FLORIDA DEPARTMENT OF TRANSPORTATION



ATTACHMENTS

ITB-DOT-14/15-8005-GB

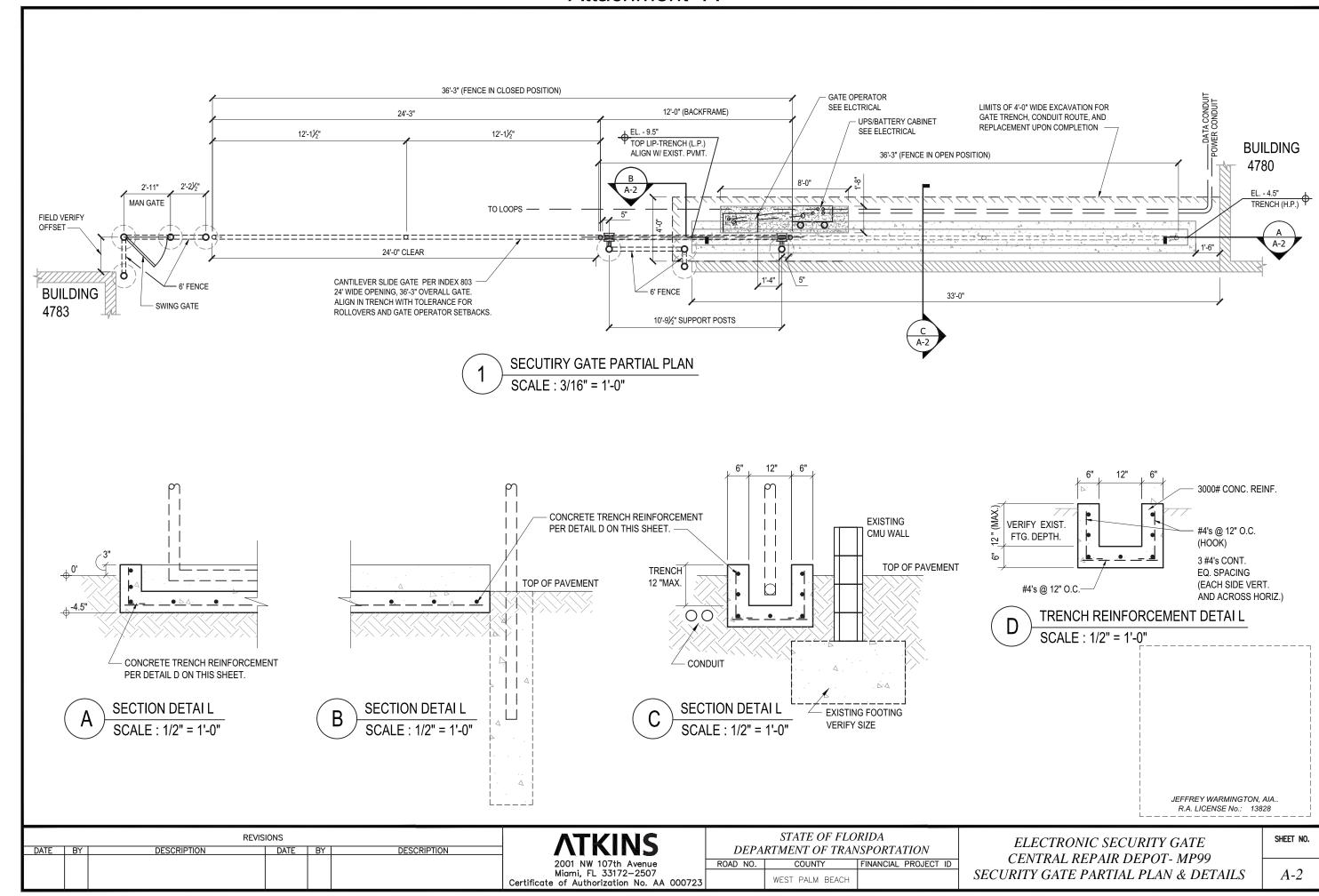
INSTALLATION OF FENCE AND CANTILEVER SLIDE SECURITY GATE

FLORIDA'S TURNPIKE (S.R. 91), MILEPOST 99.0

428395-1-52-11

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FENCE NOTES:

NOTES APPLICABLE TO THIS PROJECT:

- SPECIFICATIONS GOVERNING THE FENCING IS SECTION 550 OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2010 EDITION AND INDEXES 802 AND 803 OF THE 2010 FDOT DESIGN STANDARDS
- 2. THE FENCE LINE COMPONENT OPTIONS AS NOTED IN INDEX 802 OF THE 2010 FDOT DESIGN STANDARDS, PAGE 1 OF 3 THAT HAVE BEEN SELECTED ARE:
- A. LINE POST OPTION 1 GALVANIZED STEEL PIPE SCHEDULE 40 1½" NOMINAL DIA. ZINC GALVANIZED AT A RATE OF 1.8 OZ/SQUARE FOOT; ASTM A53 TABLE X 2, ATSM, F1083, AND AASHTO M111.
- B. CORNER END AND PULL POST OPTION 1 STEEL PIPE SCHEDULE 40 2" NOMINAL DIA. ZINC GALVANIZED AT A RATE OF 1.8 OZ/SQUARE FOOT; ASTM A53 TABLE X 2, ATSM, F1083, AND AASHTO M111
- C. RAIL OPTION 1 STEEL PIPE SCHEDULE 40 11/4" NOMINAL DIA. ZINC GALVANIZED AT A RATE OF 1.8 OZ/SQUARE FOOT; ASTM A53 TABLE X 2, ATSM F1083, AND AASHTO
- D. CHAIN LINK OPTION 1 (2 INCH MESH WITH TWISTED AND BARBED SELVAGE TOP AND BOTTOM EXCEPT AS DESCRIBED IN NOTE 10 OF THE GENERAL NOTES ON INDEX 802 OF THE 2010 FDOT DESIGN STANDARDS, PAGE 2 OF 3) - AASHTO M181 TYPE 1 ZINC COATED STEEL, NO. 9 GAGE (COATED WIRE DIAMETER) COATED AT THE RATE OF 1.8 OZ/SQUARE FOOT. (M181 CLASS D 2.0 OZ/SQUARE FOOT MODIFIED TO 1.8 OZ/SQUARE FOOT)
- TENSION WIRE OPTIONS 1 STEEL WIRE NO. 7 ZINC GALVANIZED AT A RATE OF 1.2 OZ/SQUARE FOOT. AASHTO M181
- F. TIE WIRE AND HOG RING OPTIONS 1 STEEL WIRE NO. 9 ZINC GALVANIZED AT A RATE OF 1.2 OZ/SQUARE FOOT.
- BARBED WIRE TOPPING PER BARBED WIRE ATTACHMENT AS NOTED IN INDEX 802 OF THE 2010 FDOT DESIGN STANDARDS. PAGE 3 OF 3.

JAMES E. VICK, P.E. FLORIDA LICENSE No.: 39901

REVISIONS DATE BY

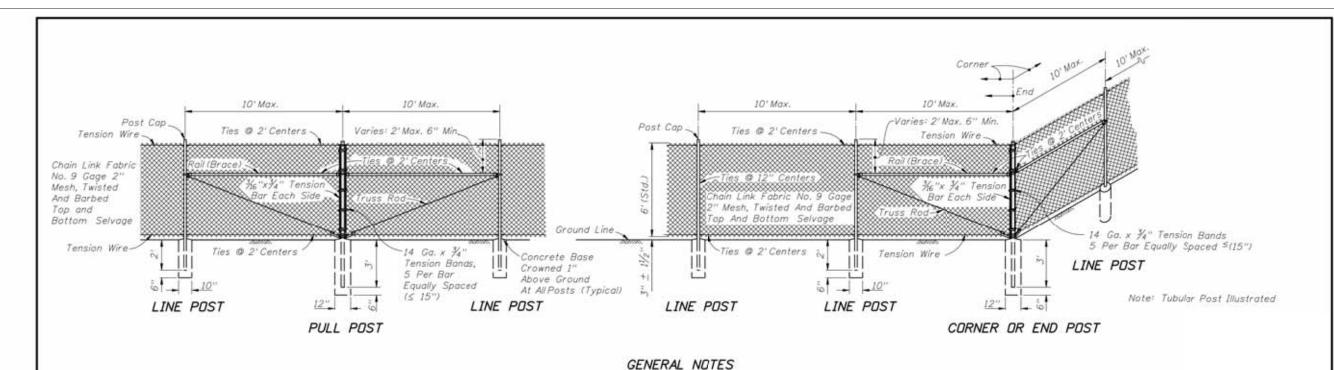
2001 NW 107th Avenue Miami, FL 33172-2507 Certificate of Authorization No. AA 000723

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION FINANCIAL PROJECT ID ROAD NO. COUNTY WEST PALM BEACH

ELECTRONIC SECURITY GATE CENTRAL REPAIR DEPOT - MP 99 FENCE DETAILS AND NOTES

SHEET NO.

Attachment "A"



- 1. This fence to be used generally in urban areas.
- 2. For supplemental information refer to Section 550 of FDOT Standard Specifications.
- 3. Chain link fabric, post, truss rods, tension wires, tie wires, stretcher bars, gates and all miscellaneous fittings and hardware shall meet the requirements of AASHTO and ASTM signify current reference.
- 4. Fence Component Options:
 - A. Line post options:
 - (1) Galvanized steel pipe, Schedule 40- 1½" nominal dia. zinc galvanized at the rate of 1.8 oz./ft²: ASTM A53 Table X 2, ASTM F1083, and AASHTO MIII.
 - (2) Aluminum coated steel pipe: ASTM A53, X 2 Tables: Schedule 40- 11/2" nominal dia., 1.90" DD; coated at the rate 0.40 oz./ft.: AASHTO MIII.
 - (3) Aluminum alloy pipe- 2" nominal dia.: ASTM B241 or B221, Alloy 6063, T6.
 - (4) Steel H-Beam- 1%"x 1%": Zinc Galv. 1.8 oz./ft.: AASHTD MIII and Detail.

 - (5) Aluminum alloy H-Beam- 1½"X 1½" Detail. (6) Steel C- 1½"X 1½": Galv.: 1.8 oz/ft. zinc: AASHTO M111: DR , 0.9 oz./ft². zinc-5% aluminummischmetal: ASTM F1043 and Detail.
 - (7) Resistance welded steel pipe; 50,000 psi min. yeild strength ASTM A569/A569M, A653/A653M or undepleted stock of discontinued A446/A446M base materials; ASTM F669 Group IV (Alternative Design); fence industry 2" DD, 11/2" NPS, 1.900" dec. equiv., 0.120" min. wall thick, and min. wt. 228 lb./ft,; with ASTM F1043 metric equivalent internal coating Types A. B, C or D and external coating Types A, B, or C: the chromate conversion coating of external Type B shall have a thickness of $15\mu g/m^2$. min. and the polymer film topcoat shall have a thickness of 0.0003" min.; internal and external coatings are not restricted to the combinations of Table 2, ASTM F1043.
 - B. Corner, end, and pull post options:
 - (1) Galvanized steelpipe, Schedule 40- 2" nominal dia. zinc galvanized at the rate of 1.8 oz./ft :: ASTM A53 Table X 2, ASTM F1083, and AASHTO MIII.
 - (2) Aluminum coated steel pipe: ASTM A53 steel, X 2 Tables: Schedule 40; 2" nominal dia., 2.375" DD; coated at the rate 0.40 oz./ft.: AASHTO MIII.
 - (3) Aluminum alloy pipe- 21/2" nominal dia.: ASTM B241 or B221, Alloy 6063, T6.
 - (4) Resistance welded steelpipe: 50,000 psi min. yield strength ASTM A569/A569M, A653/A653M or undepleted stock of discontinued A446/A446M base materials; ASTM F669 Group IV (Alternative Design); fence industry 21/2" DD, 2" NPS, 2.375" dec. equiv., 0.130"min. wall thick, and min. wt. 3.117 lb./ft.; with ASTM F1043 metric equivalent internal coating Types A, B, C or D and external coating Types A, B, or C; the chromate conversion coating of external Type B shall have a thickness of $15\mu g/in^2$. min. and the polymer film topcoat shall have a thickness of 0.0003" min.; internal and external coatings are not restricted to the combinations of Table 2, ASTM F1043.

- C. Rail options:
 - (1) Galvanized steel pipe, Schedule 40- 11/4" nominal dia. zinc galvanized at the rate of 1.8 oz./ft2.: ASTM A53 Table X 2, ASTM F1083, and AASHTO MIII.
 - (2) Aluminum coated steel pipe; ASTM A53 steel, X 2 Tables Schedule 40: 11/4" nominal dia., 1.660" DD; coated at the rate 0.40 oz./ft.: AASHTO MIII.
 - (3) Aluminum alloy pipe- 11/4" nominal dia,: ASTM B241 or B221, Alloy 6063, T6.
 - (4) Resistance welded steel pipe: 50,000 psi min. yeild strength ASTM A569/A569M, A653/A653M or undepleted stock of discontinued A446/A446M base materials; ASTM F669 Group IV (Alternative Design); fence industry 1%" DD, 1¼" NPS, 1.660" dec. equiv., 0.111" min. wall thick. and min. wt. 1.836 lb./ft.; with ASTM F1043 metric equivalent internal coating Types A, B, C or D and external coating Types A, B, or C: the chromate conversion coating of external Type B shall have a thickness of 15 µg/in2, min, and the polymer film topcoat shall have a thickness of 0.0003" min.; internal and external coatings are not restricted to the combinations of Table 2, ASTM F1043.
- D. Chain link fabric options (2" mesh with twisted and barbed selvage top and bottom for all options except as described in Note No. 10):
 - (1) AASHTO MI81 Type I Zinc Coated Steel, No. 9 gage (coated wire diameter), coated at the rate of 1.8 oz/ft². (MI81 Class D 2.0 oz/ft². modified to 1.8 oz/ft².).
 - (2) AASHTD MIBI Type II Aluminum Coated Steel, No. 9 gage (coated wire diameter), coated at the rate of 0.40 oz./ft2.
 - (3) AASHTO M181 TypeIV- Polyvinyl Chloride (PVC) Coated Steel, No. 9 guage (coated core wire diameter), core wire-zinc coated steel, PVC coating: MIBI Class A (either extruded or extruded and bonded) or Class B (bonded). See table right. Unless the plans call for M181 standard colors medium green, dark green or black the coating color shall be soft gray matching that of No. 36622 of Federal Standard 595a.
- E. Tension wire options:
 - (1) Steel wire No. 7 gage zinc galvanized at the rate of 1.2 oz./ft2: AASHTO M181.
 - (2) Aluminum alloy wire with a diameter of 0.1875" or larger conforming to the requirements of ASTM B211, Alloy 5056 Temper H38, or, Alclad Alloy 5056 Temper H192.
 - (3) Aluminum coated steel wire No.7 gage coated at the rate of 0.040 oz./ft*.: AASHTD MI81.
- F. Tie wire and hog ring operations:
 - (1) Steel wire No.9 gage zinc galvanized at the rate of 1.2 oz./ft2.
 - (2) Aluminum alloy wire with a diameter of 0.1443" or larger conforming to the requirements of ASTM B211, Alloy 5056 Temper H38, or, Alclad Alloy 5056 Temper H192.
 - (3) Aluminum coated steel wire No. 7 gage coated at the rate of 0.040 oz./ft2.



2010 FDOT Design Standards FENCE TYPE B

07/01/09 1 of 3 Index No. 802

Sheet No

REVISIONS									
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION				
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TOLL FACILITIES ENGINEERING

FLORIDA'S TURNPIKE ENTERPRISE MILE POST 263 - BUILDING 5319 OCOEE, FLORIDA 34761

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION FINANCIAL PROJECT ID ROAD NO. COUNTY WEST PALM BEACH

ELECTRONIC SECURITY GATE CENTRAL REPAIR DEPOT - MP 99 FENCE DETAILS AND NOTES

SHEET NO.

C-2

GENERAL NOTES CONTINUED

- 5. Unless a specific material is called for in the plans the Contractor may elect to use either a single type of material or a combination of material types from the component options listed in note 4. Combinations of optional materials are restricted as follows:
 - (a) Unly one fabric optional material will be permitted betweencorner and/or end post assemblies.
 - (b) Only one line post optional material will be permitted between corner and/or end post assemblies.
 - (c) Pull post assemblies shall be optional materials identical to either the linepost optional material or the corner and end post assembly optional material; but, pull post assemblies shall be the same optional material between any set of corner and/or end post assemblies.
- Concrete for bases shall be Class NS concrete as specified in Section 347 of the Standard Specifications
 or a packaged, dry material meeting the requirements of a concrete under ASTM C-387. Materials for
 Class NS concrete may be proportioned by volume and/or by weight.
- 7. Line post shall be 8'-6" long (Standard). Line post are to be set in concrete as described above or by the following methods:
 - (a) In accordance with special details and/or as specifically described in the contract plans and specifications.
 - (b) In accordance with ASTM F567 Subsections 5.4 through 5.10 as approved by the Engineer. Line post installed in accordance with Section 5.8 shall be 9"-6" long.
 - (c) Post mounted on concrete structure or solid rock shall be mounted in accordance with the base plate detail "Fence Mounting On Concrete Endwalls And Retaining Wall", Sheet 3; or, by embedment in accordance with ASTM F567 Subsection 5.5.

End, pull and corner post assemblies shall be in concrete as detailed above for all soil conditions other than solid rock. Post within assemblies that are located on concrete structures or solid rock shall be set by base plate or by embedment as prescribed under (b) above for line post.

Line and assembly post set in concrete bases shall be set an additional 3" in depth for each 1' of fence height greater than 6".

- 8. Pull post shall be used at breaks in vertical grades of 15° or more, or at approximately 350' centers except that this maximum interval may be reduced by the Engineer on curves where the curve is greater than 3°.
- Corner post are to be installed at all horizontal breaks in fence at 15° or more and as required at vertical breaks over 15° as determined by the Engineer.
- 10. When fence has an installed top of fabric height less than 6'knuckled top and bottom selvages shall be used unless the plans specifically identify locations for twisted selvage fabrics.
- II. Unless sliding gates or special gates are called for in the plans, all gates shall be chain link swing gates meeting the material requirements described and as approved by the Engineer. Payment shall include the gates, single or double, all necessary hardware for installation and any additional length and/or size for posts at the opening. Gates shall be paid for under the contract unit price for Fence Gates, EA.
- 12. For construction purposes corner post assemblies shall consist of one corner post, two braces, two truss rods, and all necessary fittings and hardware as detailed. End post assemblies shall consist of one end post, one brace, one truss rod and all necessary fittings and hardware as detailed.
- All post, tension wires, chain link fabric, tie wires, Class NS concrete, and all miscellaneous fittings and hardware to be included in the cost for Fencing, LF.

			TYPE	IV VIN	YL COATED	FABRIC				
		A	ASHTO MI	81 Toble	4 Redefine	d As Follows				
P-2-14	roa mrs		J		PVC Thickness Range					
Specified Diameter Of Metallic Coated Core Wire			Minimum Weight Of Zinc Coating			Or Extruded	MIBI Class B (Bonded Coating)			
in.	mm	gage	oz./ft2.	g/m²	in.	mm	in.	mm		
0.148	3.77	9	0.30	92	0.015 to 0.025	0.38 to 0.64	0.006 to 0.010	0.15 to 0.25		

DESIGN NOTE

This index details fencing that is constructed with chain link fabric 6' (nominal) in height and with specific ground clearance.

For fencing of different height or installation details, the fence shall be fully detailed in the Contract plans.

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2010 FDOT Design Standards

FENCE TYPE B

07/01/09 2 of 3 Index No. 802

Sheet No.

REVISIONS

DATE BY DESCRIPTION DATE BY DESCRIPTION

TOLL FACILITIES ENGINEERING

FLORIDA'S TURNPIKE ENTERPRISE MILE POST 263 — BUILDING 5319 OCOEE, FLORIDA 34761 STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO. | COUNTY | FINANCIAL PROJECT ID

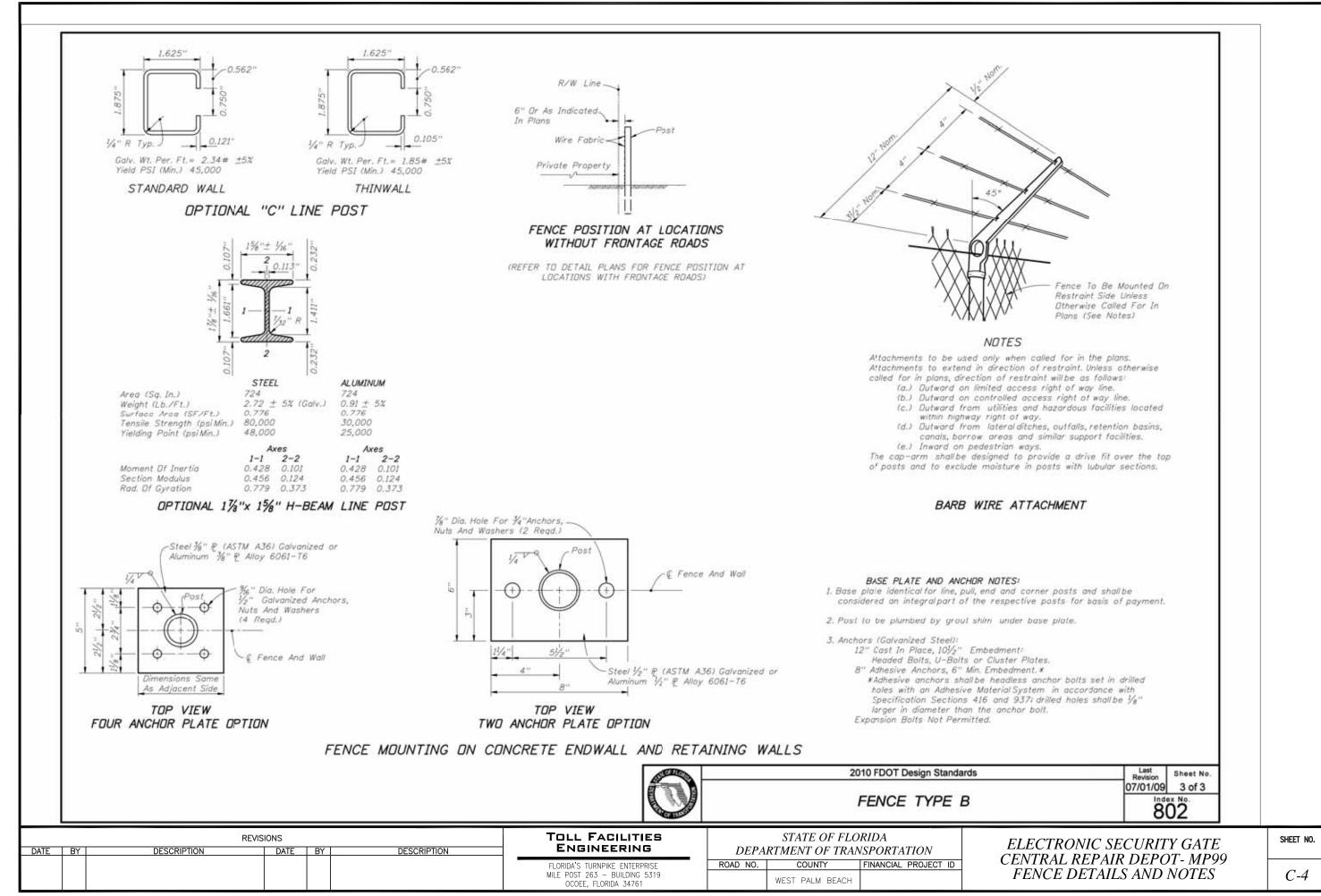
WEST PALM BEACH

ELECTRONIC SECURITY GATE CENTRAL REPAIR DEPOT - MP 99 FENCE DETAILS AND NOTES SHEET NO.

C-3

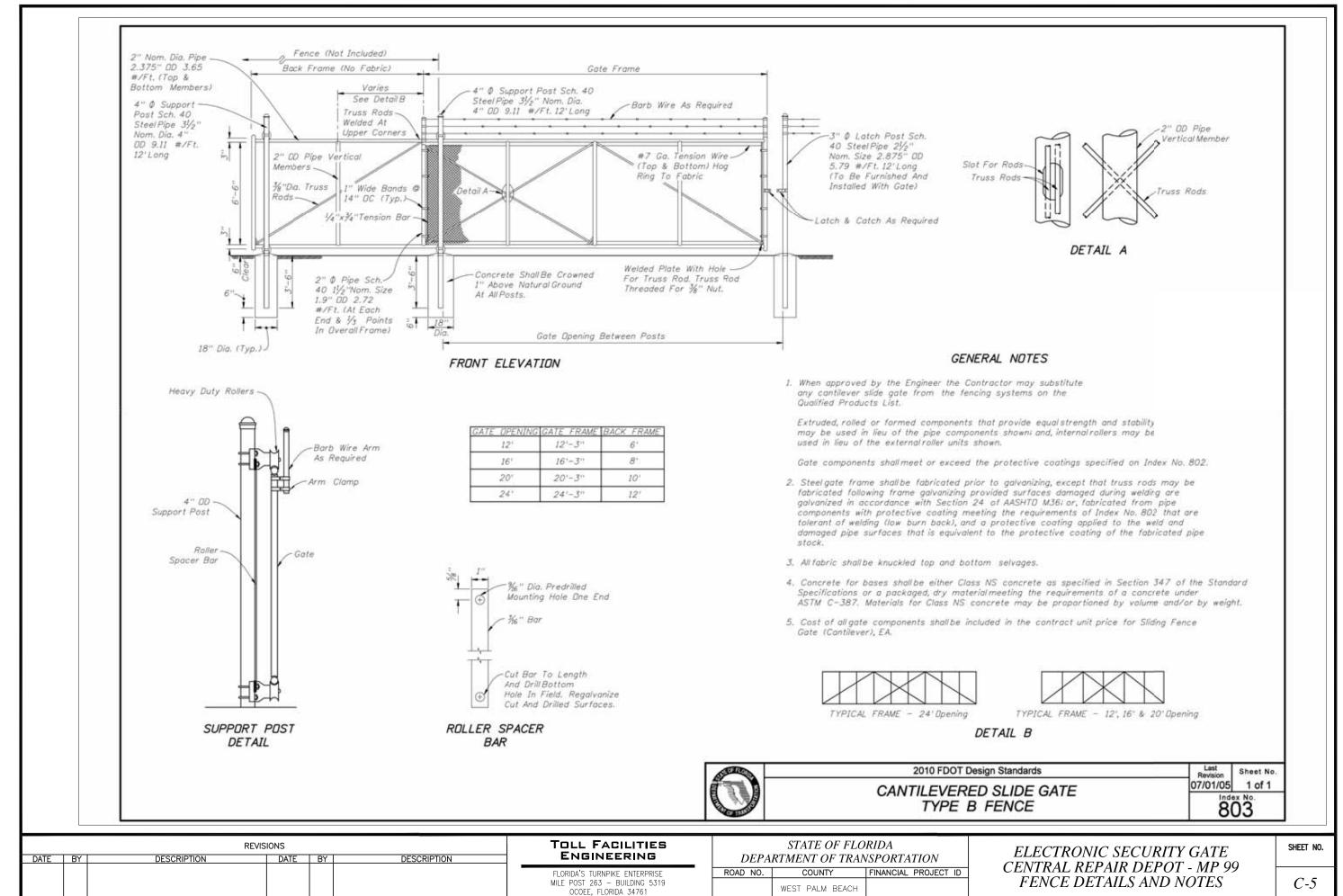
Attachment "A"

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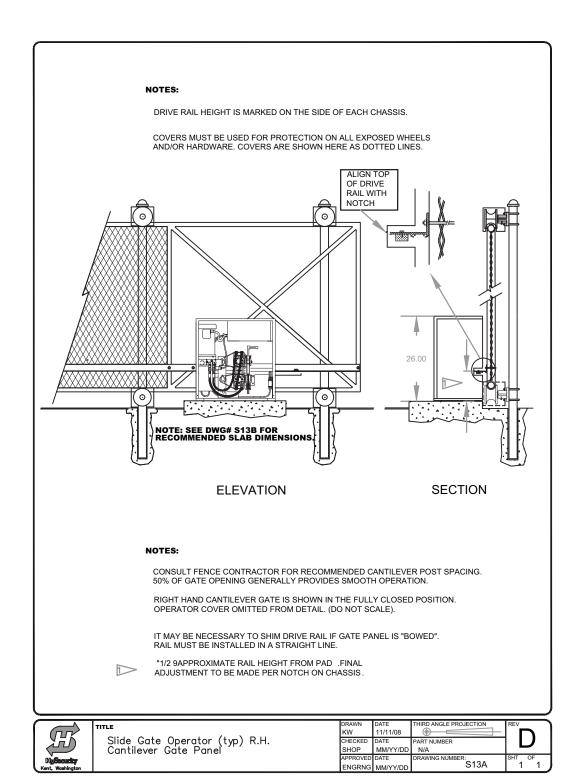
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GATE NOTES:

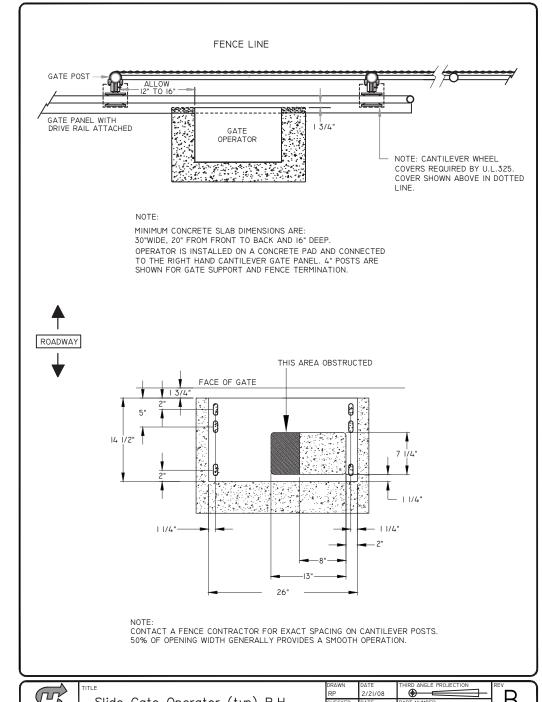
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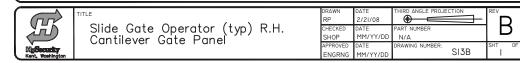
1. SPECIFICATIONS GOVERNING THE GATE IS SECTION 550 OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2010 EDITION AND INDEX 803 OF THE 2010 FDOT DESIGN STANDARDS



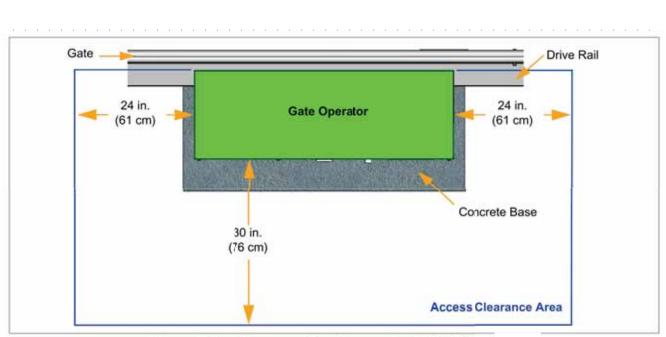
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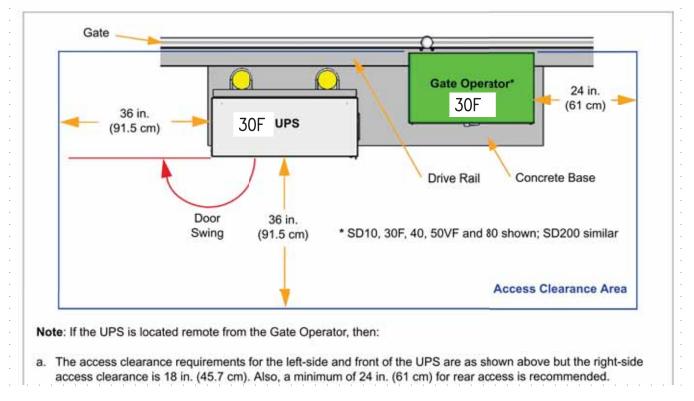
DATE	BY	DESCRIPTION	REVISIONS DATE	BY DESCRIPTION		TOLL FACILITIES ENGINEERING	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			ELECTRONIC SECURITY GATE	SHEET NO.
					FLORIDA'S TURNPIKE ENTERPRISE MILE POST 263 — BUILDING 5319 OCOEE, FLORIDA 34761	ROAD NO.	COUNTY WEST PALM BEACH	FINANCIAL PROJECT ID	CENTRAL REPAIR DEPOT- MP99 GATE OPERATOR DETAILS	C-6	



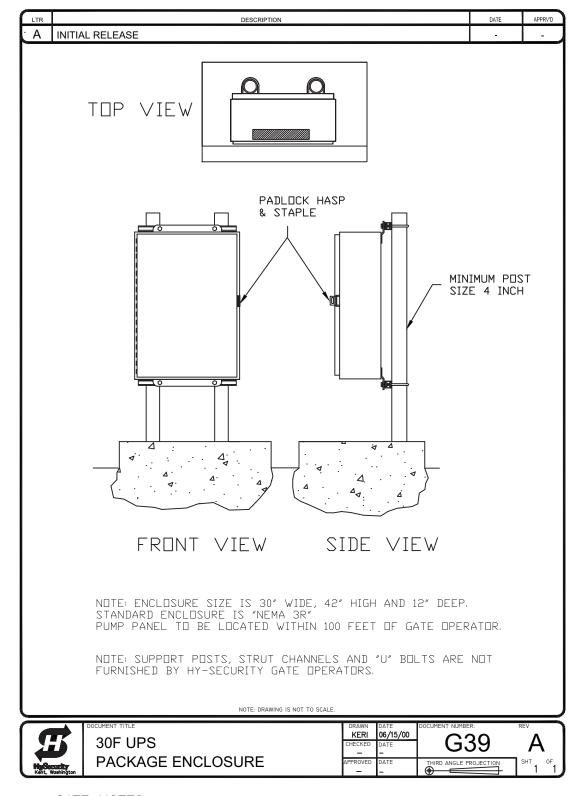
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Figure 2-2. Clearance Requirements - SlideDriver 30F



CLEARANCE REQUIREMENTS - 30F UPS OPTION

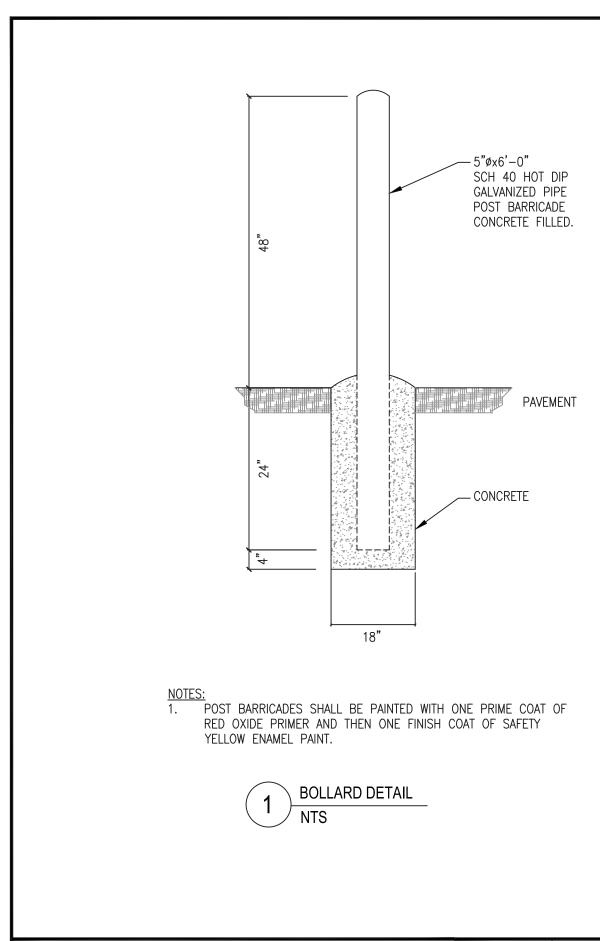


GATE NOTES:

NOTES APPLICABLE TO THIS PROJECT:

1. SPECIFICATIONS GOVERNING THE GATE IS SECTION 550 OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2010 EDITION AND INDEX 803 OF THE 2010 FDOT DESIGN STANDARDS

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DATE	BY	DESCRIPTION	DATE BY	DESCRIPTION	ENGINEERING					
					FLORIDA'S TURNPIKE ENTERPRISE	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		0.7
					MILE POST 263 — BUILDING 5319 OCOEE, FLORIDA 34761		WEST PALM BEACH		REMOTE UPS ENCLOSURE DETAILS	C-7



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ACCESS CONTROL STATION

JAMES E. VICK, P.E. FLORIDA LICENSE No.: 39901

REVISIONS DATE BY DESCRIPTION DESCRIPTION

2001 NW 107th Avenue Miami, FL 33172—2507 Certificate of Authorization No. AA 000723

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. COUNTY FINANCIAL PROJECT ID

WEST PALM BEACH

ELECTRONIC SECURITY GATE CENTRAL REPAIR DEPOT- MP99 **BOLLARD DETAIL**

SHEET NO.

C-8