

JUN 15 1993

*Je/REP*

COUNTY RESOLUTION

GRADE CROSSING TRAFFIC CONTROL DEVICES AND FUTURE RESPONSIBILITY

COUNTY	SECTION	JOB NUMBER	ROAD NAME OR NUMBER	COUNTY NAME	PARCEL & R/W NUMBER	FAP NUMBER
75	000	6966	Hermit Smith Rd.	Orange	1(SIGW)	RRS-SR-000S(250)

A RESOLUTION AUTHORIZING EXECUTION OF A RAILROAD REIMBURSEMENT AGREEMENT FOR THE INSTALLATION OF GRADE CROSSING TRAFFIC CONTROL DEVICES, AND FUTURE MAINTENANCE AND ADJUSTMENT OF SAID DEVICES: PROVIDING FOR THE EXPENDITURE OF FUNDS AND PROVIDING WHEN THIS RESOLUTION SHALL TAKE EFFECT.

RESOLUTION NO. 93-M-35

ON MOTION OF Commissioner Butler, seconded by Commissioner Staley, the following RESOLUTION was adopted:

WHEREAS, the State of Florida Department of Transportation is constructing, reconstructing or otherwise changing a portion of the Public Road System, between Fudge Road and Orange Avenue, which shall call for the installation and maintenance of railroad grade crossing traffic control devices for railroad grade crossing over or near said highway; and

NOW, THEREFORE, BE IT RESOLVED BY THE COUNTY COMMISSION OF Orange COUNTY, FLORIDA;

That Orange County enter into a RAILROAD REIMBURSEMENT AGREEMENT with the State of Florida Department of Transportation and the Florida Central Railroad Company for the installation and maintenance of certain grade crossing traffic control devices designated as Job No. 75000-6966 on Hermit Smith Road which crosses the right of way and tracks of the Company at FDOT/AAR Crossing No. 625249-W located near Plymouth, Florida; and

That the County assume its share of the costs for future maintenance and adjustment of said grade crossing traffic control devices as designated in the RAILROAD REIMBURSEMENT AGREEMENT; and

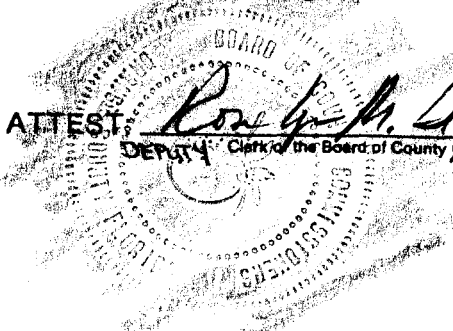
That the Chairman and Clerk of the Board of County Commissioners be authorized to enter into such agreements with the State of Florida Department of Transportation and the Railroad Company as herein described; and

That this RESOLUTION shall take effect immediately upon adoption.

INTRODUCED AND PASSED by the Board of County Commissioners of Orange County, Florida, in regular session, this 15th day of June 19 93

ATTEST Rose M. Staley (SEAL) DEPUTY Clerk of the Board of County Commissioners

Bill Donegan For the Chairman of the Board of County Commissioners



**RAILROAD GRADE CROSSING TRAFFIC CONTROL DEVICES**

03/91

COUNTY	SECTION	JOB NUMBER	ROAD NAME OR NUMBER	COUNTY NAME	PARCEL & R/W NUMBER	FAP NUMBER
75	000	6966	Hermit Smith Road	Orange	1(SIGW)	RRS-SR-000S (250)

**COMPANY NAME:** Florida Central Railroad Company, Inc.

**A. JOB DESCRIPTION & LOCATION:** Install Railroad Grade Crossing Devices at Hermit Smith Road near Plymouth, Florida

**B. TYPE OF ROADWAY FACILITY:** 2 Lane, Rural

**C. FDOT/AAR XING NO.:** 625249-W **RR MILE POST TIE:** 8.97

**D. TYPE SIGNALS PROPOSED** IV, III **CLASS** IV **DOT INDEX:** 17882

**SCHEDULE OF ANNUAL COST OF AUTOMATIC  
HIGHWAY GRADE CROSSING TRAFFIC CONTROL DEVICES**

Annual Maintenance Cost Exclusive of Installation

<u>CLASS</u>	<u>DESCRIPTION</u>	<u>COST*</u>
I	Flashing Signals - One Track	\$1,404.00
II	Flashing Signals - Multiple Tracks	\$1,858.00
III	Flashing Signals and Gates - One Track	\$2,117.00
IV	Flashing Signals and Gates - Multiple Tracks	\$2657.00

\*Effective July 1, 1991

**AUTHORITY:** FLORIDA ADMINISTRATIVE RULE 014.46.002  
Responsibility for the Cost of Automatic Highway  
Grade Crossing Traffic Control Devices

**EFFECTIVE DATE:** July 1, 1991

**GENERAL AUTHORITY:** 334.044 F.S.

**SPECIFIC LAW IMPLEMENTED:** 335.141 F.S.

INSTALLATION ESTIMATE  
GRADE CROSSING TRAFFIC CONTROL DEVICES

TO: FLORIDA DEPT. OF TRANSPORTATION FOR: TYPE III<sup>IV</sup> CLASS IV SIGNALS  
 DOT PROJECT NO. 75000-69 ✓ NEW INSTALLATION, \_\_\_\_\_ MODIFICATION  
 LOCATION: NEAR PLYMOUTH, COUNTY ORANGE, STATE: FLORIDA  
 ROAD JURISDICTION: ORANGE CO. ROAD NAME: HERMIT SMITH ROAD  
 FDOT/AAR CROSSING NUMBER: 625249-W RR M.P.: 8.97

I. Preliminary Engineering: \_\_\_\_\_ Company Forces, XX Contract \$ 2,000.00

II. Construction Supervision: \_\_\_\_\_ Company Forces, XX Contract \$ 1,750.00

III. Material:

Highway Grade Crossing Signal Assembly . . .	\$ _____
Control Equipment . . . . .	\$ _____
Field Material . . . . .	\$ _____
Material Transportation . . . . .	\$ _____
Material Handling . . . . .	\$ _____
Material Sales Tax . . . . .	\$ _____
 Total Material . . . . .	 \$ <u>65,250.00</u>

IV. Equipment:

Company Owned . . . . .	\$ _____
Rental (GMAC Rates) . . . . .	\$ _____
 Total Equipment . . . . .	 \$ <u>2,250.00</u>

V. Labor:

Direct Labor . . . . .	\$ _____
Holidays, Vacation, and Pension . . . . .	\$ _____
Payroll Taxes . . . . .	\$ _____
Insurance . . . . .	\$ _____
Meals and Lodging . . . . .	\$ _____
 Total Labor . . . . .	 \$ <u>18,500.00</u>

SUB-TOTAL . . . . . \$ 89,750.00

VI. Miscellaneous Items:

<u>Railroad Administrative</u>	\$ _____
<u>Lump Sum</u>	\$ <u>2500.00</u>
<u>ONE LANE CANTILEVER</u>	\$ <u>10,000.00</u>
_____	\$ _____

VII. Total Estimated Cost (Date 8/8/91) (By B.J. Biscan) \$ 102,250.00

VIII. Submitted By: Florida Central  
RR Company

TO BE COMPLETED BY FHWA MONTHLY TRANSACTION NUMBER	U.S. Department of Transportation  Federal Highway Administration	MODIFICATION OF FEDERAL-AID PROJECT AGREEMENT	STATE  FLORIDA
PROJECT REPORT NUMBER			COUNTY  Statewide
MODIFICATION NUMBER			PROJECT NUMBER RRS-SR-000S(250)

WPI NO. \_\_\_\_\_ STATE JOB NO. \_\_\_\_\_

CHARACTER OF PROPOSED WORK:  
Statewide Rail-Highway Crossing Program

PHASE OF WORK	APPROVAL AND/OR AUTHORIZATION	EFFECTIVE DATE OF AUTHORIZATION	APPROX. LENGTH (MILES)
HIGHWAY PLANNING AND RESEARCH(HPR)	BY:		
PRELIMINARY ENGINEERING (For Railroad)	BY: Bobby W. Blackmon	06/16/92	-----
RIGHT OF WAY ACQUISITION	BY:		
CONSTRUCTION (Advertise for receipt of bids)	BY: Bobby W. Blackmon	06/16/92	-----
UTILITIES	BY:		
OTHER(Specify) (Statewide Rail-Hwy Crossing Pgm)	BY: Bobby W. Blackmon	06/16/92	

The Project Agreement for the above-referenced project entered into between the undersigned parties and executed by the Division Administrator on June 16, 1992 is hereby modified as follows:

FORMER AMOUNT (DOLLARS)						
APPR. CODE	TOTAL PROJECT COSTS	FEDERAL AID ELIGIBLE COSTS	FEDERAL FUNDS	STATE FUNDS	OTHER FUNDS	FEDERAL AID PERCENT
138	\$1,105,457	\$1,105,457	\$994,911	\$100,546		90%
33N	\$1,132,543	\$1,132,543	\$927,892	\$204,651		81.93%
<b>TOTAL</b>	<b>\$2,238,000</b>	<b>\$2,238,000</b>	<b>\$1,922,803</b>	<b>\$305,197</b>		

REVISED AMOUNT (DOLLARS)						
APPR. CODE	TOTAL PROJECT COSTS	FEDERAL AID ELIGIBLE COSTS	FEDERAL FUNDS	STATE FUNDS	OTHER FUNDS	FEDERAL AID PERCENT
138	\$1,105,457	\$1,105,457	\$994,911	\$100,546		90%
33N	\$1,132,543	\$1,132,543	\$1,019,288	\$113,255		90%
<b>TOTAL</b>	<b>\$2,238,000</b>	<b>\$2,238,000</b>	<b>\$2,014,199</b>	<b>\$213,801</b>		

REMARKS:

In 105 Plan: Yes N/A, Page No. \_\_\_\_\_, No \_\_\_\_\_, Amendment being processed.

The Florida Department of Transportation has exempted itself from FHWA project review and oversight on this Federal-aid project per Secretary Watts' March 4, 1992 letter to Mr. J. R. Skinner in accordance with revised 23 U.S.C. 106(b)(2).

This modification is made for the following reasons:

To increase federal participation to 90% based on Director, Office of Fiscal Services memorandum dated June 30, 1992 entitled "Federal Shares established by Title 23 U.S.C. and the ISTEA of 1991"

AUG 11

All other terms and conditions of the Project Agreement will remain in full force and effect. This modification is effective as of the \_\_\_\_\_ day of \_\_\_\_\_, 1992.

FLORIDA DEPARTMENT OF TRANSPORTATION  
(Official name of Highway Agency)

By Charles T. Faircloth  
Charles T. Faircloth  
Federal Aid Programs Manager  
(Title)

U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
FOR THE DIVISION ADMINISTRATOR

By R.K. GRESSEL  
R.K. GRESSEL  
FINANCIAL MANAGER  
(Title)

1/16/91

FLORIDA DEPARTMENT OF TRANSPORTATION  
DIAGNOSTIC FIELD REVIEW REPORT  
RAIL-HIGHWAY GRADE CROSSING  
DATA SHEET

PAGE 1

PROJECT NO. **75000-6966**  
**RRS-0005 (250)**

W.P.A. NO. **5124223**

CROSSING NO.: 625249-W PRIORITY NO.: 0671 COUNTY: ORANGE CITY: APOPKA RDWY: HERMITSMITH RD

CLASSIFICATION/LOCATION: DATE LAST UPDATED: 901003

R.R. CO.: ~~GGX SYSTEMS~~ **FLA CENTRAL**

R.R. BRANCH: ST 830

STATION: PLYMOUTH

R.R. MILEPOST: ~~0798.03~~ **8.97**

R.R. CROSSING STATUS: OPEN

AS OF 880712

PROPOSED STATUS: NO USE, OPEN

RAIL OPERATIONS: DATE LAST UPDATED: 890414

TRAIN MOVEMENTS: 02 PER DA MAXIMUM TRAIN SPEED: 020 EFFECTIVE: 831115 NO. OF MAIN TRACKS: 1 OTHER TRACKS: 01

WARNING DEVICES: DATE LAST UPDATED: 880712

EXISTING PROTECTION: X-BUCK ✓ TYPE OF TRAIN DETECTION: UNKNOWN

PREEMPTION: U ADVANCE WARNING: **ONE MISSING**

PHYSICAL DATA: DATE LAST UPDATED: 850520

R.R. CROSSING ANGLE: 90 DEGREES NO. OF THRU LANES: 02 OTHER LANES: 0 HIGHWAY SPEED: 025 DIST. TO INTERSECT.: 00090

ACTUAL STOPPING SIGHT DIST.(FT): 090 MIN. CLEAR QUAD. SIGHT DIST.(FT): 072 PARALLEL RD.: OTHER RD T OR + W/IN 200 FT.

CROSSING CONDITION: GOOD APPROACH CONDITION: ROUGH TRANSITION OR CROSSING MAINTAINING AGENCY: COUNTY

DEPARTMENT DATA: DATE LAST UPDATED: 910621

TRAFFIC VOL.(ADT): 001425 AS OF 880609 SCHOOL BUS COUNT: 008 AS OF 1991 PERCENT TRUCKS: 1.20 HAZARDOUS MATLS.: U

SAFETY DATA: DATE LAST UPDATED: 910701

PRED. ACCID./YEAR: 000.056 SAFETY INDEX: 54.34 RECOMMENDED WARNING DEVICE: FL & G ESTIMATED COST: ~~0060.0~~ THOUSAND  
**PH.49=103.0K**  
**PH.46=10.0K**  
**#113.0K**

DESCRIPTION OF SITE/INSTALLATION CONFLICTS: THE RAILROAD IS TO FURNISH A LETTER TO VERIFY THE POSSIBILITY OF RAIL CAR STORAGE ON SIDING & PROJECTED DATE AS TO WHEN THE RAILROAD WILL BEGIN TO SERVICE NEWLY PURCHASED CRUSHED STONE PLANT AT END OF SIDING. 8'-3" CANTILEVER REQUIRED IN S.E. QUADRANT DUE TO TREES.

REVIEW TEAM RECOMMENDATION: INSTALL TYPE **IV**, CLASS **IV** SIGNALS DUE TO SECOND TRACK WHICH WOULD ALLOW A PARKED RAIL CAR TO OBSCURE THE MOVEMENT OF A TRAIN APPROACHING THE X-ING. D.O.T. TO INSTALL 2 W10-2 SIGNS ON US 441 COUNTY-TRIM BUSHES IN S.E. QUADRANT & W10-1 SIGN SOUTH OF X-ING.  
DATE REVIEWED 8-12-91 BY R.W.W.

REVIEW TEAM PERSONNEL: D.O.T. RAIL F. WICHOWSKI D.O.T. SAFETY B. McKNIGHT RAILROAD CO. BOB GORBY  
M. DROSS A. NOSSE TOM SORD

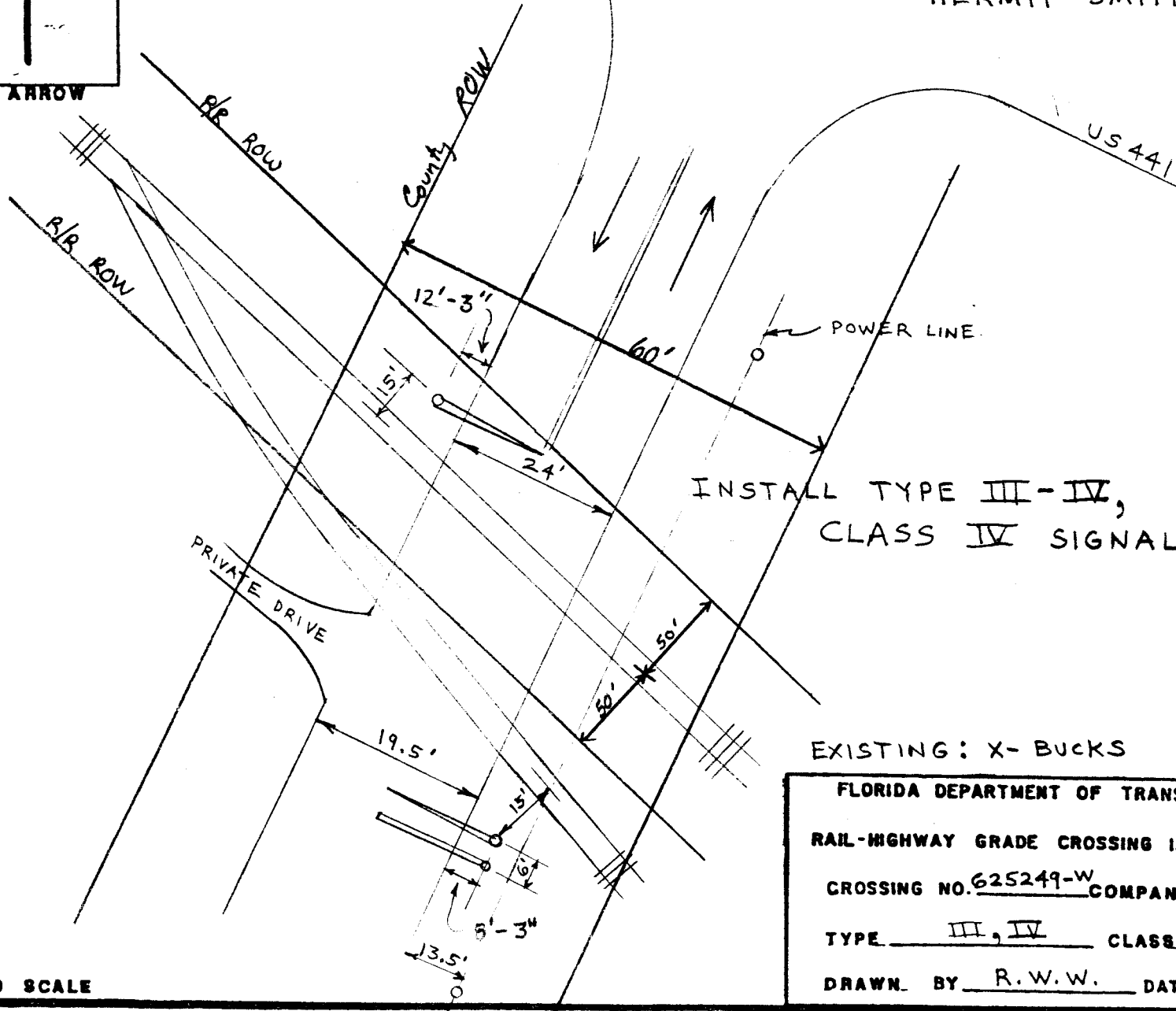
FIWA LOCAL ORANGE CO.- STEVE WILMARTH

# PLAN SHEET NO. 1

PROJECT NO. 75000-6966  
W.P.I. NO. 5124223  
F.A.P. NO. RR-SR-000S(250)  
HERMIT SMITH ROAD



NORTH ARROW

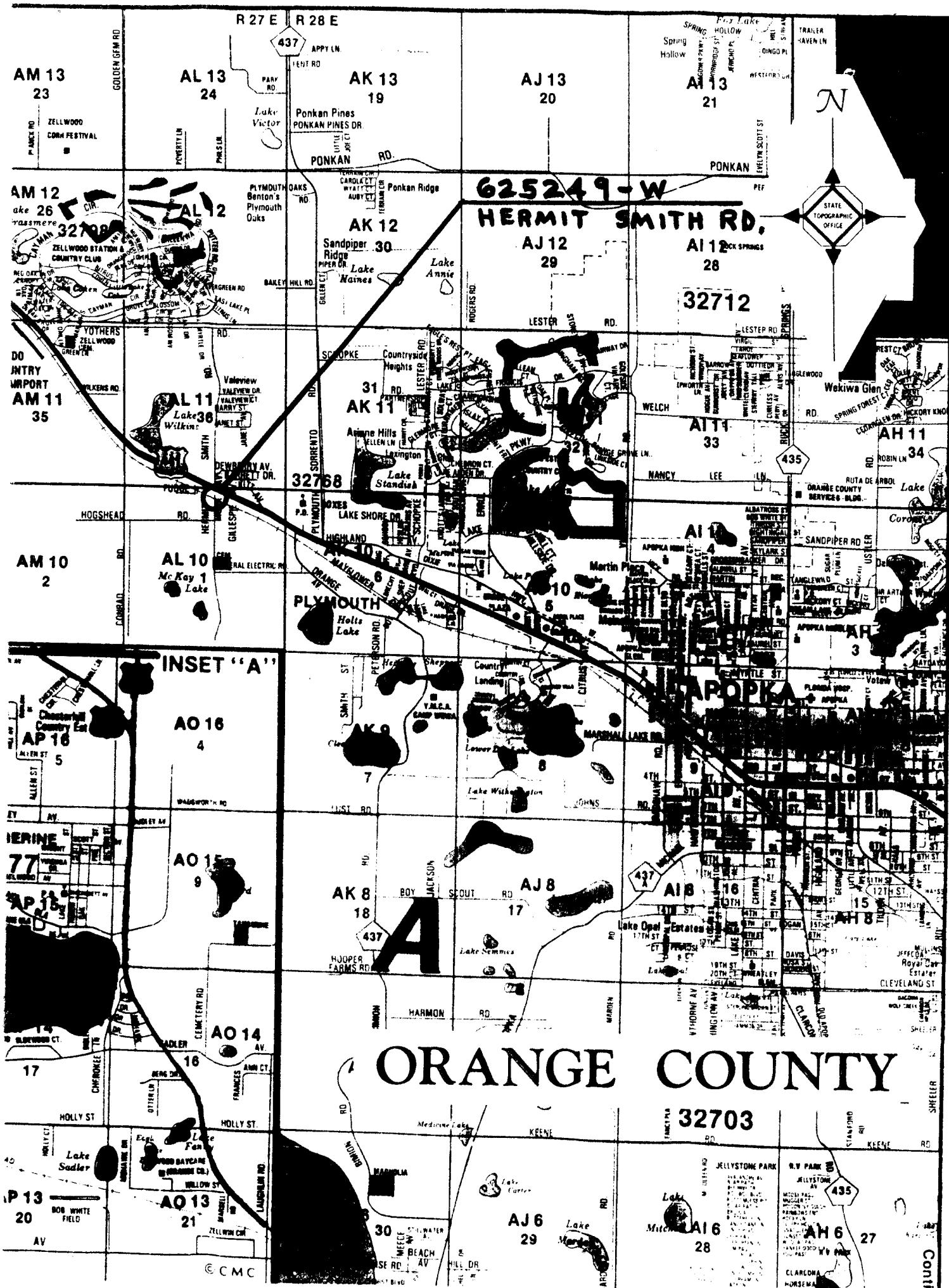


INSTALL TYPE III-IV,  
CLASS IV SIGNALS

EXISTING: X-BUCKS

FLORIDA DEPARTMENT OF TRANSPORTATION  
RAIL-HIGHWAY GRADE CROSSING IMPROVEMENT  
CROSSING NO. 625249-W COMPANY F. C. R/R  
TYPE III, IV CLASS IV  
DRAWN BY R. W. W. DATE 8-7-91

NOT TO SCALE

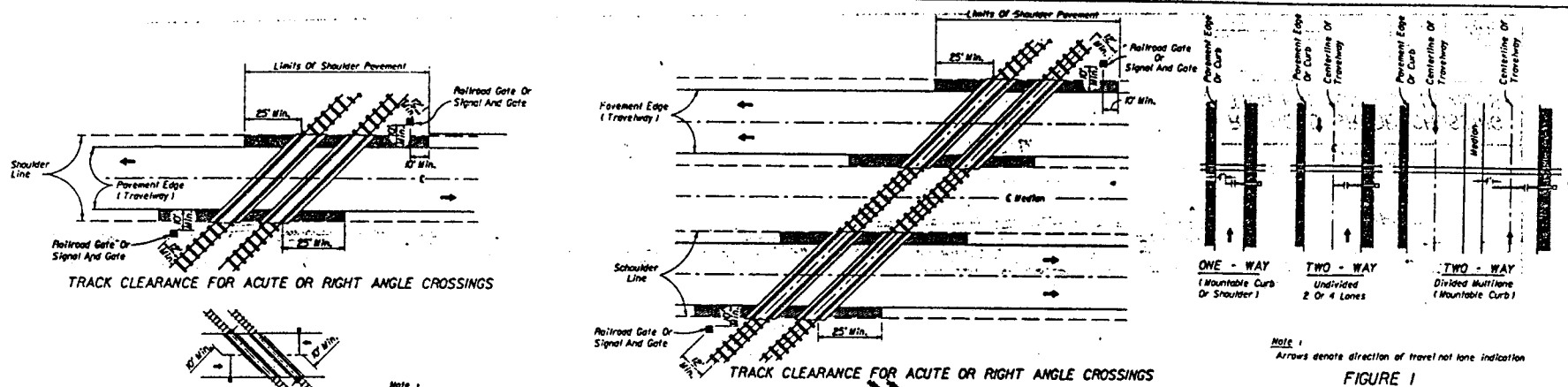


INSET "A"

# ORANGE COUNTY

CMC

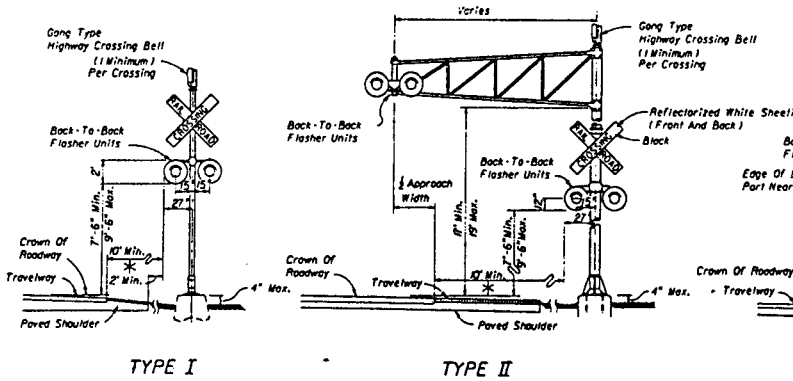
Conti



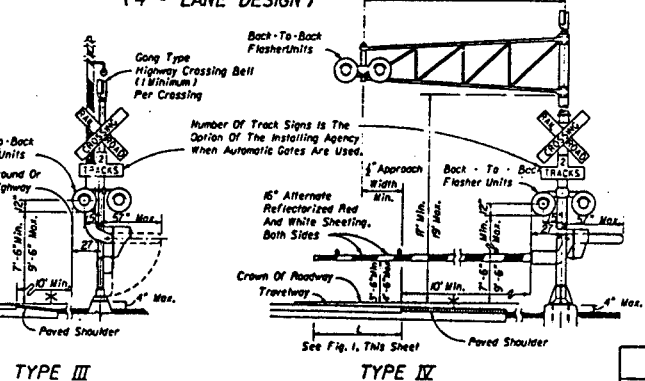
Note:  
Arrows denote direction of travel not lane indication

FIGURE 1  
Gate Length Requirements  
See Note 6 Sheet 3

SIGNAL PLACEMENT AT RAILROAD CROSSING  
(2 - LANE DESIGN)



SIGNAL PLACEMENT AT RAILROAD CROSSING  
(4 - LANE DESIGN)



General Notes

- No quadrant is proposed for signals; however, some form of impact attention device may be specified for certain locations.
- Advance flasher to be installed when and if called for in plans or specifications.
- Top of foundation shall be no greater than 4" above finished shoulder grade.
- Type of traffic control device
  - I Flashing signals
  - II Flashing signals with cantilever
  - III Flashing signals with gate
  - IV Flashing signals with cantilever & gate
  - V Gate
- Class of traffic control devices
  - I Flashing signals - one track
  - II Flashing signals - multiple tracks
  - III Flashing signals and gates - one track
  - IV Flashing signals and gates - multiple tracks

Typical Location Plan For Gate Or Flashing Signal With Gate When Tracks Are At Oblique Angle.

Note:  
It is intended that the full shoulder width of the existing roadway be paved, where an existing shoulder is substantially substandard for the facility involved, the shoulder width should be upgraded to meet current standards.

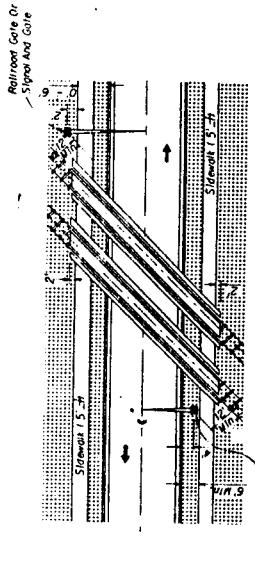
Typical Location Plan For Gate Or Flashing Signal With Gate When Tracks Are At Oblique Angle.

\* Desirable minimum - where field conditions dictate absolute minimum may be as per index T00.

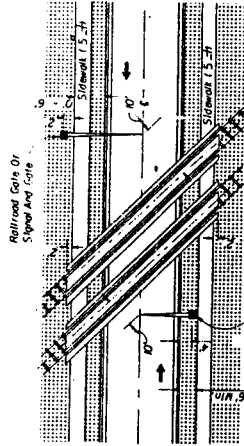
Note:  
Two separate foundations may be required (one for signals, one for gate), depending on type of equipment used.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION TRAFFIC DESIGN			
<b>RAILROAD GRADE CROSSING TRAFFIC CONTROL DEVICES</b>			
Designed By	EC	Date	04/28/75
Drawn By		Checked By	Clark G. Smith
Checked By		Scale	AS SHOWN
F.A.B.A. Acc.	92	Sheet No.	1 of 4
		Project No.	17882





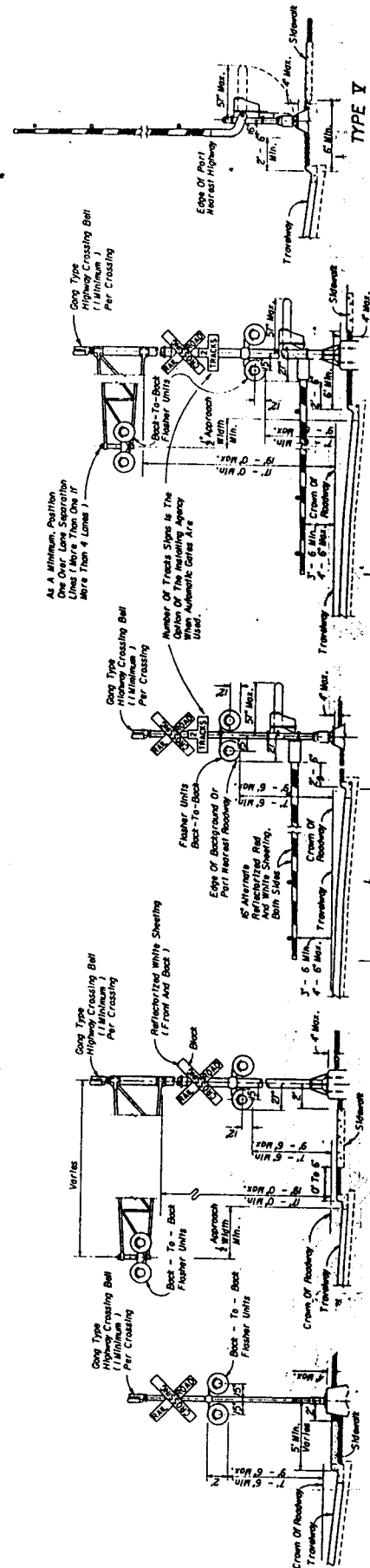
ACUTE ANGLE ( AND RIGHT ANGLE )  
 SIGNAL PLACEMENT AT RAILROAD CROSSING  
 ( 2 LANES, CURB & GUTTER )



OBTUSE ANGLE  
 SIGNAL PLACEMENT AT RAILROAD CROSSING  
 ( 2 LANES, CURB & GUTTER )

GENERAL NOTES

7. The location of flashing signals and stop lines shall be established based on future (or present) installation of gate with appropriate track clearances.
8. Where plans call for railroad traffic control devices to be installed in curved medians, the minimum median width shall be 12.5 feet.
9. Location of railroad traffic control devices is based on the distance available between face of curb & sidewalk.
10. Flasher units outside sidewalk.
11. Flasher units between face of curb and sidewalk.
12. Stop line to be perpendicular to edge of roadway, approx. 5' from nearest rail or 8' from end parallel to gate when present.



TYPE I

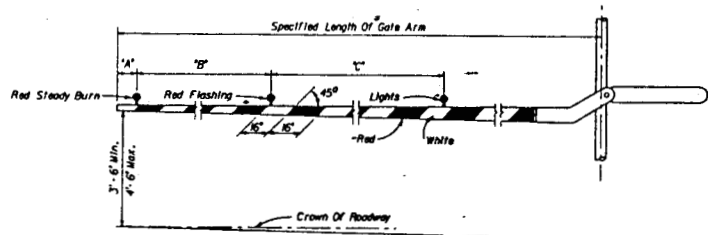
TYPE II

TYPE III

TYPE IV

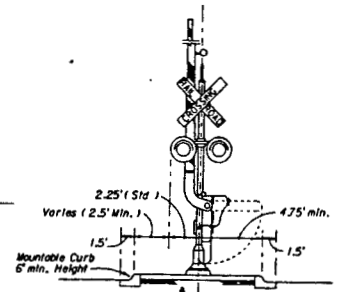
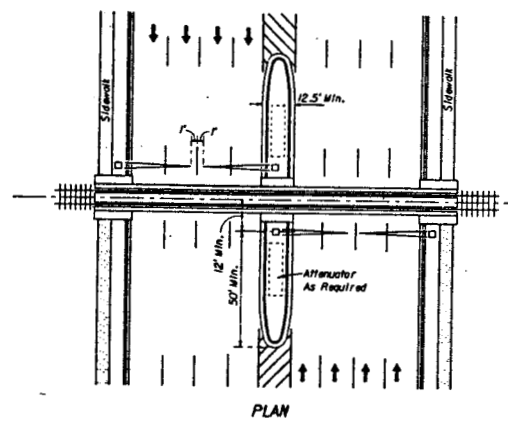
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		TRAFFIC CONTROL DEVICES	
RAILROAD GRADE CROSSING TRAFFIC CONTROL DEVICES			
Drawn by	Checked by	Approved by	Project No.
			2 of 4
Scale	No.	Quantity	17882
DATE APPROVED			





RAILROAD GATE ARM LIGHT SPACING

Specified Length Of Gate Arm	Dimension "A"	Dimension "B"	Dimension "C"
14 Ft.	6"	36"	5'-0"
15 Ft.	18"	36"	5'-0"
16 - 17 Ft.	24"	36"	5'-0"
18 - 19 Ft.	28"	48"	5'-0"
20 - 23 Ft.	28"	4'-0"	5'-0"
24 - 28 Ft.	28"	5'-0"	5'-0"
29 - 31 Ft.	36"	6'-0"	6'-0"
32 - 34 Ft.	36"	7'-6"	7'-0"
35 - 37 Ft.	36"	9'-0"	9'-0"
38 And Over	36"	10'-0"	10'-0"



NOTE 1  
 For additional information see the "Manual On Uniform Traffic Control Devices", Part VIII, The "Traffic Control Devices Handbook", Part VIII and AASHTO "A" Policy On Geometric Design Of Streets And Highways", 1964.

**MEDIAN SIGNAL GATES FOR MULTI LANE UNDIVIDED URBAN SECTIONS**  
 (FOUR OR MORE DRIVING LANES IN ONE DIRECTION, 45 MPH OR LESS)

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			
TRAFFIC DESIGN			
RAILROAD GRADE CROSSING TRAFFIC CONTROL DEVICES			
Designed By	Drawn By	Checked By	Approved By
JL	JL	JL	W. A. Smith
Drawn By	Checked By	Number	Sheet No.
JL	JL	01/25/68	17882
F.A.R.A. Approved			4 of 4