

Question 17 – Water Supply

- A. 1. Provide a projection of the average daily potable and non-potable water demands at the end of each phase of development. If significant seasonal demand variations will occur, discuss anticipated peaks and duration. Use the format below:

The following **Table 17-1** shows potable water demand for the project:

Table 17-1 Potable Water Demand					
Proposed Development			Proposed Potable Water Demand		
Land Use	Amount	Units	Water Use (GPD/Unit)	Potable Water Demand (MGD*)	Max Water Demand (MGD)
Residential	4,000	DU	200 GPD/unit	0.800	2.240
Retail	1,250,000	Sq.Ft.	5 GPD/100 sq.ft.	0.063	0.176
Office	2,300,000	Sq.Ft.	10 GPD/100 sq.ft.	0.230	0.644
Convention	200,000	Sq.Ft.	20 GPD/100 sq.ft.	0.004	0.011
Hotel	2,100	Rooms	100 GPD/room	0.210	0.588
Total				1.307 MGD	3.660 MGD

Source: Ford Engineers, Inc.

(*) MGD = Millions of Gallons per Day

The Maximum Daily Demand (280% of A.D. D.) is 3.660 MGD

Landscape irrigation will account for most of the development's non-potable water demand, and this demand will vary seasonally. Due to the urban nature of the development, no significant increase in landscape irrigation is expected. Any substantial irrigation needs will be determined as the site plan design process progresses.

Table 17-2 shows existing and potable water demand, with net flow changes by sections identified. The section categories were developed for infrastructure analysis purposes, and do not dictate the amount of development that can occur. The SEOPW DRI is an area-wide DRI which allows for proposed development to occur anywhere within its boundaries. **Exhibit 17-1** details the sub-divisions for each district and the flow assumptions by folio number.

Table 17-2 Potable Water Net Change in Demand					
Section-Categories	Existing Development	Existing Flow (GPD)	Proposed Development	Proposed Flow (GPD)	Flow Change (GPD)
Folklife Village					
Residential (DU)	70	14,000	600	120,000	106,000
Retail (SF)	8,148	407	75,000	3,750	3,343
Office (SF)	20,783	2,078	50,000	5,000	2,922
Convention (SF)	0	0	0	0	0
Hotel (Rooms)	0	0	0	0	0
Sub Totals		16,486		128,750	112,264
Folklife District					
Residential (DU)	321	64,200	1,000	200,000	135,800
Retail (SF)	42,643	2,132	250,000	12,500	10,368
Office (SF)	9,316	932	100,000	10,000	9,068
Convention (SF)	9,891	198	0	0	(198)
Hotel (Rooms)	0	0	100	10,000	10,000
Sub Totals		67,462		232,500	165,038
Other SE Overtown					
Residential (DU)	259	51,800	400	80,000	28,200
Retail (SF)	5,159	258	75,000	3,750	3,492
Office (SF)	7,641	764	100,000	10,000	9,236
Convention (SF)	0	0	0	0	0
Hotel (Rooms)	0	0	0	0	0
Sub Totals		52,822		93,750	40,928
Miami World Center					
Residential (DU)	0	0	2,000	400,000	400,000
Retail (SF)	31,501	1,575	720,000	36,000	34,425
Office (SF)	38,833	3,883	1,800,000	180,000	176,117
Convention (SF)	139,529	2,791	200,000	4,000	1,209

Table 17-2 Potable Water Net Change in Demand					
Section-Categories	Existing Development	Existing Flow (GPD)	Proposed Development	Proposed Flow (GPD)	Flow Change (GPD)
Hotel (Rooms)	0	0	1,800	180,000	180,000
Totals		8,249		800,000	791,751
Other Park West					
Residential (DU)	20	4,000	0	0	(4,000)
Retail (SF)	48,313	2,416	130,000	6,500	4,084
Office (SF)	11,064	1,106	250,000	25,000	23,894
Convention (SF)	153,987	3,080	0	0	(3,080)
Hotel (Rooms)	0	0	200	20,000	20,000
Sub - Totals		10,602		51,500	40,898
TOTAL		155,620		1,306,500	1,150,880

Source: Ford Engineers, Inc.

2. Describe how this demand information was generated, including the identification of the consumption rates assumed in the analysis.

Potable water demand estimates were obtained from Miami Dade Water and Sewer Department - 'Schedule of Daily Rated Gallonage for Various Occupancy'. Land Use categories from the schedule were applied to our proposed development uses as follows:

- Residential – Used the Apartments rate of 200 gpd per unit
- Retail – Used the Shopping Centers (dry use) rate of 5 gpd/100 sq. ft.
- Office – Used the Office buildings rate of 10 gpd/100 sq. ft.
- Convention – Used the Warehouse/Industrial speculation building rate of 20 gpd/1000 sq. ft.
- Hotel – Used the Hotel/Motel rate of 100 gpd per room.

B. Provide a breakdown of sources of water supply, both potable and non-potable, by development phase through project completion. Use the format below.

The project will be reviewed as a single phase development in which Miami Dade Water and Sewer Department (WASD) will provide the potable water demand described in Table 17-1.

- C. **If water wells exist on-site, locate them on Map H and specify those that will continue to be used. Also locate on Map H all proposed on-site wells. (For residential developments, if individual wells for each lot are proposed, simply indicate the number of units to be served, general locations, and any plans for eventual phase-out.) Indicate the diameter, depth, and pumping rates (average and maximum) for each of the existing wells and project this information for the proposed wells (for lots served by individual dual wells, this information may be grouped for projection purposes). Also provide a breakdown of the wells with regard to potable and non-potable sources.**

This project does not propose any potable water supply wells. Due to the urban nature of the project, the existence of non-potable wells is highly unlikely. If in later development, irrigation wells are required, they will be permitted through the Miami Dade County DERM and South Florida Water Management District (SFWMD).

- D. **If on-site water wells are used, will this result in interference with other water wells or result in adverse impacts to underlying or overlying aquifers? Document the assumptions underlying this response.**

No on-site potable water wells are proposed for this project. As stated above, if in later development irrigation wells were required, then they will be permitted through the Miami Dade County DERM and South Florida Water Management District (SFWMD).

- E. **Who will operate and maintain the internal water supply system after completion of the development?**

Miami Dade Water and Sewer Department will own and operate utilities providing water service to the site.

- F. **1. If an off-site water supply is planned, attach a letter from the agency or firm providing service outlining:**

(a) the projected excess capacities of the water supply facilities to which connection will be made at present and for each phase through completion of the project,

(b) any other commitments that have been made for this excess capacity,

(c) a statement of the agency or firm's ability to provide services at all times during and after development. (This agency must be supplied with the water demand and supply tables in paragraphs A and B above).

A meeting with Miami Dade Water and Sewer Department was conducted to ensure that the department is able to accommodate the projected flow increases in the new development. A letter from Miami-Dade Water and Sewer in response to our request for capacity availability is included in **Exhibit 17-2**. The letter provided is consistent with existing Department policies. The Applicant understands that a water and sewer agreement for water and sewer service with the Department will be required for all net

new development in the project area, provided the Department is able to offer those services.

2. If service cannot be provided at all times during and after development, identify the required capital improvements, timing, cost, and proposed responsible entity for each phase in which service is unavailable.

Miami Dade Water and Sewer Department has the capability to provide service during and after the development. The Applicant will need to pursue an agreement with the Department to ensure availability to provide service throughout the development stage of the project.

G. Please describe any water conservation methods or devices incorporated into the plan of development. What percentage of reduction is anticipated over conventional plans?

Water Conservation devices and methods will be incorporated into the development phase of the project as expressed in the Florida Building Code. High efficiency plumbing fixtures, fixture fittings, and appliances expressed in Table 604.4 of the Florida Building Code may be included in development, but will not be limited to these options.

In periods of water shortage, the project will resort to Florida Administrative Code Chapter 40E-21 for recommendations and procedures.

In addition, where feasible and practicable:

- Consider water efficient appliance and equipment;
- Consider air assisted or compost toilets during design;
- Immediately repair all equipment and vehicle leaks during construction;
- Designate appropriate location for washing vehicles and equipment- away from surface waters, storm drains and slopes that could erode, at carwash or at builders' shop with a sump during construction;
- Use silt fencing or biofiltration (permeable bags filled with chips, compost, or bales of straw) to control erosion during construction;
- Maintain a naturally vegetated buffer next to streams, lakes, ponds, and wetlands;
- Install anti-backsiphoning valves between well and water pipes;

H. Indicate whether proposed water service will be provided within an established service area boundary.

The project is in Miami Dade Water and Sewer Service Department service area boundary.

Exhibit 17-1
BREAKDOWN BY DISTRICTS AND FLOW ASSUMPTIONS BY FOLIO

Breakdown of Districts								
Folklife Village								
Sub-Divisions	District/#	Residential Units	Retail	Office	Hotel	Warehouse	Bus Station	Utility-Industrial
1	E5	14	8148	0	0			
2	E6	30	0	7684	0			
3	E8	26	0	13099	0			
Totals		70	8148	20783	0			

Folklife District								
Sub-Divisions	District/#	Residential Units	Retail	Office	Hotel	Warehouse	Bus Station	Utility-Industrial
1	D2	5	0	0	0			
2	D3	0	0	0	0			
3	D7	49	0	0	0			
4	D11	99	20599	0	0			
5	D15	12	0	0	0			
6	D16	30	4340	2949	0			
7	D17	0	0	0	0			
8	D18	63	0	0	0			
9	D19	0	0	0	0			
10	E1	39	16247	0	0			
11	E2	15	7522	4167	0			
12	E3	9	0	2200	0			
13	E4	0	3826	0	0			
14	E7	0	0	0	0			
15	E10	0	0	0	0			
Totals		321	52534	9316	0			

Other SE Overtown								
Sub-Divisions	District/#	Residential Units	Retail	Office	Hotel	Warehouse	Bus Station	Utility-Industrial
1	D1	0	0	7641	0			
2	D4	34	0	0	0			
3	D5	0	0	0	0			
4	D8	114	0	0	0			
5	D9	25	3767	0	0			
6	D10	26	0	0	0			
7	D12	34	1389	0	0			
8	D13	26	0	0	0			
9	D14	0	0	0	0			
10	E17	0	0	0	0			
11	G1	0	0	0	0			
12	G6	0	0	0	0			
Totals		259	5156	7641	0			

Miami World Center								
Sub-Divisions	District/#	Residential Units	Retail	Office	Hotel	Warehouse	Bus Station	Utility-Industrial
1	F7	0	0	0	0	63200	0	0
2	F8	0	21803	25766	0	0	0	0
3	F11	0	0	0	0	9828	0	0
4	F12	0	0	0	0	10569	0	0
5	F16	0	0	0	0	0	0	0
6	F19	0	0	12487	0	34434	0	0
7	F20	0	9698	580	0	5850	0	0
8	F22	0	0	0	0	10829	0	0
9	F23	0	0	0	0	0	0	0
10	G3	0	0	0	0	0	0	0
11	G4	0	0	0	0	4819	0	0
Totals		0	31501	38833	0	139529	0	0

Other Park West								
Sub-Divisions	District/#	Residential Units	Retail	Office	Hotel	Warehouse	Bus Station	Utility-Industrial
1	F1	0	0	0	0	18015	0	0
2	F2	0	7008	11064	0	7483	69631	0
3	F3	0	13455	0	0	0	0	0
4	F4	0	0	0	0	0	0	0
5	F6	0	0	0	0	58858	0	0
6	F7	0	17475	0	0	0	0	0
7	G7	20	10375	0	0	0	0	103200
Totals		20	48313	11064	0	84356	69631	103200

2	01-3136-011-0010								VL
2	01-3136-011-0010								VL
2	01-3136-011-0020					2115			WAREHOUSE
2	01-3137-031-0070	7008							RESTAURANT
2	01-3137-031-0050					5368			WAREHOUSE
2	01-3137-031-0060		1964						ABANDONED BUILDING
3	01-3136-009-1640								VL
3	01-3137-031-0040	13455							STRIP CLUB
3	01-3136-016-0150								
4	N/A								ALL CLASSIFIED AS VL, (CONSTRUCTION PORTABLES)
5									
6	01-0101-070-1061								VL
6	01-0101-070-1060								VL
6	01-0101-070-1050								VL
6	01-0101-070-1042								VL
6	01-0101-070-1041								WAREHOUSE
6	01-0101-070-1040								WAREHOUSE
6	01-0101-070-1031								WAREHOUSE
6	01-0101-070-1010	9207							BAKERY
6	01-0101-070-1020								WAREHOUSE
6	01-0101-070-1030								WAREHOUSE
6	01-0101-070-1070								VL
6	01-0101-070-1080					15100			WAREHOUSE
6	01-0101-070-1090					6527			ABANDONED WAREHOUSE
6	01-0101-070-1100					6450			ABANDONED WAREHOUSE
6	01-0101-070-1110					7848			ABANDONED WAREHOUSE
6	01-0101-070-1120					22933			ABANDONED BUILDING
7	01-0101-080-1070					20873			WAREHOUSE
7	01-0101-080-1060	28250							NIGHTCLUB
7	01-0101-080-1050	6250							NIGHTCLUB
7	01-0101-080-1040	25550							NIGHTCLUB
7	01-0101-080-1030	11257							NIGHTCLUB
7	01-0101-080-1020	6225							NIGHTCLUB
7	01-0101-080-1010	11250							NIGHTCLUB
7	01-0101-080-1011								PARKING
7	01-0101-080-1080								PARKING
7	01-0101-080-1100								PARKING
7	01-0101-080-1130								PARKING
7	01-0101-080-1140								VL
7	01-0101-080-1150								VL
7	01-0101-080-1160					63200			UHAUL-WAREHOUSE
8	01-0101-090-1090	9863							FISHING SUPPLY
8	01-0101-090-1060	11940							FISHING SUPPLY
8	01-0101-090-1052								VL
8	01-0101-090-1051								VL
8	01-0101-090-1050								VL
8	01-0101-090-1010								CLASSIFIED ENTERTAINMENT BUT ITS VL
8	01-0101-090-1030								PARKING
8	01-0101-090-1100								PARKING
8	01-0101-090-1110								PARKING
8	01-0101-090-1120								PARKING
8	01-0101-090-1121								VL
8	01-0101-090-1130								VL
8	01-0101-090-1140		25766						OFFICE BUILDING
9	N/A								BUILDING W/ NO INFO
9	01-0102-000-1030								VL
9	01-0102-000-1060								PARKING
9	01-0102-000-1050	2590							RETAIL STORE
10									
11	01-0102-030-1080								VL
11	01-0102-030-1090								VL
11	01-0102-030-1100								PARKING
11	01-0102-030-1110								VL
11	01-0102-030-1120					4350			WAREHOUSE
11	01-0102-030-1130								VL
11	01-0102-030-1070								PARKING
11	01-0102-030-1140								PARKING
11	01-0102-030-1150								PARKING
11	01-0102-030-1060								VL
11	01-0102-030-1160								PARKING
11	01-0102-030-1050								VL
11	01-0102-030-1170								VL
11	01-0102-030-1180								PARKING
11	01-0102-030-1040								VL
11	01-0102-030-1190					5478			WAREHOUSE
11	01-0102-030-1020								VL
11	01-0102-030-1010								VL
11	01-0102-030-1030								VL
11	01-0102-030-1210								VL
11	01-0102-030-1200								VL

7	01-0106-040-1140			47398					VARIOUS OFFICE BUILDINGS
7	01-0106-040-1030						103200		AT&T UTILITY
7	01-0106-040-1010		10375						RETAIL STORE
7	01-0106-040-1020	20							HOTEL
8	01-0106-030-1060								VL
8	01-0106-030-1010								CHURCH CENTER
8	01-0106-030-1030			7207					OFFICE BUILDING
9									
10	N/A								ALL PARKING
Sub-Total		20	10,375	59,735	0				

Exhibit 17-2
POTABLE WATER SERVICE PROVIDER LETTER



Carlos Alvarez, Mayor

Water & Sewer
P.O. Box 330316 • 3071 SW 38th Avenue
Miami, Florida 33233-0316
T 305-665-7471

miamidade.gov

November 4, 2010

Ms. Neha Shinde, AICP
The Curtis Group
7520 Red Road, Suite M
South Miami, FL 33145

Re: Capacity Availability
Southeast Overtown Park West Development of Regional Impact (DRI)
Increment III

Dear Ms. Shinde:

This letter is in response to your request for capacity availability within the Miami-Dade Water and Sewer Department's (MDWASD) service area for providing water and sewer services for the above referenced DRI.

The subject DRI is located in the City of Miami bounded on the north by Interstate 395, on the east by Biscayne Boulevard, on the south by NE/NW 5th Street, and on the west by Interstate 95. The source of water for the DRI is the Hialeah-Preston Water Treatment Plant (WTP). The Central District Wastewater Treatment Plant (CDWWTP) is the facility for treatment and disposal of the wastewater.

Water:

At the present time, capacity is available at the Hialeah-Preston Water Treatment Plant to serve the project's total water demand of 1,150,880 gallons per day (1.2 MGD), as provided by Ford Engineering. An evaluation of the proposed development rendered that additions of local water lines will be required for this DRI, as per the attached drawing. Please note that the line sizes indicated may need to be revised based on land use when the actual development projects are initiated. In addition, the capacity to deliver the necessary fire flows has been included in this evaluation. Fire hydrants will need to be included on the proposed lines to meet code requirements, plus due to the age of the respective water lines, replacement piping and or rehabilitation may be needed at the time the development projects go forward, particularly in connection with roadway projects. Furthermore, the applicant will be required to comply with water use efficiency techniques and landscape standards in accordance with provisions in the Miami-Dade County Code. Also, prior to approval of a building permit or its

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functional equivalent, the applicant will need to ensure that adequate water supply will be available for the project.

Sewer:

Average wastewater treatment capacity presently exists at the Central District Wastewater Treatment Plant for the proposed development densities. Nonetheless, due to the age of the respective sewer lines, replacement piping and or rehabilitation may be needed at the time the development projects go forward, particularly in connection with roadway projects. Please note that at the time the applicant requests an Agreement with MDWASD, capacity evaluations of the plant for average flow and peak flows will be required, depending on the compliance status of the United States Environmental Protection Agency (USEPA) Second and Final Partial Consent Decree. Additional transmission capacity could also be required for this project. In addition, the applicant shall evaluate the feasibility of implementing reuse for this project.

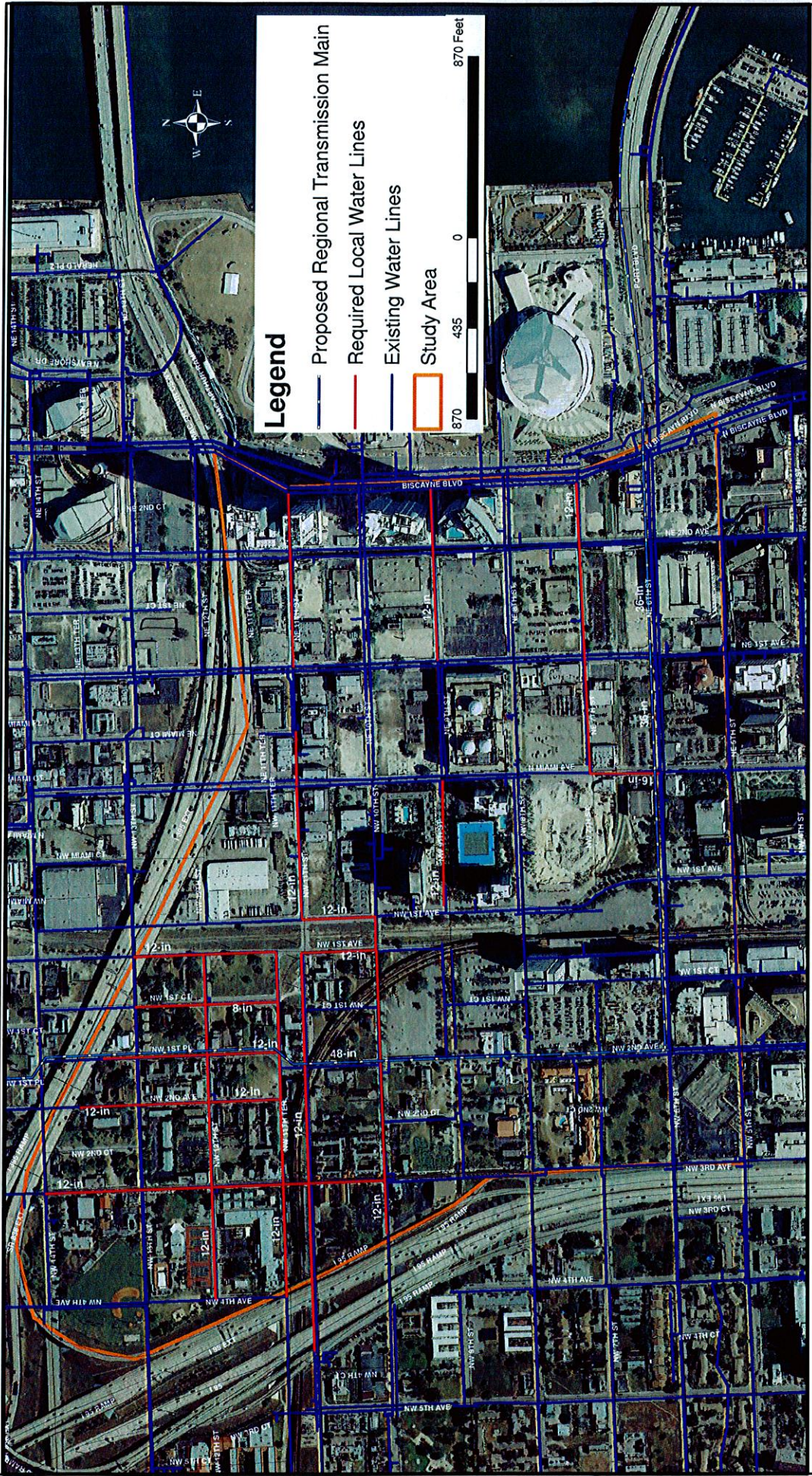
Availability of water and/or sewer service is subject to the approval of all applicable governmental agencies having jurisdiction over these matters. When development plans for the subject project are finalized, and upon the owner's request, we will be pleased to prepare an agreement for water and/or sewer service, provided the Department is able to offer those services at the time of the owner's request.

Should you have any questions, please call me at (786) 552- 8120 or contact Maria A. Valdes at (786) 552-8198.

Sincerely,



Bertha M. Goldenberg, P.E.
Assistant Director
Regulatory Compliance and Planning



Legend

- Proposed Regional Transmission Main
- Required Local Water Lines
- Existing Water Lines
- Study Area

870 435 0 870 Feet

Southwest Overtown Park West DRI Increment III
Proposed Water Main Upgrades

Miami-Dade
Water and Sewer



August 2010

FORD ENGINEERS, INC.
 1950 NW 94th Avenue,
 2nd Floor
 Doral, Florida 33172
 Tel: (305) 477-6472
 Fax: (305) 470-2805

SE Overtown DRI - Existing and Proposed Flows					
Section-Categories	Existing Development	Existing Flow (GPD)*	Proposed Development	Proposed Flow (GPD)*	Flow Change (GPD)
Folklife Village					
Residential (DU)	70	14,000	600	120,000	106,000
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Category Totals	Existing Development	Existing Flow (GPD)*	Proposed Development	Proposed Flow (GPD)*	Flow Change (GPD)
Residential (DU)	670	134,000	4,000	800,000	666,000
Retail (SF)	135,761	6,788	1,250,000	62,500	55,712
Office (SF)	87,637	8,764	2,300,000	230,000	221,236
Convention (SF)	303,407	6,068	200,000	4,000	-2,068
Hotel (Rooms)	0	0	2,100	210,000	210,000
TOTAL		155,620		1,306,500	1,150,880

*Residential Area Flows assumed 200 GPD/unit
 Retail Areas assumed 5 GPD/100 s.f.
 Office Areas assumed 10 GPD/100 s.f.
 Convention assumed 20 GPD/1000 s.f.
 Hotels assumed 100 GPD/room

Ms. Maria Valdes
Miami-Dade Water and Sewer Department
3071 SW 38th Avenue
Room 554-30
Miami, FL 33146

Re: Southeast Overtown Park West DRI Update
Water Service

Dear Ms. Valdes:

In accordance with Chapter 380.06, Florida Statutes, regarding Developments of Regional Impact (DRI), we are required to obtain information from Miami-Dade Water and Sewer Authority on its ability to provide our project with water services.

The Southeast Overtown Park West Community Redevelopment Agency and the City of Miami as co-applicants are applying for the approval of Increment III of the Southeast Overtown Park West Development of Regional Impact (SEOPW DRI). The purpose of the DRI is to simplify and expedite the process for the impact review of large-scale development. The DRI is a Master Incremental DRI that establishes a development program that specifies the total amount of development that can be located anywhere within the DRI boundaries, subject to local land development regulations.

The SEOPW DRI area contains approximately 209 acres of urban development, and is generally bounded on the north by I-395, on the east by Biscayne Boulevard, on the south by NW/NE 5th Street, and on the west by I-95. An aerial map showing the project location is enclosed.

Also enclosed is a summary of the development program in table form showing the proposed land uses and amounts pursuant to the guidelines and standards in Chapter 28-24, F.A.C. Increment I and II which were originally approved in 1988 and 1992 respectively, and Increment III, which is currently being proposed, specify the type and intensity of land use in the SEOPW area for the next 10 years. We will notify you if the development program for Increment III is adjusted.

Please indicate in your response whether the present facilities and staffing are capable of serving the Project or specifying the additional staffing/equipment necessary to serve the development.

I respectfully request your expedited written response, since this will be an integral part of the DRI application process. Your prompt attention to this matter is greatly appreciated.

If you have any questions, please do not hesitate to call me at (305) 663 5800.

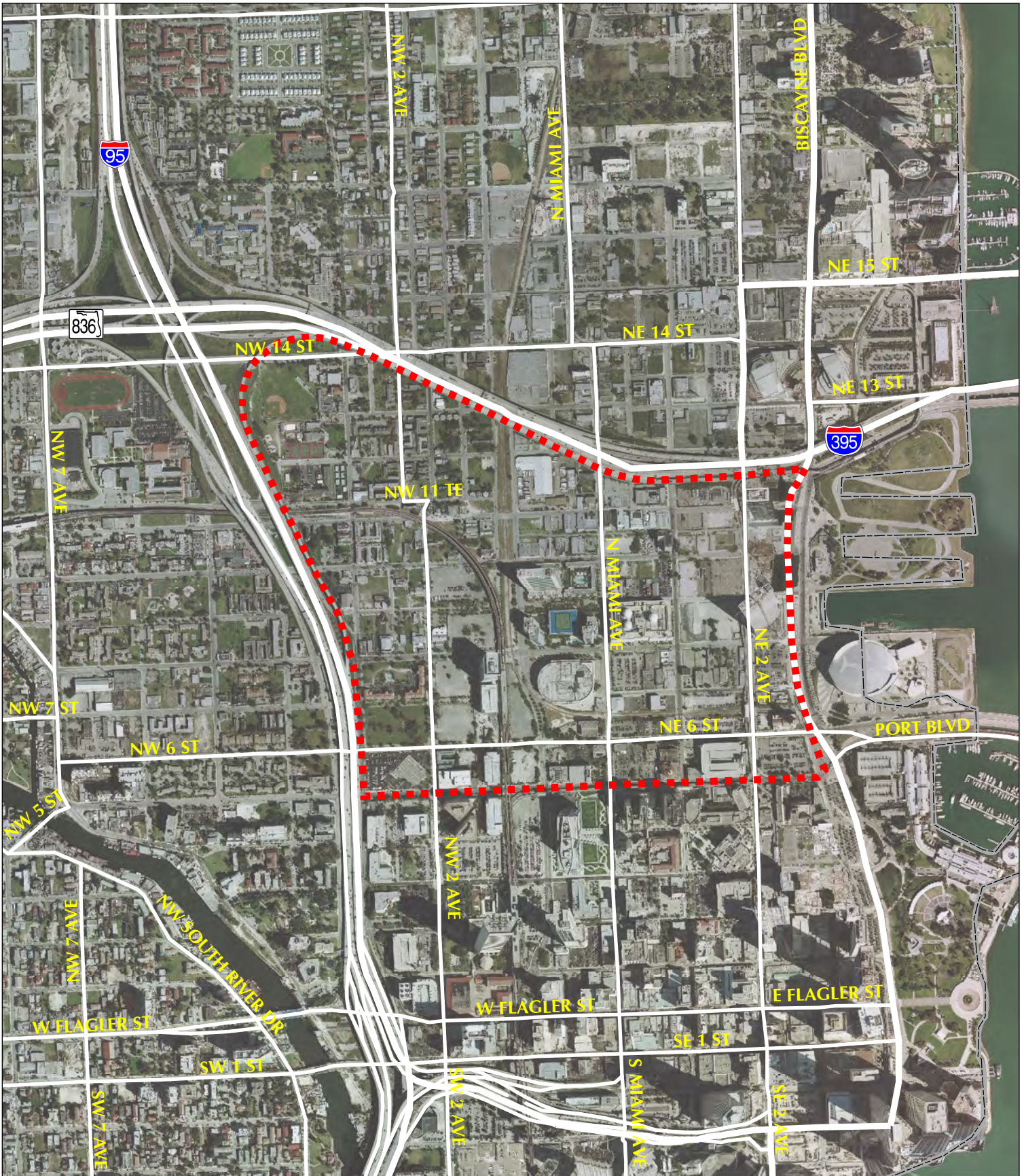
Thank you.

Sincerely,




Neha Shinde

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LEGEND

 Southeast Overtown Park West DRI Boundary



Source: Miami-Dade GIS 2008; Adapted by The Curtis Group, 2009
0 500 1000 2000 Feet

AERIAL MAP

SEOPW DRI - INCREMENT III

Table 1
SEOPW DRI – Proposed Development Program for Increment III

Use	Units	Increment III Proposed Development Program
Office	SF	2,300,000
Retail	SF	1,250,000
Residential	DU	4,000
Hotel	Rooms	2,100
Recreation	Seats	8,000
Convention	SF	200,000