

TRAFFIC SIGNAL PLANS

FOR

WEST SR 50 & MAGNOLIA POINT BLVD.

LAKE COUNTY, FLORIDA

PREPARED BY:

tai

TIPTON ASSOCIATES INCORPORATED
 TRAFFIC, TRANSPORTATION AND CIVIL ENGINEERS
 760 MAGUIRE BOULEVARD
 ORLANDO, FL 32803-3751
 (407) 894-2055 FAX (407) 896-9949

PREPARED FOR:

SUNDEV PROPERTIES
 5728 MAJOR BOULEVARD
 ORLANDO, FL 32819
 (407) 362-0175 (407) 363-2950 (FAX)

GOVERNING SPECIFICATIONS:

STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION,
 DESIGN STANDARDS DATED 2006, AND
 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION,
 DATED 2007, SUPPLEMENTS AND SPECIAL PROVISIONS AS NOTED IN
 THESE DOCUMENTS.

PROPERTY OWNER & DEVELOPER:

SUNDEV PROPERTIES
 5728 MAJOR BOULEVARD
 ORLANDO, FL 32819
 407/862-0175
 407/863-2950 (FAX)

PLANNER/ENGINEER:

WILLIAM E. TIPTON, J.R., P.E.
 TIPTON ASSOCIATES INCORPORATED
 760 MAGUIRE BOULEVARD
 ORLANDO, FLORIDA 32803
 407/694-2055
 407/896-9949 (FAX)

STRUCTURAL ENGINEER:

LOCKE D. BOWDEN, P.E.
 9450 ALYSBURY PLACE
 MONTGOMERY, AL 36117
 334/241-2810

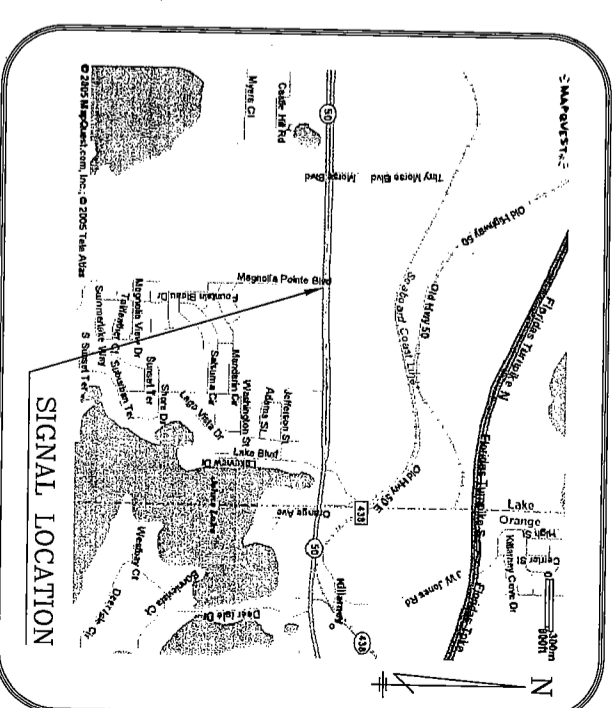
SURVEYOR:

RHODEN LAND SURVEYING, INC.
 109 E. AVENUE
 CLERMONT, FL 34711
 352/894-6255

GEOTECHNICAL ENGINEER:

S.E. JIM JAMMAL, P.E.
 NODARSE & ASSOCIATES, INC.
 1875 LEE ROAD
 WINTER PARK, FL 32789
 407/740-6170

DESIGNED BY: WET JR. DRAWN BY: WET JR. WILLIAM E. TIPTON, JR., P.E.	DATE: 10/13/06 FL REG. # 46012
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LOCATION MAP

SHEET NO.	DESCRIPTION
T-1	KEY SHEET
T-2	SUMMARY OF QUANTITIES
T-3	GENERAL NOTES
T-4	SIGNALIZATION PLAN
T-5	INTERNALLY ILLUMINATED ST. NAME SIGN DETAILS

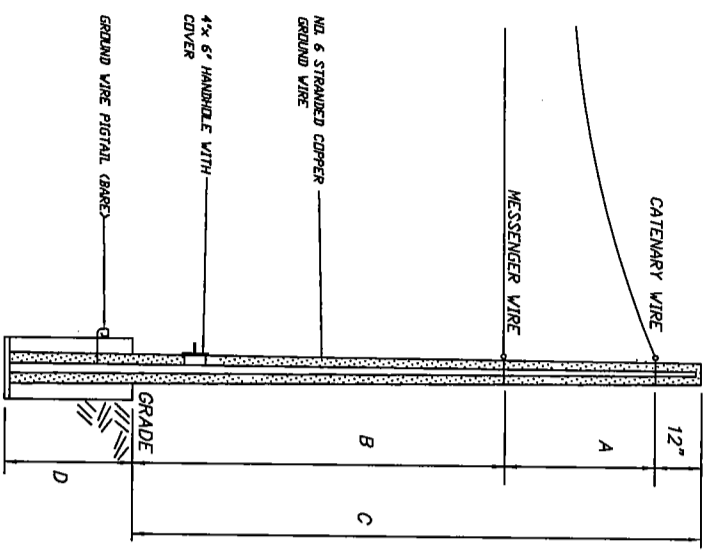
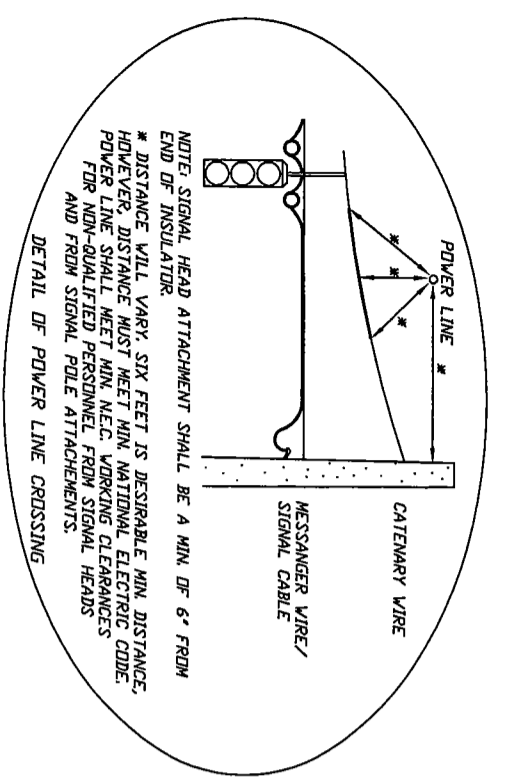
3/30/06	REVISED PER FDOT & LAKE COUNTY COMMENTS
5/31/06	REVISED PER FDOT COMMENTS
10/6/06	REVISED PER FDOT COMMENTS

SHEET INDEX

POLE SCHEDULE

LOCATION	POLE NO.	A	B	C	D	ITEM NO.	QUANTITY
STA 2+68.99 81.42' RT	1	13.3'	24.0'	38.3'	15.7'	641-171-54	1
STA 1+12.81 91.90' LT	2	13.3'	23.5'	37.8'	16.2'	641-171-54	1

NOTE: POLE SCHEDULE VALUES BASED UPON CONCRETE STRAIN POLE DESIGN BY LOCKE D. BOWDEN, P.E.



(±160.0) PROPOSED ELEVATION AT POLE NO. 1.
(±160.5) PROPOSED ELEVATION AT POLE NO. 2.

TWO POINT LOADING
PRE-STRESSED CONCRETE STRAIN POLES
N/S

NOTE: ALSO SEE FDOT STANDARD INDEX NO. 17727 FOR SIGNAL CABLE AND SPAN WIRE INSTALLATION DETAILS

STRAIN POLE NOTES

- 1) MEASUREMENTS ARE IN FEET
- 2) STRAIN POLE SHALL MEET THE REQUIREMENTS OF SECTION 641 OF THE FDOT SPECIFICATIONS.
- 3) EXCAVATION AND BACKFILL FOR THE FOUNDATION SHALL BE IN ACCORDANCE WITH ARTICLES 125-8.2 OF THE SPECIFICATIONS.
- 4) UNFACTORED MOMENT IS THE REQUIRED BENDING CAPACITY OF THE STRAIN POLE AT THE TOP OF THE FOUNDATION.
- 5) CATENARY SIZE IS 3/8 INCH AND MESSENGER SIZE IS 7/16 INCH.

SUMMARY OF QUANTITIES

PAY ITEM	DESCRIPTION	UNIT	QUANTITY
102-1	MAINT. OF TRAFFIC	LS	1
630-1-12	CONDUIT UNDERGROUND	LF	1,013
630-1-14	CONDUIT JACKED	LF	123
632-7-1	SIGNAL CABLE	PI	1
634-4-112	SPAN WIRE ASSEMBLY	PI	1
635-1-11	PULL BOXES	EA	12
639-1-11	ELECTRICAL POWER SERVICE (OVERHEAD)	AS	1
639-2-1	ELECTRIC SERVICE WIRE	LS	1
641-171-54	CONCRETE SIGNAL POLE (N-W) (5#) (POLE NO. 1)	EA	1
641-171-54	CONCRETE SIGNAL POLE (N-W) (5#) (POLE NO. 2)	EA	1
650-51-313	TRAFFIC SIGNAL (3-SECTION, 1-WAY) SPECIAL	EA	5
650-51-513	TRAFFIC SIGNAL (5-SECTION, 1-WAY) SPECIAL	EA	1
659-101	BACKPLATES 3-SECTION	EA	3
659-118	BACKPLATES 5-SECTION	EA	1
659-108	TUNNEL WISOR	EA	20
660-1-109	INDUCTIVE LOOP DETECTOR (TYPE 9)	EA	10
660-1-109	INDUCTIVE LOOP DETECTOR (TYPE 9, TD)	EA	1
660-2-102	LOOP ASSEMBLY TYPE B	AS	8
660-2-106	LOOP ASSEMBLY TYPE F (6X40)	AS	3
663-74-11	VEHICLE DETECTOR ASSEMBLIES (2-WAY)	EA	1
670-5-112	ACT. CONTROLLER ASSEMBLY	AS	1
699-1-1	INTERNALLY ILLUMINATED STREET NAME SIGN	EA	2

NOTE: ANY ADDITIONAL ITEMS REQUIRED FOR THIS SIGNAL INSTALLATION SHALL BE INCIDENTAL TO THE ABOVE LIST WITH NO ADDITIONAL COMPENSATION PROVIDED.
ITEM NO. 620-5-112 THIS ITEM TO INCLUDE A NEW CONTROLLER CABINET MEETING FDOT AND LAKE COUNTY SPECIFICATIONS.
ITEM NO. 634-4-112 THE MESSENGER WIRE SHALL BE 7/16" CABLE PER THE STRUCTURAL ENGINEER. THE CATENARY WIRE SHALL BE 3/8" CABLE PER THE STRUCTURAL ENGINEER.

DESIGNED BY:
WET JR.
DRAWN BY:
WET JR.
PROJECT MANAGER: WILLIAM E. TIPPON, JR., P.E.
DATE: 10/6/06
TAG: # 46012

DATE	BY	DESCRIPTION	DRAWN	CHECKED	DESIGNED	CHECKED	NAME
3/30/06	WET JR	REVISED PER FDOT & LAKE COUNTY COMMENTS					
5/31/06	WET JR	REVISED PER FDOT COMMENTS					
10/6/06	WET JR	REVISED PER FDOT COMMENTS					

TIPPON ASSOCIATES INCORPORATED
760 MAGUIRE BOULEVARD
ORLANDO, FLORIDA 32803
© (407) 894-2055

SUMMARY OF QUANTITIES

GENERAL NOTES:

INSURANCE AS REFERENCED IN SECTION 7-13.3 IN THE FDOT STANDARD SPECIFICATIONS SHALL BE PROVIDED BY THE CONTRACTOR WHEN INSTALLING OR WORKING ON OR IN THE VICINITY OF JOINT USE POLES AND/OR INSTALLING SIGNAL POLES WITHIN SIX FEET OF POWER LINES.

TRAFFIC CONTROL PLAN FOR SIGNAL INSTALLATION:
 MAINTAIN TRAFFIC ON EXISTING ROADWAY BY USE OF INDEX NUMBERS 820 AND 822 OF THE FDOT 2006 ROADWAY AND TRAFFIC DESIGN STANDARDS. NO LANE CLOSURES WILL BE ALLOWED BETWEEN 6 - 9 AM AND BETWEEN 4 - 7 PM.

THE SIGNAL SHALL BE MAINTAINED BY LAKE COUNTY AFTER SUCCESSFUL COMPLETION OF BURN-IN PERIOD.

SECTION 611-4, FIELD TESTS:

IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATIONS ACCEPTANCE PROCEDURES, THE 48 HOUR TEST SHALL START ON A MONDAY, TUESDAY OR WEDNESDAY. HOWEVER, THE 48 HOUR TEST SHALL NOT START ON THE DAY PRECEDING A HOLIDAY.

PRIOR TO THE 90-DAY WARRANTY PERIOD ALL EQUIPMENT MUST BE INSTALLED AND OPERABLE. RESULTS OF THE FIELD TESTS, IE SECTION 611-4.1, 4.2, 4.3 AND 4.4, SHALL BE MADE AVAILABLE TO RAY MARLIN & SUTTE BOLINGER IN WRITTEN FORM. A QUALIFIED REPRESENTATIVE SHALL BE PRESENT AT THE CONDITIONAL ACCEPTANCE INSPECTION OF THE CONTROLLER ASSEMBLY. THE QUALIFICATIONS OF THE REPRESENTATIVE SHALL INCLUDE COMPLETE FAMILIARITY WITH ALL SYSTEM ELEMENTS INCLUDING CONTROLLERS, COORDINATING UNITS, SYSTEM UNITS, SYSTEM CLOCKS AND SYSTEM COMMUNICATIONS ELEMENTS. THE REPRESENTATIVE SHALL BE QUALIFIED TO INPUT AND RECALL ALL CONTROLLER AND SYSTEM TUNING FUNCTIONS.

THE CONTRACTOR SHALL COORDINATE ANY UTILITY RELOCATIONS.

PLEASE FURNISH THE FOOT & LAKE COUNTY THREE SETS OF "AS BUILT" PLANS FOR THEIR RECORDS. SUBMIT TO:

FLORIDA DEPT. OF TRANSPORTATION
 ATTN: TRAFFIC OPERATIONS - SUSANNE HERTZ
 719 S. WOODLAND BLVD. - DELAND, FL 32720
 LAKE COUNTY TRAFFIC OPERATIONS
 28127 COUNTY ROAD 561
 TAYLORS, FL 32778

SIGNAL INSTALLATION SHALL BE GOVERNED BY FDOT STANDARD SPECIFICATIONS AND ROADWAY & TRAFFIC DESIGN STANDARDS (DATED 2006).

CONTRACTOR TO NOTIFY THE MAINTAINING AGENCY AND THE FDOT 2 BUSINESS DAYS PRIOR TO BEGINNING CONSTRUCTION.

SUBMITTAL DATA FOR ALL PERMIT JOBS MUST BE IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATIONS TO THE STANDARD SPECIFICATIONS, SECTION 603.5.

NEW STRIPING AND REMOVAL OF CONFLICTING PAVEMENT MARKINGS & SIGNAGE TO BE ACCOMPLISHED BY THE ROADWAY CONTRACTOR AS DETAILED ON THE INTERSECTION IMPROVEMENT PLANS BY SK CONSORTIUM, INC.

ALL DISTURBED RIGHT OF WAY TO BE RESTORED.

ELECTRIC POWER SERVICE WIRE SHALL BE RUN IN A SEPARATE CONDUIT.

THE CONTRACTOR SHALL FIELD VERIFY THE REQUIRED POLE HEIGHTS PRIOR TO PURCHASING THE POLES.

A NEW CABINET MEETING LAKE COUNTY SPECIFICATIONS SHALL BE INSTALLED. THE BASE OF THE CABINET SHALL BE AT LEAST AT THE SAME ELEVATION AS THE GROUND OF THE ROAD. THE DOOR SHALL OPEN AWAY FROM THE INTERSECTION.

OPTICOM PREEMPTION TO BE PROVIDED FOR EB & NB SR 50.

ONE SET AS-BUILTS TO REMAIN IN THE CABINET.

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 611-2.2 WITH THE ENGINEER AT LEAST 10 DAYS IN ADVANCE. THE (MAINTAINING AGENCY) AND RAY MARLIN AT (386) 943-5318 SHOULD ALSO BE CONTACTED 10 DAYS BEFORE THE INSPECTION IS TO BE PERFORMED SO THEY MAY BE PRESENT.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS IN ACCORDANCE WITH SECTION 2-4 OF THE SPECIFICATIONS.

THE CONTRACTOR SHALL HAND DIG THE FIRST 4' AT EACH POLE LOCATION TO VERIFY NO CONFLICTS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE TOP OF FOUNDATION ELEVATIONS AND HIGH PT. GROUND ELEVATIONS PRIOR TO ORDERING SIGNAL POLES. COLOR CODES FOR MAINTAINING AGENCIES TO BE USED.

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 PROVIDED VMS BOARDS WITH THE FOLLOWING MESSAGE:
 "TRAFFIC SIGNAL AHEAD"

ALL COMMUNICATION CABLE SHALL BE INSTALLED IN SEPARATE PULL BOXES.
 F TYPE LOOPS SHALL BE 40' LONG BY 6' WIDE AND EXTEND 5' BEYOND THE SOP BAR.
 DELAY TIMES SHALL BE SET TO 5 SECONDS.

SIGNAL PLAN BASED UPON SURVEY BY RHODEN LAND SURVEYING, INC. DATED 9/8/05.
 AND INTERSECTION PLANS BY SK CONSORTIUM, INC. DATED 10/3/05.

LAKE COUNTY TRAFFIC SIGNAL OPERATIONS
 GENERAL NOTES 05

Aug05

1. A PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED WITH LAKE COUNTY TRAFFIC OPERATIONS, (352) 742-1766, PRIOR TO ANY CONSTRUCTION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING LAKE COUNTY TRAFFIC OPERATIONS, AT 352-742-1766, 48 HOURS IN ADVANCE OF ALL PHASES OF CONSTRUCTION INCLUDING, INSTALLING SIGNAL POLES, GROUND RODS, UNDERGROUND CONDUIT, SIGNAL HEAD ASSEMBLIES, AND LOOP INSTALLATION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL NECESSARY PERMITS, INCLUDING THE ELECTRIC PERMIT, AND TO COORDINATE APPLICATION FOR POWER, WITH LAKE COUNTY TRAFFIC OPERATIONS.
4. 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 ASSEMBLY. IF REQUIRED THE FEE SHALL BE INCLUDED AS PART OF BID ITEM PAYMENT FOR ELECTRICAL SERVICE.
5. TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH THE FDOT TRAFFIC DESIGN STANDARDS.
7. THE CONTRACTOR SHALL STAKE ALL POLE LOCATIONS AND HAVE APPROVED BY LAKE COUNTY TRAFFIC OPERATIONS.
8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE EXACT LOCATIONS OF ALL UTILITIES PRIOR TO BEGINNING WORK.
9. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY DEPARTMENT AT LEAST 48 HOURS IN ADVANCE OF POLE SETTING OPERATIONS WHERE A CONFLICT WITH OVERHEAD ELECTRICAL CONDUCTORS IS EXPECTED AND WHEN JOINT USE POLES ARE TO BE USED.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING THE PROPER AMOUNT OF RAKE WITH RESPECT TO LOADING TO BE USED ON POLES AT THE TIME OF INSTALLATION.
11. ALL MATERIALS AND HARDWARE SHALL BE F.D.O.T. APPROVED, AND PRE-APPROVED BY LAKE COUNTY TRAFFIC OPERATIONS.
14. SIGNAL HEADS SHALL BE WIRED DIRECTLY TO THE TERMINAL BLOCKS. THE USE OF "JONES" PLUGS SHALL BE PROHIBITED.
15. THE INSIDE LANE DISCONNECT SHALL BE WIRED FOR FUTURE S SECTION HEADS.
16. SIGNAL CABLE SHALL BE ATTACHED TO MESSENGER WIRE USING PROPER SIZE SPIRAL WRAP.
17. VEHICLE SIGNAL HEAD ASSEMBLIES SHALL BE BLACK, CAST ALUMINUM, WITH TUNNEL VISORS, AND LED'S FOR ALL INDICATIONS, UNLESS OTHERWISE NOTED.
19. IT SHALL BE NOTED THAT NO TEST BORINGS WERE MADE WHERE CONDUIT RUNS ARE TO BE INSTALLED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS.
20. LOOP HOME RUNS SHALL NOT BE CUT INTO THE RADIUS.
21. A FIBER PULL BOX AND CONDUIT INTO THE CONTROLLER ASSEMBLY SHALL BE INSTALLED.
22. PULL BOXES SHALL BE LOCATED AWAY FROM EDGE OF PAVEMENT, OR BEHIND A CURB WHEN POSSIBLE, ATTEMPTING TO KEEP FROM THE BOTTOM OF A DITCH OR RETENTION AREA, AND WHERE LARGE VEHICLES PARK.
23. PULL BOX COVERS SHALL BE FDOT APPROVED NON METALLIC WITH RECESSED COVER LOGO "TRAFFIC SIGNAL" OR "FIBER OPTICS" AS APPROPRIATE.
24. A GENERATOR SWITCH BOX ASSEMBLY SHALL BE INSTALLED. (RELIANCE CONTROLS CSR302 WITH POWER INDICATOR LIGHT), OR EQUIVALENT.
25. A GENERATOR PAD, 3'X3'X4" CONCRETE SHALL BE INSTALLED.
26. THE MOUNTING OF ELECTRICAL SERVICE EQUIPMENT TO THE TRAFFIC SIGNAL CABINET SHALL BE PROHIBITED.
27. THE CONTROLLER ASSEMBLY SHALL BE A "LAKE COUNTY" MAZTEC REGIONAL TS2-1; WITH A TS2-2 CONTROLLER ETHERNET ENABLED FOR COUNTY CLOSED LOOP SYSTEM.
28. THE CABINET DOOR SHALL OPEN AWAY FROM THE INTERSECTION WHEN POSSIBLE.
29. A MANUAL PUSH BUTTON CORD SHALL BE FURNISHED IN ALL CONTROLLER CABINETS.
30. THE FIRST BUFFER OF SINGLE MODE AND MULTI MODE FIBER SHALL BE TERMINATED IN THE CABINET USING ST CONNECTORS.
31. OPTICOM PREEMPTION OR EQUIVALENT SHALL BE USED WHEN EMERGENCY PREEMPTION IS REQUESTED.
32. INTERNALLY ILLUMINATED STREET NAME SIGNS SHALL BE INSTALLED 1' BELOW THE MESSENGER CABLE WHERE POSSIBLE, POWERED BY A SEPARATE CIRCUIT BREAKER, AND SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH LAKE COUNTY PUBLIC WORKS INTERNALLY ILLUMINATED STREET NAME SIGN DETAIL.
33. A PHOTOCELL SHALL BE INSTALLED NEAR THE ELECTRIC SERVICE WITHIN REACH OF A LIFT TRUCK. CARE TO BE GIVEN TO INSTALL WHERE STREET LIGHTING DOES NOT AFFECT OPERATION.
34. THE CONTRACTOR SHALL FURNISH LAKE COUNTY TRAFFIC OPERATIONS WITH EMERGENCY CONTACTS AND PHONE NUMBERS AND HAVE AN IMSA LEVEL II CERTIFIED SIGNAL TECHNICIAN ON CALL WITHIN A TWO HOUR MINIMUM RESPONSE TIME.
35. ANY STRIPING/PAVEMENT MARKINGS OR LANDSCAPING DESTROYED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE RESTORED AT THE CONTRACTOR'S EXPENSE.
36. THE COST FOR THE USE OF OFF-DUTY LAW ENFORCEMENT OFFICERS IN THE EVENT OF LANE CLOSURES SHALL BE INCIDENTAL TO THE WORK AND WILL NOT BE PAID SEPARATELY.
37. 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.

DATE	BY	DESCRIPTION	NAME	DESIGNED	NAME
3/30/06	WET JR	REVISED PER FDOT & LAKE COUNTY COMMENTS	DRAWN	CHECKED	
5/31/06	WET JR	REVISED PER FDOT COMMENTS	CHECKED	CHECKED	
9/29/06	WET JR	REVISED PER FDOT COMMENTS			PROJECT MANAGER: WILLIAM E. TIPTON, JR., P.E.

DESIGNED BY
 WET JR
 DRAWN BY
 WET JR
 WILLIAM E. TIPTON, JR., P.E.

DATE: 9/29/06
 BY REG. # 46012

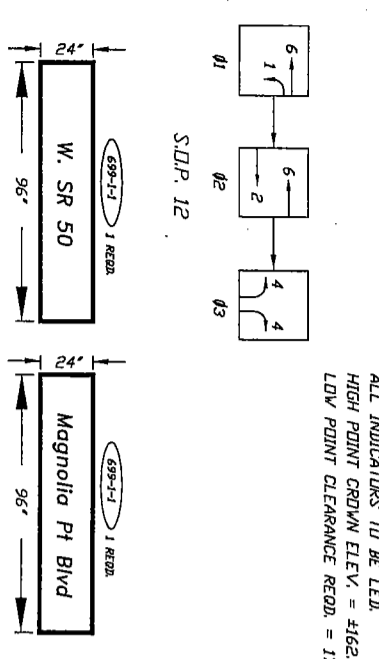
tai TIPTON ASSOCIATES INCORPORATED
 760 MAGUIRE BOULEVARD
 ORLANDO, FLORIDA 32803
 (407) 894-2055

PROJECT NO.	3-750.1
SHEET NO.	T-3

GENERAL NOTES

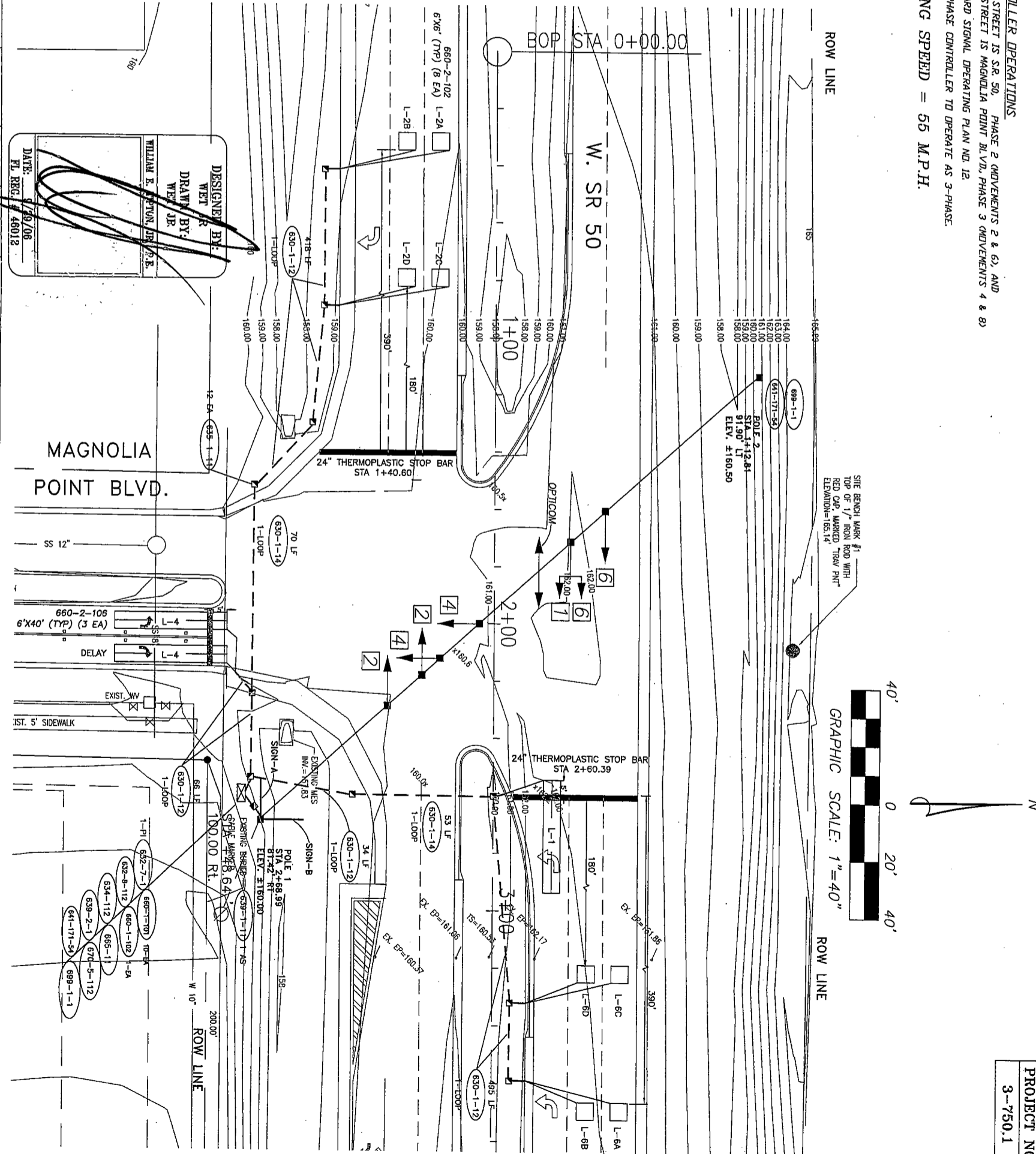
CONTROLLER TIMINGS			
TIMING FUNCTION	1	2	3
MOVEMENT NO.	1	5	2
MIN. GREEN (QNT)	7.0	17	7.0
EXT. (PASS)	3.0	3.0	3.0
MAX. GREEN 1	20	60	20
MAX. GREEN 2			
YELLOW CLR.	4.0	5.0	4.0
ALL RED CLR.	2.0	2.0	2.0
PEDESTAL CLR.	N/A	N/A	N/A
RECALL	N/A	N/A	N/A
DETECTOR FUNCTION	MIN	MIN	MIN
	LOCK	LOCK	LOCK

DETECTORS FOR LOOPS			
LOOP	NO. OF LOPS	NO. OF DETS.	DELAY (SECS)
L-1	1	1	0
L-2A/2B	2	2	0
L-2C/2D	2	2	0
L-4	1	1	0
L-4R	1	1	5
L-6A/6B	2	2	0
L-6C/6D	2	2	0



EXISTING	PROPOSED	DESCRIPTION
18" RCP	N/A	STORM SEWER
UV	N/A	WATER LINE
UE	N/A	UNDERGROUND ELECTRIC
UT	N/A	UNDERGROUND TELEPHONE
UTC	N/A	CONDUIT W/ CABLE
GAS	N/A	UNDERGROUND GAS LINE
	N/A	OVERHEAD POWER LINE
	N/A	PULL BOX
	N/A	CONTROLLER
	N/A	3-SECTION SIGNAL HEAD W/ BACKPLATES
	N/A	5-SECTION SIGNAL HEAD W/ BACKPLATES

- CONTROLLER OPERATIONS**
- MAJOR STREET IS SR 50, PHASE 2 MOVEMENTS 2 & 6, AND MINOR STREET IS MAGNOLIA POINT BLVD., PHASE 3 MOVEMENTS 4 & 8
 - STANDARD SIGNAL OPERATING PLAN NO. 12
 - FOUR PHASE CONTROLLER TO OPERATE AS 3-PHASE.
- EXISTING SPEED = 55 M.P.H.



DESIGNED BY: **WET JR**
 DRAWN BY: **WET JR**
 DATE: 7/29/06
 PL. REG. # 48012

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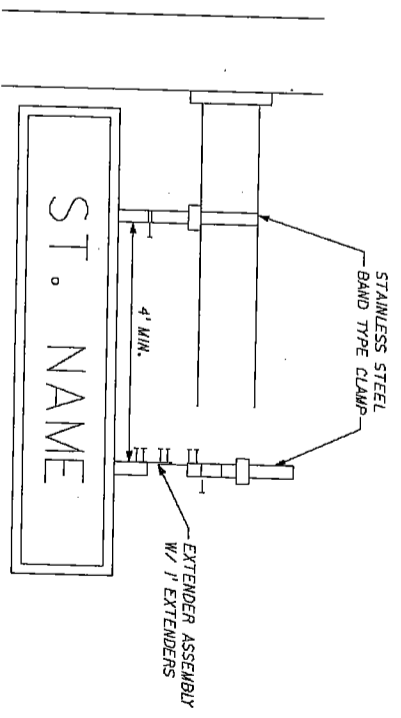
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PROJECT NO. 3-750.1
 SHEET NO. T-4

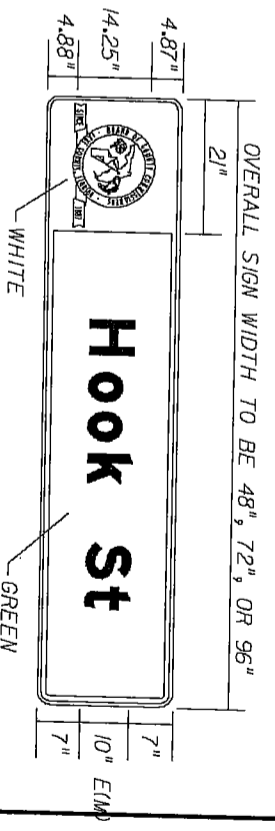
SIGNALIZATION PLAN

INTERNALLY ILLUMINATED STREET NAME SIGN REQUIREMENTS

1. 1/8 INCH CLEAR LEXAN AS BACKING.
2. WHITE DIAMOND GRADE VIP SHEETING, 3M SERIES 3990 OR COMPARABLE.
3. GREEN ACRYLIC ELECTRIC CUTTABLE FILM.
4. COLORED LAKE COUNTY LOGO ON WHITE BACKGROUND DESIGNED TO ALLOW LIGHT AND COLORS TO SHOW THROUGH, 14.25 INCHES HIGH, 19.663 INCHES LONG.
5. LAKE COUNTY LOGO SHALL HAVE A 5-YEAR GUARANTEE.
6. LOGO SHALL BE PRINTED WITH 3M TRANSLUCENT INKS UTILIZING ONE OF THE FOLLOWING APPLICATIONS AND SHALL HAVE A 5-YEAR GUARANTEE ON INKS AND VINYL DURABILITY.
 - APPLICATION 1:
SCOTCHPRINT GRAPHIC FOR TRANSLUCENT LOGOS-
PRINTED ELECTROSTATICALLY
 - METHOD 1
BASE FILM 8626 ES CLEAR
TRANSFER MEDIA TRIDENT
TONERS 8700/8800
2ND FILM 8628 ES TRANSLUCENT
OVERLAMINATE 3642 GPS MATTE
 - APPLICATION 2:
SCOTCHPRINT GRAPHIC FOR TRANSLUCENT LOGOS-
PRINTED ON ARIZONA 180 PRINTER
 - METHOD 2
BASE FILM RG3650-1/4 CLEAR
INK 3700 OR 6700 SERIES
2ND FILM RG3630-20
OVERLAMINATE 3642 GPS MATTE
 - APPLICATION 3:
SCOTCHPRINT GRAPHIC FOR TRANSLUCENT LOGOS-
PRINTED ON VITEK ULTRAVU MODEL 2360 OR
3360 PRINTERS
 - METHOD 3
BASE FILM 3650-1/4
INK 2300 SERIES
2ND FILM U3630-20
OVERLAMINATE 3642 GPS MATTE
7. THE DESIRED LETTER SIZE SHALL BE 10" UPPER CASE AND 6" LOWER CASE, TYPE E MODIFIED. SHOULD A SUBJECT STREET NAME USING THIS SIZE AND SERIES NOT FIT ON THE DESIRED PANEL, ONE OF THE FOLLOWING ALTERNATIVES SHOULD BE USED (LISTED IN DECREASING ORDER OF DESIRABILITY).
 - A. 10" UPPER, SERIES D
 - B. 10" UPPER, SERIES C
 - C. 8" UPPER, SERIES D
 - D. 8" UPPER, SERIES C
8. WHEN THE STREET NAME CONSISTS OF ORDINAL NUMBERS THE SUFFIX SHALL BE SERIES C, 1/2 THE HEIGHT OF THE NUMBER, MOUNTED ALONG THE LOWER EXTREME.
9. AVOID ABBREVIATIONS, IF ABSOLUTELY NECESSARY USE THE FOLLOWING: BOULEVARD (BLVD), AVENUE (AVE), TERRACE (TERR), PLACE (PL), DRIVE (DR), ROAD (RD), LANE (LN). ABBREVIATIONS SHOULD BE USED BEFORE FONT AND TEXT SIZES ARE REDUCED.
10. "22/24" STYLE CONTAINER, 22 INCH VIEWABLE SIGN HEIGHT, 24 INCH CONTAINER HEIGHT.
11. PHOTO CELL SHALL BE INSTALLED IN THE SIGNAL CABINET WITH A 2 INCH PLEXIGLAS WINDOW
12. A "HANDS OFF PHOTO TEST SWITCH" SHALL BE INSTALLED.
13. THE INTERNALLY ILLUMINATED STREET SIGN SHALL BE INSTALLED ON A SEPARATE BREAKER.
14. SIGN BRACKET AND CLAMP-ON CANTILEVER ARM SHOULD BE INSTALLED 1 FOOT ABOVE MESSENGER CABLE.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING THE MESSAGE WITH THE LOCAL MAINTAINING AGENCY BEFORE FABRICATING THE SIGNS. SHOP DRAWINGS WILL BE REQUIRED.



SIGN BRACKET ATTACHMENT DETAIL
TWO POINT CLAMP-ON CANTILEVER ARM
SIGN MOUNTING ASSEMBLY DETAIL



SEE LAKE COUNTY SUPPLEMENT SPECIFICATION NO. 699-1
(INTERNALLY ILLUMINATED STREET NAME SIGN)



LAKE COUNTY
PUBLIC WORKS DEPARTMENT
STANDARD SPECIFICATIONS

INTERNALLY ILLUMINATED
STREET NAME SIGN

SHEET NO.

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WILLIAM E. TIPTON, JR., P.E.

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5/31/06	WET JR	REVISED PER PDOT COMMENTS
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NAME	DESIGNED	NAME
DRAWN	CHECKED	
	CHECKED	

PROJECT MANAGER: WILLIAM E. TIPTON, JR., P.E.

TIPTON ASSOCIATES INCORPORATED
760 MAGUIRE BOULEVARD
ORLANDO, FLORIDA 32803
(407) 894-2055

INTERNALLY ILLUMINATED
ST. NAME SIGN DETAILS

#FILE# #USER# #DATE# #TIME#

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