RECEIVED
By FDEP Siting Coordination Office at 2:19 pm, Sep 12, 2012

September 11, 2012

Ms. Cindy Mulkey
Administrator, Siting Coordination Office
Department of Environmental Protection
Mail Station 48
3900 Commonwealth Blvd.
Tallahassee, Florida 32399

RE: Florida Power & Light Company Riviera Beach Energy Center Compressor Station
PA 09-54B Condition of Certification B.I.D.

Dear Ms. Mulkey:

Per site certification (PA 09-54B) for the Florida Power & Light Company (FPL) Riviera Beach Energy Center Compressor Station condition of certification B.I.D. requires the following:

"Prior to construction provide details on the drainage for the compressor station, including how the stormwater will be handled, treated, and discharged in accordance with State rules."

In response to the condition of certification B.I.D., FPL is submitting the enclosed documents:

- Stormwater Design Documents
- Signed and Sealed Stormwater Engineering Design Drawings

If you have any questions, please contact me at 561-691-2808 or Jessica Peck at 561-691-2859. Thank you.

Sincerely,
Florida Power & Light Company

Stacy M. Foster for
Matthew J. Raffenberg MATTHEW J. RAFFENBERG
Director
Environmental Licensing & Permitting

cc:
Dianne Hughes, DEP Southeast District
Terrance Bailey, City of Riviera Beach
Peter Ringle, City of Riviera Beach

Stormwater Management Plan

Engineering Calculations and Supporting Documents
Supporting a Surface Water Management System for:

45th Street Compressor Station
Riviera Beach, Florida

Prepared for:
Florida Power and Light

FPL®

Prepared By:

Willbros Engineering
2087 East 71st Street
Tulsa, OK 74136
Phone: (918) 496-0400

Prepared by: _____ 8-30-2012
Signature Date

Reviewed by: _____ 8.30.2012
Signature Date

MICHAEL D. REIFEL
LICENSE
No 61183
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
Michael D. Reifel 8/30/12

Engineer of Record
Michael D. Reifel, P.E.
Willbros Engineering
Florida Registration No. 61183

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List of Exhibits

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A	National Resources Conservation Service Soil Survey
B	FEMA Flood Insurance Rate Map (FIRM)
C.1	Pre-Development Drainage Area Map
C.2	Pre-Development Land Use Tabulation
D.1	Post-Development Drainage Area Map
D.2	Post-Development Land Use Tabulation
E	Water Quality Summary
F.1	3-Year, 1-Hour Rainfall Hydrograph and HEC-HMS Results
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F.3	25-Year, 3-Day Rainfall Map, Hydrograph and HEC-HMS Results
F.4	100-Year, 3-Day Rainfall Map, Hydrograph and HEC-HMS Results
G	Retention Pond Design Data
H	SFWMD Permit Modification – GP #50-00497-S, August, 1999
I	Original SFWMD Permit – GP # 50-00497-S, October, 1977
J	Selected Martin Fuel Oil Storage Facility Plan Sheets, 1975 & 1976

Project Description

The Florida Power and Light Company (FPL) is proposing an expansion of their existing 45th Street Facility with the addition of three natural gas compressors and supporting equipment. The 45th Street Facility is located within the City of Riviera Beach in Section 31, Township 42-S, Range 43-E, in Palm Beach County, Florida. The physical address is 2400 Port W Blvd and contains approximately 72.3 acres. The property is bordered on the west and south side by a drainage canal, on the east side by the I-95 interstate corridor, and on the north side by Highway 710.



Figure 1: Location Map

Drainage Design Criteria

The Stormwater Management System (SMS) will meet the regulations set forth by the Florida Department of Environmental Protection (FDEP) regulations for Stormwater Discharge. Also, The South Florida Water Management District (SFWMD) requirements outlined in the Management and Storage of Surface Waters Permit Information Manual Volume IV will be met. Additionally, since this project is contained within the City of Riviera Beach, the SMS will also meet their stormwater requirements.

The stormwater modeling was performed using the Corps of Engineers Hydrologic Engineering Center - Hydrologic Modeling System (HEC-HMS) software. HEC-HMS is a powerful program that will allow modeling of multiple basins and various rainfall events. HEC-HMS is widely used and accepted across the United States by Federal, State and Local agencies.

The design rainfall depths were obtained from the City of Riviera Beach and the SFWMD. The Rainfall Maps are included in the respective exhibits containing the various storm events, (See Exhibits F.1 to F.4) The rainfall depths and their purposes are outlined in the table below.

Storm Event	Purpose	Rainfall Depth
3-Year, 1-Hour	Minimum Site Rainfall Retention	2.7"
5-Year, 24-Hour	Determines Minimum Road Elevation	7.0"
25-year, 3-Day	Retention/Detention Pond Design	13.6"
100-year, 3-day	Determines Minimum Finish Floor Elevation	16.0"

According to the National Resources Conservation Service, (NRCS), the site contains two soil types: Basinger fine sand, and a Basinger and Myakka sand. Both soils are classified as Hydrologic Group 'A' soils indicating that it has a high infiltration rate. See Exhibit A for the soils information. According to the geotechnical investigation, performed by Terracon in May 2012, the groundwater table is approximately 5 to 6 feet depth but the Mean High Water Table (MHW) may be 1 to 2 feet shallower. Using a MHW of 3 feet, the SFWMD indicates that the allowable soil storage is 6.6" in a pre-developed condition. The pre-developed value is reduced 25% to a storage capacity of 4.95" after construction due to the compaction of the soil that takes place during construction.

A time of concentration of 10 minutes was used for the existing conditions as well as the proposed condition. This time of concentration was selected due to the relative small area and topography. The proposed condition will include a grass lined swale to intercept the stormwater and convey it to the retention pond as well as a berm to contain the 25-year, 3-day storm event.

The flow from the existing site does not appear to leave the site, so there is not a pre-development site discharge rate. The post developed flows will be contained in a retention pond and therefore will also not have a site discharge rate.

The entire site is located in a mapped FEMA Floodplain. The FEMA floodplain elevation is 15.0' (NGVD 29) and is shown on community panel number 125142 0002 D revised on September 30, 1982, (See Exhibit B). Converting this elevation to NAVD 88 yields an elevation of 13.46'. This elevation has been compared to the localized 100-year, 3-day storm event to determine the minimum finished floor and equipment elevations.

The proposed SWMS provides water quality treatment for the project area by utilizing a dry retention pond. The site is governed by the South Florida Water Management District (SFWMD) criteria requiring the greater of one-inch over the project area, or 2.5 inches times the impervious area (excluding roof areas). These values are based on using a dry detention pond and can be reduced by 50% if a dry retention pond is utilized. Since the project is also an industrial site, a pre-treatment volume of one-half inch is also required.

Existing Conditions

The 45th Street compressor facility site is approximately 72.3 acres. The stormwater from the majority of the site is directed away from our work area. The water from the north side of the fence flows in general westerly direction due to the installation of an interceptor swale/berm combination. The storage tanks are completely enclosed with spill containment dikes requiring all water to infiltrate into the soil. The Florida Department of Transportation I-95 corridor lies directly to the east and drains to the canal located on the southern end of our site. The pre-development basin in which the work is taking place, Basin 'A', is approximately 24.6 acres in size. (See Exhibit C.1)

Proposed Conditions

The stormwater for the proposed development will be completely contained on-site in a dry retention pond. The dry retention pond is designed to accept the stormwater from various storm events and infiltrate into the soil. In order to completely contain the stormwater during high storm events, an earthen berm was placed near the FDOT right of way. The earthen berm is at a sufficient elevation to prevent water from leaving the 45th Street Compressor Station after development of the site. The pre-developed Basin 'A' is now designated as Basin 'A.1', and its size has been reduced from 24.6 acres to 10.6 acres. (See Exhibit D.1)

Since the site is situated in a mapped FEMA floodplain, the proposed fill must not displace any historic floodwaters. Careful grading and calculations ensured that this requirement was not only met, but that it was exceeded. The existing floodplain storage volume was 12.76 Acre-Feet. Once the earthwork was designed for the site and the retention pond created, the proposed floodplain storage increased by 1.32 Acre-Feet to 14.08 Acre-Feet. This ensures that the historic floodwaters remain on-site.

Hydrographs

The City of Riviera Beach requires that all new developments retain on-site the rainfall from a 3-year, 1-hour storm. This total rainfall depth for this storm is 2.7 inches. To generate a hydrograph for this event, the Florida Department of Transportation's (FDOT) Intensity Duration Distribution Curves were used as outlined in Appendix B of the FDOT Drainage Manual. The FDOT ratio is applied to the total rainfall of 2.7 inches to develop the incremental rainfall depth. (See Exhibit F.1)

The City of Riviera Beach also requires that the roadway and parking lot elevations be above the peak stage elevation for the 5-year, 24-hour storm event. This hydrograph was also developed using the FDOT Intensity Duration Distribution Curves and applied to the 7" of rainfall for the 5-year event to develop the incremental rainfall depths. (See Exhibit F.2)

The SFWMD requires a 25-year, 3-Day storm to determine the minimum perimeter berm elevation. This hydrograph was created using the SFWMD rainfall distribution ratio as outlined in "An Overview of Urban Stormwater Management Practices in Miami-Dade County, Florida", By David A. Chin. This report was prepared for the U.S. Department of the Interior, U.S. Geological Survey in cooperation with the South Florida Water Management District. The hyetograph is included as Exhibit F.3. These calculated values were verified with the 72 hour distribution shown in Section 8.2 of SFWMD's "Basis of Review for Environmental Resource Permit Applications Within The South Florida Water Management District."

In order to determine the minimum finished floor elevations, a 100-year, 3-day storm model was created. This model used the FDOT Intensity Duration Distribution Curves and applied to the total rainfall depth of 16" to develop the incremental rainfall depths. (See Exhibit F.4) However, since this project lies within a mapped FEMA Floodplain, the higher of the elevations will control.

Existing SFWMD Permits

Previous SFWMD permits for this location as well as selected portions of the Martin Oil Storage Facility plan sheets are attached for reference. Exhibit H is the modification of SFWMD permit (GP - #50-00497-S) which was prepared in August, 1999. Exhibit I is the original SFWMD permit (GP - # 50-00497-S), which was prepared in October, 1977. Exhibit J contains selected Martin Fuel Oil Storage Facility Plan Sheets.

Summary

Existing conditions

FEMA Floodplain Storage: 12.76 Acre-Feet

	3 -Yr, 1-Hr	5-Yr, 24-Hr	25 -Yr, 3-Day	100-Yr, 3-Day
On-Site Flow (cfs)	11.1	2.8	86.8	11.2
Stage (NAVD 88) (ft)	NA	Na	NA	Na
Discharge to Off-Site (cfs)	0	0	0	0

Proposed Conditions

FEMA Floodplain Storage: 14.08 Acre-Feet

	3 -Yr, 1-Hr	5-Yr, 24-Hr	25 -Yr, 3-Day	100-Yr, 3-Day
On-Site Flow (cfs)	14.3	5.0	87.3	11.2
Stage (NAVD 88) (ft)	9.26	9.06	11.21	9.94*
Total Retention Pond Inflow (Ac-Ft)	0.6	3.5	11.2	14.0
Total Retention Pond Inflow (Inches)	0.50	3.04	9.60	12.02
Discharge to Off-Site (cfs)	0	0	0	0

* Mapped FEMA floodplain elevation is 13.46', so the FEMA elevation controls.

A summary of the proposed retention pond stage elevations dictates the following:
Minimum Road elevation = 9.06'
Minimum Berm Elevation = 11.21'
Minimum Finished Floor Elevation = 14.46' (1' above mapped FEMA Floodplain Elevation)

Exhibit A
National Resources
Conservation Service Soil Survey

Hydrologic Soil Group—Palm Beach County Area, Florida
(Florida Power and Light)



Map Scale: 1:4,420 if printed on A size (8.5" x 11") sheet.

N

Meters
0 40 80 160 240

Feet
0 150 300 600 900

USDA Natural Resources Conservation Service

Web Soil Survey
National Cooperative Soil Survey

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

Soil Ratings
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Political Features
- Cities

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

MAP INFORMATION

Map Scale: 1:4,420 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 17N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Palm Beach County Area, Florida
Survey Area Data: Version 7, Jan 13, 2010

Date(s) aerial images were photographed: 8/5/2007

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Hydrologic Soil Group— Summary by Map Unit — Palm Beach County Area, Florida (FL611)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
6	Basinger fine sand	A/D	40.3	72.6%
8	Basinger and Myakka sands, depressional	A/D	14.8	26.6%
99	Water		0.4	0.8%
Totals for Area of Interest			55.5	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

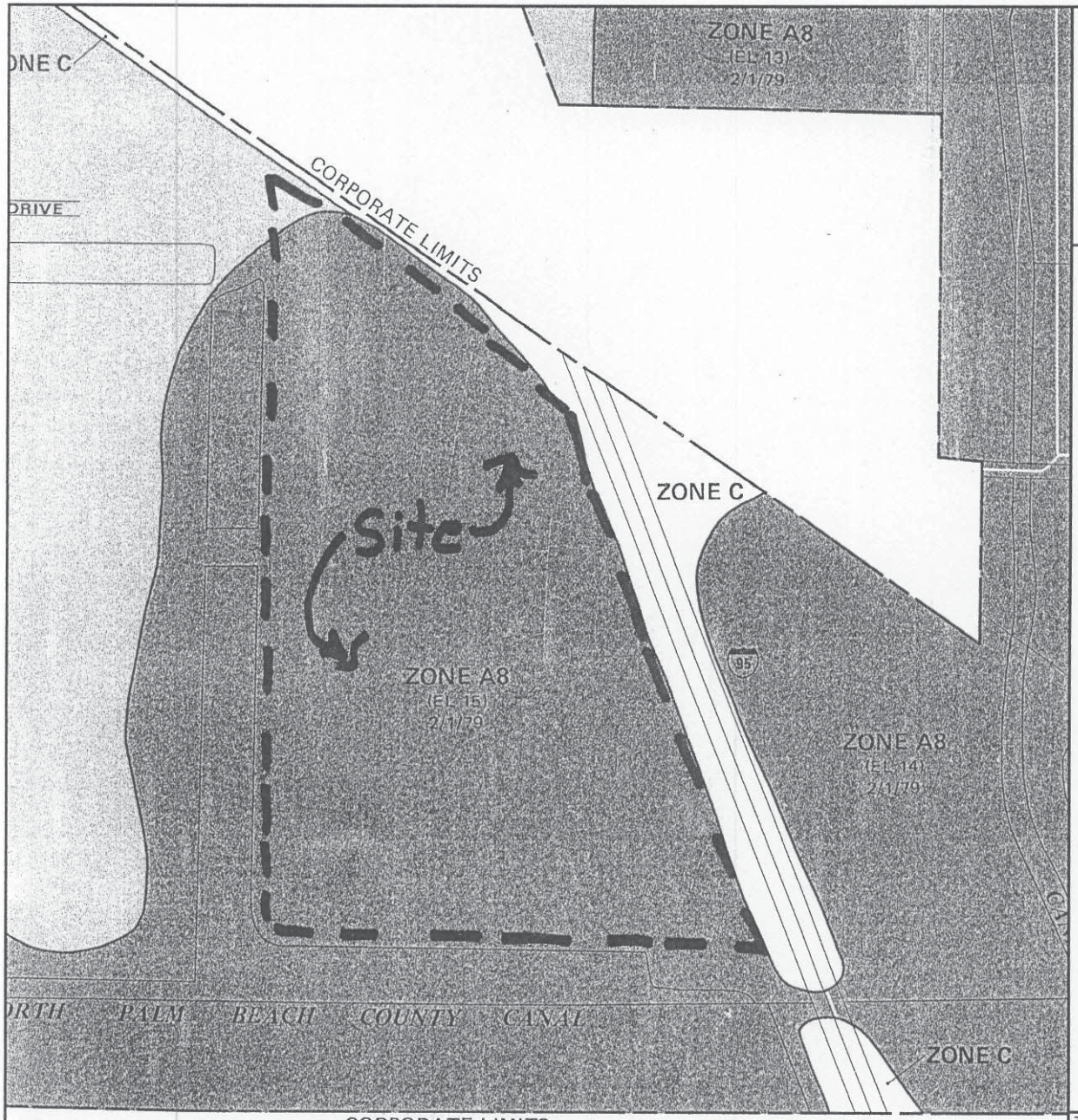
Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Exhibit B

FEMA Flood Insurance Rate Map (FIRM)



Elevation of 15' NGVD 29 Datum = 13.46' NAVD88 Datum

APPROXIMATE SCALE

500 0 500 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

CITY OF
RIVIERA BEACH, FLORIDA
PALM BEACH COUNTY

PANEL 2 OF 3
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
125142 0002 D

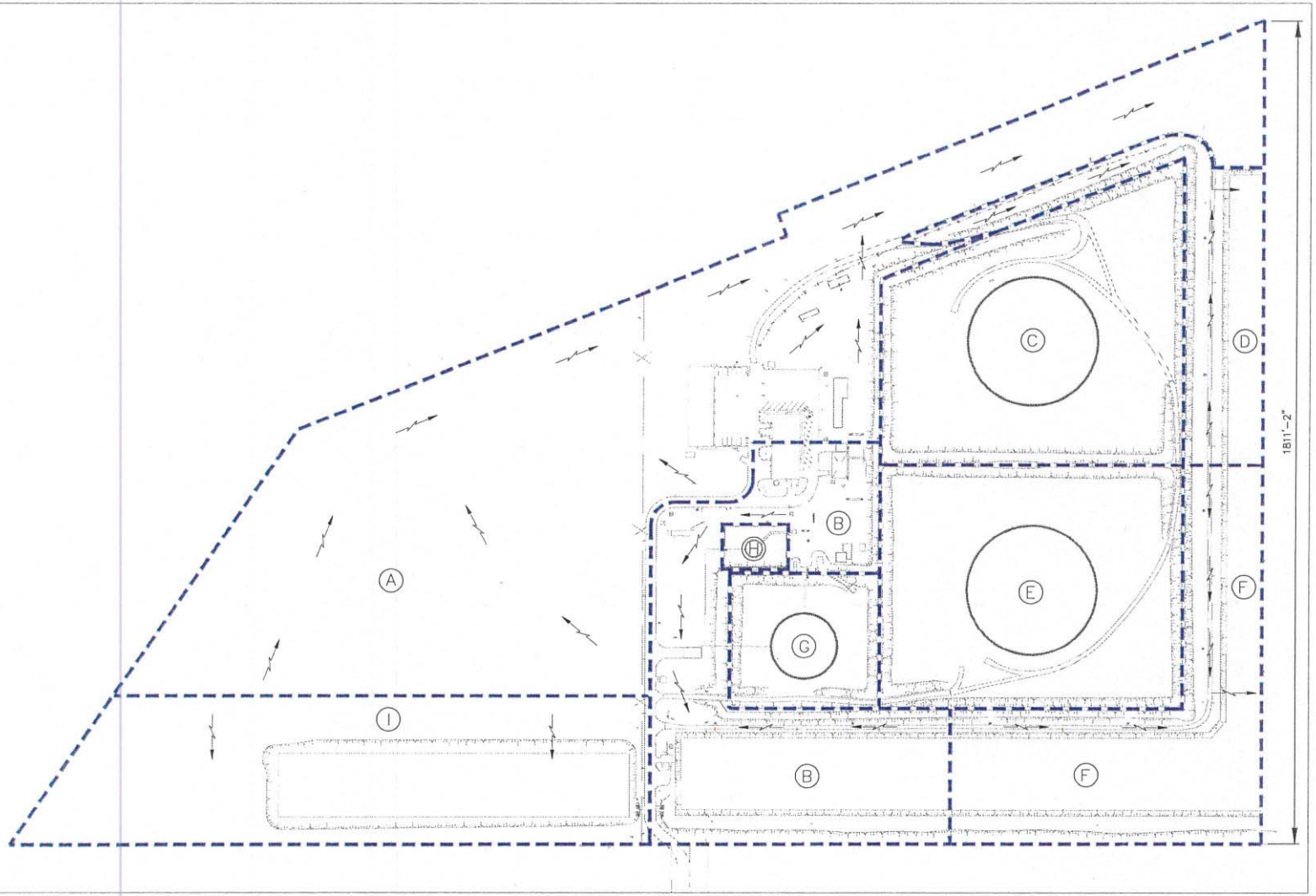
MAP REVISED:
SEPTEMBER 30, 1982

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

Exhibit C.1

Pre-Development
Drainage Area Map



ISSUED FOR BID
16-AUG-12

REFERENCE	NUMBER	NO.	DATE	REVISION	BY	CHK	APPR	APPR	APPR
POST DEVELOPMENT DRAINAGE PLAN	SHT. 2								

DRAWING ISSUES

CONSTRUCTION	LAST		
	DRG.		
BIDS	LAST		
	DRG.		
APPROVAL	LAST		
	DRG.		
INFORMATION	LAST		
	DRG.		

DRAWING APPROVALS

ISSUED FOR:	SIGNATURE	DATE	REV.
DRAWN: JLS		DATE: 08-14-12	
CHECKED:		DATE:	
ENGINEER: LS		DATE: 7-23-12	
W.E.I.:		DATE:	
CLIENT:		DATE:	
CLIENT:		DATE:	

WILLBROS ENGINEERING

FLORIDA POWER & LIGHT

PRE-DEVELOPMENT
DRAINAGE AREA MAP
45TH STREET COMPRESSOR STATION
PALM BEACH COUNTY, FLORIDA

SCALE	PROJECT NO.	DRAWING NO.	SHEET	REV.
NONE	51982	EXHIBIT C.1	1 OF 1	

Exhibit C.2

Pre-Development
Land Use Tabulation

Florida Power and Light
45th Street Compressor Station
Palm Beach County, Florida
City of Riveria Beach

Pre-Development Land Use

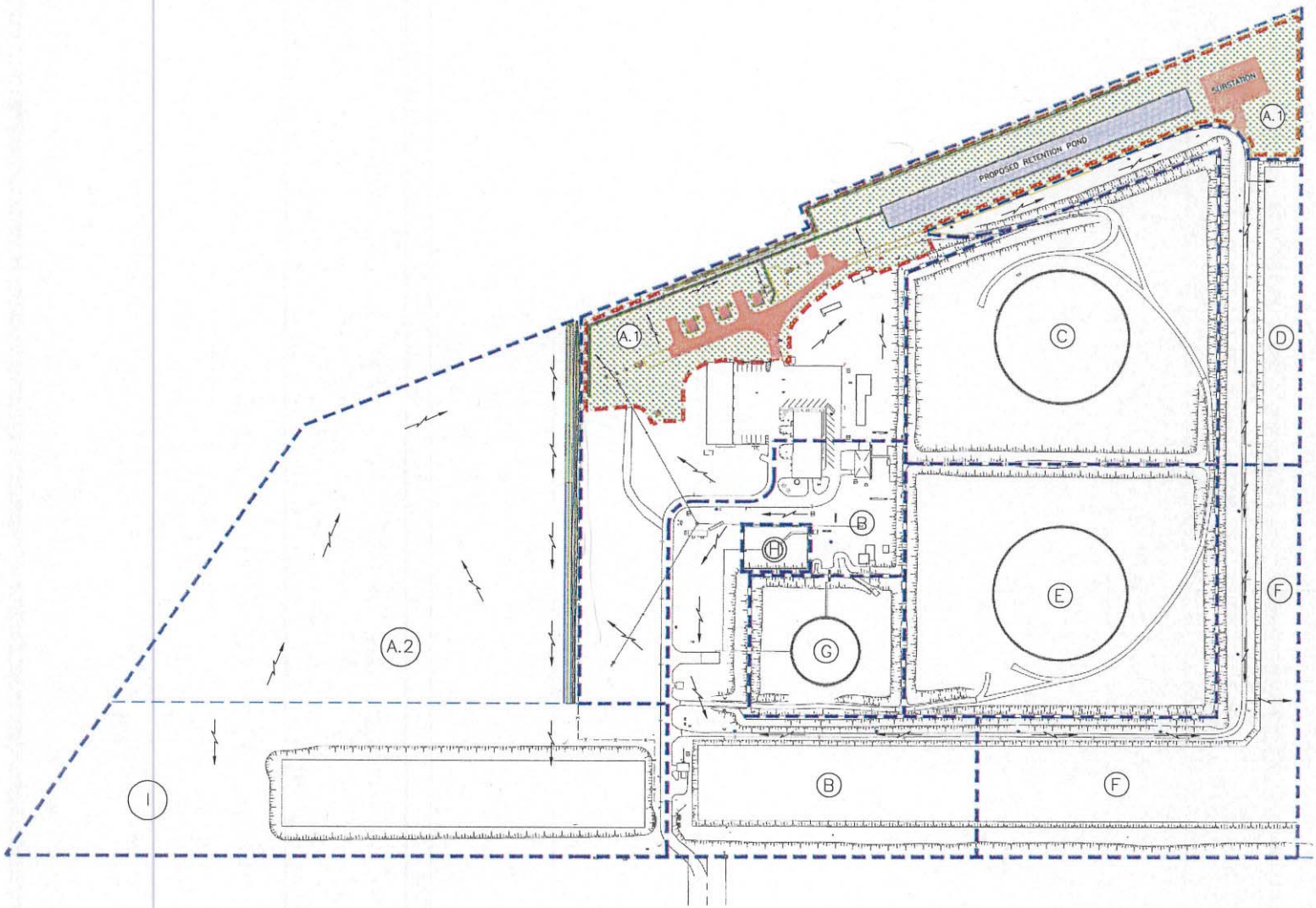
Total Land Area:	462517	sf
	10.62	Acres

Existing Land Use

Buildings	16423	sf
Asphalt drive and parking	47055	sf
Miscellaneous Concrete	8578	sf
Total Existing Impervious Area	72056	sf
	1.65	Acres
Existing Percent Impervious:	15.58	%
Existing Pervious Area	390461	sf
	8.96	Acres
	84.42	%

Exhibit D.1

Post-Development
Drainage Area Map



ISSUED FOR BID
16-AUG-12

REFERENCE	NUMBER
POST DEVELOPMENT DRAINAGE PLAN	SHT. 2

NO.	DATE	REVISION	BY	CHK	APPR	APPR	APPR

DRAWING ISSUES

CONSTRUCTION	LAST ISSUED			
	THIS ISSUE			
BIDS	LAST ISSUED			
	THIS ISSUE			
APPROVAL	LAST ISSUED			
	THIS ISSUE			
INFORMATION	LAST ISSUED			
	THIS ISSUE			

DRAWING APPROVALS

ISSUED FOR:	SIGNATURE	DATE	REV.
DRAWN: JLS		DATE: 08-14-12	
CHECKED:		DATE:	
ENGINEER: LS		DATE: 7-23-12	
W.E.I.:		DATE:	
CLIENT:		DATE:	
CLIENT:		DATE:	

WILLBROS ENGINEERING

FLORIDA POWER & LIGHT

POST-DEVELOPMENT
DRAINAGE AREA MAP
45TH STREET COMPRESSOR STATION
PALM BEACH COUNTY, FLORIDA

SCALE	PROJECT NO.	DRAWING NO.	SHEET	REV.
NONE	51982	SKETCH 2	1 OF 2	

Exhibit D.2

Post-Development
Land Use Tabulation

Post-Development Land Use

Proposed Increase in Impervious Land Area				Provided Elev.		Required Elev.
				From	To	
Asphalt paving	14582	sf	3.15%	10.75'	up	9.06'
Non-pervious gravel	2637	sf	0.57%	11.0'	up	9.06'
Filter Seperator Containment and Stair Pad	200	sf	0.04%	na	na	na
Launcher/Receiver Drip Pad	280	sf	0.06%	na	na	na
Concrete Sidewalks (3 @ 76 sf)	228	sf	0.05%	11.5'	up	9.06'
Oil Tank	20	sf	0.00%	na	na	na
Blowdown Silencer	110	sf	0.02%	na	na	na
Compressor Foundation (4 @ 602)	2408	sf	0.52%	13.08'	up	14.46' *

Total	20465	Square Feet
	0.47	Acres
Proposed Increase of Impervious Area	4.42	%
Existing Impervious Area	390461	sf
Proposed Total Impervious Area (Existing + Proposed)	92521	sf
	20.00	%

*Finished floor elevation to be a minimum of 1' above FEMA Floodplain. Compressor Skids are 3'-3" thick, establishing a top of skid/ (finished floor) elevation of 16.71'

Buildings and Enclosures		
Compressor Enclosures (4 @ 602SF)	2408	sf
PCR Building	1700	sf
Pervious areas - Grass	365728	sf
pervious gravel surfacing	4268	sf

PCR building is elevated, therefore area under enclosure is pervious
Net PCR impervious area = 0 SF

Total Pervious Area =	369996	Square Feet	8.49 Acres
Total Impervious Area =	92521	Square Feet	2.12 Acres
Total =	462517	Square Feet	10.62 Acres

Exhibit E

Water Quality Summary

Water Quality

Since we propose a dry retention pond, the amount retained
is required to be at least half of the greater of the following A or B:

A. First Inch of rainfall:
Vol = 1" x Total Area x (1/12)

Total Area	Vol (Ac-Ft)	Half		
10.62	0.885	0.44	Ac-Ft	Controls

B. 2.5" of rain over the increase in impervious Area
Vol = 2.5 x impervious area x (1/12)

Total Area	Vol (Ac-Ft)	Half	
0.47	0.10	0.05	Ac-Ft

Retention Volume Provided: 1.425 At top of pond elevation of 10.5' (See Exhibit G)

Therefore the Retention Pond size is adequate for Water Quality

Exhibit F.1

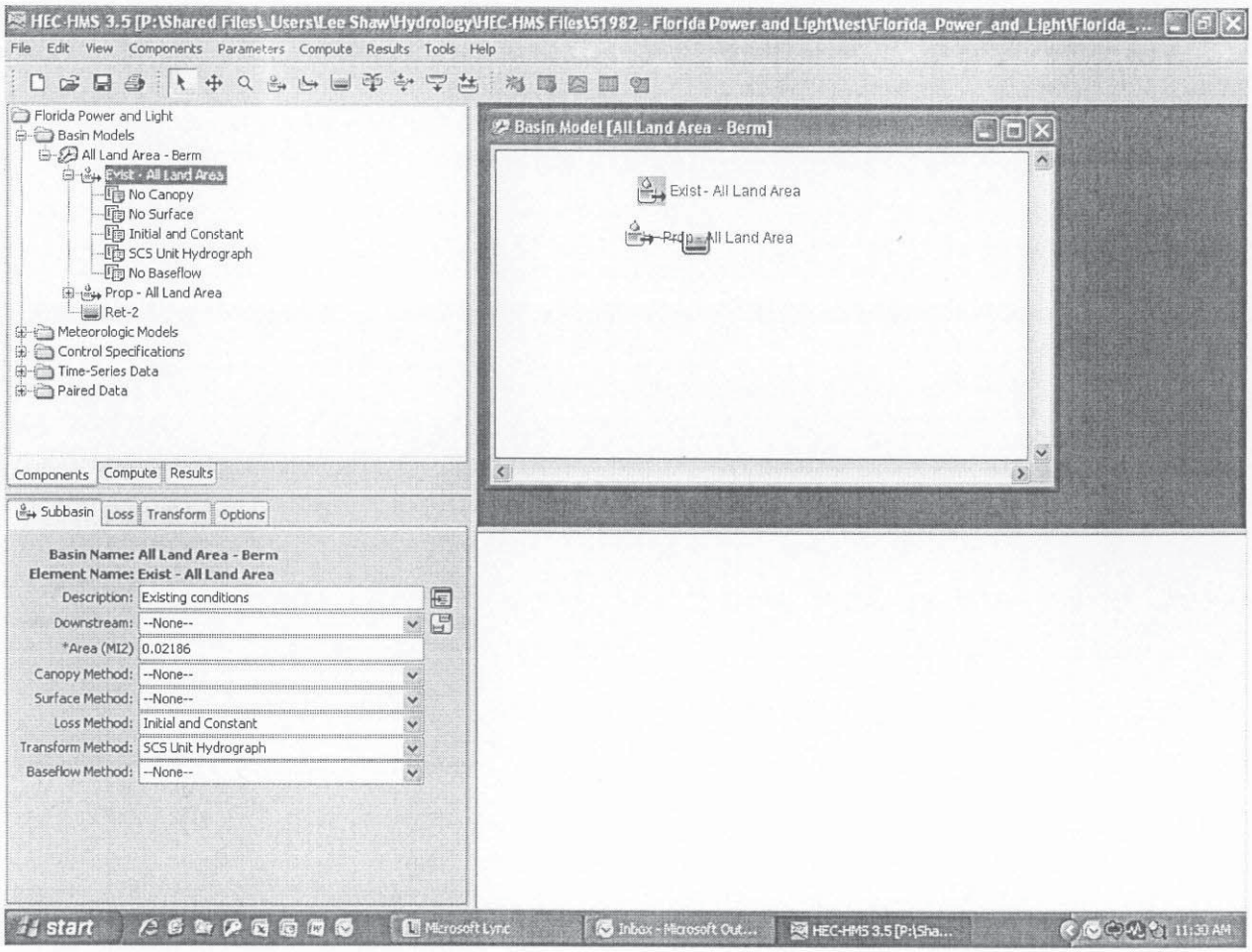
3-Year, 1-Hour Rainfall
Hydrograph and HEC-HMS Results

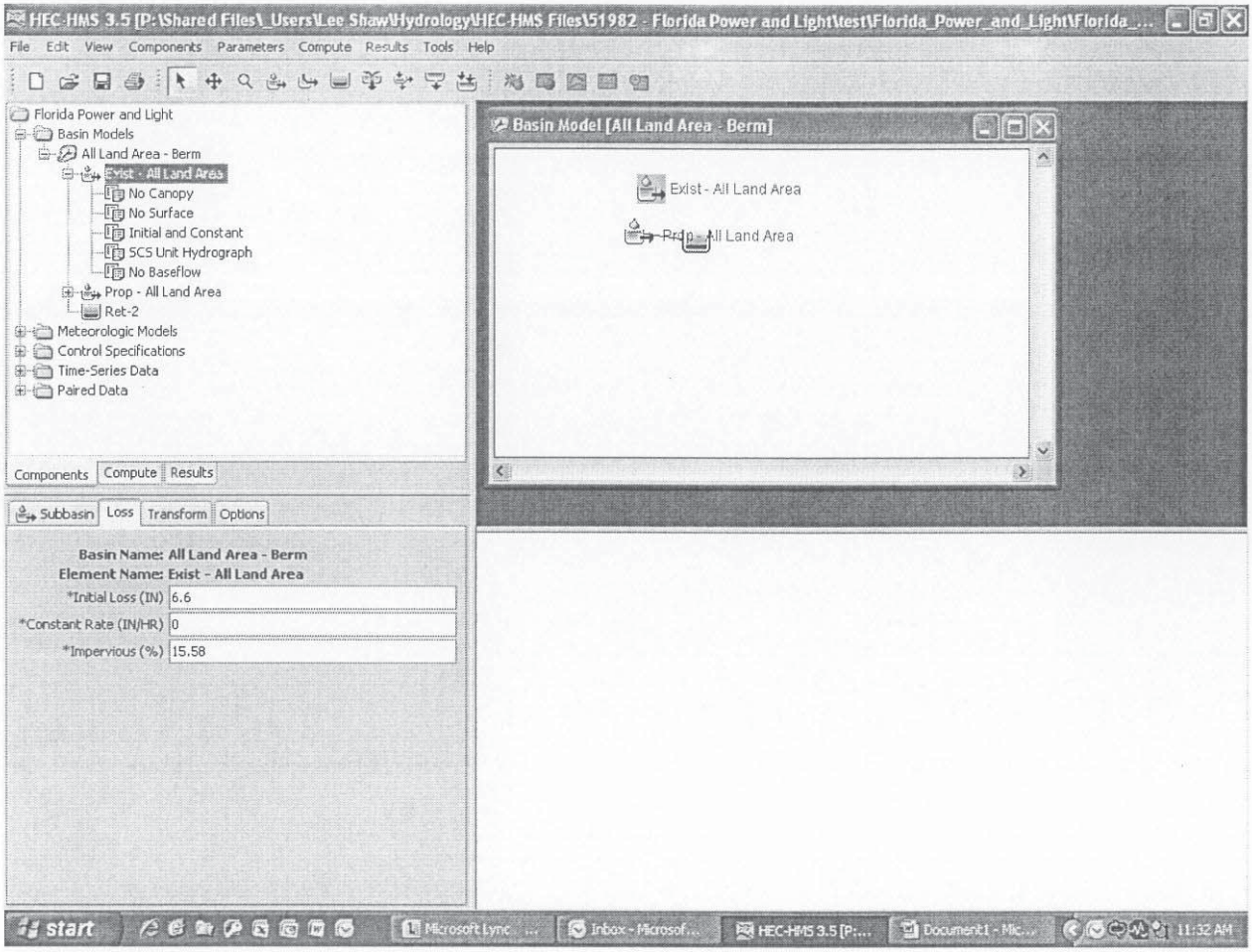
Florida Department of Transportation

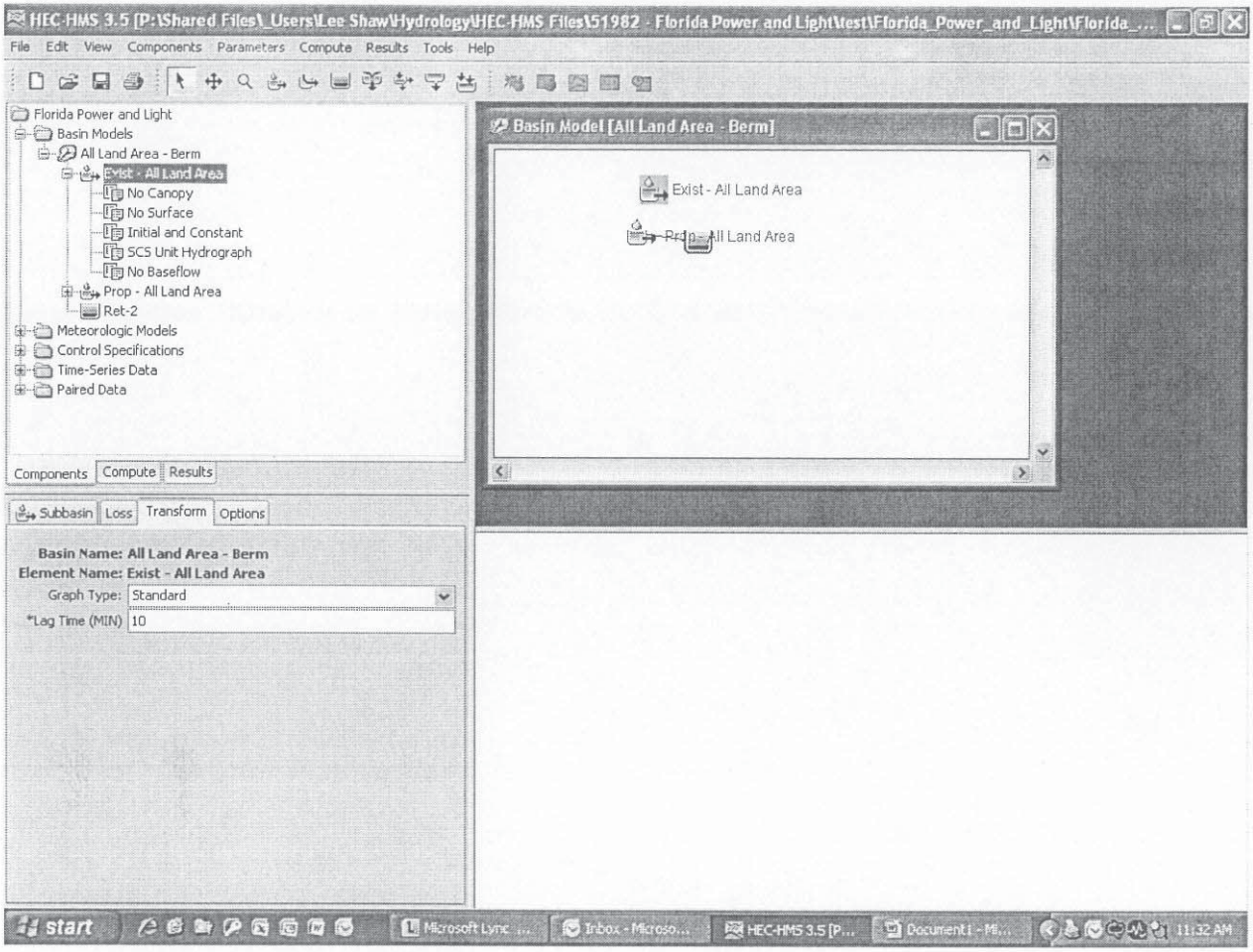
3-year, 1-hour Precipitation 2.7 inches

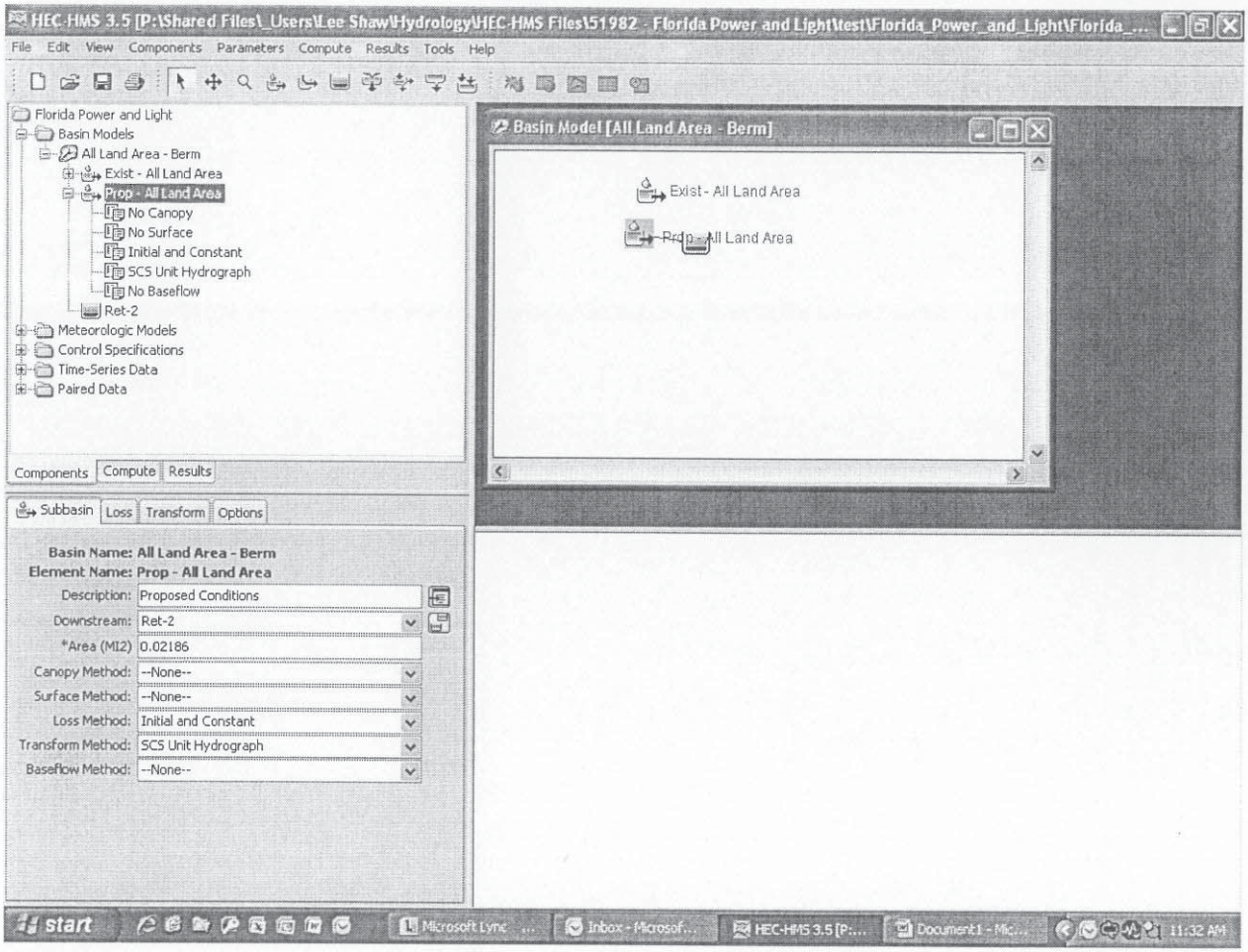
Time (Hrs)	P/Ptot*	100-year Cumulative Precipitation (in)
0	0.000	0.000
0.1	0.020	0.054
0.2	0.080	0.216
0.3	0.200	0.540
0.4	0.410	1.107
0.5	0.625	1.688
0.6	0.805	2.174
0.7	0.915	2.471
0.8	0.985	2.660
0.9	0.995	2.687
1	1.000	2.700

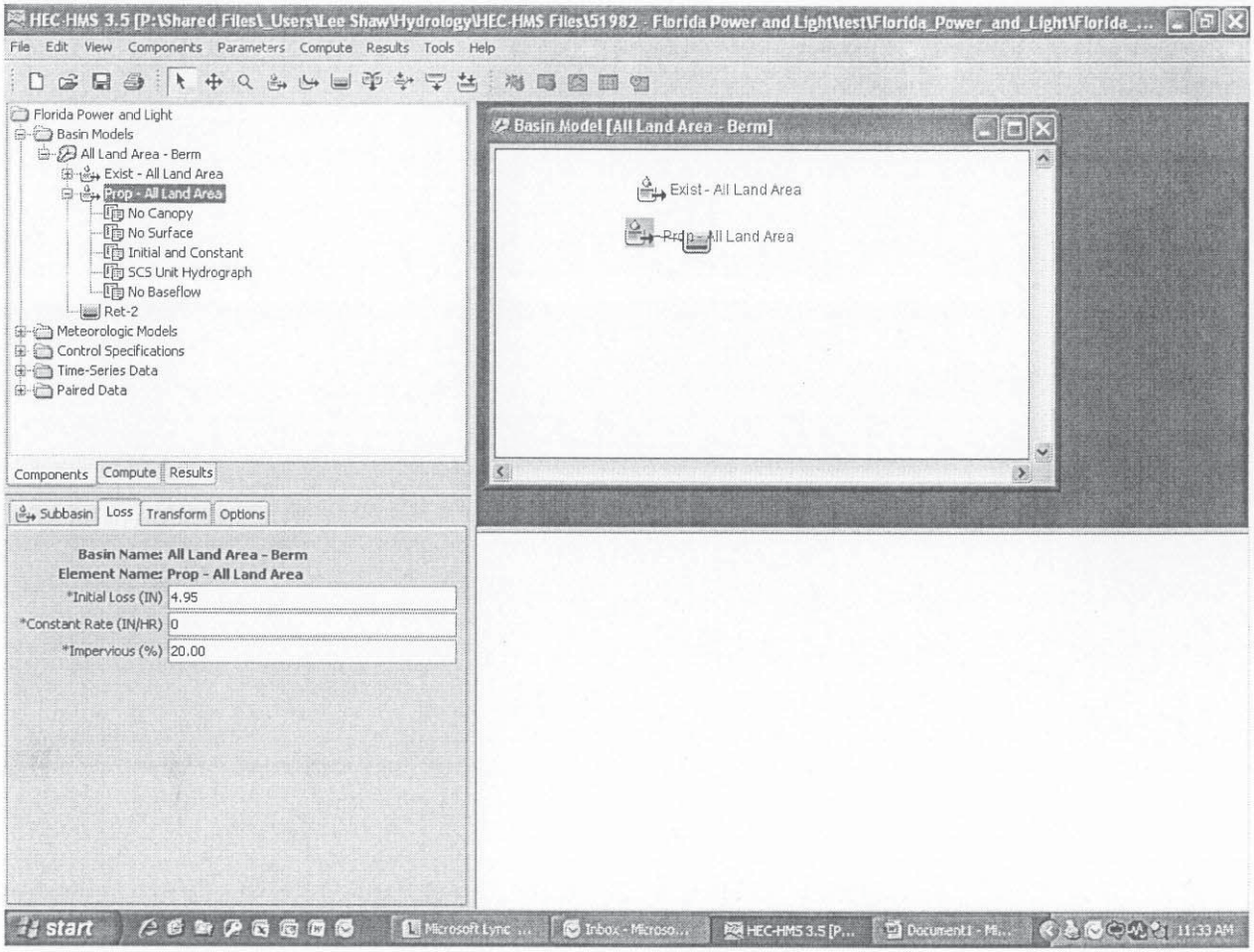
* From Florida Department of Transportation Drainage Manual, Appendix B - IDF Curves Page B-22

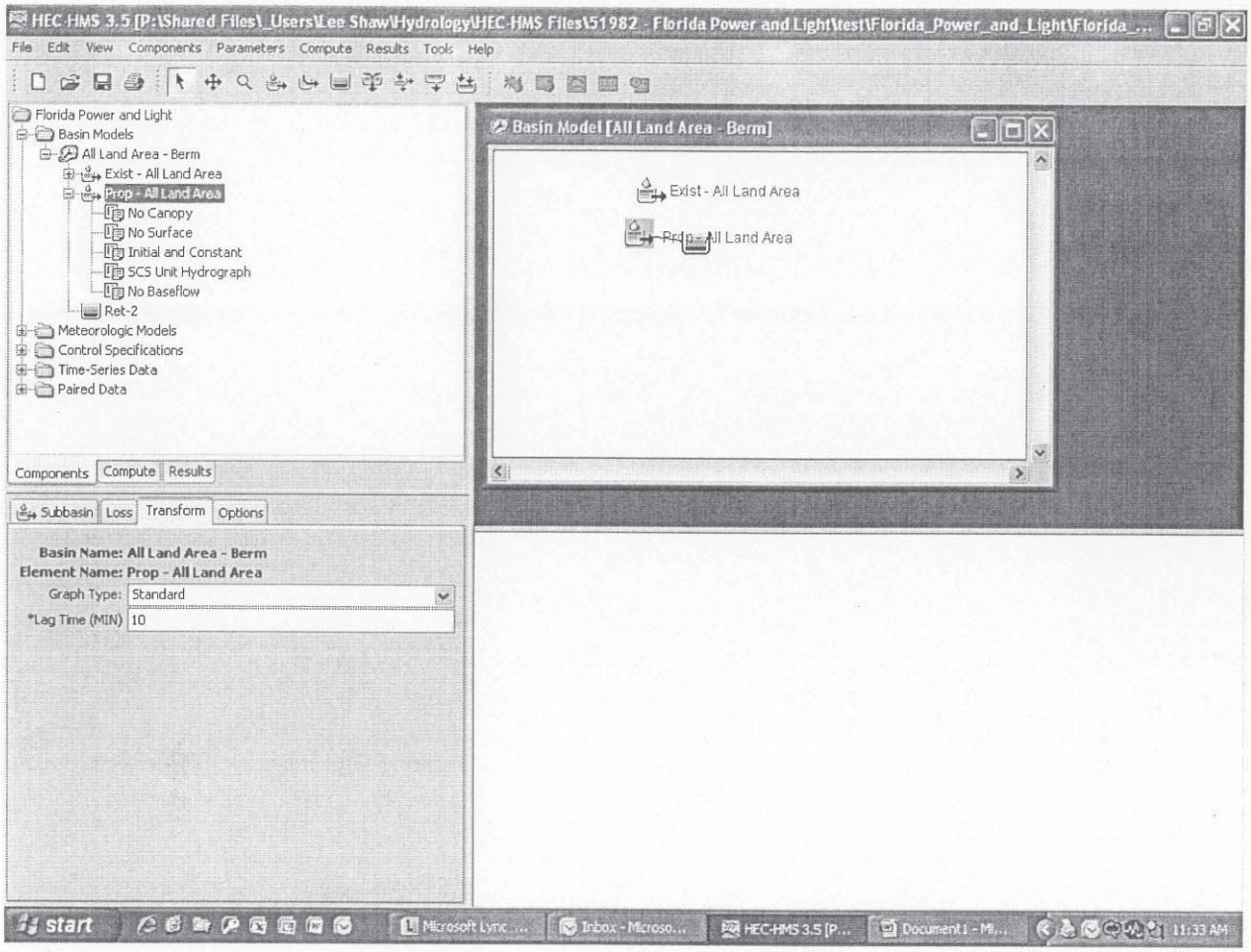

HEC-HMS 3.5 [P:\Shared Files_Users\Lee Shaw\Hydrology\HEC-HMS Files\51982 - Florida Power and Light\test\Florida_Power_and_Light\Florida_...
File Edit View Components Parameters Compute Results Tools Help
Florida Power and Light
Basin Models
All Land Area - Berm
Exist - All Land Area
No Canopy
No Surface
Initial and Constant
SCS Unit Hydrograph
No Baseflow
Prop - All Land Area
Ret-2
Meteorologic Models
Control Specifications
Time-Series Data
Paired Data
Components Compute Results
Basin Model [All Land Area - Berm]
Exist - All Land Area
Prop - All Land Area
Subbasin Loss Transform Options
Basin Name: All Land Area - Berm
Element Name: Exist - All Land Area
Description: Existing conditions
Downstream: --None--
*Area (MI2) 0.02186
Canopy Method: --None--
Surface Method: --None--
Loss Method: Initial and Constant
Transform Method: SCS Unit Hydrograph
Baseflow Method: --None--
start
Microsoft Lync
Inbox - Microsoft Out...
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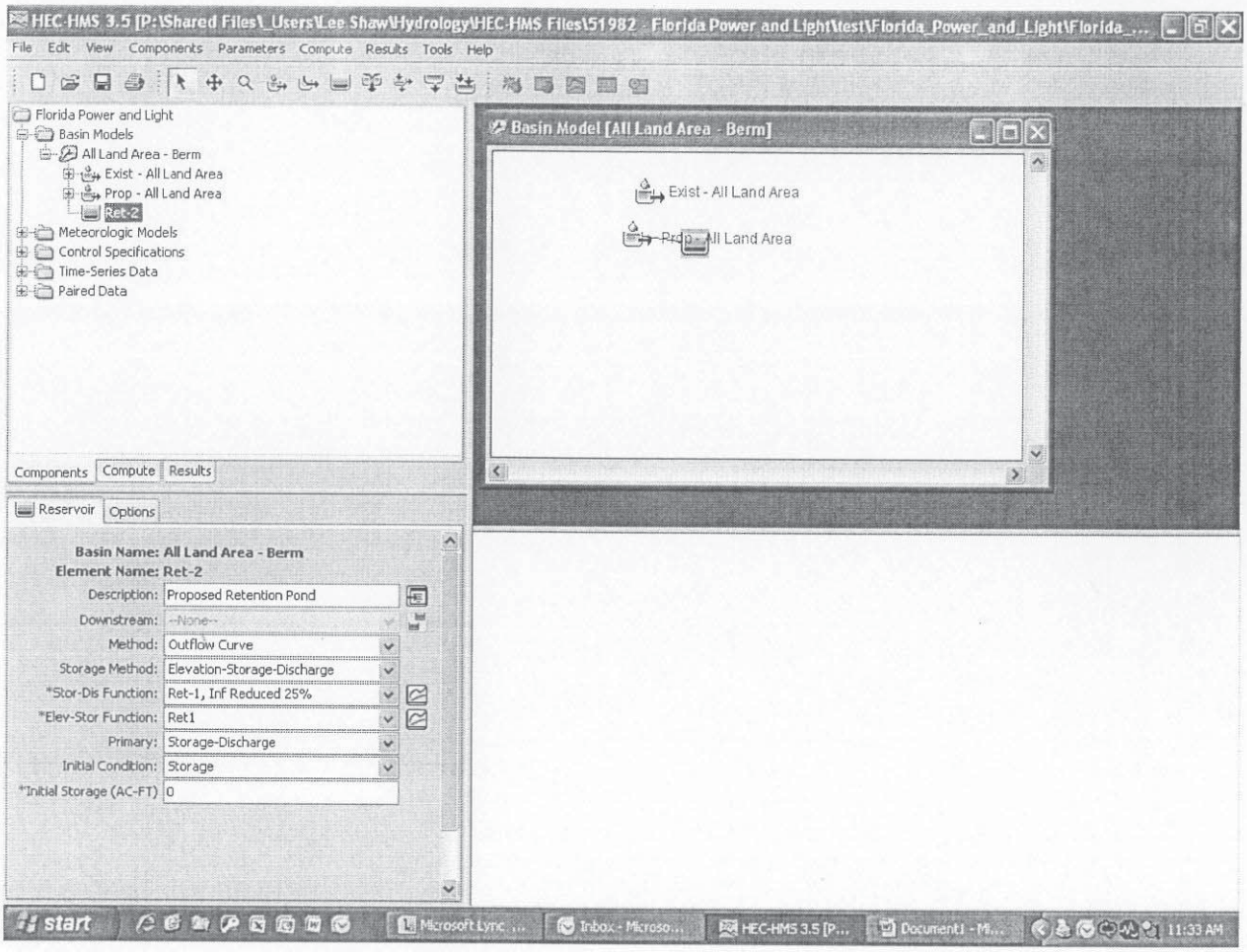

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Florida Power and Light
Basin Models
All Land Area - Berm
Exist - All Land Area
No Canopy
No Surface
Initial and Constant
SCS Unit Hydrograph
No Baseflow
Prop - All Land Area
Ret-2
Meteorologic Models
Control Specifications
Time-Series Data
Paired Data
Components Compute Results
Basin Model [All Land Area - Berm]
Exist - All Land Area
Prop - All Land Area
Subbasin Loss Transform Options
Basin Name: All Land Area - Berm
Element Name: Exist - All Land Area
*Initial Loss (IN) 6.6
*Constant Rate (IN/HR) 0
*Impervious (%) 15.58
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Exist - All Land Area
Prop - All Land Area
Subbasin Loss Transform Options
Basin Name: All Land Area - Berm
Element Name: Exist - All Land Area
Graph Type: Standard
*Lag Time (MIN) 10
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Initial and Constant
SCS Unit Hydrograph
No Baseflow
Ret-2
Meteorologic Models
Control Specifications
Time-Series Data
Paired Data
Components Compute Results
Basin Model [All Land Area - Berm]
Exist - All Land Area
Prop - All Land Area
Subbasin Loss Transform Options
Basin Name: All Land Area - Berm
Element Name: Prop - All Land Area
Description: Proposed Conditions
Downstream: Ret-2
*Area (MI2) 0.02186
Canopy Method: --None--
Surface Method: --None--
Loss Method: Initial and Constant
Transform Method: SCS Unit Hydrograph
Baseflow Method: --None--
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SCS Unit Hydrograph
No Baseflow
Ret-2
Meteorologic Models
Control Specifications
Time-Series Data
Paired Data
Components Compute Results
Basin Model [All Land Area - Berm]
Exist - All Land Area
Prop - All Land Area
Subbasin Loss Transform Options
Basin Name: All Land Area - Berm
Element Name: Prop - All Land Area
*Initial Loss (IN) 4.95
*Constant Rate (IN/HR) 0
*Impervious (%) 20.00
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Paired Data
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Subbasin Loss Transform Options
Basin Name: All Land Area - Berm
Element Name: Prop - All Land Area
Graph Type: Standard
*Lag Time (MIN) 10
Basin Model [All Land Area - Berm]
Exist - All Land Area
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Exist - All Land Area
Prop - All Land Area
Ret-2
Meteorologic Models
Control Specifications
Time-Series Data
Paired Data
Components Compute Results
Basin Model [All Land Area - Berm]
Exist - All Land Area
Prop - All Land Area
Reservoir Options
Basin Name: All Land Area - Berm
Element Name: Ret-2
Description: Proposed Retention Pond
Downstream: --None--
Method: Outflow Curve
Storage Method: Elevation-Storage-Discharge
*Stor-Dis Function: Ret-1, Inf Reduced 25%
*Elev-Stor Function: Ret1
Primary: Storage-Discharge
Initial Condition: Storage
*Initial Storage (AC-FT) 0
start
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Project: Florida Power and Light Simulation Run: All 3-Yr, 1-Hr

Start of Run: 01Jan2000, 00:00
End of Run: 01Jan2000, 01:00
Compute Time: 14Aug2012, 09:08:50

Basin Model: All Land Area - Berm
Meteorologic Model: ODOT 3yr, 1hr
Control Specifications: 3-year, 1-hour

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
Exist - All Land Area	0.02186	11.1	01Jan2000, 00:38	0.39
Prop - All Land Area	0.02186	14.3	01Jan2000, 00:38	0.50
Ret-2	0.02186	8.1	01Jan2000, 00:53	0.34

Project: Florida Power and Light Simulation Run: All 3-Yr, 1-Hr

Start of Run: 01Jan2000, 00:00 Basin Model: All Land Area - Berm
End of Run: 01Jan2000, 01:00 Meteorologic Model: ODOT 3yr, 1hr
Compute Time: 14Aug2012, 09:08:50 Control Specifications: 3-year, 1-hour

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (AC-FT)
Exist - All Land Area	0.02186	11.1	01Jan2000, 00:38	0.5
Prop - All Land Area	0.02186	14.3	01Jan2000, 00:38	0.6
Ret-2	0.02186	8.1	01Jan2000, 00:53	0.4

Project: Florida Power and Light

Simulation Run: All 3-Yr, 1-Hr Subbasin: Exist - All Land Area

Start of Run:	01Jan2000, 00:00	Basin Model:	All Land Area - Berm
End of Run:	01Jan2000, 01:00	Meteorologic Model:	ODOT 3yr, 1hr
Compute Time:	14Aug2012, 09:08:50	Control Specifications:	3-year, 1-hour

Volume Units: IN

Computed Results

Peak Discharge :	11.1 (CFS)	Date/Time of Peak Discharge :	01Jan2000, 00:38
Total Precipitation :	2.65 (IN)	Total Direct Runoff :	0.39 (IN)
Total Loss :	2.23 (IN)	Total Baseflow :	0.00 (IN)
Total Excess :	0.41 (IN)	Discharge :	0.39 (IN)

Project: Florida Power and Light

Simulation Run: All 3-Yr, 1-Hr Subbasin: Exist - All Land Area

Start of Run:	01Jan2000, 00:00	Basin Model:	All Land Area - Berm
End of Run:	01Jan2000, 01:00	Meteorologic Model:	ODOT 3yr, 1hr
Compute Time:	14Aug2012, 09:08:50	Control Specifications:	3-year, 1-hour

Volume Units: AC-FT

Computed Results

Peak Discharge :	11.1 (CFS)	Date/Time of Peak Discharge :	01Jan2000, 00:38
Total Precipitation :	3.1 (AC-FT)	Total Direct Runoff :	0.5 (AC-FT)
Total Loss :	2.6 (AC-FT)	Total Baseflow :	0.0 (AC-FT)
Total Excess :	0.5 (AC-FT)	Discharge :	0.5 (AC-FT)

Project: Florida Power and Light

Simulation Run: All 3-Yr, 1-Hr Subbasin: Prop - All Land Area

Start of Run:	01Jan2000, 00:00	Basin Model:	All Land Area - Berm
End of Run:	01Jan2000, 01:00	Meteorologic Model:	ODOT 3yr, 1hr
Compute Time:	14Aug2012, 09:08:50	Control Specifications:	3-year, 1-hour

Volume Units: IN

Computed Results

Peak Discharge :	14.3 (CFS)	Date/Time of Peak Discharge :	01Jan2000, 00:38
Total Precipitation :	2.65 (IN)	Total Direct Runoff :	0.50 (IN)
Total Loss :	2.12 (IN)	Total Baseflow :	0.00 (IN)
Total Excess :	0.53 (IN)	Discharge :	0.50 (IN)

Project: Florida Power and Light

Simulation Run: All 3-Yr, 1-Hr Subbasin: Prop - All Land Area

Start of Run:	01Jan2000, 00:00	Basin Model:	All Land Area - Berm
End of Run:	01Jan2000, 01:00	Meteorologic Model:	ODOT 3yr, 1hr
Compute Time:	14Aug2012, 09:08:50	Control Specifications:	3-year, 1-hour

Volume Units: AC-FT

Computed Results

Peak Discharge :	14.3 (CFS)	Date/Time of Peak Discharge :	01Jan2000, 00:38
Total Precipitation :	3.1 (AC-FT)	Total Direct Runoff :	0.6 (AC-FT)
Total Loss :	2.5 (AC-FT)	Total Baseflow :	0.0 (AC-FT)
Total Excess :	0.6 (AC-FT)	Discharge :	0.6 (AC-FT)

Project: Florida Power and Light
Simulation Run: All 3-Yr, 1-Hr Reservoir: Ret-2

Start of Run:	01Jan2000, 00:00	Basin Model:	All Land Area - Berm
End of Run:	01Jan2000, 01:00	Meteorologic Model:	ODOT 3yr, 1hr
Compute Time:	14Aug2012, 09:08:50	Control Specifications:	3-year, 1-hour

Volume Units: IN

Computed Results

Peak Inflow :	14.3 (CFS)	Date/Time of Peak Inflow :	01Jan2000, 00:38
Peak Outflow :	8.1 (CFS)	Date/Time of Peak Outflow :	01Jan2000, 00:53
Total Inflow :	0.50 (IN)	Peak Storage :	0.2 (AC-FT)
Total Outflow :	0.34 (IN)	Peak Elevation :	9.26 (FT)

Project: Florida Power and Light
Simulation Run: All 3-Yr, 1-Hr Reservoir: Ret-2

Start of Run:	01Jan2000, 00:00	Basin Model:	All Land Area - Berm
End of Run:	01Jan2000, 01:00	Meteorologic Model:	ODOT 3yr, 1hr
Compute Time:	14Aug2012, 09:08:50	Control Specifications:	3-year, 1-hour

Volume Units: AC-FT

Computed Results

Peak Inflow :	14.3 (CFS)	Date/Time of Peak Inflow :	01Jan2000, 00:38
Peak Outflow :	8.1 (CFS)	Date/Time of Peak Outflow :	01Jan2000, 00:53
Total Inflow :	0.6 (AC-FT)	Peak Storage :	0.2 (AC-FT)
Total Outflow :	0.4 (AC-FT)	Peak Elevation :	9.26 (FT)

Exhibit F.2

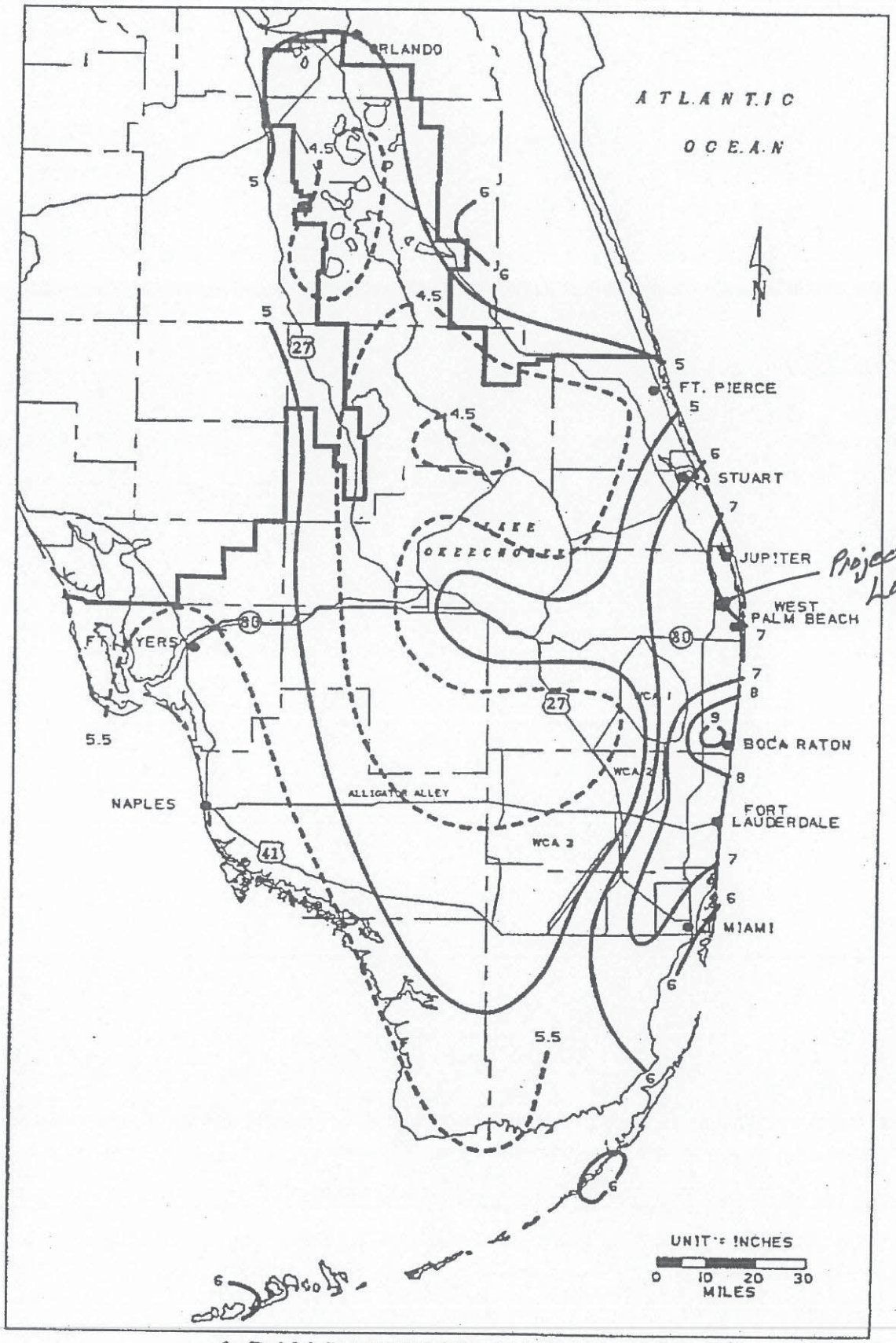
5-Year, 1-Day Rainfall Map, Hydrograph and HEC-HMS Results

Florida Department of Transportation

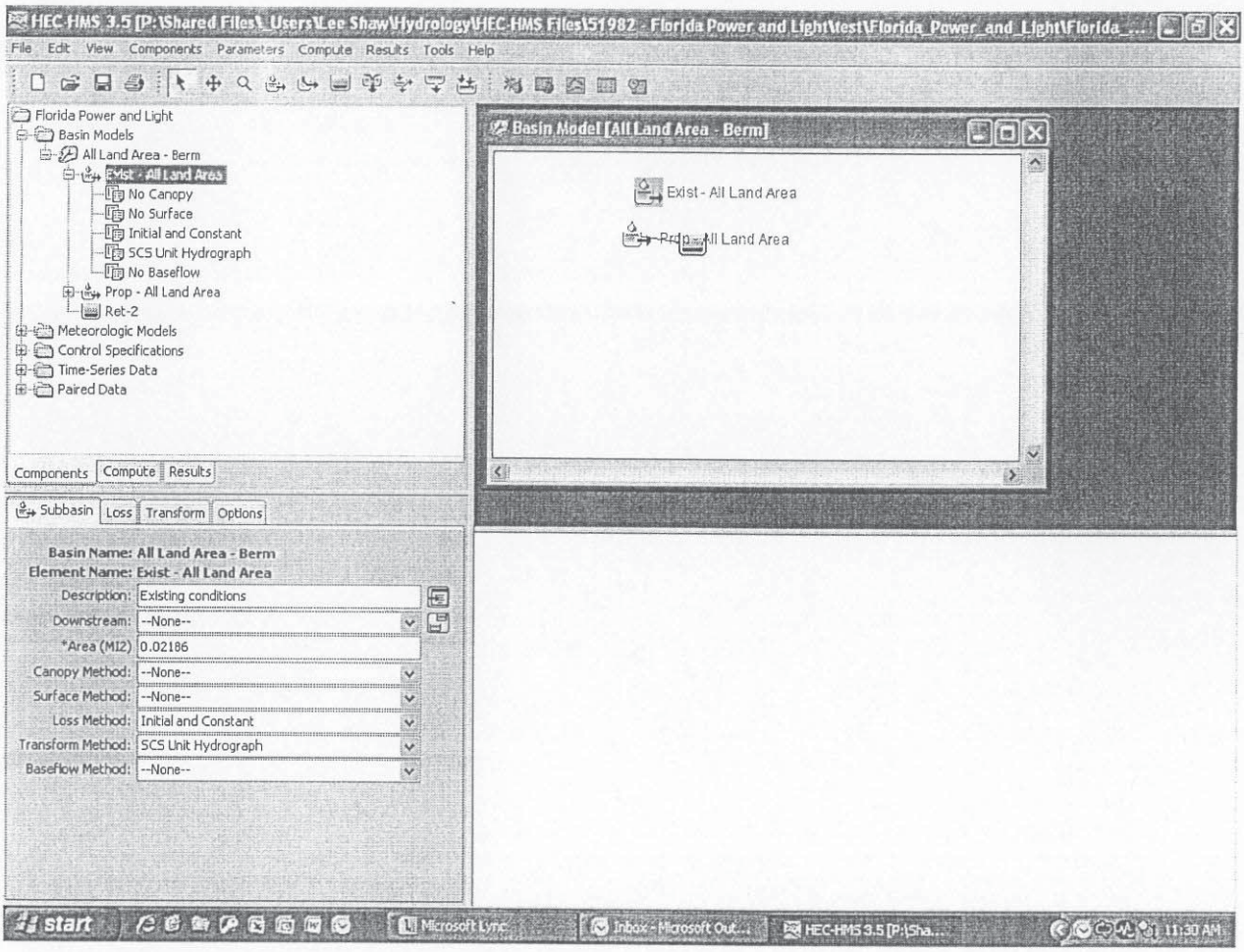
5-year, 24-hour Precipitation 7.0 inches

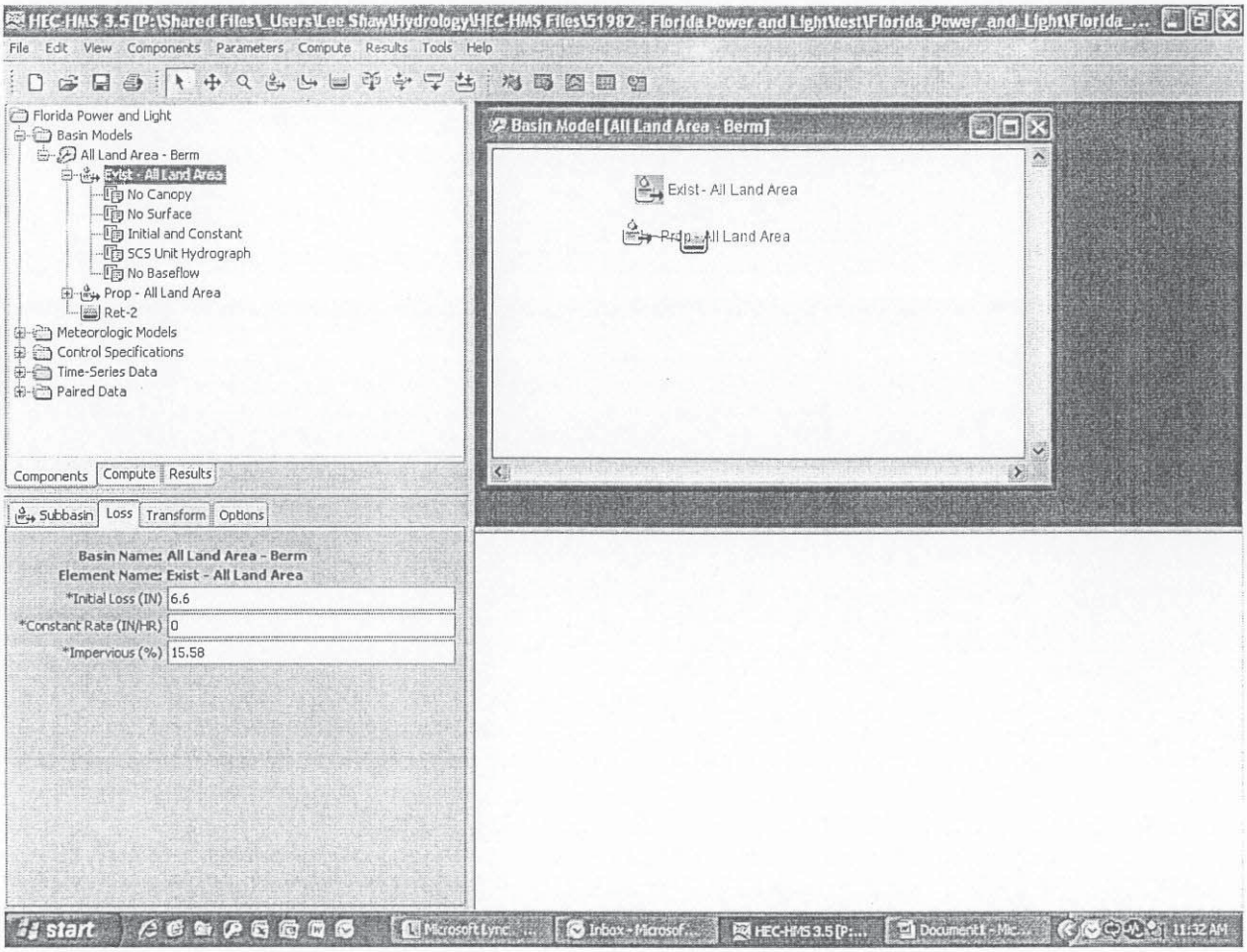
Time (Hrs)	P/Ptot*	100-year Cumulative Precipitation (in)
0	0.000	0.000
1	0.010	0.070
2	0.030	0.210
3	0.060	0.420
4	0.090	0.630
5	0.120	0.840
6	0.160	1.120
7	0.200	1.400
8	0.240	1.680
9	0.300	2.100
10	0.360	2.520
11	0.440	3.080
12	0.540	3.780
13	0.610	4.270
14	0.670	4.690
15	0.730	5.110
16	0.780	5.460
17	0.820	5.740
18	0.860	6.020
19	0.900	6.300
20	0.930	6.510
21	0.960	6.720
22	0.980	6.860
23	0.990	6.930
24	1.000	7.000

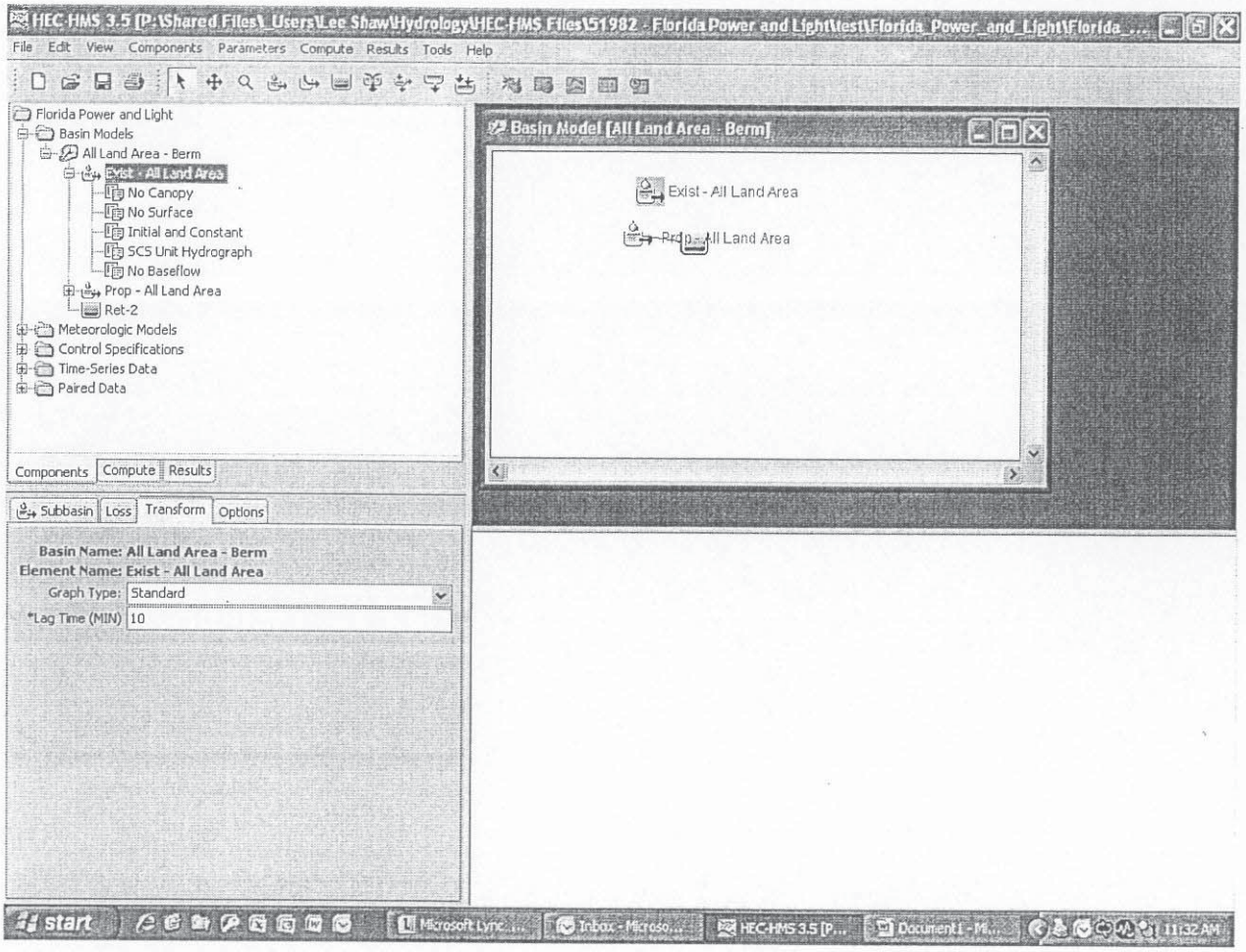
* From Florida Department of Transportation Drainage Manual, Appendix B - IDF Curves Page B-22

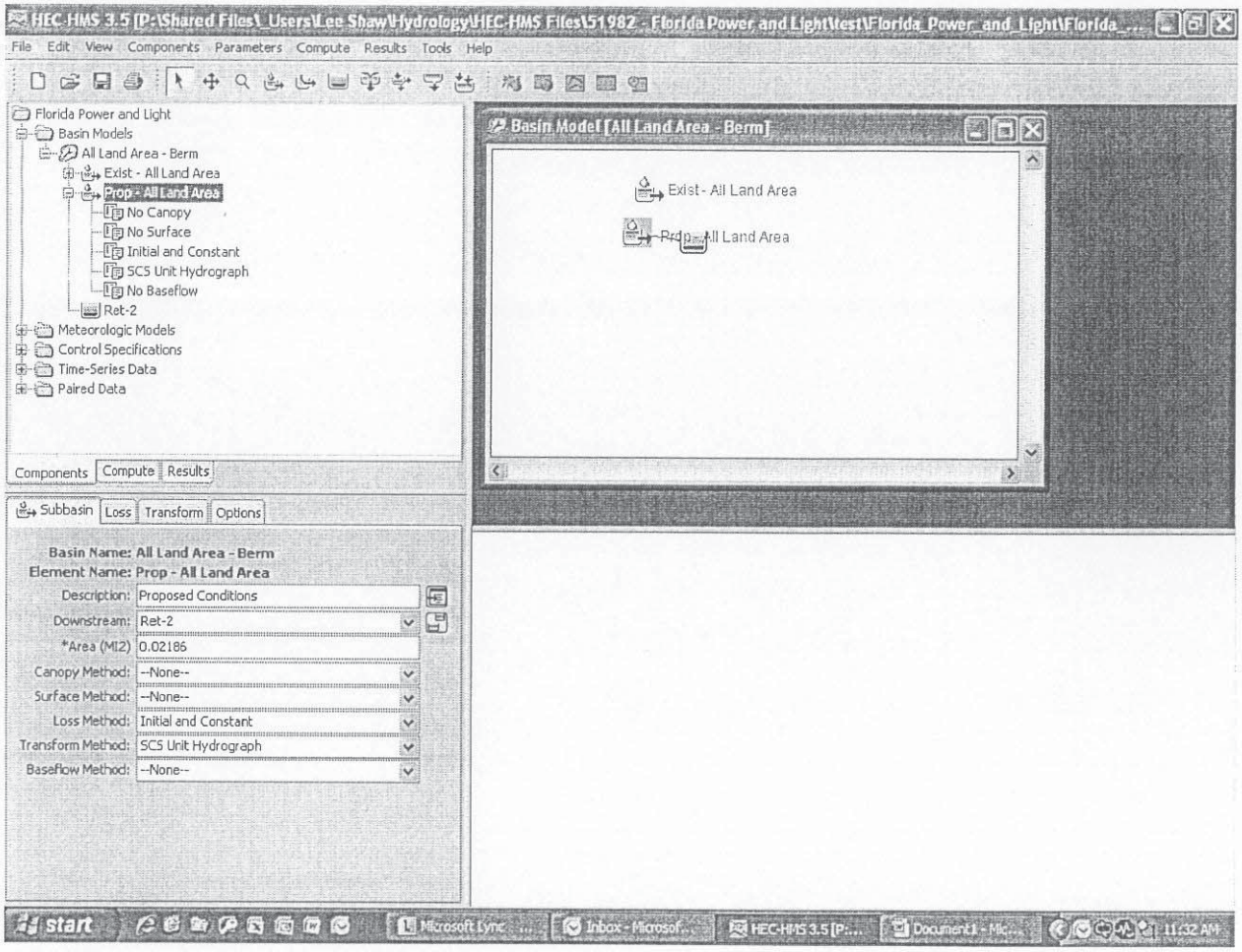


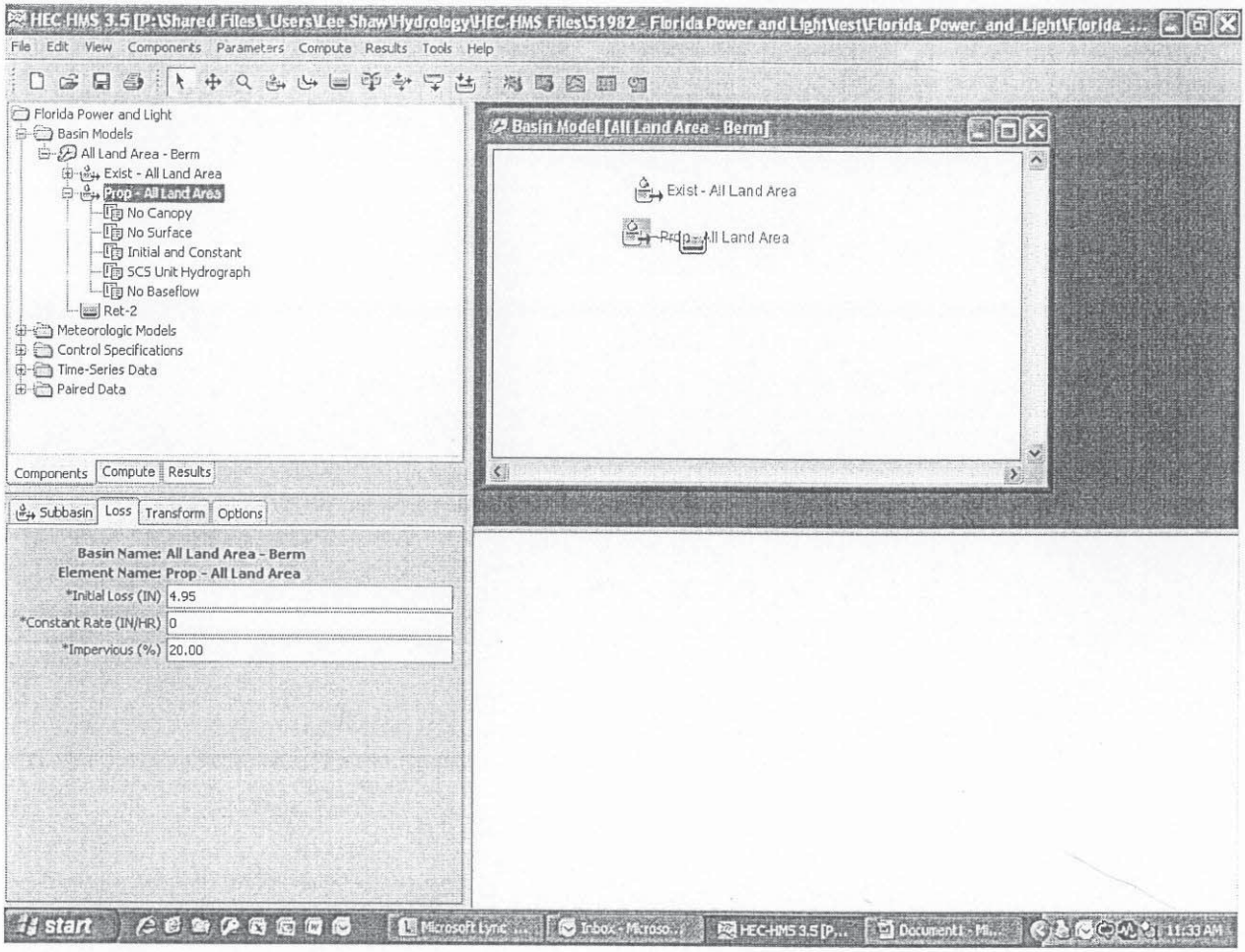
1-DAY RAINFALL: 5-YEAR RETURN PERIOD

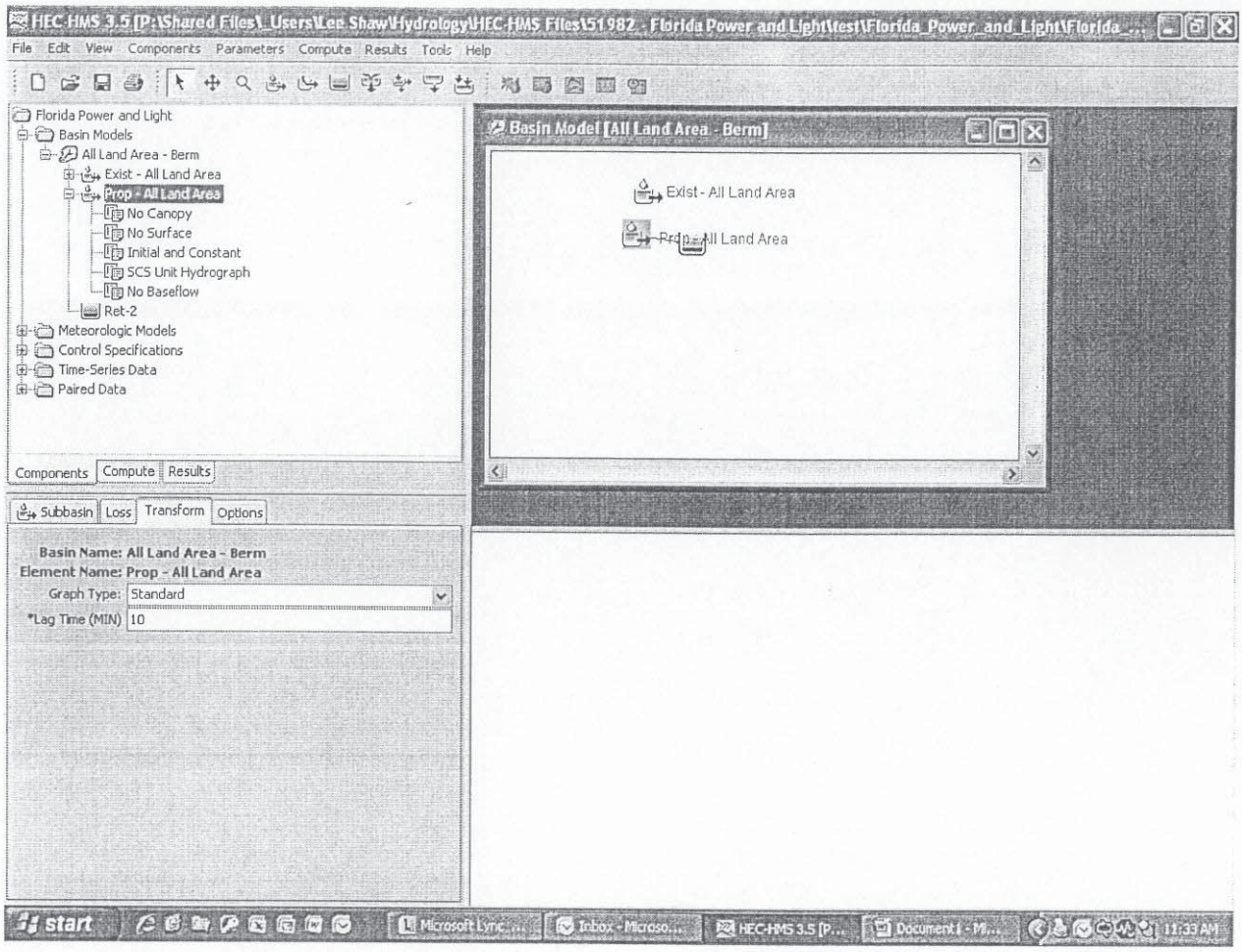

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File Edit View Components Parameters Compute Results Tools Help
Florida Power and Light
Basin Models
All Land Area - Berm
Exist - All Land Area
No Canopy
No Surface
Initial and Constant
SCS Unit Hydrograph
No Baseflow
Prop - All Land Area
Ret-2
Meteorologic Models
Control Specifications
Time-Series Data
Paired Data
Components Compute Results
Basin Model [All Land Area - Berm]
Exist - All Land Area
Prop - All Land Area
Subbasin Loss Transform Options
Basin Name: All Land Area - Berm
Element Name: Exist - All Land Area
Description: Existing conditions
Downstream: --None--
*Area (MI2) 0.02186
Canopy Method: --None--
Surface Method: --None--
Loss Method: Initial and Constant
Transform Method: SCS Unit Hydrograph
Baseflow Method: --None--
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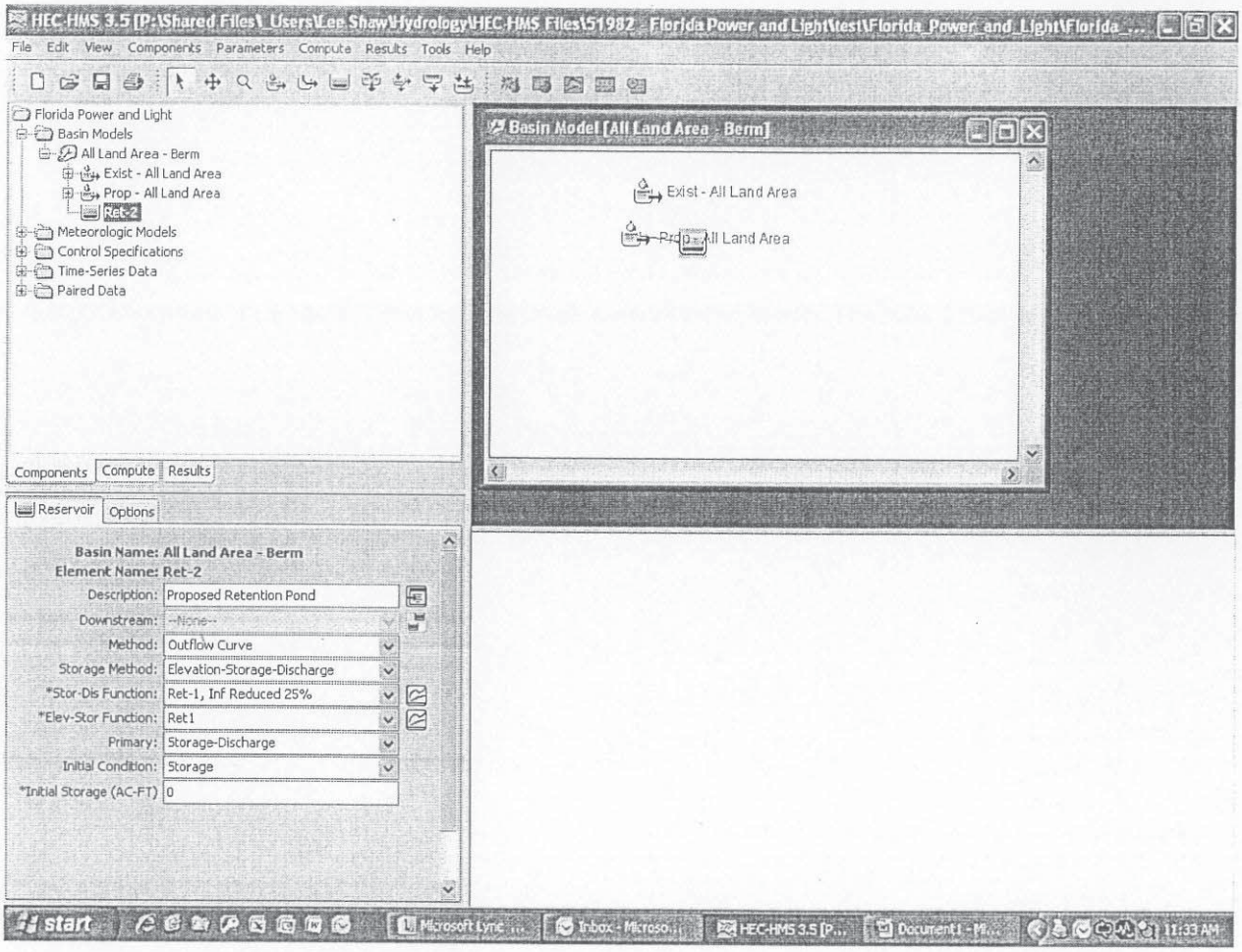

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Prop - All Land Area
Subbasin Loss Transform Options
Basin Name: All Land Area - Berm
Element Name: Exist - All Land Area
*Initial Loss (IN) 6.6
*Constant Rate (IN/HR) 0
*Impervious (%) 15.58
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Exist - All Land Area
Prop - All Land Area
Subbasin Loss Transform Options
Basin Name: All Land Area - Berm
Element Name: Exist - All Land Area
Graph Type: Standard
*Lag Time (MIN) 10
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Exist - All Land Area
Prop - All Land Area
Subbasin Loss Transform Options
Basin Name: All Land Area - Berm
Element Name: Prop - All Land Area
Description: Proposed Conditions
Downstream: Ret-2
*Area (MI2) 0.02186
Canopy Method: --None--
Surface Method: --None--
Loss Method: Initial and Constant
Transform Method: SCS Unit Hydrograph
Baseflow Method: --None--
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Basin Model [All Land Area - Berm]
Exist - All Land Area
Prop - All Land Area
Subbasin Loss Transform Options
Basin Name: All Land Area - Berm
Element Name: Prop - All Land Area
*Initial Loss (IN) 4.95
*Constant Rate (IN/HR) 0
*Impervious (%) 20.00
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Exist - All Land Area
Prop - All Land Area
Subbasin Loss Transform Options
Basin Name: All Land Area - Berm
Element Name: Prop - All Land Area
Graph Type: Standard
*Lag Time (MIN) 10
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Time-Series Data
Paired Data
Components Compute Results
Basin Model [All Land Area - Berm]
Exist - All Land Area
Reservoir Options
Basin Name: All Land Area - Berm
Element Name: Ret-2
Description: Proposed Retention Pond
Downstream: --None--
Method: Outflow Curve
Storage Method: Elevation-Storage-Discharge
*Stor-Dis Function: Ret-1, Inf Reduced 25%
*Elev-Stor Function: Ret1
Primary: Storage-Discharge
Initial Condition: Storage
*Initial Storage (AC-FT): 0
start
11:33 AM

Project: Florida Power and Light Simulation Run: all 5yr, 24hr

Start of Run: 01Jan2000, 00:00
End of Run: 04Jan2000, 00:00
Compute Time: 14Aug2012, 11:43:33

Basin Model: All Land Area - Berm
Meteorologic Model: 5-year, 24-hour
Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
Exist - All Land Area	0.02186	2.8	01Jan2000, 21:00	1.43
Prop - All Land Area	0.02186	5.0	01Jan2000, 15:15	3.04
Ret-2	0.02186	5.0	01Jan2000, 15:30	3.04

Project: Florida Power and Light Simulation Run: all 5yr, 24hr

Start of Run: 01Jan2000, 00:00
End of Run: 04Jan2000, 00:00
Compute Time: 14Aug2012, 11:43:33

Basin Model: All Land Area - Berm
Meteorologic Model: 5-year, 24-hour
Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (AC-FT)
Exist - All Land Area	0.02186	2.8	01Jan2000, 21:00	1.7
Prop - All Land Area	0.02186	5.0	01Jan2000, 15:15	3.5
Ret-2	0.02186	5.0	01Jan2000, 15:30	3.5

Project: Florida Power and Light

Simulation Run: all 5yr, 24hr Subbasin: Exist - All Land Area

Start of Run:	01Jan2000, 00:00	Basin Model:	All Land Area - Berm
End of Run:	04Jan2000, 00:00	Meteorologic Model:	5-year, 24-hour
Compute Time:	14Aug2012, 11:43:33	Control Specifications:	Control 1

Volume Units: IN

Computed Results

Peak Discharge :	2.8 (CFS)	Date/Time of Peak Discharge :	01Jan2000, 21:00
Total Precipitation :	7.00 (IN)	Total Direct Runoff :	1.43 (IN)
Total Loss :	5.57 (IN)	Total Baseflow :	0.00 (IN)
Total Excess :	1.43 (IN)	Discharge :	1.43 (IN)

Project: Florida Power and Light

Simulation Run: all 5yr, 24hr Subbasin: Exist - All Land Area

Start of Run:	01Jan2000, 00:00	Basin Model:	All Land Area - Berm
End of Run:	04Jan2000, 00:00	Meteorologic Model:	5-year, 24-hour
Compute Time:	14Aug2012, 11:43:33	Control Specifications:	Control 1

Volume Units: AC-FT

Computed Results

Peak Discharge :	2.8 (CFS)	Date/Time of Peak Discharge :	01Jan2000, 21:00
Total Precipitation :	8.2 (AC-FT)	Total Direct Runoff :	1.7 (AC-FT)
Total Loss :	6.5 (AC-FT)	Total Baseflow :	0.0 (AC-FT)
Total Excess :	1.7 (AC-FT)	Discharge :	1.7 (AC-FT)

Project: Florida Power and Light
Simulation Run: all 5yr, 24hr Subbasin: Prop - All Land Area

Start of Run:	01Jan2000, 00:00	Basin Model:	All Land Area - Berm
End of Run:	04Jan2000, 00:00	Meteorologic Model:	5-year, 24-hour
Compute Time:	14Aug2012, 11:43:33	Control Specifications:	Control 1

Volume Units: IN

Computed Results

Peak Discharge :	5.0 (CFS)	Date/Time of Peak Discharge :	01Jan2000, 15:15
Total Precipitation :	7.00 (IN)	Total Direct Runoff :	3.04 (IN)
Total Loss :	3.96 (IN)	Total Baseflow :	0.00 (IN)
Total Excess :	3.04 (IN)	Discharge :	3.04 (IN)

Project: Florida Power and Light
Simulation Run: all 5yr, 24hr Subbasin: Prop - All Land Area

Start of Run:	01Jan2000, 00:00	Basin Model:	All Land Area - Berm
End of Run:	04Jan2000, 00:00	Meteorologic Model:	5-year, 24-hour
Compute Time:	14Aug2012, 11:43:33	Control Specifications:	Control 1

Volume Units: AC-FT

Computed Results

Peak Discharge :	5.0 (CFS)	Date/Time of Peak Discharge :	01Jan2000, 15:15
Total Precipitation :	8.2 (AC-FT)	Total Direct Runoff :	3.5 (AC-FT)
Total Loss :	4.6 (AC-FT)	Total Baseflow :	0.0 (AC-FT)
Total Excess :	3.5 (AC-FT)	Discharge :	3.5 (AC-FT)

Project: Florida Power and Light
Simulation Run: all 5yr, 24hr Reservoir: Ret-2

Start of Run:	01Jan2000, 00:00	Basin Model:	All Land Area - Berm
End of Run:	04Jan2000, 00:00	Meteorologic Model:	5-year, 24-hour
Compute Time:	14Aug2012, 11:43:33	Control Specifications:	Control 1

Volume Units: IN

Computed Results

Peak Inflow :	5.0 (CFS)	Date/Time of Peak Inflow :	01Jan2000, 15:15
Peak Outflow :	5.0 (CFS)	Date/Time of Peak Outflow :	01Jan2000, 15:30
Total Inflow :	3.04 (IN)	Peak Storage :	0.1 (AC-FT)
Total Outflow :	3.04 (IN)	Peak Elevation :	9.06 (FT)

Project: Florida Power and Light
Simulation Run: all 5yr, 24hr Reservoir: Ret-2

Start of Run:	01Jan2000, 00:00	Basin Model:	All Land Area - Berm
End of Run:	04Jan2000, 00:00	Meteorologic Model:	5-year, 24-hour
Compute Time:	14Aug2012, 11:43:33	Control Specifications:	Control 1

Volume Units: AC-FT

Computed Results

Peak Inflow :	5.0 (CFS)	Date/Time of Peak Inflow :	01Jan2000, 15:15
Peak Outflow :	5.0 (CFS)	Date/Time of Peak Outflow :	01Jan2000, 15:30
Total Inflow :	3.5 (AC-FT)	Peak Storage :	0.1 (AC-FT)
Total Outflow :	3.5 (AC-FT)	Peak Elevation :	9.06 (FT)

Exhibit F.3

25-Year, 3-Day Rainfall Map, Hydrograph and HEC-HMS Results

South Florida Water Management District (SFWMD)

Normalized 3-day Hyetograph
3-Day, 25-year Storm

25-year Total Rainfall = 10 Precipitation for 24-hour storm (P24)

Day 1

Time (Hours)	P/P24	25-year Precip. (in)	Time (Hours)	P/P24	25-year Precip. (in)	Time (Hours)	P/P24	25-year Precip. (in)	Time (Hours)	P/P24	25-year Precip. (in)
0.00	0.000	0.00	6.25	0.038	0.38	12.25	0.075	0.75	18.25	0.111	1.11
0.25	0.002	0.02	6.50	0.040	0.40	12.50	0.076	0.76	18.50	0.113	1.13
0.50	0.003	0.03	6.75	0.041	0.41	12.75	0.078	0.78	18.75	0.114	1.14
0.75	0.005	0.05	7.00	0.043	0.43	13.00	0.079	0.79	19.00	0.116	1.16
1.00	0.006	0.06	7.25	0.044	0.44	13.25	0.081	0.81	19.25	0.117	1.17
1.25	0.008	0.08	7.50	0.046	0.46	13.50	0.082	0.82	19.50	0.119	1.19
1.50	0.009	0.09	7.75	0.047	0.47	13.75	0.084	0.84	19.75	0.120	1.20
1.75	0.011	0.11	8.00	0.049	0.49	14.00	0.085	0.85	20.00	0.122	1.22
2.00	0.012	0.12	8.25	0.050	0.50	14.25	0.087	0.87	20.25	0.123	1.23
2.25	0.014	0.14	8.50	0.052	0.52	14.50	0.088	0.88	20.50	0.125	1.25
2.50	0.015	0.15	8.75	0.053	0.53	14.75	0.090	0.90	20.75	0.126	1.26
2.75	0.017	0.17	9.00	0.055	0.55	15.00	0.091	0.91	21.00	0.128	1.28
3.00	0.018	0.18	9.25	0.056	0.56	15.25	0.093	0.93	21.25	0.129	1.29
3.25	0.020	0.20	9.50	0.058	0.58	15.50	0.094	0.94	21.50	0.131	1.31
3.50	0.021	0.21	9.75	0.059	0.59	15.75	0.096	0.96	21.75	0.132	1.32
3.75	0.023	0.23	10.00	0.061	0.61	16.00	0.097	0.97	22.00	0.134	1.34
4.00	0.024	0.24	10.25	0.062	0.62	16.25	0.099	0.99	22.25	0.135	1.35
4.25	0.026	0.26	10.50	0.064	0.64	16.50	0.100	1.00	22.50	0.137	1.37
4.50	0.027	0.27	10.75	0.065	0.65	16.75	0.102	1.02	22.75	0.138	1.38
4.75	0.029	0.29	11.00	0.067	0.67	17.00	0.103	1.03	23.00	0.140	1.40
5.00	0.030	0.30	11.25	0.068	0.68	17.25	0.105	1.05	23.25	0.141	1.41
5.25	0.032	0.32	11.50	0.070	0.70	17.50	0.106	1.06	23.50	0.143	1.43
5.50	0.033	0.33	11.75	0.071	0.71	17.75	0.108	1.08	23.75	0.144	1.44
5.75	0.035	0.35	12.00	0.073	0.73	18.00	0.110	1.10	24.00	0.146	1.46
6.00	0.036	0.36									

South Florida Water Management District (SFWMD)

Normalized 3-day Hyetograph

3-Day, 25-year Storm

Day 2

Time (Hours)	P/P24	25-year Precip. (in)	Time (Hours)	P/P24	25-year Precip. (in)	Time (Hours)	P/P24	25-year Precip. (in)	Time (Hours)	P/P24	25-year Precip. (in)
24.25	0.148	1.48	30.25	0.201	2.01	36.25	0.255	2.55	42.25	0.308	3.08
24.50	0.150	1.50	30.50	0.204	2.04	36.50	0.257	2.57	42.50	0.310	3.10
24.75	0.153	1.53	30.75	0.206	2.06	36.75	0.259	2.59	42.75	0.312	3.12
25.00	0.155	1.55	31.00	0.208	2.08	37.00	0.261	2.61	43.00	0.315	3.15
25.25	0.157	1.57	31.25	0.210	2.10	37.25	0.264	2.64	43.25	0.317	3.17
25.50	0.159	1.59	31.50	0.213	2.13	37.50	0.266	2.66	43.50	0.319	3.19
25.75	0.162	1.62	31.75	0.215	2.15	37.75	0.268	2.68	43.75	0.321	3.21
26.00	0.164	1.64	32.00	0.217	2.17	38.00	0.270	2.70	44.00	0.324	3.24
26.25	0.166	1.66	32.25	0.219	2.19	38.25	0.272	2.72	44.25	0.326	3.26
26.50	0.168	1.68	32.50	0.221	2.21	38.50	0.275	2.75	44.50	0.328	3.28
26.75	0.170	1.70	32.75	0.224	2.24	38.75	0.277	2.77	44.75	0.330	3.30
27.00	0.173	1.73	33.00	0.226	2.26	39.00	0.279	2.79	45.00	0.332	3.32
27.25	0.175	1.75	33.25	0.228	2.28	39.25	0.281	2.81	45.25	0.335	3.35
27.50	0.177	1.77	33.50	0.230	2.30	39.50	0.284	2.84	45.50	0.337	3.37
27.75	0.179	1.79	33.75	0.233	2.33	39.75	0.286	2.86	45.75	0.339	3.39
28.00	0.182	1.82	34.00	0.235	2.35	40.00	0.288	2.88	46.00	0.341	3.41
28.25	0.184	1.84	34.25	0.237	2.37	40.25	0.290	2.90	46.25	0.343	3.43
28.50	0.186	1.86	34.50	0.239	2.39	40.50	0.292	2.92	46.50	0.346	3.46
28.75	0.188	1.88	34.75	0.241	2.41	40.75	0.295	2.95	46.75	0.348	3.48
29.00	0.190	1.90	35.00	0.244	2.44	41.00	0.297	2.97	47.00	0.350	3.50
29.25	0.193	1.93	35.25	0.246	2.46	41.25	0.299	2.99	47.25	0.352	3.52
29.50	0.195	1.95	35.50	0.248	2.48	41.50	0.301	3.01	47.50	0.355	3.55
29.75	0.197	1.97	35.75	0.250	2.50	41.75	0.304	3.04	47.75	0.357	3.57
30.00	0.199	1.99	36.00	0.252	2.52	42.00	0.306	3.06	48.00	0.359	3.59

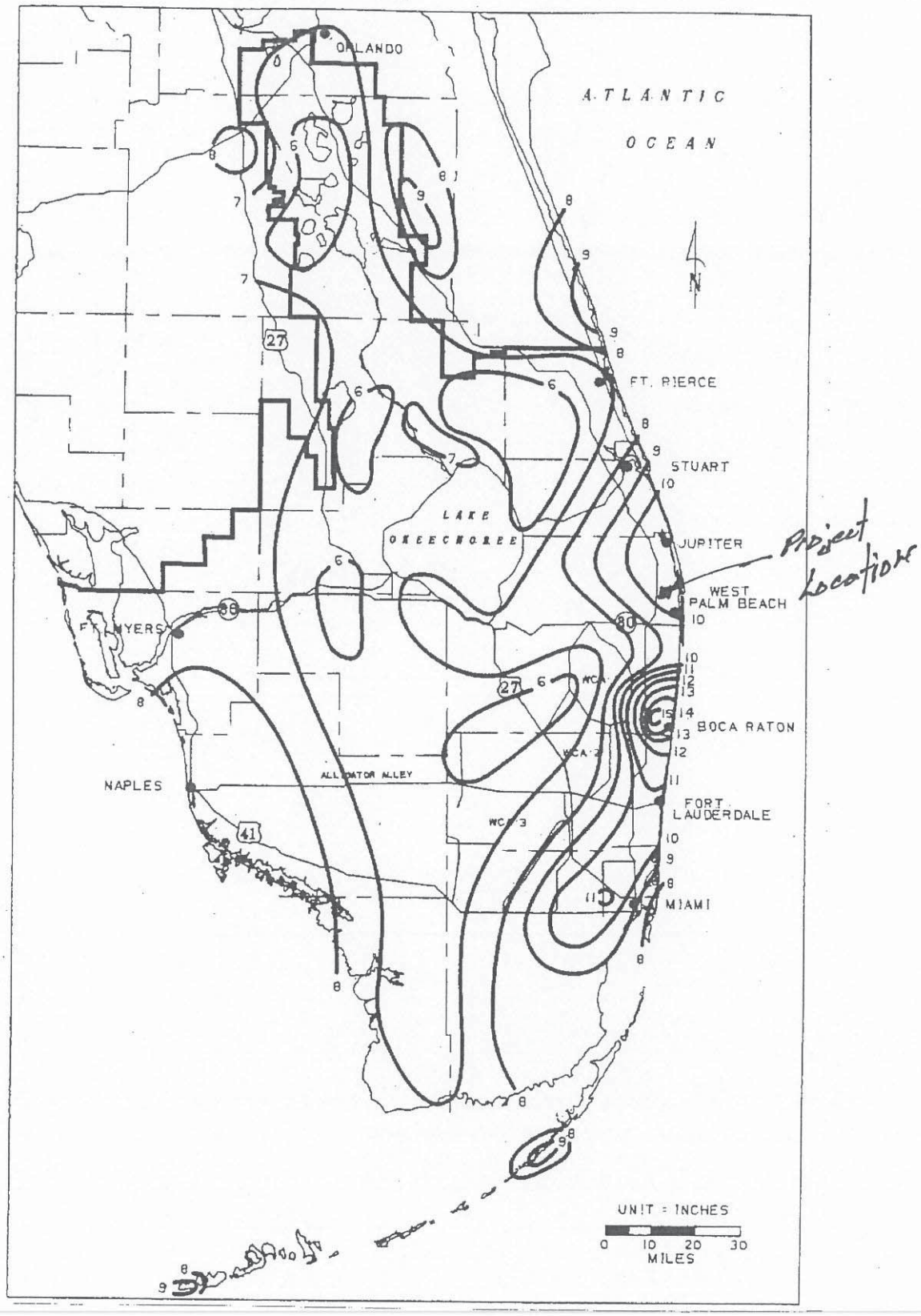
South Florida Water Management District (SFWMD)

Normalized 3-day Hyetograph

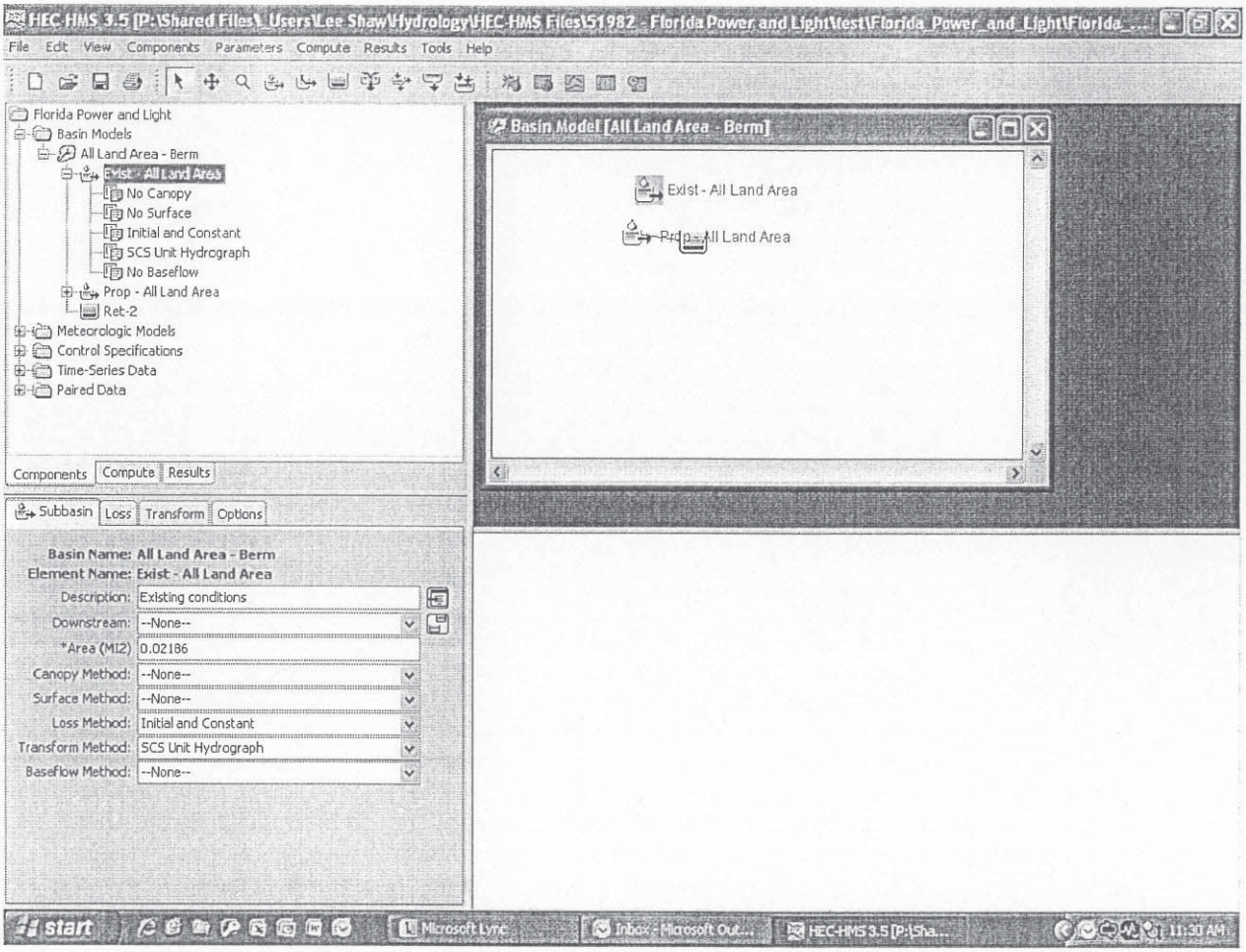
3-Day, 25-year Storm

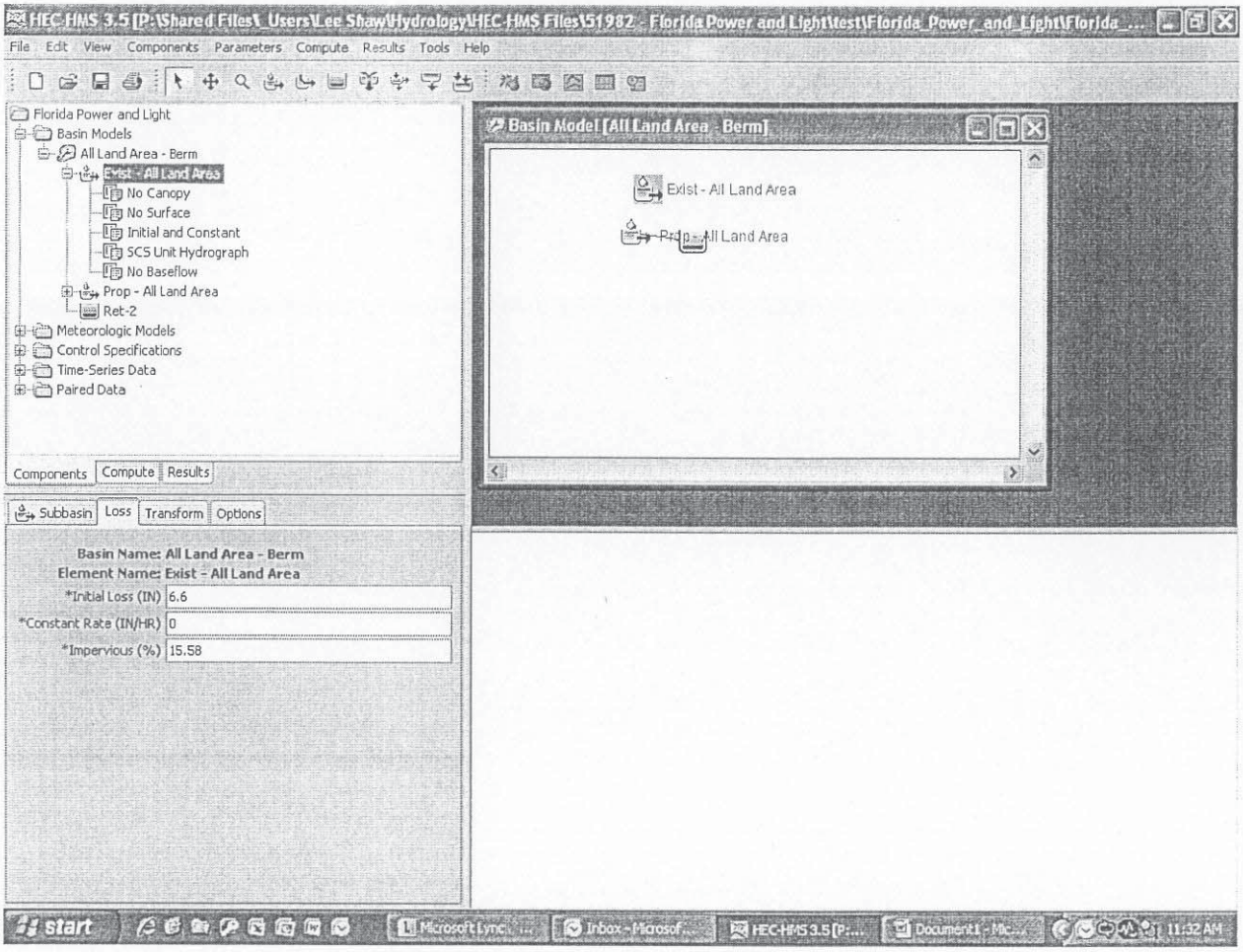
Day 3

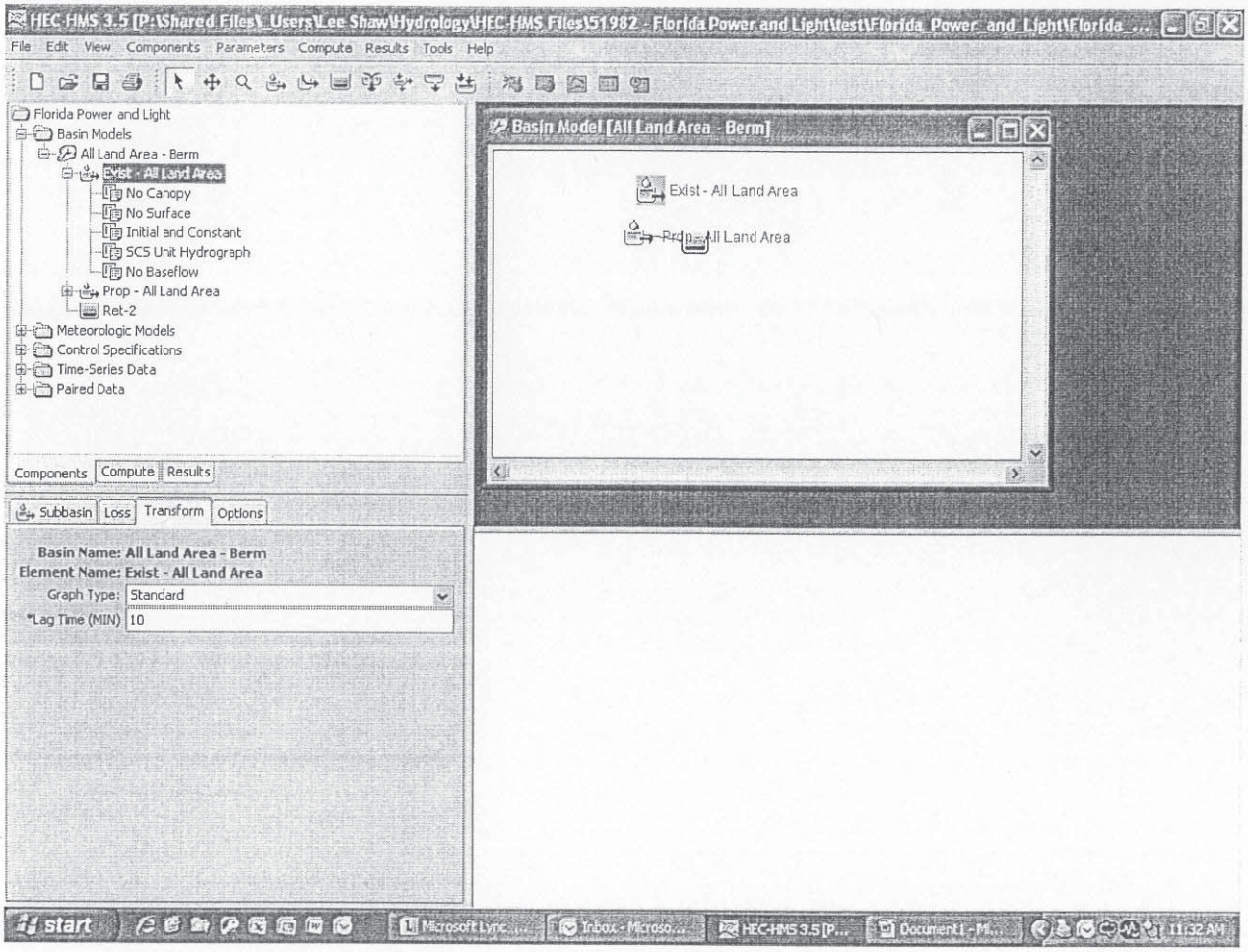
Time (Hours)	P/P24	25-year Precip. (in)	Time (Hours)	P/P24	25-year Precip. (in)	Time (Hours)	P/P24	25-year Precip. (in)	Time (Hours)	P/P24	25-year Precip. (in)
48.25	0.362	3.62	54.25	0.448	4.48	60.25	1.052	10.52	66.25	1.280	12.80
48.50	0.364	3.64	54.50	0.454	4.54	60.50	1.088	10.88	66.50	1.284	12.84
48.75	0.367	3.67	54.75	0.461	4.61	60.75	1.107	11.07	66.75	1.289	12.89
49.00	0.369	3.69	55.00	0.467	4.67	61.00	1.126	11.26	67.00	1.293	12.93
49.25	0.372	3.72	55.25	0.474	4.74	61.25	1.140	11.40	67.25	1.298	12.98
49.50	0.374	3.74	55.50	0.481	4.81	61.50	1.154	11.54	67.50	1.302	13.02
49.75	0.377	3.77	55.75	0.488	4.88	61.75	1.166	11.66	67.75	1.307	13.07
50.00	0.379	3.79	56.00	0.496	4.96	62.00	1.177	11.77	68.00	1.311	13.11
50.25	0.382	3.82	56.25	0.504	5.04	62.25	1.186	11.86	68.25	1.314	13.14
50.50	0.385	3.85	56.50	0.512	5.12	62.50	1.194	11.94	68.50	1.317	13.17
50.75	0.388	3.88	56.75	0.521	5.21	62.75	1.202	12.02	68.75	1.320	13.20
51.00	0.391	3.91	57.00	0.530	5.30	63.00	1.209	12.09	69.00	1.323	13.23
51.25	0.394	3.94	57.25	0.540	5.40	63.25	1.217	12.17	69.25	1.326	13.26
51.50	0.397	3.97	57.50	0.550	5.50	63.50	1.224	12.24	69.50	1.329	13.29
51.75	0.400	4.00	57.75	0.561	5.61	63.75	1.232	12.32	69.75	1.332	13.32
52.00	0.404	4.04	58.00	0.572	5.72	64.00	1.239	12.39	70.00	1.335	13.35
52.25	0.408	4.08	58.25	0.584	5.84	64.25	1.243	12.43	70.25	1.338	13.38
52.50	0.412	4.12	58.50	0.596	5.96	64.50	1.248	12.48	70.50	1.341	13.41
52.75	0.417	4.17	58.75	0.612	6.12	64.75	1.253	12.53	70.75	1.344	13.44
53.00	0.421	4.21	59.00	0.628	6.28	65.00	1.257	12.57	71.00	1.347	13.47
53.25	0.426	4.26	59.25	0.653	6.53	65.25	1.262	12.62	71.25	1.350	13.50
53.50	0.431	4.31	59.50	0.678	6.78	65.50	1.266	12.66	71.50	1.353	13.53
53.75	0.437	4.37	59.75	0.847	8.47	65.75	1.271	12.71	71.75	1.356	13.56
54.00	0.442	4.42	60.00	1.015	10.15	66.00	1.275	12.75	72.00	1.359	13.59

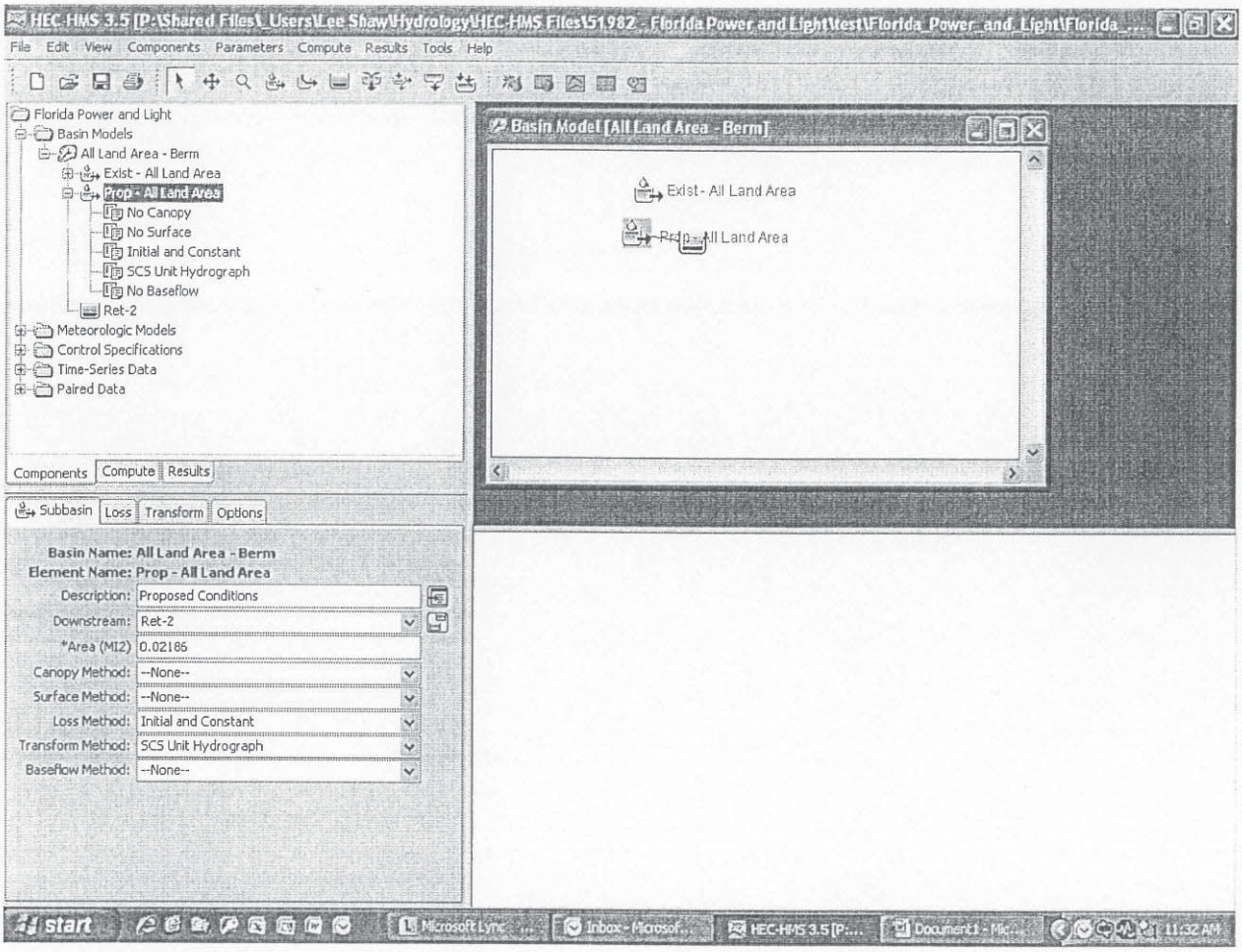


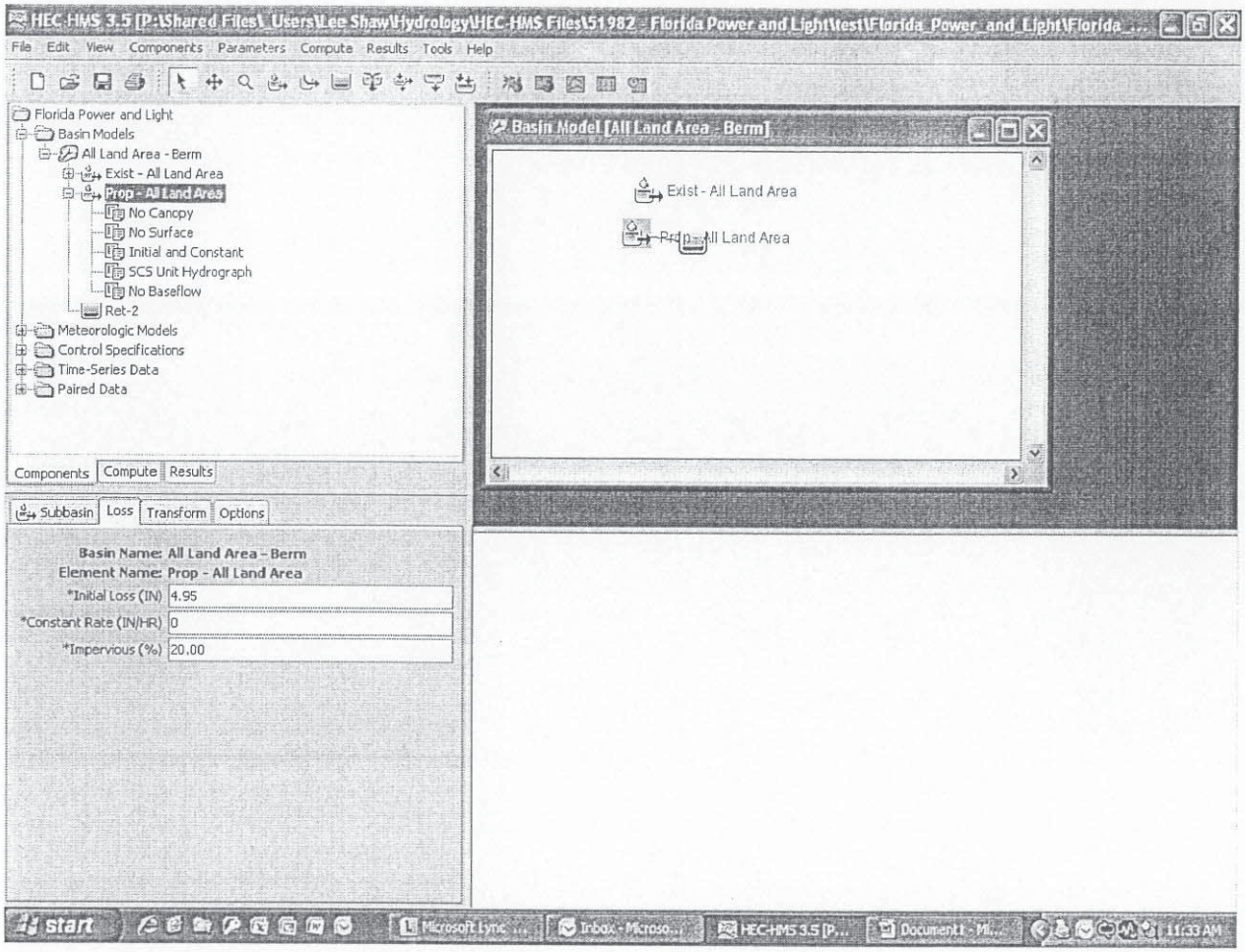
1-Day Rainfall: 25 Year Return Period

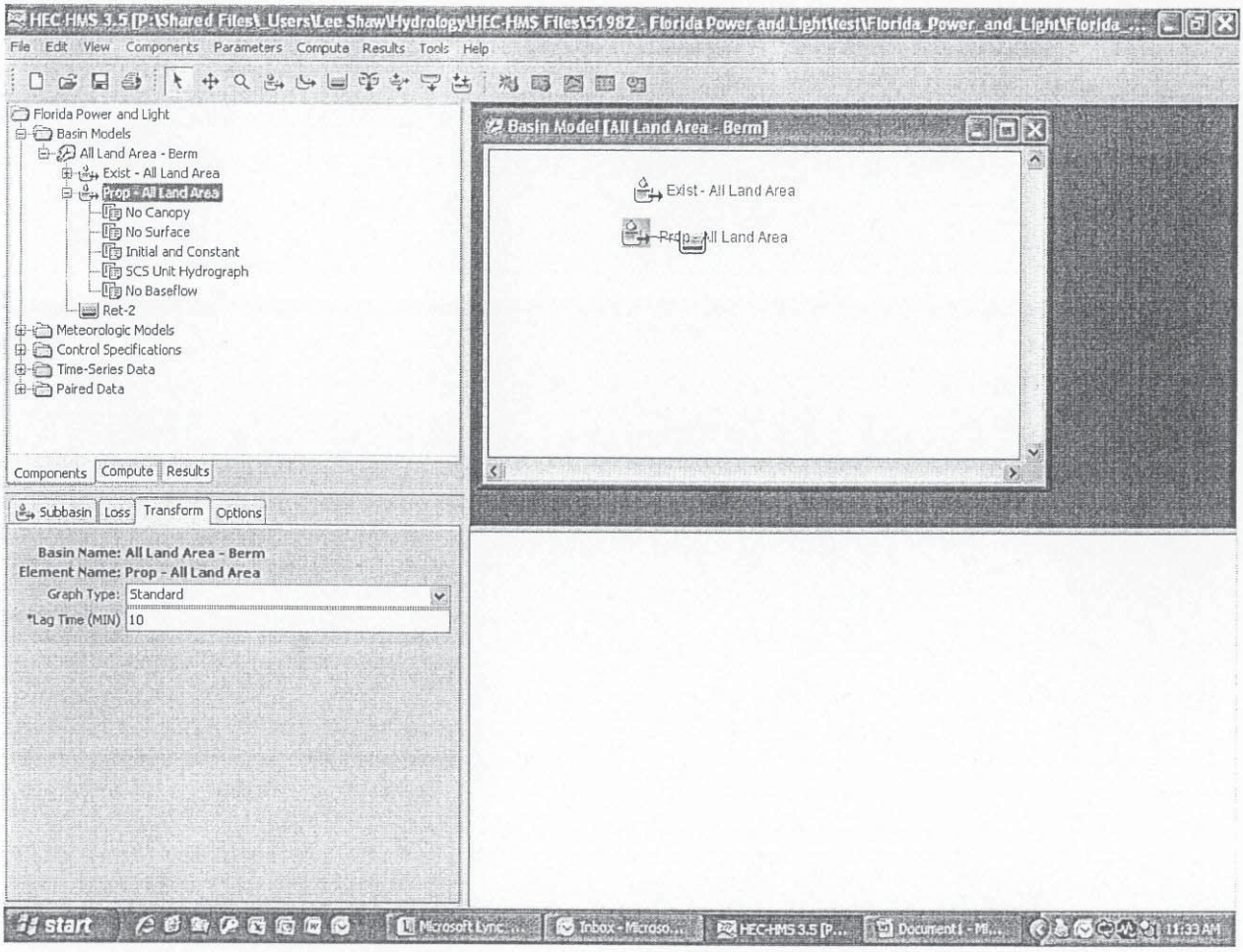

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Florida Power and Light
Basin Models
All Land Area - Berm
Exist - All Land Area
No Canopy
No Surface
Initial and Constant
SCS Unit Hydrograph
No Baseflow
Prop - All Land Area
Ret-2
Meteorologic Models
Control Specifications
Time-Series Data
Paired Data
Components Compute Results
Basin Model [All Land Area - Berm]
Exist - All Land Area
Prop - All Land Area
Subbasin Loss Transform Options
Basin Name: All Land Area - Berm
Element Name: Exist - All Land Area
Description: Existing conditions
Downstream: --None--
*Area (MI2) 0.02186
Canopy Method: --None--
Surface Method: --None--
Loss Method: Initial and Constant
Transform Method: SCS Unit Hydrograph
Baseflow Method: --None--
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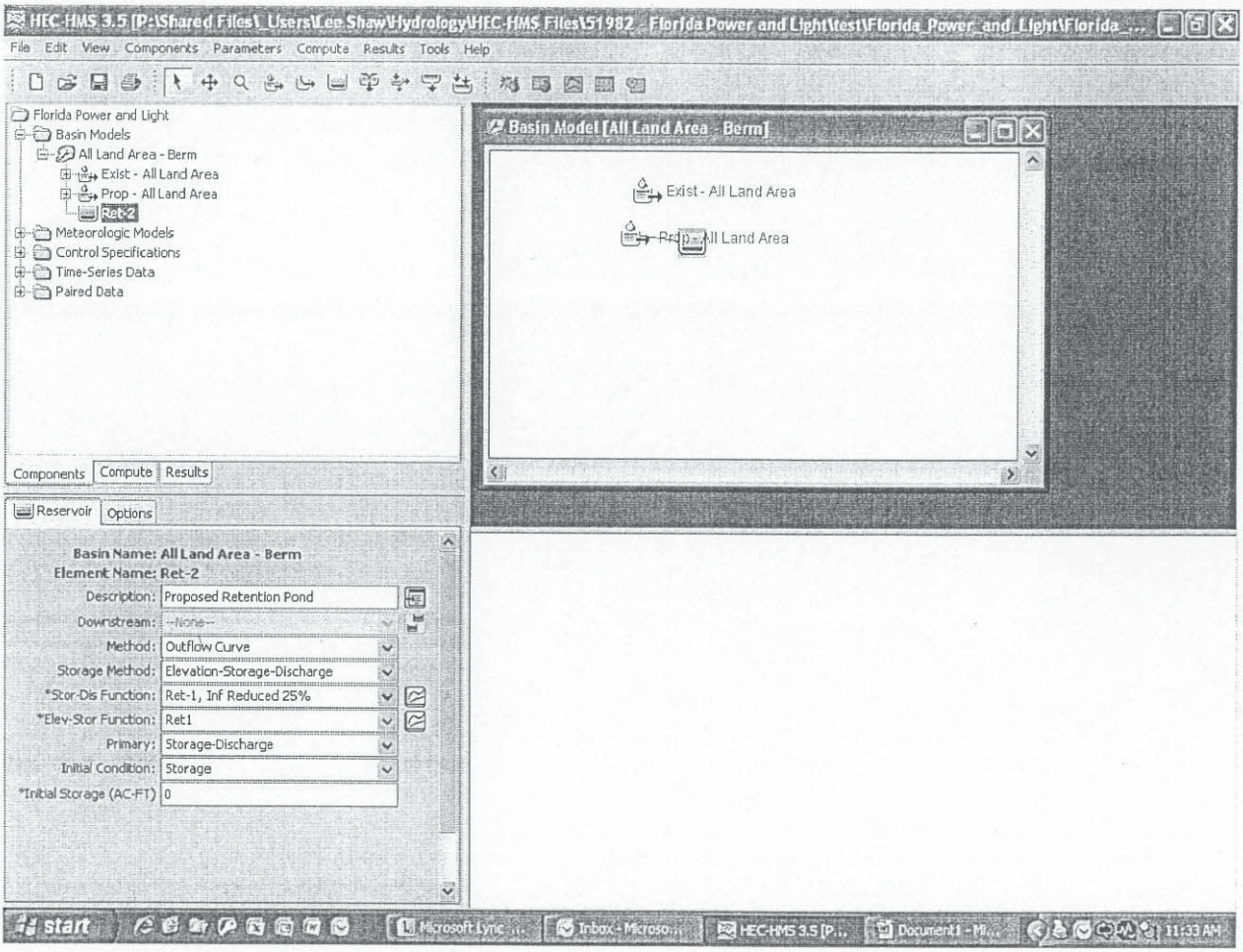

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Florida Power and Light
Basin Models
All Land Area - Berm
Exist - All Land Area
No Canopy
No Surface
Initial and Constant
SCS Unit Hydrograph
No Baseflow
Prop - All Land Area
Ret-2
Meteorologic Models
Control Specifications
Time-Series Data
Paired Data
Components Compute Results
Basin Model [All Land Area - Berm]
Exist - All Land Area
Prop - All Land Area
Subbasin Loss Transform Options
Basin Name: All Land Area - Berm
Element Name: Exist - All Land Area
*Initial Loss (IN) 6.6
*Constant Rate (IN/HR) 0
*Impervious (%) 15.58
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Florida Power and Light
Basin Models
All Land Area - Berm
Exist - All Land Area
No Canopy
No Surface
Initial and Constant
SCS Unit Hydrograph
No Baseflow
Prop - All Land Area
Ret-2
Meteorologic Models
Control Specifications
Time-Series Data
Paired Data
Components Compute Results
Subbasin Loss Transform Options
Basin Name: All Land Area - Berm
Element Name: Exist - All Land Area
Graph Type: Standard
*Lag Time (MIN) 10
Basin Model [All Land Area - Berm]
Exist - All Land Area
Prop - All Land Area
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Florida Power and Light
Basin Models
All Land Area - Berm
Exist - All Land Area
Prop - All Land Area
No Canopy
No Surface
Initial and Constant
SCS Unit Hydrograph
No Baseflow
Ret-2
Meteorologic Models
Control Specifications
Time-Series Data
Paired Data
Components Compute Results
Basin Model [All Land Area - Berm]
Exist - All Land Area
Prop - All Land Area
Subbasin Loss Transform Options
Basin Name: All Land Area - Berm
Element Name: Prop - All Land Area
Description: Proposed Conditions
Downstream: Ret-2
*Area (MI2) 0.02186
Canopy Method: --None--
Surface Method: --None--
Loss Method: Initial and Constant
Transform Method: SCS Unit Hydrograph
Baseflow Method: --None--
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Florida Power and Light
Basin Models
All Land Area - Berm
Exist - All Land Area
Prop - All Land Area
No Canopy
No Surface
Initial and Constant
SCS Unit Hydrograph
No Baseflow
Ret-2
Meteorologic Models
Control Specifications
Time-Series Data
Paired Data
Components Compute Results
Basin Model [All Land Area - Berm]
Exist - All Land Area
Prop - All Land Area
Subbasin Loss Transform Options
Basin Name: All Land Area - Berm
Element Name: Prop - All Land Area
*Initial Loss (IN) 4.95
*Constant Rate (IN/HR) 0
*Impervious (%) 20.00
start
11:33 AM


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Florida Power and Light
Basin Models
All Land Area - Berm
Exist - All Land Area
Prop - All Land Area
No Canopy
No Surface
Initial and Constant
SCS Unit Hydrograph
No Baseflow
Ret-2
Meteorologic Models
Control Specifications
Time-Series Data
Paired Data
Components Compute Results
Subbasin Loss Transform Options
Basin Name: All Land Area - Berm
Element Name: Prop - All Land Area
Graph Type: Standard
*Lag Time (MIN) 10
Basin Model [All Land Area - Berm]
Exist - All Land Area
Prop - All Land Area
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Florida Power and Light
Basin Models
All Land Area - Berm
Exist - All Land Area
Prop - All Land Area
Ret-2
Meteorologic Models
Control Specifications
Time-Series Data
Paired Data
Components Compute Results
Basin Model [All Land Area - Berm]
Exist - All Land Area
Prop - All Land Area
Reservoir Options
Basin Name: All Land Area - Berm
Element Name: Ret-2
Description: Proposed Retention Pond
Downstream: --None--
Method: Outflow Curve
Storage Method: Elevation-Storage-Discharge
*Stor-Dis Function: Ret-1, Inf Reduced 25%
*Elev-Stor Function: Ret1
Primary: Storage-Discharge
Initial Condition: Storage
*Initial Storage (AC-FT): 0
start
11:33 AM

Project: Florida Power and Light Simulation Run: All 25-yr, 3-Day

Start of Run: 01Jan2000, 00:00 Basin Model: All Land Area - Berm
End of Run: 04Jan2000, 00:00 Meteorologic Model: 25-year, 3-day
Compute Time: 14Aug2012, 11:43:30 Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
Exist - All Land Area	0.02186	86.8	03Jan2000, 12:00	7.99
Prop - All Land Area	0.02186	87.3	03Jan2000, 12:00	9.60
Ret-2	0.02186	33.6	03Jan2000, 12:30	9.59

Project: Florida Power and Light Simulation Run: All 25-yr, 3-Day

Start of Run: 01Jan2000, 00:00 Basin Model: All Land Area - Berm
End of Run: 04Jan2000, 00:00 Meteorologic Model: 25-year, 3-day
Compute Time: 14Aug2012, 11:43:30 Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (AC-FT)
Exist - All Land Area	0.02186	86.8	03Jan2000, 12:00	9.3
Prop - All Land Area	0.02186	87.3	03Jan2000, 12:00	11.2
Ret-2	0.02186	33.6	03Jan2000, 12:30	11.2

Project: Florida Power and Light
Simulation Run: All 25-yr, 3-Day Subbasin: Exist - All Land Area

Start of Run:	01Jan2000, 00:00	Basin Model:	All Land Area - Berm
End of Run:	04Jan2000, 00:00	Meteorologic Model:	25-year, 3-day
Compute Time:	14Aug2012, 11:43:30	Control Specifications:	Control 1

Volume Units: IN

Computed Results

Peak Discharge :	86.8 (CFS)	Date/Time of Peak Discharge :	03Jan2000, 12:00
Total Precipitation :	13.59 (IN)	Total Direct Runoff :	7.99 (IN)
Total Loss :	5.57 (IN)	Total Baseflow :	0.00 (IN)
Total Excess :	8.02 (IN)	Discharge :	7.99 (IN)

Project: Florida Power and Light
Simulation Run: All 25-yr, 3-Day Subbasin: Exist - All Land Area

Start of Run:	01Jan2000, 00:00	Basin Model:	All Land Area - Berm
End of Run:	04Jan2000, 00:00	Meteorologic Model:	25-year, 3-day
Compute Time:	14Aug2012, 11:43:30	Control Specifications:	Control 1

Volume Units: AC-FT

Computed Results

Peak Discharge :	86.8 (CFS)	Date/Time of Peak Discharge :	03Jan2000, 12:00
Total Precipitation :	15.8 (AC-FT)	Total Direct Runoff :	9.3 (AC-FT)
Total Loss :	6.5 (AC-FT)	Total Baseflow :	0.0 (AC-FT)
Total Excess :	9.3 (AC-FT)	Discharge :	9.3 (AC-FT)

Project: Florida Power and Light
Simulation Run: All 25-yr, 3-Day Subbasin: Prop - All Land Area

Start of Run:	01Jan2000, 00:00	Basin Model:	All Land Area - Berm
End of Run:	04Jan2000, 00:00	Meteorologic Model:	25-year, 3-day
Compute Time:	14Aug2012, 11:43:30	Control Specifications:	Control 1

Volume Units: IN

Computed Results

Peak Discharge :	87.3 (CFS)	Date/Time of Peak Discharge :	03Jan2000, 12:00
Total Precipitation :	13.59 (IN)	Total Direct Runoff :	9.60 (IN)
Total Loss :	3.96 (IN)	Total Baseflow :	0.00 (IN)
Total Excess :	9.63 (IN)	Discharge :	9.60 (IN)

Project: Florida Power and Light

Simulation Run: All 25-yr, 3-Day Subbasin: Prop - All Land Area

Start of Run:	01Jan2000, 00:00	Basin Model:	All Land Area - Berm
End of Run:	04Jan2000, 00:00	Meteorologic Model:	25-year, 3-day
Compute Time:	14Aug2012, 11:43:30	Control Specifications:	Control 1

Volume Units: AC-FT

Computed Results

Peak Discharge :	87.3 (CFS)	Date/Time of Peak Discharge :	03Jan2000, 12:00
Total Precipitation :	15.8 (AC-FT)	Total Direct Runoff :	11.2 (AC-FT)
Total Loss :	4.6 (AC-FT)	Total Baseflow :	0.0 (AC-FT)
Total Excess :	11.2 (AC-FT)	Discharge :	11.2 (AC-FT)

Project: Florida Power and Light
Simulation Run: All 25-yr, 3-Day Reservoir: Ret-2

Start of Run:	01Jan2000, 00:00	Basin Model:	All Land Area - Berm
End of Run:	04Jan2000, 00:00	Meteorologic Model:	25-year, 3-day
Compute Time:	14Aug2012, 11:43:30	Control Specifications:	Control 1

Volume Units: IN

Computed Results

Peak Inflow :	87.3 (CFS)	Date/Time of Peak Inflow :	03Jan2000, 12:00
Peak Outflow :	33.6 (CFS)	Date/Time of Peak Outflow :	03Jan2000, 12:30
Total Inflow :	9.60 (IN)	Peak Storage :	3.0 (AC-FT)
Total Outflow :	9.59 (IN)	Peak Elevation :	11.21 (FT)

Project: Florida Power and Light
Simulation Run: All 25-yr, 3-Day Reservoir: Ret-2

Start of Run:	01Jan2000, 00:00	Basin Model:	All Land Area - Berm
End of Run:	04Jan2000, 00:00	Meteorologic Model:	25-year, 3-day
Compute Time:	14Aug2012, 11:43:30	Control Specifications:	Control 1

Volume Units: AC-FT

Computed Results

Peak Inflow :	87.3 (CFS)	Date/Time of Peak Inflow :	03Jan2000, 12:00
Peak Outflow :	33.6 (CFS)	Date/Time of Peak Outflow :	03Jan2000, 12:30
Total Inflow :	11.2 (AC-FT)	Peak Storage :	3.0 (AC-FT)
Total Outflow :	11.2 (AC-FT)	Peak Elevation :	11.21 (FT)

Exhibit F.4

100-Year, 3-Day Rainfall Map, Hydrograph and HEC-HMS Results

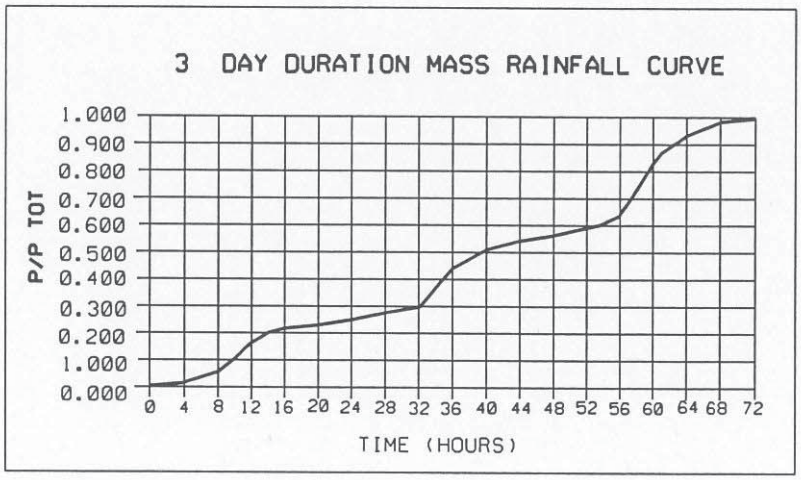
Florida Department of Transportation

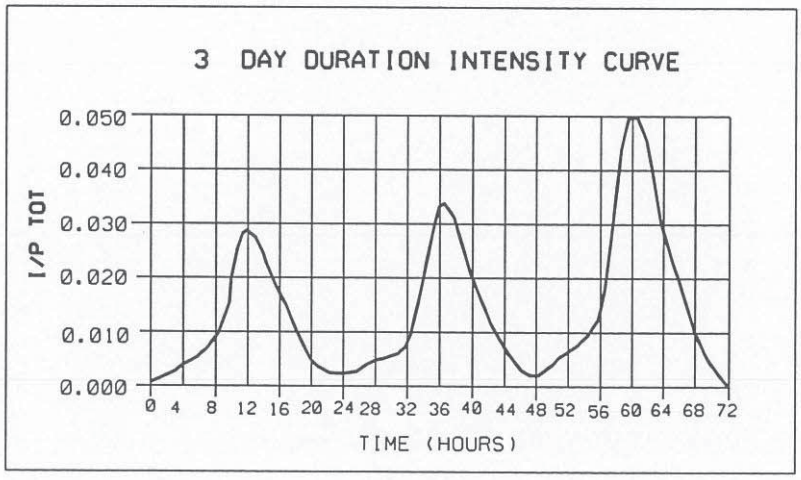
Total 100-year, 3-Day Precipitation 16 inches

Time (Hrs)	P/Ptot*	100-year Cumulative Precipitation (in)
0	0.000	0.000
4	0.010	0.160
8	0.045	0.720
12	0.155	2.480
26	0.218	3.488
20	0.240	3.840
24	0.250	4.000
28	0.268	4.288
32	0.304	4.864
36	0.436	6.976
40	0.511	8.176
44	0.538	8.608
48	0.550	8.800
52	0.577	9.232
56	0.631	10.096
60	0.829	13.264
64	0.942	15.072
68	0.982	15.712
72	1.000	16.000

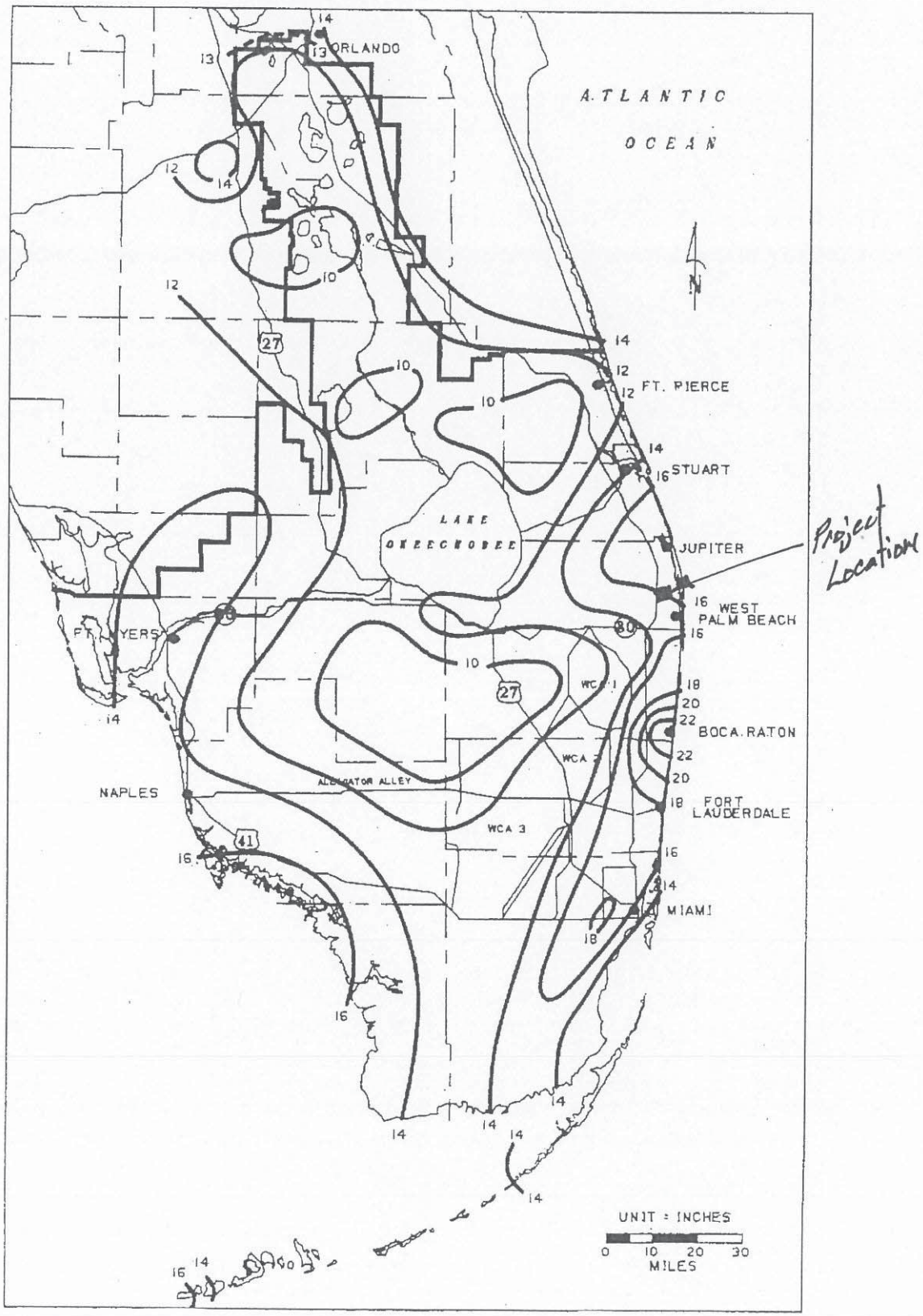
* From Florida Department of Transportation
Drainage Manual, Appendix B - IDF Curves
Page B-23

RAINFALL DISTRIBUTION CURVES
3 DAY DURATION

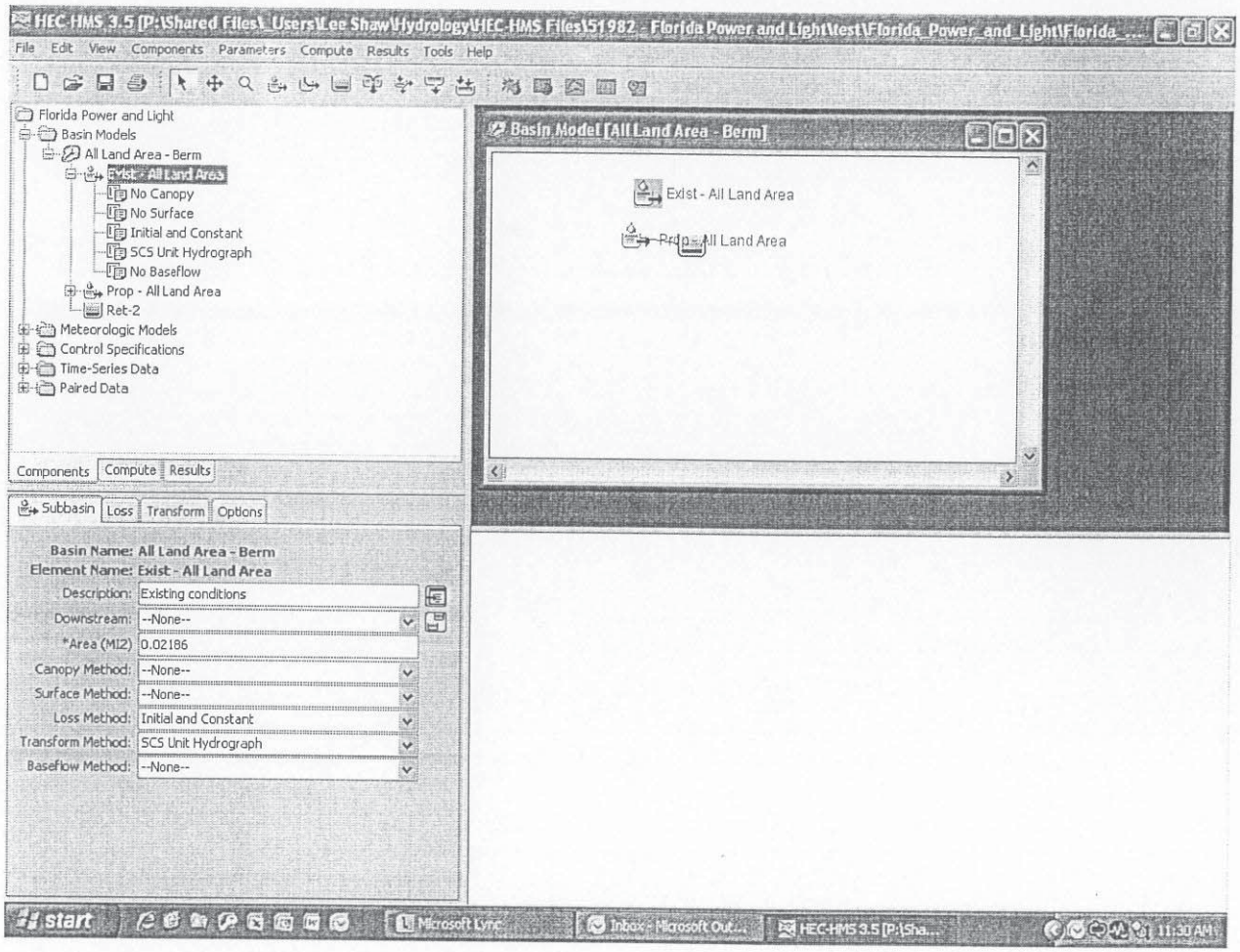


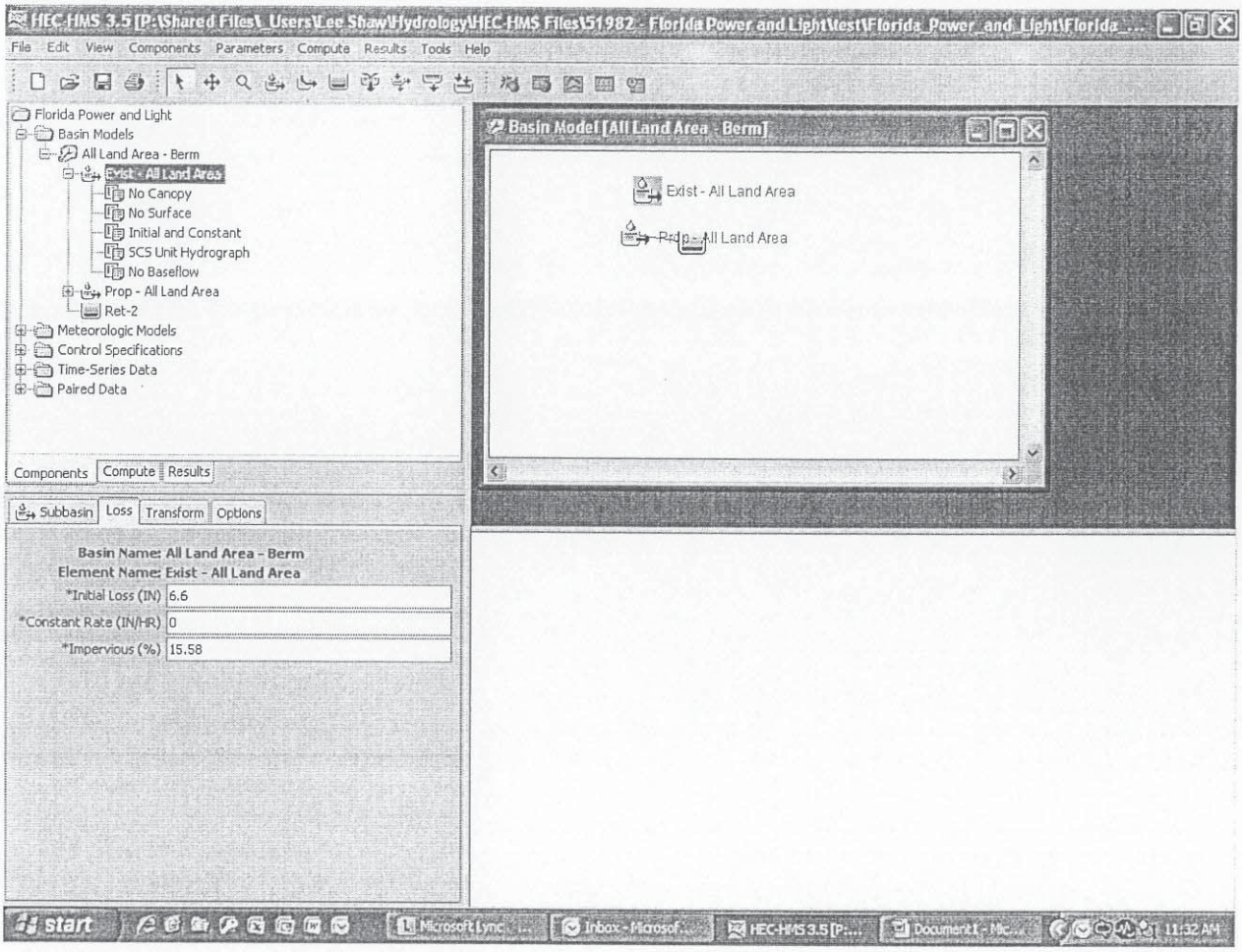


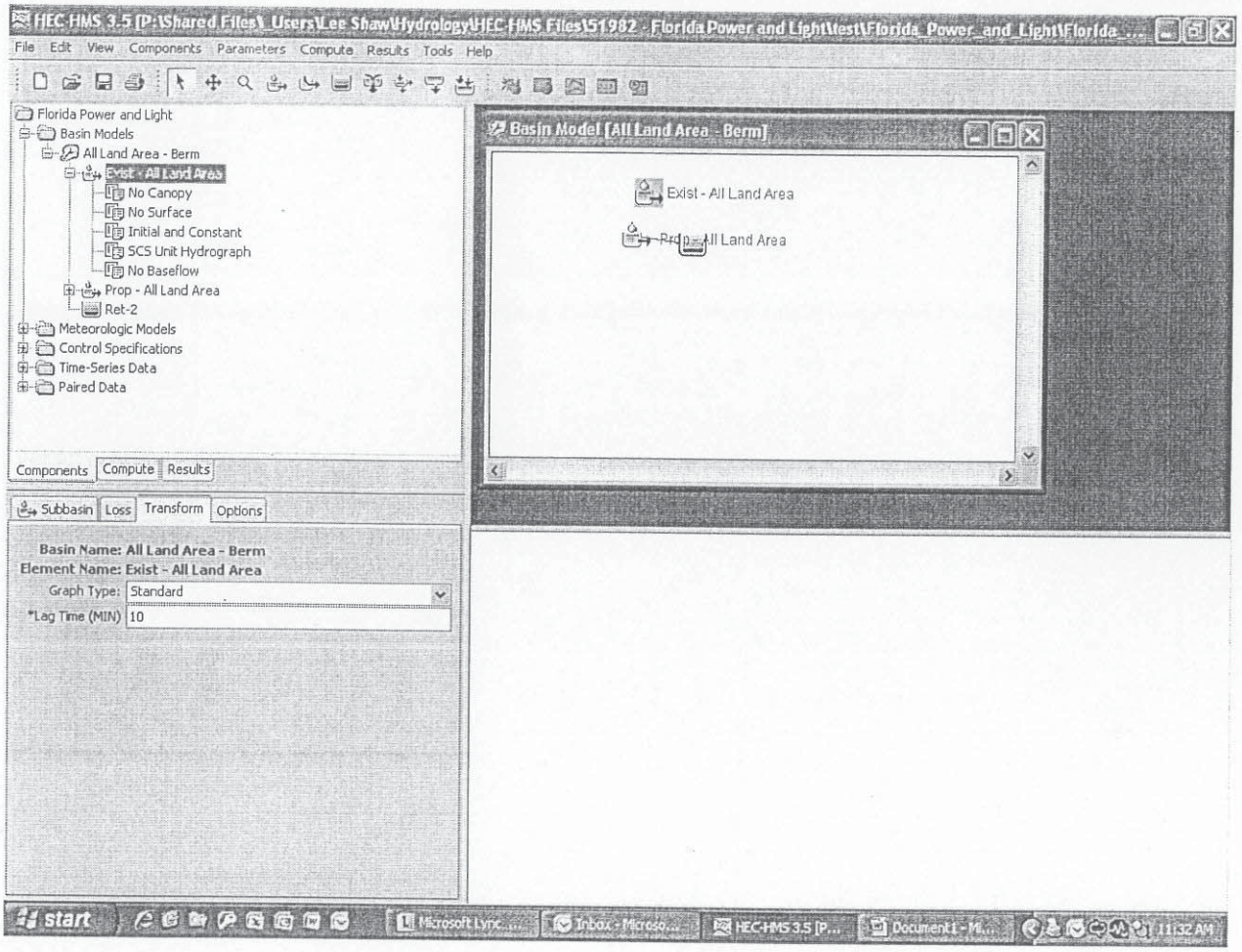
T(HRS.)	P/P TOT	I/PTOT
0	0.000	0.000
4	0.010	0.003
8	0.045	0.009
12	0.155	0.028
16	0.218	0.016
20	0.240	0.006
24	0.250	0.003
28	0.268	0.005
32	0.304	0.009
36	0.436	0.033
40	0.511	0.019
44	0.538	0.007
48	0.550	0.003
52	0.577	0.007
56	0.631	0.014
60	0.829	0.050
64	0.942	0.028
68	0.982	0.010
72	1.000	0.000

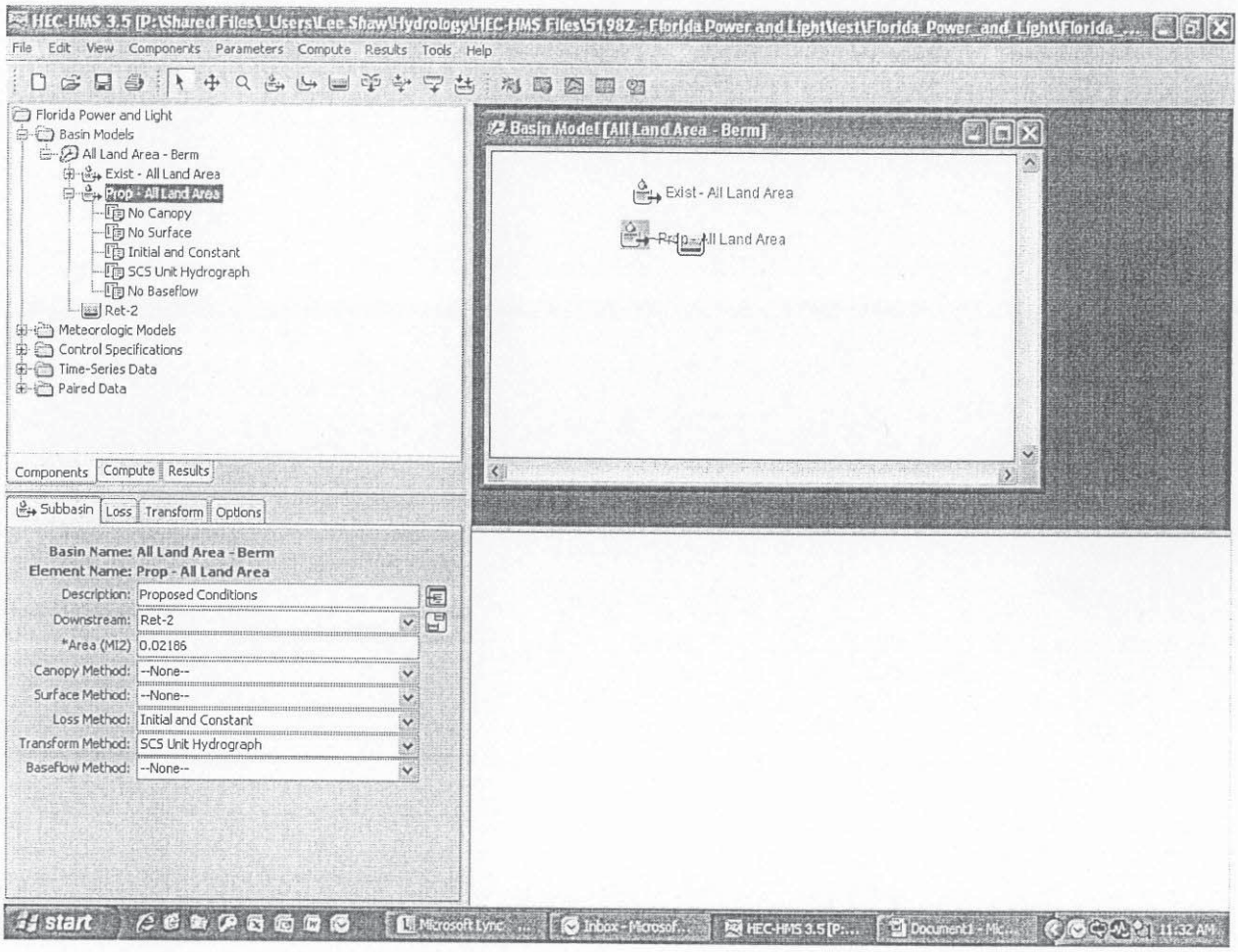


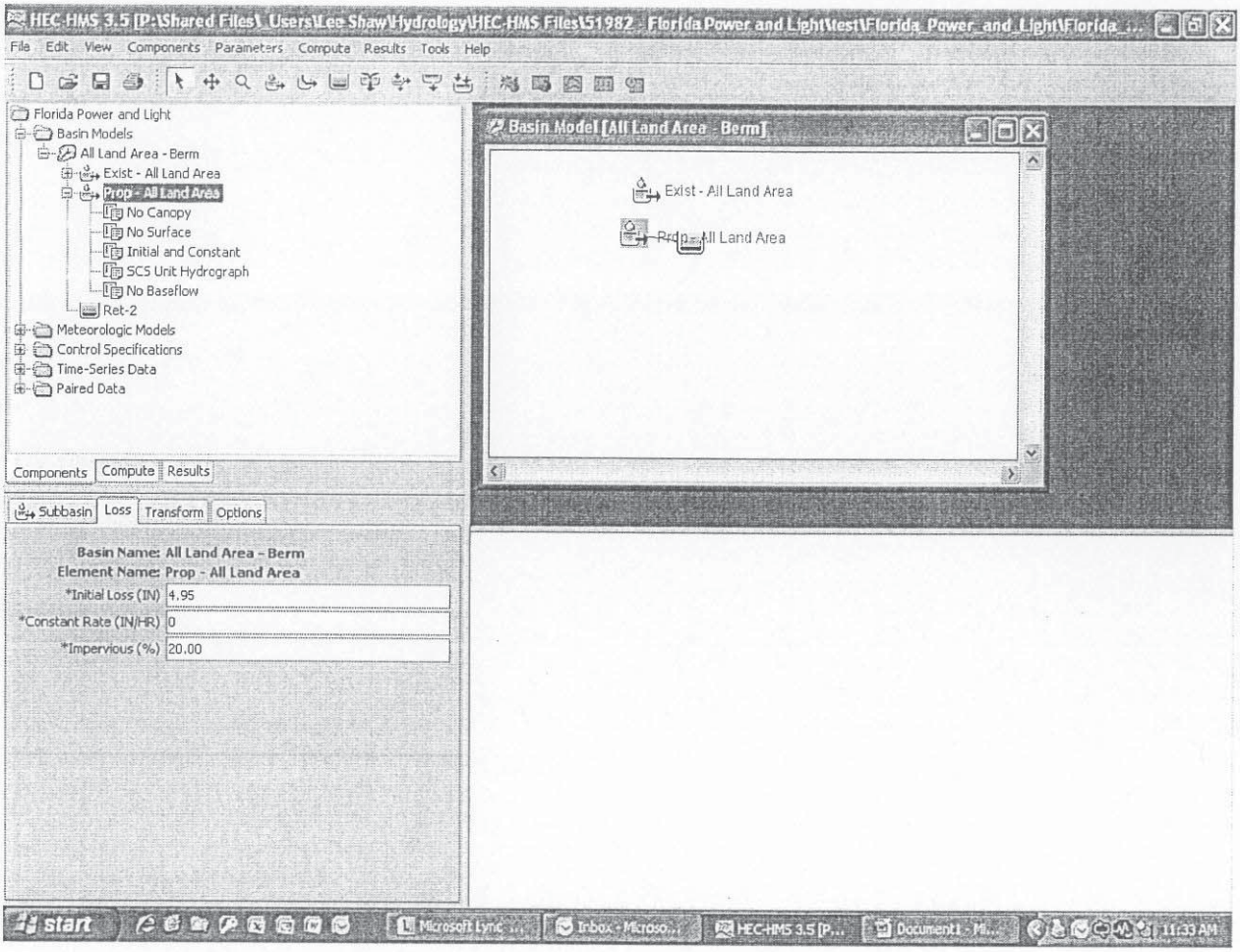
3-Day Rainfall: 100 Year Return Period

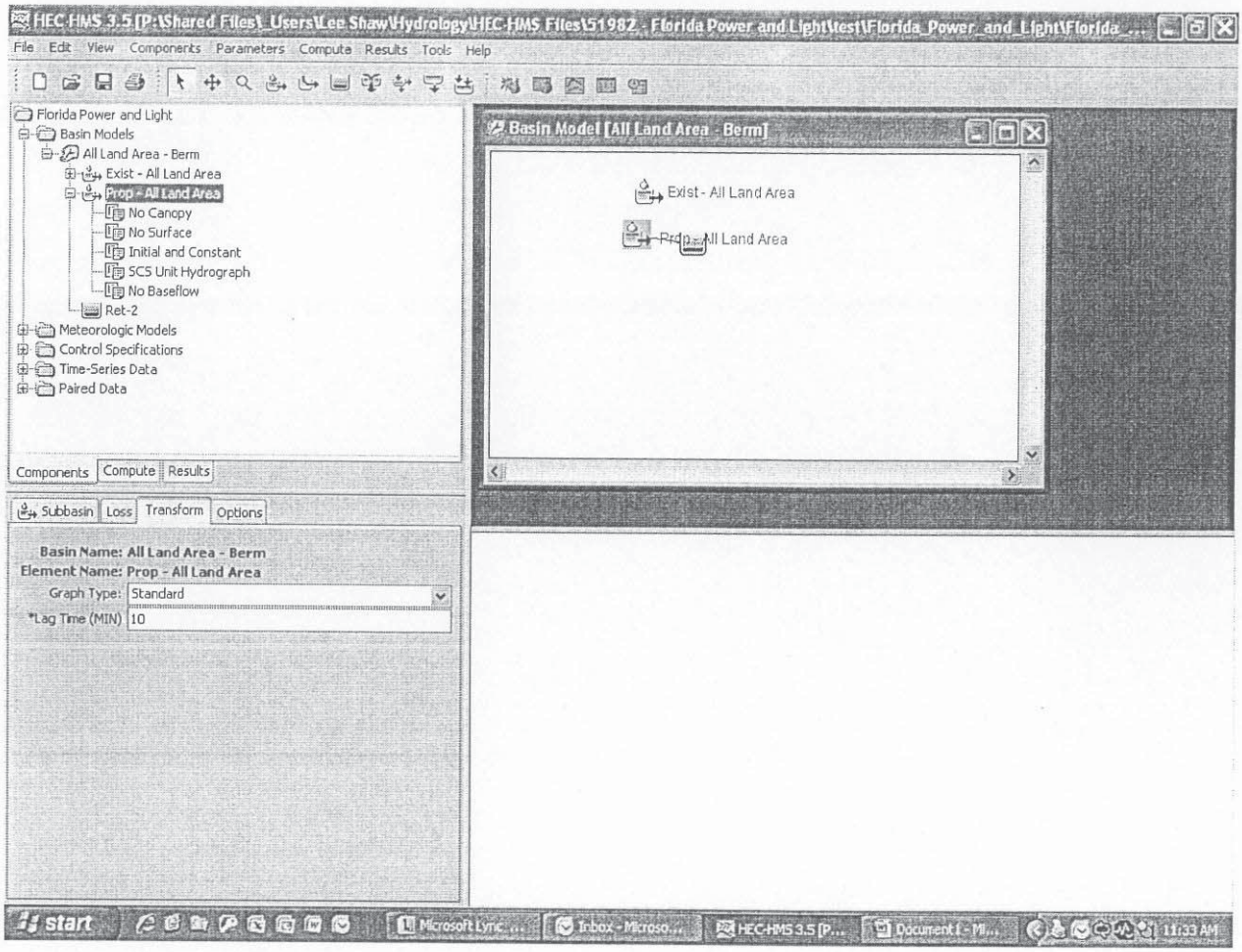

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Florida Power and Light
Basin Models
All Land Area - Berm
Exist - All Land Area
No Canopy
No Surface
Initial and Constant
SCS Unit Hydrograph
No Baseflow
Prop - All Land Area
Ret-2
Meteorologic Models
Control Specifications
Time-Series Data
Paired Data
Components Compute Results
Basin Model [All Land Area - Berm]
Exist - All Land Area
Prop - All Land Area
Subbasin Loss Transform Options
Basin Name: All Land Area - Berm
Element Name: Exist - All Land Area
Description: Existing conditions
Downstream: --None--
*Area (MI2) 0.02186
Canopy Method: --None--
Surface Method: --None--
Loss Method: Initial and Constant
Transform Method: SCS Unit Hydrograph
Baseflow Method: --None--
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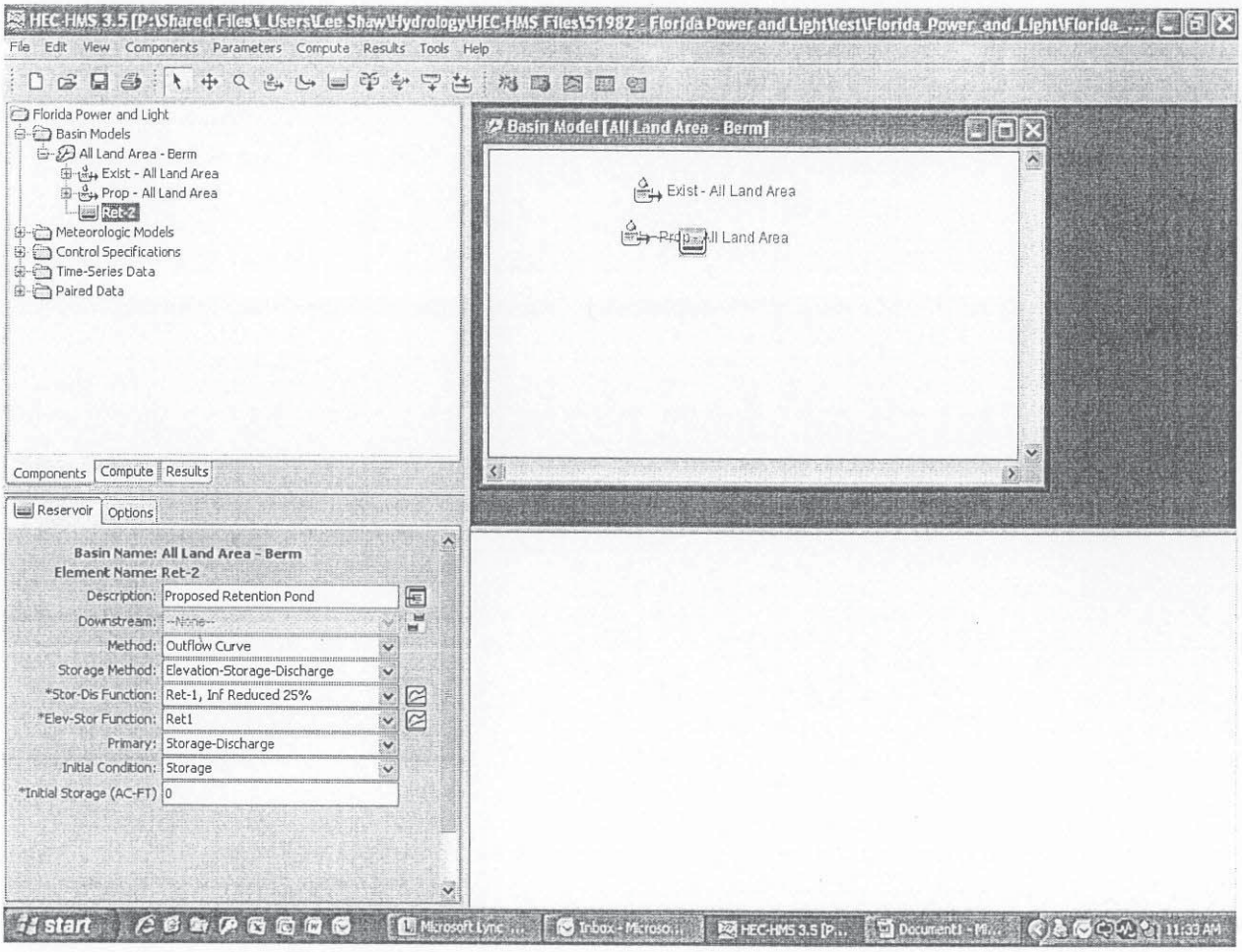

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Exist - All Land Area
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SCS Unit Hydrograph
No Baseflow
Prop - All Land Area
Ret-2
Meteorologic Models
Control Specifications
Time-Series Data
Paired Data
Components Compute Results
Basin Model [All Land Area - Berm]
Exist - All Land Area
Prop - All Land Area
Subbasin Loss Transform Options
Basin Name: All Land Area - Berm
Element Name: Exist - All Land Area
*Initial Loss (IN) 6.6
*Constant Rate (IN/HR) 0
*Impervious (%) 15.58
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Prop - All Land Area
Ret-2
Meteorologic Models
Control Specifications
Time-Series Data
Paired Data
Components Compute Results
Subbasin Loss Transform Options
Basin Name: All Land Area - Berm
Element Name: Exist - All Land Area
Graph Type: Standard
*Lag Time (MIN) 10
Basin Model [All Land Area - Berm]
Exist - All Land Area
Prop - All Land Area
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No Surface
Initial and Constant
SCS Unit Hydrograph
No Baseflow
Ret-2
Meteorologic Models
Control Specifications
Time-Series Data
Paired Data
Components Compute Results
Basin Model [All Land Area - Berm]
Exist - All Land Area
Prop - All Land Area
Subbasin Loss Transform Options
Basin Name: All Land Area - Berm
Element Name: Prop - All Land Area
Description: Proposed Conditions
Downstream: Ret-2
*Area (MI2) 0.02186
Canopy Method: --None--
Surface Method: --None--
Loss Method: Initial and Constant
Transform Method: SCS Unit Hydrograph
Baseflow Method: --None--
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Exist - All Land Area
Prop - All Land Area
No Canopy
No Surface
Initial and Constant
SCS Unit Hydrograph
No Baseflow
Ret-2
Meteorologic Models
Control Specifications
Time-Series Data
Paired Data
Components Compute Results
Basin Model [All Land Area - Berm]
Exist - All Land Area
Prop - All Land Area
Subbasin Loss Transform Options
Basin Name: All Land Area - Berm
Element Name: Prop - All Land Area
*Initial Loss (IN) 4.95
*Constant Rate (IN/HR) 0
*Impervious (%) 20.00
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Florida Power and Light
Basin Models
All Land Area - Berm
Exist - All Land Area
Prop - All Land Area
No Canopy
No Surface
Initial and Constant
SCS Unit Hydrograph
No Baseflow
Ret-2
Meteorologic Models
Control Specifications
Time-Series Data
Paired Data
Components Compute Results
Subbasin Loss Transform Options
Basin Name: All Land Area - Berm
Element Name: Prop - All Land Area
Graph Type: Standard
*Lag Time (MIN) 10
Basin Model [All Land Area - Berm]
Exist - All Land Area
Prop - All Land Area
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Florida Power and Light
Basin Models
All Land Area - Berm
Exist - All Land Area
Prop - All Land Area
Ret-2
Meteorologic Models
Control Specifications
Time-Series Data
Paired Data
Components Compute Results
Basin Model [All Land Area - Berm]
Exist - All Land Area
Prop - All Land Area
Reservoir Options
Basin Name: All Land Area - Berm
Element Name: Ret-2
Description: Proposed Retention Pond
Downstream: --None--
Method: Outflow Curve
Storage Method: Elevation-Storage-Discharge
*Stor-Dis Function: Ret-1, Inf Reduced 25%
*Elev-Stor Function: Ret1
Primary: Storage-Discharge
Initial Condition: Storage
*Initial Storage (AC-FT) 0
start
11:33 AM

Project: Florida Power and Light Simulation Run: All 100y, 3d

Start of Run: 01Jan2000, 00:00
End of Run: 04Jan2000, 00:00
Compute Time: 13Aug2012, 16:40:58

Basin Model: All Land Area - Berm
Meteorologic Model: 100-year, 3-day
Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
Exist - All Land Area	0.02186	11.2	03Jan2000, 10:30	10.41
Prop - All Land Area	0.02186	11.2	03Jan2000, 10:30	12.02
Ret-2	0.02186	9.4	03Jan2000, 12:15	12.02

Project: Florida Power and Light Simulation Run: All 100y, 3d

Start of Run: 01Jan2000, 00:00
End of Run: 04Jan2000, 00:00
Compute Time: 13Aug2012, 16:40:58

Basin Model: All Land Area - Berm
Meteorologic Model: 100-year, 3-day
Control Specifications: Control 1

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (AC-FT)
Exist - All Land Area	0.02186	11.2	03Jan2000, 10:30	12.1
Prop - All Land Area	0.02186	11.2	03Jan2000, 10:30	14.0
Ret-2	0.02186	9.4	03Jan2000, 12:15	14.0

Project: Florida Power and Light

Simulation Run: All 100y, 3d Subbasin: Exist - All Land Area

Start of Run:	01Jan2000, 00:00	Basin Model:	All Land Area - Berm
End of Run:	04Jan2000, 00:00	Meteorologic Model:	100-year, 3-day
Compute Time:	13Aug2012, 16:40:58	Control Specifications:	Control 1

Volume Units: IN

Computed Results

Peak Discharge :	11.2 (CFS)	Date/Time of Peak Discharge :	03Jan2000, 10:30
Total Precipitation :	16.00 (IN)	Total Direct Runoff :	10.41 (IN)
Total Loss :	5.57 (IN)	Total Baseflow :	0.00 (IN)
Total Excess :	10.43 (IN)	Discharge :	10.41 (IN)

Project: Florida Power and Light
Simulation Run: All 100y, 3d Subbasin: Exist - All Land Area

Start of Run:	01Jan2000, 00:00	Basin Model:	All Land Area - Berm
End of Run:	04Jan2000, 00:00	Meteorologic Model:	100-year, 3-day
Compute Time:	13Aug2012, 16:40:58	Control Specifications:	Control 1

Volume Units: AC-FT

Computed Results

Peak Discharge :	11.2 (CFS)	Date/Time of Peak Discharge :	03Jan2000, 10:30
Total Precipitation :	18.7 (AC-FT)	Total Direct Runoff :	12.1 (AC-FT)
Total Loss :	6.5 (AC-FT)	Total Baseflow :	0.0 (AC-FT)
Total Excess :	12.2 (AC-FT)	Discharge :	12.1 (AC-FT)

Project: Florida Power and Light
Simulation Run: All 100y, 3d Subbasin: Prop - All Land Area

Start of Run:	01Jan2000, 00:00	Basin Model:	All Land Area - Berm
End of Run:	04Jan2000, 00:00	Meteorologic Model:	100-year, 3-day
Compute Time:	13Aug2012, 16:40:58	Control Specifications:	Control 1

Volume Units: IN

Computed Results

Peak Discharge :	11.2 (CFS)	Date/Time of Peak Discharge :	03Jan2000, 10:30
Total Precipitation :	16.00 (IN)	Total Direct Runoff :	12.02 (IN)
Total Loss :	3.96 (IN)	Total Baseflow :	0.00 (IN)
Total Excess :	12.04 (IN)	Discharge :	12.02 (IN)

Project: Florida Power and Light
Simulation Run: All 100y, 3d Subbasin: Prop - All Land Area

Start of Run:	01Jan2000, 00:00	Basin Model:	All Land Area - Berm
End of Run:	04Jan2000, 00:00	Meteorologic Model:	100-year, 3-day
Compute Time:	13Aug2012, 16:40:58	Control Specifications:	Control 1

Volume Units: AC-FT

Computed Results

Peak Discharge :	11.2 (CFS)	Date/Time of Peak Discharge :	03Jan2000, 10:30
Total Precipitation :	18.7 (AC-FT)	Total Direct Runoff :	14.0 (AC-FT)
Total Loss :	4.6 (AC-FT)	Total Baseflow :	0.0 (AC-FT)
Total Excess :	14.0 (AC-FT)	Discharge :	14.0 (AC-FT)

Project: Florida Power and Light
Simulation Run: All 100y, 3d Reservoir: Ret-2

Start of Run:	01Jan2000, 00:00	Basin Model:	All Land Area - Berm
End of Run:	04Jan2000, 00:00	Meteorologic Model:	100-year, 3-day
Compute Time:	13Aug2012, 16:40:58	Control Specifications:	Control 1

Volume Units: IN

Computed Results

Peak Inflow :	11.2 (CFS)	Date/Time of Peak Inflow :	03Jan2000, 10:30
Peak Outflow :	9.4 (CFS)	Date/Time of Peak Outflow :	03Jan2000, 12:15
Total Inflow :	12.02 (IN)	Peak Storage :	0.8 (AC-FT)
Total Outflow :	12.02 (IN)	Peak Elevation :	9.94 (FT)

Project: Florida Power and Light
Simulation Run: All 100y, 3d Reservoir: Ret-2

Start of Run:	01Jan2000, 00:00	Basin Model:	All Land Area - Berm
End of Run:	04Jan2000, 00:00	Meteorologic Model:	100-year, 3-day
Compute Time:	13Aug2012, 16:40:58	Control Specifications:	Control 1

Volume Units: AC-FT

Computed Results

Peak Inflow :	11.2 (CFS)	Date/Time of Peak Inflow :	03Jan2000, 10:30
Peak Outflow :	9.4 (CFS)	Date/Time of Peak Outflow :	03Jan2000, 12:15
Total Inflow :	14.0 (AC-FT)	Peak Storage :	0.8 (AC-FT)
Total Outflow :	14.0 (AC-FT)	Peak Elevation :	9.94 (FT)

Exhibit G

Retention Pond
Design Data

Retention Pond Volume Calculations

Florida Power and Light

Elevation	Area	Volume		Cumulative Volume
(Ft.)	(Sq. Ft.)	Cu. Ft.	Ac. Ft.	Ac. Ft.
9.00	34611.00			
		3485.74	0.080	0.0800
9.10	35105.00			
		3543.46	0.081	0.1614
9.20	35766.00			
		3610.81	0.083	0.2443
9.30	36452.00			
		3681.75	0.085	0.3288
9.40	37185.00			
		3757.39	0.086	0.4150
9.50	37965.00			
		3837.74	0.088	0.5031
9.60	38792.00			
		3923.33	0.090	0.5932
9.70	39677.00			
		4015.51	0.092	0.6854
9.80	40636.00			
		4115.05	0.094	0.7799
9.90	41668.00			
		4221.94	0.097	0.8768
10.00	42774.00			
		4341.80	0.100	0.9765
10.10	44066.00			
		4496.16	0.103	1.0797
10.20	45864.00			
		4708.22	0.108	1.1878
10.30	48312.00			
		3968.74	0.091	1.2789
10.38	50919.00			
		1023.61	0.023	1.3024
10.40	51443.00			
		5334.55	0.122	1.4248
10.50	55272.00			
		5742.08	0.132	1.5567
10.60	59598.00			
		6229.76	0.143	1.6997
10.70	65038.00			
		6763.89	0.155	1.8549
10.80	70275.00			
		7492.41	0.172	2.0270
10.90	79673.00			
		10497.69	0.241	2.2679
11.00	132511.00			
		76421.11	1.754	4.0223
11.50	174122.00			
		96224.63	2.209	6.2313
12.00	211382.00			

Florida Power and Light

45th Street Compressor Station

Retention Pond Design Information

Soil Infiltration Rate #1 (From Geotech Report)	10.55	"/hr
Soil Infiltration Rate #2 (From Geotech Report)	14.06	"/hr
Soil Infiltration Rate #3 (From Geotech Report)	14.06	"/hr
Average Infiltration Rate	12.89	"/hr
Percent Reduction in Infiltration Rate	25	%
Soil Infiltration Rate with Factor of Safety	9.6675	"/hr
Soil Infiltration Rate CFS/SF Area	0.000223785	CFS/SF

Elevation	Retained Volume	Retained Volume	Elev. Surface Area	Infiltration Rate
(feet)	CF	(ac-ft)	(sf)	(cfs)
9.00	0	0.0000	34611	7.75
9.10	3486	0.0800	35105	7.86
9.20	7028	0.1613	35766	8.00
9.30	10639	0.2442	36452	8.16
9.40	14320	0.3287	37185	8.32
9.50	18077	0.4150	37965	8.50
9.60	21914	0.5031	38792	8.68
9.70	25838	0.5932	39677	8.88
9.80	29853	0.6853	40636	9.09
9.90	33967	0.7798	41668	9.32
10.00	38189	0.8767	42774	9.57
10.10	42527	0.9763	44066	9.86
10.20	47022	1.0795	45864	10.26
10.30	51729	1.1875	48312	10.81
10.38	55687	1.2784	50919	11.39
10.40	56733	1.3024	51443	11.51
10.50	62064	1.4248	55272	12.37
10.60	67810	1.5567	59598	13.34
10.70	74039	1.6997	65038	14.55
10.80	80799	1.8549	70275	15.73
10.90	88296	2.0270	79673	17.83
11.00	98790	2.2679	132511	29.65
11.50	174122	4.022	174122	38.97
12.00	271435	6.231	211382	47.30

Exhibit H

SFWMD Permit Modification
GP #50-00497-S, August, 1999

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
SURFACE WATER MANAGEMENT
GENERAL PERMIT NO. 50-00497-S

Form #0942
08/95

DATE ISSUED: August 4, 1999

PERMITTEE: FLORIDA POWER AND LIGHT COMPANY
700 UNIVERSE BLVD
JUNO BEACH, FL 33408

PROJECT DESCRIPTION: MODIFICATION OF A SURFACE WATER MANAGEMENT SYSTEM SERVING .53 ACRE(S) OF INDUSTRIAL DEVELOPMENT KNOWN AS STORAGE BUILDING-MARTIN TERMINAL.

PROJECT LOCATION: PALM BEACH COUNTY, SECTION 31 TWP 42S RGE 43E

PERMIT DURATION: Five years from the date issued to complete construction of the surface water management system as authorized herein. See attached Rule 40E-4.321, Florida Administrative Code.

This is to notify you of the District's agency action concerning Permit Application No. 990329-10, dated March 29, 1999. This action is taken pursuant to Rule 40E-1.606 and Chapter 40E-40, Florida Administrative Code (F.A.C.).

Based on the information provided, District rules have been adhered to and a Surface Water Management General Permit is in effect for this project subject to:

1. Not receiving a filed request for a Chapter 120, Florida Statutes, administrative hearing.
2. the attached Standard Limiting Conditions,
3. the attached 9 Special Conditions, and
4. the attached 5 Exhibit(s).

Should you object to these conditions, please refer to the attached "Notice of Rights" which addresses the procedures to be followed if you desire a public hearing or other review of the proposed agency action. Please contact this office if you have any questions concerning this matter. If we do not hear from you in accordance with the "Notice of Rights," we will assume that you concur with the District's action.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a "Notice of Rights" has been mailed to the Permittee (and the persons listed in the attached distribution list) no later than 5:00 p.m. on this 4th day of August, 1999, in accordance with Section 120.60(3), Florida Statutes.

BY: _____
Anthony M. Waterhouse, P.E.
Director - Surface Water Management
West Palm Beach Service Center

Certified Mail No. Z 532 993 086

Enclosures

SCANNED

40E-4.321 Duration of Permits

(1) Unless revoked or otherwise modified pursuant to Rules 40E-4.331 and 40E-4.441, F.A.C., the duration of a surface water management permit issued under this chapter is as follows:

(a) Two years from the date of issuance for Conceptual Approval, unless within that period an application for a construction and operation permit is filed for any portion of the project. If an application for a construction and operation permit is filed, then the Conceptual Approval remains valid until final action is taken on the application. If the application is granted, then the Conceptual Approval is valid for an additional two years from the date of issuance of the construction and operation permit. Conceptual Approvals which have no applications for construction and operation filed for a period of two years will expire automatically.

(b) Five years from the date of issuance for a construction permit.

(c) Perpetual for an operation permit.

(2) The Governing Board shall issue permit extensions provided that a permittee files a written request with the District showing good cause. For the purpose of this rule, good cause shall mean a set of extenuating circumstances outside of the control of the permittee. Requests for extensions, which shall include documentation of the extenuating circumstances and how they have delayed this project, will not be accepted more than 180 days prior to the expiration date.

(3) For a Conceptual Approval filed concurrently with a development of regional impact (DRI) application for development approval (ADA) and a local government comprehensive amendment, the duration of the Conceptual Approval shall be two years from whichever one of the following occurs a the latest date:

(a) the effective date of the local government's comprehensive plan amendment,

(b) the effective date of the local government development order, or

(c) the date on which the District issues the Conceptual Approval, or

(d) the latest date of the resolution of any Chapter 120 or other legal appeals.

(4) Substantial modifications to Conceptual Approvals will extend the duration of the Conceptual Approval for two years from the date of issuance of the modification. For the purposes of this section, the term "substantial modification" shall mean a modification which is reasonably expected to lead to substantially different water resource or environmental impacts which require a detailed review.

(5) Modifications to construction permits issued pursuant to a formal permit application extend the duration of the permit for three years from the date of issuance of the modification. Construction permit modifications do not extend the duration of a Conceptual Approval.

(6) Permit modifications issued pursuant to subsection 40E-4.331(2)(b), F.A.C. (letter modifications) do not extend the duration of a permit.

Specific authority 373.044, 373.113 F.S. Law Implemented 373.413, 373.416(1) F.S. History—New 9-3-81, Amended 1-31-82, 12-1-82, Formerly 16K-4.07(4), Amended 7-1-86, 4/20/94.

NOTICE OF RIGHTS

Section 120.569(1), Fla. Stat. (1997), requires that "each notice shall inform the recipient of any administrative hearing or judicial review that is available under this section, s. 120.57, or s. 120.68; shall indicate the procedure which must be followed to obtain the hearing or judicial review, and shall state the time limits which apply." Please note that this Notice of Rights is not intended to provide legal advice. Not all the legal proceedings detailed below may be an applicable or appropriate remedy. You may wish to consult an attorney regarding your legal rights.

Petition for Administrative Proceedings

1. A person whose substantial interests are affected by the South Florida Water Management District's (SFWMD) action has the right to request an administrative hearing on that action. The affected person may request either a formal or an informal hearing, as set forth below. A point of entry into administrative proceedings is governed by Rules 28-106.111 and 40E-1.511, Fla. Admin. Code, (also published as an exception to the Uniform Rules of Procedure as Rule 40E-0.109), as set forth below. Petitions are deemed filed upon receipt of the original documents by the SFWMD Clerk.

a. Formal Administrative Hearing: If a genuine issue(s) of material fact is in dispute, the affected person seeking a formal hearing on a SFWMD decision which does or may determine their substantial interests shall file a petition for hearing pursuant to Sections 120.569 and 120.57(1), Fla. Stat. or for mediation pursuant to Section 120.573, Fla. Stat. within 21 days, except as provided in subsections c. and d. below, of either written notice through mail or posting or publication of notice that the SFWMD has or intends to take final agency action. Petitions must substantially comply with the requirements of Rule 28-106.201(2), Fla. Admin. Code, a copy of the which is attached to this Notice of Rights.

b. Informal Administrative Hearing: If there are no issues of material fact in dispute, the affected person seeking an informal hearing on a SFWMD decision which does or may determine their substantial interests shall file a petition for hearing pursuant to Sections 120.569 and 120.57(2), Fla. Stat. or for mediation pursuant to Section 120.573, Fla. Stat. within 21 days, except as provided in subsections c. and d. below, of either written notice through mail or posting or publication of notice that the SFWMD has or intends to take final agency action. Petitions must substantially comply with the requirements of Rule 28-106.301(2), Fla. Admin. Code, a copy of the which is attached to this Notice of Rights.

c. Administrative Complaint and Order: If a Respondent objects to a SFWMD Administrative Complaint and Order, pursuant to Section 373.119, Fla. Stat. (1997), the person named in the Administrative Complaint and Order may file a petition for a hearing no later than 14 days after the date such order is served. Petitions must substantially comply with the requirements of either subsection a. or b. above.

d. State Lands Environmental Resource Permit: Pursuant to Section 373.427, Fla. Stat., and Rule 40E-1.511(3), Fla. Admin. Code (also published as an exception to the Uniform Rules of Procedure as Rule 40E-0.109(2)(c)), a petition objecting to the SFWMD's agency action regarding consolidated applications for Environmental Resource Permits and Use of Sovereign Submerged Lands (SLERPs), must be filed within 14 days of the notice of consolidated intent to grant or deny the SLERP. Petitions must substantially comply with the requirements of either subsection a. or b. above.

e. Emergency Authorization and Order: A person whose substantial interests are affected by a SFWMD Emergency Authorization and Order, has a right to file a petition under Sections 120.569, 120.57(1), and 120.57(2), Fla. Stat., as provided in subsections a. and b. above. However, the person, or the agent of the person responsible for causing or contributing to the emergency conditions shall take whatever action necessary to cause immediate compliance with the terms of the Emergency Authorization and Order.

f. Order for Emergency Action: A person whose substantial interests are affected by a SFWMD Order for Emergency Action has a right to file a petition pursuant to Rules 28-107.005 and 40E-1.611, Fla. Admin. Code, copies of which are attached to this Notice of Rights, and Section 373.119(3), Fla. Stat., for a hearing on the Order. Any subsequent agency action or proposed agency action to initiate a formal revocation proceeding shall be separately noticed pursuant to section g. below.

g. Permit Suspension, Revocation, Annulment, and Withdrawal: If the SFWMD issues an administrative complaint to suspend, revoke, annul, or withdraw a permit, the permittee may request a hearing to be conducted in accordance with Sections 120.569 and 120.57, Fla. Stat., within 21 days of either written notice through mail or posting or publication of notice that the SFWMD has or intends to take final agency action. Petitions must substantially comply with the requirements of Rule 28-107.004(3), Fla. Admin. Code, a copy of the which is attached to this Notice of Rights.

2. Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the SFWMD's final action may be different from the position taken by it previously. Persons whose substantial interests may be affected by

any such final decision of the SFWMD shall have, pursuant to Rule 40E-1.511(2), Fla. Admin. Code (also published as an exception to the Uniform Rules of Procedure as Rule 40E-0.109(2)(c)), an additional 21 days from the date of receipt of notice of said decision to request an administrative hearing. However, the scope of the administrative hearing shall be limited to the substantial deviation.

3. Pursuant to Rule 40E-1.511(4), Fla. Admin. Code, substantially affected persons entitled to a hearing pursuant to Section 120.57(1), Fla. Stat., may waive their right to such a hearing and request an informal hearing before the Governing Board pursuant to Section 120.57(2), Fla. Stat., which may be granted at the option of the Governing Board.

4. Pursuant to Rule 28-106.111(3), Fla. Admin. Code, persons may file with the SFWMD a request for extension of time for filing a petition. The SFWMD, for good cause shown, may grant the extension. The request for extension must contain a certificate that the petitioner has consulted with all other parties, if any, concerning the extension and that the SFWMD and all other parties agree to the extension.

CIRCUIT COURT

5. Pursuant to Section 373.617, Fla. Stat., any substantially affected person who claims that final agency action of the SFWMD relating to permit decisions constitutes an unconstitutional taking of property without just compensation may seek judicial review of the action in circuit court by filing a civil action in the circuit court in the judicial circuit in which the affected property is located within 90 days of the rendering of the SFWMD's final agency action.

6. Pursuant to Section 403.412, Fla. Stat., any citizen of Florida may bring an action for injunctive relief against the SFWMD to compel the SFWMD to enforce the laws of Chapter 373, Fla. Stat., and Title 40E, Fla. Admin. Code. The complaining party must file with the SFWMD Clerk a verified complaint setting forth the facts upon which the complaint is based and the manner in which the complaining party is affected. If the SFWMD does not take appropriate action on the complaint within 30 days of receipt, the complaining party may then file a civil suit for injunctive relief in the 15th Judicial Circuit in and for Palm Beach County or circuit court in the county where the cause of action allegedly occurred.

7. Pursuant to Section 373.433, Fla. Stat., a private citizen of Florida may file suit in circuit court to require the abatement of any stormwater management system, dam, impoundment, reservoir, appurtenant work or works that violate the provisions of Chapter 373, Fla. Stat.

DISTRICT COURT OF APPEAL

8. Pursuant to Section 120.68, Fla. Stat., a party who is adversely affected by final SFWMD action may seek judicial review of the SFWMD's final decision by filing a notice of appeal pursuant to Florida Rule of Appellate Procedure 9.110 in the Fourth District Court of Appeal or in the appellate district where a party resides and filing a second copy of the notice with the SFWMD Clerk within 30 days of rendering of the final SFWMD action.

LAND AND WATER ADJUDICATORY COMMISSION

9. A party to a "proceeding below" may seek review by the Land and Water Adjudicatory Commission (LAWAC) of SFWMD's final agency action to determine if such action is consistent with the provisions and purposes of Chapter 373, Fla. Stat. Pursuant to Section 373.114, Fla. Stat., and Rules 42-2.013 and 42-2.0132, Fla. Admin. Code, a request for review of (a) an order or rule of the SFWMD must be filed with LAWAC within 20 days after rendition of the order or adoption of the rule sought to be reviewed; (b) an order of the Department of Environmental Protection (DEP) requiring amendment or repeal of a SFWMD rule must be filed with LAWAC within 30 days of rendition of the DEP's order, and (c) a SFWMD order entered pursuant to a formal administrative hearing under Section 120.57(1), Fla. Stat., must be filed no later than 20 days after rendition of the SFWMD's final order. Simultaneous with filing, a copy of the request for review must be served on the DEP Secretary, any person named in the SFWMD or DEP final order, and all parties to the proceeding below. A copy of Rule 42-2.013, Fla. Admin. Code is attached to this Notice of Rights.

PRIVATE PROPERTY RIGHTS PROTECTION ACT

10. A property owner who alleges a specific action of the SFWMD has inordinately burdened an existing use of the real property, or a vested right to a specific use of the real property, may file a claim in the circuit court where the real property is located within 1 year of the SFWMD action pursuant to the procedures set forth in Subsection 70.001(4)(a), Fla. Stat.

LAND USE AND ENVIRONMENTAL DISPUTE RESOLUTION

11. A property owner who alleges that a SFWMD development order (as that term is defined in Section 70.51(2)(a), Fla. Stat. to include permits) or SFWMD enforcement action is unreasonable, or unfairly burdens the use of the real property, may file a request for relief with the SFWMD within 30 days of receipt of the SFWMD's order or notice of agency action pursuant to the procedures set forth in Subsections 70.51(4) and (6), Fla. Stat.

MEDIATION

12. A person whose substantial interests are, or may be, affected by the SFWMD's action may choose mediation as an alternative remedy under Section 120.573, Fla. Stat. Pursuant to Rule 28-106.111(2), Fla. Admin. Code, the petition for mediation shall be filed within 21 days of either written notice through mail or posting or

publication of notice that the SFWMD has or intends to take final agency action. Choosing mediation will not adversely affect the right to an administrative hearing if mediation does not result in settlement.

Pursuant to Rule 28-106.402, Fla. Admin. Code, the contents of the petition for mediation shall contain the following information:

(1) the name, address, and telephone number of the person requesting mediation and that person's representative, if any;

(2) a statement of the preliminary agency action;

(3) an explanation of how the person's substantial interests will be affected by the agency determination; and

(4) a statement of relief sought.

As provided in Section 120.573, Fla. Stat. (1997), the timely agreement of all the parties to mediate will toll the time limitations imposed by Sections 120.569 and 120.57, Fla. Stat., for requesting and holding an administrative hearing. Unless otherwise agreed by the parties, the mediation must be concluded within 60 days of the execution of the agreement. If mediation results in settlement of the dispute, the SFWMD must enter a final order incorporating the agreement of the parties. Persons whose substantial interest will be affected by such a modified agency decision have a right to petition for hearing within 21 days of receipt of the final order in accordance with the requirements of Sections 120.569 and 120.57, Fla. Stat., and SFWMD Rule 28-106.201(2), Fla. Admin. Code. If mediation terminates without settlement of the dispute, the SFWMD shall notify all parties in writing that the administrative hearing process under Sections 120.569 and 120.57, Fla. Stat., remain available for disposition of the dispute, and the notice will specify the deadlines that then will apply for challenging the agency action.

VARIANCES AND WAIVERS

13. A person who is subject to regulation pursuant to a SFWMD rule and believes the application of that rule will create a substantial hardship or will violate principles of fairness (as those terms are defined in Subsection 120.542(2), Fla. Stat.) and can demonstrate that the purpose of the underlying statute will be or has been achieved by other means, may file a petition with the SFWMD Clerk requesting a variance from or waiver of the SFWMD rule. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have concerning the SFWMD's action. Pursuant to Rule 28-104.002(2), Fla. Admin. Code, the petition must include the following information:

(a) the caption shall read:
Petition for (Variance from) or (Waiver of) Rule (Citation)

(b) The name, address, telephone number and any facsimile number of the petitioner;

(c) The name, address telephone number and any facsimile number of the attorney or qualified representative of the petitioner, (if any);

(d) the applicable rule or portion of the rule;

(e) the citation to the statue the rule is implementing;

(f) the type of action requested;

(g) the specific facts that demonstrate a substantial hardship or violation of principals of fairness that would justify a waiver or variance for the petitioner;

(h) the reason why the variance or the waiver requested would serve the purposes of the underlying statute; and

(i) a statement of whether the variance or waiver is permanent or temporary, If the variance or waiver is temporary, the petition shall include the dates indicating the duration of the requested variance or waiver.

A person requesting an emergency variance from or waiver of a SFWMD rule must clearly so state in the caption of the petition. In addition to the requirements of Section 120.542(5), Fla. Stat. pursuant to Rule 28-104.004(2), Fla. Admin. Code, the petition must also include:

a) the specific facts that make the situation an emergency; and

b) the specific facts to show that the petitioner will suffer immediate adverse effect unless the variance or waiver is issued by the SFWMD more expeditiously than the applicable timeframes set forth in Section 120.542, Fla. Stat.

WAIVER OF RIGHTS

14. Failure to observe the relevant time frames prescribed above will constitute a waiver of such right.

28-106.201 INITIATION OF PROCEEDINGS
(INVOLVING DISPUTED ISSUES OF MATERIAL FACT)

(2) All petitions filed under these rules shall contain:

(a) The name and address of each agency affected and each agency's file or identification number, if known;

(b) The name, address, and telephone number of the petitioner; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding, and an explanation of how the petitioner's substantial interests will be affected by the agency determination;

(c) A statement of when and how the petitioner received notice of the agency decision;

(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;

(e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and

(f) A demand for relief.

SCANNED

28-106.301 INITIATION OF PROCEEDINGS
(NOT INVOLVING DISPUTED ISSUES OF MATERIAL FACT)

(2) All petitions filed under these rules shall contain:

(a) The name and address of each agency affected and each agency's file or identification number, if known;

(b) The name, address, and telephone number of the petitioner; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding, and an explanation of how the petitioner's substantial interests will be affected by the agency determination;

(c) A statement of when and how the petitioner received notice of the agency decision;

(d) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and

(e) A demand for relief.

28-107.004 SUSPENSION, REVOCATION, ANNULMENT, OR WITHDRAWAL

(3) Requests for hearing filed in accordance with this rule shall include:

(a) The name and address of the party making the request, for purposes of service;

(b) A statement that the party is requesting a hearing involving disputed issues of material fact, or a hearing not involving disputed issues of material fact; and

(c) A reference to the notice, order to show cause, administrative complaint, or other communication that the party has received from the agency.

42-2.013 REQUEST FOR REVIEW PURSUANT TO SECTION 373.114 OR 373.217

(1) In any proceeding arising under Chapter 373, F.S., review by the Florida Land and Water Adjudicatory Commission may be initiated by the Department or a party by filing a request for such review with the Secretary of the Commission and serving a copy on any person named in the rule or order, and on all parties to the proceeding which resulted in the order sought to be reviewed. A certificate of service showing completion of service as required by this subsection shall be a requirement for a determination of sufficiency under Rule 42-2.0132. Failure to file the request with the Commission within the time period provided in Rule 42-2.0132 shall result in dismissal of the request for review.

(2) The request for review shall identify the rule or order requested to be reviewed, the proceeding in which the rule or order was entered and the nature of the rule or order. A copy of the rule or order sought to be reviewed shall be attached. The request for review shall state with particularity:

(a) How the order or rule conflicts with the requirements, provisions and purposes of Chapter 373, F.S., or rules duly adopted thereunder;

(b) How the rule or order sought to be reviewed affects the interests of the party seeking review;

(c) The oral or written statement, sworn or unsworn, which was submitted to the agency concerning the matter to be reviewed and the date and location of the statement, if the individual or entity requesting the review has not participated in a proceeding previously instituted pursuant to Chapter 120, F.S., on the order for which review is sought;

(d) If review of an order is being sought, whether and how the activity authorized by the order would substantially affect natural resources of statewide or regional significance, or whether the order raises issues of policy, statutory interpretation, or rule interpretation that have regional or statewide significance from a standpoint of agency precedent, and all the factual bases in the record which the petitioner claims support such determination(s); and

(e) The action requested to be taken by the Commission as a result of the review, whether to rescind or modify the order, or remand the proceeding to the water management district for further action, or to require the water management district to initiate rulemaking to adopt, amend or repeal a rule.

28-107.005 EMERGENCY ACTION

(1) If the agency finds that immediate serious danger to the public health, safety, or welfare requires emergency action, the agency shall summarily suspend, limit, or restrict a license.

(2) the 14-day notice requirement of Section 120.569(2)(b), F. S., does not apply and shall not be construed to prevent a hearing at the earliest time practicable upon request of an aggrieved party.

(3) Unless otherwise provided by law, within 20 days after emergency action taken pursuant to paragraph (1) of this rule, the agency shall initiate a formal suspension or revocation proceeding in compliance with Sections 120.569, 120.57. and 120.60, F.S.

40E-1.611 EMERGENCY ACTION

(1) An emergency exists when immediate action is necessary to protect public health, safety or welfare; the health of animals, fish or aquatic life; the works of the District; a public water supply, or recreational, commercial, industrial, agricultural or other reasonable uses of land and water resources.

(2) The Executive Director may employ the resources of the District to take whatever remedial action necessary to alleviate the emergency condition without the issuance of an emergency order, or in the event an emergency order has been issued, after the expiration of the requisite time for compliance with that order.

STANDARD LIMITING CONDITIONS

1. THE PERMITTEE SHALL IMPLEMENT THE WORK AUTHORIZED IN A MANNER SO AS TO MINIMIZE ANY ADVERSE IMPACT OF THE WORKS ON FISH, WILDLIFE, NATURAL ENVIRONMENTAL VALUES, AND WATER QUALITY. THE PERMITTEE SHALL INSTITUTE NECESSARY MEASURES DURING THE CONSTRUCTION PERIOD, INCLUDING FULL COMPACTION OF ANY FILL MATERIAL PLACED AROUND NEWLY INSTALLED STRUCTURES, TO REDUCE EROSION, TURBIDITY, NUTRIENT LOADING AND SEDIMENTATION IN THE RECEIVING WATERS.

2. WATER QUALITY DATA FOR THE WATER DISCHARGED FROM THE PERMITTEE'S PROPERTY OR INTO SURFACE WATERS OF THE STATE WILL BE SUBMITTED TO THE DISTRICT AS REQUIRED BY SECTION 5.9, "BASIS OF REVIEW FOR SURFACE WATER MANAGEMENT PERMIT APPLICATIONS WITHIN SOUTH FLORIDA WATER MANAGEMENT DISTRICT - MARCH, 1994." PARAMETERS TO BE MONITORED MAY INCLUDE THOSE LISTED IN CHAPTER 62-302, F.A.C. IF WATER QUALITY DATA IS REQUIRED, THE PERMITTEE SHALL PROVIDE DATA ON VOLUMES OF WATER DISCHARGED, INCLUDING TOTAL VOLUME DISCHARGED DURING THE DAYS OF SAMPLING AND TOTAL MONTHLY DISCHARGES FROM THE PROPERTY OR INTO SURFACE WATERS OF THE STATE.

3. THIS PERMIT SHALL NOT RELIEVE THE PERMITTEE OF ANY OBLIGATION TO OBTAIN NECESSARY FEDERAL, STATE, LOCAL OR SPECIAL DISTRICT APPROVALS.

4. THE OPERATION PHASE OF THIS PERMIT WILL NOT BECOME EFFECTIVE UNTIL THE DISTRICT'S ACCEPTANCE OF CERTIFICATION OF THE COMPLETED SURFACE WATER WATER MANAGEMENT SYSTEM. THE PERMITTEE SHALL REQUEST TRANSFER OF THE PERMIT TO THE RESPONSIBLE OPERATIONAL ENTITY ACCEPTED BY THE DISTRICT, IF DIFFERENT FROM THE PERMITTEE. THE TRANSFER REQUEST CAN BE SUBMITTED CONCURRENTLY WITH THE CONSTRUCTION COMPLETION CERTIFICATION.

5. ALL ROAD ELEVATIONS SHALL BE SET IN ACCORDANCE WITH THE CRITERIA SET FORTH IN SECTION 6.5, "BASIS OF REVIEW FOR SURFACE WATER MANAGEMENT PERMIT APPLICATIONS WITHIN SOUTH FLORIDA WATER MANAGEMENT DISTRICT - MARCH, 1994."

6. ALL BUILDING FLOOR ELEVATIONS SHALL BE SET IN ACCORDANCE WITH THE CRITERIA SET FORTH IN SECTION 6.4, "BASIS OF REVIEW FOR SURFACE WATER MANAGEMENT PERMIT APPLICATIONS WITHIN SOUTH FLORIDA WATER MANAGEMENT DISTRICT - MARCH, 1994."

7. OFF-SITE DISCHARGES DURING CONSTRUCTION AND DEVELOPMENT WILL BE MADE ONLY THROUGH THE FACILITIES AUTHORIZED BY THIS PERMIT.

8. A PERMIT TRANSFER TO THE OPERATION PHASE SHALL NOT OCCUR UNTIL A RESPONSIBLE ENTITY MEETING THE REQUIREMENT IN SECTION 9.0, "BASIS OF REVIEW FOR SURFACE WATER MANAGEMENT PERMIT APPLICATIONS WITHIN SOUTH FLORIDA WATER MANAGEMENT DISTRICT - MARCH, 1994," HAS BEEN ESTABLISHED TO OPERATE AND MAINTAIN THE SYSTEM. THE ENTITY MUST BE PROVIDED WITH SUFFICIENT OWNERSHIP OR LEGAL INTEREST SO THAT IT HAS CONTROL OVER ALL WATER MANAGEMENT FACILITIES AUTHORIZED HEREIN.

9. THE PERMIT DOES NOT CONVEY TO THE PERMITTEE ANY PROPERTY RIGHT NOR ANY RIGHTS OR PRIVILEGES OTHER THAN THOSE SPECIFIED IN THE PERMIT AND CHAPTER 40E-4, FAC.

10. THE PERMITTEE SHALL HOLD AND SAVE THE DISTRICT HARMLESS FROM ANY AND ALL DAMAGES, CLAIMS, OR LIABILITIES WHICH MAY ARISE BY REASON OF THE CONSTRUCTION, OPERATION, MAINTENANCE OR USE OF ANY FACILITY AUTHORIZED BY THE PERMIT.

SCANNED

11. THIS PERMIT IS ISSUED BASED ON THE APPLICANT'S SUBMITTED INFORMATION WHICH REASONABLY DEMONSTRATES THAT ADVERSE WATER RESOURCE RELATED IMPACTS WILL NOT BE CAUSED BY THE COMPLETED PERMIT ACTIVITY. SHOULD ANY ADVERSE IMPACTS CAUSED BY THE COMPLETED SURFACE WATER MANAGEMENT SYSTEM OCCUR, THE DISTRICT WILL REQUIRE THE PERMITTEE TO PROVIDE APPROPRIATE MITIGATION TO THE DISTRICT OR OTHER IMPACTED PARTY. THE DISTRICT WILL REQUIRE THE PERMITTEE TO MODIFY THE SURFACE WATER MANAGEMENT SYSTEM, IF NECESSARY, TO ELIMINATE THE CAUSE OF THE ADVERSE IMPACTS.

12. WITHIN 30 DAYS OF ISSUANCE OF THIS PERMIT, THE PERMITTEE OR AUTHORIZED AGENT SHALL NOTIFY THE DISTRICT (VIA THE SUPPLIED CONSTRUCTION COMMENCEMENT NOTICE OR EQUIVALENT) OF THE ACTUAL OR ANTICIPATED CONSTRUCTION START DATE AND THE EXPECTED COMPLETION DATE.

13. WHEN THE DURATION OF CONSTRUCTION EXCEEDS ONE YEAR, THE PERMITTEE OR AUTHORIZED AGENT SHALL SUBMIT CONSTRUCTION STATUS REPORTS ON AN ANNUAL BASIS (VIA THE SUPPLIED ANNUAL STATUS REPORT OR EQUIVALENT) BEGINNING ONE YEAR AFTER THE INITIAL COMMENCEMENT OF CONSTRUCTION.

14. WITHIN 30 DAYS AFTER COMPLETION OF CONSTRUCTION OF THE SURFACE WATER MANAGEMENT SYSTEM, THE PERMITTEE OR AUTHORIZED AGENT SHALL FILE A WRITTEN STATEMENT OF COMPLETION AND CERTIFICATION BY A FLORIDA REGISTERED PROFESSIONAL ENGINEER. THESE STATEMENTS MUST SPECIFY THE ACTUAL DATE OF CONSTRUCTION COMPLETION AND MUST CERTIFY THAT ALL FACILITIES HAVE BEEN CONSTRUCTED IN SUBSTANTIAL CONFORMANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY THE DISTRICT (VIA THE SUPPLIED CONSTRUCTION COMPLETION/CONSTRUCTION CERTIFICATION OR EQUIVALENT). THE CONSTRUCTION COMPLETION CERTIFICATION MUST INCLUDE, AT A MINIMUM, EXISTING ELEVATIONS, LOCATIONS AND DIMENSIONS OF THE COMPONENTS OF THE WATER MANAGEMENT FACILITIES. ADDITIONALLY, IF DEVIATIONS FROM THE APPROVED DRAWING ARE DISCOVERED DURING THE CERTIFICATION PROCESS, THE CERTIFICATION MUST BE ACCOMPANIED BY A COPY OF THE APPROVED PERMIT DRAWINGS WITH DEVIATIONS NOTED.

15. WITHIN 30 DAYS OF ANY SALE, CONVEYANCE OR OTHER TRANSFER OF ANY OF THE LAND WHICH IS PROPOSED FOR DEVELOPMENT UNDER THE AUTHORIZATION OF THIS PERMIT, THE PERMITTEE SHALL NOTIFY THE DISTRICT OF SUCH TRANSFER IN WRITING VIA EITHER FORM 0483, REQUEST FOR PERMIT TRANSFER; OR FORM 0920, REQUEST FOR TRANSFER OF SURFACE WATER MANAGEMENT CONSTRUCTION PHASE TO OPERATION PHASE (TO BE COMPLETED AND SUBMITTED BY THE OPERATING ENTITY), IN ACCORDANCE WITH SECTIONS 40E-1.6105 AND 40E-4.351, F.A.C.

16. A PRORATED SHARE OF SURFACE WATER MANAGEMENT RETENTION/DETENTION AREAS, SUFFICIENT TO PROVIDE THE REQUIRED FLOOD PROTECTION AND WATER QUALITY TREATMENT, MUST BE PROVIDED PRIOR TO OCCUPANCY OF ANY BUILDING OR RESIDENCE.

17. A STABLE, PERMANENT AND ACCESSIBLE ELEVATION REFERENCE SHALL BE ESTABLISHED ON OR WITHIN ONE HUNDRED (100) FEET OF ALL PERMITTED DISCHARGE STRUCTURES NO LATER THAN THE SUBMISSION OF THE CERTIFICATION REPORT. THE LOCATION OF THE ELEVATION REFERENCE MUST BE NOTED ON OR WITH THE CERTIFICATION REPORT.

18. IT IS THE RESPONSIBILITY OF THE PERMITTEE TO INSURE THAT ADVERSE OFF-SITE WATER RESOURCE RELATED IMPACTS DO NOT OCCUR DURING CONSTRUCTION.

19. THE PERMITTEE MUST OBTAIN A WATER USE PERMIT PRIOR TO CONSTRUCTION DEWATERING, UNLESS THE WORK QUALIFIES FOR A GENERAL PERMIT PURSUANT TO SUBSECTION 40E-20.302(4), F.A.C.

SPECIAL CONDITIONS

1. MINIMUM BUILDING FLOOR ELEVATION: 16.5 FEET NGVD.

2. MINIMUM ROAD CROWN ELEVATION: 14.5 FEET NGVD.

3. DISCHARGE FACILITIES:

   1-10.17' WIDE SHARP CRESTED WEIR WITH CREST AT ELEV. 12.5' NGVD.

   RECEIVING BODY : EPB-9 VIA MASTER SYSTEM

   CONTROL ELEV : 12.5 FEET NGVD.

4. THE PERMITTEE SHALL BE RESPONSIBLE FOR THE CORRECTION OF ANY EROSION, SHOALING OR WATER QUALITY PROBLEMS THAT RESULT FROM THE CONSTRUCTION OR OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM.

5. MEASURES SHALL BE TAKEN DURING CONSTRUCTION TO INSURE THAT SEDIMENTATION AND/OR TURBIDITY PROBLEMS ARE NOT CREATED IN THE RECEIVING WATER.

6. THE DISTRICT RESERVES THE RIGHT TO REQUIRE THAT ADDITIONAL WATER QUALITY TREATMENT METHODS BE INCORPORATED INTO THE DRAINAGE SYSTEM IF SUCH MEASURES ARE SHOWN TO BE NECESSARY.

7. FACILITIES OTHER THAN THOSE STATED HEREIN SHALL NOT BE CONSTRUCTED WITHOUT AN APPROVED MODIFICATION OF THIS PERMIT.

8. ALL SPECIAL CONDITIONS PREVIOUSLY STIPULATED BY PERMIT NUMBER 50-00497-S REMAIN IN EFFECT UNLESS OTHERWISE REVISED AND SHALL APPLY TO THIS MODIFICATION.

9. OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM SHALL BE THE RESPONSIBILITY OF FLORIDA POWER & LIGHT COMPANY.

SCANNED

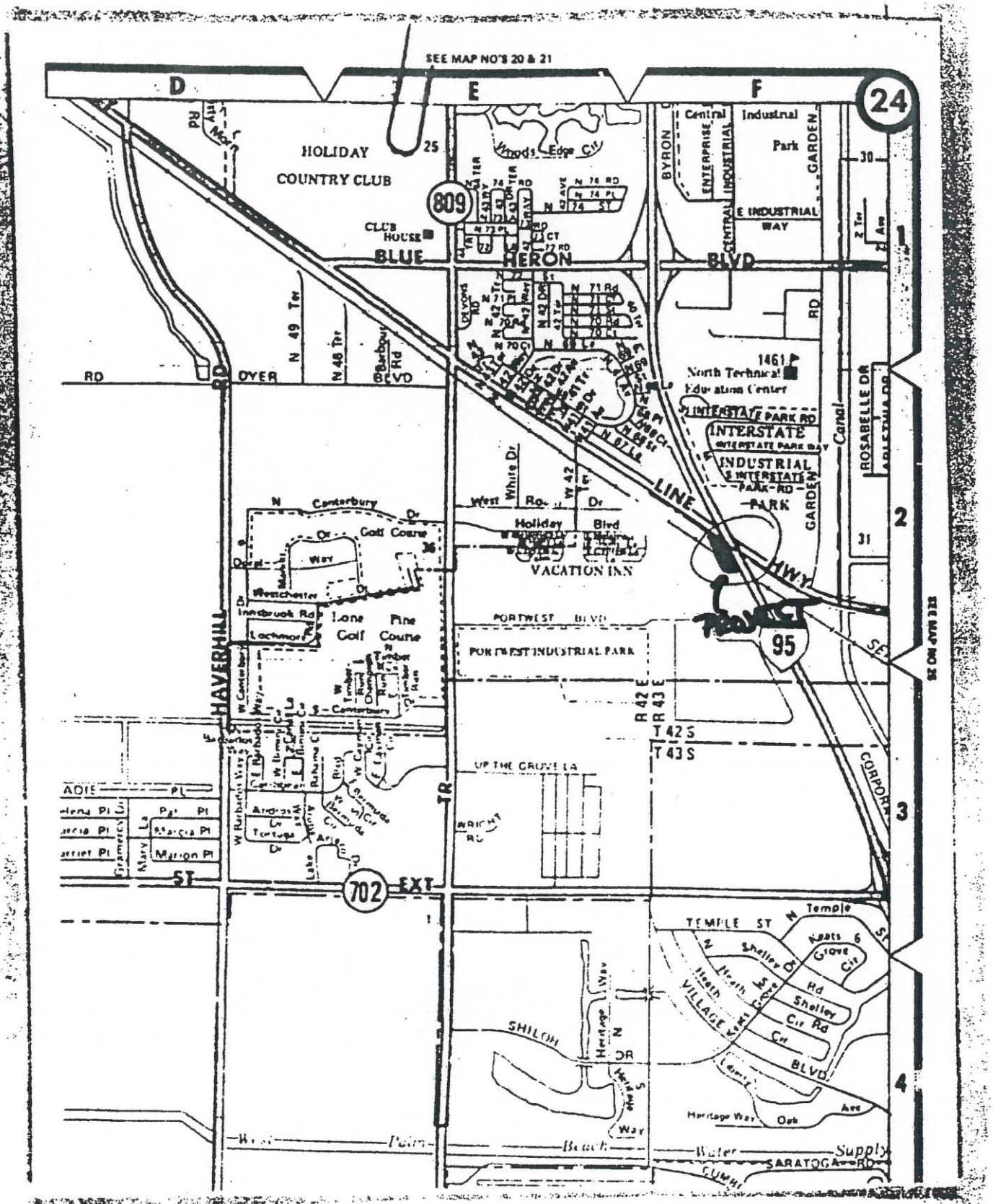

SEE MAP NO'S 20 & 21
D
E
F
24
HOLIDAY
COUNTRY CLUB
809
CLUB HOUSE
BLUE HERON BLVD
Woods Edge Cir
BYRON
Central Industrial Park
GARDEN
E INDUSTRIAL WAY
ENTERPRISE
CENTRAL INDUSTRIAL
N 49 Ter
N 48 Ter
Burbour Rd
RD
DYER
BLVD
1461
North Technical Education Center
INTERSTATE PARK RD
INTERSTATE INDUSTRIAL PARK
ROSABELLE DR
Canal
LINE
White Dr
West Rd
Holiday Blvd
VACATION INN
N Canterbury Dr
Golf Course
Lone Pine Golf Course
Westchester
Innsbruck Rd
Lochmoor
HAVERHILL
PORTWEST BLVD
PORTWEST INDUSTRIAL PARK
HWY
95
R42E
R43E
T42S
T43S
UP THE GROVE LA
WRIGHT RD
ADIE PL
Marion Pl
ST
702
EXT
TEMPLE ST
N Temple
Shelley Dr
Shelley Cir Rd
SHILOH
Heritage Way
BLVD
Heritage Way
Oak Ave
West Palm Beach Water Supply
SARATOGA RD
CUMMER
ADD'L/REVISED SUBMITTAL
MAY 07 1999

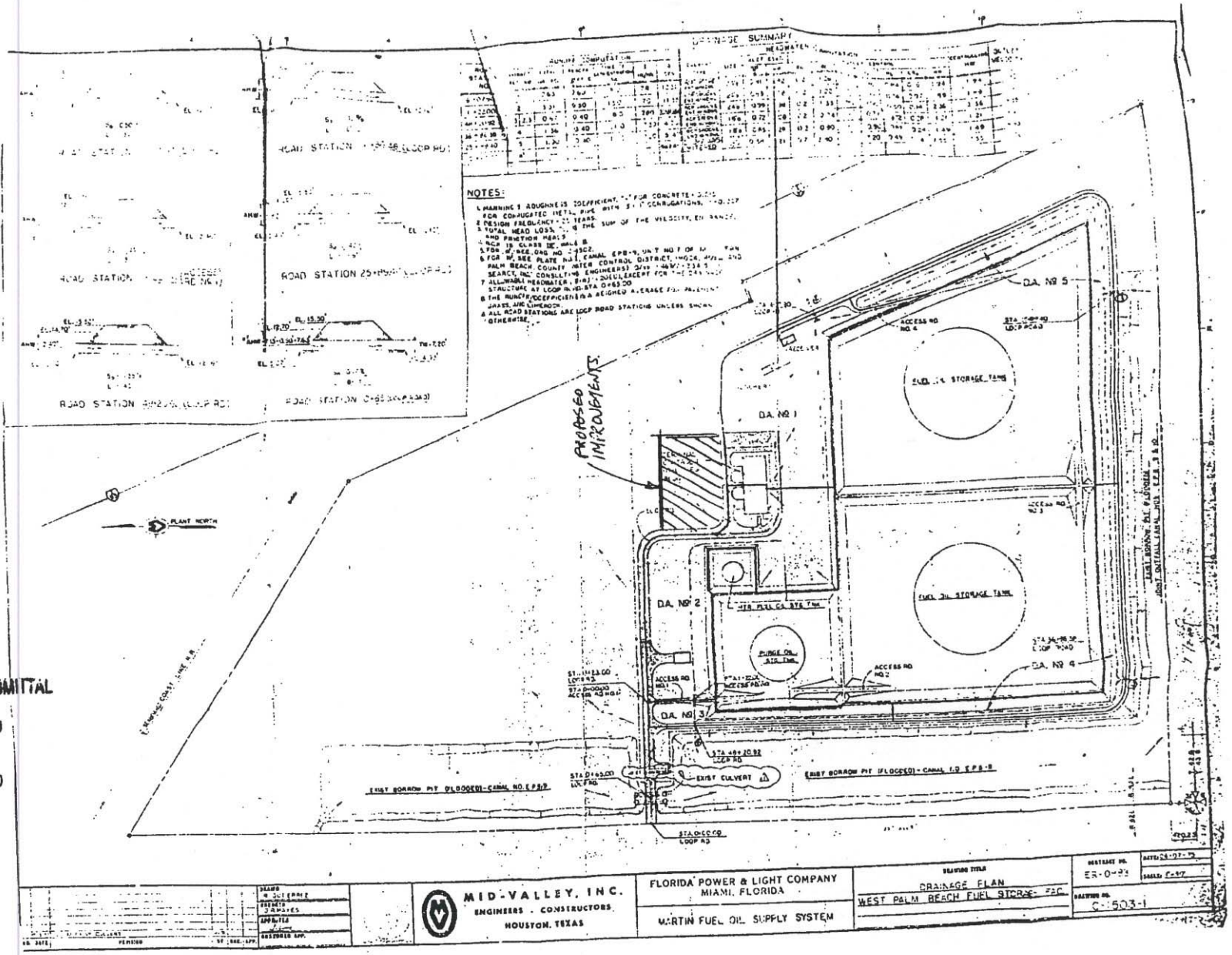
EXHIBIT 1

EXHIBIT 2

ADD/REVISED SUBMITTAL

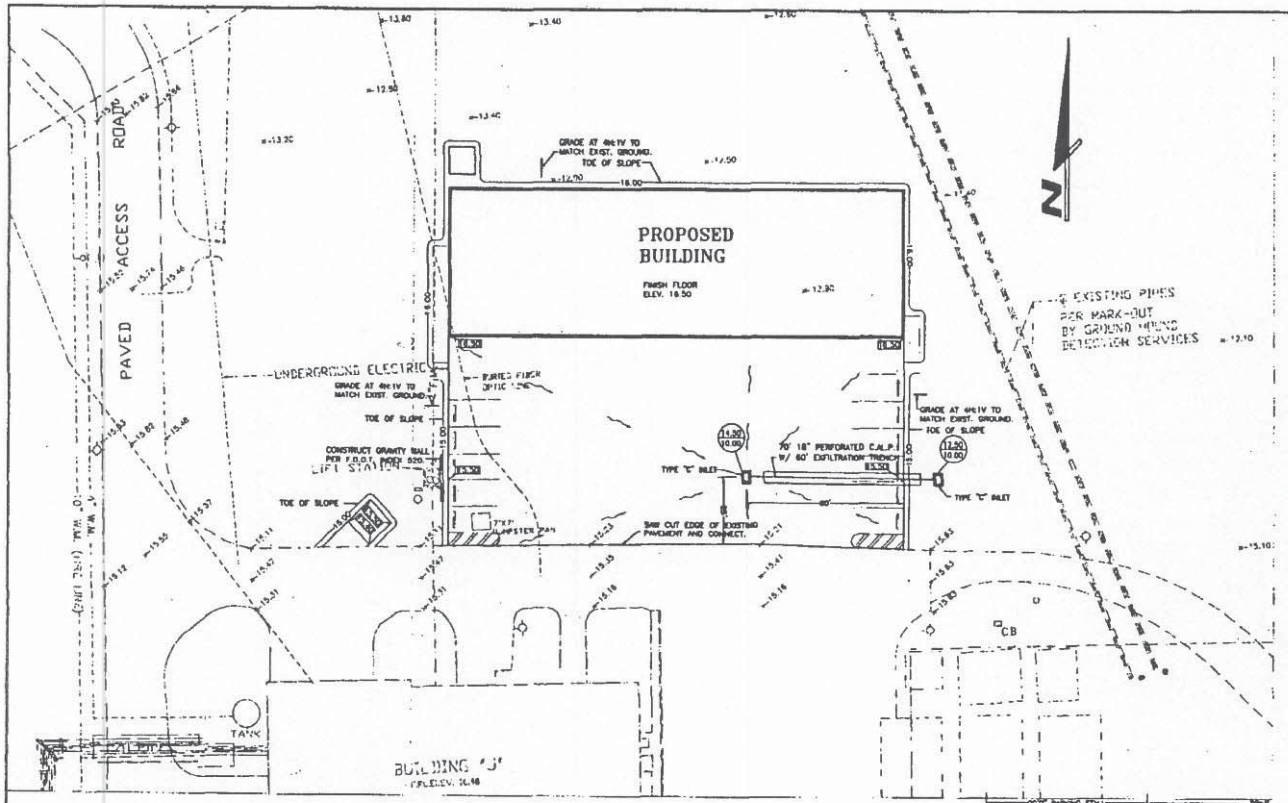
JUN 14 1999

99032910



CANCELED

EXHIBIT 3

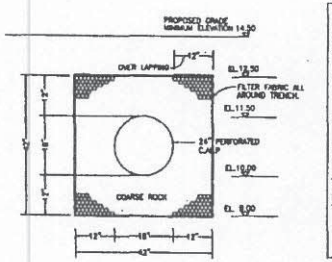


PAVING & DRAINAGE LEGEND

F.F. 16.50	FINISH FLOOR ELEV.
18.72	PROPOSED GRADE
STR#1	DRAINAGE STR. NO.
0.35%	FLOW DIRECTION & SLOPE
R.C.P.	REINFORCED CONC. PIPE
C.A.P.	CORRUGATED ALUMINUM PIPE
	PROPOSED CATCH BASIN
16.50 / 10.00	PROPOSED GRATE ELEV. / PROPOSED INVERT ELEV.

PAVING AND DRAINAGE NOTES

1. ALL PAVING AND DRAINAGE CONSTRUCTION SHALL BE DONE IN FULL ACCORDANCE WITH THE LATEST PALM BEACH COUNTY, FLORIDA, CITY OF RIVIERA BEACH AND F.D.O.T. SPECIFICATIONS AND STANDARDS.
2. PRIOR TO CONSTRUCTION IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE AND VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES WHETHER SHOWN OR NOT SHOWN ON THESE DRAWINGS.
3. AT NO TIME SHALL THE CONTRACTOR TAMPER WITH ANY EXISTING UTILITY, EXCEPT AS NOTED ON THE PLANS. ANY DAMAGE TO EXISTING ROADWAY AND/OR UTILITY WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE TO THE ENGINEER'S SATISFACTION.
4. SHOP DRAWINGS OF ALL THE PROPOSED DRAINAGE STRUCTURES, GRATES, FRAME AND COVER ETC. SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL, PRIOR TO PURCHASING.
5. ALL THE ROADWAY AREA AND BORROW AREAS SHALL BE STRIPPED OF ALL DELETERIOUS MATERIALS AND SAID MATERIALS WILL BE DISPOSED ON SITE AT AN AREA APPROVED BY THE ENGINEER.
6. BACKFILL AND BEDDING MATERIAL SHALL BE NON-COHESIVE AND NON-PLASTIC, FREE OF DEBRIES, LUMPS, CLODS, WOOD, BROKEN PAVEMENT OR ANY ORGANIC OR UNSUITABLE MATERIAL. NO ROCKS LARGER THAN 6" WILL BE PERMITTED AS BEDDING OR BACKFILLING. ANY MUCK POCKET MUST BE REMOVED IN ITS ENTIRETY AND REPLACED WITH SUITABLE BACKFILL MATERIAL, AS DESCRIBED ABOVE AND AS DIRECTED BY THE ENGINEER.
7. WHERE CONNECTION TO AN EXISTING DRAINAGE SYSTEM IS PROPOSED, THE EXISTING DRAINAGE SYSTEM SHALL BE PURGED, CLEANED AND/OR GRADED TO THE POINT OF LEGAL POSITIVE OUTFALL, PRIOR TO CONNECTION.
8. ALL DRAINAGE PIPES SHALL BE C.A.P. (CORRUGATED ALUMINUM PIPE) OR R.C.P. (REINFORCED CONCRETE PIPE) PER THE LATEST F.D.O.T. SPECIFICATIONS.
9. DENSITY TESTS SHALL BE TAKEN AT LOCATIONS DIRECTED BY THE ENGINEER.
10. ALL EXISTING SAN. SEWER MANHOLES, GATE VALVES AND ANY OTHER EXISTING UNDERGROUND STRUCTURES MUST BE ADJUSTED TO MATCH PROPOSED NEW SITE GRADES, UNLESS OTHERWISE NOTED ON PLAN.
11. DIMENSIONS SHOWN ON THESE DRAWINGS ARE SCALED. THE CONTRACTOR SHALL CONFIRM ALL THE MEASUREMENTS IN THE FIELD AND NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCY WITH THE DRAWINGS PRIOR TO CONSTRUCTION. QUANTITIES WILL BE PAID BASED ON FIELD MEASUREMENTS OF COMPLETED WORK.
12. ALL METAL PIPE JOINTS WILL BE WATER TIGHT.
13. ALL NEW UNDERGROUND INSTALLATIONS BELOW PROPOSED PAVEMENT MUST BE CONSTRUCTED PRIOR TO COMPACTION OF SUBGRADE.
14. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC DEVICES FOR STREETS AND HIGHWAYS AND PALM BEACH COUNTY TYPICAL NO. T-3-94-033-P3.
15. ANY MUCK POCKET MUST BE REMOVED COMPLETELY TO 30" BELOW SUBGRADE AND TO OUTSIDE EDGE OF SHOULDER.
16. ANY GUMBO ENCOUNTERED WITHIN THE ROADWAY MUST BE REMOVED TO 1.0' BELOW SUBGRADE AND TO OUTSIDE EDGE OF SHOULDER.
17. ANY PROPOSED CATCH BASIN GRATE AND MANHOLE LID MUST HAVE LOCKING DEVICES PER F.D.O.T. INDEX NO. 201 OR AN APPROVED EQUAL.



TYPICAL SECTION – EXFILTRATION TRENCH

DRAINAGE COMPUTATIONS

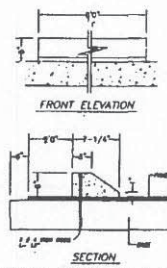
I. GENERAL INFORMATION
TOTAL SITE 0.53 AC.
TOTAL IMPERVIOUS 0.53 AC.
WATER TABLE ELEV. +/-9.00
DEPTH TO WATER TABLE >4'
CITY OF RIVIERA BEACH REQUIREMENTS, RETAINING THE 3 YEAR, 1 HOUR STORM EVENT RUNOFF ON SITE.
3 YEAR 1 HOUR RAINFALL 2.7"

2. RUNOFF COMPUTATION FOR REQUIRED RETENTION
a) On Site Runoff 2.7"/12" x 0.53AC. = 0.12 AC.FT.

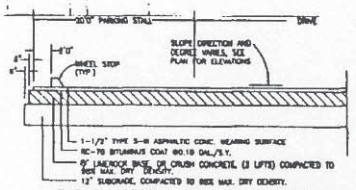
3. EXFILTRATION TRENCH COMPUTATIONS

$$L = \frac{V}{K(H_W y + 2H_W D_H - D_H^2 + 2H_W D_M) + (1.38 \times 10^{-5})\, WDV}$$

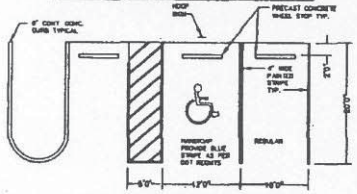
K = HYDRAULIC CONDUCTIVITY (CFS/FT - FT. HEAD)	=0.000481
H_W = DEPTH TO WATER TABLE (FEET)	=5.50
W = TRENCH WIDTH (FEET)	=3.50
D_H = NON-SATURATED TRENCH DEPTH (FEET)	=3.50
D_M = SATURATED TRENCH DEPTH (FEET)	=0.0
V = VOLUME TREATED (ACRE-INCHES)	=1.63
L = LENGTH OF TRENCH REQUIRED (FEET)	=59.48'



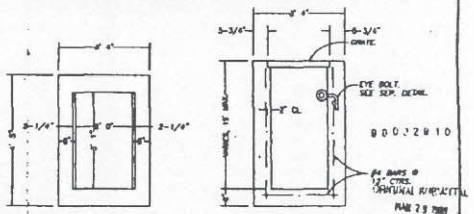
TYPICAL WHEEL STOP DETAILS



TYPICAL SECTION – PAVED AREAS.



TYPICAL PARKING LAYOUT



NOTES:
1. THIS INLET IS SUITABLE FOR BICYCLE AND PEDESTRIAN AREAS AND IS TO BE USED IN DITCHES, MEDIANS AND OTHER AREAS SUBJECT TO INFREQUENT TRAFFIC AREAS SUCH AS PARKING LOTS.
2. WHEN USED DIRECTLY IN TRAFFIC AREAS SUCH AS PARKING LOTS, USE U.S.FOUNDRY #130-6210 FRAME AND GRATE OR EQUAL.
3. WHEN USED IN DITCH BOTTOM AREAS ADJACENT TO ROADWAY USE U.S.FOUNDRY 6210 DITCH BOTTOM INLET GRATE. WHEN USED IN OPEN SPACES AND WHERE BICYCLE TRAFFIC IS ANTICIPATED, USE U.S. FOUNDRY 8811 DITCH BOTTOM INLET STEEL GRATE OR EQUAL.
4. ALL EXPOSED CORNERS AND EDGES OF CONCRETE ARE TO BE CHAMFERED 3/4".

TYPE "C" INLET DETAILS

SNS ENGINEERS INC.
536 JUNIPER PL., WEST PALM BEACH, FL. 33414
TEL: (561)795-5579 FAX: (561)795-5621

PROJECT: STORAGE BUILDING FOR MARTIN TERMINAL.

SUBJECT: PAVING AND DRAINAGE PLAN AND DETAILS

DESIGN	CHECKED	DATE 12/7/98	PROJECT NO.	SHEET NO.
DRAWN	APPROVED	SCALE 1"=20'		C-1

PROJECT: STORAGE BUILDING MARTIN TERMINAL

PERMIT SUMMARY SHEET

APPLICATION NUMBER: 990329-10

PERMIT MODIFICATION NO.: 50-00497-S

LOCATION: PALM BEACH COUNTY, S31/T42S/R43E

OWNER: FLORIDA POWER AND LIGHT COMPANY

ENGINEER: SWS ENGINEERS INC

PROJECT AREA: 71.00 ACRES **DRAINAGE AREA:** .50 ACRES

PROJECT USE: COMMERCIAL

FACILITIES:

1. EXISTING: The proposed project is within an existing Florida Power & Light facility, located just west of the intersection between I-95 and the Bee Line Highway. This site was previously permitted as permit number 50-00497-S, issued on October 13, 1977.

2. PROPOSED: Authorization has been requested to modify Surface Water Management Permit number 50-00497-S for construction and operation of a surface water management sytem to include an additional 0.53 acres of impervious area. This area consists of one 0.21 acre building and 0.32 acres of parking/roads. Grading, inlets, and culverts will direct runoff into 60' of exfiltration trench, where water quality requirements will be met. Stormwater will then discharge into the master system through a control structure consisting of a 10.17' weir at elevation 12.5' NGVD. Staff recommends approval with conditions.

PROJECT LEVEL:

DRAINAGE BASIN: C-17

RECEIVING BODY: EPB-9 VIA MASTER SYSTEM

LOCAL ROAD CRITERIA: 3YR STORM

BASIN DESIGN FREQUENCY: 25YR STORM

Exhibit 4A

SCANNED

APPLICATION NUMBER: 990329-10

WATER QUALITY:

Water quality for 2.5 inches times the percentage impervious is being provided in 60' of exfiltration trench.

Basin	Method	Vol Req'd. (ac-ft)	Vol Prov'd (ac-ft)
1	60 LF EXFILTRATION TRENCH	.12	.12

ENVIRONMENTAL ASSESSMENT:

ENVIRONMENTAL SUMMARY:

The project site is located in suburban Riviera Beach west of Military Trail and south of S.R 710. The site is part of an existing Florida Power and Light facility that has an existing permit. There are no wetlands located within the area of proposed activity.

APPLICABLE LAND USE:

The following table provides the land use breakdown for the entire 56 acre site. The "IMPERVIOUS" column represents the acreage of Fuel Tanks, and the "OTHER" column represents the acreage of EPB-9 canal which is located on the property.

	TOTAL PROJECT	PREVIOUSLY PERMITTED	THIS PHASE	
TOTAL ACRES	56.00	56.00	.53	acres
PAVEMENT	4.52	4.20	.32	acres
BUILD COVERAGE	.42	.21	.21	acres
PERVIOUS	36.10	36.63	.00	acres
IMPERVIOUS	3.02	3.02	.00	acres
OTHER	11.94	11.94	.00	acres

Exhibit 4B

APPLICATION NUMBER: 990329-10

DIVISIONAL APPROVAL:

SURFACE WATER MANAGEMENT

Maria C. Clemente, P.E.

DATE: 7/28/99

NATURAL RESOURCE MANAGEMENT

Donald L. Medellin

DATE: 7/28/99

Exhibit 4c

SCANNED

STAFF REPORT DISTRIBUTION LIST

STORAGE BUILDING MARTIN TERMINAL
APPLICATION NUMBER: 990329-10
PERMIT MODIFICATION NUMBER: 50-00497-S

INTERNAL DISTRIBUTION

Reviewer:
X Angela Hendrichsen, E.I.
X R. Brent Nicholas
X Donald L. Medellin
X Maria C. Clemente, P.E.
J. Giddings - LEC
J. Golden - REG
X J. Gronborg - REG
F. Lund - LEC
R. Robbins - NRM
X P. Walker - GPA
A. Waterhouse - REG
X Permit File
X P. Bell - LEG
Enforcement
X Environmental PPC Reviewer
X Environmental Resource Compliance

DEPT. OF ENVIRONMENTAL PROTECTION

EXTERNAL DISTRIBUTION

X Applicant:
FLORIDA POWER AND LIGHT COMPANY

X Applicant's Consultant
SWS ENGINEERS INC

X Engineer, County of:
PALM BEACH

X Engineer, City of:
West Palm Beach

X Local Drainage District:
NORTHERN PALM BEACH COUNTY WCD

COUNTY

X Palm Beach -Building Division
-Environmental Res Mgmt
-Health Dept
-Land Development Div
-School Board Growth Mgt

BUILDING AND ZONING

OTHER

David Sinclair
F.G.F.W.F.C.
FDEP
Florida Audubon - Charles Lee
Mr. Ed Dailey, President

EXHIBIT 5

UNITED STATES POSTAL SERVICE

PALM BEACH FL PM

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

SOUTH FLORIDA WATER
MANAGEMENT DISTRICT
P.O. BOX 24680
WEST PALM BEACH, FL 33416-4680

#4230

50-00497-S

JG

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Jim Wells
FPL
700 Universe Blvd.
Juno Beach, FL 33408

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X L. Frank ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* L. Frank

C. Date of Delivery 9-23-4

D. Is delivery address different from item 1? ☐ Yes
if YES, enter delivery address below: ☐ No

3. Service Type

☑ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number
(Transfer from service label) 7002 2030 0006 4394 2431

PS Form 3811, August 2001 Domestic Return Receipt 2ACPRI-03-P-4081

Exhibit I

Original SFWMD Permit
GP # 50-00497-S, October, 1977

APPLICATION/PERMIT FILE RECORD & ACTION SHEET

Name: Florida Power + Light Company Permit No. 50-00497-5

Application No 08167-B

This file contains:

☐ ORIGINAL APPLICATION ☐ PERMIT ☐ SPECIAL CONDITION SHEET(S)

☐ STAFF CALCULATION SHEET(S) ☐ DRAWING(S) ☐ STAFF REPORT

Chronological Correspondence/Action Record

Date	Subject	By	Comments
5/21/91	DATA SCRUBBED	RAC	SPECIAL CONDITIONS ✓

SCANNED

South Florida
Water Management District

SURFACE WATER MANAGEMENT PERMIT NO. 50-00497-S

(NON-ASSIGNABLE)

DATE ISSUED: October 13, 1977

AUTHORIZING: CONSTRUCTION AND OPERATION OF A WATER MANAGEMENT SYSTEM SERVING 56 ACRES OF INDUSTRIAL LANDS BY IMPOUNDED AREAS, SWALES, 3-24" CMP'S AND 2-18" CMP'S DISCHARGING INTO NORTHERN PALM BEACH WATER CONTROL DISTRICT'S CANAL EPC ..

LOCATED IN: Palm Beach COUNTY, SECTION 31 TWP. 42 S RGE. 43 E

ISSUED TO:
Florida Power & Light Company
9250 West Flagler Drive
P. O. Box 013100
Miami, Florida 33101

This Permit is issued pursuant to Application for Permit No. 08167-B dated August 15, 19 77. Permittee agrees to hold and save the South Florida Water Management District and its successors harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, operation, maintenance, or use of any work or structure involved in the Permit. Said application, including all plans and specifications attached thereto, is by reference made a part hereof.

This Permit may be revoked or modified at anytime pursuant to the appropriate provisions of Chapter 373, Florida Statutes.

This Permit does not convey to Permittee any property rights or privileges other than those specified herein, nor relieve the Permittee from complying with any law, regulation, or requirement affecting the rights of other bodies or agencies. All structures and works installed by Permittee hereunder shall remain the property of the Permittee.

Within thirty (30) days after the completion of the construction of any work or structure relative to this permit, the Permittee shall file with the District a written statement of completion on the appropriate form provided by the Board.

SPECIAL CONDITIONS ARE AS FOLLOWS:

1. THE OPERATION PHASE OF THIS PERMIT SHALL NOT BECOME EFFECTIVE UNTIL SUCH TIME AS THE PERMITTEE SUBMITS TO THE DISTRICT A CERTIFICATION BY A FLORIDA REGISTERED PROFESSIONAL ENGINEER THAT THE SYSTEM HAS BEEN CONSTRUCTED AS DESIGNED AND THIS DISTRICT INSPECTS AND APPROVES THE COMPLETED SURFACE WATER MANAGEMENT SYSTEM.

2. THE MINIMUM FINISHED FLOOR ELEVATION SHALL BE +16.5' MSL. MINIMUM ROAD CROWN ELEVATION SHALL BE +14.5' MSL.

3. WATER QUALITY DATA FOR THE WATER DISCHARGED FROM THE PERMITTEE'S PROPERTY SHALL BE SUBMITTED TO THIS DISTRICT AS REQUIRED. THE ANALYSIS SHALL INCLUDE THE FOLLOWING PARAMETERS: NITRATES AS N, NITRITES AS N, AMMONIA AS N, TOTAL KJELDAHL NITROGEN AS N, ORTHO-PHOSPHORUS AS P, TOTAL PHOSPHORUS AS P, TOTAL DISSOLVED SOLIDS, TOTAL SUSPENDED SOLIDS AND 5 DAY 20°C BOD.

ISSUANCE RECOMMENDED:
Chief of Permits

By: _____

Director, Regulation Division:

By: _____

SOUTH FLORIDA WATER MANAGEMENT DISTRICT, BY ITS GOVERNING BOARD

MICROFILMED

By _____
Secretary

Form 681
Rev 4-75

SCANNED

PERMIT NO. _____

PERMIT ACTION	DATE	INSPECTED BY
Inspected	11/22/77	MB

MICROFILMED

SCANNED

APPLICATION
TO THE GOVERNING BOARD OF
SOUTH FLORIDA WATER MANAGEMENT DISTRICT
3301 GUN CLUB ROAD, P. O. BOX V, WEST PALM BEACH, FL 33402
TELEPHONE (305) 686-8800

FORM 627
Rev. 6/77

DO NOT WRITE IN THIS BLOCK
APPLICATION NO. D81167-B
APPLICATION CLASS
CATEGORY NO.
DATE FILED

APPLICANT

Florida Power & Light Company — Name applicant or user
9250 W. Flagler Dr.-P. O. Box 013100 — P. O. Box or Street Address

Miami — City | Dade — County | Florida — State | 33101 — Zip Code | 305-552-3552 — Telephone No.

Name and address of owner if other than applicant

QUANTITY

Maximum quantity of water applied for: _____ acre ft./yr. or gals./yr. _____ acre ft./day or gals./day

Installed Capacity _____ Gallons per min. Area To Be Served _____ Acres

Maximum period for which application is made _____ days or years

TYPE

PERMIT FOR THE USE, DIVERSION OR WITHDRAWAL OF WATER

PERMIT FOR OCCUPANCY OF PROJECT WORKS

SOURCE

GROUNDWATER: Well ☐
Other (Specify) _____
SURFACE WATER: Pump or Culvert Connection to;
Lake ☐ River ☐ Stream ☐ Spring ☐
Other (Specify) _____

Drainage Connection ☒ Bulkhead-Seawall ☐
Utility Crossing ☐ Beautification ☐
Boat Dock ☐ Fence ☐ Bridge ☐
Other (Specify) _____

LOCATION

County Palm Beach Section 31 Township 42S Range 43E

Block --- Lot --- Subdivision -------

USE

Private Water Supply ☐ Public Water Supply ☐ Industrial ☐
Agricultural Irrigation ☐ Drainage ☒ Livestock ☐
Mining ☐ Recreational (Swimming Pool, Golf Course) ☐
Other (Specify) _____

SUPPORT DATA

Appropriate summary sheet, on a form as provided by the District, covering pertinent data attached: YES ☐ NO ☒

*Comprehensive "Engineering Report" attached: YES ☒ NO ☐

** Required for Public Water Supply Use.*

In compliance with provisions of Ch. 373, Fla. Statutes, 1973 and applicable rules and regulations of the South Florida Water Management District, application is hereby made for a permit as identified above, and in accordance with support data and incidental information filed with this application and made a part hereof.

RECEIVED
AUG 16 1977
REGULATION

W. S. Tucker, Manager
Environmental Affairs
Florida Power & Light Company
Applicant's Name (Please type or print)

W.S. Tucker
Applicant's Signature

8/15/77
Date

If person other than applicant has completed this form, that person must certify by signature as follows:

In providing this information and making this application I am acting as authorized agent of the applicant.

Signature _____ Date _____

PLEASE DO NOT WRITE IN BLOCKS BELOW

PUBLIC NOTICE

Advertised in _____ Name of newspaper on _____ Date of first notice and _____ Date of second notice

Public Hearing On (if required) _____ Date _____ Time _____ Place

RECEIVED

PROCESSING CENTER

DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES
Approved ☐ Disapproved ☐
Report Attached _____ Date
By _____ Name _____ Title

	Reviewed	Approved
Permit Processing		
Technical Section		
Chief of Permits		
Dir. Reg. Div.		

PERMIT ISSUED
NO. _____
DATE _____

AGRICULTURAL DATA

1. Acres owned _____ 2. Acres Irrigated _____

3. Crop _____ Acres _____

   Crop _____ Acres _____

   Crop _____ Acres _____

4. Irrigation method (ditches, power guns, drip) _____

5. Operating capacity of withdrawal facilities _____ GPM.

6. Hours irrigated during driest month. _____ Hours

7. Monthly withdrawal: Multiply the answers to Items 5 and 6, then multiply times 60.

   Show computation here:

   _____ GPM x _____ Hours x 60 min. = _____ Gallons
   Operating capacity Hours irrigated Per month

8. Circle the months in which you irrigate during a dry year.

   Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec.

9. If seasonal crops are grown, in what month(s) are they planted? _____

10. If there are wells on your property, number each well on a drawing which shows their locations, and provide the information below:

WELL NO.	DIAMETER	TOTAL DEPTH	DEPTH CASED	GPM	VALVE YES/NO	ACTIVE YES/NO	YEAR DRILLED	PUMPED OR FLOWING
1								
2								
3								
4								
5								

11. Describe how water is drained from your property. Specify the receiving body, artificial channels, pumps and culverts.

    Drainage is into our existing Borrow Pits through culverts - Drainage District canals are located within our borrow pits.

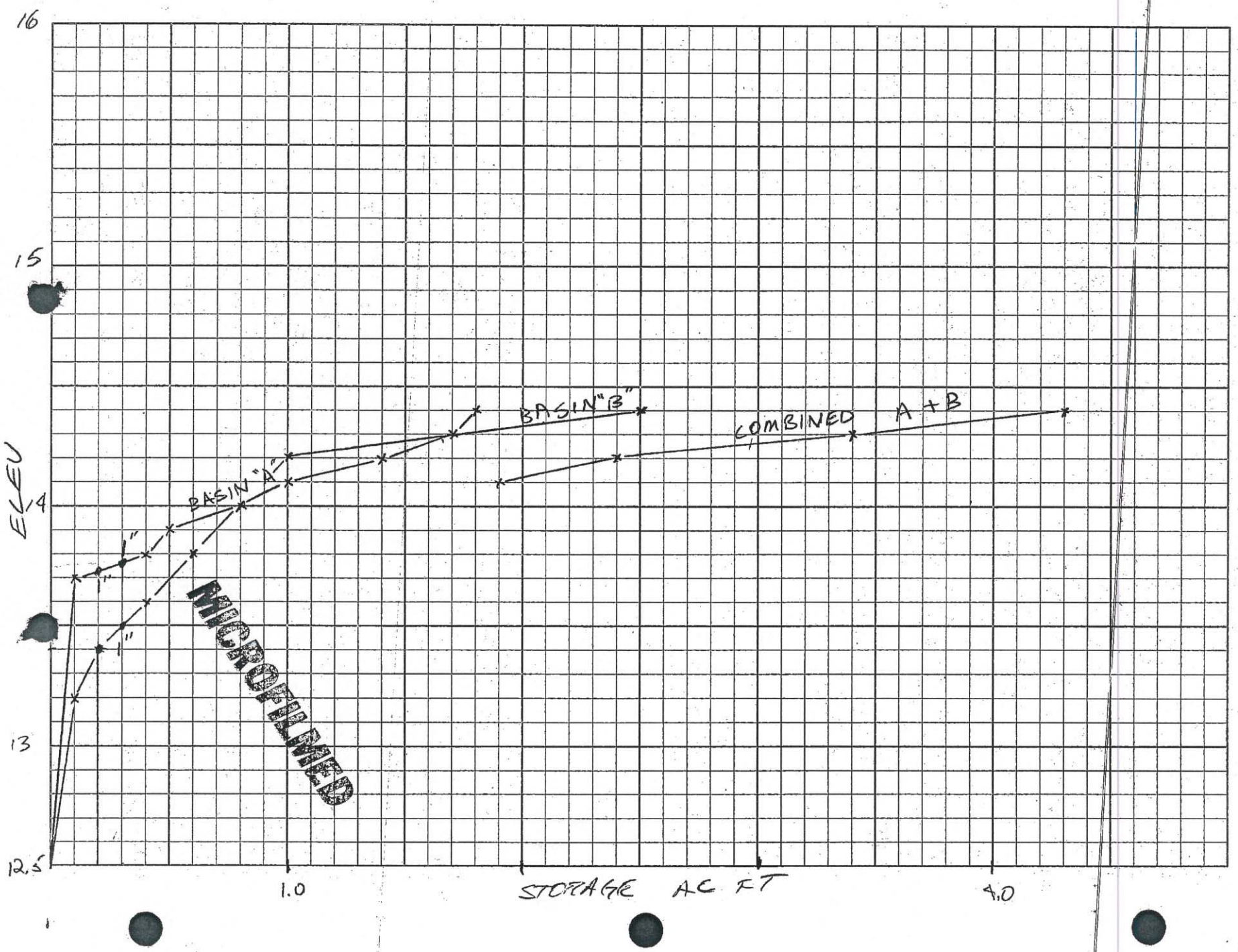
12. If your property is in a drainage district, give the district's name Northern Palm Beach County Water Control District.

INSTRUCTIONS FOR PREPARATION OF DRAWING

Drawings are required regardless of the purpose of the application. They must be 8½ x 14" and four (4) copies must be enclosed. The following should be clearly indicated on the drawings:

1. Boundaries of property
2. The location of the property with respect to section lines, roads, canals, levees, lakes, etc. Identify known landmarks by name.
3. Any drainage outlets from the property. Indicate length and diameter of culverts and capacity (GPM) of pumps.
4. Surface water inlet culverts and pumps for irrigation, including length, diameter, and capacity (GPM).
5. Location of all wells on the property. (See item 10 above).

If the information provided on this application is insufficient to describe your operation, attach an additional sheet.


16
15
14
13
12.5
ELEV
BASIN "A"
BASIN "B"
COMBINED A+B
1"
1"
1"
1.0
STORAGE AC FT
4.0
WORKSHEET

SCANNED

NATIONAL
42-381 50 SHEETS 5 SQUARE
42-382 100 SHEETS 5 SQUARE
42-389 200 SHEETS 5 SQUARE
Made in U. S. A.

APPENDIX 1

Checklist for Surface Water
Management Permit Applications

I. Land Use/Land Cover Information

A. Indicate where the project stands in the local approval process

1. Present and proposed (if different) zoning.
2. Present and proposed land use and density.
3. Classification under local land use plan.
4. Indicate if project is a planned unit development and/or subject to special zoning requirements.
5. Indicate if site plan and/or subdivision approval has been granted.
6. Indicate if any final plats have been approved. If so, describe.
7. Indicate if any building permits or other construction permits have been issued.

B. Development area in acres.

C. Recent aerial photograph of project site (within one year of date of application, if possible).

D. Existing and proposed topography (msl datum).

E. Acreages and percentages of property proposed as:

1. Impervious surfaces
2. Green areas
3. Lakes, ponds, storage areas, etc.
4. Other areas.

II. Surface Water Management Information

A. Master Drainage Plan (or the like) along with drainage calculations, sealed by a Florida registered professional engineer, subject to the exemptions specified in Chapter 471, Florida Statutes.

B. Pertinent drainage details on major water control structures; e.g., outfall facilities, intermediate controlling water flow structures, pumps, etc.

C. Construction phasing plans

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D. Right-of-way layout for drainage system. Where occupancy of District right-of-way is proposed, pertinent structural details should be submitted.

E. Locations of internal canals and water bodies with typical sections, including depths.

F. Location and description of proposed storm sewers, detention/retention areas, and other conveyance and storage facilities.

G. Best Management Practices proposed to reduce pollutant loadings.

H. Runoff routing scheme, including calculations with stage-storage and stage-discharge relationships, if storage is utilized.

I. Delineation of flooding contours for the following storms: local jurisdiction design frequency, receiving water design frequency and 100 year frequency storms. Specify proposed minimum building pad and pavement grade elevations.

J. Design storm (intensity and duration).

K. Total acres of off-site property contributing runoff to proposed surface water management system.

L. Identify receiving stream and/or water body. Identify primary drainage facility serving the area.

M. Typical section of receiving stream, including bottom elevation.

N. Seasonal water table elevations, including normals, and recurring highs and lows.

O. Proposed regulation schedules of on-site water bodies.

III. Legal and Institutional Information

A. Identify entity responsible for operation and maintenance of the surface water management system.

B. Identify and give address of adjacent property owners.

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C. Indicate how water and wastewater service will be provided.

D. Identify agencies, organizations, etc., contacted. Include meeting summaries and/or responses.

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APPENDIX 1

Checklist for Surface Water
Management Permit Applications

I. Land Use/Land Cover Information

A. Indicate where the project stands in the local approval process.

1. Present Zoning.
Light Industrial
2. Present and proposed land use and density.
Light Industrial
3. Classification under local land use plan.
Industrial
4. Indicate if project is a planned unit development and/or subject to special zoning requirements.
Project is a special exception under Palm Beach County zoning requirements. Zoning approval was obtained under Petition 74-28. Sixteen conditions were placed upon the Petition (See attached letter from the Zoning Department.)
5. Indicate if site plan and/or subdivision approval has been granted.
Site plan approval has been granted per attached plan.
6. Not applicable.
7. Indicate if any building permits or other construction permits have been issued.
No building permits have been issued other than a fence permit and an earth moving permit by Palm Beach County.

B. Development area in acres.
Property consists of 71.8 acres of which approximately 50 acres would be developed. The North portion of the property as shown on our site plan will remain as is.

C. Aerial photograph with drainage plan.

D. Existing and proposed topography.
The attached prints reflect this.

E. Acreages and percentages of property proposed as:

1. Impervious surfaces.
Paved roads, tanks and buildings make up approximately 5.2 acres.
2. Green areas.
All other areas except the borrow pits will have vegetation and make up approximately 55.6 acres.
3. Lakes, ponds, storage areas, etc.
Borrow pits, as shown on the site plan, are approximately 10.2 acres.
4. Other areas.
Not applicable.

II. Surface Water Management Information

A. Master Drainage Plan is shown on Drawing C-1503 attached.

B. The attached drawings contain the details of the outfall facilities to the borrow pit, which flow into the Northern Palm Beach County Water Control District Canal, which connects to C-17.

C. The facility will be built in its entirety during the next two years.

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D. Northern Palm Beach County Water Control District is presently using our borrow pit in the North/South direction, as shown on the attached drawings, for their canal system. With our granting the District an easement for the rights to be within the borrow pits and have installed culverts, as required by the District, within the borrow canal to allow for adequate drainage for the area.

E. The existing borrow pits, as shown on the attached drawings, will not be changed in elevation. We estimate from sources, other than actual surveys, that the approximate depth of the borrow pits is 35 to 40 feet.

F. As shown on attached drawings.

G. All facilities which handle fuel oil, such as pumps, strainers, etc. are curbed in and drained to an oily water separator. All drains inside the tank dikes also drained to an oily water separator. The oil from the separators is returned to the tanks while the water is returned to a conventional sprinkler system which sprinkles the area inside the dike.

H. Not applicable.

I. Please reference the attached prints which specifies this information.

J. Design storm intensity and duration are shown on Drawing C-1503.

K. 2,431 acres of off site property contribute to runoff as shown on Drawing C-1502.

L. The receiving stream for the site outfall is the borrow pit which has an approximate depth of 35 to 40 feet as previously mentioned.

M. Same as "L".

N. Seasonal water table elevation would be the same as that of Canal EPP10, which lies along our South property line and is open to the borrow pit area.

O. Not applicable.

III. Legal and Institutional Information

A. Florida Power & Light Company

B. Thomas S. White
904 West Port Plaza
St. Louis, Missouri 63141

North Palm Beach Water Control District
P. O. Box 2775
Palm Beach, FL. 33480

Port of Palm Beach
P. O. Box 9935
Riviera Beach, FL. 33404

EFC Services, Inc.
Attention: R. G. Webb
P. O. Drawer D
West Palm Beach, FL. 33402

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Dominick Nunziato
Box 404
Choctaw, Okla. 73020

Department of Transportation

Seaboard Coastline Railroad

C. City of Riviera Beach will be our source for water and wastewater service.

D. Palm Beach County Zoning Commission, South Florida Regional Planning Council For The Development Of Regional Impact Status, The City of Riviera Beach.

We have had numerous meetings in regards to this facility which the South Florida Water Management District was involved. Please refer to your file.

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50-00497

SURFACE WATER MANAGEMENT STAFF REVIEW SUMMARY

APPLICATION NO: 08167-B

PROJECT NAME: FP&L Petroleum Storage

LOCATION: West Palm Beach

DEVELOPER: Florida Power & Light Company

ENGINEER: Mid-Valley

1.	Suitability of land for proposed use	(GOOD)	FAIR	POOR	NOT APPLICABLE
2.	Water Quantity Impacts	GOOD	(FAIR)	POOR	NOT APPLICABLE
3.	Water Quality Impacts	GOOD	(FAIR)	POOR	NOT APPLICABLE
4.	Environmental Impacts	GOOD	(FAIR)	POOR	NOT APPLICABLE
5.	Water Conservation	(GOOD)	FAIR	POOR	NOT APPLICABLE
6.	Flood Protection	(GOOD)	FAIR	POOR	NOT APPLICABLE
7.	Relief from rainstorm inconvenience	(GOOD)	FAIR	POOR	NOT APPLICABLE
8.	System Maintainability	(GOOD)	FAIR	POOR	NOT APPLICABLE
9.	Overall use of land with respect to water resource	GOOD	(FAIR)	POOR	NOT APPLICABLE
10.	Water management system with respect to feasible alternatives	(GOOD)	FAIR	POOR	NOT APPLICABLE

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Application No. 08167-B for Surface Water Management Permit

Florida Power & Light Company - Palm Beach County

S T A F F R E P O R T

ABSTRACT

This application is for a surface water management permit to serve a 56 acre industrial site to be used as a petroleum storage facility. The applicant requests a permit to construct and operate the water management system as proposed. The project discharges into Northern Palm Beach County Water Control District's Canal EPB-9 and is located in the C-17 drainage basin in Section 31, Township 42 South, Range 43 East of Palm Beach County.

THE APPLICATION

A. Purpose of Application

The purpose of this application is for a surface water management system to serve a 56 acre industrial site to be used as a petroleum storage facility. The applicant requests a permit to construct and operate those facilities as proposed. The water management system consists of impounded areas, swales, and culverted embankments. The culverts discharge to the I-95 right of way ditch and to EPB-9 Canal. Both ultimately discharge to Project Canal C-17. The project is located in Palm Beach County, Section 31, Township 42 South, Range 43 East (see Figure 1).

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B. Existing Facilities

Adjacent to the west and south property line is Northern Palm Beach County Water Control District's Canal EPB-9. Excavation has resulted in a section larger than the design section in the reach adjacent to the site. Earthwork has been started on the site and a substantial

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amount of the retaining embankment has been constructed.

C. Proposed Facilities

1. Impounded Areas

Approximately 20.9 acres of the site is impounded in four areas. The top elevation of the embankments runs from +22.0' msl to +20.0' msl. This area is provided as an impoundment for the oil in the storage tanks in the event a leak should develop. Water impounded within the embankment will remain until it percolates into the groundwater or evaporates (see Figure 2).

2. Drained Areas

The remainder of the area will be drained by means of five through road culverts. One 24" diameter CMP culvert will drain 2.6 acres to the Interstate 95 right of way ditch. Two 24" diameter CMP culverts and two 18" diameter CMP culverts will drain 7.2 acres to the EPB-9 Canal. The remainder of the area will continue to drain to the adjacent canals as sheet flow. A structure will be provided to facilitate flow in EPB-9 under the site access road. The structure will consist of 2-11'5" wide x 7'3" high x 90' long pipe arch culverts (see Figure 1).

3. Proposed Buildings

The proposed terminal control and utilities building will have a finish floor elevation of +16.5' msl.

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EVALUATION

A. Drainage

1. Allowable Runoff

The allowable runoff was computed by use of the formula for the

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EPB-9 Canal according to the report "Plan of Reclamation, Unit of Development No. 7 (Canal EPB-9) of the northern Palm Beach County Water Control District." This report was prepared in August 1972 by the firm, Mock, Roos & Search, Inc. Consulting Engineers. The formula is:

$$Q = \frac{60}{\sqrt{A}} + 77 \quad A$$

where, "Q" is in cubic feet per second and "A" is in square miles. The allowable discharge from an area of 56 acres (.09 square miles) is 25 cubic feet per second. This is within the allowable discharge of 37 cubic feet per second as computed with the C-17 inflow formula.

2. Applicant's Discharge Capacity

   During the 25 year storm the applicant's discharge capacity is 27 cubic feet per second.

3. Flood Protection

   a. 3 Year Storm

      The minimum road crown elevation for this project is +14.5' msl. This should be adequate to protect the roads from flooding during the 3 year storm.

   b. 25 Year Storm

      The discharge during the 25 year storm should be no greater than 27 cubic feet per second.

   c. 100 Year Storm

      The stage computed for the 100 year storm is +15.5' msl. Proposed finish floor elevation is +16.5' msl.

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4. Canal Structure

The structure proposed to facilitate flow in EPB-9 under the site access road is a double 11'5" wide by 7'3" high x 90' long pipe arch culvert. The upstream invert elevation is +5.07' msl and the downstream elevation is +4.93' msl. This will allow the design flow of 471 cfs to pass with minimal head loss due to the culvert.

B. Water Quality

No industrial processing facilities are proposed for this site. Runoff will be overland from grassed areas to a swale and culvert and either discharged directly to EPB-9 Canal or discharged to the Interstate 95 right of way pitch. No water quality problems are expected as a result of the proposed facilities, however, water quality monitoring may be required by the District at some future date.

C. Land Use Information

1. Present and proposed zoning for the project site is light industrial.

2. Classification under the local land use plan is industrial.

3. This project was given special exception under Palm Beach County zoning requirements. Resolution No. R-74-333 "Resolution Approving Zoning Petition" was approved for a "Special Exception to Allow Bulk Oil Storage, Pipeline, Accessory Fire Station and Appurtenances;" subject to 16 special conditions. Of these conditions two are relevant to the issuance of a surface water management permit. They are, as identified in the resolution:

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5. The petitioner shall provide revetments to hold all the oil from the two proposed tanks in case of simultaneous destruction.

and

10. The petitioner shall take necessary precautions to protect the area groundwater supplies from seepage or leakage into the C-17 Canal by means of treatment of soil and banks to render seepage unlikely.

It is the opinion of the District staff that the facility as proposed satisfies both of the above special conditions.

4. This project was subject to review and compliance as a Development of Regional Impact (DRI). At that time it was reviewed by District staff. Comments made by the staff as to surface water management include:

1. A water quality monitoring system be established to analyze the clarified effluent and to protect against the degradation of the area's water resources.

2. Fuel spill isolating devices at the south borrow pit be incorporated into the drainage plan.

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It is the opinion of the District staff that the facility as proposed satisfies both the above recommendations.

By means of Resolution #R-74-334, "Resolution Approving Development of Regional Impact", the project DRI was approved by Palm Beach

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County subject to the same special conditions as in Resolution #R-74-333 "Resolution Approving Zoning Petition."

D. Environmental Considerations

Based on available data, the potential for adverse environmental impact is not considered to be significant.

E. Utilities

Potable water and wastewater treatment is provided by the City of Riveria Beach.

F. Operation of System

Maintenance and operation of the surface water management system will be by Florida Power and Light Company.

CONCLUSIONS

A. The quantity of water being discharged should prevent any adverse effect on the receiving body.

B. The water management system should provide the degree of protection necessary for the 100 year storm if the minimum finish floor elevation is +16.5' msl.

C. Consideration has been given to water quality in the water management plan. Water quality monitoring may be required to insure that the proposed project will not have significant adverse impact on the resource.

D. Proposed land use is consistent with local zoning.

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RECOMMENDATIONS

The staff recommendation is for approval of the surface water management

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system and issuance of a permit to construct and operate the facilities as proposed.

It is further recommended that this permit be subject to the following special conditions:

1. The operation phase of this permit shall not become effective until such time as the permittee submits to the District a certification by a Florida Registered Professional Engineer that the system has been constructed as designed and this District inspects and approves the completed surface water management system.

2. The minimum finish floor elevation shall be +16.5' msl. Minimum road crown elevation shall be +14.5' msl.

3. Water quality data for the water discharged from the permittee's property shall be submitted to this District as required. The analysis shall include the following parameters: nitrates as N, nitrites as N, ammonia as N, total kjeldahl nitrogen as N, ortho-phosphorus as P, total phosphorus as P, total dissolved solids, total suspneded solids and 5 day 20° C BOD.

Prepared:

Checked:

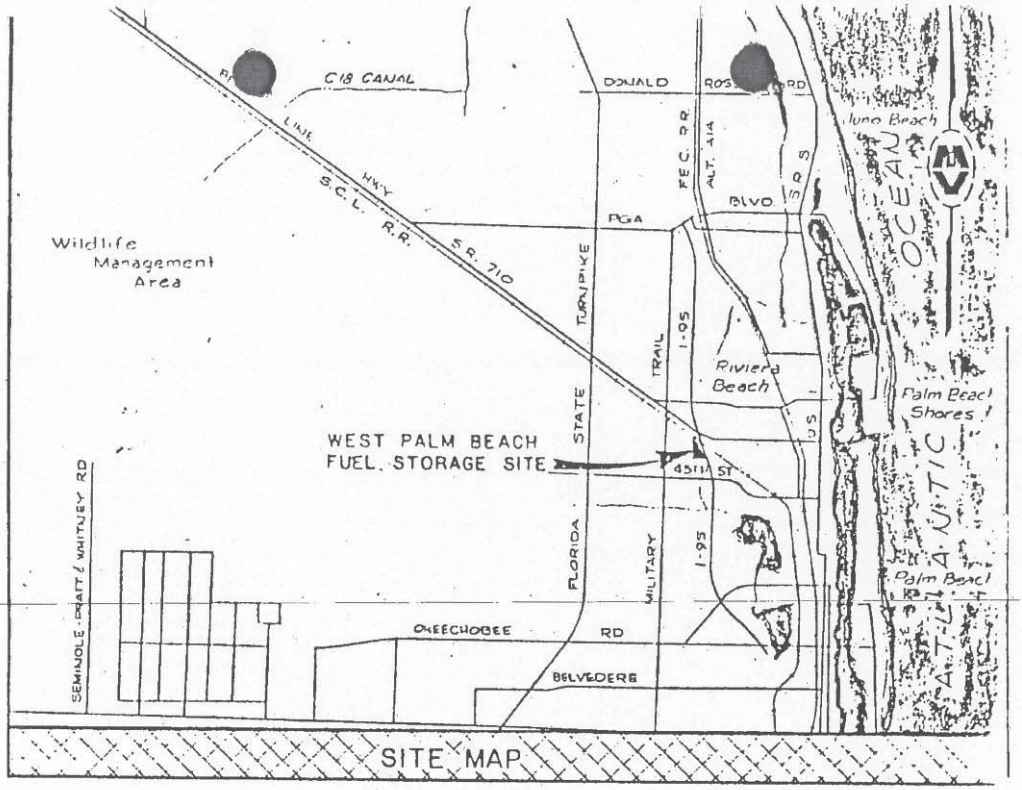
Approved:

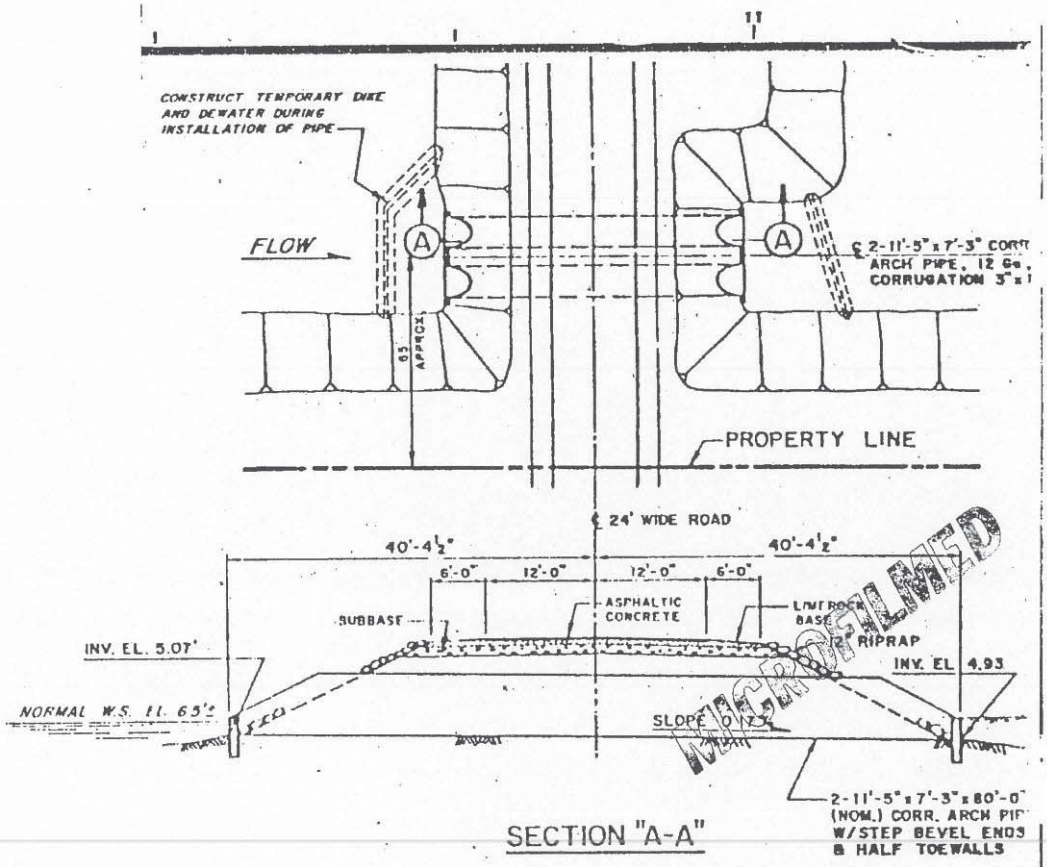
Richard A. Rogers, Director
Resource Control Department

Date: 9-22-77

bar

SCANNED





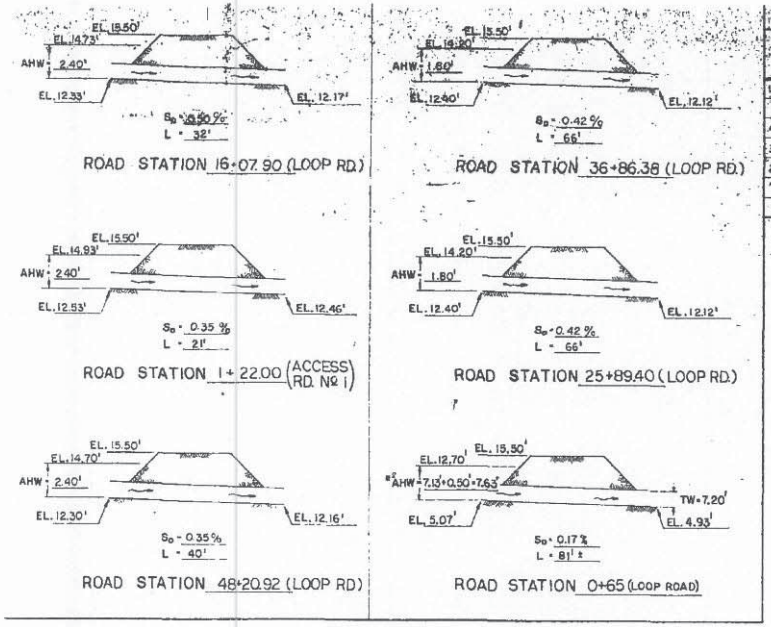
SECTION "A-A"

DRAINAGE STRUCTURE

NOT TO SCALE

Fig 1

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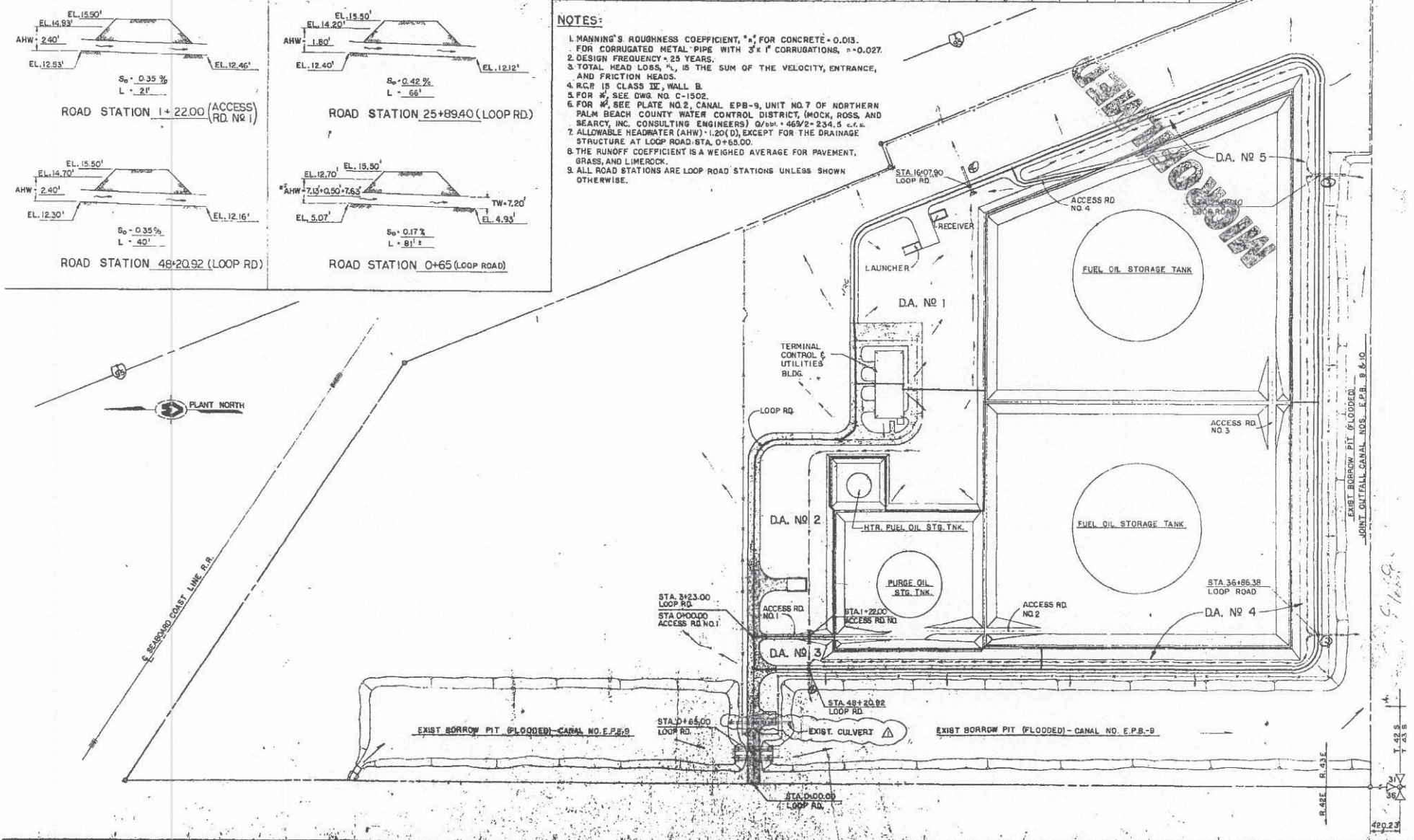


DRAINAGE SUMMARY

ROAD STATION NO.	RUNOFF COMPUTATION: DRAINAGE AREA NO.	TOTAL CA, AC.	RUNOFF COEFF. C	TIME OF CONCENTRATION, MINUTES	I, INCHES/HR.	Q, CFS	HEADWATER COMPUTATION: CULVERT TYPE	SIZE	INLET CONT. H_W	INLET CONT. HW	OUTLET CONTROL K_e	OUTLET CONTROL d_c	OUTLET CONTROL h_o	OUTLET CONTROL H_L	OUTLET CONTROL L_{S_o}	OUTLET CONTROL HW	CONTROLLING HW	OUTLET VELOCITY
16+07.90	1	2.63	0.60	8.0	7.8	12.31	RCP GROOVE END W/HDWL	24"	0.91	1.82	0.2	1.25	1.26	0.84	0.16	1.94	1.94	5.90
1+22.00	2	3.31	0.50	13.0	7.0	14.39	RCP GROOVE END W/HDWL	24"	0.89	1.76	0.2	1.22	1.22	0.74	0.07	1.89	1.89	5.76
48+20.92	3	2,3 0.67	0.40	8.0	7.80	20.96	RCP GROOVE END W/HDWL	24"	0.99	1.98	0.2	1.33	2.00	0.50	0.14	2.36	2.36	4.35
36+86.38	4	1.36	0.40	11.0	7.30	4.00	RCP GROOVE END W/HDWL	18"	0.72	1.08	0.2	0.73	0.77	0.72	0.28	1.21	1.21	4.40
25+89.40	5	1.80	0.40	12.0	7.20	5.47	RCP GROOVE END W/HDWL	18"	0.85	1.28	0.2	0.90	0.90	0.87	0.28	1.49	1.49	4.93
0+65.00	#1	—	—	—	—	469#	2-CMP-30INCH MITERED	15'-5" x 7'-2"	0.58	4.21	0.7	2.80	7.20	0.49	0.14	7.55	7.55	3.76

NOTES:

1. MANNING'S ROUGHNESS COEFFICIENT, "n" FOR CONCRETE = 0.013. FOR CORRUGATED METAL PIPE WITH 3" x 1" CORRUGATIONS, n = 0.027.
2. DESIGN FREQUENCY = 25 YEARS.
3. TOTAL HEAD LOSS, H_L, IS THE SUM OF THE VELOCITY, ENTRANCE, AND FRICTION HEADS.
4. R.C.P. IS CLASS III, WALL B.
5. FOR #, SEE DWG. NO. C-1502.
6. FOR #, SEE PLATE NO.2, CANAL EPB-9, UNIT NO.7 OF NORTHERN PALM BEACH COUNTY WATER CONTROL DISTRICT, (MOCK, ROSS, AND SEARCY, INC. CONSULTING ENGINEERS) Q/bbl. = 463/2 = 234.5 c.f.s.
7. ALLOWABLE HEADWATER (AHW) = 1.20(D), EXCEPT FOR THE DRAINAGE STRUCTURE AT LOOP ROAD STA. 0+65.00.
8. THE RUNOFF COEFFICIENT IS A WEIGHED AVERAGE FOR PAVEMENT, GRASS, AND LIMEROCK.
9. ALL ROAD STATIONS ARE LOOP ROAD STATIONS UNLESS SHOWN OTHERWISE.



DESIGN R. GUTIERREZ
DRAWN G.R.HAYES
APPROVED
SOUTHERN APP.

MID-VALLEY, INC.
ENGINEERS - CONSTRUCTORS
HOUSTON, TEXAS

FLORIDA POWER & LIGHT COMPANY
MIAMI, FLORIDA
MARTIN FUEL OIL SUPPLY SYSTEM

DRAWING TITLE
DRAINAGE PLAN
WEST PALM BEACH FUEL STORAGE FAC.

CONTRACT NO. ER-0883
DATE 08-07-75
SCALE: 1"=80'
DRAWING NO. C-1503-1

12-16-77 ADDED EXIST. CULVERT. RGS

SCANNED

South Florida
Water Management District
Post Office Box V 3301 Gun Club Road
West Palm Beach, Florida 33402
Telephone (305) 686-8800
Florida WATS Line 1-800-432-2045

John R. Maloy, Executive Director

IN REPLY REFER TO:

May 1, 1980

Mr. Duane West
Florida Power and Light
Drawer D
West Palm Beach, Florida 33402

RE: Laydown Storage on S36/T42S/R42E; Permit No. 50-00497-S, Palm Beach County

Dear Mr. West:

This is to inform you that the South Florida Water Management District has no objections to Florida Power and Light's request for a laydown storage area adjacent to the existing tank farm. It is our understanding that one small building will be constructed, the vegetation will be cleared, shell rock driveways will be installed and a berm will be placed around the perimeter of the site to control any run-off. Excess runoff from the site will be directed through an existing 30" CMP culvert into the borrow pit on the east side of the parcel. Any further improvements to the site will require a modification of Permit No. 50-00497-S.

If you have any questions, please feel free to call.

Very truly yours,

Richard A. Rogers, P.E., Director
Resource Control Department

RAR/dr

cc: Doug Winter - Mock, Roos, Inc.
Frank Caluwe
Bill Helfferich

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DRAWING ADDED TO LIBRARY

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Robert L. Clark, Jr. Chairman — Fort Lauderdale
Robert W. Padrick Vice Chairman — Fort Pierce
Stanley W. Hole Naples
J. Neil Gallagher St. Cloud
Nathaniel P. Reed Hobe Sound
John L. Hundley Pahokee
Robert K. Butler Okeechobee
Charles L. Crumpton Miami Shores
Jeanne Bellamy Coral Gables

DRAWER D, WEST PALM BEACH, FLORIDA 33402 PHONE (305) 686-7700

FLORIDA POWER & LIGHT COMPANY

March 24, 1980

Mr. William M. Helfferich
South Florida Water Management District
P. O. Box V
West Palm Beach, Florida

RE: 79-250 FLORIDA POWER & LIGHT COMPANY
21.6 ACRES, SECTION 36, TOWNSHIP 42S, RANGE 42E
REZONING AG TO IL

Dear Bill:

In the meeting with you and Doug Winters, on March 21, regarding subject matter, it was indicated that a letter would be required in order to modify the existing SWM permit granted on the adjoining property.

The proposed use of the 21.6 acres parcel will be for "Outdoor Laydown Storage." The entire parcel shall be unimproved with the exception of clearing, some shell rock driveways and one small building. The parcel will be slightly bermed around the perimeter to control any runoff. The runoff, if any, will be placed in the borrow pit on the east side of the parcel through an existing culvert.

Your cooperation in this matter is most appreciated. Should you have any questions, please call at 686-7750, Ext. 370.

Very truly yours,

Duane

Duane West

DW/mca

RECEIVED
MAR 26 1980
RESOURCE CONTROL DEPARTMENT

MICROFILMED

SCANNED

MOCK, ROOS & SEARCY INCORPORATED

CONSULTING ENGINEERS

2930 OKEECHOBEE BLVD., WEST PALM BEACH, FLORIDA 33409 • PHONE (305) 683-3113

January 14, 1980

Florida Power & Light Co.
Post Office Drawer D
West Palm Beach, Florida 33402

Attention: Duane West

Subject: FPL; MOD No. 50-00497-S; Palm Beach County, Section 36, Township 42 South, Range 42 East (Our Ref. No. 79-275)

Dear Duane:

Enclosed is a copy of the South Florida Water Management District's letter of January 4, 1980 regarding subject matter. I had no idea what project this was and called Bill Helfferich with the District for additional information. Apparently, this is one of those projects where we provided required letters for rezoning.

Based on our limited knowledge of this matter, it is suggested that you contact the District to determine directly what it is that they require. If you need further services from us, please don't hesitate to call me.

Very truly yours,

Tom McCarthy, Jr., P.E.
Vice President

TMc:cl

Enclosures

cc: William W. Helfferich

MICROFILMED

SCANNED

South Florida
Water Management District
Post Office Box V 3301 Gun Club Road
West Palm Beach, Florida 33402
Telephone (305) 686-8800
Florida WATS Line 1-800-432-2045

John R. Maloy, Executive Director

File

IN REPLY REFER TO:

January 4, 1980

Mr. Tom McCarthy, Jr., P.E.
Mock, Roos & Searcy, Inc.
2930 Okeechobee Boulevard
West Palm Beach, Florida 33409

RE: FPL; MOD No. 50-00497-S; Palm Beach County, Section 36, Township 42 South, Range 42 East

Dear Mr. McCarthy:

Per the above referenced project and pursuant to Rule 16K-4.03 F.A.C., information which answers the questions on the enclosed checklist is needed to review the project.

If you have any questions, please feel free to call.

Very truly yours,

William M. Helfferich
Environmental Engineer
Resource Control Department

WMH/dr
Enclosure
cc: Frank Caluwe

MICROFILMED

Robert L. Clark, Jr. Chairman — Fort Lauderdale
Robert W. Padrick Vice Chairman — Fort Pierce
Stanley W. Hole Naples
J. Neil Gallagher St. Cloud
Nathaniel P. Reed Hobe Sound
John L. Hundley Pahokee
Robert K. Butler Okeechobee
Charles L. Crumpton Miami Shores
SCANNED by Coral Gables

THE POST

Published Daily and Sunday
West Palm Beach, Palm Beach County, Florida

PROOF OF PUBLICATION

STATE OF FLORIDA

COUNTY OF PALM BEACH

Before the undersigned authority personally appeared ...Don K. Creamer..... who on oath says that he is .Class.Adv.Mgr.... of The Post, a daily and Sunday newspaper published at West Palm Beach in Palm Beach County, Florida; that the attached copy of advertising, being a ...Notice..... in the matter of .....Application..... in the ..... Court, was published in said newspaper in the issues of ...December.26,..1979.....

Affiant further says that the said The Post is a newspaper published at West Palm Beach, in said Palm Beach County, Florida, and that the said newspaper has heretofore been continuously published in said Palm Beach County, Florida, daily and Sunday and has been entered as second class mail matter at the post office in West Palm Beach, in said Palm Beach County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

.....

Sworn to and subscribed before me this ..... 26 day of ..... December ..... A.D. 19 79

.....
NOTARY PUBLIC, STATE OF FLORIDA AT LARGE
MY COMMISSION EXPIRES SEPT 9 1983
BONDED THRU GENERAL INS. UNDERWRITERS

NO. 812458

PUBLIC NOTICE OF APPLICATION

Notice is hereby given that pursuant to Chapter 373, Florida Statutes, the following application(s) for permit has (have) been received by South Florida Water Management District:

HOVNANIAN OF FLORIDA, INCORPORATED, (LUCERNE HOMES EAST), P.O. Box 1414, Lake Worth, Florida 33460, has submitted Application Number 11279-B to drain 35 acres of residential lands. The water will be discharged into Lake Worth Drainage District L-13 and the project will be located in Palm Beach County, Section 27, Township 44S, Range 42E.

RCA CORPORATION-SOLID STATE DIVISION (PALM BEACH GARDENS), 3900 RCA Boulevard, Palm Beach Gardens, Florida 33410, has submitted application Number 11219-G to continue the irrigation of 17 acres of industrial lands. The water is withdrawn from the shallow aquifer and the project is located in Palm Beach County, Section 7, Township 42S, Range 43E.

CONGRESS PLAZA ASSOCIATES (CONGRESS PLAZA SHOPPING CENTER), 3100 East Oakland Park Boulevard, Suite 502, Fort Lauderdale, Florida 33306, has submitted Application Number 11219-F to drain 7.7 acres of commercial lands. The water will be discharged into Lake Worth Drainage District E-4 and the project will be located in Palm Beach County, Section 7, Township 46 South, Range 43 East.

ARVIDA CORPORATION (UNIVERSITY PARK), P.O. Box 100, Boca Raton, Florida 33432, has submitted Application Number 11299-A to drain 965 acres of residential, commercial and recreational lands. The water will be discharged into Lake Worth Drainage District E-3, L-40, L-41, and L-42 and the project will be located in Palm Beach County, Sections 2 and 3, Township 47S, Range 42E.

SCHOOL BOARD OF PALM BEACH COUNTY (S-3 SCHOOL), 3323 Belvedere Road, West Palm Beach, Florida 33409, has submitted Application Number 12049-A to drain 69.4 acres of institutional lands. The water will be discharged into Lake Worth Drain District L-18 and the project will be located in Palm Beach County, Section 6, Township 45S, Range 43E.

DIVA DEVELOPMENT, INCORPORATED, 2601 East Oakland Park Boulevard, Fort Lauderdale, Florida 33306, has submitted Application Number 12149-A to drain 15 acres of residential lands. The water will be discharged into Lake Worth Drainage District L-46 and the project will be located in Palm Beach County, Section 19, Township 47S, Range 43E.

AMERICAN COMMUNITY SYSTEMS, INCORPORATED, (A.C.S. DEVELOPMENT-BUTTONWOOD), 2601 East Oakland Park Boulevard, Fort Lauderdale, Florida 33306, has submitted a modification to Permit Number 50-00585-S for construction of Plat 2. The project will be located in Palm Beach County, Section 22, Township 44S, Range 42E.

FLORIDA POWER AND LIGHT COMPANY, P.O. Box 013100, Miami, Florida 33101, has submitted a modification to Permit Number 50-00497-S to drain an additional 21 acres. The project is located in Palm Beach County, Section 36, Township 42S, Range 42E.

VETERAN'S VILLAGE (JUPITER VILLAGE), P.O. Box 788, Jupiter, Florida 33458, has submitted a modification to Permit Number 50-00672-S for Phase III. The project will be located in Palm Beach County, Section 10, Township 41S, Range 42E.

FLORIDA DEPARTMENT OF MILITARY AFFAIRS (ARMED FORCES RESERVE CENTER), State Arsenal, St. Augustine, Florida 32084, has submitted modification to Permit Number 50-00688-S to increase the parking area and building size. The project will be located in Palm Beach County, Section 6, Township 44S, Range 43E.

ACME IMPROVEMENT DISTRICT, P.O. Box 248, Loxahatchee, Florida 33470, has submitted a modification to Permit Number 50-00549-S to construct a wastewater treatment plant. The project will be located in Palm Beach County, Section 23, Township 43S, Range 41E.

APPLICATION AND SUPPORT DATA AVAILABLE FOR REVIEW BY INTERESTED PARTIES AT:
South Florida Water Management District
3301 Gun Club Road
P.O. Box "V"
West Palm Beach, Florida 33402

Affected persons may file objections or request a hearing by writing to the Governing Board of South Florida Water Management District, P.O. Box "V," West Palm Beach, Florida 33402, but such objections or requests must be received before 5:00 o'clock, P.M. on the 9th day of January, 1979. If a hearing is required, all parties will be notified as to time and place.

SOUTH FLORIDA WATER MANAGEMENT DISTRICT,
BY ITS GOVERNING BOARD
By /s/ Robert L. Clark, Jr.
CHAIRMAN

Publish: Post: December 26, 1979

MICROFILMED

SCANNED

DRAWER D, WEST PALM BEACH, FLORIDA 33402 PHONE (305) 686-7700

FLORIDA POWER & LIGHT COMPANY

December 10, 1979

Mr. Allen Hall
South Florida Water Management District
P. O. Box V
West Palm Beach, Florida 33409

RE: 79-250 FLORIDA POWER & LIGHT COMPANY
21.6 ACRES, SECTION 36, TOWNSHIP 42S, RANGE 42E
AG to IL

Dear Mr. Hall:

Pursuant to your letter to Tracy Bennett of October 30, 1979, regarding Zoning Petition 79-250 which addresses Potable Water and Storm Water Disposal. As stated in this letter, no problems are anticipated with regard to water supply, although revision to the existing SWM permit to include this 21 acres should be addressed.

The Northern Palm Beach County Water Management District is the receiving body for the runoff. Mock Roos & Searcy, Consultants for the District provided a drainage statement for subject petition (copy of letter attached).

It shall be the intent of this letter to request the modification to the existing SWM permit on the adjoining property to include the proposed development.

Should you require additional information, please call me at 686-7750, Extension 370.

Very Truly Yours,

Duane

C. Duane West
Division Right-Of-Way and
Land Department Representative

CDW/mca

Enclosure

MICROFILMED
RECEIVED
DEC 11 1979

REGULATION

SCANNED

MOCK ROOS & SEARCY P.A.

CONSULTING ENGINEERS

2930 OKEECHOBEE BLVD., WEST PALM BEACH, FLORIDA 33409 • PHONE (305) 683-3113

September 21, 1979

Palm Beach County Planning, Zoning &
Building Department
Post Office Box 1548
West Palm Beach, Florida 33402

Attention: Tracy Bennett, Director

Subject: Drainage Statement- Rezoning Petition by Florida Power and Light Co. - Property in Section 36, Township 42 South, Range 42 East (Our Ref. No. 79-250)

Gentlemen:

We have been retained by Florida Power & Light to assist them with the technical aspects of subject rezoning. This letter is to address the drainage or surface water management aspects.

Florida Power & Light's site plan is in a very preliminary stage but they intend to use the property for outdoor laydown storage for their equipment. Therefore, we do not feel that there will be any trouble in providing adequate on-site storage to meet the County's requirements in this regard and further, the adjacent N.P.B.C.W.C.D. canal has sufficient capacity to accept the allowable runoff.

Very truly yours,

MOCK, ROOS & SEARCY, INC.

Tom McCarthy, Jr., P.E.
Vice President

YMcbf

cc: Florida Power & Light
Attention: Dwayne West

MICROFILMED

SCANNED

Route

RESOURCE CONTROL DEPARTMENT

FORM RC-3
Nov. 1978

APPLICATION ROUTING SHEET

MOD

NUMBER: 50-00497-S PROJECT: FP&L

12/11/79

RESPONSE REQ'D. BY: _____

30 DAY AI DEADLINE: 1/10/80

SPECIFIC BOARD DEADLINES: NLT _____ for _____ Board

NLT 12/11 for 1/10 Board

*NLT 1/15 for 2/14 Board

*This is the absolute statutory deadline.

ROUTE TO:	DATE REC'D.	DATE OUT
1. Fratz/Jensen		
2. Alan Hall*		
3. WILLIAM HELFFERICH	1/2	
4.		
5.		
6.		
7.		
8.		
9.		
10.		

*Marty was reviewer on original permit.

COMMENTS

Sec. 36
Twp 42
R 42

NPBCWCD EPB-9

A.I. LETTER SENT 1/3/80 - WMH.

MICROFILMED

SCANNED

FORM RC-11
REV. 6/78

FIELD INSPECTION REPORT
GENERAL

Report No: 50-00497-S Date: 3-12-80

Inspector: KENYON Time: 9:00 HRS.

Project: FLA. P. & LIGHT Location

Type of work or construction: WEST PALM BEACH FUEL STORAGE FACILITY

Contractor or Owner: F. P. & L.

Remarks: ALL FACILITIES, BUILDINGS & DRAINAGE SYSTEM EXIST AS PER DRAWING.
THREE SILT SCREENS ARE IN PLACE. TWO ARE IN E.P.B.-9, AND ONE IN JOINT OUTFALL CANAL E.P.B. 9&10. (SEE DRAWING.)
THERE IS NO CONST. IN ADJOINING PROPERTY DIRECTLY NORTH.

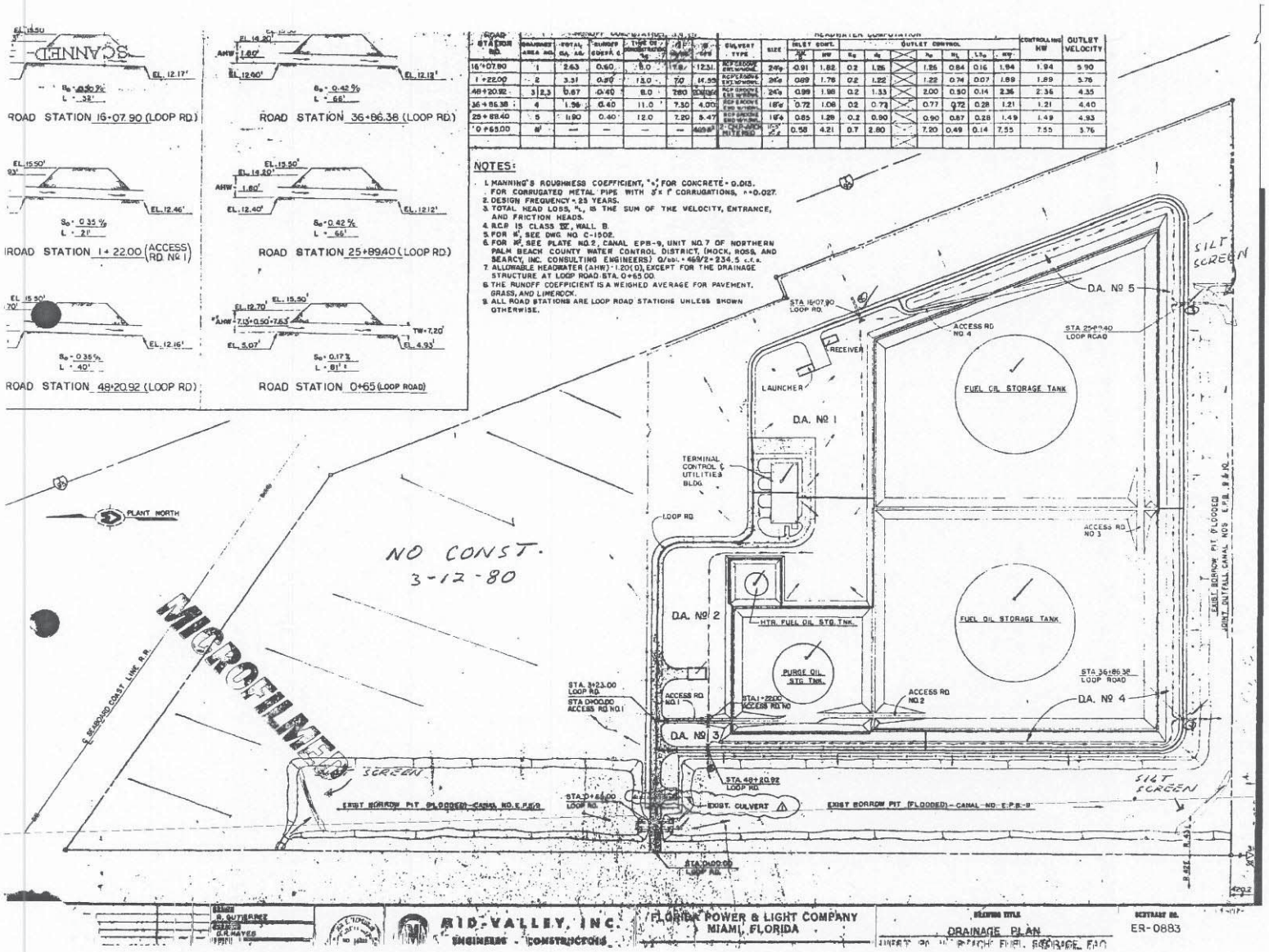
ROB
BETH
BILL H
FILE

Action taken or recommended:

MICROFILMED

Further Inspection: Date:

SCANNED


ROAD STATION 16+07.90 (LOOP RD.)
ROAD STATION 36+86.38 (LOOP RD.)
ROAD STATION 1+22.00 (ACCESS RD. NO 1)
ROAD STATION 25+89.40 (LOOP RD.)
ROAD STATION 48+20.92 (LOOP RD.)
ROAD STATION 0+65.00 (LOOP ROAD)
NOTES:
1. MANNING'S ROUGHNESS COEFFICIENT, "n", FOR CONCRETE = 0.013. FOR CORRUGATED METAL PIPE WITH 5" x 1" CORRUGATIONS, n=0.027.
2. DESIGN FREQUENCY = 25 YEARS.
3. TOTAL HEAD LOSS, "H", IS THE SUM OF THE VELOCITY, ENTRANCE, AND FRICTION HEADS.
4. R.C.P. IS CLASS III, WALL B.
5. FOR H, SEE DWG. NO C-1502.
6. FOR H, SEE PLATE NO 2, CANAL EPB-9, UNIT NO.7 OF NORTHERN PALM BEACH COUNTY WATER CONTROL DISTRICT, (MOCK, ROSS, AND SEARCY, INC. CONSULTING ENGINEERS) Q/bbl. = 469/2 = 234.5 c.f.s.
7. ALLOWABLE HEADWATER (AHW) = 1.20(D), EXCEPT FOR THE DRAINAGE STRUCTURE AT LOOP ROAD STA. 0+65.00.
8. THE RUNOFF COEFFICIENT IS A WEIGHED AVERAGE FOR PAVEMENT, GRASS, AND LIMEROCK.
9. ALL ROAD STATIONS ARE LOOP ROAD STATIONS UNLESS SHOWN OTHERWISE.
NO CONST. 3-12-80
MICROFILMED
PLANT NORTH
D.A. Nº 1
D.A. Nº 2
D.A. Nº 3
D.A. Nº 4
D.A. Nº 5
FUEL OIL STORAGE TANK
FUEL OIL STORAGE TANK
HTR. FUEL OIL STG. TNK.
PURGE OIL STG. TNK.
TERMINAL CONTROL & UTILITIES BLDG.
LAUNCHER
RECEIVER
LOOP RD
ACCESS RD NO 1
ACCESS RD NO 2
ACCESS RD NO 3
ACCESS RD NO 4
STA 16+07.90 LOOP RD.
STA 25+89.40 LOOP ROAD
STA 36+86.38 LOOP ROAD
STA 48+20.92 LOOP RD.
STA 0+65.00 LOOP RD.
STA 1+22.00 ACCESS RD NO 1
STA 2+23.00 LOOP RD.
EXIST CULVERT
EXIST BORROW PIT (FLOODED) - CANAL NO. E.P.B.-9
EXIST BORROW PIT (FLOODED) JOINT OUTFALL CANAL NO 9 E.P.B. 9 & 10
SILT SCREEN
SILT SCREEN
SILT SCREEN
S. SEABOARD COAST LINE R.R.
MID-VALLEY, INC.
ENGINEERS - CONSTRUCTORS
FLORIDA POWER & LIGHT COMPANY
MIAMI, FLORIDA
DRAINAGE PLAN
ER-0883

P.O. BOX 529100, MIAMI, FL 33152

FLORIDA POWER & LIGHT COMPANY

March 25, 1980

RECEIVED
MAR 2 8 1980
SOUTH FLORIDA WATER
MANAGEMENT DISTRICT

Permits Section
South Florida Water Management District
Post Office Box V
West Palm Beach, Florida 33402

Dear Sir:

Re: Surface Water Management Permit No. 50-00497-S
FPL File PMR-J2-18

Please reference Special Condition No. 1 of Surface Water Management Permit No. 50-00497-S, issued to Florida Power & Light Company on October 13, 1977. Enclosed is the February 1, 1980 completion certification of Florida registered Professional Engineer Mr. Ramon J. Fernandez for the Florida Power & Light Company West Palm Beach fuel oil storage facility.

Sincerely,

Judy Barnett

for W. S. Tucker, Manager
Environmental Affairs

Enc.

MICROFILMED
RECEIVED
MAR 28 1980
RESOURCE CONTROL DEPARTMENT

SCANNED
PEOPLE . . . SERVING PEOPLE

MID-VALLEY, INC.
ENGINEERS • CONSTRUCTORS

(713) - 928-2592
POST OFFICE BOX 2634
HOUSTON, TEXAS 77001

February 1, 1980
File No.: 3406

To Whom It May Concern:

This is to certify that the Florida Power & Light Company's Fuel Oil Storage Facility for the Martin Fuel Oil Supply System is complete and has been constructed in accordance with the approval engineering design drawings and specifications.

Ramon J. Fernandez

MICROFILMED

SCANNED

POST FILE

FORM 646
1967

FIELD INSPECTION REPORT
GENERAL

Report No: #50-00497-S (FINAL) Date: 11/22/77

Inspector: BRAUN Time: _____

Project: EPB-9 (NPBWCD) Location SEC. 31, TWP. 42, RGE. 43

Type of work or construction: SURFACE WTR. MGT. SYSTEM

By, Contractor or Owner: FLORIDA POWER & LIGHT CO.

Remarks: 1-24"x 32' RCP DISCH. EASTERLY UNDER I-95
1-24"x 66' RCP TO EPB-9
1-18"x 66' RCP TO EPB-9
1-18"x 40' RCP TO EPB-9
ALL CULVERTS HAVE BEEN INSTALLED AS PER PLANS AND HAVE HEADWALLS. THE PROJECT ITSELF IS APPROX. 60% COMPLETE, BUT DRAINAGE SYSTEM IS OPERATIONAL AT THIS TIME.

Marty Braun

MICROFILMED

Date _____

Signed _____

Action taken or recommended: INSPECTED & APPROVED
K B. 11/22/77

Further Inspection: _____ Date: _____

SCANNED

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTH FLORIDA SUBDISTRICT
3301 GUN CLUB ROAD
POST OFFICE BOX 3858
WEST PALM BEACH, FLORIDA 33402

REUBIN O'D. ASKEW
GOVERNOR

JOSEPH W. LANDERS, JR.
SECRETARY

RG

50-00497-S

October 10, 1977

Florida Power and Light Company
9250 West Flagler Drive
P.O. Box 013100
Miami, FL 33101

Re: Your Application to South Florida Water Management District # 08167-B
Dated 9 / 22/ 77 - Surface Water Management - FP&L

Dear Sir:

The above referenced application/staff report has been supplied to this office by the South Florida Water Management District (SFWMD). It has been determined that your project is subject to Chapters 403 and/or 253, Florida Statutes. Accordingly, your project falls within the permit requirements of this agency and the paragraph(s) checked below apply.

( ) Please supply detailed drainage plans showing the project's capability to retain the initial one inch of discharge or one hour, three (3) year frequency storm. If the project can comply with the above standards, no discharge permit or monitoring will usually be required by the Department.*

(X) A review of drainage plans by our staff indicates the above referenced project will comply with Chapter 403, Florida Statutes permit requirements for pollutant discharge. Since these plans have been incorporated into the SFWMD permit, no discharge permit or monitoring in addition to the SFWMD permit requirement will be required by the Department at this time.*

( ) You are required to monitor the following parameters twice a month during periods of discharge:

Parameters:	Dissolved oxygen	Turbidity
	Flow	Total Kjeldahl nitrogen
	Temperature	Total Phosphorous as P
	Five Day B.O.D.	

Three stations will be sampled at initiation of discharge and twice a month during periods of discharge. Dissolved oxygen and flow will be sampled from surface, mid and bottom depths in the receiving stream. All other parameters will be sampled from mid-depth. Station locations will include

* e.g., all discharge to Class I waters will require a DER permit.

MICROFILMED
SCANNED

(a) upstream and (b) downstream in receiving waters, and (c) upstream of pump or structure that controls discharge from the project. Data collected shall be submitted to the Department of Environmental Regulation and the South Florida Water Management District fifteen (15) days following each month when the facility was discharging. This monitoring is being required primarily to assess the potential and/or actual effect of your discharge on receiving waters. One year of data will possibly be sufficient. The Department will attempt to have this requirement incorporated into your SFWMD permit.

Should you have any questions, please contact Mr. Allen Webb at the above address, telephone 305/689-5800.

Sincerely,

Warren G. Strahm
Subdistrict Manager

WGS: ADW:mh

cc: SFWMD
Local Program

MICROFILMED

SCANNED

THE PALM BEACH POST

Published Every Weekday
West Palm Beach, Palm Beach County, Florida

PROOF OF PUBLICATION

50-00497-S

STATE OF FLORIDA
COUNTY OF PALM BEACH)

Before the undersigned authority personally appeared Frank T. Hartwell who on oath says that he is Advertising Mgr. of The Palm Beach Post, a daily newspaper published at West Palm Beach in Palm Beach County, Florida; that the attached copy of advertising, being a Notice in the matter of Application ---------- in the ---------- Court, was published in said newspaper in the issues of September 29, 1977

Affiant further says that the Palm Beach Post is a newspaper published at West Palm Beach, in said Palm Beach County, Florida, and that said newspaper has heretofore been continuously published in said Palm Beach County, Florida, each weekday and has been entered as second class mail matter at the post office in West Palm Beach, in said Palm Beach County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Frank T. Hartwell

Sworn to and subscribed before me this 29th day of Sept. A.D. 1977

Alma B. Childers

NOTARY PUBLIC STATE OF FLORIDA at LARGE
MY COMMISSION EXPIRES JUNE 2, 1978
BONDED BY AMERICAN BANKERS INSURANCE CO.

NO. 644652
PUBLIC NOTICE OF APPLICATION

Notice is hereby given that pursuant to Chapter 373, Florida Statutes, the following application(s) for permit has (have) been received by South Florida Water Management District:

FLORIDA POWER AND LIGHT COMPANY, 9250 West Flagler Drive, Miami, Florida 33101 has submitted Application No. 08167-B to drain 56 acres of industrial lands. The drainage rate requested is 27.0 c.f.s. The water will be discharged into North Palm Beach Canal EPB9 and the project will be located in Palm Beach County, Section 31, Township 42 south, Range 43 east. The District staff recommends permit issuance as requested with limiting conditions.

APPLICATION AND SUPPORT DATA AVAILABLE FOR REVIEW BY INTERESTED PARTIES AT:

South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Florida

Affected persons may file objections or request a hearing by writing to the Governing Board of South Florida Water Management District, P. O. Box "V", West Palm Beach, Florida 33402, but such objections or requests must be received before 5:00 o'clock, P.M. on the 12th day of October, 1977. If a hearing is required, all parties will be notified as to time and place.

SOUTH FLORIDA WATER MANAGEMENT DISTRICT, BY ITS GOVERNING BOARD
By /s/ Robert L. Clark, Jr.
Chairman

PUBLISH: September 29, 1977

RECEIVED

Proof of Publication

.....

.....

vs.

.....

.....

Filed in the Office of Clerk of Circuit Court

..... 19 .....

....., Clerk

By ....., D. C.

.....

Complainant's Solicitor.

"Route"

APPLICATION ROUTING SHEET

DATE August 16, 1977 APPLICATION NO. 08167-B Florida Power & Light Co.

LAST BOARD MEETING FOR FIRST ROUTING October 13, 1977

ROUTE TO:

ORDER	PERSON	OFFICE	REQUESTED ACTION
___	VADINO	REGULATION	_____
___	_____	FIELD REPRESENTATIVES	_____
___	RYAN	REGULATION	_____
___	HUDAK		_____
___	KRUM		_____
___	KRUPILIS		_____
___	FRATZ		_____
___	METZGER		_____
___	KAISER		_____
___	WINTER		_____
___	ZENSEN		_____
___	ROGERS		_____
1	DAN S		_____
2	[illegible]		_____
3	[illegible]		_____
4	[illegible]		Type
5	[illegible]		[illegible]

PURPOSE OF APPLICATION

WATER USE | SURFACE WATER MANAGEMENT | RIGHT-OF-WAY

OTHER _____

COMMENTS:

SCANNED

P. O. BOX 013100, MIAMI, FL 33101

FLORIDA POWER & LIGHT COMPANY

October 10, 1977

Mr. Vern Kaiser
Resources Control Department
South Florida Water Management District
P. O. Box V
West Palm Beach, Florida 33402

Re: Application No. 08167-B

Dear Mr. Kaiser:

We would like to submit several comments relative to the Staff review summary of our Surface Water Management Permit Application No. 08167-B and appreciate your consideration of the following remarks:

1. In general, we are in agreement with the staff's evaluation, but the "FAIR" ratings on water quality and quantity impacts, environmental impacts, and overall use of land are somewhat confusing. As far as industrial facilities are concerned, the petroleum storage facility planned must have among the lowest impact of any facility one could imagine. There are no water discharges except for normal rain run-off; air emissions are limited to two package boilers (roughly equivalent to those one might find at a large hotel).

2. The minimum floor elevation for the storage facility building is at elevation 16.5' in accordance with special condition #2. However, we are assuming this condition applies only to occupied buildings. A small building used to protect facility fire pumps from the weather has a finish floor elevation of 15.5'.

3. Water quality data required for discharges contained in special condition #3 appear to be far in excess of what would be reasonable considering that only rain run-off is involved. There are no sources of the nutrients listed and the other parameters would also appear of no greater concern here than at all the other myriad locations where run-off occurs. This condition appears to be directed at agricultural activities and we would suggest it be deleted. The burden of cumulative monitoring requirements on the Company throughout its service area has become tremendous and we would like to avoid collecting data where it may serve no particular purpose.

continued...

SCANNED

Again, we appreciate the opportunity to make comments and hope that you will give them reasonable consideration.

Sincerely,

Martin C. Smith for

W. Samuel Tucker, Jr.
Manager
Environmental Affairs

WSTjr:MAS:eab
cc: Mr. Steve Reel

MICROFILMED

SCANNED

PUBLIC NOTICE OF APPLICATION

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APPLICATION AND SUPPORT DATA AVAILABLE FOR REVIEW BY INTERESTED PARTIES AT:

South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Florida

FILED

Affected persons may file objections or request a hearing by writing to the Governing Board of South Florida Water Management District, P. O. Box "V", West Palm Beach, Florida 33402, but such objections or requests must be received before 5:00 o'clock, P.M. on the 12th day of October, 1977. If a hearing is required, all parties will be notified as to time and place.

PUBLISH: September 29, 1977

Palm Beach Post
P.O .Box 1590
West Palm Bch., FLA. 33402

SOUTH FLORIDA WATER MANAGEMENT DISTRICT,
BY ITS GOVERNING BOARD

By /s/ Robert L. Clark, Jr.
Chairman

SCANNED

South Florida
Water Management District

JOHN R. MALOY, Executive Director

POST OFFICE BOX V, WEST PALM BEACH, FLORIDA, 33402

TELEPHONE 305-686-8800

IN REPLY REFER TO: Application No. 08167-B

September 29, 1977

Florida Power & Light Company
9250 West Flagler Drive
P. O. Box 013100
Miami, Florida 33101

Attention: W. S. Tucker, Manager
Environmental Affairs

Enclosed is a copy of this District's staff report covering your permit application.

The recommendations as stated in the staff report will be presented to our Governing Board for consideration on October 13, 1977.

Please contact this office if you have any questions concerning this matter. If we do not hear from you by the above date, we will assume you concur with our recommendations.

Sincerely,

Vern Kaiser
Resource Control Department

VK/ras

Enclosure

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Robert L. Clark, Jr., Chairman - Fort Lauderdale
Dr. John M. DeGrove, Vice Chairman - Boca Raton
C. A. Thomas, Lake Harbor
Robert W. Padrick, Fort Pierce
W. J. Scarborough, Lake Placid
J. R. Spratt, La Belle
R. Hardy Matheson, Miami
Ben Shepard, Hialeah
Stanley Hale, Naples

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JOHN R. MALOY, Executive Director

file

South Florida Water Management District

POST OFFICE BOX V, WEST PALM BEACH, FLORIDA, 33402

TELEPHONE 305-686-8800

IN REPLY REFER TO: 7-50-41

September 29, 1977

Mr. Ken Rogers, P.E.
Director
Land Development Division
Palm Beach County Engineering Dept.
P.O. Box 2429
West Palm Beach, Florida 33402

Re: Application No. 08167-B
FP&L Petroleum Storage
Application No. 05207-A
Pine Lake

Dear Mr. Rogers:

Enclosed are copies of District staff reports for the referenced projects. These reports (which are for proposed urban or agricultural projects) will be part of those presented to the Governing Board at its 10/13/77 meeting for final permit approval. Staff reports for routine existing agricultural activities will not be furnished except on specific request.

If you have any questions or comments please feel free to contact this office. Copies of the permits will be forwarded after final approval.

Very truly yours,

Richard A. Rogers

Richard A. Rogers, Director
Resource Control Department

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RAR/bar
Enclosures

xc: Mr. Raymond Liberti

Robert L. Clark, Jr. — Chairman · Fort Lauderdale
Dr. John M. DeGrove — Vice Chairman · Boca Raton
C. A. Thomas — Lake Harbor
Robert W. Padrick — Fort Pierce
W. J. Scarborough — Lake Placid
J. R. Spratt — La Belle
R. Hardy Matheson — Miami
Ben Shepard — Hialeah
Stanley Hole — Naples
Maurice L. Plummer — Ft. Myers

Formerly Central and Southern Florida Flood Control District

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South Florida Regional Planning Council

1515 N.W. 167th Street, Suite 429, Miami, Florida 33169 (305) 621-5871

AGENDA ITEM #5

June 3, 1974

TO: COUNCIL MEMBERS

FROM: STAFF

SUBJECT: DRI DEVELOPMENT ORDER - FLORIDA POWER AND LIGHT COMPANY
PETROLEUM STORAGE

Date Received by SFRPC - May 23, 1974
DSP - May 20, 1974

A. Council Recommendations

Approval subject to resolution of any negative local issues.

B. Response to Recommendations

The project was APPROVED subject to the following special conditions:

1) The petitioner shall provide a mechanical arm for offloading in the Port of Palm Beach;

2) The petitioner shall provide a twelve hundred (1200) foot floating boom that could encircle an oil tanker in the Port of Palm Beach;

3) The petitioner shall provide the needed skimming equipment and barge floating tanks in the Port of Palm Beach;

4) The petitioner shall arrange with the United States Coast Guard, or other Port boats such as the Port tugs, to deploy and maneuver the boom and test the oil spill plan by simulation on an annual basis;

5) The petitioner shall provide revetments to hold all the oil from the two (2) proposed tanks in case of simultaneous destruction;

6) The petitioner shall install automatic shut off valves on both sides of the canals in areas where breaks in the lines could pollute waterways. The automatic shut off valves are to be tested on an annual basis;

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7) The petitioner shall provide on-site security protection at the tank farm;

8) The petitioner shall provide on-site fire fighting equipment or an area with the trained manpower to fight an oil fire of the proposed capacity;

9) The petitioner shall provide proper vegetation and screening for the site;

10) The petitioner shall take the necessary precautions to protect the area ground water supplies from seepage or leakage into the C-17 Canal by means of treatment of soil and banks to render seepage unlikely;

11) The petitioner shall preserve the northern vacant area of the property in question as a buffer with landscaping;

12) The pipeline between the Port of Palm Beach and the subject site and the pipeline from the subject site to the Martin County line shall be buried at a minimum depth of three (3) or four (4) feet below the surface;

13) The petitioner shall provide fire protection equipment at the Port of Palm Beach and tank farm site as approved by the District Fire Chief;

14) The storage tanks shall solely pertain to the storage of #6 oil;

15) All the stated conditions shall be completed prior to filling of the pipeline and tanks with #6 oil;

16) In the event a third tank is required at some future date, a Special Exception application shall be filed with the Planning, Zoning and Building Department and be subject to Planning Commission and County Commission approval.

C. Analysis

The Development Order issued by the Board of County Commissioners of Palm Beach County stipulated 16 measures that undoubtedly will have a beneficial effect on eliminating or alleviating most of the local negative impacts that could be caused as a result of project approval.

D. Recommended Action

No appeal.

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Attachments

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Rough Draft

DEVELOPMENT OF REGIONAL IMPACT

IMPACT ASSESSMENT

FOR

WEST PALM BEACH PETROLEUM STORAGE FACILITY

FLORIDA POWER AND LIGHT COMPANY

Located in Palm Beach County

10-74-026

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Regional Planning Agency

South Florida Regional Planning Council

March 1974

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INTRODUCTION

This impact assessment of the West Palm Beach Petroleum Storage Facility has been prepared by the South Florida Regional Planning Council as required by the Florida Environmental Land and Water Management Act, for all developments of Regional Impact.

The proposed West Palm Beach Petroleum Storage Facility would contain two storage tanks having a combined capacity of 1,066,400 barrels (1 barrel = 42 U.S. gallons). Auxiliary tanks, maintenance and safety buildings and facilities would also be constructed. Petroleum would be transferred from tanker-ships to a pipeline at the Port of Palm Beach, transmitted to the "tank farm" 3.5 miles to the west and thence to the Martin County Power Plant (now under construction) approximately 40 miles to the northwest.

This impact assessment is based largely upon information supplied by the applicant in the Application for Development Approval. However, additional information was obtained by contacting local officials and consulting official plans and by reviewing reports related to specific issues in the impact assessment. Water and water-related elements of the project were also reviewed by the Central and Southern Florida Flood Control District.

In accordance with the Act, this impact assessment and report is intended to provide the Palm Beach County Commission and the Division of State Planning with an overview of the impacts, both positive and negative, that would probably result from approval of the proposal. The recommendations are intended to assist the County Commission in reaching its decision regarding the proposed development.

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PART I APPLICANT INFORMATION

Applicant: Florida Power and Light

P.O. Box 3100

Miami, Florida 33101

Date of Receipt of Application: January 28, 1974

Local Government DRI Hearing Date:

Type of Development: Petroleum Storage Facility

Location of Development: Palm Beach County (see map)

Name of Project: West Palm Beach Petroleum Storage Facility

Construction Period: 1974 to 1976 - two years

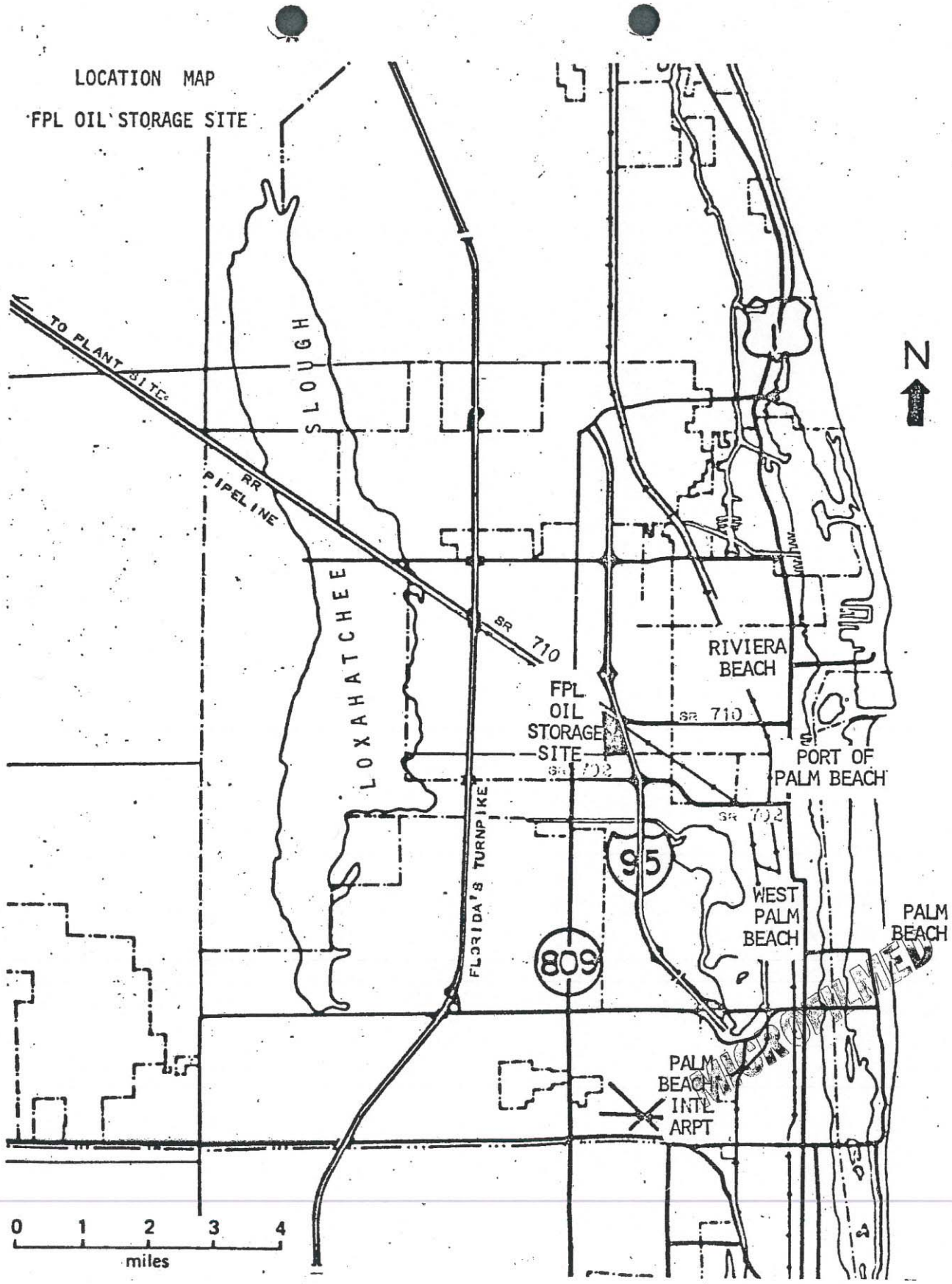
Project Description: Total Storage Capacity: 1,066,400 barrels (2 storage tanks)

Total Acres: 71

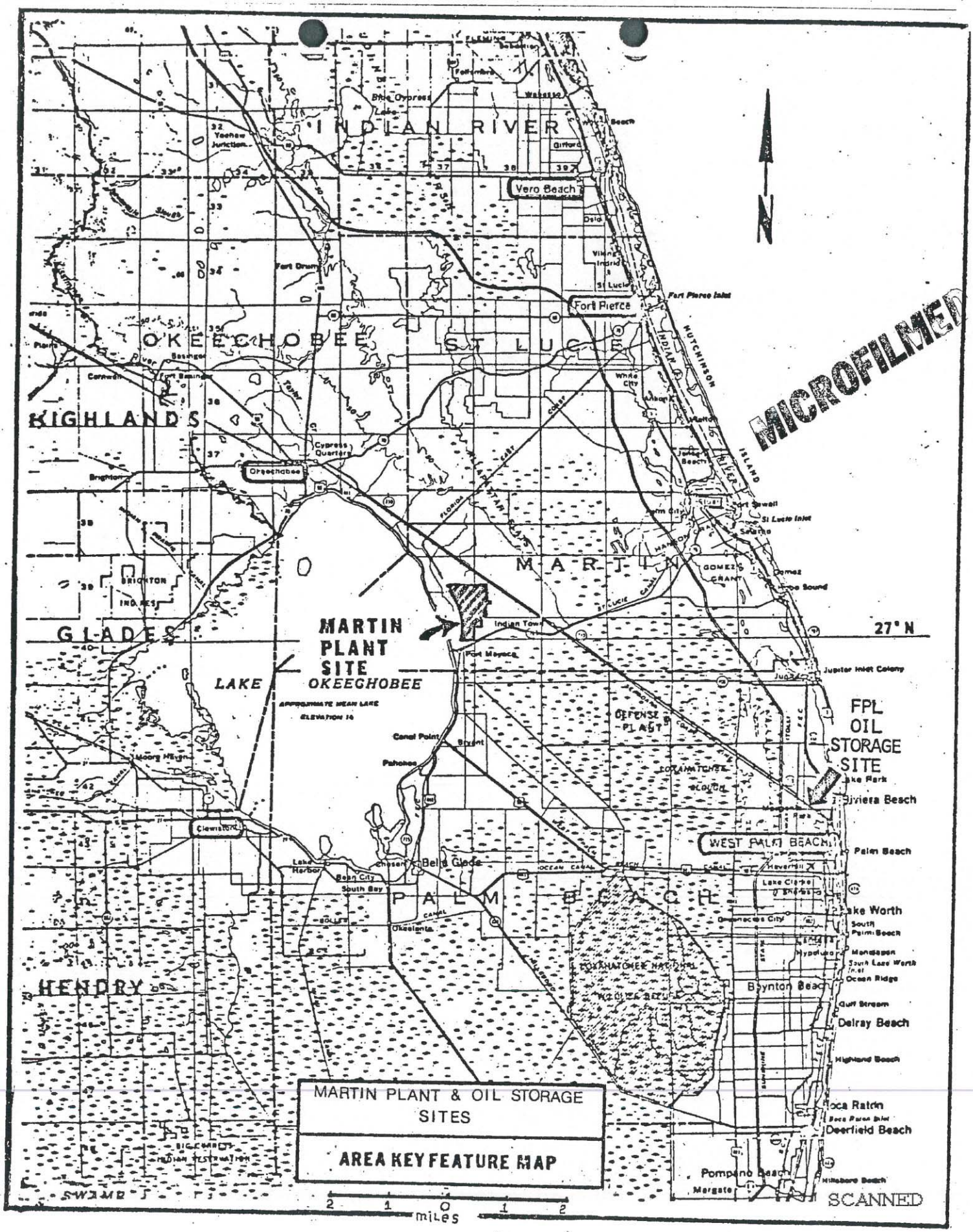
DRI Threshold: 200,000 barrels (1 barrel = 42 U.S. gallons)

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LOCATION MAP
FPL OIL STORAGE SITE
TO PLANT SITE
RR PIPELINE
SLOUGH
LOXAHATCHEE
SR 710
FLORIDA'S TURNPIKE
FPL OIL STORAGE SITE
RIVIERA BEACH
SR 710
PORT OF PALM BEACH
SR 702
95
809
WEST PALM BEACH
PALM BEACH
PALM BEACH INTL ARPT
N
0 1 2 3 4
miles

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MARTIN PLANT SITE
FPL OIL STORAGE SITE
MARTIN PLANT & OIL STORAGE SITES
AREA KEY FEATURE MAP
INDIAN RIVER
OKEECHOBEE
ST LUCIE
MARTIN
GLADES
HENDRY
HIGHLANDS
LAKE OKEECHOBEE
PALM BEACH
Vero Beach
Fort Pierce
Okeechobee
Belle Glade
WEST PALM BEACH
Jupiter Inlet Colony
Boynton Beach
Delray Beach
Deerfield Beach
Pompano Beach
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miles
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RECOMMENDATION

It is the recommendation of the South Florida Regional Planning Council to the Palm Beach County Commission that the proposed project be APPROVED SUBJECT TO resolution of any negative local issues.

It is not the intent of this recommendation to foreclose or abridge the legal responsibility of local government to act pursuant to local laws or ordinances which are applicable to the project under consideration.

Copies of any "development order" (an order granting, denying, or granting with conditions an application for a development permit) issued to the applicant with regard to this project should be transmitted to the South Florida Regional Planning Council and the Department of Administration, Division of State Planning.

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PART II EVALUATION OF THE PROPOSED DEVELOPMENT

The proposed "Development of Regional Impact" is an integral part of a larger development and, as such, the total project must be examined with respect to regional impacts. Florida Power and Light Company proposes the tanks as part of a larger project to construct a new energy-producing plant, which would be powered by fuel oil and located near Lake Okeechobee in Martin County.

The total project includes five components: (1) docking and unloading facilities (existing) for oil tanker ships at the Port of Palm Beach; (2) a pipeline connecting the Port with the proposed storage facilities and the proposed power plant; (3) the petroleum storage facilities proposed in this Application for Development Approval (ADA); (4) the Martin County Power Plant (granted vested rights by the State, with all necessary permits obtained and now under construction); and (5) the transmission lines which will carry the electrical energy (also granted vested rights).

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Note that the two latter components do not fall under the aegis of this review agency and will not be considered in the scope of this report. The applicant has submitted an ADA which deals only with the tank farm, the third component of the total project. However, the tank farm can serve its intended function only with concomitant usage of components one and two; therefore, the harbor facilities and pipeline will also be addressed in this review where deemed appropriate.

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A. IMPACT ON THE NATURAL RESOURCES OF THE REGION

1. Air Quality

The major source of air pollution associated with the proposed petroleum storage facility would be the oil-fired furnaces used to heat petroleum for transmission by pipeline. Although heating would not be required for the low-sulfur oil currently being consumed by Florida Power and Light plants, it is anticipated that fuel oil availability in three to four years will be such as to necessitate the use of oil having a higher concentration of sulfur. Assuming the use of high sulfur oil and heaters, data provided by the applicant indicate that approximately 1775 pounds of sulfur dioxide, nitrogen dioxide and particulate matter would be emitted daily.

While it is not possible to specifically access the effect that this project would have on regional air quality, no significant adverse regional impact is apparent at this time.

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2. Water Quality

a. Surface Water Quality. Two large flooded borrow pits, extending along the southern and western boundaries of the property, are the only water bodies present on the property. No major alteration of these would result from project construction.

According to the ADA, drainage would be into an oil separator in areas where there is a possibility of oil spillage. Clear effluent, like surface water runoff, would be drained into the plant drainage ditches; oil residue would be collected and piped into the storage tanks. The applicant should establish a

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practice of analyzing this clear effluent in order to assure that no petroleum residue enters the drainage system.

The pipeline connecting the tank farm to the Martin County Power Plant would be placed alongside the Beeline Highway and the Seaboard Coast Railroad. Thus,no significant effect on surface water flow or quality is to be expected due to proper operation of the pipeline. The pipeline would also be located in an existing transmission line right-of-way; therefore, multiple use would be made of the corridor.

The proposed pipeline would cross the Loxahatchee Slough, an area of major ecological importance. It is imperative that the pipeline, if constructed, be properly monitored in order to avoid any contamination of this area. The applicant does state that, in the event of leakage, meters at the ends of the pipeline would register a change in pressure and oil pumping would be cut off automatically. High liquid level in the storage tanks would also be indicated by meters, at which point the flow of fuel oil entering the tanks from the pipeline would be cut off.

Petroleum for the project would be unloaded from tanker ships at the Port of Palm Beach. It is imperative that all possible steps be taken to minimize the occurrence of oil spills. The following excerpt from the Environmental Impact Statement for the Martin County Plant prepared by Florida Power and Light in February 1973, describes facilities available for dealing with oil spills at the Port:

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The Port of Palm Beach District maintains a 300 foot Uni-Royal containment boom and an oil skimmer. In addition, the Belcher Oil Company maintains a sizeable inventory of oil spill cleanup materials and supplies at the Port. The Belcher Oil Company also maintains mobile oil spill cleanup equipment and supplies that can be dispatched to the Port within one hour after notification.

Within the framework of the National Oil and Hazardous Materials Pollution Contingency Plan and Section 11 of the Federal Water Pollution Control Act, the Port of Palm Beach, as do the other ports of entry in Florida, cooperates with Federal and State interests directed toward the development of effective preventative and preparedness measures. The Port of Palm Beach has developed an Oil Spill Operations Plan under which it reports all incidents to the U. S. Coast Guard and works jointly with them to insure that proper cleanup activities are performed immediately. In addition, the Port of Palm Beach is presently developing an even more complex and reliable oil spill prevention, containment, and cleanup plan.

(Florida Power and Light) is participating in the working out of an agreement with the Port of Palm Beach District, the Belcher Oil Company and the Humble Oil and Refining Company to enter into a coordinated plan for the prevention of oil spills and for the clean up of any oil spills if such spills should occur. In addition to preventative measures, the above agreement would provide for the pooling of equipment, material and personnel and spell out specific operating procedures, thereby further developing additional preparedness measures.

(Also), FPL is considering the replacement of the existing rubber cargo hose unloading system with an automatic mechanical unloading arm structure. Since most oil spills occur during the transfer of cargo and are frequently associated with the use of rubber cargo hoses, the mechanical unloading arm system being considered would eliminate the necessity of such hoses and virtually eliminate the oil spill potential during the unloading operation.

b. Ground Water Quality. The proposed tank farm would be atop the shallow surface aquifer which underlies all but the southern portion of Palm Beach County. Use of proper drainage measures, should minimize both surface and ground water pollution. Wastewater from the project would be piped to the treatment facilities of a nearby residential development.

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Each of the two proposed storage tanks would have a capacity in excess of 500,000 barrels. The tanks would be separated by a concrete divider, 18 inches high, in order to facilitate drainage control and to prevent small oil spills or tank runover from coming into contact with both tanks. The tank area would be enclosed within an earthen dike designed to retain the contents of one full tank. Thus, should one tank rupture, its liquid could be retained inside the dike. However, the applicant does not address the possibility of both tanks rupturing or consequences which could result from petroleum seepage from either a major or periodic smaller spills into the ground-water system.

3. Water Quantity

a. Water Supply. No on-site ground water or surface water withdrawals are proposed for the project. Water for fire-fighting purposes would be obtained from one of the flooded borrow pits; a storage tank for this water would be constructed in the petroleum storage area. A nearby residential development would provide water for potable use and supplemental emergency needs.

b. Drainage. According to the Flood Control District report:

> The 71 acre site, of which 35 acres will be cleared and graded for the storage facilities, is within the North Palm Beach County Water Control District. The site changes proposed will not significantly change the quantity and rate of runoff from the site. Storms of long-term recurrence will not present severe flooding problems. Surface runoff will be drained into plant piping and ditching, terminating in the Water Control District's system.
>
> The drainage plan for the petroleum storage facilities is a conventional contained system proposal, discharging into the Intracoastal Waterway via C-17, an FCD primary drainage canal. Standard precautionary and preventive devices as a minimum should be incorporated as a means of minimizing the impact of

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oil leaks or ruptures. As an additional safety measure we recommend that the exit points for the existing south borrow pit be ponded with controls to allow containment of oil from ruptures, especially an occurrence from the 30-inch "port" unloading line.

4. Land Resources

a. Topography. The tank area would occupy 35 of the property's 71 acres. The site of the proposed project is generally flat, with an elevation of 12 to 14 feet above mean sea level. The area in which the tanks would be situated has an average elevation of 13.5 feet above mean sea level. No major site alteration is necessary in order to construct the proposed tank farm.

b. Soils. Soils present on the site are predominantly deep, poorly drained fine sand. The soils on the site would be suitable for the proposed development with minor corrections; presumptive bearing values of the soils are adequate. Thus, the proposed project should have no significant soils-related impact.

c. Vegetation. Almost all of the vegetation originally existing on the project site has been disturbed. Drainage in the area has lowered the water table and consequently melaleuca now dominates much of the area. The remaining open glade, grass and bush areas support a moderately valuable ecosystem. However, the applicant's consultant indicates that due to the lowered water table, these areas will, within time, also be dominated by melaleuca, pepper bush and other undesirable invading species.

Development of the property should have no adverse effect on vegetation in the area. Use of Australian pine has been proposed for a buffering zone; the applicant should be cautioned that this

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is also an undesirable species and that its use must be controlled.

d. Wildlife. Mammals inhabiting the property include raccoons, possums, rabbits, rats and mice. No significant impact on these species is to be expected as a result of the proposed development inasmuch as the borrow pits and several open glade areas would remain unaltered.

e. Aquatic Life. Several fish species are present in the flooded borrow pits. No significant impact is to be expected on aquatic life in these pits. Although one of the borrow pits will provide water for fire-fighting purposes, major lowering of the water level is not anticipated.

The Port of Palm Beach District has been granted permits necessary to begin dredge and fill operations for the construction of two new slips immediately north of the existing port facilities. Care should be taken during these operations to minimize harm to the aquatic inhabitants of the harbor area.

Of more serious consequence is the possibility that increased port activity might endanger the manatees which frequent the Palm Beach harbor area. The Florida Manatee has been listed by the United States Bureau of Sport Fisheries and Wildlife as an endangered species, and must be protected. Port authorities estimate that the annual volume of large ships entering the harbor would increase by approximately 10 percent as a result of tankers supplying petroleum to the new Florida Power and

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Light facilities. Although motorboats which can maneuver in shallow areas present a greater threat to the manatees than do the large, slower-moving oil tankers, these animals must come to the surface in order to breathe and may not always be able to avoid the large ships. All efforts must be made to protect the manatee population.

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B. IMPACT ON THE ECONOMY

1. Economic Impact

a. Development Expenditures. The applicant estimates development expenditures of approximately $7.0 million, with some 40 percent ($2.8 million) expended within the Region.

2. Tax Revenue Generated

Florida Power and Light will pay property taxes on the tank farm site, the amount of which has not yet been determined.

The Port of Palm Beach District has been guaranteed a minimum of $18,000 annually for use of its harbor facilities related to the proposed project.

3. Project Feasibility

Use of the Port of Palm Beach and the planned pipeline route was chosen by Florida Power and Light after an examination of several alternative methods of delivering fuel oil to the new Martin County Power Plant. These alternatives are described in the Environmental Impact Statement submitted to various state agencies when application for the necessary permits was initially made.

Storage capabilities of the tank farm are estimated by the applicant to be sufficient for the operation of the power plant for a period of 14 days. Although petroleum deliveries to the Port of Palm Beach and the tank farm would be scheduled for every 3.5 days, this larger storage capacity is deemed necessary lest rough seas impede tanker unloading.

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4. Employment Characteristics

The applicant estimates that 48 specialized construction workers would be employed during the 2-year development period at an average annual wage of $17,000; total payroll during development would be approximately $1,634,000. After construction the applicant expects that 21 maintenance and operations personnel would be employed at an average annual wage of about $9,150 for a total annual payroll of approximately $192,200.

5. Peripheral and Subsidiary Development

The site of the proposed petroleum storage facility is presently owned by the Port of Palm Beach District. The area is zoned for industrial use; the site itself had previously been planned for use as a tank farm. To this end, pipeline shelving was laid under Interstate 95 and other major roads in the area during their construction.

It is not expected that any peripheral development would occur due to the proposed petroleum storage facility. No development is planned for the 35 acres of the property which would not be used for the proposed project; however, it is possible that an additional 500,000 barrel storage tank would be constructed should expansion be required at a future date.

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C. IMPACT ON THE PUBLIC FACILITIES OF THE REGION

1. Sewage Treatment System

A sewage line from the proposed tank farm would tie-in to the treatment and disposal facilities of the Mangonia Park Utility Company, which serves the nearyby residential Mangonia Park development. Inasmuch as the number of employees would be limited to 21 over a three-shift day, the volume of sewage flow could be considered negligible.

2. Storm Water Disposal System

The applicant proposes to direct storm water runoff to an existing canal (Northern Palm Beach County Water Control District Canal No. EPB-9) by means of a series of paved ditches and pipes. Thirty acres of the project site would be diked for use as a storm water retention area with a design capacity of up to one foot of water throughout, which would contain water from a storm of 100-year frequency.

3. Water Supply System

Potable water would be provided by the Mangonia Park Utility Company. Potable demands of the 21 tank farm employees would not be extensive and additional supplies would be available should it become necessary to supplement the fire-fighting water supply.

4. Solid Waste Disposal

Solid wastes generated by the proposed project would be minimal; disposal services would be on a contractual basis with Palm Beach Sanitation, located in Lantana.

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5. Power Supply

The proposed petroleum storage facility would be wired for 5,000 kilovolt amperes (KVA), the maximum anticipated load. However, the exact power demand of this installation is uncertain at this time.

A standby generator would be available on-site in case of emergency.

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D. IMPACT ON PUBLIC SERVICES

1. Emergency Services

Intercity First Aid Squad, Inc., of Lake Park would provide emergency service. The estimated reaction time is approximately five minutes from the time the call is placed with seven to eight minutes travel time from the project site to the hospital. This service is staffed twenty-four (24) hours a day.

Injured persons would be taken to St. Mary's Hospital, West Palm Beach, a 280-bed facility equipped to handle patients with oil burns. Severely burned persons would be taken to the Burn Center at Jackson Memorial Hospital in Miami.

2. Security

The tank farm would be surrounded by a chain link fence with a height of six feet. Florida Power and Light personnel would be present on the site at all times. In addition, the area would be patrolled regularly by the Palm Beach County Sheriff's Department.

3. Fire Protection

According to the applicant, fire prevention was a primary concern in the design of the petroleum storage facility. Distances between the various storage tanks, facilities and support buildings and the set-back distance from the property line exceed the distances recommended by the National Fire Codes and the National Fire Protection Association as necessary in order to reduce risk of exposure from a fire occurring at any one point.

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The equipment which would be used has been designed in order to minimize risk of oil spills; the site has been designed in such a way that any spills would be contained within localized curbed areas. A dike surrounds the entire tank area, retention capacity being equal to 500,000 barrels or about one-half of the petroleum to be stored on the site. Engineering practices and regulatory agencies apparently do not require that a greater retention capacity be provided.

Water supply for fire-fighting purposes, obtained from one of the flooded borrow pits, would be provided in the tank area. Additional water could be obtained from potable supplies. Water would be used to cool external surfaces and to make the foam spray which is used to extinguish oil fires. Foam hydrants, fixed and portable, would be positioned strategically. Automatic sprinklers would be present in buildings. In case of fire, incoming fuel oil would be shut off automatically.

Personnel employed at the tank farm site would be trained in fire-fighting techniques and equipment maintenance. The applicant states that "the Palm Beach County Volunteer Fire Department has expressed its willingness to answer all calls". In the event of a major conflagration it is likely that fire departments from throughout the County would be called upon for help.

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E. IMPACT ON THE TRANSPORTATION SYSTEM

1. Roadway Systems

No significant impact on local roadway systems is to be expected due to the proposed tank farm.

Access to the site would be from Military Trail (State Road 809). After construction, only the automobiles of the 21 anticipated employees and necessary service vehicles would enter the project site. Under normal operation, no fuel-tank truck traffic is expected; however, in case of an emergency, the applicant estimates that such traffic would be "on the order of one 6,000 gallon truck every two weeks".

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PART III SUMMARY OF DEVELOPMENT IMPACTS

Following is a summary of the positive and negative impacts, both regional and local, which have been identified in this evaluation. It is not the intent of comments on non-regional impacts to infringe upon the legal responsibility of local government to act pursuant to local ordinances applicable to the project under consideration.

POSITIVE

1. The necessary harbor facilities are available at the Port of Palm Beach; the proposed development does not require the expansion thereof.

2. Although the possibility of oil spills in the Port of Palm Beach is present, the applicant appears to have given due attention to the prevention and/or containment and clean-up thereof.

3. The proposed pipeline for the most part will be laid in pre-existing rights-of-way and will share corridors with other energy transmission lines, thereby representing multiple-use planning; most of the distance to the Martin County Power Plant would be traversed alongside the Beeline Highway and the Seaboard Coast Railroad line, thus minimizing adverse environmental impact.

4. The site of the proposed tank farm is zoned for industrial use and planned for this specific use; therefore, when Interstate 95 and other major roads were constructed in the area, pipeline shelving was laid underneath the roads.

5. The proposed project would place no significant demand upon either potable water supplies or sewage treatment facilities.

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6. No significant topographic changes are required for the proposed project.

7. The applicant recognizes the danger of fire at the tank farm; development plans include precautions in excess of standard design levels as well as special training for employees in oil-fire fighting techniques. Necessary equipment would be available on the project site.

NEGATIVE

1. The increase in tankers frequenting the Port of Palm Beach would increase the possibility of oil spills in that area.

2. Manatees are present in harbor vicinity waters and increased traffic in these waters could be detrimental to their safety and well-being; the preservation of this endangered species must be regarded as essential.

3. Should there be leakage of petroleum from the pipelines, serious contamination of surface water quality would occur. This point is of particular importance in the vital Loxahatchee Slough area.

4. Although not likely, a major oil spillage or fire at the site would represent a significant hazard, possibly regional, to public safety, ground and surface water quality and available energy resources.

5. Inadequate or malfunctioning drainage controls at the project site could deleteriously affect surface water quality in the event of oil spills or tank rupture. Additional controls should be installed at the south borrow pit, in order to isolate any oil entering the pit, and in the oil separator, in order to monitor the clear-water effluent.

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May 7, 1974

RESOLUTION NO. R-74-334

RESOLUTION APPROVING DEVELOPMENT OF REGIONAL IMPACT

WHEREAS, the Board of County Commissioners, as the governing body, pursuant to the authority vested in Chapter 163 and Chapter 125, Florida Statutes, and Chapter 70-863, Laws of Florida, Special Acts of 1970, is authorized and empowered to consider petitions relating to zoning; and

WHEREAS, the Board of County Commissioners, as the governing body of local government having jurisdiction, pursuant to Chapter 380.031 and Chapter 380.06, Florida Statutes, is authorized and empowered to consider applications for development approval of developments of regional impact; and

WHEREAS, the notice and hearing requirements as provided for in Chapter 402.5 of the Palm Beach County Zoning Code Ordinance No. 73-2 and Chapter 380.06 (7) have been satisfied; and

WHEREAS, Petition No. DRI-74-1 was presented to the Board of County Commissioners of Palm Beach County at its public hearing conducted on 25 April 1974.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF PALM BEACH COUNTY, FLORIDA, assembled in regular session this 25th day of April, 1974, that Petition No. DRI-74-1 by Florida Power and Light Company for development approval of a development of regional impact of a parcel of land lying and being in Section 31, Township 42 South, Range 43 East, more particularly described as follows: all that portion of Section 31, Township 42 South, Range 43 East, lying South of the Southerly right-of-way line of the Seaboard Airline Railroad, less the South 300.00 feet thereof for the Florida Power and Light Company fee property and less the right-of-way for the Central and Southern Florida Flood Control District Canal C-17, and also less the North 120.00 feet of the South 420.00 feet thereof, lying West of Canal C-17 for the Northern Palm Beach County Water

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Control District right-of-way, and more particularly described as follows, to-wit: commencing at the Southwest corner of Section 31, Township 42 South, Range 43 East; thence North 0° 24' 03" East along the West line of said Section 31 (the West line of said Section 31 is assumed to bear North 0° 24' 03" East and all other bearings are related thereto) a distance of 420.00 feet to a point in a line 420.00 feet North of and parallel with the South line of said Section 31 and the Point of Beginning; thence continue North 0° 24' 03" East along the said West line of Section 31, a distance of 2265.90 feet to the West one quarter section corner of said Section 31; thence North 0° 13' 30" West along the West line of said Section 31, a distance of 450.99 feet to a point in the Southerly right-of-way line of the Seaboard Airline Railroad; thence South 55° 37' 06" East along the said Southerly right-of-way line, a distance of 1452.57 feet to a point of intersection with the proposed centerline of State Road No. 9; thence South 21° 41' 47" East, along the said proposed centerline of State Road No. 9, a distance of 2046.72 feet to a point in a line 420.00 feet North of and parallel with the South line of said Section 31; thence North 89° 50' 59" West, along said line parallel with the South line of Section 31, a distance of 1969.41 feet to the Point of Beginning, less the right-of-way for Interstate 95 (State Road No. 9), located at the southwest corner of the intersection of Interstate 95 (S.R. No. 9) and the Seaboard Airline Railroad in an IL-Light Industrial District, containing approximately 71 acres, was approved as advertised, subject to the following special conditions:

1) The petitioner shall provide a mechanical arm for offloading in the Port of Palm Beach;

2) The petitioner shall provide a twelve hundred (1200) foot floating boom that could encircle an oil tanker in the Port of Palm Beach;

3) The petitioner shall provide the needed skimming equipment and barge floating tanks in the Port of Palm Beach;

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4) The petitioner shall arrange with the United States Coast Guard, or other Port boats such as the Port tugs, to deploy and maneuver the boom and test the oil spill plan by simulation on an annual basis;

5) The petitioner shall provide revetments to hold all the oil from the two (2) proposed tanks in case of simultaneous destruction;

6) The petitioner shall install automatic shut off valves on both sides of the canals in areas where breaks in the lines could pollute waterways. The automatic shut off valves are to be tested on an annual basis;

7) The petitioner shall provide on-site security protection at the tank farm;

8) The petitioner shall provide on-site fire fighting equipment or an area with the trained manpower to fight an oil fire of the proposed capacity;

9) The petitioner shall provide proper vegetation and screening for the site;

10) The petitioner shall take the necessary precautions to protect the area ground water supplies from seepage or leakage into the C-17 Canal by means of treatment of soil and banks to render seepage unlikely;

11) The petitioner shall preserve the northern vacant area of the property in question as a buffer with landscaping;

12) The pipeline between the Port of Palm Beach and the subject site and the pipeline from the subject site to the Martin County line shall be buried at a minimum depth of three (3) to four (4) feet below the surface;

13) The petitioner shall provide fire protection equipment at the Port of Palm Beach and tank farm site as approved by the District Fire Chief;

14) The storage tanks shall solely pertain to the storage of #6 oil;

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15) All the stated conditions shall be completed prior to filling of the pipelines and tanks with #6 oil;

16) In the event a third tank is required at some future date, a Special Exception application shall be filed with the Planning, Zoning and Building Department and be subject to Planning Commission and County Commission approval.

BE IT FURTHER RESOLVED that a copy of this resolution (Development Order) shall be transmitted to the State Land Planning Agency, the owner or developer (petitioner) and a courtesy copy furnished to the South Florida Regional Planning Council.

The foregoing resolution was offered by Commissioner Warren, who moved its adoption. The motion was seconded by Commissioner Weaver, and upon being put to a vote, the vote was as follows:

Robert F. Culpepper	- Aye
E. W. Weaver	- Aye
Robert C. Johnson	- Aye
George V. Warren	- Aye
Lake Lytal	- Aye

The Chairman thereupon declared the resolution duly passed and adopted this 7th day of May, 1974, confirming action of 25 April 1974.

PALM BEACH COUNTY, FLORIDA
BY ITS BOARD OF COUNTY
COMMISSIONERS

JOHN B. DUNKLE, Clerk

By Juanita B. Malcolm
Deputy Clerk

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY

Michael B. Small
County Attorney

MICROFILMED

SCANNED

RESOLUTION NO. R-74-333

RESOLUTION APPROVING ZONING PETITION

WHEREAS, the Board of County Commissioners, as the governing body, pursuant to the authority vested in Chapter 163 and Chapter 125, Florida Statutes, and Chapter 70-863, Laws of Florida, Special Acts of 1970, is authorized and empowered to consider petitions relating to zoning; and

WHEREAS, the notice and hearing requirements as provided for in Chapter 402.5 of the Palm Beach County Zoning Code Ordinance No. 73-2 have been satisfied; and

WHEREAS, Petition No. 74-28 was presented to the Board of County Commissioners of Palm Beach County at its public hearing conducted on 25 April 1974.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF PALM BEACH COUNTY, FLORIDA, assembled in regular session this 25th day of April, 1974 , that petition No. 74-28, the petition of FLORIDA POWER AND LIGHT COMPANY by Robert J. Snyder, Right-of-Way Supervisor, for a SPECIAL EXCEPTION TO ALLOW BULK OIL STORAGE, PIPELINE, ACCESSORY FIRE STATION AND APPURTENANCES on all that portion of Section 31, Township 42 South, Range 43 East, lying South of the Southerly right-of-way line of the Seaboard Airline Railroad, less the South 300.00 feet thereof for the Florida Power and Light Company fee property and less the right-of-way for the Central and Southern Florida Flood Control District Canal C-17, and also less the North 120.00 feet of the South 420.00 feet thereof lying West of Canal C-17 for the Northern Palm Beach County Water Control District right-of-way, and more particularly described as follows, to-wit: commencing at the Southwest corner of Section 31, Township 42 South, Range 43 East; thence North 0° 24' 03" East along the West line of said Section 31 (the West line of said Section 31 is assumed to bear North 0° 24' 03" East and all other bearings are related thereto)

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a distance of 420.00 feet to a point in a line 420.00 feet North of and parallel with the South line of said Section 31 and the Point of Beginning; thence continue North 0° 24' 03" East along the said West line of Section 31, a distance of 2265.90 feet to the West one quarter section corner of said Section 31; thence North 0° 13' 30" West along the West line of said Section 31, a distance of 450.99 feet to a point in the Southerly right-of-way line of the Seaboard Airline Railroad; thence South 55° 37' 06" East along the said Southerly right-of-way line, a distance of 1452.57 feet to a point of intersection with the proposed centerline of State Road No. 9; thence South 21° 41' 47" East, along the said proposed centerline of State Road No. 9, a distance of 2046.72 feet to a point in a line 420.00 feet North of and parallel with the South line of said Section 31; thence North 89° 50' 59" West, along said line parallel with the South line of Section 31, a distance of 1969.41 feet to the Point of Beginning, less the right-of-way for Interstate 95 (State Road 9),
located at the southwest corner of the intersection of Interstate 95 (S.R. No. 9) and the Seaboard Airline Railroad in an IL-Light Industrial District, was approved as advertised, subject to the following special conditions:

1) The petitioner shall provide a mechanical arm for offloading in the Port of Palm Beach;
2) The petitioner shall provide a twelve hundred (1200) foot floating boom that could encircle an oil tanker in the Port of Palm Beach;
3) The petitioner shall provide the needed skimming equipment and barge floating tanks in the Port of Palm Beach;
4) The petitioner shall arrange with the United States Coast Guard, or other Port boats such as the Port tugs, to deploy and maneuver the boom and test the oil spill plan by simulation on an annual basis;

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SCANNED

5) The petitioner shall provide revetments to hold all the oil from the two (2) proposed tanks in case of simultaneous destruction;

6) The petitioner shall install automatic shut off valves on both sides of the canals in areas where breaks in the lines could pollute waterways. The automatic shut off valves are to be tested on an annual basis;

7) The petitioner shall provide on-site security protection at the tank farm;

8) The petitioner shall provide on-site fire fighting equipment or an area with the trained manpower to fight an oil fire of the proposed capacity;

9) The petitioner shall provide proper vegetation and screening for the site;

10) The petitioner shall take the necessary precautions to protect the area ground water supplies from seepage or leakage into the C-17 Canal by means of treatment of soil and banks to render seepage unlikely;

11) The petitioner shall preserve the northern vacant area of the property in question as a buffer with landscaping;

12) The pipeline between the Port of Palm Beach and the subject site and the pipeline from the subject site to the Martin County line shall be buried at a minimum depth of three (3) to four (4) feet below the surface;

13) The petitioner shall provide fire protection equipment at the Port of Palm Beach and tank farm site as approved by the District Fire Chief;

14) The storage tanks shall solely pertain to the storage of #6 oil;

15) All the stated conditions shall be completed prior to filling of the pipelines and tanks with #6 oil.

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SCANNED

16) In the event a third tank is required at some future date, a Special Exception application shall be filed with the Planning, Zoning and Building Department and be subject to Planning Commission and County Commission approval.

The foregoing resolution was offered by Commissioner Warren, who moved its adoption. The motion was seconded by Commissioner Lytal, and upon being put to a vote, the vote was as follows:

Robert F. Culpepper	- Aye
Lake Lytal	- Aye
E. W. Weaver	- Aye
Robert C. Johnson	- Aye
George V. Warren	- Aye

The Chairman thereupon declared the resolution duly passed and adopted this 7th day of May, 1974, confirming action of 25 April 1974.

PALM BEACH COUNTY, FLORIDA
BY ITS BOARD OF COUNTY
COMMISSIONERS

JOHN B. DUNKLE, Clerk

By Juanita B. Malcolm
Deputy Clerk

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY

William B. Small
County Attorney

MICROFILMED

SCANNED

G. E. DAIL, Jr., Executive Director

CENTRAL AND SOUTHERN FLORIDA

FLOOD CONTROL DISTRICT

74-31

P. O. BOX V
WEST PALM BEACH
FLORIDA 33402
Telephone (305) 655-3411

IN REPLY REFER TO: 9-1-7G(111)

February 13, 1974

GOVERNING BOARD

ROBERT L. CLARK, Jr.
Chairman
Fort Lauderdale

JOHN M. DeGROVE
Vice Chairman
Boca Raton

C. A. THOMAS
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ROBERT W. PADRICK
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B. L. PRATT
Miami

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Lake Placid

I. R. SPRATT
LaBelle

CLAUDE O. GODWIN, D.D.S.
Titusville

Mr. Barry Peterson, AIP
South Florida Regional Planning Council
Suite 429, 1515 N.W. 167th Street
Miami, Florida 33169

Dear Mr. Peterson:

Under our interagency agreement to participate in the evaluation of Developments of Regional Impact in South Florida, attached herewith is our report and recommendation for the proposed Florida Power & Light Petroleum Storage Facility in West Palm Beach, Palm Beach County.

Based on the findings of this agency in review of the water related factors of the Florida Power & Light Petroleum Storage Facility, we recommend the project be approved subject to the following modifications:

1. A water quality monitoring system be established to analyze the clarified effluent and to protect against the degradation of the area's water resources.
2. Fuel spill isolating devices at the south borrow pit be incorporated into the drainage plan.
3. Assurances from the utility company concerning provision of water and wastewater service as well as information pertaining to the long-range capability to provide these services.
4. Coordination of leak detection system on the 14-inch and 30-inch fuel transmission lines with the storage facility's system.

I trust this information will assist the Council.

Very truly yours,

W. V. Storch, P.E., Director
Resource Planning Department

WVS:db
Attachment

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/db

Impact Evaluation
prepared by
Central and Southern Florida
Flood Control District

FLORIDA POWER & LIGHT PETROLEUM STORAGE FACILITY 74-2-31

PREFACE

Based on the adopted guidelines and standards qualifying petroleum storage facilities as Developments of Regional Impact (DRI), this proposal is reviewed with respect to the location of the facilities as well as the protective devices necessary to minimize potential environmental damage. In considering potential environmental degradation, our evaluation exceeds the guidelines established under DRI review and our analysis considers this as only one component of a complete fueling system, not an entity in itself, and as such, an approval or disapproval of this storage facility should not be construed as applying to the complete fueling system.

While our recommendation will be predicated on impacts of DRI perview, our report will identify other impacts associated with our review of the petroleum facilities.

GENERAL DESCRIPTION

The 71 acre petroleum facility is to be located in West Palm Beach, approximately 1,200 feet from the FCD canal C-17 and connected thereto by a lateral. The facility will consist of two above-ground steel storage tanks, each with a capacity of approximately 500,000 barrels (with provision for one additional 500,000 barrel tank), complete with related piping, valves, instrument controls, pumping equipment and safety devices. The storage tanks will be surrounded by required containment dikes and drainage control facilities. The fuel to be stored in the 500,000 barrel tanks will be pumped into the storage tanks via a 30-inch pipeline from the Port of Palm Beach and then pumped by pipeline to the proposed Martin Plant. Only supplementary fuel for heaters and auxiliary emergency power generating equipment will be trucked to the site.

The pumping station at the site will consist of electrically-driven pumps, with associated equipment, instrumentation, and controls for the transfer of stored fuel to the Martin Plant. The pumps will be automatically operated, subject to the pipeline discharge pressure, as well as the fuel oil level in the storage tanks at the proposed site and at the Martin Plant itself.

All safety devices and back-up control equipment will be provided for the operation of the storage facility, in accordance with applicable industrial standards, and Federal, State, and local requirements. A fire protection system and sanitary facilities will also be furnished. The storage facility will be fenced, screened, and landscaped to minimize the impact on the surrounding area.

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Part II. A.

2. Water Resources

a. Water Quality

(1) Surface Water. Evaluation of the storage system is difficult as a separate entity because it is an integral part of the total oil delivery system. The drainage plan for the petroleum storage facilities is a conventional contained system proposal, discharging into the Intracoastal Waterway via C-17, an FCD primary drainage canal. Standard precautionary and preventive devices as a minimum should be incorporated as a means of minimizing the impact of oil leaks or ruptures. As an additional safety measure we recommend that the exit points for the existing south borrow pit be ponded with controls to allow containment of oil from ruptures, especially an occurrence from the 30-inch "port" unloading line.

The areas of the plant that may be susceptible to fuel spills have been curbed and diked to contain fuel. The resulting mixture of oil and water will be drained into an oil separator. The clarified water effluent will then be introduced into the storm water system and handled as though it was storm water. This effluent should be carefully monitored to eliminate a long-term residual build-up in the drainage system both within and exterior to the site.

Although not required under DRI guidelines, an evaluation of the potential impact of accidental occurrences at the facility should be made in relation to the appropriate portions of the total drainage area. The potential impact of oil spills in these waters were not evaluated in the Application for Development Approval (ADA). The emergency containment and clean-up procedures should also be eveluated in the ADA.

In summary, the impact of the petroleum storage facilities on water quality is minimal, but the potential impact of the total project, including the 30-inch "port unloading line", is serious enough to warrant additional information and assurances of a non significant impact on the region's water resources.

(2) Groundwater. No wastewater polishing or percolation ponds are proposed on-site. Under the proposed plan, oil spills should not pose a threat to the groundwater quality. However, undetected leakage from subsurface sources may cause a long-term degradation.

b. Water Quantity

(1) Water Supply Systems. There is an 8-inch water supply line available from a subdivision source for potable and/or emergency fire water make-up, if required. There will be a maximum of 20

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persons for three shifts when operating to capacity. Florida Power & Light proposes a fire water tank which is to be filled from one of the existing flooded borrow pits. The capacity of the fire tank was not given although minimum regulation standards and guidelines should be followed.

(2) Drainage Systems. The 71 acre site, of which 35 acres will be cleared and graded for the storage facilities, is within the North Palm Beach County Water Control District. The site changes proposed will not significantly change the quantity and rate of runoff from the site. Storms of long-term recurrence will not present severe flooding problems. Surface runoff will be drained into plant piping and ditching, terminating in the Water Control District's system.

As a point of major concern mentioned in the section concerning surface water quality, the exit points for the existing south borrow pit should be controlled to allow containment of oil within the pit area. The location of these controls should be placed to include the 30-inch "port unloading line".

The storm water surface runoff approximates natural conditions, and with the two suggested provisions in the internal drainage system, (a) monitoring the clarified effluent, and (b) a control structure at the south borrow pit, the adverse impact of the proposed project should not be significant or, at worst, will be readily rectifiable.

(3) Other Considerations. It is not clear from the drawings and information supplied which pipelines are above ground. This, coupled with no description of the leak detection system, precludes a definitive comment. However, if the dashed lines on the drawings indicate subsurface installation, a small, long-term, undetected leak may cause the soil to become saturated with the possibility of groundwater degradation.

3. Land Resources

b. Topography. The site contains 71 acres of land which is relatively flat with a mean elevation of 13.5 feet m.s.l. About 50% of the area will be disturbed and the rest of the area is to be left essentially in its natural state. At the west and the south edges of the site there are existing borrow pits which will remain intact with surface drainage directed towards them. Although information concerning proposed alteration is limited, the anticipated regional impact is non-significant.

c. Soils. Soils of Basinger series and Basinger and Myakka sands, ponded series, are found in the site. These can be described as poorly drained, deep sandy soils with a thin, very dark gray surface layer, a light gray subsurface layer, and a light brownish-gray sub soil. Because of very high water table, wetness and flooding

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character, both these soils have severe limitations for the intended development.

By association, the soils of the site are classified as "marginal two" by South Florida Regional Planning Council under the development suitability matrix. With proper design and construction techniques, the soil will be suitable for this type of development.

d. Vegetation. The vegetation of this 71 acre tract of land is characteristic of disturbed, vacant, urban land. Lowering of the water table caused by the surrounding borrow pits and other adjacent construction has led to the increase of such exotic species as Melaleuca and Brazilian Pepper. Dog fennel, switchgrass, sedges, and other grasses are common in other sections.

Thirty-five acres of this tract of land are proposed to be cleared and graded. Landscaping with Australian Pine and several species of oak is planned.

The proposed development of this tract should not create adverse environmental impacts on the existing or surrounding vegetation. (The applicant may want to reconsider use of Australian Pine due to its tendency to spread rapidly into adjoining areas.)

e. Wildlife. Terrestrial life on this property is limited to small mammals such as rabbits, rats and raccoon. Coots and gallinules were observed on-site, and a few smaller birds could be expected in the brush thickets. Several species of fish and a few aquatic invertebrates were sampled from the canal. This project should disrupt some of the terrestrial animals, but the aquatic species and birds should remain relatively undisturbed.

f. Endangered Species. No endangered species are known to frequent, breed, nest, or feed in the area.

C. Impact on the Public Facilities of the Region. Analysis of Supply/Demand Characteristics of Public and Private Capabilities to Provide County Service and Facilities Such as:

1. Wastewater Disposal

There is insufficient information in the ADA to determine if adequate facilities exist to treat and dispose of wastewater generated by the proposed project, even though the amount of wastewater is estimated to be only 2,000 gallons per day. The applicant states, "Sewage service will be procured from the Crabtree Construction Company, developers of Mangonia Park subdivision". The ADA did not include evidence of a commitment from the utility company. In addition, it did not adequately address the question of utility capability.

SCANNED

Upon contacting the Palm Beach County Health Department, it was determined that the City of Riviera Beach currently serves the area immediately to the northeast of the proposed project. Riviera Beach has just let a contract for upgrading and expanding its treatment plant, prior to tying in to the West Palm Beach regional plant. Thus, it appears that obtaining sewer service from Riviera Beach would be a more logical solution to the problem. However, the applicant has the responsibility to demonstrate that wastewater treatment and disposal demands created by his project will be handled in a manner satisfactory to those agencies having jurisdiction.

2. Storm Water Disposal

Since the runoff from this facility will not materially increase above existing conditions, the public drainage facilities will not be affected. The potable water and sewer systems are separated.

Since this proposed petroleum storage facility is only a portion of the complete petroleum transportation system, an approval of this portion cannot be construed as approval of the whole system. Leak detection and automatic emergency shut-off equipment must be considered with the whole system in mind, as well as the emergency containment and clean-up techniques to be used.

3. Water Supply

Crabtree Construction Company has an 8-inch water supply line available for potable water supply and emergency make-up for the fire water tank. Crabtree Construction Company is also the potable water supplier for Mangonia Park Subdivision. Due to the fact that only 20 persons will be at this site when operating at capacity, the potable water required for the project would have a negligible effect on the services of the water supplier. Crabtree Construction Company is only a secondary or make-up source for fire water.

Regardless of the anticipated impact, the applicant must show evidence of the utility company's willingness and capability to service this project.

Part III SUMMARY

Florida Power and Light Petroleum Storage Facilities located in West Palm Beach will consist of two storage tanks on approximately a 71 acre parcel. These tanks represent the fuel storage component for the Martin Plant. The fuel transmission lines, into and out of this facility, are not required as an element of the DRI review. According to the DRI guidelines, environmental protective devices, location, and traffic are subject to DRI evaluation in a regional perspective as the impact of petroleum storage facilities is considered.

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The areas of our review are summarized below:

Water Quality

Except for water quality monitoring and the incorporation of containing devices on the south borrow pit, the proposed drainage system and precautionary measures are sufficient to minimize water quality impacts resulting from the petroleum storage facilities.

Water Quantity

No problems are anticipated from withdrawing water or draining storm water off the site.

Land Resources

Adverse impacts are not anticipated on the land resources.

Public Facilities

Sewage. Although wastewater demands are scant, the utility company must indicate its willingness and capability to service this area.

Storm Water Disposal. Public drainage facilities will not be adversely affected by the storage facilities.

Water Supply. The potable water demands are negligible, but the utility, nevertheless, must demonstrate its capability as well as willingness to service the project.

RECOMMENDATION

Based on the findings of this agency in review of the water related factors of the Florida Power and Light Petroleum Storage Facility in West Palm Beach, we recommend the project be approved subject to the following modifications:

1. A water quality monitoring system be established to analyze the clarified effluent and to protect against the degradation of the area's water resources.
2. Fuel spill isolating devices at the south borrow pit be incorporated into the drainage plan.
3. Assurances from the utility company concerning provision of water and wastewater service as well as information pertaining to the long-range capability to provide these services.
4. Coordination of leak detection system on the 14-inch and 30-inch fuel transmission lines with the storage facility's system.

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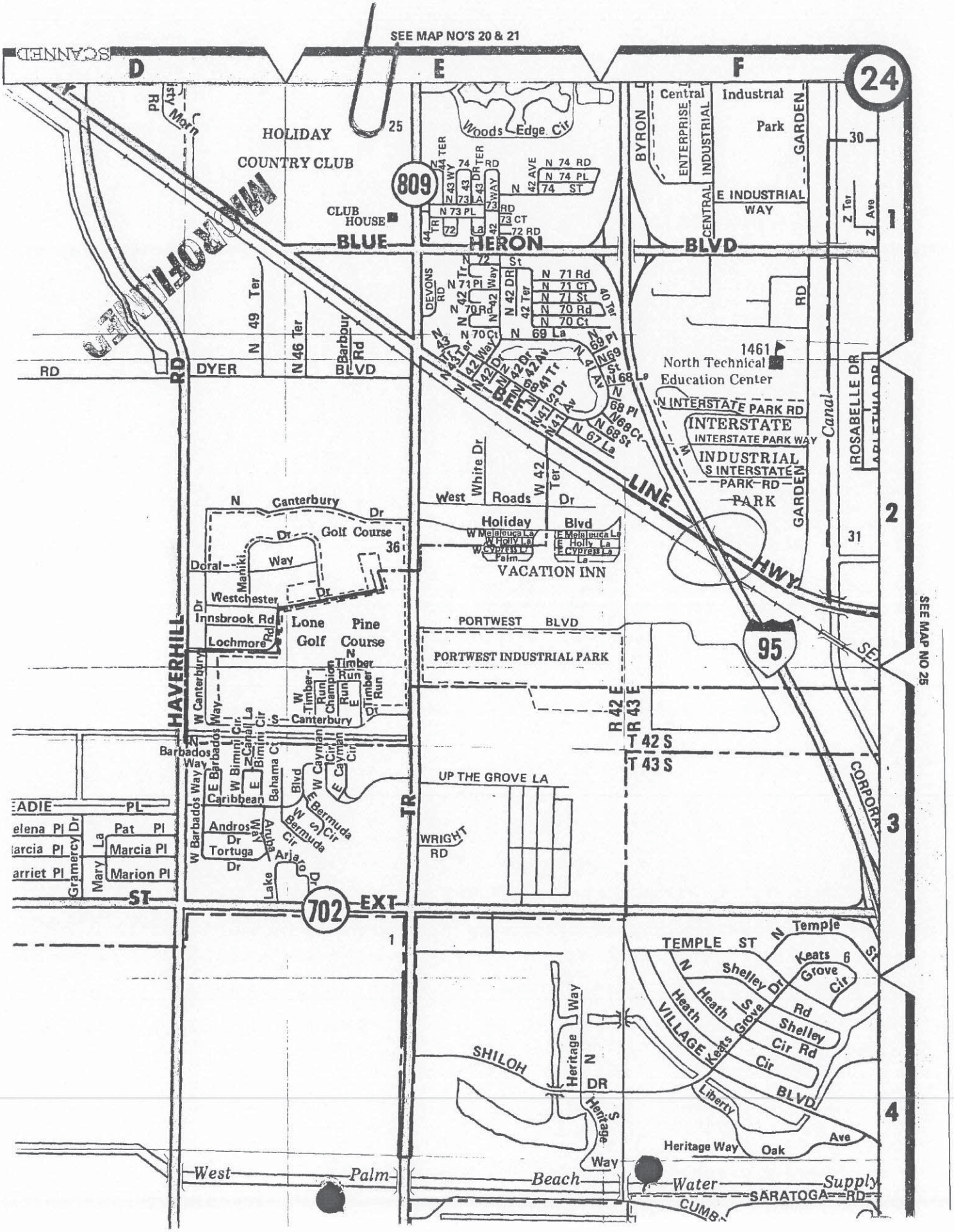
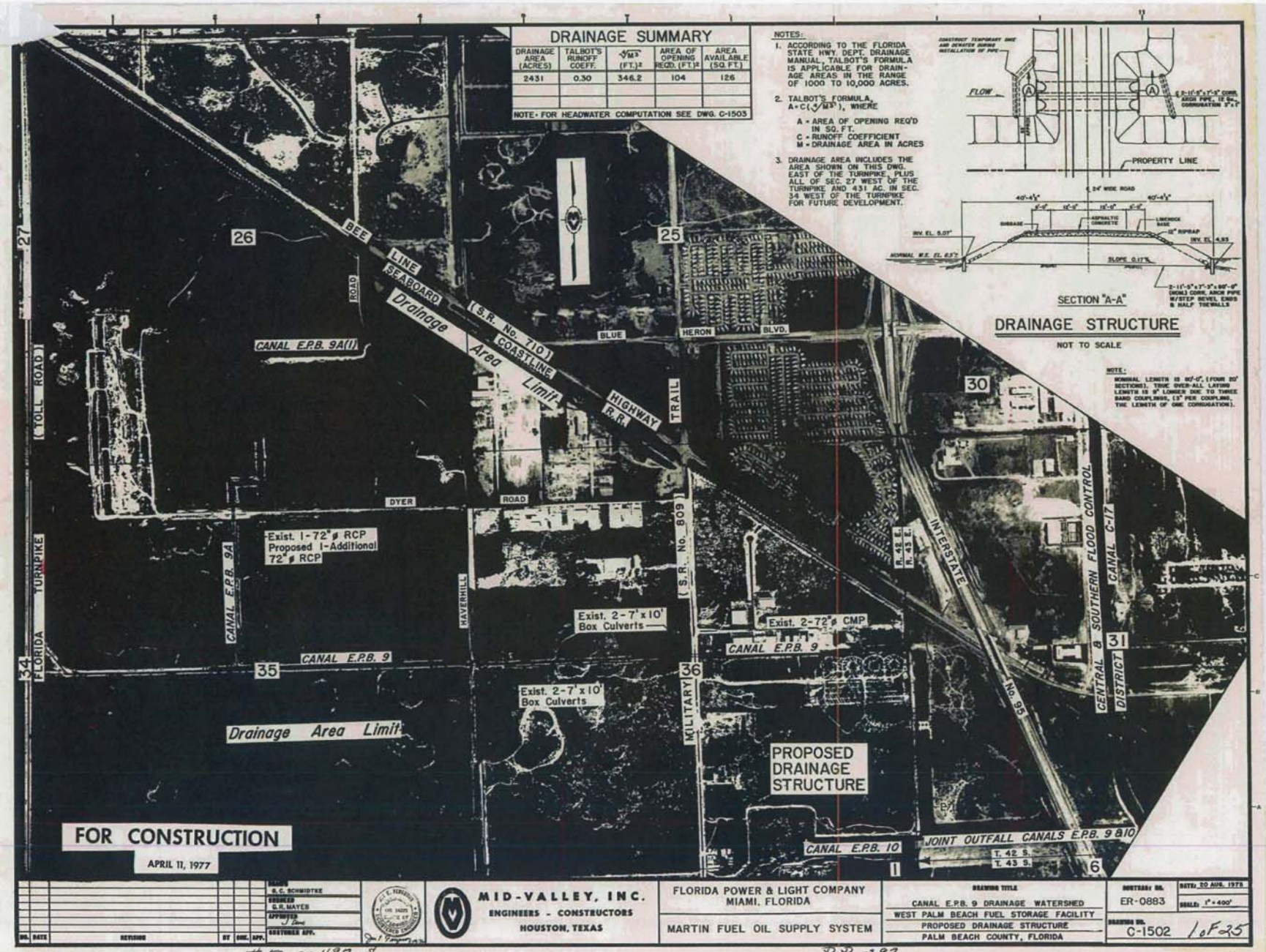

SEE MAP NO'S 20 & 21
SCANNED
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HOLIDAY
COUNTRY CLUB
CLUB HOUSE
809
BLUE HERON BLVD
Woods Edge Cir
Central Industrial Park
BYRON
ENTERPRISE
CENTRAL INDUSTRIAL
GARDEN
E INDUSTRIAL WAY
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N 46 Ter
Barbour Rd
BLVD
DEVONS RD
1461
North Technical Education Center
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Doral Way
Maniki Dr
Westchester Dr
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Lone Pine Golf Course
Lochmore Rd
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S Timber Run Dr
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PORTWEST INDUSTRIAL PARK
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West Palm Beach
Water Supply
SARATOGA RD
CUMB

Exhibit J

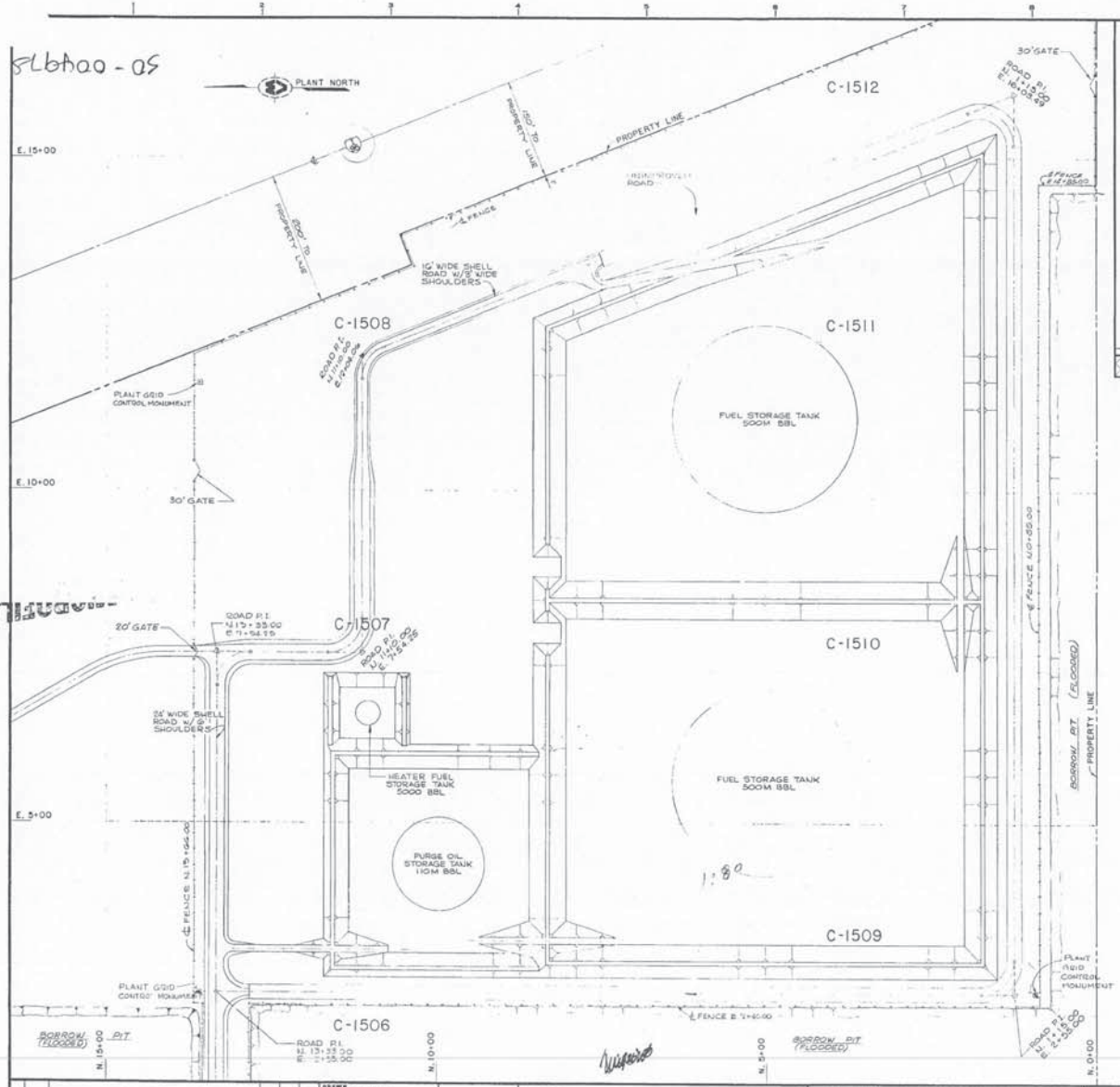
Selected Martin Fuel Oil Storage Facility Plan Sheets, 1975 & 1976

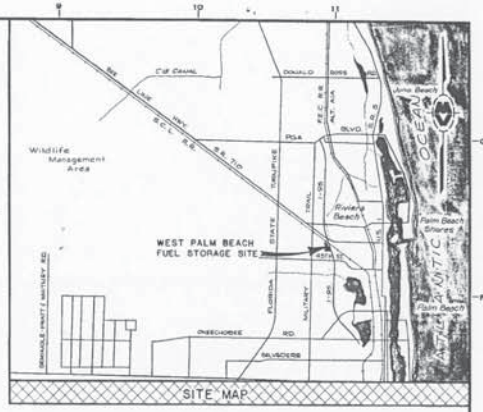


#50-00497-S

P.P. 297

SLB7A00 - 05





CIVIL NOTES

1. BOUNDARY & TOPOGRAPHICAL SURVEY FOR MID-VALLEY BY ARTHUR V STROCK & ASSOC. DATED 11-30-75.
2. ALL DISTANCES AND BEARINGS ON PROPERTY LINES ARE MEASURED AS SHOWN ON THE STROCK SURVEY.
3. ALL ELEVATIONS ARE BASED ON MEAN SEA LEVEL.
4. CONTOURS SHOWN ARE APPROXIMATE ONLY, AND DIFFERENCES IN ELEVATIONS FROM THESE CAN BE EXPECTED.
5. A PLANT GRID SYSTEM SHALL BE ESTABLISHED AS SHOWN WITH CONTROL POINTS PROTECTED FROM ANY TYPE OF DAMAGE DURING THIS OR ANY FUTURE CONSTRUCTION.
6. ALL BEARINGS SHOWN ARE BASED ON TRUE NORTH UNLESS OTHERWISE NOTED.

FOR CONSTRUCTION

APRIL 11, 1977

The CONTRACTOR shall check all dimensions before beginning construction. If any discrepancies are found he shall notify the CONSULT REPRESENTATIVE before beginning construction.

NO.	DATE	REVISION	BY	CHK.	APP.
1	5-16-77	CHANGED LIMESTONE TO SHELL & 16' RD TO UNSURFACED RD	GCS	JD	JD

DRAWN: G.C. SCHMIDTKE
CHECKED: G.R. MAYES
APPROVED: J. Wine
CUSTOMER APP.

MID-VALLEY, INC.
ENGINEERS - CONSTRUCTORS
HOUSTON, TEXAS

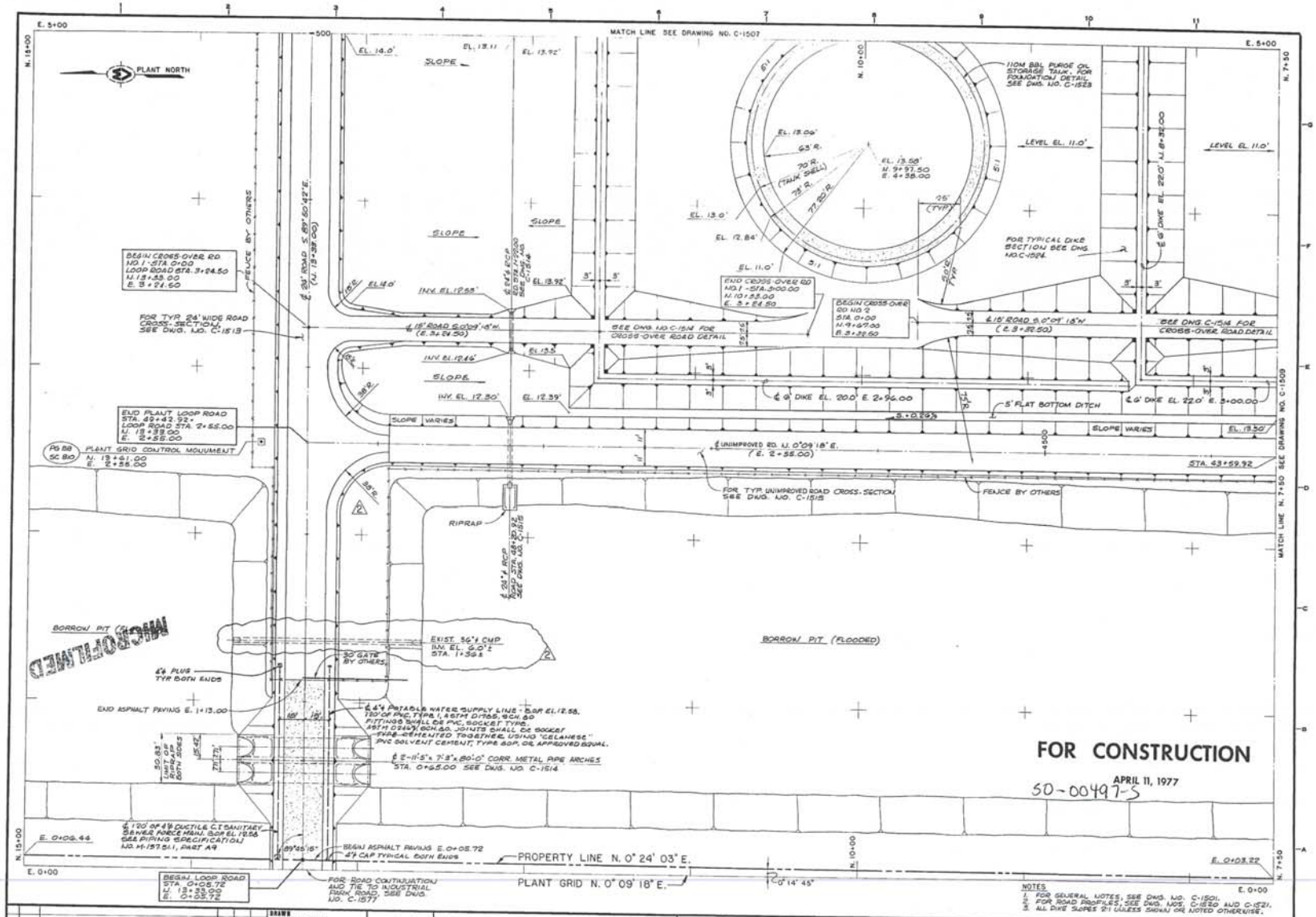
FLORIDA POWER & LIGHT COMPANY
MIAMI, FLORIDA

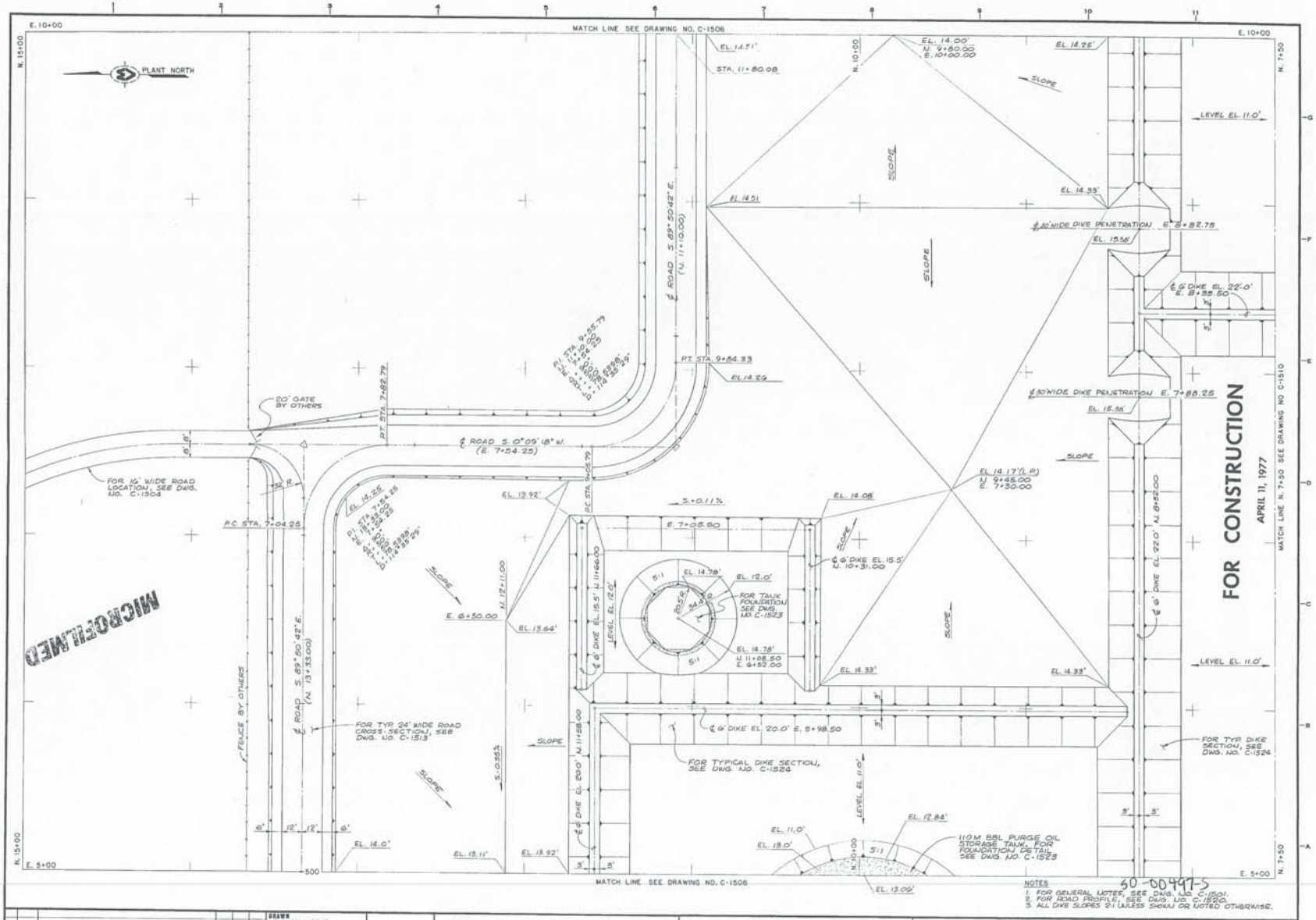
MARTIN FUEL OIL SUPPLY SYSTEM

DRAWING TITLE: PLOT PLAN
WEST PALM BEACH FUEL STORAGE FAC.

CONTRACT NO.: ER-0883
DATE: 04-04-75
SCALE: 1"=60'
DRAWING NO.: C-1501-1 20F25

P.P. 297


PLANT NORTH
MATCH LINE SEE DRAWING NO. C-1507
MATCH LINE N. 7+50 SEE DRAWING NO. C-1509
110M BBL PURGE OIL STORAGE TANK. FOR FOUNDATION DETAIL SEE DWG. NO. C-1528
LEVEL EL. 11.0'
FOR TYPICAL DIKE SECTION SEE DWG. NO. C-1524
BEGIN CROSS-OVER RD. NO. 1 -STA. 0+00 LOOP ROAD STA. 3+24.50 N. 13+33.00 E. 3+24.50
END CROSS-OVER RD NO.1 -STA. 5+00.00 N. 10+33.00 E. 5+24.50
BEGIN CROSS-OVER RD NO. 2 STA. 0+00 N. 9+67.00 E. 3+32.50
FOR TYP. 24' WIDE ROAD CROSS-SECTION, SEE DWG. NO. C-1513
SEE DWG. NO. C-1514 FOR CROSS-OVER ROAD DETAIL
SEE DWG. C-1514 FOR CROSS-OVER ROAD DETAIL
END PLANT LOOP ROAD STA. 69+42.92+ LOOP ROAD STA. 2+55.00 N. 13+38.00 E. 2+55.00
PLANT GRID CONTROL MOUUMENT N. 13+61.00 E. 2+56.00
FOR TYP. UNIMPROVED ROAD CROSS-SECTION SEE DWG. NO. C-1515
FENCE BY OTHERS
RIPRAP
BORROW PIT (FLOODED)
EXIST. 36"ϕ CMP INV. EL. 6.0'± STA. 1+39±
30' GATE BY OTHERS
6"ϕ PLUG TYP. BOTH ENDS
END ASPHALT PAVING E. 1+13.00
6"ϕ POTABLE WATER SUPPLY LINE - BOP EL. 12.58. 130'OF PVC, TYPE I, ASTM D1785, SCH. 80 FITTINGS SHALL BE PVC, SOCKET TYPE, ASTM D2466, SCH. 80. JOINTS SHALL BE SOCKET TYPE CEMENTED TOGETHER USING "CELANESE" PVC SOLVENT CEMENT, TYPE 80P, OR APPROVED EQUAL.
2-11'-5" x 7'-3" x 80'-0" CORR. METAL PIPE ARCHES STA. 0+65.00 SEE DWG. NO. C-1514
120' OF 4" Ø DUCTILE C.I. SANITARY SEWER FORCE MAIN, BOP EL. 11.58 SEE PIPING SPECIFICATION NO. M-157.51, PART A9
BEGIN ASPHALT PAVING E. 0+05.72
4"ϕ CAP TYPICAL BOTH ENDS
PROPERTY LINE N. 0° 24' 03" E.
PLANT GRID N. 0° 09' 18" E.
BEGIN LOOP ROAD STA. 0+05.72 N. 13+33.00 E. 0+03.72
FOR ROAD CONTINUATION AND TIE TO INDUSTRIAL PARK ROAD, SEE DWG. NO. C-1517
FOR CONSTRUCTION
APRIL 11, 1977
50-00497-5
NOTES
1. FOR GENERAL NOTES, SEE DWG. NO. C-1501.
2. FOR ROAD PROFILES, SEE DWG. NOS. C-1520 AND C-1521.
3. ALL DIKE SLOPES 2:1 UNLESS SHOWN OR NOTED OTHERWISE.
DRAWN C.C. SCHMIDTKE
CHECKED G.R. MAYES
APPROVED J. Dana
CUSTOMER APP.
MID-VALLEY, INC.
ENGINEERS - CONSTRUCTORS
HOUSTON, TEXAS
FLORIDA POWER & LIGHT COMPANY
MIAMI, FLORIDA
MARTIN FUEL OIL SUPPLY SYSTEM
DRAWING TITLE
PREL. ROADS AND GRADING PLAN
WEST PALM BEACH FUEL STORAGE FAC.
CONTRACT NO. ER-0883
DATE: 04-29-76
SCALE: 1"=20'
DRAWING NO. C-1506-2
P.P. 297
5 of 25



NOTES
1. FOR GENERAL NOTES, SEE DWG. NO. C-1501.
2. FOR ROAD PROFILE, SEE DWG. NO. C-1520.
3. ALL DIKE SLOPES 2:1 UNLESS SHOWN OR NOTED OTHERWISE.

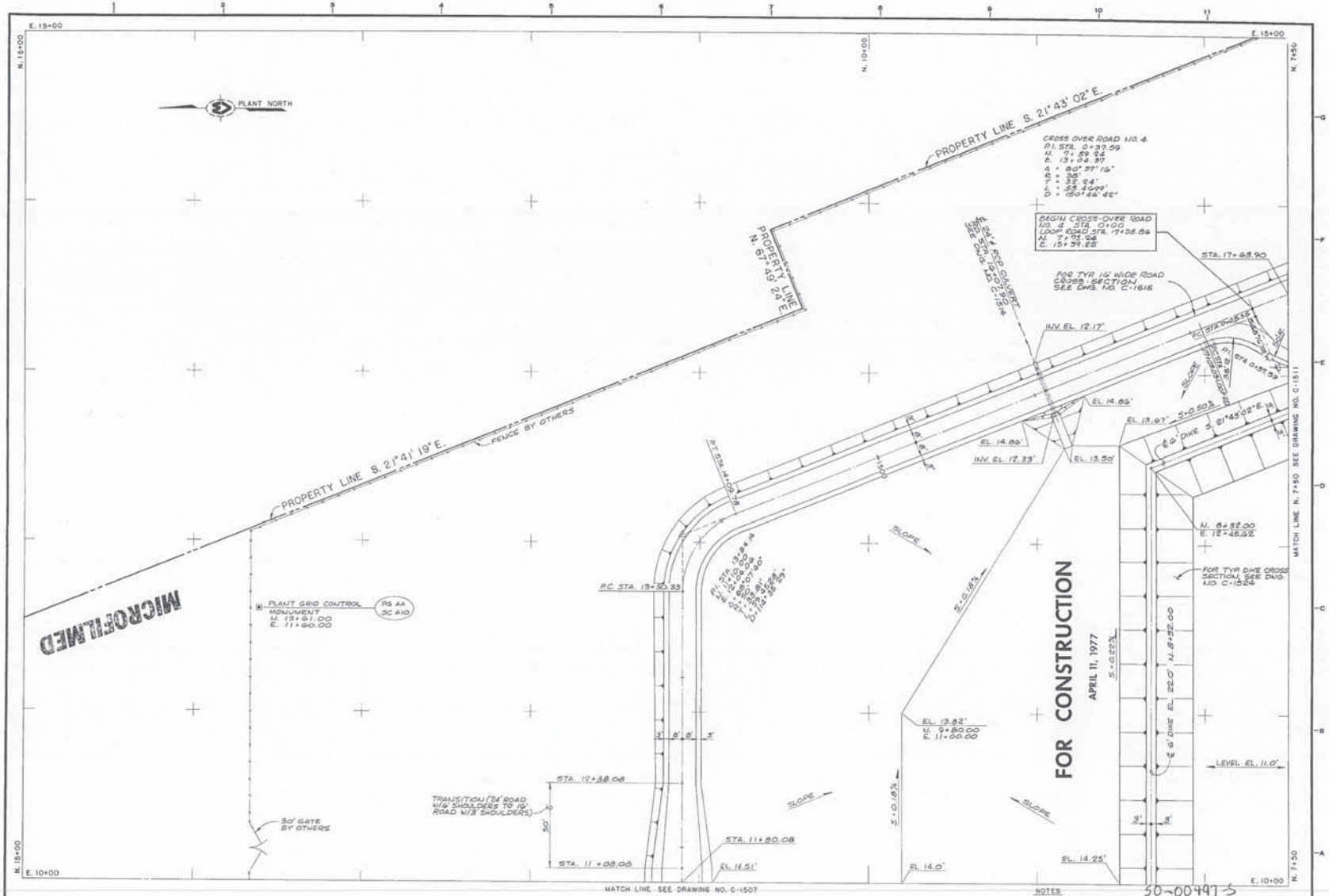
60-00497-5

DRAWN G.C. SCHMIDTKE	MID-VALLEY, INC. ENGINEERS - CONSTRUCTORS HOUSTON, TEXAS	FLORIDA POWER & LIGHT COMPANY MIAMI, FLORIDA	DRAWING TITLE: PREL. ROADS AND GRADING PLAN WEST PALM BEACH FUEL STORAGE FAC.	CONTRACT NO. ER-0883	DATE: 04-22-76
CHECKED G.R. MAYES		MARTIN FUEL OIL SUPPLY SYSTEM			SCALE: 1"=20'
APPROVED J. Davis				DRAWING NO. C-1507	
CUSTOMER APP.					

NO. | DATE | REVISION | BY | CHK. | APP.

P.P. 297

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NOTES
1. FOR GENERAL NOTES, SEE DWG. NO. C-1501.
2. FOR ROAD PROFILE, SEE DWG. NO. C-1520.
3. ALL DIKE SLOPES 2:1 UNLESS SHOWN OR NOTED OTHERWISE.

50-00491-5

DRAWN	G.C. SCHMIDTKE
CHECKED	G.R. MAYES
APPROVED	
CUSTOMER APP.	

NO.	DATE	REVISION	BY	CHK.	APP.

MID-VALLEY, INC.
ENGINEERS - CONSTRUCTORS
HOUSTON, TEXAS

FLORIDA POWER & LIGHT COMPANY
MIAMI, FLORIDA

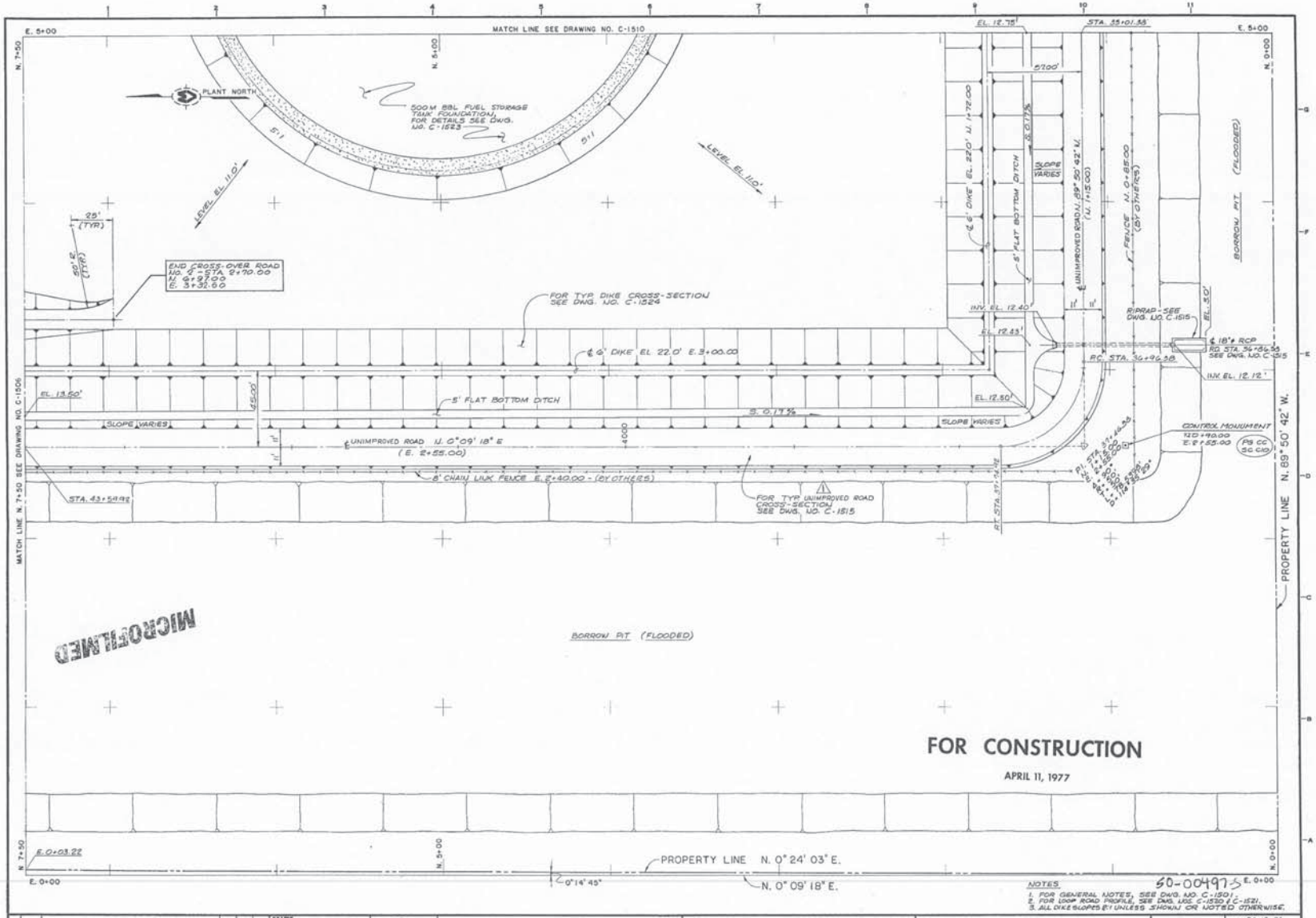
MARTIN FUEL OIL SUPPLY SYSTEM

DRAWING TITLE
PREL. ROADS AND GRADING PLAN
WEST PALM BEACH FUEL STORAGE FAC.

CONTRACT NO. ER-0883
DATE: 04-20-76
SCALE: 1"=20'
DRAWING NO. C-1508

P.P. 297

7 OF 25



MICROFILMED

FOR CONSTRUCTION

APRIL 11, 1977

NOTES.
1. FOR GENERAL NOTES, SEE DWG. NO. C-1501.
2. FOR LOOP ROAD PROFILE, SEE DWG. NOS. C-1520 & C-1521.
3. ALL DIKE SLOPES 2:1 UNLESS SHOWN OR NOTED OTHERWISE.

50-00497-5

NO.	DATE	REVISION	BY	CHK.	APP.
1	2/1/77	CHANGED 10' WIDE ROAD TO UNIMPROVED ROAD	G.C.S.	J.S.	J.D.

DRAWN G.C. SCHMIDTKE
CHECKED S.R.MAYES
APPROVED J. Dane
CUSTOMER APP.

MID-VALLEY, INC.
ENGINEERS - CONSTRUCTORS
HOUSTON, TEXAS

FLORIDA POWER & LIGHT COMPANY
MIAMI, FLORIDA

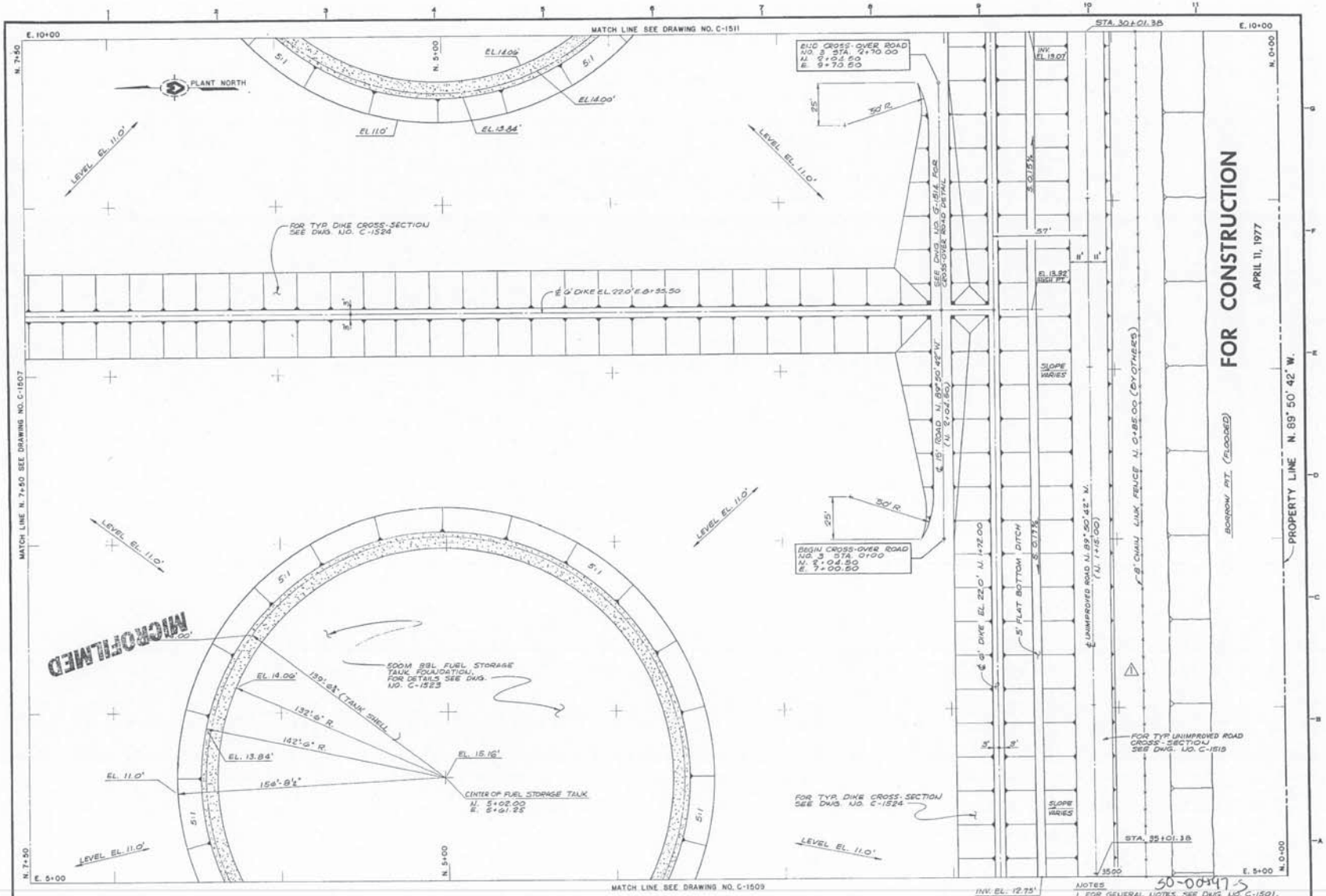
MARTIN FUEL OIL SUPPLY SYSTEM

DRAWING TITLE: PREL. ROADS AND GRADING PLAN
WEST PALM BEACH FUEL STORAGE FAC.

CONTRACT NO. ER-0883
DATE: 04-10-75
SCALE: 1"=20'
DRAWING NO. C-1509-1

P.P. 297

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NOTES
1. FOR GENERAL NOTES, SEE DWG. NO. C-1501.
2. FOR ROAD PROFILES, SEE DWG. NO. C-1520 & C-1521.
3. ALL DIKE SLOPES 2:1 UNLESS SHOWN OR NOTED OTHERWISE.

50-00397-3

NO.	DATE	REVISION	BY	CHK.	APP.
1	3-11-77	CHANGED 12' SIDE ROAD TO UNIMPROVED ROAD	GCA	LG	

DRAWN G.C. SCHMIDTKE
CHECKED G.R. MAYES
APPROVED J. Dave
CUSTOMER APP.

MID-VALLEY, INC.
ENGINEERS - CONSTRUCTORS
HOUSTON, TEXAS

FLORIDA POWER & LIGHT COMPANY
MIAMI, FLORIDA

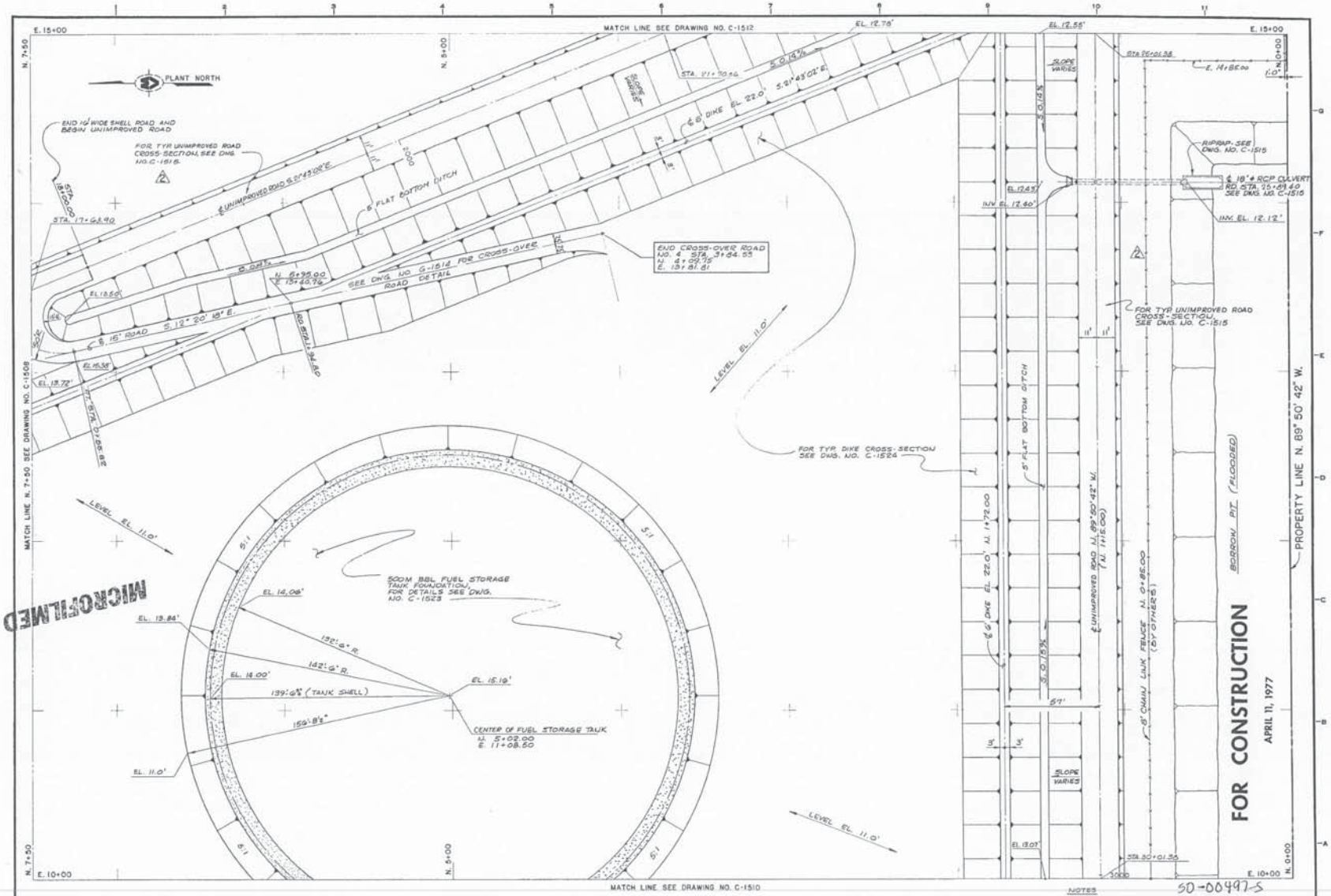
MARTIN FUEL OIL SUPPLY SYSTEM

DRAWING TITLE
PREL ROADS AND GRADING PLAN
WEST PALM BEACH FUEL STORAGE FAC.

CONTRACT NO. ER-0883
DATE: 04-11-75
SCALE: 1"=20'
DRAWING NO. C-1510-1

P.P. 297

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NOTES
1. FOR GENERAL NOTES, SEE DWG. NO. C-1501.
2. FOR LOOP ROAD PROFILE, SEE DWG. NO. C-1520.
3. ALL DIKE SLOPES 2:1 UNLESS SHOWN OR NOTED OTHERWISE.

SD-00497-S

NO.	DATE	REVISION	BY	CHK.	APP.
R	5-10-77	CHANGED 16' WIDE ROAD TO UNIMPROVED ROAD	GCS	JD	JD
1	9-30-76	REVISED DITCH SLOPE	GCS	DMK	JD

DRAWN: G.C. SCHMIOTKE
CHECKED: G.R. MAYES
APPROVED: J. Dunn
CUSTOMER APP.

MID-VALLEY, INC.
ENGINEERS - CONSTRUCTORS
HOUSTON, TEXAS

FLORIDA POWER & LIGHT COMPANY
MIAMI, FLORIDA

MARTIN FUEL OIL SUPPLY SYSTEM

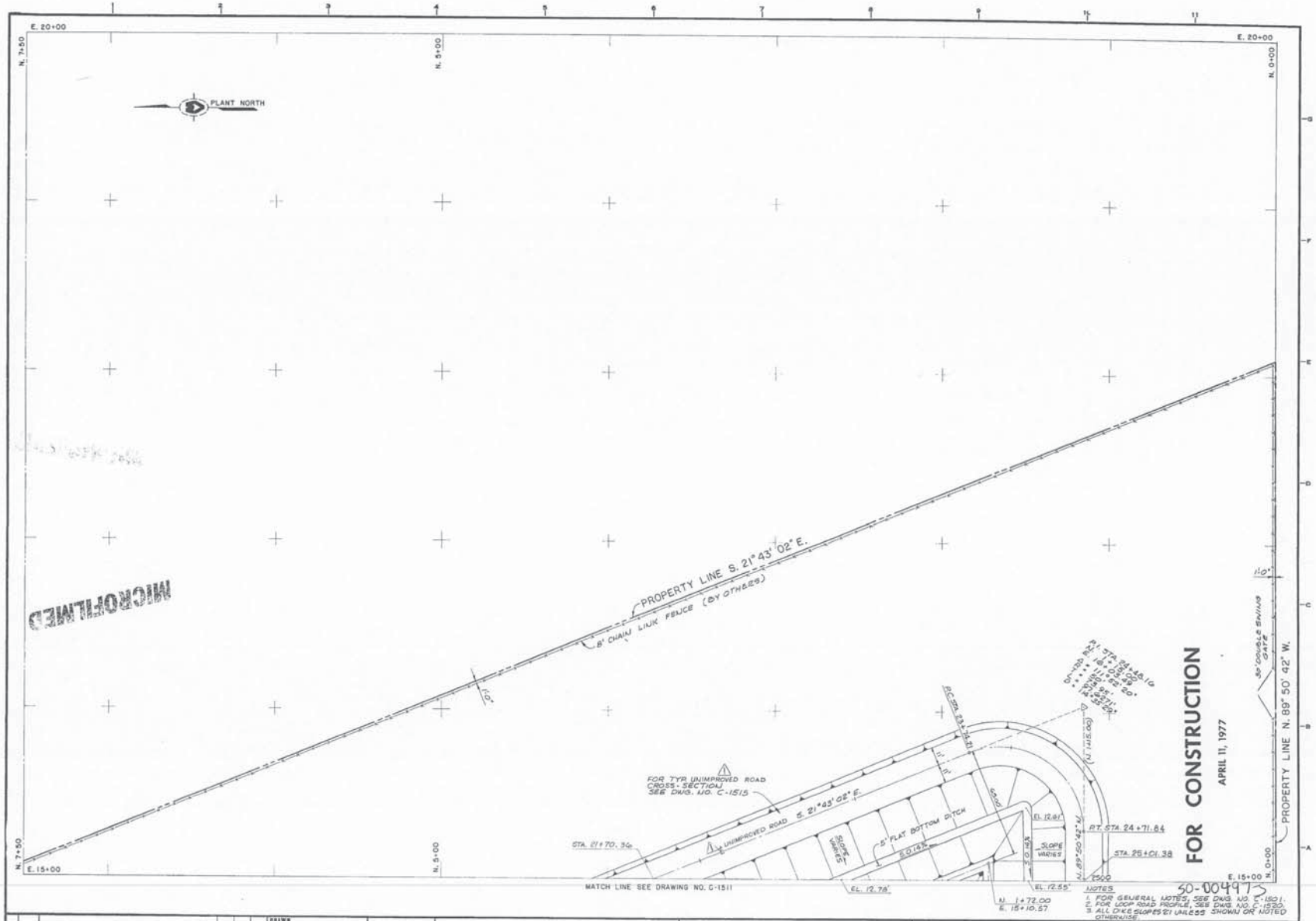
DRAWING TITLE: PREL. ROADS AND GRADING PLAN
WEST PALM BEACH FUEL STORAGE FAC.

CONTRACT NO. ER-0883
DATE: 04-24-75
SCALE: 1"=20'
DRAWING NO. C-1511-2

P.P. 297

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MICROFILMED



NOTES
1. FOR GENERAL NOTES, SEE DWG. NO. C-1501.
2. FOR LOOP ROAD PROFILE, SEE DWG. NO. C-1520.
3. ALL DIKE SLOPES 2:1 UNLESS SHOWN OR NOTED OTHERWISE.

50-004973

NO.	DATE	REVISION	BY	CHK.	APP.
1	3-30-77	CHANGED 10' HAUL ROAD TO UNIMPROVED ROAD	JK	JD	JD

DRAWN G.C. SCHMIDTKE
CHECKED G.R. MAYES
APPROVED J. Dane
CUSTOMER APP.

MID-VALLEY, INC.
ENGINEERS - CONSTRUCTORS
HOUSTON, TEXAS

FLORIDA POWER & LIGHT COMPANY
MIAMI, FLORIDA

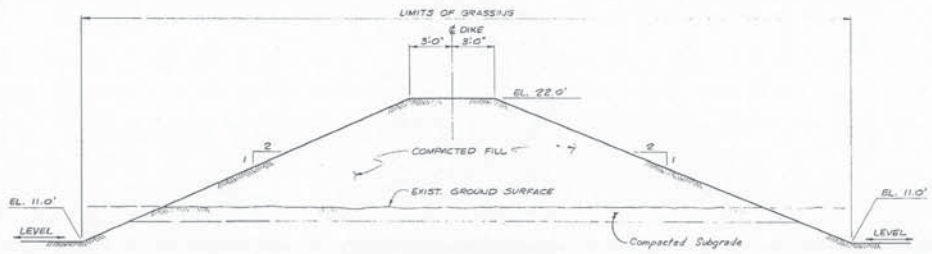
MARTIN FUEL OIL SUPPLY SYSTEM

DRAWING TITLE
PREL ROADS AND GRADING PLAN
WEST PALM BEACH FUEL STORAGE FAC.

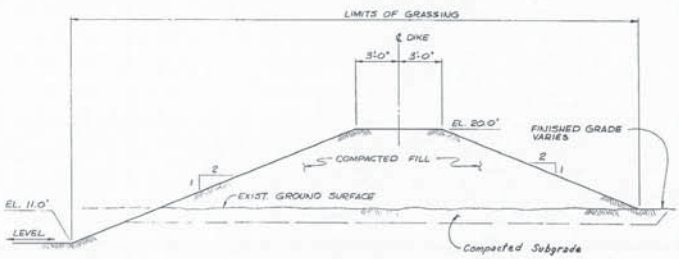
CONTRACT NO. ER-0883
DATE: 04-24-75
SCALE: 1"=20'
DRAWING NO. C-1512-1

P.P. 297

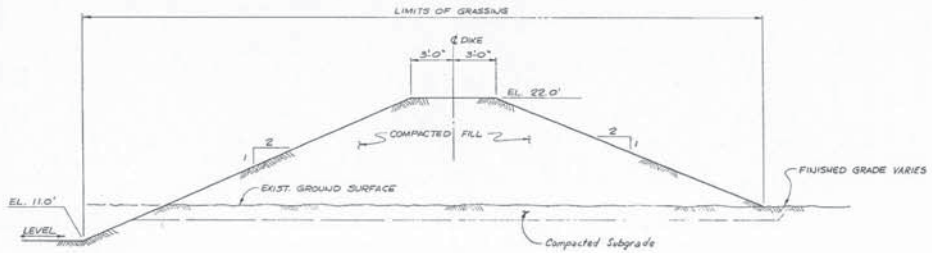
11 of 25



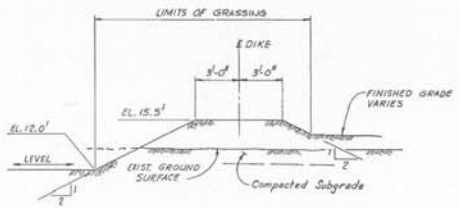
TYPICAL 11' HIGH INTERIOR DIKE



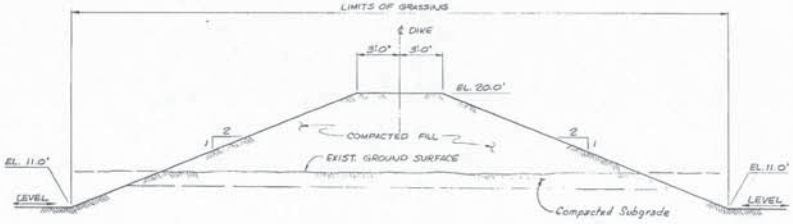
TYPICAL 9' HIGH EXTERIOR DIKE



TYPICAL 11' HIGH EXTERIOR DIKE



TYPICAL 3.5' HIGH EXTERIOR DIKE



TYPICAL 9' HIGH INTERIOR DIKE

PROPOSED

NOTES:

1. FOR GENERAL NOTES, SEE DWG. NO. C-1501.
2. FOR DIKE LOCATIONS, SEE DWG. NOS. C-1506 THRU C-1510.
3. DIKE CONSTRUCTION SHALL CONFORM TO MID-VALLEY, INC. SPEC. NO. C-119.92.

FOR CONSTRUCTION

50-00491-S APRIL 11, 1977

NO.	DATE	REVISION	BY	CHK.	APP.

DRAWN G.C. SCHMIDTKE
CHECKED G.R. MAYES
APPROVED J. Davis
CUSTOMER APP.

MID-VALLEY, INC.
ENGINEERS - CONSTRUCTORS
HOUSTON, TEXAS

FLORIDA POWER & LIGHT COMPANY
MIAMI, FLORIDA

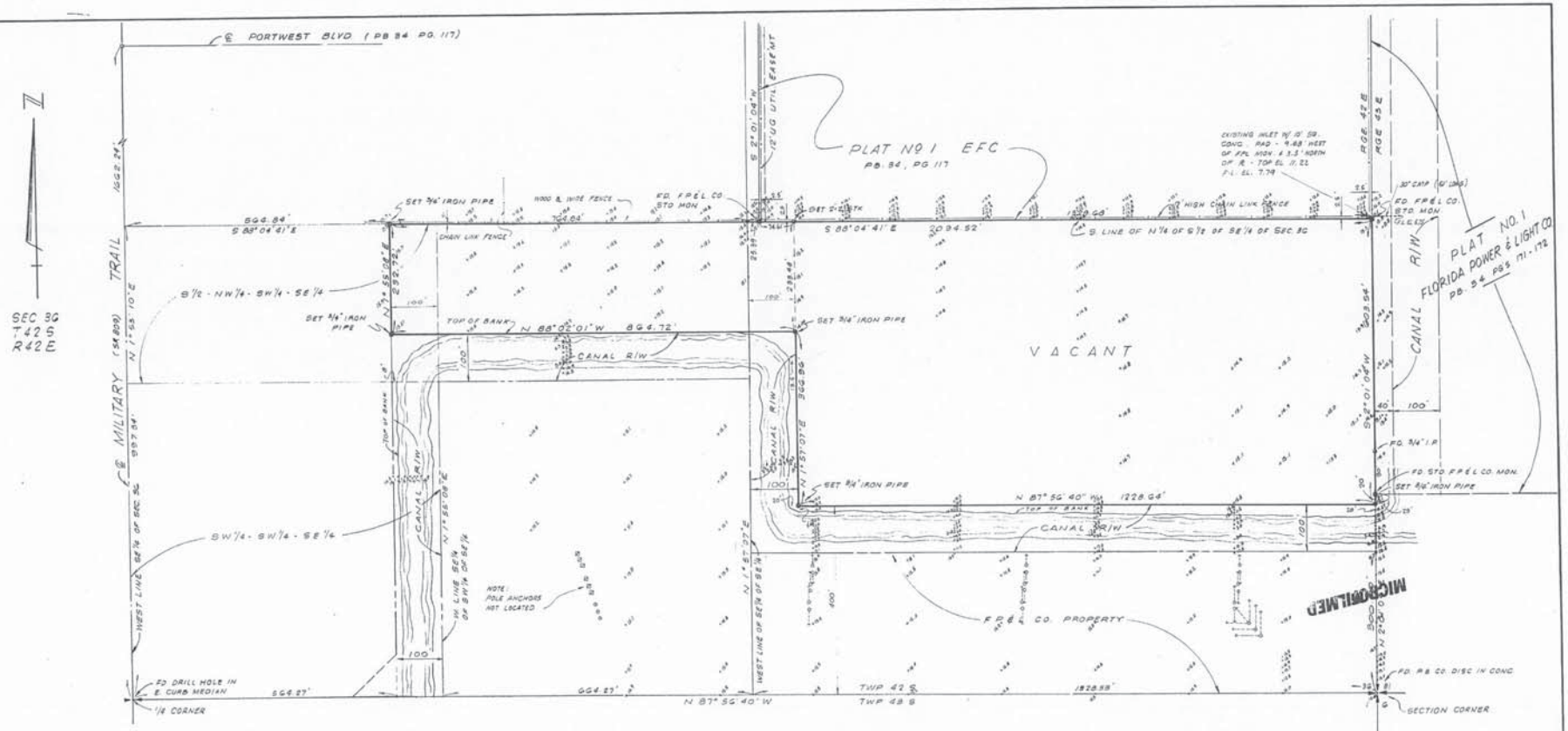
MARTIN FUEL OIL SUPPLY SYSTEM

DRAWING TITLE
DIKE CROSS-SECTIONS
WEST PALM BEACH FUEL STORAGE FAC.

CONTRACT NO. ER-0883
DATE: 06-03-75
SCALE: 1"=30'
DRAWING NO. C-1524

P.P. 297

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DESCRIPTION

THE EAST 100 FEET OF THE SOUTH ONE-HALF (S½) OF THE NORTHWEST ONE-QUARTER (NW¼) OF THE SOUTHWEST ONE-QUARTER (SW¼) OF THE SOUTHEAST ONE-QUARTER (SE¼), LESS THE SOUTH 100 FEET THEREOF, AND THE SOUTH ONE-HALF OF THE NORTHEAST ONE-QUARTER (NE¼) OF THE SOUTHWEST ONE-QUARTER (SW¼) OF THE SOUTHEAST ONE-QUARTER (SE¼), LESS THE SOUTH 100 FEET THEREOF, AND THE SOUTH ONE-HALF (S½) OF THE NORTH ONE-HALF (N½) OF THE SOUTHEAST ONE-QUARTER(SE¼) OF THE SOUTHEAST ONE-QUARTER (SE¼), LESS THE SOUTH 100 FEET OF THE WEST 100 FEET THEREOF, AND THE SOUTH ONE-HALF (S½) OF THE SOUTHEAST ONE-QUARTER (SE¼) OF THE SOUTHEAST ONE-QUARTER (SE¼), LESS THE WEST 100 FEET THEREOF, AND ALSO LESS THE SOUTH 400 FEET THEREOF.

ALL BEING IN SECTION 36, TOWNSHIP 42 SOUTH, RANGE 42 EAST, PALM BEACH COUNTY, FLORIDA.

CONTAINING 21.614 ACRES, MORE OR LESS.

NOTE:
DESCRIPTION REFERS TO PROPERTY WITHIN HEAVY LINES. ELEVATIONS AND POLE LOCATIONS EXTEND TO ADJOINING PROPERTY.

NOTE:
ELEVATIONS SHOWN THUSLY +16.9 REFER TO THE 1929 NATIONAL GEODETIC DATUM.
⊙ = CONCRETE POWER POLE
○ = WOOD POWER POLE
S---S = POLE ANCHOR
⊡ = STEEL POWER POLE

50-00497-S

DATE	BY	DESCRIPTION
		REVISION

FIELD: R. F./B.K.
DRAWN BY: J.B.C.
CHECKED BY: G.V.H.
DATE: 15 OCT 1979
JOB NO. 79-276

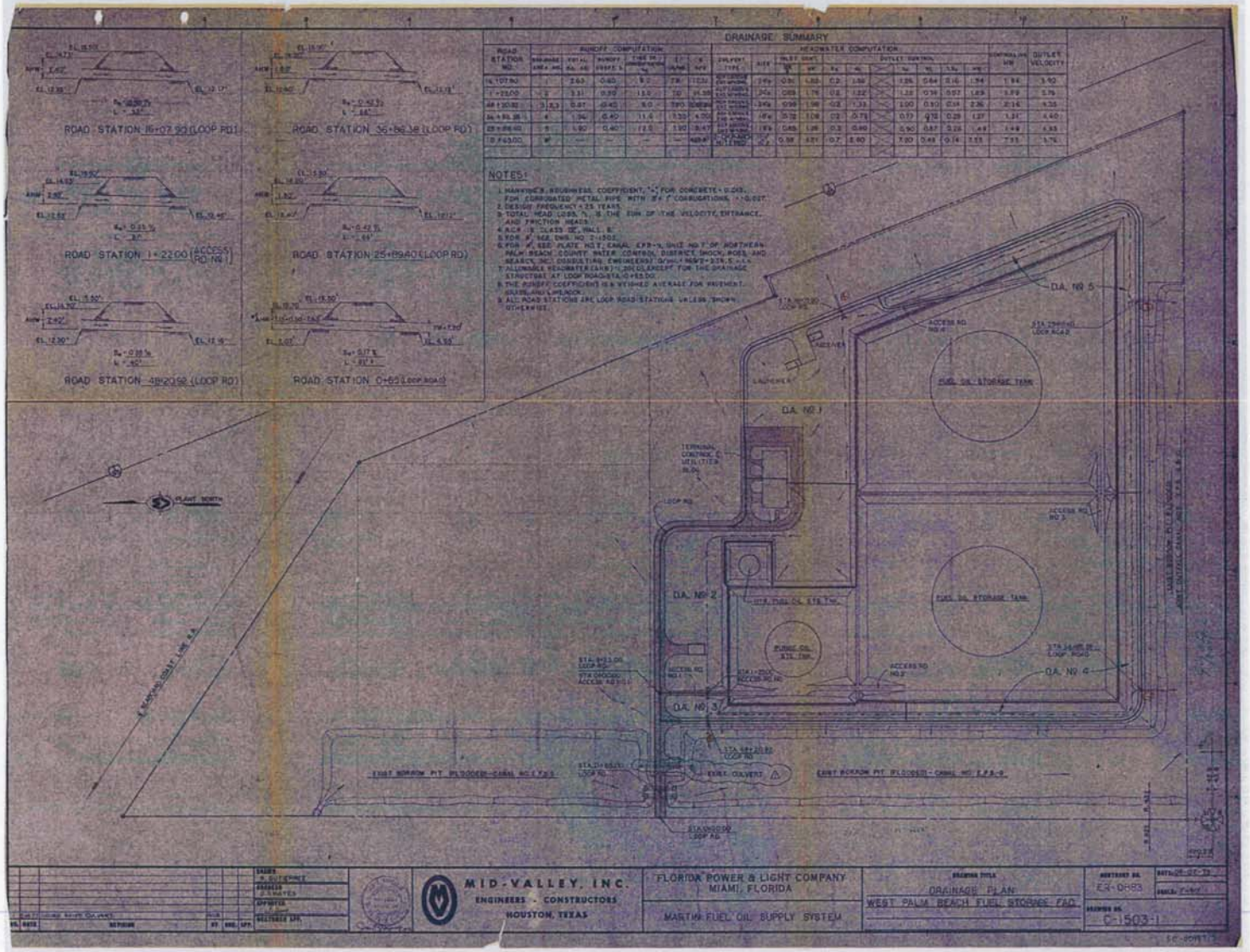
DATE OF PRINT
MAR 20 1980
SEAL

MOCK, ROOS & SEARCY Consulting Engineers
WEST PALM BEACH, FLORIDA

TOPOGRAPHIC SURVEY OF THE ABOVE DESCRIBED PROPERTY
PALM BEACH COUNTY, FLA.
FOR: FLORIDA POWER & LIGHT CO.

SCALE: 1" = 100' | DR. NO. 42-42-36-61 | SHEET 1 OF 1
REF: 42-42-36-60

BRUNING 20079


DRAINAGE SUMMARY
NOTES:
ROAD STATION 16+07.93 (LOOP RD)
ROAD STATION 36+86.38 (LOOP RD)
ROAD STATION 1+22.00 (ACCESS RD. NO 1)
ROAD STATION 25+89.40 (LOOP RD)
ROAD STATION 48+20.62 (LOOP RD)
ROAD STATION 0+65 (LOOP ROAD)
D.A. NO 1
D.A. NO 2
D.A. NO 3
D.A. NO 4
D.A. NO 5
FUEL OIL STORAGE TANK
ACCESS RD NO 1
ACCESS RD NO 2
ACCESS RD NO 3
LOOP RD
PLANT NORTH
EAST BORROW PIT (FLOODED) - CANAL NO E.P.S.-9
EXIST. CULVERT
MID-VALLEY, INC.
ENGINEERS - CONSTRUCTORS
HOUSTON, TEXAS
FLORIDA POWER & LIGHT COMPANY
MIAMI, FLORIDA
MARTIN FUEL OIL SUPPLY SYSTEM
DRAINAGE PLAN
WEST PALM BEACH FUEL STORAGE FAC.
E4-0983
C-1503-1