44) Canal. This pump station is only used for irrigation supply and has no drainage function. The St. Lucie Canal's water source is water from Lake Okeechobee (and localized drainage). The pump station design criteria was to provide approximately 1/4 inch of water per day to the HSLCD.

**d. Levee Flood Protection**

The entire area of the HSLCD, comprising of both improved and unimproved lands, is enclosed by an outside levee (berm) which prevents any flow of surface waters onto any lands within HSLCD.

**III. Water Control Plan Improvements**

**A. Surface Water Management System Improvements**

**1. Description of Improvements/Unit of Development No. 1A**

The property has been utilized for citrus production for several decades. Most recently the property has partially developed twenty acre lots with supporting polo facilities. The property contains no native wetlands or upland habitat.

The property is located totally within the Hobe-St. Lucie Conservancy District Unit 1 and contains perimeter agricultural canals and a relocatable drainage easement which are dedicated to and maintained by the Hobe-St. Lucie Conservancy District.

**a. Internal Lake System**

This Plan provides for the construction of facilities to support the new development including a system of lakes and pipe structures. These modifications shall also include the construction of ancillary drainage structures, outfalls, and appurtenances.

The final configuration of lakes may vary based on actual site conditions and as the final site design warrants.

**b. Atlantic Ridge Preserve State Park Improvements**

Part of the proposed water management plan is to improve the conveyance and discharge of the Atlantic Ridge Preserve State Park (ARPSP) runoff. The project proposes improvements of the conveyance system located along the eastern property line of the District. The project also includes the reconstruction of the northern relief canal and outfall, as well as construction of a restored wetland flow through marsh into the Hobe St Lucie Conservancy District Outfall Canal (see Exhibit 4-1).

**c. Outfall Canals and Discharge Control Structures**

HSLCD has three discharge structures. These structures shall remain in place and shall discharge to the South Fork of the St. Lucie River (Unit 1 Outfall) and the other two discharge to the Loxahatchee River via the Cypress Creek and Gulfstream Canal. Generally, lands north of Bridge Road drain to the South Fork of the St. Lucie River and lands south of Bridge Road drain to the Loxahatchee River.

Excess storm water flow from the Unit 1A lands will be collected and conveyed, via swales, to interconnected lake then on to the Unit 1 Outfall Canal. The Outfall Canal locations are shown on Exhibit 5. All of the facilities are considered common to all of HSLCD. Flows in these canals are regulated by water control structures that are described as follows:

Unit of Development No. 1 Outfall Structure, which discharges to the South Fork of the St. Lucie River, serves the area referred to as Unit of Development No. 1 and the offsite lands south, north and east of HSLCD. The structure has a steel pile wall across the canal with

concrete discharge bays. There are 3 discharge bays, 4 feet 6 inches wide, with a concrete sill at elevation 2.0 Feet NGVD. Stop logs can be placed in these bays to vary the water elevation upstream of the structure. There are two (2) overflow weirs, 5 feet 6 inches wide, at elevation 10.0 Feet NGVD on each side of the discharge bays. There is a concrete cap across the structure at elevation 14.5 Feet NGVD. This replaced the original structure and was constructed in 1993.

There is an Outfall Control Structure for the golf course at the north end of the golf course. This outfall structure is manual as operated by the HSLCD personnel and maintained by HSLCD at their discretion. The structure is detailed in SFWMD ERP Permit Number 43-02812-P.

## **2. SFWMD Permits**

Permits are on file with the District Manager.

### **B. Easements Dedicated to HSLCD**

HSLCD has easements dedicated for access and for the operation and maintenance of the surface water management system. These easements will need to be relocated in accordance with the relocatable easement and dedicated to HSLCD for access and to maintain and operate the water management system. Refer to Exhibit 5 for location of Outfall and Irrigation Water Supply Canals. A copy of the (relocatable) Easement, as amended, for the B-14 Grove is recorded in ORB 2191, Page 2163, as partially abandoned in ORB 2369, Page 1588, all in the official records of Martin County, Florida. The water control structure for the golf course will have a 20-foot access and maintenance easement. The easements shown on the revised Exhibit 7 have been adjusted to reflect the easements dedicated to the District for a portion of the lands in Unit of Development No.1A, in addition of adjustments to easements for the golf Course.

### **C. Cost of Improvements**

The total projected cost of the improvements described herein is approximately \$165,189,979. A detailed cost estimate of the improvements, including the construction of a new canal, is contained in Exhibit 8.

## **IV. Maintenance/Operational Responsibilities**

Maintenance and operational responsibilities of HSLCD include cleaning and/or maintaining canals, culverts and other water control structures, pumps, and wells and operation of pump stations and water control structures and irrigation wells. HSLCD shall also assume the responsibility of the landowner in the Agreements with the lands outside HSLCD.

## **V. Method of Financing**

All proposed modifications and improvements specified under this amendment shall be paid from Developer contribution(s) or from the sale of bonds. The cost for operation and maintenance of the Unit 1A District improvements shall be paid annually by Unit 1A landowners as a non-ad valorem assessment upon the benefited lands within HSLCD. SFWMD permits on file with the District Manager.

Additionally, the proceeds from the sale of bonds may be used for maintenance or such other lawfully authorized improvements in the Plan, or other units of development and their Plans for the benefit of Unit 1A, to the extent the separate unit of development is intended to benefit those same lands.

## **VII. Recommendations**

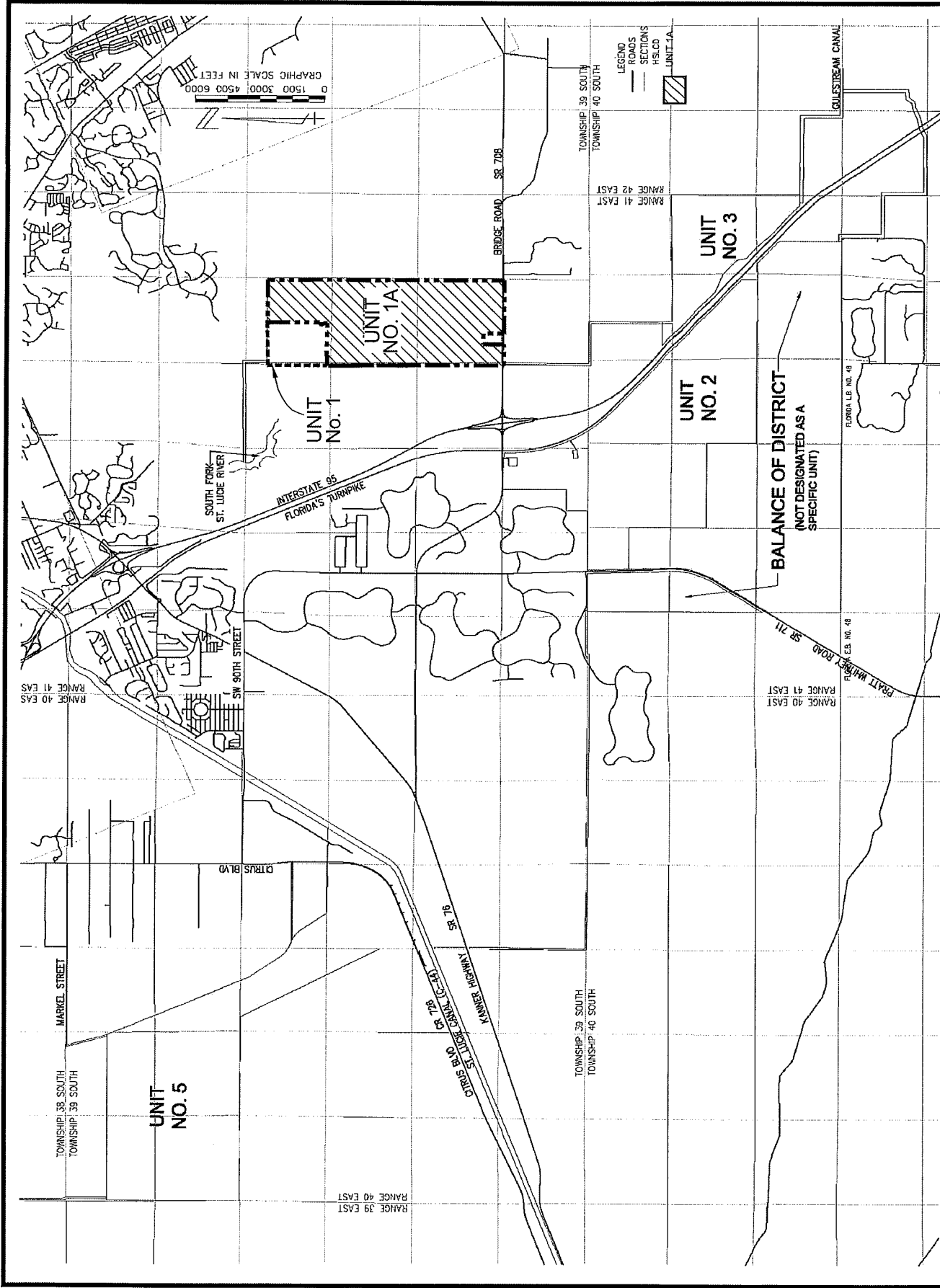
Based on the information presented in this Unit 1A Water Control Plan, the following recommendations are made:

The Unit 1A Water Control Plan is submitted to the Supervisors at a HSLCD Board of Supervisor's Meeting, so that the Board can adopt a Resolution to Consider Adoption of the Unit No 1A Water Control Plan.

- A.** HSLCD shall take all the necessary procedural and legal steps required for the Unit 1A Water Control Plan to be approved by the HSLCD Board of Supervisors.
- B.** That all easements required be furnished to HSLCD in perpetual easements meeting the approval of HSLCD Attorney, the District Engineer, and the Board of Supervisors.
- C.** HSLCD continues maintenance and operation of the remaining Unit 1 facilities to the benefit of all the lands remaining within Unit 1. HSLCD will manage and operate Unit 1A facilities to the benefit of all land within Unit 1A and in accordance with the applicable SFWMD permits for the lands outside Unit 1.

**Exhibit 1**

**HSLCD Units of Development Location Map**



NOTE: BASE INFORMATION OBTAINED FROM MOCK ROOS DRAWING NO. gncsex26.dwg DATE: April 2007

0718-8 Discovery Work files\0718-8 Amended Wtr Cont Plan Exhs\1A Exhs 1and3.dwg

NO.	REVISIONS	DATE
1	DEFINED SECTION 1A	10/20/2021

**HIGGINS ENGINEERING, INC.**  
 4623 FOREST HILL BLVD.  
 WEST PALM BEACH, FLORIDA 33415  
 561-439-7807

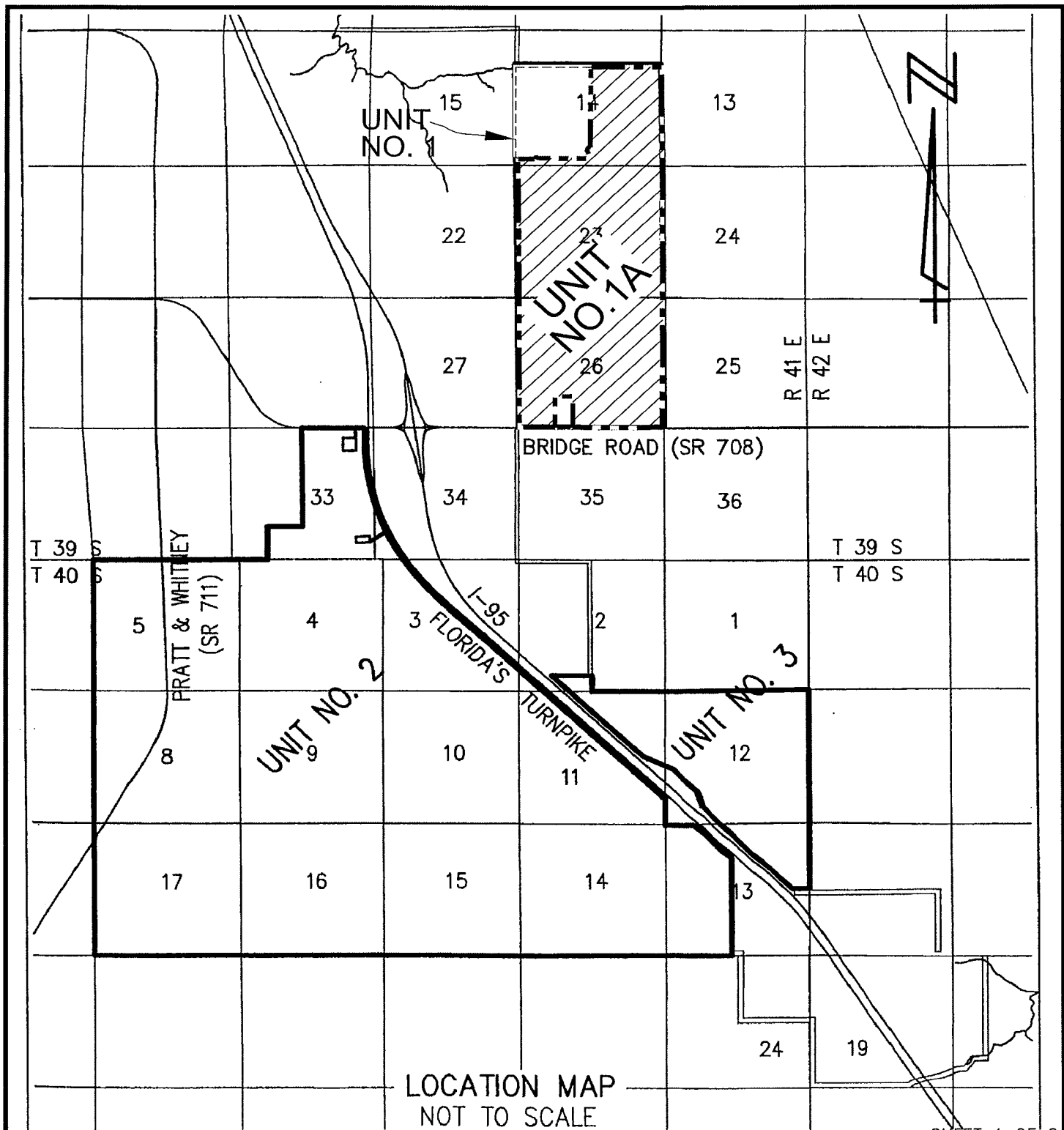
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 DRAWN: DAB  
 SCALE: NTS  
 DATE: 10/2021  
 JOB: NO.: 07-18.8

**HSLCD UNITS OF DEVELOPMENT LOCATION MAP**  
 PREPARED FOR  
 HOBE ST. LUCIE CONSERVANCY DISTRICT  
 MARTIN COUNTY, FLORIDA



**Exhibit 2**

**Map and Legal Description for HSLCD Unit of Development No. 1A**



LOCATION MAP  
NOT TO SCALE  
EXHIBIT 2-1

SHEET 1 OF 2

NOTE: BASE INFORMATION OBTAINED FROM MOCK ROOS DATE: Feb 2007

SEC 14, 23, 26, TWP. 39 S., RGE. 41 E.

REV: ---  
FIELD: ---  
DRAWN: DAB  
APPR:



**HIGGINS ENGINEERING, INC.**  
4623 FOREST HILL BLVD.  
WEST PALM BEACH, FLORIDA 33415  
561-439-7807

0718-8 Amended Wtr Cont Plan Exhs\Exhs 0718-8 Leg\_Loc 5E.dwg

Unit of Development No.1A  
Hobe-St. Lucie  
Conservancy District  
Martin County, Florida

SCALE: N/A  
DATE: OCT. 2021  
P.A.NO.  
DR. NO.

EXHIBIT 2-1

## EXHIBIT "A"

### LEGAL DESCRIPTION


Unit 1A Land means that certain parcel of land located in Martin County, Florida, containing approximately 1557 acres and more particularly described as Tracts A and D as set forth in the Hobe Sound Equestrian Plat recorded in Plat Book 17, Page 79, Public Records of Martin County, Florida together with the improved property known as the Hobe Sound Polo Club, as set forth on the Plat recorded in Plat Book 16, Page 78. Public Records of Martin County, Florida.

## EXHIBIT 2-2

SHEET 2 OF 2

NOTE: BASE INFORMATION OBTAINED FROM MOCK ROOS DATE: Feb 2007

SEC 14, 23, 26. TWP. 39 S., RGE. 41 E.

REV: ---		<b>HIGGINS ENGINEERING, INC.</b> 4623 FOREST HILL BLVD. WEST PALM BEACH, FLORIDA 33415 561-439-7807	Unit of Development No.1A Hobe-St. Lucie Conservancy District Martin County, Florida	SCALE: N/A
FIELD: --				DATE: OCT. 2021
DRAWN: DAB				P.A.NO.
APPR:				DR. NO.

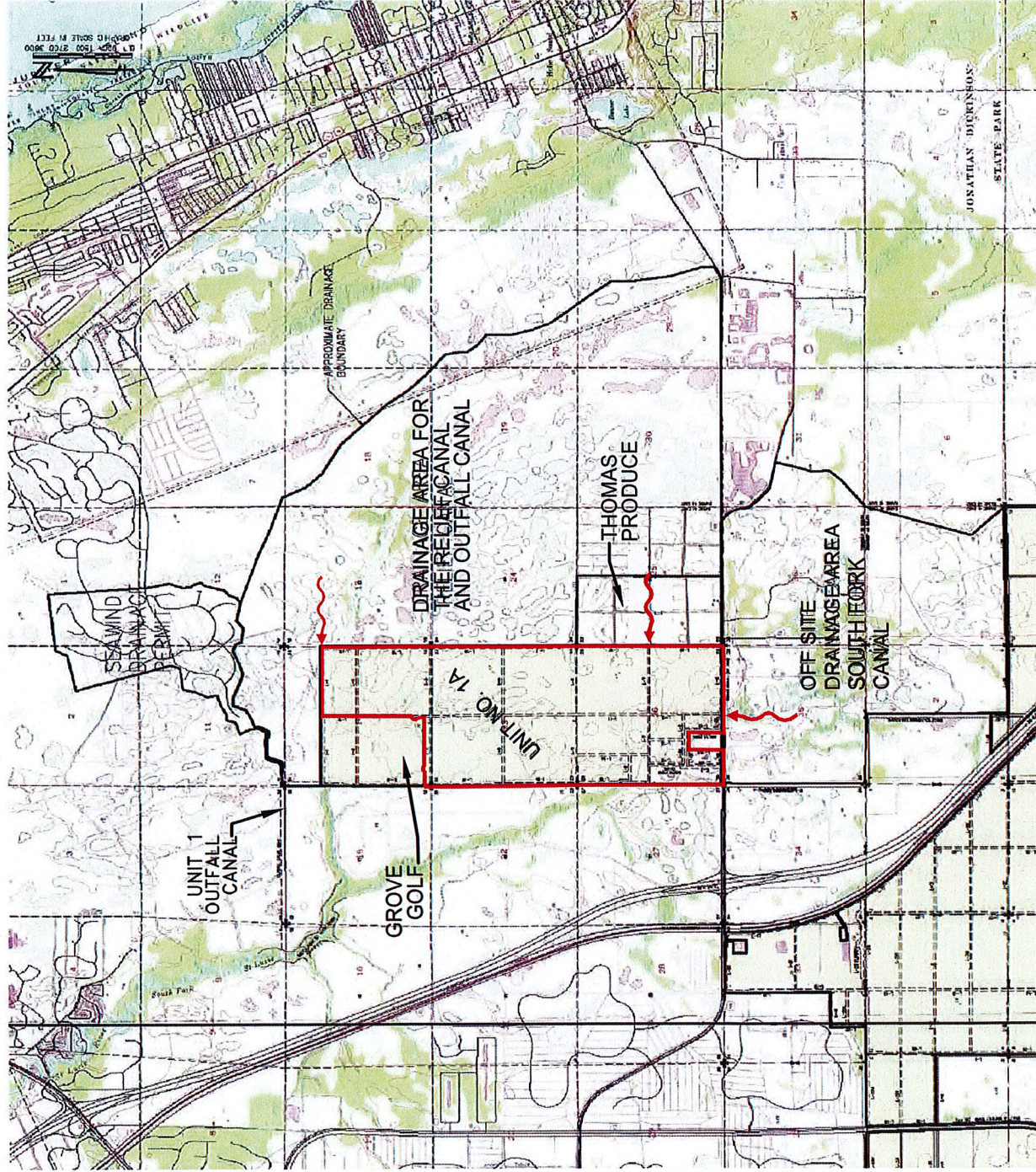
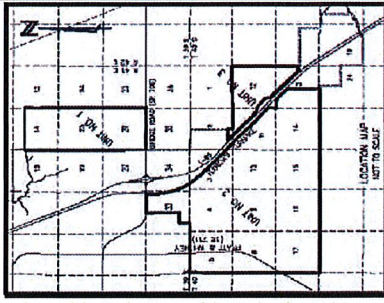
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EXHIBIT 2-2

**Exhibit 3**

**Offsite Drainage Areas**





NOTE: BASE INFORMATION OBTAINED FROM MOCK ROOS DRAWING NO. gncsex26.dwg DATE: April 2007	
0718-8 Discovery Work files\0718-8 Amended Wtr Cont Plan Exhs\1A Exhs 1and3.dwg	
DESIGNED: RWB	
DRAWN: DAB	
SCALE: NTS	
DATE: 10/20/2021	
JOB. NO.: 07-18.8	
OFFSITE DRAINAGE AREAS UNIT OF DEVELOPMENT 1A	
PREPARED FOR	
HOBE ST. LUCIE CONSERVANCY DISTRICT	
MARTIN COUNTY, FLORIDA	



**HIGGINS ENGINEERING, INC.**  
 4623 FOREST HILL BLVD.  
 WEST PALM BEACH, FLORIDA 33415  
 561-439-7807

NO.	REVISIONS	DATE
1	DEFINED STATION 1A	10/20/2021

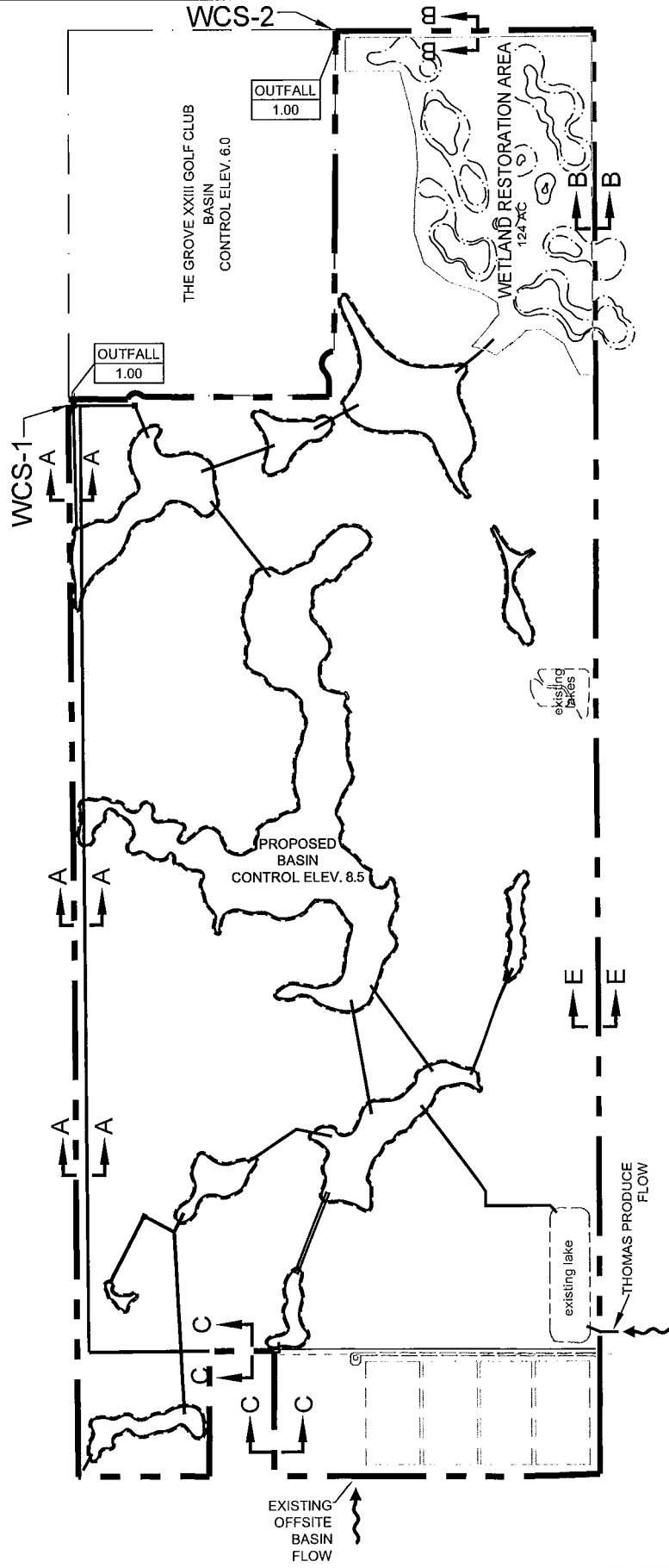


**Exhibit 4**

**Water Control System Map**

# LEGEND

- UNIT No. 1A BOUNDARY
- PROPOSED LAKES & EASEMENT
- CULVERT
- WATER CONTROL STRUCTURE
- WETLAND



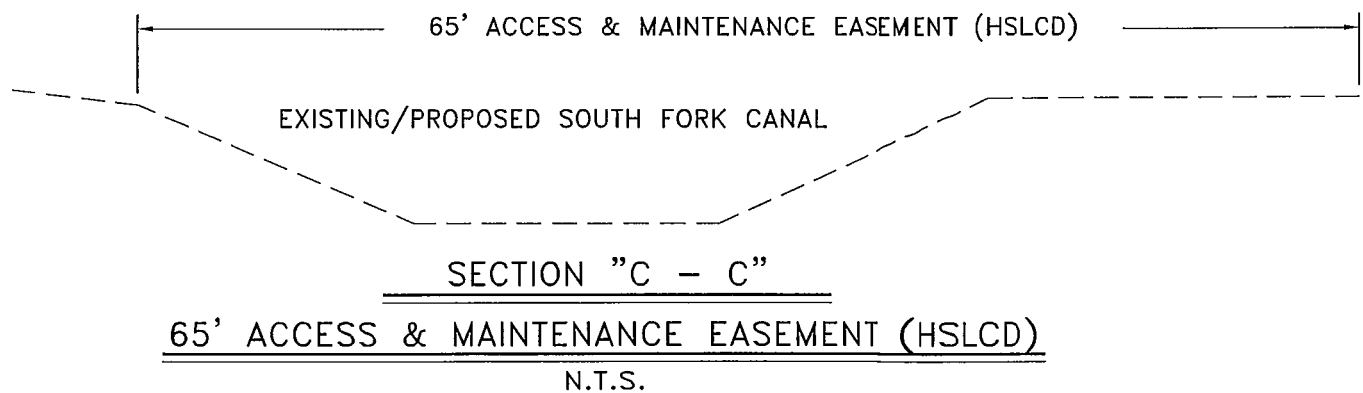
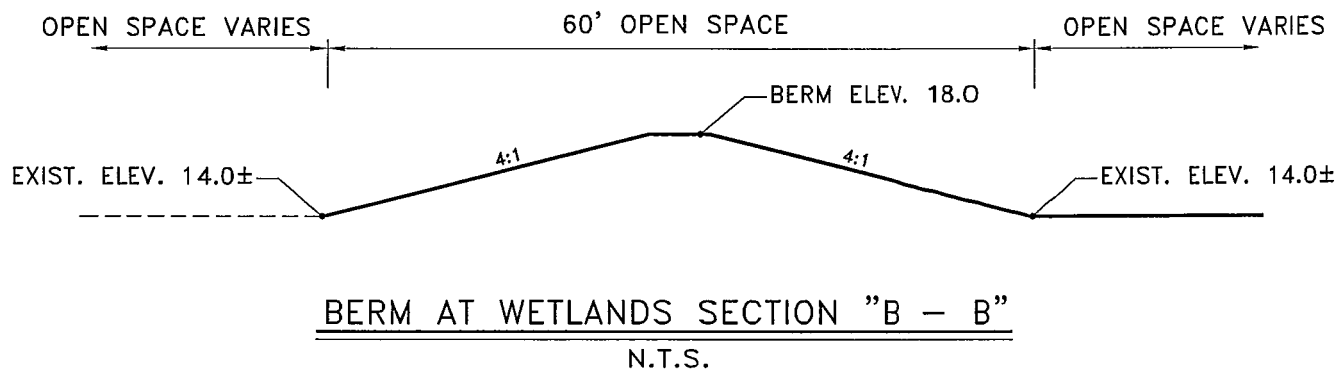
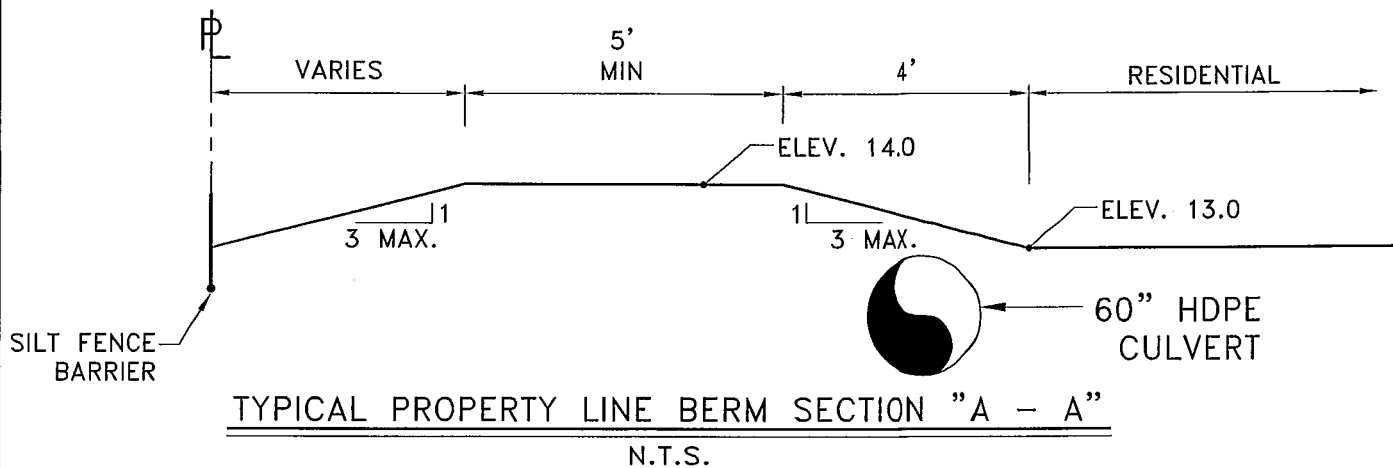
0718-8 Amended Wtr Cont Plan Exhs 1-5-22\1A Exh 4-1 14P.dwg

REVISIONS		DATE
NO.	SECTION 1A	10/20/2021
1	DEFINED PER VELCON FINAL PLAN	11/11/2021
2	REVS PER VELCON FINAL PLAN	

**HIGGINS ENGINEERING, INC.**  
 4623 FOREST HILL BLVD.  
 WEST PALM BEACH, FLORIDA 33415  
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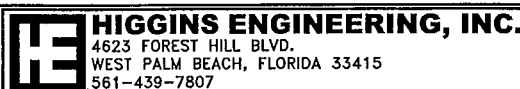
DESIGNED: RWH  
 DRAWN: DAB  
 SCALE: NTS  
 DATE: 10/20/21  
 JOB. NO.: 07-18.8

WATER CONTROL SYSTEM  
 UNIT OF DEVELOPMENT NO. 1A  
 HOBE ST. LUCIE CONSERVANCY DISTRICT  
 MARTIN COUNTY, FLORIDA



0718-8 Amended Wtr Cont Plan Exhs 1-5-22\1A Exh 4-2 Xsects 11L.dwg

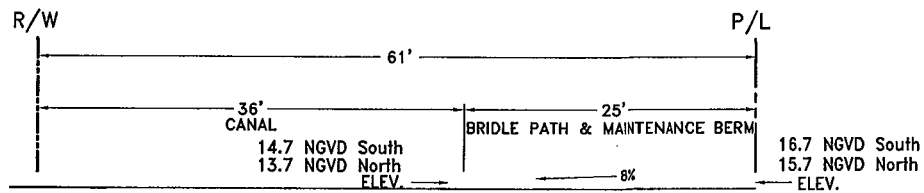
NO.	REVISIONS	DATE
1		



DESIGNED: RWH  
DRAWN: DAB  
SCALE: NTS  
DATE: 10/20/21  
JOB. NO.: 07-18.8

CROSS SECTIONS  
WATER CONTROL SYSTEM MAP  
UNIT OF DEVELOPMENT NO. 1A  
HOBE ST. LUCIE CONSERVANCY DISTRICT  
MARTIN COUNTY, FLORIDA





## SECTION "E - E"

N.T.S.

NOTE: BASE INFORMATION OBTAINED FROM ENGINEERING & WATER RESOURCES, INC.  
HSLCD FACILITIES.dwg DATE: July 2007 & HIGGINS ENGINEERING, INC.

0718-8 Discovery Unit 1A Exhs 1-5-22\ 0718-8 Amended Wtr Conf Plan Exhs\ 1A Exh 4-3 Xsects 12M.dwg

NO.	REVISIONS	DATE
1	-	-



**HIGGINS ENGINEERING, INC.**  
4623 FOREST HILL BLVD.  
WEST PALM BEACH, FLORIDA 33415  
561-439-7807

DESIGNED: RWH  
DRAWN: DAB  
SCALE: NTS  
DATE: 10/2021  
JOB. NO: 07-18.8

CROSS SECTIONS  
WATER CONTROL SYSTEM MAP  
UNIT OF DEVELOPMENT NO. 1A  
HOBE ST. LUCIE CONSERVANCY DISTRICT  
MARTIN COUNTY, FLORIDA

**Exhibit 5**

**Common Facilities Map**



**Exhibit 6**

**Well Location Plan**

NOTES

1. Basemap information shown hereon is generated from the following drawings and CADD files provided to Mock Roos:

Unit No. 1:

GCY Inc. R-14 Grove Boundary Survey For: Becker Holding Corporation, File & Drawing No. 08-1005-08-01, Dated Feb. 2008.

3. Property lines shown hereon are for graphic representation only and are not to be construed as field surveyed. No boundary was established with this map.

3. Well location shown hereon are based on South Florida Water Management Permit No. 43-00057W.

LEGEND

34 27  
35 26

SECTION CORNER

UNIT NO. 1A BOUNDARY

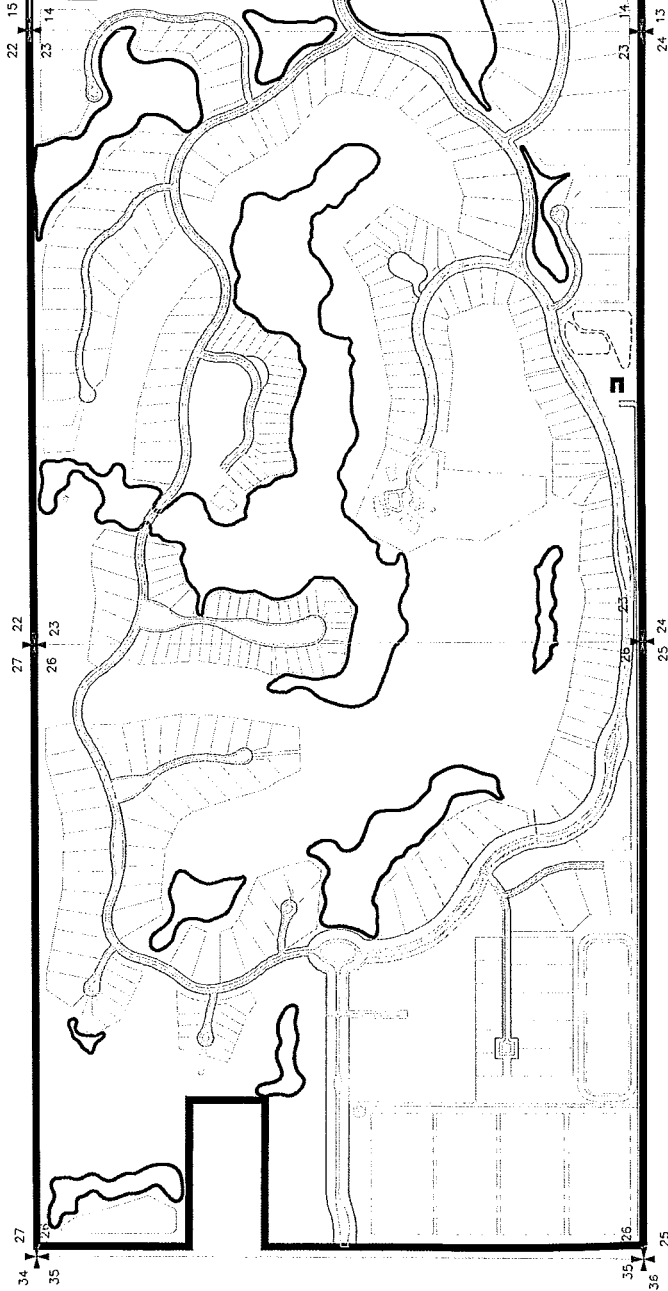
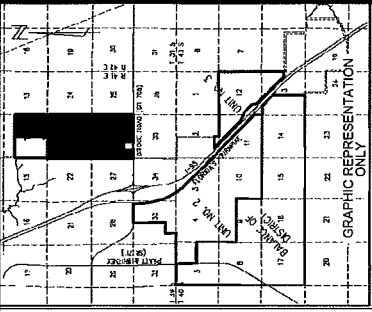
SECTION LINE GRAPHIC REPRESENTATION

SECTION LINE PER GCY, Inc. AND/OR LBFH Inc.

WELLS



LOCATION MAP  
N.T.S.



0718-8 Discovery Work files  
0718-8 Amended Wtr. Cont. Plan Exhs  
1A Exh 4 7G.dwg

WELL LOCATION PLAN  
UNIT OF DEVELOPMENT NO. 1A  
HOBE ST. LUCIE CONSERVANCY DISTRICT  
MARTIN COUNTY, FLORIDA

DESIGNED: RWB  
DRAWN: DAB  
SCALE: NTS  
DATE: 10/20/2021  
JOB. NO.: 07-18.8

**HIGGINS ENGINEERING, INC.**  
4623 FOREST HILL BLVD.  
WEST PALM BEACH, FLORIDA 33415  
561-439-7807

NO.	REVISIONS	DATE
1	DEFINED SECTION 1A	10/20/2021
2	REMOVED FIRE WELLS	10/29/2021
3	REVS PER VELCOON FINAL PLAN	11/11/2021

**Exhibit 7**

**Easement Location Map**



# LEGEND

UNIT No. 1A BOUNDARY

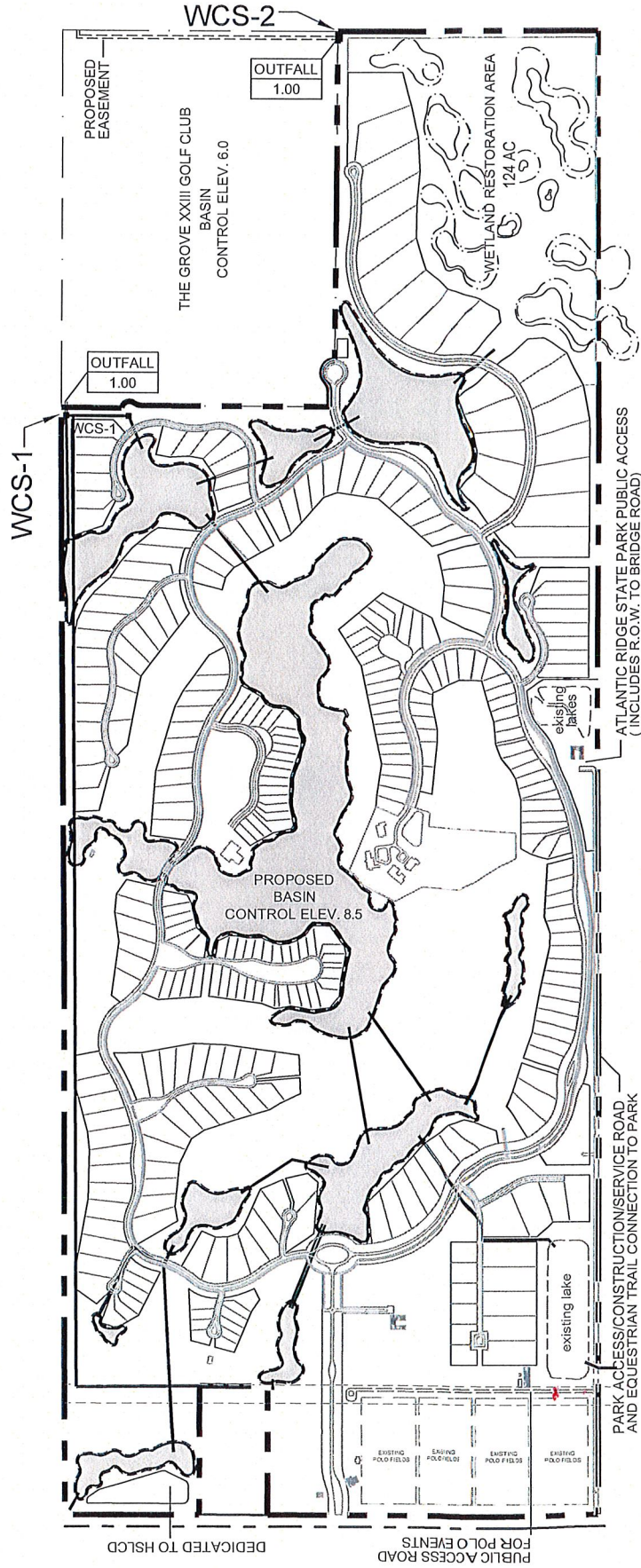
PROPOSED LAKES & EASEMENT

CULVERT

WATER CONTROL STRUCTURE

WETLAND

\* EASEMENTS ARE LOCATED ON CULVERTS, ROADS, & LAKE LITTORAL ZONES



<b>HIGGINS ENGINEERING, INC.</b> 4623 FOREST HILL BLVD. WEST PALM BEACH, FLORIDA 33415 561-439-7807		0718-8 Discovery Unit 1A Exhs \ 0718-8 Amended Wtr Cont Plan Exhs 1-5-22 \ 1A Exh 6 15T.dwg	
<b>REVISIONS</b> 1 DEFINED SECTION 1A 2 REVISED PER VELCON FINAL PLAN		<b>PROPOSED EASEMENT LOCATION MAP</b> UNIT OF DEVELOPMENT NO. 1A HOBE ST. LUCIE CONSERVANCY DISTRICT MARTIN COUNTY, FLORIDA	
DATE: 10/20/2021 DATE: 11/15/2021		DESIGNED: RWB DRAWN: DAB SCALE: NTS DATE: 10/20/2021 JOB. NO.: 07-18.8	

## **Exhibit 8**

### **Cost Estimate for Proposed Improvements**



**UNIT 1A**  
**WATER CONTROL PLAN**

**December 2021**  
**Revised January 4, 2021**

Cost of Construction Elements Within the HSLCD Easements for Entire Unit 1A

Item No.	Description	Unit	Unit Price	Qty	Total \$
1000	Mobilization	LS	956000.00	1	956,000
1100	Erosion Control	LF	2.20	40,617	89357.4
1200	Clear Grub and Burn	AC	2250.00	1,676	3,771,000
1300	Strip Site and Use in Green Areas	AC	1600.00	1,530	2,448,000
1400	Excavation	CY	4.30	7,000,000	30,100,000
1450	Embankment	CY	2.75	7,000,000	19,250,000
1500	Grade Lots +/-2	AC	6000.00	495	2,970,000
1550	Rough Grade	AC	4500.00	793	3,568,500
1575	Grade Wetland Restoration Area	AC	8500.00	140	1,190,000
1600	Finish Grade	SY	3.80	192,066	729,851
2000	Sewer (40%)	LS	30000000.00	1	30,000,000
2100	Drainage (40%)	LS	30000000.00	1	30,000,000
2200	Water (20%)	LS	15000000.00	1	15,000,000
2210	Landscaping	LS	5600000.00	1	5,600,000
2300	Dewatering	LS	4500000.00	1	4,500,000
	Subtotal				\$150,172,708
	10% Contingency				\$15,017,271
	Total				\$165,189,979