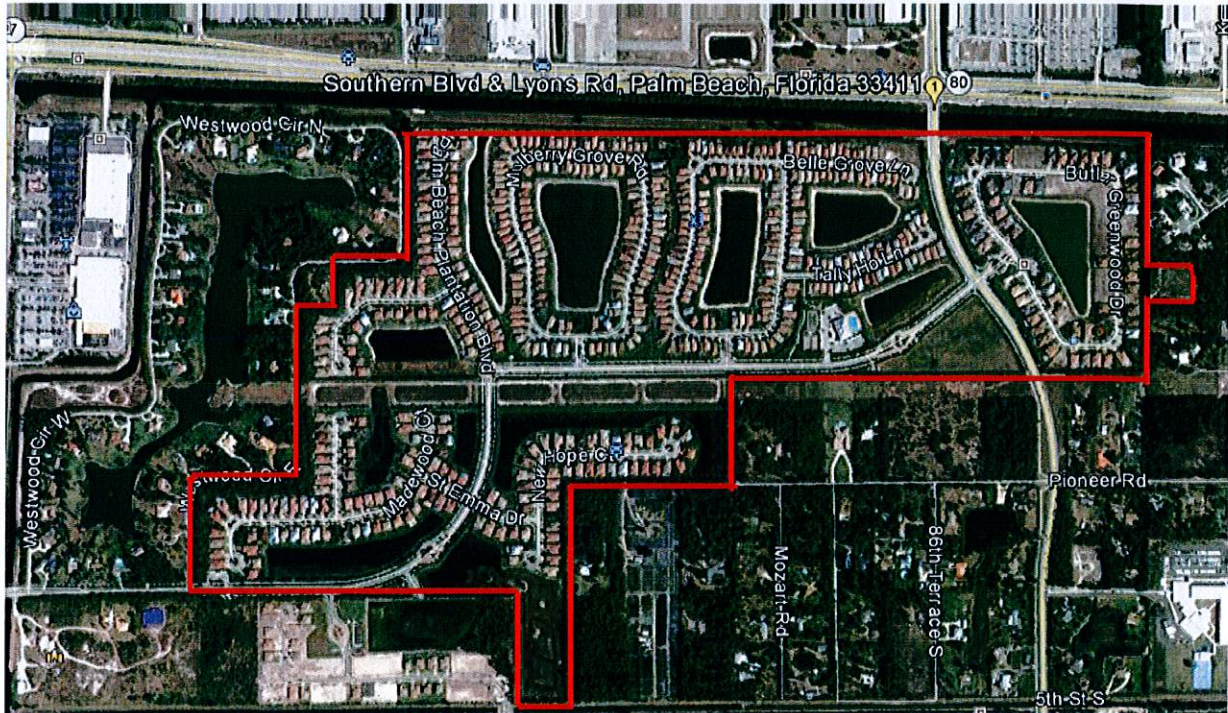


# PALM BEACH PLANTATION COMMUNITY DEVELOPMENT DISTRICT



## ANNUAL ENGINEER'S STATUS REPORT

*Prepared For:*

**Board of Supervisors  
Palm Beach Plantation Community Development District**

December 13, 2013

*Prepared By:*



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# PALM BEACH PLANTATION COMMUNITY DEVELOPMENT DISTRICT

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## **I. INTRODUCTION**

The Palm Beach Plantation Community Development District ("District") is located in unincorporated Palm Beach County, Florida. The District has been established in accordance with applicable Florida Statutes as a local unit of special-purpose government. The District currently contains approximately 261.18 acres of land proposed to be developed as a single-family residential community. Exhibit 1 shows the location of the District. The District property was previously approved as "Diamond "C" Ranch P.U.D." under petition No. PDD 97-121.

## **II. AUTHORIZATION**

This report was prepared by Caulfield & Wheeler, Inc. (hereinafter referred to as "Engineer") pursuant to the authorization of the District's Board of Supervisors.

## **III. PURPOSE**

The purpose of this Annual Engineer's Certificate is to provide a status for the proposed storm water management system, water distribution, sanitary sewer, and storm drainage system improvements referred to herein to the District's Board of Supervisors. These improvements have been completed by K. Hovnanian Homes (f.k.a. Town & Country Builders, Inc.), the developer of Palm Beach Plantation, P.U.D. (the "Developer"), and will be acquired by the District with proceeds of bonds issued by the District. The developer will finance the infrastructure needed for the development, that is not described herein, with their own funds.

The Engineer has considered and, in certain instances, relied upon opinions, information and documentation prepared or supplied by others, which may have included: public officials, public entities, the Developer, engineering professionals, landscape architects, general contractors, and surveyors.

## **IV. PROJECT DESCRIPTION**

The site is located in unincorporated Palm Beach County, Florida. More specifically, it is located in Sections 5 & 6, Township 44 South, Range 42 East. It is generally bounded on the north by the South Florida Water Management District's ("SFWMD") C-51 canal and Southern Boulevard (State Road 80), the east by The Whispering Oaks Development, the south by The Lake Worth Drainage District ("LWDD") L-5 canal and the west by Westwoods P.U.D. The developable portion of the site is designated as a Residential Planned Unit Development, and platted consists of 600 single-family residences.

All infrastructure needed for the Development has been installed and has been reviewed and accepted by the agencies.

## V. DISTRICT BOUNDARY

The District, as established by Palm Beach County, consists of approximately 261.18 net acres of land after dedications. The primary usage of lands is comprised of the following:

Residential Development – 104.19 Ac.

Roadways – 35.82 Ac.

Water Management Tracts – 64.18 Ac.

Lyons Road – 3.70 Ac.

Recreation Tracts – 7.94 Ac.

Preserve Areas – 24.67 Ac.

Buffer/Common Areas – 20.68 Ac.

## VI. DISTRICT IMPROVEMENTS

The portion of the master infrastructure needed to serve the Development comprising the Series 2004 Bond Project include the following:

### Earthwork and Excavation

Approximately 64.18 acres of lake tracts were created within the District. All earthwork and lakes have been constructed within the district. The lakes will be owned and maintained by the District.

### Storm Drainage System

The storm drainage system includes approximately 160 inlets and manholes; and 17,322 lineal feet of 15" to 42" storm drainage culverts connecting the structures which discharge to the District's water management system. Additionally, a control structure is located at the north end of the site to provide bleeder discharge to the SFWMD C-51 canal. The storm drainage system has been installed and has been reviewed and accepted by the agencies. The system will be owned and operated by the District.

### Potable Water System

The water distribution system consists of water mains consisting of approximately 160 LF (16"), 6,300 LF (12"), 245 LF (10"), 20,575 LF (8") and 6,502 LF (4"); 54 fire hydrants and 373 single and double individual lot services to deliver potable water to the right of way line of the individual lots. This system



has been installed and has been dedicated by the District to the Palm Beach County Water Utilities Department for ownership and maintenance of the system.

**Sanitary Sewer System**

Sanitary sewer improvements included as District Infrastructure include approximately 23,398 LF (8") gravity sewer collection mains, 111 manholes, 2 lift stations, 160 LF (8"), 7,400 LF (6") and 120 LF (4") force mains, and 342 single and double individual lot services to the right of way line of the individual lots. This system has been installed and has been dedicated by the District to the Palm Beach County Water Utilities Department for ownership and maintenance of the system.

**VII. PERMITTING**

**Agency Permits**

The following permits have been issued for this project and were necessary to effect the improvements described herein.

Agency	Permit Type	Permit Number	Date Issued
South Florida Water Management District	Environmental Resource Permit – General Permit Overall, Pods A, B, D	50-05661-P	11/16/02
	Pods C, E/F, G	50-05661-P-02	3/31/03
Lake Worth Drainage District	Drainage - Overall	02-4736D-02	5/12/03
Florida Department of Environmental Protection	NPDES – Overall	FLR10L143	1/15/03
US Environmental Protection Agency	NPDES – Overall	FLR10J725	1/22/03
Palm Beach County Land Development	Land Development – Backbone	786-001-11415-03	7/23/03
	Pod A	786-009-11413-03	7/10/03
	Pod B	786-010-11410-03	7/31/03
	Pod C	786-006-11417-03	8/20/03
	Pod D	786-004-11422-03	8/29/03
	Pod E/F	786-007-11423-03	11/17/03
	Pod G	786-008-11417-03	11/6/03

Palm Beach County Health Department	Water – Backbone	138302-264-DS	7/9/03
	Sewer – Backbone	138302-265-DWC	7/19/03
	Water – Pod A	138302-243-DSGP	4/30/03
	Sewer – Pod A	138302-244-DWC	"
	Water – Pod B	138302-245-DSGP	4/30/03
	Sewer – Pod B	138302-246-DWC	"
	Water – Pod C	138302-247-DSGP	4/30/03
	Sewer – Pod C	138302-248-DWC	4/30/03
	Water – Pod D	138302-249-DSGP	"
	Sewer – Pod D	138302-250-DWC	"
	Water – Pod E/F	138302-273-DSGP	8/13/03
	Sewer – Pod E/F	138302-274-DWC	"
	Water – Pod G	138302-271-DSGP	8/6/03
	Sewer – Pod G	138302-272-DWC	"
Palm Beach County Department of Environmental Resources Management	Excavation & Littoral Planting	E200306	3/14/03

### VIII. PLATTING

All plats have been recorded for this project as follows:

Name	Plat Book/Page	Date Recorded	# Units	Lot Size
Diamond "C" Ranch	100/71-73	11/05/2003		
Pod "A" Replat	99/173-179	06/03/2003	72	65'
Pod "B" Replat	100/74-75	11/05/2003	49	70'
Pod "C" Replat	102/140-142	06/30/2004	67	65'
Pod "D" Replat	100/99-101	11/20/2003	134	45'
Pod "E/F" Replat	100/144-147	03/20/2004	192	45'
Pod "G" Replat	102/143-145	06/30/2004	86	70'
			600	

### IX: PERMIT STATUS

Following is a current status of the finalization and release of the agency permits. All permits are to be finalized once homes have been constructed.



<b>Palm Beach County Land Development</b>	<b>Permit Number</b>	<b>Final Acceptance/Bond Release</b>
<b>Backbone</b>	786-001-11415-03	8/28/2007
<b>Parcel A</b>	786-009-11413-03	10/2/2007
<b>Parcel B</b>	786-010-11410-03	8/28/2007
<b>Parcel C</b>	786-006-11417-03	8/28/2007
<b>Parcel D</b>	786-004-11422-03	8/28/2007
<b>Parcel E/F</b>	786-007-11423-03	12/13/2007
<b>Parcel G</b>	786-008-11427-03	04/13/2012
<b>Recreation</b>	786-001-11415-03	8/28/2007

<b>South Florida Water Management District</b>	<b>Application Number</b>	<b>Conversion to Operation Phase</b>
<b>Diamond C Ranch</b>	020423-9	1/29/2008
<b>Pods C,E,F,G</b>	021227-13	8/02/2010
<b>Diamond C Ranch</b>	031006-5	1/29/2008
<b>Rec Center</b>	031120-3	3/19/2009
<b>Diamond C Ranch</b>	040615-8	1/29/2008
<b>Diamond C Ranch</b>	040611-16	
<b>Weir Modification</b>	041018-7	1/29/2009
<b>Weir Modification</b>	100302-10	

<b>Lake Worth Drainage District</b>	<b>Application Number</b>	<b>Acceptance Received</b>
<b>Aerial Pile N Pioneer Road</b>	2004-4736U.18	02/07/2005
<b>Recreation</b>	2003-4736D.17	
<b>Pod E &amp; F</b>	2003-4736D.12	
<b>Pod C</b>	2003-4736D.11	
<b>Pod G</b>	2003-4736D.10	
<b>Pod D</b>	2002-4736D.8	1/9/2008
<b>Pod A Replat</b>	2002-4736D.5	
<b>Pod B Replat</b>	2002-4736D.3	1/9/2008
<b>Master/Internal/Backbone</b>	2002-4736D.2	

Palm Beach County Health Dept.	Water/Sewer Release
Spine Road	11/2/2007
Parcel A	11/2/2004
Parcel B	6/10/2004
Parcel C	12/15/2004
Parcel D	1/16/2004
Parcel E/F	11/3/2004
Parcel D	6/23/2005

**X. STATUS OF CAPITAL IMPROVEMENTS**

% Complete

Earthwork and Excavation .....	100
Storm Drainage System .....	100
Water Distribution System.....	100
Sanitary Sewer System.....	100

All capital improvements have been constructed and have been reviewed and accepted by the agencies.

**XI. PERMIT MODIFICATIONS**

1. The Palm Beach Plantation Community Development District, and Property Owner's Association requested that a permit modification be submitted to the South Florida Water Management District (SFWMD) to raise the levels in the northern lakes in order to improve the operation of the irrigation system, to obtain additional storage in the lakes for irrigation purposes, and to alleviate erosion and improve the aesthetics of the lake banks. SFWMD approved the permit modification in May 24, 2010 which modified the project's control structure to raise the levels in the northern lakes from El. 12.0' NGVD to El. 13.0' NGVD. The modification of the control structure to raise the elevations has been completed, and released by SFWMD.
2. The Palm Beach Plantation Community Development District, and Property Owner's Association also requested a modification of the SFWMD Water Use Permit to increase the recharge capacity of the overall system, and to augment the overall irrigation system. The modification specifically included two additional recharge pumps, for a total of three recharge pumps; and a total of five irrigation pump systems for the development. The intent of the permit modification was to provide additional recharge and irrigation system capacity for the entire project, instead of just portions of the site. In addition, the increase in recharge and irrigation capacity should help alleviate fluctuations of the water levels in the lakes, which should help slow down the



erosion of the lake banks caused by the water fluctuations. The water use permit modification was issued by SFWMD on August 11, 2011. The additional recharge pumps have not been installed to date due to lack of funding.

3. Tropical Storm Isaac dropped an estimated 15"-18" of rainfall on the project and surrounding areas in September, 2011. This rainfall amount greatly exceeded the 100 year, 3 day storm event of 13.5" of rainfall. There was temporary flooding of the streets and yard areas caused by the storm, but there was no flooding of any homes or structures. The CDD had numerous meetings with various governmental agencies to obtain permission to install emergency operable structures, which would allow quicker bleed down the system, and prevent any prolonged flooding of the development during extreme storm events. Permit modifications were obtained from both South Florida Water Management District, and the Lake Worth Drainage District in early 2013, which allowed three emergency control structures for the Palm Beach Plantation project. These three structures were permitted with sufficient capacity to remove water from the streets and green areas within 24 hours after a major, severe tropical storm event like Isaac. All three control structures have been completed, and are in the final review and acceptance phase with the agencies. During September of 2013, the District had concerns with rising lake levels during a tropical disturbance, and requested permission from SFWMD to open only one emergency gate. SFWMD did allow the one gate to be opened, and the system was able to quickly bleed down in a short period of time to the lake water control levels.

## **XII. REPORT MODIFICATION**

During development and implementation of the plan of improvements identified in this report, it may be necessary to make some modifications and deviations to said plan of improvements. Therefore, if such deviations or modifications do not change the overall primary objective of said plan, then such changes will not materially affect this report.

## **XIII. CONCLUSION**

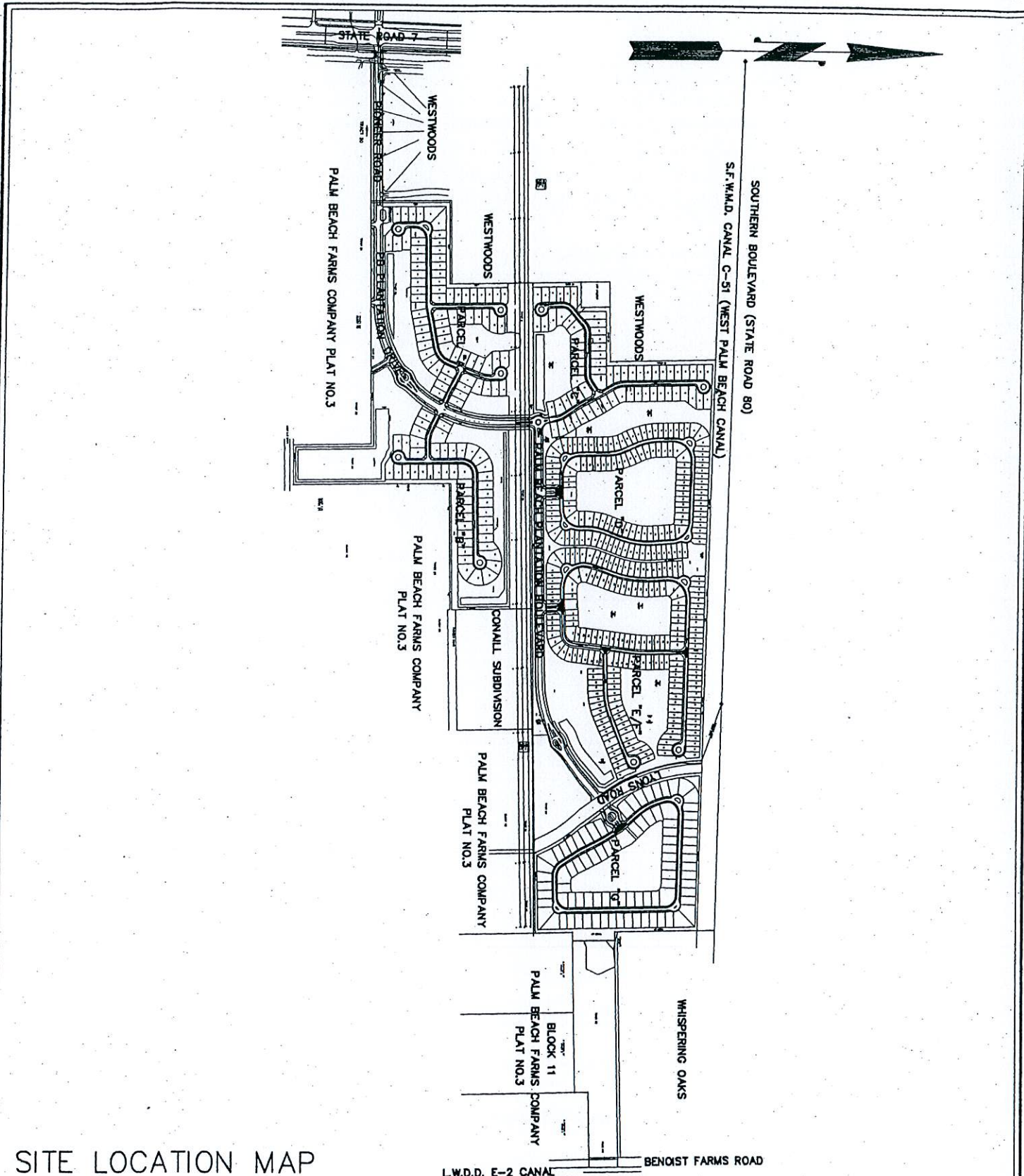
The proposed improvements, have been constructed and built substantially in accordance with the approved plans and specifications, and have operated in accordance with the permit provisions and requirements..

Caulfield & Wheeler, Inc.

---

John F. Wheeler, P.E.  
Florida Registration No. 25478  
President



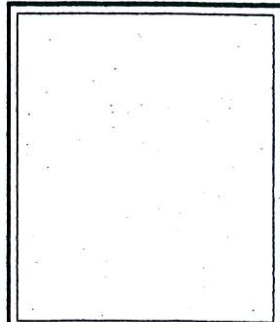


SITE LOCATION MAP

L.W.D.D. E-2 CANAL BENJIST FARMS ROAD

**CAULFIELD & WHEELER, INC.**  
 CIVIL ENGINEERING - LAND PLANNING  
 LANDSCAPE ARCHITECTURE - SURVEYING  
 7301A W. PALMETTO PARK ROAD - SUITE 100A  
 BOCA RATON, FLORIDA 33433  
 PHONE (561)-392-1991 / FAX (561)-750-1452

PALM BEACH PLANTATION  
 COMMUNITY DEVELOPMENT DISTRICT  
 EXHIBIT 1 SHEET 1



DATE	12/11/03
DRAWN BY	
F.B. / PG.	N/A
SCALE	N.T.S.
JOB NO.	3382



**EXHIBIT 2 (1-3)**

**STORM DRAINAGE, WATER DISTRIBUTION  
AND SANITARY SEWER SYSTEMS**

SOUTHERN BOULEVARD (STATE ROAD 80)

S.F.W.M.D. CANAL C-51 (WEST PALM BEACH CANAL)



WESTWOODS

WESTWOODS

WESTWOODS

PALM BEACH FARMS COMPANY PLAT NO.3

MATCH LINE SHEET 3

# STORM DRAINAGE SYSTEM



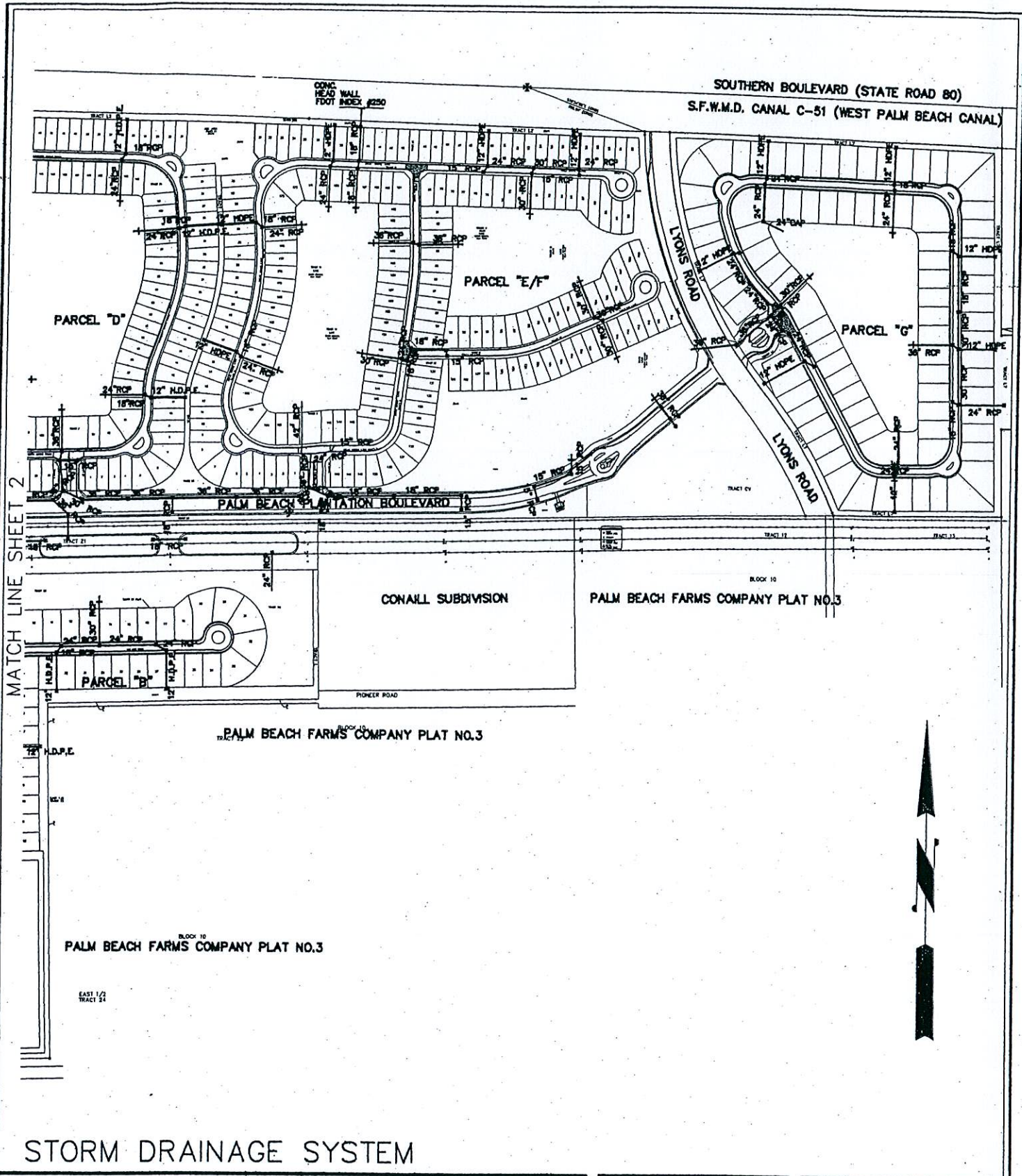
**CAULFIELD & WHEELER, INC.**  
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 LANDSCAPE ARCHITECTURE & SURVEYING  
 7301A W. PALMETTO PARK ROAD - SUITE 100A  
 BOCA RATON, FLORIDA 33433  
 PHONE (561)-392-1991 / FAX (561)-750-1452

**PALM BEACH PLANTATION**  
 COMMUNITY DEVELOPMENT DISTRICT  
 EXHIBIT 2-1

SHEET 2

DATE	12/11/03
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SCALE	N.T.S.
JOB NO.	3382





MATCH LINE SHEET 2

SOUTHERN BOULEVARD (STATE ROAD 80)  
S.F.W.M.D. CANAL C-51 (WEST PALM BEACH CANAL)

PARCEL "D"

PARCEL "E/F"

PARCEL "G"

PALM BEACH PLANTATION BOULEVARD

LYONS ROAD

LYONS ROAD

CONALL SUBDIVISION

PALM BEACH FARMS COMPANY PLAT NO.3

PALM BEACH FARMS COMPANY PLAT NO.3

PALM BEACH FARMS COMPANY PLAT NO.3

EAST 1/2 TRACT 24



## STORM DRAINAGE SYSTEM



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PALM BEACH PLANTATION  
 COMMUNITY DEVELOPMENT DISTRICT  
 EXHIBIT 2-1

SHEET 3

DATE	12/11/03
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JOB NO.	3382

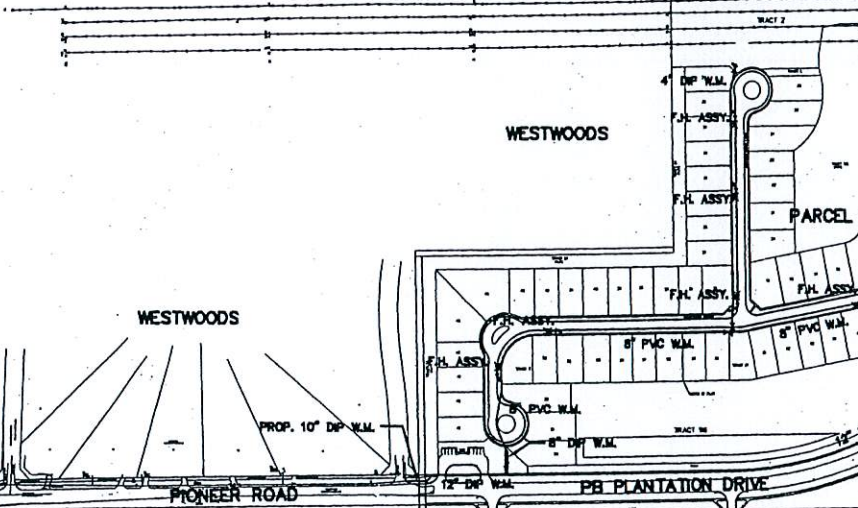
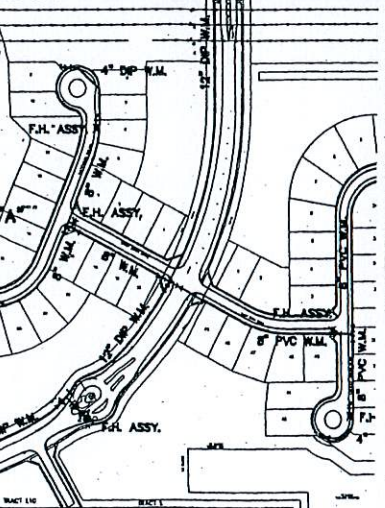
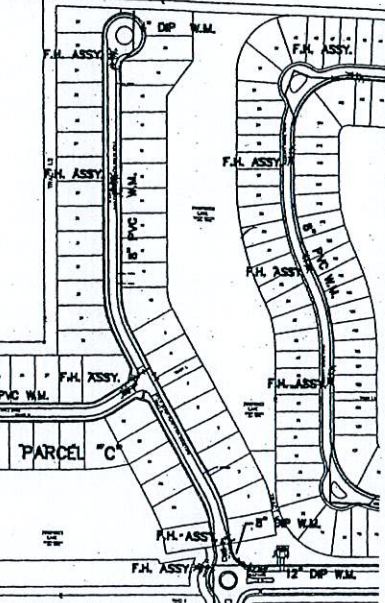


SOUTHERN BOULEVARD (STATE ROAD 80)

S.F.W.M.D. CANAL C-51 (WEST PALM BEACH CANAL)



WESTWOODS



MATCH LINE SHEET 5

WESTWOODS

WESTWOODS

PARCEL "A"

PARCEL "C"

PIONEER ROAD

PB PLANTATION DRIVE

STATE ROAD 7

TRACT 20

TRACT 21

PALM BEACH FARMS COMPANY PLAT NO. 3

TRACT 22

TRACT 23

TRACT 24

TRACT 25

TRACT 26

TRACT 27

TRACT 28

TRACT 29

TRACT 30

TRACT 31

TRACT 32

TRACT 33

TRACT 34

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TRACT 96

TRACT 97

TRACT 98

TRACT 99

TRACT 100

# WATER DISTRIBUTION SYSTEM

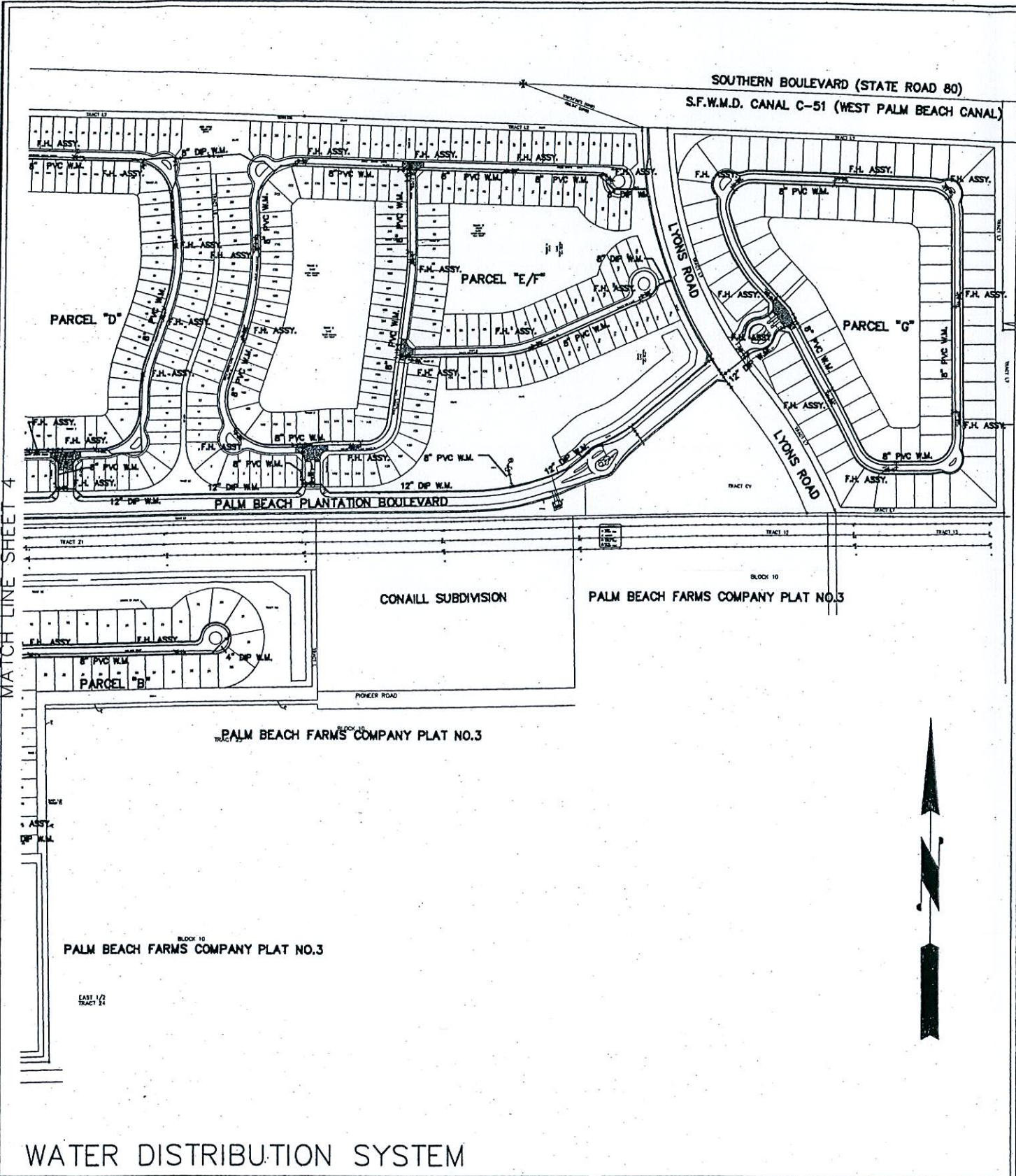


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JOB NO.	3382

PALM BEACH PLANTATION  
COMMUNITY DEVELOPMENT DISTRICT  
EXHIBIT 2-2

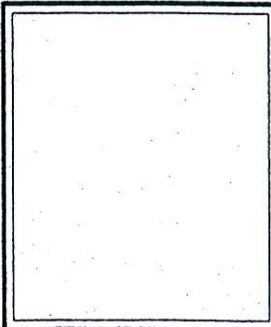




MATCH LINE SHEET 4

**WATER DISTRIBUTION SYSTEM**

	<b>CAULFIELD &amp; WHEELER, INC.</b> CIVIL ENGINEERING - LAND PLANNING LANDSCAPE ARCHITECTURE - SURVEYING 7301A W. PALMETTO PARK ROAD - SUITE 100A BOCA RATON, FLORIDA 33433 PHONE (561)-392-1991 / FAX (561)-750-1452
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JOB NO.	3382



SOUTHERN BOULEVARD (STATE ROAD 80)

S.F.W.M.D. CANAL C-51 (WEST PALM BEACH CANAL)



8" SANITARY SEWER (TYP.)

WESTWOODS

PARCEL "C"

WESTWOODS

8" SANITARY SEWER (TYP.)

PARCEL "A"

WESTWOODS

PIONEER ROAD

FORCE MAIN (TYP.)

TRACT 20

PB PLANTATION DRIVE

PALM BEACH FARMS COMPANY PLAT NO.3

MATCH LINE SHEET 7

# SANITARY SEWER SYSTEM



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BOCA RATON, FLORIDA 33433  
PHONE (561)-392-1991 / FAX (561)-750-1452

DATE 12/11/03

DRAWN BY

F.B./ PG. N/A

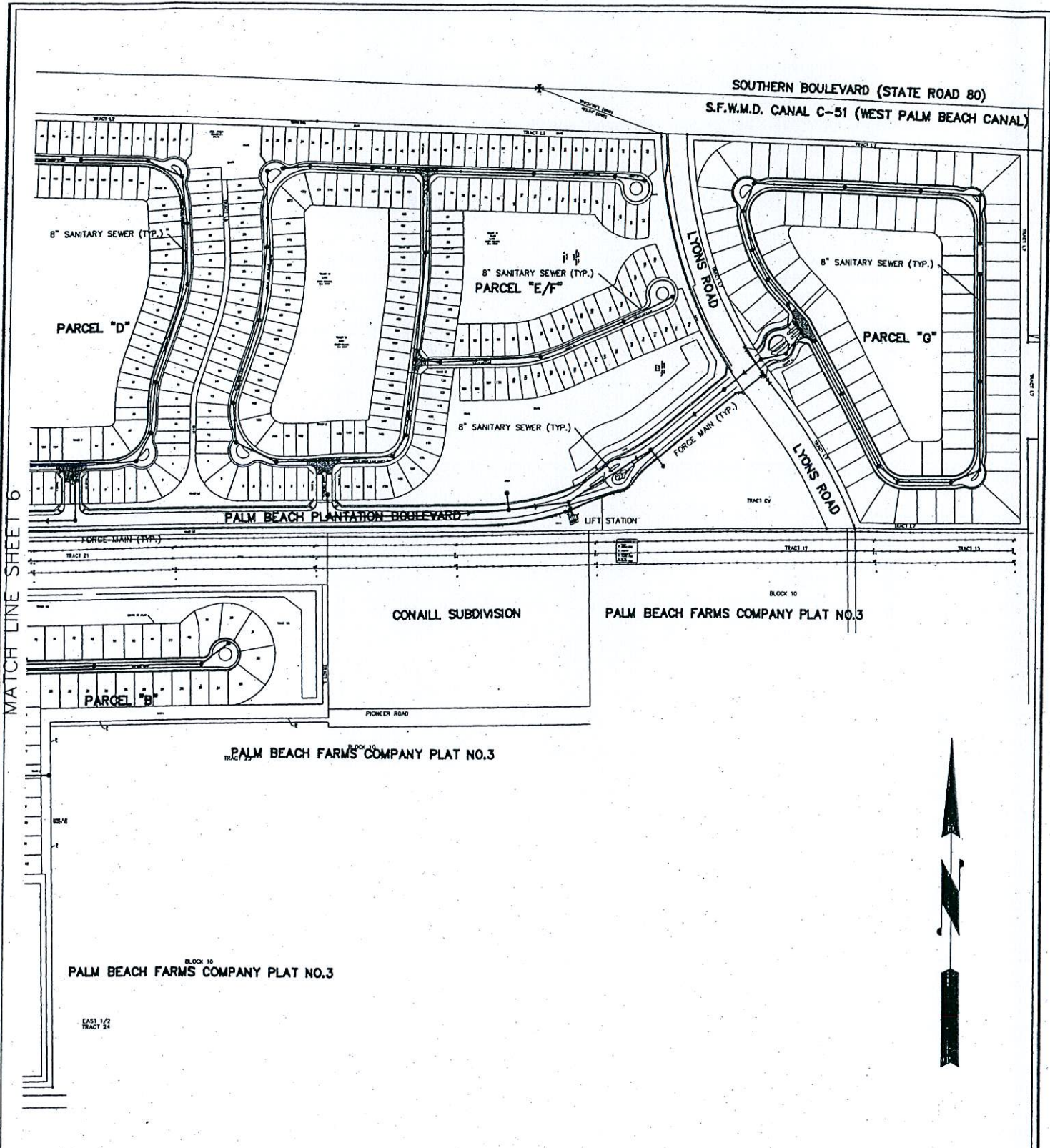
SCALE N.T.S.

JOB NO. 3382

PALM BEACH PLANTATION  
COMMUNITY DEVELOPMENT DISTRICT  
EXHIBIT 2-3

SHEET 6

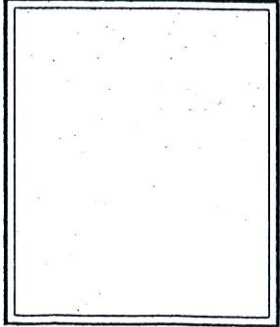




MATCH LINE SHEET 6

**SANITARY SEWER SYSTEM**

**CAULFIELD & WHEELER, INC.**  
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 LANDSCAPE ARCHITECTURE - SURVEYING  
 7301A W. PALMETTO PARK ROAD - SUITE 100A  
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DATE	12/11/03
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F.B./ PG.	N/A
SCALE	N.T.S.
JOB NO.	3382