

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	6979	Sheeler Avenue	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-34

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 Thirteenth<sup>St</sup> and Lakeville Rd., 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. 75000-6979 on Sheeler Avenue which crosses the right of way and tracks of the Company at FDOT/AAR Crossing No. 625275-L located near Apopka, 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: *Roselynn M. Staley*  
Clerk of the Board of County Commissioners (SEAL)

*Bill Donagan*  
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	6979	Sheeler Avenue	Orange	1 (SIGW)	RRS-SR-000S (250)

**COMPANY NAME:** Florida Central Railroad Company, Inc.  
Install Railroad Grade Crossing Devices at  
**A. JOB DESCRIPTION & LOCATION:** Sheeler Avenue in Apopka, Florida  
**B. TYPE OF ROADWAY FACILITY:** 2 Lane, Rural  
**C. FDOT/AAR XING NO.:** 6 25 275-L **RR MILE POST TIE:** 3.68  
**D. TYPE SIGNALS PROPOSED** III **CLASS** III **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, CLASS III SIGNALS  
 DOT PROJECT NO. 75000-69,    X NEW INSTALLATION,                      MODIFICATION  
 LOCATION: APOPKA, FL, COUNTY ORANGE, STATE: FLORIDA  
 Road Jurisdiction: ORANGE CO.                      Road Name: SHEELER AVE.  
 FDOT/AAR Crossing Number: 625275-L RR M.P.: 3.68

I.	Preliminary Engineering: _____ Company Forces, <u>XX</u> Contract	\$ <u>1,750.00</u>
II.	Construction Supervision: _____ Company Forces, _____ Contract	\$ <u>1,500.00</u>
III.	Material:	
	Highway Grade Crossing Signal Assembly . . . . .	\$ _____
	Control Equipment. . . . .	\$ _____
	Field Material . . . . .	\$ _____
	Material Transportation. . . . .	\$ _____
	Material Handling. . . . .	\$ _____
	Material Sales Tax . . . . .	\$ _____
	Total Material. . . . .	\$ <u>59,500.00</u>
IV.	Equipment	
	Company Owned. . . . .	\$ _____
	Rental (GMAC Rates). . . . .	\$ _____
	Total Equipment . . . . .	\$ <u>1,750.00</u>
V.	Labor	
	Direct Labor . . . . .	\$ _____
	Holidays, Vacation, and Pension. . . . .	\$ _____
	Payroll Taxes. . . . .	\$ _____
	Insurance. . . . .	\$ _____
	Meals and Lodging. . . . .	\$ _____
	Total Labor . . . . .	\$ <u>17,000.00</u>
	SUB-TOTAL. . . . .	\$ <u>81,500.00</u>

VI.	Miscellaneous Items:	
	<u>Railroad Administration - Lump Sum</u>	\$ <u>2,500.00</u>
	_____	\$ _____
	_____	\$ _____
	_____	\$ _____

VII. Total Estimated Cost (Date 8-12-91) (BY BEN BISCAN) \$ 84,000.00

VIII. Submitted BY: \_\_\_\_\_

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
MODIFICATION NUMBER			Statewide 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 1992

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 **JUL 28 1992**, 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  
FINANCIAL MANAGER  
(Title)

1/16/91

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

PAGE 1

PROJECT NO. **75000-6979**  
**RRS-SR-0005(250)**

W.P.A. NO. **5124224**

CROSSING NO.: 625275-L PRIORITY NO.: 0630 COUNTY: ORANGE CITY: APOPKA

RDWY: SHEELER ~~RD~~ **AVE.**

CLASSIFICATION/LOCATION: DATE LAST UPDATED: 901003

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

R.R. BRANCH: ST 830

STATION: APOPKA

R.R. MILEPOST: ~~0003.52~~ **3.68**

R.R. CROSSING STATUS: OPEN

AS OF 880715

PROPOSED STATUS: NO USE, OPEN

RAIL OPERATIONS: DATE LAST UPDATED: 860729

TRAIN MOVEMENTS: ~~02~~<sup>03</sup> PER DA MAXIMUM TRAIN SPEED: 020 EFFECTIVE: 831115 NO. OF MAIN TRACKS: 1 OTHER TRACKS: 00

WARNING DEVICES: DATE LAST UPDATED: 880715

EXISTING PROTECTION: FL TYPE OF TRAIN DETECTION: UNKNOWN

PREEMPTION: U ADVANCE WARNING: N

PHYSICAL DATA: DATE LAST UPDATED: 890418

R.R. CROSSING ANGLE: 70-79 DEGREES NO. OF THRU LANES: 02 OTHER LANES: 0 HIGHWAY SPEED: 045 DIST. TO INTERSECT.: 00000

ACTUAL STOPPING SIGHT DIST.(FT): 375 MIN. CLEAR QUAD. SIGHT DIST.(FT): 054 PARALLEL RD.: NONE OR MINOR ROAD PARALLEL

CROSSING CONDITION: EXCELLENT APPROACH CONDITION: ~~LARGE HUMP OR SAG HAZARDOUS~~ MAINTAINING AGENCY: COUNTY

DEPARTMENT DATA: DATE LAST UPDATED: 910621

TRAFFIC VOL.(ADT): 008180 AS OF 880609 SCHOOL BUS COUNT: 020 AS OF 1991 PERCENT TRUCKS: 1.20 HAZARDOUS MATLS.: U

SAFETY DATA: DATE LAST UPDATED: 910701

PRED. ACCID./YEAR: 000.072 SAFETY INDEX: 53.72 RECOMMENDED WARNING DEVICE: FL & G ESTIMATED COST: ~~0052.0~~ THOUSAND  
**\$92.0K**

DESCRIPTION OF SITE/INSTALLATION CONFLICTS: NOTE THE FOLLOWING BURIED UNDERGROUND UTILITIES AT THIS CROSSING: E. SIDE OF ROAD - UNITED TELEPHONE & CABLEVISION  
W. SIDE OF ROAD - GAS LINE

REVIEW TEAM RECOMMENDATION: INSTALL TYPE III, CLASS III SIGNALS.

DATE REVIEWED 8-12-91 BY R.W.W.

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

IIWA LOCAL \_\_\_\_\_

**ORANGE CO. - STEVE WILMARTH**

# PLAN SHEET NO. 1

PROJECT NO. 75000-6979  
W.P.I. NO. 5124224  
F.A.P. NO. RRS-S-0005(250)

SHEELER AVE.

POWERLINE

INSTALL TYPE III, CLASS III  
SIGNALS

EXISTING : TYPE I SIGNALS

FLORIDA DEPARTMENT OF TRANSPORTATION

RAIL-HIGHWAY GRADE CROSSING IMPROVEMENT

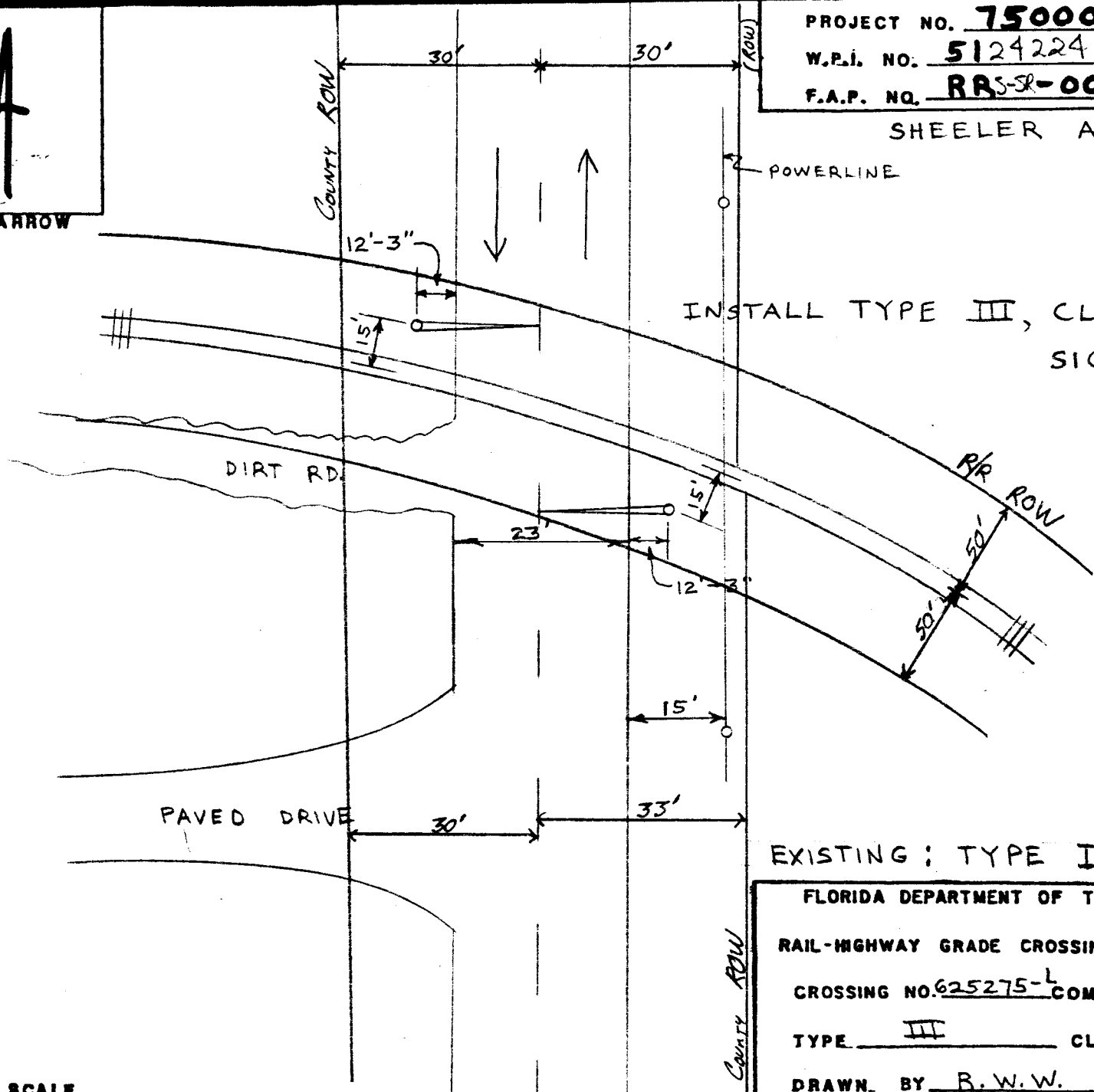
CROSSING NO. 625275-L COMPANY F.C. R/R

TYPE III CLASS III

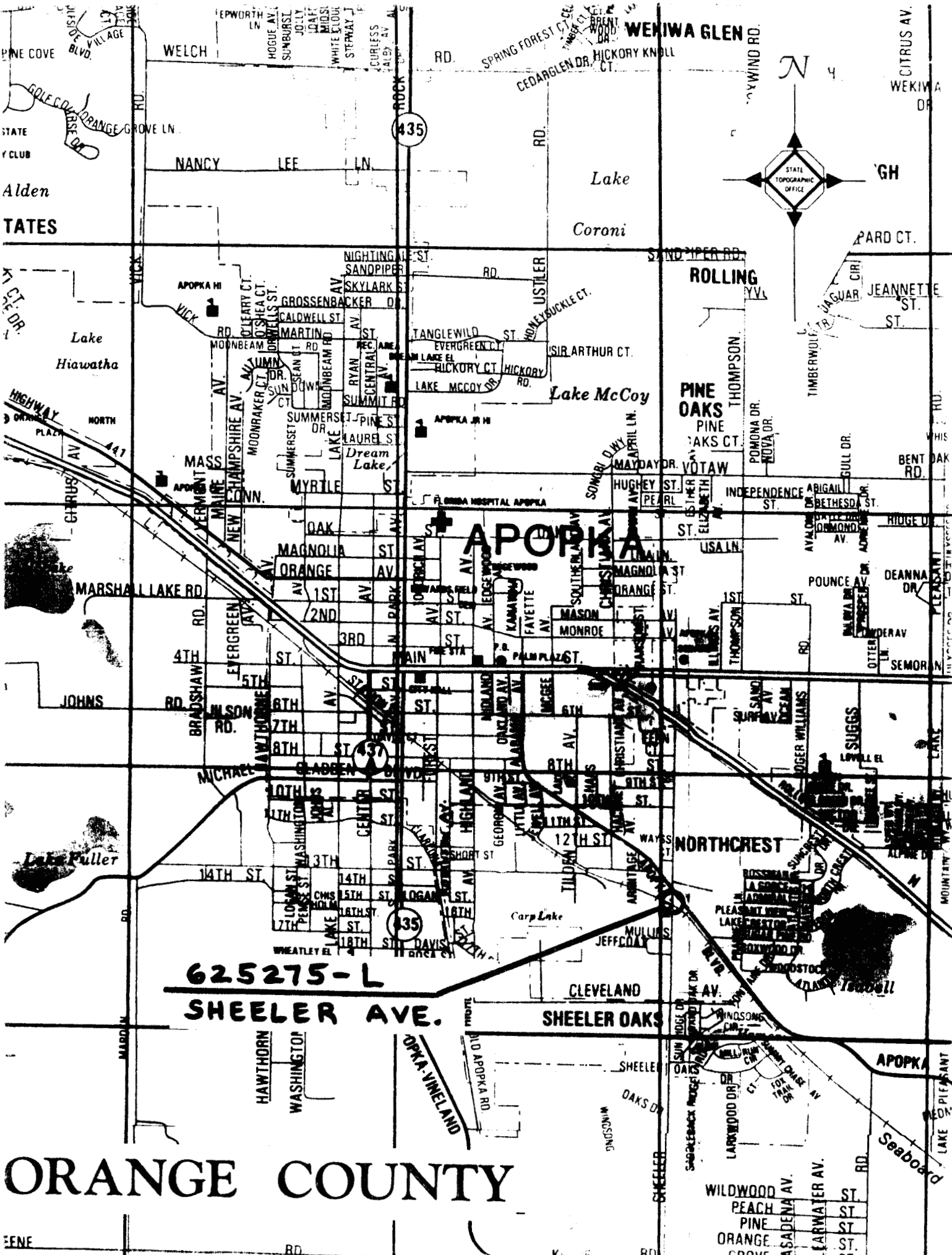
DRAWN BY B.W.W. DATE 8-8-91



NORTH ARROW



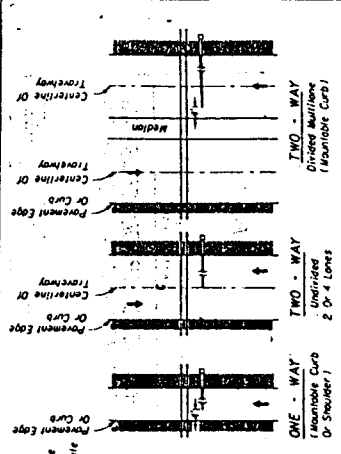
NOT TO SCALE



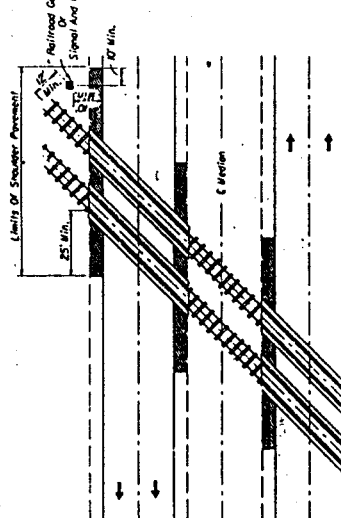
**625275-L**  
**SHEELER AVE.**

**ORANGE COUNTY**

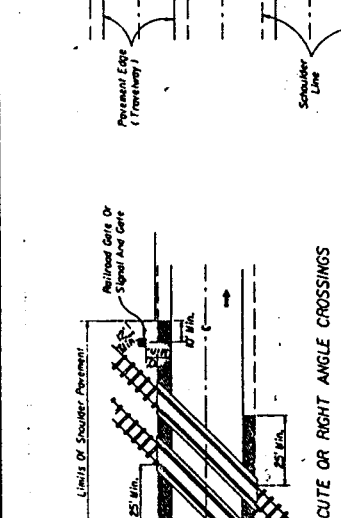
WILDWOOD AV. ST  
 PEACH AVE ST  
 PINE AVE ST  
 ORANGE GROVE ST  
 PASADENA ST  
 CLEARWATER ST



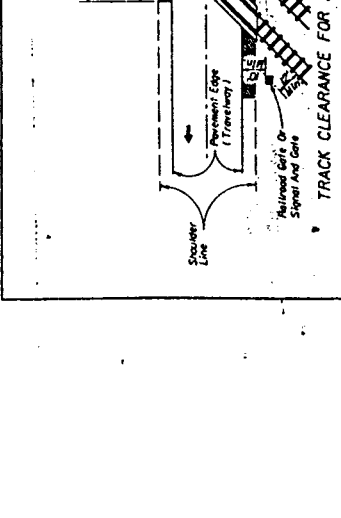
**FIGURE I**  
 Gate Length Requirements  
 See Note 6 Sheet 3



**SIGNAL PLACEMENT AT RAILROAD CROSSING (4 - LANE DESIGN)**



**SIGNAL PLACEMENT AT RAILROAD CROSSING (2 - LANE DESIGN)**



**SIGNAL PLACEMENT AT RAILROAD CROSSING (2 - LANE DESIGN)**

**NOTE 1**  
 Arrows denote direction of travel not lane indication

**NOTE 1**  
 It is intended that the full shoulder width of the existing roadway be preserved where an existing shoulder is additionally maintained for traffic facilities. The shoulder width should be upgraded to meet current standards.

**NOTE 1**  
 Typical Location Plan For Gate Or Flashing Signal With Gate When Tracts Are At **DIAGONAL ANGLES**.

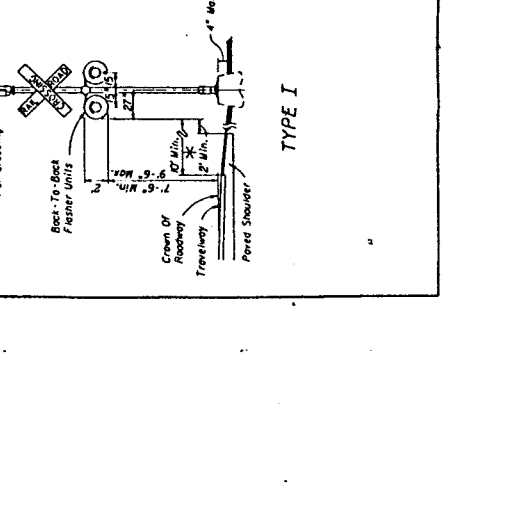
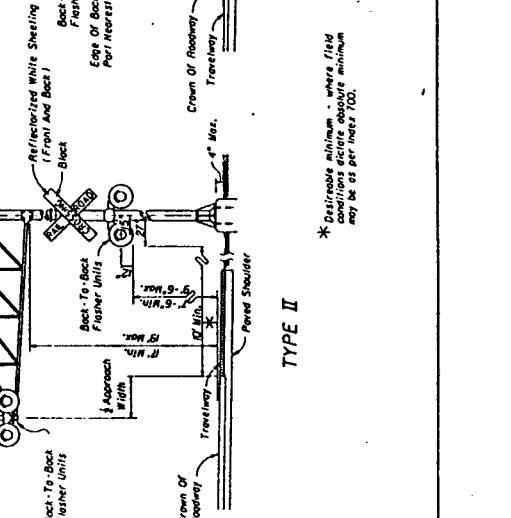
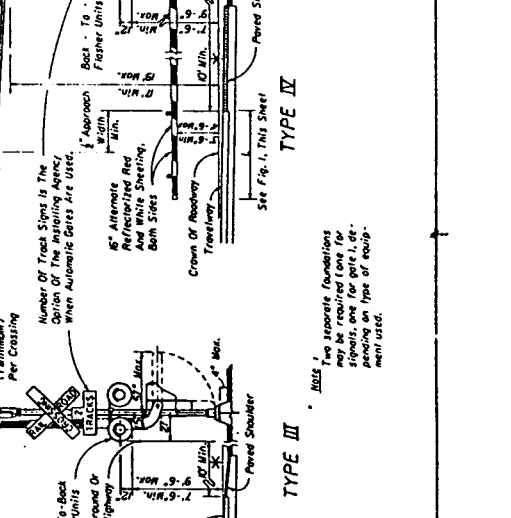
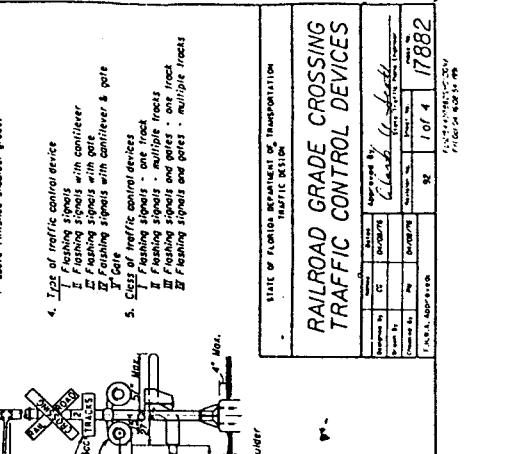
**NOTE 1**  
 Typical Location Plan For Gate Or Flashing Signal With Gate When Tracts Are At **DIAGONAL ANGLES**.

- General Notes**
1. No guarantee is proposed for signals, however, the design may be sacrificed for certain locations.
  2. Advance flasher to be installed when and if called for in plans or specifications.
  3. Top of foundation shall be no greater than 4" above finished shoulder grade.
  4. Type of traffic control device
    - I Flashing signals with cantilever
    - II Flashing signals with cantilever & gate
    - III Gate
  5. Class of traffic control devices
    - I Flashing signals - one track
    - II Flashing signals and multiple track
    - III Flashing signals and gates - multiple tracks

- General Notes**
1. No guarantee is proposed for signals, however, the design may be sacrificed for certain locations.
  2. Advance flasher to be installed when and if called for in plans or specifications.
  3. Top of foundation shall be no greater than 4" above finished shoulder grade.
  4. Type of traffic control device
    - I Flashing signals with cantilever
    - II Flashing signals with cantilever & gate
    - III Gate
  5. Class of traffic control devices
    - I Flashing signals - one track
    - II Flashing signals and multiple track
    - III Flashing signals and gates - multiple tracks

- General Notes**
1. No guarantee is proposed for signals, however, the design may be sacrificed for certain locations.
  2. Advance flasher to be installed when and if called for in plans or specifications.
  3. Top of foundation shall be no greater than 4" above finished shoulder grade.
  4. Type of traffic control device
    - I Flashing signals with cantilever
    - II Flashing signals with cantilever & gate
    - III Gate
  5. Class of traffic control devices
    - I Flashing signals - one track
    - II Flashing signals and multiple track
    - III Flashing signals and gates - multiple tracks

- General Notes**
1. No guarantee is proposed for signals, however, the design may be sacrificed for certain locations.
  2. Advance flasher to be installed when and if called for in plans or specifications.
  3. Top of foundation shall be no greater than 4" above finished shoulder grade.
  4. Type of traffic control device
    - I Flashing signals with cantilever
    - II Flashing signals with cantilever & gate
    - III Gate
  5. Class of traffic control devices
    - I Flashing signals - one track
    - II Flashing signals and multiple track
    - III Flashing signals and gates - multiple tracks



STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION  
 TRAFFIC DESIGN

**RAILROAD GRADE CROSSING TRAFFIC CONTROL DEVICES**

Drawn by	Checked by	Scale	Sheet No.	Total Sheets
CS	CS		1 OF 4	17882
Approved by	Approved by			

**TYPE I**

**TYPE II**

**TYPE III**

**TYPE IV**

See Fig. 1, This Sheet

\* Distressable minimum - where field conditions dictate, desirable minimum may be as per inset 100.

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

**TYPE I**

**TYPE II**

**TYPE III**

**TYPE IV**

See Fig. 1, This Sheet

\* Distressable minimum - where field conditions dictate, desirable minimum may be as per inset 100.

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

**TYPE I**

**TYPE II**

**TYPE III**

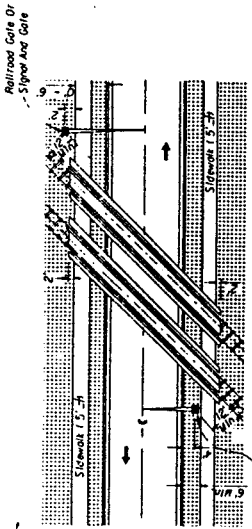
**TYPE IV**

See Fig. 1, This Sheet

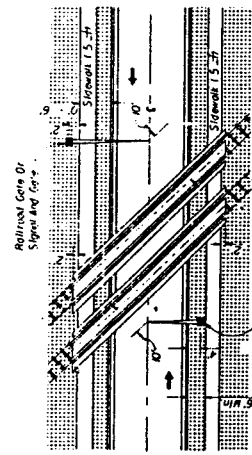
\* Distressable minimum - where field conditions dictate, desirable minimum may be as per inset 100.

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





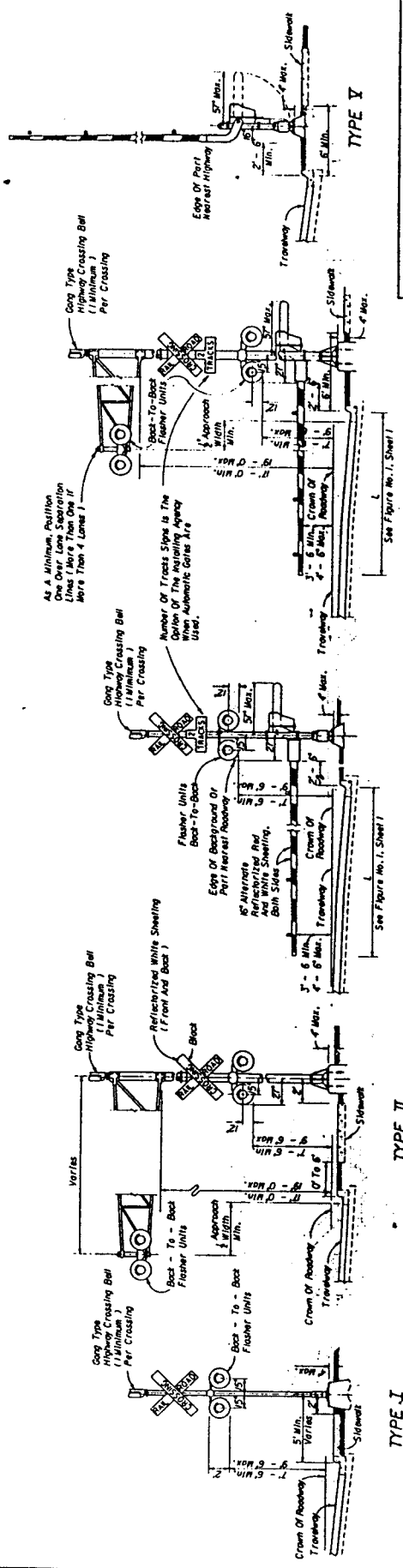
**ACUTE ANGLE (AND RIGHT ANGLE )  
SIGNAL PLACEMENT AT RAILROAD CROSSING  
( 2 LANES, CURB & GUTTER )**



**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 location of gates with appropriate track clearances.
8. Where stop call or 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 device is based on the distance available between face of curb & sidewalk.
10. Locate device outside sidewalk.
11. Locate device 15 feet from face of curb and sidewalk.
12. Stop line to be perpendicular to edge of roadway, approx. 15' from nearest rail or 8' from end parallel to gate when broken.



**TYPE I**

**TYPE II**

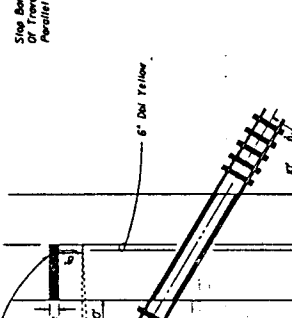
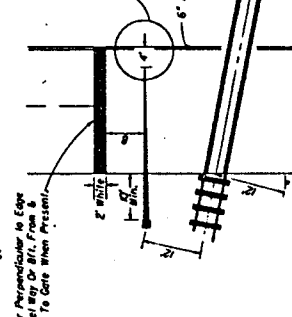
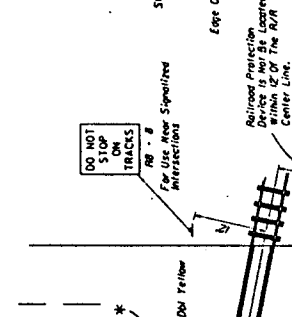
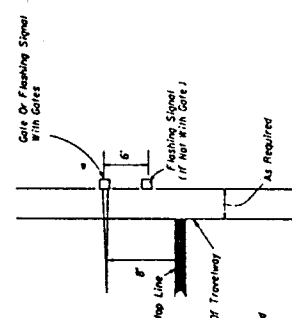
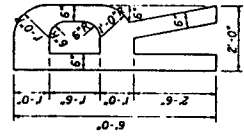
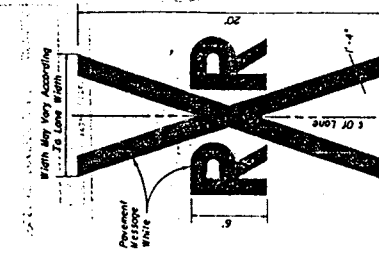
**TYPE III**

**TYPE IV**

# RAILROAD GRADE CROSSING TRAFFIC CONTROL DEVICES

## RAILROAD CROSSING AT MULTI-LANE ROADWAY

## RAILROAD CROSSING AT TWO (2) - LANE ROADWAY



### NOTES:

- When computing pavement message quantities do not include message lines.
  - Placement of sign WD-1 in a residential or business district, where low speeds are prevalent, the WD-1 sign may be placed a minimum distance of 100 feet from the crossing, where street intersection occur between the R & pavement message and the tracks an additional WD-1 sign and additional pavement message should be used.
  - Recommended location for sign FTP-38, 100 ft. Urban & 300 ft. Rural in advance of the crossing.
  - A portion of the pavement markings symbol should be directly opposite the WD-1 sign.
  - Recommended location for FTP-38 A or B signs, 100' urban and 300' rural. See Index 7.355 for sign details.
- \* 5. Gate Length Requirements

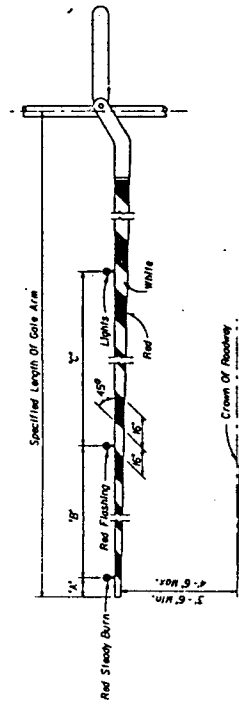
For two-way undivided sections:  
The gate should extend to within 1' of the center line. On multilane approaches the maximum gate length may not reach to within 1' of the center line.  
For these cases, the distance from the gate to the center line shall be a maximum of 4'.  
For one-way or divided sections:  
The gate shall be of sufficient length such that the distance from the gate tip to the inside edge of pavement is a maximum of 4'.

SPEED MPH	A' IN FT.
60	550
55	450
50	375
45	300
40	225
35	150
30	100
URBAN	50 MIN.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION  
TRAFFIC DESIGN

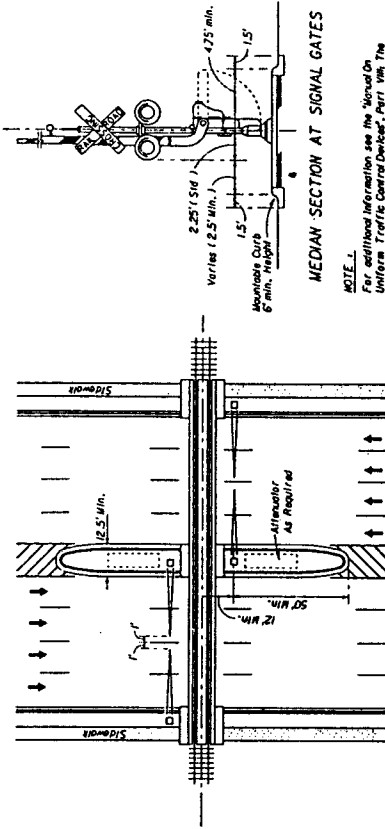
RAILROAD GRADE CROSSING TRAFFIC CONTROL DEVICES

Designed By: *[Signature]*  
Checked By: *[Signature]*  
Date: 3 of 4 1/7882



RAILROAD GATE ARM LIGHT SPACING

Specified Length Of Gate Arm	Dimension "A"	Dimension "B"	Dimension "C"
14 Ft.	6"	36"	5'-0"
15 Ft.	6"	36"	5'-0"
16 - 17 Ft.	24"	36"	5'-0"
18 - 19 Ft.	24"	4'	5'-0"
20 - 23 Ft.	24"	4'-0"	5'-0"
24 - 28 Ft.	24"	5'-0"	5'-0"
29 - 31 Ft.	36"	6'-0"	7'-0"
32 - 34 Ft.	36"	7'-6"	9'-0"
35 - 37 Ft.	36"	8'-0"	9'-0"
38 And Over	36"	10'-0"	10'-0"



**NOTE.**  
For additional information see the Manual On Uniform Traffic Control Devices, Part VIII, The Manual On Uniform Traffic Control Devices, Part VIII, AASHTO, A Policy On Geometric Design Of Streets And Highways, 1981.

**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 SECTION

RAILROAD GRADE CROSSING TRAFFIC CONTROL DEVICES

Project No. \_\_\_\_\_  
Contract No. \_\_\_\_\_  
Sheet No. 4 of 4  
17882