System 21

Pre-Development Land Use Tables
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Water Quality Summary Table
Drainage Calculations
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Pre-Development Node Link Diagram
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SR-826/PALMETTO EXPRESSWAY EXPRESS LANES PD&E STUDY DRAINAGE CALCULATIONS

TABLE 21-1: PRE-DEVELOPMENT LAND-USE

DRAINAGE SYSTEM: 21 **SHGWT EL. (ft-NAVD): 1.43**

BASIN	Time of Conc. t_c (min.)	TOTAL AREA (Ac.)	TOTAL ONSITE AREA (Ac.)	ONSITE IMPERVIOUS AREA (Ac.)	ONSITE WATER SURFACE AREA (Ac.)	ONSITE PERVIOUS AREA (Ac.)	TOTAL OFFSITE AREA (Ac.)	OFFSITE IMPERVIOUS AREA (Ac.)	OFFSITE WATER SURFACE AREA (Ac.)	OFFSITE PERVIOUS AREA (Ac.)	AVERAGE GROUND ELEV. (ft-NAVD)	AVERAGE DEPTH TO SHGWT (ft)	COMPACTED SOIL STORAGE (in)	CURVE NUMBER
POND 21W1	**10**	**5.66**	**5.66**	3.49	0.00	2.17	**0.00**	0.00	0.00	0.00	2.45	1.02	0.45	**98.00**
POND 21W2	**10**	**9.90**	**9.90**	5.79	0.00	4.11	**0.00**	0.00	0.00	0.00	2.45	1.02	0.45	**98.00**
SYSTEM 21 TOTALS		**15.56**	**15.56**	**9.28**	**0.00**	**6.28**	**0.00**	**0.00**	**0.00**	**0.00**	--	--	--	--

SR-826/PALMETTO EXPRESSWAY EXPRESS LANES PD&E STUDY DRAINAGE CALCULATIONS

POST-DEVELOPMENT LAND-USE

DRAINAGE SYSTEM: 21 **SHGWT EL. (ft-NAVD): 1.43**

BASIN	Time of Conc. t_c (min.)	TOTAL AREA (Ac.)	TOTAL ONSITE AREA (Ac.)	ONSITE IMPERVIOUS AREA (Ac.)	ONSITE WATER SURFACE AREA (Ac.)	ONSITE PERVIOUS AREA (Ac.)	TOTAL OFFSITE AREA (Ac.)	OFFSITE IMPERVIOUS AREA (Ac.)	OFFSITE WATER SURFACE AREA (Ac.)	OFFSITE PERVIOUS AREA (Ac.)	AVERAGE GROUND ELEV. (ft-NAVD)	AVERAGE DEPTH TO SHGWT (ft)	COMPACTED SOIL STORAGE (in)	CURVE NUMBER
POND 21W1	**10**	**5.66**	**5.66**	3.49	0.00	2.17	**0.00**	0.00	0.00	0.00	2.45	1.02	0.45	**98.00**
POND 21W2	**10**	**9.90**	**9.90**	5.79	0.00	4.11	**0.00**	0.00	0.00	0.00	2.45	1.02	0.45	**98.00**
SYSTEM TOTALS		**15.56**	**15.56**	**9.28**	**0.00**	**6.28**	**0.00**	**0.00**	**0.00**	**0.00**	--	--	--	--

SR-826/PALMETTO EXPRESSWAY EXPRESS LANES PD&E STUDY DRAINAGE CALCULATIONS
WATER QUALITY

Drainage System: ***21***

SYSTEM	SHGWT EL. (ft-NAVD)	TOTAL ONSITE AREA (Ac.) *[POST-DEV.]*	ONSITE IMPERVIOUS AREA (Ac.) *[POST-DEV.]*	ONSITE PERVIOUS AREA (Ac.) *[POST-DEV.]*	SFWMD 1" OVER TOTAL ONSITE AREA (Ac-ft)	SFWMD 2.5" OVER IMPERVIOUS AREA (Ac-ft)	[1] SFWMD WATER QUALITY TREATMENT REQUIRED FOR RETENTION (Ac-ft)	[2] DRER WATER QUALITY TREATMENT REQUIRED (Ac-ft)	DRY- / WET-RETENTION TREATMENT VOLUME PROVIDED (Ac-ft)	FRENCH DRAIN TREATMENT VOLUME PROVIDED (Ac-ft)	TOTAL TREATMENT VOLUME PROVIDED (Ac-ft)	SURPLUS TREATMENT VOLUME PROVIDED (Ac-ft)
21	1.43	15.56	9.28	6.28	1.30	1.93	**0.97**	**1.87**	4.11	0.00	**4.11**	**2.23**
SYSTEM TOTAL	1.43	15.56	9.28	6.28	1.30	1.93	**0.97**	**1.87**	4.11	0.00	**4.11**	**2.23**

[1] Greater of 1" over Total Onsite Area and 2.5" over Onsite Impervious Area, multiplied by 0.50 to account for 50% retention volume required.
[2] See next page for water quality calculations by Miami-Dade Department of Regulatory and Economic Resources (DRER).

POND 21W1			POND 21W2		
TYPE:	Dry Retention		TYPE:	Dry Retention	
STAGE (ft-NAVD)	AREA (Ac.)	VOLUME (Ac-ft)	STAGE (ft-NAVD)	AREA (Ac.)	VOLUME (Ac-ft)
2.43	0.44		2.43	2.28	
3.43	0.47	0.46	*3.43*	*2.42*	*2.35*
4.43	0.51	0.95	4.43	2.56	*2.49*
5.43	*0.55*	*1.48*	5.43	2.70	*2.63*

SR-826/PALMETTO EXPRESSWAY EXPRESS LANES DRAINAGE CALCULATIONS

TABLE 21-6: WATER QUALITY CALCULATIONS BY DRER

Drainage System: 21

AREA:

Onsite Impervious	**9.28**	Ac.	60%
Onsite Pervious	**6.28**	Ac.	40%
Total Area	**15.56**	Ac.	
	Cimp.=	*90*	*0.90*
	Cperv.=	*30*	*0.30*

DRER CRITERIA:

$$t_{1"} = \frac{2940 \times F^{-0.11}}{308.5 \times C - 60.5\,(0.5895 + F^{-0.67})}$$

WHERE:

$t_{1"}$ = *time to generate 1" of runoff, in minutes*

F= 10 Yr.,frequency in years, *DCPW Manual, Part II, Section D4 - Water Control, Table I. See Appendix A.*

Cwtd= 0.66 *weighted runoff coefficient (from the rational formula)*

Tc= 10 min. *time of concentration, in minutes*

$$C = (A_{IMP} \times C_{IMP} + A_{PERV} \times C_{PERV}) / A_T = \mathbf{0.66}$$

$t_{1"}$ = 14.79 min.

TOTAL TIME OF CONCENTRATION (T_T)

$T_T = t_{1"} + Tc =$ 24.79 min.

STORM INTENSITY (Dade County Rainfall Intensity-Duration-Frequency Curves)

$$i = \frac{308.5}{48.6 \times F^{-0.11} + Tt\,(0.5895 + F^{-0.67})}$$

i = 5.35 in/hr.

DETERMINE THE TOTAL RUNOFF VOLUME TO BE TREATED V(1") (FOR 1 INCH):

$V_{1"} = 60\,CiAT_t =$ **81479.94** **cf** **1.87** **ac.-ft.**

SR-826/PALMETTO EXPRESSWAY EXPRESS LANES PD&E STUDY DRAINAGE CALCULATIONS

Variable Groundwater Calculations

Drainage System:	***21***

Stage = DHW + [PRG x (RF - DHW)]
See ADICPR Technical Design Guide 2-25

Elevation Conversion:	-1.57	ft.	(NGVD-NAVD)

DHW =	3.00	ft. - NGVD	Design High Water / October Average Groundwater Elevation
	1.43	ft. - NAVD	(MD PWD - W.C. 2.2)
RF =	4.00	ft. - NGVD	Return Frequency Groundwater Elevation / Average Yearly Highest Groundwater Level (AYH) (MD PWD
	2.43	ft. - NAVD	- W.C. 2.1)
PRG=	Variable		(Percentage Rise in Groundwater)

8-hr Design Storm Duration

Time	PRG	Stage
(hrs)	%	(ft)
0	0.00	1.43
1	0.02	1.45
2	0.13	1.56
3	0.28	1.71
4	0.70	2.13
5	0.86	2.29
6	0.92	2.35
7	0.97	2.40
8	1.00	2.43
12	0.00	1.43

24-hr Design Storm Duration

Time	PRG	Stage
(hrs)	%	(ft)
0	0.00	1.43
1	0.01	1.44
2	0.03	1.46
3	0.06	1.49
4	0.09	1.52
5	0.12	1.55
6	0.16	1.59
7	0.20	1.63
8	0.24	1.67
9	0.30	1.73
10	0.36	1.79
11	0.44	1.87
12	0.54	1.97
13	0.61	2.04
14	0.67	2.10
15	0.73	2.16
16	0.78	2.21
17	0.82	2.25
18	0.86	2.29
19	0.90	2.33
20	0.93	2.36
21	0.96	2.39
22	0.98	2.41
23	0.99	2.42
24	1.00	2.43
36	0.00	1.43

72-hr Design Storm Duration

Time	PRG	Stage
(hrs)	%	(ft)
0	0.00	1.43
24	0.11	1.54
36	0.19	1.62
48	0.26	1.69
49	0.27	1.70
50	0.28	1.71
51	0.29	1.72
52	0.30	1.73
53	0.31	1.74
54	0.33	1.76
55	0.34	1.77
56	0.37	1.80
57	0.39	1.82
57.5	0.40	1.83
58	0.42	1.85
58.5	0.44	1.87
59	0.46	1.89
59.5	0.50	1.93
60	0.75	2.18
60.5	0.80	2.23
61	0.83	2.26
61.5	0.85	2.28
62	0.87	2.30
62.5	0.88	2.31
63	0.89	2.32
64	0.91	2.34
65	0.92	2.35
66	0.94	2.37
68	0.96	2.39
70	0.98	2.41
72	1.00	2.43
108	0.00	1.43

SR-826/PALMETTO EXPRESSWAY EXPRESS LANES PD&E STUDY DRAINAGE CALCULATIONS

VARIABLE TAILWATER*

FOR SYSTEM 21:

8HR			24HR			72HR		
TIME	STAGE (FT-NGVD)	STAGE (FT-NGVD)	TIME	STAGE (FT-NGVD)	STAGE (FT-NGVD)	TIME	STAGE (FT-NGVD)	STAGE (FT-NGVD)
0.00	3.00	1.43	0.00	3.00	1.43	0.00	3.00	1.43
8.00	4.00	2.43	24.00	4.00	2.43	72.00	4.00	2.43
12.00	3.00	1.43	36.00	3.00	1.43	108.00	3.00	1.43

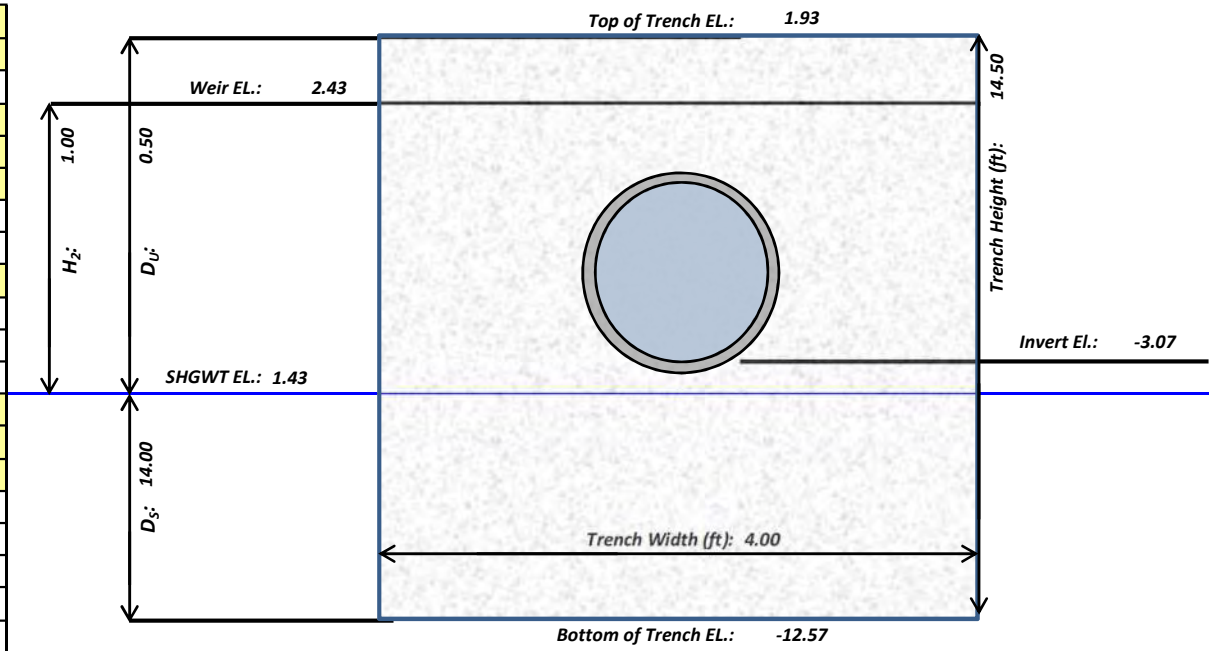
SR-826/PALMETTO EXPRESSWAY EXPRESS LANES PD&E STUDY DRAINAGE CALCULATIONS

FRENCH DRAIN DESIGN & TREATMENT VOLUMES

Drainage System: 21

French Drain (ICPR Link Name):	EX21PONDW1_21GW1
Existing/Proposed:	Existing
SHGWT EL. (ft-NAVD):	1.43
Pipe Size (in):	24
Effective Length of French Drain, L (LF):	84.0
Safety Factor (SF):	2.00
Effective Length of French Drain with Safety Factor, L (LF):	42.00
Pipe Thickness (in):	3.00
Pipe Invert EL. (ft-NAVD):	-3.07
Top of Trench EL. (ft-NAVD):	1.93
Bottom of Trench EL. (ft-NAVD):	-12.57
Trench Height, H_T (ft):	14.50
Weir EL. (ft-NAVD):	2.43
Trench Width, W (ft):	4.00
Average Hydraulic Conductivity, K_{avg} (cfs/ft^2/ft-head):	N/A*
Depth to Water Table, H_2 (ft):	1.00
Non-Saturated Trench Depth, D_U (ft):	0.50
Saturated Trench Depth, D_S (ft):	14.00
H_2W:	4.00
$2H_2D_U$:	1.00
D_U^2:	0.25
$2H_2D_S$:	28.00
$(1.39x10^{-4})WD_U$:	0.000278
d_2:	0.00
d_3:	4.07
$K_{10\ (OBTAINED\ FROM\ DRAINAGE\ REPORTS\ FOR\ FPID\ 249581-1-52-01)}$:	7.81E-04
$K_{15\ (OBTAINED\ FROM\ DRAINAGE\ REPORTS\ FOR\ FPID\ 249581-1-52-01)}$:	7.98E-04
K_{20}:	0.00E+00
If $D_U > D_S$ and $W < 2H_T$, Treatment Provided, V (ac-in):	N/A*
If $D_S > D_U$ and/or $W > 2H_T$, Treatment Provided, V (ac-in):	0.95
$D_U > D_S$ and $W < 2H_T$ (Yes/No):	No
Treatment Volume Provided, V (Ac-ft):	**0.95**

*Note: FD not considered for water quality purposes



$$V = L[K_{avg}(H_2W + 2H_2D_U - D_U^{\ 2} + 2H_2D_S) + (1.39x10^{-4})WD_U]$$

$$V = L[K_{avg}(2H_2D_U - D_U^{\ 2} + 2H_2D_S) + (1.39x10^{-4})WD_U]$$

SR-826/PALMETTO EXPRESSWAY EXPRESS LANES PD&E STUDY DRAINAGE CALCULATIONS

FRENCH DRAIN OPERATING TABLE/DISCHARGE CALCULATIONS

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: 21

French Drain (ICPR Link Name): **EX21PONDW1_21GW1**
Existing/Proposed: **Existing**
Pipe Size (in): **24**
Length of French Drain, *L* (LF) * : **42.00**
Trench Height, H_T (ft): **14.50**
Trench Width, *W* (ft): **4.00**

Average Hydraulic Conductivity, K_{avg} (cfs/ft²/ft-head): **N/A***
Pipe Invert EL. (ft-NAVD): **-3.07**
Top of Trench EL. (ft-NAVD): **1.93**
Bottom of Trench EL. (ft-NAVD): **-12.57**
Weir EL. (ft-NAVD): **2.43**
Upstream Structure Rim/Grate EL. (ft-NAVD): **2.43**

SHGWT EL. (ft-NAVD): **1.43**
Max Stage (ft-NAVD): ***5.44***
Variable GW EL. required when modeling exfiltration during design storms exceeding 1hr in duration. Model GW as Time-Stage.

AYH EL. (ft-NAVD):**
Average Yearly Highest Ground Water Level **2.43**

** - Per FDOT District 6 AdICPR Applications Manual (Sect. 3.3)*
** - Per Miami-Dade Public Works Design Standard W.C. 2.1*

Operating Table per Condition 3 of ICPR Applications Manual

Max. Exfiltration Rate, (cfs/ft): **1.00E-01**

Tailwater EL. (ft-NAVD)	Headwater EL. (ft-NAVD)	D_U (ft)	d_S (ft)	Head, D_P (ft)	Exfiltration, E (cfs/ft)	Discharge, Q (cfs)	Equations	Comments
1.43	**1.43**	--	--	0.00	0.00000	**0.0000**	(No exfiltration)	TW = SHGWT EL. HW = SHGWT EL.
1.43	**1.93**	0.50	14.00	0.50	0.01512	**0.6350**	$E = 2K_{10}[D_U(D_P-D_U/2)+dsDp]+2K_{15}D_P(5)$ $Q = E \times L$	TW = SHGWT EL. HW = Top of Trench EL.
1.43	**5.44**	0.50	14.00	4.01	0.10000	**8.4000**	$E = 2K_{10}[D_U(D_P-D_U/2)+dsDp]+2K_{15}D_P(5)$ $Q = E \times L$	TW = SHGWT EL. HW = Max Stage
2.43	**2.43**	--	--	0.00	0.00000	**0.0000**	(No exfiltration)	TW = AYH EL. HW = AYH EL.
2.43	**5.44**	-0.50	15.00	3.01	0.09200	**3.8639**	$E = 2K_{10}[D_U(D_P-D_U/2)+dsDp]+2K_{15}D_P(5)$ $Q = E \times L$	TW = AYH EL. HW = Max Stage

Tailwater-Headwater-Discharge relationship input as Operating Table from French Drain Node to Groundwater Node. Rating Curve On/Off EL. = SHGWT EL.

Tailwater EL. (ft-NAVD)	Headwater EL. (ft-NAVD)	Discharge, Q (cfs)
1.43	**1.43**	**0.0000**
1.43	**1.93**	**0.6350**
1.43	**5.44**	**8.4000**
2.43	**2.43**	**0.0000**
2.43	**5.44**	**3.8639**

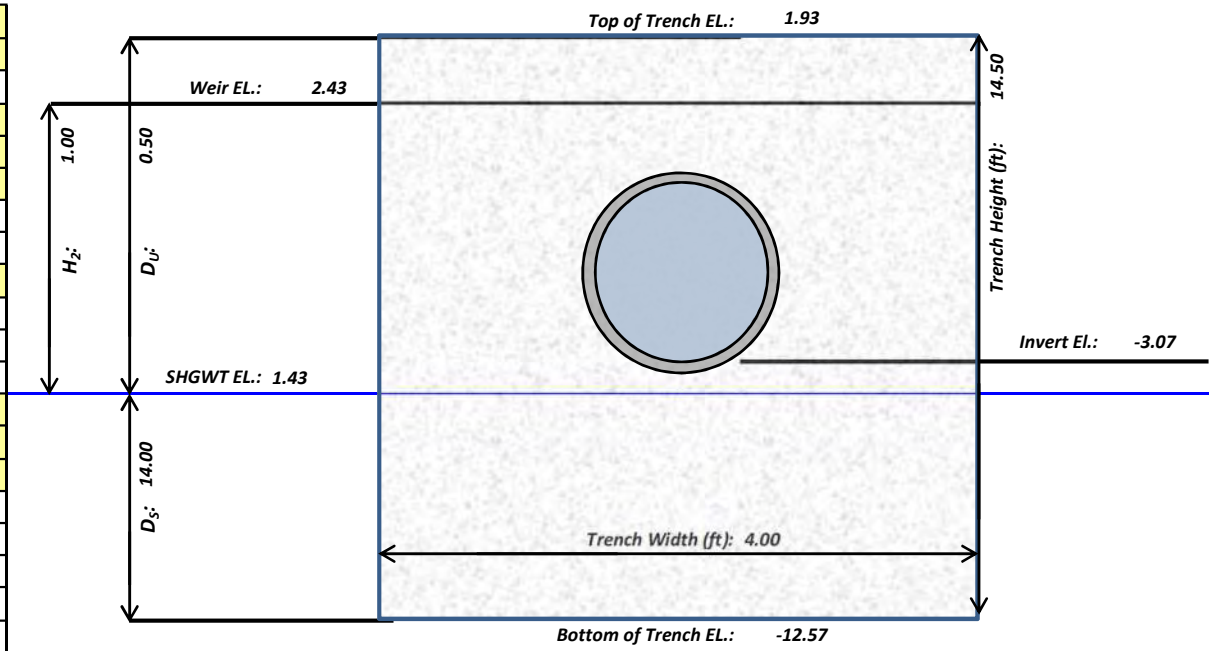
SR-826/PALMETTO EXPRESSWAY EXPRESS LANES PD&E STUDY DRAINAGE CALCULATIONS

FRENCH DRAIN DESIGN & TREATMENT VOLUMES

Drainage System: 21

French Drain (ICPR Link Name):	EX21PONDW2_21GW2
Existing/Proposed:	Existing
SHGWT EL. (ft-NAVD):	1.43
Pipe Size (in):	24
Effective Length of French Drain, L (LF):	284.0
Safety Factor (SF):	2.00
Effective Length of French Drain with Safety Factor, L (LF):	142.00
Pipe Thickness (in):	3.00
Pipe Invert EL. (ft-NAVD):	-3.07
Top of Trench EL. (ft-NAVD):	1.93
Bottom of Trench EL. (ft-NAVD):	-12.57
Trench Height, H_T (ft):	14.50
Weir EL. (ft-NAVD):	2.43
Trench Width, W (ft):	4.00
Average Hydraulic Conductivity, K_{avg} (cfs/ft^2/ft-head):	N/A*
Depth to Water Table, H_2 (ft):	1.00
Non-Saturated Trench Depth, D_U (ft):	0.50
Saturated Trench Depth, D_S (ft):	14.00
H_2W:	4.00
$2H_2D_U$:	1.00
D_U^2:	0.25
$2H_2D_S$:	28.00
$(1.39x10^{-4})WD_U$:	0.000278
d_2:	0.00
d_3:	4.07
$K_{10\ (OBTAINED\ FROM\ DRAINAGE\ REPORTS\ FOR\ FPID\ 249581-1-52-01)}$:	7.81E-04
$K_{15\ (OBTAINED\ FROM\ DRAINAGE\ REPORTS\ FOR\ FPID\ 249581-1-52-01)}$:	7.98E-04
K_{20}:	0.00E+00
If $D_U > D_S$ and $W < 2H_T$, Treatment Provided, V (ac-in):	N/A*
If $D_S > D_U$ and/or $W > 2H_T$, Treatment Provided, V (ac-in):	3.23
$D_U > D_S$ and $W < 2H_T$(Yes/No):	No
Treatment Volume Provided, V (Ac-ft):	**3.23**

*Note: FD not considered for water quality purposes



$$V = L[K_{avg}(H_2W + 2H_2D_U - D_U^{\ 2} + 2H_2D_S) + (1.39x10^{-4})WD_U]$$

$$V = L[K_{avg}(2H_2D_U - D_U^{\ 2} + 2H_2D_S) + (1.39x10^{-4})WD_U]$$

SR-826/PALMETTO EXPRESSWAY EXPRESS LANES PD&E STUDY DRAINAGE CALCULATIONS

FRENCH DRAIN OPERATING TABLE/DISCHARGE CALCULATIONS

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: 21

French Drain (ICPR Link Name): **EX21PONDW2_21GW2**
Existing/Proposed: **Existing**
Pipe Size (in): **24**
Length of French Drain, *L* (LF) * : **142.00**
Trench Height, H_T (ft): **14.50**
Trench Width, *W* (ft): **4.00**

Average Hydraulic Conductivity, K_{avg} (cfs/ft²/ft-head): **N/A***
Pipe Invert EL. (ft-NAVD): **-3.07**
Top of Trench EL. (ft-NAVD): **1.93**
Bottom of Trench EL. (ft-NAVD): **-12.57**
Weir EL. (ft-NAVD): **2.43**
Upstream Structure Rim/Grate EL. (ft-NAVD): **2.43**

SHGWT EL. (ft-NAVD): **1.43**
Max Stage (ft-NAVD): ***5.44***
Variable GW EL. required when modeling exfiltration during design storms exceeding 1hr in duration. Model GW as Time-Stage.

AYH EL. (ft-NAVD):**
Average Yearly Highest Ground Water Level **2.43**

** - Per FDOT District 6 AdICPR Applications Manual (Sect. 3.3)*
** - Per Miami-Dade Public Works Design Standard W.C. 2.1*

Operating Table per Condition 3 of ICPR Applications Manual

Max. Exfiltration Rate, (cfs/ft): **1.00E-01**

Tailwater EL. (ft-NAVD)	Headwater EL. (ft-NAVD)	D_U (ft)	d_S (ft)	Head, D_P (ft)	Exfiltration, E (cfs/ft)	Discharge, Q (cfs)	Equations	Comments
1.43	**1.43**	--	--	0.00	0.00000	**0.0000**	(No exfiltration)	TW = SHGWT EL. HW = SHGWT EL.
1.43	**1.93**	0.50	14.00	0.50	0.01512	**2.1469**	$E = 2K_{10}[D_U(D_P-D_U/2)+dsDp]+2K_{15}D_P(5)$ $Q = E \times L$	TW = SHGWT EL. HW = Top of Trench EL.
1.43	**5.44**	0.50	14.00	4.01	0.10000	**28.4000**	$E = 2K_{10}[D_U(D_P-D_U/2)+dsDp]+2K_{15}D_P(5)$ $Q = E \times L$	TW = SHGWT EL. HW = Max Stage
2.43	**2.43**	--	--	0.00	0.00000	**0.0000**	(No exfiltration)	TW = AYH EL. HW = AYH EL.
2.43	**5.44**	-0.50	15.00	3.01	0.09200	**13.0637**	$E = 2K_{10}[D_U(D_P-D_U/2)+dsDp]+2K_{15}D_P(5)$ $Q = E \times L$	TW = AYH EL. HW = Max Stage

Tailwater-Headwater-Discharge relationship input as Operating Table from French Drain Node to Groundwater Node. Rating Curve On/Off EL. = SHGWT EL.

Tailwater EL. (ft-NAVD)	Headwater EL. (ft-NAVD)	Discharge, Q (cfs)
1.43	**1.43**	**0.0000**
1.43	**1.93**	**2.1469**
1.43	**5.44**	**28.4000**
2.43	**2.43**	**0.0000**
2.43	**5.44**	**13.0637**

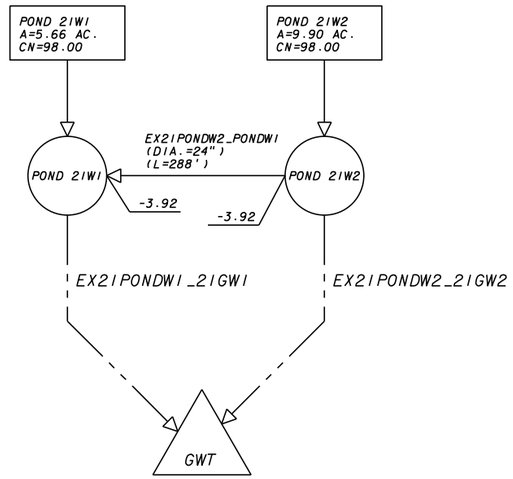
SR-826/PALMETTO EXPRESSWAY EXPRESS LANES PD&E STUDY DRAINAGE CALCULATIONS
DRAINAGE SYSTEM SUMMARY TABLES

Drainage System: ***21***

Summary of Peak Discharges								
Receiving Waterbody:	**N/A (NO OFFSITE DISCHARGE)**							
PRE-DEVELOPMENT								
ICPR Link/Basin:	**Outfall Pipe / Weir Description:**	**Flow Area (ft^2)**	**10yr-24hr Peak Flow Rate (cfs)**	**10yr-24hr Peak Flow Velocity (fps)**	**25yr-72hr Peak Flow Rate (cfs)**	**25yr-72hr Peak Flow Velocity (fps)**	**100yr-24hr Peak Flow Rate (cfs)**	**100yr-24hr Peak Flow Velocity (fps)**
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PRE-DEVELOPMENT TOTALS:		--	--	--	**0**	--	--	--
POST-DEVELOPMENT								
ICPR Link/Basin:	**Outfall Pipe / Weir Description:**	**Flow Area (ft^2)**	**10yr-24hr Peak Flow Rate (cfs)**	**10yr-24hr Peak Flow Velocity (fps)**	**25yr-72hr Peak Flow Rate (cfs)**	**25yr-72hr Peak Flow Velocity (fps)**	**100yr-24hr Peak Flow Rate (cfs)**	**100yr-24hr Peak Flow Velocity (fps)**
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
POST-DEVELOPMENT TOTALS:		--	--	--	**0**	--	--	--
Pre-Post 25yr-72hr Peak Discharge Reduction (cfs):				***0.00***				

Summary of Peak Stages									
				PRE-DEVELOPMENT			**POST-DEVELOPMENT**		
Pond/ Swale/ FD #	**Type: [Wet/Dry, Det./Ret., FD]**	**Disposition [Exist./ Prop./ Modified]**	**Warning EL. [Min. Berm/ Min. EOP] (ft-NAVD)**	**Max 10yr-24hr Stage (ft-NAVD)**	**Max 25yr-72hr Stage (ft-NAVD)**	**Max 100yr-24hr Stage (ft-NAVD)**	**Max 10yr-24hr Stage (ft-NAVD)**	**Max 25yr-72hr Stage (ft-NAVD)**	**Max 100yr-24hr Stage (ft-NAVD)**
POND 21W1	DRY RETENTION	Exist.	5.43	3.34	4.93	4.00	3.34	4.93	4.00
POND 21W2	DRY RETENTION	Exist.	5.43	3.33	4.54	3.99	3.33	4.54	3.99

Control Structure Summary Table - Proposed Conditions					
Control Structure:	**Disposition [Exist./ Prop./ Modified]**	**Weir Type/ Geometry**	**Weir EL. (ft-NAVD)**	**Bleeder Type/ Geometry**	**Bleeder Invert EL. (ft-NAVD)**
N/A	N/A	N/A	N/A	N/A	N/A



LEGEND

21B05 A=0.08 AC. CN=80.13	CONTRIBUTING BASIN BASIN NAME BASIN AREA CURVE NUMBER
EX21S04	NODE NAME
GWT-4	BOUNDARY NODE WITH VARIABLE TAILWATER
EX21S20_S22 (DIA.=24") (L=121') 2.44 2.44	PIPE LINK WITH SIZE-LENGTH INVERT ELEVATIONS
EX21S01_21GW1	RATING CURVE LINK
EX21S01_WEIR (EL. 3.20)	WEIR LINK WITH WEIR ELEVATION

SYSTEM 21

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

JUAN C. GARCIA, P.E.
P.E. No.: 46597
AECOM TECHNICAL SERVICES, INC.
7650 CORPORATE CENTER DRIVE, SUITE 400
MIAMI, FL 33126-1220
CERTIFICATE OF AUTHORIZATION: 8115

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR-9	MIAMI-DADE	428358-5-32-03

NODE-LINK DIAGRAM (1 OF 1)
(PRE-DEV. CONDITIONS)

SHEET NO.

$USER$ $DATE$ $TIME$ $FILE$

Manual Basin: POND 21W1

Scenario: System 21 - Pre Dev
Node: POND 21W1
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 9999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coeficient Zone	Reference ET Station
5.6600	POND 21W1	POND 21W1			

Comment:

Manual Basin: POND 21W2

Scenario: System 21 - Pre Dev
Node: POND 21W2
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 9999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coeficient Zone	Reference ET Station
9.9000	POND 21W2	POND 21W2			

Comment:

Node: GWT

Scenario: System 21 - Pre Dev
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 1.43 ft
Warning Stage: 99.00 ft
Boundary Stage: GWT

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	1.43
0	0	0	24.0000	1.43
0	0	0	48.0000	1.43
0	0	0	60.0000	1.43

Year	Month	Day	Hour	Stage [ft]
0	0	0	72.0000	1.43
0	0	0	96.0000	1.43
0	0	0	108.0000	1.43

Comment:

Node: POND 21W1

Scenario: System 21 - Pre Dev
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 2.43 ft
Warning Stage: 5.43 ft

Stage [ft]	Area [ac]	Area [ft2]
2.43	0.4400	19166
3.43	0.4700	20473
4.43	0.5100	22216
5.43	0.5500	23958

Comment:

Node: POND 21W2

Scenario: System 21 - Pre Dev
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 2.43 ft
Warning Stage: 5.43 ft

Stage [ft]	Area [ac]	Area [ft2]
2.43	2.2800	99317
3.43	2.4200	105415
4.43	2.5600	111514
5.43	2.7000	117612

Comment:

Rating Curve Link: EX21PONDW1_21GW1

Scenario: System 21 - Pre Dev
From Node: POND 21W1
To Node: GWT
Link Count: 1

Flow Direction: Both

Table	Elev On [ft]	Elev On Node	Elev Off [ft]	Elev Off Node
OT_EX21S01	1.43	POND 21W1	1.43	POND 21W1

Comment:

Rating Curve Link: EX21PONDW2_21GW2

Scenario: System 21 - Pre Dev
From Node: POND 21W2
To Node: GWT
Link Count: 1
Flow Direction: Both

Table	Elev On [ft]	Elev On Node	Elev Off [ft]	Elev Off Node
OT_EX21S02	1.43	POND 21W2	1.43	POND 21W2

Comment:

Pipe Link: EX21PONDW2_PONDW1

		Upstream		Downstream	
Scenario:	System 21 - Pre Dev	Invert:	-3.92 ft	Invert:	-3.92 ft
		Manning's N:	0.0120	Manning's N:	0.0120
From Node:	POND 21W2	Geometry: Circular		Geometry: Circular	
To Node:	POND 21W1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Link Count:	1	Bottom Clip			
Flow Direction:	Both	Default:	0.00 ft	Default:	0.00 ft
Damping:	0.0000 ft	Op Table:		Op Table:	
Length:	288.00 ft	Ref Node:		Ref Node:	
FHWA Code:	1	Manning's N:	0.0000	Manning's N:	0.0000
Entr Loss Coef:	0.50	Top Clip			
Exit Loss Coef:	0.10	Default:	0.00 ft	Default:	0.00 ft
Bend Loss Coef:	0.00	Op Table:		Op Table:	
Bend Location:	0.00 ft	Ref Node:		Ref Node:	
Energy Switch:	Energy	Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Simulation: 100Y-1H

Scenario: System 21 - Pre Dev
Run Date/Time: 7/23/2019 10:53:09 AM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	25.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	10.0000	0.1000	900.0000
Max Calculation Time:		10.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000
0	0	0	1.0000	1.0000
0	0	0	3.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000
0	0	0	1.0000	1.0000
0	0	0	25.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Reference ET Folder:
Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: 1-Hour
Extern Hydrograph Set:
Curve Number Set: Basin 21 - Pre Dev
Green-Ampt Set:
Vertical Layers Set:
Impervious Set: Basin 21 - Pre Dev
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight Fact:	0.5 dec		
dZ Tolerance:	0.0010 ft	Manual Basin Rain Opt:	Global
Max dZ:	1.0000 ft	OF Region Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	~FDOT-1
		Rainfall Amount:	5.10 in
Edge Length Option:	Automatic	Storm Duration:	1.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	100 ft2	Min Node Srf Area (1D):	100 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Simulation: 100Y-24H

Scenario: System 21 - Pre Dev
Run Date/Time: 7/23/2019 10:53:32 AM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	48.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	10.0000	0.1000	900.0000
Max Calculation Time:		10.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000
0	0	0	8.0000	5.0000
0	0	0	16.0000	1.0000
0	0	0	24.0000	5.0000
0	0	0	26.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000
0	0	0	8.0000	5.0000
0	0	0	16.0000	1.0000
0	0	0	24.0000	5.0000
0	0	0	48.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Reference ET Folder:
Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: 24-Hour
Extern Hydrograph Set:
Curve Number Set: Basin 21 - Pre Dev
Green-Ampt Set:
Vertical Layers Set:
Impervious Set: Basin 21 - Pre Dev
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft
Edge Length Option: Automatic
Dflt Damping (2D): 0.0050 ft
Min Node Srf Area (2D): 100 ft2
Energy Switch (2D): Energy

IA Recovery Time: 24.0000 hr
ET for Manual Basins: False
Manual Basin Rain Opt: Global
OF Region Rain Opt: Global
Rainfall Name: ~FDOT-24
Rainfall Amount: 13.44 in
Storm Duration: 24.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 100 ft2
Energy Switch (1D): Energy

Comment:

Simulation: 100Y-8H

Scenario: System 21 - Pre Dev
Run Date/Time: 7/23/2019 10:53:45 AM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	32.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	10.0000	0.1000	900.0000
Max Calculation Time:		10.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000
0	0	0	2.0000	5.0000
0	0	0	6.0000	1.0000
0	0	0	8.0000	5.0000
0	0	0	10.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000
0	0	0	2.0000	5.0000
0	0	0	6.0000	1.0000
0	0	0	8.0000	5.0000
0	0	0	32.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Reference ET Folder:

Lookup Tables

Boundary Stage Set: 8-Hour
Extern Hydrograph Set:

Unit Hydrograph Folder:		Curve Number Set:	Basin 21 - Pre Dev
		Green-Ampt Set:	
		Vertical Layers Set:	
		Impervious Set:	Basin 21 - Pre Dev
		Roughness Set:	
		Crop Coef Set:	
		Fillable Porosity Set:	
		Conductivity Set:	
		Leakage Set:	

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight Fact:	0.5 dec		
dZ Tolerance:	0.0010 ft	Manual Basin Rain Opt:	Global
Max dZ:	1.0000 ft	OF Region Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	~FDOT-8
		Rainfall Amount:	9.60 in
Edge Length Option:	Automatic	Storm Duration:	8.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	100 ft2	Min Node Srf Area (1D):	100 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Simulation: 10Y-1H

Scenario:	System 21 - Pre Dev
Run Date/Time:	7/23/2019 10:53:52 AM
Program Version:	ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	25.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	10.0000	0.1000	900.0000
Max Calculation Time:		10.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000
0	0	0	1.0000	1.0000
0	0	0	3.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000
0	0	0	1.0000	1.0000
0	0	0	25.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Reference ET Folder:
Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: 1-Hour
Extern Hydrograph Set:
Curve Number Set: Basin 21 - Pre Dev
Green-Ampt Set:
Vertical Layers Set:
Impervious Set: Basin 21 - Pre Dev
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft

IA Recovery Time: 24.0000 hr
ET for Manual Basins: False
Manual Basin Rain Opt: Global
OF Region Rain Opt: Global
Rainfall Name: ~FDOT-1
Rainfall Amount: 3.55 in

Edge Length Option:	Automatic	Storm Duration:	1.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	100 ft2	Min Node Srf Area (1D):	100 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Simulation: 10Y-24H

Scenario: System 21 - Pre Dev
Run Date/Time: 7/23/2019 10:54:12 AM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	48.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	10.0000	0.1000	900.0000
Max Calculation Time:		10.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000
0	0	0	8.0000	5.0000
0	0	0	16.0000	1.0000
0	0	0	24.0000	5.0000
0	0	0	26.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000
0	0	0	8.0000	5.0000
0	0	0	16.0000	1.0000
0	0	0	24.0000	5.0000
0	0	0	48.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Reference ET Folder:
Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: 24-Hour
Extern Hydrograph Set:
Curve Number Set: Basin 21 - Pre Dev
Green-Ampt Set:
Vertical Layers Set:
Impervious Set: Basin 21 - Pre Dev
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft
Edge Length Option: Automatic
Dflt Damping (2D): 0.0050 ft
Min Node Srf Area (2D): 100 ft2
Energy Switch (2D): Energy

IA Recovery Time: 24.0000 hr
ET for Manual Basins: False
Manual Basin Rain Opt: Global
OF Region Rain Opt: Global
Rainfall Name: ~FDOT-24
Rainfall Amount: 8.88 in
Storm Duration: 24.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 100 ft2
Energy Switch (1D): Energy

Comment:

Simulation: 10Y-8H

Scenario: System 21 - Pre Dev
Run Date/Time: 7/23/2019 10:54:27 AM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	32.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	10.0000	0.1000	900.0000
Max Calculation Time:		10.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000
0	0	0	2.0000	5.0000
0	0	0	6.0000	1.0000
0	0	0	8.0000	5.0000
0	0	0	10.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000
0	0	0	2.0000	5.0000
0	0	0	6.0000	1.0000
0	0	0	8.0000	5.0000
0	0	0	32.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Reference ET Folder:
Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: 8-Hour
Extern Hydrograph Set:
Curve Number Set: Basin 21 - Pre Dev
Green-Ampt Set:
Vertical Layers Set:
Impervious Set: Basin 21 - Pre Dev

Roughness Set:	
Crop Coef Set:	
Fillable Porosity Set:	
Conductivity Set:	
Leakage Set:	

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight Fact:	0.5 dec		
dZ Tolerance:	0.0010 ft	Manual Basin Rain Opt:	Global
Max dZ:	1.0000 ft	OF Region Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	~FDOT-8
		Rainfall Amount:	6.80 in
Edge Length Option:	Automatic	Storm Duration:	8.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	100 ft2	Min Node Srf Area (1D):	100 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Simulation: 25Y-72H

Scenario:	System 21 - Pre Dev
Run Date/Time:	7/23/2019 10:54:36 AM
Program Version:	ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	96.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	10.0000	0.1000	900.0000
Max Calculation Time:		10.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000
0	0	0	48.0000	15.0000
0	0	0	56.0000	5.0000
0	0	0	64.0000	1.0000
0	0	0	72.0000	5.0000
0	0	0	74.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000
0	0	0	48.0000	15.0000
0	0	0	56.0000	5.0000
0	0	0	64.0000	1.0000
0	0	0	72.0000	5.0000
0	0	0	96.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Reference ET Folder:
Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: 72-Hour
Extern Hydrograph Set:
Curve Number Set: Basin 21 - Pre Dev
Green-Ampt Set:
Vertical Layers Set:
Impervious Set: Basin 21 - Pre Dev
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft

IA Recovery Time: 24.0000 hr
ET for Manual Basins: False
Manual Basin Rain Opt: Global
OF Region Rain Opt: Global

Link Optimizer Tol:	0.0001 ft	Rainfall Name:	~SFWMD-72
		Rainfall Amount:	14.50 in
Edge Length Option:	Automatic	Storm Duration:	72.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	100 ft2	Min Node Srf Area (1D):	100 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Node Max Conditions [System 21 - Pre Dev]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
GWT	100Y-1H	99.00	1.43	0.0000	15.74	0.00	0
POND 21W1	100Y-1H	5.43	4.87	0.0027	44.42	17.54	22983
POND 21W2	100Y-1H	5.43	4.12	0.0055	88.81	12.14	109618
GWT	100Y-24H	99.00	2.43	0.0003	10.15	0.00	0
POND 21W1	100Y-24H	5.43	4.00	0.0027	7.66	5.72	21475
POND 21W2	100Y-24H	5.43	3.99	0.0043	16.91	7.82	108837
GWT	100Y-8H	99.00	2.43	0.0009	14.29	0.00	0
POND 21W1	100Y-8H	5.43	4.94	0.0027	22.97	13.24	23110
POND 21W2	100Y-8H	5.43	4.83	0.0055	49.84	10.95	113970
GWT	10Y-1H	99.00	1.43	0.0000	12.33	0.00	0
POND 21W1	10Y-1H	5.43	3.98	0.0027	30.53	13.46	21444
POND 21W2	10Y-1H	5.43	3.57	0.0055	62.15	9.68	106272
GWT	10Y-24H	99.00	2.43	0.0003	6.48	0.00	0
POND 21W1	10Y-24H	5.43	3.34	0.0027	5.05	3.79	20360
POND 21W2	10Y-24H	5.43	3.33	0.0043	11.20	4.99	104837
GWT	10Y-8H	99.00	2.43	0.0012	10.03	0.00	0
POND 21W1	10Y-8H	5.43	4.11	0.0027	16.25	9.80	21670
POND 21W2	10Y-8H	5.43	4.08	0.0055	35.78	7.71	109403
GWT	25Y-72H	99.00	2.43	0.0014	12.95	0.00	0
POND 21W1	25Y-72H	5.43	4.93	0.0027	36.29	15.10	23085
POND 21W2	25Y-72H	5.43	4.54	0.0043	74.34	9.86	112188

Link Min/Max Conditions [System 21 - Pre Dev]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
EX21PONDW1_21GW1	100Y-1H	4.41	0.00	0.00	0.00	0.00	0.00
EX21PONDW2_21GW2	100Y-1H	11.66	0.00	-0.02	0.00	0.00	0.00
EX21PONDW2_PONDW1	100Y-1H	1.27	-13.24	-0.60	-4.22	-4.22	-4.22
EX21PONDW1_21GW1	100Y-24H	2.34	0.00	0.02	0.00	0.00	0.00
EX21PONDW2_21GW2	100Y-24H	7.82	0.00	0.02	0.00	0.00	0.00
EX21PONDW2_PONDW1	100Y-24H	0.93	-3.52	-0.85	-1.12	-1.12	-1.12
EX21PONDW1_21GW1	100Y-8H	3.54	0.00	0.00	0.00	0.00	0.00
EX21PONDW2_21GW2	100Y-8H	10.95	0.00	-0.02	0.00	0.00	0.00
EX21PONDW2_PONDW1	100Y-8H	1.27	-9.79	-0.60	-3.12	-3.12	-3.12
EX21PONDW1_21GW1	10Y-1H	3.28	0.00	0.00	0.00	0.00	0.00
EX21PONDW2_21GW2	10Y-1H	9.28	0.00	-0.02	0.00	0.00	0.00
EX21PONDW2_PONDW1	10Y-1H	1.27	-10.28	-0.60	-3.27	-3.27	-3.27
EX21PONDW1_21GW1	10Y-24H	1.49	0.00	0.00	0.00	0.00	0.00
EX21PONDW2_21GW2	10Y-24H	4.99	0.00	-0.02	0.00	0.00	0.00
EX21PONDW2_PONDW1	10Y-24H	0.73	-2.36	0.82	-0.75	-0.75	-0.75
EX21PONDW1_21GW1	10Y-8H	2.43	0.00	0.00	0.00	0.00	0.00

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
EX21PONDW2_21GW2	10Y-8H	7.71	0.00	-0.02	0.00	0.00	0.00
EX21PONDW2_PONDW1	10Y-8H	1.27	-7.43	-0.60	-2.36	-2.36	-2.36
EX21PONDW1_21GW1	25Y-72H	3.47	0.00	0.01	0.00	0.00	0.00
EX21PONDW2_21GW2	25Y-72H	9.86	0.00	0.02	0.00	0.00	0.00
EX21PONDW2_PONDW1	25Y-72H	0.58	-11.78	-0.81	-3.75	-3.75	-3.75

Node Mass Balance Condensed [System 21 - Pre Dev]

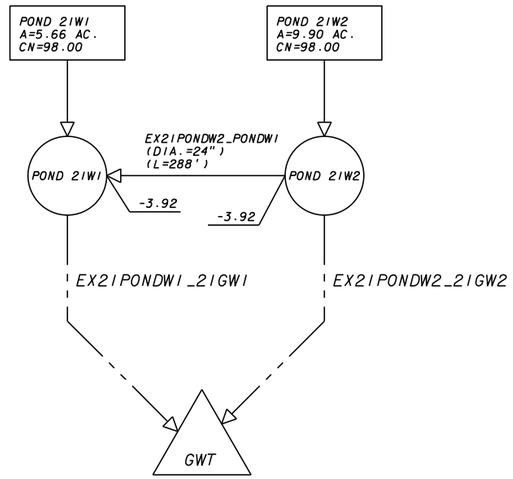
Node Name	Sim Name	Total Inflow [ft3]	Total Outflow [ft3]	Stored Volume (Flow Based) [ft3]
GWT	100Y-1H	274796	0	274796
GWT	100Y-24H	745490	1	745489
GWT	100Y-8H	528688	1	528687
GWT	10Y-1H	187472	0	187472
GWT	10Y-24H	488070	1	488069
GWT	10Y-8H	370698	1	370697
GWT	25Y-72H	805237	1	805236

Node Mass Balance Condensed [System 21 - Pre Dev]

Node Name	Sim Name	Total Inflow [ft3]	Total Outflow [ft3]	Stored Volume (Flow Based) [ft3]
POND 21W1	100Y-1H	113043	113146	-102
POND 21W1	100Y-24H	279290	279435	-145
POND 21W1	100Y-8H	208190	208291	-101
POND 21W1	10Y-1H	76977	77085	-108
POND 21W1	10Y-24H	182355	182473	-118
POND 21W1	10Y-8H	145594	145699	-105
POND 21W1	25Y-72H	298719	299638	-919

Node Mass Balance Condensed [System 21 - Pre Dev]

Node Name	Sim Name	Total Inflow [ft3]	Total Outflow [ft3]	Stored Volume (Flow Based) [ft3]
POND 21W2	100Y-1H	222412	222520	-108
POND 21W2	100Y-24H	582320	582441	-121
POND 21W2	100Y-8H	421053	421170	-117
POND 21W2	10Y-1H	151993	152104	-111
POND 21W2	10Y-24H	380941	381059	-117
POND 21W2	10Y-8H	295339	295464	-126
POND 21W2	25Y-72H	625009	624264	745



LEGEND

21B05 A=0.08 AC. CN=80.13	CONTRIBUTING BASIN BASIN NAME BASIN AREA CURVE NUMBER
EX21S04	NODE NAME
GWT-4	BOUNDARY NODE WITH VARIABLE TAILWATER
EX21S20_S22 (DIA.=24") (L=121') 2.44 2.44	PIPE LINK WITH SIZE-LENGTH INVERT ELEVATIONS
EX21S01_21GW1	RATING CURVE LINK
EX21S01_WEIR (EL. 3.20)	WEIR LINK WITH WEIR ELEVATION

SYSTEM 21

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

JUAN C. GARCIA, P.E.
P.E. No.: 46597
AECOM TECHNICAL SERVICES, INC.
7650 CORPORATE CENTER DRIVE, SUITE 400
MIAMI, FL 33126-1220
CERTIFICATE OF AUTHORIZATION: 8115

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR-9	MIAMI-DADE	428358-5-32-03

NODE-LINK DIAGRAM (1 OF 1)
(POST-DEV. CONDITIONS)

SHEET NO.

$USER$ $DATE$ $TIME$ $FILE$

Manual Basin: POND 21W1

Scenario: System 21 - Post Dev
Node: POND 21W1
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 9999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coeficient Zone	Reference ET Station
5.6600	POND 21W1	POND 21W1			

Comment:

Manual Basin: POND 21W2

Scenario: System 21 - Post Dev
Node: POND 21W2
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 9999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coeficient Zone	Reference ET Station
9.9000	POND 21W2	POND 21W2			

Comment:

Node: GWT

Scenario: System 21 - Post Dev
Type: Time/Stage
Base Flow: 0.00 cfs
Initial Stage: 1.43 ft
Warning Stage: 99.00 ft
Boundary Stage: GWT

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	1.43
0	0	0	24.0000	1.43
0	0	0	48.0000	1.43
0	0	0	60.0000	1.43

Year	Month	Day	Hour	Stage [ft]
0	0	0	72.0000	1.43
0	0	0	96.0000	1.43
0	0	0	108.0000	1.43

Comment:

Node: POND 21W1

Scenario: System 21 - Post Dev
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 2.43 ft
Warning Stage: 5.43 ft

Stage [ft]	Area [ac]	Area [ft2]
2.43	0.4400	19166
3.43	0.4700	20473
4.43	0.5100	22216
5.43	0.5500	23958

Comment:

Node: POND 21W2

Scenario: System 21 - Post Dev
Type: Stage/Area
Base Flow: 0.00 cfs
Initial Stage: 2.43 ft
Warning Stage: 5.43 ft

Stage [ft]	Area [ac]	Area [ft2]
2.43	2.2800	99317
3.43	2.4200	105415
4.43	2.5600	111514
5.43	2.7000	117612

Comment:

Rating Curve Link: EX21PONDW1_21GW1

Scenario: System 21 - Post Dev
From Node: POND 21W1
To Node: GWT
Link Count: 1

Flow Direction: Both

Table	Elev On [ft]	Elev On Node	Elev Off [ft]	Elev Off Node
OT_EX21S01	1.43	POND 21W1	1.43	POND 21W1

Comment:

Rating Curve Link: EX21PONDW2_21GW2

Scenario: System 21 - Post Dev
From Node: POND 21W2
To Node: GWT
Link Count: 1
Flow Direction: Both

Table	Elev On [ft]	Elev On Node	Elev Off [ft]	Elev Off Node
OT_EX21S02	1.43	POND 21W2	1.43	POND 21W2

Comment:

Pipe Link: EX21PONDW2_PONDW1

		Upstream		Downstream	
Scenario:	System 21 - Post Dev	Invert:	-3.92 ft	Invert:	-3.92 ft
		Manning's N:	0.0120	Manning's N:	0.0120
From Node:	POND 21W2	Geometry: Circular		Geometry: Circular	
To Node:	POND 21W1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Link Count:	1	Bottom Clip			
Flow Direction:	Both	Default:	0.00 ft	Default:	0.00 ft
Damping:	0.0000 ft	Op Table:		Op Table:	
Length:	288.00 ft	Ref Node:		Ref Node:	
FHWA Code:	1	Manning's N:	0.0000	Manning's N:	0.0000
Entr Loss Coef:	0.50	Top Clip			
Exit Loss Coef:	0.10	Default:	0.00 ft	Default:	0.00 ft
Bend Loss Coef:	0.00	Op Table:		Op Table:	
Bend Location:	0.00 ft	Ref Node:		Ref Node:	
Energy Switch:	Energy	Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Simulation: 100Y-1H

Scenario: System 21 - Post Dev
Run Date/Time: 7/23/2019 10:51:26 AM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	25.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	10.0000	0.1000	900.0000
Max Calculation Time:		10.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000
0	0	0	1.0000	1.0000
0	0	0	3.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000
0	0	0	1.0000	1.0000
0	0	0	25.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Reference ET Folder:
Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: 1-Hour
Extern Hydrograph Set:
Curve Number Set: Basin 21 - Post Dev
Green-Ampt Set:
Vertical Layers Set:
Impervious Set: Basin 21 - Post Dev
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight Fact:	0.5 dec		
dZ Tolerance:	0.0010 ft	Manual Basin Rain Opt:	Global
Max dZ:	1.0000 ft	OF Region Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	~FDOT-1
		Rainfall Amount:	5.10 in
Edge Length Option:	Automatic	Storm Duration:	1.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	100 ft2	Min Node Srf Area (1D):	100 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Simulation: 100Y-24H

Scenario: System 21 - Post Dev
Run Date/Time: 7/23/2019 10:51:49 AM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	48.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	10.0000	0.1000	900.0000
Max Calculation Time:		10.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000
0	0	0	8.0000	5.0000
0	0	0	16.0000	1.0000
0	0	0	24.0000	5.0000
0	0	0	26.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000
0	0	0	8.0000	5.0000
0	0	0	16.0000	1.0000
0	0	0	24.0000	5.0000
0	0	0	48.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Reference ET Folder:
Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: 24-Hour
Extern Hydrograph Set:
Curve Number Set: Basin 21 - Post Dev
Green-Ampt Set:
Vertical Layers Set:
Impervious Set: Basin 21 - Post Dev
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft
Edge Length Option: Automatic
Dflt Damping (2D): 0.0050 ft
Min Node Srf Area (2D): 100 ft2
Energy Switch (2D): Energy

IA Recovery Time: 24.0000 hr
ET for Manual Basins: False
Manual Basin Rain Opt: Global
OF Region Rain Opt: Global
Rainfall Name: ~FDOT-24
Rainfall Amount: 13.44 in
Storm Duration: 24.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 100 ft2
Energy Switch (1D): Energy

Comment:

Simulation: 100Y-8H

Scenario: System 21 - Post Dev
Run Date/Time: 7/23/2019 10:52:03 AM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	32.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	10.0000	0.1000	900.0000
Max Calculation Time:		10.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000
0	0	0	2.0000	5.0000
0	0	0	6.0000	1.0000
0	0	0	8.0000	5.0000
0	0	0	10.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000
0	0	0	2.0000	5.0000
0	0	0	6.0000	1.0000
0	0	0	8.0000	5.0000
0	0	0	32.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Reference ET Folder:

Lookup Tables

Boundary Stage Set: 8-Hour
Extern Hydrograph Set:

Unit Hydrograph Folder:		Curve Number Set:	Basin 21 - Post Dev
		Green-Ampt Set:	
		Vertical Layers Set:	
		Impervious Set:	Basin 21 - Post Dev
		Roughness Set:	
		Crop Coef Set:	
		Fillable Porosity Set:	
		Conductivity Set:	
		Leakage Set:	

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight Fact:	0.5 dec		
dZ Tolerance:	0.0010 ft	Manual Basin Rain Opt:	Global
Max dZ:	1.0000 ft	OF Region Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	~FDOT-8
		Rainfall Amount:	9.60 in
Edge Length Option:	Automatic	Storm Duration:	8.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	100 ft2	Min Node Srf Area (1D):	100 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Simulation: 10Y-1H

Scenario:	System 21 - Post Dev
Run Date/Time:	7/23/2019 10:52:09 AM
Program Version:	ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	25.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	10.0000	0.1000	900.0000
Max Calculation Time:		10.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000
0	0	0	1.0000	1.0000
0	0	0	3.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000
0	0	0	1.0000	1.0000
0	0	0	25.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Reference ET Folder:
Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: 1-Hour
Extern Hydrograph Set:
Curve Number Set: Basin 21 - Post Dev
Green-Ampt Set:
Vertical Layers Set:
Impervious Set: Basin 21 - Post Dev
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft

IA Recovery Time: 24.0000 hr
ET for Manual Basins: False
Manual Basin Rain Opt: Global
OF Region Rain Opt: Global
Rainfall Name: ~FDOT-1
Rainfall Amount: 3.55 in

Edge Length Option:	Automatic	Storm Duration:	1.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	100 ft2	Min Node Srf Area (1D):	100 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Simulation: 10Y-24H

Scenario: System 21 - Post Dev
Run Date/Time: 7/23/2019 10:52:31 AM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	48.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	10.0000	0.1000	900.0000
Max Calculation Time:		10.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000
0	0	0	8.0000	5.0000
0	0	0	16.0000	1.0000
0	0	0	24.0000	5.0000
0	0	0	26.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000
0	0	0	8.0000	5.0000
0	0	0	16.0000	1.0000
0	0	0	24.0000	5.0000
0	0	0	48.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Reference ET Folder:
Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: 24-Hour
Extern Hydrograph Set:
Curve Number Set: Basin 21 - Post Dev
Green-Ampt Set:
Vertical Layers Set:
Impervious Set: Basin 21 - Post Dev
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft
Link Optimizer Tol: 0.0001 ft
Edge Length Option: Automatic
Dflt Damping (2D): 0.0050 ft
Min Node Srf Area (2D): 100 ft2
Energy Switch (2D): Energy

IA Recovery Time: 24.0000 hr
ET for Manual Basins: False
Manual Basin Rain Opt: Global
OF Region Rain Opt: Global
Rainfall Name: ~FDOT-24
Rainfall Amount: 8.88 in
Storm Duration: 24.0000 hr
Dflt Damping (1D): 0.0050 ft
Min Node Srf Area (1D): 100 ft2
Energy Switch (1D): Energy

Comment:

Simulation: 10Y-8H

Scenario: System 21 - Post Dev
Run Date/Time: 7/23/2019 10:52:44 AM
Program Version: ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	32.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	10.0000	0.1000	900.0000
Max Calculation Time:		10.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000
0	0	0	2.0000	5.0000
0	0	0	6.0000	1.0000
0	0	0	8.0000	5.0000
0	0	0	10.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000
0	0	0	2.0000	5.0000
0	0	0	6.0000	1.0000
0	0	0	8.0000	5.0000
0	0	0	32.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Reference ET Folder:
Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: 8-Hour
Extern Hydrograph Set:
Curve Number Set: Basin 21 - Post Dev
Green-Ampt Set:
Vertical Layers Set:
Impervious Set: Basin 21 - Post Dev

Roughness Set:	
Crop Coef Set:	
Fillable Porosity Set:	
Conductivity Set:	
Leakage Set:	

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight Fact:	0.5 dec		
dZ Tolerance:	0.0010 ft	Manual Basin Rain Opt:	Global
Max dZ:	1.0000 ft	OF Region Rain Opt:	Global
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	~FDOT-8
		Rainfall Amount:	6.80 in
Edge Length Option:	Automatic	Storm Duration:	8.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	100 ft2	Min Node Srf Area (1D):	100 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Simulation: 25Y-72H

Scenario:	System 21 - Post Dev
Run Date/Time:	7/23/2019 10:52:51 AM
Program Version:	ICPR4 4.03.02.00

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	96.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	10.0000	0.1000	900.0000
Max Calculation Time:		10.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000
0	0	0	48.0000	15.0000
0	0	0	56.0000	5.0000
0	0	0	64.0000	1.0000
0	0	0	72.0000	5.0000
0	0	0	74.0000	5.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000
0	0	0	48.0000	15.0000
0	0	0	56.0000	5.0000
0	0	0	64.0000	1.0000
0	0	0	72.0000	5.0000
0	0	0	96.0000	15.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder:
Reference ET Folder:
Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: 72-Hour
Extern Hydrograph Set:
Curve Number Set: Basin 21 - Post Dev
Green-Ampt Set:
Vertical Layers Set:
Impervious Set: Basin 21 - Post Dev
Roughness Set:
Crop Coef Set:
Fillable Porosity Set:
Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching: SAOR
Max Iterations: 6
Over-Relax Weight Fact: 0.5 dec
dZ Tolerance: 0.0010 ft
Max dZ: 1.0000 ft

IA Recovery Time: 24.0000 hr
ET for Manual Basins: False
Manual Basin Rain Opt: Global
OF Region Rain Opt: Global

Link Optimizer Tol:	0.0001 ft	Rainfall Name:	~SFWMD-72
		Rainfall Amount:	14.50 in
Edge Length Option:	Automatic	Storm Duration:	72.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area (2D):	100 ft2	Min Node Srf Area (1D):	100 ft2
Energy Switch (2D):	Energy	Energy Switch (1D):	Energy

Comment:

Node Max Conditions [System 21 - Post Dev]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
GWT	100Y-1H	99.00	1.43	0.0000	15.74	0.00	0
POND 21W1	100Y-1H	5.43	4.87	0.0027	44.42	17.54	22983
POND 21W2	100Y-1H	5.43	4.12	0.0055	88.81	12.14	109618
GWT	100Y-24H	99.00	2.43	0.0003	10.15	0.00	0
POND 21W1	100Y-24H	5.43	4.00	0.0027	7.66	5.72	21475
POND 21W2	100Y-24H	5.43	3.99	0.0043	16.91	7.82	108837
GWT	100Y-8H	99.00	2.43	0.0009	14.29	0.00	0
POND 21W1	100Y-8H	5.43	4.94	0.0027	22.97	13.24	23110
POND 21W2	100Y-8H	5.43	4.83	0.0055	49.84	10.95	113970
GWT	10Y-1H	99.00	1.43	0.0000	12.33	0.00	0
POND 21W1	10Y-1H	5.43	3.98	0.0027	30.53	13.46	21444
POND 21W2	10Y-1H	5.43	3.57	0.0055	62.15	9.68	106272
GWT	10Y-24H	99.00	2.43	0.0003	6.48	0.00	0
POND 21W1	10Y-24H	5.43	3.34	0.0027	5.05	3.79	20360
POND 21W2	10Y-24H	5.43	3.33	0.0043	11.20	4.99	104837
GWT	10Y-8H	99.00	2.43	0.0012	10.03	0.00	0
POND 21W1	10Y-8H	5.43	4.11	0.0027	16.25	9.80	21670
POND 21W2	10Y-8H	5.43	4.08	0.0055	35.78	7.71	109403
GWT	25Y-72H	99.00	2.43	0.0014	12.95	0.00	0
POND 21W1	25Y-72H	5.43	4.93	0.0027	36.29	15.10	23085
POND 21W2	25Y-72H	5.43	4.54	0.0043	74.34	9.86	112188

Link Min/Max Conditions [System 21 - Post Dev]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
EX21PONDW1_21GW1	100Y-1H	4.41	0.00	0.00	0.00	0.00	0.00
EX21PONDW2_21GW2	100Y-1H	11.66	0.00	-0.02	0.00	0.00	0.00
EX21PONDW2_PONDW1	100Y-1H	1.27	-13.24	-0.60	-4.22	-4.22	-4.22
EX21PONDW1_21GW1	100Y-24H	2.34	0.00	0.02	0.00	0.00	0.00
EX21PONDW2_21GW2	100Y-24H	7.82	0.00	0.02	0.00	0.00	0.00
EX21PONDW2_PONDW1	100Y-24H	0.93	-3.52	-0.85	-1.12	-1.12	-1.12
EX21PONDW1_21GW1	100Y-8H	3.54	0.00	0.00	0.00	0.00	0.00
EX21PONDW2_21GW2	100Y-8H	10.95	0.00	-0.02	0.00	0.00	0.00
EX21PONDW2_PONDW1	100Y-8H	1.27	-9.79	-0.60	-3.12	-3.12	-3.12
EX21PONDW1_21GW1	10Y-1H	3.28	0.00	0.00	0.00	0.00	0.00
EX21PONDW2_21GW2	10Y-1H	9.28	0.00	-0.02	0.00	0.00	0.00
EX21PONDW2_PONDW1	10Y-1H	1.27	-10.28	-0.60	-3.27	-3.27	-3.27
EX21PONDW1_21GW1	10Y-24H	1.49	0.00	0.00	0.00	0.00	0.00
EX21PONDW2_21GW2	10Y-24H	4.99	0.00	-0.02	0.00	0.00	0.00
EX21PONDW2_PONDW1	10Y-24H	0.73	-2.36	0.82	-0.75	-0.75	-0.75
EX21PONDW1_21GW1	10Y-8H	2.43	0.00	0.00	0.00	0.00	0.00

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
EX21PONDW2_21GW2	10Y-8H	7.71	0.00	-0.02	0.00	0.00	0.00
EX21PONDW2_PONDW1	10Y-8H	1.27	-7.43	-0.60	-2.36	-2.36	-2.36
EX21PONDW1_21GW1	25Y-72H	3.47	0.00	0.01	0.00	0.00	0.00
EX21PONDW2_21GW2	25Y-72H	9.86	0.00	0.02	0.00	0.00	0.00
EX21PONDW2_PONDW1	25Y-72H	0.58	-11.78	-0.81	-3.75	-3.75	-3.75

Node Mass Balance Condensed [System 21 - Post Dev]

Node Name	Sim Name	Total Inflow [ft3]	Total Outflow [ft3]	Stored Volume (Flow Based) [ft3]
GWT	100Y-1H	274796	0	274796
GWT	100Y-24H	745490	1	745489
GWT	100Y-8H	528688	1	528687
GWT	10Y-1H	187472	0	187472
GWT	10Y-24H	488070	1	488069
GWT	10Y-8H	370698	1	370697
GWT	25Y-72H	805237	1	805236

Node Mass Balance Condensed [System 21 - Post Dev]

Node Name	Sim Name	Total Inflow [ft3]	Total Outflow [ft3]	Stored Volume (Flow Based) [ft3]
POND 21W1	100Y-1H	113043	113146	-102
POND 21W1	100Y-24H	279290	279435	-145
POND 21W1	100Y-8H	208190	208291	-101
POND 21W1	10Y-1H	76977	77085	-108
POND 21W1	10Y-24H	182355	182473	-118
POND 21W1	10Y-8H	145594	145699	-105
POND 21W1	25Y-72H	298719	299638	-919

Node Mass Balance Condensed [System 21 - Post Dev]

Node Name	Sim Name	Total Inflow [ft3]	Total Outflow [ft3]	Stored Volume (Flow Based) [ft3]
POND 21W2	100Y-1H	222412	222520	-108
POND 21W2	100Y-24H	582320	582441	-121
POND 21W2	100Y-8H	421053	421170	-117
POND 21W2	10Y-1H	151993	152104	-111
POND 21W2	10Y-24H	380941	381059	-117
POND 21W2	10Y-8H	295339	295464	-126
POND 21W2	25Y-72H	625009	624264	745

APPENDIX E

Reference Documentation

System 1 – Reference Data

Excerpts from FDOT Records Plans for FM No. 425513-1-52-01
Excerpts from FDOT Records Plans for FM No. 433489-1-52-01

FPID 425513-1-52-01 is a resurfacing and milling project from north of SW 136th St. to SW 102nd St. System 1 runs from SW 124th St. until C-100A Canal.
Baseline Survey US1/SR5
- Beginning Reference: STA 988+64.40
- Ending Reference: STA 1050+40.00
- NAVD88

FPID 433489-1-52-01 is a resurfacing and drainage project from C-100A Canel to SW 100th St. These as-builts have some information just south of C-100A which is useful for System 1.
Baseline Survey US1/SR5
- Beginning Reference: STA 1049+00.00
- Ending Reference: STA 1051+17.27
- NAVD88

CONSTRUCTION CONTRACT NO. T6256

COMPONENTS OF CONTRACT PLANS SET

ROADWAY PLANS
SIGNING AND PAVEMENT MARKING PLANS
SIGNALIZATION PLANS
LANDSCAPE PLANS

A DETAILED INDEX APPEARS ON THE KEY SHEET OF EACH COMPONENT

INDEX OF ROADWAY PLANS

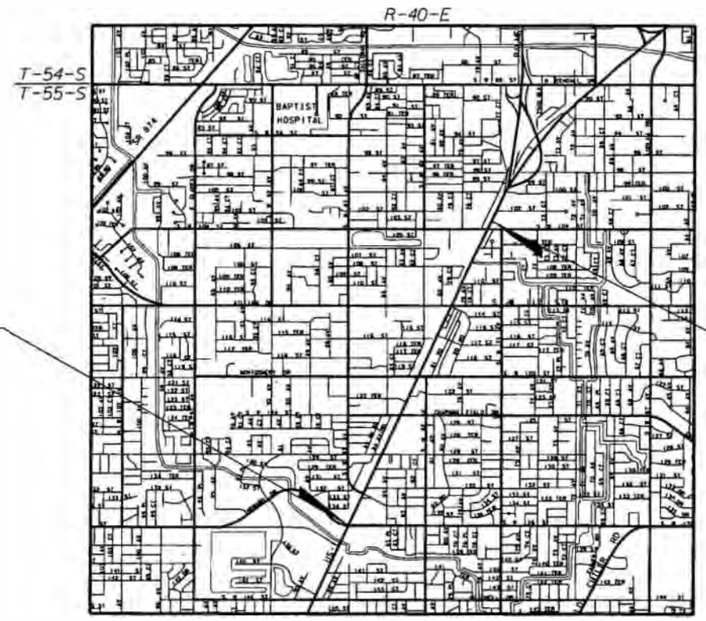
SHEET NO.	SHEET DESCRIPTION
1	KEY SHEET
2 - 6	SUMMARY OF PAY ITEMS
7	TYPICAL SECTION
8 - 10	TYPICAL SECTION DETAILS
11	SPECIAL DETAILS
12 - 16	SUMMARY OF QUANTITIES
17	SUMMARY OF DRAINAGE STRUCTURES
18	OPTIONAL MATERIALS TABULATION
19 - 20	GENERAL NOTES
21-32, 32A,33-43	ROADWAY PLANS
44	DRAINAGE STRUCTURES
45	DRIVEWAY DETAILS
46 - 48	LOCATIONS AND QUANTITIES OF OVERBUILD
49	MISCELLANEOUS DETAILS
50	TRAFFIC CONTROL PLANS GENERAL NOTES
51	TRAFFIC CONTROL PLANS PHASING NOTES
52	TRAFFIC CONTROL PLANS GUIDE SIGN WORK SHEET
53 - 54	STORMWATER POLLUTION PREVENTION PLAN
CTL-01 - CTL-05	PROJECT NETWORK CONTROL

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

FINAL "AS-BUILT" PLANS

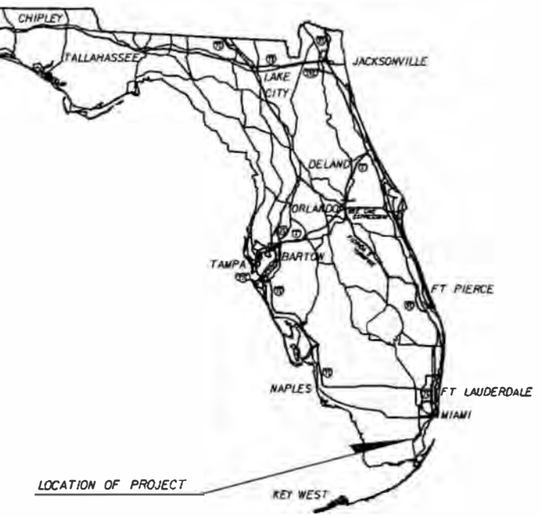
~~CONTRACT PLANS~~

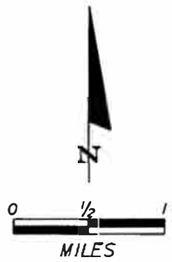
FINANCIAL PROJECT ID 425513-1-52-01
(FEDERAL FUNDS)
MIAMI-DADE COUNTY (87020)
STATE ROAD NO. 5
FROM SW 136th STREET TO SW 102nd STREET



BEGIN PROJECT
STA. 945+80.00
MP 17.429

END PROJECT
STA. 1065+35.64
MP 19.693





ROADWAY SHOP DRAWINGS
TO BE SUBMITTED TO:
VICTOR LEE, P.E.
P.E. LICENSE NUMBER 35233
DAVID PLUMMER & ASSOCIATES, INC
1750 PONCE DE LEON BOULEVARD
CORAL GABLES, FL 33134
PH. (305) 447-0900

PLANS PREPARED BY:
DAVID PLUMMER & ASSOCIATES
1750 PONCE DE LEON BOULEVARD
CORAL GABLES, FL 33134
PH. (305) 447-0900
EB 2690
VENDOR NO. F591810619001
CONTRACT NO. C8X01
CERTIFICATE OF AUTHORIZATION NO. 00002690

NOTE: THIS PROJECT TO BE LET TO CONTRACT WITH FINANCIAL PROJECT ID 425513-2-52-01; FPID 425513-1-56-01 IS TO BE LET TO CONTRACT FOR FINANCIAL PURPOSES ONLY AND HAS NO PLANS.

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

GOVERNING STANDARDS AND SPECIFICATIONS:
FLORIDA DEPARTMENT OF TRANSPORTATION,
DESIGN STANDARDS DATED 2010,
AND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED 2010,
AS AMENDED BY CONTRACT DOCUMENTS.

APPLICABLE DESIGN STANDARDS MODIFICATIONS: 01-01-12
For Design Standards Modifications click on "Design Standards" at the following web site:
http://www.dot.state.fl.us/rddesign/

REVISIONS

FINANCIAL PROJECT ID 425513-1-52-01
Roadway Sheets 32, 32A (Revised 10-25-12)
Signing and Pavement Marking Sheets S-4, S-5, S-17 (Revised 10-25-12)
Signalization Sheets T-3, T-4, T-5, T-6, T-7 (Revised 04-03-13)

FINANCIAL PROJECT ID 425513-2-52-01
Signalization Sheets T-4, T-5, T-7 (Revised 10-25-12)
~~Signalization Sheet T-4 (Revised 08-22-13)~~

PROJECT LENGTH IS BASED ON @ SURVEY

LENGTH OF PROJECT		
	LINEAR FEET	MILES
ROADWAY	11,955.64	2.264
BRIDGES		
NET LENGTH OF PROJECT	11,955.64	2.264
EXCEPTIONS		
GROSS LENGTH OF PROJECT	11,955.64	2.264

FDOT PROJECT MANAGER: ADRIANA MANZANARES

KEY SHEET REVISIONS	
DATE	DESCRIPTION
10-25-12	ADD SHEET NO. 32A

Name of Contractor:	Genera Asphalt Co.
CEI Consultant:	New Millennium Engineering, Inc.
District Secretary:	Gus Pego, P.E.
Resident Engineer:	Erik Padron, P.E.
Senior Project Engineer:	Steven D. McCue, P.E.
Date Work Started:	August 13, 2012
Date Work Final Accepted:	August 23, 2013

This project was constructed in substantial compliance with these plans as provided by the Engineer of Record. If changes were made, those changes are indicated by penciled revision and bear the seal, signature, and date of the responsible Professional Engineer.

9/17/13

ROADWAY PLANS
ENGINEER OF RECORD: VICTOR LEE, P.E.

P.E. NO.: 35233

FISCAL YEAR	SHEET NO.
12	1

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

QUANTITY	STR. NO.	STATION	SIDE	DESCRIPTION	BARRELS	STORM AND CROSS DRAIN OPTIONAL TYPE ROUND SHAPE 15"	18"	24"	30"	36"	42"	CURB INLETS P-4 <10'	J-6 <10'	PARTIAL	DITCH BOTTOM INLETS A <10'	B <10'	C <10'	D <10'	MH P-7	REMARKS
P	S-001	945+48.31 ℄ SURVEY SR 5	RT	Inlet, pipe	1		9'					1								
F							9'					1								
P	S-002	945+48.31 ℄ SURVEY SR 5	RT	manhole, pipe	1		300'												1	
F							300												1	
P	S-003	948+49.65 ℄ SURVEY SR 5	RT	manhole	1	6'													1	
F						6'													1	
P	S-004	100+93.85 ℄ SW 128 ST	RT	Inlet	1	3'												1		
F						0												1		
P	S-005	100+98.47 ℄ SW 112 ST	LT	Inlet top										1						Construct Inlet top Type 6
F														1						
P	S-006	1050+37.27 ℄ SURVEY SR 5	RT	Inlet	1	3'							1							
F						0							0							
P																				
F												

GENERAL NOTES

1. The Contractor may use any of the optional pipe materials tabulated for a given structure. Only the material options tabulated for a given structure can be used.

2. Adjustment to the bid quantities, prices and payment will not be allowed due to increase or decrease in structure size, shape, length, width, depth or accessory construction necessary to accommodate the use of an optional pipe material other than the "plotted" option; likewise there will be no added or reduced compensation for structure alterations required to relieve utility conflicts which arise from the use of an optional material other than the "plotted" option.

3. Adjustment to the bid quantities, prices and payment will not be allowed due to increased or decreased excavation, bedding, borrow, backfilling, compaction, special installation requirements or disposal of excess materials due to use of any of the pipe optional materials. Likewise, adjustment in the quantities, prices and payment will not be allowed due to differences in end treatment size or types, pipe length, alternate jointing and connecting materials, saddles, cradles, filter fabrics, shoring or similar features due to the use of an optional material other than the "plotted" option.

4. If adjustments are required due to plan errors or omissions or authorized field changes, the "plotted" material and not the material elected by the Contractor would be used to establish new pay quantities.

5. The Contractor shall notify the Department in writing as to which optional pipe material he chooses to use at the preconstruction conference. Once identified the contactor may not change pipe material selected without the approval of the Engineer.

6. Pipe sizes other than round (Elliptical/Arch) are summarized and paid for using equivalent round pipe diameter.

STRUCTURE	SIZE (Inches)	MATERIAL	PLOTTED	AS BUILT	REMARKS
S-1	18"	RCP CLASS II	X		
		CAP			
		CSP			
		HDPE-II			
S-2	18"	RCP CLASS II	X		
		CAP			
		CSP			
		HDPE-II			
S-3	15"	RCP CLASS II	X		
S-4	15"	RCP CLASS II	X		
S-6	15"	RCP CLASS II	X		

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

DAVID PLUMMER & ASSOCIATES, INC.
1750 PONCE DE LEON BOULEVARD
CORAL GABLES, FLORIDA 33134
CERTIFICATE OF AUTHORIZATION EB 2690
VICTOR LEE P.E. NO. 35233

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	425513-1-52-01

OPTIONAL MATERIALS TABULATION

SHEET NO. 18

armando 11/10/2011 1:42:08 PM U:\pro\09\09145\425513152011\roadway\dramrd01.dgn

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

GENERAL NOTES:

1. REFER TO THE "NETWORK CONTROL SHEET" FOR HORIZONTAL AND VERTICAL DATUM'S USED ON THIS PROJECT.

2. ALL PUBLIC LAND CORNERS AND PRIMARY 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. THE CONTRACTOR SHALL PAINT ALL STATIONS WITH STENCILED NUMBERS ON THE FACE OF THE CURB.
A. FROM THE BEGINNING OF THE PROJECT WHERE THE CURB IS TO REMAIN.
B. AT NEW CURB NOT LATER THAN 72 HOURS AFTER BEING POURED.
C. WHERE CURB DOES NOT EXIST AND SHALL NOT BE CONSTRUCTED THE CONTRACTOR SHALL MAINTAIN STATIONING WITH SURVEYING STAKES.
THE CONTRACTOR SHALL MAINTAIN THE STATION MARKS VISIBLE UNTIL FINAL INSPECTION. COST TO BE INCLUDED IN RELATED PAY ITEM 102-1 MAINTENANCE OF TRAFFIC.

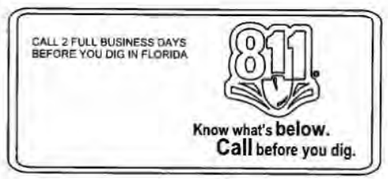
6. COMMERCIAL MATERIAL INCLUDED FOR DRIVEWAY MAINTENANCE AND SAFE ACCESS TO RESIDENTIAL AND BUSINESS PROPERTIES AFFECTED BY CONSTRUCTION SHALL BE PAID ONLY ONCE PER ACCESS. IF THE MATERIAL IS REMOVED DURING SUBSEQUENT CONSTRUCTION OPERATIONS, IT SHALL BE REPLACED AT THE CONTRACTORS EXPENSE. QUANTITY FOR THIS ITEM MAY BE INCREASED, DECREASED OR OMITTED AS DIRECTED BY THE DEPARTMENT.

7. WORK NECESSARY FOR HARMONIZATION OUTSIDE R/W SHALL BE INCLUDED IN RELATED BID ITEMS (STRUCTURAL ASPHALT, SOD, CONCRETE, BRICKS, ETC.). CLEARING AND GRUBBING, EARTHWORK AND GRADING ARE INCIDENTAL TO THESE ITEMS.

8. OUTSIDE OF THE CLEARING AND GRUBBING LIMITS SHOWN ON THE PLANS THE CONTRACTOR SHALL PERFORM STANDARD CLEARING AND GRUBBING FOR THE WORK BEING DONE AS APPROVED BY THE ENGINEER. COST TO BE INCLUDED IN 110-1-1, CLEARING AND GRUBBING.

9. SAW CUTTING OF THE EXISTING SIDEWALKS SHALL BE MADE ONLY AT THE NEAREST FLAG JOINTS.

10. INSTALLATIONS OF NEW PULL BOXES SHALL BE PERFORMED BY QUALIFY 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.



DRAINAGE NOTES:

1. EXISTING STORM SEWERS (PIPES, FRENCH DRAINS AND/OR SLAB COVERED TRENCHES) MAY REMAIN IN PLACE IF NOT IN CONFLICT WITH PROPOSED CONSTRUCTION. PLUG OPEN ENDS WHERE NEEDED WITH MISCELLANEOUS CONCRETE. COST TO BE INCLUDED IN PAY ITEM 110-1 CLEARING & GRUBBING, UNLESS OTHERWISE STATED ON PLANS.

2. EXISTING STORM SEWERS (PIPES, FRENCH DRAINS AND/OR SLAB COVERED TRENCHES) IN CONFLICT WITH PROPOSED CONSTRUCTION SHALL BE REMOVED. COST OF REMOVAL, DISPOSAL, BACKFILLING AND COMPACTING SHALL BE INCLUDED IN ITEM 110-1-1 CLEARING AND GRUBBING AS PER 110-6 OF STANDARD SPECIFICATIONS.

3. ELEVATIONS AND OFFSETS FOR CURB INLETS ARE GIVEN AT THE EDGE OF PAVEMENT.

UTILITIES NOTES:

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

2. ALL EXISTING UTILITIES ARE TO REMAIN UNLESS OTHERWISE NOTED.

3. THE LOCATION(S) OF THE UTILITIES SHOWN IN THE PLANS (INCLUDING THOSE DESIGNATED Vv, Vh AND Vvh) ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE VERIFIED LOCATIONS/ELEVATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED.

4. TWO FULL BUSINESS DAYS PRIOR TO DIGGING THE CONTRACTOR SHALL CALL SUNSHINE STATE ONE CALL OF FLORIDA, TELEPHONE NUMBER 811, AND THE UTILITY OWNER AND REQUEST UTILITY LOCATIONS. A CONTRACTOR'S REPRESENTATIVE MUST BE PRESENT WHEN UTILITY COMPANIES LOCATE THEIR FACILITIES.

5. TWO FULL BUSINESS DAYS PRIOR TO DIGGING NOTIFY THE ENGINEER AND CALL FDOT MAINTENANCE DEPARTMENT, TELEPHONE NUMBER (305) 650-0082 AND REQUEST LIGHTING CONDUITS LOCATIONS.

6. 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.

7. PRE-TRENCHING IN THE ALIGNMENT AND GRADE OF PROPOSED PIPES STRUCTURES, FRENCH DRAINS, SLAB COVERED TRENCHES, CONDUITS, POLE FOUNDATIONS AND/OR SUB-GRADE SHALL BE PERFORMED SEVEN DAYS IN ADVANCE OF ITS CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE UNDERGROUND UTILITY OWNERS AND THE DEPARTMENT WITH A SEVEN DAYS ADVANCE NOTICE OF ANY CONFLICT WITH PROPOSED CONSTRUCTION. THIS NOTIFICATION SHALL PROVIDE SURVEY INFORMATION ABOUT EXISTING UTILITY ALIGNMENT, GRADE AND POSSIBLE CONFLICTS. PAYMENT FOR PRE-TRENCHING, SURVEY AND BACKFILLING SHALL BE INCLUDED IN THE COST OF THE RELATED BID ITEM FOR THE WORK BEING DONE.

8. UTILITY OWNERS:

SUNSHINE ONE CALL	811	MIAMI-DADE WATER & SEWER	(786) 552-8901
MIAMI-DADE COUNTY PUBLIC WORKS	(305) 592-8925	FLORIDA CITY GAS	(305) 835-3632
AT&T - DISTRIBUTION	(305) 222-8745	COMCAST CABLE	(954) 447-8405
FPL	(305) 442-5129	FLORIDA GAS TRANSMISSION	(407) 838-7171
FPL FIBERNET	(305) 552-2931	ATLANTIC BROADBAND	(305) 861-8069
M-D ENTERPRISE TECH. SERVICE	(786) 256-1554	FDOT DISTRICT 6	(305) 491-4391

S.R. 5 (US-1 / SOUTH DIXIE HIGHWAY)
FROM S.W. 136th STREET TO S.W. 102nd STREET

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DAVID PLUMMER & ASSOCIATES, INC.
1750 PONCE DE LEON BOULEVARD
CORAL GABLES, FLORIDA 33134
CERTIFICATE OF AUTHORIZATION EB 2690
VICTOR LEE P.E. NO. 35233

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	425513-1-52-01

GENERAL NOTES

SHEET NO. 19

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GENERAL NOTES (CONTINUED)

ENVIRONMENTAL NOTES:

1. THIS PROJECT CROSSES C-100A CANAL. TURBIDITY LEVELS BEYOND THE CONTROL MECHANISMS ARE NOT ALLOWED TO EXCEED 29 NEPHELOMETRIC TURBIDITY UNITS (NTUs) ABOVE NATURAL BACKGROUND LEVELS. THE DISCHARGE OF ANY FOREIGN MATERIAL INTO THE WATER SHALL NOT BE PERMITTED.

2. THE CONTRACTOR SHALL REVIEW ENVIRONMENTAL REQUIREMENTS OF ANY PROPOSED STAGING AREA WITH THE DISTRICT ENVIRONMENTAL PERMITS COORDINATOR AT (305) 470-5144 AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO USE.

3. NO STAGING OR OTHER ACTIVITIES FOR THIS PROJECT WILL BE ALLOWED WITHIN THE KENDALL WAYSIDE PARK AND SUNILAND PARK LIMITS.

4. ANY MATERIAL TO BE STOCKPILED FOR PERIODS GREATER THAN 24 HOURS SHALL BE PROTECTED BY APPROPRIATE EROSION CONTROL DEVICES. COST TO BE INCLUDED IN THE RELATED BID ITEM.

5. WEST INDIAN MANATEES (TRICHECHUS MANATUS LATIROSTRIS), A FEDERAL AND STATE LISTED ENDANGERED SPECIES, MAY MIGRATE THROUGH THE PROJECT AREA. THE CONTRACTOR SHALL POST TEMPORARY SIGN(S) IN A LOCATION PROMINENTLY VISIBLE TO WATER-RELATED CONSTRUCTION CREWS, MEASURING AT LEAST 3 BY 4 FEET THAT READS "CAUTION: MANATEE AREA" FOR THE DURATION OF THE PROJECT. IF VESSELS ARE ASSOCIATED WITH THE CONSTRUCTION, SIGNAGE SHALL BE DISPLAYED NEXT TO THE CONTROLS ON ALL CONSTRUCTION-RELATED VESSELS, MEASURE AT LEAST 8.5 BY 11 INCHES, AND READ "CAUTION: MANATEE HABITAT".
THE COST FOR ALL ITEMS REQUIRED FOR THE MONITORING AND PROTECTION OF MANATEES, SUCH AS, BUT NOT LIMITED TO MANATEE SIGNS, OBSERVERS, POLARIZED GLASSES, AND BINOCULARS, SHALL BE INCLUDED UNDER 101-1 MOBILIZATION.

6. A CERTIFIED ARBORIST CERTIFIED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE SHALL BE PRESENT ON SITE TO DIRECT ALL ROOT PRUNING AND / OR CANOPY TRIMMING ACTIVITIES. COST TO BE INCLUDED IN THE RELATED BID ITEM.

7. THE FOLLOWING AREAS HAVE BEEN IDENTIFIED AS POTENTIALLY CONTAMINATED:
   1. APPROXIMATELY STA. 974+40, RT TO STA. 975+20, RT
   2. APPROXIMATELY STA. 988+60, LT TO STA. 989+80, LT
   3. APPROXIMATELY STA. 989+20, RT TO STA. 990+20, RT

THE DEPARTMENT WILL HAVE A CONTAMINATION ASSESSMENT AND REMEDIATION (CAR) CONTRACTOR, WORKING UNDER A SEPARATE CONTRACT, OR A DISTRICT CONTAMINATION IMPACTS COORDINATOR DESIGNEE PERFORM MONITORING DURING CONSTRUCTION ACTIVITIES IN THE AREA. IN THE EVENT THAT CONTAMINATION IS IDENTIFIED, THE CONTRACTOR IS REQUIRED TO ADHERE TO SECTION 120 EXCAVATION AND EMBANKMENT - SUBARTICLE 120-1.2 UNIDENTIFIED AREAS OF CONTAMINATION OF THE STANDARD SPECIFICATIONS

8. ANY DEWATERING OPERATIONS IN THE AREA NOTED BELOW SHALL BE LIMITED TO LOW-FLOW, SHORT-TERM. THE CONTRACTOR SHALL CONTACT THE EMO CONTAMINATION UNIT AT (305) 470-5228 FOR APPROVAL PRIOR TO COMMENCING ANY DEWATERING, SINCE THE DEWATERING PLAN MIGHT BE NECESSARY TO AVOID POTENTIAL CONTAMINATION PLUME EXACERBATION.

-STA. 974+40 TO STA. 975+20 RT;
-STA. 988+60 TO STA. 989+80 LT;
-STA. 989+20 TO STA. 990+20 RT

FIELD OFFICE:

1. THE FIELD OFFICE SHALL BE LOCATED WITHIN ONE MILE OF THE LIMITS OF CONSTRUCTION.

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S.R. 5 (US-1 / SOUTH DIXIE HIGHWAY)
FROM S.W. 136th STREET TO S.W. 102nd STREET

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DAVID PLUMMER & ASSOCIATES, INC.
1750 PONCE DE LEON BOULEVARD
CORAL GABLES, FLORIDA 33134
CERTIFICATE OF AUTHORIZATION EB 2690
VICTOR LEE P.E. NO. 35233

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	425513-1-52-01

GENERAL NOTES

SHEET NO. 20

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V vh NO. [15] (WATER) - STA. 989+31.10 (66.79' RT) SURVEY EL.= 9.85 COVER= 5.92'
V vh NO. [16] (4" TELEPHONE) - STA. 989+55.03 (54.18' RT) SURVEY EL.= 10.08 COVER= 3.22'
V vh NO. [17] (4" GAS) - STA. 989+49.48 (55.47' RT) SURVEY EL.= 10.06 COVER= 3.28'
V vh NO. [18] (12" WATER) - STA. 989+43.80 (63.35' RT) SURVEY EL.= 10.13 COVER= 4.22'

DENOTES VACUUM TEST HOLE

STA. 988+64.40 ℄ SURVEY US 1 / SR 5 =
STA. 100+00.00 ℄ SURVEY SW 124 ST
S.R. 5 (US-1 / SOUTH DIXIE HIGHWAY)

MATCH LINE STA. 986+40.00

MATCH LINE STA. 992+00.00

S.W. 124TH ST.

S.W. 124TH ST. / CHAPMAN FIELD DR.

℄ SURVEY N 87° 33' 33" E

℄ SURVEY N 22° 33' 17" E

MIAMI-DADE TRANSIT BUSWAY

0 10 40
Feet

INSTALL CURB RAMP DETECTABLE WARNING DEVICE
EXIST. SIDEWALK (TO REMAIN)
EXIST. DRAINAGE STRUCTURE (TO REMAIN)
98+80.81
+90.00 69.18' LT
+69 SAWCUT AND CONNECT TO EXIST. SIDEWALK
+51.86 73.23' LT
+55 SAWCUT AND CONNECT TO EXIST. SIDEWALK
CURB RAMP (CR-3)
REPLACE PULL BOX (TRAFFIC SIGNAL)
+74 SAWCUT AND CONNECT TO EXIST. SIDEWALK
+75.71 53.47' LT
+69.30 63.19' LT
CONST. SIDEWALK
6" JET FUEL LINE
EXIST. CURB & GUTTER TYPE F (TO REMAIN)
LIMITS OF MILLING AND RESURFACING
REMOVE EXIST. CURB & GUTTER
CONST 4" CONC. SLAB
+05.75 11.02' LT
REMOVE CONC. SLAB
ADJUST MH TOP (SAN. SEWER)
CONST. CURB TYPE D
+13 SAWCUT AND CONNECT TO EXIST. CURB & GUTTER
+57 SAWCUT AND CONNECT TO EXIST. CURB & GUTTER
℄ +02.1 CONST. DRIVEWAY
CONST. CURB & GUTTER TYPE F
SOD
ADJUST MH TOP (TELEPHONE) (BY OTHERS)
+43.24 50.94' RT
EXIST. DRAINAGE STRUCTURE (TO REMAIN)
CONST. SIDEWALK CURB
EXIST. WATER VALVE COVER (TO BE REMOVED BY MDWSD)
+78 SAWCUT AND CONNECT TO EXIST. CURB & GUTTER
ADJUST MH TOP (STORM SEWER)
+94.31 14.11' RT
ASPHALT PAVEMENT 57.1' 67'
+57 SAWCUT AND CONNECT TO EXIST. SIDEWALK
+13 SAWCUT AND CONNECT TO EXIST. SIDEWALK
+31 SAWCUT AND CONNECT TO EXIST. SIDEWALK
CONST. SIDEWALK REPLACE PULL BOX (TELEPHONE) (BY OTHERS)
CURB RAMP (CR-3)
+60.67 60.44' RT
REPLACE PULL BOXES (3) (TRAFFIC SIGNAL)
CONST. SIDEWALK (SEE DETAILS ON THIS SHEET)
EXIST. DRAINAGE STRUCTURE (TO REMAIN)
100+70 SAWCUT AND CONNECT TO EXIST. SIDEWALK
EXIST. SIDEWALK (TO REMAIN)
84.81' 101
8" DIP
12" DIP
35'
R/W LINE
REPLACE PULL BOX (STREET LIGHT) NOT REQ'D.
INSTALL CURB RAMP DETECTABLE WARNING DEVICE
+45 SAWCUT AND CONNECT TO EXIST. SIDEWALK
+78 SAWCUT AND CONNECT TO EXIST. SIDEWALK
+51 SAWCUT AND CONNECT TO EXIST. DRIVEWAY
REPLACE CRACKED / DAMAGED DRIVEWAY CONCRETE SLAB
+67 SAWCUT AND CONNECT TO EXIST. DRIVEWAY
EXIST. MAST ARM FOUNDATION (TO REMAIN)
CONST. 6" SIDEWALK CURB
CONST. SIDEWALK
0.02
EXIST. DRAINAGE STRUCTURE (TO REMAIN)
* CURB TO BE CONSTRUCTED AROUND THE EXIST. MAST ARM FOUNDATION.

635-1-11: 4 EA. ✓

DENOTES WIDENING
X.XX DENOTES PROPOSED ELEVATION
DENOTES HARMONIZATION AREA
DENOTES OVERBUILD LIMITS WITH 1.5" MILLING DEPTH
DENOTES OVERBUILD LIMITS WITH 2.0" MILLING DEPTH

NOTE:
EXIST. TREES / PALMS TO REMAIN UNLESS OTHERWISE INDICATED IN THE LANDSCAPE PLANS TO BE REMOVED / RELOCATED.

DETAIL N.T.S.

SECTION A-A
N.T.S.

S.R. 5 (US-1 / SOUTH DIXIE HIGHWAY)
FROM S.W. 136th STREET TO S.W. 102nd STREET

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REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DAVID PLUMMER & ASSOCIATES, INC.
1750 PONCE DE LEON BOULEVARD
CORAL GABLES, FLORIDA 33134
CERTIFICATE OF AUTHORIZATION EB 2690
VICTOR LEE P.E. NO. 35233

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	425513-1-52-01

ROADWAY PLAN

SHEET NO. 29

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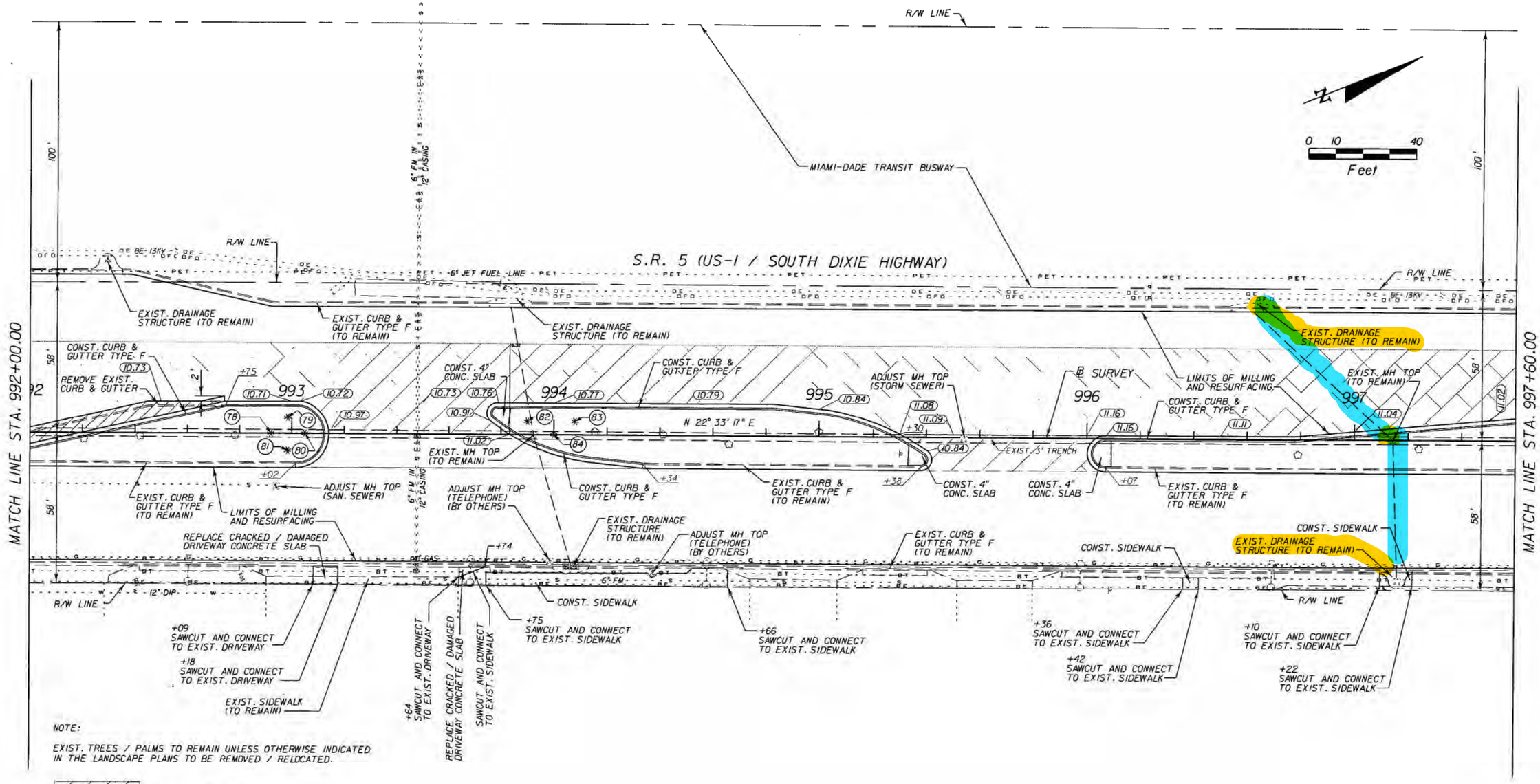

NOTE:

EXIST. TREES / PALMS TO REMAIN UNLESS OTHERWISE INDICATED IN THE LANDSCAPE PLANS TO BE REMOVED / RELOCATED.

DENOTES WIDENING

DENOTES OVERBUILD LIMITS WITH 1.5" MILLING DEPTH

X.XX DENOTES PROPOSED ELEVATION

XX DENOTES LOCATION OF RELOCATED PALM (SEE LANDSCAPE PLANS)

S.R. 5 (US-1 / SOUTH DIXIE HIGHWAY)
FROM S.W. 136th STREET TO S.W. 102nd STREET

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DAVID PLUMMER & ASSOCIATES, INC.
1750 PONCE DE LEON BOULEVARD
CORAL GABLES, FLORIDA 33134
CERTIFICATE OF AUTHORIZATION EB 2690
VICTOR LEE P.E. NO. 35233

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	425513-1-52-01

ROADWAY PLAN

SHEET NO. 30

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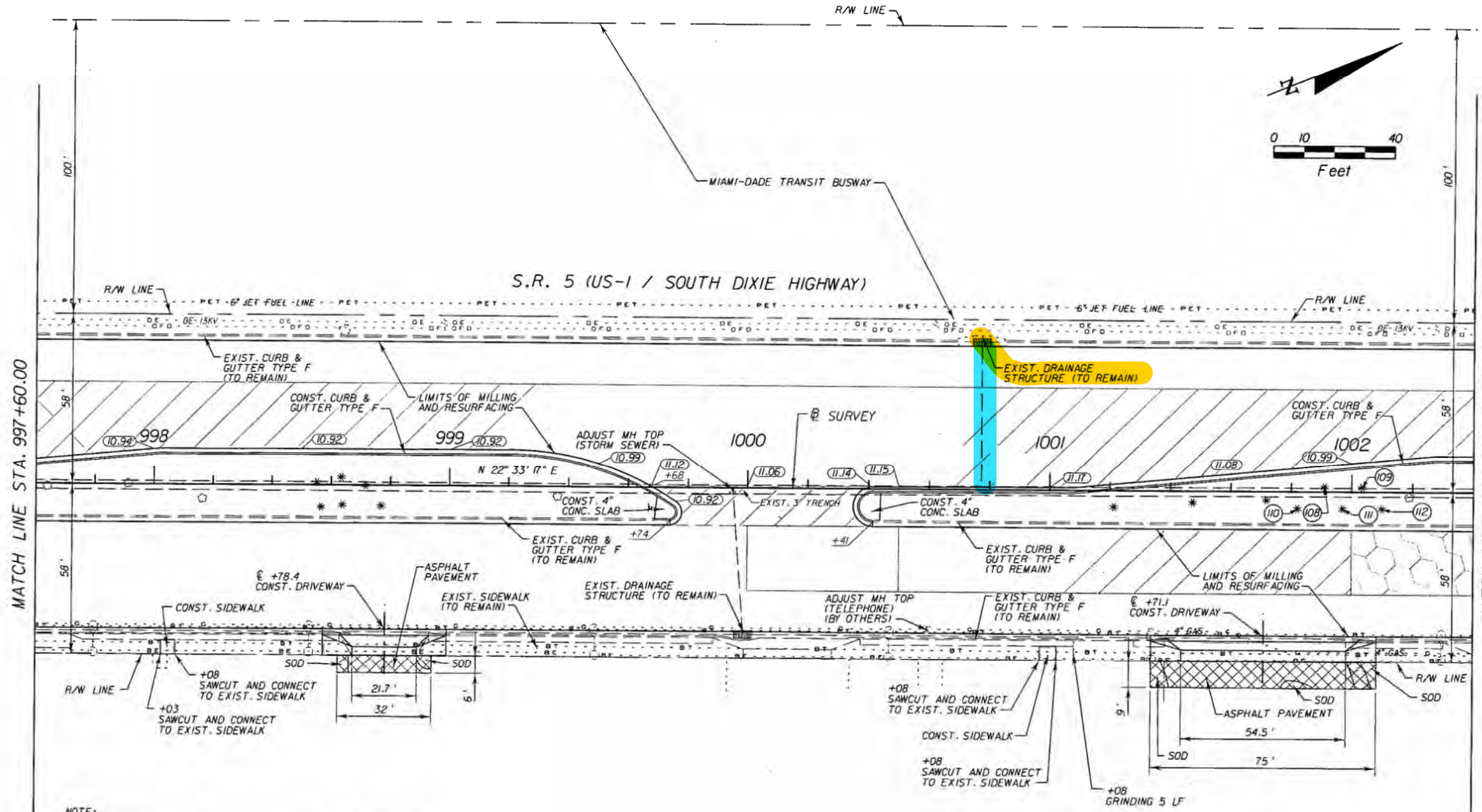

NOTE:

EXIST. TREES / PALMS TO REMAIN UNLESS OTHERWISE INDICATED IN THE LANDSCAPE PLANS TO BE REMOVED / RELOCATED.

DENOTES HARMONIZATION AREA

DENOTES OVERBUILD LIMITS WITH 1.5" MILLING DEPTH

DENOTES OVERBUILD LIMITS WITH 2.0" MILLING DEPTH

(X.XX) DENOTES PROPOSED ELEVATION

(XX) DENOTES LOCATION OF RELOCATED PALM (SEE LANDSCAPE PLANS)

S.R. 5 (US-1 / SOUTH DIXIE HIGHWAY)
FROM S.W. 136th STREET TO S.W. 102nd STREET

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DAVID PLUMMER & ASSOCIATES, INC.
1750 PONCE DE LEON BOULEVARD
CORAL GABLES, FLORIDA 33134
CERTIFICATE OF AUTHORIZATION EB 2690
VICTOR LEE P.E. NO. 35233

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	425513-1-52-01

ROADWAY PLAN

SHEET NO. 31

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V vh NO. 19 (4" GAS) - STA. 1004+49.38 (55.11' RT) SURVEY EL.= 9.69 COVER= 2.87'
V vh NO. 20 (TELEPHONE DUCT) - STA. 1004+49.84 (54.23' RT) SURVEY EL.= 9.68 COVER= 2.20'
V vh NO. 21 (16" GAS FUEL LINE) - STA. 1003+16.44 (61.62' LT) SURVEY EL.= 8.82 COVER= 1.78'
V vh NO. 22 (16"GAS FUEL LINE) - STA. 1003+96.97 (61.82' LT) SURVEY EL.= 8.79 COVER= 2.23'

DENOTES VACUUM TEST HOLE

R/W LINE

MIAMI-DADE TRANSIT BUSWAY

0 10 40
Feet

STA. 1003+55.00 ℄ SURVEY US 1 / SR 5 =
STA. 100+00.00 ℄ SURVEY SW 120 ST

22 S.R. 5 (US-1 / SOUTH DIXIE HIGHWAY)

MATCH LINE STA. 1002+40.00

MATCH LINE STA. 1008+00.00

CONST. RAMP (1:12 MAX.)
+11.48 54.05' LT
+18.48 54.05' LT
+09.63 50.55' LT
+20.48 50.55' LT
CONST. SIDEWALK CURB
EXIST. CURB & GUTTER TYPE F (TO REMAIN)
EXIST. DRAINAGE STRUCTURE (TO REMAIN)
CONST. CURB & GUTTER TYPE F
EXIST. CURB & GUTTER TYPE F (TO REMAIN)
LIMITS OF MILLING AND RESURFACING
REMOVE EXIST. CURB & GUTTER
CONST. CURB & GUTTER TYPE F
+09.96 1.29' LT
CONST. 7' CONC. SIDEWALK
ADJUST MH TOPS (TELEPHONE)
+09.48 11.61' RT
+22 (BY OTHERS)
ADJUST MH TOP (STORM SEWER)
+45.45 0.13' RT
+25.20 0.99' LT
℄ SURVEY
CONST. 4" CONC. SLAB
EXIST. 3' TRENCH
ADJUST MH TOP (STORM SEWER)
+17
CONST. CURB & GUTTER TYPE F
+10.00 0.89' LT
+80
N 22° 33' 17" E
EXIST. CURB & GUTTER TYPE F (TO REMAIN)
EXIST. SIDEWALK (TO REMAIN)
EXIST. DRAINAGE STRUCTURE (TO REMAIN)
+06.48 51.06' RT
+23.48 50.57' RT
+25.97 50.58' RT
+50.17 59.47' RT
ADJUST FM VALVE
+54 SAWCUT AND CONNECT TO EXIST. SIDEWALK
+55
+67.3 CONST. DRIVEWAY
CONST. SIDEWALK
LIMITS OF MILLING AND RESURFACING
EXIST. CURB & GUTTER TYPE F (TO REMAIN)
EXIST. SIDEWALK (TO REMAIN)
+53.86 62.62' RT
+58.35 67.14' RT
+41.12 57.45' RT
CONST. SIDEWALK CURB
SAWCUT
CONST. SIDEWALK
+43.83 64.44' RT
CONST. 6" CONC. SLAB
47.6'
74'
+26 SAWCUT AND CONNECT TO EXIST. SIDEWALK
+90
+83 SAWCUT AND CONNECT TO EXIST. SIDEWALK
+98 SAWCUT AND CONNECT TO EXIST. SIDEWALK
+07 SAWCUT AND CONNECT TO EXIST. SIDEWALK
CONST. SIDEWALK
CONST. SIDEWALK
+49 SAWCUT
REPLACE INLET TOP (SEE DETAIL ON SHEET NO. 32A)
CONST. CURB & GUTTER (TYPE F)
S.W. 120TH ST. MONTGOMERY DR.
101' 66' FM
℄ SURVEY S 87° 20' 52" W
ADJUST WATER VALVE
R/W LINE
+28 SAWCUT AND CONNECT TO EXIST. SIDEWALK
+21 SAWCUT AND CONNECT TO EXIST. SIDEWALK
+02 SAWCUT AND CONNECT TO EXIST. SIDEWALK
+73 SAWCUT AND CONNECT TO EXIST. SIDEWALK
CONST. SIDEWALK
+68 SAWCUT AND CONNECT TO EXIST. SIDEWALK
+42 SAWCUT AND CONNECT TO EXIST. SIDEWALK
CONST. SIDEWALK
+67 SAWCUT AND CONNECT TO EXIST. SIDEWALK
REMOVE EXIST. SIDEWALK BACKFILL AND SOD
REPLACE EXIST. GRATE WITH A NEW H-20 LOAD RATED STEEL GRATE SLOTTED FOR ADA COMPLIANCE.
101+23.00
102
35'
35'

NOTE:
EXIST. TREES / PALMS TO REMAIN UNLESS OTHERWISE INDICATED IN THE LANDSCAPE PLANS TO BE REMOVED / RELOCATED.

DENOTES HARMONIZATION AREA

DENOTES WIDENING

DENOTES OVERBUILD LIMITS WITH 1.5" MILLING DEPTH

X.XX DENOTES PROPOSED ELEVATION

DENOTES OVERBUILD LIMITS WITH 2.0" MILLING DEPTH

(XX) DENOTES LOCATION OF RELOCATED TREE (SEE LANDSCAPE PLANS)

(XX) DENOTES LOCATION OF RELOCATED PALM (SEE LANDSCAPE PLANS)

Victor Lee 09/23/13

S.R. 5 (US-1 / SOUTH DIXIE HIGHWAY)
FROM S.W. 136th STREET TO S.W. 102nd STREET

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

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
10-25-12	VL	RECONFIGURE CROSSINGS AT US1 AND AT SW 120 STREET.			

DAVID PLUMMER & ASSOCIATES, INC.
dpa
1750 PONCE DE LEON BOULEVARD
CORAL GABLES, FLORIDA 33134
CERTIFICATE OF AUTHORIZATION EB 2690
VICTOR LEE P.E. NO. 35233

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	425513-1-52-01

ROADWAY PLAN

SHEET NO. 32

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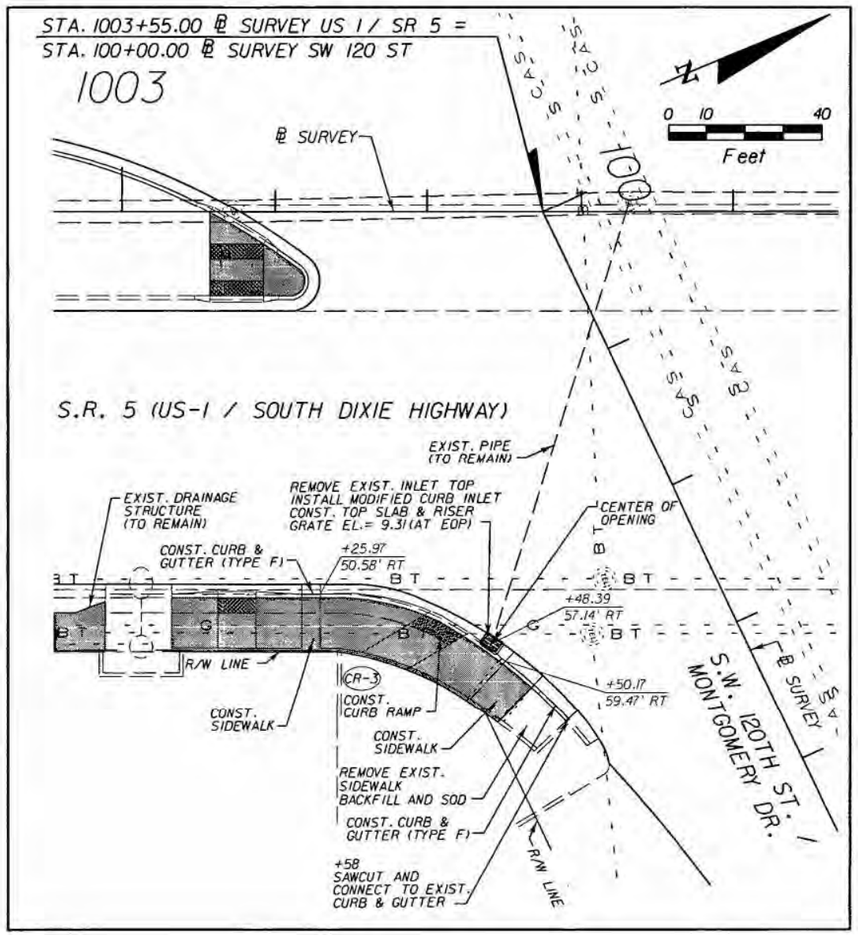
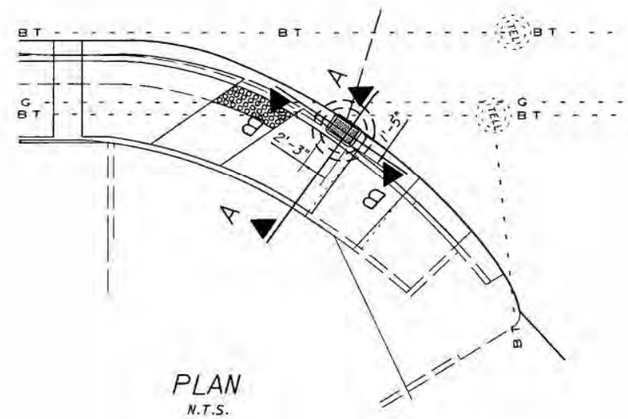
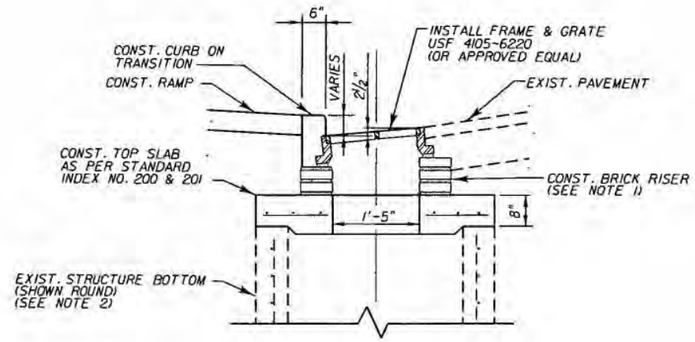
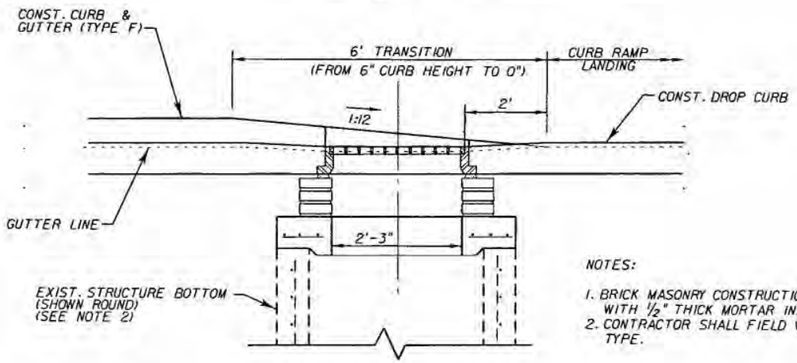




PLAN
N.T.S.



SECTION A-A
N.T.S.



SECTION B-B
N.T.S.

NOTES:

1. BRICK MASONRY CONSTRUCTION SHALL BE PLASTERED WITH ½" THICK MORTAR INSIDE AND OUTSIDE.
2. CONTRACTOR SHALL FIELD VERIFY STRUCTURE BOTTOM TYPE.

Victor Lee
09/23/13

S.R. 5 (US-1 / SOUTH DIXIE HIGHWAY)
FROM S.W. 136th STREET TO S.W. 102nd STREET

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
10-25-12	VL	REVISIONS TO SE CORNER OF SW 120 ST.			

DAVID PLUMMER & ASSOCIATES, INC.
1750 PONCE DE LEON BOULEVARD
CORAL GABLES, FLORIDA 33134
CERTIFICATE OF AUTHORIZATION EB 2690
VICTOR LEE P.E. NO. 35233

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	425513-1-52-01

ROADWAY PLAN

SHEET NO. 32A

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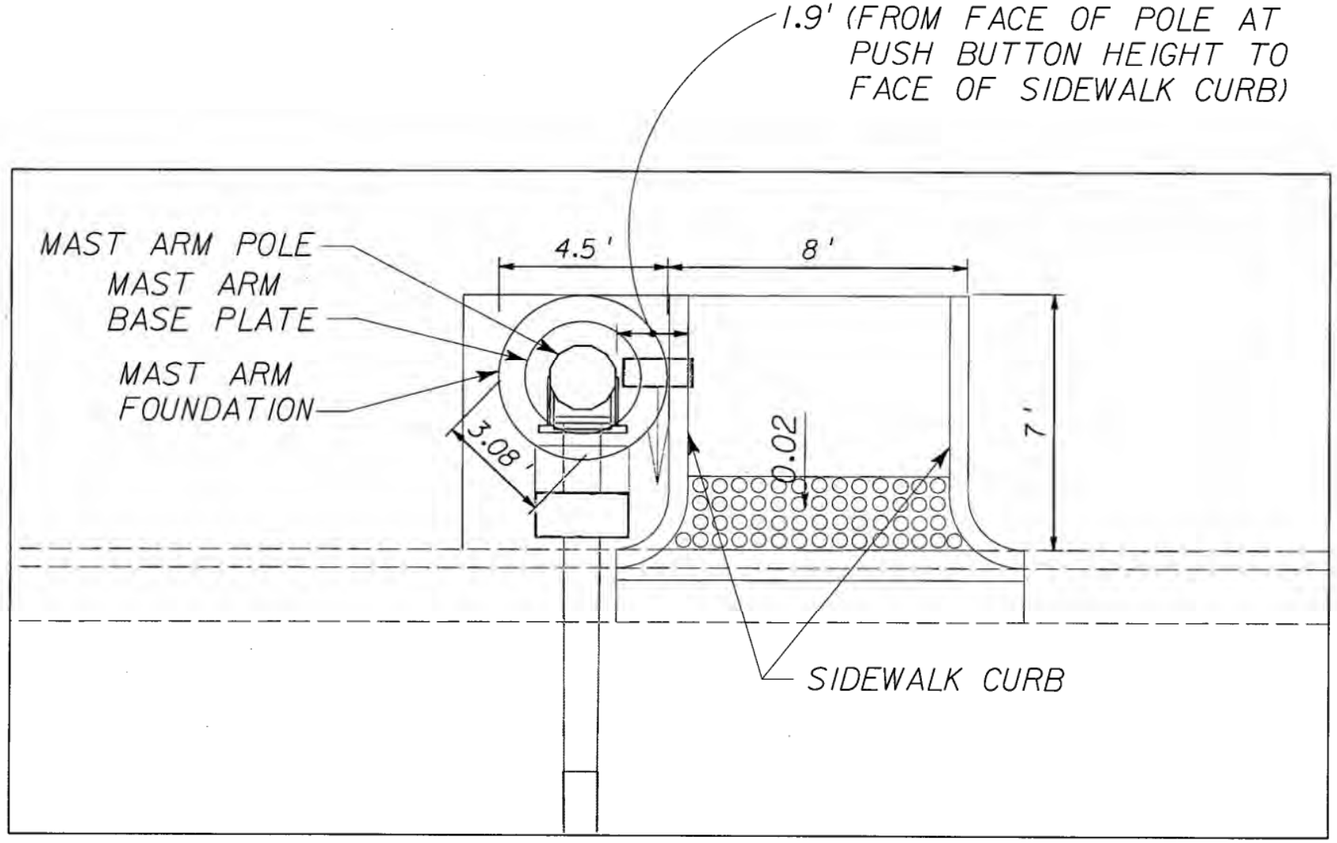
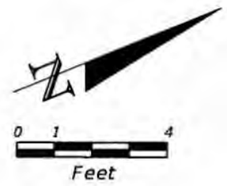




CURB RAMP DETAIL FOR MAST ARM 1-2 AT US-1 AND SW 120 STREET

S.R. 5 (US-1 / SOUTH DIXIE HIGHWAY)
FROM S.W. 136th STREET TO S.W. 102nd STREET

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DAVID PLUMMER & ASSOCIATES, INC.
1750 PONCE DE LEON BOULEVARD
CORAL GABLES, FLORIDA 33134
CERTIFICATE OF AUTHORIZATION EB 2690
VICTOR LEE P.E. NO. 35233

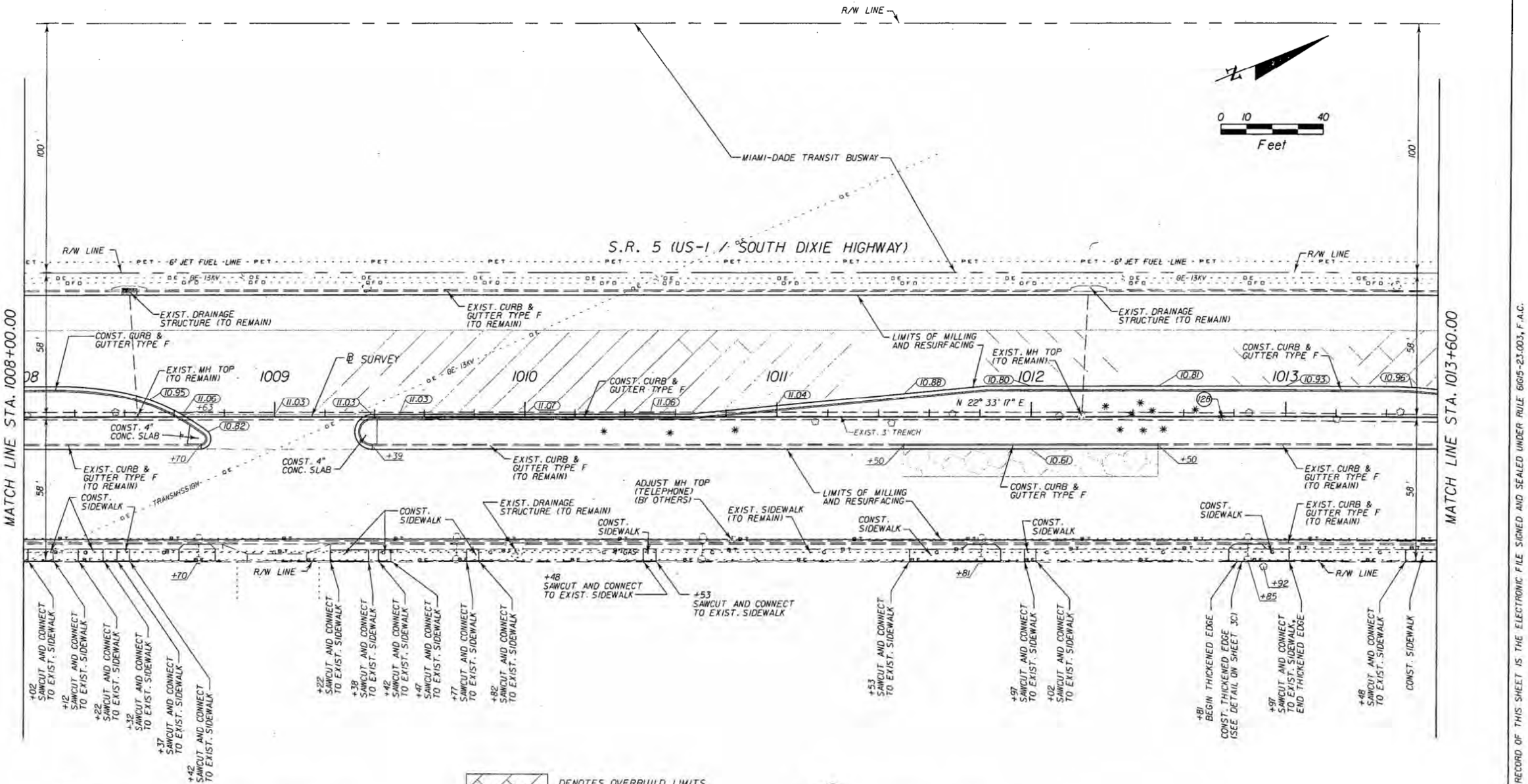
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	425513-1-52-01

ROADWAY PLAN

SHEET NO. 32B

$USER$ $DATE$ $TIME$ $FILE$



NOTE:

EXIST. TREES / PALMS TO REMAIN UNLESS OTHERWISE INDICATED IN THE LANDSCAPE PLANS TO BE REMOVED / RELOCATED.

(X.XX) DENOTES PROPOSED ELEVATION

DENOTES OVERBUILD LIMITS WITH 1.5" MILLING DEPTH

DENOTES OVERBUILD LIMITS WITH 2.0" MILLING DEPTH

(XX) DENOTES LOCATION OF RELOCATED PALM (SEE LANDSCAPE PLANS)

S.R. 5 (US-1 / SOUTH DIXIE HIGHWAY) FROM S.W. 136th STREET TO S.W. 102nd STREET

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DAVID PLUMMER & ASSOCIATES, INC.
1750 PONCE DE LEON BOULEVARD
CORAL GABLES, FLORIDA 33134
CERTIFICATE OF AUTHORIZATION EB 2690
VICTOR LEE P.E. NO. 35233

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	425513-1-52-01

ROADWAY PLAN

SHEET NO. 33

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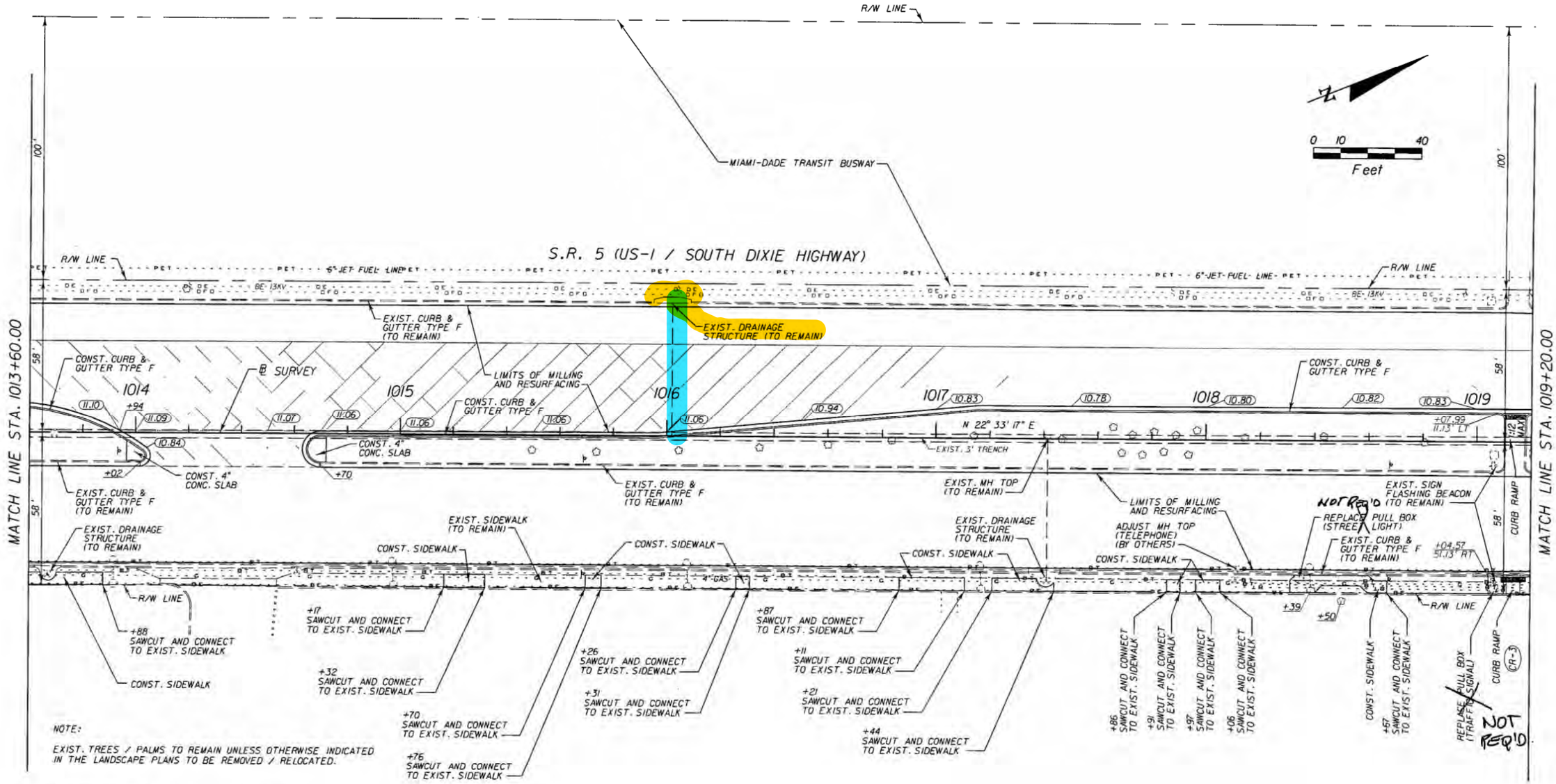

NOTE:

EXIST. TREES / PALMS TO REMAIN UNLESS OTHERWISE INDICATED IN THE LANDSCAPE PLANS TO BE REMOVED / RELOCATED.

DENOTES OVERBUILD LIMITS WITH 1.5" MILLING DEPTH

(X.XX) DENOTES PROPOSED ELEVATION

S.R. 5 (US-1 / SOUTH DIXIE HIGHWAY)
FROM S.W. 136th STREET TO S.W. 102nd STREET

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DAVID PLUMMER & ASSOCIATES, INC.
1750 PONCE DE LEON BOULEVARD
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VICTOR LEE P.E. NO. 35233

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	425513-1-52-01

ROADWAY PLAN

SHEET NO. 34

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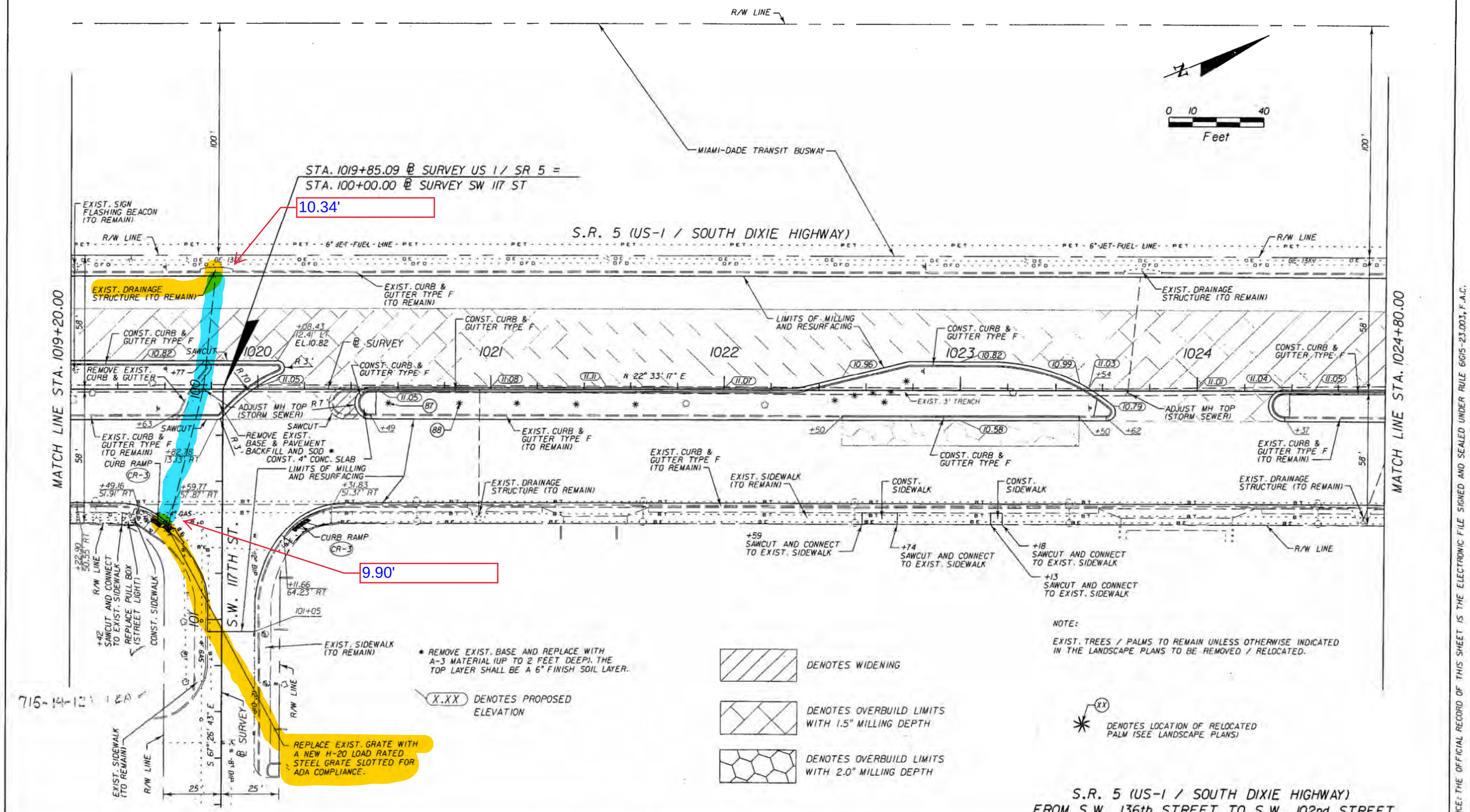

S.R. 5 (US-1 / SOUTH DIXIE HIGHWAY)
FROM S.W. 136th STREET TO S.W. 102nd STREET

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DAVID PLUMMER & ASSOCIATES, INC.
1750 PONCE DE LEON BOULEVARD
CORAL GABLES, FLORIDA 33134
CERTIFICATE OF AUTHORIZATION EB 2690
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	425513-1-52-01

ROADWAY PLAN

SHEET NO. 35

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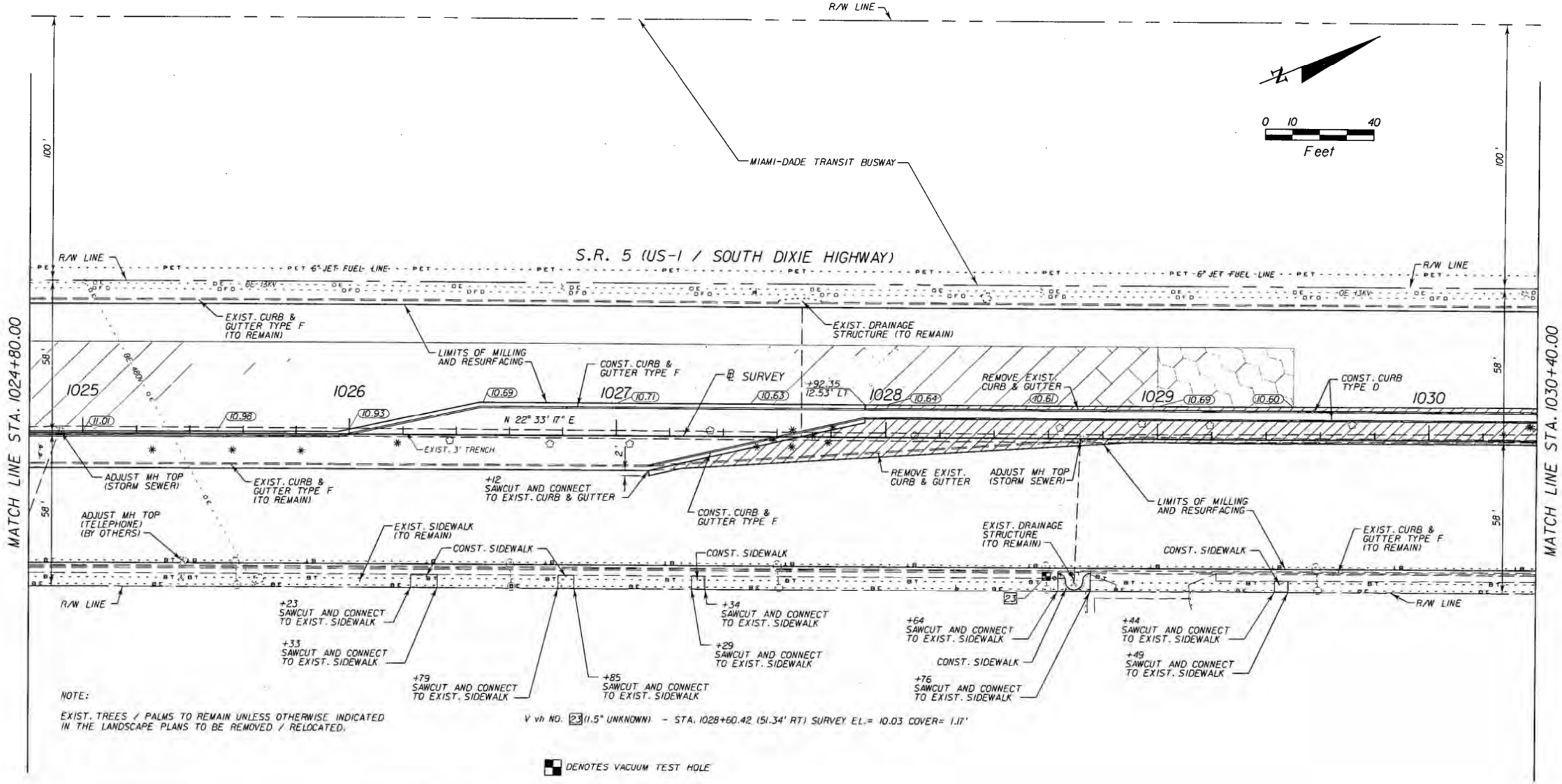

NOTE:

EXIST. TREES / PALMS TO REMAIN UNLESS OTHERWISE INDICATED IN THE LANDSCAPE PLANS TO BE REMOVED / RELOCATED.

V vh NO. 23 (1.5" UNKNOWN) - STA. 1028+60.42 (51.34' RT) SURVEY EL.= 10.03 COVER= 1.17'

DENOTES VACUUM TEST HOLE

DENOTES WIDENING

DENOTES OVERBUILD LIMITS WITH 1.5" MILLING DEPTH

X.XX DENOTES PROPOSED ELEVATION

DENOTES OVERBUILD LIMITS WITH 2.0" MILLING DEPTH

S.R. 5 (US-1 / SOUTH DIXIE HIGHWAY)
FROM S.W. 136th STREET TO S.W. 102nd STREET

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REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DAVID PLUMMER & ASSOCIATES, INC.
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CERTIFICATE OF AUTHORIZATION EB 2690
VICTOR LEE P.E. NO. 35233

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	425513-1-52-01

ROADWAY PLAN

SHEET NO. 36

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V vh NO. 24 (NO UTILITY FOUND) – STA. 1034+08.78 (51.99' RT) SURVEY EL.= 10.09 COVER= N/A
V vh NO. 31 GAS (FCG) – STA. 1031+90.60 (61.43' LT) SURVEY EL.= 10.12 COVER= 1.94'
V vh NO. 32 FIBER OPTIC (TRAFFIC) – STA. 1032+05.57 (84.73' LT) SURVEY EL.= 10.08 COVER= 2.70

MATCH LINE STA. 1030+40.00

MATCH LINE STA. 1036+00.00

R/W LINE

EXIST. TRAFFIC SEPARATOR (TO REMAIN)

DENOTES VACUUM TEST HOLE

0 10 40 Feet

S.W. 112TH ST.

N 87° 40' 44" E

MIAMI-DADE TRANSIT BUSWAY

INSTALL CURB RAMP DETECTABLE WARNING DEVICE

98+79.61

EXIST. SIDEWALK (TO REMAIN)

32 +26.88 14.64' LT

CURB RAMP (CR-3)

+09.26 13.65' LT

EXIST. SIDEWALK (TO REMAIN)

INSTALL CURB RAMP DETECTABLE WARNING DEVICE

EXIST. SIDEWALK (TO REMAIN)

STA. 1033+06.27 ℄ SURVEY US 1 / SR 5 =
STA. 100+00.00 ℄ SURVEY SW 112 ST

10.48'

R/W LINE

EXIST. SIDEWALK (TO REMAIN)

CURB RAMP (CR-3)

6" JET FUEL LINE

OE 13KV

S.R. 5 (US-1 / SOUTH DIXIE HIGHWAY)

R/W LINE

EXIST. DRAINAGE STRUCTURE (TO REMAIN)

EXIST. CURB & GUTTER TYPE F (TO REMAIN)

31 +13.25 55.38' LT

CURB RAMP (CR-3)

+30.86 63.37' LT

EXIST. DRAINAGE STRUCTURE (TO REMAIN)

CONST. CURB TYPE D

LIMITS OF MILLING AND RESURFACING

℄ SURVEY

REMOVE EXIST. CURB & GUTTER

ADJUST MH TOP (STORM SEWER)

1031

1032

1033

1034

1035

+46.67 11.09' LT

CONST. 4" CONC. SLAB

R 2'

REMOVE CONC. SLAB

EXIST. 3" TRENCH

N 22° 33' 17" E

10.72

10.86

10.83

10.75

REMOVE EXIST. CURB & GUTTER

ADJUST MH TOP (STORM SEWER)

EXIST. DRAINAGE STRUCTURE (TO REMAIN)

REPLACE PULL BOX (STREET LIGHT)

715-14-12: 1 EA

REMOVE PULL BOX (SEE SIGNAL PLANS)

+64.33 11.64' RT

CONST. 4" CONC. SLAB

REMOVE EXIST. CURB & GUTTER

CONST. CURB TYPE D

EXIST. SIDEWALK (TO REMAIN)

EXIST. CURB & GUTTER TYPE F (TO REMAIN)

CONST. SIDEWALK

CONST. SIDEWALK

+83.55 50.44' RT

CURB RAMP (CR-3)

LIMITS OF MILLING AND RESURFACING

EXIST. CURB & GUTTER TYPE F (TO REMAIN)

+42 GRINDING 10 LF

EXIST. SIDEWALK (TO REMAIN)

EXIST. DRAINAGE STRUCTURE (TO REMAIN)

24

+00.54 52.34' RT

+84.55 65.41' RT

+04

+11 SAWCUT AND CONNECT TO EXIST. SIDEWALK

CURB RAMP (CR-3)

REMOVE PULL BOXES (2) (SEE SIGNAL PLAN)

+60 SAWCUT AND CONNECT TO EXIST. SIDEWALK

CONST. SIDEWALK

+71 SAWCUT AND CONNECT TO EXIST. SIDEWALK

R/W LINE

R/W LINE

+02 SAWCUT AND CONNECT TO EXIST. SIDEWALK

+12 SAWCUT AND CONNECT TO EXIST. SIDEWALK

+88 SAWCUT AND CONNECT TO EXIST. SIDEWALK

+93 SAWCUT AND CONNECT TO EXIST. SIDEWALK

+80

+85

105'

715-1-12 = 3 (105') = 315'

ADJUST MH TOP (TELEPHONE) (BY OTHERS)

SAWCUT

CONST. CURB AND GUTTER (TYPE F)

10.48'

RELOCATE PULL BOX (TELEPHONE) (BY OTHERS)

PULL BOXES (2) (TRAFFIC SIGNAL) (TO REMAIN)

100+68.36 33.24' RT

101+23.00

S.W. 112TH ST. / KILLIAN DR.

101

S-5

REMOVE INLET TOP AND CONST. INLET TOP TYPE 6 GRATE ELEV. = EXISTING

EXIST. CURB & GUTTER TYPE F (TO REMAIN)

100+99.60 35.00' RT

EXIST. POWER POLE (TO REMAIN)

℄ SURVEY

N 87° 40' 44" E

EXIST. SIDEWALK (TO REMAIN)

R/W LINE

35'

35'

102

(X.XX) DENOTES PROPOSED ELEVATION

NOTE:

EXIST. TREES / PALMS TO REMAIN UNLESS OTHERWISE INDICATED IN THE LANDSCAPE PLANS TO BE REMOVED / RELOCATED.

DENOTES WIDENING

DENOTES OVERBUILD LIMITS WITH 1.5" MILLING DEPTH

DENOTES OVERBUILD LIMITS WITH 2.0" MILLING DEPTH

SECTION A-A
N.T.S.

CONCRETE FROM BACK OF SIDEWALK TO FACE OF FOUNDATION

EXIST. PAVEMENT

CONST. 6" SIDEWALK CURB*

RAMP

CURB & GUTTER (TYPE F)

EXIST. MAST ARM FOUNDATION (TO REMAIN)

* CURB TO BE CONSTRUCTED AROUND THE EXIST. MAST ARM FOUNDATION.

DETAIL N.T.S.

CONST. 6" SIDEWALK CURB

R 25'

1:12

100+54.31 25.15' RT

0.02

4' MIN.

CONST. 6" SIDEWALK CURB

REMOVE EXIST. CONC. SIDEWALK, BACKFILL, AND SOD

R 14'

S.R. 5 (US-1 / SOUTH DIXIE HIGHWAY)
FROM S.W. 136th STREET TO S.W. 102nd STREET

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REVISIONS					
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CORAL GABLES, FLORIDA 33134
CERTIFICATE OF AUTHORIZATION EB 2690
VICTOR LEE P.E. NO. 35233

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	425513-1-52-01

ROADWAY PLAN

SHEET NO. 37

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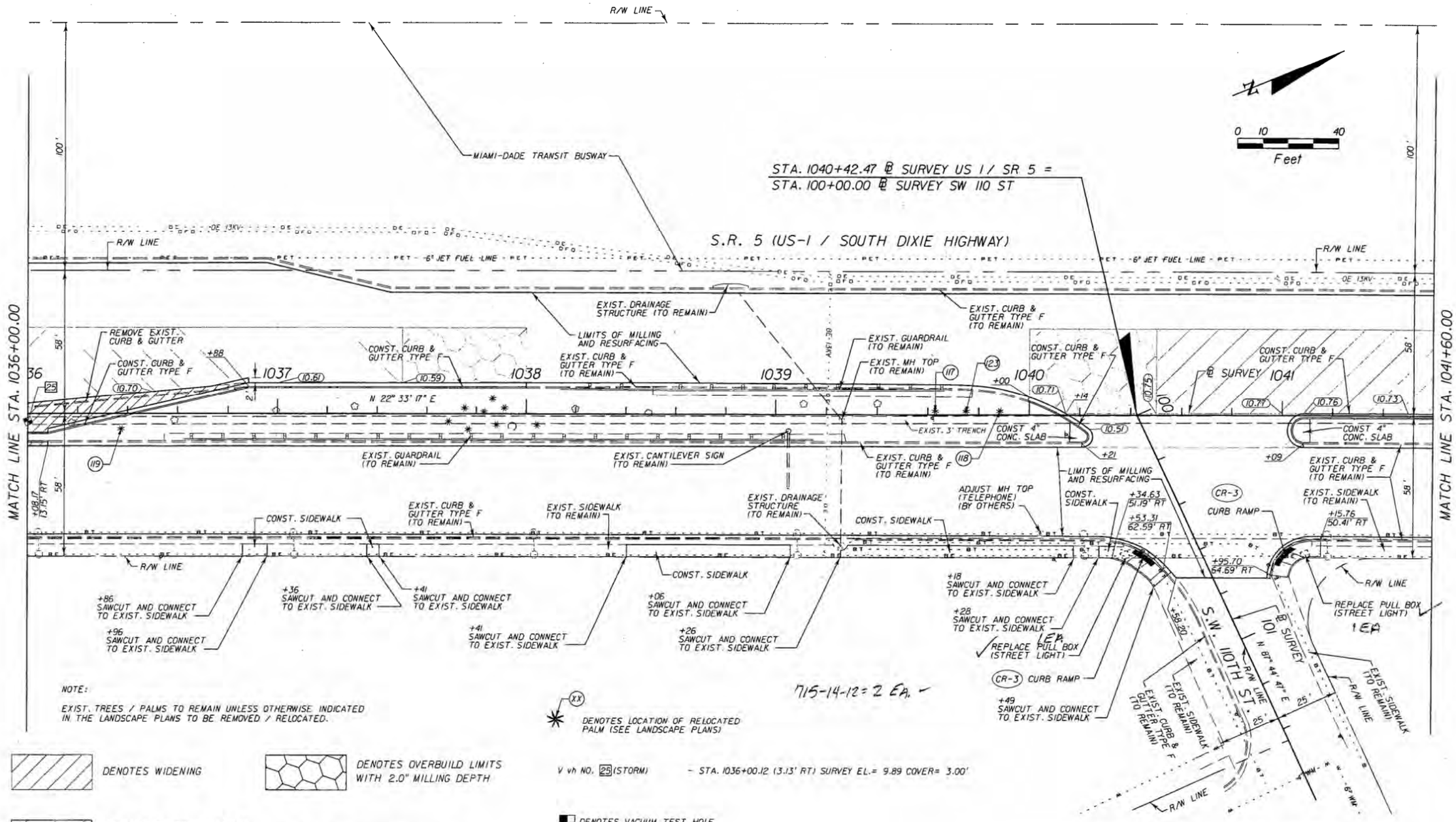

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DAVID PLUMMER & ASSOCIATES, INC.
1750 PONCE DE LEON BOULEVARD
CORAL GABLES, FLORIDA 33134
CERTIFICATE OF AUTHORIZATION EB 2690
VICTOR LEE P.E. NO. 35233

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	425513-1-52-01

ROADWAY PLAN

SHEET NO. 38

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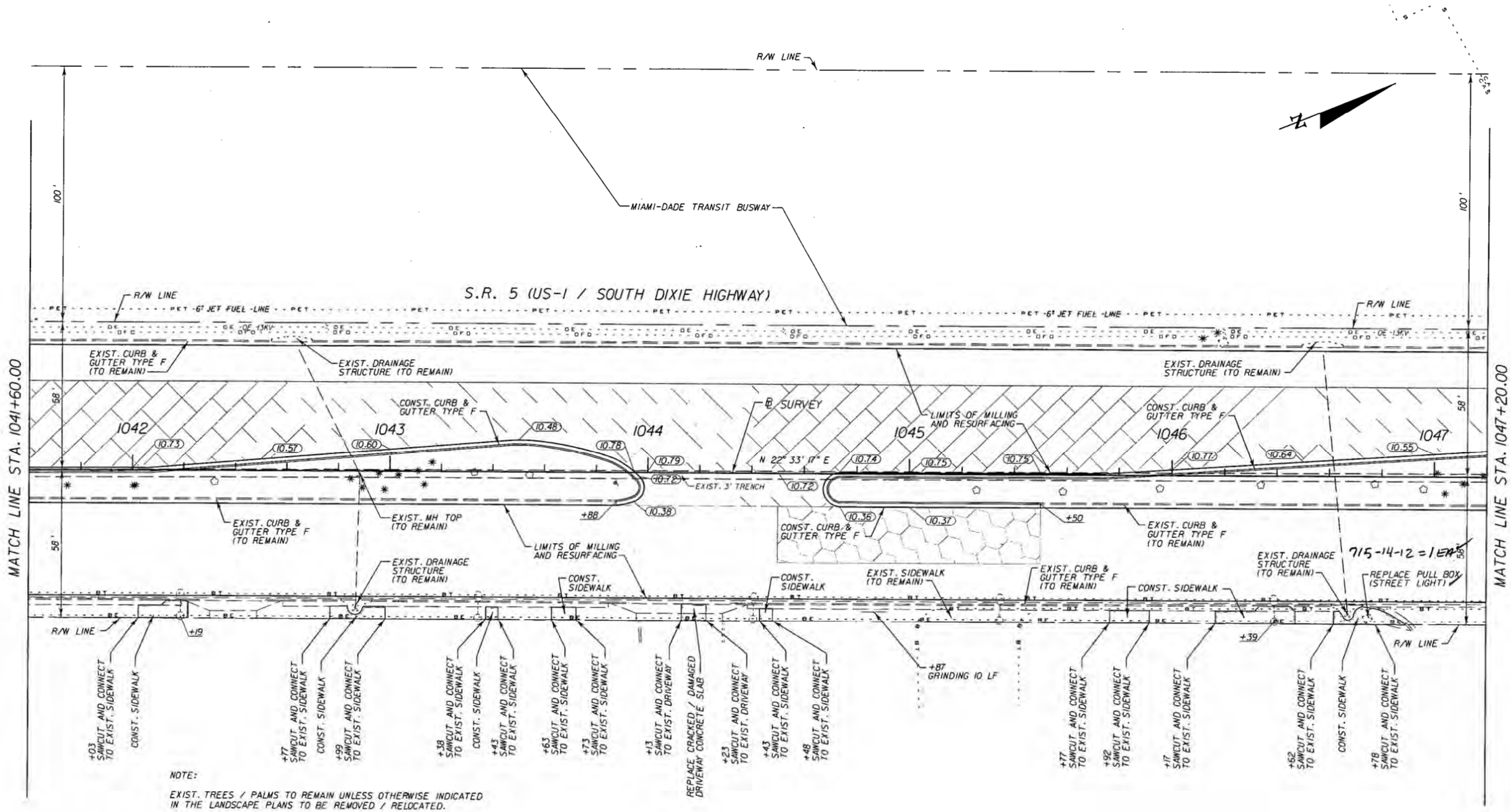

NOTE:

EXIST. TREES / PALMS TO REMAIN UNLESS OTHERWISE INDICATED IN THE LANDSCAPE PLANS TO BE REMOVED / RELOCATED.

DENOTES OVERBUILD LIMITS WITH 1.5" MILLING DEPTH

DENOTES OVERBUILD LIMITS WITH 2.0" MILLING DEPTH

(X.XX) DENOTES PROPOSED ELEVATION

S.R. 5 (US-1 / SOUTH DIXIE HIGHWAY) FROM S.W. 136th STREET TO S.W. 102nd STREET

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	425513-1-52-01

ROADWAY PLAN

SHEET NO. 39

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V vh NO. 25A 4" TELEPHONE - STA. 1050+30.53 (47.97' RT) SURVEY EL.= 9.22 COVER= 4.69'

DENOTES VACUUM TEST HOLE

R/W LINE

MIAMI-DADE TRANSIT BUSWAY

S.R. 5 (US-1 / SOUTH DIXIE HIGHWAY)

INSTALL SPECIAL STEEL POSTS (2)

INSTALL W-BEAM GUARDRAIL AND W-THRIE BEAM TRANSITION

+53 BEGIN GUARDRAIL THRIE-BEAM END W-THRIE BEAM TRANSITION

INSTALL FLOATING TURBIDITY BARRIER

EXIST. GUIDERAIL (TO REMAIN)

+34 BEGIN GUARDRAIL W/ END ANCHORAGE (PARALLEL)

0 10 40 Feet

EXIST. CURB & GUTTER TYPE F (TO REMAIN)

EXIST. DRAINAGE STRUCTURE (TO REMAIN)

EXIST. GUARDRAIL (TO BE REMOVED)

EXIST. SIDEWALK (TO REMAIN)

+47 END W-THRIE BEAM TRANSITION BEGIN EXIST. GUARDRAIL

EXIST. GUARDRAIL (TO REMAIN)

9.93'

INSTALL THRIE-BEAM GUARDRAIL W/ PIPE RAIL

+41 END GUARDRAIL THRIE-BEAM BEGIN W-THRIE BEAM TRANSITION

CONST. CURB & GUTTER TYPE F

CONST. CURB & GUTTER TYPE F

LIMITS OF MILLING AND RESURFACING

℄ SURVEY

EXIST. MH TOP (TO REMAIN)

CONST. 3 LF OF 15" PIPE W/ CONC. COLLAR

INSTALL THRIE-BEAM GUARDRAIL W/ PIPE RAIL

+37.27 EL. 8.94

EXIST. GUARDRAIL (TO BE REMOVED)

+51

+29.27 (50.42' RT) EL. 8.97

+16.92 (50.42' RT) EL. 9.18

+76.91 (49.64' RT) EL. 9.38

ADJUST MH TOP (TELEPHONE) (BY OTHERS)

ADJUST MH TOP (TELEPHONE) (BY OTHERS)

+18 SAWCUT AND CONNECT TO EXIST. CURB & GUTTER

EXIST. CURB & GUTTER TYPE F (TO REMAIN)

+85 SAWCUT AND CONNECT TO EXIST. SIDEWALK AND CURB & GUTTER

℄ +07.6 CONST. DRIVEWAY

EXIST. SIDEWALK (TO REMAIN)

CONST. SIDEWALK

+48 SAWCUT AND CONNECT TO EXIST. SIDEWALK

R/W LINE

24.5'

25A

+95

C-100A CANAL

INSTALL FLOATING TURBIDITY BARRIER

EXIST. PEDESTRIAN RAILING (TO BE REMOVED)

CONST. CURB & GUTTER TYPE F

EXIST. FENCE (TO REMAIN)

+18 SAWCUT AND CONNECT TO EXIST. SIDEWALK

+17 END RAILING

+14 END GUARDRAIL W/ END ANCHORAGE (PARALLEL)

INSTALL W-THRIE BEAM TRANSITION AND W-BEAM GUARDRAIL W/ PIPE RAIL

INSTALL W-BEAM GUARDRAIL AND W-THRIE BEAM TRANSITION W/ PIPE RAIL

EXIST. FENCE (TO REMAIN)

+50 BEGIN RAILING

INSTALL ALUMINUM PEDESTRIAN/ BICYCLE PICKET RAILING W/ INFILL PANEL TYPE I *

* FOR ANCHORAGE DETAIL SEE SCHEME IB-DETAILS ON FDOT STANDARD INDEX NO. 861

(XX) DENOTES LOCATION OF RELOCATED PALM (SEE LANDSCAPE PLANS)

NOTE:

EXIST. TREES / PALMS TO REMAIN UNLESS OTHERWISE INDICATED IN THE LANDSCAPE PLANS TO BE REMOVED / RELOCATED.

MATCH LINE STA. 1047+20.00

MATCH LINE STA. 1052+80.00

1048 1049 1050 1051 1052

10.46 10.51 10.64 10.70 10.67 10.62 10.57 10.55 10.56 10.54

EXIST. 3' TRENCH

ADJUST FM VALVE

N 22° 33' 17" E

+06 +04 +97 +02 +27 +55 +96 +32

EXIST. CURB & GUTTER TYPE F (TO REMAIN)

ADJUST MH TOP (TELEPHONE) (BY OTHERS)

℄ +78.6 CONST. DRIVEWAY

CONST. SIDEWALK

EXIST. SIDEWALK (TO REMAIN)

SOD 14.4' SOD

47'

+02 SAWCUT AND CONNECT TO EXIST. SIDEWALK

CONST. SIDEWALK

+27 SAWCUT AND CONNECT TO EXIST. BACK OF CURB

+55 SAWCUT AND CONNECT TO EXIST. CURB & GUTTER

EXIST. FLOW LINE ELEVATION (TO REMAIN)

+96 SAWCUT AND CONNECT TO EXIST. CURB & GUTTER

+32 BEGIN GUARDRAIL W/ END ANCHORAGE (PARALLEL)

CONST. DROP CURB

FLAT R.25' 3' R.6' FLAT

0.083 0.02 4'

1:20 MAX. 1:20 MAX.

10' 6' 10.9'

CONST. CURB & GUTTER TYPE F

SAWCUT AND REMOVE CONCRETE

SAWCUT AND REMOVE CONCRETE

CONST. CURB & GUTTER TYPE F

SAWCUT AND CONNECT TO EXIST. CURB & GUTTER

CONST. 6" CONCRETE SLAB

SAWCUT AND CONNECT TO EXIST. CONCRETE PAVEMENT

SAWCUT AND CONNECT TO EXIST. CURB & GUTTER

DETAIL
N.T.S.

DENOTES OVERBUILD LIMITS WITH 2.0" MILLING DEPTH

DENOTES OVERBUILD LIMITS WITH 1.5" MILLING DEPTH

DENOTES HARMONIZATION AREA

DENOTES WIDENING

X.XX DENOTES PROPOSED ELEVATION

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S.R. 5 (US-1 / SOUTH DIXIE HIGHWAY)
FROM S.W. 136th STREET TO S.W. 102nd STREET

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	425513-1-52-01

ROADWAY PLAN

SHEET NO. 40

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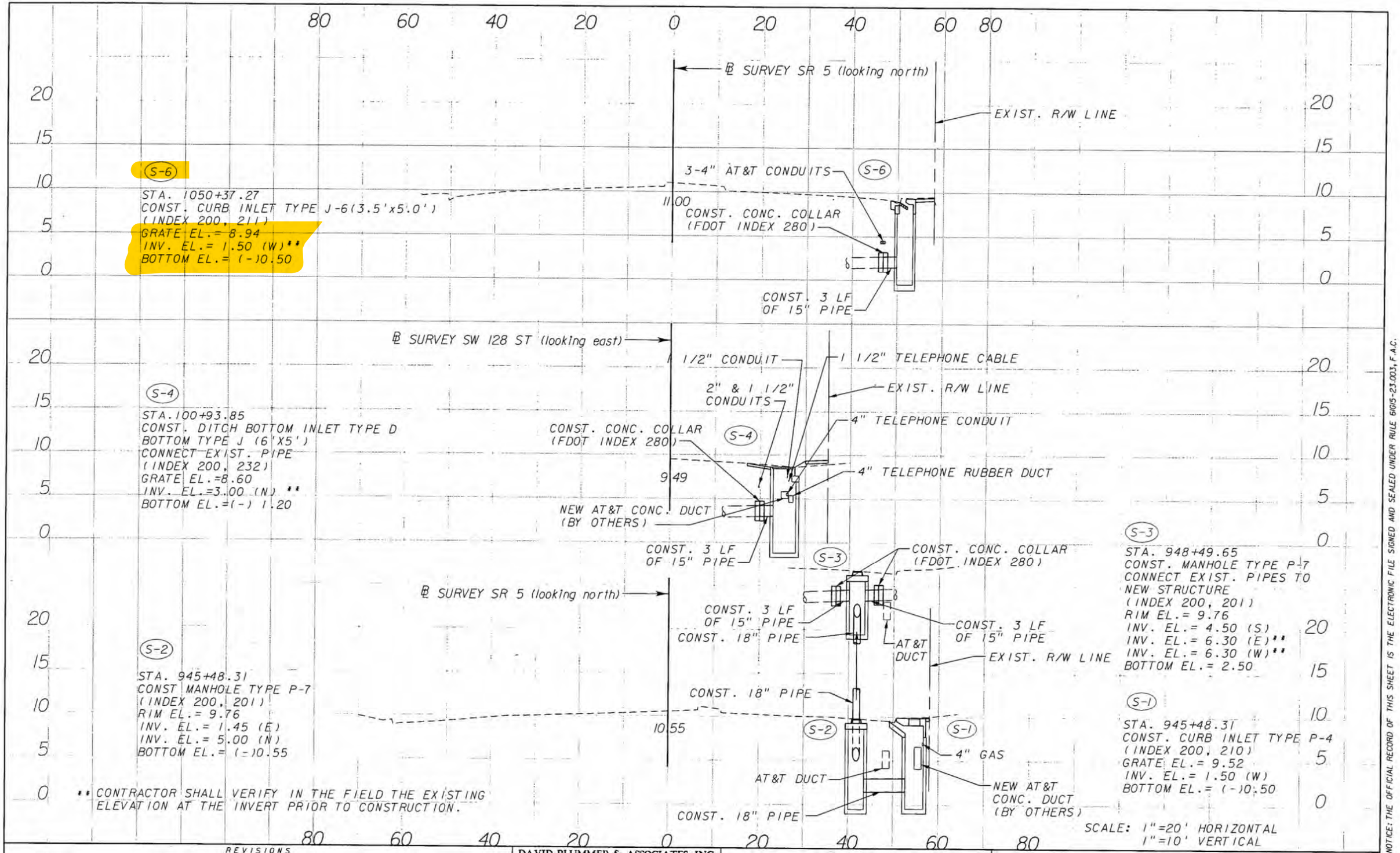

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REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DAVID PLUMMER & ASSOCIATES, INC.
1750 PONCE DE LEON BOULEVARD
CORAL GABLES, FLORIDA 33134
CERTIFICATE OF AUTHORIZATION EB 2690
VICTOR LEE P.E. NO. 35233

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	425513-1-52-01

DRAINAGE STRUCTURES

SHEET NO. 44

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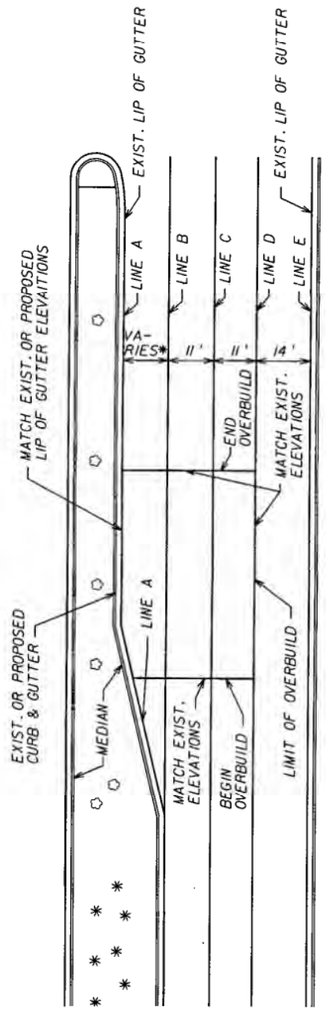
NORTHBOUND LANES

CASE	STATION	ELEVATION LINE "A"		ELEVATION LINE "B"		ELEVATION LINE "C"		ELEVATION LINE "D"		ELEVATION LINE "E"		TYPE SP
		PROP.	EXIST.	PROP.	EXIST.	PROP.	EXIST.	PROP.	EXIST.	PROP.	EXIST.	TON
	945+85				10.51		10.22					
II	946+00			10.55	10.46		10.30					0.5
II	946+50			10.53	10.45		10.28					1.9
	947+00				10.58		10.27					0.4
	954+50		10.87		10.61		10.33		10.10		9.87	
V	955+00	11.00	10.90	10.77	10.69	10.55	10.38	10.33	10.13		10.05	2.2
	955+50		10.95		10.76		10.50		10.26		9.99	2.2
	956+00				10.69		10.43		10.23			
I	956+50			10.73	10.73	10.47	10.39		10.23			0.8
III	957+00			10.77	10.65	10.51	10.49		10.27			4.1
	957+50				10.79		10.57		10.32			1.2
	967+00				10.61		10.34		10.12		9.77	
V	967+50			10.64	10.54	10.41	10.26	10.19	10.04		9.91	1.6
	968+00				10.49		10.23		10.01		9.75	1.6
	969+50				10.43		10.13		9.92			
I	970+00			10.43	10.43	10.21	10.15		9.99			0.1
V	970+50				10.50	10.40	10.28	10.10	10.06	9.92	9.78	3.7
V	971+00	10.58	10.35	10.48	10.29	10.26	10.11	10.04	9.90		9.76	12.1
V	971+50	10.74	10.62	10.54	10.39	10.32	10.25	10.10	10.06		9.82	13.5
	972+00		10.67		10.48		10.25		10.05		9.79	2.4
	978+00				10.60		10.37		10.16		9.90	
V	978+50			10.81	10.59	10.59	10.37	10.37	10.17		10.09	3.6
	979+00				10.79		10.47		10.21		9.95	3.6
	981+00				10.72		10.38		10.13		9.78	
IV	981+50			10.65	10.65	10.43	10.36	10.20	10.13		9.92	1.5
	982+00				10.71		10.46		10.25		9.90	1.5
	985+50		10.77		10.75							
II	986+00	10.95	10.78		10.72							1.2
II	986+50	10.85	10.82		10.61							2.6
II	987+00	10.91	10.85		10.67							0.9
II	987+50	10.90	10.84		10.66							1.3
	988+00		10.72		10.56							0.3
	1000+00				10.59		10.39		10.16			
I	1000+50			10.63	10.63	10.40	10.33		10.17			0.7
I	1001+00			10.64	10.64	10.41	10.36		10.18			2.4
I	1001+50			10.64	10.64	10.42	10.38		10.21			1.8
I	1002+00			10.61	10.61	10.40	10.36		10.19			1.6
	1002+50				10.73		10.45		10.23			0.4
	1011+50				10.59		10.41					
II	1012+00			10.61	10.53		10.39					0.4
	1012+50				10.60		10.38					0.4

NORTHBOUND LANES

CASE	STATION	ELEVATION LINE "A"		ELEVATION LINE "B"		ELEVATION LINE "C"		ELEVATION LINE "D"		ELEVATION LINE "E"		TYPE SP
		PROP.	EXIST.	PROP.	EXIST.	PROP.	EXIST.	PROP.	EXIST.	PROP.	EXIST.	TON
	1022+50				10.63		10.41					
II	1023+00			10.58	10.51		10.36					0.4
	1022+50				10.58		10.34					0.4
	1030+50		10.72		10.51							
II	1031+00	10.72	10.66		10.49							0.3
	1031+50		10.69		10.48							0.3
	1044+50		10.36		10.11		9.92					
III	1045+00	10.37	10.27	10.15	10.09		9.93					1.0
	1045+50		10.24		10.03		9.84					1.0
	1052+00		10.09		9.82		9.65					
I	1052+50	10.01	10.01	9.81	9.77		9.60					0.1
	1053+00		10.00		9.76		9.54					0.1
	1055+00		10.21		9.94		9.75					
III	1055+50	10.21	10.13	9.99	9.99		9.77					0.8
I	1056+00	10.24	10.24	10.03	9.99		9.82					2.4
	1056+50		10.24		10.00		9.82					0.4
	1058+50		10.51		10.35		10.09					
II	1059+00	10.63	10.52	10.38	10.35		10.16					1.2
II	1059+50	10.65	10.61	10.34	10.26		10.12					3.3
II	1060+00	10.76	10.61	10.40	10.33		10.18					4.8
II	1060+50	10.78	10.74	10.38	10.31		10.16					5.0
II	1061+00	10.79	10.74	10.38	10.28		10.16					2.4
	1061+50		10.67		10.34		10.20					0.7
	1063+32				10.54		10.29					
II	1063+50			10.54	10.39		10.29					0.9
II	1064+00			10.49	10.32		10.24					3.7
II	1064+50			10.44	10.29		10.19					3.7
II	1065+00			10.43	10.29		10.18					3.3
	1065+35				10.29		10.15					0.8
	MEDIAN OPENINGS	AVG. RISE = 3 IN.		AVG. WIDTH = 13 FT.				AVG. LENGTH = 80 FT.				162.1



* ONE OR TWO LANES

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

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DAVID PLUMMER & ASSOCIATES, INC.
1750 PONCE DE LEON BOULEVARD
CORAL GABLES, FLORIDA 33134
CERTIFICATE OF AUTHORIZATION EB 2690
VICTOR LEE P.E. NO. 35233

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	425513-1-52-01

LOCATIONS AND QUANTITIES OF OVERBUILD

SHEET NO. 46

armandol 11/10/2011 1:42:27 PM U:\proj\09\09145\425513\520\roadway\ovbtrd01.dgn

SOUTHBOUND LANES

CASE	STATION	ELEVATION LINE "A"		ELEVATION LINE "B"		ELEVATION LINE "C"		ELEVATION LINE "D"		ELEVATION LINE "E"		TYPE SP
		PROP.	EXIST.	PROP.	EXIST.	PROP.	EXIST.	PROP.	EXIST.	PROP.	EXIST.	TON
	946+00											
	946+50											
	947+00											
	947+50											
	948+00											
	948+50											
	949+00		10.74		10.65		10.37		10.20			
III	949+50	10.68	10.54	10.64	10.51	10.42	10.37		10.20			1.5
III	950+00	10.92	10.62	10.68	10.58	10.46	10.41		10.24			12.3
III	950+50	10.94	10.58	10.70	10.62	10.48	10.44		10.26			20.2
III	951+00	10.91	10.83	10.67	10.66	10.45	10.42		10.23			13.4
III	951+50	10.97	10.94	10.73	10.71	10.51	10.47		10.29			3.2
III	952+00	11.06	10.96	10.82	10.81	10.60	10.55		10.38			1.9
III	952+50	11.05	10.91	10.89	10.81	10.67	10.59		10.45			7.0
III	953+00	11.14	10.93	10.98	10.88	10.76	10.73		10.54			10.0
III	953+50			10.99	10.93	10.77	10.70		10.55			7.0
	954+00				10.96		10.76		10.58			0.5
	954+50											
	955+00				11.00		10.77		10.60			
III	955+50			11.12	11.06	10.90	10.82		10.68			0.1
III	956+00			11.10	11.05	10.88	10.83		10.66			0.2
III	956+50			11.18	11.15	10.96	10.90		10.74			0.1
III	957+00			11.26	11.14	11.04	10.93		10.82			2.5
III	957+50			11.28	11.25	11.05	10.99		10.81			3.0
III	958+00			11.20	11.20	10.98	10.95		10.76			0.6
III	958+50	11.27	11.24	11.15	11.15	10.93	10.89		10.71			0.8
III	959+00	11.44	11.01	11.20	11.11	10.98	10.91		10.76			14.0
III	959+50	11.47	11.34	11.23	11.19	11.01	10.92		10.79			17.1
III	960+00	11.51	11.38	11.27	11.21	11.05	10.96		10.83			7.8
III	960+50	11.55	11.51	11.31	11.23	11.09	11.00		10.87			5.0
III	961+00	11.58	11.38	11.34	11.22	11.12	11.04		10.90			7.1
III	961+50	11.51	11.33	11.36	11.26	11.14	11.09		10.92			10.7
III	962+00	11.33	11.17	11.28	11.13	11.06	10.99		10.84			8.3
III	962+50			11.26	11.21	11.04	10.98		10.82			4.4
III	963+00			11.23	11.19	11.01	10.93		10.79			1.4
III	963+50			11.27	11.16	11.05	10.96		10.83			2.8
III	964+00			11.23	11.22	11.01	10.97		10.79			2.2
III	964+50			11.15	11.07	10.93	10.83		10.71			1.4
III	965+00			11.12	11.01	10.90	10.84		10.68			3.6
III	965+50			11.09	11.01	10.87	10.84		10.65			3.8
III	966+00	11.21	11.08	11.03	10.92	10.81	10.75		10.59			5.5
III	966+50	11.28	11.01	11.04	10.98	10.82	10.75		10.60			12.4
III	967+00	11.25	11.14	11.01	10.98	10.79	10.74		10.57			12.0
III	967+50	11.23	11.12	10.99	10.85	10.77	10.72		10.55			7.0
III	968+00	11.19	11.00	10.95	10.84	10.73	10.68		10.51			9.3
III	968+50	11.12	10.95	10.98	10.84	10.76	10.69		10.54			10.2
III	969+00	11.11	10.91	11.07	10.88	10.85	10.79		10.63			8.8
III	969+50			11.02	10.89	10.80	10.74		10.58			6.8
III	970+00			10.97	10.86	10.75	10.69		10.53			4.4
III	970+50			10.92	10.87	10.70	10.66		10.48			2.8
III	971+00			10.89	10.74	10.67	10.58		10.45			3.6
III	971+50			10.87	10.70	10.65	10.60		10.43			6.1
III	972+00			10.89	10.76	10.67	10.61		10.45			5.6
III	972+50			10.89	10.72	10.67	10.60		10.45			5.6
	973+00				10.79		10.61		10.46			1.6
	973+50											
	974+00											
	974+50		10.97		10.74		10.59		10.38			
III	975+00	11.06	10.88	10.82	10.71	10.60	10.55		10.38			1.4
III	975+50	11.08	10.84	10.84	10.72	10.62	10.56		10.40			13.0

SOUTHBOUND LANES

CASE	STATION	ELEVATION LINE "A"		ELEVATION LINE "B"		ELEVATION LINE "C"		ELEVATION LINE "D"		ELEVATION LINE "E"		TYPE SP
		PROP.	EXIST.	PROP.	EXIST.	PROP.	EXIST.	PROP.	EXIST.	PROP.	EXIST.	TON
III	976+00	11.04	10.86	10.87	10.72	10.65	10.58		10.43			12.5
III	976+50	10.98	10.87	10.91	10.81	10.69	10.63		10.47			7.7
III	977+00			10.86	10.83	10.64	10.59		10.42			3.2
III	977+50			10.84	10.72	10.62	10.56		10.40			2.8
III	978+00	10.89	10.74	10.86	10.70	10.64	10.58		10.42			5.5
III	978+50	11.10	10.83	10.86	10.70	10.64	10.58		10.42			11.7
III	979+00	11.10	10.91	10.86	10.68	10.64	10.57		10.42			17.3
III	979+50	11.11	10.97	10.87	10.76	10.65	10.60		10.43			10.3
III	980+00	11.10	10.97	10.86	10.77	10.64	10.61		10.42			8.4
III	980+50	11.16	10.96	10.92	10.76	10.70	10.60		10.48			10.3
III	981+00	11.11	10.92	10.93	10.79	10.71	10.67		10.49			11.6
III	981+50	11.05	10.89	10.97	10.84	10.75	10.71		10.53			9.3
III	982+00			10.94	10.84	10.72	10.64		10.50			5.5
III	982+50			10.93	10.83	10.71	10.63		10.49			3.2
III	983+00			10.97	10.86	10.75	10.69		10.53			3.4
III	983+50	11.09	11.09	10.92	10.78	10.70	10.63		10.48			2.3
III	984+00	11.11	10.88	10.87	10.73	10.65	10.58		10.43			7.7
III	984+50	11.09	10.90	10.85	10.74	10.63	10.55		10.41			13.2
III	985+00	11.10	10.95	10.86	10.77	10.64	10.60		10.42			10.7
III	985+50	11.05	10.86	10.89	10.76	10.67	10.62		10.45			10.0
III	986+00	10.90	10.79	10.88	10.78	10.66	10.66		10.44			7.5
	986+50				10.82		10.62		10.42			1.1
	987+00											
	987+50											
	988+00											
	988+50											
	989+00											
	989+50		10.91		10.69		10.55		10.34			
III	990+00	10.98	10.89	10.74	10.66	10.52	10.53		10.30			1.4
III	990+50	10.99	10.92	10.75	10.66	10.53	10.49		10.31			4.9
III	991+00	10.99	10.91	10.75	10.64	10.53	10.46		10.31			4.7
III	991+50	11.00	10.90	10.76	10.65	10.54	10.52		10.32			5.7
III	992+00	10.98	10.90	10.76	10.71	10.54	10.53		10.32			5.6
III	992+50			10.73	10.66	10.51	10.48		10.29			3.6
III	993+00			10.71	10.62	10.49	10.47		10.27			2.8
III	993+50			10.73	10.63	10.51	10.45		10.29			3.4
III	994+00			10.77	10.70	10.55	10.48		10.33			3.0
III	994+50			10.79	10.69	10.57	10.49		10.35			2.8
III	995+00	10.86	10.74	10.81	10.71	10.59	10.54		10.37			4.2
III	995+50	11.09	10.84	10.85	10.72	10.63	10.59		10.41			10.3
III	996+00	11.16	10.94	10.92	10.78	10.70	10.63		10.48			14.5
III	996+50	11.11	11.02	10.87	10.80	10.65	10.63		10.43			9.5
III	997+00	11.04	10.98	10.84	10.78	10.62	10.59		10.40			4.4
III	997+50	11.02	10.94	10.91	10.86	10.69	10.67		10.47			3.6
III	998+00	10.94	10.93	10.94	10.91	10.72	10.67		10.50			2.2
III	998+50			10.92	10.78	10.70	10.65		10.48			2.9
III	999+00			10.92	10.79	10.70	10.65		10.48			4.8
III	999+50	10.99	10.92	10.90	10.883	10.68	10.65		10.46			4.0
III	1000+00	11.06	10.84	10.81	10.74	10.59	10.57		10.37			8.7
III	1000+50	11.15	10.98	10.90	10.78	10.68	10.61		10.46			12.1
III	1001+00	11.17	11.02	10.93	10.80	10.71	10.62		10.49			9.9
III	1001+50	11.08	10.88	10.92	10.73	10.70	10.60		10.48			10.2
III	1002+00	10.99	10.83	10.93	10.80	10.71	10.67		10.49			9.2
III	1002+50			10.92	10.76	10.70	10.64		10.48			6.8
III	1003+00	10.96	10.93	10.85	10.80	10.63	10.56		10.41			3.7
III	1003+50	11.07	10.82	10.83	10.66	10.61	10.55		10.39			8.4
III	1004+00	11.01	10.78	10.77	10.64	10.65	10.53		10.33			15.0
III	1004+50	10.98	10.83	10.74	10.65	10.52	10.46		10.30			11.8
III	1005+00	11.01	10.91	10.77	10.65	10.55	10.48		10.33			7.8
III	1005+50	11.04	10.88	10.80	10.71	10.58	10.52		10.36			8.2

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REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DAVID PLUMMER & ASSOCIATES, INC.
1750 PONCE DE LEON BOULEVARD
CORAL GABLES, FLORIDA 33134
CERTIFICATE OF AUTHORIZATION EB 2690
VICTOR LEE P.E. NO. 35233

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	425513-1-52-01

LOCATIONS AND QUANTITIES OF OVERBUILD

SHEET NO. 47

armandol 11/10/2011 1:42:28 PM U:\dpa\09\09145\425513\520\roadway\ovbltrd01.dgn

SOUTHBOUND LANES

CASE	STATION	ELEVATION LINE "A"		ELEVATION LINE "B"		ELEVATION LINE "C"		ELEVATION LINE "D"		ELEVATION LINE "E"		TYPE SP
		PROP.	EXIST.	PROP.	EXIST.	PROP.	EXIST.	PROP.	EXIST.	PROP.	EXIST.	TON
III	1006+00	10.83	10.72	10.75	10.65	10.53	10.49		10.31			7.8
III	1006+50			10.76	10.63	10.54	10.48		10.32			1.2
III	1007+00			10.78	10.61	10.56	10.46		10.34			5.6
III	1007+50			10.79	10.64	10.57	10.47		10.35			5.6
III	1008+00			10.82	10.65	10.60	10.55		10.38			5.6
III	1008+50	10.95	10.80	10.83	10.70	10.61	10.55		10.39			7.1
III	1009+00	11.03	10.72	10.79	10.61	10.57	10.49		10.35			13.6
III	1009+50	11.03	10.83	10.79	10.59	10.57	10.45		10.35			16.0
III	1010+00	11.07	10.88	10.83	10.67	10.61	10.50		10.39			12.2
III	1010+50	11.06	10.84	10.82	10.69	10.60	10.54		10.38			12.8
III	1011+00	11.04	10.80	10.87	10.73	10.65	10.57		10.43			13.6
III	1011+50	10.88	10.75	10.81	10.72	10.59	10.55		10.37			9.8
III	1012+00			10.80	10.70	10.58	10.52		10.36			5.1
III	1012+50			10.81	10.75	10.59	10.53		10.37			3.0
III	1013+00			10.93	10.76	10.71	10.62		10.49			4.4
III	1013+50	10.96	10.82	10.95	10.81	10.73	10.69		10.51			6.3
III	1014+00	11.09	10.77	10.85	10.67	10.63	10.59		10.41			13.0
III	1014+50	11.07	10.78	10.83	10.63	10.61	10.52		10.39			19.3
III	1015+00	11.06	10.93	10.82	10.70	10.60	10.52		10.38			13.4
III	1015+50	11.06	10.91	10.82	10.67	10.60	10.53		10.38			8.9
III	1016+00	11.06	10.97	10.83	10.73	10.61	10.57		10.39			7.4
III	1016+50	10.94	10.89	10.81	10.77	10.59	10.56		10.37			4.2
III	1017+00	10.83	10.78	10.79	10.74	10.57	10.52		10.35			2.5
III	1017+50			10.78	10.72	10.56	10.52		10.34			2.1
III	1018+00			10.80	10.72	10.58	10.51		10.36			2.4
III	1018+50			10.82	10.75	10.60	10.54		10.38			2.8
III	1019+00			10.83	10.75	10.61	10.57		10.39			3.0
III	1019+50			10.82	10.71	10.60	10.54		10.38			3.6
III	1020+00			10.81	10.67	10.59	10.54		10.37			4.2
III	1020+50	11.05	10.86	10.81	10.72	10.59	10.55		10.37			8.3
III	1021+00	11.08	10.89	10.84	10.71	10.62	10.55		10.40			12.2
III	1021+50	11.11	10.98	10.87	10.77	10.65	10.61		10.43			10.3
III	1022+00	11.07	11.02	10.83	10.76	10.61	10.62		10.39			5.9
III	1022+50	10.96	10.89	10.81	10.75	10.59	10.54		10.37			3.6
III	1023+00			10.82	10.68	10.60	10.56		10.38			4.5
III	1023+50	10.99	10.78	10.79	10.66	10.57	10.57		10.35			8.6
III	1024+00	11.01	10.74	10.76	10.66	10.54	10.57		10.32			14.4
III	1024+50	11.05	10.89	10.80	10.74	10.58	10.56		10.36			13.3
III	1025+00	11.01	10.89	10.77	10.75	10.55	10.58		10.33			8.8
I	1025+50	10.98	10.98	10.70	10.69	10.48	10.49		10.26			5.0
III	1026+00	10.93	10.92	10.71	10.69	10.49	10.50		10.27			1.5
III	1026+50			10.69	10.60	10.47	10.39		10.25			1.4
III	1027+00			10.71	10.65	10.49	10.44		10.27			2.0
III	1027+50			10.63	10.58	10.41	10.36		10.19			1.8
III	1028+00			10.64	10.63	10.42	10.39		10.20			1.8
III	1028+50			10.61	10.51	10.39	10.32		10.17			1.8
III	1029+00			10.69	10.55	10.47	10.38		10.25			4.4
	1029+50				10.59		10.40		10.23			1.3
	1030+00											
	1030+50											
	1031+00											
	1031+50											
	1032+00											
	1032+50											
	1033+00											
	1033+50											
	1034+00											
	1034+50		10.72		10.53		10.36		10.19			
III	1035+00	10.86	10.71	10.62	10.52	10.40	10.39		10.18			2.4
III	1035+50	10.83	10.68	10.59	10.35	10.37	10.34		10.15			9.5

SOUTHBOUND LANES

CASE	STATION	ELEVATION LINE "A"		ELEVATION LINE "B"		ELEVATION LINE "C"		ELEVATION LINE "D"		ELEVATION LINE "E"		TYPE SP
		PROP.	EXIST.	PROP.	EXIST.	PROP.	EXIST.	PROP.	EXIST.	PROP.	EXIST.	TON
III	1036+00	10.75	10.66	10.58	10.51	10.36	10.32		10.14			7.4
III	1036+50	10.70	10.66	10.63	10.56	10.41	10.34		10.19			3.6
III	1037+00			10.61	10.52	10.39	10.30		10.17			2.8
III	1037+50			10.59	10.51	10.37	10.29		10.15			3.2
	1038+00				10.49		10.29		10.11			0.7
	1038+50											
	1039+00											
	1039+50											
	1040+00		10.58		10.47		10.28		10.12			
III	1040+50	10.75	10.46	10.50	10.37	10.28	10.22		10.06			4.5
III	1041+00	10.77	10.53	10.52	10.43	10.30	10.26		10.08			16.4
III	1041+50	10.73	10.63	10.49	10.42	10.27	10.20		10.05			10.7
III	1042+00	10.73	10.62	10.49	10.40	10.27	10.22		10.05			5.7
III	1042+50	10.57	10.53	10.40	10.30	10.18	10.10		9.96			4.6
III	1043+00	10.60	10.56	10.51	10.43	10.29	10.22		10.07			2.0
III	1043+50			10.48	10.50	10.26	10.26		10.04			1.5
III	1044+00	10.79	10.49	10.54	10.44	10.32	10.29		10.10			10.1
III	1044+50	10.72	10.62	10.47	10.37	10.25	10.22		10.03			12.7
III	1045+00	10.75	10.74	10.50	10.44	10.28	10.23		10.06			3.5
III	1045+50	10.75	10.69	10.50	10.46	10.28	10.24		10.06			2.2
III	1046+00	10.77	10.64	10.55	10.43	10.33	10.29		10.11			5.7
III	1046+50	10.64	10.62	10.49	10.43	10.27	10.27		10.05			4.3
III	1047+00	10.55	10.44	10.47	10.42	10.25	10.23		10.03			3.2
III	1047+50	10.46	10.37	10.44	10.36	10.22	10.18		10.00			4.5
III	1048+00	10.57	10.41	10.38	10.27	10.16	10.13		9.94			6.4
III	1048+50	10.67	10.36	10.41	10.25	10.19	10.15		9.97			14.6
III	1049+00	10.70	10.55	10.45	10.32	10.19	10.18		9.94			14.9
III	1049+50	10.67	10.58	10.41	10.41	10.18	10.18		9.93			7.9
III	1050+00	10.64	10.60	10.39	10.35	10.16	10.16		9.91			4.3
III	1050+50	10.62	10.57	10.44	10.31	10.18	10.21		9.93			2.7
III	1051+00	10.57	10.49	10.46	10.35	10.20	10.08		9.95			3.3
III	1051+50	10.55	10.46	10.51	10.42	10.25	10.18		10.00			4.0
III	1052+00			10.56	10.54	10.30	10.26		10.05			2.3
III	1052+50			10.54	10.48	10.28	10.20		10.03			1.3
III	1053+00			10.50	10.48	10.24	10.17		9.99			1.3
III	1053+50			10.48	10.47	10.26	10.23		10.04			0.3
III	1054+00	10.55	10.47	10.54	10.46	10.32	10.29		10.10			1.8
III	1054+50	10.70	10.47	10.46	10.40	10.24	10.26		10.02			9.0
III	1055+00	10.73	10.43	10.49	10.43	10.27	10.23		10.05			16.6
III	1055+50	10.71	10.57	10.47	10.39	10.25	10.24		10.03			13.8
III	1056+00	10.76	10.51	10.52	10.39	10.30	10.24		10.08			6.2
III	1056+50	10.69	10.52	10.48	10.36	10.26	10.19		10.04			12.8
III	1057+00	10.64	10.51	10.49	10.43	10.27	10.21		10.05			8.6
III	1057+50	10.55	10.49	10.46	10.45	10.24	10.23		10.02			5.4
I	1058+00	10.53	10.53	10.46	10.48	10.24	10.23		10.02			2.1
	1058+50				10.53		10.21		9.99			0.2
	1059+00											
	1059+50											
	1060+00											
	1060+50											
	1061+00											
	1061+50											
	1062+00											
	062+50											
	1063+00											
	1063+50		10.93		10.67		10.46					
I	1064+00	10.75	10.75	10.58	10.55		10.39					0.3
	1064+50				10.53		10.34					0.3
I	1065+00	10.68	10.68	10.53	10.47		10.36					0.6
	1065+35		10.69		10.47		10.36					0.4

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REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

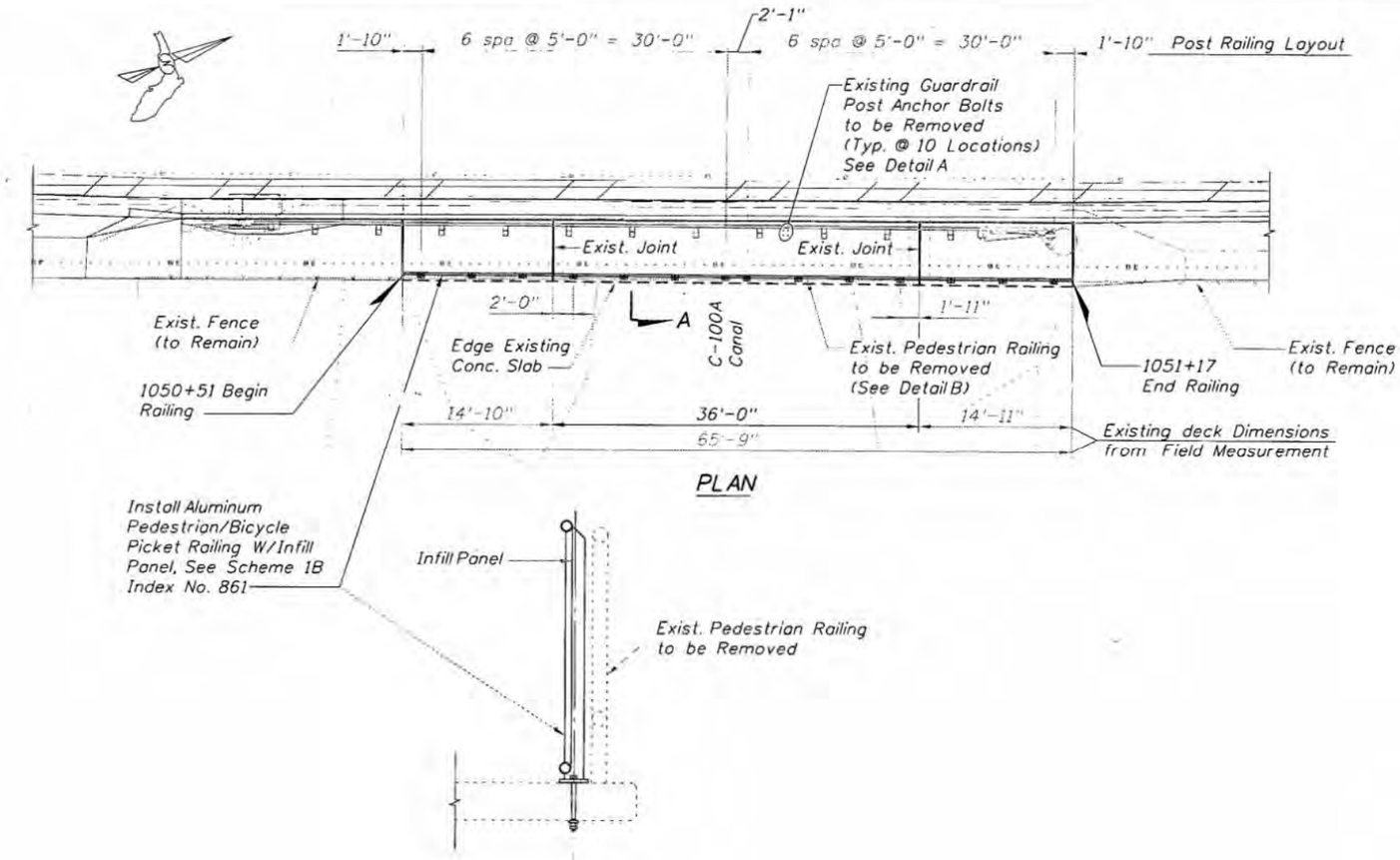
DAVID PLUMMER & ASSOCIATES, INC.
1750 PONCE DE LEON BOULEVARD
CORAL GABLES, FLORIDA 33134
CERTIFICATE OF AUTHORIZATION EB 2690
VICTOR LEE P.E. NO. 35233

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

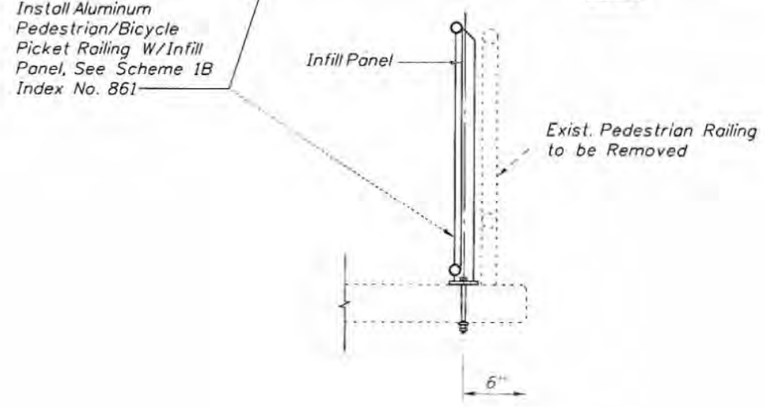
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	425513-1-52-01

LOCATIONS AND QUANTITIES OF OVERBUILD

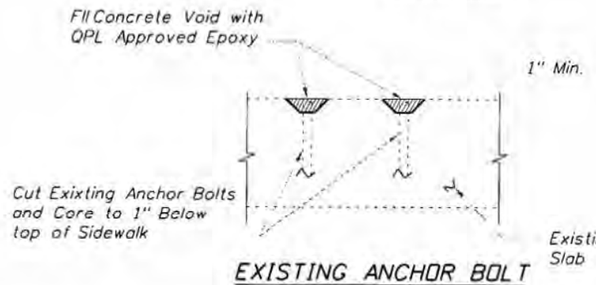
SHEET NO. 48



PLAN

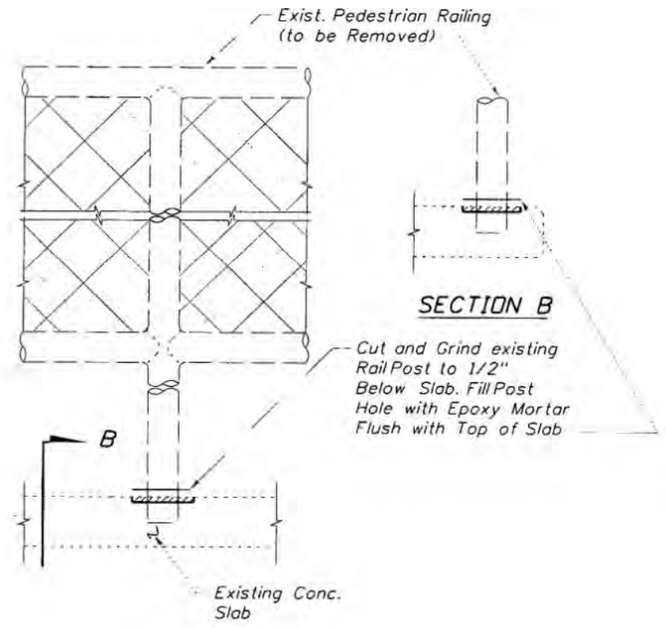


SECTION A



EXISTING ANCHOR BOLT REMOVAL DETAIL A

NOTE:
The existing guardrail post anchor bolts extending above the surface of the sidewalk shall be removed. Cut and drill existing anchor bolts to 1" below the top of the concrete sidewalk. Fill concrete void with Epoxy Compound Type F-2, 1 or 0 in accordance with Specification Section 926.



EXISTING RAIL POST REMOVAL DETAIL B

NOTES:
1. The Contractor shall field verify deck dimensions shown on the plans prior to beginning the work and notify the engineer of any discrepancies. Provide shop drawings for rail post layout and connection details prior to fabrication.
2. Cost of removing the existing Pedestrian Railing and existing guardrail anchor bolts, including grinding, drilling, and placement of the epoxy compound and mortar, shall be included in the unit cost of Aluminum Pedestrian/Bicycle Picket Railing.

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REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

BOLTON PEREZ & ASSOCIATES

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	425513-1-52-01

MISCELLANEOUS DETAILS

SHEET NO. 49

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GENERAL NOTES:

1. TRAFFIC CONTROLS SHALL BE IN ACCORDANCE WITH THE PROJECT PLANS, THE CURRENT EDITION OF THE FLORIDA DOT DESIGN STANDARDS (600 SERIES), THE STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (2009 EDITION) AS MINIMUM CRITERIA.

2. THE CONTRACTOR SHALL IMMEDIATELY REPAIR ALL POTHOLES THAT DEVELOP WITHIN THE PROJECT LIMITS AND WILL MAINTAIN A SUPPLY OF COLD MIX ON THE PROJECT SITE TO EXPEDITE THOSE REPAIRS. COST OF REPAIR TO BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.

3. NOTIFICATION OF LANE CLOSURES OR TEMPORARY DETOURS SHALL BE ACCOMPLISHED 14 WORKING DAYS PRIOR TO CLOSURE, DETOUR OR MOT PHASE CHANGE BY SUBMITTING THE REQUIRED ELECTRONIC LANE CLOSURE FORM, SKETCHES, CALCULATIONS, AND OTHER DATA THROUGH THE ENGINEER TO THE DISTRICT TRAFFIC OPERATIONS OFFICE.

4. AT THE DISCRETION OF THE ENGINEER, IF A LANE CLOSURE CAUSES EXTENDED CONGESTION OR DELAY, THE CONTRACTOR SHALL BE DIRECTED TO REOPEN THE CLOSED LANE(S) UNTIL SUCH TIME THAT THE TRAFFIC FLOW HAS RETURNED TO AN ACCEPTABLE LEVEL.

5. THE TRAFFIC AND TRAVEL WAYS SHALL NOT BE ALTERED BY THE CONTRACTOR TO CREATE A WORK ZONE UNTIL ALL LABOR AND MATERIAL ARE AVAILABLE FOR THE CONSTRUCTION IN THAT AREA.

6. LANE CLOSURE SHALL OCCUR ONLY DURING NON-PEAK HOURS ON NON-EVENT DAYS/NIGHTS/WEEKENDS. NON-PEAK HOURS ARE:

9:00 PM TO 5:30 AM - SUNDAY THROUGH THURSDAY NIGHTS
11:00 PM TO 7:00 AM - FRIDAY AND SATURDAY NIGHTS

7. TRAFFIC CONTROL PLANS FOR PHASES 1A, 1B, 2, 3A, 3B, 4 AND 5 ARE DESIGNED FOR NON-PEAK HOURS ONLY. THE CONTRACTOR SHALL KEEP ALL EXISTING LANES OPEN DURING PEAK HOURS IN THESE PHASES.

8. REGULATORY SPEED ESTABLISHED WITHIN WORK ZONE TRAVEL WAYS SHALL BE 40 M.P.H. REDUCED SPEED AND REGULATORY SPEED SIGNS SHALL BE INSTALLED ON SEPARATE POSTS IN ACCORDANCE WITH THE STANDARD INDEXES.

9. AS DETERMINED BY THE ENGINEER, THE CONTRACTOR SHALL COVER WORK ZONE SIGNS WHEN CONDITIONS NO LONGER WARRANT THEIR USE. COST OF COVERING AND UNCOVERING THE SIGNS SHALL BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.

10. CONTRACTOR SHALL REMOVE, RELOCATE OR COVER ANY EXISTING OR PROPOSED SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL PLANS. WHEN THE CONFLICT NO LONGER EXISTS, THE CONTRACTOR SHALL RESTORE THE SIGNS TO THEIR ORIGINAL POSITION. COST OF TEMPORARILY REMOVING, RELOCATING, COVERING AND RESTORING THE SIGNS SHALL BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.

11. THE CONTRACTOR SHALL NOT PROPOSE AN ALTERNATIVE TRAFFIC CONTROL PLAN THAT REDUCES THE NUMBER OF TRAVEL LANES SHOWN ON THE CONTRACT TRAFFIC CONTROL PLANS.

12. ARROWS ON THE TCP DENOTE THE DIRECTION OF TRAFFIC ONLY AND DO NOT REFLECT PAVEMENT MARKINGS UNLESS SPECIFICALLY NOTED.

13. TWO CONSTRUCTION INFORMATION SIGNS ARE REQUIRED FOR THIS PROJECT. COST OF THE SIGNS IS INCLUDED IN THE PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.

14. EACH EXISTING STREET NAME AND STOP SIGN AFFECTED BY CONSTRUCTION SHALL BE RELOCATED AND MAINTAINED IN AN APPROPRIATE LOCATION FOR THE DURATION OF THE PROJECT. WHEN NO LONGER AFFECTED BY CONSTRUCTION, THESE SIGNS SHALL BE RESTORED TO THEIR ORIGINAL POSITION. COST OF TEMPORARILY RELOCATING AND RESTORING THE SIGNS SHALL BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.

15. CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE REMOVAL OF STORM WATER FROM ROADWAYS UTILIZED FOR MAINTAINING TRAFFIC IN A MANNER APPROVED BY THE ENGINEER. COST FOR REMOVING THE WATER SHALL BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.

DROP OFFS:

16. FOR DROP OFFS, THE CONTRACTOR'S ATTENTION IS DIRECTED TO STANDARD INDEX NO. 600, SHEET 10 OF 13. THE CONTRACTOR SHALL USE SHOULDER TREATMENT DETAIL WHEN NO BARRIERS ARE REQUIRED IN THE PLANS.

MARKINGS:

17. COST OF REMOVAL OF WORK ZONE PAVEMENT MARKINGS (INCLUDING PAINT, REMOVABLE TAPE AND MARKERS), REGARDLESS OF METHOD, TO BE INCLUDED IN THE RELATED PAVEMENT MARKING/MARKERS PAY ITEMS. COST OF REMOVAL OF PAVEMENT MARKINGS AND MARKERS, EXISTING PRIOR TO CONSTRUCTION, TO BE INCLUDED IN MAINTENANCE OF TRAFFIC, LS. USE OF BLACK PAINT TO COVER EXISTING AND/OR TEMPORARY PAVEMENT MARKINGS IS PROHIBITED. GRINDING OR MILLING SHALL ONLY BE PERMITTED IN NON-TRAFFIC AREAS.

18. TEMPORARY LANE TRANSITIONS, SHIFTS, AND CROSSOVERS SHALL HAVE SOLID LANE AND EDGE LINES FOR THE LENGTH OF THE TRANSITION, SHIFT OR CROSSOVER. IN ADDITION, SOLID LANE AND EDGE LINES SHALL EXTEND 100 FT ON TANGENT BEYOND EACH END OF THE TRANSITION, SHIFT, OR CROSSOVER. EXCEPTION SHALL BE THROUGH INTERSECTIONS WHERE 2 - 4 FT SKIP LINES WILL BE PLACED.

19. ALL TEMPORARY STRIPES AND MARKINGS SHALL BE PAINT ONLY, UNLESS OTHERWISE SPECIFIED ON THE PLANS OR APPROVED BY THE ENGINEER.

20. TEMPORARY RAISED PAVEMENT MARKERS (RPMS) SHALL BE INSTALLED ON THE EDGE, CENTER, AND LANE LINES OF ALL CROSSOVERS, TRANSITIONS, AND TANGENT SECTIONS WITHIN THE WORK ZONE WHERE THE VEHICLE PATHS ARE ALTERED. THE SPACING FOR THESE RPMS SHALL BE 40 FT ON CENTERS FOR TANGENT SECTIONS AND 5 FT FOR TRANSITIONS, CURVES, AND CROSSOVERS. THE RPMS SHALL EXTEND 100 FT ON THE TANGENT SECTION BEYOND EACH END OF THESE CROSSOVER OR TRANSITION AREAS.

SIGNALS:

21. CONTRACTOR SHALL NOTIFY MIAMI DADE COUNTY SIGNS AND SIGNALS DIVISION LOCATED AT 7100 N.W. 36TH STREET MIAMI, FLORIDA 33166 AND PHONE NO. (305)592-3470, 48 HOURS PRIOR TO ANY MODIFICATION OF AN EXISTING TRAFFIC SIGNAL SYSTEM. THE CONTRACTOR SHALL HAVE FULL RESPONSIBILITY FOR THE DESIGN AND CONSTRUCTION OF TEMPORARY SIGNALIZATION, FOR MAINTENANCE OF THE EXISTING AND/OR TEMPORARY TRAFFIC SIGNAL(S) WITHIN THE PROJECT LIMITS. COST OF DESIGNING TEMPORARY SIGNALIZATION, PROVIDING AND REMOVING TEMPORARY POLES, RELOCATING TRAFFIC SIGNAL HEADS, TEMPORARY SIGNAL HEADS, ETC., AND MAINTAINING THE EXISTING AND/OR TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED IN PAY ITEM 102-104, TEMPORARY SIGNALIZATION AND MAINTENANCE. COST OF TEMPORARY LOOPS SHALL BE INCLUDED IN PAY ITEM 102-107-1, TEMPORARY TRAFFIC DETECTION AND MAINTENANCE.

22. THE CONTRACTOR SHALL MAINTAIN ONLINE COMMUNICATION OF EXISTING OR TEMPORARY SIGNALIZATION VIA INTERCONNECT OR PHONE LINE DURING CONSTRUCTION. CONTRACTORS SHALL PROVIDE TEMPORARY LINES AND CONNECTIONS IF NECESSARY. COST OF MAINTAINING COMMUNICATION, INCLUDING TEMPORARY LINES AND CONNECTIONS SHALL BE INCLUDED IN PAY ITEM 102-104, TEMPORARY SIGNALIZATION AND MAINTENANCE.

PEDESTRIANS, BICYCLES, AND WHEELCHAIRS:

23. AT THE END OF EACH WORK DAY OR WHENEVER THE WORK ZONE BECOMES INACTIVE, ANY DROP OFF GREATER THAN 6 IN ADJACENT TO THE PEDESTRIAN, BICYCLE, AND WHEELCHAIR TRAVEL PATHS SHALL BE BACKFILLED FLUSH WITH THE SAID PATHS OR PROTECTED WITH TEMPORARY FENCE, CONCRETE BARRIER WALL OR APPROVED HANDRAIL. COST SHALL BE INCLUDED IN PAY ITEM 102-1, MAINTENANCE OF TRAFFIC.

24. CONSTRUCTION ACTIVITIES THAT INVOLVE SIDEWALKS ON BOTH SIDES OF THE STREET ARE NOT ALLOWED UNLESS APPROVED BY THE ENGINEER.

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S.R. 5 (US-1 / SOUTH DIXIE HIGHWAY)
FROM S.W. 136th STREET TO S.W. 102nd STREET

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DAVID PLUMMER & ASSOCIATES, INC.
dpa
1750 PONCE DE LEON BOULEVARD
CORAL GABLES, FLORIDA 33134
CERTIFICATE OF AUTHORIZATION EB 2690
VICTOR LEE P.E. NO. 35233

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	425513-1-52-01

TRAFFIC CONTROL PLANS
GENERAL NOTES

SHEET NO. 50

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The following narrative of the Stormwater Pollution Prevention Plan contains references to the Standard Specifications for Road and Bridge Construction, the Design Standards, and other sheets of these construction plans. The first sheet of the construction plans (called the Key Sheet) contains an index to the other sheets. The complete Stormwater Pollution Prevention Plan includes several items: this narrative description, the documents referenced in this narrative, the contractor's approved Erosion Control Plan required by Specification Section 104, and reports of inspections made during construction.

1.0 SITE DESCRIPTION:

1.a. Nature of Construction Activity:

The project includes milling and resurfacing in both directions, creation of positive offsets for single left turn lanes at three major intersections, reconstruction of sidewalks and driveways, signalization improvements, and reduction of existing inside and middle thru lanes to provide a wide outside curb lane. Also, as part of the project, asphalt overbuild is being proposed to provide, if possible, a minimum of 0.02 ft/ft cross slope at the resurfaced lanes.

1.b. Sequence of Major Soil Disturbing Activities:
In the Section 104 Erosion Control Plan, the contractor shall provide a detailed sequence of construction for all construction activities. The contractor shall follow the sequence of major activities described below, unless the contractor proposes a different sequence that is equal or better at controlling erosion and trapping sediment and is approved by the Engineer.

For each construction phase, install perimeter controls after clearing and grubbing necessary for installation of controls but before beginning other work for the construction phase. Remove perimeter controls only after all upstream areas are stabilized.

1. Clearing and grubbing, excavation and stabilization.
2. Drainage Structures.
3. Earthwork associated with roadway, and construction of curb, subgrade, base, pavement, and sidewalk.

1.c. Area Estimates:

Total site area: 31.6 acres.
Total area to be disturbed: 1.6 acres.

1.d. Runoff Data:

Runoff Coefficients:
Before: 0.90.
During: varies from 0.90.
After: 0.90.

Soils Data: The following are the five (5) strata identified in the subsoils along the alignment of the proposed roadway improvements:

Stratum	Material Description	AASHTO Group
1	Dark Brown Organic Silty Fine SAND with grass (TOPSOIL)	A-8
2	Light Brown to Brown Clean to Silty Fine to Coarse SAND with Some Limerock Fragments (FILL)	A-1-b
3	Brown Slightly Silty Fine to Medium SAND (FILL)	A-3
4	Brown Silty Fine to Medium SAND with Trace of Limerock Fragments (FILL)	A-2-4
5	Light Brown LIMESTONE (Miami Limestone Formation)	N/A

Outfall Information:

Receiving Water Names: C-100A Canal(Latitude = 25°40'15.60" N
Longitude = 80°19'18.23" W)
Discharge points to Surface Waters : 3' covered trench running under the median along the entire length of the corridor within the project limits.

1.e. Site Map:

The construction plans are being used as the site maps. The location of the required information is described below. The sheet numbers for the plan sheets referenced are identified on the Key Sheet of these construction plans.

* Approximate Slopes: The slopes of the site can be seen in the Typical Section Sheet.

* Areas Of Soil Disturbance: The areas to be disturbed are indicated on the Plan Sheets. Any areas where permanant features are shown to be constructed above or below ground will be disturbed.

* Areas Not To Be Disturbed: The areas around the milling and resurfacing work zones are not disturbed during construction.

* Areas To Be Stabilized: Temporary stabilization practices are shown in the same location as the temporary controls mentioned above. Permanent stabilization is shown on the Typical Section Sheets, the Plan Sheets.

* Surface Waters: The only surface waters within the site is the C100-A Canal

* Discharge Points To Surface Waters: See item 1.d for the locations of the discharge points to surface waters.

1.f. Receiving Waters:

See item 1.d for the outfall locations and receiving water names.
There are no wetland areas on the project site.

2.0 CONTROLS:
2.a. Erosion And Sediment Controls:

The contractor shall prepare and submit to the engineer of record an erosion control plan (ecp) and schedule of implementation in accordance with section 104-5 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction 2007 edition. Plan shall be in written form. No work shall be started until the engineer of record has accepted the plan and schedule.

Erosion Control Plan (ECP) - The final erosion control plan used and submitted by the contractor shall describe in detail how the construction effort will be phased with regards to minimizing erosion problems by the use of temporary and permanent erosion control measures for the various sequences of construction operations. Any modifications to this plan must be signed and sealed by a professional engineer representing the contractor. Owner and the permitting agency must approve the modifications. No contract delays will be allowed for such modifications or approvals.

Curb inlets shall be protected from sediment intake until the project is complete. rock bags shall be placed around the perimeter of the inlet opening immediately adjacent to the edge of the inlet.

Canal shall be protected from sediment intake until all upland soildisturbing activities are complete and all upland areas are stabilized.
a. Silt fence / sediment barrier should be installed at the right of way line / back of sidewalk.
b. Floating Turbidity Barrier could be installed in the water, if needed.

Daily Inspection - of all erosion control measures and condition of adjacent properties shall be performed by the contractor representative and the project engineer. Deficiencies shall be noted and corrected.

2.a.1 Stabilization Practices:

In the Section 104 Erosion Control Plan, the contractor shall describe the stabilization practices proposed to control erosion. The contractor shall initiate all stabilization measures as soon as practical, but in no case more than 14 days, in portions of the site where construction activities have temporarily or permanently ceased. The stabilization practices shall include at least the following, unless otherwise approved by the Engineer.

Temporary:
* Artificial coverings in accordance with Specification Section 104.

* Seed and mulch, and sod in accordance with Specification Section 104.

Permanent:
* Asphalt or concrete surface.

* Sod in accordance with Specification Section 570.

2.a.2 Structural Practices:

In the Section 104 Erosion Control Plan, the contractor shall describe the proposed structural practices to control or trap sediment and otherwise prevent the discharge of pollutants from exposed areas of the site. Sediment controls shall be in place before disturbing soil upstream of the control. The structural practices shall include at least the following, unless otherwise approved by the Engineer.

Temporary:
* Inlet protection in accordance with Design Standard 102.

Permanent:
* Sod

2.b Stormwater Management:

Runoff will be routed, via curb & gutter and storm sewer systems, into existing trench for water quality and attenuation purposes.

S.R. 5 (US-1 / SOUTH DIXIE HIGHWAY)
FROM S.W. 136th STREET TO S.W. 102nd STREET

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DAVID PLUMMER & ASSOCIATES, INC.
1750 PONCE DE LEON BOULEVARD
CORAL GABLES, FLORIDA 33134
CERTIFICATE OF AUTHORIZATION EB 2690
VICTOR LEE P.E. NO. 35233

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	425513-1-52-01

STORMWATER POLLUTION PREVENTION PLAN

SHEET NO. 53

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2.c Other Controls:

2.c.1 Waste Disposal:

In the Section 104 Erosion Control Plan, the contractor shall describe the proposed methods to prevent the discharge of solid materials, including building materials, to waters of the United States. The proposed methods shall include at least the following, unless otherwise approved by the Engineer.

* Providing litter control and collection within the project during construction activities.

* Disposing of all fertilizer or other chemical containers according to EPA's standard practices as detailed by the manufacturer.

* Disposing of solid materials including building and construction materials off the project site but not in surface waters, or wetlands.

2.c.2 Off-Site Vehicle Tracking & Dust Control:

In the Section 104 Erosion Control Plan, the contractor shall describe the proposed methods for minimizing offsite vehicle tracking of sediments and generating dust. The proposed methods shall include at least the following, unless otherwise approved by the Engineer.

* Covering loaded haul trucks with tarpaulins.

* Removing excess dirt from roads daily.

* Stabilizing construction entrances according to Design Standard 106.

* Using roadway sweepers during dust generating activities such as excavation and milling operations.

2.c.3 State and Local Regulations For Waste Disposal, Sanitary Sewer, Or Septic Tank Regulations:

In the Section 104 Erosion Control Plan, the contractor shall describe the proposed procedures to comply with applicable state and local regulations for waste disposal, and sanitary sewer or septic systems.

2.c.4 Fertilizers and Pesticides:

In the Section 104 Erosion Control Plan, the contractor shall describe the procedures for applying fertilizers and pesticides. The proposed procedures shall comply with applicable subsections of either Section 570 or 577 of the Specifications.

2.c.5 Toxic Substances:

In the Section 104 Erosion Control Plan, the contractor shall provide a list of toxic substances that are likely to be used on the job and provide a plan addressing the generation, application, migration, storage, and disposal of these substances.

3.0 MAINTENANCE:

In the Section 104 Erosion Control Plan, the contractor shall provide a plan for maintaining all erosion and sediment controls throughout construction. The maintenance plan shall at a minimum, comply with the following.

* Silt fence: Maintain per section 104. The contractor should anticipate replacing silt fence on 12 month intervals.
* Inlet protection: Remove sediment / debris when water ponds in unacceptable amounts or areas.
* Floating Turbidity Barriers: The contractor shall be responsible for maintaining the filter curtain for the duration of the project. When the project is finished the curtain and related components shall be removed in a manner that minimizes turbidity.

4.0 INSPECTIONS:

Qualified personnel shall inspect the following items at least once every seven calendar days and within 24 hours of the end of a storm that is 0.5 inches or greater. To comply, the contractor shall install and maintain rain gages and record the daily rainfall. Where sites have been permanently stabilized, inspections shall be conducted at least once every month. The contractor shall also inspect that controls installed in the field agree with the latest Stormwater Pollution Prevention Plan.

* Points of discharge to waters of the United States.
* Points of discharge to municipal separate storm sewer systems.
* Disturbed areas of the site that have not been finally stabilized.
* Areas used for storage of materials that are exposed to precipitation.
* Structural controls.
* Stormwater management systems.
* Locations where vehicles enter or exit the site.

SUMMARY OF SEDIMENT BARRIER PAY ITEM NO. 104-10-3					
LOCATION STATION TO STATION			SIDE	P LF.	F LF.
SR 5 / US 1 (C-100A CANAL)					
1050+30	TO	1051+20	RT	90	
1050+40	TO	1051+20	LT	80	
TOTAL				170	

SUMMARY OF FLOATING TURBIDITY BARRIER PAY ITEM NO. 104-11					
LOCATION STATION TO STATION			SIDE	P LF.	F LF.
SR 5 / US 1 (C-100A CANAL)					
1050+60	TO	1051+00	RT	40	
1050+65	TO	1051+00	LT	35	
TOTAL				75	

S.R. 5 (US-1 / SOUTH DIXIE HIGHWAY)
FROM S.W. 136th STREET TO S.W. 102nd STREET

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DAVID PLUMMER & ASSOCIATES, INC.
1750 PONCE DE LEON BOULEVARD
CORAL GABLES, FLORIDA 33134
CERTIFICATE OF AUTHORIZATION EB 2690
VICTOR LEE P.E. NO. 35233

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	425513-1-52-01

STORMWATER POLLUTION PREVENTION PLAN

SHEET NO. 54

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PROJECT NETWORK CONTROL TABULATION SHEET DETAILS

ABBREVIATIONS & SYMBOL LEGEND	
AVE.	AVENUE
℄	BASELINE
⊡	CONCRETE MONUMENT
△	MAG NAIL AND WASHER
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION
FND.	FOUND
HWY.	HIGHWAY
LT.	LEFT
O/S	OFFSET
R/W	RIGHT OF WAY
ST.	STREET
STA.	STATION
MNW	MAG NAIL AND WASHER

SURVEYOR'S NOTES:

THE SPECIFIC PURPOSE OF THIS SURVEY IS TO ESTABLISH HORIZONTAL AND VERTICAL CONTROL, AND PREPARE A PROJECT NETWORK CONTROL SHEET REPORTING THE VALUES ESTABLISHED FOR THE MONUMENTATION SET IN THE FIELD.

PROJECT LIMITS ARE FROM 200 FEET PLUS OR MINUS NORTH OF SW 136th STREET (STATION 945+00 (+/-) TO 455 FEET PLUS OR MINUS SOUTH OF SW 102nd STREET (STATION 1066+81.65 (+/-).

THE BASELINE AS INDICATED REPRESENT A "BEST FIT" APPROACH TO THE EXISTING CONDITIONS ALONG THE CORRIDOR ALIGNMENT FROM STATION 944+25.67 THROUGH STATION 1066+82.12 AS SHOWN ON SHEET 6 THROUGH 11 OF 14 FOR S.R.5 SECTIONS 87020 / 87030 MISC. 3

THE BEST FIT IS BASED ON MEASUREMENTS OBTAINED IN THE FIELD TO EXISTING RIGHT OF WAY OCCUPATION / MONUMENTATION ALONG THE RIGHT OF WAY. THEREFORE, SOME OF THE GEOMETRY REPORTED MAY DIFFER FROM RECORDED VALUES HOWEVER ARE NOTED HEREON.

UNITS ARE IN US SURVEY FEET.

HORIZONTAL INFORMATION IS RELATED TO STATE PLANE COORDINATE SYSTEM, DATUM: NAD 83/CORS. FLORIDA EAST ZONE (0901).

VERTICAL INFORMATION IS RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM 1988 ADJUSTMENT (NAVD '88).

SURVEYOR'S CERTIFICATION

I HEREBY CERTIFY THIS SPECIFIC PURPOSE SURVEY WAS MADE FOR THE PURPOSE OF SURVEYING, REFERENCING, DESCRIBING AND MAPPING THE PRIMARY NETWORK CONTROL OR BASELINE FOR THE TRANSPORTATION FACILITY DEPICTED HEREON AND THAT SAID SURVEY WAS DONE UNDER MY RESPONSIBLE CHARGE AND MEETS THE MINIMUM TECHNICAL STANDARDS SET FORTH BY THE FLORIDA BOARD PURSUANT TO SECTION 472.027 FLORIDA STATUTES. THIS MAP CONSISTING OF SHEETS CTL-01 THROUGH CTL-05 IS A TRUE, ACCURATE AND COMPLETE DEPICTION OF THE RESULTS OF A FIELD SURVEY PERFORMED UNDER MY DIRECTION AND COMPLETED ON MAY 5, 2010.

SURVEYOR: JOHN LIPTAK PSM NUMBER: 5664
TRIANGLE SURVEYING & MAPPING, INC.
8609 N.W. 66TH STREET
MIAMI, FLORIDA 33166
PHONE: 305-597-9701

PROJECT NETWORK CONTROL TABULATION SHEET DETAILS

	POINT NAME	(X) EASTING	(Y) NORTHING	SCALE FACTOR	CONVERGENCE	LATITUDE(N)	LONGITUDE(W)	BASELINE STATION	OFFSET	(Z)-NAVD88 ELEVATION	DESCRIPTION
PRIMARY CONTROL	PN01	875668.3576	477356.2018	0.999996428	0 17 18.18377	25 38 43.35530	80 20 01.32741	949+50.01	-86.22	8.63	SET FDOT BRASS DISC STAMPED 87/10/PN01
	PN02	876215.1538	478671.7199	0.999996704	0 17 20.93807	25 38 56.35786	80 19 55.27990	963+97.10	-85.83	8.44	SET FDOT BRASS DISC STAMPED 87/10/PN02
	PN03	876781.2787	480167.6481	0.999996990	0 17 23.80782	25 39 11.14628	80 19 49.01083	979+95.75	-136.79	8.56	SET FDOT BRASS DISC STAMPED 87/10/PN03
	PN04	877393.6694	481642.2593	0.999997300	0 17 26.89473	25 39 25.72114	80 19 42.23689	995+92.47	-136.85	8.64	SET FDOT BRASS DISC STAMPED 87/10/PN04
	PN05	878083.4770	483303.5470	0.999997651	0 17 30.37319	25 39 42.14096	80 19 34.60604	1013+91.28	-137.01	9.23	SET FDOT BRASS DISC STAMPED 87/10/PN05
	PN06	878467.0262	484227.7263	0.999997846	0 17 32.30794	25 39 51.27532	80 19 30.36282	1023+91.89	-137.28	8.56	SET FDOT BRASS DISC STAMPED 87/10/PN06
	PN07	878845.0306	485020.8942	0.999998039	0 17 34.19989	25 39 59.11228	80 19 26.18734	1032+69.38	-92.42	11.04	SET FDOT BRASS DISC STAMPED 87/10/PN07
	PN08	879081.3623	485705.7323	0.999998160	0 17 35.40743	25 40 05.88341	80 19 23.56615	1039+92.48	-136.84	8.35	SET FDOT BRASS DISC STAMPED 87/10/PN08
	PN09	879446.9451	486450.1619	0.999998347	0 17 37.23484	25 40 13.23821	80 19 19.52889	1048+20.20	-84.76	8.56	SET FDOT BRASS DISC STAMPED 87/10/PN09
	PN10	879714.7274	487232.6892	0.999998484	0 17 38.60445	25 40 20.97528	80 19 16.55828	1056+45.58	-137.61	8.18	SET FDOT BRASS DISC STAMPED 87/10/PN010
	PN11	880079.5091	487958.4554	0.999998671	0 17 40.42625	25 40 28.14520	80 19 12.53055	1064+55.76	-79.10	9.57	SET FDOT BRASS DISC STAMPED 87/10/PN011
	PN19A	875396.7891	476849.0895	0.999996292	0 17 16.83479	25 38 38.34602	80 20 04.32275	N/A	N/A	11.27	FND. FDOT BRASS DISC STAMPED (GPS)87/10/BUS/PN19A
	PN20A	875838.2681	477926.1148	0.999996514	0 17 19.06013	25 38 48.99167	80 19 59.43939	955+63.96	-147.90	9.75	FND.FDOT BRASS DISC STAMPED (GPS)87/01/BUS/PN20A
	PN21A	876547.0932	479478.5071	0.999996871	0 17 22.61157	25 39 04.33226	80 19 51.60806	972+69.50	-88.74	9.58	FND. FDOT BRASS DISC STAMPED (GPS)87/01/BUS/PN21A
	PN22A	877084.2984	480878.7659	0.999997143	0 17 25.33275	25 39 18.17450	80 19 45.66008	987+68.60	-128.74	10.83	FND. FDOT BRASS DISC STAMPED (GPS)87/01/BUS/PN22A
	PN23A	877745.3025	482359.4703	0.999997479	0 17 28.65102	25 39 32.80721	80 19 38.35430	1003+89.58	-85.89	8.58	FND. FDOT BRASS DISC STAMPED (GPS)87/04/BUS/PN23A RESET
	PN25A	880384.7982	488711.2974	0.999998828	0 17 41.97014	25 40 35.58629	80 19 09.15143	N/A	N/A	9.33	FND. FDOT BRASS DISC STAMPED (GPS)87/04/BUS/PN25A RESET
	PN26A	880768.9143	489823.7101	0.999999026	0 17 43.93464	25 40 46.58476	80 19 04.89032	N/A	N/A	11.32	FND. FDOT BRASS DISC STAMPED (GPS)87/01/BUS/PN26A
	K-399	876761.17	479520.75	0.999996980	0 17 23.62969	25 39 04.73994	80 19 49.26635	973+90.47	93.43	8.76	FND. NGS MONUMENT BRASS DISC IN CONC

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

TRIANGLE Surveying & Mapping, Inc.
8609 NORTHWEST 66th STREET MIAMI, FLORIDA 33166
CERTIFICATE OF AUTHORIZATION: LB-7388
JOHN LIPTAK PSM 5664 305 597-9701

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	425513-1-52-01

PROJECT NETWORK CONTROL

SHEET NO. CTL-01

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NAVD88

PROJECT NETWORK CONTROL TABULATION SHEET DETAILS

PROJECT NETWORK CONTROL TABULATION SHEET DETAILS

	POINT NAME	(X) EASTING	(Y) NORTHING	SCALE FACTOR	CONVERGENCE	LATITUDE(N)	LONGITUDE(W)	BASELINE STATION	OFFSET	(Z)-NAVD88 ELEVATION	DESCRIPTION
SECONDARY CONTROL	A1	875622.1017	476879.3567	0.999996405	0 17 17.90415	25 38 38.63458	80 20 01.85908	945+14.35	53.96	10.04	SET MAG NAIL & WASHER STAMPED FDOT A1
	A2	875789.2524	477281.6721	0.999996489	0 17 18.74600	25 38 42.61108	80 20 00.01046	949+50.01	54.01	9.98	SET MAG NAIL & WASHER STAMPED FDOT A2
	A3	875846.8017	477420.1877	0.999996518	0 17 19.03586	25 38 43.98017	80 19 59.37399	951+00.00	54.03	10.25	SET MAG NAIL & WASHER STAMPED FDOT A3
	A4	876000.2679	477789.5659	0.999996595	0 17 19.80887	25 38 47.63110	80 19 57.67668	954+99.99	54.08	10.43	SET MAG NAIL & WASHER STAMPED FDOT A4
	A5	876145.8581	478140.0930	0.999996669	0 17 20.54229	25 38 51.09570	80 19 56.06644	958+79.55	54.08	10.39	SET MAG NAIL & WASHER STAMPED FDOT A5
	A6	876175.3360	478211.0647	0.999996684	0 17 20.69079	25 38 51.79719	80 19 55.74041	959+56.40	54.09	10.43	SET MAG NAIL & WASHER STAMPED FDOT A6
	A7	876427.8021	478818.9092	0.999996811	0 17 21.96277	25 38 57.80510	80 19 52.94806	966+14.59	54.09	10.06	SET MAG NAIL & WASHER STAMPED FDOT A7
	A8	876456.3402	478887.6182	0.999996826	0 17 22.10656	25 38 58.48421	80 19 52.63241	966+88.99	54.10	10.16	SET MAG NAIL & WASHER STAMPED FDOT A8
	A9	876498.9249	478990.1462	0.999996847	0 17 22.32113	25 38 59.49759	80 19 52.16140	968+00.01	54.10	10.28	SET MAG NAIL & WASHER STAMPED FDOT A9
	A10	876713.0948	479505.7876	0.999996955	0 17 23.40035	25 39 04.59415	80 19 49.79253	973+58.36	54.10	9.95	SET MAG NAIL & WASHER STAMPED FDOT A10
	A11	876758.4910	479615.0849	0.999996978	0 17 23.62912	25 39 05.67444	80 19 49.29041	974+76.71	54.11	10.31	SET MAG NAIL & WASHER STAMPED FDOT A11
	A12	876997.5704	480190.6989	0.999997099	0 17 24.83404	25 39 11.36374	80 19 46.64594	981+00.00	54.11	10.07	SET MAG NAIL & WASHER STAMPED FDOT A12
	A13	877003.3212	480204.5527	0.999997102	0 17 24.86302	25 39 11.50067	80 19 46.58233	981+15.00	54.11	10.28	SET MAG NAIL & WASHER STAMPED FDOT A13
	A14	877281.9322	480875.7332	0.999997243	0 17 26.26744	25 39 18.13453	80 19 43.50048	988+41.71	53.97	9.83	SET MAG NAIL & WASHER STAMPED FDOT A14
	A15	877323.7137	480976.3858	0.999997265	0 17 26.47807	25 39 19.12937	80 19 43.03831	989+50.69	53.95	10.06	SET MAG NAIL & WASHER STAMPED FDOT A15
	A16	877495.9459	481391.2971	0.999997352	0 17 27.34638	25 39 23.23029	80 19 41.13311	993+99.93	53.86	9.98	SET MAG NAIL & WASHER STAMPED FDOT A16
	A17	877668.5173	481806.8920	0.999997440	0 17 28.21646	25 39 27.33795	80 19 39.22414	998+49.93	53.83	10.36	SET MAG NAIL & WASHER STAMPED FDOT A17
	A18	877852.3749	482249.6668	0.999997533	0 17 29.14355	25 39 31.71425	80 19 37.19027	1003+29.36	53.79	10.01	SET MAG NAIL & WASHER STAMPED FDOT A18
	A19	877901.0669	482366.9292	0.999997558	0 17 29.38909	25 39 32.87324	80 19 36.65162	1004+56.33	53.78	9.86	SET MAG NAIL & WASHER STAMPED FDOT A19
	A20	877994.5431	482592.0431	0.999997605	0 17 29.86048	25 39 35.09822	80 19 35.61755	1007+00.08	53.76	10.22	SET MAG NAIL & WASHER STAMPED FDOT A20
	A21	878160.7163	482992.2447	0.999997690	0 17 30.69855	25 39 39.05371	80 19 33.77925	1011+33.41	53.72	10.19	SET MAG NAIL & WASHER STAMPED FDOT A21
	A22	878339.6669	483423.2185	0.999997781	0 17 31.60114	25 39 43.31335	80 19 31.79955	1016+00.06	53.68	10.26	SET MAG NAIL & WASHER STAMPED FDOT A22
	A23	878493.0587	483792.6383	0.999997859	0 17 32.37489	25 39 46.96459	80 19 30.10258	1020+00.06	53.64	10.08	SET MAG NAIL & WASHER STAMPED FDOT A23
	A24	878656.1175	484185.0377	0.999997942	0 17 33.19744	25 39 50.84294	80 19 28.29864	1024+24.99	53.72	9.99	SET MAG NAIL & WASHER STAMPED FDOT A24
	A25	878799.9898	484531.2649	0.999998016	0 17 33.92326	25 39 54.26493	80 19 26.70694	1027+99.92	53.79	9.96	SET MAG NAIL & WASHER STAMPED FDOT A25
	A27	878953.4541	484900.5753	0.999998094	0 17 34.69754	25 39 57.91507	80 19 25.00909	1031+99.85	53.86	9.89	SET MAG NAIL & WASHER STAMPED FDOT A26
	A26	879037.8879	485103.8205	0.999998137	0 17 35.12357	25 39 59.92387	80 19 24.07494	1034+19.93	53.88	10.05	SET MAG NAIL & WASHER STAMPED FDOT A27
	A28	879126.0924	485316.1424	0.999998183	0 17 35.56865	25 40 02.02238	80 19 23.09907	1036+49.85	53.90	9.87	SET MAG NAIL & WASHER STAMPED FDOT A28
	A29	879287.1417	485703.8130	0.999998265	0 17 36.38137	25 40 05.85397	80 19 21.31723	1040+69.64	53.93	9.62	SET MAG NAIL & WASHER STAMPED FDOT A29
	A30	879471.3716	486147.2830	0.999998359	0 17 37.31115	25 40 10.23705	80 19 19.27889	1045+49.85	53.97	9.74	SET MAG NAIL & WASHER STAMPED FDOT A30
	A31	879640.1764	486553.6222	0.999998446	0 17 38.16316	25 40 14.25313	80 19 17.41117	1049+89.86	54.01	9.54	SET MAG NAIL & WASHER STAMPED FDOT A31
	A32	879821.0378	486988.9837	0.999998538	0 17 39.07612	25 40 18.55605	80 19 15.41002	1054+61.30	54.05	9.14	SET MAG NAIL & WASHER STAMPED FDOT A32
	A33	879850.8812	487060.8214	0.999998554	0 17 39.22677	25 40 19.26607	80 19 15.07981	1055+39.09	54.06	9.77	SET MAG NAIL & WASHER STAMPED FDOT A33
	A34	879950.6529	487300.9873	0.999998605	0 17 39.73045	25 40 21.63975	80 19 13.97585	1057+99.15	54.08	9.33	SET MAG NAIL & WASHER STAMPED FDOT A34
	A35	880111.7974	487688.8872	0.999998688	0 17 40.54402	25 40 25.47357	80 19 12.19280	1062+19.19	54.11	9.53	SET MAG NAIL & WASHER STAMPED FDOT A35
	A36	880161.0516	487807.4537	0.999998713	0 17 40.79271	25 40 26.64542	80 19 11.64780	1063+47.58	54.12	10.00	SET MAG NAIL & WASHER STAMPED FDOT A36
	A37	880289.3238	488116.2355	0.999998779	0.17 41.44039	25 40 29.69727	80 19 10.22844	1066+81.95	54.14	9.51	SET MAG NAIL & WASHER STAMPED FDOT A37

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 5J-17.062, F.A.C.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

TRIANGLE Surveying & Mapping, Inc.
8609 NORTHWEST 66th STREET MIAMI, FLORIDA 33166
CERTIFICATE OF AUTHORIZATION: LB-7388
JOHN LIPTAK PSM 5664 305 597-9701

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	425513-1-52-01

PROJECT NETWORK CONTROL

SHEET NO. CTL-02

armandol 11/11/2011 2:38:34 PM U:\proj\09\09145\425513\520\survey\CTLSR002.dgn

MDT R/W LINE

C-100A CANAL

MDT R/W LINE

BEGIN MILLING AND RESURFACING
MATCH EXIST. PAVEMENT
STA. 1051+17.27

BEGIN CONSTRUCTION
STA. 1049+81.87

0 10 40
Feet

BUSWAY

EXIST. GUARDRAIL
(TO REMAIN)

R/W LINE

+16.90
71.00' LT

+16.90
58.00' LT

24" SS

18" SS

FPL OFO

ES-03

Vvh#4

4

ES-02

EXIST. C&G
(TO REMAIN)

LIMITS OF MILLING
AND RESURFACING

BEGIN CURB & GUTTER TYPE "F"
SAWCUT AND MATCH EXIST.
+18.53

CURB & GUTTER
TYPE "F"

01

PC+93.22
13.95' LT
EL. 10.48

℄ SURVEY SR 5

1049 1050 1051 1052 1053 1054

36" TRENCH

02 03

N22°34'04"E

SOD

MONITORING WELL
(PLACED OUT OF SERVICE)

RB-1

STA.1050+48.63
BEGIN CULVERT

STA.1051+13.63
END CULVERT

+50.00
EL. 9.98

SAWCUT

2'

MATCH LINE STA. 1054+20.00

51.1'

58.0'

38.1'

58.0'

LIMITS OF MILLING
AND RESURFACING

BEGIN WIDENING
BEGIN CURB & GUTTER TYPE "F"
SAWCUT AND MATCH EXIST.
+00.00

Vvh#2

SR 5/US-1
(SOUTH DIXIE HWY.)

1

EXIST. C&G
(TO REMAIN)

CONDUIT (9-3½" TR)

CONDUIT (9-3½" TR)

Exist. Swk.

6" CI WM

ES-01

12" DIP WM

R/W LINE

R/W LINE

Vvh#3

Vvh#1

BEGIN PROJECT
STA. 1049+00.00 ℄ SURVEY
MP. 19.311

CANAL R/W LINE

C-100A CANAL

CANAL R/W LINE

LEGEND:

- WIDENING
- (1) EXIST. TEL. MH (TO BE ADJUSTED BY AT&T)
- (4) EXIST. STORM SEWER MH (TO BE ADJUSTED)
- (##) SEE SUMMARY OF TREES TABLE

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

NOT FOR CONSTRUCTION
PRELIMINARY AND SUBJECT TO CHANGE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ALVAREZ ENGINEERS, INC.
Florida Certificate of Authorization # 7538
10305 N.W. 41st Street, Suite 103
Doral, Florida 33178
Tel. (305) 640-1345 Fax (305) 640-1346

Engineer of Record: Raul E. Alessandri, P.E.
P.E. No. 75506

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	433489-1-52-01

ROADWAY PLAN

SHEET NO. 13

ccastaneira 10/5/2015 8:11:12 AM P:\43348915201\roadway\PLANRD01.dgn

System 2 – Reference Data

Excerpts from SFMWD ERP No. 13-00791-S

Excerpts from FDOT Records Plans for FM No. 433489-1-52-01
Excerpts from FDOT Records Plans for FM No. 87260-3512

FPID 433489-1-52-01 is a drainage project that run from C-100A to north of SW 100th St.
Baseline Survey SR 5

- Reference Beginning: STA. 1051+17.27
- Reference Ending: STA. 1079+54.21
- Vertical Datum: NAVD88

SFWMD ERP 13-00791-S is the permit for FIN 87260-3512 which runs from the SR 826 OFF/ON RAMPS to SW 66th St.

FIN 87260-3512 is a drainage project that runs from the SR 826 OFF/ON RAMPS to SW 66th St.
Baseline Survey SR 826 NB

- Reference Beginning: STA. 3+43.92
- Reference Ending: STA. 33+77.37
- Vertical Datum: NGVD29 (Text callouts are converted to NAVD88)

South Florida Water Management District

BEG. PERMIT NUMBER 13-00791-S

APPLICATION NO. 941110-17

F 13-00791

FORM #0190
Rev 8/85

APPLICATION/PERMIT FILE RECORD & ACTION SHEET

Name: FL. D. O. T.
(SR 826 Palmetto Expressway)

Permit No. 13-00791-S
Application No. 941110-17

This file contains:

☐ ORIGINAL APPLICATION ☐ PERMIT ☐ SPECIAL CONDITION SHEET(S)
☐ STAFF CALCULATION SHEET(S) ☐ DRAWING(S) ☐ STAFF REPORT

Chronological Correspondence/Action Record

Date	Subject	By	Comments
4/13/95	Permit Issued	K.T.	9411 -17

South Florida Water Management District

3301 Gun Club Road, West Palm Beach, Florida 33406 • (561) 686-8800 • FL WATS 1-800-432-2045
TDD (561) 697-2574

CON 24-05

August 6, 1998

Florida Department of Transportation
1900 NW 111th Avenue
Miami, FL 33172

Dear Sir or Madam:

Subject: **SR 826 Palmetto Expressway Improvement (widening & resurfacing)**
Construction Completion/Construction Certification
Application No. 941110-17, SWM Permit No. 13-00791-S
Dade County, S2,35/T55,54S/R40E

This letter acknowledges receipt of an engineer's Construction Completion/Construction Certification from M. James McCombs, P.E. of Reynolds, Smith and Hills CS, Inc. pertaining to the subject project's surface water management system. District staff have reviewed the submitted information and it has been incorporated into the permit file.

Per the referenced certification, our staff consider **the surface water management system (including 14.69 acres of dry retention areas) serving 126.31 acres of the SR 826 Palmetto Expressway from US 1 (SR 5) to north of Sunset Drive** constructed in conformance with the permit. This satisfies the requirement of your permit with regard to construction of the surface water management system and statement of completion and certification by a registered professional engineer. Therefore, the surface water management system of the subject project is hereby considered to be in operation phase, subject to all applicable special and applicable conditions of your permit.

Should you have any questions, please contact the undersigned at (561) 682-6596.

Sincerely,

Hamid A. Azizi
Staff Engineer
Environmental Resource Compliance Division

AHA

c: M. James McCombs, P.E., RS & H CS, Inc.
Dade County Engineer
City of Miami Engineer
Metro Dade ERM (DERM) / F.D.E.P. / E.P.A.

Governing Board:
Frank Williamson, Jr., Chairman
Eugene K. Pettis, Vice Chairman
Mitchell W. Berger
Vera M. Carter
William E. Graham
William Hammond
Richard A. Machek
Michael D. Minton
Miriam Singer
Samuel E. Poole III, Executive Director
Michael Slayton, Deputy Executive Director

Mailing Address: P.O. Box 24680, West Palm Beach, FL 33416-4680

South Florida Water Management District
Final Field Observation
Field Engineering Division

FORM 0543
Rev 6/97

Final Field Observation Requested By: RS & H CS Date: 6/16/98

County: Dade Section(s): 22,23,26 27,34,35 Twp. 54 Rge. 40

Project Name: SR826/ Palmetto Pkwy.

Permit No.: 13-00791-S ok Application No(s): 941110-17 ok/c.

Project Engineer: M. James McCombs

Certification Form No. 0881 Received? Yes ✓ No

Record ("As-Built") Drawings Received? Yes No

Staff Engineer: Hamid Ajize Field Staff: Horacio Wheelock

Date of Final Field Observation: 7-14-1998.

Final Field Observation Report

The project has been constructed in substantial accordance with the design plans approved by the District. Control structures, culverts, inlets and retention area. Ham

This is a 126.31 acre highway widening and resurfacing project Ham
8-06-98

Staff Engineer's Comments

Per the attached engineer's certification, SWM System for SR 826 Palmetto Expressway from US1 (SR5) to north of Sunset Drive constructed in general compliance with permit. Letter to permittee follows. Ham 8-06-98

C: H. Wheelock, Permit File #13-00791-S

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Environmental Resource/Surface Water Management Permit Construction Completion/Construction Certification

FORM 0881
08/95

Page (2) of (3)
area 8/6/98

RECEIVED
JUN 15 1998
REGULATION DEPT.
area 4030

TO: SOUTH FLORIDA WATER MANAGEMENT DISTRICT
Field Engineering Division *Please see page 2 of 2

SUBJECT: PERMIT NO. 13-00791-S ✓ APPLICATION NO. 941110-17
PROJECT NAME: SR826 / US1 TO SW 66th St. ✓ PHASE: N/A
LOCATION: COUNTY: DADE S 2, 35 T55, 54 R40 ✓ area

The subject surface water management system has been designed, constructed and completed as follows: (use additional sheets if needed):

Completion Date: 05 (Month) 21 (Day) 98 (Year) ✓

	Discharge Structure: PERMITTED		EXISTING	
Weir	Width	Crest	Width	Crest
Bleeder	Dimensions 24" RCP	Invert - 1.5	Dimensions	Invert
Type	42" RCP	- 3.0		
	2 x 30" RCP	- 2.0		
	2 x 48" RCP	- 3.5		

✓ OK. area

These have been Certified by engineer area on separate sheets.

Retention/Detention Area: (if applicable)

ID	Size	Side Slopes (H:V)	ID	Size	Side Slopes (H:V)	ID	Size	Side Slopes (H:V)	ID	Size	Side Slopes (H:V)

Please indicate the location of the appropriate bench mark(s) used to determine the above information on the record drawings (Reference 40E-4.381(1)(f), Florida Administrative Code). All elevations should be according to National Geodetic Vertical Datum (NGVD) (Reference 2.9 of the *Basis of Review for Environmental Resource Permit Applications within the South Florida Water Management District*).

I HEREBY NOTIFY THE DISTRICT OF THE COMPLETION OF CONSTRUCTION OF ALL THE COMPONENTS OF THE SURFACE WATER MANAGEMENT FACILITIES FOR THE ABOVE REFERENCED PROJECT AND CERTIFY THAT THEY HAVE BEEN CONSTRUCTED IN SUBSTANTIAL CONFORMANCE WITH THE PLANS AND SPECIFICATIONS PERMITTED BY THE DISTRICT. [A COPY OF THE APPROVED PERMIT DRAWINGS IS ATTACHED WITH DEVIATIONS NOTED, IF APPLICABLE]. I HEREBY AFFIX MY SEAL THIS 10 DAY OF June 19 98.

This Certification is acceptable for the referenced portion of the Palmetto Expressway only as specified under Application No. 941110-17. Approved 8-06-98

Engineer's Signature and Seal

M. James McComb #42675
Name (Please Print) FLA. Registration No.

RS&H CS

Reynolds, Smith and Hills CS, Incorporated

12189 South Dixie Highway
Miami, Florida 33156
305-254-6884
Fax 305-254-5578

Page (3) of (3)
Dated 8/6/98

RECEIVED
JUN 15 1998
REGULATION DEPT. 4030

LETTER OF TRANSMITTAL # 127 STATE JOB #: 87260-3512

TO: Hamid Azizi
SFWM
Field Engineering Division
Regulation Department
P.O. Box 24680
West Palm Beach, Florida 33416

RE: SR-826/PALMETTO EXPRESSWAY
FROM US-1 TO SW 66TH STREET
WPI #: 6113684
FAP #: ACXU-475-1(96)
COUNTY: DADE
FIN # 2495071 5201

DATE: June 12, 1998

WE ARE FORWARDING TO YOU VIA **Airborne Express Overnight Service**

THE FOLLOWING DOCUMENT(S) FOR YOUR USE AS INDICATED BELOW:

___	PLANS	___	LETTER	___	SHOP DRAWINGS
___	PRINTS	___	CALCS	___	SPECIFICATIONS
___	ESTIMATES	___	SAMPLES	X	OTHER

NO. OF SETS	DESCRIPTION	DATE	REMARKS
1 (Original)	Construction Completion / Construction Certification Notice Attached: As-Builts / Bridges over Snapper Creek Canal	06-12-98	a) Ramp A over Snapper Creek b) Ramp C over Snapper Creek c) SR826 / Palmetto Expressway over Snapper Creek
1 (Original)	Construction Completion / Construction Certification Notice Structures	06-12-98	

THESE ARE TRANSMITTED FOR:

X	YOUR APPROVAL	___	YOUR USE
___	REVIEW & COMMENTS	___	YOUR FILE

CC D. Vorce, File 55.00, 11.03

Signed By: M. JAMES McCOMBS, P.E.

Position: PROJECT RESIDENT ENGINEER

South Florida Water Management District
3301 Gun Club Road, West Palm Beach, Florida 33406 • (407) 686-8800 • FLWATS 1-800-432-2045

CON 24-06

May 22, 1995

Melanie Calvo
Florida Dept. of Transportation
1000 N W 111th Avenue, Room 6101
Miami, Florida 33172

Subject: Permit 13-00791-S, Application 941110-17
State Road 826, Broward County

Dear Ms Calvo:

As you requested, I have enclosed copies of the above referenced Application Submittals (forms 4-8, 4-13 and 4-7) for the Surface Water Management Permit regarding Basin 5.

If we can be of further assistance please do not hesitate to contact this office.

Sincerely,

Vern Kaiser
Permit Administration Supervisor
Regulation Department

VK/pb
Enclosures

Governing Board:
Valerie Boyd, Chairman
Frank Williamson, Jr., Vice Chairman
Annie Betancourt
William Hammond
Betsy Krant
Allan Milledge
Eugene K. Pettis
Nathaniel P. Reed
Leah G. Schad
Samuel E. Poole III, Executive Director
Michael Slayton, Deputy Executive Director

Mailing Address: P.O. Box 24680, West Palm Beach, FL 33416-4680

South Florida Water Management District

Certification For Stormwater Discharge

Form #0113
Rev. 1/91

SURFACE WATER MANAGEMENT PERMIT NO. 13-00791-S

(NON-ASSIGNABLE)

Date Issued: APRIL 13, 1995

Authorizing: CONSTRUCTION AND OPERATION OF A SURFACE WATER MANAGEMENT SYSTEM TO SERVE A 126.31 ACRE HIGHWAY WIDENING PROJECT.

Located In: DADE COUNTY, SEC. 2,35 TWP. 55,54S RGE. 40E

Issued To: FLORIDA DEPARTMENT OF TRANSPORTATION
(SR 826 PALMETTO EXPRESSWAY)
1000 NW 111TH AVENUE
MIAMI, FL 33172

This Permit is issued pursuant to Application for Permit No. [illegible]-17 dated November 10, 1994. Permittee agrees to hold and save the South Florida Water Management District and its successors harmless from any and all damages, claims or liabilities which may arise by reason of the construction, operation, maintenance or use of any work or structure involved in the Permit. Said Application, including all plans and specifications attached thereto, as addressed by the Staff Report, is by reference made a part hereof.

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

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

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

Special Conditions are as follows:

SEE SHEETS 2-3 OF 6 - 13 SPECIAL CONDITIONS.
SEE SHEETS 4-6 OF 6 - 19 LIMITING CONDITIONS.

Filed with the Clerk of the South Florida Water Management District

On Original signed by:

By Vern Kaiser
Deputy Clerk

South Florida Water Management District, by its Governing Board

By Original signed by TONY BURNS
Assistant Secretary

SPECIAL CONDITIONS

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

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

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

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

5 . OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM SHALL BE THE RESPONSIBILITY OF FLORIDA DEPARTMENT OF TRANSPORTATION.

6 . THE SFWMD RESERVES THE RIGHT TO REQUIRE REMEDIAL MEASURES TO BE TAKEN BY THE PERMITTEE IF WETLAND AND/OR UPLAND MONITORING OR OTHER INFORMATION DEMONSTRATES THAT ADVERSE IMPACTS TO PROTECTED, CONSERVED, INCORPORATED OR MITIGATED WETLANDS OR UPLANDS HAVE OCCURRED DUE TO PROJECT RELATED ACTIVITIES.

7 . ANY FUTURE CHANGES IN LAND USE OR TREATMENT OF WETLANDS AND/OR UPLAND BUFFER/COMPENSATION AREAS MAY REQUIRE A SURFACE WATER MANAGEMENT PERMIT MODIFICATION AND ADDITIONAL ENVIRONMENTAL REVIEW BY DISTRICT STAFF. PRIOR TO THE PERMITTEE INSTITUTING ANY FUTURE CHANGES NOT AUTHORIZED BY THIS PERMIT, THE PERMITTEE SHALL NOTIFY THE SFWMD OF SUCH INTENTIONS FOR A DETERMINATION OF ANY NECESSARY PERMIT MODIFICATIONS.

8 . THE PERMITTEE SHALL ENSURE THAT ALL CONSTRUCTION ACTIVITIES IN OPEN WATER WILL CEASE UPON SIGHTINGS OF MANATEES WITHIN 200 YARDS OF THE PROJECT AREA. CONSTRUCTION ACTIVITIES SHALL NOT RESUME UNTIL THE MANATEES HAVE DEPARTED THE PROJECT AREA.

9 . THE PERMITTEE SHALL ENSURE THAT THE CONTRACTOR INSTRUCTS ALL PERSONNEL ASSOCIATED WITH THE PROJECT OF THE PRESENCE OF MANATEES AND THE NEED TO AVOID COLLISIONS WITH MANATEES. THE PERMITTEE AND/OR CONTRACTOR MAY BE HELD RESPONSIBLE FOR ANY MANATEE HARMED, HARASSED OR KILLED AS A RESULT OF ANY PERMITTED ACTIVITY.

10. THE PERMITTEE SHALL ENSURE THAT A MINIMUM OF ONE PERSON WILL BE DESIGNATED AS A MANATEE OBSERVER WHEN WORK IS BEING CONDUCTED. THIS INDIVIDUAL(S) SHALL HAVE EXPERIENCE IN MANATEE OBSERVATION, AND WILL BE EQUIPPED WITH POLARIZED SUNGLASSES TO AID IN OBSERVATION.

11. PRIOR TO ANY IN-WATER WORK CONDUCTED AT NIGHT, THE PERMITTEE SHALL PROVIDE FLOOD LIGHTING TO THE AREA TO MAXIMIZE THE OPPORTUNITY TO OBSERVE A MANATEE.

12. ANY COLLISION WITH A MANATEE SHALL BE REPORTED IMMEDIATELY ON THE "MANATEE HOTLINE" (1-800-791-2580).

13. FOLLOWING THE PROJECT COMPLETION, A REPORT SUMMARIZING THE ABOVE INCIDENTS AND SIGHTINGS SHALL BE SUBMITTED TO THE FDEP MARINE RECOVERY PROGRAM (100 EIGHTH AVENUE S.E.. ST. PETERSBURG, FLORIDA 33701-2580) AND TO THE U.S. FISH AND WILDLIFE SERVICE (2747 ART MUSEUM DRIVE, JACKSONVILLE, FLORIDA 32207).

LIMITING CONDITIONS

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

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

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

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

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

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

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

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

9 . THE PERMIT DOES NOT CONVEY TO THE PERMITTEE ANY PROPERTY RIGHT NOR ANY

RIGHTS OR PRIVILEGES OTHER THAN THOSE SPECIFIED IN THE PERMIT AND CHAPTER 40E-4, FAC.

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

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

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

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

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

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

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

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

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

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

South Florida Water Management District

3301 Gun Club Road, West Palm Beach, Florida 33406 • (407) 686-8800 • FL WATS 1-800-432-2045

March 28, 1995

Florida Department of Transportation
1000 NW 111th Avenue
Miami, FL 33172

Dear Sir or Madam:

Subject: **Application No. 941110-17, SR 826 Palmetto Expressway, Dade County, S2,35/T55,54S/R40E**

Enclosed is a copy of this District's staff report covering the request for permit application referenced therein. It is requested that you read this staff report thoroughly and understand its contents. The recommendations as stated in the staff report will be presented to our Governing Board for consideration on **April 13, 1995.**

Should you wish to object to the staff recommendation or file a petition, please written objections, petitions and/or waivers (refer to the attached "Notice of Rights") to:

Vern Kaiser, Deputy Clerk
South Florida Water Management District
Office Box 24680
West Palm Beach, Florida 33416-4680

The "Notice of Rights" addresses the procedures to be followed if you desire a public hearing or other review of the proposed agency action. You are advised, however, to be prepared to defend your position regarding the permit application when it is considered by the Governing Board for final agency action, even if you agree with the staff recommendation, as the Governing Board may take final agency action which differs materially from the proposed agency action.

Please contact the District if you have any questions concerning this matter. If we do not hear from you prior to the date on the "Notice of Rights", we will assume you concur with our recommendations.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a "Notice of Rights" has been mailed to the addressee and the persons listed in the attached distribution list not later than 5:00 p.m. this 28th day of March 1995 in accordance with Section 120.60 (3), Florida Statutes.

Sincerely,

Terrie Bates, Director
Regulation Department

CERTIFIED MAIL #Z 310 460 433
RETURN RECEIPT REQUESTED

Governing Board:
Valerie Boyd, Chairman
Frank Williamson, Jr., Vice Chairman
William E. Graham
William Hammond
Betsy Krant
Richard A. Machek
Eugene K. Pettis
Nathaniel P. Reed
Miriam Singer
Samuel E. Poole III, Executive Director
Michael Slayton, Deputy Executive Director

Mailing Address: P.O. Box 24680, West Palm Beach, FL 33416-4680

South Florida Water Management District

Notice Of Rights

Form [illegible]
Rev. [illegible]

NOTICE OF RIGHTS

Enclosed is a copy of the Staff Review Summary regarding the subject permit application, which is this agency's Notice of Proposed Agency Action.

PETITION FOR FORMAL ADMINISTRATIVE PROCEEDINGS

Any person whose substantial interests are or may be affected by the action which is proposed in the enclosed Notice of Proposed Agency Action/Staff Review Summary, may petition for an administrative hearing in accordance with the requirements of Rule 40E-1.521, Florida Administrative Code, and be filed with (received by) the District Clerk, 3301 Gun Club Road, West Palm Beach, Florida 33406. Petitions for administrative hearing on the above application must be filed within **fourteen (14) days of actual receipt of** the Notice of Proposed Agency Action. Failure to file a petition within this time period shall constitute a waiver of any rights such person may have to request an administrative determination (hearing) under section 120.57, Florida Statutes, concerning the subject permit application. Petitions which are not filed in accordance with the above provisions are subject to dismissal.

FLORIDA LAND AND WATER ADJUDICATORY COMMISSION

A party to the proceeding below may seek review of a Final Order rendered on the permit application before the Land and Water Adjudicatory Commission. Review under section 373.114, Florida Statutes, is initiated by filing a request for review with the Land and Adjudicatory Commission and serving a copy on the Department of Environmental Protection and any person named in the Order within applicable statutory timeframes. This review is appellate in nature and limited to the record below.

DISTRICT COURT OF APPEAL

A party who is adversely affected by final agency action on the permit application is entitled to judicial review in the District Court of Appeal pursuant to section 120.68, Florida Statutes, as provided therein. Review under section 120.68, Florida Statutes, is initiated by filing a Notice of Appeal in the appropriate District Court of Appeal in accordance with Florida Rule of Appellate Procedure 9.110.

CIRCUIT COURT

Section 373.617(2), Florida Statutes, provides:

> Any person substantially affected by a final action of any agency with respect to a permit may seek review within 90 days of the rendering of such decision and request monetary damages and other relief in the circuit court in the judicial circuit in which the affected property is located; however, circuit court review shall be confined solely to determining whether final agency action is an unreasonable exercise of the state's police power constituting a taking with just compensation. Review of final agency action for the purpose of determining whether the action is in accordance with existing statutes or rules and based on competent substantial evidence shall proceed in accordance with Chapter 120.

40E-1.521 Initiation of Formal Proceedings

(1) Initiation of formal proceedings shall be made by filing a petition with the District Clerk within the applicable timeframes set forth in this chapter. The term petition includes any application or other document which expresses a request for formal proceedings.

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

(a) The name and address of the District and the District's file or identification number, if known.

(b) The name and address of the petitioner or petitioners;

(c) An explanation of how each petitioner's substantial interests will be affected by the District's determination;

(d) A statement of when and how petitioner received notice of agency action or notice of proposed agency action;

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

(f) A concise statement of the ultimate facts which petitioner believes entitle petitioner to the relief sought as well as the rules and statutes which support petitioner's claim for relief;

(g) A demand for the relief to which the petitioner deems himself entitled; and

(h) Other information which the petitioner contends is material.

(3) Upon receipt of a petition for formal proceedings, the Office of Counsel shall review the petition for compliance with subsection (2). The Board shall accept those petitions in substantial compliance therewith, which have been timely filed, which establish that the petitioner is a substantially affected party, and which state a dispute which is within the jurisdiction of the District to resolve. If accepted, the Board shall designate the presiding officer of the administrative hearing. The District shall promptly give written notice to all parties of the action taken on the petition, and shall state with particularity its reasons therefor.

(7) If the Board designates a Hearing Officer assigned by the Division of Administrative Hearings as the presiding officer, the District Clerk shall forward the petition and all relevant materials filed with the District to the Division of Administrative Hearings, and shall notify all parties of its action.

Specific Authority 373.044, 373.113 F.S.
Law Implemented 120.53(1), 120.57 F.S.
History --- New 9-3-81, Amended 5-11-93.
Formerly 16K-1.09(1), 16K-1.112(1) through (3), 16K-1.12

DRAFT
Subject to Governing Board Approval

LAST DATE FOR GOVERNING BOARD ACTION:
APRIL 13, 1995

SURFACE WATER MANAGEMENT STAFF REVIEW SUMMARY

I. ADMINISTRATIVE

APPLICATION NUMBER: 941110-17

PROJECT NAME: SR 826 PALMETTO EXPRESSWAY

LOCATION: DADE COUNTY
S2,35/T55,54S/R40E

APPLICANT'S NAME: FLORIDA DEPARTMENT OF TRANSPORTATION

OWNERS NAME AND ADDRESS: FLORIDA DEPARTMENT OF TRANSPORTATION
1000 NW 111TH AVENUE
MIAMI, FL 33172

DEVELOPER: FLORIDA DEPARTMENT OF TRANSPORTATION

ENGINEER: HOWARD NEEDLES TAMMEN

II. PROJECT DESCRIPTION

PROJECT AREA: 126.31 acres **DRAINAGE AREA:** 126.31 acres

DISTRICT DRAINAGE BASIN: C-2 (SNAPPER CREEK)

RECEIVING BODY: C-2 (SNAPPER CREEK) CANAL

CLASSIFICATION: CLASS III

SPECIAL DRAINAGE DISTRICT: METRO DADE ERM (DERM)

PURPOSE:

This application is a request for Construction and Operation of a Surface Water Management system to serve the proposed widening of State Road 826 Palmetto Expressway from U.S. 1 (S.R. 5) to north of Sunset Drive. Staff recommends approval with conditions.

EXISTING FACILITIES:

The Palmetto Expressway was originally constructed in 1957 as a 4 lane divided highway. Most of the expressway has been widened since the original construction. This 2.7 mile segement proposed for widening at this time is one of the last remaining 4-lane portions of the highway.

PROPOSED FACILITIES:

The project involves the resurfacing and widening of the existing 4-lane divided roadway into a 6 lane divided urban roadway . The project limits are from US 1 to Sunset Drive approximately 2.7 miles or 126.31 acres. The project involves upgrading the existing surface water management system to accomodate additional storm water discharges from the increased impervious surface areas and interchange improvements associated with the project.

For purposes of surface water management system design, the project has been divided into seven basins.

Basin No. 1 (3.65 ac)

The existing drainage system serving the Basin 1 area will not be significantly modified. A total of 0.01 acres of additional impervious area is proposed in this basin.

Basin No. 2/3 (4.99 ac)

The surface water management system for Basin 2 and 3 will consist of inlets, culverts and swales that will direct runoff into 0.72 acres of dry retention area. The system has been designed to retain the 10-year 24-hour storm event within the ponds prior to overflow into the existing U.S. 1 system.

Basin No. 4 (0.37 ac)

No significant changes to this basin are proposed as only 0.08 acres of additional impervious area is proposed.

Basin No. 5 (34.21 ac)

The surface water management system for this basin will consist of inlets, culverts and swales to direct runoff into 4.58 acres of dry retention area. The system has been designed to retain the 10-year 24-hour storm prior to overflow into the Snapper Creek Canal via an emergency overflow structure located at the north end of Pond No. 7.

Basin No. 5-A (4.73 ac)

The surface water management system for this basin will consist of inlets and

culverts to direct runoff into a proposed 0.43 acre dry detention area. Overflow from the dry retention area will be into the Snapper Creek Canal through a control structure once the water quality treatment requirements are met.

Basin No. 6 (9.86 ac)

The surface water management system consists of inlets and culverts directing runoff into roadside ditches (1.01 acres) which will contain ditch blocks to provide the water quality retention requirements. Overflow from the ditch system is through a control structure into the Snapper Creek Canal.

Basin No. 7 (68.5 ac)

The surface water management system consists of inlets, culverts and roadside ditches that will direct runoff into 7.95 acres of dry retention area. Overflow from the retention area is through a control structure into the Snapper Creek Canal.

BASIN INFORMATION:

Basin	Area Acres	WSWT Elev (ft, NGVD)	Normal/Dry Ctrl Elev (ft, NGVD)	Method of Determination
SITE	126.31	4.00	4	WET SEASON WTR TABLE CONTOUR MAP

III. PROJECT EVALUATION

WATER QUALITY:

Retention in excess of 2.5 inches times the percent impervious is being provided within 14.69 acres of dry retention area.

Basin	Treatment Method		Vol Req'd. (ac-ft)	Vol Prov'd (ac-ft)
SITE	14.69 acres	DRY RETENTION	6.20	42.70

ROAD DESIGN:

As shown in the following table, minimum road center lines have been set at or above the calculated design storm flood elevation.
Design Storm Freq: 10YR-1DAY Design Rainfall: 7.50 inches

Basin	Flood Elevation (ft., NGVD)	Minimum Centerline Elevation (ft, NGVD)
SITE	6.51	8.97

IV. ENVIRONMENTAL ASSESSMENT

PROJECT SITE DESCRIPTION:

The project involves improvements to an existing expressway. A portion of the project passes over the Snapper Creek, a maintained water body. The applicant has applied for a Wetland Resource Management to address the Snapper Creek crossing.

EXISTING ON SITE WETLAND COMMUNITIES AND OTHER SURFACE WATERS:

ID NO	TOTAL ACREAGE	BIOLOGICAL CONDITION	COMMUNITY TYPE	COMMUNITY ACREAGE
02	.01	POOR	CANALS AND LOCKS	.01

TOTAL ON SITE WETLAND/SURFACE WATER ACREAGE: .01

EXISTING ON SITE UPLAND COMMUNITIES:

ID NO	TOTAL ACREAGE	BIOLOGICAL CONDITION	COMMUNITY TYPE	COMMUNITY ACREAGE
01	126.30	N/A	TRANSPORTATION	126.30

TOTAL ON SITE UPLAND ACREAGE: 126.30

ENDANGERED, THREATENED & SPECIES OF SPECIAL CONCERN SUMMARY:

The project site does not contain preferred habitat for endangered, threatened, or species of special concern. No endangered/threatened or species of special concern were observed on site, and potential for impacts to wetland dependent endangered/threatened or species of special concern is considered minimal. This permit does not relieve the applicant from complying with all applicable rules and any other agencies' requirements if in the future, endangered/threatened or species of special concern are discovered on

the site.

ENVIRONMENTAL SUMMARY:

The project involves improvements to an existing expressway. No wetlands or other environmentally sensitive areas are located within the project boundary. Adverse impacts are not anticipated with the development of this project.

SYSTEM OPERATION:

Florida Department Of Transportation

PROPOSED LAND USE(S):

Highway

WATER USE PERMIT STATUS:

A Water Use permit is not required for this project at this time.

POTABLE WATER SUPPLIER:

Metro Dade Water Utilities

WASTE WATER SYSTEM/SUPPLIER:

Metro Dade Water Utilities

DRI STATUS:

This project is not a DRI.

SAVE OUR RIVERS:

The project is not within or adjacent to lands under consideration by the Save Our Rivers program.

SWIM BASIN:

This project is not within nor does it discharge directly to a designated SWIM basin.

RIGHT-OF-WAY PERMIT STATUS:

A Right-of-Way Permit application is currently being processed for this project.

ENFORCEMENT ACTIVITY:

There has been no enforcement activity associated with this application.

THIRD PARTY INTEREST:

No third party has contacted the District with concerns about this application.

WELL FIELD ZONE OF INFLUENCE:

The project is not located within the zone of influence of a wellfield.

ADDITIONAL COMMENTS:

A Wetland Reource Permit Application No. 941110-3-D is currently being processed for this project.

PRIMARY ISSUES RESOLVED:

No primary issues.

V. APPLICABLE LAND AREA

The TOTAL PROJECT and THIS PHASE land use table includes the total of the seven (7) systems (onsite roadway basins). The WTRM (Water Management Area) for this project is provided by a total of 14.69 acres of dry retention areas.

PROJECT

	TOTAL PROJECT	PREVIOUSLY PERMITTED	THIS PHASE	
TOTAL ACRES	126.31		126.31	acres
WTRM ACREAGE	14.69		14.69	acres
PERVIOUS	52.14		52.14	acres
IMPERVIOUS	59.48		59.48	acres

VI. STAFF RECOMMENDATION

The Staff recommends that the following be issued:

Authorization for Construction and Operation of a Surface Water Management System to serve a 126.31 acre highway widening project.

Based on the information provided, District rules have been adhered to.

Staff recommendation is for approval subject to the attached Special Conditions.

VII. STAFF REVIEW

AREA MANAGER:

3/24/95

Anthony M. Waterhouse, P.E.

DRAFT
Subject to Governing Board Approval

NATURAL RESOURCE MANAGEMENT DIVISION APPROVAL

APPLICATION REVIEWER

RONALD PEEKSTOK

SUPERVISING PROFESSIONAL

Robert M. Brown

DIVISION DIRECTOR:

Robert G. Robbins

DATE: 3/9/95

SURFACE WATER MANAGEMENT DIVISION APPROVAL

APPLICATION REVIEWER

Kenneth W. Tarver

SUPERVISING PROFESSIONAL

Carlos A. De Rojas, P.E.

LIMITING CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SPECIAL CONDITIONS

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

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

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

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

5 . OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM SHALL BE THE RESPONSIBILITY OF FLORIDA DEPARTMENT OF TRANSPORTATION.

6 . THE SFWMD RESERVES THE RIGHT TO REQUIRE REMEDIAL MEASURES TO BE TAKEN BY THE PERMITTEE IF WETLAND AND/OR UPLAND MONITORING OR OTHER INFORMATION DEMONSTRATES THAT ADVERSE IMPACTS TO PROTECTED, CONSERVED, INCORPORATED OR MITIGATED WETLANDS OR UPLANDS HAVE OCCURRED DUE TO PROJECT RELATED ACTIVITIES.

7 . ANY FUTURE CHANGES IN LAND USE OR TREATMENT OF WETLANDS AND/OR UPLAND BUFFER/COMPENSATION AREAS MAY REQUIRE A SURFACE WATER MANAGEMENT PERMIT MODIFICATION AND ADDITIONAL ENVIRONMENTAL REVIEW BY DISTRICT STAFF. PRIOR TO THE PERMITTEE INSTITUTING ANY FUTURE CHANGES NOT AUTHORIZED BY THIS PERMIT, THE PERMITTEE SHALL NOTIFY THE SFWMD OF SUCH INTENTIONS FOR A DETERMINATION OF ANY NECESSARY PERMIT MODIFICATIONS.

8 . THE PERMITTEE SHALL ENSURE THAT ALL CONSTRUCTION ACTIVITIES IN OPEN WATER WILL CEASE UPON SIGHTINGS OF MANATEES WITHIN 200 YARDS OF THE PROJECT AREA. CONSTRUCTION ACTIVITIES SHALL NOT RESUME UNTIL THE MANATEES HAVE DEPARTED THE PROJECT AREA.

9 . THE PERMITTEE SHALL ENSURE THAT THE CONTRACTOR INSTRUCTS ALL PERSONNEL ASSOCIATED WITH THE PROJECT OF THE PRESENCE OF MANATEES AND THE NEED TO AVOID COLLISIONS WITH MANATEES. THE PERMITTEE AND/OR CONTRACTOR MAY BE HELD RESPONSIBLE FOR ANY MANATEE HARMED, HARASSED OR KILLED AS A RESULT OF ANY PERMITTED ACTIVITY.

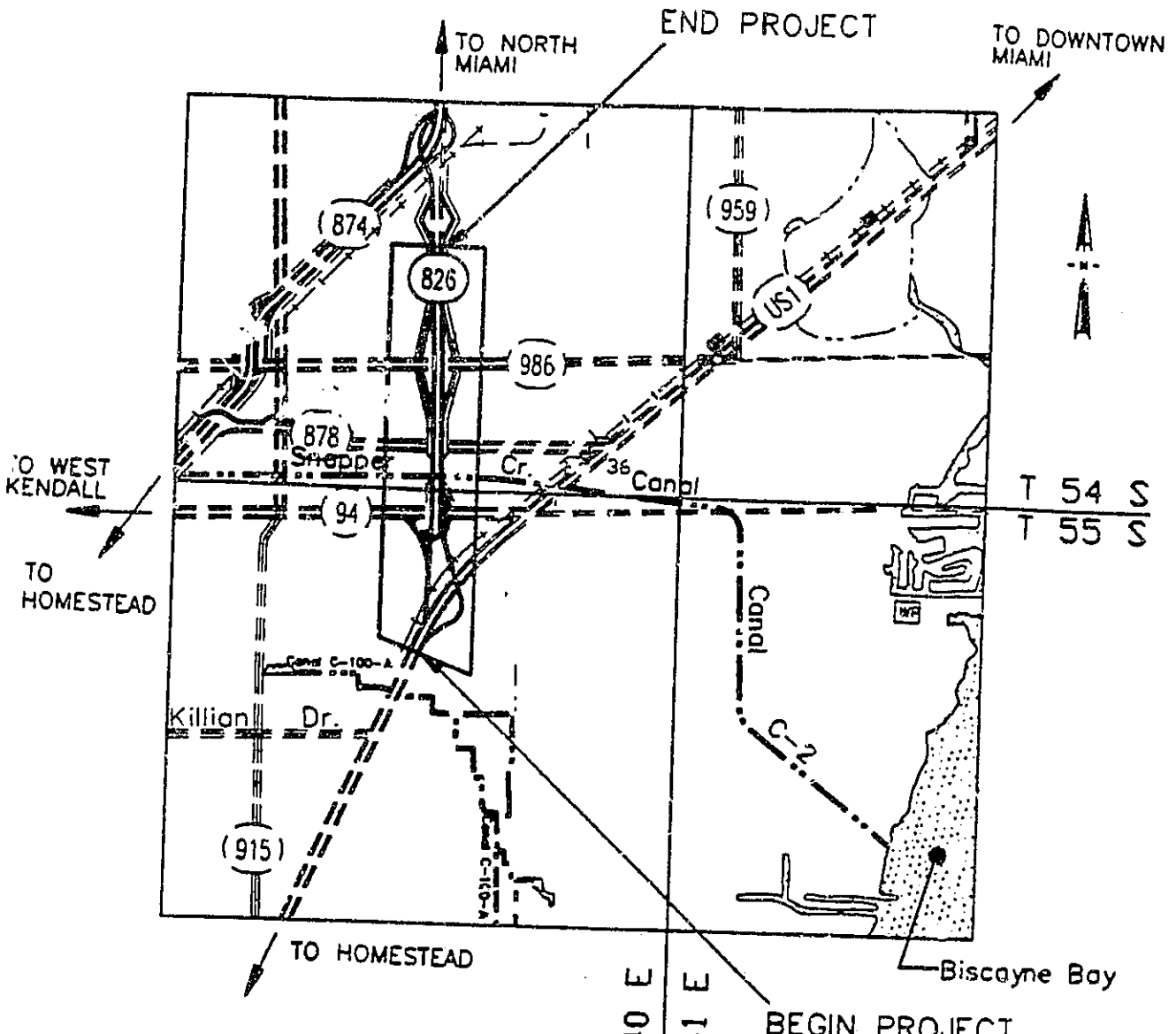
10. THE PERMITTEE SHALL ENSURE THAT A MINIMUM OF ONE PERSON WILL BE DESIGNATED AS A MANATEE OBSERVER WHEN WORK IS BEING CONDUCTED. THIS INDIVIDUAL(S) SHALL HAVE EXPERIENCE IN MANATEE OBSERVATION, AND WILL BE EQUIPPED WITH POLARIZED SUNGLASSES TO AID IN OBSERVATION.

11. PRIOR TO ANY IN-WATER WORK CONDUCTED AT NIGHT, THE PERMITTEE SHALL PROVIDE

FLOOD LIGHTING TO THE AREA TO MAXIMIZE THE OPPORTUNITY TO OBSERVE A MANATEE.

12. ANY COLLISION WITH A MANATEE SHALL BE REPORTED IMMEDIATELY ON THE "MANATEE HOTLINE" (1-800-791-2580).

13. FOLLOWING THE PROJECT COMPLETION, A REPORT SUMMARIZING THE ABOVE INCIDENTS AND SIGHTINGS SHALL BE SUBMITTED TO THE FDEP MARINE RECOVERY PROGRAM (100 EIGHTH AVENUE S.E.. ST. PETERSBURG, FLORIDA 33701-2580) AND TO THE U.S. FISH AND WILDLIFE SERVICE (2747 ART MUSEUM DRIVE, JACKSONVILLE, FLORIDA 32207).



ORIGINAL SUBMITTAL

NOV 10 1994

STATE ROAD NO. 826 – Section 1	
STATE PROJ. NO. 87260-3512	
VICINITY PLAN	
APPLICATION BY: Florida Department of Transportation	
HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ENGINEERS PLANNERS	SCALE: N.T.S.
DATE: 7/26/94	SHEET No. 1 OF 17

EXH. 1

FILE 14633P03.wk1

PROJECT: PALMETTO EXPRESSWAY SECTION 1 (SR-A[illegible])
FROM US-1 TO S/o OF MILLER DR.
MIAMI, DADE COUNTY, FLORIDA
HNTB JOB: 14633-21-13
DESCRIPTION: SR/A DRAINAGE DESIGN - POND 3 (EASTBOUND)

STAGE (FT)	SURFACE AREA (FT2)	SURFACE AREA (AC)	STORAGE VOLUME (FT3)	STORAGE VOLUME (AC-FT)	CUMM STORAGE (FT3)	CUMM STORAGE (AC-FT)
4.5	9,649	0.222	0	0.00	0	0.00
5.0	11,992	0.275	5,410	0.12	5,410	0.12
6.0	19,530	0.448	15,761	0.36	21,171	0.49
7.0	24,472	0.562	22,001	0.51	43,172	0.99
8.0	29,412	0.675	26,942	0.62	70,114	1.61
9.0	36,015	0.827	32,714	0.75	102,828	2.36
10.0	41,038	0.942	38,527	0.88	141,354	3.25

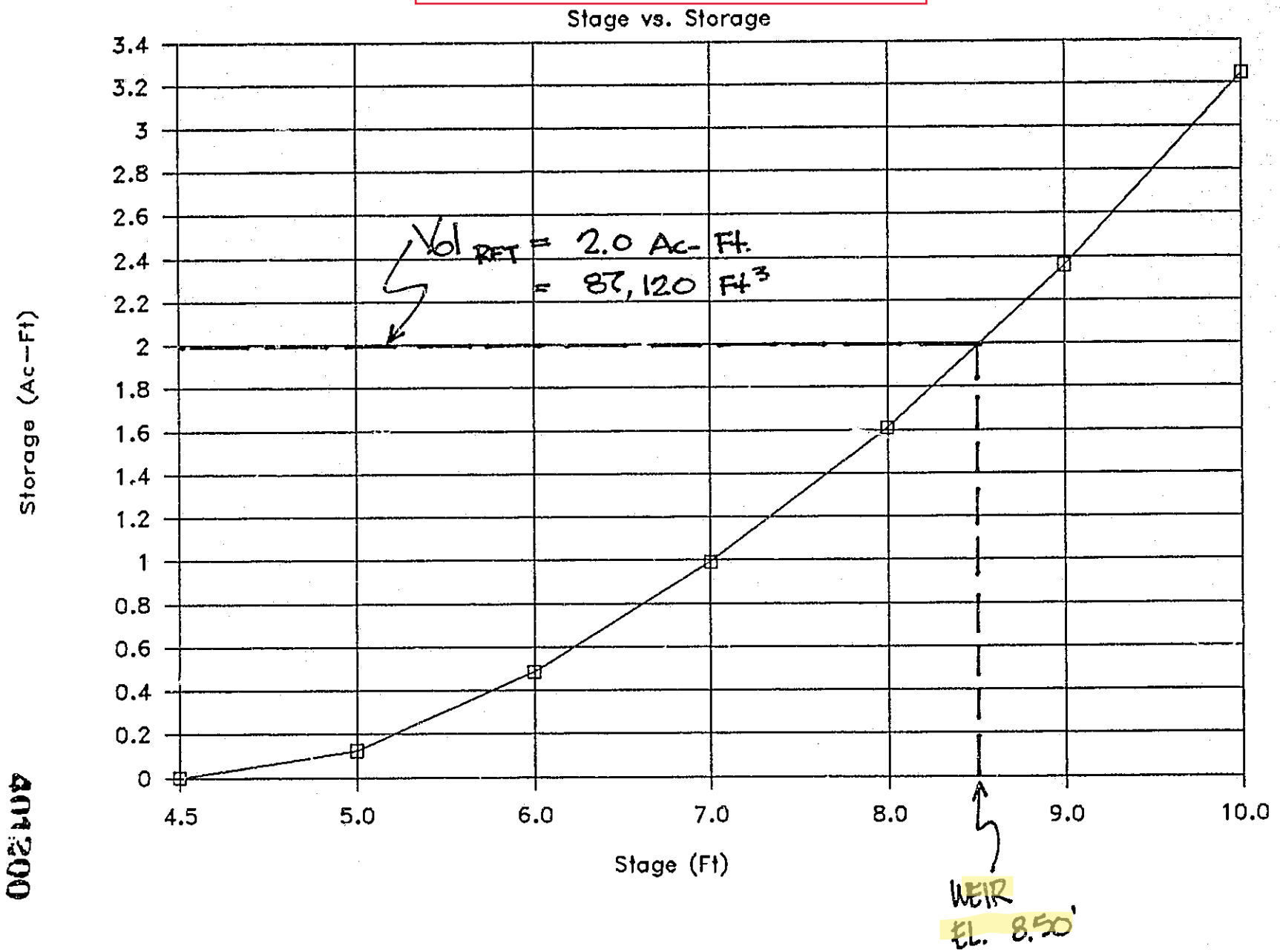
Infiltration Test with Concentric Rings
Test No. DR-2
Location: STA 47+50, 33' E/P Off Ramp Kendall Dr./Sr 826

Average Flow =	0.05 gpm	=	0.40 Ft 3/hr
Inside Ring Dia =	12 in		
Ring Area =	0.79 Ft 2		
Factor of Safety =	2		
Flow =	0.26 Ft/hr		

STAGE (FT)	SURFACE AREA (FT2)		INFILTRATION RATE (cfs)
4.5	9649		0.684
5.0	11992		0.851
6.0	19530		1.385
7.0	24472		1.736
8.0	29412		2.086
9.0	36015		2.554
10.0	41038		2.911

401199

Pond 3 (Basin 5)



4072.00

FILE 14633P1a.wk1

PALMETTO EXPRESSWAY SECTION 1 05-APR-93
FROM US-1 TO So. OF MILLER DR
MIAMI-DADE COUNTY, FLORIDA
HNTB JOB 14633 21 13
DESCRIPTION: SCS DRAINAGE DESIGN - POND 4 (AREA 3)

STAGE (FT)	SURFACE AREA (FT2)	SURFACE AREA (AC)	STORAGE VOLUME (FT3)	STORAGE VOLUME (AC-FT)	CUMM STORAGE (FT3)	CUMM STORAGE (AC-FT)
7.0	16,100	0.370	0	0.00	0	0.00
8.0	18,850	0.433	17,475	0.40	17,475	0.40
9.0	21,275	0.488	20,063	0.46	37,538	0.86
10.0	23,890	0.548	22,583	0.52	60,120	1.38

NAVD88 = NGVD - 1.55'

Infiltration Test with Concentric Rings
Test No. DR-1
Location: STA 45+00, 50' West of E/P SR-826

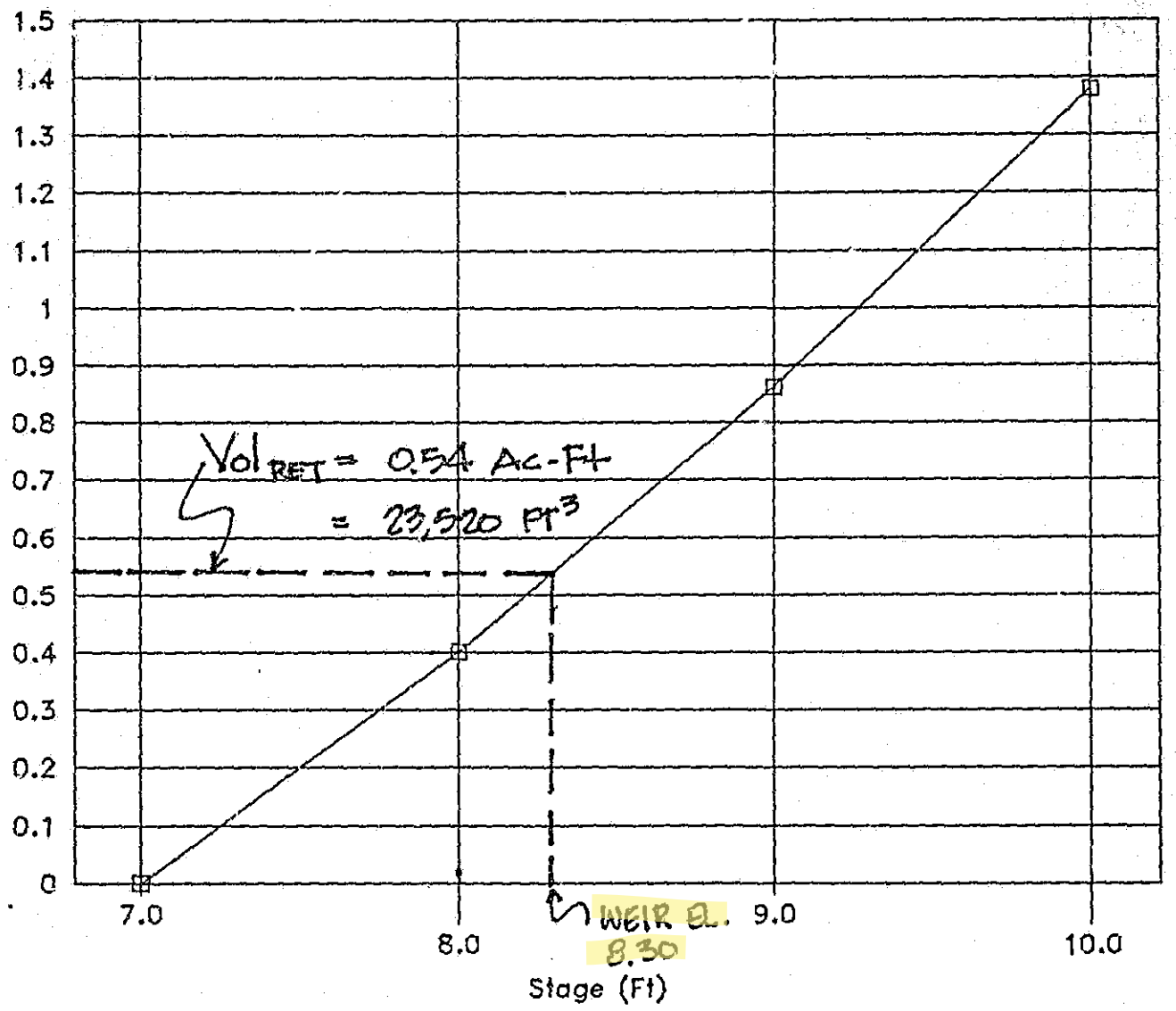
Average Flow =	0.05 gpm	=	0.40 Ft 3/hr
Ring Diameter =	12 in		
Ring Area =	0.79 Ft 2		
Factor of Safety =	2		
Flow =	0.25 Ft/hr		

STAGE (FT)	SURFACE AREA (FT2)		INFILTRATION RATE (cfs)
7.0	16,100		1.142
8.0	18,850		1.337
9.0	21,275		1.509
10.0	23,890		1.694

401202

Pond 4–A (Basin 5)

Stage vs. Storage



FILE 14633P4b.wk1

PROJECT: PALMETTO EXPRESSWAY SECTION 1 — 05-Apr-23
FROM US-1 TO So. OF MILLER DR.
MIAMI, DADE COUNTY, FLORIDA
HNTB JOB: 14633-21-13
DESCRIPTION: SPX DRAINAGE DESIGN — POND 4 - S (BASIN S1)

STAGE (FT)	SURFACE AREA (FT2)	SURFACE AREA (AC)	STORAGE VOLUME (FT3)	STORAGE VOLUME (AC-FT)	CUMM STORAGE (FT3)	CUMM STORAGE (AC-FT)
7.0	24,895	0.572	0	0.00	0	0.00
8.0	29,097	0.668	26,996	0.62	26,996	0.62
9.0	33,298	0.764	31,198	0.72	58,194	1.34
10.0	37,500	0.861	35,399	0.81	93,593	2.15

Infiltration Test with Concentric Rings
Test No. DR-1
Location: STA 45+00, 50' West of E/P SR-826

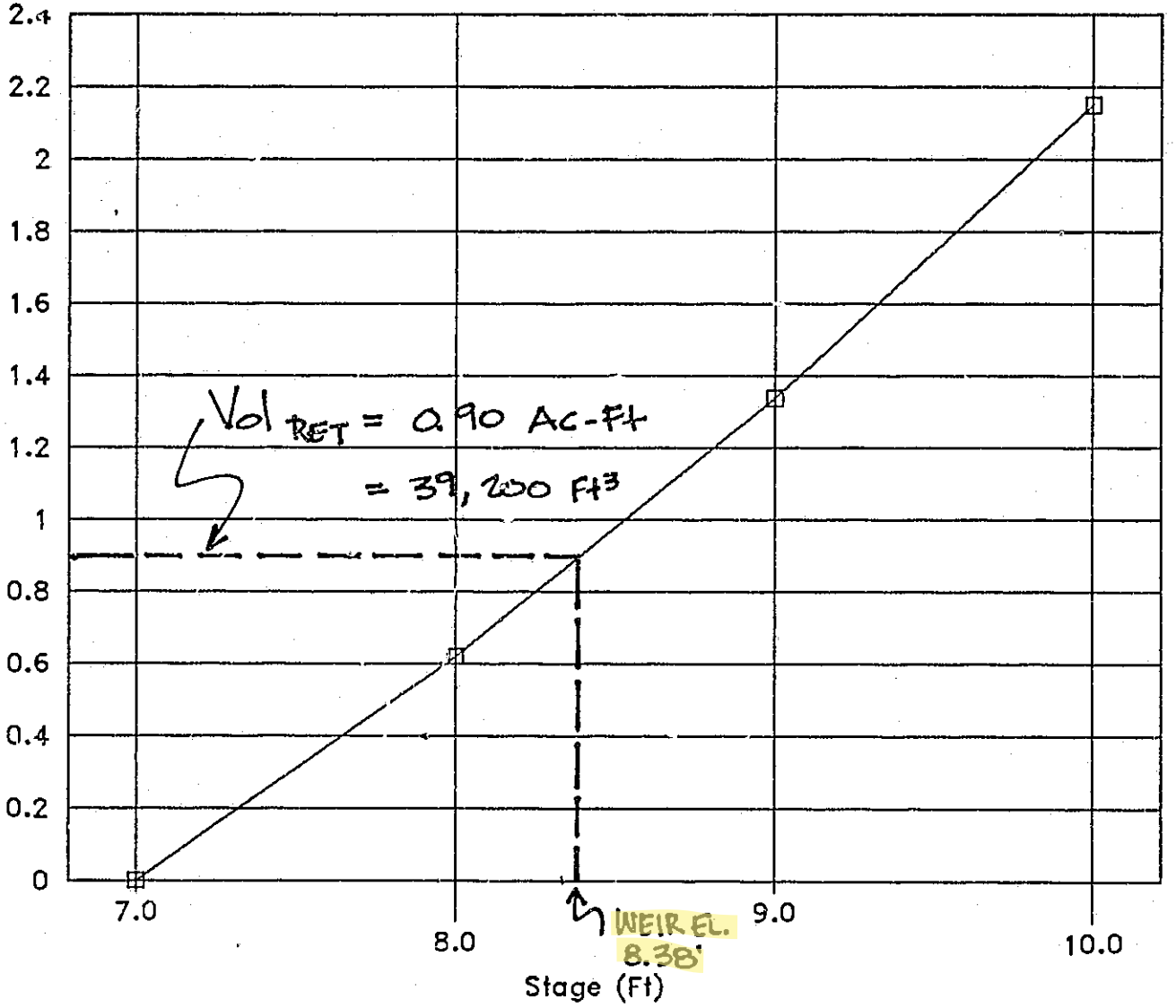
Average Flow =	0.05 gpm	=	0.40 Ft 3/hr
Ring Diameter =	12 in		
Ring Area =	0.79 Ft 2		
Factor of Safety =	2		
Flow =	0.26 Ft/hr		

STAGE (FT)	SURFACE AREA (FT2)		INFILTRATION RATE (cfs)
7.0	24,895		1.766
8.0	29,097		2.064
9.0	33,298		2.362
10.0	37,500		2.660

401295

Pond 4-B (Basin 5)

Stage vs. Storage



FILE 14633P05.wk1

PROJECT: PALMETTO EXPRESSWAY SECTION 1 — 17-Aug-93
FROM US-1 TO So. OF MILLER DR.
MIAMI, DADE COUNTY, FLORIDA
HNTB JOB: 14633-21-13
DESCRIPTION: 60% DRAINAGE DESIGN - POND 5 (BASIN 7)

STAGE (FT)	SURFACE AREA (FT2)	SURFACE AREA (AC)	STORAGE VOLUME (FT3)	STORAGE VOLUME (AC-FT)	CUMM STORAGE (FT3)	CUMM STORAGE (AC-FT)
4.5	65,600	1.506	0	0.000	0	0.00
5.0	67,677	1.554	33,319	0.765	33,319	0.76
6.0	70,970	1.629	69,324	1.591	102,643	2.36
7.0	74,925	1.720	72,948	1.675	175,590	4.03
8.0	78,680	1.806	76,803	1.763	252,393	5.79
8.5	81,500	1.871	40,045	0.919	292,438	6.71
9.0	83,025	1.906	41,131	0.944	333,569	7.66

Infiltration Test with Concentric Rings
Test No. NONE

Average Flow (*) =	0.02 gpm	=	0.16 Ft 3/hr
Inside Ring Dia =	12 in		
Ring Area =	0.79 Ft 2		
Factor of Safety =	2		
Flow =	0.10 Ft/hr		

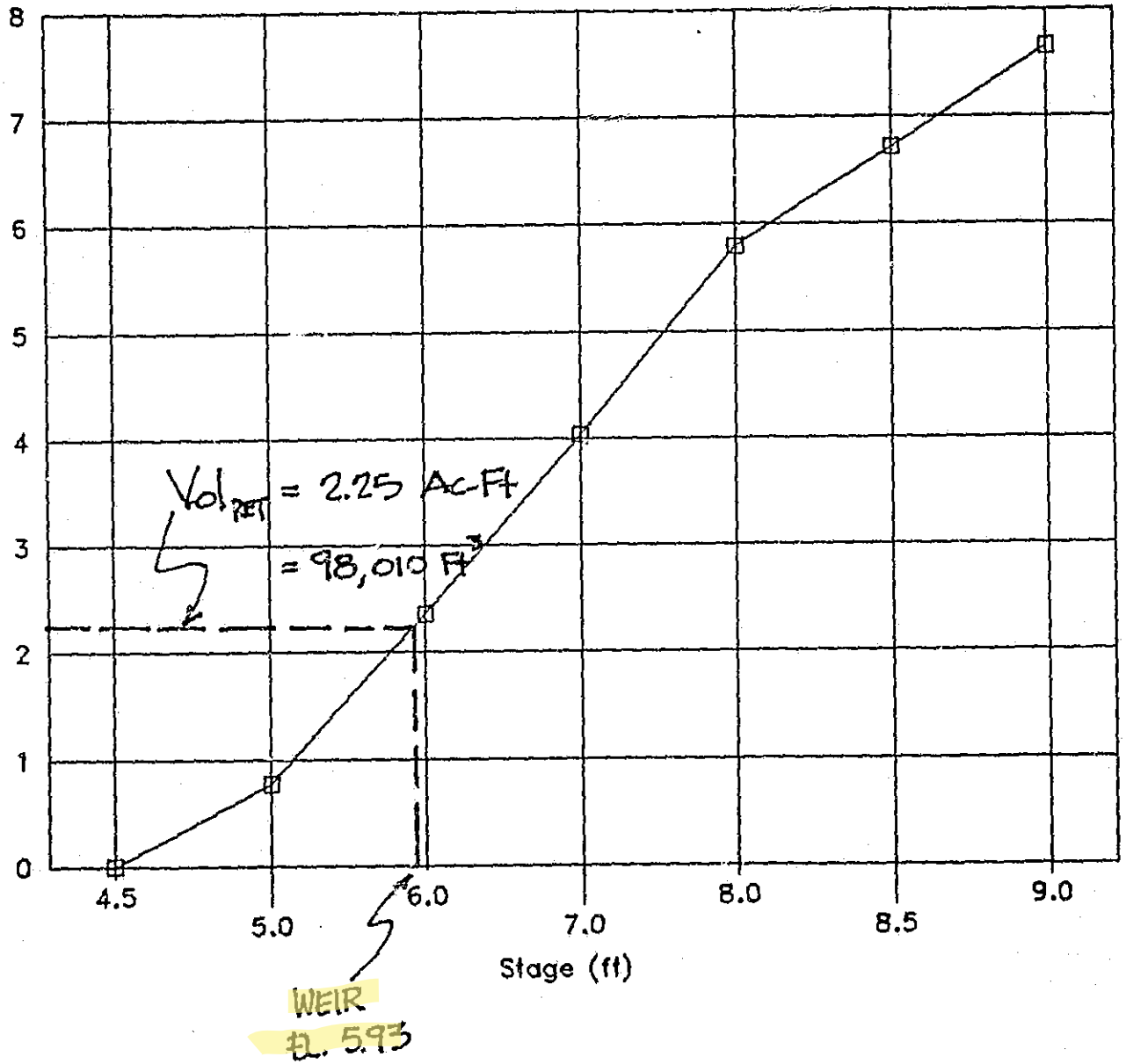
(*) Assumed

STAGE (FT)	SURFACE AREA (FT2)	INFILTRATION RATE (cfs)
4.5	65,600	1.861
5.0	67,677	1.920
6.0	70,970	2.013
7.0	74,925	2.126
8.0	78,680	2.232
8.5	81,500	2.312
9.0	83,025	2.355

A-1208

POND 5 (Basin 5)

Stage vs. Storage



FILE 14633P06.wk1

PROJECT: PALMETTO EXPRESSWAY SECTION 1 — 10-Feb-93
FROM US-1 TO So. OF MILLER DR.
MIAMI, DADE COUNTY, FLORIDA
HNTB JOB: 14633-21-19
DESCRIPTION: 60% DRAINAGE DESIGN — POND 6 (BASIN 5-A)

STAGE (FT)	SURFACE AREA (FT2)	SURFACE AREA (AC)	STORAGE VOLUME (FT3)	STORAGE VOLUME (AC-FT)	CUMM STORAGE (FT3)	CUMM STORAGE (AC-FT)
4.0	13253	0.304	0	0.00	0	0
4.5	14496	0.333	6937	0.16	6937	0.16
5.0	15835	0.364	7583	0.17	14520	0.33
6.0	17119	0.393	16477	0.38	30997	0.71
7.0	19410	0.446	18265	0.42	49262	1.13
8.0	22059	0.506	20735	0.48	69996	1.61

Infiltration Test with Concentric Rings
Test No. PIT-1
Location: STA 53+00, 145' LT B/L SR-826

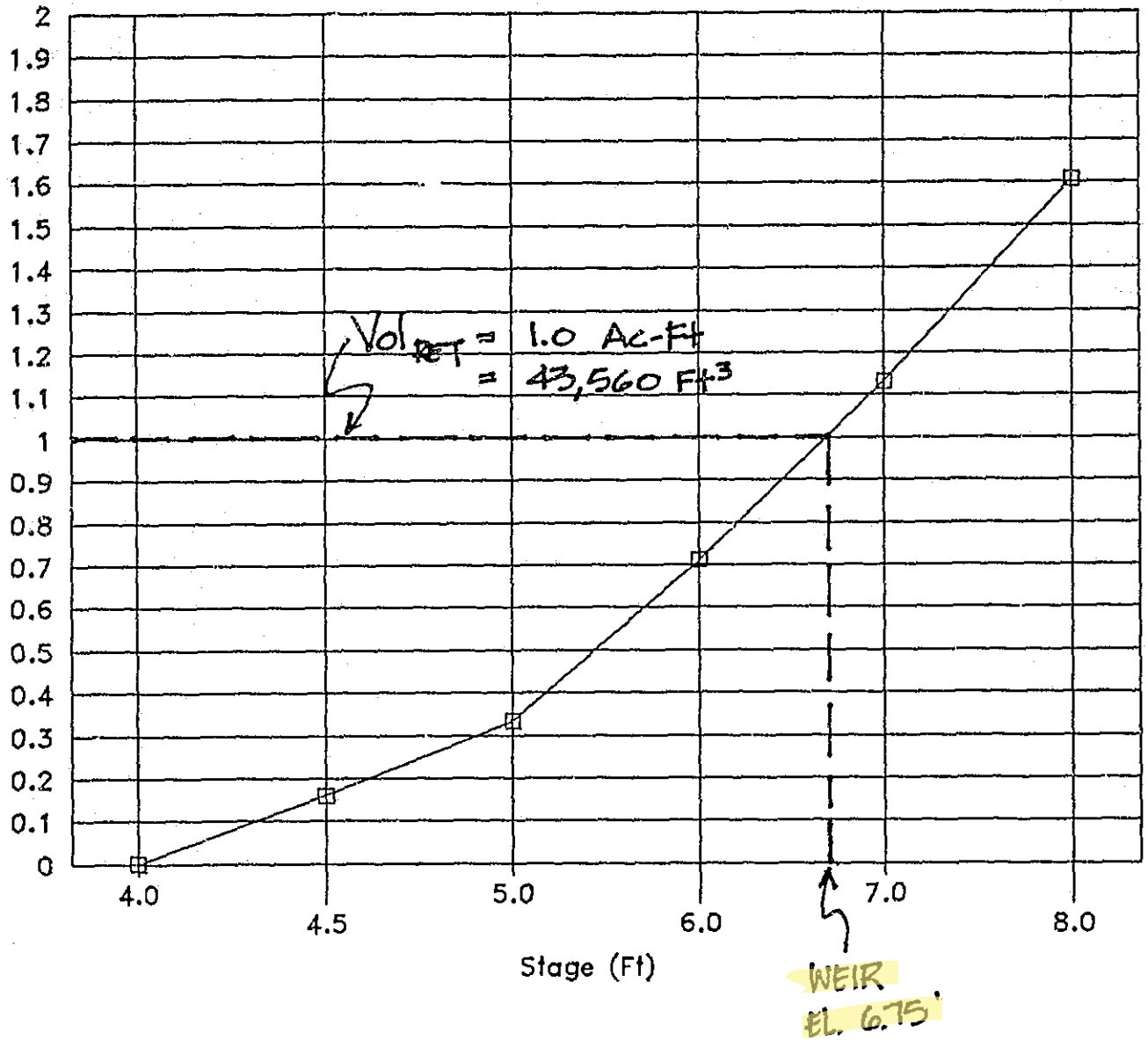
Average Flow =	0.05 gpm	=	0.40 Ft 3/hr
Ring Diameter =	12 in		
Ring Area =	0.79 Ft 2		
Factor of Safety =	2		
Flow =	0.26 Ft/hr		

STAGE (FT)	SURFACE AREA (FT2)		PERCOLATION RATE (cfs)
4.0	13253		0.940
4.5	14496		1.028
5.0	15835		1.123
6.0	17119		1.214
7.0	19410		1.377
8.0	22059		1.565

401218

Pond 6 (Basin 5-A)

Stage vs. Storage



4072749

FILE 14633P07.wk1

PROJECT: PALMETTO EXPRESSWAY SECTION 1 05-APR-94
FROM US-1 TO So. OF MILLER DR.
MIAMI, DADE COUNTY, FLORIDA.
HNTB JOB: 14633-2I-13
DESCRIPTION: SWA DRAINAGE DESIGN - POND 7 (BASIN 5)

STAGE (FT)	SURFACE AREA (FT2)	SURFACE AREA (AC)	STORAGE VOLUME (FT3)	STORAGE VOLUME (AC-FT)	CUMM STORAGE (FT3)	CUMM STORAGE (AC-FT)
4.0	40,378	0.927	0	0.00	0	0.00
5.0	45,620	1.047	42,999	0.99	42,999	0.99
6.0	50,860	1.168	48,240	1.11	91,239	2.09
7.0	56,100	1.288	53,480	1.23	144,719	3.32
8.0	62,268	1.429	59,184	1.36	203,903	4.68

Infiltration Test with Concentric Rings
Test No. DR-2
Location: STA 54+00, 35' East E/P of Ramp SR-826

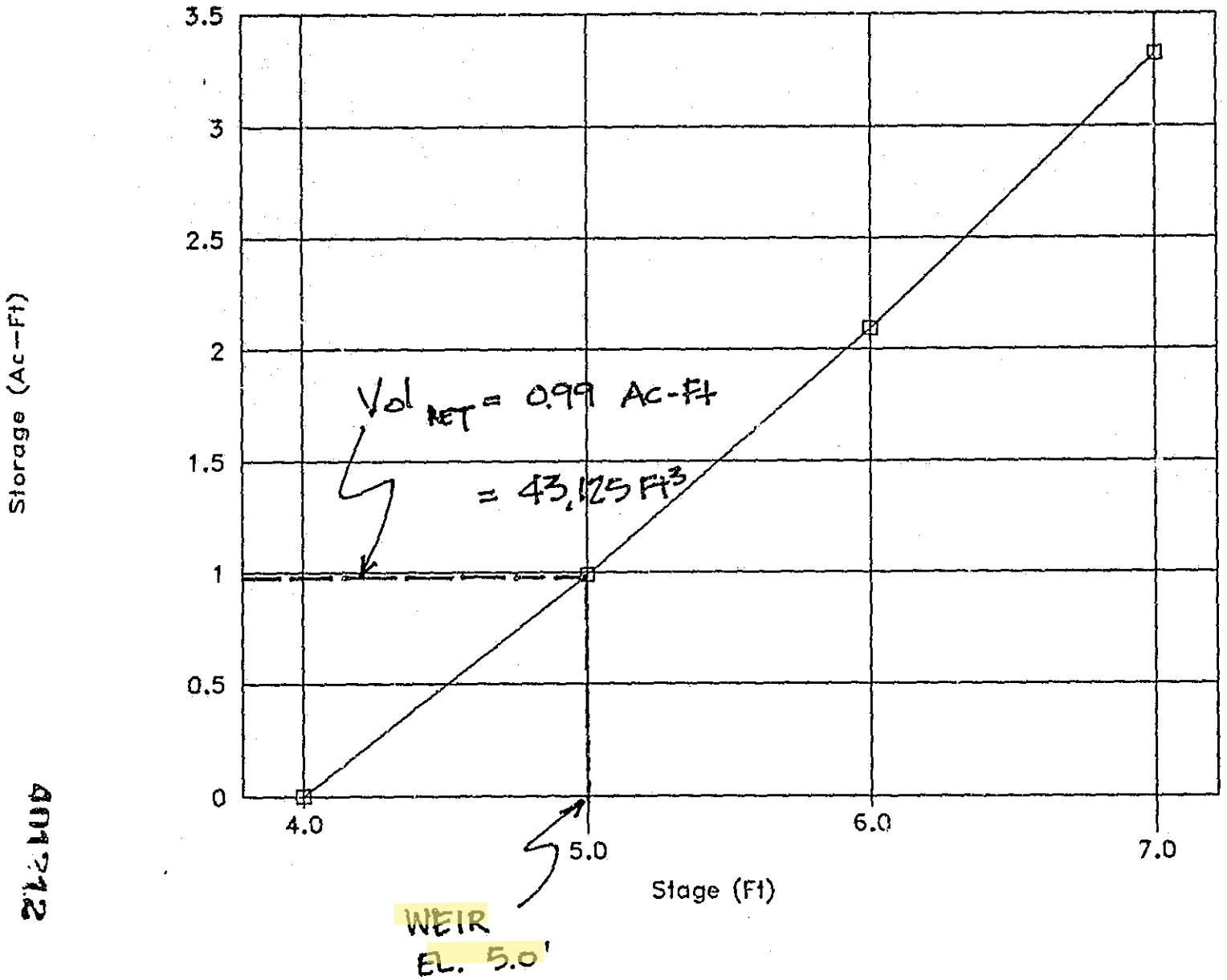
Average Flow =	0.05 gpm	=	0.40 Ft 3/hr
Inside Ring Dia =	12 in		
Ring Area =	0.79 Ft 2		
Factor of Safety =	2		
Flow =	0.26 Ft/hr		

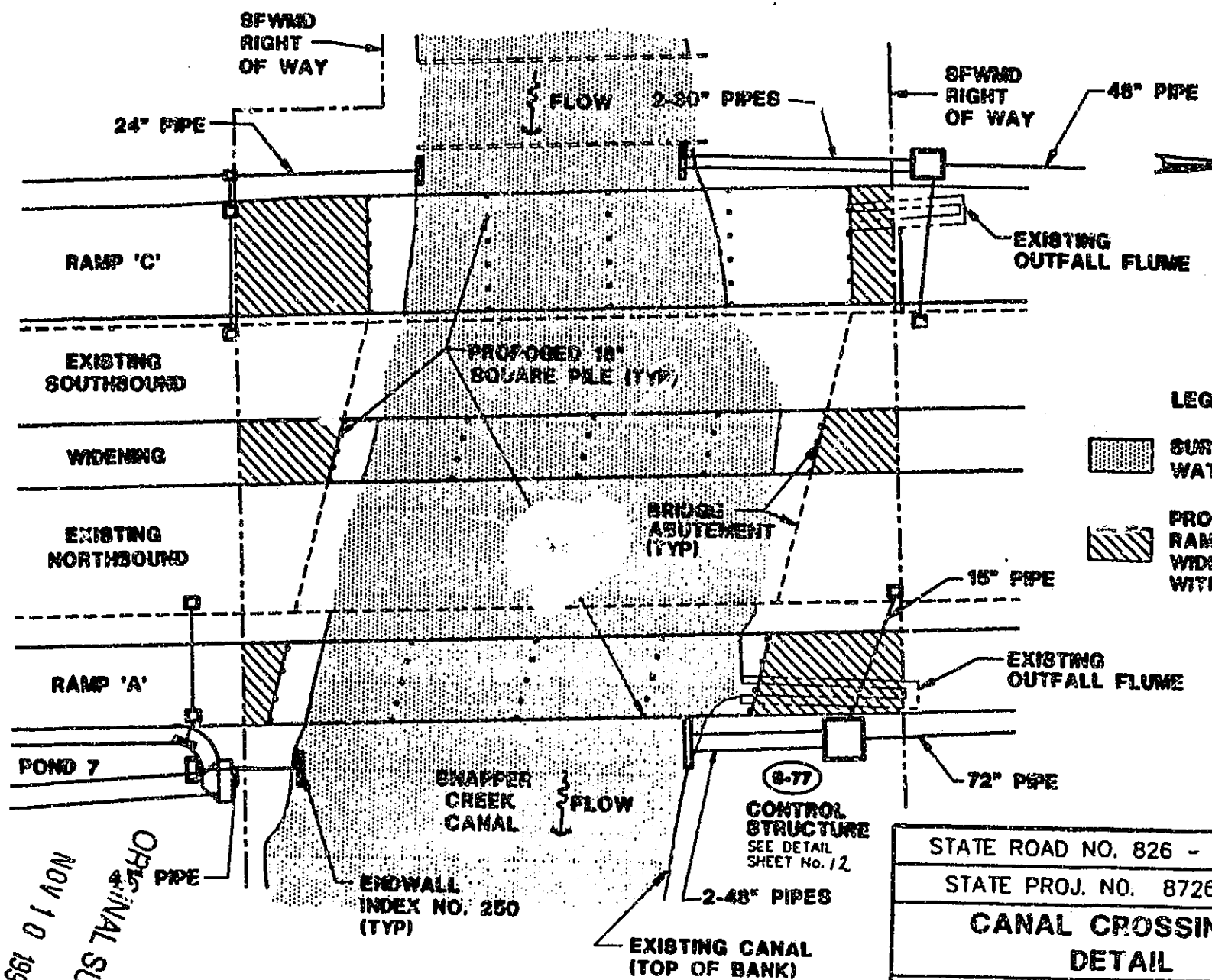
STAGE (FT)	SURFACE AREA (FT2)		INFILTRATION RATE (cfs)
4.0	40,378		2.864
5.0	45,620		3.236
6.0	50,860		3.607
7.0	56,100		3.979
8.0	62,268		4.416

401211

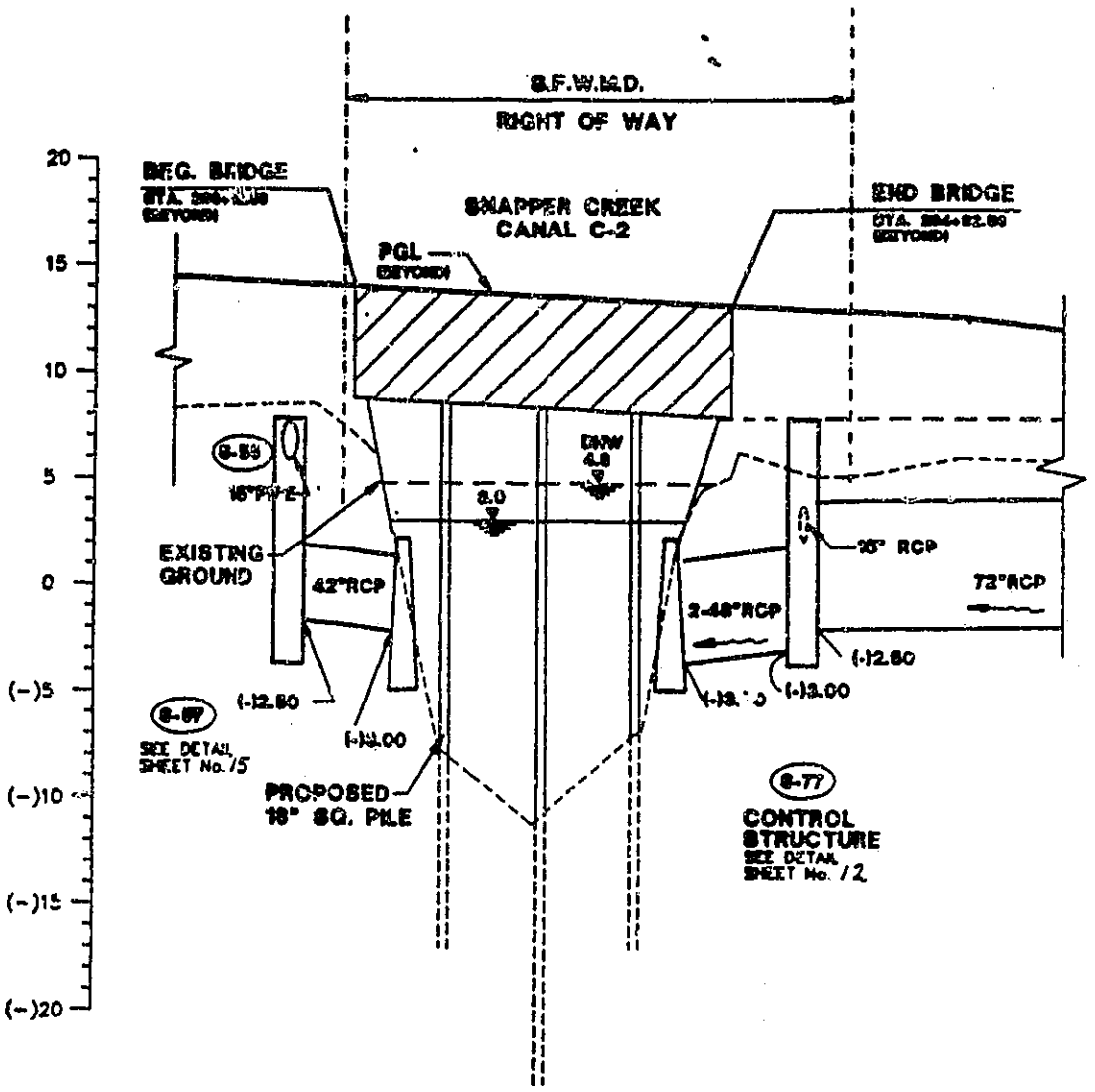
Pond 7 (Basin 5)

Stage vs. Storage





STATE ROAD NO. 826 -	
STATE PROJ. NO. 8726	
CANAL CROSSIN DETAIL	
APPLICATION BY: Florida Department	
HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ENGINEERS PLANNERS	SC. SHI
DATE: 8/25/94	



STATE ROAD NO. 826 – Section 1

STATE PROJ. NO. 87260-3512

OUTFALL
RAMP "A"

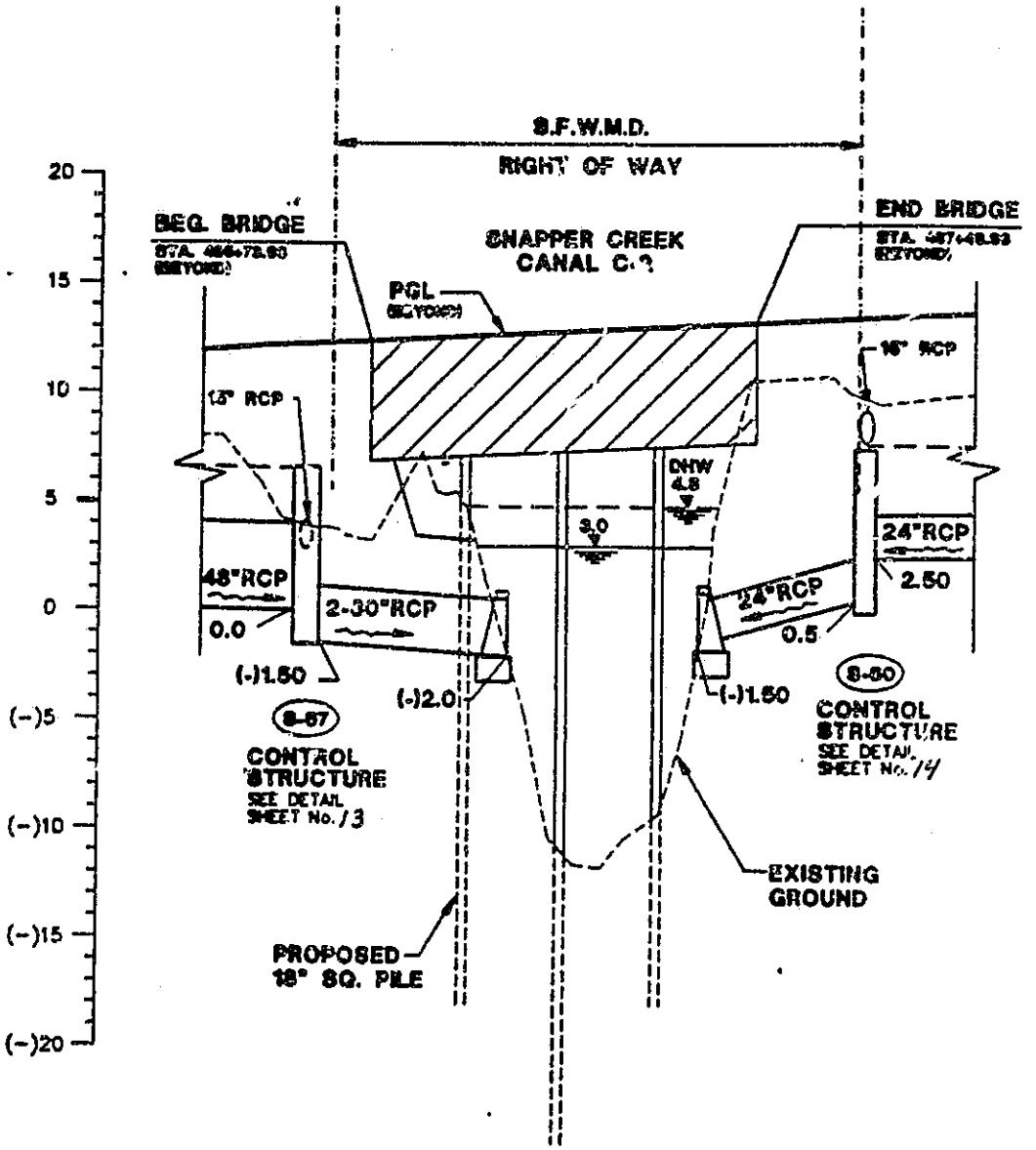
APPLICATION BY: Florida Department of Transportation

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

SCALE: H – 1"=80'
V – graphic

DATE: 8/25/94

SHEET No. 10 OF 17



STATE ROAD NO. 826 – Section 1

STATE PROJ. NO. 87260-3512

OUTFALL RAMP "C"

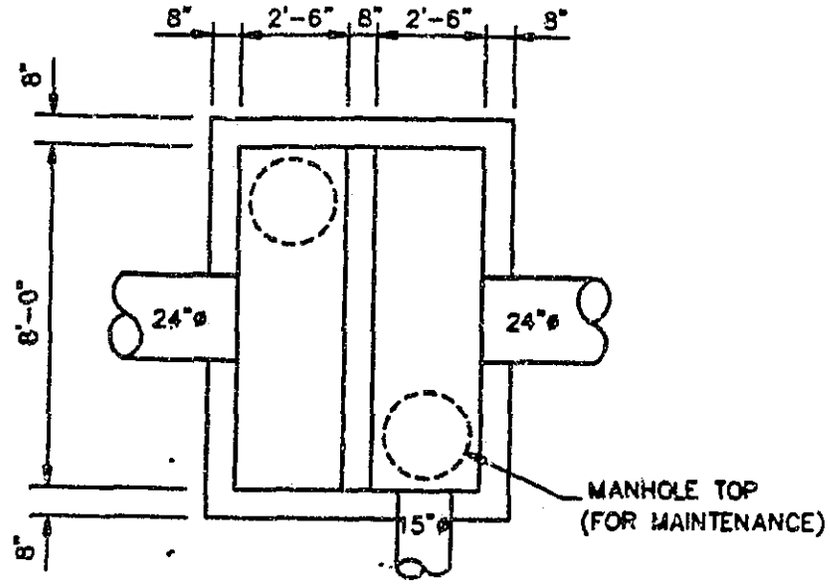
APPLICATION BY: Florida Department of Transportation

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

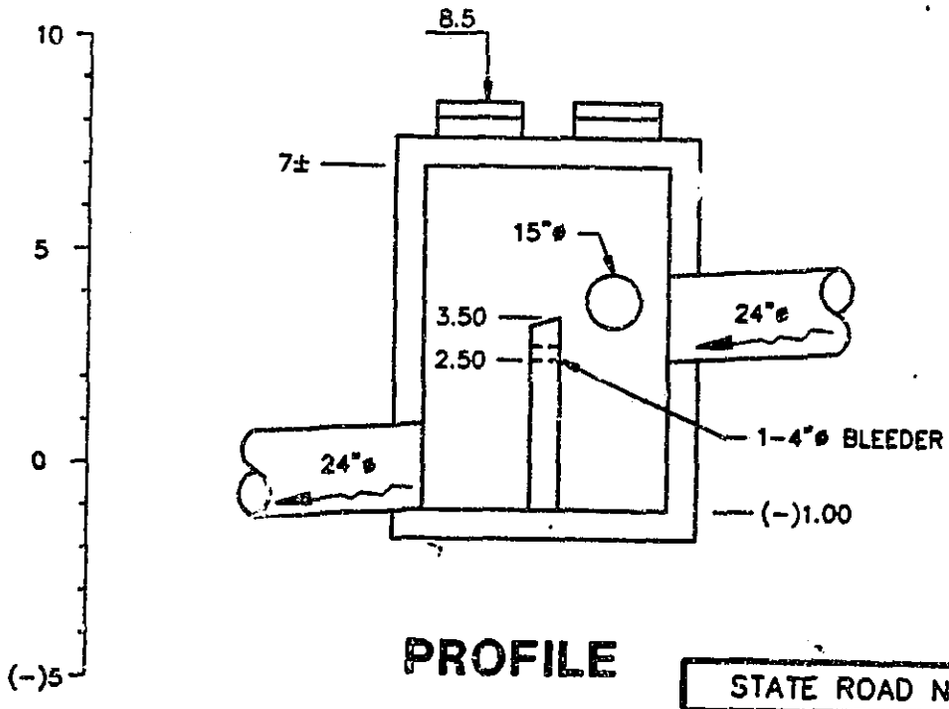
SCALE: H – 1"=50' V – graphic

DATE: 7/26/94

SHEET No. 11 OF 17



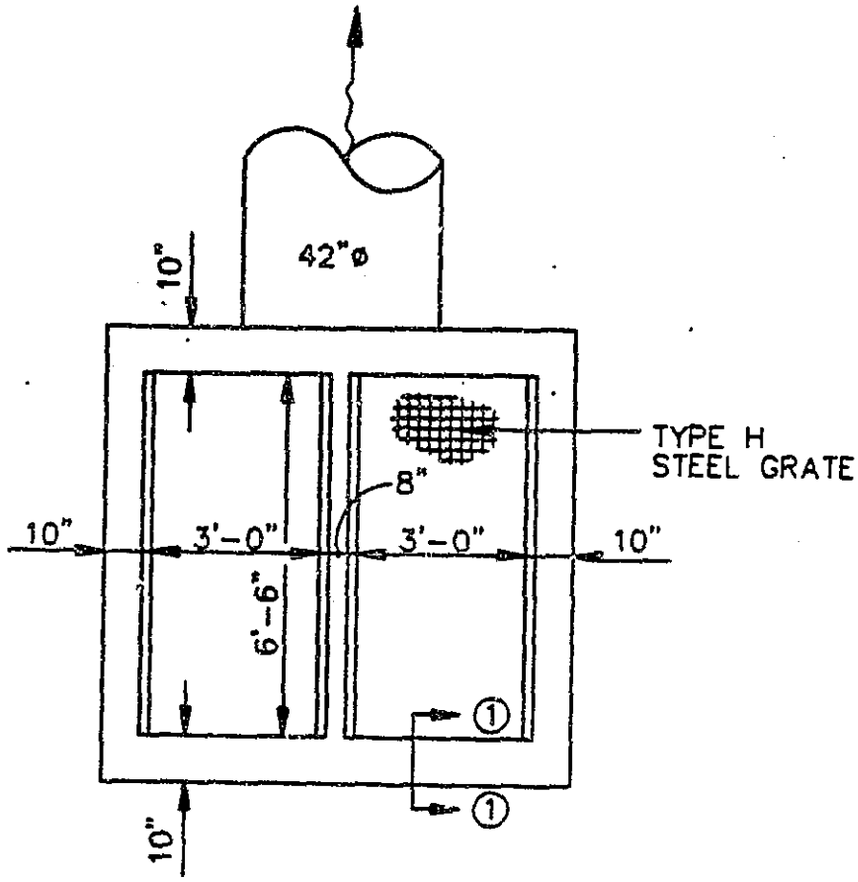
PLAN



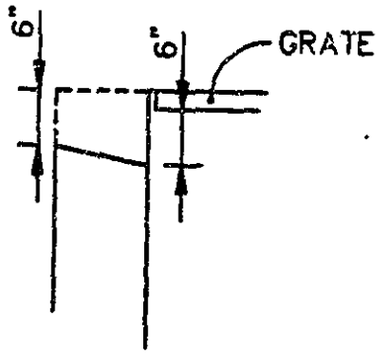
PROFILE

F.L. 2.5 AH, (–) 1.0 BK. & 3.25 LT.

STATE ROAD NO. 826 – Section 1	
STATE PROJ. NO. 87260-3512	
CONTROL STRUCTURE DETAIL S-60	
APPLICATION BY: Florida Department of Transportation	
HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ENGINEERS PLANNERS	SCALE: N.T.S.
DATE: 7/25/94	SHEET No. 14 OF 17



PLAN



SECTION ①-①

F.L. (–) 2.5

STATE ROAD NO. 826 – Section 1

STATE PROJ. NO. 87260-3512

CONTROL STRUCTURE DETAIL S-59

APPLICATION BY: Florida Department of Transportation

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

SCALE: N.T.S.

DATE: 8/25/94

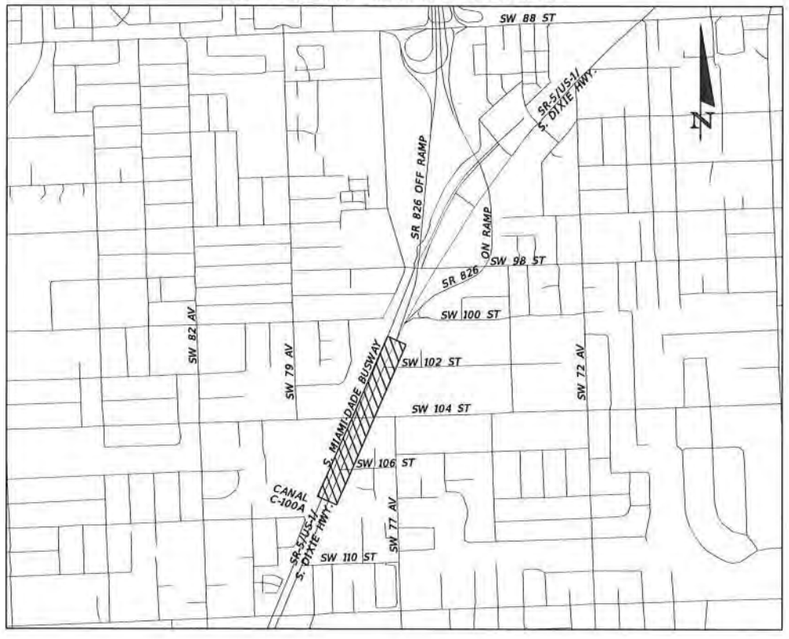
SHEET No. 15 OF 17

STATE ROAD NO.5
US-1 / S. DIXIE HWY.
FROM C-100A CANAL TO SW 100 STREET

FP ID 433489-1-52-01

Engineer's Report

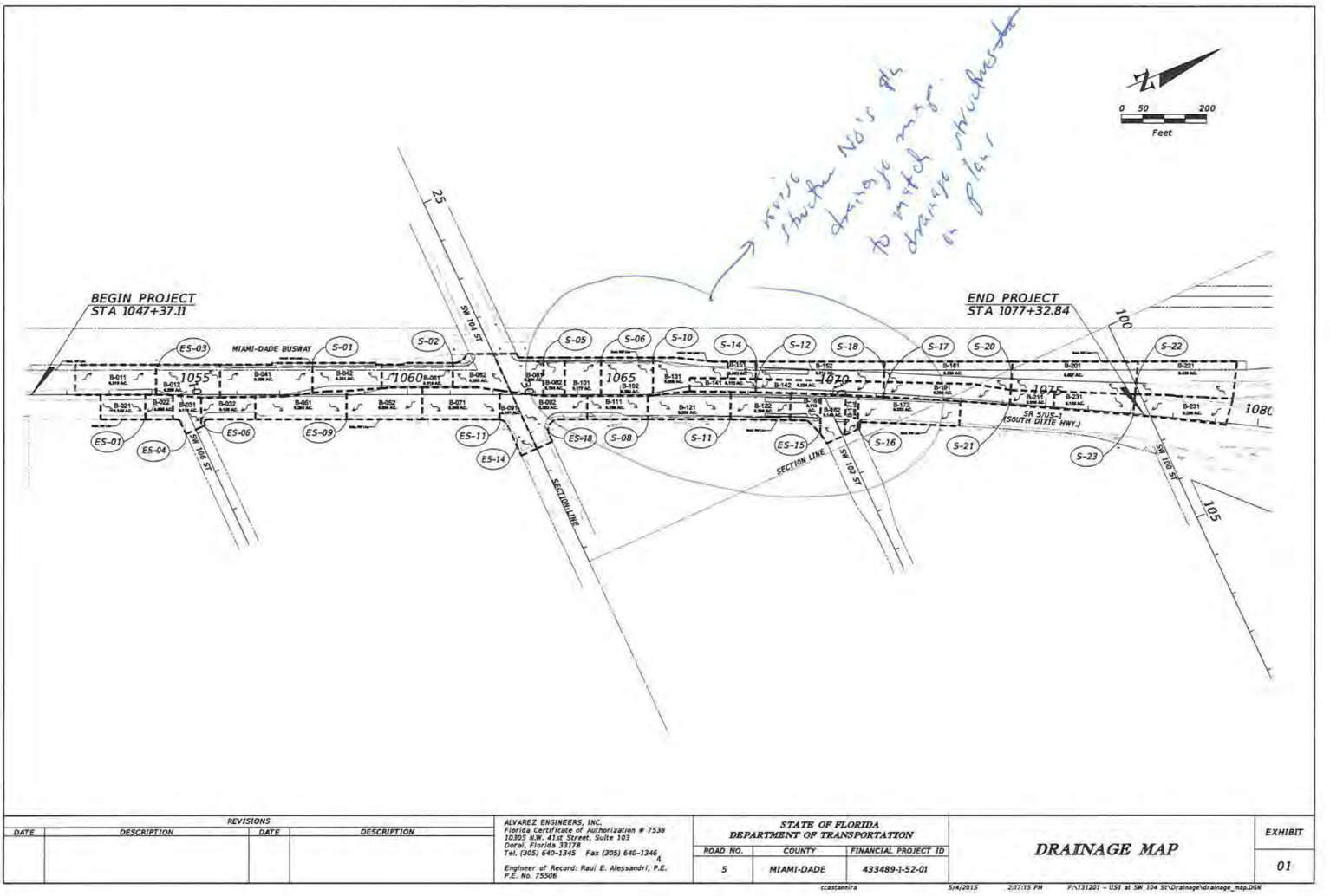
PROJECT LOCATION
US-1 / S. DIXIE HWY. AND SW 104 ST



Prepared for
Florida Department of Transportation
District No.6

Prepared by
Alvarez Engineers, Inc.
10305 NW 41 Street, Suite 103
Doral, FL 33178
Telephone 305-640-1345, facsimile 305-640-1346
E-Mail Address: Alvarez@AlvarezEng.com

October 2015



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ALVAREZ ENGINEERS, INC.
Florida Certificate of Authorization # 7538
10305 N.W. 41st Street, Suite 103
Doral, Florida 33178
Tel. (305) 640-1345 Fax (305) 640-1346
Engineer of Record: Raul E. Alessandri, P.E.
P.E. No. 75506

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	433489-1-52-01

DRAINAGE MAP

EXHIBIT 01

ccastanera 5/4/2015 2:37:15 PM P:\131201 - US1 at SW 104 St\Drainage\drainage_map.DGN

EXHIBIT 04- Soil Hydraulic Conductivity Calculations

By Percolated Test Value From Field Exploration Performed on October 12, 2014

Test Hole No.	Test Hole Location			15' Test Hole Depth Parameter								
	Station	Offset (ft)	Ground Elevation (ft)*	Total Depth [H] (ft)	Test Bottom Elevation (ft)	Depth to Water Table [h] (ft)	Test Water Level Depth [d] (ft)	Unsaturated Trench Depth [DU] (ft)	Saturated Trench Depth [DS] (ft)	Hole Diameter [D] (in)	Average Flow Rate [P] (CFS)	Hydraulic Conductivity [K] (CFS/SF/ft)
P-1	1066+50.00	(75.00)	9.25	15.0	(5.8)	9.3	-	9.3	5.7	6.0	0.0104717	6.93E-05
P-2	1076+50.00	(70.00)	11.65	15.0	(3.4)	9.3	-	9.3	5.7	6.0	0.0245082	1.62E-04
Average			**10.45**	**15.0**	**-4.55**							**1.16E-04**

* Ground Elevation Measured From the Survey DTM file.

EXHIBIT 05: Swale Storage Reduction.

Station	Distance (ft)	Cross Area (SF)	Volume (CF)	Remarks
1055+50.00		-		
	50.00		5.596	
1056+00.00		0.224		
	50.00		19.533	
1056+50.00		0.557		
	50.00		22.670	
1057+00.00		0.349		
	50.00		21.739	
1057+50.00		0.520		
	50.00		54.810	
1058+00.00		1.672		
	50.00		96.162	
1058+50.00		2.174		
	50.00		56.987	
1059+00.00		0.105		
	50.00		2.629	
1059+50.00		-		Begin Intersection
1063+50.00		-		End Intersection
	50.00		3.694	
1064+00.00		0.148		
	50.00		3.694	
1064+50.00		-		
	50.00		0.730	
1065+00.00		0.029		
	50.00		2.444	
1065+50.00		0.069		
	50.00		1.715	
1066+00.00		-		
	50.00		8.227	
1066+50.00		0.329		
	50.00		26.676	
1067+00.00		0.738		
	50.00		254.874	
1067+50.00		9.457		
	50.00		605.558	
1068+00.00		14.765		
	50.00		715.081	
1068+50.00		13.838		
	50.00		614.923	
1069+00.00		10.759		
	50.00		487.062	
1069+50.00		8.723		
	50.00		399.012	
1070+00.00		7.237		
	50.00		319.455	
1070+50.00		5.541		
	50.00		237.554	
1071+00.00		3.961		
	50.00		165.437	
1071+50.00		2.657		
	50.00		107.411	
1072+00.00		1.640		
	50.00		73.817	
1072+50.00		1.313		
	50.00		54.071	
1073+00.00		0.850		
	50.00		55.151	
1073+50.00		1.356		
	50.00		68.494	
1074+00.00		1.384		
	50.00		62.825	
1074+50.00		1.129		
	50.00		81.750	
1075+00.00		2.141		
	50.00		105.616	
1075+50.00		2.084		
	50.00		94.004	
1076+00.00		1.676		
	50.00		78.052	
1076+50.00		1.446		
	50.00		46.851	
1077+00.00		0.428		
	32.84		7.032	
1077+32.84		-		
Total			**4,960.000**	

Exhibit 06: Spread Calculations

FLORIDA DEPARTMENT OF TRANSPORTATION
SPREAD CALCULATIONS
Road: State Road No. 5 (US 1 / S. Dixie HWY.) At SW 104 St.
County: Miami-Dade
Financial Project ID: 433489-1-52-01
System Description: Drainage System Modification to Conform With Road Widening.

Sheet: 1 Of: 1
Prepared By: RRC Date: 9/30/2015
Checked By: RRC Date: 9/30/2015

Runoff Intensity [I] (in/hr) = 4.00 Chezy-Manning Roughness Coefficient [n] = 0.015

Sub-basin										Runoff Parameters											Cross Dimensions (ft)			Slopes ft/ft)		Conveyance		Outflow (CFS)		
	Inlet Data				High Point Data		Run Data			Area (ac)			Coefficient			C.A (ac)	Flow (CFS)													
Basin No.	No	Top Type	Location	Elevation (ft.)	Location	Elev. (ft.)	Flow Direction	Dist. (ft.)	Elev. Diff. (ft.)	Pervious	Imperv.	Total [A]	Pervious	Imperv.	Weighted [C]		Overland	Previous By-pass	Total	Lane Width	Gutter Width	Allowable Spread	Cross [Sx] (ft/ft)	Long [S]	Unitary Flow [K] (CFS)	Spread (ft)	Intercepted (CFS)	Bypass (CFS)	Inlet Receiving Bypass
A	B	C	D	E	F	G	H	I	J	K	L = M - K	M	N	O	P=(K(N)+L(O))/M	Q = M(P)	R = ((I)(Q	S = AC	T = R + S	U	V	W = U/Z + V	X	Y = J/I	Z = T/Y$^{0.5}$	AA = *	AB = **	AC = T - AB	AD		
B-011	ES-03	E	1054+10.35	9.06	1052+20.00	9.52	(SB) S-N	190	0.460	0.091	0.219	0.310	0.250	0.950	0.744	0.231	0.923	-	0.923	14.0	1.50	8.50	0.030	0.0024	18.78	5.25					
B-012			1054+10.35	9.06	1055+60.00	9.30	(SB) N-S	150	0.240	0.036	0.221	0.256	0.250	0.950	0.852	0.219	0.874	-	0.874	14.0	1.50	8.50	0.030	0.0016	21.83	6.00					
B-021	ES-01	E	1053+85.00	9.08	1052+80.00	9.30	(NB) S-N	105	0.220	0.034	0.105	0.140	0.250	0.950	0.777	0.109	0.435	-	0.435	11.0	1.50	7.00	0.040	0.0021	9.50	3.00					
B-022			1053+85.00	9.08	1054+50.00	9.30	(NB) N-S	65	0.220	0.017	0.069	0.086	0.250	0.950	0.810	0.070	0.280	-	0.280	11.0	1.50	7.00	0.040	0.0034	4.81	2.00					
B-031	ES-04	E	1055+15.95	7.80	1054+50.00	9.30	(NB) S-N	66	1.500	0.005	0.106	0.110	0.250	0.950	0.920	0.102	0.406	-	0.406	11.0	1.50	7.00	0.033	0.0227	2.70	1.50					
B-032	ES-05	S	1055+15.95	8.25	1056+43.00	9.79	(NB) N-S	127	1.540	0.030	0.125	0.155	0.250	0.950	0.814	0.126	0.505	-	0.505	11.0	1.50	7.00	0.033	0.0121	4.59	2.00					
B-041	S-01	S	1057+77.55	8.83	1055+60.00	9.30	(SB) S-N	218	0.479	0.048	0.332	0.380	0.250	0.950	0.861	0.328	1.310	-	1.310	14.0	1.50	8.50	0.042	0.0022	28.19	5.75					
B-042			1057+77.55	8.83	1059+40.00	9.23	(SB) N-S	162	0.400	0.058	0.184	0.241	0.250	0.950	0.782	0.189	0.755	-	0.755	14.0	1.50	8.50	0.042	0.0025	15.22	4.25					
B-051	ES-09	4	1058+58.30	9.24	1056+43.00	9.79	(NB) S-N	215	0.550	0.030	0.263	0.293	0.250	0.950	0.878	0.257	1.029	-	1.029	11.0	1.50	7.00	0.040	0.0026	20.36	5.00					
B-052			1058+58.30	9.24	1060+35.80	9.65	(NB) N-S	177	0.310	0.018	0.279	0.296	0.250	0.950	0.908	0.269	1.076	-	1.076	11.0	1.50	7.00	0.040	0.0018	25.69	5.50					
B-061	S-02	E	1061+07.00	8.91	1059+40.00	9.23	(SB) S-N	167	0.320	0.017	0.201	0.218	0.250	0.950	0.896	0.196	0.782	-	0.782	11.0	1.50	7.00	0.034	0.0019	17.87	5.00					
B-062			1061+07.00	8.91	1061+39.00	9.51	(SB) N-S	32	0.600	0.003	0.201	0.203	0.250	0.950	0.940	0.191	0.765	-	0.765	11.0	1.50	7.00	0.034	0.0188	5.59	2.00					
B-071	ES-11	3	1062+16.50	9.05	1060+35.00	9.56	(NB) S-N	182	0.500	0.003	0.306	0.309	0.250	0.950	0.943	0.291	1.166	-	1.166	11.0	1.50	7.00	0.040	0.0028	22.21	5.25	1.166	0.00	ES-14		
B-081	S-05	E	1063+20.00	8.94	1062+43.00	9.57	(SB) S-N	77	0.630	0.015	0.185	0.200	0.250	0.950	0.897	0.179	0.717	-	0.717	11.0	1.50	7.00	0.019	0.0082	7.93	3.75					
B-082			1063+20.00	8.94	1063+70.00	9.07	(SB) N-S	50	0.130	0.011	0.094	0.104	0.250	0.950	0.879	0.092	0.367	-	0.367	11.0	1.50	7.00	0.013	0.0026	7.20	3.50					
B-091	ES-14	E	1062+66.75	8.70	1052+18.50	9.05	(NB) S-N	40	0.350	-	0.141	0.141	0.250	0.950	0.950	0.134	0.535	-	0.535	11.0	1.50	7.00	0.028	0.0087	5.74	2.50					
B-092	ES-18	S	1063+20.75	8.95	1064+22.50	9.89	(NB) N-S	102	0.940	0.002	0.280	0.282	0.250	0.950	0.945	0.266	1.065	-	1.065	11.0	1.50	7.00	0.023	0.0092	11.08	5.00					
B-101	S-06	E	1064+54.85	8.82	1063+70.00	9.07	(SB) S-N	85	0.250	0.018	0.159	0.177	0.250	0.950	0.878	0.156	0.623	-	0.623	11.0	1.50	7.00	0.031	0.0029	11.49	4.00					
B-102			1064+54.85	8.82	1065+77.00	9.37	(SB) N-S	122	0.550	0.027	0.227	0.254	0.250	0.950	0.876	0.223	0.891	-	0.891	11.0	1.50	7.00	0.031	0.0045	13.27	4.25					
B-111	S-08	S	1065+65.50	9.23	1064+22.50	9.89	(NB) S-N	143	0.660	0.006	0.174	0.180	0.250	0.950	0.927	0.167	0.668	-	0.668	11.0	1.50	7.00	0.043	0.0046	9.83	2.50	0.668	0.00	S-10		
B-121	S-10	E	1067+59.50	8.82	1065+65.50	9.23	(NB) S-N	194	0.410	0.037	0.244	0.280	0.250	0.950	0.858	0.241	0.962	-	0.962	11.0	1.50	7.00	0.037	0.0021	20.93	5.00					
B-122			1067+59.50	8.82	1069+00.00	9.14	(NB) N-S	141	0.320	0.030	0.177	0.207	0.250	0.950	0.848	0.175	0.702	-	0.702	11.0	1.50	7.00	0.037	0.0023	14.71	4.25					
B-131	S-09	S	1065+77.00	9.33	1067+50.00	10.46	(SB) N-S	173	1.130	0.071	0.179	0.250	0.250	0.950	0.751	0.188	0.752	-	0.752	11.0	1.50	7.00	0.028	0.0065	9.30	3.50	0.752	0.00	S-06		
B-141	S-11	S	1068+18.00	10.34	1068+63.00	10.52	(SB) S-N	155	0.280	0.035	0.076	0.112	0.250	0.950	0.725	0.081	0.325	-	0.325	12.0	1.50	7.50	0.020	0.0018	7.65	3.75					
B-142			1068+18.00	10.34	1071+20.00	10.93	(SB) N-S	302	0.590	0.060	0.164	0.224	0.250	0.950	0.761	0.170	0.682	-	0.682	12.0	1.50	7.50	0.020	0.0020	15.43	6.25					
B-151	S-12	E	1068+18.00	10.32	1067+50.00	10.46	(SB) S-N	68	0.140	0.019	0.043	0.062	0.250	0.950	0.734	0.045	0.182	-	0.182	12.0	1.50	7.50	0.021	0.0021	4.00	1.50					
B-152			1068+18.00	10.32	1071+20.00	10.93	(SB) N-S	302	0.580	0.128	0.181	0.310	0.250	0.950	0.660	0.204	0.818	-	0.818	12.0	1.50	7.50	0.021	0.0019	16.66	7.00					
B-161	ES-19	E	1069+73.40	8.09	1069+00.00	9.14	(NB) S-N	73	1.050	0.018	0.096	0.114	0.250	0.950	0.837	0.095	0.382	-	0.382	11.0	1.50	7.00	0.020	0.0143	3.19	1.50					
B-162			1069+73.40	8.09	1070+30.00	9.66	(NB) N-S	57	1.570	0.023	0.123	0.146	0.250	0.950	0.840	0.123	0.490	-	0.490	11.0	1.50	7.00	0.020	0.0277	2.94	1.50					
B-171	S-14	E	1070+60.75	8.73	1070+30.00	9.66	(NB) S-N	31	0.930	0.006	0.054	0.060	0.250	0.950	0.876	0.053	0.211	-	0.211	12.0	1.50	7.50	0.038	0.0302	1.21	1.00					
B-172			1070+60.75	8.73	1073+00.00	9.80	(NB) N-S	239	1.070	0.035	0.298	0.333	0.250	0.950	0.877	0.292	1.167	-	1.167	12.0	1.50	7.50	0.038	0.0045	17.45	4.00					
B-181	S-16	S	1071+18.00	10.90	1073+70.00	11.55	(SB) N-S	252	0.650	0.227	0.142	0.369	0.250	0.950	0.519	0.192	0.767	-	0.767	12.0	1.50	7.50	0.021	0.0026	15.11	4.75	0.767	0.00	S-12		
B-191	S-15	S	1071+18.00	10.93	1073+70.00	11.56	(SB) N-S	252	0.630	0.037	0.227	0.264	0.250	0.950	0.852	0.225	0.900	-	0.900	12.0	1.50	7.50	0.020	0.0025	18.00	7.00	0.900	0.00	S-11		
B-201	S-18	S	1074+16.00	11.55	1077+07.00	12.29	(SB) N-S	291	0.740	0.308	0.179	0.487	0.250	0.950	0.507	0.247	0.988	-	0.988	12.0	1.50	7.50	0.020	0.0025	19.58	7.25	0.988	0.00	S-16		
B-211	S-19	S	1074+16.00	11.56	1075+18.00	11.83	(SB) N-S	103	0.070	0.007	0.082	0.089	0.250	0.950	0.893	0.079	0.318	-	0.318	12.0	1.50	7.50	0.020	0.0007	12.19	5.25	0.318	0.00	S-15		
B-221	S-20	S	1077+07.00	12.29	1079+36.65	13.83	(SB) N-S	230	6.540	0.025	0.412	0.438	0.250	0.950	0.909	0.398	1.592	-	1.592	12.0	1.50	7.50	0.022	0.0285	9.43	4.50	1.592	0.00	S-18		
B-231	S-21	S	1077+07.00	11.39	1075+19.00	11.53	(NB) S-N	188	0.240	0.010	0.16	0.193	0.250	0.950	0.915	0.177	0.706	-	0.706	12.0	1.50	7.50	0.037	0.0013	19.77	5.25					
B-232			1077+07.00	11.39	1079+25.00	11.90	(NB) N-S	218	0.510	-	0.266	0.266	0.250	0.950	0.950	0.272	1.087	-	1.087	12.0	1.50	7.50	0.030	0.0023	22.47	6.75					
Total										1.549	7.014	8.564																		

*FHWA HEC-12 CHAPTER 5, FIGURE 3, Conveyance-Spread Curves For a Composite Gutter Section.

**FDOT Storm Drain Handbook (February 2012 Edition), Appendix A: Inlet Efficiencies, Figure A-1 (Page 94) and Figure A-11 (Page 99).

Note: If the Value of the Generated (Calculated) Spread in Column AA is Smaller than the Value of the Allowable Spread in Column W, the Design is Acceptable (Colum AA < Column W => Design Acceptable).

QUANTITY	STR. NO	STATION	SIDE	DESCRIPTION	BARRELS	STORM DRAIN OPTIONAL MATERIAL			FRENCH DRAIN	INLETS										MANHOLES			STRUCTURE TO BE CLEANED	REMARKS
						ROUND				GUTTER						PARTIAL			DITCH BOTTOM	PARTIAL		TO BE ADJUSTED		
										P-5	P-6	J-5	J-5	J-6	J-6	P-3	P-5	P-6	E	P-7	P-8			
						15"	18"	24"	24"	<10'	<10'	<10'	>10'	<10'	>10'				<10'					
P	S-01	1057+77.50	LT.	INLET														1					1	REPLACE TYPE 4 INLET TOP WITH TYPE 6 INLET TOP
F																								
P	S-02	1061+07.00	LT.	INLET														1					1	REPLACE TYPE 4 INLET TOP WITH TYPE 6 INLET TOP
F																								
P	S-03	1063+04.29	LT.	MANHOLE																1			1	REPLACE TYPE 7 MH TOP WITH TYPE 8 (ECCENTRIC) MH TOP
F																								
P	S-04	1063+08.50	LT.	MANHOLE, PIPE				8												1			1	REPLACE TYPE E CB TOP WITH TYPE 8 (ECCENTRIC) MH TOP
F																								
P	S-05	1063+20.00	LT.	INLET,PIPE	1			4						1										1 CONC. JACKET (INDEX 280)
F																								1 TYPE II SKIMMER (AH) (INDEX 241)
P	S-06	1064+54.94	LT.	INLET														1					1	REPLACE TYPE 2 INLET TOP WITH TYPE 6 INLET TOP
F																								
P	S-07	1065+67.00	RT.	MANHOLE																1			1	REPLACE MH TOP WITH TYPE 8 (ECCENTRIC) MH TOP
F																								
P	S-08	1065+65.50	RT.	INLET												1							1	RISE TYPE 3 INLET TOP
F																								
P	S-09	1065+77.00	LT.	INLET													1						1	REPLACE TYPE I INLET TOP WITH TYPE 5 INLET TOP
F																								
P	S-10	1067+59.50	RT.	INLET														1					1	8" CONCRETE TOP SLAB REQUIRED
F																								
P	S-11	1068+18.00	LT.	PIPE, INLET, PIPE	1		18				1													
F																								
P	S-12	1068+18.00	LT.	INLET, PIPE	1		52												1					3" THICK CONCRETE APRON AND TYPE D CURB AROUND TYPE E CB
F																								
P	S-13	1068+17.24	RT.	MANHOLE																1			1	REPLACE MH TOP WITH TYPE 8 (ECCENTRIC) MH TOP
F																								
P	S-14	1070+60.75	RT.	INLET, PIPE		2													1					1 CONC. JACKET (INDEX 280)
F																								
P	S-15	1071+18.00	LT.	INLET, PIPE	1		7				1													
F																								
P	S-16	1071+18.00	LT.	INLET	1							1												1 TYPE II SKIMMER (AH) (INDEX 241)
F																								1 TYPE I INVERTED SKIMMER-WEIR (BK) (INDEX 241)
P	S-17	1071+18.00	LT.	MANHOLE																1			1	REPLACE TYPE 5 INLET TOP WITH TYPE 7 MH TOP
F																								
P																								
F																								
P																								
F																								
SHEET SUMMARY P TOTAL						2	77	12	0	1	1	1	0	1	0	1	1	4	2	1	4	0	11	
SHEET SUMMARY F TOTAL																								

NOT FOR CONSTRUCTION
PRELIMINARY AND SUBJECT TO CHANGE

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ALVAREZ ENGINEERS, INC.
Florida Certificate of Authorization # 7538
10305 N.W. 41st Street, Suite 103
Doral, Florida 33178
Tel. (305) 640-1345 Fax (305) 640-1346

Engineer of Record: Raul E. Alessandri, P.E.
P.E. No. 75506

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	433489-1-52-01

SUMMARY OF DRAINAGE STRUCTURES

SHEET NO. 7

QUANTITY	STR. NO	STATION	SIDE	DESCRIPTION	BARRELS	STORM DRAIN OPTIONAL MATERIAL			FRENCH DRAIN	INLETS										MANHOLES			STRUCTURE TO BE CLEANED	REMARKS
						ROUND				GUTTER						PARTIAL			DITCH BOTTOM	PARTIAL		TO BE ADJUSTED		
						15"	18"	24"	24"	P-5 <10'	P-6 <10'	J-5 <10'	J-5 >10'	J-6 <10'	J-6 >10'	P-3	P-5	P-6	E <10'	P-7	P-8			
P	S-18	1074+16.00	LT.	INLET, FD, PIPE	1		57		282				1											2 TYPE II SKIMMER (BK,AH) (INDEX 241)
F																								
P	S-19	1074+16.00	LT.	INLET	1	2		4							1									3 CONC. JACKET (INDEX 280)
F																								
P	S-20	1077+07.00	LT.	INLET, FD	1				275				1											1 SKIMMER (INDEX 241)
F																								
P	S-21	1077+07.00	LT.	INLET														1					1	REPLACE TYPE 5 INLET TOP WITH TYPE 6 INLET TOP
F																								
P	ES-01	1053+85.85	RT.	MANHOLE																			1	
F																								
P	ES-02	1054+05.62	LT.	MANHOLE																		1	1	
F																								
P	ES-03	1054+14.25	LT.	INLET																			1	
F																								
P	ES-04	11+60	RT.	INLET																			1	
F		SW 106 ST CL																						
P	ES-05	1055+16.73	LT.	MANHOLE																		1	1	
F																								
P	ES-06	1055+15.83	RT.	INLET																			1	
F																								
P	ES-07	1057+77.88	LT.	MANHOLE																			1	
F																								
P	ES-08	1057+77.58	LT.	MANHOLE																			1	
F																								
P	ES-09	1058+57.11	RT.	INLET																			1	
F																								
P	ES-10	1061+08.984	LT.	MANHOLE																			1	
F																								
P	ES-11	1062+18.04	RT.	INLET																			1	
F																								
P	ES-12	1062+20.13	LT.	MANHOLE																		1	1	
F																								
P	ES-13	1062+65.23	LT.	MANHOLE																		1	1	
F																								
P	ES-14	1062+55.65	RT.	INLET																			1	
F																								
P																								
F																								
	SHEET SUMMARY	P TOTAL				2	57	4	557	0	0	0	2	0	1	0	0	1	0	0	0	4	15	
	GRAND TOTAL	F TOTAL					134	16	557															

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
	Sheet No. 8. + Sheet No. 7 total		

ALVAREZ ENGINEERS, INC.
Florida Certificate of Authorization # 7538
10305 N.W. 41st Street, Suite 103
Doral, Florida 33178
Tel. (305) 640-1345 Fax (305) 640-1346

Engineer of Record: Raul E. Alessandri, P.E.
P.E. No. 75506

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	433489-1-52-01

SUMMARY OF DRAINAGE STRUCTURES

SHEET NO. 8

QUANTITY	STR. NO	STATION	SIDE	DESCRIPTION	BARRELS	STORM DRAIN OPTIONAL MATERIAL			FRENCH DRAIN	INLETS										MANHOLES			STRUCTURE TO BE CLEANED	REMARKS
						ROUND				GUTTER						PARTIAL			DITCH BOTTOM	PARTIAL		TO BE ADJUSTED		
										P-5	P-6	J-5	J-5	J-6	J-6	P-3	P-5	P-6	E	P-7	P-8			
						15"	18"	24"	24"	<10'	<10'	<10'	>10'	<10'	>10'				<10'					
P	ES-15	1062+61.72	RT.	MANHOLE																		1	1	
F																								
P	ES-16	1062+66.01	LT.	MANHOLE																		1	1	
F																								
P	ES-17	1063+08.87	RT.	MANHOLE																		1	1	
F																								
P	ES-18	1063+22.06	RT.	INLET																			1	
F																								
P	ES-19	1069+63.40	RT.	INLET																			1	
F																								
P	ES-20	1073+81.23	RT.	INLET																			1	
F																								
P	ES-21	1077+71.60	RT.	INLET																			1	
F																								
P	ES-22	1079+25.20	RT.	INLET																			1	
F																								
SHEET SUMMARY	P TOTAL					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	8	
	F TOTAL																							
FINAL SUMMARY	P TOTAL					4	134	16	557	1	1	1	2	1	1	1	1	5	2	1	4	7	34	
	F TOTAL																							

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REVISIONS			
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ALVAREZ ENGINEERS, INC.
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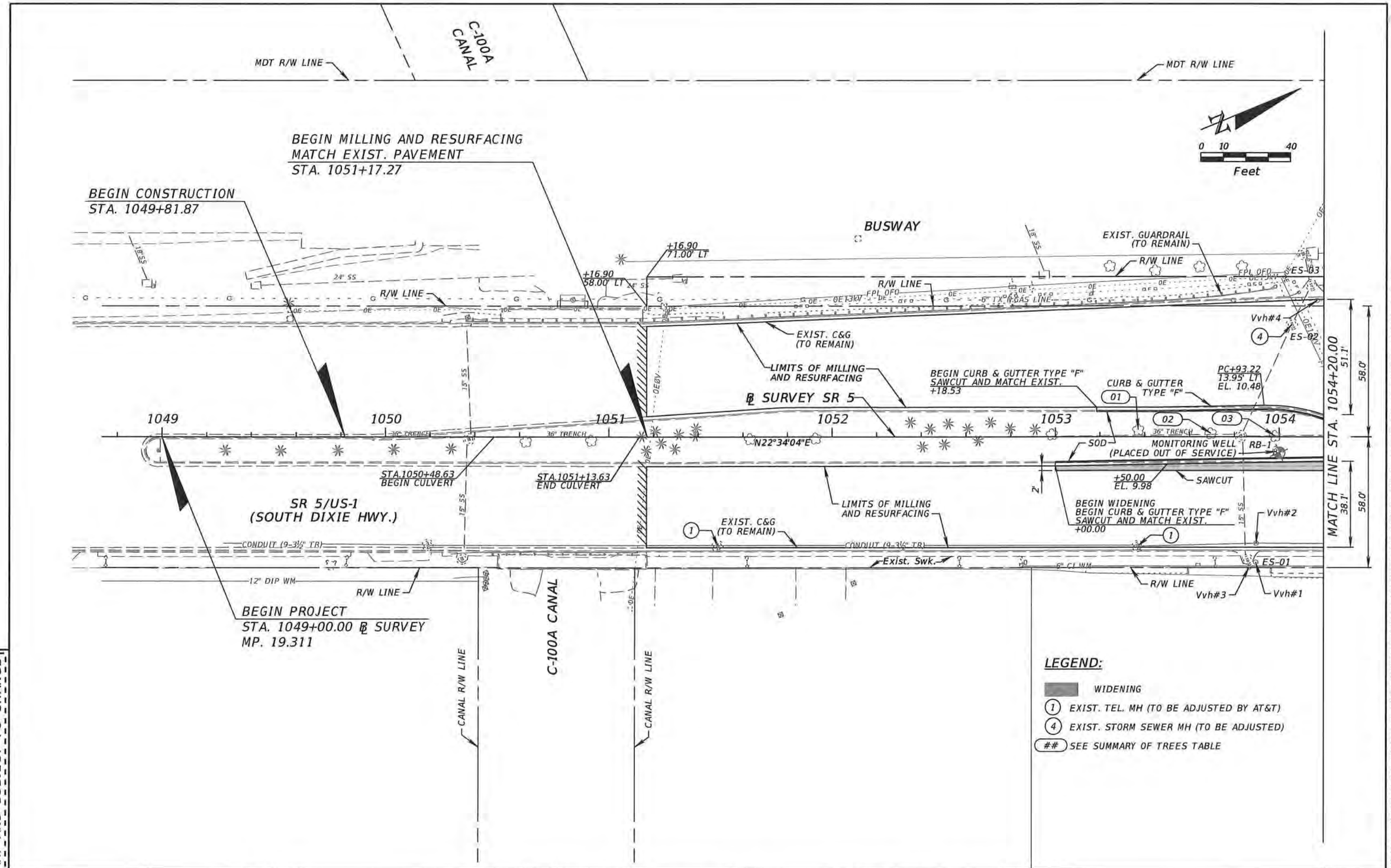
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	433489-1-52-01

SUMMARY OF DRAINAGE STRUCTURES

SHEET NO. 9



LEGEND:

- WIDENING
- (1) EXIST. TEL. MH (TO BE ADJUSTED BY AT&T)
- (4) EXIST. STORM SEWER MH (TO BE ADJUSTED)
- (##) SEE SUMMARY OF TREES TABLE

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PRELIMINARY AND SUBJECT TO CHANGE

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ALVAREZ ENGINEERS, INC.
Florida Certificate of Authorization # 7538
10305 N.W. 41st Street, Suite 103
Doral, Florida 33178
Tel. (305) 640-1345 Fax (305) 640-1346

Engineer of Record: Raul E. Alessandri, P.E.
P.E. No. 75506

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	433489-1-52-01

ROADWAY PLAN

SHEET NO. 13

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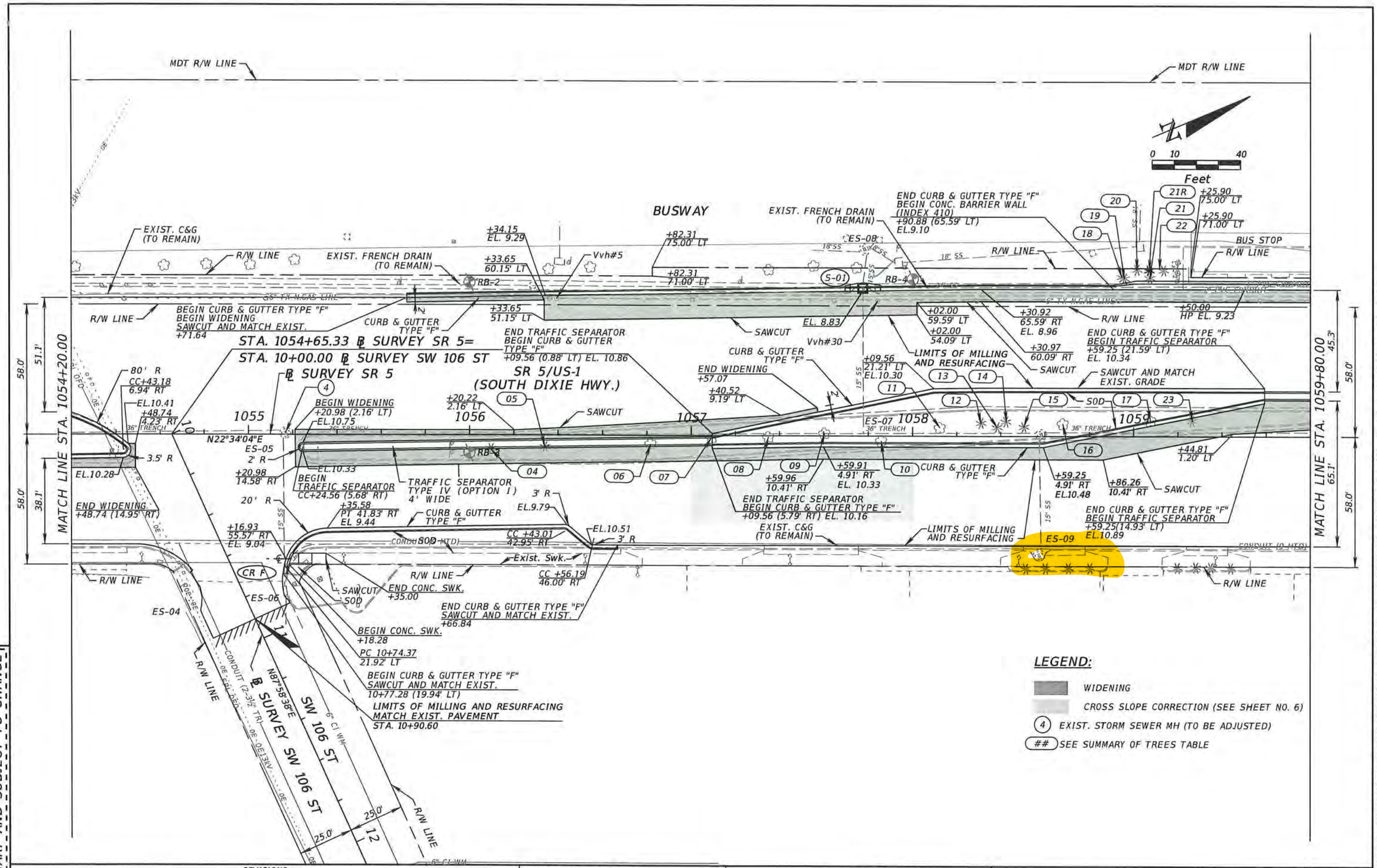

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	433489-1-52-01

ROADWAY PLAN

SHEET NO. 14

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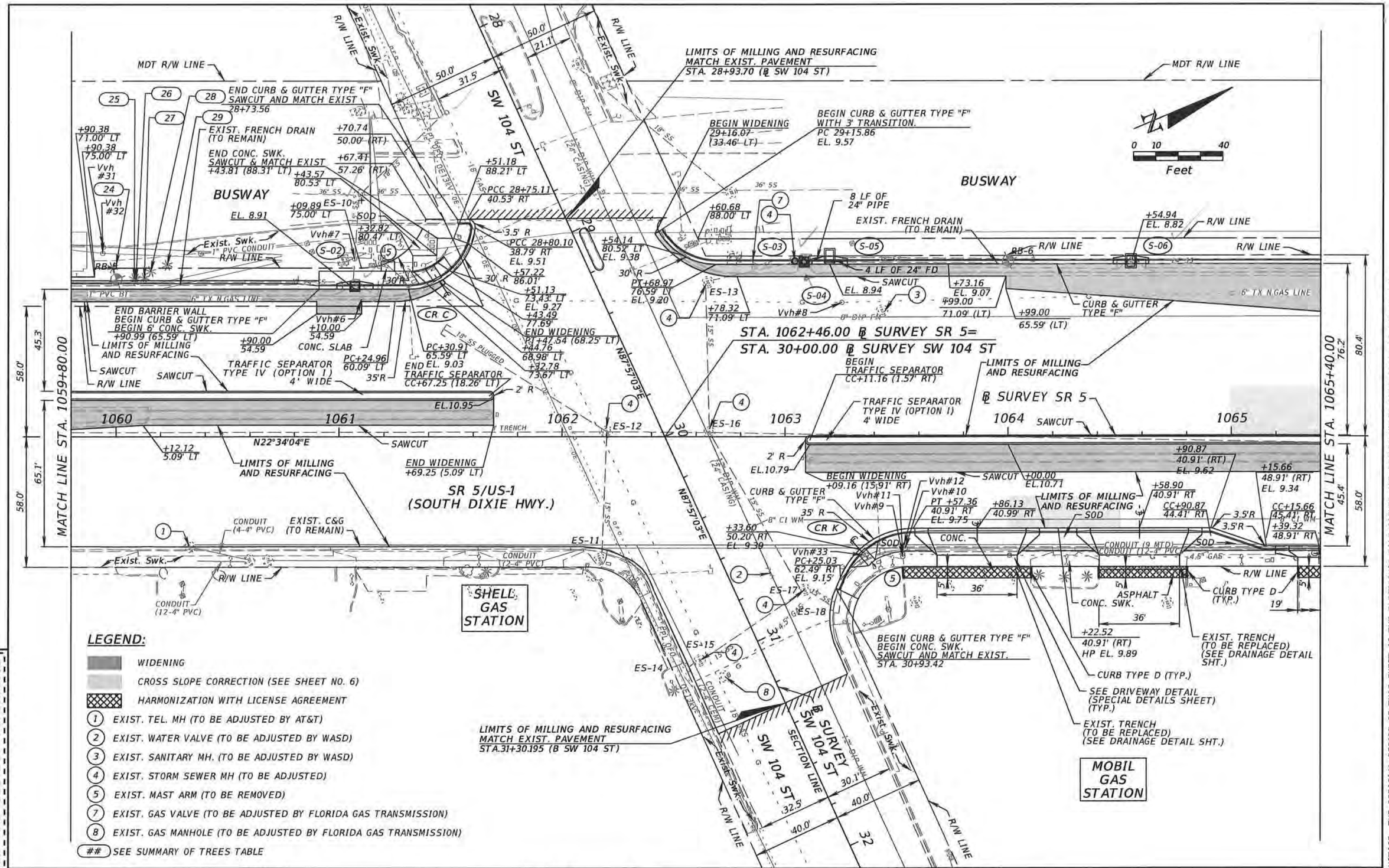

LEGEND:

- WIDENING
- CROSS SLOPE CORRECTION (SEE SHEET NO. 6)
- HARMONIZATION WITH LICENSE AGREEMENT
- (1) EXIST. TEL. MH (TO BE ADJUSTED BY AT&T)
- (2) EXIST. WATER VALVE (TO BE ADJUSTED BY WASD)
- (3) EXIST. SANITARY MH. (TO BE ADJUSTED BY WASD)
- (4) EXIST. STORM SEWER MH (TO BE ADJUSTED)
- (5) EXIST. MAST ARM (TO BE REMOVED)
- (7) EXIST. GAS VALVE (TO BE ADJUSTED BY FLORIDA GAS TRANSMISSION)
- (8) EXIST. GAS MANHOLE (TO BE ADJUSTED BY FLORIDA GAS TRANSMISSION)
- (##) SEE SUMMARY OF TREES TABLE

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	433489-1-52-01

ROADWAY PLAN

SHEET NO. 15

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MDT R/W LINE

CURVE DATA C18
PI STA. = 1077+30.07
DELTA = 10° 27' 49"
D = 0° 30' 2"
T = 1047.95'
L = 2090.07'
R = 11444.50'
PC STA. = 1066+82.12
PT STA. = 1087+72.18

BUSWAY

STRATUM 4 MATERIAL REMOVAL UNDER WIDENING (SEE SHEET GR-1)

STA. 1068+40.00

STA. 1069+40.00

0 10 40
Feet

EXIST. FRENCH DRAIN (TO REMAIN)

EL. 9.33

+87.12 76.59' LT EL.9.37

+28.77 88.00' LT

R/W LINE

+19.11 78.06' LT

CC+11.29 69.11' LT

+14.61 74.09' LT

+21.39 74.00' LT

+39.94 80.92' LT

MDT R/W LINE

+80.00 61.38' (LT) EL. 10.64

L.A. R/W LINE

S-09 RB-7 P-1 PC+37.12 65.42' LT EL.9.81

S-12

4'R (TYP.) CC+24.71 68.94' LT

Vvh#35 Vvh#34 Vvh#34A

2" UNKNOWN

8" DIP FM

6" SS

6" TX N.GAS LINE

+51.86 EL.10.46

Vvh#16

EL.10.32

CURB TYPE D

RB-8

10024' R

52 LF OF 18" PIPE

CURB & GUTTER TYPE "F"

Vvh#39

Vvh#23

SAWCUT

RB-10

+49.00 54.59' (LT)

END TRAFFIC SEPARATOR BEGIN CURB & GUTTER TYPE "F" +63.16 (1.76' LT) EL.10.62

PC+63.16 20.59' LT EL.10.62

CURB & GUTTER TYPE "F"

LIMITS OF MILLING AND RESURFACING AND OVERBUILD +51.86 EL.10.47

Vvh#38

EL.10.34

9978' R

PC STA. 1066+82.12

STA. 1069+79.28 ℄ SURVEY SR 5=
STA. 10+00.00 ℄ SURVEY SW 102 ST

+80.00 14.93' (LT) EL. 10.66

END CURB & GUTTER TYPE "F" SAWCUT AND MATCH EXIST. +81.98

PT +84.30 4.76' RT EL. 10.41

18R 02R 03R S-07 1066 N22°34'04"E S0D 1067 ℄ SURVEY SR 5 1068 1069 1070

17R 39 40 41 42 43 44 45 46 47 48 49 50 51 3

18 LF OF 18" PIPE

CURVE C18

S-11

24" SS 3" CC

CURB & GUTTER TYPE "F"

END TRAFFIC SEPARATOR BEGIN CURB & GUTTER TYPE "F" +63.16 (4.91' RT) EL.10.41

11439' R

PC+56.98 4.91' RT EL. 10.25

+59.50 EL.10.06

SAWCUT

S-13 EL. 10.10

EXIST. GUARDRAIL (TO BE REMOVED)

RB-9

+40.51 11.00' RT

+40.51 EL. 10.25

END WIDENING +62.02 (42.28' RT)

+00.00 49.41' RT HP EL. 9.14

+49.48 58.00' RT Vvh#22

PCC+52.28 49.53' RT EL.8.96

N87°57'03"E 50.74' RT

BEGIN CURB & GUTTER TYPE "F" WITH 3' TRANSITION PC 10+88.21 (44.94' LT)

+00.24 42.00' RT

+48.47 42.00' RT

+81.97 11.31' RT

+62.84 55.04' RT

PT+75.21 50.79' RT

Vvh#25 Vvh#27 Vvh#26

+48.47 47.00' RT

+68.77 55.71' RT

CR G

S-14

Vvh #24

SOD

Vvh#28

2 LF OF 15" PIPE

+01.75 1.72' RT

PI STA 11+26.63

CONDUIT (2-3½" CEM)

40.0'

40.0'

N88°02'11"E

R/W LINE

SW 102 ST

℄ SURVEY SW 102 ST

12

15" RCP FM

MATCH LINE STA. 1065+40.00

80.4' 76.2' 58.0' 45.8'

MATCH LINE STA. 1071+00.00

47.1' 85.7' 45.4' 58.0'

ASPHALT EL. 9.23 1 +06.82 43.41' RT SAWCUT 6 +40.76 PC+56.98 48.91' RT 2 +03.02 11395' R LIMITS OF MILLING AND RESURFACING CURB & GUTTER TYPE "F" EL. 8.82

8" DIP WM Vvh#17

CONDUIT (9 MTD)

CONDUIT (12-4" PVC)

Vvh#15 Vvh#36 Vvh#37 Vvh#18 Vvh#19

CONC. SWK. R/W LINE

S-08 S-10

CONDUIT (2-4" PVC) 19'

CURB TYPE D 28'

CURB TYPE D (TYP.) 25'

5' 9' 5' 7'

CONC. SWK. ASPHALT

Vvh#14 Vvh#13

SHOPPING CENTER

BEGIN MATCH EXIST. BACK OF SWK. ELEV. +77.43 (58.00' RT) ELEV. 9.51

END VARIABLE HEIGHT CURB & GUTTER TYPE F STA. 1068+77.44

END MATCH EXIST. BACK OF SWK. ELEV. +77.43 (58.00' RT) ELEV. 9.96

END 6' CONC. SWK. SAWCUT AND MATCH EXIST. +70.93

BEGIN WIDENING SAWCUT AND MATCH EXIST. STA. 1066+06.82

EXIST. CONC. SWK.

BEGIN 6' CONC. SWK. SAWCUT AND MATCH EXIST +16.76

SEE DRIVEWAY DETAIL (SPECIAL DETAILS SHEET)

ASPHALT

SEE DRIVEWAY DETAIL (SPECIAL DETAILS SHEET)

BUFFERED BIKE LANE

BEGIN VARIABLE HEIGHT CURB & GUTTER TYPE F STA. 1067+25.98

Vvh#20 Vvh#21 +42.21 58.00' RT CONC. SWK. SOD

END 6' CONC. SWK. SAWCUT & MATCH EXIST. 10+47.60 (54.19' RT)

Vvh#40 PROPOSED CANTILEVER SUPPORT

END CURB & GUTTER TYPE"F" WITH 3' TRANSITION 10+56.40 (31.72' RT) EL. 8.73

SEE SPECIAL DETAILS SHEET FOR INTERMEDIATE ISLAND

ES-19

+56.19 29.50' RT

15" SS 15" RCP FM

CHASE BANK

LIMITS OF MILLING AND RESURFACING MATCH EXIST. PAVEMENT STA. 11+03.67

SECTION LINE

SR 5/US-1 (SOUTH DIXIE HWY.)

LEGEND:

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- (2) EXIST. WATER VALVE (TO BE ADJUSTED BY WASD)
- (3) EXIST. SANITARY MH. (TO BE ADJUSTED BY WASD)
- (6) EXIST. WATER METER (TO BE ADJUSTED BY WASD)
- (##) SEE SUMMARY OF TREES TABLE

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P.E. No. 75506

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	433489-1-52-01

ROADWAY PLAN

SHEET NO. 16

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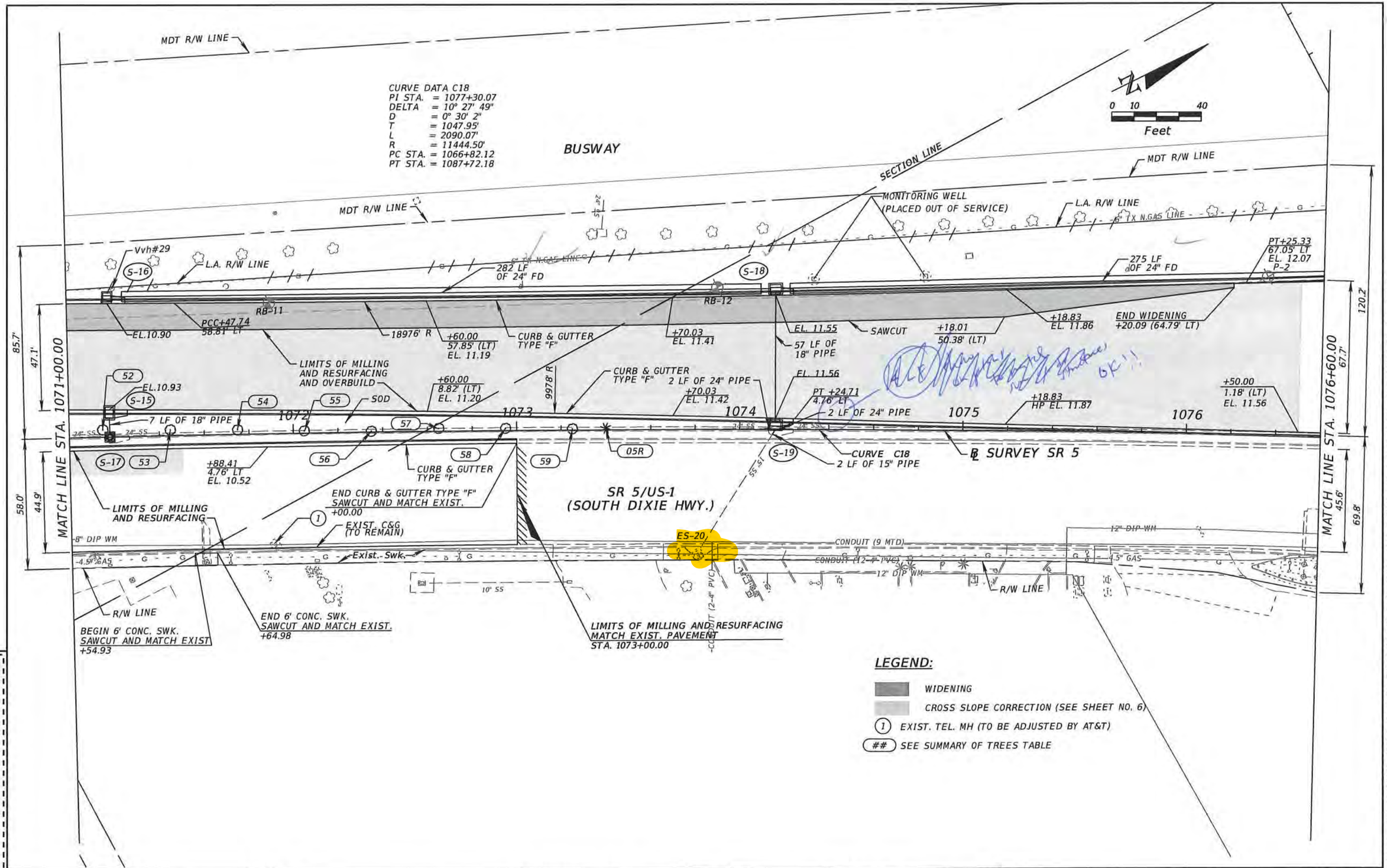

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	433489-1-52-01

ROADWAY PLAN

SHEET NO. 17

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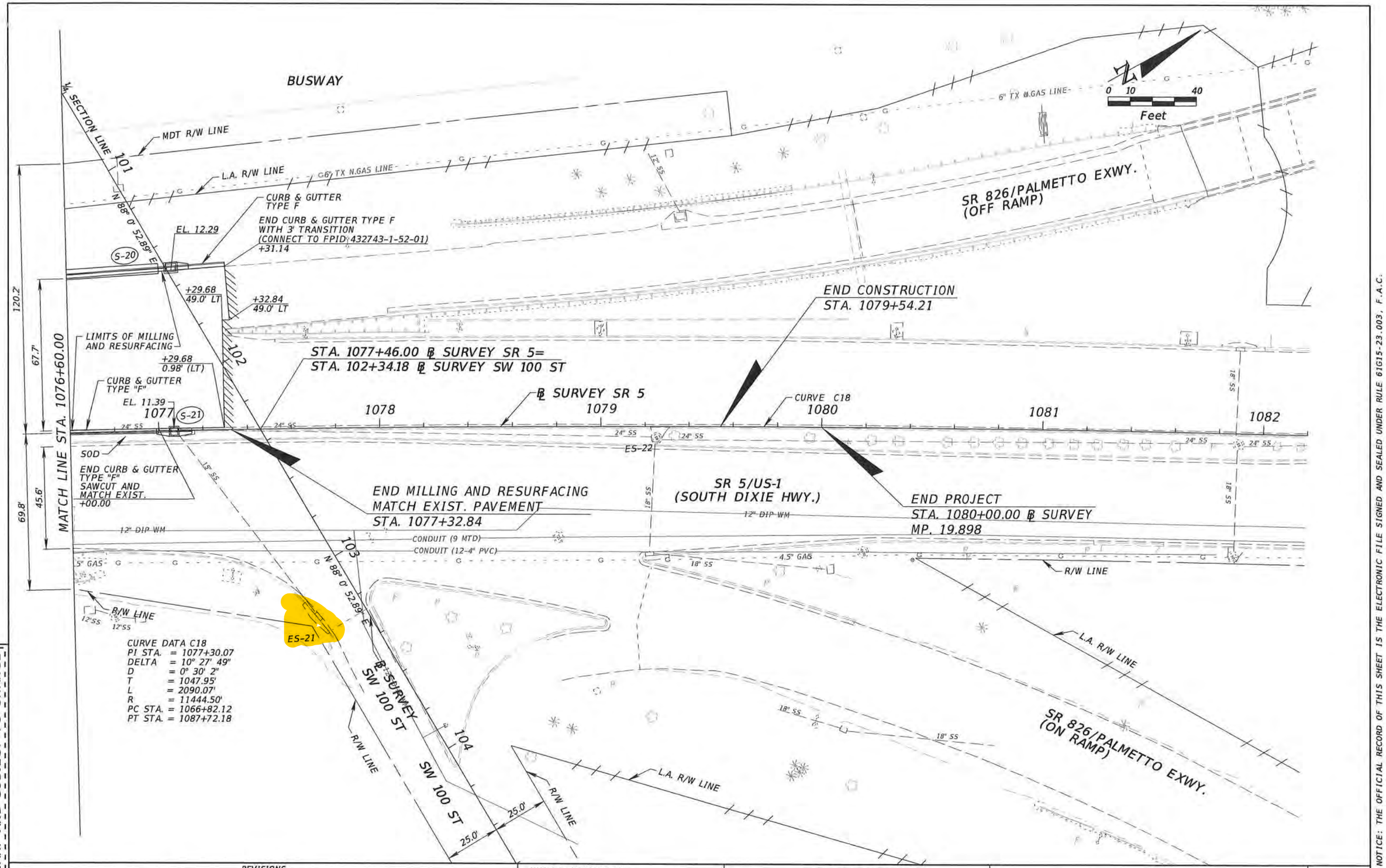

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5	MIAMI-DADE	433489-1-52-01

ROADWAY PLAN

SHEET NO. 18

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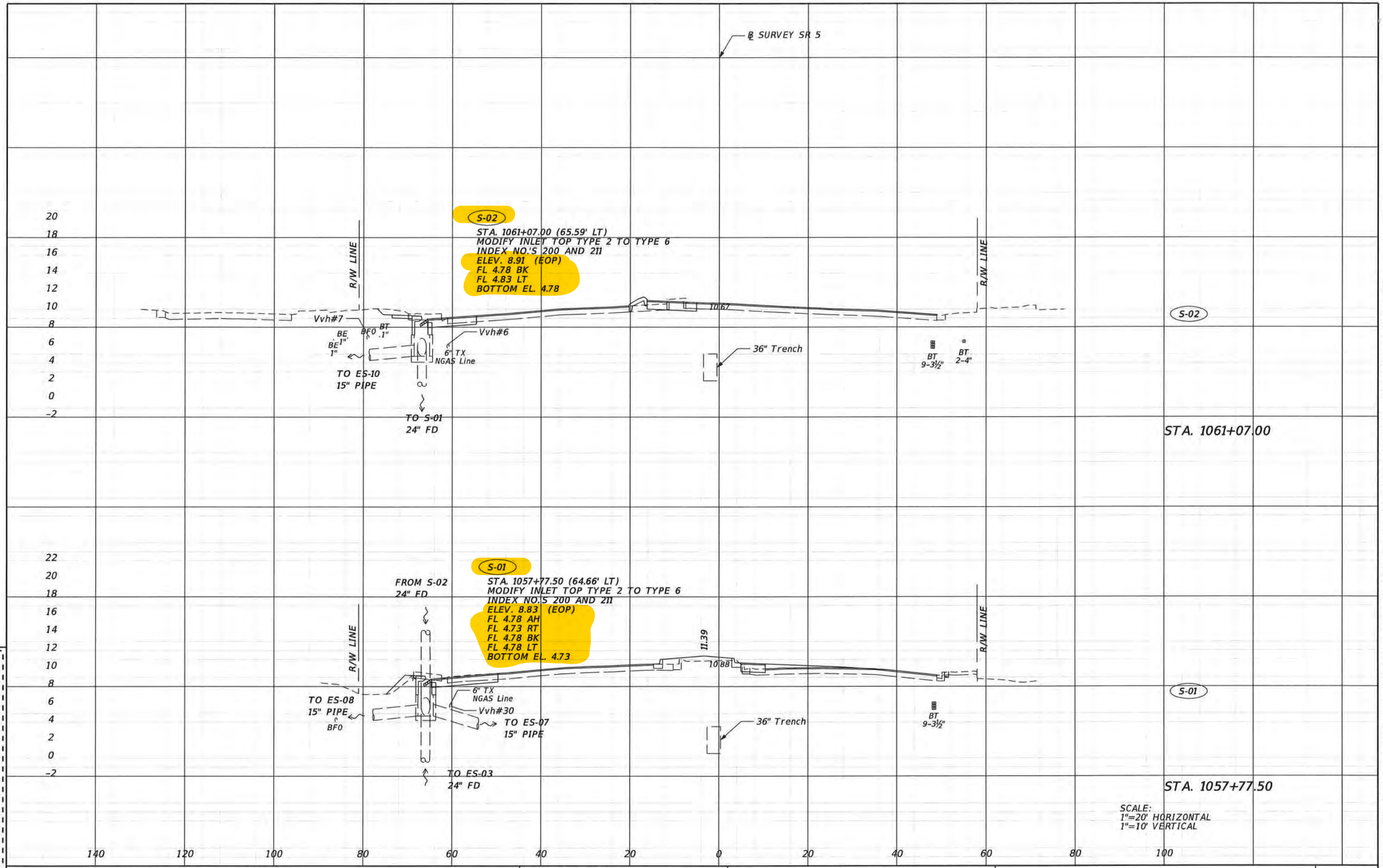

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5	MIAMI-DADE	433489-1-52-01

DRAINAGE STRUCTURES

SHEET NO. 19

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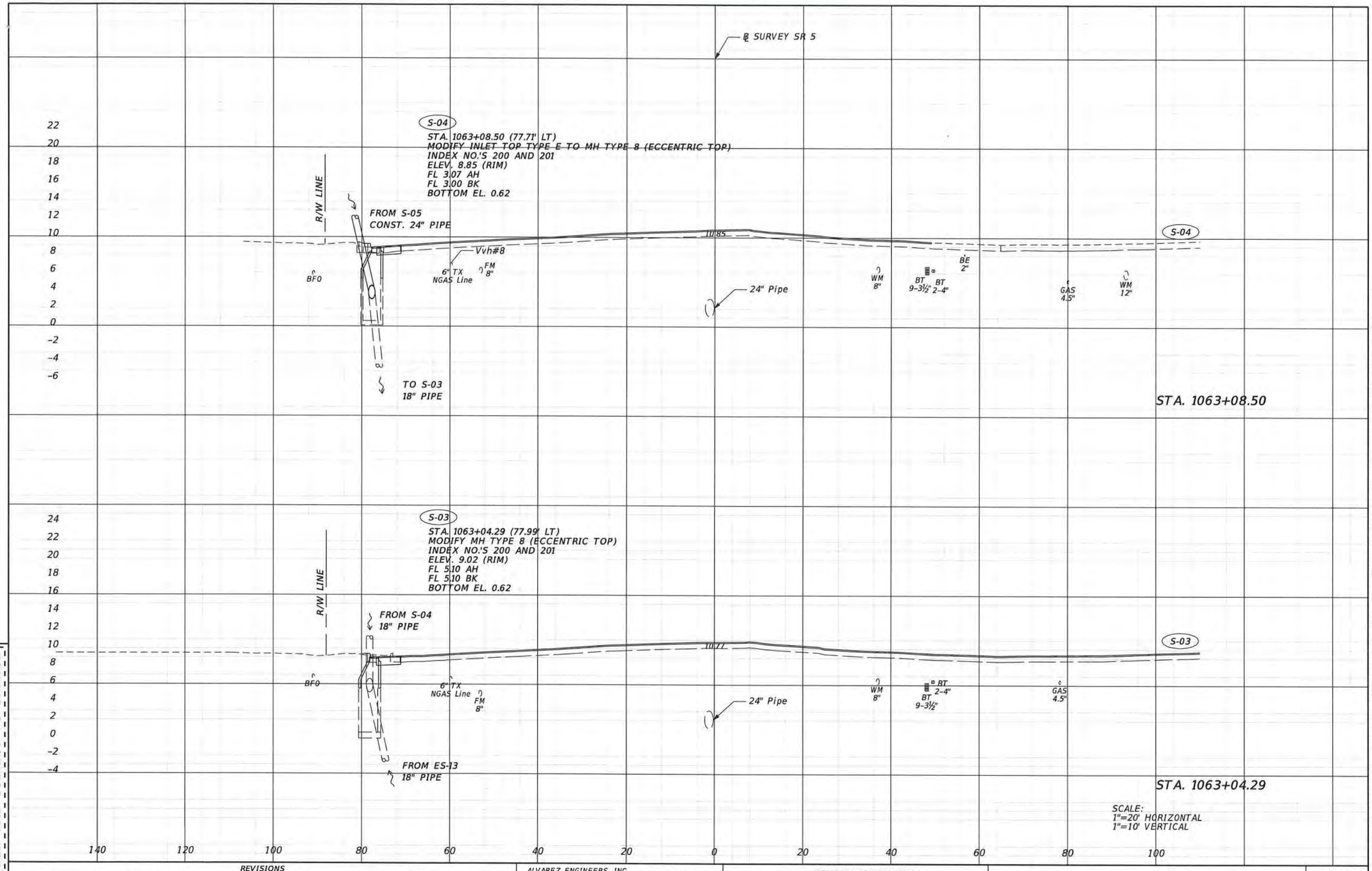

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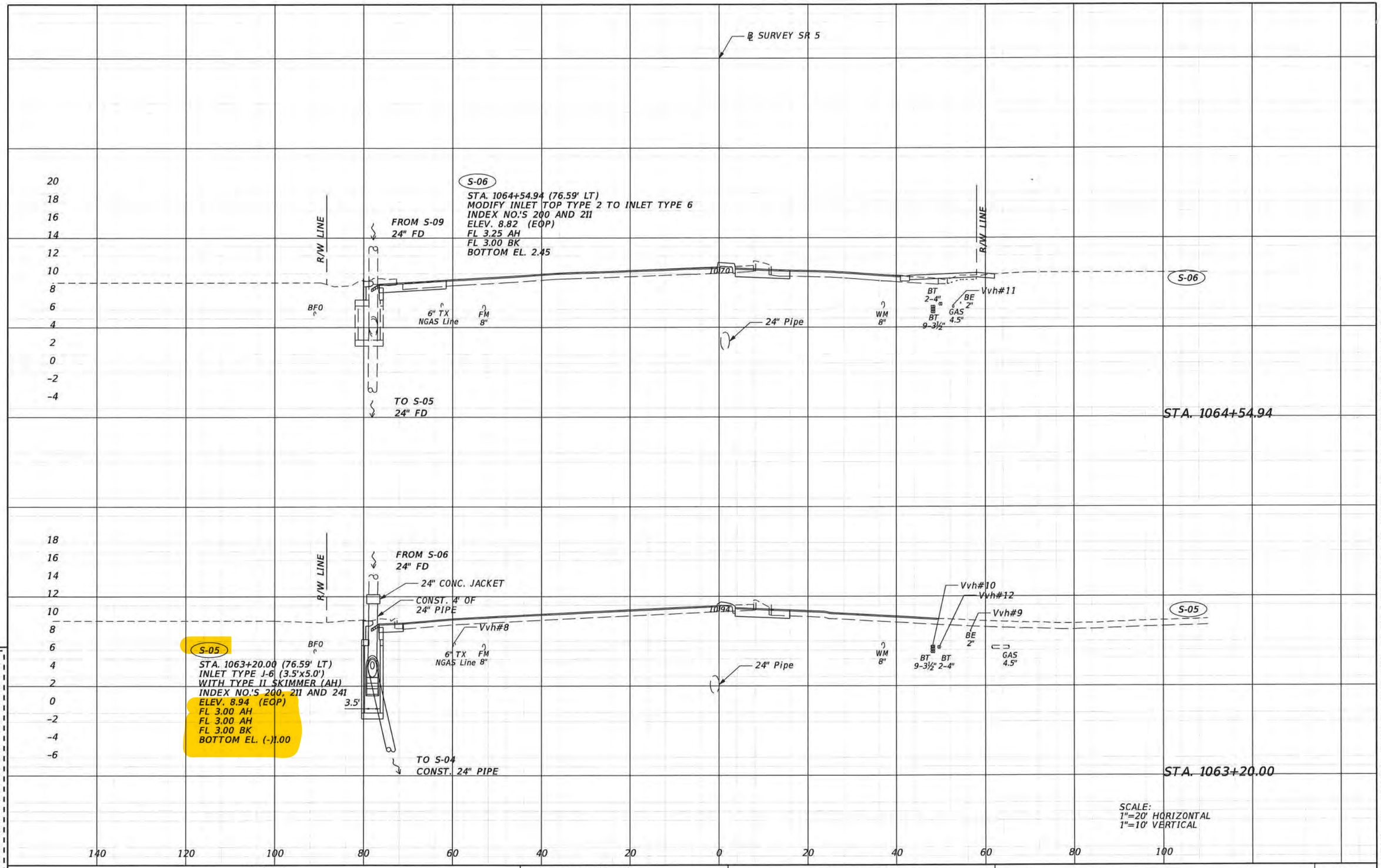
5	MIAMI-DADE	433489-1-52-01

DRAINAGE STRUCTURES

SHEET NO. 20



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5	MIAMI-DADE	433489-1-52-01

DRAINAGE STRUCTURES

SHEET NO. 21

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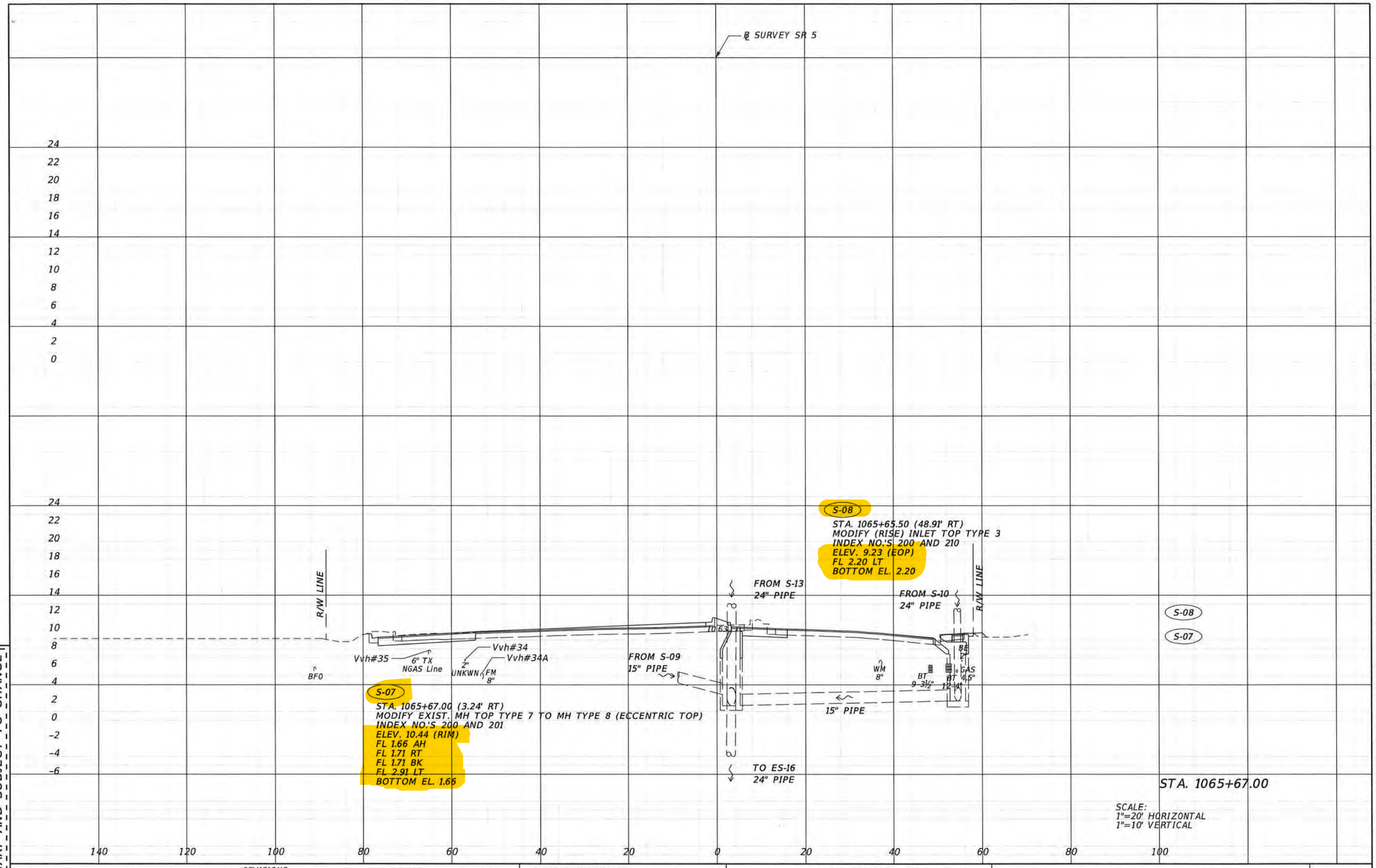

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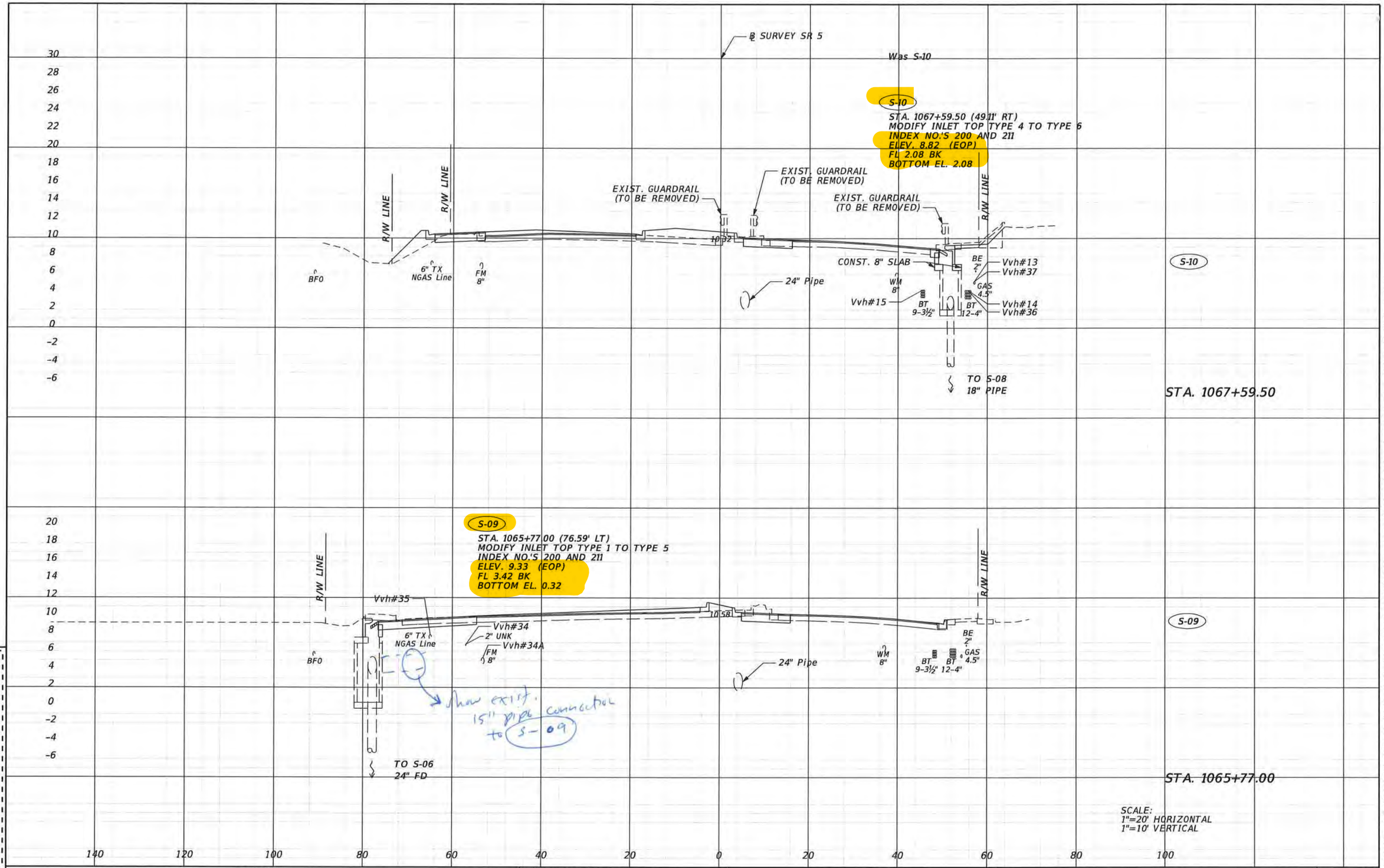
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	433489-1-52-01

DRAINAGE STRUCTURES

SHEET NO. 22



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5	MIAMI-DADE	433489-1-52-01

DRAINAGE STRUCTURES

SHEET NO. 23

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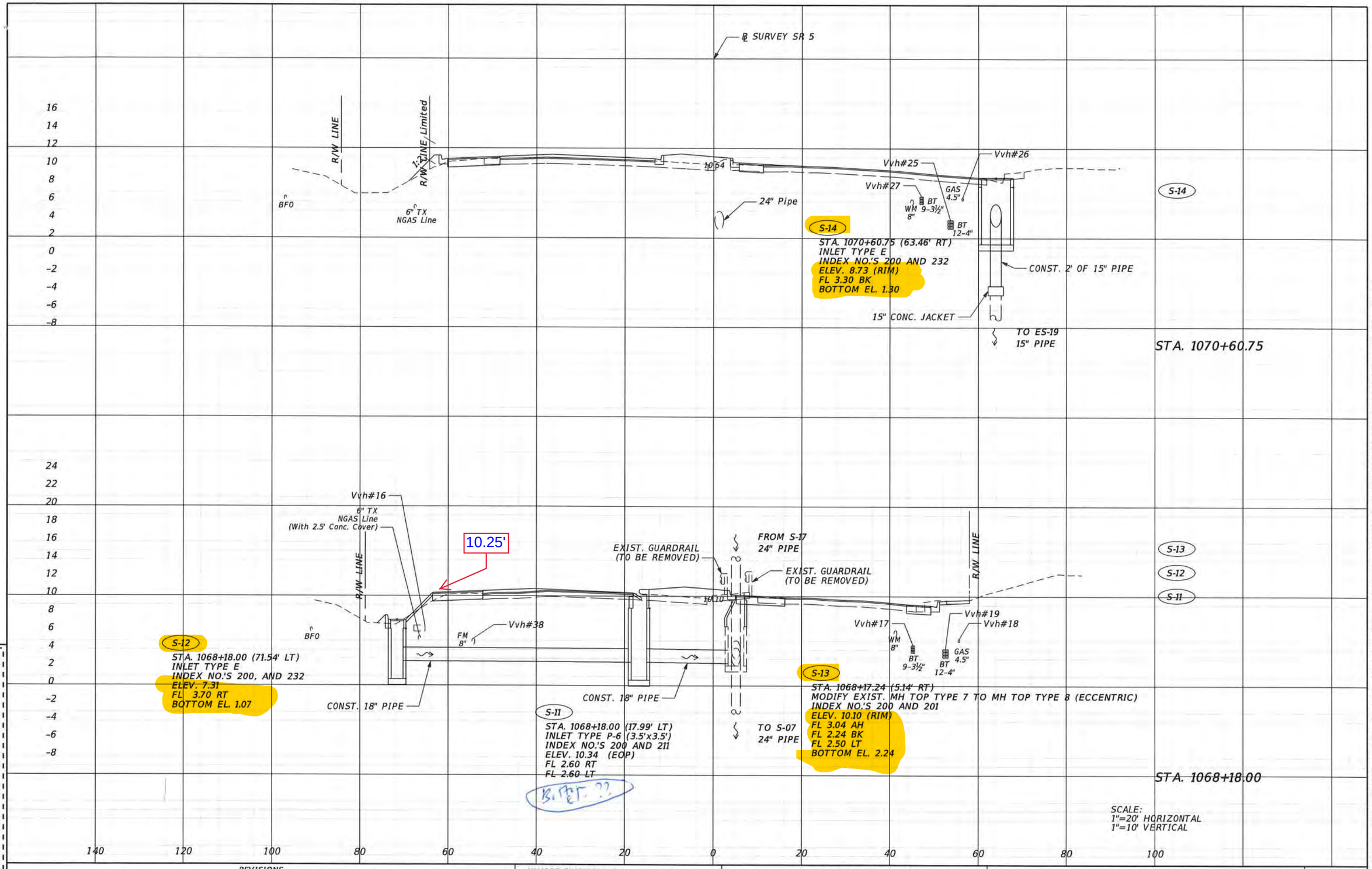

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5	MIAMI-DADE	433489-1-52-01

DRAINAGE STRUCTURES

SHEET NO. 24

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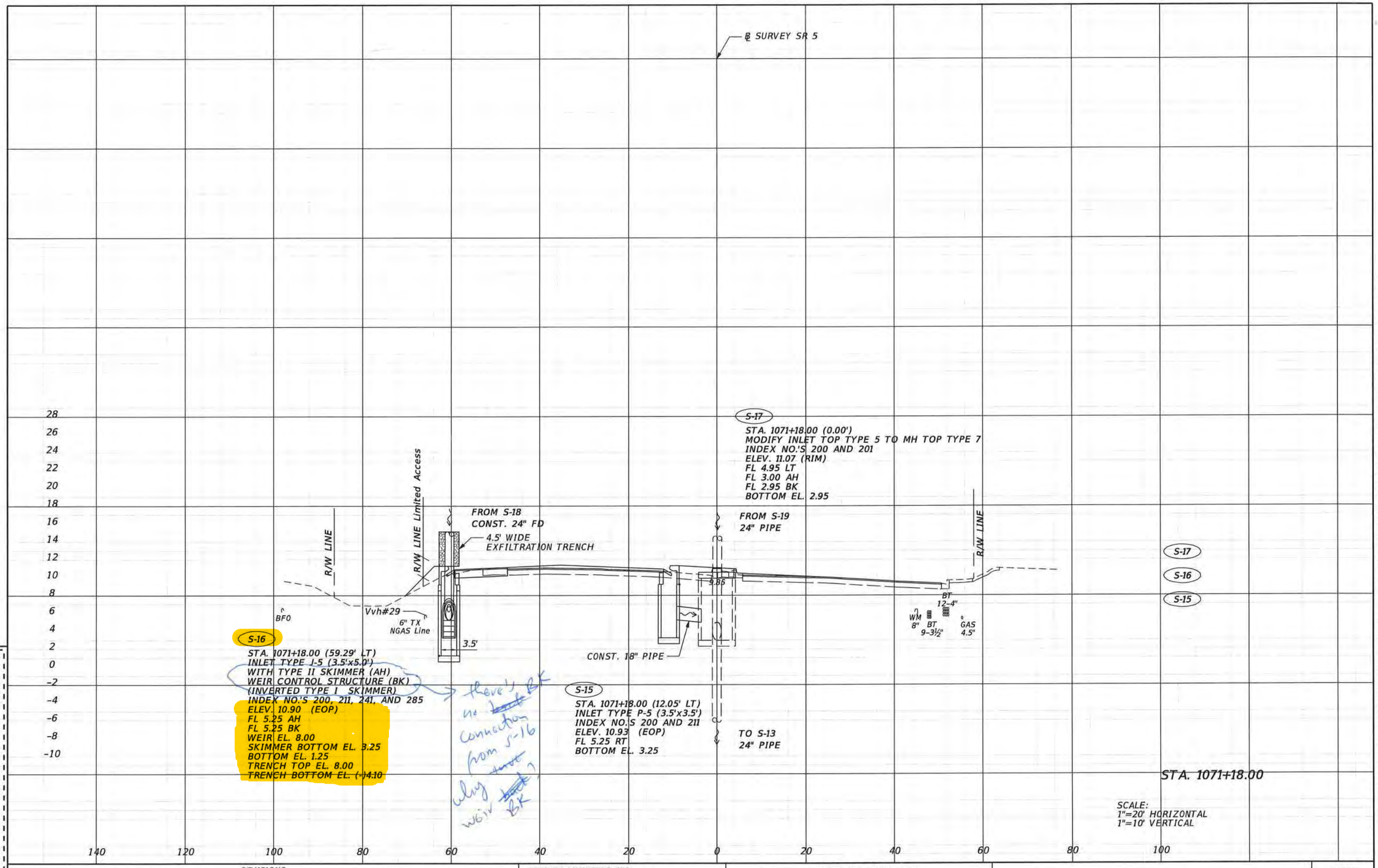

S-17

STA. 1071+18.00 (0.00')
MODIFY INLET TOP TYPE 5 TO MH TOP TYPE 7
INDEX NO.'S 200 AND 201
ELEV. 11.07 (RIM)
FL 4.95 LT
FL 3.00 AH
FL 2.95 BK
BOTTOM EL. 2.95

S-16

STA. 1071+18.00 (59.29' LT)
INLET TYPE J-5 (3.5'x5.0')
WITH TYPE II SKIMMER (AH)
WEIR CONTROL STRUCTURE (BK)
(INVERTED TYPE I SKIMMER)
INDEX NO.'S 200, 211, 241, AND 285
ELEV. 10.90 (EOP)
FL 5.25 AH
FL 5.25 BK
WEIR EL. 8.00
SKIMMER BOTTOM EL. 3.25
BOTTOM EL. 1.25
TRENCH TOP EL. 8.00
TRENCH BOTTOM EL. (-)4.10

there's no ~~BK~~ connection from S-16 ~~thru~~ why ~~thru~~ weir ~~BK~~ ?

S-15

STA. 1071+18.00 (12.05' LT)
INLET TYPE P-5 (3.5'x3.5')
INDEX NO.S 200 AND 211
ELEV. 10.93 (EOP)
FL 5.25 RT
BOTTOM EL. 3.25

STA. 1071+18.00

SCALE:
1"=20' HORIZONTAL
1"=10' VERTICAL

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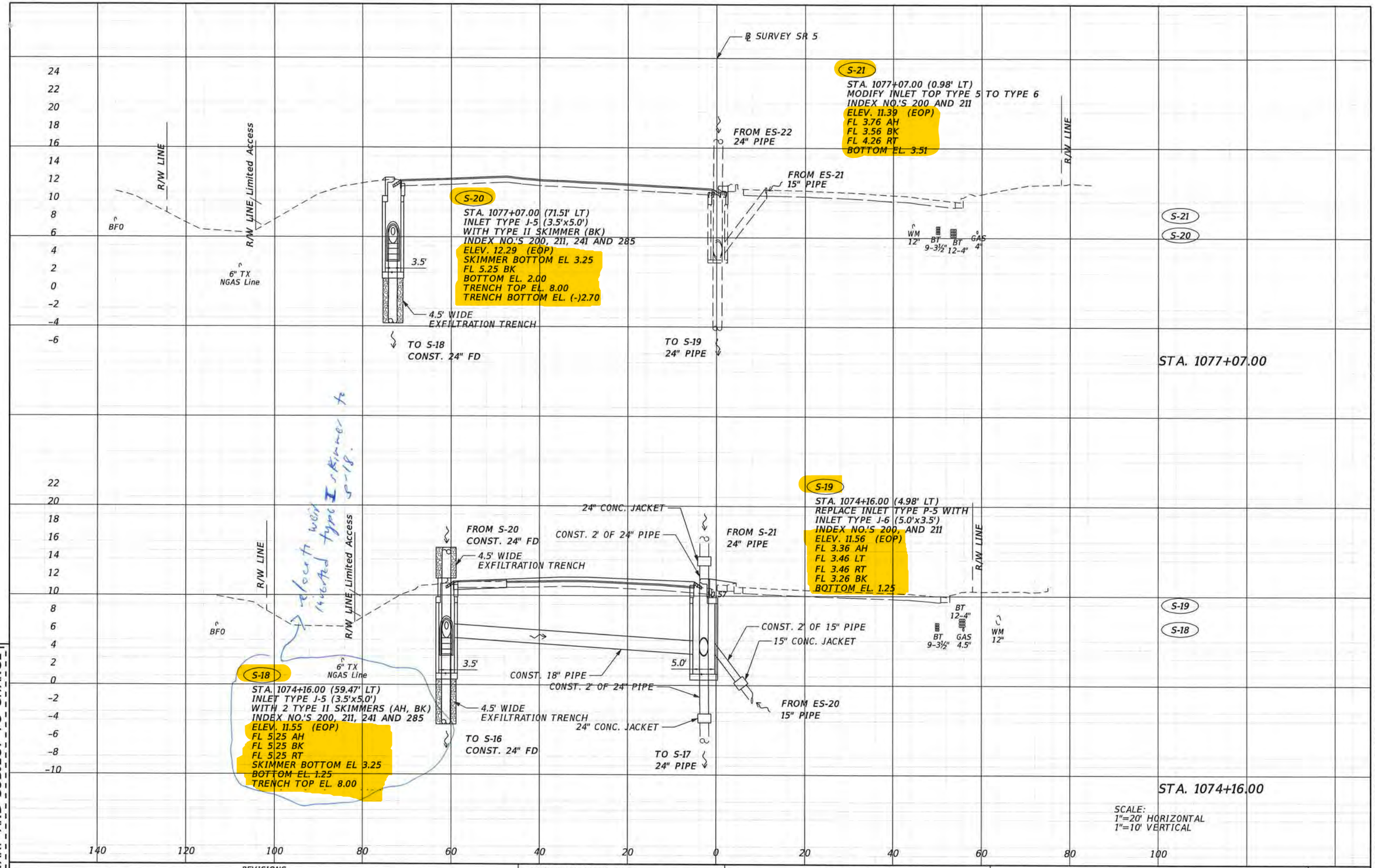
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	433489-1-52-01

DRAINAGE STRUCTURES

SHEET NO. 25



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SCALE:
1"=20' HORIZONTAL
1"=10' VERTICAL

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ALVAREZ ENGINEERS, INC.
Florida Certificate of Authorization # 7538
10305 N.W. 41st Street, Suite 103
Doral, Florida 33178
Tel. (305) 640-1345 Fax (305) 640-1346

Engineer of Record: Raul E. Alessandri, P.E.
P.E. No. 75506

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	433489-1-52-01

DRAINAGE STRUCTURES

SHEET NO. 26

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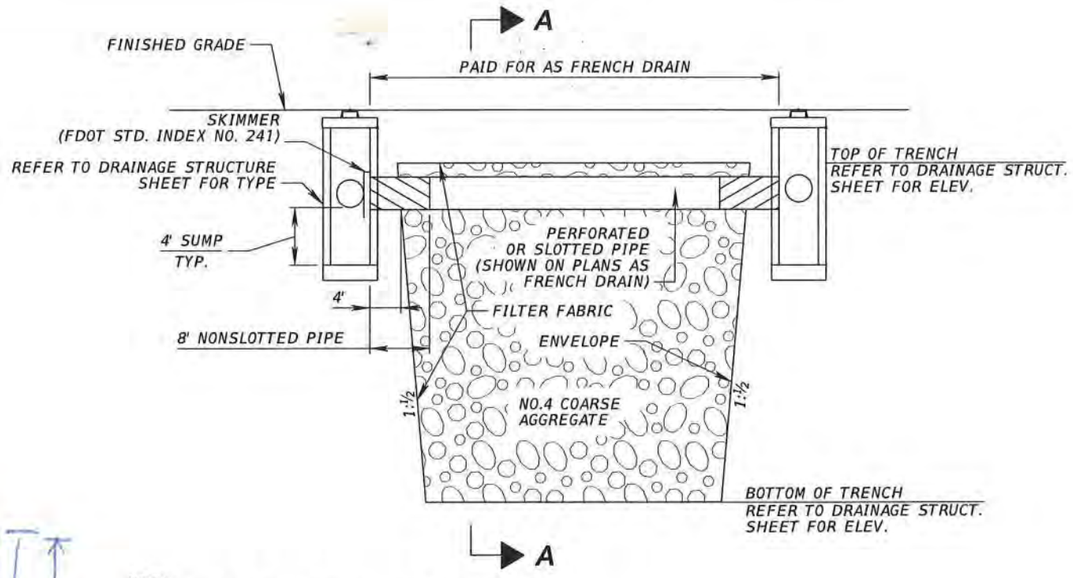
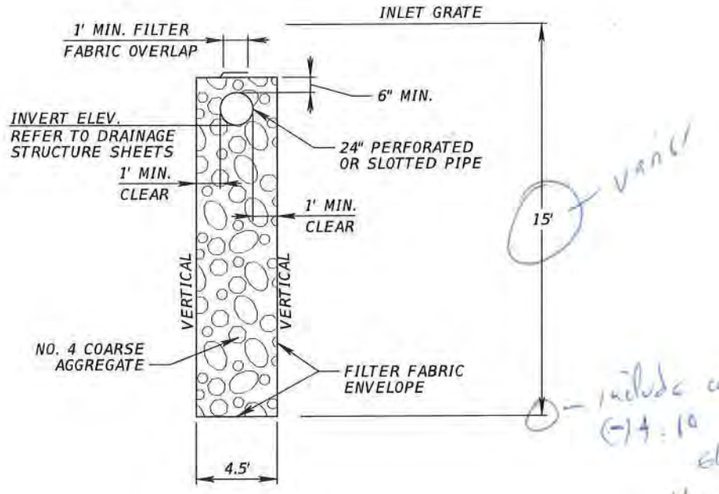
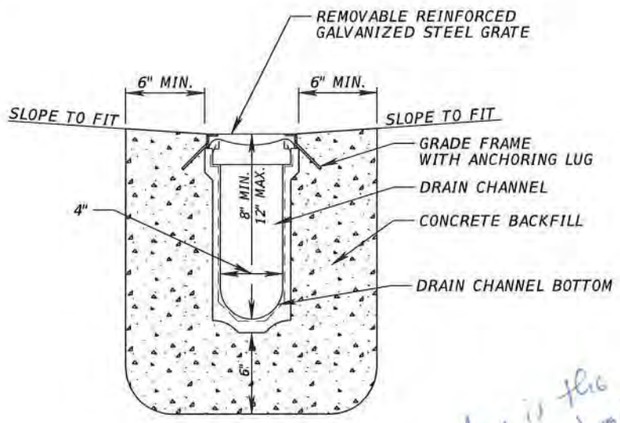


NOTE:
REFER TO FDOT DESIGN STANDARDS INDEX NO. 285

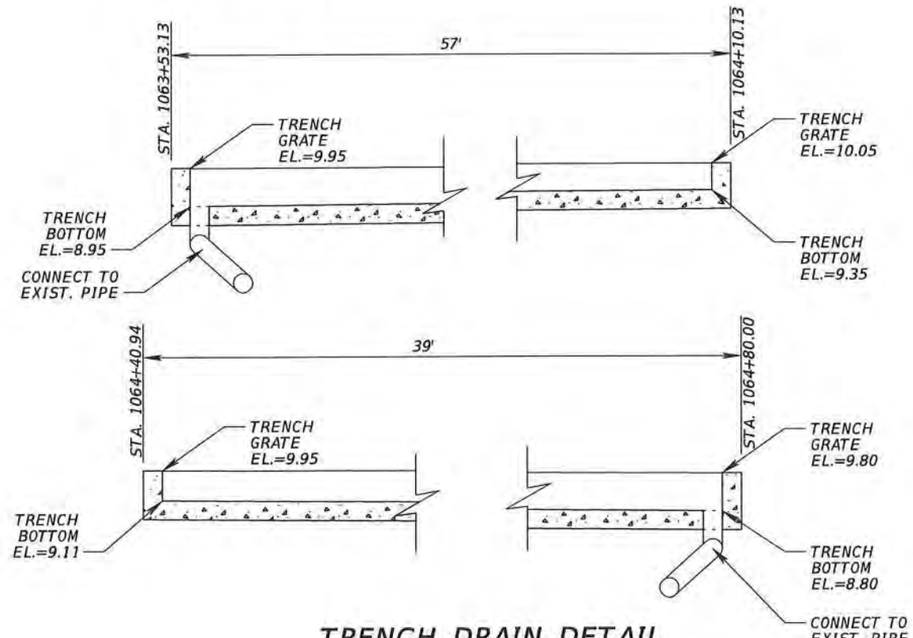
FRENCH DRAIN DETAIL
N.T.S.



SECTION A-A
N.T.S.



TRENCH DRAIN CROSS DETAIL
N.T.S.
TYPE II



TRENCH DRAIN DETAIL
N.T.S.

NOT FOR CONSTRUCTION
PRELIMINARY AND SUBJECT TO CHANGE

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

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ALVAREZ ENGINEERS, INC.
Florida Certificate of Authorization # 7538
10305 N.W. 41st Street, Suite 103
Doral, Florida 33178
Tel. (305) 640-1345 Fax (305) 640-1346

Engineer of Record: Raul E. Alessandri, P.E.
P.E. No. 75506

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
5	MIAMI-DADE	433489-1-52-01

DRAINAGE DETAIL

SHEET NO. 29

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AS BUILT PLAN SET

FIN# 2495071-5201

FINAL PLANS

THIS CONTRACT PLAN SET INCLUDES:

ROADWAY PLANS
SUMMARY OF PAY ITEMS (13 SHEETS)
SIGNING AND PAVEMENT MARKING PLANS
SIGNALIZATION PLANS
LIGHTING PLANS
STRUCTURE PLANS
TREE RELOCATION PLANS
PROJECT SHOP DRAWINGS

FIN# 2495071-5201

STATE OF FLORIDA

DEPARTMENT OF TRANSPORTATION

FINAL PLANS

STATE HIGHWAY

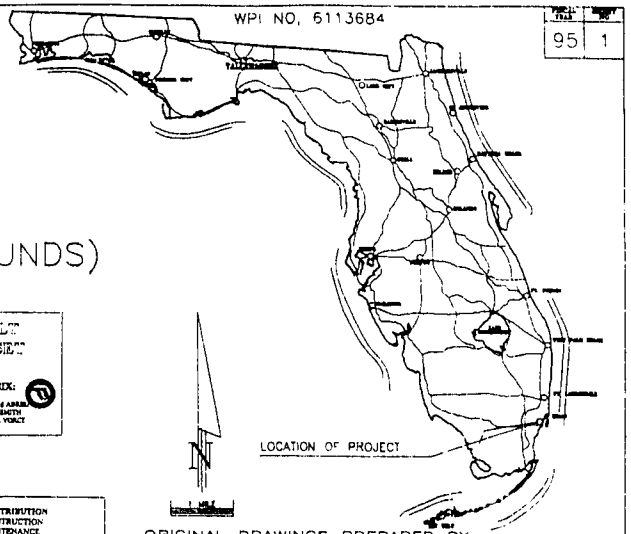
STATE PROJECT NO. 87260-3512 (FEDERAL FUNDS)

DADE COUNTY

STATE ROAD NO. 826

WPI NO. 6113684

95 | 1



LOCATION OF PROJECT

AS BUILT PLAN SET

FDOT DISTRICT SIX:

DISTRICT SECRETARY: JOSE ABREU
RESIDENT ENGINEER: TITU SMITH
PROJECT MANAGER: DIANA YORET

WORK BEGAN OCTOBER 16, 1995
CONDITIONAL ACCEPTANCE: MAY 21, 1998
DATE OF ACCEPTANCE:

FAP No. ACKU-475-1(96)
WPI No. 6113684
Contract No. 19211

PROJECT DESCRIPTION:
Widening & Reconstruction of
S.R. 826 Palmetto Expressway
From US-1 to SW 72nd Street

A DETAILED INDEX APPEARS ON THE KEY SHEET OF EACH GROUP OF PLANS

SEE ATTACHED SHEET OF REVISIONS AND INDEX OF SHOP DRAWINGS

INDEX OF ROADWAY PLANS

SHEET NO.	SHEET DESCRIPTION
1	KEY SHEET
2-6	DRAINAGE MAPS
7	EXISTING DRAINAGE STRUCTURES
8,9	INTERCHANGE DRAINAGE MAPS
10-17	TYPICAL SECTIONS
18,19	SUMMARY OF QUANTITIES
20-23,23A,23B,24,25	SUMMARY OF DRAINAGE STRUCTURES
26,27	PROJECT LAYOUT
28-38	ROADWAY PLANS
39-47	ROADWAY PLAN - PROFILES
48-60,60A,61-68,68A,69-77	ROADWAY PROFILES
78-81	INTERCHANGE LAYOUT
82-85	INTERSECTION LAYOUT / DETAIL
86-98,98A-98C,97-108	DRAINAGE STRUCTURES
109-117	DRAINAGE DETAILS
117A-117D	DRAINAGE DETAILS (STRUCTURAL DESIGN)
118-122	POND DETAILS
123-128	STORM WATER POLLUTION PREVENTION SHEETS
129-131	CROSS SECTION PATTERN SHEETS
132-135	ROADWAY SOIL SURVEY
136-235	CROSS SECTIONS
236-236.23BA,239-372	TRAFFIC CONTROL SHEETS
373-389	UTILITY ADJUSTMENTS
390-401	APPROACH SLABS
402-407	INTERIM ROADWAY AND TRAFFIC DESIGN STANDARDS

THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH AND ARE GOVERNED BY THE STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION, ROADWAY AND TRAFFIC DESIGN STANDARDS (BOOKLET DATED JANUARY, 1992)

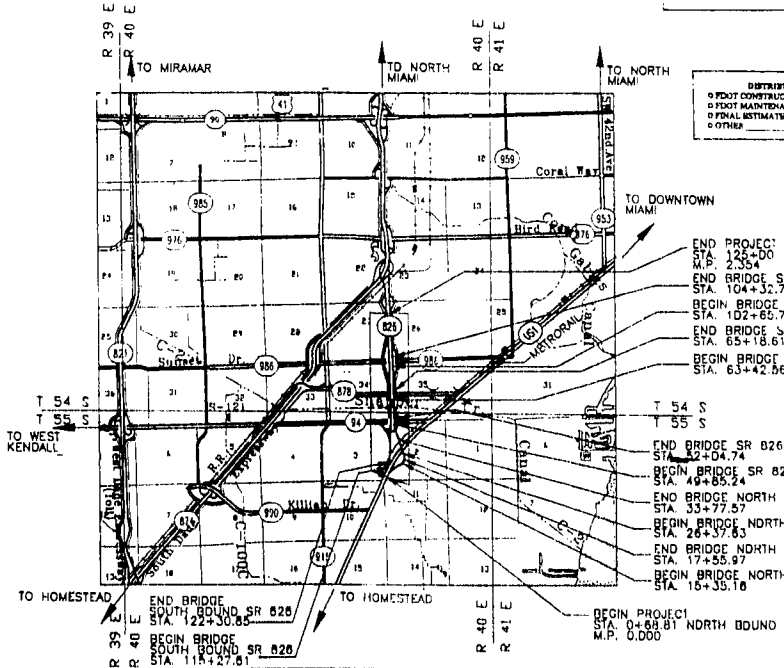
REVISIONS

ROADWAY SHEETS: 1, 26, 28, 31, 239, 240, 241, 254, 257, 258, 273, 276, 292, 295, 402, 403, 404, 405, 406, 407 (REVISED 5/16/95)

LIGHTING SHEETS: 1-5 (REVISED 5/16/95)

STRUCTURES SHEETS: A1, B1, B2, B3, B4, B5, B6, (REVISED 5/16/95)

CES: (REVISED 5/16/95)
Acceptance C.E.S. (dated 6-19-95)



DISTRIBUTION
- FDOT CONSTRUCTION
- FDOT MAINTENANCE
- FINAL ESTIMATES
- OTHER

ORIGINAL DRAWINGS PREPARED BY:

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ENGINEERS PLANNERS

ENGINEER OF RECORD JOSE J. DE ALMAGRO

P.E. NO. 0040948 DATE 12/22/94

ADDRESS 1150 N.W. 72ND AVENUE
SUITE 630
MIAMI, FLORIDA 33126

PHONE: (305) 592-5930

MODIFICATIONS TO ORIGINAL DRAWINGS BY

CONTRACTOR:
ODEBRECHT CONTRACTORS OF FLORIDA, INC.

C.E.I. CONSULTANTS:
REYNOLDS, SMITH & HILLS, C.A., INC.
DELTA CONSULTING ENGINEERS
LAW ENGINEERING
TRA CONSULTANTS

Kimley-Horn KIMLEY-HORN AND ASSOCIATES INC ENGINEERS PLANNERS

ENGINEER OF RECORD JAMES M. ZE

P.E. NO. 0016369 DATE 1/95

ADDRESS 4431 EMBARCADERO DRIVE
WEST PALM BEACH, FLORIDA 33407

PHONE (407) 845-0665

KHA BEARS DESIGN RESPONSIBILITY FOR ONLY THOSE ELEMENTS SPECIFICALLY MODIFIED BY KHA. KHA ACCEPTS SCRIVENER RESPONSIBILITY ONLY FOR OTHER DATA SHOWN ON THE MODIFIED SHEETS, THE DESIGN OF WHICH WAS PERFORMED BY OTHERS.

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.

GOVERNING SPECIFICATIONS: STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS, DATED 1991, SUPPLEMENTS AND SPECIAL PROVISIONS, THERETO IF NOTED IN THE CONTRACT SPECIFICATIONS FOR THIS PROJECT.

ORIGINAL PLANS APPROVED BY: JOSE J. DE ALMAGRO

DATE 12/22/94

P.E. NO. 0040948

MODIFICATIONS APPROVED BY: JAMES M. ZE

DATE 1/95

P.E. NO. 0016369

LENGTH OF PROJECT

	LINEAR FT.	MILES
ROADWAY	10,907.94	2.066
BRIDGES	1,523.25	0.288
NET LENGTH OF PROJ.	12,431.19	2.354
EXCEPTIONS	0.000	0.000
GROSS LENGTH OF PROJ.	12,431.19	2.354

NORTHBOUND SR 826 STATIONING WAS USED FOR PURPOSE OF CALCULATING THE LENGTH OF THE PROJECT
F.D.O.T. PROJECT MANAGER : MICHAEL (TONY) BUDALL P.E.

REVISIONS		
DATE	BY	DESCRIPTION
5/16/95	JDD	REVISED TO ADD SHEETS 402 & 407 REVISED TO DELETE SR 826 SB BRIDGE WIDENING

CONTRACT PLAN SET

CEI RESIDENT ENGINEER
M. JAMES McCOMBS, P.E.

CONSULTANT C.E.I.
REYNOLDS, SMITH & HILLS, INC.
201 SOUTH PINE ISLAND ROAD, SUITE 300
PLANTATION, FL 33324-3917 (954) 474-3000

CONSTRUCTION RESIDENT ENGINEER

M. JAMES McCOMBS, P.E.
FL. P.E. No. 42678

M. JAMES McCOMBS P.E.
FL. P.E. No. 42678

F.I.# 2495071-5201
State Project No. 87260-3512 S.R. 826 Palmetto Expressway From US-1 to SW 72nd Street
WPI No. 6113684
F.A.P. ACXU-475-1(96)
Contract # 19211

PLAN SHEET 1A
REVISION INDEX

Index of Plan Revisions & As-built Changes

Sheet No.	Description	Date
1	Final Plans Key Sheet	6-30-98
10-17	Optional Base Groups utilized during construction	6-30-98
18	As-built Barrier wall, & Fencing	6-30-98
19	As-built Guardrail & Sodding	6-30-98
20-25	As-built drainage matrix	6-30-98
28	SB widening deletion	6-05-98
31	Temp Barrier Wall Left in place on project	6-30-98
32	Shoulder Gutter Stationing Change	6-30-98
33	Guardrail Stationing Change	6-30-98
37	Guardrail Stationing Change	6-30-98
43	Change in limits of Ramp A-1 Construction	10-14-96
46	Sunset Drive Drainage Modifications	6-30-98
47	Sunset Drive Drainage Modifications	6-30-98
86	Gutter Drain Inlet Modifications	3-13-97
87	S-1 Orientation change	6-30-98
88	S-6 15" pipe modification	6-30-98
90	S-12 Elevation change	6-30-98
91	S-15 & 15" RCP Elevation Modifications	6-30-98
92	S-18 & S-19 Elevation change	6-30-98
93	S-34 & S-27 Modifications	6-30-98
94	Drainage Fl. Elevation changes	6-30-98
95	Drainage Elevation Modifications	6-30-98
96	S-52 & S-53 pipe run modifications	6-30-98
97	S-56 Elevation Change	6-30-98
98	Drainage Modifications S-63	6-30-98
99	S-67 Drainage Modifications	6-30-98
100	S-77 Drainage Modifications	6-30-98
101	S-67B & S-84 Drainage Modifications	6-30-98
104	S-93 & S-94 Elevation Change	6-30-98
105	Sunset Drive Drainage Modifications	6-30-98
106	S-103 & S-106 Elevation Changes	6-30-98
107	S-112 Elevation Changes	6-30-98
108	S-116 Stationing Change	6-30-98
118	Pond #2 Modification	6-30-98
124	Silt Fence Locations	6-30-98

RS&H BEARS RESPONSIBILITY FOR THE AS-BUILT CONDITION OF THOSE ELEMENTS MODIFIED DURING CONSTRUCTION ONLY

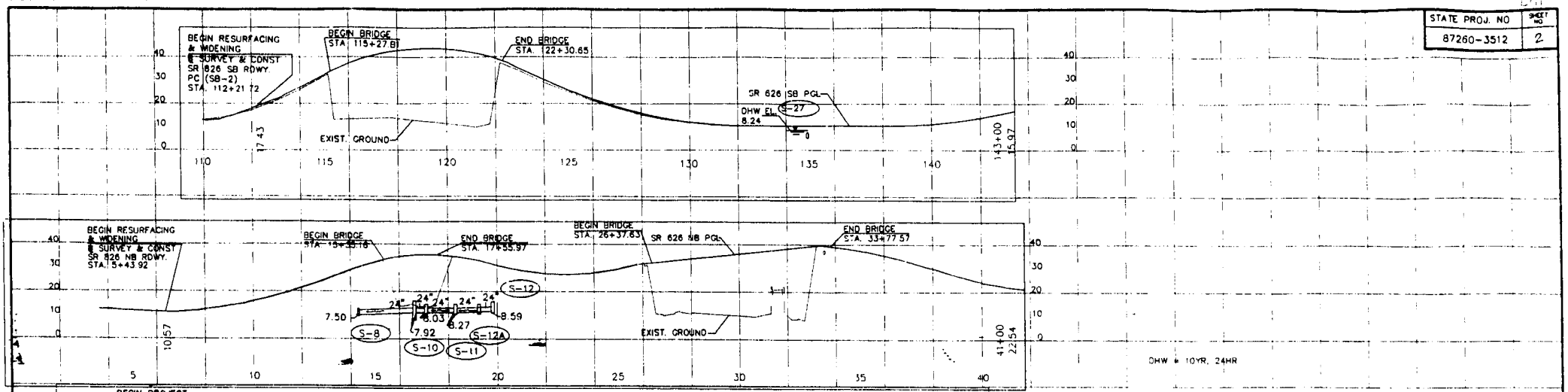
CONSULTANT C.E.I
REYNOLDS, SMITH & HILLS,CS, INC.
300 SOUTH PINE ISLAND ROAD, SUITE 300
PLANTATION, FL 33324-2619 (954) 474-3005

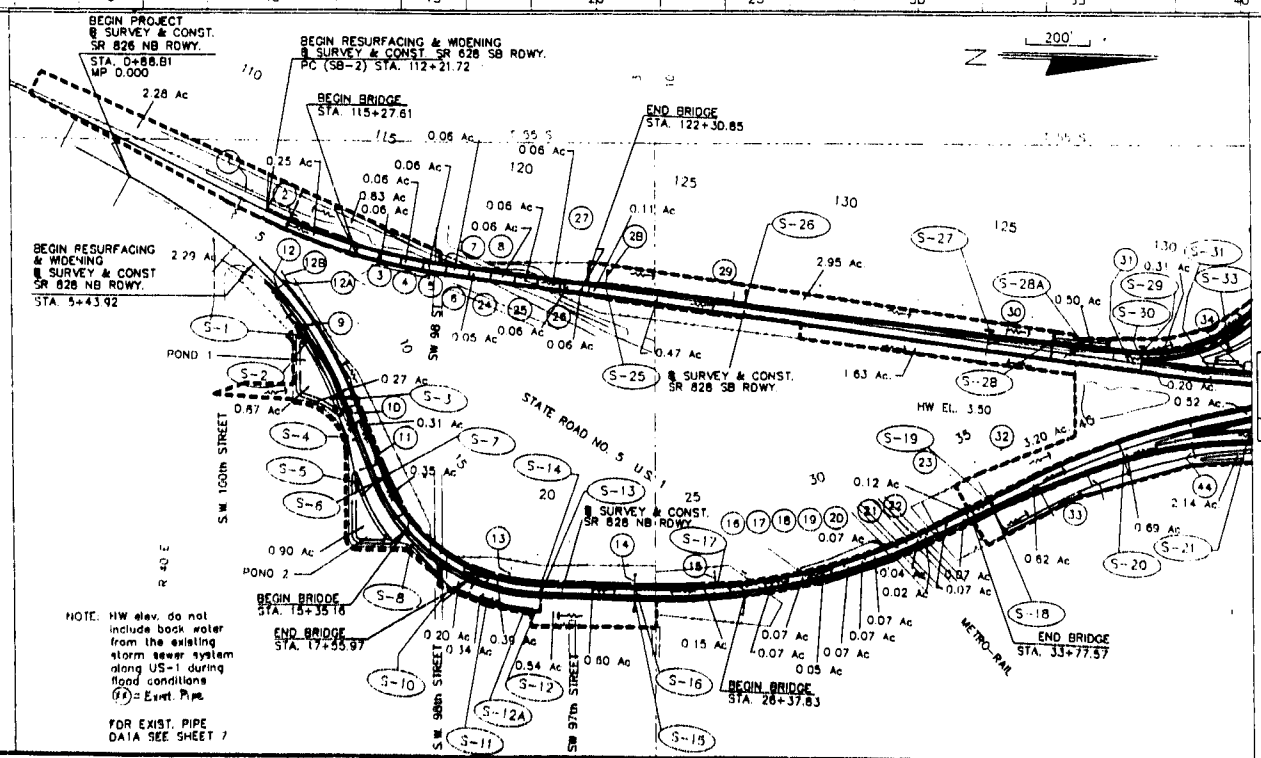
CONSTRUCTION RESIDENT ENGINEER

6/30/98

M. JAMES McCOMBS, P.E. FL. P.E. No. 42675

STATE PROJ. NO	SHEET NO
87260-3512	2





NOTE: HW elev. do not include back water from the existing storm sewer system along US-1 during flood conditions
(##)= Exist. Pipe

FOR EXIST. PIPE DATA SEE SHEET 7

	pH		Resistivity Ohm-cm		Chlorides ppm	Sulfates ppm	Limits	
ALT.	Min.	Max.	Min.	Max.	Max.	Max.	From	To
AA	6.0	8.2	16500	21500	48	10	5+41.49 112+21.72	41+50(NB) 141+50(SB)
AB	8.0	8.2	16500	21500	48	10	5+41.49 112+21.72	41+50(NB) 141+50(SB)

NOTE
The pH and resistivity for Alt. AB must satisfy both the values shown in the table and satisfy the appropiate equation given below.
The following equation should be used to establish the suitability of a soil to satisfy service life requirements within the limits specified.
*1.76 ≤ [Log10 R-Log10 (2180-2490 Log10 pH)]
**2.23 ≤ [Log10 R-Log10 (2160-2490 Log10 pH)]

AS BUILT PLAN SET

Structure No.	DESIGN 10% Prob.		FLOOD 10Yr. Freq.		BASE 1% Prob.		FLOOD 100Yr. Freq.		OVERTOPPING FLOOD				GREATEST FLOOD			
	Discharge		Stage		Discharge		Stage		Discharge		Stage		Prob. %	Freq Yr.	Discharge	Stage	Prob. %	Freq Yr.
S-27	4.58		8.24		9.05		9.47		-		-		-	-	11.15	10.08	0.2%	500

NOTE:
The hydraulic data is shown for informational purposes only, to indicate the flood discharges and water surface elevations which may be anticipated in any given year. This data was generated using highly variable factors determined by a study of the watershed. Many judgements and assumptions are required to establish these factors. The resultant hydraulic data is sensitive to changes, particulary of antecedent conditions, urbanization, channelization and land use. Users of this data are cautioned against the assumption of precision which can not be attained. Discharges are cubic feet per second and stages are in feet above mean sealevel NGVD
Circled numbers represent existing drainage structures which are summarized in the summarized in the "Existing Drainage Structure" sheet with their respective data

Definitions:
Design Flood: The flood selected by the F.D.O.T. to be utilized to assure a standard level of hydraulic performance
Base Flood: The flood having a 1% chance of being exceed in any year, (100 year frequency)
Overtopping Flood: The flood where flow occure over the highway, over a watershed divide or thru emergency relief structures
Greatest Flood: The most severe flood which can be predicted where overtopping is not practical, normally one with a 0.2% chance of being exceeded in any year (500 Year Frequency)

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
		REVISION						

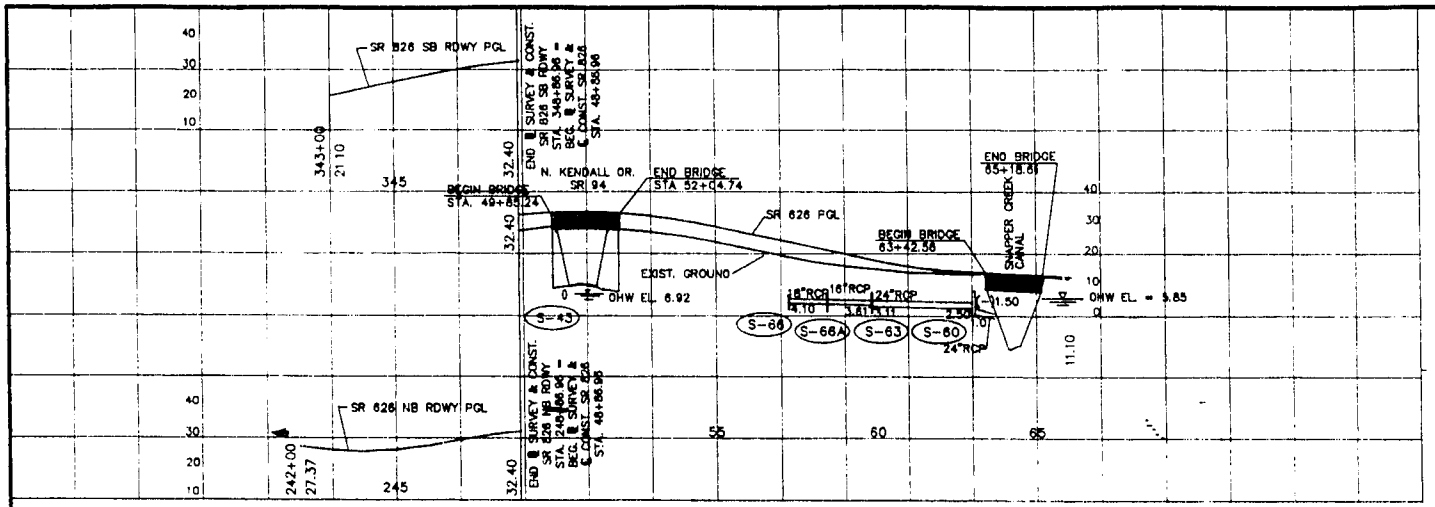
	NAME	DATE		NAME	DATE
DESIGNED	L.L.B.	5/93	DRAWN BY	J.A.	5/93
CHECKED	J.J.O.	5/93	CHECKED BY	J.J.O.	5/93
SUPERVISED BY: J.W.H.					

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY
DATE

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

STATE ROAD NO. 826
DRAINAGE MAP

STATE PROJ. NO.	SHEET NO.
87260-3512	3



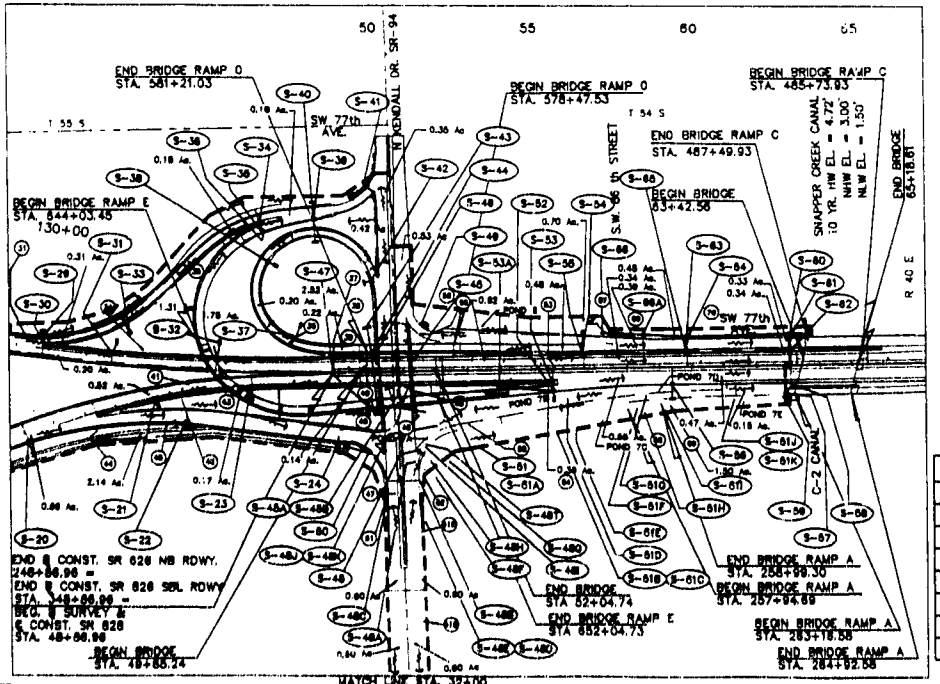
	pH		Resistivity Ohm-cm		Chlorides ppm	Sulfates ppm	Limits	
ALT.	Min.	Max.	Min.	Max.	Max.	Max.	From	To
AA	8.0	8.2	18500	21500	48	10	241+50 341+50 48+86.96	248+86.96(NB) 348+86.96(SB) 63+50
AB	8.0	8.2	18500	21500	48	10	241+50 341+50 48+86.96	248+86.96(NB) 348+86.96(SB) 63+50

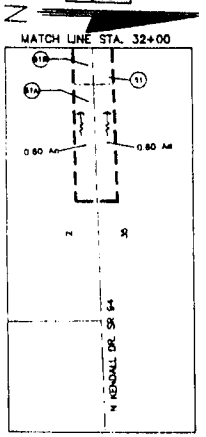
NOTE
The pH and resistivity for Alt. AB must satisfy both the values shown in the table and satisfy the appropiate equation given below.
The following equation should be used to establish the suitability of a soil to satisfy service life requirements within the limits specified.

*1.78 ≤ [Log10 R-Log10 (2180-2490 Log10 pH)]
**2.23 ≤ [Log10 R-Log10 (2180-2490 Log10 pH)]

(XX) = EXISTING PIPE
FOR EXIST. PIPE DATA
SEE SHEET 7

OHW = 10YR, 24HR





STR.No	AREA	STR.No	AREA
S-23	0.48	S-47	1.81
S-31	0.31	S-48	0.36
S-32	0.62	S-48A	0.39
S-36	0.48	S-49	0.86
S-40	1.18	S-50	0.94
S-42	0.48	S-61	0.81
S-44	0.48	S-63	0.54
S-48	0.45	S-63A	0.17

Structure No.	DESIGN 10% Prob. 10Yr. Freq.		BASE 1% Prob.	FLOOD 100Yr. Freq.	OVERTOPPING FLOOD				GREATEST FLOOD			
	Discharge	Stage	Discharge	Stage	Discharge	Stage	Prob. %	Freq. Yr.	Discharge	Stage	Prob. %	Freq. Yr.
S-24	7.09	8.64	26.15	9.13	–	–	–	–	29.01	9.46	0.2%	500
S-33	0.0	7.00	0.0	7.00	–	–	–	–	0.0	7.00	0.2%	500
S-34	0.67	8.86	1.16	6.93	–	–	–	–	1.84	9.49	0.2%	500
S-35	0.00	8.36	2.46	9.69	–	–	–	–	2.76	9.75	0.2%	500
S-39	6.94	7.44	12.14	9.23	–	–	–	–	13.00	9.89	0.2%	500
S-40	9.64	7.64	13.19	8.94	–	–	–	–	14.43	9.53	0.2%	500
S-43	7.62	7.04	19.44	6.64	–	–	–	–	18.83	9.59	0.2%	500
S-48	5.95	6.92	23.73	9.14	–	–	–	–	28.20	10.07	0.2%	500
S-47*	6.52	6.77	34.51	6.11	–	–	–	–	44.52	6.70	0.2%	500
S-51	17.82	6.51	11.31	6.26	–	–	–	–	12.70	6.39	0.2%	500

* EXISTING STRUCTURE TO REMAIN

NOTE:
The hydraulic data is shown for informational purposes only, to indicate the flood discharges and water surface elevations which may be anticipated in any given year. This data was generated using highly variable factors determined by a study of the watershed. Many judgements and assumptions are required to establish these factors, the resultant hydraulic data is sensitive to changes, particulary at antecedent conditions, urbanization, channelization and land use. Users of this data are cautioned against the assumption of precision which can not be attained. Discharges are cubic feet per second and stages are in feet above mean sealevel NGVD.

NOTE:
HW elevs. do not include back water from Snapper Creek Canal during flood conditions. For interchange drainage area see Supplementary Drainage Map.

DEFINITIONS:
Design Flood: The flood selected by the F.D.O.T. to be utilized to assure a standard level of hydraulic performance
Base Flood: The flood having a 1% chance of being exceed in any year. (100 year frequency)
Overtopping Flood: The flood where flow occurs over the highway, over a watershed divide or thru emergency relief structures
Greatest Flood: The most severe flood which can be predicted where overtopping is not practicable, normally one with a 0.2% chance of being exceeded in any year (500 Year Frequency)

AS BUILT PLAN SET

MARK	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

REVISIONS

	NAME	DATE		NAME	DATE
DESIGNED	HNTB/KHAI	5/93	DRAWN	HNTB/KHAI	5/93
CHECKED	HNTB/KHAI	5/93	QUANTITY BY	HNTB/KHAI	5/93
SUPERVISED BY: J.W.H./J.M.Z.					

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY:
DATE:

Kimley-Horn

HNTB

STATE ROAD NO. 826

DRAINAGE MAP

SUMMARY OF DRAINAGE STRUCTURES

CONSULTANT C.E.I.
REYNOLDS, SMITH & HILLS, INC.
315 SOUTH PINE ISLAND ROAD, SUITE 200
PLANTATION, FL 33324-3911 (954) 475-1200

STATE PROJ NO: 87260-3512
SHEET NO: 20

| QUANT. | STR. NO. | INDEX NO. | STATION/OFFSET | SIDE | LOCATION | TYPE | BARRELS | SIZE | LENGTH | RCP CROSS DRAIN CLASS III: 15" | 24" | 30" | 36" | 42" | 48" | 66" | 72" | 30" x 19" | 36" x 24" | 45" x 29" | 53" x 34" | RCP STORM SEWER CLASS III: 15" | 18" | 24" | 30" | 42" | 48" | 30" x 19" | 53" x 34" | GUTTER DRAIN: 15" | 18" x 12" | CURB INLETS: P-2P | P-4P | P-5P | P-6P | P-6J | P-6 MOD | MH: P7 | J7 | P7 PAR | STRAIGHT CONCRETE ENDWALLS SINGLE & MULTIPLE PIPE: 15" | 18" | 24" | 30" | 36" | 42" | 48" | 18" x 12" | 30" x 19" | 36" x 24" | 45" x 29" | 53" x 34" | CONCRETE COLLARS: 15" | 30" | 36" | 30" x 19" | REMARKS |
|---|---|---

SUMMARY OF DRAINAGE STRUCTURES

STATE PROJ. NO. 87260-3512 — SHEET NO. 21

QUANT.	STR. NO.	INDEX NO.	STATION/OFFSET		SIDE	LOCATION	TYPE	BARRELS	SIZE	LENGTH	DITCH BOTTOM INLETS A	B	B'	C	C'	D	E	F	G	H	GUTTER INLETS S	U-END WALL 15° 2:1	15° 3:1	15° 4:1	30°	BARRIER WALL INLET	MITERED END SECTION 15°	24°	30° 19°	45° 29°	53° 34°	SOD SY	CLASS I CONC. CY	REINF. STEEL Lbs	SIGN STRUC. SY	RIP RAP SY	SPECIAL STR. EA	REMARKS
P	S-1	232	8+20	34.56	RT	SR 826 NB	INLET																																
P	S-2	220, 261	8+40	18.13	RT	SR 826 NB	INLET, PIPE, U-EW	1	15	10					1							1		1									15	1.61	72				CONTROL STRUCTURE @ POND 1
P	S-3	220, 261	10+80		LT	SR 826 NB	INLET, PIPE, U-EW	1	15	61												1		1								15	1.61	72				WITH BAFFLES B-1
P	S-4	200, 201, 273	11+85	37	RT	SR 826 NB	MH, PIPE, MES	1	24	85												1		1								15	1.61	72				WITH BAFFLES L-9
P	S-5	273	13+34.6	85	RT	SR 826 NB	MES, PIPE	1	24	136																			1				10						MES W/ BAFFLES M-14
P	S-6	200, 201, 261	13+50	7	RT	SR 826 NB	MH, PIPE, U-EW	1	15	48												1		1								10						MES W/ BAFFLES
P	S-7	220	13+40		LT	SR 826 NB	INLET, PIPE	1	15	33												1		1								15	1.61	72				WITH BAFFLES L-6
P	S-8	200, 201, 250	15+78	18	RT	SR 826 NB	MH, PIPE, EW	1	24	99												1		1														
P	S-9																															38	2.24					EW W/ FLAP GATE E-8
P	S-10	232	17+37	83	RT	SR 826 NB	INLET, PIPE	1	24	158					1																							NOT USED
P	S-11	232	18+51	82	RT	SR 826 NB	INLET, PIPE	1	24	124					1																	6						
P	S-12	232	19+93	56	RT	SR 826 NB	INLET, PIPE	1	24	36					1																	6						
P	S-13	200, 201, 261	20+00	7.00	RT	SR 826 NB	MH, PIPE, U-EW	1	15	43												1		1								7						WDH STRUCTURE W/ TYPE 'H' GRATE
P	S-14	220	20+00		LT	SR 826 NB	INLET, PIPE	1	15	32												1		1								15	1.61	72				WITH BAFFLES L-13
P	S-15	200, 201, 261	22+80	7.00	RT	SR 826 NB	MH, PIPE, U-EW	1	15	34												1		1								15	1.61	72				WITH BAFFLES
P	S-16	220	22+80		LT	SR 826 NB	INLET, PIPE	1	15	32												1		1														LA-16
P	S-17	220	25+80		LT	SR 826 NB	INLET, PIPE	1	15	256												1		1														WITH SUMP
P	S-18	200, 201, 261	334+80	7	RT	RAMP B	MH, PIPE, U-EW	1	15	70												1		1								15	1.61	72				WITH BAFFLES L-18
P	S-19	220	34+80		LT	SR 826 NB	INLET, PIPE	1	15	33												1		1														
P	S-20	220, 261	338+00		RT	RAMP B	INLET, PIPE, U-EW	1	15	45												1		1								15	1.61	72				WITH BAFFLES B-2
P	S-21	220, 261	343+25		RT	SR 826 NB	INLET, PIPE, U-EW	1	15	10												1		1								15	1.61	72				WITH BAFFLES B-3
P	S-22	220, 261	344+00		RT	RAMP B	INLET, PIPE, U-EW	1	15	11												1		1								15	1.61	72				WITH BAFFLES B-4
P	S-23	220, 261	344+25		RT	SR 826 NB	INLET, PIPE, U-EW	1	15	34												1		1								15	1.61	72				WITH BAFFLES B-5
P	S-24	232, 280	348+75	13.5	RT	RAMP B	INLET, PIPE, COLLAR	1	30	17					1																	7						WITH SLOTS (2)
P	S-25	220, 261	123+00		LT	SR 826 SB	INLET, PIPE, U-EW	1	15	67												1		1								15	1.61	72				WITH BAFFLES B-6
P	S-26	220, 261	726+00		RT	RAMP F	INLET, PIPE, U-EW	1	15	40												1		1								17	1.84	68				WITH BAFFLES B-7
P	S-27	250, 280	135+00	--	--	SR 826 SB	COLLAR, PIPE, EW	1	36	8																						64	6.54					
P	S-28	250	716+40	25	RT	RAMP F	EW, PIPE	1	30x19	82																						55	1.99					PIPE PLUGGED & ABANDONED
P	S-28A	231, 250	716+45	25	RT	RAMP F	INLET, PIPE, EW	1	30x19	82					1																	55	1.99					
P	S-29	220, 261	713+58		RT	RAMP F	INLET, PIPE, U-EW	1	15	19												1		1														E-25
P	S-30	220	339+80		LT	SR 826 SB	INLET, PIPE	1	15	28												1		1								16	1.28	65				WITH BAFFLES LA-29
P	S-31	220, 261	341+94		LT	SR 826 SB	INLET, PIPE, U-EW	1	15	23												1		1									1.28	65				
P	S-32	220, 261	348+26		LT	SR 826 SB	INLET, PIPE, U-EW	1	15	34												1		1								15	1.61	72				WITH BAFFLES B-8
P	S-33	273	711+00	--	--	RAMP F	MES, PIPE	1	15	87												1		1								15	1.61	72				WITH BAFFLES B-9
P	S-34	220, 261	709+80		LT	RAMP F	INLET, PIPE, U-EW	1	15	82												1		1								33				8		CONTROL STRUCTURE @ POND 4-A
P	S-35	216, 285	639+35	--	LT	RAMP E	INLET, PIPE	1	15	36												1		1								16	1.28	65				WITH BAFFLES L-34
P	S-36	272	638+89	36	LT	RAMP E	MES, PIPE	1	15	82												1		1									1.28	65				WITH SUMP AND WEEP HOLE
P	S-37	220, 261	685+45		RT	RAMP D	INLET, PIPE, U-EW	1	15	39												1		1								23						CONTROL STRUCTURE @ POND 4-B
P	S-38	220, 261	686+80		RT	RAMP D	INLET, PIPE, U-EW	1	15	18												1		1								15	1.61	72				WITH BAFFLES B-10
P	S-39	220, 250	637+70		LT	RAMP E	INLET, PIPE, EW	1	24	98												1		1								15	1.61	72				WITH BAFFLES B-11
P	S-40	250	703+85	18.7	RT	RAMP F	EW, PIPE	1	24	82																						36	2.24					
P	S-41	230, 250	702+77.5		RT	RAMP F	INLET, PIPE, EW	1	18x12	23																						32	2.24					E-39
P	S-42	200, 211, 250	500+80		RT	RAMP D	INLET, PIPE, EW	1	15	17																						38	1.99					SEE DETAIL SHEET
P	S-43	250	207+57	86	RT	KENDALL D	EW, PIPE	1	24X24	86																						28	1.23					POLLUTION RETARDENT BAFFLE/WMP
P	S-44	210	212+31.53		RT	KENDALL D	INLET, PIPE	1	18X12	12																						37	2.04					CONTROL STRUCTURE @ POND 8
P	S-45	210	213+80		LT	KENDALL D	INLET, PIPE	1	15	186																							2.04					POLLUTION RETARDANT BAFFLE/WMP
																																					POLLUTION RETARDANT BAFFLE/WMP
	SHEET TOTALS		P=PLAN QUANTITY								0	1	0	2	2	1	0	0	0	1	0	20	1	15	2	1	0	0	1	2	2	0	0	0	772	68	1258	8	0		
			F=FINAL QUANTITY								0	1	0	2	2	1	0	0	0	1	0	20	1	15	2	1	0	0	1	2	2	0	0	0	*	*	1258		0	* See Sheet #19 For Sep Qty.	

CONSULTANT C.E.I.

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
		REVISIONS			

DESIGNED HNH/KHA 5/93 — DRAWN HNH/KHA 5/93 — CHECKED HNH/KHA 5/93 — QUANTITIES HNH/KHA 5/93 — SUPERVISED BY: J.W.H./J.M.Z.

FLORIDA DEPARTMENT OF TRANSPORTATION — APPROVED BY: — DATE

Kimley-Horn — FINAL

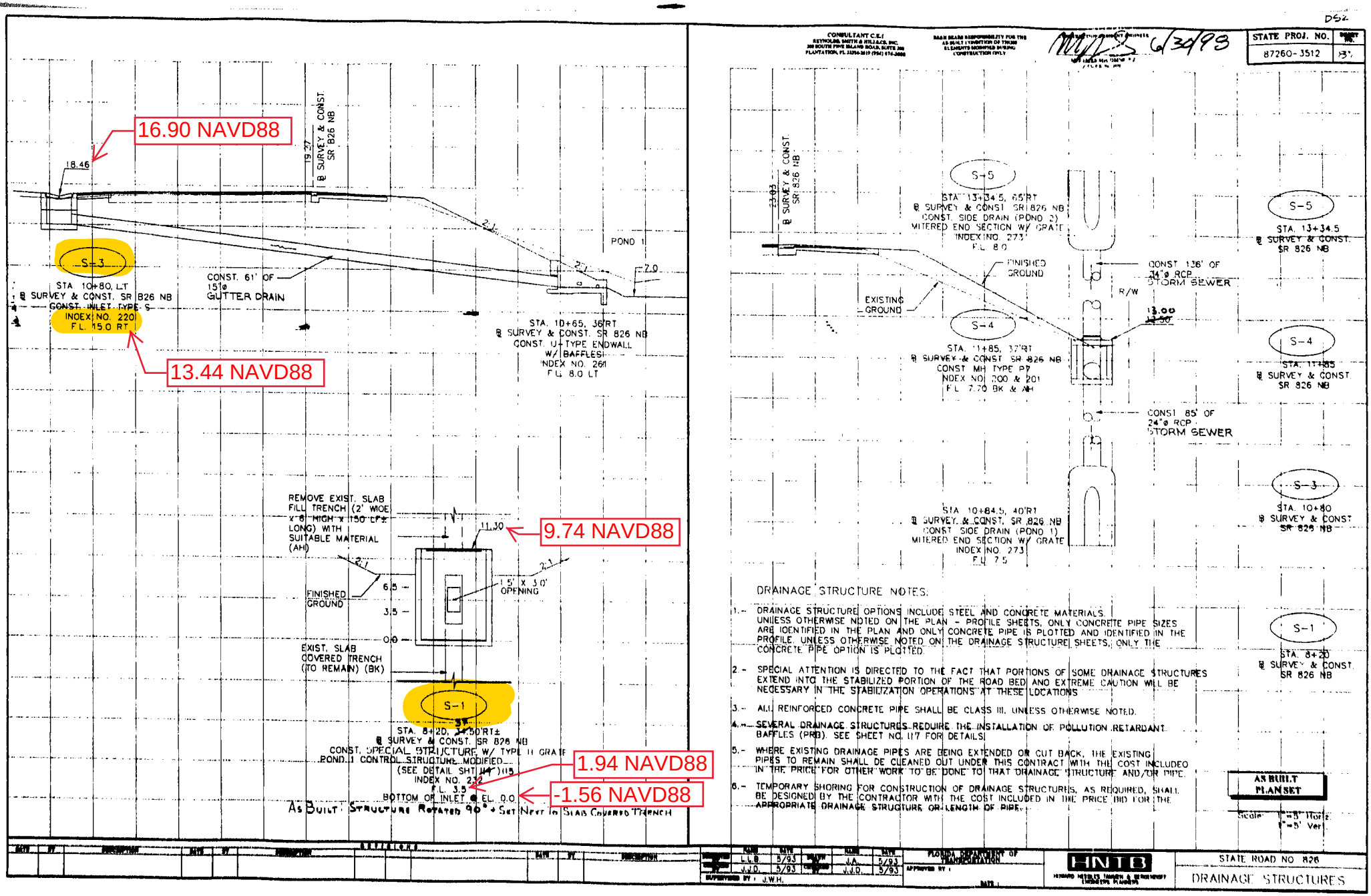
STATE ROAD NO. 826
SUMMARY OF DRAINAGE STRUCTURES
AS BUILT PLAN SET

6/30/98

SUMMARY OF DRAINAGE STRUCTURES

STATE PROJ. NO. 87260-3512 — SHEET NO. 22

| QUANT. | STR. NO. | INDEX NO. | STATION/OFFSET | SIDE | LOCATION | TYPE | BARRELS | SIZE | LENGTH | RCP CROSS DRAIN CLASS III: 15" | 24" | 30" | 38" | 42" | 48" | 66" | 72" | 30" x 19" | 38" x 24" | 45" x 29" | 53" x 34" | RCP STORM SEWER CLASS III: 15" | 18" | 24" | 30" | 42" | 48" | 30" x 19" | 53" x 34" | GUTTER DRAIN: 15" | 18" | 18" x 12" | CURB INLETS: P-2 | P-4 | P-5 | P-6 | P-6 | J-6 | J-8 | MOD | MH: P7 | J7 | 60° | MOD | P7 PAR | STRAIGHT CONCRETE ENDWALLS SINGLE & MULTIPLE PIPE: 15" | 18" | 24" | 30" | 36" | 42" | 48" | 18" x 12" | 30" x 19" | 38" x 24" | 45" x 29" | 53" x 34" | CONCRETE COLLARS: 15" | 30" | 36" | 30" x 19" | REMARKS |
|---|---|---

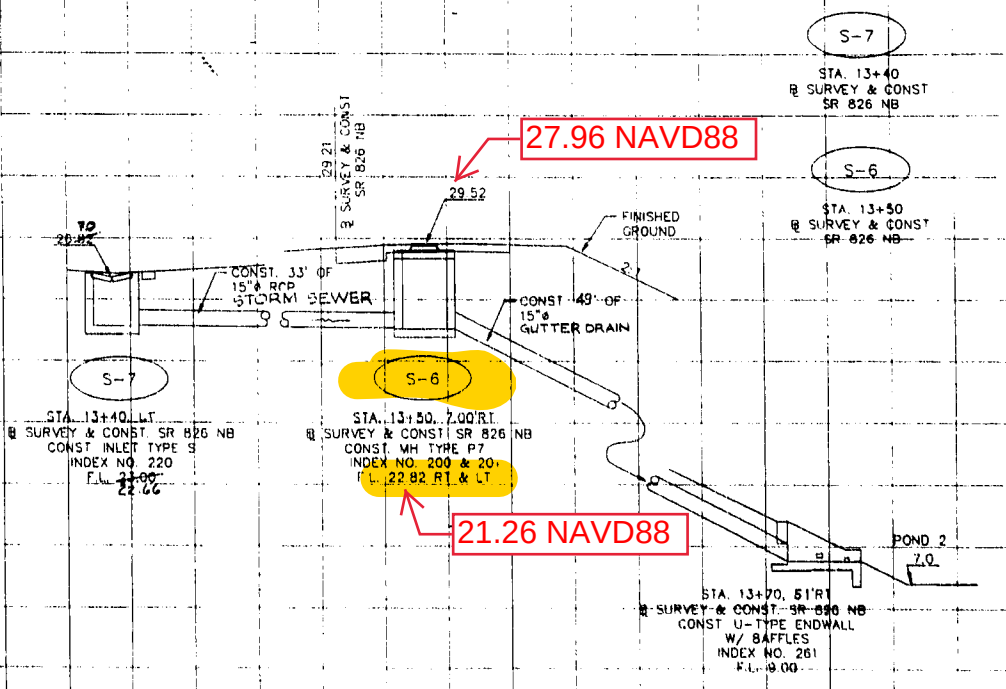

16.90 NAVD88
13.44 NAVD88
9.74 NAVD88
1.94 NAVD88
-1.56 NAVD88
S-3
STA. 10+80, LT
@ SURVEY & CONST. SR 826 NB
CONST. INLET, TYPE S
INDEX NO. 220
FL. 15.0 RT
CONST. 61' OF
15"ø
GUTTER DRAIN
STA. 10+65, 36'RT
@ SURVEY & CONST. SR 826 NB
CONST. U-TYPE ENDWALL
W/ BAFFLES
INDEX NO. 261
FL. 8.0 LT
POND 1
REMOVE EXIST. SLAB
FILL TRENCH (2' WIDE
X 6' HIGH X 150 LF±
LONG) WITH
SUITABLE MATERIAL
(AH)
FINISHED
GROUND
EXIST. SLAB
COVERED TRENCH
(TO REMAIN) (BK)
1.5' X 3.0'
OPENING
S-1
STA. 8+20, 34'50'RT±
@ SURVEY & CONST. SR 826 NB
CONST. SPECIAL STRUCTURE W/ TYPE 11 GRATE
POND 1 CONTROL STRUCTURE MODIFIED
(SEE DETAIL SHT. 117)
INDEX NO. 232
FL. 3.5
BOTTOM OF INLET @ EL. 0.0
As Built Structure Rotated 90° & Set Next To Slab Covered Trench
S-5
STA. 13+34.5, 65'RT
@ SURVEY & CONST. SR 826 NB
CONST. SIDE DRAIN (POND 2)
MITERED END SECTION W/ GRATE
INDEX NO. 273
FL. 8.0
FINISHED
GROUND
EXISTING
GROUND
R/W
CONST. 136' OF
24"ø RCP
STORM SEWER
S-4
STA. 11+85, 32'RT
@ SURVEY & CONST. SR 826 NB
CONST. MH TYPE P7
INDEX NO. 200 & 201
FL. 7.70 BK & AH
CONST. 85' OF
24"ø RCP
STORM SEWER
STA. 10+84.5, 40'RT
@ SURVEY & CONST. SR 826 NB
CONST. SIDE DRAIN (POND 1)
MITERED END SECTION W/ GRATE
INDEX NO. 273
FL. 7.5
S-5
STA. 13+34.5
@ SURVEY & CONST.
SR 826 NB
S-4
STA. 11+85
@ SURVEY & CONST.
SR 826 NB
S-3
STA. 10+80
@ SURVEY & CONST.
SR 826 NB
S-1
STA. 8+20
@ SURVEY & CONST.
SR 826 NB
DRAINAGE STRUCTURE NOTES:
1.- DRAINAGE STRUCTURE OPTIONS INCLUDE STEEL AND CONCRETE MATERIALS. UNLESS OTHERWISE NOTED ON THE PLAN - PROFILE SHEETS, ONLY CONCRETE PIPE SIZES ARE IDENTIFIED IN THE PLAN AND ONLY CONCRETE PIPE IS PLOTTED AND IDENTIFIED IN THE PROFILE. UNLESS OTHERWISE NOTED ON THE DRAINAGE STRUCTURE SHEETS, ONLY THE CONCRETE PIPE OPTION IS PLOTTED.
2.- SPECIAL ATTENTION IS DIRECTED TO THE FACT THAT PORTIONS OF SOME DRAINAGE STRUCTURES EXTEND INTO THE STABILIZED PORTION OF THE ROAD BED AND EXTREME CAUTION WILL BE NECESSARY IN THE STABILIZATION OPERATIONS AT THESE LOCATIONS.
3.- ALL REINFORCED CONCRETE PIPE SHALL BE CLASS III, UNLESS OTHERWISE NOTED.
4.- SEVERAL DRAINAGE STRUCTURES REQUIRE THE INSTALLATION OF POLLUTION RETARDANT BAFFLES (PRB). SEE SHEET NO. 117 FOR DETAILS.
5.- WHERE EXISTING DRAINAGE PIPES ARE BEING EXTENDED OR CUT BACK, THE EXISTING PIPES TO REMAIN SHALL BE CLEANED OUT UNDER THIS CONTRACT WITH THE COST INCLUDED IN THE PRICE FOR OTHER WORK TO BE DONE TO THAT DRAINAGE STRUCTURE AND/OR PIPE.
6.- TEMPORARY SHORING FOR CONSTRUCTION OF DRAINAGE STRUCTURES, AS REQUIRED, SHALL BE DESIGNED BY THE CONTRACTOR WITH THE COST INCLUDED IN THE PRICE BID FOR THE APPROPRIATE DRAINAGE STRUCTURE OR LENGTH OF PIPE.
AS BUILT PLANSET
STATE PROJ. NO. 87260-3512
FLORIDA DEPARTMENT OF TRANSPORTATION
HNTB
STATE ROAD NO. 826
DRAINAGE STRUCTURES

CONSULTANT C.E.I
REYNOLDS, SMITH & HILLS, INC.
200 SOUTH PINE ISLAND ROAD, SUITE 300
PLANTATION, FL 33324-3918 (954) 474-1400

AS BUILT CONDITION OF THOSE ELEMENTS HOWEVER DURING CONSTRUCTION ONLY

4/30/98

STATE PROJ. NO.	SHEET NO.
87260-3512	88



AS BUILT PLAN SET

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

SUPERVISED BY :

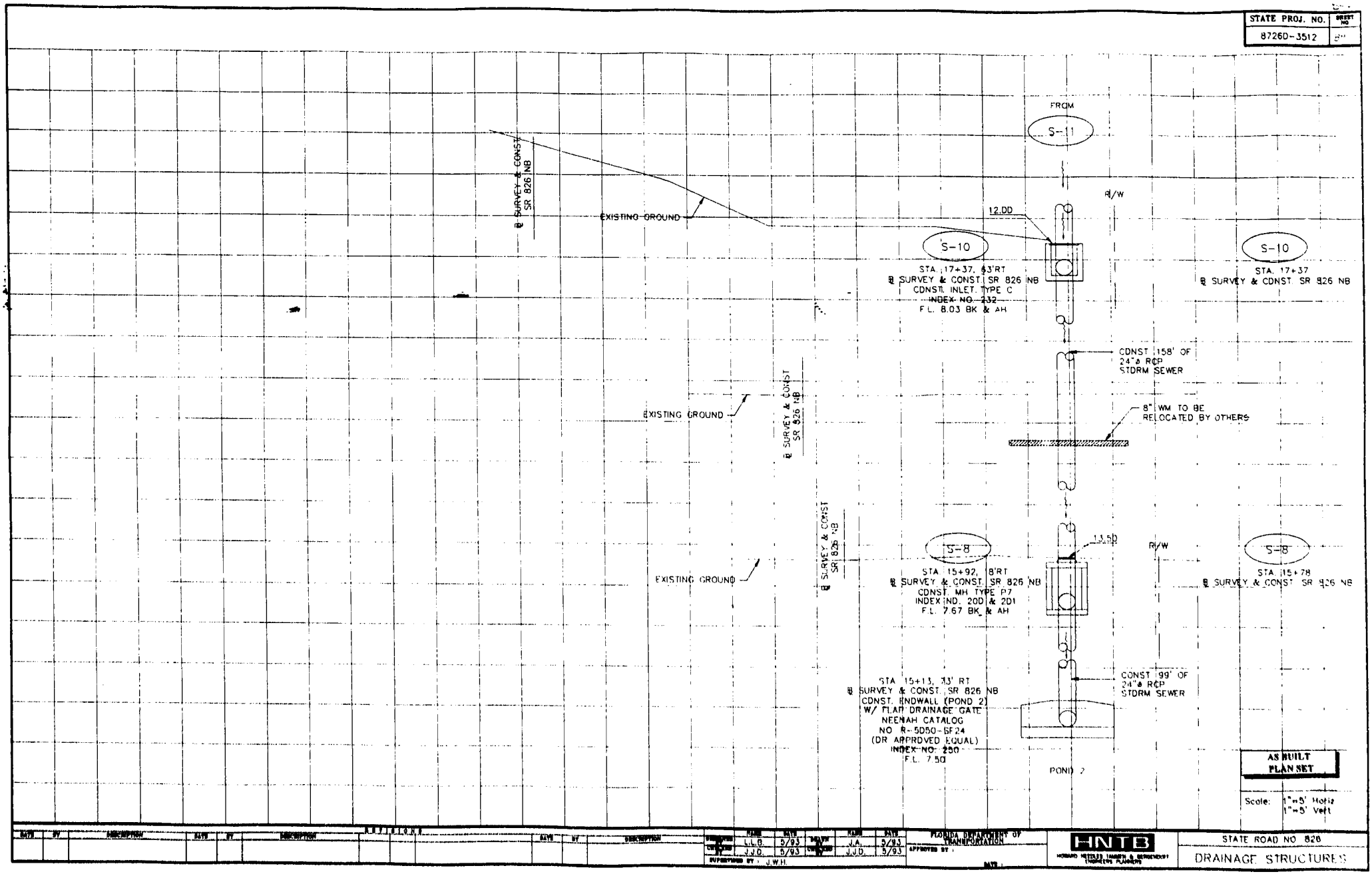
FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
TRANSPORTATION PLANNERS

STATE ROAD NO. 826

DRAINAGE STRUCTURES

STATE PROJ. NO.	SHEET NO
8726D-3512	



DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

REVISIONS

	NAME	DATE
DESIGNED	L.L.G.	5/93
CHECKED	J.J.D.	5/93
SUPERVISED BY : J.W.H.		

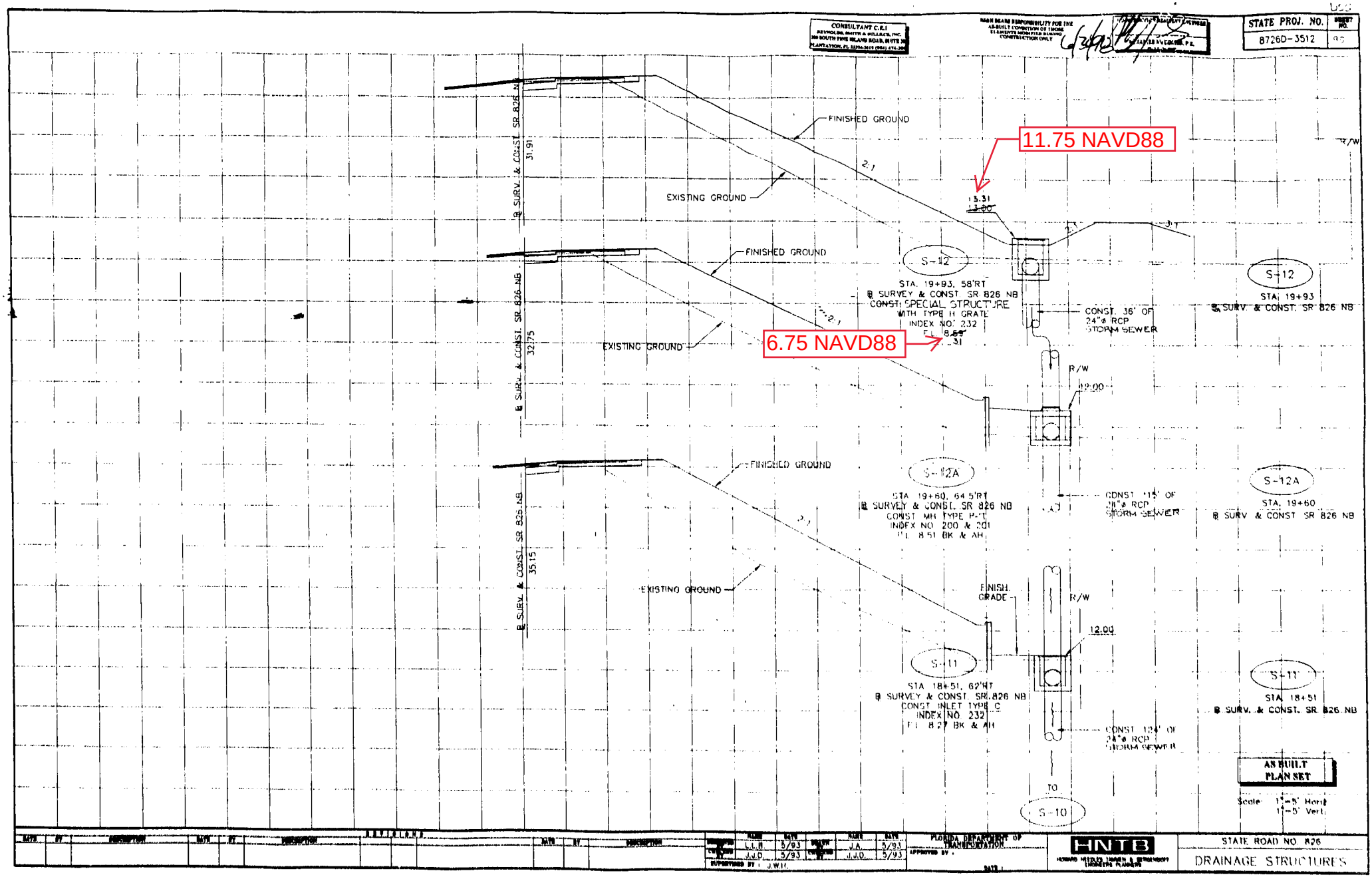
	NAME	DATE
DRAWN	J.A.	5/93
CHECKED	J.J.D.	5/93

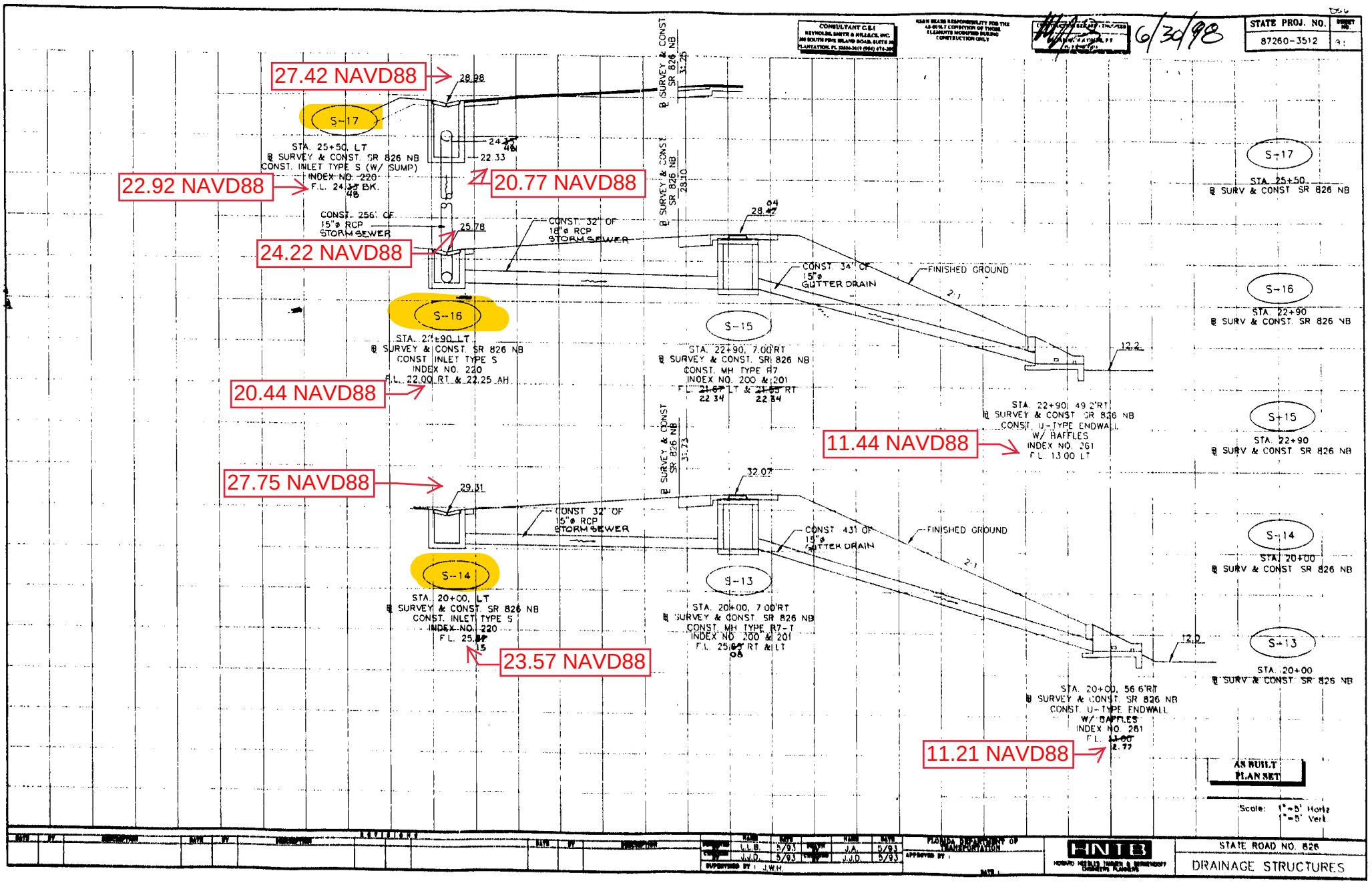
FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

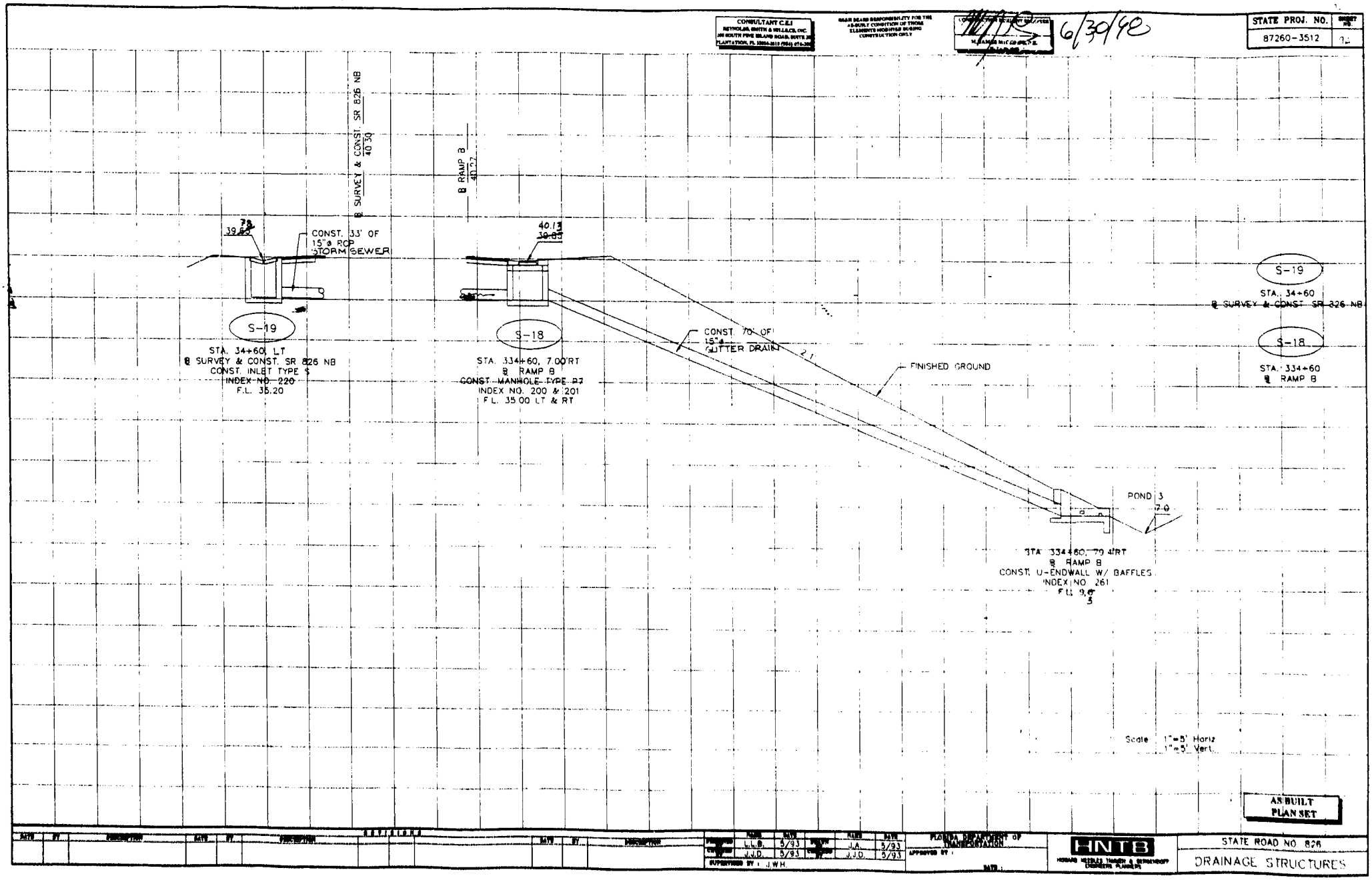
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
(ENGINEERS PLANNERS)

STATE ROAD NO. 826

DRAINAGE STRUCTURES

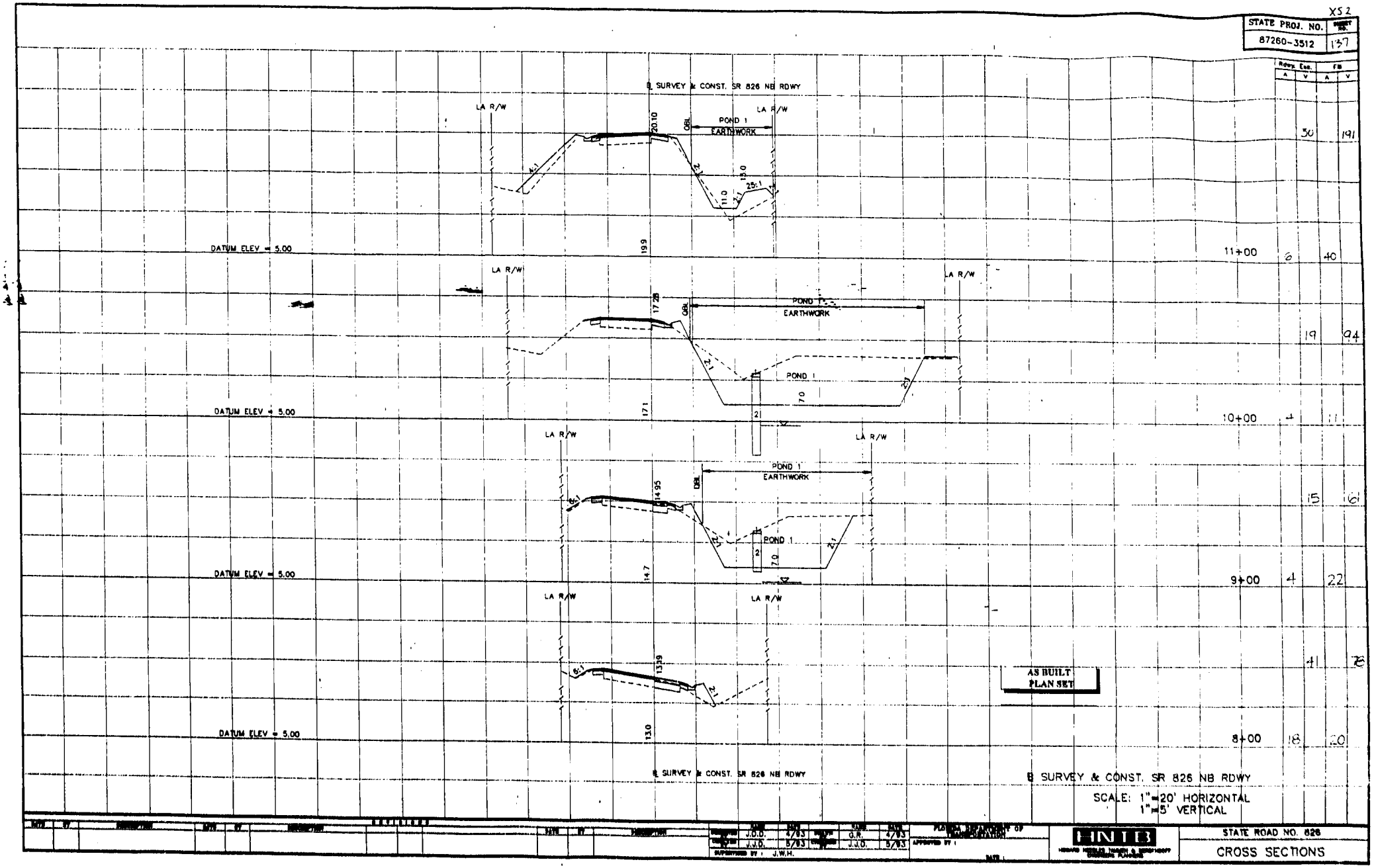

STATE PROJ. NO.
8726D-3512
11.75 NAVD88
6.75 NAVD88
FINISHED GROUND
EXISTING GROUND
2:1
3:1
@ SURV. & CONST. SR 826 NB
31.91
32.75
35.15
S-12
STA. 19+93, 58'RT
@ SURVEY & CONST. SR 826 NB
CONST. SPECIAL STRUCTURE
WITH TYPE H GRATE
INDEX NO. 232
CONST. 36' OF
24"ø RCP
STORM SEWER
S-12A
STA. 19+60, 64.5'RT
@ SURVEY & CONST. SR 826 NB
CONST. MH TYPE P-7
INDEX NO. 200 & 201
CONST. 15' OF
24"ø RCP
STORM SEWER
S-11
STA. 18+51, 62'RT
@ SURVEY & CONST. SR 826 NB
CONST. INLET TYPE C
INDEX NO. 232
CONST. 134' OF
24"ø RCP
STORM SEWER
S-10
R/W
19.00
12.00
FINISH GRADE
AS BUILT PLAN SET
Scale 1"=5' Horiz
1"=5' Vert
STATE ROAD NO. 826
DRAINAGE STRUCTURES
HNTB


27.42 NAVD88
S-17
STA. 25+50, LT
@ SURVEY & CONST. SR 826 NB
CONST. INLET TYPE S (W/ SUMP)
INDEX NO. 220
F.L. 24.33 BK.
22.92 NAVD88
20.77 NAVD88
CONST. 256' OF
15"ø RCP
STORM SEWER
24.22 NAVD88
CONST. 32' OF
18"ø RCP
STORM SEWER
CONST. 34' OF
15"ø
GUTTER DRAIN
FINISHED GROUND
S-16
STA. 22+90, LT
@ SURVEY & CONST. SR 826 NB
CONST. INLET TYPE S
INDEX NO. 220
F.L. 22.00 RT & 22.25 AH
20.44 NAVD88
S-15
STA. 22+90, 7.00'RT
@ SURVEY & CONST. SR 826 NB
CONST. MH TYPE R7
INDEX NO. 200 & 201
22.34
STA. 22+90, 49.2'RT
@ SURVEY & CONST. SR 826 NB
CONST. U-TYPE ENDWALL
W/ BAFFLES
INDEX NO. 261
F.L. 13.00 LT
11.44 NAVD88
27.75 NAVD88
CONST. 32' OF
15"ø RCP
STORM SEWER
CONST. 43' OF
15"ø
GUTTER DRAIN
FINISHED GROUND
S-14
STA. 20+00, LT
@ SURVEY & CONST. SR 826 NB
CONST. INLET TYPE S
INDEX NO. 220
23.57 NAVD88
S-13
STA. 20+00, 7.00'RT
@ SURVEY & CONST. SR 826 NB
CONST. MH TYPE R7-T
INDEX NO. 200 & 201
STA. 20+00, 56.6'RT
@ SURVEY & CONST. SR 826 NB
CONST. U-TYPE ENDWALL
W/ BAFFLES
INDEX NO. 261
11.21 NAVD88
S-17
STA. 25+50
@ SURV & CONST. SR 826 NB
S-16
STA. 22+90
@ SURV & CONST. SR 826 NB
S-15
STA. 22+90
@ SURV & CONST. SR 826 NB
S-14
STA. 20+00
@ SURV & CONST. SR 826 NB
S-13
STA. 20+00
@ SURV & CONST. SR 826 NB
AS BUILT PLAN SET
Scale: 1"=5' Horiz
1"=5' Vert
6/30/98
STATE PROJ. NO.
87260-3512
HNTB
STATE ROAD NO. 826
DRAINAGE STRUCTURES


CONSULTANT C.E.I
REYNOLDS, SMITH & HILLS, INC.
6/30/98
STATE PROJ. NO.
87260-3512
℄ SURVEY & CONST. SR 826 NB
40.30
℄ RAMP B
40.13
39.83
CONST. 33' OF
15"ø RCP
STORM SEWER
40.13
39.83
S-19
STA. 34+60, LT
℄ SURVEY & CONST. SR 826 NB
CONST. INLET TYPE 5
INDEX NO. 220
F.L. 35.20
S-18
STA. 334+60, 7.00'RT
℄ RAMP B
CONST. MANHOLE TYPE P7
INDEX NO. 200 & 201
F.L. 35.00 LT & RT
CONST. 70' OF
15"ø
GUTTER DRAIN
2:1
FINISHED GROUND
S-19
STA. 34+60
℄ SURVEY & CONST. SR 826 NB
S-18
STA. 334+60
℄ RAMP B
POND 3
7.0
STA. 334+60, 79.4'RT
℄ RAMP B
CONST. U-ENDWALL W/ BAFFLES
INDEX NO. 261
F.L. 9.0
5
Scale 1"=5' Horiz
1"=5' Vert.
AS-BUILT
PLAN SET
REVISIONS
DESIGNED L.L.B. 5/93
CHECKED J.J.D. 5/93
SUPERVISED BY: J.W.H.
DRAWN J.A. 5/93
CHECKED J.J.D. 5/93
FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY:
DATE:
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS
STATE ROAD NO. 826
DRAINAGE STRUCTURES

XS 2

STATE PROJ. NO.	SHEET NO.
87260-3512	137



Rdwy. Exc. A	Rdwy. Exc. V	Fill A	Fill V
		30	191
6		40	
		19	94
4		11	
		15	161
4		22	
		41	78
18		20	

AS BUILT PLAN SET

DESIGNED BY	DATE	CHECKED BY	DATE
J.D.D.	4/83	O.K.	4/83
DRAWN BY	DATE	CHECKED BY	DATE
J.J.D.	5/83	J.J.D.	5/83
SUPERVISED BY : J.W.H.			

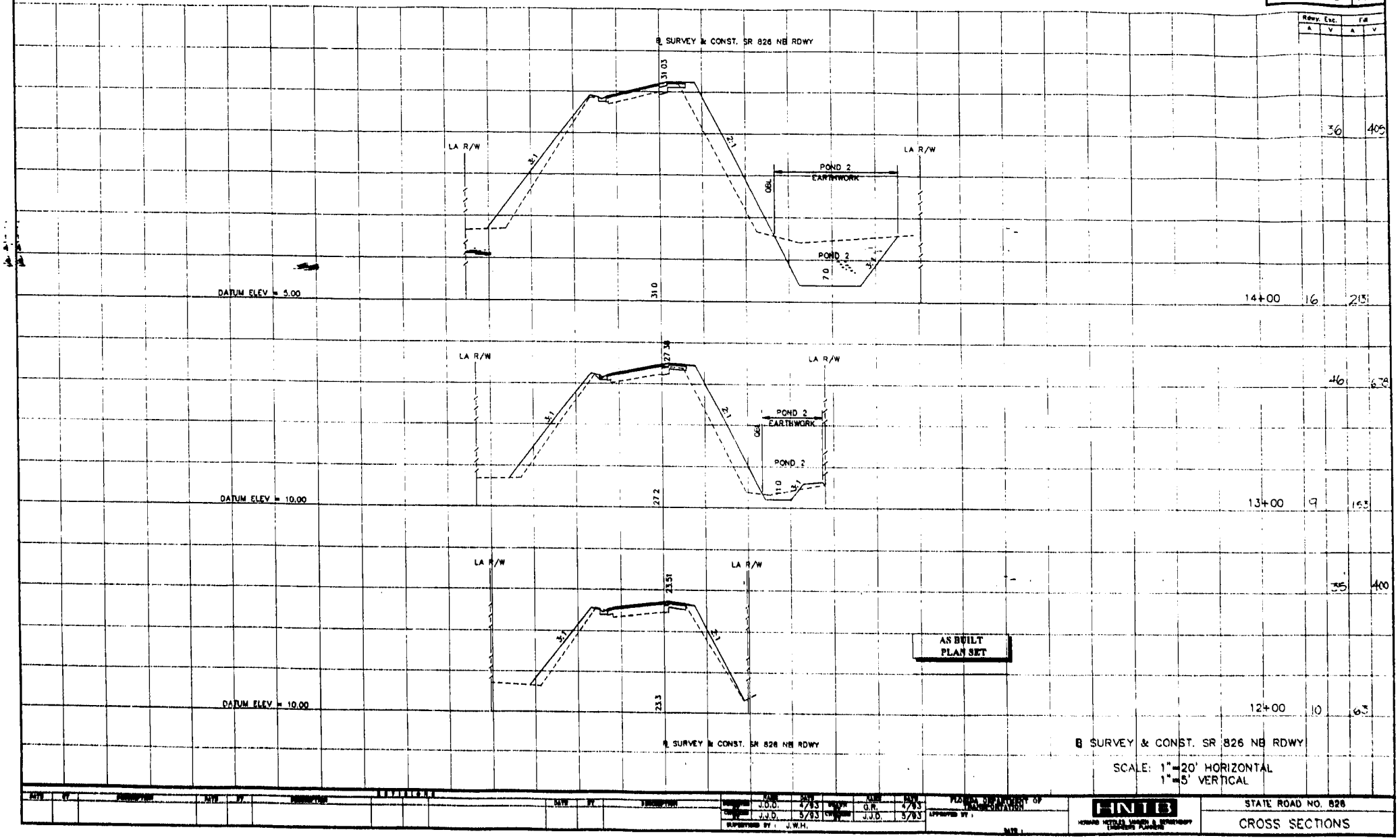
HNTB

STATE ROAD NO. 826

CROSS SECTIONS

XS 3

STATE PROJ. NO.	SHEET NO.
87260-3512	138

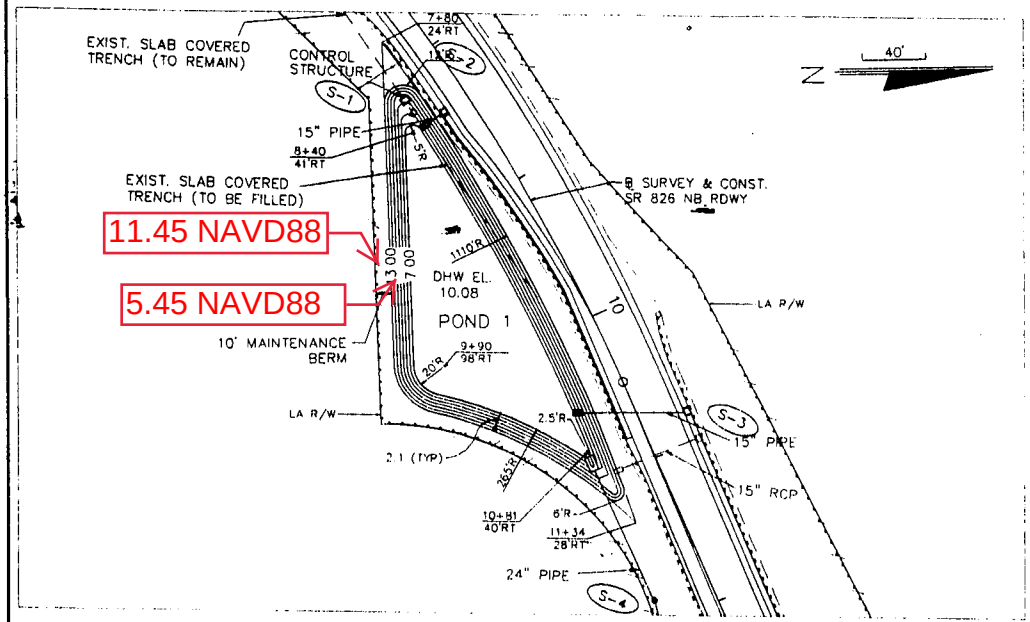

℄ SURVEY & CONST. SR 826 NB RDWY
LA R/W
LA R/W
POND 2 EARTHWORK
POND 2
3:1
2:1
3:1
3:1
3

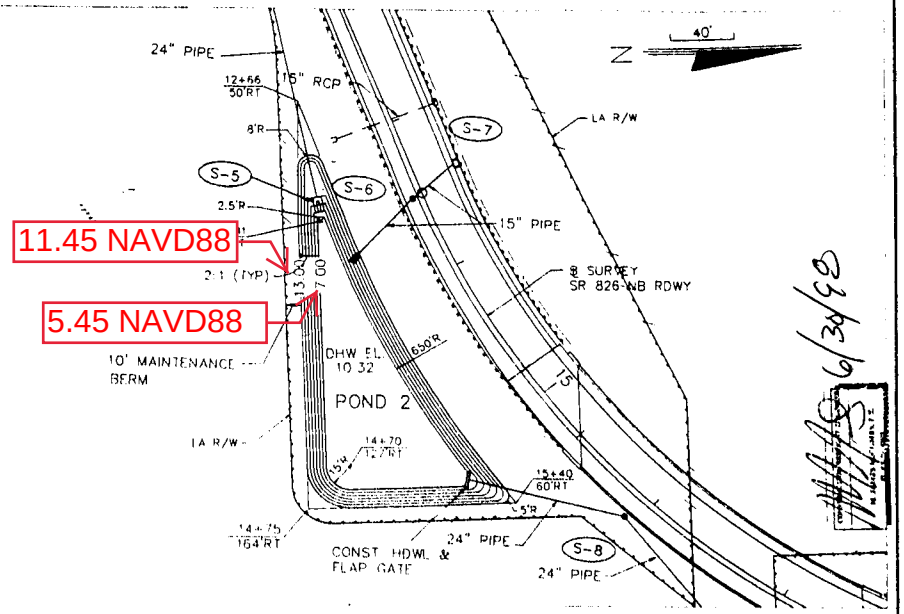
STATE PROJ. NO.	SHEET NO.
87260-3512	

SUMMARY OF EARTHWORK		
POND '1' CROSS SECTIONS	P	F
DESCRIPTION	C.Y.	C.Y.
ROADWAY EXCAVATION	951	
EMBANKMENT	3	

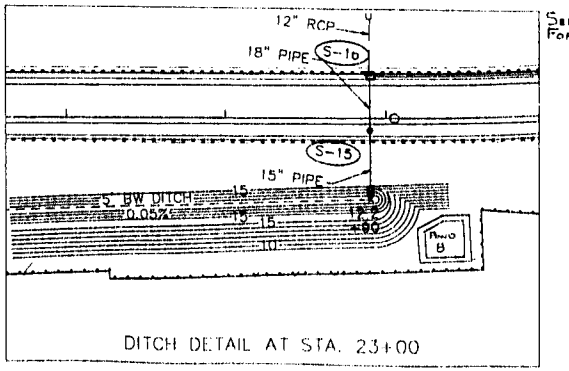
SUMMARY OF EARTHWORK		
POND '2' CROSS SECTIONS	P	F
DESCRIPTION	C.Y.	C.Y.
ROADWAY EXCAVATION	1,716	
EMBANKMENT	0	

See Field Book # 198 for As-Built Dimensions of Pond # 2





6/30/98



DITCH DETAIL AT STA. 23+00

See Work Orders #7+8 For Pond B Details

AS BUILT PLAN SET

POND 1 & 2

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

REVISIONS

	NAME	DATE		NAME	DATE
DESIGNED BY	L.L.B.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.D.D.	5/93
SUPERVISED BY	J.W.H.				

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY
DATE

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF ENGINEERING PLANNERS

STATE ROAD NO. 826

POND DETAILS

ENGINEERING

System 3 – Reference Data

Excerpts from SFMWD ERP No. 13-00791-S

Excerpts from FDOT Records Plans for FM No. 87260-3512

South Florida Water Management District

BEG. PERMIT NUMBER 13-00791-S

APPLICATION NO. 941110-17

13-00791-S

FORM #0190
Rev 8/85

APPLICATION/PERMIT FILE RECORD & ACTION SHEET

Name: FL. D. O. T.
(SR 826 Palmetto Expressway)

Permit No. 13-00791-S
Application No. 941110-17

This file contains:

☐ ORIGINAL APPLICATION ☐ PERMIT ☐ SPECIAL CONDITION SHEET(S)
☐ STAFF CALCULATION SHEET(S) ☐ DRAWING(S) ☐ STAFF REPORT

Chronological Correspondence/Action Record

Date	Subject	By	Comments
4/13/95	Permit Issued	K.T.	9411 -17

South Florida Water Management District

3301 Gun Club Road, West Palm Beach, Florida 33406 • (561) 686-8800 • FL WATS 1-800-432-2045
TDD (561) 697-2574

CON 24-05

August 6, 1998

Florida Department of Transportation
1900 NW 111th Avenue
Miami, FL 33172

Dear Sir or Madam:

Subject: **SR 826 Palmetto Expressway Improvement (widening & resurfacing)**
Construction Completion/Construction Certification
Application No. 941110-17, SWM Permit No. 13-00791-S
Dade County, S2,35/T55,54S/R40E

This letter acknowledges receipt of an engineer's Construction Completion/Construction Certification from M. James McCombs, P.E. of Reynolds, Smith and Hills CS, Inc. pertaining to the subject project's surface water management system. District staff have reviewed the submitted information and it has been incorporated into the permit file.

Per the referenced certification, our staff consider **the surface water management system (including 14.69 acres of dry retention areas) serving 126.31 acres of the SR 826 Palmetto Expressway from US 1 (SR 5) to north of Sunset Drive** constructed in conformance with the permit. This satisfies the requirement of your permit with regard to construction of the surface water management system and statement of completion and certification by a registered professional engineer. Therefore, the surface water management system of the subject project is hereby considered to be in operation phase, subject to all applicable special and applicable conditions of your permit.

Should you have any questions, please contact the undersigned at (561) 682-6596.

Sincerely,

Hamid A. Azizi
Staff Engineer
Environmental Resource Compliance Division

AHA

c: M. James McCombs, P.E., RS & H CS, Inc.
Dade County Engineer
City of Miami Engineer
Metro Dade ERM (DERM) / F.D.E.P. / E.P.A.

Governing Board:
Frank Williamson, Jr., Chairman
Eugene K. Pettis, Vice Chairman
Mitchell W. Berger
Vera M. Carter
William E. Graham
William Hammond
Richard A. Machek
Michael D. Minton
Miriam Singer
Samuel E. Poole III, Executive Director
Michael Slayton, Deputy Executive Director

Mailing Address: P.O. Box 24680, West Palm Beach, FL 33416-4680

South Florida Water Management District
Final Field Observation
Field Engineering Division

FORM 0543
Rev 6/97

Final Field Observation Requested By: RS & H CS Date: 6/16/98

County: Dade Section(s): 22,23,26 27,34,35 Twp. 54 Rge. 40

Project Name: SR826/ Palmetto Pkwy.

Permit No.: 13-00791-S ok Application No(s): 941110-17 ok/c.

Project Engineer: M. James McCombs

Certification Form No. 0881 Received? Yes ✓ No

Record ("As-Built") Drawings Received? Yes No

Staff Engineer: Hamid Ajize Field Staff: Horacio Wheelock

Date of Final Field Observation: 7-14-1998.

Final Field Observation Report

The project has been constructed in substantial accordance with the design plans approved by the District. Control structures, culverts, inlets and retention area. Ham

This is a 126.31 acre highway widening and resurfacing project Ham
8-06-98

Staff Engineer's Comments

Per the attached engineer's certification, SWM System for SR 826 Palmetto Expressway from US1 (SR5) to north of Sunset Drive constructed in general compliance with permit. Letter to permittee follows. Ham 8-06-98

C: H. Wheelock, Permit File #13-00791-S

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Environmental Resource/Surface Water Management Permit Construction Completion/Construction Certification

FORM 0881
08/95

Page (2) of (3)
area 8/6/98

RECEIVED
JUN 15 1998
REGULATION DEPT.
area 4030

TO: SOUTH FLORIDA WATER MANAGEMENT DISTRICT
Field Engineering Division *Please see page 2 of 2

SUBJECT: PERMIT NO. 13-00791-S ✓ APPLICATION NO. 941110-17
PROJECT NAME: SR826 / US1 TO SW 66th St. ✓ PHASE: N/A
LOCATION: COUNTY: DADE S 2, 35 T55, 54 R40 ✓ area

The subject surface water management system has been designed, constructed and completed as follows: (use additional sheets if needed):

Completion Date: 05 (Month) 21 (Day) 98 (Year) ✓

	Discharge Structure: PERMITTED		EXISTING	
Weir	Width	Crest	Width	Crest
Bleeder	Dimensions 24" RCP	Invert - 1.5	Dimensions	Invert
Type	42" RCP	- 3.0		
	2 x 30" RCP	- 2.0		
	2 x 48" RCP	- 3.5		

✓ OK. area

These have been Certified by engineer area on separate sheets.

Retention/Detention Area: (if applicable)

ID	Size	Side Slopes (H:V)	ID	Size	Side Slopes (H:V)	ID	Size	Side Slopes (H:V)	ID	Size	Side Slopes (H:V)

Please indicate the location of the appropriate bench mark(s) used to determine the above information on the record drawings (Reference 40E-4.381(1)(f), Florida Administrative Code). All elevations should be according to National Geodetic Vertical Datum (NGVD) (Reference 2.9 of the *Basis of Review for Environmental Resource Permit Applications within the South Florida Water Management District*).

I HEREBY NOTIFY THE DISTRICT OF THE COMPLETION OF CONSTRUCTION OF ALL THE COMPONENTS OF THE SURFACE WATER MANAGEMENT FACILITIES FOR THE ABOVE REFERENCED PROJECT AND CERTIFY THAT THEY HAVE BEEN CONSTRUCTED IN SUBSTANTIAL CONFORMANCE WITH THE PLANS AND SPECIFICATIONS PERMITTED BY THE DISTRICT. [A COPY OF THE APPROVED PERMIT DRAWINGS IS ATTACHED WITH DEVIATIONS NOTED, IF APPLICABLE]. I HEREBY AFFIX MY SEAL THIS 10 DAY OF June 19 98.

This Certification is acceptable for the referenced portion of the Palmetto Expressway only as specified under Application No. 941110-17. Approved 8-06-98

Engineer's Signature and Seal

M. James McComb #42675
Name (Please Print) FLA. Registration No.

RS&H CS

Reynolds, Smith and Hills CS, Incorporated

12189 South Dixie Highway
Miami, Florida 33156
305-254-6884
Fax 305-254-5578

Page (3) of (3)
Dated 8/6/98

RECEIVED
JUN 15 1998
REGULATION DEPT. 4030

LETTER OF TRANSMITTAL # 127 STATE JOB #: 87260-3512

TO: Hamid Azizi
SFWM
Field Engineering Division
Regulation Department
P.O. Box 24680
West Palm Beach, Florida 33416

RE: SR-826/PALMETTO EXPRESSWAY
FROM US-1 TO SW 66TH STREET
WPI #: 6113684
FAP #: ACXU-475-1(96)
COUNTY: DADE
FIN # 2495071 5201

DATE: June 12, 1998

WE ARE FORWARDING TO YOU VIA **Airborne Express Overnight Service**

THE FOLLOWING DOCUMENT(S) FOR YOUR USE AS INDICATED BELOW:

___	PLANS	___	LETTER	___	SHOP DRAWINGS
___	PRINTS	___	CALCS	___	SPECIFICATIONS
___	ESTIMATES	___	SAMPLES	X	OTHER

NO. OF SETS	DESCRIPTION	DATE	REMARKS
1 (Original)	Construction Completion / Construction Certification Notice Attached: As-Builts / Bridges over Snapper Creek Canal	06-12-98	a) Ramp A over Snapper Creek b) Ramp C over Snapper Creek c) SR826 / Palmetto Expressway over Snapper Creek
1 (Original)	Construction Completion / Construction Certification Notice Structures	06-12-98	

THESE ARE TRANSMITTED FOR:

X	YOUR APPROVAL	___	YOUR USE
___	REVIEW & COMMENTS	___	YOUR FILE

CC D. Vorce, File 55.00, 11.03

Signed By: M. JAMES McCOMBS, P.E.

Position: PROJECT RESIDENT ENGINEER

South Florida Water Management District
3301 Gun Club Road, West Palm Beach, Florida 33406 • (407) 686-8800 • FLWATS 1-800-432-2045

CON 24-06

May 22, 1995

Melanie Calvo
Florida Dept. of Transportation
1000 N W 111th Avenue, Room 6101
Miami, Florida 33172

Subject: Permit 13-00791-S, Application 941110-17
State Road 826, Broward County

Dear Ms Calvo:

As you requested, I have enclosed copies of the above referenced Application Submittals (forms 4-8, 4-13 and 4-7) for the Surface Water Management Permit regarding Basin 5.

If we can be of further assistance please do not hesitate to contact this office.

Sincerely,

Vern Kaiser
Permit Administration Supervisor
Regulation Department

VK/pb
Enclosures

Governing Board:
Valerie Boyd, Chairman
Frank Williamson, Jr., Vice Chairman
Annie Betancourt
William Hammond
Betsy Krant
Allan Milledge
Eugene K. Pettis
Nathaniel P. Reed
Leah G. Schad
Samuel E. Poole III, Executive Director
Michael Slayton, Deputy Executive Director

Mailing Address: P.O. Box 24680, West Palm Beach, FL 33416-4680

South Florida Water Management District

Certification For Stormwater Discharge

Form #0113
Rev. 1/91

SURFACE WATER MANAGEMENT PERMIT NO. 13-00791-S

(NON-ASSIGNABLE)

Date Issued: APRIL 13, 1995

Authorizing: CONSTRUCTION AND OPERATION OF A SURFACE WATER MANAGEMENT SYSTEM TO SERVE A 126.31 ACRE HIGHWAY WIDENING PROJECT.

Located In: DADE COUNTY, SEC. 2,35 TWP. 55,54S RGE. 40E

Issued To: FLORIDA DEPARTMENT OF TRANSPORTATION
(SR 826 PALMETTO EXPRESSWAY)
1000 NW 111TH AVENUE
MIAMI, FL 33172

This Permit is issued pursuant to Application for Permit No. [illegible]-17 dated November 10, 1994. Permittee agrees to hold and save the South Florida Water Management District and its successors harmless from any and all damages, claims or liabilities which may arise by reason of the construction, operation, maintenance or use of any work or structure involved in the Permit. Said Application, including all plans and specifications attached thereto, as addressed by the Staff Report, is by reference made a part hereof.

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

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

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

Special Conditions are as follows:

SEE SHEETS 2-3 OF 6 - 13 SPECIAL CONDITIONS.
SEE SHEETS 4-6 OF 6 - 19 LIMITING CONDITIONS.

Filed with the Clerk of the South Florida Water Management District

On Original signed by:

By Vern Kaiser
Deputy Clerk

South Florida Water Management District, by its Governing Board

By Original signed by TONY BURNS
Assistant Secretary

SPECIAL CONDITIONS

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

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

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

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

5 . OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM SHALL BE THE RESPONSIBILITY OF FLORIDA DEPARTMENT OF TRANSPORTATION.

6 . THE SFWMD RESERVES THE RIGHT TO REQUIRE REMEDIAL MEASURES TO BE TAKEN BY THE PERMITTEE IF WETLAND AND/OR UPLAND MONITORING OR OTHER INFORMATION DEMONSTRATES THAT ADVERSE IMPACTS TO PROTECTED, CONSERVED, INCORPORATED OR MITIGATED WETLANDS OR UPLANDS HAVE OCCURRED DUE TO PROJECT RELATED ACTIVITIES.

7 . ANY FUTURE CHANGES IN LAND USE OR TREATMENT OF WETLANDS AND/OR UPLAND BUFFER/COMPENSATION AREAS MAY REQUIRE A SURFACE WATER MANAGEMENT PERMIT MODIFICATION AND ADDITIONAL ENVIRONMENTAL REVIEW BY DISTRICT STAFF. PRIOR TO THE PERMITTEE INSTITUTING ANY FUTURE CHANGES NOT AUTHORIZED BY THIS PERMIT, THE PERMITTEE SHALL NOTIFY THE SFWMD OF SUCH INTENTIONS FOR A DETERMINATION OF ANY NECESSARY PERMIT MODIFICATIONS.

8 . THE PERMITTEE SHALL ENSURE THAT ALL CONSTRUCTION ACTIVITIES IN OPEN WATER WILL CEASE UPON SIGHTINGS OF MANATEES WITHIN 200 YARDS OF THE PROJECT AREA. CONSTRUCTION ACTIVITIES SHALL NOT RESUME UNTIL THE MANATEES HAVE DEPARTED THE PROJECT AREA.

9 . THE PERMITTEE SHALL ENSURE THAT THE CONTRACTOR INSTRUCTS ALL PERSONNEL ASSOCIATED WITH THE PROJECT OF THE PRESENCE OF MANATEES AND THE NEED TO AVOID COLLISIONS WITH MANATEES. THE PERMITTEE AND/OR CONTRACTOR MAY BE HELD RESPONSIBLE FOR ANY MANATEE HARMED, HARASSED OR KILLED AS A RESULT OF ANY PERMITTED ACTIVITY.

10. THE PERMITTEE SHALL ENSURE THAT A MINIMUM OF ONE PERSON WILL BE DESIGNATED AS A MANATEE OBSERVER WHEN WORK IS BEING CONDUCTED. THIS INDIVIDUAL(S) SHALL HAVE EXPERIENCE IN MANATEE OBSERVATION, AND WILL BE EQUIPPED WITH POLARIZED SUNGLASSES TO AID IN OBSERVATION.

11. PRIOR TO ANY IN-WATER WORK CONDUCTED AT NIGHT, THE PERMITTEE SHALL PROVIDE FLOOD LIGHTING TO THE AREA TO MAXIMIZE THE OPPORTUNITY TO OBSERVE A MANATEE.

12. ANY COLLISION WITH A MANATEE SHALL BE REPORTED IMMEDIATELY ON THE "MANATEE HOTLINE" (1-800-791-2580).

13. FOLLOWING THE PROJECT COMPLETION, A REPORT SUMMARIZING THE ABOVE INCIDENTS AND SIGHTINGS SHALL BE SUBMITTED TO THE FDEP MARINE RECOVERY PROGRAM (100 EIGHTH AVENUE S.E.. ST. PETERSBURG, FLORIDA 33701-2580) AND TO THE U.S. FISH AND WILDLIFE SERVICE (2747 ART MUSEUM DRIVE, JACKSONVILLE, FLORIDA 32207).

LIMITING CONDITIONS

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

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

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

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

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

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

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

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

9 . THE PERMIT DOES NOT CONVEY TO THE PERMITTEE ANY PROPERTY RIGHT NOR ANY

RIGHTS OR PRIVILEGES OTHER THAN THOSE SPECIFIED IN THE PERMIT AND CHAPTER 40E-4, FAC.

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

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

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

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

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

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

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

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

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

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

South Florida Water Management District

3301 Gun Club Road, West Palm Beach, Florida 33406 • (407) 686-8800 • FL WATS 1-800-432-2045

March 28, 1995

Florida Department of Transportation
1000 NW 111th Avenue
Miami, FL 33172

Dear Sir or Madam:

Subject: **Application No. 941110-17, SR 826 Palmetto Expressway, Dade County, S2,35/T55,54S/R40E**

Enclosed is a copy of this District's staff report covering the request for permit application referenced therein. It is requested that you read this staff report thoroughly and understand its contents. The recommendations as stated in the staff report will be presented to our Governing Board for consideration on **April 13, 1995.**

Should you wish to object to the staff recommendation or file a petition, please written objections, petitions and/or waivers (refer to the attached "Notice of Rights") to:

Vern Kaiser, Deputy Clerk
South Florida Water Management District
Office Box 24680
West Palm Beach, Florida 33416-4680

The "Notice of Rights" addresses the procedures to be followed if you desire a public hearing or other review of the proposed agency action. You are advised, however, to be prepared to defend your position regarding the permit application when it is considered by the Governing Board for final agency action, even if you agree with the staff recommendation, as the Governing Board may take final agency action which differs materially from the proposed agency action.

Please contact the District if you have any questions concerning this matter. If we do not hear from you prior to the date on the "Notice of Rights", we will assume you concur with our recommendations.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a "Notice of Rights" has been mailed to the addressee and the persons listed in the attached distribution list not later than 5:00 p.m. this 28th day of March 1995 in accordance with Section 120.60 (3), Florida Statutes.

Sincerely,

Terrie Bates, Director
Regulation Department

CERTIFIED MAIL #Z 310 460 433
RETURN RECEIPT REQUESTED

Governing Board:
Valerie Boyd, Chairman
Frank Williamson, Jr., Vice Chairman
William E. Graham
William Hammond
Betsy Krant
Richard A. Machek
Eugene K. Pettis
Nathaniel P. Reed
Miriam Singer
Samuel E. Poole III, Executive Director
Michael Slayton, Deputy Executive Director

Mailing Address: P.O. Box 24680, West Palm Beach, FL 33416-4680

South Florida Water Management District

Notice Of Rights

Form [illegible]
Rev. [illegible]

NOTICE OF RIGHTS

Enclosed is a copy of the Staff Review Summary regarding the subject permit application, which is this agency's Notice of Proposed Agency Action.

PETITION FOR FORMAL ADMINISTRATIVE PROCEEDINGS

Any person whose substantial interests are or may be affected by the action which is proposed in the enclosed Notice of Proposed Agency Action/Staff Review Summary, may petition for an administrative hearing in accordance with the requirements of Rule 40E-1.521, Florida Administrative Code, and be filed with (received by) the District Clerk, 3301 Gun Club Road, West Palm Beach, Florida 33406. Petitions for administrative hearing on the above application must be filed within **fourteen (14) days of actual receipt of** the Notice of Proposed Agency Action. Failure to file a petition within this time period shall constitute a waiver of any rights such person may have to request an administrative determination (hearing) under section 120.57, Florida Statutes, concerning the subject permit application. Petitions which are not filed in accordance with the above provisions are subject to dismissal.

FLORIDA LAND AND WATER ADJUDICATORY COMMISSION

A party to the proceeding below may seek review of a Final Order rendered on the permit application before the Land and Water Adjudicatory Commission. Review under section 373.114, Florida Statutes, is initiated by filing a request for review with the Land and Adjudicatory Commission and serving a copy on the Department of Environmental Protection and any person named in the Order within applicable statutory timeframes. This review is appellate in nature and limited to the record below.

DISTRICT COURT OF APPEAL

A party who is adversely affected by final agency action on the permit application is entitled to judicial review in the District Court of Appeal pursuant to section 120.68, Florida Statutes, as provided therein. Review under section 120.68, Florida Statutes, is initiated by filing a Notice of Appeal in the appropriate District Court of Appeal in accordance with Florida Rule of Appellate Procedure 9.110.

CIRCUIT COURT

Section 373.617(2), Florida Statutes, provides:

> Any person substantially affected by a final action of any agency with respect to a permit may seek review within 90 days of the rendering of such decision and request monetary damages and other relief in the circuit court in the judicial circuit in which the affected property is located; however, circuit court review shall be confined solely to determining whether final agency action is an unreasonable exercise of the state's police power constituting a taking with just compensation. Review of final agency action for the purpose of determining whether the action is in accordance with existing statutes or rules and based on competent substantial evidence shall proceed in accordance with Chapter 120.

40E-1.521 Initiation of Formal Proceedings

(1) Initiation of formal proceedings shall be made by filing a petition with the District Clerk within the applicable timeframes set forth in this chapter. The term petition includes any application or other document which expresses a request for formal proceedings.

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

(a) The name and address of the District and the District's file or identification number, if known.

(b) The name and address of the petitioner or petitioners;

(c) An explanation of how each petitioner's substantial interests will be affected by the District's determination;

(d) A statement of when and how petitioner received notice of agency action or notice of proposed agency action;

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

(f) A concise statement of the ultimate facts which petitioner believes entitle petitioner to the relief sought as well as the rules and statutes which support petitioner's claim for relief;

(g) A demand for the relief to which the petitioner deems himself entitled; and

(h) Other information which the petitioner contends is material.

(3) Upon receipt of a petition for formal proceedings, the Office of Counsel shall review the petition for compliance with subsection (2). The Board shall accept those petitions in substantial compliance therewith, which have been timely filed, which establish that the petitioner is a substantially affected party, and which state a dispute which is within the jurisdiction of the District to resolve. If accepted, the Board shall designate the presiding officer of the administrative hearing. The District shall promptly give written notice to all parties of the action taken on the petition, and shall state with particularity its reasons therefor.

(7) If the Board designates a Hearing Officer assigned by the Division of Administrative Hearings as the presiding officer, the District Clerk shall forward the petition and all relevant materials filed with the District to the Division of Administrative Hearings, and shall notify all parties of its action.

Specific Authority 373.044, 373.113 F.S.
Law Implemented 120.53(1), 120.57 F.S.
History --- New 9-3-81, Amended 5-11-93.
Formerly 16K-1.09(1), 16K-1.112(1) through (3), 16K-1.12

DRAFT
Subject to Governing Board Approval

LAST DATE FOR GOVERNING BOARD ACTION:
APRIL 13, 1995

SURFACE WATER MANAGEMENT STAFF REVIEW SUMMARY

I. ADMINISTRATIVE

APPLICATION NUMBER: 941110-17

PROJECT NAME: SR 826 PALMETTO EXPRESSWAY

LOCATION: DADE COUNTY
S2,35/T55,54S/R40E

APPLICANT'S NAME: FLORIDA DEPARTMENT OF TRANSPORTATION

OWNERS NAME AND ADDRESS: FLORIDA DEPARTMENT OF TRANSPORTATION
1000 NW 111TH AVENUE
MIAMI, FL 33172

DEVELOPER: FLORIDA DEPARTMENT OF TRANSPORTATION

ENGINEER: HOWARD NEEDLES TAMMEN

II. PROJECT DESCRIPTION

PROJECT AREA: 126.31 acres **DRAINAGE AREA:** 126.31 acres

DISTRICT DRAINAGE BASIN: C-2 (SNAPPER CREEK)

RECEIVING BODY: C-2 (SNAPPER CREEK) CANAL

CLASSIFICATION: CLASS III

SPECIAL DRAINAGE DISTRICT: METRO DADE ERM (DERM)

PURPOSE:

This application is a request for Construction and Operation of a Surface Water Management system to serve the proposed widening of State Road 826 Palmetto Expressway from U.S. 1 (S.R. 5) to north of Sunset Drive. Staff recommends approval with conditions.

EXISTING FACILITIES:

The Palmetto Expressway was originally constructed in 1957 as a 4 lane divided highway. Most of the expressway has been widened since the original construction. This 2.7 mile segement proposed for widening at this time is one of the last remaining 4-lane portions of the highway.

PROPOSED FACILITIES:

The project involves the resurfacing and widening of the existing 4-lane divided roadway into a 6 lane divided urban roadway . The project limits are from US 1 to Sunset Drive approximately 2.7 miles or 126.31 acres. The project involves upgrading the existing surface water management system to accomodate additional storm water discharges from the increased impervious surface areas and interchange improvements associated with the project.

For purposes of surface water management system design, the project has been divided into seven basins.

Basin No. 1 (3.65 ac)

The existing drainage system serving the Basin 1 area will not be significantly modified. A total of 0.01 acres of additional impervious area is proposed in this basin.

Basin No. 2/3 (4.99 ac)

The surface water management system for Basin 2 and 3 will consist of inlets, culverts and swales that will direct runoff into 0.72 acres of dry retention area. The system has been designed to retain the 10-year 24-hour storm event within the ponds prior to overflow into the existing U.S. 1 system.

Basin No. 4 (0.37 ac)

No significant changes to this basin are proposed as only 0.08 acres of additional impervious area is proposed.

Basin No. 5 (34.21 ac)

The surface water management system for this basin will consist of inlets, culverts and swales to direct runoff into 4.58 acres of dry retention area. The system has been designed to retain the 10-year 24-hour storm prior to overflow into the Snapper Creek Canal via an emergency overflow structure located at the north end of Pond No. 7.

Basin No. 5-A (4.73 ac)

The surface water management system for this basin will consist of inlets and

culverts to direct runoff into a proposed 0.43 acre dry detention area. Overflow from the dry retention area will be into the Snapper Creek Canal through a control structure once the water quality treatment requirements are met.

Basin No. 6 (9.86 ac)

The surface water management system consists of inlets and culverts directing runoff into roadside ditches (1.01 acres) which will contain ditch blocks to provide the water quality retention requirements. Overflow from the ditch system is through a control structure into the Snapper Creek Canal.

Basin No. 7 (68.5 ac)

The surface water management system consists of inlets, culverts and roadside ditches that will direct runoff into 7.95 acres of dry retention area. Overflow from the retention area is through a control structure into the Snapper Creek Canal.

BASIN INFORMATION:

Basin	Area Acres	WSWT Elev (ft, NGVD)	Normal/Dry Ctrl Elev (ft, NGVD)	Method of Determination
SITE	126.31	4.00	4	WET SEASON WTR TABLE CONTOUR MAP

III. PROJECT EVALUATION

WATER QUALITY:

Retention in excess of 2.5 inches times the percent impervious is being provided within 14.69 acres of dry retention area.

Basin	Treatment Method		Vol Req'd. (ac-ft)	Vol Prov'd (ac-ft)
SITE	14.69 acres	DRY RETENTION	6.20	42.70

ROAD DESIGN:

As shown in the following table, minimum road center lines have been set at or above the calculated design storm flood elevation.
Design Storm Freq: 10YR-1DAY Design Rainfall: 7.50 inches

Basin	Flood Elevation (ft., NGVD)	Minimum Centerline Elevation (ft, NGVD)
SITE	6.51	8.97

IV. ENVIRONMENTAL ASSESSMENT

PROJECT SITE DESCRIPTION:

The project involves improvements to an existing expressway. A portion of the project passes over the Snapper Creek, a maintained water body. The applicant has applied for a Wetland Resource Management to address the Snapper Creek crossing.

EXISTING ON SITE WETLAND COMMUNITIES AND OTHER SURFACE WATERS:

ID NO	TOTAL ACREAGE	BIOLOGICAL CONDITION	COMMUNITY TYPE	COMMUNITY ACREAGE
02	.01	POOR	CANALS AND LOCKS	.01

TOTAL ON SITE WETLAND/SURFACE WATER ACREAGE: .01

EXISTING ON SITE UPLAND COMMUNITIES:

ID NO	TOTAL ACREAGE	BIOLOGICAL CONDITION	COMMUNITY TYPE	COMMUNITY ACREAGE
01	126.30	N/A	TRANSPORTATION	126.30

TOTAL ON SITE UPLAND ACREAGE: 126.30

ENDANGERED, THREATENED & SPECIES OF SPECIAL CONCERN SUMMARY:

The project site does not contain preferred habitat for endangered, threatened, or species of special concern. No endangered/threatened or species of special concern were observed on site, and potential for impacts to wetland dependent endangered/threatened or species of special concern is considered minimal. This permit does not relieve the applicant from complying with all applicable rules and any other agencies' requirements if in the future, endangered/threatened or species of special concern are discovered on

the site.

ENVIRONMENTAL SUMMARY:

The project involves improvements to an existing expressway. No wetlands or other environmentally sensitive areas are located within the project boundary. Adverse impacts are not anticipated with the development of this project.

SYSTEM OPERATION:

Florida Department Of Transportation

PROPOSED LAND USE(S):

Highway

WATER USE PERMIT STATUS:

A Water Use permit is not required for this project at this time.

POTABLE WATER SUPPLIER:

Metro Dade Water Utilities

WASTE WATER SYSTEM/SUPPLIER:

Metro Dade Water Utilities

DRI STATUS:

This project is not a DRI.

SAVE OUR RIVERS:

The project is not within or adjacent to lands under consideration by the Save Our Rivers program.

SWIM BASIN:

This project is not within nor does it discharge directly to a designated SWIM basin.

RIGHT-OF-WAY PERMIT STATUS:

A Right-of-Way Permit application is currently being processed for this project.

ENFORCEMENT ACTIVITY:

There has been no enforcement activity associated with this application.

THIRD PARTY INTEREST:

No third party has contacted the District with concerns about this application.

WELL FIELD ZONE OF INFLUENCE:

The project is not located within the zone of influence of a wellfield.

ADDITIONAL COMMENTS:

A Wetland Reource Permit Application No. 941110-3-D is currently being processed for this project.

PRIMARY ISSUES RESOLVED:

No primary issues.

V. APPLICABLE LAND AREA

The TOTAL PROJECT and THIS PHASE land use table includes the total of the seven (7) systems (onsite roadway basins). The WTRM (Water Management Area) for this project is provided by a total of 14.69 acres of dry retention areas.

PROJECT

	TOTAL PROJECT	PREVIOUSLY PERMITTED	THIS PHASE	
TOTAL ACRES	126.31		126.31	acres
WTRM ACREAGE	14.69		14.69	acres
PERVIOUS	52.14		52.14	acres
IMPERVIOUS	59.48		59.48	acres

VI. STAFF RECOMMENDATION

The Staff recommends that the following be issued:

Authorization for Construction and Operation of a Surface Water Management System to serve a 126.31 acre highway widening project.

Based on the information provided, District rules have been adhered to.

Staff recommendation is for approval subject to the attached Special Conditions.

VII. STAFF REVIEW

AREA MANAGER:

3/24/95

Anthony M. Waterhouse, P.E.

DRAFT
Subject to Governing Board Approval

NATURAL RESOURCE MANAGEMENT DIVISION APPROVAL

APPLICATION REVIEWER

RONALD PEEKSTOK

SUPERVISING PROFESSIONAL

Robert M. Brown

DIVISION DIRECTOR:

Robert G. Robbins

DATE: 3/9/95

SURFACE WATER MANAGEMENT DIVISION APPROVAL

APPLICATION REVIEWER

Kenneth W. Tarver

SUPERVISING PROFESSIONAL

Carlos A. De Rojas, P.E.

LIMITING CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SPECIAL CONDITIONS

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

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

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

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

5 . OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM SHALL BE THE RESPONSIBILITY OF FLORIDA DEPARTMENT OF TRANSPORTATION.

6 . THE SFWMD RESERVES THE RIGHT TO REQUIRE REMEDIAL MEASURES TO BE TAKEN BY THE PERMITTEE IF WETLAND AND/OR UPLAND MONITORING OR OTHER INFORMATION DEMONSTRATES THAT ADVERSE IMPACTS TO PROTECTED, CONSERVED, INCORPORATED OR MITIGATED WETLANDS OR UPLANDS HAVE OCCURRED DUE TO PROJECT RELATED ACTIVITIES.

7 . ANY FUTURE CHANGES IN LAND USE OR TREATMENT OF WETLANDS AND/OR UPLAND BUFFER/COMPENSATION AREAS MAY REQUIRE A SURFACE WATER MANAGEMENT PERMIT MODIFICATION AND ADDITIONAL ENVIRONMENTAL REVIEW BY DISTRICT STAFF. PRIOR TO THE PERMITTEE INSTITUTING ANY FUTURE CHANGES NOT AUTHORIZED BY THIS PERMIT, THE PERMITTEE SHALL NOTIFY THE SFWMD OF SUCH INTENTIONS FOR A DETERMINATION OF ANY NECESSARY PERMIT MODIFICATIONS.

8 . THE PERMITTEE SHALL ENSURE THAT ALL CONSTRUCTION ACTIVITIES IN OPEN WATER WILL CEASE UPON SIGHTINGS OF MANATEES WITHIN 200 YARDS OF THE PROJECT AREA. CONSTRUCTION ACTIVITIES SHALL NOT RESUME UNTIL THE MANATEES HAVE DEPARTED THE PROJECT AREA.

9 . THE PERMITTEE SHALL ENSURE THAT THE CONTRACTOR INSTRUCTS ALL PERSONNEL ASSOCIATED WITH THE PROJECT OF THE PRESENCE OF MANATEES AND THE NEED TO AVOID COLLISIONS WITH MANATEES. THE PERMITTEE AND/OR CONTRACTOR MAY BE HELD RESPONSIBLE FOR ANY MANATEE HARMED, HARASSED OR KILLED AS A RESULT OF ANY PERMITTED ACTIVITY.

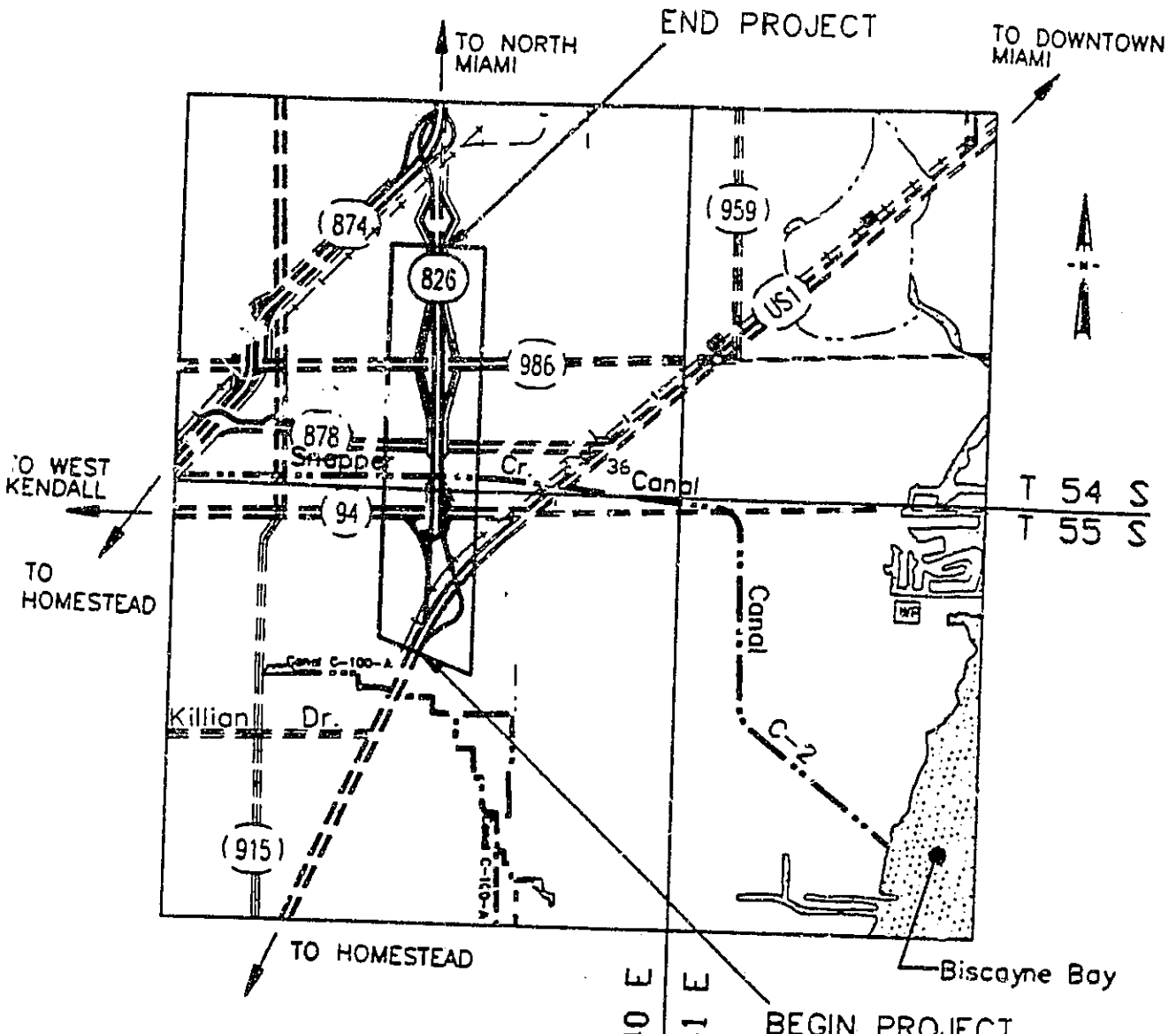
10. THE PERMITTEE SHALL ENSURE THAT A MINIMUM OF ONE PERSON WILL BE DESIGNATED AS A MANATEE OBSERVER WHEN WORK IS BEING CONDUCTED. THIS INDIVIDUAL(S) SHALL HAVE EXPERIENCE IN MANATEE OBSERVATION, AND WILL BE EQUIPPED WITH POLARIZED SUNGLASSES TO AID IN OBSERVATION.

11. PRIOR TO ANY IN-WATER WORK CONDUCTED AT NIGHT, THE PERMITTEE SHALL PROVIDE

FLOOD LIGHTING TO THE AREA TO MAXIMIZE THE OPPORTUNITY TO OBSERVE A MANATEE.

12. ANY COLLISION WITH A MANATEE SHALL BE REPORTED IMMEDIATELY ON THE "MANATEE HOTLINE" (1-800-791-2580).

13. FOLLOWING THE PROJECT COMPLETION, A REPORT SUMMARIZING THE ABOVE INCIDENTS AND SIGHTINGS SHALL BE SUBMITTED TO THE FDEP MARINE RECOVERY PROGRAM (100 EIGHTH AVENUE S.E.. ST. PETERSBURG, FLORIDA 33701-2580) AND TO THE U.S. FISH AND WILDLIFE SERVICE (2747 ART MUSEUM DRIVE, JACKSONVILLE, FLORIDA 32207).



ORIGINAL SUBMITTAL

NOV 10 1994

STATE ROAD NO. 826 – Section 1	
STATE PROJ. NO. 87260-3512	
VICINITY PLAN	
APPLICATION BY: Florida Department of Transportation	
HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ENGINEERS PLANNERS	SCALE: N.T.S.
DATE: 7/26/94	SHEET No. 1 OF 17

EXH. 1

FILE 14633P03.wk1

PROJECT: PALMETTO EXPRESSWAY SECTION 1 (SR-A[illegible])
FROM US-1 TO S/o OF MILLER DR.
MIAMI, DADE COUNTY, FLORIDA
HNTB JOB: 14633-21-13
DESCRIPTION: SR/A DRAINAGE DESIGN - POND 3 (EASTBOUND)

STAGE (FT)	SURFACE AREA (FT2)	SURFACE AREA (AC)	STORAGE VOLUME (FT3)	STORAGE VOLUME (AC-FT)	CUMM STORAGE (FT3)	CUMM STORAGE (AC-FT)
4.5	9,649	0.222	0	0.00	0	0.00
5.0	11,992	0.275	5,410	0.12	5,410	0.12
6.0	19,530	0.448	15,761	0.36	21,171	0.49
7.0	24,472	0.562	22,001	0.51	43,172	0.99
8.0	29,412	0.675	26,942	0.62	70,114	1.61
9.0	36,015	0.827	32,714	0.75	102,828	2.36
10.0	41,038	0.942	38,527	0.88	141,354	3.25

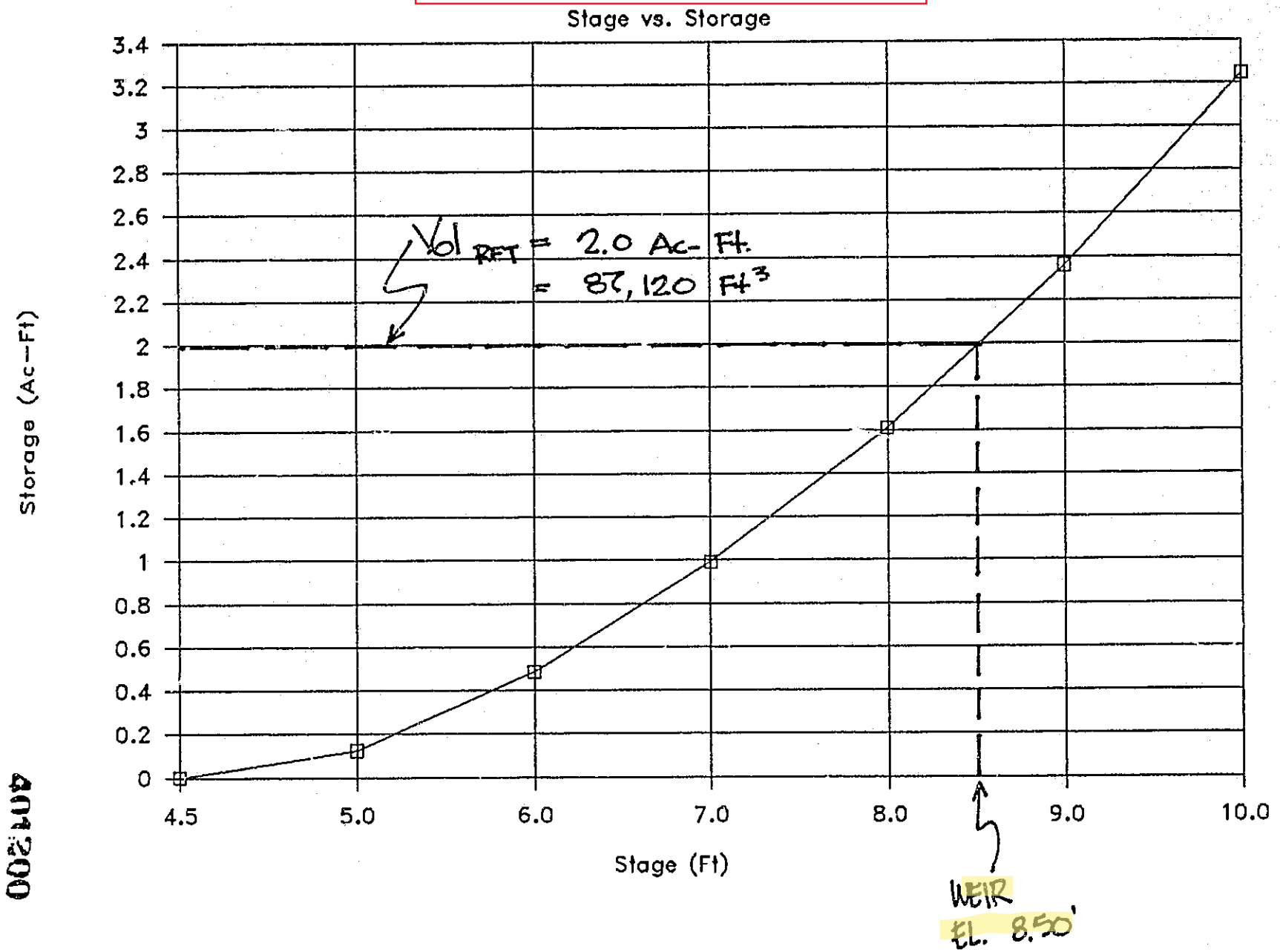
Infiltration Test with Concentric Rings
Test No. DR-2
Location: STA 47+50, 33' E/P Off Ramp Kendall Dr./Sr 826

Average Flow =	0.05 gpm	=	0.40 Ft 3/hr
Inside Ring Dia =	12 in		
Ring Area =	0.79 Ft 2		
Factor of Safety =	2		
Flow =	0.26 Ft/hr		

STAGE (FT)	SURFACE AREA (FT2)		INFILTRATION RATE (cfs)
4.5	9649		0.684
5.0	11992		0.851
6.0	19530		1.385
7.0	24472		1.736
8.0	29412		2.086
9.0	36015		2.554
10.0	41038		2.911

401199

Pond 3 (Basin 5)



4072.00

FILE 14633P1a.wk1

PALMETTO EXPRESSWAY SECTION 1 05-APR-93
FROM US-1 TO So. OF MILLER DR
MIAMI-DADE COUNTY, FLORIDA
HNTB JOB 14633 21 13
DESCRIPTION: SCS DRAINAGE DESIGN - POND 4 (AREA 3)

STAGE (FT)	SURFACE AREA (FT2)	SURFACE AREA (AC)	STORAGE VOLUME (FT3)	STORAGE VOLUME (AC-FT)	CUMM STORAGE (FT3)	CUMM STORAGE (AC-FT)
7.0	16,100	0.370	0	0.00	0	0.00
8.0	18,850	0.433	17,475	0.40	17,475	0.40
9.0	21,275	0.488	20,063	0.46	37,538	0.86
10.0	23,890	0.548	22,583	0.52	60,120	1.38

NAVD88 = NGVD - 1.55'

Infiltration Test with Concentric Rings
Test No. DR-1
Location: STA 45+00, 50' West of E/P SR-826

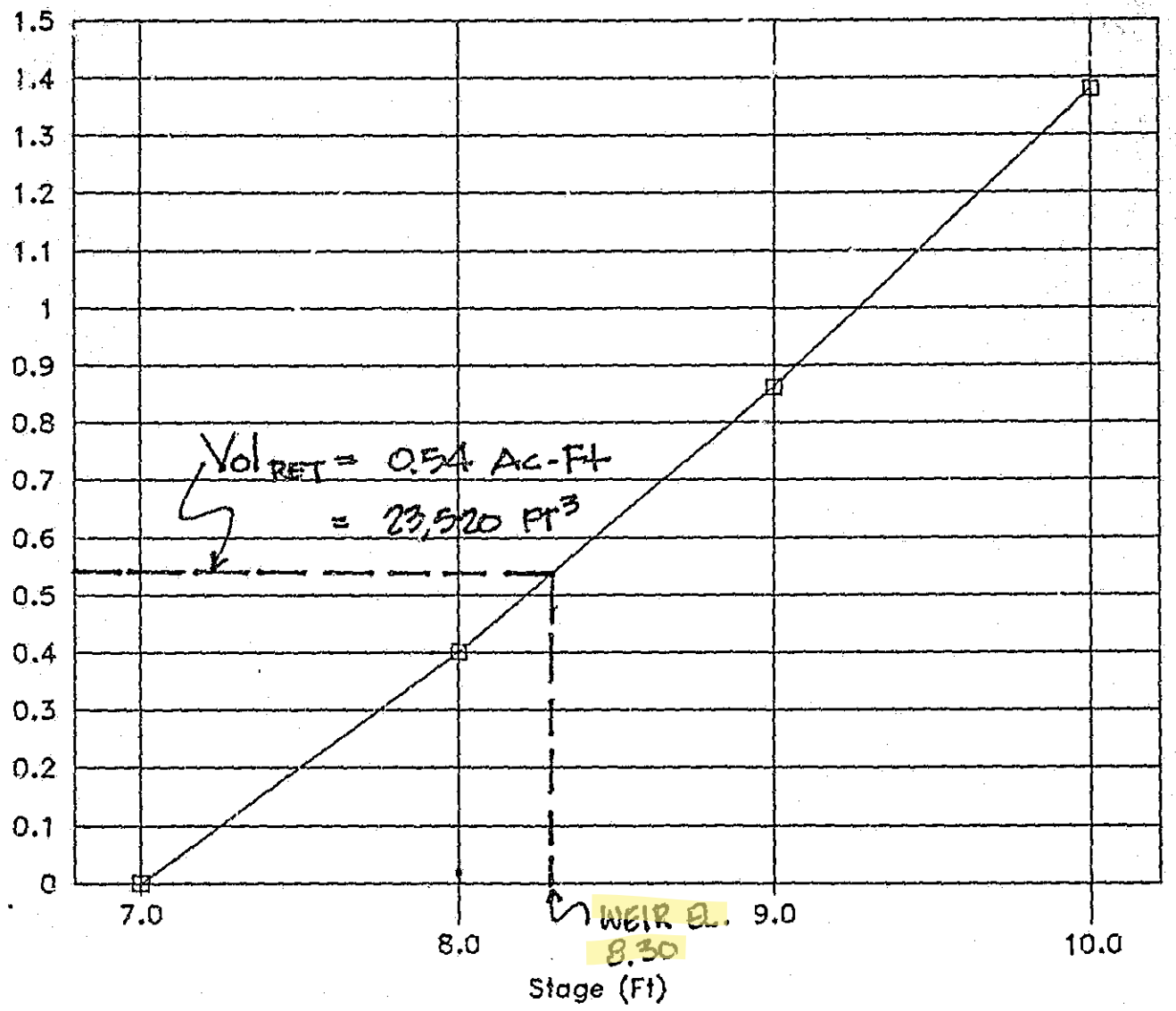
Average Flow =	0.05 gpm	=	0.40 Ft 3/hr
Ring Diameter =	12 in		
Ring Area =	0.79 Ft 2		
Factor of Safety =	2		
Flow =	0.25 Ft/hr		

STAGE (FT)	SURFACE AREA (FT2)		INFILTRATION RATE (cfs)
7.0	16,100		1.142
8.0	18,850		1.337
9.0	21,275		1.509
10.0	23,890		1.694

401202

Pond 4–A (Basin 5)

Stage vs. Storage



FILE 14633P4b.wk1

PROJECT: PALMETTO EXPRESSWAY SECTION 1 — 05-Apr-23
FROM US-1 TO So. OF MILLER DR.
MIAMI, DADE COUNTY, FLORIDA
HNTB JOB: 14633-21-13
DESCRIPTION: SPX DRAINAGE DESIGN — POND 4 - S (BASIN S1)

STAGE (FT)	SURFACE AREA (FT2)	SURFACE AREA (AC)	STORAGE VOLUME (FT3)	STORAGE VOLUME (AC-FT)	CUMM STORAGE (FT3)	CUMM STORAGE (AC-FT)
7.0	24,895	0.572	0	0.00	0	0.00
8.0	29,097	0.668	26,996	0.62	26,996	0.62
9.0	33,298	0.764	31,198	0.72	58,194	1.34
10.0	37,500	0.861	35,399	0.81	93,593	2.15

Infiltration Test with Concentric Rings
Test No. DR-1
Location: STA 45+00, 50' West of E/P SR-826

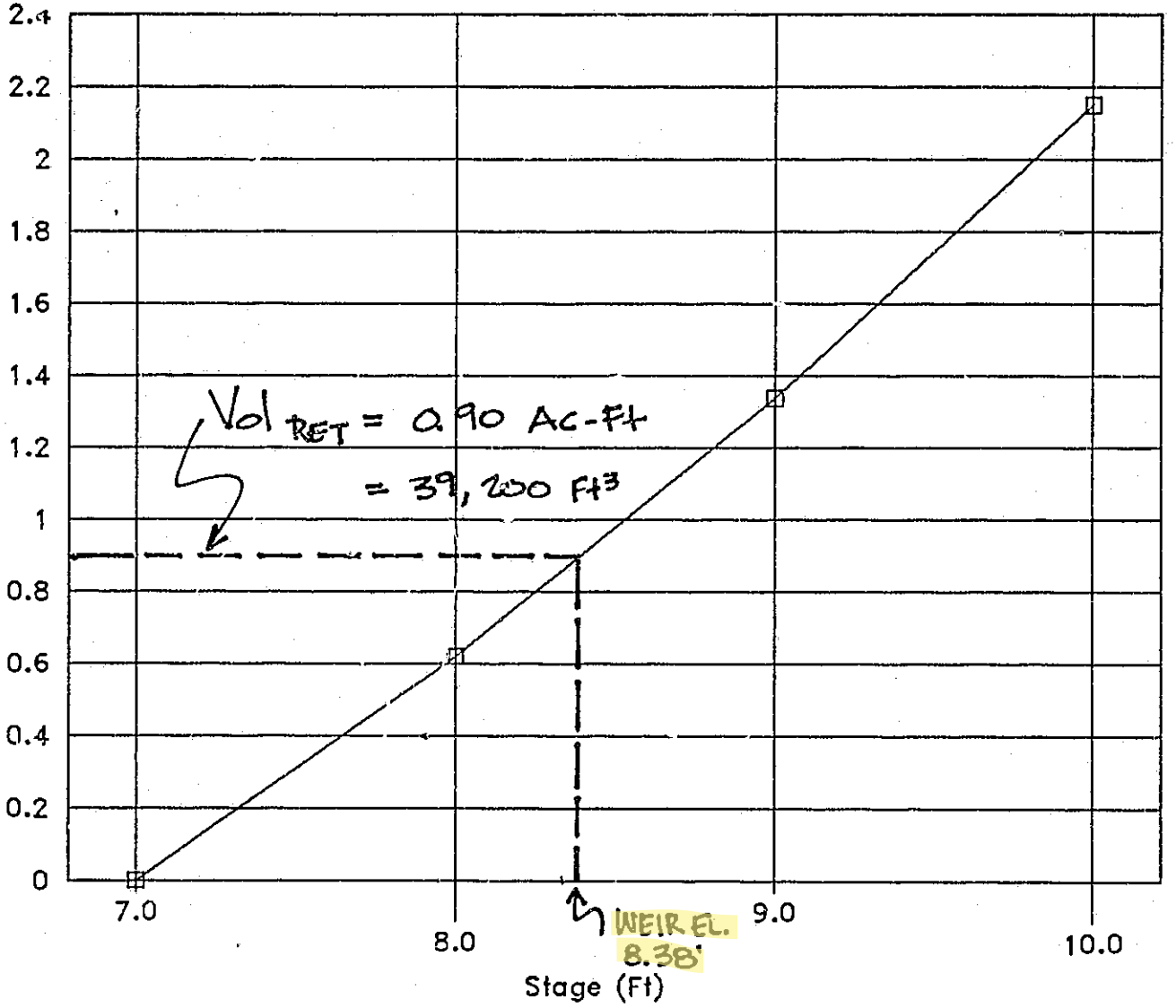
Average Flow =	0.05 gpm	=	0.40 Ft 3/hr
Ring Diameter =	12 in		
Ring Area =	0.79 Ft 2		
Factor of Safety =	2		
Flow =	0.26 Ft/hr		

STAGE (FT)	SURFACE AREA (FT2)		INFILTRATION RATE (cfs)
7.0	24,895		1.766
8.0	29,097		2.064
9.0	33,298		2.362
10.0	37,500		2.660

401295

Pond 4-B (Basin 5)

Stage vs. Storage



FILE 14633P05.wk1

PROJECT: PALMETTO EXPRESSWAY SECTION 1 — 17-Aug-93
FROM US-1 TO So. OF MILLER DR.
MIAMI, DADE COUNTY, FLORIDA
HNTB JOB: 14633-21-13
DESCRIPTION: 60% DRAINAGE DESIGN - POND 5 (BASIN 7)

STAGE (FT)	SURFACE AREA (FT2)	SURFACE AREA (AC)	STORAGE VOLUME (FT3)	STORAGE VOLUME (AC-FT)	CUMM STORAGE (FT3)	CUMM STORAGE (AC-FT)
4.5	65,600	1.506	0	0.000	0	0.00
5.0	67,677	1.554	33,319	0.765	33,319	0.76
6.0	70,970	1.629	69,324	1.591	102,643	2.36
7.0	74,925	1.720	72,948	1.675	175,590	4.03
8.0	78,680	1.806	76,803	1.763	252,393	5.79
8.5	81,500	1.871	40,045	0.919	292,438	6.71
9.0	83,025	1.906	41,131	0.944	333,569	7.66

Infiltration Test with Concentric Rings
Test No. NONE

Average Flow (*) =	0.02 gpm	=	0.16 Ft 3/hr
Inside Ring Dia =	12 in		
Ring Area =	0.79 Ft 2		
Factor of Safety =	2		
Flow =	0.10 Ft/hr		

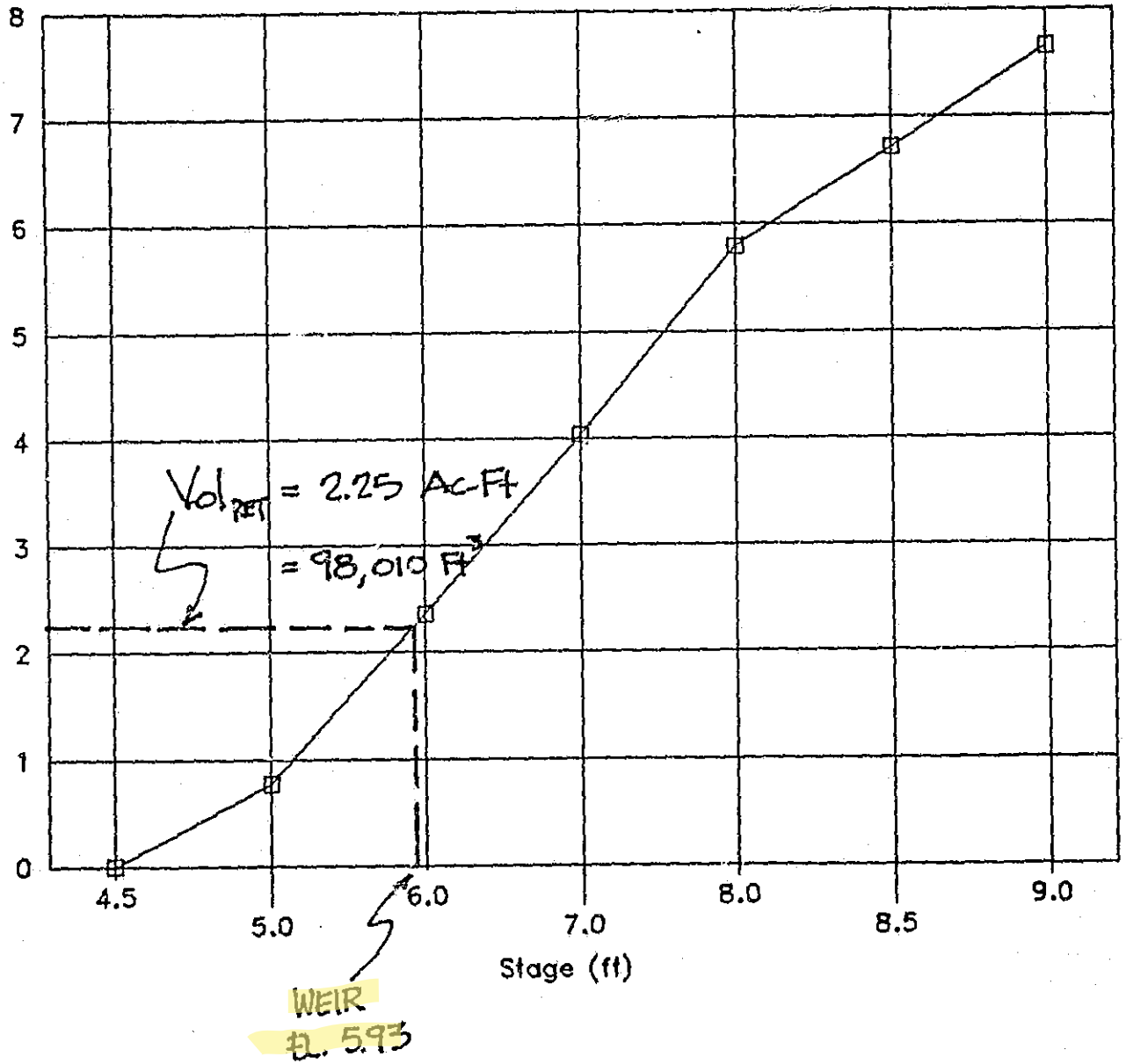
(*) Assumed

STAGE (FT)	SURFACE AREA (FT2)	INFILTRATION RATE (cfs)
4.5	65,600	1.861
5.0	67,677	1.920
6.0	70,970	2.013
7.0	74,925	2.126
8.0	78,680	2.232
8.5	81,500	2.312
9.0	83,025	2.355

A-1208

POND 5 (Basin 5)

Stage vs. Storage



FILE 14633P06.wk1

PROJECT: PALMETTO EXPRESSWAY SECTION 1 — 10-Feb-93
FROM US-1 TO So. OF MILLER DR.
MIAMI, DADE COUNTY, FLORIDA
HNTB JOB: 14633-21-19
DESCRIPTION: 60% DRAINAGE DESIGN — POND 6 (BASIN 5-A)

STAGE (FT)	SURFACE AREA (FT2)	SURFACE AREA (AC)	STORAGE VOLUME (FT3)	STORAGE VOLUME (AC-FT)	CUMM STORAGE (FT3)	CUMM STORAGE (AC-FT)
4.0	13253	0.304	0	0.00	0	0
4.5	14496	0.333	6937	0.16	6937	0.16
5.0	15835	0.364	7583	0.17	14520	0.33
6.0	17119	0.393	16477	0.38	30997	0.71
7.0	19410	0.446	18265	0.42	49262	1.13
8.0	22059	0.506	20735	0.48	69996	1.61

Infiltration Test with Concentric Rings
Test No. PIT-1
Location: STA 53+00, 145' LT B/L SR-826

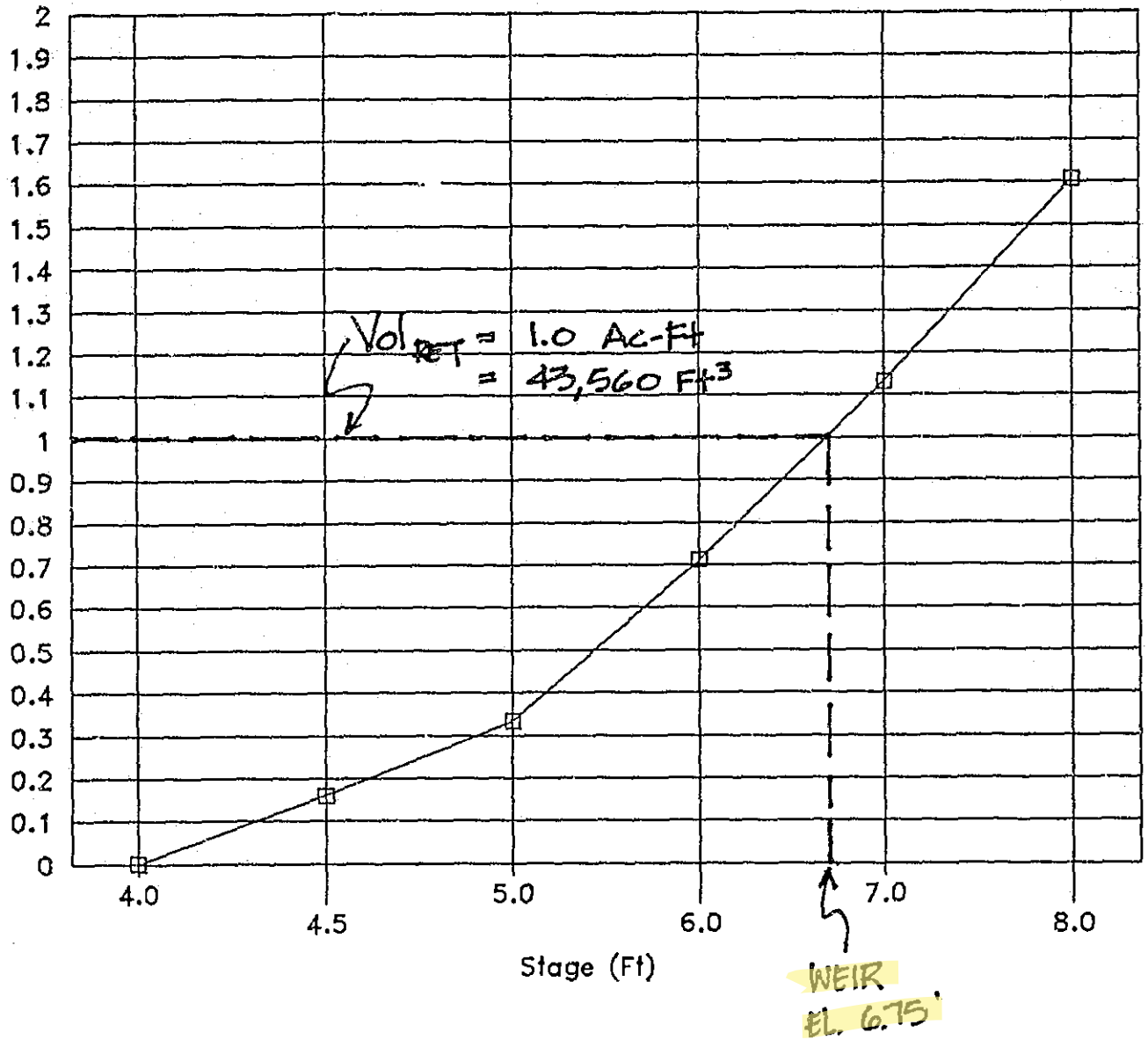
Average Flow =	0.05 gpm	=	0.40 Ft 3/hr
Ring Diameter =	12 in		
Ring Area =	0.79 Ft 2		
Factor of Safety =	2		
Flow =	0.26 Ft/hr		

STAGE (FT)	SURFACE AREA (FT2)		PERCOLATION RATE (cfs)
4.0	13253		0.940
4.5	14496		1.028
5.0	15835		1.123
6.0	17119		1.214
7.0	19410		1.377
8.0	22059		1.565

401218

Pond 6 (Basin 5-A)

Stage vs. Storage



4072749

FILE 14633P07.wk1

PROJECT: PALMETTO EXPRESSWAY SECTION 1 05-APR-94
FROM US-1 TO So. OF MILLER DR.
MIAMI, DADE COUNTY, FLORIDA.
HNTB JOB: 14633-2I-13
DESCRIPTION: SWA DRAINAGE DESIGN - POND 7 (BASIN 5)

STAGE (FT)	SURFACE AREA (FT2)	SURFACE AREA (AC)	STORAGE VOLUME (FT3)	STORAGE VOLUME (AC-FT)	CUMM STORAGE (FT3)	CUMM STORAGE (AC-FT)
4.0	40,378	0.927	0	0.00	0	0.00
5.0	45,620	1.047	42,999	0.99	42,999	0.99
6.0	50,860	1.168	48,240	1.11	91,239	2.09
7.0	56,100	1.288	53,480	1.23	144,719	3.32
8.0	62,268	1.429	59,184	1.36	203,903	4.68

Infiltration Test with Concentric Rings
Test No. DR-2
Location: STA 54+00, 35' East E/P of Ramp SR-826

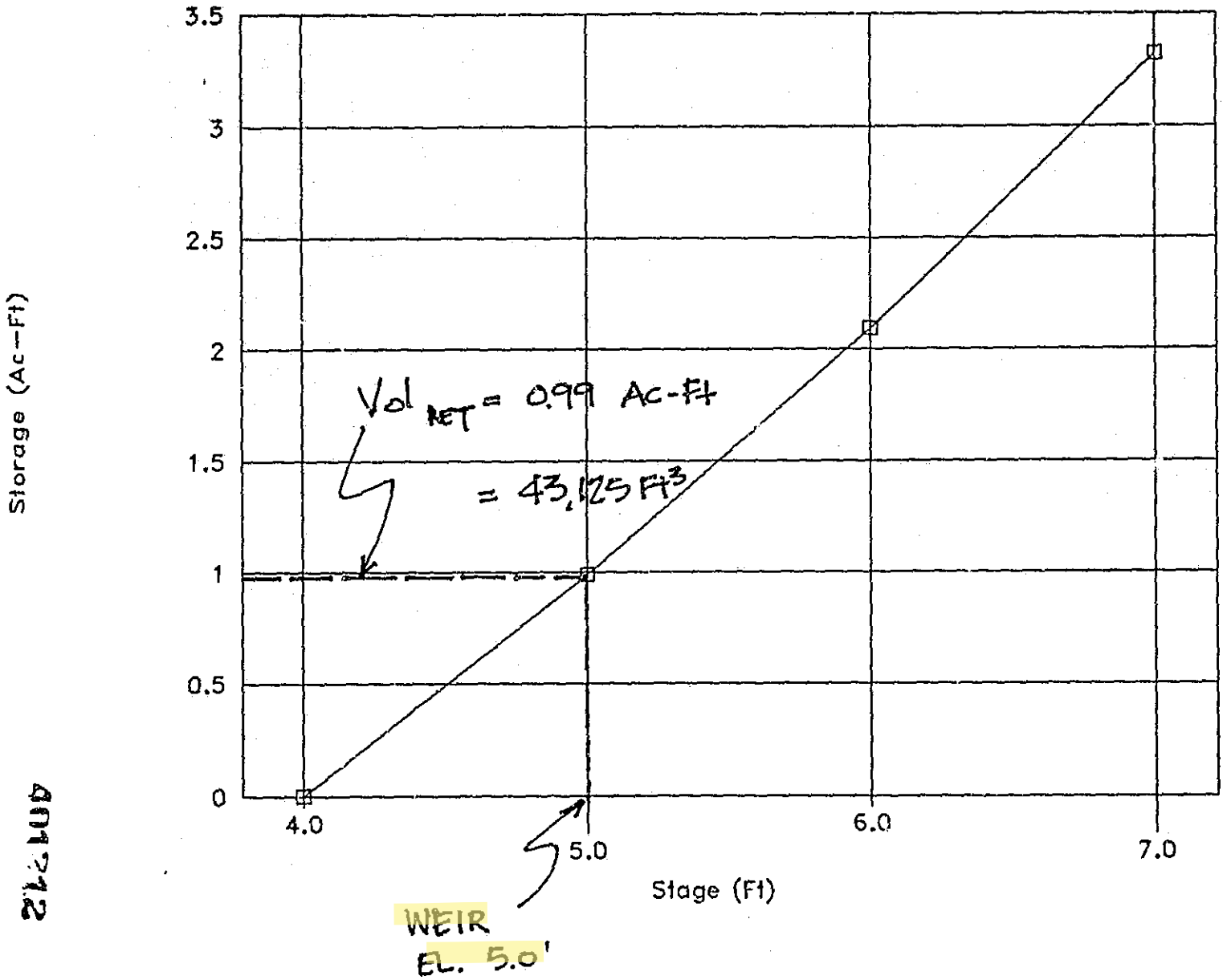
Average Flow =	0.05 gpm	=	0.40 Ft 3/hr
Inside Ring Dia =	12 in		
Ring Area =	0.79 Ft 2		
Factor of Safety =	2		
Flow =	0.26 Ft/hr		

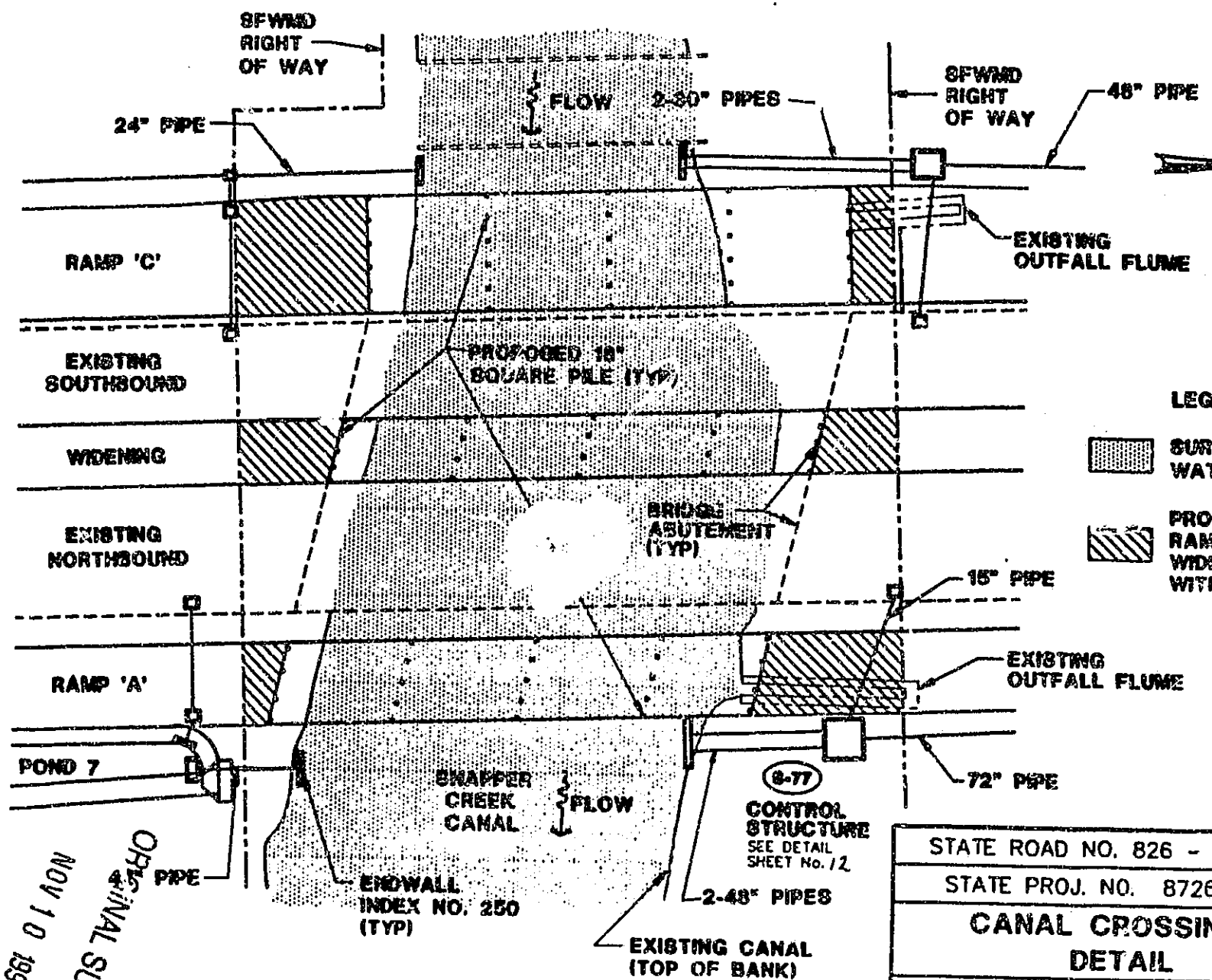
STAGE (FT)	SURFACE AREA (FT2)		INFILTRATION RATE (cfs)
4.0	40,378		2.864
5.0	45,620		3.236
6.0	50,860		3.607
7.0	56,100		3.979
8.0	62,268		4.416

401211

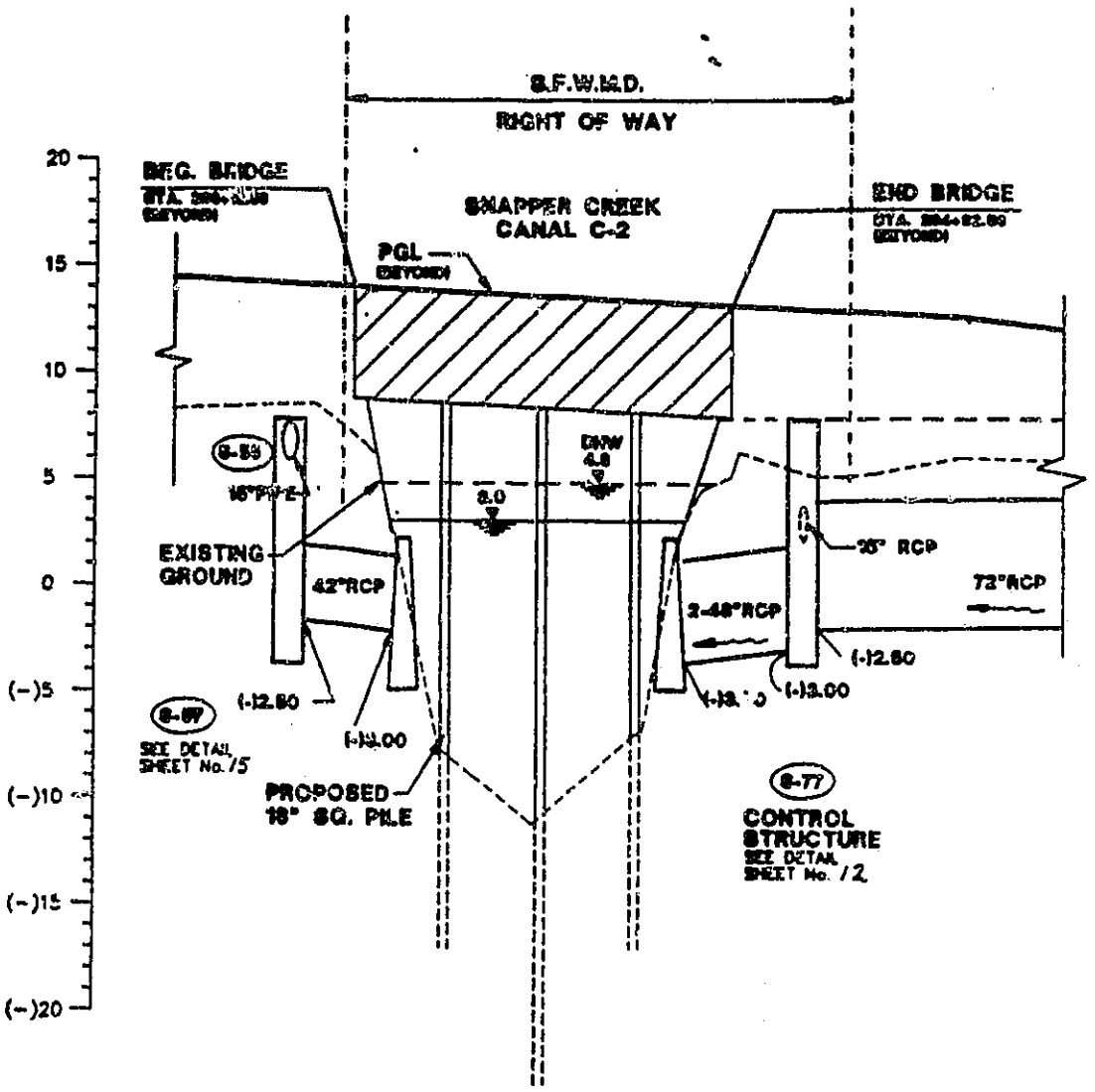
Pond 7 (Basin 5)

Stage vs. Storage





STATE ROAD NO. 826 -	
STATE PROJ. NO. 8726	
CANAL CROSSIN DETAIL	
APPLICATION BY: Florida Department	
HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ENGINEERS PLANNERS	SC. SHI
DATE: 8/25/94	



STATE ROAD NO. 826 – Section 1

STATE PROJ. NO. 87260-3512

OUTFALL
RAMP "A"

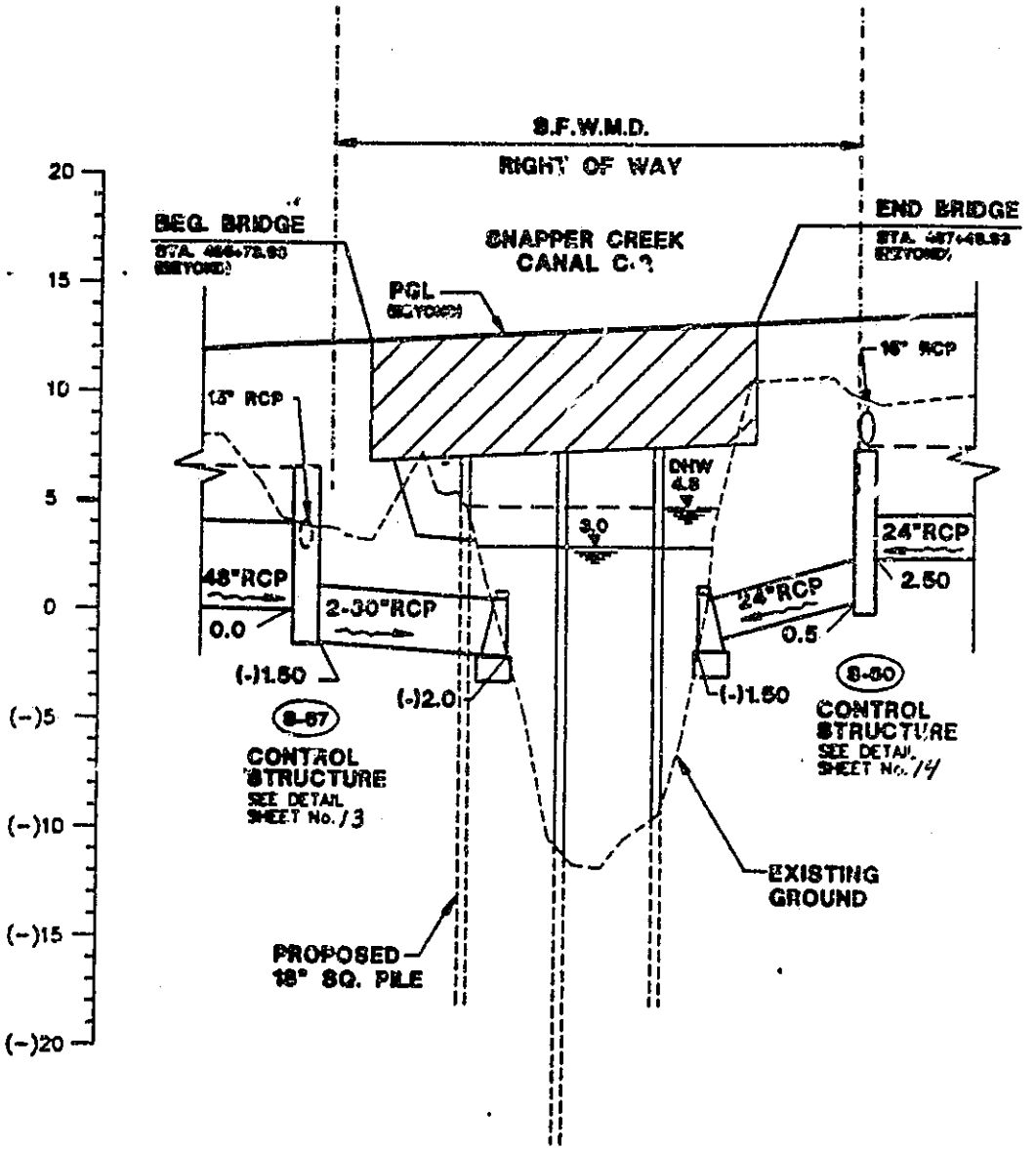
APPLICATION BY: Florida Department of Transportation

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

SCALE: H – 1"=80'
V – graphic

DATE: 8/25/94

SHEET No. 10 OF 17



STATE ROAD NO. 826 – Section 1

STATE PROJ. NO. 87260-3512

OUTFALL RAMP "C"

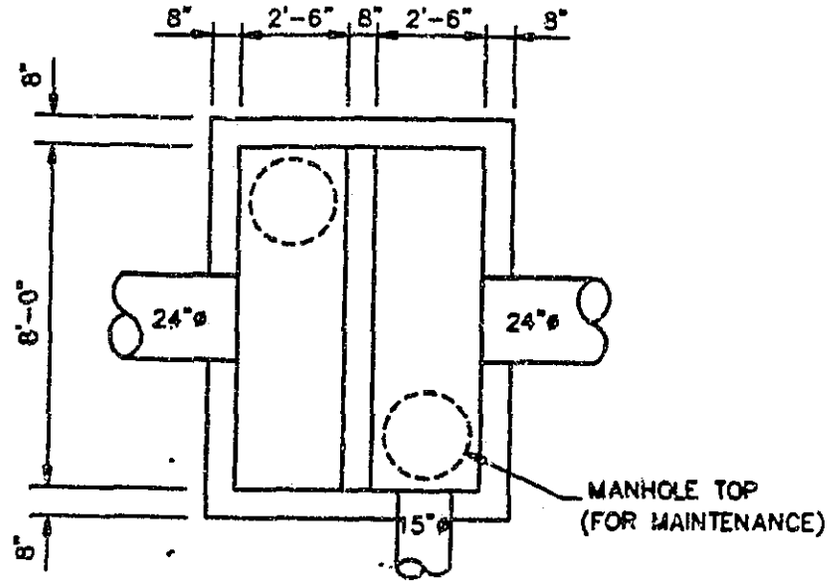
APPLICATION BY: Florida Department of Transportation

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

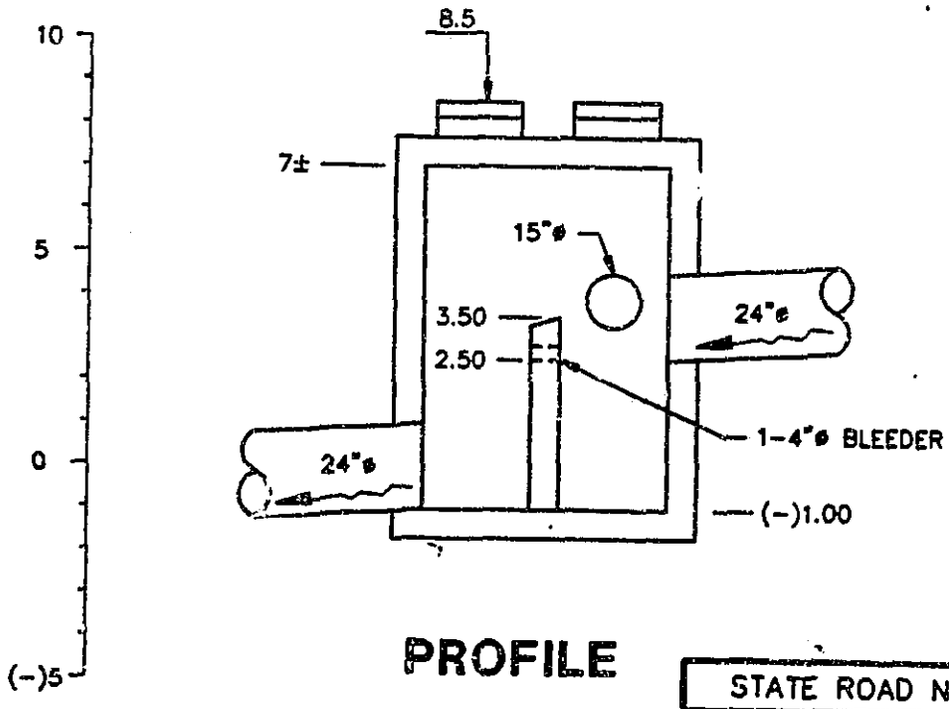
SCALE: H – 1"=50' V – graphic

DATE: 7/26/94

SHEET No. 11 OF 17



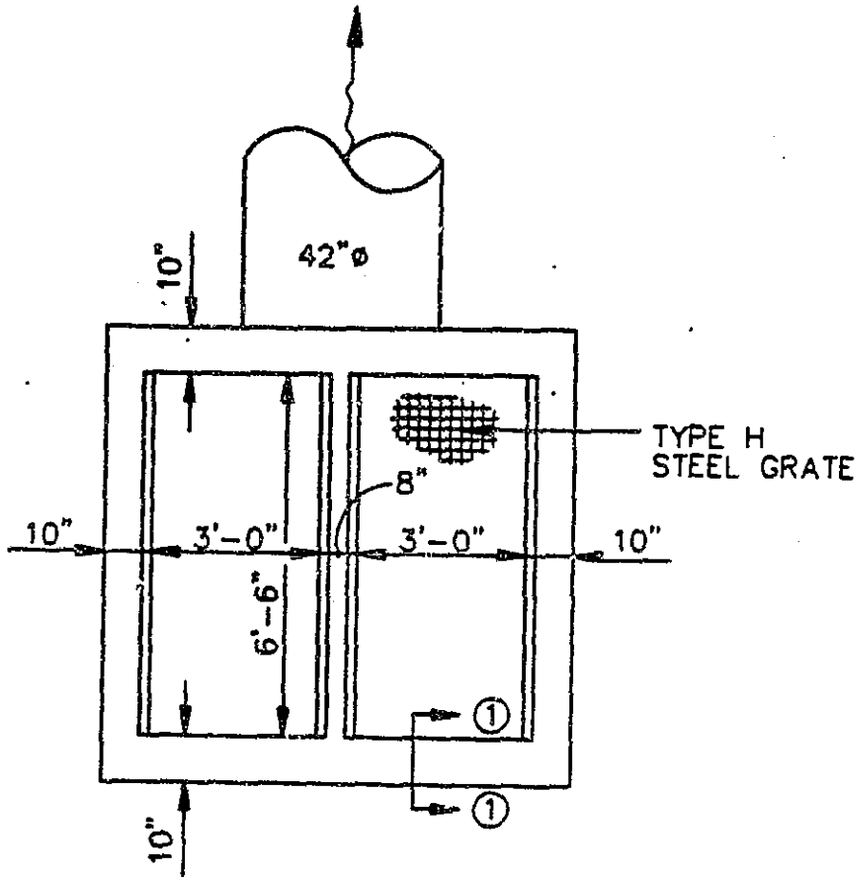
PLAN



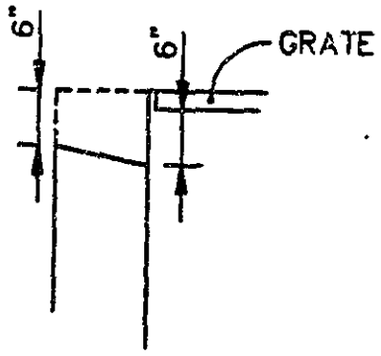
PROFILE

F.L. 2.5 AH, (–) 1.0 BK. & 3.25 LT.

STATE ROAD NO. 826 – Section 1	
STATE PROJ. NO. 87260-3512	
CONTROL STRUCTURE DETAIL S-60	
APPLICATION BY: Florida Department of Transportation	
HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ENGINEERS PLANNERS	SCALE: N.T.S.
DATE: 7/25/94	SHEET No. 14 OF 17



PLAN



SECTION ①-①

F.L. (–) 2.5

STATE ROAD NO. 826 – Section 1

STATE PROJ. NO. 87260-3512

CONTROL STRUCTURE DETAIL S-59

APPLICATION BY: Florida Department of Transportation

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

SCALE: N.T.S.

DATE: 8/25/94

SHEET No. 15 OF 17

THIS CONTRACT PLAN SET INCLUDES:

ROADWAY PLANS
SUMMARY OF PAY ITEMS (13 SHEETS)
SIGNING AND PAVEMENT MARKING PLANS
SIGNALIZATION PLANS
LIGHTING PLANS
STRUCTURE PLANS
TREE RELOCATION PLANS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

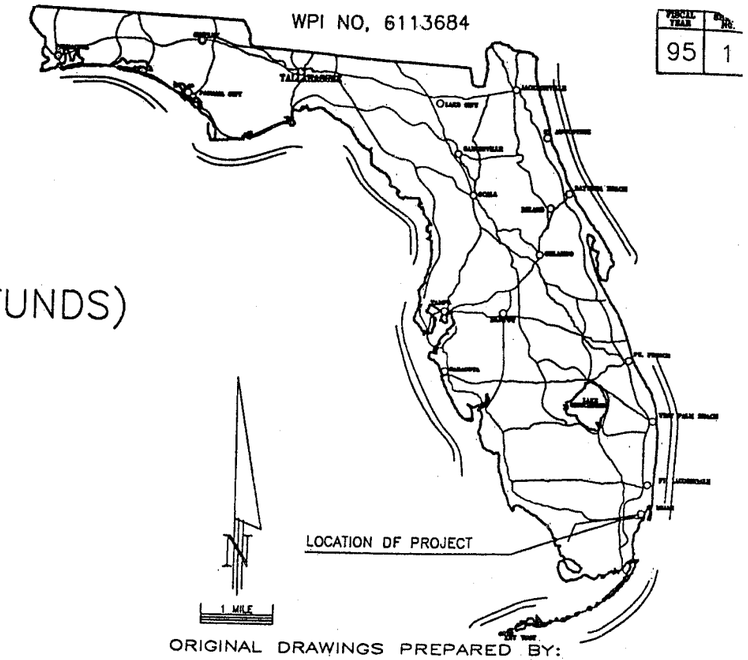
PLANS OF PROPOSED

STATE HIGHWAY

STATE PROJECT NO. 87260-3512 (FEDERAL FUNDS)
DADE COUNTY
STATE ROAD NO. 826

WPI NO. 6113684

FISCAL YEAR	SHT. NO.
95	1



LOCATION OF PROJECT

A DETAILED INDEX APPEARS ON THE KEY SHEET OF EACH GROUP OF PLANS

INDEX OF ROADWAY PLANS

SHEET NO.	SHEET DESCRIPTION
1	KEY SHEET
2-6	DRAINAGE MAPS
7	EXISTING DRAINAGE STRUCTURES
8,9	INTERCHANGE DRAINAGE MAPS
10-17	TYPICAL SECTIONS
18,19	SUMMARY OF QUANTITIES
20-23,23A,23B,24,25	SUMMARY OF DRAINAGE STRUCTURES
26,27	PROJECT LAYOUT
28-38	RDADWAY PLANS
39-47	ROADWAY PLAN - PROFILES
48-6D,60A,61-68,68A,69-77	ROADWAY PROFILES
78-81	INTERCHANGE LAYDUT
82-85	INTERSECTION LAYOUT / DETAIL
86-96,96A-96C,97-108	DRAINAGE STRUCTURES
109-117	DRAINAGE DETAILS
117A-117D	DRAINAGE DETAILS (STRUCTURAL DESIGN)
118-122	POND DETAILS
123-128	STDRM WATER POLLUTION PREVENTION SHEETS
129-131	CROSS SECTION PATTERN SHEETS
132-135	RDADWAY SDIL SURVEY
136-235	CROSS SECTIONS '
236-238,238A,239-372	TRAFFIC CONTRDL SHEETS
373-389	UTILITY ADJUSTMENTS
39D-4D1	APPROACH SLABS
402-4D7	INTERIM ROADWAY AND TRAFFIC DESIGN STANDARDS

THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH AND ARE GOVERNED BY THE STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION, ROADWAY AND TRAFFIC DESIGN STANDARDS (BOOKLET DATED JANUARY, 1992)

RECYCLED PAPER

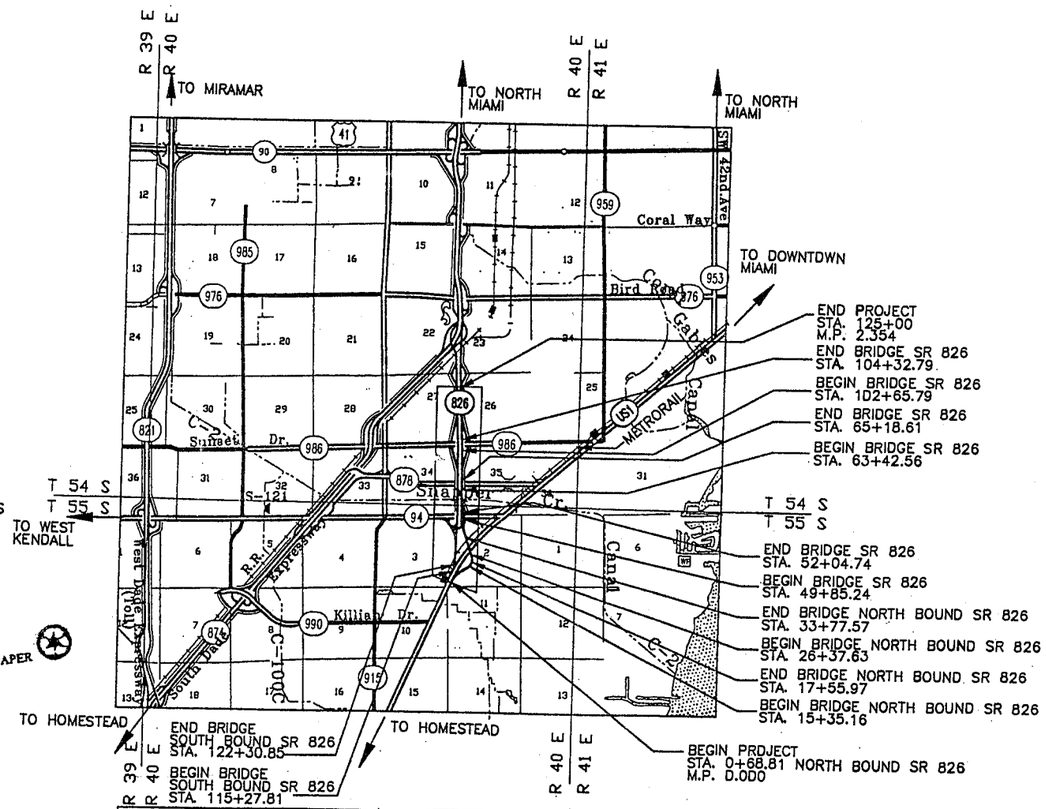
REVISIONS

RDADWAY SHEETS: 1, 26, 28, 31, 239, 240, 241, 254, 257 258, 273, 276, 292, 295, 402, 403 4D4, 405, 4D6, 407 (REVISED 5/16/95)

LIGHTING SHEETS: L-5 (REVISED 5/16/95)

STRUCTURES SHEETS: A1, B1, B2, B3, B4, B5, B6, (REVISED 5/16/95)

CES: (REVISED 5/16/95)
Bridge CES(Added to Plans 6-13-95)



LENGTH OF PROJECT

	LINEAR FT.	MILES
ROADWAY	10,907.94	2.066
BRIDGES	1,523.25	0.288
NET LENGTH OF PROJ.	12,431.19	2.354
EXCEPTIONS	0.000	0.000
GROSS LENGTH OF PROJ.	12,431.19	2.354

NORTHBOUND SR 826 STATIONING WAS USED FOR PURPOSE OF CALCULATING THE LENGTH OF THE PROJECT

F.D.O.T. PROJECT MANAGER : MICHAEL (TONY) BUDALL P.E.

REVISIONS		
DATE	BY	DESCRIPTION
5/16/95	JDD	REVISED TO ADD SHEETS 402 & 407 REVISED TO DELETE SR 826 SB BRIDGE WIDENING

ORIGINAL DRAWINGS PREPARED BY:

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ENGINEERS PLANNERS

ENGINEER OF RECORD: JOSE J. DE ALMAGRO

P.E. NO. DD40948 DATE: 12/22/94

ADDRESS: 1150 N.W. 72ND AVENUE
SUITE 6DD
MIAMI, FLORIDA 33126
PHONE: (305) 592-593D

MODIFICATIONS TO ORIGINAL DRAWINGS BY:

Kimley-Horn KIMLEY-HORN AND ASSOCIATES, INC. ENGINEERS PLANNERS

ENGINEER OF RECORD: JAMES M. ZEI

P.E. NO. 0016369 DATE: 1/95

ADDRESS:
4431 EMBARCADERO DRIVE
WEST PALM BEACH, FLORIDA 33407
PHONE: (4D7) 845-0665

KHA BEARS DESIGN RESPONSIBILITY FOR ONLY THOSE ELEMENTS SPECIFICALLY MODIFIED BY KHA. KHA ACCEPTS SCRIVENER RESPONSIBILITY ONLY FOR OTHER DATA SHOWN ON THE MODIFIED SHEETS, THE DESIGN OF WHICH WAS PERFORMED BY OTHERS.

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.

GOVERNING SPECIFICATIONS: STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS, DATED 1991, SUPPLEMENTS AND SPECIAL PROVISIONS, THERETO IF NOTED IN THE CONTRACT SPECIFICATIONS FOR THIS PROJECT.

DRIGINAL PLANS APPROVED BY: JOSE J. DE ALMAGRO

DATE: 12/22/94

P.E. NO.: 0040948

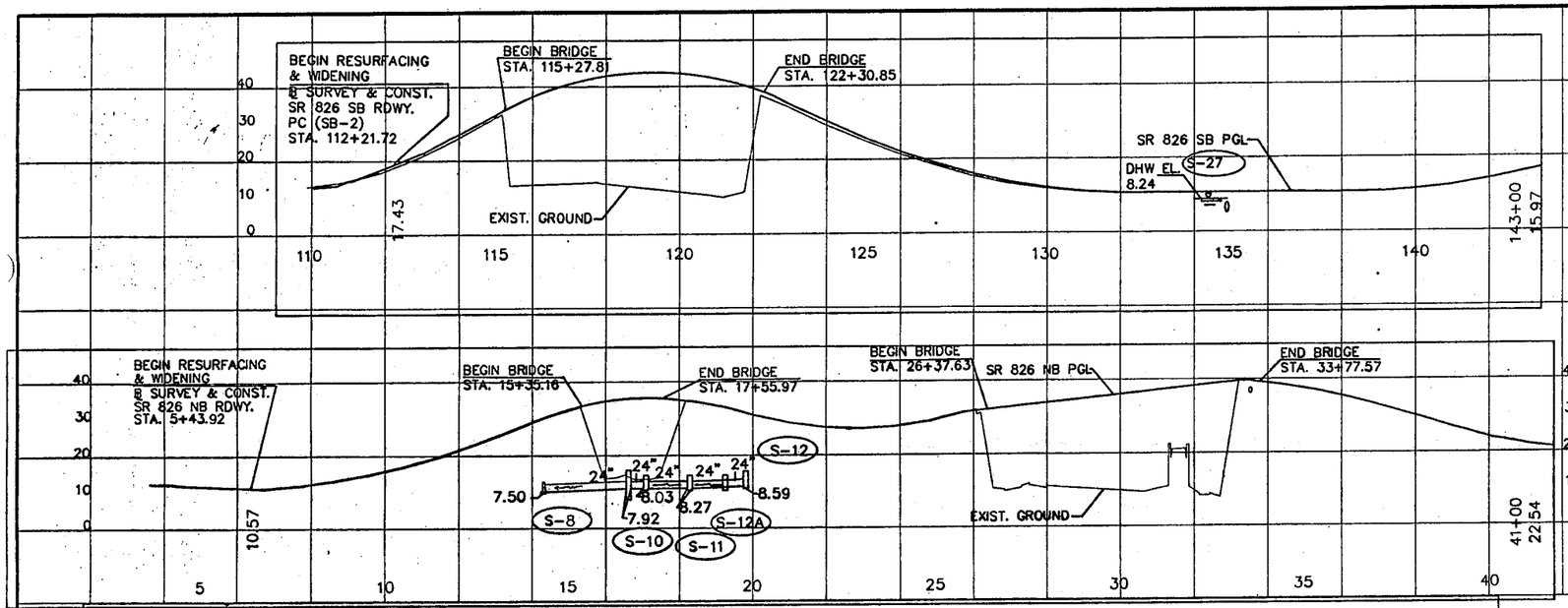
MODIFICATIONS APPROVED BY: JAMES M. ZEI

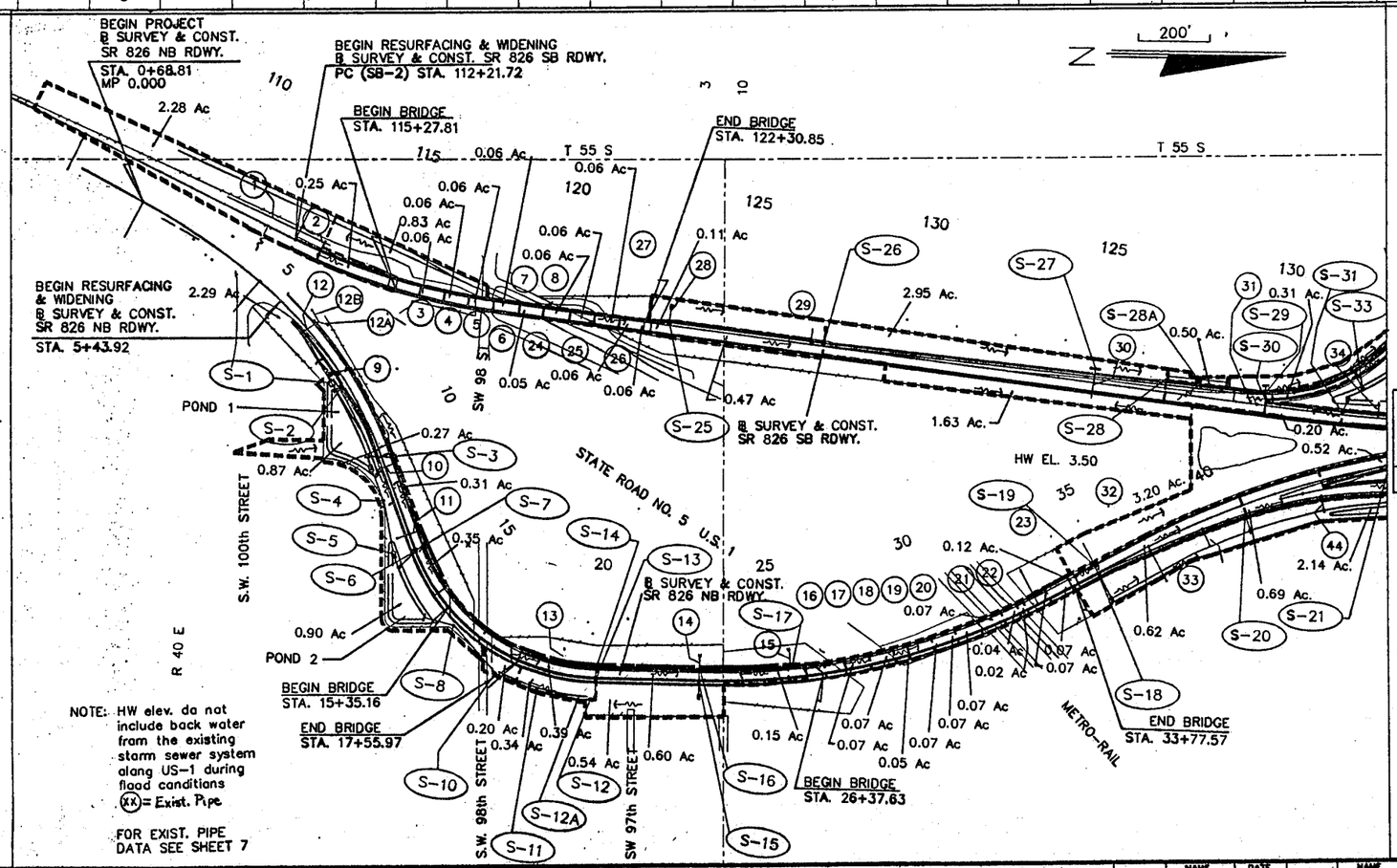
DATE: 1/95

P.E. NO.: 0016369

DM1

STATE PROJ. NO.	SHEET NO.
87260-3512	2





	pH		Resistivity Ohm-cm		Chlorides ppm	Sulfates ppm	Limits	
ALT.	Min.	Max.	Min.	Max.	Max.	Max.	From	To
AA	8.0	8.2	16500	21500	48	10	5+41.49 112+21.72	41+50(NB) 141+50(SB)
AB	8.0	8.2	16500	21500	48	10	5+41.49 112+21.72	41+50(NB) 141+50(SB)

NOTE
The pH and resistivity far Alt. AB must satisfy both the values shawn in the table and satisfy the appropiate equation given below.
The fallawing equation should be used to establish the suitability af a soil to satisfy service life requirements within the limits specified.
*1.78 ≤ [Log10 R-Lag10 (2160-2490 Log10 pH)]
**2.23 ≤ [Log10 R-Lag10 (2160-2490 Log10 pH)]

Structure No.	DESIGN FLOOD 10% Prob. 10Yr. Freq.		BASE FLOOD 1% Prob.	100Yr. Freq.	OVERTOPPING FLOOD				GREATEST FLOOD			
	Discharge	Stage	Discharge	Stage	Discharge	Stage	Prob. %	Freq. Yr.	Discharge	Stage	Prob. %	Freq. Yr.
S-27	4.58	8.24	9.05	9.47	-	-	-	-	11.15	10.08	0.2%	500

NOTE:
The hydraulic data is shawn for informatianal purpases only, ta indicate the flood discharges and water surface elevatians which may be anticipated in any given year. This data was generated using highly variable factors determined by a study of the watershed. Many judgements and assumptions are required ta establish these factars. The resultant hydraulic data is sensitive ta changes, particulary af antecedent conditians, urbanizatian, channelization and land use. Users af this data are cautioned against the assumptian af precision which can not be attained. Discharges are cubic feet per second and stages are in feet above mean sealevel NGVD.
Circled numbers represent existing drainage structures which are summarized in the summarized in the "Existing Drainage Structure" sheet with their respective data.

Definitions:
Design Flood: The flood selected by the F.D.O.T. ta be utilized ta assure a standard level af hydraulic performance
Base Flood: The flood having a 1% chance of being exceed in any year, (100 year frequency)
Overtapping Flood: The flood where flow accurs over the highway, over a watershed divide or thru emergency relief structures
Greatest Flood: The most severe flood which can be predicted where overtopping is not practical, normally one with a 0.2% chance of being exceeded in any year (500 Year Frequency)

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

REVISIONS

	NAME	DATE		NAME	DATE
DESIGNED BY	L.L.B.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.D.D.	5/93

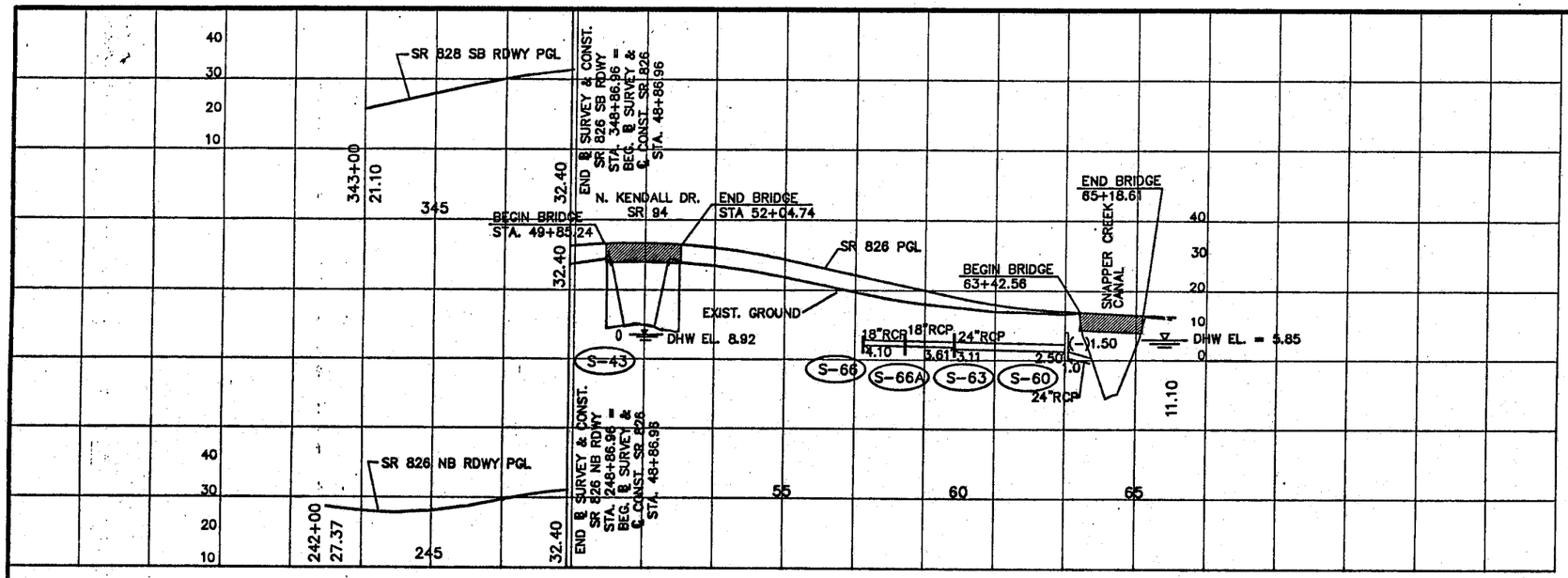
SUPERVISED BY : J.W.H.

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF ENGINEERS PLANNERS

STATE ROAD NO. 826

DRAINAGE MAP



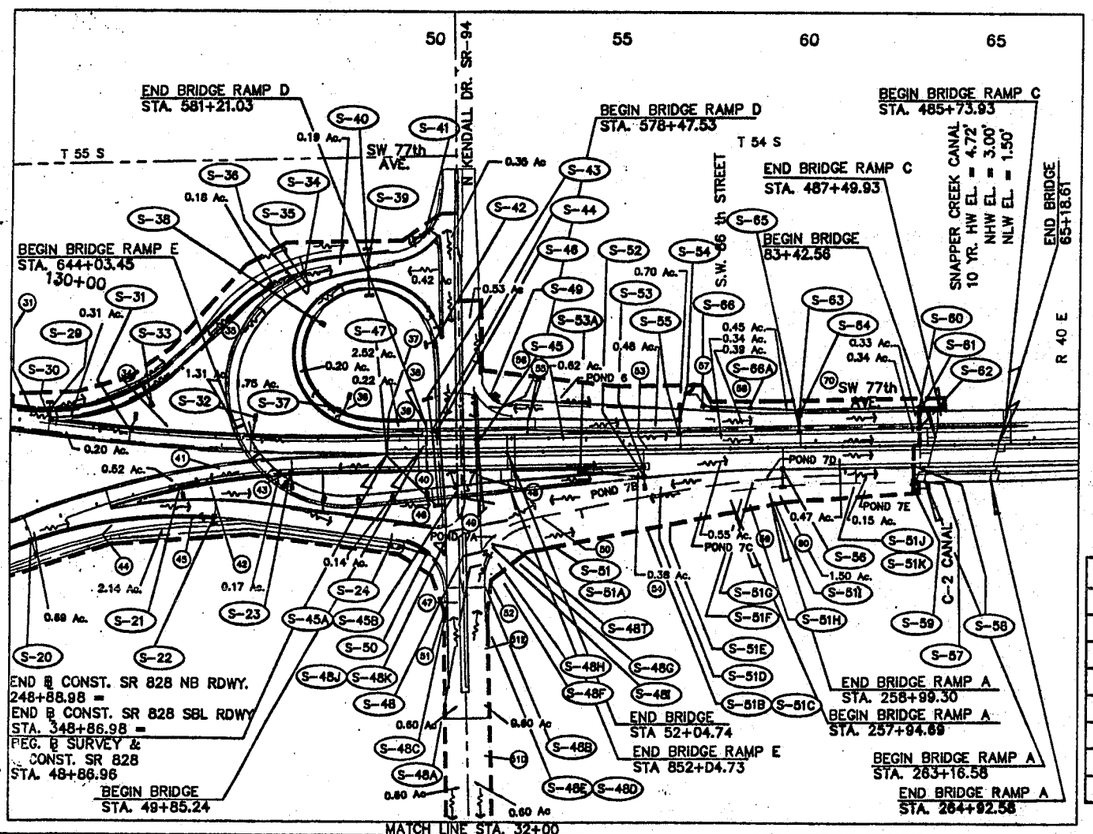
STATE PROJ. NO.	SHEET NO.
87260-3512	3

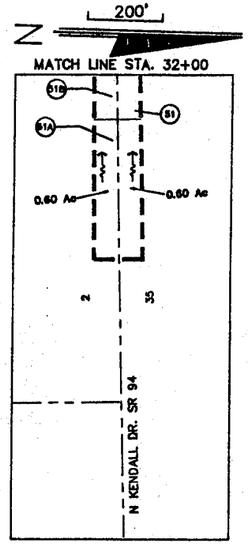
	pH		Resistivity Ohm-cm		Chlorides ppm	Sulfates ppm	Limits	
ALT.	Min.	Max.	Min.	Max.	Max.	Max.	From	To
AA	8.0	8.2	18500	21500	48	10	241+50 341+50 48+86.96	248+86.96(NB) 348+86.96(SB) 63+50
AB	8.0	8.2	16500	21500	48	10	241+50 341+50 48+86.96	248+86.96(NB) 348+86.96(SB) 63+50

NOTE
The pH and resistivity for Alt. AB must satisfy both the values shown in the table and satisfy the appropiate equation given below.
The following equation should be used to establish the suitability of a soil to satisfy service life requirements within the limits specified.
*1.78 ≤ [Log10 R-Log10 (2160-2490 Log10 pH)]
**2.23 ≤ [Log10 R-Log10 (2160-2490 Log10 pH)]

(XX) = EXISTING PIPE
FOR EXIST. PIPE DATA
SEE SHEET 7

DHW = 1DYR, 24HR





Structure No.	DESIGN FLOOD 10% Prob. 10Yr. Freq.		BASE FLOOD 1% Prob. 100Yr. Freq.		OVERTOPPING FLOOD				GREATEST FLOOD			
	Discharge	Stage	Discharge	Stage	Discharge	Stage	Prob. %	Freq. Yr.	Discharge	Stage	Prob. %	Freq. Yr.
S-24	7.09	8.84	26.15	9.13	-	-	-	-	29.01	9.46	0.2%	500
S-33	D.D	7.00	0.D	7.00	-	-	-	-	D.D	7.00	D.2%	500
S-34	D.87	8.66	1.38	8.93	-	-	-	-	1.64	9.49	0.2%	500
S-35	0.00	8.36	2.46	9.69	-	-	-	-	2.78	9.75	0.2%	5DD
S-39	8.94	7.44	12.14	9.23	-	-	-	-	13.00	9.89	D.2%	500
S-40	9.64	7.64	13.19	8.94	-	-	-	-	14.43	9.53	0.2%	500
S-43	7.82	7.04	19.44	8.84	-	-	-	-	18.83	9.59	0.2%	500
S-46	5.95	8.92	23.73	9.14	-	-	-	-	28.2D	10.D7	0.2%	500
S-47*	8.52	8.77	34.51	8.11	-	-	-	-	44.52	8.70	D.2%	50D
S-51	17.82	6.51	11.31	8.28	-	-	-	-	12.7D	8.39	D.2%	500

* EXISTING STRUCTURE TO REMAIN

STR.No	AREA	STR.No	AREA
S-23	D.49	S-47	1.61
S-31	0.31	S-48	0.36
S-32	D.62	S-48A	0.39
S-35	D.48	S-49	D.86
S-40	1.18	S-50	0.94
S-42	D.45	S-51	0.81
S-44	D.46	S-53	D.54
S-45	D.45	S-53A	D.17

NOTE:
The hydraulic data is shown for informational purposes only, to indicate the flood discharges and water surface elevations which may be anticipated in any given year. This data was generated using highly variable factors determined by a study of the watershed. Many judgements and assumptions are required to establish these factors. the resultant hydraulic data is sensitive to changes, particulary of antecedent conditions, urbanization, channelization and land use. Users of this data are cautioned against the assumption of precision which can not be attained. Discharges are cubic feet per second and stages are in feet above mean sealevel NGVD.

NOTE:
HW elevs. do not include back water from Snapper Creek Canal during flood conditions. For interchange drainage area see Supplementary Drainage Map.

DEFINITIONS:
Design Flood: The flood selected by the F.D.O.T. to be utilized to assure a standard level of hydraulic performance
Base Flood: The flood having a 1% chance of being exceed in any year, (100 year frequency)
Overtopping Flood: The flood where flow occurs over the highway, over a watershed divide of thru emergency relief structures
Greatest Flood: The most severe flood which can be predicted where overtopping is not practicable, normally one with a 0.2% chance of being exceeded in any year (500 Year Frequency)

REVISIONS												
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION				

	NAME	DATE		NAME	DATE
DESIGNED BY	HNTB/KHA	5/93	DRAWN BY	HNTB/KHA	5/93
CHECKED BY	HNTB/KHA	5/93	CHECKED BY	HNTB/KHA	5/93

SUPERVISED BY : J.W.H./J.M.Z.

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

Kimley-Horn

HNTB

STATE ROAD NO. 826

DRAINAGE MAP

Date: 1/09/1995
Drawing File: 4DRAINAGE MAP SHT_3

STATE PROJ. NO.	SHEET NO.
87260-3512	7

PALMETTO EXPRESSWAY

EXISTING STRUCTURES

Basin No. 1:

(1) Slab covered trench (2' wide) (350 L.F.)
Bott. El. 2.0; Top EL. 10.0

(2) 12" CMP (Poved) (19 L.F.)
W FL. 11.88
E FL. 17.73

(3) Bridge Scupper

(4) Bridge Scupper

(5) Bridge Scupper

(6) Bridge Scupper

(7) Bridge Scupper

(8) Bridge Scupper

Basin No. 2:

(9) Slab Covered Trench (2' wide)(790 L.F.)
Bott. El. 2.0; Top EL 5.0

(10) 15" RCP (53 L.F.)
NW FL. 18.51
SE FL. 10.74

(12A) 18" RCP (48 L.F.)
NE FL. 8.20
SW FL. 8.10

(11) 15" RCP (68 L.F.)
NW FL. 22.30
SE FL. 11.91

(12B) 18" RCP (23 L.F.)
NE FL. 8.30
SW FL. 8.20

(12) 18" RCP (50 L.F.)
NW FL. 2.90
SE FL. 2.00

Basin No. 3:

(13) 12" BC-CMP (Poved)(43 L.F.)
W FL. 13.18
E FL. 29.30

(14) 12" BC-CMP (Poved)(40 L.F.)
W. FL. 7.83
E. FL. 23.10

(15) 12" BC-CMP (Poved)(44 L.F.)
W. FL. 7.93
E. FL. 26.35

(16) Bridge Scupper

(17) Bridge Scupper

(18) Bridge Scupper

Basin No. 4:

(19) Bridge Scupper

(20) Bridge Scupper

(21) Bridge Scupper

(22) Bridge Scupper

(23) Bridge Scupper

Basin No. 5:

(24) Bridge Scupper

(25) Bridge Scupper

(26) Bridge Scupper

(27) Bridge Scupper

(28) 12" BC-CMP (Paved) (42 L.F.)
W FL. 9.28
E FL. 22.18

(29) 12" BC-CMP (Paved) (39 L.F.)
W FL. 7.25
E FL. 15.85

(30) 36" RCP (74 L.F.)
W FL. 4.80
E FL. 4.64

(31) 15 RCP (40 L.F.)
W FL. 4.20
E FL. 6.70

(32) 12" BC-CMP (Paved) (64 L.F.)
SW FL. 8.00
NE FL. 37.56

(33) 12" BC-CMP (Paved) (55 L.F.)
SW FL. 8.60
NE FL. 30.25

(34) 15" RCP PIPE (26 L.F.)
W. FL. 9.06
E. FL. 13.76

(35) 24" RCP PIPE (86 L.F.)
S FL. 7.17
N FL. 7.02

(36) 12" BC-CMP (PAVED) (42 L.F.)
W FL. 11.83
E FL. 20.58

Basin No. 6 Continuation

(37) 24" RCP PIPE (66 L.F.)
W FL. 6.90
E FL. 6.42

(38) 15" RCP PIPE (16 L.F.)
N FL. 6.40
S FL. 6.30

(39) 30" RCP PIPE (185 L.F.)
W FL. 5.83
E FL. 5.68

(40) 15" RCP (17 L.F.)
N FL. 5.75
S FL. 5.74

(41) 18" RCP (112 L.F.)
NW FL. 14.00
SE FL. 13.75

(42) 12" BC-CMP (PAVED) (45 L.F.)
SW FL. 13.75
NE FL. 10.08

(43) 12" BC-CMP (PAVED) (30 L.F.)
W FL. 15.55
E FL. 9.50

(44) 12" BC-CMP (PAVED) (49 L.F.)
W FL. 18.25
E FL. 7.85

(45) 12" BC-CMP (PAVED) (31 L.F.)
W FL. 12.72
E FL. 8.25

(46) 30" RCP (50 L.F.)
W FL. 5.53
E FL. 5.55

(47) 2 - 30" RCP (132 L.F.)
N FL. 5.40
S FL. 5.50

(48) 18" RCP (150 L.F.)
W FL. 5.33
NE FL. 5.40

(49) 2 - 36" RCP (12 L.F.)
S FL. 5.40
N FL. 5.40

(50) 2 - 30" RCP (80 L.F.)
W FL. 5.51
E FL. 5.37

(51) 18" RCP (101 L.F.)
SE FL. 5.80
NW FL. 5.40

(51A) 15" RCP (92 L.F.)
S FL. 5.80
N FL. 5.70

(518) 27" RCP (119 L.F.)
E FL. 5.70
W FL. 5.60

(51C) 15" RCP (92 L.F.)
S FL. 5.70
N FL. 5.60

(510) 27" RCP (341 L.F.)
E FL. 5.60
W FL. 5.50

(51E) 27" RCP (356 L.F.)
E FL. 5.50
W FL. 5.40

(52) 27" RCP (52 L.F.)
SE FL. 5.40
NW FL. 5.40

(53) 15"RCP (100 L.F.)
W FL. 17.20
E FL. 18.90

(54) 12" BC-CMP (PAVED) (27 L.F.)
W FL. 16.90
E FL. 8.01

(55) 15" RCP (36 L.F.)
SE FL. 6.60
NW FL. 6.50

(56) 15" RCP (6 L.F.)
SE FL. 6.50
NW FL. 6.40

(57) 15" RCP (68 L.F.)
W FL. 4.60
E FL. 16.60

(58) 18" RCP (200 L.F.)
S FL. 4.60
N FL. 4.40

(59) 15" RCP (48 L.F.)
W FL. 10.50
E FL. 10.30

(60) 15" RCP (56 L.F.)
W FL. 10.30
E FL. 5.08

(70) 24" RCP (460 L.F.)
S FL. 4.40
N FL. 3.95

Basin No. 8:

(78) 19" x 30" ERCP (50 L.F.)
W FL. 6.30
E FL. 6.00

(79A) 15" RCP (42 L.F.)
N FL. 26.20
S FL. 26.00

(79B) 15" CMP (47 L.F.)
N FL. 26.00
S FL. 6.50

(80) 15" RCP (46 L.F.)
N FL. 26.30
S FL. 26.20

(81) 15" RCP (46 L.F.)
N FL. 19.30
S FL. 19.20

(81A) 15" RCP (47 L.F.)
N FL. 19.20
S FL. 19.10

(81B) 15" CMP (30 L.F.)
N FL. 19.10
S FL. 6.80

(86) 12" CMP (PAVED) (5 L.F.)
W FL. 11.20
E FL. 11.80

(87) 15" RCP (4 L.F.)
W FL. 11.75
E FL. 12.10

(88) 18" RCP (34 L.F.)
W FL. 11.90
E FL. 12.20

Basin No. 7:

(61) 18" RCP (68 L.F.)
W FL. 6.40
E FL. 4.70

(62) 18" RCP (66 L.F.)
W FL. 6.40
E FL. 6.05

(82A) 18" RCP (60 L.F.)
W FL. 5.77
E FL. 5.87

(63) 2 - 30" X 19" ERCP (48 L.F.)
W FL. 5.72
E FL. 6.00

(64) 15" CMP (58 L.F.)
N FL. 6.20
S FL. 27.40

(65) 15" RCP (46 L.F.)
N FL. 27.40
S FL. 28.60

(66) 15 CMP (40 L.F.)
N FL. 6.70
S FL. 21.60

(67) 15" RCP (50 L.F.)
N FL. 21.60
S FL. 23.30

(68) 15" CMP (24 L.F.)
N FL. 7.30
S FL. 15.30

(69) 15" RCP (82 L.F.)
NE FL. 15.30
SW FL. 16.80

(71) 24" RCP (69 L.F.)
N FL. 7.60
S FL. 7.70

(72) 24" RCP (196 L.F.)
E FL. 7.90
W FL. 7.70

(73) 24" RCP (196 L.F.)
E FL. 8.10
W FL. 7.90

(74) 15" RCP (72 L.F.)
NW FL. 8.80
SE FL. 9.00

(75) 24" RCP (196 L.F.)
W FL. 8.10
E FL. 8.30

(76) 18" RCP (128 L.F.)
NE FL. 9.00
SW FL. 8.50

(77) 18" RCP (125 L.F.)
NW FL. 9.00
SE FL. 9.30

(82) 18" RCP (74 L.F.)
W FL. 8.90
E FL. 5.84

(82A) 18" RCP (64 L.F.)
W FL. 4.95
E FL. 5.20

Basin No. 7 Continuation

(83) 18" RCP (64 L.F.)
W FL. 6.04
E FL. 6.70

(84) 18" RCP (78 L.F.)
W FL. 11.50
E FL. 6.30

(85) 12" BC-CMP (PAVED) (38 L.F.)
W FL. 10.50
E FL. 6.22

(89) 12" BC-CMP (PAVED) (38 L.F.)
SE FL. 21.90
NW FL. 14.73

(90) 24" RCP (56 L.F.)
W FL. 7.23
E FL. 7.11

(91) 2 - 24" RCP (90 L.F.)
N FL. 7.42
S FL. 7.19

(92) 24" RCP (50 L.F.)
W FL. 9.30
E FL. 8.30

(93) 12" BC-CMP (PAVED) (38 FT.)
W FL. 12.33
E FL. 24.40

(94) 15" RCP (58 L.F.)
NW FL. 11.80
SE FL. 14.00

(95) 15" RCP (29 L.F.)
NW FL. 10.85
SE FL. 11.80

(96) 2 - 30" RCP (194 L.F.)
W FL. 7.15
E FL. 7.02

(97) 15" RCP (56 L.F.)
W FL. 10.20
E FL. 10.00

(98) 12 BC-CMP (27 L.F.)
W FL. 10.00
E FL. 6.59

(99) 15" RCP (32 L.F.)
NW FL. 13.90
SE FL. 12.90

(100) 12" BC-CMP (PAVED) (24 L.F.)
W FL. 12.90
E FL. 6.85

(101) 18" RCP (60 L.F.)
S.E. FL. 7.10
N.W. FL. 6.50

(102) 12" BC-CMP (PAVED) (38 L.F.)
W FL. 24.50
E FL. 11.35

(103) 4 - 30" RCP (45 L.F.)
W FL. 6.74
E FL. 6.83

(104) 3 - 30" RCP (90 L.F.)
N FL. 7.05
S FL. 7.00

(105) 3 - 30" RCP (45 L.F.)
W FL. 6.98
E FL. 7.08

(106) 12" BC-CMP (PAVED) (38 L.F.)
W FL. 24.40
E FL. 11.97

(107) 15 RCP (72 L.F.)
W FL. 11.90
E FL. 7.50

(108) 12" BC-CMP (PAVED) (21 L.F.)
W FL. 10.85
E FL. 7.15

(109) 30" RCP (160 L.F.)
W FL. 7.55
E FL. 7.45

(110) 12" BC-CMP (PAVED) (22 L.F.)
W FL. 7.55
E FL. 9.62

(110A) 12" BC-CMP (PAVED) (22 L.F.)
W FL. 9.50
E FL. 7.43

(111) 18" RCP (75 L.F.)
W FL. 8.00
E FL. 7.90

(111A) 18" RCP (60 L.F.)
W FL. 7.92
E FL. 8.25

(112) 18" RCP (88 L.F.)
W FL. 8.25
E FL. 8.23

(113) 18" RCP (73 L.F.)
W FL. 8.45
E FL. 8.24

(113A) 18" RCP (60 L.F.)
W FL. 8.20
E FL. 8.25

Basin No. 7 Continuation

(114) 18" RCP (62 L.F.)
W FL. 8.32
E FL. 8.70

(115) 18" RCP (88 L.F.)
N FL. 6.80
S FL. 6.70

(116) 24" RCP (233 L.F.)
W FL. 6.20
E FL. 6.10

(117) 24" RCP (236 L.F.)
W FL. 6.10
E FL. 6.00

(118) 15" RCP (83 L.F.)
N FL. 8.40
S FL. 7.80

(119) 30" RCP (218 L.F.)
W FL. 6.00
E FL. 5.90

(120) 15" RCP (83 L.F.)
N FL. 8.80
S FL. 8.25

(121) 30" RCP (223 L.F.)
W FL. 5.90
E FL. 5.80

(122) 15" RCP (91 L.F.)
N FL. 9.40
S FL. 8.70

(123) 30" RCP (320 L.F.)
W FL. 5.80
E FL. 5.70

(124) 3' WIDE STORM TRENCH (234 L.F.)
W FL. 5.70
E FL. 5.70

(125) 15" RCP (83 L.F.)
N FL. 9.25
S FL. 8.25

(126) 3' WIDE STORM TRENCH (239 L.F.)
W FL. 5.70
E FL. 5.70

(127) 3' WIDE STORM TRENCH (94 L.F.)
W FL. 6.00
E FL. 6.00

(128) 15" RCP (84 L.F.)
N FL. 8.60
S FL. 7.70

(129) 3' WIDE STORM TRENCH (249 L.F.)
W FL. 6.00
E FL. 6.00

(130) 3' WIDE STORM TRENCH (304 L.F.)
W FL. 6.00
E FL. 6.00

(131) 18" RCP (16 L.F.)
NW FL. 7.40
SE FL. 7.30

(132) 18" RCP (228 L.F.)
E FL. 7.40
W FL. 7.00

(133) 18" RCP (232 L.F.)
E FL. 7.00
W FL. 6.60

(134) 15" RCP (98 L.F.)
NE FL. 8.70
SW FL. 6.50

(135) 15" RCP (100 L.F.)
NW FL. 8.70
SE FL. 8.45

(136) 24" RCP (376 L.F.)
E FL. 6.50
W FL. 5.60

(137) 15" RCP (79 L.F.)
N FL. 9.35
S FL. 8.40

(138) 3' WIDE STORM TRENCH (273 L.F.)
E FL. 5.50
W FL. 5.50

(139) 3' WIDE STORM TRENCH (294 L.F.)
E FL. 5.50
W FL. 5.50

(140) 15" RCP (79 L.F.)
N FL. 8.25
W FL. 7.30

(141) 18" RCP (95 L.F.)
E FL. 7.20
W FL. 7.40

(142) 15" RCP (85 L.F.)
N FL. 7.95
S FL. 7.75

(143) 18" RCP (185 L.F.)
E FL. 7.50
W FL. 7.10

(144) 18" RCP (35 L.F.)
NE FL. 7.10
SW FL. 7.00

REVISIONS												
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY		DATE	BY	DESCRIPTION	

	NAME	DATE		NAME	DATE
DESIGNED BY	L.L.B.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.D.D.	5/93
SUPERVISED BY :	J.W.H.				

FLORIDA DEPARTMENT OF TRANSPORTATION

APPROVED BY :

DATE :

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS-PLANNERS

STATE ROAD NO. 826

EXISTING DRAINAGE STRUCTURES

STATE PROJ. NO.	SHEET NO.
87260-3512	8

END BRIDGE RAMP D
STA. 581+21.03

SW 77 AVE

SR 94 (N KENDALL DR)

SW 88 ST

0.35. Ac.

0.19 Ac.

0.18 Ac.

"V" DITCH (-)0.05%

3'BW DITCH (-)0.05%

S-40 S-41

5.75

5.88 5.81

BEGIN BRIDGE RAMP E
STA. 644+03.45

℄ RAMP E

S-34 S-35 S-36

0.42 Ac.

S-39

3' BW DITCH (-) 0.05%

℄ RAMP F

0.31 Ac.

S-38 POND 5 2.52 Ac. S-42

0.50 Ac.

S-28 S-28A S-29

6.3 6.2

4' BW DITCH (-)0.04%

4.5

POND 4B 1.75 Ac.

0.20 Ac.

S-43

1.31 Ac. S-33 POND 4A

0.22 Ac.

S-37

S-32

S-30 S-31

0.20 Ac.

S-46

HW EL. 3.50
3.20 Ac.

℄ CONST. SR 826 SB RDWY

0.52 Ac.

S-23B

S-21

℄ CONST. SR 826 NB RDWY

15.8

"V" DITCH (-)2.5%

8.4

0.50 DITCH (-)0.15%

2' BW Ditch (-)1.0%

4' BW DITCH (-)0.05%

5.50

S-44 S-45

S-48

S-20

POND 3
2.14 Ac.

S-22

0.17 Ac.

℄ RAMP B

0.14 Ac.

S-24

S-50

S-48A

0.69 Ac.

0.62 Ac.

END ℄ CONST. SR 826 NB RDWY
STA. 248+86.96
END ℄ CONST. SR 826 SB RDWY
STA. 348+86.96 =
BEG. ℄ SURVEY &
℄ CONST. SR 826
STA. 48+86.96

BEGIN BRIDGE
STA. 49+85.24

S-48C S-48E S-48D S-48F S-48G S-48H

0.60 Ac. 0.60 Ac.

END BRIDGE
STA 52+04.74

END BRIDGE RAMP E
STA 652+04.73

S-51 S-51A

℄ RAMP A

℄ RAMP T

0.36 Ac.

S-51C

0.55 Ac.

S-51H S-51I S-51J S-51K

0.15 Ac.
0.47 Ac.

1.50 Ac.

END BRIDGE RAMP A
STA. 258+99.30

BEGIN BRIDGE RAMP A
STA. 257+94.69

C-2 CANAL

BEGIN BRIDGE RAMP A
STA. 263+16.58

END BRIDGE RAMP A
STA. 264+92.58

END BRIDGE
STA. 65+18.61

S-59 S-58 S-57 S-56 S-51G

S-52 S-51B S-51F

S-53 S-53A S-53B S-53C

S-54 S-55

S-66 S-66A

0.92 Ac.

SW 86 STREET

0.48 Ac.

℄ RAMP D

0.62 Ac.

POND 6

0.34 Ac.

0.39 Ac.

0.45 Ac.

0.33 Ac.

0.34 Ac.

S-63 S-64 S-65

℄ RAMP C

S-60 S-61 S-62

BEGIN BRIDGE RAMP C
STA. 485+73.93

END BRIDGE RAMP C
STA. 487+49.93

BEGIN BRIDGE
STA. 63+42.56

SNAPPER CREEK CANAL
DHW =5.85
10 YR. HW EL. = 4.72
NHW EL. = 3.00
NLW EL. = 1.50

100'

N

STR.No	AREA	STR.No	AREA
S-23	0.49	S-47	1.61
S-31	0.31	S-48	0.38
S-32	0.82	S-48A	0.39
S-35	0.48	S-49	0.33
S-40	1.18	S-50	0.94
S-42	0.45	S-51	1.19
S-44	0.46	S-53	0.54
S-45	0.45	S-53A	0.17

N KENDALL DRIVE

Date: 1/09/1995
Drawing File: 4308T00\DRAW\SHT_8

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	HNTB/KHA	5/93	DRAWN BY	HNTB/KHA	5/93
CHECKED BY	HNTB/KHA	5/93	CHECKED BY	HNTB/KHA	5/93

SUPERVISED BY : J.W.H./J.M.Z.

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

Kimley-Horn

HNTB

STATE ROAD NO. 826

INTERCHANGE DRAINAGE MAP

STATE PROJ. NO.	SHEET NO.
87260-3512	28

Bench Mark
87-88 G-29s
Sta. 107+97; (53' LT.)
℄ Survey & Const.
SR 826 SB Rdwy.
FDOT Brass Disk in
Concrete Monument
EL. 12.32

BEGIN RESURFACING
& WIDENING
℄ SURVEY & CONST SR 826 SB RDWY.
PC (SB-2) STA. 112+21.72
MATCH EXIST PAVMT

SB-2, ℄ SURVEY & CONST SR 826 SB RDWY

BEGIN BRIDGE
STA. 115+27.81

SB-4
LT EOP

SB-2

SB-5
LT EOP

PCC (SB-4) +08.32
1.00' LT.

END SHLDR GUTTER +7.52

BEGIN TRANS LA R/W
PC (SB-4) +21.72

TRANS. TO EXIST. GUARDRAIL

BEG SHLDR GUTTER +86.73

N24°27'55"E

110

℄ SURVEY & CONST. SR 826 SB RDWY.

DETAIL "A"

EXISTING PAVEMENT (TO REMAIN)

SHLDR. LINE

EXIST. GUARDRAIL TO REMAIN

SR 5

U.S. 1

76.72'

PC (SB-6) +21.72
24.00' RT.

SB-6
RT EOP

EXIST. WALL (TO REMAIN)

TRANS. TO EXIST. GUARDRAIL

(S. DIXIE HWY.)

DETAIL "B"

END GR +17.65 LT
+21.81 RT

LA R/W

FENCE TYPE 'B'

℄ SURVEY & CONST. SR 826 NB RDWY.
N26°14'31"E

CONNECT PROP. GUARDRAIL TO EXIST. GUARDRAIL

CONST. TYPE "F" C & G

END C & G
BEG. SHLDR.
+42.30

BEG. C & G
+43.92

EXIST. 18" RCP PIPES
(TO REMAIN)

NB-1

GM

EXISTING PAVEMENT (TO REMAIN)

FENCE TYPE 'B'

BEG. SHLDR. GUTTER
+42.67

BEG. SHLDR.
+06.73

PCC STA. 4+62.79

RESURFACE

NB-2

S-2

SHLDR. LINE

BEGIN PROJECT
STA. 0+68.81
℄ SURVEY & CONSTRUCTION
SR 826 NB RDWY.
MP 0.0

PC STA. 0+68.81

BEGIN RESURFACING
& WIDENING
℄ SURVEY & CONST SR 826 NB RDWY.
STA. 5+43.92

SW 100th STREET

BEG. GUARDRAIL END ANCHORAGE IV
+60.70

CONTROL STRUCTURE

FENCE GATE

EXIST. SLAB COVERED TRENCH (TO REMAIN)

S-1

15" PIPE

BEGIN TAPER
STA. 8+57.27

EXIST. SLAB COVERED TRENCH (TO BE FILLED)

BEG. GUARDRAIL END ANCHORAGE TYPE IV +14.25

RT STA. 10+47.27

BEG. SHLDR. GUTTER
+82.67

FENCE TYPE 'B'

SHLDR. LINE

POND 1
DHW EL.
10.08

10' MAINTENANCE BERM

LA R/W

S-3

15" PIPE

15" RCP

N67°16'01"E

END SHLDR GUTTER
+82.20

24" PIPE

S-4

END TAPER
BEG. TRANSITION
FOR RT & LT
EDGE OF PAVEMENT
STA. +47.27

MATCH LINE STA. 12+00

5/8" COPPER COATED ROD & DOT CAPS BONDED ON OR PIN & CAP

71.00'

102.37'

88°39'05"

133.14'

90°04'20"

PC STA 112+21.72
PK NAIL & WASHER

PT STA 105+64.10
PK NAIL & WASHER

℄ SURVEY & CONST SR 826 SB RDWY

5/8" COPPER COATED ROD & DOT CAPS BONDED ON

113.12'

111.82'

91°03'43"

106.95'

267°04'09"

PC STA 112+21.72
PK NAIL & WASHER

PT STA 105+64.10
PK NAIL & WASHER

℄ SURVEY & CONST SR 826 SB RDWY

PCC STA.
4+62.79

℄ SURVEY &
CONST SR 826 SB RDWY

PK NAIL &
WASHER STAMPED

45.62'

109°21'17"

PK NAIL &
WASHER STAMPED
PT STA. 10+47.24

48.36'

57.57'

PK NAIL &
WASHER STAMPED

PK NAIL &
WASHER STAMPED

2" GM

12" SAN

WM

8" WM

8" GM

8" SAN

8th STREET

S. DADELAND BLVD.

174' GM

N05°46'21"E

50'

FENCE TYPE 'B'

MATCH LINE STA. 122+00

PT (SB-2) STA. 118+04.61

EXIST. WALL
(TO REMAIN)

3" GM

8" GM

OE

8" WM

12" SAN

BRIDGE WIDENING ONLY
NOT IN CONTRACT
CONTRACTOR TO MODIFY
T.C.P. (INCLUDING APPROACHES)
TO MAINTAIN 2 LANES OF TRAFFIC

PC (SB-2 AND SB-4)
STA. 112+21.72

NEW EOP
SB-4

SB-2

℄ SURVEY & CONST SR 826 SB RDWY

EXIST. EOP

EXIST. EOP

NEW EOP
SB-6

PC (SB-6)
STA. 112+21.72, 24.00' RT.

DETAIL "A"

BEGIN BRIDGE

SB-5

SB-2
℄ SURVEY & CONST
SR 826 SB RDWY.

PCC (SB-4)
STA. (15+08.32, 1.00' LT.)

POC (SB-2)
STA. 115+08.32

VARIES
(0' TO 1.00')

SB-4

SB-2

EXIST. EOP

PT (SB-6) 115+08.32
24.00' RT.

NEW EOP
SB-6

DETAIL "B"

LEGEND

WIDENING

REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
05/95	J.D.D.	SR 826 Southbound Bridge widening not in contract									

	NAME	DATE		NAME	DATE
DESIGNED BY	J.D.D.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.D.D.	5/93

SUPERVISED BY : J.W.H.

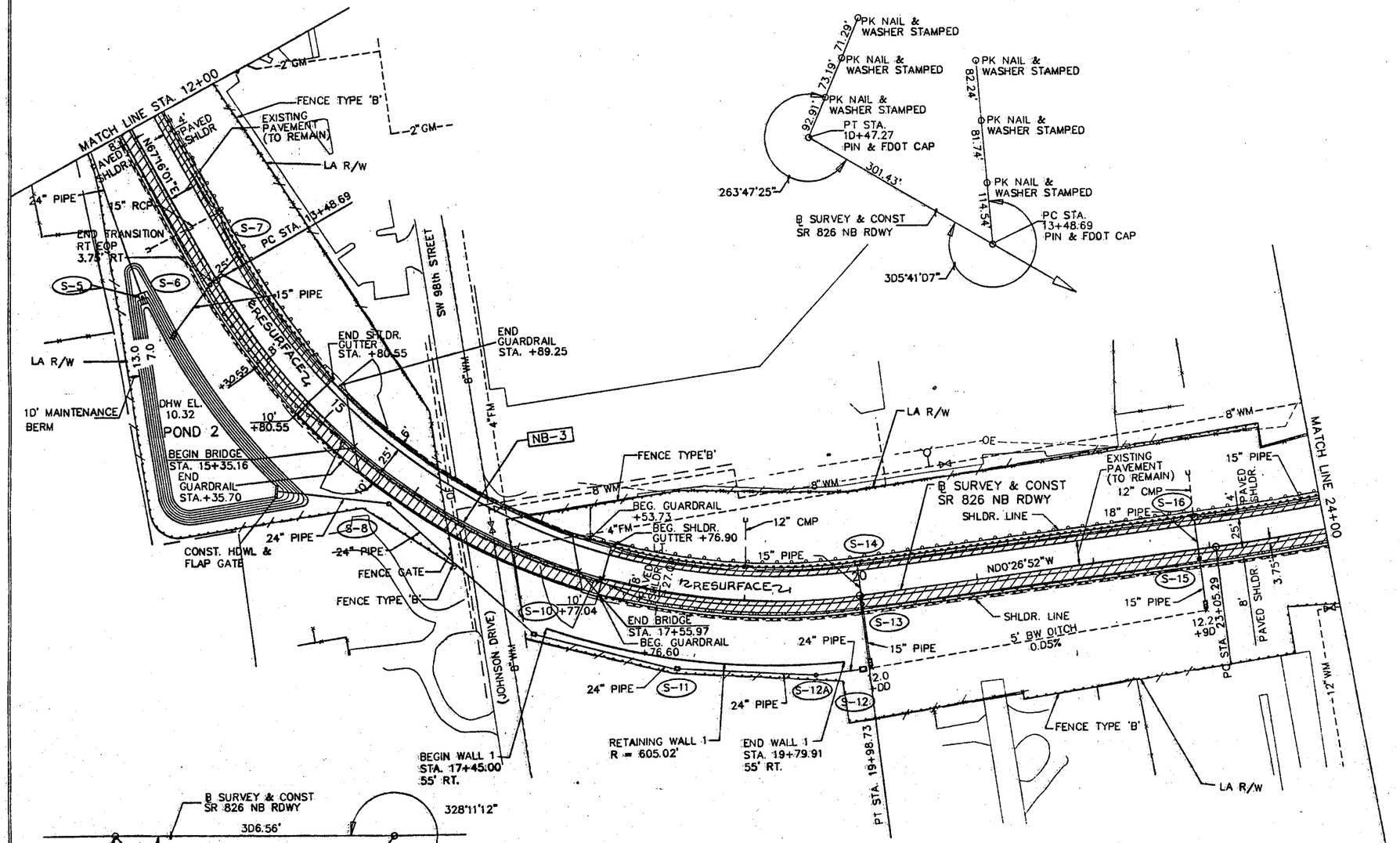
FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

STATE ROAD NO. 826

ROADWAY PLAN

STATE PROJ. NO.	SHEET NO.
87260-3512	29



LEGEND

WIDENING

N.B. ROADWAY

REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	J.D.D.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.D.D.	5/93
SUPERVISED BY : J.W.H.					

FLORIDA DEPARTMENT OF TRANSPORTATION

APPROVED BY :

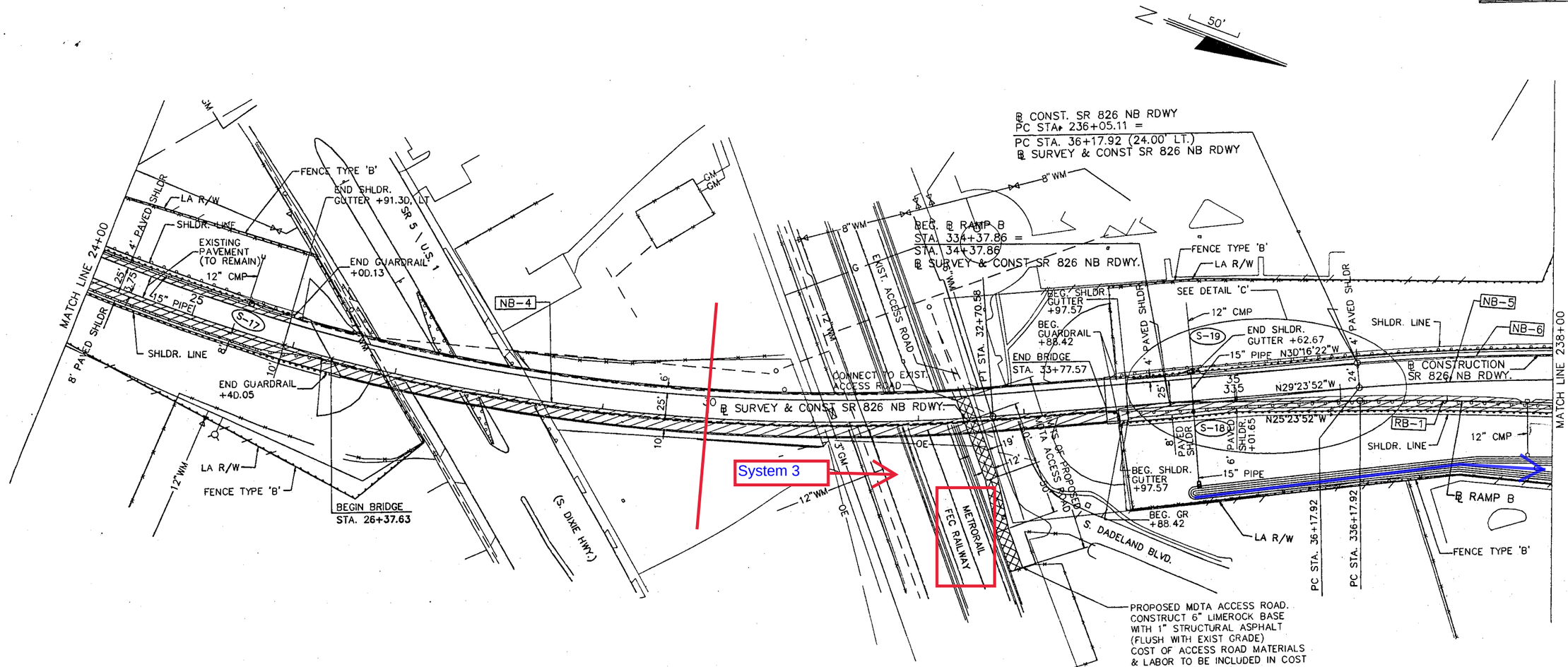
DATE :

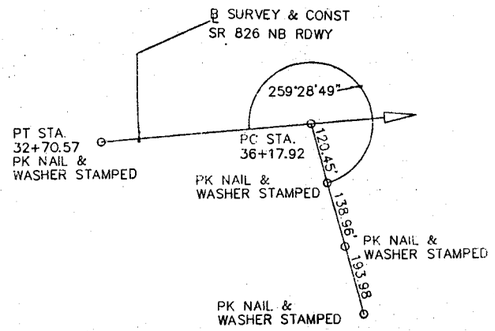
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF ENGINEERS PLANNERS

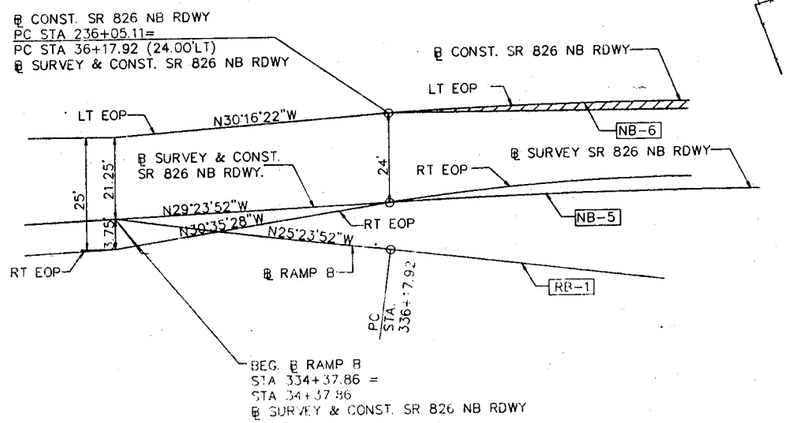
STATE ROAD NO. 826

ROADWAY PLAN

STATE PROJ. NO.	SHEET NO.
87260-3512	30







DETAIL 'C'

LEGEND

WIDENING

N.B. ROADWAY

REVISIONS												
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	J.D.D.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.D.D.	5/93
SUPERVISED BY : J.W.H.					

FLORIDA DEPARTMENT OF TRANSPORTATION

APPROVED BY :

DATE

HNTB

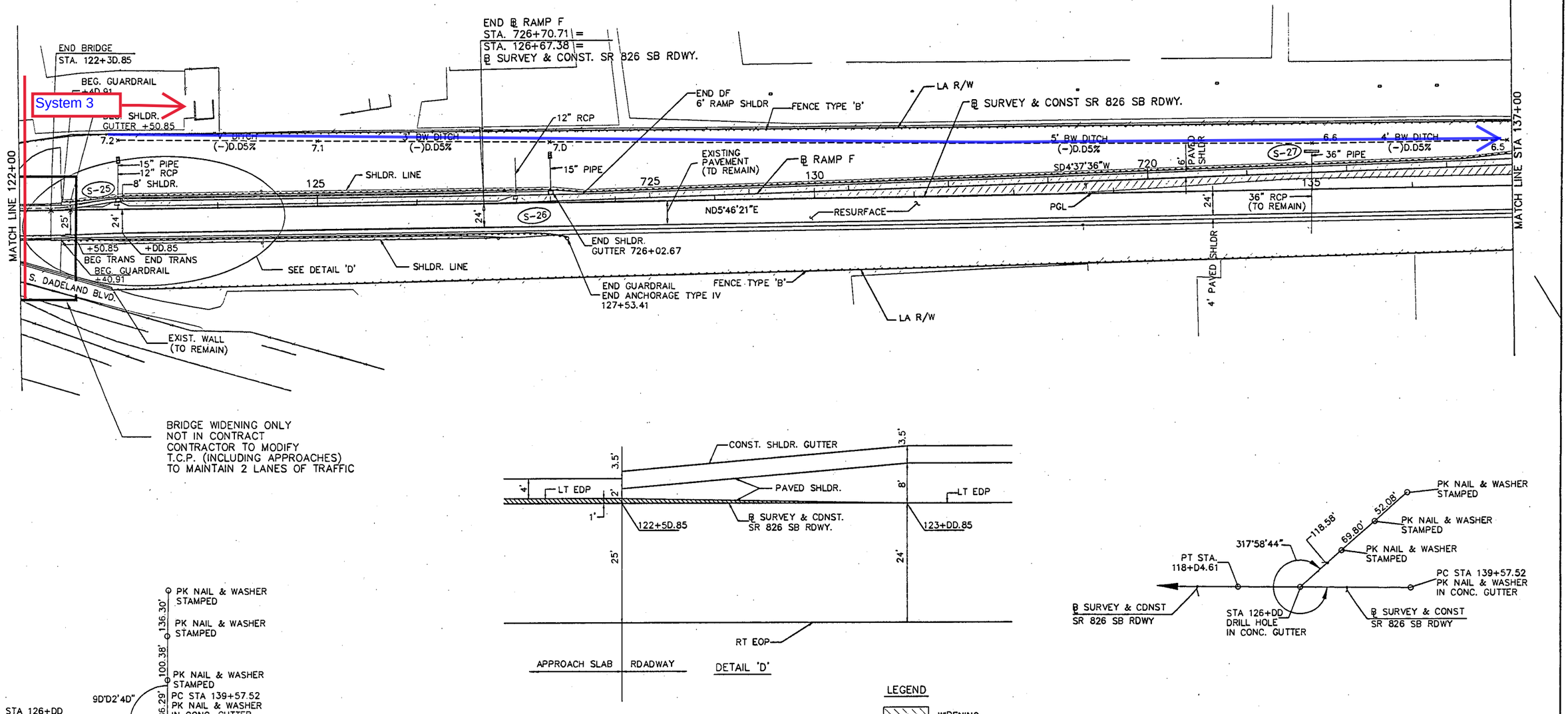
HOWARD NEEDLES TAMMEN & BERGENDOFF ENGINEERS PLANNERS

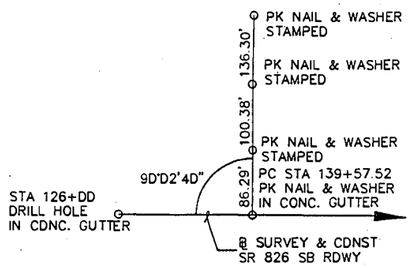
STATE ROAD NO. 826

ROADWAY PLAN

STATE PROJ. NO.	SHEET NO.
87260-3512	31

Bench Mark
87-88 G-28s
Sta. 129+71 (64' LT.)
FDOT Bross Disk in
Concrete Monument
EL. 7.9D6





LEGEND

WIDENING

REVISIONS												
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
D5/95	J.D.D.	SR 826 Southbound Bridge widening not in contract									

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CHECKED BY	J.J.D.	5/93	CHECKED BY	J.D.D.	5/93
SUPERVISED BY :	J.W.H.				

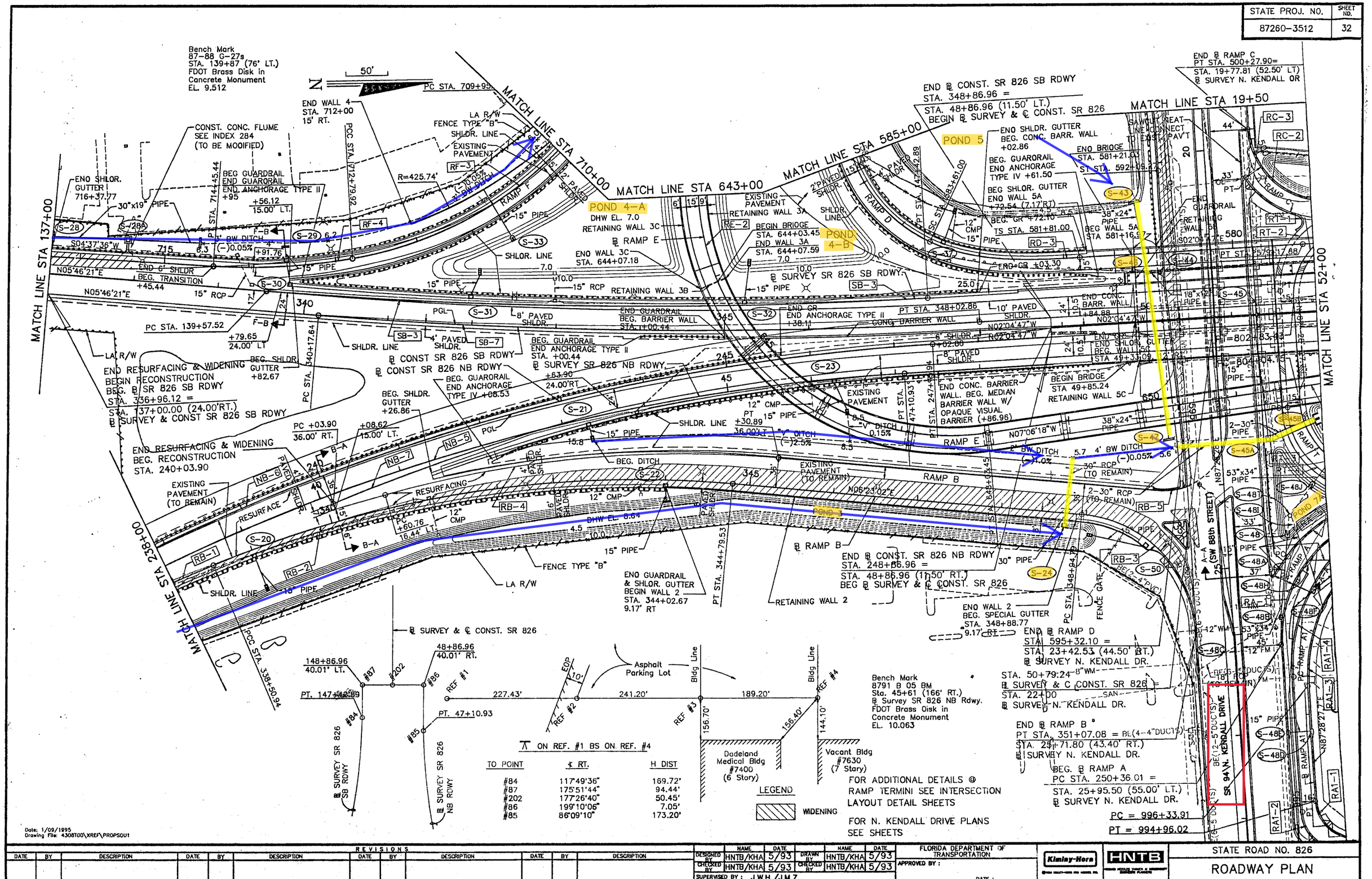
FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF ENGINEERS PLANNERS

STATE ROAD NO. 826

ROADWAY PLAN

STATE PROJ. NO.	SHEET NO.
87260-3512	32



Date: 1/09/1995
Drawing File: 4308T00\XREF\PROPSOU1

REVISIONS														
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			

	NAME	DATE		NAME	DATE
DESIGNED BY	HNTB/KHA	5/93	DRAWN BY	HNTB/KHA	5/93
CHECKED BY	HNTB/KHA	5/93	CHECKED BY	HNTB/KHA	5/93
SUPERVISED BY :	J.W.H./J.M.Z.				

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

Kimley-Horn

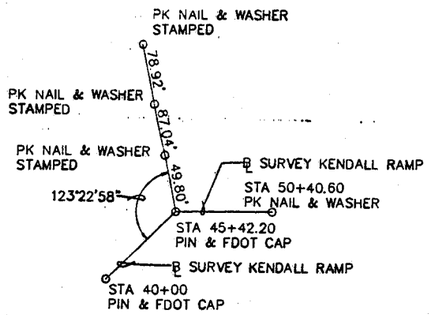
HNTB

STATE ROAD NO. 826

ROADWAY PLAN

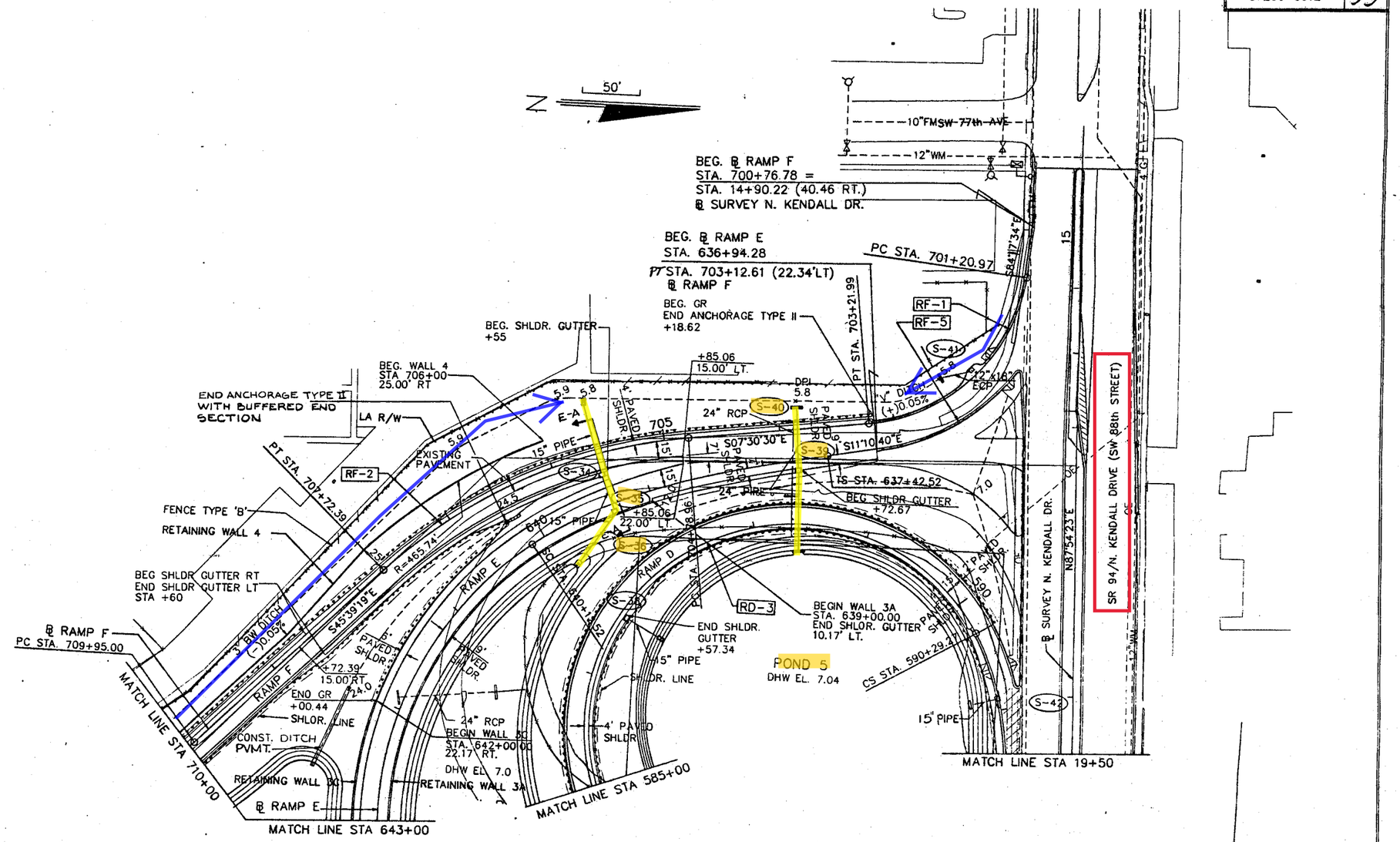
RP6

STATE PROJ. NO.	SHEET NO.
87260-3512	33



LEGEND

WIDENING



FOR N. KENDALL DRIVE PLANS
SEE SHEETS

REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	J.D.D.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.D.D.	5/93
SUPERVISED BY :	J.W.H.				

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

STATE ROAD NO. 826

ROADWAY PLAN

STATE PROJ. NO.	SHEET NO.
87260-3512	34

BM No. G-26s,
Sta. 60+11.30 (102.22' LT.)
FDOT Brass Disk in
Concrete Monument
EL. 7.344

50'

System 4

System 3

Outlet for Basin 6
(System 4 - West)

Outlet for Basin 5A
(System 3 - West)

Outlet for Basin 5
(System 3 - East)

Outlet for Basin 7
(System 4 - East)

SNAPPER CREEK CANAL (C-2)

OAOELANO MALL

FOR ADDITIONAL DETAILS
SEE KENOALL DR. INTERSECTION
AND PONO DETAIL SHEETS

Bench Mark
8791 B 06 BM
Sta. 56+66.28 (197'RT)
℄ Survey & ℄ Const. SR 826
FOOT Brass Disk in
Concrete Monument
EL. 7.286

LEGEND
WIDENING
2" MISC. ASPH. PAV'T

REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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CHECKED BY	HNTB/KHA	5/93	CHECKED BY	HNTB/KHA	5/93

SUPERVISED BY : J.W.H./J.M.Z.

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

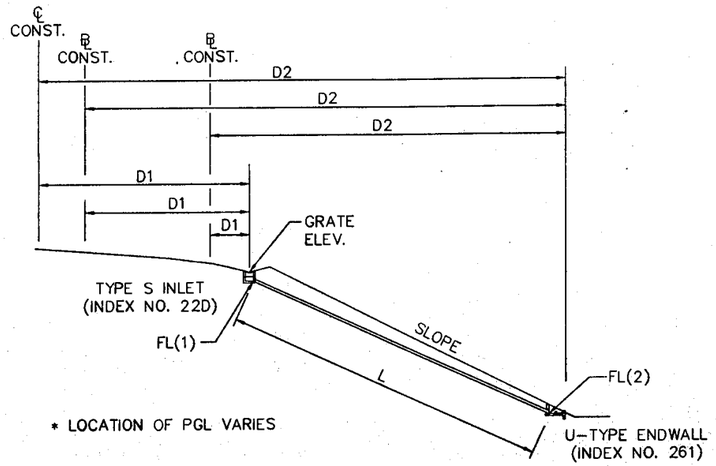
Kimley-Horn

HNTB

STATE ROAD NO. 826

ROADWAY PLAN

Date: 1/30/1995
Drawing File: 43[illegible]XREF\PROPSOU1



NOTE 1: PGL ELEVATION BASED ON ELEVATION OF EXISTING OUTSIDE EDGE OF PAVEMENT (EOP) PLUS MINIMUM RESURFACING OF 2 5/8". GRATE ELEVATION IS BASED ON PGL ELEVATION. FIELD VERIFY EOP ELEVATION PRIOR TO ORDERING TYPE S INLET.

D1 = DISTANCE FROM ℄ OR ℄ OF CONSTRUCTION TO CENTER OF TYPE S INLET. CONTRACTOR IS TO ADJUST THIS OFFSET AS REQ'D TO PLACE IN ITS PROPER LOCATION BASED ON THE LOCATION OF THE GUTTER.

D2 = DISTANCE FROM ℄ OR ℄ OF CONSTRUCTION TO FAR SIDE OF U-ENDWALL.

GUTTER DRAIN INLETS

STR NO.	STA.	BASELINE CONSTRUCTION	OFF SET (D1)	SIDE	TYPE S INLET (INDEX 22D) GRATE TYPE	PGL EL.	GRATE EL	FL(1) EL	PIPE SIZE (IN)	PIPE LGTH (FT) L	END WALL STA.	OFF SET (D2)	SIDE	TYPE	IND	SLOPE	BAFF	FL(2) EL	REMARKS
S-2	8+40	SR 826 NB	18.13	RT	STEEL	13.96	12.56	8.50	15	10	8+40	34.6	RT	U	261	2:1	YES	8.00	NOTE 1
S-2D	339+00	RAMP B	6.13	RT	STEEL	28.67	28.06	21.00	15	45	339+00	55.5	RT	U	261	2:1	YES	7.00	
S-21	243+25	SR 826 NB	35.93	RT	STEEL	24.52	21.83	17.75	15	10	343+25	52.2	RT	U	261	2:1	YES	17.00	
S-22	344+00	RAMP B	8.13	RT	STEEL	13.07	12.31	7.16	15	11	344+00	26.1	RT	U	261	2:1	YES	7.00	
S-23	246+25	SR 826 NB	32.63	RT	STEEL	28.09	25.49	18.50	15	34	246+37	64.0	RT	U	261	2:1	YES	9.50	
S-25	123+00	SR 826 SB	10.13	LT	STEEL	35.04	34.14	27.50	15	57	123+00	69.7	LT	U	261	2:1	YES	8.00	
S-26	726+00	RAMP F	8.72	RT	STEEL	17.71	16.89	13.50	15	40	726+00	54.8	RT	U	261	4:1	YES	7.50	
S-31	341+94	SR 826 SB	34.13	LT	STEEL	18.61	17.02	12.00	15	23	342+06	59.5	LT	U	261	2:1	YES	8.00	
S-32	345+25	SR 826 SB	34.13	LT	STEEL	25.89	24.30	15.00	15	34	345+30	74.1	LT	U	261	2:1	YES	8.00	
S-37	583+45	RAMP D	6.13	RT	STEEL	24.46	23.68	18.00	15	39	583+45	49.8	RT	U	261	2:1	YES	5.50	
S-38	586+60	RAMP D	6.13	RT	STEEL	14.50	13.68	10.00	15	18	586+60	29.8	RT	U	261	2:1	YES	5.50	
S-89	99+60	SR 826	59.63	RT	STEEL	29.63	27.85	24.50	15	29	99+60	93.7	RT	U	261	2:1	YES	14.50	
S-92	99+60	SR 826	59.63	LT	STEEL	29.63	27.85	24.50	15	33	99+60	96.7	LT	U	261	2:1	YES	13.00	
S-108	107+55	SR 826	59.63	RT	STEEL	29.32	27.46	24.00	15	34	107+55	97.9	RT	U	261	2:1	YES	12.00	
S-109	107+55.25	SR 826	59.13	LT	STEEL	29.53	27.67	24.00	15	21	107+44	86.3	LT	U	261	2:1	YES	18.00	

REVISIONS												
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION				DATE	BY	DESCRIPTION	

	NAME	DATE		NAME	DATE
DESIGNED BY	L.L.B.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.D.D.	5/93
SUPERVISED BY :	J.W.H.				

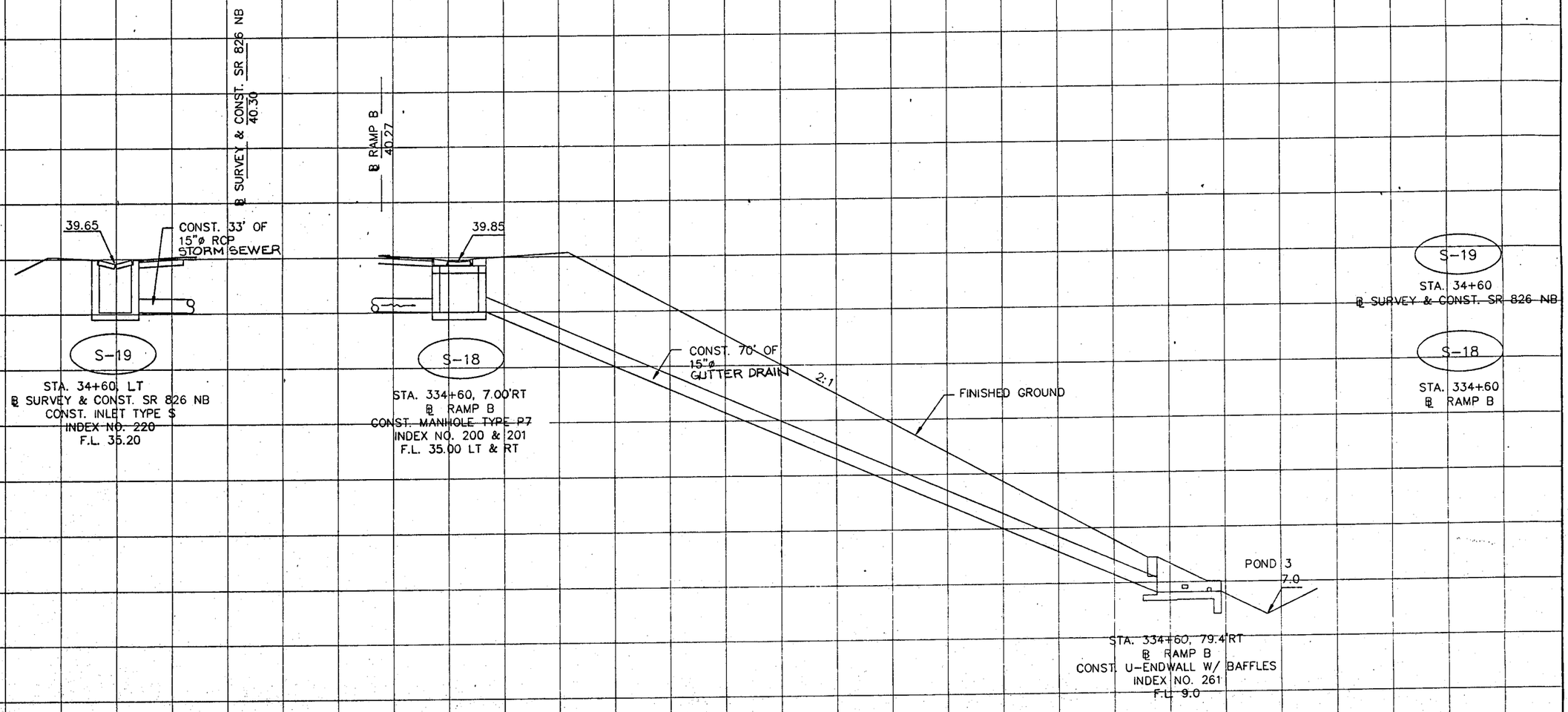
FLORIDA DEPARTMENT OF TRANSPORTATION

APPROVED BY :

DATE :

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF ENGINEERS PLANNERS

STATE PROJ. NO.	SHEET NO.
87260-3512	92



Scale: 1"=5' Horiz.
1"=5' Vert.

REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		DATE	BY	DESCRIPTION		

	NAME	DATE		NAME	DATE
DESIGNED BY	L.L.B.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.J.D.	5/93

SUPERVISED BY : J.W.H.

FLORIDA DEPARTMENT OF TRANSPORTATION

APPROVED BY :

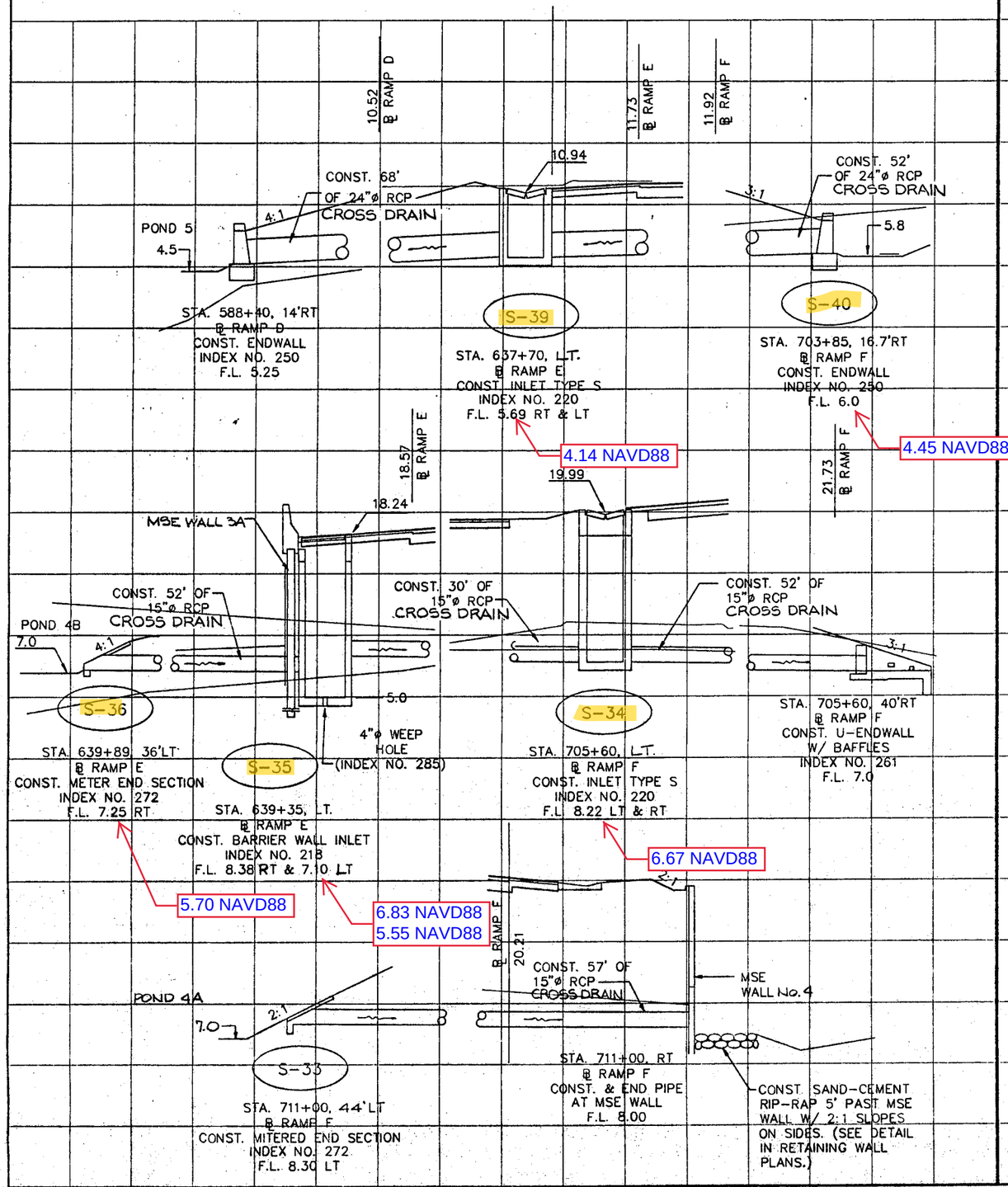
DATE :

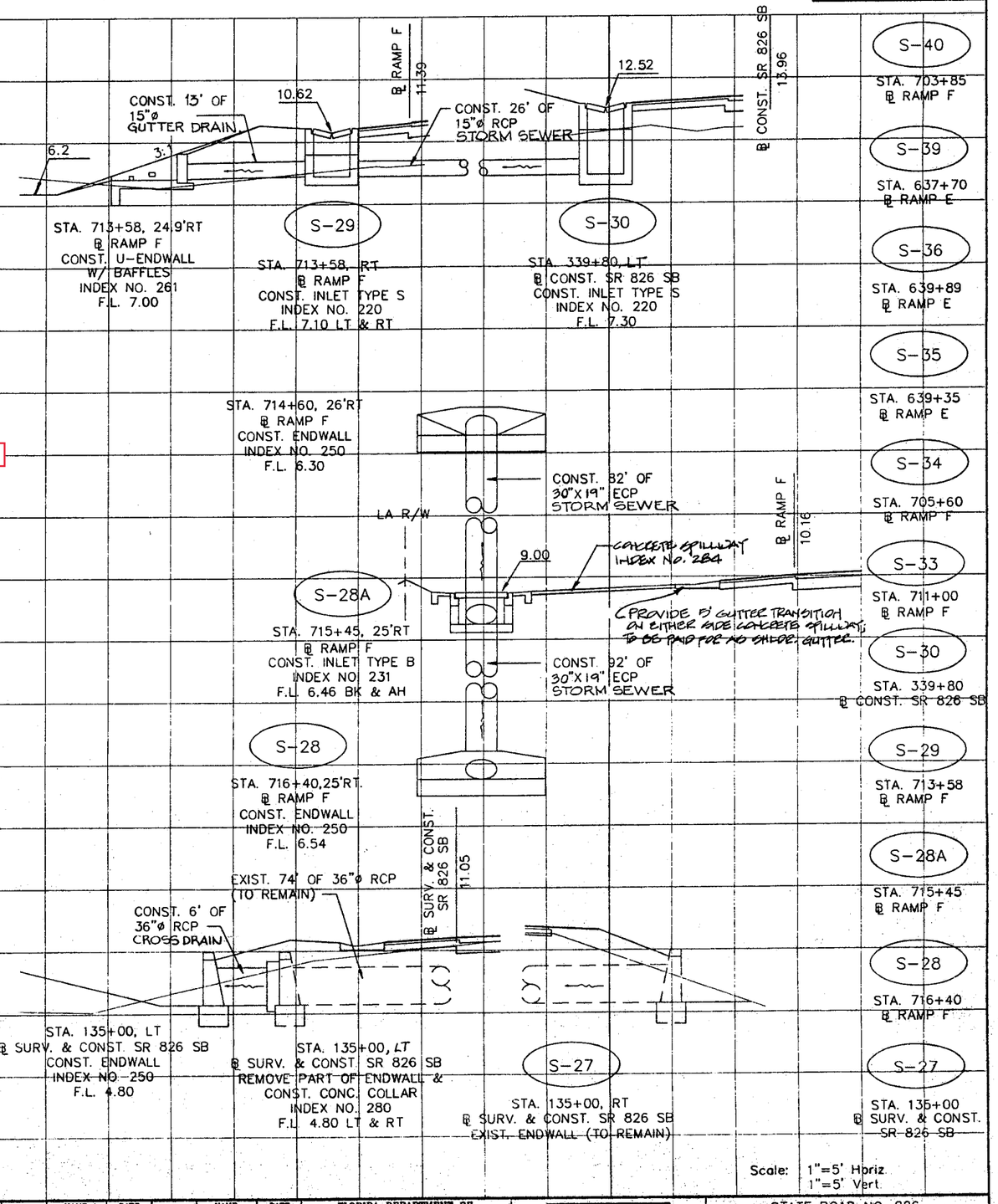
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

STATE ROAD NO. 826

DRAINAGE STRUCTURES

STATE PROJ. NO.	SHEET NO.
87260-3512	93





Scale: 1"=5' Horiz. 1"=5' Vert.

REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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SUPERVISED BY : J.W.H.

FLORIDA DEPARTMENT OF TRANSPORTATION

APPROVED BY :

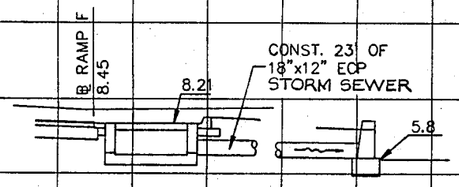
DATE :

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

STATE ROAD NO. 826

DRAINAGE STRUCTURES

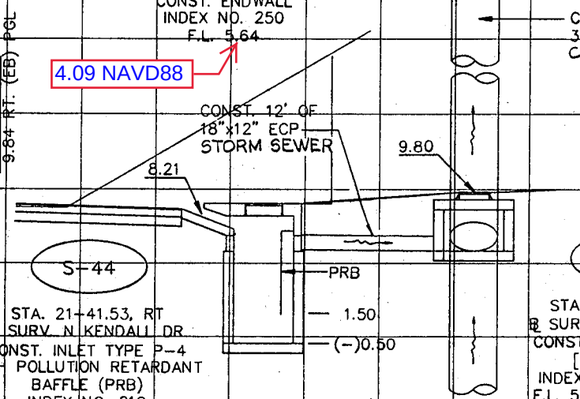
STATE PROJ. NO.	SHEET NO.
87260-3512	94



S-41

STA. 702+17.50, RT
℄ RAMP F
CONST. DITCH BOTTOM INLET TYPE G
(SEE DETAIL ON SHEET NO. 110)
INDEX NO. 233
F.L. 6.08

STA. 702+45, 17'RT
℄ RAMP F
CONST. ENDWALL
INDEX NO. 250
F.L. 6.0



S-47

STA. 23+40, 62'RT
℄ SURV N KENDALL DR
CONST. ENDWALL
INDEX NO. 250
F.L. 5.64

4.09 NAVD88

CONST. 12' OF 18"x12" ECP STORM SEWER

S-44

STA. 21+41.53, RT
℄ SURV. N KENDALL DR
CONST. INLET TYPE P-4
WITH POLLUTION RETARDANT BAFFLE (PRB)
INDEX NO. 210
F.L. 5.90

CAST NORTH FACE OF ENDWALL TO SOUTHWEST CORNER OF EXIST. ENDWALL. PROVIDE 1" OF PRE-MOLDED EXPANSION JOINT MATERIAL TO SEPARATE THEM.

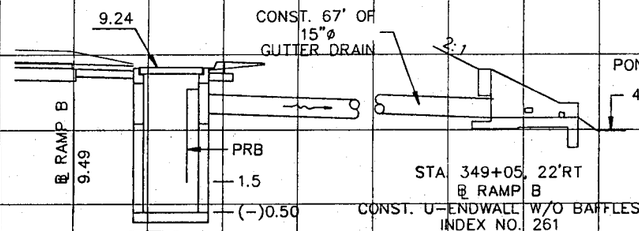
CONST. 198' OF 38"x24" ECP CROSS DRAIN

S-46

STA. 21+42, 76'RT
℄ SURV. N KENDALL DR
CONST. MH TYPE J-7
[4'x3.5' BOX]
INDEX NO. 200 & 201
F.L. 5.84 BK, AH & LT

CONST. 86' OF 38"x24" ECP CROSS DRAIN

4.29 NAVD88



S-50

STA. 349+83, RT
℄ RAMP B
CONST. INLET TYPE B
WITH POLLUTION RETARDANT BAFFLE (PRB) & SUMP
INDEX NO. 231
F.L. 6.20 RT

(FOR CONCRETE APRON SEE DETAIL ON SHEET 110)

STA. 349+05, 22'RT
℄ RAMP B
CONST. U-ENDWALL W/O BAFFLES
INDEX NO. 261
F.L. 5.90

S-50
STA. 349+83
℄ RAMP B

S-47
STA. 23+40
℄ SURV. N KENDALL DR

S-46
STA. 21+42
℄ SURV. N KENDALL DR

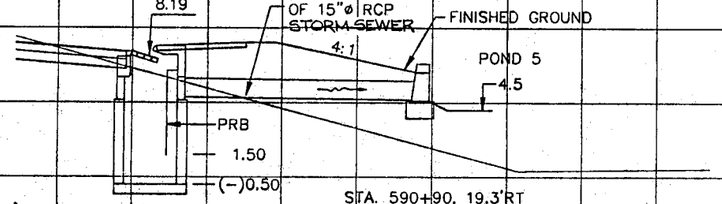
S-44
STA. 21+41.53
℄ SURV. N KENDALL DR

S-43
STA. 20+57
℄ SURV. N KENDALL DR

S-42
STA. 590+90
℄ RAMP D

S-41
STA. 702+17.50
℄ RAMP F

S-24
STA. 348+75
℄ RAMP B



S-42

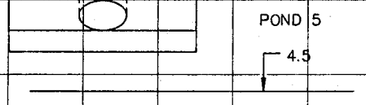
STA. 590+90, RT
℄ RAMP D
CONST. INLET TYPE P-5
W/ POLLUTION RETARDANT BAFFLE (PRB) & SUMP
INDEX NO. 200, 211
F.L. 5.37

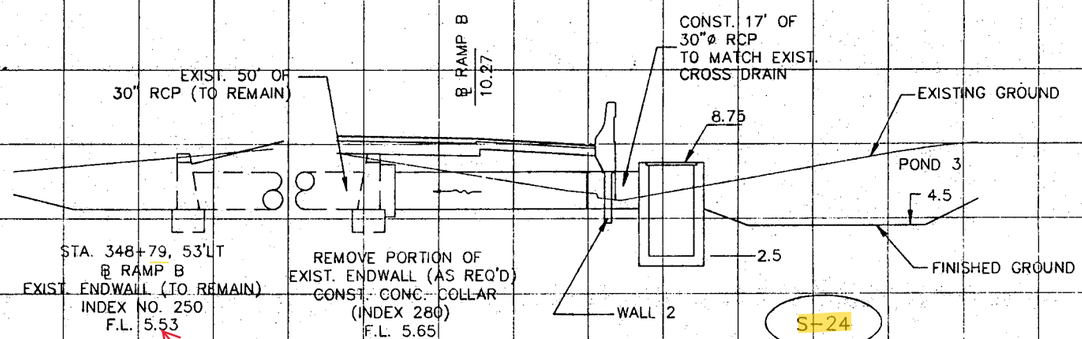
STA. 590+90, 19.3'RT
℄ RAMP D
CONST. ENDWALL
INDEX NO. 250
F.L. 5.25

S-43

STA. 20+57, 86'RT
℄ SURV. N KENDALL DR
CONST. ENDWALL
INDEX NO. 250
F.L. 5.93

4.38 NAVD88





STA. 348+79, 53'LT
℄ RAMP B
EXIST. ENDWALL (TO REMAIN)
INDEX NO. 250
F.L. 5.53

REMOVE PORTION OF EXIST. ENDWALL (AS REQ'D)
CONST. CONC. COLLAR
(INDEX 280)
F.L. 5.65

3.98 NAVD88

S-24

STA. 348+75, 13.5'RT
℄ RAMP B
CONST. SPECIAL STRUCTURE
WITH 3' WIDE SLOTS (2) ON N. & S. SIDES AT ELEV. 8.25
POND 3 - CONTROL STR.
INDEX NO. 232
F.L. 5.66

4.11 NAVD88

Scale: 1"=5' Horiz.
1"=5' Vert

REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			

	NAME	DATE		NAME	DATE
DESIGNED BY	L.L.B.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.J.D.	5/93

SUPERVISED BY : J.W.H.

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

STATE ROAD NO. 826

DRAINAGE STRUCTURES

STATE PROJ. NO.	SHEET NO.
87260-3512	95

FROM 48E

EXIST. 27" RCP (TO REMAIN)

S-48B

STA. 25+63, LT
℄ SURV. N KENDALL DR.
REMOVE EXIST. INLET
CONST. MH J7T (3.5'x6.0')
INDEX NO. 200 & 201
F.L. 5.40 RT AND BK
F.L. 4.30 AH

4"GM

12"WM

CONST. 94 LF OF
53"X 34" ECP
STORM SEWER

EXIST. 18" RCP (TO REMAIN)

9.45

BE(6-5"DUCTS)

S-48C

STA. 26+19, RT
℄ SURV. N KENDALL DR.
REMOVE EXIST. INLET TOP
CONST. INLET TOP TYPE 6 (PART)
INDEX NO. 211

S-48C
STA. 26+19
℄ KENDALL DR.

10.5

STUB IN PER
INDEX NO. 280

4"GM

12"WM

S-48A

STA. 25+05, LT
℄ SURV. N KENDALL DR.
CONST. INLET TYPE P-5 AROUND 12"WM
INDEX NO. 200, 201 & 211
F.L. 4.10

CONST. 13 LF
OF 15" RCP
STORM SEWER

S-48B
STA. 25+63
℄ KENDALL DR.

S-48A
STA. 25+05
℄ KENDALL OR.

POND
7A

S-48

STA. 24+68, LT
℄ SURV. N KENDALL OR.
CONST. MITERED END SECTION
INDEX NO. 261
F.L. 4.00

CONST. TEMPORARY
53"x34" ECP TO S-48T

S-48
STA. 24+68
℄ KENOALL OR.

℄ RAMP T

EXIST. 2-30" PIPES
(TO BE REMOVED)

10.25'

S-45A

±9.6

S-45B

4"GM

EXIST. 2-30" RCP (TO REMAIN)

12"WM

FROM S-47 (SEE PREVIOUS SHEET)

℄ SURV. N KENDALL DR.

11.27

POND 7B

CONST. 52 LF
OF 2-30"ø RCP
STORM SEWER

15"ø RCP
FROM S-45

STA. 804+31, LT
℄ RAMP T
REMOVE EXIST. ENDWALL
CONST. DOUBLE U-TYPE
ENDWALL W/BAFFLES
(4:1 SLOPE)
INDEX NO. 261
F.L. 4.00 RT

STA. 23+50, LT
℄ SURV. N KENOALL DR.
REMOVE EXIST. MH
CONST. MH J7T (3.5'x8.0')
INDEX NO. 200 & 201
F.L. 5.40 LT AND BK
F.L. 4.00 LT

TO S-45A

3.85 NAVD88
2.45 NAVD88

2.45 NAVD88

CONST. 166'
OF 15"ø RCP
STORM SEWER

8.67

4"GM

12"WM

PRB

1.50

(-)0.50

S-45

STA. 21+80, LT
℄ SURV. N KENDALL DR
CONST. INLET TYPE P-2
W/ POLLUTION RETARDANT BAFFLE (PRB) & SUMP)
INDEX NO. 200, 210 & DETAIL
F.L. 6.00

℄ SURV. N KENDALL DR.
9.96 LT (WB) PGL

S-45B
804+31
℄ RAMP T

S-45A
STA. 23+50
℄ KENDALL DR.

S-45
STA. 21+80
℄ KENDALL DR.

Scale: 1"=5' Horiz.
1"=5' Vert.

Date: 1/04/1995
Drawing File: 4308T00\DRAIN\SHT_95

REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	HNTB/KHA	5/93	DRAWN BY	HNTB/KHA	5/93
CHECKED BY	HNTB/KHA	5/93	CHECKED BY	HNTB/KHA	5/93

SUPERVISED BY : J.W.H./J.M.Z.

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

Kimley-Horn

HNTB

STATE ROAD NO. 826

DRAINAGE STRUCTURES

STATE PROJ. NO.	SHEET NO.
87260-3512	95B

℄ RAMP A 26.28

℄ RAMP T 8.20

BOTTOM EL. 4.00
POND 7B

S-51D

STA. 809+07, 18.12' LT
℄ RAMP T
CONST. DOUBLE MITERED END SECTION
INDEX NO. 272
FL. 4.00

2.45 NAVD88

CONST. EXTRA BASE MATERIAL
INDEX NO. 205

CONST. 105 LF OF 2-45"X 29" ECP CROSS DRAIN

BOTTOM EL. 4.00
POND 7C
2:1

S-51F

STA. 256+50, 21.92' RT
℄ RAMP A
CONST. DOUBLE MITERED END SECTION
INOEX NO. 272
FL. 4.00

2.45 NAVD88

S-51E
STA. 256+50
℄ RAMP A

S-51D
STA. 809+07
℄ RAMP T

S-51C
STA. 255+59
℄ RAMP A

S-51B
STA. 255+59
℄ RAMP A

S-51A
STA. 253+09
℄ RAMP A

S-51
STA. 253+09
℄ RAMP A

S-48K
STA. 804+84
℄ RAMP T

S-48J
STA. 804+84
℄ RAMP T

℄ RAMP A 13.02

12.72

S-51A

STA. 253+09, 24.50' RT
℄ RAMP A
CONST. INLET TYPE-C
WITH SLOT (N)
AND WELDED GRATE
INDEX NO. 232
FL. 7.75

CONST. 3 LF OF 15"ø RCP STORM SEWER

1.5' SLOT (NORTH SIDE ONLY)

DITCH PAVEMENT TO
BE TROUGHED TO CONFORM
TO DIMENSIONS OF SLOT
AND TRANSITIONED OVER 5'
BACK TO NORMAL DITCH SECTION

S-51

STA. 253+09, 18.75' RT
℄ RAMP A
CONST. BARRIER WALL INLET
INDEX NO. 218
FL. 7.75

℄ RAMP A 24.40

24.07

S-51B

STA. 255+59, 13.96' RT
℄ RAMP A
CONST. BARRIER WALL INLET
INDEX NO. 218
FL. 4.50

L/A R/W LINE

6.67'

1.00'

2:1

CONST. 7 LF OF 15"ø RCP
STORM SEWER

S-51C

STA. 255+59, 23.59' RT
℄ RAMP A
CONST. INLET TYPE C
WITH SLOTS (N & S)
AND WELDED GRATE
INDEX NO. 232
FL. 4.50

℄ RAMP T 8.20

BOTTOM EL. 4.00
POND 7B

CONST. 39 LF OF 53"X 34" ECP CROSS DRAIN

BOTTOM EL. 4.00
POND 7A

CONST. EXTRA BASE MATERIAL
INDEX NO. 205

S-48K

STA. 804+84, 18.63' LT
℄ RAMP T
CONST. MITERED END SECTION
INDEX NO. 272
FL. 4.00

S-48J

STA. 804+84, 41.63' RT
℄ RAMP T
CONST. MITERED END SECTION
INDEX NO. 272
FL. 4.00

CONST. TEMPORARY
53"x34" ECP FROM S-48T

Scale: 1"=5' Horiz.
1"=5' Vert.

Date: 1/04/1995
Drawing File: 4308T00\DRAIN\SHT_95B

REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	HNTB/KHA	5/93	DRAWN BY	HNTB/KHA	5/93
CHECKED BY	HNTB/KHA	5/93	CHECKED BY	HNTB/KHA	5/93

SUPERVISED BY : J.W.H./J.M.Z.

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

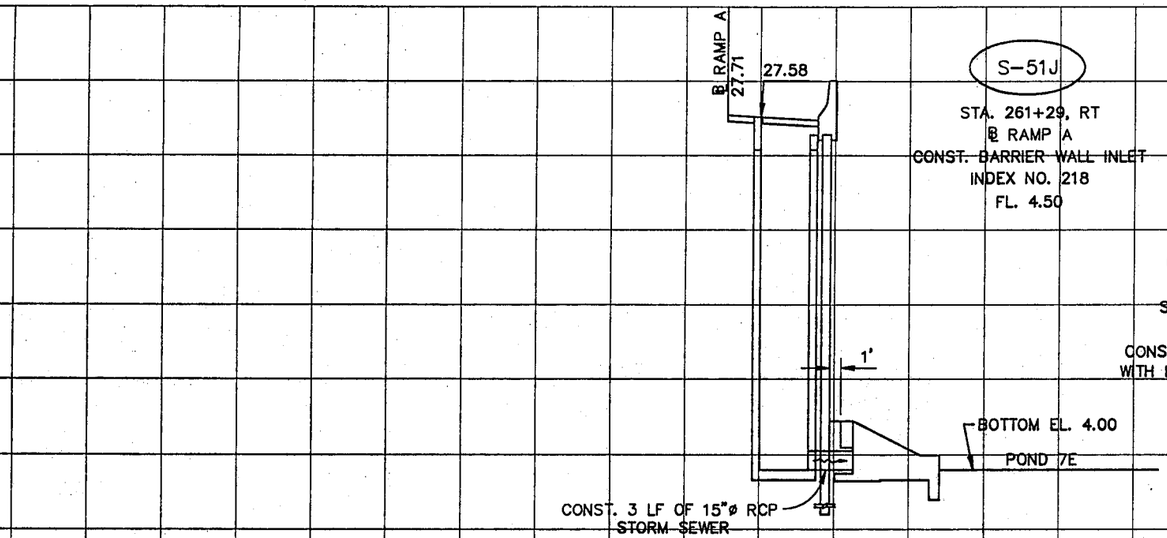
Kimley-Horn

HNTB

STATE ROAD NO. 826

DRAINAGE STRUCTURES

STATE PROJ. NO.	SHEET NO.
87260-3512	95C

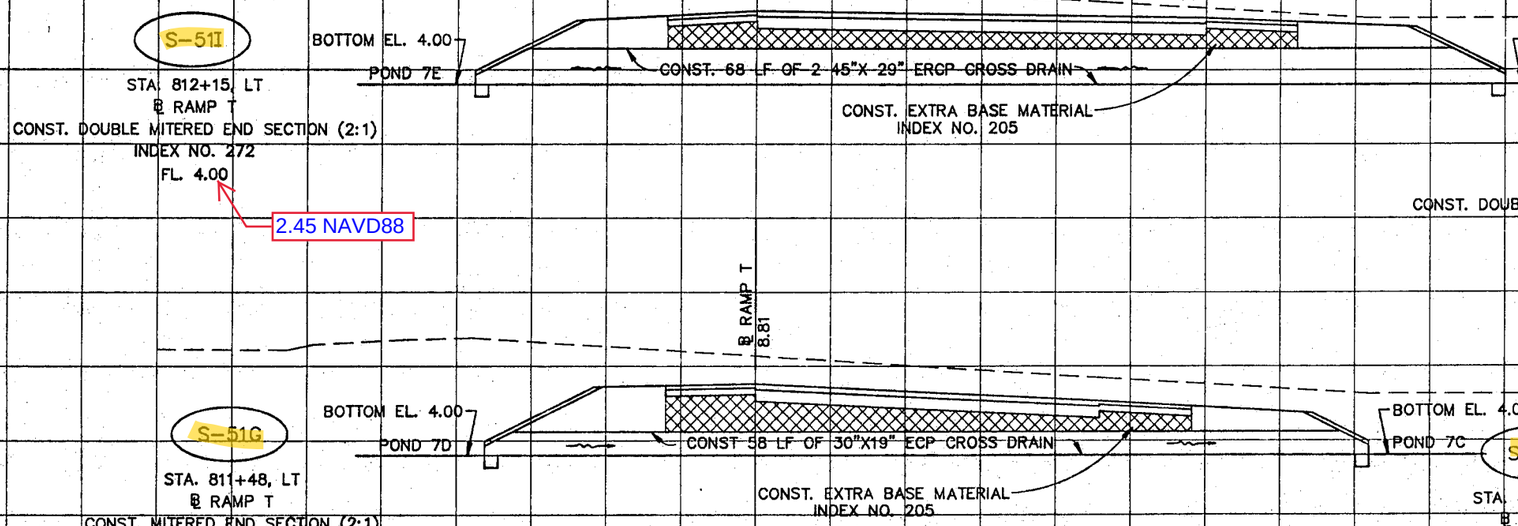


S-51J

STA. 261+29, RT
℄ RAMP A
CONST. BARRIER WALL INLET
INDEX NO. 218
FL. 4.50

S-51K

STA. 261+29, RT
℄ RAMP A
CONST. U-TYPE ENDWALL
WITH BAFFLES (2:1 SLOPE)
INDEX NO. 261
FL. 4.00



S-51I

STA. 812+15, LT
℄ RAMP T
CONST. DOUBLE MITERED END SECTION (2:1)
INDEX NO. 272
FL. 4.00

2.45 NAVD88

S-51H

STA. 811+85, RT
℄ RAMP T
CONST. DOUBLE MITERED END SECTION (2:1)
INDEX NO. 272
FL. 4.00

2.45 NAVD88

S-51G

STA. 811+48, LT
℄ RAMP T
CONST. MITERED END SECTION (2:1)
INDEX NO. 272
FL. 4.00

2.45 NAVD88

S-51F

STA. 811+48, RT
℄ RAMP T
CONST. MITERED END SECTION (2:1)
INDEX NO. 272
FL. 4.00

2.45 NAVD88

S-51K

STA. 261+29
℄ RAMP A

S-51J

STA. 261+29
℄ RAMP A

S-51I

STA. 812+15
℄ RAMP T

S-51H

STA. 811+85
℄ RAMP T

S-51G

STA. 811+48
℄ RAMP T

S-51F

STA. 811+48
℄ RAMP T

Scale: 1"=5' Horiz.
1"=5' Vert.

Date: 1/18/1995
Drawing File: 4308T00\DRAIN\SHT_95C

REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	HNTB/KHA	5/93	DRAWN BY	HNTB/KHA	5/93
CHECKED BY	HNTB/KHA	5/93	CHECKED BY	HNTB/KHA	5/93

SUPERVISED BY : J.W.H./J.M.Z.

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

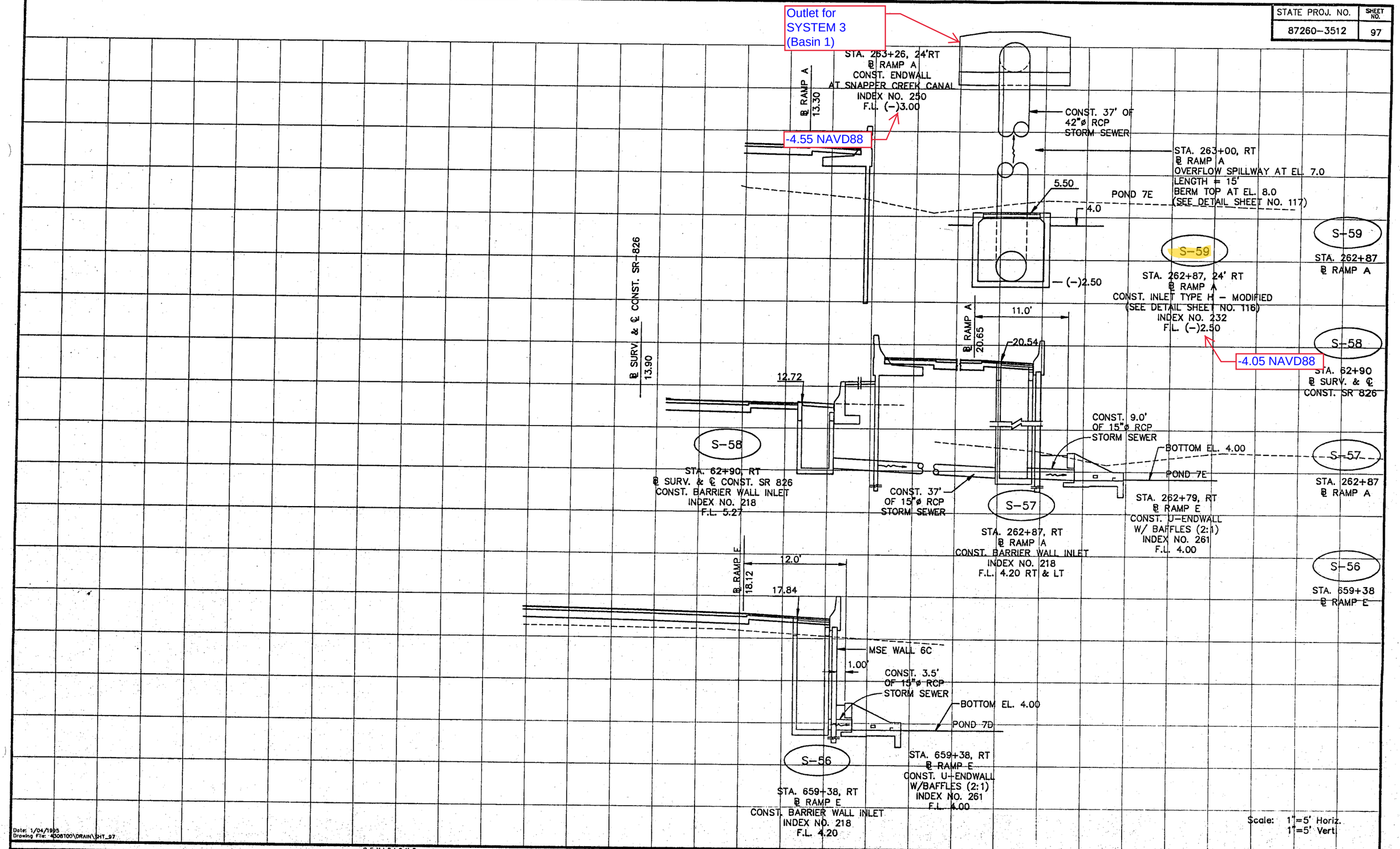
Kimley-Horn

HNTB

STATE ROAD NO. 826

DRAINAGE STRUCTURES

STATE PROJ. NO.	SHEET NO.
87260-3512	97



Scale: 1"=5' Horiz.
1"=5' Vert.

Date: 1/04/1995
Drawing File: 4308T00\DRAIN\SHT_97

REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION				DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	HNTB/KHA	5/93	DRAWN BY	HNTB/KHA	5/93
CHECKED BY	HNTB/KHA	5/93	CHECKED BY	HNTB/KHA	5/93

SUPERVISED BY : J.W.H./J.M.Z.

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

Kimley-Horn

HNTB

STATE ROAD NO. 826

DRAINAGE STRUCTURES

DS13

STATE PROJ. NO.	SHEET NO.
87260-3512	98

Outlet for SYSTEM 3
(System 3 - West)

-4.05 NAVD88

0.95 NAVD88
-2.55 NAVD88
1.70 NAVD88

2.55 NAVD88

S-60
STA. 488+00, 20'RT
℄ RAMP C
CONST. SPECIAL STRUCTURE
(SEE DETAIL SHEET NO. 114)
INDEX NO. 200, 201
F.L. 2.50 AH, (-)1.00 BK & 3.25 LT

S-61
STA. 488+00, RT
℄ RAMP C
CONST. BARRIER WALL INLET
INDEX NO. 218
F.L. 3.30 RT & 7.80 LT

S-62
STA. 63+05, LT
℄ SURVEY & ℄ CONST. SR 826
CONST. BARRIER WALL INLET
INDEX NO. 218
F.L. 8.0

S-63
STA. 491+20, 17.50'RT
℄ RAMP C
CONST. INLET TYPE C
INDEX NO. 232
F.L. 3.61 AH, 3.11 BK & 3.86 LT

S-64
STA. 491+20, RT
℄ RAMP C
CONST. BARRIER WALL INLET
W/ POLLUTION RETARDANT BAFFLE (PRB) & SUMP
INDEX NO. 218
F.L. 3.92 RT & 10.75 LT

S-65
STA. 59+85, LT
℄ SURV. & ℄ CONST. SR 826
CONST. BARRIER WALL INLET
INDEX NO. 218
F.L. 10.98

S-66
STA. 493+88, 17.4'RT
℄ RAMP C
CONST. SPECIAL STRUCTURE
(SEE DETAIL ON SHEET 116)
[POND 6 - CONTROL STR.]
INDEX NO. 232
F.L. 4.10

S-66A
STA. 492+60, 11.50'RT
℄ RAMP C
CONST. MH TYPE P7
INDEX NO. 200 & 201
F.L. 3.83 BK & AH

CONST. 68' OF 24"ø RCP STORM SEWER W/ POLLUTION RETARDANT BAFFLE (PRB) & SUMP
CONST. 43' OF 15"ø RCP STORM SEWER
CONST. 6' OF 15"ø RCP STORM SEWER
CONST. 316' OF 24"ø RCP STORM SEWER
CONST. 43' OF 15"ø RCP STORM SEWER
CONST. 7' OF 15"ø RCP STORM SEWER
CONST. 136' OF 18"ø RCP STORM SEWER
CONST. 125' OF 18"ø RCP STORM SEWER

CONSTRUCT EASMENT (WIDTH VARIES)
MSE WALL 7
PRB
R/W
℄ RAMP C 13.49
℄ RAMP C 15.08
℄ RAMP C 15.94
℄ SURV. & ℄ CONST. SR 826 13.83
℄ SURV. & ℄ CONST. SR 826 17.98
13.15
13.00
14.74
17.15
7.50
7.00
7.07
6.75
2.0
(-)1.00

EL. 6.0 ON FAR SIDE OF INLET
POND 6 BOTTOM EL. 4.0

S-66
STA. 493+80
℄ RAMP C

S-66A
STA. 492+60
℄ RAMP C

S-65
STA. 59+85
℄ SURV. & ℄ CONST. SR 826

S-64
STA. 491+20
℄ RAMP C

S-63
STA. 491+20
℄ RAMP C

S-62
STA. 63+05
℄ SURV. & ℄ CONST. SR 826

S-61
STA. 488+00
℄ RAMP C

S-60
STA. 488+00
℄ RAMP C

Scale: 1"=5' Horiz.
1"=5' Vert.

REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	L.L.B.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.J.D.	5/93

SUPERVISED BY : J.W.H.

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

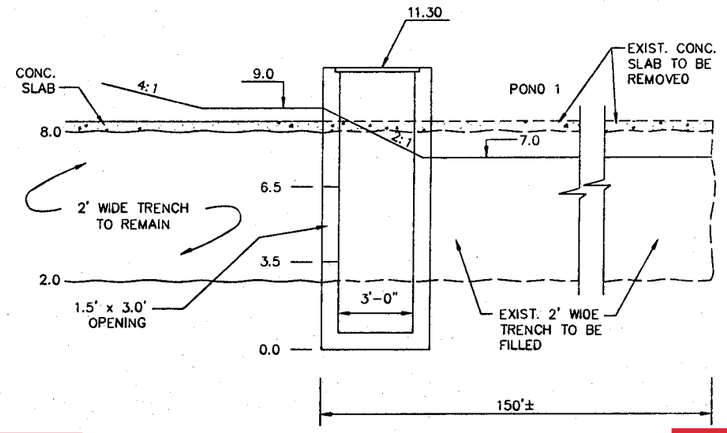
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

STATE ROAD NO. 826

DRAINAGE STRUCTURES

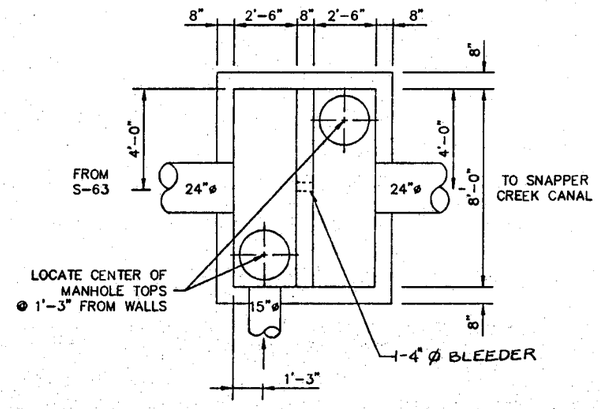
DD5

STATE PROJ. NO.	SHEET NO.
87260-3512	113

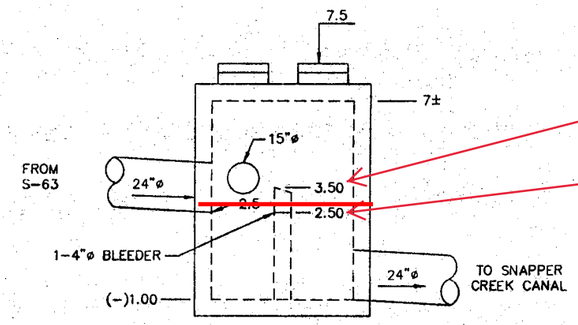


S-1

STA. 8+20
℄ SURVEY & CONST. SR 826 NB



PLAN



ELEVATION

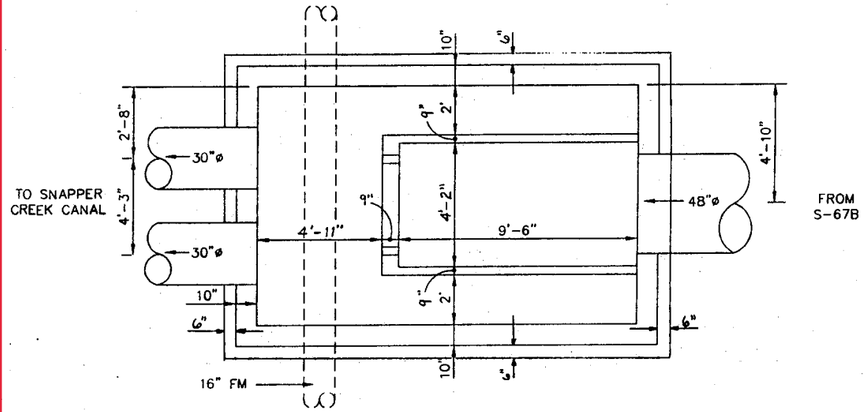
1.95 NAVD88
Weir Elev.

0.95 NAVD88

Outlet for System 3
- West of SR 826

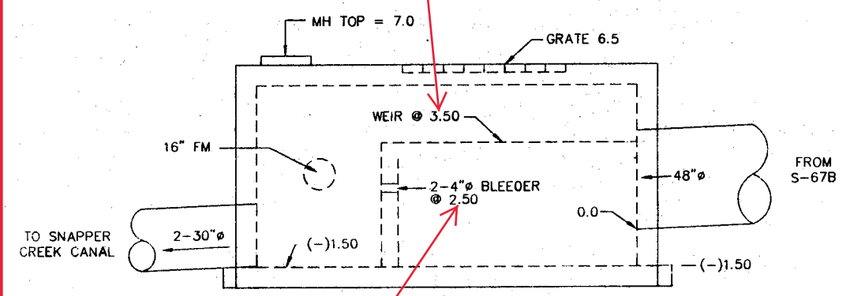
S-60

STA. 488+00
℄ RAMP C



PLAN

1.95 NAVD88
Weir Elev.



0.95 NAVD88

ELEVATION

Outlet for Basin 6
(System 4)

S-67

SCALE: 1"=3'

STA. 485+45
℄ RAMP C

REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	L.L.B.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.J.O.	5/93

SUPERVISED BY : J.W.H.

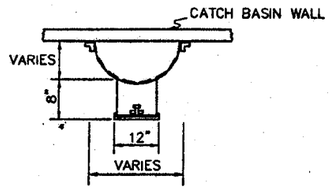
FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

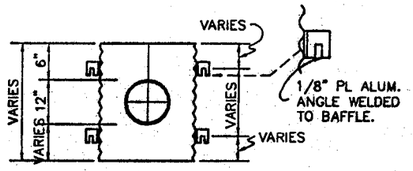
STATE ROAD NO. 826

SPECIAL DRAINAGE STRUCTURE DETAILS

STATE PROJ. NO.	SHEET NO.
87260-3512	116

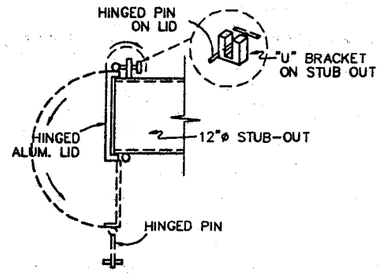


PLAN VIEW N.T.S.

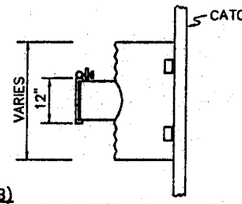


ELEVATION VIEW N.T.S.

POLLUTION RETARDANT BAFFLE (PRB)



LID DETAIL N.T.S.

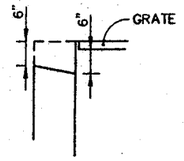


ELEVATION VIEW N.T.S.

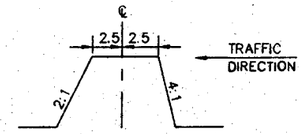
NOTE:

PRB MUST BE EASILY REMOVABLE FOR INSPECTION & CLEANING OF PIPES

NEOPRÉNE GASKET ALONG DRAINAGE STRUCTURE WALL, TO MAKE WATERTIGHT SEAL

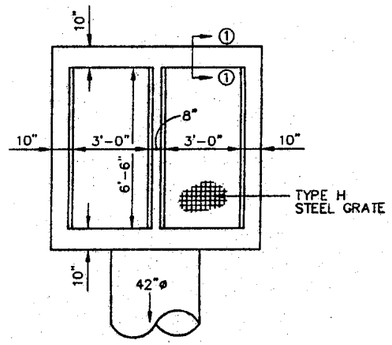


SECTION ①-①



CROSS SECTION
N.T.S.

DITCH BLOCK DETAIL
(TYPICAL)



TYPE H MODIFIED

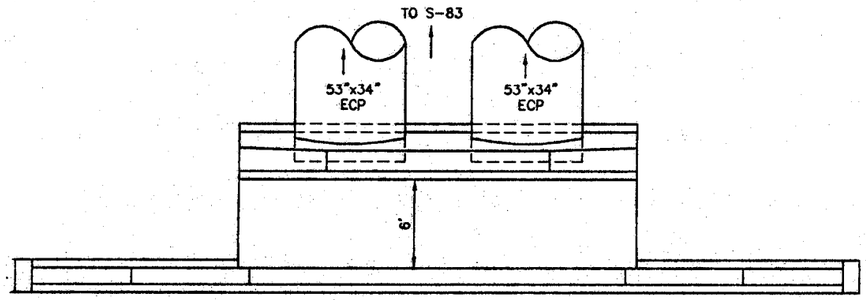
S-59

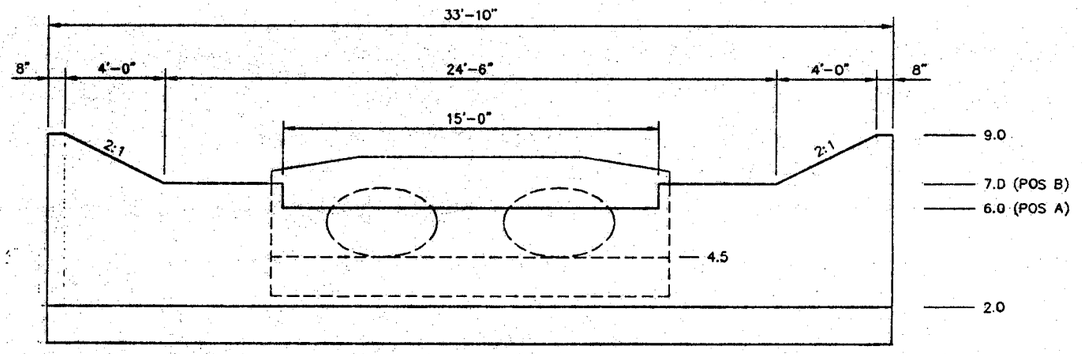
STA 262+87
℄ RAMP A

S-73

STA 476+80, RT
℄ RAMP C

(SAME SIZE INLET, DIFFERENT CONFIGURATION OF INLET & OUTLET PIPES.)



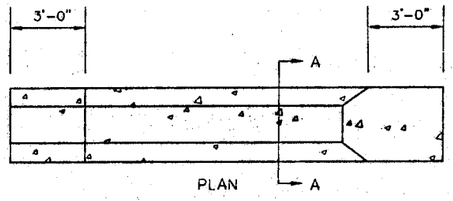


ELEVATION

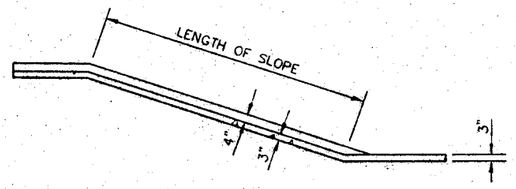
S-84

STA 277+95
℄ RAMP A

SECTION A-A

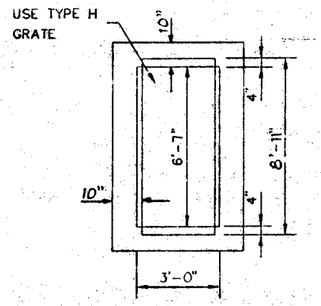


PLAN



ELEVATION

DITCH PAVEMENT
(INDEX 281)



TYPICAL FOR STRUCTURES: S-1, S-12, S-24 & S-66

SCALE: 1"=3'

REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	L.L.B.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.J.D.	5/93

SUPERVISED BY : J.W.H.

FLORIDA DEPARTMENT OF TRANSPORTATION

APPROVED BY :

DATE :

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

STATE ROAD NO. 826

SPECIAL DRAINAGE STRUCTURE DETAILS

System 4 – Reference Data

Excerpts from SFMWD ERP No. 13-00791-S

Excerpts from FDOT Records Plans for FM No. 87260-3512

South Florida Water Management District

BEG. PERMIT NUMBER 13-00791-S

APPLICATION NO. 941110-17

13-00791-S

FORM #0190
Rev 8/85

APPLICATION/PERMIT FILE RECORD & ACTION SHEET

Name: FL. D. O. T.
(SR 826 Palmetto Expressway)

Permit No. 13-00791-S
Application No. 941110-17

This file contains:

☐ ORIGINAL APPLICATION ☐ PERMIT ☐ SPECIAL CONDITION SHEET(S)
☐ STAFF CALCULATION SHEET(S) ☐ DRAWING(S) ☐ STAFF REPORT

Chronological Correspondence/Action Record

Date	Subject	By	Comments
4/13/95	Permit Issued	K.T.	9411 -17

South Florida Water Management District

3301 Gun Club Road, West Palm Beach, Florida 33406 • (561) 686-8800 • FL WATS 1-800-432-2045
TDD (561) 697-2574

CON 24-05

August 6, 1998

Florida Department of Transportation
1900 NW 111th Avenue
Miami, FL 33172

Dear Sir or Madam:

Subject: **SR 826 Palmetto Expressway Improvement (widening & resurfacing)**
Construction Completion/Construction Certification
Application No. 941110-17, SWM Permit No. 13-00791-S
Dade County, S2,35/T55,54S/R40E

This letter acknowledges receipt of an engineer's Construction Completion/Construction Certification from M. James McCombs, P.E. of Reynolds, Smith and Hills CS, Inc. pertaining to the subject project's surface water management system. District staff have reviewed the submitted information and it has been incorporated into the permit file.

Per the referenced certification, our staff consider **the surface water management system (including 14.69 acres of dry retention areas) serving 126.31 acres of the SR 826 Palmetto Expressway from US 1 (SR 5) to north of Sunset Drive** constructed in conformance with the permit. This satisfies the requirement of your permit with regard to construction of the surface water management system and statement of completion and certification by a registered professional engineer. Therefore, the surface water management system of the subject project is hereby considered to be in operation phase, subject to all applicable special and applicable conditions of your permit.

Should you have any questions, please contact the undersigned at (561) 682-6596.

Sincerely,

Hamid A. Azizi
Staff Engineer
Environmental Resource Compliance Division

AHA

c: M. James McCombs, P.E., RS & H CS, Inc.
Dade County Engineer
City of Miami Engineer
Metro Dade ERM (DERM) / F.D.E.P. / E.P.A.

Governing Board:
Frank Williamson, Jr., Chairman
Eugene K. Pettis, Vice Chairman
Mitchell W. Berger
Vera M. Carter
William E. Graham
William Hammond
Richard A. Machek
Michael D. Minton
Miriam Singer
Samuel E. Poole III, Executive Director
Michael Slayton, Deputy Executive Director

Mailing Address: P.O. Box 24680, West Palm Beach, FL 33416-4680

South Florida Water Management District
Final Field Observation
Field Engineering Division

FORM 0543
Rev 6/97

Final Field Observation Requested By: RS & H CS Date: 6/16/98

County: Dade Section(s): 22,23,26 27,34,35 Twp. 54 Rge. 40

Project Name: SR826/ Palmetto Pkwy.

Permit No.: 13-00791-S ok Application No(s): 941110-17 ok/c.

Project Engineer: M. James McCombs

Certification Form No. 0881 Received? Yes ✓ No

Record ("As-Built") Drawings Received? Yes No

Staff Engineer: Hamid Ajize Field Staff: Horacio Wheelock

Date of Final Field Observation: 7-14-1998.

Final Field Observation Report

The project has been constructed in substantial accordance with the design plans approved by the District. Control structures, culverts, inlets and retention area. Ham

This is a 126.31 acre highway widening and resurfacing project Ham
8-06-98

Staff Engineer's Comments

Per the attached engineer's certification, SWM System for SR 826 Palmetto Expressway from US1 (SR5) to north of Sunset Drive constructed in general compliance with permit. Letter to permittee follows. Ham 8-06-98

C: H. Wheelock, Permit File #13-00791-S

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Environmental Resource/Surface Water Management Permit Construction Completion/Construction Certification

FORM 0881
08/95

Page (2) of (3)
area 8/6/98

RECEIVED
JUN 15 1998
REGULATION DEPT.
area 4030

TO: SOUTH FLORIDA WATER MANAGEMENT DISTRICT
Field Engineering Division *Please see page 2 of 2

SUBJECT: PERMIT NO. 13-00791-S ✓ APPLICATION NO. 941110-17
PROJECT NAME: SR826 / US1 TO SW 66th St. ✓ PHASE: N/A
LOCATION: COUNTY: DADE S 2, 35 T55, 54 R40 ✓ area

The subject surface water management system has been designed, constructed and completed as follows: (use additional sheets if needed):

Completion Date: 05 (Month) 21 (Day) 98 (Year) ✓

	Discharge Structure: PERMITTED		EXISTING	
Weir	Width	Crest	Width	Crest
Bleeder	Dimensions 24" RCP	Invert - 1.5	Dimensions	Invert
Type	42" RCP	- 3.0		
	2 x 30" RCP	- 2.0		
	2 x 48" RCP	- 3.5		

✓ OK. area

These have been Certified by engineer area on separate sheets.

Retention/Detention Area: (if applicable)

ID	Size	Side Slopes (H:V)	ID	Size	Side Slopes (H:V)	ID	Size	Side Slopes (H:V)	ID	Size	Side Slopes (H:V)

Please indicate the location of the appropriate bench mark(s) used to determine the above information on the record drawings (Reference 40E-4.381(1)(f), Florida Administrative Code). All elevations should be according to National Geodetic Vertical Datum (NGVD) (Reference 2.9 of the *Basis of Review for Environmental Resource Permit Applications within the South Florida Water Management District*).

I HEREBY NOTIFY THE DISTRICT OF THE COMPLETION OF CONSTRUCTION OF ALL THE COMPONENTS OF THE SURFACE WATER MANAGEMENT FACILITIES FOR THE ABOVE REFERENCED PROJECT AND CERTIFY THAT THEY HAVE BEEN CONSTRUCTED IN SUBSTANTIAL CONFORMANCE WITH THE PLANS AND SPECIFICATIONS PERMITTED BY THE DISTRICT. [A COPY OF THE APPROVED PERMIT DRAWINGS IS ATTACHED WITH DEVIATIONS NOTED, IF APPLICABLE]. I HEREBY AFFIX MY SEAL THIS 10 DAY OF June 19 98.

This Certification is acceptable for the referenced portion of the Palmetto Expressway only as specified under Application No. 941110-17. Approved 8-06-98

Engineer's Signature and Seal

M. James McComb #42675
Name (Please Print) FLA. Registration No.

RS&H CS

Reynolds, Smith and Hills CS, Incorporated

12189 South Dixie Highway
Miami, Florida 33156
305-254-6884
Fax 305-254-5578

Page (3) of (3)
Dated 8/6/98

RECEIVED
JUN 15 1998
REGULATION DEPT. 4030

LETTER OF TRANSMITTAL # 127 STATE JOB #: 87260-3512

TO: Hamid Azizi
SFWM
Field Engineering Division
Regulation Department
P.O. Box 24680
West Palm Beach, Florida 33416

RE: SR-826/PALMETTO EXPRESSWAY
FROM US-1 TO SW 66TH STREET
WPI #: 6113684
FAP #: ACXU-475-1(96)
COUNTY: DADE
FIN # 2495071 5201

DATE: June 12, 1998

WE ARE FORWARDING TO YOU VIA **Airborne Express Overnight Service**

THE FOLLOWING DOCUMENT(S) FOR YOUR USE AS INDICATED BELOW:

___	PLANS	___	LETTER	___	SHOP DRAWINGS
___	PRINTS	___	CALCS	___	SPECIFICATIONS
___	ESTIMATES	___	SAMPLES	X	OTHER

NO. OF SETS	DESCRIPTION	DATE	REMARKS
1 (Original)	Construction Completion / Construction Certification Notice Attached: As-Builts / Bridges over Snapper Creek Canal	06-12-98	a) Ramp A over Snapper Creek b) Ramp C over Snapper Creek c) SR826 / Palmetto Expressway over Snapper Creek
1 (Original)	Construction Completion / Construction Certification Notice Structures	06-12-98	

THESE ARE TRANSMITTED FOR:

X	YOUR APPROVAL	___	YOUR USE
___	REVIEW & COMMENTS	___	YOUR FILE

CC D. Vorce, File 55.00, 11.03

Signed By: M. JAMES McCOMBS, P.E.

Position: PROJECT RESIDENT ENGINEER

South Florida Water Management District
3301 Gun Club Road, West Palm Beach, Florida 33406 • (407) 686-8800 • FLWATS 1-800-432-2045

CON 24-06

May 22, 1995

Melanie Calvo
Florida Dept. of Transportation
1000 N W 111th Avenue, Room 6101
Miami, Florida 33172

Subject: Permit 13-00791-S, Application 941110-17
State Road 826, Broward County

Dear Ms Calvo:

As you requested, I have enclosed copies of the above referenced Application Submittals (forms 4-8, 4-13 and 4-7) for the Surface Water Management Permit regarding Basin 5.

If we can be of further assistance please do not hesitate to contact this office.

Sincerely,

Vern Kaiser
Permit Administration Supervisor
Regulation Department

VK/pb
Enclosures

Governing Board:
Valerie Boyd, Chairman
Frank Williamson, Jr., Vice Chairman
Annie Betancourt
William Hammond
Betsy Krant
Allan Milledge
Eugene K. Pettis
Nathaniel P. Reed
Leah G. Schad
Samuel E. Poole III, Executive Director
Michael Slayton, Deputy Executive Director

Mailing Address: P.O. Box 24680, West Palm Beach, FL 33416-4680

South Florida Water Management District

Certification For Stormwater Discharge

Form #0113
Rev. 1/91

SURFACE WATER MANAGEMENT PERMIT NO. 13-00791-S

(NON-ASSIGNABLE)

Date Issued: APRIL 13, 1995

Authorizing: CONSTRUCTION AND OPERATION OF A SURFACE WATER MANAGEMENT SYSTEM TO SERVE A 126.31 ACRE HIGHWAY WIDENING PROJECT.

Located In: DADE COUNTY, SEC. 2,35 TWP. 55,54S RGE. 40E

Issued To: FLORIDA DEPARTMENT OF TRANSPORTATION
(SR 826 PALMETTO EXPRESSWAY)
1000 NW 111TH AVENUE
MIAMI, FL 33172

This Permit is issued pursuant to Application for Permit No. [illegible]-17 dated November 10, 1994. Permittee agrees to hold and save the South Florida Water Management District and its successors harmless from any and all damages, claims or liabilities which may arise by reason of the construction, operation, maintenance or use of any work or structure involved in the Permit. Said Application, including all plans and specifications attached thereto, as addressed by the Staff Report, is by reference made a part hereof.

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

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

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

Special Conditions are as follows:

SEE SHEETS 2-3 OF 6 - 13 SPECIAL CONDITIONS.
SEE SHEETS 4-6 OF 6 - 19 LIMITING CONDITIONS.

Filed with the Clerk of the South Florida Water Management District

On Original signed by:

By Vern Kaiser
Deputy Clerk

South Florida Water Management District, by its Governing Board

By Original signed by TONY BURNS
Assistant Secretary

SPECIAL CONDITIONS

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

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

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

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

5 . OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM SHALL BE THE RESPONSIBILITY OF FLORIDA DEPARTMENT OF TRANSPORTATION.

6 . THE SFWMD RESERVES THE RIGHT TO REQUIRE REMEDIAL MEASURES TO BE TAKEN BY THE PERMITTEE IF WETLAND AND/OR UPLAND MONITORING OR OTHER INFORMATION DEMONSTRATES THAT ADVERSE IMPACTS TO PROTECTED, CONSERVED, INCORPORATED OR MITIGATED WETLANDS OR UPLANDS HAVE OCCURRED DUE TO PROJECT RELATED ACTIVITIES.

7 . ANY FUTURE CHANGES IN LAND USE OR TREATMENT OF WETLANDS AND/OR UPLAND BUFFER/COMPENSATION AREAS MAY REQUIRE A SURFACE WATER MANAGEMENT PERMIT MODIFICATION AND ADDITIONAL ENVIRONMENTAL REVIEW BY DISTRICT STAFF. PRIOR TO THE PERMITTEE INSTITUTING ANY FUTURE CHANGES NOT AUTHORIZED BY THIS PERMIT, THE PERMITTEE SHALL NOTIFY THE SFWMD OF SUCH INTENTIONS FOR A DETERMINATION OF ANY NECESSARY PERMIT MODIFICATIONS.

8 . THE PERMITTEE SHALL ENSURE THAT ALL CONSTRUCTION ACTIVITIES IN OPEN WATER WILL CEASE UPON SIGHTINGS OF MANATEES WITHIN 200 YARDS OF THE PROJECT AREA. CONSTRUCTION ACTIVITIES SHALL NOT RESUME UNTIL THE MANATEES HAVE DEPARTED THE PROJECT AREA.

9 . THE PERMITTEE SHALL ENSURE THAT THE CONTRACTOR INSTRUCTS ALL PERSONNEL ASSOCIATED WITH THE PROJECT OF THE PRESENCE OF MANATEES AND THE NEED TO AVOID COLLISIONS WITH MANATEES. THE PERMITTEE AND/OR CONTRACTOR MAY BE HELD RESPONSIBLE FOR ANY MANATEE HARMED, HARASSED OR KILLED AS A RESULT OF ANY PERMITTED ACTIVITY.

10. THE PERMITTEE SHALL ENSURE THAT A MINIMUM OF ONE PERSON WILL BE DESIGNATED AS A MANATEE OBSERVER WHEN WORK IS BEING CONDUCTED. THIS INDIVIDUAL(S) SHALL HAVE EXPERIENCE IN MANATEE OBSERVATION, AND WILL BE EQUIPPED WITH POLARIZED SUNGLASSES TO AID IN OBSERVATION.

11. PRIOR TO ANY IN-WATER WORK CONDUCTED AT NIGHT, THE PERMITTEE SHALL PROVIDE FLOOD LIGHTING TO THE AREA TO MAXIMIZE THE OPPORTUNITY TO OBSERVE A MANATEE.

12. ANY COLLISION WITH A MANATEE SHALL BE REPORTED IMMEDIATELY ON THE "MANATEE HOTLINE" (1-800-791-2580).

13. FOLLOWING THE PROJECT COMPLETION, A REPORT SUMMARIZING THE ABOVE INCIDENTS AND SIGHTINGS SHALL BE SUBMITTED TO THE FDEP MARINE RECOVERY PROGRAM (100 EIGHTH AVENUE S.E.. ST. PETERSBURG, FLORIDA 33701-2580) AND TO THE U.S. FISH AND WILDLIFE SERVICE (2747 ART MUSEUM DRIVE, JACKSONVILLE, FLORIDA 32207).

LIMITING CONDITIONS

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

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

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

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

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

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

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

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

9 . THE PERMIT DOES NOT CONVEY TO THE PERMITTEE ANY PROPERTY RIGHT NOR ANY

RIGHTS OR PRIVILEGES OTHER THAN THOSE SPECIFIED IN THE PERMIT AND CHAPTER 40E-4, FAC.

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

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

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

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

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

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

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

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

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

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

South Florida Water Management District

3301 Gun Club Road, West Palm Beach, Florida 33406 • (407) 686-8800 • FL WATS 1-800-432-2045

March 28, 1995

Florida Department of Transportation
1000 NW 111th Avenue
Miami, FL 33172

Dear Sir or Madam:

Subject: **Application No. 941110-17, SR 826 Palmetto Expressway, Dade County, S2,35/T55,54S/R40E**

Enclosed is a copy of this District's staff report covering the request for permit application referenced therein. It is requested that you read this staff report thoroughly and understand its contents. The recommendations as stated in the staff report will be presented to our Governing Board for consideration on **April 13, 1995.**

Should you wish to object to the staff recommendation or file a petition, please written objections, petitions and/or waivers (refer to the attached "Notice of Rights") to:

Vern Kaiser, Deputy Clerk
South Florida Water Management District
Office Box 24680
West Palm Beach, Florida 33416-4680

The "Notice of Rights" addresses the procedures to be followed if you desire a public hearing or other review of the proposed agency action. You are advised, however, to be prepared to defend your position regarding the permit application when it is considered by the Governing Board for final agency action, even if you agree with the staff recommendation, as the Governing Board may take final agency action which differs materially from the proposed agency action.

Please contact the District if you have any questions concerning this matter. If we do not hear from you prior to the date on the "Notice of Rights", we will assume you concur with our recommendations.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a "Notice of Rights" has been mailed to the addressee and the persons listed in the attached distribution list not later than 5:00 p.m. this 28th day of March 1995 in accordance with Section 120.60 (3), Florida Statutes.

Sincerely,

Terrie Bates, Director
Regulation Department

CERTIFIED MAIL #Z 310 460 433
RETURN RECEIPT REQUESTED

Governing Board:
Valerie Boyd, Chairman
Frank Williamson, Jr., Vice Chairman
William E. Graham
William Hammond
Betsy Krant
Richard A. Machek
Eugene K. Pettis
Nathaniel P. Reed
Miriam Singer
Samuel E. Poole III, Executive Director
Michael Slayton, Deputy Executive Director

Mailing Address: P.O. Box 24680, West Palm Beach, FL 33416-4680

South Florida Water Management District

Notice Of Rights

Form [illegible]
Rev. [illegible]

NOTICE OF RIGHTS

Enclosed is a copy of the Staff Review Summary regarding the subject permit application, which is this agency's Notice of Proposed Agency Action.

PETITION FOR FORMAL ADMINISTRATIVE PROCEEDINGS

Any person whose substantial interests are or may be affected by the action which is proposed in the enclosed Notice of Proposed Agency Action/Staff Review Summary, may petition for an administrative hearing in accordance with the requirements of Rule 40E-1.521, Florida Administrative Code, and be filed with (received by) the District Clerk, 3301 Gun Club Road, West Palm Beach, Florida 33406. Petitions for administrative hearing on the above application must be filed within **fourteen (14) days of actual receipt of** the Notice of Proposed Agency Action. Failure to file a petition within this time period shall constitute a waiver of any rights such person may have to request an administrative determination (hearing) under section 120.57, Florida Statutes, concerning the subject permit application. Petitions which are not filed in accordance with the above provisions are subject to dismissal.

FLORIDA LAND AND WATER ADJUDICATORY COMMISSION

A party to the proceeding below may seek review of a Final Order rendered on the permit application before the Land and Water Adjudicatory Commission. Review under section 373.114, Florida Statutes, is initiated by filing a request for review with the Land and Adjudicatory Commission and serving a copy on the Department of Environmental Protection and any person named in the Order within applicable statutory timeframes. This review is appellate in nature and limited to the record below.

DISTRICT COURT OF APPEAL

A party who is adversely affected by final agency action on the permit application is entitled to judicial review in the District Court of Appeal pursuant to section 120.68, Florida Statutes, as provided therein. Review under section 120.68, Florida Statutes, is initiated by filing a Notice of Appeal in the appropriate District Court of Appeal in accordance with Florida Rule of Appellate Procedure 9.110.

CIRCUIT COURT

Section 373.617(2), Florida Statutes, provides:

> Any person substantially affected by a final action of any agency with respect to a permit may seek review within 90 days of the rendering of such decision and request monetary damages and other relief in the circuit court in the judicial circuit in which the affected property is located; however, circuit court review shall be confined solely to determining whether final agency action is an unreasonable exercise of the state's police power constituting a taking with just compensation. Review of final agency action for the purpose of determining whether the action is in accordance with existing statutes or rules and based on competent substantial evidence shall proceed in accordance with Chapter 120.

40E-1.521 Initiation of Formal Proceedings

(1) Initiation of formal proceedings shall be made by filing a petition with the District Clerk within the applicable timeframes set forth in this chapter. The term petition includes any application or other document which expresses a request for formal proceedings.

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

(a) The name and address of the District and the District's file or identification number, if known.

(b) The name and address of the petitioner or petitioners;

(c) An explanation of how each petitioner's substantial interests will be affected by the District's determination;

(d) A statement of when and how petitioner received notice of agency action or notice of proposed agency action;

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

(f) A concise statement of the ultimate facts which petitioner believes entitle petitioner to the relief sought as well as the rules and statutes which support petitioner's claim for relief;

(g) A demand for the relief to which the petitioner deems himself entitled; and

(h) Other information which the petitioner contends is material.

(3) Upon receipt of a petition for formal proceedings, the Office of Counsel shall review the petition for compliance with subsection (2). The Board shall accept those petitions in substantial compliance therewith, which have been timely filed, which establish that the petitioner is a substantially affected party, and which state a dispute which is within the jurisdiction of the District to resolve. If accepted, the Board shall designate the presiding officer of the administrative hearing. The District shall promptly give written notice to all parties of the action taken on the petition, and shall state with particularity its reasons therefor.

(7) If the Board designates a Hearing Officer assigned by the Division of Administrative Hearings as the presiding officer, the District Clerk shall forward the petition and all relevant materials filed with the District to the Division of Administrative Hearings, and shall notify all parties of its action.

Specific Authority 373.044, 373.113 F.S.
Law Implemented 120.53(1), 120.57 F.S.
History --- New 9-3-81, Amended 5-11-93.
Formerly 16K-1.09(1), 16K-1.112(1) through (3), 16K-1.12

DRAFT
Subject to Governing Board Approval

LAST DATE FOR GOVERNING BOARD ACTION:
APRIL 13, 1995

SURFACE WATER MANAGEMENT STAFF REVIEW SUMMARY

I. ADMINISTRATIVE

APPLICATION NUMBER: 941110-17

PROJECT NAME: SR 826 PALMETTO EXPRESSWAY

LOCATION: DADE COUNTY
S2,35/T55,54S/R40E

APPLICANT'S NAME: FLORIDA DEPARTMENT OF TRANSPORTATION

OWNERS NAME AND ADDRESS: FLORIDA DEPARTMENT OF TRANSPORTATION
1000 NW 111TH AVENUE
MIAMI, FL 33172

DEVELOPER: FLORIDA DEPARTMENT OF TRANSPORTATION

ENGINEER: HOWARD NEEDLES TAMMEN

II. PROJECT DESCRIPTION

PROJECT AREA: 126.31 acres **DRAINAGE AREA:** 126.31 acres

DISTRICT DRAINAGE BASIN: C-2 (SNAPPER CREEK)

RECEIVING BODY: C-2 (SNAPPER CREEK) CANAL

CLASSIFICATION: CLASS III

SPECIAL DRAINAGE DISTRICT: METRO DADE ERM (DERM)

PURPOSE:

This application is a request for Construction and Operation of a Surface Water Management system to serve the proposed widening of State Road 826 Palmetto Expressway from U.S. 1 (S.R. 5) to north of Sunset Drive. Staff recommends approval with conditions.

EXISTING FACILITIES:

The Palmetto Expressway was originally constructed in 1957 as a 4 lane divided highway. Most of the expressway has been widened since the original construction. This 2.7 mile segement proposed for widening at this time is one of the last remaining 4-lane portions of the highway.

PROPOSED FACILITIES:

The project involves the resurfacing and widening of the existing 4-lane divided roadway into a 6 lane divided urban roadway . The project limits are from US 1 to Sunset Drive approximately 2.7 miles or 126.31 acres. The project involves upgrading the existing surface water management system to accomodate additional storm water discharges from the increased impervious surface areas and interchange improvements associated with the project.

For purposes of surface water management system design, the project has been divided into seven basins.

Basin No. 1 (3.65 ac)

The existing drainage system serving the Basin 1 area will not be significantly modified. A total of 0.01 acres of additional impervious area is proposed in this basin.

Basin No. 2/3 (4.99 ac)

The surface water management system for Basin 2 and 3 will consist of inlets, culverts and swales that will direct runoff into 0.72 acres of dry retention area. The system has been designed to retain the 10-year 24-hour storm event within the ponds prior to overflow into the existing U.S. 1 system.

Basin No. 4 (0.37 ac)

No significant changes to this basin are proposed as only 0.08 acres of additional impervious area is proposed.

Basin No. 5 (34.21 ac)

The surface water management system for this basin will consist of inlets, culverts and swales to direct runoff into 4.58 acres of dry retention area. The system has been designed to retain the 10-year 24-hour storm prior to overflow into the Snapper Creek Canal via an emergency overflow structure located at the north end of Pond No. 7.

Basin No. 5-A (4.73 ac)

The surface water management system for this basin will consist of inlets and

culverts to direct runoff into a proposed 0.43 acre dry detention area. Overflow from the dry retention area will be into the Snapper Creek Canal through a control structure once the water quality treatment requirements are met.

Basin No. 6 (9.86 ac)

The surface water management system consists of inlets and culverts directing runoff into roadside ditches (1.01 acres) which will contain ditch blocks to provide the water quality retention requirements. Overflow from the ditch system is through a control structure into the Snapper Creek Canal.

Basin No. 7 (68.5 ac)

The surface water management system consists of inlets, culverts and roadside ditches that will direct runoff into 7.95 acres of dry retention area. Overflow from the retention area is through a control structure into the Snapper Creek Canal.

BASIN INFORMATION:

Basin	Area Acres	WSWT Elev (ft, NGVD)	Normal/Dry Ctrl Elev (ft, NGVD)	Method of Determination
SITE	126.31	4.00	4	WET SEASON WTR TABLE CONTOUR MAP

III. PROJECT EVALUATION

WATER QUALITY:

Retention in excess of 2.5 inches times the percent impervious is being provided within 14.69 acres of dry retention area.

Basin	Treatment Method		Vol Req'd. (ac-ft)	Vol Prov'd (ac-ft)
SITE	14.69 acres	DRY RETENTION	6.20	42.70

ROAD DESIGN:

As shown in the following table, minimum road center lines have been set at or above the calculated design storm flood elevation.
Design Storm Freq: 10YR-1DAY Design Rainfall: 7.50 inches

Basin	Flood Elevation (ft., NGVD)	Minimum Centerline Elevation (ft, NGVD)
SITE	6.51	8.97

IV. ENVIRONMENTAL ASSESSMENT

PROJECT SITE DESCRIPTION:

The project involves improvements to an existing expressway. A portion of the project passes over the Snapper Creek, a maintained water body. The applicant has applied for a Wetland Resource Management to address the Snapper Creek crossing.

EXISTING ON SITE WETLAND COMMUNITIES AND OTHER SURFACE WATERS:

ID NO	TOTAL ACREAGE	BIOLOGICAL CONDITION	COMMUNITY TYPE	COMMUNITY ACREAGE
02	.01	POOR	CANALS AND LOCKS	.01

TOTAL ON SITE WETLAND/SURFACE WATER ACREAGE: .01

EXISTING ON SITE UPLAND COMMUNITIES:

ID NO	TOTAL ACREAGE	BIOLOGICAL CONDITION	COMMUNITY TYPE	COMMUNITY ACREAGE
01	126.30	N/A	TRANSPORTATION	126.30

TOTAL ON SITE UPLAND ACREAGE: 126.30

ENDANGERED, THREATENED & SPECIES OF SPECIAL CONCERN SUMMARY:

The project site does not contain preferred habitat for endangered, threatened, or species of special concern. No endangered/threatened or species of special concern were observed on site, and potential for impacts to wetland dependent endangered/threatened or species of special concern is considered minimal. This permit does not relieve the applicant from complying with all applicable rules and any other agencies' requirements if in the future, endangered/threatened or species of special concern are discovered on

the site.

ENVIRONMENTAL SUMMARY:

The project involves improvements to an existing expressway. No wetlands or other environmentally sensitive areas are located within the project boundary. Adverse impacts are not anticipated with the development of this project.

SYSTEM OPERATION:

Florida Department Of Transportation

PROPOSED LAND USE(S):

Highway

WATER USE PERMIT STATUS:

A Water Use permit is not required for this project at this time.

POTABLE WATER SUPPLIER:

Metro Dade Water Utilities

WASTE WATER SYSTEM/SUPPLIER:

Metro Dade Water Utilities

DRI STATUS:

This project is not a DRI.

SAVE OUR RIVERS:

The project is not within or adjacent to lands under consideration by the Save Our Rivers program.

SWIM BASIN:

This project is not within nor does it discharge directly to a designated SWIM basin.

RIGHT-OF-WAY PERMIT STATUS:

A Right-of-Way Permit application is currently being processed for this project.

ENFORCEMENT ACTIVITY:

There has been no enforcement activity associated with this application.

THIRD PARTY INTEREST:

No third party has contacted the District with concerns about this application.

WELL FIELD ZONE OF INFLUENCE:

The project is not located within the zone of influence of a wellfield.

ADDITIONAL COMMENTS:

A Wetland Reource Permit Application No. 941110-3-D is currently being processed for this project.

PRIMARY ISSUES RESOLVED:

No primary issues.

V. APPLICABLE LAND AREA

The TOTAL PROJECT and THIS PHASE land use table includes the total of the seven (7) systems (onsite roadway basins). The WTRM (Water Management Area) for this project is provided by a total of 14.69 acres of dry retention areas.

PROJECT

	TOTAL PROJECT	PREVIOUSLY PERMITTED	THIS PHASE	
TOTAL ACRES	126.31		126.31	acres
WTRM ACREAGE	14.69		14.69	acres
PERVIOUS	52.14		52.14	acres
IMPERVIOUS	59.48		59.48	acres

VI. STAFF RECOMMENDATION

The Staff recommends that the following be issued:

Authorization for Construction and Operation of a Surface Water Management System to serve a 126.31 acre highway widening project.

Based on the information provided, District rules have been adhered to.

Staff recommendation is for approval subject to the attached Special Conditions.

VII. STAFF REVIEW

AREA MANAGER:

3/24/95

Anthony M. Waterhouse, P.E.

DRAFT
Subject to Governing Board Approval

NATURAL RESOURCE MANAGEMENT DIVISION APPROVAL

APPLICATION REVIEWER

RONALD PEEKSTOK

SUPERVISING PROFESSIONAL

Robert M. Brown

DIVISION DIRECTOR:

Robert G. Robbins

DATE: 3/9/95

SURFACE WATER MANAGEMENT DIVISION APPROVAL

APPLICATION REVIEWER

Kenneth W. Tarver

SUPERVISING PROFESSIONAL

Carlos A. De Rojas, P.E.

LIMITING CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SPECIAL CONDITIONS

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

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

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

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

5 . OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM SHALL BE THE RESPONSIBILITY OF FLORIDA DEPARTMENT OF TRANSPORTATION.

6 . THE SFWMD RESERVES THE RIGHT TO REQUIRE REMEDIAL MEASURES TO BE TAKEN BY THE PERMITTEE IF WETLAND AND/OR UPLAND MONITORING OR OTHER INFORMATION DEMONSTRATES THAT ADVERSE IMPACTS TO PROTECTED, CONSERVED, INCORPORATED OR MITIGATED WETLANDS OR UPLANDS HAVE OCCURRED DUE TO PROJECT RELATED ACTIVITIES.

7 . ANY FUTURE CHANGES IN LAND USE OR TREATMENT OF WETLANDS AND/OR UPLAND BUFFER/COMPENSATION AREAS MAY REQUIRE A SURFACE WATER MANAGEMENT PERMIT MODIFICATION AND ADDITIONAL ENVIRONMENTAL REVIEW BY DISTRICT STAFF. PRIOR TO THE PERMITTEE INSTITUTING ANY FUTURE CHANGES NOT AUTHORIZED BY THIS PERMIT, THE PERMITTEE SHALL NOTIFY THE SFWMD OF SUCH INTENTIONS FOR A DETERMINATION OF ANY NECESSARY PERMIT MODIFICATIONS.

8 . THE PERMITTEE SHALL ENSURE THAT ALL CONSTRUCTION ACTIVITIES IN OPEN WATER WILL CEASE UPON SIGHTINGS OF MANATEES WITHIN 200 YARDS OF THE PROJECT AREA. CONSTRUCTION ACTIVITIES SHALL NOT RESUME UNTIL THE MANATEES HAVE DEPARTED THE PROJECT AREA.

9 . THE PERMITTEE SHALL ENSURE THAT THE CONTRACTOR INSTRUCTS ALL PERSONNEL ASSOCIATED WITH THE PROJECT OF THE PRESENCE OF MANATEES AND THE NEED TO AVOID COLLISIONS WITH MANATEES. THE PERMITTEE AND/OR CONTRACTOR MAY BE HELD RESPONSIBLE FOR ANY MANATEE HARMED, HARASSED OR KILLED AS A RESULT OF ANY PERMITTED ACTIVITY.

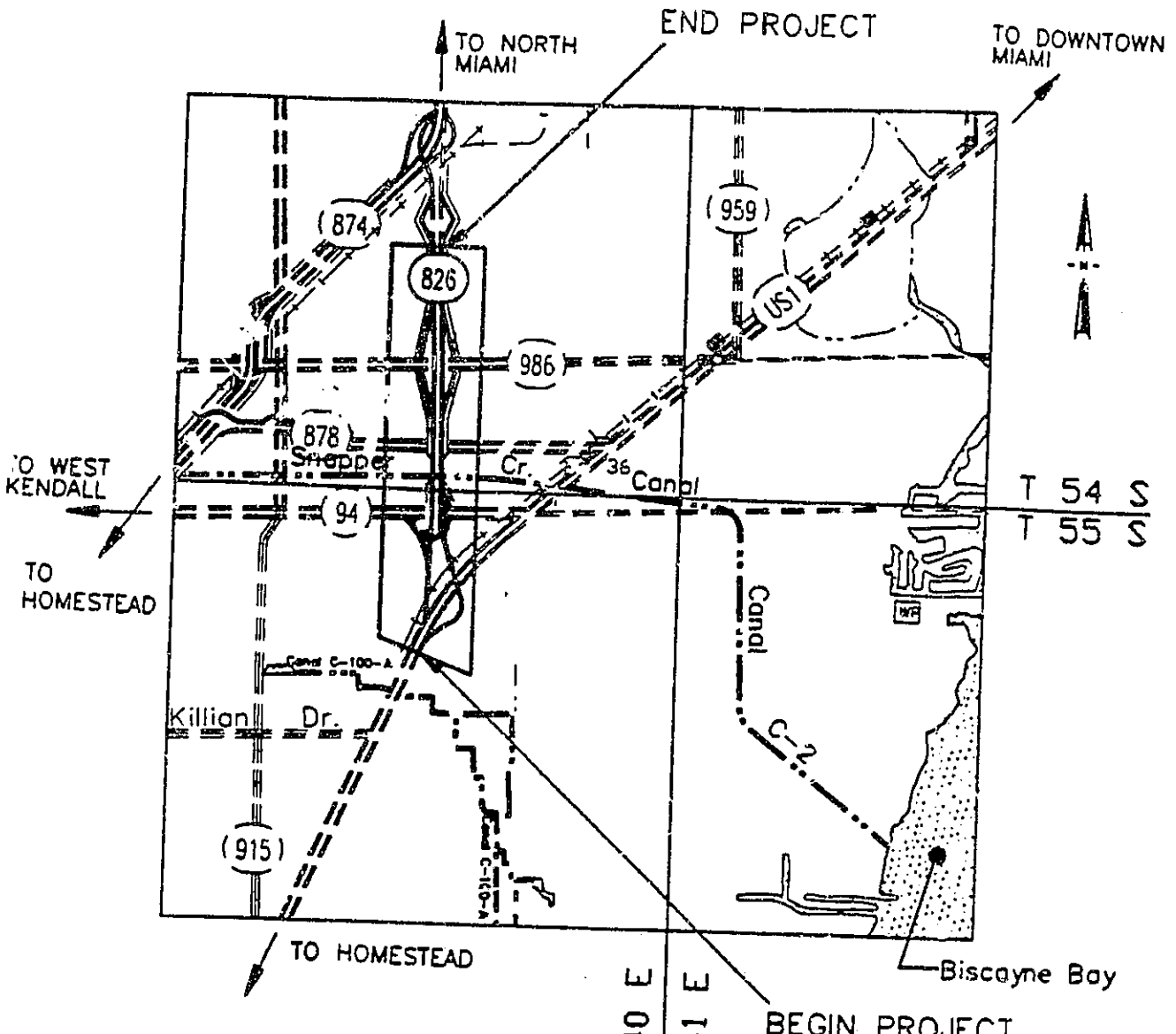
10. THE PERMITTEE SHALL ENSURE THAT A MINIMUM OF ONE PERSON WILL BE DESIGNATED AS A MANATEE OBSERVER WHEN WORK IS BEING CONDUCTED. THIS INDIVIDUAL(S) SHALL HAVE EXPERIENCE IN MANATEE OBSERVATION, AND WILL BE EQUIPPED WITH POLARIZED SUNGLASSES TO AID IN OBSERVATION.

11. PRIOR TO ANY IN-WATER WORK CONDUCTED AT NIGHT, THE PERMITTEE SHALL PROVIDE

FLOOD LIGHTING TO THE AREA TO MAXIMIZE THE OPPORTUNITY TO OBSERVE A MANATEE.

12. ANY COLLISION WITH A MANATEE SHALL BE REPORTED IMMEDIATELY ON THE "MANATEE HOTLINE" (1-800-791-2580).

13. FOLLOWING THE PROJECT COMPLETION, A REPORT SUMMARIZING THE ABOVE INCIDENTS AND SIGHTINGS SHALL BE SUBMITTED TO THE FDEP MARINE RECOVERY PROGRAM (100 EIGHTH AVENUE S.E.. ST. PETERSBURG, FLORIDA 33701-2580) AND TO THE U.S. FISH AND WILDLIFE SERVICE (2747 ART MUSEUM DRIVE, JACKSONVILLE, FLORIDA 32207).



ORIGINAL SUBMITTAL

NOV 10 1994

STATE ROAD NO. 826 – Section 1	
STATE PROJ. NO. 87260-3512	
VICINITY PLAN	
APPLICATION BY: Florida Department of Transportation	
HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ENGINEERS PLANNERS	SCALE: N.T.S.
DATE: 7/26/94	SHEET No. 1 OF 17

EXH. 1

FILE 14533P02.WK1

PROJECT: PALMETTO EXPRESSWAY SECTION 1
FROM US - 1 TO So. OF MILLER DR.
MIAMI-DADE COUNTY, FLORIDA
HNTB JOB: 14533-21-13
DESCRIPTION: DRAINAGE DESIGN - POND 9 BASIN 7

STAGE (FT)	SURFACE AREA (FT2)	SURFACE AREA (AC)	STORAGE VOLUME (FT3)	STORAGE VOLUME (AC-FT)	CUMM STORAGE (FT3)	CUMM STORAGE (AC-FT)
4.0	35291	0.810	0	0.000	0	0.00
5.0	39345	0.903	37318	0.857	37318	0.86
6.0	43462	0.998	41404	0.950	78722	1.81
7.0	47219	1.084	45341	1.041	124062	2.85
8.0	51361	1.179	49290	1.132	173352	3.98
9.0	55267	1.269	53314	1.224	226666	5.20
10.0	58826	1.350	57047	1.310	283713	6.51
11.0	61120	1.403	59973	1.377	343686	7.89
11.5	62893	1.444	31003	0.712	374689	8.60

Infiltration Test with Concentric Rings
Test No. DR-6
Location: STA 111+00, 40' East of E/P On Ramp SR-826

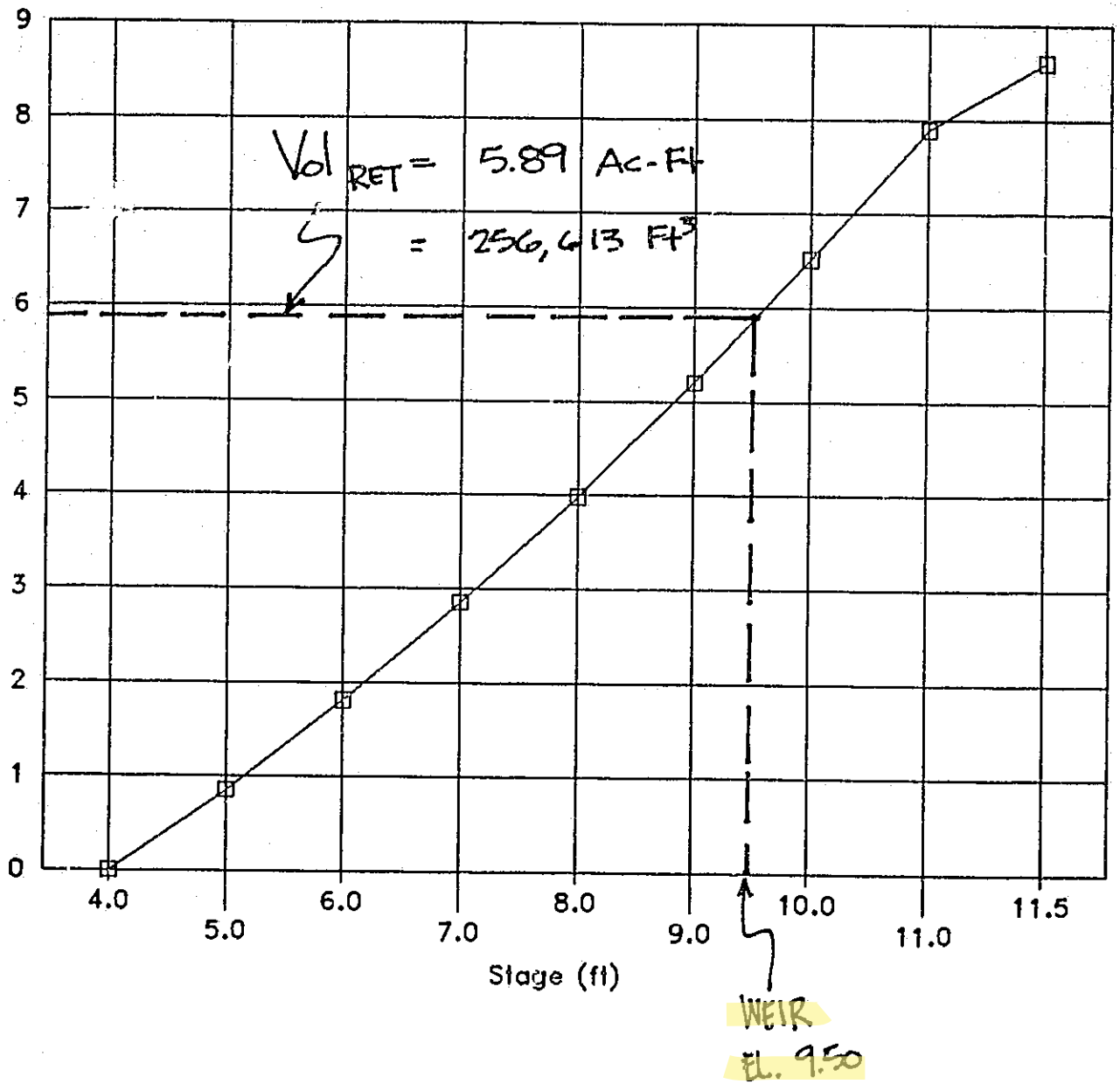
Average Flow =	0.05 gpm	=	0.40 Ft 3/hr
Inside Ring Dia =	12 in		
Ring Area =	0.79 Ft 2		
Factor of Safety =	2		
Flow =	0.26 Ft/hr		

STAGE (FT)	SURFACE AREA (FT2)		PERCOLATION RATE (cfs)
4.0	35291		2.503
5.0	39345		2.791
6.0	43462		3.083
7.0	47219		3.349
8.0	51361		3.643
9.0	55267		3.920
10.0	58826		4.172
11.0	61120		4.335
11.5	62893		4.461

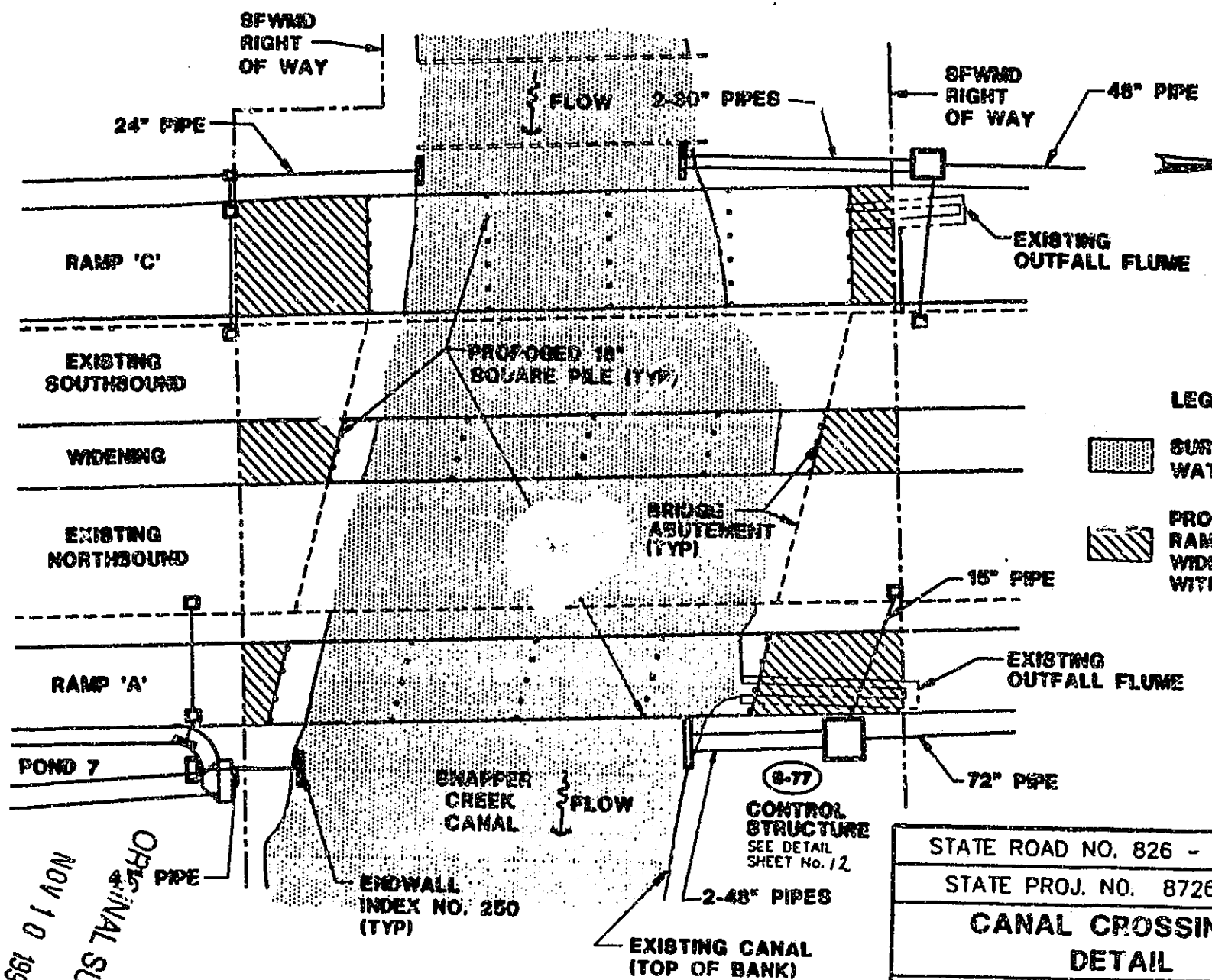
401239

POND 8 (Basin 7)

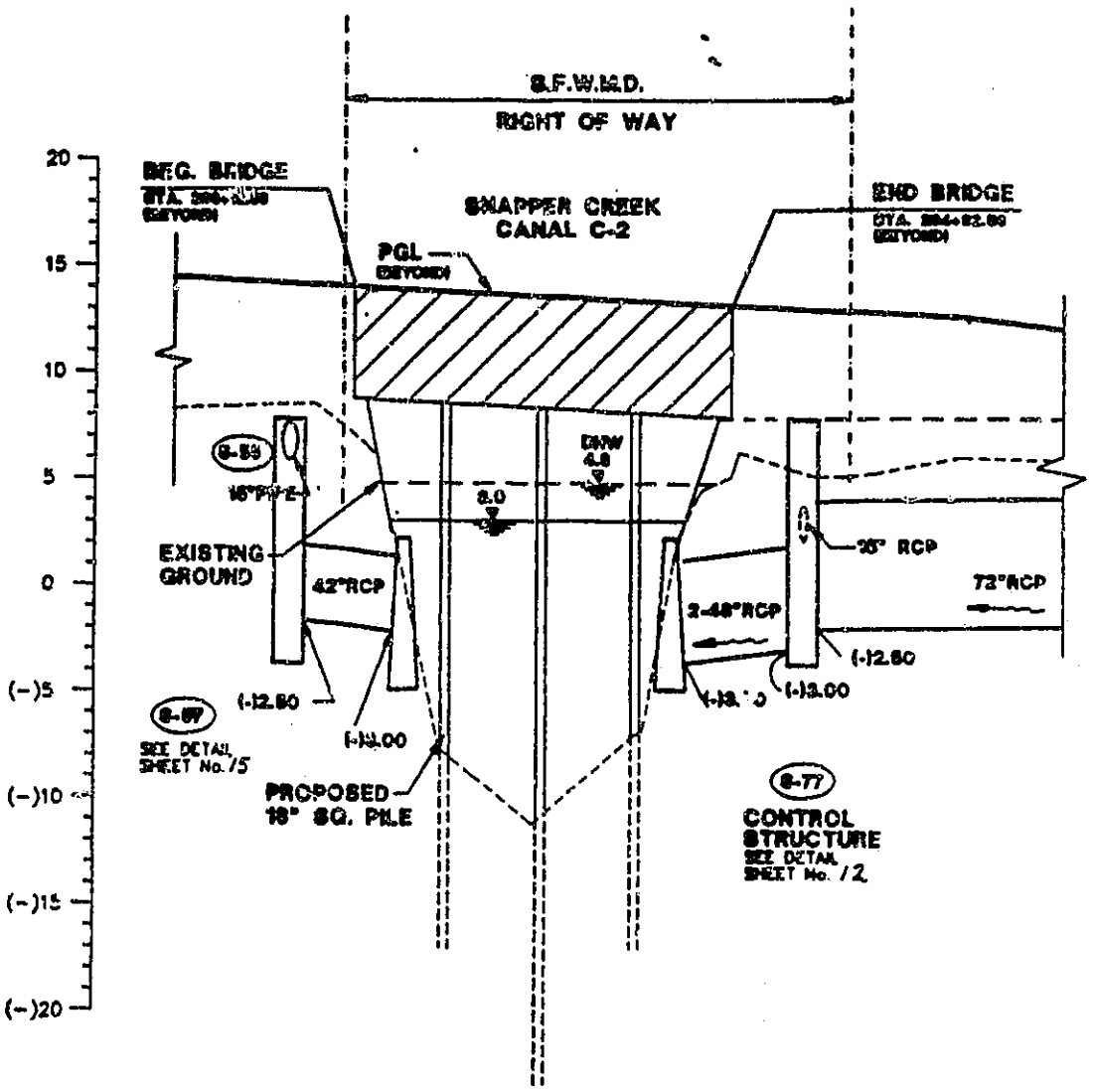
Stag. vs. Storage



4172.40



STATE ROAD NO. 826 -	
STATE PROJ. NO. 8726	
CANAL CROSSIN DETAIL	
APPLICATION BY: Florida Department	
HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ENGINEERS PLANNERS	SC. SHI
DATE: 8/25/94	



STATE ROAD NO. 826 – Section 1

STATE PROJ. NO. 87260-3512

OUTFALL
RAMP "A"

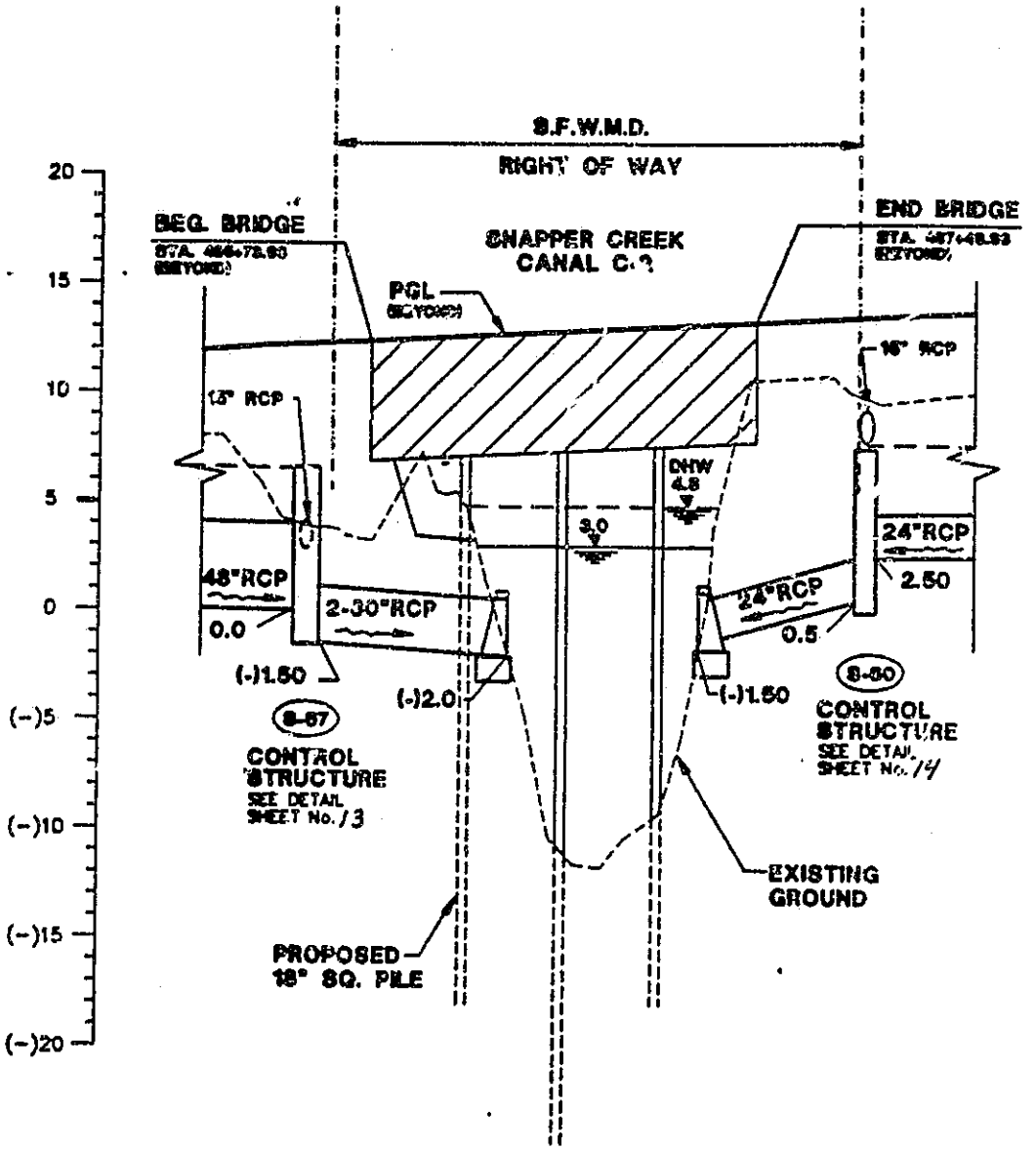
APPLICATION BY: Florida Department of Transportation

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

SCALE: H – 1"=80'
V – graphic

DATE: 8/25/94

SHEET No. 10 OF 17



STATE ROAD NO. 826 – Section 1

STATE PROJ. NO. 87260-3512

OUTFALL RAMP "C"

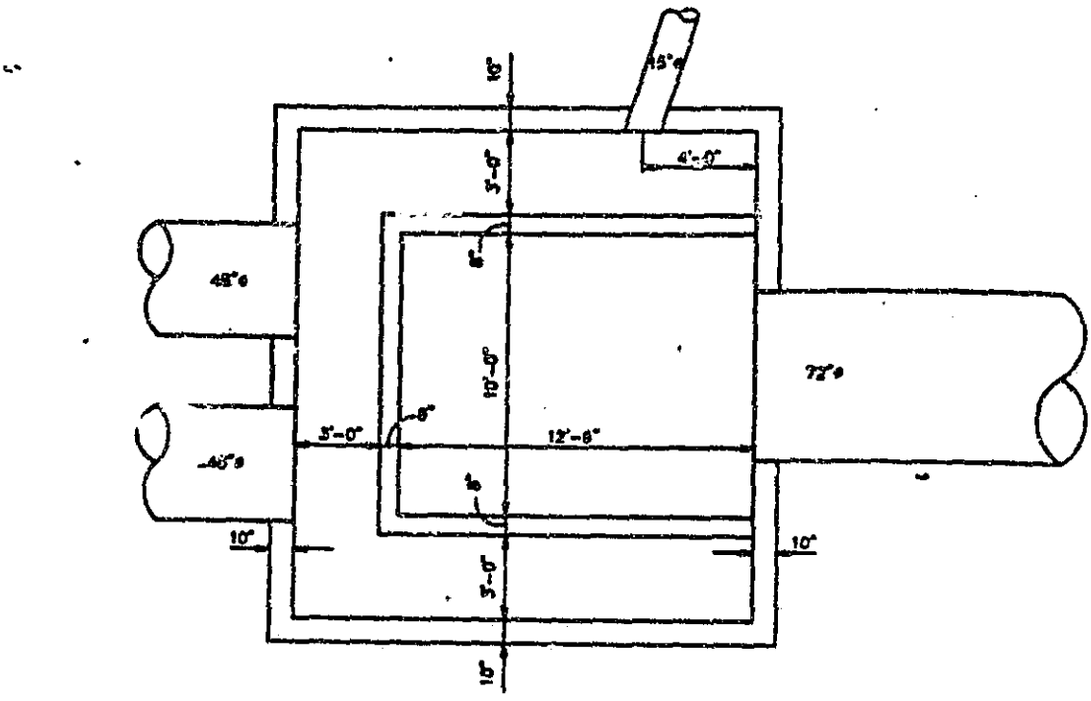
APPLICATION BY: Florida Department of Transportation

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

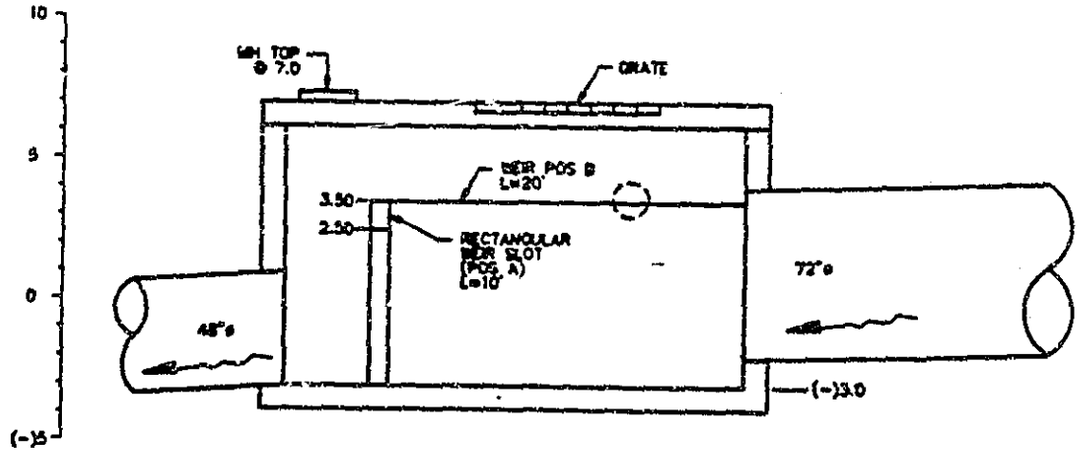
SCALE: H – 1"=50' V – graphic

DATE: 7/26/94

SHEET No. 11 OF 17



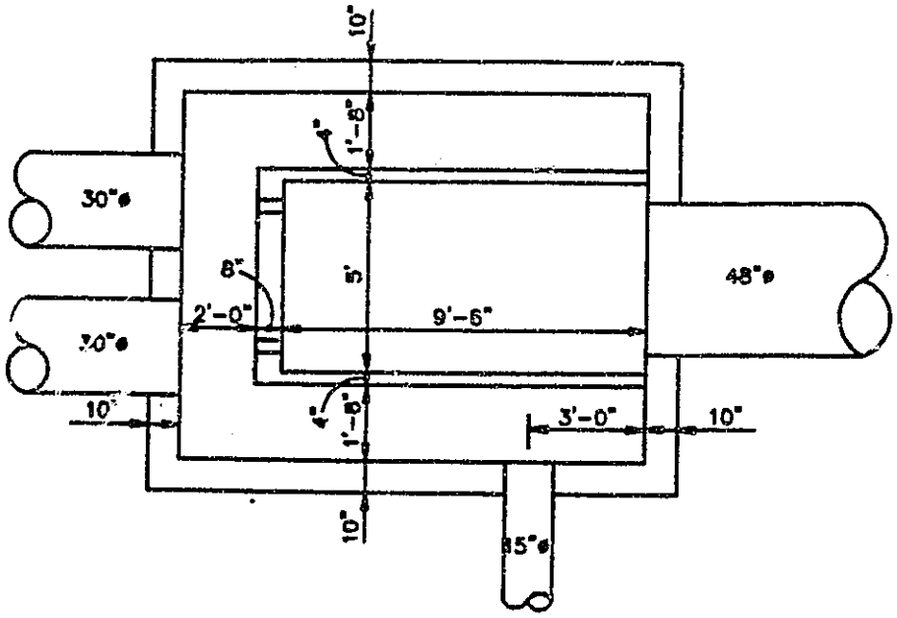
PLAN



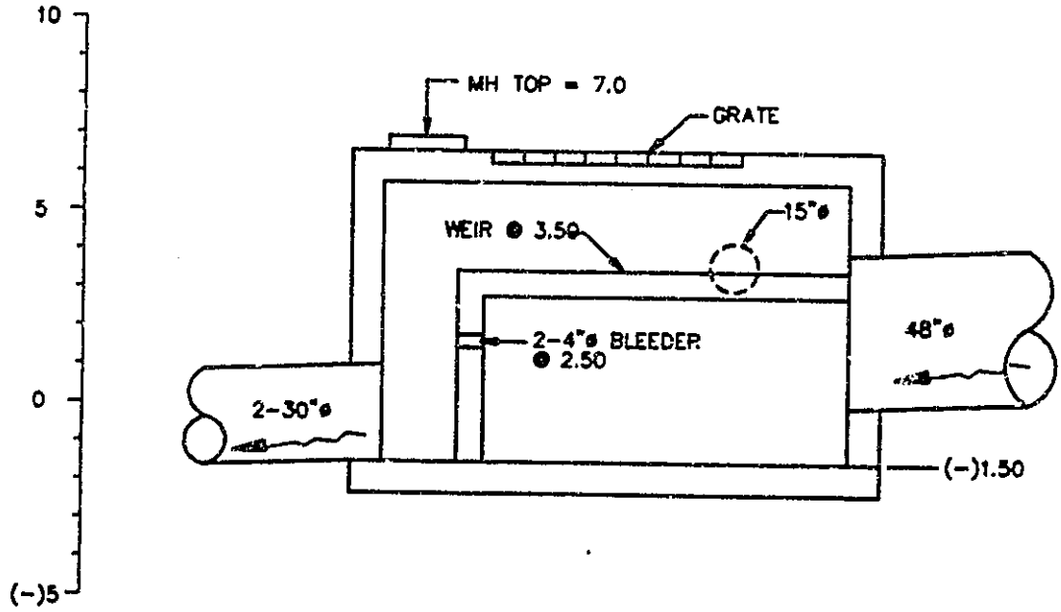
PROFILE

F.L. (–) 2.0 AH, (–) 3.0 BK. & 3.0 LT.

STATE ROAD NO. 826 – Section 1	
STATE PROJ. NO. 87260-3512	
CONTROL STRUCTURE DETAIL S-77	
APPLICATION BY: Florida Department of Transportation	
HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ENGINEERS PLANNERS	SCALE: N.T.S.
DATE: 8/25/94	SHEET No. 12 OF 17



PLAN



PROFILE

F.L. (-) 1.5 AH, 0.0 BK. & 3.0 LT.

STATE ROAD NO. 826 – Section 1	
STATE PROJ. NO. 87260-3512	
CONTROL STRUCTURE DETAIL S-67	
APPLICATION BY: Florida Departme... of Transportation	
HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ENGINEERS PLANNERS	SCALE: N.T.S.
DATE: 7/25/94	SHEET No. 3 OF 7

THIS CONTRACT PLAN SET INCLUDES:

ROADWAY PLANS
SUMMARY OF PAY ITEMS (13 SHEETS)
SIGNING AND PAVEMENT MARKING PLANS
SIGNALIZATION PLANS
LIGHTING PLANS
STRUCTURE PLANS
TREE RELOCATION PLANS

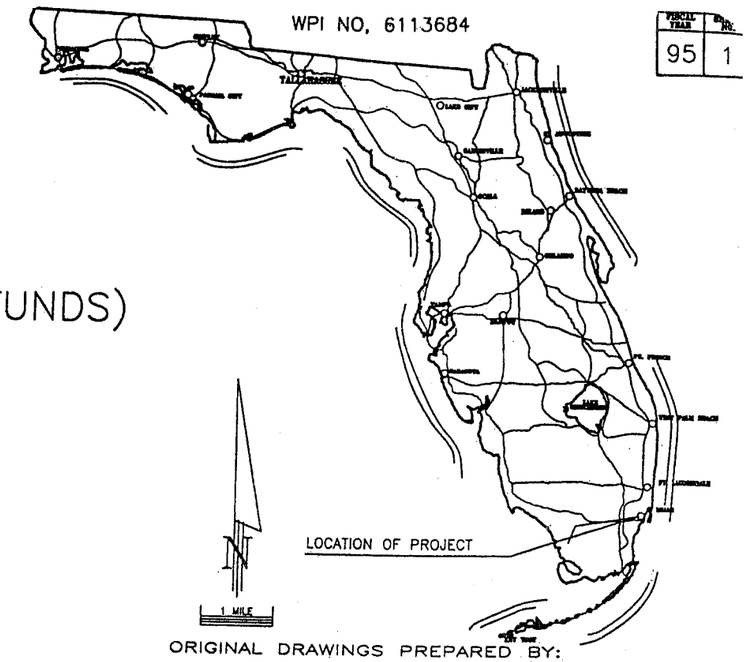
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

PLANS OF PROPOSED
STATE HIGHWAY

STATE PROJECT NO. 87260-3512 (FEDERAL FUNDS)
DADE COUNTY
STATE ROAD NO. 826

WPI NO. 6113684

FISCAL YEAR	SHT. NO.
95	1



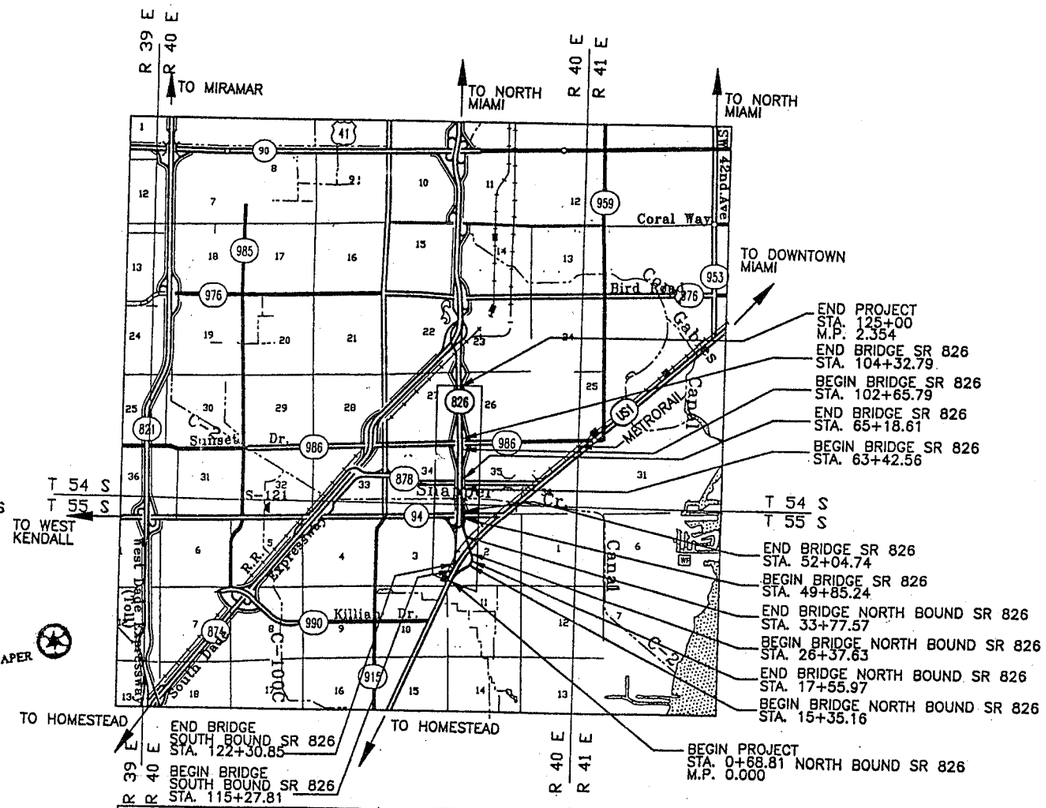
A DETAILED INDEX APPEARS ON THE KEY SHEET OF EACH GROUP OF PLANS

INDEX OF ROADWAY PLANS

SHEET NO.	SHEET DESCRIPTION
1	KEY SHEET
2-6	DRAINAGE MAPS
7	EXISTING DRAINAGE STRUCTURES
8,9	INTERCHANGE DRAINAGE MAPS
10-17	TYPICAL SECTIONS
18,19	SUMMARY OF QUANTITIES
20-23,23A,23B,24,25	SUMMARY OF DRAINAGE STRUCTURES
26,27	PROJECT LAYOUT
28-38	ROADWAY PLANS
39-47	ROADWAY PLAN - PROFILES
48-60,60A,61-68,68A,69-77	ROADWAY PROFILES
78-81	INTERCHANGE LAYOUT
82-85	INTERSECTION LAYOUT / DETAIL
86-96,96A-96C,97-108	DRAINAGE STRUCTURES
109-117	DRAINAGE DETAILS
117A-117D	DRAINAGE DETAILS (STRUCTURAL DESIGN)
118-122	POND DETAILS
123-128	STORM WATER POLLUTION PREVENTION SHEETS
129-131	CROSS SECTION PATTERN SHEETS
132-135	ROADWAY SOIL SURVEY
136-235	CROSS SECTIONS
236-238,238A,239-372	TRAFFIC CONTROL SHEETS
373-389	UTILITY ADJUSTMENTS
390-401	APPROACH SLABS
402-407	INTERIM ROADWAY AND TRAFFIC DESIGN STANDARDS

THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH AND ARE GOVERNED BY THE STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION, ROADWAY AND TRAFFIC DESIGN STANDARDS (BOOKLET DATED JANUARY, 1992)

RECYCLED PAPER



LENGTH OF PROJECT

	LINEAR FT.	MILES
ROADWAY	10,907.94	2.066
BRIDGES	1,523.25	0.288
NET LENGTH OF PROJ.	12,431.19	2.354
EXCEPTIONS	0.000	0.000
GROSS LENGTH OF PROJ.	12,431.19	2.354

NORTHBOUND SR 826 STATIONING WAS USED FOR PURPOSE OF CALCULATING THE LENGTH OF THE PROJECT

F.D.O.T. PROJECT MANAGER : MICHAEL (TONY) BUDALL P.E.

ORIGINAL DRAWINGS PREPARED BY:

HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF ENGINEERS PLANNERS

ENGINEER OF RECORD: JOSE J. DE ALMAGRO

P.E. NO. 0040948 DATE: 12/22/94

ADDRESS: 1150 N.W. 72ND AVENUE
SUITE 600
MIAMI, FLORIDA 33126
PHONE: (305) 592-5930

MODIFICATIONS TO ORIGINAL DRAWINGS BY:

Kimley-Horn KIMLEY-HORN AND ASSOCIATES, INC. ENGINEERS PLANNERS

ENGINEER OF RECORD: JAMES M. ZEI

P.E. NO. 0016369 DATE: 1/95

ADDRESS:
4431 EMBARCADERO DRIVE
WEST PALM BEACH, FLORIDA 33407
PHONE: (407) 845-0665

KHA BEARS DESIGN RESPONSIBILITY FOR ONLY THOSE ELEMENTS SPECIFICALLY MODIFIED BY KHA. KHA ACCEPTS SCRIVENER RESPONSIBILITY ONLY FOR OTHER DATA SHOWN ON THE MODIFIED SHEETS, THE DESIGN OF WHICH WAS PERFORMED BY OTHERS.

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.

GOVERNING SPECIFICATIONS: STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS, DATED 1991, SUPPLEMENTS AND SPECIAL PROVISIONS, THERETO IF NOTED IN THE CONTRACT SPECIFICATIONS FOR THIS PROJECT.

ORIGINAL PLANS APPROVED BY: JOSE J. DE ALMAGRO

DATE: 12/22/94

P.E. NO.: 0040948

MODIFICATIONS APPROVED BY: JAMES M. ZEI

DATE: 1/95

P.E. NO.: 0016369

REVISIONS

DATE	BY	DESCRIPTION
5/16/95	JDD	REVISED TO ADD SHEETS 402 & 407 REVISED TO DELETE SR 828 SB BRIDGE WIDENING

REVISIONS

ROADWAY SHEETS: 1, 26, 28, 31, 239, 240, 241, 254, 257 258, 273, 276, 292, 295, 402, 403 404, 405, 406, 407 (REVISED 5/16/95)

LIGHTING SHEETS: L-5 (REVISED 5/16/95)

STRUCTURES SHEETS: A1, B1, B2, B3, B4, B5, B6, (REVISED 5/16/95)

CES: (REVISED 5/16/95)
Bridge CES (Added to Plans 6-13-95)

DM3

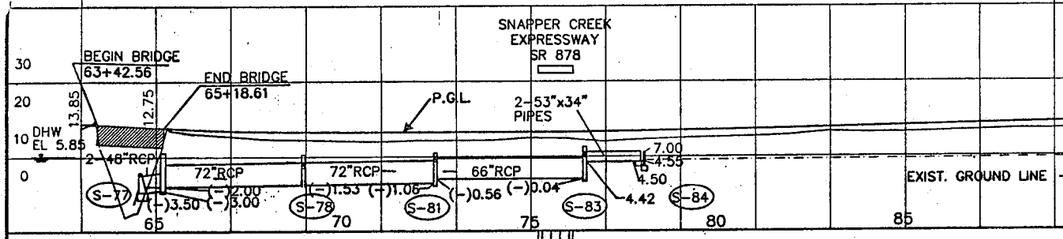
STATE PROJ. NO.	SHEET NO.
87260-3512	4

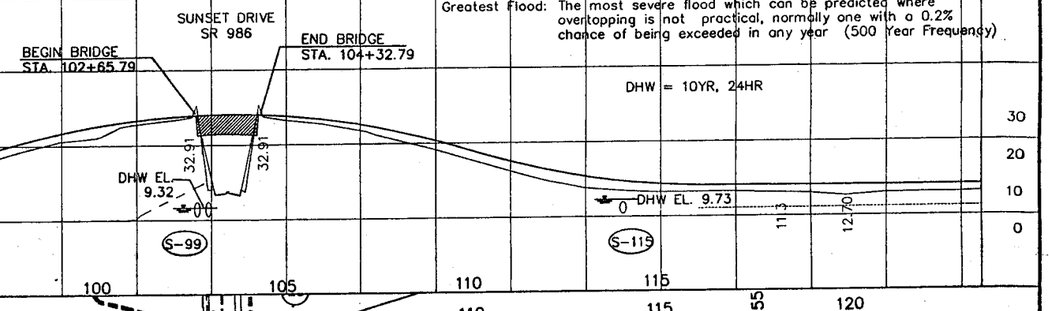
Structure No.	DESIGN 10% Prob. Discharge	FLOOD 10Yr. Freq. Stage	BASE 1% Prob. Discharge	FLOOD 100Yr. Freq. Stage	OVERTOPPING FLOOD Discharge	Stage	Prob. %	Freq. Yr.	GREATEST FLOOD Discharge	Stage	Prob. %	Freq. Yr.
S-90	53.44	8.97	95.24	10.21	–	–	–	–	103.65	10.55	0.2%	500
S-93	14.99	9.55	12.98	10.47	–	–	–	–	12.19	10.84	0.2%	500
S-97•	18.19	9.06	49.81	10.59	–	–	–	–	55.55	10.91	0.2%	500
S-99	40.12	9.32	48.64	10.38	–	–	–	–	56.88	10.72	0.2%	500
S-101	21.21	9.45	31.70	10.59	–	–	–	–	36.49	11.04	0.2%	500
S-104	16.00	9.74	24.22	11.07	–	–	–	–	28.76	11.71	0.2%	500
S-106	16.56	9.07	48.26	10.85	–	–	–	–	52.73	11.20	0.2%	500
S-115	22.13	9.73	28.68	11.01	–	–	–	–	31.10	11.36	0.2%	500

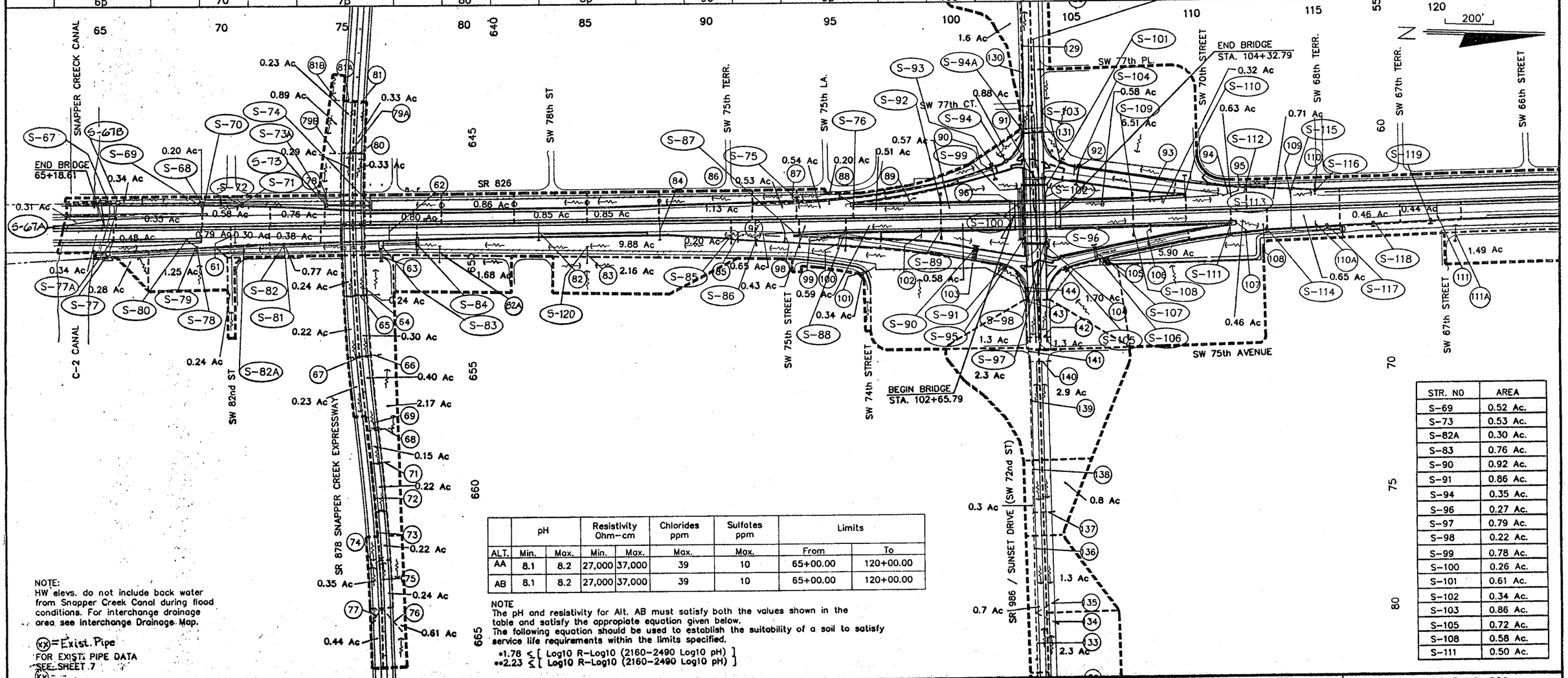
• EXISTING STRUCTURES TO REMAIN

NOTE
The hydraulic data is shown for information purposes only, to indicate the flood discharges and water surface elevations which may be anticipated in any given year. This data was generated using highly variable factors determined by a study of the watershed. Many judgments and assumptions are required to establish these factors. The resultant hydraulic data is sensitive to changes, particulary of antecedent conditions, urbanization and land use. Users of this data are cautioned against the assumption of precision which can not be attained. Discharges are cubic feet per second and stages are in feet above mean sealevel NGVD.

Definitions:
Design Flood: The flood selected by the F.D.O.T. to be utilized to assure a standard level of hydraulic performance
Base Flood: The flood having a 1% chance of being exceed in any year, (100 year frequency)
Overtopping Flood: The flood where flow occurs over the highway, over a watershed divide or thru emergency relief structures
Greatest Flood: The most severe flood which can be predicted where overtopping is not practical, normally one with a 0.2% chance of being exceeded in any year (500 Year Frequency)







	pH		Resistivity Ohm-cm		Chlorides ppm	Sulfates ppm	Limits	
ALT.	Min.	Max.	Min.	Max.	Max.	Max.	From	To
AA	8.1	8.2	27,000	37,000	39	10	65+00.00	120+00.00
AB	8.1	8.2	27,000	37,000	39	10	65+00.00	120+00.00

NOTE
The pH and resistivity for Alt. AB must satisfy both the values shown in the table and satisfy the appropiate equation given below.
The following equation should be used to establish the suitability of a soil to satisfy service life requirements within the limits specified.

•$1.78 \leq [\ \text{Log10 R} - \text{Log10 (2160} - \text{2490 Log10 pH)}\ ]$
••$2.23 \leq [\ \text{Log10 R} - \text{Log10 (2160} - \text{2490 Log10 pH)}\ ]$

STR. NO	AREA
S-69	0.52 Ac.
S-73	0.53 Ac.
S-82A	0.30 Ac.
S-83	0.76 Ac.
S-90	0.92 Ac.
S-91	0.86 Ac.
S-94	0.35 Ac.
S-96	0.27 Ac.
S-97	0.79 Ac.
S-98	0.22 Ac.
S-99	0.78 Ac.
S-100	0.26 Ac.
S-101	0.61 Ac.
S-102	0.34 Ac.
S-103	0.86 Ac.
S-105	0.72 Ac.
S-108	0.58 Ac.
S-111	0.50 Ac.

NOTE:
HW elevs. do not include back water from Snapper Creek Canal during flood conditions. For interchange drainage area see interchange Drainage Map.

(xx)=Exist. Pipe
FOR EXIST. PIPE DATA SEE SHEET 7
(xx)=

REVISIONS												
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	

	NAME	DATE		NAME	DATE
DESIGNED BY	L.L.B.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.D.D.	5/93
SUPERVISED BY :	J.W.H.				

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

STATE ROAD NO. 826

DRAINAGE MAP

DM 4

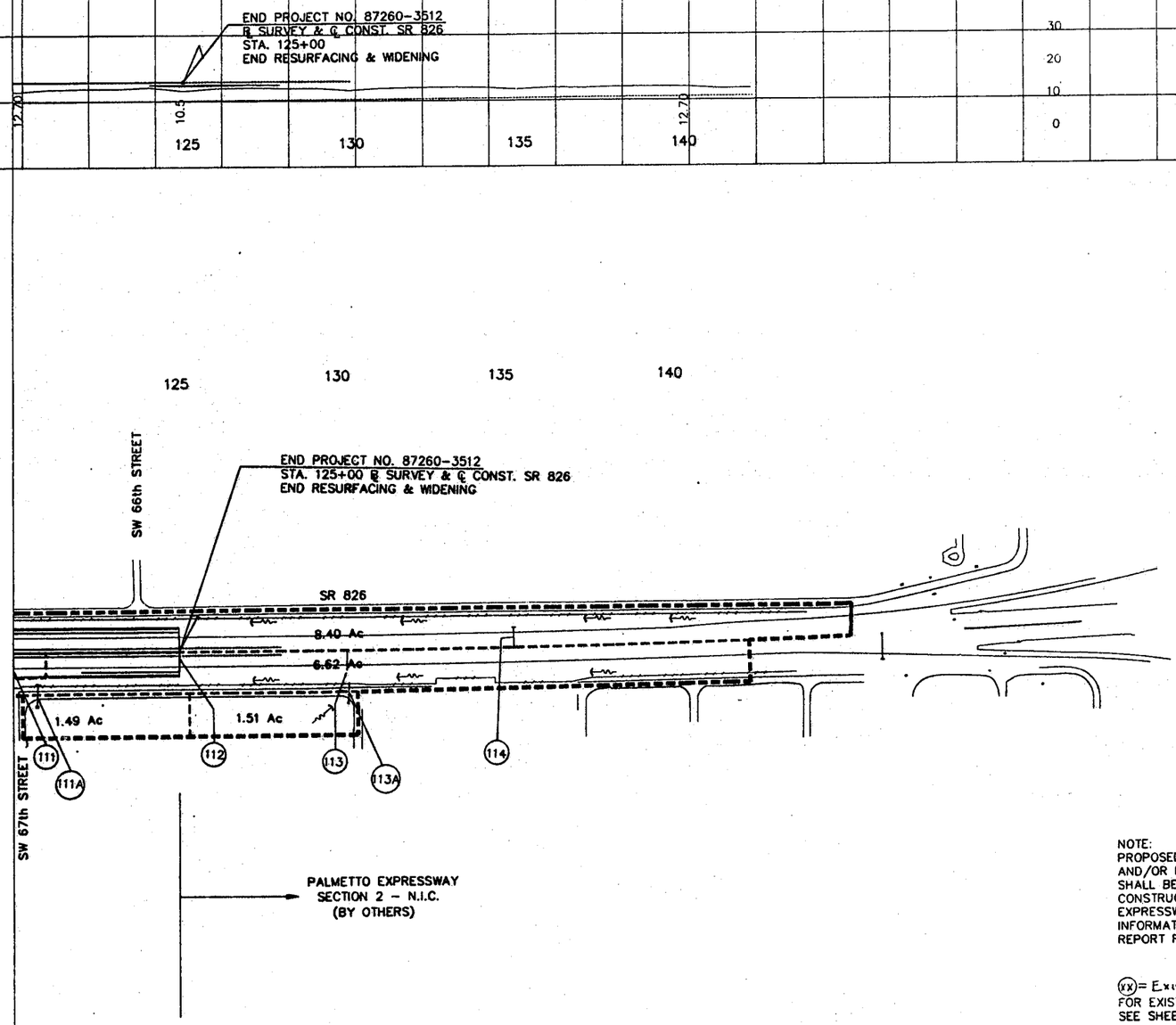
STATE PROJ. NO.	SHEET NO.
87260-3512	5

	pH		Resistivity Ohm-cm		Chlorides ppm	Sulfates ppm		Limits	
ALT.	Min.	Max.	Min.	Max.	Max.	Max.	From		To
AA	8.1	8.2	27,000	37,000	39	10	120+00		125+00.00
AB	8.1	8.2	27,000	37,000	39	10	120+00		125+00.00

NOTE
The pH and resistivity for Alt. AB must satisfy both the values shown in the table and satisfy the appropiate equation given below.
The following equation should be used to establish the suitability of a soil to satisfy service life requirements within the limits specified.

*1.78 ≤ [Log10 R-Log10 (2160-2490 Log10 pH)]
**2.23 ≤ [Log10 R-Log10 (2160-2490 Log10 pH)]

DHW = 10YR, 24HR.



NOTE:
PROPOSED SPECIAL DITCH CONFIGURATION AND/OR PROFILES NORTH OF STA. 125+00 SHALL BE INCLUDED WITH THE DESIGN/ CONSTRUCTION OF THE PALMETTO EXPRESSWAY SECTION 2; FOR ADDITIONAL INFORMATION REFER TO THE DRAINAGE REPORT FOR THIS PROJECT (SECTION 1.)

(xx)= Exist. Pipe
FOR EXIST. PIPE DATA
SEE SHEET 7

REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	L.L.B.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.D.D.	5/93
SUPERVISED BY :	J.W.H.				

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

STATE ROAD NO. 826

DRAINAGE MAP

STATE PROJ. NO.	SHEET NO.
87260-3512	6

ALT.	pH Min.	pH Max.	Resistivity Ohm-cm Min.	Resistivity Ohm-cm Max.	Chlorides ppm Max.	Sulfates ppm Max.	Limits From	Limits To
AA	8.1	8.2	27,000	37,000	39	10	56+72.70	69+24.13
AB	8.1	8.2	27,000	37,000	39	10	56+72.70	69+24.13

NOTE
The pH and resistivity for Alt. AB must satisfy both the values shown in the table and satisfy the appropiate equation given below.
The following equation should be used to establish the suitability of a soil to satisfy service life requirements within the limits specified.

*1.78 ≤ [Log10 R-Log10 (2160-2490 Log10 pH)]
**2.23 ≤ [Log10 R-Log10 (2160-2490 Log10 pH)]

Structure No.	DESIGN 10% Prob. Discharge	FLOOD 10Yr. Freq. Stage	BASE 1% Prob. Discharge	FLOOD 100Yr. Freq. Stage	OVERTOPPING FLOOD Discharge	OVERTOPPING FLOOD Stage	OVERTOPPING FLOOD Prob. %	OVERTOPPING FLOOD Freq. Yr.	GREATEST FLOOD Discharge	GREATEST FLOOD Stage	GREATEST FLOOD Prob. %	GREATEST FLOOD Freq. Yr.
S-101	21.21	9.45	31.70	10.59	–	–	–	–	36.49	11.04	0.2%	500
S-97*	18.19	9.06	49.81	10.59	–	–	–	–	55.55	10.91	0.2%	500

* EXISTING STRUCTURES TO REMAIN

NOTE
The hydraulic data is shown for informational purposes only, to indicate the flood discharges and water surface elevations which may be anticipated in any given year. This data was generated using highly variable factors determined by a study of the watershed. Many judgments and assumptions are required to establish these factors. The resultant hydraulic data is sensitive to changes, particulary of antecedent conditions, urbanization, channelization and land use. Users of this data are cautioned against the assumption of precision which can not be attained.
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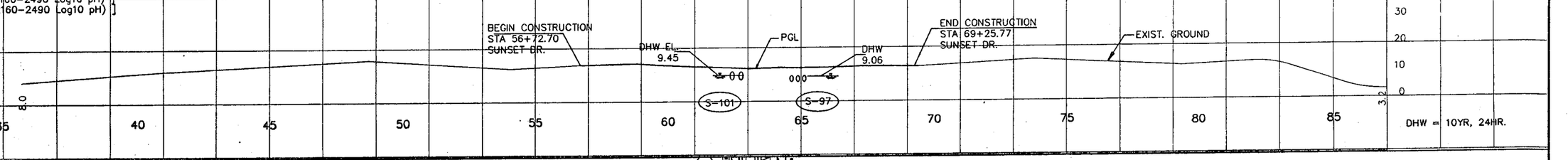
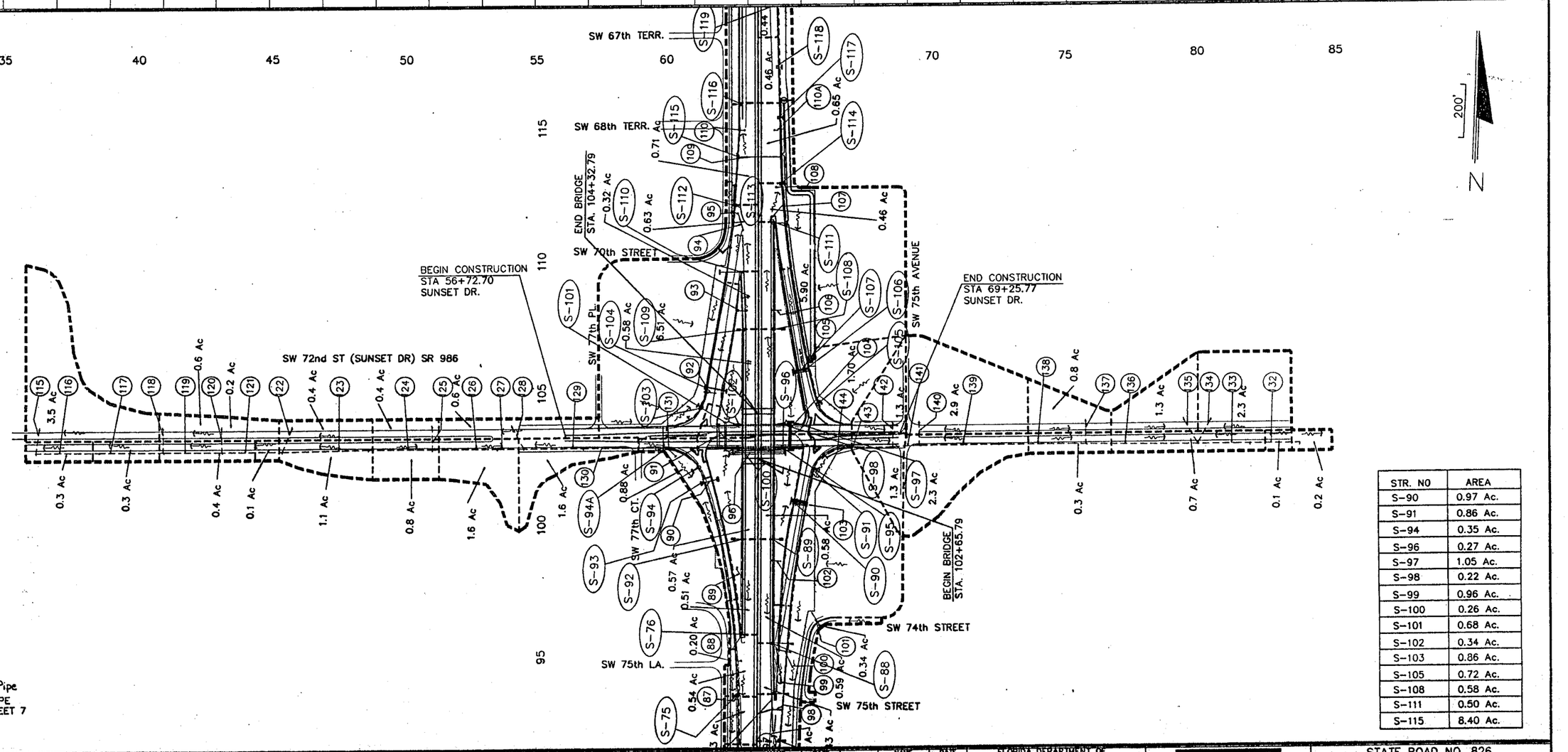
Greatest Flood: The most severe flood which can be predicted where overtopping is not practical, normally one with a 0.2% chance of being exceeded in any year (500 Year Frequency)





STR. NO	AREA
S-90	0.97 Ac.
S-91	0.86 Ac.
S-94	0.35 Ac.
S-96	0.27 Ac.
S-97	1.05 Ac.
S-98	0.22 Ac.
S-99	0.96 Ac.
S-100	0.26 Ac.
S-101	0.68 Ac.
S-102	0.34 Ac.
S-103	0.86 Ac.
S-105	0.72 Ac.
S-108	0.58 Ac.
S-111	0.50 Ac.
S-115	8.40 Ac.

REVISIONS DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	L.L.B.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.D.D.	5/93
SUPERVISED BY : J.W.H.					

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

STATE ROAD NO. 826

DRAINAGE MAP

PALMETTO EXPRESSWAY

EXISTING STRUCTURES

Basin No. 1:

(1) Slab covered trench (2' wide) (350 L.F.)
Bott. El. 2.0; Top EL. 10.0

(2) 12" CMP (Paved) (19 L.F.)
W FL. 11.88
E FL. 17.73

(3) Bridge Scupper

(4) Bridge Scupper

(5) Bridge Scupper

(6) Bridge Scupper

(7) Bridge Scupper

(8) Bridge Scupper

Basin No. 2:

(9) Slab Covered Trench (2' wide)(790 L.F.)
Bott. El. 2.0; Top EL 8.0

(10) 15" RCP (53 L.F.)
NW FL. 16.51
SE FL. 10.74

(12A) 18" RCP (48 L.F.)
NE FL. 8.20
SW FL. 8.10

(11) 15" RCP (68 L.F.)
NW FL. 22.30
SE FL. 11.91

(12B) 18" RCP (23 L.F.)
NE FL. 8.30
SW FL. 8.20

(12) 18" RCP (50 L.F.)
NW FL. 2.90
SE FL. 2.00

Basin No. 3:

(13) 12" BC-CMP (Paved)(43 L.F.)
W FL. 13.18
E FL. 29.30

(14) 12" BC-CMP (Paved)(40 L.F.)
W. FL. 7.83
E. FL. 23.10

(15) 12" BC-CMP (Paved)(44 L.F.)
W. FL. 7.93
E. FL. 26.35

(16) Bridge Scupper

(17) Bridge Scupper

(18) Bridge Scupper

Basin No. 4:

(19) Bridge Scupper

(20) Bridge Scupper

(21) Bridge Scupper

(22) Bridge Scupper

(23) Bridge Scupper

Basin No. 5:

(24) Bridge Scupper

(25) Bridge Scupper

(26) Bridge Scupper

(27) Bridge Scupper

(28) 12" BC-CMP (Paved) (42 L.F.)
W FL. 9.28
E FL. 22.18

(29) 12" BC-CMP (Paved) (39 L.F.)
W FL. 7.25
E FL. 15.85

(30) 36" RCP (74 L.F.)
W FL. 4.80
E FL. 4.84

(31) 15" RCP (40 L.F.)
W FL. 4.20
E FL. 6.70

(32) 12" BC-CMP (Paved) (64 L.F.)
SW FL. 8.00
NE FL. 37.56

(33) 12" BC-CMP (Paved) (55 L.F.)
SW FL. 8.60
NE FL. 30.25

(34) 15" RCP PIPE (26 L.F.)
W. FL. 9.06
E. FL. 13.76

(35) 24" RCP PIPE (86 L.F.)
S FL. 7.17
N FL. 7.02

(36) 12" BC-CMP (PAVED) (42 L.F.)
W FL. 11.83
E FL. 20.58

Basin No. 6 Continuation

(37) 24" RCP PIPE (66 L.F.)
W FL. 6.90
E FL. 6.42

(38) 15" RCP PIPE (16 L.F.)
N FL. 6.40
S FL. 6.30

(39) 30" RCP PIPE (185 L.F.)
W FL. 5.83
E FL. 5.68

(40) 15" RCP (17 L.F.)
N FL. 5.75
S FL. 5.74

(41) 18" RCP (112 L.F.)
NW FL. 14.00
SE FL. 13.75

(42) 12" BC-CMP (PAVED) (45 L.F.)
SW FL. 13.75
NE FL. 10.08

(43) 12" BC-CMP (PAVED) (30 L.F.)
W FL. 15.55
E FL. 9.50

(44) 12" BC-CMP (PAVED) (49 L.F.)
W FL. 18.25
E FL. 7.85

(45) 12" BC-CMP (PAVED) (31 L.F.)
W FL. 12.72
E FL. 6.25

(46) 30" RCP (50 L.F.)
W FL. 5.53
E FL. 5.55

(47) 2 - 30" RCP (132 L.F.)
N FL. 5.40
S FL. 5.50

(48) 18" RCP (150 L.F.)
W FL. 5.33
NE FL. 5.40

(49) 2 - 36" RCP (12 L.F.)
S FL. 5.40
N FL. 5.40

(50) 2 - 30" RCP (80 L.F.)
W FL. 5.51
E FL. 5.37

(51) 18" RCP (101 L.F.)
SE FL. 5.80
NW FL. 5.40

(51A) 15" RCP (92 L.F.)
S FL. 5.80
N FL. 5.70

(51B) 27" RCP (119 L.F.)
E FL. 5.70
W FL. 5.60

(51C) 15" RCP (92 L.F.)
S FL. 5.70
N FL. 5.60

(51D) 27" RCP (341 L.F.)
E FL. 5.60
W FL. 5.50

(51E) 27" RCP (356 L.F.)
E FL. 5.50
W FL. 5.40

(52) 27" RCP (52 L.F.)
SE FL. 5.40
NW FL. 5.40

(53) 15"RCP (100 L.F.)
W FL. 17.20
E FL. 16.90

(54) 12" BC-CMP (PAVED) (27 L.F.)
W FL. 16.90
E FL. 8.01

(55) 15" RCP (36 L.F.)
SE FL. 6.60
NW FL. 6.50

(56) 15" RCP (6 L.F.)
SE FL. 6.50
NW FL. 6.40

(57) 15" RCP (68 L.F.)
W FL. 4.60
E FL. 16.60

(58) 18" RCP (200 L.F.)
S FL. 4.60
N FL. 4.40

(59) 15" RCP (48 L.F.)
W FL. 10.50
E FL. 10.30

(60) 15" RCP (56 L.F.)
W FL. 10.30
E FL. 5.08

(70) 24" RCP (460 L.F.)
S FL. 4.40
N FL. 3.95

Basin No. 6:

(78) 19" x 30" ERCP (50 L.F.)
W FL. 6.30
E FL. 6.00

(79A) 15" RCP (42 L.F.)
N FL. 26.20
S FL. 26.00

(79B) 15" CMP (47 L.F.)
N FL. 26.00
S FL. 6.50

(80) 15" RCP (46 L.F.)
N FL. 26.30
S FL. 26.20

(81) 15" RCP (46 L.F.)
N FL. 19.30
S FL. 19.20

(81A) 15" RCP (47 L.F.)
N FL. 19.20
S FL. 19.10

(81B) 15" CMP (30 L.F.)
N FL. 19.10
S FL. 6.80

(86) 12" CMP (PAVED) (5 L.F.)
W FL. 11.20
E FL. 11.80

(87) 15" RCP (4 L.F.)
W FL. 11.75
E FL. 12.10

(88) 18" RCP (34 L.F.)
W FL. 11.90
E FL. 12.20

Basin No. 7:

(61) 18" RCP (68 L.F.)
W FL. 6.40
E FL. 4.70

(62) 18" RCP (66 L.F.)
W FL. 6.40
E FL. 6.05

(62A) 18" RCP (60 L.F.)
W FL. 5.77
E FL. 5.87

(63) 2 - 30" X 19" ERCP (48 L.F.)
W FL. 5.72
E FL. 6.00

(64) 15" CMP (58 L.F.)
N FL. 6.20
S FL. 27.40

(65) 15" RCP (46 L.F.)
N FL. 27.40
S FL. 28.60

(66) 15 CMP (40 L.F.)
N FL. 6.70
S FL. 21.80

(67) 15" RCP (50 L.F.)
N FL. 21.60
S FL. 23.30

(68) 15" CMP (24 L.F.)
N FL. 7.30
S FL. 15.30

(69) 15" RCP (82 L.F.)
NE FL. 15.30
SW FL. 16.80

(71) 24" RCP (69 L.F.)
N FL. 7.60
S FL. 7.70

(72) 24" RCP (196 L.F.)
E FL. 7.90
W FL. 7.70

(73) 24" RCP (196 L.F.)
E FL. 8.10
W FL. 7.90

(74) 15" RCP (72 L.F.)
NW FL. 8.80
SE FL. 9.00

(75) 24" RCP (196 L.F.)
W FL. 8.10
E FL. 8.30

(76) 18" RCP (128 L.F.)
NE FL. 9.00
SW FL. 8.50

(77) 18" RCP (125 L.F.)
NW FL. 9.00
SE FL. 9.30

(82) 18" RCP (74 L.F.)
W FL. 8.90
E FL. 5.84

(82A) 18" RCP (64 L.F.)
W FL. 4.95
E FL. 5.20

Basin No. 7 Continuation

(83) 18" RCP (64 L.F.)
W FL. 6.04
E FL. 6.70

(84) 18" RCP (78 L.F.)
W FL. 11.50
E FL. 6.30

(85) 12" BC-CMP (PAVED) (38 L.F.)
W FL. 10.50
E FL. 6.22

(89) 12" BC-CMP (PAVED) (38 L.F.)
SE FL. 21.90
NW FL. 14.73

(90) 24" RCP (56 L.F.)
W FL. 7.23
E FL. 7.11

(91) 2 - 24" RCP (90 L.F.)
N FL. 7.42
S FL. 7.19

(92) 24" RCP (50 L.F.)
W FL. 9.30
E FL. 8.30

(93) 12" BC-CMP (PAVED) (38 FT.)
W FL. 12.33
E FL. 24.40

(94) 15" RCP (56 L.F.)
NW FL. 11.80
SE FL. 14.00

(95) 15" RCP (29 L.F.)
NW FL. 10.85
SE FL. 11.80

(96) 2 - 30" RCP (194 L.F.)
W FL. 7.15
E FL. 7.02

(97) 15" RCP (56 L.F.)
W FL. 10.20
E FL. 10.00

(98) 12 BC-CMP (27 L.F.)
W FL. 10.00
E FL. 6.59

(99) 15" RCP (32 L.F.)
NW FL. 13.90
SE FL. 12.90

(100) 12" BC-CMP (PAVED) (24 L.F.)
W FL. 12.90
E FL. 6.85

(101) 18" RCP (60 L.F.)
S.E. FL. 7.10
N.W. FL. 6.50

(102) 12" BC-CMP (PAVED) (38 L.F.)
W FL. 24.50
E FL. 11.35

(103) 4 - 30" RCP (45 L.F.)
W FL. 6.74
E FL. 6.83

(104) 3 - 30" RCP (90 L.F.)
N FL. 7.05
S FL. 7.00

(105) 3 - 30" RCP (45 L.F.)
W FL. 6.98
E FL. 7.08

(106) 12" BC-CMP (PAVED) (38 L.F.)
W FL. 24.40
E FL. 11.97

(107) 15 RCP (72 L.F.)
W FL. 11.90
E FL. 7.50

(108) 12" BC-CMP (PAVED) (21 L.F.)
W FL. 10.85
E FL. 7.15

(109) 30" RCP (160 L.F.)
W FL. 7.55
E FL. 7.45

(110) 12" BC-CMP (PAVED) (22 L.F.)
W FL. 7.55
E FL. 9.62

(110A) 12" BC-CMP (PAVED) (22 L.F.)
W FL. 9.50
E FL. 7.43

(111) 18" RCP (75 L.F.)
W FL. 8.00
E FL. 7.90

(111A) 18" RCP (60 L.F.)
W FL. 7.92
E FL. 8.25

(112) 18" RCP (68 L.F.)
W FL. 8.25
E FL. 8.23

(113) 18" RCP (73 L.F.)
W FL. 8.45
E FL. 8.24

(113A) 18" RCP (60 L.F.)
W FL. 8.20
E FL. 8.25

Basin No. 7 Continuation

(114) 18" RCP (62 L.F.)
W FL. 8.32
E FL. 8.70

(115) 18" RCP (86 L.F.)
N FL. 6.80
S FL. 6.70

(116) 24" RCP (233 L.F.)
W FL. 6.20
E FL. 6.10

(117) 24" RCP (236 L.F.)
W FL. 6.10
E FL. 6.00

(118) 15" RCP (83 L.F.)
N FL. 8.40
S FL. 7.80

(119) 30" RCP (218 L.F.)
W FL. 6.00
E FL. 5.90

(120) 15" RCP (83 L.F.)
N FL. 8.80
S FL. 8.25

(121) 30" RCP (223 L.F.)
W FL. 5.90
E FL. 5.80

(122) 15" RCP (91 L.F.)
N FL. 9.40
S FL. 8.70

(123) 30" RCP (320 L.F.)
W FL. 5.80
E FL. 5.70

(124) 3' WIDE STORM TRENCH (234 L.F.)
W FL. 5.70
E FL. 5.70

(125) 15" RCP (83 L.F.)
N FL. 9.25
S FL. 8.25

(126) 3' WIDE STORM TRENCH (239 L.F.)
W FL. 5.70
E FL. 5.70

(127) 3' WIDE STORM TRENCH (94 L.F.)
W FL. 6.00
E FL. 6.00

(128) 15" RCP (84 L.F.)
N FL. 8.60
S FL. 7.70

(129) 3' WIDE STORM TRENCH (249 L.F.)
W FL. 6.00
E FL. 6.00

(130) 3' WIDE STORM TRENCH (304 L.F.)
W FL. 6.00
E FL. 6.00

(131) 18" RCP (16 L.F.)
NW FL. 7.40
SE FL. 7.30

(132) 18" RCP (228 L.F.)
E FL. 7.40
W FL. 7.00

(133) 18" RCP (232 L.F.)
E FL. 7.00
W FL. 6.60

(134) 15" RCP (98 L.F.)
NE FL. 8.70
SW FL. 6.50

(135) 15" RCP (100 L.F.)
NW FL. 8.70
SE FL. 8.45

(136) 24" RCP (376 L.F.)
E FL. 6.50
W FL. 5.80

(137) 15" RCP (79 L.F.)
N FL. 9.35
S FL. 8.40

(138) 3' WIDE STORM TRENCH (273 L.F.)
E FL. 5.50
W FL. 5.50

(139) 3' WIDE STORM TRENCH (294 L.F.)
E FL. 5.50
W FL. 5.50

(140) 15" RCP (79 L.F.)
N FL. 8.25
W FL. 7.30

(141) 18" RCP (95 L.F.)
E FL. 7.20
W FL. 7.40

(142) 15" RCP (85 L.F.)
N FL. 7.95
S FL. 7.75

(143) 18" RCP (185 L.F.)
E FL. 7.50
W FL. 7.10

(144) 18" RCP (35 L.F.)
NE FL. 7.10
SW FL. 7.00

REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY		DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	L.L.B.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.D.D.	5/93
SUPERVISED BY :	J.W.H.				

FLORIDA DEPARTMENT OF TRANSPORTATION

APPROVED BY :

DATE :

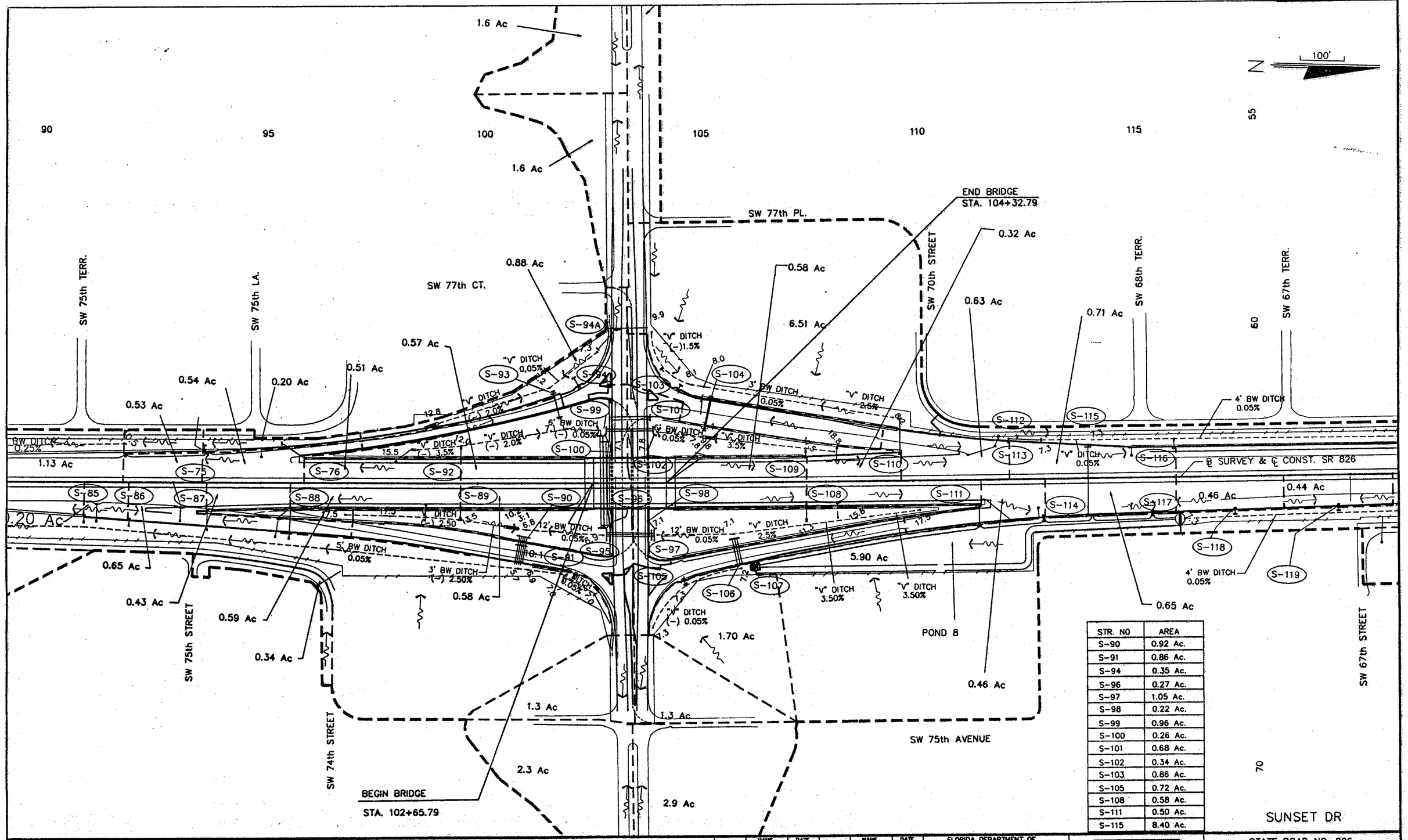
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS · PLANNERS

STATE ROAD NO. 826

EXISTING DRAINAGE STRUCTURES

DM 8

STATE PROJ. NO.	SHEET NO.
87260-3512	9



STR. NO	AREA
S-90	0.92 Ac.
S-91	0.86 Ac.
S-94	0.35 Ac.
S-96	0.27 Ac.
S-97	1.05 Ac.
S-98	0.22 Ac.
S-99	0.96 Ac.
S-100	0.26 Ac.
S-101	0.68 Ac.
S-102	0.34 Ac.
S-103	0.86 Ac.
S-105	0.72 Ac.
S-108	0.58 Ac.
S-111	0.50 Ac.
S-115	8.40 Ac.

REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION				DATE	BY	DESCRIPTION

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DESIGNED BY	L.L.B.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.D.D.	5/93
SUPERVISED BY : J.W.H.					

FLORIDA DEPARTMENT OF TRANSPORTATION

APPROVED BY :

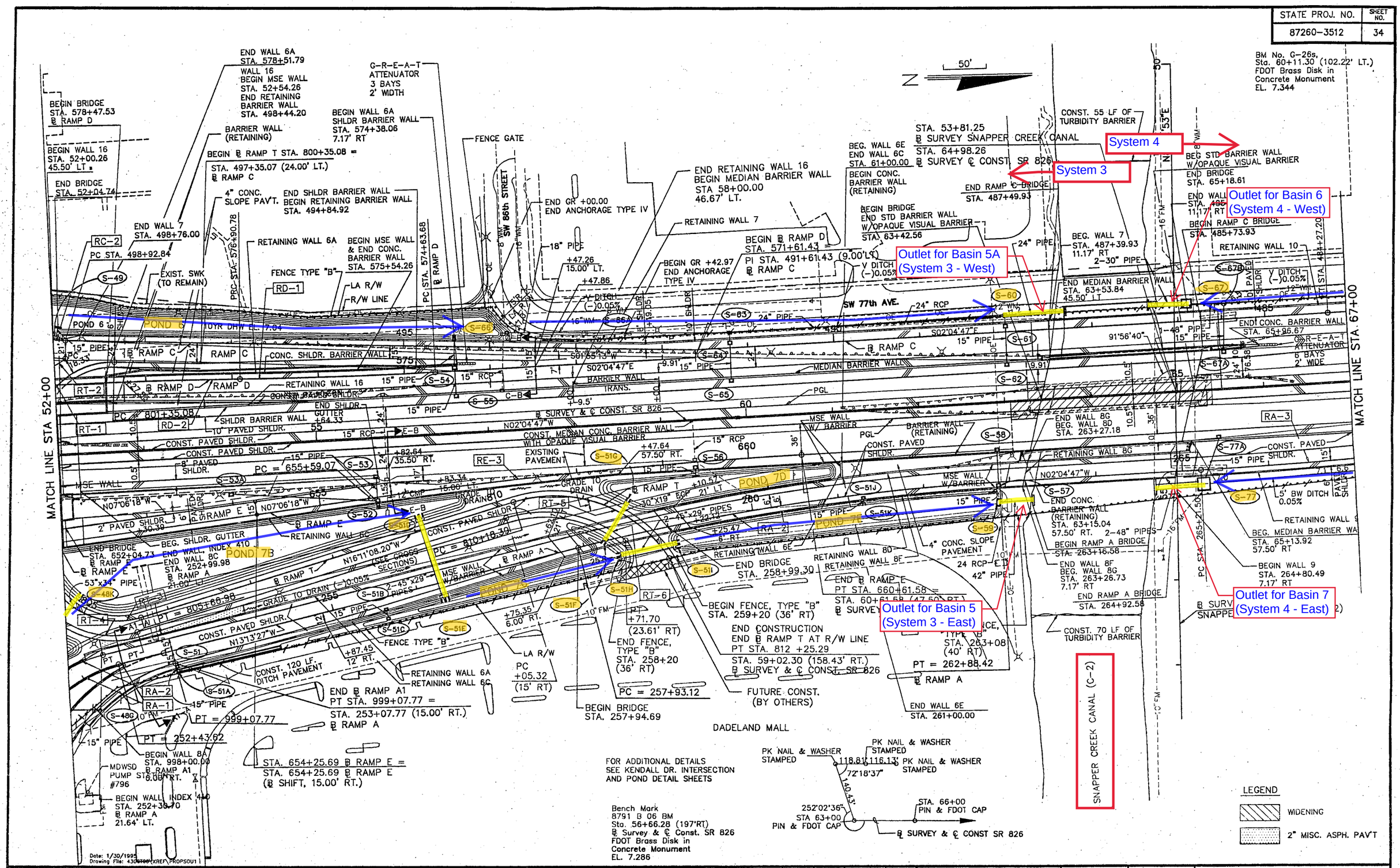
DATE :

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

STATE ROAD NO. 826

INTERCHANGE DRAINAGE MAP

STATE PROJ. NO.	SHEET NO.
87260-3512	34



REVISIONS												
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	HNTB/KHA	5/93	DRAWN BY	HNTB/KHA	5/93
CHECKED BY	HNTB/KHA	5/93	CHECKED BY	HNTB/KHA	5/93
SUPERVISED BY : J.W.H./J.M.Z.					

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

Kimley-Horn

HNTB

STATE ROAD NO. 826

ROADWAY PLAN

STATE PROJ. NO.	SHEET NO.
87260-3512	35

BM No. G-25s,
Sta. 71+32.15 (139.83' LT.)
FDOT Brass Disk in
Concrete Monument
EL. 8.314

N 50'

BEG: ℄ RAMP C
STA. 475+52.76 =
STA. 75+51.98 (49.04' LT.)
℄ SURVEY & ℄ CONST. SR 826

SR 878 / SNAPPER CREEK EXPWY.

SW 82th STREET

SW 80th STREET

SW 77th AVE.

SW 76th Ave.

RETAINING WALL 10

48" PIPE

RC 1

10' PAVED SHLDR.

V DITCH 0.05%

V DITCH (-)0.05%

S-68

C-A

42" PIPE

S-71

15" PIPE

END GR
STA +00.44
BEGIN WALL 10
STA 480+00
11.17' RT

CONST. EASEMENT

5' BW DITCH 0.05%

LA R/W

PC STA 477+02.24

30"x19" EXIST. PIPE (TO REMAIN)

S-73A

2 - 24" PIPE

S-73

S-74

S01°32'42"W

8" PAVED SHLDR. +84.65

4' BW DITCH 0.25%

SHLDR. LINE

P.I. STA. 76+94.43

CONST. DITCH BLOCK (TYP)

END RECONSTRUCTION
BEG RESURFACING & WIDENING
STA 78+00

5.66

RESURFACE

+88.67 11.50' LT.

+88.67 11.50' RT.

CONST. PAVED SHLDR.

N02°05'10"W

MATCH LINE STA. 67+00

MATCH LINE STA. 80+00

CONST. PAVED SHLDR.

S-69

15" PIPE

S-70

24'

+68.38 24.00' LT

+36.58 47.50' LT

℄ SURVEY & ℄ CONST. SR 826

36'

70

480

S-72

V DITCH 0.05%

+80.35 11.50' LT.

EXIST. PAVEMENT

8' PAVED SHLDR.

PGL

+56.29 13.04' LT.

12'

10.5'

A-B

C-A

CONST. PAVED SHLDR.

N02°04'47"W

CONST. STD. BARRIER WALL WITH OPAQUE VISUAL BARRIER

+56.29 13.04' RT.

75

+11.29 13.04'LT.

179°59'37"

10' PAVED SHLDR.

+10.76 47.50' RT

+10.67 15.00' LT

18" RCP

+80.35 11.50' RT.

15" PIPE

EXIST. PAVEMENT

4' PAVED SHLDR.

+11.29 13.04' RT.

18" RCP

5' BW DITCH 0.05%

END MEDIAN BARRIER WALL STA. 69+10.76

S-80

S-79

S-82

S-82A

270

N03°13'44"W

CONST. PAVED SHLDR.

15" PIPE

18" PIPE

A-B

S-78

72" PIPE

6' PAVED SHLDR.

RA-4

15" PIPE

S-81

66" PIPE

7.5

SHLDR.

5' BW DITCH 0.05%

SHLDR. LINE

S-83

S-84

S-83A

2 - 53"x34" PIPE

2 - 30"x19" PIPE

2 - 30"x19" EXIST. PIPE (TO REMAIN)

4' PAVED SHLDR.

SHLDR. LINE

5' BW DITCH 0.05%

18" RCP (TO REMAIN) GRADE AROUND EXIST. END WALL

END GR
END ANCHORAGE TYPE II
STA. 278+00

RA-3

℄ RAMP A

72" PIPE

5' BW DITCH 0.05%

PRC STA. 268+77.82

PT STA 271+19.73

5' BW DITCH (-)0.05%

BEG. GR
STA +99.56
END WALL 9
BEG. SHLDR. GUTTER
STA. 270+00.00
7.17' RT.

LA R/W

END SHLDR. GUTTER +00.00

CONST. STD. BARRIER WALL AROUND EXIST PIERS (INDEX 410)

SW 82th STREET

SW 80th STREET

PK NAIL & WASHER STAMPED

148.51'

PK NAIL & WASHER STAMPED

271°43'40"

150.34'

PK NAIL & WASHER STAMPED

1325.54'

PI STA 76+94.43

PC STA 98+47.15

PK NAIL & WASHER

272°03'40"

℄ SURV. & ℄ CONST. SR 826

LEGEND

WIDENING

BENCH MARK
8791 B 07 BM
Sta 66+51; ℄ SURVEY & ℄ CONST. SR 826 (107' RT.)
FDOT Brass Disk in
Concrete Monument
EL. 6.723

BENCH MARK
8791 B 08 BM
Sta. 77+07; ℄ SURVEY & ℄ CONST. SR 826 (96' RT.)
FDOT Brass Disk in
Concrete Monument
EL. 6.998

REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	J.D.D.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.D.D.	5/93
SUPERVISED BY : J.W.H.					

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

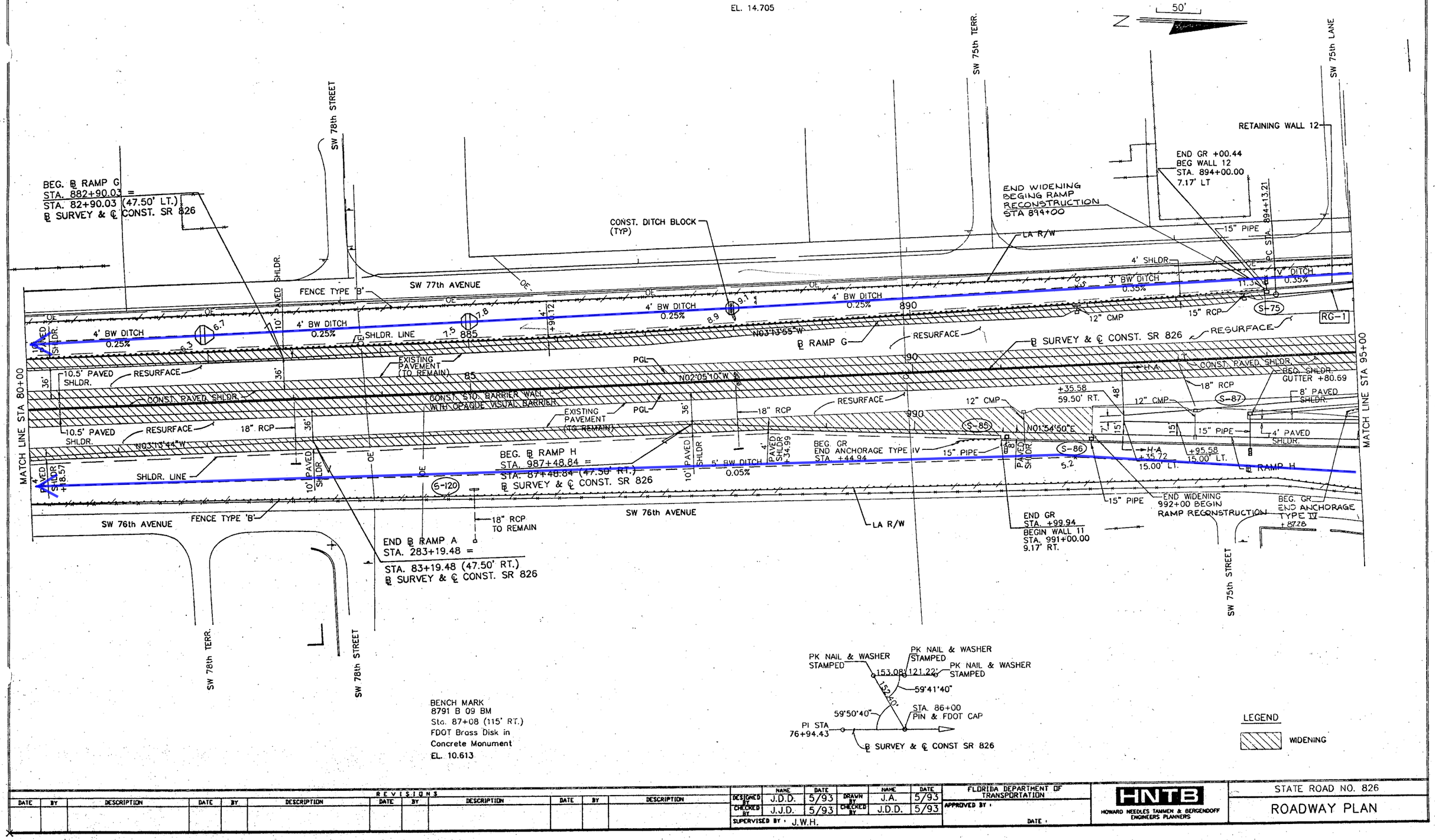
STATE ROAD NO. 826

ROADWAY PLAN

RP9

STATE PROJ. NO.	SHEET NO.
87260-3512	36

BENCH MARK
8788 G 23S
Sta. 90+23; (104' LT.)
FDOT Brass Disk in
Concrete Monument
EL. 14.705



BENCH MARK
8791 B 09 BM
Sta. 87+08 (115' RT.)
FDOT Brass Disk in
Concrete Monument
EL. 10.613

LEGEND

WIDENING

REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	J.D.D.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.D.D.	5/93

SUPERVISED BY : J.W.H.

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

STATE ROAD NO. 826

ROADWAY PLAN

RP10

STATE PROJ. NO.	SHEET NO.
87260-3512	37

BENCH MARK
DCBM NO. SC-42, Sta. 102+92,
℄ SURVEY & ℄ CONST., 96' LT
Brass Bar in
Concrete Headwall
EL. 10.790

BENCH MARK
8788 G-22s,
Sta. 111+56 (150' LT.)
FDOT Brass Disk in
Concrete Monument
EL. 12.004

END ℄ RAMP G-1
PT STA. 1904+06.86 =
STA. 60+47.97 (39.75' RT.)
℄ SURVEY SUNSET DR.

END ℄ RAMP G
STA. 903+63.30 =
STA. 61+65.72
℄ SURVEY SUNSET DR.

BEG. ℄ RAMP G-1
PC STA. 1900+23.33 =
STA. ~~900+23.33~~
℄ RAMP G

BEG. ℄ RAMP I
PC STA. 1002+93.77 =
STA. 60+55.67 (39.75' LT.)
℄ SURVEY SUNSET DR.

END LA R/W
END FENCE

SW 77th CT.

SW 70th STREET

MATCH LINE STA 95+00

MATCH LINE STA 110+50

SW 76th AVENUE

SW 74th STREET

SR 986/SUNSET DRIVE (SW 72nd STREET)

RAMP G

RAMP H

RAMP I

RAMP J

RAMP J-1

RAMP J-2

RETAINING WALL 11

RETAINING WALL 12

RETAINING WALL 13

RETAINING WALL 14

POND 8

G-R-E-A-T ATTENUATOR 6 BAYS 2' WIDE

END RETAINING WALL 12
STA. 899+00 7.17' LT
BEG GR +99.56

END GR +62.06
END ANCHORAGE TYPE IV

BEG. GR +71.44
END ANCHORAGE TYPE II

END GR +60.44
END SHLDR GUTTER & GR
BEGIN WALL 15
STA. 1009+60
9.17' LT.

BEG. GR +97.94
END ANCHORAGE TYPE II

END GR
STA. +47.52
BEGIN WALL 14
BEG. SHLDR. GTTR.
STA. 107+47.08
58.67' LT

END WALL 14
STA. 109+73.68
66.25' LT

END WALL 11
BEG. VALLEY GUTTER
STA. 1001+35.00
9.17' RT

BEG. TYPE 'F'
C & G +32.42

END BRIDGE
STA. 104+32.79

BEGIN BRIDGE
STA. 102+65.79

BEG. SHLDR. GUTTER +05.06

BEG. SHLDR. GUTTTER +53.21

BEG. GR +45.34

END SHLDR. GUTTER +52.62

BEG. GR +45.35

END SHLDR. GUTTER +45.96
END GR +53.76

END GR +52.69
END SHLDR. GUTTER +45.37

BEG MEDIAN BARRIER WALL W/ OPAQUE VISUAL BARRIER
STA. 104+53.21

END MEDIAN BARRIER WALL W/ OPAQUE VISUAL BARRIER
STA. 102+45.37

END SPECIAL GUTTER
BEGIN WALL 13; STA 1105+75.00

BEG. ℄ RAMP J
STA. 1103+38.93 =
STA. 66+19.30
℄ SURVEY SUNSET DR.

END ℄ RAMP J-1
STA. 11106+91.31 =
STA. 1106+91.31
℄ RAMP J

BEG. ℄ RAMP J-1
PC STA. 11102+94.36=
STA. 67+48.02 (37.21' LT.)
℄ SURVEY SUNSET DR.

END ℄ RAMP H
PT STA. 1004+04.86 =
STA. 67+33.20 (37.58' RT.)
℄ SURVEY SUNSET DR.

℄ SURVEY & ℄ CONST. SR 826
STA. 103+49.19 =
STA. 64+00
℄ SURVEY SUNSET DR.

℄ SURVEY & ℄ CONST SR826

PK NAIL & WASHER STAMPED
PK NAIL & WASHER STAMPED
PK NAIL & WASHER STAMPED
187.63'
206.97'
162°14'20"
435.46'
PC STA 98+47.15
PI STA 76+94.43
17°36'35"

PK NAIL & WASHER STAMPED
PK NAIL & WASHER STAMPED
207.52'
221.60'
204°15'20"
336°02'15"
322.18'
PK NAIL & WASHER STAMPED
PT STA 108+48.97
PK NAIL & WASHER IN CONC. GUTTER
PC STA. 128+04.33
PIN & FDOT CAP

BENCH MARK
8791 13 10 BM
Sta. 97+06 (191'RT.)
FDOT Brass Disk in
Concrete Monument
EL. 12.733

BENCH MARK
8791 B 11 BM
Sta. 109+79; (197' RT.)
FDOT Brass Disk in
Concrete Monument
EL. 10.934

LEGEND
WIDENING

REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	J.D.D.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.D.D.	5/93
SUPERVISED BY : J.W.H.					

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF ENGINEERS PLANNERS

STATE ROAD NO. 826

ROADWAY PLAN

RP11

STATE PROJ. NO.	SHEET NO.
87260-3512	38

BENCH MARK
8788 G-21s
Sta. 119+97; (95' LT.)
FDOT Brass Disk in
Concrete Monument
EL. 10.705

PK NAIL & WASHER STAMPED
PK NAIL & WASHER STAMPED
109.35'
103.22'
PK NAIL & WASHER STAMPED
269°24'25"
134.88'
89°07'00"
PT STA. 108+48.97
PK NAIL & WASHER
IN CONC. GUTTER
PC STA. 128+04.33
PIN & FDOT CAP
℄ SURVEY & ℄ CONST. SR 826

N 50'

SW 67th STREET
SW 67th TERR.
SW 66th STREET
SW 77th AVENUE
SW 76th AVENUE

BEG. WIDENING
END RAMP RECONSTRUCTION
STA. 1012+00

BEG GR +99.56
END WALL 15
STA. 1015+00.00

END ℄ RAMP I
STA. 1015+44.85 =
STA. 115+44.85 (59.50' LT.)
℄ SURVEY & ℄ CONST. SR 826

END PROJECT
STA. 125+00
℄ SURVEY & ℄ CONST. SR 826
END RESURFACING & WIDENING
MP 2.354

END FENCE
TYPE 'B' +00.00

END CONSTRUCTION
STA. 126+00
℄ SURVEY & ℄ CONST. SR 826

END GR
END ANCHORAGE TYPE IV
STA. 125+37.50

+08.56
24.00' LT.
EXIST. WALL
PT STA. 1012+36.37
℄ RAMP I
OE
LA R/W
FENCE TYPE 'B'
RI=2
I-A
RETAINING WALL 15
15" RCP
S-112
15" PIPE
4' BW DITCH
0.05%
SHLDR. LINE
4' PAVED SHLDR.
10' PAVED SHLDR.
7.3
V' DITCH
(-)0.05%
S-115
1015
8' PAVED SHLDR.
SHLDR. +13.45
N00°50'41"E
24'
7'
15" RCP
S-113
+07.08
59.50' LT.
RESURFACE
30" RCP
15" PIPE
12" CMP
36" PIPE
S-116
115
EXISTING PAVEMENT (TO REMAIN)
℄ SURVEY & ℄ CONST. SR 826
120
N02°50'13"W
PGL
CONST. PAVED SHLDR.
CONST. MEDIAN BARRIER WALL WITH OPAQUE VISUAL BARRIER
18" RCP
S-119
1120
8' PAVED SHLDR.
106.74'
48'
125
2'
10.50' SHLDR.
MATCH LINE STA 110+50
8' PAVED SHLDR.
END SHLDR GUTTER
STA. 111+49.38
+78.35
47.50' RT.
S-114
S-117
S-118
N03°58'58"W
12" CMP
1115
15" PIPE
4' BW DITCH
0.05%
SHLDR. LINE
END GR
END ANCHORAGE TYPE II
STA. 125+00
S-111
15" RCP
15" PIPE
15" PIPE
18" RCP TO REMAIN
12" CMP
+79.86
24.00' LT.
RJ-1
PT STA 1114+32.86
RETAINING WALL 13
CONST. DITCH BLOCK
℄ RAMP J
FENCE TYPE 'B'
LA R/W
BEG. GR
STA. 1120+99.56
END WALL 13
STA. 1121+00
9.17' RT.
END ℄ RAMP J
STA. 1122+06.84 =
STA. 122+06.84 (59.50' RT.)
℄ SURVEY & ℄ CONST. SR 826
END FENCE
TYPE 'B' +00.00
DHW EL. 9.70
END GR
END ANCHORAGE TYPE II
STA. 57.84
4.0
11.0
TEL
BEG. WIDENING
END RAMP RECONSTRUCTION
STA. 1111+79.86

PK NAIL & WASHER STAMPED
PK NAIL & WASHER STAMPED
107.21'
120.88'
PK NAIL & WASHER STAMPED
130.23'
90°20'40"
90°04'00"
PT STA 108+48.97
PK NAIL & WASHER
IN CONC. GUTTER
STA 118+00
PIN & FDOT CAP
℄ SURVEY & ℄ CONST SR 826

BENCH MARK
8791 B 12 BM
121+27; (95' RT.)
FDOT Brass Disk in
Concrete Monument
EL. 9.640

LEGEND
WIDENING

REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

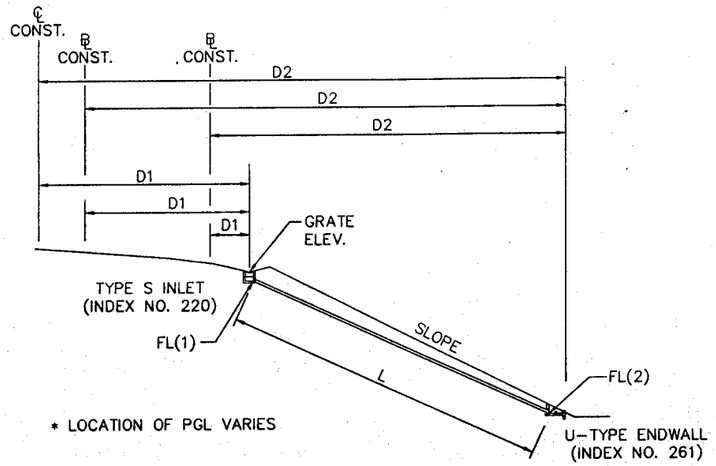
	NAME	DATE		NAME	DATE
DESIGNED BY	J.D.D.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.D.D.	5/93
SUPERVISED BY : J.W.H.					

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

STATE ROAD NO. 826

ROADWAY PLAN



NOTE 1: PGL ELEVATION BASED ON ELEVATION OF EXISTING OUTSIDE EDGE OF PAVEMENT (EOP) PLUS MINIMUM RESURFACING OF 2 5/8". GRATE ELEVATION IS BASED ON PGL ELEVATION. FIELD VERIFY EOP ELEVATION PRIOR TO ORDERING TYPE S INLET.

D1 = DISTANCE FROM ℄ OR ℄ OF CONSTRUCTION TO CENTER OF TYPE S INLET. CONTRACTOR IS TO ADJUST THIS OFFSET AS REQ'D TO PLACE IN ITS PROPER LOCATION BASED ON THE LOCATION OF THE GUTTER.

D2 = DISTANCE FROM ℄ OR ℄ OF CONSTRUCTION TO FAR SIDE OF U-ENDWALL.

GUTTER DRAIN INLETS

STR NO.	STA.	BASELINE CONSTRUCTION	OFF SET (D1)	SIDE	TYPE S INLET (INDEX 220) GRATE TYPE	PGL EL.	GRATE EL	FL(1) EL	PIPE SIZE (IN)	PIPE LGTH (FT) L	END WALL STA.	OFF SET (D2)	SIDE	TYPE	IND	SLOPE	BAFF	FL(2) EL	REMARKS
S-2	8+40	SR 826 NB	18.13	RT	STEEL	13.96	12.56	8.50	15	10	8+40	34.6	RT	U	261	2:1	YES	8.00	NOTE 1
S-20	339+00	RAMP B	6.13	RT	STEEL	28.67	28.06	21.00	15	45	339+00	55.5	RT	U	261	2:1	YES	7.00	
S-21	243+25	SR 826 NB	35.93	RT	STEEL	24.52	21.83	17.75	15	10	343+25	52.2	RT	U	261	2:1	YES	17.00	
S-22	344+00	RAMP B	8.13	RT	STEEL	13.07	12.31	7.16	15	11	344+00	26.1	RT	U	261	2:1	YES	7.00	
S-23	246+25	SR 826 NB	32.63	RT	STEEL	28.09	25.49	18.50	15	34	246+37	64.0	RT	U	261	2:1	YES	9.50	
S-25	123+00	SR 826 SB	10.13	LT	STEEL	35.04	34.14	27.50	15	57	123+00	69.7	LT	U	261	2:1	YES	8.00	
S-26	726+00	RAMP F	8.72	RT	STEEL	17.71	16.89	13.50	15	40	726+00	54.8	RT	U	261	4:1	YES	7.50	
S-31	341+94	SR 826 SB	34.13	LT	STEEL	18.61	17.02	12.00	15	23	342+06	59.5	LT	U	261	2:1	YES	8.00	
S-32	345+25	SR 826 SB	34.13	LT	STEEL	25.89	24.30	15.00	15	34	345+30	74.1	LT	U	261	2:1	YES	8.00	
S-37	583+45	RAMP D	6.13	RT	STEEL	24.46	23.68	18.00	15	39	583+45	49.8	RT	U	261	2:1	YES	5.50	
S-38	586+60	RAMP D	6.13	RT	STEEL	14.50	13.68	10.00	15	18	586+60	29.8	RT	U	261	2:1	YES	5.50	
S-89	99+60	SR 826	59.63	RT	STEEL	29.63	27.85	24.50	15	29	99+60	93.7	RT	U	261	2:1	YES	14.50	
S-92	99+60	SR 826	59.63	LT	STEEL	29.63	27.85	24.50	15	33	99+60	96.7	LT	U	261	2:1	YES	13.00	
S-108	107+55	SR 826	59.63	RT	STEEL	29.32	27.46	24.00	15	34	107+55	97.9	RT	U	261	2:1	YES	12.00	
S-109	107+55.25	SR 826	59.13	LT	STEEL	29.53	27.67	24.00	15	21	107+44	86.3	LT	U	261	2:1	YES	18.00	

STATE PROJ. NO.	SHEET NO.
87260-3512	99

S-74
STA. 76+00, 80'LT
℄ SURV. & ℄ CONST. SR 826
CONST. ENDWALL & WEIR
(SEE DETAIL SHEET NO._)
INDEX NO. 250
F.L. 4.50
2.95 NAVD88

S-73A
STA. 476+80,RT
℄ RAMP C
EXIST. 30"x19" ECP
(TO REMAIN)
EXIST. ENDWALL
(TO REMAIN)
REMOVE PORTION OF
EXIST. ENDWALL AS REQD.
CONST. CONC COLLAR
(INDEX NO. 280)
CONST. 12'
OF 30"X19" ECP S.S.
CONST. 340'
OF 42"ø RCP
CROSS DRAIN

S-73
STA. 476+80, 26'RT
℄ RAMP C
CONST. SPECIAL STRUCTURE
(SEE DETAIL SHEET NO. 116)
INDEX NO. 232
F.L. 1.88 AH, 4.07 BK & 4.25 RT.
0.33 NAVD88
2.52 NAVD88
2.70 NAVD88

S-71
STA. 480+25, 17'RT
℄ RAMP C
CONST. INLET TYPE E
INDEX NO. 232
F.L. 1.33 BK & AH & 3.58 LT
CONSTRUCTION EASEMENT
CONST. 164'
OF 42"ø RCP
CROSS DRAIN
CONST. 6'
OF 15"ø RCP
STORM SEWER
MSE WALL 10
PRB

S-72
STA. 480+25, RT
℄ RAMP C
CONST. BARRIER WALL INLET
(W/ POLLUTION RETARDANT BAFFLE (PRB) & SUMP)
INDEX NO. 218
F.L. 3.63

S-68
STA. 481+92, 17'RT
℄ RAMP C
CONST. INLET TYPE H
INDEX NO. 232
F.L. 0.56 AH & 1.06 BK & 3.06 LT.
CONST. 346'
OF 48"ø RCP
CROSS DRAIN
CONSTRUCTION EASEMENT
MSE WALL 10
CONST. 4'
OF 18"ø RCP
STORM SEWER
PRB
CONST. 33'
OF 15"ø RCP
STORM SEWER

S-69
STA. 481+92 RT
℄ RAMP C
CONST. BARRIER WALL INLET
(W/ POLLUTION RETARDANT BAFFLE (PRB) & SUMP)
INDEX NO. 218
F.L. 3.11 RT. & 3.36 LT.
CONST. 53'
OF 15"ø RCP
STORM SEWER

S-70
STA. 69+13, 51.00' LT
℄ SURVEY & ℄ CONST. SR 826
CONST. INLET TYPE F
INDEX NO. 233
F.L. 3.54

S-67B
STA. 485+45, 19'RT
℄ RAMP C
CONST. MH TYPE J7
F.L. 0.00 BK, AH & 3.00 LT.
CONST. 31'
OF 48"ø RCP
CROSS DRAIN
TO S-67
Outlet for SYSTEM 4 (Basin 2A)

S-67A
STA. 65+57, LT
℄ SURV. & ℄ CONST. SR 826
CONST. BARRIER WALL INLET
W/ POLLUTION RETARDANT BAFFLE (PRB) & SUMP)
INDEX NO. 218
F.L. 3.30

Scale: 1"=5' Horiz.
1"=5' Vert.

S-74 STA. 76+00 ℄ SURV. & ℄ CONST. SR 826
S-73A STA. 476+80 ℄ RAMP C
S-73 STA. 476+80 ℄ RAMP C
S-72 STA. 480+25 ℄ RAMP C
S-71 STA. 480+25 ℄ RAMP C
S-70 STA. 69+13 ℄ SURV. & ℄ CONST. SR 826
S-69 STA. 481+92 ℄ RAMP C
S-68 STA. 481+92 ℄ RAMP C
S-67A STA. 65+57 ℄ SURV. & ℄ CONST. SR 826
S-67B STA. 485+45 ℄ RAMP C

REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	L.L.B.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.J.D.	5/93

SUPERVISED BY : J.W.H.

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
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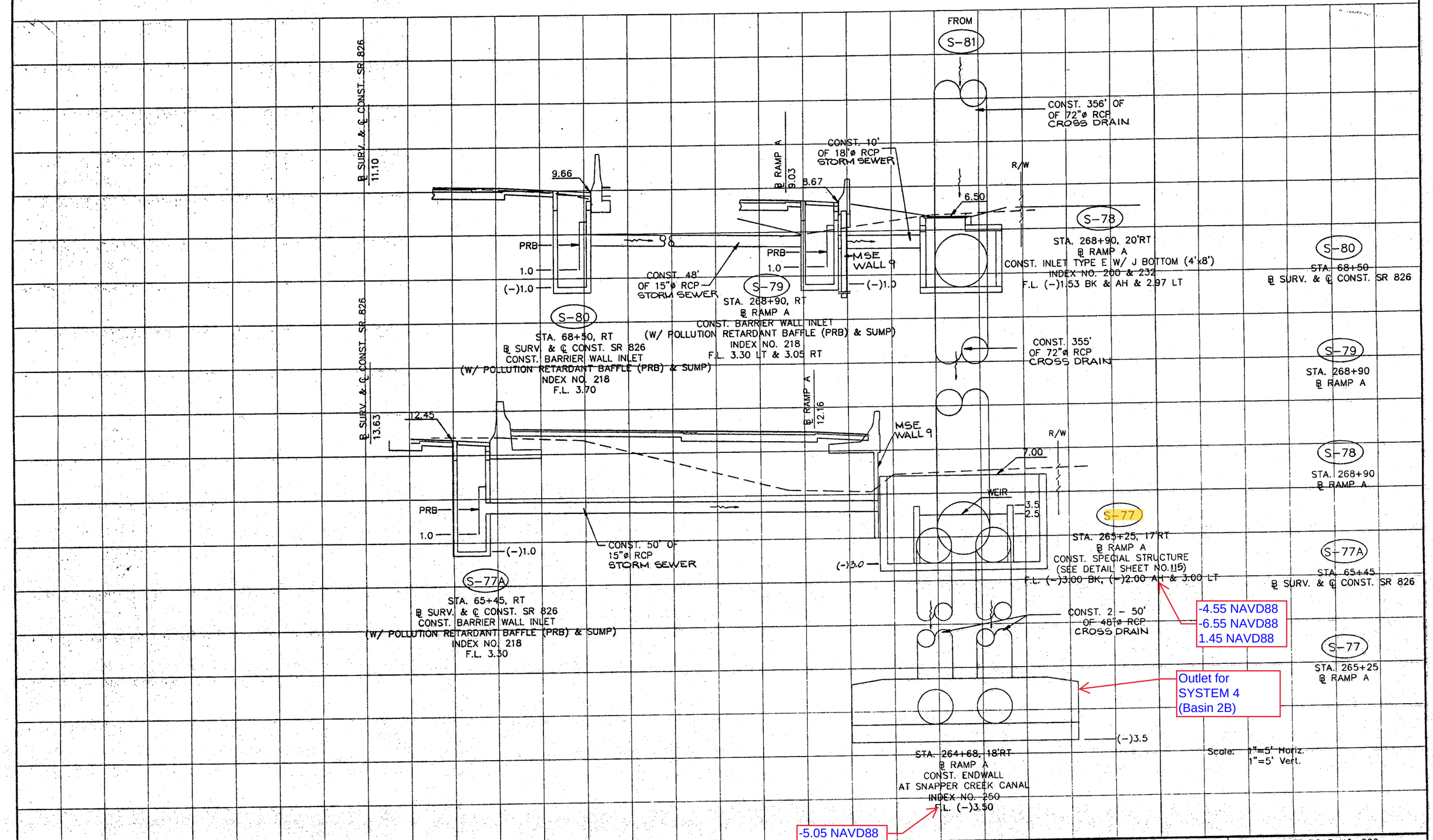
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

STATE ROAD NO. 826

DRAINAGE STRUCTURES

D515

STATE PROJ. NO.	SHEET NO.
87260-3512	100



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FLORIDA DEPARTMENT OF TRANSPORTATION
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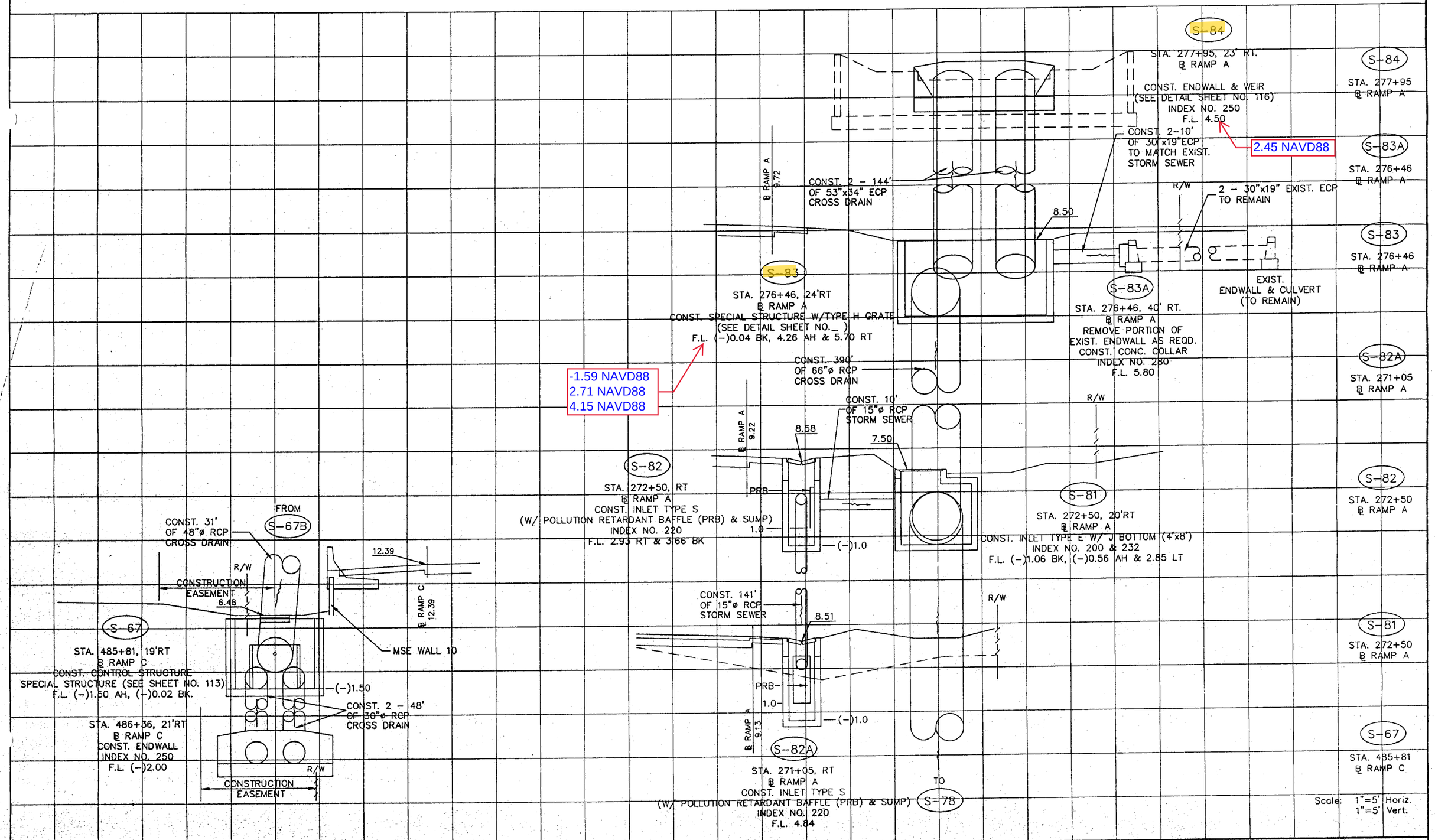
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

STATE ROAD NO. 826

DRAINAGE STRUCTURES

STATE PROJ. NO.	SHEET NO.
87260-3512	101



REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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SUPERVISED BY : J.W.H.

FLORIDA DEPARTMENT OF TRANSPORTATION

APPROVED BY :

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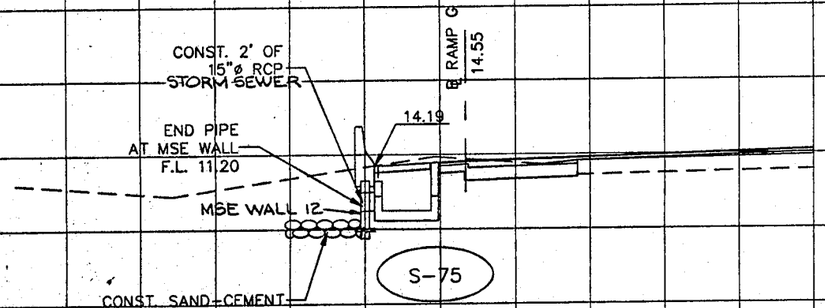
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

STATE ROAD NO. 826

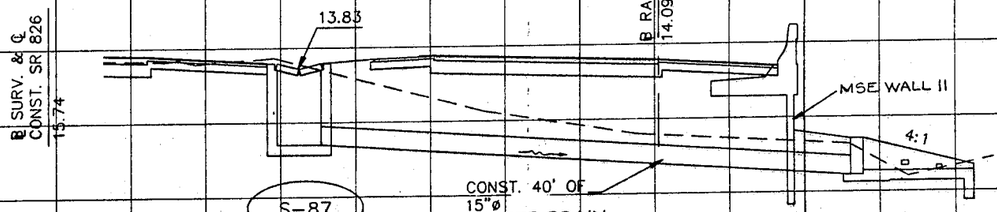
DRAINAGE STRUCTURES

DS17

STATE PROJ. NO.	SHEET NO.
87260-3512	102



STA. 894+05.5, LT
℄ RAMP G
CONST. BARRIER WALL INLET
INDEX NO. 218
F.L. 11.25

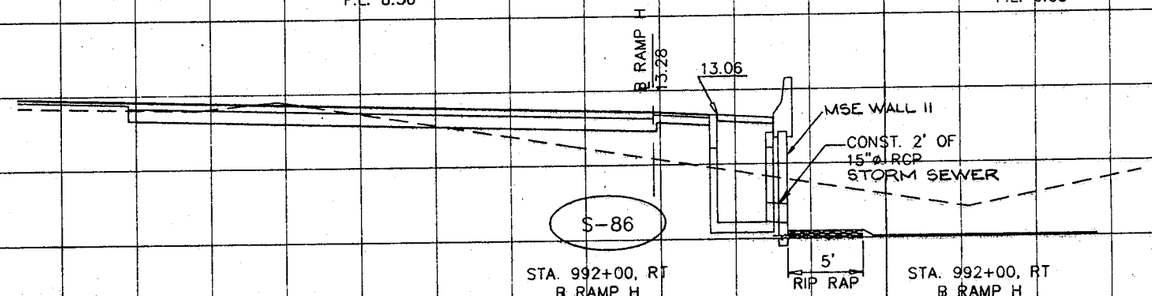


STA. 93+78, RT
℄ SURVEY & ℄ CONST. SR 826
CONST. INLET TYPE S
INDEX NO. 220
F.L. 8.50

STA. 993+79, 21'RT
℄ RAMP H
CONST. U-TYPE END WALL WITH BAFFELS
INDEX NO. 261
F.L. 6.05

S-87
STA. 93+78
℄ SURV. & ℄ CONST. SR 826

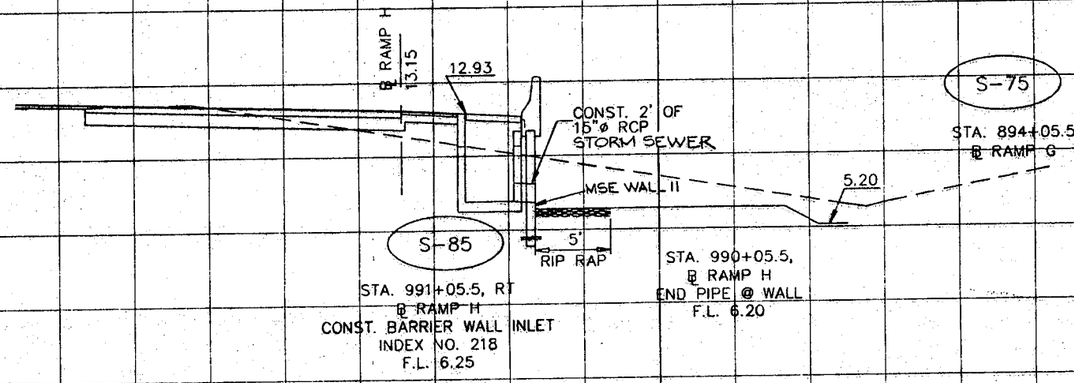
S-86
STA. 992+00
℄ RAMP H



STA. 992+00, RT
℄ RAMP H
CONST. BARRIER WALL INLET
INDEX NO. 218
F.L. 6.10

STA. 992+00, RT
℄ RAMP H
END PIPE AT WALL
F.L. 6.05

S-85
STA. 991+05.5
℄ RAMP H



STA. 991+05.5, RT
℄ RAMP H
CONST. BARRIER WALL INLET
INDEX NO. 218
F.L. 6.25

STA. 990+05.5,
℄ RAMP H
END PIPE @ WALL
F.L. 6.20

STA. 894+05.5
℄ RAMP G

Scale: 1"=5' Horiz.
1"=5' Vert.

REVISIONS												
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SUPERVISED BY : J.W.H.					

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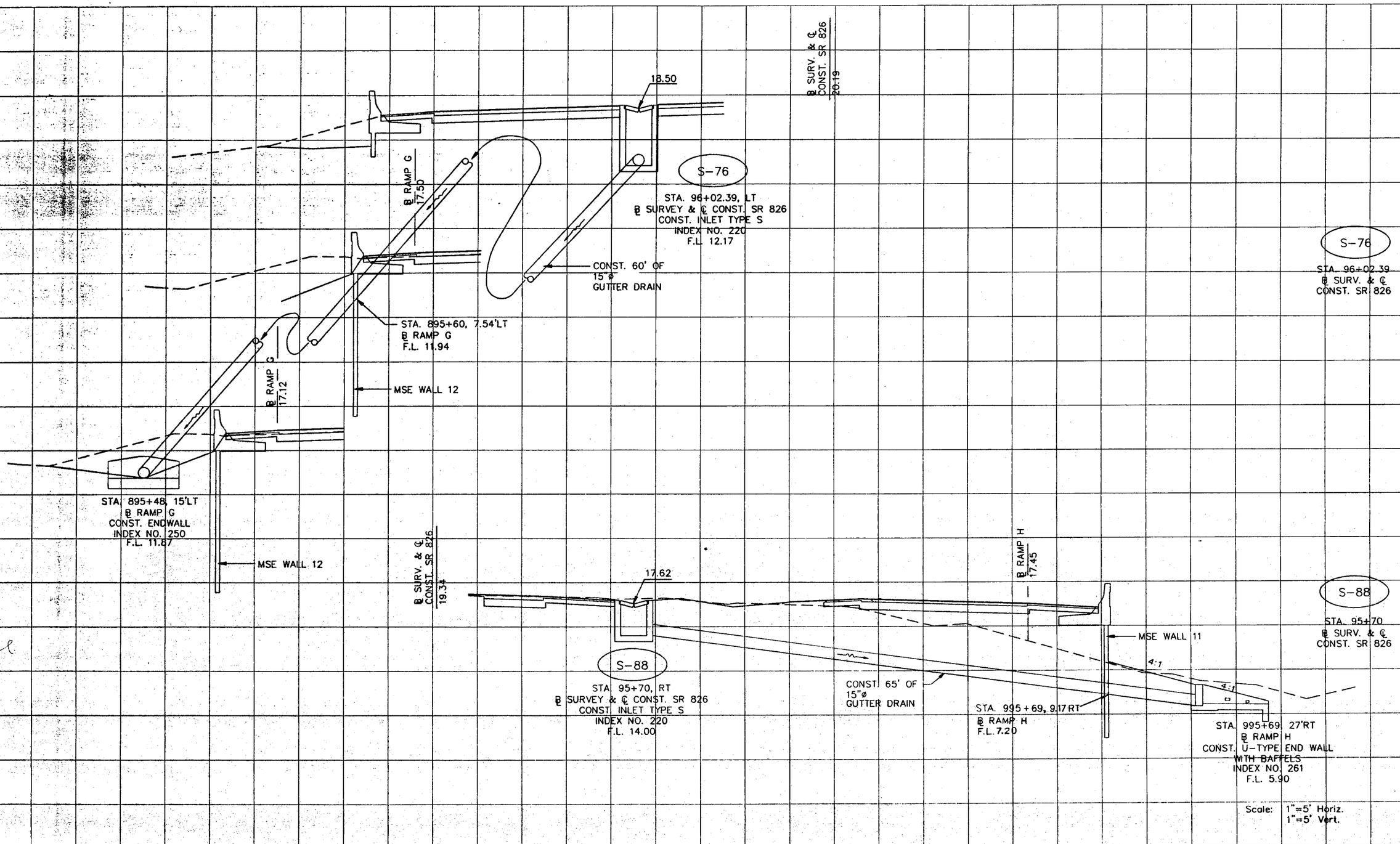
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

STATE ROAD NO. 826

DRAINAGE STRUCTURES

TS 13

STATE PROJ. NO.	SHEET NO.
87260-3512	103



Scale: 1"=5' Horiz.
1"=5' Vert.

REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
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CHECKED BY	J.J.D.	5/93	CHECKED BY	J.J.D.	5/93

SUPERVISED BY : J.W.H.

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

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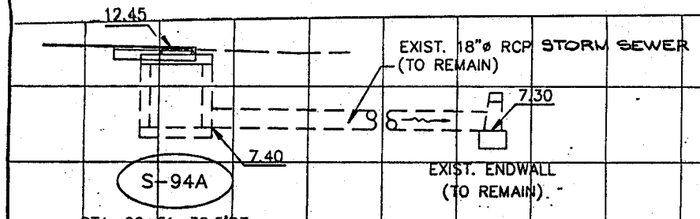
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

STATE ROAD NO. 826

DRAINAGE STRUCTURES

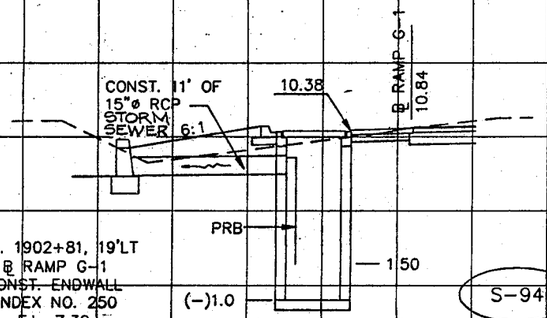
D519

STATE PROJ. NO.	SHEET NO.
87260-3512	104



S-94A

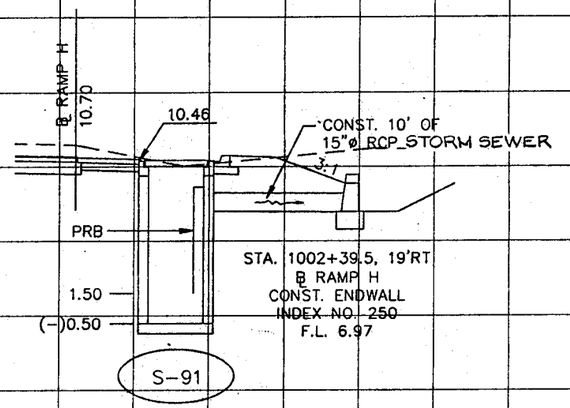
STA. 60+51, 38.5'RT
℄ SURV. SUNSET DR
EXIST. INLET - TOP TO BE
MODIFIED AS MH-P7
INDEX NO. 200 & 201



STA. 1902+81, 19'LT
℄ RAMP G-1
CONST. ENDWALL
INDEX NO. 250
F.L. 7.30

S-94

STA. 1902+81, LT
℄ RAMP G-1
CONST. INLET TYPE B
W/ POLLUTION RETARDANT BAFFLE (PRB) & SUMP
(SEE DETAIL SHEET)
INDEX NO. 231
F.L. 7.50



STA. 1002+39.5, 19'RT
℄ RAMP H
CONST. ENDWALL
INDEX NO. 250
F.L. 6.97

S-91

STA. 1002+39.5, 6.5'RT
℄ RAMP H
CONST. INLET TYPE B
W/ POLLUTION RETARDANT BAFFLE (PRB) & SUMP
(SEE DETAIL ON SHEET)
INDEX NO. 231
F.L. 7.02

S-94A

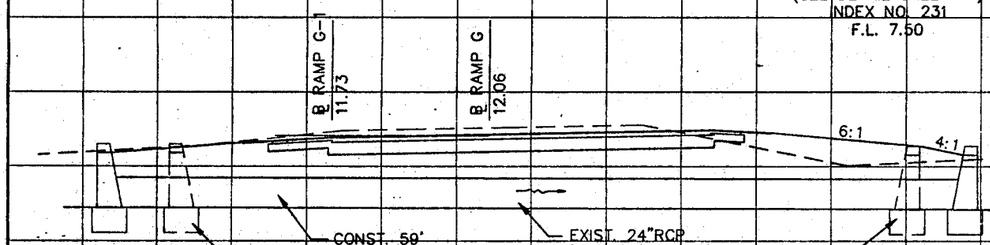
STA. 60+51
℄ SURV. SUNSET DR

S-94

STA. 1902+81
℄ RAMP G-1

S-91

STA. 1002+39.5
℄ RAMP H

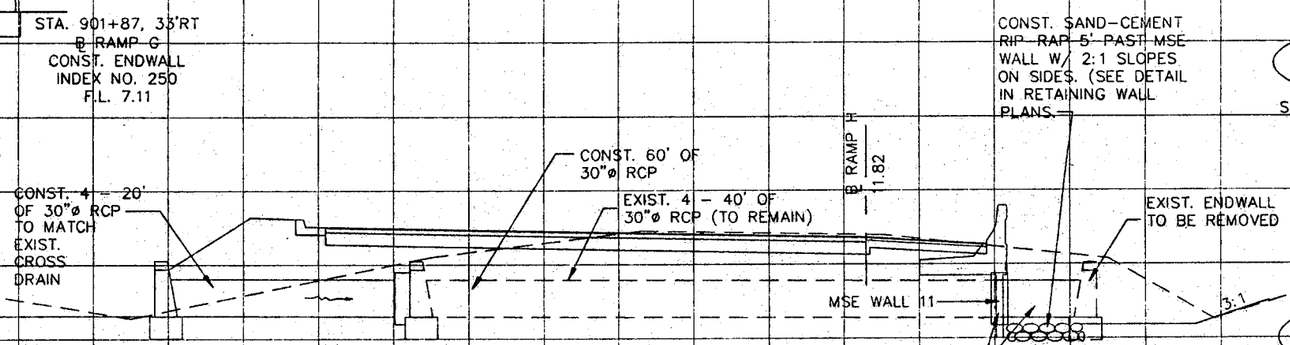


S-93

STA. 901+87, 26'LT
℄ RAMP G
CONST. ENDWALL
INDEX NO. 250
F.L. 7.23

5.68 NAVD88

STA. 901+87, 33'RT
℄ RAMP G
CONST. ENDWALL
INDEX NO. 250
F.L. 7.11



S-90

STA. 1001+03, 50'LT
℄ RAMP H
CONST. ENDWALL AS MODIFIED
(SEE SHEET NO. 118)
F.L. 6.78

5.23 NAVD88

REMOVE PORTION OF
EXIST. ENDWALL (AS REQD)
CONST. CONC. COLLAR
INDEX NO. 280
F.L. 6.74

EXIST. 4-10' OF
30"ø RCP
(TO BE REMOVED)
CONST. CONC. COLLAR
& END PIPES AT MSE WALL
INDEX NO. 280
F.L. 6.64

STA. 1001+03, RT
℄ RAMP H

S-93

STA. 901+87
℄ RAMP G

S-90

STA. 1001+03
℄ RAMP H

Scale: 1"=5' Horiz.
1"=5' Vert.

REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION				DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	L.L.B.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.J.D.	5/93

SUPERVISED BY : J.W.H.

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

STATE ROAD NO. 826

DRAINAGE STRUCTURES

DS 19

STATE PROJ. NO.	SHEET NO.
87260-3512	105

S-101

STA. 62+75, 53' LT.
℄ SURV. SUNSET DR
CONST. ENDWALL
INDEX NO. 250
FL. 7.77

STA. 62+75, 54' LT.
℄ SURV. SUNSET DR
CONST. ENDWALL
INDEX NO. 250
F.L. 7.77

6.22 NAVD88

7.77

7.77

CONST. 34' OF
15"ø RCP
GUTTER
DRAIN

11.45

℄ SURV. SUNSET DR.
11.89

7.97

PRB

1.00

(-)1.0

S-102

STA. 63+22, LT
℄ SURV. SUNSET DR
CONST. BARRIER WALL INLET (W/ POLLUTION RETARDANT BAFFLE (PRB) & SUMP)
(INDEX NO. 217)
F.L. 7.65

CONST. 2 - 105' OF
38"x24" ECP

S-98

STA. 64+90, LT
℄ SURV. SUNSET DR
CONST. BARRIER WALL INLET (W/ POLLUTION RETARDANT BAFFLE (PRB) & SUMP)
(INDEX NO. 219)
F.L. 8.08

℄ SURV. SUNSET DR.
12.02

11.53

CONST. 20' OF
15"ø RCP
GUTTER
DRAIN

STA. 65+05, 54'LT
℄ SURV. SUNSET DR
CONST. ENDWALL
INDEX NO. 250
F.L. 7.98

7.98

PRB

1.00

8.08

(-)1.00

S-97

STA. 65+22, 55'LT.
℄ SURV. SUNSET DR
CONST. ENDWALL
INDEX NO. 250
F.L. 7.05

7.05

5.50 NAVD88

CONST. 3 - 7' OF
30"ø RCP
TO MATCH EXIST.
CROSS DRAIN

REMOVE PORTION OF
EXIST. ENDWALL (AS REQD)
CONST. CONC. COLLAR
INDEX NO. 280

S-102
STA. 63+22
℄ SURV. SUNSET DR

S-101
STA. 62+75
℄ SURV. SUNSET DR

S-100
STA. 63+22
℄ SURV. SUNSET DR

S-99
STA. 62+75
℄ SURV. SUNSET DR

S-98
STA. 64+90
℄ SURV. SUNSET DR

S-97
STA. 65+22
℄ SURV. SUNSET DR

S-96
STA. 64+90
℄ SURV. SUNSET DR

S-95
STA. 65+22
℄ SURV. SUNSET DR

STA. 62+75, 53' RT.
℄ SURV. SUNSET DR.
CONST. ENDWALL
(INDEX NO. 250)
F.L. 7.50

7.50

STA. 62+91, 55' RT.
B SURV. SUNSET DR.
LCONST. ENDWALL
(INDEX NO. 250)
F.L. 8.24

8.24

CONST. 33' OF
15"ø RCP
GUTTER
DRAIN

PRB

(-)1.0

S-100

STA. 63+22, RT
℄ SURV. SUNSET DR
CONST. BARRIER WALL INLET
W/ POLLUTION RETARDANT BAFFLE (PRB) & SUMP
(INDEX NO. 219) F.L. 8.44

11.45

℄ SURV. SUNSET DR.
11.89

7.07

S-99

STA. 62+75, 55' RT.
℄ SURV. SUNSET DR.
CONST. ENDWALL
(INDEX NO. 250)
F.L. 7.07

CONST. 2 - 214' OF
48"ø RCP
CROSS DRAIN

EXIST. 2-30" PIPES
(TO BE REMOVED)

S-96

STA. 64+90, RT
℄ SURV. SUNSET DR
CONST. BARRIER WALL INLET
(W/ POLLUTION RETARDANT BAFFLE (PRB) & SUMP)
(INDEX NO. 219)
F.L. 8.32

℄ SURV. SUNSET DR.
12.02
PGL (RT.)

11.53

CONST. 18' OF
15"ø RCP
GUTTER
DRAIN

PRB

1.00

(-)1.00

STA. 65+03, 63.5'RT.
B SURV. SUNSET DRIVE
CONST. ENDWALL
(INDEX NO. 250)
F.L. 6.87

6.87

EXIST. 3 30"ø RCP
(TO REMAIN)

REMOVE PORTION OF
EXIST. ENDWALL (AS REQ'D)
CONST. CONC. COLLAR
INDEX NO. 280

8.22

STA. 65+02, 54'RT
℄ SURV. SUNSET DR.
CONST. ENDWALL
(INDEX NO. 250)
F.L. 8.22

CONST. 3 - 7' OF
30"ø RCP
TO MATCH EXIST.
CROSS DRAIN

7.00

S-95

STA. 65+22, 55'RT
℄ SURV. SUNSET DR
CONST. ENDWALL
INDEX NO. 250
F.L. 7.00

5.45 NAVD88

Scale: 1"=5' Horiz.
1"=5' Vert.

5.52 NAVD88

REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	L.L.B.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.J.D.	5/93

SUPERVISED BY : J.W.H.

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

STATE ROAD NO. 826

DRAINAGE STRUCTURES

TD521

STATE PROJ. NO.	SHEET NO.
87260-3512	106

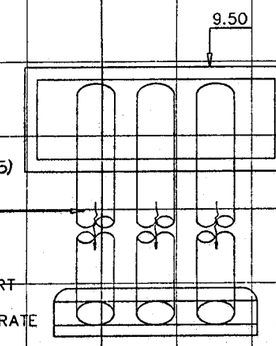
NOTE: MES = MITERED END SECTION

S-107

STA. 1106+35, 27'RT.
℄ RAMP J
CONST. WEIR BOX
(SEE DETAIL SHEET NO.115)
F.L. 7.30

CONST. 3 – 20' OF
30"x19" ERCP
STORM SEWER

STA. 1106+15, RT
℄ RAMP J
CONST. MES W/ GRATE
4:1 SLOPE
INDEX NO. 273
F.L. 7.20

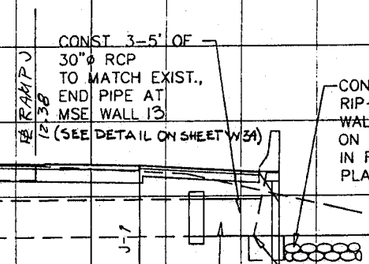


S-107

STA. 1106+35,
℄ RAMP J

S-106

STA. 1105+92
℄ RAMP J



CONST. 3 – 8' OF
30"ø RCP TO MATCH
EXIST.
CROSS DRAIN

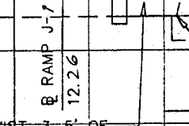
EXIST. 3 – 41' OF
30"ø RCP (TO REMAIN)

REMOVE PORTION OF
EXIST. ENDWALL (AS REQD)
CONST. CONC. COLLAR
INDEX NO. 280
F.L. 7.15

S-106

STA. 1105+92, LT
℄ RAMP J
CONST. ENDWALL
INDEX NO. 250
F.L. 7.14

5.59 NAVD88



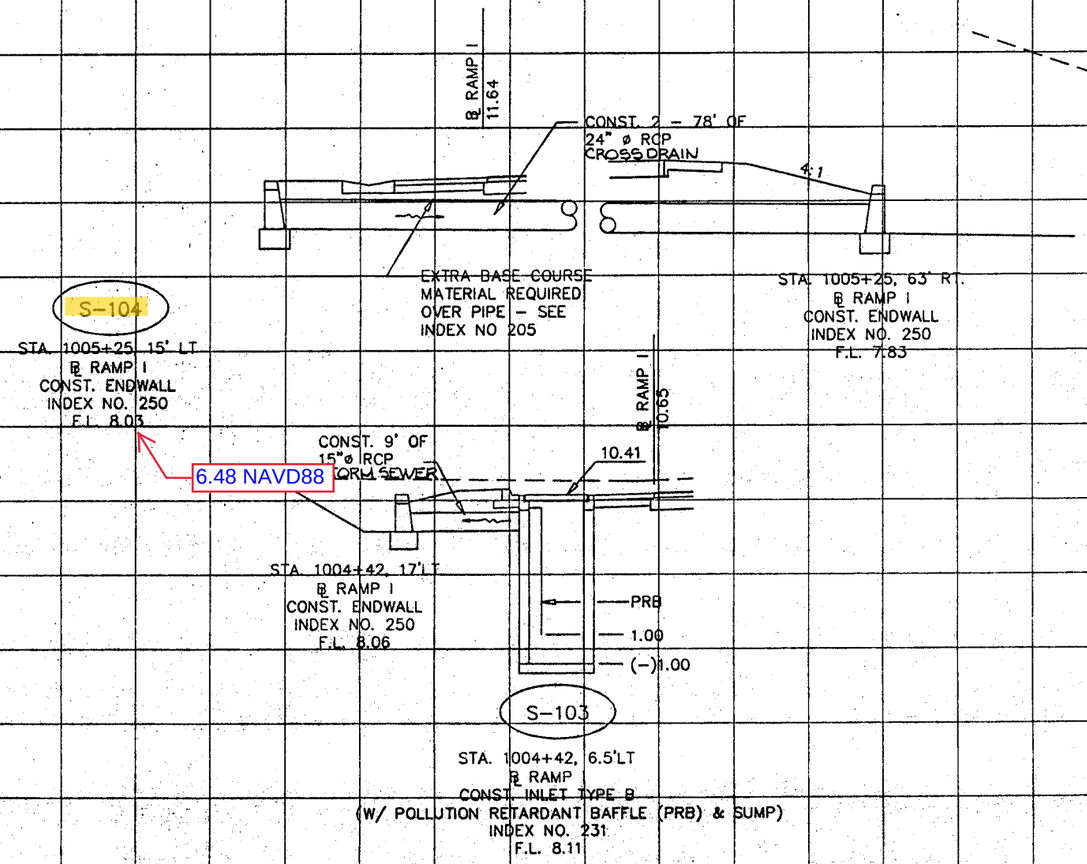
EXIST. 3-5' OF
30"ø RCP AND
EXIST. ENDWALL
(TO BE REMOVED)
CONST. CONC. COLLAR
INDEX NO. 280

S-105

STA. 11104+53
℄ RAMP J-1

S-104

STA. 1005+25
℄ RAMP I



STA. 1005+25, 63' RT.
℄ RAMP I
CONST. ENDWALL
INDEX NO. 250
F.L. 7.83

S-104

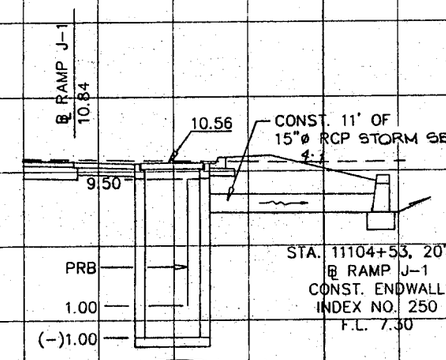
STA. 1005+25, 15' LT
℄ RAMP I
CONST. ENDWALL
INDEX NO. 250
F.L. 8.03

6.48 NAVD88

STA. 1004+42, 17'LT
℄ RAMP I
CONST. ENDWALL
INDEX NO. 250
F.L. 8.06

S-103

STA. 1004+42, 6.5'LT
℄ RAMP
CONST. INLET TYPE B
(W/ POLLUTION RETARDANT BAFFLE (PRB) & SUMP)
INDEX NO. 231
F.L. 8.11



S-105

STA. 11104+53, 6.50'RT
℄ RAMP J-1
CONST. INLET TYPE B
(W/ POLLUTION RETARDANT BAFFLE (PRB) & SUMP)
INDEX NO. 231
F.L. 7.35 RT

S-103

STA. 11104+53, 20'RT
℄ RAMP J-1
CONST. ENDWALL
INDEX NO. 250
F.L. 7.30

S-103

STA. 1004+42
℄ RAMP I

Scale: 1"=5' Horiz.
1"=5' Vert.

REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	L.L.B.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.J.D.	5/93

SUPERVISED BY : J.W.H.

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

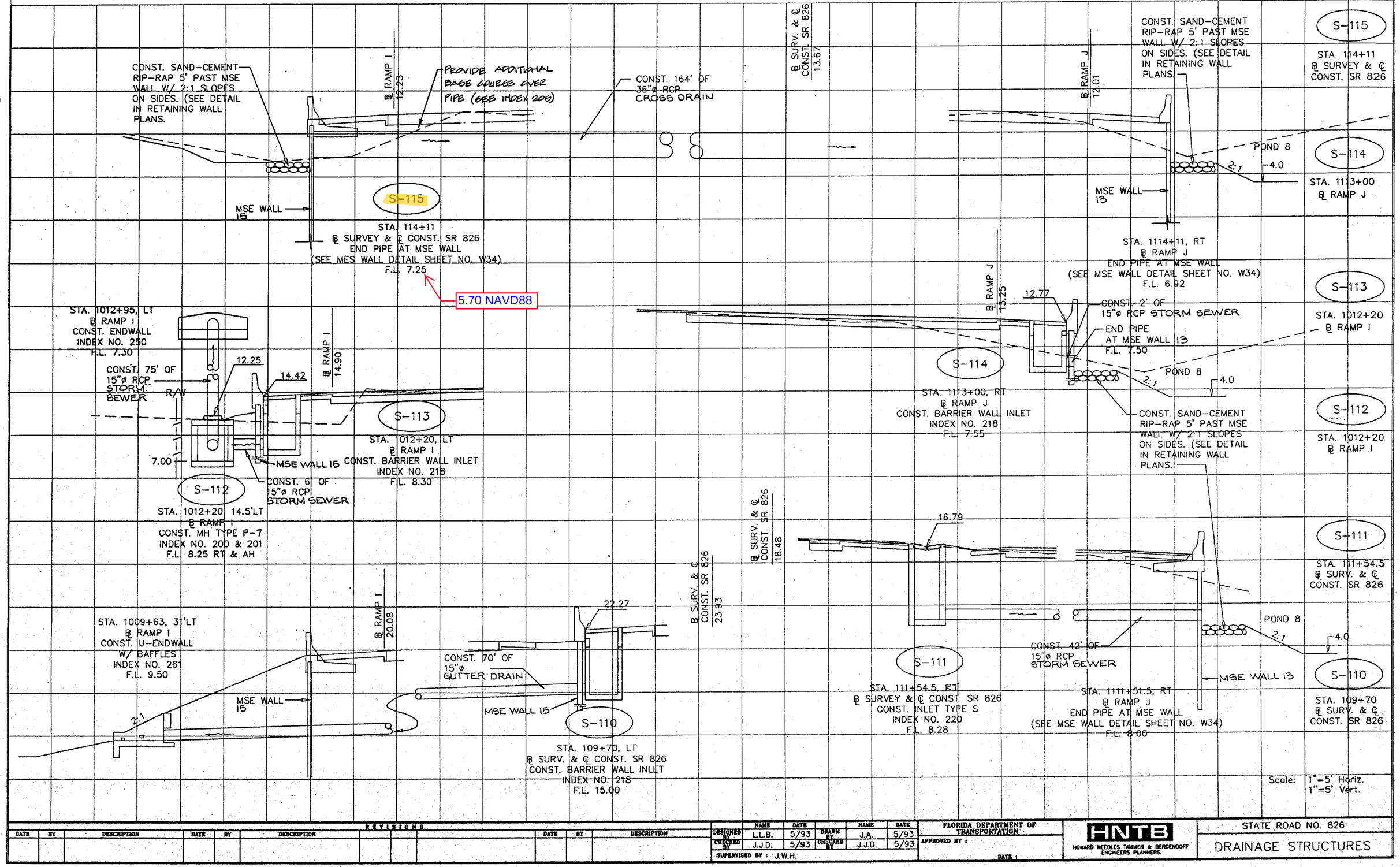
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

STATE ROAD NO. 826

DRAINAGE STRUCTURES

D522

STATE PROJ. NO.	SHEET NO.
87260-3512	107



REVISIONS											
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION				DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	L.L.B.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.J.D.	5/93
SUPERVISED BY : J.W.H.					

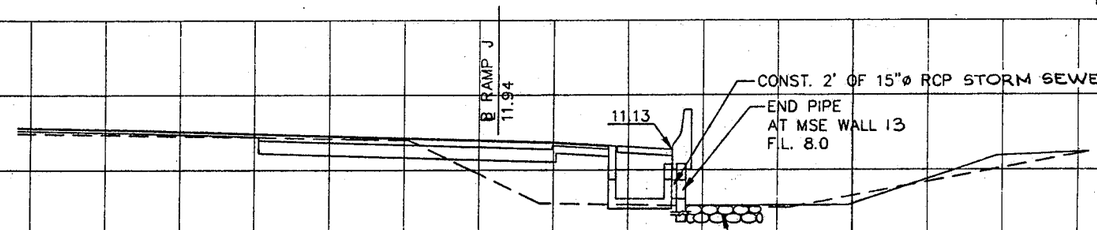
FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF ENGINEERS PLANNERS

STATE ROAD NO. 826

DRAINAGE STRUCTURES

STATE PROJ. NO.	SHEET NO.
87260-3512	108

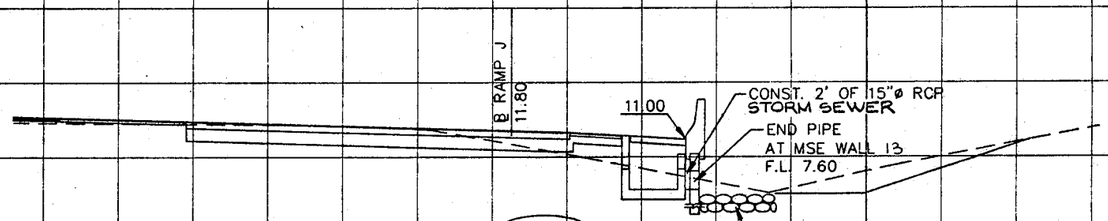


S-119

STA. 1119+75, RT
℄ RAMP J
CONST. BARRIER WALL INLET
INDEX NO. 218
F.L. 8.05

S-119

STA. 1119+75
℄ RAMP J

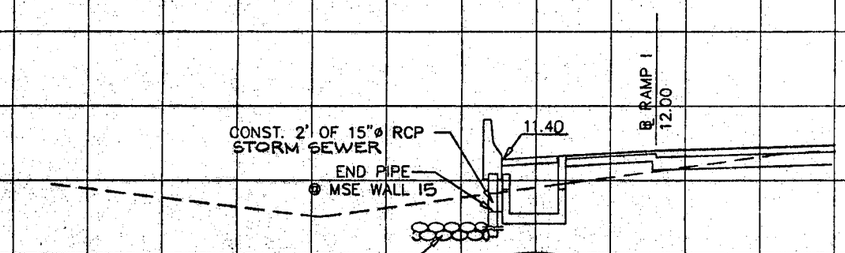


S-118

STA. 1117+40, RT
℄ RAMP J
CONST. BARRIER WALL INLET
INDEX NO. 218
F.L. 7.80

S-118

STA. 1117+40
℄ RAMP J

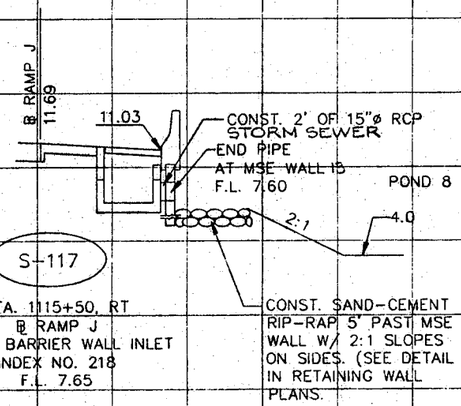


S-116

STA. 1015+00.00, LT
℄ RAMP I
CONST. BARRIER WALL INLET
INDEX NO. 218
F.L. 7.78

S-117

STA. 1115+50
℄ RAMP J



S-117

STA. 1115+50, RT
℄ RAMP J
CONST. BARRIER WALL INLET
INDEX NO. 218
F.L. 7.65

S-116

STA. 1015+00
℄ RAMP I

Scale: 1"=5' Horiz.
1"=5' Vert.

REVISIONS												
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION				DATE	BY	DESCRIPTION	

	NAME	DATE		NAME	DATE
DESIGNED BY	L.L.B.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.J.D.	5/93

SUPERVISED BY : J.W.H.

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

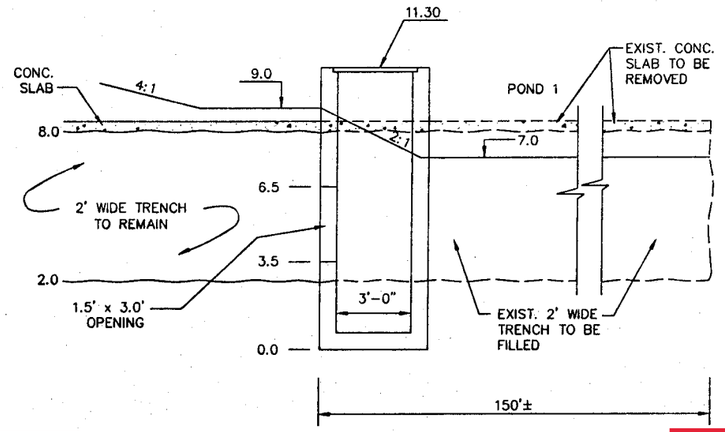
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

STATE ROAD NO. 826

DRAINAGE STRUCTURES

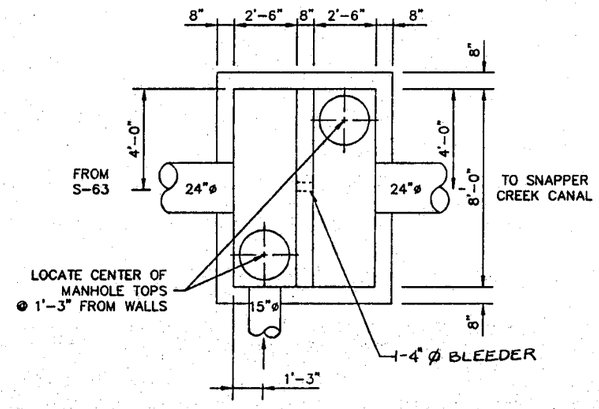
DD5

STATE PROJ. NO.	SHEET NO.
87260-3512	113

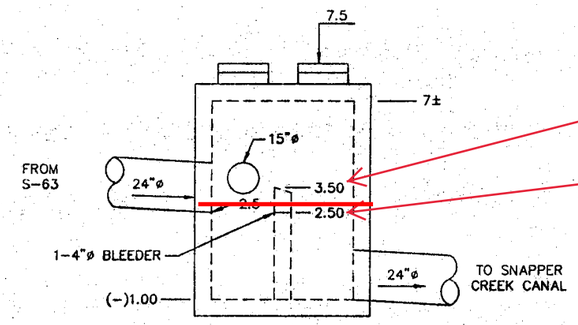


S-1

STA. 8+20
℄ SURVEY & CONST. SR 826 NB



PLAN



ELEVATION

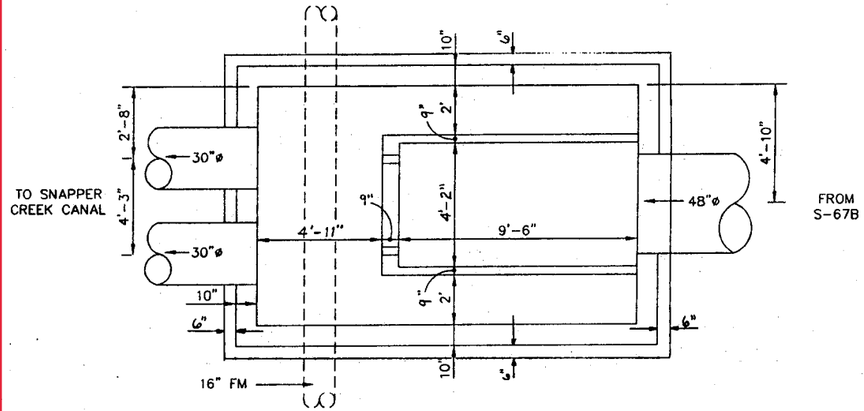
1.95 NAVD88
Weir Elev.

0.95 NAVD88

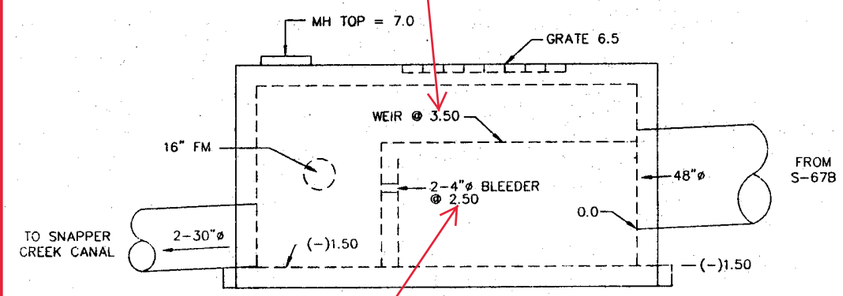
Outlet for System 3
- West of SR 826

S-60

STA. 488+00
℄ RAMP C



PLAN



1.95 NAVD88
Weir Elev.

0.95 NAVD88

ELEVATION

Outlet for Basin 6
(System 4)

S-67

SCALE: 1"=3'

STA. 485+45
℄ RAMP C

REVISIONS														
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		DATE	BY	DESCRIPTION					

	NAME	DATE		NAME	DATE
DESIGNED BY	L.L.B.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.J.D.	5/93

SUPERVISED BY : J.W.H.

FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

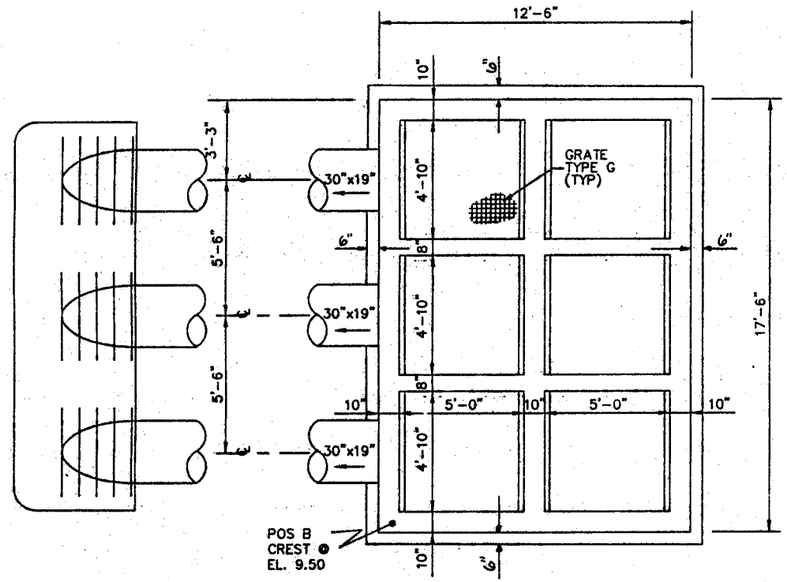
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

STATE ROAD NO. 826

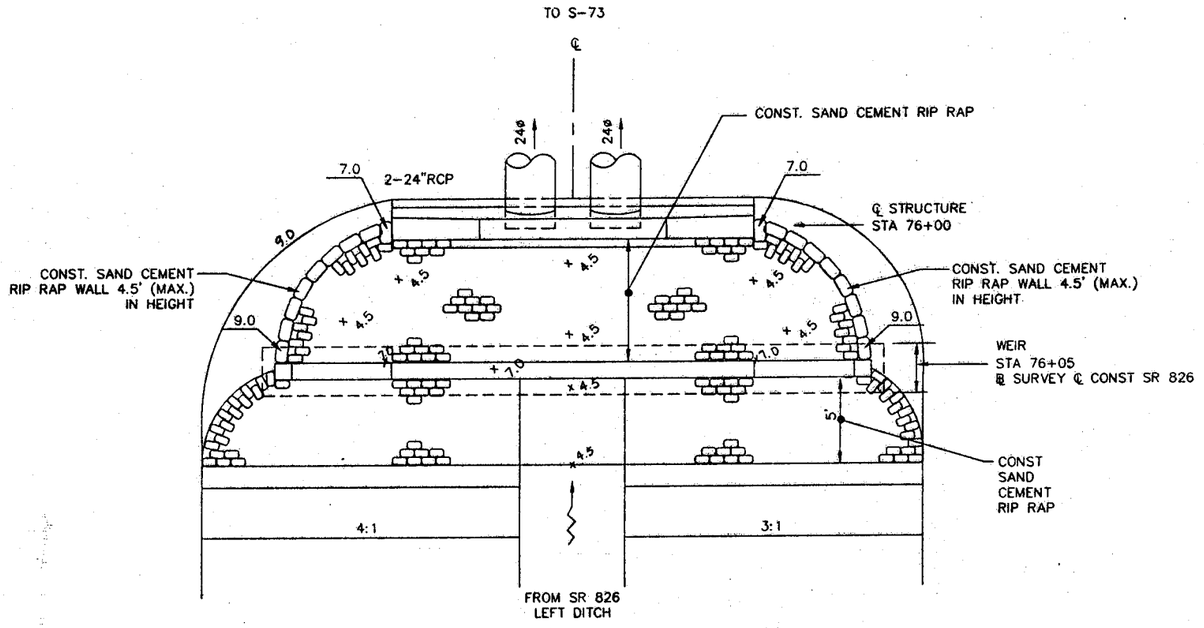
SPECIAL DRAINAGE STRUCTURE DETAILS

DD6

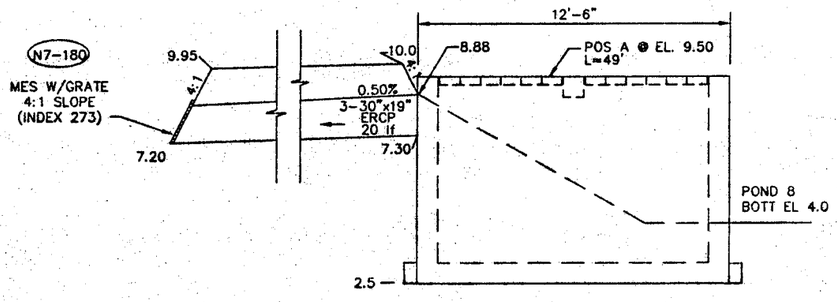
STATE PROJ. NO.	SHEET NO.
87260-3512	114



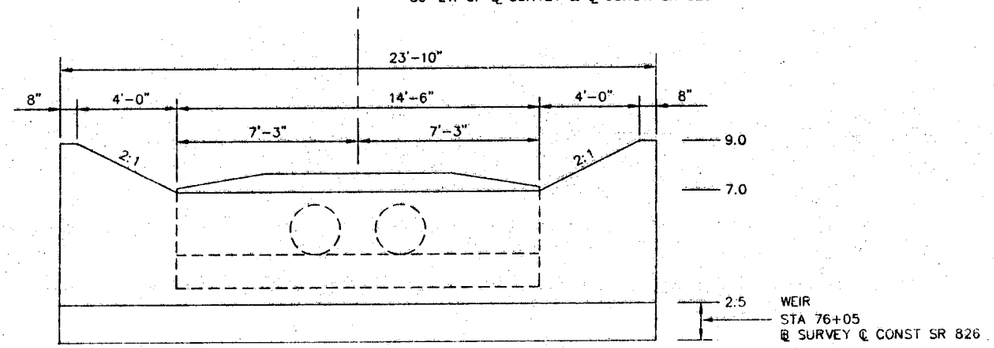
PLAN



PLAN



PLAN



ELEVATION

S-107

STA. 1106+35
@ RAMP J

S-74

STA. 76+00
@ SURVEY & ℄ CONST. SR 826

SCALE: 1"=3'

REVISIONS																				
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION				DATE	BY	DESCRIPTION									

	NAME	DATE		NAME	DATE
DESIGNED BY	L.L.B.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.J.D.	5/93

SUPERVISED BY : J.W.H.

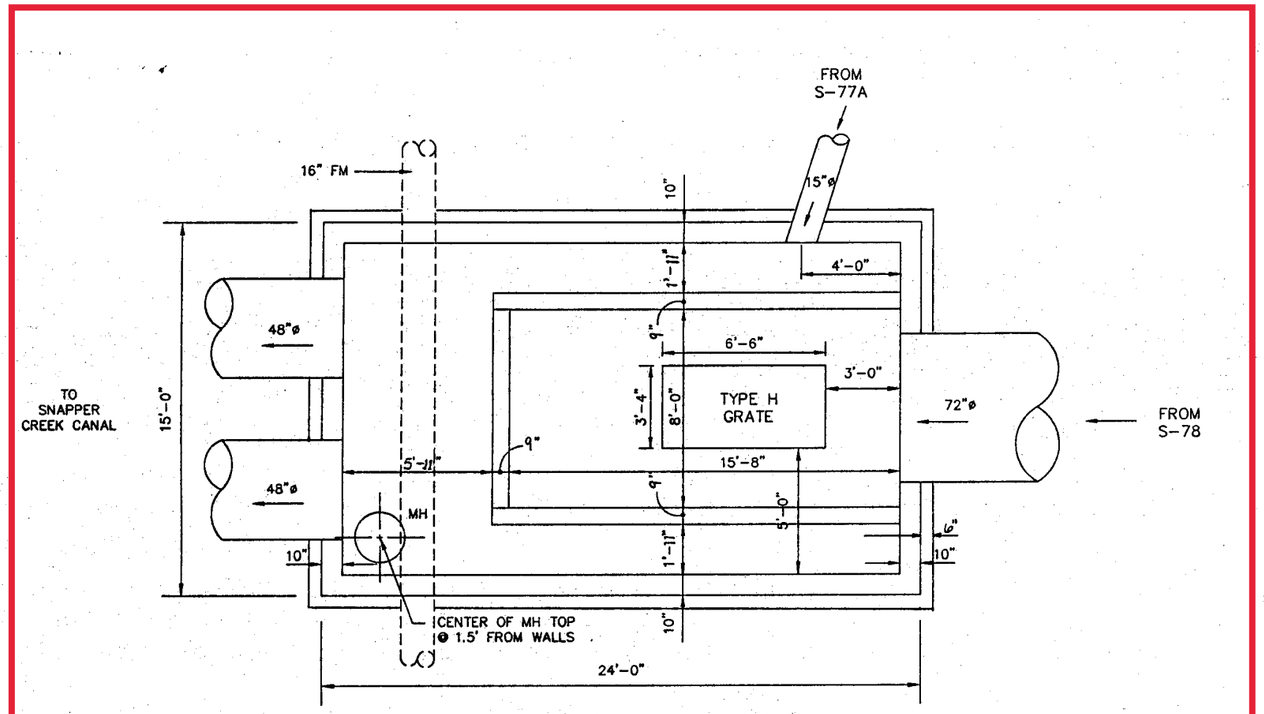
FLORIDA DEPARTMENT OF TRANSPORTATION
APPROVED BY :
DATE :

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

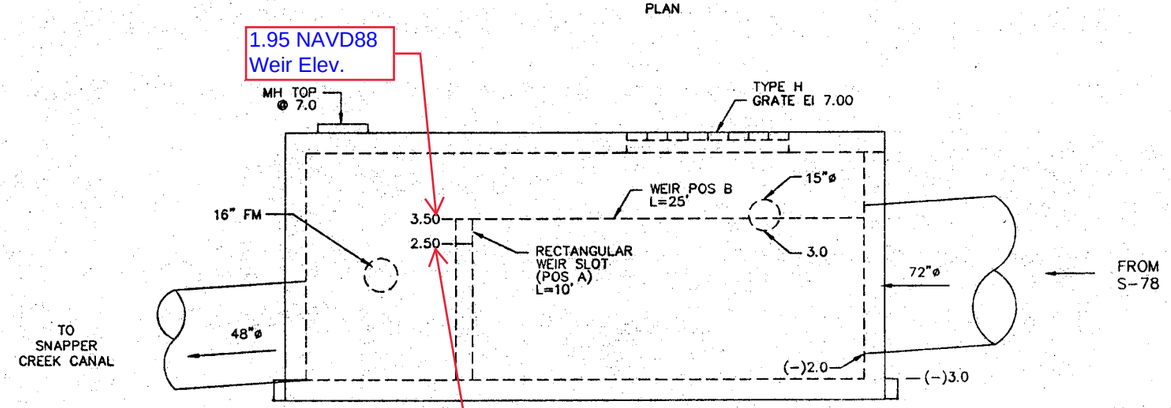
STATE ROAD NO. 826
SPECIAL DRAINAGE STRUCTURE DETAILS

DD7

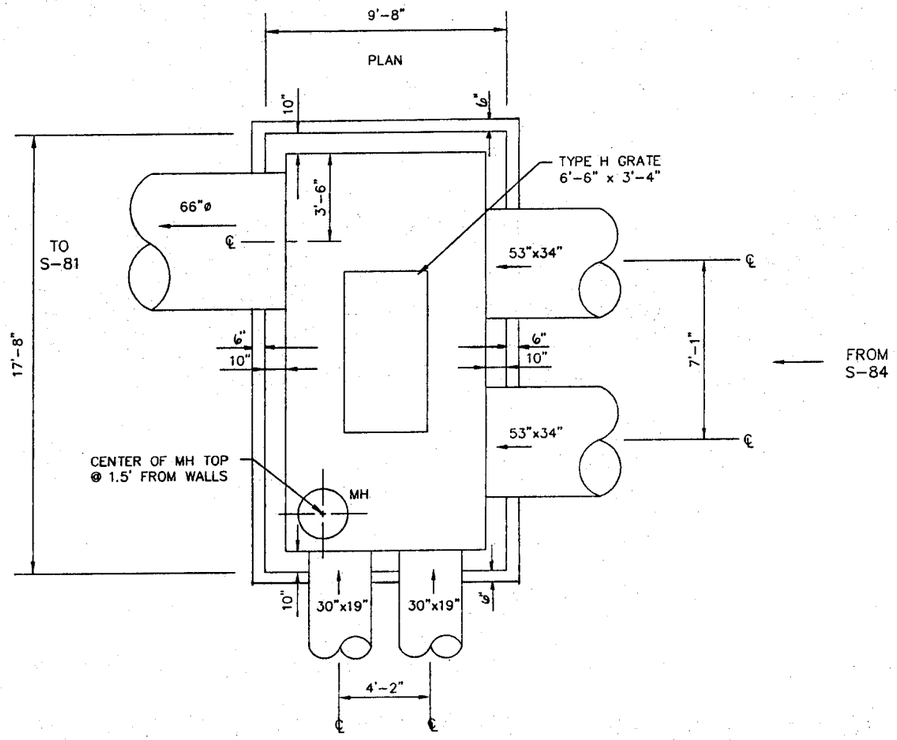
STATE PROJ. NO.	SHEET NO.
87260-3512	115

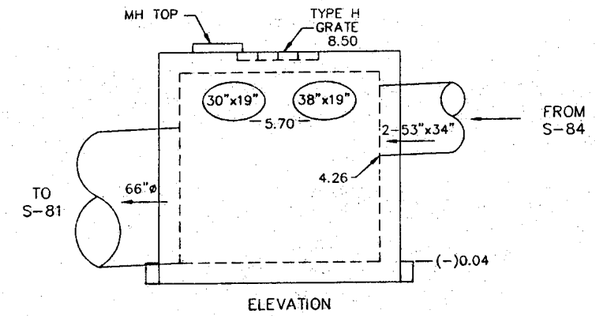


PLAN



ELEVATION





ELEVATION

S-83

STA 276+46
℄ RAMP A

SCALE: 1"=3'

REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	L.L.B.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.J.D.	5/93

SUPERVISED BY : J.W.H.

FLORIDA DEPARTMENT OF TRANSPORTATION

APPROVED BY :

DATE :

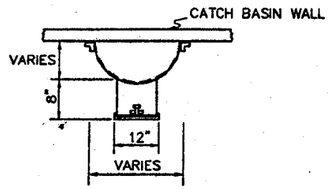
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF ENGINEERS PLANNERS

STATE ROAD NO. 826

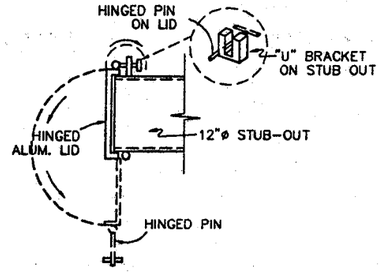
SPECIAL DRAINAGE STRUCTURE DETAILS

DD8

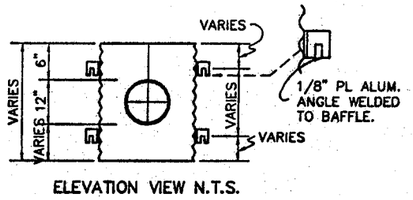
STATE PROJ. NO.	SHEET NO.
87260-3512	116



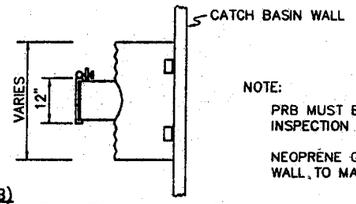
PLAN VIEW N.T.S.



LID DETAIL N.T.S.



ELEVATION VIEW N.T.S.



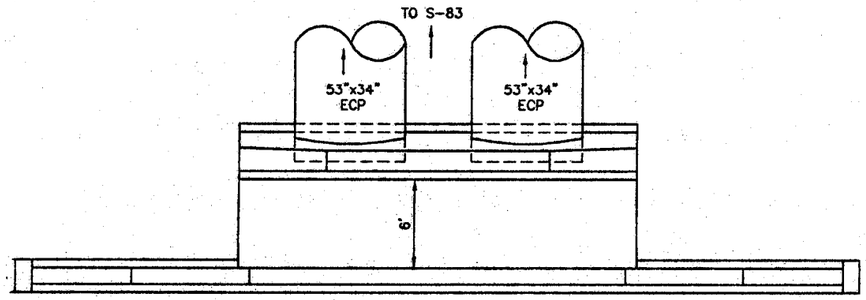
ELEVATION VIEW N.T.S.

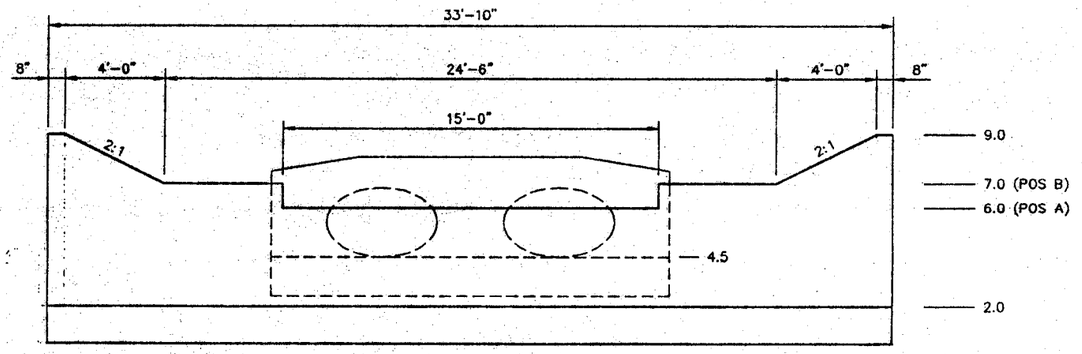
POLLUTION RETARDANT BAFFLE (PRB)

NOTE:

PRB MUST BE EASILY REMOVABLE FOR INSPECTION & CLEANING OF PIPES

NEOPRENE GASKET ALONG DRAINAGE STRUCTURE WALL, TO MAKE WATERTIGHT SEAL

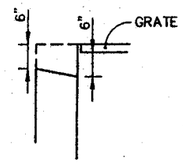




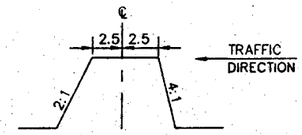
ELEVATION

S-84

STA 277+95
℄ RAMP A

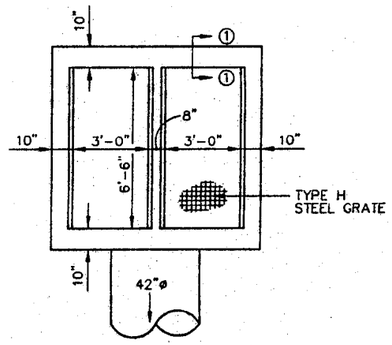


SECTION ①-①



CROSS SECTION
N.T.S.

DITCH BLOCK DETAIL
(TYPICAL)



TYPE H MODIFIED

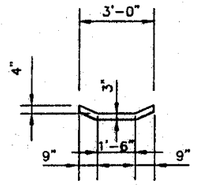
S-59

STA 262+87
℄ RAMP A

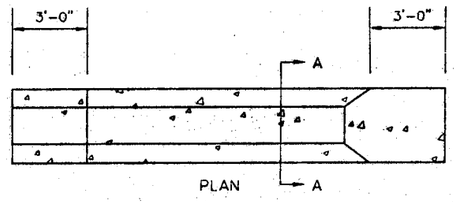
S-73

STA 476+80, RT
℄ RAMP C

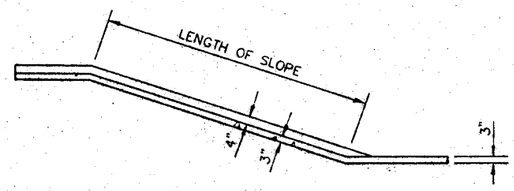
(SAME SIZE INLET, DIFFERENT CONFIGURATION OF INLET & OUTLET PIPES.)



SECTION A-A

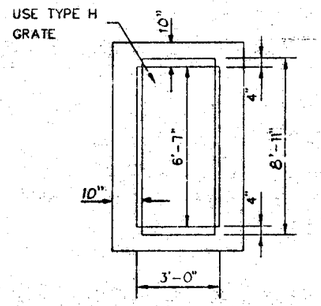


PLAN



ELEVATION

DITCH PAVEMENT
(INDEX 281)



TYPICAL FOR STRUCTURES: S-1, S-12, S-24 & S-66

SCALE: 1"=3'

REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	L.L.B.	5/93	DRAWN BY	J.A.	5/93
CHECKED BY	J.J.D.	5/93	CHECKED BY	J.J.D.	5/93

SUPERVISED BY : J.W.H.

FLORIDA DEPARTMENT OF TRANSPORTATION

APPROVED BY :

DATE :

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF
ENGINEERS PLANNERS

STATE ROAD NO. 826

SPECIAL DRAINAGE STRUCTURE DETAILS

System 5 – Reference Data

Excerpts from SFMWD ERP No. 13-02686-P

Excerpts from FDOT Records Plans for FM No. 249035-1-52-01

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENVIRONMENTAL RESOURCE
STANDARD GENERAL PERMIT NO. 13-02686-P
DATE ISSUED:April 8, 2010

Form #0941
08/95

PERMITTEE: FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT 6
1000 N W 111 AVE.
MIAMI, FL 33172

PROJECT DESCRIPTION: Modification of a surface water management system to serve a 37.75-acre highway improvement project known as Palmetto Expressway (SR 826) Section 2.

PROJECT LOCATION: MIAMI-DADE COUNTY, SEC 26,27 TWP 54S RGE 40E

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. 090928-1, dated September 28, 2009. 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 5),
3. the attached 12 Special Conditions (See Pages : 5 - 5 of 5) and
4. the attached 3 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 8th day of April, 2010, in accordance with Section 120.60(3), Florida Statutes.

BY: _____

Anita R. Bain
Director - Environmental Resource Permitting Division
Palm Beach Service Center

Certified mail number 7009 2250 0003 1260 8298

GENERAL CONDITIONS

1. All activities authorized by this permit shall be implemented as set forth in the plans, specifications and performance criteria as approved by this permit. Any deviation from the permitted activity and the conditions for undertaking that activity shall constitute a violation of this permit and Part IV, Chapter 373. F.S.

2. This permit or a copy thereof, complete with all conditions, attachments, exhibits, and modifications shall be kept at the work site of the permitted activity. The complete permit shall be available for review at the work site upon request by District staff. The permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.

3. Activities approved by this permit shall be conducted in a manner which does not cause violations of State water quality standards. The permittee shall implement best management practices for erosion and pollution control to prevent violation of State water quality standards. Temporary erosion control shall be implemented prior to and during construction, and permanent control measures shall be completed within 7 days of any construction activity. Turbidity barriers shall be installed and maintained at all locations where the possibility of transferring suspended solids into the receiving waterbody exists due to the permitted work. Turbidity barriers shall remain in place at all locations until construction is completed and soils are stabilized and vegetation has been established. All practices shall be in accordance with the guidelines and specifications described in Chapter 6 of the Florida Land Development Manual; A Guide to Sound Land and Water Management (Department of Environmental Regulation, 1988), incorporated by reference in Rule 40E-4.091, F.A.C. unless a project-specific erosion and sediment control plan is approved as part of the permit. Thereafter the permittee shall be responsible for the removal of the barriers. The permittee shall correct any erosion or shoaling that causes adverse impacts to the water resources.

4. The permittee shall notify the District of the anticipated construction start date within 30 days of the date that this permit is issued. At least 48 hours prior to commencement of activity authorized by this permit, the permittee shall submit to the District an Environmental Resource Permit Construction Commencement Notice Form Number 0960 indicating the actual start date and the expected construction completion date.

5. When the duration of construction will exceed one year, the permittee shall submit construction status reports to the District on an annual basis utilizing an annual status report form. Status report forms shall be submitted the following June of each year.

6. Within 30 days after completion of construction of the permitted activity, the permitee shall submit a written statement of completion and certification by a professional engineer or other individual authorized by law, utilizing the supplied Environmental Resource/Surface Water Management Permit Construction Completion/Certification Form Number 0881A, or Environmental Resource/Surface Water Management Permit Construction Completion Certification - For Projects Permitted prior to October 3, 1995 Form No. 0881B, incorporated by reference in Rule 40E-1.659, F.A.C. The statement of completion and certification shall be based on onsite observation of construction or review of as-built drawings for the purpose of determining if the work was completed in compliance with permitted plans and specifications. This submittal shall serve to notify the District that the system is ready for inspection. Additionally, if deviation from the approved drawings are discovered during the certification process, the certification must be accompanied by a copy of the approved permit drawings with deviations noted. Both the original and revised specifications must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawings. All surveyed dimensions and elevations shall be certified by a registered surveyor.

7. The operation phase of this permit shall not become effective: until the permittee has complied with the requirements of condition (6) above, and submitted a request for conversion of Environmental Resource Permit from Construction Phase to Operation Phase, Form No. 0920; the District determines the system to be in compliance with the permitted plans and specifications; and the entity approved by the District in accordance with Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit

SCANNED 04/09/2010 09:56:00 pg

GENERAL CONDITIONS

Applications within the South Florida Water Management District, accepts responsibility for operation and maintenance of the system. The permit shall not be transferred to such approved operation and maintenance entity until the operation phase of the permit becomes effective. Following inspection and approval of the permitted system by the District, the permittee shall initiate transfer of the permit to the approved responsible operating entity if different from the permittee. Until the permit is transferred pursuant to Section 40E-1.6107, F.A.C., the permittee shall be liable for compliance with the terms of the permit.

8. Each phase or independent portion of the permitted system must be completed in accordance with the permitted plans and permit conditions prior to the initiation of the permitted use of site infrastructure located within the area served by that portion or phase of the system. Each phase or independent portion of the system must be completed in accordance with the permitted plans and permit conditions prior to transfer of responsibility for operation and maintenance of the phase or portion of the system to a local government or other responsible entity.

9. For those systems that will be operated or maintained by an entity that will require an easement or deed restriction in order to enable that entity to operate or maintain the system in conformance with this permit, such easement or deed restriction must be recorded in the public records and submitted to the District along with any other final operation and maintenance documents required by Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit applications within the South Florida Water Management District, prior to lot or units sales or prior to the completion of the system, whichever comes first. Other documents concerning the establishment and authority of the operating entity must be filed with the Secretary of State, county or municipal entities. Final operation and maintenance documents must be received by the District when maintenance and operation of the system is accepted by the local government entity. Failure to submit the appropriate final documents will result in the permittee remaining liable for carrying out maintenance and operation of the permitted system and any other permit conditions.

10. Should any other regulatory agency require changes to the permitted system, the permittee shall notify the District in writing of the changes prior to implementation so that a determination can be made whether a permit modification is required.

11. This permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any activity approved by this permit. This permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee, or convey any rights or privileges other than those specified in the permit and Chapter 40E-4 or Chapter 40E-40, F.A.C..

12. The permittee is hereby advised that Section 253.77, F.S. states that a person may not commence any excavation, construction, or other activity involving the use of sovereign or other lands of the State, the title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund without obtaining the required lease, license, easement, or other form of consent authorizing the proposed use. Therefore, the permittee is responsible for obtaining any necessary authorizations from the Board of Trustees prior to commencing activity on sovereignty lands or other state-owned lands.

13. The permittee must obtain a Water Use permit prior to construction dewatering, unless the work qualifies for a general permit pursuant to Subsection 40E-20.302(3), F.A.C., also known as the "No Notice" Rule.

14. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any system authorized by the permit.

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit

SCANNED 01/02/2010

GENERAL CONDITIONS

application, including plans or other supporting documentation, shall not be considered binding, unless a specific condition of this permit or a formal determination under Section 373.421(2), F.S., provides otherwise.

16. The permittee shall notify the District in writing within 30 days of any sale, conveyance, or other transfer of ownership or control of a permitted system or the real property on which the permitted system is located. All transfers of ownership or transfers of a permit are subject to the requirements of Rules 40E-1.6105 and 40E-1.6107, F.A.C.. The permittee transferring the permit shall remain liable for corrective actions that may be required as a result of any violations prior to the sale, conveyance or other transfer of the system.

17. Upon reasonable notice to the permittee, District authorized staff with proper identification shall have permission to enter, inspect, sample and test the system to insure conformity with the plans and specifications approved by the permit.

18. If historical or archaeological artifacts are discovered at any time on the project site, the permittee shall immediately notify the appropriate District service center.

19. The permittee shall immediately notify the District in writing of any previously submitted information that is later discovered to be inaccurate.

DOCUMENT 09/03/2010 08:39:55

SPECIAL CONDITIONS

1. The construction phase of this permit shall expire on April 8, 2015.
2. Operation of the surface water management system shall be the responsibility of the permittee.
3. The permittee shall be responsible for the correction of any erosion, shoaling or water quality problems that result from the construction or operation of the surface water management system.
4. Measures shall be taken during construction to insure that sedimentation and/or turbidity violations do not occur in the receiving water.
5. The District reserves the right to require that additional water quality treatment methods be incorporated into the drainage system if such measures are shown to be necessary.
6. Facilities other than those stated herein shall not be constructed without an approved modification of this permit.
7. A stable, permanent and accessible elevation reference shall be established on or within one hundred (100) feet of all permitted discharge structures no later than the submission of the certification report. The location of the elevation reference must be noted on or with the certification report.
8. The permittee shall provide routine maintenance of all of the components of the surface water management system in order to remove all trapped sediments/debris. All materials shall be properly disposed of as required by law. Failure to properly maintain the system may result in adverse flooding conditions.
9. This permit is issued based on the applicant's submitted information which reasonably demonstrates that adverse water resource related impacts will not be caused by the completed permit activity. Should any adverse impacts caused by the completed surface water management system occur, the District will require the permittee to provide appropriate mitigation to the District or other impacted party. The District will require the permittee to modify the surface water management system, if necessary, to eliminate the cause of the adverse impacts.
10. The permittee acknowledges that, pursuant to Rule 40E-4.101(2), F.A.C., a notice of Environmental Resource or Surface Water Management Permit may be recorded in the county public records. Pursuant to the specific language of the rule, this notice shall not be considered an encumbrance upon the property.
11. If prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, dugout canoes, or any other physical remains that could be associated with Native American cultures, or early colonial or American settlement are encountered at any time within the project site area, the permitted project should cease all activities involving subsurface disturbance in the immediate vicinity of such discoveries. The permittee, or other designee, should contact the Florida Department of State, Division of Historical Resources, Review and Compliance Section at (850) 245-6333 or (800) 847-7278, as well as the appropriate permitting agency office. Project activities should not resume without verbal and/or written authorization from the Division of Historical Resources. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, Florida Statutes.
12. Reference is made to Exhibit No. 2 by the Florida Department of Transportation, Project ID 249035-1-52-01, State Road No. 826 (Palmetto Expressway) Section 2. The plan set consisting of drainage plans and detail sheets. The drawings have been signed and sealed by Ariel Millan P.E., of BCC Engineering, Inc. on 9/23/09 and have been included in this permit by reference (please see permit file).

40E-4.321 Duration of Permits.

(1) Unless revoked or otherwise modified the duration of an environmental resource permit issued under this chapter or Chapter 40E-40, F.A.C., is as follows:

(a) For a conceptual approval, two years from the date of issuance or the date specified as a condition of the permit, unless within that period an application for an individual or standard general permit is filed for any portion of the project. If an application for an environmental resource permit is filed, then the conceptual approval remains valid until final action is taken on the environmental resource permit application. If the application is granted, then the conceptual approval is valid for an additional two years from the date of issuance of the permit. Conceptual approvals which have no individual or standard general environmental resource permit applications filed for a period of two years shall expire automatically at the end of the two year period.

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

1. The effective date of the local government's comprehensive plan amendment,
2. The effective date of the local government development order,
3. The date on which the District issues the conceptual approval, or
4. The date on which the District issues a final order pertaining to the resolution of any Section 120.57, F.S., administrative proceeding or other legal appeals.

(c) For an individual or standard general environmental resource permit, the construction phase authorizing construction, removal, alteration or abandonment of a system shall expire five years from the date of issuance or such amount of time as made a condition of the permit.

(d) For an individual or standard general environmental resource permit, the operational phase of the permit is perpetual for operation and maintenance.

(e) For a noticed general permit issued pursuant to Chapter 40E-400, F.A.C., five years from the date the notice of intent to use the permit is provided to the District.

(2)(a) Unless prescribed by special permit condition, permits expire automatically according to the timeframes indicated in this rule. If application for extension is made by electronic mail at the District's e-Permitting website or in writing pursuant to subsection (3), the permit shall remain in full force and effect until:

1. The Governing Board takes action on an application for extension of an individual permit, or
2. Staff takes action on an application for extension of a standard general permit.

(b) Installation of the project outfall structure shall not constitute a vesting of the permit.

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

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

(5) Substantial modifications to individual or standard general environmental resource permits issued pursuant to a permit application extend the duration of the permit for three years from the date of issuance of the modification. Individual or standard general environmental resource permit modifications do not extend the duration of a conceptual approval.

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

(7) Failure to complete construction or alteration of the surface water management system and obtain operation phase approval from the District within the permit duration shall require a new permit authorization in order to continue construction unless a permit extension is granted.

Specific Authority 373.044, 373.113, 668.003, 668.004, 668.50 FS. Law Implemented 373.413, 373.416, 373.419, 373.426, 668.003, 668.004, 668.50 FS. History–New 9-3-81, Amended 1-31-82, 12-1-82, Formerly 16K-4.07(4), Amended 7-1-86, 4-20-94, 10-3-95, 5-28-00, 10-1-06.

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NOTICE OF RIGHTS

As required by Sections 120.569(1), and 120.60(3), Fla. Stat., following is notice of the opportunities which may be available for administrative hearing or judicial review when the substantial interests of a party are determined by an agency. Please note that this Notice of Rights is not intended to provide legal advice. Not all the legal proceedings detailed below may be an applicable or appropriate remedy. You may wish to consult an attorney regarding your legal rights.

RIGHT TO REQUEST ADMINISTRATIVE HEARING

A person whose substantial interests are or may be affected by the South Florida Water Management District's (SFWMD or District) action has the right to request an administrative hearing on that action pursuant to Sections 120.569 and 120.57, Fla. Stat. Persons seeking a hearing on a District decision which does or may determine their substantial interests shall file a petition for hearing with the District Clerk within 21 days of receipt of written notice of the decision, unless one of the following shorter time periods apply: 1) within 14 days of the notice of consolidated intent to grant or deny concurrently reviewed applications for environmental resource permits and use of sovereign submerged lands pursuant to Section 373.427, Fla. Stat.; or 2) within 14 days of service of an Administrative Order pursuant to Subsection 373.119(1), Fla. Stat. "Receipt of written notice of agency decision" means receipt of either written notice through mail, or electronic mail, or posting that the District has or intends to take final agency action, or publication of notice that the District has or intends to take final agency action. Any person who receives written notice of a SFWMD decision and fails to file a written request for hearing within the timeframe described above waives the right to request a hearing on that decision.

Filing Instructions

The Petition must be filed with the Office of the District Clerk of the SFWMD. Filings with the District Clerk may be made by mail, hand-delivery or facsimile. **Filings by e-mail will not be accepted.** Any person wishing to receive a clerked copy with the date and time stamped must provide an additional copy. A petition for administrative hearing is deemed filed upon receipt during normal business hours by the District Clerk at SFWMD headquarters in West Palm Beach, Florida. Any document received by the office of the SFWMD Clerk after 5:00 p.m. shall be filed as of 8:00 a.m. on the next regular business day. Additional filing instructions are as follows:

- Filings by mail must be addressed to the Office of the SFWMD Clerk, P.O. Box 24680, West Palm Beach, Florida 33416.
- Filings by hand-delivery must be delivered to the Office of the SFWMD Clerk. **Delivery of a petition to the SFWMD's security desk does not constitute filing. To ensure proper filing, it will be necessary to request the SFWMD's security officer to contact the Clerk's office**. An employee of the SFWMD's Clerk's office will receive and file the petition.
- Filings by facsimile must be transmitted to the SFWMD Clerk's Office at (561) 682-6010. Pursuant to Subsections 28-106.104(7), (8) and (9), Fla. Admin. Code, a party who files a document by facsimile represents that the original physically signed document will be retained by that party for the duration of that proceeding and of any subsequent appeal or subsequent proceeding in that cause. Any party who elects to file any document by facsimile shall be responsible for any delay, disruption, or interruption of the electronic signals and accepts the full risk that the document may not be properly filed with the clerk as a result. The filing date for a document filed by facsimile shall be the date the SFWMD Clerk receives the complete document.

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Initiation of an Administrative Hearing

Pursuant to Rules 28-106.201 and 28-106.301, Fla. Admin. Code, initiation of an administrative hearing shall be made by written petition to the SFWMD in legible form and on 8 and 1/2 by 11 inch white paper. All petitions shall contain:

1. Identification of the action being contested, including the permit number, application number, District file number or any other SFWMD identification number, if known.
2. The name, address and telephone number of the petitioner and petitioner's representative, if any.
3. An explanation of how the petitioner's substantial interests will be affected by the agency determination.
4. A statement of when and how the petitioner received notice of the SFWMD's decision.
5. A statement of all disputed issues of material fact. If there are none, the petition must so indicate.
6. A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the SFWMD's proposed action.
7. A statement of the specific rules or statutes the petitioner contends require reversal or modification of the SFWMD's proposed action.
8. If disputed issues of material fact exist, the statement must also include an explanation of how the alleged facts relate to the specific rules or statutes.
9. A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the SFWMD to take with respect to the SFWMD's proposed action.

A person may file a request for an extension of time for filing a petition. The SFWMD may, for good cause, grant the request. Requests for extension of time must be filed with the SFWMD prior to the deadline for filing a petition for hearing. Such requests for extension shall contain a certificate that the moving party has consulted with all other parties concerning the extension and that the SFWMD and any other parties agree to or oppose the extension. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

If the District takes action with substantially different impacts on water resources from the notice of intended agency decision, the persons who may be substantially affected shall have an additional point of entry pursuant to Rule 28-106.111, Fla. Admin. Code, unless otherwise provided by law.

Mediation

The procedures for pursuing mediation are set forth in Section 120.573, Fla. Stat., and Rules 28-106.111 and 28-106.401-.405, Fla. Admin. Code. The SFWMD is not proposing mediation for this agency action under Section 120.573, Fla. Stat., at this time.

RIGHT TO SEEK JUDICIAL REVIEW

Pursuant to Sections 120.60(3) and 120.68, Fla. Stat., a party who is adversely affected by final SFWMD action may seek judicial review of the SFWMD's final decision by filing a notice of appeal pursuant to Florida Rule of Appellate Procedure 9.110 in the Fourth District Court of Appeal or in the appellate district where a party resides and filing a second copy of the notice with the SFWMD Clerk within 30 days of rendering of the final SFWMD action.

SCANNED 04/09/2010

Last Date For Agency Action: April 23, 2010

GENERAL ENVIRONMENTAL RESOURCE PERMIT STAFF REPORT

Project Name: Palmetto Expressway (Sr 826) Section 2

Permit No.: 13-02686-P

Application No.: 090928-1

Application Type: Environmental Resource (General Permit Modification)

Location: Miami-Dade County, S26,27/T54S/R40E

Permittee : Florida Department Of Transportation District 6

Operating Entity : Permittee

Project Area: 37.75 acres

Project Land Use: Highway

Drainage Basin: C-2

Receiving Body: Miller Lake

Special Drainage District: NA

Conservation Easement To District : No

Sovereign Submerged Lands: No

PROJECT PURPOSE:

This application is a request for modification of an Environmental Resource Permit to authorize construction and operation of a surface water management system to serve a 37.75-acre highway improvement project known as Palmetto Expressway (SR 826) Section 2.

SCANNED 07/09/2010

PROJECT EVALUATION:

PROJECT SITE DESCRIPTION:

The project site is SR 826 (Palmetto Expressway) from the Sunset Drive interchange to the CSX railroad tracks to the north. The proposed highway improvements consist of roadway widening and interchange improvements.

PROJECT BACKGROUND:

The Section 2 portion of the proposed SR 826 improvements was originally authorized in December of 2005 (050727-16) which encompassed 146.30-acres and extended from south of Miller Drive (SW 56th Street) to Bird Road (SW 40th Street).

Due to monetary constraints, the immediate project scope has been scaled back to 37.75-acres and will now range from the Sunset Drive interchange and move north to the CSX railroad tracks. The remainder of SR 826 slated for improvements will be addressed in the future.

PROPOSED PROJECT:

Proposed is the modification of Permit No. 13-02686-S for the construction and operation of a surface water management system to serve a 37.75-acre highway improvement project known as Palmetto Expressway (SR 826) Section 2. The intent of the project is to widen SR 826 from eight lanes to ten lanes.

The project has been divided into two drainage systems:

System-1begins at the SR 826 interchange with Sunset Drive and extends north to just south of the SR 826 interchange with Miller Drive. The proposed surface water management system will consist of inlets, culverts, retention swales and exfiltration trench which will provide water quality treatment. This system is self-contained with no offsite discharge.

System-2 begins with the Miller Drive interchange and extends north to the CSX railroad tracks. The proposed surface water management system will consist of inlets, culverts, retention swales and exfiltration trench which will provide water quality treatment prior to overflow into Miller Lake. This system has been divided into three sub-systems. The first two sub-systems will be self-contained with no offsite discharge. The third sub-system will overflow to Miller Lake.

LAND USE:

Construction:

Basin : System 1

	Total Basin	
Impervious	9.56	acres
Pervious	4.05	acres
Total:	**13.61**	

Basin : System 2

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
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Basin : System 2

	Total Basin	
Impervious	16.31	acres
Pervious	8.10	acres
Total:	**24.41**	

WATER QUANTITY :

Discharge Rate :

The applicant has submitted analysis which demonstrates that the 25-year 3-day post-development discharge will be less than the existing condition.

Control Elevation :

Basin	Area (Acres)	Ctrl Elev (ft, NGVD 29)	WSWT Ctrl Elev (ft, NGVD 29)	Method Of Determination
System 1	13.61	3	3.00	Wet Season Water Table
System 2	24.41	3	3.00	Wet Season Water Table

WATER QUALITY :

The required water quality treatment (2.5" times the percent impervious) will be provided and split between dry retention swales and exfiltration trench.

Basin		Treatment Method	Vol Req.d (ac-ft)	Vol Prov'd
System 1	Treatment	Dry Retention And Trench	1	1
System 2	Treatment	Dry Retention And Trench	1.58	1.58

WETLANDS:

Wetland issues were addressed by the issuance of ERP Number 13-02686-P. Adverse impacts to wetlands or other surface waters are not anticipated.

CERTIFICATION AND MAINTENANCE OF THE WATER MANAGEMENT SYSTEM:

It is suggested that the permittee retain the services of a Professional Engineer registered in the State of Florida for periodic observation of construction of the surface water management (SWM) system. This will facilitate the completion of construction completion certification Form #0881 which is required pursuant to Section 10 of the Basis of Review for Environmental Resource Permit Applications within the South Florida Water Management District, and Rule 40E-4.361(2), Florida Administrative Code (F.A.C.).

Pursuant to Chapter 40E-4 F.A.C., this permit may not be converted from the construction phase to the operation phase until certification of the SWM system is submitted to and accepted by this District. Rule 40E-4.321(7) F.A.C. states that failure to complete construction of the SWM system and obtain operation phase approval from the District within the permit duration shall require a new permit authorization unless

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a permit extension is granted.

For SWM systems permitted with an operating entity who is different from the permittee, it should be noted that until the permit is transferred to the operating entity pursuant to Rule 40E-1.6107, F.A.C., the permittee is liable for compliance with the terms of this permit.

The permittee is advised that the efficiency of a SWM system will normally decrease over time unless the system is periodically maintained. A significant reduction in flow capacity can usually be attributed to partial blockages of the conveyance system. Once flow capacity is compromised, flooding of the project may result. Maintenance of the SWM system is required to protect the public health, safety and the natural resources of the state. Therefore, the permittee must have periodic inspections of the SWM system performed to ensure performance for flood protection and water quality purposes. If deficiencies are found, it is the responsibility of the permittee to correct these deficiencies in a timely manner.

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RELATED CONCERNS:

Water Use Permit Status:

This permit does not release the permittee from obtaining all necessary Water Use authorization(s) prior to the commencement of activities which will require such authorization, including construction dewatering and irrigation, unless the work qualifies for a No-Notice Short-Term Dewatering permit pursuant to Chapter 40E-20.302(3) or is exempt pursuant to Section 40E-2.051, FAC.

CERP:

The proposed project is not located within or adjacent to a Comprehensive Everglades Restoration Project component.

Right-Of-Way Permit Status:

A District Right-of-Way Permit is not required for this project.

DRI Status:

This project is not a DRI.

Historical/Archeological Resources:

On October 26, 2009 the District received a letter from the Florida Department of State, Division of Historical Resources (DHR) requesting plans depicting the proposed activities to detemine if the proposed activities will impact historical resources adjacent to the proposed project (Exhibit Number 3.1). Following receipt of the October 26, 2009 correspondence, the FDOT forwarded a Technical Memorandum discussing cultural resources to the DHR. Following the review of the Technical Memorandum, the DHR requested that the project corridor be subjected to a professional Phase I cultural resurce survey (Exhibit Number 3.2).After a meeting held on February 11, 2010 the DHR has determined that the project does not have the potential to affect significant historical resources due to the nature and location of the proposed activities (Exhibit Number 3.3). This permit does not release the permittee from compliance with any other agencies' requirements in the event that historical and/or archaeological resources are found on the site.

DCA/CZM Consistency Review:

The District has not received a finding of inconsistency from the Florida Department of Environmental Protection or other commenting agencies regarding the provisions of the federal Coastal Zone Management Plan.

Third Party Interest:

No third party has contacted the District with concerns about this application.

Enforcement:

There has been no enforcement activity associated with this application.

STAFF REVIEW:

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DIVISION APPROVAL:

NATURAL RESOURCE MANAGEMENT:

Anita R. Bain

DATE: 4/7/10

Anita R. Bain

SURFACE WATER MANAGEMENT:

DATE: 4/7/10

Carlos A. de Rojas, P.E.

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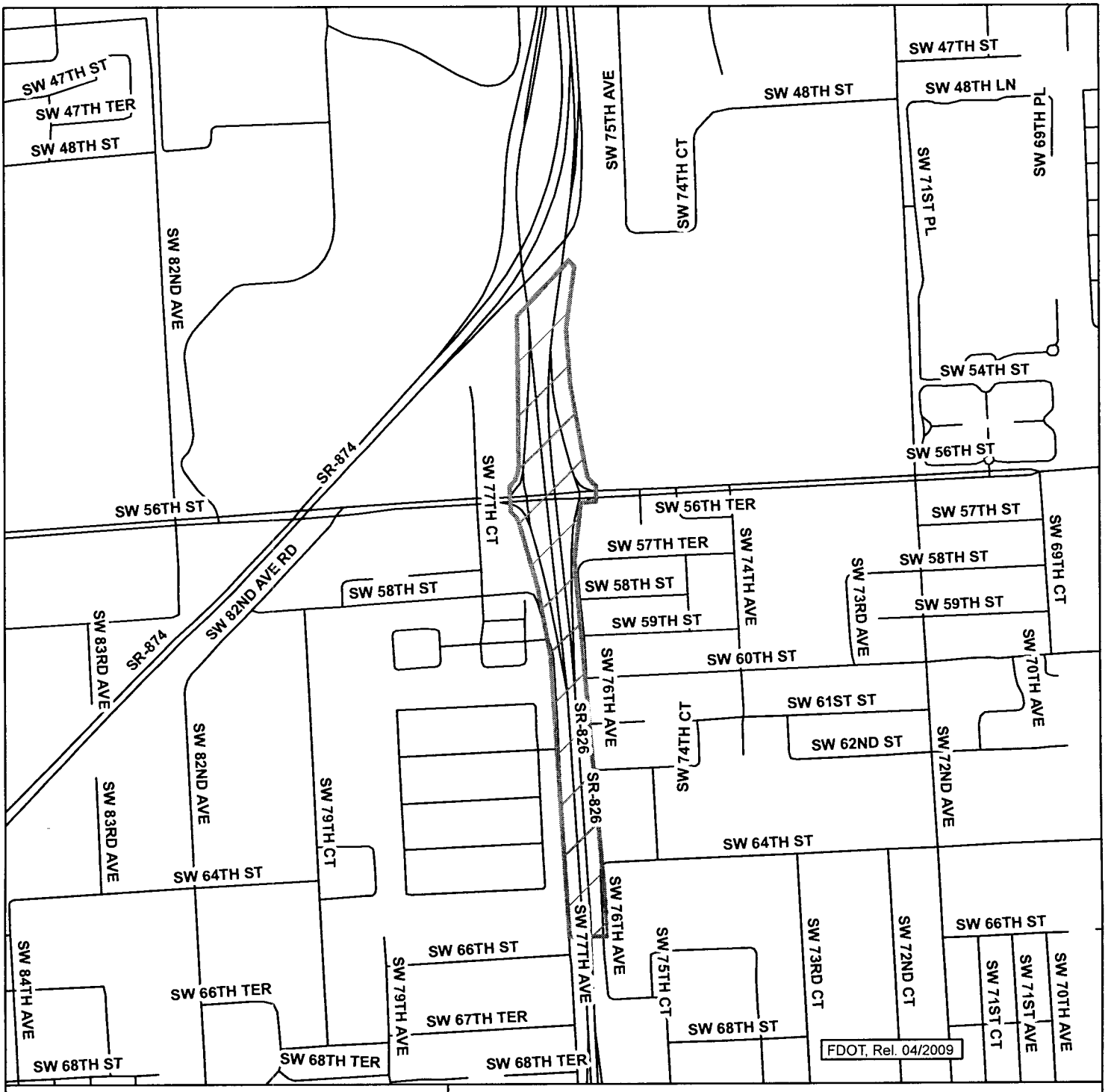

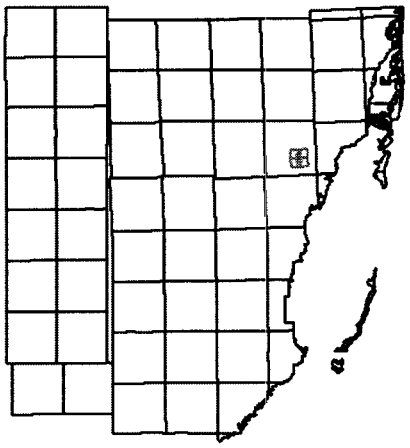

MIAMI-DADE COUNTY, FLORIDA

N

Legend

Application

Map Date: 4/7/2010

Application Number: 090928-1

Permit Number: 13-02686-P

Project Name: PALMETTO EXPRESSWAY (SR 826) SECTION 2

0 1,200 2,400

Feet

Exhibit : 1

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STAFF REPORT DISTRIBUTION LIST

PALMETTO EXPRESSWAY (SR 826) SECTION 2

Application No: 090928-1

Permit No: 13-02686-P

INTERNAL DISTRIBUTION

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X Agent - Bcc Engineering

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X Div of Recreation and Park - District 5 - FDEP
X Miami-Dade County - DERM (Carlos Espinosa, PE)
X Miami-Dade County - DERM (Manny Tobon, PE, PLS)
X Miami-Dade County Engineer Public Works Department

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Miami FL 33133

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Miami FL 33172

Department of Env.Resource Mgmt Matt Davis-
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Miami FL 33136

Miami-Dade County - DERM (Carlos Espinosa, PE)
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Miami FL 33136

Miami-Dade County Engineer Public Works Department
111 Nw First Street
Metro Dade Center, 14th Floor
Miami FL 33128

DOCUMENT CONTROLLED 04/06/2010 11:11:19 DC

SECTION 4

CALCULATIONS

DOCUMENTS
01/22/2010 09/09/2010 14:18 PM

SYSTEM 1

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SECTION 4
CALCULATIONS

WATER QUALITY CALCULATIONS
SYSTEM 1

Prepared by: A.R. Date: 6/18/2009
Check by: B.B. Date: 6/18/2009
Approved by: L.R. Date: 6/18/2009

SYSTEM 1 - SOUTH OF MILLER DRIVE

WATER QUALITY ANALYSIS

Area:

Impervious	**9.56**	Ac.	70%
Pervious	**4.05**	Ac.	30%
Total Area	**13.61**	Ac.	
	Cimp.=	98	0.98
	Cperv.=	25	0.25

Water Quality Requirements:

SFWMD CRITERIA:

2.5 inches times the impervious area or
1.0 inch times the total project area

For proposed treatment system with dry retention, 50% of the above values apply.
For proposed treatment system with dry detention, 75% of the above values apply.

1-) 2.5 inches times the percentage of imperviousness:

WQ Required (2.5")

WQ (2.5") = (A-imp x 2.5" x 1"/12')

WQ (2.5") = **1.99** Ac-ft

2-) 1 inch times total project area:

WQ Required (1")

WQ (1") = (A-total x 1" x 1"/12')

WQ (1") = **1.13** Ac-ft

Larger of Step 1 and 2

WQ Required = **1.99** Ac-ft

3-) Volume Required for WQ Retention or Detention

Retention	50% Required
Detention	75% Required
Wet	100% Required

Pond Type
Retention (Select pond type)

Volume required to be treated for water quality

WQ x Dry Retention = **1.00** Ac-ft

SFWMD Required Water Quality Volume = 1.00 Ac.-Ft.

DERM CRITERIA:

$$t_{1"} = \frac{2940 \times F^{-0.11}}{308.5 \times C - 60.5\,(0.5895 + F^{-0.67})}$$

WHERE:

$t_{1"}$ = time to generate 1" of runoff, in minutes

F= 10 Yr.,frequency in years, DCPW Manual, Part II, Section D4 - Water Control, Table I. See Appendix A.

Cwtd= 0.76 weighted runoff coefficient (from the rational formula)

Tc= 10 **MIN.** time of concentration, in minutes

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Weighted C = $(A_{IMP} \times C_{IMP} + A_{PERV} \times C_{PERV}) / A_T$ = **0.76**

$t_{1"}$ = 12.22 MIN.

TOTAL TIME OF CONCENTRATION (T_T)

$T_T = t_{1"} + Tc$ = 22.22 MIN.

STORM INTENSITY (Dade County Rainfall Intensity-Duration-Frequency Curves)

$$i = \frac{308.5}{48.6 \times F^{-0.11} + Tt\,(0.5895 + F^{-0.67})}$$

i = 5.55 IN/HR.

RUNOFF FLOW

$Q_{1"} = C \times I \times AT$ = Equation 3.2-2

$Q_{1"}$ = 57.63 CFS FOR THE 1st INCH OF RUNOFF

DETERMINE THE TOTAL RUNOFF VOLUME TO BE TREATED V(1") (FOR 1 INCH):
(The credit for the Volume available in Ponds and Swales was not taken into account)

$V_{1"} = 60\ Q_{1"}\ T_T$ = 76835.15 cf **1.76** **Ac.-Ft.**

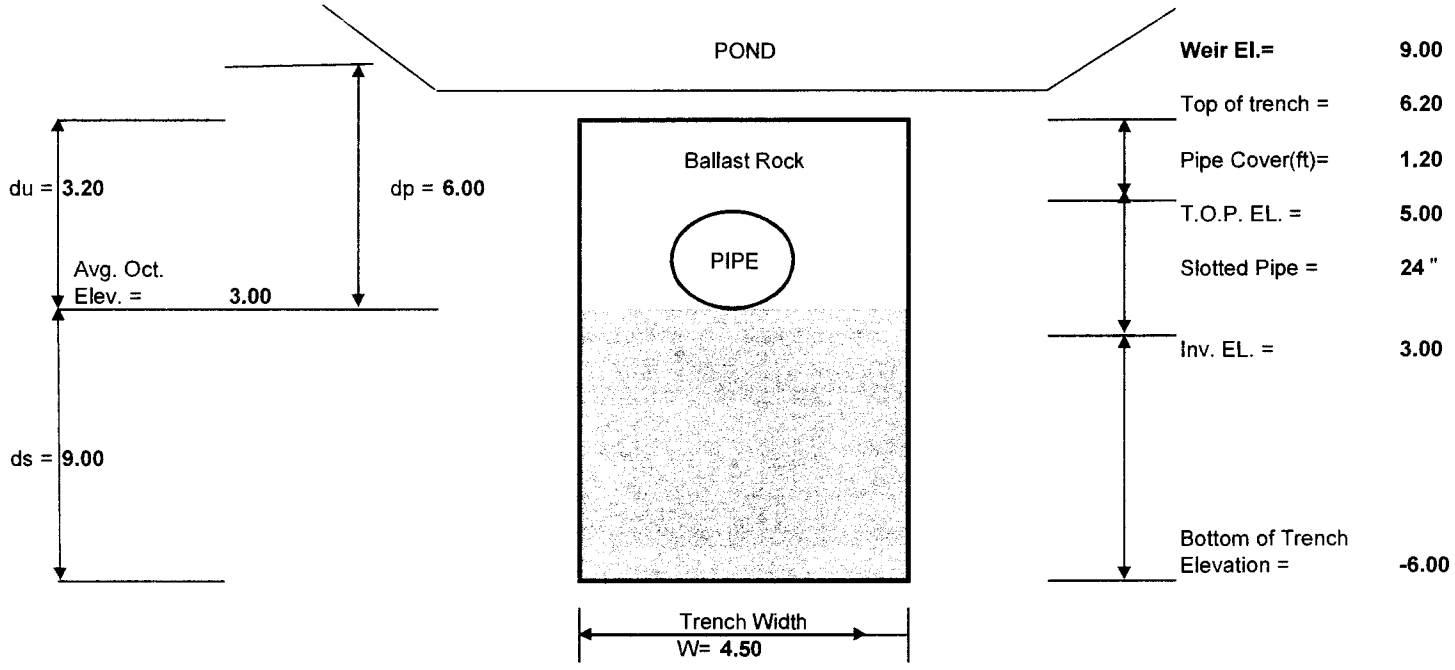
DRY RETENTION VOLUME PROVIDED:

Pond/Ditch:

Pond/Ditch:	WQ Volume (Ac-ft)
Swale East	0.20
Swale West	0.18
Total	**0.37**

Retention/Detention Volume Provided: **0.37** **Ac-ft** < **1.76** **Ac.-Ft.** **Add. Volume Required**

V_T-V_{POND}= **1.39** **Ac-ft** = **60631** **cf**



AVERAGE PERCOLATION RATE DETERMINATION

PERC. TEST	GROUND EL. ft, NGVD	K_{15}-TEST cfs/ft2-ft head	ds ft, NGVD	du ft, NGVD	dp ft, NGVD	ET cfs/ft- FD
PT-1	9.00	2.29E-03	9.00	3.20	6.00	3.12E-01
Average		2.29E-03				
E (For Round Holes)						**0.150**

ET (MAXIMUM) =	**1.50E-01**	**cfs/ft- FD**

Equation used E_t = $2K_{15}(d_u(d_p-d_u/2)+d_sd_p)$ **cfs/ foot of FD** (Eq. 2.6-1) Exfiltration Trench Reference Manual

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STORAGE

$$S= (Wxdu-A_a)x0.5+A_a$$

Area pipe above of WT (Aa) =	3.14	sf
Width of Trench (W) =	4.50	sf
Depth to Water Table (du) =	3.20	sf
Diameter of Pipe (D) =	24.00	sf
Storage (S) =	**8.77**	**Cu ft/ft of FD**

$$L_{1"} = V_{1"} / S + 60 E_T T_T$$

$L_{1"}$ = **290** FT

$L_{PROV.}$ = **1853.00** **FT**

Safety factor= **6**

WQ Volume Req. (Ac-ft)	WQ Volume Prov (Ac-ft)			REMARK
	Ponds	F.D	Total	
1.76	0.37	8.88	9.25	OK

POND VOLUME CALCULATION
SYSTEM 1
SWALE WEST

	Elevation (NGVD)	Area (Ac)	Volume (Ac-ft)
Bottom	8.20	0.18	0.00
Top	9.00	0.26	0.18
Weir	9.00		0.18

Number of Contours =	2

Elevation	Area (Ac)	Volume (Ac-ft)
8.20	0.18	0.00
9.00	0.26	0.18

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POND VOLUME CALCULATION
SYSTEM 1
SWALE EAST

	Elevation (NGVD)	*Area (Ac)*	*Volume (Ac-ft)*
Bottom	8.20	0.18	0.00
Top	9.00	0.31	0.20
Weir	9.00		0.20

Number of Contours =	2

Elevation	*Area (Ac)*	*Volume (Ac-ft)*
8.20	0.18	0.00
9.00	0.31	0.20

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Palmetto Expressway Improvement Project
S.R 826 @ Miller Drive /S.R. 874 Bird Road Interchanges
Post-Development conditions

Prepared by: **B.B.** Date: **6/18/2009**
Check by: **A.R.** Date: **6/18/2009**
Approved by: **L.R.** Date: **6/18/2009**

SYSTEM 1 - SOUTH OF MILLER DRIVE

Exfiltration Rate Calculations - Design High Water Elevation and Elevation Within Aggregate Media and Peak Water Elevation Above Aggregate Media

ICPR Link:E_OPT_ 89.5

Operating Table

Initial Ground Water Table		= 3.00	ft, NGVD
Maximum Ground Water Level		= 5.16	ft, NGVD
Top of the Trench		= 6.2	ft, NGVD
Bottom of Trench		= -6.0	ft, NGVD
Maximum Possible Stage		= 9.00	ft, NGVD
(Perc. Test P-1)	K_{15}	= **2.29E-03**	cfs/sf-ft head
Width of Trench		= 4.50	ft
Diameter of the Pipe		= 24	in
Invert Elevation		= 3.00	ft, NGVD
Length of F.D (Below WQ Calculation)		= 44.8	ft
Max. Exf. Rate		= **1.50E-01**	(cfs/ft)

Tailwater (ft)	Headwater (ft)	Du (ft)	Ds (ft)	Dp (ft)	E (cfs/ft)	Equation
3.00	3.00	-	-	-	0.00	-
3.00	6.20	3.20	9.00	3.20	0.15000	$E=2K_{15}du(du/2+ds)$
3.00	9.00	3.20	9.00	6.00	0.15000	$E=2K_{15}(d_U(d_P-d_U/2)+d_Sd_P)$
5.16	5.16	-	-	-	0.00	-
5.16	6.20	1.04	11.16	1.04	0.05563	$E=2K_{15}du(du/2+ds)$
5.16	9.00	1.04	11.16	3.84	0.15000	$E=2K_{15}(d_U(d_P-d_U/2)+d_Sd_P)$

Tw (EL.ft)	Hw (EL.ft)	E (cfs/ft)	Length (ft)	Discharge (cfs)
3.00	3.00	0.000	44.75	0.000
3.00	6.20	0.150	44.75	6.713
3.00	9.00	0.150	44.75	6.713
5.16	5.16	0.000	44.75	0.000
5.16	6.20	0.056	44.75	2.490
5.16	9.00	0.150	44.75	6.713

Palmetto Expressway Improvement Project
S.R 826 @ Miller Drive /S.R. 874 Bird Road Interchanges
Post-Development conditions

Prepared by: **B.B.** Date: **6/18/2009**
Check by: **A.R.** Date: **6/18/2009**
Approved by: **L.R.** Date: **6/18/2009**

SYSTEM 1 - SOUTH OF MILLER DRIVE

Exfiltration Rate Calculations - Design High Water Elevation and Elevation Within Aggregate Media and Peak Water Elevation Above Aggregate Media

ICPR Link:E_OPT_ 139.5

Operating Table

Initial Ground Water Table		= 3.00	ft, NGVD
Maximum Ground Water Level		= 5.16	ft, NGVD
Top of the Trench		= 6.2	ft, NGVD
Bottom of Trench		= -6.0	ft, NGVD
Maximum Possible Stage		= 9.00	ft, NGVD
(Perc. Test P-1)	K_{15}	= **2.29E-03**	cfs/sf-ft head
Width of Trench		= 4.50	ft
Diameter of the Pipe		= 24	in
Invert Elevation		= 3.00	ft, NGVD
Length of F.D (Below WQ Calculation)		= 69.8	ft
Max. Exf. Rate		= **1.50E-01**	(cfs/ft)

Tailwater (ft)	Headwater (ft)	Du (ft)	Ds (ft)	Dp (ft)	E (cfs/ft)	Equation
3.00	3.00	-	-	-	0.00	-
3.00	6.20	3.20	9.00	3.20	0.15000	$E=2K_{15}du(du/2+ds)$
3.00	9.00	3.20	9.00	6.00	0.15000	$E=2K_{15}(d_U(d_P-d_U/2)+d_Sd_P)$
5.16	5.16	-	-	-	0.00	-
5.16	6.20	1.04	11.16	1.04	0.05563	$E=2K_{15}du(du/2+ds)$
5.16	9.00	1.04	11.16	3.84	0.15000	$E=2K_{15}(d_U(d_P-d_U/2)+d_Sd_P)$

Tw (EL.ft)	Hw (EL.ft)	E (cfs/ft)	Length (ft)	Discharge (cfs)
3.00	3.00	0.000	69.75	0.000
3.00	6.20	0.150	69.75	10.463
3.00	9.00	0.150	69.75	10.463
5.16	5.16	0.000	69.75	0.000
5.16	6.20	0.056	69.75	3.880
5.16	9.00	0.150	69.75	10.463

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Palmetto Expressway Improvement Project
S.R 826 @ Miller Drive /S.R. 874 Bird Road Interchanges
Post-Development conditions

Prepared by: **B.B.** Date: **6/18/2009**
Check by: **A.R.** Date: **6/18/2009**
Approved by: **L.R.** Date: **6/18/2009**

SYSTEM 1 - SOUTH OF MILLER DRIVE

Exfiltration Rate Calculations - Design High Water Elevation and Elevation Within Aggregate Media and Peak Water Elevation Above Aggregate Media

ICPR Link:E_OPT_ 279

Operating Table

Initial Ground Water Table		= 3.00	ft, NGVD
Maximum Ground Water Level		= 5.16	ft, NGVD
Top of the Trench		= 6.2	ft, NGVD
Bottom of Trench		= -6.0	ft, NGVD
Maximum Possible Stage		= 9.00	ft, NGVD
(Perc. Test P-1)	K_{15}	= **2.29E-03**	cfs/sf-ft head
Width of Trench		= 4.50	ft
Diameter of the Pipe		= 24	in
Invert Elevation		= 3.00	ft, NGVD
Length of F.D (Below WQ Calculation)		= 139.5	ft
Max. Exf. Rate		= **1.50E-01**	(cfs/ft)

Tailwater (ft)	Headwater (ft)	Du (ft)	Ds (ft)	Dp (ft)	E (cfs/ft)	Equation
3.00	3.00	-	-	-	0.00	-
3.00	6.20	3.20	9.00	3.20	0.15000	$E=2K_{15}du(du/2+ds)$
3.00	9.00	3.20	9.00	6.00	0.15000	$E=2K_{15}(d_U(d_P-d_U/2)+d_Sd_P)$
5.16	5.16	-	-	-	0.00	-
5.16	6.20	1.04	11.16	1.04	0.05563	$E=2K_{15}du(du/2+ds)$
5.16	9.00	1.04	11.16	3.84	0.15000	$E=2K_{15}(d_U(d_P-d_U/2)+d_Sd_P)$

Tw (EL.ft)	Hw (EL.ft)	E (cfs/ft)	Length (ft)	Discharge (cfs)
3.00	3.00	0.000	139.50	0.000
3.00	6.20	0.150	139.50	20.925
3.00	9.00	0.150	139.50	20.925
5.16	5.16	0.000	139.50	0.000
5.16	6.20	0.056	139.50	7.761
5.16	9.00	0.150	139.50	20.925

SCANNED 04/09/2010 14:18 DR

Palmetto Expressway Improvement Project
S.R 826 @ Miller Drive /S.R. 874 Bird Road Interchanges
Post-Development conditions

Prepared by: **B.B.** Date: **6/18/2009**
Check by: **A.R.** Date: **6/18/2009**
Approved by: **L.R.** Date: **6/18/2009**

SYSTEM 1 - SOUTH OF MILLER DRIVE

Exfiltration Rate Calculations - Design High Water Elevation and Elevation Within Aggregate Media and Peak Water Elevation Above Aggregate Media

ICPR Link:E_OPT_ 229

Operating Table

Initial Ground Water Table		= 3.00	ft, NGVD
Maximum Ground Water Level		= 5.16	ft, NGVD
Top of the Trench		= 6.2	ft, NGVD
Bottom of Trench		= -6.0	ft, NGVD
Maximum Possible Stage		= 9.00	ft, NGVD
(Perc. Test P-1)	K_{15}	= **2.29E-03**	cfs/sf-ft head
Width of Trench		= 4.50	ft
Diameter of the Pipe		= 24	in
Invert Elevation		= 3.00	ft, NGVD
Length of F.D (Below WQ Calculation)		= 114.5	ft
Max. Exf. Rate		= **1.50E-01**	(cfs/ft)

Tailwater (ft)	Headwater (ft)	Du (ft)	Ds (ft)	Dp (ft)	E (cfs/ft)	Equation
3.00	3.00	-	-	-	0.00	-
3.00	6.20	3.20	9.00	3.20	0.15000	$E=2K_{15}du(du/2+ds)$
3.00	9.00	3.20	9.00	6.00	0.15000	$E=2K_{15}(d_U(d_P-d_U/2)+d_Sd_P)$
5.16	5.16	-	-	-	0.00	-
5.16	6.20	1.04	11.16	1.04	0.05563	$E=2K_{15}du(du/2+ds)$
5.16	9.00	1.04	11.16	3.84	0.15000	$E=2K_{15}(d_U(d_P-d_U/2)+d_Sd_P)$

Tw (EL.ft)	Hw (EL.ft)	E (cfs/ft)	Length (ft)	Discharge (cfs)
3.00	3.00	0.000	114.50	0.000
3.00	6.20	0.150	114.50	17.175
3.00	9.00	0.150	114.50	17.175
5.16	5.16	0.000	114.50	0.000
5.16	6.20	0.056	114.50	6.370
5.16	9.00	0.150	114.50	17.175

COMPONENTS OF SEGMENT CONTRACT PLANS SET

ROADWAY PLANS
SIGNING AND PAVEMENT MARKING PLANS
SIGNALIZATION PLANS
LIGHTING PLANS

A DETAILED INDEX APPEARS ON THE KEY SHEET OF EACH COMPONENT

INDEX OF ROADWAY PLANS

1	KEY SHEET
PR-1 - PR-4	PLANS REVISIONS

REFER TO THE KEY SHEET OF EACH SEGMENT:

SEGMENT 1: SR 826 FROM BEGIN PROJECT TO MILLER DRIVE

SEGMENT 2: MILLER DRIVE PLANS

SEGMENT 3: SR 826 FROM MILLER DRIVE TO CSXT R/R TRACKS

SEGMENT 4: SR 826/SR 874 SYSTEM-TO -SYSTEM INTERCHANGE PLANS (UP TO STA.440+00.00)

SEGMENT 5: SR 826 FROM STA. 440+00.00 TO BIRD ROAD (SR. 976)

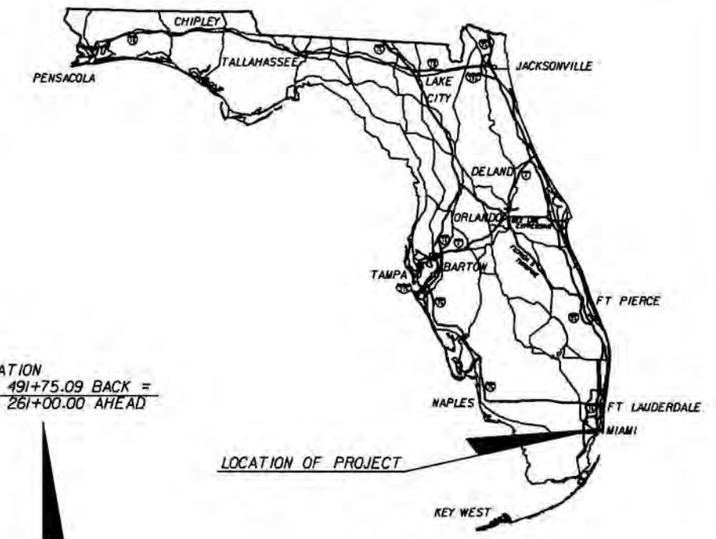
SEGMENT 6: SR 826 FROM BIRD ROAD (SR. 976) TO END PROJECT

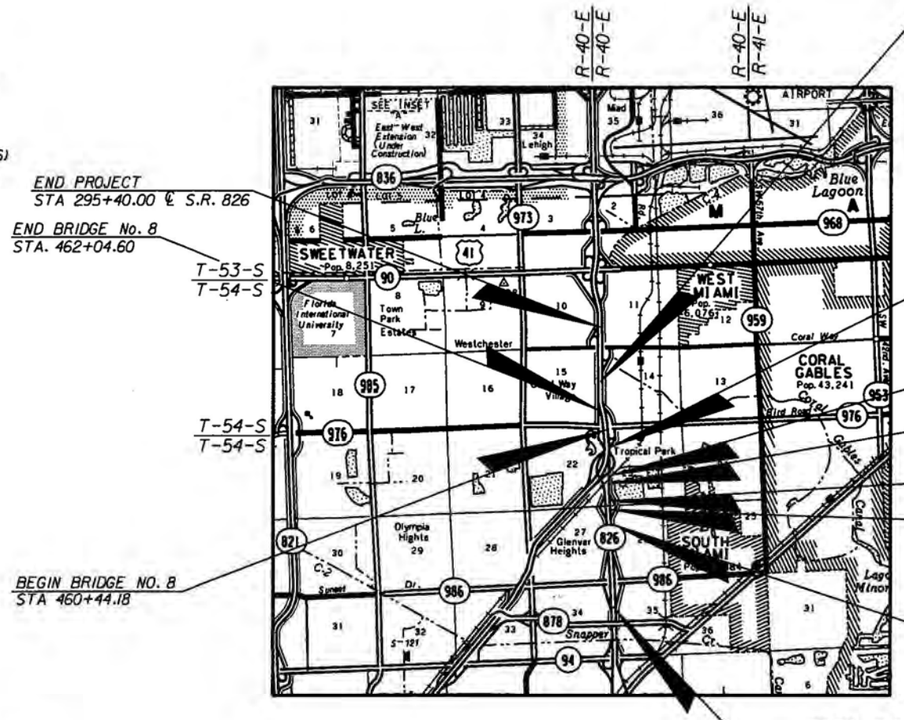
SEGMENT 7: BIRD ROAD (SR 976) PLANS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

FINAL AS-BUILTS PLANS

FINANCIAL PROJECT ID 249035-1-52-01
(FEDERAL FUNDS)
MIAMI-DADE COUNTY (87260)
STATE ROAD NO. 826 (PALMETTO EXPRESSWAY)
SECTION 2





END PROJECT
STA 295+40.00 ℄ S.R. 826

END BRIDGE No. 8
STA. 462+04.60

BEGIN BRIDGE NO. 8
STA 460+44.18

EQUATION
STA 491+75.09 BACK =
STA 261+00.00 AHEAD

EQUATION
STA. 105+92.37 S.R. 874 BACK =
STA 434+01.57 AHEAD

END BRIDGE NO. 6
STA 424+21.75

BEGIN BRIDGE NO. 6
STA 420+91.75

END BRIDGE NO. 1
STA 406+74.11

BEGIN BRIDGE NO. 1
STA 405+14.36

EQUATION
STA. 125+00.00 BACK =
STA 373+74.18 AHEAD

BEGIN PROJECT
STA 96+00.00
M.P. 1.8048 (NB)

N

0 1 2
MILES

ROADWAY SHOP DRAWINGS TO BE SUBMITTED TO:

ARIEL MILLAN
7300 N Kendall Drive, Suite 400
Miami, Florida 33156
Phone: (305) 670-2350
Fax: (305) 670-2351

NAME OF CONTRACTOR CONDOTTE DEMOYA JV
NAME OF ALL CONSULTANTS INVOLVED BCC ENGINEERING, TYLIN INTERNATIONAL, FR ALEMAN & ASSOCIATES, GEOSOL, INC.

RESIDENT ENGINEER ERIK PADRON, PE
SENIOR PROJECT ENGINEER STEVEN McCUE, PE
DISTRICT SECRETARY GUS PEGO
DATE WORK STARTED 11/10/2008
DATE WORK CONDITIONAL AND ACCEPTED N/A
DATE WORK FINAL ACCEPTANCE OR COMPLETED MARCH, 2012

GOVERNING STANDARDS AND SPECIFICATIONS:
FLORIDA DEPARTMENT OF TRANSPORTATION, DESIGN STANDARDS DATED 2008, AND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED 2007, AS AMENDED BY CONTRACT DOCUMENTS.

APPLICABLE DESIGN STANDARDS MODIFICATIONS: 01-01-08
For Design Standards Modifications click on "Design Standards" at the following web site:
http://www.dot.state.fl.us/rddesign/

REVISIONS:

REFER TO SHEETS PR-1 TO PR-4 FOR A LIST OF ALL PLANS REVISIONS

VERIFIED BY CEI RESPONSIBLE ENGINEER
NEW MILLENNIUM ENGINEERING, INC.
7294 SW 48 STREET, SUITE 4-A
MIAMI, FLORIDA 33155

THIS PROJECT WAS CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH THESE PLANS AS PROVIDED BY THE ENGINEER OF RECORD. IF CHANGES WERE MADE, THOSE CHANGES ARE INDICATED BY BLACK INK REVISION AND BEAR THE SEAL AND SIGNATURE OF THE RESPONSIBLE PROFESSIONAL ENGINEER.

5/22/12

PROJECT LENGTH IS BASED ON ℄ OF CONSTRUCTION SR 826 NB

LENGTH OF PROJECT

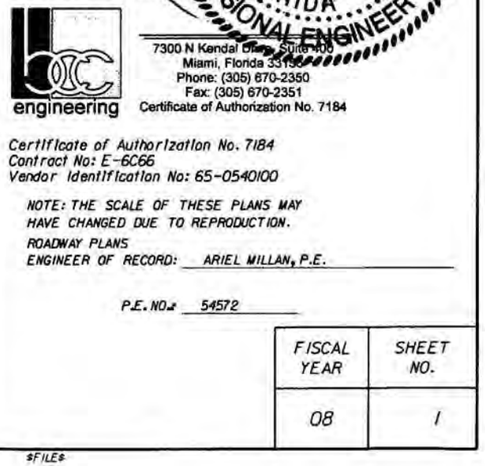
	LINEAR FEET	MILES
ROADWAY	17,490.74	3.313
BRIDGES	650.17	0.123
NET LENGTH OF PROJECT	18,140.91	3.436
EXCEPTIONS	0.00	0.000
GROSS LENGTH OF PROJECT	18,140.91	3.436

FDOT PROJECT MANAGER: JASON CHANG, P.E.

KEY SHEET REVISIONS

DATE	DESCRIPTION

PLANS PREPARED BY:



bcc engineering
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Miami, Florida 33156
Phone: (305) 670-2350
Fax: (305) 670-2351
Certificate of Authorization No. 7184

Certificate of Authorization No. 7184
Contract No: E-6C66
Vendor Identification No: 65-0540100

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

ROADWAY PLANS
ENGINEER OF RECORD: ARIEL MILLAN, P.E.

P.E. NO.: 54572

FISCAL YEAR	SHEET NO.
08	1

$USER$ $DATE$ $TIME$ $FILE$

1" = 200'

SYSTEM-IA ⟷ SYSTEM-I

BEGIN PAVEMENT WIDENING
BEGIN SHOULDER WIDENING
STA. 373+74.18 ℄ SR 826

MATCH LINE STA. 373+74.18 Ext. -2032.18

1005 1010 1105 1110 1115 1120

℄ RAMP "Q"
RAMP "Q"
℄ RAMP "R"
RAMP "R"
SR 826 SB
℄ SR 826
SR 826 NB

105 110 115 120

IAE-01 IAS-01 IAS-02 IAS-03 IAS-04 IAS-05 IAS-06 IAS-07 IAS-08 IAS-09 IAS-10 IAS-11 IAS-12

IS-01 IS-02 IS-03 IS-04 IS-05 IS-06 IS-07 IS-08 IS-09 IS-10 IS-11 IS-12 IS-13 IS-14

IB-1 0.21 Ac.
IB-2 0.28 Ac.
IB-3 0.28 Ac.
IB-4 0.22 Ac.
IB-5 0.38 Ac.
IB-6 0.48 Ac.
IB-7 0.48 Ac.
IB-8 0.45 Ac.
IB-9 0.39 Ac.
IB-10 0.48 Ac.
IB-11 0.36 Ac.
IB-12 0.26 Ac.
IB-13 0.44 Ac.
IB-14 0.32 Ac.
IB-15 0.32 Ac.
IB-16 0.73 Ac.
IB-17 0.02 Ac.

IE-OFF 1.51 Ac.

STATION EQUATION:
STA. 125+00.00 ℄ SR 826 (BK)=
STA. 373+74.18 ℄ SR 826 (AH)

SYSTEM-IA ⟷ SYSTEM -I

MATCH LINE STA. 382+42.00

NOTE:

SYSTEM IA WILL NOT BE MODELED BECAUSE WE HAVE THE SAME IMPERVIOUS AREA AS IN THE PRE-DEVELOPMENT CONDITION.
PRE-DEVELOPMENT CONDITION OF OPEN SHOULDER IS BEING REPLACED WITH BARRIER WALL AND INLET.

RELEASED FOR CONSTRUCTION

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

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

engineering
ARIEL MILLAN, P.E.
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

DRAINAGE MAP

PAGE NO. 1-2

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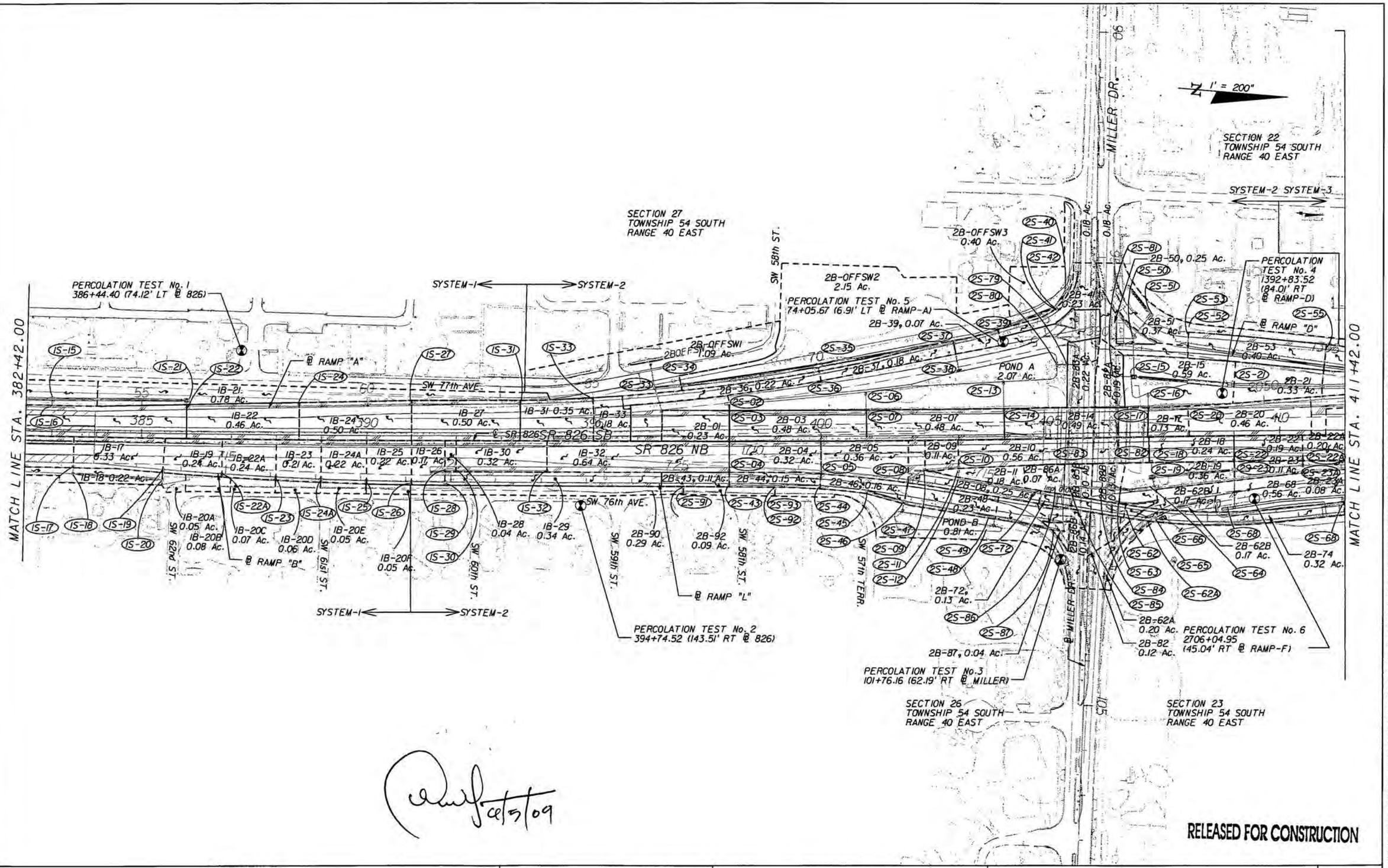

12/3/09

RELEASED FOR CONSTRUCTION

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

engineering
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

DRAINAGE MAP

PAGE NO. 1-3

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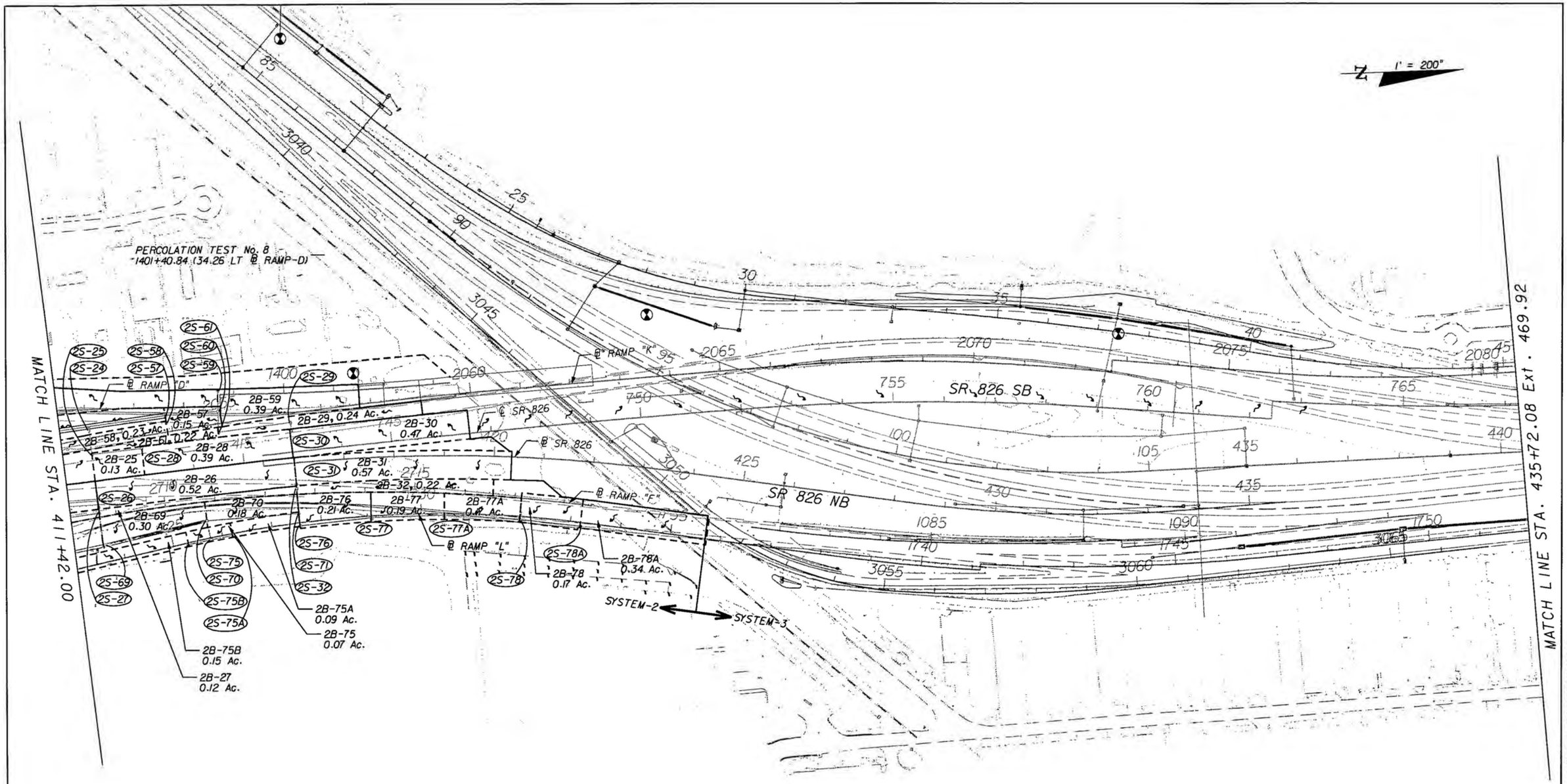

5/5/09

RELEASED FOR CONSTRUCTION

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

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

engineering

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Certificate of Authorization No. 7184

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

DRAINAGE MAP

PAGE NO. 1-4

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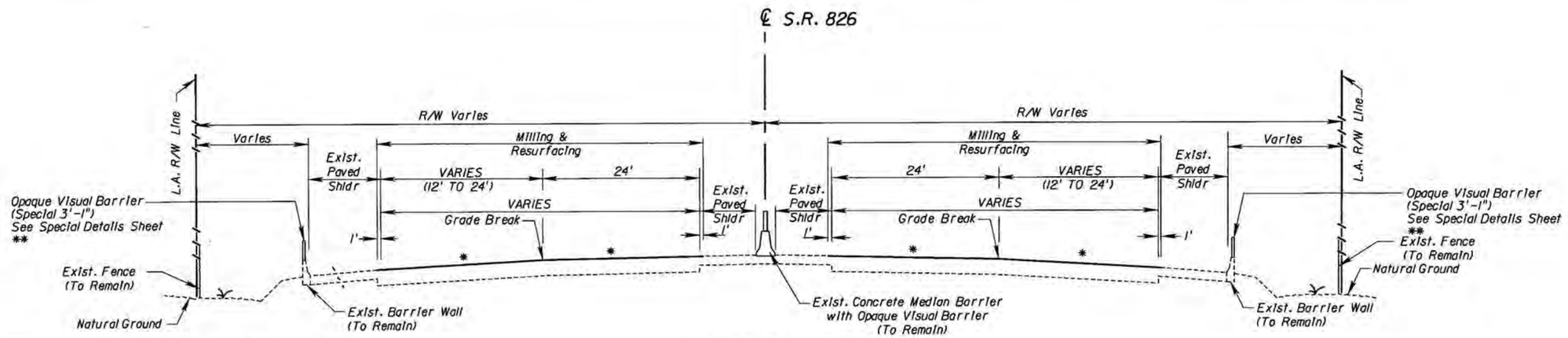


NOTES:
1. CONTRACTOR SHALL REMOVE THE EXISTING FRICTION COURSE IN ITS ENTIRETY WITHIN THE MILLING LIMITS. IF THE THICKNESS VARIES MORE THAN 1/4" FROM THE ANTICIPATED 3/4" THICKNESS, CONTRACTOR SHALL CONTACT THE ENGINEER FOR FURTHER DIRECTION.

2. CONTRACTOR HAS THE OPTION TO USE TYPE SP STRUCTURAL COURSE (TRAFFIC D)

TRAFFIC DATA

CURRENT YEAR = 2007 AADT = 99000
ESTIMATED OPENING YEAR = 2011 AADT = 109100
ESTIMATED DESIGN YEAR = 2031 AADT = 135900
K = 10.02% D = 74.90 % T = 6.60% (24 HOUR)
DESIGN SPEED = 60 MPH

TYPICAL SECTION
S.R. 826
MILLING & RESURFACING
STA 96+00.00 TO STA 102+65.79
STA 104+32.79 TO STA 125+00.55 (BK) = STA 373+74.18 (AH)

MILLING
MILL EXISTING ASPHALT PAVEMENT (3/4" AVG. DEPTH) (SEE NOTE 1)
RESURFACING
FRICTION COURSE FC-5 (3/4") (W/ PG 76-22 BINDER)

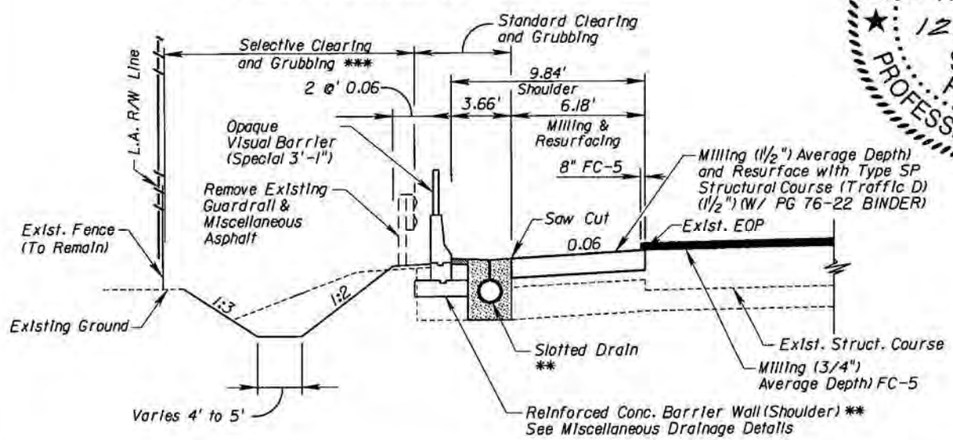
RAMP R
STA. 1107+00.00 TO STA. 1111+50.00
MILLING
MILL EXISTING ASPHALT CONCRETE PAVEMENT (3/4" AVG. DEPTH) (SEE NOTE 1)
RESURFACING
FRICTION COURSE FC-5 (3/4") (W/ PG 76-22 BINDER)

* MATCH EXIST. CROSS SLOPE
** CONSTRUCT WHERE INDICATED IN PLANS.
*** ESTABLISHED TREES (PARTICULARLY NATIVES) NOT IN CONFLICT WITH CONSTRUCTION SHALL REMAIN UNLESS INDICATED OTHERWISE IN LANDSCAPE PLANS

RELEASED FOR CONSTRUCTION

DIONISIO FELIPE TORRES LICENSE No. 58196 12/9/11 STATE OF FLORIDA PROFESSIONAL ENGINEER

S.R. 826 PARTIAL SECTION
FROM STA. 115+00. TO STA. 125+00 (SB)
SEE MISC. DRAINAGE DETAILS SHEETS)



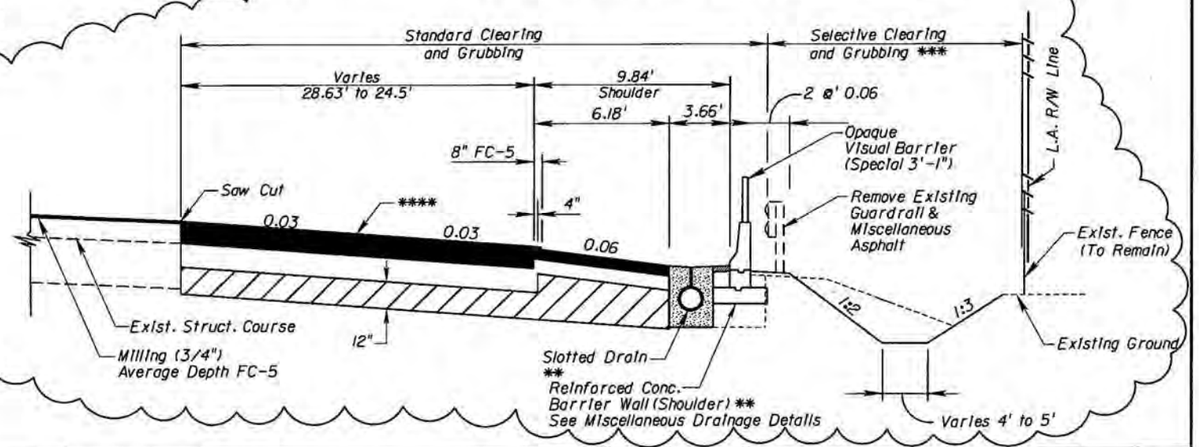
S.R. 826 PARTIAL SECTION
FROM STA. 120+00. TO STA. 125+00 (NB) (LANES 3&4)

****** NEW CONSTRUCTION**

OPTIONAL BASE GROUP 09 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC D) (2")
TYPE SP STRUCTURAL COURSE (TRAFFIC D) (2") (W/ PG 76-22 BINDER)
FRICTION COURSE FC-5 (3/4") (W/ PG 76-22 BINDER)

SHOULDER PAVEMENT

OPTIONAL BASE GROUP 02 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC B) (2") (SEE NOTE 2)



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
12/09/2011	70 CHANGED MILLING & RESURFACING AND NEW CONSTRUCTION LIMITS		

engineering
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Certificate of Authorization No. 7184

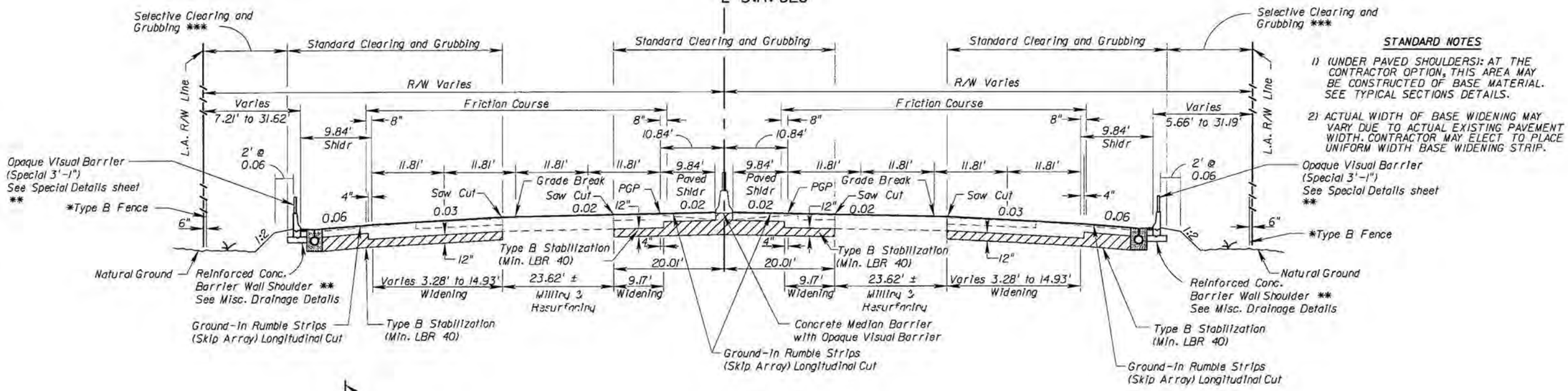
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

TYPICAL SECTIONS

SHEET NO. 1-5

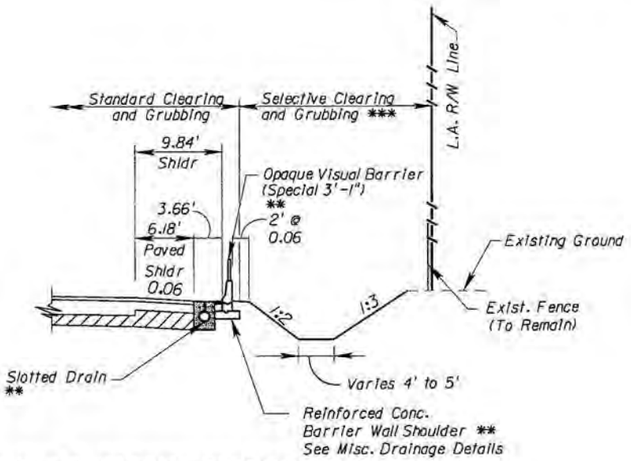
$USER$ $DATE$ $TIME$ $FILE$



STANDARD NOTES

1) (UNDER PAVED SHOULDERS): AT THE CONTRACTOR OPTION, THIS AREA MAY BE CONSTRUCTED OF BASE MATERIAL. SEE TYPICAL SECTIONS DETAILS.

2) ACTUAL WIDTH OF BASE WIDENING MAY VARY DUE TO ACTUAL EXISTING PAVEMENT WIDTH. CONTRACTOR MAY ELECT TO PLACE UNIFORM WIDTH BASE WIDENING STRIP.



S.R. 826 PARTIAL SECTION (LT. & RT.)

TYPICAL SECTION
S.R. 826
MILLING, RESURFACING & WIDENING
STA 373+74.18 TO STA 383+95.61

MILLING

MILL EXISTING ASPHALT PAVEMENT (2.6" AVG. DEPTH)

RESURFACING

TYPE SP OVERBUILD (TRAFFIC D) (4.5" AVERAGE) (0" TO 9")
TYPE SP STRUCTURAL COURSE (TRAFFIC D) (2")
TYPE SP STRUCTURAL COURSE (TRAFFIC D) (2") (W/ PG 76-22 BINDER)
FRICTION COURSE FC-5 (3/4") (W/ PG 76-22 BINDER)

WIDENING

OPTIONAL BASE GROUP 11 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC D) (2")
TYPE SP STRUCTURAL COURSE (TRAFFIC D) (2") (W/ PG 76-22 BINDER)
FRICTION COURSE FC-5 (3/4") (W/ PG 76-22 BINDER)

SHOULDER PAVEMENT

OPTIONAL BASE GROUP 02 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC B) (SEE NOTE 1)

TRAFFIC DATA

CURRENT YEAR = 2007 AADT = 99000
ESTIMATED OPENING YEAR = 2011 AADT = 109100
ESTIMATED DESIGN YEAR = 2031 AADT = 135900
K = 10.02% D = 74.90 % T = 6.60% (24 HOUR)
DESIGN SPEED = 60 MPH

* Type B Fence (Location as Specified in Plans).

** Construct as Indicated in Plans.

*** Established trees (particularly natives) not in conflict with construction shall remain unless indicated otherwise in landscape plans

NOTES:

1. CONTRACTOR HAS THE OPTION TO USE TYPE SP STRUCTURAL COURSE (TRAFFIC D)

RELEASED FOR CONSTRUCTION

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

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

engineering
ARIEL MILLAN, P.E.
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Certificate of Authorization No. 7184

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

TYPICAL SECTIONS

SHEET NO. 1-6

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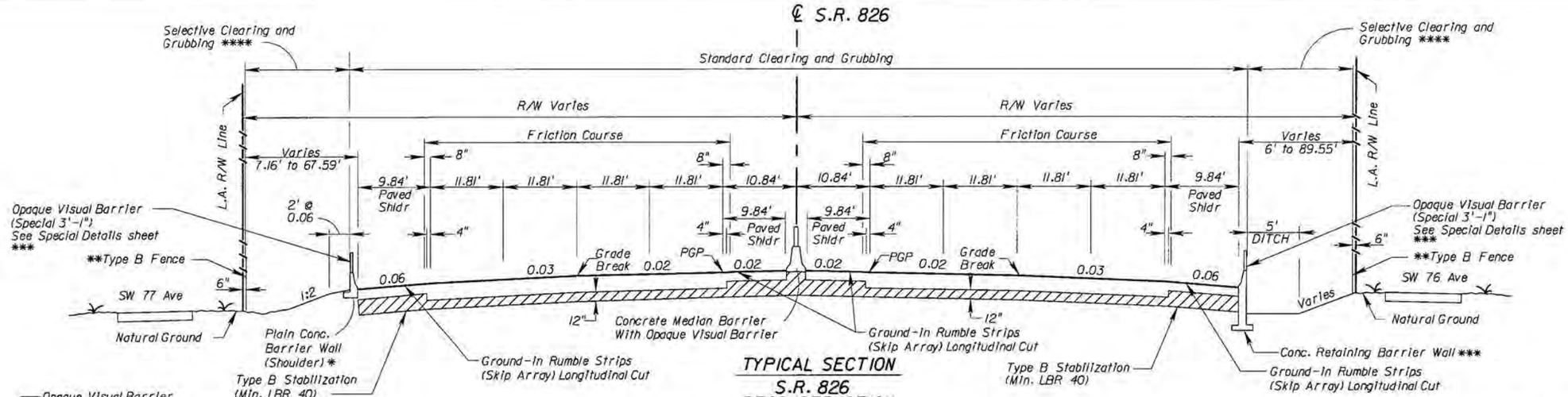


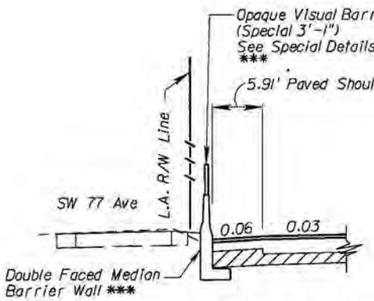
TYPICAL SECTION
S.R. 826
RECONSTRUCTION
STA 383+95.61 TO STA 395+05.89

NEW CONSTRUCTION

OPTIONAL BASE GROUP 09 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC D)(2")
TYPE SP STRUCTURAL COURSE (TRAFFIC D)(2")(W/ PG 76-22 BINDER)
FRICTION COURSE FC-5 (3/4")(W/ PG 76-22 BINDER)

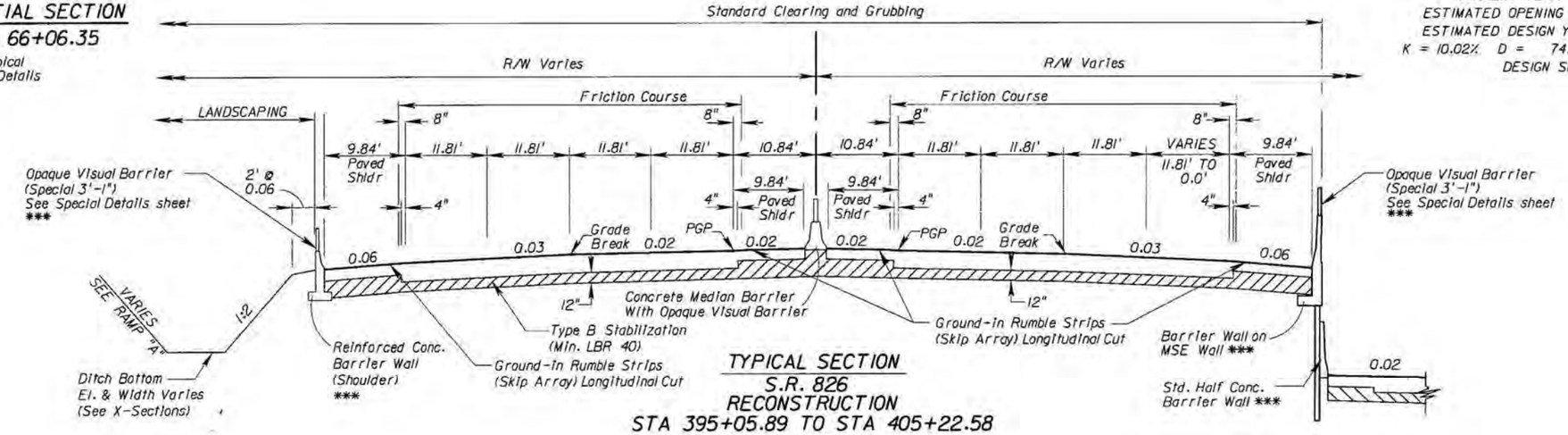
SHOULDER PAVEMENT

OPTIONAL BASE GROUP 02 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC B)(2")(SEE NOTE 1)



S.R. 826/ RAMP A PARTIAL SECTION
STA 62+95.24 TO STA 66+06.35

See S.W. 77th Ave Typical Section For Additional Details



TYPICAL SECTION
S.R. 826
RECONSTRUCTION
STA 395+05.89 TO STA 405+22.58

NEW CONSTRUCTION

OPTIONAL BASE GROUP 09 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC D)(2")
TYPE SP STRUCTURAL COURSE (TRAFFIC D)(2")(W/ PG 76-22 BINDER)
FRICTION COURSE FC-5 (3/4")(W/ PG 76-22 BINDER)

SHOULDER PAVEMENT

OPTIONAL BASE GROUP 02 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC B)(2")(SEE NOTE 1)

* Construct Barrier Wall as Indicated on plans. If no Barrier is Required, use 11.81' Outside Shoulder (See Details).

** Type B Fence (Location as Specified In Plans).

*** Construct as Indicated In Plans.

**** Established trees (particularly natives) not in conflict with construction shall remain unless Indicated otherwise In landscape plans.

TRAFFIC DATA

CURRENT YEAR = 2007 AADT = 99000
ESTIMATED OPENING YEAR = 2011 AADT = 109100
ESTIMATED DESIGN YEAR = 2031 AADT = 135900
K = 10.02% D = 74.90 % T = 6.60% (24 HOUR)
DESIGN SPEED = 60 MPH

6/5/09

RELEASED FOR CONSTRUCTION

NOTES:

1. CONTRACTOR HAS THE OPTION TO USE TYPE SP STRUCTURAL COURSE (TRAFFIC D)

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

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

engineering
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Certificate of Authorization No. 7184

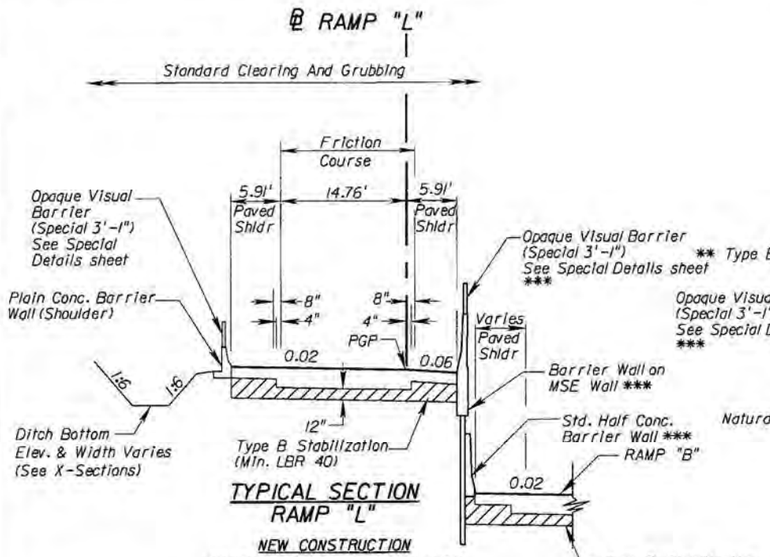
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

TYPICAL SECTIONS

SHEET NO. 1-7

dcruz 5/20/2009 10:49:14 AM \\dell745n\cadd\249035\5201\segment 1\roadway\typsrd03.dgn



TYPICAL SECTION RAMP "L"

NEW CONSTRUCTION

OPTIONAL BASE GROUP 09 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC D)(1 1/2")
TYPE SP STRUCTURAL COURSE (TRAFFIC D)(1 1/2")(W/ PG 76-22 BINDER)
FRICTION COURSE FC-5 (3/4")(W/ PG 76-22 BINDER)

SHOULDER PAVEMENT

OPTIONAL BASE GROUP 04 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC B)(1 1/2")(SEE NOTE 1)

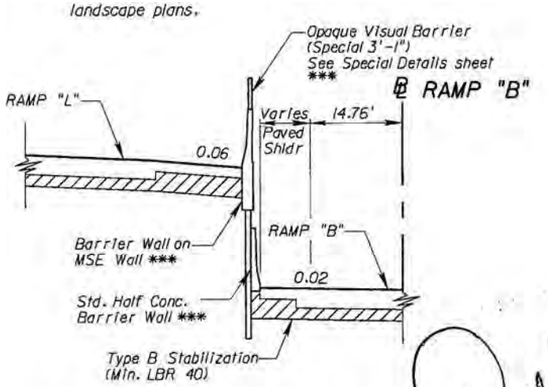
DESIGN SPEED = VARIES
(SEE CURVE DATA TABLES)

* 1:6 for fills to 5'
1:6 to edge of clear zone and 1:4 for fills 5' to 10'

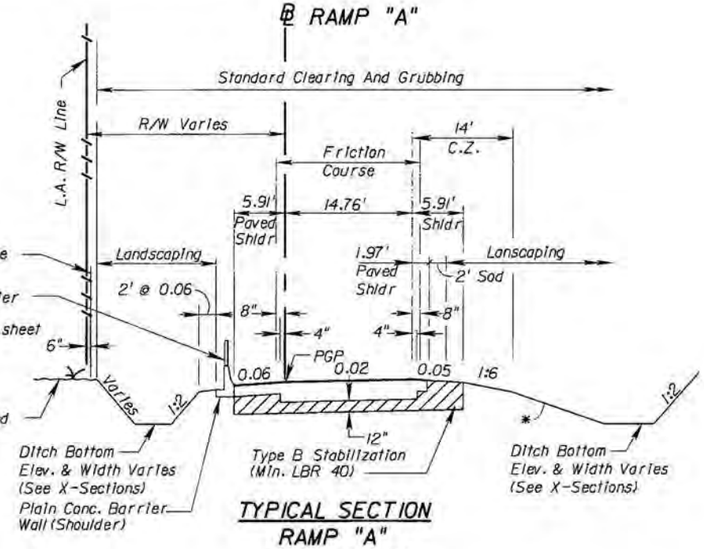
** Type B Fence (Location as Specified in Plans).

*** Construct as Indicated in Plans.

**** Established trees (particularly natives) not in conflict with construction shall remain unless indicated otherwise in landscape plans.



RAMP B PARTIAL SECTION
STA. 726+63.69 TO STA. 732+90.76



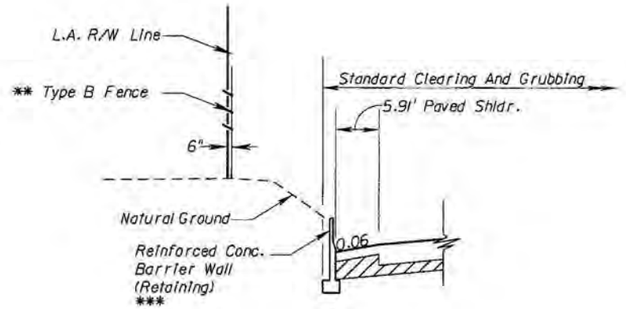
TYPICAL SECTION RAMP "A"

NEW CONSTRUCTION

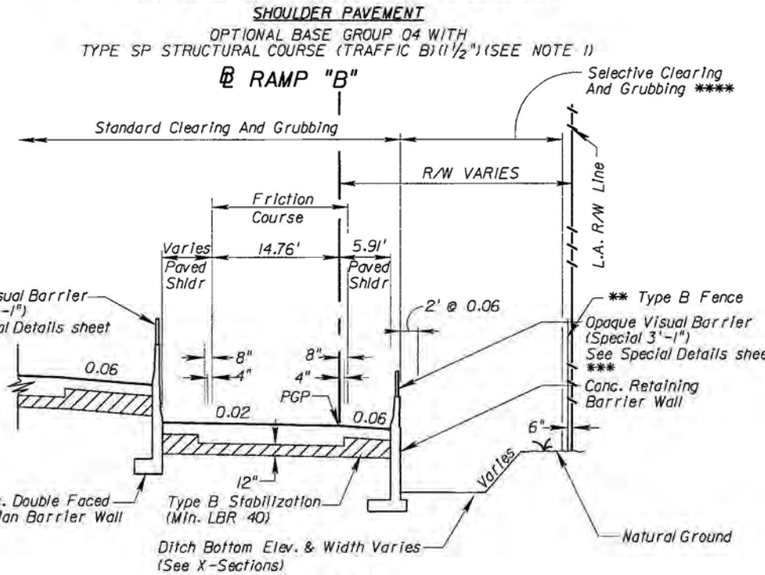
OPTIONAL BASE GROUP 09 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC D)(1 1/2")
TYPE SP STRUCTURAL COURSE (TRAFFIC D)(1 1/2")(W/ PG 76-22 BINDER)
FRICTION COURSE FC-5 (3/4")(W/ PG 76-22 BINDER)

SHOULDER PAVEMENT

OPTIONAL BASE GROUP 04 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC B)(1 1/2")(SEE NOTE 1)



RAMP "A" PARTIAL SECTION
STA. 73+40.00 TO STA. 75+34.23



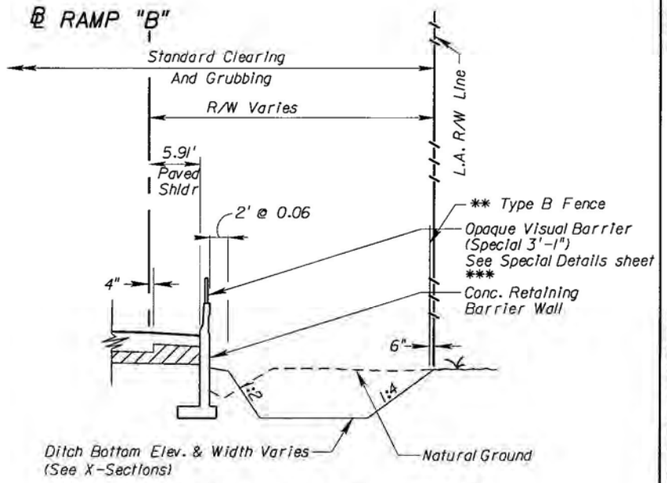
TYPICAL SECTION RAMP "B"

NEW CONSTRUCTION

OPTIONAL BASE GROUP 09 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC D)(1 1/2")
TYPE SP STRUCTURAL COURSE (TRAFFIC D)(1 1/2")(W/ PG 76-22 BINDER)
FRICTION COURSE FC-5 (3/4")(W/ PG 76-22 BINDER)

SHOULDER PAVEMENT

OPTIONAL BASE GROUP 04 WITH
TYPE SP STRUCTURAL COURSE (TRAFFIC B)(1 1/2")(SEE NOTE 1)



RAMP B PARTIAL SECTION
STA. 729+70.00 TO STA. 732+27.00

NOTES:
1. FOR PAVED SHOULDERS LESS THAN 5' WIDE CONTRACTOR SHALL MATCH THE SAME TRAFFIC LEVEL AND MIX AS THE RAMP TRAFFIC LANES. FOR PAVED SHOULDERS WIDER THAN 5 FEET CONTRACTOR HAS THE OPTION TO USE TYPE SP STRUCTURAL COURSE (TRAFFIC D)

RELEASED FOR CONSTRUCTION

6/5/09

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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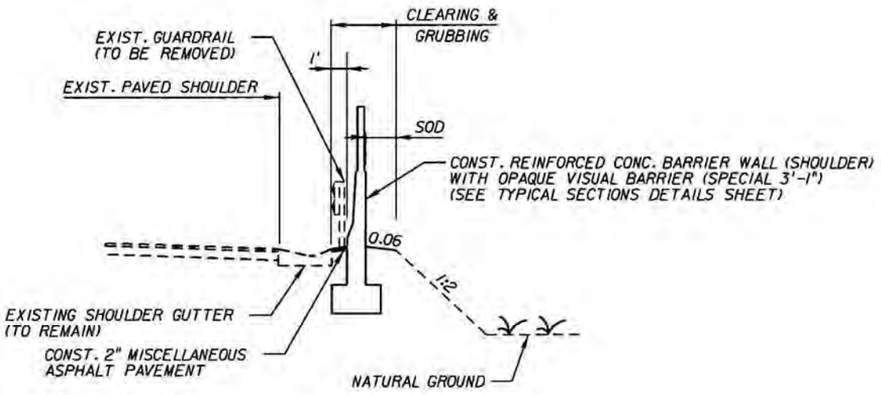
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

TYPICAL SECTIONS

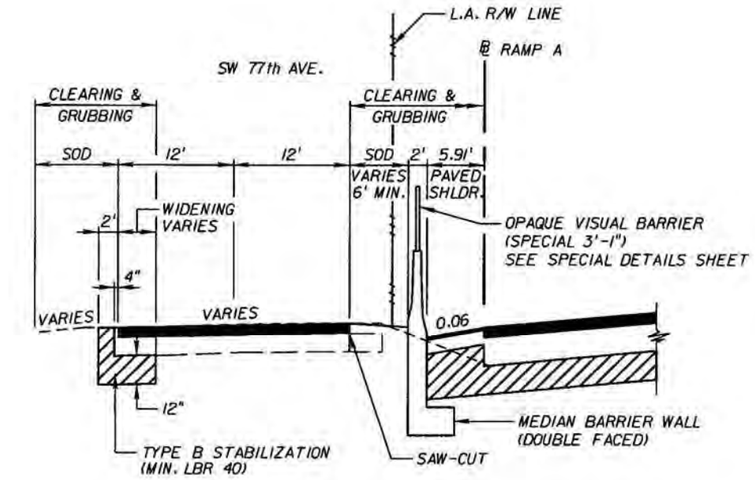
SHEET NO. 1-8

dcruz 5/20/2009 10:49:15 AM \\dot1745n\cadd\249035\5201\segment 1\roadway\typsrd04.dgn



RAMP "Q"

S.B. EXIT RAMP TO SUNSET DRIVE
N.T.S.



TYPICAL SECTION

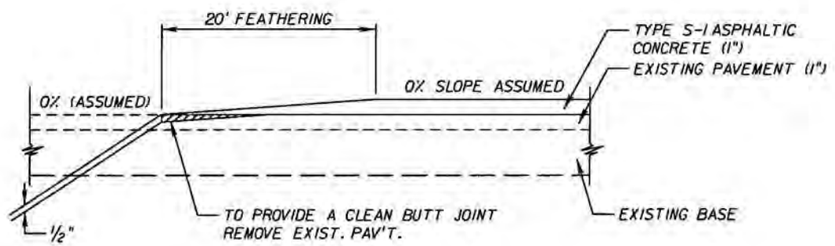
SW 77 TH AVE
FROM STA. 392+96.00 TO STA. 396+06.00 (℄ SR 826)

RESURFACING

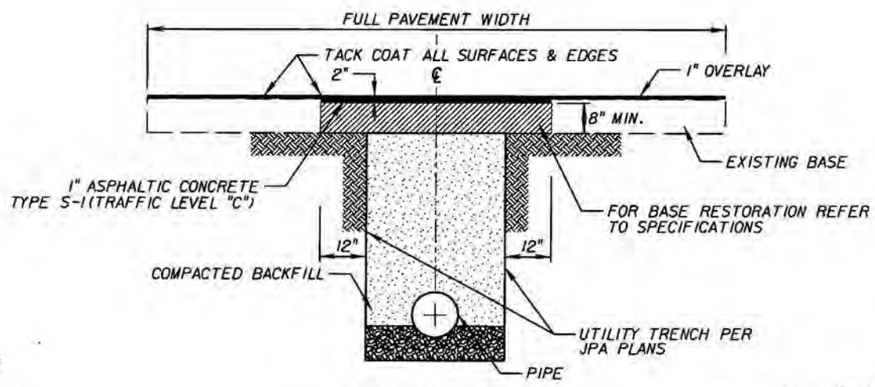
TYPE S-1 ASPHALTIC CONCRETE (1")

WIDENING

OPTIONAL BASE GROUP 06 WITH
TYPE S-1 ASPHALTIC CONCRETE (1")



FEATHERING DETAIL
NTS



UTILITY TRENCH
PAVEMENT RESTORATION DETAIL

OVERLAY

TYPE S-1 ASPHALTIC CONCRETE (1") (TRAFFIC LEVEL "C")
* AT DRIVEWAY CONNECTIONS, CONTRACTOR SHALL MILL 1" OF ASPHALT ADJACENT TO THE DRIVEWAYS AND FEATHER THE MILLING AWAY FROM THE DRIVEWAYS AT A SLOPE OF 1:20 (OR FLATTER).

6/5/09

RELEASED FOR CONSTRUCTION

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REVISIONS			
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STATE OF FLORIDA
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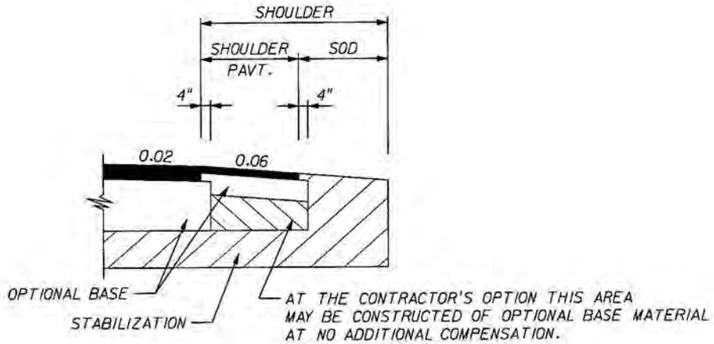
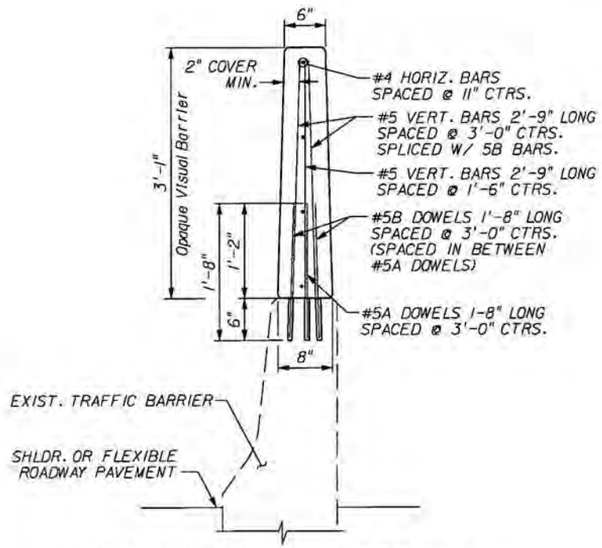
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

TYPICAL SECTIONS

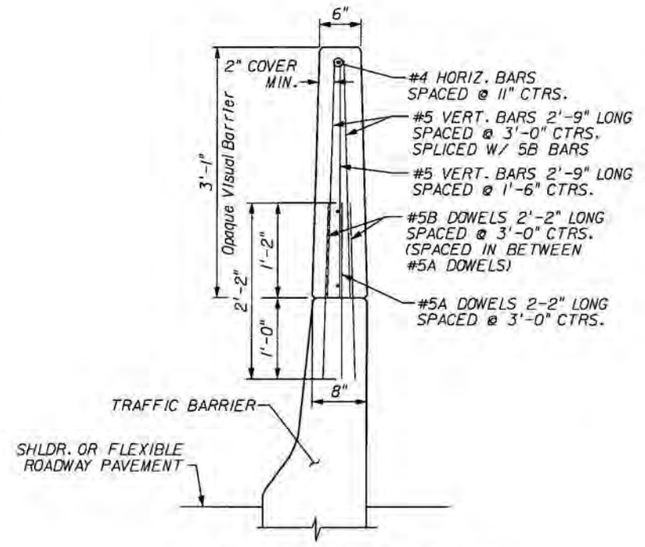
SHEET NO. 1-9



SHOULDER PAVEMENT DETAIL

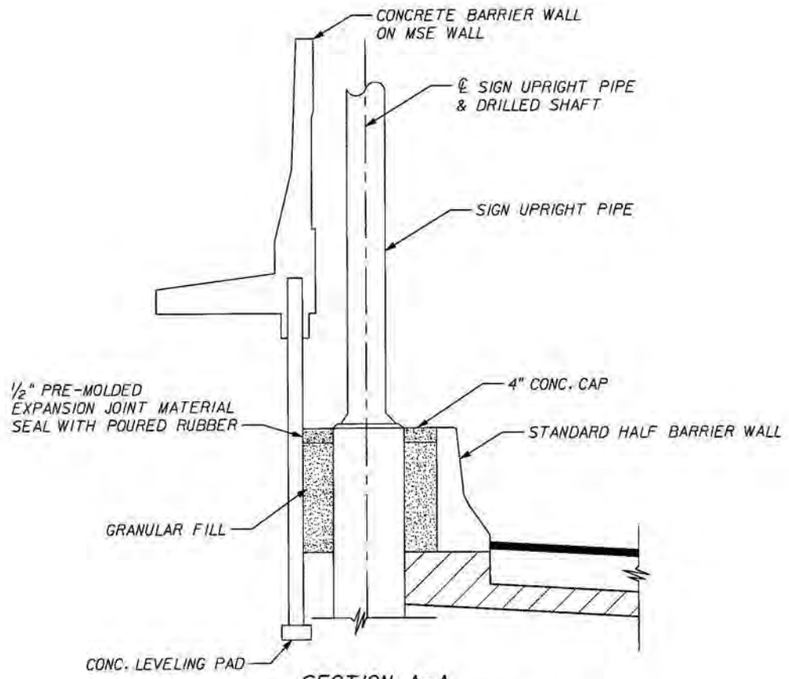


EXISTING CONCRETE BARRIER WALL

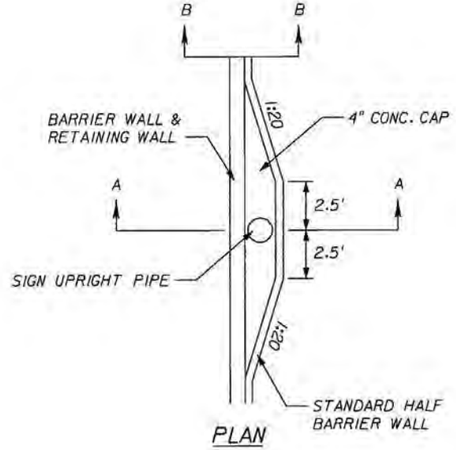


NEW CONCRETE BARRIER WALL

SPECIAL 3'-1" OPAQUE VISUAL BARRIER DETAILS

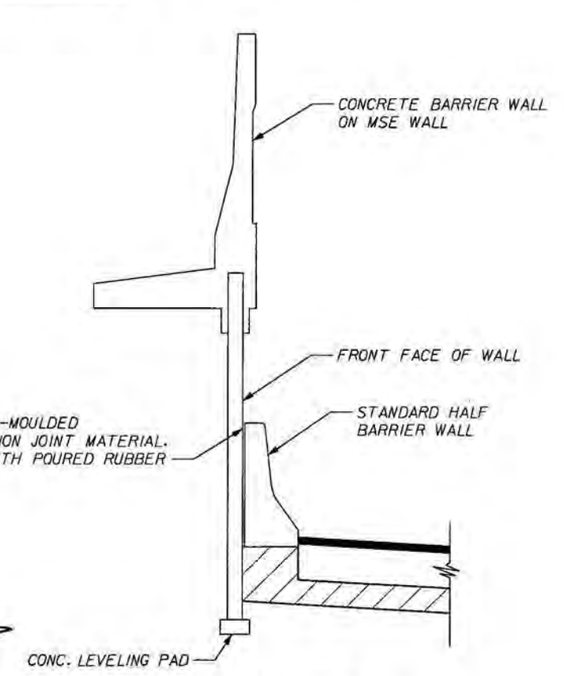


SECTION A-A
HALF BARRIER WALL DETAIL
AT SIGN UPRIGHT PIPE & DRILL SHAFT



PLAN

HALF BARRIER WALL DETAILS



SECTION B-B
HALF BARRIER WALL DETAIL

10/5/09

NOTES:

1. WHERE WALL COPING IS BELOW TOP OF BARRIER PROVIDE ½" PREMOULDED EXPANSION MATERIAL BETWEEN COPING AND BARRIER.

RELEASED FOR CONSTRUCTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

$USER$ $DATE$ $TIME$ $FILE$

TYPICAL SECTIONS
DETAILS

SHEET NO. 1-10

QUANTITY	STR. NO.	STATION	SIDE	DESCRIPTION	BARRELS	SIZE (IN)	LENGTH (FT)	STORM DRAIN OPTIONAL TYPE OPTIONAL ROUND PIPE 18"	24"	30"	FRENCH DRAIN 24"	SLOTTED DRAIN 15"	DIP 16"	INLETS DBI TYPE D <10'	>10'	J BOT <10'	J BOT >10'	BARR. WALL. INLET <10'	>10'	J BOT <10'	J BOT >10'	SPECIAL <10'	ENDWALLS STRAIGHT	ENDWALLS U-TYPE	MANHOLES P-7 < 10'	MANHOLES J BOTTOM < 10'	OBJECT MARKER	REMARKS △49
P	IAS-IA	115+24.30 (℄ SUNCL82)	LT	PIPE-EW	1	18	7.5	7.5																1			1	(1:2)
F																												
P	IAS-IB	115+24.30 (℄ SUNCL82)	LT	INLET-SD	1	15	72.5					72.5										1						SEE ROADWAY PLANS, SHEET 1-20
F																												
P	IAS-01	117+00.00 (℄ SUNCL82)	LT	PIPE-EW	1	18	7.5	7.5																1			1	(1:2)
F																												
P	IAS-02	117+00.00 (℄ SUNCL82)	LT	S.D.-M.H.-S.D.	1	15	193.6					193.6													1			SLOTTED DRAIN (BK & AH)
F																												
P	IAS-03	119+00.00 (℄ SUNCL82)	LT	PIPE-EW	1	18	7.5	7.5																1			1	(1:2)
F																												
P	IAS-04	119+00.00 (℄ SUNCL82)	LT	S.D.-M.H.-S.D.	1	15	193.6					193.6													1			SLOTTED DRAIN (BK & AH)
F																												
P	IAS-05	121+00.00 (℄ SUNCL82)	LT	PIPE-EW	1	18	7.0	7.0																1			1	(1:2)
F																												
P	IAS-06	121+00.00 (℄ SUNCL82)	LT	S.D.-M.H.-S.D.	1	15	193.6					193.6													1			SLOTTED DRAIN (BK & AH)
F																												
P	IAS-07	121+00.00 (℄ SUNCL82)	RT	M.H.-S.D.	1	15	96.8					96.8													1			SLOTTED DRAIN (AH)
F																												
P	IAS-08	121+00.00 (℄ SUNCL82)	RT	PIPE-EW	1	18	7.0	7.0																1			1	(1:2)
F																												
P	IAS-09	123+00.00 (℄ SUNCL82)	LT	PIPE-EW	1	18	7.0	7.0																1			1	(1:2)
F																												
P	IAS-10	123+00.00 (℄ SUNCL82)	LT	S.D.-M.H.-S.D.	1	15	193.6					193.6													1			SLOTTED DRAIN (BK & AH)
F																												
P	IAS-11	123+00.00 (℄ SUNCL82)	RT	S.D.-M.H.-S.D.	1	15	193.6					193.6													1			SLOTTED DRAIN (BK & AH)
F																												
P	IAS-12	123+00.00 (℄ SUNCL82)	RT	PIPE-EW	1	18	7.0	7.0																1			1	(1:2)
F																												
P	IS-01	374+00.00	LT	PIPE-INLET	1	18	11.5	11.5								1											2	WITH DOUBLE SLOT & SKIMMER (AH) TYPE II
F																												INDEX 241
P	IS-02	374+00.00	LT	S.D.-INLET-S.D.	1	15	269.2					269.2						1										SLOTTED DRAIN (AH & BK)
F																												
P	IS-03	374+00.00	RT	S.D.-INLET-S.D.	1	15	269.2					269.2						1										SLOTTED DRAIN (AH & BK)
F																												
P	IS-04	374+00.00	RT	PIPE-INLET	1	18	13.5	13.5								1											2	WITH DOUBLE SLOT & SKIMMER (AH) TYPE II
F																												INDEX 241
P	IS-05	377+00.00	LT	F.D.-INLET-F.D.	1	24	590.0				590.0					1											2	WITH DOUBLE SLOT & SKIMMER (AH & BK) TYPE II
F																												INDEX 241 PLACED ON BOTTOM "J" (60"x54")
P	IS-06	377+00.00	LT	S.D.-INLET-PIPE	1	15/18	305.4	12.0				293.4						1										SLOTTED DRAIN (BK & AH)
F																												
P	IS-07	377+00.00	RT	S.D.-INLET-PIPE-S.D.	1	15/18	307.9	14.5				293.4						1										SLOTTED DRAIN (BK & AH)
F																												
P	IS-08	377+00.00	RT	F.D.-INLET-F.D.	1	24	590.0				590.0					1											2	WITH DOUBLE SLOT & SKIMMER (AH & BK) TYPE II
F																												INDEX 241 PLACED ON BOTTOM "J" (60"x54")
P	IS-09	380+00.00	LT	INLET-F.D.	1	24	295.0		40.0		255.0					1											2	WITH DOUBLE SLOT & SKIMMER (AH & BK) TYPE II
F																												INDEX 241 PLACED ON BOTTOM "J" (60"x54")
P	IS-10	380+00.00	LT	S.D.-INLET-PIPE-S.D.	1	15/18	306.4	13.0				293.4						1										SLOTTED DRAIN (BK & AH)
F																												
P	IS-11	380+00.00	RT	S.D.-INLET-PIPE-S.D.	1	15/18	233.9	15.5				218.4						1										SLOTTED DRAIN (BK & AH)
F																												
P	IS-12	380+00.00	RT	PIPE-INLET	1	30	147.5			147.5						1											2	WITH DOUBLE SLOT & SKIMMER (AH & BK) TYPE II
F																												INDEX 241
P	IS-13	381+50.00	RT	S.D.-INLET-S.D.	1	15	168.4					168.4						1										SLOTTED DRAIN (BK & AH)
F																												
P	IS-14	381+50.00	RT	INLET-PIPE	1	18	8.5	8.5							1												2	STANDARD INDEX 232
F																												
P	IS-15	383+00.00	LT	INLET-F.D.	1	24	295.0				295.0					1											2	WITH DOUBLE SLOT & SKIMMER (AH & BK) TYPE II
F																												INDEX 241 PLACED ON BOTTOM "J" (60"x54")
P	IS-16	383+00.00	LT	S.D.-INLET-PIPE-S.D.	1	15/18	305.4	12.0				393.4						1										SLOTTED DRAIN (BK & AH)
F																												
P	IS-17	383+50.00	RT	INLET-PIPE	1	18	13.5	13.5										1										
F																												
P	IS-18	383+50.00	RT	INLET-PIPE	1	30	197.5			197.5			△49	1													2	INDEX 232 & SKIMMER (AH) TYPE II
F																												INDEX 241
SHEET TOTALS - UNIT QUANTITY								164.5	40.0	345.0	1730.0	3336.1		2		7		9				1	7	6		24		
SHEET TOTALS - PLAN QUANTITY																												
SHEET TOTALS - FINAL QUANTITY																												

RELEASED FOR CONSTRUCTION

ARIEL MILLAN LICENSE NO. 54572 STATE OF FLORIDA PROFESSIONAL ENGINEER 1/28/11

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
1/25/11	△49 SLOTTED DRAIN LENGTH WAS CHANGED & ADDED STRUCTURES IAS-IA & IAS-IB		△ SLOTTED DRAIN WAS EXTENDED TO THE NORTH

engineering

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

$USER$ $DATE$ $TIME$ $FILE$

SUMMARY OF DRAINAGE STRUCTURES

SHEET NO. 1-11

QUANTITY	STR. NO.	STATION	SIDE	DESCRIPTION	BARRELS	SIZE (IN)	LENGTH (FT)	STORM DRAIN OPTIONAL TYPE OPTIONAL ROUND PIPE 18"	24"	30"	FRENCH DRAIN 24"	SLOTTED DRAIN 15"	DIP 16"	INLETS DBI TYPE D <10'	DBI TYPE D >10'	DBI TYPE D J BOT <10'	DBI TYPE D J BOT >10'	BARR. WALL. INLET <10'	BARR. WALL. INLET >10'	BARR. WALL. INLET J BOT <10'	BARR. WALL. INLET J BOT >10'	SPECIAL <10'	ENDWALL STRAIGHT	ENDWALL U-TYPE	MANHOLES P-7 <10'	MANHOLES J BOTTOM <10'	OBJECT MARKER	49 REMARKS
P	IS-18A	384+00.00	LT	ENDWALL-PIPE	1	18		8.5																1			1	W/O BAFFLE (1:2)
F																												
P	IS-18B	384+00.00	LT	SD-INLET-PIPE	1	15	46.7					46.7										1						
F																												
P	IS-19	385+50.00	RT	INLET-PIPE	1		15.0		15.0											1								STANDARD INDEX 218
F																												
P	IS-20	385+50.00	RT	INLET-F.D.	1	24	195.5				195.5			1													1	SKIMMER (BK) TYPE II INDEX 241
F																												
P	IS-21	386+00.00	LT	PIPE-INLET	1	24	11.5		11.5					1														WITH DOUBLE SLOT & SKIMMER
F																												(BK) TYPE II INDEX 241
P	IS-22	386+00.00	LT	INLET-PIPE	1	24	246.5		246.5									1										
F																												
P	IS-22A	386+80.00	RT	INLET-PIPE	1	24	127.0		127.0											1								BOTTOM "J" (84"x44")
F																												
P	IS-23	388+00.00	RT	INLET-PIPE	1	24	117.0		117.0											1								BOTTOM "J" (84"x44")
F																												
P	IS-24	388+50.00	LT	INLET-PIPE	1	18	246.0	246.0												1								BOTTOM "J" (84"x44")
F																												
P	IS-24A	389+00.00	RT	INLET-PIPE	1	24	97.0		97.0											1								BOTTOM "J" (84"x44")
F																												
P	IS-25	390+00.00	RT	INLET-PIPE	1	24	97.0		97.0											1								BOTTOM "J" (84"x44")
F																												
P	IS-26	391+00.00	RT	INLET-PIPE	1	18	97.0	97.0												1								BOTTOM "J" (84"x44")
F																												
P	IS-27	391+00.00	LT	INLET	1															1								BOTTOM "J" (84"x44")
F																												
P	IS-28	391+75.00	RT	INLET-PIPE	1	18	22.5	22.5										1										
F																												
P	IS-29	719+88.00 (@ RAMP "B")	RT	INLET-PIPE	1	18	71.5	71.5												1								BOTTOM "J" (84"x44")
F																												
P	IS-30	392+00.00	RT	INLET-PIPE	1	18	21.5	21.5										1										
F																												
P	IS-31	393+40.00	LT	INLET-PIPE	1	18	237.5	237.5												1								BOTTOM "J" (84"x44")
F																												
P	IS-32	394+00.00	RT	INLET-PIPE	1	18	196.5	196.5										1										
F																												
P	IS-33	395+00.00	LT	INLET-PIPE	1	18	156.5	156.5												1								BOTTOM "J" (84"x44")
F																												
P	2S-01	396+52.76	LT	INLET-PIPE	1	18	47.0	47.0										1										
F																												
P	2S-02	398+00.00	LT	ENDWALL	1	18																		1			1	WITH BAFFLE (1:2)
F																												
P	2S-03	398+00.00	LT	INLET-PIPE	1	18	9.0	9.0										1										
F																												
P	2S-04	398+00.00	RT	INLET-PIPE	1	18	28.0	28.0										1										
F																												
P	2S-05	400+00.00	RT	INLET-PIPE	1	16	34.5						34.5					1										CONST. 12 LF OF 16" DIP. (REST. JOINTS) CONST.
F																												CONC. THRUST BLOCK AND CONC. JACKET (INDEX 280)
P	2S-06	401+00.00	LT	ENDWALL	1	18																		1			1	WITH BAFFLE (1:2)
F																												
P	2S-07	401+00.00	LT	INLET-PIPE	1	18	38.0	38.0										1										
F																												
P	2S-08	401+89.54	RT	INLET-PIPE	1	16	58.5						58.5					1										CONST. 16.5 LF OF 16" DIP. (REST. JOINTS) CONST.
F																												CONC. THRUST BLOCK AND CONC. JACKET (INDEX 280)
P	2S-09	402+26.50	RT	INLET-PIPE	1	18	42.5	42.5										1										
F																												
P	2S-10	403+00.00	RT	INLET-PIPE	1	18	70.5	70.0										1										
F																												
P	2S-11	403+00.00	RT	INLET-PIPE	1	18	5.0	5.0						1													1	
F																												
P	2S-12	403+00.00	RT	MANHOLE-PIPE	1	18	15.0	15.0																		1		MANHOLE TYPE "P-7"
F																												
P	2S-13	404+00.00	LT	ENDWALL	1	18																		1			1	WITH BAFFLE (1:2)
F																												
	SHEET TOTALS - UNIT QUANTITY							1371.5	651.5		195.5	46.7	93.0	3				12		11		1		4	1		6	
	SHEET TOTALS - PLAN QUANTITY																											
	SHEET TOTALS - FINAL QUANTITY																											

RELEASED FOR CONSTRUCTION

ARIEL MILLAN LICENSE No. 54572 STATE OF FLORIDA PROFESSIONAL ENGINEER

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

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
1/25/11	49 SLOTTED DRAIN WAS EXTENDED TO THE NORTH & ADDED STRUCTURES IS-18A AND IS-18B		

engineering

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

$USER$ $DATE$ $TIME$ $FILE$

SUMMARY OF DRAINAGE STRUCTURES

SHEET NO. 1-12

QUANTITY	STR. NO.	STATION	SIDE	DESCRIPTION	BARRELS	SIZE (IN)	LENGTH (FT)	STORM DRAIN OPTIONAL TYPE OPTIONAL ROUND PIPE 18"	24"	30"	FRENCH DRAIN 24"	SLOTTED DRAIN 15"	DIP 16"	INLETS DBI TYPE D <10'	DBI TYPE D >10'	DBI TYPE D J BOT <10'	DBI TYPE D J BOT >10'	BARR. WALL. INLET (49) <10'	BARR. WALL. INLET (49) >10'	BARR. WALL. INLET (49) J BOT <10'	BARR. WALL. INLET (49) J BOT >10'	BARR. WALL. INLET (49) SPECIAL <10'	ENDWALL STRAIGHT	ENDWALL U-TYPE	MANHOLES P-7 < 10'	MANHOLES J BOTTOM < 10'	OBJECT MARKER	REMARKS
P	25-14	404+00.00	LT	INLET-PIPE	1	18	59.5	59.5										1									
F																											
P	FROM 25-15 TO 25-32 SHOWN IN SEGMENT 3.																										
F																											
P	25-33	66+39.25 (@ RAMP"A")	LT	PIPE-INLET-PIPE	1	18	62.0	62.0						1												1	CONST. CONC. JACKET
F																											INDEX 280
P	25-34	67+00.00 (@ RAMP"A")	LT	INLET-F.D.	1	24	295.0				295.0					1										1	WITH SINGLE SLOT (BK) WITH SKIMMER INDEX 241
F																											(AH) TYPE II ON BOTTOM "J" (60"x54")
P	25-35	70+00.00 (@ RAMP"A")	LT	INLET-F.D.	1	24	295.0				295.0					1											WITH DOUBLE SLOT & SKIMMER (AH & BK) TYPE II
F																											INDEX 241 PLACED ON BOTTOM "J" (60"x54")
P	25-36	70+00.00 (@ RAMP"A")	LT	INLET-PIPE	1	18	14.5	14.5										1									
F																											
P	25-37	73+00.00 (@ RAMP"A")	LT	INLET-PIPE	1	24		61.5	61.5												1						WITH SKIMMERS (BK) INDEX 241
F																											
P	25-38	73+00.00 (@ RAMP"A")	RT	ENDWALL	1	24																		1			24"
F																											
P	25-39	74+00.00 (@ RAMP"A")	LT	INLET-PIPE	1	18	96.5	96.5										1									
F																											
P	25-40	3+80.00 (@ RAMP"A-1")	RT	INLET-PIPE	1	18	38.0	38.0						1												1	
F																											
P	25-41	4+29.33 (@ RAMP"A-1")	RT	INLET-PIPE	1	18	2.0	2.0										1									
F																											
P	25-42	4+29.33 (@ RAMP"A-1")	RT	INLET-F.D.	1	24	108.0				108.0				1												WITH SINGLE SLOT (BK) WITH SKIMMER
F																											(AH) TYPE II ON BOTTOM "J" (60"x54")
P	25-43	726+13.17 (@ RAMP"B")	RT	INLET-PIPE	1	18	195.5	195.5										1									BOTTOM "J" (84"x44")
F																											
P	25-44	728+12.20 (@ RAMP"B")	RT	INLET-PIPE	1	24	99.0		99.0												1						BOTTOM "J" (84"x44")
F																											
P	25-45	729+15.13 (@ RAMP"B")	RT	MANHOLE-PIPE	1	24	82.0		82.0																1		MANHOLE TYPE "J-7" (72"X42")
F																											
P	25-46	730+00.00 (@ RAMP"B")	RT	INLET-F.D.	1	24	195.0				195.0								1								WITH SKIMMER (AH) TYPE II INDEX 241
F																											
P	25-47	730+00.00 (@ RAMP"B")	RT	EW-PIPE	1	24	16.0		16.0																1		1:2) W/O BAFFLES
F																											
P	25-48	732+00.00 (@ RAMP"B")	RT	INLET-F.D.	1	24	150.0				150.0										1						WITH SKIMMERS (AH & BK) INDEX 241
F								(28)																			
P	25-49	732+00.00 (@ RAMP"B")	RT	EW-PIPE	1	24	13.0		13.0																1		MANHOLE TYPE "J-7" (72"X42")
F																											
P	25-72	1716+42.46 (@ RAMP"L")	LT	INLET-PIPE	1	18	189.0	189.0										1									
F																											
P	25-90	725+13.12 @ RAMP "B"	RT	INLET-PIPE	1	18	8.0	8.0						1												1	WITH SKIMMER (RT)
F																											TYPE II INDEX 241
P	25-91	725+13.12 @ RAMP "B"	RT	PIPE-MANHOLE-PIPE	1	18	16.0	16.0																	1		
F																											
P	25-92	727+13.64 @ RAMP "B"	RT	INLET-PIPE	1	18	12.5	12.5						1												1	WITH SKIMMER (RT)
F																											TYPE II INDEX 241
	25-93	727+13.64 @ RAMP "B"	RT	PIPE-MANHOLE-PIPE	1	18	16.0	16.0																	1		
F																											
P																											
F																											
P																											
F																											
P																											
F																											
P																											
F								(49)	(28)																		
SHEET TOTALS - UNIT QUANTITY								711.5	331.0		1043.0			4	1		2	6	1	1	2		(49) 1		2 (49)	2	1	7 (49)	
SHEET TOTALS - PLAN QUANTITY												(49)																
SHEET TOTALS - FINAL QUANTITY																												
GRAND TOTALS - UNIT QUANTITY								2239.0	1031.0	345.0	2968.5	3382.8	93.0	9	1	7	2	27	1	12	2	2	1	13	9	1	37	
GRAND TOTALS - PLAN QUANTITY																												
GRAND TOTALS - FINAL QUANTITY																												

RELEASED FOR CONSTRUCTION

ARIEL MILLAN LICENSE No. 54572 STATE OF FLORIDA PROFESSIONAL ENGINEER 1/25/11

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
12/04/09	(28) DRAINAGE STRUCTURE RELOCATED		
1/25/11	(49) GRAND TOTALS WERE UPDATED		

engineering

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

$USER$ $DATE$ $TIME$ $FILE$

SUMMARY OF DRAINAGE STRUCTURES

SHEET NO. 1-13

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

N

1" = 40'

895 896 897 898 899 900

PCC STA. 897+32.75

BEGIN PROJECT
BEGIN SEGMENT 1
BEGIN MILLING AND RESURFACING
(N.B. LANES)
STA. 96+00.00

SR 826 SB

95 96 97 ℄ SR 826 98 99 100

N 2° 5' 10.48" W

PC STA. 98+47.16

EXIST. PAVT.
(TO BE MILLED AND RESURFACED)

SR 826 NB

MATCH LINE 100+25.00 (2)

995 996 997 998 999 1000

PC STA. 996+51.13

PT STA. 999+49.61

RELEASED FOR CONSTRUCTION

10/5/09

S.R. 826

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

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

engineering

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

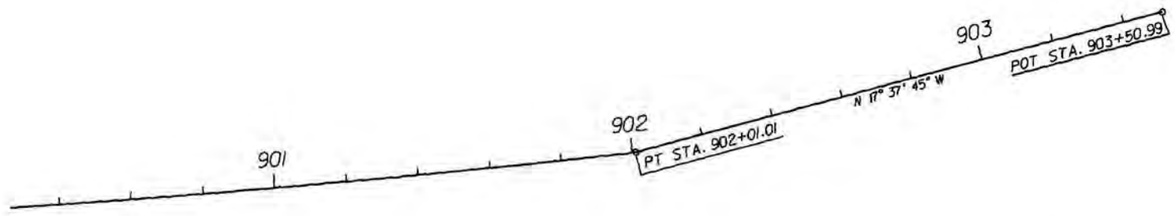
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

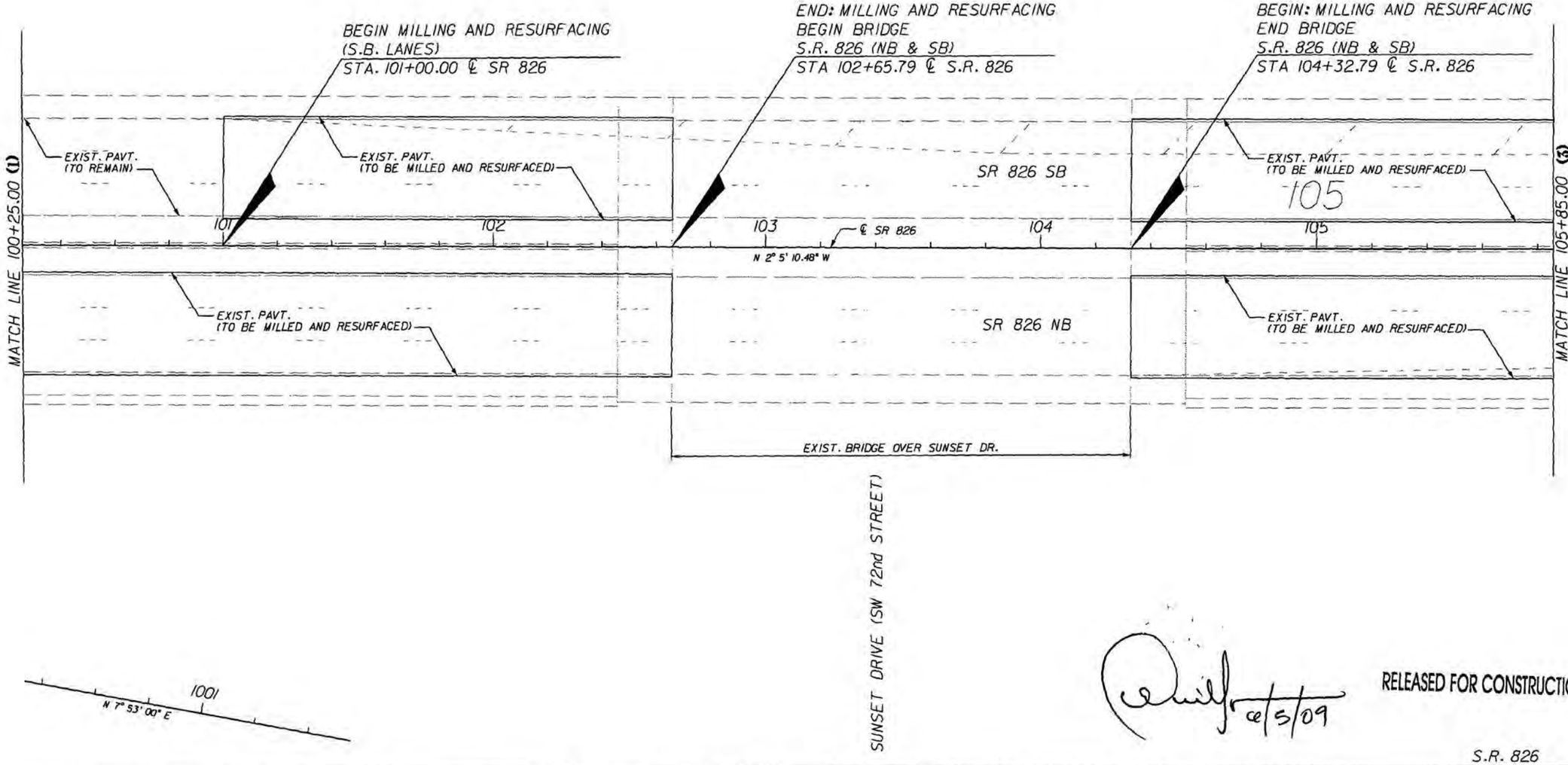
ROADWAY PLANS (1)

SHEET NO. 1-17

dcruz 5/20/2009 10:49:34 AM \\dell745n\cadd\249035\520\segment 1\roadway\plan rd01.dgn

1" = 40'





4/5/09

RELEASED FOR CONSTRUCTION

S.R. 826

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

engineering

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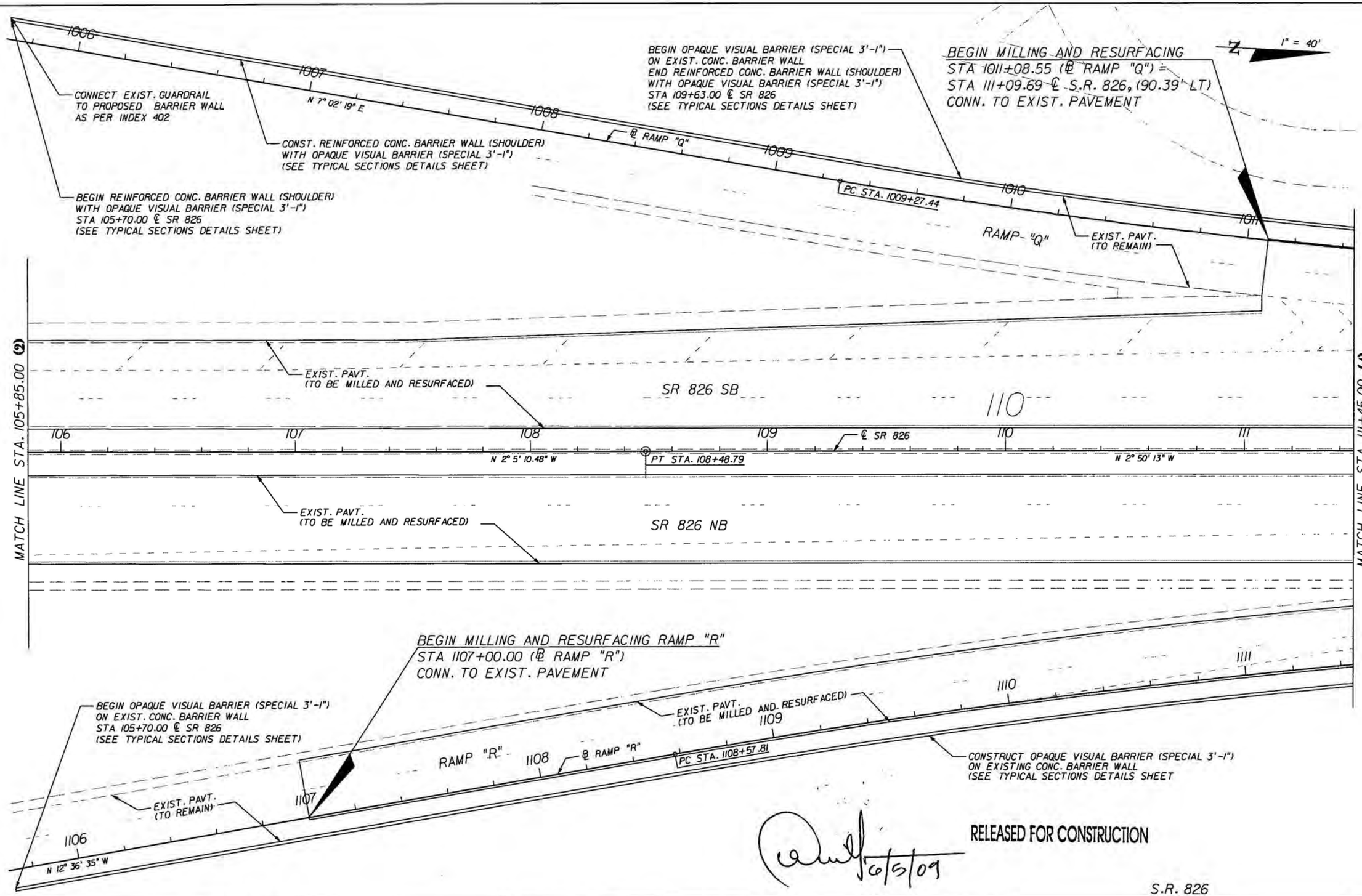
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

ROADWAY PLANS (2)

SHEET NO. 1-18

dcruz 5/20/2009 10:49:37 AM \\dell745n\cadd\249035\201\segment 1\roadway\planrd02.dgn



RELEASED FOR CONSTRUCTION

6/5/09

S.R. 826

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

engineering

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

ROADWAY PLANS (3)

SHEET NO. 1-19

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

1" = 40'

END ℄ RAMP "Q"
STA 1012+37.12 (℄ RAMP "Q") =
STA 112+37.77 ℄ S.R. 826, (79.26' LT)

SW 77th AVE.

CONSTRUCT OPAQUE VISUAL BARRIER (SPECIAL 3'-1") ON EXISTING CONC. BARRIER WALL (SEE TYPICAL SECTIONS DETAILS SHEET)

END OPAQUE VISUAL BARRIER (SPECIAL 3'-1") ON EXIST. CONC. BARRIER WALL
BEGIN REINFORCED CONC. BARRIER WALL (SHOULDER) WITH OPAQUE VISUAL BARRIER (SPECIAL 3'-1")
STA 115+14.00 ℄ SR 826
CONNECT TO EXIST. CONC. BARRIER WALL
(SEE MISCELLANEOUS DRAINAGE DETAILS SHEET)

STA. 115+24.30 (76.8' LT)
CONST. U-TYPE EW (18")
F.L. EL. 7.53
(INDEX 261)

CONST. 7.5 LF OF 18" PIPE

CONST. REINFORCED CONC. BARRIER WALL (SHOULDER) WITH OPAQUE VISUAL BARRIER (SPECIAL 3'-1")
(SEE MISCELLANEOUS DRAINAGE DETAILS SHEET)

EXIST. GUARDRAIL (TO BE REMOVED)

CONST. 7.5 LF OF 18" PIPE

CONST. 15" SLOTTED DRAIN

℄ RAMP "Q" 1012

PT STA. 1012+37.12

IAS-1A

IAS-1B

IAS-01

IAS-02

BEGIN SHOULDER MILLING AND RESURFACING
STA. 115+00.00

SHOULDER MILLING AND RESURFACING

EXIST. PAVT. (TO BE MILLED AND RESURFACED)

STA. 115+24.30
CONST. SPECIAL BARRIER WALL INLET
GRATE EL. (MATCH TO EXISTING SHOULDER EL. AND CROSS SLOPE)
F.L. EL. 8.1 (LT & AH)
(SEE INSET "A")

BEGIN SLOTTED DRAIN
STA. 115+50.00
(SEE MISC. DRAINAGE DETAILS SHEET)
△49

SR 826 SB

EXIST. CONC. BARRIER WALL (TO REMAIN)

℄ SR 826

112 113 114 115 116 117

N 2° 50' 13" W

MATCH LINE STA. 111+45.00 (3)

MATCH LINE STA. 117+05.00 (5)

EXIST. CONC. BARRIER WALL (TO REMAIN)

SR 826 NB

EXIST. PAVT. (TO BE MILLED AND RESURFACED)

1112 1113 ℄ RAMP "R" 1114 1115 1116 1117

PT STA. 1114+32.96

CONSTRUCT OPAQUE VISUAL BARRIER (SPECIAL 3'-1") ON EXISTING CONC. BARRIER WALL (SEE TYPICAL SECTIONS DETAILS SHEET)

SPECIAL BARRIER WALL INLET

GRATE EL.

△49

1. MATCH CROSS SLOPE OF GRATE WITH EXISTING SHOULDER
2. STRUCTURE MUST BE WITHOUT JOINT (1-PIECE), TO AVOID CONFLICT BETWEEN PIPE AND STANDARD INLET COLLAR.

INSET "A"

RELEASED FOR CONSTRUCTION

ARIEL MILLAN LICENSE No. 54572 STATE OF FLORIDA PROFESSIONAL ENGINEER
1/25/11

S.R. 826

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
1/25/11	△49 ADDED STRUCTURES IAS-1A & IAS-1B REVISED SLOTTED DRAIN LENGTH		

engineering
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

ROADWAY PLANS (4)

SHEET NO. 1-20

SW 67th TERR.

SW 77th AVE.

1" = 40'

EXIST. FENCE (TO REMAIN)

CONST. REINFORCED CONC. BARRIER WALL (SHOULDER) WITH OPAQUE VISUAL BARRIER (SPECIAL 3'-1") (SEE MISCELLANEOUS DRAINAGE DETAILS SHEET)

IAS-03

CONST. 7.5 LF OF 18" PIPE

IAS-05

CONST. 7.0 LF OF 18" PIPE

EXIST. GUARDRAIL (TO BE REMOVED)

SHOULDER MILLING AND RESURFACING

CONST. 15" SLOTTED DRAIN

IAS-04

IAS-06

CONST. 15" SLOTTED DRAIN

CONST. 15" SLOTTED DRAIN

EXIST. PAVT. (TO BE MILLED AND RESURFACED)

SR 826 SB

MATCH LINE STA. 117+05.00 (4)

118 119 ℄ SR 826 120 121 122

N 2° 50' 13" W

MATCH LINE STA. 122+65.00 (6)

EXIST. CONC. BARRIER WALL (TO REMAIN)

EXIST. PAVT. (TO BE MILLED AND RESURFACED)

BEGIN LANES 3 & 4 RECONSTRUCTION STA. 120+00.00 ℄ SR 826

25'

25'

SR 826 NB

EXIST. PAVT. (TO BE MILLED AND RESURFACED)

BEGIN SLOTTED DRAIN STA. 121+01.75 (SEE MISC. DRAINAGE DETAILS SHEET)

SAW CUT

IAS-01

BEGIN SHOULDER RECONSTRUCTION STA. 120+00.00

CONST. 15" SLOTTED DRAIN

1118 ℄ RAMP "R" 1119 1120 1121 1122

N 3° 58' 58" W

CONST. 7.0 LF OF 18" PIPE

IAS-08

CONSTRUCT OPAQUE VISUAL BARRIER (SPECIAL 3'-1") ON EXISTING CONC. BARRIER WALL (SEE TYPICAL SECTIONS DETAILS SHEET)

END OPAQUE VISUAL BARRIER (SPECIAL 3'-1") ON EXISTING CONC. BARRIER WALL

BEGIN REINFORCED CONC. BARRIER WALL (SHOULDER) WITH OPAQUE VISUAL BARRIER (SPECIAL 3'-1") STA. 121+00.00± ℄ SR 826

CONNECT TO EXIST. CONC. BARRIER WALL (SEE MISCELLANEOUS DRAINAGE DETAILS SHEET)

EXISTING GUARDRAIL (TO BE REMOVED)

EXIST. FENCE (TO REMAIN)

CONST. REINFORCED CONC. BARRIER WALL (SHOULDER) WITH OPAQUE VISUAL BARRIER (SPECIAL 3'-1") (SEE MISCELLANEOUS DRAINAGE DETAILS SHEET)

SW 76th AVE.

END ℄ RAMP "R" STA 1122+06.85 (℄ RAMP R) = STA 122+06.84 ℄ S.R. 826, (59.50' RT)

SW 67th ST.

RELEASED FOR CONSTRUCTION

S.R. 826

DIONISIO FELIPE TORRES LICENSE No. 58196 STATE OF FLORIDA PROFESSIONAL ENGINEER 12/10/11

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
12/09/2011	70 CHANGED MILLING & RESURFACING AND NEW CONSTRUCTION LIMITS		

engineering

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

ROADWAY PLANS (5)

SHEET NO. 1-21

$USER$ $DATE$ $TIME$ $FILE$

N
1" = 40'

SW 66th ST.

SW 77th AVE.

SW 76th AVE.

S.W. 76th AVE.

TYPICAL SECTION TRANSITION
FROM ENGLISH-UNITS PROJECT (SOUTH) TO METRIC-CONVERTED UNITS PROJECT (NORTH)

MATCH STA. 373+74.18

STA. 374+74.18

BEGIN TYPE B FENCE
CONNECT TO EXIST. FENCE (SOUTH)
STA. 373+74.18

DITCH BLOCK EL. 9.00
STA. 373+74.18
SEE MISC. DRAINAGE DETAILS SHEET

SHOULDER MILLING & RESURFACING

EXIST. EL. 11.70 (66.67' LT)
(℄ PROP. SLOTTED DRAIN)

PROP. EL. 11.5 (65.60' LT)
(℄ PROP. SLOTTED DRAIN)

IAS-09 — CONST. 7.0 LF OF 18" PIPE

EXIST. GUARDRAIL (TO BE REMOVED)

IS-01 — IS-02 — CONST. 11.5 LF OF 18" PIPE

CONST. REINFORCED CONC. BARRIER WALL (SHOULDER) WITH OPAQUE VISUAL BARRIER (SPECIAL 3'-1") (SEE MISCELLANEOUS DRAINAGE DETAILS SHEET)

EXIST. FENCE (TO BE REMOVED)

L/A R/W LINE

CONST. 295 LF OF 24" FD

SWALE (WEST)

IS-05

IS-06

CONST. 15" SLOTTED DRAIN

IAS-10

CONST. 15" SLOTTED DRAIN

EXIST. PAVT. (TO BE MILLED AND RESURFACED)

SAW CUT

SR 826 SB

EXIST. CONC. BARRIER WALL (TO REMAIN)

123 124 374 375 ℄ SR 826 376

N 2° 50' 13" W

9.84'

10' 48' 10'

2.0' 2.0' 3.0' 3.0' 6.0'

47.24'

VARIES

CONST. MEDIAN BARRIER WALL WITH OPAQUE VISUAL BARRIER

MATCH LINE STA. 122+65.00 (5)

MATCH LINE STA. 377+00.00 (7)

25'

SR 826 NB

SAW CUT

EXIST. PAVT. (TO BE MILLED AND RESURFACED)

IAS-11 — CONST. 7.0 LF OF 18" PIPE

CONST. 15" SLOTTED DRAIN

IAS-12

EXIST. GUARDRAIL (TO BE REMOVED)

TO

24.5'

IS-03 — CONST. 13.5 LF OF 18" PIPE

IS-04

IS-07

IS-08

CONST. 15" SLOTTED DRAIN

CONST. 295 LF OF 24" FD

L/A R/W LINE

SWALE (EAST)

EXIST. FENCE (TO BE REMOVED)

DITCH BLOCK EL. 9.00
STA. 373+74.18
SEE MISC. DRAINAGE DETAILS SHEET

BEGIN TYPE B FENCE
CONNECT TO EXIST. FENCE (SOUTH)
STA. 373+74.18

BEGIN PAVEMENT WIDENING
BEGIN PAVED SHOULDER
BEGIN TYPE B FENCE
BEGIN MEDIAN CONC. BARRIER WALL W/OPAQUE VISUAL BARRIER

STATION EQUATION:
STA. 125+00.00 ℄ SR 826 (BK) =
STA. 373+74.18 ℄ SR 826 (AH)

NOTE: FOR SECTION A-A SEE MISCELLANEOUS DRAINAGE DETAILS SHEET

DIONISIO FELIPE TORRES — LICENSE — No. 58196 — 12/9/11 — STATE OF FLORIDA — PROFESSIONAL ENGINEER

LEGEND
- PAVEMENT WIDENING
- PROPOSED SHOULDER PAVEMENT

S.R. 826

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
12/09/2011	10 CHANGED MILLING & RESURFACING AND NEW CONSTRUCTION LIMITS		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

RELEASED FOR CONSTRUCTION
ROADWAY PLANS (6)

SHEET NO. 1-22

$USER$ $DATE$ $TIME$ $FILE$

1" = 40'

SW 77th AVE.

CONST. REINFORCED CONC. BARRIER WALL (SHOULDER) WITH OPAQUE VISUAL BARRIER (SPECIAL 3'-1") (SEE MISCELLANEOUS DRAINAGE DETAILS SHEET)

EXIST. FENCE (TO BE REMOVED)

TYPE B FENCE

L/A R/W LINE

NOTE: SEE OVERHEAD SIGN PLANS

SWALE (WEST)

CONST. 295 LF OF 24" FD

IS-09

CONST. 77.5 LF OF 24" FD

CONST. 40.0 LF OF 24" PIPE

CONST. 177.5 LF OF 24" FD

CONST. 12.0 LF OF 18" PIPE

CONST. 15" SLOTTED DRAIN

CONST. 13.0 LF OF 18" PIPE

CONST. 15" SLOTTED DRAIN

IS-10

9.84' SHLDR.

VARIES

47.24'

EXIST. PAVT. (TO BE MILLED AND RESURFACED)

SR 826 SB

SAW CUT

VARIES

MATCH LINE STA. 377+00.00 (6)

9.84' SHLDR.

CONST. MEDIAN BARRIER WALL WITH OPAQUE VISUAL BARRIER

378

379

380

℄ SR 826

381

382

N 2° 50' 13" W

CURVE CLPEI-1

9.84' SHLDR.

PC STA. 379+81.10

EXIST. GUARDRAIL (TO BE REMOVED)

SR 826 NB

SAW CUT

47.24'

EXIST. PAVT. (TO BE MILLED AND RESURFACED)

VARIES

9.84' SHLDR.

IS-11

IS-13

VARIES

MATCH LINE STA. 382+60.00 (8)

CONST. 8.5 LF OF 18" PIPE

CONST. 14.5 LF OF 18" PIPE

CONST. 15" SLOTTED DRAIN

CONST. 15.5 LF OF 18" PIPE

CONST. 15" SLOTTED DRAIN

IS-14

CONST. 15" SLOTTED DRAIN

CONST. 295 LF OF 24" FD

IS-12

CONST. 147.5 LF OF 30" PIPE

+41.74 86.71' (RT)

CONST. 197.5 LF OF 30" PIPE

SWALE (EAST)

L/A R/W LINE

+06.99 98.80'(RT)

+41.50 102.68' (RT)

EXIST. FENCE (TO BE REMOVED)

CONST. REINFORCED CONC. BARRIER WALL (SHOULDER) WITH OPAQUE VISUAL BARRIER (SPECIAL 3'-1") (SEE MISCELLANEOUS DRAINAGE DETAILS SHEET)

+41.59 102.64' (RT)

L/A R/W LINE

TYPE B FENCE

SW 76th AVE.

SW 64th ST.

END SLOTTED DRAIN (SEE MISC. DRAINAGE DETAILS SHEET)
END REINFORCED CONC. BARRIER WALL (SHOULDER) W/OPAQUE VISUAL BARRIER (SPECIAL 3'-1")
BEGIN PLAIN CONC. BARRIER WALL (SHOULDER) W/OPAQUE VISUAL BARRIER (SPECIAL 3'-1")
STA. 382+50.00 @ RAMP "B"

LEGEND

PAVEMENT WIDENING

PROPOSED SHOULDER PAVEMENT

S.R. 826

RELEASED FOR CONSTRUCTION

6/5/09

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

engineering

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

ROADWAY PLANS (7)

SHEET NO. 1-23

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1" = 40'

END REINFORCED CONC. BARRIER WALL (SHOULDER)
WITH OPAQUE VISUAL BARRIER (SPECIAL 3'-1")
BEGIN PLAIN CONC. BARRIER WALL (SHOULDER)
WITH OPAQUE VISUAL BARRIER (SPECIAL 3'-1")
STA. 383+50.00

STA. 383+95.61 ℄ S.R. 826
END WIDENING AND RESURFACING
BEGIN NEW CONSTRUCTION

BEGIN ℄ RAMP "A"
STA. 54+08.30 (℄ RAMP "A")=
STA 384+08.30 ℄ SR 826 (58.08' LT)

END PLAIN CONC. BARRIER WALL (SHOULDER)
WITH OPAQUE VISUAL BARRIER (SPECIAL 3'-1")
BEGIN DOUBLE FACED MEDIAN BARRIER WALL
W/OPAQUE VISUAL BARRIER (SPECIAL 3'-1")
STA. 58+00.00 ℄ RAMP "A"

SW 77th AVE.

CONST. PLAIN CONC. BARRIER WALL (SHOULDER)
WITH OPAQUE VISUAL BARRIER (SPECIAL 3'-1")
(SEE TYPICAL SECTIONS DETAILS SHEET)

CONST. 295 LF OF 24" FD
L/A R/W LINE
SWALE (WEST)
TYPE B FENCE
EXIST. FENCE (TO BE REMOVED)
IS-15
IS-21
CONST. 11.5 LF OF 24" PIPE
IS-16
CONST. 12.0 LF OF 18" PIPE
IS-18A
CONST. 15" SLOTTED DRAIN
IS-18B
CONST. 8.5 LF OF 18" PIPE
IS-22
℄ RAMP "A"
CONST. 246.5 LF OF 24" PIPE
N 5° 38' 42" W
9.84' SHLDR.
EXIST. PAVT. (TO BE MILLED AND RESURFACED)
SAW CUT
EXIST. GUARDRAIL (TO BE REMOVED)
CONST. MEDIAN BARRIER WALL WITH OPAQUE VISUAL BARRIER
SR 826 SB
℄ SR 826
CURVE CLPE1-1
FOR ARMORED PLATE BARRIER DETAIL
SEE SIGNING AND PAVEMENT MARKING PLANS
SR 826 NB
5.91' SHLDR
+57.00
℄ RAMP "B"
CURVE RAMP B-1
CROWN LINE
CONST. 13.5 LF OF 18" PIPE
IS-17
IS-19
IS-22A
IS-23
CONST. 15.0 LF OF 24" PIPE
CONST. 195.5 LF OF 24" F.D.
IS-18
IS-20
CONST. 127.0 LF OF 24" PIPE
CONST. 117.0 LF OF 24" PIPE
L/A R/W LINE
EXIST. FENCE (TO BE REMOVED)
END TYPE B FENCE
STA. 386+08.80 (80.43' RT)
℄ SR 826
EXIST. GUARDRAIL (TO BE REMOVED)
CONST. DOUBLE FACED MEDIAN BARRIER WALL W/OPAQUE VISUAL BARRIER (SPECIAL 3'-1")
SW 76th AVE.
SW 62nd ST.
LEASED FROM CONSTRUCTION

BEGIN ℄ RAMP "B"
PC STA. 712+06.24 (℄ RAMP "B")=
STA 383+95.61 ℄ SR 826 (58.08' RT)

CONST. PLAIN CONC. BARRIER WALL (SHOULDER)
W/OPAQUE VISUAL BARRIER (SPECIAL 3'-1")
(SEE TYPICAL SECTIONS DETAILS SHEET)

END PLAIN CONC. BARRIER WALL (SHOULDER)
W/OPAQUE VISUAL BARRIER (SPECIAL 3'-1")
BEGIN DOUBLE FACED MEDIAN BARRIER WALL
W/OPAQUE VISUAL BARRIER (SPECIAL 3'-1")
STA. 713+90.00 ℄ RAMP "B"

+19.08 87.27' (RT)
+19.01 95.65' (RT)
+38.41 95.76' (RT)
+38.21 103.09' (RT)
+46.90 104.16' (RT)
+93.43 95.32' (RT)
+08.38 91.49' (RT)

VARIES
47.24'
+06.00
+12.00
+88.00
+94.00
+05.06
14.76'
1:20
49
76
45

MATCH LINE STA. 382+60.00 (7)
MATCH LINE STA. 388+20.00 (9)

LEGEND
PAVEMENT WIDENING
PROPOSED SHOULDER PAVEMENT

S.R. 826

DIONISIO FELIPE TORRES LICENSE No. 58196 2/16/12 STATE OF FLORIDA PROFESSIONAL ENGINEER

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
8/14/09	15 REMOVE GUARDRAIL ALONG SW 76 AVE 49 SLOTTED DRAIN WAS EXTENDED TO THE NORTH & ADDED STRUCTURES IS-18A & IS-18B	2/16/12	76 UPDATED FENCE ALIGNMENT

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

ROADWAY PLANS (8)

SHEET NO. 1-24

$USER$ $DATE$ $TIME$ $FILE$

CEMETERY

CURVE DATA SW77EOP
DELTA = 12° 41' 17" (LT)
D = 4° 46' 29"
T = 133.42
L = 265.74
R = 1,200.00

N

1" = 40'

S.W. 77th AVE

SW 77th AVE

END TYPE B FENCE
STA. 388+93.52 (84.70' LT)
℄ SR 826

EXIST. FENCE
(TO BE REMOVED)

IS-24

9.84' SHLDR.

59

CONST. 246.0 LF OF 18" PIPE

60

L/A R/W LINE

CONST. DOUBLE FACED MEDIAN BARRIER WALL
W/OPAQUE VISUAL BARRIER (SPECIAL 3'-1")
(SEE TYPICAL SECTIONS DETAILS SHEET)

61

IS-27

9.84' SHLDR.
+14.50

N 5° 38' 42" W

℄ RAMP "A"

62

CONST. 237.5 LF OF 18" PIPE

392+97.18
120.82' LT

CURVE SW77EOP
1" OVERLAY
OF EXIST. PAVT.

392+96.62
96.82' LT

SAW CUT

63

CURVE RAMPA-1

24'

IS-31

PC STA. 63+41.3

5.91' SHLDR.

SR 826 SB

MATCH LINE STA. 388+20.00 (8)

9.84' SHLDR.

389

℄ SR 826

390

CURVE CLPE1-1

391

CONST. MEDIAN BARRIER WALL
WITH OPAQUE VISUAL BARRIER

392

393

PT STA. 391+23.30

N 4° 29' 57" W

9.84' SHLDR.

SR 826 NB

EXIST. GUARDRAIL
(TO BE REMOVED)

MATCH LINE STA. 393+80.00 (10)

47.24'
+41.45

CRASH
CUSHION

IS-28

CONST. 21.5 LF OF 18" PIPE

IS-30

CONST. DOUBLE FACED MEDIAN BARRIER WALL
WITH OPAQUE VISUAL BARRIER (SPECIAL 3'-1")
(SEE TYPICAL SECTIONS DETAILS SHEET)

CONST. 196.5 LF OF 18" PIPE

9.84' SHLDR.

19'

CONST. 22.5 LF OF 18" PIPE

IS-29

14.76'
+54.68

720 P.T. STA. 720+08.65

721 RAMP "B" 5.91' SHLDR.

N 4° 21' 10" W

CONST. 97.0 LF OF 24" PIPE

CROWN LINE

5.91' SHLDR.

717

IS-24A

CURVE RAMPB-1

14.76'

718

IS-25

℄ RAMP "B"

CONST. 97.0 LF OF 18" PIPE

EXIST. FENCE
(TO BE REMOVED)

719

IS-26

CONST. 97.0 LF OF 24" PIPE

CONST. DOUBLE FACED
MEDIAN BARRIER WALL
W/OPAQUE VISUAL BARRIER
(SPECIAL 3'-1")

CONST. 71.5 LF OF 18" PIPE

BEGIN DOUBLE FACED MEDIAN BARRIER WALL
STA. 391+70.00

L/A R/W LINE

EXIST. GUARDRAIL
(TO BE REMOVED)

△5

END DOUBLE FACED MEDIAN BARRIER WALL
W/OPAQUE VISUAL BARRIER (SPECIAL 3'-1")
BEGIN CONC. RETAINING WALL
STA. 720+25.00 ℄ RAMP "B"

CONST. CONC. RETAINING
BARRIER WALL

SW 76th AVE.

EXIST. GUARDRAIL
(TO BE REMOVED)

△15

SW 61st ST.

SW 60th ST.

8/14/09

RELEASED FOR CONSTRUCTION

LEGEND

PROPOSED SHOULDER PAVEMENT

S.R. 826

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
8/14/09	△5 REMOVE GUARDRAIL ALONG SW 76 AVE		

engineering

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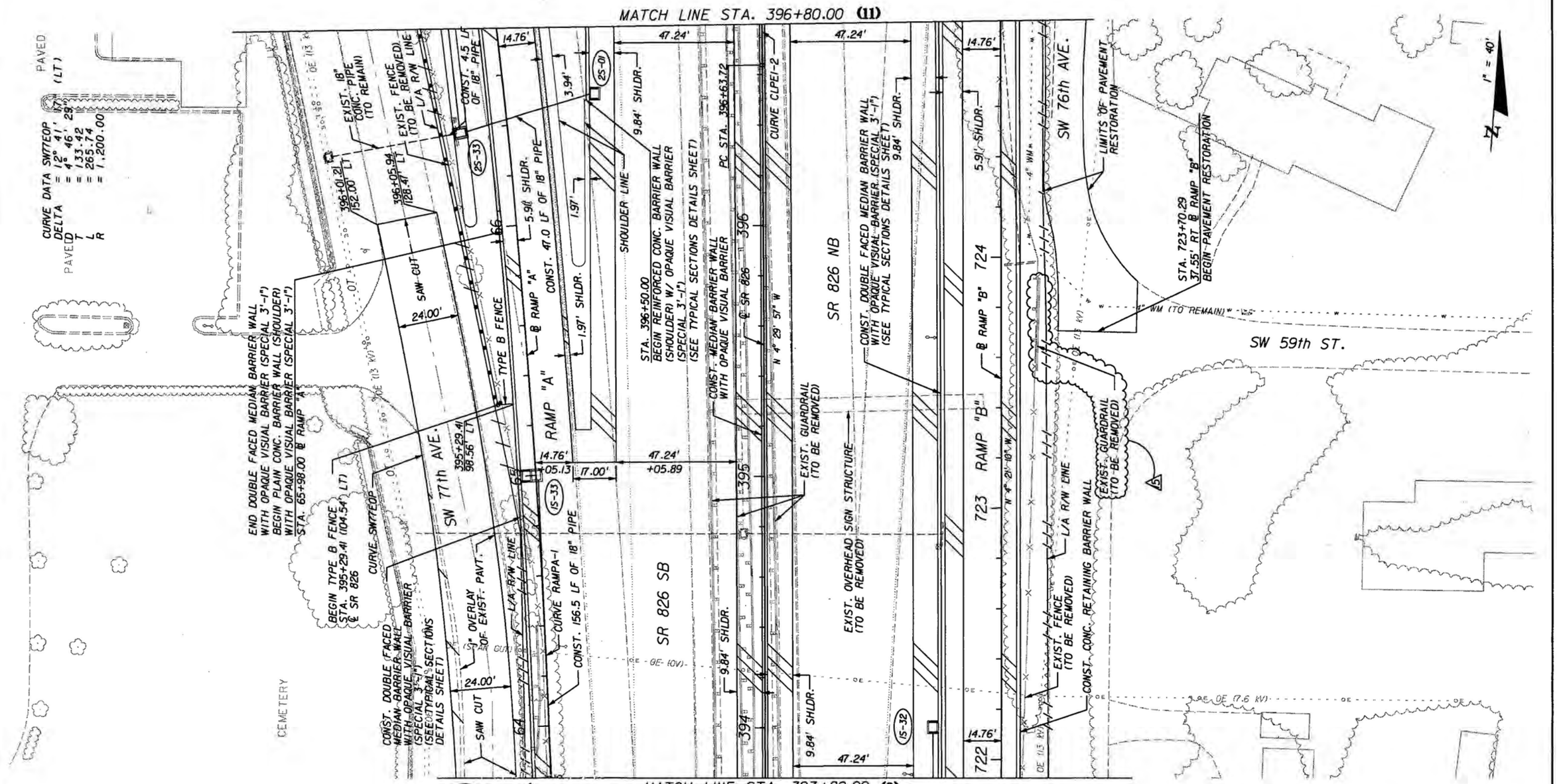
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

ROADWAY PLANS (9)

SHEET NO. 1-25

$USER$ $DATE$ $TIME$ $FILE$



8/14/09

RELEASED FOR CONSTRUCTION

LEGEND

PROPOSED SHOULDER PAVEMENT

S.R. 826

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
8/14/09	(5) REMOVE GUARDRAIL ALONG SW 76 AVE		

engineering

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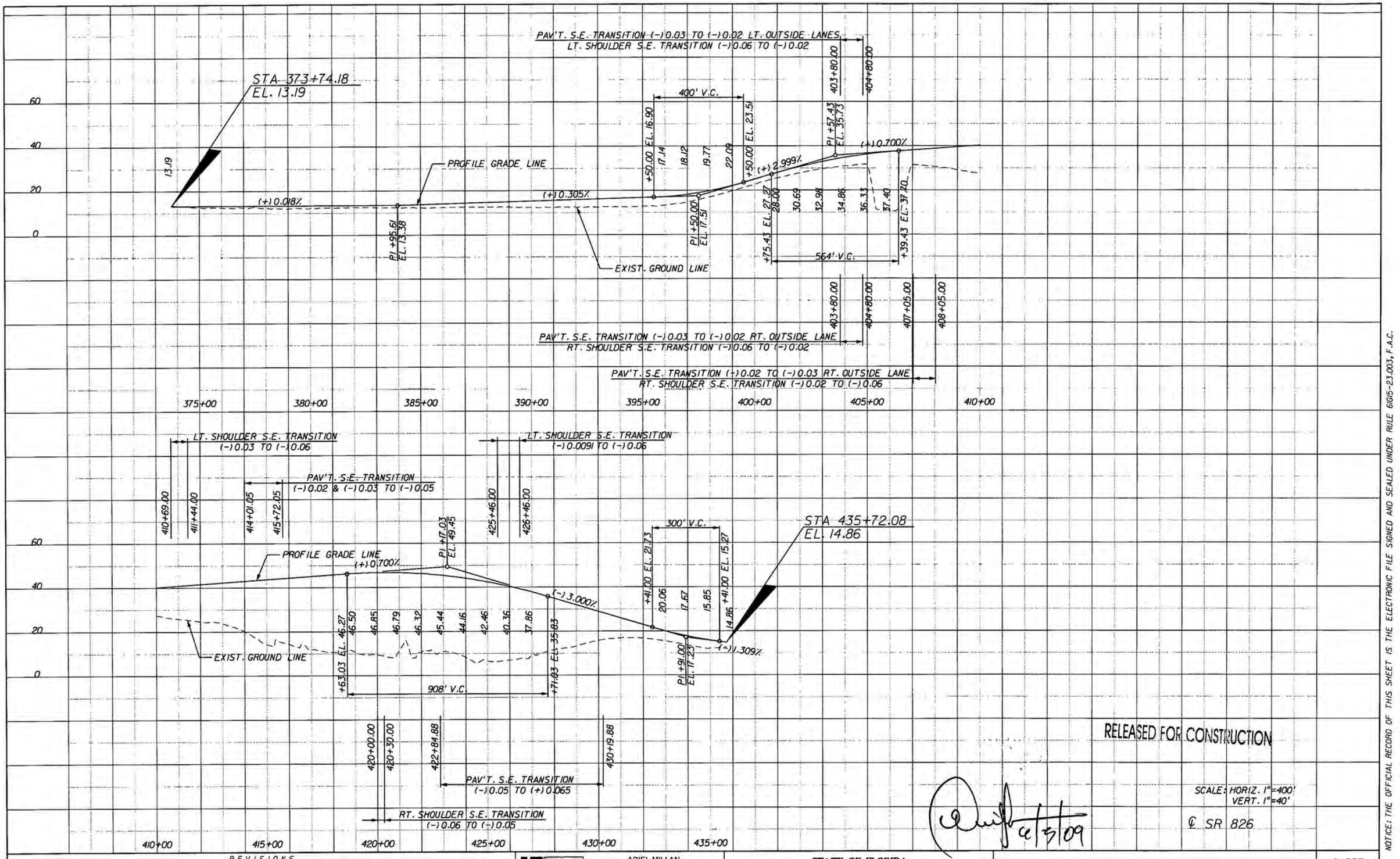
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

ROADWAY PLANS (10)

SHEET NO. 1-26

$USER$ $DATE$ $TIME$ $FILE$



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SCALE: HORIZ. 1"=400'
VERT. 1"=40'

℄ SR 826

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

engineering

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

PROFILES

SHEET NO. 1-30

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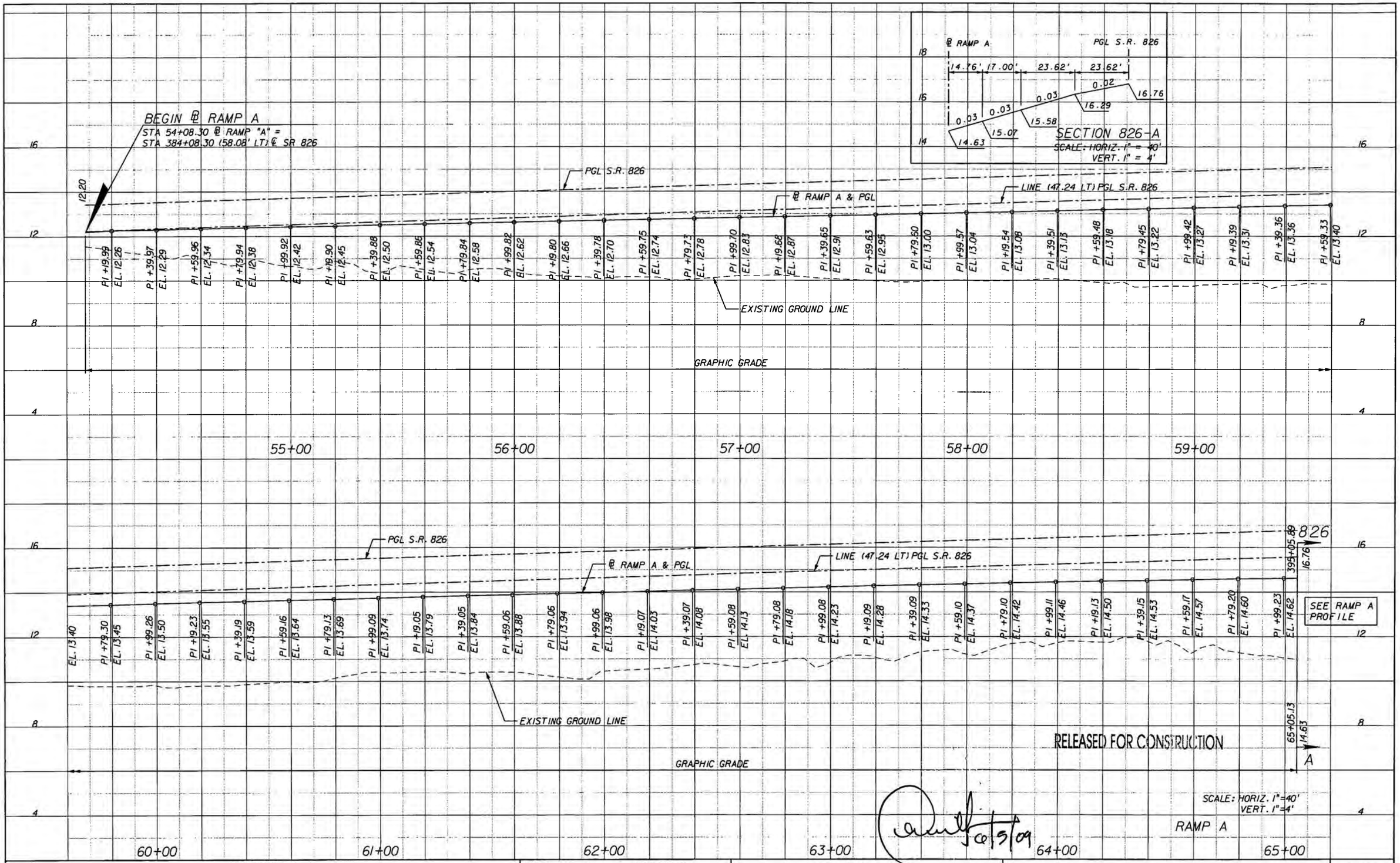

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

PROFILES

SHEET NO. 1-31

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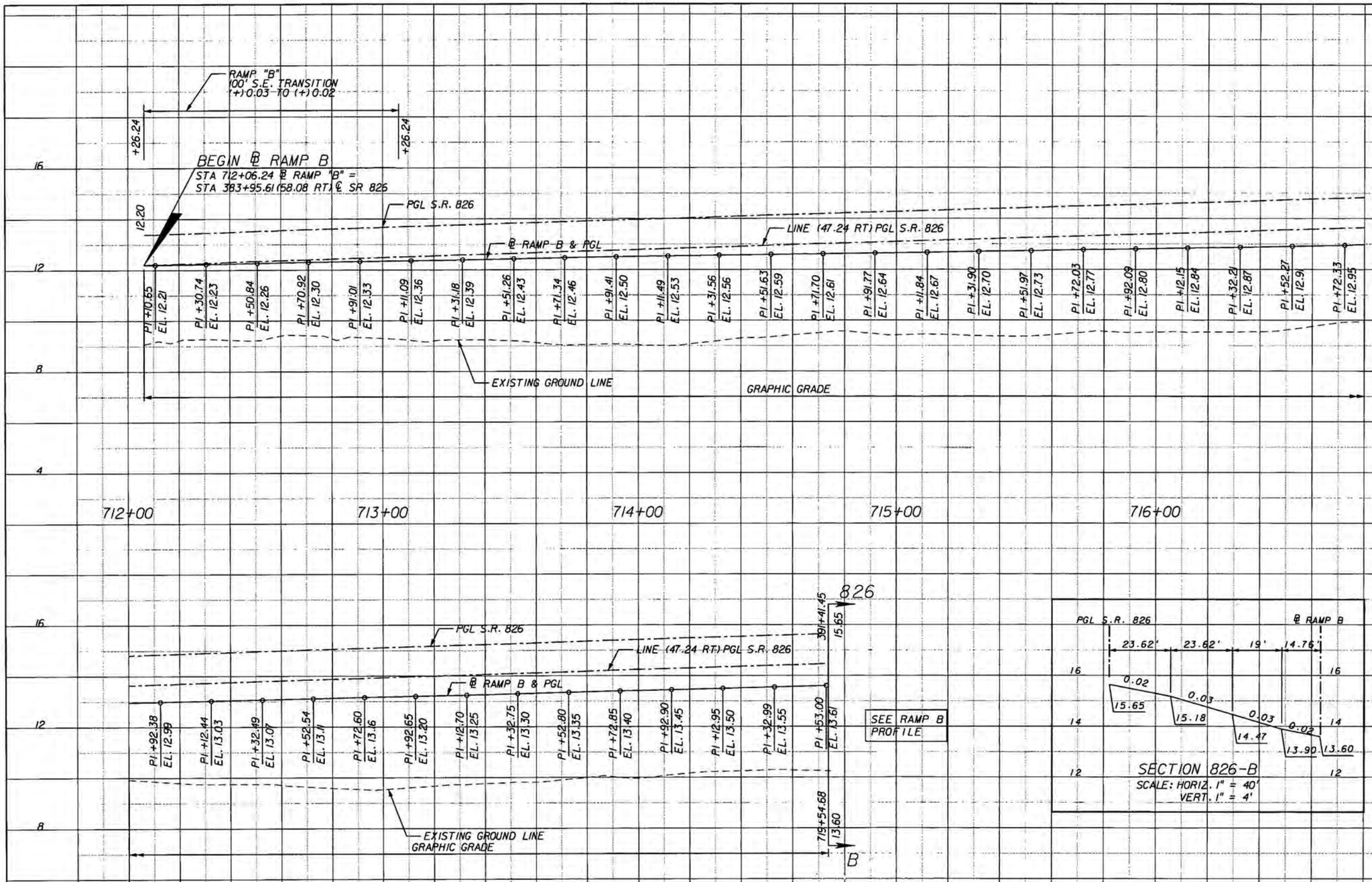

RELEASED FOR CONSTRUCTION

6/5/09

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

engineering

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

PROFILES

SHEET NO. 1-32

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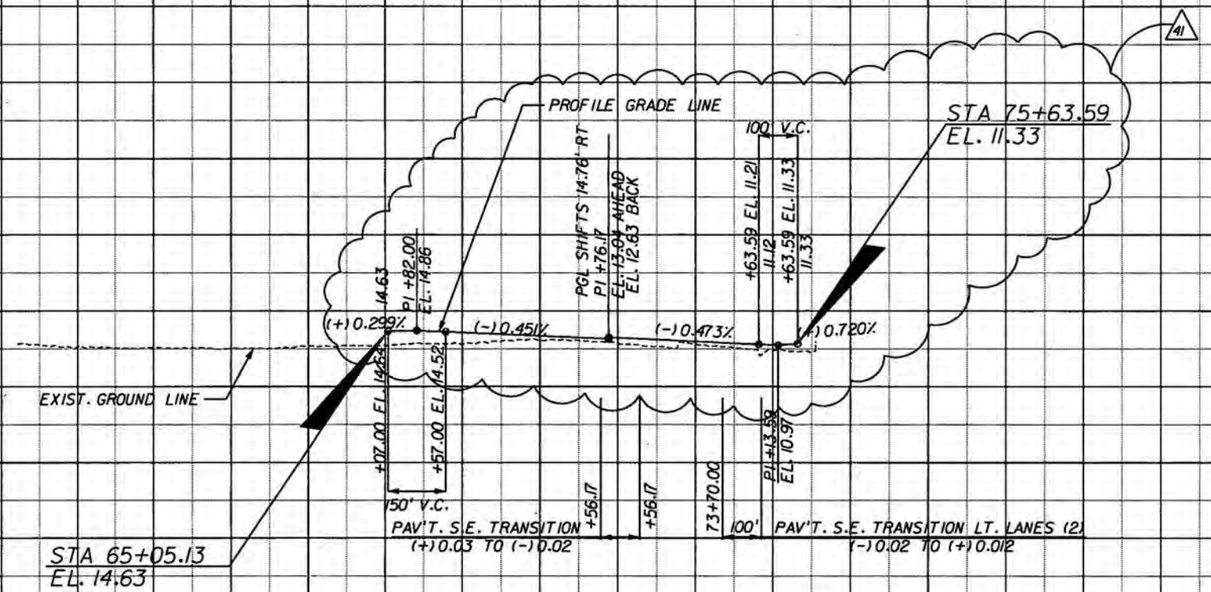
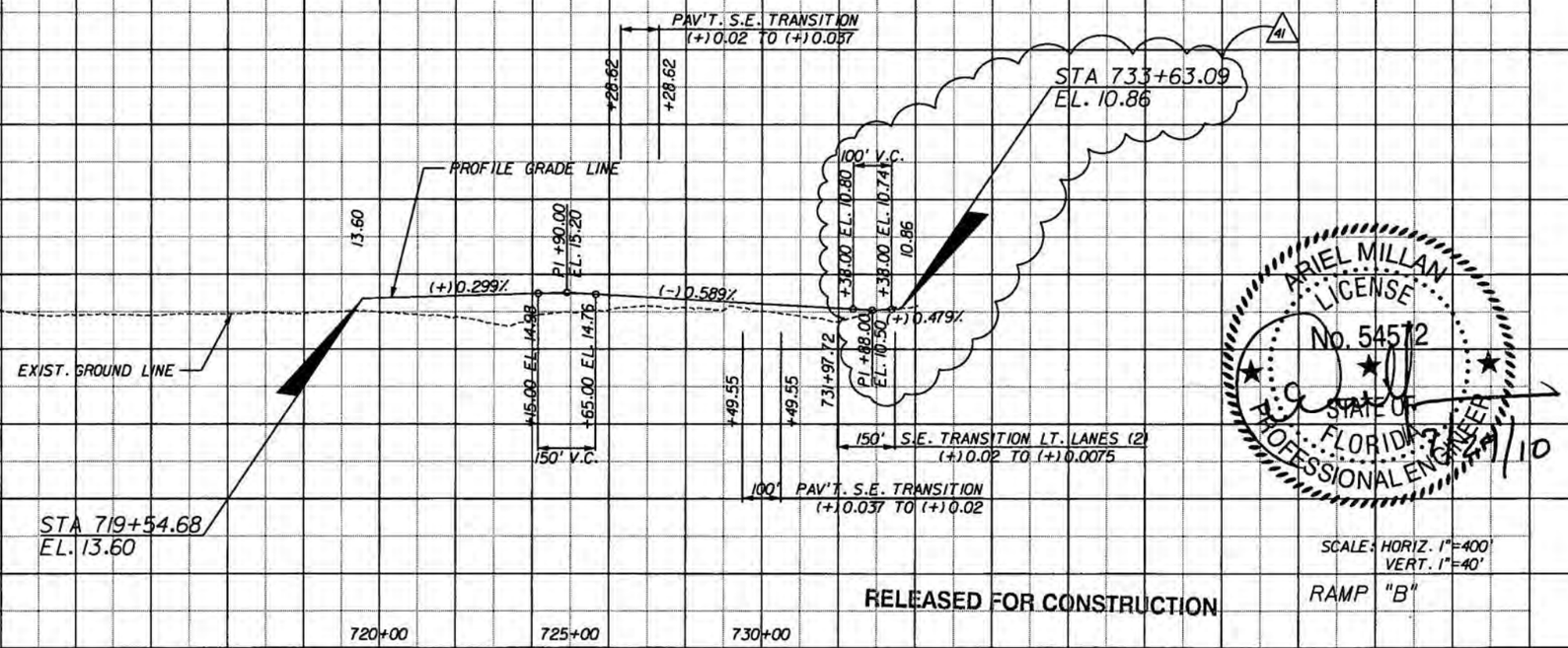


SCALE: HORIZ. 1"=400'
VERT. 1"=40'

RAMP "A"



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PROFESSIONAL ENGINEER
7/29/10

SCALE: HORIZ. 1"=400'
VERT. 1"=40'

RAMP "B"

RELEASED FOR CONSTRUCTION

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
7-29-10	41 REVISED PROFILE GRADES @ INTERSECTION WITH MILLER DR.		

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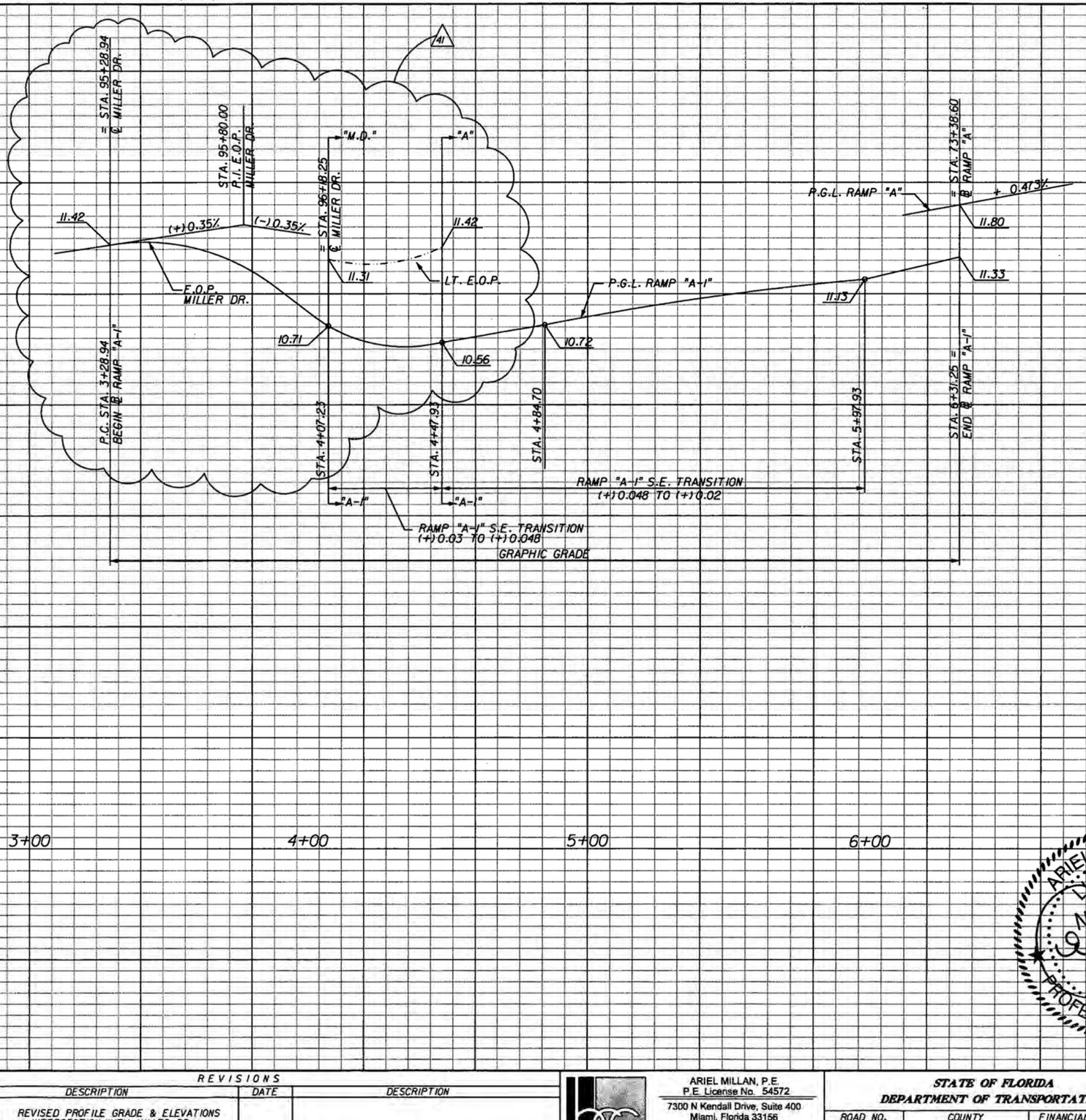
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

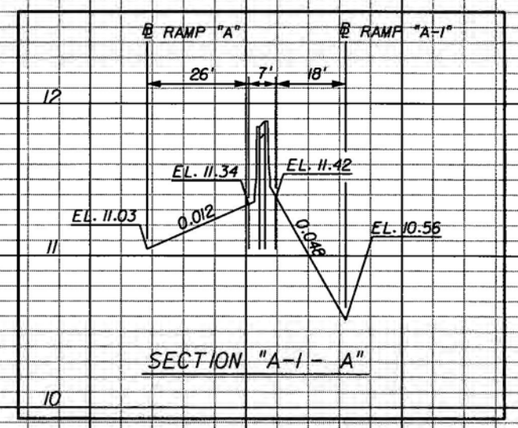
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

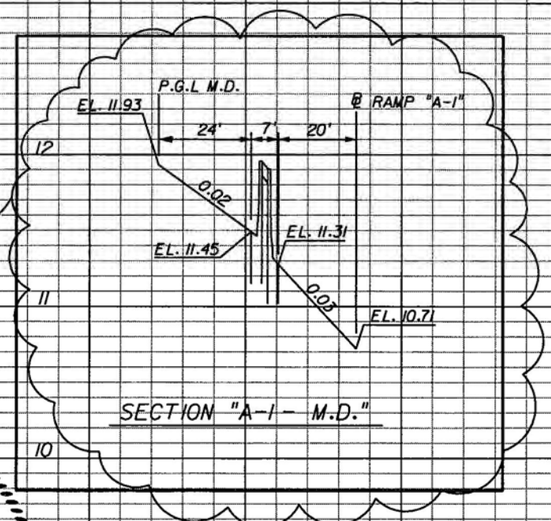
PROFILES

SHEET NO. 1-33

gdragoni 7/29/2010 1:53:27 PM \\sqlserver\cadd\249035\5201\Segment 1\roadway\profrd06.dgn 6/12







ARIEL MILLAN LICENSE No. 54572 STATE OF FLORIDA PROFESSIONAL ENGINEER 7-29-10

RELEASED FOR CONSTRUCTION

SCALE: HORIZ. 1"=40'
VERT. 1"=1'

RAMP "A-1"

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
7-29-10	41 REVISED PROFILE GRADE & ELEVATIONS @ INTERSECTION WITH MILLER DR.		

engineering
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR-826	MIAMI-DADE	249035-1-52-01

PROFILES

SHEET NO. 1-34

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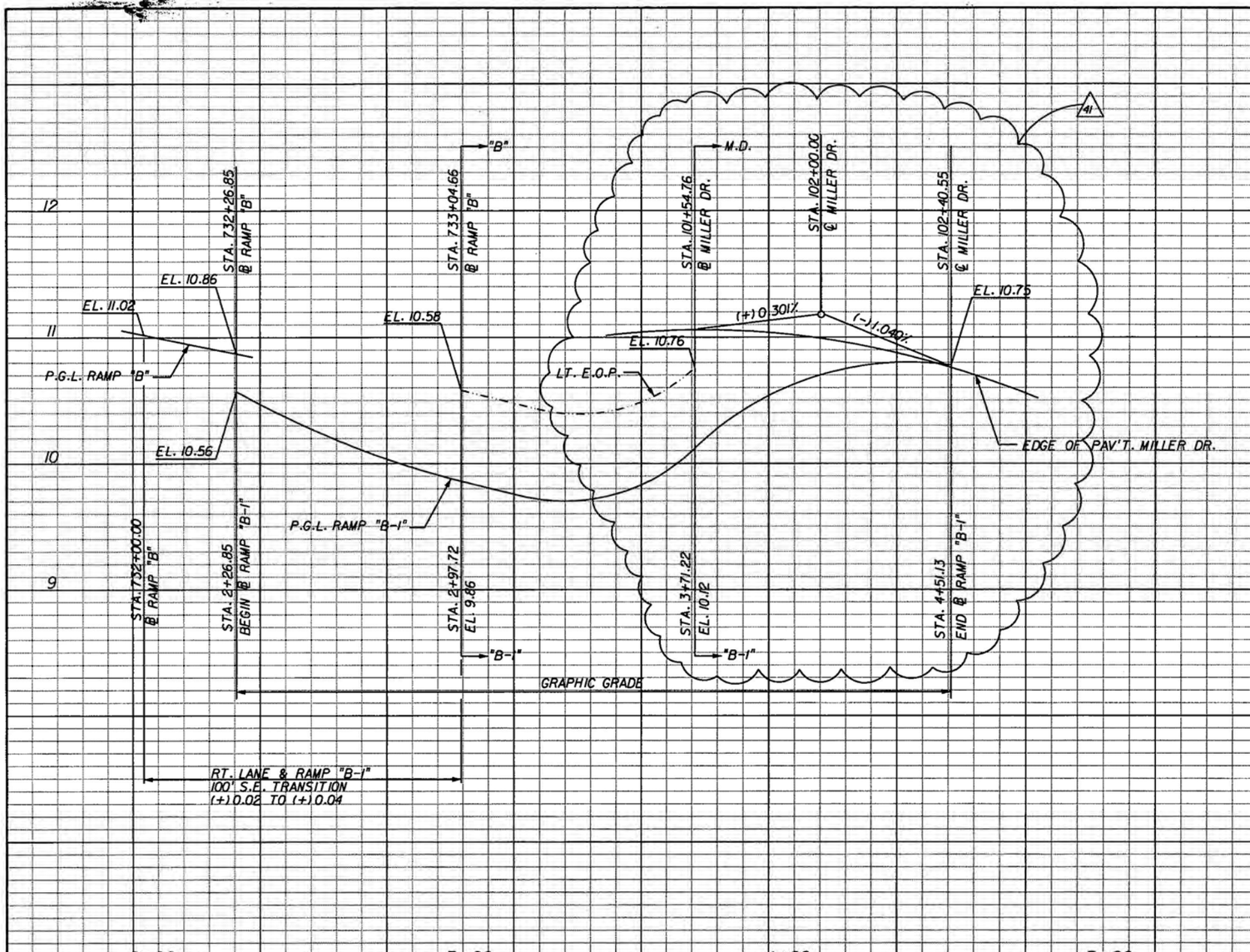
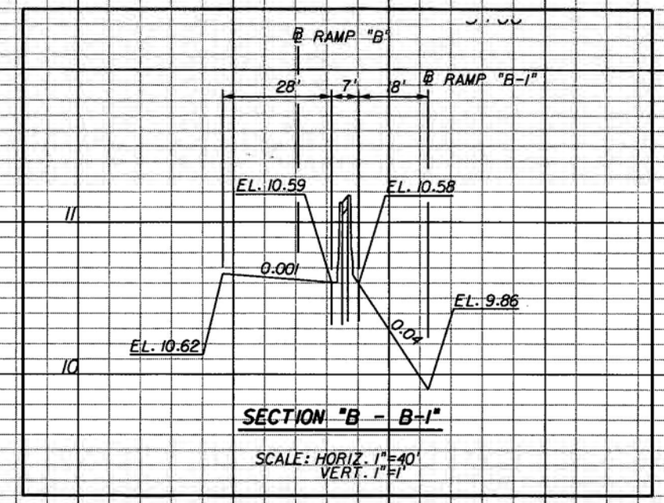
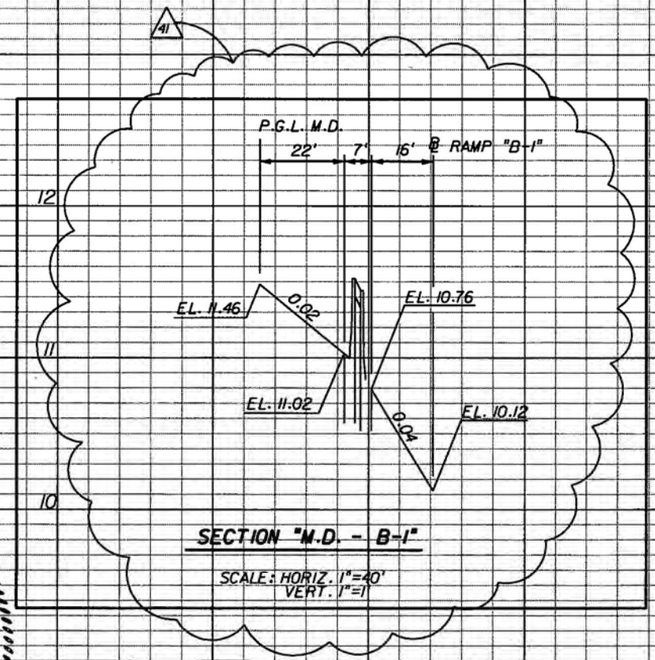
gdragonl 7/29/2010 1:53:26 PM \\sqlserver\cadd\249035\520\Segment 1\roadway\profrd14.dgn





SECTION "B - B-1"

SCALE: HORIZ. 1"=40'
VERT. 1"=1'



SECTION "M.D. - B-1"

SCALE: HORIZ. 1"=40'
VERT. 1"=1'

ARIEL MILLAN LICENSE No. 54572 STATE OF FLORIDA PROFESSIONAL ENGINEER

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SCALE: HORIZ. 1"=40'
VERT. 1"=1'

RAMP "B-1"

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
7-29-10	41 REVISED PROFILE GRADE & ELEVATIONS @ INTERSECTION WITH MILLER DR.		

engineering

ARIEL MILLAN, P.E.
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7300 N Kendall Drive, Suite 400
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR-826	MIAMI-DADE	249035-1-52-01

PROFILES

SHEET NO. 1-35

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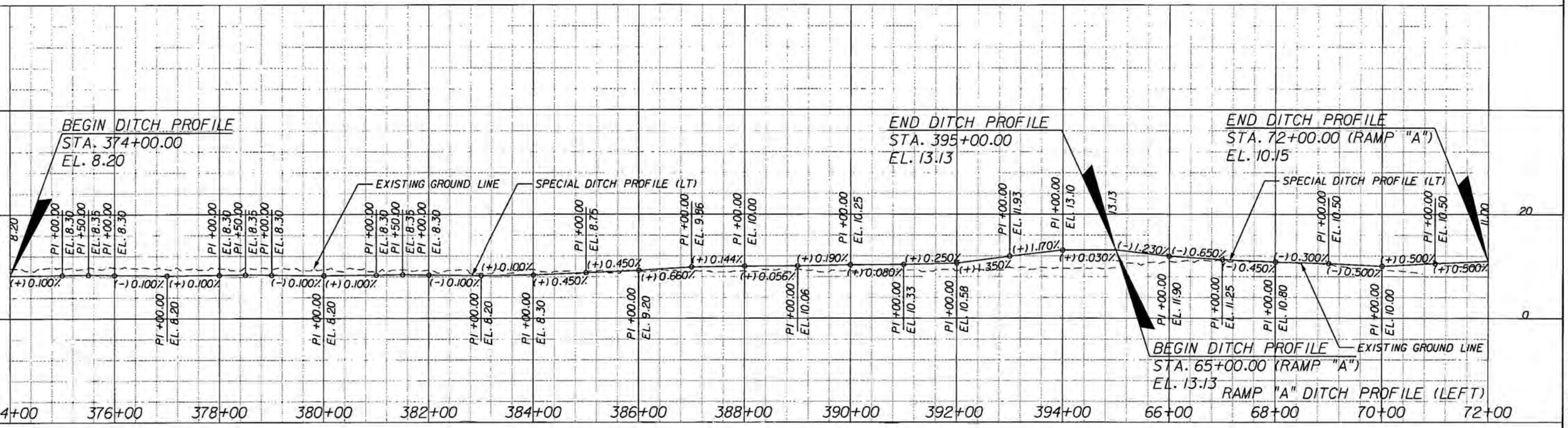

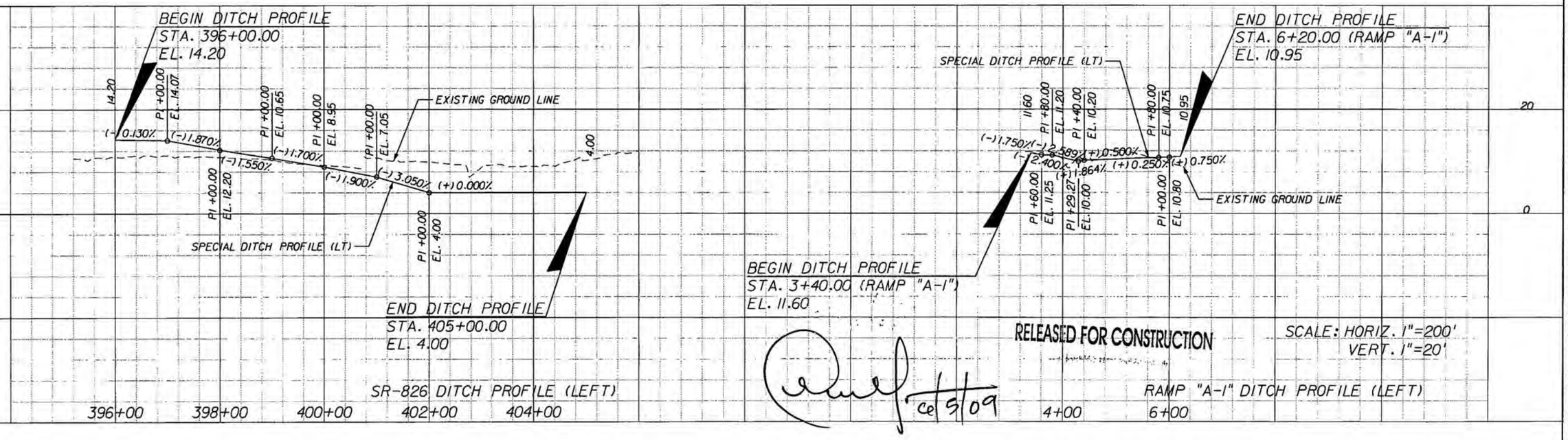

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SCALE: HORIZ. 1"=200'
VERT. 1"=20'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

engineering
ARIEL MILLAN, P.E.
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

PROFILES

SHEET NO. 1-38

dcruz 5/20/2009 10:50:32 AM \\dell745n\cadd\249035\5201\segment 1\drainage\DrPFR002.dgn

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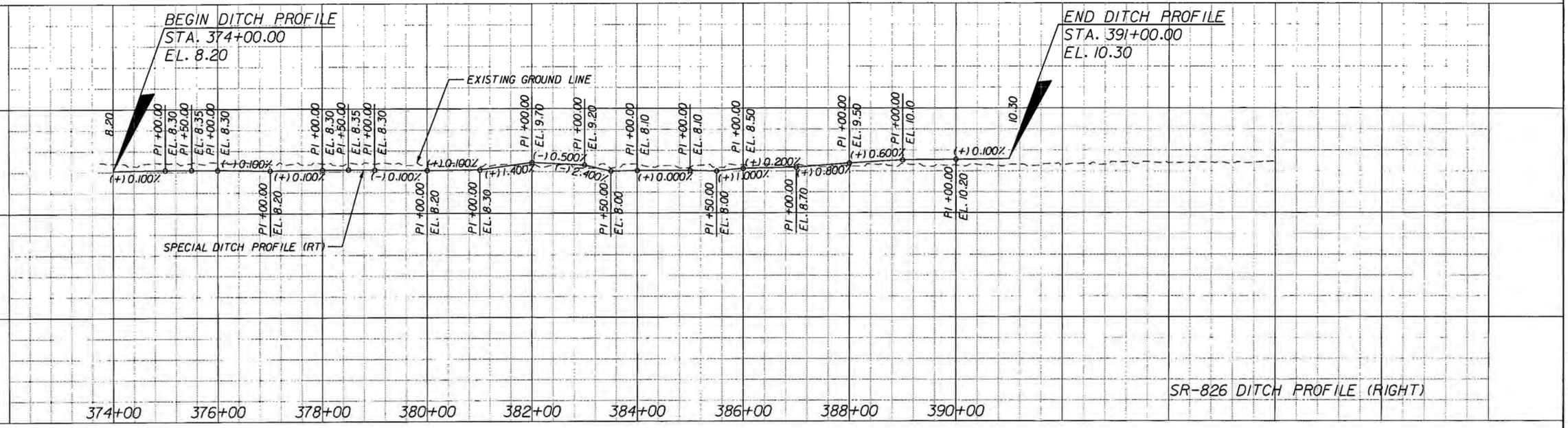
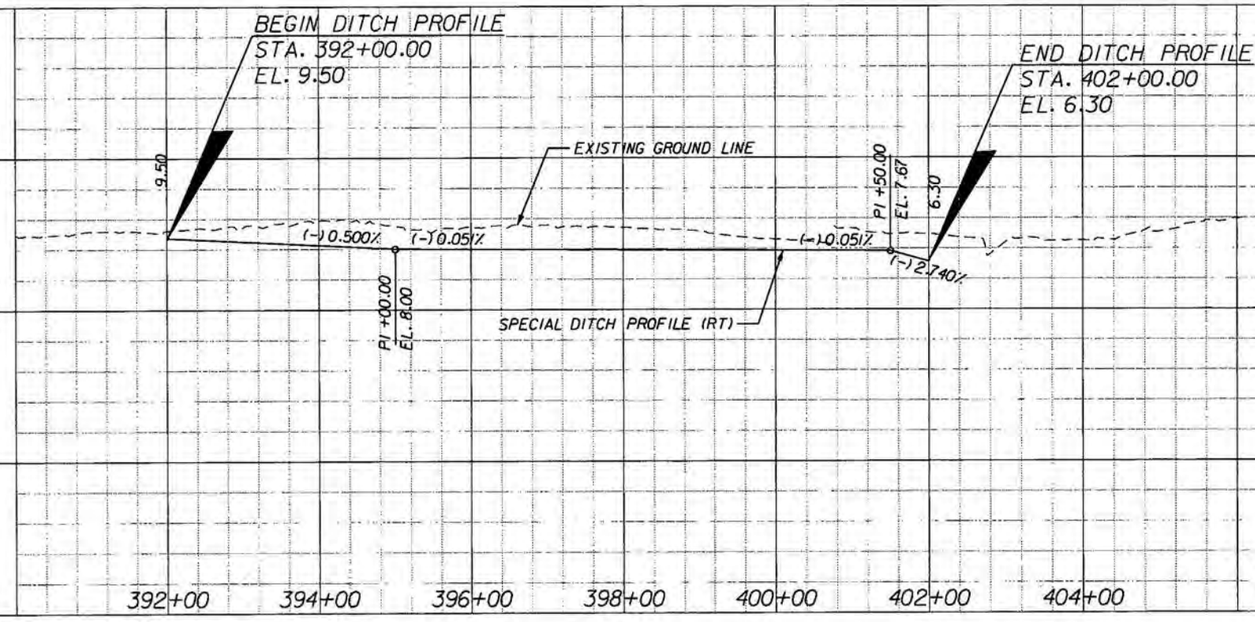


SR-826 DITCH PROFILE (RIGHT)



RELEASED FOR CONSTRUCTION

SCALE: HORIZ. 1"=200'
VERT. 1"=20'

SR-826 DITCH PROFILE (RIGHT)

6/5/09

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

engineering

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

PROFILES

SHEET NO. 1-39

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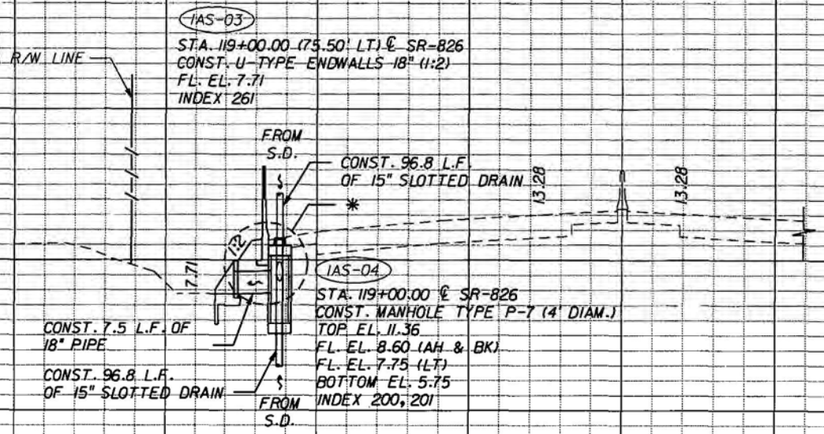
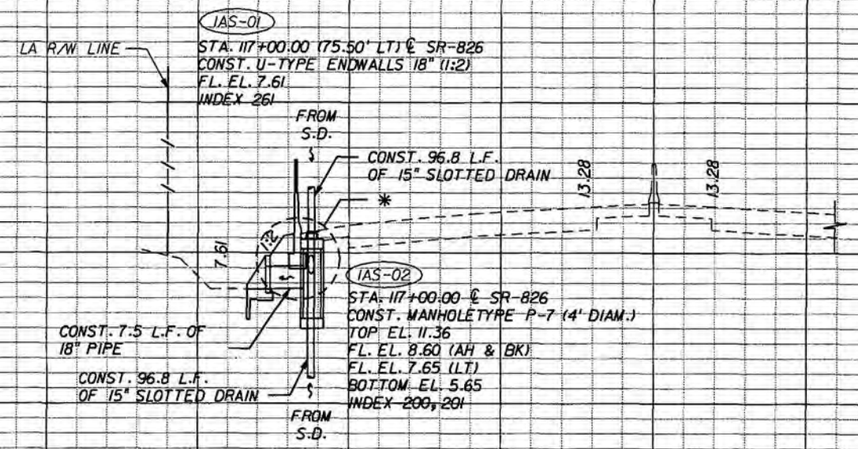
℄ SR-826



(1AS-04)
(1AS-03)
119+00.00
* SEE DRAINAGE DETAILS



(1AS-02)
(1AS-01)
117+00.00
(1AE-01)
SHOWN ON PLAN (SHEET) NO.20
* SEE DRAINAGE DETAILS

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6/5/09

SCALE HORIZ: 1"=30'
VERT: 1"=10'

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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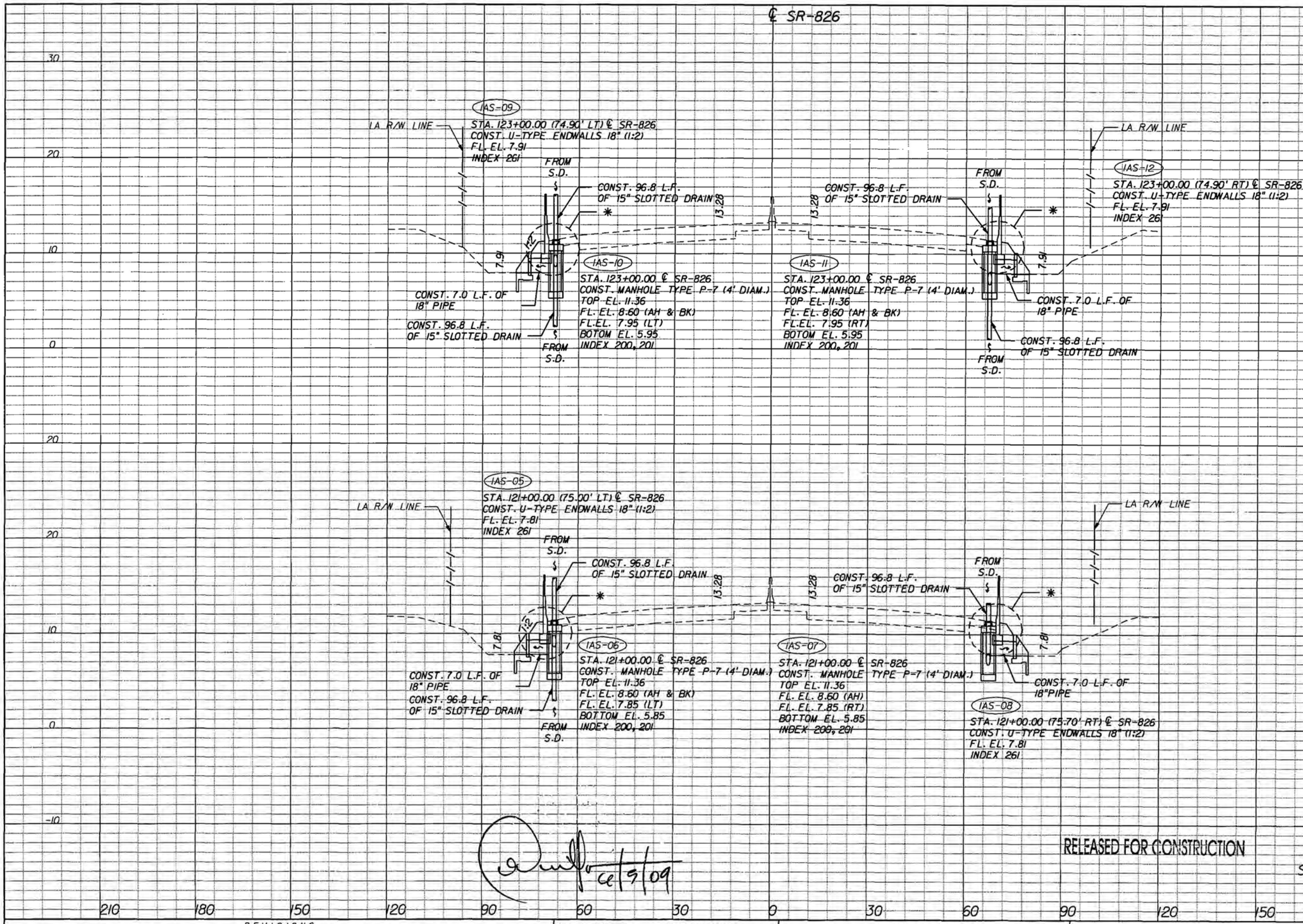
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

DRAINAGE STRUCTURES

SHEET NO. 1-42

ppelgrin 6/4/2009 10:38:45 AM K:\249035\5201\Segment 1\drainage\drstrd01.dgn



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SCALE HORIZ: 1"=30'
VERT: 1"=10'

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REVISIONS

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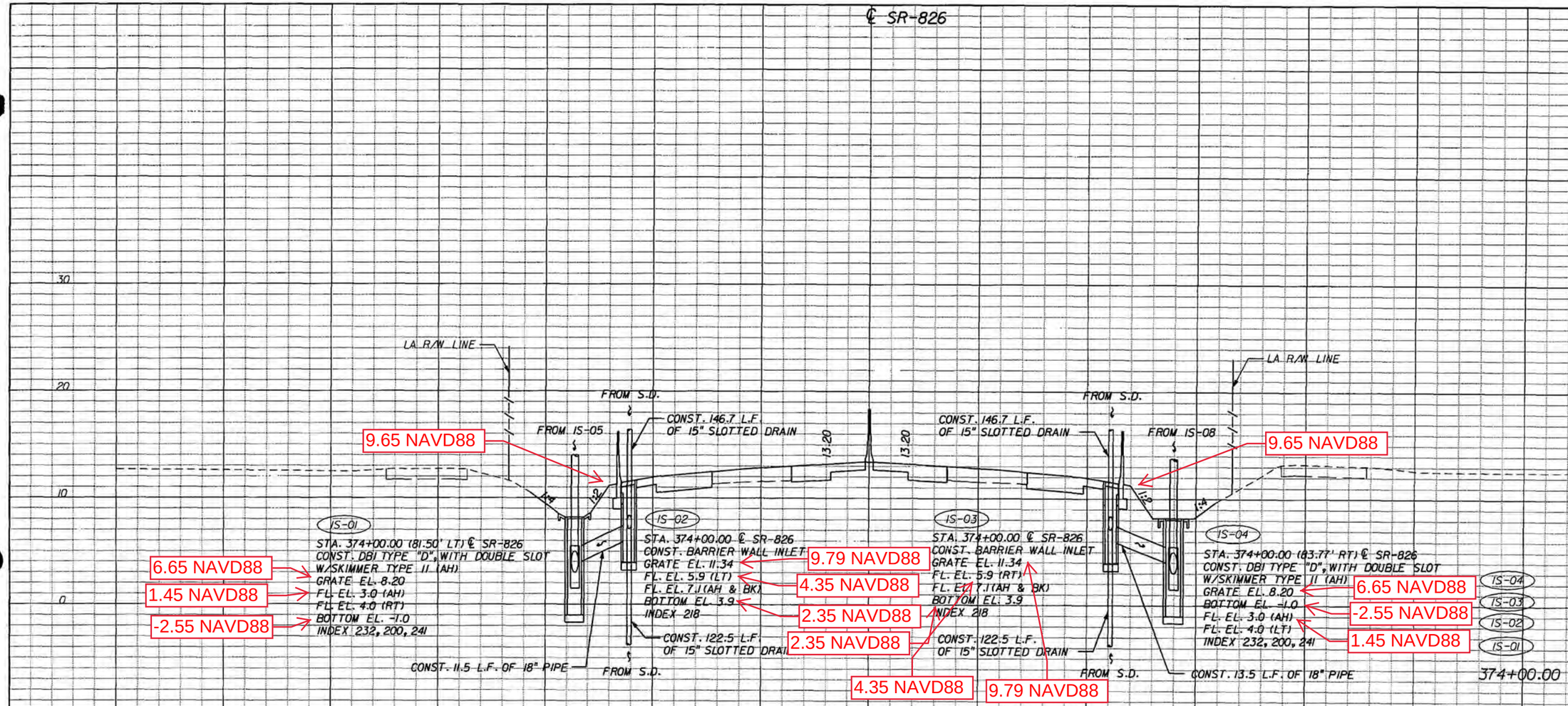
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

DRAINAGE STRUCTURES

SHEET NO. 1-43

ppelegrin 6/4/2009 10:38:46 AM K:\249035152O1\Section 1\drainage\drstr001.dgn



RELEASED FOR CONSTRUCTION

SCALE HORIZ: 1"=30'
VERT: 1"=10'

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

bcc engineering
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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

DRAINAGE STRUCTURES

SHEET NO. 1-44

ppelegrin 6/4/2009 10:38:46 AM K:\249035\5201\Segment 1\drainage\drstrd01.dgn

℄ SR-826

LA R/W LINE

FROM S.D.

FROM IS-09

CONST. 146.7 L.F. OF 15" SLOTTED DRAIN

9.95 NAVD88

1:4

1:2

13.25

13.25

CONST. 146.7 L.F. OF 15" SLOTTED DRAIN

FROM S.D.

FROM IS-12

LA R/W LINE

9.95 NAVD88

1:2

1:4

30

20

10

0

-10

IS-05
STA. 377+00.00 (81.60' LT) ℄ SR-826
CONST. DBI TYPE "D", WITH DOUBLE SLOT
ON "J" BOTTOM (54" x 60")
W/SKIMMERS TYPE II (AH & BK)
GRATE EL. 8.20
FL. EL. 3.0 (AH & BK)
FL. EL. 4.0 (RT)
BOTTOM EL. -1.0
INDEX 232, 200, 241

6.65 NAVD88
1.45 NAVD88
-2.55 NAVD88

CONST. 295.0 L.F. OF 24" F.D.

TO IS-01

IS-06
STA. 377+00.00 ℄ SR-826
CONST. BARRIER WALL INLET
GRATE EL. 11.42
FL. EL. 5.9 (LT)
FL. EL. 7.2 (AH & BK)
BOTTOM EL. 3.9
INDEX 218

9.87 NAVD88
4.35 NAVD88
2.35 NAVD88

CONST. 146.7 L.F. OF 15" SLOTTED DRAIN

FROM S.D.

CONST. 12.0 L.F. OF 18" PIPE

IS-07
STA. 377+00.00 ℄ SR-826
CONST. BARRIER WALL INLET
GRATE EL. 11.42
FL. EL. 5.9 (RT)
FL. EL. 7.2 (AH & BK)
BOTTOM EL. 3.9
INDEX 218

4.35 NAVD88
9.87 NAVD88
2.35 NAVD88

CONST. 146.7 L.F. OF 15" SLOTTED DRAIN

FROM S.D.

CONST. 14.5 L.F. OF 18" PIPE

TO IS-04

IS-08
STA. 377+00.00 (83.87' RT) ℄ SR-826
CONST. DBI TYPE "D", WITH DOUBLE SLOT
ON "J" BOTTOM (54" x 60")
W/SKIMMERS TYPE II (AH & BK)
GRATE EL. 8.20
FL. EL. 4.0 (LT)
FL. EL. 3.0 (AH & BK)
BOTTOM EL. -1.0
INDEX 232, 200, 241

6.65 NAVD88
1.45 NAVD88
-2.55 NAVD88

CONST. 295.0 L.F. OF 24" F.D.

IS-08
IS-07
IS-06
IS-05
377+00.00

210 180 150 120 90 60 30 0 30 60 90 120 150 180

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VERT: 1"=10'

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

DRAINAGE STRUCTURES

SHEET NO. 1-45

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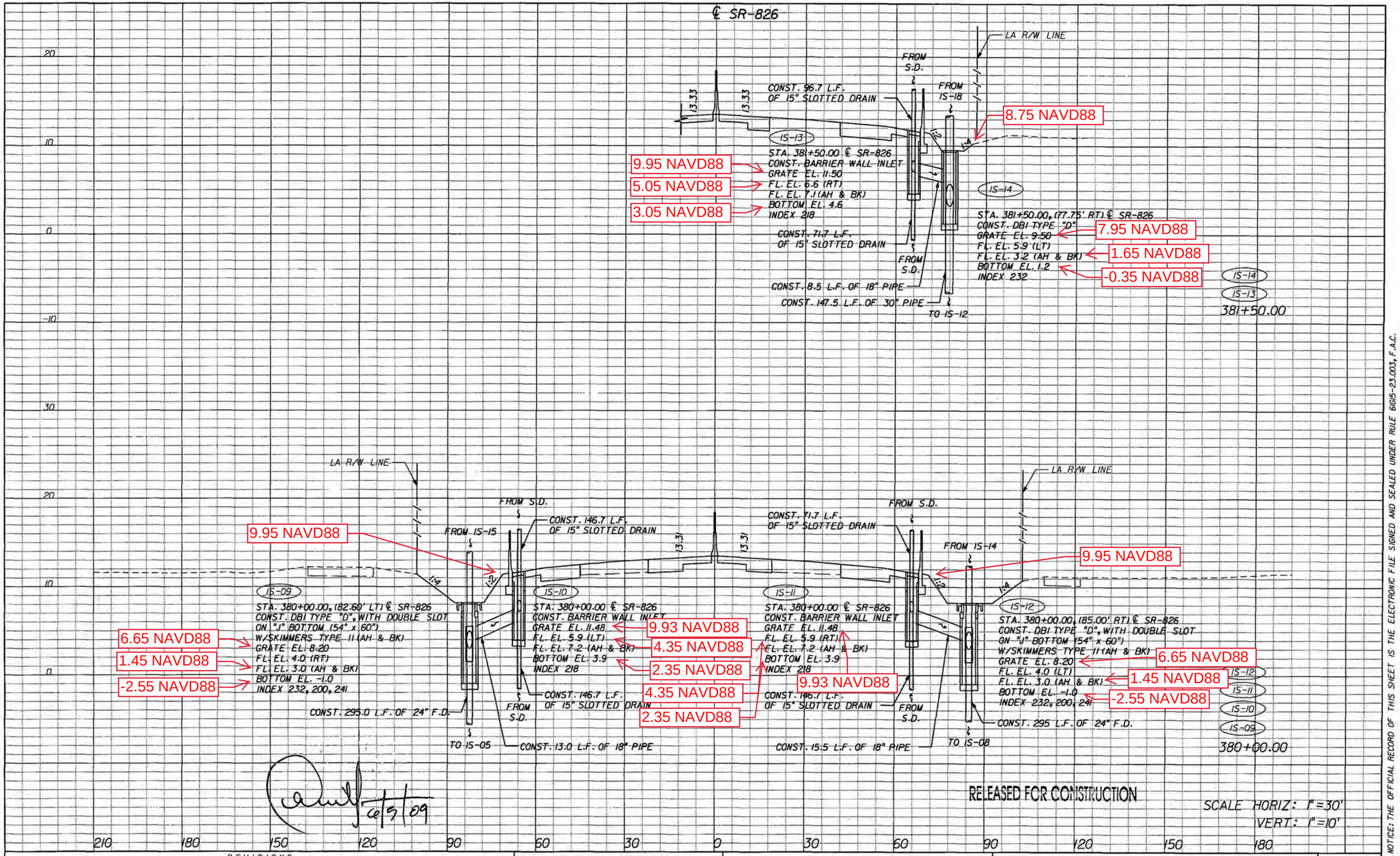

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

engineering
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

DRAINAGE STRUCTURES

SHEET NO. 1-46

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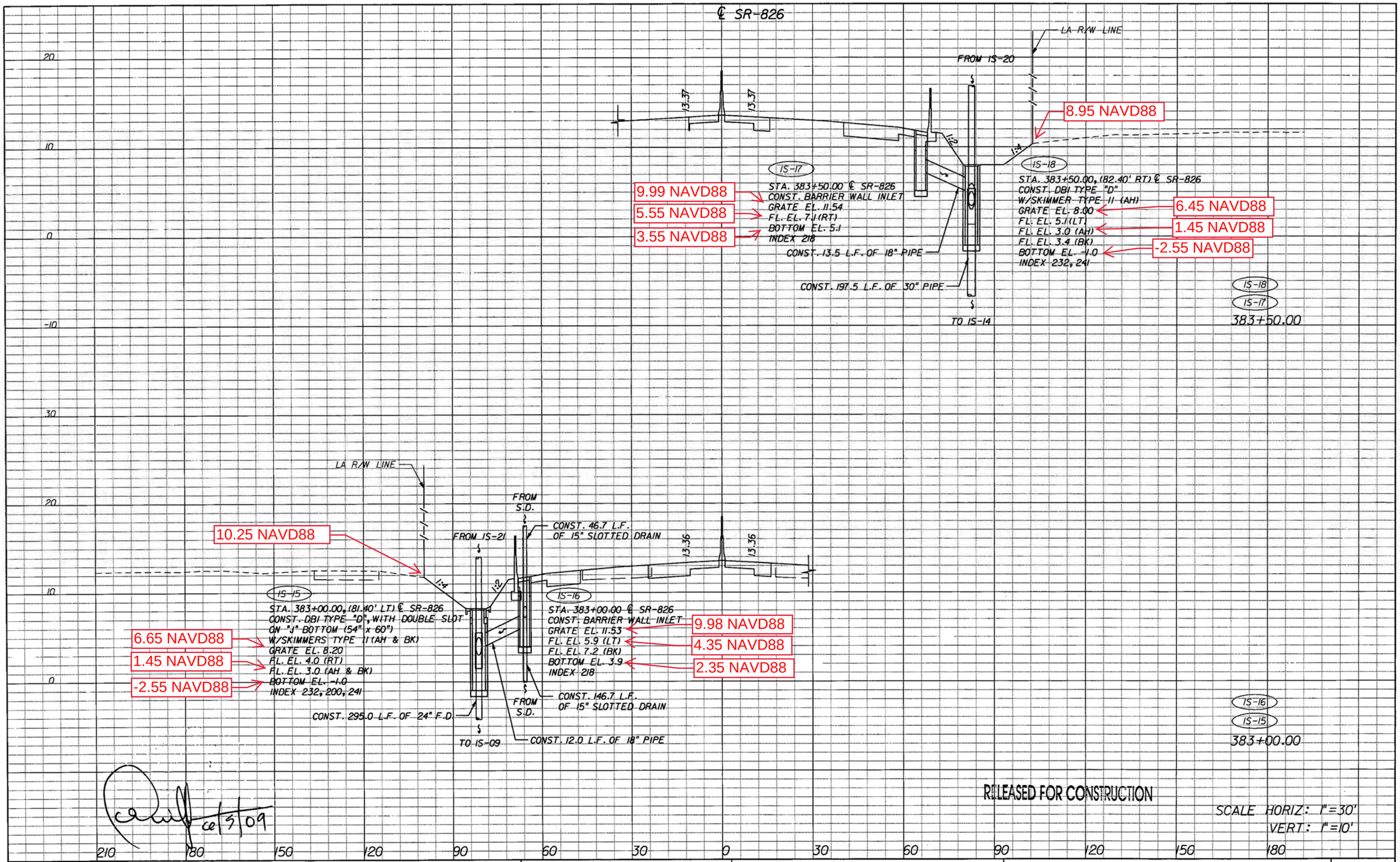

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SCALE HORIZ: 1"=30'
VERT: 1"=10'

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

DRAINAGE STRUCTURES

SHEET NO. 1-47

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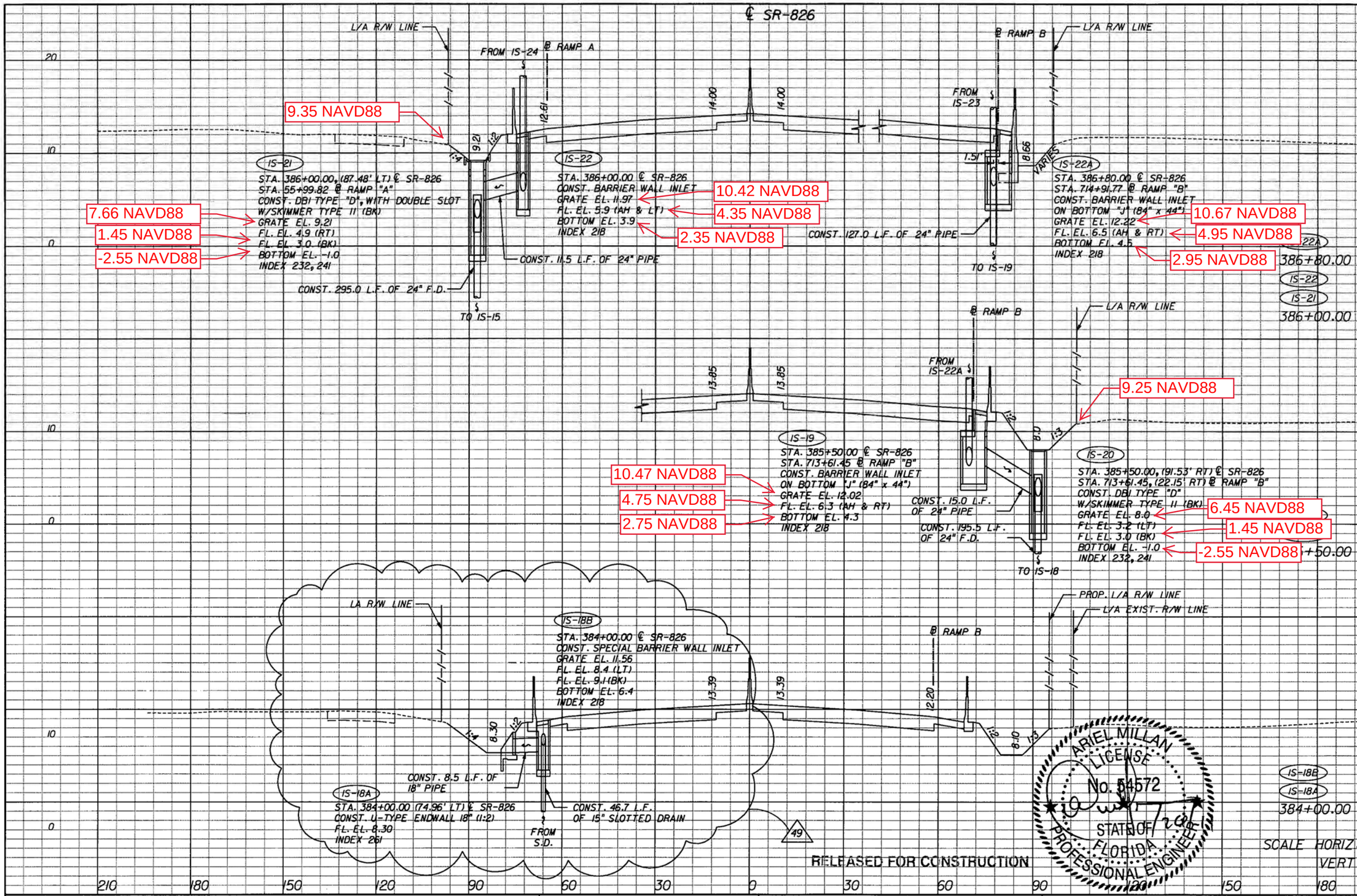

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REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
	49 SLOTTED DRAIN WAS EXTENDED TO THE NORTH AND ADDED STRUCTURES IS-18A & S-18B		

engineering
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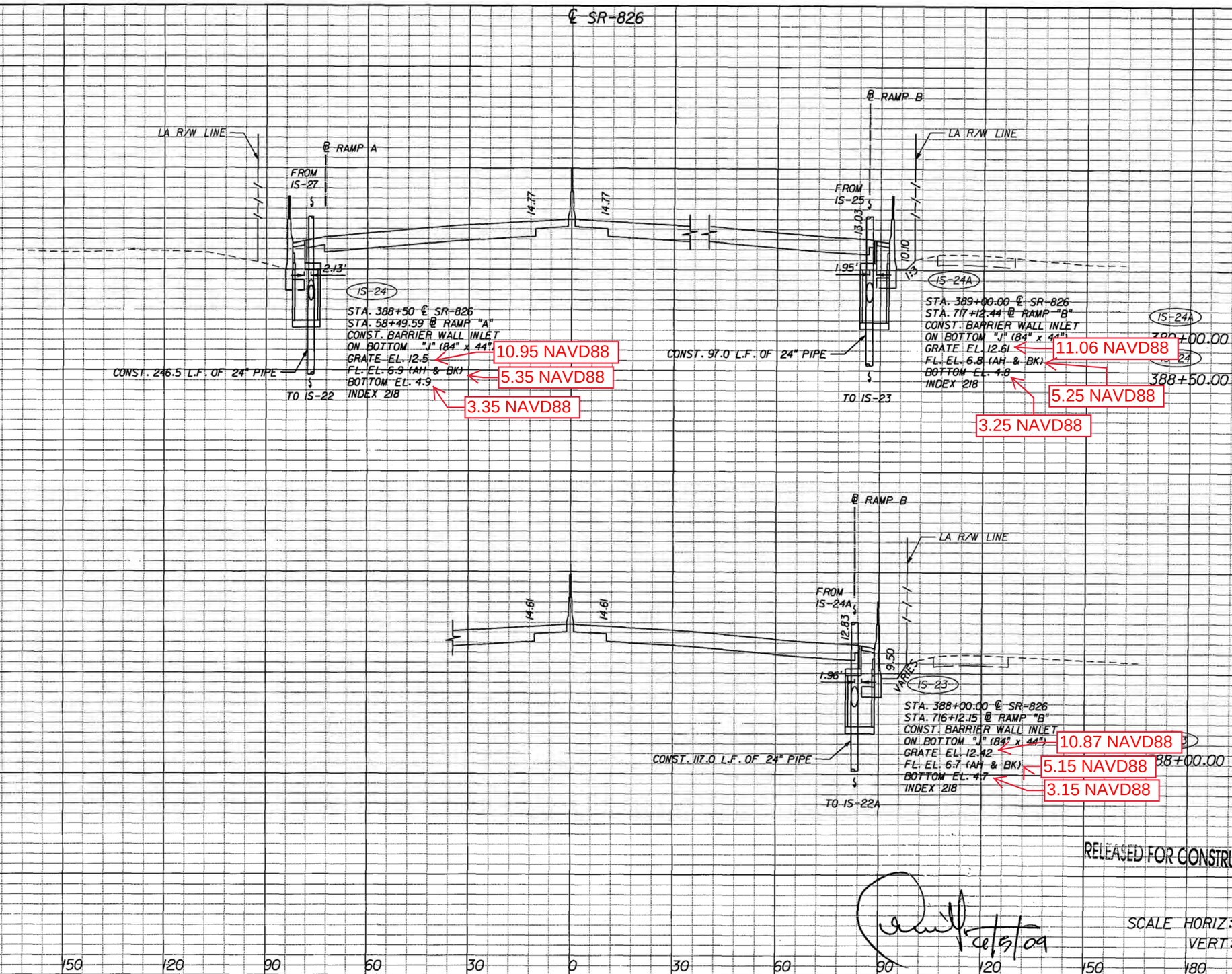
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

DRAINAGE STRUCTURES

SHEET NO. 1-48



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SCALE HORIZ: 1"=30'
VERT: 1"=10'

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

DRAINAGE STRUCTURES

SHEET NO. 1-49

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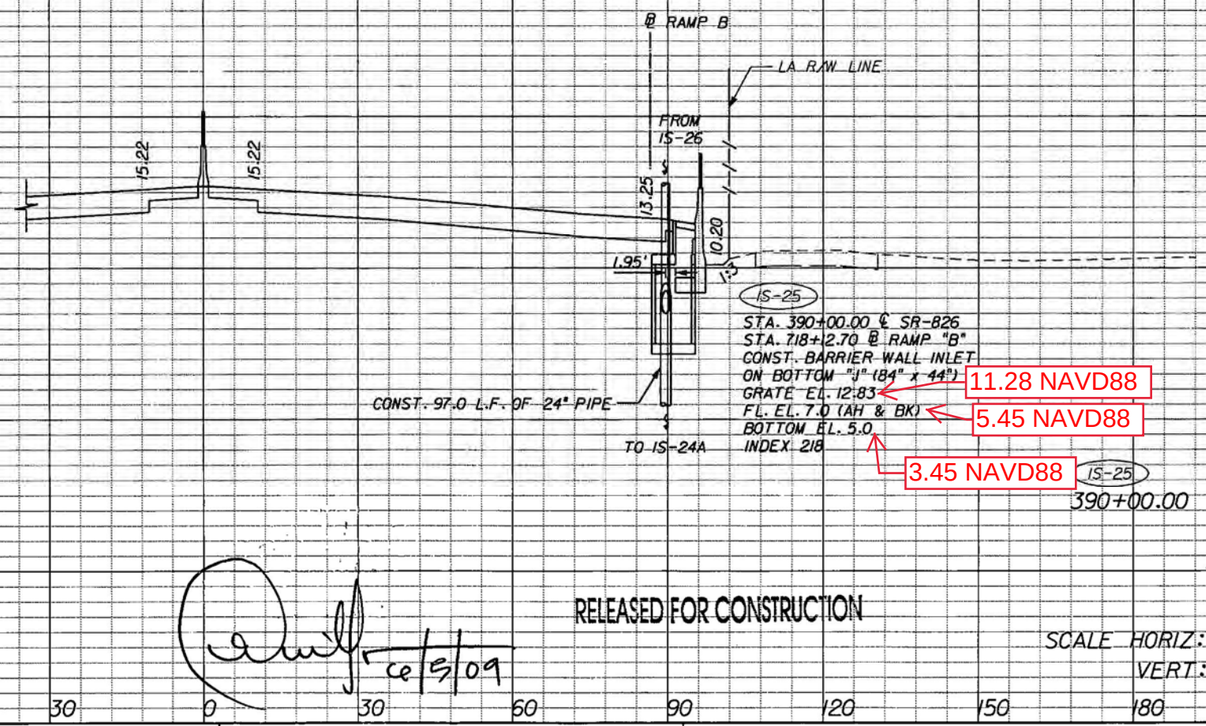
℄ SR-826



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SCALE HORIZ: 1"=30'
VERT: 1"=10'

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

engineering
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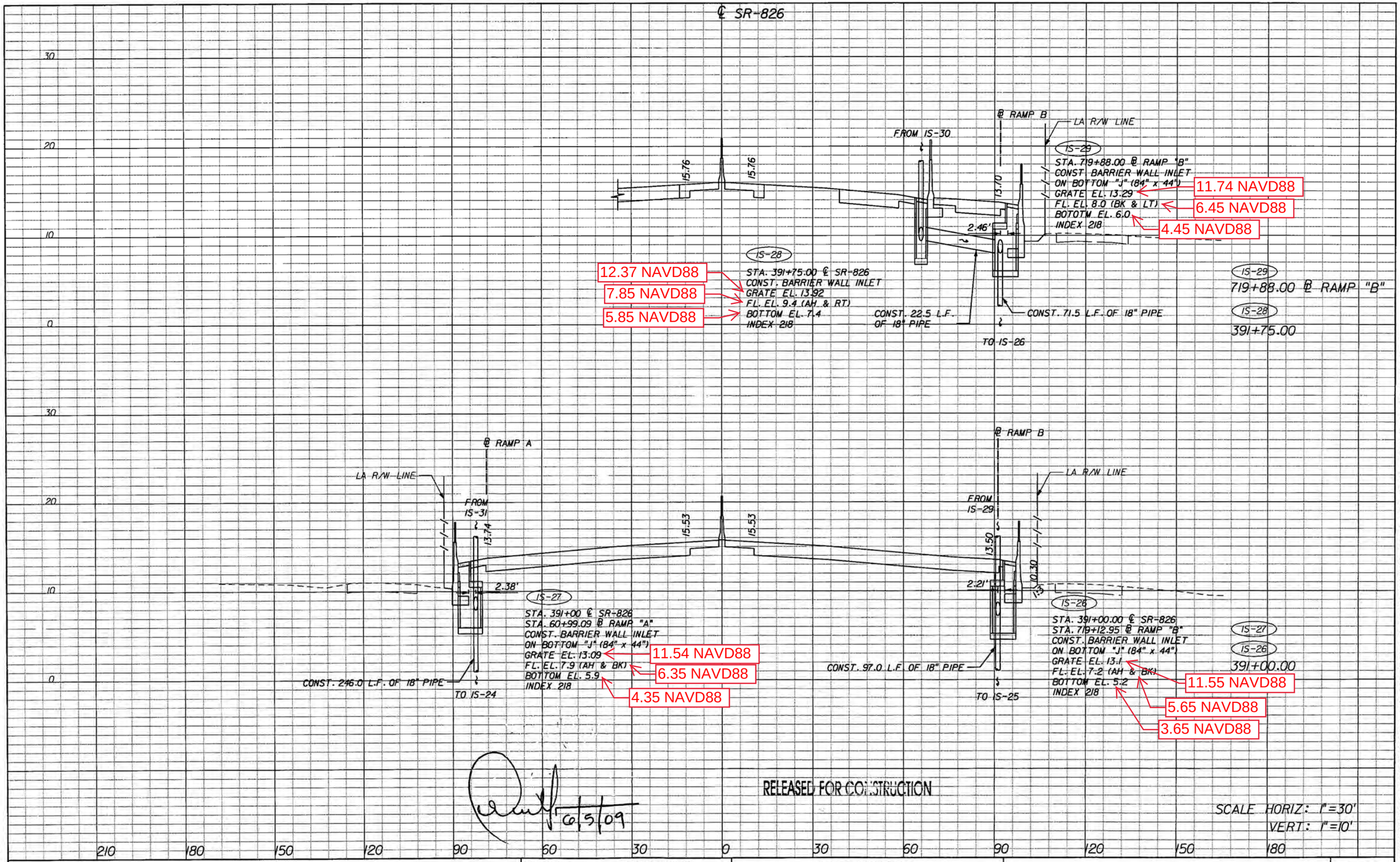
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

DRAINAGE STRUCTURES

SHEET NO. 1-50



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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

DRAINAGE STRUCTURES

SHEET NO. 1-51

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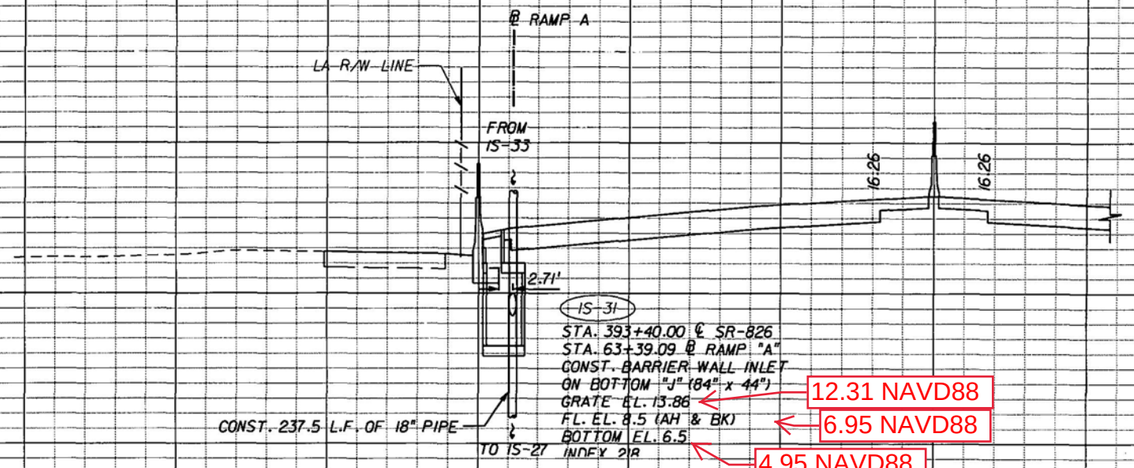
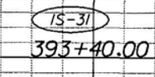
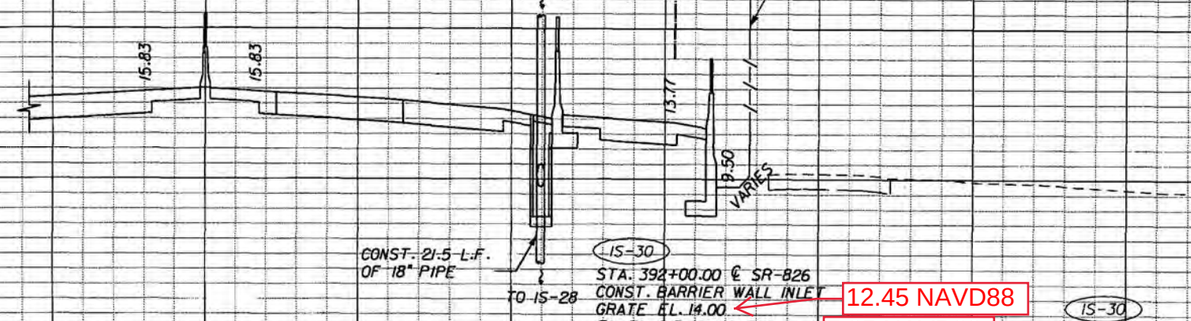
℄ SR-826







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SCALE HORIZ: 1"=30'
VERT: 1"=10'

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

DRAINAGE STRUCTURES

SHEET NO. 1-52

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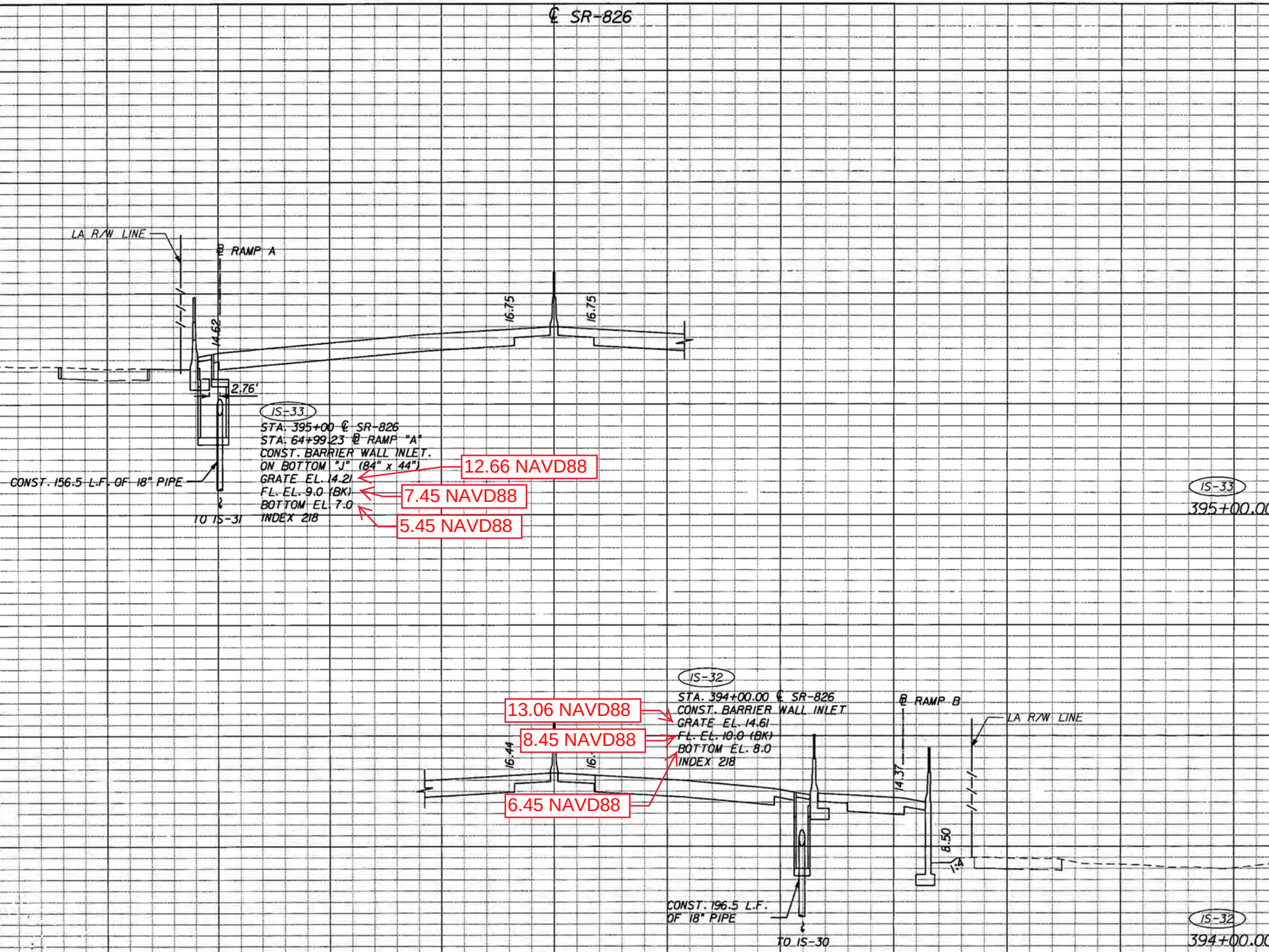

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VERT: 1"=10'

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

DRAINAGE STRUCTURES

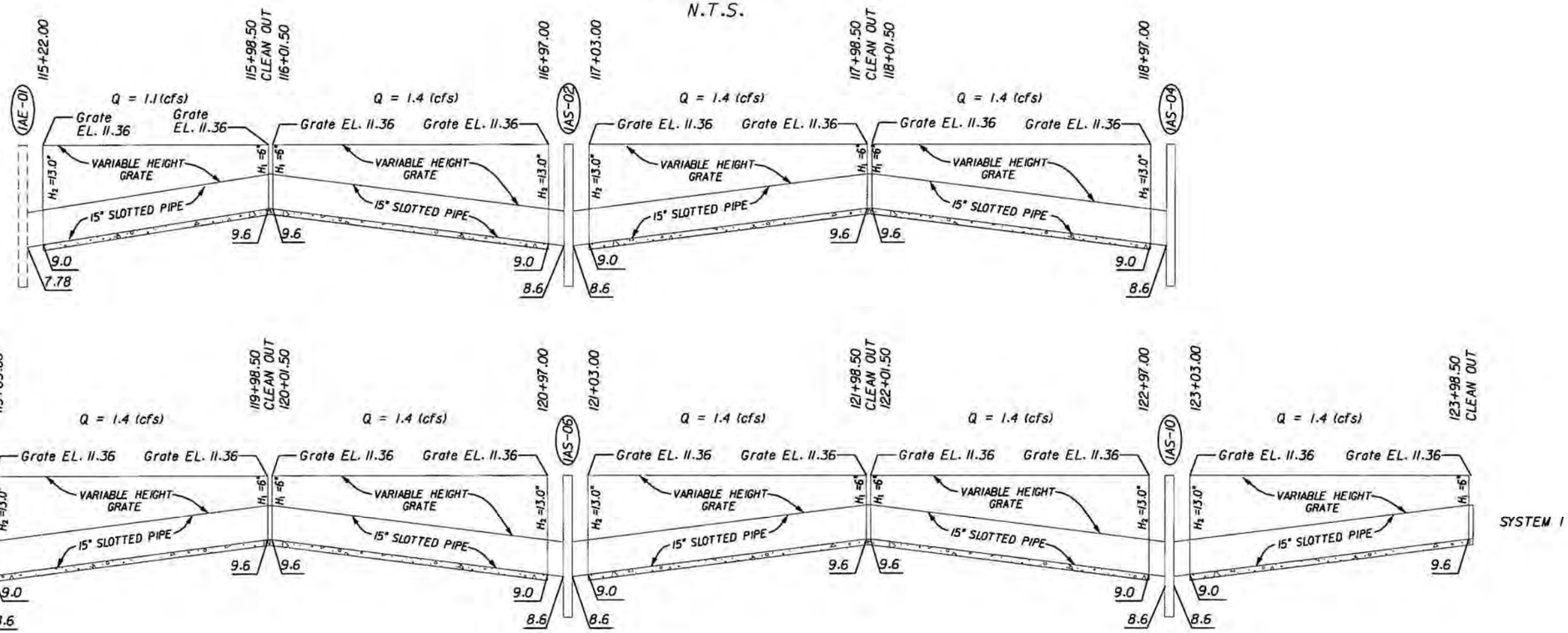
SHEET NO. 1-53

ppwtegrln 6/4/2009 10:38:50 AM K:\249035\5201\Segment 1\drafting\drstr01.dgn

SYSTEM IA (WEST SIDE)

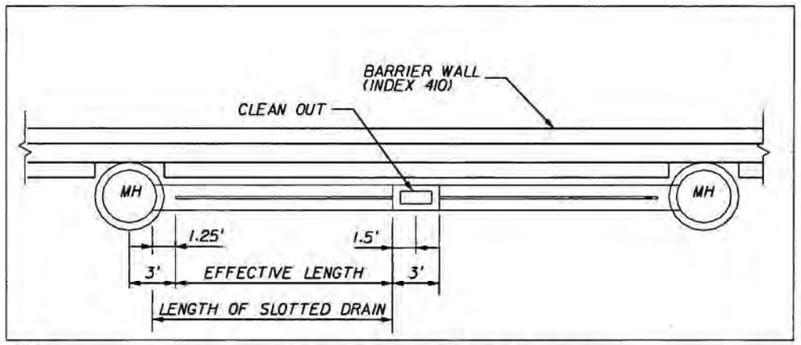
SLOTTED DRAIN

N.T.S.



SYSTEM I

Stucture No.	Inlet Station.	Side	Slotted Drain				Upstream			Downstream			Slope %
			From STA.	To STA.	Effective Length	Size (IN)	Grate	H_1 (IN)	FL	Grate	H_2 (IN)	FL	
1AE-01	115+08.90	AH	115+22.00	115+98.50	86.73	15	11.36	6	9.6	11.36	13.0	9.0	0.67
1AS-02	117+00.00	BK	116+01.50	116+97.00	95.50	15	11.36	6	9.6	11.36	13.0	9.0	0.61
		AH	117+03.00	117+98.50	95.50	15	11.36	6	9.6	11.36	13.0	9.0	0.61
1AS-04	119+00.00	BK	118+01.50	118+97.00	95.50	15	11.36	6	9.6	11.36	13.0	9.0	0.61
		AH	119+03.00	119+98.50	95.50	15	11.36	6	9.6	11.36	13.0	9.0	0.61
1AS-06	121+00.00	BK	120+01.50	120+97.00	95.50	15	11.36	6	9.6	11.36	13.0	9.0	0.61
		AH	121+03.00	121+98.50	95.50	15	11.36	6	9.6	11.36	13.0	9.0	0.61
1AS-10	123+00.00	BK	122+01.50	122+97.00	95.50	15	11.36	6	9.6	11.36	13.0	9.0	0.61
		AH	123+03.00	123+98.50	95.50	15	11.36	6	9.6	11.36	13.0	9.0	0.61



DRAINAGE LENGTH DETAIL

N.T.S.

NOTE:

FROM STATION AND TO STATION COLUMNS ARE ACCORDING WITH DIRECTION OF CENTER LINE, NO IN DIRECTION OF FLOW.

RELEASED FOR CONSTRUCTION

6/5/09

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

engineering

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

MISCELLANEOUS DRAINAGE DETAILS

SHEET NO. 1-71

dcruz 5/20/2009 10:15:08 AM \\dell745n\cadd\249035\5201\segment 1\drainage\DRDTRD01.DGN

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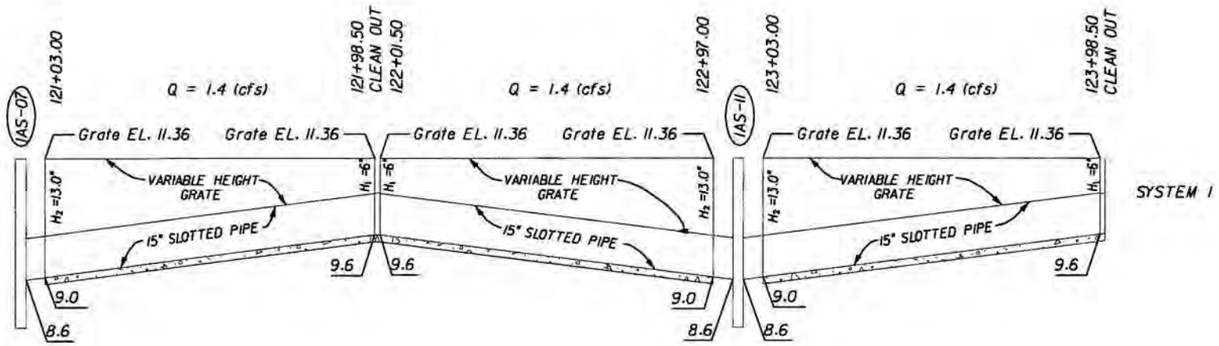
SYSTEM IA (EAST SIDE)

SLOTTED DRAIN

N.T.S.



Stucture No.	Inlet Station.	Side	Slotted Drain				Upstream			Downstream			Slope %
			From STA.	To STA.	Effective Length	Size (IN)	Grate	H_1 (IN)	FL	Grate	H_2 (IN)	FL	
1AS-07	121+00.00	AH	121+03.00	121+98.50	95.50	15	11.36	6	9.6	11.36	13.0	9.0	0.61
1AS-11	123+00.00	BK	122+01.50	122+97.00	95.50	15	11.36	6	9.6	11.36	13.0	9.0	0.61
		AH	123+03.00	123+98.50	95.50	15	11.36	6	9.6	11.36	13.0	9.0	0.61

10/5/09

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REVISIONS			
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DEPARTMENT OF TRANSPORTATION

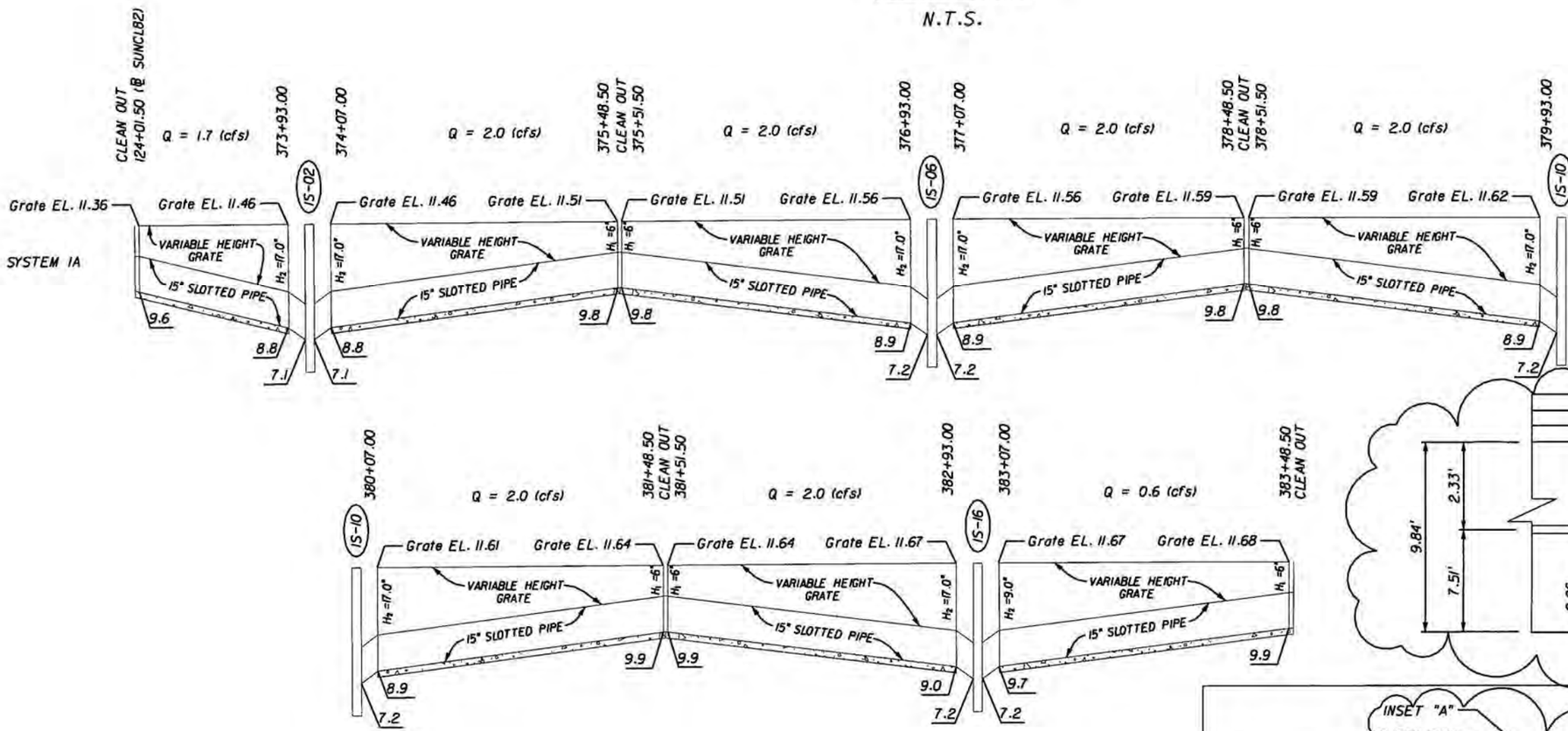
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

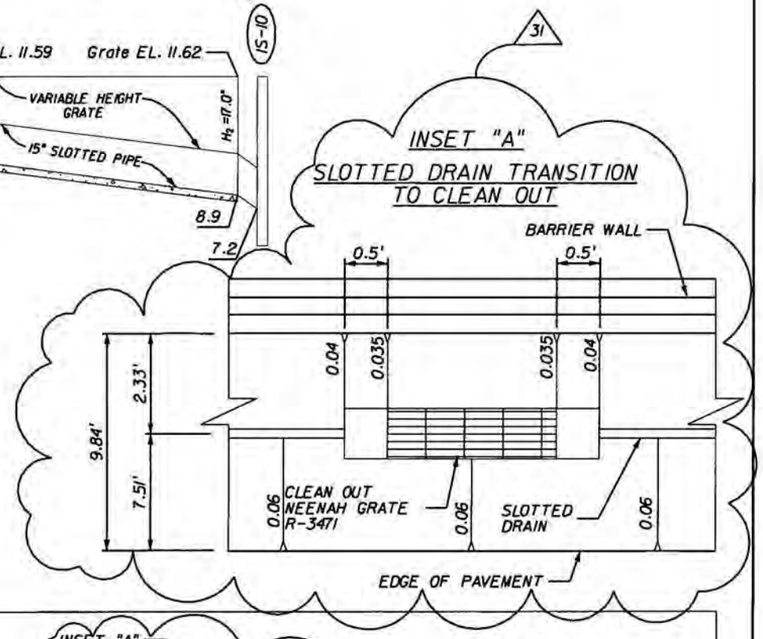
MISCELLANEOUS DRAINAGE DETAILS

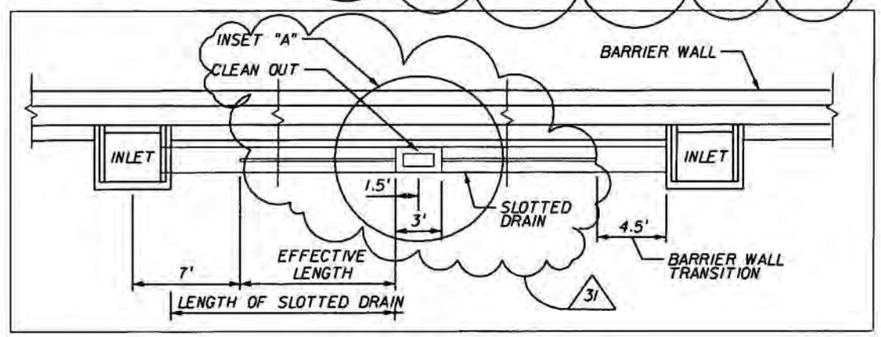
SHEET NO. 1-72

dcruz 5/20/2009 10:51:09 AM \\dell745n\cadd\249035\5201\segment 1\drainage\DRDTRD02.DGN

SYSTEM I (WEST SIDE)
SLOTTED DRAIN
N.T.S.







DRAINAGE LENGTH DETAIL
N.T.S.

Structure No.	Inlet Station.	Slotted Drain					Upstream			Downstream			
		Side	From STA.	To STA.	Effective Length	Size (IN)	Grate	H_1 (IN)	FL	Grate	H_2 (IN)	FL	Slope %
1S-02	374+00.00	BK	124+01.50	373+93.00	117.32	15	11.36	6	9.6	11.46	17.0	8.8	0.70
		AH	374+07.00	375+48.50	141.50	15	11.51	6	9.8	11.46	17.0	8.8	0.68
1S-06	377+00.00	BK	375+51.50	376+93.00	141.50	15	11.51	6	9.8	11.56	17.0	8.9	0.61
		AH	377+07.00	378+48.50	141.50	15	11.59	6	9.8	11.56	17.0	8.9	0.67
1S-10	380+00.00	BK	378+51.50	379+93.00	141.50	15	11.59	6	9.8	11.62	17.0	8.9	0.63
		AH	380+07.00	381+48.50	141.50	15	11.64	6	9.9	11.61	17.0	8.9	0.67
1S-16	383+00.00	BK	381+51.50	382+93.00	141.50	15	11.64	6	9.9	11.67	17.0	9.0	0.63
		AH	383+07.00	383+48.50	41.50	15	11.68	6	9.9	11.67	9.0	9.7	0.62

NOTE:

FROM STATION AND TO STATION COLUMNS ARE ACCORDING WITH DIRECTION OF CENTER LINE, NO IN DIRECTION OF FLOW.
FOR BARRIER WALL TRANSITION REFER TO DRAINAGE DETAILS SHEET 1-75

RELEASED FOR CONSTRUCTION

12/28/09

RELEASED FOR CONSTRUCTION

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
12/28/09	31 ADDITIONS TO SLOTTED DRAIN DETAIL, TRANSITION DETAILS TO CLEAN OUT		

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

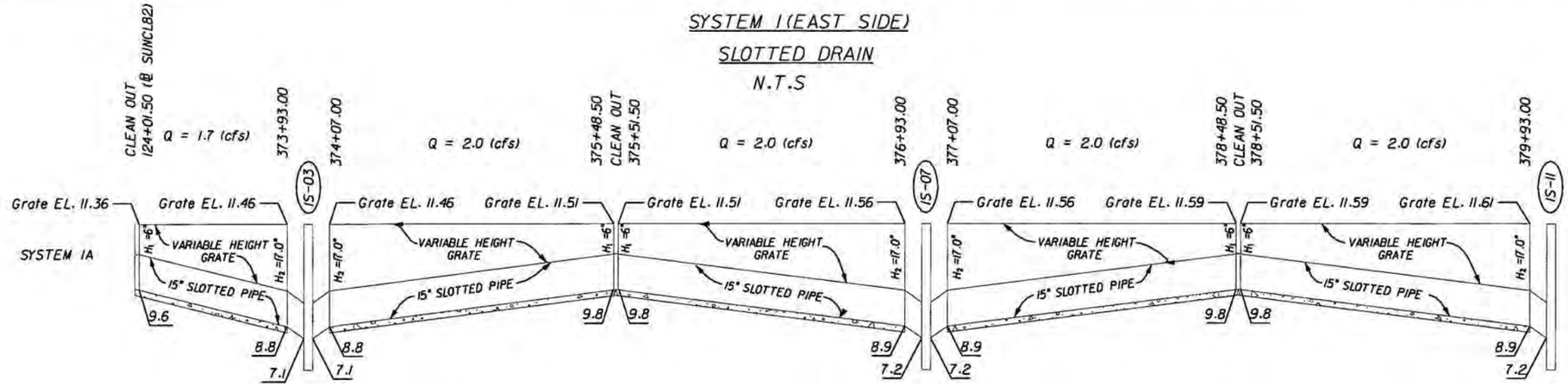
MISCELLANEOUS DRAINAGE DETAILS

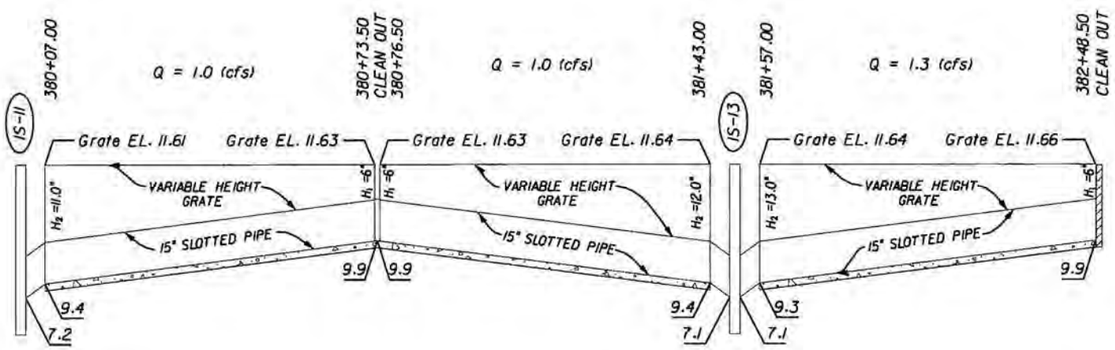
SHEET NO. 1-73

SYSTEM 1 (EAST SIDE)

SLOTTED DRAIN

N.T.S





Stucture No.	Inlet Station.	Slotted Drain					Upstream			Downstream			
		Side	From STA.	To STA.	Effective Length	Size	Grate	H_1 (IN)	FL	Grate	H_2 (IN)	FL	Slope %
1S-03	374+00.00	BK	124+01.50	373+93.00	117.32	15	11.36	6	9.6	11.46	17.0	8.8	0.70
		AH	374+07.00	375+48.50	141.50	15	11.51	6	9.8	11.46	17.0	8.8	0.68
1S-07	377+00.00	BK	375+51.50	376+93.00	141.50	15	11.51	6	9.8	11.56	17.0	8.9	0.61
		AH	377+07.00	378+48.50	141.50	15	11.59	6	9.8	11.56	17.0	8.9	0.67
1S-11	380+00.00	BK	378+51.50	379+93.00	141.50	15	11.59	6	9.8	11.61	17.0	8.9	0.63
		AH	380+07.00	380+73.50	66.50	15	11.63	6	9.9	11.61	11.0	9.4	0.64
1S-13	381+50.00	BK	380+76.50	381+43.00	66.50	15	11.63	6	9.9	11.64	12.0	9.4	0.73
		AH	381+57.00	382+48.50	91.50	15	11.66	6	9.9	11.64	13.0	9.3	0.66

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6/5/09

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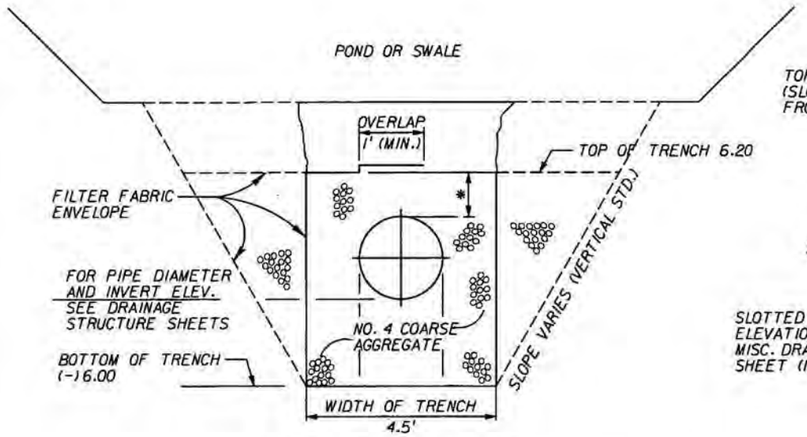
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

MISCELLANEOUS DRAINAGE DETAILS

SHEET NO. 1-74

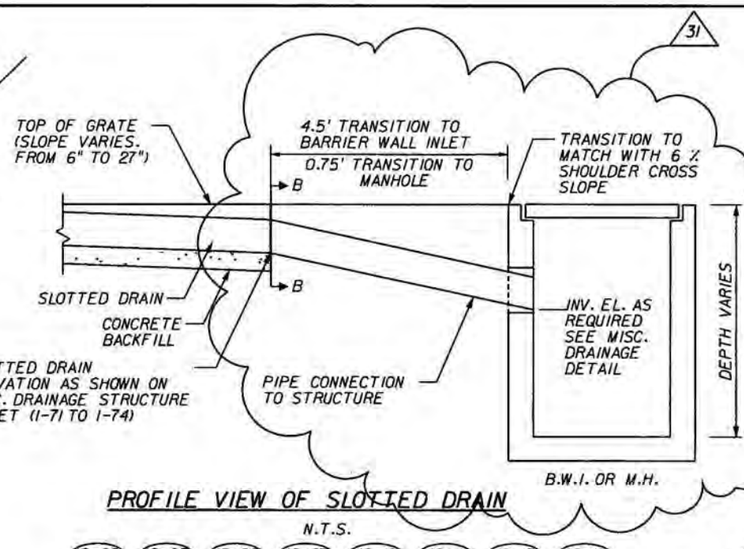


FRENCH DRAIN DETAIL

FOR ADDITIONAL DETAILS SEE INDEX NO. 285

N.T.S

* SYSTEM 1-1.20 (FT)
SYSTEM 2-0.75 (FT)

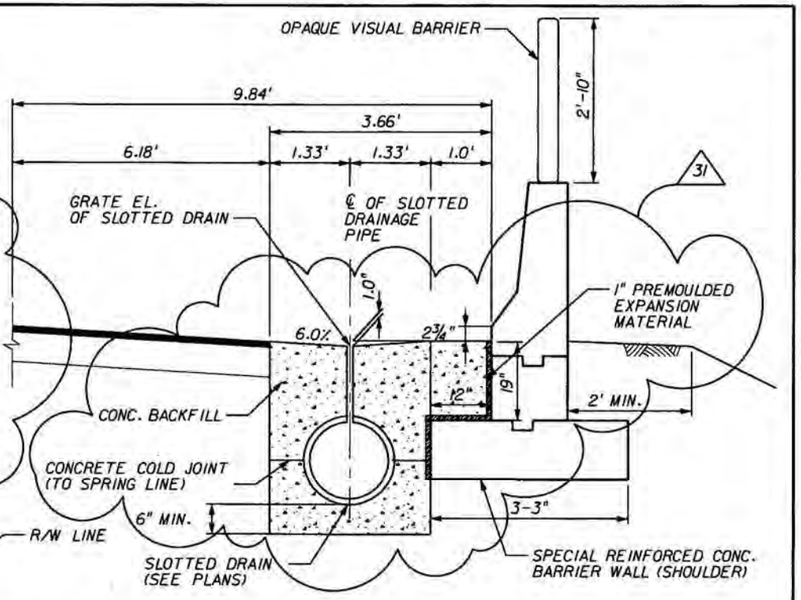


PROFILE VIEW OF SLOTTED DRAIN

N.T.S.

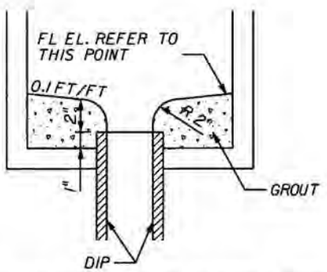
(IS-02), (IS-03), (IS-06), (IS-07), (IS-10), (IS-11), (IS-13), (IS-16)

SYSTEM 1



SLOTTED DRAIN SECTION B-B

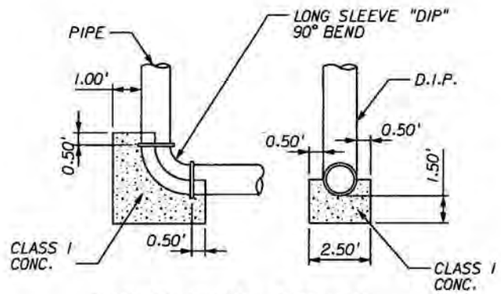
N.T.S.
FOR ADDITIONAL DETAILS SEE STD. INDEX 410



NOTE: GROUT TO CONSIST OF 3:1 SAND & MIXTURE OR ANY CLASS OF CONCRETE.

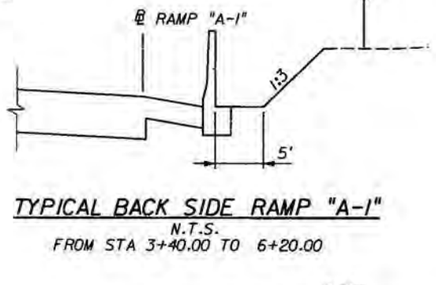
VERTICAL DRAIN STRUCTURE INVERT DETAIL

N.T.S



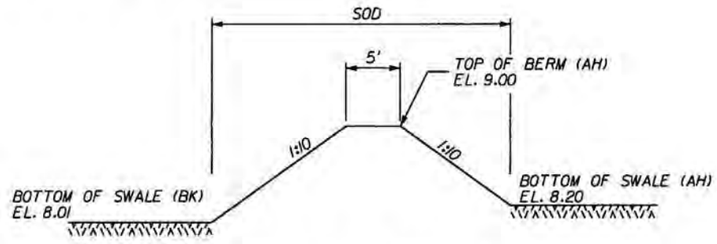
THRUST BLOCK DETAILS

N.T.S.



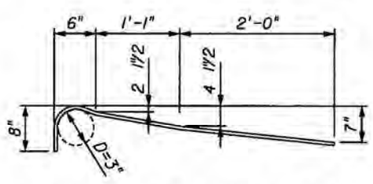
TYPICAL BACK SIDE RAMP "A-1"

N.T.S.
FROM STA 3+40.00 TO 6+20.00



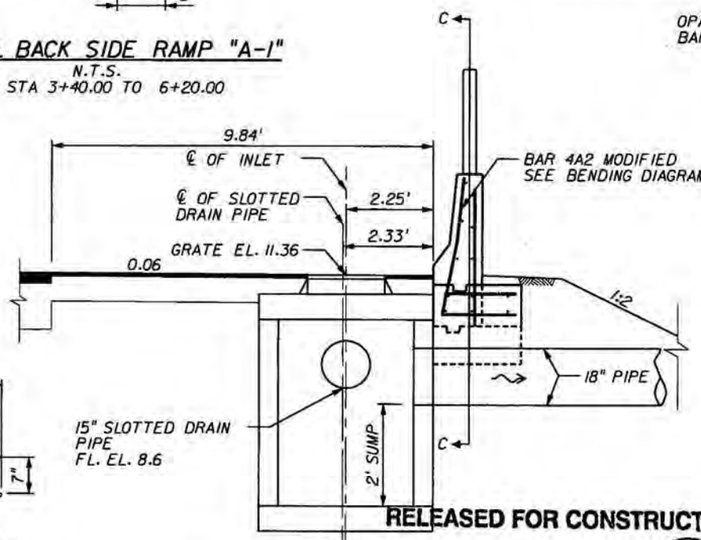
DITCH BLOCK DETAILS SECTION A-A

N.T.S.



BAR 4A2 BENDING DIAGRAM

FOR USE WHERE STEP BARRIER FOOTING IS REQUIRED OVER PIPES

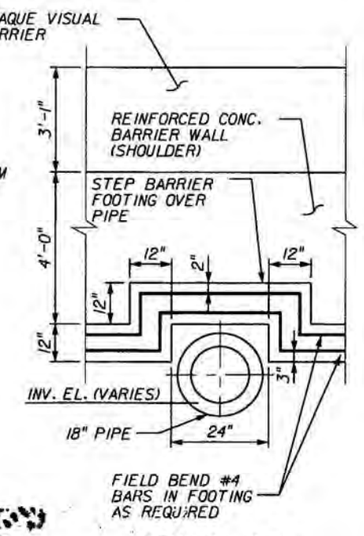


MANHOLE TYPE P-7 (ALT. B)

N.T.S.

(IAS-02), (IAS-04), (IAS-06), (IAS-07), (IAS-10), (IAS-11)

SYSTEM IA



SECTION C-C

N.T.S.

RELEASED FOR CONSTRUCTION

12/28/09

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
12/28/09	31 ADDITIONS TO SLOTTED DRAIN DETAIL, CONCRETE COLD JOINT, TRANSITION DETAILS TO STUCTURE		

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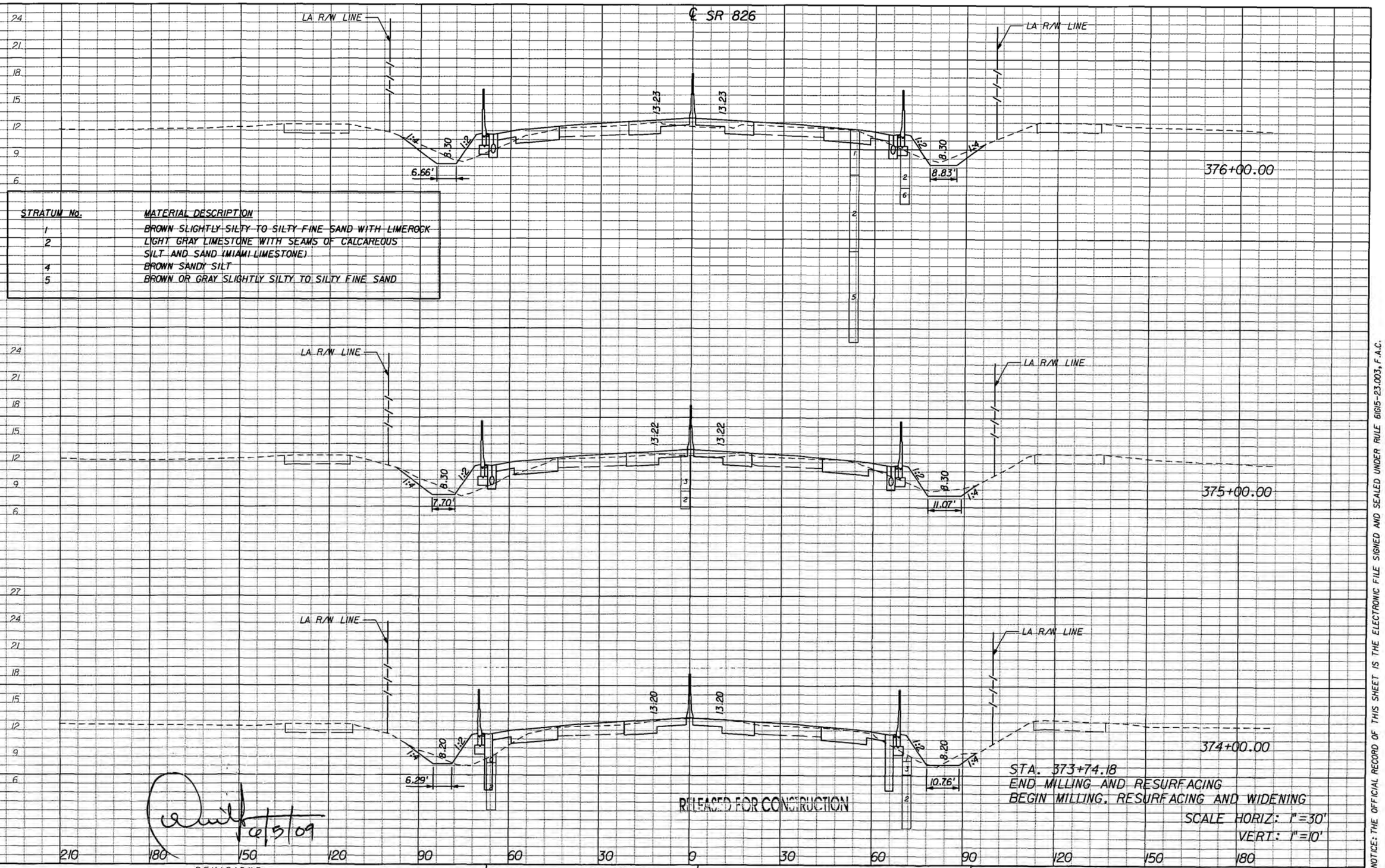
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

MISCELLANEOUS DRAINAGE DETAILS

SHEET NO. 1-75

$USER$ $DATE$ $TIME$ $FILE$



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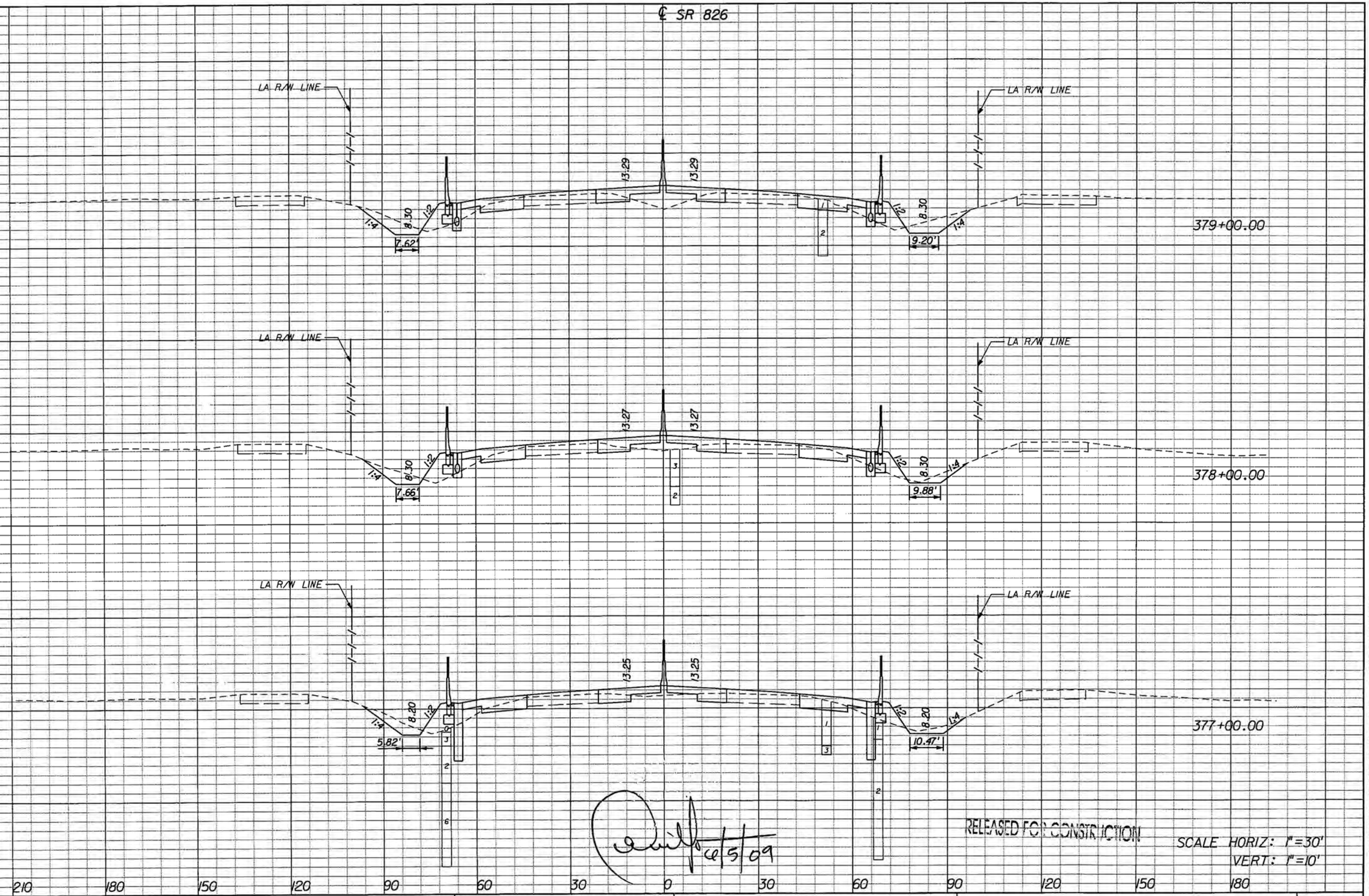
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

CROSS SECTIONS

SHEET NO. 1-76

rrodriguez 6/3/2009 1:52:21 PM \\dell745n\cadd\249035152O1\segment 1\roadway\RDXSR001.DGN



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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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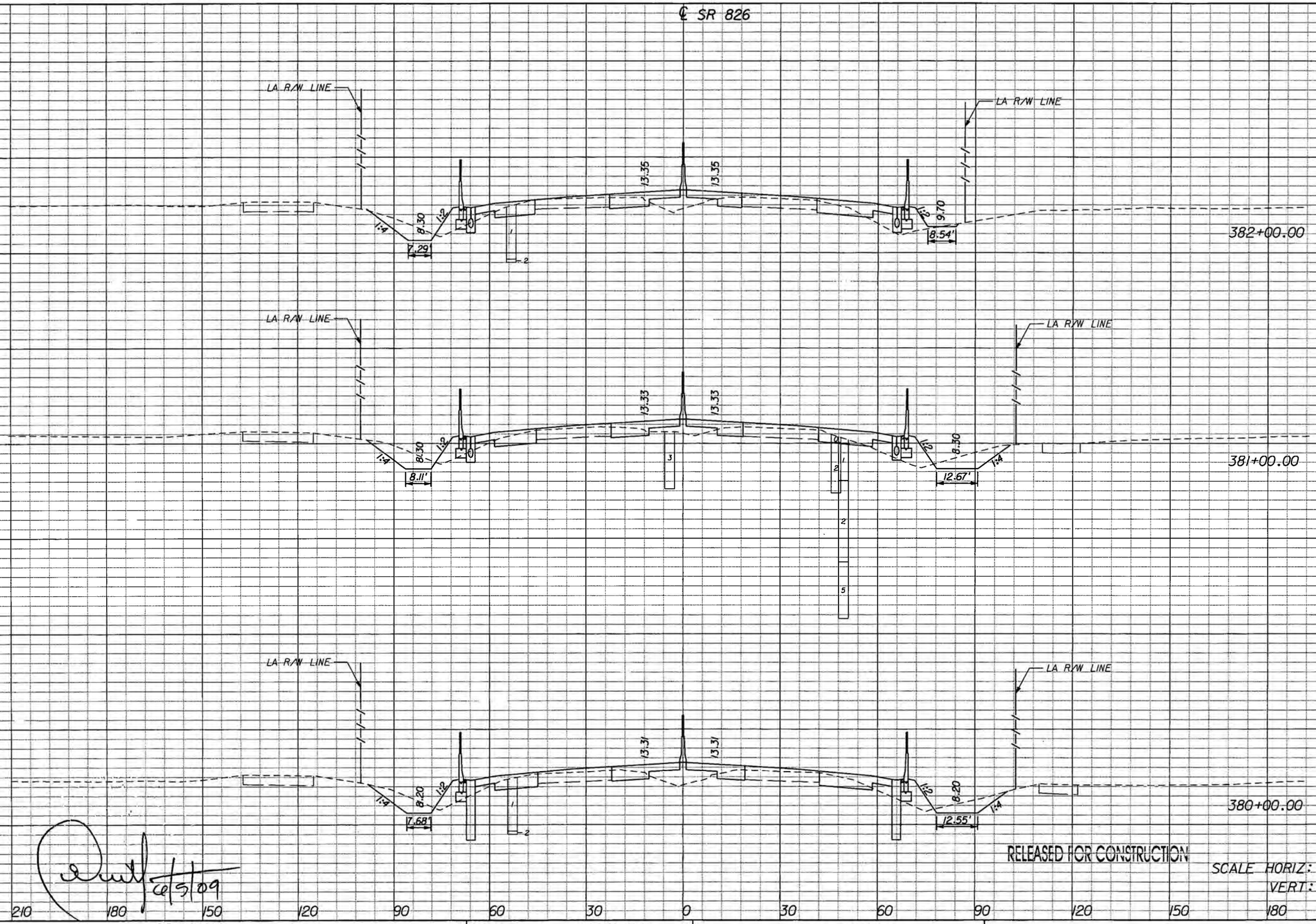
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

CROSS SECTIONS

SHEET NO. 1-77

rrodriguez 6/3/2009 1:52:21 PM \\del1745n\cadd\249035\5201\segment 1\roadway\RDXSRD01.DGN



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SCALE HORIZ: 1"=30'
VERT: 1"=10'

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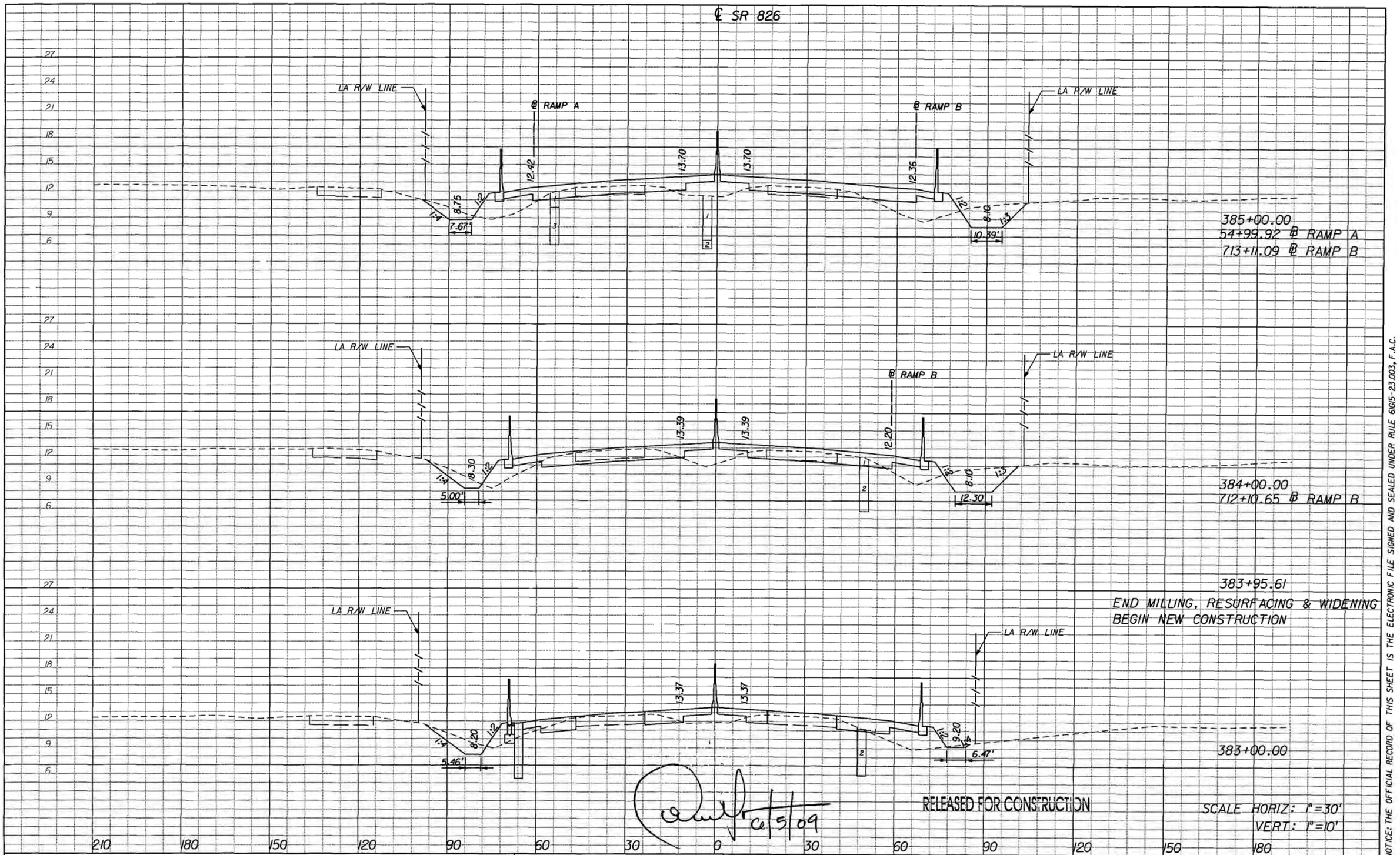
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

CROSS SECTIONS

SHEET NO. 1-78

rrodriguez 6/3/2009 1:52:22 PM \\dell745n\cadd\249035\5201\segment 1\roadway\RDXSR001.DGN



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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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STATE OF FLORIDA
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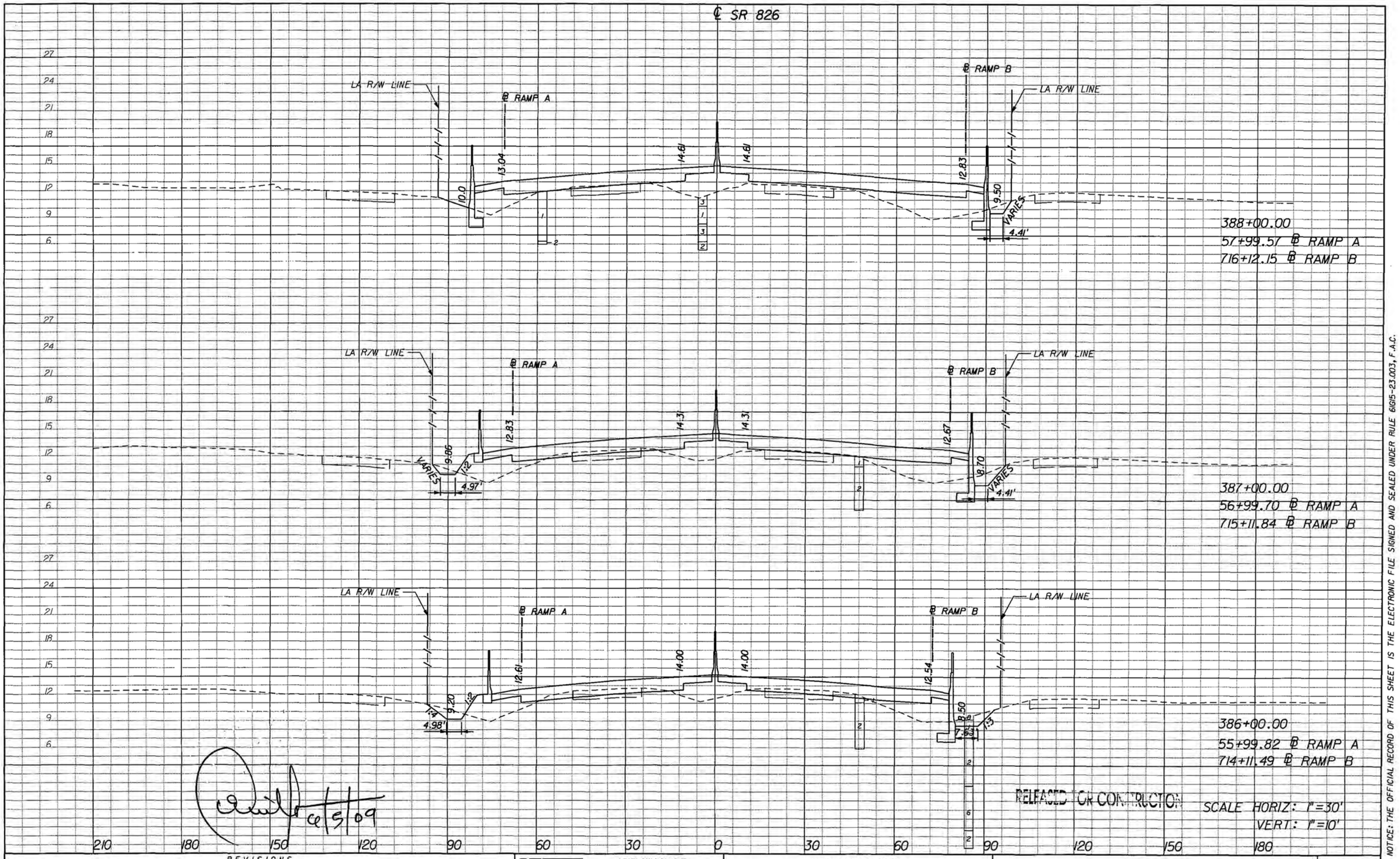
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

CROSS SECTIONS

SHEET NO. 1-79

rodriguez 6/3/2009 1:52:23 PM \\dell745n\cadd\249035\5201\segment 1\roadway\RDXSRD01.DGN



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SCALE HORIZ: 1"=30'
VERT: 1"=10'

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

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

engineering
ARIEL MILLAN, P.E.
P.E. License No. 54572
7300 N Kendall Drive, Suite 400
Miami, Florida 33156
Phone: (305) 670-2350
Fax: (305) 670-2351
Certificate of Authorization No. 7184

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

CROSS SECTIONS

SHEET NO. 1-80

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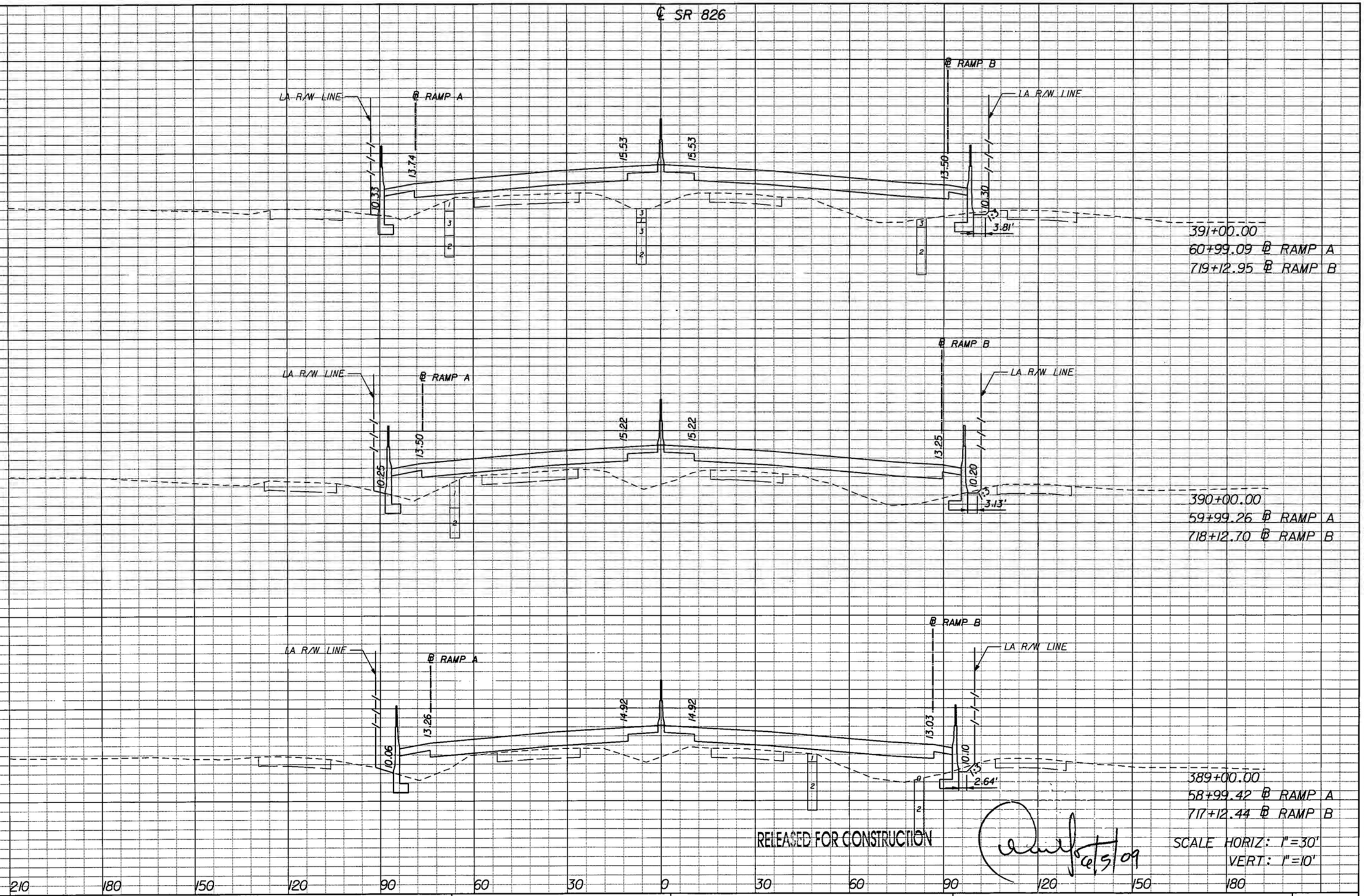

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

CROSS SECTIONS

SHEET NO. 1-81

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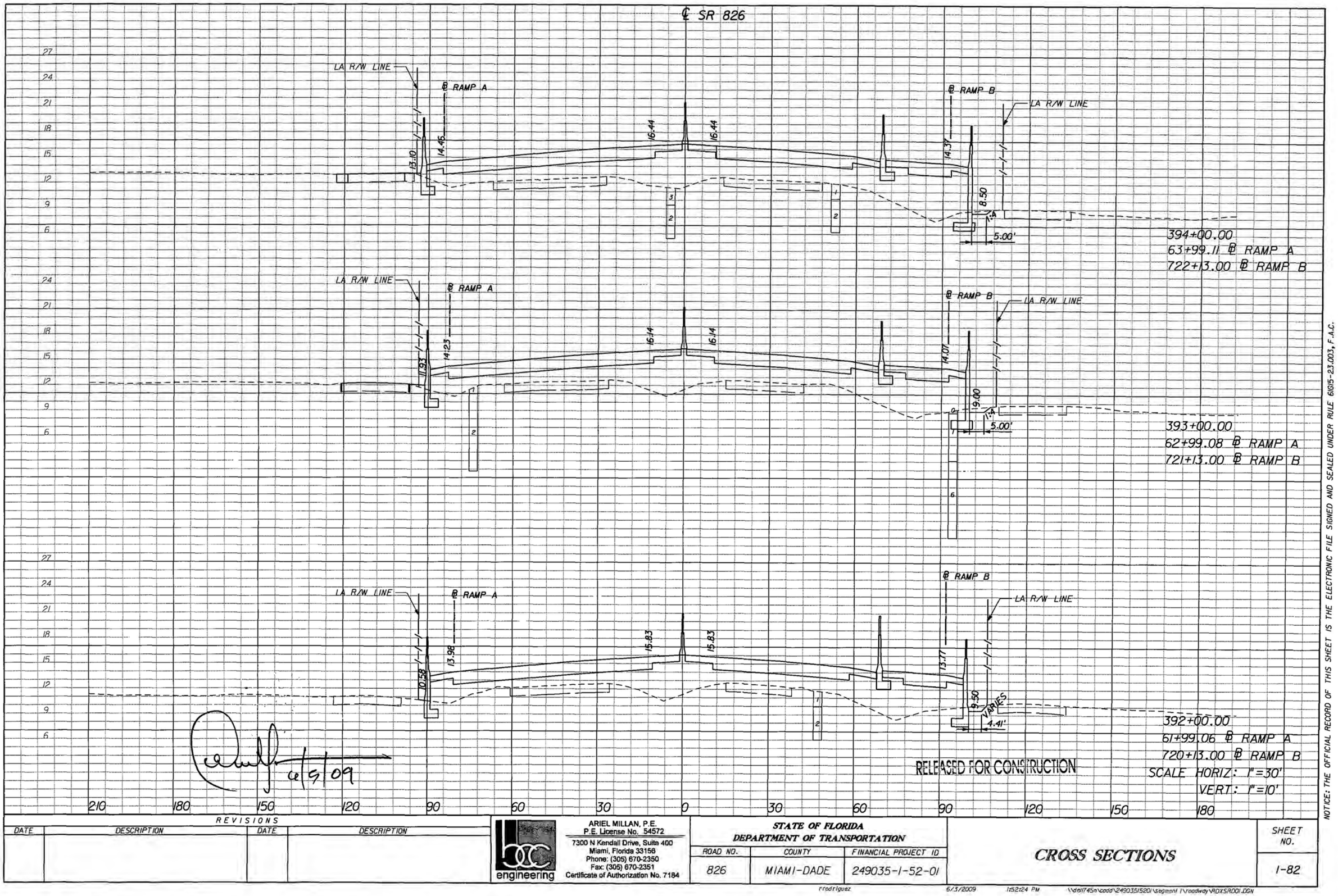

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

CROSS SECTIONS

SHEET NO. 1-82

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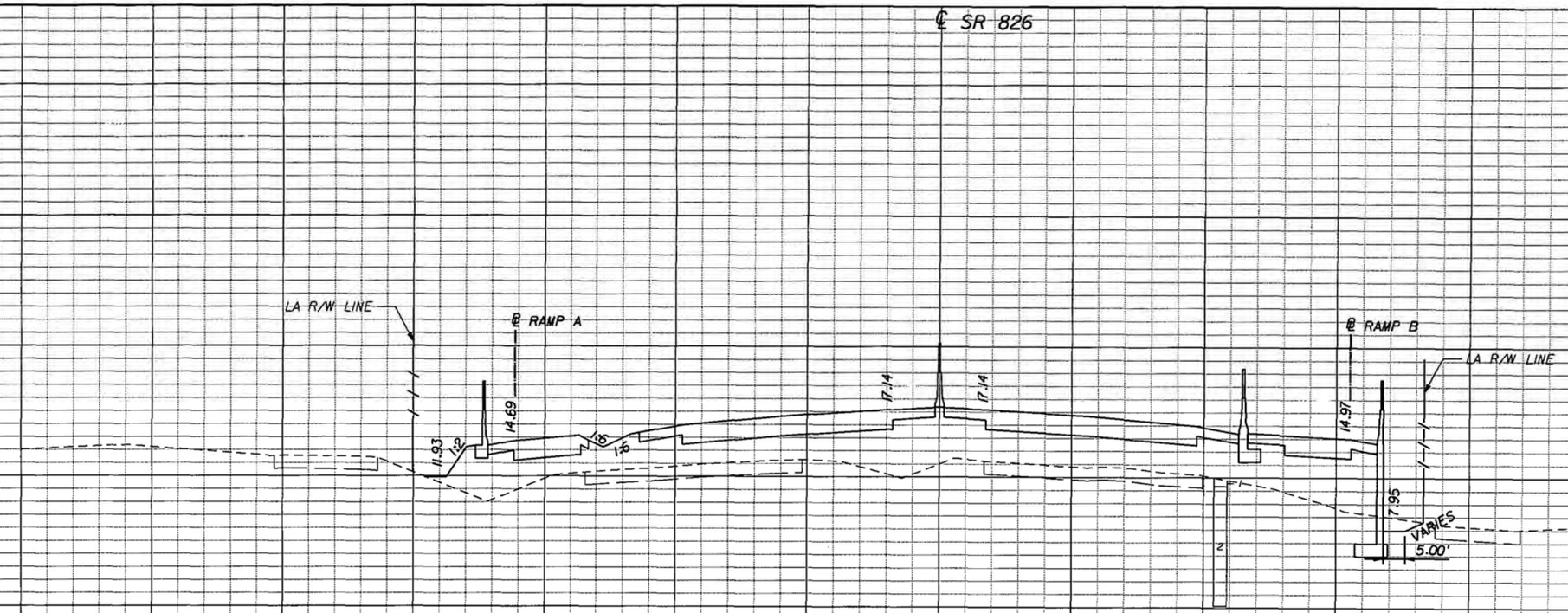

RELEASED FOR CONSTRUCTION

SCALE HORIZ: 1"=30'
VERT: 1"=10'

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

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

engineering

ARIEL MILLAN, P.E.
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Miami, Florida 33156
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Certificate of Authorization No. 7184

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
826	MIAMI-DADE	249035-1-52-01

CROSS SECTIONS

SHEET NO. 1-83

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System 6 – Reference Data

Excerpts from SFMWD ERP No. 13-02686-P

Excerpts from FDOT Records Plans for FM No. 249035-1-52-01

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

BEG. PERMIT NUMBER:

13-02686-P

APPLICATION NUMBER:

050727-16

050727-16/SR 826 (Palmetto Expwy) at Miller Drive (SW 56th St.)

FORM #0190
Rev. 8/85

APPLICATION/PERMIT FILE RECORD & ACTION SHEET

Name: SR 826 (Palmetto Expressway at Mille Dr (SWS)

Permit No. 13-02686-P

Application No. 050727-16

This file contains:

☐ ORIGINAL APPLICATION ☐ PERMIT ☐ SPECIAL CONDITION SHEET(S)
☐ STAFF CALCULATION SHEET(S) ☐ DRAWING(S) ☐ STAFF REPORT

Chronological Correspondence/Action Record

Date	Subject	By	Comments
11/18/05	Staff Report Mailed	GH	J. Santangelo
12/14/05	Permit Issued		R. Peckstok

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENVIRONMENTAL RESOURCE PERMIT NO. 13-02686-P
DATE ISSUED: DECEMBER 14, 2005

FORM #0145
Rev. 06/95

PERMITTEE: FLORIDA DEPARTMENT OF TRANSPORTATION
(SR 826 (PALMETTO EXPRESSWAY) AT MILLER DRIVE (SW 5)
JOHN PALENCHAR/ALICE BRAVO,1000 NORTHWEST 111TH
MIAMI , FL 33172

PROJECT DESCRIPTION: CONSTRUCTION AND OPERATION OF A SURFACE WATER MANAGEMENT SYSTEM TO SERVE A 146.3 ACRE HIGHWAY IMPROVEMENTS PROJECT KNOWN AS SR 826 (PALMETTO EXPRESSWAY) AT MILLER DRIVE (SW 56TH STREET).

PROJECT LOCATION: MIAMI-DADE COUNTY , SECTION 14,15,22,23,26,27 TWP 54S RGE 40E

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

This Permit is issued pursuant to Application No. 050727-16 , date July 27, 2005. Permittee agrees to hold and save the South Florida Water Management District and its successors harmless from any and all damages, claims or liabilities which may arise by reason of the construction, operation, maintenance or use of activities authorized by this Permit. This Permit is issued under the provisions of Chapter 373 , Part IV Florida Statutes (F.S.), and the Operating Agreement Concerning Regulation Under Part IV, Chapter 373 F.S., between South Florida Water Management District and the Department of Environmental Protection. Issuance of this Permit constitutes certification of compliance with state water quality standards where neccessary pursuant to Section 401, Public Law 92-500, 33 USC Section 1341 , unless this Permit is issued pursuant to the net improvement provisions of Subsections 373.414(1)(b), F.S., or as otherwise stated herein.

This Permit may be transferred pursuant to the appropriate provisions of Chapter 373, F.S, and Sections 40E-1.6107(1) and (2), and 40E-4.351(1), (2), and (4), Florida Administrative Code (F.A.C.). This Permit may be revoked, suspended, or modified at any time pursuant to the appropriate provisions of Chapter 373, F.S. and Sections 40E-4.351(1), (2), and (4), F.A.C.

This Permit shall be subject to the General Conditions set forth in Rule 40E-4.381, F.A.C., unless waived or modified by the Governing Board. The Application, and the Environmental Resource Permit Staff Review Summary of the Application, including all conditions, and all plans and specifications incorporated by reference, are a part of this Permit. All activities authorized by this Permit shall be implemented as set forth in the plans, specifications, and performance criteria as set forth and incorporated in the Environmental Resource Permit Staff Review Summary. Within 30 days after completion of construction of the permitted activity, the Permittee shall submit a written statement of completion and certification by a registered professional engineer or other appropriate individual, pursuant to the appropriate provisions of Chapter 373, F.S. and Sections 40E-4.361 and 40E-4.381, F.A.C.

In the event the property is sold or otherwise conveyed, the Permittee will remain liable for compliance with this Permit until transfer is approved by the District pursuant to Rule 40E-1.6107, F.A.C.

SPECIAL AND GENERAL CONDITIONS ARE AS FOLLOWS:

SEE PAGES 2 - 2 OF 5 (12 SPECIAL CONDITIONS).
SEE PAGES 3 - 5 OF 5 (19 GENERAL CONDITIONS).

SOUTH FLORIDA WATER MANAGEMENT DISTRICT, BY ITS GOVERNING BOARD

On ORIGINAL SIGNED BY:
By ELIZABETH VEGUILLA
DEPUTY CLERK

GENERAL CONDITIONS

1. All activities authorized by this permit shall be implemented as set forth in the plans, specifications and performance criteria as approved by this permit. Any deviation from the permitted activity and the conditions for undertaking that activity shall constitute a violation of this permit and Part IV, Chapter 373. F.S.

2. This permit or a copy thereof, complete with all conditions, attachments, exhibits, and modifications shall be kept at the work site of the permitted activity. The complete permit shall be available for review at the work site upon request by District staff. The permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.

3. Activities approved by this permit shall be conducted in a manner which does not cause violations of State water quality standards. The permittee shall implement best management practices for erosion and pollution control to prevent violation of State water quality standards. Temporary erosion control shall be implemented prior to and during construction, and permanent control measures shall be completed within 7 days of any construction activity. Turbidity barriers shall be installed and maintained at all locations where the possibility of transferring suspended solids into the receiving waterbody exists due to the permitted work. Turbidity barriers shall remain in place at all locations until construction is completed and soils are stabilized and vegetation has been established. All practices shall be in accordance with the guidelines and specifications described in Chapter 6 of the Florida Land Development Manual; A Guide to Sound Land and Water Management (Department of Environmental Regulation, 1988), incorporated by reference in Rule 40E-4.091, F.A.C. unless a project-specific erosion and sediment control plan is approved as part of the permit. Thereafter the permittee shall be responsible for the removal of the barriers. The permittee shall correct any erosion or shoaling that causes adverse impacts to the water resources.

4. The permittee shall notify the District of the anticipated construction start date within 30 days of the date that this permit is issued. At least 48 hours prior to commencement of activity authorized by this permit, the permittee shall submit to the District an Environmental Resource Permit Construction Commencement Notice Form Number 0960 indicating the actual start date and the expected construction completion date.

5. When the duration of construction will exceed one year, the permittee shall submit construction status reports to the District on an annual basis utilizing an annual status report form. Status report forms shall be submitted the following June of each year.

6. Within 30 days after completion of construction of the permitted activity, the permitee shall submit a written statement of completion and certification by a professional engineer or other individual authorized by law, utilizing the supplied Environmental Resource/Surface Water Management Permit Construction Completion/Certification Form Number 0881A, or Environmental Resource/Surface Water Management Permit Construction Completion Certification - For Projects Permitted prior to October 3, 1995 Form No. 0881B, incorporated by reference in Rule 40E-1.659, F.A.C. The statement of completion and certification shall be based on onsite observation of construction or review of as-built drawings for the purpose of determining if the work was completed in compliance with permitted plans and specifications. This submittal shall serve to notify the District that the system is ready for inspection. Additionally, if deviation from the approved drawings are discovered during the certification process, the certification must be accompanied by a copy of the approved permit drawings with deviations noted. Both the original and revised specifications must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawings. All surveyed dimensions and elevations shall be certified by a registered surveyor.

7. The operation phase of this permit shall not become effective: until the permittee has complied with the requirements of condition (6) above, and submitted a request

for conversion of Environmental Resource Permit from Construction Phase to Operation Phase, Form No. 0920; the District determines the system to be in compliance with the permitted plans and specifications; and the entity approved by the District in accordance with Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit Applications within the South Florida Water Management District, accepts responsibility for operation and maintenance of the system. The permit shall not be transferred to such approved operation and maintenance entity until the operation phase of the permit becomes effective. Following inspection and approval of the permitted system by the District, the permittee shall initiate transfer of the permit to the approved responsible operating entity if different from the permittee. Until the permit is transferred pursuant to Section 40E-1.6107, F.A.C., the permittee shall be liable for compliance with the terms of the permit.

8. Each phase or independent portion of the permitted system must be completed in accordance with the permitted plans and permit conditions prior to the initiation of the permitted use of site infrastructure located within the area served by that portion or phase of the system. Each phase or independent portion of the system must be completed in accordance with the permitted plans and permit conditions prior to transfer of responsibility for operation and maintenance of the phase or portion of the system to a local government or other responsible entity.

9. For those systems that will be operated or maintained by an entity that will require an easement or deed restriction in order to enable that entity to operate or maintain the system in conformance with this permit, such easement or deed restriction must be recorded in the public records and submitted to the District along with any other final operation and maintenance documents required by Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit applications within the South Florida Water Management District, prior to lot or units sales or prior to the completion of the system, whichever comes first. Other documents concerning the establishment and authority of the operating entity must be filed with the Secretary of State, county or municipal entities. Final operation and maintenance documents must be received by the District when maintenance and operation of the system is accepted by the local government entity. Failure to submit the appropriate final documents will result in the permittee remaining liable for carrying out maintenance and operation of the permitted system and any other permit conditions.

10. Should any other regulatory agency require changes to the permitted system, the permittee shall notify the District in writing of the changes prior to implementation so that a determination can be made whether a permit modification is required.

11. This permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any activity approved by this permit. This permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee, or convey any rights or privileges other than those specified in the permit and Chapter 40E-4 or Chapter 40E-40, F.A.C..

12. The permittee is hereby advised that Section 253.77, F.S. states that a person may not commence any excavation, construction, or other activity involving the use of sovereign or other lands of the State, the title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund without obtaining the required lease, license, easement, or other form of consent authorizing the proposed use. Therefore, the permittee is responsible for obtaining any necessary authorizations from the Board of Trustees prior to commencing activity on sovereignt lands or other state-owned lands.

13. The permittee must obtain a Water Use permit prior to construction dewatering, unless the work qualifies for a general permit pursuant to Subsection 40E-20.302(3), F.A.C., also known as the "No Notice" Rule.

14. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any system authorized by the

permit.

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding, unless a specific condition of this permit or a formal determination under Section 373.421(2), F.S., provides otherwise.

16. The permittee shall notify the District in writing within 30 days of any sale, conveyance, or other transfer of ownership or control of a permitted system or the real property on which the permitted system is located. All transfers of ownership or transfers of a permit are subject to the requirements of Rules 40E-1.6105 and 40E-1.6107, F.A.C.. The permittee transferring the permit shall remain liable for corrective actions that may be required as a result of any violations prior to the sale, conveyance or other transfer of the system.

17. Upon reasonable notice to the permittee, District authorized staff with proper identification shall have permission to enter, inspect, sample and test the system to insure conformity with the plans and specifications approved by the permit.

18. If historical or archaeological artifacts are discovered at any time on the project site, the permittee shall immediately notify the appropriate District service center.

19. The permittee shall immediately notify the District in writing of any previously submitted information that is later discovered to be inaccurate.

40E-4.321 Duration of Permits

(1) Unless revoked or otherwise modified the duration of an environmental resource permit issued under this chapter or Chapter 40E-40, F.A.C. is as follows:

(a) For a conceptual approval, two years from the date of issuance or the date specified as a condition of the permit, unless within that period an application for an individual or standard general permit is filed for any portion of the project. If an application for an environmental resource permit is filed, then the conceptual approval remains valid until final action is taken on the environmental resource permit application. If the application is granted, then the conceptual approval is valid for an additional two years from the date of issuance of the permit. Conceptual approvals which have no individual or standard general environmental resource permit applications filed for a period of two years shall expire automatically at the end of the two year period.

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

1. the effective date of the local government's comprehensive plan amendment.
2. the effective date of the local government development order.
3. the date on which the District issues the conceptual approval, or
4. the latest date of the resolution of any Chapter 120.57, F.A.C., administrative proceeding or other legal appeals.

(c) For an individual or standard general environmental resource permit, five years from the date of issuance or such amount of time as made a condition of the permit.

(d) For a noticed general permit issued pursuant to chapter 40-E-400, F.A.C., five years from the date the notice of intent to use the permit is provided to the District.

(2)(a) Unless prescribed by special permit condition, permits expire automatically according to the timeframes indicated in this rule. If application for extension is made in writing pursuant to subsection (3), the permit shall remain in full force and effect until:

1. the Governing Board takes action on an application for extension of an individual permit, or
2. staff takes action on an application for extension of a standard general permit.

(b) Installation of the project outfall structure shall not constitute a vesting of the permit.

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

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

(5) Substantial modifications to individual or standard general environmental resource permits issued pursuant to a permit application extend the duration of the permit for three years from the date of issuance of the modification. Individual or standard general environmental resource permit modifications do not extend the duration of a conceptual approval.

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

(7) Failure to complete construction or alteration of the surface water management system and obtain operation phase approval from the District within the permit duration shall require a new permit authorization in order to continue construction unless a permit extension is granted.

Specific authority 373.044, 373.113 F.S. Law Implemented 373.413, 373.416, 373.419, 373.426 F.S. History—New 9-3-81, Amended 1-31-82, 12-1-82, Formerly 16K-4.07(4), Amended 7-1-86, 4/20/94, Amended 7-1-86, 4/20/94, 10-3-95

NOTICE OF RIGHTS

Section 120.569(1), Fla. Stat. (1999), requires that "each notice shall inform the recipient of any administrative hearing or judicial review that is available under this section, s. 120.57, or s. 120.68; shall indicate the procedure which must be followed to obtain the hearing or judicial review, and shall state the time limits which apply." Please note that this Notice of Rights is not intended to provide legal advice. Not all the legal proceedings detailed below may be an applicable or appropriate remedy. You may wish to consult an attorney regarding your legal rights.

Petition for Administrative Proceedings

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

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

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

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

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

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

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

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

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

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

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

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

CIRCUIT COURT

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

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

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

DISTRICT COURT OF APPEAL

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

LAND AND WATER ADJUDICATORY COMMISSION

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

PRIVATE PROPERTY RIGHTS PROTECTION ACT

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

LAND USE AND ENVIRONMENTAL DISPUTE RESOLUTION

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

MEDIATION

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

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

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

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

(2) a statement of the preliminary agency action;

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

(4) a statement of relief sought.

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

VARIANCES AND WAIVERS

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

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

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

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

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

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

(f) the type of action requested;

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

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

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

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

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

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

WAIVER OF RIGHTS

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

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

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

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

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

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

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

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

(f) A demand for relief.

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

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

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

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

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

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

(e) A demand for relief.

28-107.004 SUSPENSION, REVOCATION, ANNULMENT, OR WITHDRAWAL

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

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

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

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

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

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

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

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

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

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

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

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

28-107.005 EMERGENCY ACTION

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

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

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

40E-1.611 EMERGENCY ACTION

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

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

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
3301 Gun Club Road, West Palm Beach, Florida 33406 • (561) 686-8800 • FL WATS 1-800-432-2045 • TDD (561) 697-2574
Mailing Address: P.O. Box 24680, West Palm Beach, FL 33416-4680 • www.sfwmd.gov

November 18, 2005

Florida Department of Transportation
John Palenchar/Alice Bravo
1000 Northwest 111th Avenue -Suite 6101
Miami, FL 33172

Subject: Application No., 050727-16, SR 826 (Palmetto Expressway) at Miller Drive (SW 56th St.)
Miami-Dade County, S14,15,22,23,26,27/T54S/R40E

Enclosed is a copy of the South Florida Water Management District's staff report covering the permit application referenced therein. It is requested that you read this staff report thoroughly and understand its contents. The recommendations as stated in the staff report will be presented to our Governing Board for consideration on **Wednesday, December 14, 2005.**

Should you wish to object to the staff recommendation or file a petition, please provide written objections, petitions and/or waivers (refer to the attached "Notice of Rights") to:

Elizabeth Veguilla, Deputy Clerk
South Florida Water Management District
Post Office Box 24680
West Palm Beach, Florida 33416-4680

The "Notice of Rights" addresses the procedures to be followed if you desire a public hearing or other review of the proposed agency action. You are advised, however, to be prepared to defend your position regarding the permit application when it is considered by the Governing Board for final agency action, even if you agree with the staff recommendation as the Governing Board may take final agency action which differs materially from the proposed agency action.

Please contact the District if you have any questions concerning this matter.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a "Notice of Rights" has been mailed to the addressee this 18th day of November, 2005 in accordance with Section 120.60 (3), Florida Statutes.

Sincerely,

for Damon Meiers, P.E., Deputy Director
Environmental Resource Regulation Department

DM/gh

CERTIFIED #7003 2260 0001 9110 6284
RETURN RECEIPT REQUESTED

GOVERNING BOARD

Kevin McCarty, *Chair*
Irela M. Bague, *Vice Chair*
Pamela Brooks-Thomas
Alice J. Carlson
Michael Collins
Nicolás J. Gutiérrez, Jr., Esq.
Lennart E. Lindahl, P.E.
Harkley R. Thornton
Malcolm S. Wade, Jr.

EXECUTIVE OFFICE

Carol Ann Wehle, *Executive Director*

Last Date For Agency Action: 14-DEC-2005

INDIVIDUAL ENVIRONMENTAL RESOURCE PERMIT STAFF REPORT

Project Name: Sr 826 (Palmetto Expressway) At Miller Drive (Sw 56th St.)

Permit No.: 13-02686-P

Application No.: 050727-16

Application Type: Environmental Resource (New Construction/Operation)

Location: Miami-Dade County, S14,15,22,23,26,27/T54S/R40E

Permittee : Florida Department Of Transportation

Operating Entity : Florida Department Of Transportation

Project Area: 146.3 acres

Project Land Use: Highway

Drainage Basin: CORAL GABLES

Drainage Basin: C-2

Receiving Body: Coral Gables Canal & Snapper Creek Canal (C-2 Canal)

Special Drainage District: NA

Conservation Easement To District : No

Sovereign Submerged Lands: No

DRAFT
Subject to Governing Board Approval

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 146.3 acre highway improvement project known as SR 826 (Palmetto Expressway) at Miller Drive (SW 56th Street). Staff recommends approval with conditions.

PROJECT EVALUATION:

PROJECT SITE DESCRIPTION:

The project site is located at the intersection of SR 826 (Palmetto Expressway) and Miller Drive (SW 56th Street) and will extend to Bird Road (SW 40th Street) having a total linear distance of 2.23 miles. The proposed highway improvements consist of roadway widening and reconstruction and interchange improvements. There are no permitted surface water management facilities within the project area. There are no wetlands located within or affected by the proposed project.

PROPOSED PROJECT:

This application is a request for the construction and operation of a surface water management system to serve a 146.3 acre highway improvement project known as SR 826 (Palmetto Expressway) at Miller Drive (SW 56th Street).

The project activities will include the following:

Reconstruction and widening of SR 826 mainline with the addition of a thru-lane on the northbound and southbound sides;
Reconfiguration of the SR 826 on and off-ramps at the interchange of Miller Drive, SR 874, and Bird Drive to accommodate the additional travel lanes;
Reconstruction of Miller Drive, SR 874, and Bird Road to accommodate new on and off-ramps from 826;
Construction of a new stormwater management system which includes dry retention/detention areas, exfiltration trenches and swales;
Placement of new guardrail, curb and gutter;
Placement of new landscape, lighting and signage;
Milling and resurfacing.

The majority of the existing drainage system currently discharges directly into existing wet and dry ponds, and roadside swales/ditches which discharge to the adjacent canals. The existing system is divided into 5 systems:

Drainage System I:
This drainage basin extends from the south end of the SR 826 project to just south of the SR 826 interchange at Miller Drive. The drainage basin includes the right-of-way area along SR 826 and some residential areas located east of SR 826.

Drainage System II:
This drainage basin consists of the right-of-way area along SR 826 from just south of the Miller Drive interchange to Miller Drive, a portion of the northeast quadrant of the SR 826 interchange with Miller Drive, and Miller drive from just west of SR 826 to just east of 74th Court.

Drainage System III:
This drainage basin consists of the right-of-way areas of SR 826 from the Miller Drive interchange, excluding the northeast quadrant of the interchange, to just north of the SR 874 interchange, and SR 874 from the overpass at Miller Drive to the SR 826 interchange.

Drainage System IV:
This drainage basin is comprised of the right-of-way area of SR 826 from just north of the interchange with SR 874 to Bird Road. This basin also contains the right-of-way area of Bird Road from SW 87th Court to just east of SW 74 Avenue.

Drainage System V:
This drainage basin consists of right-of-way area of SR 826 from Bird Road to SW 33 Terrace. The

residential areas west of SR 826 also contribute runoff into the SR 826 existing drainage system.

The proposed surface water management system for the five sub-basins will consist of exfiltration trench and dry detention/retention ponds which will provide water quality treatment and attenuation. The applicant submitted calculations to demonstate that the post-development discharge for the 25-year 3-day design storm event will be less than existing conditions.

The submitted plans which include typical cross-sections, drainage maps, drainage structures, details and profile sheets have been signed and sealed by a Florida Professional Engineer and are hereby incorporated in this permit by reference. (please see permit file).

LAND USE:

Construction:
Project:

	Total Project	
Impervious	101.46	acres
Pervious	36.22	acres
Water Mgnt Acreage	8.62	acres
Total:	**146.30**	

WATER QUANTITY :

Discharge Rate :

The applicant submitted calculations to demonstate that the post-development discharge for the 25-year 3-day design storm event will be less than existing conditions.

Control Elevation :

Basin	**Area (Acres)**	**Ctrl Elev (ft, NGVD)**	**WSWT Ctrl Elev (ft, NGVD)**	**Method Of Determination**
Drainage System 1	15.89	3	3.00	Wet Season Water Table
Drainage System 2	21.43	3	3.00	Wet Season Water Table
Drainage System 3	41.77	3	3.00	Wet Season Water Table
Drainage System 4	32.68	3	3.00	Wet Season Water Table
Drainage System 5	34.53	3	3.00	Wet Season Water Table

WATER QUALITY :

The required water quality treatment (2.5" times percent impervious) will be provided and split between exfiltration trenches, dry detention and retention areas.

State water quality standards will be adhered with and turbidity will be monitored in accordance with Exhibit 3.1.

Basin	**Treatment Method**

Basin		Treatment Method		Vol Req.d (ac-ft)	Vol Prov'd (ac-ft)
Drainage System 1	Treatment	Exfiltration Trench	1479 LF	2.12	2.12
Drainage System 2	Treatment	Dry Retention And Trench	1342 LF	2.56	2.56
Drainage System 3	Treatment	Dry Detention And Exfiltration	1939 LF	3.99	3.99
Drainage System 4	Treatment	Dry Retention And Trench	1263 LF	4.12	4.12
Drainage System 5	Treatment	Dry Detention And Exfiltration	2215 LF	4.69	4.69

WETLANDS:

Wetland impacts are not anticipated with project development. Alteration of 1.46 acres of other surface waters will result from project development.

CERTIFICATION AND MAINTENANCE OF THE WATER MANAGEMENT SYSTEM:

It is suggested that the permittee retain the services of a Professional Engineer registered in the State of Florida for periodic observation of construction of the surface water management (SWM) system. This will facilitate the completion of construction completion certification Form #0881 which is required pursuant to Section 10 of the Basis of Review for Environmental Resource Permit Applications within the South Florida Water Management District, and Rule 40E-4361(2), Florida Administrative Code (F.A.C.).

Pursuant to Chapter 40E-4 F.A.C., this permit may not be converted from the construction phase to the operation phase until certification of the SWM system is submitted to and accepted by this District. Rule 40E-4.321(7) F.A.C. states that failure to complete construction of the SWM system and obtain operation phase approval from the District within the permit duration shall require a new permit authorization unless a permit extension is granted.

For SWM systems permitted with an operating entity who is different from the permittee, it should be noted that until the permit is transferred to the operating entity pursuant to Rule 40E-1.6107, F.A.C., the permittee is liable for compliance with the terms of this permit.

The permittee is advised that the efficiency of a SWM system will normally decrease over time unless the system is periodically maintained. A significant reduction in flow capacity can usually be attributed to partial blockages of the conveyance system. Once flow capacity is compromised, flooding of the project may result. Maintenance of the SWM system is required to protect the public health, safety and the natural resources of the state. Therefore, the permittee must have periodic inspections of the SWM system performed to ensure performance for flood protection and water quality purposes. If deficiencies are found, it is the responsibility of the permittee to correct these deficiencies in a timely manner.

RELATED CONCERNS:

Water Use Permit Status:

This permit does not release the permittee from obtaining all necessary Water Use authorization(s) prior to the commencement of activities which will require such authorization, including construction dewatering and irrigation. unless the work qualifies for a No-Notice Short-Term Dewatering permit pursuant to Chapter 40E-20.302(3) or is exempt pursuant to Section 40E-2.051, FAC.

Right-Of-Way Permit Status:

A Right-of-Way Permit is not required for this project.

Historical/Archeological Resources:

The District has received correspondence from the Florida Department of State, Division of Historical Resources indicating that the agency has no objections to the issuance of this permit.

DCA/CZM Consistency Review:

The District has not received a finding of inconsistency from the Florida Department of Environmental Protection or other commenting agencies regarding the provisions of the federal Coastal Zone Management Plan.

Third Party Interest:

No third party has contacted the District with concerns about this application.

Enforcement:

There has been no enforcement activity associated with this application.

STAFF RECOMMENDATION:

The Staff recommends that the following be issued :

Construction and operation of a surface water management system to serve a 146.3 acre highway improvements project known as SR 826 (Palmetto Expressway) at Miller Drive (SW 56th Street).

Based on the information provided, District rules have been adhered to.

Staff recommendation is for approval subject to the attached General and Special Conditions.

DRAFT
Subject to Governing Board Approval

STAFF REVIEW:

NATURAL RESOURCE MANAGEMENT DIVISION APPROVAL

ENVIRONMENTAL EVALUATION

Ronald M. Peekstok

Ronald M. Peekstok

SUPERVISOR

Donald L. Medellin

Donald L. Medellin

DIVISION DIRECTOR :

for Anita R. Bain

Robert G. Robbins

DATE: 11/18/05

SURFACE WATER MANAGEMENT DIVISION APPROVAL

ENGINEERING EVALUATION

Joseph D. Santangelo

SUPERVISOR

Carlos A. DeRojas, P.E.

DIVISION DIRECTOR :

Anthony M. Waterhouse, P.E.

DATE: 11/18/05

GENERAL CONDITIONS

1. All activities authorized by this permit shall beimplemented as set forth in the plans, specifications and performance criteria as approved by this permit. Any deviation from the permitted activity and the conditions for undertaking that activity shall constitute a violation of this permit and Part IV, Chapter 373, F.S.

2. This permit or a copy thereof, complete with all conditions, attachments, exhibits, and modifications shall be kept at the work site of the permitted activity. The complete permit shall be available for review at the work site upon request by District staff. The permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.

3. Activities approved by this permit shall be conducted in a manner which does not cause violations of State water quality standards. The permittee shall implement best management practices for erosion and pollution control to prevent violation of State water quality standards. Temporary erosion control shall be implemented prior to and during construction, and permanent control measures shall be completed within 7 days of any construction activity. Turbidity barriers shall be installed and maintained at all locations where the possibility of transferring suspended solids into the receiving waterbody exists due to the permitted work. Turbidity barriers shall remain in place at all locations until construction is completed and soils are stabilized and vegetation has been established. All practices shall be in accordance with the guidelines and specifications described in Chapter 6 of the Florida Land Development Manual; A Guide to Sound Land and Water Management (Department of Environmental Regulation, 1988), incorporated by reference in Rule 40E-4.091, F.A.C. unless a project-specific erosion and sediment control plan is approved as part of the permit. Thereafter the permittee shall be responsible for the removal of the barriers. The permittee shall correct any erosion or shoaling that causes adverse impacts to the water resources.

4. The permittee shall notify the District of the anticipated construction start date within 30 days of the date that this permit is issued. At least 48 hours prior to commencement of activity authorized by this permit, the permittee shall submit to the District an Environmental Resource Permit Construction Commencement Notice Form Number 0960 indicating the actual start date and the expected construction completion date.

5. When the duration of construction will exceed one year, the permittee shall submit construction status reports to the District on an annual basis utilizing an annual status report form. Status report forms shall be submitted the following June of each year.

6. Within 30 days after completion of construction of the permitted activity, the permitee shall submit a written statement of completion and certification by a professional engineer or other individual authorized by law, utilizing the supplied Environmental Resource/Surface Water Management Permit Construction Completion/Certification Form Number 0881A, or Environmental Resource/Surface Water Management Permit Construction Completion Certification - For Projects Permitted prior to October 3, 1995 Form No. 0881B, incorporated by reference in Rule 40E-1.659, F.A.C. The statement of completion and certification shall be based on onsite observation of construction or review of as-built drawings for the purpose of determining if the work was completed in compliance with permitted plans and specifications. This submittal shall serve to notify the District that the system is ready for inspection. Additionally, if deviation from the approved drawings are discovered during the certification process, the certification must be accompanied by a copy of the approved permit drawings with deviations noted. Both the original and revised specifications must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawings. All surveyed dimensions and elevations shall be certified by a registered surveyor.

7. The operation phase of this permit shall not become effective: until the permittee has complied with the requirements of condition (6) above, and submitted a request for conversion of Environmental Resource Permit from Construction Phase to Operation Phase, Form No. 0920; the District determines the system to be in compliance with the permitted plans and specifications; and the entity

GENERAL CONDITIONS

approved by the District in accordance with Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit Applications within the South Florida Water Management District, accepts responsibility for operation and maintenance of the system. The permit shall not be transferred to such approved operation and maintenance entity until the operation phase of the permit becomes effective. Following inspection and approval of the permitted system by the District, the permittee shall initiate transfer of the permit to the approved responsible operating entity if different from the permittee. Until the permit is transferred pursuant to Section 40E-1.6107, F.A.C., the permittee shall be liable for compliance with the terms of the permit.

8. Each phase or independent portion of the permitted system must be completed in accordance with the permitted plans and permit conditions prior to the initiation of the permitted use of site infrastructure located within the area served by that portion or phase of the system. Each phase or independent portion of the system must be completed in accordance with the permitted plans and permit conditions prior to transfer of responsibility for operation and maintenance of the phase or portion of the system to a local government or other responsible entity.

9. For those systems that will be operated or maintained by an entity that will require an easement or deed restriction in order to enable that entity to operate or maintain the system in conformance with this permit, such easement or deed restriction must be recorded in the public records and submitted to the District along with any other final operation and maintenance documents required by Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit applications within the South Florida Water Management District, prior to lot or units sales or prior to the completion of the system, whichever comes first. Other documents concerning the establishment and authority of the operating entity must be filed with the Secretary of State, county or municipal entities. Final operation and maintenance documents must be received by the District when maintenance and operation of the system is accepted by the local government entity. Failure to submit the appropriate final documents will result in the permittee remaining liable for carrying out maintenance and operation of the permitted system and any other permit conditions.

10. Should any other regulatory agency require changes to the permitted system, the permittee shall notify the District in writing of the changes prior to implementation so that a determination can be made whether a permit modification is required.

11. This permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any activity approved by this permit. This permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee, or convey any rights or privileges other than those specified in the permit and Chapter 40E-4 or Chapter 40E-40, F.A.C..

12. The permittee is hereby advised that Section 253.77, F.S. states that a person may not commence any excavation, construction, or other activity involving the use of sovereign or other lands of the State, the title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund without obtaining the required lease, license, easement, or other form of consent authorizing the proposed use. Therefore, the permittee is responsible for obtaining any necessary authorizations from the Board of Trustees prior to commencing activity on sovereignty lands or other state-owned lands.

13. The permittee must obtain a Water Use permit prior to construction dewatering, unless the work qualifies for a general permit pursuant to Subsection 40E-20.302(3), F.A.C., also known as the "No Notice" Rule.

14. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any system authorized by the permit.

GENERAL CONDITIONS

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding, unless a specific condition of this permit or a formal determination under Section 373.421(2), F.S., provides otherwise.

16. The permittee shall notify the District in writing within 30 days of any sale, conveyance, or other transfer of ownership or control of a permitted system or the real property on which the permitted system is located. All transfers of ownership or transfers of a permit are subject to the requirements of Rules 40E-1.6105 and 40E-1.6107, F.A.C.. The permittee transferring the permit shall remain liable for corrective actions that may be required as a result of any violations prior to the sale, conveyance or other transfer of the system.

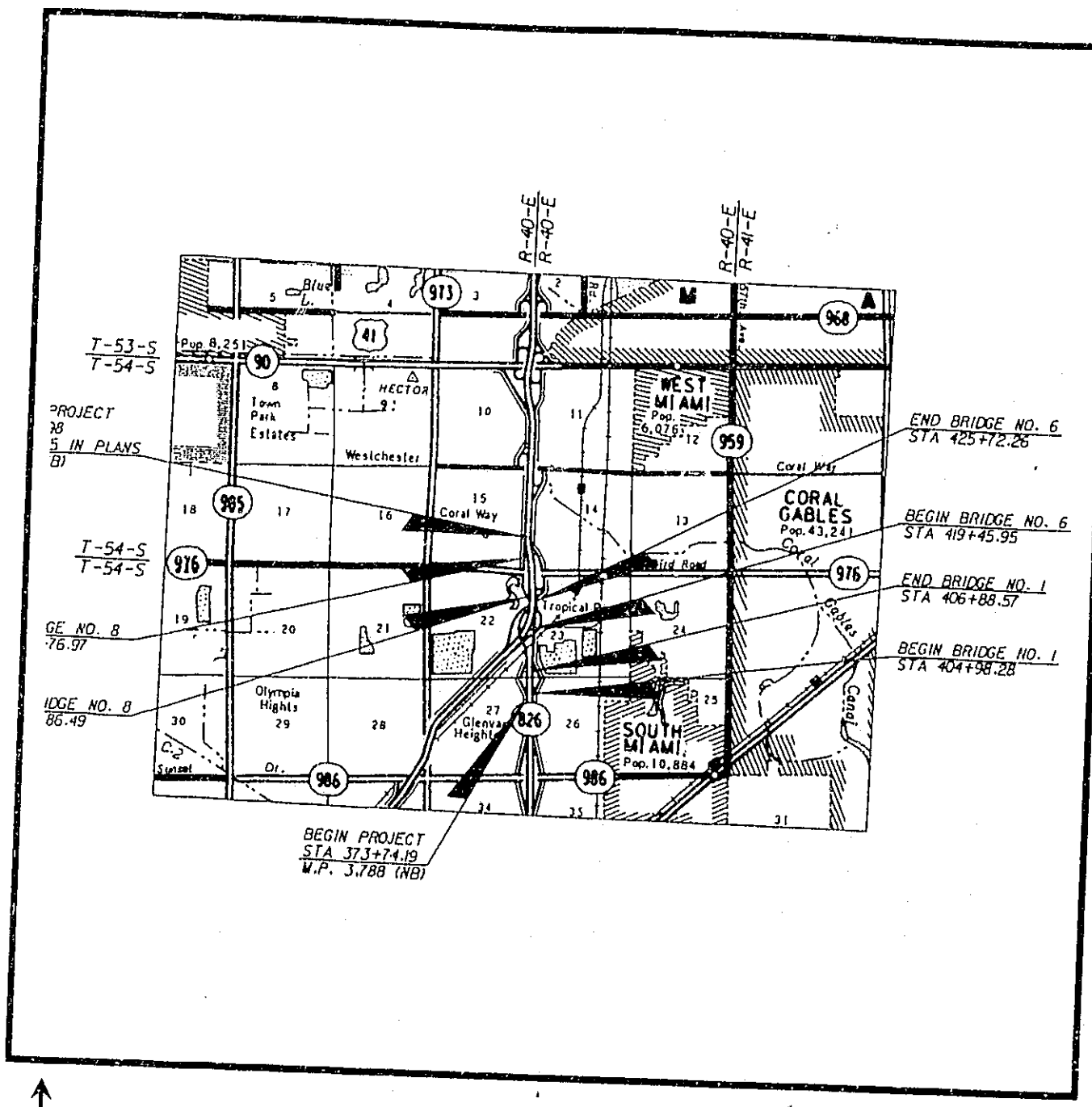
17. Upon reasonable notice to the permittee, District authorized staff with proper identification shall have permission to enter, inspect, sample and test the system to insure conformity with the plans and specifications approved by the permit.

18. If historical or archaeological artifacts are discovered at any time on the project site, the permittee shall immediately notify the appropriate District service center.

19. The permittee shall immediately notify the District in writing of any previously submitted information that is later discovered to be inaccurate.

SPECIAL CONDITIONS

1. The construction phase of this permit shall expire on December 14, 2010.
2. Operation of the surface water management system shall be the responsibility of the permittee.
3. The permittee shall be responsible for the correction of any erosion, shoaling or water quality problems that result from the construction or operation of the surface water management system.
4. Measures shall be taken during construction to insure that sedimentation and/or turbidity violations do not occur in the receiving water.
5. The District reserves the right to require that additional water quality treatment methods be incorporated into the drainage system if such measures are shown to be necessary.
6. Lake side slopes shall be no steeper than 4:1 (horizontal:vertical) to a depth of two feet below the control elevation. Side slopes shall be nurtured or planted from 2 feet below to 1 foot above control elevation to insure vegetative growth, unless shown on the plans.
7. Facilities other than those stated herein shall not be constructed without an approved modification of this permit.
8. A stable, permanent and accessible elevation reference shall be established on or within one hundred (100) feet of all permitted discharge structures no later than the submission of the certification report. The location of the elevation reference must be noted on or with the certification report.
9. The permittee shall provide routine maintenance of all of the components of the surface water management system in order to remove all trapped sediments/debris. All materials shall be properly disposed of as required by law. Failure to properly maintain the system may result in adverse flooding conditions.
10. This permit is issued based on the applicant's submitted information which reasonably demonstrates that adverse water resource related impacts will not be caused by the completed permit activity. Should any adverse impacts caused by the completed surface water management system occur, the District will require the permittee to provide appropriate mitigation to the District or other impacted party. The District will require the permittee to modify the surface water management system, if necessary, to eliminate the cause of the adverse impacts.
11. The permittee shall comply with applicable state water quality standards including:
    a)62-302.500 - Minimum criteria for all surface waters at all places and all times;
    b)52-302.510 - Surface waters: general criteria
    c)62-302.560 - Class III waters; recreation, propagation and maintenance of a healthy, well balanced population of fish and wildlife;
    d)62-302.600 - Classified waters.
12. Reference is made to the plan set labeled Exhibit No. 2, by the Florida Department of Transportation, Project ID 249035-1-52-01, SR 826 (Palmetto Expressway) at Miller Drive (SW 56 St), SR 874, Bird Road (SW 40 St). The plan set consisting of drainage plans and detail sheets have been signed and sealed by Andres Garganta P.E. No. 23697, of Consul-Tech Transportation Inc. on 6-16-2005, and have been incorporated in this permit by reference (please see permit file).



N
(no scale)

SR 826 at Miller Drive
LOCATION MAP

App. No. 050727-16

Exhibit 1

STAGE-STORAGE CALCULATIONS (POST-DEVELOPMENT):
SYSTEM-II

NODE	STAGE	AREA (Ha)	AREA (Ac)	VOLUME (AC-FT)	ULTIMATE DISCHARGE POINT
POND A	3.00	0.0002	0.0004	0.0000	Existing Lake located on the northeast quadrant of SR 826 and Miller Dr. intersection.
	4.00	0.0809	0.2000	0.2000	
	5.50	0.1416	0.35	0.7250	
	7.00	0.1416	0.35	1.2500	
	12.00	0.1416	0.35	3.0000	
POND B	3.00	0.0002	0.0004	0.0000	
	5.75	0.0002	0.0004	0.0011	
	5.80	0.0534	0.13	0.0077	
	7.00	0.0534	0.13	0.1661	
	12.00	0.0534	0.13	0.8261	
SWALE A	3.00	0.0002	0.0004	0.0000	
	7.40	0.0002	0.0004	0.0018	
	7.45	0.0202	0.0500	0.0043	
	12.00	0.0202	0.0500	0.2318	
INFIELD B	3.00	0.0002	0.0004	0.0000	
	8.20	0.0002	0.0004	0.0021	
	9.70	0.0004	0.001	0.0015	
	12.00	0.0040	0.01	0.0230	
INFIELD C	3.00	0.0002	0.0004	0.0000	
	4.10	0.0002	0.0004	0.0004	
	4.15	0.0146	0.04	0.0022	
	7.00	0.0146	0.04	0.1048	
	12.00	0.0146	0.04	0.2848	

REVISED SUBMITTAL

SEP 29 2005

9-27-05
ANDRES GARGANTA
P.E. No. 23697

#050727 16