

Future Roadway Concept Memorandum

DRAFT

Whitney Road Drainage & Safety Enhancements Supplemental Services
Project No. 000412A



Prepared For:

Pinellas County
Department of Environment and Infrastructure
Division of Engineering and Technical Services
14 S. Fort Harrison, 6th Floor
Clearwater, FL 33756

Prepared by:

 **Lockwood, Andrews
& Newnam, Inc.**
A LEO A DALY COMPANY
107 Hampton Road, Suite 190
Clearwater, Florida 33759

October 2013

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**Lockwood, Andrews
& Newnam, Inc.**
A LEO A DALY COMPANY

I. BACKGROUND

Pinellas County Infrastructure & Environment Division (County) is responsible for the safety of the public and the maintenance of its roadways and drainage systems. As discussed in a meeting with the County on August 27, 2013, the County requested that Lockwood, Andrews & Newnam, Inc. (LAN) provide supplemental professional engineering services for a future roadway concept of Whitney Road. This work is supplemental to the Whitney Road Drainage and Safety Enhancements Project. The centerline of Whitney Road is skewed to the northern side of the right-of-way. This offset limits accommodation of future improvements for desired pedestrian and bicycle access. Drainage improvements on the north side of Whitney Road are also impeded by the existing alignment. The County issued a Notice to Proceed to (LAN) on September 18, 2013 to develop this technical memorandum that would address a future roadway concept of realigning the Whitney Road centerline to the center of the existing right-of-way.

This memo includes:

- An assessment of the required transition that would facilitate re-alignment of the roadway and join to the existing roadway;
- A conceptual plan drawing and typical section for the proposed roadway realignment on Whitney Road from Oak Street/Long Branch Lane to Wolford Road and Option 1 of the approved intersection evaluation discussed in Whitney Road Intersection and Sidewalk Evaluation Report dated October 2012 by LAN and approved by the County;
- An environmental permitting review; and
- The Engineer's Opinion of Probable Construction Cost.

II. ASSESSMENT AND PLAN

The County has advised that realigning the roadway to the center of the right-of-way should include 12 foot lanes, 5 foot paved shoulders, 3 foot unpaved shoulders, 8 foot wide swale ditch for drainage, and 5 foot sidewalk on both sides of Whitney Road, as illustrated in Figure 1. Incorporating the Option 1 intersection improvements allows for 15 foot lanes at the intersection of Whitney and Wolford Roads. The extra lane width is important due to the limited roadway geometry and the extra pedestrian and operational improvements that are proposed. This configuration will not require procurement of additional right-of-way. This future concept will require eight driveway replacements because the driveways and intersections have to be reconstructed to fit the new roadway alignment. A 200 foot roadway transition segment west of Oak Street/Long Branch Lane is required to tie in the realigned roadway segment to the existing roadway. The proposed design speed for this conceptual design is 35-mph. The current posted speed is 30-mph.

Whitney Road is heavily utilized by pedestrians that are primarily traveling to and from the nearby Clearwater Central High School. Realigning Whitney Road will allow for safer conditions for pedestrian traffic. Pedestrians will be able to utilize the sidewalks on both sides of the street and safely cross the Wolford Road and Whitney Road intersection. The proposed design will

also allow for a 16 foot separation between pedestrians and motorized vehicles. Figure 2, a typical cross section, illustrates the proposed roadway improvements in greater detail.

Impacts: Whitney Road realignment requires the removal of all vegetation south of the roadway, this includes several large diameter live oak protected trees. Re-planting some of the vegetation to recreate a buffer between residences and the roadway is recommended, however it will require some form of protection from run off the road errant vehicles. Therefore, no proposed landscape buffer has been proposed for this contract. A habitat survey should be performed to determine any other potential negative impacts.

III. ENVIRONMENTAL PERMITTING

Since the impervious area in the realignment corridor will increase, an Environmental Resource Permit (ERP) will be required. It is recommended that a pre-application meeting be set up with the Southwest Florida Water Management District to determine the specific permitting requirements.

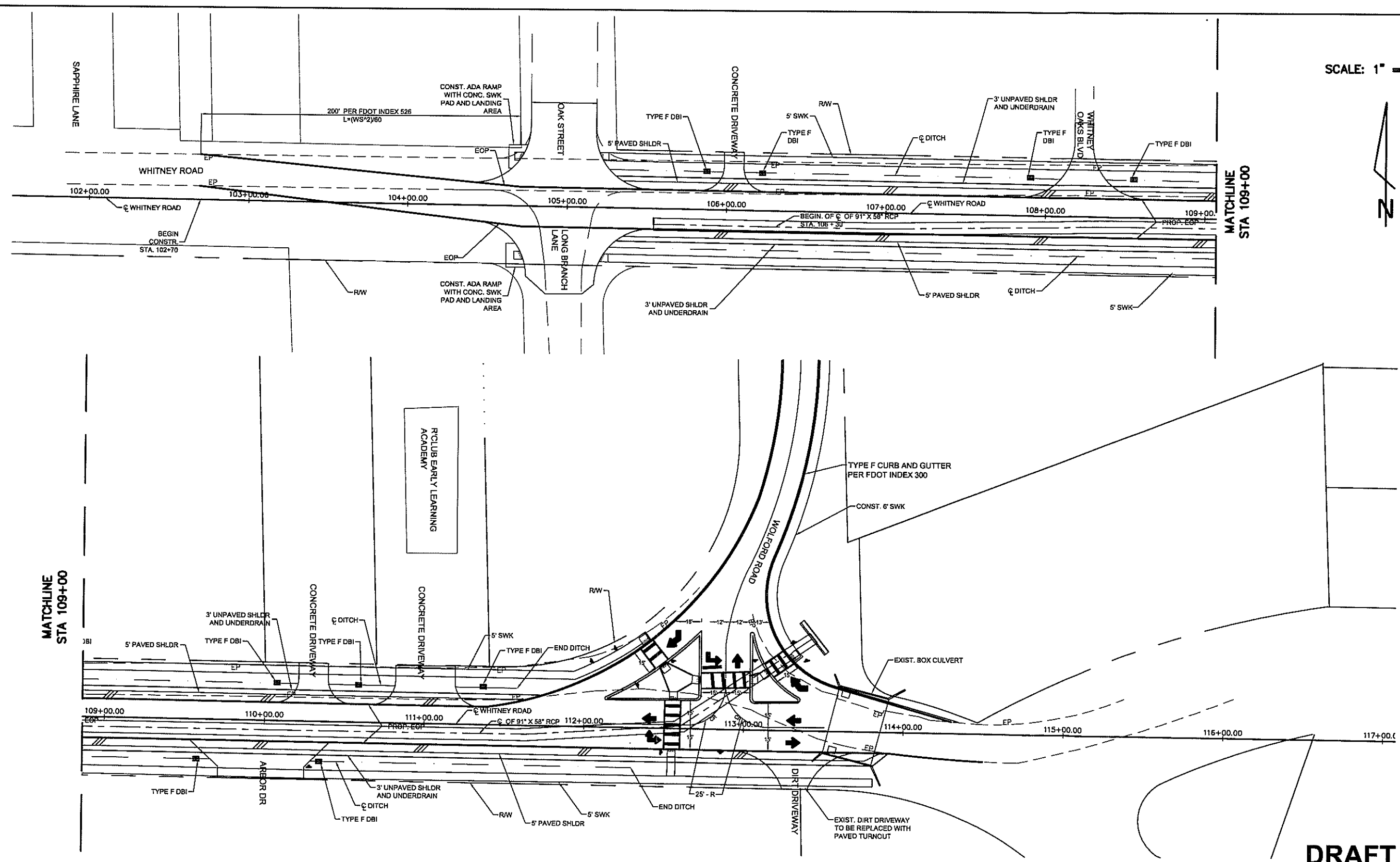
V. OPINION OF PROBABLE CONSTRUCTION COST

The following estimated costs in Table 1 were obtained from the current FDOT statewide pay item average unit cost spreadsheet dated 04/08/2013. Quantities were estimated based on the current conceptual alignment and proposed improvements.

Table 1 – Opinion of Probable Construction Cost

Whitney Road - Drainage & Safety Enhancements							
Future Roadway Concept - (September 23, 2013) Engineer's Opinion of Probable Construction Cost							
Line No.	Pay Item No.	FDOT Pay Item No. Eq.	Item Description	Quantity	Unit	Unit Price	Total Price
			SWPPP	1	LS	\$ 5,000.00	\$ 5,000.00
11105	110-0100	0110 1 1	Clearing & Grubbing	1	LS	\$ 10,000.00	\$ 10,000.00
		0110 4	Removal of Existing Concrete Pavement	3,330	SY	\$ 16.60	\$ 55,278.00
			Tree Removal, 0-24"	35	EA	\$ 200.00	\$ 7,000.00
			Tree Removal, >24"	16	EA	\$ 500.00	\$ 8,000.00
11109	120-0035	0120 1	Excavation	14,335	CY	\$ 4.50	\$ 64,507.50
10350	102-1300	0102 71 12	Barrier Wall, Temporary, F&I, Waterfilled	2,500.0	LF	\$ 13.00	\$ 32,500.00
10592	102-1652	0102 74 1	Barricade, Temporary, Types I, II, DI, VP & Drum	36.0	EA/ED	\$ 0.14	\$ 5.04
9655	800-9001	0102 74 2	Barricade, Type III, PCED	3.0	EA/ED	\$.25	\$ 0.75
9434	102-1099	0102 99	Sign, Variable Message (3 Lines) (Temporary)	4.0	EA/ED	\$ 15.00	\$ 60.00
			Road Signage and Barricade	1	LS	\$ 5,000.00	\$ 5,000.00
			Stabilized Construction Access	1	LS	\$ 2,000.00	\$ 2,000.00
11681	PS-54	0142 70	Special Backfill Material, Sand, Clean Material	3,585	CY	\$ 30.00	\$ 107,550.00
		0160 40	Type B Stabilization	6,175	SY	\$ 2.46	\$ 15,190.50
		02857 01	Optional Base, Base Group 01	5,175	SY	\$ 5.46	\$ 28,255.50
11945	SR-31h	02857 09	Optional Base, Base Group 09	4,355	SY	\$ 12.00	\$ 52,260.00
		0286 2	Turnout Construction - Asphalt	20	TN	\$ 119.31	\$ 2,416.03
		033 1 23	Superpave Asphalt Concrete, Traffic C, SP-9.5, PG 76-22	560	TN	\$ 87.63	\$ 49,072.80
9692	120-0810	0400 91	Dewatering	775	LF	\$ 25.00	\$ 19,375.00
9757	425-354-1140	0425 1561	Inlets, Ditch Bottom, FDOT Type F, <10'	8	EA	\$ 2,915.52	\$ 23,324.16
		0520 1 7	Concrete Curb and Gutter, Type E	450	LF	\$ 12.13	\$ 5,458.50
		0522 1	Sidewalk Concrete, 4" Thick	885	SY	\$ 27.52	\$ 24,355.20
		0527 1	Detectable Warning on Existing Walking Surface	6	EA	\$ 349.40	\$ 2,096.40
10040	536-1-1	0536 1 12	Guardrail, Roadway, Modified Three Beam	35	LF	\$ 25.00	\$ 875.00
10056	575-0105	0570 1 2	Sodding, Bahia, (Including Water & Fertilizer)	2,565	SY	\$ 5.00	\$ 12,825.00
		0700 48 48	Sign Panels Relocate, 15 or <	36	EA	\$ 59.30	\$ 2,134.80
9875	710-25-41	0709 11111	Traffic Stripe-Two Reactive Componenets, Standard, White, Solid, 6"	1	NM	\$ 5,000.00	\$ 5,000.00
9876	710-25-P482	0709 11211	Traffic Stripe-Two Reactive Componenets, Standard, Yellow, Solid, 6"	1	NM	\$ 5,000.00	\$ 5,000.00
9870	710-11-113	0710 11111	Painted Pavement Markings, Standard, White, Solid, 6"	1	NM	\$ 765.00	\$ 765.00
9870	710-11-113	0710 11211	Painted Pavement Markings, Standard, Yellow, Solid, 6"	1	NM	\$ 757.00	\$ 757.00
9877	711-11-122	0711 11111	Thermoplastic, Standard, White, Solid, 6"	1	NM	\$ 3,000.00	\$ 3,000.00
9878	711-11-231	0711 11211	Thermoplastic, Standard, Yellow, Solid, 6"	1	NM	\$ 2,917.00	\$ 1,458.50
		1050 11124	Reinforced Concrete Pipe - 18"	630	LF	\$ 10.00	\$ 6,300.00
			Elliptical Pipe - 91" x 58"	75	LF	\$ 432.00	\$ 32,400.00
10134	101-0100	0101 1	Mobilization	1	LS	\$ 88,383.10	\$ 88,383.10
10135	102-1000	0102 1	Maintenance Of Traffic	1	LS	\$ 88,383.10	\$ 88,383.10
						Subtotal	\$ 765,986.88
						25% Contingency	\$ 191,496.72
						TOTAL	\$ 957,483.60

SCALE: 1" = 60'



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LAN Lockwood, Andrews & Newman, Inc.
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 Clearwater, FL 33759

C:\users\oluywa\Desktop\WHITNEY ROAD RE-ALIGNMENT\WHITNEY ROAD RE-ALIGNMENT REV.DWG 7 October 2013 LYTYM, OLEWA

REV. NO.	DATE	DESCRIPTION	REV. BY

DESIGNED TSP
 DRAWN DL
 CHECKED TD



DIVISION OF ENGINEERING AND TECHNICAL SUPPORT
 14 S. FT. HARRISON AVE., CLEARWATER, FL 33756

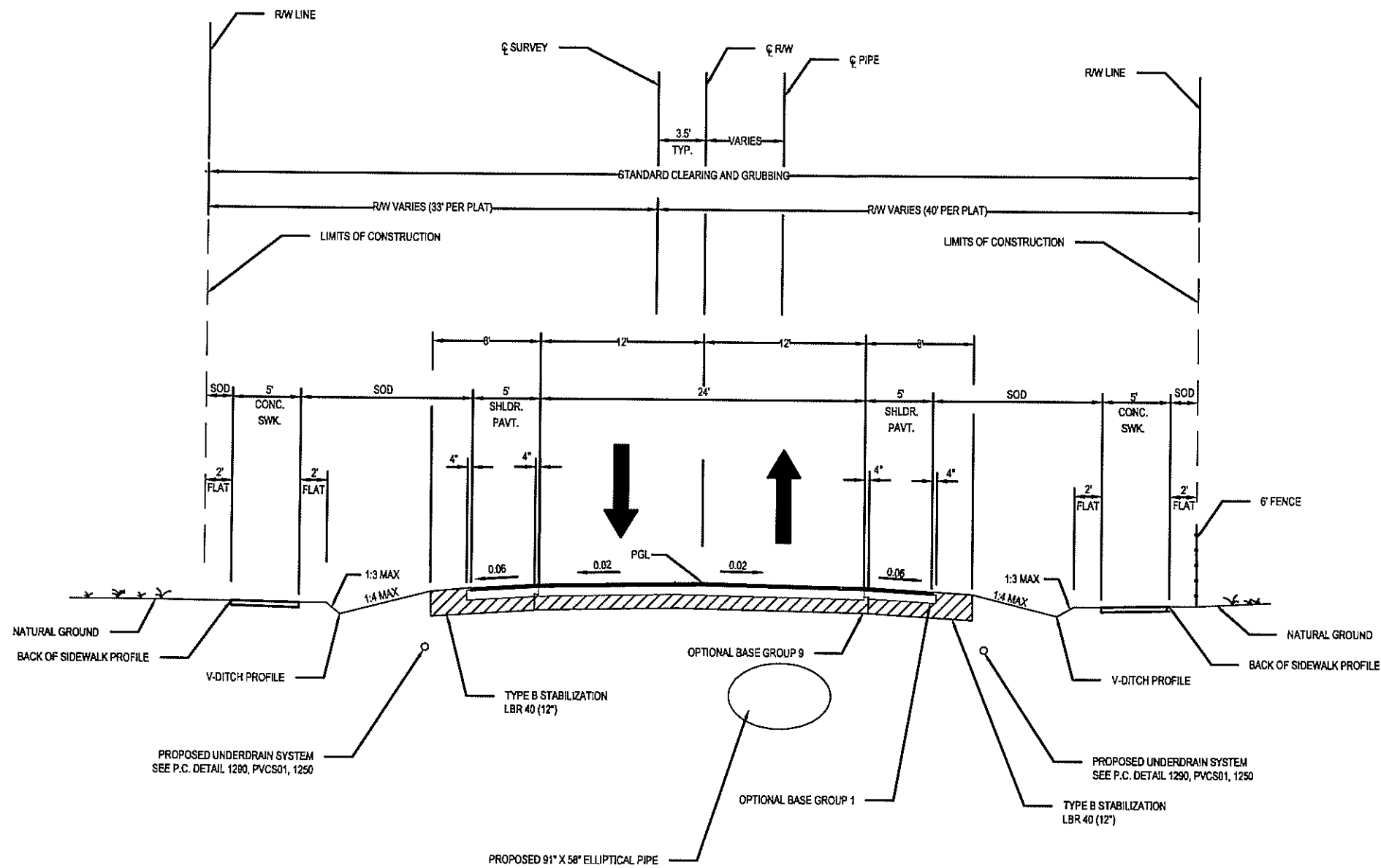
PROJECT: **WHITNEY ROAD DRAINAGE & SAFETY ENHANCEMENTS**

DESCRIPTION: **FUTURE ROADWAY CONCEPT**

APPROVED BY: **Todd S. Patter, P.E.**
 FL. LICENSED PROF. ENG. NO 63245

DATE: **OCTOBER 2013**
 PROJECT NO.: **130-10404-002**
 SHEET:

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TYPICAL SECTION - WHITNEY ROAD
STA. 102+50.00 TO STA. 110+50.00
 1"=10'

DIMENSIONS ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY

NOT FOR CONSTRUCTION

DRAFT

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 A LEO A DALY COMPANY
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 Suite 190
 Clearwater, FL 33759

REV. NO.	DATE	DESCRIPTION	REV. BY

DESIGNED: TSP
 DRAWN: OL
 CHECKED: TD

DIVISION OF ENGINEERING AND TECHNICAL SUPPORT
 14 S. FT. HARRISON AVE., CLEARWATER, FL 33756

PROJECT: **WHITNEY ROAD DRAINAGE & SAFETY ENHANCEMENTS**

DESCRIPTION: **FUTURE ROADWAY CONCEPT TYPICAL SECTION**

APPROVED BY: Todd S. Potter, P.E.
 FL. LICENSED PROF. ENG. NO 63245

DATE: _____

DATE: **OCTOBER 2013**
 PROJECT NO. **130-10404-002**
 SHEET: _____