

**GENERAL DRAINAGE NOTES:**

- THE LENGTH OF ALL STORM DRAIN PIPES SHOWN ARE APPROXIMATE AND ARE MEASURED FROM THE INSIDE FACE OF STRUCTURE TO THE INSIDE FACE OF THE NEXT STRUCTURE.
- EXISTING OFF-SITE DRAINAGE PATTERNS SHALL BE MAINTAINED DURING THE COURSE OF CONSTRUCTION.
- THE LOCATION OF THE DRAINAGE STRUCTURES SHOWN ON THE PLANS MAY BE FIELD ADJUSTED TO PRESERVE ANY EXISTING VEGETATION, AS APPROVED BY THE ENGINEER.
- DURING CONSTRUCTION, ALL INLET OPENINGS SHALL BE COVERED WITH FILTER FABRIC (MIRAFI 140N, OR APPROVED EQUAL) TO PREVENT DEBRIS FROM FALLING INTO THE INLET.
- THE CONTRACTOR SHALL ADJUST ALL PROPOSED ELEVATIONS TO MEET THE EXISTING GRADES AS NEEDED.
- ALL STORM DRAINAGE PIPE SHALL BE REINFORCED CONCRETE PIPE (RCP), UNLESS OTHERWISE NOTED.
- PROPOSED GRADES IN OPEN SPACE AREAS ARE TOP OF SOD.
- THE SUBJECT PARCEL IS LOCATED IN FLOOD ZONES 'X' AND 'AE' BASED ON FLOOD INSURANCE RATE COMMUNITY PANEL 12071C0583F, AUGUST 28, 2008. THE FLOOD ELEVATION IS 11' NAVD.
- THERE ARE NO KNOWN IMPACTS TO SURFACE GROUND WATER RESULTING FROM THE PROJECT.

**OPERATIONS AND MAINTENANCE NOTES:**

- THE PROJECT IS BEING DEVELOPED UNDER UNIFIED CONTROL BY THE PROPERTY OWNER.
- THE OWNER WILL BE RESPONSIBLE FOR OPERATIONS AND MAINTENANCE OF THE SURFACE WATER MANAGEMENT SYSTEM. THIS SHALL INCLUDE, BUT NOT LIMITED TO:
  - ROUTINE INSPECTION
  - STABILIZATION OF SIDE SLOPES, DETENTION AREA BOTTOMS, AND ANY BARE SPOTS OR AREAS OF WASHOUT
  - REMOVAL OF BUILT UP SEDIMENTS FROM DETENTION AREAS, STRUCTURES, OR PIPES
  - SYSTEM REPAIRS AS NECESSARY
  - LANDSCAPE MAINTENANCE AND MOWING
- ALL PROHIBITED EXOTIC VEGETATION AS DEFINED BY THE COUNTY CODE SHALL BE REMOVED FROM THE SITE AND SHALL BE MAINTAINED FREE OF EXOTICS IN PERPETUITY. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR SUBSEQUENT ANNUAL REMOVAL OF EXOTIC VEGETATION.

**LAND USE SUMMARY**

CATEGORY	AREA (AC.)	PERCENTAGE
BUILDING	0.90	7.9%
PAVEMENT / SIDEWALK	2.64	20.4%
OPEN SPACE	9.43	72.7%
<b>TOTAL</b>	<b>12.97</b>	<b>100.0%</b>

**SURFACE WATER MANAGEMENT PARAMETERS (PER SFWMD 36-01768-5)**

PARAMETER	NORTH PARCEL
5 YEAR, 1 DAY RAINFALL (IN.)	5.7
25 YEAR, 3 DAY RAINFALL (IN.)	11.0
100 YEAR, 3 DAY RAINFALL (IN.)	13.0
CONTROL ELEVATION (FT-NAVD)	11.40
5 YEAR, 1 DAY PEAK STAGE (FT-NAVD)	12.24
25 YEAR, 3 DAY PEAK STAGE (FT-NAVD)	12.88
100 YEAR, 3 DAY, ZERO DISCHARGE PEAK STAGE (FT-NAVD)	13.48
MIN. PERIMETER BERM ELEVATION (FT-NAVD)	12.88
MIN. FINISHED FLOOR ELEVATION (FT-NAVD)	13.48
MIN. PARKING LOT ELEVATION (FT-NAVD)	12.24
FEMA FLOOD ELEVATION (FT-NAVD)	N/A
25 YR EVENT ALLOWABLE DISCHARGE RATE (CFS)	0.80
25 YR, 3 DAY EVENT PEAK DISCHARGE (CFS)	0.79

- NOTES:**
- FEMA FLOOD ELEVATION PER FIRM MAP NUMBER 12071C0583F (AUGUST 28, 2008).
  - PEAK STAGES PER ICRP MODELING RESULTS.

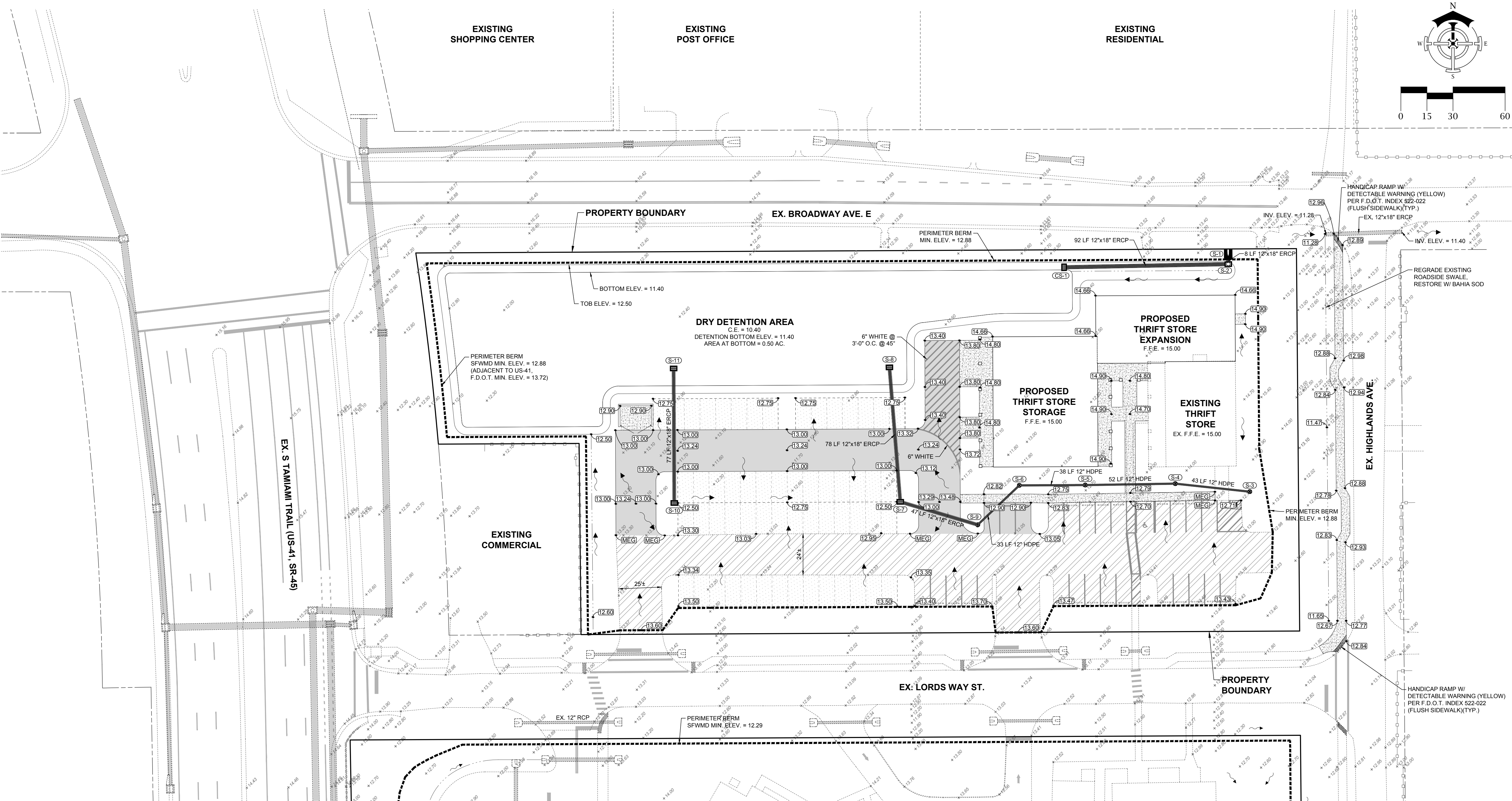
**DRAINAGE STRUCTURE TABLE**

(S-1) CONTROL STRUCTURE (SEE DETAIL) GRATE ELEV. = 12.88 INV. E (12"x18") = 10.50	(S-5) HDPE INLET GRATE ELEV. = 12.25 INV. E (12") = 10.25 INV. W (12") = 10.25	(S-9) HDPE INLET GRATE ELEV. = 12.75 INV. NE (12") = 10.25 INV. W (12"x18") = 10.00
(S-1) 12"x18" MES - FDOT #272 INV. (18") = 11.40	(S-6) HDPE INLET GRATE ELEV. = 12.70 INV. E (12") = 10.00 INV. SW (12") = 10.00	(S-10) TYPE 'C' INLET - FDOT #232 GRATE ELEV. = 12.50 INV. N (12"x18") = 9.75
(S-2) JUNCTION BOX - FDOT #200, 201 RIM ELEV. = 12.50 INV. W (18") = 10.50 INV. N (18") = 11.40	(S-7) TYPE 'C' INLET - FDOT #232 GRATE ELEV. = 12.50 INV. E (12"x18") = 10.00 INV. N (12"x18") = 9.75	(S-11) MODIFIED TYPE 'C' INLET (SEE DETAIL) GRATE ELEV. = 11.90 INV. S (12"x18") = 9.40
(S-3) HDPE INLET GRATE ELEV. = 12.5 INV. W (12") = 10.75	(S-8) MODIFIED TYPE 'C' INLET (SEE DETAIL) GRATE ELEV. = 11.90 INV. S (12"x18") = 9.40	
(S-4) HDPE INLET GRATE ELEV. = 12.25 INV. E (12") = 10.50 INV. W (12") = 10.50		

**LEGEND**

	ASPHALT (1.5" TYPE S-III)
	CONCRETE
	PERVIOUS PARKING
	MILL & OVERLAY (3/4" TYPE S-III)
	BASIN BOUNDARY / TOP OF PERIMETER BERM
	SWALE

**PROJECT DATUM**  
NAVD  
DATUM CONVERSION  
NAVD + 1.18 = NGVD



**DELISI FITZGERALD, INC.**  
Planning - Engineering - Project Management

1605 Henry Street  
Fort Myers, FL 33901  
239-418-0691 • 239-418-0692 fax  
Florida Certificate of Authorization:  
Engineering, L.B. # 26976

ENGINEER OF RECORD:  
JOHN T. WODAK, P.E. (FOR THE FIRM)  
FLORIDA P.E. NO. 58217

NOT VALID WITHOUT SEAL, SIGNATURE AND DATE

OWNER / DEVELOPER:  
**ESTERO UNITED METHODIST CHURCH BOARD OF TRUSTEES**  
8888 LORDS WAY ST.  
ESTERO, FL 33928

PROJECT:  
**ESTERO UNITED METHODIST CHURCH  
METHODIST CHURCH  
THRIFT STORE EXPANSION**

PLAN REVISIONS	DATE	DESCRIPTION
#		

**GRADING, PAVING AND DRAINAGE PLAN**

Project Manager: JTW  
Drawn By: QMW  
Checked By: JTW  
Project Number: 21519  
Part of Section(s): 28  
Township: 46 S | Range: 25 E  
County, State: LEE COUNTY, FL

Status:  
CONSTRUCTION PLANS

Sheet Number: 6

A:21519 - E:UAC THRIFT STORE EXPANSION/DOPLAN SET/21519-06-DRAINAGE.DWG  
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