

# Conceptual Drainage Design Report

FEBRUARY 2024

FM No. 449007-1-22-01

Bridge No. 870083;-549;-084;-550

*The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022, and executed by the Federal Highway Administration and FDOT.*

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# 1 Project Description

The Florida Department of Transportation (FDOT) District Six is preparing a Project Development and Environment (PD&E) Study to evaluate the replacement of four bridges (two bridge pairs) located along NE 79th Street between Pelican Harbor Drive and Adventure Avenue in the incorporated municipalities of the City of Miami and North Bay Village within Miami-Dade County. The specific limits of the project extend from milepost (MP) 1.077 (west of Pelican Harbor Drive) to MP 1.947 (east of Adventure Avenue). The NE 79th Street corridor is also designated as State Road (SR) 934, NE 79th Street Causeway, and John F. Kennedy Causeway.



Figure 1.1 | Study Limits

## 2 Existing Drainage Conditions

Based on survey information, as-builts, aerial photos and a site visit completed on August 29th, 2023, the existing stormwater system is divided into six sub basins. All six systems currently directly discharge without water quality treatment to Biscayne Bay, which is considered an Outstanding Florida Water (OFW) system. Please refer to **Appendix A** for the existing drainage maps.

The electronic survey file received depicts the location of the existing inlets and manholes within the project limits. Invert information is available only at the intersection of NE 79th Street and Adventure Avenue. The as-builts detail the invert elevations, drainage structure type, and size of pipes within the project limits.

## 3 Proposed Drainage Improvements

In addition to the bridge replacements and reconstruction of the roadway, the improvements also include the addition of curb inlets, manholes, pipes, exfiltration trenches, and control structures prior to discharging to Biscayne Bay.

Based on the proposed roadway and bridge profile for Alternative 2B (recommended alternative), the drainage system will be divided into four systems that will comply with all water quality and quantity criteria required by the permitting agencies having jurisdiction along the corridor. Please refer to **Appendix B** for the proposed drainage maps.

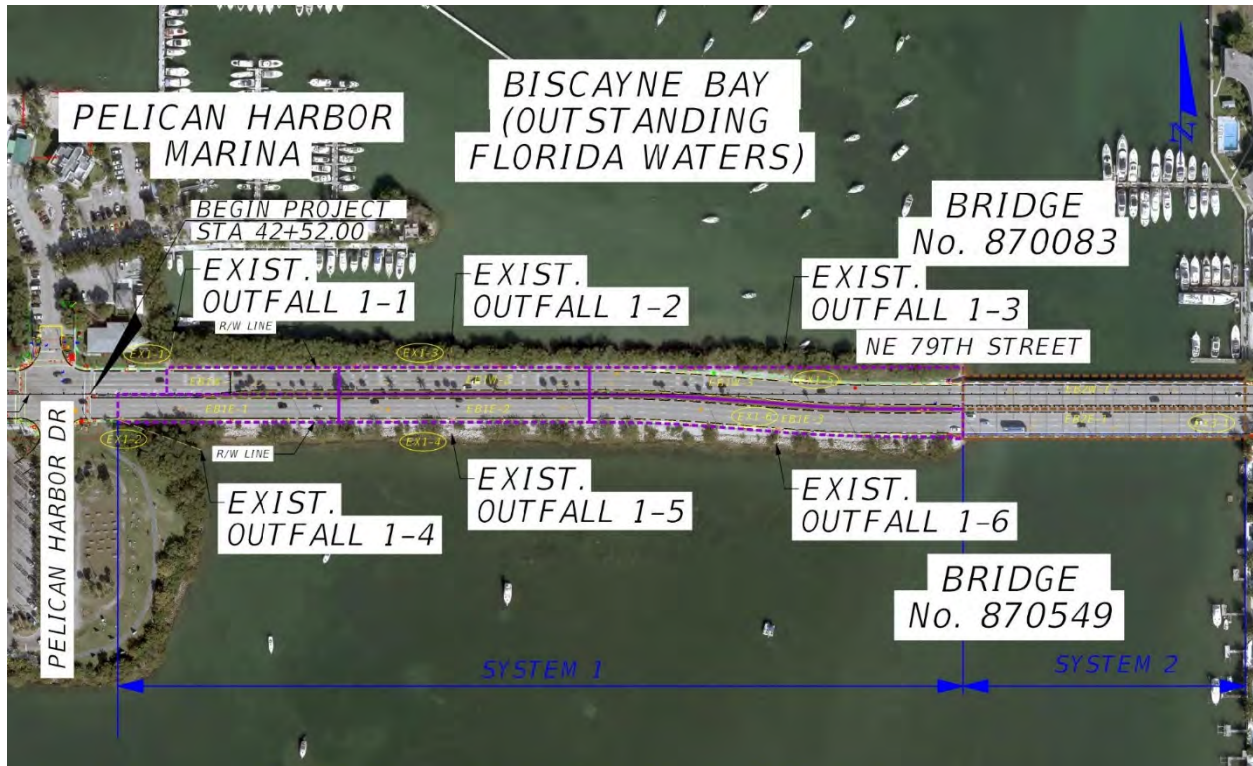
## 4 Existing Drainage Basins and Systems

### 4.1 Existing System 1 and 2

As shown in **Figure 4.1**, System 1 is located on the west side of the project between Pelican Harbor Drive and the beginning of Bridge No. 870083 (westbound) and Bridge No. 870549 (eastbound). The stormwater runoff is collected via curb inlets along both sides of the roadway. Each curb inlet currently has a direct discharge to Biscayne Bay without previous water quality treatment. Per the as-builts and existing permits, the diameter of each discharge pipe is 15”.

As shown in **Figure 4.1**, System 2 corresponds to the existing limits of Bridge No. 870083 (westbound)/Bridge No. 870549 (eastbound). Along this system, the stormwater is collected via scuppers which have a direct discharge into Biscayne Bay.

For more detail, please refer to **Appendices A** and **C** for the existing drainage maps and as-builts respectively.



**Figure 4.1 | Existing System 1 and 2**

## **4.2 Existing System 3, 4 and 5**

As shown in **Figure 4.2**, System 3 is located between Bridge No. 870083 (westbound)/Bridge No. 870549 (eastbound) and Larry Paskow Way (Harbor Island Drive). Along this system, the stormwater is collected via curb inlets, type P-6, connected via 15” pipes to one manhole located in the middle of the eastbound lane which directs the flow to the west through a 24” diameter pipe and directly discharges to Biscayne Bay. Per as-builts, the outfall is located under the southeast side of Bridge No. 870549. The exact location of the 24” outfall was not depicted on the electronic survey map.

System 4 is located east of Harbor Island between Larry Paskow Way (Harbor Island Drive) and Bridge No. 870084 (westbound)/Bridge No. 870550 (eastbound). Along this system, the stormwater is collected via curb inlets type P-6 and P-9/P-10, connected via 15” diameter pipes to one manhole located in the middle of the eastbound lane and directs the flow to the east through a 24” diameter pipe and directly discharges to Biscayne Bay. Per as-builts, the outfall is located on the southwest side of Bridge No. 870550. The exact location of the 24” outfall was not depicted on the survey map.

System 5 corresponds to the existing limits of Bridge No. 870084 (westbound)/Bridge No. 870550 (eastbound). Along this system the stormwater is collected via scuppers which have a direct discharge into the bay.

For more detail, please refer to **Appendices A** and **C** for the existing drainage maps and as-builts respectively.



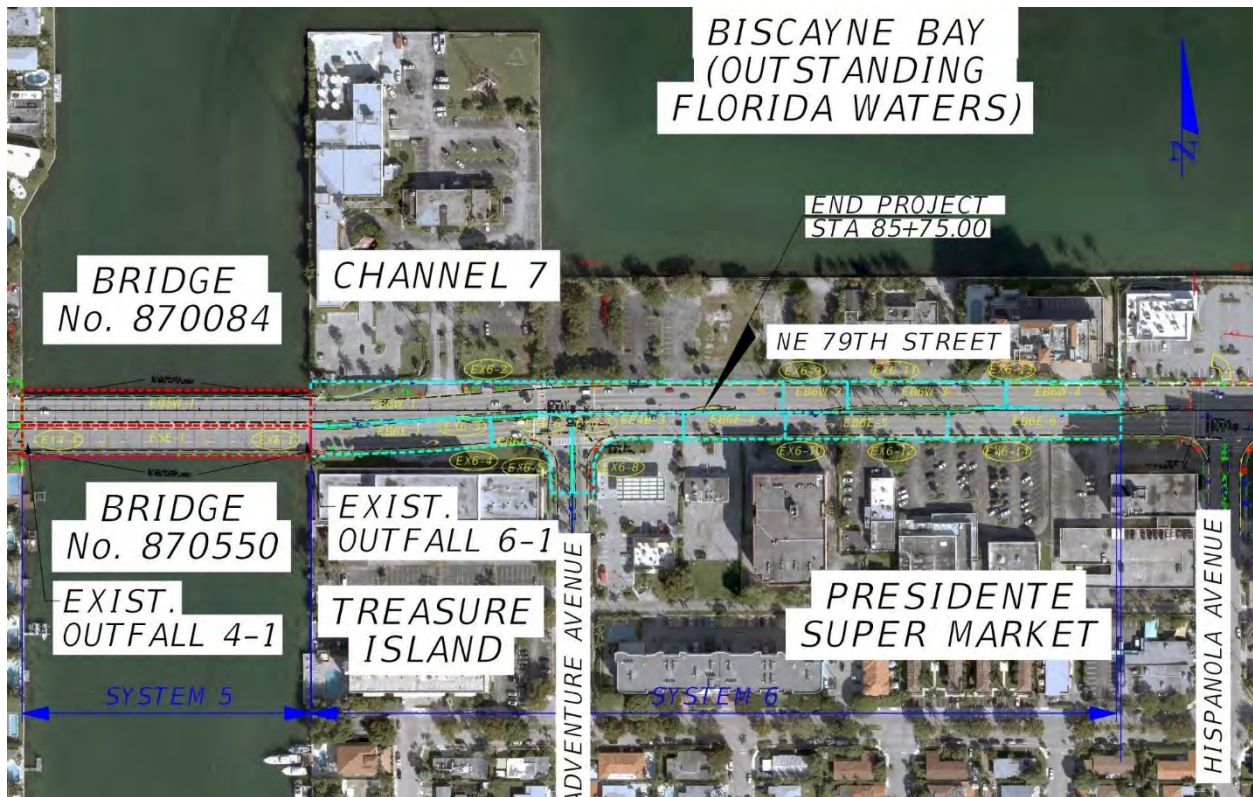


Figure 4.2 | Existing System 3, 4 and 5

### 4.3 Existing System 6

As shown in **Figure 4.3**, System 6 is located at the east limit of the project between the end of Bridge No. 870084 (westbound)/Bridge No. 870550 (eastbound) and east of Adventure Avenue. Along this system the stormwater is collected via curb inlets type P-6 and P-9/P-10, connected via 15" diameter pipes to one manhole located on the middle of the eastbound lane and directs the flow to the west through a 30" diameter pipe and discharges to Biscayne Bay. Per as-builts, the outfall is located on the southeast side of Bridge No. 870550. The exact location of the 30" outfall was not depicted on the survey map.

For more detail, please refer to **Appendices A** and **C** for the existing drainage maps and as-builts respectively.



**Figure 4.3 | Existing System 6**

The following table summarizes the available information for the existing outfalls throughout the corridor. The information below has been gathered from as-builts and aerial photos. It will need to be field verified during the design phase.

**Table 4.3 | Outfall Summary Table**

Drainage System	Outfall ID	Station	Offset	Side	Pipe Diameter
					Inches (in)
1	Ext. Outfall 1-1	43+88.37	N/A	LT	15
	Ext. Outfall 1-2	49+00.00	N/A	LT	15
	Ext. Outfall 1-3	55+02.16	N/A	LT	15
	Ext. Outfall 1-4	43+00.00	N/A	RT	15
	Ext. Outfall 1-5	49+00.00	N/A	RT	15
	Ext. Outfall 1-6	54+93.19	N/A	RT	15
2	Ext. Scuppers	N/A	N/A	RT/LT	N/A
3	Ext. Outfall 3-1	N/A	N/A	RT	24
4	Ext. Outfall 4-1	N/A	N/A	RT	24
5	Ext. Scuppers	N/A	N/A	RT/LT	N/A
6	Ext. Outfall 6-1	N/A	N/A	RT	30

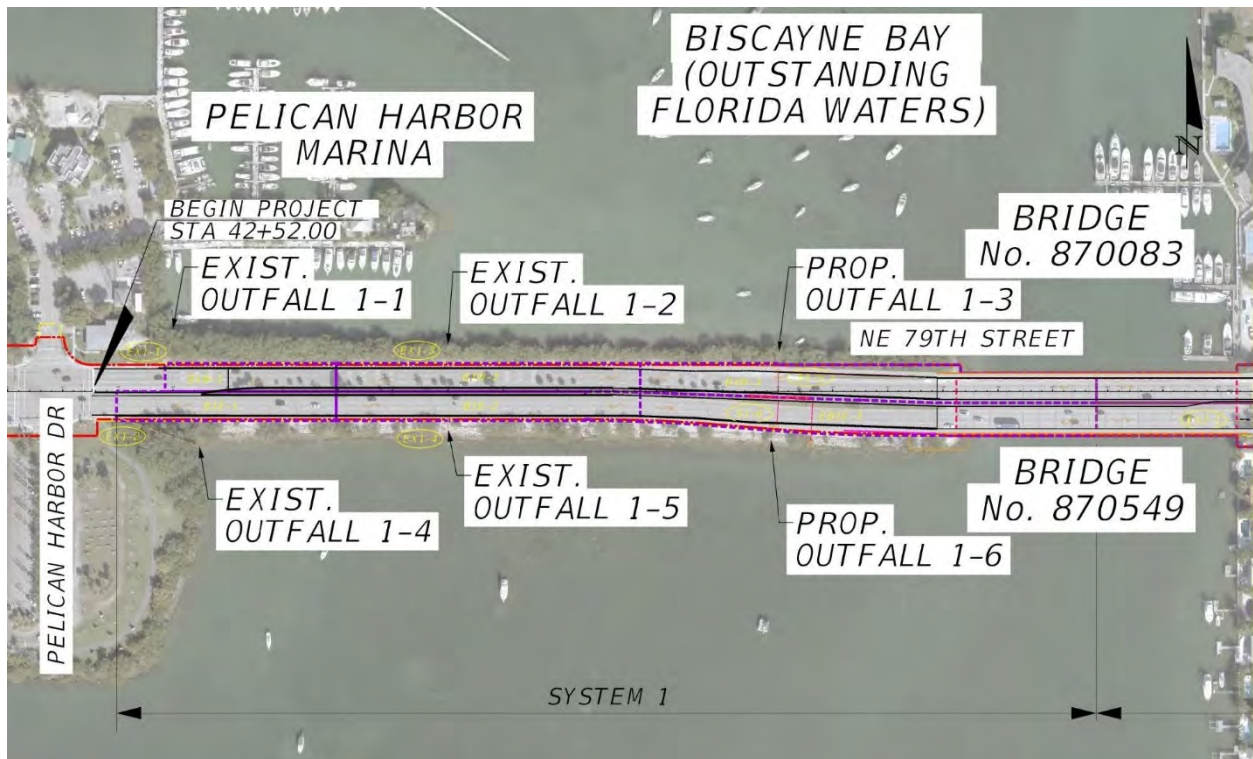
For more detail, refer to **Appendix C** for as-builts.



# 5 Proposed Drainage Basins and Systems

## 5.1 Proposed System 1

As shown in **Figure 5.1**, the limits for proposed System 1 are located from the western limit of the project, between Pelican Harbor Drive and the high point at Bridge No. 870083 (westbound) and Bridge No. 870549 (eastbound) at Sta. 60+79.25. The stormwater runoff will be collected via curb inlets along both sides of the road and will be treated before discharging into Biscayne Bay. The treatment approach is discussed in **Section 8**. Proposed drainage maps and spread calculations are presented in this report in **Appendix B** and **Appendix E**, respectively.

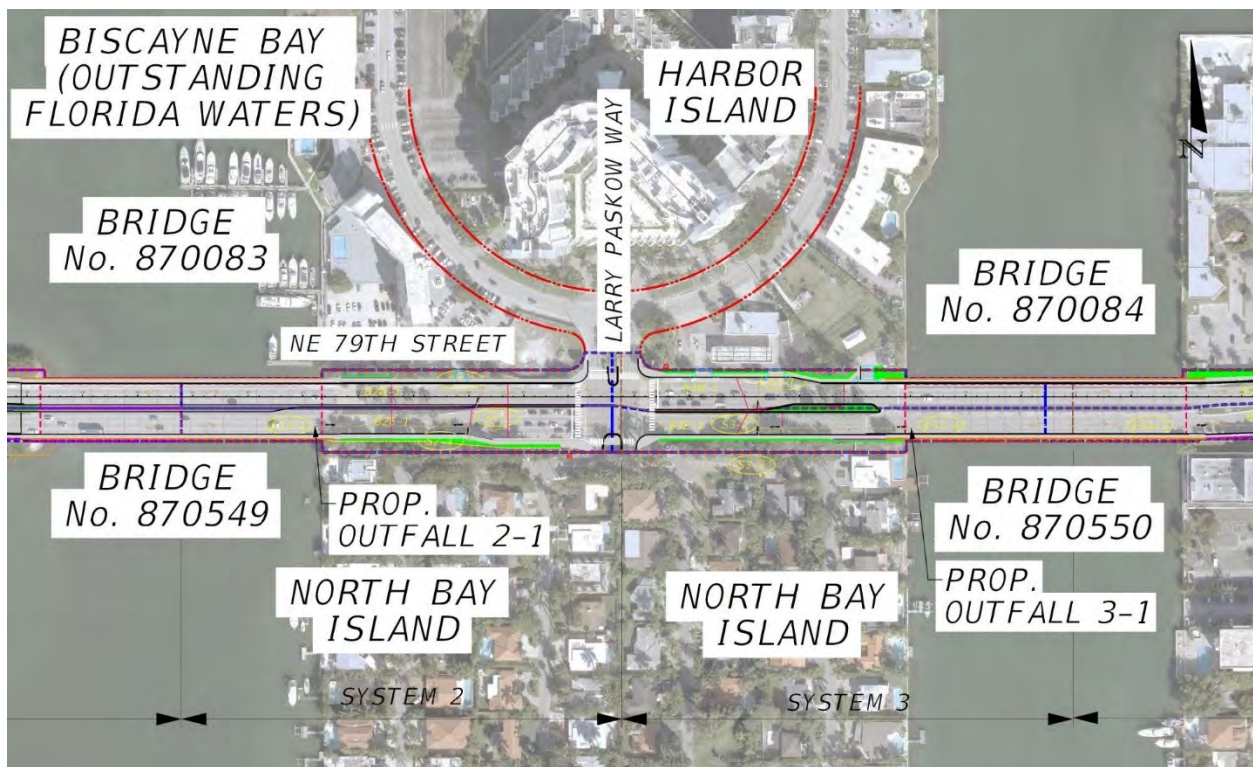


**Figure 5.1 | Proposed System 1**



## 5.2 Proposed System 2 and 3

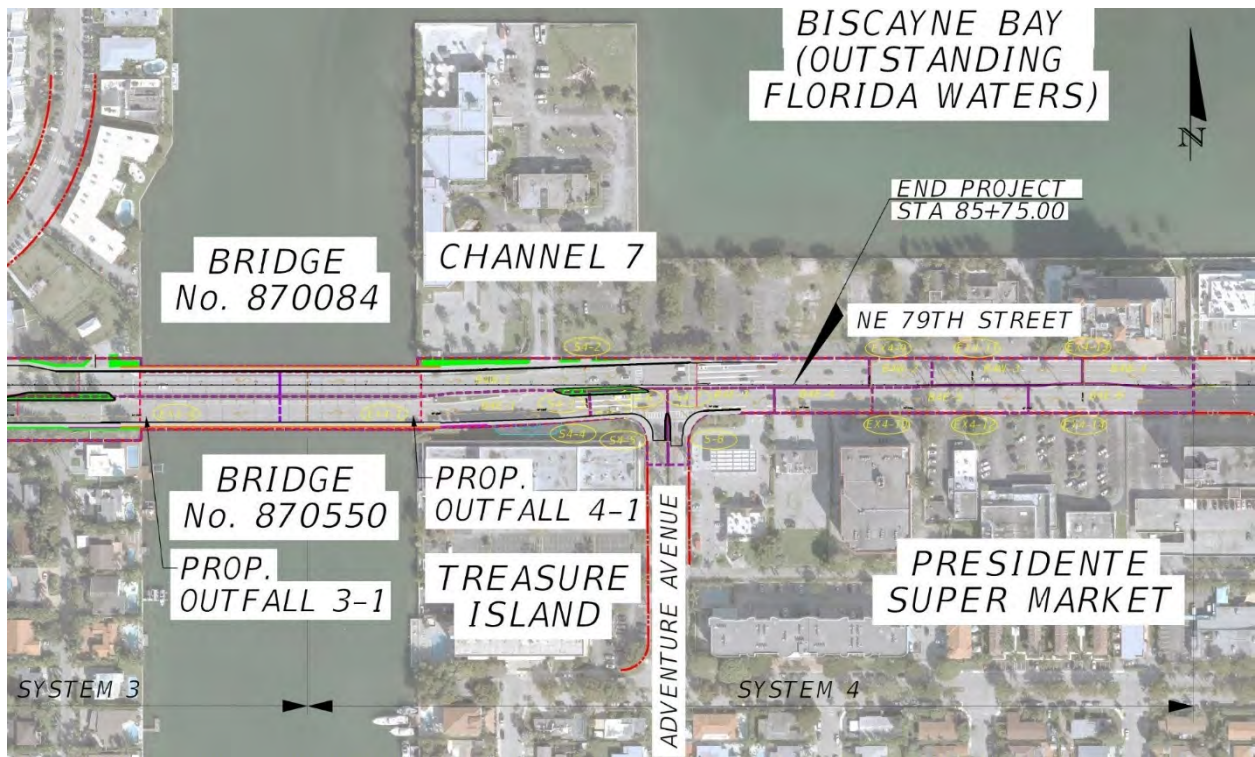
As shown in **Figure 5.2**, the limits for proposed System 2 are located between the high point at Bridge No. 870083 (westbound) and Bridge No. 870549 (eastbound) at Sta. 60+79.25 and Larry Paskow Way. The limits for the proposed System 3 are from Larry Paskow Way and the high point of Bridge No. 870084 (westbound)/Bridge No. 870550 (eastbound) at Sta. 76+45.00. The stormwater runoff will be collected via curb inlets along both sides of the road and will be treated before discharging into Biscayne Bay. The treatment approach is discussed in **Section 8**. Proposed drainage maps and spread calculations are presented in this report in **Appendix B** and **Appendix E**, respectively.



**Figure 5.2 | Proposed System 2 and 3**

### 5.3 Proposed System 4

As shown in **Figure 5.3**, the proposed System 4 limits are located between the high point of Bridge No. 870084 (westbound)/Bridge No. 870550 (eastbound) at Sta. 76+45.00 and east of Adventure Avenue at Sta. 93+00.00. The east limits of this system extend beyond the area of study due to the existing drainage system in place. The stormwater runoff will be collected via curb inlets along both sides of the road, and prior to discharging into Biscayne Bay will be treated. The treatment approach is discussed in **Section 8**. Proposed drainage maps and spread calculations are presented in this report in **Appendix B** and **Appendix E**, respectively.



**Figure 5.3 | Proposed System 4**

## 6 Design Criteria

The project drainage design criteria were established based on the following FDOT drainage design publications:

- FDOT Drainage Manual
- FDOT Drainage Design Guide
- FDOT Design Standards
- FDOT District VI Drainage Guidelines
- FDOT District VI ICPR Application Manual
- FDOT District VI Exfiltration Trench Reference Manual
- FDOT District VI ICPR Technical Design Guide
- South Florida Water Management District (SFWMD) Permit Information Manual
- Drainage of Highway Pavements, HEC-12, March 1984
- Federal Highway Administration, HEC 22, September 2009.

Please refer to **Appendix F** for a listing of all design aids used for this project.

## 7 Spread Analysis

Based on FDOT spread criteria and the proposed bridge and roadway typical section configurations, the allowable spread is 14-foot width. The Department uses the criteria of 4 inches per hour as the intensity to calculate the spread. For meeting the current spread criteria, inlets were located where the allowable spread was met. The spread analysis followed the procedure outlined in HEC-12 and the FDOT Drainage Design Guide. Only the areas that contribute directly to the inlet were considered for spread calculation purposes. A tabulation of the spread analysis can be found in **Appendix E** of this report.

## 8 Drainage System Design Requirements

The storm water quality and quantity requirements for the NE 79th Street project are governed by federal, state, and local agencies having jurisdiction and derived from their applicable regulations, permit manuals and design standards. SFWMD has authority over the stormwater quality and quantity criteria for the project improvements. Please refer to **Appendix F**, which lists all the design aids used for this project.

Due to right of way limitations, the use of dry retention swales, drainage wells, and pump stations is limited. With these considerations and based on the existing permits available adjacent to the study area, the use of exfiltration trenches along the median of the project is being proposed. This method is the most widely used stormwater management system in South Florida that meets the stormwater quality and quantity criteria applicable to roadway projects and is preferred due to less costs and maintenance. The exfiltration trenches are proposed at



locations avoiding as much as possible conflicts with the existing underground utilities along the corridor.

Exfiltration trenches are viable when the soil hydraulic conductivity or k-value is greater than  $1 \times 10^{-5}$  cfs/sqft<sup>2</sup>/ft of head. The parameters used to evaluate the use of exfiltration trenches were obtained from the SFWMD Existing Permit 13-02135-P, which is adjacent to the corridor as shown in **Figure 8.1**. The hydraulic conductivity found is 0.00113 cfs/ft<sup>2</sup>-ft of head. For more detail, refer to **Appendix D** for the existing permit information.



**Figure 8.1 | Location of Existing Permit**

Due to underground utility constraints, the exfiltration trenches are proposed within the median of the project. The existing drainage system will be re-routed with manholes and connected to the proposed structures. Control structures will be placed prior to discharge. Efforts will be made to maintain the same location of the existing outfalls discharging to Biscayne Bay. As previously described, the existing outfalls are located under the existing bridges and the exact locations were not depicted in the survey.

The locations of the existing inlets were evaluated for spread, attempting to maintain the current inlet locations throughout the corridor for retaining drainage connectivity with the existing system. The addition of new inlets depended on spread results to meet current requirements and the proposed roadway profile and widening. For spread calculations, refer to **Appendix E**.

The exfiltration trenches systems will be used to meet stormwater quantity and quality retention requirements by attenuating the stages and reducing the current discharge, as well as providing treatment before discharging to Biscayne Bay. Prior the discharge to Biscayne Bay, a control structure will be constructed providing the required water quality treatment. For more detail, please refer to **Appendix K** for water quality and exfiltration trenches calculations.

## 9 Stormwater Management Permitting

The agencies having stormwater permitting jurisdiction over the proposed improvements include:

- South Florida Water Management District
- Miami Dade County
- U.S. Army Corps of Engineers

By Florida statute, the Department is exempt from local permitting for projects located along the State Highway System. However, the Department is not exempt for projects which require improvements within a local canal right of way, or which result in increased discharges to local receiving waters. The most recent SFWMD permit criteria are established in the SFWMD Environmental Resource Permit Information Manual 2020, with Applicant's Handbook Volume I dated 2020 and Applicant's Handbook Volume II dated 2016.

### 9.1 Water Quantity Criteria

#### 9.1.1 SFWMD Criteria

South Florida Water Management District (SFWMD) criteria governs peak discharge rate and volume attenuation by limiting the post-development peak discharge rate to the pre-development peak discharge rate for the 25yr-72hr design rainfall event using SFWMD 72-hour rainfall distribution. SFWMD requires that off-site discharge rates be limited to rates not causing adverse impacts to existing off-site properties and:

- Historic discharge rates,
- Rates determined in previous SFWMD permit actions, or
- Basin allowable discharge rates.

SFWMD also requires that provisions be made to replace or otherwise mitigate the loss of historical basin storage provided by the project.

For this project, the pre vs post discharge to Biscayne Bay was evaluated. Even though the existing drainage system is directly discharging to the bay and the proposed drainage design will attenuate the stages and reduce the current discharge, we provided pre vs post results per SFWMD requirements.

#### 9.1.2 Florida Department of Transportation (FDOT) Criteria

The design of the storm water management systems for Department projects shall comply with the water quality, rate, and quantity requirements of Section 334.044(15), F.S., Chapter 14-86, F.A.C., Rules of the Department of Transportation only in closed basins or areas subject to historical flooding. Department projects shall fully comply with state, water management district and, when delegated by the State, local government stormwater management programs.

FDOT District Six requires a minimum drainage system design for a 10-year design storm of critical duration. FDOT also requires the proposed drainage system meet the offsite discharge requirements outlined in Chapter 14-86 FAC. To streamline this analysis, FDOT District Six has limited the analysis to a total of six design storm events, which have been proven to be critical storms in designing drainage systems in South Florida. 10Year-1Hour/8Hour/24Hour, 100Year-1Hour/8Hour/24Hour storms will be used in the proposed drainage system analysis and design for the project.

## **9.2 Water Quality Criteria**

### **9.2.1 SFWMD Criteria**

The SFWMD requires that all projects meet state water quality standards, as set forth in Chapter 17-302, Florida Administrative Code (FAC). According to the SFWMD Applicant's Handbook, Volume II, all projects must meet the following volumetric retention/detention requirements:

1. For wet detention systems, the first inch of runoff from the project or the total runoff from 2.5 inches times the percent of imperviousness, whichever is greater, must be detained on site. A wet detention system is a system that maintains the control elevation at the seasonal high groundwater elevation and does not bleed down more than one-half inch of detention volume in 24 hours.
2. Dry detention systems must provide 75 percent (75%) of the required wet detention volume.
3. Retention volume shall be provided equal to 50 percent of the above amounts computed for wet detention. Retention volume included in flood protection calculations requires a guarantee of long-term operation and maintenance of a system's bleed-down ability.
4. For projects with impervious areas accounting for more than 50 percent of the total project area, discharge to receiving water bodies must be made through baffles, skimmers, or other mechanisms suitable of preventing oil and grease from discharging to or from the retention/detention areas.
5. For projects discharging to impaired water bodies, that do not meet state water quality standards, the applicant must demonstrate compliance with water quality standards, as applicable, and for the parameters which do not meet water quality standards, the applicant must demonstrate that the proposed activity will not contribute to the existing violation.
6. Projects discharging directly to Outstanding Florida Waters (OFW) shall provide an additional 50% water quality pre-treatment as part of the required retention/detention (SFWMD Criteria).

### **9.2.2 FDEP Criteria**

The Florida Department of Environmental Protection (FDEP) requires that all projects discharging into Outstanding Florida Waters (OFWs) must include additional source of controls, Best Management Practices, and other protective measures such as providing additional 50% water quality pre-treatment as part of the required retention/detention SFWMD Criteria. A Storm

Water Pollution Prevention Plan (SWPPP) must be included for any activity resulting in more than 1 acre of disturbance.

The FDEP requires that all projects discharging to impaired water bodies meet state water quality standards as set forth in 62-303, Florida Administrative Code (FAC) pursuant to subsections 403.067(2) and (3), Florida Statutes (FS). In addition to the greater of the water quality detention/retention volumes computed as per SFWMD requirements. FDEP has established water quality pre-treatment requirements for permitting of discharges to impaired water bodies requiring additional protective measures.

A storm water treatment system shall be evaluated for the following considerations:

1. An applicant must provide reasonable assurance that the proposed activities, both for short term (during construction) and long term (during operation) will not violate water quality standards. These requirements are in addition to the water quality requirements found in section five of the SFWMD Basis of Review.
2. In cases where a project is discharging to a water body that does not meet standards, as an impaired water body, the applicant must demonstrate that the proposed activity will not contribute to the existing violation.
3. Where the applicant is unable to meet water quality standards because existing ambient water quality does not meet standards, the applicant must consider mitigation measures that cause net improvement of the water quality in the receiving body of water for those parameters which do not meet standards.

Additional source controls, Best Management Practices (BMPs), and other protective measures: To ensure non-degradation of the Outstanding Florida Waters (OFWs) and prevent further degradation of impaired waters, applicants are encouraged to incorporate additional source controls, BMPs and other protective measures in order to assist in providing assurance that the proposed activities will not contribute to an existing violation of the water quality standards.

1. Projects discharging directly to Outstanding Florida Waters (OFW) shall provide an additional 50% water quality pre-treatment as part of the required retention/detention (SFWMD Criteria).
2. Stormwater Pollution Prevention Plan (SWPPP) for construction activities resulting in greater than 1 acre of land clearing, soil disturbance, excavation, or deposition of dredge material. The plan should be prepared in accordance with good engineering practices and should identify the potential sources of pollution that may reasonably be expected to affect the quality of stormwater discharge associated with the construction activity.

### **9.3 Design High Water Elevation (DHW)**

The design high water elevation for coastal areas is established as per latest guideline released by FDOT District Six, in ICPR Application Manual (ICPR-AM) 2020 as shown in **Appendix G** describing the DHW determination and sea level rise memorandum.

Based on the sea level rise memorandum submitted to FDOT 6 the elevation to be used is 0.82 ft NAVD. This is the value used for the 20-year design life (design year 2050) for the roadway pavement design with extrapolation starting at 1992. The tidal tailwater used is 2 ft NAVD as directed by FDOT 6 adopted and extensively used since 2015 for drainage systems in coastal projects in Miami Dade.

## **9.4 Floodplain Criteria**

The project is located within the FEMA flood zone AE where the Base Flood elevation is determined as EL 9.0' NGVD (9.0' -1.54' = 7.46' NAVD) per the latest FEMA Flood Insurance Rate Map (12086C0306L & 307L) which is shown in **Appendix H**.

The proposed drainage structures will perform hydraulically in a manner equal to or greater than the existing structures, and backwater surface elevations are not expected to increase. As a result, there will be no significant adverse impacts on natural and beneficial floodplain values. There will be no significant change in flood risk, and there will not be a significant change in the potential for interruption or termination of emergency service or emergency evacuation routes. Therefore, it has been determined that the floodplain encroachment for this project is not significant and mitigation for the floodplain encroachment is not required.

## **9.5 Wellfield Protection**

The project is not located within the limits of the wellfield protection zones per the Miami Dade County Wellfield Protection Areas Map. Please refer to **Appendix I** in this report for this map.

# **10 Summary of Results**

## **10.1 Summary of Drainage Areas**

The drainage basin areas were estimated using Microstation® computer aided design and drafting (CADD) package. These areas were subdivided into impervious and pervious. For the pre-development condition, the drainage patterns were evaluated, and basins were delineated on natural and man-made hydraulic elevations identified by the topographical survey in conjunction with the as-builts/permitted plans.

The post development areas were divided using the profile and typical section for Alternative 2B. The impervious and pervious areas were subdivided using the proposed roadway / bridge design for Alternative 2B as well.

The Advanced Interconnected Pond Routing (Ad-ICPR) computer model was used to evaluate the drainage system along the corridor. The stormwater management systems are built as a network of nodes and links. The basin areas are associated to a node in the model network where the runoff enters the system and conservation of mass is maintained. See below **Table 10.1** and **Table 10.2** summarizing the pre and post development areas. Refer to **Appendix J** for more detail.



**Table 10.1 | Pre Development Areas, CN and Land use**

Drainage Basin/Node	Land Use	Total Area (Ac.)	Impervious Areas (Ac.)	Pervious Areas (Ac.)	CN
EXIST. SYSTEM 1	Roadway	3.63	3.04	0.59	88.30
EXIST. SYSTEM 2		1.37	1.37	0.00	100.00
EXIST. SYSTEM 3		1.85	1.34	0.51	81.50
EXIST. SYSTEM 4		1.87	1.40	0.47	82.80
EXIST. SYSTEM 5		1.32	1.32	0.00	100.00
EXIST. SYSTEM 6		3.60	3.33	0.27	96.40
<b>GRAND TOTAL</b>		<b>13.63</b>	<b>11.79</b>	<b>1.84</b>	

**Table 10.1 | Post Development Areas, CN and Land use**

Drainage Basin/Node	Land Use	Total Area (Ac.)	Impervious Areas (Ac.)	Pervious Areas (Ac.)	CN
PROP. SYSTEM 1	Roadway	4.50	3.96	0.54	91.10
PROP. SYSTEM 2		2.59	2.17	0.42	88.20
PROP. SYSTEM 3		2.60	2.20	0.41	88.70
PROP. SYSTEM 4		4.12	3.89	0.22	95.70
<b>GRAND TOTAL</b>		<b>13.81</b>	<b>12.22</b>	<b>1.60</b>	

## 10.2 Summary of Water Quality Calculations

For existing conditions, there is no treatment provided. However, in the proposed condition exfiltration trenches are proposed along the median of the roadway for treatment prior to discharge into Biscayne Bay. Water quality treatment is being proposed for the additional impervious area. An additional 50% volume treatment is provided due to discharging into an Outstanding Florida Water system. Refer to **Appendix K** for water quality and exfiltration trenches calculations.

**Table 10.2 | Water Quality Calculations**

Drainage Basin	Total Area (Ac)	Additional Impervious (Ac)	Total WQ Treatment Required (Ac-ft)	Total Treatment Provided (Ac-ft)	Length of FD (Ft)	Surplus Treatment Volume (Ac-ft)
PROP. SYSTEM 1	4.50	0.08	0.026	0.05	100.00	0.021
PROP. SYSTEM 2	2.59	0.08	0.025	0.05	50.00	0.02
PROP. SYSTEM 3	2.60	0.003	0.001	0.05	50.00	0.05
PROP. SYSTEM 4	4.12	0.03	0.009	0.00	0.00	-0.01
<b>GRAND TOTAL</b>	<b>13.81</b>	<b>0.19</b>	<b>0.060</b>	<b>0.15</b>	<b>200.00</b>	<b>0.09</b>

### 10.3 Summary of Water Quantity Calculations

The hydrologic/hydraulic flood routing program Ad-ICPR was used to analyze the existing and proposed NE 79th Street project stormwater management system verifying that the stormwater quantity criteria are met. Back up calculations and flood routing input and output results are included in **Appendices L** and **M** for the pre-development and post-development conditions, respectively.

FDOT District Six requires the evaluation of the following design storm events which have proven to be critical storms in designing drainage systems in South Florida:

- 10-year, 1-hour
- 10-year, 8-hour
- 10-year, 24-hour
- 100-year, 1-hour
- 100-year, 8-hour
- 100-year, 24-hour
- 25-year, 72-hour

Refer to **Table 10.4** for the rainfall depths and distribution type used for modeling ICPR.

**Table 10.3 | Rainfall Depth Summary**

Design Storm Event	Rainfall Depth (inches)	Distribution Type
10-year, 1-hour	3.55	FDOT 1-hour
10-year, 8-hour	6.80	FDOT 8-hour
10-year, 24-hour	8.88	FDOT 24-hour
25-year, 72-hour	12.50	SFWMD 72-hour
10-year, 1-hour	5.10	FDOT 1-hour
10-year, 1-hour	9.60	FDOT 8-hour
10-year, 1-hour	13.44	FDOT 24-hour

FDOT District Six has implemented a local policy for designing all non-interstate facilities for a 10-year critical design storm. See **Table 10.5** for the post development peak stages.

**Table 10.3 | Post Development Peak Stages**

Drainage Basin	Warning Stage (ft)	Peak Stages (ft)							HGL Compare to 10YR-1HR Storm
		100YR-1HR	100YR-8HR	100YR-24HR	25YR-72HR	10YR-1HR	10YR-8HR	10YR-24HR	
PROP. SYSTEM 1	<b>4.50</b>	4.29	4.09	2.30	4.20	4.11	3.17	2.15	0.39
PROP. SYSTEM 2	<b>5.10</b>	4.11	2.93	2.32	3.71	3.01	2.63	2.21	2.09
PROP. SYSTEM 3	<b>5.20</b>	4.13	2.99	2.39	3.73	3.07	2.70	2.28	2.13
PROP. SYSTEM 4	<b>4.50</b>	4.06	2.64	2.07	3.19	3.04	2.32	2.03	1.46

SFWMD requires that the post development peak discharge flows during the 25-year, 72-hour rainfall event do not exceed the pre-development peak discharge rates as described in the SFWMD Permit Manual, Volume IV. See **Table 10.6** for the pre vs post development peak discharges.

**Table 10.36 | Post Development Peak Discharges**

PRE VS POST PEAK DISCHARGE TO THE BISCAYNE BAY (cfs)			
LINK NAME	PRE DEVELOPMENT	LINK NAME	POST DEVELOPMENT
	25YR-72HR		25YR-72HR
P: EXIST. SYTEM 1	19.71	D: PROP. SYSTEM 1	16.99
P: EXIST. SYTEM 2	7.60	D: PROP. SYSTEM 2	14.05
P: EXIST. SYTEM 3	9.71	D: PROP. SYSTEM 3	14.13
P: EXIST. SYTEM 4	9.89	D: PROP. SYSTEM 4	22.79
P: EXIST. SYTEM 5	7.32		
P: EXIST. SYTEM 6	19.93		
<b>GRAND TOTAL</b>	<b>74.16</b>	<b>GRAND TOTAL</b>	<b>67.96</b>

# 11 Conclusions and Recommendations

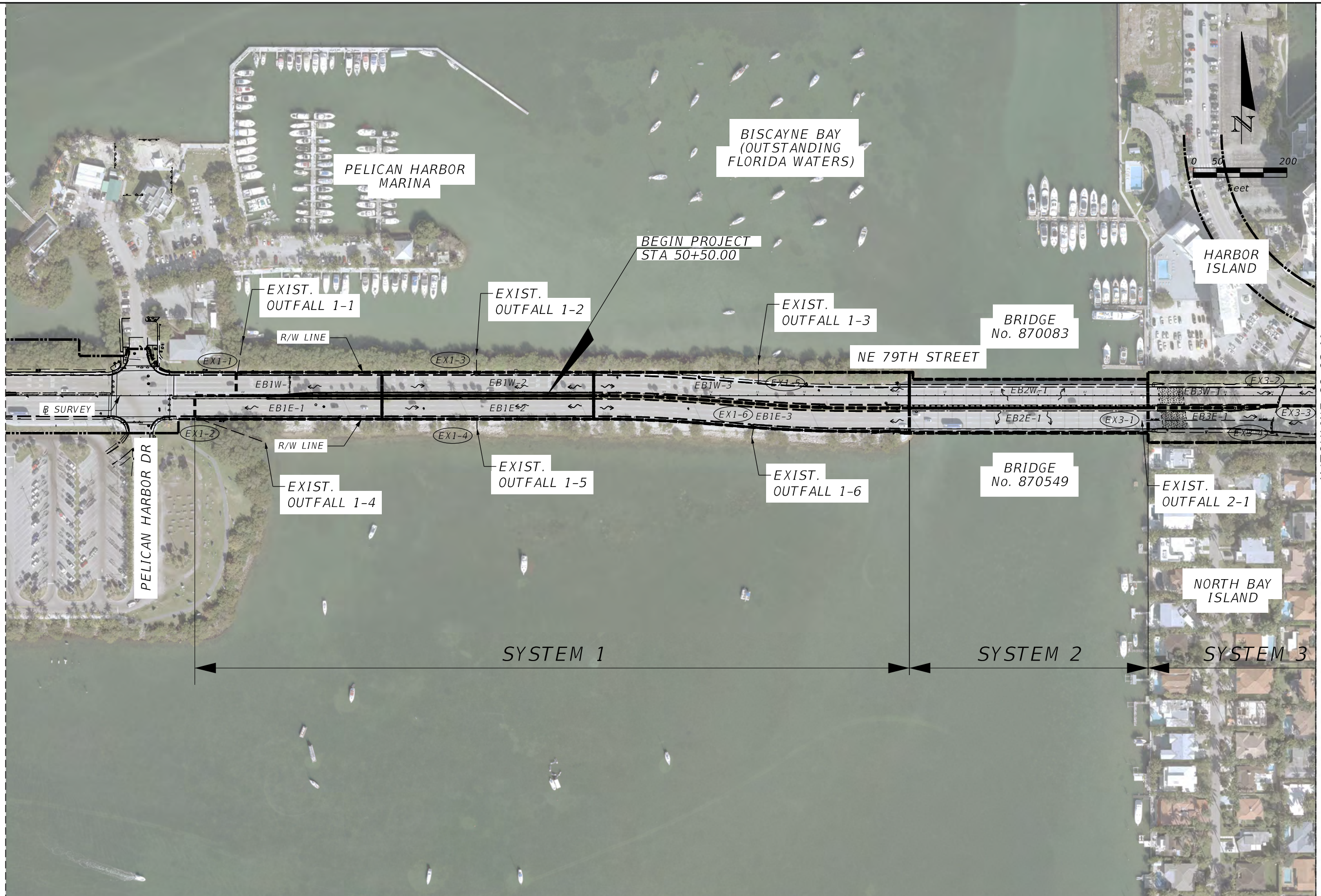
The proposed stormwater management system is designed for meeting the applicable criteria and standards. It will attenuate the post development maximum stages and decrease the post development discharge to Biscayne Bay.

The water quality calculations provided demonstrate that the selected approach satisfies the permitting requirements and compensates for the additional impervious area generated by the proposed roadway and bridge improvements.

# **APPENDIX A**

## **Existing Drainage Maps**





MATCHLINE 66+93.41

REVISIONS				ROHAN A HAMEED, P.E. P.E. LICENSE NUMBER 56734 HDR ENGINEERING, INC. 3250 W. COMMERCIAL BLVD., SUITE 100 FORT LAUDERDALE, FL 33309-3451	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			EXISTING DRAINAGE MAP	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 934	MIAMI-DADE	449007-1-22-01		

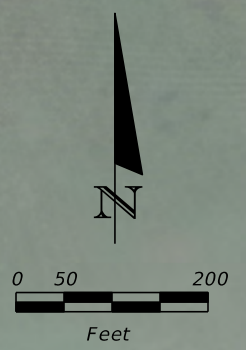




MATCHLINE 66+93.41

BISCAYNE BAY  
(OUTSTANDING  
FLORIDA WATERS)

END PROJECT  
STA 85+40.00



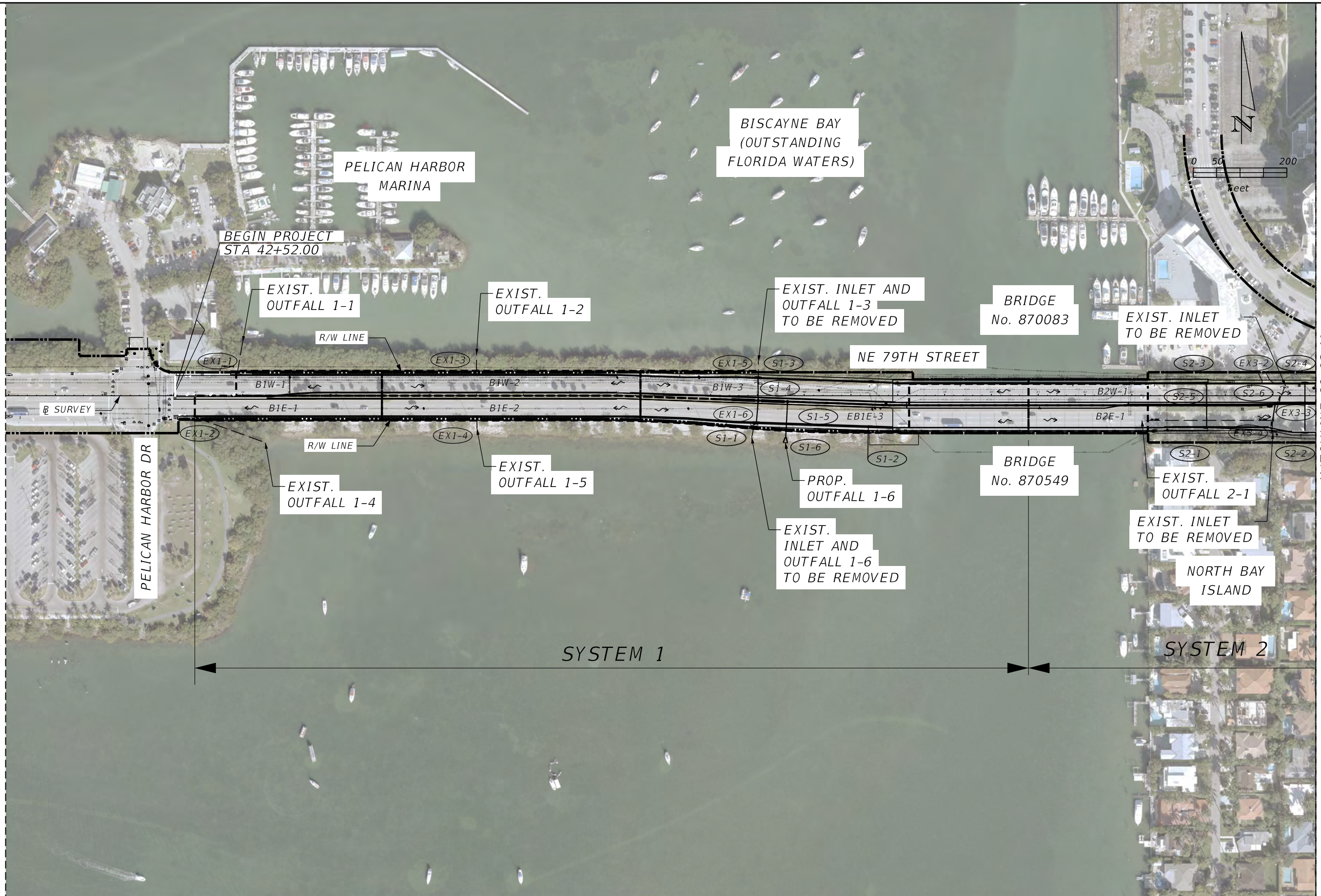
REVISIONS				ROHAN A HAMEED, P.E. P.E. LICENSE NUMBER 56734 HDR ENGINEERING, INC. 3250 W. COMMERCIAL BLVD., SUITE 100 FORT LAUDERDALE, FL 33309-3451	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			EXISTING DRAINAGE MAP	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 934	MIAMI-DADE	449007-1-22-01		



# **APPENDIX B**

## **Proposed Drainage Maps**





REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ROHAN A HAMEED, P.E.  
 P.E. LICENSE NUMBER 56734  
 HDR ENGINEERING, INC.  
 3250 W. COMMERCIAL BLVD., SUITE 100  
 FORT LAUDERDALE, FL 33309-3451

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 934	MIAMI-DADE	449007-1-22-01

DRAINAGE MAP

SHEET NO.





REVISIONS				ROHAN A HAMEED, P.E. P.E. LICENSE NUMBER 56734 HDR ENGINEERING, INC. 3250 W. COMMERCIAL BLVD., SUITE 100 FORT LAUDERDALE, FL 33309-3451	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			<b>DRAINAGE MAP</b>	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 934	MIAMI-DADE	449007-1-22-01		



# **APPENDIX C**

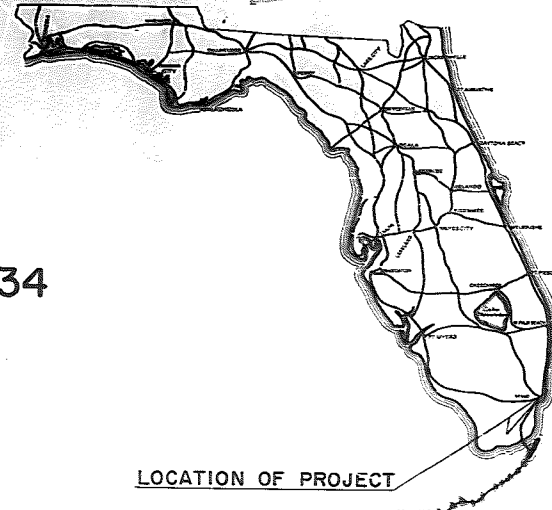
## **As Builts**

REVISED 18 JAN '71

STATE JOB NO. 87080-3506-01-34

STATE	FLA	PROJECT NO.	87080-3506-01-34
SECTION	3	SHEET NO.	1

STATE OF FLORIDA  
STATE ROAD DEPARTMENT  
**PLANS OF PROPOSED  
STATE HIGHWAY**



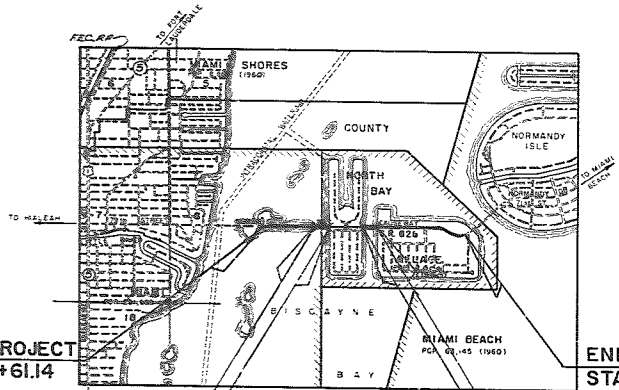
LOCATION OF PROJECT

STATE PROJECT NO. 87080-3506-01-34  
**DADE COUNTY**  
STATE ROAD NO. 828

INDEX OF SHEETS

- SHEET NO. KEY MAP  
2-3 DRAINAGE MAP  
4-5-6 TYPICAL SECTIONS & SUMMARY OF QUANTITIES  
7 MASS DIAGRAM  
8-9 BACK OF SIDEWALK PROFILES  
10-21C21A PLAN & PROFILE  
22-27 DRAINAGE STRUCTURES  
28/28A SPECIAL PROFILES  
29-30 INTERSECTION PROFILES & CURB RETURNS  
31-32 ROAD SOILS SURVEY  
33-43 ROADWAY CROSS SECTIONS  
44-45 MAINTENANCE OF TRAFFIC  
46-49 UTILITY ADJUSTMENTS  
50-52 INDEX No. 1101-U MISC. ROADWAY CONST. DETAILS (2 SHEETS)  
INDEX No. 1125-E U-ENDWALLS FOR PIPE CULVERTS (2 SHEETS)  
INDEX No. 2500-G GUARDRAIL CONST. (4 SHEETS)  
INDEX No. 2613-H STANDARD WARNING SIGN DETAILS (3 SHEETS)  
INDEX No. 2892 INLET TYPE "T-S"  
INDEX No. 5016-B TURNOUT DETAILS  
INDEX No. 5047-F INLET, MANHOLE AND JUNCTION BOX, TYPES "A" AND "B" (2 SHEETS)  
INDEX No. 5061-D MISC. DRAINAGE DETAILS (2 SHEETS)  
INDEX No. 5080-E CURB, CURB & GUTTER, AND TRAFFIC SEPARATOR (2 SHEETS)  
INDEX No. 10275 APPROACH SLABS (3 SHEETS)  
M(1)-M(8) PAVEMENT MARKING SHEETS  
T(1)-T(12) SIGNALIZATION SHEETS  
L(1)-L(5) HIGHWAY LIGHTING SHEETS

FOR INDEL OF BRIDGE SHEETS SEE BRIDGE PLANS



BEGIN PROJECT  
STA. 42+61.14

END PROJECT  
STA. 108+75.00

BEGIN BRIDGE  
STA. 58+24.25

BEGIN BRIDGE  
STA. 73+90.65

END BRIDGE  
STA. 63+34.25

END BRIDGE  
STA. 78+99.65

CONVENTIONAL SIGNS

- COUNTY LINE
- TOWNSHIP LINE
- SECTION LINE
- UNFENCED PROPERTY
- CITY LINE
- FENCE LINE
- RIGHT OF WAY LINE
- BASE OR SURVEY LINE
- RAILROADS
- TRAVELED WAY
- CULVERTS
- BRIDGES OVER 20 FT. SPAN
- POWER POLE
- TELEPHONE POLE
- MARSH
- GROUND ELEV.
- GRADE ELEV.
- R. R. MILE POST

GOVERNING SPECIFICATIONS: STATE OF FLORIDA, STATE ROAD DEPARTMENT.  
STANDARD SPECIFICATIONS, DATED 1966.  
APPROVED BY BUREAU OF PUBLIC ROADS - DATE

LENGTH OF PROJECT		
	LIN. FT.	MILES
ROADWAY	5594.06	1.05
BRIDGES	1,019.00	0.193
NET LENGTH OF PROJECT	6,613.86	1.252
EXCEPTIONS		
GROSS LENGTH OF PROJECT	6,613.86	1.252

PLANS PREPARED BY  
DRIVER & SPOONER  
CONSULTING ENGINEERS  
MIAMI, FLORIDA

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA

SUBMITTED BY

*P. W. Kelly*  
STATE HIGHWAY ENGINEER  
BUREAU OF PUBLIC ROADS

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
DIVISION ENGINEER  
BUREAU OF PUBLIC ROADS

REVISED 18 JAN '71

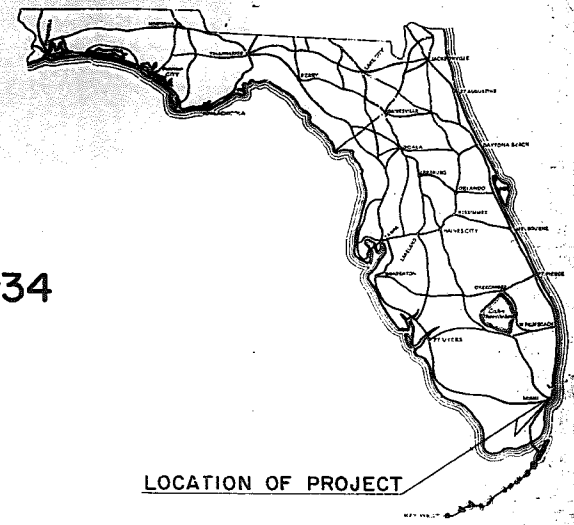
STATE JOB NO. 87080-3506-C1-34

FED. ROAD DIST. NO.	STATE	PROJECT NO.	TOTAL SHEETS
3	FLA		227

STATE OF FLORIDA  
STATE ROAD DEPARTMENT

PLANS OF PROPOSED  
**STATE HIGHWAY**

STATE PROJECT NO. 87080-3506-01-34  
**DADE COUNTY**  
STATE ROAD NO. 828

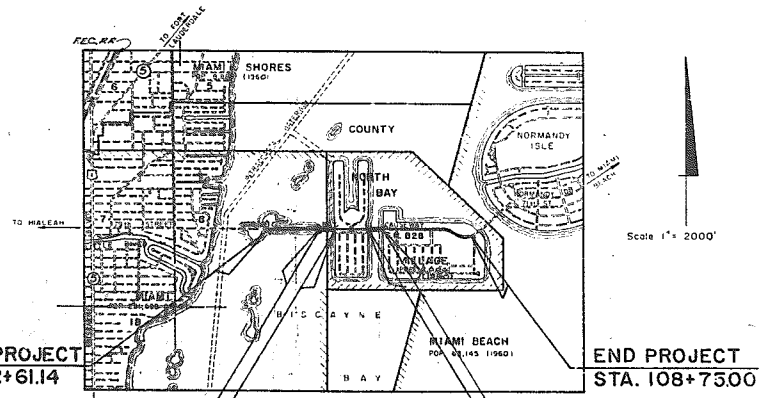


LOCATION OF PROJECT

- INDEX OF SHEETS
- SHEET NO.
- 1. KEY MAP
  - 2-5 DRAINAGE MAP
  - 4-5-6 TYPICAL SECTIONS & SUMMARY OF QUANTITIES
  - 7 MASS DIAGRAM
  - 8-9 BACK OF SIDEWALK PROFILES
  - 10-21&21A PLAN & PROFILE
  - 22-27 DRAINAGE STRUCTURES
  - 28/28A SPECIAL PROFILES
  - 29-30 INTERSECTION PROFILES & CURB RETURNS
  - 31-32 ROAD SOILS SURVEY
  - 33-43 ROADWAY CROSS SECTIONS
  - 44-45 MAINTENANCE OF TRAFFIC
  - 46-48 RIGHT-OF-WAY MAPS
  - 50-52 UTILITY ADJUSTMENTS
  - INDEX No. 1101-U MISC. ROADWAY CONST. DETAILS (2 SHEETS)
  - INDEX No. 1125-E U-ENDWALLS FOR PIPE CULVERTS (2 SHEETS)
  - INDEX No. 2500-G GUARDRAIL CONST. (4 SHEETS)
  - INDEX No. 2615-N STANDARD WARNING SIGN DETAILS (3 SHEETS)
  - INDEX No. 2852 INLET TYPE "T-S"
  - INDEX No. 5016-B TURNOUT DETAILS
  - INDEX No. 5047-F INLET, MANHOLE, AND JUNCTION BOX, TYPES "F" AND "J" (2 SHEETS)
  - INDEX No. 5061-D MISC. DRAINAGE DETAILS (2 SHEETS)
  - INDEX No. 5080-E CURB, CURB & GUTTER, AND TRAFFIC SEPARATOR (2 SHEETS)
  - INDEX No. 10273 APPROACH SLABS (3 SHEETS)

(M1) - (M3) PAVEMENT MARKING SHEETS  
T(1) - T(10) SIGNALIZATION SHEETS  
L(1) - L(5) HIGHWAY LIGHTING SHEETS

FOR INDEX OF BRIDGE SHEETS SEE BRIDGE PLANS



Scale 1" = 2000'

PLANS PREPARED BY  
DRIVER & SPOONER  
CONSULTING ENGINEERS  
MIAMI, FLORIDA

ATTENTION IS DIRECTED TO THE FACT THAT  
THESE PLANS MAY HAVE BEEN REDUCED IN  
SIZE BY REPRODUCTION. THIS MUST BE  
CONSIDERED WHEN OBTAINING SCALED DATA

CONVENTIONAL SIGNS

COUNTY LINE	TRAVELER WAY	
TOWNSHIP LINE	CULVERTS	
SECTION LINE	BRIDGES OVER 20 FT. SPAN	
UNFENCED PROPERTY	POWER POLE	
CITY LINE	TELEPHONE POLE	
FENCE LINE	MARSH	
RIGHT OF WAY LINE	GROUND ELEV.	
BASE OR SURVEY LINE	GRADE ELEV.	
RAILROADS	R. R. MILE POST	

GOVERNING SPECIFICATIONS: STATE OF FLORIDA, STATE ROAD DEPARTMENT.  
STANDARD SPECIFICATIONS, DATED 1966.  
APPROVED BY BUREAU OF PUBLIC ROADS - DATE \_\_\_\_\_

BEGIN PROJECT STA. 42+61.14

END PROJECT STA. 108+75.00

END BRIDGE STA. 63+34.25

END BRIDGE STA. 78+99.65

BEGIN BRIDGE STA. 58+24.25

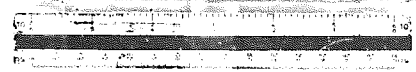
BEGIN BRIDGE STA. 73+90.65

LENGTH OF PROJECT	IN FEET	
	FT.	MILES
ROADWAY	5,594.86	1.059
BRIDGES	1,019.00	0.193
NET LENGTH OF PROJECT	6,613.86	1.252
EXCEPTIONS		
GROSS LENGTH OF PROJECT	6,613.86	1.252

SUBMITTED BY

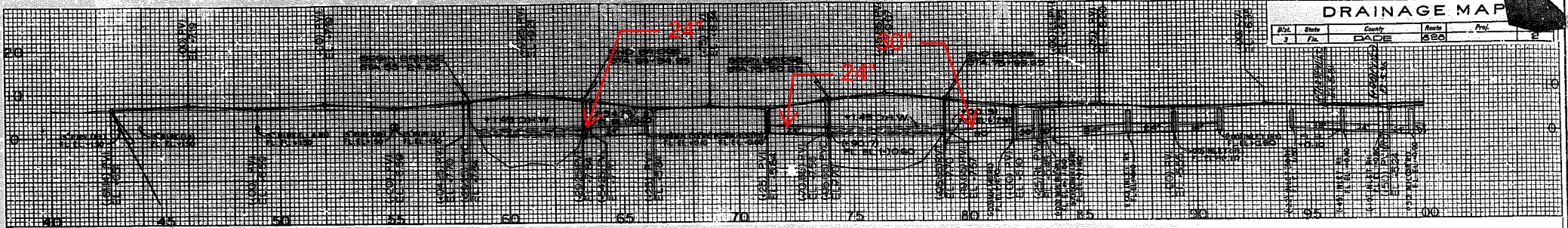
*P.W. Edgley*  
STATE HIGHWAY ENGINEER  
3168 REP 111 1-68

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_  
DIVISION ENGINEER  
BUREAU OF PUBLIC ROADS



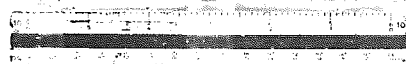
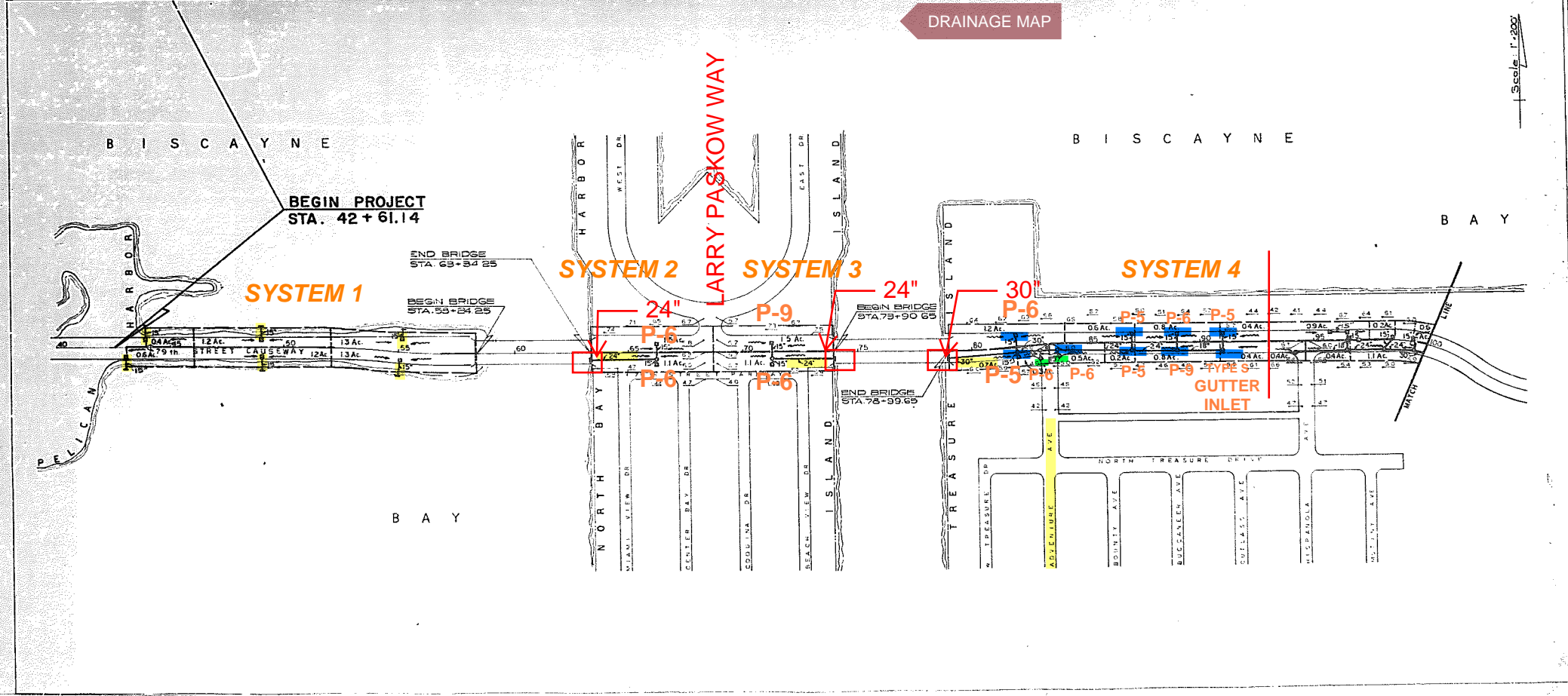
DRAINAGE MAP

Dist.	State	County	Route	Proj.
2	Fla.	DADE	880	2



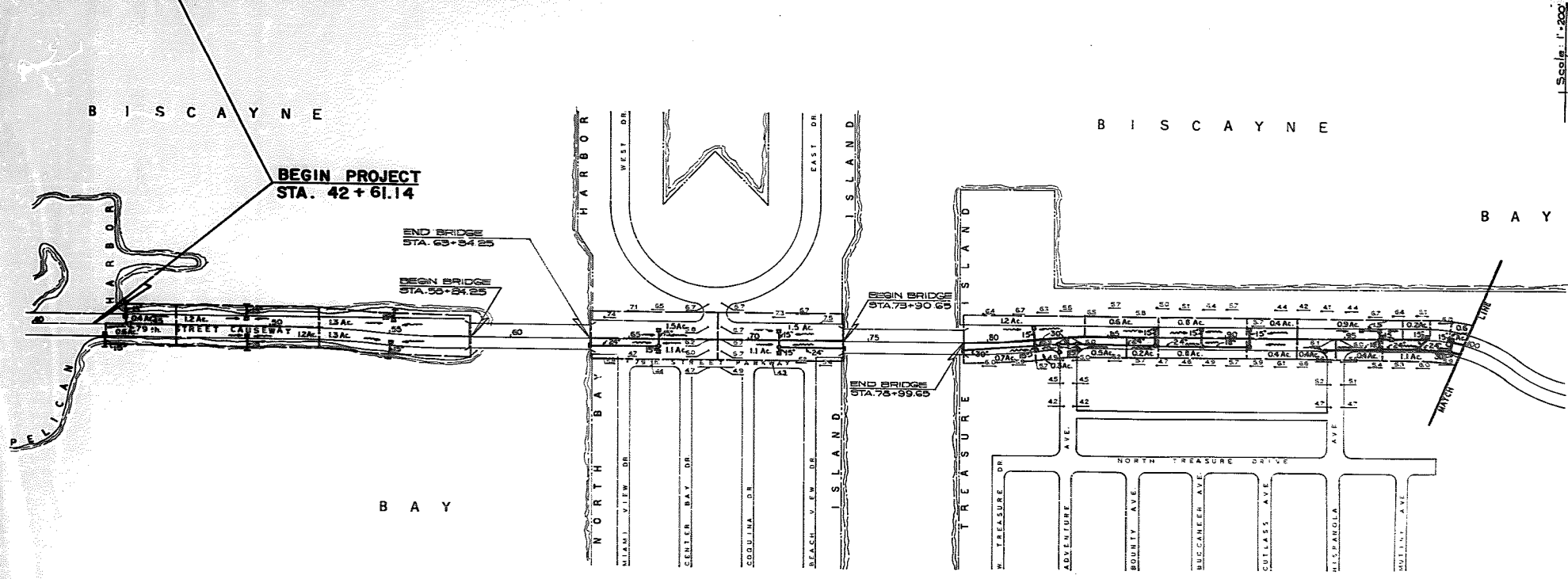
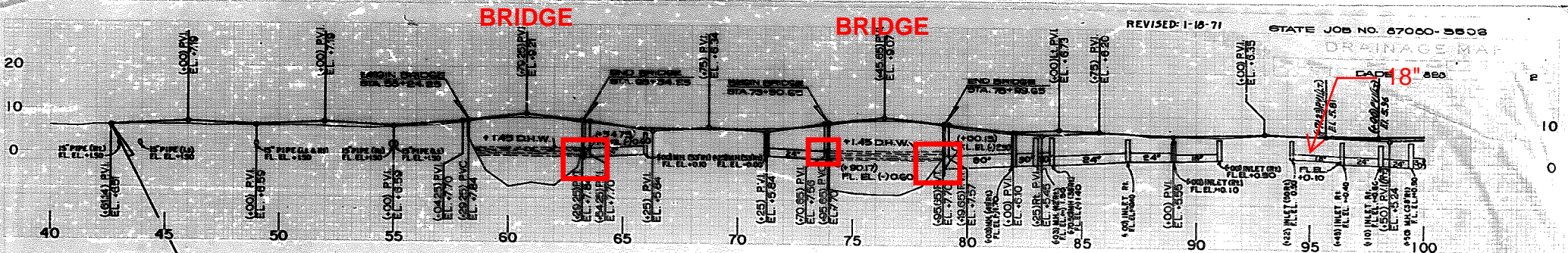
DRAINAGE MAP

Scale: 1" = 200'





DRAINAGE MAP



Scale: 1"=200'



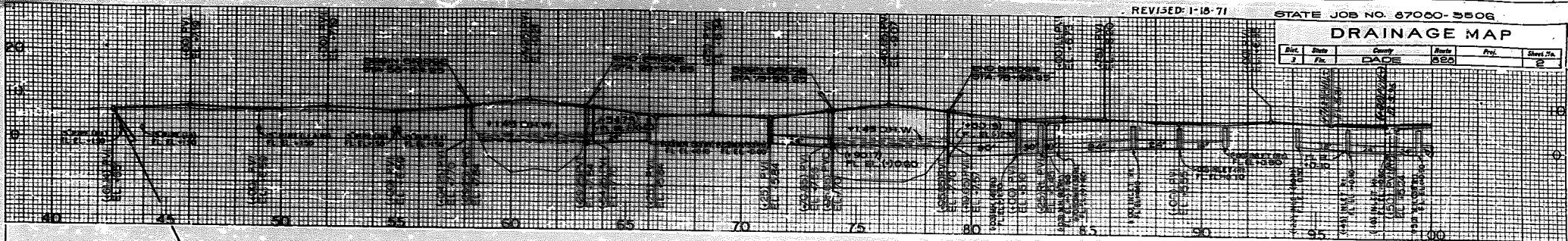


REVISED: 1-18-71

STATE JOB NO. 67000-3506

# DRAINAGE MAP

Dist.	State	County	Block	Proj.	Sheet No.
3	Fla.	DADE	850		2



B I S C A Y N E

B I S C A Y N E

B A Y

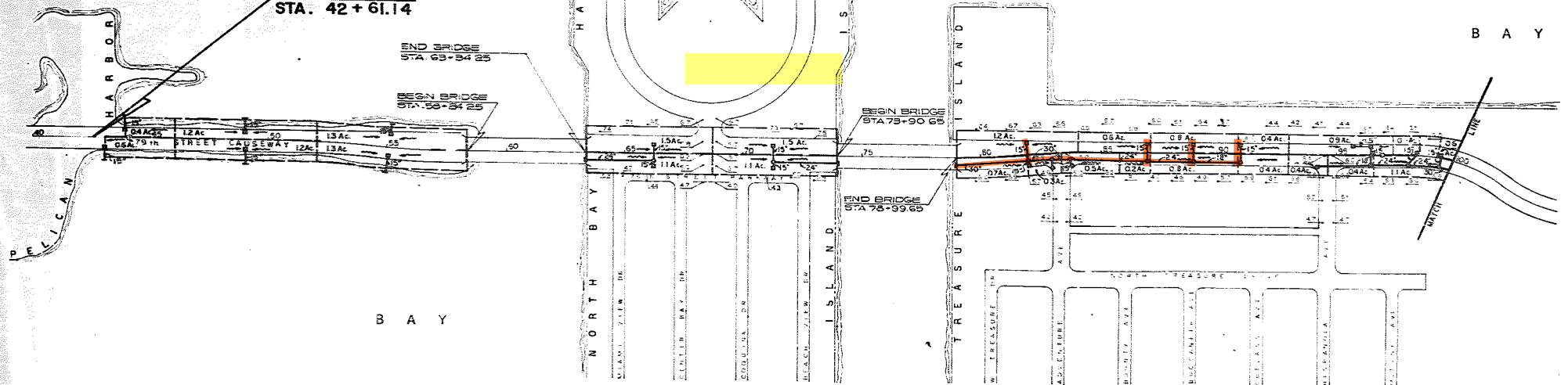
**BEGIN PROJECT  
STA. 42+61.14**

END BRIDGE  
STA. 63+34.25

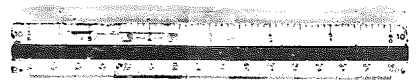
BEGIN BRIDGE  
STA. 63+34.25

BEGIN BRIDGE  
STA. 73+90.65

END BRIDGE  
STA. 76+99.65



B A Y



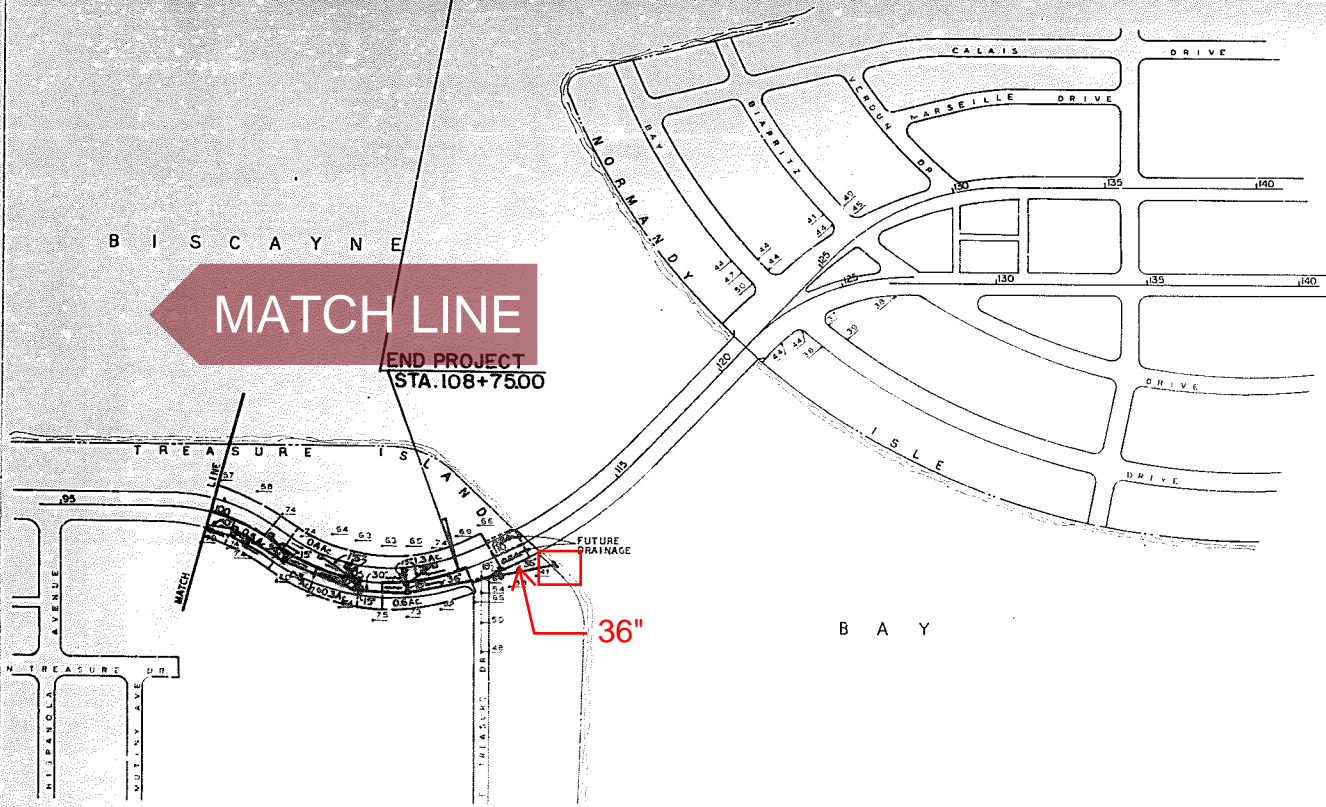
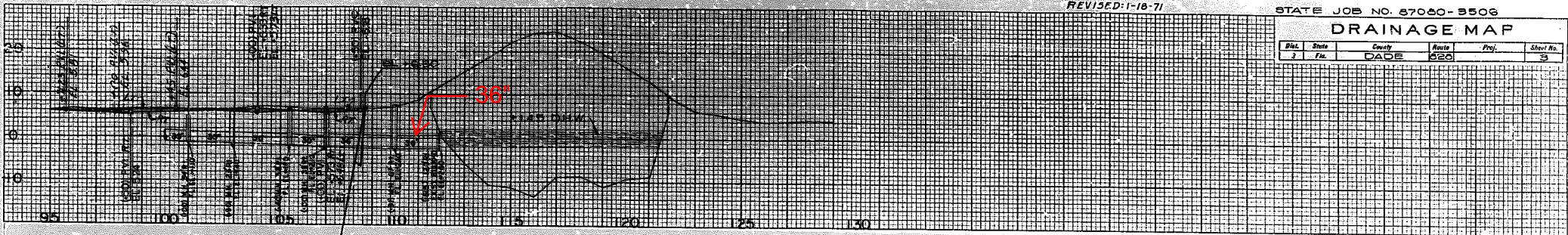


REVISED: 1-18-71

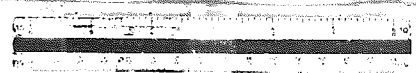
STATE JOB NO. 87080-3508

### DRAINAGE MAP

Dist.	State	County	Map	Proj.	Sheet No.
2	Fla.	DADE	820		5



SCALE 1"=500'



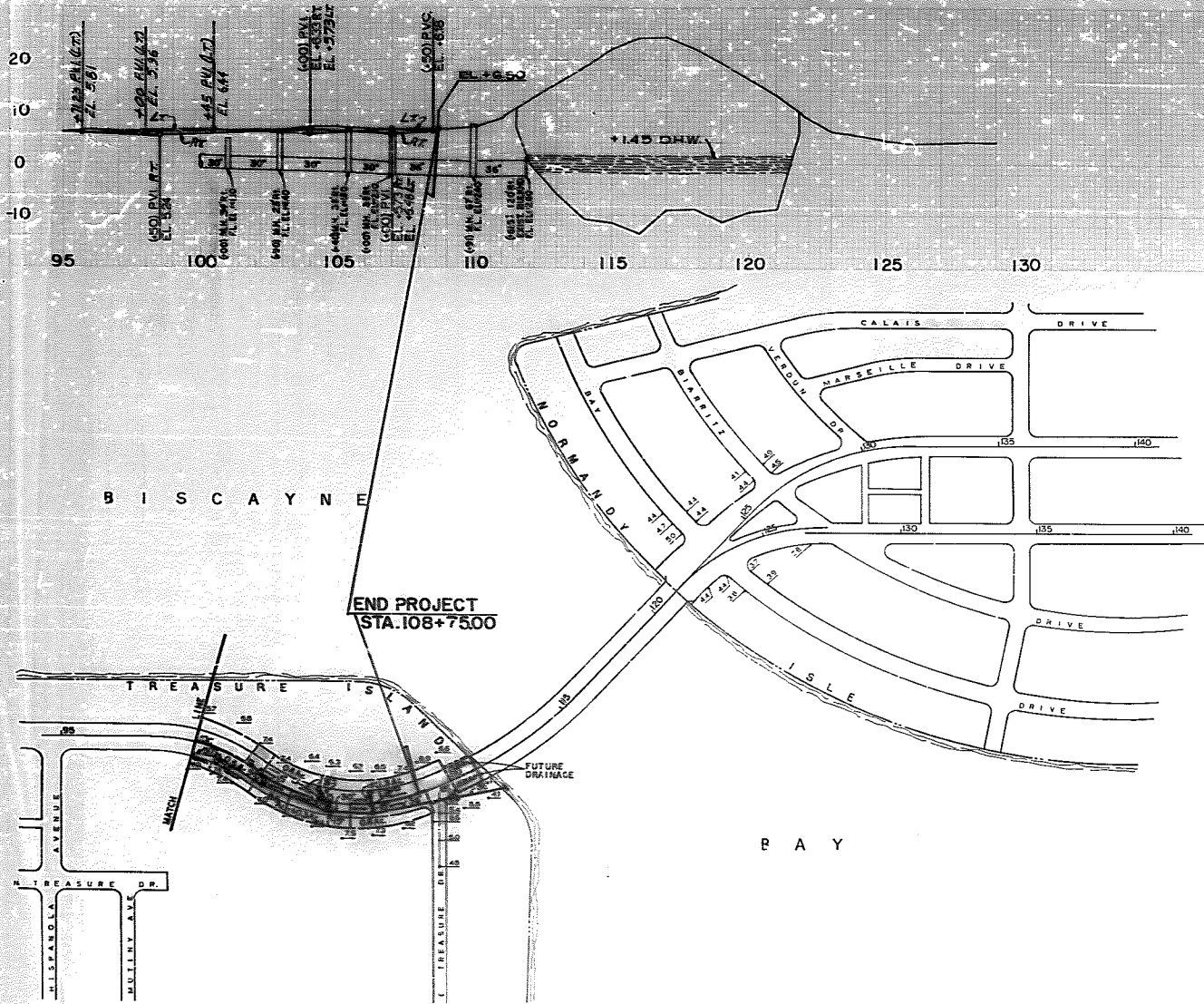
REVISED: 1-10-71

STATE JOB NO. 87020-3508

DRAINAGE MAP

DADE 625

3



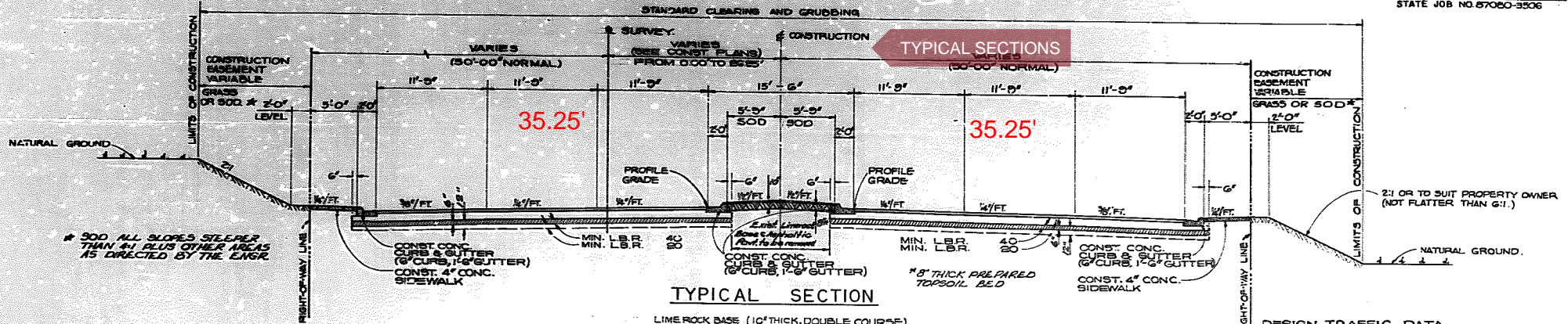
SCALE 1" = 200'





FED. ROAD DIST. NO.	STATE	PROJECT NO.	CONTRACT NO.	SHEET NO.
3	PA.		27	4

STATE JOB NO. 67060-3506



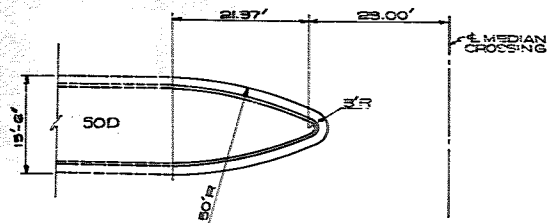
**TYPICAL SECTION**

LIME ROCK BASE (10\"/>

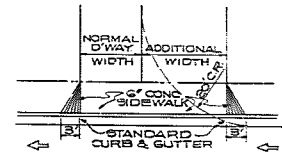
DESIGN SPEED 45 M.P.H.  
 STA. 42+61.4 TO STA. 90+33.65  
 DESIGN SPEED 35 M.P.H.  
 STA. 90+33.65 TO STA. 108+73.00

**DESIGN TRAFFIC DATA**

1983 ADT=23,600, 1989 ADT = 35,000 (2 WAY)  
 K=10% D=53% T=(24 HOUR)=5%, T-(DESIGN HOUR)=2%

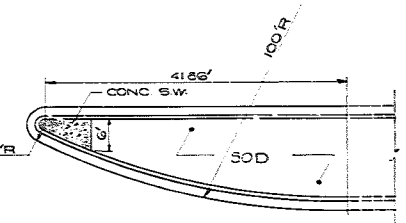


**DETAIL**  
 SHOWING TYPICAL MEDIAN OPENING  
 NOT TO SCALE

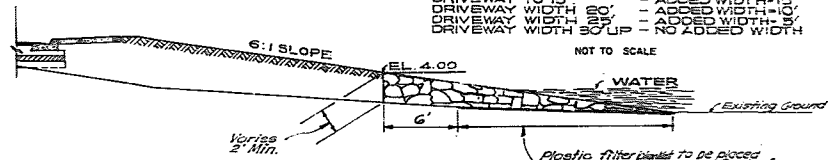


**DETAIL**  
 SHOWING ADDITIONAL 6\"/>

DRIVEWAY TO 15'	- ADDED WIDTH=15'
DRIVEWAY WIDTH 20'	- ADDED WIDTH=10'
DRIVEWAY WIDTH 25'	- ADDED WIDTH=5'
DRIVEWAY WIDTH 30' UP	- NO ADDED WIDTH



**DETAIL**  
 SHOWING TYPICAL MEDIAN OPENING WITH CONC. SIDEWALK (4\"/>

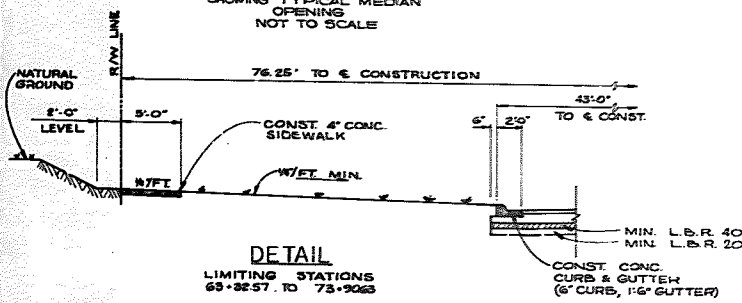


**DETAIL OF RIP-RAP (RUBBLE)**

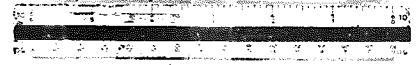
ABOVE DETAIL IS TYPICAL FOR BOTH SIDES.  
 LIMITING STATIONS ARE FROM STA. 43+75 TO STA. 55+19 ON THE LEFT SIDE AND STA. 42+65 TO STA. 55+04 ON THE RT. SIDE. FOR FURTHER DETAILS, SEE CROSS-SECTIONS.

**NOTES:**

1. CONSTRUCT ARMOR-COAT OVER THE FINISHED BASE EXCEPT ON TURNOUTS. TURNOUTS TO BE PRIMED.
2. PENETRATION GRADE 60-TO ASPHALT CEMENT IS SPECIFIED FOR TYPE I ASPHALTIC CONCRETE AND BINDER.
3. NO LIMEROCK THAT IS REMOVED IS TO BE USED IN THE PROPOSED BASE.
4. ALL OF THE EXISTING ROCK BASE MATERIAL WHICH IS REMOVED IS TO BE INCORPORATED IN THE STABILIZED PORTION OF THE SUBGRADE.



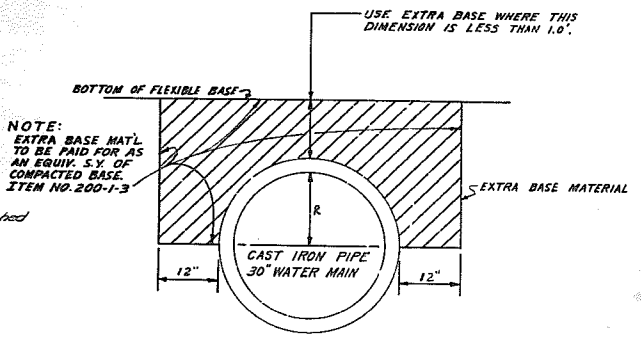
**DETAIL**  
 LIMITING STATIONS  
 65+32.57 TO 73+90.63



BASIS OF ESTIMATE		
ITEM No.	ITEM	QUANTITY
300-1	BITUMINOUS MAT. PRIME ARMOR COAT	0.2 GAL./SQ.YD.
300-1.1	BITUMINOUS MAT. W/AGGREGATE	0.2 GAL./SQ.YD.
300-1.2	BITUMINOUS MAT. (PLAN) PRIME	1.5 GAL./SQ.YD. (MIN. 1.5)
300-1.3	BITUMINOUS MAT. (TACK COAT)	0.1 GAL./SQ.YD.
300-20	BITUMINOUS COATED SAND	15 LB./SQ.YD.
300-20.1	AGGREGATE FOR ARMOR COAT	10 LB./SQ.YD.
300-20.2	AGGREGATE FOR SURFACE COURSE	10 LB./SQ.YD.
300-20.3	AGGREGATE FOR BINDER COURSE	10 LB./SQ.YD.
300-20.4	AGGREGATE FOR FINISH COURSE	10 LB./SQ.YD.
300-31	GRASS SEED	50 LBS./AC.
300-4	FERTILIZER	500 LBS./AC.

SUMMARY OF GUARDRAIL			
STATION TO STATION	SIDE	LENGTH	
STA. 371.2825 TO STA. 381.0425	RT.	75.00'	
STA. 631.4825 TO STA. 641.1825	LT.	75.00'	
STA. 731.060 TO STA. 731.8665	RT.	75.00'	
STA. 1210.65 TO STA. 1213.65	LT.	75.00'	
		300.00'	

Stationing is approximate. Final limits to be established by the Engineer during construction.



DETAIL OF EXTRA BASE CONSTRUCTION FOR THE PROTECTION OF THE 30" CAST IRON WATER MAIN WITH LESS THAN MINIMUM COVER.

**GENERAL STABILIZING NOTES**

STABILIZE ALL TURNOUTS AND INTERSECTIONS TO COUNTY ROADS AND STREETS TO A DEPTH OF 12" (MIN. L.B.R. 40 IN UPPER 6" AND MIN. L.B.R. 20 IN LOWER 6") AND 12" OUTSIDE EDGE OF PAVEMENT (2" BACK OF CURB).

STABILIZE GRADE CONNECTIONS TO COUNTY ROADS AND STREETS TO A DEPTH OF 12" (MIN. L.B.R. 40 FOR UPPER 6" AND MIN. L.B.R. 20 FOR LOWER 6") UNLESS OTHERWISE SHOWN ON PLANS.

NO STABILIZING WILL BE REQUIRED FOR PAVED TURNOUTS TO PRIVATE PROPERTY.

STABLE MATERIAL MAY BE REQUIRED FOR UNPAVED TURNOUTS TO PRIVATE PROPERTY, AS DIRECTED BY THE ENGINEER, IN ACCORDANCE WITH SEC. 102-6 OF THE STANDARD SPECIFICATIONS.

SUMMARY OF QUANTITIES			
ITEM NO.	ITEM	UNIT	QUANTITY
102-1	MAINTENANCE OF TRAFFIC	L.S.	1
110-1	CLEARING AND GRUBBING	L.S.	1
120-1	REMOVAL OF EXISTING PAVEMENT	S.Y.	974
135-1	GRADING	L.S.	1
160-42	TYPE 5 STABILIZATION (SBR)	Sq.YD.	60,743
300-1.1	BITUMINOUS MATERIAL (PRIME ARMOR COAT)	GAL.	15,000
300-1.2	BITUMINOUS MATERIAL (TACK COAT)	GAL.	7,500
300-1.3	BITUMINOUS MATERIAL (PLAN) PRIME	GAL.	112,500
300-1.4	BITUMINOUS MATERIAL (PLAN) TACK	GAL.	37,500
300-20	BITUMINOUS COATED SAND OR AGGREGATE FOR ARMOR COAT	TON	225
300-20.1	AGGREGATE FOR SURFACE COURSE (1/2" THICK)	TON	112.5
300-20.2	AGGREGATE FOR BINDER COURSE (1/2" THICK)	TON	112.5
300-20.3	AGGREGATE FOR FINISH COURSE (1/2" THICK)	TON	112.5
350-1	CONCRETE APPROACH SLABS	EACH	4
400-1	CLASSING CONCRETE (SNOWWALLS)	CY	15
415-1-1	REINFORCING STEEL (ROADWAY)	L.B.	840
425-1-1	INLETS (CURB)	EACH	50
425-2	MANHOLES	EACH	18
430-1-22	CONCRETE PIPE CULVERT (60") (STORM SEWER)	L.F.	1425
430-1-23	CONCRETE PIPE CULVERT (18") (STORM SEWER)	L.F.	448
430-1-24	CONCRETE PIPE CULVERT (24") (STORM SEWER)	L.F.	1325
430-1-25	CONCRETE PIPE CULVERT (30") (STORM SEWER)	L.F.	1125
430-1-26	CONCRETE PIPE CULVERT (36") (STORM SEWER)	L.F.	500
520-1-1	CONCRETE CURB AND GUTTER (6" CURB, 1.5" GUTTER)	L.F.	16,285
520-5-1	CONCRETE TRAFFIC SEPARATOR (TYPE III) (4' WIDE)	L.F.	1727
522-1	CONCRETE SIDEWALK, 4" THICK	S.Y.	5,024
522-2	CONCRETE SIDEWALK, 6" THICK	S.Y.	1,350
520-3	RIPPRAP (RUBBLE)	TON	14,816
528-1-1	GUARDRAIL (ROADWAY)	LIN. FT.	300
510-4	FERTILIZER	TON	1
510-40	GRASSING	S.Y.	11,500
510-42	GRASS SEED	L.B.	150
515-1	SODDING	S.Y.	8500
520-1	PREPARED TOPSOIL	CY	300
610-1-1	HIGHWAY LIGHTING (ALUMINUM POLES)	L.S.	1
610-1-2	HIGHWAY LIGHTING (GALVANIZED STEEL POLES)	L.S.	1
615-50	SIGNALIZATION SYSTEM	L.S.	1

A1/A

Item No. 120-1 This item is for removing conc. sidewalk, conc. curb and gutter, approach slabs, etc.

Item No. 200-1.3 Includes 1866 S.Y. FOR the protection of the City of Miami Beach 30" water main.

Item No. 351-4 This item includes 53 tons for connections to driveway back of sidewalk, 852 tons for leveling & surfacing bridges.

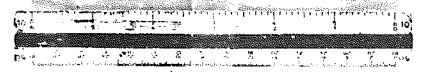
Item No. 425-2 Includes 2 artificial manholes for City of Miami Beach 30" water main.

Item No. 510-1 This item is contingent upon field conditions and may be increased or decreased at the discretion of the Field Engineer.

Item Nos. 500-1.2, 500-1.3 and 501-4 include 974 Gals. back, 19030 Gals. plant mix (H.O.) (50-10) and 852 tons of asphaltic concrete (bridge quantities).

Item No. 110-1 Includes utilizing an estimated 3000 tons of existing rubble along project between Sta. 42165 and Sta. 58145 in the proposed riprap slope protection.

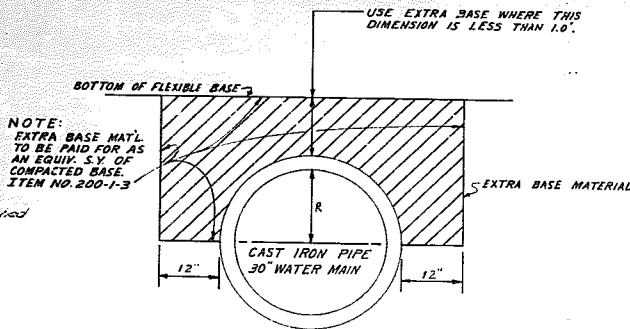
FOR BRIDGE AND BURHEAD ITEMS AND QUANTITIES SEE BRIDGE PLANS.  
FOR PAVEMENT MARKING ITEMS AND QUANTITIES SEE PAVEMENT MARKING PLANS.



BASIS OF ESTIMATE		
ITEM No.	ITEM	QUANTITY
300-1-2	BITUMINOUS MAT. PRIME ARMOR COAT	0.2 GAL./SQ. YD.
300-1-3	BITUMINOUS MAT. WALK COAT	0.4 GAL./SQ. YD.
300-1-5	BITUMINOUS MAT. (PLANT MIX) (AC 60-10)	6.5% 2.5 LBS./SQ. GAL. BINDER, 6.5% 2.5 LBS./SQ. GAL. SURFACE
300-40	BITUMINOUS COATED SAND OR AGGREGATE FOR ARMOR COAT	15 LBS./SQ. YD.
331-2-33	ASPH. CONC. SURFACE COURSE	100 LBS./SQ. YD. SURFACE COURSE
331-6-33	ASPH. BINDER COURSE	100 LBS./SQ. YD. BINDER COURSE
510-41	GRASS SEED	50 LBS./AC.
510-4	FERTILIZER	500 LBS./AC.

SUMMARY OF GUARDRAIL			
STATION TO	STATION FROM	SIDE	LENGTH
STA. 37123.25	TO STA. 38104.75	RT.	75.00'
STA. 63143.25	TO STA. 64118.25	LT.	75.00'
STA. 73106.65	TO STA. 73185.65	RT.	75.00'
STA. 79106.65	TO STA. 79126.65	LT.	75.00'
3000.00			

Stationing is approximate. Final limits to be established by the Engineer during construction.



DETAIL OF EXTRA BASE CONSTRUCTION FOR THE PROTECTION OF THE 30" CAST IRON WATER MAIN WITH LESS THAN MINIMUM COVER.

**GENERAL STABILIZING NOTES**

STABILIZE ALL TURNOUTS AND INTERSECTIONS TO COUNTY ROADS AND STREETS TO A DEPTH OF 12" (MIN. L.B.R. 40 IN UPPER 6" AND MIN. L.B.R. 20 IN LOWER 6") AND 12" OUTSIDE EDGE OF PAVEMENT (6" BACK OF CURB).

STABILIZE GRADED CONNECTIONS TO COUNTY ROADS AND STREETS TO A DEPTH OF 12" (MIN. L.B.R. 40 FOR UPPER 6" AND MIN. L.B.R. 20 FOR LOWER 6") UNLESS OTHERWISE SHOWN ON PLANS.

NO STABILIZING WILL BE REQUIRED FOR PAVED TURNOUTS TO PRIVATE PROPERTY.

STABLE MATERIAL MAY BE REQUIRED FOR UNPAVED TURNOUTS TO PRIVATE PROPERTY, AS DIRECTED BY THE ENGINEER, IN ACCORDANCE WITH SEC. 102-6 OF THE STANDARD SPECIFICATIONS.

SUMMARY OF QUANTITIES			
ITEM NO.	ITEM	UNIT	QUANTITY
102-1	MAINTENANCE OF TRAFFIC	L.S.	1
110-1	CLEARING AND GRUBBING	L.S.	1
120-1	REMOVAL OF EXISTING PAVEMENT	S.Y.	872
135-1	GRADING	L.S.	1
160-42	TYPE B STABILIZATION (L.B.R.)	SQ. YD.	20,240
200-1-2	LIMEROCK BASE (6" THICK) (DOUBLE COURSE) (TEMPORARY CONNECTIONS)	SQ. YD.	5,656
200-1-3	LIMEROCK BASE (10" THICK) (DOUBLE COURSE)	SQ. YD.	5,120
200-1-2	BITUMINOUS MATERIAL (PRIME ARMOR COAT)	GAL.	70,200
200-1-5	BITUMINOUS MATERIAL (WALK COAT)	GAL.	15,000
300-40	BITUMINOUS COATED SAND OR AGGREGATE FOR ARMOR COAT	TON	225,000
331-2-33	TYPE I ASPHALTIC CONCRETE SURFACE COURSE (1/2" THICK) WITH BINDER COURSE (1/2" THICK)	SQ. YD.	30,000
331-4	TYPE I ASPHALTIC CONCRETE	TON.	112,500
360-1	CONCRETE APPROACH SLABS	EACH	4
402-1	CLASS III CONCRETE (ENDWALLS)	C.Y.	15
415-1-1	REINFORCING STEEL (XONDA)	L.B.	846
425-1-1	INLETS (CURB)	EACH	37
425-2	MANHOLES	EACH	18
450-1-22	CONCRETE PIPE CULVERT (15") (STORM SEWER)	L.F.	1482
450-1-23	CONCRETE PIPE CULVERT (18") (STORM SEWER)	L.F.	445
450-1-24	CONCRETE PIPE CULVERT (24") (STORM SEWER)	L.F.	1556
450-1-25	CONCRETE PIPE CULVERT (30") (STORM SEWER)	L.F.	1156
450-1-26	CONCRETE PIPE CULVERT (36") (STORM SEWER)	L.F.	500
520-1-1	CONCRETE CURB AND GUTTER (6" CURB, 1.5' GUTTER)	L.F.	16,850
520-5-1	CONCRETE TRAFFIC SEPARATOR (TYPE IV) (6" WIDE)	L.F.	1207
522-1	CONCRETE SIDEWALK, 4" THICK	S.Y.	5,044
522-2	CONCRETE SIDEWALK, 6" THICK	S.Y.	1,250
530-3	RIPRAP (RUBBLE)	TON	14,816
536-1-1	GUARDRAIL (ROADWAY)	LIN. FT.	300
510-4	FERTILIZER	TON	1
510-40	GRASSING	S.Y.	11,500
510-42	GRASS SEED	L.B.	575,000
515-1	SODDING	S.Y.	5800
300-1	PREPARED TOPSOIL	S.Y.	3000
410-1-1	HIGHWAY LIGHTING ALUMINUM POLES	C.Y.	200
415-1-2	HIGHWAY LIGHTING GALVANIZED STEEL POLES	L.S.	1
415-30	SIGNALIZATION SYSTEM	L.S.	1

Item No. 120-1 This item is for removing conc. sidewalk, conc. curb and gutter, approach slabs, etc.

Item No. 200-1-3 Includes 1866 S.Y. FOR the protection of the City of Miami Beach.

Item No. 331-4 This item includes 25 tons for connections to driveways back of sidewalk, K.E. 852 tons for leveling & surfacing bridge.

Item No. 425-2 Includes 2 conflict Manholes for City of Miami Beach, 30" water main.

Item No. 476-1 This item is contingent upon field conditions and may be increased or decreased at the discretion of the Field Engineer.

Item No. 300-1-2, 300-1-3 and 331-4 Include 974 tons back, 13,030 gal. plant mix (M.C. 60-10) and 852 tons of Asphaltic Concrete (through quantities).

Item No. 110-1 Includes utilizing an estimated 3000 tons of existing rubble along project between Sta. 421.65 and Sta. 510.13 in the proposed riprap slope protection.

FOR BRIDGE AND BULKHEAD ITEMS AND QUANTITIES SEE BRIDGE PLANS.  
FOR PAVEMENT MARKING ITEMS AND QUANTITIES SEE PAVEMENT MARKING PLANS.



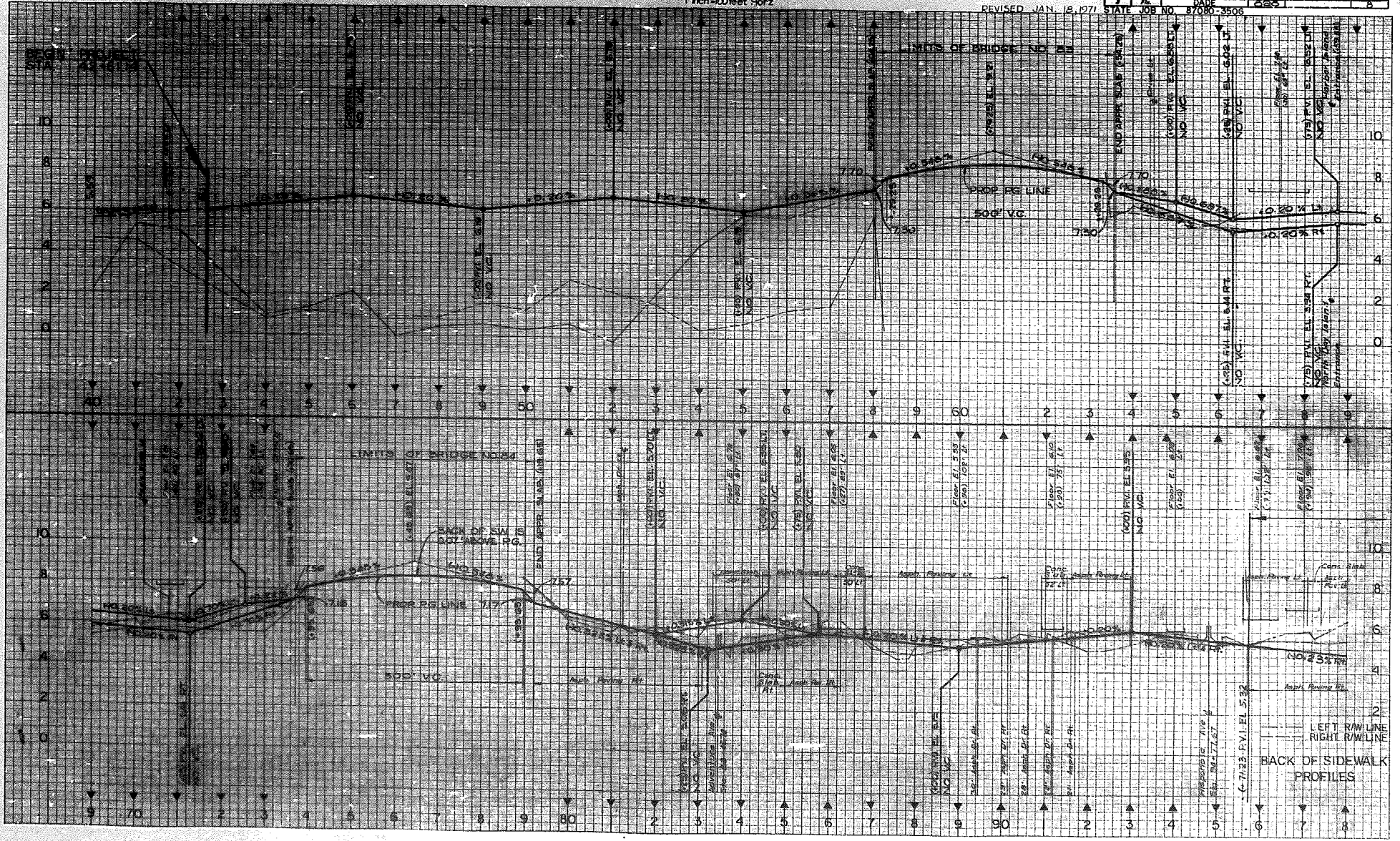




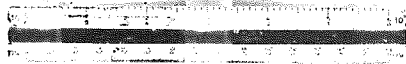
Scale: 1 inch = 2 feet Vert  
1 inch = 100 feet Horiz

REVISED JAN. 18, 1971

Proj. No.	State	County	Route	Proj. No.	Sheet No.
STATE JOB NO.	GA	DADE	625		B
			87080-3506		



Drawn by \_\_\_\_\_  
 Checked by \_\_\_\_\_  
 Date \_\_\_\_\_  
 Planned by \_\_\_\_\_  
 Checked by \_\_\_\_\_  
 Date \_\_\_\_\_  
 Checked by \_\_\_\_\_  
 Date \_\_\_\_\_

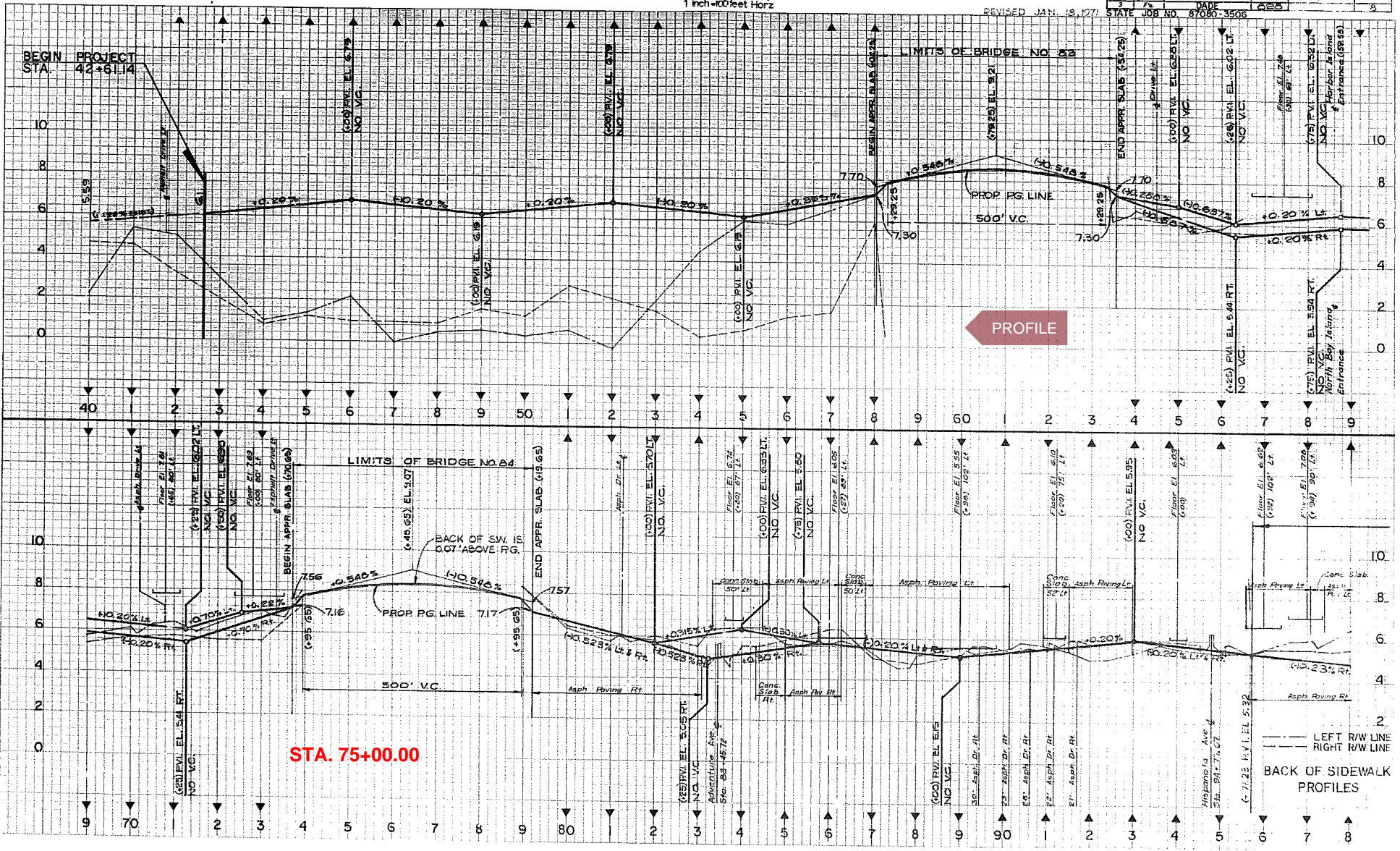




Scale 1 inch = 2 feet Vert  
1 inch = 100 feet Horz

REVISED JAN. 18, 1971 STATE JOB NO. 87080-3506

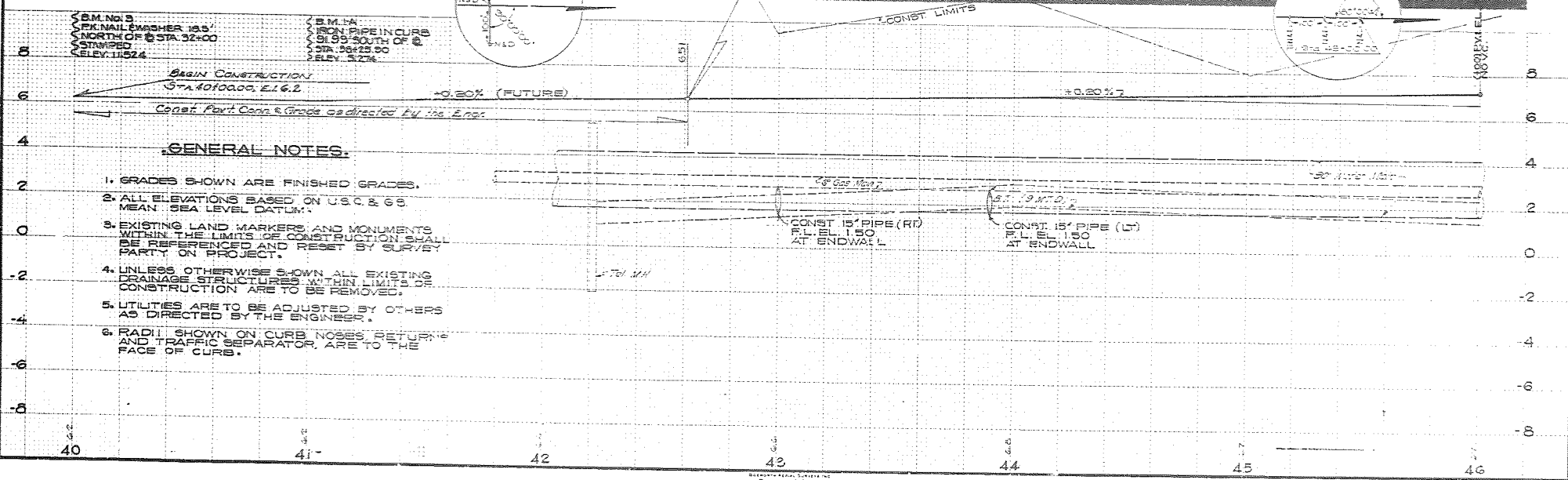
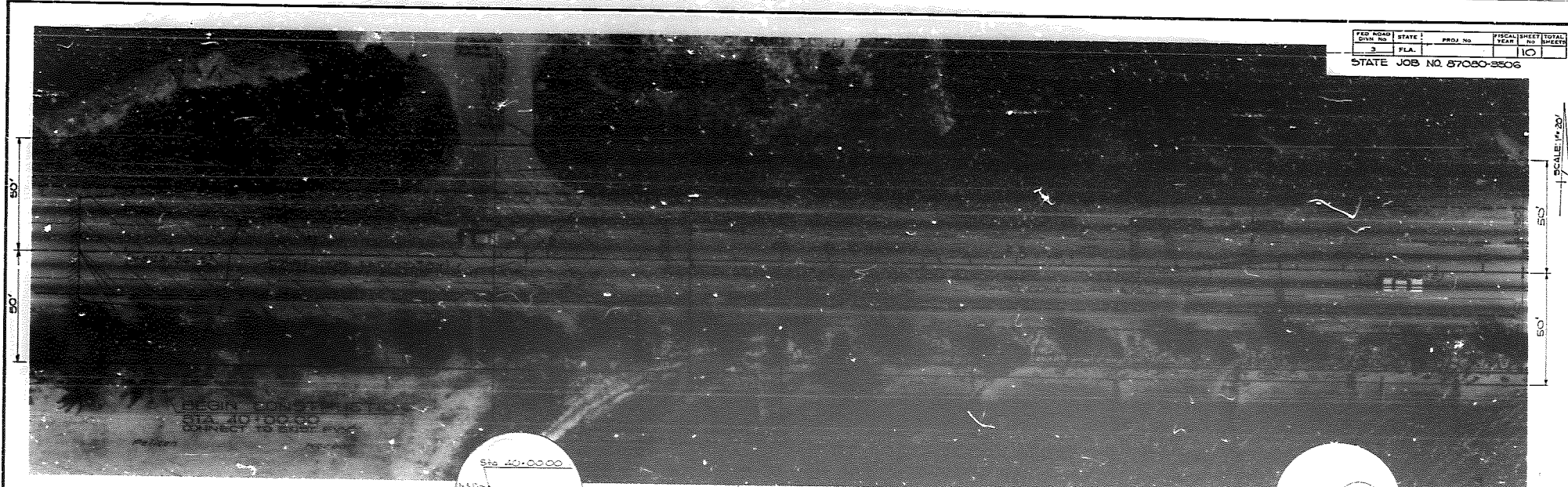
Dist. No.	State	County	Route	Proj. No.	Sheet No.
44	GA	DADE	625		3





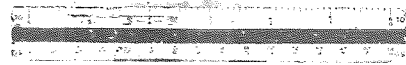
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	FLA.			10	

STATE JOB NO. 87080-8806



**GENERAL NOTES.**

1. GRADES SHOWN ARE FINISHED GRADES.
2. ALL ELEVATIONS BASED ON U.S.C. & G.S. MEAN SEA LEVEL DATUM.
3. EXISTING LAND MARKERS AND MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE REFERENCED AND RESET BY SURVEY PARTY ON PROJECT.
4. UNLESS OTHERWISE SHOWN ALL EXISTING DRAINAGE STRUCTURES WITHIN LIMITS OF CONSTRUCTION ARE TO BE REMOVED.
5. UTILITIES ARE TO BE ADJUSTED BY OTHERS AS DIRECTED BY THE ENGINEER.
6. RADII SHOWN ON CURB NOSSES BETWEEN AND TRAFFIC SEPARATOR, ARE TO THE FACE OF CURB.

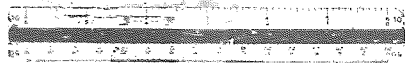
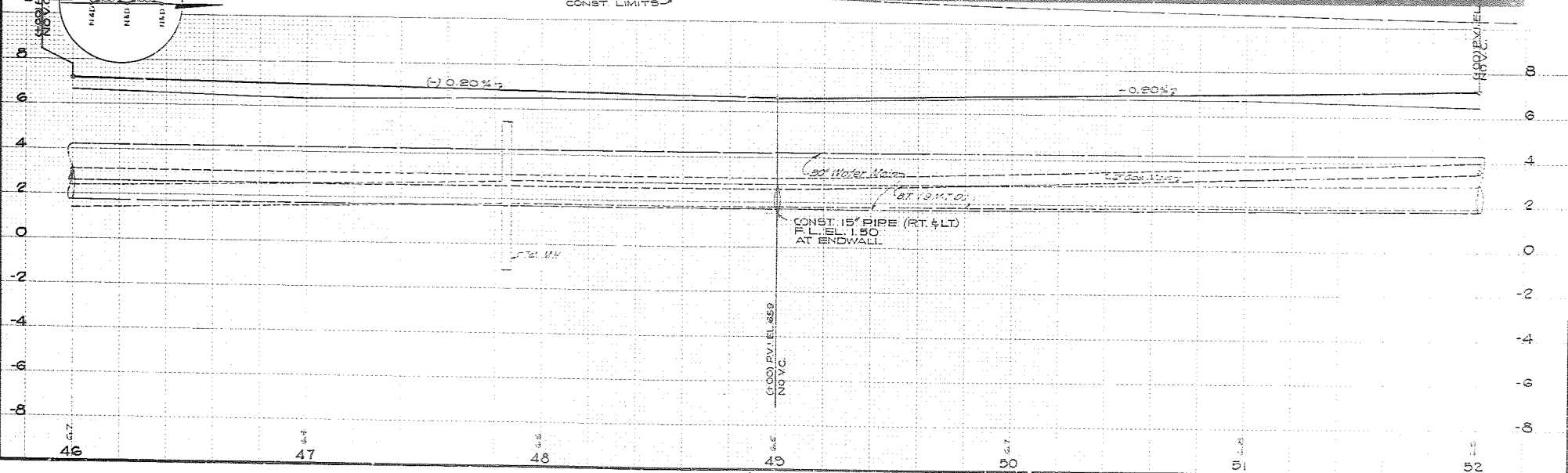
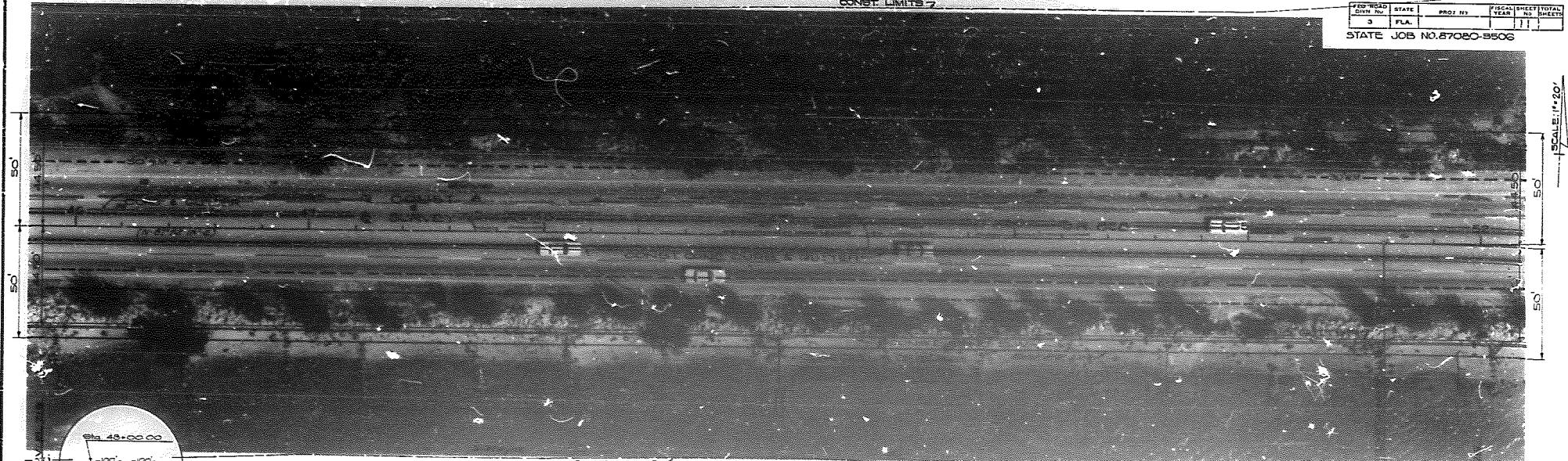


CONST. LIMITS 7

FED. ROAD DIV. NO.	STATE	PROJ. NO.	YEAR	SHEET NO.	TOTAL SHEETS
3	FLA.			11	

STATE JOB NO. 87080-9506

SCALE: 1"=20'



CONSTRUCTION CURVE DATA

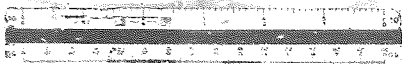
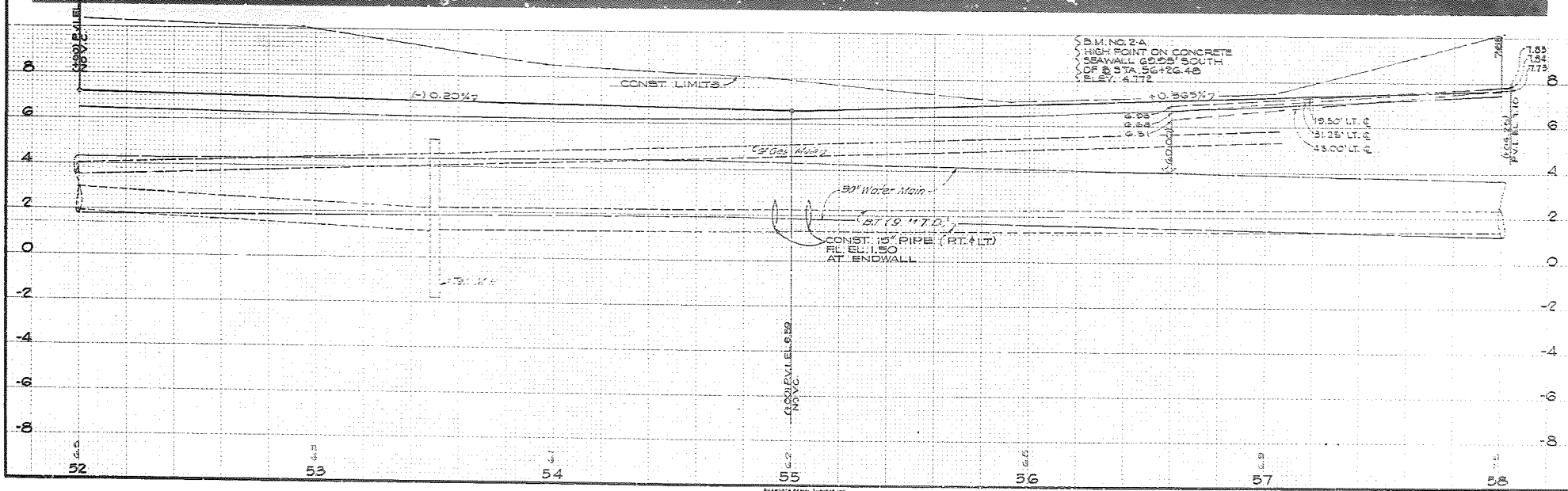
CONSTRUCTION CURVE DATA

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	FLA.			12	

STATE JOB NO. 87030-5506



SCALE: 1" = 50'

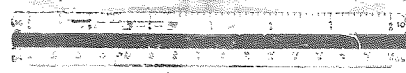
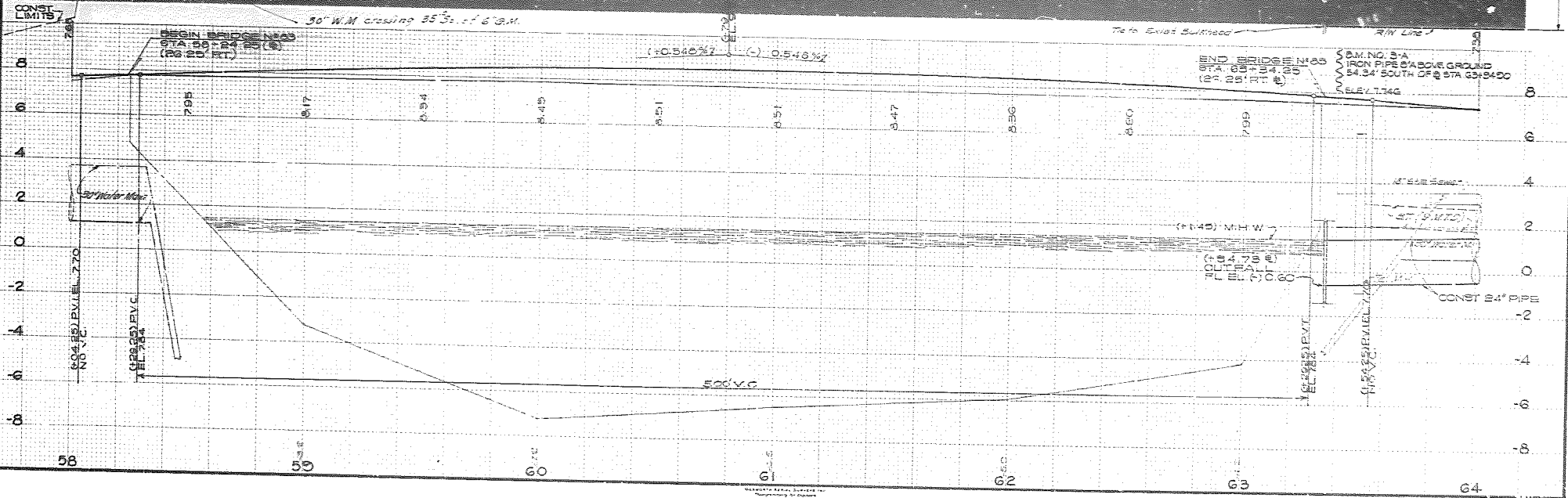
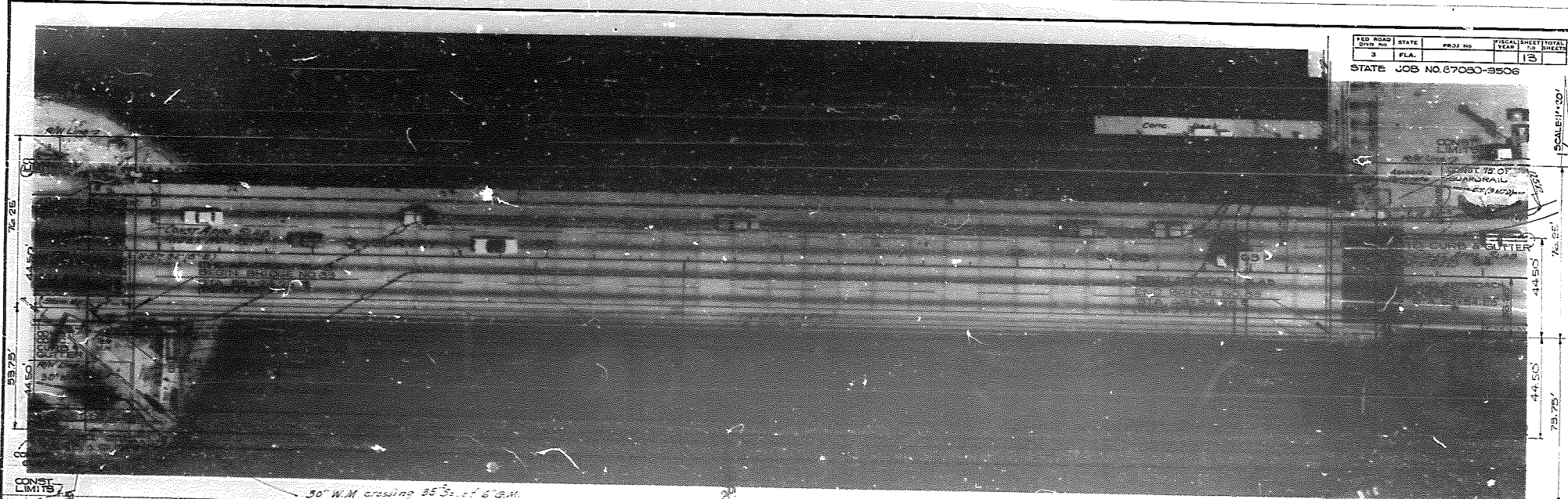




FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	FLA.			13	

STATE JOB NO. 87080-3506

SCALE: 1"=30'

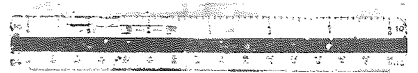
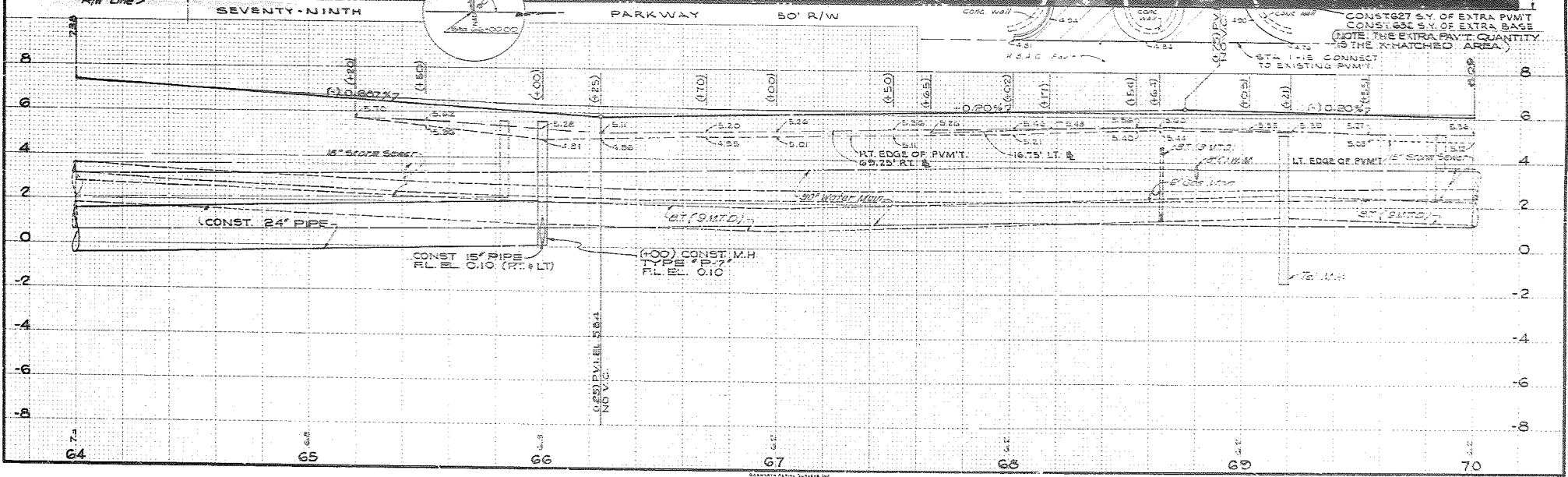
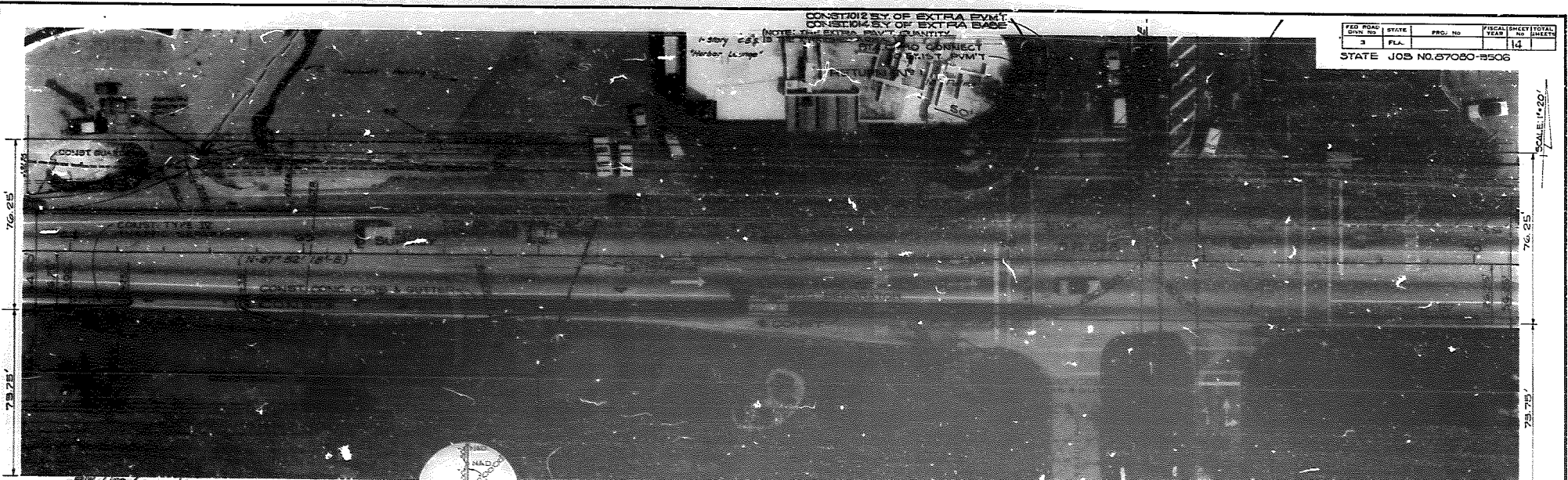




CONSTRUCT 24" OF EXTRA PVMT.  
 CONSTRUCT 14" OF EXTRA BASE.  
 NOTE: THE EXTRA PAVT. QUANTITY  
 IS TO BE PAID FOR BY THE CONTRACTOR.

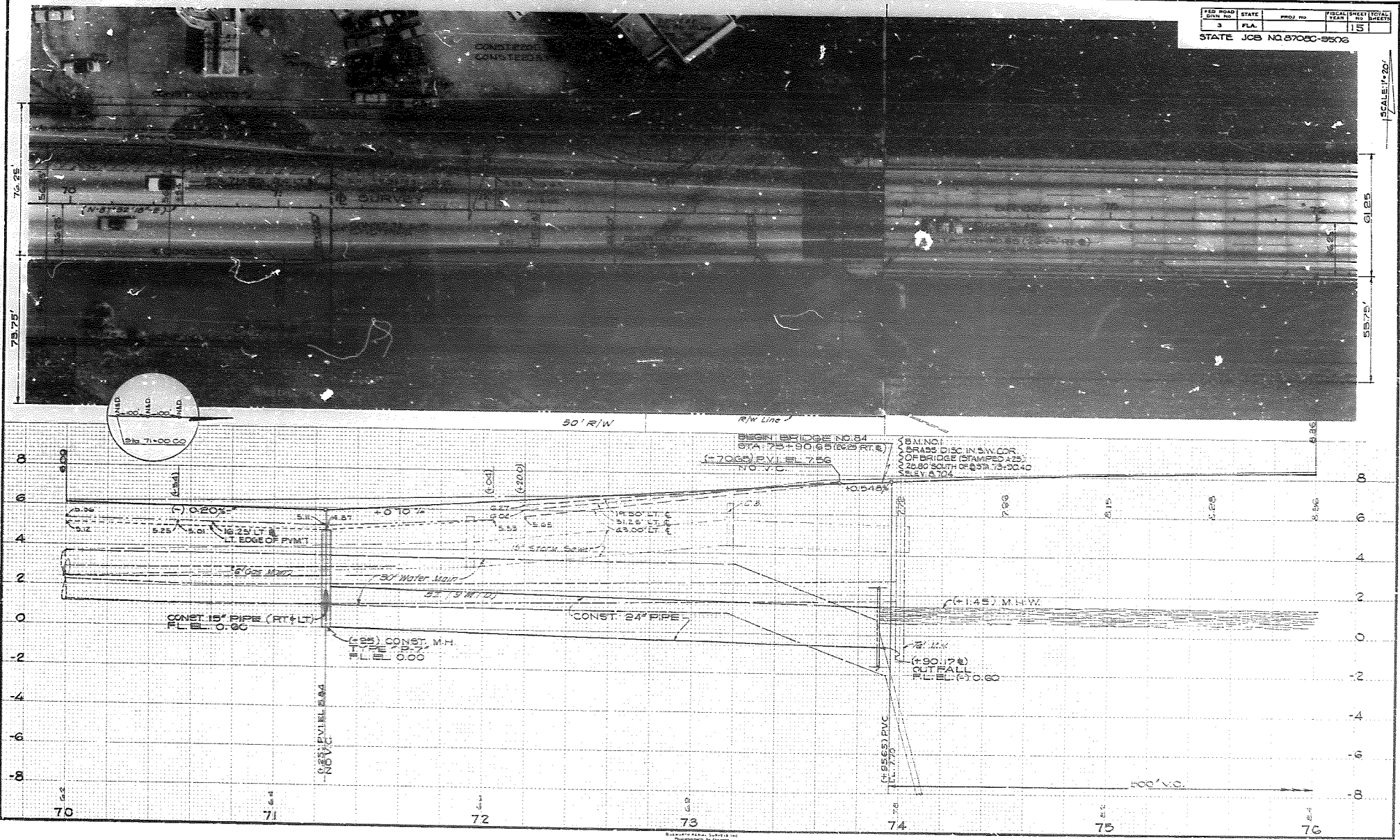
FED. ROAD DIST. NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	FLA.		14	

STATE JOB NO. 87080-8506

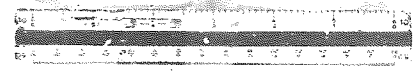


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	FLA.			15	

STATE JOB NO. 87080-9508



SCALE: 1" = 20'



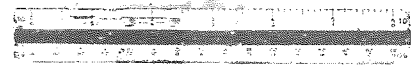
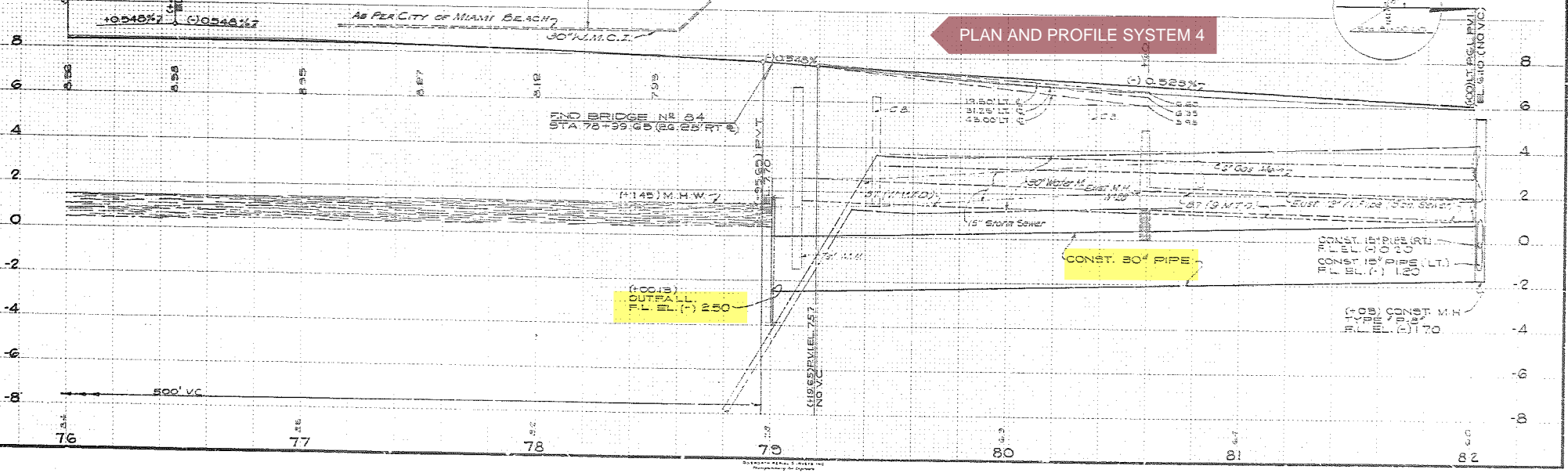


CONSTRUCTION CURVE DATA

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	FLA.			16	

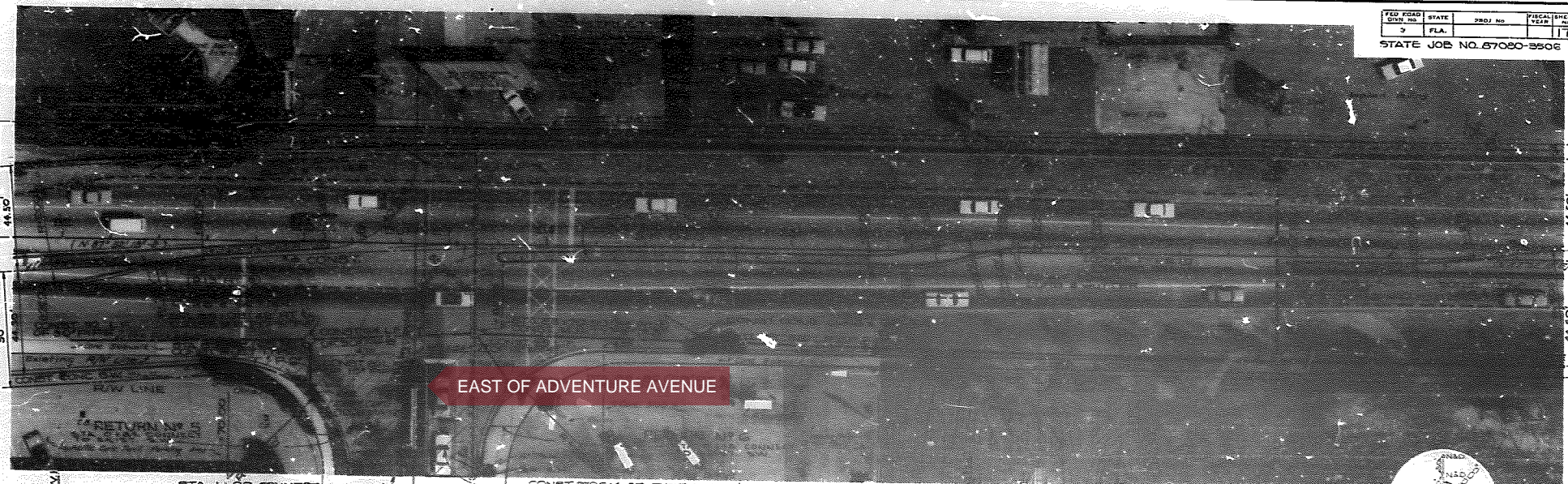
STATE JOB NO. 87080-3506

# CHANNEL 7

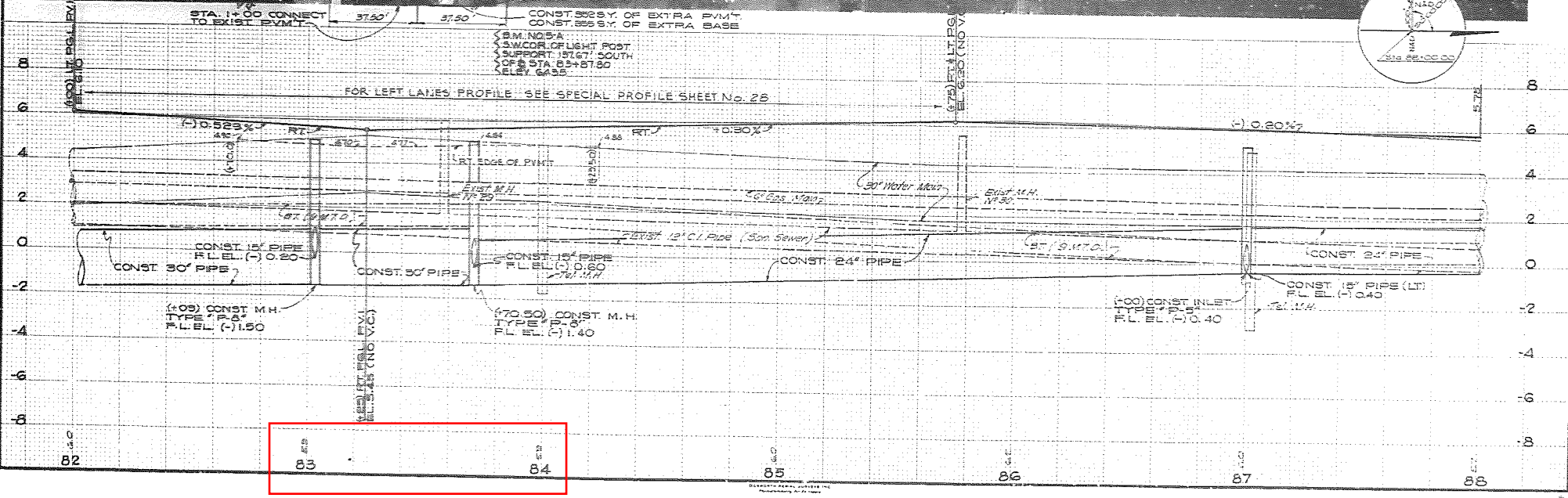




FED ROAD DIV. NO.	STATE	PROJ. NO.	SHEET TOTAL
3	FLA.		17
STATE JOB NO. 87080-3506			



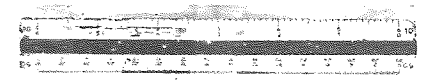
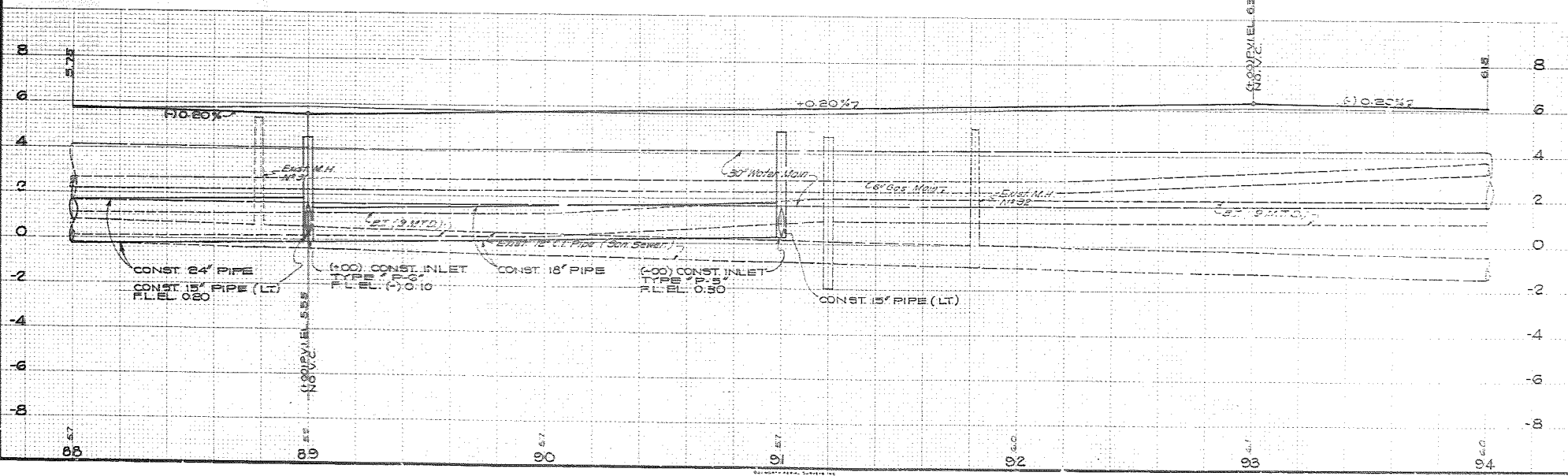
EAST OF ADVENTURE AVENUE





FED ROAD DIST NO	STATE	PROJ NO	FISCAL YEAR	SHEET NO	TOTAL SHEETS
3	FLA.			18	

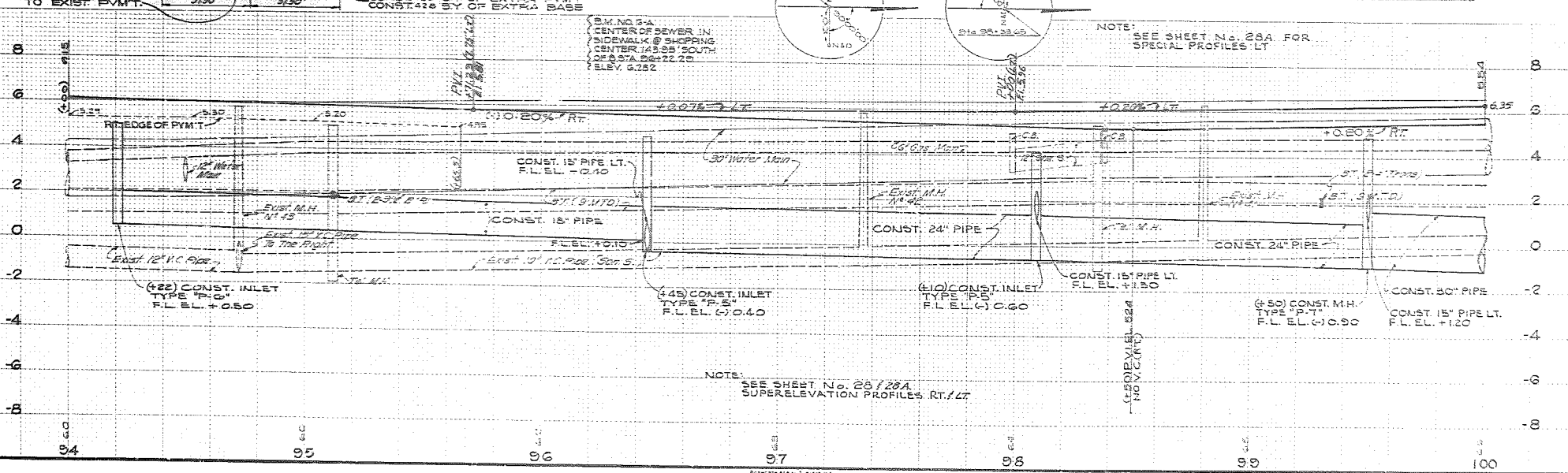
STATE JOB NO. 87080-9506



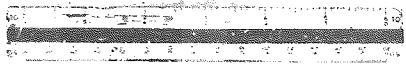
REVISED JAN. 18, 1971

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	FLA.			19	

STATE JOB NO. 87080-35C6



SCALE: 1" = 20'

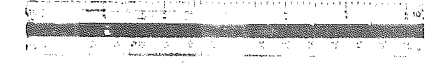
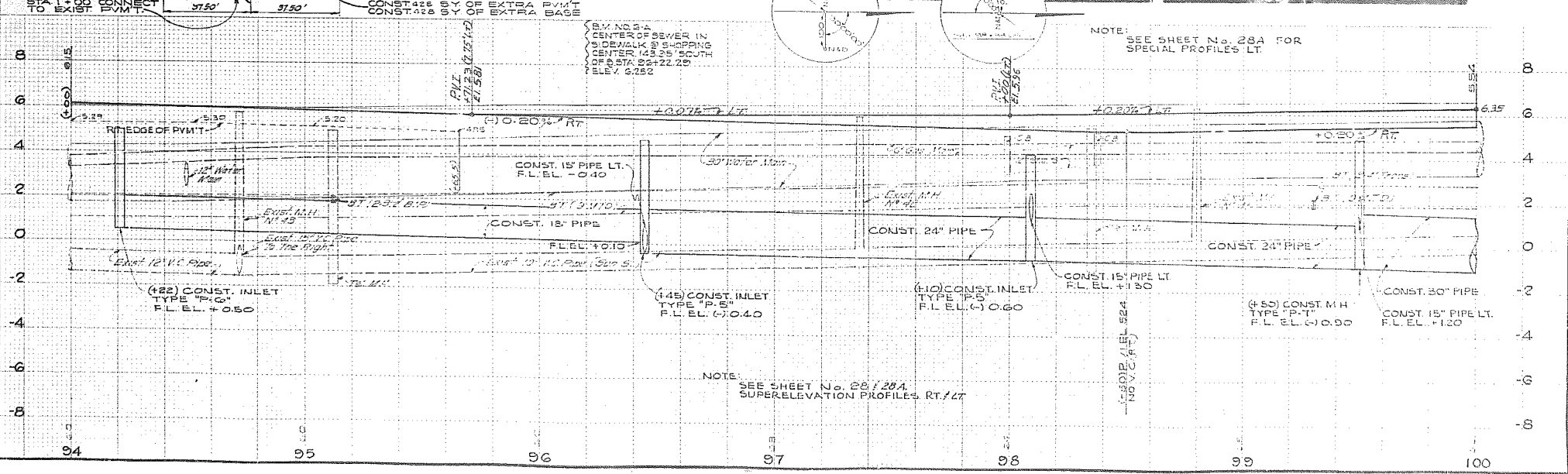
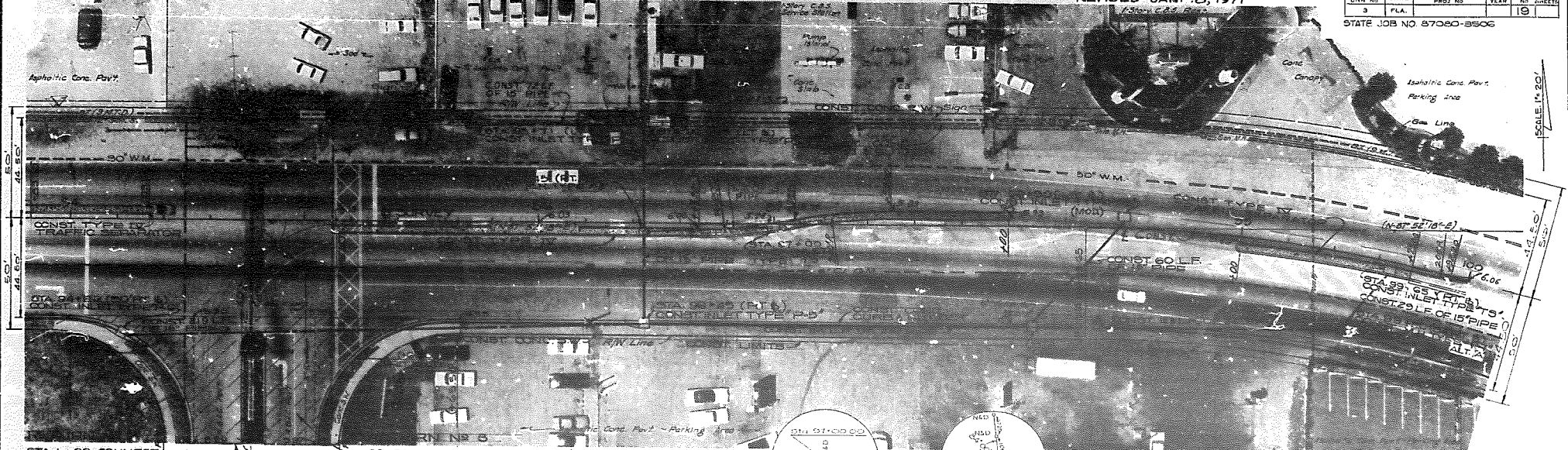




REVISED JAN. 18, 1971

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	FLA.			19	

STATE JOB NO. 87080-8506

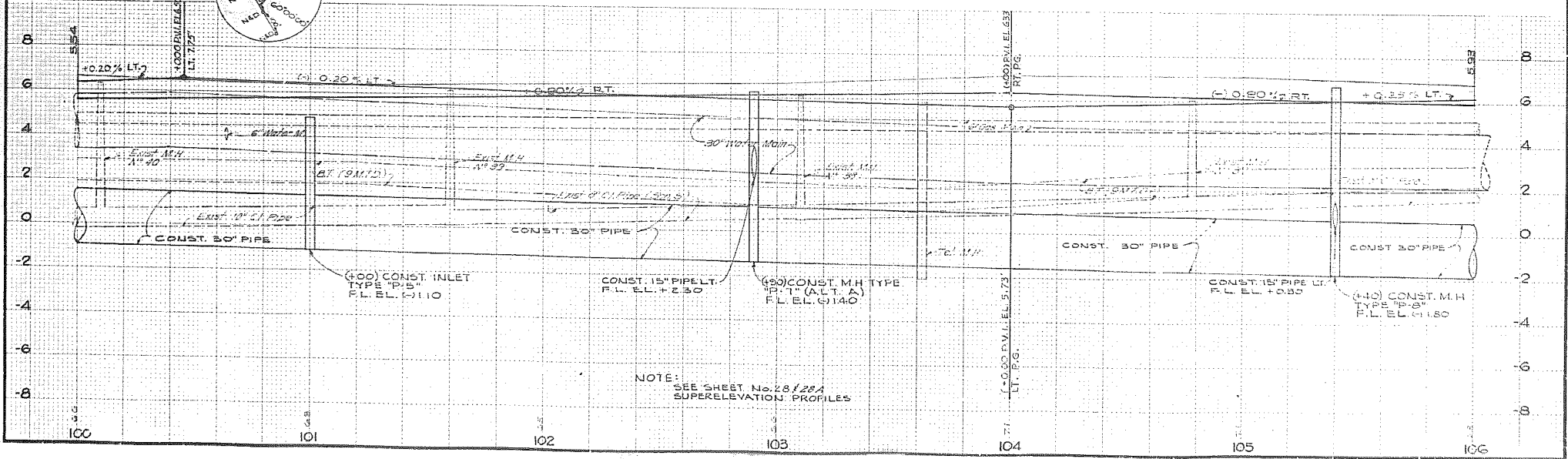
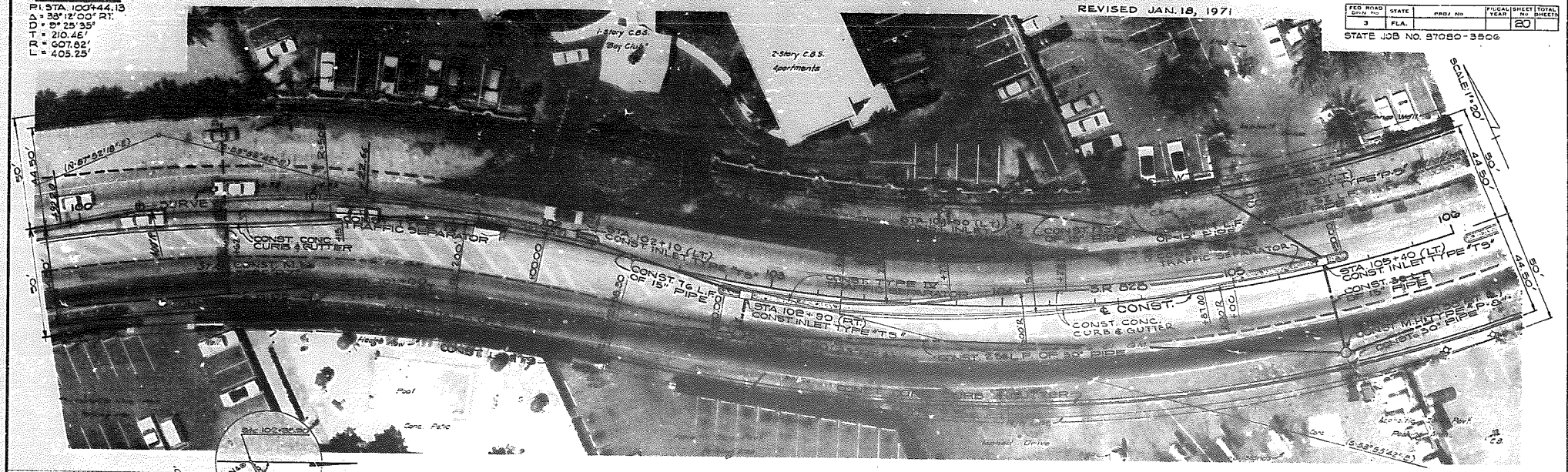


**SURVEY & CONST. CURVE DATA**  
 P.I. STA. 100+44.13  
 Δ = 35°12'00" RT.  
 Δ = 57°23'35"  
 Δ = 210.45'  
 Δ = 607.02'  
 Δ = 405.25'

REVISED JAN. 18, 1971

FED. ROAD DIST. NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	FLA.		20	

STATE JOB NO. 97080-3506



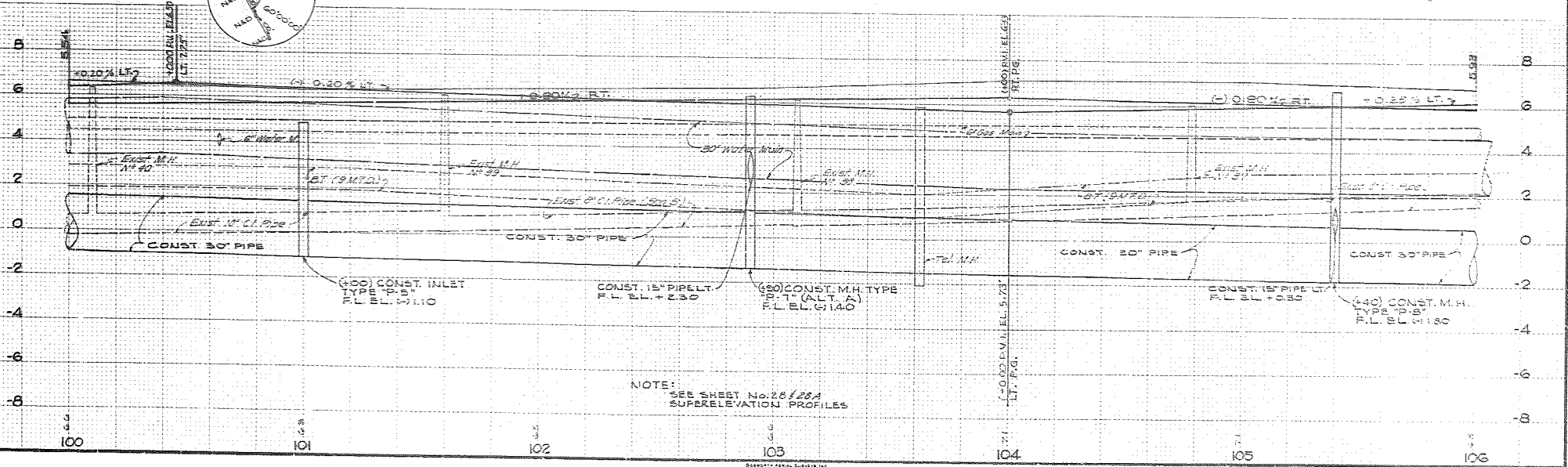
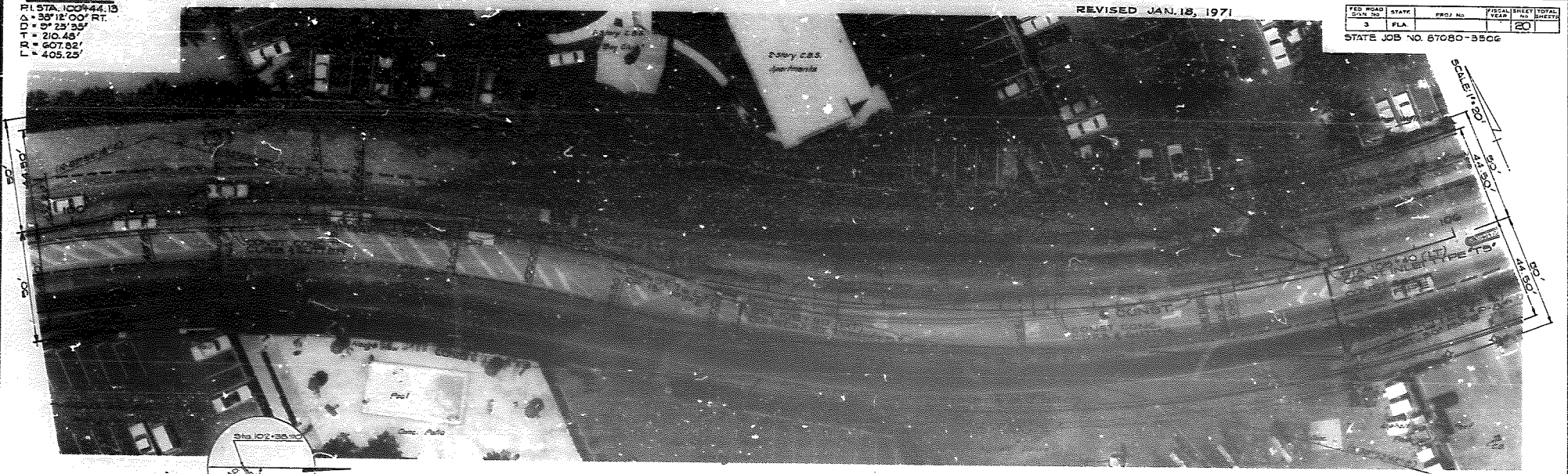


**SURVEY & CONST.**  
**CURVE DATA**  
 P.I. STA. 100+44.13  
 $\Delta = 35^{\circ}12'00''$  RT.  
 $D = 27.25'$   
 $T = 210.48'$   
 $R = 607.82'$   
 $L = 405.25'$

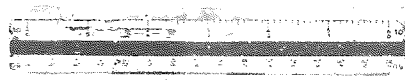
REVISED JAN. 18, 1971

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	FLA.			20	

STATE JOB NO. 87080-3506



NOTE:  
 SEE SHEET No. 28128A  
 SUPERELEVATION PROFILES



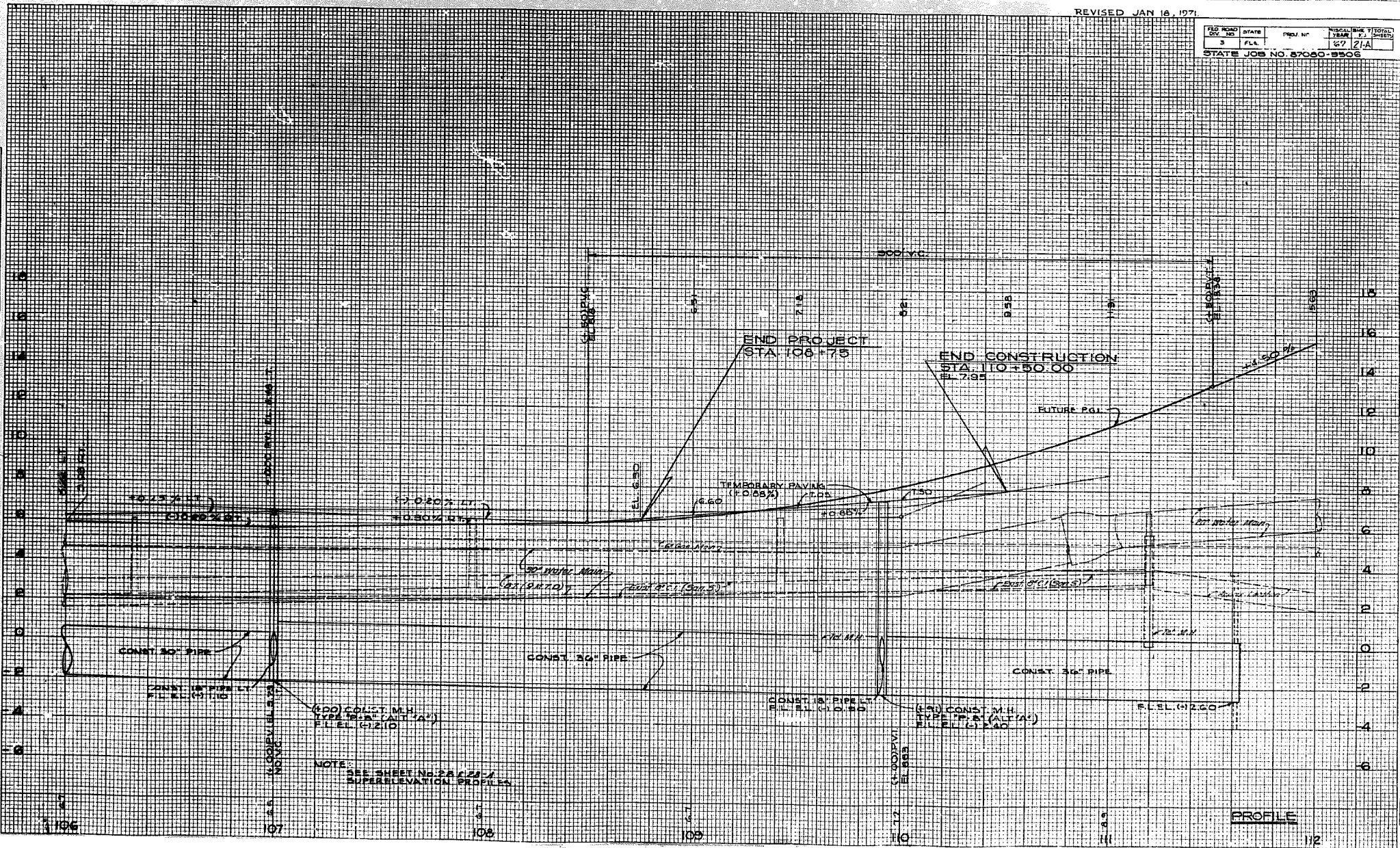


REVISED JAN 16, 1971

FED. ROAD DIST. NO.	STATE	PROJ. NO.	NORMAL LINE TOTAL
3	FLA		1.27
			SHEET
			127
STATE JOB NO. 87060-8506			

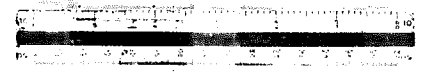
FINAL  
SURVEY  
CONTROL  
POINTS  
MARKED  
ON  
SITE

ORIGINAL  
SURVEY  
CONTROL  
POINTS  
MARKED  
ON  
SITE



NOTE  
SEE SHEET NO. 2A (128-1)  
SUPERELEVATION PROFILES

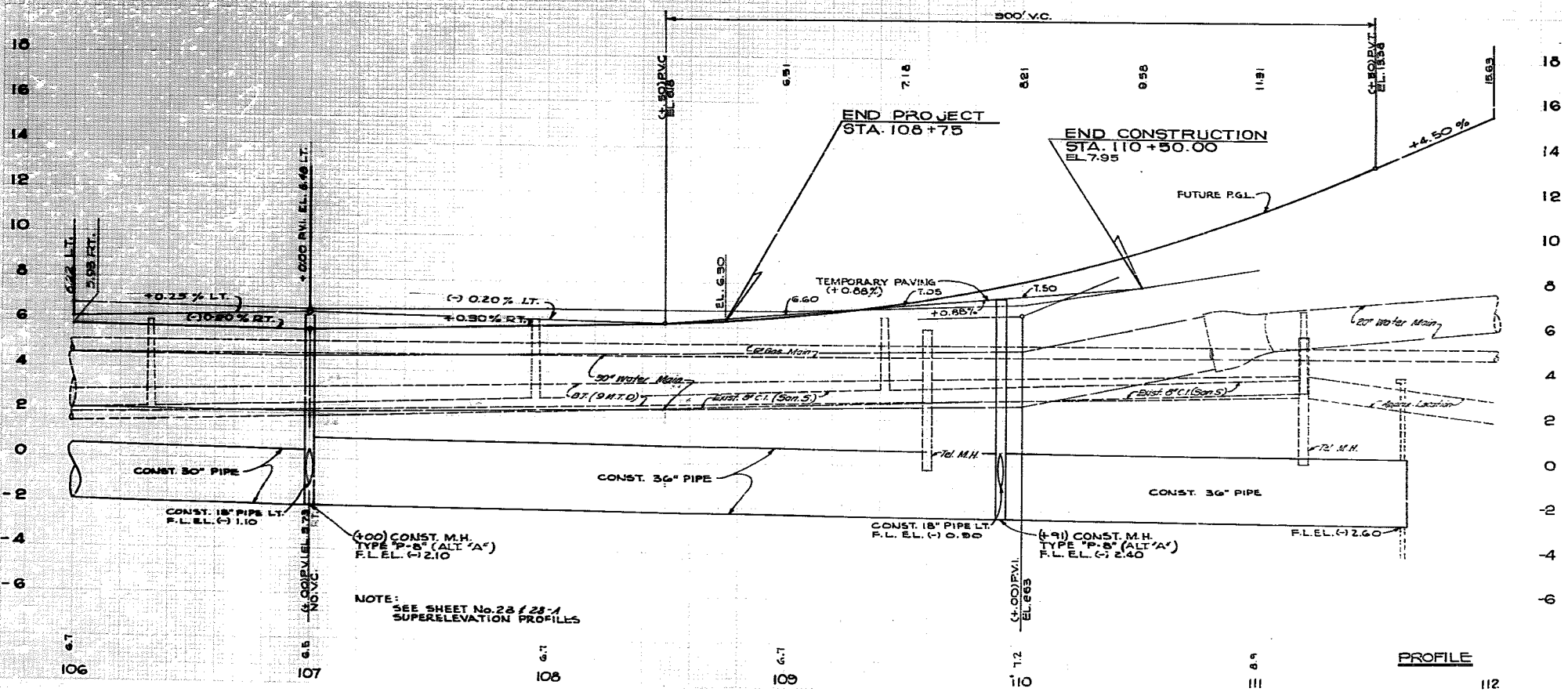
PROFILE



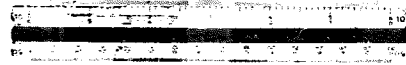
REVISED JAN 18, 1971.

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	FLA.		1971	27-A	

STATE JOB NO. 67060-12506



NOTE:  
SEE SHEET No. 23 & 23-1  
SUPERELEVATION PROFILES



PROFILE

112



**CROSS SECTIONS**  
Scale 1 inch = 5 feet

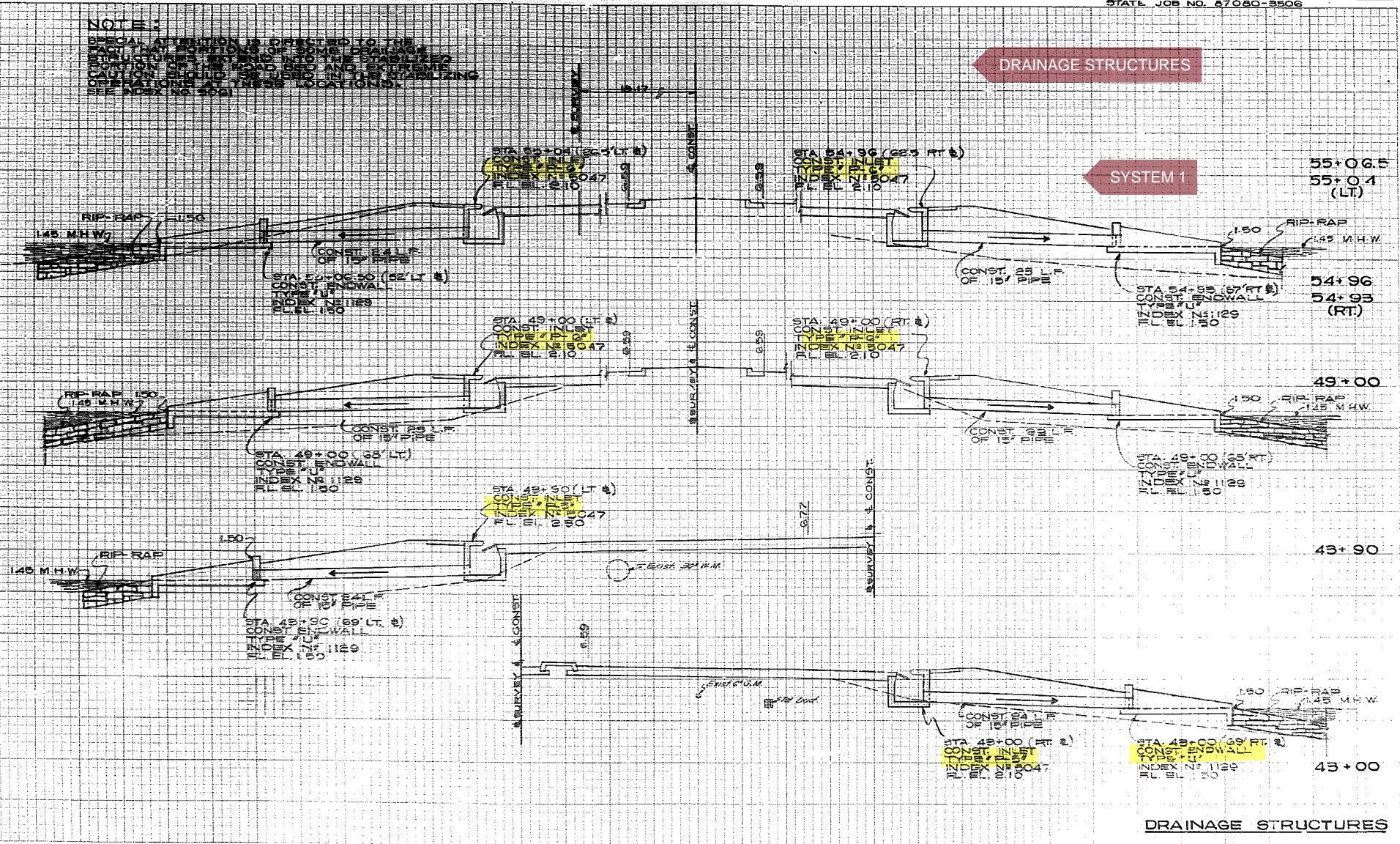
Proj. No.	State	County	Route	Proj. No.	Sheet No.
3	DADE	33			22
STATE JOB NO. 27080-3506					

**NOTE:**

SPECIAL ATTENTION IS DIRECTED TO THE LOCATION OF THE JOINTS OF SOME DRAINAGE STRUCTURES. BECAUSE OF THE RISK OF FAILURE, EXTREME CARE SHOULD BE TAKEN IN THE STABILIZING OF PLANTINGS AT THESE LOCATIONS. SEE INDEX NO. 202.

**DRAINAGE STRUCTURES**

**SYSTEM 1**



55+06.5  
55+0.4  
(LT)

54+96  
54+93  
(RT)

49+00

43+90

43+00

**DRAINAGE STRUCTURES**



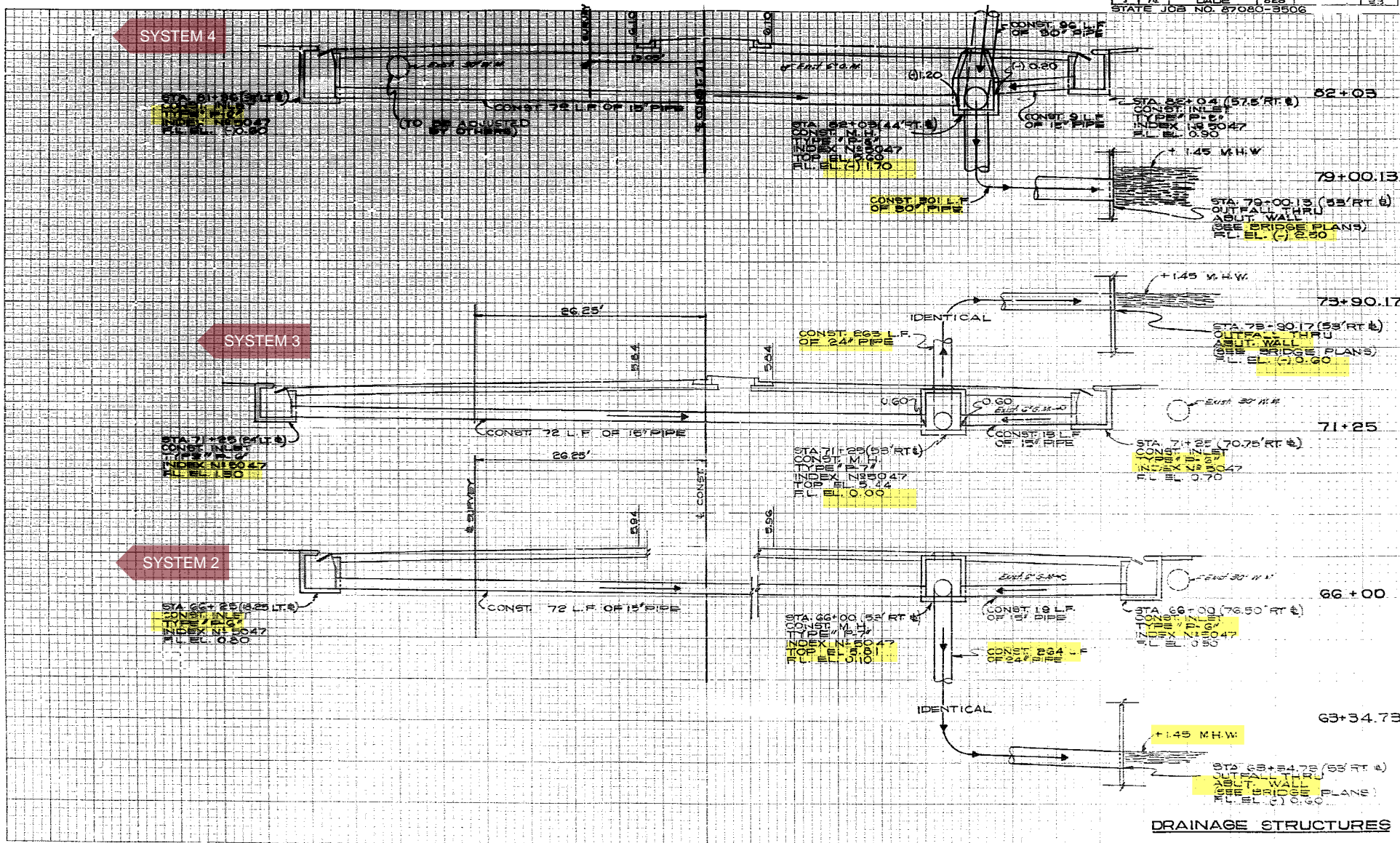


### CROSS SECTIONS

Scale 1/4" = 5 feet

Year	State	County	Route	Proj. No.	Sheet No.
3	Pa.	DADE	825		23

STATE JOB NO. 67080-3506

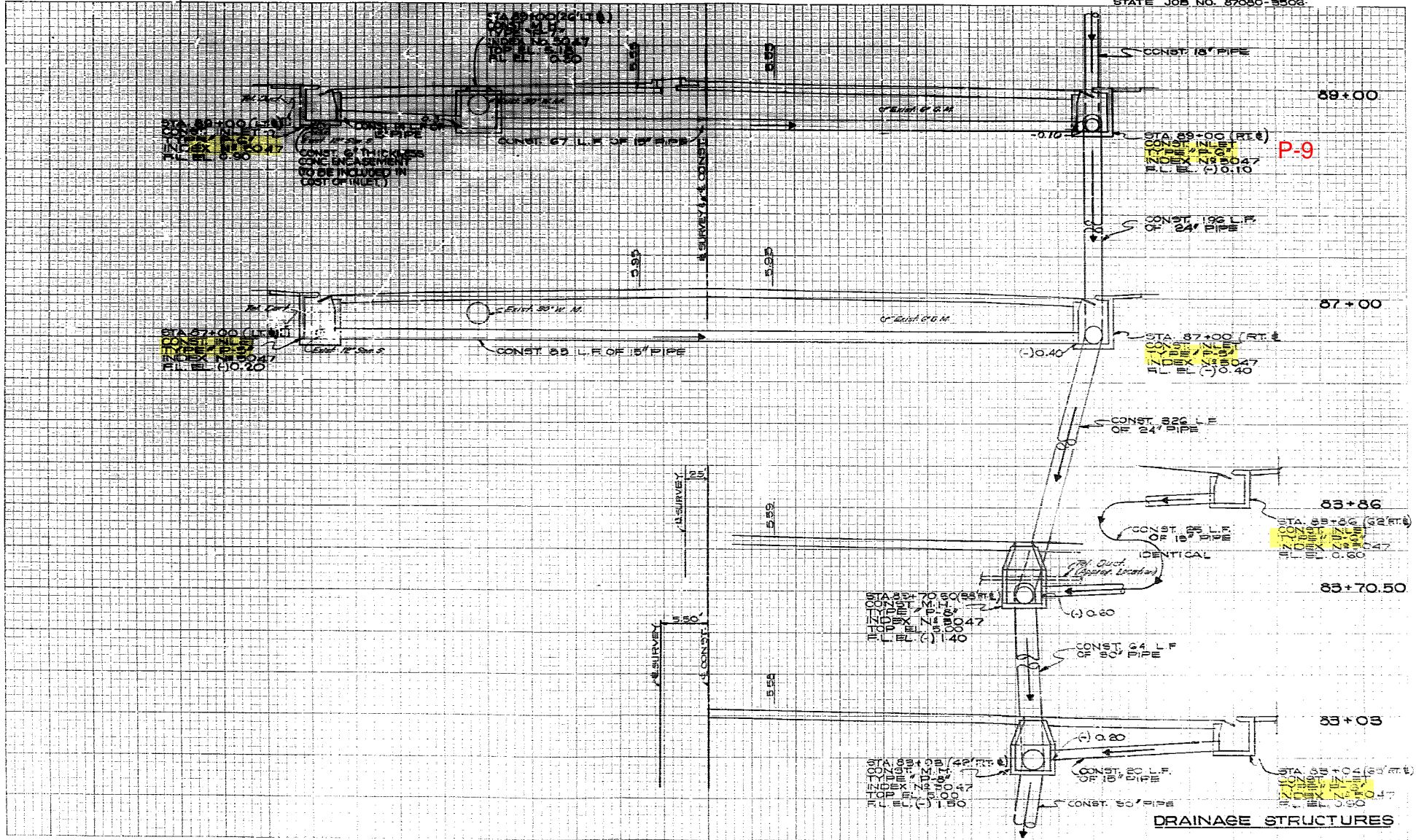


**DRAINAGE STRUCTURES**

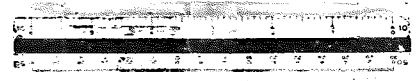


**CROSS SECTIONS**  
Scale 1 inch = 5 feet

Job No.	Station	Entry	Exit	Proj. No.	Sheet No.
STATE JOB NO. 87080-8308	7	DATE	818		24



**DRAINAGE STRUCTURES**

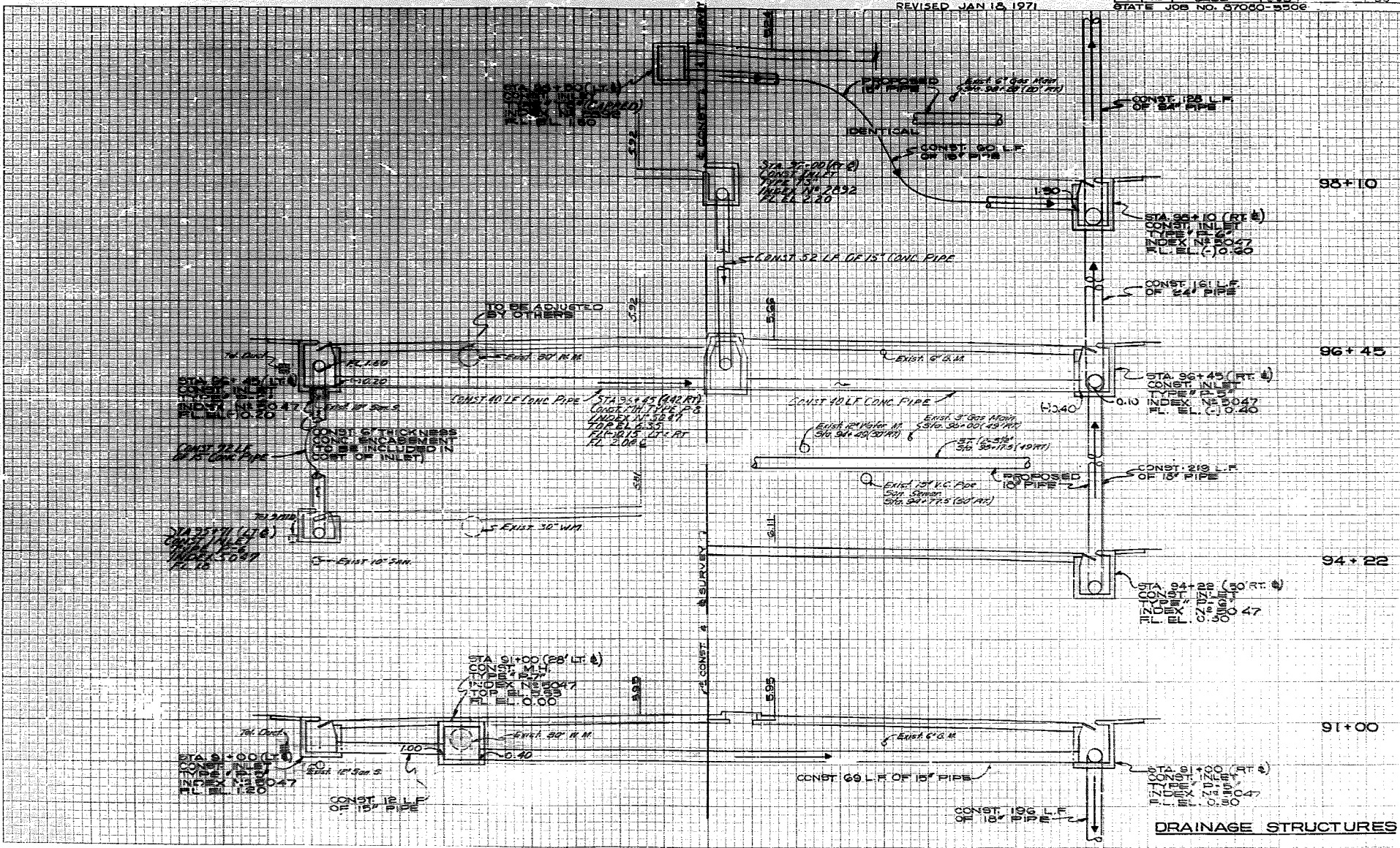


**CROSS SECTIONS**  
Scale 1 inch = 5 feet

REVISED JAN 13, 1971

Proj. No.	State	County	Route	Proj. No.	Sheet No.
3	Pa.	DADE	210		25

STATE JOB NO. 07050-3506



**DRAINAGE STRUCTURES**



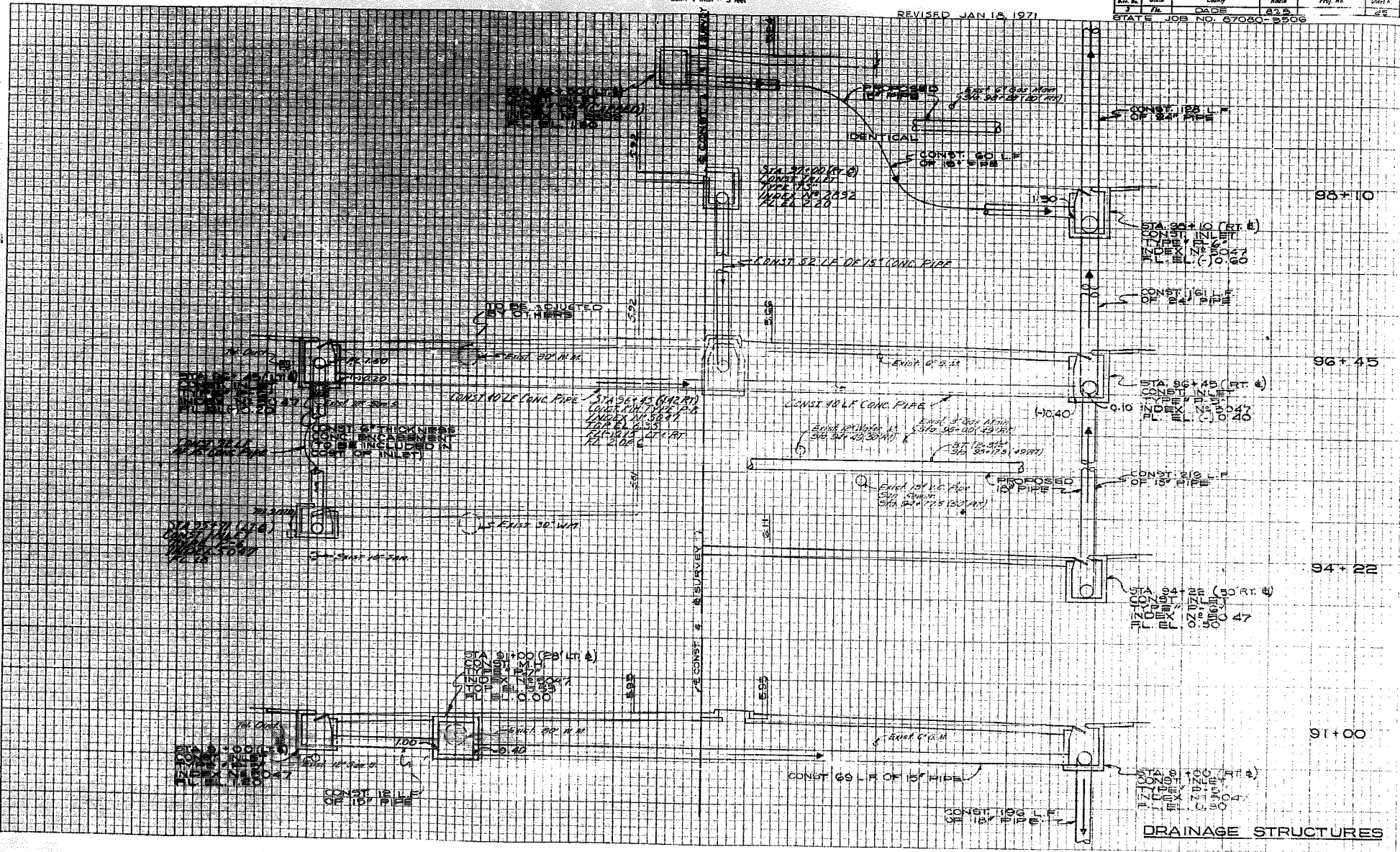


CROSS SECTIONS  
Scale: 1 inch = 5 feet

REVISED JAN 15, 1971

Dist. from	State	County	Route	Proj. No.	Sheet No.
Sta. 91+00	Pa.	DADE	222		25

STATE JOB NO. 67080-3506



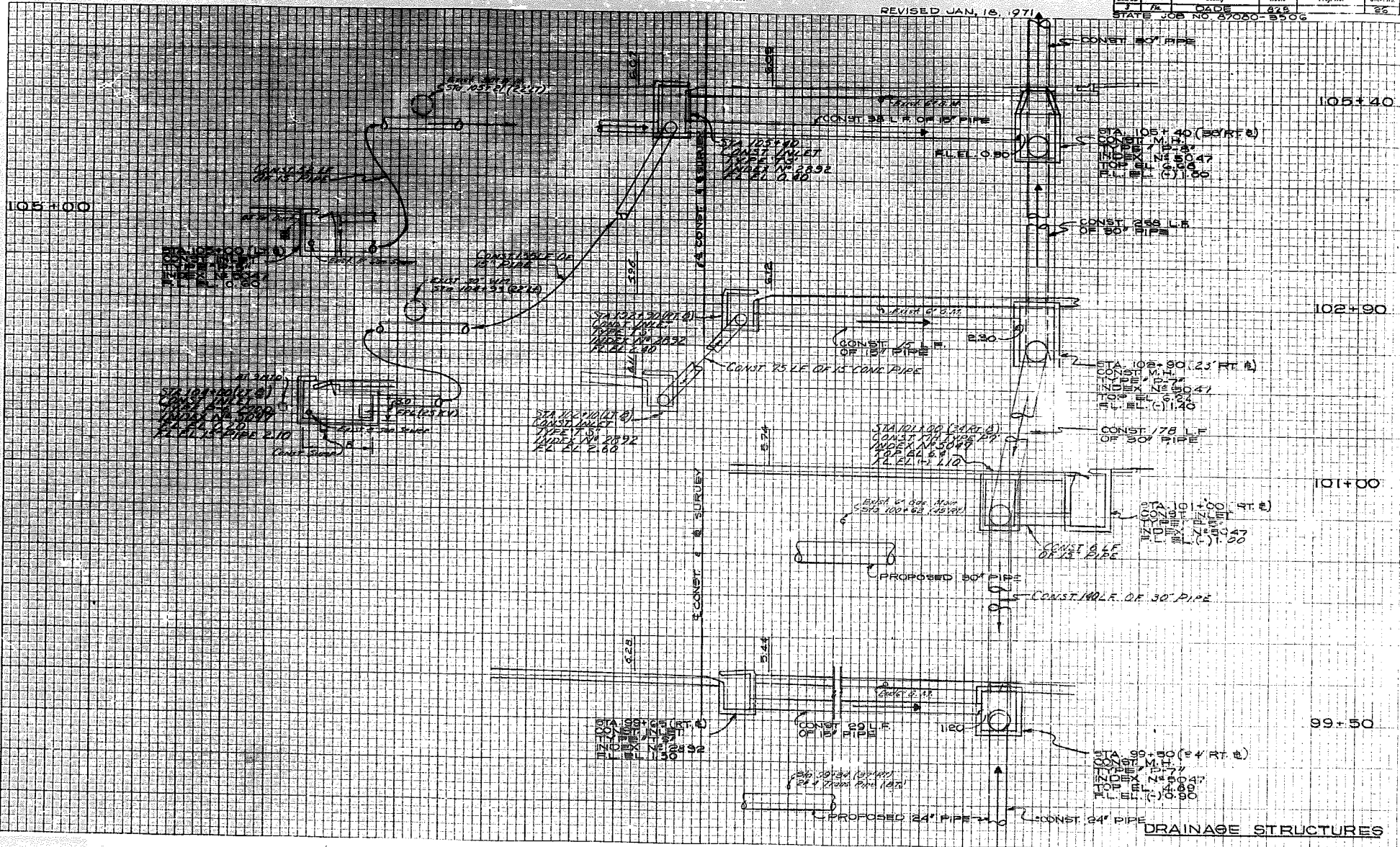
DRAINAGE STRUCTURES



CROSS SECTIONS  
Scale 1 inch = 5 feet

Dist. No.	State	County	Route	Proj. No.	Sheet No.
3	CA	STANISLAUS	97E		26
STATE JOB NO. 67060-9306					

REVISED JAN. 18, 1971



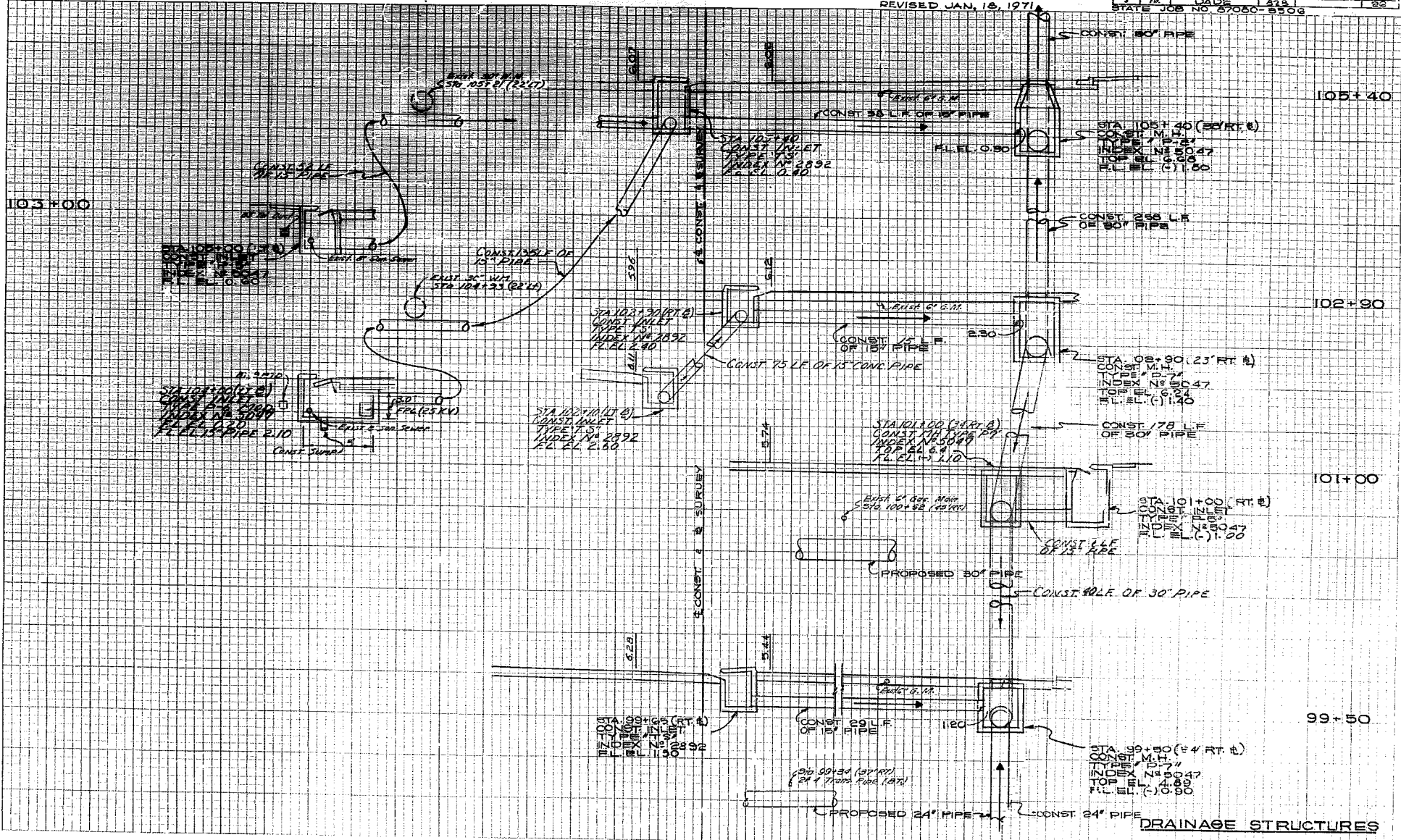


CROSS SECTIONS  
Scale 1 inch = 5 feet

REVISED JAN. 18, 1971

City	State	County	Route	Proj. No.	Sheet No.
Wade	Ill.	Wade	473		26

STATE JOB NO. 87080-8508



STA 102+90 (RT. E.)  
 CONST. INLET  
 INDEX N° 2892  
 F.L. EL. 2.80  
 CONST. 75 LF. OF 15" CONC. PIPE  
 STA 102+90 (RT. E.)  
 CONST. INLET  
 INDEX N° 2892  
 F.L. EL. 2.80

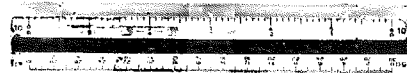
STA 105+40 (SE RT. E.)  
 CONST. INLET  
 INDEX N° 5047  
 TOP EL. 6.06  
 F.L. EL. (C) 1.00

STA 102+90 (23' RT. E.)  
 CONST. M.H.  
 TYPE # 274  
 INDEX N° 5047  
 TOP EL. 6.24  
 F.L. EL. (C) 1.40

STA 101+00 (RT. E.)  
 CONST. INLET  
 INDEX N° 5047  
 TOP EL. 7.00  
 F.L. EL. (C) 1.00

STA 99+50 (RT. E.)  
 CONST. M.H.  
 TYPE # 274  
 INDEX N° 5047  
 TOP EL. 4.88  
 F.L. EL. (C) 0.90

DRAINAGE STRUCTURES

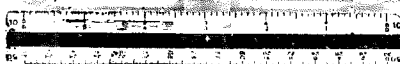
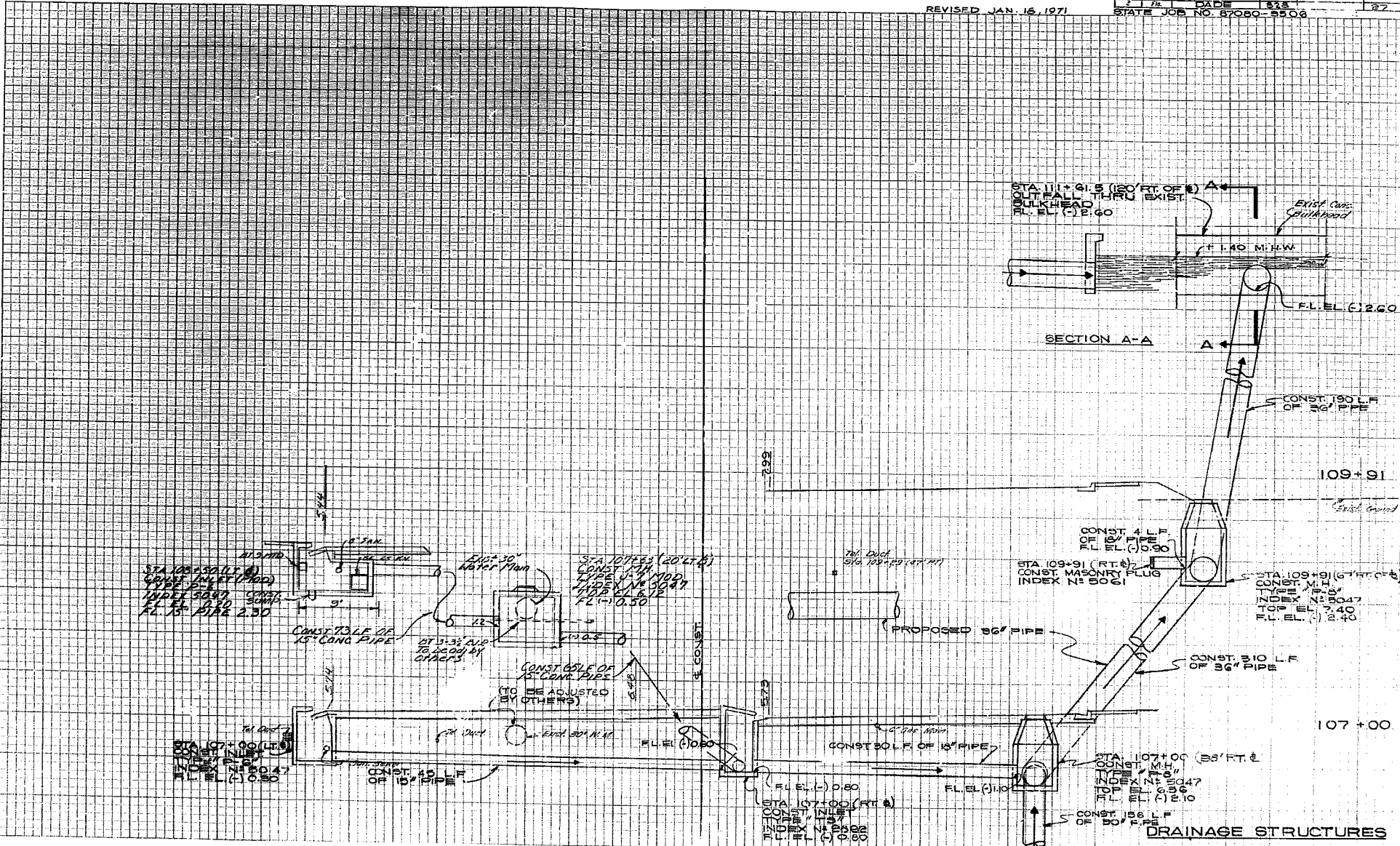


**CROSS SECTIONS**

Scale 1 inch = 5 feet

REVISED JAN. 16, 1971

Fl. Dist. Cont. No.	Sta.	Curr.	Rate	Proj. No.	Sheet No.
2	2	DATE	538		22
STATE JOB NO. 87080-5508					



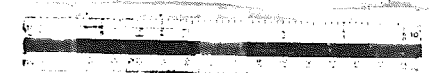
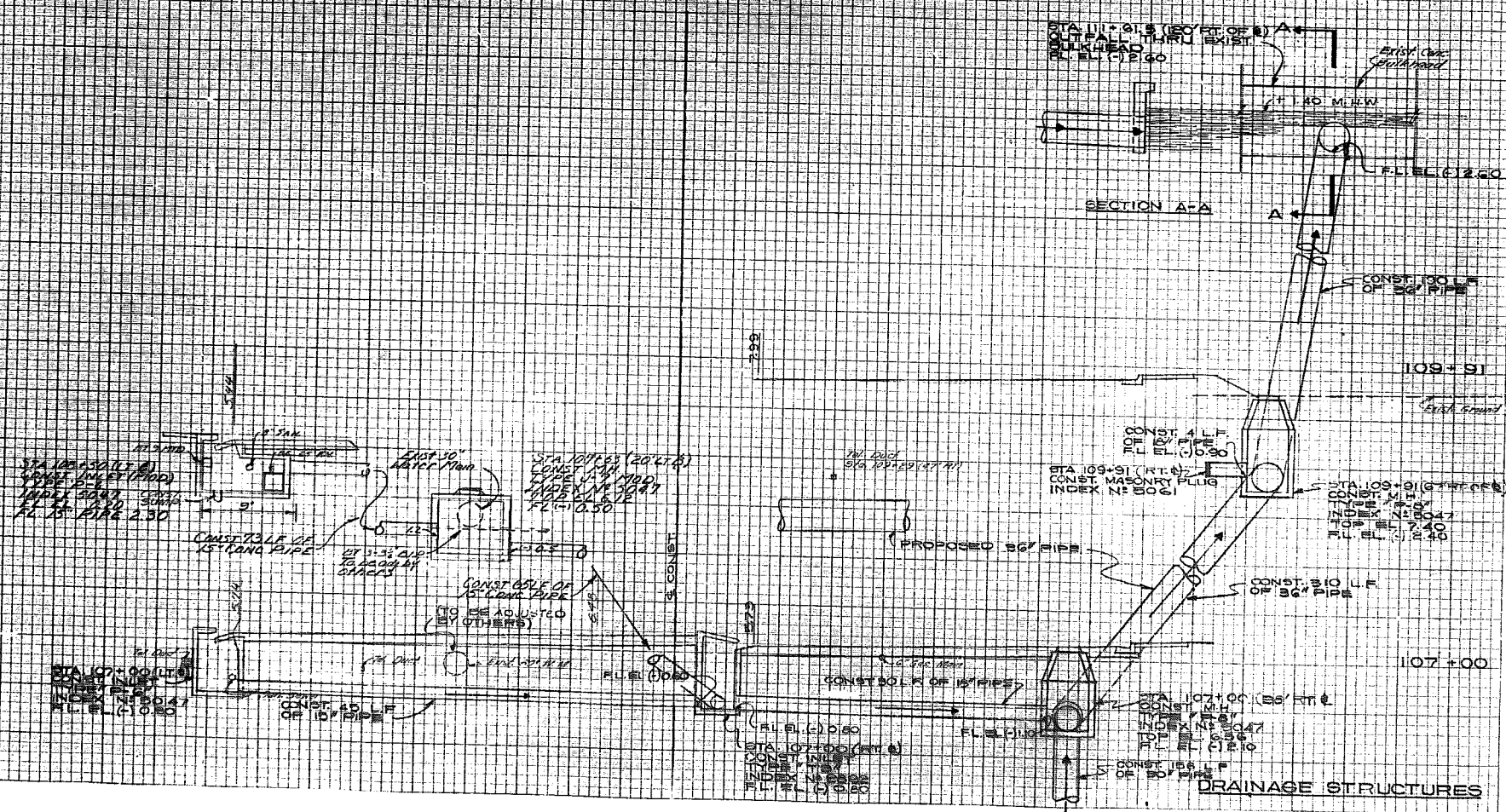


**CROSS SECTIONS**  
Scale 1 inch = 5 feet

REVISED JAN. 16, 1971

Proj. No.	State	County	Route	Proj. No.	Sheet No.
	VA	MADE	625		27

STATE JOB NO 67080-9908



SHEET NO BX1-1  
 FPID 436526-1-52-01  
 EXISTING PLANS FOR  
 INFORMATION ONLY

TRACT PLANS SET

ANS

SIGNALIZATION PLANS  
 LIGHTING PLANS

A DETAILED INDEX APPEARS ON THE  
 KEY SHEET OF EACH COMPONENT

INDEX OF ROADWAY PLANS

SHEET NO.	SHEET DESCRIPTION
1	KEY SHEET
2 - 3	SIGNATURE SHEET
4 - 9	SUMMARY OF PAY ITEMS
10 - 14	TYPICAL SECTION
SQ-1 - SQ-34	SUMMARY OF QUANTITIES
15 - 16	GENERAL NOTES
17 - 36	PLAN
37 - 39	TEMPORARY TRAFFIC CONTROL PLAN
40	TRAFFIC CONTROL PLAN GUIDE SIGN WORK SHEET
41	EXPANSION JOINT DETAILS
CTL-1 - CTL-3	PROJECT NETWORK CONTROL

LIST OF REVISED INDEX DRAWINGS

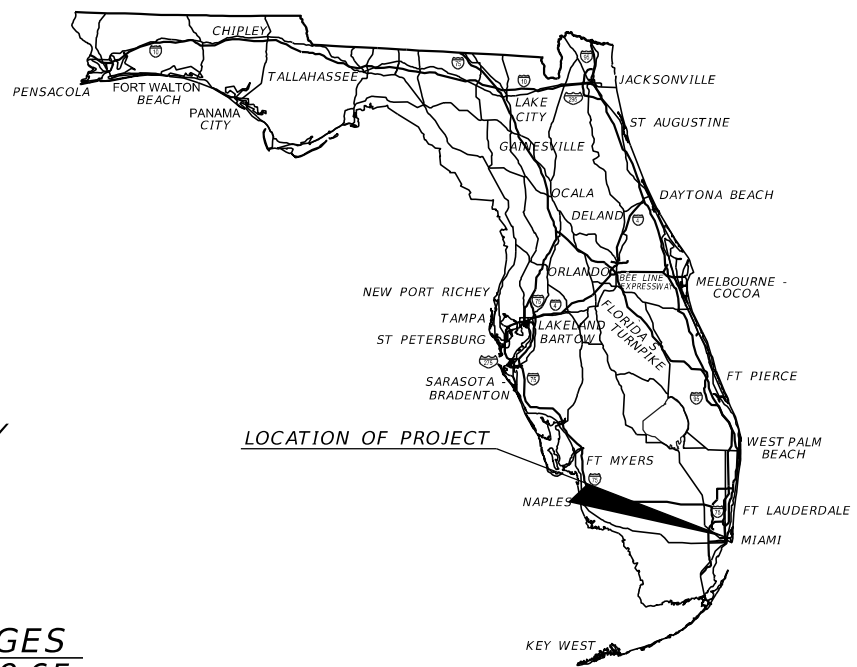
INDEX NO.	SHEET NO.
600	1-12 OF 12
11200	3 OF 3
11860	4 OF 8
11862	1-7 OF 7
17302	1 OF 1
17347	1-5 OF 5
17727	2 OF 2
17841	1 OF 1

STATE OF FLORIDA  
 DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

FINANCIAL PROJECT ID 431180-1-52-01  
 FINANCIAL PROJECT ID 431180-1-52-02  
 (FEDERAL FUNDS)  
 MIAMI-DADE COUNTY (87080)

STATE ROAD NO. 934/NE 79th STREET CAUSEWAY/J.F. KENNEDY CAUSEWAY  
 FROM EAST OF NORTH BAYSHORE DRIVE TO BAY DRIVE WEST



LOCATION OF PROJECT

COVER SHEET

ROADWAY SHOP DRAWINGS  
 TO BE SUBMITTED TO:

ANDREW C. NUNES, PE  
 AMERICAN CONSULTING  
 ENGINEERS OF FLORIDA, LLC  
 2000 Palm Beach Lakes Blvd., Suite 1000  
 West Palm Beach, FLORIDA 33409  
 (561) 253-9550

PLANS PREPARED BY:

AMERICAN  
 CONSULTING ENGINEERS OF FLORIDA, LLC  
 2000 Palm Beach Lakes Boulevard, Suite 1000  
 West Palm Beach, FL 33409  
 Phone: (561) 253-9550 Fax: (561) 253-9551  
 Certificate of Authorization No. 9302  
 Vendor No. VF 043682340.001

NOTE: THE SCALE OF THESE PLANS MAY  
 HAVE CHANGED DUE TO REPRODUCTION.

THIS PROJECT TO BE LET WITH FINANCIAL  
 PROJECT ID 431180-2-52-01. FINANCIAL PROJECT  
 IDS 431180-1-56-01, 431180-1-56-02, 431180-1-56-03  
 ARE TO BE LET FOR FINANCIAL PURPOSES ONLY  
 AND HAVE NO PLANS.

ROADWAY PLANS  
 ENGINEER OF RECORD: ANDREW C. NUNES, P.E.

P.E. NO.: 52731

FISCAL YEAR	SHEET NO.
15	1

END BRIDGES  
 STA. 63+38.04  
 TO FT. LAUDERDALE  
 R-41-E R-42-E

BEGIN BRIDGES  
 STA. 73+90.65  
 (870084 WB)  
 (870550 EB)

END BRIDGES  
 STA. 78+99.65

BEGIN BRIDGES  
 STA. 58+03.07  
 (870083 WB)  
 (870549 EB)

END BRIDGES  
 STA. 32+02.49

BEGIN BRIDGES  
 STA. 22+15.03  
 (870082 WB)  
 (870554 EB)

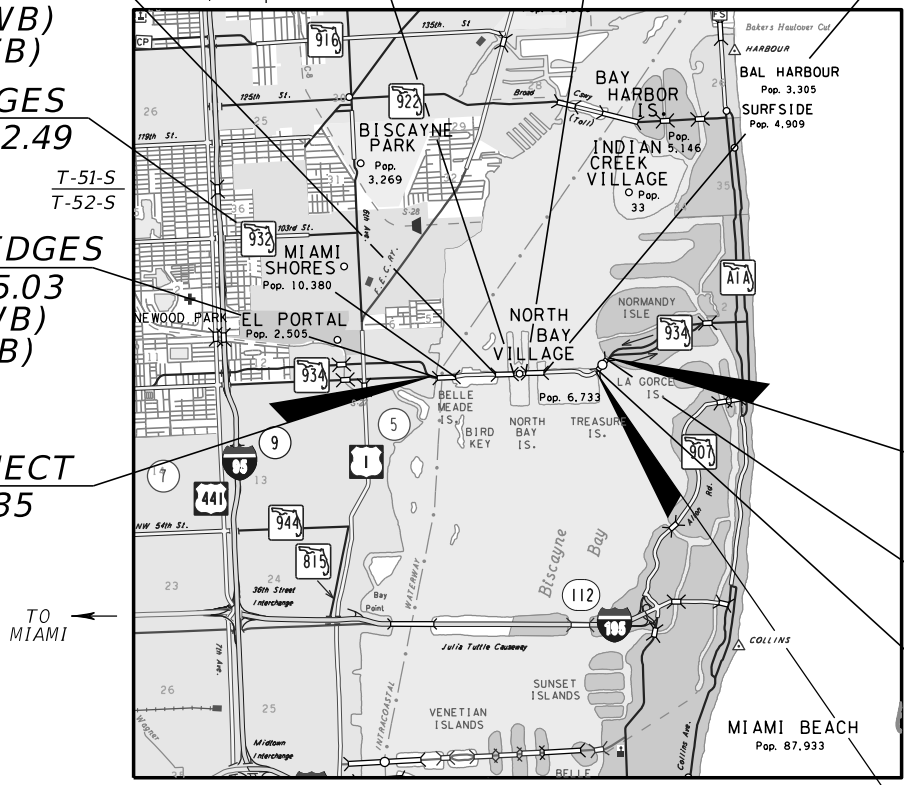
BEGIN PROJECT  
 STA. 18+43.35  
 M.P. 0.662

END PROJECT  
 STA. 123+53.67  
 M.P. 2.652

END BRIDGES  
 STA. 121+69.51

BEGIN BRIDGES  
 STA. 111+46.95  
 (870085 WB)  
 (870551 EB)

EQUATION:  
 STA. 111+15.45 BK =  
 STA. 111+18.76 AH



TO MIAMI

TO MIAMI  
 R-41-E R-42-E

PROJECT LENGTH IS BASED ON CONSTRUCTION

LENGTH OF PROJECT

	LINEAR FEET	MILES
ROADWAY	7453.052	1.412
BRIDGES	3053.99	0.578
NET LENGTH OF PROJECT	10507.01	1.990
EXCEPTIONS	0.00	0.000
GROSS LENGTH OF PROJECT	10507.01	1.990

FDOT PROJECT MANAGER: JASON CHANG, P.E.

KEY SHEET REVISIONS	
DATE	DESCRIPTION

GOVERNING STANDARDS AND SPECIFICATIONS:  
 Florida Department of Transportation, 2015 Design Standards and  
 revised Index Drawings as appended herein, and the January 2015 Standard  
 Specifications for Road and Bridge Construction, as amended by  
 Contract Documents.

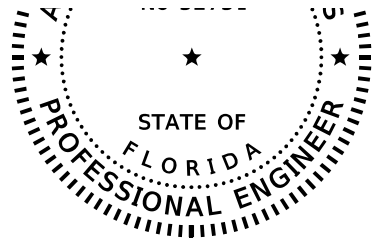
For Design Standards click on the "Design Standards" link at the  
 following web site:  
<http://www.dot.state.fl.us/rddesign/>

For the Standard Specifications for Road and Bridge Construction  
 click on the "Specifications" link at the following web site:  
<http://www.dot.state.fl.us/specificationsoffice/>

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.



SHEET NO BX1-2  
 FPID 436526-1-52-01  
 EXISTING PLANS FOR  
 INFORMATION ONLY

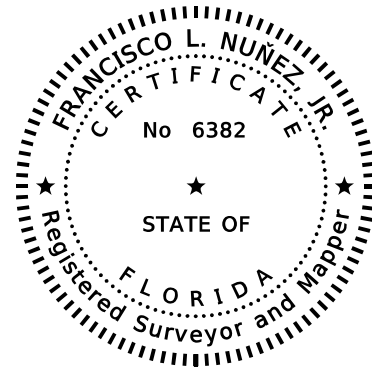


AMERICAN  
 CONSULTING ENGINEERS OF FLORIDA, LLC  
 2000 Palm Beach Lakes Boulevard, Suite 1000  
 West Palm Beach, FL 33409  
 Phone: (561) 253-9550 Fax: (561) 253-9551  
 Certificate of Authorization No. 9302  
 Andrew C. Nunes, P.E. No. 52731

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE  
 FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.00, F.A.C.

ROADWAY PLANS

SHEET NO.	SHEET DESCRIPTION
1	KEY SHEET
2	SIGNATURE SHEET
3 - 9	SUMMARY OF PAY ITEMS
10 - 14	TYPICAL SECTION
SQ-1 - SQ-34	SUMMARY OF QUANTITIES
15 - 16	GENERAL NOTES
17 - 36	PLAN
37 - 39	TEMPORARY TRAFFIC CONTROL PLAN
40	TRAFFIC CONTROL PLAN GUIDE SIGN WORK SHEET
S-1 - S-28	SIGNING AND PAVEMENT MARKING PLANS

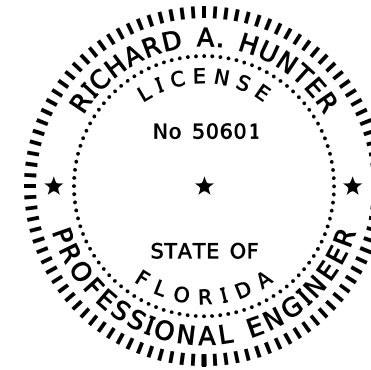


C H Perez & Associates Consulting Engineers  
 Certificate of Authorization: EB-25976  
 Licensed Business: LB-7360  
 9594 NW 41 Street, Suite 201  
 Doral, Florida 33178  
 Tel. (305) 592-1070 | Fax. (305) 592-1078  
 Prof. Surveyor: Francisco L. Nuñez, Jr., PSM  
 P.S.M. License No. 6382

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE  
 FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 5J-17.062, F.A.C.

ROADWAY PLANS

SHEET NO.	SHEET DESCRIPTION
2	SIGNATURE SHEET
CTL-1 - CTL-3	PROJECT NETWORK CONTROL



AMERICAN  
 CONSULTING ENGINEERS OF FLORIDA, LLC  
 2818 Cypress Ridge Blvd, Suite 200  
 Wesley Chapel, Florida 33544  
 Phone: (813) 435-2600 Fax: (813) 435-2601  
 Certificate of Authorization No. 9302  
 Richard A. Hunter, P.E. No. 50601

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE  
 FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.00, F.A.C.

ROADWAY PLANS

SHEET NO.	SHEET DESCRIPTION
2	SIGNATURE SHEET
41	EXPANSION JOINT DETAILS

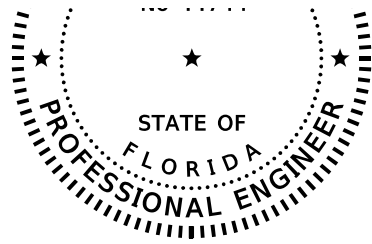
LIGHTING PLANS

SHEET NO.	SHEET DESCRIPTION
L-35	LIGHT POLE ANCHOR DETAILS
L-36	LIGHT POLE SPREAD FOOTING DETAILS

REVISIONS				AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2000 Palm Beach Lakes Boulevard, Suite 1000 West Palm Beach, FL 33409 Phone: (561) 253-9550 Fax: (561) 253-9551 Certificate of Authorization No. 9302 Andrew C. Nunes, P.E. No. 52731	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					934	MIAMI-DADE	431180-1-52-01	2

SIGNATURE SHEET

SHEET NO BX1-3  
 FPID 436526-1-52-01  
 EXISTING PLANS FOR  
 INFORMATION ONLY

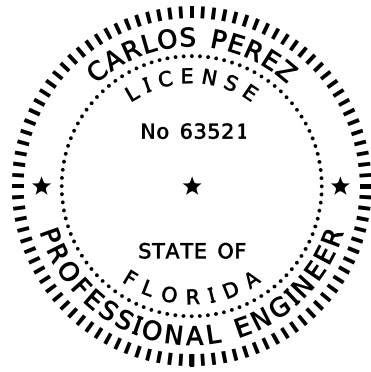


**C H Perez and Associates  
 Consulting Engineers, Inc.**  
 Certificate of Authorization No. 25976  
 9594 NW 41 Street, Suite 201 | Doral, Florida 33178  
 Tel. (305) 592-1070 | Fax. (305) 592-1078  
 Alejandro G. Meitin  
 Florida P.E. No. 44744 agm@p-a.cc  
 www.p-a.cc

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE  
 FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.003, F.A.C.

SIGNALIZATION PLANS

SHEET NO.	SHEET DESCRIPTION
2A	SIGNATURE SHEET
T-1 - T-10	SIGNALIZATION PLANS

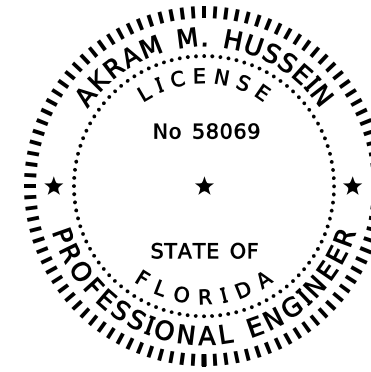


**CALTRAN ENGINEERING  
 GROUP, INC.**  
 730 NW 107 AVENUE, SUITE 115  
 MIAMI, FLORIDA 33172  
 PHONE: (786) 456-7700  
 CARLOS PEREZ, P.E.  
 P.E. NO 63521  
 CA NO. 00029379

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE  
 FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.003, F.A.C.

SIGNALIZATION PLANS

SHEET NO.	SHEET DESCRIPTION
2A	SIGNATURE SHEET
T-11, T-12	TRAFFIC MONITORING SITE



**AMERICAN  
 CONSULTING ENGINEERS OF FLORIDA, LLC**  
 2818 Cypress Ridge Blvd, Suite 200  
 Wesley Chapel, Florida 33544  
 Phone: (813) 435-2600 Fax: (813) 435-2601  
 Certificate of Authorization No. 9302  
 Akram M. Hussein, P.E. No. 58069

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE  
 FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.00, F.A.C.

LIGHTING PLANS

SHEET NO.	SHEET DESCRIPTION
L-1	KEY SHEET
L-2 - L-3	TABULATION OF QUANTITIES
L-4	GENERAL NOTES
L-5 - L-6	POLE DATA AND LEGEND
L-7 - L-26	LIGHTING PLAN
L-27 - L-28	POLE DETAILS
L-29	POLE CABLE DISTRIBUTION SYSTEM DETAIL - ROADWAY
L-30	POLE CABLE DISTRIBUTION SYSTEM DETAIL - BRIDGE
L-31 - L-34	SERVICE POINT DETAILS

REVISIONS				AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2000 Palm Beach Lakes Boulevard, Suite 1000 West Palm Beach, FL 33409 Phone: (561) 253-9550 Fax: (561) 253-9551 Certificate of Authorization No. 9302 Andrew C. Nunes, P.E. No. 52731	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SIGNATURE SHEET	SHEET NO.  3
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					934	MIAMI-DADE	431180-1-52-01		



**6 SHEET NO BX1-49**

**1 FPID 436526-1-52-01  
EXISTING PLANS FOR  
2 INFORMATION ONLY**

PLANS IS NAVD88. REFER TO THE PROJECT NETWORK CONTROL SHEETS FOR HORIZONTAL AND VERTICAL.

BY NETWORK CONTROL SURVEY MONUMENTS ARE TO BE PROTECTED BY THE CONTRACTOR. CORNERS AND MONUMENTS WITHIN THE WORK ZONE AND IN DANGER OF BEING DAMAGED, DESTROYED OR COVERED SHALL BE PROPERLY REFERENCED BY A REGISTERED LAND SURVEYOR IN ACCORDANCE WITH THE MINIMUM TECHNICAL STANDARDS OF THE FLORIDA BOARD OF PROFESSIONAL LAND SURVEYOR PRIOR TO THE BEGINNING OF WORK. UPON PROJECT COMPLETION THE CONTRACTOR SHALL RESTORE ALL SUCH CORNERS AND MONUMENTS AND SHALL FURNISH TO THE DISTRICT LOCATION SURVEYOR A SIGNED AND SEALED COPY OF THE LAND SURVEYOR'S REFERENCE DRAWING. INCLUDE ALL COST OF REFERENCING, RESTORING AND PRESERVING CORNERS AND MONUMENTS IN THE BID PRICE FOR ITEM 101-1 MOBILIZATION.

3. ALL EXCESS MATERIAL AS DESIGNATED BY THE ENGINEER IS TO BE DISPOSED BY THE CONTRACTOR IN AREAS PROVIDED BY HIM WITHIN 72 HOURS OF BEING DEPOSITED IN THE CONSTRUCTION AREA AND AT THE CONTRACTOR'S EXPENSE.
4. THE CONTRACTOR SHALL USE A STREET SWEEPER (USING WATER) OR OTHER EQUIPMENT CAPABLE OF CONTROLLING AND REMOVING DUST. APPROVAL OF THE USE OF SUCH EQUIPMENT IS CONTINGENT UPON ITS DEMONSTRATED ABILITY TO DO THE WORK. CLEANING AND SWEEPING IS TO BE INCLUDED IN ITEM 102-1 MAINTENANCE OF TRAFFIC.
5. SAW CUTTING OF THE EXISTING SIDEWALKS SHALL BE MADE ONLY AT THE NEAREST FLAG JOINTS.
6. INSTALLATIONS OF NEW PULL BOXES SHALL BE PERFORMED BY QUALIFIED ELECTRICAL CONTRACTOR. WHEN NEW PULL BOX IS REPLACING EXISTING PULL BOX, THE CONTRACTOR SHALL ADJUST CONDUITS AND CABLES TO FIT THE NEW PULL BOX ELEVATION. COST OF ADJUSTMENTS IS INCLUDED IN THE PULL BOX PAY ITEM.
7. THE CONTRACTOR SHALL PERFORM AN INVENTORY OF ALL EXISTING STREET LIGHTING, TRAFFIC SIGNAL AND OTHER ELECTRIC AND COMMUNICATION INSTALLATIONS (POLES, PULL BOXES, CONTROLLER CABINET, SERVICE POINTS, ETC.) WITHIN THE AFFECTED LIMITS. AFFECTED LIMITS INCLUDE ALL AREAS WHERE CLEARING AND GRUBBING, EXCAVATION, REMOVAL OF SIDEWALK, OR ANY SPECIFIED ELECTRICAL WORKS ARE BEING PERFORMED. THE CONTRACTOR SHALL SUBMIT A REPORT OF THE CONDITION OF EACH INSTALLATION AND ITS CONTENT TO THE ENGINEER PRIOR TO THE BEGINNING OF CONSTRUCTION; INCLUDING PHOTOGRAPHS OF ANY IDENTIFIED DEFICIENCIES.
8. THE CONTRACTOR SHALL REPAIR ALL DAMAGED PULL BOXES AND THEIR CONTENT IN ACCORDANCE WITH THE LATEST FDOT, MAINTAINING AGENCY AND NATIONAL ELECTRICAL CODE REQUIREMENTS. ALL DAMAGED CABLES AND CONDUCTORS SHALL BE REPLACED, NO SPLICES ARE ALLOWED.
9. EXISTING DRAINAGE STRUCTURES WITHIN CONSTRUCTION LIMITS SHALL REMAIN UNLESS OTHERWISE NOTED.
10. THE CONTRACTOR SHALL INSTALL DETECTABLE WARNING DEVICES ON PROPOSED CURB RAMPS PER FDOT DESIGN STANDARDS INDEX 304. BLACK DETECTABLE WARNING DEVICES SHALL BE USED ONLY ON THE MIAMI BEACH RED COLORED CONCRETE RAMPS (CITY OF MIAMI BEACH).
11. MIAMI BEACH RED COLORED CONCRETE IS BEING REFERENCED TO SCOFIELD SYSTEMS CHROMIX ADMIXTURES COLOR GUIDE (CITY OF MIAMI BEACH).
12. "SIDEWALK TO BE RESTORED AS PER FDOT STANDARD SPECIFICATIONS. CONCRETE SHALL BE INTEGRALLY COLORED (WITH MAXIMUM 1.5 LB. PER CUBIC YARD MESA BUFF OR SIMILAR BY LAMBERT CORPORATION). AT THE DIRECTION OF THE ENGINEER THE CONTRACTOR SHALL CAST TEST PIECES IN THE FIELD TO DETERMINE THE EXACT AMOUNT OF COLORING AGENT TO BE USED. ALL CONCRETE SHALL BE PURCHASED BY THE CONTRACTOR FROM THE SAME READY-MIX COMPANY TO INSURE COLOR CONSISTENCY THROUGHOUT. CONCRETE FINISH SHALL BE BROOM FINISH. INTEGRAL CONCRETE COLOR TO BE LAMBERT MESA BUFF. PAINTED CURBS ARE TO BE PAINTED W/LAMBERT MESA BUFF TO MATCH EXISTING CONDITION." (NORTH BAY VILLAGE)
13. THE CONTRACTOR SHALL PERFORM STANDARD CLEARING AND GRUBBING FOR THE WORK BEING DONE AS APPROVED BY THE ENGINEER. COST TO BE INCLUDED IN PAY ITEM 110-1-1 CLEARING & GRUBBING.
14. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION DURING THE BRIDGE DECK MILLING OPERATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COST RELATED TO SUCH DAMAGE.

**FIELD OFFICE:**

1. THE FIELD OFFICE SHALL BE LOCATED WITHIN ONE MILE OF THE CONSTRUCTION.
2. THE CONTRACTOR SHALL PROPOSE FIELD OFFICE LOCATION.

**UTILITIES:**

1. FOR UTILITY ADJUSTMENT SYMBOLS, SEE STANDARD INDEX NO.002.

2. ALL EXISTING UTILITIES ARE TO REMAIN UNLESS OTHERWISE NOTED.
3. TWO FULL BUSINESS DAYS PRIOR TO DIGGING THE CONTRACTOR SHALL CALL SUNSHINE 811 AND THE UTILITY OWNER AND REQUEST UTILITY LOCATIONS. A CONTRACTOR'S REPRESENTATIVE MUST BE PRESENT WHEN UTILITY COMPANIES LOCATE THEIR FACILITIES.
4. TWO FULL BUSINESS DAYS PRIOR TO DIGGING NOTIFY THE ENGINEER AND CALL FDOT MAINTENANCE DEPARTMENT, TELEPHONE NUMBER (305) 640-7160 AND REQUEST LIGHTING CONDUITS LOCATIONS.
5. THE CONTRACTOR IS ADVISED THAT PROPERTIES ADJACENT TO THE PROJECT HAVE ELECTRIC, TELEPHONE, GAS, WATER AND/OR SEWER SERVICE LATERALS WHICH MAY NOT BE SHOWN IN PLANS. THE CONTRACTOR MUST REQUEST THE LOCATION OF THESE LATERAL SERVICES FROM THE UTILITY COMPANIES. THE ADDITIONAL COST OF EXCAVATING, INSTALLING, BACKFILLING AND COMPACTING AROUND THESE LATERAL SERVICES MUST BE INCLUDED IN THE BID RELATED ITEM FOR THE WORK BEING DONE.
6. UTILITY OWNER CONTACTS:

AT&T FLORIDA	STEVE MASSIE	(305) 222-8745
ATLANTIC BROADBAND	DAVID McBRIDE	(305) 861-8069 Ext. 5204
City of Miami Beach	DOUGLAS SEAMAN, P.E.	(305) 673-7080
Comcast	LEONARD MAXWELL-NEWBOLD	(954) 447-8405
FP&L(Distribution)	KAREN LUND	(305) 442-5290
MDC Parks and Recreation	LI GURAU	(305) 755-7834
M-D WASD	PATRICK CHONG	(786) 268-5255
North Bay Village	RODNEY CARRERO-SANTANA, P.E.	(305) 756-7171
TECO/PEOPLES GAS	ALEX ROCHE	(954) 453-0811

IF TMS ON PROJECT OR WITHIN ONE-HALF MILE OF THE CONSTRUCTION, SEE PPM 11 EXHIBIT 20-1 FOR REQUIREMENTS.

7. EXISTING UTILITIES ARE BACKFILLED WITH FLOWABLE FILL. LARGE CHUNKS OF EXCAVATED MATERIAL SHALL BE REPLACED WITH SUITABLE MATERIAL OR PROCESSED TO MAKE THEM SUITABLE FOR BACKFILLING OR EMBANKMENT CONSTRUCTION. COST TO BE INCLUDED IN RELATED BID ITEMS.

**ENVIRONMENTAL:**

1. ANY MATERIAL TO BE STOCKPILED FOR PERIODS GREATER THAN 24 HOURS SHALL BE PROTECTED BY APPROPRIATE EROSION CONTROL DEVICES.
2. THE CONTRACTOR SHALL REVIEW ENVIRONMENTAL REQUIREMENTS OF ANY PROPOSED STAGING AREAS WITH THE DISTRICT ENVIRONMENTAL PERMITS COORDINATOR AT (305) 470-5281 AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO USE.
3. THE PROJECT CROSSES BISCAYNE BAY WHICH IS DESIGNATED AS AN OUTSTANDING FLORIDA WATER AND AQUATIC PRESERVE. NO DEGRADATION OF WATER QUALITY, INCREASED TURBIDITY OF THE WATER, AND/OR THE DISCHARGE OF ANY FOREIGN MATERIAL INTO THE WATER SHALL BE PERMITTED.
4. NO STAGING OR OTHER ACTIVITIES FOR THIS PROJECT WILL BE ALLOWED WITHIN OR ADJACENT TO PELICAN HARBOR PARK MARINA.
5. THE CONTRACTOR SHALL NOT IMPACT THE MANGROVE WETLANDS ADJACENT TO THE PROJECT CORRIDOR. TWO WEEKS PRIOR TO MOBILIZATION, THE CONTRACTOR SHALL MEET WITH THE ENVIRONMENTAL ENGINEER AND THE DISTRICT ENVIRONMENTAL PERMITS COORDINATOR TO FIELD VERIFY THE EXTENT AND BOUNDARY OF WETLAND VEGETATION ON SITE.
6. THE FOLLOWING FEDERAL AND STATE LISTED ANIMAL SPECIES COULD INHABIT OR MIGRATE THROUGH THE CONSTRUCTION AREA: WEST INDIAN MANATEE, MARINE TURTLES, AND SMALL TOOTH SAWFISH. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL AND STATE REQUIREMENTS REGARDING ENDANGERED AND THREATENED SPECIES AND STATE LISTED SPECIES OF SPECIAL CONCERN. SHOULD THESE SPECIES BE ENCOUNTERED, THE CONTRACTOR SHALL CONTACT THE ISDO-ENVIRONMENT AT (305) 470-5144 WITHIN 24 HOURS OF EACH ENCOUNTER. THE COST FOR ALL ITEMS REQUIRED FOR PROTECTION OF FEDERAL AND STATE LISTED ENDANGERED SPECIES SHALL BE INCLUDED UNDER 101-1 MOBILIZATION.
7. ALL TREES AND LANDSCAPING THAT ARE BLOCKING THE LEGIBILITY OF SIGNS SHALL BE TRIMMED.
8. ALL TRIMMING WORK SHALL BE COMPLETED BY AN ISA CERTIFIED ARBORIST. NO NEW SIGNAGE SHALL BE LOCATED BEHIND EXISTING TREES THAT WILL BLOCK SIGN VISIBILITY.



REVISIONS				AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2000 Palm Beach Lakes Boulevard, Suite 1000 West Palm Beach, FL 33409 Phone: (561) 253-9550 Fax: (561) 253-9551 Certificate of Authorization No. 9302 Andrew C. Nunes, P.E. No. 52731	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.  15
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					934	MIAMI-DADE	431180-1-52-01	

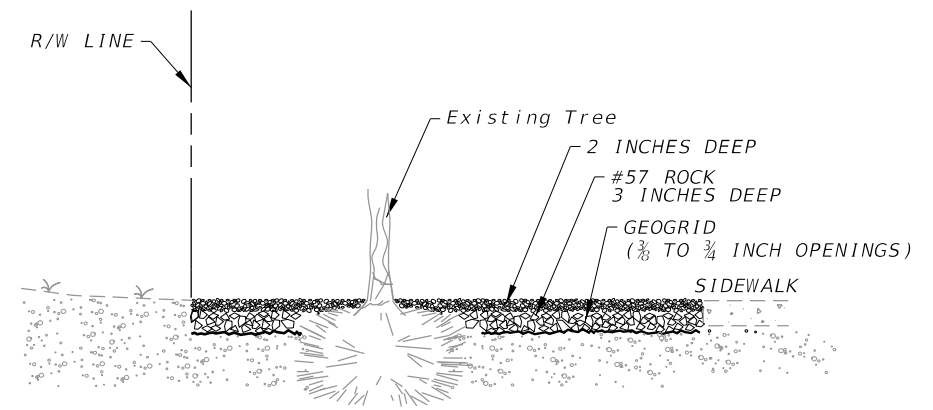
**GENERAL NOTES**

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

**SHEET NO BX1-50**  
**FPID 436526-1-52-01**  
**EXISTING PLANS FOR**  
**INFORMATION ONLY**

41-DADE TRANSIT (MDT), BARRY SMERLING  
 OFFICE OF SAFETY & SECURITY, AT LEAST 48 HOURS  
 PRIOR TO THE INITIATION OF ANY WORK WITHIN 30 FEET OF A MDT BUSWAY, METRORAIL,  
 OR METROMOVER FACILITY.

2. MDT BUS OPERATIONS MAINTAINS A 24 HOURS PER DAY/365 DAYS PER YEAR BUS TRAFFIC CONTROL CENTER AT 305-375-2925 FOR EMERGENCY SITUATION NOTIFICATION.
3. THE MDT BUSWAY IS OPERATIONAL 24 HOURS PER DAY/365 DAYS PER YEAR SERVING MDT BUSES, MDT AUTHORIZED VEHICLES, FIRE RESCUE, AND POLICE.



**TREE SURROUND INSTALLATION DETAIL**  
 (SEE PLAN SHEETS FOR LOCATIONS)

30% POROSITY MIN., FLEXIBLE PAVING SYSTEM, COMPOSED OF A URETHANE LIQUID PREPOLYMER BINDING AGENT BASED UPON DIPHENYLMETHANE-DISOCYANATE, 50 % RECYCLED PASSENGER TIRES GROUND TO 3/8" NOMINAL WITH THE WIRE REMNANTS REMOVED AND 50% TRIPLE WASHED #8 COARSE AGGREGATE

KBI "FLEXIPAVE" TREE SURROUNDS OR APPROVED EQUAL;  
 COLOR: GREEN

(ALL COST TO BE INLUDED UNDER PAY ITEM 522-1 SIDEWALK CONC. 4")

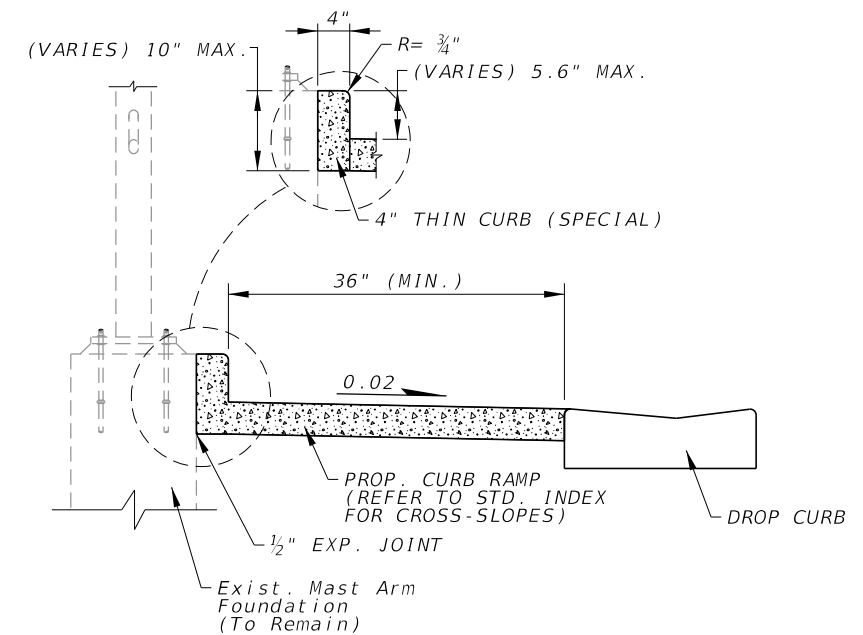
**LEGEND:**

**LEGEND**

- |  |   |
|--|---|
| 1 STORM SEWER MH TO BE ADJUSTED (BY CONTRACTOR)                    | 3C SANITARY SEWER MH TO BE ADJUSTED (BY CITY OF MIAMI BEACH)    |
| 2A WATER VALVE TO BE ADJUSTED (BY MDWASD)                          | 4 AT&T MANHOLE TO BE ADJUSTED (BY AT&T)                         |
| 2B WATER VALVE TO BE ADJUSTED (BY CITY OF NORTH BAY VILLAGE)       | 4A AT&T HAND HOLE TO BE REMOVED (BY AT&T)                       |
| 2C WATER VALVE TO BE ADJUSTED (BY CITY OF MIAMI BEACH)             | 5 PULL BOX TO BE REPLACED                                       |
| 2D WATER MANHOLE TO BE ADJUSTED (BY MDWASD)                        | 6 FPL MANHOLE TO BE ADJUSTED (BY FPL)                           |
| 2E WATER MANHOLE TO BE ADJUSTED (BY CITY OF NORTH BAY VILLAGE)     | 7 GAS VALVE TO BE ADJUSTED (BY TECO PEOPLES GAS)                |
| 2D WATER METER TO BE ADJUSTED (BY CITY OF NORTH BAY VILLAGE)       | 8A SANITARY VALVE TO BE ADJUSTED (BY MDWASD)                    |
| 3A SANITARY SEWER MH TO BE ADJUSTED (BY MDWASD)                    | 8B SANITARY VALVE TO BE ADJUSTED (BY CITY OF NORTH BAY VILLAGE) |
| 3B SANITARY SEWER MH TO BE ADJUSTED (BY CITY OF NORTH BAY VILLAGE) | 8C SANITARY VALVE TO BE ADJUSTED (BY CITY OF MIAMI BEACH)       |

**POLE MODIFIED CURB DETAIL**

- |                |         |    |                  |
|----------------|---------|----|------------------|
| STA. 42+14.34  | 63.04'  | LT | (SIGNAL POLE)    |
| STA. 82+96.98  | 40.01'  | LT | (SIGNAL POLE)    |
| STA. 83+95.24  | 69.12'  | RT | (SIGNAL POLE)    |
| STA. 94+27.23  | 64.04'  | RT | (PED. HEAD POLE) |
| STA. 95+20.71  | 72.85'  | RT | (PED. HEAD POLE) |
| STA. 102+72.49 | 49.56'  | LT | (SIGNAL POLE)    |
| STA. 102+72.96 | 48.26'  | RT | (SIGNAL POLE)    |
| STA. 108+98.98 | 47.64'  | LT | (SIGNAL POLE)    |
| STA. 109+00.67 | 55.26'  | RT | (SIGNAL POLE)    |
| STA. 123+14.33 | 117.19' | RT | (PED. HEAD POLE) |



**DETAIL E**

**4" THIN CURB (SPECIAL) DETAIL**

4: THIN CURB (SPECIAL) TO BE PLACED WHEN EXIST. SIGNAL MAST ARMS ARE FOUND WITHIN CURB RAMPS (ALL COST ASSOCIATED WITH THE CONST. OF THE 4" THIN CURB SPECIAL TO BE INCLUDED UNDER PAY ITEM 522-1 SIDEWALK CONC. 4")

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DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					934	MIAMI-DADE	431180-1-52-01	

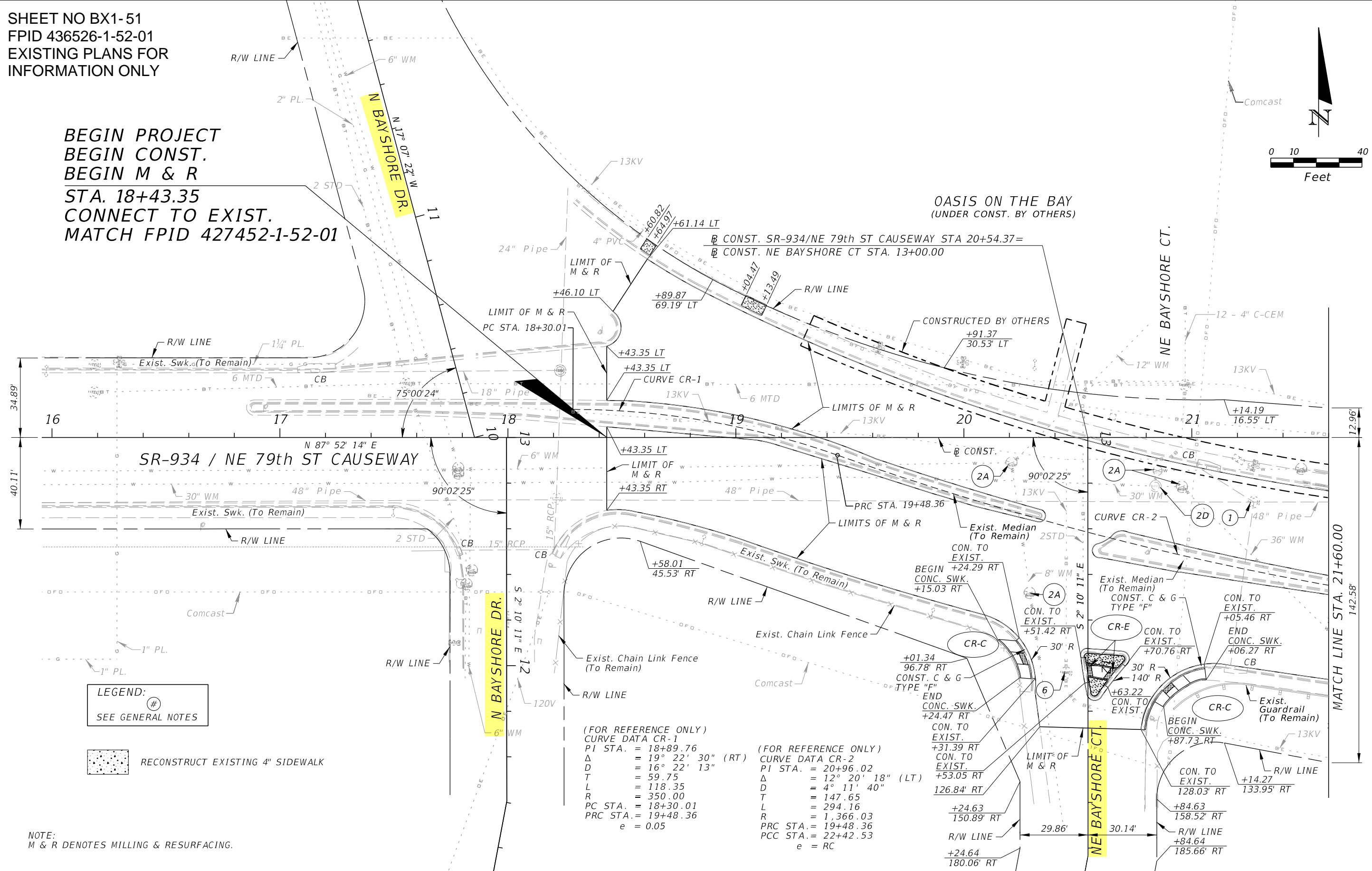
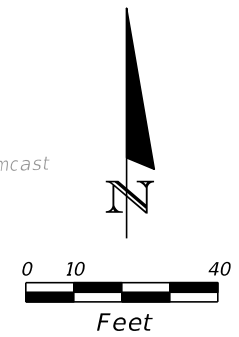
**GENERAL NOTES**

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SHEET NO BX1-51  
 FPID 436526-1-52-01  
 EXISTING PLANS FOR  
 INFORMATION ONLY

**BEGIN PROJECT  
 BEGIN CONST.  
 BEGIN M & R  
 STA. 18+43.35  
 CONNECT TO EXIST.  
 MATCH FPID 427452-1-52-01**



**LEGEND:**  
 # SEE GENERAL NOTES

RECONSTRUCT EXISTING 4" SIDEWALK

(FOR REFERENCE ONLY)  
 CURVE DATA CR-1  
 PI STA. = 18+89.76  
 Δ = 19° 22' 30" (RT)  
 D = 16° 22' 13"  
 T = 59.75  
 L = 118.35  
 R = 350.00  
 PC STA. = 18+30.01  
 PRC STA. = 19+48.36  
 e = 0.05

(FOR REFERENCE ONLY)  
 CURVE DATA CR-2  
 PI STA. = 20+96.02  
 Δ = 12° 20' 18" (LT)  
 D = 4° 11' 40"  
 T = 147.65  
 L = 294.16  
 R = 1,366.03  
 PRC STA. = 19+48.36  
 PCC STA. = 22+42.53  
 e = RC

NOTE:  
 M & R DENOTES MILLING & RESURFACING.

REVISIONS				AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2000 Palm Beach Lakes Boulevard, Suite 1000 West Palm Beach, FL 33409 Phone: (561) 253-9550 Fax: (561) 253-9551 Certificate of Authorization No. 9302 Andrew C. Nunes, P.E. No. 52731	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PLAN	SHEET NO. 17
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				934	MIAMI-DADE	431180-1-52-01			

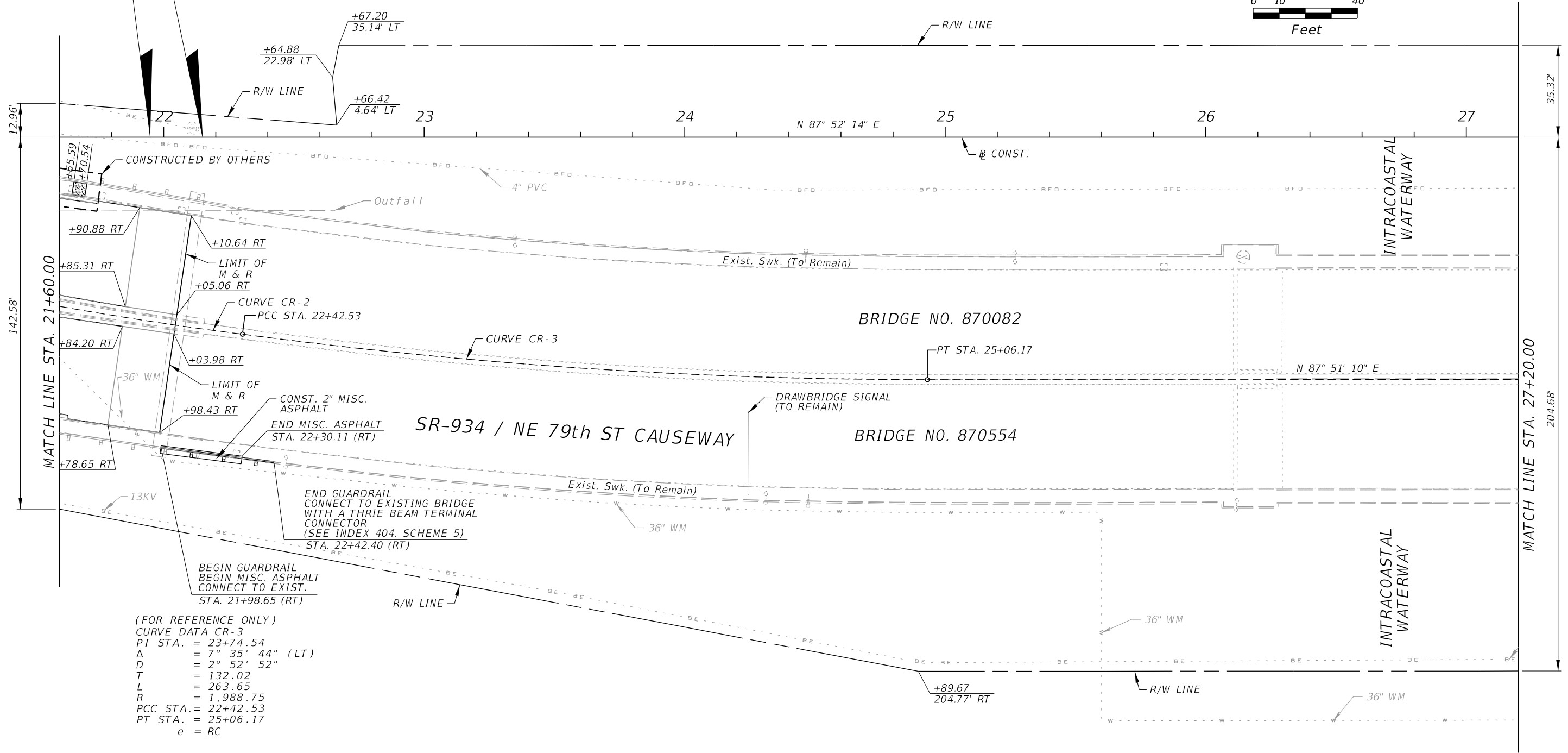
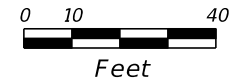
NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

SHEET NO BX1-52  
 FPID 436526-1-52-01  
 EXISTING PLANS FOR  
 INFORMATION ONLY

1 SLABS

3 EACH SLABS

BEGIN BRIDGES  
 STA. 22+15.03



(FOR REFERENCE ONLY)  
 CURVE DATA CR-3  
 PI STA. = 23+74.54  
 $\Delta$  = 7° 35' 44" (LT)  
 D = 2° 52' 52"  
 T = 132.02  
 L = 263.65  
 R = 1,988.75  
 PCC STA. = 22+42.53  
 PT STA. = 25+06.17  
 e = RC

NOTE:  
 M & R DENOTES MILLING & RESURFACING.

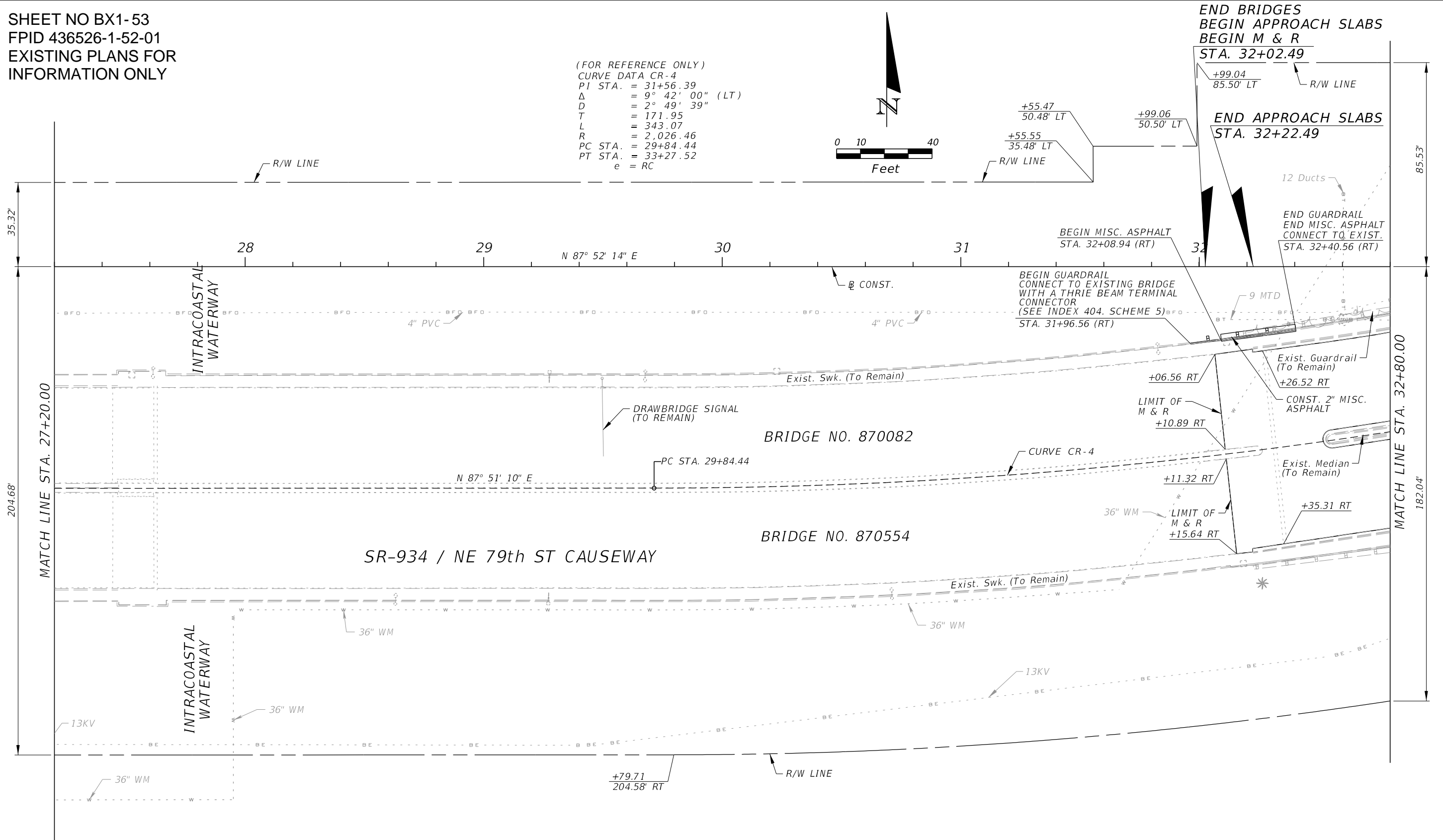
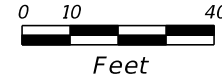
RECONSTRUCT EXISTING 4" SIDEWALK.

REVISIONS				AMERICAN ENGINEERS OF FLORIDA, LLC 2000 Palm Beach Lakes Boulevard, Suite 1000 West Palm Beach, FL 33409 Phone: (561) 253-9550 Fax: (561) 253-9551 Certificate of Authorization No. 9302 Andrew C. Nunes, P.E. No. 52731	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PLAN	SHEET NO. 18
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				934	MIAMI-DADE	431180-1-52-01			

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

SHEET NO BX1-53  
 FPID 436526-1-52-01  
 EXISTING PLANS FOR  
 INFORMATION ONLY

(FOR REFERENCE ONLY)  
 CURVE DATA CR-4  
 PI STA. = 31+56.39  
 $\Delta$  = 9° 42' 00" (LT)  
 D = 2° 49' 39"  
 T = 171.95  
 L = 343.07  
 R = 2,026.46  
 PC STA. = 29+84.44  
 PT STA. = 33+27.52  
 e = RC



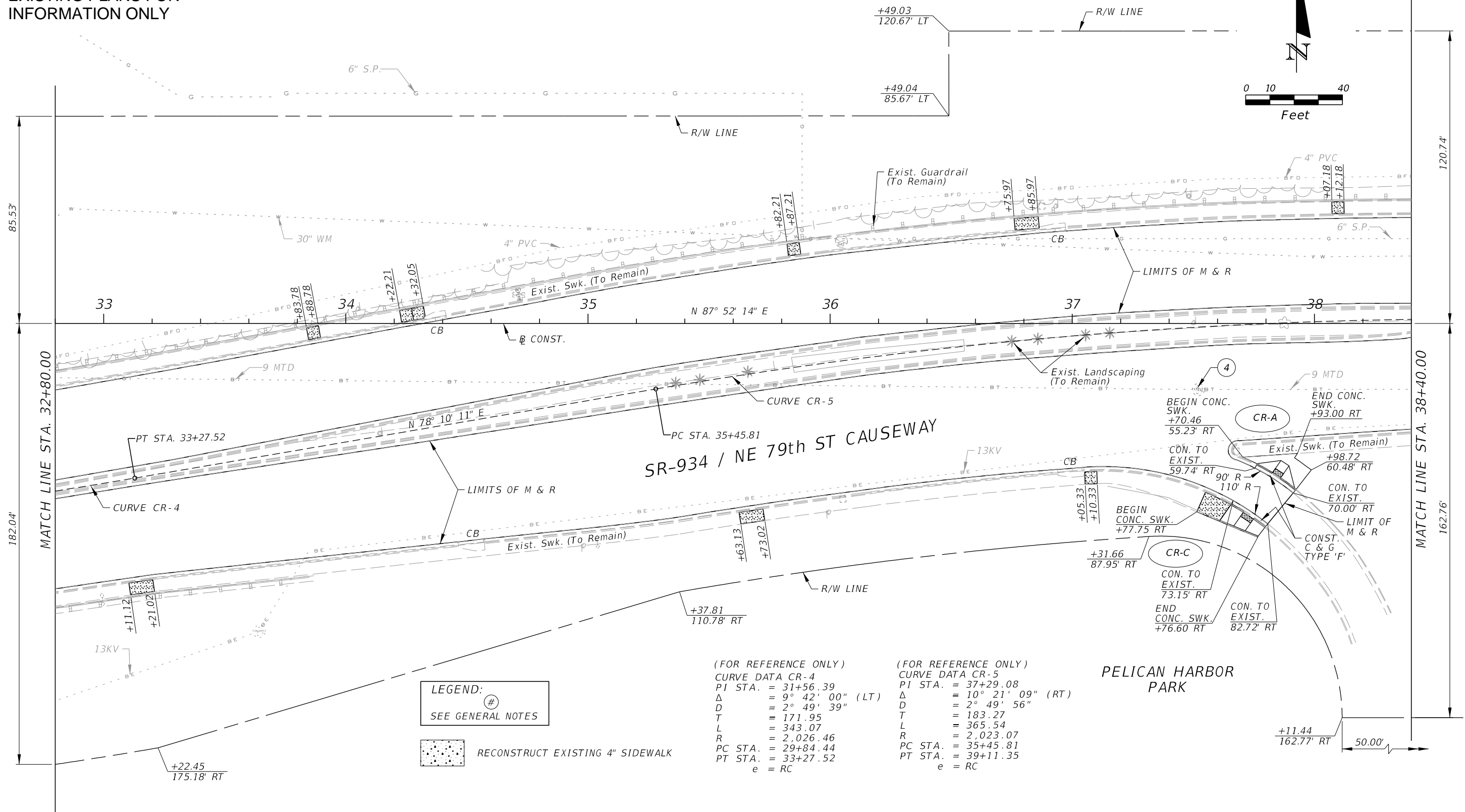
NOTE:  
 M & R DENOTES MILLING & RESURFACING.

REVISIONS				AMERICAN ENGINEERS OF FLORIDA, LLC 2000 Palm Beach Lakes Boulevard, Suite 1000 West Palm Beach, FL 33409 Phone: (561) 253-9550 Fax: (561) 253-9551 Certificate of Authorization No. 9302 Andrew C. Nunes, P.E. No. 52731	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PLAN	SHEET NO. 19
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				934	MIAMI-DADE	431180-1-52-01			

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SHEET NO BX1-54  
 FPID 436526-1-52-01  
 EXISTING PLANS FOR  
 INFORMATION ONLY



MATCH LINE STA. 32+80.00

MATCH LINE STA. 38+40.00

**SR-934 / NE 79th ST CAUSEWAY**

**PELICAN HARBOR PARK**

**LEGEND:**  
 #  
 SEE GENERAL NOTES

RECONSTRUCT EXISTING 4" SIDEWALK

(FOR REFERENCE ONLY)  
**CURVE DATA CR-4**  
 PI STA. = 31+56.39  
 $\Delta$  = 9° 42' 00" (LT)  
 D = 2° 49' 39"  
 T = 171.95  
 L = 343.07  
 R = 2,026.46  
 PC STA. = 29+84.44  
 PT STA. = 33+27.52  
 e = RC

(FOR REFERENCE ONLY)  
**CURVE DATA CR-5**  
 PI STA. = 37+29.08  
 $\Delta$  = 10° 21' 09" (RT)  
 D = 2° 49' 56"  
 T = 183.27  
 L = 365.54  
 R = 2,023.07  
 PC STA. = 35+45.81  
 PT STA. = 39+11.35  
 e = RC

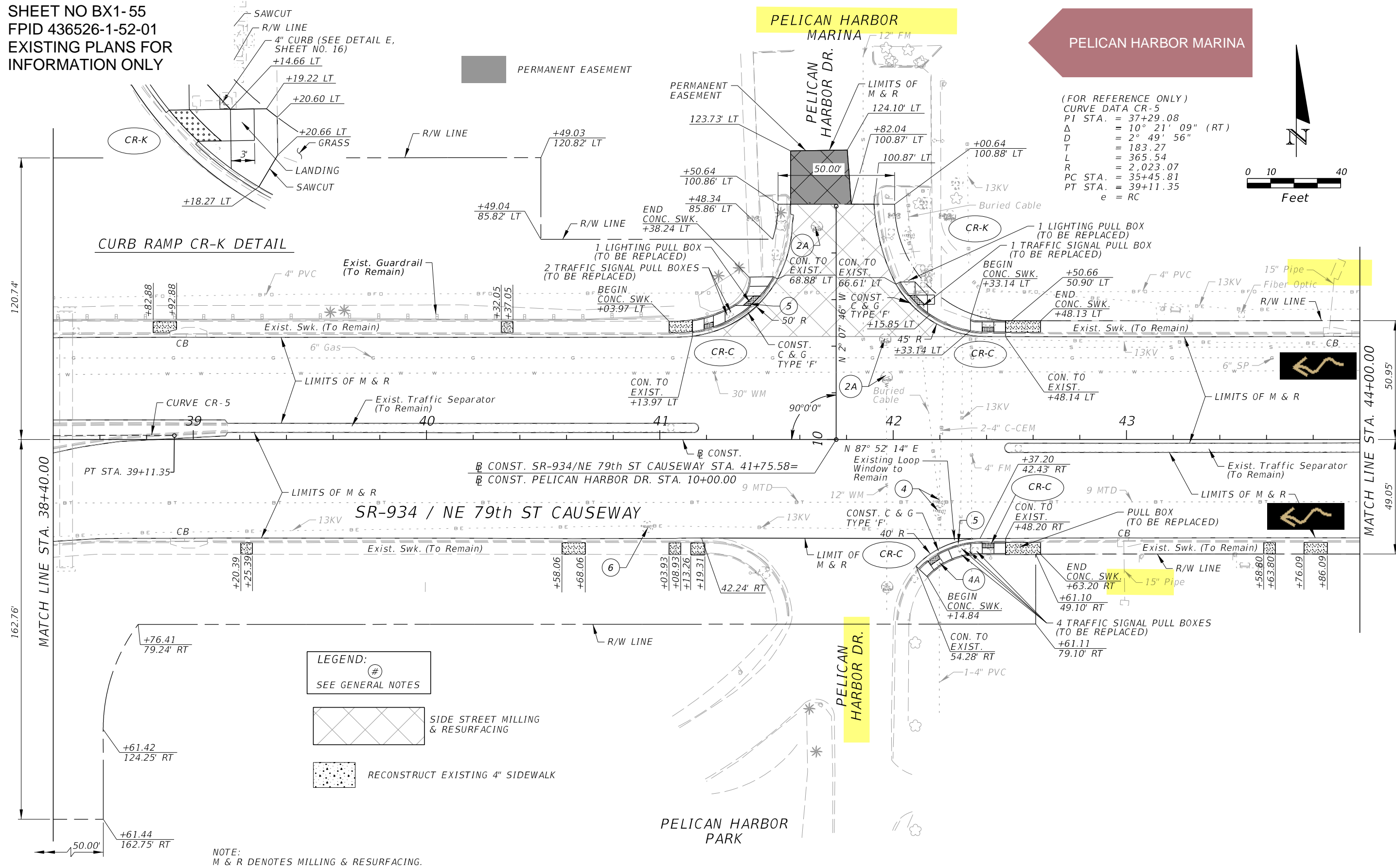
NOTE:  
 M & R DENOTES MILLING & RESURFACING.

REVISIONS				AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2000 Palm Beach Lakes Boulevard, Suite 1000 West Palm Beach, FL 33409 Phone: (561) 253-9550 Fax: (561) 253-9551 Certificate of Authorization No. 9302 Andrew C. Nunes, P.E. No. 52731	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PLAN	SHEET NO. 20
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				934	MIAMI-DADE	431180-1-52-01			

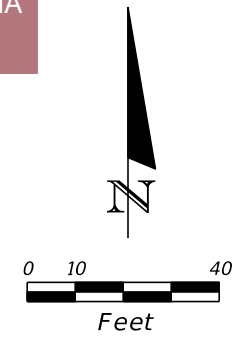
NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

SHEET NO BX1-55  
 FPID 436526-1-52-01  
 EXISTING PLANS FOR  
 INFORMATION ONLY

PELICAN HARBOR MARINA



(FOR REFERENCE ONLY)  
 CURVE DATA CR-5  
 PI STA. = 37+29.08  
 $\Delta$  = 10° 21' 09" (RT)  
 D = 2° 49' 56"  
 T = 183.27  
 L = 365.54  
 R = 2,023.07  
 PC STA. = 35+45.81  
 PT STA. = 39+11.35  
 e = RC



CURB RAMP CR-K DETAIL

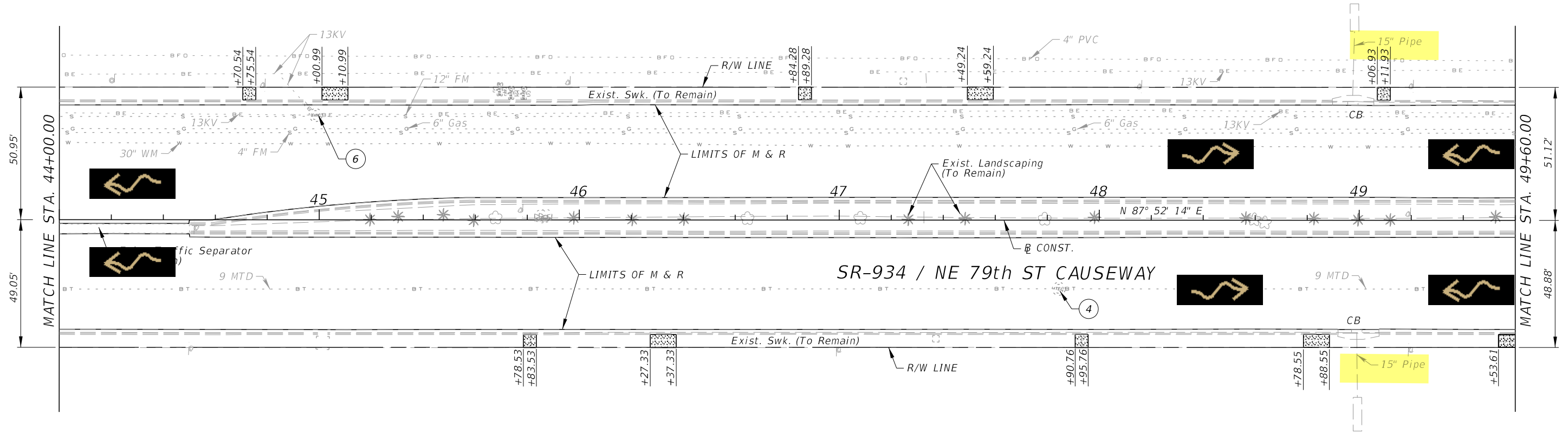
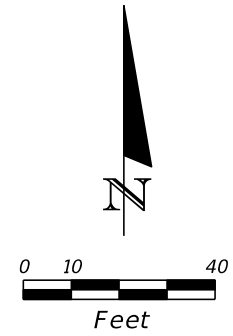
**LEGEND:**

- # SEE GENERAL NOTES
- SIDE STREET MILLING & RESURFACING
- RECONSTRUCT EXISTING 4" SIDEWALK

NOTE:  
 M & R DENOTES MILLING & RESURFACING.

REVISIONS				AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2000 Palm Beach Lakes Boulevard, Suite 1000 West Palm Beach, FL 33409 Phone: (561) 253-9550 Fax: (561) 253-9551 Certificate of Authorization No. 9302 Andrew C. Nunes, P.E. No. 52731	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PLAN	SHEET NO.  21
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				934	MIAMI-DADE	431180-1-52-01			

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LEGEND:  
 #  
 SEE GENERAL NOTES

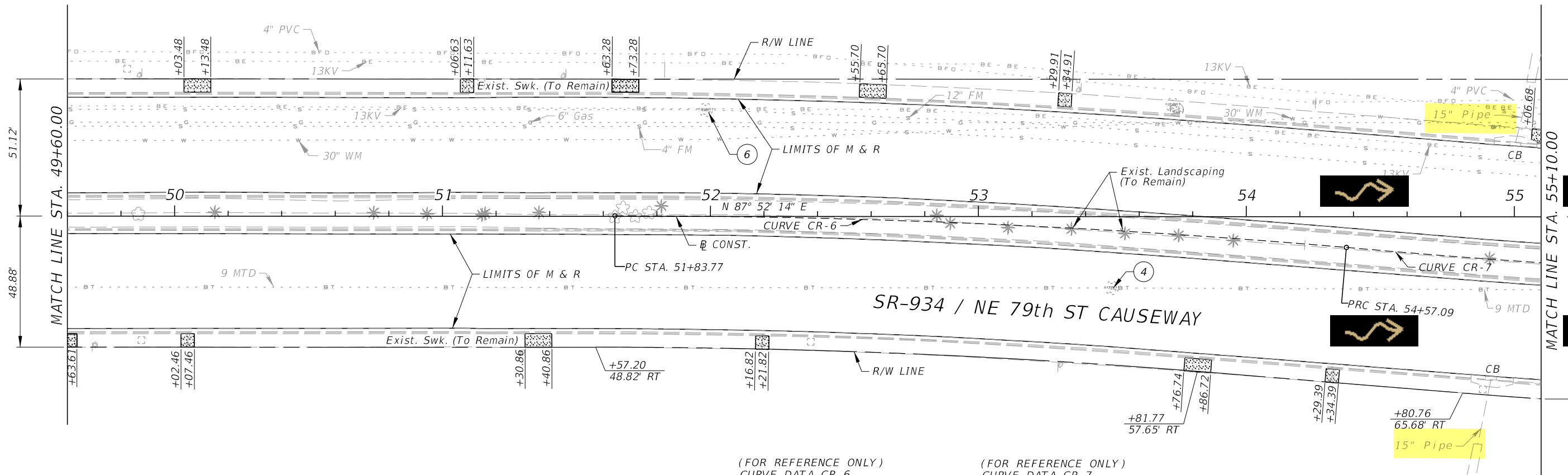
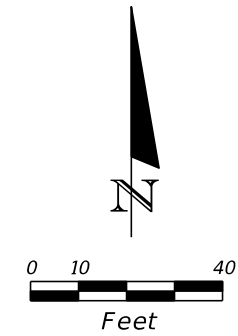
RECONSTRUCT EXISTING 4" SIDEWALK

NOTE:  
 M & R DENOTES MILLING & RESURFACING.

REVISIONS				AMERICAN ENGINEERS OF FLORIDA, LLC 2000 Palm Beach Lakes Boulevard, Suite 1000 West Palm Beach, FL 33409 Phone: (561) 253-9550 Fax: (561) 253-9551 Certificate of Authorization No. 9302 Andrew C. Nunes, P.E. No. 52731	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PLAN SHEET NO. 22
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					934	MIAMI-DADE	431180-1-52-01	

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.





(FOR REFERENCE ONLY)  
 CURVE DATA CR-6  
 PI STA. = 53+20.52  
 $\Delta$  = 4° 56' 53" (RT)  
 D = 1° 48' 37"  
 T = 136.75  
 L = 273.32  
 R = 3,165.00  
 PC STA. = 51+83.77  
 PRC STA. = 54+57.09  
 e = NC

(FOR REFERENCE ONLY)  
 CURVE DATA CR-7  
 PI STA. = 56+36.52  
 $\Delta$  = 6° 16' 50" (LT)  
 D = 1° 45' 07"  
 T = 179.42  
 L = 358.49  
 R = 3,270.38  
 PRC STA. = 54+57.09  
 PT STA. = 58+15.58  
 e = NC

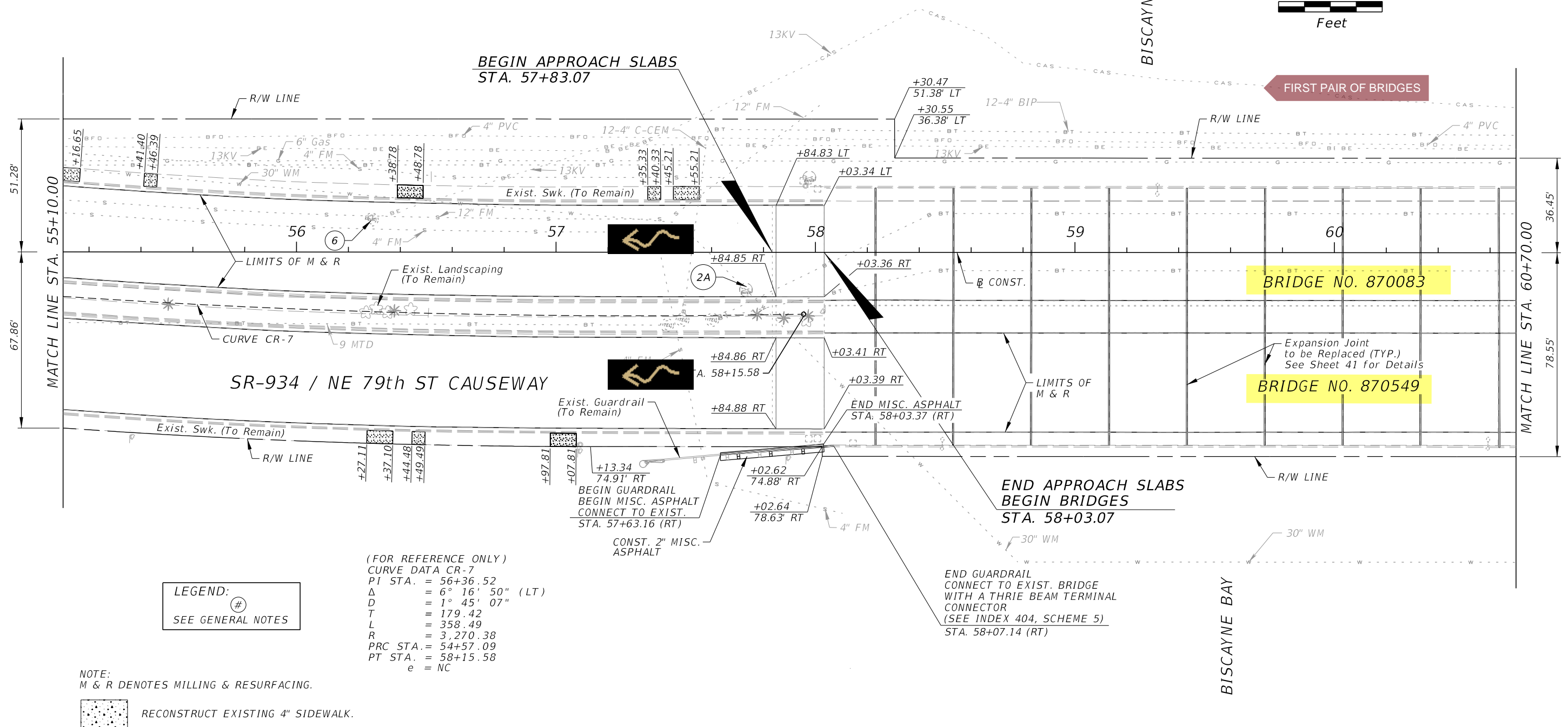
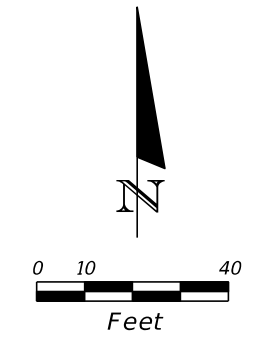
LEGEND:  
 #  
 SEE GENERAL NOTES

RECONSTRUCT EXISTING 4" SIDEWALK

NOTE:  
 M & R DENOTES MILLING & RESURFACING.

REVISIONS				AMERICAN ENGINEERS OF FLORIDA, LLC 2000 Palm Beach Lakes Boulevard, Suite 1000 West Palm Beach, FL 33409 Phone: (561) 253-9550 Fax: (561) 253-9551 Certificate of Authorization No. 9302 Andrew C. Nunes, P.E. No. 52731	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PLAN	SHEET NO. 23
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				934	MIAMI-DADE	431180-1-52-01			

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**LEGEND:**  
 #  
 SEE GENERAL NOTES

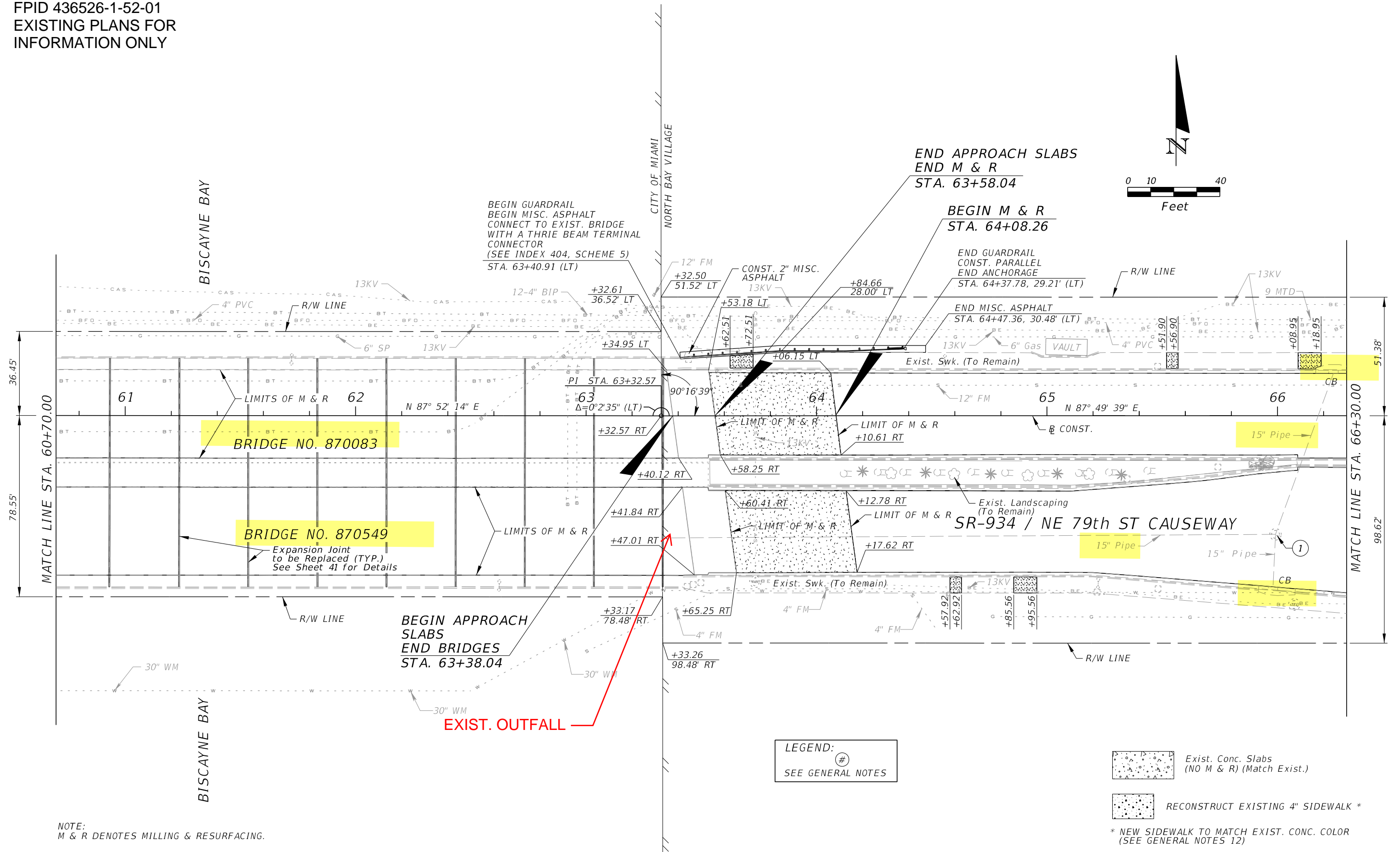
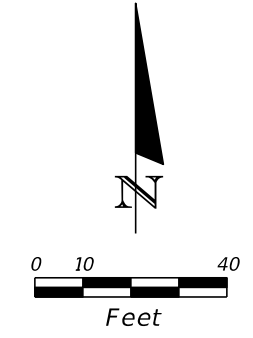
(FOR REFERENCE ONLY)  
 CURVE DATA CR-7  
 PI STA. = 56+36.52  
 $\Delta$  = 6° 16' 50" (LT)  
 D = 1° 45' 07"  
 T = 179.42  
 L = 358.49  
 R = 3,270.38  
 PRC STA. = 54+57.09  
 PT STA. = 58+15.58  
 e = NC

NOTE:  
 M & R DENOTES MILLING & RESURFACING.

RECONSTRUCT EXISTING 4" SIDEWALK.

REVISIONS				AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2000 Palm Beach Lakes Boulevard, Suite 1000 West Palm Beach, FL 33409 Phone: (561) 253-9550 Fax: (561) 253-9551 Certificate of Authorization No. 9302 Andrew C. Nunes, P.E. No. 52731	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PLAN	SHEET NO.  24
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					934	MIAMI-DADE	431180-1-52-01		

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.



NOTE:  
 M & R DENOTES MILLING & RESURFACING.

LEGEND:  
 #  
 SEE GENERAL NOTES

Exist. Conc. Slabs  
 (NO M & R) (Match Exist.)

RECONSTRUCT EXISTING 4\"/>

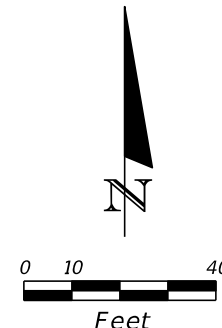
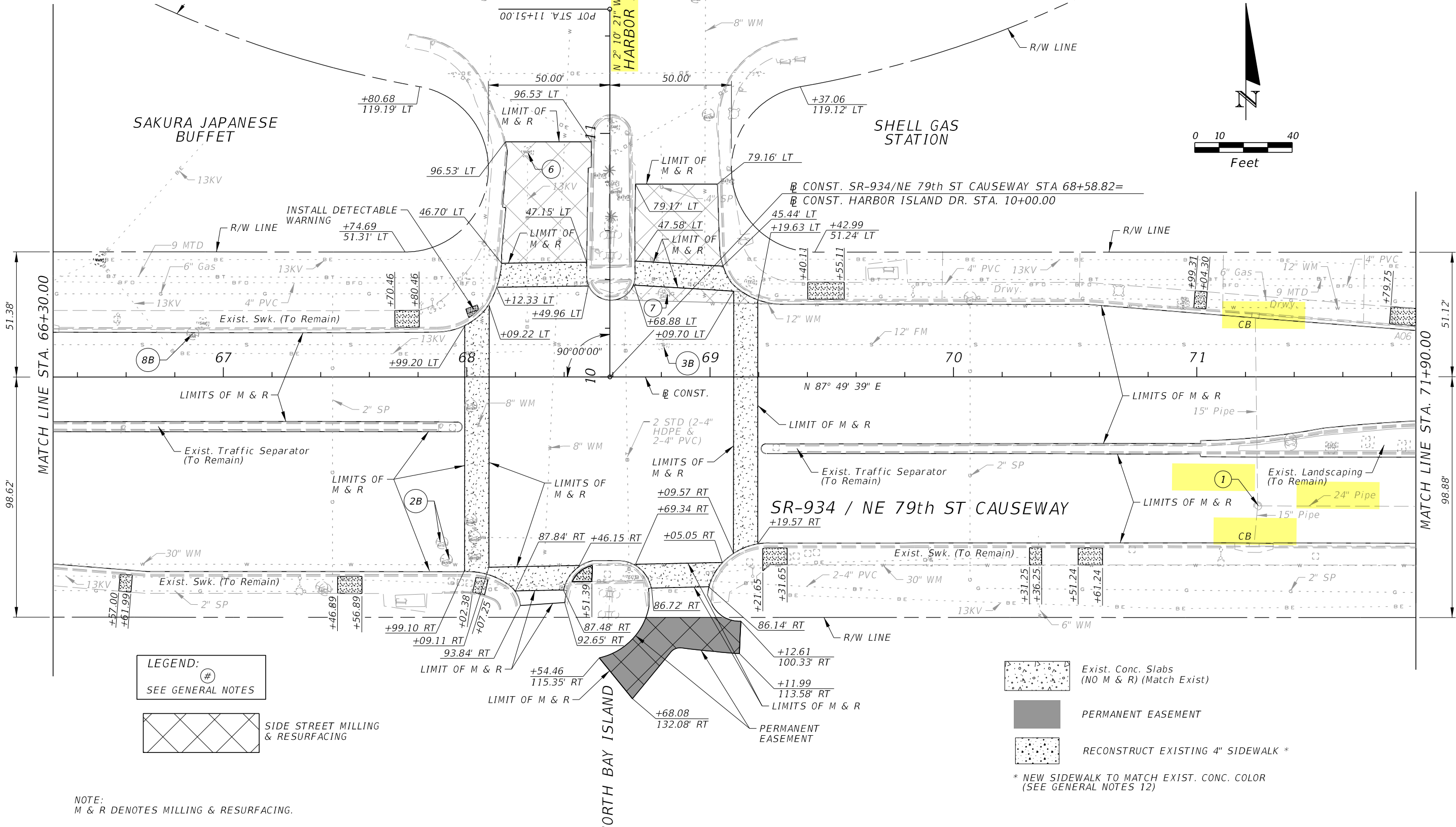
\* NEW SIDEWALK TO MATCH EXIST. CONC. COLOR  
 (SEE GENERAL NOTES 12)

REVISIONS				AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2000 Palm Beach Lakes Boulevard, Suite 1000 West Palm Beach, FL 33409 Phone: (561) 253-9550 Fax: (561) 253-9551 Certificate of Authorization No. 9302 Andrew C. Nunes, P.E. No. 52731	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PLAN	SHEET NO. 25
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				934	MIAMI-DADE	431180-1-52-01			

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.



SHEET NO BX1-60  
 FPID 436526-1-52-01  
 EXISTING PLANS FOR  
 INFORMATION ONLY



LEGEND:  
 # SEE GENERAL NOTES

SIDE STREET MILLING & RESURFACING

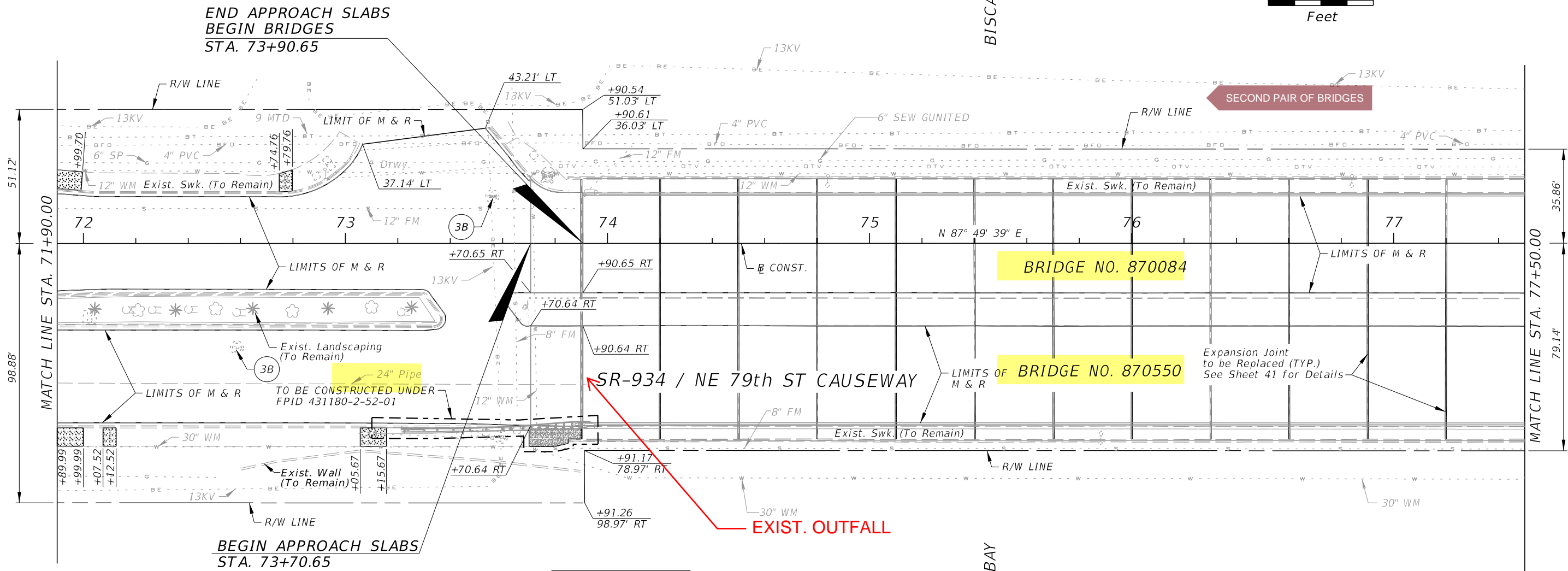
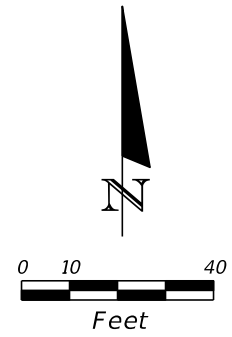
Exist. Conc. Slabs (NO M & R) (Match Exist)  
 PERMANENT EASEMENT  
 RECONSTRUCT EXISTING 4\"/>

\* NEW SIDEWALK TO MATCH EXIST. CONC. COLOR (SEE GENERAL NOTES 12)

NOTE:  
 M & R DENOTES MILLING & RESURFACING.

REVISIONS				AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2000 Palm Beach Lakes Boulevard, Suite 1000 West Palm Beach, FL 33409 Phone: (561) 253-9550 Fax: (561) 253-9551 Certificate of Authorization No. 9302 Andrew C. Nunes, P.E. No. 52731	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PLAN	SHEET NO.  26
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					934	MIAMI-DADE	431180-1-52-01		

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.



LEGEND:  
 # SEE GENERAL NOTES

RECONSTRUCT EXISTING 4\"/>

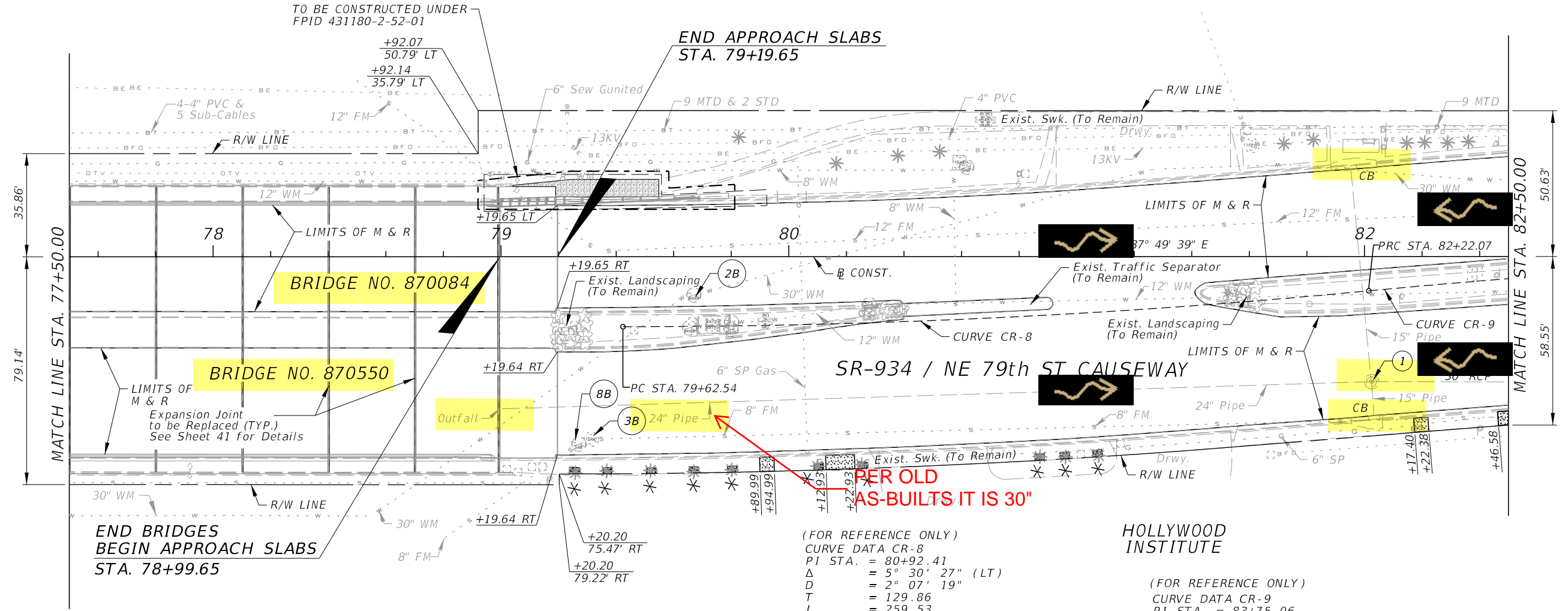
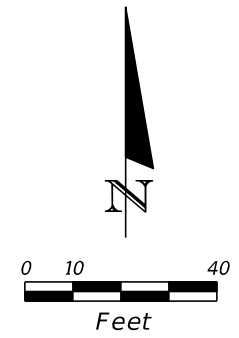
\* NEW SIDEWALK TO MATCH EXIST. CONC. COLOR  
 (SEE GENERAL NOTES 12)

NOTE:  
 M & R DENOTES MILLING & RESURFACING.

REVISIONS				AMERICAN ENGINEERS OF FLORIDA, LLC 2000 Palm Beach Lakes Boulevard, Suite 1000 West Palm Beach, FL 33409 Phone: (561) 253-9550 Fax: (561) 253-9551 Certificate of Authorization No. 9302 Andrew C. Nunes, P.E. No. 52731	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PLAN	SHEET NO. 27
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				934	MIAMI-DADE	431180-1-52-01			

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

**WSVN CHANNEL 7**



**LEGEND:**  
 # SEE GENERAL NOTES

- \* TREE SURROUND (SEE SHEET NO. 16 FOR DETAIL)
- RECONSTRUCT EXISTING 4\"/>

(FOR REFERENCE ONLY)  
 CURVE DATA CR-8  
 PI STA. = 80+92.41  
 $\Delta$  = 5° 30' 27" (LT)  
 D = 2° 07' 19"  
 T = 129.86  
 L = 259.53  
 R = 2,700.00  
 PC STA. = 79+62.54  
 PRC STA. = 82+22.07  
 e = NC

HOLLYWOOD INSTITUTE  
 (FOR REFERENCE ONLY)  
 CURVE DATA CR-9  
 PI STA. = 83+75.06  
 $\Delta$  = 6° 20' 51" (RT)  
 D = 2° 04' 36"  
 T = 152.99  
 L = 305.66  
 R = 2,759.05  
 PRC STA. = 82+22.07  
 PT STA. = 85+27.74  
 e = NC

NOTE:  
 M & R DENOTES MILLING & RESURFACING.

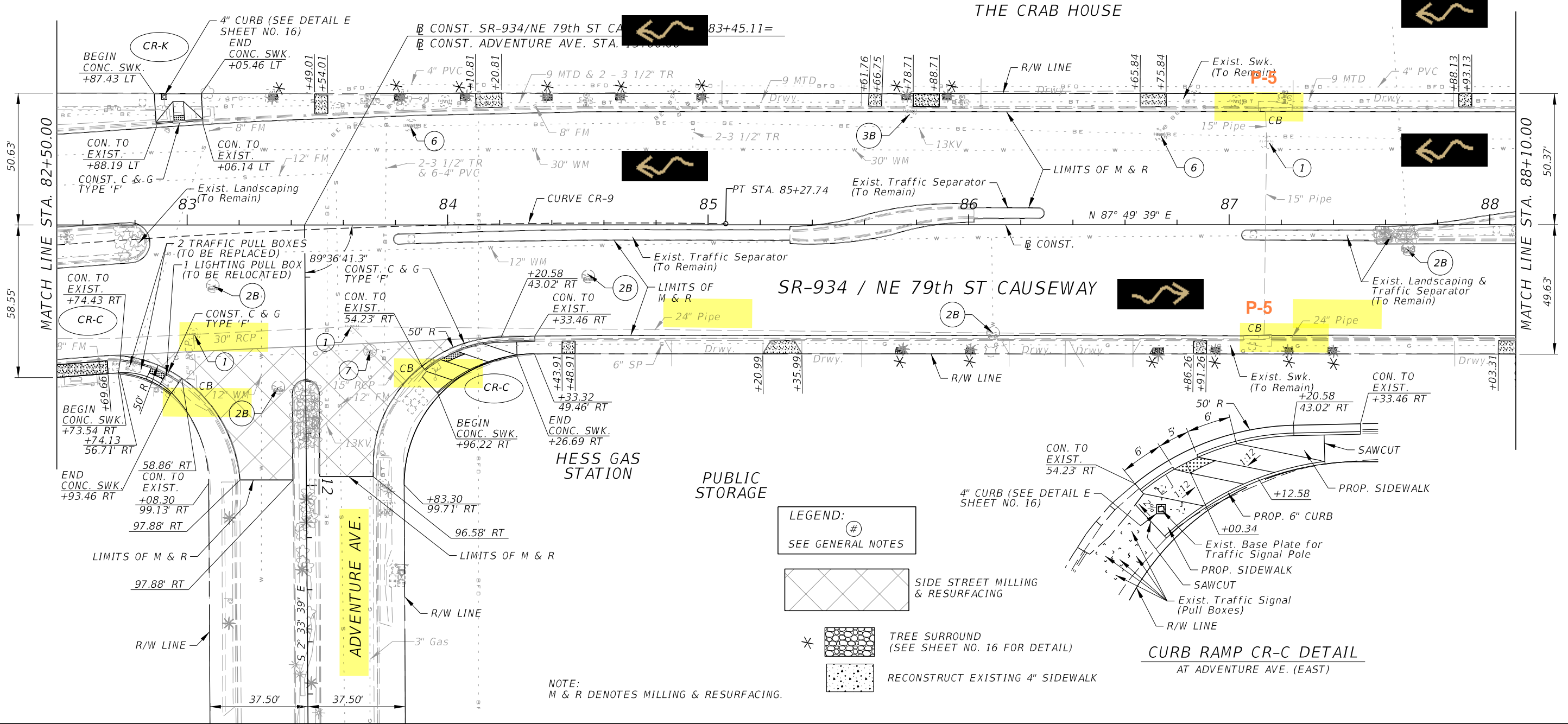
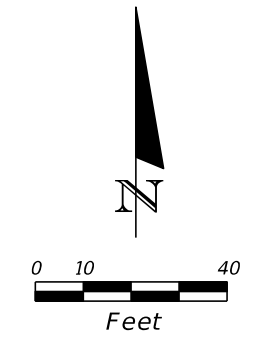
REVISIONS				AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2000 Palm Beach Lakes Boulevard, Suite 1000 West Palm Beach, FL 33409 Phone: (561) 253-9550 Fax: (561) 253-9551 Certificate of Authorization No. 9302 Andrew C. Nunes, P.E. No. 52731	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PLAN	SHEET NO. 28
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				934	MIAMI-DADE	431180-1-52-01			

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.



SHEET NO BX1-63  
 FPID 436526-1-52-01  
 EXISTING PLANS FOR  
 INFORMATION ONLY

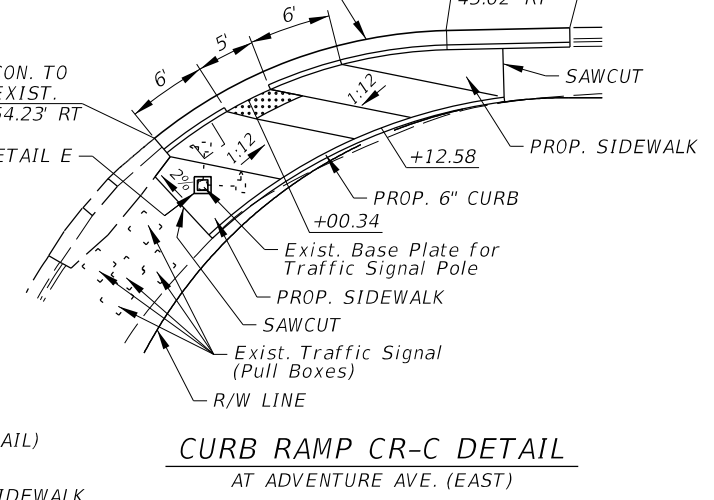
(FOR REFERENCE ONLY)  
 CURVE DATA CR-9  
 PI STA. = 83+75.06  
 $\Delta$  = 6° 20' 51" (RT)  
 D = 2° 04' 36"  
 T = 152.99  
 L = 305.66  
 R = 2,759.05  
 PRC STA. = 82+22.07  
 PT STA. = 85+27.74  
 e = NC



LEGEND:  
 # SEE GENERAL NOTES

- SIDE STREET MILLING & RESURFACING
- TREE SURROUND (SEE SHEET NO. 16 FOR DETAIL)
- RECONSTRUCT EXISTING 4\"/>

NOTE:  
 M & R DENOTES MILLING & RESURFACING.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

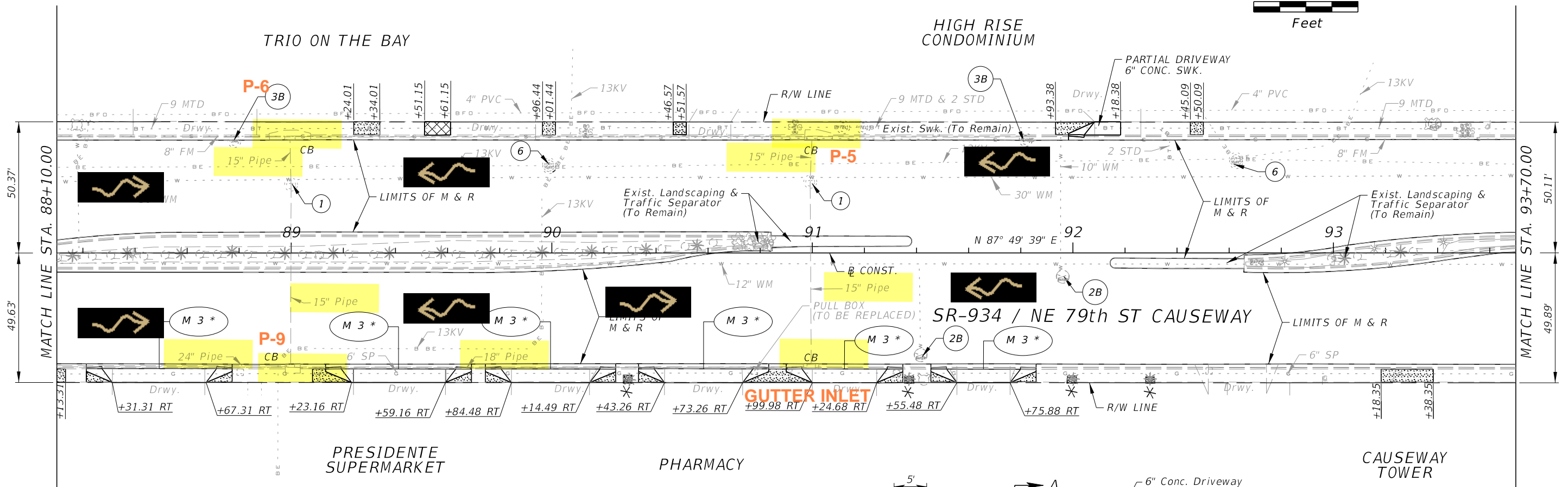
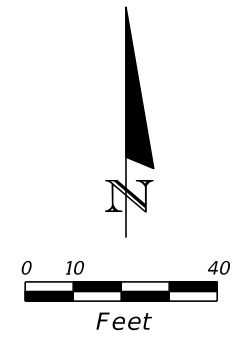
AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC  
 2000 Palm Beach Lakes Boulevard, Suite 1000  
 West Palm Beach, FL 33409  
 Phone: (561) 253-9550 Fax: (561) 253-9551  
 Certificate of Authorization No. 9302  
 Andrew C. Nunes, P.E. No. 52731

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
934	MIAMI-DADE	431180-1-52-01

PLAN

SHEET NO.  
29

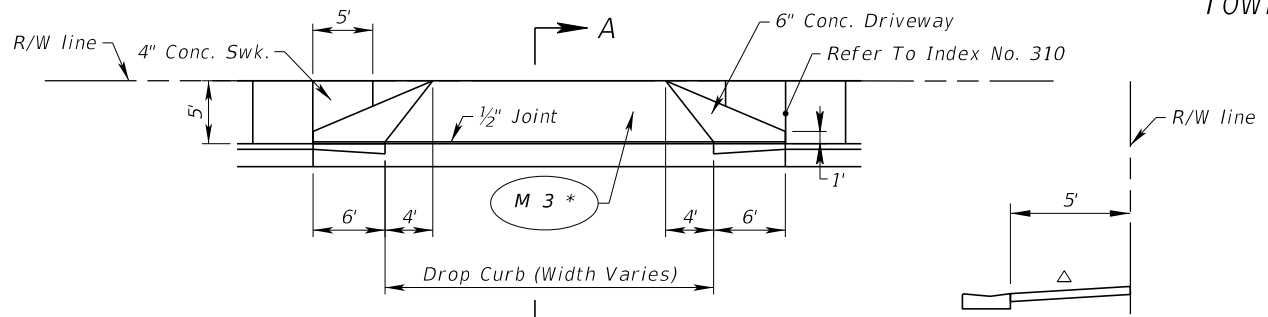
NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.



**LEGEND:**  
 # SEE GENERAL NOTES

- \* [Symbol] TREE SURROUND (SEE SHEET NO. 16 FOR DETAIL)
- [Symbol] RECONSTRUCT EXISTING 4" SIDEWALK
- [Symbol] 6" CONC. DRIVEWAY

NOTE:  
 M & R DENOTES MILLING & RESURFACING.



M 3 \* Modified

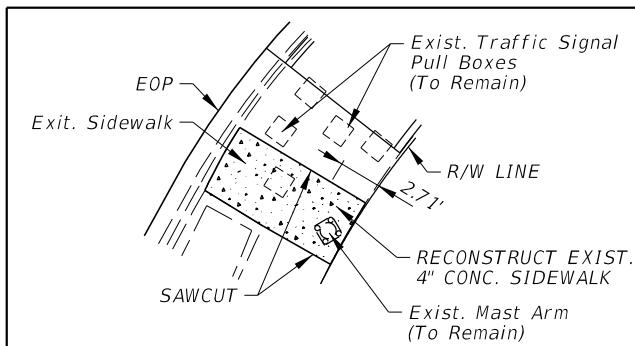
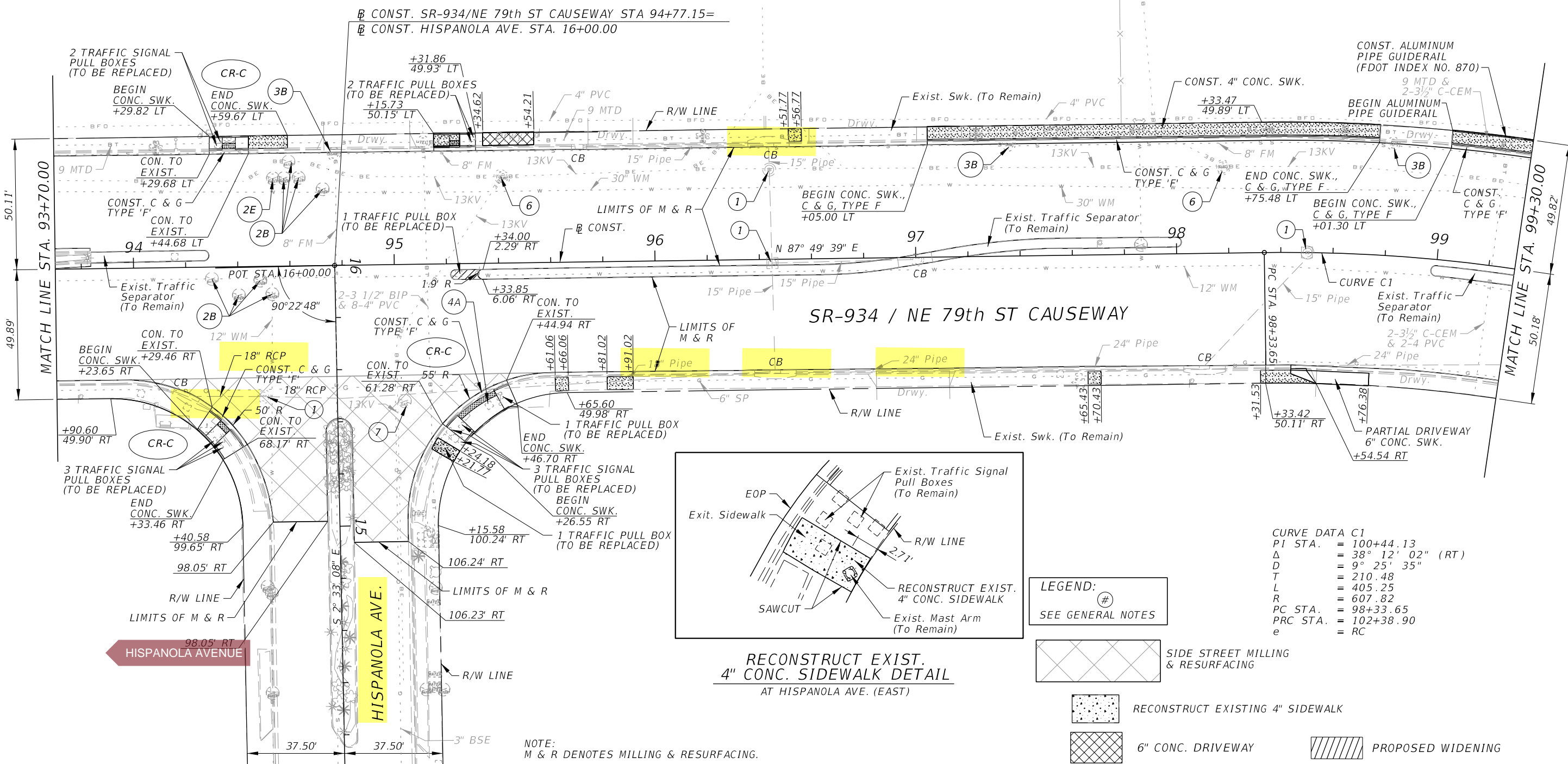
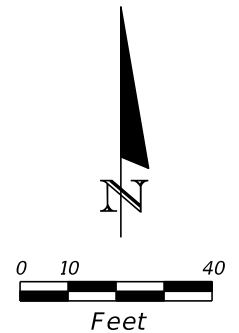
PLAN  
 DRIVEWAY DETAIL  
 N.T.S.

△ VARIES FROM 0.07 TO 0.12  
 SECTION A-A

REVISIONS				AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2000 Palm Beach Lakes Boulevard, Suite 1000 West Palm Beach, FL 33409 Phone: (561) 253-9550 Fax: (561) 253-9551 Certificate of Authorization No. 9302 Andrew C. Nunes, P.E. No. 52731	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.  30
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				934	MIAMI-DADE	431180-1-52-01		

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

BENIHANA  
 JAPANESE REST.



RECONSTRUCT EXIST.  
 4\"/>
 AT HISPANOLA AVE. (EAST)

LEGEND:  
 # SEE GENERAL NOTES

- SIDE STREET MILLING & RESURFACING
- RECONSTRUCT EXISTING 4\"/>

CURVE DATA C1  
 PI STA. = 100+44.13  
 $\Delta$  = 38° 12' 02" (RT)  
 D = 9° 25' 35"  
 T = 210.48  
 L = 405.25  
 R = 607.82  
 PC STA. = 98+33.65  
 PRC STA. = 102+38.90  
 e = RC

NOTE:  
 M & R DENOTES MILLING & RESURFACING.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

AMERICAN  
 CONSULTING ENGINEERS OF FLORIDA, LLC  
 2000 Palm Beach Lakes Boulevard, Suite 1000  
 West Palm Beach, FL 33409  
 Phone: (561) 253-9550 Fax: (561) 253-9551  
 Certificate of Authorization No. 9302  
 Andrew C. Nunes, P.E. No. 52731

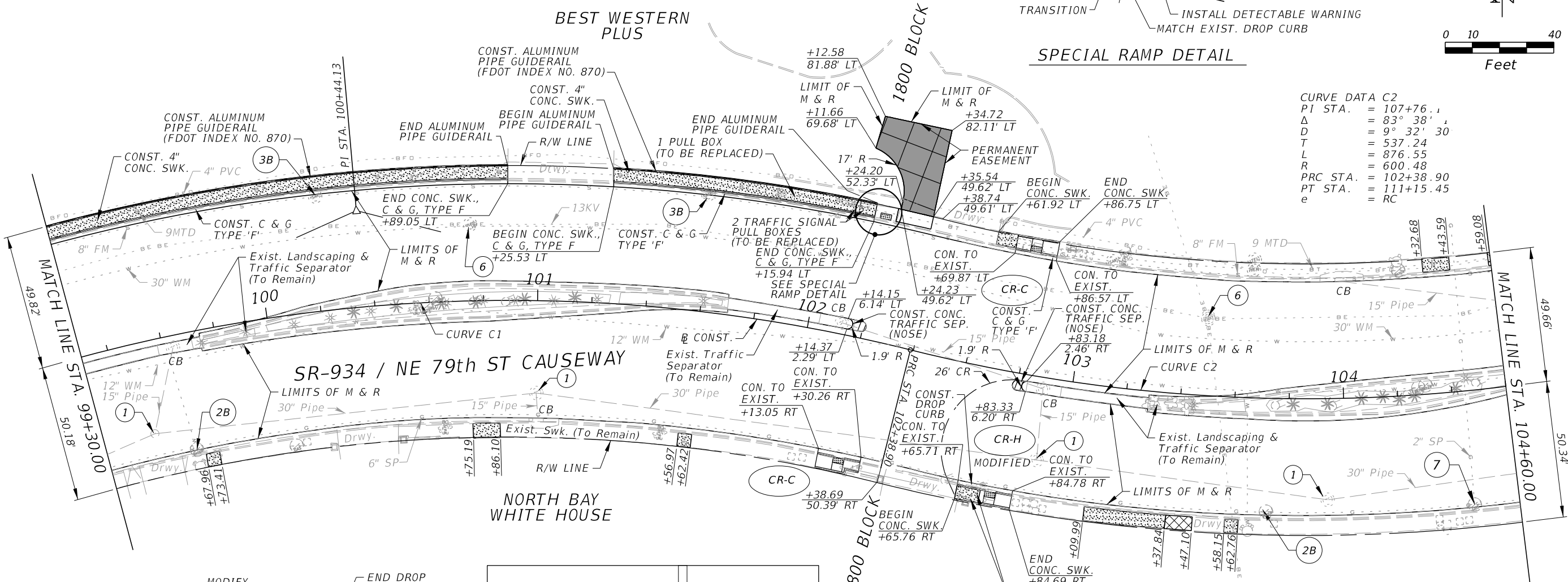
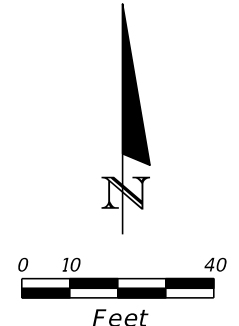
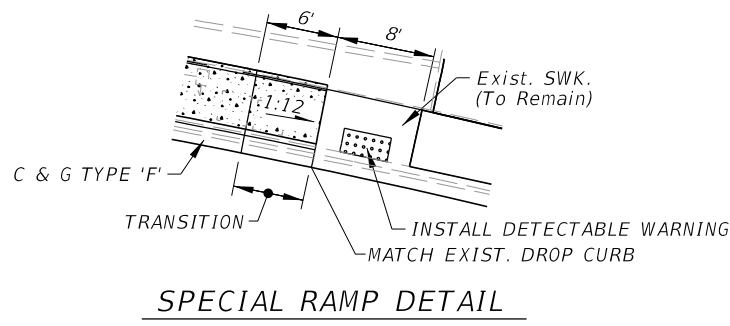
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
934	MIAMI-DADE	431180-1-52-01

PLAN

SHEET NO.  
 31

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.



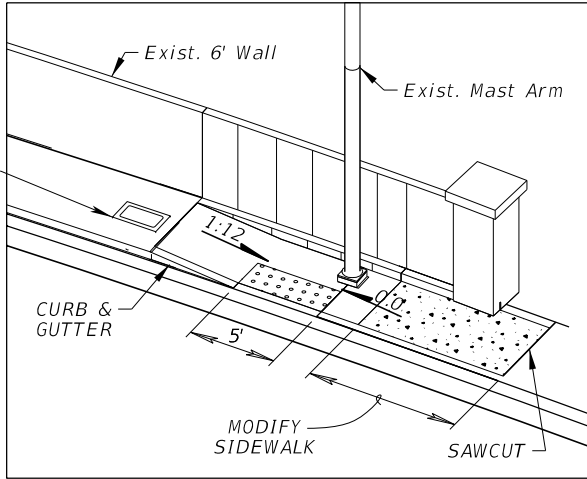
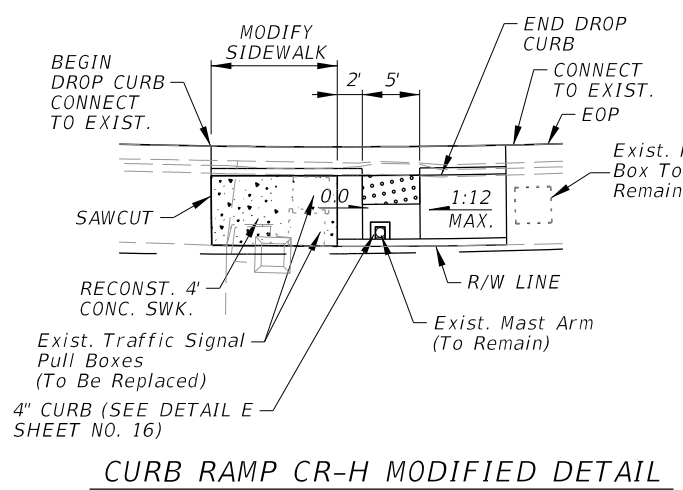


CURVE DATA C2

PI STA.	= 107+76.1
Δ	= 83° 38' 1
D	= 9° 32' 30
T	= 537.24
L	= 876.55
R	= 600.48
PRC STA.	= 102+38.90
PT STA.	= 111+15.45
e	= RC

CURVE DATA C1

PI STA.	= 100+44.13
Δ	= 38° 12' 02" (RT)
D	= 9° 25' 35"
T	= 210.48
L	= 405.25
R	= 607.82
PC STA.	= 98+33.65
PRC STA.	= 102+38.90
e	= RC



LEGEND:  
 # SEE GENERAL NOTES

SIDE STREET MILLING & RESURFACING

LEGEND:  
 PROPOSED WIDENING  
 RECONSTRUCT EXISTING 4" SIDEWALK  
 PERMANENT EASEMENT  
 6" CONC. DRIVEWAY

NOTE:  
 M & R DENOTES MILLING & RESURFACING.

REVISIONS				AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2000 Palm Beach Lakes Boulevard, Suite 1000 West Palm Beach, FL 33409 Phone: (561) 253-9550 Fax: (561) 253-9551 Certificate of Authorization No. 9302 Andrew C. Nunes, P.E. No. 52731	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PLAN	SHEET NO. 32
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					934	MIAMI-DADE	431180-1-52-01		

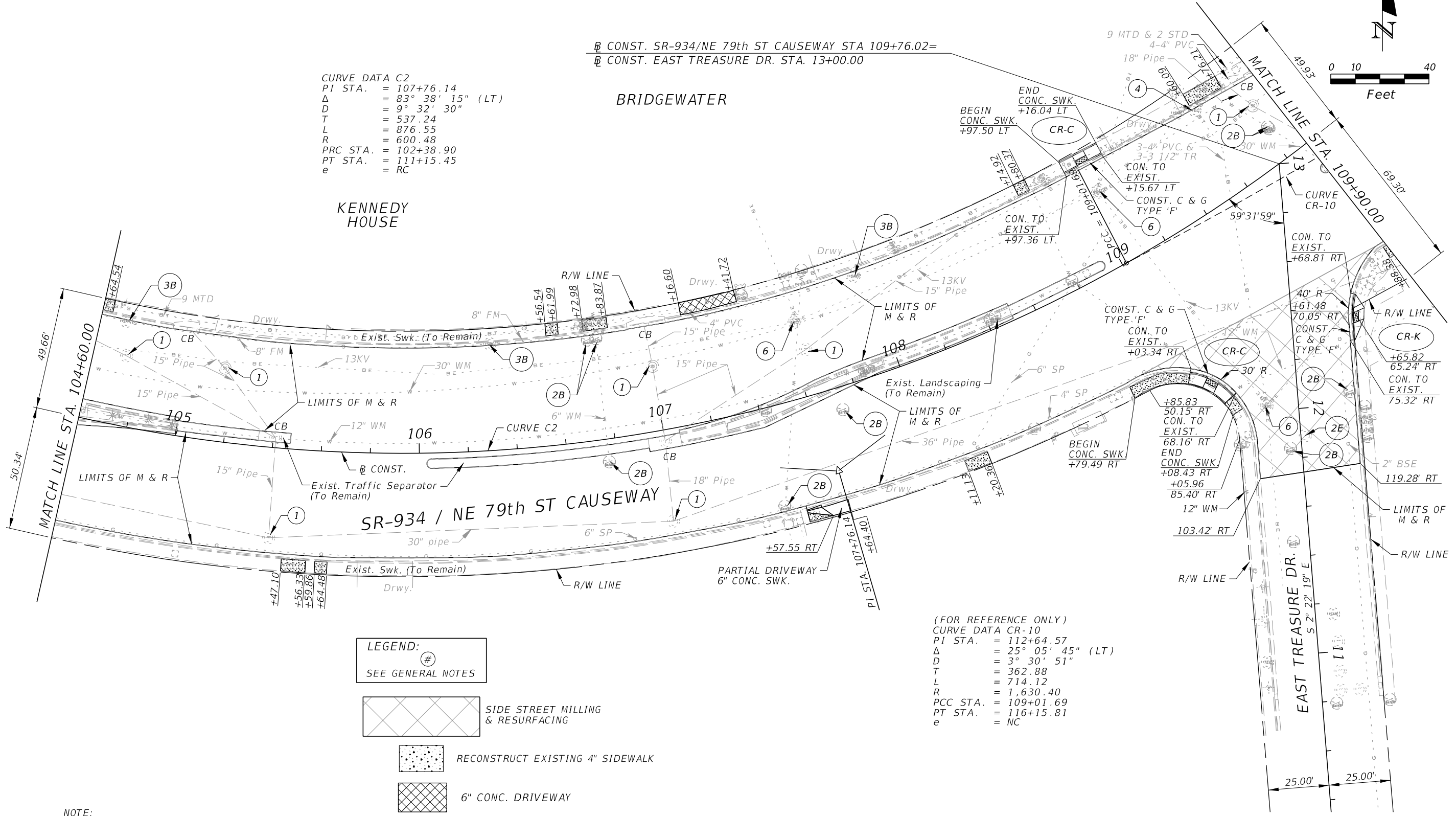
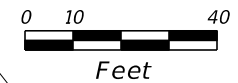
NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

CONST. SR-934/NE 79th ST CAUSEWAY STA 109+76.02=  
 CONST. EAST TREASURE DR. STA. 13+00.00

CURVE DATA C2  
 PI STA. = 107+76.14  
 $\Delta$  = 83° 38' 15" (LT)  
 D = 9° 32' 30"  
 T = 537.24  
 L = 876.55  
 R = 600.48  
 PRC STA. = 102+38.90  
 PT STA. = 111+15.45  
 e = RC

BRIDGEWATER

KENNEDY HOUSE



LEGEND:  
 # SEE GENERAL NOTES

- SIDE STREET MILLING & RESURFACING
- RECONSTRUCT EXISTING 4" SIDEWALK
- 6" CONC. DRIVEWAY
- PROPOSED WIDENING

NOTE:  
 M & R DENOTES MILLING & RESURFACING.

(FOR REFERENCE ONLY)  
 CURVE DATA CR-10  
 PI STA. = 112+64.57  
 $\Delta$  = 25° 05' 45" (LT)  
 D = 3° 30' 51"  
 T = 362.88  
 L = 714.12  
 R = 1,630.40  
 PCC STA. = 109+01.69  
 PT STA. = 116+15.81  
 e = NC

REVISIONS				AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2000 Palm Beach Lakes Boulevard, Suite 1000 West Palm Beach, FL 33409 Phone: (561) 253-9550 Fax: (561) 253-9551 Certificate of Authorization No. 9302 Andrew C. Nunes, P.E. No. 52731	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PLAN	SHEET NO. 33
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				934	MIAMI-DADE	431180-1-52-01			

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

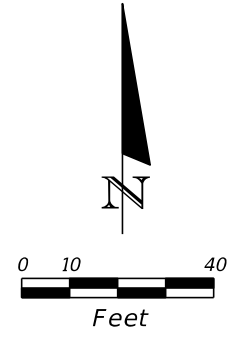
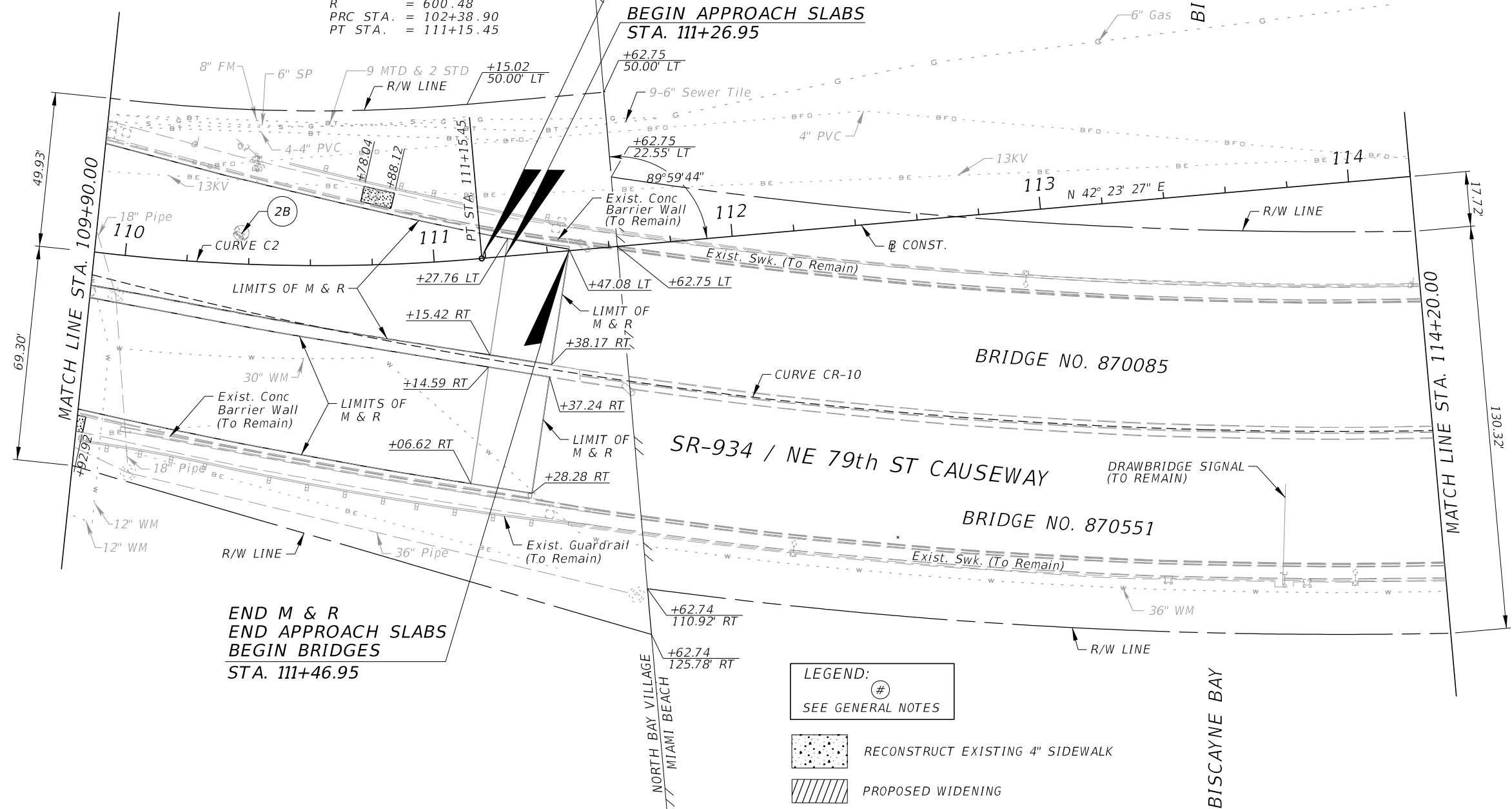
(FOR REFERENCE ONLY)  
 CURVE DATA CR-10  
 PI STA. = 112+64.57  
 $\Delta$  = 25° 05' 45" (LT)  
 D = 3° 30' 51"  
 T = 362.88  
 L = 714.12  
 R = 1,630.40  
 PCC STA. = 109+01.69  
 PT STA. = 116+15.81  
 e = NC

CURVE DATA C2  
 PI STA. = 107+76.14  
 $\Delta$  = 83° 38' 15" (LT)  
 D = 9° 32' 30"  
 T = 537.24  
 L = 876.55  
 R = 600.48  
 PRC STA. = 102+38.90  
 PT STA. = 111+15.45

EQUATION:  
 STA. 111+15.45 BK =  
 STA. 111+18.76 AH

BEGIN APPROACH SLABS  
 STA. 111+26.95

END M & R  
 END APPROACH SLABS  
 BEGIN BRIDGES  
 STA. 111+46.95



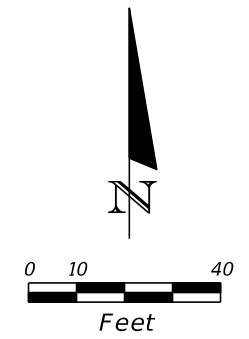
- LEGEND:**
- ⊕ SEE GENERAL NOTES
  - RECONSTRUCT EXISTING 4" SIDEWALK
  - PROPOSED WIDENING

NOTE:  
 M & R DENOTES MILLING & RESURFACING.

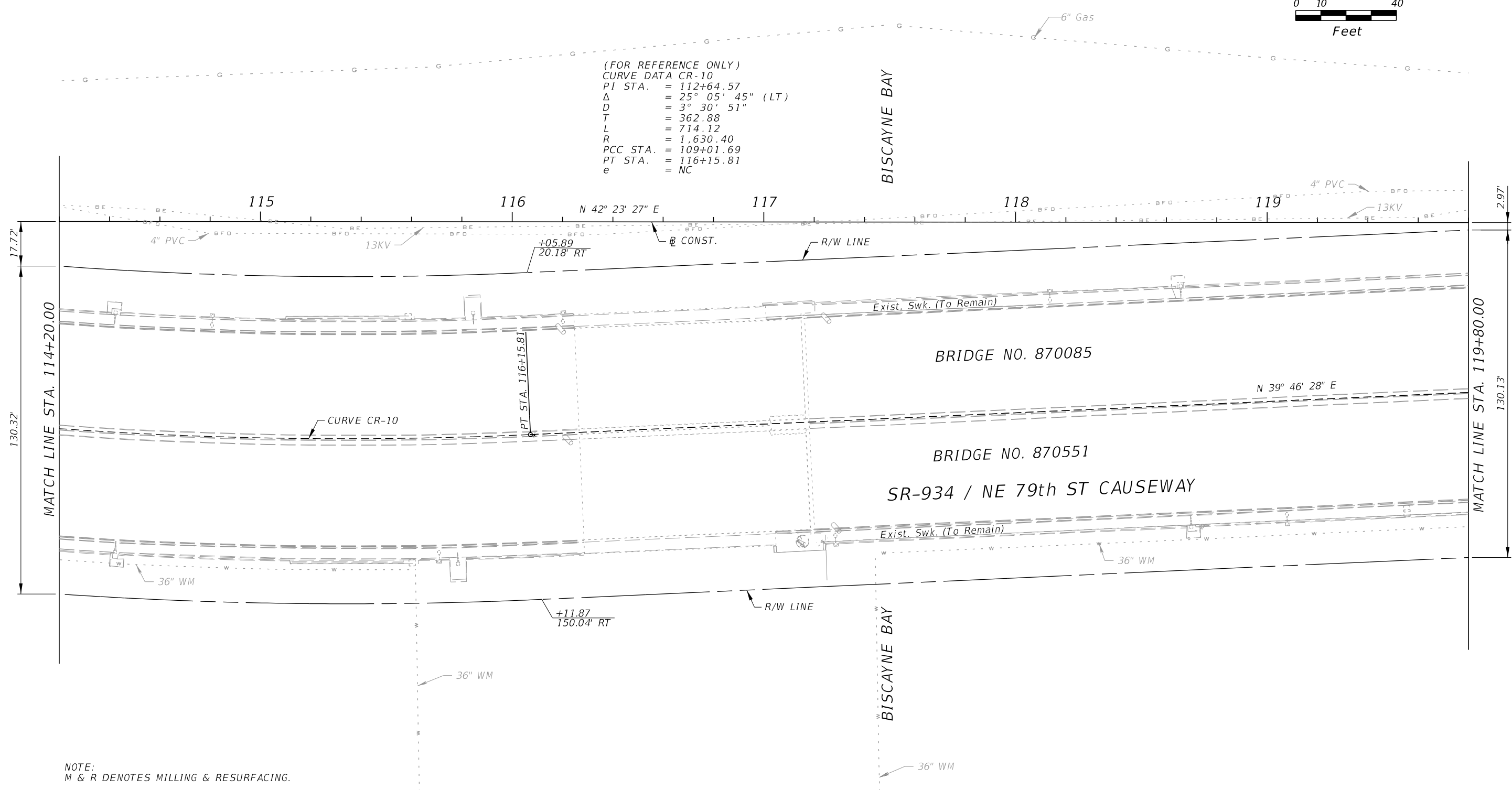
REVISIONS				AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2000 Palm Beach Lakes Boulevard, Suite 1000 West Palm Beach, FL 33409 Phone: (561) 253-9550 Fax: (561) 253-9551 Certificate of Authorization No. 9302 Andrew C. Nunes, P.E. No. 52731	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PLAN	SHEET NO. 34
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				934	MIAMI-DADE	431180-1-52-01			

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.





(FOR REFERENCE ONLY)  
 CURVE DATA CR-10  
 PI STA. = 112+64.57  
 $\Delta$  = 25° 05' 45" (LT)  
 D = 3° 30' 51"  
 T = 362.88  
 L = 714.12  
 R = 1,630.40  
 PCC STA. = 109+01.69  
 PT STA. = 116+15.81  
 e = NC



NOTE:  
 M & R DENOTES MILLING & RESURFACING.

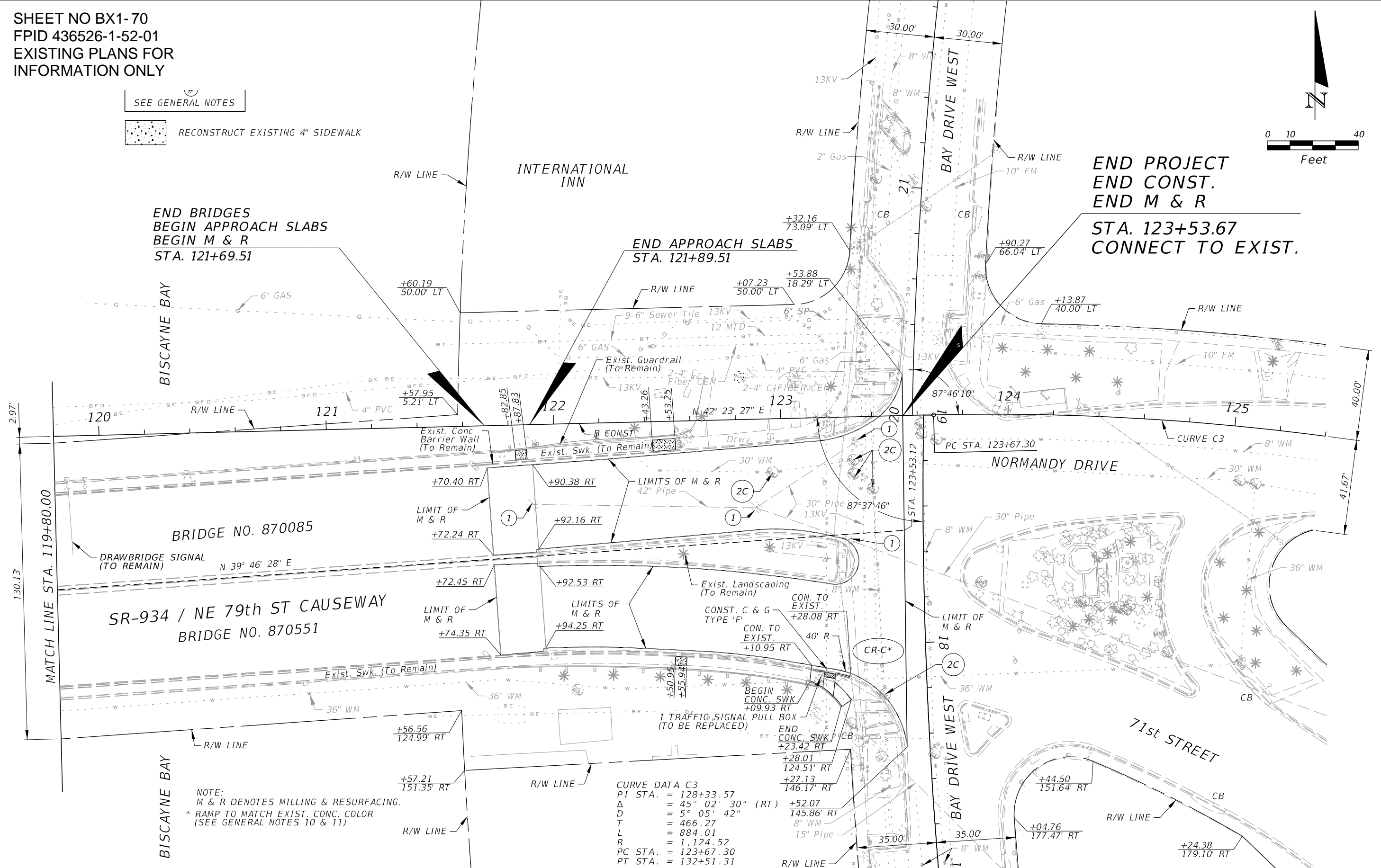
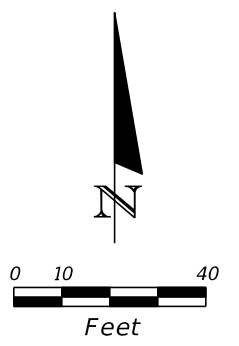
REVISIONS				AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC 2000 Palm Beach Lakes Boulevard, Suite 1000 West Palm Beach, FL 33409 Phone: (561) 253-9550 Fax: (561) 253-9551 Certificate of Authorization No. 9302 Andrew C. Nunes, P.E. No. 52731	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PLAN	SHEET NO. 35
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				934	MIAMI-DADE	431180-1-52-01			

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

SHEET NO BX1-70  
 FPID 436526-1-52-01  
 EXISTING PLANS FOR  
 INFORMATION ONLY

SEE GENERAL NOTES

RECONSTRUCT EXISTING 4" SIDEWALK



END BRIDGES  
 BEGIN APPROACH SLABS  
 BEGIN M & R  
 STA. 121+69.51

END APPROACH SLABS  
 STA. 121+89.51

END PROJECT  
 END CONST.  
 END M & R  
 STA. 123+53.67  
 CONNECT TO EXIST.

BRIDGE NO. 870085

SR-934 / NE 79th ST CAUSEWAY  
 BRIDGE NO. 870551

CURVE DATA C3  
 PI STA. = 128+33.57  
 Δ = 45° 02' 30" (RT)  
 D = 5° 05' 42"  
 T = 466.27  
 L = 884.01  
 R = 1,124.52  
 PC STA. = 123+67.30  
 PT STA. = 132+51.31

NOTE:  
 M & R DENOTES MILLING & RESURFACING.  
 \* RAMP TO MATCH EXIST. CONC. COLOR  
 (SEE GENERAL NOTES 10 & 11)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

AMERICAN  
 CONSULTING ENGINEERS OF FLORIDA, LLC  
 2000 Palm Beach Lakes Boulevard, Suite 1000  
 West Palm Beach, FL 33409  
 Phone: (561) 253-9550 Fax: (561) 253-9551  
 Certificate of Authorization No. 9302  
 Andrew C. Nunes, P.E. No. 52731

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
934	MIAMI-DADE	431180-1-52-01

PLAN

SHEET NO.  
36

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

# **APPENDIX D**

## **Existing Permits**





**SOUTH FLORIDA WATER MANAGEMENT DISTRICT  
 ENVIRONMENTAL RESOURCE  
 STANDARD GENERAL PERMIT NO. 13-02135-P  
 DATE ISSUED: September 16, 2003**

*Jennifer*

Form #0941  
 08/95

**PERMITTEE:** 360 DEVELOPERS, LLC.  
 13 SW 7TH ST  
 MIAMI, FL 33130

**PROJECT DESCRIPTION:** Construction and operation of a surface water management system to serve a 6.77 acre residential development known as Harbor Cove.

**PROJECT LOCATION:** MIAMI-DADE COUNTY, SEC 9 TWP 53S RGE 42E

**PERMIT DURATION:** See Special Condition No:1. See attached Rule 40E-4.321, Florida Administrative Code.

This is to notify you of the District's agency action concerning Notice of Intent for Permit Application No. 030116-7, dated January 16, 2003. This action is taken pursuant to Rule 40E-1.603 and Chapter 40E-40, Florida Administrative Code (F.A.C.).

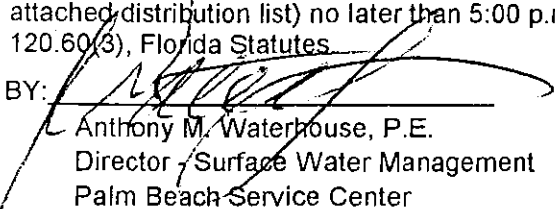
Based on the information provided, District rules have been adhered to and an Environmental Resource General Permit is in effect for this project subject to:

1. Not receiving a filed request for a Chapter 120, Florida Statutes, administrative hearing.
2. the attached 19 General Conditions (See Pages : 2 - 4 of 6 ),
3. the attached 14 Special Conditions (See Pages : 5 - 6 of 6 ) and
4. the attached 8 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 16th day of September, 2003, in accordance with Section 120.60(3), Florida Statutes

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

Certified mail number 7002 1010 0004 2586 8384

Last Date For Agency Action: 16-SEP-03

**GENERAL ENVIRONMENTAL RESOURCE PERMIT STAFF REPORT**

**Project Name:** Harbor Cove

**Permit No.:** 13-02135-P

**Application No.:** 030116-7

**Application Type:** Environmental Resource (New General Permit)

**Location:** Miami-Dade County, S9/T53S/R42E

**Permittee :** 360 Developers, Llc.

**Operating Entity :** 360 Community Association, Inc.

**Project Area:** 6.77 acres

**Project Land Use:** Residential

**Drainage Basin:** INTRACOASTAL WATERWAY

**Receiving Body:** On site retention

**Special Drainage District:** NA

**Conservation Easement To District :** No

**Sovereign Submerged Lands:** No

**PROJECT PURPOSE:**

This application is a request for an Environmental Resource Permit to authorize construction and operation of a surface water management system to serve a 6.77 acre upland residential development for a project known as Harbor Cove. Staff recommends approval with conditions.

**PROJECT EVALUATION:**

**PROJECT SITE DESCRIPTION:**

The site is located on Harbor Island in the Intracoastal Waterway of Miami-Dade County, north of the 79th Street Causeway, bound by East Drive to the east and West Drive to the west. There are no permitted surface water management facilities within the project area. The site contains previously cleared uplands adjacent to an existing basin that is contiguous with Biscayne Bay. According to information submitted as part of the application, the applicant owns the submerged lands within the basin immediately waterward of the project site through a Trustees Deed (T.I.I.F.). There are remnants of previous docking facilities in this area along the bulkhead, but these are presently in disrepair and considered non-functional. Replacing and expanding these docking facilities was originally proposed as part of this application. However, the applicant has elected to delete the proposed docking facilities from this application. The submerged bottom in and around this area has been documented to support seagrasses, including Halodule wrightii, Syringodium filiforme, Halophila decipiens and H. johnsonii.

**PROPOSED PROJECT:**

Proposed is the construction and operation of a surface water management system to serve a 6.77 acre residential project known as Harbor Cove.

The applicant is proposing to construct residential facilities with an associated surface water management system over a 6.77 acre upland area. The proposed surface water management system will consist of inlets, culverts and exfiltration trench that will provide the required water quality treatment prior to overflowing into drainage wells. No off site discharge is proposed up to the 25-year, 3-day design event.

**LAND USE:**

**Construction:  
Project:**

	<b>This Phase</b>	<b>Total Project</b>	
Building Coverage	2.68	2.68	acres
Pavement	2.57	2.57	acres
Pervious	1.52	1.52	acres
<b>Total:</b>	<b>6.77</b>	<b>6.77</b>	

**WATER QUANTITY :**

**Discharge Rate :**

Total on-site retention of 25-year 3-day design event is proposed.

Discharge Storm Frequency : 25 YEAR-3 DAY

Design Rainfall : 12 inches

<b>Basin</b>	<b>Allow Disch (cfs)</b>	<b>Method Of Determination</b>	<b>Peak Disch (cfs)</b>	<b>Peak Stage ( ft, NGVD)</b>
Harbor Cove	0	On-Site Retention	0	5.9



**Finished Floors :**

As shown in the following table and the attached exhibits, minimum finished floor elevations have been set at or above the calculated design storm flood elevation.

Building Storm Frequency : 100 YEAR-3 DAY

Design Rainfall : 14 inches

Basin	Peak Stage ( ft, NGVD)	Proposed Min. Finished Floors ( ft, NGVD)	FEMA Elevation ( ft, NGVD)
Harbor Cove	7.75	9	9

**Control Elevation :**

Basin	Area (Acres)	Ctrl Elev ( ft, NGVD)	WSWT Ctrl Elev ( ft, NGVD)	Method Of Determination
Harbor Cove	6.77	2/2	2.00	Mean High Tide



**WATER QUALITY :**

Water quality treatment for 2.5 inches times the percent impervious area will be provided in 1140 linear feet of exfiltration trench.

Basin	Treatment Method	Vol Req'd (ac-ft)	Vol Prov'd (ac-ft)
Harbor Cove	Treatment Exfiltration Trench	1140 LF .93	.93

**WETLANDS:**

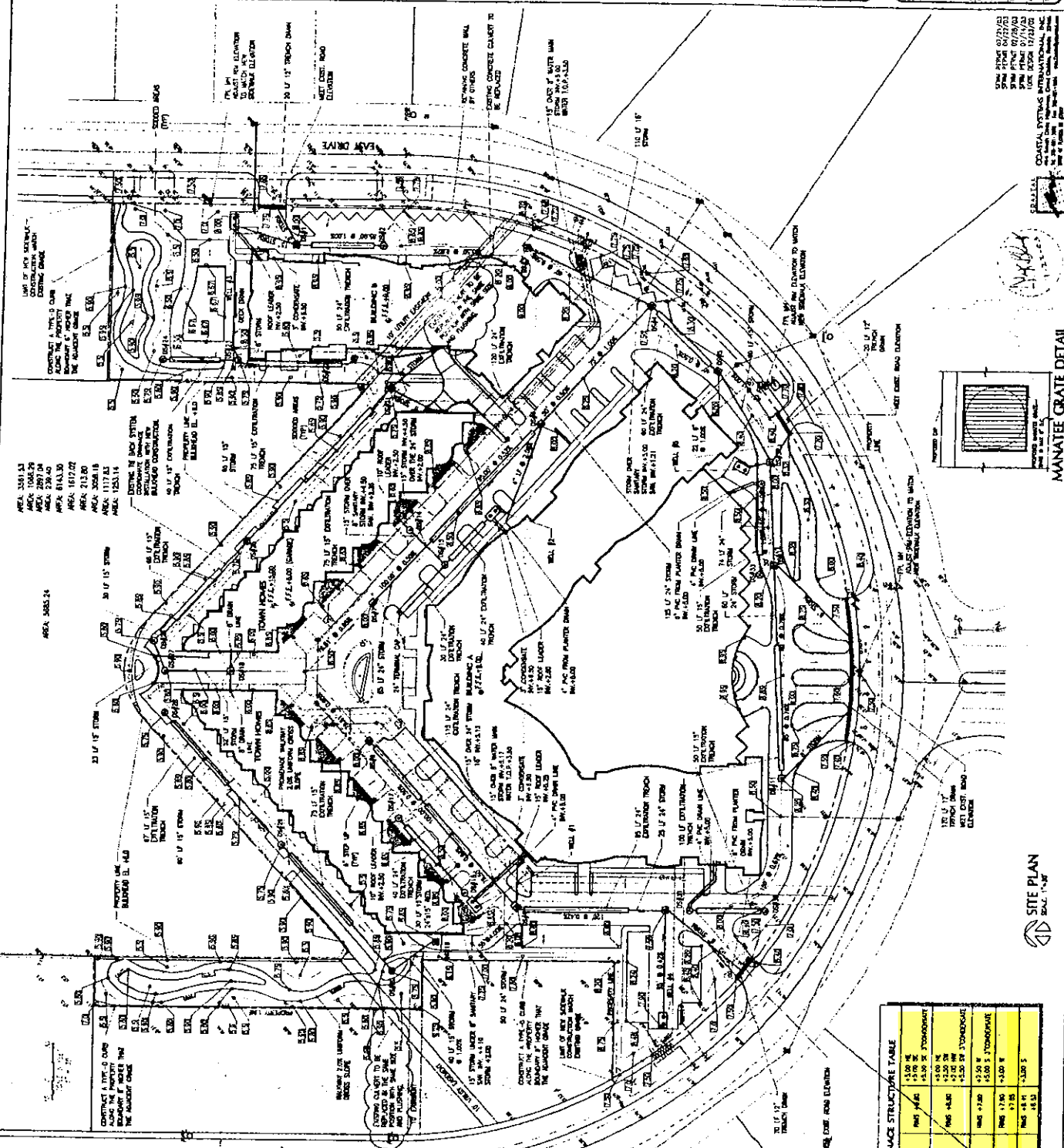
Project construction will include replacement of two (2)66" existing flushing culverts that extend through the site and provide additional tidal flushing connections between the existing basin and Biscayne Bay. The culverts will be replaced with the same diameter pipes, placed at the same invert elevation as existing, as shown on the enclosed exhibits. However, should the City of Miami agree to install manatee grates at the southern ends of the two culverts, the permittee shall simultaneously install grates spaced approximately 6" apart across the northern openings of the culverts to exclude manatees from entering the pipes, as shown on Exhibit Nos. 2 and 8. Appropriate turbidity control measures shall be employed during all in-water work to ensure that State water quality standards are met. In addition, the permittee shall adhere to the manatee protection measures outlined in Special Condition No. 12 for the duration of project-related construction activities that may have the potential to harm manatees.

With the exception of repair/replacement of the existing bulkhead and the culvert replacement mentioned above, no other work is proposed at this time or authorized by this permit along the project shoreline or in the water. However, while replacement and expansion of the previous docking facilities (which are now considered to be nonfunctional) is no longer proposed as part of this application, according to the applicant's representatives it may be proposed in the future. As provided for in Special Condition No. 11, if replacement and/or replacement/expansion of the docking facilities is proposed in the future, an application to modify this permit must be submitted to the District for the proposed work. Based on a review of seagrass survey information previously submitted to the District as part of this application which showed seagrasses to occur within the previous boat slip areas, at a minimum, any future docking facilities will need to be reconfigured so as to avoid and minimize any adverse impacts to seagrasses to the greatest extent practicable. However, the permittee is advised that issuance of this permit for the upland development in no way implies or guarantees that any future approvals for a docking facility at this site will be issued. Furthermore, the permittee is advised to notify potential unit owners that the purchase of a unit within the development does not imply or guarantee that any onsite docking facilities will be available in

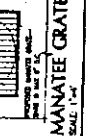


NO.	DATE
1	10/1/88
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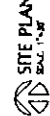
DATE	10/1/88
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COASTAL SYSTEMS INTERNATIONAL, INC.  
1101 15th Avenue South, Suite 200  
Miami, Florida 33146  
Tel: (305) 859-1234  
Fax: (305) 859-1234  
Date: 10/1/88  
Project: 360 CONDOMINIUM



MANATEE GRATE DETAIL  
SCALE: 1/4" = 1'-0"



DRAINAGE STRUCTURE TABLE

WELL #	TYPE	INVERT ELEVATION	STRUCTURE ELEVATION
WELL #1	MAN 4" X 4" X 4"	+3.00	+3.00
WELL #2	MAN 4" X 4" X 4"	+3.00	+3.00
WELL #3	MAN 4" X 4" X 4"	+3.00	+3.00
WELL #4	MAN 4" X 4" X 4"	+3.00	+3.00
WELL #5	MAN 4" X 4" X 4"	+3.00	+3.00

DRAINAGE STRUCTURE TABLE

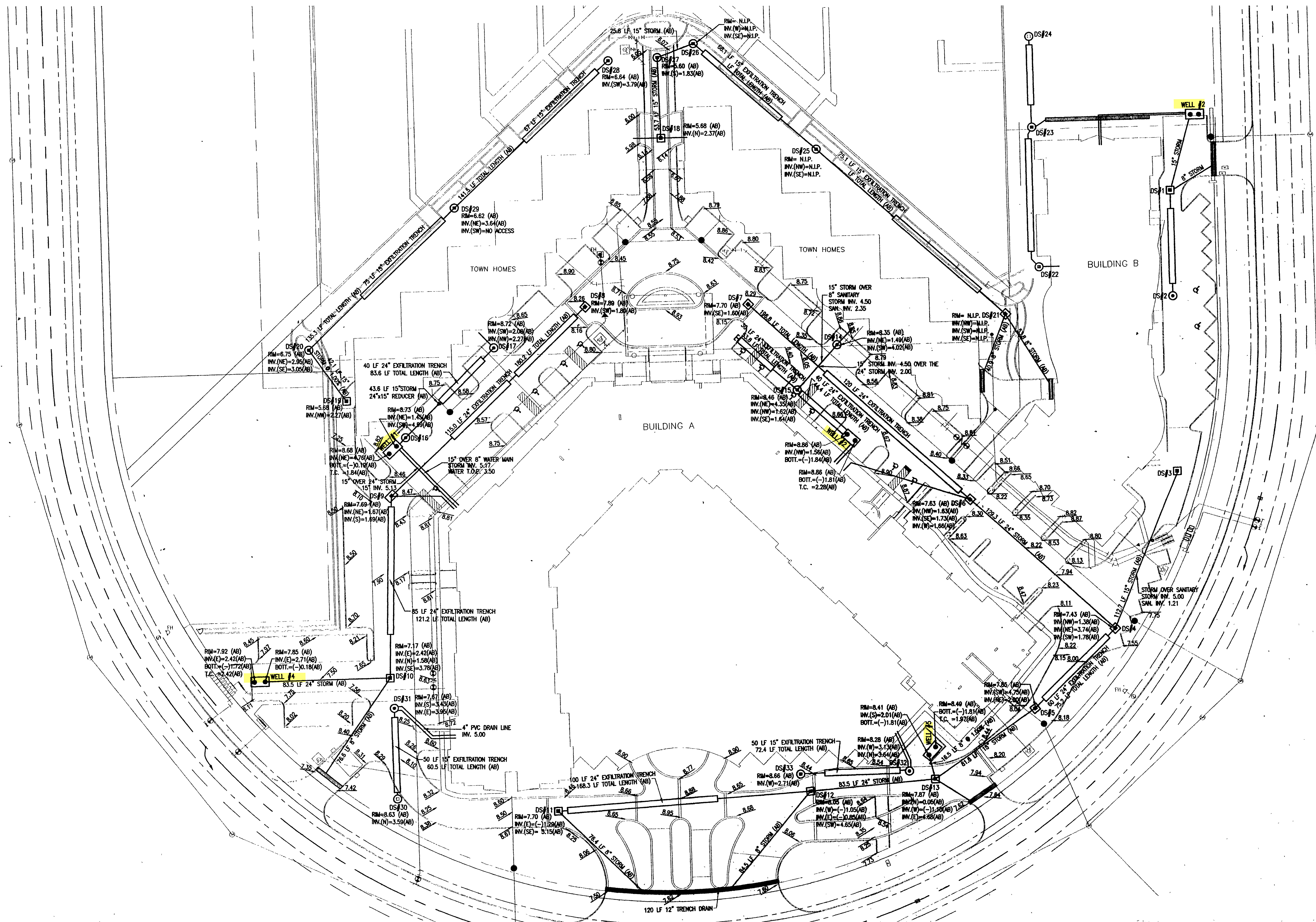
NO.	CONTRACT	TYPE	INVERT ELEVATION	STRUCTURE ELEVATION
1	P-BASE	SMALL 4" X 4" X 4"	+3.00	+3.00
2	P-1	MAN 4" X 4" X 4"	+3.00	+3.00
3	P-2	MAN 4" X 4" X 4"	+3.00	+3.00
4	P-3	MAN 4" X 4" X 4"	+3.00	+3.00
5	P-4	MAN 4" X 4" X 4"	+3.00	+3.00
6	P-5	MAN 4" X 4" X 4"	+3.00	+3.00
7	P-6	MAN 4" X 4" X 4"	+3.00	+3.00
8	P-7	MAN 4" X 4" X 4"	+3.00	+3.00
9	P-8	MAN 4" X 4" X 4"	+3.00	+3.00
10	P-9	MAN 4" X 4" X 4"	+3.00	+3.00
11	P-10	MAN 4" X 4" X 4"	+3.00	+3.00
12	P-11	MAN 4" X 4" X 4"	+3.00	+3.00
13	P-12	MAN 4" X 4" X 4"	+3.00	+3.00
14	P-13	MAN 4" X 4" X 4"	+3.00	+3.00
15	P-14	MAN 4" X 4" X 4"	+3.00	+3.00
16	P-15	MAN 4" X 4" X 4"	+3.00	+3.00
17	P-16	MAN 4" X 4" X 4"	+3.00	+3.00
18	P-17	MAN 4" X 4" X 4"	+3.00	+3.00
19	P-18	MAN 4" X 4" X 4"	+3.00	+3.00
20	P-19	MAN 4" X 4" X 4"	+3.00	+3.00
21	P-20	MAN 4" X 4" X 4"	+3.00	+3.00
22	P-21	MAN 4" X 4" X 4"	+3.00	+3.00
23	P-22	MAN 4" X 4" X 4"	+3.00	+3.00
24	P-23	MAN 4" X 4" X 4"	+3.00	+3.00
25	P-24	MAN 4" X 4" X 4"	+3.00	+3.00
26	P-25	MAN 4" X 4" X 4"	+3.00	+3.00
27	P-26	MAN 4" X 4" X 4"	+3.00	+3.00
28	P-27	MAN 4" X 4" X 4"	+3.00	+3.00
29	P-28	MAN 4" X 4" X 4"	+3.00	+3.00
30	P-29	MAN 4" X 4" X 4"	+3.00	+3.00
31	P-30	MAN 4" X 4" X 4"	+3.00	+3.00
32	P-31	MAN 4" X 4" X 4"	+3.00	+3.00

**LEGEND**

CONTRACT	PROVIDED
(Symbol)	WATER WASTE
(Symbol)	WATER TRUCK
(Symbol)	WATER TOWER
(Symbol)	WATER TANK
(Symbol)	WATER PUMP
(Symbol)	WATER RESERVOIR
(Symbol)	WATER SUPPLY
(Symbol)	WATER MAIN
(Symbol)	WATER VALVE
(Symbol)	WATER METER
(Symbol)	WATER CLEANER
(Symbol)	WATER FILTER
(Symbol)	WATER TREATMENT
(Symbol)	WATER DISTRIBUTION
(Symbol)	WATER PUMP STATION
(Symbol)	WATER STORAGE
(Symbol)	WATER INTAKE
(Symbol)	WATER OUTLET
(Symbol)	WATER CONNECTION
(Symbol)	WATER DISCONNECT
(Symbol)	WATER CATCH BASIN
(Symbol)	WATER SUMP
(Symbol)	WATER PUMP
(Symbol)	WATER MOTOR
(Symbol)	WATER DRIVE
(Symbol)	WATER COUPLER
(Symbol)	WATER REDUCER
(Symbol)	WATER BUSHING
(Symbol)	WATER ELBOW
(Symbol)	WATER TEE
(Symbol)	WATER CROSS
(Symbol)	WATER FLANGE
(Symbol)	WATER GASKET
(Symbol)	WATER NUT
(Symbol)	WATER WASHER
(Symbol)	WATER LOCKWASHER
(Symbol)	WATER STOPVALVE
(Symbol)	WATER CHECKVALVE
(Symbol)	WATER SWEEPVALVE
(Symbol)	WATER AIRVALVE
(Symbol)	WATER STOP
(Symbol)	WATER OPEN
(Symbol)	WATER CLOSED
(Symbol)	WATER UNKNOWN

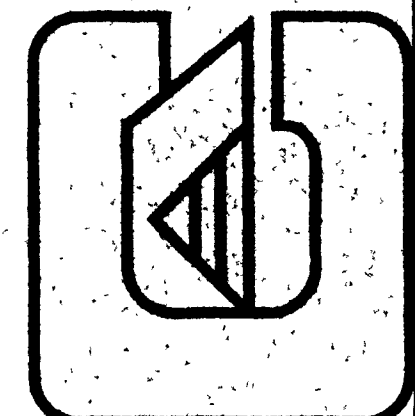


AS-BUILT SURVEY DRAINAGE SYSTEM



PROJECT NAME:  
**360 CONDOMINIUM**  
 NORTH BAY VILLAGE FLORIDA

**CORWILL ARCHITECTS, INC.**  
 99 FORCE DE LEON BLVD. PH. #100 - CORAL GABLES, FL 33134  
 LICENSE NO. AA-C00151 TELEPHONE: (305) 448-7383



PHASE	TITLE BLOCK
REVISIONS	TITLE BLOCK

DATE	12/23/02
JOB NO.	2/06/10
DRAWN BY	
APPR BY	
FILE	
SHEET TITLE	GRADING AND DRAINAGE PLAN
SHEET NO.	C
PGD-1	

DATE: 05-03-07  
 SCALE: 1" = 30'  
 JOB ORDER: 074688  
 CAD FILE: 360 PGD-AB  
 F.B.: 207 PG. 37, 39  
 FILE NO. E-1727  
 SHEET 2 OF 2

**360° CONDOMINIUM PHASE I**

SOUTH PENINSULA SURVEYING, CORP.  
 LB # 7583  
 LAND DEVELOPMENT CONSULTANTS  
 SURVEYORS - PLANNERS  
 CONSTRUCTION LAYOUT  
 13113 NW 42ND AVENUE, 3RD FLOOR  
 MIAMI, FLORIDA 33184  
 PHONE (305) 687-9191 FAX (305) 687-9190 EMAIL: PENINSULAS@CS.COM



ADDL/REVISED SUBMITTAL

APR 24 2003

030116-72

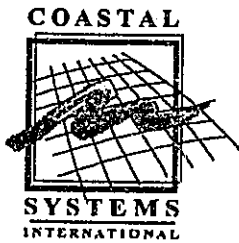
## STORM DRAINAGE CALCULATIONS

**360° CONDOMINIUM**  
7900 Harbor Island Drive  
North Bay Village, Miami-Dade County, Florida

*Prepared for:*

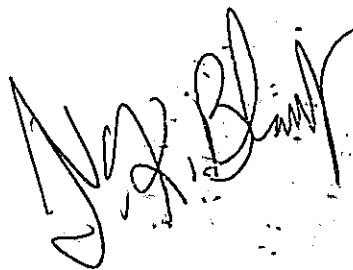
**360° DEVELOPERS, L.L.C.**

*By:*



COASTAL SYSTEMS INTERNATIONAL, INC.  
464 South Dixie Highway • Coral Gables, Florida 33146  
Tel: (305)661-3655 • Fax: (305)661-1914

State of Florida EB # 7087



APR 23 2003

Tim Blankenship, P.E.  
FL No. 55910

Drainage Map

**BASIN 3**  
 BASIN AREA: 1.269 AC.  
 PERVIOUS AREA: 0.745 AC.  
 IMPERVIOUS AREA: 0.524 AC.

WEST DRIVE

EAST DRIVE

TOWN HOME

BUILDING A

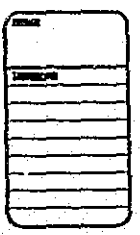
BUILDING B

**BASIN 1**  
 TOTAL ROOF AREA: 2.681 AC.

**BASIN 2**  
 BASIN AREA: 2.982 AC.  
 PERVIOUS AREA: 0.770 AC.  
 IMPERVIOUS AREA: 2.212 AC.

PROJECT NAME  
**360° CONDOMINIUM**  
 NORTH BAY VILLAGE - FLORIDA

**CORWILL**  
 ARCHITECTS, INC.  
 85 POND IN LEE BAY RD. SW - TALLAHASSEE, FL. 32304  
 LICENSE NO. 14-00000 TELEPHONE 904-497-7676



PROPOSED DRAINAGE MAP

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50	51	52
53	54	55	56
57	58	59	60
61	62	63	64
65	66	67	68
69	70	71	72
73	74	75	76
77	78	79	80
81	82	83	84
85	86	87	88
89	90	91	92
93	94	95	96
97	98	99	100

FIG-1A

**SITE PLAN**  
 SCALE: 1"=30'

DUPRE E. RANDELL, P.E.  
 P. 00000

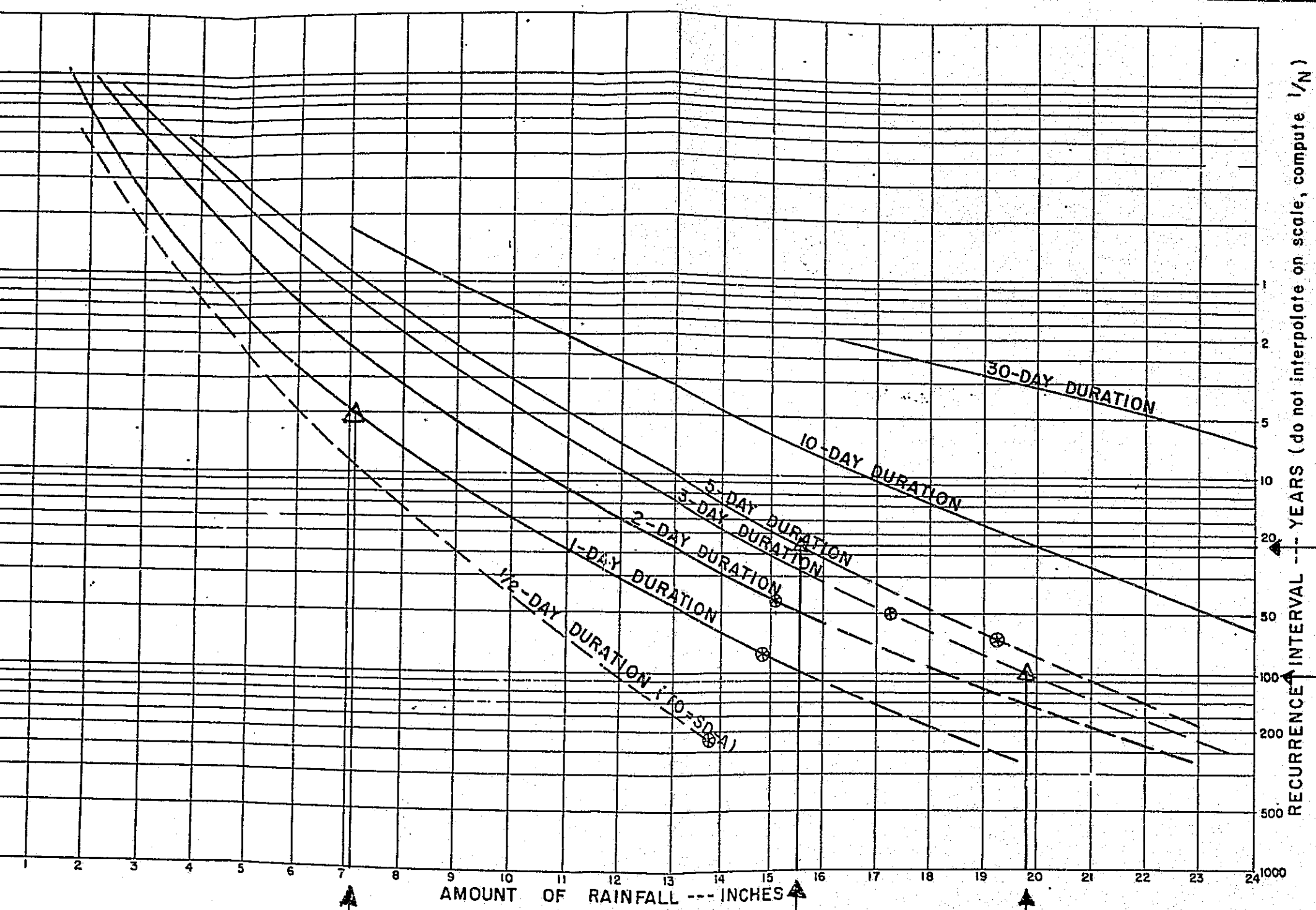


**COASTAL SYSTEMS INTERNATIONAL, INC.**  
 604 South State Highway, Clear Lake, Florida 32705  
 904-466-1000 Fax 904-466-1001  
 100% OF REVENUE TO STATE

COASTAL SYSTEMS INTERNATIONAL, INC.  
 Coastal, Environmental, Civil Engineering and Architecture



# Rainfall Frequency



NOTES:  
 (O) = MAXIMUM OF RECORD.  
 MAXIMUM 30 DAYS = 31.81".  
 MAXIMUM CALENDAR MONTH = 27.86" (OCT. 1998).

Soil Test





Kadarabek & Barreiro Consultants, Inc.  
Geotechnical, Environmental and Testing Services

Thomas J. Kadarabek, P.E.  
David Barreiro, P.E., CFEA

Mr. Rey Melendi  
LENNAR HOMES  
760 NW 107<sup>TH</sup> Avenue  
Miami, Florida 33172

August 12, 2002

Re: Results of 2 Borehole Drainage Tests  
Proposed Multiple Structures-Harbor Cove Apartments  
East & West Drive, North Bay Village  
Dade County, Florida  
K&B Project No. 02124

Dear Mr. Melendi:

K&B Consultants, Inc. (K&B) has completed two supplementary borehole drainage tests. The borehole tests were performed by rotating a roller bit and casing to the test depth; the borehole remained open after drilling. Next, water was pumped into the borehole to develop a test hydraulic head. Once the hydraulic head was stabilized then the average flow rate into the borehole was recorded. A formula developed by the South Florida Water Management District was used to estimate hydraulic conductivity.

The result of the borehole percolation test is summarized below and appended on the sheet entitled Results of Constant Head Field Borehole Drainage Test. Included in this sheet is the description of the subsurface conditions encountered at the test location.

<u>Test Number</u>	<u>Test Depth</u>	<u>Hydraulic Conductivity, K</u>
P-2	15'	0.00977 cfs per square foot per foot of head
P-3	15'	0.00113 cfs per square foot per foot of head

Sincerely,

  
KADARABEK & BARREIRO CONSULTANTS, INC.

Thomas J. Kadarabek, P.E.  
Project Engineer

Attachments: Test Location Plan (A-1)  
Results of Constant Head Field Borehole Drainage Test (A-2, A-3)

Distribution: Original & 4 Copies to Addressee Via FedEx  
Copy to Orestes Betancourt/Coastal Systems Via Fax 305/661-1914  
Copy to K&B File

File: \\jkgp01\02124-Harbor Cove Apartments-2 Drainage Tests-12-03-02

**RESULTS OF CONSTANT HEAD FIELD BOREHOLE DRAINAGE TEST**  
**K&B CONSULTANTS, INC./MIAMI, FLORIDA**  
**K&B PROJECT NO. 02124**

PROJECT NAME: HARBOR COVE APARTMENTS  
 LOCATION: EAST AND WEST DRIVE, NORTH BAY VILLAGE, DADE COUNTY, FLORIDA  
 TEST NO.: P-2 TEST DATE: 11-27-02 TEST PERFORMED BY: JOHNSON/ABREU  
 APPROXIMATE GROUND SURFACE ELEVATION, FEET, NGVD: +8  
 DEPTH TO STABILIZED GROUNDWATER, FEET: 5.9  
 DEPTH TO WATER SURFACE DURING TEST, FEET: SURFACE GRADE  
 HEAD, TEST HEAD, TEST HYDRAULIC HEAD (H), FEET: 5.9  
 DEPTH OF OPEN HOLE AFTER DRILLING, FEET: 15  
 PERFORATED CASING LENGTH, FEET: 15  
 PERFORATED CASING DIAMETER, OR HOLE DIAMETER (D) FEET: 0.5  
 LENGTH OF BOREHOLE BELOW STABILIZED GROUNDWATER (S), FEET: 9.1  
 TIME TO STABILIZE TEST HEAD, MINUTES: 1  
 AVERAGE FLOW RATE AT CONSTANT HEAD (Q), CFS: 0.127  
 HYDRAULIC CONDUCTIVITY (K), CFS/SQ.FT. -FOOT HEAD: 0.00113  
 FORMULA USED (DOT OR SFWMD): SFWMD  
 DOT STANDARD  
 TEST FORMULA

SFWMD USUAL OPEN  
 HOLE FORMULA

$$K = \frac{4Q}{3.14 [20.3(H) - (H)(H) - 9]}$$

$$K = \frac{4Q}{3.14(D) [2(H)(H) + 4(H)(S) + (H)(D)]}$$

TIME, MINUTES	WATER METER READING, BEGIN	WATER METER READING, END	FLOW RATE (Q) GALLONS/MINUTE
1	020	078	58
2	078	136	58
3	136	193	57
4	193	252	59
5	252	307	55
6	307	364	57
7	364	421	57

Average (Q) = 57 gpm x 0.00223 = 0.127 cfs

DEPTH BELOW GROUND SURFACE, FEET

SOIL/ROCK DESCRIPTION

0 - 5.5

TAN TO BROWN SAND AND LIMESTONE FRAGMENTS WITH SOME CONCRETE RUBBLE (FILL).

5.5 - 9

GRAY SAND.

9 - 15

GRAY SILT.

**RESULTS OF CONSTANT HEAD FIELD BOREHOLE DRAINAGE TEST**  
**K&B CONSULTANTS, INC./MIAMI, FLORIDA**  
**K&B PROJECT NO. 02124**

PROJECT NAME: HARBOR COVE APARTMENTS  
 LOCATION: EAST AND WEST DRIVE, NORTH BAY VILLAGE, DADE COUNTY, FLORIDA  
 TEST NO.: P-3 TEST DATE: 11-27-02 TEST PERFORMED BY: JOHNSON/ABREU  
 APPROXIMATE GROUND SURFACE ELEVATION, FEET, NGVD: +8  
 DEPTH TO STABILIZED GROUNDWATER, FEET: 6.8  
 DEPTH TO WATER SURFACE DURING TEST, FEET: 6.0  
 HEAD, TEST HEAD, TEST HYDRAULIC HEAD (H), FEET: 0.8  
 DEPTH OF OPEN HOLE AFTER DRILLING, FEET: 15  
 PERFORATED CASING LENGTH, FEET: 15  
 PERFORATED CASING DIAMETER, OR HOLE DIAMETER (D) FEET: 0.5  
 LENGTH OF BOREHOLE BELOW STABILIZED GROUNDWATER (S), FEET: 8.2  
 TIME TO STABILIZE TEST HEAD, MINUTES: 1  
 AVERAGE FLOW RATE AT CONSTANT HEAD (Q), CFS: 0.107  
 HYDRAULIC CONDUCTIVITY (K), CFS/SQ.FT. -FOOT HEAD: 0.00977  
 FORMULA USED (DOT OR SFWMD): SFWMD  
 DOT STANDARD  
 TEST FORMULA

$$K = \frac{4Q}{3.14 [20.3(H)-(H)(H)-9]}$$

SFWMD USUAL OPEN  
 HOLE FORMULA

$$K = \frac{4Q}{3.14(D) [2(H)(H)+4(H)(S)+(H)(D)]}$$

TIME, MINUTES	WATER METER READING, BEGIN	WATER METER READING, END	FLOW RATE (Q) GALLONS/MINUTE
1	060	106	46
2	106	153	47
3	153	201	48
4	201	248	47
5	248	295	47
6	295	343	48
7	343	390	47
8	390	438	48

Average (Q) = 48 gpm x 0.00223 = 0.107 cfs

DEPTH BELOW GROUND  
 SURFACE, FEET

SOIL/ROCK DESCRIPTION

0 - 6.5

BROWN SAND WITH SOME LIMESTONE (FILL).

6.5 - 10

GRAY SAND.

9 - 15

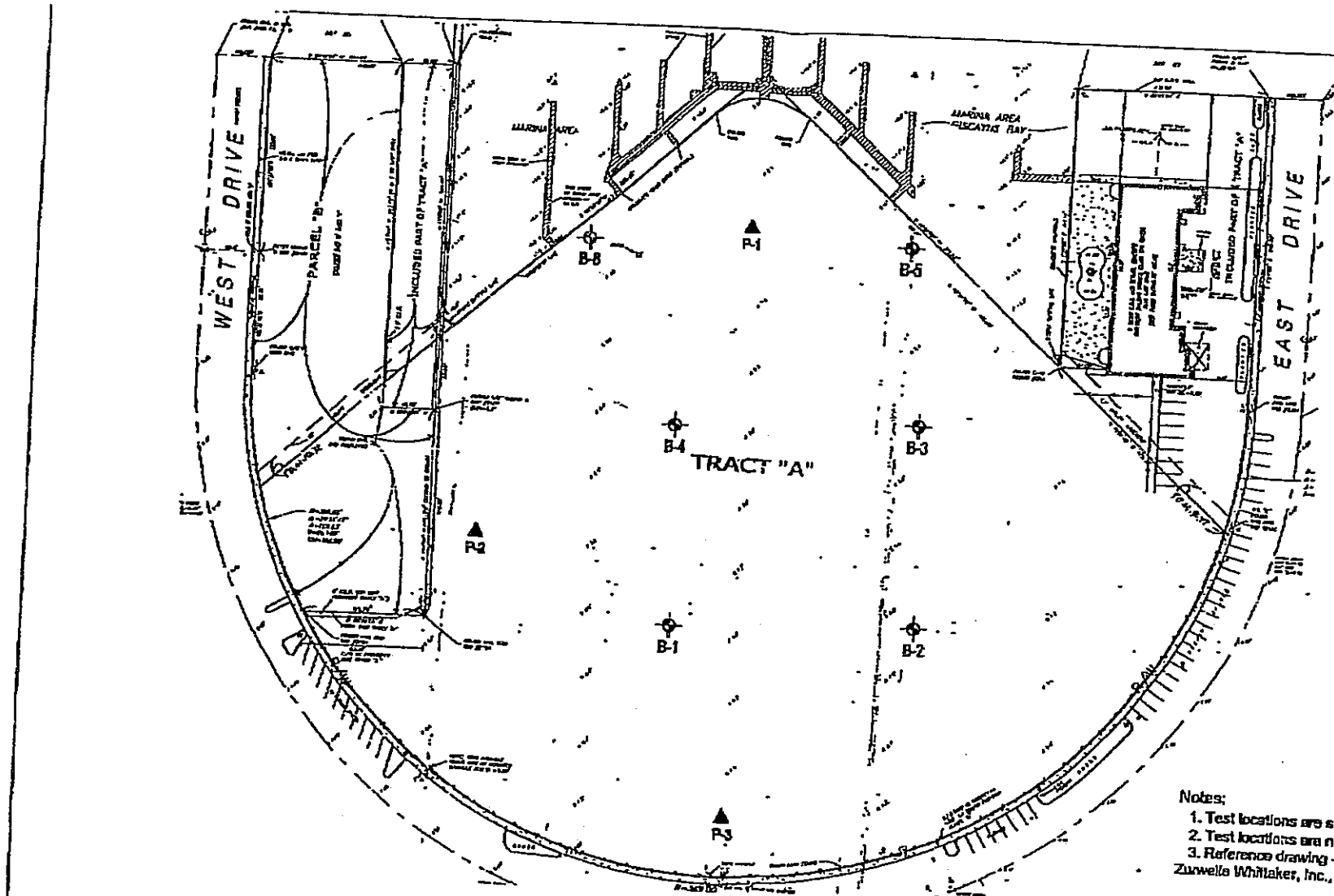
GRAY SILT.



12/05/02 THU 12:27 FAX 3056683068  
 3056683069 COASTAL SYSTEMS INTERNATIONAL  
 KB CONSULTANTS

Att: Crestis

001



Scale: 1" = 70'

- Notes:
1. Test locations are shown as approximate.
  2. Test locations are not to scale.
  3. Reference drawing - Site Survey - by Zurwella Whitaker, Inc., dated 11-27-01.

<b>K&amp;B</b> Kridzebeck & Barnard Consultants, Inc. Geotechnical, Environmental and Testing Services	DWG TITLE: Drainage / Test Location Plan		DWN BY: G.D.G.
	PROJ NAME: Harbor Cove Apartments		CKD BY: J.P.K.
	PROJ. NO: 02124	DATE: 04/05/02	DWG NO: 1
	APD BY: _____		

Drainage Basin

360° Condominium  
7900 Harbor Island Drive  
North Bay Village

DRAINAGE BASIN  
AREAS

Date: 1/13/2003  
Calc. By: OB  
Chk. By: AS  
Project No. 210610

OVERALL AREA			S.F.	AC.
			294892.47	6.77
Basin 1	Buildings			
		S.F.	AC.	
	Building A	77095.30	1.77	
	Building B	18827.09	0.43	
	Marina Villas	13731.95	0.32	
	Marina Villas	13731.95	0.32	
	Total	123386.30	2.83	
a)	Well #1	1/2 Building A + West Town Homes	43731.95	1.00
b)	Well #2	1/2 Building A + East Town Homes	54231.95	1.24
c)	Well #3	Building B	18827.09	0.43
Basin 2	Parking Lots			
a)		S.F.	AC.	
	Basin Area *	95719.41	2.20	
	Pervious Area	22207.36	0.51	
	Impervious Area *	73512.05	1.69	
	Top level Parking Deck	5649.34	0.13	
	* Includes Deck Planters (from building A)	3725.00	0.09	
b)				
	Basin Area	6043.47	0.14	
	Pervious Area	1621.10	0.04	
	Impervious Area	4422.37	0.10	
c)				
	Basin Area*	28129.43	0.65	
	Pervious Area	9767.41	0.22	
	Impervious Area*	18362.02	0.42	
	* Includes Deck Planters (from building A)	3725.00	0.09	
Basin 3	PROMENADE AREA			
a)		S.F.	AC.	
	Basin Area	22353.42	0.51	
	Pervious Area	14813.89	0.34	
	Impervious Area	7539.53	0.17	
b)				
	Basin Area	16464.15	0.38	
	Pervious Area	9549.94	0.22	
	Impervious Area	6914.21	0.16	
c)				
	Basin Area	16464.15	0.38	
	Pervious Area	8079.95	0.19	
	Impervious Area	8384.21	0.19	



Drainage  
Calculations

Parking Lot  
5 Year/24 Hour  
Storm Basin II

360° Condominium  
7900 Harbor Island Drive  
North Bay Village

5-YEAR / 24 HOURS STORM  
DRAINAGE CALCULATIONS  
for  
Basin 2 (Parking Lots)

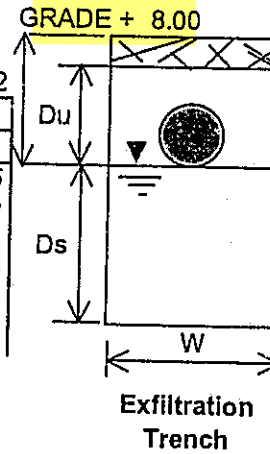
Date: 4/21/2003  
Calc. By: O.B.  
Chkd. by: A.S.  
Proj. No. 210610

K = 0.00113 cfs/ft<sup>2</sup> -fthead Hydraulic Conductivity  
H = 2 ft Average October Ground Water Level  
W = 4 ft  
H2 = 6.00 ft  
Ds = 2.00 ft  
Du = 5.00 ft  
DIA. = 2 ft  
L = 635 ft

Total Area 2.982  
Acres of impervious area: 2.212  
Acres of pervious area: 0.770  
3.14 sf  
Proposed feet of french drain

TRENCH STORAGE =  $[(W \times H - DIA.) \times 0.5] + DIA. \times L$   
DISCHARGE =  $[(Ds + H)^2 + W] \times H \times K \times L$

STAGE	TRENCH	STORAGE			DISCHARGE	
		PIPE	TOTAL	TRENCH	TOTAL	
3	0.057042	0.0572351	0.109277	7.1755	7.1755	
4	0.0811972	0.0572351	0.138432	17.2212	17.2212	
5	0.1103524	0.0572351	0.167587	30.1371	30.1371	
6	0.1395076	0.0572351	0.196743	45.9232	45.9232	
7	0.1686628	0.0572351	0.225898	64.5795	64.5795	
7.5	0.1832404	0.0572351	0.240475	74.983975	74.98398	
Storm Line	320		1.25			
Storm Line	669		2			



\*\* It is assumed for an extreme condition the high water table reaches elevation 3.0

Max. Trench Storage allowance: 2.982 ac x 3.20in / 12in = 0.7952 Ac-ft

Using Table 5.7 (Curve Numbers for Urban Land Uses) SCS 1986  
K(in/hr) =  $K(3600\text{sec/hr})(12\text{in/ft}) = 48.816$  (in/hr)

Use group

Cover Type and Hydrologic Conditions

Impervious Areas:

Paved Parking Lots, Roofs, Driveways, etc.

Cn =

Pervious Areas:

Good Condition ( grass cover > 75 % )

Cn =

Cn = Curve Numbers For Hydrologic Soil Group

A = 0.3 to 0.45<
B = 0.15 to 0.3
C = 0.05 to 0.15
D = < 0.05

CN = 82.765258 Total Curve Number

CN = ( % pervious )( Cn pervious ) + ( % impervious )( Cn impervious )

S = 2.0823643 inches Ground Storage

S = (1000/CN) - 10

Rainfall in Inches ( Dade County Chart WC1.2 for 5 Year - 24 Hour )  
7.15 inches Rain Fall



SCS PROGRAM

PROJECT NAME . . . . . : 360 CONDOMINIUM - BASIN 2 - 5-YR/1-DAY  
 REVIEWER . . . . . : ORESTES BETANCOURT  
 PROJECT AREA . . . . . : 2.98 ACRES  
 GROUND STORAGE . . . . . : 2.08 INCHES  
 TERMINATION DISCHARGE . . . . . : .00 CFS  
 DISTRIBUTION TYPE . . . . . : SFWMD  
 RETURN FREQUENCY . . . . . : 5.00 YEARS  
 RAINFALL DURATION . . . . . : 1-DAY  
 24-HOUR RAINFALL . . . . . : 7.15 INCHES  
 REPORTING SEQUENCE . . . . . : STANDARDIZED

STAGE (FT)	STORAGE (AF)	DISCHARGE (CFS)
2.00	.00	.00
3.00	.11	7.18
4.00	.14	17.22
5.00	.17	30.14
6.00	.20	45.92
7.00	.23	64.58
7.50	.24	74.98

TIME (HR)	RAIN FALL (IN)	ACCUM. RUNOFF (IN)	BASIN DISCHGE (CFS)	ACCUM. INFLOW (AF)	RESERVOIR				STAGE (FT)
					VOLUME (AF)	ACCUM. OUTFLOW (AF)	INSTANT DISCHGE (CFS)	AVERAGE DISCHGE (CFS)	
.00	.00	.00	.0	.0	.0	.0	.0	.0	
4.00	.32	.00	.0	.0	.0	.0	.0	.0	2.00
8.00	.98	.12	.2	.0	.0	.0	.0	.0	2.00
10.00	1.52	.38	.5	.1	.0	.1	.2	.1	2.03
11.00	1.92	.63	.9	.2	.0	.1	.5	.4	2.07
11.50	2.28	.88	1.5	.2	.0	.2	.8	.6	2.12
11.75	3.35	1.72	10.1	.4	.0	.2	1.4	1.1	2.20
12.00	4.69	2.87	13.9	.7	.2	.2	5.0	3.2	2.69
12.50	5.21	3.34	2.8	.8	.3	.4	13.9	9.4	3.67
13.00	5.48	3.59	1.5	.9	.1	.7	3.5	7.4	2.48
14.00	5.85	3.93	.9	1.0	.0	.9	1.7	2.5	2.23
16.00	6.29	4.34	.6	1.1	.0	1.0	.9	1.2	2.13
20.00	6.81	4.82	.4	1.2	.0	1.1	.6	.7	2.08
24.00	7.15	5.14	.2	1.3	.0	1.2	.4	.4	2.05
26.50	7.15	5.14	.0	1.3	.0	1.3	.2	.3	2.03
					.0	1.3	.0	.0	2.00

SUMMARY INFORMATION

MAXIMUM STAGE WAS 3.67 FEET AT 12.00 HOURS  
 MAXIMUM DISCHARGE WAS 13.9 CFS AT 12.00 HOURS

Promenade  
100 Year/72 Hour  
Basin III

360° Condominium  
7900 Harbor Island Drive  
North Bay Village

100-YEAR / 72 HOURS STORM  
DRAINAGE CALCULATIONS  
for  
**Basin 3 (Promenade)**

Date: 4/21/2003  
Calc. By: O.B.  
Chkd. by: A.S.  
Proj. No. 210610

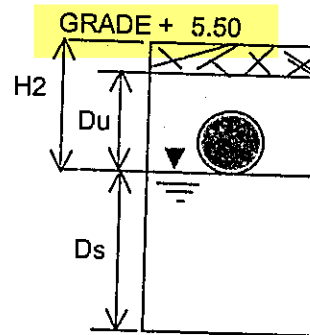
K = 0.00113 cfs/ft<sup>2</sup> -fthead *Hydraulic Conductivity*  
H = 2 ft *Average October Ground Water Level*  
W = 4 ft  
H2 = 3.50 ft  
Ds = 0.00 ft  
Du = 2.50 ft  
DIA. = 1.25 ft  
L = 400 ft

1.226563 sf  
*Proposed feet of french drain*

Total Area 1.269  
Acres of impervious area: 0.524  
Acres of pervious area: 0.745

TRENCH STORAGE = [(WxH-DIA.)0.5]+DIA.]L  
DISCHARGE = [(Ds+H)2+W]HxKxL

STAGE	STORAGE		
	TRENCH	PIPE	TOTAL
3	0.0239565	0.040342	0.064299
4	0.042322	0.040342	0.082664
5	0.0606875	0.040342	0.101029
5.5	0.0698702	0.040342	0.110212
5.75	0.0698702	0.040342	0.189294
5.9	0.0698702	0.040342	0.281752
6	0.0698702	0.040342	0.408652



Swales Storage Area 0.03874 Acre-ft (Added to Stage 5.75 storage)  
Surface Storage Area 0.092458 Acre-ft (Added to Stage 5.90 storage)  
Surface Storage Area 0.1269 Acre-ft (Added to Stage 6.0 storage)

STAGE	TRENCH	PIPE	TOTAL
7	0.0698702	0.040342	1.379212
8	0.0698702	0.040342	2.648212
9	0.0698702	0.040342	3.917212
10	0.0698702	0.040342	5.186212
Storm Line	140 lf		0.67 ft Dia.
Storm Line	967 lf		1.5 ft Dia.

Using Table 5.7 (Curve Numbers for Urban Land Uses) SCS 1986  
K(in/hr) = K(3600sec/hr)(12in/ft) = 48.816 (in/hr)

Cover Type and Hydrologic Conditions

Impervious Areas:

Pavers over sand (for walkways)

Pervious Areas:

Good Condition ( grass cover > 75 % )

Use group **A**

A = 0.3 to 0.45<
B = 0.15 to 0.3
C = 0.05 to 0.15
D = < 0.05

Cn = **95**

Cn = **39**

Cn = Curve Numbers For Hydrologic Soil Group

CN= 62.123719

Total Curve Number

CN = ( % pervious )( Cn pervious )+( % impervious )( Cn impervious )

S= 6.0969113 inches

Ground Storage

S = (1000/CN) - 10

Rainfall in Inches

( Dade County Chart WC1.2 for 100 Year - 72 Hour )  
19.9 inches Rain Fall



1

BASIN 3 100-YR 72-HR TAPE7.TXT

SCS PROGRAM

PROJECT NAME . . . . . : 360 CONDOMINIUM - BASIN 3 - 100YR/3DAY  
 REVIEWER . . . . . : ORESTES BETANCOURT  
 PROJECT AREA . . . . . : 1.27 ACRES  
 GROUND STORAGE . . . . . : 6.10 INCHES  
 TERMINATION DISCHARGE : .00 CFS  
 DISTRIBUTION TYPE . . . : SFWMD  
 RETURN FREQUENCY . . . : 100.00 YEARS  
 RAINFALL DURATION . . . : 3-DAY  
 24-HOUR RAINFALL . . . : 19.90 INCHES  
 REPORTING SEQUENCE . . : STANDARDIZED

STAGE (FT)	STORAGE (AF)	DISCHARGE (CFS)
2.00	.00	.00
3.00	.06	.00
4.00	.08	.00
5.00	.10	.00
5.50	.11	.00
5.75	.19	.00
6.00	.41	.00
7.00	1.38	.00
8.00	2.48	.00
9.00	3.92	.00
10.00	5.19	.00

TIME (HR)	RAIN FALL (IN)	ACCUM. RUNOFF (IN)	BASIN DISCHGE (CFS)	ACCUM. INFLOW (AF)	RESERVOIR				STAGE (FT)
					VOLUME (AF)	ACCUM. OUTFLOW (AF)	INSTANT DISCHGE (CFS)	AVERAGE DISCHGE (CFS)	
.00	.00	.00	.0	.0	.0	.0	.0	.0	2.00
4.00	.48	.00	.0	.0	.0	.0	.0	.0	2.00
8.00	.97	.00	.0	.0	.0	.0	.0	.0	2.00
12.00	1.45	.01	.0	.0	.0	.0	.0	.0	2.01
16.00	1.94	.08	.0	.0	.0	.0	.0	.0	2.12
20.00	2.42	.20	.0	.0	.0	.0	.0	.0	2.32
24.00	2.91	.37	.1	.0	.0	.0	.0	.0	2.59
28.00	3.61	.67	.1	.1	.1	.0	.0	.0	3.32
32.00	4.32	1.04	.1	.1	.1	.0	.0	.0	5.44
36.00	5.02	1.46	.1	.2	.2	.0	.0	.0	5.64
40.00	5.73	1.92	.2	.2	.2	.0	.0	.0	5.76
44.00	6.44	2.41	.2	.3	.3	.0	.0	.0	5.82
48.00	7.14	2.92	.2	.3	.3	.0	.0	.0	5.88
52.00	8.04	3.60	.3	.4	.4	.0	.0	.0	5.97
56.00	9.87	5.07	.6	.5	.5	.0	.0	.0	6.13
58.00	11.38	6.35	1.0	.7	.7	.0	.0	.0	6.26
59.00	12.50	7.32	1.4	.8	.8	.0	.0	.0	6.36

1

BASIN 3 100-YR 72-HR TAPE7.TXT

TIME (HR)	RAIN FALL (IN)	ACCUM. RUNOFF (IN)	BASIN DISCHGE (CFS)	ACCUM. INFLOW (AF)	VOLUME (AF)	RESERVOIR			STAGE (FT)
						ACCUM. OUTFLOW (AF)	INSTANT DISCHGE (CFS)	AVERAGE DISCHGE (CFS)	
59.50	13.49	8.20	2.3	.9	.9	.0	.0	.0	6.45
59.75	16.48	10.90	13.8	1.2	1.2	.0	.0	.0	6.62
60.00	20.20	14.36	17.7	1.5	1.5	.0	.0	.0	6.96
60.50	21.65	15.74	3.5	1.7	1.7	.0	.0	.0	7.23
61.00	22.41	16.45	1.8	1.7	1.7	.0	.0	.0	7.31
62.00	23.42	17.42	1.1	1.8	1.8	.0	.0	.0	7.41
64.00	24.66	18.60	.7	2.0	2.0	.0	.0	.0	7.53
68.00	26.09	19.97	.4	2.1	2.1	.0	.0	.0	7.66
72.00	27.04	20.89	.3	2.2	2.2	.0	.0	.0	7.75

SUMMARY INFORMATION

MAXIMUM STAGE WAS 7.75 FEET AT 72.00 HOURS  
 MAXIMUM DISCHARGE WAS .0 CFS AT .00 HOURS

Promenade  
25 Year/72 Hour  
Başin III



360° Condominium  
7900 Harbor Island Drive  
North Bay Village

25-YEAR / 72 HOURS STORM  
DRAINAGE CALCULATIONS  
for  
**Basin 3 (Promenade)**

Date: 4/21/2003  
Calc. By: O.B.  
Chkd. by: A.S.  
Proj. No. 210610

K =	0.00113	cfs/ft <sup>2</sup> -fthead
H =	2	ft
W =	4	ft
H2 =	3.50	ft
Ds =	0.00	ft
Du =	2.50	ft
DIA. =	1.25	ft
L =	400	ft

Hydraulic Conductivity  
Average October Ground Water Level

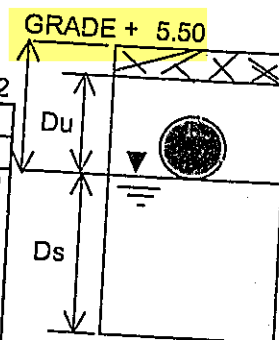
1.226563 sf  
Proposed feet of french drain

Total Area  
Acres of impervious area:  
Acres of pervious area:

1.269
0.524
0.745

TRENCH STORAGE =  $[(W \times H - DIA.) \times 0.5] + DIA. \times L$   
DISCHARGE =  $[(Ds + H)^2 + W] \times H \times K \times L$

STAGE	TRENCH	STORAGE		DISCHARGE		H2
		PIPE	TOTAL	TRENCH	TOTAL	
3	0.0239565	0.040342	0.064299	0	0	0
4	0.042322	0.040342	0.082664	0	0	0
5	0.0606875	0.040342	0.101029	0	0	0
5.5	0.0698702	0.040342	0.110212	0	0	0
5.75	0.0698702	0.040342	0.189294	0	0	0
5.9	0.0698702	0.040342	0.281752	0	0	0
6	0.0698702	0.040342	0.408652	0	0	0



Swales Storage Area 0.03874 Acre-ft (Added to Stage 5.75 storage)  
Surface Storage Area 0.092458 Acre-ft (Added to Stage 5.90 storage)  
Surface Storage Area 0.1269 Acre-ft (Added to Stage 6.0 storage)

Storm Line	140	lf
Storm Line	967	lf

0.67	ft Dia.
1.5	ft Dia.

Using Table 5.7 (Curve Numbers for Urban Land Uses) SCS 1986  
 $K(\text{in/hr}) = K(3600\text{sec/hr})(12\text{in/ft}) = 48.816 (\text{in/hr})$

Cover Type and Hydrologic Conditions

Use group **A**

A = 0.3 to 0.45<
B = 0.15 to 0.3
C = 0.05 to 0.15
D = < 0.05

Impervious Areas:

Pavers over sand (for walkways)

Cn = **95**

Pervious Areas:

Good Condition ( grass cover > 75 % )

Cn = **39**

Curve Numbers For Hydrologic Soil Group

CN = 62.123719

Total Curve Number

$CN = (\% \text{ pervious})(Cn \text{ pervious}) + (\% \text{ impervious})(Cn \text{ impervious})$

S = 6.0969113 inches

Ground Storage

S = (1000/CN) - 10

Rainfall in Inches

14.5

( Dade County Chart WC1.2 for 25 Year - 72 Hour )  
inches Rain Fall

S C S P R O G R A M

PROJECT NAME . . . . . : 360 CONDOMINIUM - BASIN 3 - 25YR/3DAY  
 REVIEWER . . . . . : ORESTES BETANCOURT  
 PROJECT AREA . . . . . : 1.27 ACRES  
 GROUND STORAGE . . . . . : 6.10 INCHES  
 TERMINATION DISCHARGE . . . . . : .00 CFS  
 DISTRIBUTION TYPE . . . . . : SFWMD  
 RETURN FREQUENCY . . . . . : 25.00 YEARS  
 RAINFALL DURATION . . . . . : 3-DAY  
 24-HOUR RAINFALL . . . . . : 14.50 INCHES  
 REPORTING SEQUENCE . . . . . : STANDARDIZED

STAGE (FT)	STORAGE (AF)	DISCHARGE (CFS)
2.00	.00	.00
3.00	.06	.00
4.00	.08	.00
5.00	.10	.00
5.50	.11	.00
5.75	.19	.00
5.90	281752.00	.00
6.00	.41	.00

TIME (HR)	RAIN FALL (IN)	ACCUM. RUNOFF (IN)	BASIN DISCHGE (CFS)	ACCUM. INFLOW (AF)	- - - - - R E S E R V O I R - - - - -				STAGE (FT)
					VOLUME (AF)	ACCUM. OUTFLOW (AF)	INSTANT DISCHGE (CFS)	AVERAGE DISCHGE (CFS)	
.00	.00	.00	.0	.0	.0	.0	.0	.0	2.00
4.00	.35	.00	.0	.0	.0	.0	.0	.0	2.00
8.00	.71	.00	.0	.0	.0	.0	.0	.0	2.00
12.00	1.06	.00	.0	.0	.0	.0	.0	.0	2.00
16.00	1.41	.01	.0	.0	.0	.0	.0	.0	2.01
20.00	1.76	.04	.0	.0	.0	.0	.0	.0	2.07
24.00	2.12	.12	.0	.0	.0	.0	.0	.0	2.19
28.00	2.63	.27	.1	.0	.0	.0	.0	.0	2.43
32.00	3.15	.46	.1	.0	.0	.0	.0	.0	2.75
36.00	3.66	.70	.1	.1	.1	.0	.0	.0	3.48
40.00	4.18	.97	.1	.1	.1	.0	.0	.0	5.01
44.00	4.69	1.26	.1	.1	.1	.0	.0	.0	5.57
48.00	5.21	1.58	.1	.2	.2	.0	.0	.0	5.67
52.00	5.86	2.00	.2	.2	.2	.0	.0	.0	5.75
56.00	7.19	2.96	.4	.3	.3	.0	.0	.0	5.75
58.00	8.29	3.80	.6	.4	.4	.0	.0	.0	5.75
59.00	9.11	4.45	1.0	.5	.5	.0	.0	.0	5.75
59.50	9.83	5.04	1.5	.5	.5	.0	.0	.0	5.75
59.75	12.01	6.89	9.5	.7	.7	.0	.0	.0	5.75
60.00	14.72	9.30	12.3	1.0	1.0	.0	.0	.0	5.75

Roofs & Parking  
25 Year/72 Hour  
Basin I & II



360° Condominium  
7900 Harbor Island Drive  
North Bay Village

25-YEAR / 72 HOURS STORM  
DRAINAGE CALCULATIONS  
for Basins 1 and 2

Date: 4/18/2003  
Calc. By: O.B.  
Chkd. by: A.S.  
Proj. No. 210610

K = 0.00113 cfs/ft<sup>2</sup> -fthead Hydraulic Conductivity  
H = 2 ft Average October Ground Water Level  
W = 4 ft  
H2 = 6.50 ft  
Ds = 2.0 ft  
Du = 5.5 ft  
DIA. = 2 ft  
L = 745 ft

3.14 sf  
Proposed feet of french drain

Total Area (Roofs and park'g) 5.501  
Acres of impervious area: 4.892  
Acres of pervious area: 0.609

TRENCH STORAGE =  $[(W \times H - DIA.) \times 0.5] + DIA. \times L$   
DISCHARGE =  $[(Ds + H)^2 + W] \times H \times K \times L$

STAGE	STORAGE		DISCHARGE			
	TRENCH	PIPE	TOTAL	Extra Well	WELL	TOTAL
3	0.0610572	0.05723508	0.118292	3.5650624	5.347594	8.912656
4	0.0952629	0.0572351	0.152498	7.1301248	10.6952	17.82531
5	0.1294685	0.0572351	0.186704	10.695187	16.0428	26.73797
6	0.1636742	0.0572351	0.220909	14.26025	21.3904	35.65062
7	0.1978799	0.0572351	0.255115	17.825312	26.738	44.56328
7.5	0.2149828	0.0572351	0.277096	19.607843	29.4118	49.01961

(Surface storage added to storage) 0.004878 Acre-ft  
Storm Line 669 lf 2 ft Dia.  
Storm Line 320 lf 1.25 ft Dia.

No discharge at Stage 2 since the average high water table elevation is 2.0

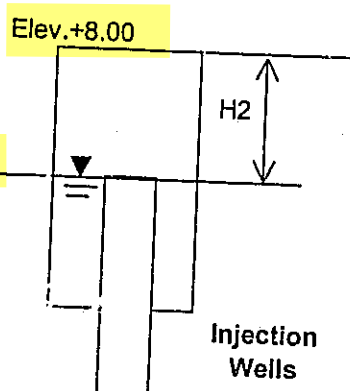
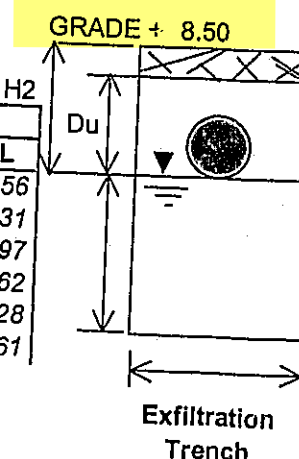
Max. Trench Storage allowance: 5.501 ac x 3.20 in / 12 in = 1.4669333 Ac-ft

INJECTION WELL CALCULATION (3 wells) one per building roof

24" Diameter drilled from 100ft below grade.  
Performance = 800 gpm per foot of head.

Flowrate =  $800 \frac{\text{gal}}{\text{min}} \times \frac{\text{cf}}{7.48 \text{ gal}} \times \frac{1 \text{ min}}{60 \text{ sec}} = 1.78 \text{ cfs}$   
1 cfs = 448.83 gpm  
H2 = 6 feet of head.  
Capacity = 4800 gpm max capacity before overflow. /448.83  
Total = 10.70 cfs per well. 10.69 cfs

Proposed 3 wells 5.35 cfs / ft-head  
Total Injection Capacity 32.09 cfs



360° Condominium  
7900 Harbor Island Drive  
North Bay Village

25-YEAR / 72 HOURS STORM  
DRAINAGE CALCULATIONS  
for Basins 1 and 2

Date: 4/18/2003  
Calc. By: O.B.  
Chkd. by: A.S.  
Proj. No. 210610

Extra Well for Overflow

(2 well) for site overflow.

24" Diameter drilled from 100ft below grade.  
Performance = 800 gpm per foot of head.

H2 = 5.5 feet of head.  
Capacity = 4400 gpm max capacity before overflow.  
Total = 9.80 cfs per well.

Proposed 2 wells 3.57 cfs / ft-head  
Total Injection Capacity 19.61 cfs

Using Table 5.7 (Curve Numbers for Urban Land Uses) SCS 1986  
 $K(\text{in/hr}) = K(3600\text{sec/hr})(12\text{in/ft}) = 48.816 (\text{in/hr})$

Cover Type and Hydrologic Conditions

Impervious Areas:  
Paved Parking Lots, Roofs, Driveways, etc.

Pervious Areas:  
Good Condition ( grass cover > 75 % )

Use group A

A = 0.3 to 0.45<  
B = 0.15 to 0.3  
C = 0.05 to 0.15  
D = < 0.05

Cn = 98

Cn = 39

Curve Numbers For Hydrologic Soil Group

CN = 91.466287 Total Curve Number  
 $CN = (\% \text{ pervious})(Cn \text{ pervious}) + (\% \text{ impervious})(Cn \text{ impervious})$

S = 0.93299 inches Ground Storage

S = (1000/CN) - 10

Rainfall in Inches 14.5 inches ( Dade County Chart WC1.2 for 25 Year - 72 Hour )  
Rain Fall

Soil Test





Kaderabek & Barreiro Consultants, Inc.  
Geotechnical, Environmental and Testing Services

Thomas J. Kaderabek, P.E.  
David Barreiro, P.E., CFEA

Mr. Ray Melendi  
LENNAR HOMES  
760 NW 107<sup>TH</sup> Avenue  
Miami, Florida 33172

August 12, 2002

Re: Results of 2 Borehole Drainage Tests  
Proposed Multiple Structures-Harbor Cove Apartments  
East & West Drive, North Bay Village  
Dade County, Florida  
K&B Project No. 02124

Dear Mr. Melendi:

SOIL TEST

K&B Consultants, Inc. (K&B) has completed two supplementary borehole drainage tests. The borehole tests were performed by rotating a roller bit and casing to the test depth; the borehole remained open after drilling. Next, water was pumped into the borehole to develop a test hydraulic head. Once the hydraulic head was stabilized then the average flow rate into the borehole was recorded. A formula developed by the South Florida Water Management District was used to estimate hydraulic conductivity.

The result of the borehole percolation test is summarized below and appended on the sheet entitled Results of Constant Head Field Borehole Drainage Test. Included in this sheet is the description of the subsurface conditions encountered at the test location.

Test Number	Test Depth	Hydraulic Conductivity, K
P-2	15'	0.00977 cfs per square foot per foot of head
P-3	15'	0.00113 cfs per square foot per foot of head

Sincerely,

KADERABEK & BARREIRO CONSULTANTS, INC.  
Thomas J. Kaderabek, P.E.  
Project Engineer

Attachments: Test Location Plan (A-1)  
Results of Constant Head Field Borehole Drainage Test (A-2, A-3)

Distribution: Original & 4 Copies to Addressee Via FedX  
Copy to Orestes Betancourt/Coastal Systems Via Fax 305/661-1914  
Copy to K&B File

File: tlkreport02124-Harbor Cove Apartments-2 Drainage Tests-12-03-02

RESULTS OF CONSTANT HEAD FIELD BOREHOLE DRAINAGE TEST  
K&B CONSULTANTS, INC./MIAMI, FLORIDA  
K&B PROJECT NO. 02124

PROJECT NAME: HARBOR COVE APARTMENTS  
LOCATION: EAST AND WEST DRIVE, NORTH BAY VILLAGE, DADE COUNTY, FLORIDA  
TEST NO.: P-2 TEST DATE: 11-27-02 TEST PERFORMED BY: JOHNSON/ABREU

APPROXIMATE GROUND SURFACE ELEVATION, FEET, NGVD: +8  
DEPTH TO STABILIZED GROUNDWATER, FEET: 5.9

DEPTH TO WATER SURFACE DURING TEST, FEET: SURFACE GRADE  
HEAD, TEST HEAD, TEST HYDRAULIC HEAD (H), FEET: 5.9

DEPTH OF OPEN HOLE AFTER DRILLING, FEET: 15  
PERFORATED CASING LENGTH, FEET: 15  
PERFORATED CASING DIAMETER, OR HOLE DIAMETER (D) FEET: 0.5  
LENGTH OF BOREHOLE BELOW STABILIZED GROUNDWATER (S), FEET: 9.1

P-2

TIME TO STABILIZE TEST HEAD, MINUTES: 1  
AVERAGE FLOW RATE AT CONSTANT HEAD (Q), CFS: 0.127  
HYDRAULIC CONDUCTIVITY (K), CFS/SQ.FT. -FOOT HEAD: 0.00113

FORMULA USED (DOT OR SFWMD): SFWMD  
DOT STANDARD  
TEST FORMULA

$$K = \frac{4Q}{3.14 [20.3(H)-(H)(H)-9]}$$

SFWMD USUAL OPEN  
HOLE FORMULA

$$K = \frac{4Q}{3.14(D) [2(H)(H)+4(H)(S)+(H)(D)]}$$

TIME, MINUTES	WATER METER READING, BEGIN	WATER METER READING, END	FLOW RATE (Q) GALLONS/MINUTE
1	020	078	58
2	078	136	58
3	136	193	57
4	193	252	59
5	252	307	55
6	307	364	57
7	364	421	57

Average (Q) = 57 gpm x 0.00223 = 0.127 cfs

DEPTH BELOW GROUND SURFACE, FEET

SOIL/ROCK DESCRIPTION

0 - 5.5

TAN TO BROWN SAND AND LIMESTONE FRAGMENTS WITH SOME CONCRETE RUBBLE (FILL).

5.5 - 9

GRAY SAND.

9 - 15

GRAY SILT.





**RESULTS OF CONSTANT HEAD FIELD BOREHOLE DRAINAGE TEST**  
**K&B CONSULTANTS, INC./MIAMI, FLORIDA**  
**K&B PROJECT NO. 02124**

PROJECT NAME: HARBOR COVE APARTMENTS  
 LOCATION: EAST AND WEST DRIVE, NORTH BAY VILLAGE, DADE COUNTY, FLORIDA  
 TEST NO.: P-3 TEST DATE: 11-27-02 TEST PERFORMED BY: JOHNSON/ABREU  
 APPROXIMATE GROUND SURFACE ELEVATION, FEET, NGVD: +8  
 DEPTH TO STABILIZED GROUNDWATER, FEET: 6.8  
 DEPTH TO WATER SURFACE DURING TEST, FEET: 6.0  
 HEAD, TEST HEAD, TEST HYDRAULIC HEAD (H), FEET: 0.8  
 DEPTH OF OPEN HOLE AFTER DRILLING, FEET: 15  
 PERFORATED CASING LENGTH, FEET: 15  
 PERFORATED CASING DIAMETER, OR HOLE DIAMETER (D) FEET: 0.5  
 LENGTH OF BOREHOLE BELOW STABILIZED GROUNDWATER (S), FEET: 8.2  
 TIME TO STABILIZE TEST HEAD, MINUTES: 1  
 AVERAGE FLOW RATE AT CONSTANT HEAD (Q), CFS: 0.107  
 HYDRAULIC CONDUCTIVITY (K), CFS/SQ.FT. -FOOT HEAD: 0.00977  
 FORMULA USED (DOT OR SFWMD): SFWMD  
 DOT STANDARD  
 TEST FORMULA

P-3

SFWMD USUAL OPEN  
 HOLE FORMULA

$$K = \frac{4Q}{3.14 [20.3(H) - (H)(H) - 9]}$$

$$K = \frac{4Q}{3.14(D) [2(H)(H) + 4(H)(S) + (H)(D)]}$$

TIME, MINUTES	WATER METER READING, BEGIN	WATER METER READING, END	FLOW RATE (Q) GALLONS/MINUTE
1	060	106	46
2	106	153	47
3	153	201	48
4	201	248	47
5	248	295	47
6	295	343	48
7	343	390	47
8	390	438	48

Average (Q) = 48 gpm x 0.00223 = 0.107 cfs

DEPTH BELOW GROUND SURFACE, FEET

SOIL/ROCK DESCRIPTION

0 - 6.5

BROWN SAND WITH SOME LIMESTONE (FILL).

6.5 - 10

GRAY SAND.

9 - 15

GRAY SILT.



# **APPENDIX E**

## **Spread Calculations**

**Spread and Inlet Capacity Calculation - East Bound**

**NE 79<sup>TH</sup> STREET PD&E**

I = 4.00 in/hr SPREAD (Intensity)  
 I = 9.40 in/hr SAG VC 50-Years (Intensity)  
 n = 0.016 (Manning)  
 C<sub>1</sub> = 0.95 (Runoff coefficient impervious area)  
 C<sub>2</sub> = 0.25 (Runoff coefficient pervious area)  
 C = (C<sub>1</sub>\*A<sub>1</sub>+C<sub>2</sub>\*A<sub>2</sub>)/A  
 S<sub>c</sub> = Cross Slope  
 S<sub>L</sub> = Longitudinal Slope  
 T = Spread (ft)

W = 3.25 ft for BW Inlets Index 425-031  
 1.79 ft for P-5 Inlets Index 425-021  
 L = Length of the Grate  
 S<sub>w</sub> = Slope of the inlet width  
 W = Width of the gutter  
 R<sub>f</sub> = Ratio of frontal flow intercepted to total frontal flow  
 R<sub>s</sub> = Ratio of side flow intercepted to total side flow  
 E = Efficiency

Structure	Type	Location	Side	Station From	Station To	Length	Width	Width Pervious	*Area (Ac)		C	Q = CIA (CFS) SPREAD	Sx (FT/FT)	S <sub>L</sub> (FT/FT)	T (FT)	Max. Shoulder Spread (FT)	Spread Remarks	Velocity V ft/s	W/T	S <sub>w</sub> /S <sub>L</sub>	E <sub>0</sub> Chart 4	V <sub>0</sub> Chart7 ft/s	L Grate ft	R <sub>f</sub> Chart7	R <sub>s</sub>	E	Q <sub>i</sub> cfs	By Pass Flow Flow Q <sub>b</sub> cfs	
									Total A	Impervious A1																			Pervious A2
<b>HIGH POINT</b>																													
S1-1	P-6	55+00.00	R	5250.00	5500.00	250.0	70.0	6.0	0.402	0.367	0.034	0.89	1.430	0.03	0.00300	8.05	14.00	OK										2.67	0.000
		LP																											
S1-1	P-6	55+00.00	R	5740.00	5500.00	240.0	70.0	6.0	0.386	0.353	0.033	0.89	1.374	0.03	0.00300	7.93	14.00	OK										2.61	0.000
S1-2	P-5	57+40.00	R	6079.25	5740.00	339.3	80.0	6.0	0.623	0.576	0.047	0.90	2.237	0.03	0.02000	6.67	14.00	OK	0.06	0.27	1.00	0.58	7.10	3.92	1.00	1.00	0.999	2.236	0.001
<b>HIGH POINT</b>																													
S2-1	P-5	64+60.00	R	6079.25	6460.00	380.8	80.0	6.0	0.699	0.647	0.052	0.90	2.510	0.03	0.02000	6.97	14.00	OK	0.06	0.26	1.00	0.54	7.10	3.92	1.00	1.00	0.999	2.509	0.002
S2-2	P-6	66+70.00	R	6460.00	6670.00	210.0	85.0	6.0	0.410	0.381	0.029	0.90	1.478	0.03	0.00300	8.15	14.00	OK										2.72	0.000
		LP																											
S2-2	P-6	66+70.00	R	6860.00	6670.00	190.0	85.0	6.0	0.371	0.345	0.026	0.90	1.336	0.03	0.00300	7.85	14.00	OK										2.57	0.000
<b>HIGH POINT</b>																													
S3-1	P-6	70+85.00	R	6960.00	7085.00	225.0	80.0	6.0	0.413	0.382	0.031	0.90	1.483	0.03	0.00300	8.16	14.00	OK										2.73	0.000
		LP																											
S3-1	P-6	70+85.00	R	7320.00	7085.00	235.0	80.0	6.0	0.432	0.399	0.032	0.90	1.550	0.03	0.00300	8.30	14.00	OK										2.80	0.000
S3-2	P-5	73+20.00	R	7645.00	7320.00	325.0	80.0	6.0	0.597	0.552	0.045	0.90	2.143	0.03	0.02000	6.57	14.00	OK	0.06	0.27	1.00	0.58	7.10	3.92	1.00	1.00	0.999	2.142	0.001
<b>HIGH POINT</b>																													
S4-1	P-5	82+00.00	R	7645.00	8200.00	555.0	80.0	6.0	1.019	0.943	0.076	0.90	3.659	0.03	0.02000	8.03	14.00	OK	0.06	0.22	1.00	0.49	7.10	3.50	1.00	1.00	0.999	3.655	0.004
S4-3	P-4	83+95.00	R	8200.00	8395.00	195.0	80.0	6.0	0.358	0.331	0.027	0.90	1.289	0.03	0.00300	7.75	14.00	OK										2.38	0.000
		LP																											
S4-3	P-4	83+95.00	R	8340.00	8395.00	145.0	80.0	6.0	0.266	0.246	0.020	0.90	0.956	0.03	0.00300	6.92	14.00	OK										2.01	0.000
<b>LIMITS OF PROJECT</b>																													

$$T = \left( \frac{Q_{xn}}{0.56xS_x^{1.49}xS_L^{1.30}} \right)^{3/8}$$

HEC-12 Chapter 5

$$V = \frac{1.12 x S^{0.5} x S_x^{0.67} x T^4}{n} \text{ HEC-12 Chart 2}$$

$$R_s = \frac{1}{1 + \frac{0.15xV^{1.49}}{S_x x L^{2.3}}}$$

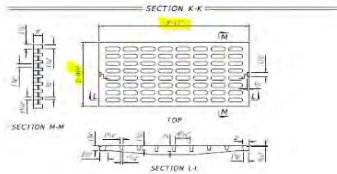
$$E = R_f x E_0 + R_s (1 - E_0)$$

$$Q_i = E x Q$$

$$Q_b = Q - Q_i$$

**Inlet Capacity Analysis in Sag Locations-Grate Inlets and Curb Opening Inlets**

W = 1.79 ft  
 L = 3.92 ft (P-5 and P-6) Length of the grate      L = 3.5 ft (P-4) Length of the grate  
 C<sub>w</sub> = 3 Weir coefficient for non depressed curb opening  
 \* Spread per HEC-12 Chapter 8  
 Q<sub>i</sub> = C<sub>w</sub>Pd<sup>1.5</sup> (grate inlets)      Q<sub>i</sub> = C<sub>w</sub>Ld<sup>1.5</sup> (curb opening inlets)  
 P = 7 ft (P-9)  
 Q = Intercepted flow cfs      P = perimeter of the grate disregarding side against the curb  
 C<sub>w</sub> = Weir Coefficient



**Spread and Inlet Capacity Calculation - West Bound**

**NE 79<sup>TH</sup> STREET PD&E**

I = 4.00 in/hr  
 I = 9.40 in/hr  
 n = 0.016 (Manning)  
 C<sub>1</sub> = 0.95 (Runoff coefficient impervious area)  
 C<sub>2</sub> = 0.25 (Runoff coefficient pervious area)  
 C = (C<sub>1</sub>\*A<sub>1</sub>+C<sub>2</sub>\*A<sub>2</sub>)/A  
 S<sub>c</sub> = Cross Slope  
 S<sub>L</sub> = Longitudinal Slope  
 T = Spread (ft)

SPREAD (Intensity)  
 SAG VC 50-Year (Intensity)

W = 3.25 ft for BW Inlets Index 425-031  
 1.79 ft for P-5 Inlets Index 425-021  
 L = Length of the Grate

S<sub>w</sub> = Slope of the inlet width  
 W = Width of the gutter  
 R<sub>f</sub> = Ratio of frontal flow intercepted to total frontal flow  
 R<sub>s</sub> = Ratio of side flow intercepted to total side flow  
 E = Efficiency

Structure	Type	Location	Side	Station From	Station To	Length	Width	Width Pervious	*Area (Ac)			C	Q = CIA (CFS) SPREAD	Sx (FT/FT)	S <sub>L</sub> (FT/FT)	T (FT)	Max. Shoulder Spread (FT)	Spread Remarks	Velocity V ft/s	W/T	S <sub>w</sub> /S <sub>c</sub>	E <sub>o</sub> Chart 4	V <sub>o</sub> Chart 7 ft/s	L Grate ft	R <sub>f</sub> Chart 7	R <sub>s</sub>	E	Q <sub>i</sub> cfs	By Pass Flow Flow Q <sub>b</sub> cfs
									Total A	Impervious A1	Pervious A2																		
<b>HIGH POINT</b>																													
S1-3	P-6	55+00.00	L	5250.00	5500.00	250.0	65.0	6.0	0.373	0.339	0.034	0.89	1.321	0.03	0.00300	7.82	14.00	OK										2.56	0.000
		LP																											
S1-3	P-6	55+00.00	L	5740.00	5500.00	240.0	65.0	6.0	0.358	0.325	0.033	0.89	1.269	0.03	0.02000	5.40	14.00	OK										1.47	0.000
S1-4	P-5	57+40.00	L	6079.25	5740.00	339.3	65.0	6.0	0.506	0.459	0.047	0.89	1.793	0.03	0.02000	6.14	14.00	OK	0.05	0.29	1.00	0.59	7.10	3.92	1.00	1.00	1.000	1.792	0.001
<b>HIGH POINT</b>																													
S2-3	P-5	64+60.00	R	6079.25	6460.00	380.8	70.5	10.0	0.616	0.529	0.087	0.85	2.097	0.03	0.02000	6.51	14.00	OK	0.06	0.27	1.00	0.58	7.10	3.92	1.00	1.00	0.999	2.096	0.001
S2-4	P-6	66+70.00	R	6460.00	6670.00	210.0	70.5	10.0	0.340	0.292	0.048	0.85	1.158	0.03	0.02000	5.21	14.00	OK										1.39	0.000
		LP																											
S2-4	P-6	66+70.00	R	6360.00	6670.00	190.0	70.5	10.0	0.308	0.264	0.044	0.85	1.046	0.03	0.00300	7.16	14.00	OK										2.24	0.000
<b>HIGH POINT</b>																													
S3-3	P-6	70+85.00	R	6860.00	7085.00	225.0	75.0	10.0	0.387	0.336	0.052	0.86	1.327	0.03	0.00300	7.83	14.00	OK										2.56	0.000
		LP																											
S3-3	P-6	70+85.00	R	7280.00	7085.00	195.0	75.0	10.0	0.336	0.291	0.045	0.86	1.151	0.03	0.02000	5.20	14.00	OK										1.39	0.000
S3-4	P-5	72+80.00	R	7645.00	7280.00	365.0	70.5	10.0	0.591	0.507	0.084	0.85	2.010	0.03	0.02000	6.41	14.00	OK	0.06	0.28	1.00	0.59	7.10	3.92	1.00	1.00	1.000	2.009	0.001
<b>HIGH POINT</b>																													
S4-5	P-5	82+00.00	R	7845.00	8200.00	555.0	70.0	6.0	0.892	0.815	0.076	0.89	3.175	0.03	0.02000	7.61	14.00	OK	0.06	0.24	1.00	0.52	7.10	3.50	1.00	1.00	0.999	3.172	0.003
S4-6	P-6	84+00.00	R	8200.00	8400.00	200.0	80.0	6.0	0.367	0.340	0.028	0.90	1.321	0.03	0.00300	7.82	14.00	OK										2.56	0.000
		LP																											
S4-6	P-6	84+00.00	R	8720.00	8400.00	320.0	80.0	6.0	0.588	0.544	0.044	0.90	2.110	0.03	0.00300	9.32	14.00	OK										3.33	0.000

**LIMITS OF PROJECT**

$$T = \left( \frac{Q_{xn}}{0.56 \times S_c^{1.49} \times S_L^{0.50}} \right)^{3/8}$$

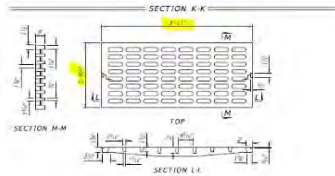
HEC-12 Chapter 5

**Inlet Capacity Analysis in Sag Locations-Grate Inlets and Curb Opening Inlets**  
 W = 1.79 ft  
 L = 3.92 ft (P-5 and P-6) Length of the grate      L = 3.5 ft (P-4) Length of the grate  
 C<sub>w</sub> = 3 Weir coefficient for non depressed curb opening  
 \* Spread per HEC-12 Chapter 8  
 Q<sub>i</sub> = C<sub>w</sub>Pd<sup>1.5</sup> (grate inlets)      Q<sub>i</sub> = C<sub>w</sub>Ld<sup>1.5</sup> (curb opening inlets)  
 P = 7 ft (P-9)  
 Q<sub>i</sub> = Intercepted flow cfs      P = perimeter of the grate disregarding side against the curb  
 C<sub>w</sub> = Weir Coefficient

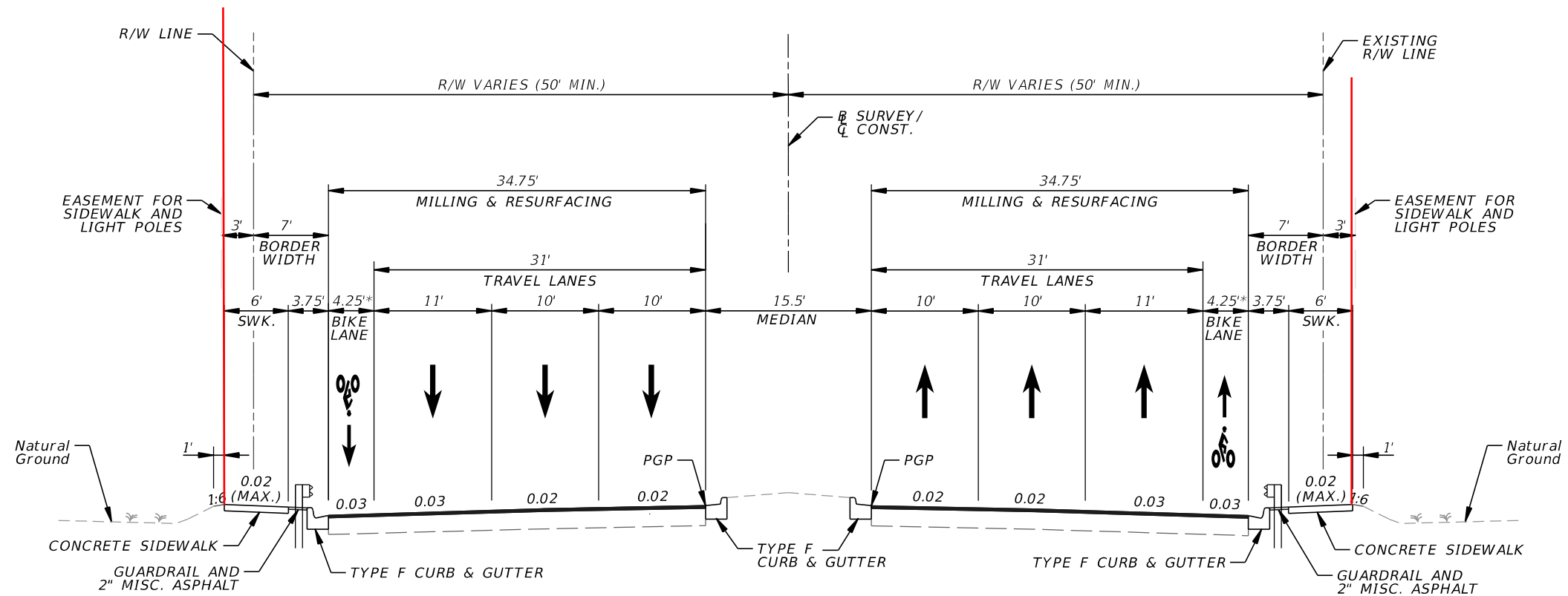
$$V = \frac{1.12 \times S^{0.5} \times S_c^{0.67} \times T^6}{n} \text{ HEC-12 Chart 2}$$

$$R_s = \frac{1}{1 + \frac{0.15 \times V^{1.8}}{S_c \times L^{2.5}}}$$

E = R<sub>f</sub>E<sub>o</sub> + R<sub>s</sub>(1-E<sub>o</sub>)  
 Q<sub>i</sub> = E<sub>x</sub>Q  
 Q<sub>b</sub> = Q-Q<sub>i</sub>



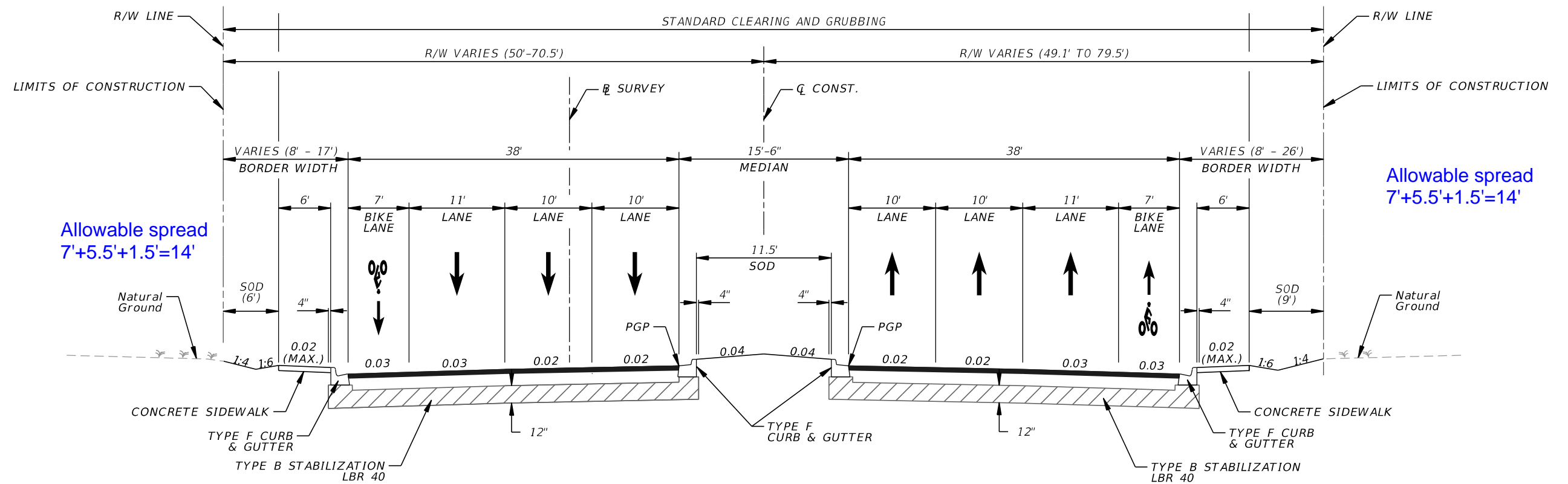




TYPICAL SECTION  
 SR 934 / NE 79th STREET / JOHN F. KENNEDY CAUSEWAY  
 STA. 42+52.00 TO STA. 54+00.00

CURRENT YEAR: 2023 AADT = 81700  
 ESTIMATED OPENING YEAR: 2030 AADT = 85400  
 ESTIMATED DESIGN YEAR: 2050 AADT = 95600  
 K= 7.3% D=54.2% T= 2.4% (24 HOUR)  
 DESIGN SPEED= 35 MPH  
 TARGET SPEED= 35 MPH  
 POSTED SPEED= 30, 35 MPH  
 CONTEXT CLASSIFICATION= C5

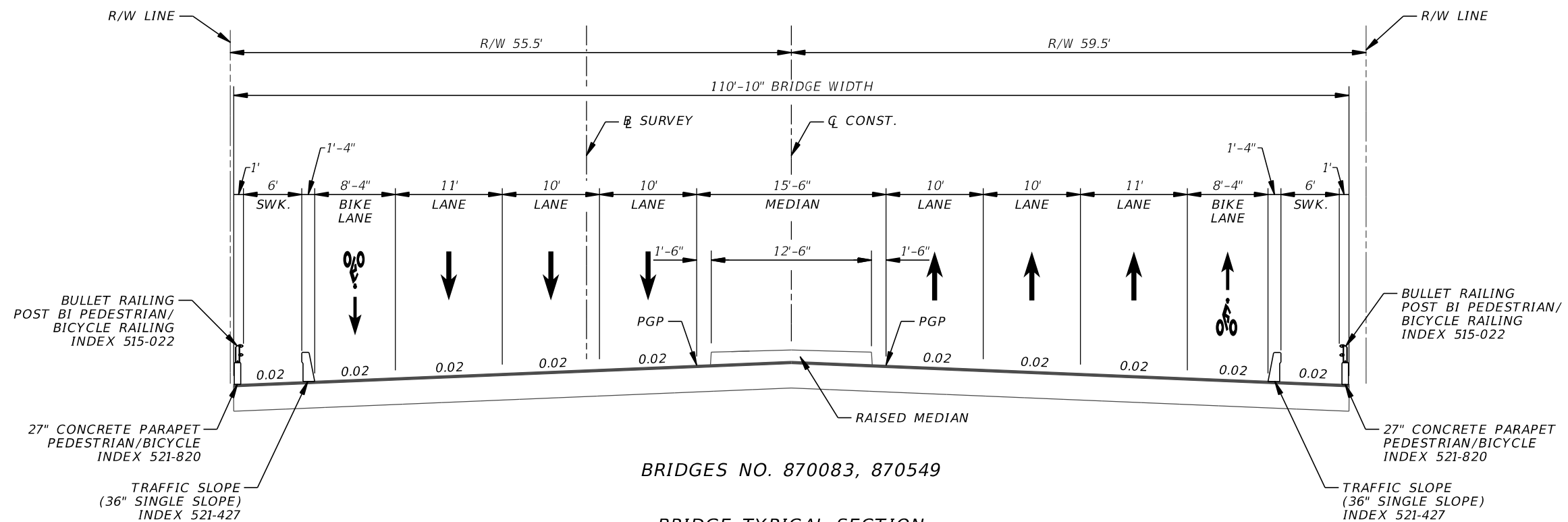
REVISIONS				WILLIAM W. LEIDY, P.E. P.E. LICENSE NUMBER 83790 HDR ENGINEERING, INC. 3250 W. COMMERCIAL BLVD., SUITE 100 FORT LAUDERDALE, FL 33309-3451	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TYPICAL SECTION	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 934	MIAMI-DADE	449007-1-22-01		2



**TYPICAL SECTION**  
 SR 934 / NE 79th STREET / JOHN F. KENNEDY CAUSEWAY  
 STA. 54+00.00 TO STA. 58+19.25  
 STA. 63+39.25 TO STA. 73+85.00  
 STA. 79+05.00 TO STA. 85+45.00

CURRENT YEAR: 2023 AADT = 81700  
 ESTIMATED OPENING YEAR: 2030 AADT = 85400  
 ESTIMATED DESIGN YEAR: 2050 AADT = 95600  
 K= 7.3% D=54.2% T= 2.4% (24 HOUR)  
 DESIGN SPEED= 35 MPH  
 TARGET SPEED= 35 MPH  
 POSTED SPEED= 30, 35 MPH  
 CONTEXT CLASSIFICATION= C5

REVISIONS				WILLIAM W. LEIDY, P.E. P.E. LICENSE NUMBER 83790 HDR ENGINEERING, INC. 3250 W. COMMERCIAL BLVD., SUITE 100 FORT LAUDERDALE, FL 33309-3451	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TYPICAL SECTION	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 934	MIAMI-DADE	449007-1-22-01		3



BRIDGES NO. 870083, 870549

BRIDGE TYPICAL SECTION  
 STA. 58+19.25 TO STA. 63+39.25  
 STA. 73+85.00 TO STA. 79+05.00

CURRENT YEAR: 2023 AADT = 81700  
 ESTIMATED OPENING YEAR: 2030 AADT = 85400  
 ESTIMATED DESIGN YEAR: 2050 AADT = 95600  
 K= 7.3% D=54.2% T= 2.4% (24 HOUR)  
 DESIGN SPEED= 35 MPH  
 TARGET SPEED= 35 MPH  
 POSTED SPEED= 30, 35 MPH  
 CONTEXT CLASSIFICATION= C5

REVISIONS				WILLIAM W. LEIDY, P.E. P.E. LICENSE NUMBER 83790 HDR ENGINEERING, INC. 3250 W. COMMERCIAL BLVD., SUITE 100 FORT LAUDERDALE, FL 33309-3451	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TYPICAL SECTION	SHEET NO. 4
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 934	MIAMI-DADE	449007-1-22-01		



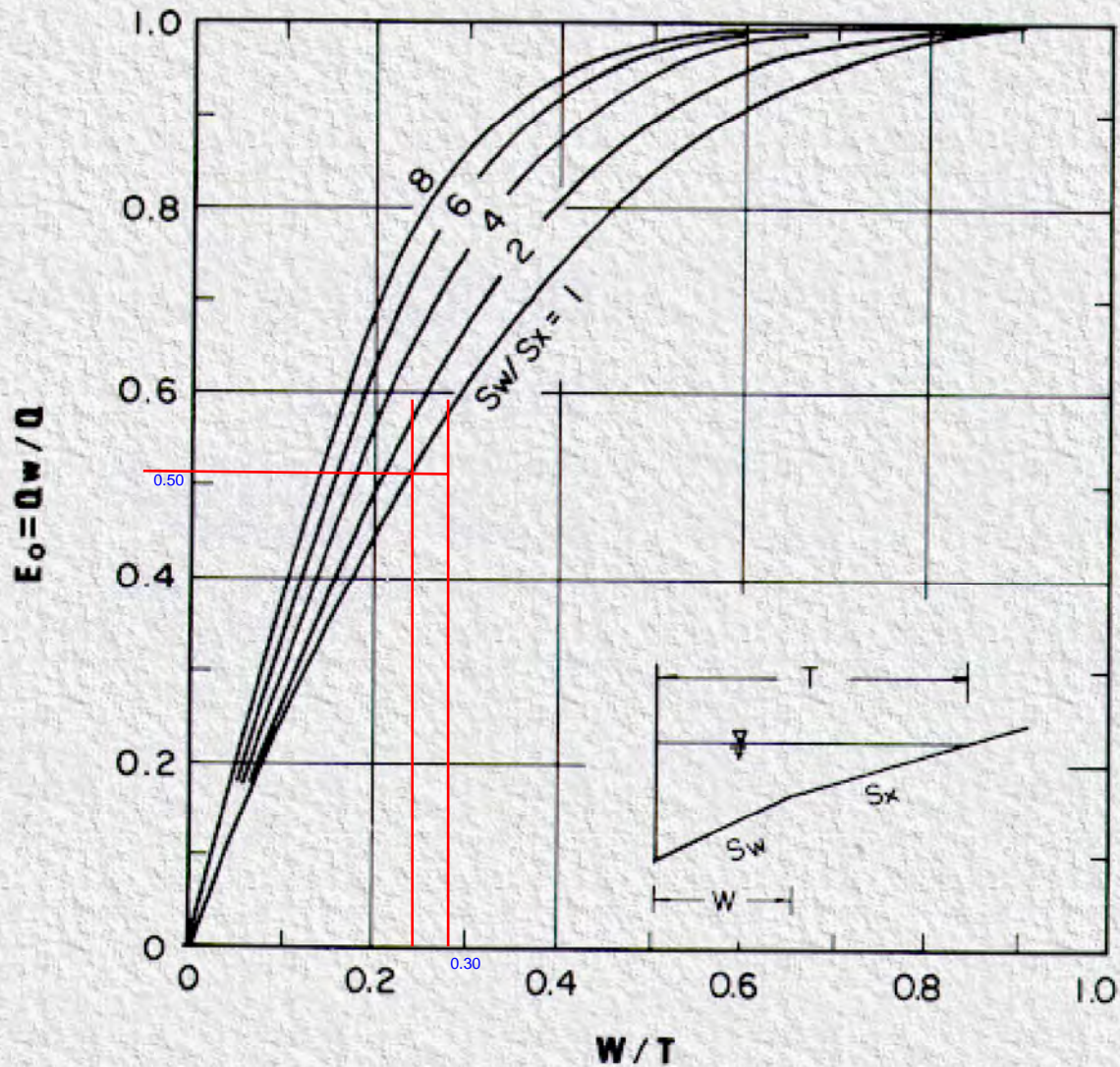


Chart 4. Ratio of frontal flow to total gutter flow.

## 5.3 Gutters with Curved Cross Sections

Where the pavement cross section is curved, gutter capacity varies with the configuration of the pavement. For this reason, discharge-spread or discharge-depth-at-the-curb relationships developed for one pavement configuration are not applicable to another section with a different crown height or half-width.

Procedures for developing conveyance curves for parabolic pavement sections are included in [Appendix D](#).



where:  $Q$  = total gutter flow

$Q_w$  = flow in width  $W$ .  $\text{ft}^3/\text{s}$  ( $\text{m}^3/\text{s}$ )

$W$  = width of depressed gutter or grate,  $\text{ft}$  ( $\text{m}$ )

$T$  = total spread of water in the gutter,  $\text{ft}$  ( $\text{m}$ )

[Chart 4, Section 5.2](#), provides a graphical solution of  $E_0$  for either straight cross slopes or depressed gutter sections.

The ratio of side flow,  $Q_s$ , to total gutter flow is:

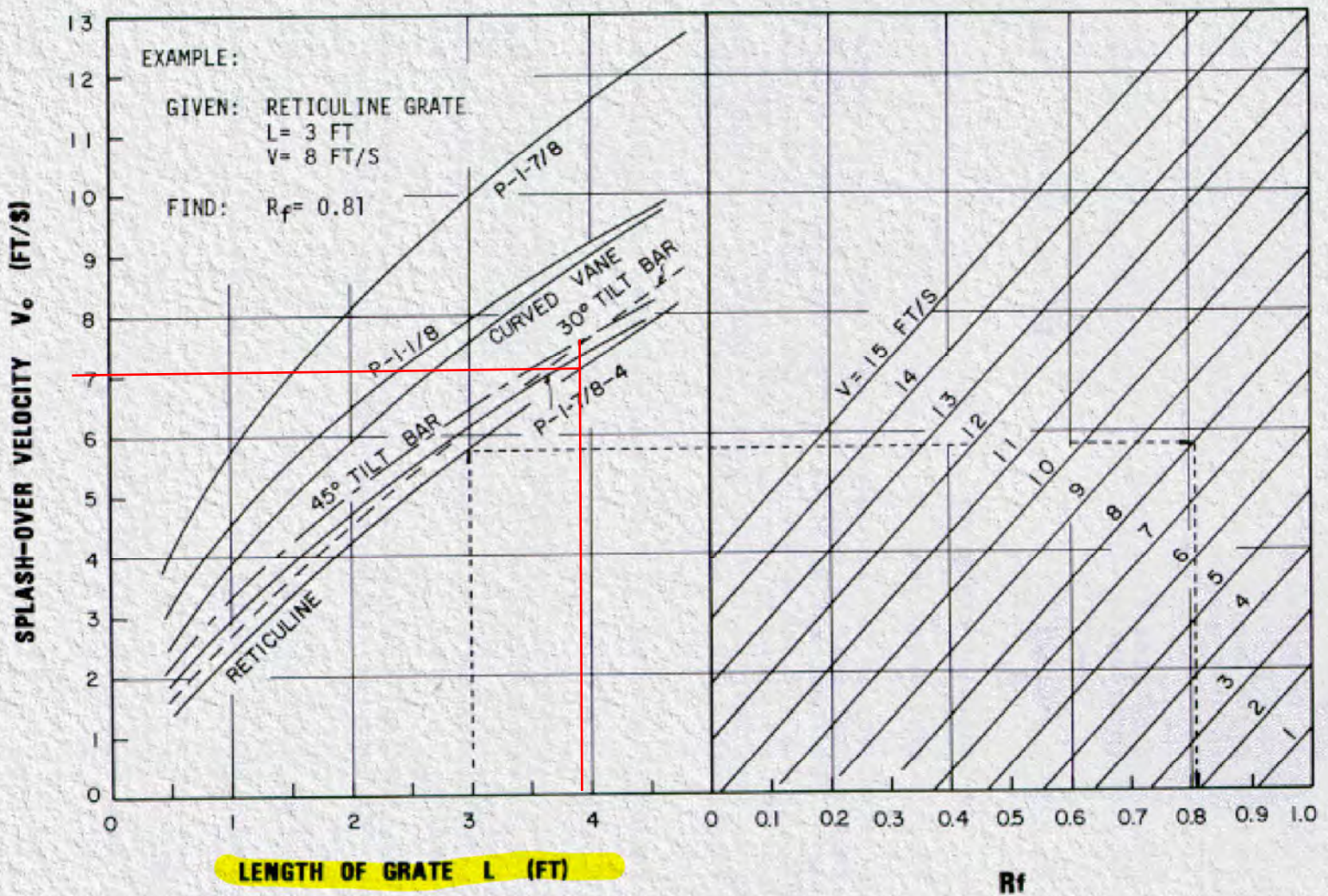
$$\frac{Q_s}{Q} = 1 - \frac{Q_w}{Q} = 1 - E_0 \quad (8)$$

The ratio of frontal flow intercepted to total frontal flow,  $R_f$ , is expressed by [Equation \(9\)](#):

$$R_f = 1 - 0.09 (V - V_o) \quad (9)$$

where:  $V$  = velocity of flow in the gutter,  $\text{ft/s}$  ( $\text{m/s}$ )

$V_o$  = gutter velocity where splash-over first occurs



**Chart 7. Grate inlet frontal flow interception efficiency.**

This ratio is equivalent to frontal flow interception efficiency. [Chart 7](#) provides a solution of [Equation \(9\)](#) which takes into account grate length, bar configuration and gutter velocity at which splash-over occurs. The gutter velocity needed to use [Chart 7](#) is total gutter flow divided by the area of flow.

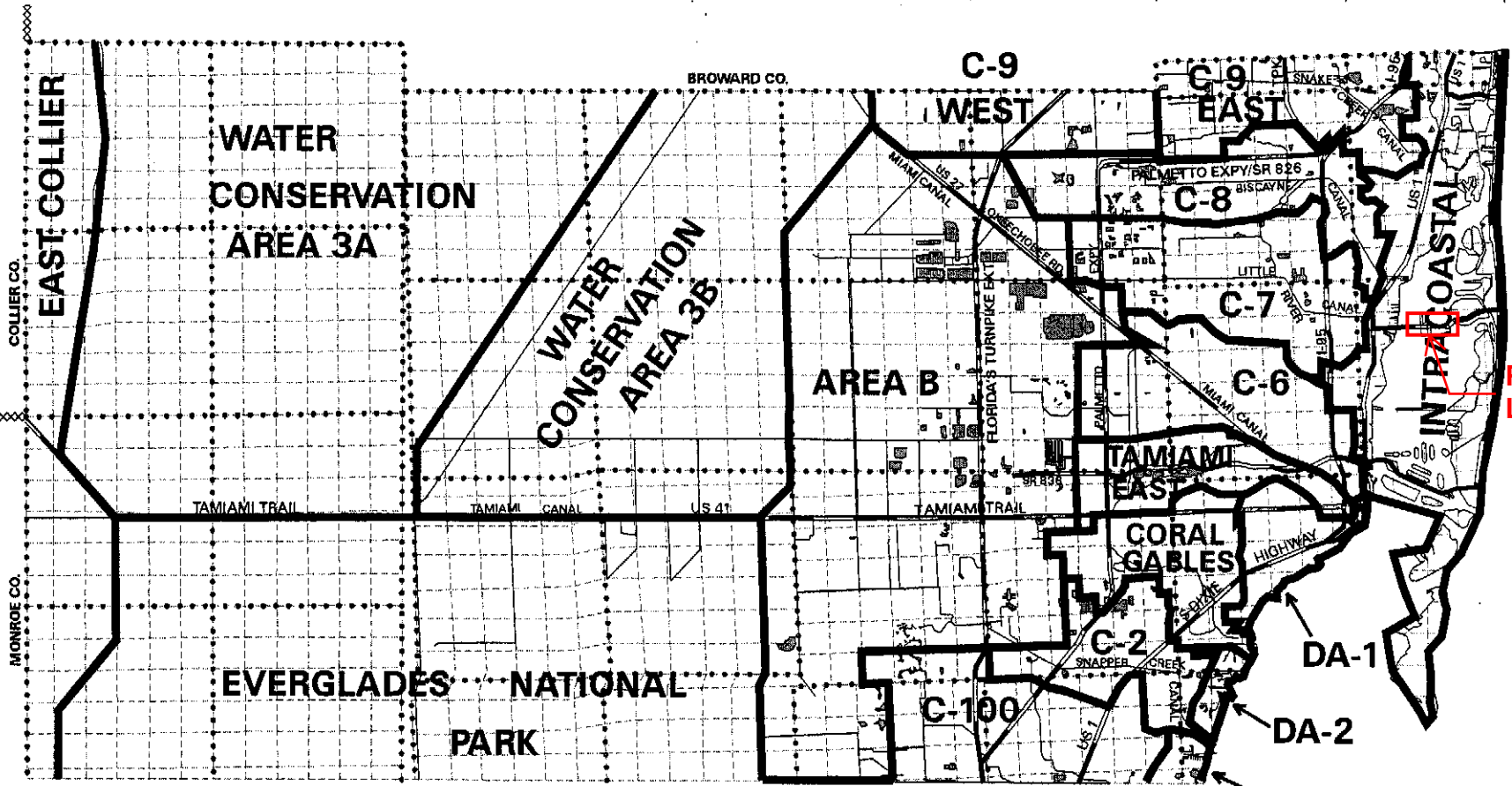
# **APPENDIX F**

## **Design Aids**



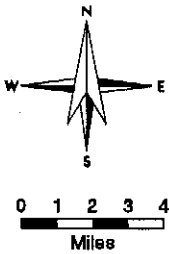
R. 35 E. | R. 36 E. | R. 37 E. | R. 38 E. | R. 39 E. | R. 40 E. | R. 41 E. | R. 42 E.

T. 52 S.  
T. 53 S.  
T. 54 S.  
T. 55 S.

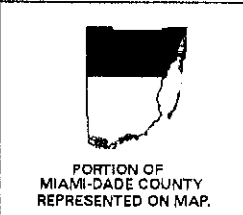


Project Location

Figure B-11



# DRAINAGE BASINS for NORTHERN MIAMI-DADE COUNTY, FL.



PORTION OF MIAMI-DADE COUNTY REPRESENTED ON MAP.



United States  
Department of  
Agriculture

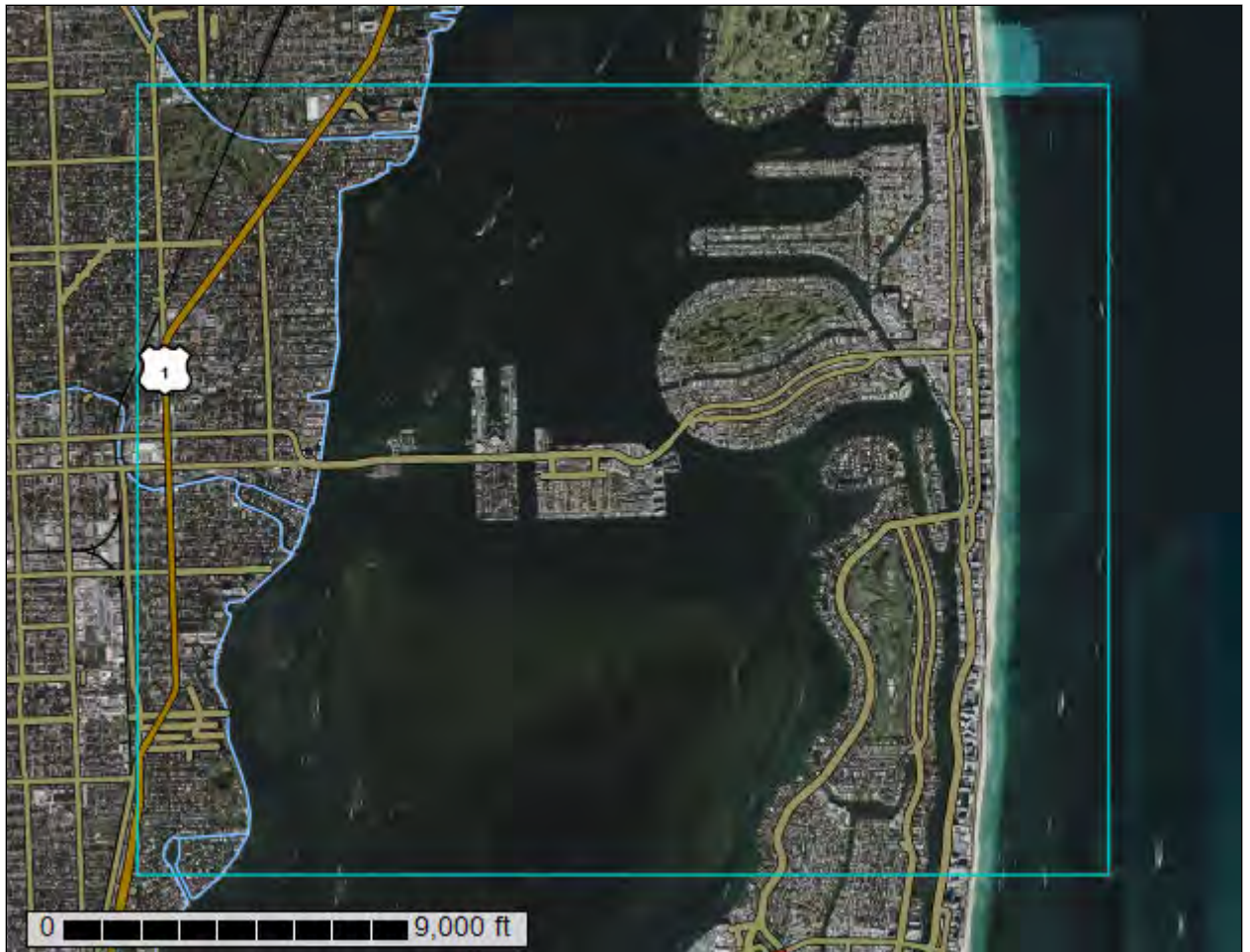
**NRCS**

Natural  
Resources  
Conservation  
Service

A product of the National  
Cooperative Soil Survey,  
a joint effort of the United  
States Department of  
Agriculture and other  
Federal agencies, State  
agencies including the  
Agricultural Experiment  
Stations, and local  
participants

# Custom Soil Resource Report for Miami-Dade County Area, Florida

## NE 79 STREET



# Preface

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Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist ([http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2\\_053951](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951)).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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# How Soil Surveys Are Made

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Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil



## Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

## Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

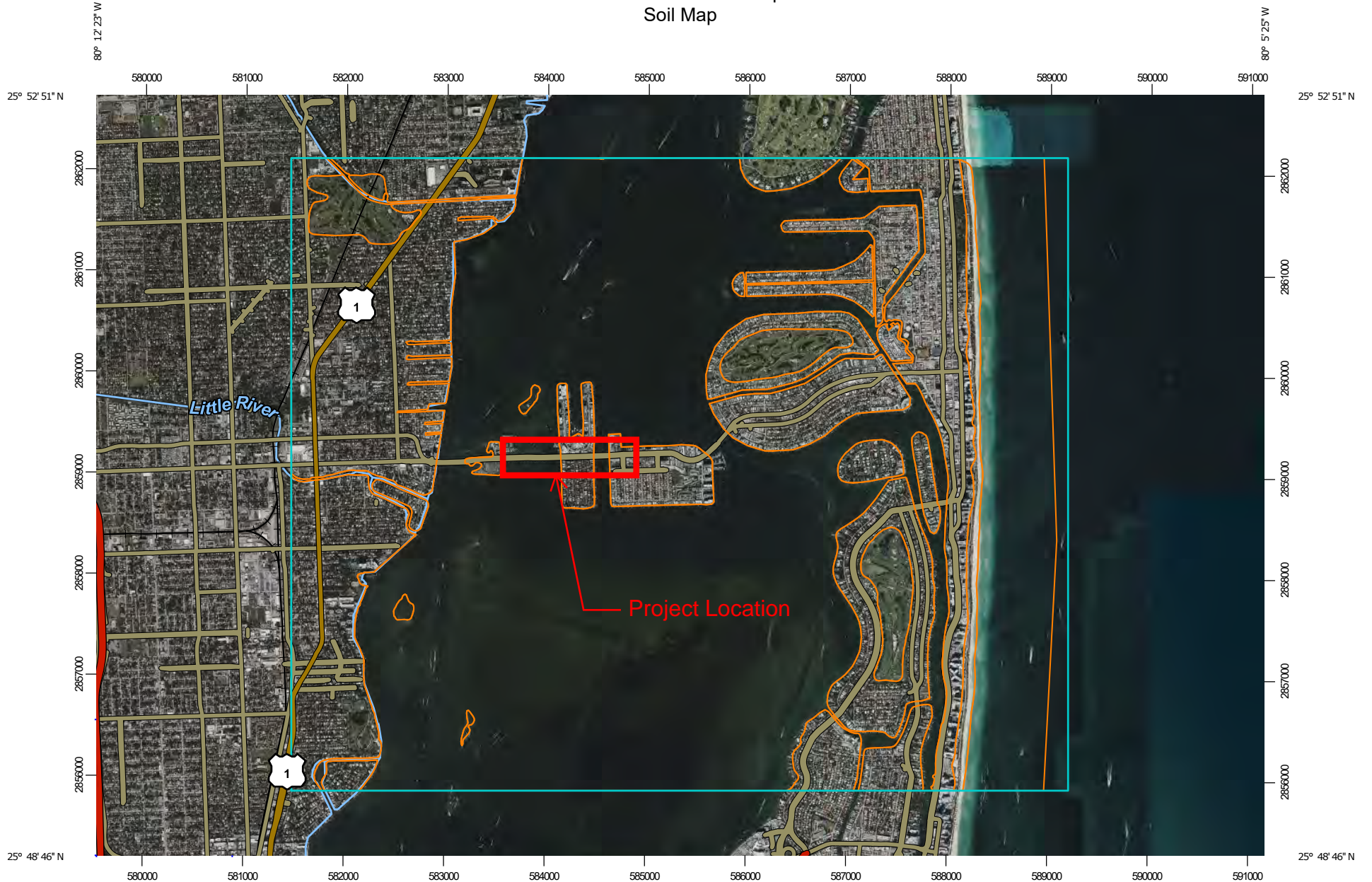
# Soil Map

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The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



# Custom Soil Resource Report Soil Map



Map Scale: 1:53,200 if printed on A landscape (11" x 8.5") sheet.

0 500 1000 2000 3000 Meters

0 2500 5000 10000 15000 Feet


Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84



# Custom Soil Resource Report


## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)


### Soils


 Soil Map Unit Polygons


 Soil Map Unit Lines


 Soil Map Unit Points

### Special Point Features

 Blowout

 Borrow Pit


 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot


 Sinkhole


 Slide or Slip

 Sodic Spot


 Spoil Area

 Stony Spot


 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

### Water Features

 Streams and Canals


### Transportation

 Rails


 Interstate Highways

 US Routes

 Major Roads

 Local Roads

### Background

 Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

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

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

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

Soil Survey Area: Miami-Dade County Area, Florida

Survey Area Data: Version 14, Sep 1, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 15, 2019—Jan 30, 2022

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.

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
9	Udorthents-Water-Urban land complex, 0 to 60 percent slopes	18.3	0.2%
10	Udorthents, limestone substratum-Urban land complex, 0 to 2 percent slopes	16.2	0.1%
15	Urban land, 0 to 2 percent slopes	3,900.9	32.5%
39	Beach complex, tidal, 0 to 3 percent slopes	161.4	1.3%
42	Udorthents, limestone substratum-Urban land complex, 0 to 5 percent slopes	361.5	3.0%
47	Baggs Cape fine sand-Urban land complex, 0 to 2 percent slopes	58.2	0.5%
99	Water	6,070.6	50.6%
100	Waters of the Atlantic Ocean	1,139.7	9.5%
<b>Totals for Area of Interest</b>		<b>12,001.6</b>	<b>100.0%</b>

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different



## Custom Soil Resource Report

management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

## Miami-Dade County Area, Florida

### 9—Udorthents-Water-Urban land complex, 0 to 60 percent slopes

#### Map Unit Setting

*National map unit symbol:* 2z9t4  
*Elevation:* 0 to 30 feet  
*Mean annual precipitation:* 55 to 70 inches  
*Mean annual air temperature:* 77 to 81 degrees F  
*Frost-free period:* 365 days  
*Farmland classification:* Farmland of unique importance

#### Map Unit Composition

*Udorthents and similar soils:* 45 percent  
*Urban land:* 40 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Udorthents

##### Setting

*Landform:* Marine terraces  
*Landform position (three-dimensional):* Tread, rise, talf  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Parent material:* Gravelly loamy human-transported material

##### Typical profile

*^C1 - 0 to 10 inches:* very gravelly loam  
*^C2 - 10 to 80 inches:* extremely gravelly loam

##### Properties and qualities

*Slope:* 15 to 60 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Well drained  
*Runoff class:* Negligible  
*Capacity of the most limiting layer to transmit water (Ksat):* High to very high (6.00 to 20.00 in/hr)  
*Depth to water table:* About 60 to 72 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 14 percent  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 4.0  
*Available water supply, 0 to 60 inches:* Low (about 3.8 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7s  
*Hydrologic Soil Group:* A  
*Forage suitability group:* Forage suitability group not assigned (G156AC999FL)  
*Other vegetative classification:* Forage suitability group not assigned (G156AC999FL)  
*Hydric soil rating:* No

## Description of Urban Land

### Setting

*Landform:* Marine terraces  
*Landform position (three-dimensional):* Riser, talf  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* No parent material

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Forage suitability group:* Forage suitability group not assigned (G155XB999FL)  
*Other vegetative classification:* Forage suitability group not assigned (G155XB999FL)  
*Hydric soil rating:* Unranked

## Minor Components

### Krome

*Percent of map unit:* 3 percent  
*Landform:* Rises on marine terraces  
*Landform position (three-dimensional):* Tread, rise  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Other vegetative classification:* Shallow or moderately deep, sandy or loamy soils on rises and ridges of mesic uplands (G156AC521FL)  
*Hydric soil rating:* No

### Plantation

*Percent of map unit:* 3 percent  
*Landform:* Depressions on marine terraces  
*Landform position (three-dimensional):* Tread, dip  
*Down-slope shape:* Concave, linear  
*Across-slope shape:* Concave, linear  
*Other vegetative classification:* Organic soils in depressions and on flood plains (G156AC645FL)  
*Hydric soil rating:* Yes

### Dade

*Percent of map unit:* 3 percent  
*Landform:* Ridges on marine terraces  
*Landform position (three-dimensional):* Interfluve, tread, rise  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Other vegetative classification:* Shallow or moderately deep, sandy or loamy soils on rises and ridges of mesic uplands (G156AC521FL)  
*Hydric soil rating:* No

### Biscayne

*Percent of map unit:* 2 percent  
*Landform:* Marshes on marine terraces  
*Landform position (three-dimensional):* Tread, talf  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave  
*Other vegetative classification:* Forage suitability group not assigned (G156AC999FL)



## Custom Soil Resource Report

*Hydric soil rating:* Yes

### **Margate**

*Percent of map unit:* 2 percent

*Landform:* Flats on marine terraces

*Landform position (three-dimensional):* Tread, talf

*Down-slope shape:* Linear

*Across-slope shape:* Concave

*Other vegetative classification:* Sandy soils on stream terraces, flood plains, or in depressions (G156AC145FL)

*Hydric soil rating:* Yes

### **Udorthents, limestone substratum**

*Percent of map unit:* 2 percent

*Landform:* Marine terraces

*Landform position (three-dimensional):* Tread, talf

*Down-slope shape:* Convex

*Across-slope shape:* Linear

*Other vegetative classification:* Forage suitability group not assigned (G156AC999FL)

*Hydric soil rating:* No

## **10—Udorthents, limestone substratum-Urban land complex, 0 to 2 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* 2z9t1

*Elevation:* 0 to 10 feet

*Mean annual precipitation:* 55 to 70 inches

*Mean annual air temperature:* 77 to 81 degrees F

*Frost-free period:* 365 days

*Farmland classification:* Not prime farmland

### **Map Unit Composition**

*Udorthents, limestone substratum, and similar soils:* 55 percent

*Urban land:* 30 percent

*Minor components:* 15 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Udorthents, Limestone Substratum**

#### **Setting**

*Landform:* Marine terraces

*Landform position (three-dimensional):* Tread, talf

*Down-slope shape:* Convex

*Across-slope shape:* Linear

*Parent material:* Gravelly loamy human-transported material over limestone

## Custom Soil Resource Report

### Typical profile

*^C1 - 0 to 10 inches:* very gravelly loam  
*^C2 - 10 to 55 inches:* extremely gravelly loam  
*2R - 55 to 65 inches:* bedrock

### Properties and qualities

*Slope:* 0 to 2 percent  
*Depth to restrictive feature:* 40 to 85 inches to lithic bedrock  
*Drainage class:* Somewhat poorly drained  
*Runoff class:* Very low  
*Capacity of the most limiting layer to transmit water (Ksat):* High to very high (1.98 to 19.98 in/hr)  
*Depth to water table:* About 18 to 42 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 14 percent  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 4.0  
*Available water supply, 0 to 60 inches:* Low (about 3.5 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7s  
*Hydrologic Soil Group:* A  
*Forage suitability group:* Forage suitability group not assigned (G156AC999FL)  
*Other vegetative classification:* Forage suitability group not assigned (G156AC999FL)  
*Hydric soil rating:* No

### Description of Urban Land

#### Setting

*Landform:* Marine terraces  
*Landform position (three-dimensional):* Riser, talf  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* No parent material

#### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Forage suitability group:* Forage suitability group not assigned (G155XB999FL)  
*Other vegetative classification:* Forage suitability group not assigned (G155XB999FL)  
*Hydric soil rating:* Unranked

### Minor Components

#### Krome

*Percent of map unit:* 5 percent  
*Landform:* Rises on marine terraces  
*Landform position (three-dimensional):* Tread, rise  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Other vegetative classification:* Shallow or moderately deep, sandy or loamy soils on rises and ridges of mesic uplands (G156AC521FL)  
*Hydric soil rating:* No

## Custom Soil Resource Report

### **Cardsound**

*Percent of map unit:* 3 percent  
*Landform:* Rises on marine terraces  
*Landform position (three-dimensional):* Tread, talf  
*Down-slope shape:* Linear  
*Across-slope shape:* Convex  
*Other vegetative classification:* Forage suitability group not assigned  
(G156AC999FL)  
*Hydric soil rating:* No

### **Biscayne**

*Percent of map unit:* 3 percent  
*Landform:* Marshes on marine terraces  
*Landform position (three-dimensional):* Tread, talf  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave  
*Other vegetative classification:* Forage suitability group not assigned  
(G156AC999FL)  
*Hydric soil rating:* Yes

### **Perrine, drained**

*Percent of map unit:* 2 percent  
*Landform:* Marshes on marine terraces  
*Landform position (three-dimensional):* Tread, talf  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave  
*Other vegetative classification:* Forage suitability group not assigned  
(G156AC999FL)  
*Hydric soil rating:* Yes

### **Udorthents, marl substratum**

*Percent of map unit:* 2 percent  
*Landform:* Marine terraces  
*Landform position (three-dimensional):* Tread, talf  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Other vegetative classification:* Forage suitability group not assigned  
(G156AC999FL)  
*Hydric soil rating:* No

## **15—Urban land, 0 to 2 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* 2z9t5  
*Elevation:* 0 to 30 feet  
*Mean annual precipitation:* 55 to 70 inches  
*Mean annual air temperature:* 68 to 81 degrees F  
*Frost-free period:* 365 days  
*Farmland classification:* Not prime farmland



**Map Unit Composition**

*Urban land: 85 percent*

*Minor components: 15 percent*

*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Urban Land**

**Setting**

*Landform: Flatwoods on marine terraces, rises on marine terraces, knolls on marine terraces, ridges on marine terraces, hills on marine terraces*

*Landform position (two-dimensional): Summit, backslope*

*Landform position (three-dimensional): Interfluve, side slope, riser, talf, rise*

*Down-slope shape: Linear, convex*

*Across-slope shape: Linear*

*Parent material: No parent material*

**Interpretive groups**

*Land capability classification (irrigated): None specified*

*Forage suitability group: Forage suitability group not assigned (G155XB999FL)*

*Other vegetative classification: Forage suitability group not assigned (G155XB999FL)*

*Hydric soil rating: Unranked*

**Minor Components**

**Naranja**

*Percent of map unit: 3 percent*

*Landform: Flatwoods on marine terraces*

*Landform position (three-dimensional): Tread, talf*

*Down-slope shape: Convex*

*Across-slope shape: Linear*

*Other vegetative classification: Forage suitability group not assigned (G156AC999FL)*

*Hydric soil rating: No*

**Sunny isles**

*Percent of map unit: 3 percent*

*Landform: Flatwoods on marine terraces*

*Landform position (three-dimensional): Riser, talf*

*Down-slope shape: Linear*

*Across-slope shape: Linear*

*Other vegetative classification: South Florida Flatwoods (R155XY003FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)*

*Hydric soil rating: No*

**Margate**

*Percent of map unit: 3 percent*

*Landform: Flats on marine terraces*

*Landform position (three-dimensional): Tread, talf*

*Down-slope shape: Linear*

*Across-slope shape: Concave*

*Other vegetative classification: Sandy soils on stream terraces, flood plains, or in depressions (G156AC145FL)*

*Hydric soil rating: Yes*

**Hallandale**

*Percent of map unit:* 3 percent  
*Landform:* Flatwoods on marine terraces  
*Landform position (three-dimensional):* Tread, talf  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Other vegetative classification:* South Florida Flatwoods (R155XY003FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)  
*Hydric soil rating:* Yes

**Dade**

*Percent of map unit:* 3 percent  
*Landform:* Ridges on marine terraces  
*Landform position (three-dimensional):* Interfluve, tread, rise  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Other vegetative classification:* Shallow or moderately deep, sandy or loamy soils on rises and ridges of mesic uplands (G156AC521FL)  
*Hydric soil rating:* No

**39—Beach complex, tidal, 0 to 3 percent slopes**

**Map Unit Setting**

*National map unit symbol:* 2y9h1  
*Elevation:* 0 to 10 feet  
*Mean annual precipitation:* 42 to 55 inches  
*Mean annual air temperature:* 77 to 81 degrees F  
*Frost-free period:* 365 days  
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Beaches, tidal:* 90 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Beaches, Tidal**

**Setting**

*Landform:* Beaches on islands  
*Landform position (three-dimensional):* Rise  
*Down-slope shape:* Linear, convex  
*Across-slope shape:* Convex, linear  
*Parent material:* Beach sand

**Properties and qualities**

*Slope:* 0 to 3 percent  
*Drainage class:* Poorly drained  
*Runoff class:* Very high  
*Depth to water table:* About 0 to 80 inches  
*Frequency of flooding:* Very frequent

## Custom Soil Resource Report

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 8s  
*Forage suitability group:* Forage suitability group not assigned (G156AC999FL)  
*Other vegetative classification:* Forage suitability group not assigned (G156AC999FL)  
*Hydric soil rating:* Unranked

### Minor Components

#### Urban land

*Percent of map unit:* 5 percent  
*Landform:* Flatwoods on marine terraces  
*Landform position (three-dimensional):* Riser, talf  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Other vegetative classification:* Forage suitability group not assigned (G155XB999FL)  
*Hydric soil rating:* Unranked

#### Bahiahonda

*Percent of map unit:* 5 percent  
*Landform:* Ridges on beaches, dunes on beaches  
*Landform position (three-dimensional):* Rise  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Other vegetative classification:* Forage suitability group not assigned (G156AC999FL)  
*Hydric soil rating:* No

## 42—Udorthents, limestone substratum-Urban land complex, 0 to 5 percent slopes

### Map Unit Setting

*National map unit symbol:* 2z9t3  
*Elevation:* 0 to 10 feet  
*Mean annual precipitation:* 55 to 70 inches  
*Mean annual air temperature:* 77 to 81 degrees F  
*Frost-free period:* 365 days  
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Udorthents and similar soils:* 50 percent  
*Urban land:* 40 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*



## Description of Udorthents

### Setting

*Landform:* Marine terraces  
*Landform position (three-dimensional):* Tread, talf, rise  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Parent material:* Sandy human-transported material over limestone

### Typical profile

*^C - 0 to 30 inches:* very gravelly sand  
*2R - 30 to 40 inches:* bedrock

### Properties and qualities

*Slope:* 0 to 5 percent  
*Depth to restrictive feature:* 20 to 50 inches to lithic bedrock  
*Drainage class:* Moderately well drained  
*Runoff class:* Negligible  
*Capacity of the most limiting layer to transmit water (Ksat):* High to very high (1.98 to 19.98 in/hr)  
*Depth to water table:* About 42 to 60 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 4 percent  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 4.0  
*Available water supply, 0 to 60 inches:* Very low (about 1.2 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7s  
*Hydrologic Soil Group:* A  
*Forage suitability group:* Forage suitability group not assigned (G156AC999FL)  
*Other vegetative classification:* Forage suitability group not assigned (G156AC999FL)  
*Hydric soil rating:* No

## Description of Urban Land

### Setting

*Landform:* Marine terraces  
*Landform position (three-dimensional):* Riser, talf  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* No parent material

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Forage suitability group:* Forage suitability group not assigned (G155XB999FL)  
*Other vegetative classification:* Forage suitability group not assigned (G155XB999FL)  
*Hydric soil rating:* Unranked

## Minor Components

### Dade

*Percent of map unit:* 5 percent

## Custom Soil Resource Report

*Landform:* Ridges on marine terraces

*Landform position (three-dimensional):* Interfluve, tread, rise

*Down-slope shape:* Convex

*Across-slope shape:* Linear

*Other vegetative classification:* Shallow or moderately deep, sandy or loamy soils on rises and ridges of mesic uplands (G156AC521FL)

*Hydric soil rating:* No

### Hallandale

*Percent of map unit:* 3 percent

*Landform:* Flatwoods on marine terraces

*Landform position (three-dimensional):* Tread, talf

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Other vegetative classification:* South Florida Flatwoods (R155XY003FL), Sandy soils on flats of mesic or hydric lowlands (G155XB141FL)

*Hydric soil rating:* Yes

### Margate

*Percent of map unit:* 2 percent

*Landform:* Flats on marine terraces

*Landform position (three-dimensional):* Tread, talf

*Down-slope shape:* Linear

*Across-slope shape:* Concave

*Other vegetative classification:* Sandy soils on stream terraces, flood plains, or in depressions (G156AC145FL)

*Hydric soil rating:* Yes

## 47—Baggs Cape fine sand-Urban land complex, 0 to 2 percent slopes

### Map Unit Setting

*National map unit symbol:* 2z9sz

*Elevation:* 0 to 10 feet

*Mean annual precipitation:* 55 to 70 inches

*Mean annual air temperature:* 77 to 81 degrees F

*Frost-free period:* 365 days

*Farmland classification:* Not prime farmland

### Map Unit Composition

*Baggs cape and similar soils:* 50 percent

*Urban land:* 40 percent

*Minor components:* 10 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Baggs Cape

#### Setting

*Landform:* Rises on marine terraces, flats on marine terraces

*Landform position (three-dimensional):* Tread, rise, talf

## Custom Soil Resource Report

*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Parent material:* Sandy human-transported material over sandy marine deposits

### Typical profile

*^A - 0 to 3 inches:* fine sand  
*^Ck - 3 to 57 inches:* gravelly fine sand  
*2Ckgb - 57 to 80 inches:* fine sand

### Properties and qualities

*Slope:* 0 to 2 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Somewhat poorly drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* High to very high (6.00 to 20.00 in/hr)  
*Depth to water table:* About 18 to 42 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 4 percent  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 4.0  
*Available water supply, 0 to 60 inches:* Low (about 4.8 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7s  
*Hydrologic Soil Group:* A  
*Forage suitability group:* Forage suitability group not assigned (G156AC999FL)  
*Other vegetative classification:* Forage suitability group not assigned (G156AC999FL)  
*Hydric soil rating:* No

### Description of Urban Land

#### Setting

*Landform:* Flatwoods on marine terraces  
*Landform position (three-dimensional):* Riser, talf  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* No parent material

#### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Forage suitability group:* Forage suitability group not assigned (G155XB999FL)  
*Other vegetative classification:* Forage suitability group not assigned (G155XB999FL)  
*Hydric soil rating:* Unranked

### Minor Components

#### Matlacha

*Percent of map unit:* 5 percent  
*Landform:* Flats on marine terraces  
*Landform position (three-dimensional):* Tread, talf  
*Down-slope shape:* Linear, convex  
*Across-slope shape:* Linear



## Custom Soil Resource Report

*Other vegetative classification:* Forage suitability group not assigned  
(G155XB999FL)  
*Hydric soil rating:* No

### **Bahiahonda**

*Percent of map unit:* 3 percent  
*Landform:* Dunes on beaches, ridges on beaches  
*Landform position (three-dimensional):* Rise  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Other vegetative classification:* Forage suitability group not assigned  
(G156AC999FL)  
*Hydric soil rating:* No

### **Flagami**

*Percent of map unit:* 2 percent  
*Landform:* Knolls on marine terraces, ridges on marine terraces  
*Landform position (three-dimensional):* Tread, rise  
*Down-slope shape:* Linear, convex  
*Across-slope shape:* Linear  
*Other vegetative classification:* Sandy soils on rises and knolls of mesic uplands  
(G156AC131FL)  
*Hydric soil rating:* No

## **99—Water**

### **Map Unit Composition**

*Water:* 100 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Water**

#### **Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Forage suitability group:* Forage suitability group not assigned (G156AC999FL)  
*Other vegetative classification:* Forage suitability group not assigned  
(G156AC999FL)  
*Hydric soil rating:* Unranked

## **100—Waters of the Atlantic Ocean**

### **Map Unit Composition**

*Waters of the atlantic ocean:* 100 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Waters Of The Atlantic Ocean**

**Interpretive groups**

*Land capability classification (irrigated):* None specified

*Forage suitability group:* Forage suitability group not assigned (G156AC999FL)

*Other vegetative classification:* Forage suitability group not assigned  
(G156AC999FL)

*Hydric soil rating:* Unranked

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- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>



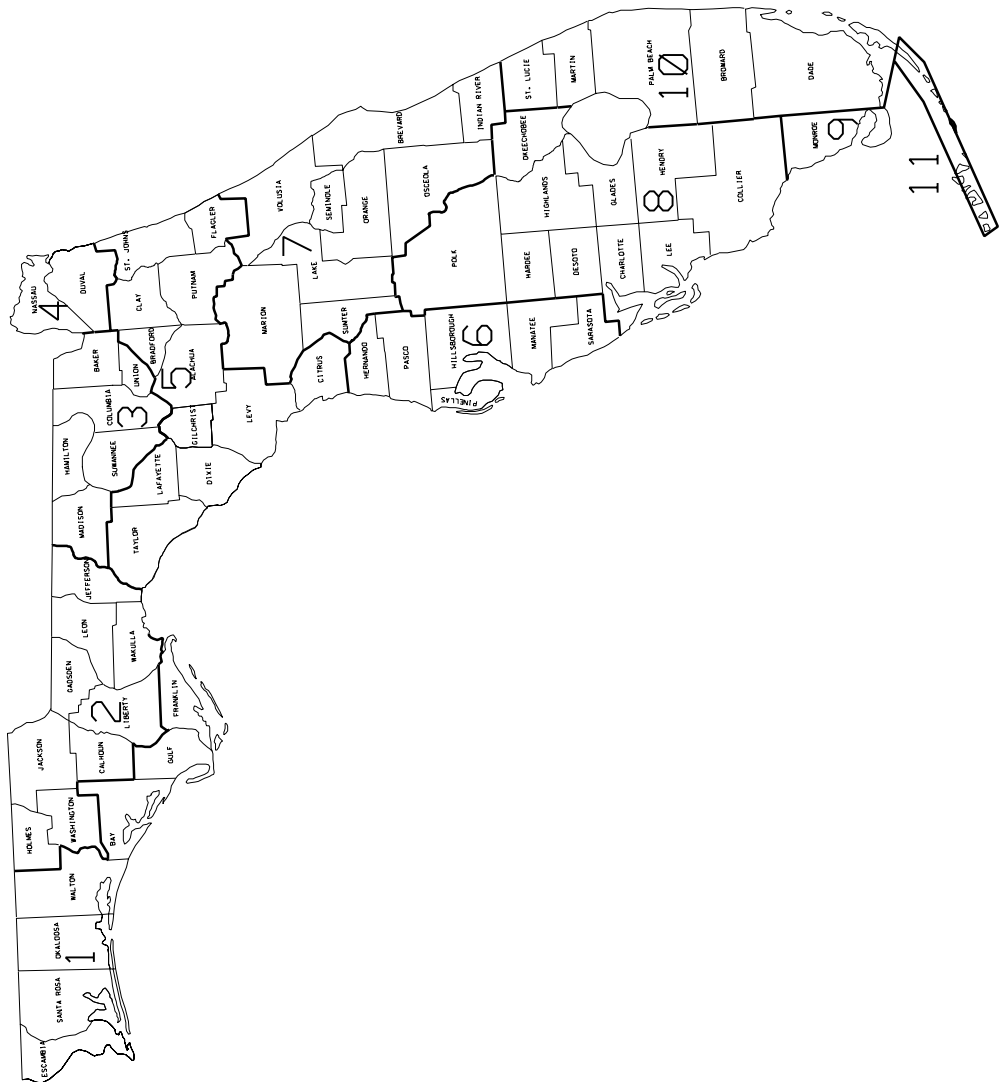
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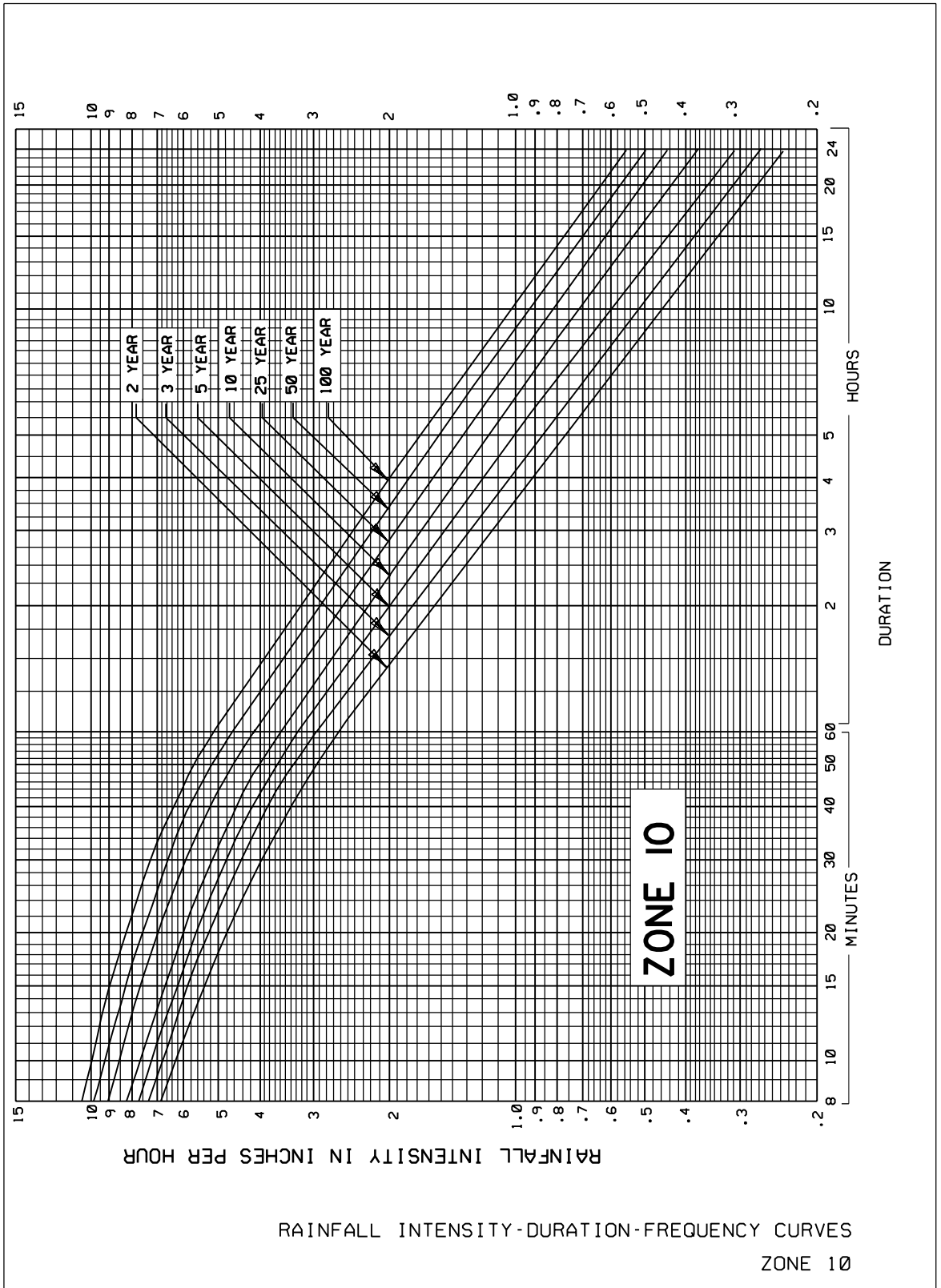
United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2\\_054242](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242)

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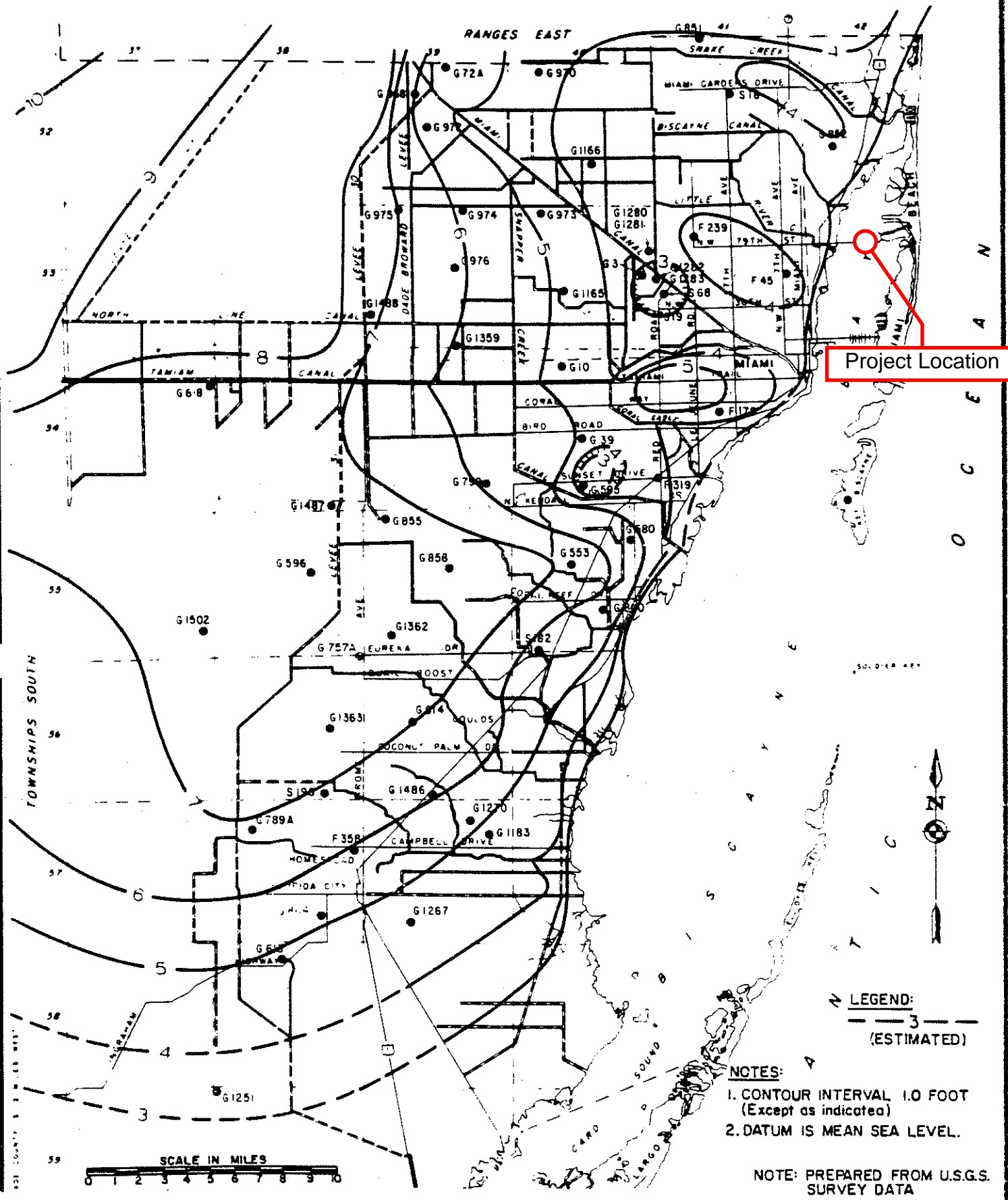
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BROWARD COUNTY



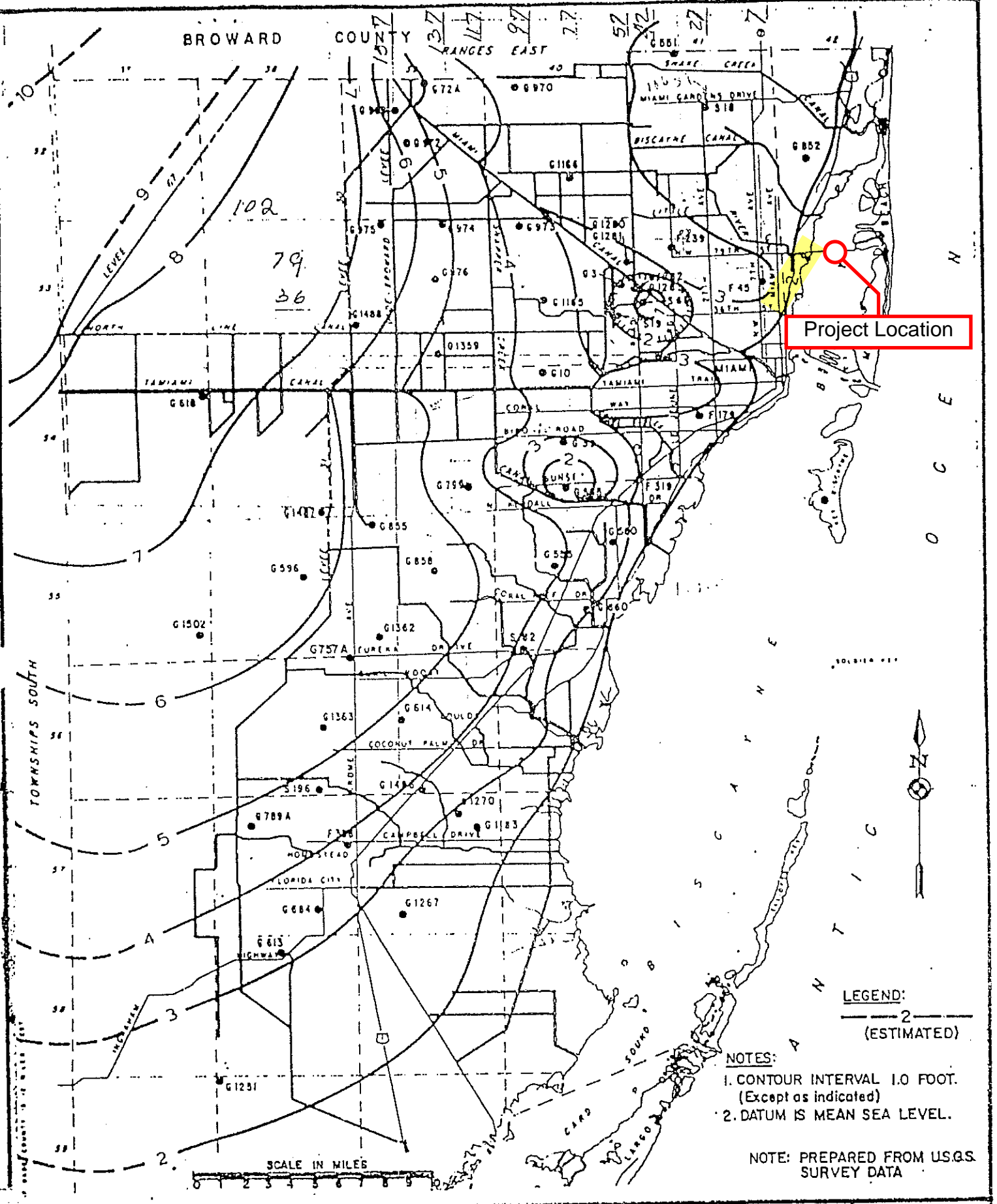
Project Location

LEGEND:  
 --- 3 ---  
 (ESTIMATED)

NOTES:  
 1. CONTOUR INTERVAL 1.0 FOOT  
 (Except as indicated)  
 2. DATUM IS MEAN SEA LEVEL.

NOTE: PREPARED FROM U.S.G.S. SURVEY DATA

METROPOLITAN DADE COUNTY PUBLIC WORKS DEPARTMENT	APPROVED 4/5/72	REVISED 2/19/75 4/14/77	DESIGN STANDARDS AVERAGE YEARLY HIGHEST GROUND WATER LEVEL 1960-75	W.C. 2.1 SHEET 1 OF 1
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METROPOLITAN  
 DADE COUNTY  
 PUBLIC WORKS  
 DEPARTMENT

APPROVED  
 4/5/72

REVISED  
 2/19/75  
 4/14/77

DESIGN STANDARDS  
 AVERAGE OCTOBER  
 GROUND WATER LEVEL  
 1960-75

W.C.  
 2.2  
 SHEET 1 OF 1

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\* Region :

## Horizontal Information

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## Vertical Information

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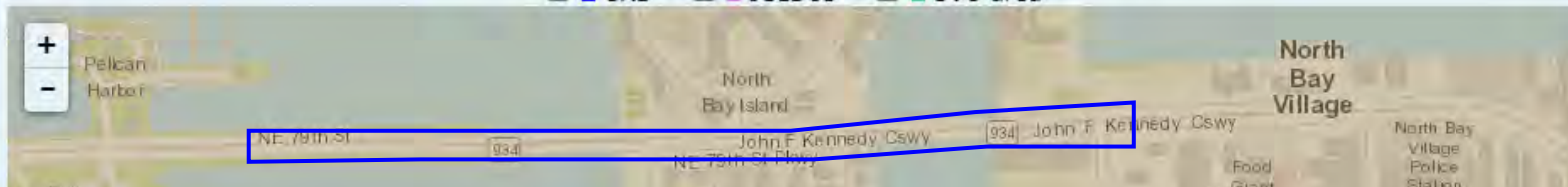
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Longitude:	<input type="text" value="-80.158743"/> <small>e.g. -118.7691 or -118 46 8.7600</small>	<input type="button" value="Reset"/>	Longitude:	<input type="text" value="-80.1585114228"/>
Height:	<input type="text" value="2"/> <small>e.g. 3.037</small>	<input type="button" value="DMS"/>	Height:	<input type="text" value="0.463"/>
	<input type="button" value="Drive to on map"/> <input type="button" value="Reset Map"/>			<input type="button" value="Drive to on map"/> <input type="button" value="Reset Map"/>

to DMS

Vertical Uncertainty (+/-): 0.164 ft

Vertical\_Area: null

Valid Tidal area  Non-Tidal area  Non-Valid area  
 CRD  IGLD85  SVU area



Project Limits

Conversion Factor = 1.537'



### Download Options

Outstanding Florida Waters

Records: 857

Toggle Filters:

#### CSV

File created: Oct 1, 2023, 16:49  
File size: 31.8 KB

Downloading an updated file may take some time.

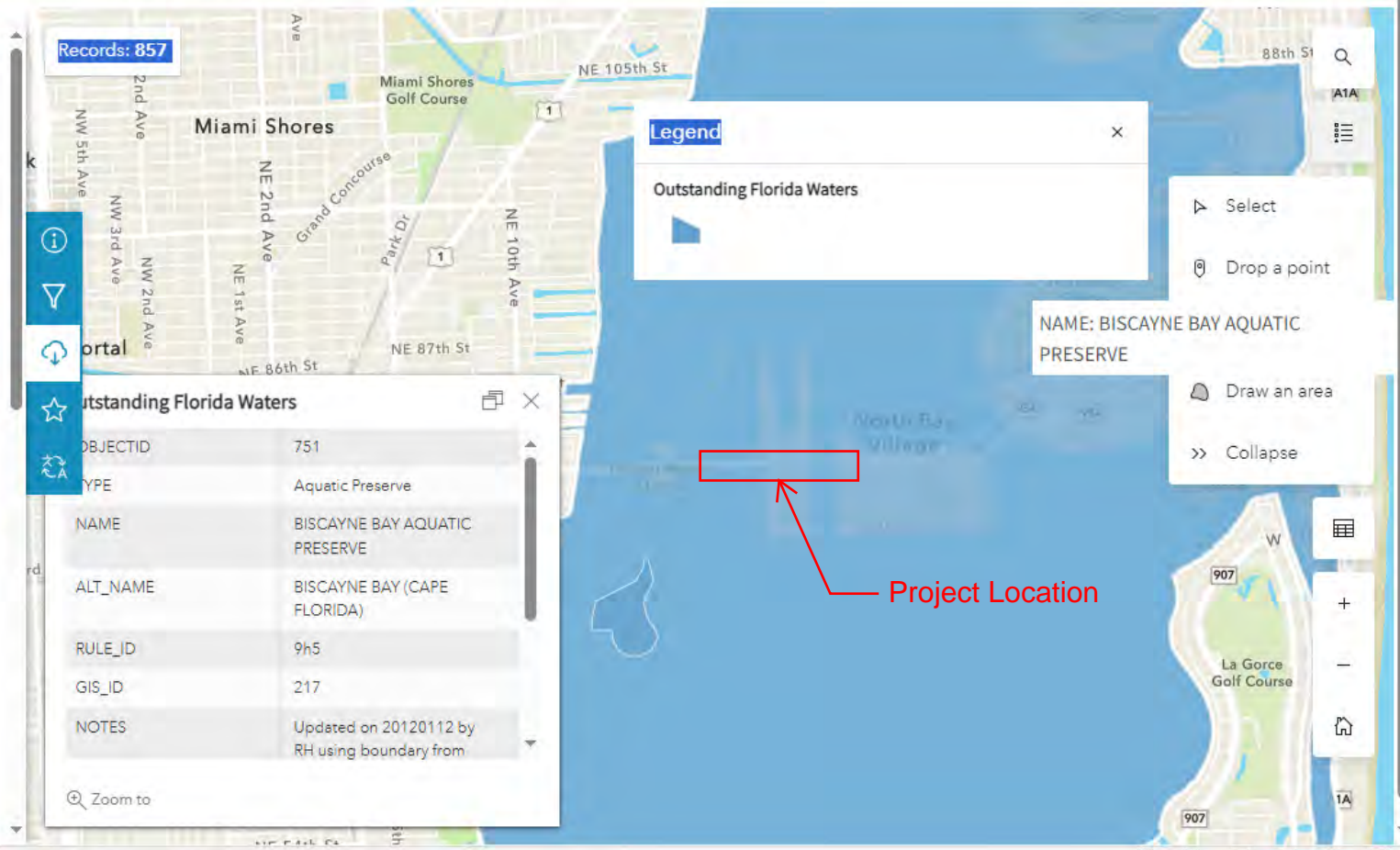
[Download Options](#)

#### KML

File created: Oct 1, 2023, 16:49  
File size: 24.1 MB

Downloading an updated file may take some time.

[Download Options](#)





A *Simulation* must be defined for each design storm event return frequency and duration to be evaluated. **Table 2.3.3-1** defines the FDOT District 6 required storm events to be modeled with the associated distributions. **Figure 2.3.3-1** shows an example of the parameters for a *Simulation* of a 10-year, 8-hour design storm event, as represented in ICPR.

## Storm Event Duration

		Storm Event Duration			
		1-hr	8-hr	24-hr	72-hr
Return Frequency	10-year	FDOT-1	FDOT-8	FDOT-24*	SFWMD-72**
	25-year	---	---	---	SFWMD-72**
	100-year	FDOT-1	FDOT-8	FDOT-24*	---

\* SCSii-24 distribution may be required for projects submitted to Miami-Dade County.

\*\* In Miami-Dade County, some projects may require evaluation of either the 10-year or 25-year, 72-hour design storm event.

Table 2.3.3-1 : FDOT Required Design Storm Events, Return Periods, and Distributions

In addition to the above design storm events, when evaluating existing roadway drainage systems with significant hydraulic constraints, evaluation of the 3- or 5-year design storm events may be required depending on the design storm used during the sizing of the existing roadway drainage system. FDOT District 6 requires the 50-year, 1-, 8-, and 24-hour storm events to be included as part of the design when culvert crossings are being proposed as described in the FDOT Drainage Manual or when a pump station is included in the design. The designer has the option to perform culvert crossing analyses outside of ICPR, if desired. The 10- or 100-year, 72-hour storm event may be required for projects discharge to SFWMD canals where the allowable offsite discharge rates are limited (*SFWMD Volume II*). The 100-year, 72-hour storm event may be required if the drainage system may impact building finished floor elevations. **Table 2.3.2-2** summarizes the additional storm events that may be required by FDOT District 6 depending on project specific scenarios.

Although computational time increments typically vary from basin to basin, hydrographs for all basins are stored in ICPR at the same time increments. These "stored" hydrographs, or "composite" hydrographs, are used by ICPR for subsequent routing computations. The *To Time* parameter and the *Increment* parameter dictate how frequently the output database is to be updated. For example, if the *To Time* parameter is set to 25 hours and the corresponding *Increment* parameter is set to 5 minutes, ICPR will update the output data at 5-minute intervals up to hour 25 of the simulation.

		Storm Event Rainfall Depth (inches)		
		1-hr	8-hr	24-hr
Return Frequency	3-year	2.90	4.96	6.48
	5-year	3.30	5.60	7.44
	10-year	3.55	6.80	8.88
	50-year	4.60	8.80	12.00
	100-year	5.10	9.60	13.44

Table 2.3.3-9 : FDOT Zone 10 Rainfall Depths for the 3-, 5-, 10-, 50- and 100-year Design Storm Event Frequencies with 1-, 8-, and 24-Hour Durations

		Storm Event Rainfall Depth (inches)		
		1-hr	8-hr	24-hr
Return Frequency	3-year	2.55	4.32	5.76
	5-year	2.85	5.20	7.08
	10-year	3.10	6.00	8.40
	50-year	3.90	7.68	11.04
	100-year	4.50	8.96	12.96

Table 2.3.3-10 : FDOT Zone 11 Rainfall Depths for the 3-, 5-, 10-, 50- and 100-year Design Storm Event Frequencies with 1-, 8-, and 24-Hour Durations

## 2.4 Hydraulics

ICPR dynamically routes the runoff hydrographs generated by the Hydrology Simulation methodology described in **Section 2.3** in the defined stormwater management system using the St. Venant hydrodynamic flow equations for gradually varied one-dimensional (1D) flow. In ICPR, the hydraulic elements of a stormwater management system are idealized as nodes and links. The following subsections outline the criteria and standards that should be implemented in coding nodes and links in ICPR, consistent with FDOT District 6 requirements.

### 2.4.1 Nodes

In ICPR, nodes (i.e. junctions) are used to simulate lakes, retention/detention ponds, storage areas, manholes, inlets, change in flow direction, location in the system where stage results are desired, and model boundary conditions. The *Types* of nodes that are available in ICPR 4 are as follows, and **Figure 2.4.1-1** shows the *Node Data* dialog:

1. Stage-Area
2. Stage-Volume
3. Time-Stage

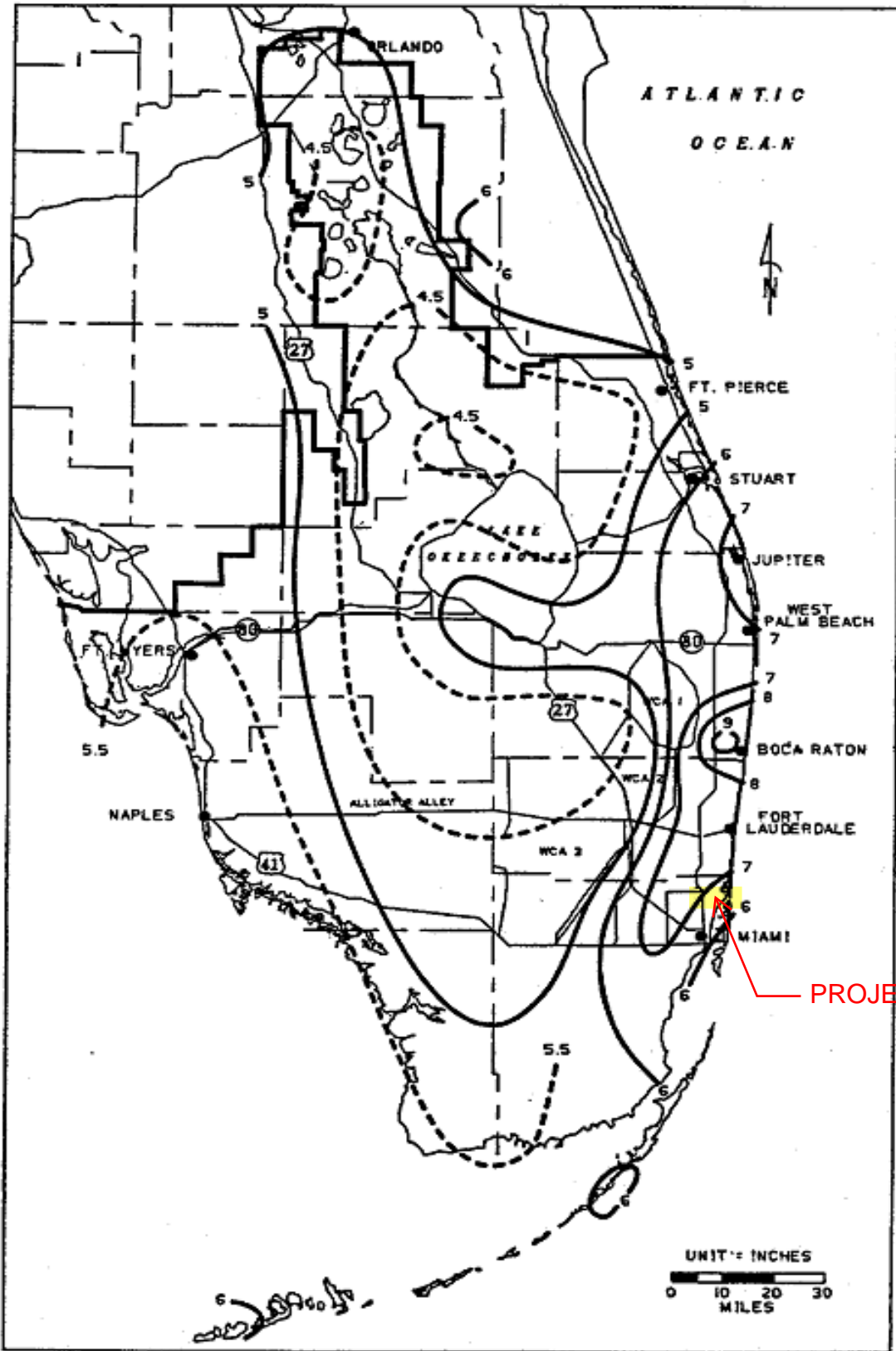


FIGURE C-3. 1-DAY RAINFALL: 5-YEAR RETURN PERIOD

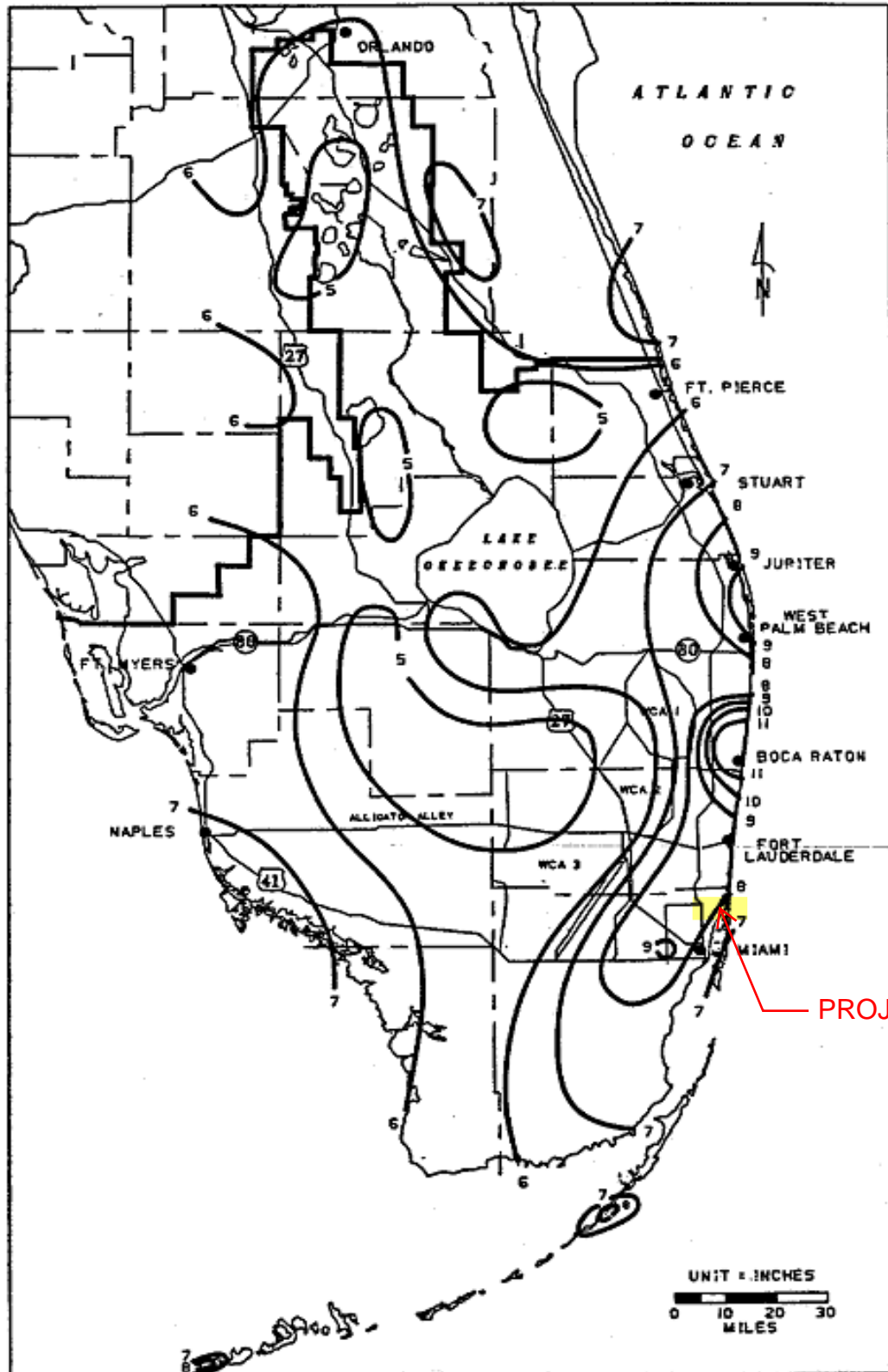


FIGURE C-4. 1-DAY RAINFALL: 10-YEAR RETURN PERIOD



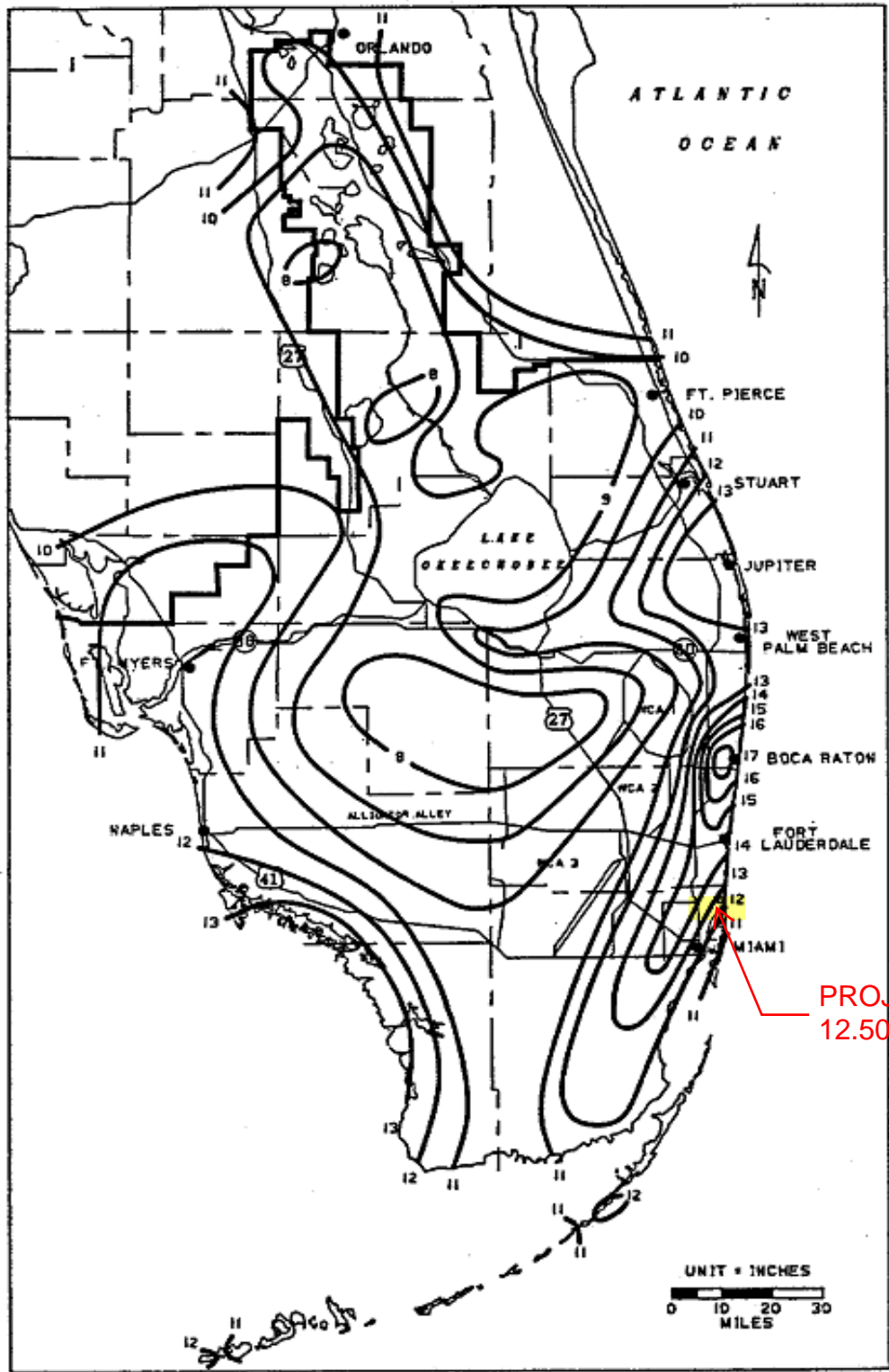


FIGURE C-8. 3-DAY RAINFALL: 25-YEAR RETURN PERIOD

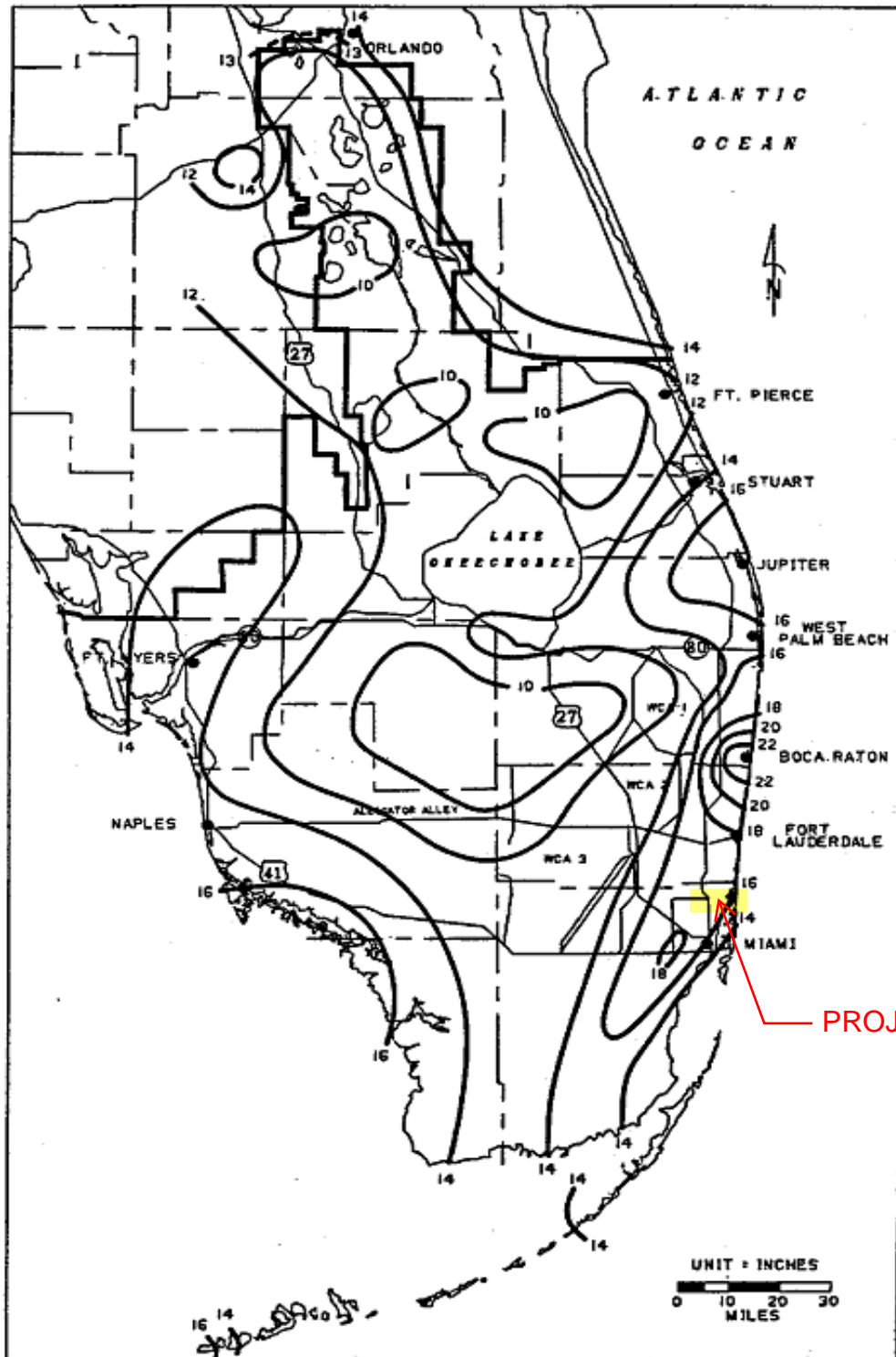


FIGURE C-9. 3-DAY RAINFALL: 100-YEAR RETURN PERIOD

## F. Water Storage

### A. Ground Storage

- One of the requirements for dry retention/detention flood protection areas is that each shall have a "mechanism" for returning the water level to control elevation. In such situations, the term "mechanism" is normally interpreted to mean something designed, fabricated, and installed in or on the site. As a result, almost every such project will have something - a V-notch weir, exfiltration trench, key/mosquito ditch, sump, etc. - to provide the required drawdown.

Such devices may not always be necessary. If it can be shown that the soil itself allows the water table to subside in an acceptable length of time, then no "artificial" mechanism need be installed. The burden of proof is on the applicant, and District staff will not approve, or recommend for approval, a dry system which does not provide such mechanisms, be they natural or fabricated.

- The moisture storage capability (S) of the soil profile has been estimated by the United States Department of Agriculture – Natural Resource Conservation Service (USDA – NRCS; fka Soil Conservation Service [SCS]) for the soils found within the SFWMD boundaries. The total amount of water which can be stored in the soil profile expressed as a percentage of the depth to the water table\* for these soils is:

<b>SOIL STORAGE</b>												
Depth to W.T.*	Coastal(1)				Flatwoods (2)				Depressional (3)			
	Uncomp. S (In.)	Uncomp. CN	Comp. S	Comp. CN	Uncomp. S (In.)	Uncomp. CN	Comp. S (In.)	Comp. CN	Uncomp. S (In.)	Uncomp. CN	Comp. S (In.)	Comp. CN
1	0.60	94	0.45	96	0.60	94	0.45	96	0.60	94	0.45	96
2	2.50	80	1.88	84	2.50	80	1.88	84	2.10	83	1.58	86
3	6.60	60	4.95	67	5.40	65	4.05	71	4.40	69	3.30	75
4	10.90	48	8.18	55	9.00	53	6.75	60	6.80	60	5.10	66

\*Typically, the Seasonal High Water Table. Consult with District staff regarding site-specific situations and questions.

- Sandy soils 0 - 40" thick with water tables dropping below 40" - St. Lucie series is representative
- Water tables 15" - 40" - Immokalee series is representative
- Water tables above ground - 15" - Riviera and Pompano series are representative

The compacted values represent the cumulative water storage values reduced by 25 percent to account for the reduction in void spaces due to the compaction which occurs incidental to earthwork operations. An example of the use of this information is:

Assume the following:

Average Finished Grade = 17.0 feet NGVD

Average Ground Water\* Level = 14.0 feet NGVD

Percent of Project in Lakes = 15%

Percent of Project Impervious = 35%

Coastal Soil Type (compacted)

# **APPENDIX G**

## **DHW Determination and SLR Memorandum**





Home (/) / Products ([products.html](#)) / Datums ([stations.html?type=Datums](#)) / 8723214 Virginia Key, Biscayne Bay, FL Favorite Stations

Station Info

Tides/Water Levels

Meteorological Obs. ([/met.html?id=8723214](#))

Phys. Oceanography ([/physocean.html?id=8723214](#))

PORTS® ([/ports/ports.html?id=8723214](#))

## Datums for 8723214, Virginia Key, Biscayne Bay FL

**NOTICE:** All data values are relative to the STND.

### Elevations on Station Datum

**Station:** 8723214, Virginia Key, Biscayne Bay, FL

**Status:** Accepted (Nov 6 2020)

**Units:** Feet

**Control Station:** 8724580 Key West, FL

**T.M.:** 75

**Epoch:** ([/datum\\_options.html#NTDE](#)) 1983-2001

**Datum:** STND

**MHHW 12.38' -12.15' = 0.23' NAVD**

**MSL 11.26' -12.15' = -0.89' NAVD**

Datum	Value	Description
MHHW ( <a href="#">/datum_options.html#MHHW</a> )	12.38	Mean Higher-High Water
MHW ( <a href="#">/datum_options.html#MHW</a> )	12.30	Mean High Water
MTL ( <a href="#">/datum_options.html#MTL</a> )	11.29	Mean Tide Level
MSL ( <a href="#">/datum_options.html#MSL</a> )	11.26	Mean Sea Level
DTL ( <a href="#">/datum_options.html#DTL</a> )	11.26	Mean Diurnal Tide Level
MLW ( <a href="#">/datum_options.html#MLW</a> )	10.27	Mean Low Water
MLLW ( <a href="#">/datum_options.html#MLLW</a> )	10.13	Mean Lower-Low Water
NAVD88 ( <a href="#">/datum_options.html</a> )	12.15	North American Vertical Datum of 1988
STND ( <a href="#">/datum_options.html#STND</a> )	0.00	Station Datum
GT ( <a href="#">/datum_options.html#GT</a> )	2.24	Great Diurnal Range
MN ( <a href="#">/datum_options.html#MN</a> )	2.04	Mean Range of Tide
DHQ ( <a href="#">/datum_options.html#DHQ</a> )	0.07	Mean Diurnal High Water Inequality

Datum	Value	Description
DLQ (/datum_options.html#DLQ)	0.13	Mean Diurnal Low Water Inequality
HWI (/datum_options.html#HWI)	1.60	Greenwich High Water Interval (in hours)
LWI (/datum_options.html#LWI)	7.82	Greenwich Low Water Interval (in hours)
Max Tide (/datum_options.html#MAXTIDE)	15.95	Highest Observed Tide
Max Tide Date & Time (/datum_options.html#MAXTIDEDT)	09/10/2017 17:00	Highest Observed Tide Date & Time
Min Tide (/datum_options.html#MINTIDE)	8.85	Lowest Observed Tide
Min Tide Date & Time (/datum_options.html#MINTIDEDT)	03/29/1994 21:42	Lowest Observed Tide Date & Time
<b>HAT 13.29' -12.15' = 1.14' NAVD</b>		
HAT (/datum_options.html#HAT)	13.29	Highest Astronomical Tide
HAT Date & Time	10/09/2033 14:18	HAT Date and Time
LAT (/datum_options.html#LAT)	9.41	Lowest Astronomical Tide
LAT Date & Time	01/31/2014 07:54	LAT Date and Time

#### Tidal Datum Analysis Periods

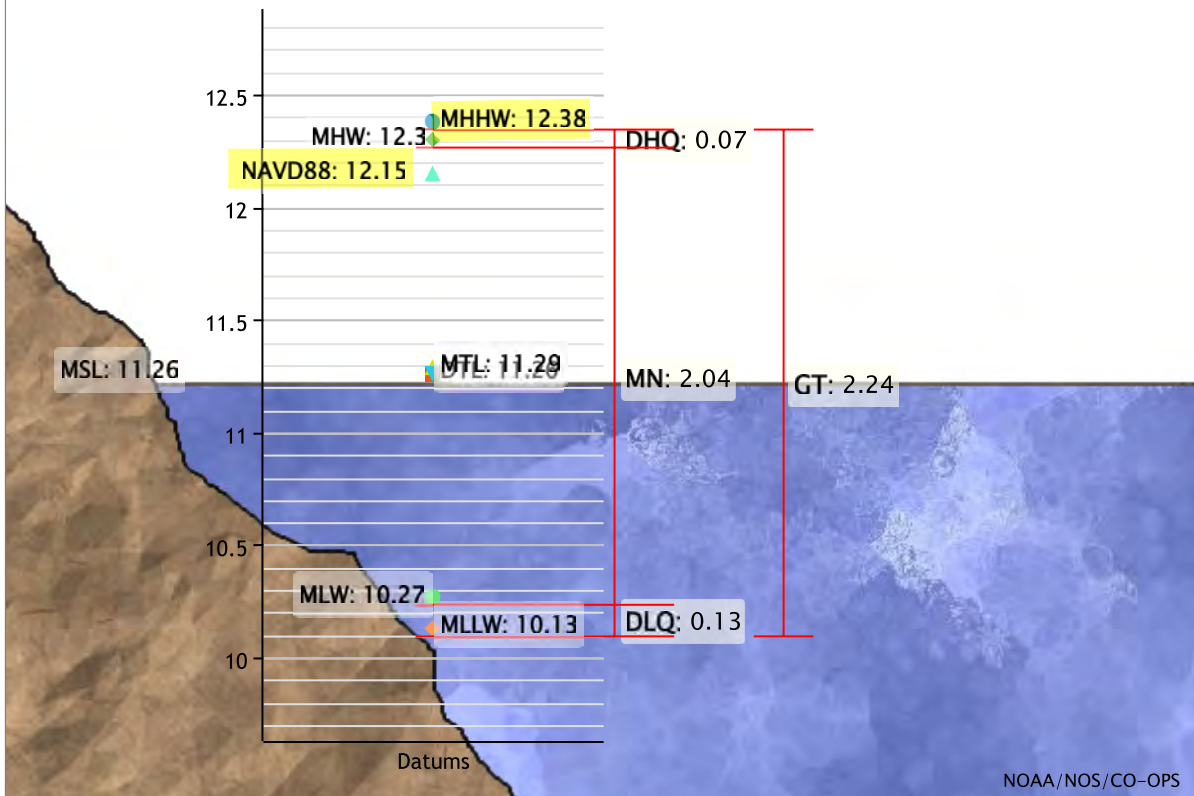
01/01/1994 - 12/31/2013

02/01/2015 - 01/31/2016

04/01/2016 - 03/31/2019

# Datums for 8723214, Virginia Key, Biscayne Bay, FL

All figures in feet relative to STND



NOAA/NOS/CO-OPS

Showing datums for

8723214 Virginia Key, Biscay...

Datum

STND

Data Units  Feet  
 Meters

Epoch  Present (1983-2001)  
 Superseded (1960-1978)

Submit

Hide nearby stations

NEAR VIRGINIA KEY, BISCAYNE BAY

South Port Everglades, FL ([datums.html?id=8722956&name=South Port Everglades&state=FL](https://datums.html?id=8722956&name=South Port Everglades&state=FL))

Lake Worth Pier, Atlantic Ocean, FL ([datums.html?id=8722670&name=Lake Worth Pier, Atlantic Ocean&state=FL](https://datums.html?id=8722670&name=Lake Worth Pier, Atlantic Ocean&state=FL))

Vaca Key, Florida Bay, FL ([datums.html?id=8723970&name=Vaca Key, Florida Bay&state=FL](https://datums.html?id=8723970&name=Vaca Key, Florida Bay&state=FL))

Naples, Gulf of Mexico, FL ([datums.html?id=8725110&name=Naples, Gulf of Mexico&state=FL](https://datums.html?id=8725110&name=Naples, Gulf of Mexico&state=FL))

SOUTH POINT, ST LUCIE INLET, FL ([datums.html?id=8722375&name=SOUTH POINT, ST LUCIE INLET&state=FL](https://datums.html?id=8722375&name=SOUTH POINT, ST LUCIE INLET&state=FL))

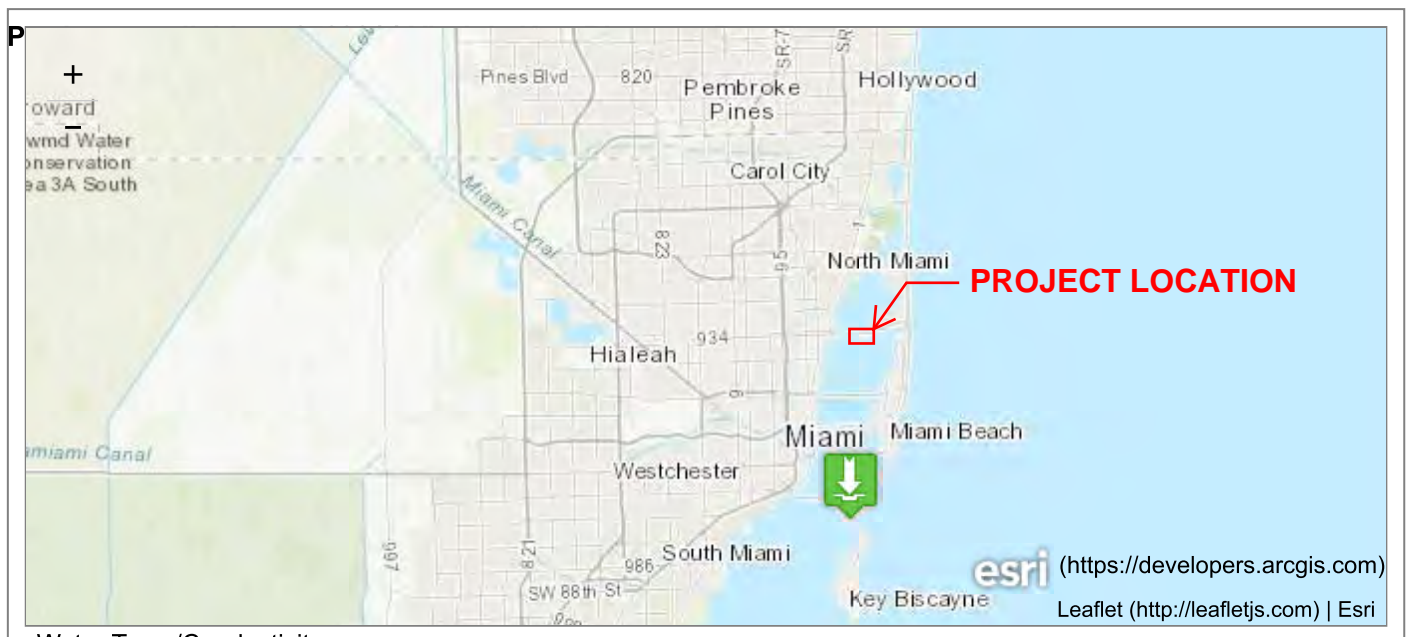
SEWALL POINT. ST. LUCIE RIVER, FL ([datums.html?id=8722371&name=SEWALL POINT. ST. LUCIE RIVER&state=FL](https://datums.html?id=8722371&name=SEWALL POINT. ST. LUCIE RIVER&state=FL))

Jensen Beach, FL ([datums.html?id=8722329&name=Jensen Beach&state=FL](https://datums.html?id=8722329&name=Jensen Beach&state=FL))

Fort Myers, FL ([datums.html?id=8725520&name=Fort Myers&state=FL](https://datums.html?id=8725520&name=Fort Myers&state=FL))

PUNTA RASSA, SAN CARLOS BAY, FL ([datums.html?id=8725391&name=PUNTA RASSA, SAN CARLOS BAY&state=FL](https://datums.html?id=8725391&name=PUNTA RASSA, SAN CARLOS BAY&state=FL))

ANKONA, INDIAN RIVER, FL ([datums.html?id=8722274&name=ANKONA, INDIAN RIVER&state=FL](https://datums.html?id=8722274&name=ANKONA, INDIAN RIVER&state=FL))



Water Temp/Conductivity

#### PORTS®

Miami PORTS® (</ports/index.html?port=mi>)

PORTS® product page for Virginia Key, Biscayne Bay (</ports/ports.html?id=8723214>)

#### OPERATIONAL FORECAST SYSTEMS

This station is not a member of OFS

#### INFORMATION

Station Home Page (</stationhome.html?id=8723214>)

Data Inventory (</inventory.html?id=8723214>)

Measurement Specifications (</measure.html>)



[National Oceanic and Atmospheric Administration \(http://www.noaa.gov\)](http://www.noaa.gov)

[National Ocean Service \(http://oceanservice.noaa.gov\)](http://oceanservice.noaa.gov)

[Privacy Policy \(/privacy.html\)](/privacy.html)

[Disclaimer \(/disclaimers.html\)](/disclaimers.html)

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[Freedom of Information Act \(https://www.noaa.gov/foia-freedom-of-information-act\)](https://www.noaa.gov/foia-freedom-of-information-act)

[Contact Us \(/contact.html\)](/contact.html)

Miami-Dade County Public Works Figure W.C. 2.2. For projects near water conservation areas or Biscayne National Park, FDOT District 6 recommends that the designer evaluate future projects associated with the *Central Everglades Restoration Plan (CERP)* and *Central Everglades Planning Project (CEPP)* to determine if future CERP or CEPP project(s) will increase groundwater elevations. For these conditions, the DHW elevation should be modified according to the future project groundwater rise projections.

For developing variable tailwater elevations to analyze exfiltration trenches during design storm events of durations greater than 1 hour, an average yearly high (AYH) elevation is established for inland areas within Miami-Dade County. The AYH is established using the Miami-Dade County Public Works Figure W.C. 2.1.

### 3.2.3.2 Establishing Design High Water for Coastal Areas of Miami-Dade County and Monroe County

For projects in Monroe County and coastal areas in Miami-Dade County, the DHW is established using the tidal elevation and the Mean Higher-High Water (MHHW) elevation, which are determined using the current projected sea level rise rate. The MHHW is established by the National Oceanic and Atmospheric Administration (NOAA) by using the closest tidal datum to the project location. However, it should be noted that NOAA tidal station records are based on a period of record (epoch) that extends from 1983 to 2001. The next update to the tidal datums was anticipated to be in 2019, but has not yet been released. Therefore, an estimated sea level rise must be applied to the MHHW to approximate the sea level rise that has occurred from 2001 to the current year of the project design phase. In addition, FDOT District 6 requires that the sea level rise be projected using an estimated 20-year project service life be applied to establish the DHW, to account for a certain amount of sea level rise that will occur during the life of the project.

For FDOT District 6, sea level rise will be projected using the rate of sea level rise defined by NOAA using fourteen tidal gauge stations located around the state of Florida.

For the coastal areas of Miami-Dade and Monroe Counties, NOAA approximates a sea level rise rate of 2.39 millimeter (mm) per year (0.00784 feet/year). Therefore, the DHW elevation for coastal areas of Miami-Dade and Monroe Counties can be determined using Equation 3.2.3.4-1:

$$\text{MHHW } 12.38' - 12.15' = 0.23' \text{ NAVD}$$

$$\text{DHW} = (\text{MHHW Elevation}) + [(\text{Year of project design} - 2001) * 0.00784] + (20 * 0.00784)$$


$$\text{DHW} = 0.23' + [(2050-2001)*0.00784] + (20*0.00784)$$

$$\text{DHW} = 0.77' \text{ NAVD}$$

**Equation 3.2.3.4-1**

**DHW=+0.82 is the value used for the 20-year design life (design year 2050) for the roadway pavement design. This is slightly different than the DHW=+0.77 from the ETRM formula because we started extrapolation at 1992 instead of 2001.**

**The District Drainage Office reviewed the SLR Memo was in concurrence with the methodology we used.**

Technical Memorandum		
Project:	FPID 449007-1-22-01, PD&E Study SR 934/NE 79th Street Causeway, from west of Pelican Harbor Drive to east of Adventure Avenue	
Date:	December 7, 2023	
To:	FDOT District 6	
From:	HDR	
Subject:	<b>Sea Level Rise Calculation Method to meet FDOT Design Criteria for Bridge Vertical Clearance and Roadway Base Clearance (DRAFT)</b>	

## **1.0 Purpose**

The purpose of this project is to evaluate bridge replacement alternatives to address the structural deficiencies of four existing bridges (two bridge pairs) along State Road 934 (SR 934)/NE 79th Street/John F. Kennedy Causeway. The project limits extend from west of Pelican Harbor Drive to east of Adventure Avenue. The western bridge pair, comprised of Bridge Identification (ID) Numbers 870083 (westbound) and 870549 (eastbound), is located just west of North Bay Island/Harbor Island. The eastern bridge pair, comprised of Bridge ID Numbers 870084 (westbound) and 870550 (eastbound), is located between North Bay Island/Harbor Island and Treasure Island. Proposed bridges are an important link in the SR 934/79<sup>th</sup> Street Causeway linking the City of Miami, North Bay Village, and the City of Miami Beach. An additional project goal is to maintain emergency evacuation capabilities.

This Memorandum documents the FDOT design criteria and calculation method used to estimate Sea Level Rise (SLR) and establish the proposed bridge & roadway profile.

## **2.0 Alternatives**

This Project Development and Environment (PD&E) Study considers the following Build Alternatives:

- Alternative 1a: Minor Rehabilitation
- Alternative 1b: Major Rehabilitation
- Alternative 2a: Full Replacement (Match Existing Bridge Profile)
- Alternative 2b: Full Replacement (Raise Bridge Profile)

Alternative 2a proposed to reconstruct the bridges to match the existing profile with sub-standard bridge vertical clearance. Alternative 2b proposes to fully comply with the minimum FDOT standards and maximize the bridge lives. Alternative 2b meets the FDOT design criteria for minimum bridge vertical clearance and roadway base clearance. This Memorandum is only applicable to Alternative 2b.

### **3.0 FDOT Design Criteria and Guidelines**

#### **3.1 FDOT Drainage Manual (2024)**

The FDOT Drainage Manual (2024), Section 3.4.1, Sea Level Rise, states:

*The design of coastal projects (including new construction, reconstruction, and projects rebuilding drainage systems) must incorporate sea level rise analysis to assess the vulnerability of flooding over the design life of the facility. Use the relative sea level trend data from historical tidal records gathered by the National Water Level Observation Network (NWLON) and managed by NOAA:*

[https://tidesandcurrents.noaa.gov/sltrends/sltrends\\_states.html?gid=1238](https://tidesandcurrents.noaa.gov/sltrends/sltrends_states.html?gid=1238)

*NOAA manages tidal gage stations located around the state of Florida. Use the station nearest the site for analysis. Analysis must consist of straight-line extrapolation based on the design service life of the project. Consider existing system criticality/vulnerability and project costs when implementing this best practice analysis.*

#### **3.2 FDOT Design Manual (FDM) (2024)**

##### **Bridge Vertical Clearance**

The proposed bridges along SR 934/NE 79<sup>th</sup> Street Causeway requires a minimum vertical clearance of 2 feet above the design flood stage and 6 feet above the Mean High Water per FDM Section 260.8.1, Bridges over Water, Vertical Clearance:

##### **Drainage:**

*The minimum vertical clearance between the design flood stage and the low member of a bridge is 2 feet. This clearance is necessary to allow the majority of debris to pass without causing damage to the structure. This requirement does not apply to culverts and bridge-culverts.*

##### **Navigation:**

*Provide the following minimum vertical clearance for navigational purposes:*

*(1) 6 feet above the Mean High Water (MHW) for tidewater bays and streams*

##### **Roadway Base Clearance**

The proposed roadway reconstruction along SR 934/NE 79<sup>th</sup> Street Causeway requires a minimum base clearance of 1-foot, per FDM Section 210.10.3, Vertical Clearance:

*(2) Minimum clearance from the bottom of the roadway base course to the Base Clearance Water Elevation is 3 feet, except as noted below. These exceptions will require a reduction in the design resilient modulus in accordance with the Flexible Pavement Design Manual.*

*Coordinate with the Pavement Design Engineer for the following facilities:*

*(c) All other facilities in context classifications C4 through C6 may be reduced to a 1-foot clearance.*

In this project, SR 934 is designated Context Class C5, requiring a minimum roadway base clearance of 1 foot, using a pavement design with reduced resilient modulus.

#### **3.3 FDOT Structures Manual (2024)**

The FDOT Structures Manual (2024), Volume 1 - Structures Design Guidelines (SDG) Section 1.4.3 states the splash zone applies to marine structures and is defined as the vertical distance from 4-feet below Mean Low Water (MLW) to 12-feet above Mean High Water (MHW) and/or areas subject to wetting by personal watercraft (e.g., jet skis) or other activities and features. The proposed new bridges for all alternatives will be within the splash zone and the corrosive effects require mitigation through the use of non-corrosive pre-stressing in the superstructure.



### 3.4 FDOT District 6 Design Guidelines (2020)

The District 6 Exfiltration Trench Reference Manual (ETRM) (2020), Section 3.2.3.2 provides guidelines to determine the Design High Water (DHW) Elevation considering sea level rise.

*For projects in Monroe County and coastal areas in Miami-Dade County, the DHW is established using the tidal elevation and the Mean Higher-High Water (MHHW) elevation, which are determined using the current projected sea level rise rate. The MHHW is established by the National Oceanic and Atmospheric Administration (NOAA) by using the closest tidal datum to the project location. However, it should be noted that NOAA tidal station records are based on a period of record (epoch) that extends from 1983 to 2001. The next update to the tidal datums was anticipated to be in 2019, but has not yet been released. Therefore, an estimated sea level rise must be applied to the MHHW to approximate the sea level rise that has occurred from 2001 to the current year of the project design phase. In addition, FDOT District 6 requires that the sea level rise be projected using an estimated 20-year project service life be applied to establish the DHW, to account for a certain amount of sea level rise that will occur during the life of the project.*

*For FDOT District 6, sea level rise will be projected using the rate of sea level rise defined by NOAA using fourteen tidal gauge stations located around the state of Florida. For the coastal areas of Miami-Dade and Monroe Counties, NOAA approximates a sea level rise rate of 2.39 millimeter (mm) per year (0.00784 feet/year). Therefore, the DHW elevation for coastal areas of Miami-Dade and Monroe Counties can be determined using Equation 3.2.3.4-1:*

$$DHW = (MHHW \text{ Elevation}) + [(Year \text{ of project design} - 2001) * 0.00784] + (20 * 0.00784)$$

*FDOT District 6 also recommends that the designer verify if there are more stringent requirements established by local coastal municipalities. For example, the City of Miami Beach imposes a higher DHW than what is defined by Equation 3.2.3.4-1. Prior to implementing a higher DHW as outlined in this subsection, the designer must coordinate with and obtain approval from the FDOT District 6 Drainage Engineer.*

The District 6 ETRM cites a sea level rise linear trend of 2.39 mm/year based on the historic record from the NOAA Miami Beach tide station (8723170) for the period from 1931 to 1981. The calculations for this project use the latest sea level rise linear trend of 3.10±0.22 mm/yr published by NOAA at Station 8723214 (Virginia Key) for the period from 1931 to 2022; this trend is based on the combined historic record at Station 8723214 (Virginia Key) from 1994 to 2022, Station 8723080 (Haulover Pier) from 1981 to 1992, and Station 8723170 (Miami Beach) from 1931 to 1981.

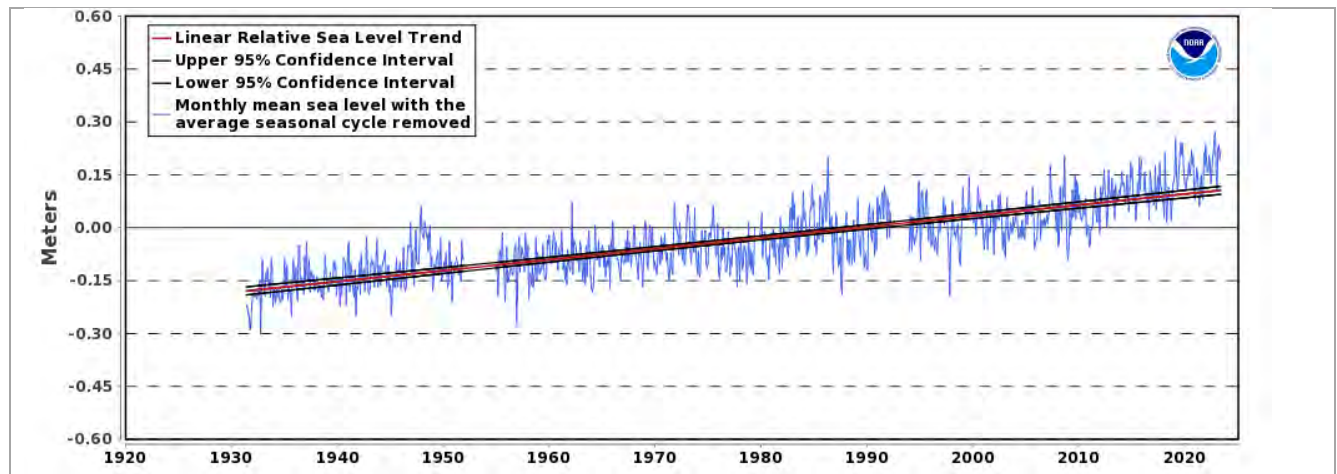
The District 6 ETRM Equation 3.2.3.4-1 starts the sea level rise projection at 2001, the end of the tide epoch 1983-2001. The sea level rise calculations for this project start at 1992, the mid-point year of the tide epoch 1983-2001, consistent with guidelines from NOAA.

The District 6 ETRM cites a 20-year project service life for the proposed roadway design. The sea level rise calculations for this project also consider the 75-year service life for the proposed bridge design.

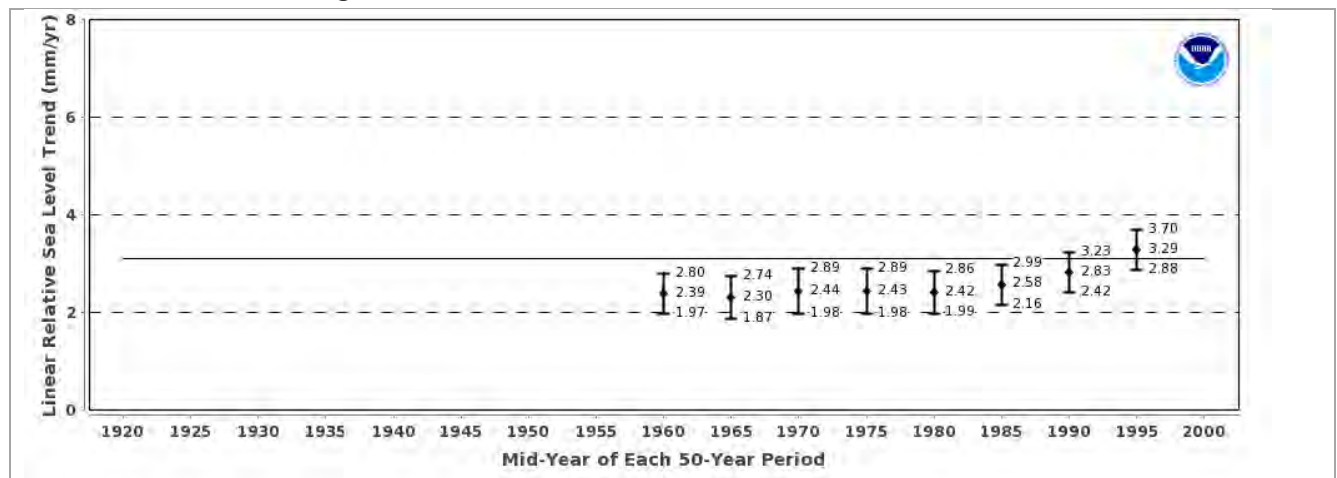
#### 4.0 NOAA Sea Level Trends

NOAA maintains one active primary tide station within Miami-Dade County: Station 8723214 at Virginia Key, with tide data from 1994 to the present. The previous primary tide station 8723170 at Miami Beach recorded historic tide data from 1931 to 1981. Tide station 8723080 at Haulover Pier also recorded historic tide data from 1981 to 1992. **Figure 1** shows the latest sea level rise historic linear trend for the historic period from 1931 to 2022 and published by NOAA. **Figure 2** shows the 50-year relative sea level rise trends published by NOAA; for example, the 1960 value represents the 50-year trend from 1935 to 1985, and the 1995 value represents the 50-year trend from 1970 to 2020.

**Figure 1 – Historic Relative Sea Level Trend**



**Figure 2 – Variation of 50-Year Relative Sea Level Trends**



## 5.0 Proposed Project Approach

### 5.1 Calculation Method

#### Step 1 – Establish the Proposed Design Year

This project is currently in the PD&E Phase. The project is scheduled to begin the Preliminary Engineering/Design phase in 2025 with an estimated construction Letting Date of February 2028. The estimated Opening Year is 2030. FDM Section 201.3 requires a design period of 20 years for reconstruction projects. The estimated Design Year is 2050 for the roadway design. The FDOT Structures Design Guidelines requires a 75-year design service life for bridges. The estimated Design Year is 2105 for the bridge design.

- Estimated Opening Year = 2030
- Estimated Design Year (Roadway) = 2050 (20 years)
- Estimated Design Year (Bridges) = 2105 (75 years)

#### Step 2 – Establish a Tide Datum

**Table 1** lists the NOAA tide datums at Station 8723214 (Virginia Key). The FDM requires the bridge vertical clearance for navigation purposes measured above the Mean High Water (MHW) Elevation for tidewater bays and streams. The District 6 ETRM recommends establishing the Base Clearance Water Elevation (BCWE) in coastal areas based on the Mean Higher-High Water (MHHW) Elevation. In coastal areas where groundwater is tidally influenced, groundwater will tend to maintain its minimum level at mean high tide, due to the speed of the groundwater movement relative to the tide cycle.

**Table 1 – Tide Datum Elevations at NOAA Station 8723214 (Virginia Key)**

	Tide Datum Elevations (1983-2001 NTDE)	
	m NAVD	ft NAVD
Mean Higher-High Water (MHHW) Elevation	0.069	0.23
Mean High Water (MHW) Elevation	0.047	0.15
Mean Sea Level (MSL) Elevation	-0.272	-0.89
Highest Observed Tide (September 10, 2017, Hurricane Irma)	1.157	3.79

#### Step 3 – Establish the Baseline Year and Elevation

The District 6 Equation 3.2.3.4-1 starts the sea level rise projection at 2001, representing the end year of the NOAA National Tide Datum Epoch (NTDE) from 1983 to 2001. The sea level rise calculations for this project start at 1992, the mid-point year of the tide epoch 1983-2001, consistent with guidelines from NOAA.

#### Step 4 – Estimate the Sea Level Rise Rate

The latest historical sea level rise linear trend published by NOAA is  $3.10 \pm 0.22$  mm/yr ( $0.0102 \pm 0.00072$  ft/yr) at Station 8723214 (Virginia Key), as shown in **Figure 1**. This trend combines the historic record at Station 8723214 (Virginia Key) from 1994 to 2022, Station 8723080 (Haulover Pier) from 1981 to 1992, and Station 8723170 (Miami Beach) from 1931 to 1981.

#### Step 5 – Calculate the Estimated Water Elevation

The future sea level rise for this project is calculated using a straight-line extrapolation based on the design service life of the project, as required by the FDOT Drainage Manual. The bridge vertical clearance is measured from the MHW, extrapolated to the year 2015. The roadway base clearance measured from the MHHW, extrapolated to the year 2050. The calculations are summarized in **Table 2** and **Table 3**.

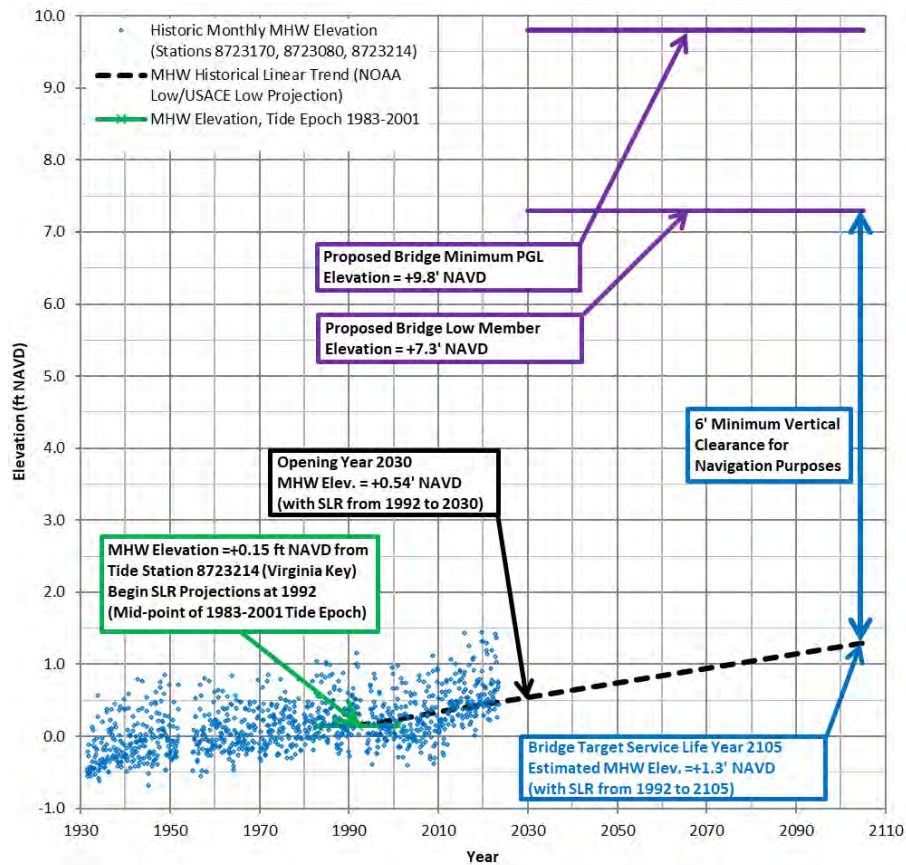
## 5.2 Bridge Vertical Clearance Calculation

The bridge vertical clearance calculations are summarized in **Table 2** and shown in **Figure 3** below.

**Table 2 – Bridge Vertical Clearance Calculation with Estimated Sea Level Rise**

		Tide Station 8723214 (Virginia Key)
Tide Datums (1983-2001 Epoch, Mid-Point Year 1992)	Mean Sea Level (MSL)	-0.89 ft NAVD
	Mean High Water (MHW)	+0.15 ft NAVD
Historic Linear Sea Level Rise (SLR) Rate (1931-2022)		0.0102±0.00072 ft/yr
Proposed Opening Year		2030
Proposed Design Year		2105 (Bridges)
Estimated MHW Elevation for Opening Year 2030		+0.54 ft NAVD
Estimated Sea Level Rise from 1992 to 2105		1.15 ft
Estimated MHW Elevation for Bridge Design Year 2105		+1.3 ft NAVD
Proposed Minimum Bridge Vertical Clearance for Navigation		6.0 ft
Existing Bridge Low Member Elevation		+3.8 ft NAVD
Minimum Proposed Bridge Low Member Elevation		+7.3 ft NAVD
Proposed Structure Depth (12"x59" CFRP Florida Slab Beams and 6" topping)		1.5 ft
Proposed Elevation Difference from PGL to edge of bridge deck		0.95 ft
Proposed Bridge Minimum Profile Grade Line (PGL) Elevation		+9.8 ft NAVD

**Figure 3 – MHW Elevation with Linear Projection at Tide Station 8723214 (Virginia Key)**





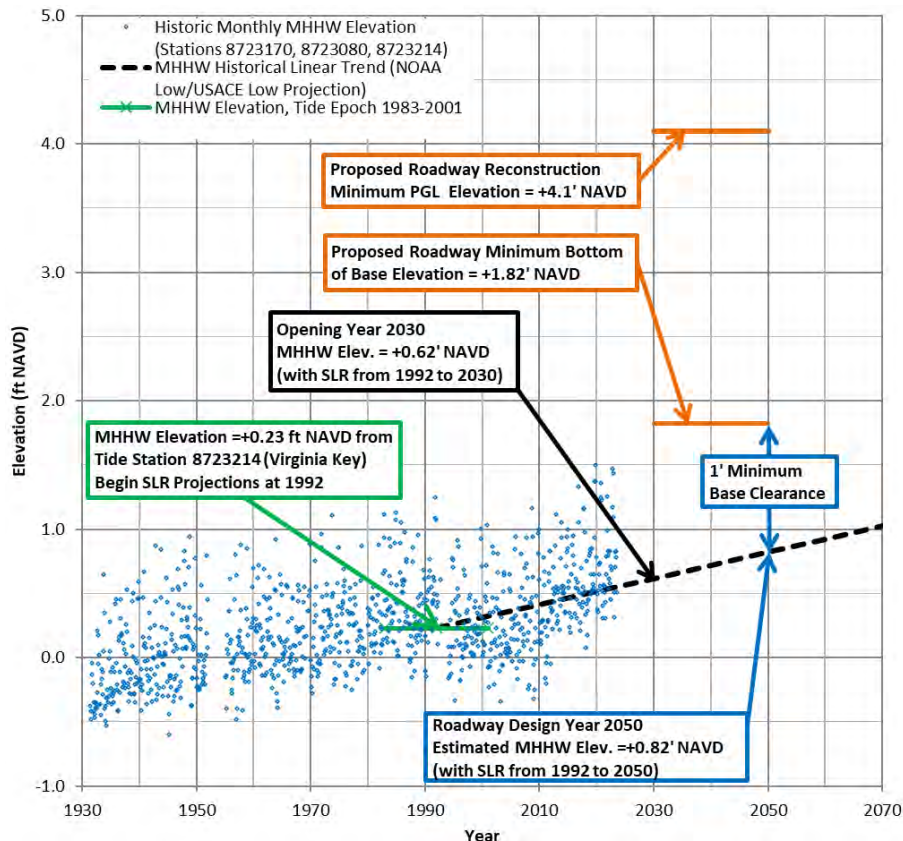
### 5.3 Roadway Base Clearance Calculation

The roadway base clearance calculations are summarized in **Table 3** and shown in **Figure 4** below.

**Table 3 – Roadway Base Clearance Calculation with Estimated Sea Level Rise**

		Tide Station 8723214 (Virginia Key)
Tide Datums (1983-2001 Epoch, Mid-Point Year 1992)	Mean Sea Level (MSL)	-0.89 ft NAVD
	Mean Higher-High Water (MHHW)	+0.23 ft NAVD
Historic Linear Sea Level Rise (SLR) Rate (1931-2022)		0.0102±0.00072 ft/yr
Proposed Opening Year		2030
Proposed Design Year		2050 (Roadway)
Estimated MHHW Elevation for Opening Year 2030		+0.62 ft NAVD
Estimated Sea Level Rise from 1992 to 2050		0.59 ft
Estimated MHHW Elevation for Roadway Design Year 2050		+0.82 ft NAVD
Minimum Bottom of Roadway Base Elevation (1' Base Clearance for Context Class C5, pavement design requires reduced resilient modulus)		+1.82 ft NAVD
Estimated Roadway Pavement Thickness		1.34 ft
Proposed Elevation Difference from PGL to edge of pavement		0.94 ft
Proposed Minimum Profile Grade Line (PGL) Elevation at roadway reconstruction areas		+4.8 ft NAVD
Existing Minimum Profile Grade Line (PGL) Elevation		+4.4 ft NAVD

**Figure 4 – MHHW Elevation with Linear Projection at Tide Station 8723214 (Virginia Key)**



#### **5.4 Proposed Concept**

- The Alternative 2b bridge profile proposes a minimum PGL elevation of 9.8 feet NAVD, to provide a minimum 6 feet vertical clearance for navigational purposes above the estimated future Mean High Water (MHW) for the year 2105 to comply with FDM Section 260.8.1.
- The Alternative 2b roadway profile proposes a minimum PGL elevation of 4.1 feet NAVD or greater in reconstruction segments to provide a minimum 3 feet of base clearance above the estimated future Mean Higher-High Water (MHHW) elevation for the Design Year 2050, to comply with FDM Section 210.10.3.

#### **5.5 Proposed Bridge Concept**

Please see the Bridge Analysis Report (BAR) for evaluation of multiple alternatives for addressing the existing bridge conditions.

# **APPENDIX H**

## **FEMA Flood Insurance Rate Maps**



**NOTES TO USERS**

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

**Coastal Base Flood Elevations** shown on this map apply only landward of 0.0' National Geodetic Vertical Datum of 1929 (NGVD 29). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Florida State Plane east zone (FIPSZONE 0901). The **horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the National Geodetic Vertical Datum of 1929. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov> or contact the National Geodetic Survey at the following address:

NGS Information Services  
NOAA, N/NGS12  
National Geodetic Survey  
SSMC-3, #9202  
1315 East-West Highway  
Silver Spring, Maryland 20910-3282  
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov>.

**Base map** information shown on this FIRM was provided in digital format by the Miami-Dade County Information Technology Department. These data were compiled at a scale of 1:3,600 from digital orthophotography dated 2001. Additional base map information was provided by the Cities of Aventura, Coral Gables, and Homestead, and the Town of Cutler Bay, and Miami-Dade County.

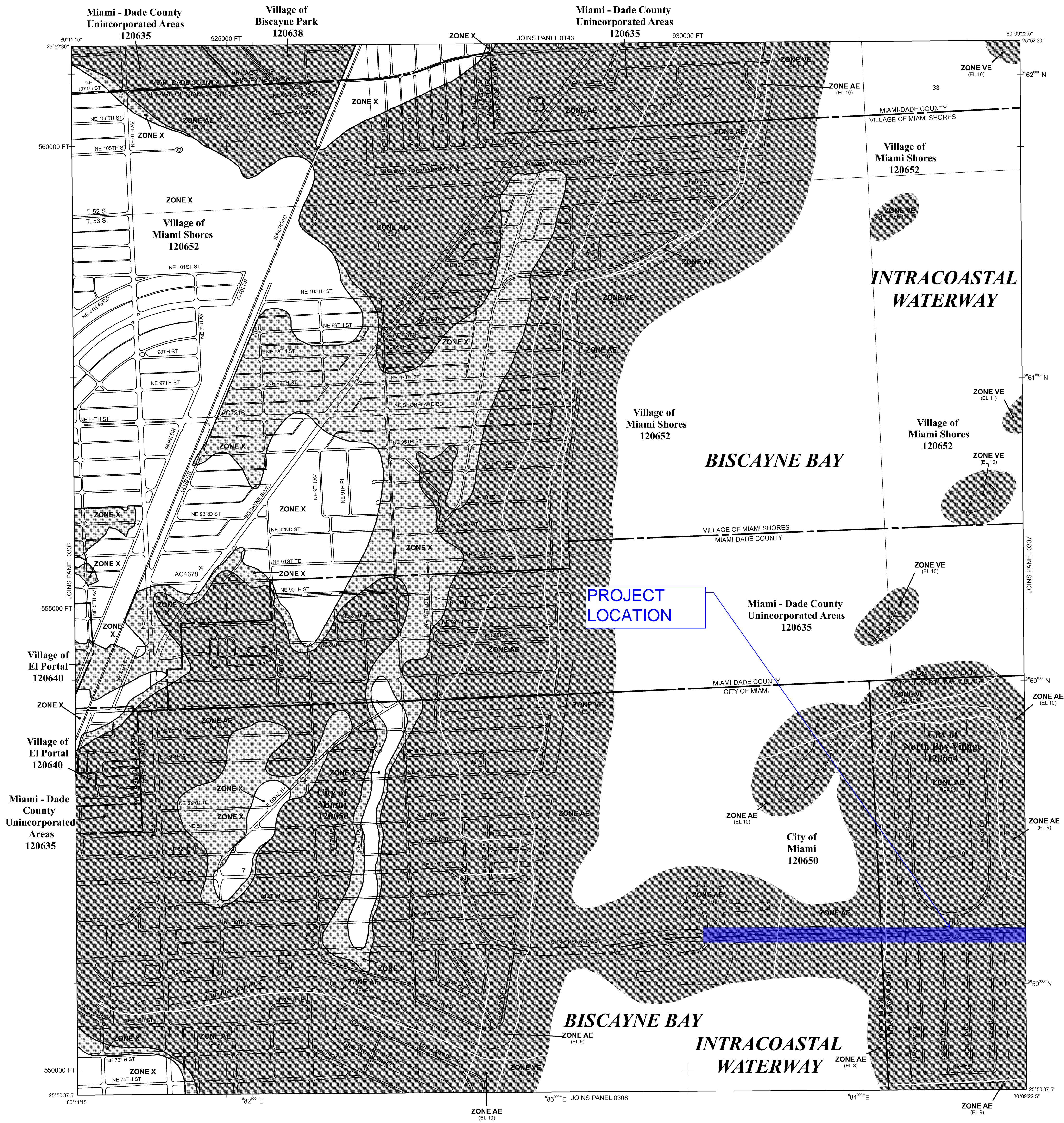
This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

**Corporate limits** shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

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Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at <http://msc.fema.gov>.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA website at <http://www.fema.gov>.



**LEGEND**

**SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

**FLOODWAY AREAS IN ZONE AE**  
The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

**OTHER FLOOD AREAS**  
**ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

**OTHER AREAS**  
**ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.  
**ZONE D** Areas in which flood hazards are undetermined, but possible.

**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**  
**OTHERWISE PROTECTED AREAS (OPAs)**  
CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- Floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*

- \* Referenced to the National Geodetic Vertical Datum of 1929
- ⊕ Cross section line
- Transsect line
- 87°07'45", 32°22'30" Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 276°00'N 1000-meter Universal Transverse Mercator grid values, zone 17
- 600000 FT 5000-foot grid ticks: Florida State Plane coordinate system, East Zone (FIPSZONE 0901), Transverse Mercator projection
- DX5510 x Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 River Mile

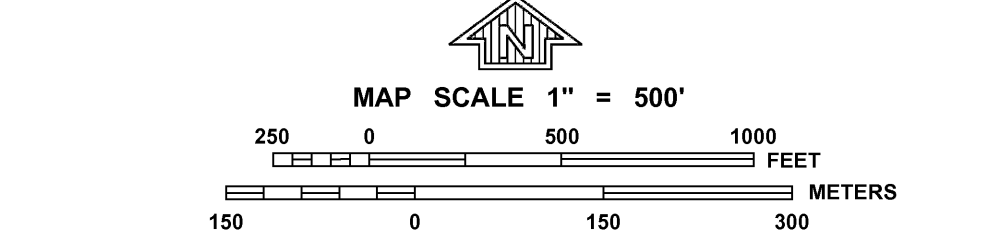
**MAP REPOSITORY**  
Refer to listing of Map Repositories on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
January 20, 1993

**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**  
March 2, 1994 - May 16, 1994 - July 17, 1995 - for description of revision, see Notice to Users page in the Flood Insurance Study report.  
September 11, 2009 - to reflect revised shoreline, to reflect updated topographic information, to update corporate limits, to add and change Base Flood Elevations, to change zone designations, to add roads and road names, to add and change Special Flood Hazard Areas, and to incorporate previously issued Letters of Map Revision

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**NATIONAL FLOOD INSURANCE PROGRAM**

**PANEL 0306L**

**FIRM**  
**FLOOD INSURANCE RATE MAP**

**MIAMI-DADE COUNTY, FLORIDA AND INCORPORATED AREAS**

**PANEL 306 OF 1031**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

**CONTAINS:**

COMMUNITY	NUMBER	PANEL	SUFFIX
BISCAYNE PARK, VILLAGE OF	120638	0306	L
EL PORTAL, VILLAGE OF	120640	0306	L
MIAMI-DADE COUNTY	120635	0306	L
MIAMI SHORES, VILLAGE OF	120652	0306	L
MIAMI, CITY OF	120650	0306	L
NORTH BAY VILLAGE, CITY OF	120654	0306	L

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

**MAP NUMBER**  
**12086C0306L**

**MAP REVISED**  
**SEPTEMBER 11, 2009**

**Federal Emergency Management Agency**



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Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99**  
Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V**  
Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE**  
Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

**FLOODWAY AREAS IN ZONE AE**  
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- Base Flood Elevation line and value; elevation in feet\*  
(EL. 987)
- Base Flood Elevation value where uniform within zone; elevation in feet\*

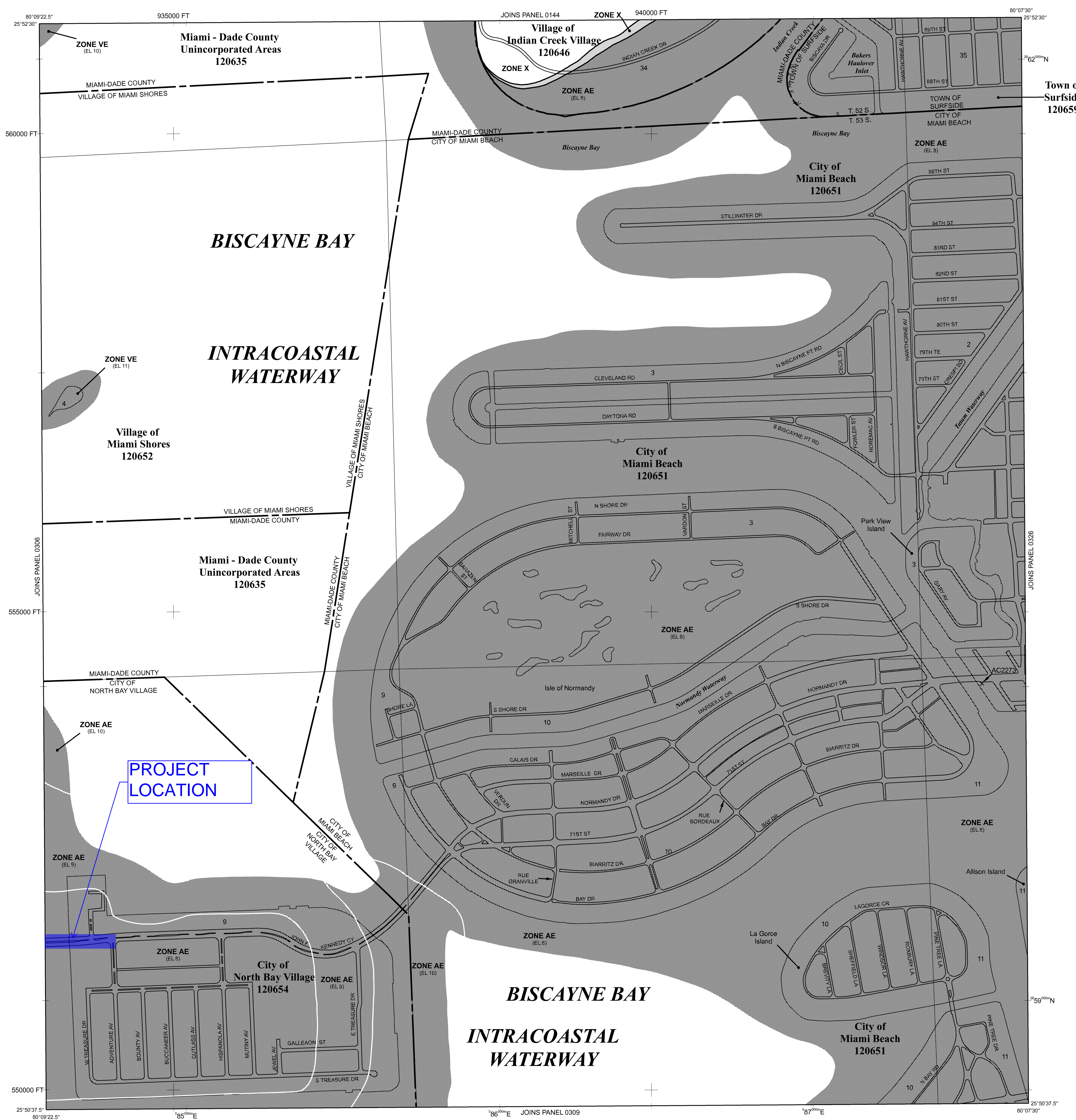
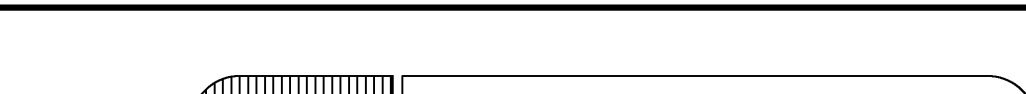
- \* Referenced to the National Geodetic Vertical Datum of 1929
- ⊕ Cross section line
- ⊖ Transsect line
- 87°07'45", 32°22'30"  
76°00'N  
17  
600000 FT  
5000-foot grid ticks: Florida State Plane coordinate system, East zone (FIPSZONE 0901), Transverse Mercator projection
- DX5510 x  
Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5  
River Mile

**MAP REPOSITORY**  
Refer to listing of Map Repositories on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
January 20, 1993

**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**  
March 2, 1994 - May 16, 1994 - July 17, 1995 - for description of revision, see Notice to Users page in the Flood Insurance Study report.  
September 11, 2009 - to reflect revised shoreline, to incorporate previously issued Letters of Map Revision, to reflect updated topographic information, to update corporate limits, to add and change Base Flood Elevations, to change zone designations, to add roads and road names, and to add and change Special Flood Hazard Areas

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PANEL 0307L

**FIRM FLOOD INSURANCE RATE MAP**

**MIAMI-DADE COUNTY, FLORIDA AND INCORPORATED AREAS**

**PANEL 307 OF 1031**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

**CONTAINS:**

COMMUNITY	NUMBER	PANEL	SUFFIX
INDIAN CREEK VILLAGE, VILLAGE OF	120646	0307	L
MIAMI-DADE COUNTY	120635	0307	L
MIAMI BEACH, CITY OF	120651	0307	L
MIAMI SHORES, VILLAGE OF	120652	0307	L
NORTH BAY VILLAGE, CITY OF	120654	0307	L
SURFSIDE, TOWN OF	120659	0307	L

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

**MAP NUMBER 12086C0307L**

**MAP REVISED SEPTEMBER 11, 2009**

Federal Emergency Management Agency



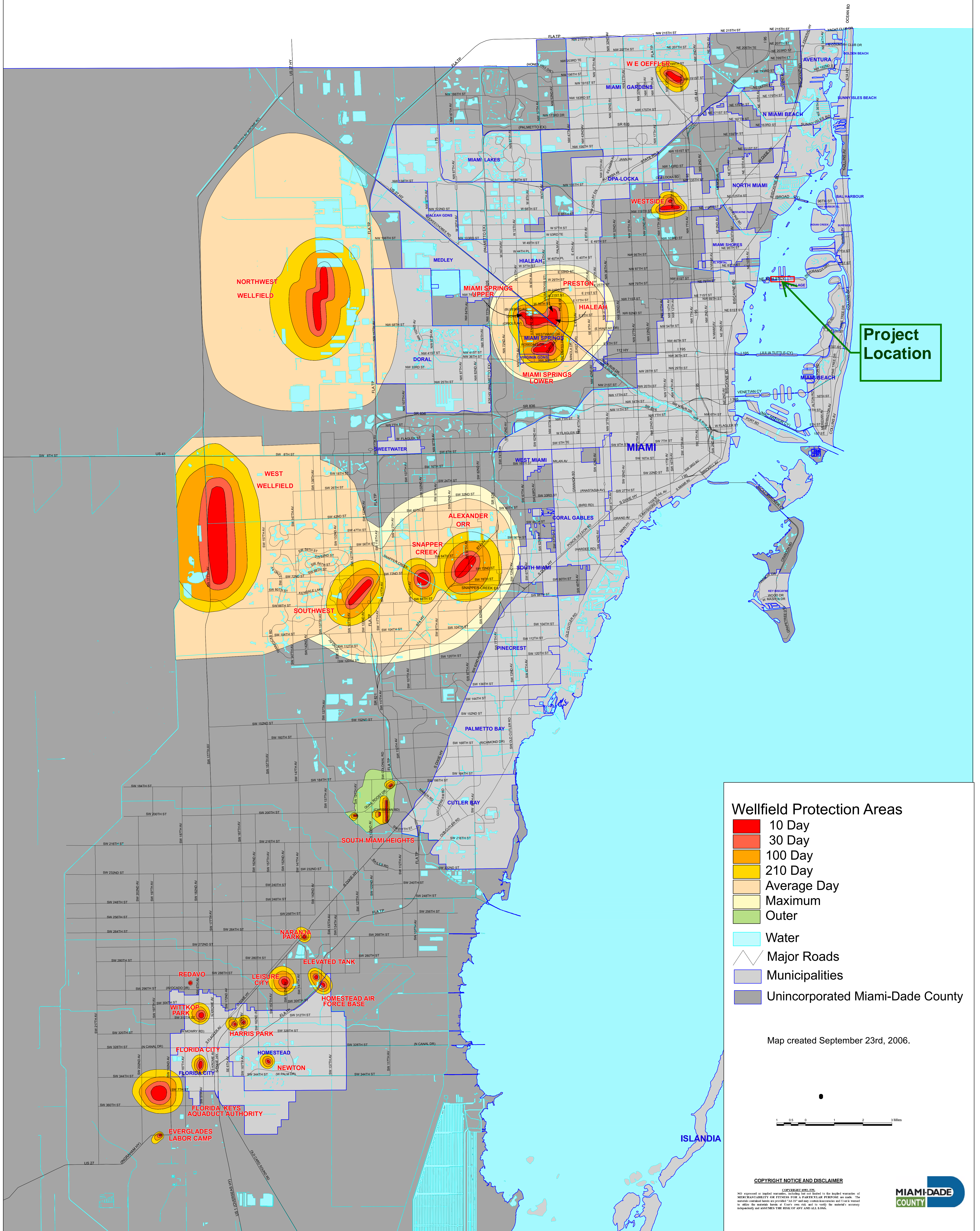


# **APPENDIX I**

## **Wellfield Protection Areas**



# Miami-Dade County Wellfield Protection Areas



## Wellfield Protection Areas

- 10 Day
- 30 Day
- 100 Day
- 210 Day
- Average Day
- Maximum
- Outer
- Water
- Major Roads
- Municipalities
- Unincorporated Miami-Dade County

Map created September 23rd, 2006.

1 0.5 0 1 2 3 Miles

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# **APPENDIX J**

## **Pre vs Post Development Areas, Land Use and Curve Number**



**PRE DEVELOPMENT AREAS, CN AND LAND USE NE 79<sup>TH</sup> STREET PD&E  
SUMMARY OF BASIN AREAS AND CN - PRE DEVELOPMENT**

SHGWT EL. (ft-NAVD): **0.82**

BASIN	LANDUSE	Time of Conc. $t_c$ (min.)	TOTAL AREA (Ac.)	TOTAL ONSITE AREA (Ac.)	ONSITE IMPERVIOUS AREA (Ac.)	ONSITE PERVIOUS AREA (Ac.)	AVERAGE GROUND ELEV. (ft-NAVD)	AVERAGE DEPTH TO SHGWT (ft)	COMPACTED SOIL STORAGE * $S_o$ (in)	CURVE NUMBER
EXIST. SYSTEM 1	Roadway	10	3.63	3.63	3.04	0.59	4.35	4.00	8.18	88.3
EXIST. SYSTEM 2		10	1.37	1.37	1.37	0.00	4.50	4.00	8.18	100.0
EXIST. SYSTEM 3		10	1.85	1.85	1.34	0.51	4.50	4.00	8.18	81.5
EXIST. SYSTEM 4		10	1.87	1.87	1.40	0.47	4.50	4.00	8.18	82.8
EXIST. SYSTEM 5		10	1.32	1.32	1.32	0.00	4.60	4.00	8.18	100.0
EXIST. SYSTEM 6		10	3.60	3.60	3.33	0.27	3.60	3.00	4.95	96.4
<b>GRAND TOTAL:</b>			<b>13.63</b>	<b>13.63</b>	<b>11.79</b>	<b>1.84</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>

\* *Compacted Soil Storage for Coastal*

$$S = S_o * A_{perv} / A_{total}$$

*So Based on SFWMD Manual*

$$CN = 1000 / (S+10)$$

*S=Potential Maximum Retention (inches)*

*CN= Curve Number*

**POST DEVELOPMENT AREAS, CN AND LAND USE NE 79<sup>TH</sup> STREET PD&E  
SUMMARY OF BASIN AREAS AND CN - POST DEVELOPMENT**

SHGWT EL. (ft-NAVD):

**0.82**

BASIN	LANDUSE	Time of Conc. $t_c$ (min.)	TOTAL AREA (Ac.)	TOTAL ONSITE AREA (Ac.)	ONSITE IMPERVIOUS AREA (Ac.)	ONSITE PERVIOUS AREA (Ac.)	AVERAGE GROUND ELEV. (ft-NAVD)	AVERAGE DEPTH TO SHGWT (ft)	COMPACTED SOIL STORAGE * $S_o$ (in)	CURVE NUMBER
PROP. SYSTEM 1	Roadway	10	4.50	4.50	3.96	0.54	4.50	4.00	8.18	91.1
PROP. SYSTEM 2		10	2.59	2.59	2.17	0.42	5.10	4.00	8.18	88.2
PROP. SYSTEM 3		10	2.60	2.60	2.20	0.41	5.20	4.00	8.18	88.7
PROP. SYSTEM 4		10	4.12	4.12	3.89	0.22	4.50	4.00	8.18	95.7
GRAND TOTAL:			13.81	13.81	12.22	1.60	--	--	--	--

\* *Compacted Soil Storage for Coastal*

$$S = S_o * A_{perv} / A_{total}$$

*S = Potential Maximum Retention (inches)*

*S<sub>o</sub> Based on SFWMD Manual*

$$CN = 1000 / (S+10)$$

*CN = Curve Number*

# **APPENDIX K**

## **Water Quality Calculations**



NE 79<sup>TH</sup> STREET PD&E

WATER QUALITY																	
SYSTEM	SUB-BASIN	SHGWT EL. (ft-NAVD)	TOTAL ONSITE AREA (Ac.) [POST-DEV.]	ONSITE IMPERVIOUS AREA (Ac.) [POST-DEV.]	ONSITE ADDITIONAL IMP. AREA (Ac.) [POST-DEV.]	ONSITE PERVIOUS AREA (Ac.) [POST-DEV.]	1" OVER TOTAL AREA (Ac-ft)	2.5" OVER ADDITIONAL IMP. AREA (Ac-ft)	<sup>1</sup> WATER QUALITY TREATMENT REQUIRED (Ac-ft)	<sup>3</sup> TOTAL WATER QUALITY TREATMENT REQUIRED (Ac-ft)	DRY- DETENTION TREATMENT VOLUME PROVIDED (Ac-ft)	WET- DETENTION TREATMENT VOLUME PROVIDED (Ac-ft)	DRY- / WET- RETENTION TREATMENT VOLUME PROVIDED (Ac-ft)	FRENCH DRAIN TREATMENT VOLUME PROVIDED WET RET (Ac-ft)	<sup>2</sup> TOTAL TREATMENT VOLUME PROVIDED (Ac-ft)	LENGTH OF FD PROVIDED (Ft)	SURPLUS/STORM ATTENUATION VOLUME (Ac-ft)
1	WEST BOUND SYSTEM 1	0.82	2.21	1.91	0.04	0.30	0.18	0.008	0.008	0.013	0.00	0.00	0.00	0.05	0.05	100.00	0.021
	EAST BOUND SYSTEM 1	0.82	2.29	2.05	0.04	0.24	0.19	0.008	0.008	0.013	0.00	0.00	0.00				
2	WEST BOUND SYSTEM 2	0.82	1.22	1.03	0.03	0.19	0.10	0.006	0.006	0.009	0.00	0.00	0.00	0.05	0.05	50.00	0.04
	EAST BOUND SYSTEM 2	0.82	1.37	1.13	0.05	0.24	0.11	0.010	0.010	0.016	0.00	0.00	0.00	0.00	0.00	0.00	-0.02
3	WEST BOUND SYSTEM 3	0.82	1.28	1.17	0.00	0.11	0.11	0.000	0.000	0.000	0.00	0.00	0.00	0.05	0.05	50.00	0.05
	EAST BOUND SYSTEM 3	0.82	1.33	1.03	0.003	0.30	0.11	0.001	0.001	0.001	0.00	0.00	0.00	0.00	0.00	0.00	-0.001
4	WEST BOUND SYSTEM 4	0.82	2.03	1.90	0.00	0.13	0.17	0.000	0.000	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	EAST BOUND SYSTEM 4	0.82	2.08	1.99	0.03	0.09	0.17	0.006	0.006	0.009	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
GRAND TOTAL			13.81	12.22	0.19	1.60	1.15	0.040	0.040	0.060				0.15	0.15	200.00	0.090

SHWT= 0.82 FT NAVD

<sup>1</sup> 2.5" over Onsite Impervious Area (excluding Water Surface Areas); Volume based on wet detention requirements.

<sup>2</sup> Sum of all treatment provided; Retention and Dry Detention volumes divided by 0.50 and 0.75, respectively to account for 50% and 25% credits. This infoamtion is based on available existing permits.

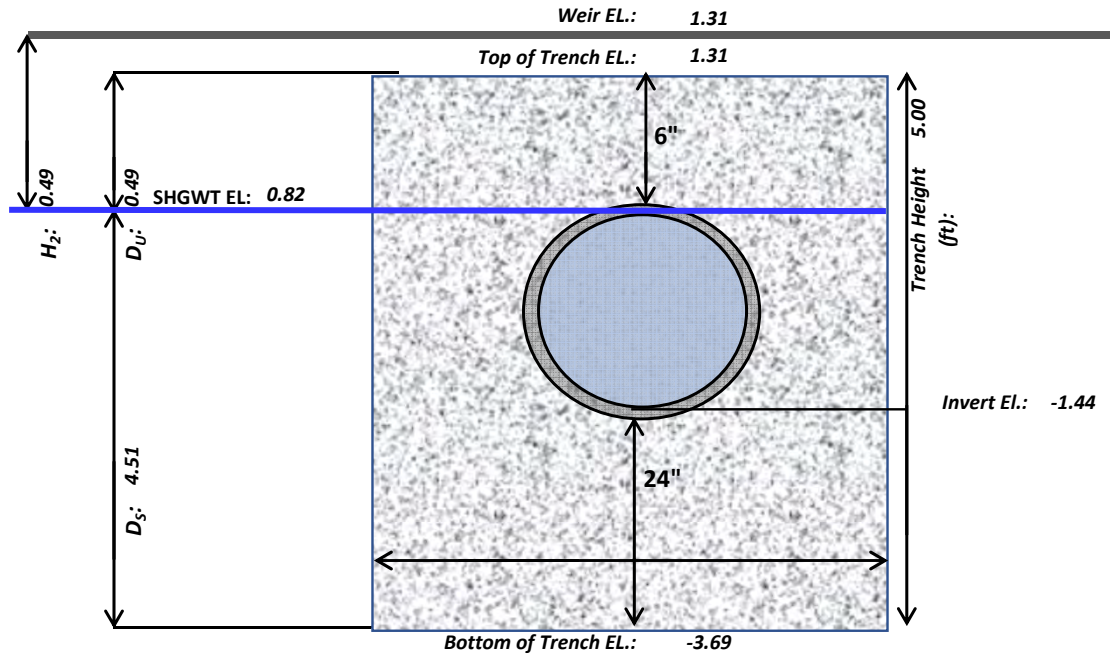
<sup>3</sup> Include the 50% additional water quality due to Outstanding Florida Water System

<sup>4</sup> Water Quality Treatment Volume will be compensated in System 1

**NE 79<sup>TH</sup> STREET PD&E STUDY**  
**PROP. SYSTEM 1**  
**FRENCH DRAIN DESIGN & TREATMENT VOLUMES**

*Drainage System: 1*

French Drain:	PROP. SYSTEM 1	
Location	MEDIAN	
SHGWT EL. (ft-NAVD):	0.82	
Pipe Size (in):	24	
Length of French Drain, L (LF):	100	
Pipe Thickness (in):	3.00	
Pipe Invert EL. (ft-NAVD):	-1.44	
Top of Trench EL. (ft-NAVD):	1.31	
Bottom of Trench EL. (ft-NAVD):	-3.69	
Trench Height, $H_T$ (ft):	5.00	
Weir EL. (ft-NAVD):	1.31	
Trench Width, $W$ (ft):	4.00	
Average Hydraulic Conductivity, $K_{10}$ (cfs/ft <sup>2</sup> /ft-head):	1.130E-03	
Depth to Water Table, $H_2$ (ft):	0.49	
Non-Saturated Trench Depth, $D_U$ (ft):	0.49	
Saturated Trench Depth, $D_S$ (ft):	4.51	
$H_2 W$ :	1.96	
$2H_2 D_U$ :	0.48	
$D_U^2$ :	0.24	
$2H_2 D_S$ :	4.42	
$(1.39 \times 10^{-4}) W D_U$ :	0.000272	
If $D_U > D_S$ and $W < 2H_T$ , Treatment Provided, $V$ (ac-in):	0.78	
If $D_S > D_U$ and/or $W > 2H_T$ , Treatment Provided, $V$ (ac-in):	0.55	
$D_U > D_S$ and $W < 2H_T$ (Yes/No):	No	
<b>Treatment Volume Provided, <math>V</math> (Ac-ft):</b>	<b>0.05</b>	



$$V = L[K_{10}(H_2W + 2H_2D_U - D_U^2 + 2H_2D_S) + (1.39 \times 10^{-4})WD_U]$$

$$V = L[K_{10}(2H_2D_U - D_U^2 + 2H_2D_S) + (1.39 \times 10^{-4})WD_U]$$

*K value from SFWMD Existing Permit 13-02135-P*

# NE 79<sup>TH</sup> STREET PD&E STUDY

## SYSTEM 1

*Exfiltration equations and operating table development procedures and stage-area assumptions shown below were taken from the ICPR Applications Manual developed by ADA Engineering Inc. in March 2007 for FDOT District 6. (See Sheets 3-14 through 3-20)*

**Drainage System:**

<b>French Drain (ICPR Link Name):</b>	<b>PROP. SYSTEM 1</b>	<b>Average Hydraulic Conductivity, <math>K_{10}</math></b>	<b>1.130E-03</b>
<b>Existing/Proposed:</b>	<b>Proposed</b>	<b>(cfs/ft<sup>2</sup>/ft-head):</b>	
<b>Pipe Size (in):</b>	<b>24</b>	<b>Pipe Invert EL. (ft-NAVD):</b>	<b>-1.44</b>
<b>Length of French Drain, <math>L</math> (LF):</b>	<b>100.00</b>	<b>Top of Trench EL. (ft-NAVD):</b>	<b>1.31</b>
<b>Trench Height, <math>H_T</math> (ft):</b>	<b>5.00</b>	<b>Bottom of Trench EL. (ft-NAVD):</b>	<b>-3.69</b>
<b>Trench Width, <math>W</math> (ft):</b>	<b>4.00</b>	<b>Weir EL. (ft-NAVD):</b>	<b>1.31</b>
		<b>Structure Rim/Grate EL. (ft-NAVD):</b>	<b>4.00</b>

**SHGWT EL. (ft-NAVD): 0.82**  
**Max GW EL. (ft-NAVD):**   
*Variable GW EL. required when modeling exfiltration during design storms exceeding 1hr in duration. Model GW as Time-Stage.*

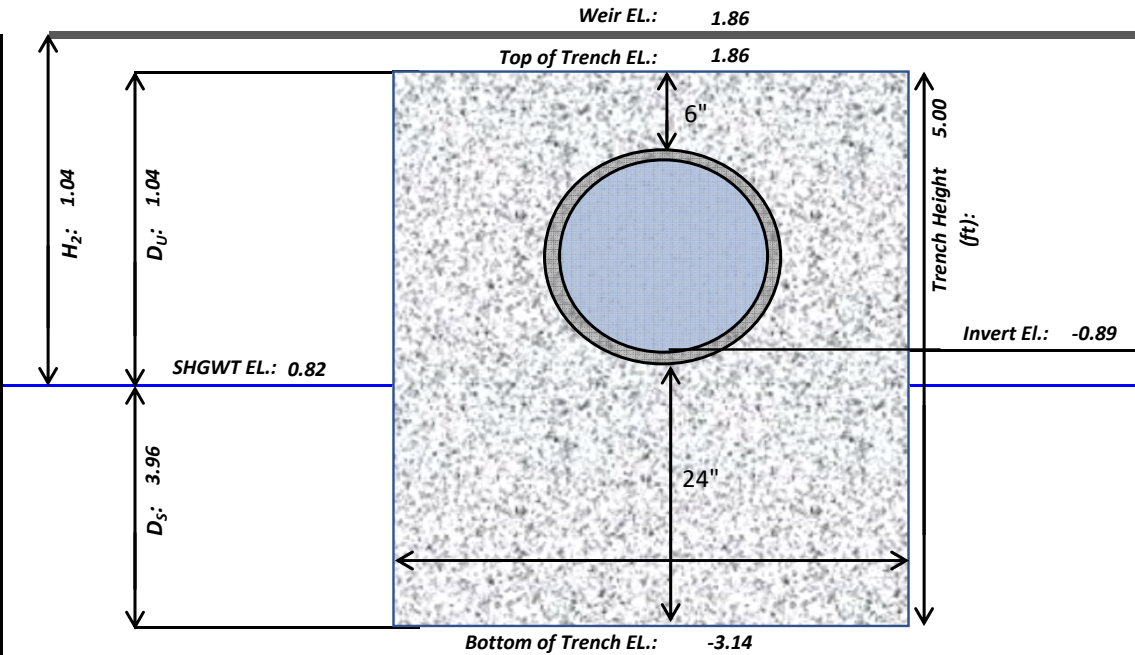
French Drain Node: Stage Area Data			
Stage (ft-NAVD)		Area (Ac.)	
Bottom of Trench EL.	-3.69	Area within Trench x 50% ( $0.5 \times L \times W$ )	0.0046
Top of Trench EL.	1.31	Area within Trench x 50% ( $0.5 \times L \times W$ )	0.0046
0.1' Above Top of Trench EL.	1.41	Area within Drainage Structure(s)	0.0006

*Ignore ICPR Warning about Areas decreasing with Stage.*

**NE 79<sup>TH</sup> STREET PD&E STUDY**  
**PROP. SYSTEM 2**  
**FRENCH DRAIN DESIGN & TREATMENT VOLUMES**

*Drainage System: 2*

French Drain:	PROP. SYSTEM 2	
Location	MEDIAN	
SHGWT EL. (ft-NAVD):	0.82	
Pipe Size (in):	24	
Length of French Drain, L (LF):	50	
Pipe Thickness (in):	3.00	
Pipe Invert EL. (ft-NAVD):	-0.89	
Top of Trench EL. (ft-NAVD):	1.86	
Bottom of Trench EL. (ft-NAVD):	-3.14	
Trench Height, $H_T$ (ft):	5.00	
Weir EL. (ft-NAVD):	1.86	
Trench Width, $W$ (ft):	4.00	
Average Hydraulic Conductivity, $K_{10}$ (cfs/ft <sup>2</sup> /ft-head):	1.130E-03	
Depth to Water Table, $H_2$ (ft):	1.04	
Non-Saturated Trench Depth, $D_U$ (ft):	1.04	
Saturated Trench Depth, $D_S$ (ft):	3.96	
$H_2 W$ :	4.16	
$2H_2 D_U$ :	2.16	
$D_U^2$ :	1.08	
$2H_2 D_S$ :	8.24	
$(1.39 \times 10^{-4}) W D_U$ :	0.000578	
If $D_U > D_S$ and $W < 2H_T$ , Treatment Provided, $V$ (ac-in):	0.79	
If $D_S > D_U$ and/or $W > 2H_T$ , Treatment Provided, $V$ (ac-in):	0.56	
$D_U > D_S$ and $W < 2H_T$ (Yes/No):	No	
<b>Treatment Volume Provided, <math>V</math> (Ac-ft):</b>	<b>0.05</b>	



$$V = L[K_{10}(H_2W + 2H_2D_U - D_U^2 + 2H_2D_S) + (1.39 \times 10^{-4})WD_U]$$

$$V = L[K_{10}(2H_2D_U - D_U^2 + 2H_2D_S) + (1.39 \times 10^{-4})WD_U]$$

*K value from SFWMD Existing Permit 13-02135-P*



# NE 79<sup>TH</sup> STREET PD&E STUDY

## SYSTEM 1

*Exfiltration equations and operating table development procedures and stage-area assumptions shown below were taken from the ICPR Applications Manual developed by ADA Engineering Inc. in March 2007 for FDOT District 6.  
(See Sheets 3-14 through 3-20)*

**Drainage System:**

<b>French Drain (ICPR Link Name):</b>	<b>PROP. SYSTEM 2</b>	<b>Average Hydraulic Conductivity, <math>K_{10}</math></b>	<b>1.130E-03</b>
<b>Existing/Proposed:</b>	<b>Proposed</b>	<b>(cfs/ft<sup>2</sup>/ft-head):</b>	
<b>Pipe Size (in):</b>	<b>24</b>	<b>Pipe Invert EL. (ft-NAVD):</b>	<b>-0.89</b>
<b>Length of French Drain, <math>L</math> (LF):</b>	<b>50.00</b>	<b>Top of Trench EL. (ft-NAVD):</b>	<b>1.86</b>
<b>Trench Height, <math>H_T</math> (ft):</b>	<b>5.00</b>	<b>Bottom of Trench EL. (ft-NAVD):</b>	<b>-3.14</b>
<b>Trench Width, <math>W</math> (ft):</b>	<b>4.00</b>	<b>Weir EL. (ft-NAVD):</b>	<b>1.86</b>
		<b>Structure Rim/Grate EL. (ft-NAVD):</b>	<b>4.16</b>

SHGWT EL. (ft-NAVD): **0.82**  
**Max GW EL. (ft-NAVD):**   
*Variable GW EL. required when modeling exfiltration during design storms exceeding 1hr in duration. Model GW as Time-Stage.*

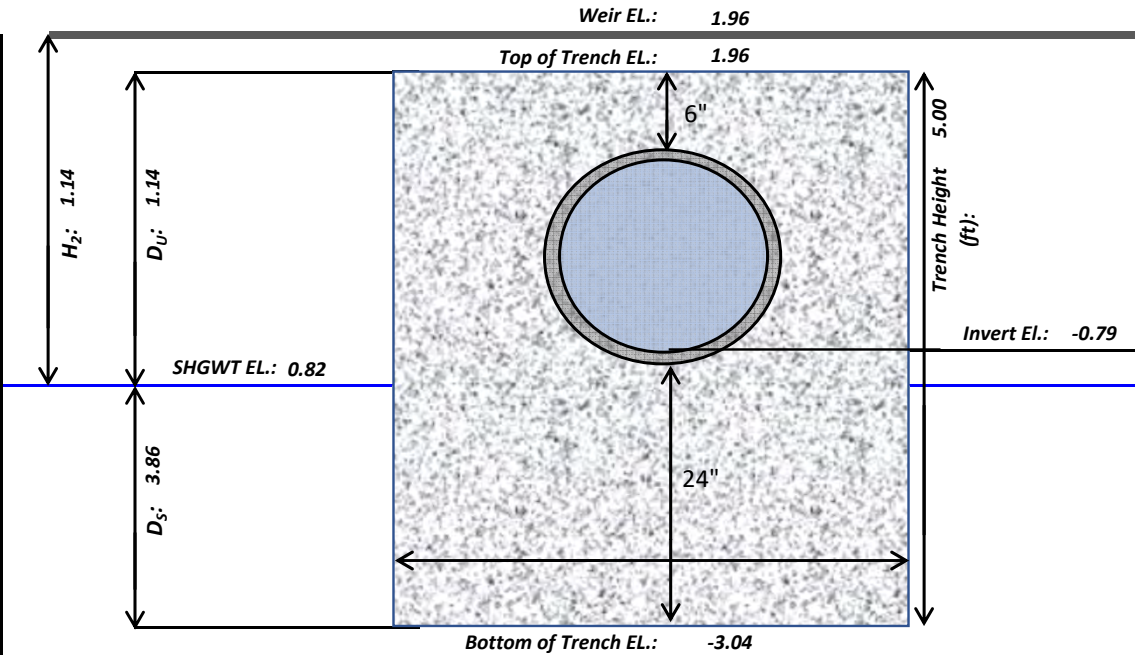
French Drain Node: Stage Area Data			
Stage (ft-NAVD)		Area (Ac.)	
Bottom of Trench EL.	-3.14	Area within Trench x 50% ( $0.5 \times L \times W$ )	0.0023
Top of Trench EL.	1.86	Area within Trench x 50% ( $0.5 \times L \times W$ )	0.0023
0.1' Above Top of Trench EL.	1.96	Area within Drainage Structure(s)	0.0006

*Ignore ICPR Warning about Areas decreasing with Stage.*

**NE 79<sup>TH</sup> STREET PD&E STUDY**  
**PROP. SYSTEM 3**  
**FRENCH DRAIN DESIGN & TREATMENT VOLUMES**

*Drainage System: 3*

French Drain:	PROP. SYSTEM 3	
Location	MEDIAN	
SHGWT EL. (ft-NAVD):	0.82	
Pipe Size (in):	24	
Length of French Drain, L (LF):	50	
Pipe Thickness (in):	3.00	
Pipe Invert EL. (ft-NAVD):	-0.79	
Top of Trench EL. (ft-NAVD):	1.96	
Bottom of Trench EL. (ft-NAVD):	-3.04	
Trench Height, $H_T$ (ft):	5.00	
Weir EL. (ft-NAVD):	1.96	
Trench Width, $W$ (ft):	4.00	
Average Hydraulic Conductivity, $K_{10}$ (cfs/ft <sup>2</sup> /ft-head):	1.130E-03	
Depth to Water Table, $H_2$ (ft):	1.14	
Non-Saturated Trench Depth, $D_U$ (ft):	1.14	
Saturated Trench Depth, $D_S$ (ft):	3.86	
$H_2 W$ :	4.56	
$2H_2 D_U$ :	2.60	
$D_U^2$ :	1.30	
$2H_2 D_S$ :	8.80	
$(1.39 \times 10^{-4}) W D_U$ :	0.000634	
If $D_U > D_S$ and $W < 2H_T$ , Treatment Provided, $V$ (ac-in):	0.86	
If $D_S > D_U$ and/or $W > 2H_T$ , Treatment Provided, $V$ (ac-in):	0.60	
$D_U > D_S$ and $W < 2H_T$ (Yes/No):	No	
<b>Treatment Volume Provided, <math>V</math> (Ac-ft):</b>	<b>0.05</b>	



$$V = L[K_{10}(H_2W + 2H_2D_U - D_U^2 + 2H_2D_S) + (1.39 \times 10^{-4})WD_U]$$

$$V = L[K_{10}(2H_2D_U - D_U^2 + 2H_2D_S) + (1.39 \times 10^{-4})WD_U]$$

*K value from SFWMD Existing Permit 13-02135-P*

# NE 79<sup>TH</sup> STREET PD&E STUDY

## SYSTEM 1

*Exfiltration equations and operating table development procedures and stage-area assumptions shown below were taken from the ICPR Applications Manual developed by ADA Engineering Inc. in March 2007 for FDOT District 6.  
(See Sheets 3-14 through 3-20)*

**Drainage System:**

<b>French Drain (ICPR Link Name):</b>	<b>PROP. SYSTEM 3</b>	<b>Average Hydraulic Conductivity, <math>K_{10}</math></b>	<b>1.130E-03</b>
<b>Existing/Proposed:</b>	<b>Proposed</b>	<b>(cfs/ft<sup>2</sup>/ft-head):</b>	
<b>Pipe Size (in):</b>	<b>24</b>	<b>Pipe Invert EL. (ft-NAVD):</b>	<b>-0.79</b>
<b>Length of French Drain, <math>L</math> (LF):</b>	<b>50.00</b>	<b>Top of Trench EL. (ft-NAVD):</b>	<b>1.96</b>
<b>Trench Height, <math>H_T</math> (ft):</b>	<b>5.00</b>	<b>Bottom of Trench EL. (ft-NAVD):</b>	<b>-3.04</b>
<b>Trench Width, <math>W</math> (ft):</b>	<b>4.00</b>	<b>Weir EL. (ft-NAVD):</b>	<b>1.96</b>
		<b>Structure Rim/Grate EL. (ft-NAVD):</b>	<b>4.26</b>

**SHGWT EL. (ft-NAVD): 0.82**  
**Max GW EL. (ft-NAVD):**   
*Variable GW EL. required when modeling exfiltration during design storms exceeding 1hr in duration. Model GW as Time-Stage.*

French Drain Node: Stage Area Data			
Stage (ft-NAVD)		Area (Ac.)	
Bottom of Trench EL.	-3.04	Area within Trench x 50% ( $0.5 \times L \times W$ )	0.0023
Top of Trench EL.	1.96	Area within Trench x 50% ( $0.5 \times L \times W$ )	0.0023
0.1' Above Top of Trench EL.	2.06	Area within Drainage Structure(s)	0.0006

*Ignore ICPR Warning about Areas decreasing with Stage.*

# **APPENDIX L**

## **Pre-Development ICPR Input and Results**



## INDEX

PRE DEVELOPMENT NETWORK.....	2
PRE DEVELOPMENT PEAK STAGES.....	3
PRE DEVELOPMENT PEAK DISCHARGES.....	4
PRE DEVELOPMENT INPUT REPORT.....	5
PRE DEVELOPMENT MASS BALANCE.....	13

NE 79TH STREET PD&E  
 PRE DEVELOPMENT CONDITIION  
 NETWORK

Nodes

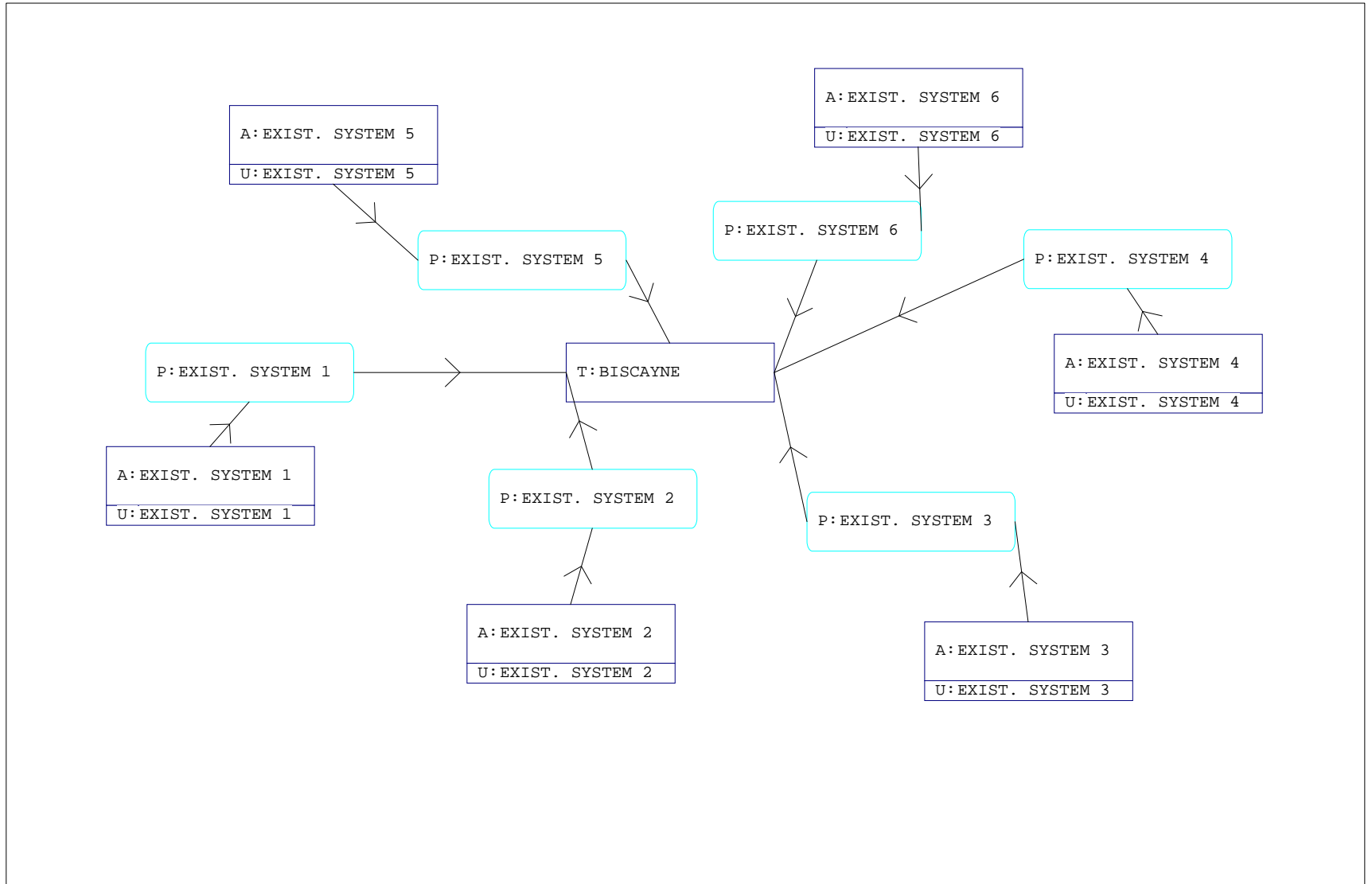
A Stage/Area  
 V Stage/Volume  
 T Time/Stage  
 M Manhole

Basins

O Overland Flow  
 U SCS Unit CN  
 S SBUH CN  
 Y SCS Unit GA  
 Z SBUH GA

Links

P Pipe  
 W Weir  
 C Channel  
 D Drop Structure  
 B Bridge  
 R Rating Curve  
 H Breach  
 E Percolation  
 F Filter  
 X Exfil Trench



NE 79TH STREET PD&E  
PRE DEVELOPMENT CONDIIITION  
PEAK STAGES

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
BISCAVNE	BASE	100YR-1HR	0.00	2.00	4.00	0.0000	501	0.67	88.01	0.00	0.00
EXIST. SYSTEM 1	BASE	100YR-1HR	0.67	2.34	4.35	0.0178	154	0.67	23.87	0.67	23.87
EXIST. SYSTEM 2	BASE	100YR-1HR	0.63	2.15	4.50	0.0864	138	0.63	11.11	0.63	11.11
EXIST. SYSTEM 3	BASE	100YR-1HR	0.67	2.71	4.50	0.0521	126	0.67	10.25	0.67	10.24
EXIST. SYSTEM 4	BASE	100YR-1HR	0.67	2.78	4.50	0.0521	126	0.67	10.74	0.67	10.72
EXIST. SYSTEM 5	BASE	100YR-1HR	0.63	2.14	4.50	0.0864	138	0.63	10.71	0.63	10.71
EXIST. SYSTEM 6	BASE	100YR-1HR	0.82	3.20	3.60	0.0818	52363	0.63	27.85	0.82	21.94
BISCAVNE	BASE	100YR-24HR	0.00	2.00	4.00	0.0000	501	12.06	18.25	0.00	0.00
EXIST. SYSTEM 1	BASE	100YR-24HR	12.00	2.01	4.35	0.0178	347	12.00	4.78	12.00	4.78
EXIST. SYSTEM 2	BASE	100YR-24HR	19.20	2.01	4.50	0.0864	138	11.98	1.85	19.20	2.21
EXIST. SYSTEM 3	BASE	100YR-24HR	12.00	2.04	4.50	0.0521	126	12.00	2.33	12.00	2.33
EXIST. SYSTEM 4	BASE	100YR-24HR	12.00	2.04	4.50	0.0521	126	12.00	2.38	12.00	2.38
EXIST. SYSTEM 5	BASE	100YR-24HR	15.55	2.01	4.50	0.0864	138	11.98	1.79	15.55	2.71
EXIST. SYSTEM 6	BASE	100YR-24HR	11.98	2.06	3.60	0.0818	132	11.98	4.86	11.98	4.86
BISCAVNE	BASE	100YR-8HR	0.00	2.00	4.00	0.0000	501	4.00	53.40	0.00	0.00
EXIST. SYSTEM 1	BASE	100YR-8HR	4.00	2.12	4.35	0.0178	154	4.00	14.15	4.00	14.15
EXIST. SYSTEM 2	BASE	100YR-8HR	3.99	2.04	4.50	0.0864	138	3.98	5.57	3.99	5.57
EXIST. SYSTEM 3	BASE	100YR-8HR	4.00	2.31	4.50	0.0521	126	4.00	6.80	4.00	6.79
EXIST. SYSTEM 4	BASE	100YR-8HR	4.00	2.33	4.50	0.0521	126	4.00	6.96	4.00	6.96
EXIST. SYSTEM 5	BASE	100YR-8HR	3.99	2.04	4.50	0.0864	138	3.98	5.36	3.99	5.36
EXIST. SYSTEM 6	BASE	100YR-8HR	4.00	2.53	3.60	0.0818	132	4.00	14.57	4.00	14.57
BISCAVNE	BASE	10YR-1HR	0.00	2.00	4.00	0.0000	501	0.67	61.08	0.00	0.00
EXIST. SYSTEM 1	BASE	10YR-1HR	0.67	2.13	4.35	0.0178	154	0.67	14.97	0.67	14.97
EXIST. SYSTEM 2	BASE	10YR-1HR	0.63	2.07	4.50	0.0864	138	0.63	7.74	0.63	7.74
EXIST. SYSTEM 3	BASE	10YR-1HR	0.68	2.24	4.50	0.0521	126	0.68	5.95	0.68	5.95
EXIST. SYSTEM 4	BASE	10YR-1HR	0.67	2.27	4.50	0.0521	126	0.67	6.33	0.67	6.33
EXIST. SYSTEM 5	BASE	10YR-1HR	0.63	2.07	4.50	0.0864	138	0.63	7.45	0.63	7.45
EXIST. SYSTEM 6	BASE	10YR-1HR	0.65	2.89	3.60	0.0818	132	0.65	18.90	0.65	18.89
BISCAVNE	BASE	10YR-24HR	0.00	2.00	4.00	0.0000	501	12.04	12.90	0.00	0.00
EXIST. SYSTEM 1	BASE	10YR-24HR	12.00	2.00	4.35	0.0178	359	12.00	3.07	12.00	3.07
EXIST. SYSTEM 2	BASE	10YR-24HR	8.32	2.01	4.50	0.0864	138	11.98	1.23	8.32	2.21
EXIST. SYSTEM 3	BASE	10YR-24HR	12.00	2.01	4.50	0.0521	126	12.00	1.44	12.00	1.44
EXIST. SYSTEM 4	BASE	10YR-24HR	12.00	2.01	4.50	0.0521	126	12.00	1.49	12.00	1.49
EXIST. SYSTEM 5	BASE	10YR-24HR	12.24	2.01	4.50	0.0864	138	11.98	1.18	12.24	2.67
EXIST. SYSTEM 6	BASE	10YR-24HR	11.98	2.03	3.60	0.0818	132	11.98	3.20	11.98	3.20
BISCAVNE	BASE	10YR-8HR	0.00	2.00	4.00	0.0000	501	4.00	36.83	0.00	0.00
EXIST. SYSTEM 1	BASE	10YR-8HR	4.00	2.04	4.35	0.0178	262	4.00	9.70	4.00	9.70
EXIST. SYSTEM 2	BASE	10YR-8HR	3.98	2.02	4.50	0.0864	138	3.98	3.94	3.98	3.94
EXIST. SYSTEM 3	BASE	10YR-8HR	4.00	2.14	4.50	0.0521	126	4.00	4.49	4.00	4.49
EXIST. SYSTEM 4	BASE	10YR-8HR	4.00	2.14	4.50	0.0521	126	4.00	4.63	4.00	4.63
EXIST. SYSTEM 5	BASE	10YR-8HR	3.98	2.02	4.50	0.0864	138	3.98	3.80	3.98	3.80
EXIST. SYSTEM 6	BASE	10YR-8HR	4.00	2.26	3.60	0.0818	132	4.00	10.28	4.00	10.28
BISCAVNE	BASE	25YR-72HR	0.00	2.00	4.00	0.0000	501	60.02	74.17	0.00	0.00
EXIST. SYSTEM 1	BASE	25YR-72HR	60.02	2.23	4.35	0.0178	154	60.02	19.71	60.02	19.71
EXIST. SYSTEM 2	BASE	25YR-72HR	60.02	2.07	4.50	0.0864	138	60.02	7.60	60.02	7.60
EXIST. SYSTEM 3	BASE	25YR-72HR	60.02	2.64	4.50	0.0521	126	60.02	9.72	60.02	9.71
EXIST. SYSTEM 4	BASE	25YR-72HR	60.02	2.66	4.50	0.0521	126	60.02	9.90	60.02	9.89
EXIST. SYSTEM 5	BASE	25YR-72HR	60.02	2.07	4.50	0.0864	138	60.02	7.32	60.02	7.32
EXIST. SYSTEM 6	BASE	25YR-72HR	60.02	2.99	3.60	0.0818	132	60.02	19.94	60.02	19.93

NE 79TH STREET PD&E  
PRE DEVELOPMENT CONDIITION  
PEAK DISCHARGE

Name	Group	Simulation	Max Time Flow hrs	Max Flow cfs	Max Delta Q cfs	Max Time US Stage hrs	Max US Stage ft	Max Time DS Stage hrs	Max DS Stage ft
EXIST. SYSTEM 1	BASE	25YR-72HR	60.02	19.71	-24.596	60.02	2.23	0.00	2.00
EXIST. SYSTEM 2	BASE	25YR-72HR	60.02	7.60	-27.228	60.02	2.07	0.00	2.00
EXIST. SYSTEM 3	BASE	25YR-72HR	60.02	9.71	-13.214	60.02	2.64	0.00	2.00
EXIST. SYSTEM 4	BASE	25YR-72HR	60.02	9.89	-13.230	60.02	2.66	0.00	2.00
EXIST. SYSTEM 5	BASE	25YR-72HR	60.02	7.32	-27.228	60.02	2.07	0.00	2.00
EXIST. SYSTEM 6	BASE	25YR-72HR	60.02	19.93	-21.759	60.02	2.99	0.00	2.00



NE 79TH STREET PD&E  
PRE DEVELOPMENT CONDIIITION  
INPUT REPORT

=====  
Basins =====  
=====

Name: EXIST. SYSTEM 1            Node: EXIST. SYSTEM 1            Status: Onsite  
Group: BASE                      Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256                      Peaking Factor: 256.0  
Rainfall File:                      Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                      Time of Conc(min): 10.00  
Area(ac): 3.630                      Time Shift(hrs): 0.00  
Curve Number: 88.30                      Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

-----

Name: EXIST. SYSTEM 2            Node: EXIST. SYSTEM 2            Status: Onsite  
Group: BASE                      Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256                      Peaking Factor: 256.0  
Rainfall File:                      Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                      Time of Conc(min): 10.00  
Area(ac): 1.370                      Time Shift(hrs): 0.00  
Curve Number: 100.00                      Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

-----

Name: EXIST. SYSTEM 3            Node: EXIST. SYSTEM 3            Status: Onsite  
Group: BASE                      Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256                      Peaking Factor: 256.0  
Rainfall File:                      Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                      Time of Conc(min): 10.00  
Area(ac): 1.850                      Time Shift(hrs): 0.00  
Curve Number: 81.50                      Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

-----

Name: EXIST. SYSTEM 4            Node: EXIST. SYSTEM 4            Status: Onsite  
Group: BASE                      Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256                      Peaking Factor: 256.0  
Rainfall File:                      Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                      Time of Conc(min): 10.00  
Area(ac): 1.870                      Time Shift(hrs): 0.00  
Curve Number: 82.80                      Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

-----

Name: EXIST. SYSTEM 5            Node: EXIST. SYSTEM 5            Status: Onsite  
Group: BASE                      Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256                      Peaking Factor: 256.0  
Rainfall File:                      Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                      Time of Conc(min): 10.00  
Area(ac): 1.320                      Time Shift(hrs): 0.00  
Curve Number: 100.00                      Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

-----

Name: EXIST. SYSTEM 6            Node: EXIST. SYSTEM 6            Status: Onsite  
Group: BASE                      Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256                      Peaking Factor: 256.0  
Rainfall File:                      Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                      Time of Conc(min): 10.00  
Area(ac): 3.600                      Time Shift(hrs): 0.00  
Curve Number: 96.40                      Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

=====  
Nodes =====  
=====

NE 79TH STREET PD&E  
PRE DEVELOPMENT CONDIITION  
INPUT REPORT

---

Name: BISCAYNE            Base Flow(cfs): 0.000            Init Stage(ft): 2.000  
Group: BASE                Warn Stage(ft): 4.000  
Type: Time/Stage

Time(hrs)	Stage(ft)
0.00	2.000
100.00	2.000

---

Name: EXIST. SYSTEM 1    Base Flow(cfs): 0.000            Init Stage(ft): 0.820  
Group: BASE                Warn Stage(ft): 4.350  
Type: Stage/Area

Stage(ft)	Area(ac)
0.820	0.0004
4.000	0.0004
4.350	3.6300

---

Name: EXIST. SYSTEM 2    Base Flow(cfs): 0.000            Init Stage(ft): 0.820  
Group: BASE                Warn Stage(ft): 4.500  
Type: Stage/Area

Stage(ft)	Area(ac)
0.820	0.0004
4.000	0.0004
4.500	1.3700

---

Name: EXIST. SYSTEM 3    Base Flow(cfs): 0.000            Init Stage(ft): 0.820  
Group: BASE                Warn Stage(ft): 4.500  
Type: Stage/Area

Stage(ft)	Area(ac)
0.820	0.0004
4.000	0.0004
4.500	1.8500

---

Name: EXIST. SYSTEM 4    Base Flow(cfs): 0.000            Init Stage(ft): 0.820  
Group: BASE                Warn Stage(ft): 4.500  
Type: Stage/Area

Stage(ft)	Area(ac)
0.820	0.0004
4.000	0.0004
4.500	1.8700

---

Name: EXIST. SYSTEM 5    Base Flow(cfs): 0.000            Init Stage(ft): 0.820  
Group: BASE                Warn Stage(ft): 4.500  
Type: Stage/Area

Stage(ft)	Area(ac)
0.820	0.0004
4.000	0.0004
4.500	1.3200

---

Name: EXIST. SYSTEM 6    Base Flow(cfs): 0.000            Init Stage(ft): 0.820  
Group: BASE                Warn Stage(ft): 3.600  
Type: Stage/Area

Stage(ft)	Area(ac)
0.820	0.0004

---

NE 79TH STREET PD&E  
PRE DEVELOPMENT CONDIITION  
INPUT REPORT

3.000 0.0004  
3.600 3.6000

=====  
==== Cross Sections =====  
=====

Name:  
Encroachment: No Group: BASE

Station(ft) Elevation(ft) Manning's N  
-----

=====  
==== Operating Tables =====  
=====

Name: Group: BASE  
Type: Bottom Clip  
Function: Time vs. Depth of Clip

Time(hrs) Clip Depth(in)  
-----

=====  
==== Pipes =====  
=====

Name: EXIST. SYSTEM 1 From Node: EXIST. SYSTEM 1 Length(ft): 180.00  
Group: BASE To Node: BISCAYNE Count: 6  
Friction Equation: Automatic  
Solution Algorithm: Most Restrictive  
UPSTREAM DOWNSTREAM Flow: Both  
Geometry: Circular Circular Entrance Loss Coef: 0.50  
Span(in): 18.00 18.00 Exit Loss Coef: 0.10  
Rise(in): 18.00 18.00 Bend Loss Coef: 0.00  
Invert(ft): 0.563 -0.037  
Manning's N: 0.012000 0.012000 Outlet Ctrl Spec: Use dc or tw  
Top Clip(in): 0.000 0.000 Inlet Ctrl Spec: Use dc  
Bot Clip(in): 0.000 0.000 Stabilizer Option: None

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Invert from as-builts State project 87080-3506-01-34

upstream invert 2.10'-1.537' = 0.563' NAVD

downstream invert 1.50'-1.537' = -0.037' NAVD"

-----  
Name: EXIST. SYSTEM 2 From Node: EXIST. SYSTEM 2 Length(ft): 50.00  
Group: BASE To Node: BISCAYNE Count: 40

Friction Equation: Automatic  
Solution Algorithm: Most Restrictive  
UPSTREAM DOWNSTREAM Flow: Both  
Geometry: Circular Circular Entrance Loss Coef: 0.50  
Span(in): 6.00 6.00 Exit Loss Coef: 0.10  
Rise(in): 6.00 6.00 Bend Loss Coef: 0.00  
Invert(ft): 0.800 0.800  
Manning's N: 0.012000 0.012000 Outlet Ctrl Spec: Use dc or tw  
Top Clip(in): 0.000 0.000 Inlet Ctrl Spec: Use dc  
Bot Clip(in): 0.000 0.000 Stabilizer Option: None

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Existing scuppers

-----  
Name: EXIST. SYSTEM 3 From Node: EXIST. SYSTEM 3 Length(ft): 264.00  
Group: BASE To Node: BISCAYNE Count: 1

NE 79TH STREET PD&E  
PRE DEVELOPMENT CONDIITION  
INPUT REPORT

	UPSTREAM	DOWNSTREAM	Friction Equation: Automatic
Geometry: Circular	Circular	Circular	Solution Algorithm: Most Restrictive
Span(in): 24.00	24.00	24.00	Flow: Both
Rise(in): 24.00	24.00	24.00	Entrance Loss Coef: 0.50
Invert(ft): -1.437	-2.137		Exit Loss Coef: 0.10
Manning's N: 0.012000	0.012000		Bend Loss Coef: 0.00
Top Clip(in): 0.000	0.000		Outlet Ctrl Spec: Use dc or tw
Bot Clip(in): 0.000	0.000		Inlet Ctrl Spec: Use dc
			Stabilizer Option: None

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Invert from as-builts State project 87080-3506-01-34

upstream invert 0.10'-1.537' = -1.437 ft NAVD

downstream invert -0.60'-1.537' = -2.137 NAVD"

	UPSTREAM	DOWNSTREAM	Friction Equation: Automatic
Name: EXIST. SYSTEM 4			Solution Algorithm: Most Restrictive
Group: BASE			Flow: Both
			Entrance Loss Coef: 0.50
			Exit Loss Coef: 0.10
			Bend Loss Coef: 0.00
			Outlet Ctrl Spec: Use dc or tw
			Inlet Ctrl Spec: Use dc
			Stabilizer Option: None

From Node: EXIST. SYSTEM 4    Length(ft): 263.00  
To Node: BISCAYNE            Count: 1

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Invert from as-builts State project 87080-3506-01-34

upstream invert 0.00' -1.537' = -1.537' NAVD

downstream invert -0.60'-1.537' = -2.137' NAVD"

	UPSTREAM	DOWNSTREAM	Friction Equation: Automatic
Name: EXIST. SYSTEM 5			Solution Algorithm: Most Restrictive
Group: BASE			Flow: Both
			Entrance Loss Coef: 0.50
			Exit Loss Coef: 0.10
			Bend Loss Coef: 0.00
			Outlet Ctrl Spec: Use dc or tw
			Inlet Ctrl Spec: Use dc
			Stabilizer Option: None

From Node: EXIST. SYSTEM 5    Length(ft): 50.00  
To Node: BISCAYNE            Count: 40

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Existing scuppers

	UPSTREAM	DOWNSTREAM	Friction Equation: Automatic
Name: EXIST. SYSTEM 6			Solution Algorithm: Most Restrictive
Group: BASE			Flow: Both
			Entrance Loss Coef: 0.50
			Exit Loss Coef: 0.10
			Bend Loss Coef: 0.00

From Node: EXIST. SYSTEM 6    Length(ft): 301.00  
To Node: BISCAYNE            Count: 1



NE 79TH STREET PD&E  
PRE DEVELOPMENT CONDIITION  
INPUT REPORT

Manning's N: 0.012000	0.012000	Outlet Ctrl Spec: Use dc or tw
Top Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc
Bot Clip(in): 0.000	0.000	Stabilizer Option: None

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Invert from as-builts State project 87080-3506-01-34

upstream invert -1.70' - 1.537' = -3.237' NAVD

downstream invert -2.50' - 1.537' = -4.037' NAVD"

==== Rating Curves =====

Name:	From Node:	Count: 1
Group: BASE	To Node:	Flow: Both
TABLE	ELEV ON(ft)	ELEV OFF(ft)
#1:	0.000	0.000
#2:	0.000	0.000
#3:	0.000	0.000
#4:	0.000	0.000

==== Hydrology Simulations =====

Name: 100YR-1HR  
Filename: U:\Ssequair\NE 79 STREET BRIDGE PD&E\ICPR\PRE DEVELOPMENT\100YR-1HR.R32

Override Defaults: Yes  
Storm Duration(hrs): 1.00  
Rainfall File: Fdot-1  
Rainfall Amount(in): 5.10

Time(hrs)	Print Inc(min)
-----	-----
1.000	1.00
1.330	1.00

Name: 100YR-24HR  
Filename: U:\Ssequair\NE 79 STREET BRIDGE PD&E\ICPR\PRE DEVELOPMENT\100YR-24HR.R32

Override Defaults: Yes  
Storm Duration(hrs): 24.00  
Rainfall File: Fdot-24  
Rainfall Amount(in): 13.44

Time(hrs)	Print Inc(min)
-----	-----
8.000	5.00
16.000	1.00
24.000	5.00
24.330	5.00

Name: 100YR-8HR  
Filename: U:\Ssequair\NE 79 STREET BRIDGE PD&E\ICPR\PRE DEVELOPMENT\100YR-8HR.R32

Override Defaults: Yes  
Storm Duration(hrs): 8.00  
Rainfall File: Fdot-8  
Rainfall Amount(in): 9.60

Time(hrs)	Print Inc(min)
-----	-----
2.000	5.00
6.000	1.00
8.000	5.00
8.330	5.00

Name: 10YR-1HR  
Filename: U:\Ssequair\NE 79 STREET BRIDGE PD&E\ICPR\PRE DEVELOPMENT\10YR-1HR.R32

NE 79TH STREET PD&E  
PRE DEVELOPMENT CONDIITION  
INPUT REPORT

Override Defaults: Yes  
Storm Duration(hrs): 1.00  
Rainfall File: Fdot-1  
Rainfall Amount(in): 3.55

Time(hrs)	Print Inc(min)
1.000	1.00
1.330	1.00

Name: 10YR-24HR  
Filename: U:\Ssequeir\NE 79 STREET BRIDGE PD&E\ICPR\PRE DEVELOPMENT\10YR-24HR.R32

Override Defaults: Yes  
Storm Duration(hrs): 24.00  
Rainfall File: Fdot-24  
Rainfall Amount(in): 8.88

Time(hrs)	Print Inc(min)
8.000	5.00
16.000	1.00
24.000	5.00
24.330	5.00

Name: 10YR-8HR  
Filename: U:\Ssequeir\NE 79 STREET BRIDGE PD&E\ICPR\PRE DEVELOPMENT\10YR-8HR.R32

Override Defaults: Yes  
Storm Duration(hrs): 8.00  
Rainfall File: Fdot-8  
Rainfall Amount(in): 6.80

Time(hrs)	Print Inc(min)
2.000	5.00
6.000	1.00
8.000	5.00
8.330	5.00

Name: 25YR-72HR  
Filename: U:\Ssequeir\NE 79 STREET BRIDGE PD&E\ICPR\PRE DEVELOPMENT\25YR-72HR.R32

Override Defaults: Yes  
Storm Duration(hrs): 72.00  
Rainfall File: Sfwmd72  
Rainfall Amount(in): 12.50

Time(hrs)	Print Inc(min)
48.000	15.00
56.000	5.00
64.000	1.00
72.000	5.00
72.330	5.00

==== Routing Simulations =====

Name: 100YR-1HR                      Hydrology Sim: 100YR-1HR  
Filename: U:\Ssequeir\NE 79 STREET BRIDGE PD&E\ICPR\PRE DEVELOPMENT\100YR-1HR.I32

Execute: Yes	Restart: No	Patch: No
Alternative: No		
Max Delta Z(ft): 1.00		Delta Z Factor: 0.00500
Time Step Optimizer: 10.000		
Start Time(hrs): 0.000		End Time(hrs): 25.00
Min Calc Time(sec): 0.5000		Max Calc Time(sec): 60.0000
Boundary Stages:		Boundary Flows:

Time(hrs)	Print Inc(min)
1.000	1.000
25.000	15.000

Group	Run
BASE	Yes

NE 79TH STREET PD&E  
PRE DEVELOPMENT CONDIITION  
INPUT REPORT

-----  
Name: 100YR-24HR            Hydrology Sim: 100YR-24HR  
Filename: U:\Ssequeir\NE 79 STREET BRIDGE PD&E\ICPR\PRE DEVELOPMENT\100YR-24HR.I32  
Execute: Yes            Restart: No            Patch: No  
Alternative: No  
Max Delta Z(ft): 1.00            Delta Z Factor: 0.00500  
Time Step Optimizer: 10.000  
Start Time(hrs): 0.000            End Time(hrs): 48.00  
Min Calc Time(sec): 0.5000        Max Calc Time(sec): 60.0000  
Boundary Stages:            Boundary Flows:

Time(hrs)	Print Inc(min)
8.000	5.000
16.000	1.000
24.000	5.000
48.000	15.000

Group            Run  
-----  
BASE            Yes

-----  
Name: 100YR-8HR            Hydrology Sim: 100YR-8HR  
Filename: U:\Ssequeir\NE 79 STREET BRIDGE PD&E\ICPR\PRE DEVELOPMENT\100YR-8HR.I32  
Execute: Yes            Restart: No            Patch: No  
Alternative: No  
Max Delta Z(ft): 1.00            Delta Z Factor: 0.00500  
Time Step Optimizer: 10.000  
Start Time(hrs): 0.000            End Time(hrs): 32.00  
Min Calc Time(sec): 0.5000        Max Calc Time(sec): 60.0000  
Boundary Stages:            Boundary Flows:

Time(hrs)	Print Inc(min)
2.000	5.000
6.000	1.000
8.000	5.000
32.000	15.000

Group            Run  
-----  
BASE            Yes

-----  
Name: 10YR-1HR            Hydrology Sim: 10YR-1HR  
Filename: U:\Ssequeir\NE 79 STREET BRIDGE PD&E\ICPR\PRE DEVELOPMENT\10YR-1HR.I32  
Execute: Yes            Restart: No            Patch: No  
Alternative: No  
Max Delta Z(ft): 1.00            Delta Z Factor: 0.00500  
Time Step Optimizer: 10.000  
Start Time(hrs): 0.000            End Time(hrs): 25.00  
Min Calc Time(sec): 0.5000        Max Calc Time(sec): 60.0000  
Boundary Stages:            Boundary Flows:

Time(hrs)	Print Inc(min)
1.000	1.000
25.000	15.000

Group            Run  
-----  
BASE            Yes

-----  
Name: 10YR-24HR            Hydrology Sim: 10YR-24HR  
Filename: U:\Ssequeir\NE 79 STREET BRIDGE PD&E\ICPR\PRE DEVELOPMENT\10YR-24HR.I32  
Execute: Yes            Restart: No            Patch: No

NE 79TH STREET PD&E  
PRE DEVELOPMENT CONDIIITION  
INPUT REPORT

Alternative: No

Max Delta Z(ft): 1.00                      Delta Z Factor: 0.00500  
Time Step Optimizer: 10.000  
Start Time(hrs): 0.000                      End Time(hrs): 48.00  
Min Calc Time(sec): 0.5000                Max Calc Time(sec): 60.0000  
Boundary Stages:                            Boundary Flows:

Time(hrs)	Print Inc(min)
8.000	5.000
16.000	1.000
24.000	5.000
48.000	15.000

Group	Run
BASE	Yes

Name: 10YR-8HR                      Hydrology Sim: 10YR-8HR  
Filename: U:\Ssequeir\NE 79 STREET BRIDGE PD&E\ICPR\PRE DEVELOPMENT\10YR-8HR.I32

Execute: Yes                      Restart: No                      Patch: No  
Alternative: No

Max Delta Z(ft): 1.00                      Delta Z Factor: 0.00500  
Time Step Optimizer: 10.000  
Start Time(hrs): 0.000                      End Time(hrs): 32.00  
Min Calc Time(sec): 0.5000                Max Calc Time(sec): 60.0000  
Boundary Stages:                            Boundary Flows:

Time(hrs)	Print Inc(min)
2.000	5.000
6.000	1.000
8.000	5.000
32.000	15.000

Group	Run
BASE	Yes

Name: 25YR-72HR                      Hydrology Sim: 25YR-72HR  
Filename: U:\Ssequeir\NE 79 STREET BRIDGE PD&E\ICPR\PRE DEVELOPMENT\25YR-72HR.I32

Execute: Yes                      Restart: No                      Patch: No  
Alternative: No

Max Delta Z(ft): 1.00                      Delta Z Factor: 0.00500  
Time Step Optimizer: 10.000  
Start Time(hrs): 0.000                      End Time(hrs): 96.00  
Min Calc Time(sec): 0.5000                Max Calc Time(sec): 60.0000  
Boundary Stages:                            Boundary Flows:

Time(hrs)	Print Inc(min)
48.000	15.000
56.000	5.000
64.000	1.000
72.000	5.000
96.000	15.000

Group	Run
BASE	Yes



NE 79TH STREET PD&E  
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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
100YR-1HR	0.00	0.0	0.0	0.0	0.0	0.00
100YR-1HR	0.00	0.0	0.0	0.0	0.0	0.00
100YR-1HR	0.00	0.0	0.0	0.0	0.0	0.00
100YR-1HR	0.00	0.0	0.0	0.0	0.0	0.00
100YR-1HR	0.00	0.0	0.0	0.0	0.0	0.00
100YR-1HR	0.00	0.0	0.0	0.0	0.0	0.00
100YR-1HR	0.02	0.7	-1815.9	1816.6	0.0	0.00
100YR-1HR	0.03	3.6	-1813.1	1816.6	-0.0	-0.00
100YR-1HR	0.05	9.7	-1807.0	1816.6	-0.0	-0.00
100YR-1HR	0.07	20.8	-1796.2	1817.1	-0.0	-0.00
100YR-1HR	0.08	39.5	-1777.2	1816.7	-0.0	-0.00
100YR-1HR	0.10	68.7	-1748.5	1817.2	-0.0	-0.00
100YR-1HR	0.12	109.9	-1707.3	1817.3	-0.0	-0.00
100YR-1HR	0.13	167.5	-1649.9	1817.3	-0.0	-0.00
100YR-1HR	0.15	245.3	-1570.6	1815.9	-0.0	-0.00
100YR-1HR	0.17	352.1	-1463.3	1815.4	-0.0	-0.00
100YR-1HR	0.18	495.6	-1321.6	1817.2	-0.0	-0.00
100YR-1HR	0.20	678.4	-1139.6	1818.0	-0.0	-0.00
100YR-1HR	0.22	922.7	-896.0	1818.7	-0.0	-0.00
100YR-1HR	0.23	1230.1	-589.7	1819.7	-0.0	-0.00
100YR-1HR	0.25	1619.7	-201.6	1821.3	-0.0	-0.00
100YR-1HR	0.27	2122.4	298.9	1823.5	-0.0	-0.00
100YR-1HR	0.28	2743.8	918.7	1825.2	-0.0	-0.00
100YR-1HR	0.30	3520.9	1691.2	1829.7	-0.0	-0.00
100YR-1HR	0.32	4481.2	2645.2	1836.0	-0.0	-0.00
100YR-1HR	0.33	5640.4	3796.1	1844.3	-0.0	-0.00
100YR-1HR	0.35	7014.5	5158.7	1855.8	-0.0	-0.00
100YR-1HR	0.37	8653.9	6782.7	1871.2	-0.0	-0.00
100YR-1HR	0.38	10590.3	8699.2	1891.1	-0.0	-0.00
100YR-1HR	0.40	12874.6	10958.4	1916.2	-0.0	-0.00
100YR-1HR	0.42	15475.5	13530.5	1945.0	-0.0	-0.00
100YR-1HR	0.43	18487.5	16510.3	1977.2	-0.0	-0.00
100YR-1HR	0.45	21704.3	19691.4	2013.0	-0.0	-0.00
100YR-1HR	0.47	25307.2	23257.7	2049.5	-0.0	-0.00
100YR-1HR	0.48	29277.3	27152.1	2125.2	-0.0	-0.00
100YR-1HR	0.50	33641.9	31367.7	2274.3	0.0	0.00
100YR-1HR	0.52	38111.9	35633.0	2478.9	-0.0	-0.00
100YR-1HR	0.53	42826.8	40090.5	2736.3	-0.0	-0.00
100YR-1HR	0.55	47756.3	44720.1	3036.2	0.0	0.00
100YR-1HR	0.57	52868.5	49498.7	3369.8	0.0	0.00
100YR-1HR	0.58	58137.2	54407.2	3730.0	0.0	0.00
100YR-1HR	0.60	63675.4	59555.2	4120.3	0.0	0.00
100YR-1HR	0.62	69179.6	64668.8	4510.8	0.0	0.00
100YR-1HR	0.63	74837.3	69928.1	4909.2	0.0	0.00
100YR-1HR	0.65	80644.1	75334.7	5309.4	0.0	0.00
100YR-1HR	0.67	86538.3	80839.2	5699.1	0.0	0.00
100YR-1HR	0.68	91808.7	85786.2	6022.5	0.0	0.00
100YR-1HR	0.70	97675.4	91324.6	6350.8	0.0	0.00
100YR-1HR	0.72	102621.5	96021.8	6599.6	0.0	0.00
100YR-1HR	0.73	108284.8	101434.6	6850.2	0.0	0.00
100YR-1HR	0.75	113820.5	106765.1	7055.4	0.0	0.00
100YR-1HR	0.77	118453.1	111259.7	7193.4	0.0	0.00
100YR-1HR	0.79	123717.1	116408.5	7308.6	0.0	0.00
100YR-1HR	0.80	128103.0	120735.4	7367.6	0.0	0.00
100YR-1HR	0.82	133203.7	125815.4	7388.3	0.0	0.00
100YR-1HR	0.83	137580.7	130221.3	7359.4	-0.0	-0.00
100YR-1HR	0.85	141799.9	134516.3	7283.6	-0.0	-0.00
100YR-1HR	0.87	146043.8	138894.4	7149.5	0.0	0.00
100YR-1HR	0.88	149882.4	142919.9	6962.5	0.0	0.00
100YR-1HR	0.90	153509.2	146791.8	6717.4	-0.0	-0.00
100YR-1HR	0.92	157257.7	150874.6	6383.1	-0.0	-0.00
100YR-1HR	0.93	160454.4	154430.6	6023.8	-0.0	-0.00
100YR-1HR	0.95	163462.2	157846.0	5616.2	-0.0	-0.00
100YR-1HR	0.97	166566.2	161449.9	5116.3	-0.0	-0.00
100YR-1HR	0.98	169212.5	164593.4	4619.1	-0.0	-0.00
100YR-1HR	1.00	171761.7	167690.5	4071.1	0.0	0.00
100YR-1HR	1.25	195563.2	193767.3	1796.0	0.0	0.00
100YR-1HR	1.50	199192.3	197411.0	1781.3	-0.0	-0.00
100YR-1HR	1.75	199192.3	197411.0	1781.3	-0.0	-0.00
100YR-1HR	2.00	199192.3	197411.0	1781.3	-0.0	-0.00
100YR-1HR	2.25	199192.3	197411.0	1781.4	-0.0	-0.00
100YR-1HR	2.50	199192.3	197410.9	1781.4	-0.0	-0.00
100YR-1HR	2.75	199192.3	197410.9	1781.4	-0.0	-0.00
100YR-1HR	3.00	199192.3	197410.9	1781.4	-0.0	-0.00
100YR-1HR	3.25	199192.3	197410.9	1781.5	-0.0	-0.00
100YR-1HR	3.50	199192.3	197410.8	1781.5	-0.0	-0.00
100YR-1HR	3.75	199192.3	197410.8	1781.5	-0.0	-0.00
100YR-1HR	4.00	199192.3	197410.8	1781.5	-0.0	-0.00
100YR-1HR	4.25	199192.3	197410.8	1781.5	-0.0	-0.00
100YR-1HR	4.50	199192.3	197410.8	1781.6	-0.0	-0.00
100YR-1HR	4.75	199192.3	197410.7	1781.6	0.0	0.00
100YR-1HR	5.00	199192.3	197410.7	1781.6	0.0	0.00
100YR-1HR	5.50	199192.3	197410.5	1781.8	0.0	0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
100YR-1HR	5.75	199192.3	197410.5	1781.8	0.0	0.00
100YR-1HR	6.00	199192.3	197410.6	1781.7	0.0	0.00
100YR-1HR	6.25	199192.3	197410.6	1781.7	0.0	0.00
100YR-1HR	6.50	199192.3	197410.6	1781.7	0.0	0.00
100YR-1HR	6.75	199192.3	197410.6	1781.8	0.0	0.00
100YR-1HR	7.00	199192.3	197410.5	1781.8	0.0	0.00
100YR-1HR	7.25	199192.3	197410.5	1781.8	0.0	0.00
100YR-1HR	7.50	199192.3	197410.5	1781.8	0.0	0.00
100YR-1HR	7.75	199192.3	197410.5	1781.8	0.0	0.00
100YR-1HR	8.00	199192.3	197410.5	1781.9	0.0	0.00
100YR-1HR	8.25	199192.3	197410.4	1781.9	0.0	0.00
100YR-1HR	8.50	199192.3	197410.4	1781.9	0.0	0.00
100YR-1HR	8.75	199192.3	197410.4	1781.9	0.0	0.00
100YR-1HR	9.00	199192.3	197410.4	1782.0	0.0	0.00
100YR-1HR	9.25	199192.3	197410.3	1782.0	0.0	0.00
100YR-1HR	9.75	199192.3	197410.3	1782.0	0.0	0.00
100YR-1HR	10.00	199192.3	197410.3	1782.0	0.0	0.00
100YR-1HR	10.25	199192.3	197410.3	1782.1	0.0	0.00
100YR-1HR	10.50	199192.3	197410.2	1782.1	0.0	0.00
100YR-1HR	11.00	199192.3	197410.2	1782.1	0.0	0.00
100YR-1HR	11.25	199192.3	197410.2	1782.2	0.0	0.00
100YR-1HR	11.50	199192.3	197410.0	1782.3	0.0	0.00
100YR-1HR	11.75	199192.3	197410.0	1782.3	0.0	0.00
100YR-1HR	12.25	199192.3	197410.1	1782.2	0.0	0.00
100YR-1HR	12.50	199192.3	197410.1	1782.3	0.0	0.00
100YR-1HR	12.75	199192.3	197410.0	1782.3	0.0	0.00
100YR-1HR	13.00	199192.3	197410.0	1782.3	0.0	0.00
100YR-1HR	13.25	199192.3	197410.0	1782.3	0.0	0.00
100YR-1HR	13.50	199192.3	197410.0	1782.4	0.0	0.00
100YR-1HR	13.75	199192.3	197409.9	1782.4	0.0	0.00
100YR-1HR	14.00	199192.3	197409.9	1782.4	0.0	0.00
100YR-1HR	14.25	199192.3	197409.9	1782.4	0.0	0.00
100YR-1HR	14.50	199192.3	197409.9	1782.4	0.0	0.00
100YR-1HR	14.75	199192.3	197409.9	1782.5	0.0	0.00
100YR-1HR	15.00	199192.3	197409.8	1782.5	0.0	0.00
100YR-1HR	15.25	199192.3	197409.8	1782.5	0.0	0.00
100YR-1HR	15.50	199192.3	197409.8	1782.5	0.0	0.00
100YR-1HR	15.75	199192.3	197409.8	1782.5	0.0	0.00
100YR-1HR	16.00	199192.3	197409.8	1782.6	0.0	0.00
100YR-1HR	16.50	199192.3	197409.7	1782.6	0.0	0.00
100YR-1HR	16.75	199192.3	197409.7	1782.6	0.0	0.00
100YR-1HR	17.00	199192.3	197409.7	1782.7	0.0	0.00
100YR-1HR	17.25	199192.3	197409.6	1782.7	0.0	0.00
100YR-1HR	17.50	199192.3	197409.5	1782.8	0.0	0.00
100YR-1HR	17.75	199192.3	197409.5	1782.9	0.0	0.00
100YR-1HR	18.00	199192.3	197409.4	1782.9	0.0	0.00
100YR-1HR	18.25	199192.3	197409.6	1782.8	0.0	0.00
100YR-1HR	18.50	199192.3	197409.5	1782.8	0.0	0.00
100YR-1HR	18.75	199192.3	197409.5	1782.8	0.0	0.00
100YR-1HR	19.00	199192.3	197409.5	1782.8	0.0	0.00
100YR-1HR	19.25	199192.3	197409.5	1782.9	0.0	0.00
100YR-1HR	19.50	199192.3	197409.4	1782.9	0.0	0.00
100YR-1HR	19.75	199192.3	197409.4	1782.9	0.0	0.00
100YR-1HR	20.00	199192.3	197409.4	1782.9	0.0	0.00
100YR-1HR	20.25	199192.3	197409.4	1782.9	0.0	0.00
100YR-1HR	20.50	199192.3	197409.4	1783.0	0.0	0.00
100YR-1HR	20.75	199192.3	197409.3	1783.0	0.0	0.00
100YR-1HR	21.00	199192.3	197409.3	1783.0	0.0	0.00
100YR-1HR	21.25	199192.3	197409.3	1783.0	0.0	0.00
100YR-1HR	21.50	199192.3	197409.3	1783.1	0.0	0.00
100YR-1HR	21.75	199192.3	197409.2	1783.1	0.0	0.00
100YR-1HR	22.00	199192.3	197409.2	1783.1	0.0	0.00
100YR-1HR	22.25	199192.3	197409.2	1783.1	0.0	0.00
100YR-1HR	22.50	199192.3	197409.2	1783.1	0.0	0.00
100YR-1HR	22.75	199192.3	197409.2	1783.2	0.0	0.00
100YR-1HR	23.00	199192.3	197409.1	1783.2	0.0	0.00
100YR-1HR	23.25	199192.3	197409.1	1783.2	0.0	0.00
100YR-1HR	23.50	199192.3	197409.1	1783.2	0.0	0.00
100YR-1HR	23.75	199192.3	197408.9	1783.4	0.0	0.00
100YR-1HR	24.00	199192.3	197408.9	1783.4	0.0	0.00
100YR-1HR	24.25	199192.3	197409.0	1783.3	0.0	0.00
100YR-1HR	24.50	199192.3	197409.0	1783.3	0.0	0.00
100YR-1HR	24.75	199192.3	197409.0	1783.3	0.0	0.00
100YR-1HR	25.00	199192.3	197409.0	1783.4	0.0	0.00
100YR-1HR	25.00	199192.3	197409.0	1783.4	0.0	0.00
100YR-24HR	0.00	0.0	0.0	0.0	0.0	0.00
100YR-24HR	0.00	0.0	0.0	0.0	0.0	0.00
100YR-24HR	0.00	0.0	0.0	0.0	0.0	0.00
100YR-24HR	0.00	0.0	0.0	0.0	0.0	0.00
100YR-24HR	0.08	7.7	-1809.0	1816.6	-0.0	-0.00
100YR-24HR	0.17	38.1	-1778.6	1816.7	-0.0	-0.00
100YR-24HR	0.25	93.5	-1723.6	1817.1	-0.0	-0.00
100YR-24HR	0.33	165.5	-1651.2	1816.7	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
100YR-24HR	0.42	248.6	-1568.1	1816.7	-0.0	-0.00
100YR-24HR	0.50	339.5	-1477.6	1817.1	-0.0	-0.00
100YR-24HR	0.58	436.2	-1380.5	1816.8	-0.0	-0.00
100YR-24HR	0.67	538.3	-1278.4	1816.8	-0.0	-0.00
100YR-24HR	0.75	645.6	-1171.2	1816.8	-0.0	-0.00
100YR-24HR	0.83	758.8	-1058.0	1816.8	-0.0	-0.00
100YR-24HR	0.92	878.1	-938.7	1816.8	-0.0	-0.00
100YR-24HR	1.00	1003.5	-813.3	1816.8	-0.0	-0.00
100YR-24HR	1.08	1145.2	-671.7	1816.9	-0.0	-0.00
100YR-24HR	1.17	1325.9	-491.4	1817.4	-0.0	-0.00
100YR-24HR	1.25	1551.3	-266.2	1817.4	-0.0	-0.00
100YR-24HR	1.33	1812.2	-5.2	1817.5	-0.0	-0.00
100YR-24HR	1.42	2102.0	284.5	1817.5	-0.0	-0.00
100YR-24HR	1.50	2415.6	598.0	1817.6	-0.0	-0.00
100YR-24HR	1.58	2751.5	933.9	1817.6	-0.0	-0.00
100YR-24HR	1.67	3106.6	1289.0	1817.6	-0.0	-0.00
100YR-24HR	1.75	3481.6	1664.0	1817.6	-0.0	-0.00
100YR-24HR	1.83	3875.7	2058.0	1817.7	-0.0	-0.00
100YR-24HR	1.92	4287.5	2469.8	1817.7	-0.0	-0.00
100YR-24HR	2.00	4717.2	2899.5	1817.7	-0.0	-0.00
100YR-24HR	2.08	5178.3	3360.5	1817.8	-0.0	-0.00
100YR-24HR	2.17	5706.8	3888.9	1817.9	-0.0	-0.00
100YR-24HR	2.25	6311.8	4493.8	1818.0	-0.0	-0.00
100YR-24HR	2.33	6979.2	5161.2	1818.0	-0.0	-0.00
100YR-24HR	2.42	7702.0	5883.9	1818.1	-0.0	-0.00
100YR-24HR	2.50	8469.1	6650.9	1818.1	-0.0	-0.00
100YR-24HR	2.58	9278.6	7460.4	1818.2	-0.0	-0.00
100YR-24HR	2.67	10127.5	8309.3	1818.2	-0.0	-0.00
100YR-24HR	2.75	11012.3	9194.1	1818.3	-0.0	-0.00
100YR-24HR	2.83	11932.6	10114.3	1818.3	-0.0	-0.00
100YR-24HR	2.92	12879.2	11061.0	1818.2	-0.0	-0.00
100YR-24HR	3.00	13852.4	12034.2	1818.2	-0.0	-0.00
100YR-24HR	3.08	14849.9	13031.7	1818.1	-0.0	-0.00
100YR-24HR	3.17	15869.9	14051.7	1818.1	-0.0	-0.00
100YR-24HR	3.25	16914.7	15096.5	1818.1	-0.0	-0.00
100YR-24HR	3.33	17976.3	16158.2	1818.1	-0.0	-0.00
100YR-24HR	3.42	19057.0	17239.2	1817.8	-0.0	-0.00
100YR-24HR	3.50	20155.9	18338.1	1817.8	-0.0	-0.00
100YR-24HR	3.58	21272.0	19454.2	1817.9	-0.0	-0.00
100YR-24HR	3.67	22408.3	20590.4	1817.9	-0.0	-0.00
100YR-24HR	3.75	23556.5	21738.6	1817.9	-0.0	-0.00
100YR-24HR	3.83	24719.6	22901.7	1817.9	-0.0	-0.00
100YR-24HR	3.92	25897.0	24079.0	1817.9	-0.0	-0.00
100YR-24HR	4.00	27087.9	25269.9	1818.0	-0.0	-0.00
100YR-24HR	4.08	28296.0	26478.0	1818.0	-0.0	-0.00
100YR-24HR	4.17	29513.2	27695.2	1818.0	-0.0	-0.00
100YR-24HR	4.25	30743.0	28925.0	1818.0	-0.0	-0.00
100YR-24HR	4.33	31984.7	30166.6	1818.0	-0.0	-0.00
100YR-24HR	4.42	33237.7	31419.6	1818.1	-0.0	-0.00
100YR-24HR	4.50	34505.5	32687.5	1818.1	-0.0	-0.00
100YR-24HR	4.58	35779.6	33961.5	1818.1	-0.0	-0.00
100YR-24HR	4.67	37063.5	35245.4	1818.1	-0.0	-0.00
100YR-24HR	4.75	38356.9	36538.7	1818.1	-0.0	-0.00
100YR-24HR	4.83	39659.3	37841.1	1818.2	-0.0	-0.00
100YR-24HR	4.92	40974.7	39156.5	1818.2	-0.0	-0.00
100YR-24HR	5.00	42294.3	40476.2	1818.2	-0.0	-0.00
100YR-24HR	5.08	43654.1	41835.8	1818.3	-0.0	-0.00
100YR-24HR	5.17	45115.7	43298.2	1817.5	-0.0	-0.00
100YR-24HR	5.25	46687.4	44869.5	1817.9	-0.0	-0.00
100YR-24HR	5.33	48339.9	46521.9	1818.0	-0.0	-0.00
100YR-24HR	5.42	50047.6	48229.4	1818.1	-0.0	-0.00
100YR-24HR	5.50	51797.7	49979.5	1818.2	-0.0	-0.00
100YR-24HR	5.58	53582.2	51763.9	1818.3	0.0	0.00
100YR-24HR	5.67	55395.0	53576.6	1818.4	-0.0	-0.00
100YR-24HR	5.75	57234.2	55415.6	1818.6	-0.0	-0.00
100YR-24HR	5.83	59080.7	57262.2	1818.5	-0.0	-0.00
100YR-24HR	5.92	60951.3	59132.3	1819.0	-0.0	-0.00
100YR-24HR	6.00	62831.6	61013.0	1818.6	-0.0	-0.00
100YR-24HR	6.08	64724.4	62905.9	1818.6	-0.0	-0.00
100YR-24HR	6.17	66622.7	64804.1	1818.6	-0.0	-0.00
100YR-24HR	6.25	68531.3	66712.7	1818.6	-0.0	-0.00
100YR-24HR	6.33	70442.9	68624.3	1818.7	-0.0	-0.00
100YR-24HR	6.42	72372.6	70553.8	1818.8	-0.0	-0.00
100YR-24HR	6.50	74298.1	72479.3	1818.7	-0.0	-0.00
100YR-24HR	6.58	76233.1	74414.4	1818.7	-0.0	-0.00
100YR-24HR	6.67	78178.8	76360.0	1818.8	-0.0	-0.00
100YR-24HR	6.75	80128.5	78309.8	1818.7	-0.0	-0.00
100YR-24HR	6.83	82083.6	80264.8	1818.8	-0.0	-0.00
100YR-24HR	6.92	84041.5	82222.6	1818.9	-0.0	-0.00
100YR-24HR	7.00	86010.1	84191.3	1818.8	-0.0	-0.00
100YR-24HR	7.08	87987.1	86168.3	1818.8	-0.0	-0.00
100YR-24HR	7.17	89962.0	88143.1	1818.9	-0.0	-0.00
100YR-24HR	7.25	91948.0	90129.1	1818.9	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
100YR-24HR	7.33	93941.8	92122.9	1818.9	-0.0	-0.00
100YR-24HR	7.42	95935.7	94116.8	1818.9	-0.0	-0.00
100YR-24HR	7.50	97940.5	96121.5	1818.9	-0.0	-0.00
100YR-24HR	7.58	99945.8	98126.9	1818.9	-0.0	-0.00
100YR-24HR	7.67	101957.6	100138.7	1818.9	-0.0	-0.00
100YR-24HR	7.75	103973.9	102155.0	1818.9	-0.0	-0.00
100YR-24HR	7.83	105994.5	104175.5	1818.9	-0.0	-0.00
100YR-24HR	7.92	108019.1	106200.2	1819.0	-0.0	-0.00
100YR-24HR	8.00	110047.9	108229.0	1819.0	-0.0	-0.00
100YR-24HR	8.08	112128.1	110308.7	1819.5	-0.0	-0.00
100YR-24HR	8.10	112572.9	110753.2	1819.7	-0.0	-0.00
100YR-24HR	8.12	113028.5	111208.6	1819.9	-0.0	-0.00
100YR-24HR	8.13	113488.0	111667.9	1820.1	-0.0	-0.00
100YR-24HR	8.15	113970.7	112150.4	1820.3	-0.0	-0.00
100YR-24HR	8.17	114452.5	112632.1	1820.4	-0.0	-0.00
100YR-24HR	8.18	114954.9	113134.3	1820.6	-0.0	-0.00
100YR-24HR	8.20	115455.0	113634.2	1820.8	-0.0	-0.00
100YR-24HR	8.22	115970.3	114149.4	1820.9	-0.0	-0.00
100YR-24HR	8.23	116501.3	114680.3	1821.1	-0.0	-0.00
100YR-24HR	8.25	117023.0	115201.8	1821.2	-0.0	-0.00
100YR-24HR	8.27	117551.8	115730.5	1821.3	-0.0	-0.00
100YR-24HR	8.28	118102.2	116280.8	1821.4	-0.0	-0.00
100YR-24HR	8.30	118645.4	116823.9	1821.5	-0.0	-0.00
100YR-24HR	8.32	119185.1	117363.5	1821.6	-0.0	-0.00
100YR-24HR	8.33	119748.5	117926.8	1821.7	-0.0	-0.00
100YR-24HR	8.35	120297.1	118475.3	1821.8	-0.0	-0.00
100YR-24HR	8.37	120862.8	119040.9	1821.9	-0.0	-0.00
100YR-24HR	8.38	121426.4	119604.5	1821.9	-0.0	-0.00
100YR-24HR	8.40	121993.7	120171.7	1822.0	-0.0	-0.00
100YR-24HR	8.42	122568.2	120746.1	1822.1	-0.0	-0.00
100YR-24HR	8.43	123150.4	121328.2	1822.1	-0.0	-0.00
100YR-24HR	8.45	123729.0	121906.8	1822.2	-0.0	-0.00
100YR-24HR	8.47	124302.3	122480.1	1822.3	-0.0	-0.00
100YR-24HR	8.48	124889.9	123067.6	1822.3	-0.0	-0.00
100YR-24HR	8.50	125485.2	123662.9	1822.4	-0.0	-0.00
100YR-24HR	8.52	126064.9	124242.5	1822.4	-0.0	-0.00
100YR-24HR	8.53	126665.6	124843.2	1822.5	-0.0	-0.00
100YR-24HR	8.55	127248.9	125426.4	1822.5	-0.0	-0.00
100YR-24HR	8.57	127845.2	126022.6	1822.6	-0.0	-0.00
100YR-24HR	8.58	128439.4	126616.8	1822.6	-0.0	-0.00
100YR-24HR	8.60	129039.9	127217.3	1822.7	-0.0	-0.00
100YR-24HR	8.62	129636.8	127814.1	1822.7	-0.0	-0.00
100YR-24HR	8.63	130241.0	128418.4	1822.6	-0.0	-0.00
100YR-24HR	8.65	130854.4	129031.6	1822.8	-0.0	-0.00
100YR-24HR	8.67	131455.5	129632.7	1822.8	-0.0	-0.00
100YR-24HR	8.68	132069.5	130246.6	1822.8	-0.0	-0.00
100YR-24HR	8.70	132675.1	130852.2	1822.9	-0.0	-0.00
100YR-24HR	8.72	133282.5	131459.6	1822.9	-0.0	-0.00
100YR-24HR	8.73	133896.8	132073.9	1822.9	-0.0	-0.00
100YR-24HR	8.75	134506.0	132683.1	1823.0	-0.0	-0.00
100YR-24HR	8.77	135132.7	133309.8	1822.9	-0.0	-0.00
100YR-24HR	8.78	135734.3	133911.3	1823.0	-0.0	-0.00
100YR-24HR	8.80	136351.1	134528.1	1823.0	-0.0	-0.00
100YR-24HR	8.82	136968.0	135144.9	1823.0	-0.0	-0.00
100YR-24HR	8.83	137583.1	135760.0	1823.1	-0.0	-0.00
100YR-24HR	8.85	138201.4	136378.4	1823.0	-0.0	-0.00
100YR-24HR	8.87	138830.4	137007.3	1823.1	-0.0	-0.00
100YR-24HR	8.88	139444.2	137621.1	1823.1	-0.0	-0.00
100YR-24HR	8.90	140057.6	138234.5	1823.1	-0.0	-0.00
100YR-24HR	8.92	140680.4	138857.3	1823.1	-0.0	-0.00
100YR-24HR	8.93	141304.1	139481.0	1823.1	-0.0	-0.00
100YR-24HR	8.95	141921.5	140098.4	1823.2	-0.0	-0.00
100YR-24HR	8.97	142542.2	140719.1	1823.2	-0.0	-0.00
100YR-24HR	8.98	143164.6	141341.4	1823.2	-0.0	-0.00
100YR-24HR	9.00	143788.9	141965.7	1823.2	-0.0	-0.00
100YR-24HR	9.02	144410.0	142586.8	1823.2	-0.0	-0.00
100YR-24HR	9.03	145045.9	143222.7	1823.2	-0.0	-0.00
100YR-24HR	9.05	145657.0	143833.8	1823.2	-0.0	-0.00
100YR-24HR	9.07	146299.2	144476.0	1823.2	-0.0	-0.00
100YR-24HR	9.08	146912.5	145089.3	1823.2	-0.0	-0.00
100YR-24HR	9.10	147528.6	145705.4	1823.2	-0.0	-0.00
100YR-24HR	9.12	148149.8	146326.6	1823.2	-0.0	-0.00
100YR-24HR	9.13	148783.5	146960.2	1823.3	-0.0	-0.00
100YR-24HR	9.15	149410.1	147586.9	1823.2	-0.0	-0.00
100YR-24HR	9.17	150021.2	148197.9	1823.2	-0.0	-0.00
100YR-24HR	9.18	150655.4	148832.1	1823.2	-0.0	-0.00
100YR-24HR	9.20	151276.2	149452.9	1823.3	-0.0	-0.00
100YR-24HR	9.22	151897.5	150074.2	1823.3	-0.0	-0.00
100YR-24HR	9.23	152520.9	150697.6	1823.3	-0.0	-0.00
100YR-24HR	9.25	153160.2	151336.9	1823.3	-0.0	-0.00
100YR-24HR	9.27	153777.8	151954.5	1823.3	-0.0	-0.00
100YR-24HR	9.28	154403.8	152580.6	1823.3	-0.0	-0.00
100YR-24HR	9.30	155023.2	153199.9	1823.3	-0.0	-0.00



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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
100YR-24HR	9.32	155658.2	153834.9	1823.3	-0.0	-0.00
100YR-24HR	9.33	156284.7	154461.4	1823.3	-0.0	-0.00
100YR-24HR	9.35	156918.2	155094.9	1823.3	-0.0	-0.00
100YR-24HR	9.37	157534.2	155710.9	1823.3	-0.0	-0.00
100YR-24HR	9.38	158179.1	156355.7	1823.3	-0.0	-0.00
100YR-24HR	9.40	158787.6	156964.3	1823.3	-0.0	-0.00
100YR-24HR	9.42	159415.7	157592.3	1823.3	-0.0	-0.00
100YR-24HR	9.43	160038.5	158215.2	1823.3	-0.0	-0.00
100YR-24HR	9.45	160669.0	158844.7	1824.2	-0.0	-0.00
100YR-24HR	9.47	161306.1	159482.8	1823.3	-0.0	-0.00
100YR-24HR	9.48	161926.4	160103.1	1823.3	-0.0	-0.00
100YR-24HR	9.50	162550.5	160727.1	1823.3	-0.0	-0.00
100YR-24HR	9.52	163180.6	161357.3	1823.4	-0.0	-0.00
100YR-24HR	9.53	163819.5	161996.1	1823.4	-0.0	-0.00
100YR-24HR	9.55	164435.5	162612.2	1823.4	-0.0	-0.00
100YR-24HR	9.57	165069.2	163245.8	1823.4	-0.0	-0.00
100YR-24HR	9.58	165701.4	163878.0	1823.4	-0.0	-0.00
100YR-24HR	9.60	166324.6	164501.2	1823.4	-0.0	-0.00
100YR-24HR	9.62	166953.5	165130.1	1823.4	-0.0	-0.00
100YR-24HR	9.63	167590.6	165767.3	1823.4	-0.0	-0.00
100YR-24HR	9.65	168221.7	166398.3	1823.4	-0.0	-0.00
100YR-24HR	9.67	168857.3	167034.0	1823.4	-0.0	-0.00
100YR-24HR	9.68	169477.7	167654.3	1823.4	-0.0	-0.00
100YR-24HR	9.70	170099.7	168276.3	1823.4	-0.0	-0.00
100YR-24HR	9.72	170734.4	168911.0	1823.4	-0.0	-0.00
100YR-24HR	9.73	171367.7	169543.8	1823.9	-0.0	-0.00
100YR-24HR	9.75	171991.6	170168.2	1823.4	-0.0	-0.00
100YR-24HR	9.77	172624.4	170801.0	1823.4	-0.0	-0.00
100YR-24HR	9.78	173253.6	171430.1	1823.4	-0.0	-0.00
100YR-24HR	9.80	173886.8	172063.4	1823.4	-0.0	-0.00
100YR-24HR	9.82	174528.1	172704.7	1823.4	-0.0	-0.00
100YR-24HR	9.83	175150.5	173327.0	1823.4	-0.0	-0.00
100YR-24HR	9.85	175783.2	173959.8	1823.4	-0.0	-0.00
100YR-24HR	9.87	176417.6	174594.1	1823.5	-0.0	-0.00
100YR-24HR	9.88	177064.0	175240.6	1823.5	-0.0	-0.00
100YR-24HR	9.90	177675.0	175851.6	1823.5	-0.0	-0.00
100YR-24HR	9.92	178310.3	176486.8	1823.5	-0.0	-0.00
100YR-24HR	9.93	178943.4	177119.9	1823.5	-0.0	-0.00
100YR-24HR	9.95	179582.2	177758.8	1823.5	-0.0	-0.00
100YR-24HR	9.97	180204.5	178381.0	1823.5	-0.0	-0.00
100YR-24HR	9.98	180854.8	179031.3	1823.5	-0.0	-0.00
100YR-24HR	10.00	181475.9	179652.4	1823.5	-0.0	-0.00
100YR-24HR	10.02	182110.9	180287.4	1823.5	-0.0	-0.00
100YR-24HR	10.03	182741.9	180918.3	1823.6	-0.0	-0.00
100YR-24HR	10.05	183392.6	181568.9	1823.7	-0.0	-0.00
100YR-24HR	10.07	184030.3	182206.4	1823.9	-0.0	-0.00
100YR-24HR	10.08	184688.7	182864.5	1824.2	-0.0	-0.00
100YR-24HR	10.10	185357.8	183533.2	1824.5	-0.0	-0.00
100YR-24HR	10.12	186055.7	184231.1	1824.6	-0.0	-0.00
100YR-24HR	10.13	186738.4	184913.2	1825.2	-0.0	-0.00
100YR-24HR	10.15	187443.8	185618.3	1825.5	-0.0	-0.00
100YR-24HR	10.17	188156.0	186330.3	1825.8	-0.0	-0.00
100YR-24HR	10.18	188889.2	187063.2	1826.0	-0.0	-0.00
100YR-24HR	10.20	189628.8	187802.5	1826.3	-0.0	-0.00
100YR-24HR	10.22	190371.3	188544.8	1826.5	-0.0	-0.00
100YR-24HR	10.23	191116.4	189290.3	1826.1	-0.0	-0.00
100YR-24HR	10.25	191887.4	190060.5	1826.9	-0.0	-0.00
100YR-24HR	10.27	192644.8	190817.7	1827.1	-0.0	-0.00
100YR-24HR	10.28	193419.8	191592.6	1827.2	-0.0	-0.00
100YR-24HR	10.30	194201.7	192374.5	1827.2	-0.0	-0.00
100YR-24HR	10.32	194983.0	193155.5	1827.5	-0.0	-0.00
100YR-24HR	10.33	195771.1	193943.4	1827.7	-0.0	-0.00
100YR-24HR	10.35	196572.0	194744.3	1827.8	-0.0	-0.00
100YR-24HR	10.37	197354.4	195526.5	1827.9	-0.0	-0.00
100YR-24HR	10.38	198150.4	196322.4	1828.0	-0.0	-0.00
100YR-24HR	10.40	198966.1	197138.0	1828.1	-0.0	-0.00
100YR-24HR	10.42	199761.0	197932.8	1828.2	-0.0	-0.00
100YR-24HR	10.43	200576.6	198748.3	1828.3	-0.0	-0.00
100YR-24HR	10.45	201395.6	199567.2	1828.4	-0.0	-0.00
100YR-24HR	10.47	202218.2	200389.7	1828.5	-0.0	-0.00
100YR-24HR	10.48	203026.0	201197.4	1828.6	-0.0	-0.00
100YR-24HR	10.50	203853.5	202024.9	1828.7	-0.0	-0.00
100YR-24HR	10.52	204660.3	202831.6	1828.7	-0.0	-0.00
100YR-24HR	10.53	205511.4	203682.6	1828.8	-0.0	-0.00
100YR-24HR	10.55	206324.4	204495.5	1828.9	-0.0	-0.00
100YR-24HR	10.57	207151.6	205322.6	1828.9	-0.0	-0.00
100YR-24HR	10.58	207992.5	206163.5	1829.0	-0.0	-0.00
100YR-24HR	10.60	208819.3	206990.2	1829.1	-0.0	-0.00
100YR-24HR	10.62	209666.4	207837.2	1829.1	-0.0	-0.00
100YR-24HR	10.63	210488.2	208659.0	1829.2	-0.0	-0.00
100YR-24HR	10.65	211345.9	209516.6	1829.2	-0.0	-0.00
100YR-24HR	10.67	212182.9	210353.6	1829.3	-0.0	-0.00
100YR-24HR	10.68	213035.4	211206.0	1829.3	-0.0	-0.00

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100YR-24HR	10.70	213870.0	212040.6	1829.4	-0.0	-0.00
100YR-24HR	10.72	214722.0	212892.6	1829.4	-0.0	-0.00
100YR-24HR	10.73	215569.2	213739.7	1829.5	-0.0	-0.00
100YR-24HR	10.75	216413.4	214583.9	1829.5	-0.0	-0.00
100YR-24HR	10.77	217264.3	215435.3	1829.1	-0.0	-0.00
100YR-24HR	10.78	218099.6	216270.0	1829.6	-0.0	-0.00
100YR-24HR	10.80	218946.8	217117.2	1829.6	-0.0	-0.00
100YR-24HR	10.82	219809.0	217979.3	1829.6	-0.0	-0.00
100YR-24HR	10.83	220655.4	218825.8	1829.6	-0.0	-0.00
100YR-24HR	10.85	221521.3	219691.6	1829.7	-0.0	-0.00
100YR-24HR	10.87	222356.6	220526.9	1829.7	-0.0	-0.00
100YR-24HR	10.88	223213.9	221384.2	1829.7	-0.0	-0.00
100YR-24HR	10.90	224085.6	222255.8	1829.7	-0.0	-0.00
100YR-24HR	10.92	224920.3	223090.6	1829.7	-0.0	-0.00
100YR-24HR	10.93	225790.5	223960.7	1829.8	-0.0	-0.00
100YR-24HR	10.95	226639.3	224809.5	1829.8	-0.0	-0.00
100YR-24HR	10.97	227509.9	225680.2	1829.8	-0.0	-0.00
100YR-24HR	10.98	228347.9	226518.1	1829.8	-0.0	-0.00
100YR-24HR	11.00	229218.6	227388.8	1829.8	-0.0	-0.00
100YR-24HR	11.02	230074.3	228244.4	1829.9	-0.0	-0.00
100YR-24HR	11.03	230926.5	229096.5	1830.0	-0.0	-0.00
100YR-24HR	11.05	231805.2	229975.0	1830.2	-0.0	-0.00
100YR-24HR	11.07	232665.7	230835.3	1830.4	-0.0	-0.00
100YR-24HR	11.08	233560.0	231729.2	1830.8	-0.0	-0.00
100YR-24HR	11.10	234452.4	232621.2	1831.2	-0.0	-0.00
100YR-24HR	11.12	235370.8	233539.1	1831.7	-0.0	-0.00
100YR-24HR	11.13	236266.2	234434.1	1832.1	-0.0	-0.00
100YR-24HR	11.15	237208.8	235376.5	1832.3	-0.0	-0.00
100YR-24HR	11.17	238153.7	236320.9	1832.9	-0.0	-0.00
100YR-24HR	11.18	239090.6	237257.4	1833.2	-0.0	-0.00
100YR-24HR	11.20	240053.9	238220.4	1833.5	-0.0	-0.00
100YR-24HR	11.22	241036.7	239202.9	1833.8	-0.0	-0.00
100YR-24HR	11.23	242021.9	240187.8	1834.1	-0.0	-0.00
100YR-24HR	11.25	242981.2	241146.9	1834.3	-0.0	-0.00
100YR-24HR	11.27	244001.7	242167.2	1834.5	-0.0	-0.00
100YR-24HR	11.28	244968.0	243133.3	1834.7	-0.0	-0.00
100YR-24HR	11.30	245985.5	244150.5	1834.9	-0.0	-0.00
100YR-24HR	11.32	246985.4	245150.3	1835.1	-0.0	-0.00
100YR-24HR	11.33	247988.4	246153.1	1835.3	-0.0	-0.00
100YR-24HR	11.35	249004.6	247169.1	1835.5	-0.0	-0.00
100YR-24HR	11.37	250021.1	248185.5	1835.6	-0.0	-0.00
100YR-24HR	11.38	251060.0	249224.3	1835.8	-0.0	-0.00
100YR-24HR	11.40	252076.4	250240.5	1835.9	-0.0	-0.00
100YR-24HR	11.42	253132.9	251296.8	1836.0	-0.0	-0.00
100YR-24HR	11.43	254161.6	252325.5	1836.1	-0.0	-0.00
100YR-24HR	11.45	255185.0	253348.7	1836.3	-0.0	-0.00
100YR-24HR	11.47	256235.8	254399.6	1836.2	-0.0	-0.00
100YR-24HR	11.48	257274.4	255438.0	1836.5	-0.0	-0.00
100YR-24HR	11.50	258310.3	256473.7	1836.6	-0.0	-0.00
100YR-24HR	11.52	259367.8	257531.1	1836.7	-0.0	-0.00
100YR-24HR	11.53	260395.9	258559.2	1836.8	-0.0	-0.00
100YR-24HR	11.55	261475.0	259638.2	1836.8	-0.0	-0.00
100YR-24HR	11.57	262502.7	260665.8	1836.9	-0.0	-0.00
100YR-24HR	11.58	263565.9	261728.9	1837.0	-0.0	-0.00
100YR-24HR	11.60	264635.4	262798.3	1837.1	-0.0	-0.00
100YR-24HR	11.62	265692.6	263855.4	1837.2	-0.0	-0.00
100YR-24HR	11.63	266749.3	264912.1	1837.2	-0.0	-0.00
100YR-24HR	11.65	267801.5	265964.1	1837.3	-0.0	-0.00
100YR-24HR	11.67	268865.1	267027.7	1837.4	-0.0	-0.00
100YR-24HR	11.68	269941.0	268103.6	1837.4	-0.0	-0.00
100YR-24HR	11.70	270999.8	269162.3	1837.5	-0.0	-0.00
100YR-24HR	11.72	272073.8	270236.3	1837.5	-0.0	-0.00
100YR-24HR	11.73	273151.5	271314.0	1837.6	-0.0	-0.00
100YR-24HR	11.75	274228.6	272391.0	1837.6	-0.0	-0.00
100YR-24HR	11.77	275274.4	273436.7	1837.7	-0.0	-0.00
100YR-24HR	11.78	276379.7	274542.0	1837.7	-0.0	-0.00
100YR-24HR	11.80	277438.4	275600.7	1837.7	-0.0	-0.00
100YR-24HR	11.82	278525.0	276687.2	1837.8	-0.0	-0.00
100YR-24HR	11.83	279577.6	277739.8	1837.8	-0.0	-0.00
100YR-24HR	11.85	280666.6	278828.8	1837.8	-0.0	-0.00
100YR-24HR	11.87	281741.3	279904.0	1837.4	-0.0	-0.00
100YR-24HR	11.88	282810.6	280972.8	1837.9	-0.0	-0.00
100YR-24HR	11.90	283875.8	282038.0	1837.7	-0.0	-0.00
100YR-24HR	11.92	284954.6	283116.7	1837.9	-0.0	-0.00
100YR-24HR	11.93	286073.6	284235.6	1837.9	-0.0	-0.00
100YR-24HR	11.95	287142.2	285304.3	1838.0	-0.0	-0.00
100YR-24HR	11.97	288229.3	286391.3	1838.0	-0.0	-0.00
100YR-24HR	11.98	289273.8	287435.8	1838.0	-0.0	-0.00
100YR-24HR	12.00	290384.1	288546.1	1838.0	-0.0	-0.00
100YR-24HR	12.02	291434.0	289596.1	1837.9	-0.0	-0.00
100YR-24HR	12.03	292524.9	290687.2	1837.7	-0.0	-0.00
100YR-24HR	12.05	293577.3	291739.9	1837.4	-0.0	-0.00
100YR-24HR	12.07	294651.6	292814.7	1836.9	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
100YR-24HR	12.08	295698.4	293862.2	1836.2	-0.0	-0.00
100YR-24HR	12.10	296698.6	294863.0	1835.6	-0.0	-0.00
100YR-24HR	12.12	297737.5	295902.7	1834.8	-0.0	-0.00
100YR-24HR	12.13	298730.1	296896.0	1834.1	-0.0	-0.00
100YR-24HR	12.15	299676.3	297842.8	1833.5	-0.0	-0.00
100YR-24HR	12.17	300625.8	298792.8	1833.0	-0.0	-0.00
100YR-24HR	12.18	301558.7	299726.3	1832.4	-0.0	-0.00
100YR-24HR	12.20	302497.3	300665.3	1832.0	-0.0	-0.00
100YR-24HR	12.22	303403.5	301571.9	1831.6	-0.0	-0.00
100YR-24HR	12.23	304298.9	302467.7	1831.2	-0.0	-0.00
100YR-24HR	12.25	305191.6	303360.7	1830.9	-0.0	-0.00
100YR-24HR	12.27	306077.2	304246.5	1830.7	-0.0	-0.00
100YR-24HR	12.28	306946.3	305116.0	1830.3	-0.0	-0.00
100YR-24HR	12.30	307824.8	305994.8	1830.1	-0.0	-0.00
100YR-24HR	12.32	308696.7	306866.7	1830.0	-0.0	-0.00
100YR-24HR	12.33	309537.3	307707.6	1829.6	-0.0	-0.00
100YR-24HR	12.35	310379.6	308550.1	1829.4	-0.0	-0.00
100YR-24HR	12.37	311213.0	309383.7	1829.3	-0.0	-0.00
100YR-24HR	12.38	312052.6	310223.5	1829.1	-0.0	-0.00
100YR-24HR	12.40	312891.5	311062.6	1828.9	-0.0	-0.00
100YR-24HR	12.42	313699.6	311870.8	1828.8	-0.0	-0.00
100YR-24HR	12.43	314513.8	312685.1	1828.7	-0.0	-0.00
100YR-24HR	12.45	315354.5	313526.0	1828.6	-0.0	-0.00
100YR-24HR	12.47	316149.5	314320.9	1828.5	-0.0	-0.00
100YR-24HR	12.48	316954.9	315126.5	1828.5	-0.0	-0.00
100YR-24HR	12.50	317754.4	315926.1	1828.2	-0.0	-0.00
100YR-24HR	12.52	318557.6	316729.4	1828.1	-0.0	-0.00
100YR-24HR	12.53	319354.1	317526.1	1828.1	-0.0	-0.00
100YR-24HR	12.55	320167.8	318339.9	1827.9	-0.0	-0.00
100YR-24HR	12.57	320943.2	319115.3	1827.9	-0.0	-0.00
100YR-24HR	12.58	321740.9	319913.1	1827.8	-0.0	-0.00
100YR-24HR	12.60	322524.1	320696.4	1827.7	-0.0	-0.00
100YR-24HR	12.62	323324.2	321496.6	1827.6	-0.0	-0.00
100YR-24HR	12.63	324092.7	322265.2	1827.6	-0.0	-0.00
100YR-24HR	12.65	324879.2	323051.7	1827.5	-0.0	-0.00
100YR-24HR	12.67	325652.4	323824.9	1827.4	-0.0	-0.00
100YR-24HR	12.68	326419.4	324591.8	1827.5	-0.0	-0.00
100YR-24HR	12.70	327195.8	325368.5	1827.3	-0.0	-0.00
100YR-24HR	12.72	327963.6	326136.3	1827.3	-0.0	-0.00
100YR-24HR	12.73	328739.6	326912.4	1827.3	-0.0	-0.00
100YR-24HR	12.75	329508.2	327681.0	1827.2	-0.0	-0.00
100YR-24HR	12.77	330269.9	328442.7	1827.2	-0.0	-0.00
100YR-24HR	12.78	331044.8	329217.7	1827.2	-0.0	-0.00
100YR-24HR	12.80	331814.0	329986.9	1827.1	-0.0	-0.00
100YR-24HR	12.82	332569.8	330742.7	1827.1	-0.0	-0.00
100YR-24HR	12.83	333342.8	331515.7	1827.1	-0.0	-0.00
100YR-24HR	12.85	334100.4	332273.3	1827.0	-0.0	-0.00
100YR-24HR	12.87	334857.2	333030.2	1827.0	-0.0	-0.00
100YR-24HR	12.88	335613.6	333786.6	1827.0	-0.0	-0.00
100YR-24HR	12.90	336388.8	334561.8	1827.0	-0.0	-0.00
100YR-24HR	12.92	337137.4	335310.4	1827.0	-0.0	-0.00
100YR-24HR	12.93	337901.4	336074.0	1827.4	-0.0	-0.00
100YR-24HR	12.95	338665.1	336838.1	1827.0	-0.0	-0.00
100YR-24HR	12.97	339433.5	337606.5	1827.0	-0.0	-0.00
100YR-24HR	12.98	340196.8	338369.8	1827.0	-0.0	-0.00
100YR-24HR	13.00	340941.8	339114.9	1827.0	-0.0	-0.00
100YR-24HR	13.02	341698.5	339871.5	1827.0	-0.0	-0.00
100YR-24HR	13.03	342464.7	340637.8	1826.9	-0.0	-0.00
100YR-24HR	13.05	343222.6	341395.8	1826.8	-0.0	-0.00
100YR-24HR	13.07	343969.4	342142.6	1826.9	-0.0	-0.00
100YR-24HR	13.08	344721.9	342895.4	1826.6	-0.0	-0.00
100YR-24HR	13.10	345453.5	343627.0	1826.5	-0.0	-0.00
100YR-24HR	13.12	346202.3	344376.0	1826.2	-0.0	-0.00
100YR-24HR	13.13	346940.1	345114.0	1826.1	-0.0	-0.00
100YR-24HR	13.15	347658.2	345832.1	1826.1	-0.0	-0.00
100YR-24HR	13.17	348382.0	346556.2	1825.8	-0.0	-0.00
100YR-24HR	13.18	349080.4	347254.7	1825.6	-0.0	-0.00
100YR-24HR	13.20	349786.1	347960.4	1825.6	-0.0	-0.00
100YR-24HR	13.22	350490.0	348664.5	1825.5	-0.0	-0.00
100YR-24HR	13.23	351203.3	349377.5	1825.7	-0.0	-0.00
100YR-24HR	13.25	351891.4	350065.9	1825.5	-0.0	-0.00
100YR-24HR	13.27	352590.6	350765.4	1825.2	-0.0	-0.00
100YR-24HR	13.28	353283.6	351458.3	1825.3	-0.0	-0.00
100YR-24HR	13.30	353972.0	352146.7	1825.3	-0.0	-0.00
100YR-24HR	13.32	354671.1	352845.9	1825.2	-0.0	-0.00
100YR-24HR	13.33	355350.4	353525.5	1824.9	-0.0	-0.00
100YR-24HR	13.35	356026.1	354200.8	1825.2	-0.0	-0.00
100YR-24HR	13.37	356717.2	354892.0	1825.2	-0.0	-0.00
100YR-24HR	13.38	357389.2	355563.7	1825.4	-0.0	-0.00
100YR-24HR	13.40	358062.9	356238.2	1824.7	-0.0	-0.00
100YR-24HR	13.42	358740.1	356915.4	1824.7	-0.0	-0.00
100YR-24HR	13.43	359422.8	357598.1	1824.6	-0.0	-0.00
100YR-24HR	13.45	360090.4	358265.8	1824.6	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
100YR-24HR	13.47	360762.7	358938.2	1824.6	-0.0	-0.00
100YR-24HR	13.48	361433.9	359609.3	1824.5	-0.0	-0.00
100YR-24HR	13.50	362095.5	360270.9	1824.5	-0.0	-0.00
100YR-24HR	13.52	362768.5	360943.3	1825.2	-0.0	-0.00
100YR-24HR	13.53	363446.9	361622.4	1824.5	-0.0	-0.00
100YR-24HR	13.55	364101.0	362276.3	1824.7	-0.0	-0.00
100YR-24HR	13.57	364767.4	362943.0	1824.4	-0.0	-0.00
100YR-24HR	13.58	365433.0	363608.6	1824.4	-0.0	-0.00
100YR-24HR	13.60	366090.8	364266.5	1824.4	-0.0	-0.00
100YR-24HR	13.62	366754.9	364930.5	1824.4	-0.0	-0.00
100YR-24HR	13.63	367417.9	365593.5	1824.3	-0.0	-0.00
100YR-24HR	13.65	368083.7	366259.4	1824.3	-0.0	-0.00
100YR-24HR	13.67	368736.3	366912.0	1824.3	-0.0	-0.00
100YR-24HR	13.68	369409.2	367584.1	1825.1	-0.0	-0.00
100YR-24HR	13.70	370057.0	368232.7	1824.3	-0.0	-0.00
100YR-24HR	13.72	370716.2	368892.0	1824.3	-0.0	-0.00
100YR-24HR	13.73	371376.2	369551.7	1824.5	-0.0	-0.00
100YR-24HR	13.75	372038.4	370214.1	1824.2	-0.0	-0.00
100YR-24HR	13.77	372692.0	370867.8	1824.2	-0.0	-0.00
100YR-24HR	13.78	373358.5	371534.3	1824.2	-0.0	-0.00
100YR-24HR	13.80	374005.0	372180.8	1824.2	-0.0	-0.00
100YR-24HR	13.82	374671.9	372847.6	1824.3	-0.0	-0.00
100YR-24HR	13.83	375323.5	373499.3	1824.2	-0.0	-0.00
100YR-24HR	13.85	375982.6	374158.4	1824.2	-0.0	-0.00
100YR-24HR	13.87	376626.7	374802.5	1824.2	-0.0	-0.00
100YR-24HR	13.88	377285.9	375461.7	1824.2	-0.0	-0.00
100YR-24HR	13.90	377938.9	376114.7	1824.2	-0.0	-0.00
100YR-24HR	13.92	378593.8	376769.6	1824.2	-0.0	-0.00
100YR-24HR	13.93	379259.5	377435.2	1824.2	-0.0	-0.00
100YR-24HR	13.95	379908.4	378084.2	1824.2	-0.0	-0.00
100YR-24HR	13.97	380573.3	378749.1	1824.2	-0.0	-0.00
100YR-24HR	13.98	381212.8	379388.6	1824.2	-0.0	-0.00
100YR-24HR	14.00	381870.3	380046.2	1824.2	-0.0	-0.00
100YR-24HR	14.02	382530.0	380705.9	1824.2	-0.0	-0.00
100YR-24HR	14.03	383188.2	381364.1	1824.2	-0.0	-0.00
100YR-24HR	14.05	383836.2	382012.0	1824.2	-0.0	-0.00
100YR-24HR	14.07	384494.9	382670.7	1824.2	-0.0	-0.00
100YR-24HR	14.08	385156.2	383332.0	1824.2	-0.0	-0.00
100YR-24HR	14.10	385801.5	383977.4	1824.2	-0.0	-0.00
100YR-24HR	14.12	386456.7	384632.6	1824.2	-0.0	-0.00
100YR-24HR	14.13	387121.3	385297.1	1824.2	-0.0	-0.00
100YR-24HR	14.15	387763.2	385939.0	1824.2	-0.0	-0.00
100YR-24HR	14.17	388427.7	386603.5	1824.2	-0.0	-0.00
100YR-24HR	14.18	389087.0	387262.8	1824.2	-0.0	-0.00
100YR-24HR	14.20	389726.1	387901.9	1824.2	-0.0	-0.00
100YR-24HR	14.22	390394.7	388570.5	1824.2	-0.0	-0.00
100YR-24HR	14.23	391035.2	389211.1	1824.2	-0.0	-0.00
100YR-24HR	14.25	391700.2	389876.0	1824.2	-0.0	-0.00
100YR-24HR	14.27	392347.7	390523.5	1824.2	-0.0	-0.00
100YR-24HR	14.28	393004.5	391180.4	1824.2	-0.0	-0.00
100YR-24HR	14.30	393669.9	391845.3	1824.6	-0.0	-0.00
100YR-24HR	14.32	394317.5	392493.4	1824.2	-0.0	-0.00
100YR-24HR	14.33	394974.6	393150.4	1824.2	-0.0	-0.00
100YR-24HR	14.35	395625.4	393801.2	1824.2	-0.0	-0.00
100YR-24HR	14.37	396272.6	394448.5	1824.2	-0.0	-0.00
100YR-24HR	14.38	396932.8	395108.6	1824.2	-0.0	-0.00
100YR-24HR	14.40	397586.5	395762.3	1824.2	-0.0	-0.00
100YR-24HR	14.42	398236.2	396412.0	1824.2	-0.0	-0.00
100YR-24HR	14.43	398909.0	397084.9	1824.2	-0.0	-0.00
100YR-24HR	14.45	399545.9	397721.7	1824.2	-0.0	-0.00
100YR-24HR	14.47	400200.8	398376.6	1824.2	-0.0	-0.00
100YR-24HR	14.48	400870.4	399046.2	1824.2	-0.0	-0.00
100YR-24HR	14.50	401510.8	399686.6	1824.2	-0.0	-0.00
100YR-24HR	14.52	402166.8	400342.6	1824.2	-0.0	-0.00
100YR-24HR	14.53	402826.4	401002.2	1824.2	-0.0	-0.00
100YR-24HR	14.55	403475.8	401651.6	1824.2	-0.0	-0.00
100YR-24HR	14.57	404131.8	402307.7	1824.2	-0.0	-0.00
100YR-24HR	14.58	404791.5	402967.3	1824.2	-0.0	-0.00
100YR-24HR	14.60	405436.3	403612.1	1824.2	-0.0	-0.00
100YR-24HR	14.62	406090.0	404265.8	1824.2	-0.0	-0.00
100YR-24HR	14.63	406764.5	404940.2	1824.3	-0.0	-0.00
100YR-24HR	14.65	407400.5	405576.3	1824.2	-0.0	-0.00
100YR-24HR	14.67	408063.2	406239.0	1824.2	-0.0	-0.00
100YR-24HR	14.68	408718.1	406893.9	1824.2	-0.0	-0.00
100YR-24HR	14.70	409366.2	407542.0	1824.2	-0.0	-0.00
100YR-24HR	14.72	410030.2	408206.0	1824.2	-0.0	-0.00
100YR-24HR	14.73	410677.5	408853.3	1824.2	-0.0	-0.00
100YR-24HR	14.75	411352.1	409527.8	1824.3	-0.0	-0.00
100YR-24HR	14.77	411982.5	410158.3	1824.2	-0.0	-0.00
100YR-24HR	14.78	412656.2	410832.0	1824.2	-0.0	-0.00
100YR-24HR	14.80	413297.7	411473.6	1824.2	-0.0	-0.00
100YR-24HR	14.82	413950.3	412126.1	1824.2	-0.0	-0.00
100YR-24HR	14.83	414603.3	412779.1	1824.2	-0.0	-0.00



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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
100YR-24HR	14.85	415255.7	413431.5	1824.2	-0.0	-0.00
100YR-24HR	14.87	415913.4	414089.1	1824.2	-0.0	-0.00
100YR-24HR	14.88	416567.1	414743.0	1824.2	-0.0	-0.00
100YR-24HR	14.90	417223.1	415398.9	1824.2	-0.0	-0.00
100YR-24HR	14.92	417891.5	416066.8	1824.7	-0.0	-0.00
100YR-24HR	14.93	418536.9	416712.7	1824.2	-0.0	-0.00
100YR-24HR	14.95	419191.0	417366.8	1824.2	-0.0	-0.00
100YR-24HR	14.97	419846.3	418022.1	1824.2	-0.0	-0.00
100YR-24HR	14.98	420502.8	418678.6	1824.2	-0.0	-0.00
100YR-24HR	15.00	421153.4	419329.3	1824.2	-0.0	-0.00
100YR-24HR	15.02	421805.0	419980.2	1824.8	-0.0	-0.00
100YR-24HR	15.03	422462.2	420638.0	1824.1	-0.0	-0.00
100YR-24HR	15.05	423123.6	421299.5	1824.1	-0.0	-0.00
100YR-24HR	15.07	423772.4	421948.4	1824.0	-0.0	-0.00
100YR-24HR	15.08	424415.5	422591.6	1823.8	-0.0	-0.00
100YR-24HR	15.10	425037.3	423213.6	1823.7	-0.0	-0.00
100YR-24HR	15.12	425678.6	423855.1	1823.5	-0.0	-0.00
100YR-24HR	15.13	426296.5	424473.2	1823.4	-0.0	-0.00
100YR-24HR	15.15	426910.5	425087.3	1823.2	-0.0	-0.00
100YR-24HR	15.17	427521.3	425698.2	1823.1	-0.0	-0.00
100YR-24HR	15.18	428137.9	426314.9	1823.0	-0.0	-0.00
100YR-24HR	15.20	428737.4	426914.5	1822.9	-0.0	-0.00
100YR-24HR	15.22	429331.0	427508.2	1822.8	-0.0	-0.00
100YR-24HR	15.23	429931.8	428109.1	1822.7	-0.0	-0.00
100YR-24HR	15.25	430518.2	428695.6	1822.7	-0.0	-0.00
100YR-24HR	15.27	431115.8	429293.2	1822.6	-0.0	-0.00
100YR-24HR	15.28	431698.2	429875.6	1822.5	-0.0	-0.00
100YR-24HR	15.30	432275.9	430453.4	1822.5	-0.0	-0.00
100YR-24HR	15.32	432856.8	431034.4	1822.4	-0.0	-0.00
100YR-24HR	15.33	433438.5	431616.1	1822.4	-0.0	-0.00
100YR-24HR	15.35	434009.0	432186.7	1822.3	-0.0	-0.00
100YR-24HR	15.37	434594.6	432772.3	1822.3	-0.0	-0.00
100YR-24HR	15.38	435153.2	433331.0	1822.2	-0.0	-0.00
100YR-24HR	15.40	435731.8	433909.6	1822.2	-0.0	-0.00
100YR-24HR	15.42	436298.6	434476.4	1822.3	-0.0	-0.00
100YR-24HR	15.43	436864.0	435041.6	1822.4	-0.0	-0.00
100YR-24HR	15.45	437426.3	435604.2	1822.1	-0.0	-0.00
100YR-24HR	15.47	437989.9	436167.7	1822.2	-0.0	-0.00
100YR-24HR	15.48	438564.5	436742.4	1822.1	-0.0	-0.00
100YR-24HR	15.50	439123.9	437301.8	1822.0	-0.0	-0.00
100YR-24HR	15.52	439681.6	437859.5	1822.1	-0.0	-0.00
100YR-24HR	15.53	440239.6	438417.5	1822.1	-0.0	-0.00
100YR-24HR	15.55	440799.6	438977.6	1822.0	-0.0	-0.00
100YR-24HR	15.57	441361.3	439539.1	1822.2	-0.0	-0.00
100YR-24HR	15.58	441917.9	440095.9	1821.9	-0.0	-0.00
100YR-24HR	15.60	442468.9	440647.0	1821.9	-0.0	-0.00
100YR-24HR	15.62	443025.1	441203.2	1821.9	-0.0	-0.00
100YR-24HR	15.63	443579.8	441758.0	1821.9	-0.0	-0.00
100YR-24HR	15.65	444127.8	442306.0	1821.9	-0.0	-0.00
100YR-24HR	15.67	444685.3	442863.4	1821.8	-0.0	-0.00
100YR-24HR	15.68	445236.3	443414.4	1821.8	-0.0	-0.00
100YR-24HR	15.70	445786.6	443964.7	1821.9	-0.0	-0.00
100YR-24HR	15.72	446339.7	444517.7	1822.0	-0.0	-0.00
100YR-24HR	15.73	446894.4	445072.6	1821.8	-0.0	-0.00
100YR-24HR	15.75	447434.7	445612.9	1821.8	-0.0	-0.00
100YR-24HR	15.77	447984.9	446162.6	1822.3	-0.0	-0.00
100YR-24HR	15.78	448543.4	446721.2	1822.2	-0.0	-0.00
100YR-24HR	15.80	449090.4	447268.1	1822.3	-0.0	-0.00
100YR-24HR	15.82	449637.1	447815.0	1822.2	-0.0	-0.00
100YR-24HR	15.83	450183.6	448361.3	1822.3	-0.0	-0.00
100YR-24HR	15.85	450729.8	448907.6	1822.2	-0.0	-0.00
100YR-24HR	15.87	451275.8	449453.5	1822.3	-0.0	-0.00
100YR-24HR	15.88	451821.6	449999.3	1822.2	-0.0	-0.00
100YR-24HR	15.90	452378.3	450556.1	1822.2	-0.0	-0.00
100YR-24HR	15.92	452923.8	451101.5	1822.2	-0.0	-0.00
100YR-24HR	15.93	453469.1	451646.9	1822.2	-0.0	-0.00
100YR-24HR	15.95	454014.3	452192.1	1822.2	-0.0	-0.00
100YR-24HR	15.97	454559.5	452737.3	1822.2	-0.0	-0.00
100YR-24HR	15.98	455104.6	453282.4	1822.2	-0.0	-0.00
100YR-24HR	16.00	455649.7	453827.5	1822.2	-0.0	-0.00
100YR-24HR	16.08	458348.6	456527.2	1821.4	-0.0	-0.00
100YR-24HR	16.17	460939.1	459118.3	1820.8	-0.0	-0.00
100YR-24HR	16.25	463397.4	461577.0	1820.4	-0.0	-0.00
100YR-24HR	16.33	465774.9	463954.7	1820.2	-0.0	-0.00
100YR-24HR	16.42	468098.6	466278.7	1819.9	-0.0	-0.00
100YR-24HR	16.50	470388.7	468568.1	1820.7	-0.0	-0.00
100YR-24HR	16.58	472640.7	470820.8	1819.9	-0.0	-0.00
100YR-24HR	16.67	474872.5	473052.7	1819.8	-0.0	-0.00
100YR-24HR	16.75	477088.4	475268.6	1819.8	-0.0	-0.00
100YR-24HR	16.83	479292.2	477472.5	1819.7	-0.0	-0.00
100YR-24HR	16.92	481490.9	479671.2	1819.7	-0.0	-0.00
100YR-24HR	17.00	483695.0	481875.3	1819.7	-0.0	-0.00
100YR-24HR	17.08	485884.6	484064.8	1819.7	-0.0	-0.00

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100YR-24HR	17.17	488075.9	486256.3	1819.7	-0.0	-0.00
100YR-24HR	17.25	490268.7	488449.0	1819.7	-0.0	-0.00
100YR-24HR	17.33	492464.6	490644.8	1819.8	-0.0	-0.00
100YR-24HR	17.42	494656.3	492836.6	1819.7	-0.0	-0.00
100YR-24HR	17.50	496848.1	495028.4	1819.7	-0.0	-0.00
100YR-24HR	17.58	499039.3	497219.7	1819.7	-0.0	-0.00
100YR-24HR	17.67	501228.6	499408.9	1819.7	-0.0	-0.00
100YR-24HR	17.75	503426.9	501607.2	1819.7	-0.0	-0.00
100YR-24HR	17.83	505613.2	503793.5	1819.7	-0.0	-0.00
100YR-24HR	17.92	507810.3	505990.6	1819.7	-0.0	-0.00
100YR-24HR	18.00	509997.0	508177.3	1819.7	-0.0	-0.00
100YR-24HR	18.08	512190.7	510371.0	1819.7	-0.0	-0.00
100YR-24HR	18.17	514385.9	512566.2	1819.7	-0.0	-0.00
100YR-24HR	18.25	516571.5	514751.9	1819.6	-0.0	-0.00
100YR-24HR	18.33	518763.4	516943.7	1819.7	-0.0	-0.00
100YR-24HR	18.42	520959.1	519139.4	1819.8	-0.0	-0.00
100YR-24HR	18.50	523152.8	521333.1	1819.7	-0.0	-0.00
100YR-24HR	18.58	525345.8	523526.1	1819.7	-0.0	-0.00
100YR-24HR	18.67	527536.9	525717.2	1819.7	-0.0	-0.00
100YR-24HR	18.75	529734.1	527914.5	1819.6	-0.0	-0.00
100YR-24HR	18.83	531927.0	530107.3	1819.7	-0.0	-0.00
100YR-24HR	18.92	534116.5	532296.7	1819.8	-0.0	-0.00
100YR-24HR	19.00	536315.9	534496.2	1819.7	-0.0	-0.00
100YR-24HR	19.08	538466.9	536647.4	1819.5	-0.0	-0.00
100YR-24HR	19.17	540509.3	538690.3	1819.0	-0.0	-0.00
100YR-24HR	19.25	542430.0	540611.3	1818.7	-0.0	-0.00
100YR-24HR	19.33	544264.8	542445.4	1819.4	-0.0	-0.00
100YR-24HR	19.42	546049.6	544230.3	1819.3	-0.0	-0.00
100YR-24HR	19.50	547789.9	545970.7	1819.2	-0.0	-0.00
100YR-24HR	19.58	549501.0	547681.8	1819.1	-0.0	-0.00
100YR-24HR	19.67	551189.1	549370.0	1819.1	-0.0	-0.00
100YR-24HR	19.75	552860.1	551041.1	1819.1	-0.0	-0.00
100YR-24HR	19.83	554525.5	552706.5	1819.0	-0.0	-0.00
100YR-24HR	19.92	556178.9	554359.9	1819.0	-0.0	-0.00
100YR-24HR	20.00	557829.0	556010.0	1819.0	-0.0	-0.00
100YR-24HR	20.08	559478.0	557659.0	1819.0	-0.0	-0.00
100YR-24HR	20.17	561126.3	559307.2	1819.0	-0.0	-0.00
100YR-24HR	20.25	562779.1	560960.0	1819.0	-0.0	-0.00
100YR-24HR	20.33	564426.0	562606.9	1819.0	-0.0	-0.00
100YR-24HR	20.42	566072.5	564253.5	1819.0	-0.0	-0.00
100YR-24HR	20.50	567718.9	565899.8	1819.0	-0.0	-0.00
100YR-24HR	20.58	569365.1	567546.1	1819.0	-0.0	-0.00
100YR-24HR	20.67	571016.6	569197.5	1819.0	-0.0	-0.00
100YR-24HR	20.75	572662.6	570843.6	1819.0	-0.0	-0.00
100YR-24HR	20.83	574308.7	572489.7	1819.0	-0.0	-0.00
100YR-24HR	20.92	575954.8	574135.7	1819.0	-0.0	-0.00
100YR-24HR	21.00	577600.8	575781.8	1819.0	-0.0	-0.00
100YR-24HR	21.08	579213.5	577394.6	1818.8	-0.0	-0.00
100YR-24HR	21.17	580706.9	578888.4	1818.5	-0.0	-0.00
100YR-24HR	21.25	582074.9	580256.6	1818.3	-0.0	-0.00
100YR-24HR	21.33	583359.5	581541.3	1818.2	-0.0	-0.00
100YR-24HR	21.42	584588.1	582770.0	1818.1	-0.0	-0.00
100YR-24HR	21.50	585781.6	583963.6	1818.0	-0.0	-0.00
100YR-24HR	21.58	586941.8	585123.8	1818.0	-0.0	-0.00
100YR-24HR	21.67	588078.8	586260.8	1817.9	-0.0	-0.00
100YR-24HR	21.75	589198.7	587380.7	1817.9	-0.0	-0.00
100YR-24HR	21.83	590307.4	588489.5	1817.9	-0.0	-0.00
100YR-24HR	21.92	591413.0	589595.1	1817.9	-0.0	-0.00
100YR-24HR	22.00	592511.6	590693.7	1817.9	-0.0	-0.00
100YR-24HR	22.08	593571.4	591753.6	1817.8	-0.0	-0.00
100YR-24HR	22.17	594518.3	592700.8	1817.5	-0.0	-0.00
100YR-24HR	22.25	595339.7	593521.9	1817.8	-0.0	-0.00
100YR-24HR	22.33	596079.6	594261.8	1817.8	-0.0	-0.00
100YR-24HR	22.42	596761.0	594943.3	1817.7	-0.0	-0.00
100YR-24HR	22.50	597403.0	595585.3	1817.7	-0.0	-0.00
100YR-24HR	22.58	598016.0	596198.9	1817.1	-0.0	-0.00
100YR-24HR	22.67	598607.3	596790.0	1817.3	-0.0	-0.00
100YR-24HR	22.75	599180.2	597363.2	1817.0	-0.0	-0.00
100YR-24HR	22.83	599741.5	597924.2	1817.3	-0.0	-0.00
100YR-24HR	22.92	600296.1	598478.8	1817.4	-0.0	-0.00
100YR-24HR	23.00	600847.7	599030.6	1817.1	-0.0	-0.00
100YR-24HR	23.08	601398.0	599580.5	1817.4	-0.0	-0.00
100YR-24HR	23.17	601949.4	600131.9	1817.5	-0.0	-0.00
100YR-24HR	23.25	602499.4	600682.0	1817.4	-0.0	-0.00
100YR-24HR	23.33	603048.9	601231.4	1817.6	-0.0	-0.00
100YR-24HR	23.42	603598.3	601780.7	1817.6	-0.0	-0.00
100YR-24HR	23.50	604147.9	602330.4	1817.6	-0.0	-0.00
100YR-24HR	23.58	604697.1	602879.5	1817.7	-0.0	-0.00
100YR-24HR	23.67	605247.7	603430.0	1817.7	-0.0	-0.00
100YR-24HR	23.75	605797.2	603979.5	1817.8	-0.0	-0.00
100YR-24HR	23.83	606346.3	604528.6	1817.8	-0.0	-0.00
100YR-24HR	23.92	606895.4	605077.6	1817.8	-0.0	-0.00
100YR-24HR	24.00	607444.8	605626.9	1817.9	-0.0	-0.00

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100YR-24HR	24.25	608621.2	606803.3	1817.9	-0.0	-0.00
100YR-24HR	24.50	608807.5	606989.8	1817.7	-0.0	-0.00
100YR-24HR	24.75	608807.5	606989.8	1817.8	-0.0	-0.00
100YR-24HR	25.00	608807.5	606989.8	1817.8	-0.0	-0.00
100YR-24HR	25.25	608807.5	606989.7	1817.8	-0.0	-0.00
100YR-24HR	25.50	608807.5	606989.7	1817.8	-0.0	-0.00
100YR-24HR	25.75	608807.5	606989.7	1817.8	-0.0	-0.00
100YR-24HR	26.00	608807.5	606989.7	1817.9	-0.0	-0.00
100YR-24HR	26.25	608807.5	606989.7	1817.9	-0.0	-0.00
100YR-24HR	26.50	608807.5	606989.6	1817.9	-0.0	-0.00
100YR-24HR	26.75	608807.5	606989.6	1817.9	-0.0	-0.00
100YR-24HR	27.00	608807.5	606989.6	1817.9	-0.0	-0.00
100YR-24HR	27.25	608807.5	606989.6	1818.0	-0.0	-0.00
100YR-24HR	27.50	608807.5	606989.5	1818.0	-0.0	-0.00
100YR-24HR	27.75	608807.5	606989.5	1818.0	-0.0	-0.00
100YR-24HR	28.00	608807.5	606989.5	1818.0	-0.0	-0.00
100YR-24HR	28.25	608807.5	606989.0	1818.6	-0.0	-0.00
100YR-24HR	28.50	608807.5	606989.0	1818.6	-0.0	-0.00
100YR-24HR	28.75	608807.5	606988.9	1818.6	-0.0	-0.00
100YR-24HR	29.00	608807.5	606989.4	1818.1	-0.0	-0.00
100YR-24HR	29.25	608807.5	606989.4	1818.1	-0.0	-0.00
100YR-24HR	29.50	608807.5	606989.4	1818.2	-0.0	-0.00
100YR-24HR	29.75	608807.5	606989.4	1818.2	-0.0	-0.00
100YR-24HR	30.00	608807.5	606989.3	1818.2	-0.0	-0.00
100YR-24HR	30.25	608807.5	606989.3	1818.2	-0.0	-0.00
100YR-24HR	30.50	608807.5	606989.3	1818.2	-0.0	-0.00
100YR-24HR	30.75	608807.5	606989.3	1818.3	-0.0	-0.00
100YR-24HR	31.00	608807.5	606989.2	1818.3	-0.0	-0.00
100YR-24HR	31.25	608807.5	606989.2	1818.3	-0.0	-0.00
100YR-24HR	31.50	608807.5	606989.2	1818.3	-0.0	-0.00
100YR-24HR	31.75	608807.5	606989.2	1818.4	-0.0	-0.00
100YR-24HR	32.00	608807.5	606989.2	1818.4	-0.0	-0.00
100YR-24HR	32.25	608807.5	606989.1	1818.4	-0.0	-0.00
100YR-24HR	32.50	608807.5	606989.1	1818.4	-0.0	-0.00
100YR-24HR	32.75	608807.5	606989.1	1818.4	-0.0	-0.00
100YR-24HR	33.00	608807.5	606989.1	1818.5	-0.0	-0.00
100YR-24HR	33.25	608807.5	606989.1	1818.5	-0.0	-0.00
100YR-24HR	33.50	608807.5	606989.0	1818.5	-0.0	-0.00
100YR-24HR	33.75	608807.5	606989.0	1818.5	-0.0	-0.00
100YR-24HR	34.00	608807.5	606989.0	1818.5	-0.0	-0.00
100YR-24HR	34.25	608807.5	606989.0	1818.6	-0.0	-0.00
100YR-24HR	34.50	608807.5	606988.4	1819.1	-0.0	-0.00
100YR-24HR	34.75	608807.5	606988.4	1819.1	-0.0	-0.00
100YR-24HR	35.00	608807.5	606988.9	1818.6	-0.0	-0.00
100YR-24HR	35.25	608807.5	606988.9	1818.7	-0.0	-0.00
100YR-24HR	35.50	608807.5	606988.9	1818.7	-0.0	-0.00
100YR-24HR	35.75	608807.5	606988.8	1818.7	-0.0	-0.00
100YR-24HR	36.00	608807.5	606988.8	1818.7	-0.0	-0.00
100YR-24HR	36.25	608807.5	606988.8	1818.7	-0.0	-0.00
100YR-24HR	36.50	608807.5	606988.8	1818.8	-0.0	-0.00
100YR-24HR	36.75	608807.5	606988.8	1818.8	-0.0	-0.00
100YR-24HR	37.00	608807.5	606988.7	1818.8	-0.0	-0.00
100YR-24HR	37.25	608807.5	606988.7	1818.8	-0.0	-0.00
100YR-24HR	37.50	608807.5	606988.7	1818.8	-0.0	-0.00
100YR-24HR	37.75	608807.5	606988.7	1818.9	-0.0	-0.00
100YR-24HR	38.00	608807.5	606988.7	1818.9	-0.0	-0.00
100YR-24HR	38.25	608807.5	606988.6	1818.9	-0.0	-0.00
100YR-24HR	38.50	608807.5	606988.6	1818.9	-0.0	-0.00
100YR-24HR	38.75	608807.5	606988.6	1818.9	-0.0	-0.00
100YR-24HR	39.00	608807.5	606988.6	1819.0	-0.0	-0.00
100YR-24HR	39.25	608807.5	606988.5	1819.0	-0.0	-0.00
100YR-24HR	39.50	608807.5	606988.5	1819.0	-0.0	-0.00
100YR-24HR	39.75	608807.5	606988.5	1819.0	-0.0	-0.00
100YR-24HR	40.00	608807.5	606988.5	1819.1	-0.0	-0.00
100YR-24HR	40.25	608807.5	606988.5	1819.1	-0.0	-0.00
100YR-24HR	40.50	608807.5	606987.9	1819.6	-0.0	-0.00
100YR-24HR	40.75	608807.5	606987.9	1819.6	-0.0	-0.00
100YR-24HR	41.00	608807.5	606987.9	1819.6	-0.0	-0.00
100YR-24HR	41.25	608807.5	606988.4	1819.2	-0.0	-0.00
100YR-24HR	41.50	608807.5	606988.4	1819.2	-0.0	-0.00
100YR-24HR	41.75	608807.5	606988.3	1819.2	-0.0	-0.00
100YR-24HR	42.00	608807.5	606988.3	1819.2	-0.0	-0.00
100YR-24HR	42.25	608807.5	606988.3	1819.2	-0.0	-0.00
100YR-24HR	42.50	608807.5	606988.3	1819.3	-0.0	-0.00
100YR-24HR	42.75	608807.5	606988.2	1819.3	-0.0	-0.00
100YR-24HR	43.00	608807.5	606988.2	1819.3	-0.0	-0.00
100YR-24HR	43.25	608807.5	606988.2	1819.3	-0.0	-0.00
100YR-24HR	43.50	608807.5	606988.2	1819.4	-0.0	-0.00
100YR-24HR	43.75	608807.5	606988.2	1819.4	-0.0	-0.00
100YR-24HR	44.00	608807.5	606988.1	1819.4	-0.0	-0.00
100YR-24HR	44.50	608807.5	606988.1	1819.4	-0.0	-0.00
100YR-24HR	44.75	608807.5	606988.1	1819.5	-0.0	-0.00
100YR-24HR	45.00	608807.5	606988.1	1819.5	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
100YR-24HR	45.50	608807.5	606988.0	1819.5	-0.0	-0.00
100YR-24HR	45.75	608807.5	606988.0	1819.5	-0.0	-0.00
100YR-24HR	46.00	608807.5	606988.0	1819.6	-0.0	-0.00
100YR-24HR	46.25	608807.5	606987.9	1819.6	-0.0	-0.00
100YR-24HR	46.50	608807.5	606987.9	1819.6	-0.0	-0.00
100YR-24HR	46.75	608807.5	606987.4	1820.1	-0.0	-0.00
100YR-24HR	47.00	608807.5	606987.4	1820.2	-0.0	-0.00
100YR-24HR	47.50	608807.5	606987.8	1819.7	-0.0	-0.00
100YR-24HR	47.75	608807.5	606987.8	1819.7	-0.0	-0.00
100YR-24HR	48.00	608807.5	606987.8	1819.7	-0.0	-0.00
100YR-24HR	48.00	608807.5	606987.8	1819.7	-0.0	-0.00
100YR-8HR	0.00	0.0	0.0	0.0	0.0	0.00
100YR-8HR	0.00	0.0	0.0	0.0	0.0	0.00
100YR-8HR	0.00	0.0	0.0	0.0	0.0	0.00
100YR-8HR	0.00	0.0	0.0	0.0	0.0	0.00
100YR-8HR	0.00	0.0	0.0	0.0	0.0	0.00
100YR-8HR	0.00	0.0	0.0	0.0	0.0	0.00
100YR-8HR	0.08	11.0	-1805.7	1816.6	-0.0	-0.00
100YR-8HR	0.17	54.5	-1762.2	1816.7	-0.0	-0.00
100YR-8HR	0.25	133.7	-1683.5	1817.1	-0.0	-0.00
100YR-8HR	0.33	236.6	-1580.2	1816.7	-0.0	-0.00
100YR-8HR	0.42	355.4	-1461.3	1816.8	-0.0	-0.00
100YR-8HR	0.50	486.7	-1330.5	1817.2	-0.0	-0.00
100YR-8HR	0.58	629.9	-1187.3	1817.2	-0.0	-0.00
100YR-8HR	0.67	787.1	-1030.1	1817.2	-0.0	-0.00
100YR-8HR	0.75	958.5	-858.7	1817.3	-0.0	-0.00
100YR-8HR	0.83	1143.2	-674.1	1817.3	-0.0	-0.00
100YR-8HR	0.92	1340.7	-476.6	1817.3	-0.0	-0.00
100YR-8HR	1.00	1548.6	-268.7	1817.3	-0.0	-0.00
100YR-8HR	1.08	1848.9	31.3	1817.6	-0.0	-0.00
100YR-8HR	1.17	2423.2	607.4	1815.7	-0.0	-0.00
100YR-8HR	1.25	3343.5	1526.5	1816.9	-0.0	-0.00
100YR-8HR	1.33	4576.7	2759.9	1816.8	-0.0	-0.00
100YR-8HR	1.42	6078.7	4261.1	1817.6	-0.0	-0.00
100YR-8HR	1.50	7849.6	6031.1	1818.5	-0.0	-0.00
100YR-8HR	1.58	9857.1	8037.6	1819.4	-0.0	-0.00
100YR-8HR	1.67	12091.1	10271.0	1820.1	0.0	0.00
100YR-8HR	1.75	14513.9	12693.2	1820.7	-0.0	-0.00
100YR-8HR	1.83	17121.0	15299.8	1821.2	-0.0	-0.00
100YR-8HR	1.92	19879.2	18057.4	1821.8	-0.0	-0.00
100YR-8HR	2.00	22776.1	20954.0	1822.1	-0.0	-0.00
100YR-8HR	2.08	25841.8	24018.4	1823.4	-0.0	-0.00
100YR-8HR	2.10	26501.0	24677.2	1823.8	-0.0	-0.00
100YR-8HR	2.12	27169.0	25344.8	1824.2	-0.0	-0.00
100YR-8HR	2.13	27872.6	26048.0	1824.7	-0.0	-0.00
100YR-8HR	2.15	28581.1	26756.0	1825.1	-0.0	-0.00
100YR-8HR	2.17	29316.2	27490.7	1825.5	-0.0	-0.00
100YR-8HR	2.18	30047.2	28221.5	1825.8	-0.0	-0.00
100YR-8HR	2.20	30792.5	28966.4	1826.2	-0.0	-0.00
100YR-8HR	2.22	31572.0	29745.4	1826.6	-0.0	-0.00
100YR-8HR	2.23	32364.9	30537.9	1826.9	-0.0	-0.00
100YR-8HR	2.25	33163.5	31336.2	1827.3	-0.0	-0.00
100YR-8HR	2.27	33957.4	32129.9	1827.6	-0.0	-0.00
100YR-8HR	2.28	34768.7	32940.8	1827.9	-0.0	-0.00
100YR-8HR	2.30	35584.1	33755.9	1828.2	-0.0	-0.00
100YR-8HR	2.32	36442.7	34614.3	1828.4	-0.0	-0.00
100YR-8HR	2.33	37274.3	35445.8	1828.5	-0.0	-0.00
100YR-8HR	2.35	38129.3	36300.4	1829.0	0.0	0.00
100YR-8HR	2.37	39024.7	37195.4	1829.2	-0.0	-0.00
100YR-8HR	2.38	39868.0	38038.5	1829.5	0.0	0.00
100YR-8HR	2.40	40751.8	38922.3	1829.5	0.0	0.00
100YR-8HR	2.42	41622.9	39793.0	1829.9	0.0	0.00
100YR-8HR	2.43	42513.5	40683.4	1830.1	0.0	0.00
100YR-8HR	2.45	43427.4	41597.0	1830.4	0.0	0.00
100YR-8HR	2.47	44347.6	42517.1	1830.6	0.0	0.00
100YR-8HR	2.48	45270.0	43439.2	1830.8	0.0	0.00
100YR-8HR	2.50	46158.5	44327.5	1831.0	0.0	0.00
100YR-8HR	2.52	47096.9	45265.7	1831.2	0.0	0.00
100YR-8HR	2.53	48005.2	46173.8	1831.4	0.0	0.00
100YR-8HR	2.55	48943.7	47112.1	1831.6	0.0	0.00
100YR-8HR	2.57	49913.4	48081.6	1831.8	0.0	0.00
100YR-8HR	2.58	50832.9	49000.9	1832.0	-0.0	-0.00
100YR-8HR	2.60	51812.6	49980.6	1832.1	-0.0	-0.00
100YR-8HR	2.62	52748.0	50915.7	1832.3	-0.0	-0.00
100YR-8HR	2.63	53722.5	51890.0	1832.5	-0.0	-0.00
100YR-8HR	2.65	54692.2	52859.5	1832.7	0.0	0.00
100YR-8HR	2.67	55685.1	53852.3	1832.8	-0.0	-0.00
100YR-8HR	2.68	56629.3	54796.3	1833.0	-0.0	-0.00
100YR-8HR	2.70	57625.7	55792.5	1833.2	0.0	0.00
100YR-8HR	2.72	58588.9	56755.6	1833.3	0.0	0.00
100YR-8HR	2.73	59586.2	57752.7	1833.5	-0.0	-0.00
100YR-8HR	2.75	60588.3	58754.7	1833.6	0.0	0.00
100YR-8HR	2.77	61574.2	59740.5	1833.7	0.0	0.00



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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
100YR-8HR	2.78	62589.5	60755.6	1833.9	0.0	0.00
100YR-8HR	2.80	63581.2	61747.3	1834.0	0.0	0.00
100YR-8HR	2.82	64600.2	62766.0	1834.1	-0.0	-0.00
100YR-8HR	2.83	65617.2	63783.0	1834.2	-0.0	-0.00
100YR-8HR	2.85	66602.8	64768.5	1834.4	-0.0	-0.00
100YR-8HR	2.87	67644.0	65809.5	1834.5	-0.0	-0.00
100YR-8HR	2.88	68629.9	66795.3	1834.6	-0.0	-0.00
100YR-8HR	2.90	69662.0	67827.3	1834.7	-0.0	-0.00
100YR-8HR	2.92	70713.8	68879.0	1834.8	-0.0	-0.00
100YR-8HR	2.93	71710.3	69875.5	1834.9	-0.0	-0.00
100YR-8HR	2.95	72738.6	70903.6	1835.0	0.0	0.00
100YR-8HR	2.97	73780.8	71945.7	1835.1	0.0	0.00
100YR-8HR	2.98	74803.5	72968.3	1835.2	0.0	0.00
100YR-8HR	3.00	75840.2	74004.9	1835.3	0.0	0.00
100YR-8HR	3.02	76874.6	75038.6	1836.0	0.0	0.00
100YR-8HR	3.03	77959.3	76122.0	1837.2	0.0	0.00
100YR-8HR	3.05	79062.0	77222.8	1839.1	0.0	0.00
100YR-8HR	3.07	80247.9	78405.7	1842.2	0.0	0.00
100YR-8HR	3.08	81568.9	79722.0	1846.9	0.0	0.00
100YR-8HR	3.10	82922.7	81069.9	1852.8	0.0	0.00
100YR-8HR	3.12	84389.0	82530.2	1858.8	0.0	0.00
100YR-8HR	3.13	85977.0	84111.8	1865.2	0.0	0.00
100YR-8HR	3.15	87735.6	85863.7	1871.8	0.0	0.00
100YR-8HR	3.17	89548.9	87670.8	1878.1	0.0	0.00
100YR-8HR	3.18	91492.4	89608.0	1884.4	0.0	0.00
100YR-8HR	3.20	93480.0	91589.7	1890.3	0.0	0.00
100YR-8HR	3.22	95577.5	93681.8	1895.7	0.0	0.00
100YR-8HR	3.23	97669.9	95769.1	1900.8	-0.0	-0.00
100YR-8HR	3.25	99989.9	98083.9	1906.0	-0.0	-0.00
100YR-8HR	3.27	102254.5	100343.7	1910.8	-0.0	-0.00
100YR-8HR	3.28	104495.6	102580.4	1915.2	0.0	0.00
100YR-8HR	3.30	106902.7	104983.1	1919.7	0.0	0.00
100YR-8HR	3.32	109384.7	107461.1	1923.6	0.0	0.00
100YR-8HR	3.33	111793.9	109866.3	1927.6	0.0	0.00
100YR-8HR	3.35	114306.1	112374.6	1931.5	0.0	0.00
100YR-8HR	3.37	116996.9	115061.7	1935.2	0.0	0.00
100YR-8HR	3.38	119462.5	117524.1	1938.4	0.0	0.00
100YR-8HR	3.40	122080.3	120136.1	1944.1	0.0	0.00
100YR-8HR	3.42	124815.3	122868.1	1947.2	0.0	0.00
100YR-8HR	3.43	127552.6	125602.4	1950.1	0.0	0.00
100YR-8HR	3.45	130330.5	128377.5	1953.0	-0.0	-0.00
100YR-8HR	3.47	133120.4	131164.6	1955.7	0.0	0.00
100YR-8HR	3.49	136033.4	134074.9	1958.5	0.0	0.00
100YR-8HR	3.50	138768.8	136807.8	1961.0	0.0	0.00
100YR-8HR	3.52	141521.2	139557.7	1963.5	0.0	0.00
100YR-8HR	3.53	144359.5	142393.5	1965.9	0.0	0.00
100YR-8HR	3.55	147234.9	145266.6	1968.3	-0.0	-0.00
100YR-8HR	3.57	150239.1	148268.5	1970.6	-0.0	-0.00
100YR-8HR	3.58	153134.7	151161.9	1972.9	0.0	0.00
100YR-8HR	3.60	156129.8	154154.7	1975.1	0.0	0.00
100YR-8HR	3.62	159017.7	157040.6	1977.1	0.0	0.00
100YR-8HR	3.64	162287.7	160308.4	1979.3	0.0	0.00
100YR-8HR	3.65	165303.8	163323.0	1980.8	0.0	0.00
100YR-8HR	3.67	168244.8	166261.9	1983.0	0.0	0.00
100YR-8HR	3.68	171126.8	169142.2	1984.6	0.0	0.00
100YR-8HR	3.70	174468.8	172482.4	1986.3	0.0	0.00
100YR-8HR	3.72	177191.8	175204.1	1987.8	0.0	0.00
100YR-8HR	3.73	180563.3	178574.0	1989.4	0.0	0.00
100YR-8HR	3.75	183760.9	181770.1	1990.8	0.0	0.00
100YR-8HR	3.77	186603.4	184611.5	1991.9	0.0	0.00
100YR-8HR	3.78	189632.9	187639.8	1993.1	-0.0	-0.00
100YR-8HR	3.80	192747.3	190753.2	1994.2	-0.0	-0.00
100YR-8HR	3.82	196175.6	194180.4	1995.3	-0.0	-0.00
100YR-8HR	3.84	199422.4	197426.3	1996.2	-0.0	-0.00
100YR-8HR	3.85	202217.4	200220.4	1997.1	-0.0	-0.00
100YR-8HR	3.87	205671.1	203673.1	1998.0	-0.0	-0.00
100YR-8HR	3.89	208940.3	206941.5	1998.8	-0.0	-0.00
100YR-8HR	3.90	211830.3	209831.0	1999.3	-0.0	-0.00
100YR-8HR	3.92	215030.1	213029.9	2000.2	0.0	0.00
100YR-8HR	3.93	218061.1	216060.3	2000.8	0.0	0.00
100YR-8HR	3.95	221390.9	219389.4	2001.4	0.0	0.00
100YR-8HR	3.97	224880.3	222878.3	2002.0	0.0	0.00
100YR-8HR	3.98	227791.4	225789.6	2001.8	0.0	0.00
100YR-8HR	4.00	231085.5	229082.8	2002.7	0.0	0.00
100YR-8HR	4.02	234185.9	232184.6	2001.3	0.0	0.00
100YR-8HR	4.03	237264.6	235266.3	1998.3	0.0	0.00
100YR-8HR	4.05	240778.4	238785.9	1992.5	0.0	0.00
100YR-8HR	4.07	243627.0	241641.2	1985.8	0.0	0.00
100YR-8HR	4.08	246521.2	244546.1	1975.1	0.0	0.00
100YR-8HR	4.10	249310.1	247346.1	1964.0	0.0	0.00
100YR-8HR	4.12	252252.4	250300.4	1952.0	0.0	0.00
100YR-8HR	4.13	254814.4	252872.5	1941.8	0.0	0.00
100YR-8HR	4.15	257274.8	255342.0	1932.8	0.0	0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
100YR-8HR	4.17	259780.8	257856.3	1924.5	0.0	0.00
100YR-8HR	4.18	262058.0	260143.3	1914.7	0.0	0.00
100YR-8HR	4.20	264353.3	262445.4	1907.9	-0.0	-0.00
100YR-8HR	4.22	266495.0	264592.6	1902.4	-0.0	-0.00
100YR-8HR	4.23	268647.4	266750.0	1897.4	-0.0	-0.00
100YR-8HR	4.25	270723.8	268830.9	1892.9	-0.0	-0.00
100YR-8HR	4.27	272745.9	270857.2	1888.7	-0.0	-0.00
100YR-8HR	4.28	274739.0	272854.1	1885.0	-0.0	-0.00
100YR-8HR	4.30	276528.4	274646.5	1881.9	-0.0	-0.00
100YR-8HR	4.32	278454.8	276576.1	1878.8	0.0	0.00
100YR-8HR	4.33	280235.4	278359.4	1876.0	0.0	0.00
100YR-8HR	4.35	281994.4	280120.8	1873.6	0.0	0.00
100YR-8HR	4.37	283692.0	281820.6	1871.4	-0.0	-0.00
100YR-8HR	4.38	285457.5	283588.3	1869.3	-0.0	-0.00
100YR-8HR	4.40	287140.9	285272.9	1868.0	-0.0	-0.00
100YR-8HR	4.42	288737.6	286871.8	1865.8	-0.0	-0.00
100YR-8HR	4.43	290421.0	288556.8	1864.2	-0.0	-0.00
100YR-8HR	4.45	291955.2	290092.4	1862.8	-0.0	-0.00
100YR-8HR	4.47	293496.3	291634.7	1861.6	-0.0	-0.00
100YR-8HR	4.48	295048.5	293188.3	1860.2	-0.0	-0.00
100YR-8HR	4.50	296541.0	294682.0	1859.0	-0.0	-0.00
100YR-8HR	4.52	298099.4	296241.5	1857.8	-0.0	-0.00
100YR-8HR	4.53	299587.6	297730.9	1856.7	-0.0	-0.00
100YR-8HR	4.55	301014.4	299158.6	1855.7	-0.0	-0.00
100YR-8HR	4.57	302447.3	300592.5	1854.8	-0.0	-0.00
100YR-8HR	4.58	303887.9	302034.0	1853.9	-0.0	-0.00
100YR-8HR	4.60	305304.1	303451.1	1853.0	-0.0	-0.00
100YR-8HR	4.62	306674.9	304822.7	1852.2	-0.0	-0.00
100YR-8HR	4.63	308024.4	306172.9	1851.5	0.0	0.00
100YR-8HR	4.65	309392.8	307542.0	1850.8	-0.0	-0.00
100YR-8HR	4.67	310753.1	308903.0	1850.2	0.0	0.00
100YR-8HR	4.68	312096.3	310246.7	1849.6	-0.0	-0.00
100YR-8HR	4.70	313409.8	311560.7	1849.0	-0.0	-0.00
100YR-8HR	4.72	314799.0	312950.4	1848.5	-0.0	-0.00
100YR-8HR	4.73	316055.0	314206.9	1848.1	-0.0	-0.00
100YR-8HR	4.75	317362.3	315514.7	1847.7	0.0	0.00
100YR-8HR	4.77	318617.8	316770.5	1847.3	0.0	0.00
100YR-8HR	4.78	319941.5	318094.5	1847.0	0.0	0.00
100YR-8HR	4.80	321181.6	319334.8	1846.7	0.0	0.00
100YR-8HR	4.82	322448.0	320601.5	1846.5	-0.0	-0.00
100YR-8HR	4.83	323762.8	321916.5	1846.3	-0.0	-0.00
100YR-8HR	4.85	324994.5	323148.2	1846.3	-0.0	-0.00
100YR-8HR	4.87	326271.2	324425.4	1845.9	-0.0	-0.00
100YR-8HR	4.88	327560.5	325714.8	1845.7	-0.0	-0.00
100YR-8HR	4.90	328741.6	326896.0	1845.6	-0.0	-0.00
100YR-8HR	4.92	330006.2	328160.8	1845.5	-0.0	-0.00
100YR-8HR	4.93	331252.9	329407.5	1845.4	0.0	0.00
100YR-8HR	4.95	332482.2	330636.9	1845.3	-0.0	-0.00
100YR-8HR	4.97	333776.7	331931.5	1845.2	-0.0	-0.00
100YR-8HR	4.98	334979.7	333134.6	1845.2	-0.0	-0.00
100YR-8HR	5.00	336204.7	334359.5	1845.2	-0.0	-0.00
100YR-8HR	5.02	337440.4	335595.2	1845.2	-0.0	-0.00
100YR-8HR	5.03	338687.3	336842.9	1844.3	-0.0	-0.00
100YR-8HR	5.05	339934.8	338091.3	1843.5	-0.0	-0.00
100YR-8HR	5.07	341073.2	339230.9	1842.3	-0.0	-0.00
100YR-8HR	5.08	342241.5	340401.0	1840.4	-0.0	-0.00
100YR-8HR	5.10	343360.1	341521.6	1838.5	-0.0	-0.00
100YR-8HR	5.12	344408.0	342571.3	1836.7	-0.0	-0.00
100YR-8HR	5.13	345448.8	343613.4	1835.5	-0.0	-0.00
100YR-8HR	5.15	346415.1	344581.5	1833.6	-0.0	-0.00
100YR-8HR	5.17	347354.2	345522.0	1832.2	-0.0	-0.00
100YR-8HR	5.18	348240.3	346409.3	1831.0	-0.0	-0.00
100YR-8HR	5.20	349122.9	347292.9	1829.9	-0.0	-0.00
100YR-8HR	5.22	349951.4	348122.3	1829.1	-0.0	-0.00
100YR-8HR	5.23	350760.1	348931.8	1828.3	-0.0	-0.00
100YR-8HR	5.25	351551.3	349723.7	1827.6	-0.0	-0.00
100YR-8HR	5.27	352327.1	350500.1	1827.0	0.0	0.00
100YR-8HR	5.28	353067.1	351240.7	1826.4	-0.0	-0.00
100YR-8HR	5.30	353803.5	351977.5	1826.0	0.0	0.00
100YR-8HR	5.32	354501.4	352675.7	1825.8	-0.0	-0.00
100YR-8HR	5.33	355196.0	353371.0	1825.0	0.0	0.00
100YR-8HR	5.35	355873.7	354048.3	1825.4	0.0	0.00
100YR-8HR	5.37	356544.9	354720.7	1824.3	-0.0	-0.00
100YR-8HR	5.38	357186.1	355362.2	1823.9	-0.0	-0.00
100YR-8HR	5.40	357816.4	355992.8	1823.7	-0.0	-0.00
100YR-8HR	5.42	358444.6	356621.2	1823.4	-0.0	-0.00
100YR-8HR	5.43	359052.4	357229.2	1823.2	-0.0	-0.00
100YR-8HR	5.45	359666.1	357843.2	1823.0	-0.0	-0.00
100YR-8HR	5.47	360253.9	358431.1	1822.8	-0.0	-0.00
100YR-8HR	5.48	360838.7	359016.1	1822.6	-0.0	-0.00
100YR-8HR	5.50	361418.1	359595.7	1822.4	-0.0	-0.00
100YR-8HR	5.52	361986.9	360164.7	1822.2	-0.0	-0.00
100YR-8HR	5.53	362549.7	360727.7	1822.0	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
100YR-8HR	5.55	363108.1	361286.2	1821.9	-0.0	-0.00
100YR-8HR	5.57	363651.0	361828.8	1822.2	-0.0	-0.00
100YR-8HR	5.58	364189.2	362367.1	1822.1	-0.0	-0.00
100YR-8HR	5.60	364727.3	362905.8	1821.5	-0.0	-0.00
100YR-8HR	5.62	365251.4	363430.1	1821.3	-0.0	-0.00
100YR-8HR	5.63	365772.0	363950.4	1821.6	-0.0	-0.00
100YR-8HR	5.65	366285.1	364463.9	1821.1	-0.0	-0.00
100YR-8HR	5.67	366806.7	364985.7	1821.0	-0.0	-0.00
100YR-8HR	5.68	367302.7	365481.8	1820.9	-0.0	-0.00
100YR-8HR	5.70	367809.6	365988.7	1820.9	-0.0	-0.00
100YR-8HR	5.72	368300.9	366480.1	1820.8	-0.0	-0.00
100YR-8HR	5.73	368796.6	366975.9	1820.7	-0.0	-0.00
100YR-8HR	5.75	369286.5	367465.8	1820.6	-0.0	-0.00
100YR-8HR	5.77	369776.6	367955.4	1821.2	-0.0	-0.00
100YR-8HR	5.78	370259.5	368438.9	1820.6	-0.0	-0.00
100YR-8HR	5.80	370736.5	368916.0	1820.5	-0.0	-0.00
100YR-8HR	5.82	371219.0	369398.6	1820.5	-0.0	-0.00
100YR-8HR	5.83	371699.1	369878.7	1820.4	-0.0	-0.00
100YR-8HR	5.85	372175.4	370355.0	1820.4	-0.0	-0.00
100YR-8HR	5.87	372640.8	370820.4	1820.4	-0.0	-0.00
100YR-8HR	5.88	373119.2	371298.8	1820.3	-0.0	-0.00
100YR-8HR	5.90	373588.3	371768.0	1820.3	-0.0	-0.00
100YR-8HR	5.92	374055.2	372234.9	1820.3	-0.0	-0.00
100YR-8HR	5.93	374524.5	372704.2	1820.3	-0.0	-0.00
100YR-8HR	5.95	374999.1	373178.5	1820.6	-0.0	-0.00
100YR-8HR	5.97	375459.8	373639.5	1820.3	-0.0	-0.00
100YR-8HR	5.98	375936.2	374116.0	1820.3	-0.0	-0.00
100YR-8HR	6.00	376396.8	374575.9	1820.9	-0.0	-0.00
100YR-8HR	6.02	376859.4	375039.1	1820.2	-0.0	-0.00
100YR-8HR	6.10	379155.4	377335.4	1820.0	-0.0	-0.00
100YR-8HR	6.18	381364.7	379545.0	1819.7	-0.0	-0.00
100YR-8HR	6.27	383485.1	381665.6	1819.5	-0.0	-0.00
100YR-8HR	6.35	385558.1	383738.8	1819.3	-0.0	-0.00
100YR-8HR	6.43	387589.7	385770.5	1819.2	-0.0	-0.00
100YR-8HR	6.52	389597.0	387777.8	1819.2	-0.0	-0.00
100YR-8HR	6.60	391588.1	389769.0	1819.1	-0.0	-0.00
100YR-8HR	6.68	393562.3	391743.3	1819.1	-0.0	-0.00
100YR-8HR	6.77	395522.7	393703.7	1819.0	-0.0	-0.00
100YR-8HR	6.85	397480.8	395661.7	1819.0	-0.0	-0.00
100YR-8HR	6.93	399426.9	397607.9	1819.0	-0.0	-0.00
100YR-8HR	7.02	401372.8	399553.8	1818.9	-0.0	-0.00
100YR-8HR	7.10	403247.9	401428.4	1819.5	-0.0	-0.00
100YR-8HR	7.18	404937.6	403118.6	1819.0	-0.0	-0.00
100YR-8HR	7.27	406462.9	404644.2	1818.7	-0.0	-0.00
100YR-8HR	7.35	407879.1	406060.6	1818.5	-0.0	-0.00
100YR-8HR	7.43	409221.7	407403.3	1818.4	-0.0	-0.00
100YR-8HR	7.52	410516.6	408698.3	1818.3	-0.0	-0.00
100YR-8HR	7.60	411767.4	409949.2	1818.2	-0.0	-0.00
100YR-8HR	7.68	412987.0	411168.8	1818.2	-0.0	-0.00
100YR-8HR	7.77	414184.0	412365.8	1818.2	-0.0	-0.00
100YR-8HR	7.85	415366.8	413548.6	1818.1	-0.0	-0.00
100YR-8HR	7.93	416544.9	414726.7	1818.1	-0.0	-0.00
100YR-8HR	8.02	417711.8	415893.8	1818.1	-0.0	-0.00
100YR-8HR	8.27	420080.0	418262.8	1817.2	-0.0	-0.00
100YR-8HR	8.52	420387.0	418569.9	1817.1	-0.0	-0.00
100YR-8HR	8.77	420387.0	418569.9	1817.1	-0.0	-0.00
100YR-8HR	9.02	420387.0	418569.9	1817.1	-0.0	-0.00
100YR-8HR	9.27	420387.0	418569.9	1817.1	-0.0	-0.00
100YR-8HR	9.52	420387.0	418569.8	1817.2	-0.0	-0.00
100YR-8HR	9.77	420387.0	418569.8	1817.2	-0.0	-0.00
100YR-8HR	10.02	420387.0	418569.8	1817.2	-0.0	-0.00
100YR-8HR	10.27	420387.0	418569.8	1817.2	-0.0	-0.00
100YR-8HR	10.52	420387.0	418569.8	1817.2	-0.0	-0.00
100YR-8HR	10.77	420387.0	418569.7	1817.3	-0.0	-0.00
100YR-8HR	11.02	420387.0	418569.7	1817.3	-0.0	-0.00
100YR-8HR	11.27	420387.0	418569.7	1817.3	-0.0	-0.00
100YR-8HR	11.52	420387.0	418569.7	1817.3	-0.0	-0.00
100YR-8HR	11.77	420387.0	418569.2	1817.9	-0.0	-0.00
100YR-8HR	12.02	420387.0	418569.1	1817.9	-0.0	-0.00
100YR-8HR	12.27	420387.0	418569.6	1817.4	-0.0	-0.00
100YR-8HR	12.52	420387.0	418569.6	1817.4	-0.0	-0.00
100YR-8HR	12.77	420387.0	418569.6	1817.4	-0.0	-0.00
100YR-8HR	13.02	420387.0	418569.5	1817.5	-0.0	-0.00
100YR-8HR	13.27	420387.0	418569.5	1817.5	-0.0	-0.00
100YR-8HR	13.52	420387.0	418569.5	1817.5	-0.0	-0.00
100YR-8HR	13.77	420387.0	418569.5	1817.5	-0.0	-0.00
100YR-8HR	14.27	420387.0	418569.4	1817.6	-0.0	-0.00
100YR-8HR	14.52	420387.0	418569.4	1817.6	-0.0	-0.00
100YR-8HR	14.77	420387.0	418569.4	1817.6	-0.0	-0.00
100YR-8HR	15.02	420387.0	418569.4	1817.6	-0.0	-0.00
100YR-8HR	15.27	420387.0	418569.4	1817.6	-0.0	-0.00
100YR-8HR	15.52	420387.0	418569.3	1817.7	-0.0	-0.00
100YR-8HR	16.02	420387.0	418569.3	1817.7	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
100YR-8HR	16.27	420387.0	418569.3	1817.7	-0.0	-0.00
100YR-8HR	16.52	420387.0	418569.3	1817.8	-0.0	-0.00
100YR-8HR	16.77	420387.0	418569.2	1817.8	-0.0	-0.00
100YR-8HR	17.02	420387.0	418569.2	1817.8	-0.0	-0.00
100YR-8HR	17.27	420387.0	418569.2	1817.8	-0.0	-0.00
100YR-8HR	17.52	420387.0	418569.2	1817.8	-0.0	-0.00
100YR-8HR	17.77	420387.0	418568.6	1818.4	-0.0	-0.00
100YR-8HR	18.02	420387.0	418568.6	1818.4	-0.0	-0.00
100YR-8HR	18.27	420387.0	418568.6	1818.4	-0.0	-0.00
100YR-8HR	18.52	420387.0	418569.1	1817.9	-0.0	-0.00
100YR-8HR	18.77	420387.0	418569.1	1817.9	-0.0	-0.00
100YR-8HR	19.02	420387.0	418569.0	1818.0	-0.0	-0.00
100YR-8HR	19.27	420387.0	418569.0	1818.0	-0.0	-0.00
100YR-8HR	19.52	420387.0	418569.0	1818.0	-0.0	-0.00
100YR-8HR	19.77	420387.0	418569.0	1818.0	-0.0	-0.00
100YR-8HR	20.02	420387.0	418569.0	1818.1	-0.0	-0.00
100YR-8HR	20.27	420387.0	418568.9	1818.1	-0.0	-0.00
100YR-8HR	20.52	420387.0	418568.9	1818.1	-0.0	-0.00
100YR-8HR	20.77	420387.0	418568.9	1818.1	-0.0	-0.00
100YR-8HR	21.02	420387.0	418568.9	1818.1	-0.0	-0.00
100YR-8HR	21.27	420387.0	418568.8	1818.2	-0.0	-0.00
100YR-8HR	21.52	420387.0	418568.8	1818.2	-0.0	-0.00
100YR-8HR	21.77	420387.0	418568.8	1818.2	-0.0	-0.00
100YR-8HR	22.02	420387.0	418568.8	1818.2	-0.0	-0.00
100YR-8HR	22.27	420387.0	418568.8	1818.2	-0.0	-0.00
100YR-8HR	22.52	420387.0	418568.7	1818.3	-0.0	-0.00
100YR-8HR	22.77	420387.0	418568.7	1818.3	-0.0	-0.00
100YR-8HR	23.02	420387.0	418568.7	1818.3	-0.0	-0.00
100YR-8HR	23.27	420387.0	418568.7	1818.4	-0.0	-0.00
100YR-8HR	23.52	420387.0	418568.6	1818.4	-0.0	-0.00
100YR-8HR	23.77	420387.0	418568.6	1818.4	-0.0	-0.00
100YR-8HR	24.02	420387.0	418568.1	1818.9	-0.0	-0.00
100YR-8HR	24.27	420387.0	418568.6	1818.4	-0.0	-0.00
100YR-8HR	24.52	420387.0	418568.5	1818.5	-0.0	-0.00
100YR-8HR	24.77	420387.0	418568.5	1818.5	-0.0	-0.00
100YR-8HR	25.02	420387.0	418568.5	1818.5	-0.0	-0.00
100YR-8HR	25.27	420387.0	418568.5	1818.5	-0.0	-0.00
100YR-8HR	25.52	420387.0	418568.5	1818.5	-0.0	-0.00
100YR-8HR	25.77	420387.0	418568.5	1818.5	-0.0	-0.00
100YR-8HR	26.02	420387.0	418568.4	1818.6	-0.0	-0.00
100YR-8HR	26.27	420387.0	418568.4	1818.6	-0.0	-0.00
100YR-8HR	26.52	420387.0	418568.4	1818.6	-0.0	-0.00
100YR-8HR	26.77	420387.0	418568.4	1818.6	-0.0	-0.00
100YR-8HR	27.02	420387.0	418568.4	1818.7	-0.0	-0.00
100YR-8HR	27.27	420387.0	418568.3	1818.7	-0.0	-0.00
100YR-8HR	27.52	420387.0	418568.3	1818.7	-0.0	-0.00
100YR-8HR	27.77	420387.0	418568.3	1818.7	-0.0	-0.00
100YR-8HR	28.02	420387.0	418568.3	1818.7	-0.0	-0.00
100YR-8HR	28.27	420387.0	418568.2	1818.8	-0.0	-0.00
100YR-8HR	28.52	420387.0	418568.2	1818.8	-0.0	-0.00
100YR-8HR	28.77	420387.0	418568.2	1818.8	-0.0	-0.00
100YR-8HR	29.02	420387.0	418568.2	1818.8	-0.0	-0.00
100YR-8HR	29.27	420387.0	418568.1	1818.9	-0.0	-0.00
100YR-8HR	29.52	420387.0	418568.1	1818.9	-0.0	-0.00
100YR-8HR	29.77	420387.0	418567.6	1819.4	-0.0	-0.00
100YR-8HR	30.02	420387.0	418567.6	1819.4	-0.0	-0.00
100YR-8HR	30.27	420387.0	418567.6	1819.4	-0.0	-0.00
100YR-8HR	30.52	420387.0	418567.6	1819.5	-0.0	-0.00
100YR-8HR	30.77	420387.0	418568.0	1819.0	-0.0	-0.00
100YR-8HR	31.02	420387.0	418568.0	1819.0	-0.0	-0.00
100YR-8HR	31.27	420387.0	418568.0	1819.0	-0.0	-0.00
100YR-8HR	31.52	420387.0	418568.0	1819.0	-0.0	-0.00
100YR-8HR	31.77	420387.0	418567.9	1819.1	-0.0	-0.00
100YR-8HR	32.00	420387.0	418567.4	1819.6	-0.0	-0.00
10YR-1HR	0.00	0.0	0.0	0.0	0.0	0.00
10YR-1HR	0.00	0.0	0.0	0.0	0.0	0.00
10YR-1HR	0.00	0.0	0.0	0.0	0.0	0.00
10YR-1HR	0.00	0.0	0.0	0.0	0.0	0.00
10YR-1HR	0.00	0.0	0.0	0.0	0.0	0.00
10YR-1HR	0.00	0.0	0.0	0.0	0.0	0.00
10YR-1HR	0.00	0.0	0.0	0.0	0.0	0.00
10YR-1HR	0.00	0.0	0.0	0.0	0.0	0.00
10YR-1HR	0.00	0.0	0.0	0.0	0.0	0.00
10YR-1HR	0.02	0.5	-1816.1	1816.6	0.0	0.00
10YR-1HR	0.03	2.5	-1814.1	1816.6	-0.0	-0.00
10YR-1HR	0.05	6.7	-1809.9	1816.6	-0.0	-0.00
10YR-1HR	0.07	14.5	-1802.5	1817.0	-0.0	-0.00
10YR-1HR	0.08	27.5	-1789.2	1816.7	-0.0	-0.00
10YR-1HR	0.10	47.6	-1769.1	1816.7	-0.0	-0.00
10YR-1HR	0.12	76.0	-1741.2	1817.2	-0.0	-0.00
10YR-1HR	0.13	113.8	-1703.4	1817.3	-0.0	-0.00
10YR-1HR	0.15	164.3	-1653.0	1817.3	-0.0	-0.00
10YR-1HR	0.17	232.8	-1584.5	1817.4	-0.0	-0.00
10YR-1HR	0.18	322.5	-1493.0	1815.5	-0.0	-0.00
10YR-1HR	0.20	435.2	-1380.6	1815.7	-0.0	-0.00
10YR-1HR	0.22	581.1	-1234.8	1816.0	-0.0	-0.00
10YR-1HR	0.23	768.6	-1047.0	1815.6	-0.0	-0.00



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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-1HR	0.25	1000.3	-815.9	1816.1	-0.0	-0.00
10YR-1HR	0.27	1296.2	-520.7	1816.9	-0.0	-0.00
10YR-1HR	0.28	1656.8	-161.5	1818.3	-0.0	-0.00
10YR-1HR	0.30	2103.9	283.7	1820.1	-0.0	-0.00
10YR-1HR	0.32	2660.1	837.1	1823.0	-0.0	-0.00
10YR-1HR	0.33	3333.8	1507.8	1826.0	-0.0	-0.00
10YR-1HR	0.35	4148.2	2317.7	1830.5	-0.0	-0.00
10YR-1HR	0.37	5125.7	3289.2	1836.5	-0.0	-0.00
10YR-1HR	0.38	6275.8	4431.7	1844.1	-0.0	-0.00
10YR-1HR	0.40	7628.3	5774.4	1853.9	-0.0	-0.00
10YR-1HR	0.42	9195.0	7329.6	1865.3	-0.0	-0.00
10YR-1HR	0.43	10978.4	9100.1	1878.3	-0.0	-0.00
10YR-1HR	0.45	12976.4	11083.9	1892.5	0.0	0.00
10YR-1HR	0.47	15330.7	13421.7	1908.9	-0.0	-0.00
10YR-1HR	0.48	17757.1	15832.1	1925.1	0.0	0.00
10YR-1HR	0.50	20377.9	18436.4	1941.5	-0.0	-0.00
10YR-1HR	0.52	23181.2	21223.4	1957.8	-0.0	-0.00
10YR-1HR	0.53	26077.3	24101.9	1975.4	-0.0	-0.00
10YR-1HR	0.55	29288.8	27298.6	1990.1	-0.0	-0.00
10YR-1HR	0.57	32600.8	30597.3	2003.5	-0.0	-0.00
10YR-1HR	0.58	36042.4	34026.8	2015.6	-0.0	-0.00
10YR-1HR	0.60	39563.1	37536.8	2026.3	-0.0	-0.00
10YR-1HR	0.62	43021.0	40987.1	2033.8	-0.0	-0.00
10YR-1HR	0.64	46882.4	44842.4	2040.0	-0.0	-0.00
10YR-1HR	0.65	50426.2	48383.0	2043.2	-0.0	-0.00
10YR-1HR	0.67	54314.3	52270.6	2043.7	-0.0	-0.00
10YR-1HR	0.68	57627.2	55587.3	2039.9	-0.0	-0.00
10YR-1HR	0.70	61445.3	59411.2	2034.1	-0.0	-0.00
10YR-1HR	0.72	64669.3	62641.2	2028.2	-0.0	-0.00
10YR-1HR	0.73	68157.2	66136.1	2021.1	-0.0	-0.00
10YR-1HR	0.75	71883.2	69870.9	2012.4	-0.0	-0.00
10YR-1HR	0.77	75117.4	73113.6	2003.9	-0.0	-0.00
10YR-1HR	0.78	78272.0	76277.1	1994.9	-0.0	-0.00
10YR-1HR	0.80	81342.8	79356.9	1985.8	-0.0	-0.00
10YR-1HR	0.82	84690.7	82715.6	1975.1	-0.0	-0.00
10YR-1HR	0.83	87565.6	85600.3	1965.3	-0.0	-0.00
10YR-1HR	0.85	90406.4	88451.6	1954.8	-0.0	-0.00
10YR-1HR	0.87	93064.0	91120.2	1943.8	-0.0	-0.00
10YR-1HR	0.88	95591.9	93660.5	1931.4	-0.0	-0.00
10YR-1HR	0.90	98063.5	96146.9	1916.6	-0.0	-0.00
10YR-1HR	0.92	100371.9	98466.9	1905.0	-0.0	-0.00
10YR-1HR	0.93	102604.1	100709.8	1894.3	-0.0	-0.00
10YR-1HR	0.95	104689.3	102804.4	1884.9	-0.0	-0.00
10YR-1HR	0.97	106652.0	104775.3	1876.7	-0.0	-0.00
10YR-1HR	0.98	108289.2	106419.1	1870.1	-0.0	-0.00
10YR-1HR	1.00	110000.5	108136.8	1863.7	-0.0	-0.00
10YR-1HR	1.25	125730.2	123907.9	1822.4	0.0	0.00
10YR-1HR	1.50	128148.5	126331.9	1816.5	-0.0	-0.00
10YR-1HR	1.75	128148.5	126331.9	1816.6	-0.0	-0.00
10YR-1HR	2.00	128148.5	126331.9	1816.6	-0.0	-0.00
10YR-1HR	2.25	128148.5	126331.9	1816.6	-0.0	-0.00
10YR-1HR	2.50	128148.5	126331.9	1816.6	-0.0	-0.00
10YR-1HR	3.00	128148.5	126331.8	1816.7	-0.0	-0.00
10YR-1HR	3.25	128148.5	126331.8	1816.7	-0.0	-0.00
10YR-1HR	3.50	128148.5	126331.8	1816.7	-0.0	-0.00
10YR-1HR	3.75	128148.5	126331.5	1817.0	-0.0	-0.00
10YR-1HR	4.00	128148.5	126331.5	1817.0	-0.0	-0.00
10YR-1HR	4.25	128148.5	126331.4	1817.0	-0.0	-0.00
10YR-1HR	4.50	128148.5	126331.7	1816.8	-0.0	-0.00
10YR-1HR	4.75	128148.5	126331.7	1816.8	-0.0	-0.00
10YR-1HR	5.00	128148.5	126331.6	1816.8	-0.0	-0.00
10YR-1HR	5.25	128148.5	126331.6	1816.9	-0.0	-0.00
10YR-1HR	5.50	128148.5	126331.6	1816.9	-0.0	-0.00
10YR-1HR	6.00	128148.5	126331.6	1816.9	-0.0	-0.00
10YR-1HR	6.25	128148.5	126331.5	1816.9	-0.0	-0.00
10YR-1HR	6.75	128148.5	126331.5	1817.0	-0.0	-0.00
10YR-1HR	7.00	128148.5	126331.5	1817.0	-0.0	-0.00
10YR-1HR	7.25	128148.5	126331.5	1817.0	-0.0	-0.00
10YR-1HR	7.75	128148.5	126331.4	1817.1	-0.0	-0.00
10YR-1HR	8.00	128148.5	126331.4	1817.1	-0.0	-0.00
10YR-1HR	8.25	128148.5	126331.4	1817.1	-0.0	-0.00
10YR-1HR	8.50	128148.5	126331.3	1817.1	-0.0	-0.00
10YR-1HR	8.75	128148.5	126331.3	1817.1	-0.0	-0.00
10YR-1HR	9.00	128148.5	126331.3	1817.2	-0.0	-0.00
10YR-1HR	9.25	128148.5	126331.3	1817.2	-0.0	-0.00
10YR-1HR	9.50	128148.5	126331.3	1817.2	-0.0	-0.00
10YR-1HR	9.75	128148.5	126331.2	1817.2	-0.0	-0.00
10YR-1HR	10.00	128148.5	126330.9	1817.5	-0.0	-0.00
10YR-1HR	10.25	128148.5	126330.9	1817.5	-0.0	-0.00
10YR-1HR	10.50	128148.5	126331.2	1817.3	-0.0	-0.00
10YR-1HR	10.75	128148.5	126331.2	1817.3	-0.0	-0.00
10YR-1HR	11.00	128148.5	126331.1	1817.3	-0.0	-0.00
10YR-1HR	11.25	128148.5	126331.1	1817.4	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-1HR	11.75	128148.5	126331.1	1817.4	-0.0	-0.00
10YR-1HR	12.00	128148.5	126331.0	1817.4	-0.0	-0.00
10YR-1HR	12.25	128148.5	126331.0	1817.4	-0.0	-0.00
10YR-1HR	12.50	128148.5	126331.0	1817.5	-0.0	-0.00
10YR-1HR	12.75	128148.5	126331.0	1817.5	-0.0	-0.00
10YR-1HR	13.00	128148.5	126331.0	1817.5	-0.0	-0.00
10YR-1HR	13.25	128148.5	126330.9	1817.5	-0.0	-0.00
10YR-1HR	13.50	128148.5	126330.9	1817.6	-0.0	-0.00
10YR-1HR	13.75	128148.5	126330.9	1817.6	-0.0	-0.00
10YR-1HR	14.00	128148.5	126330.9	1817.6	-0.0	-0.00
10YR-1HR	14.25	128148.5	126330.9	1817.6	-0.0	-0.00
10YR-1HR	14.50	128148.5	126330.8	1817.6	-0.0	-0.00
10YR-1HR	14.75	128148.5	126330.8	1817.7	-0.0	-0.00
10YR-1HR	15.00	128148.5	126330.8	1817.7	-0.0	-0.00
10YR-1HR	15.25	128148.5	126330.8	1817.7	-0.0	-0.00
10YR-1HR	15.50	128148.5	126330.7	1817.7	-0.0	-0.00
10YR-1HR	15.75	128148.5	126330.7	1817.7	-0.0	-0.00
10YR-1HR	16.00	128148.5	126330.4	1818.0	-0.0	-0.00
10YR-1HR	16.25	128148.5	126330.4	1818.1	-0.0	-0.00
10YR-1HR	16.50	128148.5	126330.4	1818.1	-0.0	-0.00
10YR-1HR	16.75	128148.5	126330.6	1817.8	-0.0	-0.00
10YR-1HR	17.00	128148.5	126330.6	1817.9	-0.0	-0.00
10YR-1HR	17.25	128148.5	126330.6	1817.9	-0.0	-0.00
10YR-1HR	17.50	128148.5	126330.6	1817.9	-0.0	-0.00
10YR-1HR	17.75	128148.5	126330.6	1817.9	-0.0	-0.00
10YR-1HR	18.00	128148.5	126330.5	1817.9	-0.0	-0.00
10YR-1HR	18.50	128148.5	126330.5	1818.0	-0.0	-0.00
10YR-1HR	18.75	128148.5	126330.5	1818.0	-0.0	-0.00
10YR-1HR	19.00	128148.5	126330.4	1818.0	-0.0	-0.00
10YR-1HR	19.25	128148.5	126330.4	1818.0	-0.0	-0.00
10YR-1HR	19.50	128148.5	126330.4	1818.1	-0.0	-0.00
10YR-1HR	19.75	128148.5	126330.4	1818.1	-0.0	-0.00
10YR-1HR	20.00	128148.5	126330.4	1818.1	-0.0	-0.00
10YR-1HR	20.25	128148.5	126330.3	1818.1	-0.0	-0.00
10YR-1HR	20.50	128148.5	126330.3	1818.2	-0.0	-0.00
10YR-1HR	20.75	128148.5	126330.3	1818.2	-0.0	-0.00
10YR-1HR	21.00	128148.5	126330.3	1818.2	-0.0	-0.00
10YR-1HR	21.25	128148.5	126330.3	1818.2	-0.0	-0.00
10YR-1HR	21.50	128148.5	126330.2	1818.2	-0.0	-0.00
10YR-1HR	22.00	128148.5	126330.2	1818.3	-0.0	-0.00
10YR-1HR	22.25	128148.5	126329.9	1818.6	-0.0	-0.00
10YR-1HR	22.50	128148.5	126329.9	1818.6	-0.0	-0.00
10YR-1HR	22.75	128148.5	126330.1	1818.3	-0.0	-0.00
10YR-1HR	23.00	128148.5	126330.1	1818.4	-0.0	-0.00
10YR-1HR	23.25	128148.5	126330.1	1818.4	-0.0	-0.00
10YR-1HR	23.50	128148.5	126330.1	1818.4	-0.0	-0.00
10YR-1HR	23.75	128148.5	126330.0	1818.4	-0.0	-0.00
10YR-1HR	24.00	128148.5	126330.0	1818.5	-0.0	-0.00
10YR-1HR	24.25	128148.5	126330.0	1818.5	-0.0	-0.00
10YR-1HR	24.50	128148.5	126330.0	1818.5	-0.0	-0.00
10YR-1HR	24.75	128148.5	126330.0	1818.5	-0.0	-0.00
10YR-1HR	25.00	128148.5	126329.9	1818.5	-0.0	-0.00
10YR-1HR	25.00	128148.5	126329.9	1818.5	-0.0	-0.00
10YR-24HR	0.00	0.0	0.0	0.0	0.0	0.00
10YR-24HR	0.08	5.1	-1811.5	1816.6	-0.0	-0.00
10YR-24HR	0.17	25.2	-1791.5	1816.6	-0.0	-0.00
10YR-24HR	0.25	61.8	-1755.3	1817.0	-0.0	-0.00
10YR-24HR	0.33	109.3	-1707.4	1816.7	-0.0	-0.00
10YR-24HR	0.42	164.2	-1652.5	1816.7	-0.0	-0.00
10YR-24HR	0.50	224.3	-1592.8	1817.1	-0.0	-0.00
10YR-24HR	0.58	288.2	-1528.5	1816.7	-0.0	-0.00
10YR-24HR	0.67	355.4	-1461.4	1816.7	-0.0	-0.00
10YR-24HR	0.75	424.6	-1392.1	1816.7	-0.0	-0.00
10YR-24HR	0.83	495.3	-1321.4	1816.7	-0.0	-0.00
10YR-24HR	0.92	567.0	-1249.8	1816.8	-0.0	-0.00
10YR-24HR	1.00	639.6	-1177.1	1816.8	-0.0	-0.00
10YR-24HR	1.08	719.4	-1097.3	1816.8	-0.0	-0.00
10YR-24HR	1.17	819.5	-997.3	1816.8	-0.0	-0.00
10YR-24HR	1.25	943.7	-873.2	1816.9	-0.0	-0.00
10YR-24HR	1.33	1087.5	-729.4	1816.9	-0.0	-0.00
10YR-24HR	1.42	1247.8	-569.1	1816.9	-0.0	-0.00
10YR-24HR	1.50	1422.3	-395.1	1817.4	-0.0	-0.00
10YR-24HR	1.58	1610.0	-207.3	1817.4	-0.0	-0.00
10YR-24HR	1.67	1808.8	-8.6	1817.4	-0.0	-0.00
10YR-24HR	1.75	2017.9	200.5	1817.4	-0.0	-0.00
10YR-24HR	1.83	2236.1	418.7	1817.4	-0.0	-0.00
10YR-24HR	1.92	2462.2	644.8	1817.4	-0.0	-0.00
10YR-24HR	2.00	2696.1	878.6	1817.5	-0.0	-0.00
10YR-24HR	2.08	2944.7	1127.2	1817.5	-0.0	-0.00
10YR-24HR	2.17	3227.5	1410.0	1817.6	-0.0	-0.00
10YR-24HR	2.25	3549.9	1732.3	1817.6	-0.0	-0.00
10YR-24HR	2.33	3904.0	2086.4	1817.6	-0.0	-0.00
10YR-24HR	2.42	4285.7	2468.1	1817.7	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-24HR	2.50	4688.9	2871.2	1817.7	-0.0	-0.00
10YR-24HR	2.58	5112.4	3294.6	1817.7	-0.0	-0.00
10YR-24HR	2.67	5554.7	3737.0	1817.8	-0.0	-0.00
10YR-24HR	2.75	6014.7	4197.0	1817.8	-0.0	-0.00
10YR-24HR	2.83	6493.1	4675.3	1817.8	-0.0	-0.00
10YR-24HR	2.92	6986.1	5168.3	1817.8	-0.0	-0.00
10YR-24HR	3.00	7494.8	5677.0	1817.8	-0.0	-0.00
10YR-24HR	3.08	8018.7	6200.8	1817.9	-0.0	-0.00
10YR-24HR	3.17	8557.1	6739.2	1817.9	-0.0	-0.00
10YR-24HR	3.25	9111.6	7293.7	1817.9	-0.0	-0.00
10YR-24HR	3.33	9678.1	7860.2	1817.9	-0.0	-0.00
10YR-24HR	3.42	10258.1	8440.1	1817.9	-0.0	-0.00
10YR-24HR	3.50	10851.0	9033.0	1818.0	-0.0	-0.00
10YR-24HR	3.58	11456.3	9638.4	1818.0	-0.0	-0.00
10YR-24HR	3.67	12075.7	10257.8	1818.0	-0.0	-0.00
10YR-24HR	3.75	12704.7	10886.7	1818.0	-0.0	-0.00
10YR-24HR	3.83	13344.6	11526.6	1818.0	-0.0	-0.00
10YR-24HR	3.92	13995.3	12177.3	1818.0	-0.0	-0.00
10YR-24HR	4.00	14656.1	12838.1	1818.0	-0.0	-0.00
10YR-24HR	4.08	15329.2	13511.2	1818.0	-0.0	-0.00
10YR-24HR	4.17	16009.9	14191.8	1818.0	-0.0	-0.00
10YR-24HR	4.25	16700.1	14882.1	1818.0	-0.0	-0.00
10YR-24HR	4.33	17399.4	15581.5	1817.9	-0.0	-0.00
10YR-24HR	4.42	18107.5	16289.6	1817.9	-0.0	-0.00
10YR-24HR	4.50	18826.3	17008.3	1817.9	0.0	0.00
10YR-24HR	4.58	19550.8	17732.8	1817.9	0.0	0.00
10YR-24HR	4.67	20283.1	18465.2	1817.9	0.0	0.00
10YR-24HR	4.75	21022.9	19205.0	1817.9	0.0	0.00
10YR-24HR	4.83	21769.9	19952.1	1817.9	0.0	0.00
10YR-24HR	4.92	22526.5	20708.6	1817.9	0.0	0.00
10YR-24HR	5.00	23287.4	21469.5	1817.9	0.0	0.00
10YR-24HR	5.08	24073.6	22255.7	1817.9	0.0	0.00
10YR-24HR	5.17	24920.9	23102.9	1818.0	0.0	0.00
10YR-24HR	5.25	25835.2	24017.2	1818.0	0.0	0.00
10YR-24HR	5.33	26800.4	24982.4	1818.0	0.0	0.00
10YR-24HR	5.42	27797.6	25979.9	1817.7	0.0	0.00
10YR-24HR	5.50	28821.9	27004.1	1817.8	0.0	0.00
10YR-24HR	5.58	29868.8	28051.0	1817.8	0.0	0.00
10YR-24HR	5.67	30935.4	29117.5	1817.8	0.0	0.00
10YR-24HR	5.75	32022.0	30204.2	1817.8	0.0	0.00
10YR-24HR	5.83	33118.8	31300.9	1817.9	0.0	0.00
10YR-24HR	5.92	34226.7	32408.9	1817.9	0.0	0.00
10YR-24HR	6.00	35344.2	33526.3	1817.9	0.0	0.00
10YR-24HR	6.08	36469.6	34651.7	1817.9	0.0	0.00
10YR-24HR	6.17	37606.1	35788.1	1817.9	0.0	0.00
10YR-24HR	6.25	38746.0	36928.0	1817.9	0.0	0.00
10YR-24HR	6.33	39892.7	38074.8	1817.9	0.0	0.00
10YR-24HR	6.42	41046.1	39228.2	1817.9	0.0	0.00
10YR-24HR	6.50	42206.0	40388.0	1818.0	0.0	0.00
10YR-24HR	6.58	43375.8	41557.9	1818.0	0.0	0.00
10YR-24HR	6.67	44547.9	42730.0	1818.0	0.0	0.00
10YR-24HR	6.75	45725.9	43907.9	1818.0	0.0	0.00
10YR-24HR	6.83	46909.5	45091.5	1818.0	0.0	0.00
10YR-24HR	6.92	48098.6	46280.6	1818.0	0.0	0.00
10YR-24HR	7.00	49296.9	47478.9	1818.0	0.0	0.00
10YR-24HR	7.08	50496.7	48678.7	1818.0	-0.0	-0.00
10YR-24HR	7.17	51702.2	49884.1	1818.0	0.0	0.00
10YR-24HR	7.25	52913.1	51095.1	1818.0	0.0	0.00
10YR-24HR	7.33	54129.3	52311.2	1818.1	0.0	0.00
10YR-24HR	7.42	55354.3	53536.3	1818.1	0.0	0.00
10YR-24HR	7.50	56580.1	54762.0	1818.1	0.0	0.00
10YR-24HR	7.58	57810.4	55992.3	1818.1	0.0	0.00
10YR-24HR	7.67	59045.1	57227.0	1818.1	0.0	0.00
10YR-24HR	7.75	60283.9	58465.8	1818.1	0.0	0.00
10YR-24HR	7.83	61530.9	59712.8	1818.1	0.0	0.00
10YR-24HR	7.92	62777.8	60959.7	1818.1	0.0	0.00
10YR-24HR	8.00	64028.7	62210.5	1818.1	0.0	0.00
10YR-24HR	8.08	65314.1	63495.8	1818.3	0.0	0.00
10YR-24HR	8.10	65589.8	63771.4	1818.4	0.0	0.00
10YR-24HR	8.12	65868.5	64050.1	1818.4	0.0	0.00
10YR-24HR	8.13	66159.3	64340.8	1818.5	0.0	0.00
10YR-24HR	8.15	66452.5	64633.9	1818.6	0.0	0.00
10YR-24HR	8.17	66752.0	64933.4	1818.6	0.0	0.00
10YR-24HR	8.18	67062.5	65243.8	1818.7	0.0	0.00
10YR-24HR	8.20	67373.5	65554.8	1818.7	0.0	0.00
10YR-24HR	8.22	67694.9	65877.0	1817.9	0.0	0.00
10YR-24HR	8.23	68014.5	66196.6	1817.9	0.0	0.00
10YR-24HR	8.25	68340.6	66522.6	1818.0	0.0	0.00
10YR-24HR	8.27	68675.2	66857.1	1818.0	0.0	0.00
10YR-24HR	8.28	69009.0	67191.1	1817.9	0.0	0.00
10YR-24HR	8.30	69345.2	67527.1	1818.1	0.0	0.00
10YR-24HR	8.32	69684.4	67866.3	1818.2	0.0	0.00
10YR-24HR	8.33	70029.8	68211.7	1818.2	0.0	0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-24HR	8.35	70374.9	68556.7	1818.2	0.0	0.00
10YR-24HR	8.37	70726.6	68908.5	1818.1	0.0	0.00
10YR-24HR	8.38	71076.6	69258.3	1818.3	0.0	0.00
10YR-24HR	8.40	71430.2	69611.5	1818.7	0.0	0.00
10YR-24HR	8.42	71784.8	69966.6	1818.2	0.0	0.00
10YR-24HR	8.43	72144.5	70326.2	1818.4	0.0	0.00
10YR-24HR	8.45	72502.9	70684.5	1818.4	0.0	0.00
10YR-24HR	8.47	72868.1	71049.7	1818.4	0.0	0.00
10YR-24HR	8.48	73226.9	71408.8	1818.1	0.0	0.00
10YR-24HR	8.50	73591.3	71772.8	1818.5	0.0	0.00
10YR-24HR	8.52	73959.1	72140.2	1818.9	0.0	0.00
10YR-24HR	8.53	74328.7	72510.3	1818.4	0.0	0.00
10YR-24HR	8.55	74695.8	72877.3	1818.5	0.0	0.00
10YR-24HR	8.57	75068.4	73249.6	1818.8	0.0	0.00
10YR-24HR	8.58	75438.0	73619.5	1818.5	0.0	0.00
10YR-24HR	8.60	75811.7	73993.1	1818.6	0.0	0.00
10YR-24HR	8.62	76191.6	74372.2	1819.3	0.0	0.00
10YR-24HR	8.63	76563.4	74744.7	1818.6	0.0	0.00
10YR-24HR	8.65	76944.7	75126.1	1818.6	0.0	0.00
10YR-24HR	8.67	77316.8	75498.2	1818.6	0.0	0.00
10YR-24HR	8.68	77696.2	75877.6	1818.6	0.0	0.00
10YR-24HR	8.70	78079.7	76261.0	1818.7	0.0	0.00
10YR-24HR	8.72	78458.6	76639.3	1819.3	0.0	0.00
10YR-24HR	8.73	78841.1	77022.5	1818.6	0.0	0.00
10YR-24HR	8.75	79221.2	77402.5	1818.7	0.0	0.00
10YR-24HR	8.77	79607.6	77788.9	1818.7	0.0	0.00
10YR-24HR	8.78	79992.7	78173.9	1818.7	0.0	0.00
10YR-24HR	8.80	80374.3	78555.6	1818.7	0.0	0.00
10YR-24HR	8.82	80759.8	78940.9	1818.9	0.0	0.00
10YR-24HR	8.83	81146.6	79328.1	1818.5	0.0	0.00
10YR-24HR	8.85	81531.7	79713.0	1818.8	0.0	0.00
10YR-24HR	8.87	81920.4	80101.6	1818.8	0.0	0.00
10YR-24HR	8.88	82306.5	80487.7	1818.8	0.0	0.00
10YR-24HR	8.90	82696.1	80877.3	1818.8	0.0	0.00
10YR-24HR	8.92	83083.8	81265.0	1818.8	0.0	0.00
10YR-24HR	8.93	83471.6	81652.8	1818.8	0.0	0.00
10YR-24HR	8.95	83858.7	82039.9	1818.8	0.0	0.00
10YR-24HR	8.97	84248.7	82429.9	1818.8	0.0	0.00
10YR-24HR	8.98	84638.5	82819.7	1818.8	0.0	0.00
10YR-24HR	9.00	85027.1	83208.3	1818.8	0.0	0.00
10YR-24HR	9.02	85421.3	83602.5	1818.8	0.0	0.00
10YR-24HR	9.03	85808.7	83989.9	1818.8	0.0	0.00
10YR-24HR	9.05	86202.3	84383.5	1818.8	0.0	0.00
10YR-24HR	9.07	86588.2	84769.4	1818.8	0.0	0.00
10YR-24HR	9.08	86982.3	85163.5	1818.8	0.0	0.00
10YR-24HR	9.10	87376.6	85557.8	1818.8	0.0	0.00
10YR-24HR	9.12	87763.2	85944.3	1818.8	0.0	0.00
10YR-24HR	9.13	88157.9	86339.1	1818.8	0.0	0.00
10YR-24HR	9.15	88552.8	86734.0	1818.8	0.0	0.00
10YR-24HR	9.17	88940.0	87121.2	1818.8	0.0	0.00
10YR-24HR	9.18	89335.3	87516.5	1818.8	0.0	0.00
10YR-24HR	9.20	89724.5	87905.7	1818.8	0.0	0.00
10YR-24HR	9.22	90120.3	88301.4	1818.8	0.0	0.00
10YR-24HR	9.23	90509.9	88691.0	1818.9	0.0	0.00
10YR-24HR	9.25	90906.1	89087.2	1818.9	0.0	0.00
10YR-24HR	9.27	91296.0	89477.2	1818.9	0.0	0.00
10YR-24HR	9.28	91692.6	89873.8	1818.9	0.0	0.00
10YR-24HR	9.30	92083.0	90264.1	1818.9	0.0	0.00
10YR-24HR	9.32	92480.0	90661.1	1818.9	0.0	0.00
10YR-24HR	9.33	92870.7	91051.9	1818.9	0.0	0.00
10YR-24HR	9.35	93268.1	91449.2	1818.9	0.0	0.00
10YR-24HR	9.37	93659.3	91840.4	1818.9	0.0	0.00
10YR-24HR	9.38	94057.0	92238.2	1818.9	0.0	0.00
10YR-24HR	9.40	94448.6	92629.7	1818.9	0.0	0.00
10YR-24HR	9.42	94846.7	93027.8	1818.9	0.0	0.00
10YR-24HR	9.43	95238.6	93419.7	1818.9	0.0	0.00
10YR-24HR	9.45	95637.1	93818.2	1818.9	0.0	0.00
10YR-24HR	9.47	96029.4	94210.5	1818.9	0.0	0.00
10YR-24HR	9.48	96428.3	94609.4	1818.9	0.0	0.00
10YR-24HR	9.50	96820.9	95002.0	1818.9	0.0	0.00
10YR-24HR	9.52	97220.2	95401.3	1818.9	0.0	0.00
10YR-24HR	9.53	97613.2	95794.3	1818.9	0.0	0.00
10YR-24HR	9.55	98007.7	96188.8	1818.9	0.0	0.00
10YR-24HR	9.57	98407.5	96588.6	1818.9	0.0	0.00
10YR-24HR	9.58	98802.3	96983.4	1818.9	0.0	0.00
10YR-24HR	9.60	99202.5	97383.5	1818.9	0.0	0.00
10YR-24HR	9.62	99597.6	97778.7	1818.9	0.0	0.00
10YR-24HR	9.63	99993.0	98174.1	1818.9	0.0	0.00
10YR-24HR	9.65	100393.7	98574.7	1818.9	0.0	0.00
10YR-24HR	9.67	100789.4	98970.4	1818.9	0.0	0.00
10YR-24HR	9.68	101190.4	99371.5	1818.9	0.0	0.00
10YR-24HR	9.70	101586.4	99767.5	1818.9	0.0	0.00
10YR-24HR	9.72	101982.6	100163.7	1818.9	0.0	0.00



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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-24HR	9.73	102384.2	100565.2	1818.9	0.0	0.00
10YR-24HR	9.75	102780.7	100961.8	1819.0	0.0	0.00
10YR-24HR	9.77	103177.4	101358.4	1819.0	0.0	0.00
10YR-24HR	9.78	103579.4	101760.5	1819.0	0.0	0.00
10YR-24HR	9.80	103976.5	102157.5	1819.0	0.0	0.00
10YR-24HR	9.82	104378.8	102559.9	1819.0	0.0	0.00
10YR-24HR	9.83	104776.2	102957.2	1819.0	0.0	0.00
10YR-24HR	9.85	105174.7	103355.8	1819.0	0.0	0.00
10YR-24HR	9.87	105573.4	103754.5	1819.0	0.0	0.00
10YR-24HR	9.88	105976.5	104157.5	1819.0	0.0	0.00
10YR-24HR	9.90	106375.5	104556.5	1819.0	0.0	0.00
10YR-24HR	9.92	106774.7	104955.7	1819.0	0.0	0.00
10YR-24HR	9.93	107174.0	105355.0	1819.0	0.0	0.00
10YR-24HR	9.95	107577.6	105758.7	1819.0	0.0	0.00
10YR-24HR	9.97	107977.3	106158.3	1819.0	0.0	0.00
10YR-24HR	9.98	108377.1	106558.1	1819.0	0.0	0.00
10YR-24HR	10.00	108777.3	106958.3	1819.0	0.0	0.00
10YR-24HR	10.02	109179.6	107360.6	1819.0	0.0	0.00
10YR-24HR	10.03	109582.8	107763.8	1819.0	0.0	0.00
10YR-24HR	10.05	109989.9	108170.8	1819.1	0.0	0.00
10YR-24HR	10.07	110400.9	108581.7	1819.2	0.0	0.00
10YR-24HR	10.08	110820.0	109000.7	1819.3	0.0	0.00
10YR-24HR	10.10	111239.3	109419.9	1819.4	0.0	0.00
10YR-24HR	10.12	111673.8	109854.3	1819.5	0.0	0.00
10YR-24HR	10.13	112113.7	110294.1	1819.7	0.0	0.00
10YR-24HR	10.15	112562.4	110742.6	1819.8	0.0	0.00
10YR-24HR	10.17	113018.6	111198.7	1819.9	0.0	0.00
10YR-24HR	10.18	113481.2	111661.2	1820.0	0.0	0.00
10YR-24HR	10.20	113948.9	112128.8	1820.1	0.0	0.00
10YR-24HR	10.22	114424.0	112603.9	1820.1	0.0	0.00
10YR-24HR	10.23	114897.7	113077.5	1820.3	0.0	0.00
10YR-24HR	10.25	115380.6	113560.3	1820.4	0.0	0.00
10YR-24HR	10.27	115872.7	114052.3	1820.4	0.0	0.00
10YR-24HR	10.28	116359.0	114538.5	1820.5	0.0	0.00
10YR-24HR	10.30	116855.0	115034.5	1820.6	0.0	0.00
10YR-24HR	10.32	117349.9	115529.3	1820.6	0.0	0.00
10YR-24HR	10.33	117852.5	116031.8	1820.7	0.0	0.00
10YR-24HR	10.35	118354.0	116533.3	1820.7	0.0	0.00
10YR-24HR	10.37	118864.3	117043.6	1820.8	0.0	0.00
10YR-24HR	10.38	119378.4	117557.6	1820.8	0.0	0.00
10YR-24HR	10.40	119878.5	118057.6	1820.9	0.0	0.00
10YR-24HR	10.42	120392.6	118571.7	1820.9	0.0	0.00
10YR-24HR	10.43	120908.7	119087.8	1820.9	0.0	0.00
10YR-24HR	10.45	121431.2	119610.2	1821.0	0.0	0.00
10YR-24HR	10.47	121943.7	120122.7	1821.0	0.0	0.00
10YR-24HR	10.48	122475.6	120654.5	1821.1	0.0	0.00
10YR-24HR	10.50	123001.9	121180.8	1821.0	0.0	0.00
10YR-24HR	10.52	123523.9	121702.8	1821.1	0.0	0.00
10YR-24HR	10.53	124037.7	122216.5	1821.2	0.0	0.00
10YR-24HR	10.55	124576.2	122755.0	1821.2	0.0	0.00
10YR-24HR	10.57	125102.7	123281.5	1821.2	0.0	0.00
10YR-24HR	10.58	125631.8	123810.6	1821.2	0.0	0.00
10YR-24HR	10.60	126162.3	124341.0	1821.3	0.0	0.00
10YR-24HR	10.62	126689.6	124868.3	1821.3	0.0	0.00
10YR-24HR	10.63	127226.0	125404.7	1821.3	0.0	0.00
10YR-24HR	10.65	127760.2	125938.8	1821.3	0.0	0.00
10YR-24HR	10.67	128299.5	126478.1	1821.4	0.0	0.00
10YR-24HR	10.68	128839.6	127018.3	1821.3	0.0	0.00
10YR-24HR	10.70	129385.9	127564.6	1821.4	0.0	0.00
10YR-24HR	10.72	129923.0	128101.6	1821.4	0.0	0.00
10YR-24HR	10.73	130451.8	128630.3	1821.4	0.0	0.00
10YR-24HR	10.75	130998.5	129177.1	1821.5	0.0	0.00
10YR-24HR	10.77	131542.0	129720.5	1821.5	0.0	0.00
10YR-24HR	10.78	132083.3	130261.8	1821.5	0.0	0.00
10YR-24HR	10.80	132625.4	130803.9	1821.5	0.0	0.00
10YR-24HR	10.82	133166.0	131344.5	1821.5	0.0	0.00
10YR-24HR	10.83	133718.3	131896.7	1821.5	0.0	0.00
10YR-24HR	10.85	134267.6	132446.0	1821.5	0.0	0.00
10YR-24HR	10.87	134803.5	132981.9	1821.5	0.0	0.00
10YR-24HR	10.88	135348.2	133526.6	1821.6	0.0	0.00
10YR-24HR	10.90	135897.2	134075.7	1821.6	0.0	0.00
10YR-24HR	10.92	136442.6	134621.0	1821.6	0.0	0.00
10YR-24HR	10.93	136994.7	135173.1	1821.6	0.0	0.00
10YR-24HR	10.95	137533.7	135712.1	1821.6	0.0	0.00
10YR-24HR	10.97	138082.6	136261.0	1821.6	0.0	0.00
10YR-24HR	10.98	138628.4	136806.8	1821.6	0.0	0.00
10YR-24HR	11.00	139185.2	137363.6	1821.6	0.0	0.00
10YR-24HR	11.02	139728.7	137907.1	1821.6	0.0	0.00
10YR-24HR	11.03	140285.7	138464.0	1821.7	0.0	0.00
10YR-24HR	11.05	140831.0	139009.2	1821.8	0.0	0.00
10YR-24HR	11.07	141396.5	139574.6	1821.9	0.0	0.00
10YR-24HR	11.08	141959.3	140137.3	1822.0	0.0	0.00
10YR-24HR	11.10	142525.5	140703.3	1822.2	0.0	0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-24HR	11.12	143113.4	141291.0	1822.4	0.0	0.00
10YR-24HR	11.13	143699.9	141877.4	1822.5	0.0	0.00
10YR-24HR	11.15	144293.5	142470.9	1822.6	0.0	0.00
10YR-24HR	11.17	144905.5	143082.7	1822.9	0.0	0.00
10YR-24HR	11.18	145514.1	143691.1	1823.0	0.0	0.00
10YR-24HR	11.20	146121.3	144298.2	1823.1	0.0	0.00
10YR-24HR	11.22	146745.5	144922.2	1823.2	0.0	0.00
10YR-24HR	11.23	147376.5	145553.3	1823.2	0.0	0.00
10YR-24HR	11.25	148016.2	146192.7	1823.5	0.0	0.00
10YR-24HR	11.27	148651.4	146827.8	1823.6	0.0	0.00
10YR-24HR	11.28	149283.0	147459.4	1823.6	0.0	0.00
10YR-24HR	11.30	149929.0	148105.3	1823.7	0.0	0.00
10YR-24HR	11.32	150568.9	148745.1	1823.8	0.0	0.00
10YR-24HR	11.33	151209.8	149385.9	1823.9	0.0	0.00
10YR-24HR	11.35	151866.5	150042.6	1823.9	0.0	0.00
10YR-24HR	11.37	152516.1	150692.1	1824.0	0.0	0.00
10YR-24HR	11.38	153178.5	151354.4	1824.1	0.0	0.00
10YR-24HR	11.40	153835.1	152011.0	1824.1	0.0	0.00
10YR-24HR	11.42	154494.1	152669.9	1824.2	0.0	0.00
10YR-24HR	11.43	155160.8	153336.6	1824.2	0.0	0.00
10YR-24HR	11.45	155823.9	153999.6	1824.3	-0.0	-0.00
10YR-24HR	11.47	156495.1	154670.8	1824.3	-0.0	-0.00
10YR-24HR	11.48	157161.7	155337.3	1824.4	-0.0	-0.00
10YR-24HR	11.50	157837.6	156013.2	1824.4	-0.0	-0.00
10YR-24HR	11.52	158506.3	156681.8	1824.5	-0.0	-0.00
10YR-24HR	11.53	159182.7	157358.2	1824.5	-0.0	-0.00
10YR-24HR	11.55	159850.8	158026.3	1824.5	0.0	0.00
10YR-24HR	11.57	160536.6	158712.0	1824.6	-0.0	-0.00
10YR-24HR	11.58	161206.5	159381.9	1824.6	0.0	0.00
10YR-24HR	11.60	161895.9	160071.3	1824.6	-0.0	-0.00
10YR-24HR	11.62	162572.1	160747.4	1824.7	0.0	0.00
10YR-24HR	11.63	163257.3	161432.6	1824.7	0.0	0.00
10YR-24HR	11.65	163938.6	162114.0	1824.5	0.0	0.00
10YR-24HR	11.67	164625.2	162800.5	1824.8	0.0	0.00
10YR-24HR	11.68	165321.9	163497.1	1824.8	0.0	0.00
10YR-24HR	11.70	166005.8	164181.0	1824.8	0.0	0.00
10YR-24HR	11.72	166679.9	164855.0	1824.8	0.0	0.00
10YR-24HR	11.73	167368.6	165543.8	1824.9	0.0	0.00
10YR-24HR	11.75	168067.8	166243.0	1824.9	0.0	0.00
10YR-24HR	11.77	168747.8	166922.9	1824.9	0.0	0.00
10YR-24HR	11.78	169459.4	167634.5	1824.9	0.0	0.00
10YR-24HR	11.80	170132.1	168307.1	1824.9	0.0	0.00
10YR-24HR	11.82	170824.0	168999.0	1825.0	0.0	0.00
10YR-24HR	11.83	171519.5	169694.5	1825.0	0.0	0.00
10YR-24HR	11.85	172205.4	170380.4	1825.0	0.0	0.00
10YR-24HR	11.87	172907.3	171082.4	1824.9	0.0	0.00
10YR-24HR	11.88	173603.8	171778.8	1825.0	0.0	0.00
10YR-24HR	11.90	174297.2	172472.2	1825.0	0.0	0.00
10YR-24HR	11.92	174980.9	173155.8	1825.0	0.0	0.00
10YR-24HR	11.93	175688.7	173863.7	1825.0	0.0	0.00
10YR-24HR	11.95	176371.1	174546.0	1825.1	0.0	0.00
10YR-24HR	11.97	177092.8	175267.8	1825.1	0.0	0.00
10YR-24HR	11.98	177775.9	175950.8	1825.1	0.0	0.00
10YR-24HR	12.00	178459.6	176634.5	1825.1	0.0	0.00
10YR-24HR	12.02	179169.3	177344.3	1825.0	0.0	0.00
10YR-24HR	12.03	179851.0	178025.8	1825.2	0.0	0.00
10YR-24HR	12.05	180542.2	178717.4	1824.8	0.0	0.00
10YR-24HR	12.07	181232.4	179407.6	1824.8	0.0	0.00
10YR-24HR	12.08	181895.7	180071.1	1824.7	0.0	0.00
10YR-24HR	12.10	182570.2	180746.1	1824.1	0.0	0.00
10YR-24HR	12.12	183203.5	181379.7	1823.8	0.0	0.00
10YR-24HR	12.13	183850.3	182026.7	1823.6	0.0	0.00
10YR-24HR	12.15	184468.4	182645.1	1823.2	0.0	0.00
10YR-24HR	12.17	185084.2	183261.2	1823.0	0.0	0.00
10YR-24HR	12.18	185703.6	183880.8	1822.8	0.0	0.00
10YR-24HR	12.20	186294.4	184471.8	1822.6	0.0	0.00
10YR-24HR	12.22	186886.1	185063.6	1822.5	0.0	0.00
10YR-24HR	12.23	187463.4	185641.1	1822.3	0.0	0.00
10YR-24HR	12.25	188033.3	186211.1	1822.2	0.0	0.00
10YR-24HR	12.27	188605.3	186783.2	1822.1	0.0	0.00
10YR-24HR	12.28	189172.9	187350.9	1822.0	0.0	0.00
10YR-24HR	12.30	189732.5	187910.7	1821.8	0.0	0.00
10YR-24HR	12.32	190282.1	188460.3	1821.8	0.0	0.00
10YR-24HR	12.33	190836.0	189014.3	1821.7	0.0	0.00
10YR-24HR	12.35	191383.8	189562.2	1821.6	0.0	0.00
10YR-24HR	12.37	191927.9	190106.1	1821.8	0.0	0.00
10YR-24HR	12.38	192470.2	190648.7	1821.4	0.0	0.00
10YR-24HR	12.40	192996.4	191174.7	1821.7	-0.0	-0.00
10YR-24HR	12.42	193527.2	191705.4	1821.8	-0.0	-0.00
10YR-24HR	12.43	194066.1	192244.4	1821.8	-0.0	-0.00
10YR-24HR	12.45	194591.7	192769.9	1821.7	-0.0	-0.00
10YR-24HR	12.47	195114.8	193293.1	1821.7	-0.0	-0.00
10YR-24HR	12.48	195635.6	193813.9	1821.7	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-24HR	12.50	196154.2	194332.5	1821.6	-0.0	-0.00
10YR-24HR	12.52	196670.0	194849.0	1821.1	-0.0	-0.00
10YR-24HR	12.53	197188.0	195367.0	1821.0	-0.0	-0.00
10YR-24HR	12.55	197709.3	195888.3	1821.0	-0.0	-0.00
10YR-24HR	12.57	198214.5	196393.5	1820.9	-0.0	-0.00
10YR-24HR	12.58	198726.7	196905.8	1820.9	-0.0	-0.00
10YR-24HR	12.60	199235.8	197414.9	1820.9	-0.0	-0.00
10YR-24HR	12.62	199742.1	197921.2	1820.9	-0.0	-0.00
10YR-24HR	12.63	200244.9	198424.0	1820.8	-0.0	-0.00
10YR-24HR	12.65	200748.2	198927.4	1820.8	-0.0	-0.00
10YR-24HR	12.67	201254.0	199433.2	1820.8	-0.0	-0.00
10YR-24HR	12.68	201752.3	199931.4	1820.8	-0.0	-0.00
10YR-24HR	12.70	202257.6	200436.9	1820.7	-0.0	-0.00
10YR-24HR	12.72	202760.3	200939.6	1820.7	-0.0	-0.00
10YR-24HR	12.73	203256.5	201435.8	1820.7	-0.0	-0.00
10YR-24HR	12.75	203755.9	201935.2	1820.7	-0.0	-0.00
10YR-24HR	12.77	204245.4	202424.8	1820.7	-0.0	-0.00
10YR-24HR	12.78	204741.5	202920.8	1820.7	-0.0	-0.00
10YR-24HR	12.80	205234.5	203413.9	1820.6	-0.0	-0.00
10YR-24HR	12.82	205734.8	203914.1	1820.6	-0.0	-0.00
10YR-24HR	12.83	206223.6	204403.2	1820.4	-0.0	-0.00
10YR-24HR	12.85	206723.0	204902.4	1820.6	-0.0	-0.00
10YR-24HR	12.87	207219.9	205399.3	1820.6	-0.0	-0.00
10YR-24HR	12.88	207706.6	205886.0	1820.6	-0.0	-0.00
10YR-24HR	12.90	208202.5	206381.9	1820.6	-0.0	-0.00
10YR-24HR	12.92	208698.6	206878.0	1820.6	-0.0	-0.00
10YR-24HR	12.93	209184.1	207363.5	1820.6	-0.0	-0.00
10YR-24HR	12.95	209678.4	207857.8	1820.6	-0.0	-0.00
10YR-24HR	12.97	210173.5	208352.9	1820.6	-0.0	-0.00
10YR-24HR	12.98	210665.2	208844.7	1820.4	-0.0	-0.00
10YR-24HR	13.00	211152.2	209331.6	1820.6	0.0	0.00
10YR-24HR	13.02	211651.1	209830.5	1820.6	0.0	0.00
10YR-24HR	13.03	212140.6	210319.4	1821.2	0.0	0.00
10YR-24HR	13.05	212628.3	210807.8	1820.5	0.0	0.00
10YR-24HR	13.07	213114.3	211293.9	1820.5	0.0	0.00
10YR-24HR	13.08	213601.8	211781.3	1820.4	0.0	0.00
10YR-24HR	13.10	214079.1	212258.7	1820.4	0.0	0.00
10YR-24HR	13.12	214558.4	212738.1	1820.3	0.0	0.00
10YR-24HR	13.13	215030.0	213209.8	1820.2	-0.0	-0.00
10YR-24HR	13.15	215499.7	213679.6	1820.1	-0.0	-0.00
10YR-24HR	13.17	215968.2	214148.1	1820.1	-0.0	-0.00
10YR-24HR	13.18	216425.6	214605.6	1820.0	-0.0	-0.00
10YR-24HR	13.20	216885.8	215065.8	1820.0	-0.0	-0.00
10YR-24HR	13.22	217344.1	215524.1	1820.0	-0.0	-0.00
10YR-24HR	13.23	217803.0	215983.0	1819.9	-0.0	-0.00
10YR-24HR	13.25	218250.5	216430.6	1819.9	-0.0	-0.00
10YR-24HR	13.27	218703.3	216883.5	1819.9	-0.0	-0.00
10YR-24HR	13.28	219150.3	217330.4	1819.8	-0.0	-0.00
10YR-24HR	13.30	219603.1	217783.3	1819.8	-0.0	-0.00
10YR-24HR	13.32	220050.5	218230.6	1819.9	-0.0	-0.00
10YR-24HR	13.33	220489.0	218669.2	1819.8	-0.0	-0.00
10YR-24HR	13.35	220935.7	219115.9	1819.8	-0.0	-0.00
10YR-24HR	13.37	221371.7	219552.0	1819.7	-0.0	-0.00
10YR-24HR	13.38	221811.5	219991.8	1819.7	-0.0	-0.00
10YR-24HR	13.40	222250.9	220431.2	1819.7	-0.0	-0.00
10YR-24HR	13.42	222692.7	220873.0	1819.7	-0.0	-0.00
10YR-24HR	13.43	223126.4	221306.2	1820.2	-0.0	-0.00
10YR-24HR	13.45	223564.6	221744.3	1820.3	-0.0	-0.00
10YR-24HR	13.47	223999.0	222179.3	1819.6	-0.0	-0.00
10YR-24HR	13.48	224435.0	222615.4	1819.6	-0.0	-0.00
10YR-24HR	13.50	224872.7	223053.1	1819.6	-0.0	-0.00
10YR-24HR	13.52	225303.9	223484.3	1819.6	-0.0	-0.00
10YR-24HR	13.53	225736.4	223916.8	1819.6	-0.0	-0.00
10YR-24HR	13.55	226172.2	224352.6	1819.6	-0.0	-0.00
10YR-24HR	13.57	226599.7	224780.2	1819.6	-0.0	-0.00
10YR-24HR	13.58	227030.3	225210.7	1819.5	-0.0	-0.00
10YR-24HR	13.60	227461.3	225641.8	1819.6	-0.0	-0.00
10YR-24HR	13.62	227889.8	226070.2	1819.6	-0.0	-0.00
10YR-24HR	13.63	228324.0	226504.3	1819.6	-0.0	-0.00
10YR-24HR	13.65	228748.1	226928.6	1819.5	-0.0	-0.00
10YR-24HR	13.67	229179.8	227360.3	1819.5	-0.0	-0.00
10YR-24HR	13.68	229605.0	227785.4	1819.6	-0.0	-0.00
10YR-24HR	13.70	230034.0	228214.4	1819.6	-0.0	-0.00
10YR-24HR	13.72	230461.9	228642.4	1819.5	-0.0	-0.00
10YR-24HR	13.73	230888.6	229069.1	1819.5	-0.0	-0.00
10YR-24HR	13.75	231318.4	229499.0	1819.5	-0.0	-0.00
10YR-24HR	13.77	231744.6	229925.1	1819.5	-0.0	-0.00
10YR-24HR	13.78	232173.2	230352.9	1820.2	-0.0	-0.00
10YR-24HR	13.80	232594.8	230775.4	1819.5	-0.0	-0.00
10YR-24HR	13.82	233021.8	231202.4	1819.5	-0.0	-0.00
10YR-24HR	13.83	233449.0	231629.6	1819.5	-0.0	-0.00
10YR-24HR	13.85	233874.8	232055.4	1819.5	-0.0	-0.00
10YR-24HR	13.87	234300.8	232481.3	1819.5	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-24HR	13.88	234729.5	232910.0	1819.5	-0.0	-0.00
10YR-24HR	13.90	235151.6	233332.1	1819.6	-0.0	-0.00
10YR-24HR	13.92	235575.9	233756.4	1819.5	-0.0	-0.00
10YR-24HR	13.93	236002.9	234183.4	1819.5	0.0	0.00
10YR-24HR	13.95	236427.0	234607.5	1819.5	0.0	0.00
10YR-24HR	13.97	236852.4	235032.9	1819.5	0.0	0.00
10YR-24HR	13.98	237283.4	235463.9	1819.5	0.0	0.00
10YR-24HR	14.00	237703.9	235884.5	1819.5	0.0	0.00
10YR-24HR	14.02	238135.4	236315.9	1819.5	0.0	0.00
10YR-24HR	14.03	238554.7	236735.2	1819.5	0.0	0.00
10YR-24HR	14.05	238985.7	237166.3	1819.5	0.0	0.00
10YR-24HR	14.07	239409.8	237590.3	1819.5	0.0	0.00
10YR-24HR	14.08	239834.7	238015.2	1819.6	0.0	0.00
10YR-24HR	14.10	240260.1	238440.5	1819.6	0.0	0.00
10YR-24HR	14.12	240685.9	238866.4	1819.5	0.0	0.00
10YR-24HR	14.13	241106.7	239287.2	1819.5	0.0	0.00
10YR-24HR	14.15	241533.2	239713.7	1819.5	0.0	0.00
10YR-24HR	14.17	241958.6	240139.2	1819.5	0.0	0.00
10YR-24HR	14.18	242385.8	240566.4	1819.5	0.0	0.00
10YR-24HR	14.20	242808.9	240989.1	1819.8	0.0	0.00
10YR-24HR	14.22	243233.3	241413.8	1819.5	0.0	0.00
10YR-24HR	14.23	243663.1	241843.7	1819.5	0.0	0.00
10YR-24HR	14.25	244086.7	242267.3	1819.5	0.0	0.00
10YR-24HR	14.27	244510.3	242690.8	1819.5	0.0	0.00
10YR-24HR	14.28	244936.4	243116.9	1819.5	0.0	0.00
10YR-24HR	14.30	245366.9	243547.4	1819.5	0.0	0.00
10YR-24HR	14.32	245790.8	243971.4	1819.5	0.0	0.00
10YR-24HR	14.33	246214.1	244394.6	1819.5	0.0	0.00
10YR-24HR	14.35	246637.1	244817.6	1819.5	0.0	0.00
10YR-24HR	14.37	247069.8	245250.3	1819.5	0.0	0.00
10YR-24HR	14.38	247498.1	245678.6	1819.5	0.0	0.00
10YR-24HR	14.40	247914.6	246095.2	1819.5	0.0	0.00
10YR-24HR	14.42	248339.2	246519.8	1819.5	0.0	0.00
10YR-24HR	14.43	248766.5	246947.1	1819.5	0.0	0.00
10YR-24HR	14.45	249193.5	247374.0	1819.6	0.0	0.00
10YR-24HR	14.47	249615.9	247796.5	1819.5	0.0	0.00
10YR-24HR	14.48	250047.0	248227.6	1819.5	-0.0	-0.00
10YR-24HR	14.50	250467.9	248648.3	1819.5	-0.0	-0.00
10YR-24HR	14.52	250892.1	249072.6	1819.5	-0.0	-0.00
10YR-24HR	14.53	251321.5	249502.0	1819.5	-0.0	-0.00
10YR-24HR	14.55	251745.7	249926.2	1819.5	-0.0	-0.00
10YR-24HR	14.57	252175.2	250355.7	1819.5	-0.0	-0.00
10YR-24HR	14.58	252601.2	250781.7	1819.5	-0.0	-0.00
10YR-24HR	14.60	253021.7	251202.2	1819.5	-0.0	-0.00
10YR-24HR	14.62	253448.3	251628.8	1819.5	-0.0	-0.00
10YR-24HR	14.63	253873.9	252054.4	1819.5	-0.0	-0.00
10YR-24HR	14.65	254298.6	252479.1	1819.5	-0.0	-0.00
10YR-24HR	14.67	254724.7	252905.3	1819.5	-0.0	-0.00
10YR-24HR	14.68	255154.4	253334.9	1819.5	-0.0	-0.00
10YR-24HR	14.70	255575.8	253756.3	1819.5	-0.0	-0.00
10YR-24HR	14.72	256004.6	254184.4	1820.2	-0.0	-0.00
10YR-24HR	14.73	256434.3	254614.7	1819.5	-0.0	-0.00
10YR-24HR	14.75	256855.3	255035.8	1819.5	-0.0	-0.00
10YR-24HR	14.77	257281.4	255461.9	1819.5	-0.0	-0.00
10YR-24HR	14.78	257707.8	255888.3	1819.5	-0.0	-0.00
10YR-24HR	14.80	258132.9	256313.3	1819.6	-0.0	-0.00
10YR-24HR	14.82	258558.3	256738.9	1819.5	-0.0	-0.00
10YR-24HR	14.83	258986.3	257166.7	1819.6	-0.0	-0.00
10YR-24HR	14.85	259416.2	257596.7	1819.5	-0.0	-0.00
10YR-24HR	14.87	259839.6	258020.1	1819.5	-0.0	-0.00
10YR-24HR	14.88	260266.5	258447.0	1819.5	-0.0	-0.00
10YR-24HR	14.90	260691.7	258872.2	1819.5	-0.0	-0.00
10YR-24HR	14.92	261115.2	259295.7	1819.5	-0.0	-0.00
10YR-24HR	14.93	261541.5	259722.0	1819.5	-0.0	-0.00
10YR-24HR	14.95	261967.2	260147.7	1819.5	-0.0	-0.00
10YR-24HR	14.97	262393.7	260574.2	1819.5	-0.0	-0.00
10YR-24HR	14.98	262826.4	261006.9	1819.5	-0.0	-0.00
10YR-24HR	15.00	263252.6	261433.1	1819.5	-0.0	-0.00
10YR-24HR	15.02	263673.8	261854.3	1819.5	-0.0	-0.00
10YR-24HR	15.03	264100.6	262281.1	1819.5	-0.0	-0.00
10YR-24HR	15.05	264526.4	262707.0	1819.4	-0.0	-0.00
10YR-24HR	15.07	264948.8	263129.0	1819.8	-0.0	-0.00
10YR-24HR	15.08	265364.2	263544.4	1819.7	0.0	0.00
10YR-24HR	15.10	265779.0	263959.6	1819.4	-0.0	-0.00
10YR-24HR	15.12	266188.8	264369.6	1819.2	-0.0	-0.00
10YR-24HR	15.13	266595.3	264776.2	1819.1	0.0	0.00
10YR-24HR	15.15	267000.3	265181.2	1819.1	0.0	0.00
10YR-24HR	15.17	267397.8	265578.0	1819.7	-0.0	-0.00
10YR-24HR	15.18	267793.5	265974.5	1819.0	-0.0	-0.00
10YR-24HR	15.20	268183.1	266364.1	1818.9	-0.0	-0.00
10YR-24HR	15.22	268574.8	266755.9	1818.9	-0.0	-0.00
10YR-24HR	15.23	268962.0	267142.3	1819.7	0.0	0.00
10YR-24HR	15.25	269345.6	267526.7	1818.8	0.0	0.00



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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-24HR	15.27	269729.3	267910.5	1818.8	0.0	0.00
10YR-24HR	15.28	270112.5	268293.7	1818.8	0.0	0.00
10YR-24HR	15.30	270493.8	268675.0	1818.8	0.0	0.00
10YR-24HR	15.32	270867.3	269048.5	1818.7	0.0	0.00
10YR-24HR	15.33	271245.5	269426.7	1818.7	0.0	0.00
10YR-24HR	15.35	271619.1	269800.4	1818.7	0.0	0.00
10YR-24HR	15.37	271994.3	270175.6	1818.7	0.0	0.00
10YR-24HR	15.38	272368.8	270550.1	1818.7	0.0	0.00
10YR-24HR	15.40	272735.9	270916.4	1819.5	0.0	0.00
10YR-24HR	15.42	273106.3	271287.6	1818.6	0.0	0.00
10YR-24HR	15.43	273476.5	271657.9	1818.6	0.0	0.00
10YR-24HR	15.45	273846.5	272027.9	1818.6	0.0	0.00
10YR-24HR	15.47	274216.0	272396.8	1819.2	0.0	0.00
10YR-24HR	15.48	274583.2	272763.7	1819.5	0.0	0.00
10YR-24HR	15.50	274947.7	273129.1	1818.6	0.0	0.00
10YR-24HR	15.52	275311.9	273493.4	1818.6	0.0	0.00
10YR-24HR	15.53	275675.7	273857.1	1818.6	0.0	0.00
10YR-24HR	15.55	276045.9	274227.2	1818.7	0.0	0.00
10YR-24HR	15.57	276407.2	274588.5	1818.7	0.0	0.00
10YR-24HR	15.58	276767.8	274949.2	1818.7	0.0	0.00
10YR-24HR	15.60	277130.1	275311.6	1818.5	0.0	0.00
10YR-24HR	15.62	277491.9	275673.3	1818.5	0.0	0.00
10YR-24HR	15.63	277850.7	276032.2	1818.5	0.0	0.00
10YR-24HR	15.65	278213.8	276395.3	1818.5	0.0	0.00
10YR-24HR	15.67	278574.5	276756.0	1818.5	0.0	0.00
10YR-24HR	15.68	278932.6	277114.1	1818.5	0.0	0.00
10YR-24HR	15.70	279294.9	277476.5	1818.5	0.0	0.00
10YR-24HR	15.72	279654.0	277835.5	1818.5	0.0	0.00
10YR-24HR	15.73	280008.1	278189.6	1818.5	0.0	0.00
10YR-24HR	15.75	280366.1	278547.6	1818.5	0.0	0.00
10YR-24HR	15.77	280727.4	278908.6	1818.8	0.0	0.00
10YR-24HR	15.78	281082.7	279263.9	1818.8	0.0	0.00
10YR-24HR	15.80	281443.6	279624.8	1818.8	0.0	0.00
10YR-24HR	15.82	281798.5	279979.7	1818.8	0.0	0.00
10YR-24HR	15.83	282159.0	280340.2	1818.8	0.0	0.00
10YR-24HR	15.85	282513.6	280694.8	1818.8	0.0	0.00
10YR-24HR	15.87	282873.8	281055.1	1818.8	0.0	0.00
10YR-24HR	15.88	283228.2	281409.4	1818.8	0.0	0.00
10YR-24HR	15.90	283582.4	281763.6	1818.8	0.0	0.00
10YR-24HR	15.92	283942.3	282123.5	1818.8	0.0	0.00
10YR-24HR	15.93	284296.4	282477.6	1818.8	0.0	0.00
10YR-24HR	15.95	284656.2	282837.4	1818.8	0.0	0.00
10YR-24HR	15.97	285010.1	283191.3	1818.8	0.0	0.00
10YR-24HR	15.98	285369.8	283551.1	1818.8	0.0	0.00
10YR-24HR	16.00	285723.8	283905.0	1818.8	0.0	0.00
10YR-24HR	16.08	287480.9	285662.2	1818.7	0.0	0.00
10YR-24HR	16.17	289165.5	287347.1	1818.4	0.0	0.00
10YR-24HR	16.25	290774.7	288956.5	1818.3	0.0	0.00
10YR-24HR	16.33	292324.9	290506.8	1818.2	0.0	0.00
10YR-24HR	16.42	293839.3	292021.2	1818.1	0.0	0.00
10YR-24HR	16.50	295328.8	293510.8	1818.0	0.0	0.00
10YR-24HR	16.58	296799.7	294981.7	1818.0	0.0	0.00
10YR-24HR	16.67	298260.4	296442.5	1818.0	0.0	0.00
10YR-24HR	16.75	299705.7	297887.7	1818.0	0.0	0.00
10YR-24HR	16.83	301143.9	299325.9	1817.9	0.0	0.00
10YR-24HR	16.92	302578.0	300760.1	1817.9	0.0	0.00
10YR-24HR	17.00	304010.2	302192.3	1817.9	0.0	0.00
10YR-24HR	17.08	305446.5	303628.6	1817.9	0.0	0.00
10YR-24HR	17.17	306877.6	305059.7	1817.9	0.0	0.00
10YR-24HR	17.25	308308.2	306490.3	1817.9	0.0	0.00
10YR-24HR	17.33	309738.5	307920.6	1817.9	0.0	0.00
10YR-24HR	17.42	311168.7	309350.7	1817.9	0.0	0.00
10YR-24HR	17.50	312603.5	310785.6	1817.9	0.0	0.00
10YR-24HR	17.58	314033.7	312215.7	1817.9	0.0	0.00
10YR-24HR	17.67	315463.9	313646.0	1817.9	0.0	0.00
10YR-24HR	17.75	316894.3	315076.4	1817.9	0.0	0.00
10YR-24HR	17.83	318324.8	316506.9	1817.9	0.0	0.00
10YR-24HR	17.92	319760.2	317942.2	1817.9	0.0	0.00
10YR-24HR	18.00	321191.1	319373.1	1817.9	0.0	0.00
10YR-24HR	18.08	322622.2	320804.2	1817.9	0.0	0.00
10YR-24HR	18.17	324053.5	322235.5	1817.9	0.0	0.00
10YR-24HR	18.25	325485.0	323667.0	1817.9	0.0	0.00
10YR-24HR	18.33	326921.3	325103.4	1817.9	0.0	0.00
10YR-24HR	18.42	328353.2	326535.3	1817.9	0.0	0.00
10YR-24HR	18.50	329785.3	327967.4	1817.9	0.0	0.00
10YR-24HR	18.58	331217.6	329399.7	1817.9	0.0	0.00
10YR-24HR	18.67	332650.1	330832.2	1817.9	0.0	0.00
10YR-24HR	18.75	334087.5	332269.5	1817.9	0.0	0.00
10YR-24HR	18.83	335520.4	333702.4	1817.9	0.0	0.00
10YR-24HR	18.92	336953.4	335135.5	1817.9	0.0	0.00
10YR-24HR	19.00	338386.7	336568.7	1817.9	0.0	0.00
10YR-24HR	19.08	339795.5	337977.7	1817.8	0.0	0.00
10YR-24HR	19.17	341135.3	339317.7	1817.6	0.0	0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-24HR	19.25	342389.3	340571.8	1817.5	0.0	0.00
10YR-24HR	19.33	343589.0	341771.6	1817.4	-0.0	-0.00
10YR-24HR	19.42	344752.4	342935.1	1817.4	-0.0	-0.00
10YR-24HR	19.50	345890.6	344073.3	1817.3	-0.0	-0.00
10YR-24HR	19.58	347013.3	345196.0	1817.3	-0.0	-0.00
10YR-24HR	19.67	348117.4	346300.1	1817.3	-0.0	-0.00
10YR-24HR	19.75	349210.4	347393.2	1817.2	-0.0	-0.00
10YR-24HR	19.83	350296.2	348479.0	1817.2	-0.0	-0.00
10YR-24HR	19.92	351377.8	349560.6	1817.2	-0.0	-0.00
10YR-24HR	20.00	352460.8	350643.5	1817.2	-0.0	-0.00
10YR-24HR	20.08	353539.5	351722.3	1817.2	-0.0	-0.00
10YR-24HR	20.17	354617.9	352800.6	1817.2	-0.0	-0.00
10YR-24HR	20.25	355695.7	353878.5	1817.2	-0.0	-0.00
10YR-24HR	20.33	356773.3	354956.0	1817.2	-0.0	-0.00
10YR-24HR	20.42	357854.1	356036.9	1817.2	-0.0	-0.00
10YR-24HR	20.50	358931.4	357114.2	1817.2	-0.0	-0.00
10YR-24HR	20.58	360008.6	358191.4	1817.2	-0.0	-0.00
10YR-24HR	20.67	361085.9	359268.6	1817.2	-0.0	-0.00
10YR-24HR	20.75	362163.1	360345.9	1817.2	-0.0	-0.00
10YR-24HR	20.83	363243.9	361426.6	1817.2	-0.0	-0.00
10YR-24HR	20.92	364321.2	362504.0	1817.2	-0.0	-0.00
10YR-24HR	21.00	365398.5	363581.3	1817.2	-0.0	-0.00
10YR-24HR	21.08	366450.7	364633.5	1817.1	-0.0	-0.00
10YR-24HR	21.17	367428.4	365611.5	1817.0	-0.0	-0.00
10YR-24HR	21.25	368326.9	366510.0	1816.9	-0.0	-0.00
10YR-24HR	21.33	369167.7	367350.5	1817.2	-0.0	-0.00
10YR-24HR	21.42	369971.9	368154.7	1817.2	-0.0	-0.00
10YR-24HR	21.50	370750.7	368933.5	1817.2	-0.0	-0.00
10YR-24HR	21.58	371510.3	369693.1	1817.1	-0.0	-0.00
10YR-24HR	21.67	372257.0	370439.9	1817.1	-0.0	-0.00
10YR-24HR	21.75	372990.2	371173.1	1817.1	-0.0	-0.00
10YR-24HR	21.83	373716.1	371899.0	1817.1	-0.0	-0.00
10YR-24HR	21.92	374437.6	372620.5	1817.1	-0.0	-0.00
10YR-24HR	22.00	375156.9	373339.8	1817.1	-0.0	-0.00
10YR-24HR	22.08	375853.1	374036.1	1817.1	-0.0	-0.00
10YR-24HR	22.17	376471.9	374655.2	1816.8	-0.0	-0.00
10YR-24HR	22.25	377010.1	375193.2	1817.0	-0.0	-0.00
10YR-24HR	22.33	377494.4	375677.6	1816.7	-0.0	-0.00
10YR-24HR	22.42	377940.6	376123.8	1816.7	-0.0	-0.00
10YR-24HR	22.50	378361.5	376544.8	1816.7	-0.0	-0.00
10YR-24HR	22.58	378762.9	376946.2	1816.7	-0.0	-0.00
10YR-24HR	22.67	379149.1	377332.4	1816.7	-0.0	-0.00
10YR-24HR	22.75	379524.3	377707.6	1816.7	-0.0	-0.00
10YR-24HR	22.83	379892.9	378076.1	1816.7	-0.0	-0.00
10YR-24HR	22.92	380256.1	378439.3	1816.7	-0.0	-0.00
10YR-24HR	23.00	380617.3	378800.5	1816.8	-0.0	-0.00
10YR-24HR	23.08	380977.6	379160.9	1816.8	-0.0	-0.00
10YR-24HR	23.17	381337.8	379521.0	1816.8	-0.0	-0.00
10YR-24HR	23.25	381698.0	379881.2	1816.8	-0.0	-0.00
10YR-24HR	23.33	382058.8	380242.0	1816.8	-0.0	-0.00
10YR-24HR	23.42	382418.6	380601.8	1816.8	-0.0	-0.00
10YR-24HR	23.50	382778.6	380961.8	1816.8	-0.0	-0.00
10YR-24HR	23.58	383138.3	381321.4	1816.8	-0.0	-0.00
10YR-24HR	23.67	383498.0	381681.1	1816.9	-0.0	-0.00
10YR-24HR	23.75	383857.8	382041.0	1816.9	-0.0	-0.00
10YR-24HR	23.83	384218.4	382401.5	1816.9	-0.0	-0.00
10YR-24HR	23.92	384578.3	382761.2	1817.1	-0.0	-0.00
10YR-24HR	24.00	384937.9	383121.0	1816.9	-0.0	-0.00
10YR-24HR	24.25	385707.9	383891.1	1816.8	0.0	0.00
10YR-24HR	24.50	385830.4	384013.7	1816.7	0.0	0.00
10YR-24HR	24.75	385830.4	384013.7	1816.7	0.0	0.00
10YR-24HR	25.00	385830.4	384013.7	1816.7	0.0	0.00
10YR-24HR	25.25	385830.4	384013.6	1816.7	0.0	0.00
10YR-24HR	25.50	385830.4	384013.6	1816.7	0.0	0.00
10YR-24HR	25.75	385830.4	384013.6	1816.8	0.0	0.00
10YR-24HR	26.00	385830.4	384013.6	1816.8	0.0	0.00
10YR-24HR	26.25	385830.4	384013.5	1816.8	0.0	0.00
10YR-24HR	26.50	385830.4	384013.5	1816.8	0.0	0.00
10YR-24HR	26.75	385830.4	384013.5	1816.9	0.0	0.00
10YR-24HR	27.00	385830.4	384013.5	1816.9	0.0	0.00
10YR-24HR	27.25	385830.4	384013.5	1816.9	0.0	0.00
10YR-24HR	27.50	385830.4	384013.4	1816.9	0.0	0.00
10YR-24HR	27.75	385830.4	384013.4	1816.9	0.0	0.00
10YR-24HR	28.00	385830.4	384013.3	1817.1	0.0	0.00
10YR-24HR	28.25	385830.4	384013.3	1817.1	0.0	0.00
10YR-24HR	28.50	385830.4	384013.4	1817.0	0.0	0.00
10YR-24HR	28.75	385830.4	384013.3	1817.0	0.0	0.00
10YR-24HR	29.00	385830.4	384013.3	1817.0	0.0	0.00
10YR-24HR	29.25	385830.4	384013.3	1817.1	0.0	0.00
10YR-24HR	29.50	385830.4	384013.3	1817.1	0.0	0.00
10YR-24HR	29.75	385830.4	384013.2	1817.1	0.0	0.00
10YR-24HR	30.00	385830.4	384013.2	1817.1	0.0	0.00
10YR-24HR	30.25	385830.4	384013.2	1817.2	0.0	0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-24HR	30.50	385830.4	384013.2	1817.2	0.0	0.00
10YR-24HR	30.75	385830.4	384013.2	1817.2	0.0	0.00
10YR-24HR	31.00	385830.4	384013.1	1817.2	0.0	0.00
10YR-24HR	31.25	385830.4	384013.1	1817.2	0.0	0.00
10YR-24HR	31.50	385830.4	384013.1	1817.3	0.0	0.00
10YR-24HR	31.75	385830.4	384013.1	1817.3	0.0	0.00
10YR-24HR	32.00	385830.4	384013.1	1817.3	0.0	0.00
10YR-24HR	32.25	385830.4	384013.0	1817.3	0.0	0.00
10YR-24HR	32.50	385830.4	384013.0	1817.3	0.0	0.00
10YR-24HR	32.75	385830.4	384013.0	1817.4	0.0	0.00
10YR-24HR	33.00	385830.4	384013.0	1817.4	0.0	0.00
10YR-24HR	33.25	385830.4	384012.9	1817.4	0.0	0.00
10YR-24HR	33.50	385830.4	384012.9	1817.4	0.0	0.00
10YR-24HR	33.75	385830.4	384012.9	1817.5	0.0	0.00
10YR-24HR	34.00	385830.4	384012.8	1817.6	0.0	0.00
10YR-24HR	34.25	385830.4	384012.7	1817.6	0.0	0.00
10YR-24HR	34.50	385830.4	384012.7	1817.6	0.0	0.00
10YR-24HR	34.75	385830.4	384012.8	1817.5	0.0	0.00
10YR-24HR	35.00	385830.4	384012.8	1817.6	0.0	0.00
10YR-24HR	35.25	385830.4	384012.8	1817.6	0.0	0.00
10YR-24HR	35.50	385830.4	384012.8	1817.6	0.0	0.00
10YR-24HR	35.75	385830.4	384012.7	1817.6	0.0	0.00
10YR-24HR	36.00	385830.4	384012.7	1817.6	0.0	0.00
10YR-24HR	36.25	385830.4	384012.7	1817.7	0.0	0.00
10YR-24HR	36.50	385830.4	384012.7	1817.7	0.0	0.00
10YR-24HR	36.75	385830.4	384012.6	1817.7	0.0	0.00
10YR-24HR	37.00	385830.4	384012.6	1817.7	0.0	0.00
10YR-24HR	37.25	385830.4	384012.6	1817.8	0.0	0.00
10YR-24HR	37.50	385830.4	384012.6	1817.8	0.0	0.00
10YR-24HR	37.75	385830.4	384012.6	1817.8	0.0	0.00
10YR-24HR	38.00	385830.4	384012.5	1817.8	0.0	0.00
10YR-24HR	38.25	385830.4	384012.5	1817.8	0.0	0.00
10YR-24HR	38.50	385830.4	384012.5	1817.9	0.0	0.00
10YR-24HR	38.75	385830.4	384012.5	1817.9	0.0	0.00
10YR-24HR	39.00	385830.4	384012.5	1817.9	0.0	0.00
10YR-24HR	39.25	385830.4	384012.4	1817.9	0.0	0.00
10YR-24HR	39.50	385830.4	384012.4	1817.9	0.0	0.00
10YR-24HR	39.75	385830.4	384012.4	1818.0	0.0	0.00
10YR-24HR	40.00	385830.4	384012.4	1818.0	0.0	0.00
10YR-24HR	40.25	385830.4	384012.2	1818.1	0.0	0.00
10YR-24HR	40.50	385830.4	384012.2	1818.1	0.0	0.00
10YR-24HR	40.75	385830.4	384012.3	1818.1	0.0	0.00
10YR-24HR	41.00	385830.4	384012.3	1818.1	0.0	0.00
10YR-24HR	41.25	385830.4	384012.3	1818.1	0.0	0.00
10YR-24HR	41.50	385830.4	384012.2	1818.1	0.0	0.00
10YR-24HR	41.75	385830.4	384012.2	1818.1	0.0	0.00
10YR-24HR	42.00	385830.4	384012.2	1818.2	0.0	0.00
10YR-24HR	42.25	385830.4	384012.2	1818.2	0.0	0.00
10YR-24HR	42.50	385830.4	384012.2	1818.2	0.0	0.00
10YR-24HR	42.75	385830.4	384012.1	1818.2	0.0	0.00
10YR-24HR	43.00	385830.4	384012.1	1818.2	0.0	0.00
10YR-24HR	43.25	385830.4	384012.1	1818.3	0.0	0.00
10YR-24HR	43.50	385830.4	384012.1	1818.3	0.0	0.00
10YR-24HR	43.75	385830.4	384012.1	1818.3	0.0	0.00
10YR-24HR	44.00	385830.4	384012.0	1818.3	0.0	0.00
10YR-24HR	44.25	385830.4	384012.0	1818.3	0.0	0.00
10YR-24HR	44.50	385830.4	384012.0	1818.4	0.0	0.00
10YR-24HR	44.75	385830.4	384012.0	1818.4	0.0	0.00
10YR-24HR	45.00	385830.4	384011.9	1818.4	0.0	0.00
10YR-24HR	45.25	385830.4	384011.9	1818.4	0.0	0.00
10YR-24HR	45.50	385830.4	384011.9	1818.5	0.0	0.00
10YR-24HR	45.75	385830.4	384011.9	1818.5	0.0	0.00
10YR-24HR	46.00	385830.4	384011.9	1818.5	0.0	0.00
10YR-24HR	46.25	385830.4	384011.7	1818.6	0.0	0.00
10YR-24HR	46.50	385830.4	384011.7	1818.7	0.0	0.00
10YR-24HR	46.75	385830.4	384011.7	1818.7	0.0	0.00
10YR-24HR	47.00	385830.4	384011.8	1818.6	0.0	0.00
10YR-24HR	47.25	385830.4	384011.8	1818.6	0.0	0.00
10YR-24HR	47.50	385830.4	384011.7	1818.6	0.0	0.00
10YR-24HR	47.75	385830.4	384011.7	1818.6	0.0	0.00
10YR-24HR	48.00	385830.4	384011.7	1818.7	0.0	0.00
10YR-8HR	0.00	0.0	0.0	0.0	0.0	0.00
10YR-8HR	0.00	0.0	0.0	0.0	0.0	0.00
10YR-8HR	0.00	0.0	0.0	0.0	0.0	0.00
10YR-8HR	0.00	0.0	0.0	0.0	0.0	0.00
10YR-8HR	0.00	0.0	0.0	0.0	0.0	0.00
10YR-8HR	0.08	7.8	-1808.9	1816.6	-0.0	-0.00
10YR-8HR	0.17	38.6	-1778.1	1816.7	-0.0	-0.00
10YR-8HR	0.25	94.7	-1722.4	1817.1	-0.0	-0.00
10YR-8HR	0.33	167.6	-1649.1	1816.7	-0.0	-0.00
10YR-8HR	0.42	251.7	-1565.0	1816.7	-0.0	-0.00
10YR-8HR	0.50	343.8	-1473.3	1817.1	-0.0	-0.00
10YR-8HR	0.58	441.8	-1375.0	1816.8	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-8HR	0.67	545.3	-1271.5	1816.8	-0.0	-0.00
10YR-8HR	0.75	654.2	-1162.5	1816.8	-0.0	-0.00
10YR-8HR	0.83	769.3	-1047.5	1816.8	-0.0	-0.00
10YR-8HR	0.92	890.7	-926.1	1816.8	-0.0	-0.00
10YR-8HR	1.00	1018.4	-798.4	1816.8	-0.0	-0.00
10YR-8HR	1.08	1202.7	-614.7	1817.4	-0.0	-0.00
10YR-8HR	1.17	1555.8	-261.8	1817.6	-0.0	-0.00
10YR-8HR	1.25	2114.5	298.3	1816.2	-0.0	-0.00
10YR-8HR	1.33	2850.7	1034.7	1815.9	-0.0	-0.00
10YR-8HR	1.42	3745.4	1927.6	1817.8	-0.0	-0.00
10YR-8HR	1.50	4782.0	2965.5	1816.6	-0.0	-0.00
10YR-8HR	1.58	5955.5	4138.9	1816.6	-0.0	-0.00
10YR-8HR	1.67	7265.0	5447.3	1817.6	-0.0	-0.00
10YR-8HR	1.75	8700.4	6883.0	1817.4	-0.0	-0.00
10YR-8HR	1.83	10254.2	8436.4	1817.8	-0.0	-0.00
10YR-8HR	1.92	11911.8	10093.4	1818.4	-0.0	-0.00
10YR-8HR	2.00	13671.0	11852.7	1818.3	-0.0	-0.00
10YR-8HR	2.08	15538.5	13719.5	1819.0	-0.0	-0.00
10YR-8HR	2.10	15949.9	14130.7	1819.2	-0.0	-0.00
10YR-8HR	2.12	16356.1	14536.7	1819.4	-0.0	-0.00
10YR-8HR	2.13	16791.2	14971.6	1819.6	-0.0	-0.00
10YR-8HR	2.15	17229.7	15410.0	1819.7	-0.0	-0.00
10YR-8HR	2.17	17677.1	15857.2	1819.9	0.0	0.00
10YR-8HR	2.18	18144.8	16324.8	1820.0	0.0	0.00
10YR-8HR	2.20	18611.8	16791.5	1820.2	0.0	0.00
10YR-8HR	2.22	19086.1	17265.8	1820.4	0.0	0.00
10YR-8HR	2.23	19575.9	17755.4	1820.5	0.0	0.00
10YR-8HR	2.25	20067.1	18246.5	1820.6	-0.0	-0.00
10YR-8HR	2.27	20576.2	18755.4	1820.8	0.0	0.00
10YR-8HR	2.28	21096.2	19275.3	1820.9	-0.0	-0.00
10YR-8HR	2.30	21605.0	19783.9	1821.0	-0.0	-0.00
10YR-8HR	2.32	22126.1	20304.9	1821.1	-0.0	-0.00
10YR-8HR	2.33	22662.3	20841.1	1821.2	-0.0	-0.00
10YR-8HR	2.35	23207.7	21386.4	1821.3	-0.0	-0.00
10YR-8HR	2.37	23748.8	21927.3	1821.5	-0.0	-0.00
10YR-8HR	2.38	24291.6	22470.0	1821.6	-0.0	-0.00
10YR-8HR	2.40	24869.1	23047.4	1821.7	-0.0	-0.00
10YR-8HR	2.42	25414.5	23592.7	1821.8	-0.0	-0.00
10YR-8HR	2.43	25981.6	24159.8	1821.9	-0.0	-0.00
10YR-8HR	2.45	26561.6	24739.6	1822.0	-0.0	-0.00
10YR-8HR	2.47	27126.7	25304.6	1822.0	-0.0	-0.00
10YR-8HR	2.48	27716.6	25894.4	1822.2	-0.0	-0.00
10YR-8HR	2.50	28295.5	26473.3	1822.3	-0.0	-0.00
10YR-8HR	2.52	28889.7	27067.3	1822.4	-0.0	-0.00
10YR-8HR	2.53	29497.4	27675.0	1822.4	-0.0	-0.00
10YR-8HR	2.55	30085.8	28263.3	1822.5	-0.0	-0.00
10YR-8HR	2.57	30691.5	28868.9	1822.6	-0.0	-0.00
10YR-8HR	2.58	31299.9	29477.2	1822.7	-0.0	-0.00
10YR-8HR	2.60	31908.2	30085.4	1822.8	-0.0	-0.00
10YR-8HR	2.62	32526.9	30704.0	1822.9	-0.0	-0.00
10YR-8HR	2.63	33166.3	31343.3	1822.9	-0.0	-0.00
10YR-8HR	2.65	33772.0	31948.9	1823.0	-0.0	-0.00
10YR-8HR	2.67	34397.7	32574.5	1823.1	-0.0	-0.00
10YR-8HR	2.68	35044.9	33221.7	1823.2	-0.0	-0.00
10YR-8HR	2.70	35665.1	33841.9	1823.3	-0.0	-0.00
10YR-8HR	2.72	36301.9	34478.5	1823.3	-0.0	-0.00
10YR-8HR	2.73	36947.6	35124.2	1823.4	-0.0	-0.00
10YR-8HR	2.75	37596.8	35773.3	1823.5	-0.0	-0.00
10YR-8HR	2.77	38241.3	36417.8	1823.6	-0.0	-0.00
10YR-8HR	2.78	38906.6	37083.0	1823.6	-0.0	-0.00
10YR-8HR	2.80	39535.5	37711.8	1823.7	-0.0	-0.00
10YR-8HR	2.82	40193.8	38370.1	1823.7	-0.0	-0.00
10YR-8HR	2.83	40855.4	39031.6	1823.8	-0.0	-0.00
10YR-8HR	2.85	41529.9	39706.1	1823.9	-0.0	-0.00
10YR-8HR	2.87	42175.5	40351.6	1823.9	-0.0	-0.00
10YR-8HR	2.88	42845.8	41021.8	1824.0	-0.0	-0.00
10YR-8HR	2.90	43516.6	41692.6	1824.0	-0.0	-0.00
10YR-8HR	2.92	44181.4	42357.3	1824.1	-0.0	-0.00
10YR-8HR	2.93	44853.2	43029.0	1824.2	-0.0	-0.00
10YR-8HR	2.95	45545.9	43721.7	1824.2	-0.0	-0.00
10YR-8HR	2.97	46215.2	44391.1	1824.2	-0.0	-0.00
10YR-8HR	2.98	46880.0	45055.7	1824.3	-0.0	-0.00
10YR-8HR	3.00	47560.3	45735.9	1824.4	-0.0	-0.00
10YR-8HR	3.02	48259.2	46434.5	1824.7	-0.0	-0.00
10YR-8HR	3.03	48960.6	47135.4	1825.2	-0.0	-0.00
10YR-8HR	3.05	49689.4	47863.3	1826.1	-0.0	-0.00
10YR-8HR	3.07	50467.3	48639.9	1827.4	-0.0	-0.00
10YR-8HR	3.08	51304.7	49475.1	1829.5	-0.0	-0.00
10YR-8HR	3.10	52230.2	50398.2	1832.1	-0.0	-0.00
10YR-8HR	3.12	53227.7	51392.9	1834.8	-0.0	-0.00
10YR-8HR	3.13	54265.3	52427.7	1837.6	-0.0	-0.00
10YR-8HR	3.15	55430.2	53589.7	1840.6	-0.0	-0.00
10YR-8HR	3.17	56634.1	54790.7	1843.4	-0.0	-0.00



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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-8HR	3.18	57912.4	56066.1	1846.2	-0.0	-0.00
10YR-8HR	3.20	59220.1	57371.3	1848.9	-0.0	-0.00
10YR-8HR	3.22	60656.8	58805.4	1851.4	-0.0	-0.00
10YR-8HR	3.23	62065.5	60211.7	1853.8	-0.0	-0.00
10YR-8HR	3.25	63514.0	61657.9	1856.1	-0.0	-0.00
10YR-8HR	3.27	65095.7	63237.3	1858.4	-0.0	-0.00
10YR-8HR	3.28	66674.3	64813.8	1860.5	-0.0	-0.00
10YR-8HR	3.30	68248.6	66385.9	1862.6	-0.0	-0.00
10YR-8HR	3.32	69890.6	68026.0	1864.7	-0.0	-0.00
10YR-8HR	3.33	71528.4	69661.9	1866.6	-0.0	-0.00
10YR-8HR	3.35	73310.6	71442.2	1868.4	-0.0	-0.00
10YR-8HR	3.37	75063.7	73193.4	1870.3	-0.0	-0.00
10YR-8HR	3.38	76838.1	74966.8	1871.4	-0.0	-0.00
10YR-8HR	3.40	78475.4	76601.9	1873.5	-0.0	-0.00
10YR-8HR	3.42	80292.7	78417.7	1875.0	-0.0	-0.00
10YR-8HR	3.43	82259.8	80383.2	1876.6	-0.0	-0.00
10YR-8HR	3.45	84027.5	82149.5	1878.0	-0.0	-0.00
10YR-8HR	3.47	85916.2	84036.9	1879.4	-0.0	-0.00
10YR-8HR	3.48	87795.8	85915.2	1880.6	-0.0	-0.00
10YR-8HR	3.50	89724.1	87842.1	1882.1	-0.0	-0.00
10YR-8HR	3.52	91746.8	89863.4	1883.4	-0.0	-0.00
10YR-8HR	3.53	93523.4	91638.9	1884.4	-0.0	-0.00
10YR-8HR	3.55	95494.2	93608.4	1885.8	-0.0	-0.00
10YR-8HR	3.57	97487.4	95600.3	1887.1	-0.0	-0.00
10YR-8HR	3.58	99635.4	97747.1	1888.3	-0.0	-0.00
10YR-8HR	3.60	101589.5	99700.4	1889.1	-0.0	-0.00
10YR-8HR	3.62	103499.0	101608.6	1890.4	-0.0	-0.00
10YR-8HR	3.63	105654.8	103763.3	1891.6	-0.0	-0.00
10YR-8HR	3.65	107729.6	105837.0	1892.6	-0.0	-0.00
10YR-8HR	3.67	109738.9	107845.4	1893.5	-0.0	-0.00
10YR-8HR	3.68	111773.9	109879.5	1894.4	-0.0	-0.00
10YR-8HR	3.70	114007.2	112111.9	1895.3	-0.0	-0.00
10YR-8HR	3.72	115978.6	114082.5	1896.2	-0.0	-0.00
10YR-8HR	3.73	118104.7	116207.7	1897.0	-0.0	-0.00
10YR-8HR	3.75	120247.0	118349.3	1897.8	-0.0	-0.00
10YR-8HR	3.77	122481.3	120582.8	1898.5	-0.0	-0.00
10YR-8HR	3.78	124512.5	122613.4	1899.1	-0.0	-0.00
10YR-8HR	3.80	126713.3	124813.6	1899.8	-0.0	-0.00
10YR-8HR	3.82	128804.5	126904.1	1900.3	-0.0	-0.00
10YR-8HR	3.83	130962.0	129061.1	1900.9	-0.0	-0.00
10YR-8HR	3.85	133143.3	131241.9	1901.4	-0.0	-0.00
10YR-8HR	3.87	135269.9	133368.0	1901.9	-0.0	-0.00
10YR-8HR	3.88	137596.8	135694.4	1902.4	-0.0	-0.00
10YR-8HR	3.90	139749.3	137846.4	1902.9	-0.0	-0.00
10YR-8HR	3.92	141959.8	140056.6	1903.1	-0.0	-0.00
10YR-8HR	3.93	144047.1	142143.4	1903.7	-0.0	-0.00
10YR-8HR	3.95	146317.6	144413.6	1904.0	-0.0	-0.00
10YR-8HR	3.97	148540.9	146636.5	1904.4	-0.0	-0.00
10YR-8HR	3.98	150639.2	148734.4	1904.7	-0.0	-0.00
10YR-8HR	4.00	152997.4	151092.7	1904.7	-0.0	-0.00
10YR-8HR	4.02	155070.5	153166.2	1904.4	-0.0	-0.00
10YR-8HR	4.03	157355.8	155452.9	1902.9	-0.0	-0.00
10YR-8HR	4.05	159439.0	157538.4	1900.5	-0.0	-0.00
10YR-8HR	4.07	161664.4	159767.6	1896.8	-0.0	-0.00
10YR-8HR	4.08	163642.2	161750.6	1891.6	-0.0	-0.00
10YR-8HR	4.10	165615.4	163729.4	1886.0	-0.0	-0.00
10YR-8HR	4.12	167481.3	165600.7	1880.6	-0.0	-0.00
10YR-8HR	4.13	169376.1	167500.8	1875.3	-0.0	-0.00
10YR-8HR	4.15	171144.6	169273.6	1871.0	-0.0	-0.00
10YR-8HR	4.17	172767.9	170901.1	1866.8	-0.0	-0.00
10YR-8HR	4.18	174447.2	172584.2	1863.0	-0.0	-0.00
10YR-8HR	4.20	175981.4	174121.5	1859.9	-0.0	-0.00
10YR-8HR	4.22	177489.0	175631.8	1857.3	-0.0	-0.00
10YR-8HR	4.23	178927.1	177072.1	1855.0	-0.0	-0.00
10YR-8HR	4.25	180361.2	178508.4	1852.8	-0.0	-0.00
10YR-8HR	4.27	181742.3	179891.4	1850.9	-0.0	-0.00
10YR-8HR	4.28	183122.6	181273.6	1849.1	-0.0	-0.00
10YR-8HR	4.30	184429.1	182581.5	1847.6	-0.0	-0.00
10YR-8HR	4.32	185735.2	183889.1	1846.0	-0.0	-0.00
10YR-8HR	4.33	186981.2	185136.4	1844.8	-0.0	-0.00
10YR-8HR	4.35	188173.5	186329.9	1843.6	-0.0	-0.00
10YR-8HR	4.37	189385.9	187543.3	1842.6	-0.0	-0.00
10YR-8HR	4.38	190578.5	188736.9	1841.6	-0.0	-0.00
10YR-8HR	4.40	191741.9	189901.3	1840.7	-0.0	-0.00
10YR-8HR	4.42	192886.8	191046.8	1840.0	-0.0	-0.00
10YR-8HR	4.43	194001.3	192162.1	1839.2	-0.0	-0.00
10YR-8HR	4.45	195108.3	193269.8	1838.5	-0.0	-0.00
10YR-8HR	4.47	196162.2	194324.4	1837.9	-0.0	-0.00
10YR-8HR	4.48	197265.2	195427.9	1837.4	-0.0	-0.00
10YR-8HR	4.50	198329.4	196492.7	1836.7	-0.0	-0.00
10YR-8HR	4.52	199340.1	197503.9	1836.2	-0.0	-0.00
10YR-8HR	4.53	200372.2	198536.6	1835.6	-0.0	-0.00
10YR-8HR	4.55	201380.8	199545.4	1835.4	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-8HR	4.57	202405.9	200571.2	1834.7	-0.0	-0.00
10YR-8HR	4.58	203370.6	201536.3	1834.3	-0.0	-0.00
10YR-8HR	4.60	204358.9	202525.0	1833.9	-0.0	-0.00
10YR-8HR	4.62	205320.1	203486.6	1833.5	-0.0	-0.00
10YR-8HR	4.63	206276.6	204443.4	1833.2	-0.0	-0.00
10YR-8HR	4.65	207230.4	205397.6	1832.8	-0.0	-0.00
10YR-8HR	4.67	208175.9	206343.3	1832.5	-0.0	-0.00
10YR-8HR	4.68	209101.9	207269.7	1832.2	-0.0	-0.00
10YR-8HR	4.70	210041.1	208209.1	1832.0	-0.0	-0.00
10YR-8HR	4.72	210939.5	209107.7	1831.8	-0.0	-0.00
10YR-8HR	4.73	211855.6	210024.0	1831.6	-0.0	-0.00
10YR-8HR	4.75	212752.5	210921.2	1831.4	-0.0	-0.00
10YR-8HR	4.77	213650.2	211818.9	1831.2	-0.0	-0.00
10YR-8HR	4.78	214544.8	212713.8	1831.0	-0.0	-0.00
10YR-8HR	4.80	215446.9	213616.0	1830.9	-0.0	-0.00
10YR-8HR	4.82	216325.9	214495.1	1830.8	-0.0	-0.00
10YR-8HR	4.83	217206.9	215376.2	1830.7	-0.0	-0.00
10YR-8HR	4.85	218076.7	216246.0	1830.7	-0.0	-0.00
10YR-8HR	4.87	218954.1	217123.6	1830.5	-0.0	-0.00
10YR-8HR	4.88	219835.3	218004.5	1830.8	-0.0	-0.00
10YR-8HR	4.90	220714.4	218884.1	1830.4	-0.0	-0.00
10YR-8HR	4.92	221595.6	219765.1	1830.5	-0.0	-0.00
10YR-8HR	4.93	222457.9	220627.4	1830.5	-0.0	-0.00
10YR-8HR	4.95	223317.6	221487.3	1830.2	-0.0	-0.00
10YR-8HR	4.97	224193.9	222363.1	1830.8	-0.0	-0.00
10YR-8HR	4.98	225035.5	223205.3	1830.2	-0.0	-0.00
10YR-8HR	5.00	225904.5	224074.3	1830.2	-0.0	-0.00
10YR-8HR	5.02	226768.5	224938.4	1830.1	-0.0	-0.00
10YR-8HR	5.03	227633.1	225803.3	1829.8	-0.0	-0.00
10YR-8HR	5.05	228470.2	226640.4	1829.8	0.0	0.00
10YR-8HR	5.07	229295.3	227466.5	1828.8	0.0	0.00
10YR-8HR	5.08	230114.9	228286.5	1828.4	0.0	0.00
10YR-8HR	5.10	230876.2	229049.2	1827.0	0.0	0.00
10YR-8HR	5.12	231621.9	229795.8	1826.1	0.0	0.00
10YR-8HR	5.13	232333.7	230508.4	1825.3	0.0	0.00
10YR-8HR	5.15	233011.4	231186.8	1824.6	0.0	0.00
10YR-8HR	5.17	233666.3	231842.2	1824.1	0.0	0.00
10YR-8HR	5.18	234301.5	232478.2	1823.3	0.0	0.00
10YR-8HR	5.20	234906.5	233083.7	1822.8	0.0	0.00
10YR-8HR	5.22	235484.1	233661.6	1822.4	0.0	0.00
10YR-8HR	5.23	236055.3	234232.1	1823.1	0.0	0.00
10YR-8HR	5.25	236613.9	234792.1	1821.8	0.0	0.00
10YR-8HR	5.27	237141.4	235319.4	1821.9	0.0	0.00
10YR-8HR	5.28	237659.9	235838.7	1821.1	0.0	0.00
10YR-8HR	5.30	238170.7	236349.8	1820.9	0.0	0.00
10YR-8HR	5.32	238665.2	236844.6	1820.7	0.0	0.00
10YR-8HR	5.33	239146.1	237325.6	1820.5	0.0	0.00
10YR-8HR	5.35	239618.3	237797.5	1820.8	0.0	0.00
10YR-8HR	5.37	240076.8	238256.7	1820.1	0.0	0.00
10YR-8HR	5.38	240533.4	238713.5	1820.0	0.0	0.00
10YR-8HR	5.40	240975.9	239156.0	1819.9	0.0	0.00
10YR-8HR	5.42	241409.1	239589.3	1819.8	0.0	0.00
10YR-8HR	5.43	241836.6	240016.9	1819.6	0.0	0.00
10YR-8HR	5.45	242262.4	240442.7	1819.6	0.0	0.00
10YR-8HR	5.47	242679.9	240860.1	1819.8	0.0	0.00
10YR-8HR	5.48	243082.8	241263.1	1819.8	0.0	0.00
10YR-8HR	5.50	243487.1	241667.9	1819.2	0.0	0.00
10YR-8HR	5.52	243887.5	242068.4	1819.1	0.0	0.00
10YR-8HR	5.53	244276.6	242457.6	1819.0	0.0	0.00
10YR-8HR	5.55	244668.3	242848.5	1819.8	0.0	0.00
10YR-8HR	5.57	245048.0	243229.1	1818.9	0.0	0.00
10YR-8HR	5.58	245422.7	243603.8	1818.8	0.0	0.00
10YR-8HR	5.60	245796.9	243978.2	1818.8	0.0	0.00
10YR-8HR	5.62	246164.8	244346.1	1818.7	0.0	0.00
10YR-8HR	5.63	246526.1	244707.2	1818.8	0.0	0.00
10YR-8HR	5.65	246887.7	245069.2	1818.6	0.0	0.00
10YR-8HR	5.67	247246.0	245426.5	1819.4	0.0	0.00
10YR-8HR	5.68	247596.5	245777.1	1819.4	0.0	0.00
10YR-8HR	5.70	247949.7	246130.3	1819.4	0.0	0.00
10YR-8HR	5.72	248294.3	246475.0	1819.3	0.0	0.00
10YR-8HR	5.73	248641.9	246822.6	1819.3	0.0	0.00
10YR-8HR	5.75	248981.5	247162.2	1819.3	0.0	0.00
10YR-8HR	5.77	249318.9	247499.7	1819.2	0.0	0.00
10YR-8HR	5.78	249660.0	247840.8	1819.2	0.0	0.00
10YR-8HR	5.80	249993.9	248174.7	1819.2	0.0	0.00
10YR-8HR	5.82	250331.8	248512.6	1819.2	0.0	0.00
10YR-8HR	5.83	250662.8	248843.6	1819.2	0.0	0.00
10YR-8HR	5.85	250998.0	249178.8	1819.2	0.0	0.00
10YR-8HR	5.87	251326.6	249507.4	1819.2	0.0	0.00
10YR-8HR	5.88	251659.5	249840.4	1819.1	0.0	0.00
10YR-8HR	5.90	251986.2	250167.1	1819.1	0.0	0.00
10YR-8HR	5.92	252312.1	250493.0	1819.1	0.0	0.00
10YR-8HR	5.93	252642.7	250823.6	1819.1	0.0	0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-8HR	5.95	252967.4	251148.3	1819.1	0.0	0.00
10YR-8HR	5.97	253297.0	251477.9	1819.1	0.0	0.00
10YR-8HR	5.98	253621.1	251801.9	1819.1	0.0	0.00
10YR-8HR	6.00	253950.3	252131.2	1819.1	0.0	0.00
10YR-8HR	6.02	254273.5	252454.4	1819.1	0.0	0.00
10YR-8HR	6.10	255876.6	254057.6	1819.0	0.0	0.00
10YR-8HR	6.18	257417.7	255598.8	1818.8	0.0	0.00
10YR-8HR	6.27	258906.5	257087.7	1818.7	0.0	0.00
10YR-8HR	6.35	260352.6	258533.9	1818.7	0.0	0.00
10YR-8HR	6.43	261773.3	259954.7	1818.6	0.0	0.00
10YR-8HR	6.52	263176.3	261357.7	1818.6	0.0	0.00
10YR-8HR	6.60	264565.6	262747.0	1818.6	0.0	0.00
10YR-8HR	6.68	265948.7	264130.2	1818.6	0.0	0.00
10YR-8HR	6.77	267319.8	265501.2	1818.5	0.0	0.00
10YR-8HR	6.85	268686.1	266867.6	1818.5	0.0	0.00
10YR-8HR	6.93	270049.8	268231.2	1818.5	0.0	0.00
10YR-8HR	7.02	271410.8	269592.3	1818.5	0.0	0.00
10YR-8HR	7.10	272722.4	270904.1	1818.3	-0.0	-0.00
10YR-8HR	7.18	273904.5	272086.4	1818.1	0.0	0.00
10YR-8HR	7.27	274971.7	273153.7	1817.9	0.0	0.00
10YR-8HR	7.35	275962.5	274144.7	1817.8	0.0	0.00
10YR-8HR	7.43	276901.9	275084.2	1817.7	0.0	0.00
10YR-8HR	7.52	277808.1	275990.4	1817.7	0.0	0.00
10YR-8HR	7.60	278683.4	276865.7	1817.7	0.0	0.00
10YR-8HR	7.68	279536.9	277719.2	1817.6	0.0	0.00
10YR-8HR	7.77	280374.7	278556.7	1818.0	0.0	0.00
10YR-8HR	7.85	281202.5	279384.5	1818.0	0.0	0.00
10YR-8HR	7.93	282027.1	280209.1	1818.0	0.0	0.00
10YR-8HR	8.02	282844.0	281026.0	1818.0	0.0	0.00
10YR-8HR	8.27	284501.7	282684.5	1817.1	-0.0	-0.00
10YR-8HR	8.77	284716.6	282899.6	1816.9	0.0	0.00
10YR-8HR	9.02	284716.6	282899.6	1816.9	0.0	0.00
10YR-8HR	9.27	284716.6	282899.6	1817.0	0.0	0.00
10YR-8HR	9.52	284716.6	282899.6	1817.0	0.0	0.00
10YR-8HR	9.77	284716.6	282899.6	1817.0	0.0	0.00
10YR-8HR	10.02	284716.6	282899.5	1817.0	0.0	0.00
10YR-8HR	10.27	284716.6	282899.5	1817.1	0.0	0.00
10YR-8HR	10.52	284716.6	282899.5	1817.1	0.0	0.00
10YR-8HR	10.77	284716.6	282899.5	1817.1	0.0	0.00
10YR-8HR	11.02	284716.6	282899.5	1817.1	0.0	0.00
10YR-8HR	11.27	284716.6	282899.4	1817.1	0.0	0.00
10YR-8HR	11.52	284716.6	282899.4	1817.2	0.0	0.00
10YR-8HR	11.77	284716.6	282899.4	1817.2	0.0	0.00
10YR-8HR	12.02	284716.6	282899.4	1817.2	0.0	0.00
10YR-8HR	12.27	284716.6	282899.3	1817.2	0.0	0.00
10YR-8HR	12.52	284716.6	282899.3	1817.2	0.0	0.00
10YR-8HR	12.77	284716.6	282899.3	1817.3	0.0	0.00
10YR-8HR	13.02	284716.6	282899.3	1817.3	0.0	0.00
10YR-8HR	13.27	284716.6	282898.9	1817.7	0.0	0.00
10YR-8HR	13.52	284716.6	282898.9	1817.7	0.0	0.00
10YR-8HR	14.02	284716.6	282899.2	1817.4	0.0	0.00
10YR-8HR	14.27	284716.6	282899.2	1817.4	0.0	0.00
10YR-8HR	14.52	284716.6	282899.2	1817.4	0.0	0.00
10YR-8HR	14.77	284716.6	282899.1	1817.4	0.0	0.00
10YR-8HR	15.02	284716.6	282899.1	1817.5	0.0	0.00
10YR-8HR	15.52	284716.6	282899.1	1817.5	0.0	0.00
10YR-8HR	15.77	284716.6	282899.0	1817.5	0.0	0.00
10YR-8HR	16.02	284716.6	282899.0	1817.5	0.0	0.00
10YR-8HR	16.27	284716.6	282899.0	1817.6	0.0	0.00
10YR-8HR	16.52	284716.6	282899.0	1817.6	0.0	0.00
10YR-8HR	16.77	284716.6	282899.0	1817.6	0.0	0.00
10YR-8HR	17.02	284716.6	282898.9	1817.6	0.0	0.00
10YR-8HR	17.27	284716.6	282898.9	1817.7	0.0	0.00
10YR-8HR	17.52	284716.6	282898.9	1817.7	0.0	0.00
10YR-8HR	17.77	284716.6	282898.9	1817.7	0.0	0.00
10YR-8HR	18.02	284716.6	282898.9	1817.7	0.0	0.00
10YR-8HR	18.27	284716.6	282898.8	1817.7	0.0	0.00
10YR-8HR	18.52	284716.6	282898.8	1817.8	0.0	0.00
10YR-8HR	18.77	284716.6	282898.8	1817.8	0.0	0.00
10YR-8HR	19.02	284716.6	282898.8	1817.8	0.0	0.00
10YR-8HR	19.27	284716.6	282898.4	1818.2	0.0	0.00
10YR-8HR	19.52	284716.6	282898.4	1818.2	0.0	0.00
10YR-8HR	19.77	284716.6	282898.3	1818.2	0.0	0.00
10YR-8HR	20.02	284716.6	282898.7	1817.9	0.0	0.00
10YR-8HR	20.27	284716.6	282898.7	1817.9	0.0	0.00
10YR-8HR	20.52	284716.6	282898.6	1817.9	0.0	0.00
10YR-8HR	20.77	284716.6	282898.6	1818.0	0.0	0.00
10YR-8HR	21.02	284716.6	282898.6	1818.0	0.0	0.00
10YR-8HR	21.27	284716.6	282898.6	1818.0	0.0	0.00
10YR-8HR	21.52	284716.6	282898.6	1818.0	0.0	0.00
10YR-8HR	21.77	284716.6	282898.5	1818.0	0.0	0.00
10YR-8HR	22.02	284716.6	282898.5	1818.1	0.0	0.00
10YR-8HR	22.27	284716.6	282898.5	1818.1	0.0	0.00





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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
25YR-72HR	9.00	8063.0	6245.5	1817.5	-0.0	-0.00
25YR-72HR	9.25	8402.6	6585.0	1817.5	-0.0	-0.00
25YR-72HR	9.50	8748.4	6930.8	1817.6	-0.0	-0.00
25YR-72HR	9.75	9099.7	7282.1	1817.6	-0.0	-0.00
25YR-72HR	10.00	9457.0	7639.3	1817.6	-0.0	-0.00
25YR-72HR	10.25	9819.4	8001.7	1817.6	-0.0	-0.00
25YR-72HR	10.50	10187.4	8369.8	1817.7	-0.0	-0.00
25YR-72HR	11.00	10938.6	9120.9	1817.7	-0.0	-0.00
25YR-72HR	11.25	11321.5	9503.7	1817.8	-0.0	-0.00
25YR-72HR	11.50	11709.5	9891.7	1817.8	-0.0	-0.00
25YR-72HR	11.75	12101.8	10284.0	1817.8	-0.0	-0.00
25YR-72HR	12.00	12498.9	10681.1	1817.8	-0.0	-0.00
25YR-72HR	12.25	12900.2	11082.3	1817.9	-0.0	-0.00
25YR-72HR	12.50	13306.1	11487.9	1818.3	-0.0	-0.00
25YR-72HR	12.75	13715.9	11897.6	1818.3	-0.0	-0.00
25YR-72HR	13.00	14130.1	12312.2	1817.9	-0.0	-0.00
25YR-72HR	13.25	14548.0	12730.0	1818.0	-0.0	-0.00
25YR-72HR	13.50	14970.1	13152.1	1818.0	-0.0	-0.00
25YR-72HR	13.75	15395.7	13577.7	1818.0	-0.0	-0.00
25YR-72HR	14.00	15825.4	14007.4	1818.0	-0.0	-0.00
25YR-72HR	14.25	16258.4	14440.3	1818.1	-0.0	-0.00
25YR-72HR	14.75	17135.4	15317.2	1818.1	-0.0	-0.00
25YR-72HR	15.00	17579.2	15761.0	1818.1	-0.0	-0.00
25YR-72HR	15.25	18026.0	16207.8	1818.2	-0.0	-0.00
25YR-72HR	15.50	18476.4	16658.2	1818.2	-0.0	-0.00
25YR-72HR	15.75	18929.6	17111.4	1818.2	-0.0	-0.00
25YR-72HR	16.00	19386.4	17568.1	1818.2	-0.0	-0.00
25YR-72HR	16.25	19845.8	18027.5	1818.3	-0.0	-0.00
25YR-72HR	16.50	20308.6	18490.3	1818.3	-0.0	-0.00
25YR-72HR	16.75	20773.9	18955.6	1818.3	-0.0	-0.00
25YR-72HR	17.00	21242.6	19424.2	1818.4	-0.0	-0.00
25YR-72HR	17.25	21713.6	19895.2	1818.4	-0.0	-0.00
25YR-72HR	17.50	22187.8	20369.4	1818.4	-0.0	-0.00
25YR-72HR	18.00	23143.9	21325.4	1818.5	-0.0	-0.00
25YR-72HR	18.25	23625.7	21807.2	1818.5	-0.0	-0.00
25YR-72HR	18.50	24110.5	22291.6	1818.9	-0.0	-0.00
25YR-72HR	18.75	24597.3	22778.3	1819.0	-0.0	-0.00
25YR-72HR	19.00	25086.6	23267.6	1819.0	-0.0	-0.00
25YR-72HR	19.25	25578.7	23760.1	1818.6	-0.0	-0.00
25YR-72HR	19.50	26072.7	24254.1	1818.6	-0.0	-0.00
25YR-72HR	19.75	26569.5	24750.8	1818.6	-0.0	-0.00
25YR-72HR	20.00	27068.1	25249.5	1818.7	-0.0	-0.00
25YR-72HR	20.25	27569.4	25750.7	1818.7	-0.0	-0.00
25YR-72HR	20.50	28072.5	26253.8	1818.7	-0.0	-0.00
25YR-72HR	20.75	28578.1	26759.4	1818.7	-0.0	-0.00
25YR-72HR	21.00	29085.5	27266.7	1818.8	-0.0	-0.00
25YR-72HR	21.25	29595.3	27776.5	1818.8	-0.0	-0.00
25YR-72HR	21.50	30106.8	28288.0	1818.8	-0.0	-0.00
25YR-72HR	21.75	30620.7	28801.8	1818.9	-0.0	-0.00
25YR-72HR	22.00	31136.1	29317.2	1818.9	-0.0	-0.00
25YR-72HR	22.25	31653.9	29835.0	1818.9	-0.0	-0.00
25YR-72HR	22.50	32173.2	30354.3	1818.9	-0.0	-0.00
25YR-72HR	22.75	32694.8	30875.9	1819.0	-0.0	-0.00
25YR-72HR	23.00	33217.8	31398.8	1819.0	-0.0	-0.00
25YR-72HR	23.25	33743.1	31924.0	1819.0	-0.0	-0.00
25YR-72HR	23.50	34269.6	32450.6	1819.0	-0.0	-0.00
25YR-72HR	23.75	34798.4	32979.4	1819.1	-0.0	-0.00
25YR-72HR	24.00	35328.6	33509.5	1819.1	-0.0	-0.00
25YR-72HR	24.25	35933.9	34114.7	1819.2	-0.0	-0.00
25YR-72HR	24.50	36645.0	34825.8	1819.2	-0.0	-0.00
25YR-72HR	24.75	37404.7	35585.0	1819.7	-0.0	-0.00
25YR-72HR	25.00	38183.3	36363.5	1819.8	-0.0	-0.00
25YR-72HR	25.25	38969.1	37149.8	1819.3	-0.0	-0.00
25YR-72HR	25.50	39757.4	37938.1	1819.3	-0.0	-0.00
25YR-72HR	25.75	40549.5	38730.1	1819.4	-0.0	-0.00
25YR-72HR	26.00	41344.0	39524.5	1819.4	-0.0	-0.00
25YR-72HR	26.25	42142.2	40322.7	1819.5	-0.0	-0.00
25YR-72HR	26.50	42942.6	41123.1	1819.5	-0.0	-0.00
25YR-72HR	26.75	43746.6	41927.0	1819.5	-0.0	-0.00
25YR-72HR	27.00	44552.6	42733.1	1819.5	-0.0	-0.00
25YR-72HR	27.25	45362.2	43542.6	1819.6	-0.0	-0.00
25YR-72HR	27.50	46173.7	44354.1	1819.6	-0.0	-0.00
25YR-72HR	27.75	46988.5	45168.9	1819.6	-0.0	-0.00
25YR-72HR	28.00	47805.2	45985.6	1819.7	-0.0	-0.00
25YR-72HR	28.25	48625.2	46805.5	1819.7	-0.0	-0.00
25YR-72HR	28.50	49446.9	47627.2	1819.7	-0.0	-0.00
25YR-72HR	28.75	50271.7	48452.0	1819.8	-0.0	-0.00
25YR-72HR	29.00	51098.2	49278.4	1819.8	-0.0	-0.00
25YR-72HR	29.25	51927.8	50107.9	1819.8	-0.0	-0.00
25YR-72HR	29.50	52758.9	50939.0	1819.8	-0.0	-0.00
25YR-72HR	29.75	53592.9	51773.0	1819.9	-0.0	-0.00
25YR-72HR	30.00	54428.4	52608.5	1819.9	-0.0	-0.00
25YR-72HR	30.25	55266.8	53446.9	1819.9	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
25YR-72HR	30.50	56106.6	54286.6	1820.0	-0.0	-0.00
25YR-72HR	31.00	57793.1	55972.6	1820.5	-0.0	-0.00
25YR-72HR	31.25	58639.0	56818.4	1820.5	-0.0	-0.00
25YR-72HR	31.50	59487.5	57667.5	1820.0	-0.0	-0.00
25YR-72HR	31.75	60337.2	58517.2	1820.0	-0.0	-0.00
25YR-72HR	32.00	61189.5	59369.4	1820.1	-0.0	-0.00
25YR-72HR	32.25	62042.9	60222.8	1820.1	-0.0	-0.00
25YR-72HR	32.50	62898.9	61078.7	1820.1	-0.0	-0.00
25YR-72HR	32.75	63755.9	61935.7	1820.2	-0.0	-0.00
25YR-72HR	33.00	64615.3	62795.1	1820.2	-0.0	-0.00
25YR-72HR	33.25	65475.8	63655.5	1820.2	-0.0	-0.00
25YR-72HR	33.50	66338.7	64518.4	1820.3	-0.0	-0.00
25YR-72HR	33.75	67202.5	65382.1	1820.3	-0.0	-0.00
25YR-72HR	34.00	68068.6	66248.3	1820.4	-0.0	-0.00
25YR-72HR	34.25	68935.6	67115.2	1820.4	-0.0	-0.00
25YR-72HR	34.50	69804.9	67984.5	1820.4	-0.0	-0.00
25YR-72HR	34.75	70675.0	68854.6	1820.4	-0.0	-0.00
25YR-72HR	35.00	71547.4	69726.9	1820.5	-0.0	-0.00
25YR-72HR	35.25	72420.5	70600.0	1820.5	-0.0	-0.00
25YR-72HR	35.50	73295.9	71475.3	1820.5	-0.0	-0.00
25YR-72HR	35.75	74171.9	72351.3	1820.5	-0.0	-0.00
25YR-72HR	36.00	75050.0	73229.5	1820.6	-0.0	-0.00
25YR-72HR	36.25	75931.6	74111.0	1820.6	-0.0	-0.00
25YR-72HR	36.50	76819.1	74998.5	1820.6	-0.0	-0.00
25YR-72HR	36.75	77709.0	75888.3	1820.7	-0.0	-0.00
25YR-72HR	37.00	78601.7	76780.7	1821.1	-0.0	-0.00
25YR-72HR	37.25	79495.0	77673.9	1821.1	-0.0	-0.00
25YR-72HR	37.50	80390.3	78569.6	1820.7	-0.0	-0.00
25YR-72HR	37.75	81286.2	79465.4	1820.8	-0.0	-0.00
25YR-72HR	38.25	83082.4	81261.6	1820.9	-0.0	-0.00
25YR-72HR	38.50	83982.8	82161.9	1820.9	-0.0	-0.00
25YR-72HR	38.75	84883.6	83062.7	1820.9	-0.0	-0.00
25YR-72HR	39.00	85786.3	83965.4	1821.0	-0.0	-0.00
25YR-72HR	39.25	86689.5	84868.5	1821.0	-0.0	-0.00
25YR-72HR	39.50	87594.6	85773.5	1821.0	-0.0	-0.00
25YR-72HR	39.75	88500.0	86678.9	1821.1	-0.0	-0.00
25YR-72HR	40.00	89407.3	87586.2	1821.1	-0.0	-0.00
25YR-72HR	40.25	90314.9	88493.8	1821.1	-0.0	-0.00
25YR-72HR	40.50	91224.4	89403.3	1821.2	-0.0	-0.00
25YR-72HR	40.75	92134.2	90313.0	1821.2	-0.0	-0.00
25YR-72HR	41.00	93045.8	91224.6	1821.2	-0.0	-0.00
25YR-72HR	41.25	93957.6	92136.4	1821.3	-0.0	-0.00
25YR-72HR	41.50	94871.3	93050.0	1821.3	-0.0	-0.00
25YR-72HR	41.75	95785.2	93963.9	1821.3	-0.0	-0.00
25YR-72HR	42.00	96700.8	94879.5	1821.3	-0.0	-0.00
25YR-72HR	42.25	97616.6	95795.3	1821.4	-0.0	-0.00
25YR-72HR	42.50	98534.2	96712.8	1821.4	-0.0	-0.00
25YR-72HR	42.75	99451.9	97630.5	1821.5	-0.0	-0.00
25YR-72HR	43.00	100371.6	98549.7	1821.9	-0.0	-0.00
25YR-72HR	43.25	101291.2	99469.2	1821.9	-0.0	-0.00
25YR-72HR	43.50	102211.6	100389.7	1822.0	-0.0	-0.00
25YR-72HR	43.75	103133.8	101312.2	1821.6	-0.0	-0.00
25YR-72HR	44.00	104056.0	102234.4	1821.6	-0.0	-0.00
25YR-72HR	44.25	104979.9	103158.3	1821.7	-0.0	-0.00
25YR-72HR	44.50	105903.9	104082.2	1821.7	-0.0	-0.00
25YR-72HR	44.75	106829.5	105007.8	1821.7	-0.0	-0.00
25YR-72HR	45.00	107755.1	105933.4	1821.8	-0.0	-0.00
25YR-72HR	45.25	108682.4	106860.6	1821.8	-0.0	-0.00
25YR-72HR	45.50	109609.6	107787.8	1821.8	-0.0	-0.00
25YR-72HR	45.75	110538.5	108716.6	1821.9	-0.0	-0.00
25YR-72HR	46.00	111467.3	109645.4	1821.9	-0.0	-0.00
25YR-72HR	46.25	112397.7	110575.8	1821.9	-0.0	-0.00
25YR-72HR	46.50	113328.1	111506.1	1822.0	-0.0	-0.00
25YR-72HR	46.75	114260.0	112438.0	1822.0	-0.0	-0.00
25YR-72HR	47.00	115191.9	113369.9	1822.0	-0.0	-0.00
25YR-72HR	47.25	116125.3	114303.3	1822.1	-0.0	-0.00
25YR-72HR	47.50	117058.6	115236.6	1822.1	-0.0	-0.00
25YR-72HR	47.75	117993.5	116171.4	1822.1	-0.0	-0.00
25YR-72HR	48.00	118928.3	117106.1	1822.2	-0.0	-0.00
25YR-72HR	48.25	119893.6	118071.4	1822.2	-0.0	-0.00
25YR-72HR	48.33	120228.4	118406.2	1822.2	-0.0	-0.00
25YR-72HR	48.42	120566.7	118744.4	1822.3	-0.0	-0.00
25YR-72HR	48.50	120907.5	119085.3	1822.3	-0.0	-0.00
25YR-72HR	48.58	121250.6	119428.3	1822.3	-0.0	-0.00
25YR-72HR	48.67	121595.9	119773.6	1822.3	-0.0	-0.00
25YR-72HR	48.75	121941.4	120119.1	1822.3	-0.0	-0.00
25YR-72HR	48.83	122288.0	120465.7	1822.3	-0.0	-0.00
25YR-72HR	48.92	122634.9	120812.6	1822.3	-0.0	-0.00
25YR-72HR	49.00	122982.1	121159.8	1822.3	-0.0	-0.00
25YR-72HR	49.08	123330.2	121507.8	1822.4	-0.0	-0.00
25YR-72HR	49.17	123680.5	121858.1	1822.4	-0.0	-0.00
25YR-72HR	49.25	124031.9	122209.1	1822.8	-0.0	-0.00
25YR-72HR	49.33	124384.3	122561.9	1822.4	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
25YR-72HR	49.42	124737.6	122915.2	1822.4	-0.0	-0.00
25YR-72HR	49.50	125091.7	123268.8	1822.9	-0.0	-0.00
25YR-72HR	49.58	125446.0	123623.6	1822.4	-0.0	-0.00
25YR-72HR	49.67	125801.7	123979.3	1822.4	-0.0	-0.00
25YR-72HR	49.75	126157.1	124334.6	1822.4	-0.0	-0.00
25YR-72HR	49.83	126512.4	124689.9	1822.5	-0.0	-0.00
25YR-72HR	49.92	126867.9	125045.4	1822.5	-0.0	-0.00
25YR-72HR	50.00	127223.8	125401.4	1822.5	-0.0	-0.00
25YR-72HR	50.08	127584.5	125762.0	1822.5	-0.0	-0.00
25YR-72HR	50.17	127959.8	126137.3	1822.5	-0.0	-0.00
25YR-72HR	50.25	128349.1	126526.5	1822.6	-0.0	-0.00
25YR-72HR	50.42	129153.1	127330.5	1822.6	-0.0	-0.00
25YR-72HR	50.50	129563.4	127740.7	1822.6	-0.0	-0.00
25YR-72HR	50.58	129976.8	128154.2	1822.6	-0.0	-0.00
25YR-72HR	50.67	130394.2	128571.6	1822.7	-0.0	-0.00
25YR-72HR	50.75	130812.9	128990.2	1822.7	-0.0	-0.00
25YR-72HR	50.83	131232.7	129410.0	1822.7	-0.0	-0.00
25YR-72HR	50.92	131653.4	129830.7	1822.7	-0.0	-0.00
25YR-72HR	51.00	132074.9	130252.1	1822.7	-0.0	-0.00
25YR-72HR	51.08	132499.1	130676.4	1822.7	-0.0	-0.00
25YR-72HR	51.17	132933.0	131109.8	1823.2	-0.0	-0.00
25YR-72HR	51.25	133374.3	131551.5	1822.8	-0.0	-0.00
25YR-72HR	51.33	133821.4	131998.6	1822.8	-0.0	-0.00
25YR-72HR	51.42	134272.9	132449.6	1823.3	-0.0	-0.00
25YR-72HR	51.50	134726.9	132904.1	1822.8	-0.0	-0.00
25YR-72HR	51.58	135183.1	133360.2	1822.9	-0.0	-0.00
25YR-72HR	51.67	135641.3	133817.9	1823.3	-0.0	-0.00
25YR-72HR	51.75	136101.7	134278.8	1822.9	-0.0	-0.00
25YR-72HR	51.83	136561.8	134738.9	1822.9	-0.0	-0.00
25YR-72HR	51.92	137022.9	135200.0	1822.8	-0.0	-0.00
25YR-72HR	52.00	137484.0	135661.1	1822.9	-0.0	-0.00
25YR-72HR	52.08	137955.5	136132.5	1823.0	-0.0	-0.00
25YR-72HR	52.17	138456.6	136633.8	1822.8	-0.0	-0.00
25YR-72HR	52.25	138990.8	137167.7	1823.1	-0.0	-0.00
25YR-72HR	52.33	139544.8	137721.7	1823.1	-0.0	-0.00
25YR-72HR	52.42	140113.5	138290.5	1823.0	-0.0	-0.00
25YR-72HR	52.50	140691.8	138886.6	1823.2	-0.0	-0.00
25YR-72HR	52.58	141277.8	139454.6	1823.3	-0.0	-0.00
25YR-72HR	52.67	141870.3	140047.2	1823.1	-0.0	-0.00
25YR-72HR	52.75	142468.5	140645.1	1823.4	-0.0	-0.00
25YR-72HR	52.83	143068.1	141244.7	1823.4	-0.0	-0.00
25YR-72HR	52.92	143670.0	141846.8	1823.2	-0.0	-0.00
25YR-72HR	53.00	144272.6	142449.2	1823.5	-0.0	-0.00
25YR-72HR	53.08	144885.7	143062.2	1823.5	-0.0	-0.00
25YR-72HR	53.17	145530.3	143706.2	1824.1	-0.0	-0.00
25YR-72HR	53.25	146205.0	144380.8	1824.1	-0.0	-0.00
25YR-72HR	53.33	146901.1	145077.0	1824.1	-0.0	-0.00
25YR-72HR	53.42	147611.8	145787.6	1824.2	-0.0	-0.00
25YR-72HR	53.50	148332.6	146508.5	1824.2	-0.0	-0.00
25YR-72HR	53.58	149063.6	147239.4	1824.2	-0.0	-0.00
25YR-72HR	53.67	149798.4	147974.3	1824.2	-0.0	-0.00
25YR-72HR	53.75	150537.9	148713.7	1824.2	-0.0	-0.00
25YR-72HR	53.83	151280.5	149456.3	1824.2	-0.0	-0.00
25YR-72HR	53.92	152025.0	150200.8	1824.2	-0.0	-0.00
25YR-72HR	54.00	152773.2	150949.0	1824.2	-0.0	-0.00
25YR-72HR	54.08	153529.7	151705.5	1824.2	-0.0	-0.00
25YR-72HR	54.17	154316.7	152492.4	1824.2	-0.0	-0.00
25YR-72HR	54.25	155137.2	153313.0	1824.2	-0.0	-0.00
25YR-72HR	54.33	155980.2	154156.0	1824.1	-0.0	-0.00
25YR-72HR	54.42	156841.2	155017.0	1824.2	-0.0	-0.00
25YR-72HR	54.50	157710.1	155886.2	1823.9	-0.0	-0.00
25YR-72HR	54.58	158587.2	156763.3	1823.9	-0.0	-0.00
25YR-72HR	54.67	159470.8	157646.9	1823.9	-0.0	-0.00
25YR-72HR	54.75	160359.3	158535.4	1823.9	-0.0	-0.00
25YR-72HR	54.83	161254.1	159430.1	1823.9	-0.0	-0.00
25YR-72HR	54.92	162148.0	160324.1	1823.9	-0.0	-0.00
25YR-72HR	55.00	163043.3	161219.3	1823.9	-0.0	-0.00
25YR-72HR	55.08	163949.2	162125.3	1824.0	-0.0	-0.00
25YR-72HR	55.17	164885.7	163061.6	1824.0	-0.0	-0.00
25YR-72HR	55.25	165859.2	164035.1	1824.1	-0.0	-0.00
25YR-72HR	55.33	166852.3	165028.2	1824.1	-0.0	-0.00
25YR-72HR	55.42	167860.9	166036.8	1824.1	-0.0	-0.00
25YR-72HR	55.50	168880.3	167056.1	1824.1	-0.0	-0.00
25YR-72HR	55.58	169907.9	168083.8	1824.1	-0.0	-0.00
25YR-72HR	55.67	170945.6	169121.5	1824.2	-0.0	-0.00
25YR-72HR	55.75	171984.9	170160.8	1824.2	-0.0	-0.00
25YR-72HR	55.83	173027.7	171203.5	1824.2	-0.0	-0.00
25YR-72HR	55.92	174072.6	172248.5	1824.2	-0.0	-0.00
25YR-72HR	56.00	175119.0	173294.8	1824.2	-0.0	-0.00
25YR-72HR	56.02	175330.5	173506.4	1824.2	-0.0	-0.00
25YR-72HR	56.03	175539.1	173714.9	1824.2	-0.0	-0.00
25YR-72HR	56.05	175751.8	173927.6	1824.2	-0.0	-0.00
25YR-72HR	56.07	175962.1	174138.0	1824.2	-0.0	-0.00

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25YR-72HR	56.08	176177.5	174353.3	1824.2	-0.0	-0.00
25YR-72HR	56.10	176391.4	174567.1	1824.2	-0.0	-0.00
25YR-72HR	56.12	176610.8	174786.6	1824.2	-0.0	-0.00
25YR-72HR	56.13	176828.7	175004.5	1824.3	-0.0	-0.00
25YR-72HR	56.15	177048.6	175224.3	1824.3	-0.0	-0.00
25YR-72HR	56.17	177273.9	175449.6	1824.3	-0.0	-0.00
25YR-72HR	56.18	177497.2	175672.9	1824.3	-0.0	-0.00
25YR-72HR	56.20	177725.8	175901.5	1824.3	-0.0	-0.00
25YR-72HR	56.22	177952.0	176127.7	1824.3	-0.0	-0.00
25YR-72HR	56.23	178183.2	176358.8	1824.3	-0.0	-0.00
25YR-72HR	56.25	178411.8	176587.4	1824.4	-0.0	-0.00
25YR-72HR	56.27	178641.4	176817.0	1824.4	-0.0	-0.00
25YR-72HR	56.28	178875.8	177051.4	1824.4	-0.0	-0.00
25YR-72HR	56.30	179107.2	177282.9	1824.4	-0.0	-0.00
25YR-72HR	56.32	179343.4	177519.0	1824.4	-0.0	-0.00
25YR-72HR	56.33	179576.5	177752.1	1824.4	-0.0	-0.00
25YR-72HR	56.35	179814.2	177989.8	1824.4	-0.0	-0.00
25YR-72HR	56.37	180048.7	178224.3	1824.4	-0.0	-0.00
25YR-72HR	56.38	180287.7	178463.3	1824.4	-0.0	-0.00
25YR-72HR	56.40	180523.4	178699.0	1824.4	-0.0	-0.00
25YR-72HR	56.42	180759.7	178935.2	1824.4	-0.0	-0.00
25YR-72HR	56.43	181000.3	179175.9	1824.4	-0.0	-0.00
25YR-72HR	56.45	181237.5	179413.1	1824.4	-0.0	-0.00
25YR-72HR	56.47	181479.1	179654.6	1824.4	-0.0	-0.00
25YR-72HR	56.48	181717.1	179892.7	1824.4	-0.0	-0.00
25YR-72HR	56.50	181959.6	180135.1	1824.4	-0.0	-0.00
25YR-72HR	56.52	182198.5	180374.0	1824.4	-0.0	-0.00
25YR-72HR	56.53	182441.7	180617.2	1824.4	-0.0	-0.00
25YR-72HR	56.55	182681.3	180856.8	1824.5	-0.0	-0.00
25YR-72HR	56.57	182921.3	181096.8	1824.5	-0.0	-0.00
25YR-72HR	56.58	183165.6	181341.1	1824.5	-0.0	-0.00
25YR-72HR	56.60	183406.2	181581.7	1824.5	-0.0	-0.00
25YR-72HR	56.62	183651.1	181826.6	1824.5	-0.0	-0.00
25YR-72HR	56.63	183892.3	182067.9	1824.5	-0.0	-0.00
25YR-72HR	56.65	184137.8	182313.3	1824.5	-0.0	-0.00
25YR-72HR	56.67	184379.6	182555.1	1824.5	-0.0	-0.00
25YR-72HR	56.68	184621.6	182797.1	1824.5	-0.0	-0.00
25YR-72HR	56.70	184867.8	183043.3	1824.5	-0.0	-0.00
25YR-72HR	56.72	185110.2	183285.7	1824.5	-0.0	-0.00
25YR-72HR	56.73	185356.8	183532.3	1824.5	-0.0	-0.00
25YR-72HR	56.75	185599.6	183775.1	1824.5	-0.0	-0.00
25YR-72HR	56.77	185846.6	184022.1	1824.5	-0.0	-0.00
25YR-72HR	56.78	186089.7	184265.2	1824.5	-0.0	-0.00
25YR-72HR	56.80	186336.9	184512.4	1824.5	-0.0	-0.00
25YR-72HR	56.82	186580.3	184755.8	1824.5	-0.0	-0.00
25YR-72HR	56.83	186823.7	184999.3	1824.5	-0.0	-0.00
25YR-72HR	56.85	187071.3	185246.8	1824.5	-0.0	-0.00
25YR-72HR	56.87	187315.0	185490.5	1824.5	-0.0	-0.00
25YR-72HR	56.88	187562.8	185738.3	1824.5	-0.0	-0.00
25YR-72HR	56.90	187806.6	185982.1	1824.5	-0.0	-0.00
25YR-72HR	56.92	188054.5	186230.0	1824.5	-0.0	-0.00
25YR-72HR	56.93	188298.5	186474.0	1824.5	-0.0	-0.00
25YR-72HR	56.95	188546.5	186722.1	1824.5	-0.0	-0.00
25YR-72HR	56.97	188790.6	186966.1	1824.5	-0.0	-0.00
25YR-72HR	56.98	189034.8	187210.3	1824.5	-0.0	-0.00
25YR-72HR	57.00	189282.9	187458.4	1824.5	-0.0	-0.00
25YR-72HR	57.02	189527.3	187702.8	1824.5	-0.0	-0.00
25YR-72HR	57.03	189776.2	187951.7	1824.5	-0.0	-0.00
25YR-72HR	57.05	190022.0	188197.5	1824.5	-0.0	-0.00
25YR-72HR	57.07	190273.2	188448.7	1824.5	-0.0	-0.00
25YR-72HR	57.08	190522.3	188697.8	1824.5	-0.0	-0.00
25YR-72HR	57.10	190773.9	188949.3	1824.6	-0.0	-0.00
25YR-72HR	57.12	191032.3	189207.7	1824.6	-0.0	-0.00
25YR-72HR	57.13	191289.1	189464.5	1824.6	-0.0	-0.00
25YR-72HR	57.15	191552.7	189728.0	1824.6	-0.0	-0.00
25YR-72HR	57.17	191814.3	189989.7	1824.7	-0.0	-0.00
25YR-72HR	57.18	192082.5	190257.8	1824.7	-0.0	-0.00
25YR-72HR	57.20	192348.3	190523.6	1824.7	-0.0	-0.00
25YR-72HR	57.22	192620.2	190795.5	1824.7	-0.0	-0.00
25YR-72HR	57.23	192889.3	191064.6	1824.7	-0.0	-0.00
25YR-72HR	57.25	193159.9	191335.2	1824.8	-0.0	-0.00
25YR-72HR	57.27	193436.3	191611.6	1824.8	-0.0	-0.00
25YR-72HR	57.28	193709.5	191884.7	1824.8	-0.0	-0.00
25YR-72HR	57.30	193988.4	192163.6	1824.8	-0.0	-0.00
25YR-72HR	57.32	194263.8	192439.0	1824.8	-0.0	-0.00
25YR-72HR	57.33	194544.8	192720.0	1824.8	-0.0	-0.00
25YR-72HR	57.35	194822.2	192997.4	1824.8	-0.0	-0.00
25YR-72HR	57.37	195105.0	193280.2	1824.8	-0.0	-0.00
25YR-72HR	57.38	195384.0	193559.2	1824.8	-0.0	-0.00
25YR-72HR	57.40	195663.9	193839.0	1824.8	-0.0	-0.00
25YR-72HR	57.42	195949.0	194124.1	1824.9	-0.0	-0.00
25YR-72HR	57.43	196230.1	194405.2	1824.9	-0.0	-0.00
25YR-72HR	57.45	196516.4	194691.6	1824.9	-0.0	-0.00



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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
25YR-72HR	57.47	196798.7	194973.9	1824.9	-0.0	-0.00
25YR-72HR	57.48	197086.2	195261.4	1824.9	-0.0	-0.00
25YR-72HR	57.50	197369.7	195544.8	1824.9	-0.0	-0.00
25YR-72HR	57.52	197653.7	195828.9	1824.9	-0.0	-0.00
25YR-72HR	57.53	197943.3	196118.4	1824.9	-0.0	-0.00
25YR-72HR	57.55	198229.1	196404.2	1824.9	-0.0	-0.00
25YR-72HR	57.57	198521.0	196696.0	1824.9	-0.0	-0.00
25YR-72HR	57.58	198809.7	196984.7	1824.9	-0.0	-0.00
25YR-72HR	57.60	199104.9	197280.0	1825.0	-0.0	-0.00
25YR-72HR	57.62	199397.3	197572.3	1825.0	-0.0	-0.00
25YR-72HR	57.63	199696.2	197871.2	1825.0	-0.0	-0.00
25YR-72HR	57.65	199992.0	198167.0	1825.0	-0.0	-0.00
25YR-72HR	57.67	200289.5	198464.4	1825.0	-0.0	-0.00
25YR-72HR	57.68	200593.3	198768.2	1825.1	-0.0	-0.00
25YR-72HR	57.70	200893.5	199068.4	1825.1	-0.0	-0.00
25YR-72HR	57.72	201199.9	199374.8	1825.1	-0.0	-0.00
25YR-72HR	57.73	201502.5	199677.4	1825.1	-0.0	-0.00
25YR-72HR	57.75	201811.0	199985.9	1825.1	-0.0	-0.00
25YR-72HR	57.77	202115.5	200290.4	1825.1	-0.0	-0.00
25YR-72HR	57.78	202425.9	200600.8	1825.1	-0.0	-0.00
25YR-72HR	57.80	202732.1	200907.0	1825.1	-0.0	-0.00
25YR-72HR	57.82	203039.0	201213.9	1825.1	-0.0	-0.00
25YR-72HR	57.83	203351.7	201526.5	1825.1	-0.0	-0.00
25YR-72HR	57.85	203659.9	201834.8	1825.1	-0.0	-0.00
25YR-72HR	57.87	203973.8	202148.7	1825.2	-0.0	-0.00
25YR-72HR	57.88	204283.2	202458.0	1825.2	-0.0	-0.00
25YR-72HR	57.90	204598.1	202773.0	1825.2	-0.0	-0.00
25YR-72HR	57.92	204908.5	203083.3	1825.2	-0.0	-0.00
25YR-72HR	57.93	205219.2	203394.0	1825.2	-0.0	-0.00
25YR-72HR	57.95	205535.5	203710.3	1825.2	-0.0	-0.00
25YR-72HR	57.97	205847.0	204021.8	1825.2	-0.0	-0.00
25YR-72HR	57.98	206163.9	204338.7	1825.2	-0.0	-0.00
25YR-72HR	58.00	206476.1	204650.9	1825.2	-0.0	-0.00
25YR-72HR	58.02	206793.8	204968.6	1825.2	-0.0	-0.00
25YR-72HR	58.03	207107.1	205281.9	1825.2	-0.0	-0.00
25YR-72HR	58.05	207426.4	205601.2	1825.2	-0.0	-0.00
25YR-72HR	58.07	207741.9	205916.6	1825.2	-0.0	-0.00
25YR-72HR	58.08	208059.0	206233.8	1825.3	-0.0	-0.00
25YR-72HR	58.10	208383.5	206558.2	1825.3	-0.0	-0.00
25YR-72HR	58.12	208704.9	206879.6	1825.3	-0.0	-0.00
25YR-72HR	58.13	209033.9	207208.5	1825.3	-0.0	-0.00
25YR-72HR	58.15	209359.6	207534.2	1825.4	-0.0	-0.00
25YR-72HR	58.17	209692.7	207867.3	1825.4	-0.0	-0.00
25YR-72HR	58.18	210022.1	208196.8	1825.4	-0.0	-0.00
25YR-72HR	58.20	210358.7	208533.3	1825.4	-0.0	-0.00
25YR-72HR	58.22	210691.4	208866.0	1825.4	-0.0	-0.00
25YR-72HR	58.23	211025.4	209199.9	1825.4	-0.0	-0.00
25YR-72HR	58.25	211366.1	209540.6	1825.5	-0.0	-0.00
25YR-72HR	58.27	211702.5	209877.0	1825.5	-0.0	-0.00
25YR-72HR	58.28	212045.4	210219.9	1825.5	-0.0	-0.00
25YR-72HR	58.30	212383.8	210558.3	1825.5	-0.0	-0.00
25YR-72HR	58.32	212728.7	210903.2	1825.5	-0.0	-0.00
25YR-72HR	58.33	213068.9	211243.3	1825.5	-0.0	-0.00
25YR-72HR	58.35	213409.8	211584.3	1825.5	-0.0	-0.00
25YR-72HR	58.37	213757.1	211931.5	1825.5	-0.0	-0.00
25YR-72HR	58.38	214099.4	212273.9	1825.5	-0.0	-0.00
25YR-72HR	58.40	214448.0	212622.4	1825.5	-0.0	-0.00
25YR-72HR	58.42	214791.5	212966.0	1825.5	-0.0	-0.00
25YR-72HR	58.43	215141.2	213315.7	1825.6	-0.0	-0.00
25YR-72HR	58.45	215485.8	213660.2	1825.6	-0.0	-0.00
25YR-72HR	58.47	215836.5	214010.9	1825.6	-0.0	-0.00
25YR-72HR	58.48	216182.0	214356.4	1825.6	-0.0	-0.00
25YR-72HR	58.50	216528.0	214702.5	1825.6	-0.0	-0.00
25YR-72HR	58.52	216880.8	215055.2	1825.6	-0.0	-0.00
25YR-72HR	58.53	217229.6	215404.0	1825.6	-0.0	-0.00
25YR-72HR	58.55	217586.8	215761.2	1825.7	-0.0	-0.00
25YR-72HR	58.57	217941.5	216116.7	1824.8	-0.0	-0.00
25YR-72HR	58.58	218310.4	216485.5	1824.9	-0.0	-0.00
25YR-72HR	58.60	218678.7	216853.9	1824.8	-0.0	-0.00
25YR-72HR	58.62	219056.6	217231.5	1825.1	-0.0	-0.00
25YR-72HR	58.63	219436.9	217611.7	1825.2	-0.0	-0.00
25YR-72HR	58.65	219833.1	218007.8	1825.3	-0.0	-0.00
25YR-72HR	58.67	220229.3	218403.5	1825.8	-0.0	-0.00
25YR-72HR	58.68	220631.0	218805.5	1825.5	-0.0	-0.00
25YR-72HR	58.70	221039.1	219213.6	1825.6	-0.0	-0.00
25YR-72HR	58.72	221447.9	219622.3	1825.6	-0.0	-0.00
25YR-72HR	58.73	221869.0	220043.3	1825.7	-0.0	-0.00
25YR-72HR	58.75	222285.8	220460.1	1825.8	-0.0	-0.00
25YR-72HR	58.77	222710.1	220884.3	1825.8	-0.0	-0.00
25YR-72HR	58.78	223135.9	221310.1	1825.9	-0.0	-0.00
25YR-72HR	58.80	223567.5	221741.6	1825.9	-0.0	-0.00
25YR-72HR	58.82	224001.5	222175.7	1825.9	-0.0	-0.00
25YR-72HR	58.83	224435.9	222609.9	1826.0	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
25YR-72HR	58.85	224873.7	223048.0	1825.7	-0.0	-0.00
25YR-72HR	58.87	225316.3	223490.2	1826.1	-0.0	-0.00
25YR-72HR	58.88	225759.3	223933.2	1826.1	-0.0	-0.00
25YR-72HR	58.90	226202.1	224376.0	1826.1	-0.0	-0.00
25YR-72HR	58.92	226654.5	224828.4	1826.1	-0.0	-0.00
25YR-72HR	58.93	227098.4	225272.2	1826.2	-0.0	-0.00
25YR-72HR	58.95	227552.8	225726.6	1826.2	-0.0	-0.00
25YR-72HR	58.97	228006.6	226180.6	1826.0	-0.0	-0.00
25YR-72HR	58.98	228454.8	226628.6	1826.3	-0.0	-0.00
25YR-72HR	59.00	228910.8	227084.7	1826.1	-0.0	-0.00
25YR-72HR	59.02	229362.2	227535.8	1826.4	-0.0	-0.00
25YR-72HR	59.03	229829.6	228003.2	1826.5	-0.0	-0.00
25YR-72HR	59.05	230293.4	228466.8	1826.6	-0.0	-0.00
25YR-72HR	59.07	230772.8	228946.0	1826.8	-0.0	-0.00
25YR-72HR	59.08	231260.9	229433.8	1827.1	-0.0	-0.00
25YR-72HR	59.10	231768.4	229941.0	1827.4	-0.0	-0.00
25YR-72HR	59.12	232291.6	230463.9	1827.7	-0.0	-0.00
25YR-72HR	59.13	232831.7	231003.6	1828.0	-0.0	-0.00
25YR-72HR	59.15	233388.0	231559.7	1828.3	-0.0	-0.00
25YR-72HR	59.17	233963.4	232134.8	1828.6	-0.0	-0.00
25YR-72HR	59.18	234531.4	232702.6	1828.8	-0.0	-0.00
25YR-72HR	59.20	235120.4	233291.3	1829.1	-0.0	-0.00
25YR-72HR	59.22	235726.5	233897.2	1829.3	-0.0	-0.00
25YR-72HR	59.23	236334.0	234504.5	1829.5	-0.0	-0.00
25YR-72HR	59.25	236955.3	235125.6	1829.7	-0.0	-0.00
25YR-72HR	59.27	237585.0	235755.1	1829.9	-0.0	-0.00
25YR-72HR	59.28	238225.8	236395.7	1830.1	-0.0	-0.00
25YR-72HR	59.30	238867.1	237036.9	1830.2	-0.0	-0.00
25YR-72HR	59.32	239500.6	237670.3	1830.4	-0.0	-0.00
25YR-72HR	59.33	240153.1	238322.6	1830.5	-0.0	-0.00
25YR-72HR	59.35	240813.8	238983.2	1830.6	-0.0	-0.00
25YR-72HR	59.37	241476.5	239646.2	1830.3	-0.0	-0.00
25YR-72HR	59.38	242154.3	240323.4	1830.9	-0.0	-0.00
25YR-72HR	59.40	242816.5	240985.5	1831.0	-0.0	-0.00
25YR-72HR	59.42	243500.3	241669.3	1831.1	-0.0	-0.00
25YR-72HR	59.43	244175.2	242344.1	1831.1	-0.0	-0.00
25YR-72HR	59.45	244868.9	243037.6	1831.2	-0.0	-0.00
25YR-72HR	59.47	245544.9	243713.6	1831.3	-0.0	-0.00
25YR-72HR	59.48	246234.3	244402.9	1831.4	-0.0	-0.00
25YR-72HR	59.50	246931.2	245100.0	1831.2	-0.0	-0.00
25YR-72HR	59.52	247665.3	245832.6	1832.7	-0.0	-0.00
25YR-72HR	59.53	248441.8	246607.2	1834.5	-0.0	-0.00
25YR-72HR	59.55	249289.4	247451.4	1838.0	-0.0	-0.00
25YR-72HR	59.57	250313.6	248469.7	1843.9	-0.0	-0.00
25YR-72HR	59.58	251501.2	249647.5	1853.7	-0.0	-0.00
25YR-72HR	59.60	252908.9	251042.6	1866.3	-0.0	-0.00
25YR-72HR	59.62	254569.5	252688.0	1881.5	-0.0	-0.00
25YR-72HR	59.63	256601.0	254701.8	1899.2	-0.0	-0.00
25YR-72HR	59.65	258752.2	256835.4	1916.8	-0.0	-0.00
25YR-72HR	59.67	261121.3	259186.7	1934.7	-0.0	-0.00
25YR-72HR	59.68	263617.0	261663.5	1953.5	-0.0	-0.00
25YR-72HR	59.70	266419.7	264449.1	1970.6	-0.0	-0.00
25YR-72HR	59.72	269435.6	267448.2	1987.4	-0.0	-0.00
25YR-72HR	59.73	272500.9	270498.1	2002.9	-0.0	-0.00
25YR-72HR	59.75	275701.6	273684.0	2017.6	-0.0	-0.00
25YR-72HR	59.77	279026.9	276995.0	2031.8	-0.0	-0.00
25YR-72HR	59.78	282414.2	280368.7	2045.5	-0.0	-0.00
25YR-72HR	59.80	286020.1	283961.0	2059.1	-0.0	-0.00
25YR-72HR	59.82	289729.9	287658.0	2071.9	-0.0	-0.00
25YR-72HR	59.83	293535.4	291451.3	2084.1	-0.0	-0.00
25YR-72HR	59.85	297430.2	295334.4	2095.8	-0.0	-0.00
25YR-72HR	59.87	301563.6	299456.0	2107.6	-0.0	-0.00
25YR-72HR	59.88	305465.3	303347.6	2117.7	-0.0	-0.00
25YR-72HR	59.90	309432.6	307305.5	2127.2	-0.0	-0.00
25YR-72HR	59.92	313460.9	311324.8	2136.1	-0.0	-0.00
25YR-72HR	59.93	317751.8	315606.7	2145.1	-0.0	-0.00
25YR-72HR	59.95	322414.0	320259.8	2154.2	-0.0	-0.00
25YR-72HR	59.97	326611.5	324449.5	2162.0	-0.0	-0.00
25YR-72HR	59.98	330857.1	328687.5	2169.6	-0.0	-0.00
25YR-72HR	60.00	335146.8	332970.4	2176.4	-0.0	-0.00
25YR-72HR	60.02	340135.5	337956.7	2178.8	-0.0	-0.00
25YR-72HR	60.03	344170.9	341995.1	2175.7	-0.0	-0.00
25YR-72HR	60.05	348498.5	346331.8	2166.8	-0.0	-0.00
25YR-72HR	60.07	352777.8	350626.7	2151.1	-0.0	-0.00
25YR-72HR	60.08	357031.5	354906.1	2125.4	-0.0	-0.00
25YR-72HR	60.10	360965.6	358867.6	2097.9	-0.0	-0.00
25YR-72HR	60.12	364705.0	362633.6	2071.4	-0.0	-0.00
25YR-72HR	60.13	368252.3	366205.4	2046.9	-0.0	-0.00
25YR-72HR	60.15	371617.9	369592.6	2025.3	-0.0	-0.00
25YR-72HR	60.17	374817.1	372810.5	2006.7	-0.0	-0.00
25YR-72HR	60.18	377863.9	375873.6	1990.4	-0.0	-0.00
25YR-72HR	60.20	380771.1	378794.9	1976.2	-0.0	-0.00
25YR-72HR	60.22	383681.7	381717.9	1963.8	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
25YR-72HR	60.23	386288.7	384334.8	1953.9	-0.0	-0.00
25YR-72HR	60.25	389044.7	387100.6	1944.1	-0.0	-0.00
25YR-72HR	60.27	391572.3	389636.7	1935.6	-0.0	-0.00
25YR-72HR	60.28	393721.5	391792.6	1928.9	-0.0	-0.00
25YR-72HR	60.30	396052.2	394132.7	1919.5	-0.0	-0.00
25YR-72HR	60.32	398268.8	396355.5	1913.3	-0.0	-0.00
25YR-72HR	60.33	400503.5	398596.0	1907.5	-0.0	-0.00
25YR-72HR	60.35	402551.8	400649.3	1902.5	-0.0	-0.00
25YR-72HR	60.37	404567.7	402669.8	1897.9	-0.0	-0.00
25YR-72HR	60.38	406528.5	404634.8	1893.8	-0.0	-0.00
25YR-72HR	60.40	408523.0	406633.2	1889.8	-0.0	-0.00
25YR-72HR	60.42	410371.6	408485.1	1886.5	-0.0	-0.00
25YR-72HR	60.43	412148.4	410265.0	1883.5	-0.0	-0.00
25YR-72HR	60.45	413913.0	412032.4	1880.6	-0.0	-0.00
25YR-72HR	60.47	415692.7	413815.0	1877.7	-0.0	-0.00
25YR-72HR	60.48	417343.8	415468.6	1875.2	-0.0	-0.00
25YR-72HR	60.50	419003.5	417131.2	1872.3	-0.0	-0.00
25YR-72HR	60.52	420656.5	418787.0	1869.5	-0.0	-0.00
25YR-72HR	60.53	422142.7	420275.7	1867.0	-0.0	-0.00
25YR-72HR	60.55	423676.5	421812.4	1864.1	-0.0	-0.00
25YR-72HR	60.57	425140.6	423279.6	1861.0	-0.0	-0.00
25YR-72HR	60.58	426526.6	424668.6	1858.0	-0.0	-0.00
25YR-72HR	60.60	427872.2	426017.4	1854.8	-0.0	-0.00
25YR-72HR	60.62	429109.2	427257.3	1851.9	-0.0	-0.00
25YR-72HR	60.63	430360.3	428511.1	1849.2	-0.0	-0.00
25YR-72HR	60.65	431491.5	429644.7	1846.9	-0.0	-0.00
25YR-72HR	60.67	432606.4	430761.7	1844.7	-0.0	-0.00
25YR-72HR	60.68	433649.5	431806.6	1842.9	-0.0	-0.00
25YR-72HR	60.70	434669.2	432828.0	1841.2	-0.0	-0.00
25YR-72HR	60.72	435667.0	433827.1	1839.8	-0.0	-0.00
25YR-72HR	60.73	436586.7	434748.2	1838.5	-0.0	-0.00
25YR-72HR	60.75	437476.4	435639.0	1837.4	-0.0	-0.00
25YR-72HR	60.77	438348.8	436512.3	1836.5	-0.0	-0.00
25YR-72HR	60.78	439210.7	437375.1	1835.6	-0.0	-0.00
25YR-72HR	60.80	440030.3	438195.4	1834.8	-0.0	-0.00
25YR-72HR	60.82	440817.3	438983.2	1834.2	-0.0	-0.00
25YR-72HR	60.83	441586.2	439752.6	1833.7	-0.0	-0.00
25YR-72HR	60.85	442359.6	440526.3	1833.3	-0.0	-0.00
25YR-72HR	60.87	443090.9	441258.1	1832.8	-0.0	-0.00
25YR-72HR	60.88	443801.4	441969.2	1832.2	-0.0	-0.00
25YR-72HR	60.90	444516.0	442684.3	1831.8	-0.0	-0.00
25YR-72HR	60.92	445199.9	443368.5	1831.4	-0.0	-0.00
25YR-72HR	60.93	445881.7	444050.5	1831.1	-0.0	-0.00
25YR-72HR	60.95	446561.4	444730.5	1830.9	-0.0	-0.00
25YR-72HR	60.97	447227.5	445396.8	1830.7	-0.0	-0.00
25YR-72HR	60.98	447873.4	446042.9	1830.5	-0.0	-0.00
25YR-72HR	61.00	448520.8	446690.4	1830.3	-0.0	-0.00
25YR-72HR	61.02	449155.6	447325.4	1830.2	-0.0	-0.00
25YR-72HR	61.03	449805.4	447975.4	1830.0	-0.0	-0.00
25YR-72HR	61.05	450427.6	448597.8	1829.8	-0.0	-0.00
25YR-72HR	61.07	451032.3	449202.8	1829.5	-0.0	-0.00
25YR-72HR	61.08	451638.7	449809.5	1829.2	-0.0	-0.00
25YR-72HR	61.10	452230.4	450401.5	1828.9	-0.0	-0.00
25YR-72HR	61.12	452805.1	450976.5	1828.6	-0.0	-0.00
25YR-72HR	61.13	453364.6	451536.0	1828.6	-0.0	-0.00
25YR-72HR	61.15	453927.4	452099.2	1828.1	-0.0	-0.00
25YR-72HR	61.17	454457.8	452629.4	1828.5	-0.0	-0.00
25YR-72HR	61.18	454991.0	453163.3	1827.7	-0.0	-0.00
25YR-72HR	61.20	455513.4	453685.3	1828.2	-0.0	-0.00
25YR-72HR	61.22	456025.0	454197.7	1827.3	-0.0	-0.00
25YR-72HR	61.23	456525.1	454697.9	1827.2	-0.0	-0.00
25YR-72HR	61.25	457025.1	455198.0	1827.1	-0.0	-0.00
25YR-72HR	61.27	457513.1	455686.1	1827.0	-0.0	-0.00
25YR-72HR	61.28	457996.8	456169.9	1826.8	-0.0	-0.00
25YR-72HR	61.30	458474.2	456647.5	1826.8	-0.0	-0.00
25YR-72HR	61.32	458952.2	457125.5	1826.7	-0.0	-0.00
25YR-72HR	61.33	459418.8	457592.2	1826.6	-0.0	-0.00
25YR-72HR	61.35	459881.1	458054.6	1826.5	-0.0	-0.00
25YR-72HR	61.37	460339.5	458513.1	1826.4	-0.0	-0.00
25YR-72HR	61.38	460802.0	458975.6	1826.4	-0.0	-0.00
25YR-72HR	61.40	461249.2	459422.8	1826.4	-0.0	-0.00
25YR-72HR	61.42	461705.3	459879.0	1826.3	-0.0	-0.00
25YR-72HR	61.43	462147.6	460321.4	1826.2	-0.0	-0.00
25YR-72HR	61.45	462593.8	460767.6	1826.2	-0.0	-0.00
25YR-72HR	61.47	463037.7	461211.5	1826.2	-0.0	-0.00
25YR-72HR	61.48	463478.5	461652.4	1826.1	-0.0	-0.00
25YR-72HR	61.50	463915.0	462088.9	1826.1	-0.0	-0.00
25YR-72HR	61.52	464351.9	462525.8	1826.1	-0.0	-0.00
25YR-72HR	61.53	464785.8	462959.8	1826.0	-0.0	-0.00
25YR-72HR	61.55	465216.6	463390.6	1826.0	-0.0	-0.00
25YR-72HR	61.57	465651.6	463825.7	1825.9	-0.0	-0.00
25YR-72HR	61.58	466073.5	464247.7	1825.8	-0.0	-0.00
25YR-72HR	61.60	466490.5	464664.7	1825.7	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
25YR-72HR	61.62	466902.2	465076.0	1826.1	-0.0	-0.00
25YR-72HR	61.63	467307.6	465482.0	1825.6	-0.0	-0.00
25YR-72HR	61.65	467712.0	465886.5	1825.5	-0.0	-0.00
25YR-72HR	61.67	468112.0	466286.6	1825.4	-0.0	-0.00
25YR-72HR	61.68	468507.9	466682.5	1825.4	-0.0	-0.00
25YR-72HR	61.70	468893.4	467068.1	1825.3	-0.0	-0.00
25YR-72HR	61.72	469281.9	467456.6	1825.3	-0.0	-0.00
25YR-72HR	61.73	469664.9	467839.7	1825.2	-0.0	-0.00
25YR-72HR	61.75	470047.2	468222.0	1825.2	-0.0	-0.00
25YR-72HR	61.77	470422.8	468597.7	1825.1	-0.0	-0.00
25YR-72HR	61.78	470798.9	468973.7	1825.1	-0.0	-0.00
25YR-72HR	61.80	471170.2	469345.2	1825.1	-0.0	-0.00
25YR-72HR	61.82	471540.0	469714.2	1825.9	-0.0	-0.00
25YR-72HR	61.83	471909.7	470084.7	1825.0	-0.0	-0.00
25YR-72HR	61.85	472276.7	470451.7	1825.0	-0.0	-0.00
25YR-72HR	61.87	472645.9	470821.0	1825.0	-0.0	-0.00
25YR-72HR	61.88	473008.5	471183.5	1825.0	-0.0	-0.00
25YR-72HR	61.90	473369.8	471544.8	1824.9	-0.0	-0.00
25YR-72HR	61.92	473732.5	471907.6	1824.9	-0.0	-0.00
25YR-72HR	61.93	474095.6	472270.7	1824.9	-0.0	-0.00
25YR-72HR	61.95	474451.7	472626.8	1824.9	-0.0	-0.00
25YR-72HR	61.97	474810.8	472985.9	1824.9	-0.0	-0.00
25YR-72HR	61.98	475169.7	473344.8	1824.9	-0.0	-0.00
25YR-72HR	62.00	475527.0	473701.2	1825.7	-0.0	-0.00
25YR-72HR	62.02	475879.9	474054.2	1825.7	-0.0	-0.00
25YR-72HR	62.03	476236.7	474411.0	1825.7	-0.0	-0.00
25YR-72HR	62.05	476585.1	474759.4	1825.7	-0.0	-0.00
25YR-72HR	62.07	476935.6	475110.0	1825.6	-0.0	-0.00
25YR-72HR	62.08	477275.5	475449.9	1825.5	-0.0	-0.00
25YR-72HR	62.10	477609.6	475784.1	1825.5	-0.0	-0.00
25YR-72HR	62.12	477943.0	476117.6	1825.4	-0.0	-0.00
25YR-72HR	62.13	478265.2	476439.9	1825.3	-0.0	-0.00
25YR-72HR	62.15	478587.0	476761.7	1825.3	-0.0	-0.00
25YR-72HR	62.17	478898.4	477073.2	1825.2	-0.0	-0.00
25YR-72HR	62.18	479210.1	477384.9	1825.2	-0.0	-0.00
25YR-72HR	62.20	479512.4	477687.3	1825.1	-0.0	-0.00
25YR-72HR	62.22	479815.7	477990.6	1825.1	-0.0	-0.00
25YR-72HR	62.23	480110.6	478285.6	1825.0	-0.0	-0.00
25YR-72HR	62.25	480402.4	478577.4	1825.0	-0.0	-0.00
25YR-72HR	62.27	480695.8	478870.9	1825.0	-0.0	-0.00
25YR-72HR	62.28	480981.8	479156.8	1825.0	-0.0	-0.00
25YR-72HR	62.30	481269.9	479444.9	1824.9	-0.0	-0.00
25YR-72HR	62.32	481550.9	479726.0	1824.9	-0.0	-0.00
25YR-72HR	62.33	481834.4	480009.5	1824.9	-0.0	-0.00
25YR-72HR	62.35	482111.3	480286.4	1824.9	-0.0	-0.00
25YR-72HR	62.37	482390.8	480565.9	1824.8	-0.0	-0.00
25YR-72HR	62.38	482664.0	480839.2	1824.8	-0.0	-0.00
25YR-72HR	62.40	482935.7	481110.9	1824.8	-0.0	-0.00
25YR-72HR	62.42	483210.4	481385.6	1824.8	-0.0	-0.00
25YR-72HR	62.43	483479.2	481654.5	1824.8	-0.0	-0.00
25YR-72HR	62.45	483751.3	481926.5	1824.8	-0.0	-0.00
25YR-72HR	62.47	484017.7	482193.0	1824.8	-0.0	-0.00
25YR-72HR	62.48	484287.4	482462.7	1824.7	-0.0	-0.00
25YR-72HR	62.50	484551.7	482727.0	1824.7	-0.0	-0.00
25YR-72HR	62.52	484814.8	482990.1	1824.7	-0.0	-0.00
25YR-72HR	62.53	485081.1	483256.4	1824.7	-0.0	-0.00
25YR-72HR	62.55	485341.6	483516.9	1824.7	-0.0	-0.00
25YR-72HR	62.57	485604.7	483780.0	1824.7	-0.0	-0.00
25YR-72HR	62.58	485861.6	484036.9	1824.7	-0.0	-0.00
25YR-72HR	62.60	486120.4	484295.8	1824.6	-0.0	-0.00
25YR-72HR	62.62	486372.8	484548.2	1824.6	-0.0	-0.00
25YR-72HR	62.63	486627.0	484802.4	1824.6	-0.0	-0.00
25YR-72HR	62.65	486874.9	485050.4	1824.6	-0.0	-0.00
25YR-72HR	62.67	487120.9	485296.4	1824.5	-0.0	-0.00
25YR-72HR	62.68	487369.0	485544.5	1824.5	-0.0	-0.00
25YR-72HR	62.70	487611.4	485786.9	1824.5	-0.0	-0.00
25YR-72HR	62.72	487856.2	486031.7	1824.5	-0.0	-0.00
25YR-72HR	62.73	488095.7	486271.2	1824.5	-0.0	-0.00
25YR-72HR	62.75	488337.8	486513.3	1824.5	-0.0	-0.00
25YR-72HR	62.77	488574.8	486750.4	1824.5	-0.0	-0.00
25YR-72HR	62.78	488814.7	486990.2	1824.5	-0.0	-0.00
25YR-72HR	62.80	489049.7	487225.2	1824.4	-0.0	-0.00
25YR-72HR	62.82	489283.8	487459.3	1824.4	-0.0	-0.00
25YR-72HR	62.83	489520.9	487696.4	1824.4	-0.0	-0.00
25YR-72HR	62.85	489753.4	487929.0	1824.4	-0.0	-0.00
25YR-72HR	62.87	489989.0	488164.6	1824.4	-0.0	-0.00
25YR-72HR	62.88	490220.1	488395.7	1824.4	-0.0	-0.00
25YR-72HR	62.90	490454.5	488630.1	1824.4	-0.0	-0.00
25YR-72HR	62.92	490684.5	488860.1	1824.4	-0.0	-0.00
25YR-72HR	62.93	490914.1	489089.7	1824.4	-0.0	-0.00
25YR-72HR	62.95	491146.9	489322.5	1824.4	-0.0	-0.00
25YR-72HR	62.97	491375.6	489551.2	1824.4	-0.0	-0.00
25YR-72HR	62.98	491607.7	489783.3	1824.4	-0.0	-0.00



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25YR-72HR	63.00	491835.8	490011.4	1824.4	-0.0	-0.00
25YR-72HR	63.02	492067.2	490242.8	1824.4	-0.0	-0.00
25YR-72HR	63.03	492294.7	490470.3	1824.4	-0.0	-0.00
25YR-72HR	63.05	492525.6	490701.2	1824.4	-0.0	-0.00
25YR-72HR	63.07	492752.5	490928.1	1824.4	-0.0	-0.00
25YR-72HR	63.08	492979.1	491154.8	1824.4	-0.0	-0.00
25YR-72HR	63.10	493209.2	491384.8	1824.4	-0.0	-0.00
25YR-72HR	63.12	493435.3	491611.0	1824.4	-0.0	-0.00
25YR-72HR	63.13	493664.9	491840.6	1824.4	-0.0	-0.00
25YR-72HR	63.15	493890.6	492066.2	1824.4	-0.0	-0.00
25YR-72HR	63.17	494119.7	492295.4	1824.4	-0.0	-0.00
25YR-72HR	63.18	494345.0	492520.6	1824.4	-0.0	-0.00
25YR-72HR	63.20	494573.8	492749.4	1824.4	-0.0	-0.00
25YR-72HR	63.22	494798.7	492974.3	1824.4	-0.0	-0.00
25YR-72HR	63.23	495023.4	493199.0	1824.4	-0.0	-0.00
25YR-72HR	63.25	495251.7	493427.3	1824.4	-0.0	-0.00
25YR-72HR	63.27	495476.2	493651.8	1824.4	-0.0	-0.00
25YR-72HR	63.28	495704.2	493879.9	1824.4	-0.0	-0.00
25YR-72HR	63.30	495928.5	494104.1	1824.4	-0.0	-0.00
25YR-72HR	63.32	496156.4	494332.0	1824.4	-0.0	-0.00
25YR-72HR	63.33	496380.5	494556.1	1824.4	-0.0	-0.00
25YR-72HR	63.35	496604.5	494780.1	1824.4	-0.0	-0.00
25YR-72HR	63.37	496832.1	495007.8	1824.4	-0.0	-0.00
25YR-72HR	63.38	497056.0	495231.7	1824.4	-0.0	-0.00
25YR-72HR	63.40	497283.5	495459.2	1824.4	-0.0	-0.00
25YR-72HR	63.42	497507.3	495683.0	1824.4	-0.0	-0.00
25YR-72HR	63.43	497734.7	495910.4	1824.4	-0.0	-0.00
25YR-72HR	63.45	497958.4	496134.1	1824.4	-0.0	-0.00
25YR-72HR	63.47	498185.8	496361.4	1824.4	-0.0	-0.00
25YR-72HR	63.48	498409.5	496585.1	1824.3	-0.0	-0.00
25YR-72HR	63.50	498633.1	496808.8	1824.3	-0.0	-0.00
25YR-72HR	63.52	498860.4	497036.1	1824.3	-0.0	-0.00
25YR-72HR	63.53	499084.1	497259.7	1824.3	-0.0	-0.00
25YR-72HR	63.55	499311.4	497487.0	1824.3	-0.0	-0.00
25YR-72HR	63.57	499535.0	497710.6	1824.3	-0.0	-0.00
25YR-72HR	63.58	499762.3	497937.9	1824.3	-0.0	-0.00
25YR-72HR	63.60	499985.9	498161.6	1824.3	-0.0	-0.00
25YR-72HR	63.62	500213.2	498388.9	1824.3	-0.0	-0.00
25YR-72HR	63.63	500436.8	498612.5	1824.3	-0.0	-0.00
25YR-72HR	63.65	500660.5	498836.1	1824.3	-0.0	-0.00
25YR-72HR	63.67	500887.7	499063.4	1824.3	-0.0	-0.00
25YR-72HR	63.68	501111.4	499287.0	1824.3	-0.0	-0.00
25YR-72HR	63.70	501338.6	499514.3	1824.3	-0.0	-0.00
25YR-72HR	63.72	501562.2	499737.9	1824.3	-0.0	-0.00
25YR-72HR	63.73	501789.5	499965.2	1824.3	-0.0	-0.00
25YR-72HR	63.75	502013.1	500188.8	1824.3	-0.0	-0.00
25YR-72HR	63.77	502236.7	500412.4	1824.3	-0.0	-0.00
25YR-72HR	63.78	502464.0	500639.7	1824.3	-0.0	-0.00
25YR-72HR	63.80	502687.6	500863.3	1824.3	-0.0	-0.00
25YR-72HR	63.82	502914.9	501090.6	1824.3	-0.0	-0.00
25YR-72HR	63.83	503138.5	501314.2	1824.3	-0.0	-0.00
25YR-72HR	63.85	503365.8	501541.4	1824.3	-0.0	-0.00
25YR-72HR	63.87	503589.4	501765.0	1824.3	-0.0	-0.00
25YR-72HR	63.88	503816.7	501992.3	1824.3	-0.0	-0.00
25YR-72HR	63.90	504040.3	502215.9	1824.3	-0.0	-0.00
25YR-72HR	63.92	504263.9	502439.5	1824.3	-0.0	-0.00
25YR-72HR	63.93	504491.2	502666.8	1824.3	-0.0	-0.00
25YR-72HR	63.95	504714.8	502890.4	1824.3	-0.0	-0.00
25YR-72HR	63.97	504942.1	503117.7	1824.3	-0.0	-0.00
25YR-72HR	63.98	505165.7	503341.3	1824.3	-0.0	-0.00
25YR-72HR	64.00	505392.9	503568.6	1824.3	-0.0	-0.00
25YR-72HR	64.02	505615.2	503790.9	1824.3	-0.0	-0.00
25YR-72HR	64.10	506695.4	504871.2	1824.2	-0.0	-0.00
25YR-72HR	64.18	507672.0	505848.0	1824.0	-0.0	-0.00
25YR-72HR	64.27	508555.5	506731.6	1823.9	-0.0	-0.00
25YR-72HR	64.35	509372.0	507547.8	1824.2	-0.0	-0.00
25YR-72HR	64.43	510145.6	508321.4	1824.2	-0.0	-0.00
25YR-72HR	64.52	510888.9	509064.7	1824.2	-0.0	-0.00
25YR-72HR	64.60	511609.0	509784.8	1824.2	-0.0	-0.00
25YR-72HR	64.68	512313.0	510488.8	1824.2	-0.0	-0.00
25YR-72HR	64.77	513001.5	511177.4	1824.2	-0.0	-0.00
25YR-72HR	64.85	513681.7	511857.5	1824.1	-0.0	-0.00
25YR-72HR	64.93	514356.9	512532.7	1824.1	-0.0	-0.00
25YR-72HR	65.02	515029.8	513205.6	1824.1	-0.0	-0.00
25YR-72HR	65.10	515704.9	513880.7	1824.1	-0.0	-0.00
25YR-72HR	65.18	516379.0	514554.8	1824.1	-0.0	-0.00
25YR-72HR	65.27	517054.2	515230.1	1824.1	-0.0	-0.00
25YR-72HR	65.35	517730.1	515906.0	1824.1	-0.0	-0.00
25YR-72HR	65.43	518406.6	516582.4	1824.1	-0.0	-0.00
25YR-72HR	65.52	519085.6	517261.4	1824.1	-0.0	-0.00
25YR-72HR	65.60	519762.7	517938.5	1824.1	-0.0	-0.00
25YR-72HR	65.68	520440.0	518615.8	1824.1	-0.0	-0.00
25YR-72HR	65.77	521117.4	519293.3	1824.1	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
25YR-72HR	65.85	521795.0	519970.9	1824.1	-0.0	-0.00
25YR-72HR	65.93	522474.9	520650.7	1824.1	-0.0	-0.00
25YR-72HR	66.02	523152.6	521328.4	1824.1	-0.0	-0.00
25YR-72HR	66.10	523830.3	522006.1	1824.1	-0.0	-0.00
25YR-72HR	66.18	524507.9	522683.8	1824.1	-0.0	-0.00
25YR-72HR	66.27	525185.6	523361.5	1824.1	-0.0	-0.00
25YR-72HR	66.35	525865.5	524041.4	1824.1	-0.0	-0.00
25YR-72HR	66.43	526543.2	524719.0	1824.1	-0.0	-0.00
25YR-72HR	66.52	527220.9	525396.7	1824.1	-0.0	-0.00
25YR-72HR	66.60	527898.6	526074.4	1824.1	-0.0	-0.00
25YR-72HR	66.68	528576.3	526752.1	1824.1	-0.0	-0.00
25YR-72HR	66.77	529256.2	527432.0	1824.1	-0.0	-0.00
25YR-72HR	66.85	529933.9	528109.8	1824.1	-0.0	-0.00
25YR-72HR	66.93	530611.7	528787.5	1824.1	-0.0	-0.00
25YR-72HR	67.02	531289.4	529465.3	1824.1	-0.0	-0.00
25YR-72HR	67.10	531967.2	530143.0	1824.1	-0.0	-0.00
25YR-72HR	67.18	532647.2	530823.0	1824.1	-0.0	-0.00
25YR-72HR	67.27	533325.0	531500.8	1824.1	-0.0	-0.00
25YR-72HR	67.35	534002.8	532178.7	1824.1	-0.0	-0.00
25YR-72HR	67.43	534680.6	532856.5	1824.1	-0.0	-0.00
25YR-72HR	67.52	535358.5	533534.3	1824.1	-0.0	-0.00
25YR-72HR	67.60	536038.5	534214.4	1824.1	-0.0	-0.00
25YR-72HR	67.68	536716.4	534892.3	1824.1	-0.0	-0.00
25YR-72HR	67.77	537394.3	535570.1	1824.1	-0.0	-0.00
25YR-72HR	67.85	538072.2	536248.0	1824.1	-0.0	-0.00
25YR-72HR	67.93	538750.1	536925.9	1824.1	-0.0	-0.00
25YR-72HR	68.02	539429.2	537605.1	1824.1	-0.0	-0.00
25YR-72HR	68.10	540081.3	538287.9	1823.3	-0.0	-0.00
25YR-72HR	68.18	540681.2	538857.6	1823.6	-0.0	-0.00
25YR-72HR	68.27	541235.1	539411.0	1824.1	-0.0	-0.00
25YR-72HR	68.35	541755.6	539931.9	1823.6	-0.0	-0.00
25YR-72HR	68.43	542254.6	540430.9	1823.6	-0.0	-0.00
25YR-72HR	68.52	542738.9	540914.7	1824.1	-0.0	-0.00
25YR-72HR	68.60	543211.1	541387.5	1823.7	-0.0	-0.00
25YR-72HR	68.68	543674.3	541850.6	1823.7	-0.0	-0.00
25YR-72HR	68.77	544131.2	542307.1	1824.2	-0.0	-0.00
25YR-72HR	68.85	544584.9	542761.2	1823.7	-0.0	-0.00
25YR-72HR	68.93	545034.9	543211.2	1823.7	-0.0	-0.00
25YR-72HR	69.02	545484.1	543660.4	1823.7	-0.0	-0.00
25YR-72HR	69.10	545932.8	544109.1	1823.7	-0.0	-0.00
25YR-72HR	69.18	546381.5	544557.8	1823.8	-0.0	-0.00
25YR-72HR	69.27	546830.6	545006.8	1823.7	-0.0	-0.00
25YR-72HR	69.35	547280.4	545456.7	1823.8	-0.0	-0.00
25YR-72HR	69.43	547729.2	545905.4	1823.8	-0.0	-0.00
25YR-72HR	69.52	548178.2	546354.4	1823.8	-0.0	-0.00
25YR-72HR	69.60	548627.0	546803.1	1823.8	-0.0	-0.00
25YR-72HR	69.68	549075.7	547251.9	1823.9	-0.0	-0.00
25YR-72HR	69.77	549524.8	547700.9	1823.9	-0.0	-0.00
25YR-72HR	69.85	549974.7	548150.8	1823.9	-0.0	-0.00
25YR-72HR	69.93	550423.5	548599.6	1823.9	-0.0	-0.00
25YR-72HR	70.02	550872.5	549048.6	1823.9	-0.0	-0.00
25YR-72HR	70.10	551321.6	549497.7	1823.9	-0.0	-0.00
25YR-72HR	70.18	551771.2	549947.3	1824.0	-0.0	-0.00
25YR-72HR	70.27	552221.7	550397.7	1824.0	-0.0	-0.00
25YR-72HR	70.35	552673.4	550849.4	1824.0	-0.0	-0.00
25YR-72HR	70.43	553124.5	551300.0	1824.5	-0.0	-0.00
25YR-72HR	70.52	553575.5	551751.5	1824.0	-0.0	-0.00
25YR-72HR	70.60	554026.6	552202.5	1824.0	-0.0	-0.00
25YR-72HR	70.68	554478.1	552653.6	1824.5	-0.0	-0.00
25YR-72HR	70.77	554929.4	553105.3	1824.1	-0.0	-0.00
25YR-72HR	70.85	555381.9	553557.8	1824.1	-0.0	-0.00
25YR-72HR	70.93	555833.6	554009.5	1824.0	-0.0	-0.00
25YR-72HR	71.02	556284.9	554460.8	1824.1	-0.0	-0.00
25YR-72HR	71.10	556736.3	554912.2	1824.1	-0.0	-0.00
25YR-72HR	71.18	557188.0	555364.0	1824.1	-0.0	-0.00
25YR-72HR	71.27	557639.5	555815.3	1824.2	-0.0	-0.00
25YR-72HR	71.35	558092.0	556267.9	1824.2	-0.0	-0.00
25YR-72HR	71.43	558543.8	556719.6	1824.2	-0.0	-0.00
25YR-72HR	71.52	558995.2	557171.0	1824.2	-0.0	-0.00
25YR-72HR	71.60	559446.6	557622.4	1824.2	-0.0	-0.00
25YR-72HR	71.68	559898.4	558074.1	1824.3	-0.0	-0.00
25YR-72HR	71.77	560349.8	558525.5	1824.3	-0.0	-0.00
25YR-72HR	71.85	560802.4	558978.1	1824.3	-0.0	-0.00
25YR-72HR	71.93	561254.2	559429.9	1824.3	-0.0	-0.00
25YR-72HR	72.02	561704.0	559879.7	1824.3	-0.0	-0.00
25YR-72HR	72.10	562152.7	560328.5	1824.2	-0.0	-0.00
25YR-72HR	72.18	562601.5	560777.3	1824.1	-0.0	-0.00
25YR-72HR	72.27	563050.3	561226.1	1824.1	-0.0	-0.00
25YR-72HR	72.35	563499.1	561674.9	1824.1	-0.0	-0.00
25YR-72HR	72.43	563947.9	562123.7	1824.1	-0.0	-0.00
25YR-72HR	72.52	564396.7	562572.5	1824.1	-0.0	-0.00
25YR-72HR	72.60	564845.5	563021.3	1824.1	-0.0	-0.00
25YR-72HR	72.68	565294.3	563470.1	1824.1	-0.0	-0.00
25YR-72HR	72.77	565743.1	563918.9	1824.1	-0.0	-0.00
25YR-72HR	72.85	566191.9	564367.7	1824.1	-0.0	-0.00
25YR-72HR	72.93	566640.7	564816.5	1824.1	-0.0	-0.00
25YR-72HR	73.02	567089.5	565265.3	1824.1	-0.0	-0.00
25YR-72HR	73.10	567538.3	565714.1	1824.1	-0.0	-0.00
25YR-72HR	73.18	567987.1	566162.9	1824.1	-0.0	-0.00
25YR-72HR	73.27	568435.9	566611.7	1824.1	-0.0	-0.00
25YR-72HR	73.35	568884.7	567060.5	1824.1	-0.0	-0.00
25YR-72HR	73.43	569333.5	567509.3	1824.1	-0.0	-0.00
25YR-72HR	73.52	569782.3	567958.1	1824.1	-0.0	-0.00
25YR-72HR	73.60	570231.1	568406.9	1824.1	-0.0	-0.00
25YR-72HR	73.68	570679.9	568855.7	1824.1	-0.0	-0.00
25YR-72HR	73.77	571128.7	569304.5	1824.1	-0.0	-0.00
25YR-72HR	73.85	571577.5	569753.3	1824.1	-0.0	-0.00
25YR-72HR	73.93	572026.3	570202.1	1824.1	-0.0	-0.00
25YR-72HR	74.02	572475.1	570650.9	1824.1	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
25YR-72HR	74.27	562730.5	560906.3	1824.2	-0.0	-0.00
25YR-72HR	74.52	562730.5	560905.8	1824.6	-0.0	-0.00
25YR-72HR	74.77	562730.5	560905.8	1824.7	-0.0	-0.00
25YR-72HR	75.02	562730.5	560906.2	1824.3	-0.0	-0.00
25YR-72HR	75.27	562730.5	560906.2	1824.3	-0.0	-0.00
25YR-72HR	75.52	562730.5	560906.2	1824.3	-0.0	-0.00
25YR-72HR	75.77	562730.5	560906.1	1824.3	-0.0	-0.00
25YR-72HR	76.02	562730.5	560906.1	1824.4	-0.0	-0.00
25YR-72HR	76.27	562730.5	560906.1	1824.4	-0.0	-0.00
25YR-72HR	76.52	562730.5	560906.1	1824.4	-0.0	-0.00
25YR-72HR	76.77	562730.5	560906.1	1824.4	-0.0	-0.00
25YR-72HR	77.02	562730.5	560906.0	1824.4	-0.0	-0.00
25YR-72HR	77.27	562730.5	560906.0	1824.5	-0.0	-0.00
25YR-72HR	77.52	562730.5	560906.0	1824.5	-0.0	-0.00
25YR-72HR	77.77	562730.5	560906.0	1824.5	-0.0	-0.00
25YR-72HR	78.02	562730.5	560905.9	1824.5	-0.0	-0.00
25YR-72HR	78.27	562730.5	560905.9	1824.6	-0.0	-0.00
25YR-72HR	78.52	562730.5	560905.9	1824.6	-0.0	-0.00
25YR-72HR	78.77	562730.5	560905.9	1824.6	-0.0	-0.00
25YR-72HR	79.02	562730.5	560905.9	1824.6	-0.0	-0.00
25YR-72HR	79.27	562730.5	560905.8	1824.6	-0.0	-0.00
25YR-72HR	79.52	562730.5	560905.8	1824.7	-0.0	-0.00
25YR-72HR	79.77	562730.5	560905.8	1824.7	-0.0	-0.00
25YR-72HR	80.02	562730.5	560905.8	1824.7	-0.0	-0.00
25YR-72HR	80.27	562730.5	560905.8	1824.7	-0.0	-0.00
25YR-72HR	80.52	562730.5	560905.3	1825.1	-0.0	-0.00
25YR-72HR	80.77	562730.5	560905.3	1825.2	-0.0	-0.00
25YR-72HR	81.02	562730.5	560905.3	1825.2	-0.0	-0.00
25YR-72HR	81.27	562730.5	560905.7	1824.8	-0.0	-0.00
25YR-72HR	81.52	562730.5	560905.7	1824.8	-0.0	-0.00
25YR-72HR	81.77	562730.5	560905.6	1824.9	-0.0	-0.00
25YR-72HR	82.02	562730.5	560905.6	1824.9	-0.0	-0.00
25YR-72HR	82.27	562730.5	560905.6	1824.9	-0.0	-0.00
25YR-72HR	82.52	562730.5	560905.6	1824.9	-0.0	-0.00
25YR-72HR	82.77	562730.5	560905.5	1824.9	-0.0	-0.00
25YR-72HR	83.02	562730.5	560905.5	1825.0	-0.0	-0.00
25YR-72HR	83.27	562730.5	560905.5	1825.0	-0.0	-0.00
25YR-72HR	83.52	562730.5	560905.5	1825.0	-0.0	-0.00
25YR-72HR	84.02	562730.5	560905.4	1825.0	-0.0	-0.00
25YR-72HR	84.27	562730.5	560905.4	1825.1	-0.0	-0.00
25YR-72HR	84.52	562730.5	560905.4	1825.1	-0.0	-0.00
25YR-72HR	84.77	562730.5	560905.4	1825.1	-0.0	-0.00
25YR-72HR	85.02	562730.5	560905.4	1825.1	-0.0	-0.00
25YR-72HR	85.27	562730.5	560905.3	1825.2	-0.0	-0.00
25YR-72HR	85.52	562730.5	560905.3	1825.2	-0.0	-0.00
25YR-72HR	85.77	562730.5	560905.3	1825.2	-0.0	-0.00
25YR-72HR	86.02	562730.5	560905.3	1825.2	-0.0	-0.00
25YR-72HR	86.27	562730.5	560905.2	1825.2	-0.0	-0.00
25YR-72HR	86.52	562730.5	560905.2	1825.3	-0.0	-0.00
25YR-72HR	86.77	562730.5	560904.8	1825.7	-0.0	-0.00
25YR-72HR	87.02	562730.5	560904.8	1825.7	-0.0	-0.00
25YR-72HR	87.52	562730.5	560905.1	1825.3	-0.0	-0.00
25YR-72HR	87.77	562730.5	560905.1	1825.4	-0.0	-0.00
25YR-72HR	88.02	562730.5	560905.1	1825.4	-0.0	-0.00
25YR-72HR	88.27	562730.5	560905.1	1825.4	-0.0	-0.00
25YR-72HR	88.52	562730.5	560905.1	1825.4	-0.0	-0.00
25YR-72HR	88.77	562730.5	560905.0	1825.4	-0.0	-0.00
25YR-72HR	89.02	562730.5	560905.0	1825.5	-0.0	-0.00
25YR-72HR	89.27	562730.5	560905.0	1825.5	-0.0	-0.00
25YR-72HR	89.52	562730.5	560905.0	1825.5	-0.0	-0.00
25YR-72HR	89.77	562730.5	560904.9	1825.5	-0.0	-0.00
25YR-72HR	90.02	562730.5	560904.9	1825.6	-0.0	-0.00
25YR-72HR	90.27	562730.5	560904.9	1825.6	-0.0	-0.00
25YR-72HR	90.52	562730.5	560904.9	1825.6	-0.0	-0.00
25YR-72HR	90.77	562730.5	560904.9	1825.6	-0.0	-0.00
25YR-72HR	91.02	562730.5	560904.8	1825.6	-0.0	-0.00
25YR-72HR	91.27	562730.5	560904.8	1825.7	-0.0	-0.00
25YR-72HR	91.52	562730.5	560904.8	1825.7	-0.0	-0.00
25YR-72HR	91.77	562730.5	560904.8	1825.7	-0.0	-0.00
25YR-72HR	92.02	562730.5	560904.8	1825.7	-0.0	-0.00
25YR-72HR	92.27	562730.5	560904.7	1825.7	-0.0	-0.00
25YR-72HR	92.52	562730.5	560904.7	1825.8	-0.0	-0.00
25YR-72HR	92.77	562730.5	560904.3	1826.2	-0.0	-0.00
25YR-72HR	93.02	562730.5	560904.3	1826.2	-0.0	-0.00
25YR-72HR	93.27	562730.5	560904.2	1826.2	-0.0	-0.00
25YR-72HR	93.52	562730.5	560904.6	1825.9	-0.0	-0.00
25YR-72HR	93.77	562730.5	560904.6	1825.9	-0.0	-0.00
25YR-72HR	94.02	562730.5	560904.6	1825.9	-0.0	-0.00
25YR-72HR	94.27	562730.5	560904.6	1825.9	-0.0	-0.00
25YR-72HR	94.52	562730.5	560904.5	1825.9	-0.0	-0.00
25YR-72HR	94.77	562730.5	560904.5	1826.0	-0.0	-0.00
25YR-72HR	95.02	562730.5	560904.5	1826.0	-0.0	-0.00
25YR-72HR	95.27	562730.5	560904.5	1826.0	-0.0	-0.00

NE 79TH STREET PD&E  
 PRE DEVELOPMENT CONDIITION  
 MASS BALANCE

Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
25YR-72HR	95.77	562730.5	560904.4	1826.0	-0.0	-0.00
25YR-72HR	96.00	562730.5	560904.4	1826.1	-0.0	-0.00





# **APPENDIX M**

## **Post Development ICPR Input and Results**

## INDEX

POST DEVELOPMENT NETWORK.....	2
PRE VS POST PEAK DISCHARGE.....	3
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NE 79TH STREET PD&E  
 POST DEVELOPMENT CONDITION  
 NETWORK

Nodes

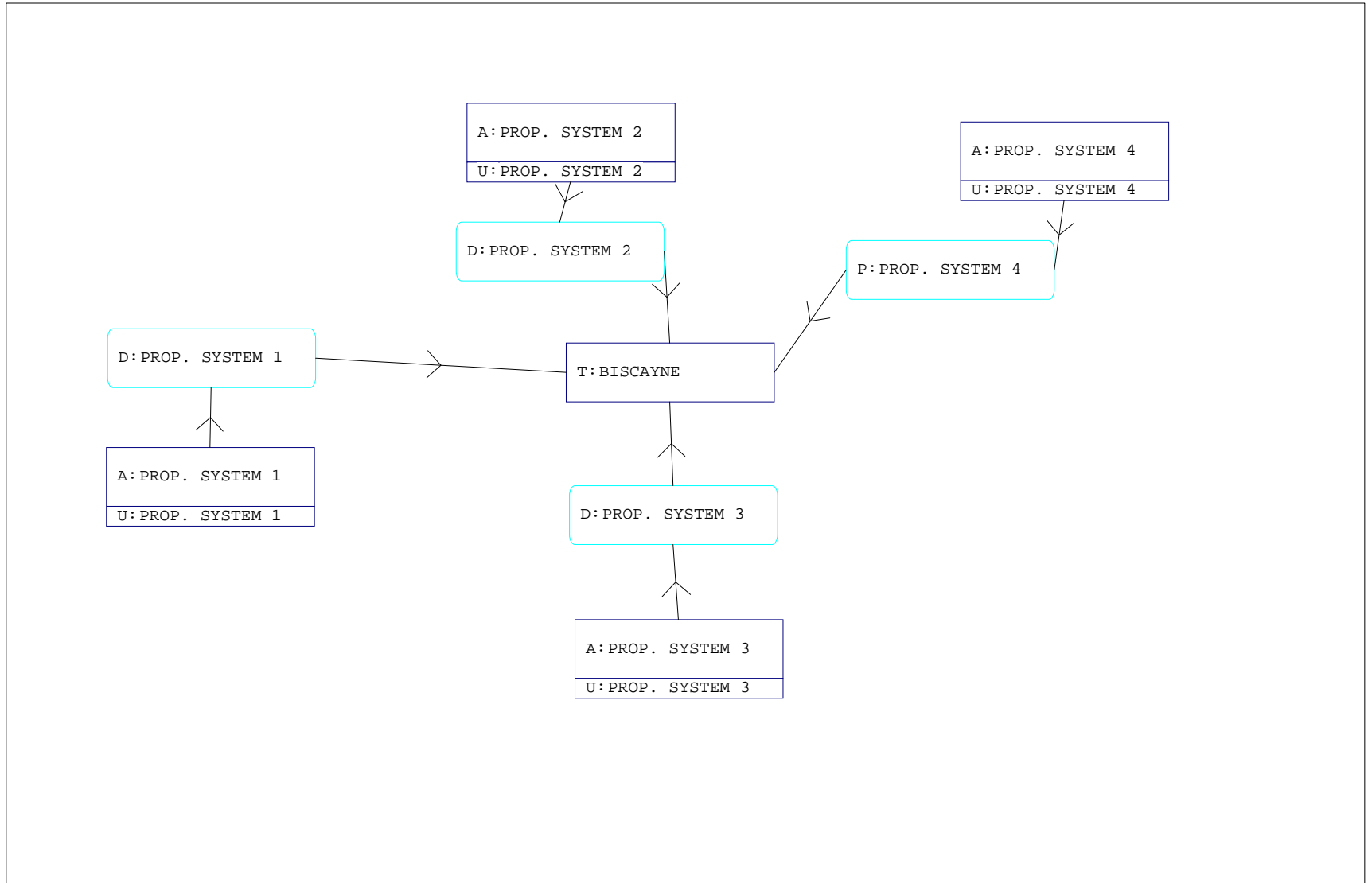
- A Stage/Area
- V Stage/Volume
- T Time/Stage
- M Manhole

Basins

- O Overland Flow
- U SCS Unit CN
- S SBUH CN
- Y SCS Unit GA
- Z SBUH GA

Links

- P Pipe
- W Weir
- C Channel
- D Drop Structure
- B Bridge
- R Rating Curve
- H Breach
- E Percolation
- F Filter
- X Exfil Trench





**PEAK DISCHARGES TO BISCAYNE BAY (cfs) FROM NE 79<sup>TH</sup> STREET PD&E**

**PRE VS POST PEAK DISCHARGE TO THE BISCAYNE BAY**

LINK NAME	PRE DEVELOPMENT CONDITION		LINK NAME	POST DEVELOPMENT CONDITION
	25YR-72HRS			25YR-72HRS
P:EXIST. SYSTEM 1	19.71		D:PROP. SYSTEM 1	16.99
P:EXIST. SYSTEM 2	7.6		D:PROP. SYSTEM 2	14.05
P:EXIST. SYSTEM 3	9.71		D:PROP. SYSTEM 3	14.13
P:EXIST. SYSTEM 4	9.89		P:PROP. SYSTEM 4	22.79
P:EXIST. SYSTEM 5	7.32			
P:EXIST. SYSTEM 6	19.93			
<b>GRAND TOTAL</b>	<b>74.16</b>		<b>GRAND TOTAL</b>	<b>67.96</b>

**PEAK STAGES - POST DEVELOPMENT NE 79TH STREET PD&E**

NODE ID	WARNING STAGE FT	PEAK STAGES (ft)							HGL Compare to 10YR-1HR Storm
		POST DEVELOPMENT							
		100YR-1HR	100YR-8HR	100YR-24HR	25YR-72HR	10YR-1HR	10YR-8HR	10YR-24HR	
PROP. SYSTEM 1	4.50	4.29	4.09	2.30	4.20	4.11	3.17	2.15	0.39
PROP. SYSTEM 2	5.10	4.11	2.93	2.32	3.71	3.01	2.63	2.21	2.09
PROP. SYSTEM 3	5.20	4.13	2.99	2.39	3.73	3.07	2.70	2.28	2.13
PROP. SYSTEM 4	4.50	4.06	2.64	2.07	3.19	3.04	2.32	2.03	1.46

NE 79TH STREET PD&E  
POST DEVELOPMENT CONDITION  
PEAK STAGES

Name	Group	Simulation	Max Time Stage hrs	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Time Inflow hrs	Max Inflow cfs	Max Time Outflow hrs	Max Outflow cfs
BISCAYNE	BASE	100YR-1HR	0.00	2.00	4.00	0.0000	50	0.75	78.33	0.00	0.00
PROP. SYSTEM 1	BASE	100YR-1HR	0.94	4.29	4.50	-0.0399	114425	0.65	31.49	0.94	17.34
PROP. SYSTEM 2	BASE	100YR-1HR	0.75	4.11	5.10	-0.0136	11575	0.67	16.99	0.75	15.60
PROP. SYSTEM 3	BASE	100YR-1HR	0.76	4.13	5.20	-0.0156	12246	0.67	17.25	0.76	15.68
PROP. SYSTEM 4	BASE	100YR-1HR	0.71	4.06	4.50	0.0867	20994	0.65	31.50	0.71	29.92
BISCAYNE	BASE	100YR-24HR	0.00	2.00	4.00	0.0000	50	12.00	18.38	0.00	0.00
PROP. SYSTEM 1	BASE	100YR-24HR	12.00	2.30	4.50	0.0132	200	12.00	5.99	12.00	5.99
PROP. SYSTEM 2	BASE	100YR-24HR	12.00	2.32	5.10	0.0028	113	12.00	3.41	12.00	3.41
PROP. SYSTEM 3	BASE	100YR-24HR	12.00	2.39	5.20	0.0027	113	12.00	3.43	12.00	3.43
PROP. SYSTEM 4	BASE	100YR-24HR	11.99	2.07	4.50	0.0867	129	11.99	5.56	11.99	5.56
BISCAYNE	BASE	100YR-8HR	0.00	2.00	4.00	0.0000	50	3.99	53.43	0.00	0.00
PROP. SYSTEM 1	BASE	100YR-8HR	4.08	4.09	4.50	0.0132	36823	3.99	17.84	4.08	16.57
PROP. SYSTEM 2	BASE	100YR-8HR	3.99	2.93	5.10	-0.0043	113	3.99	10.09	3.99	10.08
PROP. SYSTEM 3	BASE	100YR-8HR	3.99	2.99	5.20	-0.0040	113	3.99	10.16	3.99	10.16
PROP. SYSTEM 4	BASE	100YR-8HR	3.99	2.64	4.50	0.0867	129	3.99	16.64	3.99	16.64
BISCAYNE	BASE	10YR-1HR	0.00	2.00	4.00	0.0000	50	0.67	59.19	0.00	0.00
PROP. SYSTEM 1	BASE	10YR-1HR	0.82	4.11	4.50	-0.0179	44412	0.67	20.31	0.82	16.65
PROP. SYSTEM 2	BASE	10YR-1HR	0.67	3.01	5.10	-0.0051	113	0.67	10.65	0.67	10.64
PROP. SYSTEM 3	BASE	10YR-1HR	0.67	3.07	5.20	-0.0052	113	0.67	10.87	0.67	10.86
PROP. SYSTEM 4	BASE	10YR-1HR	0.65	3.04	4.50	0.0867	129	0.65	21.24	0.65	21.24
BISCAYNE	BASE	10YR-24HR	0.00	2.00	4.00	0.0000	50	12.00	11.93	0.00	0.00
PROP. SYSTEM 1	BASE	10YR-24HR	12.00	2.15	4.50	0.0132	200	12.00	3.89	12.00	3.89
PROP. SYSTEM 2	BASE	10YR-24HR	12.00	2.21	5.10	0.0028	113	12.00	2.19	12.00	2.19
PROP. SYSTEM 3	BASE	10YR-24HR	12.00	2.28	5.20	0.0027	113	12.00	2.20	12.00	2.20
PROP. SYSTEM 4	BASE	10YR-24HR	12.00	2.03	4.50	0.0867	129	12.00	3.65	12.00	3.65
BISCAYNE	BASE	10YR-8HR	0.00	2.00	4.00	0.0000	50	3.99	37.98	0.00	0.00
PROP. SYSTEM 1	BASE	10YR-8HR	4.00	3.17	4.50	0.0132	200	4.00	12.38	4.00	12.38
PROP. SYSTEM 2	BASE	10YR-8HR	4.00	2.63	5.10	0.0033	113	4.00	6.91	4.00	6.91
PROP. SYSTEM 3	BASE	10YR-8HR	3.99	2.70	5.20	0.0034	113	4.00	6.98	3.99	6.98
PROP. SYSTEM 4	BASE	10YR-8HR	3.98	2.32	4.50	0.0867	129	3.99	11.73	3.98	11.72
BISCAYNE	BASE	25YR-72HR	0.00	2.00	4.00	0.0000	50	60.02	67.82	0.00	0.00
PROP. SYSTEM 1	BASE	25YR-72HR	60.18	4.20	4.50	-0.0215	79384	60.02	24.66	60.18	16.99
PROP. SYSTEM 2	BASE	25YR-72HR	60.02	3.71	5.10	-0.0049	113	60.02	14.06	60.02	14.05
PROP. SYSTEM 3	BASE	25YR-72HR	60.02	3.73	5.20	-0.0050	113	60.02	14.14	60.02	14.13
PROP. SYSTEM 4	BASE	25YR-72HR	60.02	3.19	4.50	0.0867	129	60.02	22.80	60.02	22.79

NE 79TH STREET PD&E  
 POST DEVELOPMENT CONDITION  
 PEAK DISCHARGES

Name	Group	Simulation	Max Time Flow hrs	Max Flow cfs	Max Delta Q cfs	Max Time US Stage hrs	Max US Stage ft	Max Time DS Stage hrs	Max DS Stage ft
PROP. SYSTEM 1	BASE	25YR-72HR	60.18	16.99	-5.281	60.18	4.20	0.00	2.00
PROP. SYSTEM 2	BASE	25YR-72HR	60.02	14.05	-0.630	60.02	3.71	0.00	2.00
PROP. SYSTEM 3	BASE	25YR-72HR	60.02	14.13	-0.101	60.02	3.73	0.00	2.00
PROP. SYSTEM 4	BASE	25YR-72HR	60.02	22.79	-26.694	60.02	3.19	0.00	2.00

NE 79TH STREET PD&E  
POST DEVELOPMENT CONDITION  
INPUT REPORT

=====  
Basins  
=====

Name: PROP. SYSTEM 1                      Node: PROP. SYSTEM 1                      Status: Onsite  
Group: BASE                                      Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256                                      Peaking Factor: 256.0  
Rainfall File:                                      Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                                      Time of Conc(min): 10.00  
Area(ac): 4.500                                      Time Shift(hrs): 0.00  
Curve Number: 91.10                                      Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

Name: PROP. SYSTEM 2                      Node: PROP. SYSTEM 2                      Status: Onsite  
Group: BASE                                      Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256                                      Peaking Factor: 256.0  
Rainfall File:                                      Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                                      Time of Conc(min): 10.00  
Area(ac): 2.590                                      Time Shift(hrs): 0.00  
Curve Number: 88.20                                      Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

Name: PROP. SYSTEM 3                      Node: PROP. SYSTEM 3                      Status: Onsite  
Group: BASE                                      Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256                                      Peaking Factor: 256.0  
Rainfall File:                                      Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                                      Time of Conc(min): 10.00  
Area(ac): 2.600                                      Time Shift(hrs): 0.00  
Curve Number: 88.70                                      Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

Name: PROP. SYSTEM 4                      Node: PROP. SYSTEM 4                      Status: Onsite  
Group: BASE                                      Type: SCS Unit Hydrograph CN

Unit Hydrograph: Uh256                                      Peaking Factor: 256.0  
Rainfall File:                                      Storm Duration(hrs): 0.00  
Rainfall Amount(in): 0.000                                      Time of Conc(min): 10.00  
Area(ac): 4.120                                      Time Shift(hrs): 0.00  
Curve Number: 95.70                                      Max Allowable Q(cfs): 999999.000  
DCIA(%): 0.00

=====  
Nodes  
=====

Name: BISCAYNE                      Base Flow(cfs): 0.000                      Init Stage(ft): 2.000  
Group: BASE                                      Warn Stage(ft): 4.000  
Type: Time/Stage

Time(hrs)	Stage(ft)
0.00	2.000
100.00	2.000

Name: PROP. SYSTEM 1                      Base Flow(cfs): 0.000                      Init Stage(ft): 0.820  
Group: BASE                                      Warn Stage(ft): 4.500  
Type: Stage/Area

Stage(ft)	Area(ac)
0.820	0.0046
4.000	0.0046
4.500	4.5000
4.600	4.5200



NE 79TH STREET PD&E  
POST DEVELOPMENT CONDITION  
INPUT REPORT

Name: PROP. SYSTEM 2      Base Flow(cfs): 0.000      Init Stage(ft): 0.820  
Group: BASE                      Warn Stage(ft): 5.100  
Type: Stage/Area

Stage(ft)	Area(ac)
0.820	0.0023
4.000	0.0023
5.100	2.5900
5.200	2.6000

Name: PROP. SYSTEM 3      Base Flow(cfs): 0.000      Init Stage(ft): 0.820  
Group: BASE                      Warn Stage(ft): 5.200  
Type: Stage/Area

Stage(ft)	Area(ac)
0.820	0.0023
4.000	0.0023
5.200	2.6000
5.300	2.6100

Name: PROP. SYSTEM 4      Base Flow(cfs): 0.000      Init Stage(ft): 0.820  
Group: BASE                      Warn Stage(ft): 4.500  
Type: Stage/Area

Stage(ft)	Area(ac)
0.820	0.0004
4.000	0.0004
4.500	4.1200
4.600	4.1300

=====  
Cross Sections =====  
=====

Name:    Group: BASE  
Encroachment: No

Station(ft)    Elevation(ft)    Manning's N  
-----

=====  
Operating Tables =====  
=====

Name:    Group: BASE  
Type: Bottom Clip  
Function: Time vs. Depth of Clip

Time(hrs)    Clip Depth(in)  
-----

=====  
Pipes =====  
=====

Name: PROP. SYSTEM 4      From Node: PROP. SYSTEM 4      Length(ft): 263.00  
Group: BASE                      To Node: BISCAYNE                      Count: 1  
Friction Equation: Automatic  
Solution Algorithm: Most Restrictive

UPSTREAM	DOWNSTREAM	
Geometry: Circular	Circular	Flow: Both
Span(in): 30.00	30.00	Entrance Loss Coef: 0.50
Rise(in): 30.00	30.00	Exit Loss Coef: 0.10
Invert(ft): -1.537	-2.137	Bend Loss Coef: 0.00
Manning's N: 0.012000	0.012000	Outlet Ctrl Spec: Use dc or tw
Top Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc
Bot Clip(in): 0.000	0.000	Stabilizer Option: None

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

NE 79TH STREET PD&E  
POST DEVELOPMENT CONDITION  
INPUT REPORT

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Invert from as-builts State project 87080-3506-01-34

upstream invert 0.00' -1.537' = -1.537' NAVD

downstream invert -0.60' -1.537' = -2.137' NAVD"

=====  
==== Drop Structures =====  
=====

Name: PROP. SYSTEM 1	From Node: PROP. SYSTEM 1	Length(ft): 200.00
Group: BASE	To Node: BISCAYNE	Count: 1
UPSTREAM	DOWNSTREAM	Friction Equation: Automatic
Geometry: Circular	Circular	Solution Algorithm: Most Restrictive
Span(in): 24.00	24.00	Flow: Both
Rise(in): 24.00	24.00	Entrance Loss Coef: 0.000
Invert(ft): 0.000	0.000	Exit Loss Coef: 1.000
Manning's N: 0.012000	0.012000	Outlet Ctrl Spec: Use dc or tw
Top Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc
Bot Clip(in): 0.000	0.000	Solution Incs: 10

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

\*\*\* Weir 1 of 1 for Drop Structure PROP. SYSTEM 1 \*\*\*

Count: 1	Bottom Clip(in): 0.000	TABLE
Type: Vertical: Mavis	Top Clip(in): 0.000	
Flow: Both	Weir Disc Coef: 3.200	
Geometry: Rectangular	Orifice Disc Coef: 0.600	
Span(in): 48.00	Invert(ft): 1.310	
Rise(in): 12.00	Control Elev(ft): 1.310	

Name: PROP. SYSTEM 2	From Node: PROP. SYSTEM 2	Length(ft): 264.00
Group: BASE	To Node: BISCAYNE	Count: 1
UPSTREAM	DOWNSTREAM	Friction Equation: Automatic
Geometry: Circular	Circular	Solution Algorithm: Most Restrictive
Span(in): 24.00	24.00	Flow: Both
Rise(in): 24.00	24.00	Entrance Loss Coef: 0.000
Invert(ft): -1.437	-2.137	Exit Loss Coef: 1.000
Manning's N: 0.012000	0.012000	Outlet Ctrl Spec: Use dc or tw
Top Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc
Bot Clip(in): 0.000	0.000	Solution Incs: 10

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

\*\*\* Weir 1 of 1 for Drop Structure PROP. SYSTEM 2 \*\*\*

Count: 1	Bottom Clip(in): 0.000	TABLE
Type: Vertical: Mavis	Top Clip(in): 0.000	
Flow: Both	Weir Disc Coef: 3.200	
Geometry: Rectangular	Orifice Disc Coef: 0.600	
Span(in): 48.00	Invert(ft): 1.860	
Rise(in): 12.00	Control Elev(ft): 1.860	

Name: PROP. SYSTEM 3	From Node: PROP. SYSTEM 3	Length(ft): 263.00
Group: BASE	To Node: BISCAYNE	Count: 1
UPSTREAM	DOWNSTREAM	Friction Equation: Automatic
Geometry: Circular	Circular	Solution Algorithm: Most Restrictive
Span(in): 24.00	24.00	Flow: Both
Rise(in): 24.00	24.00	Entrance Loss Coef: 0.000

NE 79TH STREET PD&E  
POST DEVELOPMENT CONDITION  
INPUT REPORT

Invert(ft): -1.537	-2.137	Exit Loss Coef: 1.000
Manning's N: 0.012000	0.012000	Outlet Ctrl Spec: Use dc or tw
Top Clip(in): 0.000	0.000	Inlet Ctrl Spec: Use dc
Bot Clip(in): 0.000	0.000	Solution Incs: 10

Upstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:  
Circular Concrete: Square edge w/ headwall

\*\*\* Weir 1 of 1 for Drop Structure PROP. SYSTEM 3 \*\*\*

Count: 1	Bottom Clip(in): 0.000	TABLE
Type: Vertical: Mavis	Top Clip(in): 0.000	
Flow: Both	Weir Disc Coef: 3.200	
Geometry: Rectangular	Orifice Disc Coef: 0.600	
Span(in): 48.00	Invert(ft): 1.960	
Rise(in): 12.00	Control Elev(ft): 1.960	

==== Rating Curves =====

Name:	From Node:	Count: 1
Group: BASE	To Node:	Flow: Both
TABLE	ELEV ON(ft)	ELEV OFF(ft)
#1:	0.000	0.000
#2:	0.000	0.000
#3:	0.000	0.000
#4:	0.000	0.000

==== Hydrology Simulations =====

Name: 100YR-1HR  
 Filename: U:\Ssequeir\NE 79 STREET BRIDGE PD&E\ICPR\POST DEVELOPMENT FD\100YR-1HR.R32  
 Override Defaults: Yes  
 Storm Duration(hrs): 1.00  
 Rainfall File: Fdot-1  
 Rainfall Amount(in): 5.10

Time(hrs)	Print Inc(min)
-----	-----
1.000	1.00
1.330	1.00

Name: 100YR-24HR  
 Filename: U:\Ssequeir\NE 79 STREET BRIDGE PD&E\ICPR\POST DEVELOPMENT FD\100YR-24HR.R32  
 Override Defaults: Yes  
 Storm Duration(hrs): 24.00  
 Rainfall File: Fdot-24  
 Rainfall Amount(in): 13.44

Time(hrs)	Print Inc(min)
-----	-----
8.000	5.00
16.000	1.00
24.000	5.00
24.330	5.00

Name: 100YR-8HR  
 Filename: U:\Ssequeir\NE 79 STREET BRIDGE PD&E\ICPR\POST DEVELOPMENT FD\100YR-8HR.R32  
 Override Defaults: Yes  
 Storm Duration(hrs): 8.00  
 Rainfall File: Fdot-8  
 Rainfall Amount(in): 9.60

Time(hrs)	Print Inc(min)
-----	-----
2.000	5.00
6.000	1.00
8.000	5.00

NE 79TH STREET PD&E  
POST DEVELOPMENT CONDITION  
INPUT REPORT

8.330            5.00

Name: 10YR-1HR  
Filename: U:\Ssequeir\NE 79 STREET BRIDGE PD&E\ICPR\POST DEVELOPMENT FD\10YR-1HR.R32

Override Defaults: Yes  
Storm Duration(hrs): 1.00  
Rainfall File: Fdot-1  
Rainfall Amount(in): 3.55

Time(hrs)	Print Inc(min)
1.000	1.00
1.330	1.00

Name: 10YR-24HR  
Filename: U:\Ssequeir\NE 79 STREET BRIDGE PD&E\ICPR\POST DEVELOPMENT FD\10YR-24HR.R32

Override Defaults: Yes  
Storm Duration(hrs): 24.00  
Rainfall File: Fdot-24  
Rainfall Amount(in): 8.88

Time(hrs)	Print Inc(min)
8.000	5.00
16.000	1.00
24.000	5.00
24.330	5.00

Name: 10YR-8HR  
Filename: U:\Ssequeir\NE 79 STREET BRIDGE PD&E\ICPR\POST DEVELOPMENT FD\10YR-8HR.R32

Override Defaults: Yes  
Storm Duration(hrs): 8.00  
Rainfall File: Fdot-8  
Rainfall Amount(in): 6.80

Time(hrs)	Print Inc(min)
2.000	5.00
6.000	1.00
8.000	5.00
8.330	5.00

Name: 25YR-72HR  
Filename: U:\Ssequeir\NE 79 STREET BRIDGE PD&E\ICPR\POST DEVELOPMENT FD\25YR-72HR.R32

Override Defaults: Yes  
Storm Duration(hrs): 72.00  
Rainfall File: Sfwmd72  
Rainfall Amount(in): 12.50

Time(hrs)	Print Inc(min)
48.000	15.00
56.000	5.00
64.000	1.00
72.000	5.00
72.330	5.00

=====  
==== Routing Simulations =====  
=====

Name: 100YR-1HR            Hydrology Sim: 100YR-1HR  
Filename: U:\Ssequeir\NE 79 STREET BRIDGE PD&E\ICPR\POST DEVELOPMENT FD\100YR-1HR.I32

Execute: Yes	Restart: No	Patch: No
Alternative: No		
Max Delta Z(ft): 1.00		Delta Z Factor: 0.00500
Time Step Optimizer: 10.000		
Start Time(hrs): 0.000		End Time(hrs): 25.00
Min Calc Time(sec): 0.50000		Max Calc Time(sec): 60.0000
Boundary Stages:		Boundary Flows:

Time(hrs)	Print Inc(min)
1.000	1.000

NE 79TH STREET PD&E  
POST DEVELOPMENT CONDITION  
INPUT REPORT

25.000 15.000

Group Run  
-----  
BASE Yes

-----  
Name: 100YR-24HR Hydrology Sim: 100YR-24HR  
Filename: U:\Ssequeir\NE 79 STREET BRIDGE PD&E\ICPR\POST DEVELOPMENT FD\100YR-24HR.I32  
Execute: Yes Restart: No Patch: No  
Alternative: No  
Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500  
Time Step Optimizer: 10.000  
Start Time(hrs): 0.000 End Time(hrs): 48.00  
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000  
Boundary Stages: Boundary Flows:

Time(hrs) Print Inc(min)  
-----  
8.000 5.000  
16.000 1.000  
24.000 5.000  
48.000 15.000

Group Run  
-----  
BASE Yes

-----  
Name: 100YR-8HR Hydrology Sim: 100YR-8HR  
Filename: U:\Ssequeir\NE 79 STREET BRIDGE PD&E\ICPR\POST DEVELOPMENT FD\100YR-8HR.I32  
Execute: Yes Restart: No Patch: No  
Alternative: No  
Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500  
Time Step Optimizer: 10.000  
Start Time(hrs): 0.000 End Time(hrs): 32.00  
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000  
Boundary Stages: Boundary Flows:

Time(hrs) Print Inc(min)  
-----  
2.000 5.000  
6.000 1.000  
8.000 5.000  
32.000 15.000

Group Run  
-----  
BASE Yes

-----  
Name: 10YR-1HR Hydrology Sim: 10YR-1HR  
Filename: U:\Ssequeir\NE 79 STREET BRIDGE PD&E\ICPR\POST DEVELOPMENT FD\10YR-1HR.I32  
Execute: Yes Restart: No Patch: No  
Alternative: No  
Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500  
Time Step Optimizer: 10.000  
Start Time(hrs): 0.000 End Time(hrs): 25.00  
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000  
Boundary Stages: Boundary Flows:

Time(hrs) Print Inc(min)  
-----  
1.000 1.000  
25.000 15.000

Group Run  
-----  
BASE Yes



NE 79TH STREET PD&E  
POST DEVELOPMENT CONDITION  
INPUT REPORT

Name: 10YR-24HR Hydrology Sim: 10YR-24HR  
Filename: U:\Ssequeir\NE 79 STREET BRIDGE PD&E\ICPR\POST DEVELOPMENT FD\10YR-24HR.I32

Execute: Yes Restart: No Patch: No  
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500  
Time Step Optimizer: 10.000  
Start Time(hrs): 0.000 End Time(hrs): 48.00  
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000  
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
8.000	5.000
16.000	1.000
24.000	5.000
48.000	15.000

Group	Run
BASE	Yes

Name: 10YR-8HR Hydrology Sim: 10YR-8HR  
Filename: U:\Ssequeir\NE 79 STREET BRIDGE PD&E\ICPR\POST DEVELOPMENT FD\10YR-8HR.I32

Execute: Yes Restart: No Patch: No  
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500  
Time Step Optimizer: 10.000  
Start Time(hrs): 0.000 End Time(hrs): 32.00  
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000  
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
2.000	5.000
6.000	1.000
8.000	5.000
32.000	15.000

Group	Run
BASE	Yes

Name: 25YR-72HR Hydrology Sim: 25YR-72HR  
Filename: U:\Ssequeir\NE 79 STREET BRIDGE PD&E\ICPR\POST DEVELOPMENT FD\25YR-72HR.I32

Execute: Yes Restart: No Patch: No  
Alternative: No

Max Delta Z(ft): 1.00 Delta Z Factor: 0.00500  
Time Step Optimizer: 10.000  
Start Time(hrs): 0.000 End Time(hrs): 96.00  
Min Calc Time(sec): 0.5000 Max Calc Time(sec): 60.0000  
Boundary Stages: Boundary Flows:

Time(hrs)	Print Inc(min)
48.000	15.000
56.000	5.000
64.000	1.000
72.000	5.000
96.000	15.000

Group	Run
BASE	Yes

NE 79TH STREET PD&E  
POST DEVELOPMENT CONDITION  
MASS BALANCE

Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
100YR-1HR	0.00	0.0	0.0	0.0	0.0	0.00
100YR-1HR	0.00	0.0	0.0	0.0	0.0	0.00
100YR-1HR	0.02	0.0	-443.4	443.4	-0.0	-0.00
100YR-1HR	0.03	0.0	-488.0	488.0	-0.0	-0.00
100YR-1HR	0.05	0.0	-531.8	531.8	0.0	0.00
100YR-1HR	0.07	0.0	-557.9	557.9	0.0	0.00
100YR-1HR	0.08	0.0	-563.8	563.8	0.0	0.00
100YR-1HR	0.10	0.1	-569.4	569.6	0.0	0.00
100YR-1HR	0.12	1.0	-574.6	575.6	0.0	0.00
100YR-1HR	0.13	3.5	-578.1	581.7	0.0	0.00
100YR-1HR	0.15	10.7	-577.2	587.9	0.0	0.00
100YR-1HR	0.17	27.0	-567.3	594.2	0.0	0.00
100YR-1HR	0.18	57.6	-543.4	601.0	0.0	0.00
100YR-1HR	0.20	110.8	-498.3	609.0	0.0	0.00
100YR-1HR	0.22	198.7	-421.3	620.1	0.0	0.00
100YR-1HR	0.23	344.3	-293.1	637.4	0.0	0.00
100YR-1HR	0.25	566.7	-98.1	664.7	0.0	0.00
100YR-1HR	0.27	894.1	202.6	691.5	-0.0	-0.00
100YR-1HR	0.28	1343.8	634.5	709.3	0.0	0.00
100YR-1HR	0.30	1991.8	1258.5	733.3	0.0	0.00
100YR-1HR	0.32	2800.9	2038.8	762.1	0.0	0.00
100YR-1HR	0.33	3823.4	3025.7	797.8	0.0	0.00
100YR-1HR	0.35	5070.1	4226.1	844.0	-0.0	-0.00
100YR-1HR	0.37	6645.2	5741.4	903.8	-0.0	-0.00
100YR-1HR	0.38	8530.2	7551.1	979.0	-0.0	-0.00
100YR-1HR	0.40	10761.6	9688.0	1073.5	0.0	0.00
100YR-1HR	0.42	13384.3	12199.9	1184.4	0.0	0.00
100YR-1HR	0.43	16359.4	15052.6	1306.8	0.0	0.00
100YR-1HR	0.45	19727.5	18273.0	1454.5	-0.0	-0.00
100YR-1HR	0.47	23390.5	21693.5	1697.0	0.0	0.00
100YR-1HR	0.48	27447.6	25393.8	2053.8	-0.0	-0.00
100YR-1HR	0.50	31747.1	29234.7	2512.4	0.0	0.00
100YR-1HR	0.52	36407.4	33332.5	3074.9	-0.0	-0.00
100YR-1HR	0.53	41253.1	37543.7	3709.5	-0.0	-0.00
100YR-1HR	0.55	46324.6	41914.4	4410.2	-0.0	-0.00
100YR-1HR	0.57	51675.1	46495.6	5179.5	-0.0	-0.00
100YR-1HR	0.58	57248.8	51189.9	6058.9	-0.0	-0.00
100YR-1HR	0.60	62923.0	55865.7	7057.2	-0.0	-0.00
100YR-1HR	0.62	68724.8	60574.1	8150.7	-0.0	-0.00
100YR-1HR	0.63	74560.2	65266.8	9293.3	-0.0	-0.00
100YR-1HR	0.65	80632.0	70129.9	10502.1	-0.0	-0.00
100YR-1HR	0.67	86283.1	74663.7	11619.4	-0.0	-0.00
100YR-1HR	0.69	92411.8	79632.1	12779.7	-0.0	-0.00
100YR-1HR	0.70	98018.8	84252.6	13766.3	-0.0	-0.00
100YR-1HR	0.72	103321.5	88700.0	14621.4	-0.0	-0.00
100YR-1HR	0.73	108786.1	93373.3	15412.8	-0.0	-0.00
100YR-1HR	0.75	113882.4	97825.6	16056.7	-0.0	-0.00
100YR-1HR	0.77	120089.0	103390.7	16698.2	-0.0	-0.00
100YR-1HR	0.78	124317.4	107284.2	17033.3	-0.0	-0.00
100YR-1HR	0.80	129262.0	111952.6	17309.4	-0.0	-0.00
100YR-1HR	0.82	133981.2	116415.8	17565.4	-0.0	-0.00
100YR-1HR	0.83	138682.1	120857.8	17824.3	-0.0	-0.00
100YR-1HR	0.85	143131.0	125160.2	17970.9	-0.0	-0.00
100YR-1HR	0.87	147502.0	129504.0	17997.9	-0.0	-0.00
100YR-1HR	0.88	151502.3	133577.8	17924.5	-0.0	-0.00
100YR-1HR	0.90	155355.6	137438.1	17917.5	-0.0	-0.00
100YR-1HR	0.92	159015.8	141021.0	17994.8	-0.0	-0.00
100YR-1HR	0.93	162463.7	144434.4	18029.4	-0.0	-0.00
100YR-1HR	0.95	165613.1	147610.2	18002.9	-0.0	-0.00
100YR-1HR	0.97	168620.8	150704.8	17915.9	-0.0	-0.00
100YR-1HR	0.98	171423.3	153650.2	17773.1	-0.0	-0.00
100YR-1HR	1.00	174132.4	156561.6	17570.8	-0.0	-0.00
100YR-1HR	1.25	198793.6	188887.6	9906.0	-0.0	-0.00
100YR-1HR	1.50	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	1.75	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	2.00	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	2.25	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	2.50	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	2.75	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	3.00	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	3.25	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	3.50	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	3.75	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	4.00	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	4.25	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	4.50	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	4.75	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	5.00	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	5.25	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	5.50	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	5.75	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	6.00	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	6.25	202454.4	201871.6	582.7	-0.0	-0.00

NE 79TH STREET PD&E  
POST DEVELOPMENT CONDITION  
MASS BALANCE

Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
100YR-1HR	6.50	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	6.75	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	7.00	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	7.25	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	7.50	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	7.75	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	8.00	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	8.25	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	8.50	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	8.75	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	9.00	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	9.25	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	9.50	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	9.75	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	10.00	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	10.25	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	10.50	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	10.75	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	11.00	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	11.25	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	11.50	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	11.75	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	12.00	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	12.25	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	12.50	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	12.75	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	13.00	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	13.25	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	13.50	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	13.75	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	14.00	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	14.25	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	14.50	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	14.75	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	15.00	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	15.25	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	15.50	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	15.75	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	16.00	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	16.25	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	16.50	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	16.75	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	17.00	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	17.25	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	17.50	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	17.75	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	18.00	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	18.25	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	18.50	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	18.75	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	19.00	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	19.25	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	19.50	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	19.75	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	20.00	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	20.25	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	20.50	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	20.75	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	21.00	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	21.25	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	21.50	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	22.00	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	22.25	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	22.50	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	22.75	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	23.00	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	23.25	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	23.50	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	23.75	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	24.00	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	24.25	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	24.50	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	24.75	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	25.00	202454.4	201871.6	582.7	-0.0	-0.00
100YR-1HR	25.00	202454.4	201871.6	582.7	-0.0	-0.00
100YR-24HR	0.00	0.0	0.0	0.0	0.0	0.00
100YR-24HR	0.08	0.0	-563.8	563.8	0.0	0.00
100YR-24HR	0.17	0.0	-594.2	594.2	-0.0	-0.00
100YR-24HR	0.25	0.0	-624.4	624.4	-0.0	-0.00
100YR-24HR	0.33	0.0	-654.4	654.4	-0.0	-0.00
100YR-24HR	0.42	0.0	-667.0	667.0	-0.0	-0.00
100YR-24HR	0.50	0.0	-667.0	667.0	-0.0	-0.00
100YR-24HR	0.58	0.0	-667.0	667.0	-0.0	-0.00

NE 79TH STREET PD&E  
POST DEVELOPMENT CONDITION  
MASS BALANCE

Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
100YR-24HR	0.67	0.0	-667.0	667.0	-0.0	-0.00
100YR-24HR	0.75	0.2	-667.1	667.3	-0.0	-0.00
100YR-24HR	0.83	1.7	-665.6	667.3	-0.0	-0.00
100YR-24HR	0.92	6.2	-661.1	667.3	-0.0	-0.00
100YR-24HR	1.00	15.1	-652.2	667.3	-0.0	-0.00
100YR-24HR	1.08	31.5	-635.8	667.3	-0.0	-0.00
100YR-24HR	1.17	62.3	-605.1	667.4	-0.0	-0.00
100YR-24HR	1.25	111.8	-555.6	667.4	-0.0	-0.00
100YR-24HR	1.33	180.9	-486.6	667.4	-0.0	-0.00
100YR-24HR	1.42	272.2	-395.3	667.5	-0.0	-0.00
100YR-24HR	1.50	388.3	-279.3	667.6	-0.0	-0.00
100YR-24HR	1.58	531.2	-136.1	667.3	-0.0	-0.00
100YR-24HR	1.67	703.2	35.7	667.6	-0.0	-0.00
100YR-24HR	1.75	907.9	240.0	667.9	-0.0	-0.00
100YR-24HR	1.83	1145.9	477.7	668.3	-0.0	-0.00
100YR-24HR	1.92	1416.6	747.8	668.8	-0.0	-0.00
100YR-24HR	2.00	1718.7	1049.5	669.2	-0.0	-0.00
100YR-24HR	2.08	2068.6	1398.3	670.3	-0.0	-0.00
100YR-24HR	2.17	2498.8	1826.9	671.9	-0.0	-0.00
100YR-24HR	2.25	3013.4	2339.9	673.5	-0.0	-0.00
100YR-24HR	2.33	3604.9	2930.0	674.9	-0.0	-0.00
100YR-24HR	2.42	4259.1	3582.9	676.2	-0.0	-0.00
100YR-24HR	2.50	4976.7	4299.2	677.5	-0.0	-0.00
100YR-24HR	2.58	5751.7	5073.0	678.7	-0.0	-0.00
100YR-24HR	2.67	6567.5	5887.7	679.8	-0.0	-0.00
100YR-24HR	2.75	7430.2	6749.5	680.8	-0.0	-0.00
100YR-24HR	2.83	8334.4	7652.7	681.7	-0.0	-0.00
100YR-24HR	2.92	9287.2	8604.3	682.9	-0.0	-0.00
100YR-24HR	3.00	10263.4	9579.6	683.8	-0.0	-0.00
100YR-24HR	3.08	11265.3	10580.8	684.6	-0.0	-0.00
100YR-24HR	3.17	12310.0	11624.6	685.4	-0.0	-0.00
100YR-24HR	3.25	13372.7	12686.6	686.1	-0.0	-0.00
100YR-24HR	3.33	14465.0	13778.2	686.8	-0.0	-0.00
100YR-24HR	3.42	15577.3	14889.8	687.5	-0.0	-0.00
100YR-24HR	3.50	16704.4	16016.3	688.1	-0.0	-0.00
100YR-24HR	3.58	17870.7	17182.0	688.7	-0.0	-0.00
100YR-24HR	3.67	19052.1	18363.0	689.1	-0.0	-0.00
100YR-24HR	3.75	20236.3	19546.6	689.8	-0.0	-0.00
100YR-24HR	3.83	21454.6	20764.5	690.1	-0.0	-0.00
100YR-24HR	3.92	22682.6	21991.8	690.8	-0.0	-0.00
100YR-24HR	4.00	23925.0	23234.2	690.7	-0.0	-0.00
100YR-24HR	4.08	25178.1	24486.4	691.7	-0.0	-0.00
100YR-24HR	4.17	26454.1	25762.0	692.2	-0.0	-0.00
100YR-24HR	4.25	27740.1	27047.5	692.6	-0.0	-0.00
100YR-24HR	4.33	29042.9	28349.9	693.0	-0.0	-0.00
100YR-24HR	4.42	30363.8	29670.4	693.4	-0.0	-0.00
100YR-24HR	4.50	31688.8	30995.1	693.7	-0.0	-0.00
100YR-24HR	4.58	33018.7	32324.6	694.1	-0.0	-0.00
100YR-24HR	4.67	34371.8	33677.4	694.4	-0.0	-0.00
100YR-24HR	4.75	35728.6	35033.9	694.7	-0.0	-0.00
100YR-24HR	4.83	37096.1	36401.1	695.0	-0.0	-0.00
100YR-24HR	4.92	38480.8	37785.5	695.3	-0.0	-0.00
100YR-24HR	5.00	39868.3	39172.7	695.6	-0.0	-0.00
100YR-24HR	5.08	41285.5	40588.4	697.2	-0.0	-0.00
100YR-24HR	5.17	42817.8	42117.0	700.7	-0.0	-0.00
100YR-24HR	5.25	44476.1	43772.9	703.2	-0.0	-0.00
100YR-24HR	5.33	46214.2	45509.3	705.0	-0.0	-0.00
100YR-24HR	5.42	48004.8	47298.5	706.3	-0.0	-0.00
100YR-24HR	5.50	49828.2	49120.9	707.3	-0.0	-0.00
100YR-24HR	5.58	51695.8	50987.6	708.2	-0.0	-0.00
100YR-24HR	5.67	53608.8	52899.9	708.8	-0.0	-0.00
100YR-24HR	5.75	55551.4	54841.9	709.5	-0.0	-0.00
100YR-24HR	5.83	57479.6	56770.0	709.5	-0.0	-0.00
100YR-24HR	5.92	59424.0	58713.6	710.4	-0.0	-0.00
100YR-24HR	6.00	61396.3	60685.5	710.8	-0.0	-0.00
100YR-24HR	6.08	63389.2	62678.5	710.8	-0.0	-0.00
100YR-24HR	6.17	65389.3	64678.3	711.0	-0.0	-0.00
100YR-24HR	6.25	67348.7	66637.2	711.5	-0.0	-0.00
100YR-24HR	6.33	69375.1	68663.3	711.8	-0.0	-0.00
100YR-24HR	6.42	71375.8	70663.9	711.8	-0.0	-0.00
100YR-24HR	6.50	73381.5	72669.2	712.2	-0.0	-0.00
100YR-24HR	6.58	75411.1	74698.7	712.4	0.0	0.00
100YR-24HR	6.67	77424.3	76711.7	712.6	0.0	0.00
100YR-24HR	6.75	79463.5	78750.7	712.8	0.0	0.00
100YR-24HR	6.84	81540.1	80827.1	713.0	0.0	0.00
100YR-24HR	6.92	83566.5	82853.3	713.2	0.0	0.00
100YR-24HR	7.00	85632.2	84918.9	713.3	0.0	0.00
100YR-24HR	7.08	87681.5	86967.9	713.6	0.0	0.00
100YR-24HR	7.17	89729.4	89015.7	713.7	0.0	0.00
100YR-24HR	7.25	91802.6	91088.7	713.9	0.0	0.00
100YR-24HR	7.33	93846.5	93132.4	714.1	-0.0	-0.00
100YR-24HR	7.42	95959.4	95245.2	714.2	0.0	0.00
100YR-24HR	7.50	98012.5	97298.1	714.4	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
100YR-24HR	7.58	100090.7	99376.1	714.5	-0.0	-0.00
100YR-24HR	7.67	102179.1	101464.5	714.6	-0.0	-0.00
100YR-24HR	7.75	104270.7	103555.9	714.8	-0.0	-0.00
100YR-24HR	7.83	106367.6	105652.7	714.9	-0.0	-0.00
100YR-24HR	7.92	108516.9	107801.9	715.0	-0.0	-0.00
100YR-24HR	8.00	110583.0	109867.9	715.1	-0.0	-0.00
100YR-24HR	8.08	112742.0	112023.1	718.9	-0.0	-0.00
100YR-24HR	8.10	113191.0	112470.5	720.5	-0.0	-0.00
100YR-24HR	8.12	113702.8	112980.5	722.3	-0.0	-0.00
100YR-24HR	8.14	114195.8	113471.9	723.9	-0.0	-0.00
100YR-24HR	8.15	114644.8	113919.6	725.3	-0.0	-0.00
100YR-24HR	8.17	115144.8	114418.1	726.7	-0.0	-0.00
100YR-24HR	8.18	115656.9	114929.0	728.0	-0.0	-0.00
100YR-24HR	8.20	116181.3	115452.5	728.8	-0.0	-0.00
100YR-24HR	8.22	116739.2	116008.9	730.3	-0.0	-0.00
100YR-24HR	8.23	117276.1	116544.8	731.2	-0.0	-0.00
100YR-24HR	8.25	117806.2	117074.1	732.1	-0.0	-0.00
100YR-24HR	8.27	118357.7	117624.7	733.0	-0.0	-0.00
100YR-24HR	8.28	118919.5	118185.8	733.7	0.0	0.00
100YR-24HR	8.30	119525.9	118791.4	734.5	0.0	0.00
100YR-24HR	8.32	120078.3	119343.1	735.2	-0.0	-0.00
100YR-24HR	8.33	120635.0	119899.2	735.8	-0.0	-0.00
100YR-24HR	8.35	121195.8	120459.5	736.3	-0.0	-0.00
100YR-24HR	8.37	121785.9	121048.9	736.9	-0.0	-0.00
100YR-24HR	8.38	122395.4	121657.9	737.5	-0.0	-0.00
100YR-24HR	8.40	122967.4	122229.4	738.0	-0.0	-0.00
100YR-24HR	8.42	123600.1	122861.7	738.4	-0.0	-0.00
100YR-24HR	8.43	124178.3	123439.5	738.8	-0.0	-0.00
100YR-24HR	8.45	124748.2	124009.1	739.2	-0.0	-0.00
100YR-24HR	8.47	125346.2	124606.7	739.6	-0.0	-0.00
100YR-24HR	8.49	126005.6	125265.6	740.0	-0.0	-0.00
100YR-24HR	8.50	126631.1	125890.7	740.3	-0.0	-0.00
100YR-24HR	8.52	127222.1	126481.6	740.5	-0.0	-0.00
100YR-24HR	8.53	127815.4	127074.4	740.9	-0.0	-0.00
100YR-24HR	8.55	128427.9	127686.6	741.3	-0.0	-0.00
100YR-24HR	8.57	129025.4	128283.8	741.6	-0.0	-0.00
100YR-24HR	8.58	129624.8	128882.9	741.9	-0.0	-0.00
100YR-24HR	8.60	130244.9	129502.8	742.2	-0.0	-0.00
100YR-24HR	8.62	130904.7	130162.3	742.4	-0.0	-0.00
100YR-24HR	8.63	131492.3	130749.6	742.7	-0.0	-0.00
100YR-24HR	8.65	132154.2	131411.2	742.9	-0.0	-0.00
100YR-24HR	8.67	132762.3	132019.2	743.2	-0.0	-0.00
100YR-24HR	8.68	133387.2	132643.8	743.4	-0.0	-0.00
100YR-24HR	8.70	133998.1	133254.5	743.6	-0.0	-0.00
100YR-24HR	8.72	134629.4	133885.7	743.7	-0.0	-0.00
100YR-24HR	8.74	135324.3	134580.6	743.7	-0.0	-0.00
100YR-24HR	8.75	135912.0	135167.9	744.1	-0.0	-0.00
100YR-24HR	8.77	136558.3	135814.1	744.2	-0.0	-0.00
100YR-24HR	8.79	137232.5	136488.2	744.4	-0.0	-0.00
100YR-24HR	8.80	137811.2	137066.7	744.5	-0.0	-0.00
100YR-24HR	8.82	138443.5	137698.9	744.6	-0.0	-0.00
100YR-24HR	8.83	139086.9	138342.2	744.7	-0.0	-0.00
100YR-24HR	8.85	139752.8	139008.0	744.8	-0.0	-0.00
100YR-24HR	8.87	140372.8	139627.9	744.9	-0.0	-0.00
100YR-24HR	8.89	141051.5	140306.5	745.0	-0.0	-0.00
100YR-24HR	8.90	141682.3	140937.6	744.8	-0.0	-0.00
100YR-24HR	8.92	142303.9	141558.8	745.1	-0.0	-0.00
100YR-24HR	8.93	142925.9	142180.8	745.1	-0.0	-0.00
100YR-24HR	8.95	143591.1	142845.8	745.3	-0.0	-0.00
100YR-24HR	8.97	144213.8	143468.4	745.3	-0.0	-0.00
100YR-24HR	8.98	144856.2	144110.8	745.4	-0.0	-0.00
100YR-24HR	9.00	145537.8	144792.4	745.4	-0.0	-0.00
100YR-24HR	9.02	146195.3	145450.4	744.9	-0.0	-0.00
100YR-24HR	9.03	146793.9	146048.4	745.5	-0.0	-0.00
100YR-24HR	9.05	147417.6	146672.1	745.5	-0.0	-0.00
100YR-24HR	9.07	148103.8	147358.3	745.5	-0.0	-0.00
100YR-24HR	9.08	148727.8	147982.3	745.5	-0.0	-0.00
100YR-24HR	9.10	149410.5	148665.0	745.6	-0.0	-0.00
100YR-24HR	9.12	149995.9	149250.6	745.2	-0.0	-0.00
100YR-24HR	9.13	150682.8	149937.2	745.6	-0.0	-0.00
100YR-24HR	9.15	151307.5	150561.8	745.7	-0.0	-0.00
100YR-24HR	9.17	151932.3	151186.6	745.7	-0.0	-0.00
100YR-24HR	9.18	152615.9	151870.2	745.7	-0.0	-0.00
100YR-24HR	9.20	153226.4	152481.3	745.0	-0.0	-0.00
100YR-24HR	9.22	153853.8	153108.1	745.8	-0.0	-0.00
100YR-24HR	9.23	154526.3	153780.5	745.8	-0.0	-0.00
100YR-24HR	9.25	155189.4	154443.6	745.8	-0.0	-0.00
100YR-24HR	9.27	155799.5	155053.7	745.8	-0.0	-0.00
100YR-24HR	9.28	156425.4	155679.5	745.9	-0.0	-0.00
100YR-24HR	9.30	157110.1	156364.2	745.9	-0.0	-0.00
100YR-24HR	9.32	157746.0	157000.1	745.9	-0.0	-0.00
100YR-24HR	9.33	158393.6	157647.7	746.0	-0.0	-0.00
100YR-24HR	9.35	159045.1	158299.2	746.0	-0.0	-0.00



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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
100YR-24HR	9.37	159709.3	158963.3	746.0	-0.0	-0.00
100YR-24HR	9.38	160304.7	159558.7	746.0	-0.0	-0.00
100YR-24HR	9.40	160990.4	160244.3	746.1	-0.0	-0.00
100YR-24HR	9.42	161676.2	160930.1	746.1	-0.0	-0.00
100YR-24HR	9.43	162264.2	161518.2	745.9	-0.0	-0.00
100YR-24HR	9.45	162918.6	162172.5	746.1	-0.0	-0.00
100YR-24HR	9.47	163546.1	162799.9	746.2	-0.0	-0.00
100YR-24HR	9.48	164189.3	163443.1	746.2	-0.0	-0.00
100YR-24HR	9.50	164895.5	164149.3	746.2	-0.0	-0.00
100YR-24HR	9.52	165562.5	164816.3	746.2	-0.0	-0.00
100YR-24HR	9.53	166175.8	165429.5	746.2	-0.0	-0.00
100YR-24HR	9.55	166787.1	166040.8	746.3	-0.0	-0.00
100YR-24HR	9.57	167450.5	166704.2	746.3	-0.0	-0.00
100YR-24HR	9.58	168078.8	167332.5	746.3	-0.0	-0.00
100YR-24HR	9.60	168785.9	168039.5	746.3	-0.0	-0.00
100YR-24HR	9.62	169453.8	168707.4	746.4	-0.0	-0.00
100YR-24HR	9.63	170043.2	169296.8	746.4	-0.0	-0.00
100YR-24HR	9.65	170706.4	169960.1	746.4	-0.0	-0.00
100YR-24HR	9.67	171304.3	170557.9	746.4	-0.0	-0.00
100YR-24HR	9.68	171996.3	171249.9	746.5	-0.0	-0.00
100YR-24HR	9.70	172641.3	171894.8	746.5	-0.0	-0.00
100YR-24HR	9.72	173310.0	172563.5	746.5	-0.0	-0.00
100YR-24HR	9.73	173900.1	173153.6	746.5	-0.0	-0.00
100YR-24HR	9.75	174564.1	173817.6	746.5	-0.0	-0.00
100YR-24HR	9.77	175213.1	174466.5	746.6	-0.0	-0.00
100YR-24HR	9.78	175855.5	175108.9	746.6	-0.0	-0.00
100YR-24HR	9.80	176501.1	175754.5	746.6	-0.0	-0.00
100YR-24HR	9.82	177170.5	176423.9	746.6	-0.0	-0.00
100YR-24HR	9.84	177859.8	177113.1	746.6	-0.0	-0.00
100YR-24HR	9.85	178549.1	177802.6	746.5	-0.0	-0.00
100YR-24HR	9.87	179126.1	178379.4	746.7	-0.0	-0.00
100YR-24HR	9.88	179781.8	179035.1	746.7	-0.0	-0.00
100YR-24HR	9.90	180444.0	179697.2	746.7	-0.0	-0.00
100YR-24HR	9.92	181133.8	180387.1	746.8	-0.0	-0.00
100YR-24HR	9.93	181725.2	180978.4	746.8	-0.0	-0.00
100YR-24HR	9.95	182415.3	181668.6	746.7	-0.0	-0.00
100YR-24HR	9.97	183043.4	182296.6	746.8	-0.0	-0.00
100YR-24HR	9.98	183706.1	182959.2	746.8	-0.0	-0.00
100YR-24HR	10.00	184297.9	183551.0	746.8	-0.0	-0.00
100YR-24HR	10.02	184989.5	184242.4	747.1	-0.0	-0.00
100YR-24HR	10.03	185610.9	184863.3	747.6	-0.0	-0.00
100YR-24HR	10.05	186301.6	185553.2	748.3	-0.0	-0.00
100YR-24HR	10.07	186963.9	186214.5	749.4	-0.0	-0.00
100YR-24HR	10.08	187619.8	186868.7	751.0	-0.0	-0.00
100YR-24HR	10.10	188308.4	187555.6	752.9	-0.0	-0.00
100YR-24HR	10.12	189079.8	188324.9	754.9	-0.0	-0.00
100YR-24HR	10.13	189767.0	189010.4	756.7	-0.0	-0.00
100YR-24HR	10.15	190454.3	189696.0	758.3	-0.0	-0.00
100YR-24HR	10.17	191169.6	190409.8	759.8	-0.0	-0.00
100YR-24HR	10.18	191963.2	191201.7	761.4	-0.0	-0.00
100YR-24HR	10.20	192709.6	191946.8	762.8	-0.0	-0.00
100YR-24HR	10.22	193435.2	192671.7	763.4	-0.0	-0.00
100YR-24HR	10.23	194230.4	193465.4	765.0	-0.0	-0.00
100YR-24HR	10.25	195082.5	194316.3	766.2	-0.0	-0.00
100YR-24HR	10.27	195846.5	195079.4	767.1	-0.0	-0.00
100YR-24HR	10.28	196640.3	195872.3	768.0	-0.0	-0.00
100YR-24HR	10.30	197366.9	196598.1	768.8	-0.0	-0.00
100YR-24HR	10.32	198281.1	197511.5	769.6	-0.0	-0.00
100YR-24HR	10.33	199047.8	198277.8	770.0	-0.0	-0.00
100YR-24HR	10.35	199837.0	199066.1	771.0	-0.0	-0.00
100YR-24HR	10.37	200630.3	199858.7	771.6	-0.0	-0.00
100YR-24HR	10.38	201502.1	200729.9	772.2	-0.0	-0.00
100YR-24HR	10.40	202284.0	201511.2	772.7	-0.0	-0.00
100YR-24HR	10.42	203226.2	202453.0	773.2	-0.0	-0.00
100YR-24HR	10.43	203927.6	203153.9	773.7	-0.0	-0.00
100YR-24HR	10.45	204762.4	203988.3	774.1	-0.0	-0.00
100YR-24HR	10.47	205651.0	204876.4	774.6	-0.0	-0.00
100YR-24HR	10.48	206510.6	205735.6	775.0	-0.0	-0.00
100YR-24HR	10.50	207309.0	206533.7	775.4	-0.0	-0.00
100YR-24HR	10.52	208189.8	207414.4	775.4	-0.0	-0.00
100YR-24HR	10.54	209089.4	208313.2	776.1	-0.0	-0.00
100YR-24HR	10.55	209926.9	209150.4	776.5	-0.0	-0.00
100YR-24HR	10.57	210734.3	209957.5	776.8	-0.0	-0.00
100YR-24HR	10.58	211584.0	210807.2	776.8	-0.0	-0.00
100YR-24HR	10.60	212473.1	211695.6	777.4	-0.0	-0.00
100YR-24HR	10.62	213253.5	212475.8	777.7	-0.0	-0.00
100YR-24HR	10.63	214165.9	213387.9	778.0	-0.0	-0.00
100YR-24HR	10.65	215080.2	214301.9	778.3	-0.0	-0.00
100YR-24HR	10.67	215898.1	215119.6	778.5	-0.0	-0.00
100YR-24HR	10.69	216840.3	216061.7	778.5	-0.0	-0.00
100YR-24HR	10.70	217660.9	216882.0	778.9	-0.0	-0.00
100YR-24HR	10.72	218449.8	217670.7	779.1	-0.0	-0.00
100YR-24HR	10.74	219437.4	218658.1	779.3	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
100YR-24HR	10.75	220261.5	219482.0	779.5	-0.0	-0.00
100YR-24HR	10.77	221091.4	220311.7	779.6	-0.0	-0.00
100YR-24HR	10.78	221937.0	221157.2	779.8	-0.0	-0.00
100YR-24HR	10.80	222809.9	222029.9	779.9	-0.0	-0.00
100YR-24HR	10.82	223769.5	222989.5	780.0	-0.0	-0.00
100YR-24HR	10.83	224597.5	223817.4	780.1	-0.0	-0.00
100YR-24HR	10.85	225426.1	224645.8	780.2	-0.0	-0.00
100YR-24HR	10.87	226462.5	225682.7	779.8	-0.0	-0.00
100YR-24HR	10.88	227142.2	226361.8	780.4	-0.0	-0.00
100YR-24HR	10.90	228119.7	227339.2	780.5	-0.0	-0.00
100YR-24HR	10.92	228917.1	228136.5	780.6	-0.0	-0.00
100YR-24HR	10.93	229847.7	229067.1	780.6	-0.0	-0.00
100YR-24HR	10.95	230778.7	229998.0	780.7	-0.0	-0.00
100YR-24HR	10.97	231610.3	230829.5	780.7	-0.0	-0.00
100YR-24HR	10.99	232566.8	231786.1	780.7	-0.0	-0.00
100YR-24HR	11.00	233327.1	232546.3	780.8	-0.0	-0.00
100YR-24HR	11.02	234180.2	233399.2	781.1	-0.0	-0.00
100YR-24HR	11.03	235057.5	234275.9	781.6	-0.0	-0.00
100YR-24HR	11.05	236025.8	235243.3	782.5	-0.0	-0.00
100YR-24HR	11.07	236948.0	236164.2	783.8	-0.0	-0.00
100YR-24HR	11.08	237805.5	237019.9	785.6	-0.0	-0.00
100YR-24HR	11.10	238674.3	237886.8	787.5	-0.0	-0.00
100YR-24HR	11.12	239776.4	238986.5	789.9	-0.0	-0.00
100YR-24HR	11.14	240670.8	239879.3	791.5	-0.0	-0.00
100YR-24HR	11.15	241575.8	240782.6	793.2	-0.0	-0.00
100YR-24HR	11.17	242490.7	241695.8	794.9	-0.0	-0.00
100YR-24HR	11.18	243492.7	242696.1	796.6	-0.0	-0.00
100YR-24HR	11.20	244448.3	243650.2	798.0	-0.0	-0.00
100YR-24HR	11.22	245472.1	244672.8	799.3	-0.0	-0.00
100YR-24HR	11.23	246420.1	245619.6	800.4	-0.0	-0.00
100YR-24HR	11.25	247565.8	246764.1	801.7	-0.0	-0.00
100YR-24HR	11.27	248575.1	247772.4	802.7	-0.0	-0.00
100YR-24HR	11.29	249541.7	248738.2	803.5	-0.0	-0.00
100YR-24HR	11.30	250513.3	249709.2	804.1	-0.0	-0.00
100YR-24HR	11.32	251538.5	250733.3	805.2	-0.0	-0.00
100YR-24HR	11.34	252676.5	251870.5	806.0	-0.0	-0.00
100YR-24HR	11.35	253661.9	252855.2	806.6	-0.0	-0.00
100YR-24HR	11.37	254650.9	253843.6	807.3	-0.0	-0.00
100YR-24HR	11.39	255892.0	255084.0	808.0	-0.0	-0.00
100YR-24HR	11.40	256888.5	256080.1	808.5	-0.0	-0.00
100YR-24HR	11.42	257860.4	257051.5	808.9	-0.0	-0.00
100YR-24HR	11.43	258822.3	258012.9	809.4	-0.0	-0.00
100YR-24HR	11.45	260028.0	259218.1	810.0	-0.0	-0.00
100YR-24HR	11.47	261035.5	260225.1	810.4	-0.0	-0.00
100YR-24HR	11.48	262095.8	261285.0	810.8	-0.0	-0.00
100YR-24HR	11.50	263108.1	262296.9	811.2	-0.0	-0.00
100YR-24HR	11.52	264376.4	263564.8	811.6	-0.0	-0.00
100YR-24HR	11.53	265266.2	264454.6	811.6	-0.0	-0.00
100YR-24HR	11.55	266407.5	265595.1	812.4	-0.0	-0.00
100YR-24HR	11.57	267469.3	266656.6	812.7	-0.0	-0.00
100YR-24HR	11.58	268492.2	267679.2	813.0	-0.0	-0.00
100YR-24HR	11.60	269568.2	268754.8	813.3	-0.0	-0.00
100YR-24HR	11.62	270851.5	270037.8	813.7	-0.0	-0.00
100YR-24HR	11.64	271879.9	271065.9	814.0	-0.0	-0.00
100YR-24HR	11.65	272781.0	271966.9	814.0	-0.0	-0.00
100YR-24HR	11.67	273928.2	273113.7	814.5	-0.0	-0.00
100YR-24HR	11.69	275084.8	274270.1	814.7	-0.0	-0.00
100YR-24HR	11.70	276118.8	275303.9	814.9	-0.0	-0.00
100YR-24HR	11.72	277153.9	276338.8	815.1	-0.0	-0.00
100YR-24HR	11.74	278397.5	277582.2	815.3	-0.0	-0.00
100YR-24HR	11.75	279434.8	278619.4	815.5	-0.0	-0.00
100YR-24HR	11.77	280538.0	279722.4	815.6	-0.0	-0.00
100YR-24HR	11.79	281645.2	280829.4	815.8	-0.0	-0.00
100YR-24HR	11.80	282710.0	281894.1	815.9	-0.0	-0.00
100YR-24HR	11.82	283775.5	282959.4	816.0	-0.0	-0.00
100YR-24HR	11.84	284941.6	284125.4	816.2	-0.0	-0.00
100YR-24HR	11.85	285983.3	285167.1	816.2	-0.0	-0.00
100YR-24HR	11.87	287025.6	286209.3	816.3	-0.0	-0.00
100YR-24HR	11.89	288277.0	287460.6	816.4	-0.0	-0.00
100YR-24HR	11.90	289320.3	288503.8	816.5	-0.0	-0.00
100YR-24HR	11.92	290429.2	289612.6	816.6	-0.0	-0.00
100YR-24HR	11.94	291734.3	290918.1	816.1	-0.0	-0.00
100YR-24HR	11.95	292536.3	291719.7	816.7	-0.0	-0.00
100YR-24HR	11.97	293672.9	292856.1	816.7	-0.0	-0.00
100YR-24HR	11.99	294843.1	294026.3	816.8	-0.0	-0.00
100YR-24HR	12.00	296013.3	295196.6	816.8	-0.0	-0.00
100YR-24HR	12.02	297056.6	296240.2	816.3	-0.0	-0.00
100YR-24HR	12.04	298251.5	297436.1	815.4	-0.0	-0.00
100YR-24HR	12.05	299283.7	298469.6	814.1	-0.0	-0.00
100YR-24HR	12.07	300306.4	299494.2	812.2	-0.0	-0.00
100YR-24HR	12.08	301324.3	300514.6	809.6	-0.0	-0.00
100YR-24HR	12.10	302339.8	301533.1	806.7	-0.0	-0.00
100YR-24HR	12.12	303398.9	302595.4	803.4	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
100YR-24HR	12.14	304543.6	303743.6	800.0	-0.0	-0.00
100YR-24HR	12.15	305479.8	304682.4	797.4	-0.0	-0.00
100YR-24HR	12.17	306447.0	305652.2	794.9	-0.0	-0.00
100YR-24HR	12.18	307354.2	306561.3	792.9	-0.0	-0.00
100YR-24HR	12.20	308310.3	307519.7	790.5	-0.0	-0.00
100YR-24HR	12.22	309236.4	308447.7	788.7	-0.0	-0.00
100YR-24HR	12.24	310185.0	309398.0	787.0	-0.0	-0.00
100YR-24HR	12.25	311012.9	310227.3	785.5	-0.0	-0.00
100YR-24HR	12.27	311934.8	311150.7	784.0	-0.0	-0.00
100YR-24HR	12.29	312948.2	312165.7	782.5	-0.0	-0.00
100YR-24HR	12.30	313701.4	312919.8	781.7	-0.0	-0.00
100YR-24HR	12.32	314589.1	313808.7	780.4	-0.0	-0.00
100YR-24HR	12.33	315453.4	314674.1	779.3	-0.0	-0.00
100YR-24HR	12.35	316342.6	315564.3	778.3	-0.0	-0.00
100YR-24HR	12.37	317251.2	316473.9	777.3	-0.0	-0.00
100YR-24HR	12.38	317992.8	317216.2	776.6	-0.0	-0.00
100YR-24HR	12.40	318954.1	318178.4	775.7	-0.0	-0.00
100YR-24HR	12.42	319712.8	318937.7	775.1	-0.0	-0.00
100YR-24HR	12.43	320524.5	319750.0	774.5	-0.0	-0.00
100YR-24HR	12.45	321412.9	320639.1	773.8	-0.0	-0.00
100YR-24HR	12.47	322216.7	321443.5	773.2	-0.0	-0.00
100YR-24HR	12.49	323091.7	322319.1	772.6	-0.0	-0.00
100YR-24HR	12.50	323869.6	323097.5	772.1	-0.0	-0.00
100YR-24HR	12.52	324644.3	323872.5	771.7	-0.0	-0.00
100YR-24HR	12.53	325460.7	324689.6	771.1	-0.0	-0.00
100YR-24HR	12.55	326276.7	325506.1	770.6	-0.0	-0.00
100YR-24HR	12.57	327145.3	326375.1	770.2	-0.0	-0.00
100YR-24HR	12.58	327926.3	327156.6	769.7	-0.0	-0.00
100YR-24HR	12.60	328704.8	327935.4	769.3	-0.0	-0.00
100YR-24HR	12.62	329480.7	328711.8	769.0	-0.0	-0.00
100YR-24HR	12.63	330326.8	329558.2	768.6	-0.0	-0.00
100YR-24HR	12.65	331080.0	330311.8	768.3	-0.0	-0.00
100YR-24HR	12.67	331951.3	331183.2	768.1	-0.0	-0.00
100YR-24HR	12.68	332670.5	331902.8	767.7	-0.0	-0.00
100YR-24HR	12.70	333448.0	332680.4	767.6	-0.0	-0.00
100YR-24HR	12.72	334265.4	333498.3	767.1	-0.0	-0.00
100YR-24HR	12.74	335122.8	334356.0	766.8	-0.0	-0.00
100YR-24HR	12.75	335836.0	335069.3	766.7	-0.0	-0.00
100YR-24HR	12.77	336696.4	335929.9	766.5	-0.0	-0.00
100YR-24HR	12.78	337437.0	336670.3	766.6	-0.0	-0.00
100YR-24HR	12.80	338147.1	337380.8	766.3	-0.0	-0.00
100YR-24HR	12.82	339033.8	338267.3	766.5	-0.0	-0.00
100YR-24HR	12.84	339789.5	339023.6	765.9	-0.0	-0.00
100YR-24HR	12.85	340544.6	339778.8	765.8	-0.0	-0.00
100YR-24HR	12.87	341369.7	340604.0	765.7	-0.0	-0.00
100YR-24HR	12.88	342105.9	341340.2	765.6	-0.0	-0.00
100YR-24HR	12.90	342841.5	342075.8	765.8	-0.0	-0.00
100YR-24HR	12.92	343590.9	342825.4	765.5	-0.0	-0.00
100YR-24HR	12.94	344456.4	343690.9	765.4	-0.0	-0.00
100YR-24HR	12.95	345161.6	344396.2	765.4	-0.0	-0.00
100YR-24HR	12.97	345984.1	345218.7	765.4	-0.0	-0.00
100YR-24HR	12.99	346806.5	346041.1	765.4	-0.0	-0.00
100YR-24HR	13.00	347540.7	346775.3	765.4	-0.0	-0.00
100YR-24HR	13.02	348303.8	347538.6	765.2	-0.0	-0.00
100YR-24HR	13.04	349100.7	348335.7	765.0	-0.0	-0.00
100YR-24HR	13.05	349802.0	349037.3	764.7	-0.0	-0.00
100YR-24HR	13.07	350587.6	349823.5	764.1	-0.0	-0.00
100YR-24HR	13.09	351454.4	350691.4	762.9	-0.0	-0.00
100YR-24HR	13.10	352111.2	351348.9	762.3	-0.0	-0.00
100YR-24HR	13.12	352839.3	352077.9	761.4	-0.0	-0.00
100YR-24HR	13.13	353583.9	352823.4	760.5	-0.0	-0.00
100YR-24HR	13.15	354367.1	353607.6	759.6	-0.0	-0.00
100YR-24HR	13.17	355116.6	354357.7	758.9	-0.0	-0.00
100YR-24HR	13.18	355815.7	355057.6	758.1	-0.0	-0.00
100YR-24HR	13.20	356499.6	355742.1	757.5	-0.0	-0.00
100YR-24HR	13.22	357305.9	356549.0	756.9	-0.0	-0.00
100YR-24HR	13.23	357956.2	357199.8	756.4	-0.0	-0.00
100YR-24HR	13.25	358657.6	357901.6	756.0	-0.0	-0.00
100YR-24HR	13.27	359355.9	358600.4	755.5	-0.0	-0.00
100YR-24HR	13.28	360083.4	359328.3	755.1	-0.0	-0.00
100YR-24HR	13.30	360829.2	360074.6	754.7	-0.0	-0.00
100YR-24HR	13.32	361507.7	360753.3	754.4	-0.0	-0.00
100YR-24HR	13.33	362185.0	361431.0	754.0	-0.0	-0.00
100YR-24HR	13.35	362927.7	362174.0	753.7	-0.0	-0.00
100YR-24HR	13.37	363600.9	362847.5	753.4	-0.0	-0.00
100YR-24HR	13.39	364335.2	363582.1	753.1	-0.0	-0.00
100YR-24HR	13.40	364966.2	364213.3	752.9	-0.0	-0.00
100YR-24HR	13.42	365634.6	364881.9	752.7	-0.0	-0.00
100YR-24HR	13.44	366384.8	365632.3	752.5	-0.0	-0.00
100YR-24HR	13.45	367071.1	366318.8	752.3	-0.0	-0.00
100YR-24HR	13.47	367693.9	366941.8	752.1	-0.0	-0.00
100YR-24HR	13.48	368385.1	367633.1	752.0	-0.0	-0.00
100YR-24HR	13.50	369063.6	368311.8	751.8	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
100YR-24HR	13.52	369724.5	368972.9	751.6	-0.0	-0.00
100YR-24HR	13.53	370405.0	369653.5	751.5	-0.0	-0.00
100YR-24HR	13.55	371151.3	370399.9	751.3	-0.0	-0.00
100YR-24HR	13.57	371819.3	371068.1	751.2	-0.0	-0.00
100YR-24HR	13.59	372517.2	371766.2	751.0	-0.0	-0.00
100YR-24HR	13.60	373132.2	372381.2	751.0	-0.0	-0.00
100YR-24HR	13.62	373848.8	373098.0	750.8	-0.0	-0.00
100YR-24HR	13.64	374544.1	373793.4	750.7	-0.0	-0.00
100YR-24HR	13.65	375156.9	374406.2	750.7	-0.0	-0.00
100YR-24HR	13.67	375850.7	375100.2	750.5	-0.0	-0.00
100YR-24HR	13.69	376564.2	375813.8	750.4	-0.0	-0.00
100YR-24HR	13.70	377175.2	376424.7	750.5	-0.0	-0.00
100YR-24HR	13.72	377846.8	377096.5	750.3	-0.0	-0.00
100YR-24HR	13.74	378578.8	377828.6	750.2	-0.0	-0.00
100YR-24HR	13.75	379188.4	378437.9	750.6	-0.0	-0.00
100YR-24HR	13.77	379838.3	379088.2	750.1	-0.0	-0.00
100YR-24HR	13.78	380536.5	379786.5	750.0	-0.0	-0.00
100YR-24HR	13.80	381266.8	380516.9	750.0	-0.0	-0.00
100YR-24HR	13.82	381875.2	381125.2	749.9	-0.0	-0.00
100YR-24HR	13.83	382522.8	381772.8	750.0	-0.0	-0.00
100YR-24HR	13.85	383236.1	382486.2	749.9	-0.0	-0.00
100YR-24HR	13.87	383884.3	383134.4	749.8	-0.0	-0.00
100YR-24HR	13.88	384532.3	383782.5	749.8	-0.0	-0.00
100YR-24HR	13.90	385240.9	384491.1	749.8	-0.0	-0.00
100YR-24HR	13.92	385879.6	385129.8	749.8	-0.0	-0.00
100YR-24HR	13.93	386559.3	385809.6	749.7	-0.0	-0.00
100YR-24HR	13.95	387235.3	386485.6	749.7	-0.0	-0.00
100YR-24HR	13.97	387882.8	387133.1	749.7	-0.0	-0.00
100YR-24HR	13.98	388530.2	387780.5	749.7	-0.0	-0.00
100YR-24HR	14.00	389278.8	388529.1	749.7	-0.0	-0.00
100YR-24HR	14.02	389885.7	389136.0	749.7	-0.0	-0.00
100YR-24HR	14.04	390644.5	389894.1	750.3	-0.0	-0.00
100YR-24HR	14.05	391193.5	390443.7	749.7	-0.0	-0.00
100YR-24HR	14.07	391905.6	391155.9	749.7	-0.0	-0.00
100YR-24HR	14.08	392585.3	391835.6	749.7	-0.0	-0.00
100YR-24HR	14.10	393232.5	392482.8	749.7	-0.0	-0.00
100YR-24HR	14.12	393920.2	393170.5	749.7	-0.0	-0.00
100YR-24HR	14.13	394552.1	393802.4	749.7	-0.0	-0.00
100YR-24HR	14.15	395226.5	394476.8	749.7	-0.0	-0.00
100YR-24HR	14.17	395905.8	395156.1	749.7	-0.0	-0.00
100YR-24HR	14.18	396552.8	395803.1	749.7	-0.0	-0.00
100YR-24HR	14.20	397240.1	396490.4	749.7	-0.0	-0.00
100YR-24HR	14.22	397871.8	397122.1	749.7	-0.0	-0.00
100YR-24HR	14.23	398546.7	397797.0	749.6	-0.0	-0.00
100YR-24HR	14.25	399220.9	398471.2	749.6	-0.0	-0.00
100YR-24HR	14.27	399897.7	399148.0	749.6	-0.0	-0.00
100YR-24HR	14.28	400570.3	399820.6	749.6	-0.0	-0.00
100YR-24HR	14.30	401265.5	400515.9	749.6	-0.0	-0.00
100YR-24HR	14.32	401912.2	401162.6	749.6	-0.0	-0.00
100YR-24HR	14.34	402619.5	401869.9	749.6	-0.0	-0.00
100YR-24HR	14.35	403276.3	402526.6	749.6	-0.0	-0.00
100YR-24HR	14.37	403913.8	403164.2	749.6	-0.0	-0.00
100YR-24HR	14.38	404592.8	403843.2	749.6	-0.0	-0.00
100YR-24HR	14.40	405239.5	404489.9	749.6	-0.0	-0.00
100YR-24HR	14.42	405926.5	405176.9	749.6	-0.0	-0.00
100YR-24HR	14.43	406558.0	405808.4	749.6	-0.0	-0.00
100YR-24HR	14.45	407224.9	406475.1	749.8	-0.0	-0.00
100YR-24HR	14.47	407871.5	407121.9	749.6	-0.0	-0.00
100YR-24HR	14.48	408558.6	407808.8	749.7	-0.0	-0.00
100YR-24HR	14.50	409249.6	408500.0	749.6	-0.0	-0.00
100YR-24HR	14.52	409880.1	409130.5	749.6	-0.0	-0.00
100YR-24HR	14.54	410627.8	409878.2	749.6	-0.0	-0.00
100YR-24HR	14.55	411234.0	410484.4	749.6	-0.0	-0.00
100YR-24HR	14.57	411890.8	411141.1	749.6	-0.0	-0.00
100YR-24HR	14.58	412589.9	411840.3	749.6	-0.0	-0.00
100YR-24HR	14.60	413252.8	412503.1	749.6	-0.0	-0.00
100YR-24HR	14.62	413899.4	413149.8	749.6	-0.0	-0.00
100YR-24HR	14.63	414566.3	413816.6	749.6	-0.0	-0.00
100YR-24HR	14.65	415298.8	414549.2	749.6	-0.0	-0.00
100YR-24HR	14.67	415930.3	415180.3	750.0	-0.0	-0.00
100YR-24HR	14.68	416577.0	415827.3	749.7	-0.0	-0.00
100YR-24HR	14.70	417223.7	416474.0	749.7	-0.0	-0.00
100YR-24HR	14.72	417870.4	417120.6	749.7	-0.0	-0.00
100YR-24HR	14.74	418618.1	417868.5	749.7	-0.0	-0.00
100YR-24HR	14.75	419224.4	418474.6	749.8	-0.0	-0.00
100YR-24HR	14.77	419891.3	419141.7	749.7	-0.0	-0.00
100YR-24HR	14.79	420618.9	419869.2	749.7	-0.0	-0.00
100YR-24HR	14.80	421227.7	420478.0	749.7	-0.0	-0.00
100YR-24HR	14.82	421874.4	421124.8	749.7	-0.0	-0.00
100YR-24HR	14.83	422537.4	421787.7	749.7	-0.0	-0.00
100YR-24HR	14.85	423265.0	422515.3	749.7	-0.0	-0.00
100YR-24HR	14.87	423952.2	423202.5	749.7	-0.0	-0.00
100YR-24HR	14.88	424583.8	423834.2	749.7	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
100YR-24HR	14.90	425215.5	424465.8	749.7	-0.0	-0.00
100YR-24HR	14.92	425914.9	425165.2	749.7	-0.0	-0.00
100YR-24HR	14.94	426594.1	425844.4	749.7	-0.0	-0.00
100YR-24HR	14.95	427240.9	426491.2	749.7	-0.0	-0.00
100YR-24HR	14.97	427928.2	427178.5	749.7	-0.0	-0.00
100YR-24HR	14.98	428559.9	427810.3	749.7	-0.0	-0.00
100YR-24HR	15.00	429318.0	428568.5	749.5	-0.0	-0.00
100YR-24HR	15.02	429899.2	429149.7	749.6	-0.0	-0.00
100YR-24HR	15.03	430572.6	429823.3	749.3	-0.0	-0.00
100YR-24HR	15.05	431215.4	430466.5	749.0	-0.0	-0.00
100YR-24HR	15.07	431855.0	431106.6	748.4	-0.0	-0.00
100YR-24HR	15.09	432588.5	431841.0	747.5	-0.0	-0.00
100YR-24HR	15.10	433177.4	432430.5	746.9	-0.0	-0.00
100YR-24HR	15.12	433822.1	433076.3	745.8	-0.0	-0.00
100YR-24HR	15.13	434487.1	433742.3	744.8	-0.0	-0.00
100YR-24HR	15.15	435081.8	434337.8	744.0	-0.0	-0.00
100YR-24HR	15.17	435761.8	435018.6	743.2	-0.0	-0.00
100YR-24HR	15.18	436306.9	435564.4	742.6	-0.0	-0.00
100YR-24HR	15.20	436925.9	436184.0	741.9	-0.0	-0.00
100YR-24HR	15.22	437564.2	436822.9	741.4	-0.0	-0.00
100YR-24HR	15.23	438151.6	437410.7	740.9	-0.0	-0.00
100YR-24HR	15.25	438753.9	438013.5	740.4	-0.0	-0.00
100YR-24HR	15.27	439356.6	438616.5	740.1	-0.0	-0.00
100YR-24HR	15.28	439934.6	439195.1	739.6	-0.0	-0.00
100YR-24HR	15.30	440581.8	439842.7	739.2	-0.0	-0.00
100YR-24HR	15.32	441172.4	440433.5	738.9	-0.0	-0.00
100YR-24HR	15.33	441715.8	440977.3	738.5	-0.0	-0.00
100YR-24HR	15.35	442288.8	441550.6	738.2	-0.0	-0.00
100YR-24HR	15.37	442911.9	442174.0	737.9	-0.0	-0.00
100YR-24HR	15.38	443476.5	442738.8	737.7	-0.0	-0.00
100YR-24HR	15.40	444039.4	443301.9	737.5	-0.0	-0.00
100YR-24HR	15.42	444619.0	443881.8	737.2	-0.0	-0.00
100YR-24HR	15.43	445201.3	444464.3	737.0	-0.0	-0.00
100YR-24HR	15.45	445787.8	445051.0	736.8	-0.0	-0.00
100YR-24HR	15.47	446397.3	445660.6	736.7	-0.0	-0.00
100YR-24HR	15.48	446924.8	446188.3	736.5	-0.0	-0.00
100YR-24HR	15.50	447524.0	446787.7	736.3	-0.0	-0.00
100YR-24HR	15.52	448077.7	447341.6	736.2	-0.0	-0.00
100YR-24HR	15.53	448647.6	447911.6	736.0	-0.0	-0.00
100YR-24HR	15.55	449191.5	448455.6	735.9	-0.0	-0.00
100YR-24HR	15.57	449765.1	449029.4	735.7	-0.0	-0.00
100YR-24HR	15.58	450354.3	449618.7	735.6	-0.0	-0.00
100YR-24HR	15.60	450914.0	450178.5	735.5	-0.0	-0.00
100YR-24HR	15.62	451475.5	450740.2	735.3	-0.0	-0.00
100YR-24HR	15.63	452056.8	451321.5	735.2	-0.0	-0.00
100YR-24HR	15.65	452586.0	451850.8	735.1	-0.0	-0.00
100YR-24HR	15.67	453186.1	452451.1	735.0	-0.0	-0.00
100YR-24HR	15.68	453748.0	453013.1	735.0	-0.0	-0.00
100YR-24HR	15.70	454299.1	453564.3	734.9	-0.0	-0.00
100YR-24HR	15.72	454856.4	454121.7	734.8	-0.0	-0.00
100YR-24HR	15.73	455433.6	454698.7	734.9	-0.0	-0.00
100YR-24HR	15.75	455978.6	455244.0	734.6	-0.0	-0.00
100YR-24HR	15.77	456520.9	455786.4	734.6	-0.0	-0.00
100YR-24HR	15.78	457076.5	456341.9	734.5	-0.0	-0.00
100YR-24HR	15.80	457685.8	456951.3	734.5	-0.0	-0.00
100YR-24HR	15.82	458244.0	457509.1	734.9	-0.0	-0.00
100YR-24HR	15.83	458763.4	458029.0	734.4	-0.0	-0.00
100YR-24HR	15.85	459304.2	458569.8	734.4	-0.0	-0.00
100YR-24HR	15.87	459898.8	459164.5	734.4	-0.0	-0.00
100YR-24HR	15.88	460439.2	459704.8	734.4	-0.0	-0.00
100YR-24HR	15.90	460988.3	460254.0	734.3	-0.0	-0.00
100YR-24HR	15.92	461552.2	460817.9	734.3	-0.0	-0.00
100YR-24HR	15.93	462092.1	461357.8	734.3	-0.0	-0.00
100YR-24HR	15.95	462699.4	461965.2	734.3	-0.0	-0.00
100YR-24HR	15.97	463256.0	462521.6	734.4	-0.0	-0.00
100YR-24HR	15.98	463772.1	463037.9	734.2	-0.0	-0.00
100YR-24HR	16.00	464344.2	463609.9	734.2	-0.0	-0.00
100YR-24HR	16.08	467093.1	466361.0	732.2	-0.0	-0.00
100YR-24HR	16.17	469690.0	468961.7	728.3	-0.0	-0.00
100YR-24HR	16.25	472226.3	471500.9	725.4	-0.0	-0.00
100YR-24HR	16.33	474624.4	473900.9	723.6	-0.0	-0.00
100YR-24HR	16.42	477007.6	476285.3	722.3	-0.0	-0.00
100YR-24HR	16.50	479306.2	478584.2	722.0	-0.0	-0.00
100YR-24HR	16.58	481589.4	480868.7	720.8	-0.0	-0.00
100YR-24HR	16.67	483867.0	483146.8	720.2	-0.0	-0.00
100YR-24HR	16.75	486126.0	485406.1	719.9	-0.0	-0.00
100YR-24HR	16.83	488390.3	487670.7	719.7	-0.0	-0.00
100YR-24HR	16.92	490604.8	489885.3	719.5	-0.0	-0.00
100YR-24HR	17.00	492853.0	492133.6	719.4	-0.0	-0.00
100YR-24HR	17.08	495080.3	494360.8	719.5	-0.0	-0.00
100YR-24HR	17.17	497291.4	496572.0	719.4	-0.0	-0.00
100YR-24HR	17.25	499553.3	498834.0	719.4	-0.0	-0.00
100YR-24HR	17.33	501769.2	501049.7	719.5	-0.0	-0.00



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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
100YR-24HR	17.42	504000.8	503281.4	719.4	-0.0	-0.00
100YR-24HR	17.50	506209.8	505490.5	719.4	-0.0	-0.00
100YR-24HR	17.58	508465.0	507745.7	719.3	-0.0	-0.00
100YR-24HR	17.67	510680.1	509960.7	719.3	-0.0	-0.00
100YR-24HR	17.75	512912.2	512192.8	719.3	-0.0	-0.00
100YR-24HR	17.83	515133.5	514414.1	719.3	-0.0	-0.00
100YR-24HR	17.92	517370.0	516650.6	719.4	-0.0	-0.00
100YR-24HR	18.00	519608.7	518889.3	719.4	-0.0	-0.00
100YR-24HR	18.08	521820.4	521101.0	719.4	0.0	0.00
100YR-24HR	18.17	524073.2	523353.9	719.3	0.0	0.00
100YR-24HR	18.25	526263.3	525544.0	719.4	-0.0	-0.00
100YR-24HR	18.33	528494.7	527775.3	719.4	0.0	0.00
100YR-24HR	18.42	530726.1	530006.8	719.3	-0.0	-0.00
100YR-24HR	18.50	532944.7	532225.4	719.3	0.0	0.00
100YR-24HR	18.58	535202.4	534483.0	719.4	0.0	0.00
100YR-24HR	18.67	537434.1	536714.8	719.4	0.0	0.00
100YR-24HR	18.75	539661.7	538942.3	719.3	0.0	0.00
100YR-24HR	18.83	541867.7	541148.3	719.4	0.0	0.00
100YR-24HR	18.92	544099.7	543380.4	719.4	0.0	0.00
100YR-24HR	19.00	546344.8	545625.6	719.2	-0.0	-0.00
100YR-24HR	19.08	548533.0	547815.6	717.4	-0.0	-0.00
100YR-24HR	19.17	550601.0	549887.3	713.7	-0.0	-0.00
100YR-24HR	19.25	552546.5	551835.6	710.9	-0.0	-0.00
100YR-24HR	19.33	554429.3	553720.2	709.1	-0.0	-0.00
100YR-24HR	19.42	556229.9	555521.9	707.9	0.0	0.00
100YR-24HR	19.50	557998.1	557291.0	707.1	0.0	0.00
100YR-24HR	19.58	559730.8	559024.4	706.4	0.0	0.00
100YR-24HR	19.67	561451.9	560746.0	705.9	0.0	0.00
100YR-24HR	19.75	563149.9	562443.6	706.3	0.0	0.00
100YR-24HR	19.83	564834.8	564129.5	705.3	0.0	0.00
100YR-24HR	19.92	566510.7	565805.5	705.2	-0.0	-0.00
100YR-24HR	20.00	568213.2	567508.0	705.1	-0.0	-0.00
100YR-24HR	20.08	569870.5	569165.3	705.1	-0.0	-0.00
100YR-24HR	20.17	571559.0	570853.9	705.1	-0.0	-0.00
100YR-24HR	20.25	573225.1	572520.0	705.1	-0.0	-0.00
100YR-24HR	20.33	574906.4	574201.3	705.1	-0.0	-0.00
100YR-24HR	20.42	576577.5	575872.4	705.1	-0.0	-0.00
100YR-24HR	20.50	578255.4	577550.3	705.1	-0.0	-0.00
100YR-24HR	20.58	579917.1	579212.0	705.0	-0.0	-0.00
100YR-24HR	20.67	581585.1	580880.0	705.0	-0.0	-0.00
100YR-24HR	20.75	583259.8	582554.8	705.0	-0.0	-0.00
100YR-24HR	20.83	584941.0	584235.8	705.1	-0.0	-0.00
100YR-24HR	20.92	586624.7	585919.7	705.0	-0.0	-0.00
100YR-24HR	21.00	588284.0	587579.0	705.0	-0.0	-0.00
100YR-24HR	21.08	589918.9	589215.8	703.1	-0.0	-0.00
100YR-24HR	21.17	591429.1	590729.8	699.3	-0.0	-0.00
100YR-24HR	21.25	592824.1	592127.4	696.7	-0.0	-0.00
100YR-24HR	21.33	594134.9	593439.9	695.0	-0.0	-0.00
100YR-24HR	21.42	595379.4	594685.6	693.8	-0.0	-0.00
100YR-24HR	21.50	596593.0	595899.9	693.0	-0.0	-0.00
100YR-24HR	21.58	597764.0	597071.7	692.4	-0.0	-0.00
100YR-24HR	21.67	598925.8	598234.0	691.9	-0.0	-0.00
100YR-24HR	21.75	600065.3	599373.8	691.5	-0.0	-0.00
100YR-24HR	21.83	601191.6	600500.4	691.3	-0.0	-0.00
100YR-24HR	21.92	602309.3	601618.1	691.2	-0.0	-0.00
100YR-24HR	22.00	603423.9	602732.8	691.1	-0.0	-0.00
100YR-24HR	22.08	604501.8	603812.5	689.3	-0.0	-0.00
100YR-24HR	22.17	605462.3	604776.5	685.8	-0.0	-0.00
100YR-24HR	22.25	606298.1	605614.8	683.3	-0.0	-0.00
100YR-24HR	22.33	607048.5	606366.8	681.7	-0.0	-0.00
100YR-24HR	22.42	607739.9	607059.2	680.6	-0.0	-0.00
100YR-24HR	22.50	608392.0	607712.1	679.9	-0.0	-0.00
100YR-24HR	22.58	609015.5	608335.8	679.8	-0.0	-0.00
100YR-24HR	22.67	609616.5	608937.7	678.8	-0.0	-0.00
100YR-24HR	22.75	610197.1	609518.7	678.4	-0.0	-0.00
100YR-24HR	22.83	610768.6	610090.3	678.2	-0.0	-0.00
100YR-24HR	22.92	611330.6	610652.5	678.1	-0.0	-0.00
100YR-24HR	23.00	611891.4	611213.3	678.1	-0.0	-0.00
100YR-24HR	23.08	612450.6	611772.6	678.1	-0.0	-0.00
100YR-24HR	23.17	613011.3	612333.2	678.1	-0.0	-0.00
100YR-24HR	23.25	613568.2	612890.3	677.9	-0.0	-0.00
100YR-24HR	23.33	614127.3	613449.2	678.1	-0.0	-0.00
100YR-24HR	23.42	614686.7	614008.8	678.0	-0.0	-0.00
100YR-24HR	23.50	615243.8	614565.8	678.1	-0.0	-0.00
100YR-24HR	23.58	615802.0	615124.0	678.0	-0.0	-0.00
100YR-24HR	23.67	616360.1	615682.0	678.1	-0.0	-0.00
100YR-24HR	23.75	616919.9	616241.8	678.0	-0.0	-0.00
100YR-24HR	23.83	617476.2	616798.2	678.1	-0.0	-0.00
100YR-24HR	23.92	618034.8	617356.8	678.1	-0.0	-0.00
100YR-24HR	24.00	618592.2	617914.2	678.0	-0.0	-0.00
100YR-24HR	24.25	619786.2	619114.9	671.3	-0.0	-0.00
100YR-24HR	24.50	619975.8	619308.5	667.3	-0.0	-0.00
100YR-24HR	24.75	619975.8	619308.5	667.3	-0.0	-0.00



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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
100YR-24HR	45.75	619975.8	619308.5	667.3	-0.0	-0.00
100YR-24HR	46.00	619975.8	619308.5	667.3	-0.0	-0.00
100YR-24HR	46.25	619975.8	619308.5	667.3	-0.0	-0.00
100YR-24HR	46.50	619975.8	619308.5	667.3	-0.0	-0.00
100YR-24HR	46.75	619975.8	619308.5	667.3	-0.0	-0.00
100YR-24HR	47.00	619975.8	619308.5	667.3	-0.0	-0.00
100YR-24HR	47.25	619975.8	619308.5	667.3	-0.0	-0.00
100YR-24HR	47.50	619975.8	619308.5	667.3	-0.0	-0.00
100YR-24HR	47.75	619975.8	619308.5	667.3	-0.0	-0.00
100YR-24HR	48.00	619975.8	619308.5	667.3	-0.0	-0.00
100YR-8HR	0.00	0.0	0.0	0.0	0.0	0.00
100YR-8HR	0.00	0.0	0.0	0.0	0.0	0.00
100YR-8HR	0.08	0.0	-563.8	563.8	0.0	0.00
100YR-8HR	0.17	0.0	-594.2	594.2	-0.0	-0.00
100YR-8HR	0.25	0.0	-624.4	624.4	-0.0	-0.00
100YR-8HR	0.33	0.0	-654.4	654.4	-0.0	-0.00
100YR-8HR	0.42	0.0	-667.0	667.0	-0.0	-0.00
100YR-8HR	0.50	0.0	-666.6	666.7	-0.0	-0.00
100YR-8HR	0.58	1.1	-665.6	666.7	-0.0	-0.00
100YR-8HR	0.67	6.2	-660.5	666.7	-0.0	-0.00
100YR-8HR	0.75	18.5	-648.2	666.7	-0.0	-0.00
100YR-8HR	0.83	40.0	-626.7	666.7	-0.0	-0.00
100YR-8HR	0.92	71.7	-595.0	666.7	-0.0	-0.00
100YR-8HR	1.00	113.7	-553.0	666.8	-0.0	-0.00
100YR-8HR	1.08	202.7	-464.4	667.1	-0.0	-0.00
100YR-8HR	1.17	456.9	-211.6	668.4	-0.0	-0.00
100YR-8HR	1.25	1005.9	333.0	672.8	-0.0	-0.00
100YR-8HR	1.33	1886.4	1206.8	679.6	-0.0	-0.00
100YR-8HR	1.42	3126.9	2439.6	687.3	-0.0	-0.00
100YR-8HR	1.50	4715.0	4019.7	695.3	-0.0	-0.00
100YR-8HR	1.58	6573.1	5870.1	703.1	-0.0	-0.00
100YR-8HR	1.67	8730.1	8019.6	710.5	-0.0	-0.00
100YR-8HR	1.75	11113.5	10396.3	717.2	-0.0	-0.00
100YR-8HR	1.84	13800.3	13077.1	723.2	-0.0	-0.00
100YR-8HR	1.92	16560.8	15831.5	729.3	-0.0	-0.00
100YR-8HR	2.00	19535.8	18801.6	734.3	0.0	0.00
100YR-8HR	2.08	22681.3	21938.0	743.2	0.0	0.00
100YR-8HR	2.10	23359.6	22613.5	746.1	0.0	0.00
100YR-8HR	2.12	24083.5	23334.3	749.2	0.0	0.00
100YR-8HR	2.14	24850.3	24098.1	752.2	0.0	0.00
100YR-8HR	2.15	25638.3	24883.1	755.2	0.0	0.00
100YR-8HR	2.17	26358.5	25600.9	757.6	0.0	0.00
100YR-8HR	2.19	27205.2	26445.2	760.0	0.0	0.00
100YR-8HR	2.20	27926.2	27163.7	762.5	0.0	0.00
100YR-8HR	2.22	28689.9	27925.3	764.6	0.0	0.00
100YR-8HR	2.23	29465.5	28698.9	766.6	0.0	0.00
100YR-8HR	2.25	30451.0	29682.0	769.0	0.0	0.00
100YR-8HR	2.27	31251.6	30481.0	770.7	0.0	0.00
100YR-8HR	2.29	32072.3	31299.8	772.5	0.0	0.00
100YR-8HR	2.30	32912.8	32138.7	774.2	0.0	0.00
100YR-8HR	2.32	33843.3	33067.4	776.0	0.0	0.00
100YR-8HR	2.34	34717.3	33939.8	777.5	0.0	0.00
100YR-8HR	2.35	35566.3	34787.3	779.0	0.0	0.00
100YR-8HR	2.37	36466.4	35685.9	780.5	0.0	0.00
100YR-8HR	2.38	37331.5	36549.7	781.8	0.0	0.00
100YR-8HR	2.40	38423.2	37640.0	783.2	0.0	0.00
100YR-8HR	2.42	39207.1	38422.6	784.5	0.0	0.00
100YR-8HR	2.44	40201.0	39415.2	785.8	0.0	0.00
100YR-8HR	2.45	41095.1	40308.2	786.9	0.0	0.00
100YR-8HR	2.47	41995.5	41207.5	788.0	0.0	0.00
100YR-8HR	2.49	43083.8	42294.5	789.3	0.0	0.00
100YR-8HR	2.50	43997.1	43206.8	790.3	0.0	0.00
100YR-8HR	2.52	44973.8	44182.5	791.3	0.0	0.00
100YR-8HR	2.53	45854.6	45062.2	792.3	0.0	0.00
100YR-8HR	2.55	46836.8	46043.4	793.4	0.0	0.00
100YR-8HR	2.57	47884.8	47090.4	794.4	0.0	0.00
100YR-8HR	2.58	48901.3	48105.9	795.4	0.0	0.00
100YR-8HR	2.60	49847.6	49051.3	796.3	0.0	0.00
100YR-8HR	2.62	50893.9	50096.7	797.2	0.0	0.00
100YR-8HR	2.63	51849.8	51051.8	798.0	0.0	0.00
100YR-8HR	2.65	53050.8	52251.8	799.0	0.0	0.00
100YR-8HR	2.67	53955.9	53156.4	799.5	0.0	0.00
100YR-8HR	2.68	54973.8	54173.3	800.5	0.0	0.00
100YR-8HR	2.70	55947.2	55146.0	801.2	0.0	0.00
100YR-8HR	2.72	57071.2	56269.2	802.0	0.0	0.00
100YR-8HR	2.73	58052.5	57249.8	802.7	0.0	0.00
100YR-8HR	2.75	59037.2	58233.9	803.3	0.0	0.00
100YR-8HR	2.77	60272.6	59468.9	803.7	0.0	0.00
100YR-8HR	2.79	61264.5	60459.8	804.6	0.0	0.00
100YR-8HR	2.80	62259.3	61454.1	805.2	0.0	0.00
100YR-8HR	2.82	63207.0	62401.3	805.7	0.0	0.00
100YR-8HR	2.84	64457.8	63651.4	806.4	0.0	0.00
100YR-8HR	2.85	65524.1	64717.3	806.9	0.0	0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
100YR-8HR	2.87	66467.5	65660.3	807.2	0.0	0.00
100YR-8HR	2.89	67640.2	66832.3	807.8	0.0	0.00
100YR-8HR	2.90	68651.5	67843.2	808.3	0.0	0.00
100YR-8HR	2.92	69766.6	68957.8	808.8	0.0	0.00
100YR-8HR	2.94	70782.6	69973.4	809.2	0.0	0.00
100YR-8HR	2.95	71800.6	70991.0	809.6	0.0	0.00
100YR-8HR	2.97	73012.1	72202.1	810.0	-0.0	-0.00
100YR-8HR	2.98	73970.4	73160.5	809.9	-0.0	-0.00
100YR-8HR	3.00	75117.6	74306.6	810.9	-0.0	-0.00
100YR-8HR	3.02	76153.9	75340.0	813.9	0.0	0.00
100YR-8HR	3.03	77215.1	76396.1	819.0	-0.0	-0.00
100YR-8HR	3.05	78359.8	77531.9	827.9	-0.0	-0.00
100YR-8HR	3.07	79669.0	78826.3	842.7	-0.0	-0.00
100YR-8HR	3.08	80926.9	80064.2	862.7	-0.0	-0.00
100YR-8HR	3.10	82376.8	81492.7	884.0	-0.0	-0.00
100YR-8HR	3.12	83898.4	82992.5	905.9	0.0	0.00
100YR-8HR	3.13	85582.2	84649.6	932.5	0.0	0.00
100YR-8HR	3.15	87357.2	86398.3	958.9	0.0	0.00
100YR-8HR	3.17	89235.4	88250.7	984.6	0.0	0.00
100YR-8HR	3.18	91209.3	90199.8	1009.6	0.0	0.00
100YR-8HR	3.20	93272.0	92238.5	1033.6	0.0	0.00
100YR-8HR	3.22	95523.3	94466.6	1056.7	0.0	0.00
100YR-8HR	3.23	97740.1	96662.8	1077.4	0.0	0.00
100YR-8HR	3.25	100023.1	98925.9	1097.2	0.0	0.00
100YR-8HR	3.27	102368.5	101252.1	1116.3	0.0	0.00
100YR-8HR	3.28	104771.8	103637.4	1134.4	-0.0	-0.00
100YR-8HR	3.30	107228.8	106077.2	1151.6	-0.0	-0.00
100YR-8HR	3.32	109736.2	108568.2	1168.0	-0.0	-0.00
100YR-8HR	3.33	112290.9	111107.1	1183.7	0.0	0.00
100YR-8HR	3.35	115020.6	113821.3	1199.3	0.0	0.00
100YR-8HR	3.37	117562.5	116349.6	1212.9	0.0	0.00
100YR-8HR	3.38	120409.9	119182.7	1227.2	0.0	0.00
100YR-8HR	3.40	123127.0	121887.1	1239.9	0.0	0.00
100YR-8HR	3.42	125877.2	124625.4	1251.8	0.0	0.00
100YR-8HR	3.43	128614.1	127351.4	1262.7	0.0	0.00
100YR-8HR	3.45	131467.5	130194.0	1273.6	0.0	0.00
100YR-8HR	3.47	134349.9	133065.7	1284.1	-0.0	-0.00
100YR-8HR	3.48	137260.0	135965.7	1294.3	-0.0	-0.00
100YR-8HR	3.50	140196.8	138892.6	1304.2	-0.0	-0.00
100YR-8HR	3.52	143159.4	141845.6	1313.8	-0.0	-0.00
100YR-8HR	3.53	146147.0	144823.8	1323.1	0.0	0.00
100YR-8HR	3.55	148984.0	147652.4	1331.6	0.0	0.00
100YR-8HR	3.57	152192.4	150849.9	1342.5	-0.0	-0.00
100YR-8HR	3.59	155277.8	153919.1	1358.8	-0.0	-0.00
100YR-8HR	3.60	158050.7	156672.4	1378.3	0.0	0.00
100YR-8HR	3.62	161306.1	159899.6	1406.5	0.0	0.00
100YR-8HR	3.64	164582.3	163141.8	1440.4	0.0	0.00
100YR-8HR	3.65	167524.2	166049.0	1475.2	0.0	0.00
100YR-8HR	3.67	170925.8	169405.7	1520.1	-0.0	-0.00
100YR-8HR	3.69	173898.7	172335.7	1563.0	0.0	0.00
100YR-8HR	3.70	176884.7	175275.3	1609.4	-0.0	-0.00
100YR-8HR	3.72	180634.4	178962.5	1671.9	-0.0	-0.00
100YR-8HR	3.74	183458.4	181736.7	1721.8	-0.0	-0.00
100YR-8HR	3.75	186291.7	184517.8	1773.9	0.0	0.00
100YR-8HR	3.77	189607.8	187770.5	1837.3	0.0	0.00
100YR-8HR	3.79	193172.4	191264.4	1908.0	0.0	0.00
100YR-8HR	3.80	196748.0	194766.7	1981.3	0.0	0.00
100YR-8HR	3.82	199137.4	197105.9	2031.5	0.0	0.00
100YR-8HR	3.84	203328.7	201207.2	2121.6	0.0	0.00
100YR-8HR	3.85	206329.9	204142.3	2187.5	0.0	0.00
100YR-8HR	3.87	209336.7	207082.0	2254.7	0.0	0.00
100YR-8HR	3.89	212348.7	210025.7	2323.0	0.0	0.00
100YR-8HR	3.90	215365.5	212973.3	2392.2	0.0	0.00
100YR-8HR	3.92	218764.7	216293.5	2471.2	0.0	0.00
100YR-8HR	3.94	222547.5	219987.5	2560.0	0.0	0.00
100YR-8HR	3.96	226335.6	223686.0	2649.6	0.0	0.00
100YR-8HR	3.98	230128.3	227388.4	2739.9	0.0	0.00
100YR-8HR	3.99	232026.0	229240.9	2785.1	0.0	0.00
100YR-8HR	4.00	235822.1	232947.9	2874.2	0.0	0.00
100YR-8HR	4.02	239225.8	236277.7	2948.1	0.0	0.00
100YR-8HR	4.03	241628.8	238635.3	2993.5	0.0	0.00
100YR-8HR	4.05	244859.9	241819.0	3040.9	0.0	0.00
100YR-8HR	4.07	247844.2	244779.8	3064.5	0.0	0.00
100YR-8HR	4.09	251178.2	248125.3	3052.9	0.0	0.00
100YR-8HR	4.10	254026.7	251022.3	3004.3	0.0	0.00
100YR-8HR	4.12	256763.7	253843.8	2919.8	0.0	0.00
100YR-8HR	4.13	259390.3	256589.9	2800.5	0.0	0.00
100YR-8HR	4.15	262159.3	259527.0	2632.3	0.0	0.00
100YR-8HR	4.17	264576.0	262127.1	2448.9	-0.0	-0.00
100YR-8HR	4.18	266904.3	264665.2	2239.2	-0.0	-0.00
100YR-8HR	4.20	269316.4	267329.5	1986.9	-0.0	-0.00
100YR-8HR	4.22	271485.3	269753.9	1731.4	-0.0	-0.00
100YR-8HR	4.24	273848.9	272425.4	1423.5	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
100YR-8HR	4.25	275707.9	274541.3	1166.6	-0.0	-0.00
100YR-8HR	4.27	277755.5	276729.9	1025.6	-0.0	-0.00
100YR-8HR	4.28	279785.0	278800.9	984.0	-0.0	-0.00
100YR-8HR	4.30	281729.3	280763.2	966.1	0.0	0.00
100YR-8HR	4.32	283662.9	282710.1	952.7	0.0	0.00
100YR-8HR	4.33	285472.6	284531.0	941.6	0.0	0.00
100YR-8HR	4.35	287299.5	286368.2	931.4	0.0	0.00
100YR-8HR	4.37	289156.6	288235.0	921.7	0.0	0.00
100YR-8HR	4.38	290842.2	289928.7	913.4	0.0	0.00
100YR-8HR	4.40	292497.2	291591.3	905.9	0.0	0.00
100YR-8HR	4.42	294205.3	293306.4	898.9	0.0	0.00
100YR-8HR	4.43	295806.2	294913.4	892.8	0.0	0.00
100YR-8HR	4.45	297529.8	296643.3	886.5	0.0	0.00
100YR-8HR	4.47	299226.0	298345.3	880.6	0.0	0.00
100YR-8HR	4.48	300658.9	299783.1	875.8	0.0	0.00
100YR-8HR	4.50	302307.2	301436.7	870.5	0.0	0.00
100YR-8HR	4.52	303931.3	303065.9	865.4	0.0	0.00
100YR-8HR	4.54	305361.6	304500.5	861.1	0.0	0.00
100YR-8HR	4.55	306774.2	305916.7	857.6	0.0	0.00
100YR-8HR	4.57	308170.0	307315.4	854.6	0.0	0.00
100YR-8HR	4.58	309755.1	308903.8	851.3	0.0	0.00
100YR-8HR	4.60	311116.8	310268.2	848.6	0.0	0.00
100YR-8HR	4.62	312882.2	312036.9	845.4	0.0	0.00
100YR-8HR	4.64	314128.9	313285.7	843.2	0.0	0.00
100YR-8HR	4.65	315364.4	314523.2	841.2	0.0	0.00
100YR-8HR	4.67	316995.0	316156.4	838.6	0.0	0.00
100YR-8HR	4.68	318146.2	317309.3	836.9	0.0	0.00
100YR-8HR	4.70	319429.0	318594.1	834.9	0.0	0.00
100YR-8HR	4.72	321018.9	320186.4	832.6	0.0	0.00
100YR-8HR	4.74	322202.3	321371.3	831.0	0.0	0.00
100YR-8HR	4.75	323769.4	322940.2	829.1	0.0	0.00
100YR-8HR	4.77	324937.4	324109.3	828.1	0.0	0.00
100YR-8HR	4.79	326177.3	325350.7	826.6	0.0	0.00
100YR-8HR	4.80	327411.5	326586.1	825.4	0.0	0.00
100YR-8HR	4.82	328717.4	327893.1	824.4	0.0	0.00
100YR-8HR	4.84	330247.1	329423.8	823.3	0.0	0.00
100YR-8HR	4.85	331390.0	330567.2	822.8	0.0	0.00
100YR-8HR	4.87	332556.9	331735.3	821.7	0.0	0.00
100YR-8HR	4.89	333962.7	333141.8	820.9	0.0	0.00
100YR-8HR	4.90	335171.4	334351.2	820.3	0.0	0.00
100YR-8HR	4.92	336377.5	335557.8	819.8	0.0	0.00
100YR-8HR	4.93	337581.4	336762.1	819.3	0.0	0.00
100YR-8HR	4.95	339083.7	338264.9	818.9	0.0	0.00
100YR-8HR	4.97	340434.1	339615.5	818.6	0.0	0.00
100YR-8HR	4.99	341558.6	340740.1	818.5	0.0	0.00
100YR-8HR	5.00	342682.9	341864.4	818.5	0.0	0.00
100YR-8HR	5.02	344027.9	343210.5	817.4	-0.0	-0.00
100YR-8HR	5.03	345213.9	344398.8	815.1	0.0	0.00
100YR-8HR	5.05	346675.2	345864.7	810.5	-0.0	-0.00
100YR-8HR	5.07	347818.7	347013.7	805.0	-0.0	-0.00
100YR-8HR	5.09	348927.5	348130.4	797.1	-0.0	-0.00
100YR-8HR	5.10	349953.9	349165.0	788.9	-0.0	-0.00
100YR-8HR	5.12	351103.1	350322.5	780.6	-0.0	-0.00
100YR-8HR	5.13	352047.2	351273.2	773.9	-0.0	-0.00
100YR-8HR	5.15	353103.4	352336.6	766.8	-0.0	-0.00
100YR-8HR	5.17	354115.1	353354.8	760.3	-0.0	-0.00
100YR-8HR	5.19	355017.7	354262.9	754.8	-0.0	-0.00
100YR-8HR	5.20	355854.9	355104.8	750.1	-0.0	-0.00
100YR-8HR	5.22	356665.2	355919.0	746.2	-0.0	-0.00
100YR-8HR	5.23	357544.5	356802.7	741.8	-0.0	-0.00
100YR-8HR	5.25	358336.1	357598.0	738.2	-0.0	-0.00
100YR-8HR	5.27	359157.8	358423.2	734.6	-0.0	-0.00
100YR-8HR	5.29	359916.2	359184.7	731.5	-0.0	-0.00
100YR-8HR	5.30	360588.8	359859.8	729.0	-0.0	-0.00
100YR-8HR	5.32	361300.3	360573.9	726.5	-0.0	-0.00
100YR-8HR	5.33	362053.4	361329.5	723.8	-0.0	-0.00
100YR-8HR	5.35	362783.3	362061.8	721.5	-0.0	-0.00
100YR-8HR	5.37	363396.0	362676.3	719.8	-0.0	-0.00
100YR-8HR	5.38	364080.8	363363.1	717.7	-0.0	-0.00
100YR-8HR	5.40	364693.7	363977.6	716.1	-0.0	-0.00
100YR-8HR	5.42	365407.2	364692.9	714.3	0.0	0.00
100YR-8HR	5.43	365976.1	365263.0	713.2	0.0	0.00
100YR-8HR	5.45	366592.4	365880.6	711.9	0.0	0.00
100YR-8HR	5.47	367167.1	366456.6	710.4	0.0	0.00
100YR-8HR	5.48	367770.2	367061.0	709.2	0.0	0.00
100YR-8HR	5.50	368384.2	367676.3	707.9	-0.0	-0.00
100YR-8HR	5.52	368947.2	368240.4	706.8	-0.0	-0.00
100YR-8HR	5.53	369530.0	368824.3	705.7	-0.0	-0.00
100YR-8HR	5.55	370104.8	369400.2	704.6	0.0	0.00
100YR-8HR	5.57	370645.2	369941.5	703.6	0.0	0.00
100YR-8HR	5.58	371201.4	370498.8	702.7	0.0	0.00
100YR-8HR	5.60	371770.4	371068.7	701.7	0.0	0.00
100YR-8HR	5.62	372291.1	371590.2	700.9	0.0	0.00



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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
100YR-8HR	5.63	372822.2	372121.8	700.4	0.0	0.00
100YR-8HR	5.65	373331.9	372632.5	699.4	0.0	0.00
100YR-8HR	5.67	373861.6	373162.8	698.9	0.0	0.00
100YR-8HR	5.68	374373.8	373675.8	698.1	0.0	0.00
100YR-8HR	5.70	374906.2	374208.7	697.5	0.0	0.00
100YR-8HR	5.72	375385.1	374688.0	697.1	0.0	0.00
100YR-8HR	5.73	375884.8	375188.3	696.5	0.0	0.00
100YR-8HR	5.75	376381.1	375685.0	696.0	0.0	0.00
100YR-8HR	5.77	376874.7	376179.2	695.5	0.0	0.00
100YR-8HR	5.78	377387.5	376692.3	695.1	0.0	0.00
100YR-8HR	5.80	377863.4	377168.6	694.8	0.0	0.00
100YR-8HR	5.82	378384.5	377689.8	694.7	0.0	0.00
100YR-8HR	5.83	378849.2	378154.9	694.3	0.0	0.00
100YR-8HR	5.85	379328.5	378634.5	694.0	0.0	0.00
100YR-8HR	5.87	379808.6	379114.8	693.8	0.0	0.00
100YR-8HR	5.88	380281.1	379587.5	693.6	0.0	0.00
100YR-8HR	5.90	380772.8	380079.3	693.5	0.0	0.00
100YR-8HR	5.92	381274.3	380581.0	693.3	0.0	0.00
100YR-8HR	5.93	381726.2	381033.0	693.3	0.0	0.00
100YR-8HR	5.95	382197.3	381504.2	693.1	0.0	0.00
100YR-8HR	5.97	382696.4	382003.4	693.0	0.0	0.00
100YR-8HR	5.98	383169.6	382476.6	693.0	0.0	0.00
100YR-8HR	6.00	383619.7	382926.4	693.3	0.0	0.00
100YR-8HR	6.02	384116.9	383424.2	692.7	0.0	0.00
100YR-8HR	6.10	386442.4	385751.4	691.0	0.0	0.00
100YR-8HR	6.18	388677.4	387989.1	688.3	0.0	0.00
100YR-8HR	6.27	390858.1	390171.6	686.5	0.0	0.00
100YR-8HR	6.35	392966.2	392280.9	685.3	0.0	0.00
100YR-8HR	6.43	395044.3	394359.8	684.5	0.0	0.00
100YR-8HR	6.52	397084.4	396400.4	684.0	0.0	0.00
100YR-8HR	6.60	399113.0	398429.5	683.5	0.0	0.00
100YR-8HR	6.68	401106.0	400422.8	683.1	0.0	0.00
100YR-8HR	6.77	403100.4	402417.5	682.9	-0.0	-0.00
100YR-8HR	6.85	405093.0	404410.2	682.8	0.0	0.00
100YR-8HR	6.93	407107.6	406424.9	682.7	0.0	0.00
100YR-8HR	7.02	409078.9	408396.6	682.3	0.0	0.00
100YR-8HR	7.10	410971.9	410293.1	678.8	0.0	0.00
100YR-8HR	7.18	412708.7	412034.7	674.0	0.0	0.00
100YR-8HR	7.27	414246.1	413576.0	670.1	0.0	0.00
100YR-8HR	7.35	415695.3	415027.4	667.8	0.0	0.00
100YR-8HR	7.43	417060.9	416394.6	666.3	0.0	0.00
100YR-8HR	7.52	418372.4	417707.3	665.2	0.0	0.00
100YR-8HR	7.60	419645.1	418980.8	664.3	0.0	0.00
100YR-8HR	7.68	420897.0	420233.4	663.6	0.0	0.00
100YR-8HR	7.77	422112.8	421449.7	663.1	0.0	0.00
100YR-8HR	7.85	423312.9	422650.0	662.8	-0.0	-0.00
100YR-8HR	7.93	424517.1	423854.4	662.7	-0.0	-0.00
100YR-8HR	8.02	425702.6	425040.6	662.0	-0.0	-0.00
100YR-8HR	8.52	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	8.77	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	9.02	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	9.27	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	9.52	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	9.77	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	10.02	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	10.27	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	10.52	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	10.77	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	11.02	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	11.27	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	11.52	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	11.77	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	12.02	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	12.27	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	12.52	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	12.77	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	13.02	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	13.27	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	13.52	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	13.77	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	14.02	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	14.27	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	14.52	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	14.77	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	15.02	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	15.27	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	15.52	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	15.77	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	16.02	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	16.27	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	16.52	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	16.77	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	17.02	428421.0	427784.0	637.0	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
100YR-8HR	17.27	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	17.52	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	17.77	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	18.02	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	18.27	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	18.52	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	18.77	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	19.02	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	19.27	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	19.52	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	19.77	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	20.02	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	20.27	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	20.52	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	20.77	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	21.02	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	21.27	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	21.52	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	21.77	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	22.02	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	22.27	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	22.52	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	22.77	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	23.02	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	23.27	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	23.52	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	23.77	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	24.02	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	24.27	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	24.52	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	24.77	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	25.02	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	25.27	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	25.52	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	25.77	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	26.02	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	26.27	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	26.52	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	26.77	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	27.02	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	27.27	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	27.52	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	27.77	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	28.02	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	28.27	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	28.52	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	28.77	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	29.02	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	29.27	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	29.52	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	29.77	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	30.02	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	30.27	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	30.52	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	30.77	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	31.02	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	31.27	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	31.52	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	31.77	428421.0	427784.0	637.0	-0.0	-0.00
100YR-8HR	32.00	428421.0	427784.0	637.0	-0.0	-0.00
10YR-1HR	0.00	0.0	0.0	0.0	0.0	0.00
10YR-1HR	0.02	0.0	-443.4	443.4	-0.0	-0.00
10YR-1HR	0.03	0.0	-488.0	488.0	-0.0	-0.00
10YR-1HR	0.05	0.0	-531.8	531.8	0.0	0.00
10YR-1HR	0.07	0.0	-557.9	557.9	0.0	0.00
10YR-1HR	0.08	0.0	-563.8	563.8	0.0	0.00
10YR-1HR	0.10	0.0	-569.9	569.9	0.0	0.00
10YR-1HR	0.12	0.1	-575.5	575.6	0.0	0.00
10YR-1HR	0.13	0.6	-581.0	581.6	0.0	0.00
10YR-1HR	0.15	2.3	-585.5	587.8	0.0	0.00
10YR-1HR	0.17	6.7	-587.1	593.8	0.0	0.00
10YR-1HR	0.18	15.9	-584.0	599.9	0.0	0.00
10YR-1HR	0.20	32.4	-573.7	606.1	0.0	0.00
10YR-1HR	0.22	62.8	-550.2	612.9	0.0	0.00
10YR-1HR	0.23	116.9	-504.2	621.1	0.0	0.00
10YR-1HR	0.25	205.2	-426.9	632.1	0.0	0.00
10YR-1HR	0.27	341.1	-306.7	647.9	0.0	0.00
10YR-1HR	0.28	537.7	-133.5	671.2	0.0	0.00
10YR-1HR	0.30	823.3	136.0	687.3	0.0	0.00
10YR-1HR	0.32	1225.1	524.9	700.2	0.0	0.00
10YR-1HR	0.33	1729.5	1013.3	716.1	0.0	0.00
10YR-1HR	0.35	2386.6	1648.5	738.1	0.0	0.00
10YR-1HR	0.37	3278.3	2510.6	767.7	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-1HR	0.38	4281.8	3481.6	800.2	-0.0	-0.00
10YR-1HR	0.40	5550.0	4708.8	841.2	0.0	0.00
10YR-1HR	0.42	7033.2	6144.9	888.3	-0.0	-0.00
10YR-1HR	0.43	8809.7	7870.1	939.6	-0.0	-0.00
10YR-1HR	0.45	10779.2	9781.0	998.2	-0.0	-0.00
10YR-1HR	0.47	13014.7	11952.2	1062.5	-0.0	-0.00
10YR-1HR	0.48	15453.4	14324.4	1129.1	-0.0	-0.00
10YR-1HR	0.50	18105.7	16908.2	1197.5	-0.0	-0.00
10YR-1HR	0.52	20958.2	19692.0	1266.1	-0.0	-0.00
10YR-1HR	0.53	23995.8	22661.8	1334.0	-0.0	-0.00
10YR-1HR	0.55	27272.8	25862.3	1410.5	-0.0	-0.00
10YR-1HR	0.57	30606.9	29082.8	1524.1	-0.0	-0.00
10YR-1HR	0.58	34194.2	32514.2	1680.0	-0.0	-0.00
10YR-1HR	0.60	37645.4	35789.9	1855.4	-0.0	-0.00
10YR-1HR	0.62	41345.3	39283.5	2061.8	-0.0	-0.00
10YR-1HR	0.63	45322.6	43025.6	2297.0	-0.0	-0.00
10YR-1HR	0.65	49066.7	46542.2	2524.5	-0.0	-0.00
10YR-1HR	0.67	52961.0	50201.3	2759.7	-0.0	-0.00
10YR-1HR	0.68	56378.2	53423.3	2954.9	-0.0	-0.00
10YR-1HR	0.70	60205.3	57047.0	3158.4	-0.0	-0.00
10YR-1HR	0.72	63753.4	60422.9	3330.5	-0.0	-0.00
10YR-1HR	0.74	67673.8	64174.1	3499.7	-0.0	-0.00
10YR-1HR	0.75	70833.4	67216.5	3616.9	-0.0	-0.00
10YR-1HR	0.77	74506.8	70778.6	3728.1	-0.0	-0.00
10YR-1HR	0.78	77760.2	73959.4	3800.8	-0.0	-0.00
10YR-1HR	0.80	80927.1	77082.0	3845.0	0.0	0.00
10YR-1HR	0.82	84304.6	80446.0	3858.6	0.0	0.00
10YR-1HR	0.83	87272.4	83434.8	3837.6	0.0	0.00
10YR-1HR	0.85	90135.3	86353.2	3782.1	0.0	0.00
10YR-1HR	0.87	93097.4	89418.0	3679.5	0.0	0.00
10YR-1HR	0.88	95599.7	92054.9	3544.8	0.0	0.00
10YR-1HR	0.90	98161.4	94809.6	3351.9	0.0	0.00
10YR-1HR	0.92	100570.4	97458.8	3111.5	0.0	0.00
10YR-1HR	0.93	102832.0	100005.7	2826.3	0.0	0.00
10YR-1HR	0.95	104955.3	102455.6	2499.8	0.0	0.00
10YR-1HR	0.97	106949.0	104814.1	2135.0	0.0	0.00
10YR-1HR	0.98	108715.8	106957.0	1758.9	0.0	0.00
10YR-1HR	1.00	110577.3	109273.7	1303.6	0.0	0.00
10YR-1HR	1.25	126845.3	126135.1	710.3	0.0	0.00
10YR-1HR	1.50	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	1.75	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	2.00	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	2.25	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	2.50	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	2.75	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	3.00	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	3.25	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	3.50	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	3.75	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	4.00	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	4.25	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	4.50	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	4.75	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	5.00	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	5.25	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	5.50	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	5.75	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	6.00	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	6.25	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	6.50	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	6.75	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	7.00	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	7.25	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	7.50	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	7.75	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	8.00	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	8.25	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	8.50	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	8.75	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	9.00	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	9.25	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	9.50	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	9.75	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	10.00	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	10.25	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	10.50	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	10.75	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	11.00	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	11.25	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	11.50	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	11.75	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	12.00	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	12.25	129312.3	128675.9	636.4	0.0	0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-1HR	12.50	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	12.75	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	13.00	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	13.25	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	13.50	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	13.75	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	14.00	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	14.25	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	14.50	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	14.75	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	15.00	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	15.25	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	15.50	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	15.75	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	16.00	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	16.25	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	16.50	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	16.75	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	17.00	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	17.25	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	17.50	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	17.75	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	18.00	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	18.25	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	18.50	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	18.75	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	19.00	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	19.25	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	19.50	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	19.75	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	20.00	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	20.25	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	20.50	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	20.75	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	21.00	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	21.25	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	21.50	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	21.75	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	22.00	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	22.25	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	22.50	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	22.75	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	23.00	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	23.25	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	23.50	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	23.75	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	24.00	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	24.25	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	24.50	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	24.75	129312.3	128675.9	636.4	0.0	0.00
10YR-1HR	25.00	129312.3	128675.9	636.4	0.0	0.00
10YR-24HR	0.00	0.0	0.0	0.0	0.0	0.00
10YR-24HR	0.08	0.0	-563.8	563.8	0.0	0.00
10YR-24HR	0.17	0.0	-594.2	594.2	-0.0	-0.00
10YR-24HR	0.25	0.0	-624.4	624.4	-0.0	-0.00
10YR-24HR	0.33	0.0	-654.4	654.4	-0.0	-0.00
10YR-24HR	0.42	0.0	-667.0	667.0	-0.0	-0.00
10YR-24HR	0.50	0.0	-667.0	667.0	-0.0	-0.00
10YR-24HR	0.58	0.0	-667.0	667.0	-0.0	-0.00
10YR-24HR	0.67	0.0	-667.0	667.0	-0.0	-0.00
10YR-24HR	0.76	0.0	-667.0	667.0	-0.0	-0.00
10YR-24HR	0.83	0.0	-667.0	667.0	-0.0	-0.00
10YR-24HR	0.93	0.0	-667.0	667.0	-0.0	-0.00
10YR-24HR	1.00	0.0	-667.0	667.0	-0.0	-0.00
10YR-24HR	1.08	0.3	-667.0	667.3	-0.0	-0.00
10YR-24HR	1.17	2.6	-664.7	667.3	-0.0	-0.00
10YR-24HR	1.25	10.1	-657.2	667.3	-0.0	-0.00
10YR-24HR	1.33	24.9	-642.4	667.3	-0.0	-0.00
10YR-24HR	1.42	48.2	-619.1	667.3	-0.0	-0.00
10YR-24HR	1.50	80.6	-586.8	667.4	-0.0	-0.00
10YR-24HR	1.58	122.0	-545.4	667.4	-0.0	-0.00
10YR-24HR	1.67	172.3	-495.1	667.4	-0.0	-0.00
10YR-24HR	1.75	232.5	-434.9	667.4	-0.0	-0.00
10YR-24HR	1.83	303.7	-363.8	667.5	-0.0	-0.00
10YR-24HR	1.92	386.7	-280.8	667.5	-0.0	-0.00
10YR-24HR	2.00	481.5	-186.1	667.6	-0.0	-0.00
10YR-24HR	2.08	594.9	-72.8	667.7	-0.0	-0.00
10YR-24HR	2.17	739.5	72.0	667.5	-0.0	-0.00
10YR-24HR	2.25	923.1	254.6	668.5	-0.0	-0.00
10YR-24HR	2.33	1143.2	475.0	668.2	-0.0	-0.00
10YR-24HR	2.42	1398.5	729.8	668.7	-0.0	-0.00
10YR-24HR	2.50	1687.7	1018.5	669.2	-0.0	-0.00
10YR-24HR	2.58	2008.6	1338.8	669.8	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-24HR	2.67	2361.4	1691.3	670.1	-0.0	-0.00
10YR-24HR	2.75	2743.5	2072.5	671.0	-0.0	-0.00
10YR-24HR	2.83	3153.3	2481.7	671.6	-0.0	-0.00
10YR-24HR	2.92	3589.3	2917.1	672.2	-0.0	-0.00
10YR-24HR	3.00	4049.5	3376.8	672.8	-0.0	-0.00
10YR-24HR	3.08	4534.3	3861.0	673.3	-0.0	-0.00
10YR-24HR	3.17	5038.6	4364.7	673.8	-0.0	-0.00
10YR-24HR	3.25	5563.7	4889.4	674.3	-0.0	-0.00
10YR-24HR	3.33	6107.7	5432.9	674.8	-0.0	-0.00
10YR-24HR	3.42	6671.6	5996.4	675.2	-0.0	-0.00
10YR-24HR	3.50	7251.8	6576.1	675.7	0.0	0.00
10YR-24HR	3.58	7849.1	7173.0	676.1	-0.0	-0.00
10YR-24HR	3.67	8462.4	7785.9	676.5	0.0	0.00
10YR-24HR	3.75	9091.8	8415.0	676.8	0.0	0.00
10YR-24HR	3.83	9733.4	9056.1	677.2	0.0	0.00
10YR-24HR	3.92	10390.7	9713.1	677.6	0.0	0.00
10YR-24HR	4.00	11058.7	10380.8	677.9	0.0	0.00
10YR-24HR	4.08	11740.6	11062.3	678.2	0.0	0.00
10YR-24HR	4.17	12434.7	11756.1	678.5	-0.0	-0.00
10YR-24HR	4.25	13141.8	12462.9	678.9	0.0	0.00
10YR-24HR	4.33	13864.5	13185.4	679.1	-0.0	-0.00
10YR-24HR	4.42	14585.8	13906.4	679.4	-0.0	-0.00
10YR-24HR	4.50	15325.0	14645.3	679.7	-0.0	-0.00
10YR-24HR	4.58	16075.8	15395.8	680.0	-0.0	-0.00
10YR-24HR	4.67	16833.7	16153.5	680.2	-0.0	-0.00
10YR-24HR	4.75	17597.5	16917.0	680.5	-0.0	-0.00
10YR-24HR	4.83	18375.6	17694.9	680.7	-0.0	-0.00
10YR-24HR	4.92	19161.2	18480.3	680.9	-0.0	-0.00
10YR-24HR	5.00	19951.2	19270.1	681.2	-0.0	-0.00
10YR-24HR	5.08	20769.2	20087.3	682.0	-0.0	-0.00
10YR-24HR	5.17	21653.9	20970.0	683.9	-0.0	-0.00
10YR-24HR	5.25	22614.3	21929.0	685.3	-0.0	-0.00
10YR-24HR	5.33	23613.1	22926.8	686.3	-0.0	-0.00
10YR-24HR	5.42	24655.7	23968.6	687.1	-0.0	-0.00
10YR-24HR	5.50	25727.4	25039.6	687.7	-0.0	-0.00
10YR-24HR	5.58	26824.8	26136.4	688.3	-0.0	-0.00
10YR-24HR	5.67	27947.0	27258.1	688.8	-0.0	-0.00
10YR-24HR	5.75	29081.4	28392.2	689.3	-0.0	-0.00
10YR-24HR	5.83	30235.2	29545.5	689.6	-0.0	-0.00
10YR-24HR	5.92	31401.5	30711.6	689.9	-0.0	-0.00
10YR-24HR	6.00	32570.4	31880.1	690.2	-0.0	-0.00
10YR-24HR	6.08	33744.4	33053.9	690.5	-0.0	-0.00
10YR-24HR	6.17	34943.2	34252.5	690.8	-0.0	-0.00
10YR-24HR	6.25	36137.5	35446.5	691.0	-0.0	-0.00
10YR-24HR	6.33	37338.9	36647.7	691.2	-0.0	-0.00
10YR-24HR	6.42	38552.7	37861.2	691.4	-0.0	-0.00
10YR-24HR	6.50	39765.0	39073.4	691.6	-0.0	-0.00
10YR-24HR	6.58	40996.0	40304.2	691.8	-0.0	-0.00
10YR-24HR	6.67	42220.1	41528.1	692.0	-0.0	-0.00
10YR-24HR	6.75	43459.0	42766.8	692.2	-0.0	-0.00
10YR-24HR	6.83	44704.2	44011.8	692.4	-0.0	-0.00
10YR-24HR	6.92	45954.2	45261.6	692.6	-0.0	-0.00
10YR-24HR	7.00	47205.0	46512.2	692.7	-0.0	-0.00
10YR-24HR	7.08	48480.8	47787.8	692.9	-0.0	-0.00
10YR-24HR	7.17	49734.8	49041.7	693.1	-0.0	-0.00
10YR-24HR	7.25	51006.4	50313.2	693.3	-0.0	-0.00
10YR-24HR	7.33	52284.9	51591.5	693.4	0.0	0.00
10YR-24HR	7.42	53558.5	52864.9	693.6	0.0	0.00
10YR-24HR	7.50	54849.9	54156.1	693.7	0.0	0.00
10YR-24HR	7.58	56130.1	55436.2	693.9	0.0	0.00
10YR-24HR	7.67	57426.7	56732.8	694.0	0.0	0.00
10YR-24HR	7.75	58733.8	58039.7	694.1	0.0	0.00
10YR-24HR	7.83	60030.5	59336.2	694.2	0.0	0.00
10YR-24HR	7.92	61345.6	60651.2	694.3	0.0	0.00
10YR-24HR	8.00	62654.7	61960.2	694.5	0.0	0.00
10YR-24HR	8.08	63999.7	63303.0	696.8	0.0	0.00
10YR-24HR	8.10	64279.4	63582.0	697.5	0.0	0.00
10YR-24HR	8.12	64566.3	63867.6	698.6	0.0	0.00
10YR-24HR	8.13	64884.5	64184.9	699.6	0.0	0.00
10YR-24HR	8.15	65186.7	64486.3	700.4	0.0	0.00
10YR-24HR	8.17	65507.5	64806.1	701.3	0.0	0.00
10YR-24HR	8.18	65832.4	65130.3	702.1	0.0	0.00
10YR-24HR	8.20	66151.3	65448.5	702.8	0.0	0.00
10YR-24HR	8.22	66482.0	65778.6	703.4	0.0	0.00
10YR-24HR	8.23	66833.0	66129.0	704.0	0.0	0.00
10YR-24HR	8.25	67168.7	66464.2	704.5	0.0	0.00
10YR-24HR	8.27	67501.5	66796.5	705.0	0.0	0.00
10YR-24HR	8.28	67853.6	67148.2	705.5	0.0	0.00
10YR-24HR	8.30	68219.7	67513.8	705.9	0.0	0.00
10YR-24HR	8.32	68572.3	67866.0	706.3	0.0	0.00
10YR-24HR	8.33	68925.2	68218.5	706.7	0.0	0.00
10YR-24HR	8.35	69301.9	68594.8	707.1	0.0	0.00
10YR-24HR	8.37	69655.8	68948.9	706.9	0.0	0.00



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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-24HR	8.38	70011.6	69303.9	707.7	0.0	0.00
10YR-24HR	8.40	70384.5	69676.5	708.0	0.0	0.00
10YR-24HR	8.42	70766.8	70058.6	708.2	0.0	0.00
10YR-24HR	8.43	71129.3	70420.9	708.4	0.0	0.00
10YR-24HR	8.45	71517.0	70808.3	708.7	0.0	0.00
10YR-24HR	8.47	71883.2	71174.2	709.0	0.0	0.00
10YR-24HR	8.48	72260.2	71551.4	708.8	0.0	0.00
10YR-24HR	8.50	72652.8	71943.3	709.4	0.0	0.00
10YR-24HR	8.52	73044.6	72335.0	709.6	0.0	0.00
10YR-24HR	8.53	73409.8	72700.0	709.8	0.0	0.00
10YR-24HR	8.55	73792.4	73082.4	710.0	0.0	0.00
10YR-24HR	8.57	74180.7	73470.5	710.2	0.0	0.00
10YR-24HR	8.58	74591.9	73881.5	710.4	0.0	0.00
10YR-24HR	8.60	74970.1	74259.5	710.6	0.0	0.00
10YR-24HR	8.62	75359.0	74648.3	710.7	0.0	0.00
10YR-24HR	8.63	75765.9	75054.9	710.9	0.0	0.00
10YR-24HR	8.65	76162.9	75451.8	711.1	0.0	0.00
10YR-24HR	8.67	76526.5	75815.5	711.0	0.0	0.00
10YR-24HR	8.68	76937.6	76226.3	711.4	0.0	0.00
10YR-24HR	8.70	77336.5	76625.0	711.5	0.0	0.00
10YR-24HR	8.72	77725.2	77013.6	711.6	0.0	0.00
10YR-24HR	8.73	78150.4	77438.6	711.7	0.0	0.00
10YR-24HR	8.75	78518.6	77806.8	711.8	0.0	0.00
10YR-24HR	8.77	78948.5	78236.6	711.9	0.0	0.00
10YR-24HR	8.78	79337.2	78625.2	712.0	0.0	0.00
10YR-24HR	8.80	79718.0	79005.9	712.1	0.0	0.00
10YR-24HR	8.82	80129.9	79417.8	712.2	0.0	0.00
10YR-24HR	8.83	80527.2	79814.9	712.3	0.0	0.00
10YR-24HR	8.85	80925.8	80213.5	712.3	0.0	0.00
10YR-24HR	8.87	81336.7	80624.3	712.4	0.0	0.00
10YR-24HR	8.88	81741.8	81029.4	712.5	0.0	0.00
10YR-24HR	8.90	82134.0	81421.5	712.5	0.0	0.00
10YR-24HR	8.92	82585.5	81873.0	712.6	0.0	0.00
10YR-24HR	8.93	82949.4	82236.8	712.6	0.0	0.00
10YR-24HR	8.95	83385.2	82672.5	712.7	0.0	0.00
10YR-24HR	8.97	83778.8	83066.0	712.7	0.0	0.00
10YR-24HR	8.98	84170.1	83457.4	712.8	0.0	0.00
10YR-24HR	9.00	84566.6	83853.8	712.8	0.0	0.00
10YR-24HR	9.02	85001.9	84289.0	712.9	0.0	0.00
10YR-24HR	9.03	85380.5	84667.7	712.9	0.0	0.00
10YR-24HR	9.05	85794.9	85082.5	712.4	0.0	0.00
10YR-24HR	9.07	86211.4	85498.4	713.0	0.0	0.00
10YR-24HR	9.08	86615.9	85902.9	713.0	0.0	0.00
10YR-24HR	9.10	87034.8	86321.8	713.0	0.0	0.00
10YR-24HR	9.12	87420.3	86707.3	713.0	0.0	0.00
10YR-24HR	9.13	87837.0	87123.9	713.1	0.0	0.00
10YR-24HR	9.15	88248.6	87535.5	713.1	0.0	0.00
10YR-24HR	9.17	88676.2	87963.1	713.1	0.0	0.00
10YR-24HR	9.18	89072.3	88359.2	713.1	0.0	0.00
10YR-24HR	9.20	89465.6	88752.4	713.2	0.0	0.00
10YR-24HR	9.22	89884.3	89171.1	713.2	0.0	0.00
10YR-24HR	9.23	90281.0	89567.7	713.3	0.0	0.00
10YR-24HR	9.25	90727.4	90014.2	713.2	0.0	0.00
10YR-24HR	9.27	91097.2	90383.9	713.3	0.0	0.00
10YR-24HR	9.28	91523.0	90809.6	713.4	0.0	0.00
10YR-24HR	9.30	91928.2	91214.9	713.4	0.0	0.00
10YR-24HR	9.32	92335.7	91622.4	713.3	0.0	0.00
10YR-24HR	9.33	92760.8	92047.4	713.4	0.0	0.00
10YR-24HR	9.35	93174.6	92461.1	713.5	0.0	0.00
10YR-24HR	9.37	93552.7	92839.2	713.5	0.0	0.00
10YR-24HR	9.38	93981.1	93267.6	713.5	0.0	0.00
10YR-24HR	9.40	94382.7	93669.1	713.6	0.0	0.00
10YR-24HR	9.42	94821.0	94107.4	713.6	0.0	0.00
10YR-24HR	9.43	95196.6	94482.9	713.6	0.0	0.00
10YR-24HR	9.45	95624.1	94910.4	713.6	0.0	0.00
10YR-24HR	9.47	96031.0	95317.4	713.7	0.0	0.00
10YR-24HR	9.48	96440.2	95726.6	713.6	0.0	0.00
10YR-24HR	9.50	96867.0	96153.3	713.7	0.0	0.00
10YR-24HR	9.52	97282.4	96568.7	713.7	0.0	0.00
10YR-24HR	9.54	97712.0	96998.2	713.8	0.0	0.00
10YR-24HR	9.55	98085.8	97372.0	713.8	0.0	0.00
10YR-24HR	9.57	98493.7	97779.9	713.8	0.0	0.00
10YR-24HR	9.58	98909.7	98195.9	713.9	0.0	0.00
10YR-24HR	9.60	99327.5	98613.7	713.9	0.0	0.00
10YR-24HR	9.62	99727.9	99014.0	713.9	0.0	0.00
10YR-24HR	9.63	100156.4	99442.6	713.9	0.0	0.00
10YR-24HR	9.65	100581.1	99867.2	713.9	0.0	0.00
10YR-24HR	9.67	100975.5	100261.5	714.0	0.0	0.00
10YR-24HR	9.68	101392.5	100678.5	714.0	0.0	0.00
10YR-24HR	9.70	101817.6	101103.6	714.0	0.0	0.00
10YR-24HR	9.72	102230.9	101517.0	713.9	0.0	0.00
10YR-24HR	9.73	102632.2	101918.1	714.1	0.0	0.00
10YR-24HR	9.75	103057.8	102343.8	714.0	0.0	0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-24HR	9.77	103467.5	102753.4	714.1	0.0	0.00
10YR-24HR	9.78	103866.0	103151.9	714.1	0.0	0.00
10YR-24HR	9.80	104296.9	103582.7	714.2	0.0	0.00
10YR-24HR	9.82	104707.0	103992.8	714.2	0.0	0.00
10YR-24HR	9.83	105119.2	104405.1	714.1	0.0	0.00
10YR-24HR	9.85	105525.2	104810.9	714.2	0.0	0.00
10YR-24HR	9.87	105967.9	105253.6	714.3	0.0	0.00
10YR-24HR	9.89	106390.6	105676.3	714.3	0.0	0.00
10YR-24HR	9.90	106786.9	106072.5	714.3	0.0	0.00
10YR-24HR	9.92	107205.8	106491.5	714.3	0.0	0.00
10YR-24HR	9.93	107633.0	106918.6	714.4	0.0	0.00
10YR-24HR	9.95	108015.9	107301.8	714.2	0.0	0.00
10YR-24HR	9.97	108436.9	107722.5	714.4	0.0	0.00
10YR-24HR	9.98	108856.4	108142.0	714.4	0.0	0.00
10YR-24HR	10.00	109290.2	108575.7	714.5	0.0	0.00
10YR-24HR	10.02	109687.7	108973.1	714.6	0.0	0.00
10YR-24HR	10.03	110110.0	109395.1	714.9	0.0	0.00
10YR-24HR	10.05	110518.9	109803.6	715.3	0.0	0.00
10YR-24HR	10.07	110942.3	110226.3	716.0	0.0	0.00
10YR-24HR	10.08	111388.2	110671.3	716.9	0.0	0.00
10YR-24HR	10.10	111813.4	111095.4	718.0	0.0	0.00
10YR-24HR	10.12	112266.0	111546.9	719.1	0.0	0.00
10YR-24HR	10.13	112742.6	112022.4	720.2	0.0	0.00
10YR-24HR	10.15	113182.4	112461.2	721.2	0.0	0.00
10YR-24HR	10.17	113677.0	112954.9	722.1	0.0	0.00
10YR-24HR	10.18	114141.6	113418.6	723.0	0.0	0.00
10YR-24HR	10.20	114623.8	113900.1	723.8	0.0	0.00
10YR-24HR	10.22	115137.9	114413.4	724.5	0.0	0.00
10YR-24HR	10.23	115618.6	114893.5	725.1	0.0	0.00
10YR-24HR	10.25	116103.7	115378.4	725.3	0.0	0.00
10YR-24HR	10.27	116632.2	115905.8	726.3	0.0	0.00
10YR-24HR	10.28	117137.7	116410.9	726.8	0.0	0.00
10YR-24HR	10.30	117634.5	116907.2	727.3	0.0	0.00
10YR-24HR	10.32	118180.2	117452.4	727.8	0.0	0.00
10YR-24HR	10.33	118693.6	117965.3	728.2	0.0	0.00
10YR-24HR	10.35	119212.4	118483.8	728.6	0.0	0.00
10YR-24HR	10.37	119753.0	119024.3	728.8	0.0	0.00
10YR-24HR	10.38	120241.4	119512.0	729.3	0.0	0.00
10YR-24HR	10.40	120775.5	120045.9	729.6	0.0	0.00
10YR-24HR	10.42	121343.0	120613.0	730.0	0.0	0.00
10YR-24HR	10.44	121886.8	121156.6	730.2	0.0	0.00
10YR-24HR	10.45	122406.6	121676.1	730.5	0.0	0.00
10YR-24HR	10.47	122931.3	122200.5	730.8	0.0	0.00
10YR-24HR	10.48	123450.4	122719.4	731.0	0.0	0.00
10YR-24HR	10.50	124027.9	123296.6	731.2	0.0	0.00
10YR-24HR	10.52	124567.7	123836.2	731.5	0.0	0.00
10YR-24HR	10.54	125128.9	124397.2	731.7	0.0	0.00
10YR-24HR	10.55	125614.5	124882.6	731.9	0.0	0.00
10YR-24HR	10.57	126166.8	125434.7	732.1	0.0	0.00
10YR-24HR	10.58	126731.2	125998.9	732.3	0.0	0.00
10YR-24HR	10.60	127305.1	126572.5	732.5	0.0	0.00
10YR-24HR	10.62	127823.4	127090.8	732.6	0.0	0.00
10YR-24HR	10.63	128379.8	127646.9	732.8	0.0	0.00
10YR-24HR	10.65	128984.4	128251.3	733.0	0.0	0.00
10YR-24HR	10.67	129556.6	128823.4	733.2	0.0	0.00
10YR-24HR	10.68	130051.2	129317.9	733.3	0.0	0.00
10YR-24HR	10.70	130613.3	129879.8	733.4	0.0	0.00
10YR-24HR	10.72	131187.1	130453.5	733.6	0.0	0.00
10YR-24HR	10.74	131769.9	131036.2	733.7	0.0	0.00
10YR-24HR	10.75	132295.9	131562.1	733.8	0.0	0.00
10YR-24HR	10.77	132844.4	132110.5	733.9	0.0	0.00
10YR-24HR	10.78	133401.8	132667.8	734.0	0.0	0.00
10YR-24HR	10.80	133968.4	133234.3	734.1	0.0	0.00
10YR-24HR	10.82	134541.0	133806.9	734.2	0.0	0.00
10YR-24HR	10.84	135138.1	134403.9	734.2	0.0	0.00
10YR-24HR	10.85	135657.2	134923.0	734.2	0.0	0.00
10YR-24HR	10.87	136217.7	135483.3	734.4	0.0	0.00
10YR-24HR	10.88	136764.9	136030.5	734.4	0.0	0.00
10YR-24HR	10.90	137329.6	136595.2	734.4	0.0	0.00
10YR-24HR	10.92	137922.1	137187.5	734.6	0.0	0.00
10YR-24HR	10.93	138497.8	137763.2	734.6	0.0	0.00
10YR-24HR	10.95	139097.8	138363.1	734.6	0.0	0.00
10YR-24HR	10.97	139616.4	138881.7	734.7	0.0	0.00
10YR-24HR	10.98	140169.9	139435.1	734.7	0.0	0.00
10YR-24HR	11.00	140730.1	139995.3	734.8	0.0	0.00
10YR-24HR	11.02	141293.9	140558.9	734.9	0.0	0.00
10YR-24HR	11.03	141880.3	141145.1	735.3	0.0	0.00
10YR-24HR	11.05	142487.5	141752.1	735.4	0.0	0.00
10YR-24HR	11.07	143024.7	142288.2	736.5	0.0	0.00
10YR-24HR	11.08	143590.5	142853.0	737.5	0.0	0.00
10YR-24HR	11.10	144221.7	143483.0	738.7	0.0	0.00
10YR-24HR	11.12	144803.8	144063.9	739.8	0.0	0.00
10YR-24HR	11.13	145408.5	144667.5	741.0	0.0	0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-24HR	11.15	146041.9	145299.9	742.1	0.0	0.00
10YR-24HR	11.17	146631.3	145888.3	743.0	0.0	0.00
10YR-24HR	11.19	147337.9	146593.9	744.0	0.0	0.00
10YR-24HR	11.20	147916.5	147171.7	744.8	0.0	0.00
10YR-24HR	11.22	148538.6	147793.2	745.4	0.0	0.00
10YR-24HR	11.24	149263.6	148517.3	746.2	0.0	0.00
10YR-24HR	11.25	149855.6	149109.0	746.6	0.0	0.00
10YR-24HR	11.27	150526.8	149779.4	747.4	0.0	0.00
10YR-24HR	11.29	151214.2	150466.2	748.0	0.0	0.00
10YR-24HR	11.30	151837.0	151088.5	748.5	0.0	0.00
10YR-24HR	11.32	152543.8	151794.8	749.0	0.0	0.00
10YR-24HR	11.33	153142.3	152393.0	749.3	0.0	0.00
10YR-24HR	11.35	153896.2	153146.4	749.8	0.0	0.00
10YR-24HR	11.37	154510.1	153759.9	750.2	0.0	0.00
10YR-24HR	11.39	155234.1	154483.7	750.4	0.0	0.00
10YR-24HR	11.40	155893.8	155142.8	750.9	0.0	0.00
10YR-24HR	11.42	156576.1	155824.9	751.2	0.0	0.00
10YR-24HR	11.44	157328.1	156576.6	751.4	0.0	0.00
10YR-24HR	11.45	157894.9	157143.1	751.8	0.0	0.00
10YR-24HR	11.47	158628.9	157876.8	752.0	0.0	0.00
10YR-24HR	11.48	159318.8	158566.5	752.3	0.0	0.00
10YR-24HR	11.50	160052.5	159300.0	752.6	0.0	0.00
10YR-24HR	11.52	160761.8	160009.0	752.7	0.0	0.00
10YR-24HR	11.54	161420.0	160667.0	753.0	0.0	0.00
10YR-24HR	11.55	162137.6	161384.4	753.3	0.0	0.00
10YR-24HR	11.57	162772.2	162018.7	753.4	0.0	0.00
10YR-24HR	11.58	163487.4	162733.9	753.5	0.0	0.00
10YR-24HR	11.60	164214.7	163460.9	753.9	0.0	0.00
10YR-24HR	11.62	164874.2	164120.2	754.0	0.0	0.00
10YR-24HR	11.64	165620.0	164865.8	754.2	-0.0	-0.00
10YR-24HR	11.65	166260.4	165506.2	754.2	-0.0	-0.00
10YR-24HR	11.67	166996.0	166241.4	754.5	-0.0	-0.00
10YR-24HR	11.68	167667.3	166912.6	754.7	-0.0	-0.00
10YR-24HR	11.70	168404.7	167649.9	754.8	-0.0	-0.00
10YR-24HR	11.72	169177.5	168422.6	755.0	-0.0	-0.00
10YR-24HR	11.73	169822.3	169067.2	755.1	0.0	0.00
10YR-24HR	11.75	170602.2	169847.1	755.1	-0.0	-0.00
10YR-24HR	11.77	171275.2	170519.9	755.3	-0.0	-0.00
10YR-24HR	11.79	172008.1	171252.7	755.4	0.0	0.00
10YR-24HR	11.80	172655.3	171899.9	755.5	0.0	0.00
10YR-24HR	11.82	173384.0	172628.4	755.6	-0.0	-0.00
10YR-24HR	11.84	174134.8	173379.1	755.6	-0.0	-0.00
10YR-24HR	11.85	174848.2	174092.5	755.7	-0.0	-0.00
10YR-24HR	11.87	175497.2	174741.4	755.8	-0.0	-0.00
10YR-24HR	11.88	176200.7	175444.8	755.8	-0.0	-0.00
10YR-24HR	11.90	176937.0	176181.2	755.8	-0.0	-0.00
10YR-24HR	11.92	177630.3	176874.4	756.0	-0.0	-0.00
10YR-24HR	11.93	178345.7	177589.7	756.0	-0.0	-0.00
10YR-24HR	11.95	179131.8	178375.7	756.1	-0.0	-0.00
10YR-24HR	11.97	179809.7	179053.8	755.9	-0.0	-0.00
10YR-24HR	11.98	180500.8	179744.7	756.1	-0.0	-0.00
10YR-24HR	12.00	181212.7	180456.6	756.1	-0.0	-0.00
10YR-24HR	12.02	181949.7	181193.8	755.9	-0.0	-0.00
10YR-24HR	12.04	182705.5	181950.1	755.4	-0.0	-0.00
10YR-24HR	12.05	183456.3	182701.9	754.4	-0.0	-0.00
10YR-24HR	12.07	184072.6	183319.0	753.7	-0.0	-0.00
10YR-24HR	12.09	184806.2	184054.2	752.0	-0.0	-0.00
10YR-24HR	12.10	185424.0	184673.7	750.4	-0.0	-0.00
10YR-24HR	12.12	186121.9	185373.2	748.6	-0.0	-0.00
10YR-24HR	12.13	186757.0	186010.2	746.8	-0.0	-0.00
10YR-24HR	12.15	187439.2	186693.8	745.5	-0.0	-0.00
10YR-24HR	12.17	188052.4	187308.6	743.8	-0.0	-0.00
10YR-24HR	12.18	188656.4	187913.4	743.0	-0.0	-0.00
10YR-24HR	12.20	189287.2	188546.0	741.2	-0.0	-0.00
10YR-24HR	12.22	189874.5	189134.3	740.2	-0.0	-0.00
10YR-24HR	12.23	190455.1	189715.8	739.2	-0.0	-0.00
10YR-24HR	12.25	191118.6	190380.3	738.3	-0.0	-0.00
10YR-24HR	12.27	191659.3	190921.9	737.5	0.0	0.00
10YR-24HR	12.28	192233.0	191496.3	736.7	0.0	0.00
10YR-24HR	12.30	192804.2	192068.2	736.0	-0.0	-0.00
10YR-24HR	12.32	193391.3	192656.0	735.3	-0.0	-0.00
10YR-24HR	12.33	193955.1	193220.4	734.7	-0.0	-0.00
10YR-24HR	12.35	194499.1	193765.0	734.2	-0.0	-0.00
10YR-24HR	12.37	195039.5	194305.8	733.7	-0.0	-0.00
10YR-24HR	12.38	195593.2	194860.0	733.2	-0.0	-0.00
10YR-24HR	12.40	196142.1	195409.4	732.7	-0.0	-0.00
10YR-24HR	12.42	196725.7	195993.4	732.3	-0.0	-0.00
10YR-24HR	12.43	197266.7	196534.7	731.9	-0.0	-0.00
10YR-24HR	12.45	197824.7	197093.0	731.7	-0.0	-0.00
10YR-24HR	12.47	198324.5	197593.3	731.3	-0.0	-0.00
10YR-24HR	12.48	198871.0	198140.1	731.0	-0.0	-0.00
10YR-24HR	12.50	199394.7	198664.1	730.6	-0.0	-0.00
10YR-24HR	12.52	199923.2	199192.8	730.3	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-24HR	12.53	200446.2	199716.2	730.1	-0.0	-0.00
10YR-24HR	12.55	201019.6	200289.8	729.8	-0.0	-0.00
10YR-24HR	12.57	201504.1	200774.6	729.5	-0.0	-0.00
10YR-24HR	12.59	202075.8	201346.6	729.3	-0.0	-0.00
10YR-24HR	12.60	202588.6	201859.5	729.1	-0.0	-0.00
10YR-24HR	12.62	203106.1	202377.1	728.9	-0.0	-0.00
10YR-24HR	12.63	203594.3	202865.7	728.6	-0.0	-0.00
10YR-24HR	12.65	204126.4	203398.0	728.4	-0.0	-0.00
10YR-24HR	12.67	204664.5	203936.3	728.2	-0.0	-0.00
10YR-24HR	12.68	205131.6	204403.5	728.1	-0.0	-0.00
10YR-24HR	12.70	205659.7	204931.7	727.9	-0.0	-0.00
10YR-24HR	12.72	206184.6	205456.9	727.8	-0.0	-0.00
10YR-24HR	12.73	206680.8	205953.2	727.7	-0.0	-0.00
10YR-24HR	12.75	207238.0	206510.5	727.5	-0.0	-0.00
10YR-24HR	12.77	207763.3	207035.3	728.1	-0.0	-0.00
10YR-24HR	12.78	208208.3	207481.0	727.3	-0.0	-0.00
10YR-24HR	12.80	208710.2	207982.9	727.3	-0.0	-0.00
10YR-24HR	12.82	209262.0	208534.8	727.2	-0.0	-0.00
10YR-24HR	12.83	209729.6	209002.4	727.1	-0.0	-0.00
10YR-24HR	12.85	210282.7	209555.6	727.1	-0.0	-0.00
10YR-24HR	12.87	210750.7	210023.7	727.0	-0.0	-0.00
10YR-24HR	12.88	211245.6	210518.7	727.0	-0.0	-0.00
10YR-24HR	12.90	211785.4	211058.4	726.9	-0.0	-0.00
10YR-24HR	12.92	212275.8	211548.9	726.9	-0.0	-0.00
10YR-24HR	12.93	212769.6	212042.7	726.9	-0.0	-0.00
10YR-24HR	12.95	213289.0	212562.2	726.9	-0.0	-0.00
10YR-24HR	12.97	213827.9	213101.1	726.8	-0.0	-0.00
10YR-24HR	12.99	214333.1	213606.2	726.9	-0.0	-0.00
10YR-24HR	13.00	214784.3	214057.5	726.8	-0.0	-0.00
10YR-24HR	13.02	215283.7	214556.9	726.8	-0.0	-0.00
10YR-24HR	13.04	215845.7	215119.1	726.6	-0.0	-0.00
10YR-24HR	13.05	216323.9	215597.3	726.6	-0.0	-0.00
10YR-24HR	13.07	216821.3	216095.1	726.2	-0.0	-0.00
10YR-24HR	13.08	217289.1	216563.5	725.6	-0.0	-0.00
10YR-24HR	13.10	217796.3	217071.2	725.1	-0.0	-0.00
10YR-24HR	13.12	218306.3	217581.7	724.6	-0.0	-0.00
10YR-24HR	13.13	218783.7	218059.7	724.0	-0.0	-0.00
10YR-24HR	13.15	219254.2	218530.7	723.5	-0.0	-0.00
10YR-24HR	13.17	219717.5	218994.5	723.1	-0.0	-0.00
10YR-24HR	13.18	220223.6	219500.6	723.1	-0.0	-0.00
10YR-24HR	13.20	220684.4	219962.2	722.2	-0.0	-0.00
10YR-24HR	13.22	221157.2	220435.3	721.9	-0.0	-0.00
10YR-24HR	13.24	221643.3	220921.7	721.6	-0.0	-0.00
10YR-24HR	13.25	222084.4	221363.1	721.3	-0.0	-0.00
10YR-24HR	13.27	222532.6	221811.5	721.1	-0.0	-0.00
10YR-24HR	13.29	223034.7	222313.7	720.9	-0.0	-0.00
10YR-24HR	13.30	223445.9	222725.3	720.6	-0.0	-0.00
10YR-24HR	13.32	223924.5	223204.1	720.4	-0.0	-0.00
10YR-24HR	13.33	224367.7	223647.5	720.2	-0.0	-0.00
10YR-24HR	13.35	224824.2	224104.2	720.0	-0.0	-0.00
10YR-24HR	13.37	225266.8	224546.9	719.9	-0.0	-0.00
10YR-24HR	13.38	225748.4	225028.7	719.7	-0.0	-0.00
10YR-24HR	13.40	226159.9	225440.3	719.6	-0.0	-0.00
10YR-24HR	13.42	226620.2	225900.7	719.4	-0.0	-0.00
10YR-24HR	13.43	227098.6	226379.3	719.3	-0.0	-0.00
10YR-24HR	13.45	227543.5	226824.2	719.4	-0.0	-0.00
10YR-24HR	13.47	227965.1	227246.0	719.1	-0.0	-0.00
10YR-24HR	13.48	228397.7	227678.7	719.0	-0.0	-0.00
10YR-24HR	13.50	228894.2	228175.3	718.9	-0.0	-0.00
10YR-24HR	13.52	229286.3	228567.5	718.8	-0.0	-0.00
10YR-24HR	13.53	229746.4	229027.6	718.7	-0.0	-0.00
10YR-24HR	13.55	230184.7	229466.1	718.6	-0.0	-0.00
10YR-24HR	13.57	230635.3	229916.7	718.6	-0.0	-0.00
10YR-24HR	13.58	231068.7	230350.2	718.5	-0.0	-0.00
10YR-24HR	13.60	231506.9	230788.5	718.4	-0.0	-0.00
10YR-24HR	13.62	231942.0	231223.6	718.4	-0.0	-0.00
10YR-24HR	13.63	232420.2	231701.9	718.3	-0.0	-0.00
10YR-24HR	13.65	232825.3	232107.1	718.2	-0.0	-0.00
10YR-24HR	13.67	233270.2	232552.0	718.2	-0.0	-0.00
10YR-24HR	13.68	233713.9	232995.8	718.1	-0.0	-0.00
10YR-24HR	13.70	234158.9	233440.8	718.1	-0.0	-0.00
10YR-24HR	13.72	234600.9	233882.8	718.0	-0.0	-0.00
10YR-24HR	13.74	235057.4	234339.3	718.0	-0.0	-0.00
10YR-24HR	13.75	235461.2	234743.3	718.0	-0.0	-0.00
10YR-24HR	13.77	235889.4	235171.5	717.9	-0.0	-0.00
10YR-24HR	13.78	236333.0	235615.1	717.9	-0.0	-0.00
10YR-24HR	13.80	236773.7	236055.8	717.9	-0.0	-0.00
10YR-24HR	13.82	237229.0	236511.1	717.9	-0.0	-0.00
10YR-24HR	13.83	237647.9	236930.0	717.8	-0.0	-0.00
10YR-24HR	13.85	238081.3	237363.4	717.8	-0.0	-0.00
10YR-24HR	13.87	238529.8	237812.0	717.8	-0.0	-0.00
10YR-24HR	13.88	238942.2	238224.4	717.8	-0.0	-0.00
10YR-24HR	13.90	239398.6	238680.8	717.8	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-24HR	13.92	239840.0	239122.2	717.8	-0.0	-0.00
10YR-24HR	13.93	240262.8	239545.0	717.8	-0.0	-0.00
10YR-24HR	13.95	240688.1	239970.3	717.8	-0.0	-0.00
10YR-24HR	13.97	241141.2	240423.5	717.8	-0.0	-0.00
10YR-24HR	13.98	241572.4	240854.6	717.8	-0.0	-0.00
10YR-24HR	14.00	242005.7	241287.9	717.8	-0.0	-0.00
10YR-24HR	14.02	242436.0	241718.2	717.8	-0.0	-0.00
10YR-24HR	14.03	242892.6	242174.8	717.8	-0.0	-0.00
10YR-24HR	14.05	243325.9	242608.1	717.8	-0.0	-0.00
10YR-24HR	14.07	243739.1	243021.3	717.8	-0.0	-0.00
10YR-24HR	14.08	244171.9	243454.2	717.8	-0.0	-0.00
10YR-24HR	14.10	244625.0	243907.3	717.8	-0.0	-0.00
10YR-24HR	14.12	245047.7	244329.9	717.8	-0.0	-0.00
10YR-24HR	14.13	245486.8	244769.0	717.8	-0.0	-0.00
10YR-24HR	14.15	245919.5	245201.8	717.8	-0.0	-0.00
10YR-24HR	14.17	246367.4	245649.7	717.8	-0.0	-0.00
10YR-24HR	14.19	246832.2	246114.5	717.8	-0.0	-0.00
10YR-24HR	14.20	247234.1	246516.3	717.7	-0.0	-0.00
10YR-24HR	14.22	247687.0	246969.2	717.7	-0.0	-0.00
10YR-24HR	14.23	248109.5	247391.7	717.7	-0.0	-0.00
10YR-24HR	14.25	248563.7	247845.5	718.1	-0.0	-0.00
10YR-24HR	14.27	248977.7	248259.9	717.8	-0.0	-0.00
10YR-24HR	14.28	249400.2	248682.3	717.9	0.0	0.00
10YR-24HR	14.30	249867.0	249149.3	717.8	-0.0	-0.00
10YR-24HR	14.32	250289.5	249571.6	717.9	-0.0	-0.00
10YR-24HR	14.33	250714.1	249996.3	717.8	-0.0	-0.00
10YR-24HR	14.35	251178.8	250461.0	717.8	-0.0	-0.00
10YR-24HR	14.37	251598.4	250880.6	717.8	-0.0	-0.00
10YR-24HR	14.38	252012.4	251294.7	717.8	-0.0	-0.00
10YR-24HR	14.40	252487.7	251770.0	717.8	-0.0	-0.00
10YR-24HR	14.42	252891.2	252173.3	718.0	-0.0	-0.00
10YR-24HR	14.43	253356.0	252638.2	717.8	-0.0	-0.00
10YR-24HR	14.45	253780.7	253062.7	717.9	-0.0	-0.00
10YR-24HR	14.47	254203.2	253485.4	717.8	-0.0	-0.00
10YR-24HR	14.48	254636.3	253918.2	718.1	-0.0	-0.00
10YR-24HR	14.50	255070.7	254352.9	717.8	-0.0	-0.00
10YR-24HR	14.52	255501.7	254784.0	717.8	-0.0	-0.00
10YR-24HR	14.53	255945.5	255227.7	717.8	-0.0	-0.00
10YR-24HR	14.55	256369.3	255651.5	717.8	-0.0	-0.00
10YR-24HR	14.57	256808.9	256091.1	717.8	-0.0	-0.00
10YR-24HR	14.58	257265.3	256547.5	717.8	-0.0	-0.00
10YR-24HR	14.60	257687.9	256970.2	717.8	-0.0	-0.00
10YR-24HR	14.62	258121.2	257403.4	717.8	-0.0	-0.00
10YR-24HR	14.63	258577.7	257859.8	717.8	-0.0	-0.00
10YR-24HR	14.65	258992.3	258274.5	717.8	-0.0	-0.00
10YR-24HR	14.67	259445.4	258727.6	717.8	-0.0	-0.00
10YR-24HR	14.68	259876.6	259158.8	717.8	-0.0	-0.00
10YR-24HR	14.70	260309.9	259592.1	717.8	-0.0	-0.00
10YR-24HR	14.72	260726.7	260008.9	717.8	-0.0	-0.00
10YR-24HR	14.73	261167.8	260450.0	717.8	-0.0	-0.00
10YR-24HR	14.75	261611.5	260893.7	717.8	-0.0	-0.00
10YR-24HR	14.77	262052.9	261335.1	717.8	-0.0	-0.00
10YR-24HR	14.78	262475.8	261757.9	717.8	-0.0	-0.00
10YR-24HR	14.80	262951.4	262233.5	717.9	-0.0	-0.00
10YR-24HR	14.82	263344.3	262626.5	717.8	-0.0	-0.00
10YR-24HR	14.83	263785.8	263067.9	717.8	-0.0	-0.00
10YR-24HR	14.85	264261.5	263543.7	717.8	-0.0	-0.00
10YR-24HR	14.87	264684.4	263966.8	717.7	-0.0	-0.00
10YR-24HR	14.88	265096.8	264378.9	717.8	-0.0	-0.00
10YR-24HR	14.90	265548.8	264831.0	717.8	0.0	0.00
10YR-24HR	14.92	265980.2	265262.4	717.9	0.0	0.00
10YR-24HR	14.93	266424.4	265706.5	717.9	0.0	0.00
10YR-24HR	14.95	266828.3	266110.7	717.7	0.0	0.00
10YR-24HR	14.97	267293.7	266575.8	717.9	-0.0	-0.00
10YR-24HR	14.98	267718.8	267001.2	717.7	-0.0	-0.00
10YR-24HR	15.00	268141.9	267424.0	717.9	-0.0	-0.00
10YR-24HR	15.02	268575.2	267857.7	717.5	0.0	0.00
10YR-24HR	15.03	269030.8	268313.2	717.7	0.0	0.00
10YR-24HR	15.05	269461.8	268744.8	717.0	0.0	0.00
10YR-24HR	15.07	269879.4	269162.3	717.1	0.0	0.00
10YR-24HR	15.08	270311.1	269594.5	716.6	0.0	0.00
10YR-24HR	15.10	270746.8	270030.7	716.1	0.0	0.00
10YR-24HR	15.12	271164.2	270448.7	715.5	0.0	0.00
10YR-24HR	15.13	271563.9	270848.9	715.0	0.0	0.00
10YR-24HR	15.15	271994.9	271280.4	714.5	0.0	0.00
10YR-24HR	15.17	272377.6	271663.5	714.1	0.0	0.00
10YR-24HR	15.18	272791.9	272078.3	713.6	-0.0	-0.00
10YR-24HR	15.20	273181.3	272468.0	713.3	0.0	0.00
10YR-24HR	15.22	273591.2	272878.1	713.0	0.0	0.00
10YR-24HR	15.23	273987.8	273275.2	712.6	0.0	0.00
10YR-24HR	15.25	274397.3	273685.0	712.3	0.0	0.00
10YR-24HR	15.27	274777.4	274065.1	712.3	0.0	0.00
10YR-24HR	15.28	275168.5	274456.7	711.8	0.0	0.00



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10YR-24HR	15.30	275554.0	274842.4	711.6	0.0	0.00
10YR-24HR	15.32	275943.8	275232.3	711.5	0.0	0.00
10YR-24HR	15.33	276319.5	275608.3	711.2	0.0	0.00
10YR-24HR	15.35	276718.2	276007.2	711.0	0.0	0.00
10YR-24HR	15.37	277096.2	276385.3	710.9	0.0	0.00
10YR-24HR	15.38	277464.3	276753.6	710.7	-0.0	-0.00
10YR-24HR	15.40	277855.6	277145.0	710.5	-0.0	-0.00
10YR-24HR	15.42	278215.5	277505.1	710.4	0.0	0.00
10YR-24HR	15.43	278602.5	277892.2	710.3	-0.0	-0.00
10YR-24HR	15.45	278970.9	278260.7	710.2	-0.0	-0.00
10YR-24HR	15.47	279379.3	278669.0	710.3	0.0	0.00
10YR-24HR	15.48	279722.8	279012.9	710.0	0.0	0.00
10YR-24HR	15.50	280122.2	279412.4	709.9	0.0	0.00
10YR-24HR	15.52	280470.4	279760.6	709.8	0.0	0.00
10YR-24HR	15.53	280867.3	280157.7	709.7	0.0	0.00
10YR-24HR	15.55	281242.7	280533.1	709.6	0.0	0.00
10YR-24HR	15.57	281595.2	280885.7	709.5	-0.0	-0.00
10YR-24HR	15.58	281957.0	281247.5	709.4	-0.0	-0.00
10YR-24HR	15.60	282340.8	281631.5	709.4	-0.0	-0.00
10YR-24HR	15.62	282706.5	281997.3	709.3	-0.0	-0.00
10YR-24HR	15.63	283068.9	282359.7	709.2	-0.0	-0.00
10YR-24HR	15.65	283443.1	282733.9	709.2	-0.0	-0.00
10YR-24HR	15.67	283814.4	283105.3	709.1	-0.0	-0.00
10YR-24HR	15.68	284185.4	283476.3	709.0	-0.0	-0.00
10YR-24HR	15.70	284557.3	283848.3	709.0	-0.0	-0.00
10YR-24HR	15.72	284917.5	284208.6	708.9	-0.0	-0.00
10YR-24HR	15.73	285289.6	284580.7	708.9	-0.0	-0.00
10YR-24HR	15.75	285659.0	284950.2	708.9	-0.0	-0.00
10YR-24HR	15.77	286019.2	285310.3	708.8	-0.0	-0.00
10YR-24HR	15.78	286382.4	285673.6	708.8	-0.0	-0.00
10YR-24HR	15.80	286758.3	286049.5	708.8	-0.0	-0.00
10YR-24HR	15.82	287114.1	286405.3	708.7	-0.0	-0.00
10YR-24HR	15.83	287496.6	286787.8	708.7	-0.0	-0.00
10YR-24HR	15.85	287835.1	287126.3	708.7	-0.0	-0.00
10YR-24HR	15.87	288227.2	287518.5	708.7	-0.0	-0.00
10YR-24HR	15.88	288578.1	287869.4	708.7	-0.0	-0.00
10YR-24HR	15.90	288929.0	288220.3	708.7	-0.0	-0.00
10YR-24HR	15.92	289292.5	288583.8	708.7	-0.0	-0.00
10YR-24HR	15.93	289665.8	288957.1	708.6	-0.0	-0.00
10YR-24HR	15.95	290029.1	289320.5	708.6	-0.0	-0.00
10YR-24HR	15.97	290402.3	289693.7	708.6	-0.0	-0.00
10YR-24HR	15.98	290765.6	290056.9	708.6	-0.0	-0.00
10YR-24HR	16.00	291110.4	290401.8	708.6	-0.0	-0.00
10YR-24HR	16.08	292911.7	292204.3	707.4	-0.0	-0.00
10YR-24HR	16.17	294634.6	293929.7	704.9	-0.0	-0.00
10YR-24HR	16.25	296276.8	295573.5	703.2	-0.0	-0.00
10YR-24HR	16.33	297860.1	297158.0	702.1	-0.0	-0.00
10YR-24HR	16.42	299403.2	298701.9	701.3	-0.0	-0.00
10YR-24HR	16.50	300924.6	300223.8	700.8	-0.0	-0.00
10YR-24HR	16.58	302436.2	301735.8	700.4	-0.0	-0.00
10YR-24HR	16.67	303916.8	303216.7	700.0	-0.0	-0.00
10YR-24HR	16.75	305398.2	304698.0	700.2	-0.0	-0.00
10YR-24HR	16.83	306877.9	306178.2	699.7	-0.0	-0.00
10YR-24HR	16.92	308326.6	307627.0	699.6	-0.0	-0.00
10YR-24HR	17.00	309806.9	309107.3	699.6	-0.0	-0.00
10YR-24HR	17.08	311253.7	310553.3	700.4	-0.0	-0.00
10YR-24HR	17.17	312714.6	312015.0	699.5	-0.0	-0.00
10YR-24HR	17.25	314181.1	313481.5	699.6	-0.0	-0.00
10YR-24HR	17.33	315640.4	314940.9	699.5	-0.0	-0.00
10YR-24HR	17.42	317109.0	316409.5	699.5	-0.0	-0.00
10YR-24HR	17.50	318579.2	317879.6	699.6	-0.0	-0.00
10YR-24HR	17.58	320027.4	319327.9	699.5	-0.0	-0.00
10YR-24HR	17.67	321481.4	320781.8	699.6	-0.0	-0.00
10YR-24HR	17.75	322962.6	322262.7	699.9	-0.0	-0.00
10YR-24HR	17.83	324406.7	323707.1	699.5	-0.0	-0.00
10YR-24HR	17.92	325872.7	325173.2	699.5	-0.0	-0.00
10YR-24HR	18.00	327339.4	326639.8	699.5	-0.0	-0.00
10YR-24HR	18.08	328795.5	328095.9	699.5	0.0	0.00
10YR-24HR	18.17	330250.6	329551.1	699.6	0.0	0.00
10YR-24HR	18.25	331714.5	331014.9	699.6	0.0	0.00
10YR-24HR	18.33	333179.2	332479.7	699.6	0.0	0.00
10YR-24HR	18.42	334633.2	333933.8	699.5	0.0	0.00
10YR-24HR	18.50	336093.9	335394.3	699.6	0.0	0.00
10YR-24HR	18.58	337570.6	336871.0	699.6	0.0	0.00
10YR-24HR	18.67	339020.7	338321.1	699.6	0.0	0.00
10YR-24HR	18.75	340495.7	339796.1	699.6	0.0	0.00
10YR-24HR	18.83	341949.8	341250.2	699.6	0.0	0.00
10YR-24HR	18.92	343407.2	342707.6	699.6	0.0	0.00
10YR-24HR	19.00	344868.6	344169.0	699.6	0.0	0.00
10YR-24HR	19.08	346308.5	345610.0	698.5	0.0	0.00
10YR-24HR	19.17	347767.5	346980.6	695.9	0.0	0.00
10YR-24HR	19.25	348949.5	348255.3	694.3	0.0	0.00
10YR-24HR	19.33	350187.8	349494.5	693.3	0.0	0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-24HR	19.42	351367.2	350674.8	692.4	0.0	0.00
10YR-24HR	19.50	352527.4	351835.3	692.1	0.0	0.00
10YR-24HR	19.58	353666.2	352974.7	691.5	0.0	0.00
10YR-24HR	19.67	354792.8	354101.6	691.1	0.0	0.00
10YR-24HR	19.75	355916.7	355225.7	690.9	0.0	0.00
10YR-24HR	19.83	357020.1	356329.3	690.8	0.0	0.00
10YR-24HR	19.92	358121.6	357430.9	690.7	0.0	0.00
10YR-24HR	20.00	359227.0	358536.3	690.7	0.0	0.00
10YR-24HR	20.08	360329.0	359638.4	690.7	0.0	0.00
10YR-24HR	20.17	361421.9	360731.1	690.8	0.0	0.00
10YR-24HR	20.25	362519.0	361828.4	690.6	0.0	0.00
10YR-24HR	20.33	363620.6	362929.7	690.9	0.0	0.00
10YR-24HR	20.42	364720.6	364030.0	690.6	0.0	0.00
10YR-24HR	20.50	365822.3	365131.6	690.6	0.0	0.00
10YR-24HR	20.58	366924.8	366234.2	690.6	0.0	0.00
10YR-24HR	20.67	368017.8	367327.2	690.6	0.0	0.00
10YR-24HR	20.75	369114.1	368423.5	690.6	0.0	0.00
10YR-24HR	20.83	370212.0	369521.4	690.6	0.0	0.00
10YR-24HR	20.92	371316.4	370625.8	690.6	0.0	0.00
10YR-24HR	21.00	372412.7	371722.0	690.6	0.0	0.00
10YR-24HR	21.08	373481.9	372792.5	689.4	0.0	0.00
10YR-24HR	21.17	374483.5	373796.4	687.1	0.0	0.00
10YR-24HR	21.25	375395.2	374709.7	685.4	0.0	0.00
10YR-24HR	21.33	376250.6	375566.2	684.4	0.0	0.00
10YR-24HR	21.42	377071.6	376388.0	683.7	0.0	0.00
10YR-24HR	21.50	377867.6	377184.2	683.4	0.0	0.00
10YR-24HR	21.58	378641.2	377958.5	682.7	-0.0	-0.00
10YR-24HR	21.67	379397.6	378715.1	682.4	-0.0	-0.00
10YR-24HR	21.75	380145.7	379463.5	682.2	-0.0	-0.00
10YR-24HR	21.83	380886.7	380204.7	682.1	0.0	0.00
10YR-24HR	21.92	381624.0	380942.0	682.0	0.0	0.00
10YR-24HR	22.00	382359.0	381677.0	682.0	0.0	0.00
10YR-24HR	22.08	383063.0	382382.1	680.9	-0.0	-0.00
10YR-24HR	22.17	383694.5	383015.8	678.7	-0.0	-0.00
10YR-24HR	22.25	384244.4	383566.7	677.8	-0.0	-0.00
10YR-24HR	22.33	384735.4	384059.2	676.2	-0.0	-0.00
10YR-24HR	22.42	385189.9	384514.4	675.5	0.0	0.00
10YR-24HR	22.50	385619.7	384944.7	675.0	0.0	0.00
10YR-24HR	22.58	386029.2	385354.6	674.6	0.0	0.00
10YR-24HR	22.67	386421.8	385747.7	674.2	0.0	0.00
10YR-24HR	22.75	386804.5	386130.6	674.0	0.0	0.00
10YR-24HR	22.83	387179.7	386505.8	673.8	0.0	0.00
10YR-24HR	22.92	387550.3	386876.5	673.8	0.0	0.00
10YR-24HR	23.00	387917.2	387243.4	673.7	0.0	0.00
10YR-24HR	23.08	388284.9	387611.2	673.7	0.0	0.00
10YR-24HR	23.17	388652.4	387978.7	673.7	0.0	0.00
10YR-24HR	23.25	389019.8	388346.1	673.7	0.0	0.00
10YR-24HR	23.33	389385.5	388711.8	673.7	0.0	0.00
10YR-24HR	23.42	389752.7	389079.0	673.7	0.0	0.00
10YR-24HR	23.50	390119.8	389446.0	673.7	0.0	0.00
10YR-24HR	23.58	390486.8	389813.1	673.7	0.0	0.00
10YR-24HR	23.67	390852.3	390178.6	673.7	0.0	0.00
10YR-24HR	23.75	391219.3	390545.6	673.7	0.0	0.00
10YR-24HR	23.83	391586.3	390912.6	673.7	0.0	0.00
10YR-24HR	23.92	391953.3	391279.5	673.7	0.0	0.00
10YR-24HR	24.00	392318.7	391645.0	673.7	0.0	0.00
10YR-24HR	24.25	393104.1	392435.1	669.0	0.0	0.00
10YR-24HR	24.50	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	24.75	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	25.00	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	25.25	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	25.50	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	25.75	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	26.00	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	26.25	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	26.50	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	26.75	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	27.00	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	27.25	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	27.50	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	27.75	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	28.00	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	28.25	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	28.50	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	28.75	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	29.00	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	29.25	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	29.50	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	29.75	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	30.00	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	30.25	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	30.50	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	30.75	393228.5	392561.8	666.7	0.0	0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-24HR	31.00	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	31.25	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	31.50	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	31.75	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	32.00	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	32.25	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	32.50	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	32.75	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	33.00	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	33.25	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	33.50	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	33.75	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	34.00	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	34.25	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	34.50	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	34.75	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	35.00	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	35.25	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	35.50	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	35.75	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	36.00	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	36.25	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	36.50	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	36.75	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	37.00	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	37.25	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	37.50	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	37.75	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	38.00	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	38.25	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	38.50	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	38.75	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	39.00	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	39.25	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	39.50	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	39.75	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	40.00	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	40.25	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	40.50	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	40.75	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	41.00	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	41.25	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	41.50	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	41.75	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	42.00	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	42.25	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	42.50	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	42.75	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	43.00	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	43.25	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	43.50	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	43.75	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	44.00	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	44.25	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	44.50	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	44.75	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	45.00	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	45.25	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	45.50	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	45.75	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	46.00	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	46.25	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	46.50	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	46.75	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	47.00	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	47.25	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	47.50	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	47.75	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	48.00	393228.5	392561.8	666.7	0.0	0.00
10YR-24HR	48.00	393228.5	392561.8	666.7	0.0	0.00
10YR-8HR	0.00	0.0	0.0	0.0	0.0	0.00
10YR-8HR	0.08	0.0	-563.8	563.8	0.0	0.00
10YR-8HR	0.17	0.0	-594.2	594.2	-0.0	-0.00
10YR-8HR	0.25	0.0	-624.4	624.4	-0.0	-0.00
10YR-8HR	0.33	0.0	-654.4	654.4	-0.0	-0.00
10YR-8HR	0.42	0.0	-667.0	667.0	-0.0	-0.00
10YR-8HR	0.50	0.0	-667.0	667.0	-0.0	-0.00
10YR-8HR	0.58	0.0	-667.0	667.0	-0.0	-0.00
10YR-8HR	0.67	0.0	-667.0	667.0	-0.0	-0.00
10YR-8HR	0.75	0.3	-666.4	666.7	-0.0	-0.00
10YR-8HR	0.83	2.0	-664.7	666.7	-0.0	-0.00
10YR-8HR	0.92	7.0	-659.6	666.7	-0.0	-0.00
10YR-8HR	1.00	16.6	-650.1	666.7	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-8HR	1.08	45.2	-621.6	666.8	-0.0	-0.00
10YR-8HR	1.17	136.7	-530.3	667.0	-0.0	-0.00
10YR-8HR	1.25	342.7	-325.0	667.7	-0.0	-0.00
10YR-8HR	1.33	703.6	34.3	669.3	-0.0	-0.00
10YR-8HR	1.42	1253.9	581.4	672.5	-0.0	-0.00
10YR-8HR	1.50	2000.3	1323.9	676.4	-0.0	-0.00
10YR-8HR	1.58	2944.3	2264.0	680.3	-0.0	-0.00
10YR-8HR	1.67	4067.3	3382.6	684.7	-0.0	-0.00
10YR-8HR	1.75	5370.6	4681.7	688.9	-0.0	-0.00
10YR-8HR	1.83	6821.9	6129.0	692.8	-0.0	-0.00
10YR-8HR	1.92	8439.5	7742.8	696.7	-0.0	-0.00
10YR-8HR	2.00	10158.5	9458.3	700.2	-0.0	-0.00
10YR-8HR	2.08	12020.0	11314.1	705.9	-0.0	-0.00
10YR-8HR	2.10	12466.0	11758.3	707.8	-0.0	-0.00
10YR-8HR	2.12	12853.6	12144.3	709.4	-0.0	-0.00
10YR-8HR	2.13	13285.7	12574.5	711.1	-0.0	-0.00
10YR-8HR	2.15	13737.4	13024.6	712.8	-0.0	-0.00
10YR-8HR	2.17	14206.1	13491.6	714.5	-0.0	-0.00
10YR-8HR	2.18	14707.1	13991.0	716.1	-0.0	-0.00
10YR-8HR	2.20	15187.9	14470.3	717.6	-0.0	-0.00
10YR-8HR	2.22	15642.5	14923.6	718.9	-0.0	-0.00
10YR-8HR	2.24	16191.4	15471.0	720.4	-0.0	-0.00
10YR-8HR	2.25	16657.1	15935.6	721.5	-0.0	-0.00
10YR-8HR	2.27	17203.2	16480.4	722.8	-0.0	-0.00
10YR-8HR	2.28	17742.5	17018.4	724.1	0.0	0.00
10YR-8HR	2.30	18263.8	17538.6	725.2	0.0	0.00
10YR-8HR	2.32	18825.6	18099.3	726.3	0.0	0.00
10YR-8HR	2.33	19349.0	18621.8	727.2	0.0	0.00
10YR-8HR	2.35	19915.1	19186.7	728.4	0.0	0.00
10YR-8HR	2.37	20464.3	19735.0	729.4	0.0	0.00
10YR-8HR	2.38	21033.7	20303.4	730.4	0.0	0.00
10YR-8HR	2.40	21665.9	20934.5	731.4	0.0	0.00
10YR-8HR	2.42	22269.5	21537.2	732.3	0.0	0.00
10YR-8HR	2.43	22829.7	22096.6	733.1	0.0	0.00
10YR-8HR	2.45	23385.8	22651.9	733.9	-0.0	-0.00
10YR-8HR	2.47	24061.3	23326.4	734.9	-0.0	-0.00
10YR-8HR	2.48	24613.9	23878.3	735.6	-0.0	-0.00
10YR-8HR	2.50	25217.4	24481.0	736.4	-0.0	-0.00
10YR-8HR	2.52	25887.0	25149.7	737.2	-0.0	-0.00
10YR-8HR	2.53	26491.2	25753.2	738.0	-0.0	-0.00
10YR-8HR	2.55	27157.3	26418.5	738.8	0.0	0.00
10YR-8HR	2.57	27780.5	27041.0	739.5	0.0	0.00
10YR-8HR	2.58	28383.9	27644.1	739.7	0.0	0.00
10YR-8HR	2.60	29005.9	28265.0	740.9	-0.0	-0.00
10YR-8HR	2.62	29679.1	28937.5	741.6	0.0	0.00
10YR-8HR	2.63	30289.6	29547.4	742.2	-0.0	-0.00
10YR-8HR	2.65	30983.2	30240.3	742.9	-0.0	-0.00
10YR-8HR	2.67	31706.3	30962.7	743.5	-0.0	-0.00
10YR-8HR	2.68	32283.0	31539.2	743.8	-0.0	-0.00
10YR-8HR	2.70	32988.9	32244.3	744.5	-0.0	-0.00
10YR-8HR	2.72	33642.8	32897.6	745.3	-0.0	-0.00
10YR-8HR	2.73	34315.4	33569.6	745.8	-0.0	-0.00
10YR-8HR	2.75	34929.8	34183.4	746.3	-0.0	-0.00
10YR-8HR	2.77	35727.2	34980.3	746.9	-0.0	-0.00
10YR-8HR	2.79	36373.4	35626.1	747.3	-0.0	-0.00
10YR-8HR	2.80	37048.2	36300.3	747.9	-0.0	-0.00
10YR-8HR	2.82	37757.2	37008.8	748.4	-0.0	-0.00
10YR-8HR	2.83	38385.2	37636.5	748.8	-0.0	-0.00
10YR-8HR	2.85	39094.4	38345.2	749.2	-0.0	-0.00
10YR-8HR	2.87	39753.6	39004.0	749.6	-0.0	-0.00
10YR-8HR	2.88	40489.2	39739.1	750.1	-0.0	-0.00
10YR-8HR	2.90	41135.0	40384.5	750.5	-0.0	-0.00
10YR-8HR	2.92	41902.4	41151.5	750.9	-0.0	-0.00
10YR-8HR	2.93	42544.0	41792.7	751.3	-0.0	-0.00
10YR-8HR	2.95	43348.6	42596.9	751.7	-0.0	-0.00
10YR-8HR	2.97	44021.2	43269.2	752.0	-0.0	-0.00
10YR-8HR	2.98	44729.4	43977.8	751.7	-0.0	-0.00
10YR-8HR	3.00	45420.9	44668.2	752.7	-0.0	-0.00
10YR-8HR	3.02	46149.9	45395.3	754.6	-0.0	-0.00
10YR-8HR	3.03	46912.7	46154.7	757.9	-0.0	-0.00
10YR-8HR	3.05	47623.1	46860.5	762.6	-0.0	-0.00
10YR-8HR	3.07	48486.5	47716.0	770.5	-0.0	-0.00
10YR-8HR	3.09	49423.1	48640.6	782.5	-0.0	-0.00
10YR-8HR	3.10	50296.8	49502.8	794.0	-0.0	-0.00
10YR-8HR	3.12	51401.3	50593.4	807.8	-0.0	-0.00
10YR-8HR	3.13	52490.8	51670.1	820.6	-0.0	-0.00
10YR-8HR	3.15	53712.5	52877.2	835.3	-0.0	-0.00
10YR-8HR	3.17	54944.8	54095.8	849.0	-0.0	-0.00
10YR-8HR	3.18	56239.8	55378.2	861.6	-0.0	-0.00
10YR-8HR	3.20	57731.5	56858.0	873.4	-0.0	-0.00
10YR-8HR	3.22	59142.3	58260.2	882.1	-0.0	-0.00
10YR-8HR	3.23	60600.0	59709.8	890.3	-0.0	-0.00
10YR-8HR	3.25	62101.9	61202.4	899.5	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-8HR	3.27	63841.4	62931.2	910.3	-0.0	-0.00
10YR-8HR	3.28	65428.9	64509.6	919.3	-0.0	-0.00
10YR-8HR	3.30	67052.4	66124.4	928.0	-0.0	-0.00
10YR-8HR	3.32	68710.0	67773.7	936.3	-0.0	-0.00
10YR-8HR	3.34	70613.0	69667.8	945.2	-0.0	-0.00
10YR-8HR	3.35	72336.4	71383.7	952.7	-0.0	-0.00
10YR-8HR	3.37	74087.7	73127.8	959.9	-0.0	-0.00
10YR-8HR	3.38	75865.5	74898.7	966.7	-0.0	-0.00
10YR-8HR	3.40	77895.3	76921.2	974.1	-0.0	-0.00
10YR-8HR	3.42	79723.8	78743.7	980.1	-0.0	-0.00
10YR-8HR	3.44	81748.1	80761.7	986.4	0.0	0.00
10YR-8HR	3.45	83502.6	82511.0	991.6	-0.0	-0.00
10YR-8HR	3.47	85571.4	84573.9	997.5	-0.0	-0.00
10YR-8HR	3.48	87362.6	86360.2	1002.4	-0.0	-0.00
10YR-8HR	3.50	89472.7	88464.7	1008.0	-0.0	-0.00
10YR-8HR	3.52	91603.9	90590.5	1013.4	-0.0	-0.00
10YR-8HR	3.53	93446.9	92429.0	1017.9	-0.0	-0.00
10YR-8HR	3.55	95615.2	94592.3	1023.0	-0.0	-0.00
10YR-8HR	3.57	97488.8	96461.5	1027.3	-0.0	-0.00
10YR-8HR	3.59	99849.4	98817.0	1032.4	-0.0	-0.00
10YR-8HR	3.60	101831.8	100795.3	1036.5	-0.0	-0.00
10YR-8HR	3.62	103827.4	102787.0	1040.5	-0.0	-0.00
10YR-8HR	3.64	106238.7	105193.7	1045.0	-0.0	-0.00
10YR-8HR	3.65	108261.2	107212.6	1048.6	-0.0	-0.00
10YR-8HR	3.67	110295.1	109243.0	1052.1	-0.0	-0.00
10YR-8HR	3.68	112339.8	111284.4	1055.4	-0.0	-0.00
10YR-8HR	3.70	114909.8	113850.5	1059.3	-0.0	-0.00
10YR-8HR	3.72	116976.5	115914.3	1062.2	-0.0	-0.00
10YR-8HR	3.74	119052.2	117987.2	1065.0	-0.0	-0.00
10YR-8HR	3.75	121136.2	120068.6	1067.6	-0.0	-0.00
10YR-8HR	3.77	123751.9	122681.3	1070.6	-0.0	-0.00
10YR-8HR	3.79	125720.9	124648.2	1072.7	-0.0	-0.00
10YR-8HR	3.80	127695.7	126621.0	1074.6	-0.0	-0.00
10YR-8HR	3.82	130337.0	129260.0	1077.0	-0.0	-0.00
10YR-8HR	3.84	132821.3	131742.1	1079.2	-0.0	-0.00
10YR-8HR	3.85	134481.6	133401.1	1080.5	-0.0	-0.00
10YR-8HR	3.87	136977.9	135895.5	1082.5	-0.0	-0.00
10YR-8HR	3.89	139480.6	138396.4	1084.2	-0.0	-0.00
10YR-8HR	3.90	141570.8	140485.2	1085.6	-0.0	-0.00
10YR-8HR	3.92	143664.8	142577.9	1086.9	-0.0	-0.00
10YR-8HR	3.93	145762.4	144674.3	1088.1	-0.0	-0.00
10YR-8HR	3.96	148914.7	147825.1	1089.6	-0.0	-0.00
10YR-8HR	3.97	151019.8	149929.3	1090.6	-0.0	-0.00
10YR-8HR	3.99	153654.6	152563.1	1091.5	-0.0	-0.00
10YR-8HR	4.00	154972.7	153881.2	1091.5	-0.0	-0.00
10YR-8HR	4.02	157339.4	156250.6	1088.9	-0.0	-0.00
10YR-8HR	4.03	159378.4	158293.6	1084.8	-0.0	-0.00
10YR-8HR	4.05	161577.5	160500.9	1076.6	-0.0	-0.00
10YR-8HR	4.07	163913.4	162850.3	1063.1	-0.0	-0.00
10YR-8HR	4.08	165956.5	164912.2	1044.3	-0.0	-0.00
10YR-8HR	4.10	167988.2	166966.0	1022.2	-0.0	-0.00
10YR-8HR	4.12	169938.9	168939.1	999.9	0.0	0.00
10YR-8HR	4.13	171809.5	170831.0	978.5	-0.0	-0.00
10YR-8HR	4.15	173604.3	172645.3	959.0	-0.0	-0.00
10YR-8HR	4.17	175329.4	174387.7	941.7	0.0	0.00
10YR-8HR	4.18	176990.1	176063.9	926.2	0.0	0.00
10YR-8HR	4.20	178591.4	177679.1	912.3	0.0	0.00
10YR-8HR	4.22	180187.7	179287.5	900.2	0.0	0.00
10YR-8HR	4.23	181711.3	180821.6	889.7	0.0	0.00
10YR-8HR	4.25	183246.5	182365.1	881.5	0.0	0.00
10YR-8HR	4.27	184627.9	183753.0	874.9	0.0	0.00
10YR-8HR	4.28	186015.4	185146.5	868.9	0.0	0.00
10YR-8HR	4.30	187449.1	186586.5	862.6	0.0	0.00
10YR-8HR	4.32	188649.0	187791.8	857.2	-0.0	-0.00
10YR-8HR	4.33	190017.4	189166.3	851.1	0.0	0.00
10YR-8HR	4.35	191212.8	190366.8	846.0	0.0	0.00
10YR-8HR	4.37	192616.9	191776.6	840.3	0.0	0.00
10YR-8HR	4.39	193763.3	192927.5	835.8	0.0	0.00
10YR-8HR	4.40	194889.8	194058.1	831.7	-0.0	-0.00
10YR-8HR	4.42	195998.1	195170.2	827.9	-0.0	-0.00
10YR-8HR	4.44	197360.2	196536.6	823.6	-0.0	-0.00
10YR-8HR	4.45	198432.3	197611.9	820.4	0.0	0.00
10YR-8HR	4.47	199489.3	198671.7	817.6	0.0	0.00
10YR-8HR	4.48	200531.8	199716.6	815.2	0.0	0.00
10YR-8HR	4.50	201700.2	200887.7	812.5	0.0	0.00
10YR-8HR	4.52	202737.7	201927.5	810.2	0.0	0.00
10YR-8HR	4.54	203857.0	203049.3	807.7	-0.0	-0.00
10YR-8HR	4.55	204882.7	204077.1	805.6	-0.0	-0.00
10YR-8HR	4.57	205857.0	205053.3	803.6	-0.0	-0.00
10YR-8HR	4.58	206868.0	206066.3	801.7	-0.0	-0.00
10YR-8HR	4.60	207820.0	207020.0	800.0	-0.0	-0.00
10YR-8HR	4.62	208902.3	208104.1	798.3	-0.0	-0.00
10YR-8HR	4.63	209833.4	209036.8	796.6	-0.0	-0.00



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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-8HR	4.65	210801.4	210006.3	795.1	-0.0	-0.00
10YR-8HR	4.67	211841.8	211048.4	793.5	-0.0	-0.00
10YR-8HR	4.68	212710.2	211917.9	792.3	-0.0	-0.00
10YR-8HR	4.70	213750.7	212959.8	790.9	-0.0	-0.00
10YR-8HR	4.72	214640.4	213850.6	789.8	-0.0	-0.00
10YR-8HR	4.74	215700.1	214911.3	788.8	-0.0	-0.00
10YR-8HR	4.75	216498.1	215710.2	787.9	-0.0	-0.00
10YR-8HR	4.77	217436.1	216649.1	787.1	-0.0	-0.00
10YR-8HR	4.78	218324.8	217538.5	786.4	-0.0	-0.00
10YR-8HR	4.80	219264.6	218478.9	785.7	-0.0	-0.00
10YR-8HR	4.82	220124.7	219339.6	785.2	-0.0	-0.00
10YR-8HR	4.83	220981.7	220197.1	784.7	-0.0	-0.00
10YR-8HR	4.85	222048.9	221264.8	784.1	-0.0	-0.00
10YR-8HR	4.87	222899.6	222115.4	784.3	-0.0	-0.00
10YR-8HR	4.88	223681.7	222898.3	783.4	-0.0	-0.00
10YR-8HR	4.90	224591.8	223808.8	783.0	0.0	0.00
10YR-8HR	4.92	225537.7	224755.0	782.7	0.0	0.00
10YR-8HR	4.94	226481.7	225699.3	782.5	-0.0	-0.00
10YR-8HR	4.95	227289.7	226507.4	782.3	-0.0	-0.00
10YR-8HR	4.97	228130.5	227348.3	782.2	-0.0	-0.00
10YR-8HR	4.98	229096.6	228314.5	782.2	-0.0	-0.00
10YR-8HR	5.00	229946.7	229164.6	782.1	-0.0	-0.00
10YR-8HR	5.02	230868.5	230087.1	781.4	-0.0	-0.00
10YR-8HR	5.03	231719.2	230939.0	780.1	-0.0	-0.00
10YR-8HR	5.05	232637.1	231859.2	777.9	-0.0	-0.00
10YR-8HR	5.07	233472.0	232697.1	774.9	-0.0	-0.00
10YR-8HR	5.08	234250.7	233480.2	770.5	-0.0	-0.00
10YR-8HR	5.10	235030.6	234264.8	765.8	-0.0	-0.00
10YR-8HR	5.12	235835.4	235074.7	760.7	-0.0	-0.00
10YR-8HR	5.13	236523.5	235767.1	756.4	-0.0	-0.00
10YR-8HR	5.15	237241.5	236489.4	752.1	-0.0	-0.00
10YR-8HR	5.17	237949.8	237201.6	748.1	-0.0	-0.00
10YR-8HR	5.18	238543.2	237798.4	744.8	-0.0	-0.00
10YR-8HR	5.20	239156.4	238414.8	741.6	-0.0	-0.00
10YR-8HR	5.22	239752.0	239013.1	738.9	-0.0	-0.00
10YR-8HR	5.23	240350.0	239613.7	736.3	-0.0	-0.00
10YR-8HR	5.25	240902.8	240168.8	734.0	-0.0	-0.00
10YR-8HR	5.27	241446.6	240714.7	731.9	-0.0	-0.00
10YR-8HR	5.28	241947.7	241217.7	730.0	-0.0	-0.00
10YR-8HR	5.30	242503.1	241775.0	728.1	-0.0	-0.00
10YR-8HR	5.32	242983.9	242257.4	726.5	-0.0	-0.00
10YR-8HR	5.33	243510.7	242785.9	724.8	-0.0	-0.00
10YR-8HR	5.35	243969.5	243246.0	723.5	-0.0	-0.00
10YR-8HR	5.37	244428.2	243706.0	722.2	-0.0	-0.00
10YR-8HR	5.39	244933.5	244212.4	721.1	-0.0	-0.00
10YR-8HR	5.40	245340.5	244620.7	719.9	-0.0	-0.00
10YR-8HR	5.42	245791.1	245072.2	718.8	-0.0	-0.00
10YR-8HR	5.43	246259.5	245541.6	717.8	-0.0	-0.00
10YR-8HR	5.45	246699.2	245982.0	717.2	-0.0	-0.00
10YR-8HR	5.47	247090.3	246374.1	716.1	-0.0	-0.00
10YR-8HR	5.48	247537.3	246822.0	715.3	-0.0	-0.00
10YR-8HR	5.50	247933.2	247218.6	714.6	-0.0	-0.00
10YR-8HR	5.52	248337.4	247623.6	713.8	-0.0	-0.00
10YR-8HR	5.53	248749.9	248036.8	713.0	-0.0	-0.00
10YR-8HR	5.55	249137.4	248425.1	712.4	-0.0	-0.00
10YR-8HR	5.57	249512.2	248800.5	711.7	-0.0	-0.00
10YR-8HR	5.58	249923.8	249212.8	711.1	-0.0	-0.00
10YR-8HR	5.60	250281.9	249571.3	710.5	-0.0	-0.00
10YR-8HR	5.62	250672.8	249962.9	709.9	-0.0	-0.00
10YR-8HR	5.63	251048.5	250339.1	709.4	-0.0	-0.00
10YR-8HR	5.65	251402.8	250693.8	708.9	-0.0	-0.00
10YR-8HR	5.67	251763.8	251055.3	708.5	-0.0	-0.00
10YR-8HR	5.68	252128.4	251420.4	708.1	-0.0	-0.00
10YR-8HR	5.70	252510.6	251802.9	707.7	-0.0	-0.00
10YR-8HR	5.72	252857.3	252150.0	707.3	-0.0	-0.00
10YR-8HR	5.73	253196.5	252489.5	707.0	-0.0	-0.00
10YR-8HR	5.75	253555.1	252848.4	706.7	-0.0	-0.00
10YR-8HR	5.77	253895.2	253188.8	706.4	-0.0	-0.00
10YR-8HR	5.78	254250.9	253544.8	706.1	-0.0	-0.00
10YR-8HR	5.80	254592.8	253886.4	706.4	-0.0	-0.00
10YR-8HR	5.82	254924.6	254218.9	705.7	-0.0	-0.00
10YR-8HR	5.83	255268.9	254563.3	705.6	-0.0	-0.00
10YR-8HR	5.85	255604.6	254899.2	705.4	-0.0	-0.00
10YR-8HR	5.87	255943.8	255238.5	705.3	-0.0	-0.00
10YR-8HR	5.88	256288.4	255583.3	705.1	-0.0	-0.00
10YR-8HR	5.90	256633.4	255928.4	705.0	-0.0	-0.00
10YR-8HR	5.92	256965.8	256260.8	704.9	-0.0	-0.00
10YR-8HR	5.93	257293.6	256588.7	704.9	-0.0	-0.00
10YR-8HR	5.95	257629.1	256924.3	704.8	-0.0	-0.00
10YR-8HR	5.97	257969.4	257264.7	704.7	-0.0	-0.00
10YR-8HR	5.98	258307.7	257602.9	704.7	-0.0	-0.00
10YR-8HR	6.00	258623.9	257919.2	704.7	-0.0	-0.00
10YR-8HR	6.02	258967.1	258262.6	704.5	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-8HR	6.10	260596.8	259893.4	703.4	-0.0	-0.00
10YR-8HR	6.18	262179.6	261478.1	701.6	-0.0	-0.00
10YR-8HR	6.27	263711.6	263011.3	700.4	-0.0	-0.00
10YR-8HR	6.35	265182.5	264482.5	700.0	-0.0	-0.00
10YR-8HR	6.43	266629.9	265930.9	699.1	-0.0	-0.00
10YR-8HR	6.52	268070.9	267372.2	698.7	-0.0	-0.00
10YR-8HR	6.60	269498.9	268800.6	698.3	-0.0	-0.00
10YR-8HR	6.68	270903.9	270205.8	698.1	-0.0	-0.00
10YR-8HR	6.77	272304.9	271606.7	698.3	-0.0	-0.00
10YR-8HR	6.85	273698.5	273000.7	697.9	-0.0	-0.00
10YR-8HR	6.93	275105.3	274407.5	697.8	-0.0	-0.00
10YR-8HR	7.02	276489.9	275792.4	697.5	-0.0	-0.00
10YR-8HR	7.10	277824.5	277129.2	695.2	-0.0	-0.00
10YR-8HR	7.18	279038.5	278346.8	691.7	-0.0	-0.00
10YR-8HR	7.27	280130.3	279440.9	689.5	-0.0	-0.00
10YR-8HR	7.35	281141.9	280454.1	687.8	-0.0	-0.00
10YR-8HR	7.43	282099.8	281413.0	686.8	-0.0	-0.00
10YR-8HR	7.52	283025.3	282339.2	686.0	-0.0	-0.00
10YR-8HR	7.60	283917.8	283232.4	685.4	-0.0	-0.00
10YR-8HR	7.68	284794.7	284109.7	685.0	-0.0	-0.00
10YR-8HR	7.77	285652.7	284968.0	684.7	-0.0	-0.00
10YR-8HR	7.85	286496.9	285812.4	684.5	-0.0	-0.00
10YR-8HR	7.93	287336.6	286652.2	684.4	-0.0	-0.00
10YR-8HR	8.02	288171.2	287487.4	683.9	0.0	0.00
10YR-8HR	8.27	289865.8	289192.6	673.2	0.0	0.00
10YR-8HR	8.52	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	8.77	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	9.02	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	9.27	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	9.52	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	9.77	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	10.02	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	10.27	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	10.52	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	10.77	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	11.02	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	11.27	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	11.52	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	11.77	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	12.02	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	12.27	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	12.52	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	12.77	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	13.02	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	13.27	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	13.52	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	13.77	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	14.02	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	14.27	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	14.52	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	14.77	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	15.02	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	15.27	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	15.52	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	15.77	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	16.02	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	16.27	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	16.52	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	16.77	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	17.02	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	17.27	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	17.52	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	17.77	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	18.02	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	18.27	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	18.52	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	18.77	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	19.02	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	19.27	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	19.52	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	19.77	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	20.02	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	20.27	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	20.52	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	20.77	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	21.02	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	21.27	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	21.52	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	21.77	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	22.02	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	22.27	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	22.52	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	22.77	290085.5	289418.2	667.3	0.0	0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
10YR-8HR	23.02	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	23.27	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	23.52	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	23.77	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	24.02	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	24.27	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	24.52	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	24.77	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	25.02	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	25.27	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	25.52	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	25.77	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	26.02	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	26.27	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	26.52	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	26.77	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	27.02	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	27.27	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	27.52	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	27.77	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	28.02	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	28.27	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	28.52	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	28.77	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	29.02	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	29.27	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	29.52	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	29.77	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	30.02	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	30.27	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	30.52	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	30.77	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	31.02	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	31.27	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	31.52	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	31.77	290085.5	289418.2	667.3	0.0	0.00
10YR-8HR	32.00	290085.5	289418.2	667.3	0.0	0.00
25YR-72HR	0.00	0.0	0.0	0.0	0.0	0.00
25YR-72HR	0.00	0.0	0.0	0.0	0.0	0.00
25YR-72HR	0.00	0.0	0.0	0.0	0.0	0.00
25YR-72HR	0.00	0.0	0.0	0.0	0.0	0.00
25YR-72HR	0.25	0.0	-624.4	624.4	-0.0	-0.00
25YR-72HR	0.50	0.0	-667.0	667.0	-0.0	-0.00
25YR-72HR	0.76	0.0	-667.0	667.0	-0.0	-0.00
25YR-72HR	1.00	0.0	-667.0	667.0	-0.0	-0.00
25YR-72HR	1.25	0.0	-667.0	667.0	-0.0	-0.00
25YR-72HR	1.50	0.0	-667.0	667.0	-0.0	-0.00
25YR-72HR	1.75	0.5	-666.7	667.2	-0.0	-0.00
25YR-72HR	2.00	5.2	-662.0	667.2	-0.0	-0.00
25YR-72HR	2.25	18.8	-648.5	667.2	-0.0	-0.00
25YR-72HR	2.50	42.6	-624.6	667.2	-0.0	-0.00
25YR-72HR	2.75	76.7	-590.5	667.2	-0.0	-0.00
25YR-72HR	3.00	120.3	-546.9	667.2	-0.0	-0.00
25YR-72HR	3.25	172.8	-494.5	667.3	-0.0	-0.00
25YR-72HR	3.50	233.4	-433.9	667.3	-0.0	-0.00
25YR-72HR	3.75	302.3	-365.1	667.4	-0.0	-0.00
25YR-72HR	4.00	381.7	-285.7	667.4	-0.0	-0.00
25YR-72HR	4.25	472.8	-194.7	667.5	-0.0	-0.00
25YR-72HR	4.50	575.6	-91.9	667.5	-0.0	-0.00
25YR-72HR	4.75	689.8	22.5	667.4	-0.0	-0.00
25YR-72HR	5.00	816.5	149.1	667.4	-0.0	-0.00
25YR-72HR	5.25	956.7	289.3	667.5	-0.0	-0.00
25YR-72HR	5.50	1111.2	443.7	667.5	-0.0	-0.00
25YR-72HR	5.75	1280.2	612.6	667.6	-0.0	-0.00
25YR-72HR	6.00	1462.9	795.3	667.6	-0.0	-0.00
25YR-72HR	6.25	1658.7	991.0	667.7	-0.0	-0.00
25YR-72HR	6.50	1867.4	1199.7	667.7	-0.0	-0.00
25YR-72HR	6.75	2088.3	1420.6	667.8	-0.0	-0.00
25YR-72HR	7.00	2320.7	1652.9	667.8	-0.0	-0.00
25YR-72HR	7.25	2564.6	1896.7	667.9	-0.0	-0.00
25YR-72HR	7.50	2819.3	2151.4	667.9	-0.0	-0.00
25YR-72HR	7.75	3084.2	2416.2	668.0	-0.0	-0.00
25YR-72HR	8.00	3359.4	2691.4	668.0	-0.0	-0.00
25YR-72HR	8.25	3644.3	2976.2	668.0	-0.0	-0.00
25YR-72HR	8.50	3938.2	3270.1	668.1	-0.0	-0.00
25YR-72HR	8.75	4241.4	3573.3	668.1	-0.0	-0.00
25YR-72HR	9.00	4553.4	3885.2	668.2	-0.0	-0.00
25YR-72HR	9.25	4873.4	4205.1	668.2	-0.0	-0.00
25YR-72HR	9.50	5201.8	4533.6	668.3	-0.0	-0.00
25YR-72HR	9.75	5538.2	4869.8	668.3	-0.0	-0.00
25YR-72HR	10.00	5881.7	5213.3	668.4	-0.0	-0.00
25YR-72HR	10.25	6232.9	5564.5	668.4	-0.0	-0.00
25YR-72HR	10.50	6591.3	5922.9	668.4	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
25YR-72HR	10.75	6956.1	6287.6	668.5	-0.0	-0.00
25YR-72HR	11.00	7328.1	6659.5	668.5	-0.0	-0.00
25YR-72HR	11.25	7706.5	7037.9	668.6	-0.0	-0.00
25YR-72HR	11.50	8090.7	7422.1	668.6	-0.0	-0.00
25YR-72HR	11.75	8481.4	7812.8	668.6	-0.0	-0.00
25YR-72HR	12.00	8878.1	8209.4	668.7	-0.0	-0.00
25YR-72HR	12.25	9280.0	8611.3	668.7	-0.0	-0.00
25YR-72HR	12.50	9688.0	9019.3	668.7	0.0	0.00
25YR-72HR	12.75	10101.4	9432.6	668.8	0.0	0.00
25YR-72HR	13.00	10519.5	9850.5	669.0	0.0	0.00
25YR-72HR	13.25	10943.2	10274.2	669.0	0.0	0.00
25YR-72HR	13.50	11371.9	10702.8	669.1	-0.0	-0.00
25YR-72HR	13.75	11805.4	11136.3	669.1	0.0	0.00
25YR-72HR	14.00	12243.0	11574.0	669.0	-0.0	-0.00
25YR-72HR	14.25	12685.8	12016.8	669.0	-0.0	-0.00
25YR-72HR	14.50	13133.0	12464.0	669.0	-0.0	-0.00
25YR-72HR	14.75	13584.0	12915.0	669.1	-0.0	-0.00
25YR-72HR	15.00	14039.8	13370.7	669.1	-0.0	-0.00
25YR-72HR	15.25	14499.7	13830.6	669.1	-0.0	-0.00
25YR-72HR	15.50	14963.1	14293.9	669.2	-0.0	-0.00
25YR-72HR	15.75	15430.9	14761.7	669.2	-0.0	-0.00
25YR-72HR	16.00	15902.5	15233.3	669.2	0.0	0.00
25YR-72HR	16.25	16377.2	15708.0	669.2	0.0	0.00
25YR-72HR	16.50	16856.2	16186.9	669.3	0.0	0.00
25YR-72HR	16.75	17338.7	16669.4	669.3	0.0	0.00
25YR-72HR	17.00	17824.0	17154.7	669.3	0.0	0.00
25YR-72HR	17.25	18313.3	17643.9	669.3	0.0	0.00
25YR-72HR	17.50	18805.8	18136.5	669.4	0.0	0.00
25YR-72HR	17.75	19301.0	18631.6	669.4	0.0	0.00
25YR-72HR	18.00	19799.9	19130.5	669.4	0.0	0.00
25YR-72HR	18.25	20301.9	19632.4	669.5	0.0	0.00
25YR-72HR	18.50	20806.2	20136.8	669.5	0.0	0.00
25YR-72HR	18.75	21314.1	20644.6	669.5	0.0	0.00
25YR-72HR	19.00	21824.8	21155.3	669.5	0.0	0.00
25YR-72HR	19.25	22337.7	21668.2	669.5	0.0	0.00
25YR-72HR	19.75	23372.9	22703.3	669.6	0.0	0.00
25YR-72HR	20.00	23893.8	23224.2	669.6	0.0	0.00
25YR-72HR	20.25	24417.9	23748.2	669.6	0.0	0.00
25YR-72HR	20.50	24944.4	24274.8	669.7	0.0	0.00
25YR-72HR	20.75	25472.8	24803.1	669.7	0.0	0.00
25YR-72HR	21.00	26004.2	25334.5	669.7	0.0	0.00
25YR-72HR	21.25	26538.0	25868.3	669.7	0.0	0.00
25YR-72HR	21.50	27073.4	26403.7	669.7	0.0	0.00
25YR-72HR	21.75	27611.7	26941.9	669.7	0.0	0.00
25YR-72HR	22.00	28152.2	27482.4	669.8	0.0	0.00
25YR-72HR	22.25	28694.2	28024.2	670.0	0.0	0.00
25YR-72HR	22.50	29238.9	28569.0	670.0	0.0	0.00
25YR-72HR	22.75	29785.8	29115.8	670.0	0.0	0.00
25YR-72HR	23.25	30884.7	30214.8	669.9	0.0	0.00
25YR-72HR	23.50	31437.4	30767.6	669.9	0.0	0.00
25YR-72HR	23.75	31992.2	31322.3	669.9	0.0	0.00
25YR-72HR	24.00	32548.2	31878.3	669.9	0.0	0.00
25YR-72HR	24.25	33183.3	32512.5	670.9	0.0	0.00
25YR-72HR	24.50	33930.3	33258.9	671.4	0.0	0.00
25YR-72HR	24.75	34726.4	34054.9	671.6	0.0	0.00
25YR-72HR	25.00	35544.3	34872.7	671.7	0.0	0.00
25YR-72HR	25.25	36369.1	35697.4	671.7	0.0	0.00
25YR-72HR	25.50	37196.3	36524.6	671.7	0.0	0.00
25YR-72HR	25.75	38027.8	37356.0	671.8	0.0	0.00
25YR-72HR	26.00	38862.5	38190.7	671.8	0.0	0.00
25YR-72HR	26.25	39699.4	39027.6	671.8	0.0	0.00
25YR-72HR	26.50	40540.3	39868.5	671.8	0.0	0.00
25YR-72HR	26.75	41384.3	40712.4	671.9	0.0	0.00
25YR-72HR	27.00	42230.1	41558.2	671.9	0.0	0.00
25YR-72HR	27.25	43079.7	42407.8	671.9	0.0	0.00
25YR-72HR	27.50	43932.2	43260.2	672.0	0.0	0.00
25YR-72HR	27.75	44786.3	44114.3	672.0	0.0	0.00
25YR-72HR	28.00	45644.1	44972.1	672.0	0.0	0.00
25YR-72HR	28.25	46504.4	45832.4	672.0	0.0	0.00
25YR-72HR	28.50	47366.2	46694.1	672.1	0.0	0.00
25YR-72HR	28.75	48231.5	47559.4	672.1	0.0	0.00
25YR-72HR	29.00	49099.1	48427.1	672.1	0.0	0.00
25YR-72HR	29.25	49968.1	49296.0	672.1	0.0	0.00
25YR-72HR	29.50	50840.4	50168.3	672.1	0.0	0.00
25YR-72HR	29.75	51714.9	51042.7	672.2	0.0	0.00
25YR-72HR	30.00	52590.5	51918.3	672.2	0.0	0.00
25YR-72HR	30.25	53469.3	52797.1	672.2	0.0	0.00
25YR-72HR	30.50	54350.2	53678.0	672.2	0.0	0.00
25YR-72HR	30.75	55232.1	54560.0	672.1	0.0	0.00
25YR-72HR	31.00	56117.0	55444.8	672.2	0.0	0.00
25YR-72HR	31.25	57003.8	56331.7	672.2	0.0	0.00
25YR-72HR	31.50	57891.5	57219.0	672.5	0.0	0.00
25YR-72HR	31.75	58782.1	58109.6	672.5	0.0	0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
25YR-72HR	32.00	59674.6	59002.0	672.5	0.0	0.00
25YR-72HR	32.25	60568.8	59896.2	672.6	0.0	0.00
25YR-72HR	32.50	61463.4	60791.0	672.4	0.0	0.00
25YR-72HR	32.75	62361.0	61688.6	672.4	0.0	0.00
25YR-72HR	33.00	63260.3	62587.9	672.4	0.0	0.00
25YR-72HR	33.25	64160.2	63487.8	672.4	0.0	0.00
25YR-72HR	33.50	65062.8	64390.3	672.4	0.0	0.00
25YR-72HR	33.75	65966.9	65294.4	672.4	0.0	0.00
25YR-72HR	34.00	66871.5	66199.0	672.5	0.0	0.00
25YR-72HR	34.25	67778.6	67106.1	672.5	0.0	0.00
25YR-72HR	34.50	68687.3	68014.8	672.5	0.0	0.00
25YR-72HR	34.75	69596.2	68923.7	672.5	0.0	0.00
25YR-72HR	35.00	70507.8	69835.2	672.5	0.0	0.00
25YR-72HR	35.25	71420.6	70748.1	672.5	0.0	0.00
25YR-72HR	35.50	72333.8	71661.3	672.5	0.0	0.00
25YR-72HR	35.75	73249.4	72576.8	672.6	0.0	0.00
25YR-72HR	36.00	74166.3	73493.7	672.6	-0.0	-0.00
25YR-72HR	36.25	75086.2	74413.6	672.6	-0.0	-0.00
25YR-72HR	36.50	76012.3	75339.6	672.6	0.0	0.00
25YR-72HR	36.75	76941.4	76268.8	672.5	0.0	0.00
25YR-72HR	37.00	77872.1	77199.4	672.7	0.0	0.00
25YR-72HR	37.25	78804.4	78131.7	672.7	0.0	0.00
25YR-72HR	37.50	79737.9	79065.2	672.7	0.0	0.00
25YR-72HR	37.75	80672.6	79999.8	672.7	-0.0	-0.00
25YR-72HR	38.00	81608.4	80935.7	672.7	-0.0	-0.00
25YR-72HR	38.25	82545.3	81872.6	672.8	-0.0	-0.00
25YR-72HR	38.50	83483.4	82810.4	673.0	-0.0	-0.00
25YR-72HR	38.75	84422.3	83749.5	672.8	-0.0	-0.00
25YR-72HR	39.00	85362.5	84689.7	672.8	-0.0	-0.00
25YR-72HR	39.25	86303.7	85630.9	672.8	-0.0	-0.00
25YR-72HR	39.50	87246.0	86573.2	672.8	-0.0	-0.00
25YR-72HR	39.75	88189.3	87516.5	672.8	-0.0	-0.00
25YR-72HR	40.00	89132.5	88459.5	673.0	-0.0	-0.00
25YR-72HR	40.25	90078.6	89405.8	672.8	-0.0	-0.00
25YR-72HR	40.50	91024.8	90352.0	672.8	-0.0	-0.00
25YR-72HR	40.75	91970.9	91298.0	672.8	-0.0	-0.00
25YR-72HR	41.00	92918.9	92246.1	672.9	-0.0	-0.00
25YR-72HR	41.25	93867.9	93195.1	672.9	-0.0	-0.00
25YR-72HR	41.50	94817.8	94145.2	672.7	-0.0	-0.00
25YR-72HR	41.75	95768.3	95095.5	672.9	-0.0	-0.00
25YR-72HR	42.00	96720.0	96047.1	672.9	-0.0	-0.00
25YR-72HR	42.25	97672.5	96999.6	672.9	-0.0	-0.00
25YR-72HR	42.50	98625.8	97952.9	672.9	-0.0	-0.00
25YR-72HR	42.75	99579.9	98907.0	672.9	-0.0	-0.00
25YR-72HR	43.00	100534.9	99862.0	672.9	-0.0	-0.00
25YR-72HR	43.25	101490.7	100817.5	673.1	-0.0	-0.00
25YR-72HR	43.50	102446.9	101774.0	672.9	-0.0	-0.00
25YR-72HR	43.75	103404.2	102731.3	672.9	-0.0	-0.00
25YR-72HR	44.00	104362.3	103689.3	673.0	-0.0	-0.00
25YR-72HR	44.25	105321.1	104648.1	673.0	-0.0	-0.00
25YR-72HR	44.50	106280.6	105607.7	673.0	-0.0	-0.00
25YR-72HR	44.75	107240.9	106568.1	672.8	-0.0	-0.00
25YR-72HR	45.00	108201.6	107528.6	673.0	-0.0	-0.00
25YR-72HR	45.25	109163.3	108490.3	673.0	-0.0	-0.00
25YR-72HR	45.50	110125.6	109452.6	673.0	-0.0	-0.00
25YR-72HR	45.75	111088.7	110415.7	673.0	-0.0	-0.00
25YR-72HR	46.00	112051.2	111378.2	673.0	-0.0	-0.00
25YR-72HR	46.25	113015.6	112342.7	672.8	-0.0	-0.00
25YR-72HR	46.50	113981.8	113308.5	673.2	-0.0	-0.00
25YR-72HR	46.75	114946.0	114272.9	673.0	-0.0	-0.00
25YR-72HR	47.00	115912.2	115239.2	673.0	-0.0	-0.00
25YR-72HR	47.25	116879.1	116206.1	673.0	-0.0	-0.00
25YR-72HR	47.50	117846.6	117173.6	673.0	-0.0	-0.00
25YR-72HR	47.75	118814.7	118141.7	673.1	-0.0	-0.00
25YR-72HR	48.00	119783.5	119110.2	673.3	-0.0	-0.00
25YR-72HR	48.25	120782.6	120109.1	673.5	-0.0	-0.00
25YR-72HR	48.33	121130.2	120456.6	673.6	-0.0	-0.00
25YR-72HR	48.42	121480.3	120806.6	673.7	-0.0	-0.00
25YR-72HR	48.50	121833.0	121159.3	673.7	-0.0	-0.00
25YR-72HR	48.58	122187.8	121514.1	673.8	-0.0	-0.00
25YR-72HR	48.67	122545.5	121871.7	673.8	-0.0	-0.00
25YR-72HR	48.75	122903.1	122229.3	673.8	-0.0	-0.00
25YR-72HR	48.83	123261.5	122587.7	673.8	-0.0	-0.00
25YR-72HR	48.92	123621.7	122947.9	673.8	-0.0	-0.00
25YR-72HR	49.00	123980.9	123307.1	673.8	-0.0	-0.00
25YR-72HR	49.08	124340.8	123666.9	673.9	-0.0	-0.00
25YR-72HR	49.17	124703.6	124029.6	673.9	-0.0	-0.00
25YR-72HR	49.25	125066.9	124393.0	673.9	-0.0	-0.00
25YR-72HR	49.33	125431.4	124757.7	673.7	-0.0	-0.00
25YR-72HR	49.42	125796.8	125123.1	673.7	-0.0	-0.00
25YR-72HR	49.50	126164.1	125490.4	673.7	-0.0	-0.00
25YR-72HR	49.58	126530.6	125856.4	674.2	-0.0	-0.00
25YR-72HR	49.67	126898.9	126224.6	674.2	-0.0	-0.00



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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
25YR-72HR	49.75	127265.7	126591.7	674.0	-0.0	-0.00
25YR-72HR	49.83	127633.2	126959.2	674.0	-0.0	-0.00
25YR-72HR	49.92	128002.1	127328.1	674.0	-0.0	-0.00
25YR-72HR	50.00	128369.9	127695.9	674.0	-0.0	-0.00
25YR-72HR	50.08	128742.9	128068.6	674.2	-0.0	-0.00
25YR-72HR	50.17	129129.9	128455.3	674.6	-0.0	-0.00
25YR-72HR	50.25	129532.8	128858.2	674.6	-0.0	-0.00
25YR-72HR	50.33	129946.5	129271.2	675.3	-0.0	-0.00
25YR-72HR	50.42	130365.8	129690.5	675.4	-0.0	-0.00
25YR-72HR	50.50	130790.0	130114.5	675.5	-0.0	-0.00
25YR-72HR	50.58	131217.7	130542.2	675.5	-0.0	-0.00
25YR-72HR	50.67	131648.4	130972.8	675.6	-0.0	-0.00
25YR-72HR	50.75	132081.2	131405.5	675.6	-0.0	-0.00
25YR-72HR	50.83	132515.4	131839.7	675.6	-0.0	-0.00
25YR-72HR	50.92	132950.5	132274.8	675.7	-0.0	-0.00
25YR-72HR	51.00	133386.1	132710.5	675.7	-0.0	-0.00
25YR-72HR	51.08	133824.9	133149.1	675.8	-0.0	-0.00
25YR-72HR	51.17	134272.1	133596.1	676.0	-0.0	-0.00
25YR-72HR	51.25	134728.4	134052.3	676.2	-0.0	-0.00
25YR-72HR	51.33	135190.8	134514.5	676.3	-0.0	-0.00
25YR-72HR	51.42	135657.3	134980.9	676.3	-0.0	-0.00
25YR-72HR	51.50	136126.6	135450.2	676.4	-0.0	-0.00
25YR-72HR	51.58	136598.2	135921.8	676.4	-0.0	-0.00
25YR-72HR	51.67	137073.7	136397.3	676.5	-0.0	-0.00
25YR-72HR	51.75	137548.4	136871.9	676.5	-0.0	-0.00
25YR-72HR	51.83	138024.0	137347.5	676.5	-0.0	-0.00
25YR-72HR	51.92	138500.2	137823.7	676.5	-0.0	-0.00
25YR-72HR	52.00	138976.8	138300.3	676.5	-0.0	-0.00
25YR-72HR	52.08	139464.2	138787.2	676.9	-0.0	-0.00
25YR-72HR	52.17	139981.3	139303.9	677.3	-0.0	-0.00
25YR-72HR	52.25	140532.6	139854.7	677.9	-0.0	-0.00
25YR-72HR	52.33	141105.5	140427.2	678.3	-0.0	-0.00
25YR-72HR	52.42	141692.4	141013.8	678.6	-0.0	-0.00
25YR-72HR	52.50	142288.9	141610.2	678.8	-0.0	-0.00
25YR-72HR	52.58	142896.9	142218.1	678.8	-0.0	-0.00
25YR-72HR	52.67	143506.2	142827.2	679.1	-0.0	-0.00
25YR-72HR	52.75	144124.3	143445.1	679.2	-0.0	-0.00
25YR-72HR	52.83	144740.9	144061.7	679.2	-0.0	-0.00
25YR-72HR	52.92	145362.5	144683.2	679.2	-0.0	-0.00
25YR-72HR	53.00	145986.5	145307.2	679.3	-0.0	-0.00
25YR-72HR	53.08	146618.5	145938.8	679.7	-0.0	-0.00
25YR-72HR	53.17	147281.6	146601.0	680.6	-0.0	-0.00
25YR-72HR	53.25	147978.7	147297.5	681.2	-0.0	-0.00
25YR-72HR	53.33	148698.9	148017.3	681.6	-0.0	-0.00
25YR-72HR	53.42	149430.9	148749.0	681.9	-0.0	-0.00
25YR-72HR	53.50	150175.1	149493.0	682.1	-0.0	-0.00
25YR-72HR	53.58	150928.6	150246.3	682.2	-0.0	-0.00
25YR-72HR	53.67	151685.2	151002.9	682.4	-0.0	-0.00
25YR-72HR	53.75	152453.4	151771.0	682.4	-0.0	-0.00
25YR-72HR	53.83	153217.3	152534.8	682.5	-0.0	-0.00
25YR-72HR	53.92	153984.2	153301.6	682.6	-0.0	-0.00
25YR-72HR	54.00	154753.9	154071.3	682.6	-0.0	-0.00
25YR-72HR	54.08	155534.0	154851.0	683.0	-0.0	-0.00
25YR-72HR	54.17	156345.4	155661.4	684.0	-0.0	-0.00
25YR-72HR	54.25	157192.5	156507.8	684.6	-0.0	-0.00
25YR-72HR	54.33	158064.3	157379.2	685.1	-0.0	-0.00
25YR-72HR	54.42	158950.0	158264.6	685.4	-0.0	-0.00
25YR-72HR	54.50	159847.2	159161.6	685.6	-0.0	-0.00
25YR-72HR	54.58	160749.1	160063.3	685.8	-0.0	-0.00
25YR-72HR	54.67	161659.1	160973.2	685.9	-0.0	-0.00
25YR-72HR	54.75	162574.0	161888.0	686.0	-0.0	-0.00
25YR-72HR	54.83	163501.1	162815.0	686.1	-0.0	-0.00
25YR-72HR	54.92	164418.0	163731.8	686.1	-0.0	-0.00
25YR-72HR	55.00	165340.3	164654.1	686.2	-0.0	-0.00
25YR-72HR	55.08	166274.5	165587.9	686.6	-0.0	-0.00
25YR-72HR	55.17	167241.0	166553.4	687.6	-0.0	-0.00
25YR-72HR	55.25	168238.3	167550.1	688.2	-0.0	-0.00
25YR-72HR	55.33	169262.0	168573.2	688.7	-0.0	-0.00
25YR-72HR	55.42	170301.7	169612.7	689.1	-0.0	-0.00
25YR-72HR	55.50	171349.9	170660.6	689.3	-0.0	-0.00
25YR-72HR	55.58	172408.2	171718.7	689.5	-0.0	-0.00
25YR-72HR	55.67	173477.1	172787.5	689.6	-0.0	-0.00
25YR-72HR	55.75	174548.1	173858.4	689.7	-0.0	-0.00
25YR-72HR	55.83	175620.9	174931.1	689.8	-0.0	-0.00
25YR-72HR	55.92	176697.1	176007.2	689.8	-0.0	-0.00
25YR-72HR	56.00	177769.3	177079.5	689.9	-0.0	-0.00
25YR-72HR	56.02	177986.1	177296.2	689.9	-0.0	-0.00
25YR-72HR	56.03	178200.8	177510.9	690.0	-0.0	-0.00
25YR-72HR	56.05	178424.5	177734.4	690.1	-0.0	-0.00
25YR-72HR	56.07	178648.0	177957.9	690.0	-0.0	-0.00
25YR-72HR	56.08	178860.2	178169.8	690.4	-0.0	-0.00
25YR-72HR	56.10	179084.4	178393.7	690.7	-0.0	-0.00
25YR-72HR	56.12	179303.9	178613.1	690.8	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
25YR-72HR	56.13	179530.9	178839.7	691.2	-0.0	-0.00
25YR-72HR	56.15	179763.4	179071.9	691.4	-0.0	-0.00
25YR-72HR	56.17	179992.4	179300.8	691.7	-0.0	-0.00
25YR-72HR	56.18	180224.0	179532.1	691.8	-0.0	-0.00
25YR-72HR	56.20	180451.6	179759.6	692.0	-0.0	-0.00
25YR-72HR	56.22	180690.8	179998.6	692.2	-0.0	-0.00
25YR-72HR	56.23	180929.1	180237.4	691.8	-0.0	-0.00
25YR-72HR	56.25	181155.2	180462.7	692.5	-0.0	-0.00
25YR-72HR	56.27	181398.7	180706.1	692.6	-0.0	-0.00
25YR-72HR	56.28	181636.1	180943.4	692.7	-0.0	-0.00
25YR-72HR	56.30	181880.8	181188.0	692.9	-0.0	-0.00
25YR-72HR	56.32	182113.7	181420.8	693.0	-0.0	-0.00
25YR-72HR	56.33	182352.5	181659.5	693.0	-0.0	-0.00
25YR-72HR	56.35	182600.7	181907.6	693.1	-0.0	-0.00
25YR-72HR	56.37	182847.1	182153.9	693.2	-0.0	-0.00
25YR-72HR	56.38	183080.8	182387.5	693.3	-0.0	-0.00
25YR-72HR	56.40	183326.5	182633.1	693.4	-0.0	-0.00
25YR-72HR	56.42	183582.0	182888.6	693.4	-0.0	-0.00
25YR-72HR	56.43	183817.7	183124.2	693.5	-0.0	-0.00
25YR-72HR	56.45	184060.8	183367.3	693.6	-0.0	-0.00
25YR-72HR	56.47	184316.6	183623.0	693.6	-0.0	-0.00
25YR-72HR	56.48	184554.3	183860.6	693.7	-0.0	-0.00
25YR-72HR	56.50	184803.4	184109.7	693.7	-0.0	-0.00
25YR-72HR	56.52	185057.1	184363.3	693.8	-0.0	-0.00
25YR-72HR	56.53	185295.9	184602.1	693.8	-0.0	-0.00
25YR-72HR	56.55	185546.3	184852.4	693.9	-0.0	-0.00
25YR-72HR	56.57	185795.8	185101.9	693.9	-0.0	-0.00
25YR-72HR	56.58	186045.8	185351.8	693.9	-0.0	-0.00
25YR-72HR	56.60	186291.6	185597.7	694.0	-0.0	-0.00
25YR-72HR	56.62	186549.5	185855.5	694.0	-0.0	-0.00
25YR-72HR	56.63	186794.1	186100.0	694.1	-0.0	-0.00
25YR-72HR	56.65	187040.4	186346.4	694.1	-0.0	-0.00
25YR-72HR	56.67	187292.4	186598.3	694.1	-0.0	-0.00
25YR-72HR	56.68	187547.5	186853.3	694.2	-0.0	-0.00
25YR-72HR	56.70	187796.8	187102.6	694.2	-0.0	-0.00
25YR-72HR	56.72	188046.8	187352.6	694.2	-0.0	-0.00
25YR-72HR	56.73	188305.3	187611.1	694.2	-0.0	-0.00
25YR-72HR	56.75	188551.3	187857.0	694.2	-0.0	-0.00
25YR-72HR	56.77	188810.6	188116.5	694.1	-0.0	-0.00
25YR-72HR	56.78	189047.3	188353.0	694.3	-0.0	-0.00
25YR-72HR	56.80	189308.5	188614.2	694.3	-0.0	-0.00
25YR-72HR	56.82	189554.3	188860.1	694.2	-0.0	-0.00
25YR-72HR	56.83	189804.5	189110.2	694.3	-0.0	-0.00
25YR-72HR	56.85	190062.7	189368.3	694.3	-0.0	-0.00
25YR-72HR	56.87	190312.9	189618.6	694.4	-0.0	-0.00
25YR-72HR	56.88	190568.7	189874.4	694.4	-0.0	-0.00
25YR-72HR	56.90	190824.0	190129.7	694.4	-0.0	-0.00
25YR-72HR	56.92	191074.6	190380.2	694.4	-0.0	-0.00
25YR-72HR	56.93	191318.7	190624.3	694.4	-0.0	-0.00
25YR-72HR	56.95	191574.2	190879.8	694.4	-0.0	-0.00
25YR-72HR	56.97	191831.1	191136.7	694.4	-0.0	-0.00
25YR-72HR	56.98	192088.8	191394.3	694.4	-0.0	-0.00
25YR-72HR	57.00	192335.8	191641.4	694.4	-0.0	-0.00
25YR-72HR	57.02	192588.9	191894.4	694.5	-0.0	-0.00
25YR-72HR	57.03	192836.2	192141.2	695.0	-0.0	-0.00
25YR-72HR	57.05	193094.6	192399.9	694.7	-0.0	-0.00
25YR-72HR	57.07	193344.2	192648.9	695.2	-0.0	-0.00
25YR-72HR	57.08	193610.6	192915.5	695.1	-0.0	-0.00
25YR-72HR	57.10	193871.6	193176.1	695.5	-0.0	-0.00
25YR-72HR	57.12	194132.0	193436.2	695.8	-0.0	-0.00
25YR-72HR	57.13	194393.3	193697.1	696.1	-0.0	-0.00
25YR-72HR	57.15	194664.0	193967.6	696.4	-0.0	-0.00
25YR-72HR	57.17	194946.9	194250.2	696.7	-0.0	-0.00
25YR-72HR	57.18	195206.5	194509.5	697.0	-0.0	-0.00
25YR-72HR	57.20	195490.0	194793.1	697.0	-0.0	-0.00
25YR-72HR	57.22	195767.8	195070.6	697.3	-0.0	-0.00
25YR-72HR	57.23	196051.1	195353.6	697.5	-0.0	-0.00
25YR-72HR	57.25	196324.0	195626.2	697.8	-0.0	-0.00
25YR-72HR	57.27	196610.2	195912.2	698.0	-0.0	-0.00
25YR-72HR	57.28	196878.0	196179.9	698.2	-0.0	-0.00
25YR-72HR	57.30	197162.1	196463.8	698.3	-0.0	-0.00
25YR-72HR	57.32	197455.4	196756.9	698.5	-0.0	-0.00
25YR-72HR	57.33	197743.3	197044.8	698.5	-0.0	-0.00
25YR-72HR	57.35	198033.0	197334.3	698.7	-0.0	-0.00
25YR-72HR	57.37	198322.8	197624.0	698.8	-0.0	-0.00
25YR-72HR	57.38	198603.1	197904.1	698.9	-0.0	-0.00
25YR-72HR	57.40	198890.2	198191.2	699.0	-0.0	-0.00
25YR-72HR	57.42	199183.7	198484.6	699.1	-0.0	-0.00
25YR-72HR	57.43	199475.3	198776.1	699.2	-0.0	-0.00
25YR-72HR	57.45	199775.7	199076.5	699.3	-0.0	-0.00
25YR-72HR	57.47	200052.1	199352.8	699.3	-0.0	-0.00
25YR-72HR	57.48	200344.8	199645.4	699.4	-0.0	-0.00
25YR-72HR	57.50	200634.9	199935.4	699.5	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
25YR-72HR	57.52	200932.7	200233.1	699.6	-0.0	-0.00
25YR-72HR	57.53	201228.6	200529.0	699.7	-0.0	-0.00
25YR-72HR	57.55	201520.4	200820.5	699.8	-0.0	-0.00
25YR-72HR	57.57	201817.7	201117.8	700.0	-0.0	-0.00
25YR-72HR	57.58	202121.5	201421.3	700.2	-0.0	-0.00
25YR-72HR	57.60	202426.0	201725.6	700.4	-0.0	-0.00
25YR-72HR	57.62	202739.8	202039.2	700.6	-0.0	-0.00
25YR-72HR	57.63	203025.9	202325.0	700.9	-0.0	-0.00
25YR-72HR	57.65	203328.6	202627.5	701.1	-0.0	-0.00
25YR-72HR	57.67	203657.3	202956.1	701.3	-0.0	-0.00
25YR-72HR	57.68	203944.0	203242.5	701.5	-0.0	-0.00
25YR-72HR	57.70	204262.2	203560.5	701.7	-0.0	-0.00
25YR-72HR	57.72	204583.5	203881.7	701.8	-0.0	-0.00
25YR-72HR	57.73	204883.5	204181.5	702.0	-0.0	-0.00
25YR-72HR	57.75	205192.7	204490.6	702.1	-0.0	-0.00
25YR-72HR	57.77	205508.6	204806.3	702.2	-0.0	-0.00
25YR-72HR	57.78	205823.1	205120.8	702.3	-0.0	-0.00
25YR-72HR	57.80	206145.1	205442.7	702.4	-0.0	-0.00
25YR-72HR	57.82	206465.7	205763.2	702.5	-0.0	-0.00
25YR-72HR	57.83	206777.8	206075.2	702.6	-0.0	-0.00
25YR-72HR	57.85	207106.2	206403.5	702.7	-0.0	-0.00
25YR-72HR	57.87	207425.4	206722.7	702.8	-0.0	-0.00
25YR-72HR	57.88	207733.1	207030.5	702.7	-0.0	-0.00
25YR-72HR	57.90	208068.5	207365.6	702.9	-0.0	-0.00
25YR-72HR	57.92	208377.1	207674.1	703.0	-0.0	-0.00
25YR-72HR	57.93	208708.2	208005.5	702.7	-0.0	-0.00
25YR-72HR	57.95	209035.3	208332.2	703.1	-0.0	-0.00
25YR-72HR	57.97	209339.1	208636.0	703.1	-0.0	-0.00
25YR-72HR	57.98	209673.1	208969.9	703.2	-0.0	-0.00
25YR-72HR	58.00	209985.2	209282.1	703.2	-0.0	-0.00
25YR-72HR	58.02	210307.2	209603.9	703.2	-0.0	-0.00
25YR-72HR	58.03	210630.3	209926.9	703.4	-0.0	-0.00
25YR-72HR	58.05	210970.9	210267.4	703.5	-0.0	-0.00
25YR-72HR	58.07	211281.2	210577.5	703.7	-0.0	-0.00
25YR-72HR	58.08	211622.5	210918.5	703.9	-0.0	-0.00
25YR-72HR	58.10	211949.9	211245.7	704.2	-0.0	-0.00
25YR-72HR	58.12	212286.7	211582.3	704.4	-0.0	-0.00
25YR-72HR	58.13	212617.8	211913.0	704.8	-0.0	-0.00
25YR-72HR	58.15	212943.5	212238.4	705.0	-0.0	-0.00
25YR-72HR	58.17	213280.9	212575.6	705.3	-0.0	-0.00
25YR-72HR	58.18	213633.7	212928.2	705.5	-0.0	-0.00
25YR-72HR	58.20	213972.4	213266.6	705.7	-0.0	-0.00
25YR-72HR	58.22	214308.9	213603.1	705.8	-0.0	-0.00
25YR-72HR	58.23	214664.2	213958.1	706.1	-0.0	-0.00
25YR-72HR	58.25	214997.4	214291.2	706.2	-0.0	-0.00
25YR-72HR	58.27	215349.7	214643.4	706.3	-0.0	-0.00
25YR-72HR	58.28	215701.1	214994.6	706.5	-0.0	-0.00
25YR-72HR	58.30	216044.2	215337.6	706.7	-0.0	-0.00
25YR-72HR	58.32	216405.5	215698.8	706.8	-0.0	-0.00
25YR-72HR	58.33	216751.2	216044.5	706.7	-0.0	-0.00
25YR-72HR	58.35	217102.1	216395.3	706.8	-0.0	-0.00
25YR-72HR	58.37	217453.8	216746.9	706.9	-0.0	-0.00
25YR-72HR	58.38	217815.8	217108.6	707.2	-0.0	-0.00
25YR-72HR	58.40	218162.5	217455.3	707.2	-0.0	-0.00
25YR-72HR	58.42	218530.7	217823.4	707.3	-0.0	-0.00
25YR-72HR	58.43	218881.8	218174.9	706.9	-0.0	-0.00
25YR-72HR	58.45	219226.2	218518.8	707.4	-0.0	-0.00
25YR-72HR	58.47	219585.0	218877.5	707.5	-0.0	-0.00
25YR-72HR	58.48	219968.1	219260.9	707.3	-0.0	-0.00
25YR-72HR	58.50	220299.8	219592.3	707.5	-0.0	-0.00
25YR-72HR	58.52	220663.1	219955.4	707.7	-0.0	-0.00
25YR-72HR	58.53	221017.1	220309.1	708.1	-0.0	-0.00
25YR-72HR	58.55	221403.9	220695.4	708.5	-0.0	-0.00
25YR-72HR	58.57	221744.1	221035.0	709.1	-0.0	-0.00
25YR-72HR	58.58	222120.5	221410.7	709.9	-0.0	-0.00
25YR-72HR	58.60	222523.9	221813.1	710.8	-0.0	-0.00
25YR-72HR	58.62	222898.1	222186.4	711.7	-0.0	-0.00
25YR-72HR	58.63	223280.6	222568.0	712.6	-0.0	-0.00
25YR-72HR	58.65	223702.4	222988.9	713.5	-0.0	-0.00
25YR-72HR	58.67	224102.3	223388.1	714.3	-0.0	-0.00
25YR-72HR	58.68	224521.0	223806.0	715.0	-0.0	-0.00
25YR-72HR	58.70	224943.3	224227.6	715.7	-0.0	-0.00
25YR-72HR	58.72	225357.5	224641.3	716.3	-0.0	-0.00
25YR-72HR	58.73	225775.9	225059.1	716.8	-0.0	-0.00
25YR-72HR	58.75	226220.4	225503.2	717.2	-0.0	-0.00
25YR-72HR	58.77	226633.0	225915.3	717.7	-0.0	-0.00
25YR-72HR	58.78	227103.5	226385.3	718.2	-0.0	-0.00
25YR-72HR	58.80	227530.0	226811.8	718.2	-0.0	-0.00
25YR-72HR	58.82	227980.3	227261.3	719.0	-0.0	-0.00
25YR-72HR	58.83	228431.3	227712.0	719.3	-0.0	-0.00
25YR-72HR	58.85	228877.6	228158.5	719.1	-0.0	-0.00
25YR-72HR	58.87	229314.7	228594.7	719.9	-0.0	-0.00
25YR-72HR	58.88	229771.5	229051.3	720.2	-0.0	-0.00

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25YR-72HR	58.90	230211.9	229491.5	720.4	-0.0	-0.00
25YR-72HR	58.92	230703.2	229982.6	720.6	-0.0	-0.00
25YR-72HR	58.93	231144.7	230423.8	720.9	-0.0	-0.00
25YR-72HR	58.95	231600.7	230879.6	721.1	-0.0	-0.00
25YR-72HR	58.97	232053.4	231332.1	721.3	-0.0	-0.00
25YR-72HR	58.98	232531.4	231810.0	721.5	-0.0	-0.00
25YR-72HR	59.00	232984.2	232262.5	721.7	-0.0	-0.00
25YR-72HR	59.02	233450.7	232728.5	722.2	-0.0	-0.00
25YR-72HR	59.03	233958.8	233235.8	723.0	-0.0	-0.00
25YR-72HR	59.05	234410.3	233686.9	723.4	-0.0	-0.00
25YR-72HR	59.07	234911.7	234186.2	725.5	-0.0	-0.00
25YR-72HR	59.08	235435.1	234707.5	727.6	-0.0	-0.00
25YR-72HR	59.10	235949.4	235219.6	729.8	-0.0	-0.00
25YR-72HR	59.12	236468.0	235736.0	732.0	-0.0	-0.00
25YR-72HR	59.14	237061.6	236327.8	733.8	-0.0	-0.00
25YR-72HR	59.15	237578.6	236842.5	736.1	-0.0	-0.00
25YR-72HR	59.17	238203.0	237464.9	738.1	-0.0	-0.00
25YR-72HR	59.18	238777.4	238037.7	739.8	-0.0	-0.00
25YR-72HR	59.20	239428.4	238687.0	741.4	-0.0	-0.00
25YR-72HR	59.22	239968.2	239225.6	742.7	-0.0	-0.00
25YR-72HR	59.23	240612.8	239868.9	744.0	-0.0	-0.00
25YR-72HR	59.25	241266.6	240521.4	745.2	-0.0	-0.00
25YR-72HR	59.27	241922.1	241175.7	746.3	-0.0	-0.00
25YR-72HR	59.28	242532.6	241785.3	747.3	-0.0	-0.00
25YR-72HR	59.30	243259.9	242511.8	748.1	-0.0	-0.00
25YR-72HR	59.32	243865.3	243116.2	749.0	-0.0	-0.00
25YR-72HR	59.33	244511.6	243761.7	749.9	-0.0	-0.00
25YR-72HR	59.35	245217.6	244466.8	750.7	-0.0	-0.00
25YR-72HR	59.37	245924.6	245173.1	751.5	-0.0	-0.00
25YR-72HR	59.38	246572.1	245820.1	752.0	-0.0	-0.00
25YR-72HR	59.40	247237.5	246484.8	752.7	-0.0	-0.00
25YR-72HR	59.42	247962.6	247209.3	753.3	-0.0	-0.00
25YR-72HR	59.44	248687.0	247933.2	753.8	-0.0	-0.00
25YR-72HR	59.45	249391.5	248637.4	754.1	-0.0	-0.00
25YR-72HR	59.47	250038.0	249283.2	754.7	-0.0	-0.00
25YR-72HR	59.49	250815.4	250060.1	755.3	-0.0	-0.00
25YR-72HR	59.50	251512.8	250755.4	757.4	-0.0	-0.00
25YR-72HR	59.52	252261.7	251498.8	762.9	-0.0	-0.00
25YR-72HR	59.53	253036.4	252264.6	771.8	-0.0	-0.00
25YR-72HR	59.55	253898.3	253110.2	788.0	-0.0	-0.00
25YR-72HR	59.57	254926.6	254112.5	814.1	-0.0	-0.00
25YR-72HR	59.58	256094.9	255245.2	849.8	-0.0	-0.00
25YR-72HR	59.60	257581.0	256684.7	896.3	-0.0	-0.00
25YR-72HR	59.62	259273.1	258323.7	949.5	-0.0	-0.00
25YR-72HR	59.63	261217.6	260207.6	1010.0	-0.0	-0.00
25YR-72HR	59.65	263450.5	262375.3	1075.2	-0.0	-0.00
25YR-72HR	59.67	265881.2	264740.1	1141.2	-0.0	-0.00
25YR-72HR	59.68	268494.2	267288.5	1205.6	-0.0	-0.00
25YR-72HR	59.70	271342.7	270073.2	1269.5	-0.0	-0.00
25YR-72HR	59.72	274308.3	272978.2	1330.0	-0.0	-0.00
25YR-72HR	59.73	277535.0	276131.6	1403.4	-0.0	-0.00
25YR-72HR	59.75	280827.1	279311.2	1515.9	-0.0	-0.00
25YR-72HR	59.77	284209.7	282543.7	1666.0	-0.0	-0.00
25YR-72HR	59.78	287710.3	285858.2	1852.1	-0.0	-0.00
25YR-72HR	59.80	291525.0	289439.1	2085.9	-0.0	-0.00
25YR-72HR	59.82	295243.2	292903.7	2339.5	-0.0	-0.00
25YR-72HR	59.83	299054.8	296433.0	2621.8	-0.0	-0.00
25YR-72HR	59.85	302953.7	300023.9	2929.8	-0.0	-0.00
25YR-72HR	59.87	306934.7	303672.9	3261.7	-0.0	-0.00
25YR-72HR	59.88	310991.6	307376.3	3615.3	-0.0	-0.00
25YR-72HR	59.90	315349.4	311339.5	4009.9	-0.0	-0.00
25YR-72HR	59.92	319543.9	315141.6	4402.3	-0.0	-0.00
25YR-72HR	59.93	323976.6	319147.6	4829.0	-0.0	-0.00
25YR-72HR	59.95	328168.3	322925.9	5242.4	-0.0	-0.00
25YR-72HR	59.97	332715.0	327013.9	5701.1	-0.0	-0.00
25YR-72HR	59.98	337008.1	330864.9	6143.2	-0.0	-0.00
25YR-72HR	60.00	341656.5	335026.6	6629.9	-0.0	-0.00
25YR-72HR	60.02	346331.5	339214.7	7116.8	-0.0	-0.00
25YR-72HR	60.03	350704.6	343143.9	7560.7	-0.0	-0.00
25YR-72HR	60.05	355033.5	347053.5	7980.0	-0.0	-0.00
25YR-72HR	60.07	359467.9	351090.8	8377.0	-0.0	-0.00
25YR-72HR	60.08	363689.1	354985.5	8703.6	-0.0	-0.00
25YR-72HR	60.10	367674.8	358716.6	8958.2	-0.0	-0.00
25YR-72HR	60.12	371597.1	362442.5	9154.6	-0.0	-0.00
25YR-72HR	60.13	375187.8	365904.3	9283.5	-0.0	-0.00
25YR-72HR	60.15	378714.4	369350.9	9363.5	-0.0	-0.00
25YR-72HR	60.17	381977.4	372585.8	9391.6	-0.0	-0.00
25YR-72HR	60.18	385172.1	375800.4	9371.7	-0.0	-0.00
25YR-72HR	60.20	388120.3	378812.3	9308.0	-0.0	-0.00
25YR-72HR	60.22	391020.1	381817.3	9202.8	-0.0	-0.00
25YR-72HR	60.23	393747.7	384683.0	9064.7	-0.0	-0.00
25YR-72HR	60.25	396460.0	387572.4	8887.6	-0.0	-0.00
25YR-72HR	60.27	398853.7	390157.3	8696.4	-0.0	-0.00

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25YR-72HR	60.28	401319.6	392855.5	8464.1	-0.0	-0.00
25YR-72HR	60.30	403599.1	395382.5	8216.6	-0.0	-0.00
25YR-72HR	60.32	406104.3	398197.5	7906.7	-0.0	-0.00
25YR-72HR	60.33	408171.5	400551.1	7620.4	-0.0	-0.00
25YR-72HR	60.35	410459.5	403188.7	7270.7	-0.0	-0.00
25YR-72HR	60.37	412537.3	405614.7	6922.6	-0.0	-0.00
25YR-72HR	60.39	414554.6	407998.1	6556.5	-0.0	-0.00
25YR-72HR	60.40	416515.4	410341.6	6173.7	-0.0	-0.00
25YR-72HR	60.42	418424.4	412648.3	5776.1	-0.0	-0.00
25YR-72HR	60.44	420208.7	414826.8	5381.9	-0.0	-0.00
25YR-72HR	60.45	422100.0	417160.3	4939.7	-0.0	-0.00
25YR-72HR	60.47	423942.1	419458.5	4483.6	-0.0	-0.00
25YR-72HR	60.48	425380.7	421271.8	4108.9	-0.0	-0.00
25YR-72HR	60.50	427135.1	423506.7	3628.5	-0.0	-0.00
25YR-72HR	60.52	428839.6	425705.2	3134.4	-0.0	-0.00
25YR-72HR	60.54	430492.4	427866.0	2626.4	-0.0	-0.00
25YR-72HR	60.55	431774.9	429565.5	2209.5	-0.0	-0.00
25YR-72HR	60.57	433263.5	431567.2	1696.3	-0.0	-0.00
25YR-72HR	60.58	434646.5	433459.0	1187.5	-0.0	-0.00
25YR-72HR	60.60	435998.2	435147.4	850.8	-0.0	-0.00
25YR-72HR	60.62	437298.2	436506.8	791.4	-0.0	-0.00
25YR-72HR	60.63	438548.4	437771.0	777.4	-0.0	-0.00
25YR-72HR	60.65	439721.2	438955.1	766.0	-0.0	-0.00
25YR-72HR	60.67	440909.2	440154.3	754.9	-0.0	-0.00
25YR-72HR	60.68	441973.0	441226.1	746.9	-0.0	-0.00
25YR-72HR	60.70	442997.9	442258.0	739.9	-0.0	-0.00
25YR-72HR	60.72	444017.2	443284.0	733.2	-0.0	-0.00
25YR-72HR	60.74	445024.8	444297.7	727.1	-0.0	-0.00
25YR-72HR	60.75	445823.9	445101.3	722.6	-0.0	-0.00
25YR-72HR	60.77	446831.0	446113.6	717.4	-0.0	-0.00
25YR-72HR	60.78	447625.0	446911.4	713.6	-0.0	-0.00
25YR-72HR	60.80	448432.8	447722.9	709.9	-0.0	-0.00
25YR-72HR	60.82	449218.5	448512.0	706.5	-0.0	-0.00
25YR-72HR	60.83	450054.8	449351.6	703.2	-0.0	-0.00
25YR-72HR	60.85	450782.6	450082.0	700.6	-0.0	-0.00
25YR-72HR	60.87	451579.2	450881.6	697.6	-0.0	-0.00
25YR-72HR	60.89	452325.3	451630.1	695.2	-0.0	-0.00
25YR-72HR	60.90	452978.4	452285.1	693.3	-0.0	-0.00
25YR-72HR	60.92	453726.3	453035.0	691.4	-0.0	-0.00
25YR-72HR	60.93	454400.3	453710.6	689.7	-0.0	-0.00
25YR-72HR	60.95	455078.5	454390.3	688.3	-0.0	-0.00
25YR-72HR	60.97	455731.4	455044.3	687.0	-0.0	-0.00
25YR-72HR	60.98	456396.8	455710.8	686.0	-0.0	-0.00
25YR-72HR	61.00	457095.3	456409.8	685.5	-0.0	-0.00
25YR-72HR	61.02	457727.7	457043.6	684.1	-0.0	-0.00
25YR-72HR	61.03	458399.7	457716.7	683.0	-0.0	-0.00
25YR-72HR	61.05	458997.2	458315.4	681.8	-0.0	-0.00
25YR-72HR	61.07	459642.3	458961.8	680.5	-0.0	-0.00
25YR-72HR	61.08	460237.6	459558.9	678.7	-0.0	-0.00
25YR-72HR	61.10	460846.8	460170.2	676.5	-0.0	-0.00
25YR-72HR	61.12	461420.5	460745.8	674.7	-0.0	-0.00
25YR-72HR	61.13	462032.2	461359.4	672.8	-0.0	-0.00
25YR-72HR	61.15	462576.0	461904.8	671.2	-0.0	-0.00
25YR-72HR	61.17	463102.4	462432.6	669.8	-0.0	-0.00
25YR-72HR	61.18	463651.4	462983.2	668.2	-0.0	-0.00
25YR-72HR	61.20	464203.1	463536.0	667.1	-0.0	-0.00
25YR-72HR	61.22	464720.1	464054.3	665.8	-0.0	-0.00
25YR-72HR	61.23	465207.1	464542.4	664.8	-0.0	-0.00
25YR-72HR	61.25	465746.0	465082.3	663.8	-0.0	-0.00
25YR-72HR	61.27	466241.2	465578.4	662.9	-0.0	-0.00
25YR-72HR	61.28	466709.0	466046.9	662.1	-0.0	-0.00
25YR-72HR	61.30	467181.2	466519.7	661.4	-0.0	-0.00
25YR-72HR	61.32	467706.5	467045.8	660.7	-0.0	-0.00
25YR-72HR	61.33	468140.3	467480.2	660.1	-0.0	-0.00
25YR-72HR	61.35	468632.9	467973.4	659.5	-0.0	-0.00
25YR-72HR	61.37	469114.2	468455.2	659.0	-0.0	-0.00
25YR-72HR	61.38	469553.5	468894.9	658.5	-0.0	-0.00
25YR-72HR	61.40	470007.5	469349.4	658.1	-0.0	-0.00
25YR-72HR	61.42	470499.6	469842.0	657.7	-0.0	-0.00
25YR-72HR	61.43	470941.1	470283.8	657.3	-0.0	-0.00
25YR-72HR	61.45	471384.1	470727.1	657.0	-0.0	-0.00
25YR-72HR	61.47	471831.4	471174.7	656.7	-0.0	-0.00
25YR-72HR	61.48	472283.5	471627.0	656.4	-0.0	-0.00
25YR-72HR	61.50	472742.2	472085.9	656.3	-0.0	-0.00
25YR-72HR	61.52	473181.6	472525.7	655.9	-0.0	-0.00
25YR-72HR	61.53	473631.5	472975.3	656.1	-0.0	-0.00
25YR-72HR	61.55	474056.4	473401.2	655.2	-0.0	-0.00
25YR-72HR	61.57	474495.3	473840.6	654.6	-0.0	-0.00
25YR-72HR	61.58	474937.9	474283.9	654.0	-0.0	-0.00
25YR-72HR	61.60	475333.9	474680.5	653.4	-0.0	-0.00
25YR-72HR	61.62	475769.4	475116.8	652.6	-0.0	-0.00
25YR-72HR	61.63	476179.8	475527.9	652.0	-0.0	-0.00
25YR-72HR	61.65	476588.5	475937.1	651.3	-0.0	-0.00



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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
25YR-72HR	61.67	477003.4	476352.7	650.7	-0.0	-0.00
25YR-72HR	61.68	477392.1	476741.9	650.2	-0.0	-0.00
25YR-72HR	61.70	477792.4	477142.5	649.9	-0.0	-0.00
25YR-72HR	61.72	478190.6	477541.3	649.2	-0.0	-0.00
25YR-72HR	61.73	478561.3	477912.4	648.8	-0.0	-0.00
25YR-72HR	61.75	478957.8	478309.3	648.5	-0.0	-0.00
25YR-72HR	61.77	479333.6	478685.4	648.1	-0.0	-0.00
25YR-72HR	61.78	479748.4	479100.3	648.1	-0.0	-0.00
25YR-72HR	61.80	480095.8	479448.3	647.5	-0.0	-0.00
25YR-72HR	61.82	480498.5	479851.3	647.3	-0.0	-0.00
25YR-72HR	61.83	480859.8	480212.7	647.0	-0.0	-0.00
25YR-72HR	61.85	481248.3	480601.5	646.8	-0.0	-0.00
25YR-72HR	61.87	481604.3	480957.7	646.6	-0.0	-0.00
25YR-72HR	61.88	481972.2	481325.8	646.4	-0.0	-0.00
25YR-72HR	61.90	482333.1	481686.9	646.2	-0.0	-0.00
25YR-72HR	61.92	482715.2	482069.1	646.1	-0.0	-0.00
25YR-72HR	61.93	483074.8	482428.9	645.9	-0.0	-0.00
25YR-72HR	61.95	483449.2	482803.5	645.8	-0.0	-0.00
25YR-72HR	61.97	483799.2	483153.6	645.7	-0.0	-0.00
25YR-72HR	61.98	484176.5	483530.9	645.5	-0.0	-0.00
25YR-72HR	62.00	484523.3	483877.9	645.4	-0.0	-0.00
25YR-72HR	62.02	484911.9	484266.7	645.2	-0.0	-0.00
25YR-72HR	62.03	485257.7	484612.7	645.0	-0.0	-0.00
25YR-72HR	62.05	485607.8	484963.2	644.6	-0.0	-0.00
25YR-72HR	62.07	485969.5	485325.5	644.1	-0.0	-0.00
25YR-72HR	62.08	486305.9	485662.6	643.4	-0.0	-0.00
25YR-72HR	62.10	486665.3	486022.7	642.5	-0.0	-0.00
25YR-72HR	62.12	486988.5	486346.7	641.8	-0.0	-0.00
25YR-72HR	62.13	487312.5	486671.3	641.1	-0.0	-0.00
25YR-72HR	62.15	487635.9	486995.6	640.3	-0.0	-0.00
25YR-72HR	62.17	487971.0	487331.3	639.7	-0.0	-0.00
25YR-72HR	62.18	488273.2	487634.1	639.1	-0.0	-0.00
25YR-72HR	62.20	488585.9	487947.3	638.5	-0.0	-0.00
25YR-72HR	62.22	488884.2	488246.1	638.1	-0.0	-0.00
25YR-72HR	62.23	489196.3	488558.7	637.6	-0.0	-0.00
25YR-72HR	62.25	489490.1	488852.9	637.2	-0.0	-0.00
25YR-72HR	62.27	489783.9	489147.1	636.9	-0.0	-0.00
25YR-72HR	62.28	490080.3	489443.9	636.5	-0.0	-0.00
25YR-72HR	62.30	490372.3	489736.1	636.2	-0.0	-0.00
25YR-72HR	62.32	490669.0	490033.1	635.9	-0.0	-0.00
25YR-72HR	62.33	490944.7	490309.1	635.6	-0.0	-0.00
25YR-72HR	62.35	491228.2	490592.8	635.4	-0.0	-0.00
25YR-72HR	62.37	491515.9	490880.3	635.5	-0.0	-0.00
25YR-72HR	62.38	491788.3	491153.4	634.9	-0.0	-0.00
25YR-72HR	62.40	492078.5	491443.4	635.1	-0.0	-0.00
25YR-72HR	62.42	492347.9	491713.4	634.5	-0.0	-0.00
25YR-72HR	62.43	492613.8	491979.3	634.5	-0.0	-0.00
25YR-72HR	62.45	492900.4	492266.2	634.2	-0.0	-0.00
25YR-72HR	62.47	493161.3	492527.3	634.1	-0.0	-0.00
25YR-72HR	62.48	493440.6	492806.7	633.9	-0.0	-0.00
25YR-72HR	62.50	493706.1	493072.3	633.8	-0.0	-0.00
25YR-72HR	62.52	493975.2	493341.6	633.6	-0.0	-0.00
25YR-72HR	62.53	494248.4	493614.9	633.5	-0.0	-0.00
25YR-72HR	62.55	494513.7	493880.4	633.3	-0.0	-0.00
25YR-72HR	62.57	494788.9	494155.8	633.0	-0.0	-0.00
25YR-72HR	62.58	495036.8	494404.0	632.8	-0.0	-0.00
25YR-72HR	62.60	495308.8	494676.3	632.5	-0.0	-0.00
25YR-72HR	62.62	495563.5	494931.3	632.2	-0.0	-0.00
25YR-72HR	62.63	495823.7	495191.8	631.9	-0.0	-0.00
25YR-72HR	62.65	496071.0	495439.4	631.7	-0.0	-0.00
25YR-72HR	62.67	496319.3	495687.8	631.4	-0.0	-0.00
25YR-72HR	62.68	496576.9	495945.3	631.6	-0.0	-0.00
25YR-72HR	62.70	496821.1	496190.1	631.0	-0.0	-0.00
25YR-72HR	62.72	497067.4	496436.6	630.8	-0.0	-0.00
25YR-72HR	62.73	497316.5	496685.9	630.6	-0.0	-0.00
25YR-72HR	62.75	497553.1	496922.7	630.5	-0.0	-0.00
25YR-72HR	62.77	497799.8	497169.4	630.3	-0.0	-0.00
25YR-72HR	62.78	498042.6	497412.4	630.2	-0.0	-0.00
25YR-72HR	62.80	498284.7	497654.6	630.1	-0.0	-0.00
25YR-72HR	62.82	498520.5	497890.5	630.0	-0.0	-0.00
25YR-72HR	62.83	498762.0	498132.1	629.9	-0.0	-0.00
25YR-72HR	62.85	499006.8	498377.1	629.8	-0.0	-0.00
25YR-72HR	62.87	499236.0	498606.3	629.7	-0.0	-0.00
25YR-72HR	62.88	499468.8	498839.2	629.6	-0.0	-0.00
25YR-72HR	62.90	499705.8	499076.2	629.5	-0.0	-0.00
25YR-72HR	62.92	499941.7	499312.2	629.5	-0.0	-0.00
25YR-72HR	62.93	500181.7	499552.2	629.5	-0.0	-0.00
25YR-72HR	62.95	500415.3	499786.0	629.4	-0.0	-0.00
25YR-72HR	62.97	500648.6	500019.3	629.3	-0.0	-0.00
25YR-72HR	62.98	500881.1	500251.8	629.3	-0.0	-0.00
25YR-72HR	63.00	501121.4	500492.2	629.2	-0.0	-0.00
25YR-72HR	63.02	501346.2	500717.0	629.2	-0.0	-0.00
25YR-72HR	63.03	501578.5	500949.4	629.2	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
25YR-72HR	63.05	501818.9	501189.8	629.1	-0.0	-0.00
25YR-72HR	63.07	502049.8	501420.7	629.1	-0.0	-0.00
25YR-72HR	63.08	502275.2	501646.0	629.2	-0.0	-0.00
25YR-72HR	63.10	502517.6	501888.5	629.0	-0.0	-0.00
25YR-72HR	63.12	502746.2	502117.3	629.0	-0.0	-0.00
25YR-72HR	63.13	502977.2	502348.2	629.0	-0.0	-0.00
25YR-72HR	63.15	503210.2	502581.3	628.9	-0.0	-0.00
25YR-72HR	63.17	503437.2	502808.3	628.9	-0.0	-0.00
25YR-72HR	63.18	503665.7	503036.8	628.9	-0.0	-0.00
25YR-72HR	63.20	503906.1	503276.7	629.3	-0.0	-0.00
25YR-72HR	63.22	504129.0	503500.1	628.8	-0.0	-0.00
25YR-72HR	63.23	504356.7	503727.9	628.8	-0.0	-0.00
25YR-72HR	63.25	504591.6	503962.8	628.8	-0.0	-0.00
25YR-72HR	63.27	504818.2	504189.4	628.8	-0.0	-0.00
25YR-72HR	63.28	505053.8	504425.0	628.8	-0.0	-0.00
25YR-72HR	63.30	505277.4	504648.6	628.8	-0.0	-0.00
25YR-72HR	63.32	505504.0	504875.2	628.8	-0.0	-0.00
25YR-72HR	63.33	505738.3	505109.6	628.8	-0.0	-0.00
25YR-72HR	63.35	505968.5	505339.8	628.7	-0.0	-0.00
25YR-72HR	63.37	506199.6	505570.8	628.7	-0.0	-0.00
25YR-72HR	63.38	506419.9	505791.2	628.7	-0.0	-0.00
25YR-72HR	63.40	506657.7	506029.0	628.7	-0.0	-0.00
25YR-72HR	63.42	506881.5	506252.8	628.8	-0.0	-0.00
25YR-72HR	63.43	507113.5	506484.8	628.7	-0.0	-0.00
25YR-72HR	63.45	507345.1	506716.3	628.7	-0.0	-0.00
25YR-72HR	63.47	507576.0	506947.3	628.7	-0.0	-0.00
25YR-72HR	63.48	507796.4	507167.7	628.7	-0.0	-0.00
25YR-72HR	63.50	508031.8	507403.1	628.7	-0.0	-0.00
25YR-72HR	63.52	508260.5	507631.8	628.7	-0.0	-0.00
25YR-72HR	63.53	508487.9	507859.3	628.7	-0.0	-0.00
25YR-72HR	63.55	508711.4	508082.7	628.7	-0.0	-0.00
25YR-72HR	63.57	508940.6	508311.8	628.7	-0.0	-0.00
25YR-72HR	63.58	509181.2	508551.7	629.5	-0.0	-0.00
25YR-72HR	63.60	509402.4	508773.7	628.7	-0.0	-0.00
25YR-72HR	63.62	509633.1	509004.4	628.7	-0.0	-0.00
25YR-72HR	63.63	509862.3	509233.6	628.7	-0.0	-0.00
25YR-72HR	63.65	510088.7	509459.8	628.9	-0.0	-0.00
25YR-72HR	63.67	510321.1	509692.4	628.7	-0.0	-0.00
25YR-72HR	63.68	510556.6	509927.9	628.7	-0.0	-0.00
25YR-72HR	63.70	510777.8	510149.1	628.7	-0.0	-0.00
25YR-72HR	63.72	511001.0	510372.3	628.7	-0.0	-0.00
25YR-72HR	63.73	511231.2	510602.5	628.7	-0.0	-0.00
25YR-72HR	63.75	511471.7	510843.0	628.7	-0.0	-0.00
25YR-72HR	63.77	511696.1	511067.4	628.7	-0.0	-0.00
25YR-72HR	63.78	511926.5	511297.8	628.7	-0.0	-0.00
25YR-72HR	63.80	512146.5	511517.9	628.7	-0.0	-0.00
25YR-72HR	63.82	512377.5	511748.9	628.7	-0.0	-0.00
25YR-72HR	63.83	512608.3	511979.6	628.7	-0.0	-0.00
25YR-72HR	63.85	512836.7	512208.0	628.7	-0.0	-0.00
25YR-72HR	63.87	513065.9	512437.2	628.7	-0.0	-0.00
25YR-72HR	63.88	513300.7	512672.0	628.7	-0.0	-0.00
25YR-72HR	63.90	513527.1	512898.4	628.8	-0.0	-0.00
25YR-72HR	63.92	513762.6	513133.7	628.9	-0.0	-0.00
25YR-72HR	63.93	513980.5	513351.8	628.7	-0.0	-0.00
25YR-72HR	63.95	514208.0	513579.3	628.7	-0.0	-0.00
25YR-72HR	63.97	514439.6	513810.7	628.9	-0.0	-0.00
25YR-72HR	63.98	514669.9	514041.1	628.8	-0.0	-0.00
25YR-72HR	64.00	514894.7	514266.0	628.7	-0.0	-0.00
25YR-72HR	64.02	515128.1	514499.7	628.4	-0.0	-0.00
25YR-72HR	64.10	516228.2	515601.6	626.6	-0.0	-0.00
25YR-72HR	64.18	517215.4	516591.6	623.8	-0.0	-0.00
25YR-72HR	64.27	518112.9	517491.1	621.9	-0.0	-0.00
25YR-72HR	64.35	518944.3	518323.3	621.0	-0.0	-0.00
25YR-72HR	64.43	519733.1	519113.2	619.9	-0.0	-0.00
25YR-72HR	64.52	520487.6	519868.5	619.1	-0.0	-0.00
25YR-72HR	64.60	521217.5	520598.9	618.7	-0.0	-0.00
25YR-72HR	64.68	521932.9	521314.6	618.3	-0.0	-0.00
25YR-72HR	64.77	522631.5	522013.5	618.0	-0.0	-0.00
25YR-72HR	64.85	523325.3	522706.7	618.7	-0.0	-0.00
25YR-72HR	64.93	524010.8	523393.0	617.8	-0.0	-0.00
25YR-72HR	65.02	524697.2	524079.4	617.8	-0.0	-0.00
25YR-72HR	65.10	525380.1	524762.3	617.8	-0.0	-0.00
25YR-72HR	65.18	526068.4	525450.6	617.8	-0.0	-0.00
25YR-72HR	65.27	526751.1	526133.3	617.8	-0.0	-0.00
25YR-72HR	65.35	527441.7	526823.8	617.9	-0.0	-0.00
25YR-72HR	65.43	528126.6	527508.7	617.9	-0.0	-0.00
25YR-72HR	65.52	528815.0	528197.1	617.9	-0.0	-0.00
25YR-72HR	65.60	529508.6	528890.8	617.9	-0.0	-0.00
25YR-72HR	65.68	530194.1	529576.2	617.9	-0.0	-0.00
25YR-72HR	65.77	530882.1	530264.2	617.9	-0.0	-0.00
25YR-72HR	65.85	531572.5	530954.6	617.9	-0.0	-0.00
25YR-72HR	65.93	532260.9	531643.0	617.9	-0.0	-0.00
25YR-72HR	66.02	532952.3	532334.4	617.9	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
25YR-72HR	66.10	533639.1	533021.2	617.9	-0.0	-0.00
25YR-72HR	66.18	534329.6	533711.7	617.9	-0.0	-0.00
25YR-72HR	66.27	535017.8	534399.9	617.9	-0.0	-0.00
25YR-72HR	66.35	535707.3	535089.5	617.9	-0.0	-0.00
25YR-72HR	66.43	536396.0	535778.1	617.9	-0.0	-0.00
25YR-72HR	66.52	537086.4	536468.5	617.9	-0.0	-0.00
25YR-72HR	66.60	537775.6	537157.7	617.9	-0.0	-0.00
25YR-72HR	66.68	538467.8	537849.8	618.0	-0.0	-0.00
25YR-72HR	66.77	539155.5	538537.6	617.9	-0.0	-0.00
25YR-72HR	66.85	539842.3	539224.4	617.9	-0.0	-0.00
25YR-72HR	66.93	540534.1	539916.2	617.9	-0.0	-0.00
25YR-72HR	67.02	541224.8	540607.0	617.7	-0.0	-0.00
25YR-72HR	67.10	541911.2	541293.3	617.9	-0.0	-0.00
25YR-72HR	67.18	542600.1	541982.2	617.9	-0.0	-0.00
25YR-72HR	67.27	543289.7	542671.8	617.9	-0.0	-0.00
25YR-72HR	67.35	543980.9	543363.0	617.9	-0.0	-0.00
25YR-72HR	67.43	544671.8	544053.9	617.8	-0.0	-0.00
25YR-72HR	67.52	545360.0	544742.1	617.9	-0.0	-0.00
25YR-72HR	67.60	546047.2	545429.3	617.9	-0.0	-0.00
25YR-72HR	67.68	546737.4	546119.5	617.9	-0.0	-0.00
25YR-72HR	67.77	547426.9	546809.0	617.9	-0.0	-0.00
25YR-72HR	67.85	548118.2	547500.3	617.9	-0.0	-0.00
25YR-72HR	67.93	548805.6	548187.7	617.9	-0.0	-0.00
25YR-72HR	68.02	549493.5	548875.7	617.8	-0.0	-0.00
25YR-72HR	68.10	550158.6	549541.8	616.9	-0.0	-0.00
25YR-72HR	68.18	550767.5	550151.9	615.5	-0.0	-0.00
25YR-72HR	68.27	551329.1	550714.5	614.6	-0.0	-0.00
25YR-72HR	68.35	551858.4	551244.3	614.1	-0.0	-0.00
25YR-72HR	68.43	552367.0	551753.4	613.6	-0.0	-0.00
25YR-72HR	68.52	552857.7	552244.4	613.4	-0.0	-0.00
25YR-72HR	68.60	553337.5	552724.1	613.5	-0.0	-0.00
25YR-72HR	68.68	553808.8	553195.8	612.9	-0.0	-0.00
25YR-72HR	68.77	554272.9	553659.6	613.3	-0.0	-0.00
25YR-72HR	68.85	554733.5	554120.7	612.7	-0.0	-0.00
25YR-72HR	68.93	555191.6	554578.9	612.7	-0.0	-0.00
25YR-72HR	69.02	555647.8	555035.1	612.7	-0.0	-0.00
25YR-72HR	69.10	556103.1	555490.4	612.7	-0.0	-0.00
25YR-72HR	69.18	556560.4	555947.7	612.7	-0.0	-0.00
25YR-72HR	69.27	557016.7	556404.1	612.6	-0.0	-0.00
25YR-72HR	69.35	557472.2	556859.6	612.6	-0.0	-0.00
25YR-72HR	69.43	557929.2	557316.5	612.7	-0.0	-0.00
25YR-72HR	69.52	558385.0	557772.4	612.6	-0.0	-0.00
25YR-72HR	69.60	558841.4	558228.7	612.7	-0.0	-0.00
25YR-72HR	69.68	559299.0	558686.3	612.7	-0.0	-0.00
25YR-72HR	69.77	559754.5	559141.9	612.6	-0.0	-0.00
25YR-72HR	69.85	560211.2	559598.5	612.7	-0.0	-0.00
25YR-72HR	69.93	560666.2	560053.5	612.7	-0.0	-0.00
25YR-72HR	70.02	561123.4	560510.7	612.7	-0.0	-0.00
25YR-72HR	70.10	561580.3	560967.6	612.7	-0.0	-0.00
25YR-72HR	70.18	562037.2	561424.5	612.7	-0.0	-0.00
25YR-72HR	70.27	562495.1	561882.4	612.7	-0.0	-0.00
25YR-72HR	70.35	562952.4	562339.7	612.7	-0.0	-0.00
25YR-72HR	70.43	563411.4	562798.7	612.7	-0.0	-0.00
25YR-72HR	70.52	563870.1	563257.0	613.1	-0.0	-0.00
25YR-72HR	70.60	564328.3	563715.5	612.8	-0.0	-0.00
25YR-72HR	70.68	564786.9	564174.3	612.7	-0.0	-0.00
25YR-72HR	70.77	565245.5	564632.7	612.8	-0.0	-0.00
25YR-72HR	70.85	565705.5	565092.7	612.8	-0.0	-0.00
25YR-72HR	70.93	566164.0	565551.2	612.8	-0.0	-0.00
25YR-72HR	71.02	566622.5	566009.7	612.8	-0.0	-0.00
25YR-72HR	71.10	567081.9	566469.2	612.8	-0.0	-0.00
25YR-72HR	71.18	567541.5	566928.8	612.8	-0.0	-0.00
25YR-72HR	71.27	568000.2	567387.5	612.8	-0.0	-0.00
25YR-72HR	71.35	568459.6	567846.9	612.8	-0.0	-0.00
25YR-72HR	71.43	568918.9	568306.1	612.7	-0.0	-0.00
25YR-72HR	71.52	569376.8	568764.0	612.8	-0.0	-0.00
25YR-72HR	71.60	569835.9	569223.2	612.8	-0.0	-0.00
25YR-72HR	71.68	570296.8	569684.4	612.4	-0.0	-0.00
25YR-72HR	71.77	570753.4	570140.6	612.8	-0.0	-0.00
25YR-72HR	71.85	571212.7	570600.0	612.8	-0.0	-0.00
25YR-72HR	71.93	571672.8	571059.7	613.1	-0.0	-0.00
25YR-72HR	72.02	572128.8	571516.3	612.5	-0.0	-0.00
25YR-72HR	72.27	573052.6	572445.6	607.0	-0.0	-0.00
25YR-72HR	72.77	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	73.02	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	73.27	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	73.52	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	73.77	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	74.02	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	74.27	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	74.52	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	74.77	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	75.02	573172.2	572568.1	604.2	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
25YR-72HR	75.27	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	75.52	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	75.77	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	76.02	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	76.27	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	76.52	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	76.77	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	77.02	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	77.27	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	77.52	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	77.77	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	78.02	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	78.27	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	78.52	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	78.77	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	79.02	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	79.27	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	79.52	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	79.77	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	80.02	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	80.27	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	80.52	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	80.77	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	81.02	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	81.27	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	81.52	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	81.77	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	82.02	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	82.27	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	82.52	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	82.77	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	83.02	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	83.27	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	83.52	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	83.77	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	84.02	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	84.27	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	84.52	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	84.77	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	85.02	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	85.27	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	85.52	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	85.77	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	86.02	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	86.27	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	86.52	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	86.77	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	87.02	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	87.27	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	87.52	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	87.77	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	88.02	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	88.27	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	88.52	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	88.77	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	89.02	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	89.27	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	89.52	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	89.77	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	90.02	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	90.27	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	90.52	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	90.77	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	91.02	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	91.27	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	91.52	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	91.77	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	92.02	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	92.27	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	92.52	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	92.77	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	93.02	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	93.27	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	93.52	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	93.77	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	94.02	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	94.27	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	94.52	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	94.77	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	95.02	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	95.27	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	95.52	573172.2	572568.1	604.2	-0.0	-0.00
25YR-72HR	95.77	573172.2	572568.1	604.2	-0.0	-0.00

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Simulation	Time hrs	Inflow Volume ft3	Outflow Volume ft3	Change in Sys Storage ft3	Difference ft3	Error %
25YR-72HR	96.00	573172.2	572568.1	604.2	-0.0	-0.00