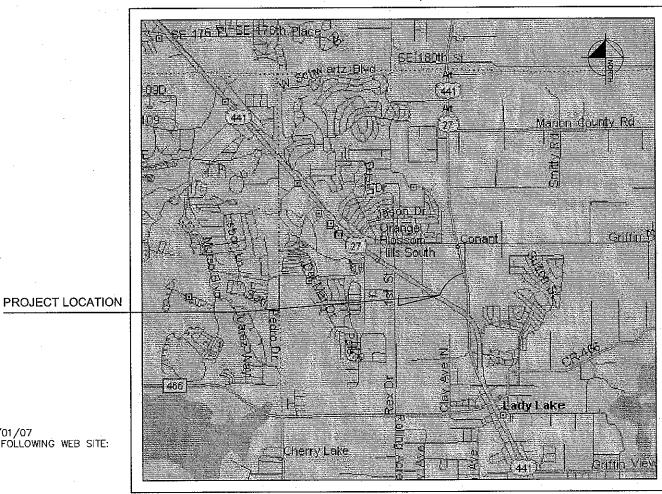
SIGNALIZATION PLANS FOR

VILLAGE CROSSROADS U.S. 27 / 441 and FENNELL BOULEVARD

PROJECT LOCATION

SECTION 11230000, MILEPOST 0.801

TOWN OF LADY LAKE, FL NOVEMBER, 2007



SHEET INDEX

SHEET NO. DESCRIPTION

T1 KEY SHEET
T2 TABULATION OF QUANTITIES
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T6 STRAIN POLE SCHEDULE
T7 GUIDE SIGN WORK SHEET

RECEIVED
DEC 2 1 2007
TRAFFIC OPERATIONS

APPLICABLE DESIGN STANDARDS MODIFICATIONS: 01/01/07
FOR DESIGN STANDARDS MODIFICATIONS GO TO THE FOLLOWING WEB SITE:

VICINITY MAP

GOVERNING STANDARDS AND SPECIFICATIONS: FLORIDA DEPARTMENT OF TRANSPORTATION, DESIGN STANDARDS DATED 2006, AND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED 2007, AS AMENDED BY CONTRACT DOCUMENTS.

http://www.dot.state.fl.us/rddesign/

PREPARED BY
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TABULATION OF QUANTITIES

PAY		, m, , ,		SHEE	T NO.		T07	-AL	
ITEM NO.	DESCRIPTION	UNIT		T4		T5			
***************************************			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	
	OLIVIOSI DI SI NEDITORI DI RECOLOS CIONI TENDODADI	ED	28	7 171712		1	28		
10299	CHANGEABLE VARIABLE MESSAGE SIGN - TEMPORARY	LF	1345				1345		
630-1-12	CONDUIT (FURNISH & INSTALL) (ABOVEGROUND)	_ LF	1345		_		1545		
	CONDUCT (CHENICA) (TREE COOLING TYCKED)	LF	170		-		170		
630-1-14	CONDUIT (FURNISH) (UNDERGROUND JACKED)	La!	170_				170		
070 7 4	DARIS (CIONAL) (CURNICIA & INCTALL)	PI	1 1		_		1		
632-7-1	CABLE (SIGNAL) (FURNISH & INSTALL)		 	 					
634-4-112	SPAN WIRE ASSEMBLY (DIAGONAL)	P!	1		_	-	1		
034-4-112	SPAN WIRE ASSEMBLI (DIAGONAL)	<u> </u>	 						
635-1-11	PULL AND JUNCTION BOXES (F&I)	EA	15		_		15		
000 1 11	TOLE AND CONCROL BOXES (FAX)		1						
639-1-22	ELECTRICAL POWER SERVICE (UNDERGROUND)	AS	1		_		1		
639-2-1	ELECTRICAL SERVICE WIRE	LF	150				150		
	ELECTRICAL CHANGE MINE		-						
641-41-112	PRESTRESSED CONCRETE POLE (TYPE NII SERVICE POLE)	EA	1				1	<u>. </u>	
641-17-152	PRESTRESSED CONCRETE POLE (TYPE N-VIII)	EA	1				. 1		
641-17-154	PRESTRESSED CONCRETE POLE (TYPE N-VIII)	EA	1				11		
650-51-313	SIGNAL TRAFFIC (F&I) (3 SECT 1 WAY) (L.E.D.)	AS	10				10		
653-191	SIGNAL, PEDESTRIAN (F&I) (LE.DCOUNTDOWN) (1-WAY)	AS	2				2		
659-106	SIGNAL HEAD AUXILIARIES (TUNNEL VISORS)	EA	30				30		
659-109	SIGNAL HEAD AUXILIARIES (CONCRETE PEDESTAL)	. EA	2	<u> </u>			2	 	
660-1-109	LOOP DETECTOR, INDUCTIVE (DELAY)	EA	6			ļ	6		
660-1-110	LOOP DETECTOR, INDUCTIVE	EA	1		<u> </u>		1		
								<u> </u>	
660-2-102	LOOP ASSEMBLY (TYPE B) (6'x6')	AS	8				8	<u> </u>	
660-2-106	LOOP ASSEMBLY (TYPE F) (6'x40')	AS	6				6		
663-74-1	VEHICLE DETECTOR ASSEMBLY (OPTICAL) (2-WAY)	PI	1				11		
665-11	PEDESTRIAN DETECTOR	EA	2		<u> </u>		2		
670-5-110	CNTL ASSEM ACT SS F&I NEMA	AS	1		 -		1	<u> </u>	
			 			ļ. <u>-</u> -	1		
685-128	SYSTEM AUXILIARIES (INTERFACE PANEL)	EA	1_1_		 -		<u> </u>		
			4	ļ		- 	4		
699-1-1	INTERNALLY ILLUMINATED SIGN	EA	4				+		
		AS	+	+	4	<u> </u>	4		
700-20-11	SIGN, SINGLE POST (FURNISH & INSTALL) (LESS THAN 12)	AS	+ =	-	1 1		1 1	 	
700-20-60	SIGN, SINGLE POST (REMOVE)	AS	+ =	 	2	+	2	 	
700-46-11	REMOVE SIGN ASSEMBLY								
700 7	DECLEOTIVE DAVENCHT MADICEDS (MEHTE (DED)	EA	_	+	16	 	16	1	
706-3	REFLECTIVE PAVEMENT MARKERS (WHITE/RED)	LF	 	1	350	 	350	†	
711-11-121	THERMO., (STD) (WHITE) (SOLID) (6")		 		137	1	137		
711-11-125	THERMO., (STD) (WHITE) (SOLID) (24")	EA	 	 	2		2		
711-11-170	THERMO. (STD) (WHITE) (ARROWS)	LF			70		70		
711-11-221	THERMO. (STD) (YELLOW) (SOLID) (6")	SF	 		288	 	288		
711–17	THERMO., (REMOVE)	J		1	1 200	-		† · · · · · · · · · · · · · · · · · · ·	
				 	1	 		1	
783-6-1	ITS SPLICE BOX FOR FIBER OPTIC	EA	1 1	1			1	-	
700-0-1	115 SPEICE BOX FOR FIDER OF HE		+ -	1	 	"		1	
000 3	GENERATOR PAD (3'x3'x4")	EA	1	1	T _		1		
999-2	GENERATOR PAU (3 X3 X4)			 	+		1	1	

TABULATION OF QUANTITIES

DATE
Nov., 2007
PROJECT NO.
049372002
SHEET NUMBER
T2

GENERAL

- _ The Contractor shall verify color codes for signal cable with Steve Bollinger, Lake County Traffic Operations, 352-742-1766 before ordering.
- − The Contractor is required to inspect the installation of the traffic signals in accordance with FDOT Specification 105-5.10. The Contractor shall coordinate the final acceptance inspection in accordance with FDOT Specification 6II-2.2 with the Engineer at least ten days in advance. Steve Bollinger of Lake County Traffic Operations at (352) 742-7766 and Ray Marilin of FDOT at (386) 943-5318 should also be contacted ten days before the inspection is to be performed so they may be present.
- It should be noted that no test borings were made where conduit runs are to be installed by directional boring, or trenching. It shall be the Contractor's responsibility to examine job site conditions before submitting bid proposals in accordance with Section 2-4 of the Specifications.
- A pre-construction meeting shall be scheduled with Lake County Traffic Operations, (352) 742-1766, prior to any construction.
- -- All materials and hardware shall be F.D.O.T. approved, and pre-approved by Lake County Traffic Operations.
- The Contractor shall furnish Lake County Traffic Operations with emergency contacts and phone numbers and have an I.M.S.A. Level II or III certified signal technician on call within a two hour maximum response time.
- The Contractor shall furnish Lake County Traffic Operations two complete sets of As-Built Plans that include conduit and pull box locations, at final inspection.
- The Contractor shall notify Lake County Traffic Operations and FDOT 2 business days prior to beginning construction.
- Lane closures shall be allowed only between 7:00 pm and 7:00 am.
- The Contractor shall hand dig the first 4 feet at each pole location to verify there are no utility conflicts.

CONDUITS / PULL BOXES / CABLING

- All signal cable, loop cable, and communication cable shall be installed in separate pull boxes.
- Pull boxes and covers shall be FDOT approved of non-metallic construction with recessed cover logo "Traffic Signal" or "Fiber Optic" as appropriate.
- Multiple conduit runs in the same trench shall be Jack and bored or directional bored for the first conduit only. Subsequent conduit runs shall be paid for as underground.
- Conduit under reconstructed driveways shall be placed prior to placing pavement and shall be paid as underground conduit.
- Signal cable shall be attached to messenger wire using proper size spiral wrap.
- A fiber optic splice box and conduit into the controller assembly shall be furnished and installed.
- 'F' Type loops shall be 40' long by 6' wide and extend 5' beyond the stop line.
- Any new or existing striping cut because of loop placement shall be re-striped prior to acceptance.

TIMINGS / CONTROLLER

- The controller cabinet assembly shall be a Lake County Naztec Regional TS-2 with a TS-1 controller, ethernet enabled for the Lake County closed loop system. The additional equipment and accessories for the fiber optic cable interconnect shall be furnished and installed as part of the controller assembly.
- The controller shall be wired for future S.O.P. 10 Operation.
- Delay times shall be set to 5 seconds.
- Spare cabinet conduit shall be stubbed and capped in the nearest pull box.
- Grounding for the controller assembly shall measure 25 ohms or less.
- The mounting of the electrical service to the traffic signal cabinet shall be prohibited.
- A manual pushbutton cord shall be furnished in the controller cabinet.
- The cabinet door shall open away from the Intersection, within the FDOT right-of-way.
- Traffic signal shall flash for no less than 7 days and no more than 14 days prior to turn-on inspection. Contractor shall contact permit engineer 48 hours prior to turning signal on flash.
- Contractor shall contact permit engineer 48 hours before any directional bores.

- -- All signal displays including pedestrian signals shall be LED.
- All signal head assemblies shall be black cast aluminum.
- All signal head assemblies shall include tunnel visors.
- The use of "Jones" plugs shall be prohibited.

PEDS

- Contractor to ensure that a 4'X4' flat landing is adjacent to all pedestrian buttons for pedestrian access.
- Three (3) spare conductors are to be run to the furthest pedestrian signal head.
- All pedestrian signals shall be 16" L.E.D., countdown type.
- Pushbuttons shall be Pelco oversized metal buttons or approved equal.

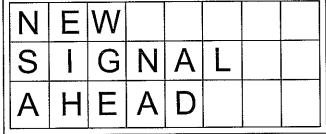
STREET NAME SIGNS

- All Internally illuminated street name signs shall be illuminated by LED's installed one foot below the messenger cable, powered by a separate circuit breaker, and be installed in accordance with the internally illuminated Street Name Sign Detail for Lake County Public Works.

PAY ITEM NOTE

Pay Item No. 102-99 shall include furnishing, installing, operating, and removing two (2) VMS's. The VMS's shall be Installed along US 27/441 approximately 750 feet in advance of the proposed northbound and southbound stop bars. The VMS's shall be activated when the proposed signal is fully operational, and shall operate for 7 to 14 full days thereafter. The messages shall alternate and be as follows:

Ν	E	W				
S		G	N	Α	L	
Α	Н		Α	D		



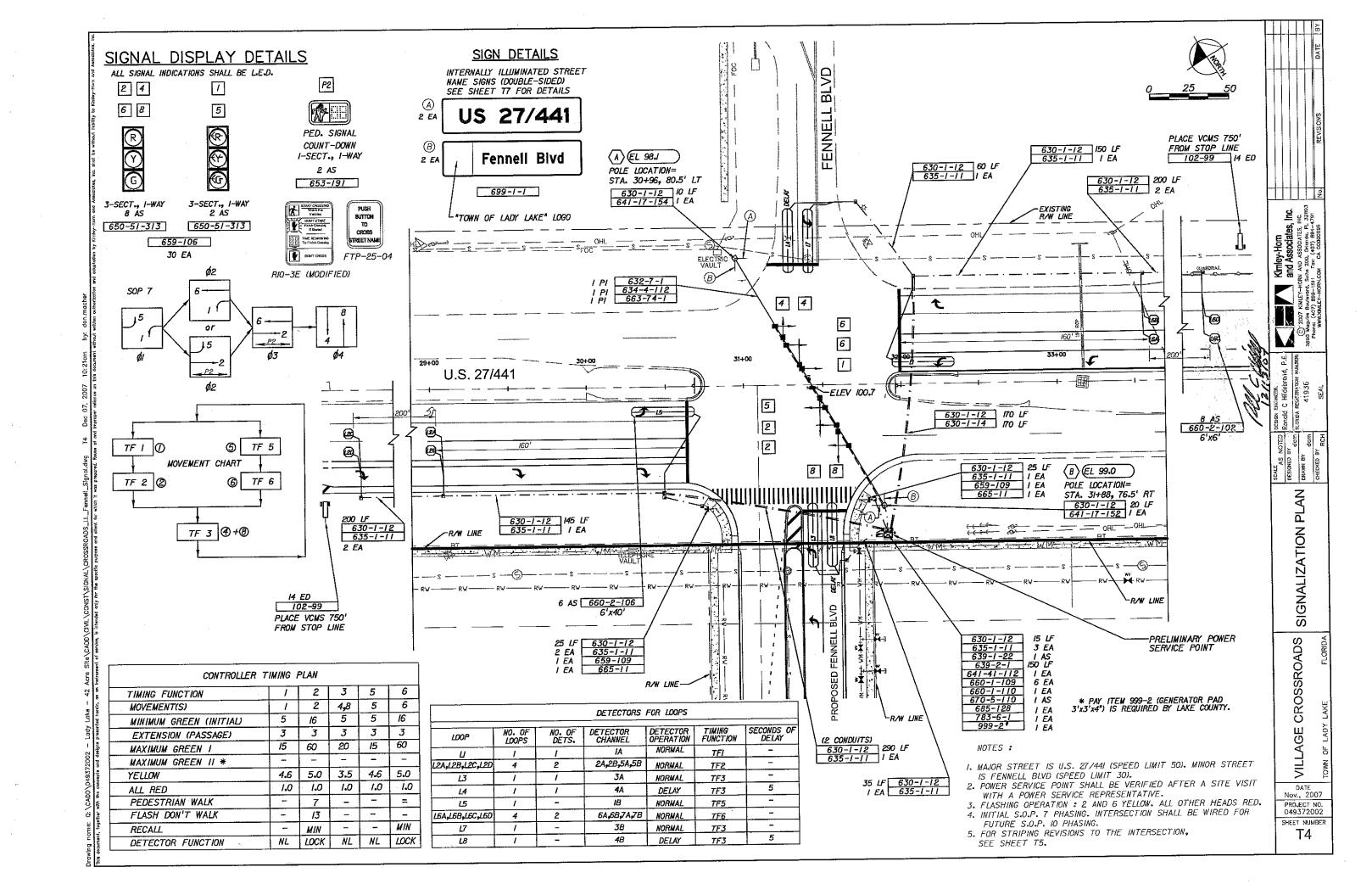
- Pay Item Nos. 783-5-I and 783-6-I shall include all costs for furnishing and installing fiber optic pull baxes and splice boxes as specified in Specifications Section 783 attached hereto.
- Pay Item 639-1-22 The Contractor shall be responsible for contacting the power company providing the electrical power, to determine if any additional fees are required to connect power and for connection of power. If required, the fee shall be included as part of bid item payment for electrical service assembly. The Contractor is also responsible for acquiring the electrical permit and coordinating the application for power with the Town of Lady Lake.
- Pay Item Nos. 653-191 shall include FTP-25-04 and RIO-3E Modified signs without arrow.
- Pay Item No. 663-74-I shall be bid, furnished, and installed as a per-intersection Item, and shall include all equipment and timings fully operational and functional for each approach to the intersection. The brand of emergency preemption shall be Opticom.
- Pay Item No. 783-1-122 shall include all costs for furnishing and installing fiber optic cable as specified in Specifications Section 783 attached hereto.

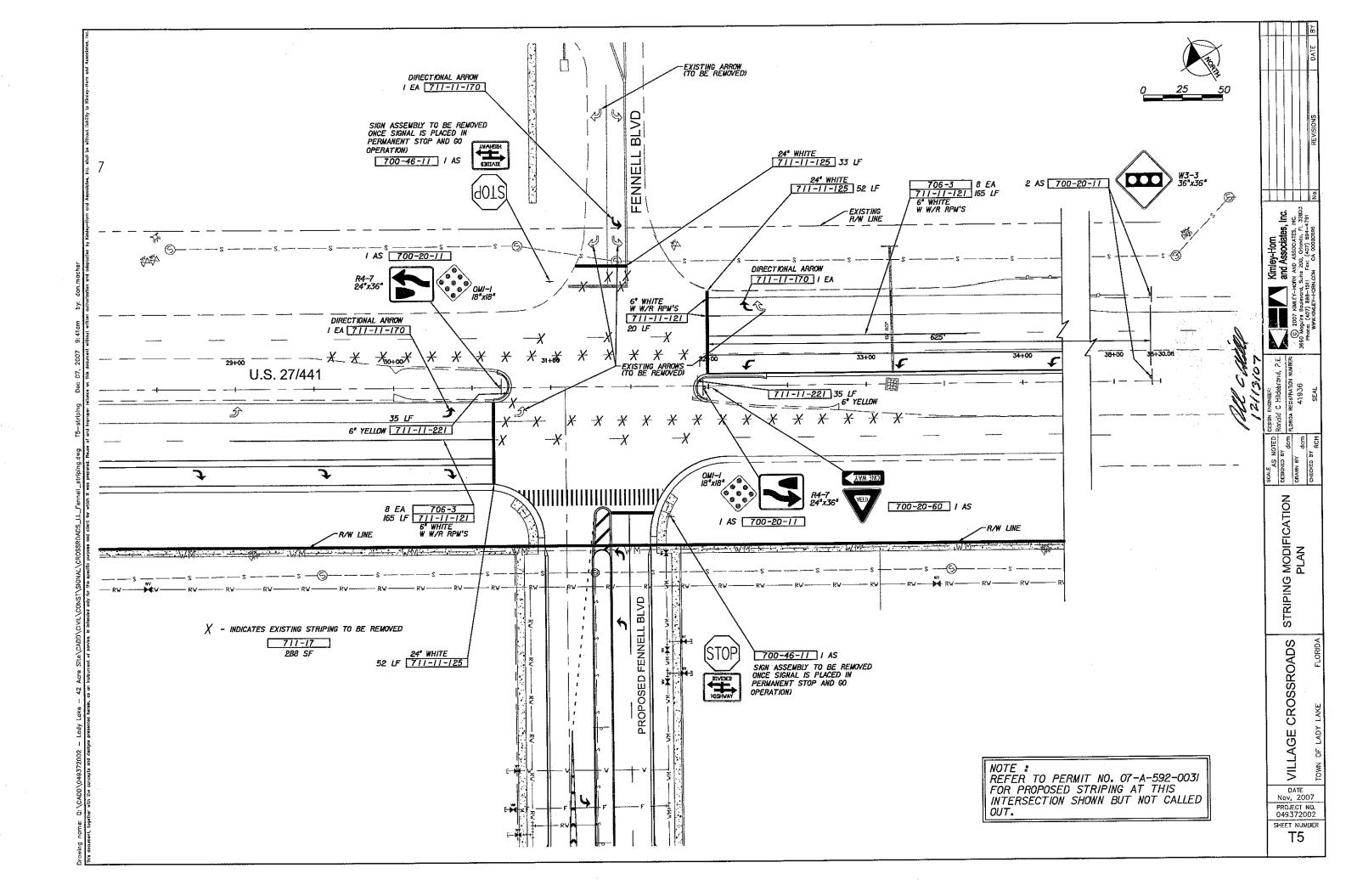
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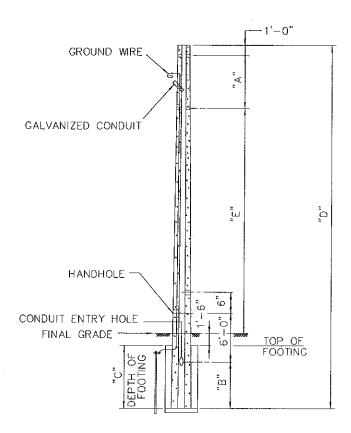
> CROSSROADS VILLAGE

DATE Nov., 2007 PROJECT NO. 049372002 SHEET NUMBER

Т3







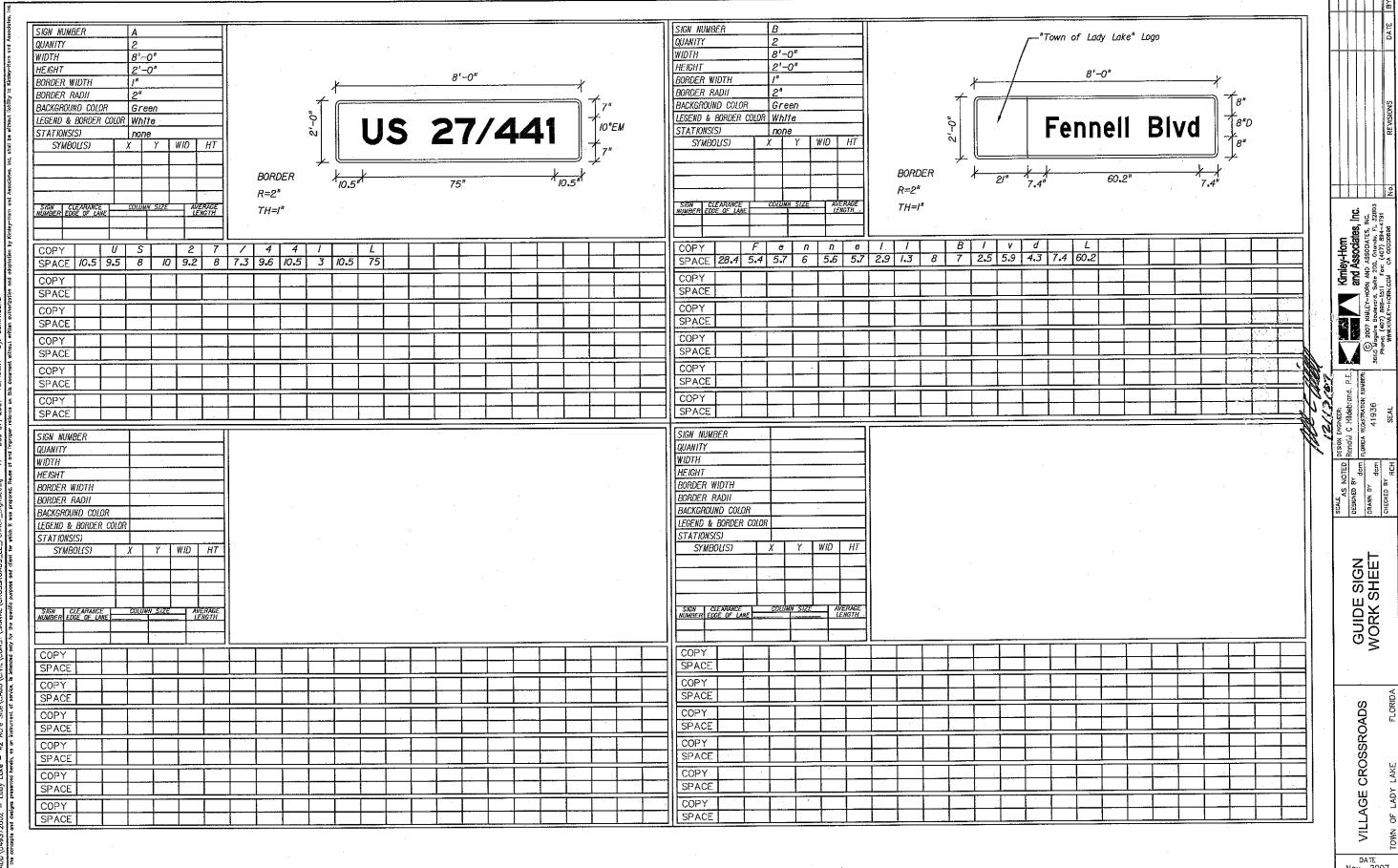
DETAIL OF PRESTRESSED CONCRETE

STRAIN POLE NOTES

- I. THIS DESIGN IS FOR A SPAN WIRE ASSEMBLY WITH TWO POINTS ATTACHMENT.
 INSTALLATION SHALL BE IN ACCORDANCE WITH THE 2007 EDITION OF
 THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- 2. DESIGN PARAMETERS:
 - COHESIONLESS SOIL
 - SOIL FRICTION ANGLE = 29 DEGREES
 - SOIL WEIGHT (SUBMERGED) = 45.6 pcf
 - DESIGN WIND SPEED = 110 mph
- 3. ALL LABOR, MATERIALS, AND EXPENSES FOR DESIGN, FURNISHING AND INSTALLING THESE POLES SHALL BE INCLUDED IN BID ITEMS 641-17-152 AND 641-17-154.
- 4. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SPECIFIED.

CONCRETE STRAIN POLE SCHEDULE POLE DATA									CABLE DATA		MINIMUM MOMENT		
STATION / OFFSET	POLE NO.	SPAN NO.	TYPE	A	В	С	D	E	ITEM NO.	QUAN.	CATENARY SIZE (in)	MESSENGER SIZE (In)	CAPACITY (KIP-f1)
30+96, 80.5' LT	A	A-B	N-VIII .	10	15	16	54	25.5	641-17-154	1	%"	1/2"	346
31+88, 76.5' RT	В	A-B	N-VIII	10	14	15	52	24.5	641-17-152	1	%*	<i>1/2</i> "	338

PROJECT NO. 049372002 SHEET NUMBER



Kimley-Hom and Associates, Inc.

GUIDE SIGN WORK SHEET

CROSSROADS VILLAGE (

DATE Nov., 2007 PROJECT NO. 049372002 SHEET NUMBER

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