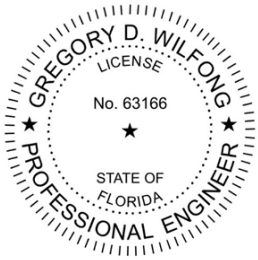
July 12, 2024

Oakwood Plaza Retail South

City of Hollywood, Broward County, FL

DRAINAGE SUMMARY

Prepared For:
Broward County SWM
City of Hollywood



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Gregory D. Wilfong, P.E. Date
FL P.E. # 63166

Kimley-Horn Project #: 147507131

Kimley»Horn

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OAKWOOD PLAZA RETAIL SOUTH

HOLLYWOOD, BROWARD COUNTY, FL

DRAINAGE SUMMARY

1.0 INTRODUCTION

The overall Oakwood Plaza was originally permitted into two separate basins. The North basin being 72.04 acres and the South basin containing 39.30 acres. The site was originally permitted through South Florida Water Management District, Permit No. 06-00639-S. The site is currently an existing 52,696 SF Regal movie theater and shall be redeveloped into a 1.425-acre two story retail store. The overall affected area for the project is 8.198 of the 39.30 acres of the south basin and is located within Flood Zone X and Zone AH (EL 7).

The site is located on the east side of Interstate 95 (I-95), north of Sheridan Street within the existing Oakwood Plaza Shopping Center. Stormwater runoff from the project area currently drains to a series of interconnected catch basins discharges to an existing control structure leading into the wet pond, east of Oakwood Blvd.

Kimley Horn and Associates, Inc. has had a pre application meeting with Broward County Staff, on 04/04/2024, the following is a summary of the discussion. Groundwater elevation for the design is based on the BC Future Conditions 2070 of 3.5' NAVD. The site was designed to meet pre versus post compensatory storage. FFE is required to be at or above the BC 100-year 2024 Future Flood Elevation of 8.0' NAVD. Stormwater discharge will be routed offsite to the existing master system after being treated onsite.

The existing land use breakdowns for the project are as follows:

Table 1 – Existing Land Use Breakdown

Existing		
Parameter	**Area (SF)**	**Area (AC)**
Buildings	52,696	1.210
Pervious Area	55,388	1.272
Impervious Area	24,9016	5.717
Total	**357,100**	**8.198**

2.0 DESIGN

The site will be redeveloped to accommodate a two-story retail building (62,090 SF). The proposed redevelopment of the site consists of demolishing 52,696 SF of existing building area, modifications to the accesses, and parking lot reconfiguration. The proposed stormwater management system will convey the stormwater runoff through a series of interconnected catch basins and exfiltration trench, prior to discharging to the offsite lake. Underground storm chambers have been proposed to provide compensatory storage up to the previously permitted peak stage for 100-year 3-day storm event, Elevation 6.90' NAVD. The dry pretreatment requirement has been provided for in the proposed exfiltration trench. A portion of the exfiltration trench has been set 1 foot above the water table with an invert of 4.5' NAVD and a weir of 5.5' NAVD. The remaining exfiltration trench is set at an invert of 3.5' NAVD with an internal weir of 5.5' NAVD.

The proposed area breakdowns for the area of impact are as follows:

Table 2 – Proposed Land Use Breakdown

Proposed		
Parameter	**Area (SF)**	**Area (AC)**
Buildings	62,090	1.425
Pervious Area	75,828	1.741
Impervious Area	219,182	5.032
Total	**357,100**	**8.198**

3.0 WATER QUALITY

The post-development condition will provide treatment for the proposed onsite improvements. Water quality shall be the greater of 1" over the entire drainage area or 2.5 x % impervious.

Post-Development

1"	x	8.198 acres	= 8.20 ac-in	=	0.68 ac-ft

2.5 x % impervious is as follows:

A)	8.198 – (Buildings)	= 8.198 – 1.425	=	6.77
B)	6.77 – (Pervious Area)	= 6.77 – 1.54	=	5.03
C)	% Impervious	= 5.03 / 6.77 x 100	=	74.3%
D)	2.5 x % Impervious	= 2.5 x 0.743	=	1.86 in

E) 1.86 in x 8.198 = 15.23 ac-in = 1.27 ac-ft

2.5" x Impervious Area yields the larger quantity therefore the site must provide the 1.27 ac-ft of treatment in the post-development condition.

The required pre-treatment volume shall be 1/2" over the developed project is 0.34 ac-ft. This is provided in the proposed 157 LF of dry exfiltration trench which starts 1 foot above the water table at 4.50' NAVD. Pretreatment is met at elevation 5.50' NAVD in the dry exfiltration trench.

The remaining required treatment volume is provided for at Elevation 5.50' NAVD. The provided water quality shall be provided for in the 851 LF of proposed exfiltration trench, 2.24 ac-ft of volume.

4.0 WATER QUANTITY

0.5 ac-ft of underground storm chambers and a dry pond have been proposed to provide compensatory storage up to the previously permitted peak stage for 100-year 3-day storm event, Elevation 6.90' NAVD. The permitted condition provided a total of 4.02 ac-ft of storage at the 100-year peak design stage of 6.90' NAVD. An outfall control structure has been designed to attenuate the required volume for treatment.

The post-development condition calculations were performed utilizing stage storage comparison calculations to show that the amount of storage in the post-development condition are greater than or equal to pre-development condition, prior to discharging into the overall South Basin system for Oakwood Plaza Shopping Center. A summary of the proposed post-development storage and design stages are as follows:

Table 5 – Pre-Development vs. Post-Development Flood Routing Results

Storm Event	Pre-Development		Post-Development	
	Stage (NAVD)	Storage (ac-ft)	Stage (NAVD)	Storage (ac-ft)
10-year 1-Day	6.23	1.25	6.23	3.25
25-year 3-day	6.61	2.38	6.61	3.57
100-year 3-day	6.90	4.02	6.90	4.13

The calculations for the flood routings are included in the **Appendix C**.

5.0 CONCLUSION

Based on the results for the proposed redevelopment, the proposed improvements are consistent with the Broward County design criteria.

The following is a summary of design parameters:

- Control Water Elevation = 3.50’
- 5 yr – 1 hr Permitted Design Stage = 6.23’
- 25 yr – 72 hr Permitted Design Stage = 6.61’
- 100 yr – 72 hr Permitted Design Stage = 6.90’
- Minimum Inlet Elevation = 6.44’
- Minimum Perimeter Berm Elevation = 6.90’
- Finished Floor Elevation = 8.00’
- Broward County 2070 Future Conditions Average Wet Season Groundwater Elevation = 3.50’
- Broward County 100-year FEMA Flood Elevation = 8.00’

APPENDICES

APPENDIX A

Pre-Development Calculations

Kimley»Horn

Date: 7/11/2024
Project: Oakwood Plaza
Project No: 147507131

Design Criteria:

Estimated Seasonal High Water Level: 3.50 NAVD

Proposed Acreages

Lake Areas (A_L)	0	sf	or	0.000 ac
Roof Areas (A_R)	52,696	sf	or	1.210 ac
Paved Areas (A_P)	249,016	sf	or	5.717 ac
Green Areas (A_G)	55,388	sf	or	1.272 ac
Total (A_T)	357,100	sf	or	8.198 ac

Kimley»Horn

Date: 7/12/2024
Project: Oakwood Plaza
Project No: 147029004

Soil Storage

Land Use Summary:

	Acres	Percent
Lake Areas (A_L)	0.000	0.00%
Roof Areas (A_R)	1.210	14.76%
Paved Areas (A_P)	5.717	69.73%
Green Areas (A_G)	1.272	15.51%
Total (A_T)	8.198	100.00%

Compacted Soil Storage per SFWMD Vol. IV Page C-III

Depth to Water Table (feet)	Water Storage (inches)
1	0.45
2	1.88
3	4.05
4	6.75

Averge Pervious Grade (Elev.): 8.5
Depth to Water Table: 5.00 ft
Soil Compaction at Depth (S_s): 6.75 inches

Weighted S value:
= S_s x % Pervious
= 6.75 x 12.21
= 1.05 inches

CN Value:
=1000/(S+10)
90.52

Rainfalls

From Figure C-9, 100-Year 3-day Storm	=	18.00	inches
From Figure C-8, 25-Year 3-day Storm	=	13.00	inches
From Figure C-4, 10-Year 1-day Storm	=	8.83	inches

Runoff Volume

100-Year 3-Day (Finish Floor)

Runoff (Q)	=	$(P-0.2S)^2 / (P+0.8S)$				
	=	16.80	inches	or	1.40	feet of total runoff
Runoff Volume	=	Q *Project Area				
	=	137.74	ac - in	or	11.48	ac-ft

25-Year 3-Day

Runoff (Q)	=	$(P-0.2S)^2 / (P+0.8S)$				
	=	11.82	inches	or	0.99	feet of total runoff
Runoff Volume	=	Q *Project Area				
	=	96.92	ac - in	or	8.08	ac-ft

5-Year 1-Day

Runoff (Q)	=	$(P-0.2S)^2 / (P+0.8S)$				
	=	6.38	inches	or	0.53	feet of total runoff
Runoff Volume	=	Q *Project Area				
	=	52.26	ac - in	or	4.36	ac-ft

10-Year 1-Day (Minimum Crown of Road)

Runoff (Q)	=	$(P-0.2S)^2 / (P+0.8S)$				
	=	7.69	inches	or	0.64	feet of total runoff
Runoff Volume	=	Q *Project Area				
	=	63.02	ac - in	or	5.25	ac-ft

Kimley»Horn

Date: 7/12/2024
Project: Oakwood Plaza
Project No: 147029004

Site Stage Storage:

Control Elevation = 3.50
Finished Floor Elevation = 7.38
Area at Control Elevation = 0.00
Area at Top of Bank = 6.99 ac
Building Area = 1.21 ac

Sub-Area Low El. High El. Area (ft^2) Area (acres) Stage (NAVD)	Total Storage (ac-ft)
3.00	0.00
3.10	0.00
3.20	0.00
3.30	0.00
3.40	0.00
3.50	0.00
3.60	0.00
3.70	0.00
3.80	0.00
3.90	0.00
4.00	0.00
4.10	0.02
4.20	0.02
4.30	0.02
4.40	0.03
4.50	0.03
4.60	0.04
4.70	0.05
4.80	0.06
4.90	0.07
5.00	0.08
5.10	0.09
5.20	0.10
5.30	0.12
5.40	0.14
5.50	0.16
5.60	0.18
5.70	0.21
5.80	0.24
5.90	0.28
6.00	0.34
6.10	0.44
6.20	0.59
6.30	0.80
6.40	1.11
6.50	1.49
6.60	1.96
6.70	2.48
6.80	3.05
6.90	3.66
7.00	4.29
7.10	4.93
7.20	5.58
7.30	6.24
7.40	6.91
7.50	7.58
7.60	8.26
7.70	8.94
7.80	9.62
7.90	10.31
8.00	11.00

Underground Stage Storage:

Exfiltration Trench

Control Elevation = 3.5
FFE = 7.38
Treatment Provided = 0.36 ac-ft

Sub-Area Low El. High El. Area (ft^2) Area (acres) Stage (NAVD)	Total Storage Area (ac)	Total Storage (ac-ft)
3.00	0.144	0.0000
3.10	0.144	0.0144
3.20	0.144	0.0288
3.30	0.144	0.0432
3.40	0.144	0.0576
3.50	0.144	0.072
3.60	0.144	0.0864
3.70	0.144	0.1008
3.80	0.144	0.1152
3.90	0.144	0.1296
4.00	0.144	0.144
4.10	0.144	0.1584
4.20	0.144	0.1728
4.30	0.144	0.1872
4.40	0.144	0.2016
4.50	0.144	0.216
4.60	0.144	0.2304
4.70	0.144	0.2448
4.80	0.144	0.2592
4.90	0.144	0.2736
5.00	0.144	0.288
5.10	0.144	0.3024
5.20	0.144	0.3168
5.30	0.144	0.3312
5.40	0.144	0.3456
5.50	0.144	0.36
5.60	0.144	0.36
5.70	0.144	0.36
5.80	0.144	0.36
5.90	0.144	0.36
6.00	0.144	0.36
6.10	0.144	0.36
6.20	0.144	0.36
6.30	0.144	0.36
6.40	0.144	0.36
6.50	0.144	0.36
6.60	0.144	0.36
6.70	0.144	0.36
6.80	0.144	0.36
6.90	0.144	0.36
7.00	0.144	0.36
7.10	0.144	0.36
7.20	0.144	0.36
7.30	0.144	0.36
7.40	0.144	0.36
7.50	0.144	0.36
7.60	0.144	0.36
7.70	0.144	0.36
7.80	0.144	0.36
7.90	0.144	0.36
8.00	0.144	0.36

Kimley»Horn

Date: 7/12/2024
Project: Oakwood Plaza
Project No: 147029004

Total Site Stage Storage:

Total Site Stage Storage
Control Elevation = 3.5
Finished Floor Elevation = 7.38
Building Area = 1.21 ac

Total Site Stages	Total Site Storage
(NAVD)	(ac)
3.00	0.00
3.10	0.01
3.20	0.03
3.30	0.04
3.40	0.06
3.50	0.07
3.60	0.09
3.70	0.10
3.80	0.12
3.90	0.13
4.00	0.14
4.10	0.17
4.20	0.19
4.30	0.21
4.40	0.23
4.50	0.25
4.60	0.27
4.70	0.29
4.80	0.32
4.90	0.34
5.00	0.37
5.10	0.39
5.20	0.42
5.30	0.45
5.40	0.48
5.50	0.52
5.60	0.54
5.70	0.60
5.80	0.64
5.90	0.70
6.00	0.80
6.10	0.95
6.20	1.16
6.30	1.47
6.40	1.85
6.50	2.32
6.60	2.32
6.70	2.84
6.80	3.41
6.90	4.02
7.00	4.65
7.10	5.29
7.20	5.94
7.30	6.60
7.40	7.27
7.50	7.94
7.60	8.62
7.70	9.30
7.80	9.98
7.90	10.67
8.00	11.36

APPENDIX B

Post-Development Calculations

Kimley»Horn

Date: 7/12/2024
Project: Oakwood Plaza
Project No: 147507131

Design Criteria:

Estimated Seasonal High Water Level: 3.50 NAVD

Proposed Acreages

Lake Areas (A_L)	0 sf	or	0.000 ac
Roof Areas (A_R)	62,090 sf	or	1.425 ac
Paved Areas (A_P)	219,182 sf	or	5.032 ac
Green Areas (A_G)	75,828 sf	or	1.741 ac
Total (A_T)	357,100 sf	or	8.198 ac

Compute Required Water Quality Volume:

1) Provide at least 1 inch over the developed project:

V_{wq} = 1 inch x A_T x 1ft / 12 inches
= 1 x 12.635 / 12
= 0.68 ac-ft or 8.20 ac-in

2) Provide 2.5" over % impervious area:

a) Site Area for water quality pervious/impervious calculation:

A_S = A_T - (A_L + A_R)
= 6.77 ac of site area for water quality pervious/impervious

b) Impervious area for water quality pervious/impervious calculation:

A_{IMP} = A_s - A_G
= 5.03 ac of impervious area for water quality pervious/impervious

c) Percent impervious for water quality calculation:

= A_{IMP} / A_S x 100%
= 74.3 % impervious

d) For 2.5" times the percent impervious:

= 2.5" x % impervious
= 1.86 inches to be treated

e) Computed volume required for quality detention

V_{wq} = inches to be treated x (A_T - A_L)
= 1.93 x (8.198-0.00) x 1 foot / 12 inches
= 1.27 ac-ft or 15.23 ac-in

3) Since the 1.27 ac-ft is greater than the 0.68 computed for the first inch of runoff the volume of 1.27 ac-ft controls.

Kimley»Horn

Date: 7/11/2024
Project: Oakwood Plaza
Project No: 147507131

Pre-Treatment Water Qality Volume:

1) Provide at 1/2 inch over the developed project:

V_{PRE} = 0.5 inch x A_T x 1ft / 12 inches
= 0.5 x 8.19 / 12
= 0.34 ac-ft or 4.10 ac-in

2) Provided Pre Treament Water Quality

Volume provided in dry exfil at Elev. 5.5	=	0.34	ac-ft
Total Volume Provided	=	0.34	ac-ft

Kimley»Horn

Date: 7/11/2024
Project: Oakwood Plaza
Project No: 147029004

Soil Storage

Land Use Summary:

	Acres	Percent
Lake Areas (A_L)	0.000	0.00%
Roof Areas (A_R)	1.425	17.39%
Paved Areas (A_P)	5.032	61.38%
Green Areas (A_G)	1.741	21.23%
Total (A_T)	8.198	100.00%

Averge Pervious Grade (Elev.): 8.5
Depth to Water Table: 5.00 ft
Soil Compaction at Depth (S_s): 6.75 inches

Compacted Soil Storage per SFWMD Vol. IV Page C-III

Depth to Water Table (feet)	Water Storage (inches)
1	0.45
2	1.88
3	4.05
4	6.75

Weighted S value:

= S_s x % Pervious
= 6.75 x 12.21 =1000/(S+10)
= 1.43 inches 87.46

Rainfalls

From Figure C-9, 100-Year 3-day Storm	=	18.00 inches
From Figure C-8, 25-Year 3-day Storm	=	13.00 inches
From Figure C-4, 10-Year 1-day Storm	=	8.83 inches

Runoff Volume

100-Year 3-Day (Finish Floor)

Runoff (Q) = $(P-0.2S)^2 / (P+0.8S)$
= 16.39 inches or 1.37 feet of total runoff
Runoff Volume = Q *Project Area
= 134.34 ac - in or 11.20 ac-ft

25-Year 3-Day

Runoff (Q) = $(P-0.2S)^2 / (P+0.8S)$
= 11.43 inches or 0.95 feet of total runoff
Runoff Volume = Q *Project Area
= 93.66 ac - in or 7.81 ac-ft

5-Year 1-Day

Runoff (Q) = $(P-0.2S)^2 / (P+0.8S)$
= 6.02 inches or 0.50 feet of total runoff
Runoff Volume = Q *Project Area
= 49.33 ac - in or 4.11 ac-ft

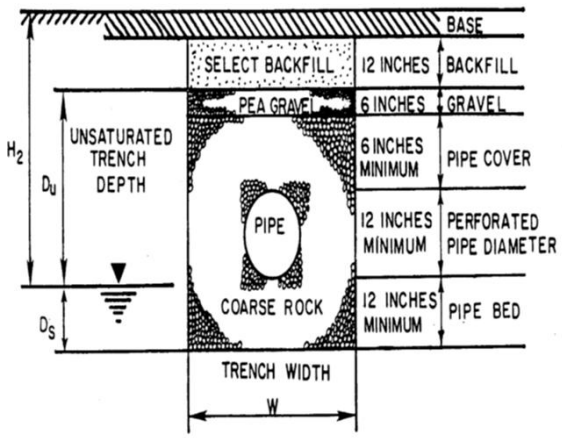
10-Year 1-Day (Minimum Crown of Road)

Runoff (Q) = $(P-0.2S)^2 / (P+0.8S)$
= 7.32 inches or 0.61 feet of total runoff
Runoff Volume = Q *Project Area
= 59.98 ac - in or 5.00 ac-ft

Kimley»Horn

Date: 7/11/2024
Project: Oakwood Plaza
Project No: 147029004

Dry Exfiltration Trench Calculations:



Total: 157.00 **LF**

		Elevation (NAVD)
Minimum Grate:		6.40 ft.
Asphalt/Base Thickness:	8.00 in.	5.73 ft.
Select Backfill:	10.00 in.	4.90 ft.
Pea Gravel Thickness:	6.00 in.	4.40 ft.
Weir Elevation		5.50 ft.
Pipe Cover:	6.00 in.	3.90 ft.
Pipe Wall Thickness:	in.	3.90 ft.
Pipe Diameter:	18.00 in.	2.40 ft.
Pipe Invert:		4.50 ft.
Seasonal High Water:		3.50 ft.
Pipe Bed (Ds):	3.00 ft.	0.50 ft.
Trench Bottom		0.50 ft.

Dry Pre-Treatment

K=HYDRAULIC CONDUCTIVITY (cfs/ft^2*ft head)
H2=DEPTH TO WATER TABLE (ft)

W=WIDTH OF TRENCH (ft)
Du=NON-SATURATED TRENCH DEPTH (ft)
Ds=SATURATED TRENCH DEPTH (ft)

L=LENGTH OF TRENCH
TD=TRENCH DEPTH
V_T=VOLUME OF TREATMENT

K=	0.0015400
H2=	2.00
Weir Elevation at H2	5.50
W=	10.00
Du=	1.40
Ds=	3.00
L=	***157.00***
TD=	4.40

EQUATION USED FOR THIS CALCULATION:

V=(L)*(K*(2*H2*Du-Du^2+2*H2*Ds)+(1.39*10^-4)*W*Du)

V_T (ac-ft) = ***0.341***

The following equations are used to determine the storage of the exfiltration trench.

EQ. #1 ***V=(L)*(K*(H2*W+2*H2*Du-Du^2+2*H2*Ds)+1.39E10^(-4)*W*Du)***

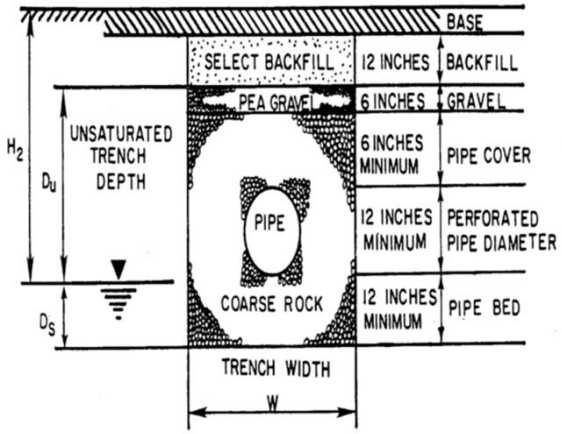
EQ.#2 ***V=(L)*(K*(2*H2*Du-Du^2+2*H2*Ds)+(1.39*10^-4)*W*Du)***
IF SATURATED DEPTH OF TRENCH > NON-SATURATED DEPTH OF TRENCH
or IF THE TRENCH WIDTH IS > 2*TOTAL TRENCH DEPTH

	Treatment
L (Equation 1)=	8.9225612
L (Equation 2)=	4.0869612

Kimley»Horn

Date: 7/11/2024
Project: Oakwood Plaza
Project No: 147029004

Exfiltration Trench Calculations:



Total: 851.00 LF

		Elevation (NAVD)
Minimum Grate:		6.40 ft.
Asphalt/Base Thickness:	8.00 in.	5.73 ft.
Select Backfill:	10.00 in.	4.90 ft.
Pea Gravel Thickness:	6.00 in.	4.40 ft.
Weir Elevation		5.50 ft.
Pipe Cover:	6.00 in.	3.90 ft.
Pipe Wall Thickness:	in.	3.90 ft.
Pipe Diameter:	18.00 in.	2.40 ft.
Pipe Invert:		3.50 ft.
Seasonal High Water:		3.50 ft.
Pipe Bed (Ds):	3.00 ft.	0.50 ft.
Trench Bottom		0.50 ft.

Maximum Allowable Trench for this Basin *3.28 in. over* *8.198* *acres:* *2.24 ac-ft.*

K=HYDRAULIC CONDUCTIVITY (cfs/ft^2*ft head) — K= 0.0015400
H2=DEPTH TO WATER TABLE (ft) — H2= 2.00
Weir Elevation at H2 = 5.50
W=WIDTH OF TRENCH (ft) — W= 10.00
Du=NON-SATURATED TRENCH DEPTH (ft) — Du= 1.40
Ds=SATURATED TRENCH DEPTH (ft) — Ds= 3.00
L=LENGTH OF TRENCH — L= 586.00
TD=TRENCH DEPTH — TD= 4.40
V_T=VOLUME OF TREATMENT

EQUATION USED FOR THIS CALCULATION:

V=(L)*(K*(2*H2*Du-Du^2+2*H2*Ds)+(1.39*10^-4)*W*Du)

V_T (ac-ft) = 1.271

K=HYDRAULIC CONDUCTIVITY (cfs/ft^2*ft head) — K= 0.0015400
H2=DEPTH TO WATER TABLE (ft) — H2= 2.00
Weir Elevation at H2 = 5.50
W=WIDTH OF TRENCH (ft) — W= 10.00
Du=NON-SATURATED TRENCH DEPTH (ft) — Du= 1.40
Ds=SATURATED TRENCH DEPTH (ft) — Ds= 3.00
L=LENGTH OF TRENCH — L= 265.00
TD=TRENCH DEPTH — TD= 4.40
V_S=VOLUME OF STORAGE

EQUATION USED FOR THIS CALCULATION:

V=(L)*(K*(H2*W+2*H2*Du-Du^2+2*H2*Ds)+1.39E10^(-4)*W*Du)

V_S (ac-ft) = 0.628

V=TOTAL VOLUME OF STORAGE

EQUATION USED FOR THIS CALCULATION:

V=(L)*(K*(2*H2*Du-Du^2+2*H2*Ds)+(1.39*10^-4)*W*Du)

V (ac-ft) = 1.899

The following equations are used to determine the storage of the exfiltration trench.

EQ. #1 *V=(L)*(K*(H2*W+2*H2*Du-Du^2+2*H2*Ds)+1.39E10^(-4)*W*Du)*

EQ.#2 *V=(L)*(K*(2*H2*Du-Du^2+2*H2*Ds)+(1.39*10^-4)*W*Du)*

IF SATURATED DEPTH OF TRENCH > NON-SATURATED DEPTH OF TRENCH
or IF THE TRENCH WIDTH IS > 2*TOTAL TRENCH DEPTH

	Treatment	Storage
L (Equation 1)=	33.3033176	7.530187
L (Equation 2)=	15.2545176	3.449187

Kimley»Horn

Date: 7/12/2024
Project: Oakwood Plaza
Project No: 147029004

Site Stage Storage including Dry Pond: (FROM CAD)

Note: assume linear site storage between low and high elevation and vertical storage above high elev.

Min. Inlet Elevation = 6.44
Finished Floor Elevation = 8.00
Area at Min. Inlet = 0.00
Site Area = 6.77 ac
Building Area = 1.43 ac

Sub-Area Low El. High El. Area (ft^2) Area (acres)		**Total Storage**
Stage (NAVD)	Stage (NAVD)	**(ac-ft)**
3.50	3.50	0.0000
3.60	3.60	0.0000
3.70	3.70	0.0000
3.80	3.80	0.0000
3.90	3.90	0.0000
4.00	4.00	0.0000
4.10	4.10	0.0000
4.20	4.20	0.0000
4.30	4.30	0.0000
4.40	4.40	0.0079
4.50	4.50	0.0101
4.60	4.60	0.0309
4.70	4.70	0.0524
4.80	4.80	0.0746
4.90	4.90	0.0974
5.00	5.00	0.1209
5.10	5.10	0.1452
5.20	5.20	0.1702
5.30	5.30	0.1959
5.40	5.40	0.2224
5.50	5.50	0.2497
5.60	5.60	0.2778
5.70	5.70	0.3067
5.80	5.80	0.3367
5.90	5.90	0.3686
6.00	6.00	0.4038
6.10	6.10	0.4449
6.20	6.20	0.4947
6.30	6.30	0.5561
6.40	6.40	0.6302
6.50	6.50	0.7148
6.60	6.60	0.8165
6.70	6.70	0.9492
6.80	6.80	1.1332
6.90	6.90	1.3920
7.00	7.00	1.7192
7.10	7.10	2.1009
7.20	7.20	2.5261
7.30	7.30	2.9921
7.40	7.40	3.4954
7.50	7.50	4.0303
7.60	7.60	4.5917
7.70	7.70	5.1798
7.80	7.80	5.7938
7.90	7.90	6.4342
8.00	8.00	7.1017

Kimley»Horn

Date: 7/12/2024
Project: Oakwood Plaza
Project No: 147507131

Underground Stage Storage:

Exfiltration Trench
Control Elevation = 3.5
FFE = 8.00
Min. Treatment Vol. = 1.27 ac-ft
Treatment Provided = 1.90 ac-ft

Dry Exfiltration Trench
Control Elevation = 4.5
FFE = 8.00
Min. Treatment Vol. = 0.34 ac-ft
Treatment Provided = 0.34 ac-ft

Underground storage
Control Elevation = 3.5
FFE = 8.00

Sub-Area Low El. High El. Area (ft^2) Area (acres) Stage (NAVD)	Total Storage Area (ac)	Total Storage (ac-ft)
3.50	0.20	0.0000
3.60	0.20	0.0949
3.70	0.20	0.1899
3.80	0.20	0.2848
3.90	0.20	0.3797
4.00	0.20	0.4747
4.10	0.20	0.5696
4.20	0.20	0.6646
4.30	0.20	0.7595
4.40	0.20	0.8544
4.50	0.20	0.9494
4.60	0.20	1.0443
4.70	0.20	1.1392
4.80	0.20	1.2342
4.90	0.20	1.3291
5.00	0.20	1.4240
5.10	0.20	1.5190
5.20	0.20	1.6139
5.30	0.20	1.7089
5.40	0.20	1.8038
5.50	0.20	1.8987
5.60	0.20	1.8987
5.70	0.20	1.8987
5.80	0.20	1.8987
5.90	0.20	1.8987
6.00	0.20	1.8987
6.10	0.20	1.8987
6.20	0.20	1.8987
6.30	0.20	1.8987
6.40	0.20	1.8987
6.50	0.20	1.8987
6.60	0.20	1.8987
6.70	0.20	1.8987
6.80	0.20	1.8987
6.90	0.20	1.8987
7.00	0.20	1.8987
7.10	0.20	1.8987
7.20	0.20	1.8987
7.30	0.20	1.8987
7.40	0.20	1.8987
7.50	0.20	1.8987
7.60	0.20	1.8987
7.70	0.20	1.8987
7.80	0.20	1.8987
7.90	0.20	1.8987
8.00	0.20	1.8987

Sub-Area Low El. High El. Area (ft^2) Area (acres) Stage (NAVD)	Total Storage Area (ac)	Total Storage (ac-ft)
3.50	0.04	0.0000
3.60	0.04	0.0000
3.70	0.04	0.0000
3.80	0.04	0.0000
3.90	0.04	0.0000
4.00	0.04	0.0000
4.10	0.04	0.0000
4.20	0.04	0.0000
4.30	0.04	0.0000
4.40	0.04	0.0000
4.50	0.04	0.0000
4.60	0.04	0.0341
4.70	0.04	0.0681
4.80	0.04	0.1022
4.90	0.04	0.1362
5.00	0.04	0.1703
5.10	0.04	0.2043
5.20	0.04	0.2384
5.30	0.04	0.2725
5.40	0.04	0.3065
5.50	0.04	0.3406
5.60	0.04	0.3406
5.70	0.04	0.3406
5.80	0.04	0.3406
5.90	0.04	0.3406
6.00	0.04	0.3406
6.10	0.04	0.3406
6.20	0.04	0.3406
6.30	0.04	0.3406
6.40	0.04	0.3406
6.50	0.04	0.3406
6.60	0.04	0.3406
6.70	0.04	0.3406
6.80	0.04	0.3406
6.90	0.04	0.3406
7.00	0.04	0.3406
7.10	0.04	0.3406
7.20	0.04	0.3406
7.30	0.04	0.3406
7.40	0.04	0.3406
7.50	0.04	0.3406
7.60	0.04	1.8987
7.70	0.04	1.8987
7.80	0.04	1.8987
7.90	0.04	1.8987
8.00	0.04	1.8987

Sub-Area Low El. High El. Area (ft^2) Area (acres) Stage (NAVD)	Total Storage Area (ac)	Total Storage (ac-ft)
3.50	0.46	0.0000
3.60	0.46	0.0250
3.70	0.46	0.0500
3.80	0.46	0.0750
3.90	0.46	0.1000
4.00	0.46	0.1250
4.10	0.46	0.1500
4.20	0.46	0.1750
4.30	0.46	0.2000
4.40	0.46	0.2250
4.50	0.46	0.2500
4.60	0.46	0.2750
4.70	0.46	0.3000
4.80	0.46	0.3250
4.90	0.46	0.3500
5.00	0.46	0.3750
5.10	0.46	0.4000
5.20	0.46	0.4250
5.30	0.46	0.4500
5.40	0.46	0.4750
5.50	0.46	0.5000
5.60	0.46	0.5000
5.70	0.46	0.5000
5.80	0.46	0.5000
5.90	0.46	0.5000
6.00	0.46	0.5000
6.10	0.46	0.5000
6.20	0.46	0.5000
6.30	0.46	0.5000
6.40	0.46	0.5000
6.50	0.46	0.5000
6.60	0.46	0.5000
6.70	0.46	0.5000
6.80	0.46	0.5000
6.90	0.46	0.5000
7.00	0.46	0.5000
7.10	0.46	0.5000
7.20	0.46	0.5000
7.30	0.46	0.5000
7.40	0.46	0.5000
7.50	0.46	0.5000
7.60	0.46	0.5000
7.70	0.46	0.5000
7.80	0.46	0.5000
7.90	0.46	0.5000
8.00	0.46	0.5000

Kimley»Horn

Date: 7/12/2024
Project: Oakwood Plaza
Project No: 147507131

Total Site Stage Storage:

Total Site Stage Storage
Min. Inlet Elevation Elevation = 6.44
Finished Floor Elevation = 8.00
Area at Min. Inlet = 0.00
Site Area = 6.77 ac
Building Area = 1.43 ac

Sub-Area Low El. High El. Area (ft^2) Area (acres) Stage (NAVD)	**Total Site Storage Area (ac)**	**Total Site Storage Volume (ac-ft)**
3.50	0.2314	0.00
3.60	0.2314	0.12
3.70	0.2314	0.24
3.80	0.2314	0.36
3.90	0.2314	0.48
4.00	0.2314	0.60
4.10	0.2314	0.72
4.20	0.2314	0.84
4.30	0.2314	0.96
4.40	0.2314	1.09
4.50	0.2314	1.21
4.60	0.2314	1.38
4.70	0.2314	1.56
4.80	0.2314	1.74
4.90	0.2314	1.91
5.00	0.2314	2.09
5.10	0.2314	2.27
5.20	0.2314	2.45
5.30	0.2314	2.63
5.40	0.2314	2.81
5.50	0.2314	2.99
5.60	0.2314	3.02
5.70	0.2314	3.05
5.80	0.2314	3.08
5.90	0.2314	3.11
6.00	0.2314	3.14
6.10	0.2314	3.18
6.20	0.2314	3.23
6.30	0.2314	3.30
6.40	0.2314	3.37
6.50	0.6018	3.45
6.60	0.9722	3.56
6.70	1.3426	3.69
6.80	1.7131	3.87
6.90	2.0835	4.13
7.00	0.6018	4.46
7.10	0.9722	4.84
7.20	1.3426	5.27
7.30	1.7131	5.73
7.40	2.0835	6.23
7.50	2.4539	6.77
7.60	2.8243	8.89
7.70	3.1947	9.48
7.80	3.5651	10.09
7.90	3.9355	10.73
8.00	4.3059	11.40

Treatment Volume	
Storage (NAVD)	Storage Volume (ac-ft)
4.80	1.23
4.84	1.27
4.90	1.33

Project: Rev0 - Oakwood South Retail Shopping Center - Bed 1

Chamber Model -	SC-310	
Units -	Imperial	
Number of Chambers -	334	
Voids in the stone (porosity) -	40	%
Base of Stone Elevation -	3.11	ft
Amount of Stone Above Chambers -	6	in
Amount of Stone Below Chambers -	6	in
Area of system -	8973	sf Min. Area - 7923 sf min. area

Include Perimeter Stone in Calculations

Click for Stage Area Data

Click to Invert Stage Area Data

Click Here for Metric

StormTech SC-310 Cumulative Storage Volumes

Height of System (inches)	Incremental Single Chamber (cubic feet)	Incremental Total Chamber (cubic feet)	Incremental Stone (cubic feet)	Incremental Ch & St (cubic feet)	Cumulative Chamber (cubic feet)	Elevation (feet)
28	0.00	0.00	299.10	299.10	11332.73	5.44
27	0.00	0.00	299.10	299.10	11033.63	5.36
26	0.00	0.00	299.10	299.10	10734.53	5.28
25	0.00	0.00	299.10	299.10	10435.43	5.19
24	0.00	0.00	299.10	299.10	10136.33	5.11
23	0.00	0.00	299.10	299.10	9837.23	5.03
22	0.06	19.64	291.24	310.88	9538.13	4.94
21	0.15	51.67	278.43	330.10	9227.24	4.86
20	0.27	88.80	263.58	352.38	8897.14	4.78
19	0.54	181.96	226.32	408.28	8544.76	4.69
18	0.70	235.15	205.04	440.19	8136.48	4.61
17	0.82	275.39	188.94	464.34	7696.29	4.53
16	0.92	308.80	175.58	484.38	7231.96	4.44
15	1.01	339.01	163.50	502.51	6747.58	4.36
14	1.09	365.58	152.87	518.45	6245.07	4.28
13	1.15	385.53	144.89	530.42	5726.62	4.19
12	1.21	405.79	136.78	542.57	5196.20	4.11
11	1.27	425.81	128.78	554.59	4653.63	4.03
10	1.32	442.40	122.14	564.54	4099.04	3.94
9	1.36	455.91	116.74	572.64	3534.50	3.86
8	1.40	469.27	111.39	580.66	2961.86	3.78
7	1.43	479.16	107.44	586.60	2381.20	3.69
6	0.00	0.00	299.10	299.10	1794.60	3.61
5	0.00	0.00	299.10	299.10	1495.50	3.53
4	0.00	0.00	299.10	299.10	1196.40	3.44
3	0.00	0.00	299.10	299.10	897.30	3.36
2	0.00	0.00	299.10	299.10	598.20	3.28
1	0.00	0.00	299.10	299.10	299.10	3.19

Volume above elevation 3.5 = 9936.93

Project: Rev0 - Oakwood South Retail Shopping Center - Bed 2

Chamber Model -	SC-310	
Units -	Imperial	
Number of Chambers -	272	
Voids in the stone (porosity) -	40	%
Base of Stone Elevation -	3.11	ft
Amount of Stone Above Chambers -	6	in
Amount of Stone Below Chambers -	6	in
Area of system -	7558	sf Min. Area - 6452 sf min. area

☑ Include Perimeter Stone in Calculations

☐ Click for Stage Area Data

☐ Click to Invert Stage Area Data

Click Here for Metric

StormTech SC-310 Cumulative Storage Volumes

Height of System (inches)	Incremental Single Chamber (cubic feet)	Incremental Total Chamber (cubic feet)	Incremental Stone (cubic feet)	Incremental Ch & St (cubic feet)	Cumulative Chamber (cubic feet)	Elevation (feet)
28	0.00	0.00	251.93	251.93	9462.98	5.44
27	0.00	0.00	251.93	251.93	9211.05	5.36
26	0.00	0.00	251.93	251.93	8959.12	5.28
25	0.00	0.00	251.93	251.93	8707.18	5.19
24	0.00	0.00	251.93	251.93	8455.25	5.11
23	0.00	0.00	251.93	251.93	8203.32	5.03
22	0.06	15.99	245.54	261.53	7951.38	4.94
21	0.15	42.08	235.10	277.18	7689.85	4.86
20	0.27	72.31	223.01	295.32	7412.67	4.78
19	0.54	148.18	192.66	340.84	7117.35	4.69
18	0.70	191.50	175.33	366.83	6776.51	4.61
17	0.82	224.27	162.22	386.50	6409.67	4.53
16	0.92	251.48	151.34	402.82	6023.18	4.44
15	1.01	276.08	141.50	417.58	5620.36	4.36
14	1.09	297.72	132.85	430.56	5202.77	4.28
13	1.15	313.96	126.35	440.31	4772.21	4.19
12	1.21	330.46	119.75	450.21	4331.90	4.11
11	1.27	346.77	113.23	459.99	3881.69	4.03
10	1.32	360.28	107.82	468.10	3421.69	3.94
9	1.36	371.28	103.42	474.70	2953.59	3.86
8	1.40	382.16	99.07	481.23	2478.89	3.78
7	1.43	390.22	95.85	486.06	1997.66	3.69
6	0.00	0.00	251.93	251.93	1511.60	3.61
5	0.00	0.00	251.93	251.93	1259.67	3.53
4	0.00	0.00	251.93	251.93	1007.73	3.44
3	0.00	0.00	251.93	251.93	755.80	3.36
2	0.00	0.00	251.93	251.93	503.87	3.28
1	0.00	0.00	251.93	251.93	251.93	3.19

Volume above elevation 3.5 = 8287.29

Project: Rev0 - Oakwood South Retail Shopping Center - Bed 2

Chamber Model -	SC-310	
Units -	Imperial	
Number of Chambers -	129	
Voids in the stone (porosity) -	40	%
Base of Stone Elevation -	3.11	ft
Amount of Stone Above Chambers -	6	in
Amount of Stone Below Chambers -	6	in
Area of system -	3696	sf Min. Area - 3060 sf min. area

Include Perimeter Stone in Calculations

Click for Stage Area Data

Click to Invert Stage Area Data

Click Here for Metric

StormTech SC-310 Cumulative Storage Volumes

Height of System (inches)	Incremental Single Chamber (cubic feet)	Incremental Total Chamber (cubic feet)	Incremental Stone (cubic feet)	Incremental Ch & St (cubic feet)	Cumulative Chamber (cubic feet)	Elevation (feet)
28	0.00	0.00	123.20	123.20	4592.03	5.44
27	0.00	0.00	123.20	123.20	4468.83	5.36
26	0.00	0.00	123.20	123.20	4345.63	5.28
25	0.00	0.00	123.20	123.20	4222.43	5.19
24	0.00	0.00	123.20	123.20	4099.23	5.11
23	0.00	0.00	123.20	123.20	3976.03	5.03
22	0.06	7.59	120.17	127.75	3852.83	4.94
21	0.15	19.96	115.22	135.17	3725.08	4.86
20	0.27	34.30	109.48	143.78	3589.91	4.78
19	0.54	70.28	95.09	165.37	3446.13	4.69
18	0.70	90.82	86.87	177.69	3280.76	4.61
17	0.82	106.36	80.65	187.02	3103.07	4.53
16	0.92	119.27	75.49	194.76	2916.05	4.44
15	1.01	130.93	70.83	201.76	2721.29	4.36
14	1.09	141.20	66.72	207.92	2519.53	4.28
13	1.15	148.90	63.64	212.54	2311.61	4.19
12	1.21	156.73	60.51	217.24	2099.07	4.11
11	1.27	164.46	57.42	221.88	1881.83	4.03
10	1.32	170.87	54.85	225.72	1659.96	3.94
9	1.36	176.08	52.77	228.85	1434.24	3.86
8	1.40	181.24	50.70	231.95	1205.39	3.78
7	1.43	185.07	49.17	234.24	973.44	3.69
6	0.00	0.00	123.20	123.20	739.20	3.61
5	0.00	0.00	123.20	123.20	616.00	3.53
4	0.00	0.00	123.20	123.20	492.80	3.44
3	0.00	0.00	123.20	123.20	369.60	3.36
2	0.00	0.00	123.20	123.20	246.40	3.28
1	0.00	0.00	123.20	123.20	123.20	3.19

Volume above elevation 3.5 = 4017.1

APPENDIX C

Geotechnical Report

May 10, 2024

Mr. Greg Wilfong
Kimley-Horn & Associates
11720 Amber Park Drive – Suite 600
Alpharetta, GA 30009
Email: Greg.Wilfong@kimley-horn.com

RE: Percolation Tests
Oakwood Plaza South - Percolation, Hollywood
2800 Oakwood Blvd., Hollywood, FL 33020
UES Project No.: 0630.2400048.0000

Dear Mr. Laub,

GFA International d/b/a Universal Engineering Sciences (UES) performed four (4) exfiltration tests to depths of 10 feet below the ground surface at the locations shown in **Figure 1** for the above-mentioned project to assess the hydraulic conductivity coefficient data for the design of the drainage area. The exfiltration tests were performed in accordance with the SFWMD Constant Head "Usual Condition" Open Hole Test. The calculated hydraulic conductivity coefficient for the exfiltration test was as follows:

Exfiltration Test	Hydraulic Conductivity
EX-1	3.3×10^{-3} $ft^3/sec/ft^2$-ft
EX-2	9.6×10^{-4} $ft^3/sec/ft^2$-ft
EX-3	8.0×10^{-4} $ft^3/sec/ft^2$-ft
EX-4	1.1×10^{-3} $ft^3/sec/ft^2$-ft

The test results are attached to this letter.

The stratification encountered during UES's exploration are presented in the attached test logs. It should be noted that soil conditions might vary between what is depicted on the attached log and other areas of the site. The soil boring data reflect information from a specific test location only. Site specific survey staking for the test location was not provided for UES's field exploration. The test location was determined in the field by a project engineer by measuring distances and estimating right angles from existing site features. The latitude, longitude, and elevation noted in UES's boring logs were taken from Google Earth. Google Earth uses WGS-84 or Local Mean Sea Level (MSL) as datum. It should be noted that elevations may not always be correct if fill is added or site grades change to a site after Google captures the image. The boring location and elevations noted should, therefore, be considered approximate.

UES appreciates the opportunity to be of service to you on this project and look forward to a continued association. Please do not hesitate to contact UES if you have any questions or comments, or if UES may further assist you as your plans proceed.

Sincerely,

UES
Registry No. 4930

GREGORY D WILFONG

Digitally signed by GREGORY D WILFONG
DN: cn=GREGORY D WILFONG, c=US, o=KIMLEY-HORN AND ASSOCIATES, email=greg.wilfong@kimley-horn.com
Date: 2024.07.13 06:46:19 -04'00'

Alberto J. Mercado, P.E.
Geotechnical Department Manager
Professional Engineer #95703
State of Florida

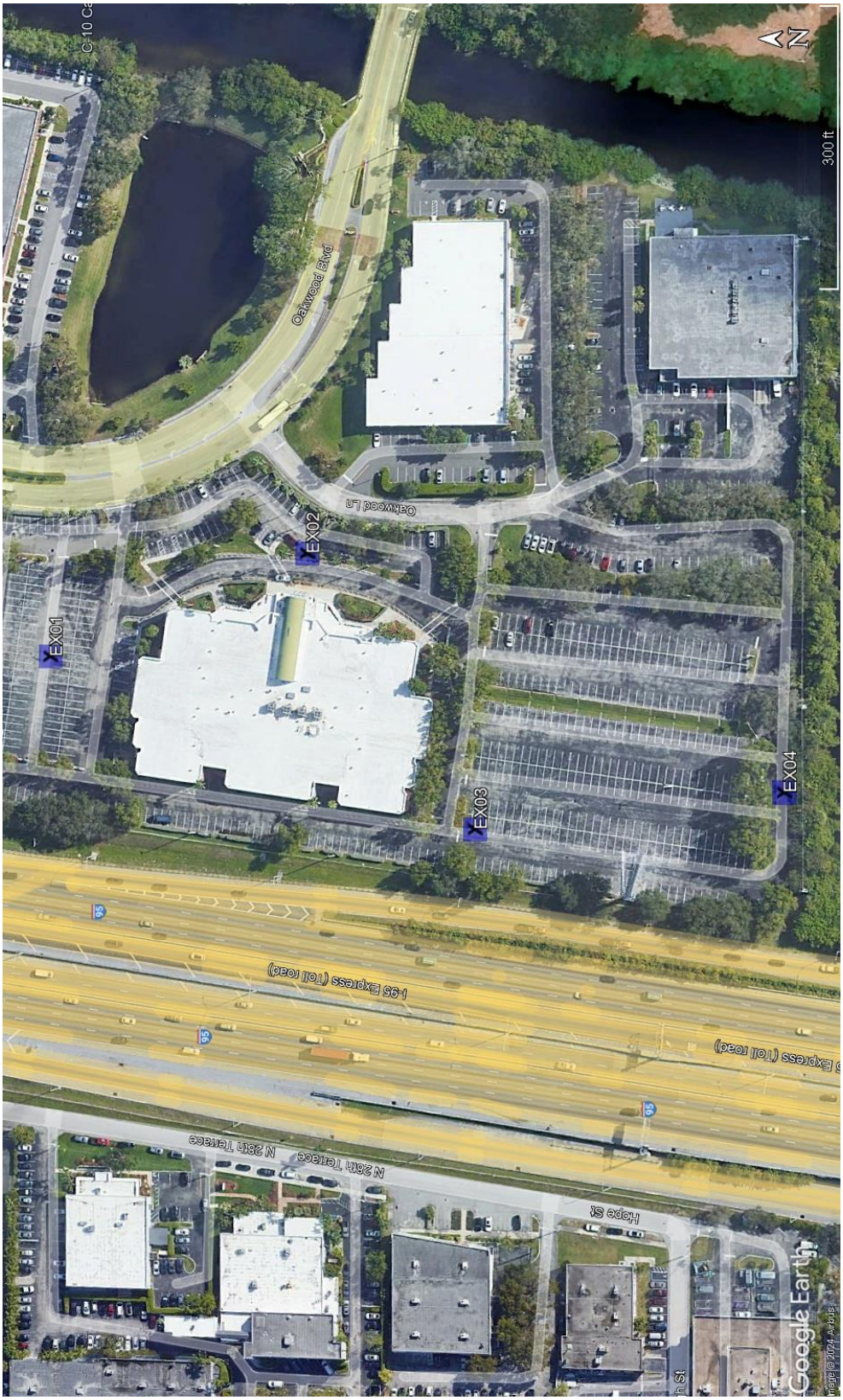
This item has been digitally signed and sealed by [Alberto J. Mercado] on the date adjacent to the seal.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Attachments:
Figure 1 – Test Location Plan
Hydraulic Conductivity Test Results
Test Logs

FIGURE 1 – TEST LOCATION PLAN

OAKWOOD PLAZA SOUTH
HOLLYWOOD, FL
UES PROJECT NO. 0630.2400048.0000



Legend:
Exfiltration Test

NOTE: BORING LOCATIONS WERE LOCATED USING A MEASURING TAPE AND EXISTING LANDMARKS AS REFERENCE POINTS. IN ADDITION, THE LATITUDE, LONGITUDE, AND ELEVATION NOTED ON THE BORING LOGS WERE TAKEN FROM GOOGLE EARTH. THEREFORE, LOCATIONS SHOWN ON THE PLAN ARE APPROXIMATE.

HYDRAULIC CONDUCTIVITY TEST RESULTS

Project name: Oakwood Plaza South

Project number: 0630.2400048.0000

Date: 4/30/2024

SFWMD USUAL Open Hole Formula:

$$K = \frac{4Q}{\pi d(2H_2^{\,2} + 4H_2D_s + H_2d)}$$

Exfiltration Number	First volume of water reading (after stabilization)	Final volume of water reading	Elapsed time	Average flow rate at constant head Q	Average flow rate at constant head Q*0.00223	Perforated casing diameter or hole diameter (d)	Water table H_2	Total length of bore hole	Length of bore hole below stabilized ground water (Ds)	Hydraulic Conductivity (K)
	gallon	gallon	min.	gallon/minute	ft^3/sec	ft	ft	ft	ft	ft^3/sec/ft^2 - ft of head
EX-1	**0.0**	**400.0**	8	50.00	0.1115	0.25	**6.3**	**10.0**	3.8	**3.3E-03**
EX-2	**0.0**	**148.0**	10	14.80	0.0330	0.25	**6.3**	**10.0**	3.7	**9.6E-04**
EX-3	**0.0**	**114.0**	10	11.40	0.0254	0.25	**5.6**	**10.0**	4.4	**8.0E-04**
EX-4	**0.0**	**145.0**	10	14.50	0.0323	0.25	**5.2**	**10.0**	4.8	**1.1E-03**

UES
1215 Wallace Drive
Delray Beach, FL 33444
561-347-0070
561-395-5805

BORING NUMBER EX01

CLIENT Kimley-Horn & Associates, Inc.
PROJECT NAME Oakwood Plaza South
PROJECT NUMBER 0630.2400048.0000
PROJECT LOCATION 2800 Oakwood Blvd., Hollywood, FL 33020
DATE STARTED 4/30/24 **COMPLETED** 4/30/24
LATITUDE 26.037366 **LONGITUDE** -80.162736
DRILLING CONTRACTOR Dancor
GROUND WATER LEVELS:
DRILLING METHOD Auger Boring
▽ **AT TIME OF DRILLING** 6.25 ft / Elev -0.25 ft
LOGGED BY Pablo Estrada **CHECKED BY** Alberto Mercado
AT END OF ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	
0.0			1" of asphalt atop, light brown, fine to medium grained SAND (SP) with LIMESTONE fragmnets.	
0.8	5.0			5.2
			Dark brown, fine to medium grained SAND (SP) with trace of limestone fragments.	
1.4				4.6
2.5	2.5		Brown-light brown, fine to medium grained SAND (SP) with trace of shell and limestone fragments.	
5.0	0.0		▽	
7.5	-2.5			
10.0				-4.0
10.0			Bottom of borehole at 10.0 feet.	

UES
1215 Wallace Drive
Delray Beach, FL 33444
561-347-0070
561-395-5805

BORING NUMBER EX02

CLIENT Kimley-Horn & Associates, Inc.
PROJECT NAME Oakwood Plaza South
PROJECT NUMBER 0630.2400048.0000
PROJECT LOCATION 2800 Oakwood Blvd., Hollywood, FL 33020
DATE STARTED 4/30/24 **COMPLETED** 4/30/24
LATITUDE 26.0366 **LONGITUDE** -80.162376
DRILLING CONTRACTOR Dancor
GROUND WATER LEVELS:
DRILLING METHOD Auger Boring
▽ **AT TIME OF DRILLING** 6.33 ft / Elev -0.33 ft
LOGGED BY Pablo Estrada **CHECKED BY** Alberto Mercado
AT END OF ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	
0.0			1" of asphalt atop, light brown, fine to medium grained SAND (SP) with LIMESTONE fragments.	
	5.0			
			1.2	4.8
			Brown-dark brown, fine to medium grained SAND (SP) with trace of roots.	
2.5				
	2.5			
			4.0	2.0
			Light brown, fine to medium grained SAND (SP) with trace of shell fragments.	
5.0				
	0.0		▽	
7.5				
	-2.5			
			9.0	-3.0
			Light brown, fine to medium grained SAND (SP) with LIMESTONE fragments.	
10.0			10.0	-4.0

Bottom of borehole at 10.0 feet.

UES
1215 Wallace Drive
Delray Beach, FL 33444
561-347-0070
561-395-5805

BORING NUMBER EX03

CLIENT Kimley-Horn & Associates, Inc.
PROJECT NAME Oakwood Plaza South
PROJECT NUMBER 0630.2400048.0000
PROJECT LOCATION 2800 Oakwood Blvd., Hollywood, FL 33020
DATE STARTED 4/30/24 **COMPLETED** 4/30/24
LATITUDE 26.036083 **LONGITUDE** -80.163265
DRILLING CONTRACTOR Dancor
GROUND WATER LEVELS:
DRILLING METHOD Auger Boring
▽ **AT TIME OF DRILLING** 5.58 ft / Elev -0.58 ft
LOGGED BY Pablo Estrada **CHECKED BY** Alberto Mercado
AT END OF ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0	5.0		2" of asphalt atop, LIMESTONE fragments with SAND.
0.8	4.3		Light brown, fine to medium grained SAND (SP) with trace of shell fragments.
2.5	2.5		
5.0	0.0		▽
7.5	-2.5		
8.0	-3.0		Light brown, fine to medium grained SAND (SP).
10.0	-5.0		Bottom of borehole at 10.0 feet.

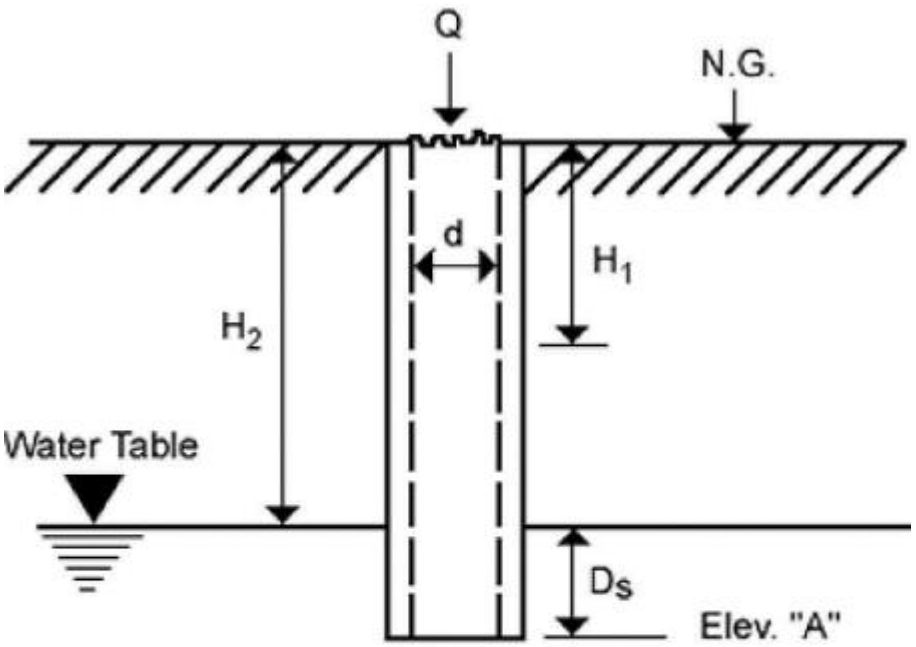
UES
1215 Wallace Drive
Delray Beach, FL 33444
561-347-0070
561-395-5805

BORING NUMBER EX04

CLIENT Kimley-Horn & Associates, Inc.
PROJECT NAME Oakwood Plaza South
PROJECT NUMBER 0630.2400048.0000
PROJECT LOCATION 2800 Oakwood Blvd., Hollywood, FL 33020
DATE STARTED 4/30/24 **COMPLETED** 4/30/24
LATITUDE 26.035196 **LONGITUDE** -80.163114
DRILLING CONTRACTOR Dancor
GROUND WATER LEVELS:
DRILLING METHOD Auger Boring
▽ **AT TIME OF DRILLING** 5.17 ft / Elev -0.17 ft
LOGGED BY Pablo Estrada **CHECKED BY** Alberto Mercado
AT END OF ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION
0.0	5.0		1" of asphalt atop, light brown, fine to medium grained SAND (SP) with LIMESTONE fragments.
1.0	4.0		Dark brown-brown, fine to medium grained SAND (SP).
2.5	2.5		
3.0	2.0		Light brown, fine to medium grained SAND (SP) with trace of shell fragments.
5.0	0.0		▽ Light brown, fine to medium grained SAND (SP) with LIMESTONE fragments.
7.5	-2.5		
10.0	-5.0		Bottom of borehole at 10.0 feet.

USUAL OPEN-HOLE TEST



$$K = \frac{4Q}{\pi d (2H_2^2 + 4H_2D_S + H_2d)}$$

K = Hydraulic Conductivity (cfs/ft.² – ft. head)

Q = "Stabilized" Flow Rate (cfs)

d = Diameter of Test Hole (ft)

H_2 = Depth to Water Table (ft)

D_S = Saturated Hole Depth (ft)

Elev. "A" = Proposed Trench Bottom Elev. (ft – NGVD)

H_1 = Average Head on Unsaturated Hole Surface (ft. head)

APPENDIX D

Property Appraiser Summary Report

Site Address	2908-2914 OAKWOOD BOULEVARD, HOLLYWOOD FL 33020
Property Owner	OAKWOOD PLAZA LP
Mailing Address	% KIMCO REALTY CORP TAX DEPT 500 NORTH BROADWAY #201 JERICHO NY 11753

ID #	5142 04 12 0620
Millage	0513
Use	11-03

Abbr Legal Description	OAKWOOD HILLS 120-45 B TRACT E,LESS AREA'S A THRU J & LESS COM SW COR TR E,NLY 1309.83 SE 26.11 TO POB N 81.66,NE 21.58 SE 110.93,SLY ARC DIST 15.71,SW 91,NW 130.50 TO POB & LESS COMM NW COR TR E,SW 821.34,SE 41.09 TO POB SE 100,SW 80,NW 100,NE 80 TO POB

The just values displayed below were set in compliance with Sec. 193.011, Fla. Stat., and include a reduction for costs of sale and other adjustments required by Sec. 193.011(8).

* 2024 values are considered "working values" and are subject to change.

Property Assessment Values

Year	Land	Building / Improvement	Just / Market Value	Assessed / SOH Value	Tax
2024*	$5,185,150	$6,406,640	$11,591,790	$11,584,410	
2023	$5,185,150	$5,346,140	$10,531,290	$10,531,290	$229,246.36
2022	$5,185,150	$5,346,140	$10,531,290	$10,531,290	$224,930.65

2024* Exemptions and Taxable Values by Taxing Authority

	County	School Board	Municipal	Independent
Just Value	$11,591,790	$11,591,790	$11,591,790	$11,591,790
Portability	0	0	0	0
Assessed/SOH	$11,584,410	$11,591,790	$11,584,410	$11,584,410
Homestead	0	0	0	0
Add. Homestead	0	0	0	0
Wid/Vet/Dis	0	0	0	0
Senior	0	0	0	0
Exempt Type	0	0	0	0
Taxable	$11,584,410	$11,591,790	$11,584,410	$11,584,410

Sales History

Date	Type	Price	Book/Page or CIN
11/22/1993	SW*	$4,597,000	21453 / 752

* Denotes Multi-Parcel Sale (See Deed)

Land Calculations

Price	Factor	Type
$7.00	739,936	SF
$7.00	800	OA
Adj. Bldg. S.F. (Card, Sketch)		17949
Eff./Act. Year Built: 1997/1996		

Special Assessments

Fire	Garb	Light	Drain	Impr	Safe	Storm	Clean	Misc
05								
C								
17949								

APPENDIX E

Warranty Deeds

93-546849 T£001
12-01-93 10:17PM

$ 32179.00
DOCU. STAMPS-DEED

RECVD.BROWARD CTY
B.JACK OSTERHOLT

COUNTY ADMIN.

TRS:cmo
November 19, 1993
c:\deeds\specwarr.sfa

Prepared By, Record and ~~Return~~ To:
Theodore R. Stotzer, Esq.
Michael Swerdlow Companies, Inc.
200 South Park Road, Suite 200
Hollywood, Florida 33021

SPECIAL WARRANTY DEED

THIS SPECIAL WARRANTY DEED made this 22nd day of November, 1993, by STS LAND ASSOCIATES, L.P., a Delaware limited partnership, having its principal place of business at 200 South Park Road, Suite 200, Hollywood, Florida, 33021, hereinafter called the GRANTOR, to SFA ATLANTIS ASSOCIATES, L.P., a Delaware limited partnership, whose post office address is 200 South Park Road, Suite 200, Hollywood, Florida, 33021, hereinafter called the GRANTEE:

(Wherever used herein the terms "grantor" and "grantee" include all the parties to this instrument and the heirs, legal representatives and assigns of individuals, and the successors and assigns of corporations)

WITNESSETH, That the GRANTOR, for and in consideration of the sum of TEN AND NO/100 ($10.00) DOLLARS and other valuable considerations paid, receipt of which is hereby acknowledged, by these presents does grant, bargain, sell, alien, remise, release, convey and confirm unto the GRANTEE, all that certain land situate in Broward County, Florida, viz:

For a complete description of the land being conveyed hereby reference is hereby made to EXHIBIT "A" attached hereto and made a part hereof for all purposes ("Property").

Property Tax Folio Nos.: 1204-12-059
1204-12-060
1204-12-061
1204-12-062
1204-12-062.5
1204-12-062.6
1204-12-057

Grantee's Tax I.D. No. 65-0079411

This conveyance is SUBJECT TO zoning, restrictions, prohibitions and other requirements imposed by governmental authority; restrictions and other matters appearing on the plat or otherwise common to the subdivision; easements of record; taxes and assessments for the year of conveyance and subsequent years; existing mortgage(s) of record; conditions, restrictions, reservations, limitations, contracts, leases, agreements and other undertakings of record or, if not of record, then which bind the Property and/or the titleholder and its interests in the Property and/or run with or are intended to run with the title to the Property.

TOGETHER with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

TO HAVE AND TO HOLD, the same unto the said GRANTEE in fee simple.

AND with respect to all persons claiming by, through or under the GRANTOR, but none other, the GRANTOR hereby covenants with said GRANTEE that the GRANTOR

RETURN TO: LAWYERS TITLE INSURANCE CORP.

BK21453PG0752

is lawfully seized of said land in fee simple and that the GRANTOR has good right and lawful authority to sell and convey said land and that the GRANTOR hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons claiming by, through or under the said GRANTOR, but against none other, and that said land is free of all encumbrances except as above noted.

IN WITNESS WHEREOF, the GRANTOR has caused these presents to be executed in its name, by its proper officers thereunto duly authorized, the day and year first above written.

Signed, sealed and delivered
in the presence of:

STS LAND ASSOCIATES, L.P.
By: Hollywood STS Associates, L.P.,
Its general partner
By: Hollywood, Inc. (Del.)
Its general Partner

C Harrison
Name: C HARRISON

By: _____
Michael Swerdlow, President
200 South Park Road, Suite 200
Hollywood, Florida 33021

Celeste M. Orlins
Name: Celeste M. Orlins

Attest: _____
Theodore R. Stotzer, Secretary
200 South Park Road, Suite 200
Hollywood, Florida 33021

(Corporate Seal)

STATE OF FLORIDA)
)
COUNTY OF BROWARD)

I HEREBY CERTIFY, that on this day, before me personally appeared MICHAEL SWERDLOW and THEODORE R. STOTZER, President and Secretary, respectively, of Hollywood, Inc. (Del.), as the general partner of Hollywood STS Associates, L.P., as the general partner of STS Land Associates, L.P., a Delaware limited partnership, on behalf of said limited partnership. They have executed the foregoing instrument and are personally known to me or have produced _____, and _____, respectively, as identification and did not take an oath.

WITNESS my hand and official seal this 22nd day of November, 1993, at the County and State aforesaid.

Celeste M. Orlins
NOTARY PUBLIC
Name: Celeste M. Orlins
My Commission Expires:

(Notary Seal)

CELESTE M. ORLINS
MY COMMISSION # CC 214644 EXPIRES
August 24, 1996
BONDED THRU TROY FAIN INSURANCE, INC.

BK21453PG0753

EXHIBIT "A"

Reference No. 31 a) Property:

That portion of Tract "E", OAKWOOD HILLS, according to the Plat thereof recorded in Plat Book 120, page 45, of the Public Records of Broward County, Florida, being more particularly described as follows:

Commencing at the Southeast corner of said Tract "E"; thence, N. 11° 34' 01" E. along the East line of said Tract "E" (plat bearing) 1800.62 feet to the Point of Beginning; thence N. 78° 25' 59" W. 185.34 feet; thence, S. 56° 34' 01" W. 56.57 feet; thence, S. 11° 34' 01" W. 80.08 feet; thence, S. 56° 34' 01" W. 213.02 feet to the point of curvature of a 100.00 foot radius curve concave Southerly; thence, Northwesterly and Southwesterly along said curve, through a central angle of 129° 49' 05", an arc distance of 226.58 feet; thence, S. 11° 34' 01" W. 175.00 feet to a point of curvature of a 100.00 foot radius curve concave Northeasterly; thence, Southeasterly along said curve, through a central angle of 52° 07' 39", an arc distance of 90.98 feet to a point of reverse curvature with a 45.00 foot radius curve concave Southwesterly; thence, Southeasterly along said curve, through a central angle of 57° 25' 00", an arc distance of 45.09 feet; thence, S. 18° 51' 22" W. 317.20 feet to the point of curvature of a 365.00 foot radius curve concave Northeasterly; thence, Southeasterly along said curve, through a central angle of 50° 13' 30", an arc distance of 319.96 feet; thence, S. 07° 58' 53" W. 33.01 feet; thence, S. 49° 15' 54" W. 9.91 feet to the point of curvature of a 175.00 foot radius curve concave Southeasterly; thence, Southwesterly along said curve, through a central angle of 50° 48' 44", an arc distance of 155.20 feet; thence, S. 01° 32' 49" E. 148.49 feet; thence, S. 88° 27' 11" W. 37.50 feet; thence, S. 01° 32' 49" E. 125.00 feet; thence, N. 88° 27' 11" E. 62.50 feet; thence, S. 01° 32' 49" E. 182.50 feet to the South line of said Tract "E"; thence, S. 88° 27' 11" W. along said South line 449.41 feet to the West line of said Tract "E"; thence, N. 06° 21' 05" E. along said West line 1993.14 feet to the North line of said Tract "E"; thence, N. 88° 32' 24" E. along said North line 960.10 feet to the East line of said Tract "E"; thence, S. 11° 34' 01" W. along said East line 224.99 feet to the Point of Beginning.

Said lands situate, lying and being in Broward County, Florida.

Tax Folio No. 1204-12-062

EXHIBIT "A"

Reference No. 31 b) Property:

That portion of Tract "E", OAKWOOD HILLS, according to the Plat thereof recorded in Plat Book 120, page 45, of the Public Records of Broward County, Florida, being more particularly described as follows:

Commencing at the Southeast corner of said Tract "E"; thence, N. 11° 34' 01" E. along the East line of said Tract "E", 532.00 feet to the Point of Beginning; thence, N. 78° 25' 59" W. 171.00 feet to the point of curvature of a 250.00 foot radius curve concave Northeasterly; thence, Northwesterly along said curve, through a central angle of 36° 52' 11", an arc distance of 160.87 feet to a point of compound curvature of a 285.00 foot radius curve concave Northeasterly; thence, Northwesterly along said curve, through a central angle of 38° 54' 52", an arc distance of 193.57 feet; thence, N. 84° 34' 01" E. 102.97 feet; thence, S. 78° 25' 59" E. 327.80 feet to the East line of said Tract "E"; thence, S. 11° 34' 01" W. along said East line, 238.11 feet to the Point of Beginning.

Said lands situate, lying and being in Broward County, Florida.

Tax Folio No. 1204-12-062.5

EXHIBIT "A"

Reference No. 31 c) Property:

That portion of Tract "E", OAKWOOD HILLS, according to the Plat thereof recorded in Plat Book 120, page 45, of the Public Records of Broward County, Florida, being more particularly described as follows:

Commencing at the Southeast corner of said Tract "E"; thence, N. 11° 34' 01" E. along the Easterly line of said Tract "E" (plat bearing) 445.00 feet to the Point of Beginning; thence, continue N. 11° 34' 01" E. along said Easterly line 87.00 feet; thence, N. 78° 25' 59" W. 171.00 feet to a point of curvature of a curve concave Northeasterly; thence, Northwesterly along said curve, having a radius of 250.00 feet, a central angle of 36° 52' 11", an arc distance of 160.87 feet to a point of compound curvature; thence, Northwesterly along a curve concave Northeasterly, having a radius of 285.00 feet, a central angle of 58° 25' 09", an arc distance of 290.59 feet; thence, N. 16° 51' 22" E. 327.23 feet to a point of curvature of a curve concave Southeasterly; thence, Northeasterly along said curve, having a radius of 45.00 feet, a central angle of 50° 39' 45", an arc distance of 39.79 feet to a point of reverse curvature; thence, Northeasterly along said curve, concave Northwesterly, having a radius of 100.00 feet, a central angle of 55° 57' 06", an arc distance of 97.65 feet; thence, N. 11° 34' 01" E. 175.00 feet to a point of curvature of a curve concave Southerly; thence, Northwesterly along said curve, having a radius of 100.00 feet, a central angle of 180° 00' 00", an arc distance of 314.16 feet; thence, S. 11° 34' 01" W. 175.00 feet to a point of curvature of a curve concave Northeasterly; thence, Southeasterly along said curve, having a radius of 100.00 feet, a central angle of 52° 07' 39", an arc distance of 90.98 feet to a point of reverse curvature; thence, Southeasterly along a curve concave Southwesterly, having a radius of 45.00 feet, a central angle of 57° 25' 00", an arc distance of 45.09 feet; thence, S. 16° 51' 22" W. 317.20 feet to a point of curvature of a curve concave Easterly; thence, Southeasterly along said curve, having a radius of 365.00 feet, a central angle of 50° 13' 30", an arc distance of 319.96 feet; thence, S. 07° 58' 53" W. 33.01 feet; thence, S. 49° 15' 54" W. 9.91 feet to a point of curvature of a curve concave Southeasterly; thence, Southwesterly along said curve, having a radius of 175.00 feet, a central angle of 50° 48' 43", an arc distance of 155.20 feet; thence, S. 01° 32' 49" E. 148.49 feet; thence, S. 88° 27' 11" W. 37.50 feet; thence, S. 01° 32' 49" E. 125.00 feet; thence, N. 88° 27' 11" E. 125.00 feet; thence, N. 01° 32' 49" W. 125.00 feet; thence, S. 88° 27' 11" W. 37.50 feet; thence, N. 01° 32' 49" W. 148.49 feet to a point of curvature of a curve concave Southeasterly; thence, Northeasterly along said curve, having a radius of 125.00 feet, a central angle of 58° 32' 17", an arc distance of 123.35 feet to a point of non-tangency; thence, S. 86° 35' 30" E. 31.07 feet to a point on a non-tangent curve concave Northeasterly (radial to said point bears S. 41° 49' 31" W.); thence, Southeasterly along said curve, having a radius of 365.00 feet, a central angle of 30° 15' 30", an arc distance of 192.76 feet; thence, S. 78° 25' 59" E. 150.00 feet to the Point of Beginning.

Said lands situate, lying and being in Broward County, Florida.

Tax Folio No. 1204-12-062.6

EXHIBIT "A"

Reference No. 58 Property:

A portion of Tract "A", OAKWOOD HILLS, according to the Plat thereof recorded in Plat Book 120, page 45, of the Public Records of Broward County, Florida, together with a portion of Lots 13 and 14 and the S. 1/2 of the alley adjacent to said Lots 13 and 14, Block 42, LIBERIA, according to the Plat thereof recorded in Plat Book 1, page 34, of the Public Records of Broward County, Florida, all being more particularly described as follows:

Beginning at the Northwest corner of said Tract "A", said corner also being a point on the arc of a curve whose center bears on a plat bearing of S. 65° 58' 13" W. from said point; thence, along the boundary of said Tract "A" and its extension for the following seven (7) courses: (1) run Southeasterly along said arc to the right, having a radius of 802 feet and a central angle of 05° 21' 15", an arc distance of 74.94 feet; (2) run S. 08° 13' 18" E. along a non-tangent line 100 feet to a point on the arc of a curve whose center bears S. 78° 28' 30" W. from said point; (3) run Southeasterly along said arc to the right, being concentric with said 802 foot radius curve, having a radius of 790 feet and having a central angle of 06° 07' 13", an arc distance of 84.39 feet; (4) run S. 48° 24' 50" E. along a non-tangent line 47.75 feet; (5) run N. 88° 34' 37" E. 163.52 feet; (6) run N. 01° 47' 58" W. 61.36 feet; (7) run N. 88° 22' 12" E. 40 feet; thence, run N. 04° 30' 29" E. 318.20 feet to a point on the North line of said Tract "A"; thence, along the boundary of Tract "A" the following three (3) courses: (1) run S. 88° 34' 37" W. 47.60 feet to a point of curvature; (2) run Westerly along the arc of a curve to the left, having a radius of 375 feet and a central angle of 26° 53' 50", an arc distance of 176.04 feet to a point of tangency; (3) run S. 61° 40' 47" W. 113.67 feet to the Point of Beginning; said lands situate, lying and being in Broward County, Florida.

Tax Folio No. 1204-12-057

EXHIBIT "A"

REFERENCE NO. 74 PROPERTY:

Tract "C" of OAKWOOD HILLS, according to the Plat thereof, recorded in Plat Book 120, Page 45, of the Public Records of Broward County, Florida; said lands situate, lying and being in Broward County, Florida.

Tax Folio No. 1204 12 059 (Tract "C")

Together with the Easterly Half of that portion of North 26th Avenue vacated by Official Records Book 20553, Page 369 and by instrument recorded in Official Records Book 20603, Page 366, of Broward County, Florida, contiguous to the above described Parcel.

LESS AND EXCEPT THE FOLLOWING LEGAL DESCRIPTION:

A portion of Tract "C", OAKWOOD HILLS, according to the Plat thereof, as recorded in Plat Book 120, Page 45, of the Public Records of Broward County, Florida, more particularly described as follows:
(As per Warranty Deed recorded in Official Records Book 20062, Page 729):

BEGINNING at the Southwest corner of Tract "C", said corner being on the East right-of-way l of N. 26th Avenue, said corner being on the arc of a curve concave to the East having a radi of 698.00 feet (a radial line to said point bears South 85°52'02" West); thence Northerly ar Northeasterly along the arc of said curve and said East right-of-way line, through a central angle of 12°03'07" and an arc length of 146.82 feet; thence North 85°15'20" East, a distanc 221.11 feet to a point on the East line of said Tract "C"; thence South 07°50'52" West alon said East line of Tract "C", a distance of 113.75 feet; thence South 04°07'58" East along a East line, a distance of 36.83 feet; thence South 85°52'02" West along the South line of sa Tract "C", a distance of 212.87 feet to the POINT OF BEGINNING.

Said lands situate, lying and being in Broward County, Florida.

TOGETHER WITH AND INCLUDING:

Tract "D" of OAKWOOD HILLS, according to the Plat thereof, recorded in Plat Book 120, Page of the Public Records of Broward County, Florida; said lands situate, lying and being in Broward County, Florida.

Tax Folio No. 1204 12 060 (Tract "D")

Together with the Northeasterly Half of that portion of North 26th Avenue vacated by Offici Records Book 20553, Page 369 and by instrument recorded in Official Records Book 20603, Pag 366, of Broward County, Florida, contiguous to the above described Parcel.

AND

Tract "DD" of OAKWOOD HILLS, according to the Plat thereof, recorded in Plat Book 120, Page of the Public Records of Broward County, Florida; said lands situate, lying and being in Broward County, Florida.

Tax Folio No. 1204 12 061 (Tract "DD")

Together with the Southerly Half of that portion of North 26th Avenue vacated by Official Records Book 20553, Page 369 and by instrument recorded in Official Records Book 20603, Pa 366, of Broward County, Florida, contiguous to the above described Parcel.

LESS AND EXCEPT THEREFROM: (PORTIONS OF "C", "D", AND "DD", OAKWOOD HILLS)

LAND DESCRIPTION
A PORTION OF TRACT "C", TRACT "D" AND TRACT "DD", "OAKWOOD HILLS", ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 120, PAGE 45 OF THE PUBLIC RECORDS OF BROWARD COUNTY, FLORIDA AND A PORTION OF NORTH 26TH AVENUE (NOW VACATED BY RESOLUTION RECORDED IN OFFICIAL RECORDS BOOK 20603, PAGE 366, PUBLIC RECORDS OF BROWARD COUNTY, FLORIDA), MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SAID TRACT "D", THENCE ALONG THE EAST LINE OF SAID TRACT "D", NORTH 26TH AVENUE AND TRACT "DD", SOUTH 01° 43' 39" EAST, A DISTANCE OF 666.86 FEET; THENCE CONTINUE ALONG THE EAST LINE OF SAID TRACT "DD", SOUTH 02° 02' 18" EAST, A DISTANCE OF 339.06 FEET; THENCE ALONG THE SOUTH LINE OF SAID TRACT "DD", SOUTH 88° 08' 42" WEST, A DISTANCE OF 364.92 FEET; THENCE CONTINUE SOUTH 88° 08' 42" WEST, A DISTANCE OF 150.75 FEET; THENCE NORTH 33° 24' 29" WEST, A DISTANCE OF 216.97 FEET TO A POINT ON THE WEST LINE OF SAID TRACT "D", THENCE ALONG SAID WEST LINE, NORTH 11° 34' 23" EAST, A DISTANCE OF 87.90 FEET; THENCE CONTINUE ALONG SAID WEST LINE, NORTH 30° 07' 05" EAST, A DISTANCE OF 866.14 FEET; THENCE ALONG THE NORTH LINE OF SAID TRACT "D", NORTH 87° 59' 58" EAST, A DISTANCE OF 151.19 FEET TO THE POINT OF BEGINNING.

SAID LANDS LYING THE THE CITY OF HOLLYWOOD, BROWARD COUNTY, FLORIDA, CONTAINING 10.045 ACRES, MORE OR LESS.

AND LESS AND EXCEPT THEREFROM: (PORTION OF TRACT "E", OAKWOOD HILLS)

LAND DESCRIPTION:
A PORTION OF TRACT "E", "OAKWOOD HILLS," ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 120, PAGE 45 OF THE PUBLIC RECORDS OF BROWARD COUNTY, FLORIDA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID TRACT "E", THENCE ALONG THE WEST LINE OF SAID TRACT "E", NORTH 06° 21' 22" EAST, A DISTANCE OF 1311.42 FEET; THENCE SOUTH 83° 38' 38" EAST, A DISTANCE OF 423.09 FEET; THENCE SOUTH 37° 42' 35" WEST, A DISTANCE OF 17.12 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE SOUTHEAST, HAVING A RADIUS OF 277.00 FEET; THENCE SOUTHWESTERLY ALONG THE ARC OF SAID CURVE, THROUGH A CENTRAL ANGLE OF 20° 50' 51", AN ARC DISTANCE OF 100.79 FEET, THENCE SOUTH 16° 51' 44" WEST, A DISTANCE OF 214.54 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE NORTHEAST, HAVING A RADIUS OF 358.00 FEET; THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE, THROUGH A CENTRAL ANGLE OF 52° 01' 04", AN ARC DISTANCE OF 325.02 FEET; TO A POINT OF REVERSE CURVATURE OF A CURVE CONCAVE TO THE NORTHWEST, HAVING A RADIUS OF 23.00 FEET; THENCE SOUTHWESTERLY ALONG THE ARC OF SAID CURVE, THROUGH A CENTRAL ANGLE OF 84° 25' 36", AN ARC DISTANCE OF 33.89 FEET; THENCE SOUTH 49° 16' 16" WEST, A DISTANCE OF 17.49 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE SOUTHEAST, HAVING A RADIUS OF 164.00 FEET; THENCE SOUTHWESTERLY ALONG THE ARC OF SAID CURVE, THROUGH A CENTRAL ANGLE OF 50° 48' 44", AN ARC DISTANCE OF 145.44 FEET; THENCE SOUTH 01° 32' 28" EAST, A DISTANCE OF 141.22 FEET TO A POINT OF CURVATURE OF A CURVE CONCAVE TO THE NORTHWEST, HAVING A RADIUS OF 43.00 FEET; THENCE SOUTHWESTERLY ALONG THE ARC OF SAID CURVE, THROUGH A CENTRAL ANGLE OF 50° 42' 13", AN ARC DISTANCE OF 38.05 FEET TO A POINT OF REVERSE CURVATURE OF A CURVE CONCAVE TO THE NORTHEAST, HAVING A RADIUS OF 47.00 FEET; THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE, THROUGH A CENTRAL ANGLE OF 141° 00' 36", AN ARC DISTANCE OF 115.67 FEET; THENCE SOUTH 01° 36' 42" EAST, A DISTANCE OF 198.40 FEET TO A POINT ON THE SOUTH LINE OF SAID TRACT "E"; THENCE ALONG SAID SOUTH LINE, SOUTH 88° 27' 28" WEST, A DISTANCE OF 449.87 FEET TO THE POINT OF BEGINNING.

SAID LANDS LYING IN THE CITY OF HOLLYWOOD, BROWARD COUNTY, FLORIDA, CONTAINING 11.245 ACRES, MORE OR LESS.

RECORDED IN THE OFFICIAL RECORDS BOOK
OF BROWARD COUNTY, FLORIDA
COUNTY ADMINISTRATOR

BK21152PG1

APPENDIX F

Reference Materials

South Florida Water Management District

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

CON 24-06

Regulation Department
Application No.: 940909-9

FINAL APPROVED

DEC 16 1994

WPB

December 16, 1994

Oakwood Plaza
c/o Keith and Schnars
6500 North Andrews Avenue
Fort Lauderdale, FL 33309-2132

Dear Permittee:

SUBJECT: Notice of Intent to Construct Works
Modification to Permit and
Stormwater Discharge Certification No.: 06-00639-S
Permittee: OAKWOOD PLAZA
Project: OAKWOOD PLAZA SOUTH
Location: BROWARD COUNTY, S5/T51S/R42E

This letter is to notify you of the District's agency action concerning your request of September 9, 1994, to modify the above referenced Permit and Stormwater Discharge Certification. This action is taken pursuant to Rule 40E-1.606 and Chapter 40E-40, Florida Administrative Code.

Based on the information submitted which includes surface water management system design plans signed and sealed by a Florida registered Professional Engineer, a modification to the above referenced Permit and Stormwater Discharge Certification 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 Standard Limiting Conditions,

3. 10 Exhibit(s), an

4. All Special Conditions previously stipulated by Permit Number 06-00639-S remain in effect unless otherwise revised and shall apply to the above referenced project.

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 addressee (and the persons listed in the attached distribution list) no later than 5:00 p.m. this 16th day of December, 1994, in accordance with Section 120.60(3), Florida Statutes.

Sincerely,

Carlos A. de Rojas, P.E.
Supv Prof - Civil Engineer
West Palm Beach Service Center

CR/el/ld

CERTIFIED MAIL NO. Z 310 460 879
Enclosures

FORM 0537
10/87

South Florida Water Management District
GENERAL PERMIT
NOTICE OF RIGHTS

This Notice of Rights is intended to inform the recipient of the administrative and judicial review which may be available as mandated by section 120.60(3), Florida Statutes. Be advised that although this notice is intended to be comprehensive, the review procedures set forth herein have been the subject of judicial construction and interpretation which may affect the administrative of judicial review available. Recipients are therefore advised to become familiar with Chapters 120 and 373, Florida Statutes, and the judicial interpretation of the provisions of these chapters.

1. If a substantially affected person objects to the staff's recommendation, that person has the right to request an administrative hearing on the proposed agency action. The substantially affected person may request either a formal or an informal hearing, as set forth below. Failure to comply with the prescribed time periods shall constitute a waiver of the right to a hearing.

2. If a substantially affected person believes a genuine issue of material fact is in dispute, that person may request a formal hearing pursuant to section 120.57(1), Florida Statutes, by filing a petition not later than:
   a. IF NOTICE OF THE APPLICATION WAS PUBLISHED BY THE APPLICANT, within fourteen (14) days after mailing of the proposed agency action or
   b. IF NOTICE OF THE APPLICATION WAS NOT PUBLISHED, within fourteen days after receipt of actual notice.

   The request for a section 120.57(1), F.S., formal hearing must comply with the requirements of Rule 40E-1.521, Florida Administrative Code, a copy of which is attached. Petitions are deemed filed upon receipt by the District. Failure to substantially comply with the provisions of Rule 40E-1.521, Florida Administrative Code, shall constitute a waiver of the right to a 120.57(1) hearing. If a petition for administrative hearing is not timely filed, the staff's proposed agency will automatically mature into final agency action.

3. If a substantially affected person believes that no issues of material fact are in dispute, that person may request an informal hearing pursuant to section 120.57(2), F.S., by filing a petition for hearing not later than:
   a. IF NOTICE OF THE APPLICATION WAS PUBLISHED BY THE APPLICANT, within fourteen (14) days after mailing of the proposed agency action or
   b. IF NOTICE OF THE APPLICATION WAS NOT PUBLISHED, within fourteen days after receipt of actual notice.

   A request for informal hearing shall be considered as a waiver of the right to request a formal section 120.57(1), F.S., hearing. A request for a section 120.57(1), F.S., formal hearing not in substantial compliance with the provisions of rule 40E-1.521, F.A.C., may be considered by the District as a request for informal hearing. If a petition for administrative hearing is not timely filed, the staff's proposed agency action will automatically mature into final agency action.

4. Pursuant to section 373.114, Florida Statutes, 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, as provided therein. Review under this section is initiated by filing a request for review with the Land and Water Adjudicatory Commission and serving a copy on the Department of Environmental Regulation and any person named in the Order within 20 days after rendering of the District's Order. However, when the order to be reviewed has statewide or regional significance, as determined by the Land and Water Adjudicatory Commission within 60 days after receipt of a request for review, the commission may accept a request for review from any affected person within 30 days after the rendering of the order. Review under section 373.114, Florida Statutes, is limited solely to a determination of consistency with the provisions and purposes of Chapter 373, Florida Statutes. This review is appellate in nature and limited to the record below.

5. 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 in the District Court of Appeal is initiated by filing a petition in the appropriate District Court of Appeal in accordance with Florida rule of appellate Procedure 9.110. The Notice of Appeal must be filed within 30 days of the final agency action.

6. 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 without 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 component substantial evidence shall proceed in accordance with Chapter 120.

7. Please be advised that exhaustion of administrative remedies is generally a prerequisite to appeal to the District Court of Appeal or the seeking of Circuit Court review of final agency action by the District on the permit application. There are, however, exceptions to the exhaustion requirement. The applicant is advised to consult the case law as to the requirements of exhaustion exceptions.

40E-1.521 Initiation of Formal Proceedings.

(1) Initiation of formal proceedings shall be made by petition to the District. The term petition as used herein includes any application or other document which expresses a request for formal proceedings. Each petition should be printed, typewritten or other duplicated in legible form on white paper or standard legal size. Unless printed, the impression shall be on one side of the paper only and lines shall be double-spaced and indented.

(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 the District's decision or intent to render a decision;

(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 actin taken on the petition, and shall sate with particularity its reasons therefor.

(4) If a petition is filed that does not substantially comply with the requirement of subsection (2) of this section, the District shall issue an order dismissing the petition with leave to fine an amended petition complying with the requirements of this rule within the time period designated in the order. If an amended petition complying with this rule is not filed with the District Clerk within the designated time period, the petitioner's right to a processing under Section 120.57, Florida Statutes, is waived.

(5) If a valid petition is filed, with the consent of all parties and upon a showing of good cause, Board action on the petition pursuant to Section 120.57(1)(b) shall be waived. "Good cause" shall mean a set of circumstances unforeseen and outside of the control of the person requesting the waiver.

(6) When a valid petition for administrative hearing has been filed, the Board action shall defer consideration of the matter pending the completion of the administrative hearing and the submittal of a recommended order, and any exceptions to that order.

(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 120.53, 373.044, 373.113 F.S. Law Implemented 120.53(1), 120.57, 373.113 F.S. History -- New 9-3-81 Formerly 16K-1.09(1), 16K-1.112(1)--(3), 16K-1.12, Amended 5-11-83

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.

LIMITING CONDITIONS

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.

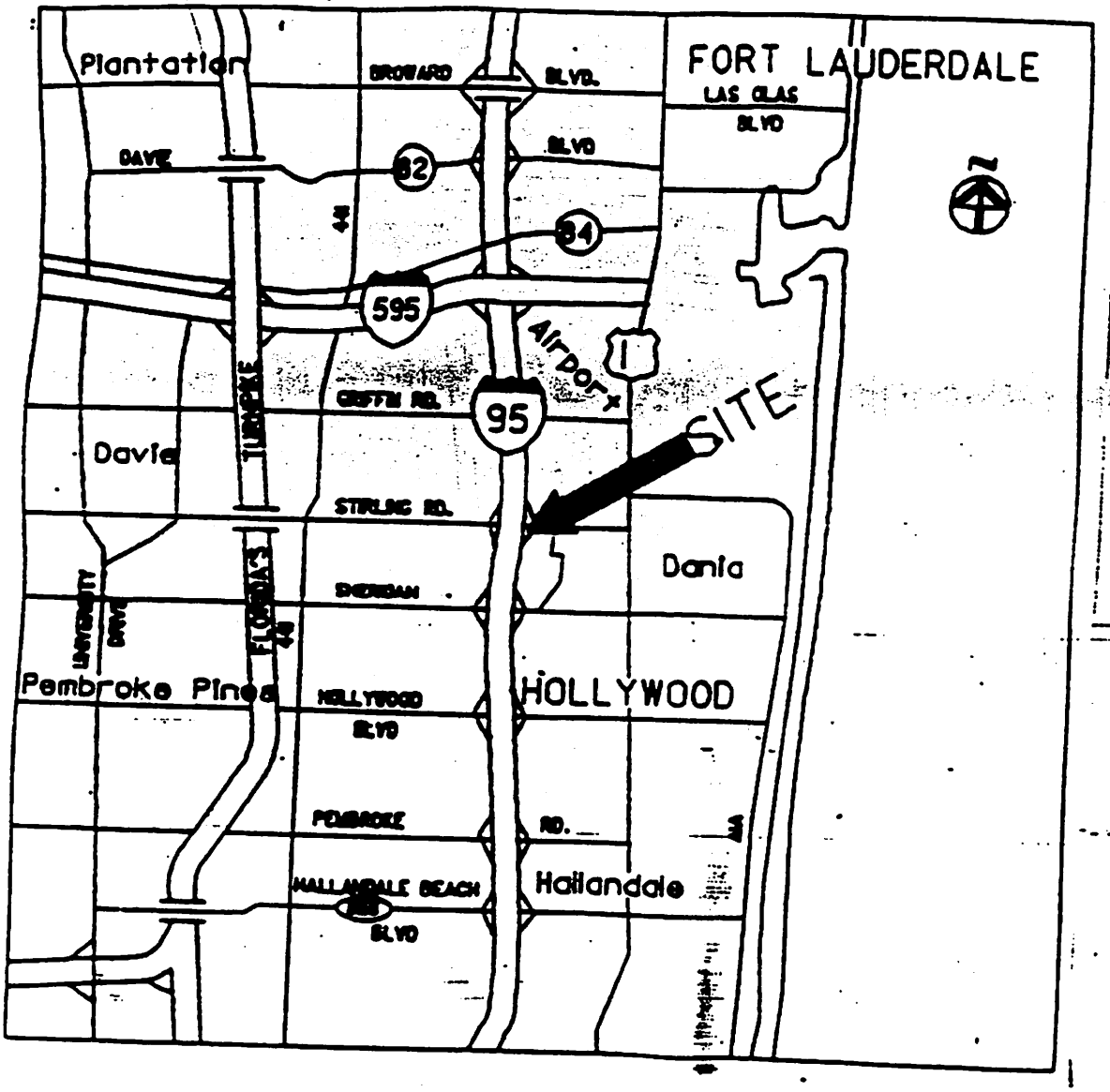
15. WITHIN 30 DAYS OF ANY SALE, CONVEYANCE OR OTHER TRANSFER OF ANY OF THE LAND WHICH IS PROPOSED FOR DEVELOPMENT UNDER THE AUTHORIZATION OF THIS PERMIT, THE PERMITTEE SHALL NOTIFY THE DISTRICT OF SUCH TRANSFER IN WRITING VIA EITHER FORM 0483, REQUEST FOR PERMIT TRANSFER; OR FORM 0920, REQUEST FOR TRANSFER 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.



LOCATION MAP

EXHIBIT 1

Keith and Schnars, P.A.

OAKWOOD PLAZA - SOUTH

CITY OF HOLLYWOOD — BROWARD COUNTY, FLORIDA

KEY MAP

SHEET No. 2
OF 45 SHEETS
PROJECT NO. 13056

EXHIBIT 2

EXHIBIT 3

OAKWOOD PLAZA - SOUTH

CITY OF HOLLYWOOD

BROWARD COUNTY, FLORIDA

PAVING, GRADING AND DRAINAGE PLAN

Keith and Schnars, P.A.

MATCH LINE - SEE SHEET 37

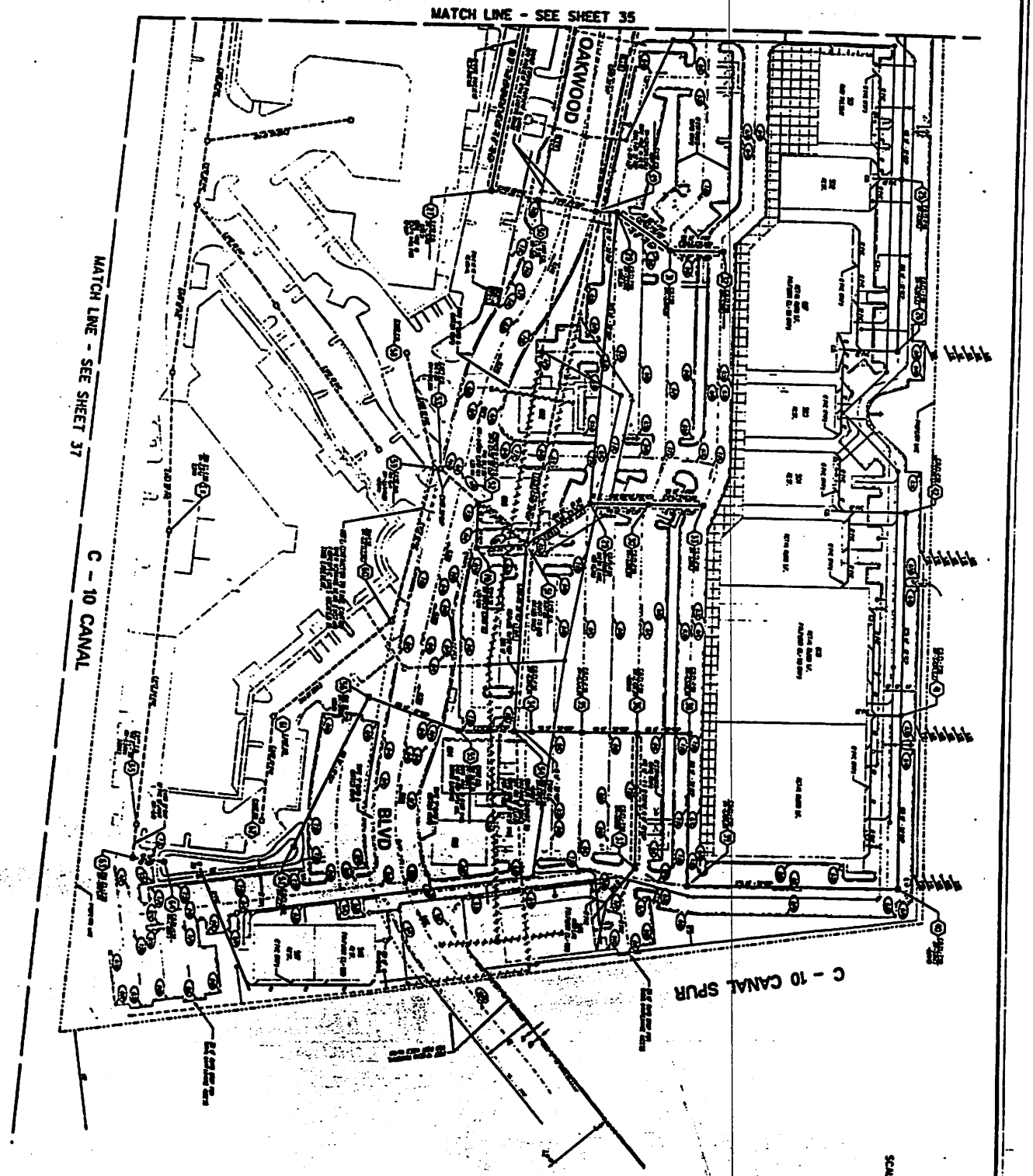
C - 10 CANAL

OAKWOOD BLVD

MATCH LINE - SEE SHEET 36

I - 95

EXHIBIT 4



OAKWOOD PLAZA – SOUTH

CITY OF HOLLYWOOD BROWARD COUNTY, FLORIDA

PAVING, GRADING AND DRAINAGE PLAN

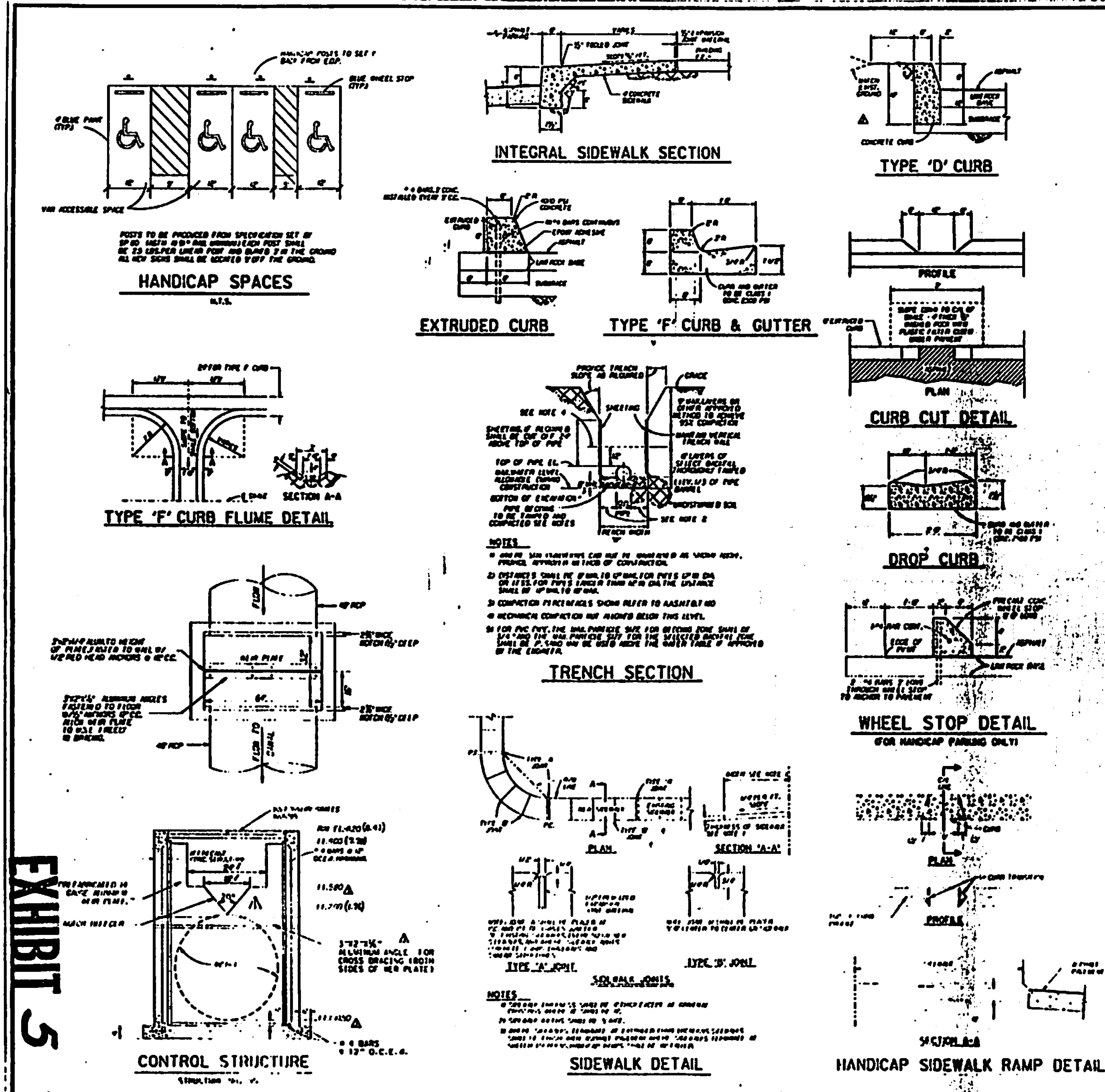
Keith and Schnars, P.A.

ENGINEERS - PLANNERS - SURVEYORS

6300 N. Andrews Ave., Ft. Lauderdale, FL. 33309-2132-(305)771-4454

SHEET NO. 36 OF 45 SHEETS

PROJECT NO. 13856



PAVING, GRADING AND DRAINAGE NOTES

1. ALL UNSUITABLE MATERIALS, SUCH AS MUCK, HARDPAN, ORGANIC MATERIAL AND OTHER DELETERIOUS MATERIAL AS CLASSIFIED BY AASHTO M 145, FOUND WITHIN THE ROAD AND PARKING LOT AREA SHALL BE REMOVED DOWN TO ROCK OR SUITABLE MATERIAL, AND REPLACED WITH THE SPECIFIED FILL MATERIAL IN MAXIMUM 8" LIFTS COMPACTED TO NOT LESS THAN 100% MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE IN ACCORDANCE WITH AASHTO T-99. THICKNESS OF LAYERS MAY BE INCREASED PROVIDED THE EQUIPMENT AND METHODS USED ARE PROVEN BY FIELD DENSITY TESTING TO BE CAPABLE OF COMPACTING THICK LAYERS TO SPECIFIED DENSITIES.

2. ALL AREAS SHALL BE CLEARED AND GRUBBED PRIOR TO CONSTRUCTION. THIS SHALL CONSIST OF THE COMPLETE REMOVAL AND DISPOSAL OF ALL TREES, BRUSH, STUMPS, ROOTS, GRASS, WEEDS, RUBBISH AND ALL OTHER OBSTRUCTION RESTING ON OR PROTRUDING THROUGH THE SURFACE OF THE EXISTING GROUND TO A DEPTH OF 1 FOOT. ITEMS DESIGNATED TO REMAIN OR TO BE RELOCATED OR TO BE ADJUSTED SHALL BE SO DESIGNATED ON THE DRAWINGS.

3. FILL MATERIAL SHALL BE CLASSIFIED AS A-1, A-3, or A-2-4 IN ACCORDANCE WITH AASHTO M 145 AND SHALL BE FREE FROM VEGETATION AND ORGANIC MATERIAL. NOT MORE THAN 12% BY WEIGHT OF FILL MATERIAL SHALL PASS THE NO. 200 SIEVE.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING CERTIFIED MATERIAL TEST RESULTS TO THE ENGINEER OF RECORD PRIOR TO THE RELEASE OF FINAL CERTIFICATION BY THE ENGINEER. TEST RESULTS MUST INCLUDE, BUT MAY NOT BE LIMITED TO, DENSITIES FOR SUBGRADE AND LIMEROCK, UTILITIES, EXCAVATION, ASPHALT GRADATION REPORTS, CONCRETE CYLINDERS, ETC.

5. ALL INLETS AND PIPE SHALL BE PROTECTED DURING CONSTRUCTION TO PREVENT SILTATION IN THE DRAINAGE SYSTEMS BY WAY OF TEMPORARY PLUGS AND PLYWOOD OR PLASTIC COVERS OVER THE INLETS. THE ENTIRE DRAINAGE SYSTEM SHALL BE CLEANED OF ALL DEBRIS PRIOR TO FINAL ACCEPTANCE.

6. WHERE NEW ASPHALT MEETS EXISTING ASPHALT, THE EXISTING ASPHALT SHALL BE SAWCUT TO PROVIDE A STRAIGHT EVEN LINE. PRIOR TO REMOVING CURB OR GUTTER, THE ADJACENT ASPHALT SHALL BE SAWCUT TO PROVIDE A STRAIGHT EVEN LINE.

7. ALL PROPOSED ELEVATIONS REFER TO FINISHED GRADES.

8. SITE GRADING ELEVATIONS SHALL BE WITHIN 0.1 FOOT OF THE REQUIRED ELEVATION AND ALL AREAS SHALL BE GRADED TO DRAIN.

9. ALL SUBGRADE SHALL HAVE AN LBR OF 40, UNLESS OTHERWISE NOTED, AND SHALL BE COMPACTED TO 100% MAXIMUM DRY DENSITY PER AASHTO T 99.

10. ALL LIMEROCK SHALL BE COMPACTED TO 98% PER AASHTO T 180 AND HAVE NOT LESS THAN 60% OF CARBONATES OF CALCIUM AND MAGNESIUM, UNLESS OTHERWISE DESIGNATED. ALL LIMEROCK SHALL BE PRIMED.

11. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI @ 28 DAYS UNLESS OTHERWISE NOTED. ALL DRAINAGE STRUCTURES SHALL [illegible] A MINIMUM CONCRETE STRENGTH OF 4,000 PSI.

12. PLASTIC FILTER FABRIC SHALL BE [illegible] OR EQUAL CONFORMING TO SECTION 985 OF THE FDOT STANDARD SPECIFICATIONS.

13. CONCRETE SIDEWALK SHALL BE 4 INCHES THICK ON COMPACTED SUBGRADE, WITH 1/2 INCH EXPANSION JOINTS PLACED AT A MAXIMUM OF 75 FEET. CRACK CONTROL JOINTS SHALL BE 5 FEET ON CENTER. THE BACK OF SIDEWALK ELEVATION SHALL EQUAL THE CROWN OF ROADWAY, UNLESS OTHERWISE SPECIFIED BY LOCAL CODES, OR SHOWN ON THE DRAWINGS. ALL CONCRETE SIDEWALKS THAT CROSS DRIVEWAYS SHALL BE 6 INCHES THICK WITH 6"x 6" [illegible] WIRE MESH REINFORCEMENT.

14. PIPE SPECIFICATIONS: THE MATERIAL TYPE IS SHOWN ON THE DRAWINGS BY ONE OF THE FOLLOWING DESIGNATIONS:

- RCP - REINFORCED CONCRETE PIPE, ASTM DESIGNATION C-76 TABLE III.
- CMP - CORRUGATED METAL [illegible], ASTM [illegible]
- CMP (SMOOTH LINED) - CORRUGATED METAL [illegible] PIPE
- SCP - SLOTTED CONCRETE PIPE, FDOT SECTIONS [illegible] 942.
- PVC - POLYVINYLCHLORIDE PIPE [illegible]
- PCMP - PERFORATED CMP, FDOT SECTION [illegible]
- DIP - DUCTILE IRON PIPE

15. ASPHALTIC CONCRETE, TYPE S-I, SHALL CONFORM TO THE REQUIREMENTS OF SECTIONS [illegible] OF FLORIDA DEPT. OF TRANSPORTATION STANDARD SPECIFICATIONS. ASPHALTIC CONCRETE TYPE S-[illegible] [illegible]

16. [illegible]

Keith and Schnars, P.A.
ENGINEERS - PLANNERS - SURVEYORS
6500 N. Andrews Ave., Ft. Lauderdale, FL 33309-2132 • (305)776-1616

REVISIONS

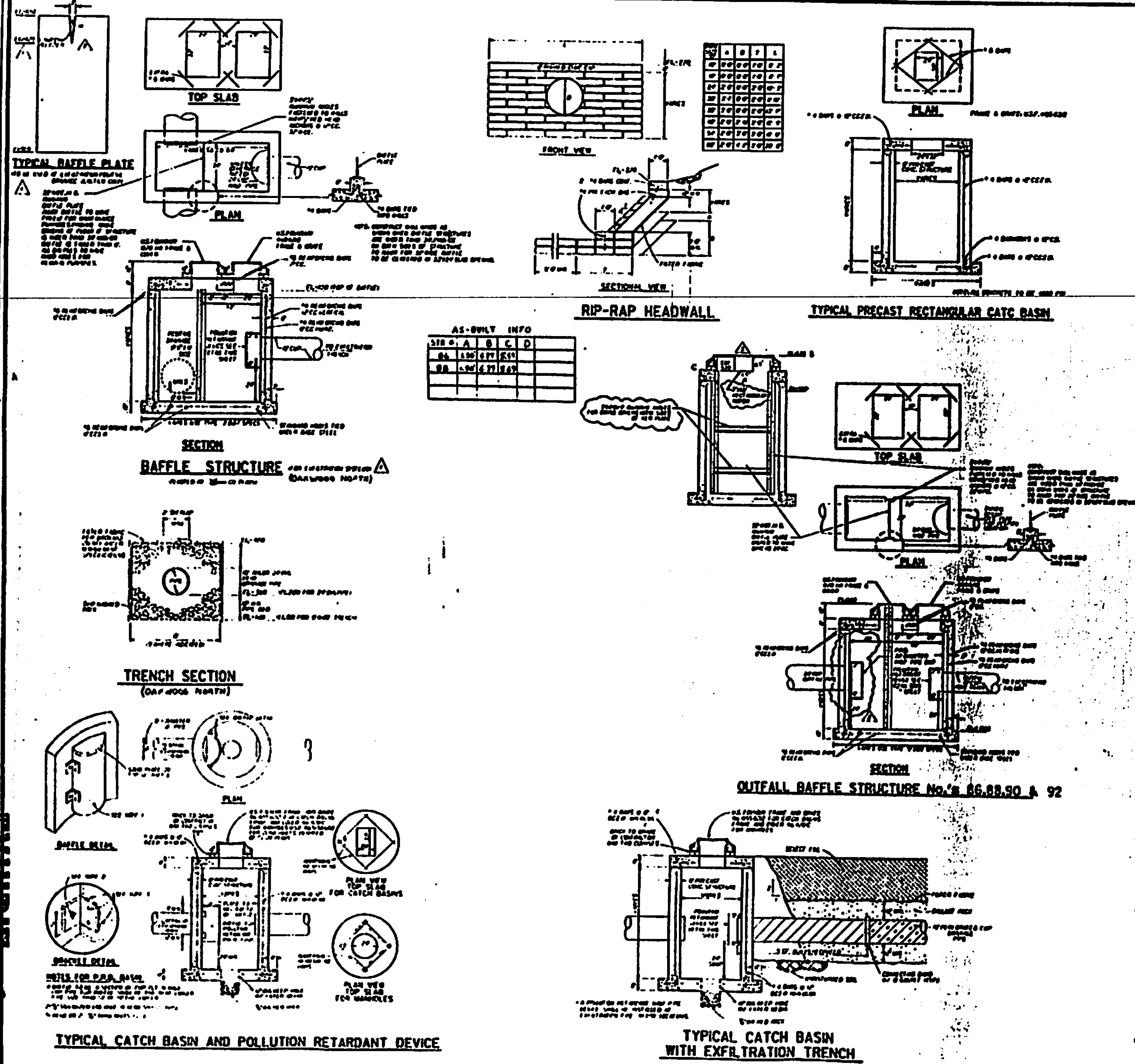
DATE	FEB. 1992
SCALE	NA
FIELD BK.	NA
DRAWN BY	T.A.
CHECKED BY	[illegible]

OAKWOOD PLAZA
BROWARD COUNTY
HOLLYWOOD, FLORIDA

PAVING AND DRAINAGE DETAILS

SHEET NO. 18
OF 34 SHEETS
PROJECT NO. 13856

EXHIBIT 6



PAVEMENT MARKING AND SIGNING NOTES

EXCAVATION NOTES

GENERAL NOTES

Keith and Schnars, P.A.
ENGINEERS • PLANNERS • SURVEYORS
6500 N. Andrews Ave., Ft. Lauderdale, Fl. 33309-2132-(305)776-1616

REVISIONS

DATE	JAN. 1993
SCALE	NA
FIELD BK.	NA
DRAWN BY	T.L.
CHECKED BY	L.I.M.

OAKWOOD PLAZA
HOLLYWOOD, FLORIDA
BROWARD COUNTY

DRAINAGE DETAILS

SHEET NO. 19
OF 34 SHEETS
PROJECT NO. 13856

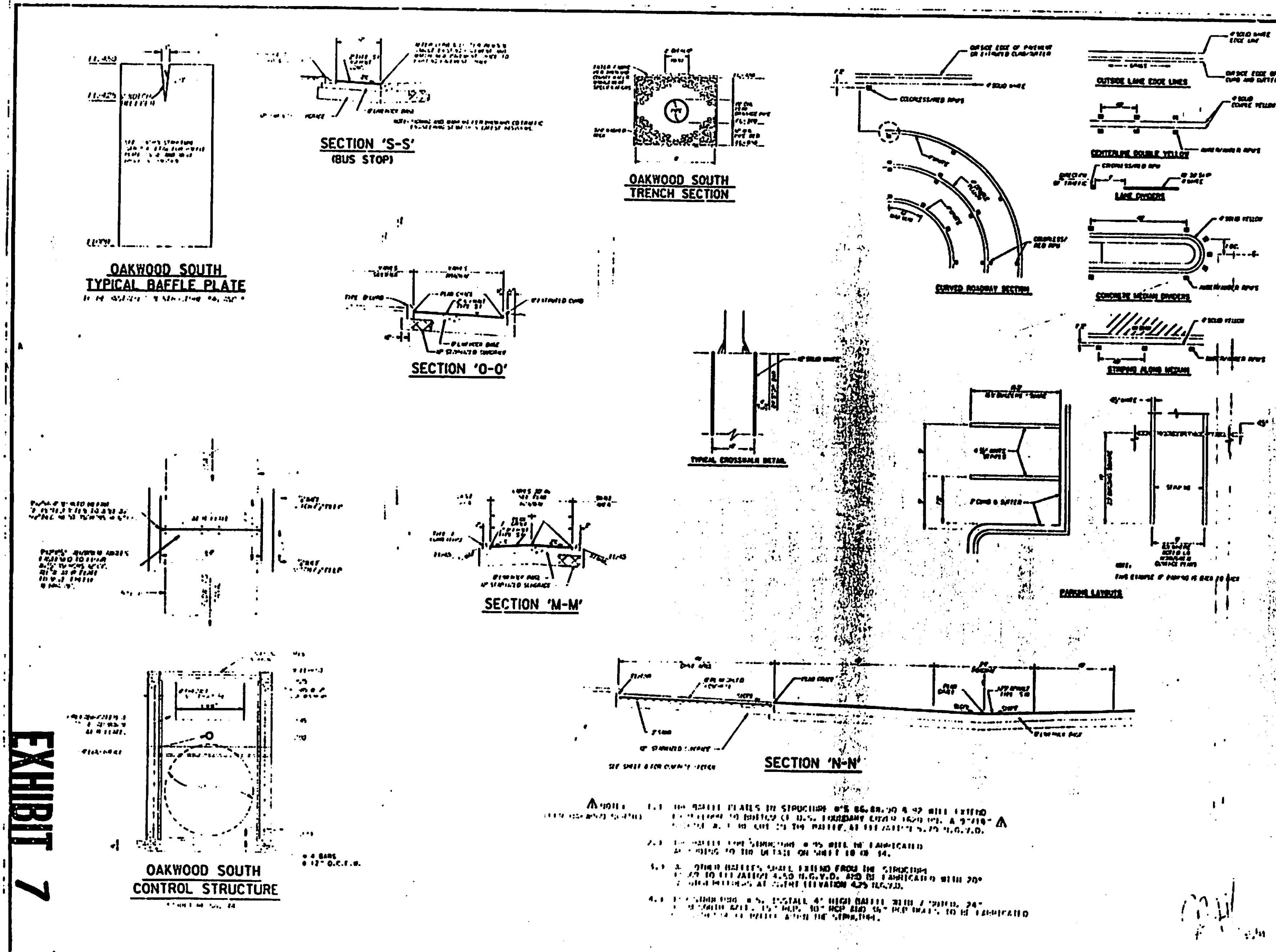


EXHIBIT 7

Keith and Schnars, P.A.

ENGINEERS • PLANNERS • SURVEYORS

DATE FEB. 1992
SCALE N/A
FIELD BK. N/A
DWNG. BY T.L.

OAKWOOD PLAZA
HOLLYWOOD, FLORIDA
BROWARD COUNTY

PAVING AND DRAINAGE DETAILS

SHEET NO. 21 OF 34 SHEETS
PROJECT NO. 13856

OAKWOOD PLAZA SOUTH

PERMIT SUMMARY SHEET

APPLICATION NUMBER: 940909-9 PERMIT MODIFICATION NO. 06-00639-S

LOCATION: BROWARD COUNTY, S5/T51S/R42E

OWNER: OAKWOOD PLAZA

ENGINEER: KEITH AND SCHNARS PA

PROJECT AREA: 39.28 ACRES DRAINAGE AREA: 39.28 ACRES

PROJECT USE: COMMERCIAL

FACILITIES:

2. PROPOSED: This application is for the modification of the surface water management permit to reflect the improvements to the drainage system for the Oakwood Plaza South, movie theater complex and retail area. The proposed plan is consistent with the permit modification issued on September 16, 1992. The surface water management system consists of exfiltration trenches, depressed swale areas, inlets, culverts and wet detention area. Discharge from the wet detention area is into the C-10 Spur Canal through the previously permitted structure.

PROJECT LEVEL:

DRAINAGE BASIN: C-10

RECEIVING BODY: C-10 SPUR CANAL

WATER QUALITY:

Water quality treatment is provided within wet detention areas, exfiltration trenches and dry swales.

Exhibit 8

OAKWOOD PLAZA SOUTH

PERMIT SUMMARY SHEET

ENVIRONMENTAL ASSESSMENT:

ENVIRONMENTAL SUMMARY

The project site is located within the previously permitted Oakwood Plaza development. There are no wetlands on the site and there are no wetland protection or mitigation requirements in the permit for this parcel. The Florida Department of Environmental Protection has issued permit number 062047396 for work in waters of the state associated with this project.

Adverse impacts to wetlands are not anticipated as a result of the proposed construction of this parcel.

	TOTAL PROJECT	PREVIOUSLY PERMITTED	THIS PHASE	
TOTAL ACRES	39.28	39.28	39.28	acres
WTRM ACREAGE	1.00	1.40	1.00	acres
PAVEMENT	22.01	22.01	22.01	acres
BUILD COVERAGE	8.42	8.42	8.42	acres
PERVIOUS	7.85	7.45	7.85	acres

Exhibit 9

S..FF REPORT DISTRIBUTION LIST

PROJECT: OAKWOOD PLAZA SOUTH
APPLICATION NUMBER: 940909-9
PERMIT MODIFICATION NUMBER: 06-00639-S

INTERNAL DISTRIBUTION

Reviewer:
X Eduardo J. Lopez
X Anita R. Bain
X Carlos A. De Rojas, P.E.
X Robert G. Robbins
K. Ammon - LDP
R. Brown - NRM
X B. Colavecchio - REG
M. Cruz - REG
J. Giddings - LDP
J. Golden - REG
X J. Karas - GPA
S. Krupa - DOR
R. Mireau - OMD
P. Rhoads - EVR
D. Thatcher - CPR
W. Van Voorhess - GPA
X K. Wallace - REG
A. Waterhouse - REG
Director, Big Cypress Basin
X Area Engineer
X Day File
X Enforcement
X Field Representative
Office of Counsel
X Permit File

DEPT. OF ENVIRONMENTAL PROTECTION

X West Palm Beach

EXTERNAL DISTRIBUTION

X Applicant:
OAKWOOD PLAZA

X Applicant's Consultant:
KEITH AND SCHNARS PA

X Engineer, County of:
BROWARD

Engineer, City of:

Local Drainage District:

COUNTY

X Broward -BCONRP
-Dir., Water Mgmt. Div.

BUILDING AND ZONING

OTHER

David Sinclair
Div of Recreation and Park - District 7
F.G.F.W.F.C.
Port St. Lucie Planning Division
S.W.F.R.P.C. - Glenn Heath
Sierra Club - Central Florida Group

EXHIBIT 10

SFWMD SURFACE WATER MANAGEMENT CALCULATIONS
for
OAKWOOD PLAZA - SOUTH

DATE: 9-1-94
JOB: 13856
KEITH & SCHNARS.P.A.
BY: JJH

STAGE STORAGE CALCULATIONS

1) PROPOSED LAND USE

SOUTH OF C-10 CANAL SPUR	PHASE AREA (ACRES)	BUILDING (ACRES)		PAVEMENT (ACRES)		IMPERVIOUS AREA (ACRES)	IMPERVIOUS %
PROPOSED	20.68	4.02	19.4%	13.02	63.0%	17.04	82.40%
EXISTING	18.60	4.40	23.7%	8.99	48.3%	13.39	71.99%
TOTAL	39.28	8.42		22.01		30.43	77.47%

Site Area..... 39.28 acres
Less Canal Area... 0 acres
Total Area..... 39.28 acres

Building Area..... 8.42 acres
Pavement Area..... 22.01 acres
Miscellaneous Area 0.00 acres
Pervious Area..... 7.85 acres

Lake Area..... 1.00 acres
Lake T.O.B. Elev..... 7.50 ngvd
Lake T.O.B. Area..... 1.50 acres
Dry Retention Area..... 0.25 acres (Bottom Contour Elevation)
Dry Ret. T.O.B. Elev.... 7.50 ngvd
Dry Ret. T.O.B. Area.... 0.60 acres
Exfilt. Trench Length... 1525 feet

2) FLOOD AND RAINFALL CRITERIA

10 year, 1 day storm..... 8.83 inches
25 year, 1 day storm..... 10.30 inches
100 year, 1 day storm..... 14.00 inches
100 year, 1 hour storm..... 5.00 inches

Minimum road crown..... 8.00 ngvd
Minimum floor elevation.... 9.00 ngvd

3) COMPUTE SOIL STORAGE

Wet season water elev..... 2.00 ngvd
Ave. groundwater elev..... 2.00 ngvd
Ave. site elevation..... 7.90 ngvd
Depth to water table..... 5.90 ft.

Assuming 25% compaction, available ground storage is.. 8.18 inches (Maximum Allowed)
Storage available in pervious areas of the site is ... 5.35 acre ft.
Converting to site wide moisture storage, S ..... 1.63 inches

4) COMPUTE STAGE STORAGE

Assumptions:

Lake stores linearly from.....	2.00	to elevation.....	7.50 then vertically
Pavement Area stores linearly from..	7.50	to elevation.....	8.30 then vertically
Pervious areas store linearly from..	7.50	to elevation.....	8.50 then vertically
Dry Ret. areas store linearly from..	3.00	to elevation.....	7.50 then vertically
Exfiltration Trench stores from.....	2.00	to elevation.....	5.00

	Storage (acre ft.)					
Stage	Lake	Dry Ret.	Pav't	Pervious	Trench	Total
2.00	0.00	0.00	0.00	0.00	0.00	0.00
2.50	0.51	0.00	0.00	0.00	0.14	0.65
3.00	1.05	0.00	0.00	0.00	0.28	1.33
3.50	1.60	0.13	0.00	0.00	0.42	2.16
4.00	2.18	0.29	0.00	0.00	0.56	3.03
4.50	2.78	0.46	0.00	0.00	0.70	3.95
5.00	3.41	0.66	0.00	0.00	0.70	4.76
5.50	4.06	0.87	0.00	0.00	0.70	5.62
6.00	4.73	1.10	0.00	0.00	0.70	6.53
6.50	5.42	1.35	0.00	0.00	0.70	7.47
7.00	6.14	1.62	0.00	0.00	0.70	8.46
7.50	6.88	1.91	0.00	0.00	0.70	9.49
8.00	7.63	2.21	3.44	0.95	0.70	14.93
8.50	8.38	2.51	7.84	3.80	0.70	23.23
9.00	9.13	2.81	18.85	7.60	0.70	39.08
9.50	9.88	3.11	29.85	11.40	0.70	54.94

5) FLOOD STAGE CRITERIA

10 Year - 1 Day Rainfall with Discharge
See attached flood routing

25 Year - 3 Day Rainfall with Discharge
See attached flood routing

100 Year - 3 Day Rainfall with Discharge
See attached flood routing

100 Year - 1 Hour Rainfall with Discharge
See attached flood routing

NOTE: This project has been permitted under SFWMD Permit Number 06-00639-S, Sept.16,1992.

RETENTION / DETENTION & DISCHARGE CALCULATIONS

1) ALLOWABLE DISCHARGE

For the C-10 Basin..... 454 csm
= 27.86 cfs

2)WATER QUALITY - DETENTION REQUIREMENTS

a) Based on the first 1" of runoff

Site area..... 39.28 acres
Required detention..... 3.27 acre ft.

b) Based on 2.5 inches times percent impervious

Site area..... 29.86 acres (Excluding building areas & lake)
Impervious area..... 22.01 acres (Excluding building areas & lake)
Percent impervious..... 73.71 %
Required detention..... 5.88 acre ft.

c) Credit for inlets in grass

Ratio of impervious to pervious..... 3.88 :1
Credit available = 0.2 inches x impervious area
Total credit..... 0.51 acre ft.

Therefore the required detention is..... 5.37 acre ft.
Less the detention volume treated in the exfiltration trench... 0.66 acre ft.
Less the detention volume treated in the dry retention area.... 0.46 acre ft.

Remaining detention volume to be handled in lake..... 4.25 acre ft.

Corresponding stage is between..... 4.50 and..... 5.00 ngvd

Interpolating gives a weir crest = 4.68 ngvd, Permitted Weir Crest Elev. = 5.46 ngvd

d) Detention volume treated in dry retention area :

Volume of runoff..... 0.46 acre ft.

Rim elevation of catch basin in dry retention area:

Corresponding stage is between..... 4.00 and..... 4.50 ngvd

Interpolating gives rim elev. of... 4.49 ngvd for catch basins in dry retention area.

c) Preteatment Calculations

Existing Pavement Area.....	8.99 acres
Proposed Pavement Area.....	13.02 acres
Rainfall Amount to be Pretreated.....	0.5 inches
Pretreatment Volume for Existing Areas.....	0.37 acre-feet
Pretreatment Volume for Proposed Areas (less volume handled in dry retention)....	0.08 acre-feet

3) WEIR CALCULATIONS AND COMPARISON TO PERMITTED WEIR

a) Weir Length

Allowable discharge..... 27.86 CFS.

25 year, 3 day storm = 14.00 in.
Runoff = 12.21 in.
Volume of runoff = 39.97 acre ft.

Corresponding stage is between..... 9.00 and..... 9.50 ngvd

Interpolating gives an elevation of 9.03 ngvd, Permitted Top of Baffle Elevation is... 8.23 ngvd

Calculated Design Head..... 4.34 ft. Head from Permitted Design..... 2.77 ngvd

Calculated Length 0.98 feet , Permitted Length 1.75 feet

b) V-notch bleeder

24 hour discharge..... 2.12 acre ft.
Design head..... 3.46 ft.
V-notch angle..... 5.38 degrees

c) Permitted Outfall Uses A Circular Orifice For A Bleeder

Circular Orifice With Diameter of .. 4.00 inches
Orifice Area..... 0.09 sq. ft.
Orifice Invert Elevation..... 2.00 ngvd
Orifice Centroid Elevation..... 2.17 ngvd

4) STAGE DISCHARGE CALCULATIONS

		Discharge (cfs)				
Stage	Storage	Orifice	Weir	Total	Exfiltration	
2.00	0.00	0.00	0.00	0.00	1.81	* Exfiltration Trench Baffle Outfall
2.50	0.65	0.24	0.00	0.24	2.64	
3.00	1.33	0.38	0.00	0.38	3.57	
3.50	2.16	0.48	0.00	0.48	4.61	
4.00	3.03	0.57	0.00	0.57	5.76	
4.50	3.95	0.64	0.00	0.64	7.03	
5.00	4.76	0.71	0.00	0.71	9.39	
5.50	5.62	0.76	0.04	0.81	10.43	
6.00	6.53	0.82	2.17	2.99	11.47	
6.50	7.47	0.87	5.81	6.68	12.52	
7.00	8.46	0.92	10.47	11.39	13.56	
7.50	9.49	0.97	15.96	16.93	14.60	
8.00	14.93	1.01	22.17	23.19	15.65	
8.50	23.23	1.05	29.03	30.09	16.69	
9.00	39.08	1.09	36.48	37.58	17.73	

5) EXFILTRATION TRENCH CALCULATIONS

Length Of Exfiltration Trench Provided.....	1,525	lineal feet
Trench Width.....	8.00	feet
Trench Height.....	4.00	feet
Perforated Pipe Diameter.....	15	inches
Trench Bottom Elevation.....	0.50	ngvd
Hydraulic Conductivity (K Value).....	7.20E-05	cfs/sq.ft.- ft. of head
Depth To Water Table.....	2.50	feet
Non-Saturated Trench Depth.....	2.50	feet
Saturated Trench Depth.....	1.50	feet
DETENTION VOLUME PROVIDED BY EXFILTRATION TRENCH.....	0.66	acre-feet

(1520)

6) 100 YEAR - 3 DAY STORM - NO DISCHARGE ELEVATION

100 year-3 day storm =	19.03 in.
Runoff =	17.20 in.
Volume of runoff =	56.29 acre ft.

Corresponding stage is between..... 9.00 and..... 9.50 ngvd

Interpolating gives an elevation of 9.54 ngvd **

** This project discharges into tidal water bodies, the C-10 Canal.
The 100 Year - 3 day , No Discharge elevation should not have relevance.

5) EXFILTRATION TRENCH CALCULATIONS FOR PRETREATMENT

Required Pretreatment Volume(Existing Areas).	0.37 acre-feet	or	4.50 acre-inches
Required Pretreatment Volume(Proposed Areas).	0.08 acre-feet	or	0.01 acre-inches
Trench Width.....	8.00 feet		
Trench Height.....	4 feet		
Perforated Pipe Diameter.....	15 inches		
Trench Bottom Elevation.....	0.5 ngvd		
Hydraulic Conductivity (K Value).....7.20E-05 cfs/sq.ft.- ft. of head			
Depth To Water Table.....	2.50 feet		
Non-Saturated Trench Depth.....	2.50 feet		
Saturated Trench Depth.....	1.50 feet		

LENGTH OF EXFILTRATION TRENCH REQUIRED FOR
PRETREATMENT OF EXISTING AREAS..... 863 feet

LENGTH OF EXFILTRATION TRENCH REQUIRED FOR
PRETREATMENT OF PROPOSED AREAS..... 2 feet

TIME 15:48:35 DATE 09-01-1994

FREDERIC R. HARRIS, INC.

6300 N. E. First Avenue
Ft. Lauderdale, Florida 33334
(305) 491-3311

This Program uses the South Florida Water Management District's dimenionless rainfall distributions, the 24 hour rainfall and the SCS curvelinear unit hydrograph method to compute a runoff hydrograph. The hydrograph is routed through a retention/detention area using the Storage Indication Method.

PROJECT DESCRIPTION :
WATER MANAGEMENT CALCULATIONS
OAKWOOD PLAZA SOUTH
PREPARED BY KEITH & SCHNARS, INC.

DRAINAGE AREA = 39.28 ACRES
PRE-DEVELOPMENT CURVE NUMBER = 86
PRE-DEVELOPMENT TIME OF CONCENTRATION = .17 HOURS
PRE-DEVELOPMENT SHAPE FACTOR = 100
POST-DEVELOPMENT CURVE NUMBER = 86
POST-DEVELOPMENT TIME OF CONCENTRATION = .17 HOURS
POST-DEVELOPMENT SHAPE FACTOR = 100

STAGE (FT)	STORAGE (AC FT)	STAGE (FT)	DISCHARGE (CFS)
2.00	0	2.00	0.00
3.00	1.33	3.00	0.38
4.00	3.03	4.00	0.57
5.00	4.76	5.00	0.71
6.00	6.53	6.00	2.99
6.50	7.47	6.50	6.68
7.00	8.46	7.00	11.39
7.50	9.49	7.50	16.93
8.00	14.93	8.00	23.19
8.50	23.23	8.50	30.09
9.00	39.08	9.00	37.58

STAGE (FT)	PERCOLATION (CFS)
2.00	0.00

TIME :48:36 DATE 09-01-19

9.00 0.00

STORM DURATION = 24H
FREQUENCY = 10 YEAR
24 HOUR RAINFALL = 8.83 INCHES
PRE-DEVELOPMENT D = .0226 HOURS
POST-DEVELOPMENT D = .0226 HOURS

TIME (HR)	CUMULATIVE RAINFALL (IN)	RUNOFF (CFS)	OUTFLOW		STAGE (FT)
			SURFACE DISCHARGE (CFS)	PERCOLATION (CFS)	
0.00	0.00	0.00	0.00	0.00	0.00
2.26	0.20	0.00	0.00	0.00	2.00
4.52	0.47	0.46	0.00	0.00	2.01
6.78	0.91	3.34	0.09	0.00	2.25
9.04	1.52	7.40	0.36	0.00	2.94
11.30	2.64	20.02	0.59	0.00	4.16
13.56	7.04	29.84	21.95	0.00	7.90
15.82	7.73	10.55	20.74	0.00	7.80
18.08	8.10	6.21	18.16	0.00	7.60
20.34	8.44	5.40	12.62	0.00	7.11
22.60	8.68	4.11	7.66	0.00	6.60
24.00	8.83	4.10	6.24	0.00	6.44
24.86		0.87	5.25	0.00	6.31
27.12		0.00	2.86	0.00	5.94
27.35		0.00	2.79	0.00	5.91
29.38			2.25	0.00	5.67
31.64			1.76	0.00	5.46
33.90			1.39	0.00	5.30
36.16			1.09	0.00	5.17
38.42			0.86	0.00	5.06
40.68			0.71	0.00	4.98
42.94			0.70	0.00	4.91
45.20			0.69	0.00	4.83
47.46			0.68	0.00	4.76
49.72			0.67	0.00	4.69
51.98			0.66	0.00	4.62
54.24			0.65	0.00	4.55
56.50			0.64	0.00	4.48
58.76			0.63	0.00	4.41
61.02			0.62	0.00	4.34
63.28			0.61	0.00	4.27
65.54			0.60	0.00	4.21
67.80			0.59	0.00	4.15
70.06			0.58	0.00	4.08
72.32			0.57	0.00	4.02
74.58			0.56	0.00	3.96
76.84			0.55	0.00	3.90
79.10			0.54	0.00	3.84
81.36			0.53	0.00	3.78

TIME :48:38 DATE 09-01-19

83.62	0.52	0.00	3.72
85.88	0.51	0.00	3.66
88.14	0.50	0.00	3.61
88.14	0.49	0.00	3.56

RESULTS OF ANALYSIS :

PEAK SURFACE DISCHARGE = 22.08 CFS
HISTORICAL PEAK SURFACE DISCHARGE = 136.66 CFS
SURFACE DISCHARGE VOLUME = 21.1572 AC. FT.
HISTORICAL SURFACE DISCHARGE VOLUME = 23.3652 AC. FT.
MAXIMUM STAGE = 7.91 FT
STORAGE REQUIRED = 13.9670 AC. FT.

TIME :18:39 DATE 09-01-1

9.00 0.00

STORM DURATION = 3D
FREQUENCY = 25 YEAR
24 HOUR RAINFALL = 10.3 INCHES
PRE-DEVELOPMENT D = .0226 HOURS
POST-DEVELOPMENT D = .0226 HOURS

TIME (HR)	CUMULATIVE RAINFALL (IN)	RUNOFF (CFS)	OUTFLOW		STAGE (FT)
			SURFACE DISCHARGE (CFS)	PERCOLATION (CFS)	
0.00	0.00	0.00	0.00	0.00	0.00
2.26	0.14	0.00	0.00	0.00	2.00
4.52	0.28	0.00	0.00	0.00	2.00
6.78	0.42	0.18	0.00	0.00	2.01
9.04	0.57	0.54	0.02	0.00	2.06
11.30	0.70	0.74	0.05	0.00	2.14
13.56	0.85	0.96	0.10	0.00	2.26
15.82	0.99	1.23	0.15	0.00	2.40
18.08	1.14	1.52	0.21	0.00	2.55
20.34	1.27	1.40	0.27	0.00	2.72
22.60	1.42	1.60	0.34	0.00	2.89
24.86	1.58	2.46	0.39	0.00	3.06
27.12	1.79	2.75	0.43	0.00	3.29
29.38	2.00	2.88	0.48	0.00	3.53
31.64	2.21	3.01	0.53	0.00	3.78
33.90	2.41	3.10	0.57	0.00	4.03
36.16	2.62	2.97	0.61	0.00	4.29
38.42	2.82	3.05	0.65	0.00	4.54
40.68	3.03	3.13	0.68	0.00	4.80
42.94	3.24	3.19	0.86	0.00	5.06
45.20	3.44	3.25	1.35	0.00	5.28
47.46	3.65	3.35	1.75	0.00	5.46
49.72	3.88	3.72	2.13	0.00	5.62
51.98	4.16	4.81	2.56	0.00	5.81
54.24	4.61	8.08	4.17	0.00	6.16
56.50	5.27	11.77	7.38	0.00	6.57
58.76	6.31	19.84	12.28	0.00	7.08
61.02	11.61	61.84	27.51	0.00	8.31
63.28	12.54	13.35	27.41	0.00	8.31
65.54	13.05	7.45	24.92	0.00	8.13
67.80	13.47	7.39	22.10	0.00	7.91
70.06	13.76	4.89	18.91	0.00	7.66
72.00	14.00	4.85	15.19	0.00	7.34
72.32		3.09	13.73	0.00	7.21
74.58		0.02	5.96	0.00	6.40
75.35		0.00	4.65	0.00	6.22
76.84			2.95	0.00	5.98
79.10			2.32	0.00	5.71
81.36			1.82	0.00	5.49

TIME :18:41 DATE 09-01-1

83.62	1.43	0.00	5.32
85.88	1.13	0.00	5.18
88.14	0.89	0.00	5.08
88.14	0.71	0.00	4.99

RESULTS OF ANALYSIS :

PEAK SURFACE DISCHARGE = 28.30 CFS
HISTORICAL PEAK SURFACE DISCHARGE = 170.98 CFS
SURFACE DISCHARGE VOLUME = 35.3559 AC. FT.
HISTORICAL SURFACE DISCHARGE VOLUME = 39.9917 AC. FT.
MAXIMUM STAGE = 8.37 FT
STORAGE REQUIRED = 21.0758 AC. FT.

TIME :59:33 DATE 09-01-1

9.00 0.00

STORM DURATION = 3D
FREQUENCY = 100 YEAR
24 HOUR RAINFALL = 14 INCHES
PRE-DEVELOPMENT D = .0226 HOURS
POST-DEVELOPMENT D = .0226 HOURS

TIME (HR)	CUMULATIVE RAINFALL (IN)	RUNOFF (CFS)	OUTFLOW		STAGE (FT)
			SURFACE DISCHARGE (CFS)	PERCOLATION (CFS)	
0.00	0.00	0.00	0.00	0.00	0.00
2.26	0.20	0.00	0.00	0.00	2.00
4.52	0.38	0.07	0.00	0.00	2.00
6.78	0.58	0.71	0.02	0.00	2.06
9.04	0.77	1.23	0.07	0.00	2.18
11.30	0.96	1.45	0.14	0.00	2.36
13.56	1.15	1.74	0.22	0.00	2.58
15.82	1.35	2.12	0.31	0.00	2.81
18.08	1.54	2.52	0.39	0.00	3.05
20.34	1.73	2.26	0.43	0.00	3.26
22.60	1.92	2.54	0.47	0.00	3.48
24.86	2.15	3.84	0.52	0.00	3.72
27.12	2.44	4.20	0.58	0.00	4.08
29.38	2.72	4.34	0.63	0.00	4.45
31.64	3.00	4.48	0.69	0.00	4.83
33.90	3.28	4.57	1.16	0.00	5.20
36.16	3.55	4.34	1.82	0.00	5.49
38.42	3.84	4.43	2.37	0.00	5.73
40.68	4.12	4.51	2.82	0.00	5.92
42.94	4.40	4.58	3.49	0.00	6.07
45.20	4.68	4.64	4.03	0.00	6.14
47.46	4.96	4.76	4.31	0.00	6.18
49.72	5.27	5.27	4.67	0.00	6.23
51.98	5.65	6.79	5.33	0.00	6.32
54.24	6.27	11.35	7.60	0.00	6.60
56.50	7.17	16.43	11.52	0.00	7.01
58.76	8.58	27.53	17.16	0.00	7.52
61.02	15.78	84.83	31.53	0.00	8.60
63.28	17.05	18.26	31.99	0.00	8.63
65.54	17.74	10.18	30.46	0.00	8.52
67.80	18.31	10.10	27.77	0.00	8.33
70.06	18.70	6.68	24.88	0.00	8.12
72.00	19.03	6.63	22.37	0.00	7.93
72.32		4.23	21.87	0.00	7.89
74.58		0.03	17.81	0.00	7.57
75.35		0.00	15.25	0.00	7.35
76.84			8.20	0.00	6.66
79.10			3.80	0.00	6.11
81.36			2.54	0.00	5.80

83.62	2.00	0.00	5.57
85.88	1.57	0.00	5.38
88.14	1.24	0.00	5.23
88.14	0.97	0.00	5.12

RESULTS OF ANALYSIS :

PEAK SURFACE DISCHARGE = 32.38 CFS
HISTORICAL PEAK SURFACE DISCHARGE = 235.17 CFS
SURFACE DISCHARGE VOLUME = 51.5073 AC. FT.
HISTORICAL SURFACE DISCHARGE VOLUME = 56.3107 AC. FT.
MAXIMUM STAGE = 8.65 FT
STORAGE REQUIRED = 28.0856 AC. FT.

TIME 13:39:42 DATE 09-02-19

STORM DURATION = 1H
FREQUENCY = 100 YEAR
RAINFALL AMOUNT = 5 INCHES

TIME (HR)	RAINFALL INTENSITY (IN/HR)	RUNOFF (CFS)	OUTFLOW		STAGE (FT)
			SURFACE DISCHARGE (CFS)	PERCOLATION (CFS)	
0.00	0.00	0.00	0.00	0.00	0.00
1.00	0.00	0.00	20.03	0.00	7.75
10.00			2.29	0.00	5.69
20.00			0.79	0.00	5.04
30.00			0.67	0.00	4.70

ALLOWABLE DISCHARGE = 337.81 CFS
PEAK SURFACE DISCHARGE = 20.15 CFS
ALLOWABLE SURFACE DISCHARGE VOLUME = 13.0933 AC. FT.
SURFACE DISCHARGE VOLUME = 8.6726 AC. FT.
MAXIMUM STAGE = 7.76 FT
STORAGE REQUIRED = 12.2884 AC. FT.