APPENDIX B

STORMWATER / DRAINAGE REPORT

COMMERCE CENTER OF COCONUT CREEK CASINO EXPANSION

BROWARD COUNTY, FLORIDA

SEMINOLE FEE-TO-TRUST DRAINAGE ANALYSIS

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K&S PROJECT No. 17996.00

June 30, 2011
(Revised July 15, 2011)
(Revised July 29, 2011)

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Fla. Reg. No. 50588
(For the Firm)

1. INTRODUCTION

As part of the fee-to-trust application, the purpose of this section is to substantiate modifications to the current Stormwater related permitting for the Commerce Center of Coconut Creek, as it would relate to the five (5) alternatives being studied as part of the Environmental Impact Statement (EIS). The Commerce Center of Coconut Creek (PARCEL) is a 105.23 ac parcel located in the Cocomar NW drainage Basin. The Seminole Tribe of Florida (STOF) currently owns approximately 50.1 acres within the Coconut Creek Commerce Center; of which 5 acres are in Trust. STOF is currently engaged in an ongoing process of approval from the City of Coconut Creek for their Planned Mainstreet Development District (PMDD). Although not directly applicable to the scope of the EIS, the PMDD is used as a frame of reference in describing proposed alternatives.

All parcels within the 105-acre Commerce Center are regulated by a single Master Drainage Permit. As such, modifications to individual tracts must not adversely impact other tracts under separate ownership. This is upheld by demonstrating compliance with the conditions of the Master Permit. In this manor, individual Tracts within the Commerce are linked. By example, lake storage within a specific parcel cannot be eliminated without provision for compensatory storage elsewhere. Although typically found within the limits of the 105-acre drainage basin, it is possible, although much more difficult, to show compensatory storage outside of the limits of PARCEL.

The five (5) alternatives analyzed are further described in the "Seminole Fee-To-Trust" report.
A brief summary of characteristics follows:

Alternative 'A': Full Build-out with Local Government Approvals

- Represents full build-out of current PMDD with the assumption that all STOF-owned lands are brought into Trust (including Tract 'G' and 'H').
- 1000 Hotel rooms.
- Assumes vacation of 40th Street.
- Assumes cooperation of local jurisdictions for approval of off-site compensatory storage and drainage improvements.

Alternative 'A-1': Full build-out without Local Governmental approvals

- Scaled down version of PMDD defined Development.
- No vacation of 40th Street.
- Reliance upon onsite solutions for drainage.

Alternative 'B': Reduced intensity build-out

- 500 Hotel rooms; no improvements on Tract 'G' and 'H'.
- Without Governmental approvals.
- No vacation of 40th Street.
- Reliance upon onsite solutions for drainage.

Alternative 'C': No Federal Action

- Development would be the same as Alternative 'A'.
- Federal Government would not bring STOF properties into Trust.

Alternative 'C-1': No action

- No new development or change of land use.

2. PERMIT HISTORY AND BACKGROUND

The drainage basin of the PARCEL (bound by farm lands and minimal development on the north, Sample Road on the south, US 441 on the west and Banks Road on the east) lies within the northwest sub-basin of the much larger (8,370 acres) Cocomar Water Control District (CWCD) watershed. **Figure 1** shows the location of the PARCEL within the limits of CWCD.

The drainage system within the PARCEL consists of series of interconnected lakes. Allowable discharge is established within the permit and defined by the criteria established by SFWMD for the receiving water body. The allowable discharge establishes the maximum discharge from the PARCEL for a specific storm event, in this case the 25 year, 3 day event. As a sub-basin within the NW Cocomar basin, the PARCEL's permitted receiving water body is the Hillsboro Canal. However, because a physical connection to the NW Basin does not exist, it is currently permitted to temporarily discharge to the C14 canal (via the SW Cocomar sub-basin). Because the allowable discharge to the SW Cocomar basin differs from the allowable (permitted) discharge to the NW Basin, a control structure regulates discharge to meet the conditions of the permit. SFWMD granted conceptual approval for this temporary arrangement on February 13, 1986 (Master Permit No 06-00551-S). The PARCEL is designed and permitted to meet the criteria for the NW Cocomar basin in anticipation of a physical connection being available upon development of surrounding farmland. Once a physical connection is available, the temporary connection to the Southwest Basin will be shut off and the PARCEL will discharge freely into the NW Basin.

COMMERCE CENTER OF COCONUT CREEK CASINO

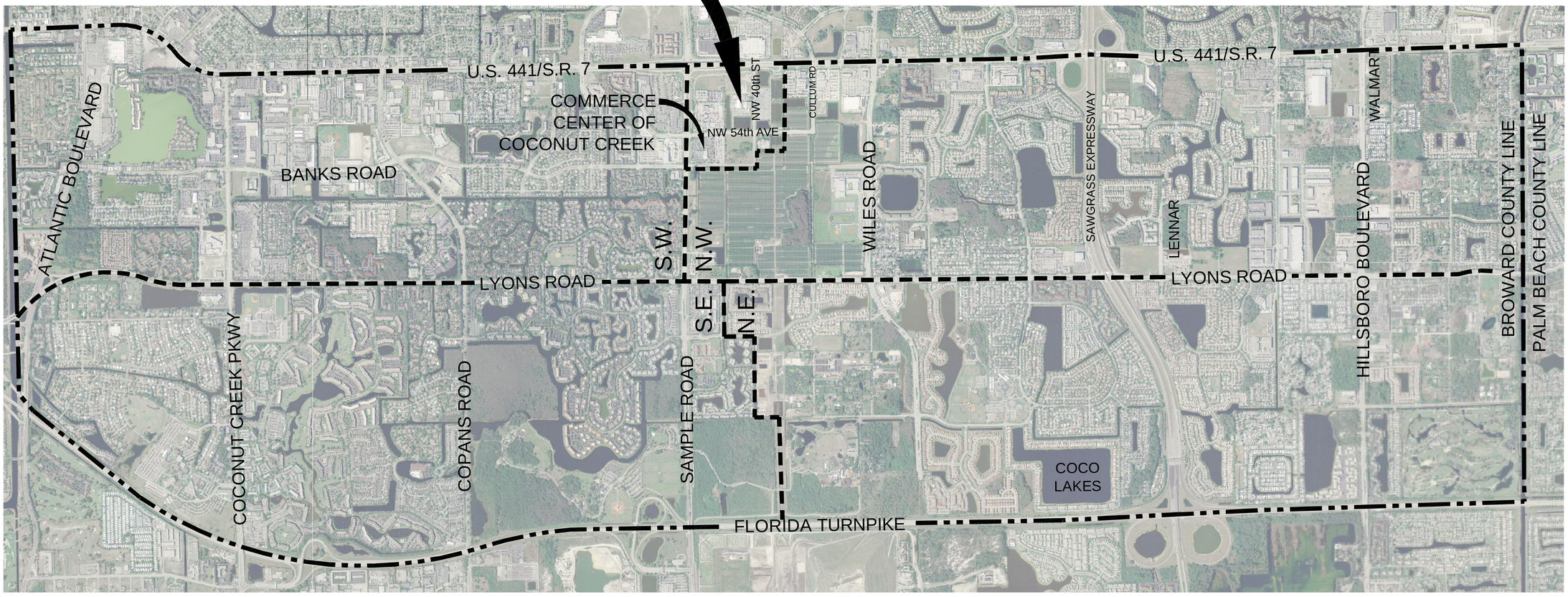
NORTH

GRAPHIC SCALE

1200 0 600 1200 2400 4800

(IN FEET)
1 inch = 1200ft.

BASINS	CONTROL ELEVATION (NGVD)	RECEIVING CANAL	ALLOWABLE DISCHARGE RATE (CSM)
N.E. & N.W.	11.00	HILLSBORO CANAL	35
S.E. & S.W.	9.50	C-14 CANAL	69.2



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PROJ. NO.: 17996.00
DATE: JUNE 30, 2011
SCALE: 1" = 1200'

SEMINOLE FEE-TO-TRUST
COCONUT CREEK FLORIDA

LIMITS OF COCOMAR WATER CONTROL DISTRICT

FIG. 1

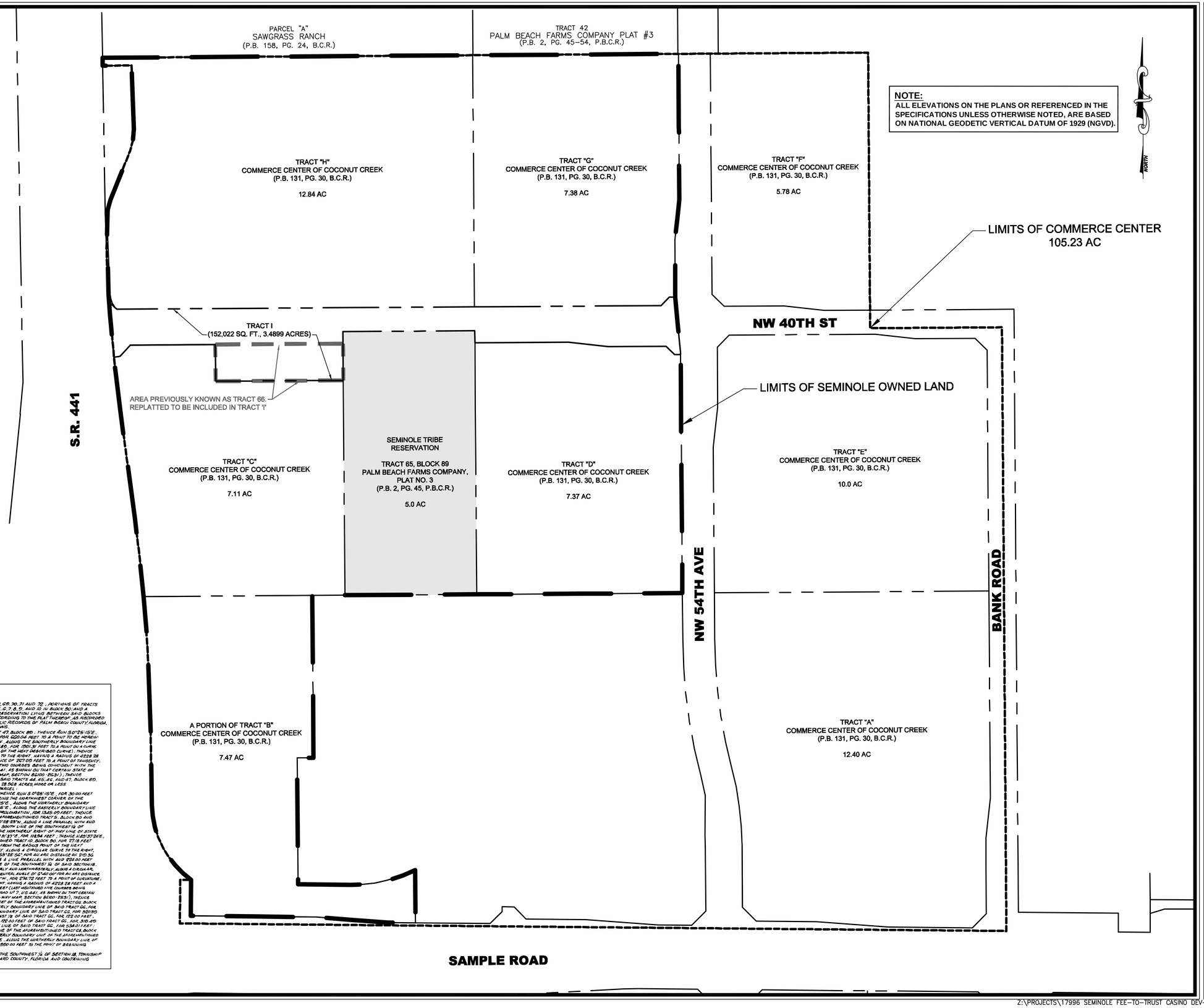
6/30/2011 4:22 PM; Scale: 1:20; Layout Tab: FIG 1; Pen Table: KS-MONO.CTB; Plot Created by: FRANCINE LINZER;

Z:\PROJECTS\17996 SEMINOLE FEE-TO-TRUST CASINO DEV-AES\CIVIL\CAD\17996.00_FIG 1.DWG

Ownership within the PARCEL is divided among 10 Tracts and 5 entities, STOF, FP&L, The City of Coconut Creek, and two car dealerships. **Figure 2** identifies the limits of the PARCEL and the tracts within the PARCEL. Development within each Tract is bound to the Master Drainage Permit for the PARCEL. The Master Permit is conceptual in nature. It addresses proposed development within the tracts assuming fully developed conditions. The total amount of building, pervious, impervious, and lake area for the PARCEL is allocated among the 10 Tracts. The Master Permit is modified as each parcel is developed or redeveloped. In modifying the Master Permit the permitee must show compliance with the conditions of the Master Permit including basin storage and pretreatment. If an entity wishes to develop beyond the allocated use, they must show compensatory storage ensuring no adverse impact to other entities.

Each entity is responsible for providing pretreatment within their Tract. In doing so, pretreatment is established prior to run-off entering into the shared system of interconnected lakes. Water quality is provided through detention within the lakes as is storage for storm events equivalent to, or less than the 10 year, 1 day event.

Construction of the Commerce Center stormwater infrastructure system began in 1987. The permitted system built at that time, consisted of the access roads, dry retention areas (swales), and lakes. As permitted in November 1987 (Permit No. 06-00551-S-02), the drainage system directed right-of-way runoff into dry retention (swales) areas from where it discharged to the lakes via sheet flow and/or culverts. An exception was granted for certain public right-of-way constructed with runoff conveyed directly into the lake system without pre-treatment. The permitted stormwater system authorized construction of 10.6 acres (16.0 acres permitted in the conceptual permit) of lakes in Tracts ‘65’, ‘G’, ‘H’ and ‘F’. The conceptual permit was modified in December 1989 to reduce the required lake area from 16.0 to 12.5 acres. This reduction was based on a reduction in rainfall amounts published in the updated South Florida Water Management District (SFWMD) Technical Publication 81-3. The isohyetal maps, graphical representations of precipitation for pre-defined return periods, are provided as **Exhibit 1**: “10-year, 24-hour Rainfall”; **Exhibit 2**: “25-year, 72-hour Rainfall”; and **Exhibit 3**: “100-year, 72-hour Rainfall”. Other permit modifications were granted after 1989 for the construction of the Mazda/Dodge Dealership in parcel B2 and the Toyota Dealership in parcel A.



LEGAL DESCRIPTION:

BEING A REPLAT OF TRACTS 45, 46, 47, G1, G2, G3, G4, G5, G6, G7, 70, 71 AND 72 ; PORTIONS OF TRACTS 44, G8 AND E7 IN BLOCK 89 AND PORTIONS OF TRACTS 9, 8, 7, 6, 5 AND 10 IN BLOCK 90 AND A PORTION OF THE FORTY (80) FOOT ROAD, DIKE, AND DITCH RESERVATION LYING BETWEEN SAID BLOCKS 89 AND 90, "PALM BEACH FARMS COMPANY PLAT NO.3", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 2, AT PAGES 45 THROUGH 54 OF THE PUBLIC RECORDS OF PALM BEACH COUNTY, FLORIDA, ALL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE NORTHWEST CORNER OF SAID TRACT 47, BLOCK 89 ; THENCE RUN S0°25'15"E, ALONG THE EASTERLY BOUNDARY LINE OF SAID TRACT 47, FOR 620.04 FEET TO A POINT TO BE HEREINAFTER REFERRED TO AS POINT "A" ; THENCE S.89°37'15"W, ALONG THE SOUTHERLY BOUNDARY LINE OF THE AFOREMENTIONED TRACTS 47, 46, 45 AND 44, BLOCK 89, FOR 1501.91 FEET TO A POINT ON A CURVE (SAID POINT BEARS S.83°19'34"E), FROM THE RADIUS POINT OF THE NEXT DESCRIBED CURVE ; THENCE NORTHWESTERLY AND NORTHERLY ALONG A CIRCULAR CURVE TO THE RIGHT, HAVING A RADIUS OF 4228.28 FEET AND A CENTRAL ANGLE OF 3°37'09", FOR AN ARC DISTANCE OF 267.00 FEET TO A POINT OF TANGENCY, THENCE N.17.80'17"W, FOR 363.72 FEET (LAST MENTIONED TWO COURSES BEING COINCIDENT WITH THE EASTERLY RIGHT-OF-WAY LINE OF STATE ROAD N.7), U.S. 441, AS SHOWN ON THAT CERTAIN STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY MAP, SECTION 86200-2523); THENCE N.89°37'05"E, ALONG THE NORTHERLY BOUNDARY LINE OF SAID TRACTS 44, 45, 46, AND 47, BLOCK 89, FOR 1314.47 FEET TO THE POINT OF BEGINNING. CONTAINING 28.528 ACRES, MORE OR LESS.

TOGETHER WITH THE FOLLOWING DESCRIBED PARCEL:

COMMENCE AT THE AFOREMENTIONED POINT "A" ; THENCE RUN S.0°25'15"E, FOR 30.00 FEET TO THE POINT OF BEGINNING (SAID POINT OF BEGINNING BEING THE NORTHWEST CORNER OF THE AFOREMENTIONED TRACT G1, BLOCK 89) ; THENCE N.89°37'15"E, ALONG THE NORTHERLY BOUNDARY LINE OF SAID TRACT G1, FOR 330.00 FEET ; THENCE S.0°25'15"E, ALONG THE EASTERLY BOUNDARY LINE OF SAID TRACTS G1 AND 72, BLOCK 89 AND ITS SOUTHERLY PROLONGATION, FOR 1345.05 FEET ; THENCE S.0°23'28"E, ALONG THE EASTERLY BOUNDARY LINE OF THE AFOREMENTIONED TRACT 5, BLOCK 90 AND ITS NORTHERLY PROLONGATION, FOR 102.86 FEET ; THENCE N.80°28'23"W, ALONG A LINE PARALLEL WITH AND 53.00 FEET NORTH OF, AS MEASURED AT RIGHT ANGLES TO, THE SOUTH LINE OF THE SOUTHWEST ¼ OF SECTION 18 TOWNSHIP 48 SOUTH, RANGE 42 EAST. ALSO BEING THE NORTHERLY RIGHT-OF-WAY LINE OF STATE ROAD N.7 &84 (SAMPLE ROAD), FOR 2088.12 FEET ; THENCE N.0°18'37"E, FOR 1084 FEET ; THENCE N.80°37'26"E, ALONG THE NORTHERLY BOUNDARY LINE OF THE AFOREMENTIONED TRACT 10, BLOCK 90, FOR 27.18 FEET TO A POINT ON A CURVE (SAID POINT BEARS S.35°30'35"W), FROM THE RADIUS POINT OF THE NEXT DESCRIBED CURVE) ; THENCE NORTHWESTERLY AND NORTHERLY, ALONG A CIRCULAR CURVE TO THE RIGHT, HAVING A RADIUS OF 2356.00 FEET AND A CENTRAL ANGLE OF 53°12'52", FOR AN ARC DISTANCE OF 2110.52 FEET TO A POINT OF TANGENCY ; THENCE N.17°05'25"W, ALONG A LINE PARALLEL WITH AND 228.00 FEET EAST OF, AS MEASURED AT RIGHT ANGLES TO, THE WEST LINE OF THE SOUTHWEST ¼ OF SAID SECTION 18, FOR 229.01 FEET TO A POINT OF CURVATURE ; THENCE NORTHERLY AND NORTHWESTERLY, ALONG A CIRCULAR CURVE TO THE LEFT, HAVING A RADIUS OF 440.02 FEET AND A CENTRAL ANGLE OF 0°40'00"FOR AN ARC DISTANCE OF 5.023 FEET TO A POINT OF TANGENCY ; THENCE N.17°45'25"W, FOR 578.72 FEET TO A POINT OF CURVATURE ; THENCE NORTHWESTERLY, ALONG A CIRCULAR CURVE TO THE RIGHT, HAVING A RADIUS OF 4228.28 FEET AND A CENTRAL ANGLE OF 0°58'46" FOR AN ARC DISTANCE OF 72.49 FEET (LAST MENTIONED FIVE COURSES BEING COINCIDENT WITH THE EASTERLY RIGHT-OF-WAY LINE OF STATE ROAD N.7), U.S. 441, AS SHOWN ON THAT CERTAIN STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY MAP, SECTION 86200-2523); THENCE S.89°37'15"W, ALONG THE SOUTH LINE OF THE NORTH 122.00 FEET OF THE AFOREMENTIONED TRACT G2, BLOCK 89, FOR 71.00 FEET ; THENCE N.1°02'15"W, ALONG THE WESTERLY BOUNDARY LINE OF SAID TRACT G2, FOR 122.00 FEET ; THENCE N.89°37'15"E, ALONG THE NORTHERLY BOUNDARY LINE OF SAID TRACT G2, FOR 315.00 FEET ; THENCE N.89°37'15"E, ALONG THE WEST LINE OF THE EAST ½ OF SAID TRACT G2, FOR 122.00 FEET ; THENCE S.89°37'15"E, ALONG THE SOUTH LINE OF THE NORTH 122.00 FEET OF SAID TRACT G2, FOR 315.00 FEET ; THENCE S.0°25'15"E, ALONG THE EASTERLY BOUNDARY LINE OF SAID TRACT G2, FOR 538.01 FEET ; THENCE N.89°37'05"E, ALONG THE NORTHERLY BOUNDARY LINE OF THE AFOREMENTIONED TRACT G3, BLOCK 89, FOR 330.00 FEET ; THENCE N.0°25'15"W, ALONG THE WESTERLY BOUNDARY LINE OF THE AFOREMENTIONED TRACT G4, BLOCK 89, FOR 620.02 FEET ; THENCE N.89°37'15"E, ALONG THE NORTHERLY BOUNDARY LINE OF THE AFOREMENTIONED TRACTS G4, G5, AND G6, BLOCK 89, FOR 550.00 FEET TO THE POINT OF BEGINNING. CONTAINING 68.156 ACRES MORE OR LESS.

ALL OF THE FOREGOING LYING AND BEING IN THE SOUTHWEST ¼ OF SECTION 18, TOWNSHIP 48 SOUTH, RANGE 42 EAST, CITY OF COCONUT CREEK, BROWARD COUNTY, FLORIDA AND CONTAINING 97.163 ACRES MORE OR LESS.

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SEMINOLE FEE-TO-TRUST

COCONUT CREEK FLORIDA

COMMERCE CENTER OF COCONUT CREEK

FIG. 2

7/5/2011 1:52 PM; Scale: 1:20; Layout Tab: FIG 2; Pen Table: KS-MONO.CTB; Plot Created by: FRANCINE LINZER;
Z:\PROJECTS\PB Seminole Fee-To-Trust Casino Dev-AES\CIVIL\CAD\17996.00_FIG 2.dwg, FIG 2, 7/5/2011 1:52:40 PM, FRANCINE LINZER
Z:\PROJECTS\17996 SEMINOLE FEE-TO-TRUST CASINO DEV-AES\CIVIL\CAD\17996.00_FIG 2.DWG

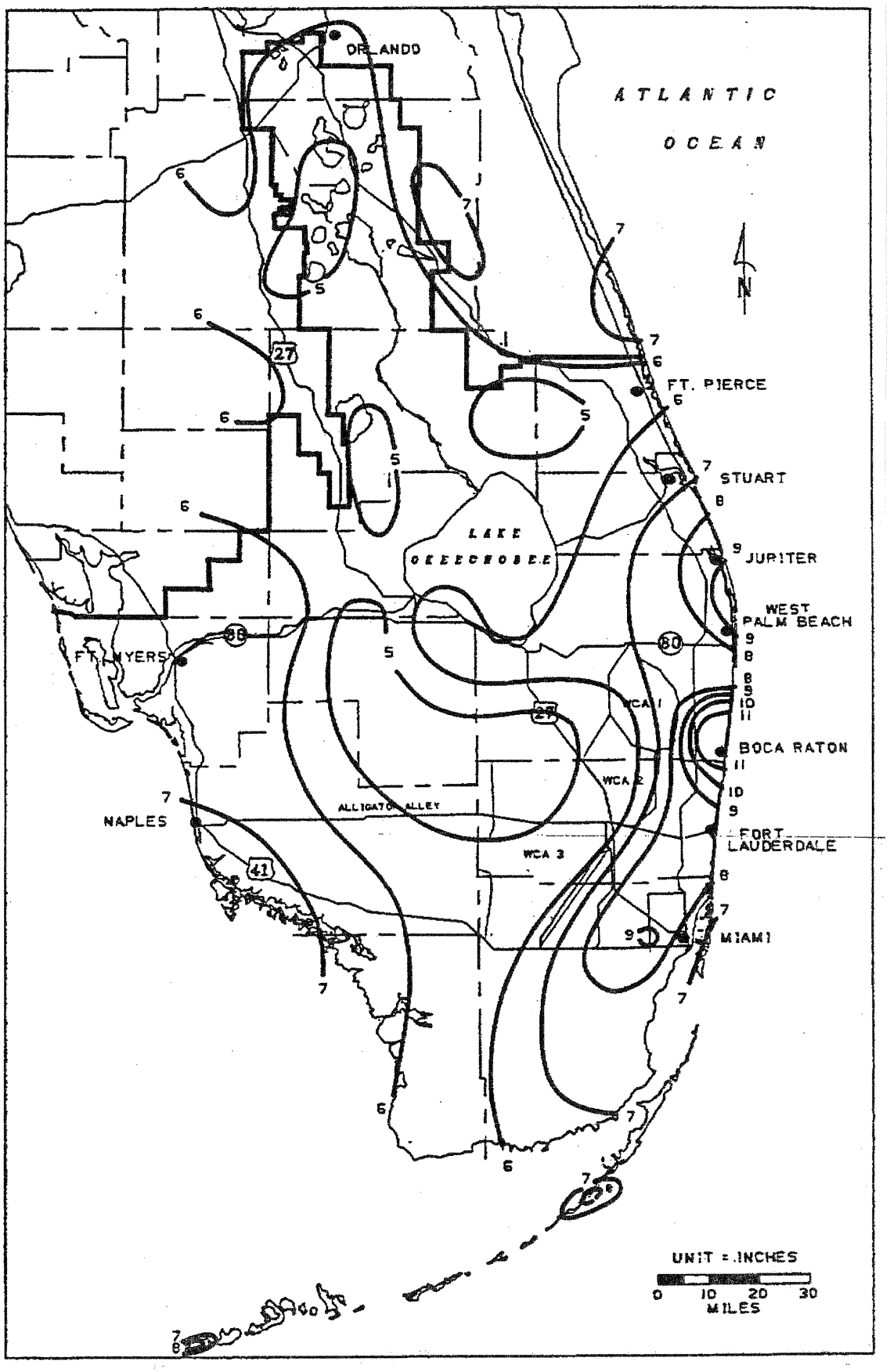


EXHIBIT 1. 1-DAY RAINFALL: 10 YEAR RETURN PERIOD

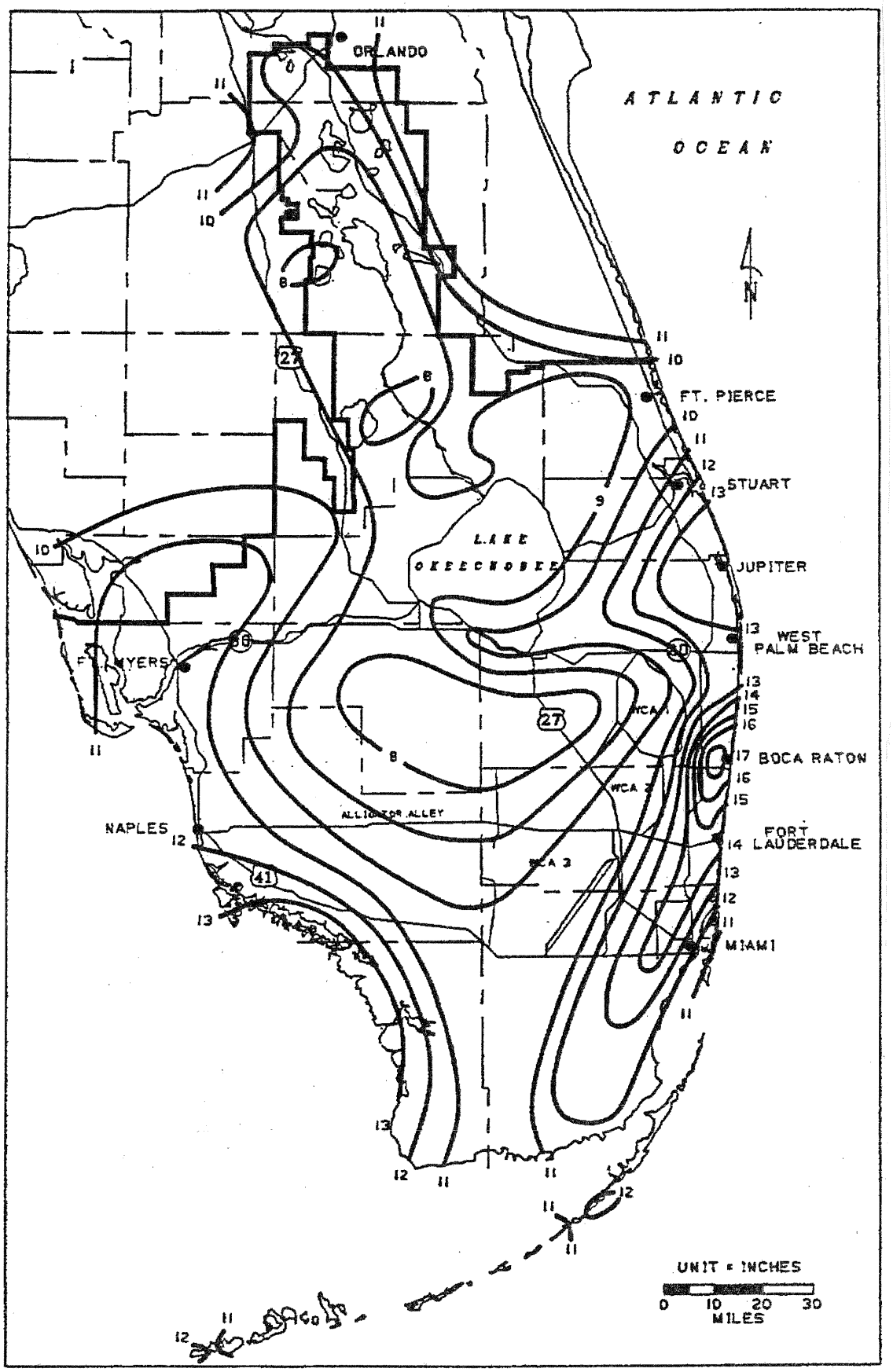


EXHIBIT 2. 3-DAY RAINFALL: 25 YEAR RETURN PERIOD

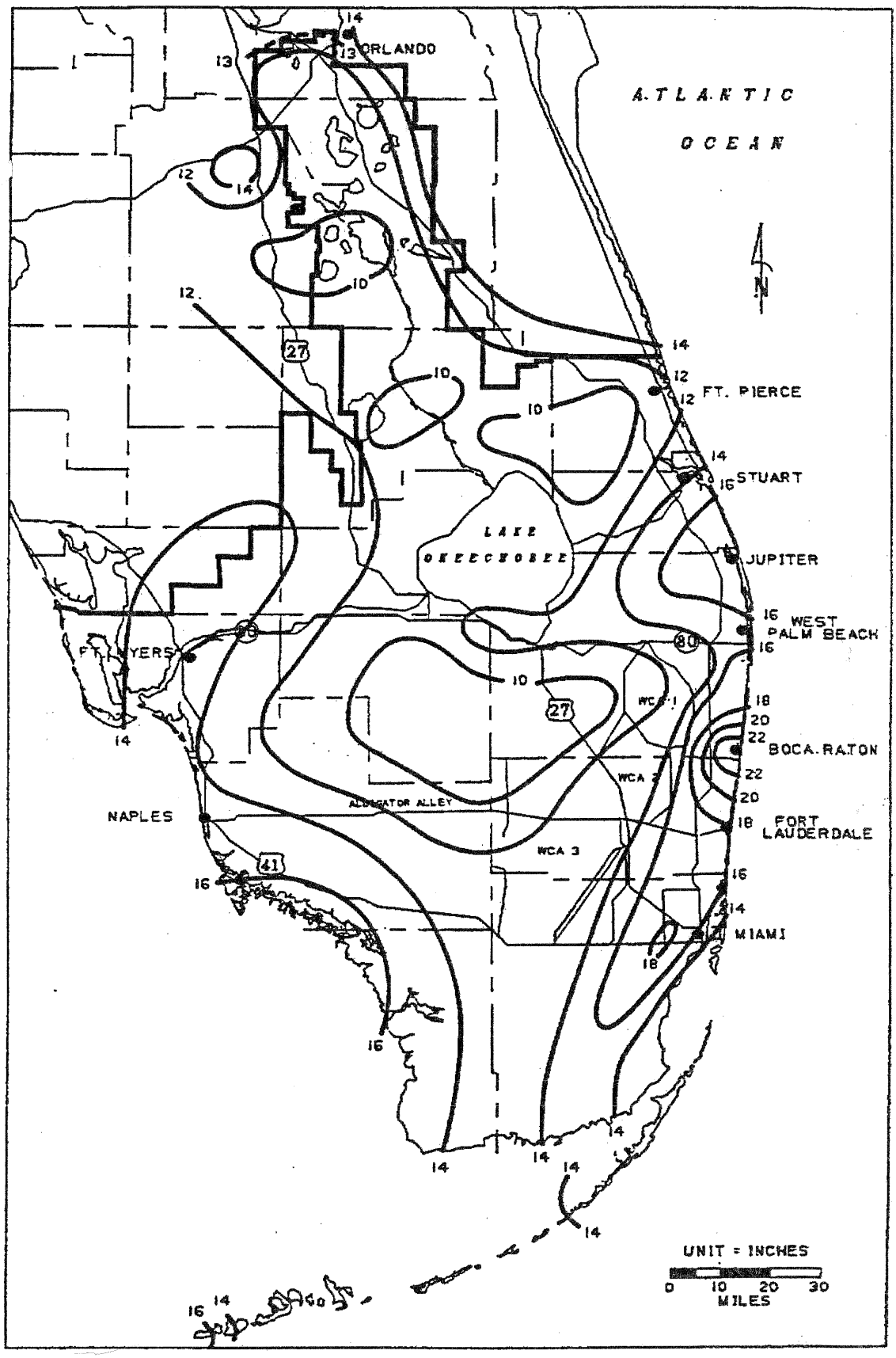


EXHIBIT 3. 3-DAY RAINFALL: 100 YEAR RETURN PERIOD

The stormwater system for each Tract within the PARCEL discharges to a shared system of interconnected lakes. Swapping lake area within the PARCEL to accommodate proposed development on a specific Tract has been a common practice over the years. By displacing lake storage from one tract to another, lakes have continually been filled in on one Tract with no direct impact to the tract or cumulative impact on the PARCEL. With the exception of a 1.5-acre lake located on the FP&L parcel, lake storage for the PARCEL is currently located on STOF-owned lands.

3. OFF-SITE DISCHARGE

The PARCEL is located in the NW Cocomar basin and must therefore meet the criteria governing improvements within that basin for stage and discharge. Although permitted to comply with discharge into the NW basin, the PARCEL currently discharges into the C-12 basin. Because allowable discharge to the SW Cocomar basin is much higher than the NW Cocomar Basin, discharge is regulated by a control structure located off-site approximately 800 feet east of N.W. 54th Avenue on the north side of Sample Road. Run-off is conveyed through a culvert to control structure where discharge is regulated by a 3" notched weir; the invert of the notched bleeder is set at elevation 11.0 N.G.V.D. (National Geodetic Vertical Data), the invert of the weir is set at elevation 14.6 N.G.V.D. The elevation of the notch represents control for the NW Basin; the elevation of the weir restricts allowable discharge for the 25-year 3-day storm event. The control structure regulates discharge downstream to a 700-ft long irrigation canal along the north side of Sample Road where it ultimately discharges through a 60-inch culvert crossing under Sample Road and into the SW Cocomar basin. **Figure 3** shows the existing connection to the SW Basin as described.

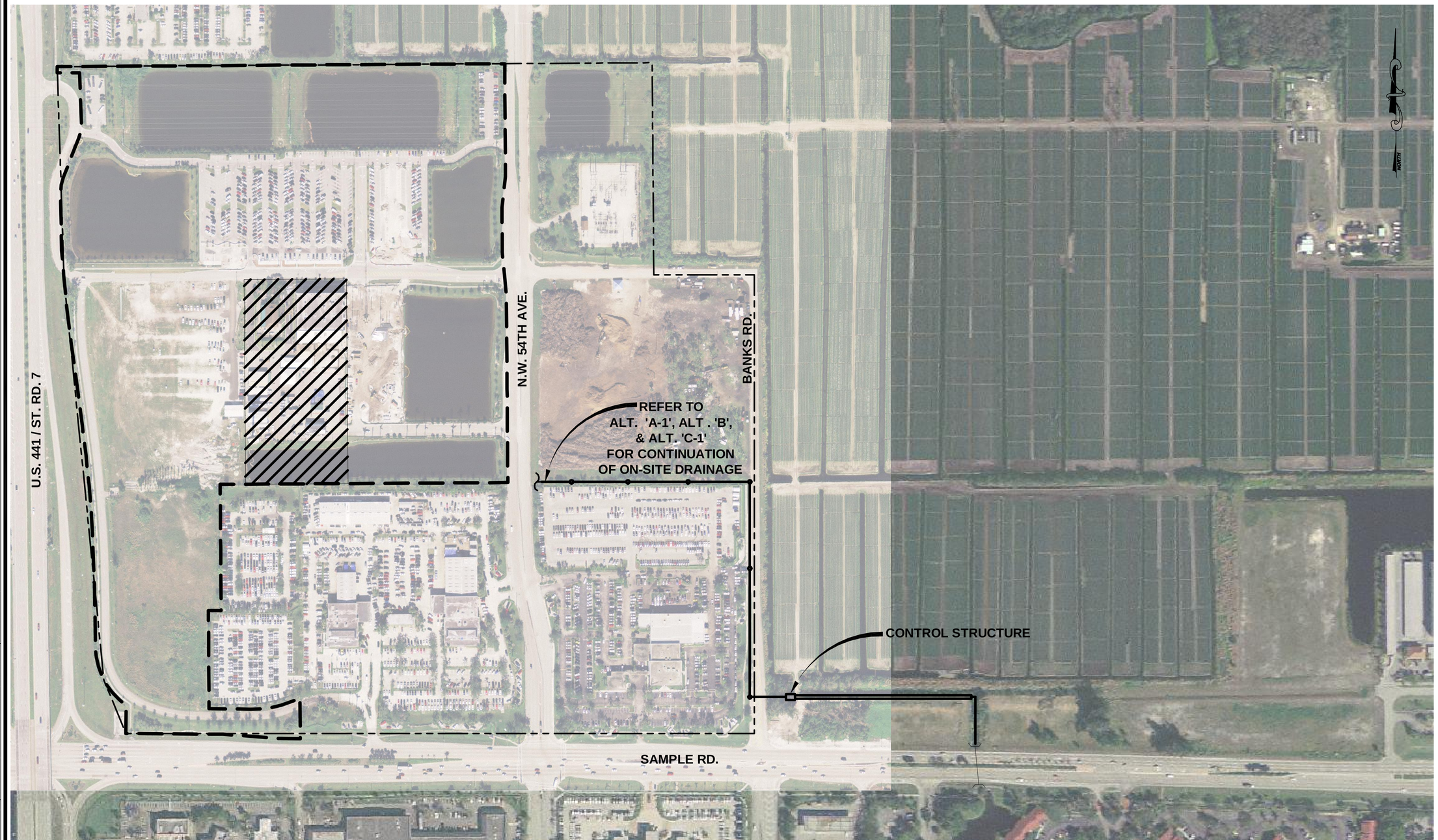
The connection to the SW Basin has always been considered a temporary condition. This connection provides an interim means for discharge until a permanent connection to the NW Basin becomes available. Once connected to the NW Cocomar Basin, the connection to the SW basin would be eliminated. By connecting to the NW Basin, the PARCEL no longer requires a separate control structure. Control for the PARCEL would be provided by the downstream control for the entire NW Basin. **Figure 4** is an example of a possible future connection to the NW Basin.

LEGEND

EXISTING LIMITS OF TRUST

LIMITS OF STOF-OWNED LAND

LIMITS OF COMMERCE CENTER



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SEMINOLE FEE-TO-TRUST

COCONUT CREEK FLORIDA

OFF-SITE CONNECTION TO SW BASIN

FIG. 3

7/18/2011 11:48 AM; Scale: 1:20; Layout Tab: FIG 3; Pen Table: KS-MONO.CTB; Plot Created by: FRANCINE LINZER;
Z:\PROJECTS\17996 SEMINOLE FEE-TO-TRUST CASINO DEV-AES\CIVIL\CAD\17996.00_FIG 3.DWG

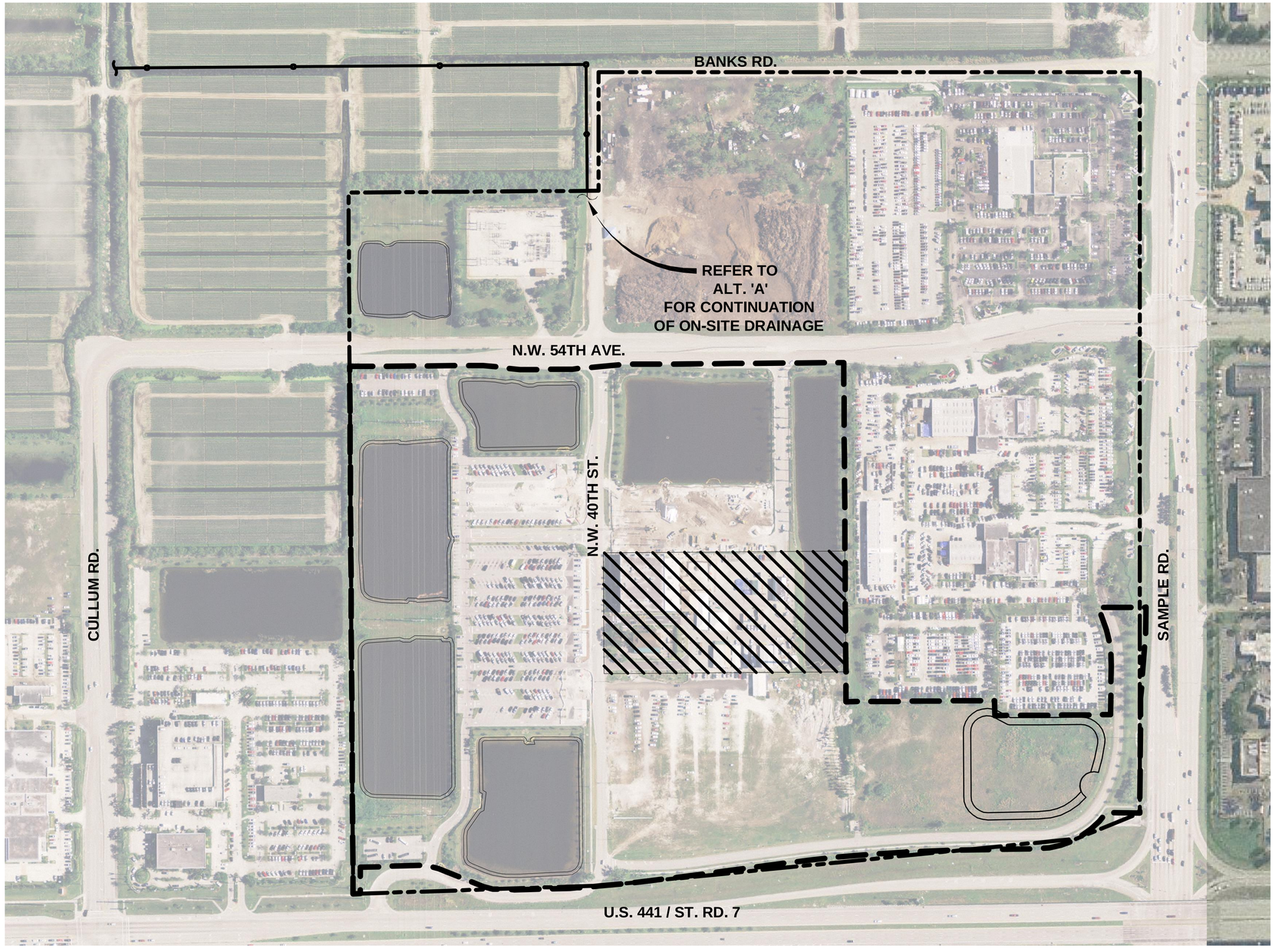
LEGEND

EXISTING LIMITS OF TRUST

LIMITS OF STOF-OWNED LAND

LIMITS OF COMMERCE CENTER

NORTH



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SEMINOLE FEE-TO-TRUST

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OFF-SITE CONNECTION TO NW BASIN

FIG. 4

Z:\PROJECTS\17996 SEMINOLE FEE-TO-TRUST CASINO DEV-AES\CIVIL\CAD\17996.00_FIG 4.DWG

7/29/2011 9:47 AM; Scale: 1:20; Layout Tab: FIG 4; Pen Table: KS-MONO.CTB; Plot Created by: FRANCINE LINZER;

The benefits to the PARCEL are :

- The PARCEL can benefit from the operations of the Cocomar NW basin (i.e. basin water levels can be dropped in advance of anticipated storms).
- The PARCEL will have free discharge into the NW drainage system after pretreatment criteria is met.
- The PARCEL can utilize off-site storage.

4. DESIGN CRITERIA

The design criteria for any development within the PARCEL must meet the minimum standards for the NW Cocomar Basin. The parameters are as follows:

Pretreatment

With development of individual Tracts, provision for pretreatment is required within the Tract prior to discharge of stormwater into the system of lakes. Pretreatment is required for all improvements excluding building, lake, and water management areas. The volume of pretreatment required is calculated by applying ½" of run-off across the developed area. A defined volume of pretreatment is established which is then satisfied through either dry exfiltration trench or retention areas.

Water Quality

In addition to pretreatment, run-off must be detained prior to off-site discharge. Water Quality is a form of secondary treatment that allows further detention of run-off for settlement of solids. Water quality for the PARCEL is met by detaining storm events within the lakes. The detention volume is calculated applying the greater of 1" over the entire site or 2 ½" across the percentage of impervious area. The conditions of CWCD call for 15% of the total basin area to be lake.

Stormwater Quantity

The Broward County Article V, Sub-section 27.200 (b) (5) 2. c) establishes an allowable peak discharge rate of 35 CSM (cubic feet per second per square mile) into the Hillsboro Canal for the 25-year, 3-day storm event. Therefore, discharge from the PARCEL (approximately 105 acres) must not exceed 5.75 cfs (cubic feet per second) for the 25-year, 72 hour event.

On-site Storage

In addition to pretreatment, water quality and allowable discharge, conditions of the CWCD for development within the NW basin require that:

- runoff stages for the 10-year, 1-day storm event, do not exceed the minimum road crown elevation of 14.0 feet (NGVD)
- runoff stages do not exceed 14.7 feet (NGVD) for the 25-year, 3-day storm event corresponding to the minimum perimeter berm elevation and control structure crest elevation.
- runoff stages do not exceed 15.6 feet (NGVD) for the 100-year, 3-day storm event with zero discharge (correlates to the minimum finish floor elevation).

The Master Permit for the PARCEL is in compliance with these conditions.

5. DESIGN ANALYSIS

The objective of an analysis for any land use change (development) is to show no adverse impact between the permitted and proposed conditions. The analysis for development on an individual Tract must take into account allotted development under the Master Permit for the all Tracts within the PARCEL. To satisfy conditions for permit approval, proposed improvements cannot stage above the pre-determined stage (flood elevation) for each specific storm event. Generally, where storage gives way to development, compensatory storage within the stormwater basin is provided. In addition to staging below the pre-established elevations, the proposed scenario cannot impact other development. Generally, variations less than 0.05' deviation are arguably acceptable.

Proposed scenarios were compared against the permitted conditions. The proposed model includes the ultimate build-out condition for the PARCEL with modification to lake and building areas accounting for proposed development. To accommodate the Development Alternative, the proposed model includes requirements for upgrades to the infrastructure system within the PARCEL.

The drainage model for Alternative 'A' includes a proposed connection to the NW basin with provision for an off-site lake providing compensatory storage. The models for Alternatives 'A-1', 'B', and 'C-1' utilize the existing temporary connection discharging into the SW basin. The model simulates the parcel as currently permitted and constructed.

PROPOSED systems are modeled and analyzed using:

- the proposed improvements on STOF land with proposed infrastructure upgrades within the PARCEL.
- the proposed off-site lake storage located on STOF land located within the NW basin (if applicable).
- the full build-out of non-STOF land located within the PARCEL matching the current permit conditions.
- the proposed physical connection to the NW basin with disconnection from the SW basin (if applicable).

The PERMITTED system is modeled and analyzed using:

- The full build-out of STOF and non-STOF lands located within the PARCEL matching the current permit conditions and existing infrastructure.
- the criteria for discharge into the NW basin with controlled discharge into the SW basin.

To be compliant with conditions of the Master Permit, each analysis must demonstrate:

- no adverse impact to other tracts within the PARCEL.
- allowable peak discharge rate of 5.75 cfs into the Hillsboro Canal is not exceeded.
- The runoff stages for the 10-Year, 24-Hour storm do not exceed 14.00 feet (NGVD).
- the runoff stages for the 25-Year, 72-Hour storm do not exceed 14.70 feet (NGVD).
- the runoff stages for the 100-Year, 72-Hour storm do not exceed 15.60 feet (NGVD).
- pre-treatment met in swales and/or exfiltration trench prior to discharging into the lake system.

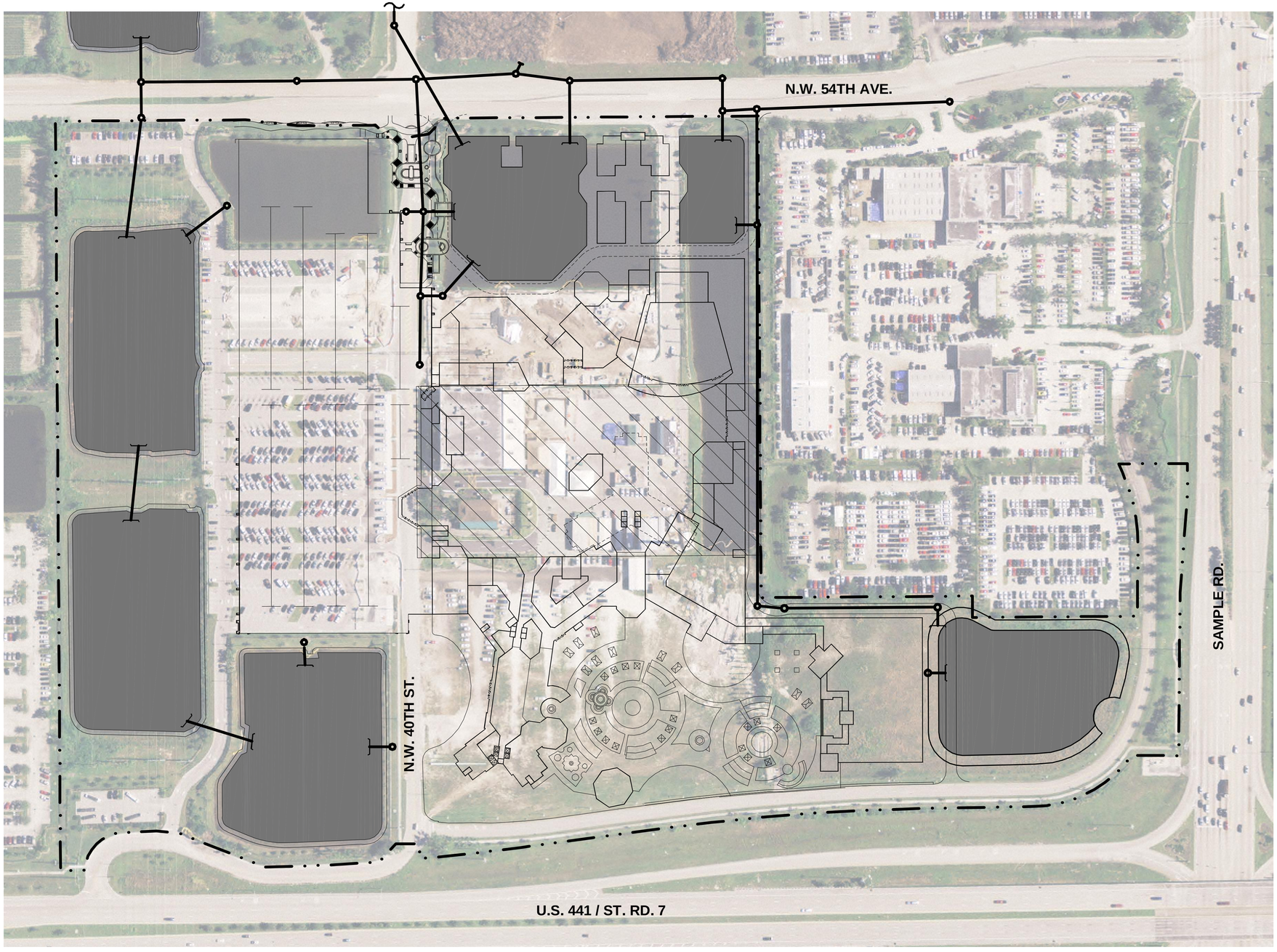
6. DESCRIPTION OF ANALYSIS

The following is a general description of each alternative and design assumptions. Development within the PARCEL for Alternatives 'A', 'A-1', and 'B' are shown in **Figures 5, 6, and 7**. Alternative 'C' is similar to Alternative 'A' and Alternative 'C-1' is representative of the current permitted condition. *It should be noted that these analyses include Tract 65 (currently in Trust) due to the inability to extract its cumulative* effects *on the overall stormwater model. Tract 65 is a component of the overall drainage basin, and will only be contributory to the cumulative effects of the overall drainage scenarios*.

LEGEND

- INTERCONNECTING MANHOLE
- HEADWALL INTO LAKE
- EXISTING LIMITS OF TRUST
- LIMITS OF STOF-OWNED LAND
- UNDERGROUND STORMWATER ATTENUATION

NORTH



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SEMIONLE FEE-TO-TRUST
COCONUT CREEK FLORIDA

ALTERNATE A
ON-SITE DRAINAGE SYSTEM

FIG. 5

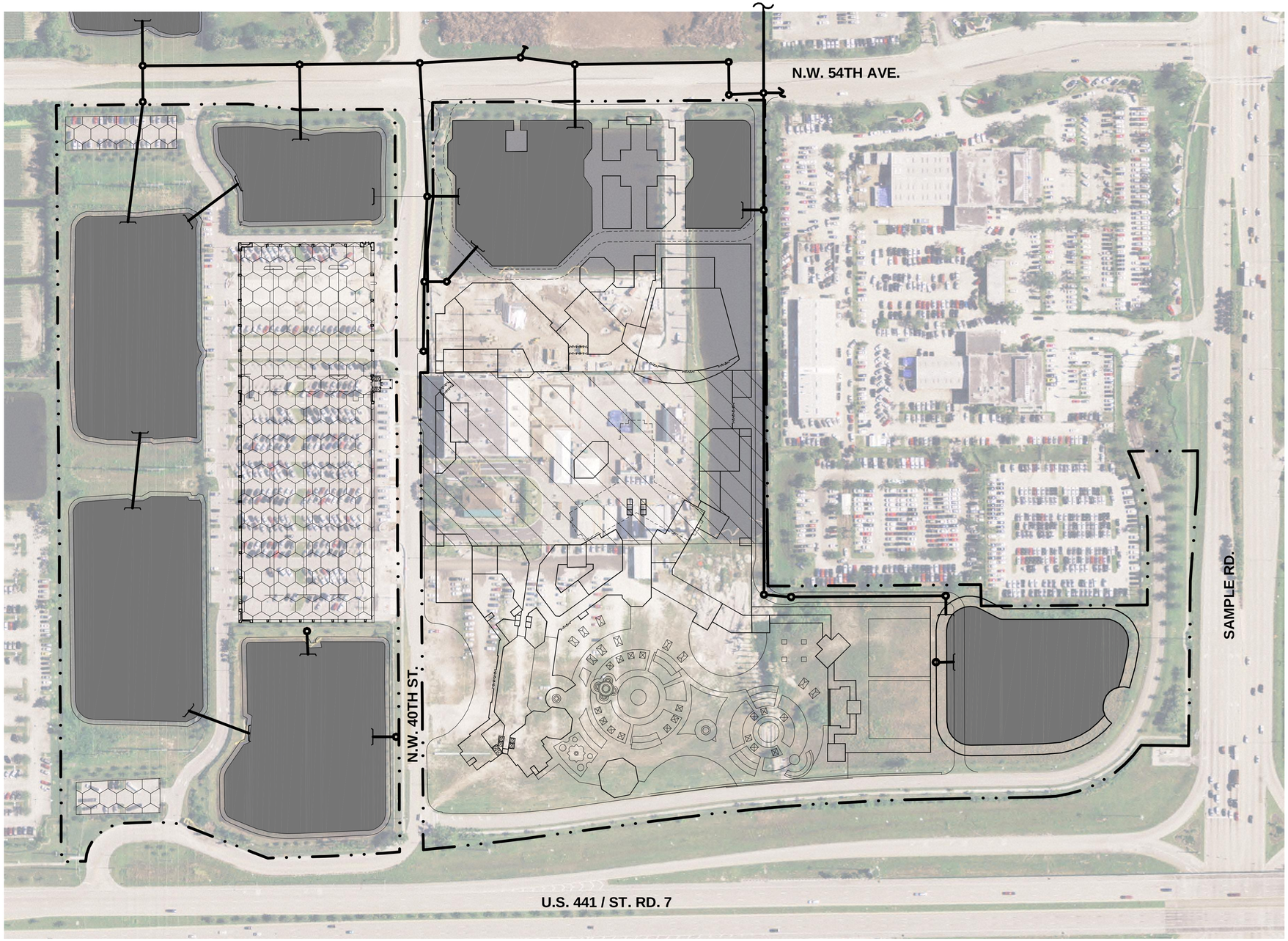
7/5/2011 1:48 PM; Scale: 1:20; Layout Tab: FIG 5; Pen Table: KS-MONO.CTB; Plot Created by: FRANCINE LINZER;
Z:\PROJECTS\17996 SEMINOLE FEE-TO-TRUST CASINO DEV-AES\CIVIL\CAD\17996.00_FIG 5.DWG

LEGEND

- INTERCONNECTING MANHOLE
- HEADWALL INTO LAKE
- EXISTING LIMITS OF TRUST
- LIMITS OF STOF-OWNED LAND
- UNDERGROUND STORMWATER ATTENUATION

NORTH

OFF-SITE DISCHARGE
REFER TO FIGURE 3
FOR CONTINUATION



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PROJ. NO.: 17996.00
DATE: JUNE 30, 2011
SCALE: N.T.S.

SEMINOLE FEE-TO-TRUST
COCONUT CREEK FLORIDA

ALTERNATE A-1
ON-SITE DRAINAGE SYSTEM

FIG. 6

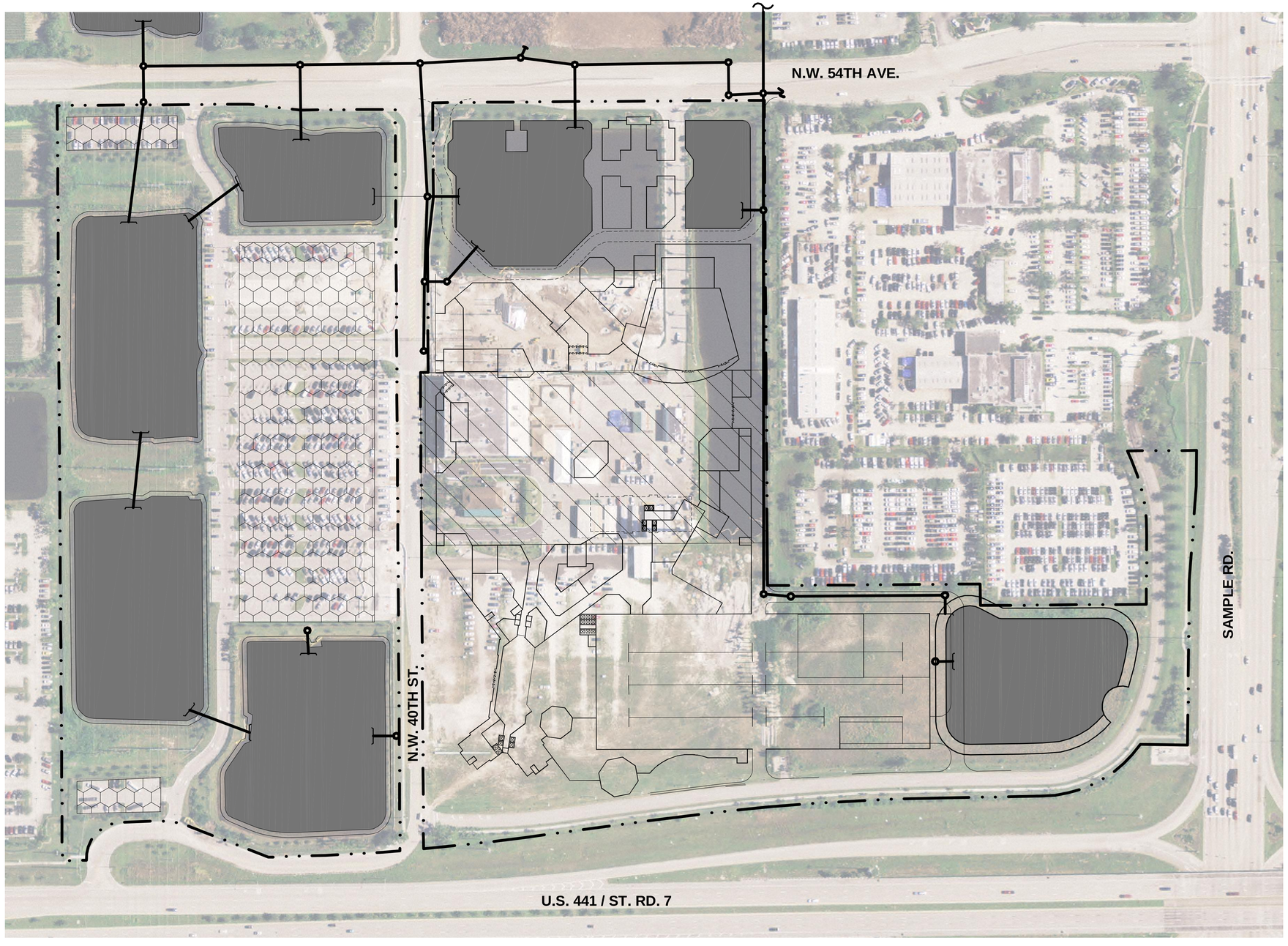
7/5/2011 2:02 PM; Scale: 1:20; Layout Tab: FIG 6; Pen Table: KS-MONO.CTB; Plot Created by: FRANCINE LINZER;
Z:\PROJECTS\17996 SEMINOLE FEE-TO-TRUST CASINO DEV-AES\CIVIL\CAD\17996.00_FIG 6.DWG

LEGEND

- INTERCONNECTING MANHOLE
- HEADWALL INTO LAKE
- EXISTING LIMITS OF TRUST
- LIMITS OF STOF-OWNED LAND
- UNDERGROUND STORMWATER ATTENUATION

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

NORTH



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ALTERNATE 'B' ON-SITE DRAINAGE SYSTEM

FIG. 7

Z:\PROJECTS\17996 SEMINOLE FEE-TO-TRUST CASINO DEV-AES\CIVIL\CAD\17996.00_FIG 7.DWG

7/5/2011 11:52 AM; Scale: 1:20; Layout Tab: FIG 7; Pen Table: KS-MONO.CTB; Plot Created by: FRANCINE LINZER;

Alternative 'A'

In this alternative, the proposed development represents full build-out of the current PMDD with the assumption that all STOF-owned lands are brought into Trust with local approval, including Tracts 'G' & 'H'. **Table 1** provides a general summary of land use breakdown for this alternative:

Table 1							
Hotel/Retail	Casino	Garage	Pool/ Amenities	Impervious Area	Pervious Area	Lake (onsite)	Lake (offsite)
8 acres	4 acres	9 acres	4 acres	6 acres	8 acres	12 acres	2.1 acres

This scenario maximizes building area and requires filling of the lake on parcels of concern Tract 'G' and partial filling of the lakes on Tract 'D'. The resulting storage deficit requires that an offsite lake be constructed within the Cocomar NW basin to provide compensatory storage.

There are many possibilities in providing offsite storage. Regardless of the option selected, off-site storage requires a physical connection to the NW Basin. Depending upon the option, improvements could be in the form of adjoining lakes, open canals, culverts, or combination of all three. By example, one option is could be to enter into agreement with adjacent property owners for construction of lakes on adjacent parcels. The option identified in this scenario consists of construction of a lake within the NW basin on 4 acres of STOF-owned land approximately 3.2 miles downstream. **Figure 8** shows the location and schematic of the proposed off-site lake as one alternative for off-site storage. In addition to constructing a 2.0-acre offsite lake, the required conveyance upgrades for this option involves the installation of a 60" RCP and utilization of the existing canal system. All improvements would be located within STOF property and public rights-of-way, eliminating the need to involve adjoining property owner approvals.

With the connection to the NW Basin, the existing temporary discharge to the SW Basin would be eliminated. Although the allowable discharge would remain unchanged, once the connection is established, the Commerce Center would freely discharge into the NW Basin after water quality and pretreatment requirements are met. This Alternative utilizes the off-site lake in conjunction with an additional on-site lake constructed on Tract 'B' to mitigate for storage within the PARCEL.

The earthwork analysis for this scenario includes filling of lake on Parcel 'G', partial filling of lakes on Tracts 'D' and 'E', and construction of an additional lake on Parcel 'B'. Some of the fill

required for Tracts 'D' and 'E' would come from the creation of the lake on Parcel B, the remainder would be imported.

Alternative 'A-1'

In this alternative, the proposed development represents a "modified" build-out (from Alternative 'A'), where Tracts 'G' and 'H' are brought into trust but without the cooperation and approvals from the Local Governmental Agencies. Another difference in this scenario is that the vacation of 40th Street is not considered. **Table 2** provides a general summary of the land use for this alternative:

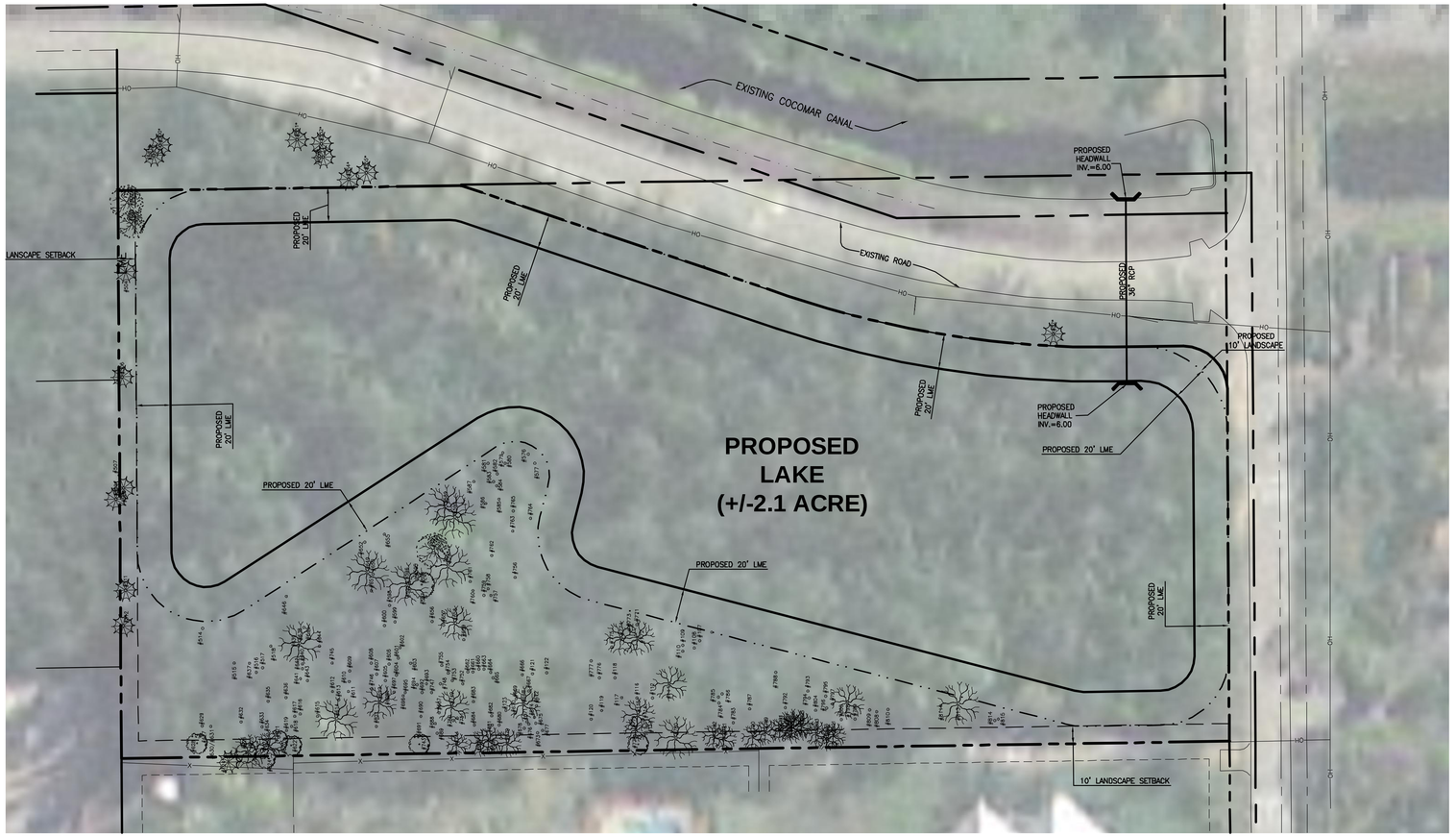
Table 2

Hotel/ Retail	Casino	Garage	Pool/ Amenities	Impervious Area	Pervious Area	Lake (onsite)	Lake (offsite)
7.5 acres	4 acres	7.5 acres	4 acres	6.5 acres	8 acres	13.5 acres	N.A.

Without cooperation from outside agencies, compensatory storage through off-site lakes in no longer a consideration. Therefore, storage requirements must be met on-site through provision of sufficient lakes or below grade storage. To preserve lake storage, the garage footprint is downsized.

With this scenario discharge into through the temporary connection into the SW Basin is retained as is the existing control structure. Sufficient on-site storage must be provided so that the resulting stage for design storm events does not exceed existing permitted conditions for the Commerce Center. The absence of outside approvals enables compensatory storage beyond that available by lakes to be accomplished through underground storage. Because the existing outfall remains, discharge is unchanged. This Alternative utilizes underground storage in conjunction with an additional on-site lake constructed on Tract 'B' to mitigate for storage within the PARCEL.

The earthwork analysis for this scenario includes partial filling of lakes on Tracts 'D' and 'E' and construction of an additional lake on Parcel 'B'. Most of the fill required for lake fills will come from the creation of the lake on Parcel 'B' with the remainder imported.



NORTH

GRAPHIC SCALE

40 0 20 40 80 160

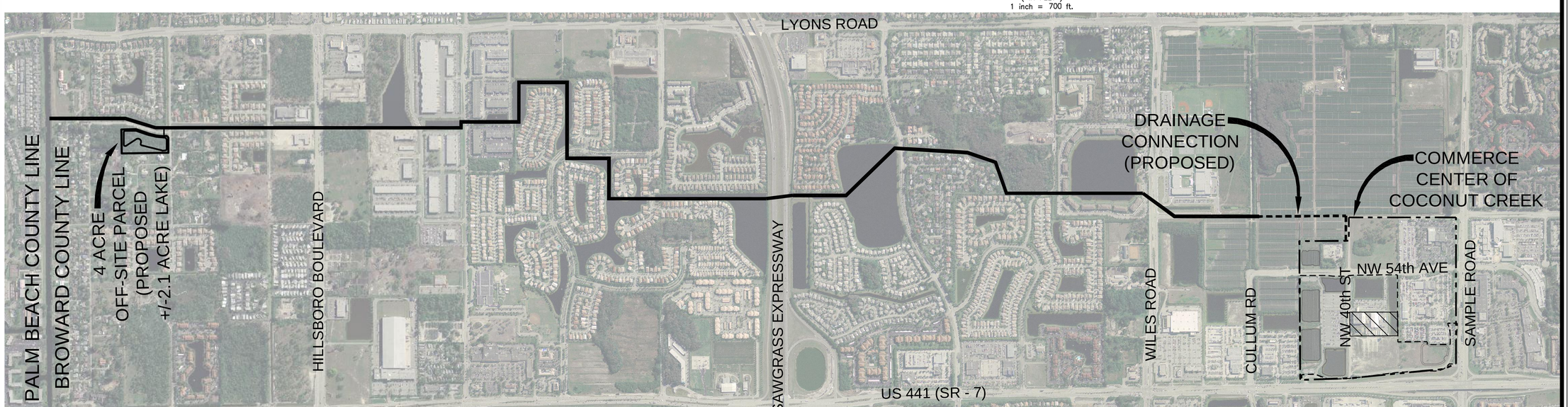
(IN FEET)
1 inch = 40 ft.

GRAPHIC SCALE

700 0 350 700 1400 2800

(IN FEET)
1 inch = 700 ft.

NORTH



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PROJ. NO.: 17996.00
DATE: JUNE 30, 2011
SCALE: AS NOTED

SEMINOLE FEE-TO-TRUST
COCONUT CREEK FLORIDA

PROPOSED OFF-SITE LAKE AND NW BASIN CONVEYANCE

FIG. 8

7/29/2011 9:58 AM; Scale: 1:20; Layout Tab: FIG 8; Pen Table: KS-MONO.CTB; Plot Created by: FRANCINE LINZER;

Z:\PROJECTS\17996 SEMINOLE FEE-TO-TRUST CASINO DEV-AES\CIVIL\CAD\17996.00_FIG 8.DWG

Alternative 'B'

In this alternative, the proposed development will represent a "reduced intensity build-out" compared to Alternative 'A-1'. Development in this alternative is limited to the existing land designation and does not consider Tracts 'G' and 'H' brought into Trust. In addition, the proposed development will occur without the cooperation of local agencies. **Table 3** provides a general summary of the land use for this alternative:

Table 3							
Hotel/ Retail	Casino	Garage	Pool/Amenities	Impervious Area	Pervious Area	Lake (onsite)	Lake (offsite)
6.5 acres	4 acres	5 acres	1.5 acres	12.5 acres	8 acres	13.5 acres	N.A.

Stormwater Management for this scenario is similar to Alternative 'A-1'. Discharge through the temporary connection into the SW Basin is maintained as is the existing control structure. Sufficient on-site storage must be provided to avoid impact to staging of design storm events in excess of permitted conditions. This Alternative utilizes underground storage in conjunction with an additional on-site Lake on Tract 'B' to mitigate for storage within the PARCEL.

The earthwork analysis for this scenario includes partial filling of lakes on Tracts 'D' and 'E' and construction of an additional lake on Tract 'B'. Most of the fill required for lake fills will come from the creation of the lake on Tract 'B' but the remainder with the remainder to be imported.

Alternative 'C '– No Federal Action

Assuming development to take place in accordance with the PMDD, this proposed development and assumptions match those in Alternative 'A'.

Alternative 'C-1' – No Action

Assuming no development to take place, drainage system will remain as currently permitted.

7. CONCLUSIONS

Each alternative was modeled for the improvements described previously. The results were compared against conditions of the Master Permit for compliance. The analysis addresses stage and discharge, and includes an estimate of earthwork.

Alternative 'A':

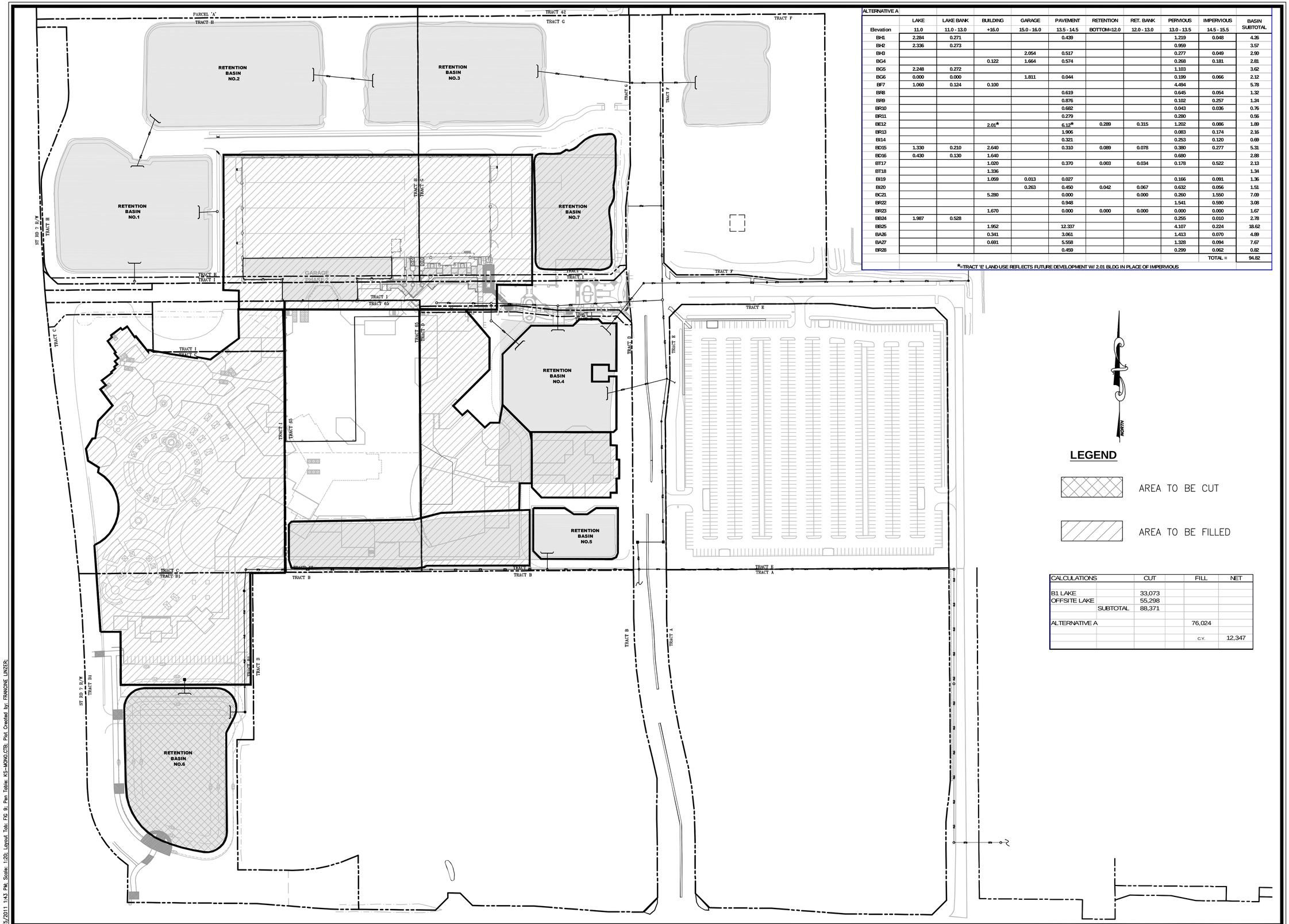
With a connection to the NW Basin and construction of an off-site lake, the results of the design storm events are shown in the table below.

Alternative 'A'			
Design Storm Event	Stage (Proposed Improvements) (N.G.D.V.)	Stage (As Permitted) (N.G.V.D.)	Discharge (CFS)
10-yr, 24 hr (9.0 ")	14.0	14.0	27.3
25-yr, 72 hr (14.5")	14.3	14.7	35.3
100-yr, 72hr (19.0")	15.2	15.6	0

With this scenario, because the PARCEL is connected to the NW Cocomar Basin, as long as criteria for staging of design storms is met, sufficient lake storage, and pre-treatment/water quality volumes provided, the PARCEL can freely discharge into the NW basin where discharge into the Hillsboro Canal is controlled by CWCD through a structure at the northern end of the basin.

The benefits of early discharge due to the connection to NW basin off-set the extensive development on-site. The off-site lake compensates for storage lost within the NW basin.

The earthwork analysis for this scenario accounts for the excavation of Tract 'B' lake and the creation of the off-site lake countered by the filling of the lake on Tract 'G' and partial filling of the lakes of Parcels 'D' and 'E'. The areas considered are shown in **Figure 9**; the cut to fill calculations are shown in the table below:



ALTERNATIVE A

	LAKE	LAKE BANK	BUILDING	GARAGE	PAVEMENT	RETENTION	RET. BANK	PERVIOUS	IMPERVIOUS	BASIN SUBTOTAL
Elevation	11.0	11.0 - 13.0	+16.0	15.0 - 16.0	13.5 - 14.5	BOTTOM=12.0	12.0 - 13.0	13.0 - 13.5	14.5 - 15.5	
BH1	2.284	0.271			0.439			1.219	0.048	4.26
BH2	2.336	0.273						0.959		3.57
BH3				2.054	0.517			0.277	0.049	2.90
BG4			0.122	1.664	0.574			0.268	0.181	2.81
BG5	2.248	0.272						1.103		3.62
BG6	0.000	0.000		1.811	0.044			0.199	0.066	2.12
BF7	1.060	0.124	0.100					4.494		5.78
BR8					0.619			0.645	0.054	1.32
BR9					0.876			0.102	0.257	1.24
BR10					0.682			0.043	0.036	0.76
BR11					0.279			0.280		0.56
BE12			2.01*		6.12*	0.289	0.315	1.202	0.086	1.89
BR13					1.906			0.083	0.174	2.16
BI14					0.321			0.253	0.120	0.69
BD15	1.330	0.210	2.640		0.310	0.089	0.078	0.380	0.277	5.31
BD16	0.430	0.130	1.640					0.680		2.88
BT17			1.020		0.370	0.003	0.034	0.178	0.522	2.13
BT18			1.336							1.34
BI19			1.059	0.013	0.027			0.166	0.091	1.36
BI20				0.263	0.450	0.042	0.067	0.632	0.056	1.51
BC21			5.280		0.000		0.000	0.260	1.550	7.09
BR22					0.948			1.541	0.590	3.08
BR23			1.670		0.000	0.000	0.000	0.000	0.000	1.67
BB24	1.987	0.528						0.255	0.010	2.78
BB25			1.952		12.337			4.107	0.224	18.62
BA26			0.341		3.061			1.413	0.070	4.89
BA27			0.691		5.558			1.328	0.094	7.67
BR28					0.459			0.299	0.062	0.82
									TOTAL =	94.82

*=TRACT 'E' LAND USE REFLECTS FUTURE DEVELOPMENT W/ 2.01 BLDG IN PLACE OF IMPERVIOUS

CALCULATIONS		CUT	FILL	NET
B1 LAKE		33,073		
OFFSITE LAKE		55,298		
	SUBTOTAL	88,371		
ALTERNATIVE A			76,024	
			C.Y.	12,347

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COCONUT CREEK FLORIDA

EARTHWORK ANALYSIS ALTERNATIVE 'A'

FIG. 9

7/5/2011 1:43 PM; Scale: 1:20; Layout Tab: FIG 9; Pen Table: KS-MONO.CTB; Plot Created by: FRANCINE LINZER;

Z:\PROJECTS\17996 SEMINOLE FEE-TO-TRUST CASINO DEV-AES\CIVIL\CAD\17996.00_FIG 9.DWG

Alternative 'A' Cut and Fill calculations shown in cubic-yards (negative values reflect cut)	
Off-Site Lake	(-55,298 CY)
'B1'-Lake	(-33,073 CY)
Tract 'G'	35,396
Tract '65'*	15,580
Tract 'D'	34,988
Tract 'C'	12,783
Tract 'B1'	4,037
Tract 'I'	1,253
Tract 'H'	4,663
Net	**20,329 CY import**

- Tract 65 is currently in trust and is not directly affected to non-trust building but is part of the overall drainage basin (cumulative contribution).

Alternative 'A-1':

With the existing temporary connection to the SW Basin, discharge is regulated by the existing control structure. Results of design storm events are shown in table below.

Alternative 'A-1'			
Design Storm Event	Stage (Proposed Improvements) (N.G.V.D.)	Stage (As Permitted) (N.G.V.D.)	Discharge (CFS)
10-yr, 24 hr (9.0 ")	14.0	14.0	3.7
25-yr, 72 hr (14.5")	14.5	14.7	4.3
100-yr, 72hr (19.0")	15.0	15.6	0

With this scenario, discharge is limited to the 5.75 cfs allowed under the existing conditions of the permit for the PARCEL. The criteria for staging of design storms and sufficient lake storage is shown to be in compliance with the permitted conditions, water quality volumes are provided in lakes, and pretreatment requirements are assumed to be met on-site through exfiltration trench and dry retention areas.

The earthwork analysis for this scenario accounts for the excavation of Tract 'B' lake countered by the filling of the lake on Tract 'G' and partial filling of the lakes of Parcels 'D' and 'E'. With this scenario, fill will need to be brought on-site. The areas considered are shown in **Figure 10**; the cut to fill calculations are shown in the table below:

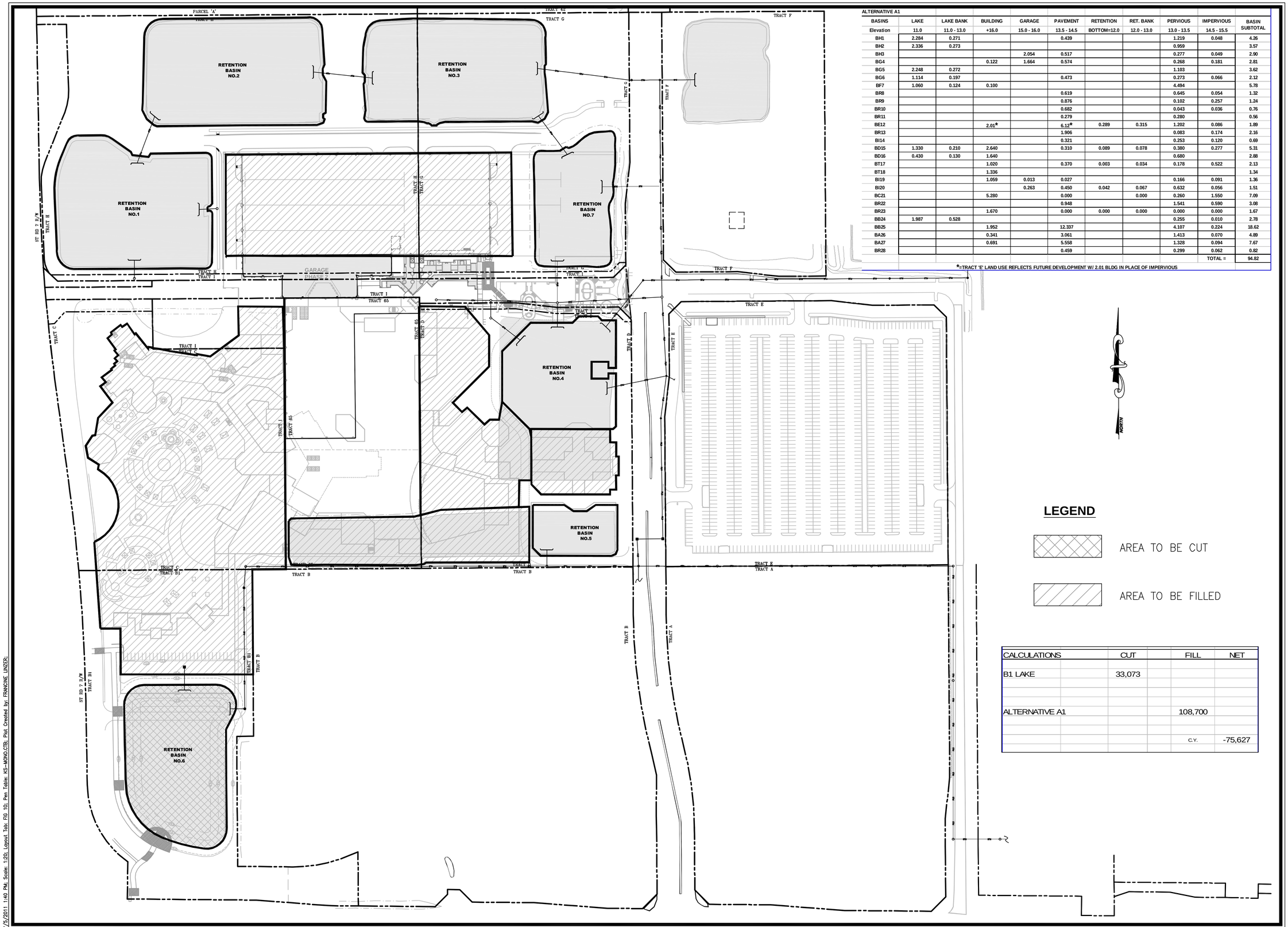
Alternative 'A-1' Cut and Fill calculations shown in cubic-yards (negative values reflect cut)	
B1-Lake	(-33,073 CY)
Tract 'G'	2,720
Tract '65'	15,580
Tract 'D'	34,988
Tract 'C'	12,783
Tract 'B1'	4,037
Tract 'H'	4,663
Net	**41,698 CY import**

- Tract 65 is currently in trust and is not directly affected to non-trust building but is part of the overall drainage basin (cumulative contribution).

<u>Alternative 'B'</u>:

With the existing temporary connection to the SW Basin, discharge is regulated by the existing control structure. Results of design storm events are shown in table below.

Alternative 'B'			
Design Storm Event	Stage (Proposed Improvements) (N.G.V.D.)	Stage (As Permitted) (N.G.V.D.)	Discharge (CFS)
10-yr, 24 hr (9.0 ")	14.0	14.0	3.9
25-yr, 72 hr (14.5")	14.5	14.7	4.5
100-yr, 72hr (19.0")	15.0	15.6	0



ALTERNATIVE A1

BASINS	LAKE	LAKE BANK	BUILDING	GARAGE	PAVEMENT	RETENTION	RET. BANK	PERVIOUS	IMPERVIOUS	BASIN SUBTOTAL
Elevation	11.0	11.0 - 13.0	+16.0	15.0 - 16.0	13.5 - 14.5	BOTTOM=12.0	12.0 - 13.0	13.0 - 13.5	14.5 - 15.5	
BH1	2.284	0.271			0.439			1.219	0.048	4.26
BH2	2.336	0.273						0.959		3.57
BH3				2.054	0.517			0.277	0.049	2.90
BG4			0.122	1.664	0.574			0.268	0.181	2.81
BG5	2.248	0.272						1.103		3.62
BG6	1.114	0.197			0.473			0.273	0.066	2.12
BF7	1.060	0.124	0.100					4.494		5.78
BR8					0.619			0.645	0.054	1.32
BR9					0.876			0.102	0.257	1.24
BR10					0.682			0.043	0.036	0.76
BR11					0.279			0.280		0.56
BE12			2.01*		6.12*	0.289	0.315	1.202	0.086	1.89
BR13					1.906			0.083	0.174	2.16
BI14					0.321			0.253	0.120	0.69
BD15	1.330	0.210	2.640		0.310	0.089	0.078	0.380	0.277	5.31
BD16	0.430	0.130	1.640					0.680		2.88
BT17			1.020		0.370	0.003	0.034	0.178	0.522	2.13
BT18			1.336							1.34
BI19			1.059	0.013	0.027			0.166	0.091	1.36
BI20				0.263	0.450	0.042	0.067	0.632	0.056	1.51
BC21			5.280		0.000		0.000	0.260	1.550	7.09
BR22					0.948			1.541	0.590	3.08
BR23			1.670		0.000	0.000	0.000	0.000	0.000	1.67
BB24	1.987	0.528						0.255	0.010	2.78
BB25			1.952		12.337			4.107	0.224	18.62
BA26			0.341		3.061			1.413	0.070	4.89
BA27			0.691		5.558			1.328	0.094	7.67
BR28					0.459			0.299	0.062	0.82
									TOTAL =	94.82

*=TRACT 'E' LAND USE REFLECTS FUTURE DEVELOPMENT W/ 2.01 BLDG IN PLACE OF IMPERVIOUS

CALCULATIONS	CUT	FILL	NET
B1 LAKE	33,073		
ALTERNATIVE A1		108,700	
		C.Y.	-75,627

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SEMINOLE FEE-TO-TRUST
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EARTHWORK ANALYSIS
ALTERNATIVE 'A-1'

FIG. 10

7/5/2011 1:40 PM; Scale: 1:20; Layout Tab: FIG 10; Pen Table: KS-MONO.CTB; Plot Created by: FRANCINE LINZER;

Z:\PROJECTS\17996 SEMINOLE FEE-TO-TRUST CASINO DEV-AES\CIVIL\CAD\17996.00_FIG 10.DWG

With this scenario, discharge is limited to the 5.75 cfs allowed under the existing conditions of the permit for the PARCEL. The criteria for staging of design storms and sufficient lake storage is shown to be in compliance with the permitted conditions, water quality volumes are provided in lakes, and pretreatment requirements are assumed to be met on-site through exfiltration trench and dry retention areas.

Lacking benefit from off-site lake storage, this Alternative meets the criteria of the Master Permit only through extensive underground storage within the garage footprint and surface parking areas.

The earthwork analysis for this scenario accounts for the excavation of Tract 'B' lake countered by the filling of the lake on Tract 'G' and partial filling of the lakes of Parcels 'D' and 'E'. With this scenario, fill will need to be brought on-site. The areas considered are shown in **Figure 11**; the cut to fill calculations are shown in the table below:

Alternative 'B' Cut and Fill calculations shown in cubic-yards (negative values reflect cut)	
B1-Lake	(-33,073 CY)
Tract 'B1'	2,597
Tract '65' *	15,580
Tract 'D'	34,988
Tract 'C'	11,429
Net	**31,521 CY import**

- Tract 65 is currently in trust and is not directly affected to non-trust building but is part of the overall drainage basin (cumulative contribution).

<u>Alternative 'C'</u>:
Assuming development to take place in accordance with the PMDD, the proposed development and resulting analysis match the results of Alternative 'A'.

<u>Alternative 'C-1' – No Action</u>
Assuming no development to take place, drainage system will remain as currently permitted. The current permitted condition considers the existing temporary connection to the SW Basin.

Discharge is regulated by the existing control structure. Results of design storm events are shown in table below.

Alternative 'C-1'			
Design Storm Event	Stage (Proposed Improvements) (N.G.V.D.)	Stage (As Permitted) (N.G.V.D.)	Discharge (CFS)
10-yr, 24 hr (9.0 ")	14.0	14.0	3.5
25-yr, 72 hr (14.5")	14.4	14.7	4.1
100-yr, 72hr (19.0")	14.8	15.6	0

With this scenario, discharge is limited to the 5.75 cfs allowed under the existing conditions of the permit for the PARCEL. The criteria for staging of design storms and sufficient lake storage is shown to be in compliance with the permitted conditions, water quality volumes are provided in lakes, and pretreatment requirements are assumed to be met on-site through exfiltration trench and dry retention areas.

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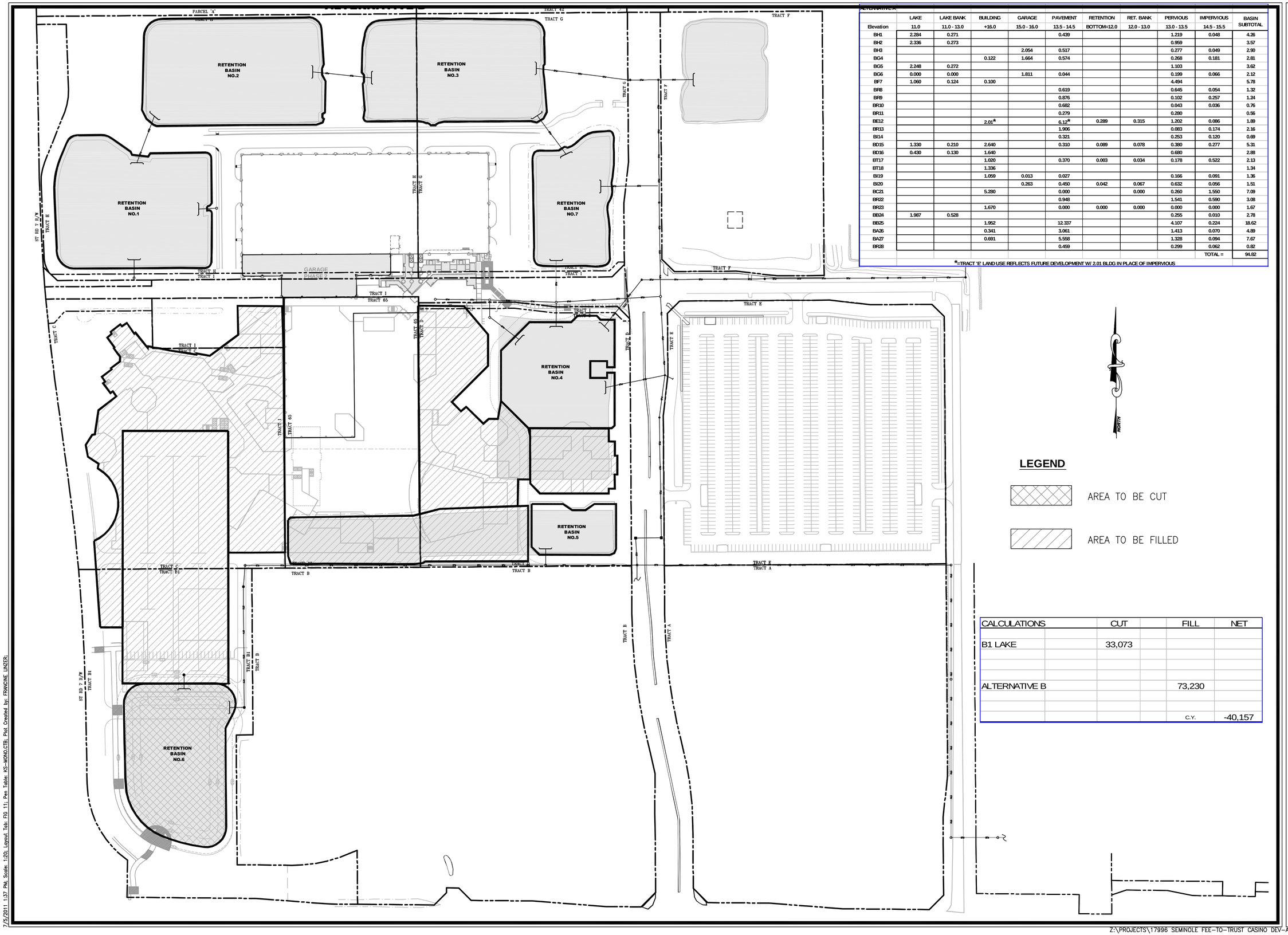

	LAKE	LAKE BANK	BUILDING	GARAGE	PAVEMENT	RETENTION	RET. BANK	PERVIOUS	IMPERVIOUS	BASIN
Elevation	11.0	11.0 - 13.0	+16.0	15.0 - 16.0	13.5 - 14.5	BOTTOM=12.0	12.0 - 13.0	13.0 - 13.5	14.5 - 15.5	SUBTOTAL
BH1	2.284	0.271			0.439			1.219	0.048	4.26
BH2	2.336	0.273						0.959		3.57
BH3				2.054	0.517			0.277	0.049	2.90
BG4			0.122	1.664	0.574			0.268	0.181	2.81
BG5	2.248	0.272						1.103		3.62
BG6	0.000	0.000		1.811	0.044			0.199	0.066	2.12
BF7	1.060	0.124	0.100					4.494		5.78
BR8					0.619			0.645	0.054	1.32
BR9					0.876			0.102	0.257	1.24
BR10					0.682			0.043	0.036	0.76
BR11					0.279			0.280		0.56
BE12			2.01*		6.12*	0.289	0.315	1.202	0.086	1.89
BR13					1.906			0.083	0.174	2.16
BI14					0.321			0.253	0.120	0.69
BD15	1.330	0.210	2.640		0.310	0.089	0.078	0.380	0.277	5.31
BD16	0.430	0.130	1.640					0.680		2.88
BT17			1.020		0.370	0.003	0.034	0.178	0.522	2.13
BT18			1.336							1.34
BI19			1.059	0.013	0.027			0.166	0.091	1.36
BI20				0.263	0.450	0.042	0.067	0.632	0.056	1.51
BC21			5.280		0.000		0.000	0.260	1.550	7.09
BR22					0.948			1.541	0.590	3.08
BR23			1.670		0.000	0.000	0.000	0.000	0.000	1.67
BB24	1.987	0.528						0.255	0.010	2.78
BB25			1.952		12.337			4.107	0.224	18.62
BA26			0.341		3.061			1.413	0.070	4.89
BA27			0.691		5.558			1.328	0.094	7.67
BR28					0.459			0.299	0.062	0.82
									TOTAL =	94.82

*=TRACT 'E' LAND USE REFLECTS FUTURE DEVELOPMENT W/ 2.01 BLDG IN PLACE OF IMPERVIOUS

LEGEND

AREA TO BE CUT

AREA TO BE FILLED

CALCULATIONS	CUT	FILL	NET
B1 LAKE	33,073		
ALTERNATIVE B		73,230	
		C.Y.	-40,157

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DATE: JUNE 30, 2011
SCALE: N.T.S.

SEMINOLE FEE-TO-TRUST

COCONUT CREEK FLORIDA

EARTHWORK ANALYSIS ALTERNATIVE 'B'

FIG. 11

7/5/2011 1:37 PM; Scale: 1:20; Layout Tab: FIG 11; Pen Table: KS-MONO.CTB; Plot Created by: FRANCINE LINZER;

Z:\PROJECTS\17996 SEMINOLE FEE-TO-TRUST CASINO DEV-AES\CIVIL\CAD\17996.00_FIG 11.DWG

COMMERCE CENTER OF COCONUT CREEK CASINO

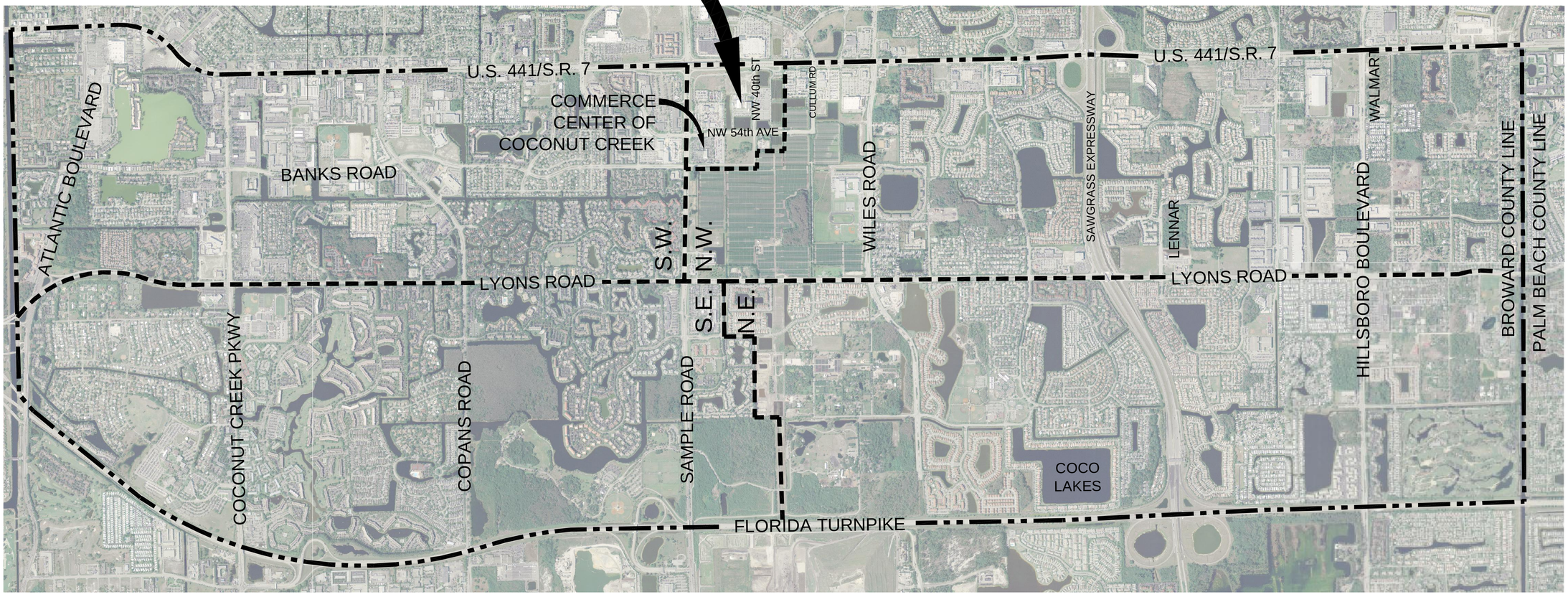
NORTH

GRAPHIC SCALE

1200 0 600 1200 2400 4800

(IN FEET)
1 inch = 1200ft.

BASINS	CONTROL ELEVATION (NGVD)	RECEIVING CANAL	ALLOWABLE DISCHARGE RATE (CSM)
N.E. & N.W.	11.00	HILLSBORO CANAL	35
S.E. & S.W.	9.50	C-14 CANAL	69.2



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PROJ. NO.: 17996.00
DATE: JUNE 30, 2011
SCALE: 1" = 1200'

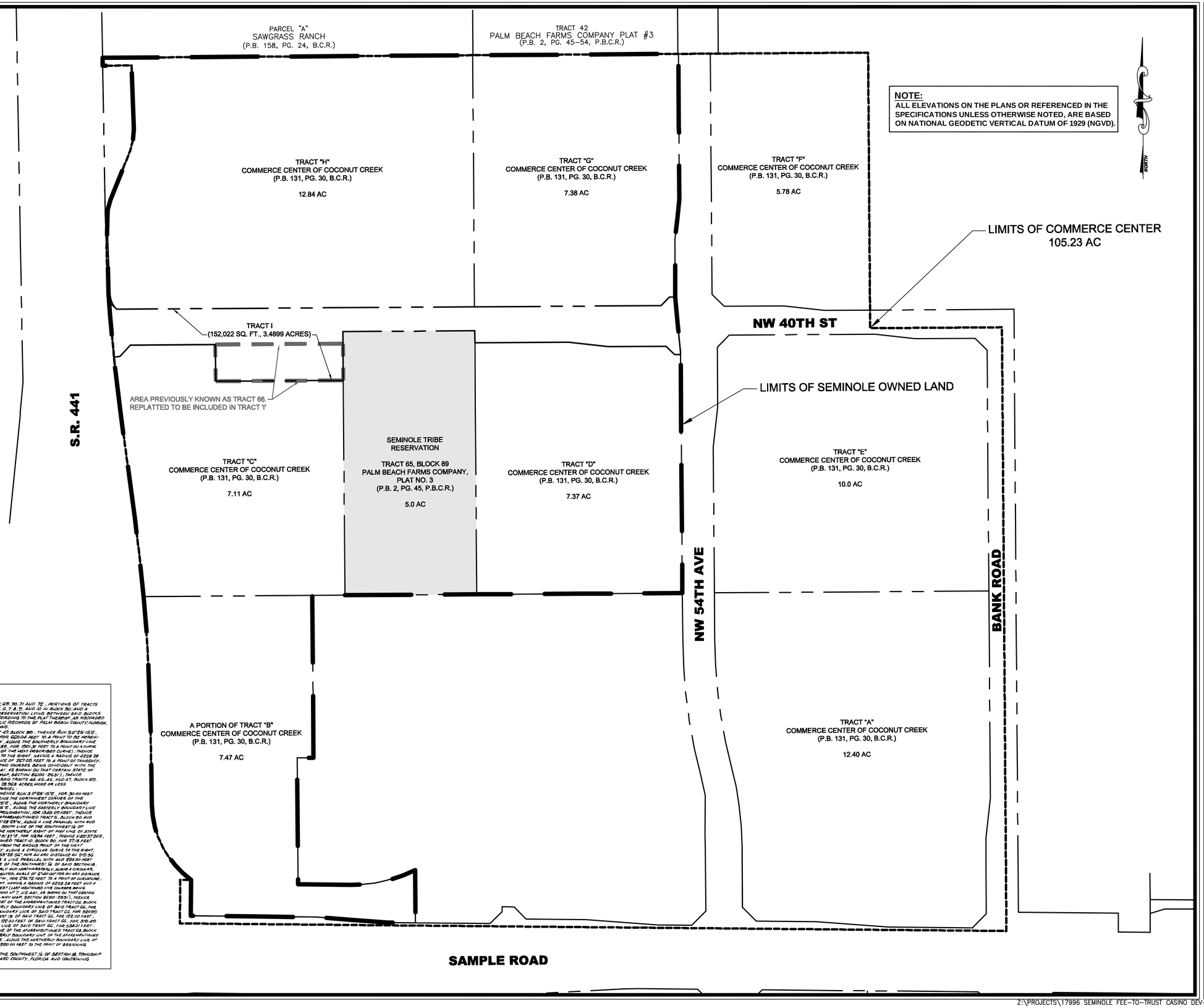
SEMINOLE FEE-TO-TRUST
COCONUT CREEK FLORIDA

LIMITS OF COCOMAR WATER CONTROL DISTRICT

FIG. 1

6/30/2011 4:22 PM; Scale: 1:20; Layout Tab: FIG 1; Pen Table: KS-MONO.CTB; Plot Created by: FRANCINE LINZER;

Z:\PROJECTS\17996 SEMINOLE FEE-TO-TRUST CASINO DEV-AES\CIVIL\CAD\17996.00_FIG 1.DWG



LEGAL DESCRIPTION:

BEING A REPLAT OF TRACTS 45, 46, 47, G1, G2, G3, G4, G5, G6, G7, 70, 71 AND 72 ; PORTIONS OF TRACTS 44, G8 AND E7 IN BLOCK 89 AND PORTIONS OF TRACTS 9, 8, 7, 6, 5 AND 10 IN BLOCK 90 AND A PORTION OF THE FORTY (80) FOOT ROAD, DIKE, AND DITCH RESERVATION LYING BETWEEN SAID BLOCKS 89 AND 90, "PALM BEACH FARMS COMPANY PLAT NO.3", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 2, AT PAGES 45 THROUGH 54 OF THE PUBLIC RECORDS OF PALM BEACH COUNTY, FLORIDA, ALL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE NORTHWEST CORNER OF SAID TRACT 47, BLOCK 89 ; THENCE RUN S0°25'15"E, ALONG THE EASTERLY BOUNDARY LINE OF SAID TRACT 47, FOR 620.04 FEET TO A POINT TO BE HEREINAFTER REFERRED TO AS POINT "A" ; THENCE S.89°37'15"W, ALONG THE SOUTHERLY BOUNDARY LINE OF THE AFOREMENTIONED TRACTS 47, 46, 45 AND 44, BLOCK 89, FOR 1501.91 FEET TO A POINT ON A CURVE (SAID POINT BEARS S.83°19'34"E), FROM THE RADIUS POINT OF THE NEXT DESCRIBED CURVE ; THENCE NORTHWESTERLY AND NORTHERLY ALONG A CIRCULAR CURVE TO THE RIGHT, HAVING A RADIUS OF 4228.28 FEET AND A CENTRAL ANGLE OF 3°37'09", FOR AN ARC DISTANCE OF 267.00 FEET TO A POINT OF TANGENCY, THENCE N.17.80'17"W, FOR 363.72 FEET (LAST MENTIONED TWO COURSES BEING COINCIDENT WITH THE EASTERLY RIGHT-OF-WAY LINE OF STATE ROAD N.7), U.S. 441, AS SHOWN ON THAT CERTAIN STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY MAP, SECTION 86200-2523); THENCE N.89°37'05"E, ALONG THE NORTHERLY BOUNDARY LINE OF SAID TRACTS 44, 45, 46, AND 47, BLOCK 89, FOR 1314.47 FEET TO THE POINT OF BEGINNING. CONTAINING 28.528 ACRES, MORE OR LESS.

TOGETHER WITH THE FOLLOWING DESCRIBED PARCEL:

COMMENCE AT THE AFOREMENTIONED POINT "A" ; THENCE RUN S.0°25'15"E, FOR 30.00 FEET TO THE POINT OF BEGINNING (SAID POINT OF BEGINNING BEING THE NORTHWEST CORNER OF THE AFOREMENTIONED TRACT G1, BLOCK 89) ; THENCE N.89°37'15"E, ALONG THE NORTHERLY BOUNDARY LINE OF SAID TRACT G1, FOR 330.00 FEET ; THENCE S.0°25'15"E, ALONG THE EASTERLY BOUNDARY LINE OF SAID TRACTS G1 AND 72, BLOCK 89 AND ITS SOUTHERLY PROLONGATION, FOR 1345.05 FEET ; THENCE S.0°23'28"E, ALONG THE EASTERLY BOUNDARY LINE OF THE AFOREMENTIONED TRACT 5, BLOCK 90 AND ITS NORTHERLY PROLONGATION, FOR 102.86 FEET ; THENCE N.80°28'23"W, ALONG A LINE PARALLEL WITH AND 53.00 FEET NORTH OF, AS MEASURED AT RIGHT ANGLES TO, THE SOUTH LINE OF THE SOUTHWEST ¼ OF SECTION 18 TOWNSHIP 48 SOUTH, RANGE 42 EAST. ALSO BEING THE NORTHERLY RIGHT-OF-WAY LINE OF STATE ROAD N.7 &84 (SAMPLE ROAD), FOR 2088.12 FEET ; THENCE N.0°18'37"E, FOR 1084 FEET ; THENCE N.80°37'26"E, ALONG THE NORTHERLY BOUNDARY LINE OF THE AFOREMENTIONED TRACT 10, BLOCK 90, FOR 27.18 FEET TO A POINT ON A CURVE (SAID POINT BEARS S.35°30'35"W), FROM THE RADIUS POINT OF THE NEXT DESCRIBED CURVE) ; THENCE NORTHWESTERLY AND NORTHERLY, ALONG A CIRCULAR CURVE TO THE RIGHT, HAVING A RADIUS OF 2356.00 FEET AND A CENTRAL ANGLE OF 53°12'52", FOR AN ARC DISTANCE OF 2110.52 FEET TO A POINT OF TANGENCY ; THENCE N.17°05'25"W, ALONG A LINE PARALLEL WITH AND 228.00 FEET EAST OF, AS MEASURED AT RIGHT ANGLES TO, THE WEST LINE OF THE SOUTHWEST ¼ OF SAID SECTION 18, FOR 229.01 FEET TO A POINT OF CURVATURE ; THENCE NORTHERLY AND NORTHWESTERLY, ALONG A CIRCULAR CURVE TO THE LEFT, HAVING A RADIUS OF 440.02 FEET AND A CENTRAL ANGLE OF 0°40'00"FOR AN ARC DISTANCE OF 5.023 FEET TO A POINT OF TANGENCY ; THENCE N.17°45'25"W, FOR 578.72 FEET TO A POINT OF CURVATURE ; THENCE NORTHWESTERLY, ALONG A CIRCULAR CURVE TO THE RIGHT, HAVING A RADIUS OF 4228.28 FEET AND A CENTRAL ANGLE OF 0°58'46" FOR AN ARC DISTANCE OF 72.49 FEET (LAST MENTIONED FIVE COURSES BEING COINCIDENT WITH THE EASTERLY RIGHT-OF-WAY LINE OF STATE ROAD N.7), U.S. 441, AS SHOWN ON THAT CERTAIN STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY MAP, SECTION 86200-2523); THENCE S.89°37'15"W, ALONG THE SOUTH LINE OF THE NORTH 122.00 FEET OF THE AFOREMENTIONED TRACT G2, BLOCK 89, FOR 71.00 FEET ; THENCE N.1°02'15"W, ALONG THE WESTERLY BOUNDARY LINE OF SAID TRACT G2, FOR 122.00 FEET ; THENCE N.89°37'15"E, ALONG THE NORTHERLY BOUNDARY LINE OF SAID TRACT G2, FOR 315.00 FEET ; THENCE N.89°37'15"E, ALONG THE WEST LINE OF THE EAST ½ OF SAID TRACT G2, FOR 122.00 FEET ; THENCE S.89°37'15"E, ALONG THE SOUTH LINE OF THE NORTH 122.00 FEET OF SAID TRACT G2, FOR 315.00 FEET ; THENCE S.0°25'15"E, ALONG THE EASTERLY BOUNDARY LINE OF SAID TRACT G2, FOR 538.01 FEET ; THENCE N.89°37'05"E, ALONG THE NORTHERLY BOUNDARY LINE OF THE AFOREMENTIONED TRACT G3, BLOCK 89, FOR 330.00 FEET ; THENCE N.0°25'15"W, ALONG THE WESTERLY BOUNDARY LINE OF THE AFOREMENTIONED TRACT G4, BLOCK 89, FOR 620.02 FEET ; THENCE N.89°37'15"E, ALONG THE NORTHERLY BOUNDARY LINE OF THE AFOREMENTIONED TRACTS G4, G5, AND G6, BLOCK 89, FOR 550.00 FEET TO THE POINT OF BEGINNING. CONTAINING 68.156 ACRES MORE OR LESS.

ALL OF THE FOREGOING LYING AND BEING IN THE SOUTHWEST ¼ OF SECTION 18, TOWNSHIP 48 SOUTH, RANGE 42 EAST, CITY OF COCONUT CREEK, BROWARD COUNTY, FLORIDA AND CONTAINING 97.163 ACRES MORE OR LESS.

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PROJ. NO.: 17996.00
DATE: JUNE 30, 2011
SCALE: N.T.S.

SEMINOLE FEE-TO-TRUST

COCONUT CREEK FLORIDA

COMMERCE CENTER OF COCONUT CREEK

FIG. 2

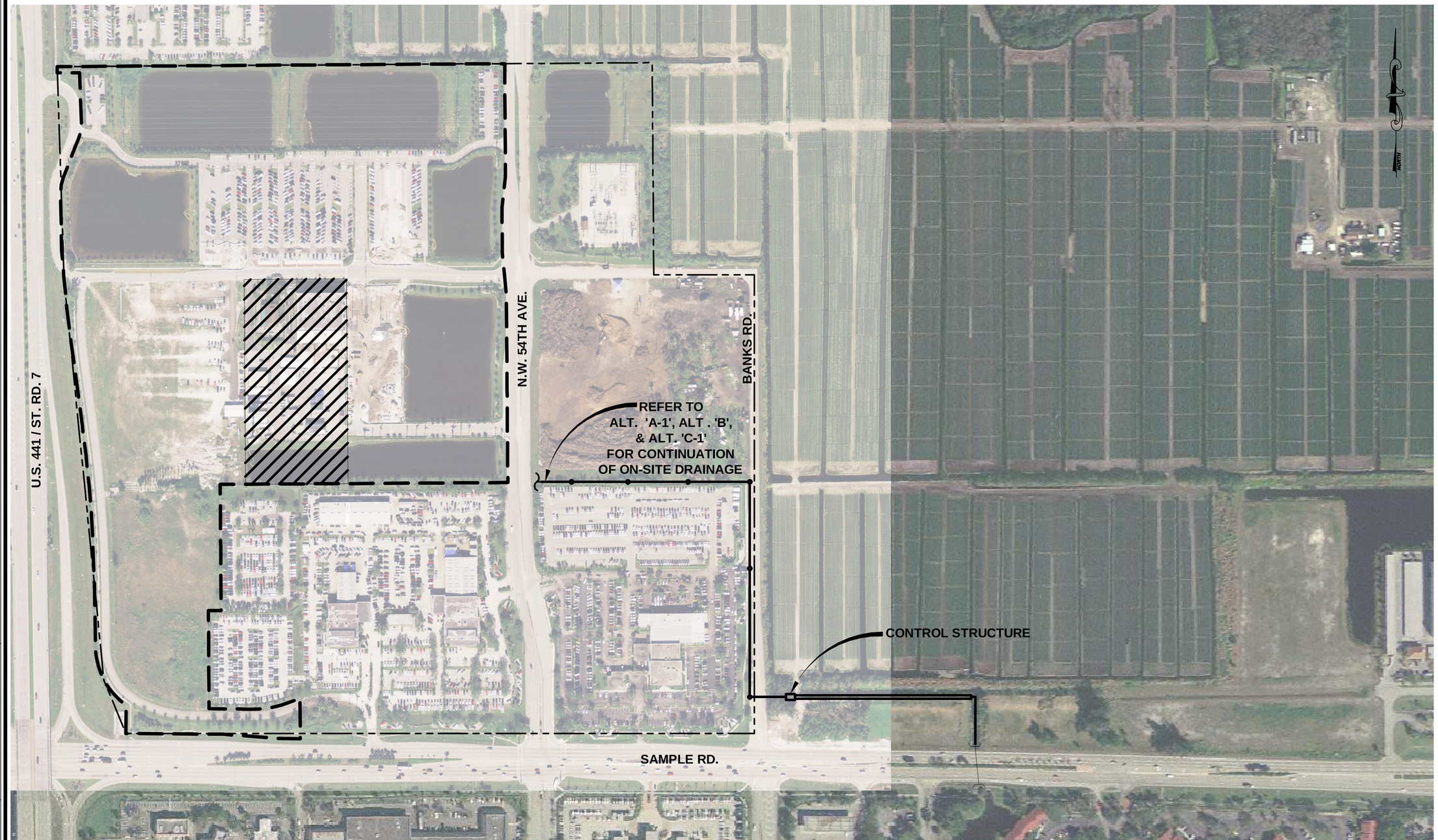
7/5/2011 1:52 PM; Scale: 1:20; Layout Tab: FIG 2; Pen Table: KS-MONO.CTB; Plot Created by: FRANCINE LINZER;
Z:\PROJECTS\PB Seminole Fee-To-Trust Casino Dev-AES\CIVIL\CAD\17996.00_FIG 2.dwg, FIG 2, 7/5/2011 1:52:40 PM, FRANCINE LINZER
Z:\PROJECTS\17996 SEMINOLE FEE-TO-TRUST CASINO DEV-AES\CIVIL\CAD\17996.00_FIG 2.DWG

LEGEND

EXISTING LIMITS OF TRUST

LIMITS OF STOF-OWNED LAND

LIMITS OF COMMERCE CENTER



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SEMINOLE FEE-TO-TRUST

COCONUT CREEK FLORIDA

OFF-SITE CONNECTION TO SW BASIN

FIG. 3

7/18/2011 11:48 AM; Scale: 1:20; Layout Tab: FIG 3; Pen Table: KS-MONO.CTB; Plot Created by: FRANCINE LINZER;
Z:\PROJECTS\17996 SEMINOLE FEE-TO-TRUST CASINO DEV-AES\CIVIL\CAD\17996.00_FIG 3.DWG

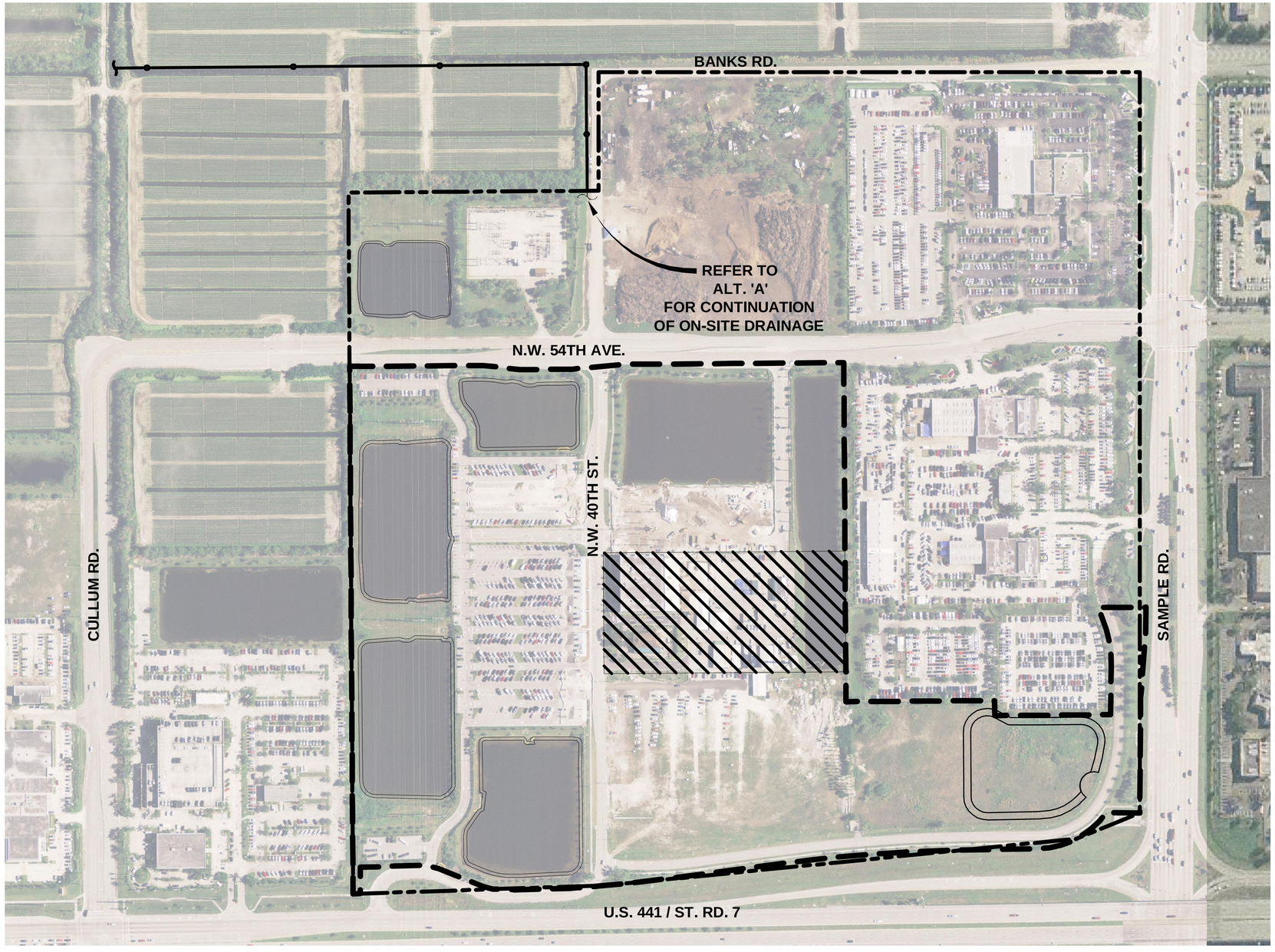
LEGEND

EXISTING LIMITS OF TRUST

LIMITS OF STOF-OWNED LAND

LIMITS OF COMMERCE CENTER

NORTH



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DATE: JUNE 30, 2011

SCALE: N.T.S

SEMINOLE FEE-TO-TRUST

COCONUT CREEK FLORIDA

OFF-SITE CONNECTION TO NW BASIN

FIG. 4

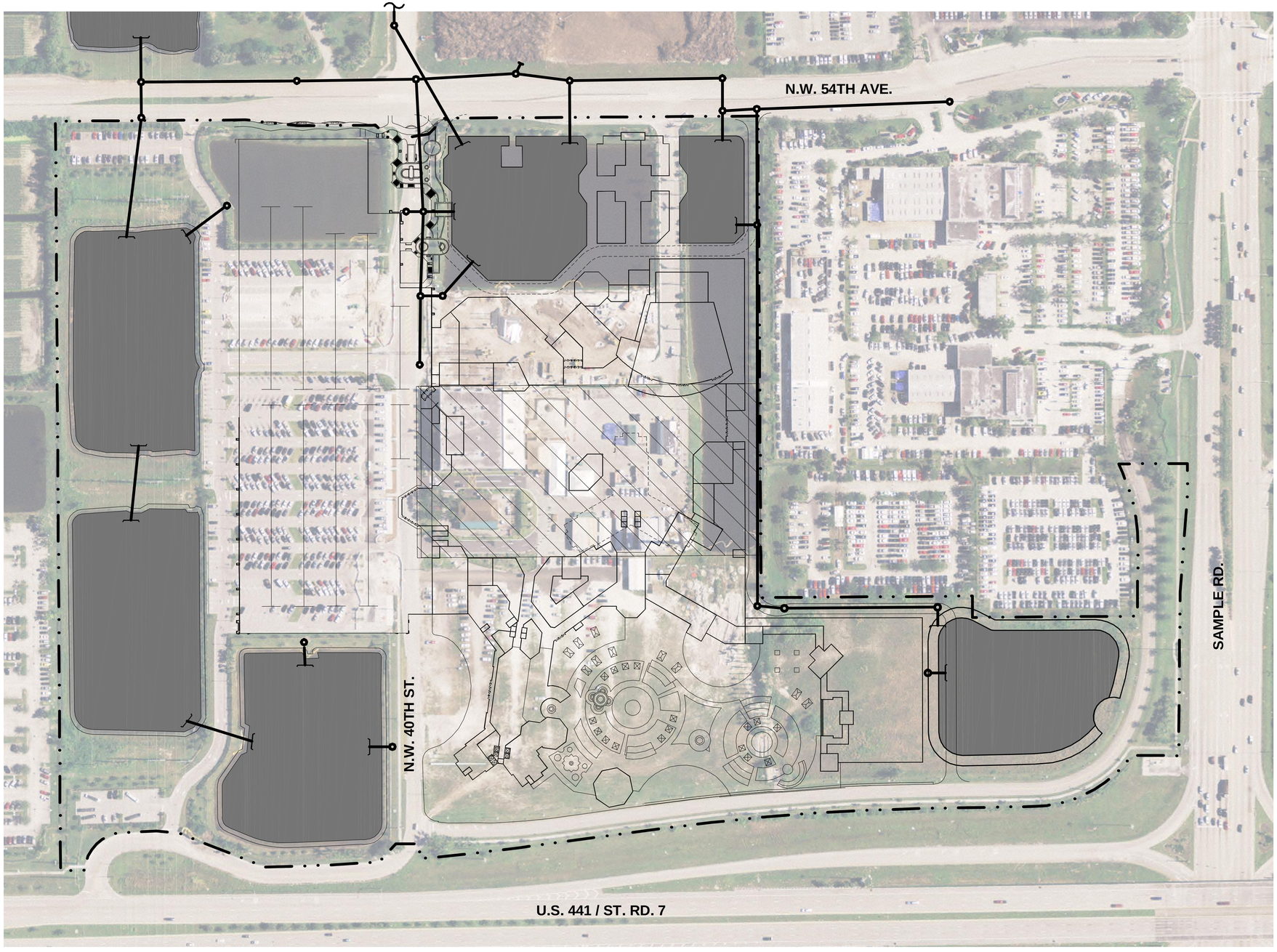
Z:\PROJECTS\17996 SEMINOLE FEE-TO-TRUST CASINO DEV-AES\CIVIL\CAD\17996.00_FIG 4.DWG

7/29/2011 9:47 AM; Scale: 1:20; Layout Tab: FIG 4; Pen Table: KS-MONO.CTB; Plot Created by: FRANCINE LINZER;

LEGEND

- INTERCONNECTING MANHOLE
- HEADWALL INTO LAKE
- EXISTING LIMITS OF TRUST
- LIMITS OF STOF-OWNED LAND
- UNDERGROUND STORMWATER ATTENUATION

NORTH



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SEMIONLE FEE-TO-TRUST
COCONUT CREEK FLORIDA

ALTERNATE A
ON-SITE DRAINAGE SYSTEM

FIG. 5

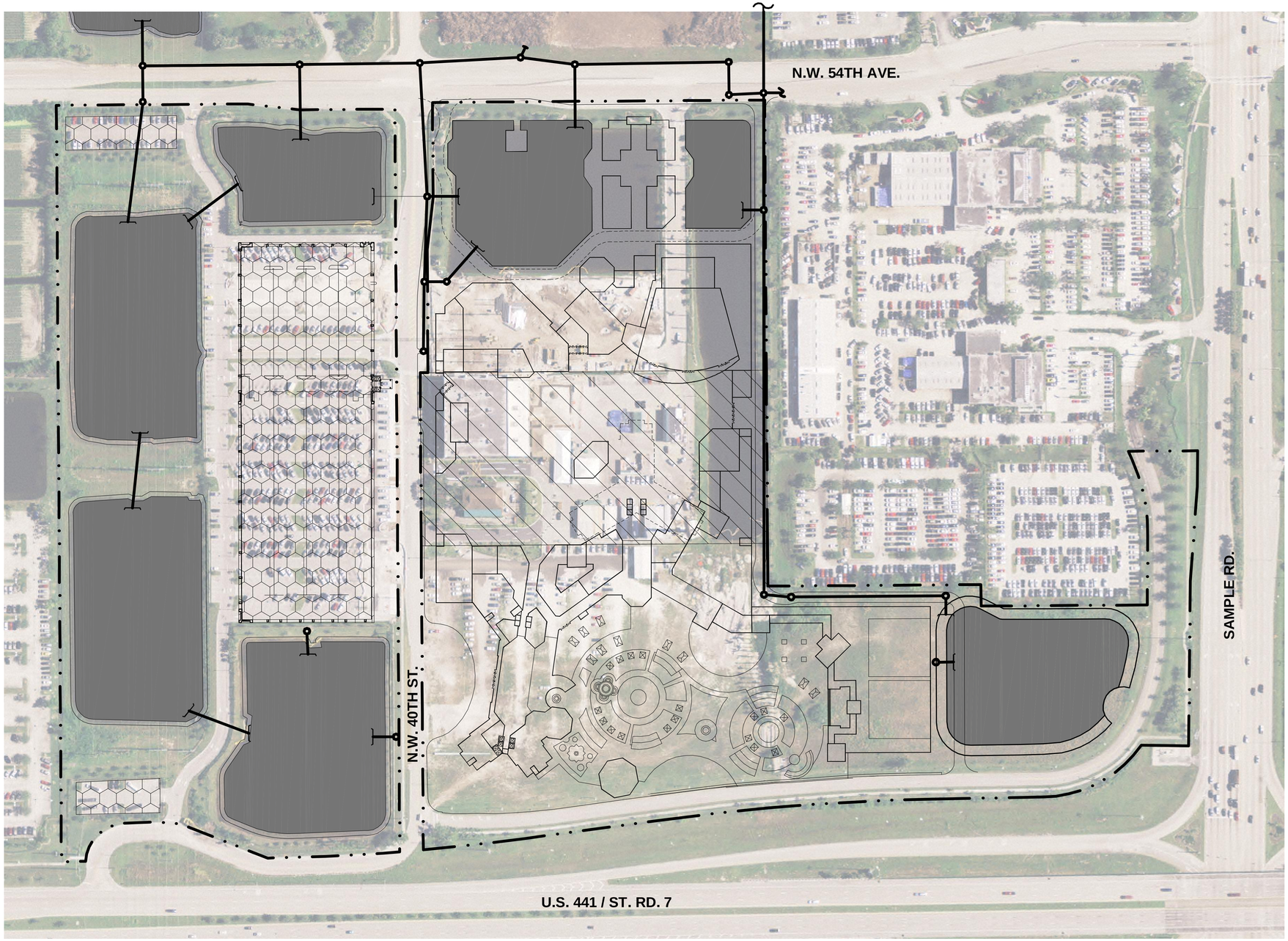
7/5/2011 1:48 PM; Scale: 1:20; Layout Tab: FIG 5; Pen Table: KS-MONO.CTB; Plot Created by: FRANCINE LINZER;
Z:\PROJECTS\17996 SEMINOLE FEE-TO-TRUST CASINO DEV-AES\CIVIL\CAD\17996.00_FIG 5.DWG

LEGEND

- INTERCONNECTING MANHOLE
- HEADWALL INTO LAKE
- EXISTING LIMITS OF TRUST
- LIMITS OF STOF-OWNED LAND
- UNDERGROUND STORMWATER ATTENUATION

NORTH

OFF-SITE DISCHARGE
REFER TO FIGURE 3
FOR CONTINUATION



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SEMINOLE FEE-TO-TRUST
COCONUT CREEK FLORIDA

ALTERNATE A-1
ON-SITE DRAINAGE SYSTEM

FIG. 6

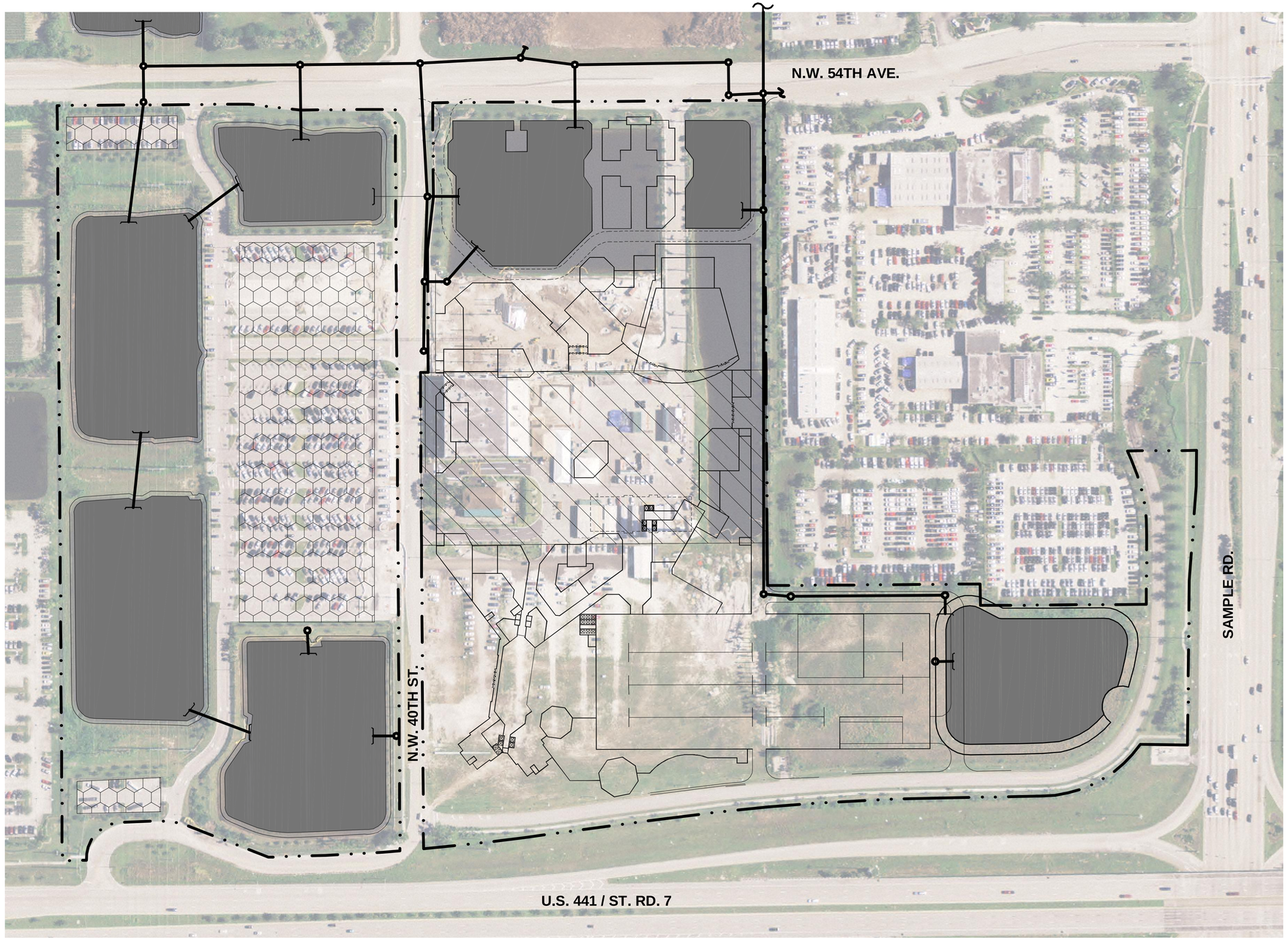
7/5/2011 2:02 PM; Scale: 1:20; Layout Tab: FIG 6; Pen Table: KS-MONO.CTB; Plot Created by: FRANCINE LINZER;
Z:\PROJECTS\17996 SEMINOLE FEE-TO-TRUST CASINO DEV-AES\CIVIL\CAD\17996.00_FIG 6.DWG

LEGEND

- INTERCONNECTING MANHOLE
- HEADWALL INTO LAKE
- EXISTING LIMITS OF TRUST
- LIMITS OF STOF-OWNED LAND
- UNDERGROUND STORMWATER ATTENUATION

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

NORTH



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SEMINOLE FEE-TO-TRUST

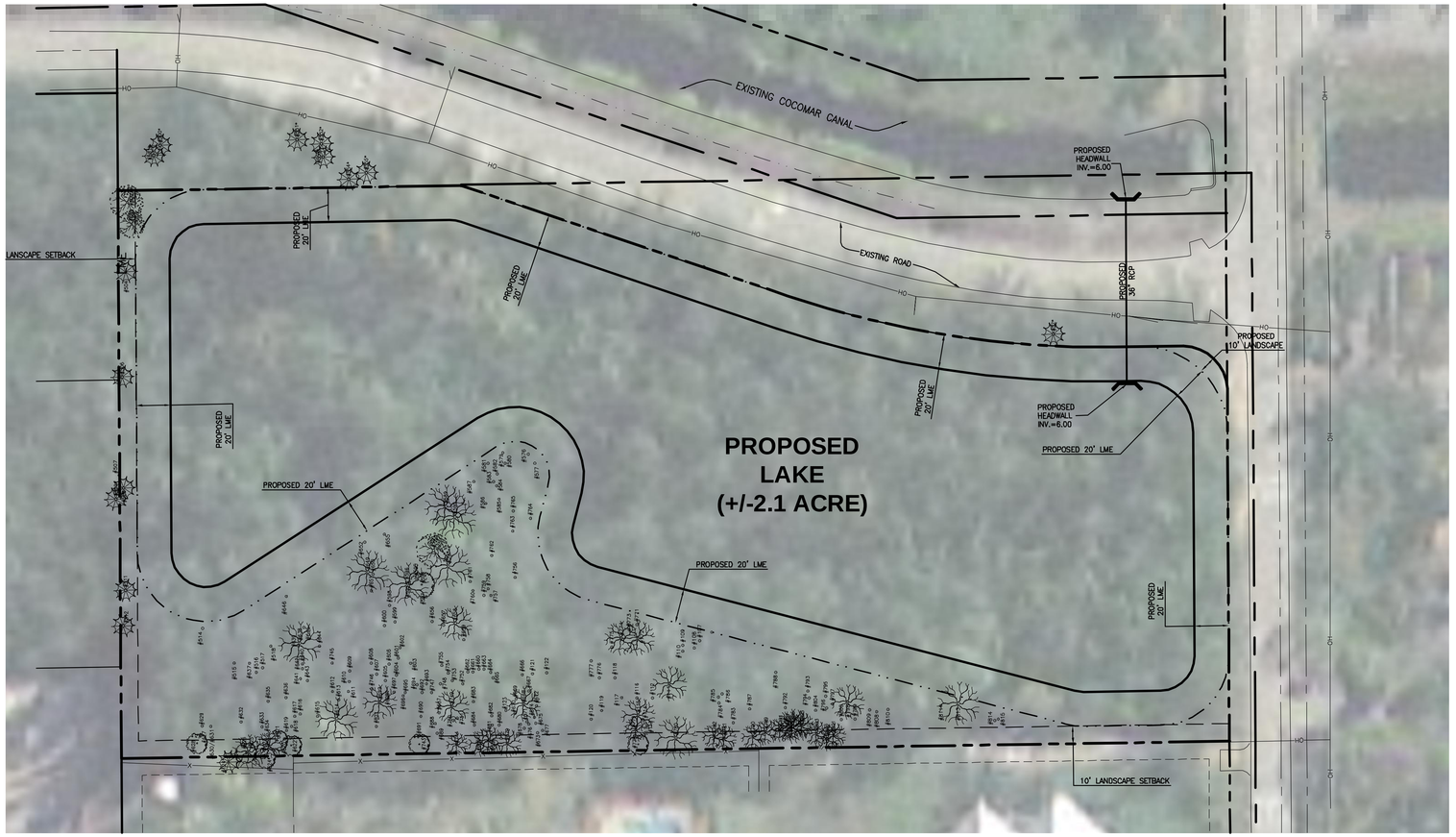
COCONUT CREEK FLORIDA

ALTERNATE 'B' ON-SITE DRAINAGE SYSTEM

FIG. 7

Z:\PROJECTS\17996 SEMINOLE FEE-TO-TRUST CASINO DEV-AES\CIVIL\CAD\17996.00_FIG 7.DWG

7/5/2011 11:52 AM; Scale: 1:20; Layout Tab: FIG 7; Pen Table: KS-MONO.CTB; Plot Created by: FRANCINE LINZER;



NORTH

GRAPHIC SCALE

40 0 20 40 80 160

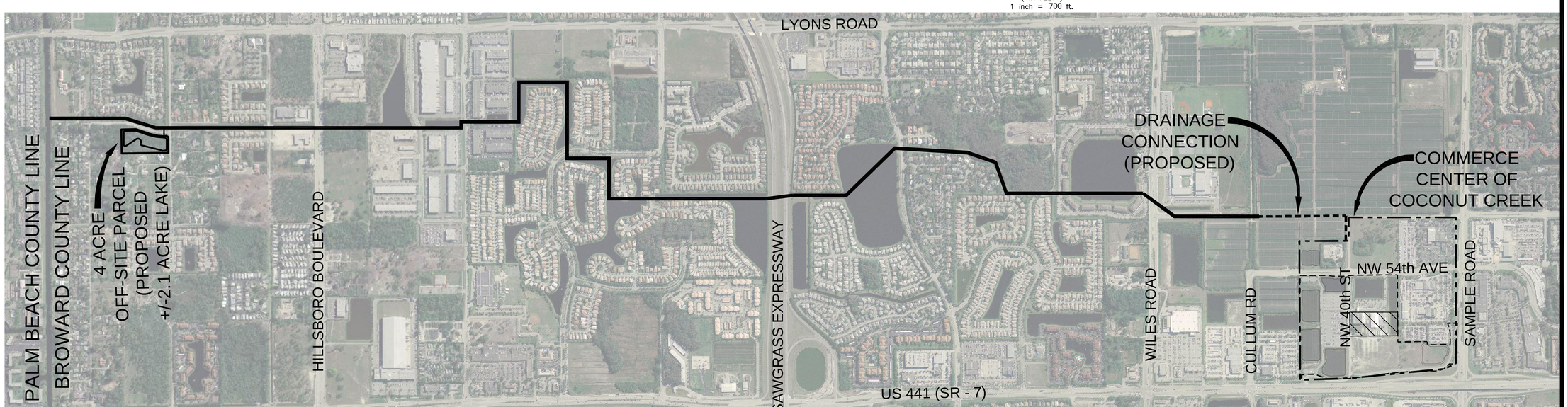
(IN FEET)
1 inch = 40 ft.

GRAPHIC SCALE

700 0 350 700 1400 2800

(IN FEET)
1 inch = 700 ft.

NORTH



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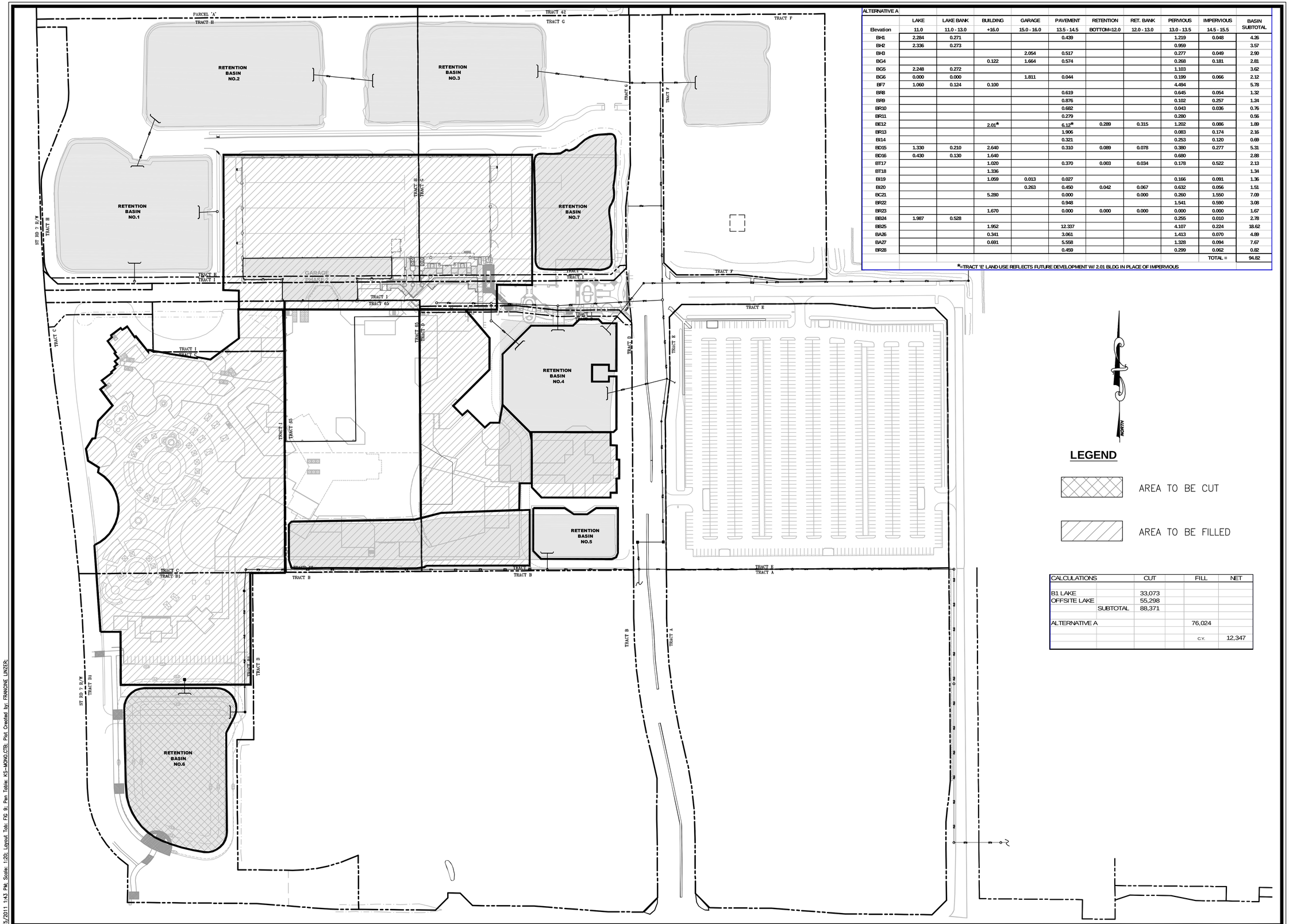
SEMINOLE FEE-TO-TRUST
COCONUT CREEK FLORIDA

PROPOSED OFF-SITE LAKE AND NW BASIN CONVEYANCE

FIG. 8

7/29/2011 9:58 AM; Scale: 1:20; Layout Tab: FIG 8; Pen Table: KS-MONO.CTB; Plot Created by: FRANCINE LINZER;

Z:\PROJECTS\17996 SEMINOLE FEE-TO-TRUST CASINO DEV-AES\CIVIL\CAD\17996.00_FIG 8.DWG



ALTERNATIVE A

	LAKE	LAKE BANK	BUILDING	GARAGE	PAVEMENT	RETENTION	RET. BANK	PERVIOUS	IMPERVIOUS	BASIN SUBTOTAL
Elevation	11.0	11.0 - 13.0	+16.0	15.0 - 16.0	13.5 - 14.5	BOTTOM=12.0	12.0 - 13.0	13.0 - 13.5	14.5 - 15.5	
BH1	2.284	0.271			0.439			1.219	0.048	4.26
BH2	2.336	0.273						0.959		3.57
BH3				2.054	0.517			0.277	0.049	2.90
BG4			0.122	1.664	0.574			0.268	0.181	2.81
BG5	2.248	0.272						1.103		3.62
BG6	0.000	0.000		1.811	0.044			0.199	0.066	2.12
BF7	1.060	0.124	0.100					4.494		5.78
BR8					0.619			0.645	0.054	1.32
BR9					0.876			0.102	0.257	1.24
BR10					0.682			0.043	0.036	0.76
BR11					0.279			0.280		0.56
BE12			2.01*		6.12*	0.289	0.315	1.202	0.086	1.89
BR13					1.906			0.083	0.174	2.16
BI14					0.321			0.253	0.120	0.69
BD15	1.330	0.210	2.640		0.310	0.089	0.078	0.380	0.277	5.31
BD16	0.430	0.130	1.640					0.680		2.88
BT17			1.020		0.370	0.003	0.034	0.178	0.522	2.13
BT18			1.336							1.34
BI19			1.059	0.013	0.027			0.166	0.091	1.36
BI20				0.263	0.450	0.042	0.067	0.632	0.056	1.51
BC21			5.280		0.000		0.000	0.260	1.550	7.09
BR22					0.948			1.541	0.590	3.08
BR23			1.670		0.000	0.000	0.000	0.000	0.000	1.67
BB24	1.987	0.528						0.255	0.010	2.78
BB25			1.952		12.337			4.107	0.224	18.62
BA26			0.341		3.061			1.413	0.070	4.89
BA27			0.691		5.558			1.328	0.094	7.67
BR28					0.459			0.299	0.062	0.82
									TOTAL =	94.82

*=TRACT 'E' LAND USE REFLECTS FUTURE DEVELOPMENT W/ 2.01 BLDG IN PLACE OF IMPERVIOUS

CALCULATIONS		CUT	FILL	NET
B1 LAKE		33,073		
OFFSITE LAKE		55,298		
	SUBTOTAL	88,371		
ALTERNATIVE A			76,024	
			C.Y.	12,347

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SEMINOLE FEE-TO-TRUST

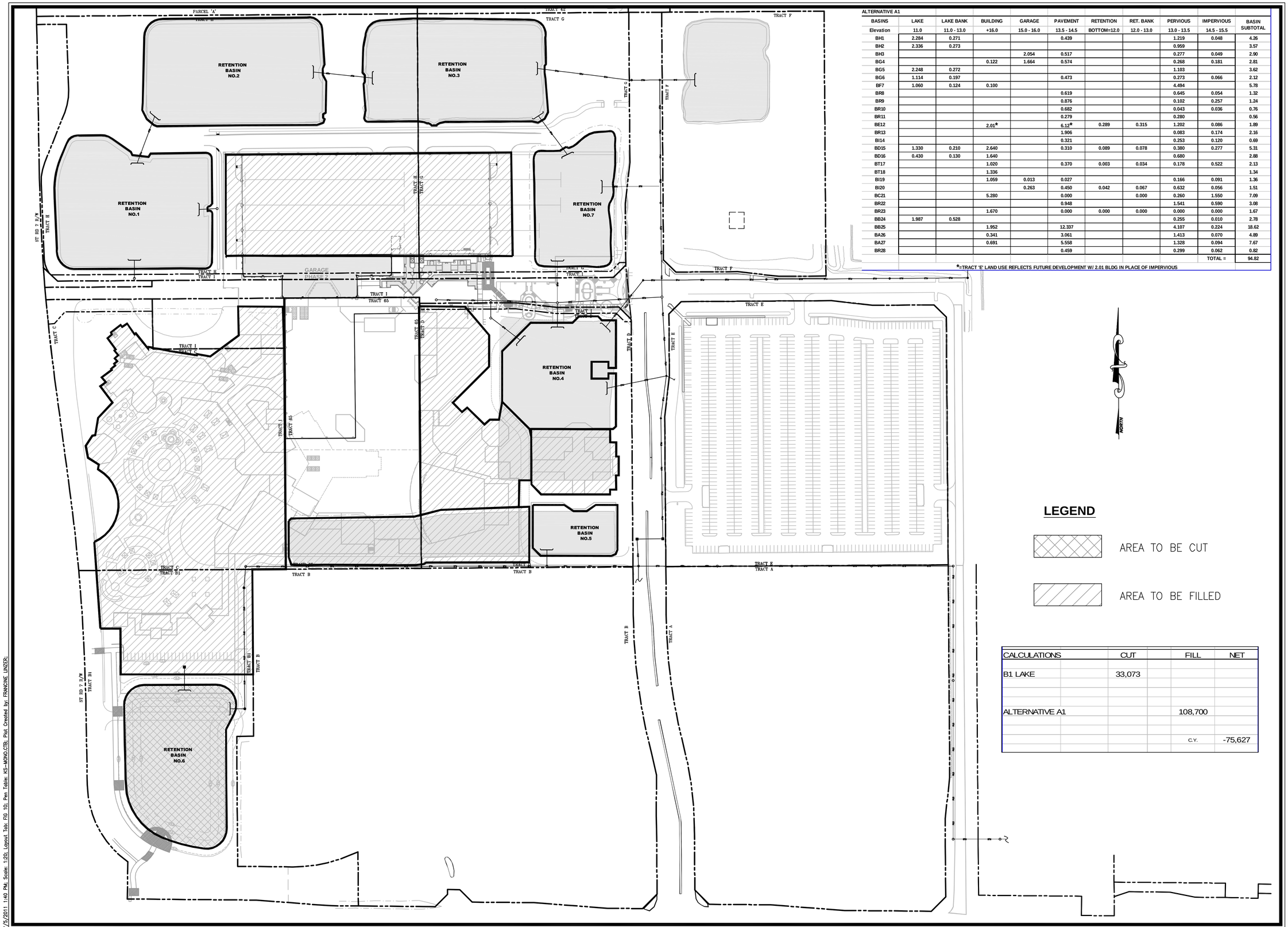
COCONUT CREEK FLORIDA

EARTHWORK ANALYSIS ALTERNATIVE 'A'

FIG. 9

7/5/2011 1:43 PM; Scale: 1:20; Layout Tab: FIG 9; Pen Table: KS-MONO.CTB; Plot Created by: FRANCINE LINZER;

Z:\PROJECTS\17996 SEMINOLE FEE-TO-TRUST CASINO DEV-AES\CIVIL\CAD\17996.00_FIG 9.DWG



ALTERNATIVE A1

BASINS	LAKE	LAKE BANK	BUILDING	GARAGE	PAVEMENT	RETENTION	RET. BANK	PERVIOUS	IMPERVIOUS	BASIN SUBTOTAL
Elevation	11.0	11.0 - 13.0	+16.0	15.0 - 16.0	13.5 - 14.5	BOTTOM=12.0	12.0 - 13.0	13.0 - 13.5	14.5 - 15.5	
BH1	2.284	0.271			0.439			1.219	0.048	4.26
BH2	2.336	0.273						0.959		3.57
BH3				2.054	0.517			0.277	0.049	2.90
BG4			0.122	1.664	0.574			0.268	0.181	2.81
BG5	2.248	0.272						1.103		3.62
BG6	1.114	0.197			0.473			0.273	0.066	2.12
BF7	1.060	0.124	0.100					4.494		5.78
BR8					0.619			0.645	0.054	1.32
BR9					0.876			0.102	0.257	1.24
BR10					0.682			0.043	0.036	0.76
BR11					0.279			0.280		0.56
BE12			2.01*		6.12*	0.289	0.315	1.202	0.086	1.89
BR13					1.906			0.083	0.174	2.16
BI14					0.321			0.253	0.120	0.69
BD15	1.330	0.210	2.640		0.310	0.089	0.078	0.380	0.277	5.31
BD16	0.430	0.130	1.640					0.680		2.88
BT17			1.020		0.370	0.003	0.034	0.178	0.522	2.13
BT18			1.336							1.34
BI19			1.059	0.013	0.027			0.166	0.091	1.36
BI20				0.263	0.450	0.042	0.067	0.632	0.056	1.51
BC21			5.280		0.000		0.000	0.260	1.550	7.09
BR22					0.948			1.541	0.590	3.08
BR23			1.670		0.000	0.000	0.000	0.000	0.000	1.67
BB24	1.987	0.528						0.255	0.010	2.78
BB25			1.952		12.337			4.107	0.224	18.62
BA26			0.341		3.061			1.413	0.070	4.89
BA27			0.691		5.558			1.328	0.094	7.67
BR28					0.459			0.299	0.062	0.82
									TOTAL =	94.82

*=TRACT 'E' LAND USE REFLECTS FUTURE DEVELOPMENT W/ 2.01 BLDG IN PLACE OF IMPERVIOUS

CALCULATIONS	CUT	FILL	NET
B1 LAKE	33,073		
ALTERNATIVE A1		108,700	
		C.Y.	-75,627

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ENGINEERS, PLANNERS, SURVEYORS
CERTIFICATE OF AUTHORIZATION NO. 1337
6500 NORTH ANDREWS AVENUE, FORT LAUDERDALE, FLORIDA 33309 TEL.: (954) 776-1616

PROJ. NO.: 17996.00
DATE: JUNE 30, 2011
SCALE: N.T.S.

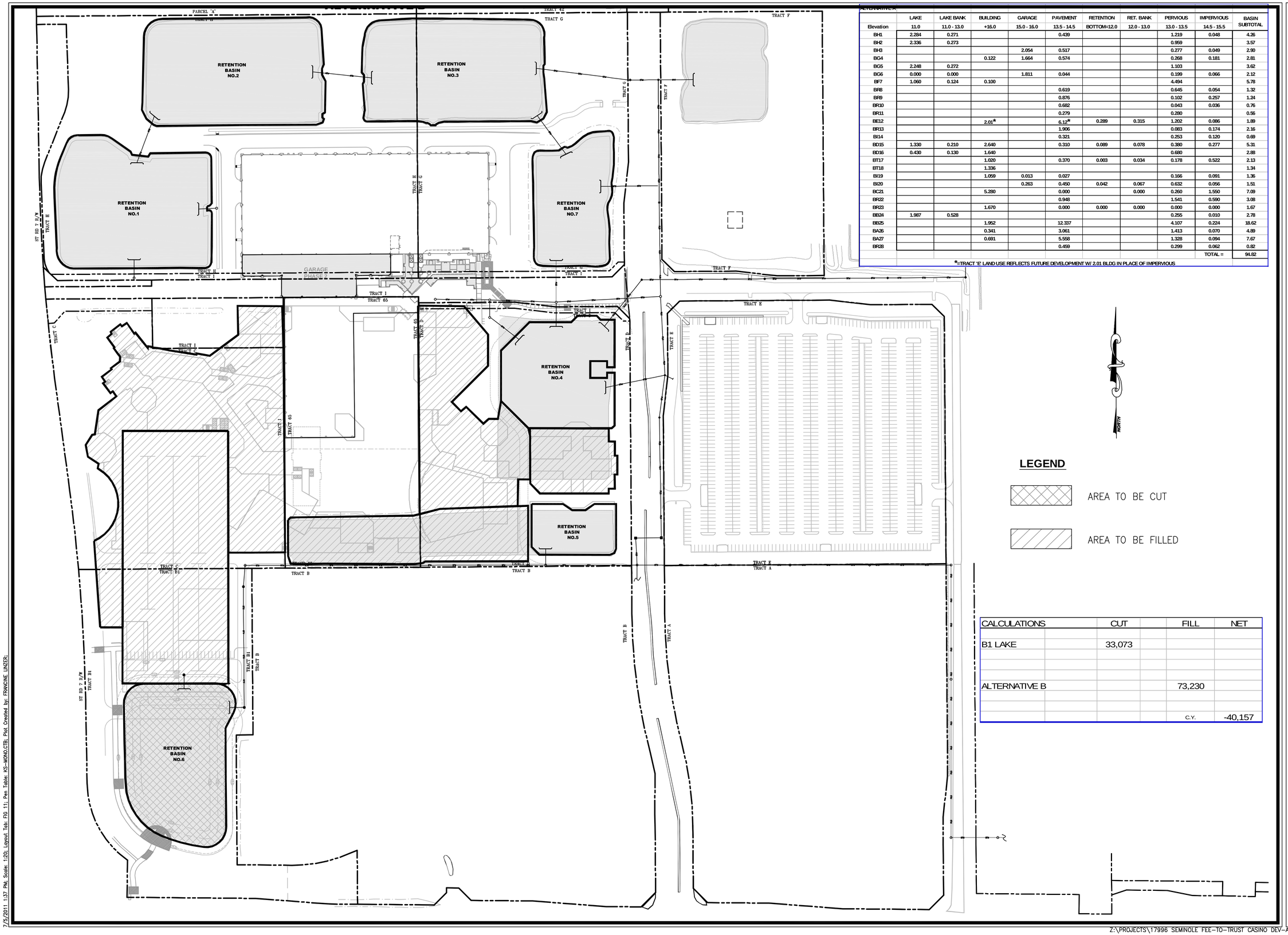
SEMINOLE FEE-TO-TRUST
COCONUT CREEK FLORIDA

EARTHWORK ANALYSIS
ALTERNATIVE 'A-1'

FIG. 10

7/5/2011 1:40 PM; Scale: 1:20; Layout Tab: FIG 10; Pen Table: KS-MONO.CTB; Plot Created by: FRANCINE LINZER;

Z:\PROJECTS\17996 SEMINOLE FEE-TO-TRUST CASINO DEV-AES\CIVIL\CAD\17996.00_FIG 10.DWG



	LAKE	LAKE BANK	BUILDING	GARAGE	PAVEMENT	RETENTION	RET. BANK	PERVIOUS	IMPERVIOUS	BASIN
Elevation	11.0	11.0 - 13.0	+16.0	15.0 - 16.0	13.5 - 14.5	BOTTOM=12.0	12.0 - 13.0	13.0 - 13.5	14.5 - 15.5	SUBTOTAL
BH1	2.284	0.271			0.439			1.219	0.048	4.26
BH2	2.336	0.273						0.959		3.57
BH3				2.054	0.517			0.277	0.049	2.90
BG4			0.122	1.664	0.574			0.268	0.181	2.81
BG5	2.248	0.272						1.103		3.62
BG6	0.000	0.000		1.811	0.044			0.199	0.066	2.12
BF7	1.060	0.124	0.100					4.494		5.78
BR8					0.619			0.645	0.054	1.32
BR9					0.876			0.102	0.257	1.24
BR10					0.682			0.043	0.036	0.76
BR11					0.279			0.280		0.56
BE12			2.01*		6.12*	0.289	0.315	1.202	0.086	1.89
BR13					1.906			0.083	0.174	2.16
BI14					0.321			0.253	0.120	0.69
BD15	1.330	0.210	2.640		0.310	0.089	0.078	0.380	0.277	5.31
BD16	0.430	0.130	1.640					0.680		2.88
BT17			1.020		0.370	0.003	0.034	0.178	0.522	2.13
BT18			1.336							1.34
BI19			1.059	0.013	0.027			0.166	0.091	1.36
BI20				0.263	0.450	0.042	0.067	0.632	0.056	1.51
BC21			5.280		0.000		0.000	0.260	1.550	7.09
BR22					0.948			1.541	0.590	3.08
BR23			1.670		0.000	0.000	0.000	0.000	0.000	1.67
BB24	1.987	0.528						0.255	0.010	2.78
BB25			1.952		12.337			4.107	0.224	18.62
BA26			0.341		3.061			1.413	0.070	4.89
BA27			0.691		5.558			1.328	0.094	7.67
BR28					0.459			0.299	0.062	0.82
									TOTAL =	94.82

*=TRACT 'E' LAND USE REFLECTS FUTURE DEVELOPMENT W/ 2.01 BLDG IN PLACE OF IMPERVIOUS

LEGEND

AREA TO BE CUT

AREA TO BE FILLED

CALCULATIONS	CUT	FILL	NET
B1 LAKE	33,073		
ALTERNATIVE B		73,230	
		C.Y.	-40,157

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SEMINOLE FEE-TO-TRUST

COCONUT CREEK FLORIDA

EARTHWORK ANALYSIS ALTERNATIVE 'B'

FIG. 11

7/5/2011 1:37 PM; Scale: 1:20; Layout Tab: FIG 11; Pen Table: KS-MONO.CTB; Plot Created by: FRANCINE LINZER;

Z:\PROJECTS\17996 SEMINOLE FEE-TO-TRUST CASINO DEV-AES\CIVIL\CAD\17996.00_FIG 11.DWG