

**HIGHLANDS COUNTY
BOARD OF COUNTY COMMISSIONERS
(HCBCC)
PURCHASING DEPARTMENT**

DATE: 5/11/17

BID NO. ITB 17-011 ADDENDUM No. 1

Project.: College Drive Guardrail Safety Improvements, Project No. 15065

Owner: Highlands County BCC
Attn: Purchasing Department
4320 George Blvd; Sebring, FL 33875-5803

This document contains 35 pages.

The purpose of this Addendum is to issue:

1. A revised set of plans.
2. Revised the quantity from 150 LF to 161 LF, Task No. 9, on the BID Form (Section 300). Please see attached revised form.
3. Revised the number of sheets on the Agreement Form (Section 500) from 13 to 17 sheet. Please see attached revised form.

SECTION 00300
BID FORM *Revised per Addendum 1*
ITB 17-011

PROJECT IDENTIFICATION: COLLEGE DRIVE GUARDRAIL SAFETY IMPROVEMENTS
PROJECT NO. 15065
ITB No. 17-011

THIS BID IS SUBMITTED TO: Highlands County Board of County Commissioners
Attn: Purchasing Department
4320 George Boulevard
Sebring, FL 33875-5803

BID SUBMITTED BY: _____
[Bidder's Name]

[Bidder's Authorized Representative's Name]

[Bidder's Address 1]

[Bidder's Address 2]

[Print Contact Person's Name for this Bid]

[Contact Person's Email Address]

[Contact Person's Phone Number]

1. The Bidder proposes and agrees, if this Bid is accepted, to furnish all labor, materials, and equipment to construct and complete the Work according to and as specified or indicated in ITB 17-011 and the Bidding Documents for the Bid Price and within the time periods stated in this Bid and in accordance with the other terms and conditions of the Contract Documents.
2. Bidder accepts all of the terms and conditions of the Advertisement or Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for thirty (30) days after the day of Bid opening. Bidder will sign and deliver the required number of the other documents required by this ITB within fifteen (15) days after the date of County's Notice of Award.
3. In submitting this Bid, Bidder represents that:

- a. Bidder has examined and carefully studied the Bidding Documents, including the following Addenda, receipt of all of which is hereby acknowledged:

<i>Date</i>	<i>Number</i>	<i>Date</i>	<i>Number</i>
_____	_____	_____	_____
_____	_____	_____	_____

- b. Bidder has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, performance, and furnishing of the Work;
- c. Bidder is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, performance, and furnishing of the Work.
- d. Bidder acknowledges that County and Engineer do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Bidding Documents with respect to Underground Facilities at or contiguous to the Site. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all such additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site or otherwise which may affect cost progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder and safety precautions and programs incident thereto. Bidder does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the determination of this Bid for performance and furnishing of the Work in accordance with the times, price, and other terms and conditions of the Contract Documents
- e. Bidder is aware of the general nature of the Work to be performed by County and others at the Site that relates to the Work.
- f. Bidder has correlated information known to Bidder, information and observations obtained from visits to the Site and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.
- g. Bidder has given Engineer written notice of all conflicts, errors, ambiguities or discrepancies that Bidder has discovered in the Bidding Documents and the written resolution thereof by Engineer is acceptable to Bidder, and the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.
- h. This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid. Bidder has not solicited or induced any person, firm or corporation to refrain from Bidding, and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over County.

4. Documentation included with Bid packet

	YES	NO
One (1) original (signed in blue ink), one (1) exact paper copy, and one (1) exact electronic copy (CD or thumb drive) of the submitted Bid.		
Acknowledgment of the Addenda (if applicable)		
Statement of compliance with Section 287.087, Florida Statutes, as a “Drug Free Workplace”		
Statement of compliance with Section 287.133, Florida Statutes, as a “Public Entity Crime”		
Statement of compliance with Section 287.134, Florida Statutes, as a “Discrimination”		
Statement of compliance with Section 287.135, Florida Statutes, as a “Contracting with scrutinized companies”		
Any document from the Dept. of Homeland Security’s website showing the Bidder’s Company ID # for E-Verify ID #		
Woman or Minority Owned Business (Include a copy of your certificate if applicable)		
Required Bidder's Qualification Statement with supporting data included		
A list of a minimum of (5) five jobs similar in scope and size included		
A minimum of five (5) references of clients for whom similar work has been performed included		
A tabulation of Subcontractors Included		
Acord Insurance Certificate Included		
Bid Security in the form of _____		
Local Preference Affidavit (Include a copy of your Affidavit if applicable)		
Copy of any applicable Licenses		
Other _____		

5. Pricing

This is a Lump Sum and Unit Price Bid. Bidder will complete the Work in accordance with the Contract Documents for the following Lump Sum and Unit Price Bid items. Award will be based on the total Lump Sum Bid Price, sum of Unit Price items, and requirements of Bidder. All work for this ITB will be awarded to one (1) Bidder.

**BASE BID:
TABULATION OF QUANTITIES**

TASK NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE
1	MOBILIZATION	1	LS	
2	BONDS & INSURANCE	1	LS	
3	SURVEY STAKING	1	LS	
4	MAINTENANCE OF TRAFFIC	1	LS	
5	TEMPORARY SEDIMENT BARRIER	205	LF	
6	CLEARING & GRUBBING	1	LS	
7	REGULAR EXCAVATION	1	LS	
8	MISC. ASPHALT PAVEMENT (2" THICK, RAP 30% MAX.)	10	TN	
9	GUARDRAIL ROADWAY (INCLUDING ACRYLIC PLASTIC REFLECTORS)	161	LF	
10	GUARDRAIL, END ANCHORAGE ASSEMBLY (FLARED)	1	EA	
11	GUARDRAIL, END ANCHORAGE ASSEMBLY (TYPE II)	1	EA	
12	SINGLE POST SIGN, FURNISH & INSTALL (OM-3R/L)	2	EA	
13	PERFORMANCE TURF (SOD) (INCL. TOP SOIL & WATER FOR 14 DAYS AT LEAST TWICE A WEEK AFTER INITIAL ESTABLISHMENT)	180	SY	

LS = Lump Sum, SY = Square Yard, TN = Ton, LF = Linear Foot, and EA = Each

BASE BID TOTAL \$ _____

[Numbers]

\$ _____

[Words]

6. Bidder agrees that the Work will be substantially complete within forty-five (45) days and completed and ready for final payment within sixty (60) days after the date when the Contract Times commence to run. The Contract Times will commence to run on the thirteenth (13th) day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within thirty (30) days after the Effective Date of the Agreement.
7. Bidder shall coordinate with the Project Manager in order to comply with all applicable quality control testing in accordance with the Drawings and Specification.
8. Communications concerning this Bid have been addressed only to the contacts listed in Article 23 of Section 00100 of ITB 17-011.

SUBMITTED on _____, 2016

State Contractor License No. _____.

If Bidder is:

An Individual

By: _____ (SEAL)
(Individual's Name)

doing business as _____

Business Address: _____

Phone No.: _____ Fax No.: _____

A Partnership

_____ (SEAL)
(Partnership Name)

(State in Which Organized and Type of Partnership)

By: _____
(Name of General Partner)

Business Address: _____

Phone No.: _____ Fax No.: _____

A Corporation

By: _____ (SEAL)
(Corporation Name)

(State of Incorporation)

By: _____
(Name of Person Authorized to Sign)

(Title)

Attest: _____
(Secretary)

Business Address: _____

Phone No.: _____ Fax No.: _____

Date of Qualification to do business is _____

A Joint Venture

By: _____ (SEAL)
(Name)

(Address)

By: _____ (SEAL)
(Name)

(Address)

Phone Number and Address for receipt of official communications:

(Each joint venturer must sign. The manner of signing for each individual, partnership and corporation that is a party to the joint venture should be in the manner indicated above for an individual or the appropriate form of entity.)

END OF SECTION

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SECTION 00500
AGREEMENT (Revised per Addendum 1)
ITB 17-011

THIS AGREEMENT made this ____ day of _____, 2017, by and between Highlands County, a political subdivision of the State of Florida, 600 South Commerce Avenue, Sebring, Florida 33870, (hereinafter called "Owner") and _____ (hereinafter called "Contractor"). Owner and Contractor, in consideration of the mutual covenants hereinafter set forth, agree as follows:

Article 1. - WORK

Contractor shall provide all labor, materials, and equipment to construct the COLLEGE DRIVE GUARDRAIL SAFETY IMPROVEMENTS: PROJECT NO. 15065. Contractor shall complete the Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

The Work consists of constructing approximately one hundred and sixty-one (161) linear feet of guardrail and a three (3)-foot-wide strip of asphalt.

The principal features, as defined above, are not intended to cover every aspect of the Project details. Contractor shall be responsible for reviewing the Contract Documents to determine the full scope of the Work and specific requirements of the Project, which include familiarity and compliance with all Laws and Regulations.

Article 2. - ENGINEER

The Engineer of Record (hereinafter called "Engineer") is Clinton Howerton, Jr., P.E., County Engineer.

Article 3. - CONTRACT TIMES

3.1 Contractor agrees that the Work will be substantially complete within forty-five (45) days and completed and ready for final payment within sixty (60) days after the date when the Contract Times commence to run. The Contract Times will commence to run on the thirteenth (13th) day after the Effective Date of this Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within thirty (30) days after the Effective Date of this Agreement.

3.2 Liquidated Damages:

3.2.1 Owner and Contractor recognize that time is of the essence of this Agreement and that Owner will suffer financial loss if the Work is not completed within the times specified in paragraph 3.1 of this Article. In agreeing upon the daily liquidated damages amount stated in this paragraph, Owner and Contractor have considered the original Contract Price stated in Article 4 of this Agreement, the average construction, engineering, and inspection costs experienced by Owner, and anticipated costs of project-related delays and inconveniences to Owner and

the public. Owner and Contractor also recognize the delays, expense, and difficulties involved in proving the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (and not as a penalty) Contractor shall pay Owner Five Hundred Dollars (\$500.00) for each day that expires after the time specified in paragraph 3.1 of this Article until the Work is completed and ready for final payment. Liquidated damages shall be deducted by Owner from any balance due Contractor or, if the balance due Contractor is less than the amount of liquidated damages, Contractor shall pay to Owner the remaining unpaid liquidated damages within thirty (30) days after Owner's invoice is sent to Contractor.

3.2.2 Owner does not waive its right to liquidated damages due under this Agreement by allowing Contractor to continue and to finish the Work, or any part of it, after the expiration of the Contract Time including granted time extensions.

3.2.3 In the case of a default of this Agreement and the completion of the Work by Owner, Contractor and Contractor's surety are liable for the liquidated damages under this Agreement, but Owner will not charge liquidated damages for any delay in the final completion of Owner's performance of the Work due to any unreasonable action or delay on the part of Owner.

Article 4. - CONTRACT PRICE

Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the amount determined pursuant to paragraph 4.1 below:

4.1 For all Work as listed on the Bid Form and described in the Drawings and Specifications as Exhibit "A", attached hereto and included herein by this reference, a Lump Sum of:

(USE WORDS)

(USE FIGURES)

Contractor has included all costs in the Contract Price and shall cause the Work to be completed for the Contract Price. The Contract Price shall be reduced in the manner described in SC-7.09 of Section 00800 of the Supplementary Conditions of this Agreement.

Article 5. - PAYMENT PROCEDURES

5.1 Deliverables must be received and accepted in writing by the Engineer prior to reimbursements. Supporting documentation with the invoices must establish that the deliverables were received and accepted in writing by the Engineer. Contractor may receive progress payments for deliverables based on the Contractor's Schedule of Values and on a percentage of services that have been

completed, approved, and accepted to the satisfaction of Owner when properly supported by detailed invoices and acceptable evidence of payment. All costs charged to the Project by Contractor shall be supported by detailed invoices, proof of payments, contracts or vouchers evidencing in proper detail the nature and propriety of the charges.

5.2 Progress Payments; Retainage: Contractor shall deliver Contractor's Applications for Payment to Engineer on or before the third (3rd) day of each month. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment as recommended by Engineer, on or about the twenty-sixth (26th) day of each month during construction as provided in paragraphs 5.2.1 and 5.2.2 below.

5.2.1 Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below, but in each case, less the aggregate of payments previously made and less such amounts as Engineer shall determine, or Owner may withhold, in accordance with paragraph 14.02 of The Standard General Conditions of the Construction Contract, EJCDC C-700.

90 % of the Work completed up until fifty percent (50%) of the Work and ninety-five percent (95%) of the Work completed subsequently.

0 % of materials and equipment not incorporated in the Work (but delivered, suitably stored, and accompanied by documentation satisfactory to the Owner as provided in paragraph 15.01B of The Standard General Conditions of the Construction Contract, EJCDC C-700, as modified by Section 00800 Supplementary Conditions to EJCDC C-700).

5.2.2 Upon Substantial Completion, in an amount sufficient to increase total payments to Contractor to ninety-five percent (95%) of the Contract Price (with the balance being retainage), less such amounts as Engineer shall determine, or Owner may withhold, in accordance with paragraph 15.01 of The Standard General Conditions of the Construction Contract, EJCDC C-700, as modified by Section 00800 Supplementary Conditions to EJCDC C-700.

5.3 Final Payment: Upon completion of the Work, Contractor shall notify Owner in writing of the completion. The certification shall state that the Work has been completed in compliance with the Drawings and Specifications. If any deviations are noted from the approved Drawings and Specifications, the certification shall include a list of all deviations along with an explanation that justifies the reason to accept each deviation. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and deviations not accepted by Owner and has delivered to Owner, in accordance with the Contract Documents, schedules, guarantees, Bonds, certificates or other evidence of insurance, certificates of inspection, permits, marked-up record documents, paper final as-built Drawings and Specifications, signed, sealed, and certified by a Professional Surveyor, registered in the State of Florida, and all applicable permits, final releases from Contractor and all Subcontractors and suppliers at every level, all warranties, and all other documents reasonably required by Owner pertaining to the Work, Contractor may make application for final payment.

Article 6. - CONTRACTOR'S REPRESENTATIONS

In order to induce Owner to enter into this Agreement, Contractor makes the following representations:

- 6.1 Contractor has examined and carefully studied the Contract Documents (including any Addenda) and the other related data identified in the ITB 17-011 Documents.
- 6.2 Contractor has visited the Site and become familiar with and is satisfied as to the general, local and Site conditions that may affect cost, progress, performance or furnishing of the Work.
- 6.3 Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, performance and furnishing of the Work.
- 6.4 Contractor has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) Contractor acknowledges that such reports and drawings are not Contract Documents and may not be complete for Contractor's purposes. Contractor acknowledges that Owner and Engineer do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Contract Documents with respect to Underground Facilities at or contiguous to the Site. Contractor has obtained and carefully studied (or assumes responsibility for having done so) all such additional supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the Site or otherwise which may affect cost, progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto. Contractor does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the performance and furnishing of the Work at the Contract Price, within the Contract Times and in accordance with the other terms and conditions of the Contract Documents.
- 6.5 Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- 6.6 Contractor has correlated the information known to Contractor, information and observations obtained from visits to the Site, reports, Drawings and Specifications identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies and data with the Contract Documents.
- 6.7 Contractor has not given Engineer written notice of any conflicts, errors, ambiguities or discrepancies that Contractor has discovered in the Contract Documents, and Contractor agrees that the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- 6.8 Contractor certifies by signing this Agreement that no Commissioner or employee of the Highlands County Board of County Commissioners has solicited or accepted gratuities, favors, or anything of monetary value from Contractor or parties to subcontracts. Contractor and Subcontractors shall not

pay any gratuities, favors, or anything of monetary value to any Commissioner or employee of the Highlands County Board of County Commissioners.

Article 7. - CONTRACT DOCUMENTS

The Contract Documents which comprise the entire Contract between Owner and Contractor concerning the Work consists of the following:

The Contract Documents which comprise the entire Contract between Owner and Contractor concerning the Work consists of the following:

- 7.1 This Agreement (pages 00500-1 to 00500-11, inclusive).
- 7.2 The Standard General Conditions of the Construction Contract, EJCDC C-700 (2013 Edition).
- 7.3 ITB 17-011 Section 00800 Supplementary Conditions to EJCDC C-700 (2013 Edition).
- 7.4 EXHIBIT "A"- Drawings and Specifications dated April 24, 2017, consisting of a cover sheet bearing the title "CONSTRUCTION PLANS FOR COLLEGE DRIVE GUARDRAIL SAFETY IMPROVEMENTS; PROJECT NO. 15065" dated April 24, 2017, sheet 1 of 17 and sheets numbered 2 to 17, inclusive, with each sheet bearing the following general title: "COLLEGE DRIVE GUARDRAIL SAFETY IMPROVEMENTS"
- 7.5 Except as expressly otherwise noted in this paragraph and paragraph 7.6 of this Article, there are no Contract Documents other than those listed in paragraphs 7.1 through 7.4 of this Article. In the event of a conflict the provisions of the order of precedence shall be this Agreement, followed by the Supplementary Conditions, followed by EJCDC C-700 (2013 Edition). The Contract Documents may only be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways:
 - (a) Written Amendment signed by both parties
 - (b) Change Order signed by both parties
 - (c) Work Change Directive signed by both parties
- 7.6 The requirements of the Contract Documents may be supplemented and minor variations and deviations in the Work may be authorized, by one or more of the following ways:
 - (a) A Field Order issued by the Engineer
 - (b) Engineer's approval of a Shop Drawing
 - (c) Engineer's written interpretation or clarification

Article 8. - MISCELLANEOUS

- 8.1 No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by Laws and Regulations), and unless specifically stated to the contrary in any written consent of an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.
- 8.2 Owner and Contractor each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract Documents.
- 8.3 Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.
- 8.4 Upon the occurrence of any event of default, all obligations on the part of Owner to make any further payments of funds pursuant to this Agreement shall, if Owner so elects, terminate but Owner may make any payments or parts of payments after the happening of any event of default without thereby waiving the right to exercise any remedy which it may have and without becoming liable to make any further payment.
- 8.5 Contractor certifies by signing this Agreement that no Commissioner or employee of the Highlands County Board of County Commissioners has solicited or accepted gratuities, favors or anything of monetary value from Contractor or parties to subcontracts. Contractor, Subcontractors, and Suppliers shall not pay any gratuities, favors, or anything of monetary value to any Commissioner or employee of the Highlands County Board of County Commissioners.
- 8.6 No funds received pursuant to this Agreement may be expended for lobbying the Legislature, the judicial branch, any state agency, Owner or Owner's elected officials, employees or agents.
- 8.7 By entering into this Agreement, Contractor agrees and promises that, during and after a public emergency, disaster, hurricane, flood, or acts of God, Owner shall be given "first priority" for all goods and services under this Agreement. Contractor agrees to provide all goods and services to Owner during and after the emergency at the terms, conditions, and prices as provided in this Agreement on a "first priority" basis. Contractor shall furnish a twenty-four (24) hour phone number to Owner in the event of such an emergency. Failure to provide the stated priority during and after an emergency shall constitute a breach of Contract and make Contractor subject to sanctions from doing further business with Owner. For purposes of this paragraph, the term "first priority" means priority over all other contracts and agreements between Contractor and any person or entity other than Owner and requires Contractor to deliver the goods and services described in this Agreement to Owner prior to providing those goods and services to any other person or entity during and after the emergency.

- 8.8 Owner shall not be obligated or liable hereunder to any person, organization or entity other than Contractor. No provision in this Agreement is intended to, or shall be construed to, create any third party beneficiary or to provide any rights to any person, organization or entity not a party to this Agreement, including, but not limited to, any citizen or employees of the Owner and/or Contractor.
- 8.9 In no event shall the making by Owner of any payment to Contractor constitute or be construed as a waiver by Owner of any breach of covenant or any default which may then exist, on the part of Contractor, and the making of such payment by Owner while any such breach or default exists shall in no way impair or prejudice any right or remedy available to Owner with respect to such breach or default.
- 8.10 No waiver by either Contractor or Owner with respect to any breach or default of or with respect to any provisions or conditions of this Agreement shall be deemed to constitute a continuing waiver of any other breach or default of or with respect to the same or any other provision or condition of this Agreement. No claim or right arising out of a breach of this Agreement can be discharged in whole or in part by a waiver or renunciation of the claim or right unless the waiver or renunciation is supported by consideration and is in writing signed by the aggrieved party.
- 8.11 This Agreement, including exhibits and amendments, and all matters relating to the validity, interpretation, and performance of this Agreement (whether in contract, statute, tort, or otherwise) shall be governed and construed in accordance with the laws of the State of Florida, without giving effect to principles of conflict of laws. Venue for any legal action shall lie in Highlands County, Florida, and any proceedings to enforce or interpret any provision of the Contract Documents shall be brought exclusively in a court of competent jurisdiction in Highlands County, Florida.
- 8.12 Owner is an Equal Employment Opportunity (“EEO”) employer and as such encourages Contractor to voluntarily comply with EEO regulations with regards to gender, age, race, veteran status, country of origin, and creed. In addition, Contractor or anyone under its employ shall comply with all applicable Laws and Regulations thereby pertaining to the avoidance or appearance of sexual harassment or on the job discrimination. Contractor shall maintain a work environment free of discrimination or unwelcome action of a personal nature. Any subcontracts entered into shall make deference to this clause with the same degree of application being encouraged. When applicable, Contractor shall comply with all new Laws and Regulations.
- 8.13 Contractor may only subcontract a portion of the Work to a Subcontractor or Subcontractors approved in advance, in writing by Engineer, but Contractor shall perform with its own employees and equipment work amounting to not less than forty percent (40%) of the total Contract amount.
- 8.14 This Agreement shall be effective upon execution by both parties and shall continue in effect and be binding on the parties until the Project is completed and accepted and payment made by Owner or terminated in accordance with Article 16 of Section 00700 Standard General Conditions of the Construction Contract as modified in Section 00800 Supplementary Conditions of the Contract Documents.
- 8.15 Contractor shall be responsible for all quality control testing requirements.
- 8.16 In the event there is a discrepancy between the language of another section of this Agreement and the Contract Documents, the requirements this Agreement shall govern.

Article 9. - EMPLOYMENT ELIGIBILITY VERIFICATION

9.1 Definitions. As used in this Article:

- 9.1.1 Employee assigned to this Agreement means an employee who was hired after November 6, 1986, who is directly performing work, in the United States, under this Agreement. An employee is not considered to be directly performing work under this Agreement if the employee.
- (a) Normally performs support work, such as indirect or overhead functions; and
 - (b) Does not perform any substantial duties applicable to the Agreement.
- 9.1.2 Subcontract means any contract entered into by a Subcontractor to furnish supplies or services for performance of this Agreement or a subcontract under this Agreement. It includes but is not limited to purchase orders, and changes and modifications to purchase orders.
- 9.1.3 Subcontractor means any supplier, distributor, vendor, or firm that furnishes supplies or services to or for Contractor or another subcontractor.
- 9.1.4 United States, as defined in 8 U.S.C. 1101(a)(38), means the 50 States, the District of Columbia, Puerto Rico, Guam, and the U.S. Virgin Islands.

9.2 Enrollment and verification requirements.

- 9.2.1 Contractor must be enrolled in E-Verify at time of Contract award, and Contractor shall use E-Verify to initiate verification of employment eligibility of
- (a) All new employees,
 - (1) Enrolled thirty (30) days or more. Contractor shall initiate verification of employment eligibility of all new hires of Contractor, who are working in the State of Florida, whether or not assigned to this Agreement, within three (3) workdays after the date of hire; or
 - (2) Enrolled less than thirty (30) days. Within thirty (30) days after enrollment in E-Verify, Contractor shall initiate verification of employment eligibility of all new hires of Contractor who are working in the State of Florida, whether or not assigned to this Agreement, within three (3) workdays after the date of hire; or
 - (b) Employees assigned to this Agreement. For each employee assigned to this Agreement, Contractor shall initiate verification of employment eligibility, to the extent allowed by the E-Verify program, within thirty (30) days after date of Contract award or within thirty (30) days after assignment to this Agreement, whichever date is later.

9.2.2 Contractor shall comply, for the period of performance of this Agreement, with the requirements of the E-Verify program MOU. Termination of Contractor's MOU and denial access to the E-Verify system by the Department of Homeland Security or the Social Security Administration or the U.S. Citizenship and Immigration Service is an event of default under this Agreement.

9.3 Website. Information on registration for and use of the E-Verify program can be obtained via the Internet at the U.S. Citizenship and Immigration Service's Web site: <http://www.uscis.gov>.

9.4 Individuals previously verified. Contractor is not required by this paragraph to perform additional employment verification using E-Verify for any employee whose employment eligibility was previously verified by Contractor through the E-Verify program.

9.5 Subcontracts. Contractor shall include, and shall require the inclusion of, the requirements of this Article, including this paragraph (9.5) (appropriately modified for identification of the parties), in each subcontract that includes work performed in the United States under this Agreement.

Article 10. - COMPLIANCE WITH SECTION 287.135(3)(b), FLORIDA STATUTES

Pursuant to Section 287.135(3)(b), Florida Statutes, Owner may terminate this Contract, at the option of its Board of County Commissioners, if the Contractor is found to have submitted a certification required by Section 287.135(5), Florida Statutes, that is false or if Contractor is or has been placed on the Scrutinized Companies that Boycott Israel List, or is engaged in a boycott of Israel or if Contractor is or has been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or if Contractor is or has been engaged in business operations in Cuba or Syria.

Article 11. PUBLIC RECORDS COMPLIANCE

If by providing services to Owner pursuant to this Contract Contractor is a contractor, as defined by Section 119.0701, Florida Statutes, Contractor shall:

11.1 Keep and maintain public records required by the County to perform the services.

11.2 Upon request of the County's custodian of public records, provide the County with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at the cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.

11.3 Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the term of this Contract and following competition of this Contract if Contractor does not transfer the records to the County.

- 11.4 Upon competition of this Contract, transfer to the County, at no cost, all public records in possession of Contractor or keep and maintain public records required by the County to perform the services. If Contractor transfers all public records to the County upon competition of this Contract, Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If Contractor keeps and maintains public records upon completion of this Contract, Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the County upon request from the County's custodian of public records, in a format that is compatible with the information technology systems of the County.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT:

Gloria Rybinski
County Public Information Officer
Telephone Number: 863-402-6836
E-mail Address: grybinski@hcbcc.org
Mailing Address: 600 South Commerce Avenue
Sebring, FL 33870

(THIS AREA INTENTIONALLY LEFT BLANK)

IN WITNESS WHEREOF, the parties of these presents have executed this Agreement in three (3) counterparts, each of which shall be deemed an original, but all of which constitute the same Agreement, in the year and day first shown and mentioned.

OWNER: HIGHLANDS COUNTY, A POLITICAL SUBDIVISION OF THE STATE OF FLORIDA, BY ITS BOARD OF COUNTY COMMISSIONERS

Don Elwell, Chairman

Address for giving notices:
505 S. Commerce Ave.
Sebring, FL 33870-3869

ATTEST:

[SEAL]

Robert W. Germaine, Clerk

CONTRACTOR:

Address for giving notices:

Print Name: _____
Print Title: _____

ATTEST:

[CORPORATE SEAL]

Print Name: _____
Print Title: _____

Sheet Description

1	Cover Sheet
2	General Notes and Specifications
3	Legend, Quantities, & Utilities
4	Typical Section
5	Plan
6-7	Cross Sections
8-16	FDOT STD Index No. 400
17	Maintenance of Traffic

HIGHLANDS COUNTY BOARD OF COUNTY COMMISSIONERS

COLLEGE DRIVE GUARDRAIL SAFETY IMPROVEMENTS

CONSTRUCTION PLANS

sunshine state
ONE CALL 811
OF FLORIDA

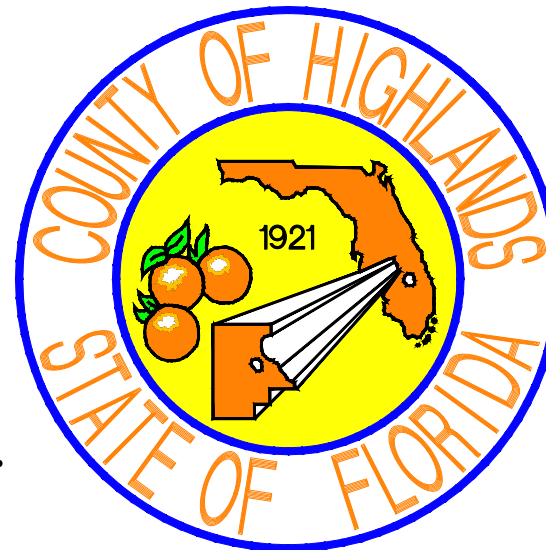
DIAL 811
Local No. 1-800-432-4770
Notification # _____
Call 48 hours before you dig.

State law requires excavators to call 811 before digging per the "Underground Facility Damage Prevention and Safety Act" Chapter 556, Florida Statutes. Failure to call can result in fines from \$250 to \$5,000.



PROJECT LOCATION MAP

PROJECT SITE
STA. 7+20.13-8+80.81

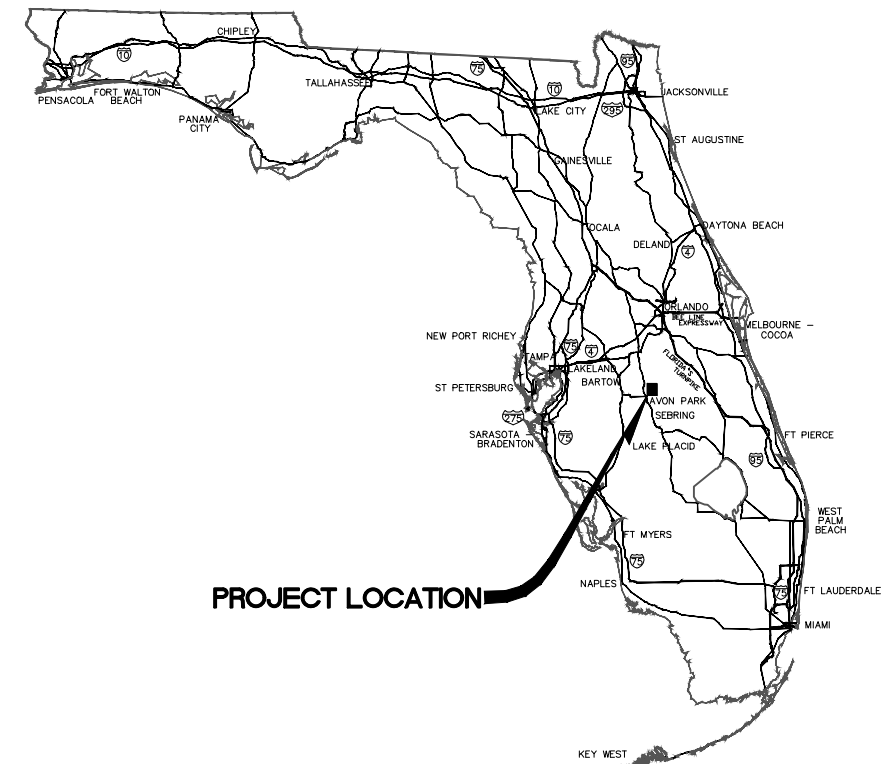


CLINTON HOWERTON, JR., P.E.
COUNTY ENGINEER

RIGHT-OF-WAY WIDTH = 80'
APPROXIMATE PROJECT LENGTH = 161 LF (0.030 MILES)
POSTED SPEED LIMIT = 45 MPH

PLANS PREPARED BY HIGHLANDS COUNTY ENGINEERING DEPARTMENT

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN ALTERED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.



PROJECT LOCATION

GOVERNING STANDARDS AND SPECIFICATIONS:

1. FLORIDA DEPARTMENT OF TRANSPORTATION MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS DATED MAY 2011, AS AMENDED BY CONTRACT DOCUMENTS.
2. FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS DATED 2015, AS AMENDED BY CONTRACT DOCUMENTS.

ENGINEER CERTIFICATION

I HEREBY CERTIFY THAT I AM A REGISTERED ENGINEER IN THE STATE OF FLORIDA AND THAT THESE PLANS HAVE BEEN PREPARED UNDER MY DIRECT SUPERVISION. I HEREBY APPROVE THESE PLANS AS SIGNED AND SEALED.

ENGINEER OF RECORD: _____ SIGNATURE

DATE SIGNED: _____ REG. NO. **61021**

CLINTON HOWERTON, JR., P.E. REG. #61021

REVISIONS			STATUS	DESIGNED BY: KENYA ANDERSON	DRAWN BY: STACEY MAHONEY	CHECKED BY: KENYA ANDERSON	IN CHARGE: CLINTON HOWERTON, P.E.	DATE: 4/24/17	HIGHLANDS COUNTY ENGINEERING DEPARTMENT 505 S. COMMERCE AVENUE SEBRING, FLORIDA 33870		COLLEGE DRIVE GUARDRAIL SAFETY IMPROVEMENTS COVER SHEET		SCALE: HORIZ. N/A VERT. N/A
DATE	BY	DESCRIPTION									PROJECT NO. N/A	REV. 0	
5/20/15	DMN	REVISE LENGTH AND NOTES	FOR BIDDING										
12/17/15	SLM	ADDED CULVERT REPLACEMENT											
5/19/16	SLM	REMOVED CULVERT REPLACEMENT											
<small>APPROVED BY: CLINTON HOWERTON, JR., P.E. DATE: _____</small> <small>FLORIDA REGISTRATION NO.: 61021</small>									<small>APPROVED BY: CLINTON HOWERTON, JR., P.E. DATE: _____</small>		<small>SHEET 1 OF 17</small>		

GENERAL NOTES AND SPECIFICATIONS

GENERAL CONSTRUCTION NOTES

- The Contractor shall be responsible for furnishing all material and labor to construct the facility as shown and described in the construction documents.
- The Contractor shall be responsible for obtaining all required construction bonds prior to construction.
- The Contractor shall have available at the job site at all times one copy of the construction documents including plans, specifications, and special conditions and copies of any required construction permits.
- Any discrepancies on the drawings shall be immediately brought to the attention of the Highlands County Project Manager before commencing work. No field changes or deviations from design are to be made without prior approval of the Highlands County Project Manager.
- Contractor shall submit a construction schedule to the Highlands County Project Manager prior to commencement of construction.
- Contractor shall repair and/or replace all disturbed irrigation. Contractor shall coordinate this activity with affected property owners.

EROSION CONTROL

- The Contractor shall grade the site to the elevations indicated and shall regrade washouts where they occur after every rainfall event until sod is well established or adequate stabilization occurs.
- Contractor shall denote on plan the temporary parking and storage area which shall also be used as the equipment maintenance and cleaning area, employee parking area, and area for locating toilet facilities
- All wash water (concrete trucks, vehicle cleaning, equipment cleaning, etc.) shall be detained and properly treated and disposed.
- The Contractor shall be responsible for the control of dust and dirt rising and scattering in the air during construction and shall provide water sprinkling or other suitable methods of control. The Contractor shall comply with all governing regulations pertaining to environmental protection.
- The use of motor oils and other petroleum based or toxic liquids for dust suppression operations is prohibited.
- Sod must be installed and maintained on exposed slopes within 48 hours of completing final grading, and at any other time as necessary, to prevent erosion, sedimentation or turbid discharges.
- Stabilization practices should be initiated as soon as practical, but in no case more than 7 days where construction has temporarily ceased.
- All materials spilled, dropped, washed or tracked from vehicles onto roadways or into storm drains must be removed as soon as possible.
- On-site & off-site soil stockpile and borrow areas shall be protected from erosion and sedimentation through implementation of best management practices.
- Slopes shall be left in a roughened condition during the grading phase to reduce runoff velocities and erosion.
- Due to grade changes during the development of the project, the Contractor shall be responsible for adjusting the erosion control measures (silt fence, etc.) to prevent erosion.
- All construction shall be stabilized at the end of each working day, this includes back filling of trenches for utility construction and placement of gravel or bituminous paving for road construction.
- The contractor shall install sediment barrier as shown on plans within the perimeter of the project site.

SURVEY AND STAKEOUT

- Existing section corners and ¼ Section corners, and other land markers or monuments located within proposed construction are to be referenced prior to construction and reset after construction. The Contractor shall have this work done by a registered Professional Land Surveyor at the Contractor's expense (Florida Registration). Any public land corner within the limits of construction is to be protected. If a corner monument is in danger of being destroyed and has not been properly referenced, the Contractor should notify the County Surveyor, without delay, by telephone (863-402-6877).
- Benchmark data is North American Vertical Datum of 1988 (NAVD 88).
- Any NGVD-29 monument within the limits of construction is to be protected. If in danger of damage, the Contractor should notify: Geodetic Information Center, Attn: Mark Maintenance Section N/CG-162, 6001 Executive Boulevard, Rockville, Maryland 20852. Telephone (301) 43-8319.
- Grades shown are the finished grades, unless otherwise indicated.
- The Contractor shall remove survey stakes and erosion control items prior to the completion of the contract.
- The Contractor shall be responsible for submitting to the Highlands County Project Manager a certified record survey signed and sealed by a Professional Land Surveyor registered in the state of Florida depicting the actual field location of all constructed improvements that are required by the jurisdictional agencies for the certification process. All survey costs will be the Contractor's responsibility.

UTILITIES

- It is the Contractor's responsibility to contact the various utility companies which may have buried or aerial utilities within or near the construction area before commencing work. The Contractor shall provide 48 hours minimum notice to all utility companies in advance of any excavation involving their utilities so that a company representative can be present. A list of the utility companies which the Contractor MUST call before commencing work is provided in these construction plans. This list serves as a guide only and is not intended to limit the utility companies which the contractor may wish to notify.
- Existing utilities shown are located according to the information available to the Engineer at the time of the topographic survey and have not been independently verified by the Owner or the Engineer. Guarantee is not made that all existing underground utilities are shown or that the location of those shown are entirely accurate. Finding the actual location of any existing utilities is the Contractor's responsibility and shall be done before he/she commences any work in the vicinity. Furthermore, the Contractor shall be fully responsible for any and all damages due to the Contractor's failure to exactly locate and preserve any and all underground utilities. The Owner or Engineer will assume no liability for any damages sustained or cost incurred because of the operations in the vicinity of existing utilities or structures, nor for temporary bracing and shoring of same. If it is necessary to shore, brace, swing or relocate a utility, the utility company or department affected shall be contacted and their permission obtained regarding the method to use for such work. In addition, the Contractor shall be responsible to verify if "other" utilities (Not shown in the plans) exist within the area of construction. Should there be utility conflicts, The Contractor shall inform the Engineer and notify the respective utility owners to resolve utility conflicts and utility adjustments as required.
- The Contractor is to use caution when working in or around areas of overhead transmission lines or underground utilities.
- The Contractor is responsible for the protection of all utilities to remain in place.
- The Contractor shall call 811 for field locations no less than 48 hours in advance of digging near underground utilities.
- Prior to commencement of any excavation, the contractor shall comply with Florida Statute 553.851 for the protection of underground gas pipelines.
- All valves within area of construction or disturbed by construction to be adjusted to finished grade. Replace valve collars and boxes as necessary.

CLEARING AND GRUBBING

- Contractor shall clear and grub all areas unless otherwise indicated, removing trees, stumps, roots, muck, existing pavement, existing concrete and all other deleterious material.

GUARDRAIL

- Guardrail shall be constructed with rail elements 12'-6" in length except where otherwise indicated in the plans.
- All guardrail panels, end sections and special end shoes shall be lapped in the direction of adjacent traffic.
- Post shall be constructed of steel.
- Post spacing shall be 6'-3"; however, posts shall be placed at stations 8+16.71 and 8+22.95 to prevent impact to the existing 42"x29" reinforced concrete pipe.
- Temporary sediment barrier shall be installed prior to start of work.

SOD

- All disturbed areas within the project limits shall be sodded with "like kind" sod. The areas on which sod is to be placed shall be thoroughly wetted prior to and after placement is complete. No addition of top soil material is required prior to placement.
- All sod materials shall be subject to inspection by the Highlands County Project Manager prior to placement. Any sod with noxious weeds and grasses including tropical soda apple, shall be rejected for use on the spot.
- All areas within the project site shall be sodded unless indicated in these construction plans.

MAINTENANCE OF TRAFFIC

- The maintenance of traffic for this project shall be in accordance with the Florida Department of Transportation Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways dated May 2011. Attention is directed to the Florida Department of Transportation Design Standards Index No. 602, Sheet No.1

PROJECT CONTROL POINTS						
Number	Northing	Easting	Elevation	Station	Off-Set	Description
1	1175614.02	493664.64	120.20	6+81.35	26.81' Right	SET 5/8" IRON ROD & CAP STAMPED "HIGHLANDS COUNTY"
2	1175610.84	493958.13	120.61	9+74.81	21.48' Right	SET 5/8" IRON ROD & CAP STAMPED "HIGHLANDS COUNTY"

<table border="1"> <thead> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <th>DATE</th> <th>BY</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>			REVISIONS		DATE	BY									<table border="1"> <thead> <tr> <th colspan="2">STATUS</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: center; color: red; font-weight: bold;">FOR BIDDING</td> </tr> </tbody> </table>		STATUS		FOR BIDDING		<table border="1"> <tr> <td>DESIGNED BY: KENYA ANDERSON</td> <td rowspan="5" style="text-align: center;"> HIGHLANDS COUNTY ENGINEERING DEPARTMENT 505 S. COMMERCE AVENUE SEBRING, FLORIDA 33870 </td> </tr> <tr> <td>DRAWN BY: STACEY MAHONEY</td> </tr> <tr> <td>CHECKED BY: KENYA ANDERSON</td> </tr> <tr> <td>IN CHARGE: CLINTON HOWERTON, P.E.</td> </tr> <tr> <td>DATE: 4/24/17</td> </tr> </table>		DESIGNED BY: KENYA ANDERSON	HIGHLANDS COUNTY ENGINEERING DEPARTMENT 505 S. COMMERCE AVENUE SEBRING, FLORIDA 33870	DRAWN BY: STACEY MAHONEY	CHECKED BY: KENYA ANDERSON	IN CHARGE: CLINTON HOWERTON, P.E.	DATE: 4/24/17			COLLEGE DRIVE GUARDRAIL SAFETY IMPROVEMENTS GENERAL NOTES AND SPECIFICATIONS		<table border="1"> <tr> <td>SCALE: HORIZ. N/A VERT. N/A</td> <td rowspan="2">PROJECT NO. N/A</td> <td rowspan="2">REV. 0</td> </tr> <tr> <td colspan="2" style="text-align: center;">SHEET 2 OF 17</td> </tr> </table>		SCALE: HORIZ. N/A VERT. N/A	PROJECT NO. N/A	REV. 0	SHEET 2 OF 17	
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TABULATION OF QUANTITIES			
TASK NO.	DESCRIPTION	QUANTITY	UNIT
1	MOBILIZATION	1	LS
2	BONDS & INSURANCE	1	LS
3	SURVEY STAKING	1	LS
4	MAINTENANCE OF TRAFFIC	1	LS
5	TEMPORARY SEDIMENT BARRIER	205	LF
6	CLEARING & GRUBBING	1	LS
7	REGULAR EXCAVATION	1	LS
8	MISC. ASPHALT PAVEMENT (2" THICK, RAP 30% MAX.)	10	TN
9	GUARDRAIL ROADWAY (INCLUDING ACRYLIC PLASTIC REFLECTORS)	161	LF
10	GUARDRAIL, END ANCHORAGE ASSEMBLY (FLARED)	1	EA
11	GUARDRAIL, END ANCHORAGE ASSEMBLY (TYPE II)	1	EA
12	SINGLE POST SIGN, FURNISH & INSTALL (OM-3R/L)	2	EA
13	PERFORMANCE TURF (SOD) (INCL. TOP SOIL & WATER FOR 14 DAYS AT LEAST TWICE A WEEK AFTER INITIAL ESTABLISHMENT)	180	SY

PAY ITEM FOOTNOTE:

ITEM NO. 4, THE CONTRACTOR WILL PREPARE A TRAFFIC CONTROL PLAN UTILIZING M.U.T.C.D. AND FDOT INDEXES. ALL COSTS INVOLVED IN PLAN PREPARATION, FURNISHING, INSTALLING AND MAINTAINING EQUIPMENT NECESSARY TO SAFELY MAINTAIN TRAFFIC THROUGHOUT THE LIFE OF THE CONTRACT IS INCLUDED IN LUMP SUM PAYMENT. PROVIDE AND MAINTAIN ADEQUATE ACCESS TO ALL INTERSECTING STREETS AND/OR DRIVES. MAINTENANCE OF TRAFFIC SHALL INCLUDE THE TEMPORARY STRIPING.

LINE LEGEND	
	WOOD FENCE
	EXISTING RIGHT OF WAY LINE
	EXISTING CONTOURS WITH ELEVATIONS
	PROPOSED GUARDRAIL
	EXISTING EASEMENT
	PROPOSED CENTERLINE OR BASELINE
	TEMPORARY SEDIMENT BARRIER
	EXISTING TELEPHONE LINE

UTILITY COMPANIES

COMCAST CABLE
3010 HERRING AVENUE
SEBRING, FL 33870
YONHUI MIRANDA
863-385-4401

HIGHLANDS COUNTY TRAFFIC
505 S. COMMERCE AVE
SEBRING, FLORIDA 33870
EDDIE CARDONA
(863) 402-6877

CITY OF AVON PARK
2301 US HIGHWAY 27 SOUTH
AVON PARK, FLORIDA 33825
JULIAN DELEON
(863) 452-4433

CENTURY LINK
924 MEMORIAL DRIVE
AVON PARK, FL 33825
KEN LUTZ
863-452-3185

DUKE ENERGY
5020 KENILWORTH BLVD
SEBRING, FL 33870
MARK MANNER
(863) 6784476

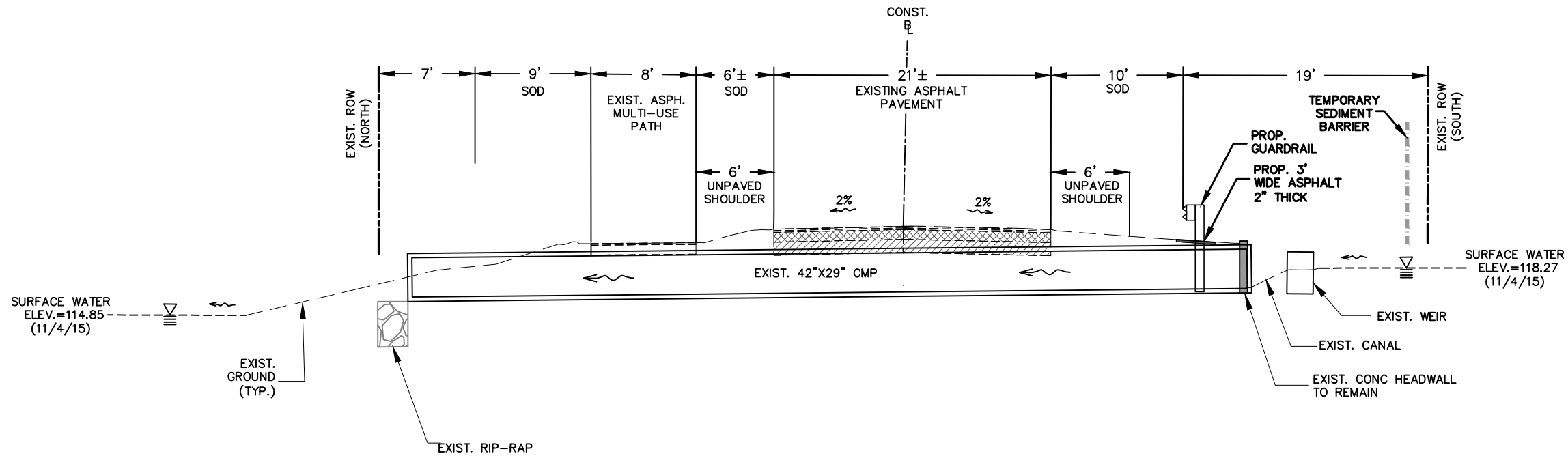
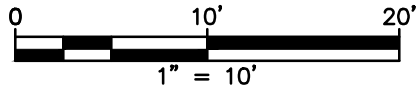
TECO-PEOPLES GAS SYSTEMS, INC.
445 KATHLEEN ROAD
LAKELAND, FL 33815
JENNIFER LOWERS
863-603-2226

SYMBOL LEGEND	
	BENCHMARK
	ELECTRIC METER
	TELEPHONE BOX
	UTILITY POLE
	WATER METER
	WATER VALVE
	WELL
	EXISTING GRADE SHOT SIGN
	MITERED END SECTION
	GUARDRAIL

ABBREVIATIONS	
CMP	CORRUGATED METAL PIPE
CONC.	CONCRETE
CONST.	CONSTRUCTION
ELEV	ELEVATION
EXIST.	EXISTING
LT	LEFT
MES	MITERED END SECTION
PROP.	PROPOSED
R/W	RIGHT OF WAY
RCP	REINFORCED CONCRETE PIPE
RT	RIGHT
STA	STATION
TYP	TYPICAL

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TYPICAL SECTION
COLLEGE DRIVE



EXISTING CONCRETE
HEADWALL AND WEIR

REVISIONS		STATUS
DATE	BY	
5/20/15	DMN	FOR BIDDING

DESIGNED BY: KENYA ANDERSON	HIGHLANDS COUNTY ENGINEERING DEPARTMENT 505 S. COMMERCE AVENUE SEBRING, FLORIDA 33870
DRAWN BY: STACEY MAHONEY	
CHECKED BY: KENYA ANDERSON	
IN CHARGE: CLINTON HOWERTON, P.E.	
DATE: 4/24/17	

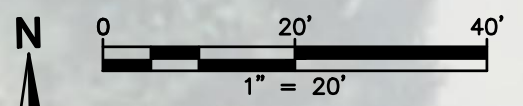
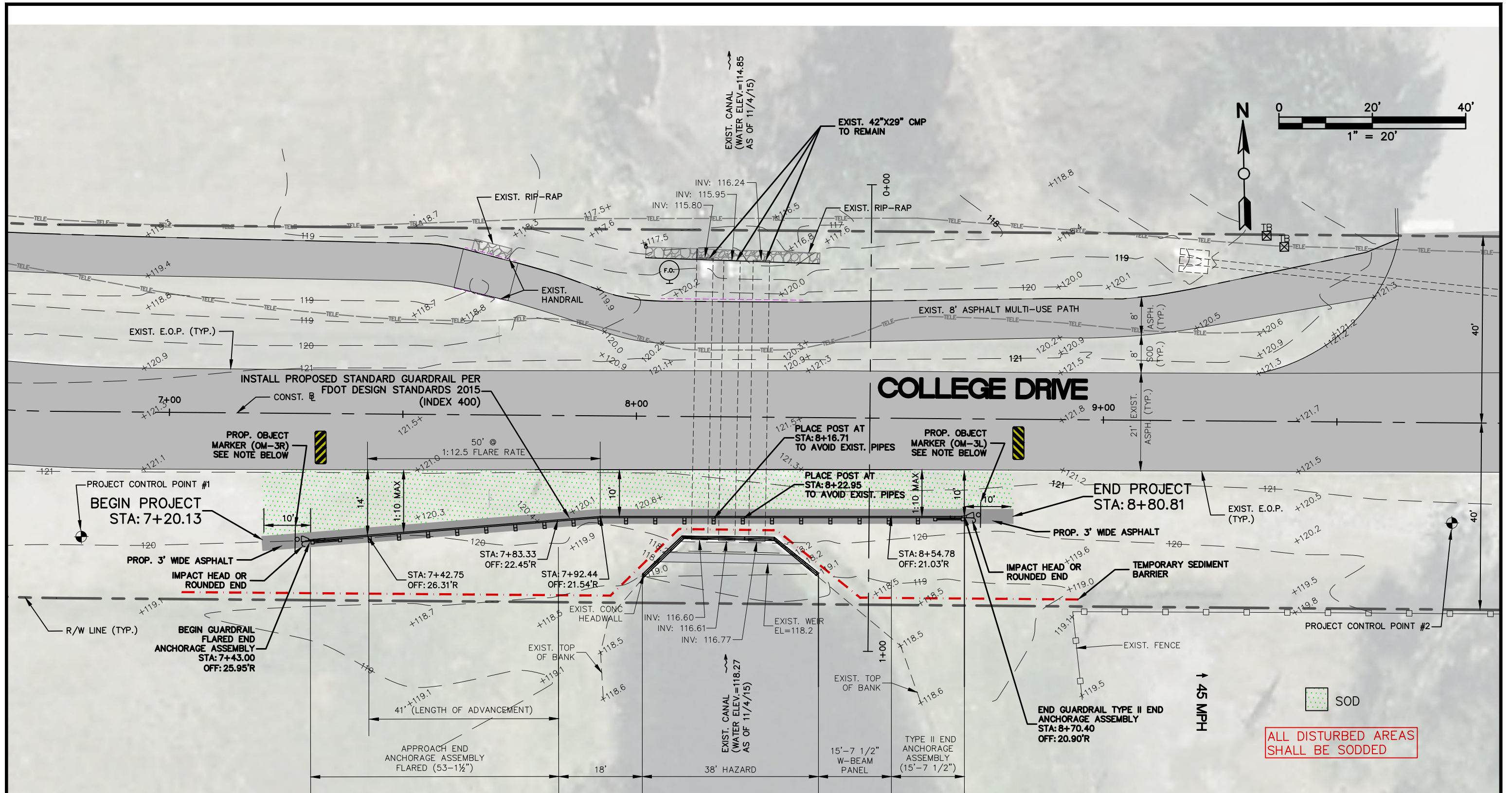
APPROVED BY: CLINTON HOWERTON, JR., P.E.
FLORIDA REGISTRATION NO.: 61021

DATE:



COLLEGE DRIVE
GUARDRAIL SAFETY IMPROVEMENTS
TYPICAL SECTION

SCALE: HORIZ. 1"=10' VERT. N/A	REV. 0
PROJECT NO. N/A	



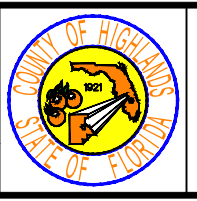
OBJECT MARKER NOTE:
 THE EDGE OF THE OBJECT MARKER THAT IS CLOSEST TO THE ROAD USER SHALL BE INSTALLED IN LINE WITH THE CLOSEST EDGE OF THE OBSTRUCTION.

REVISIONS		STATUS
DATE	DESCRIPTION	
5/20/15	DMN REVISE LENGTH AND NOTES	
12/17/15	SLM ADDED CULVERT REPLACEMENT	
5/19/16	SLM REMOVED CULVERT REPLACEMENT	
7/29/16	SLM REVISED SILT FENCE LOCATION	

DESIGNED BY: KENYA ANDERSON
 DRAWN BY: STACEY MAHONEY
 CHECKED BY: KENYA ANDERSON
 IN CHARGE: CLINTON HOWERTON, P.E.
 DATE: 4/24/17

HIGHLANDS COUNTY ENGINEERING DEPARTMENT
 505 S. COMMERCE AVENUE
 SEBRING, FLORIDA 33870

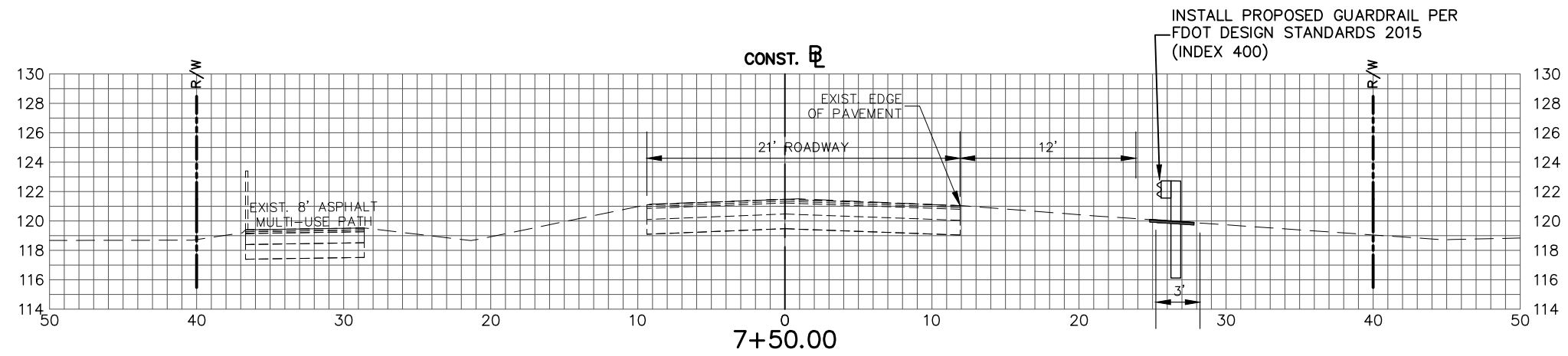
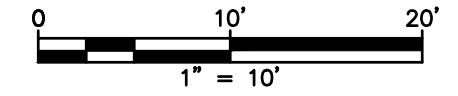
APPROVED BY: CLINTON HOWERTON, JR., P.E.
 FLORIDA REGISTRATION NO.: 61021



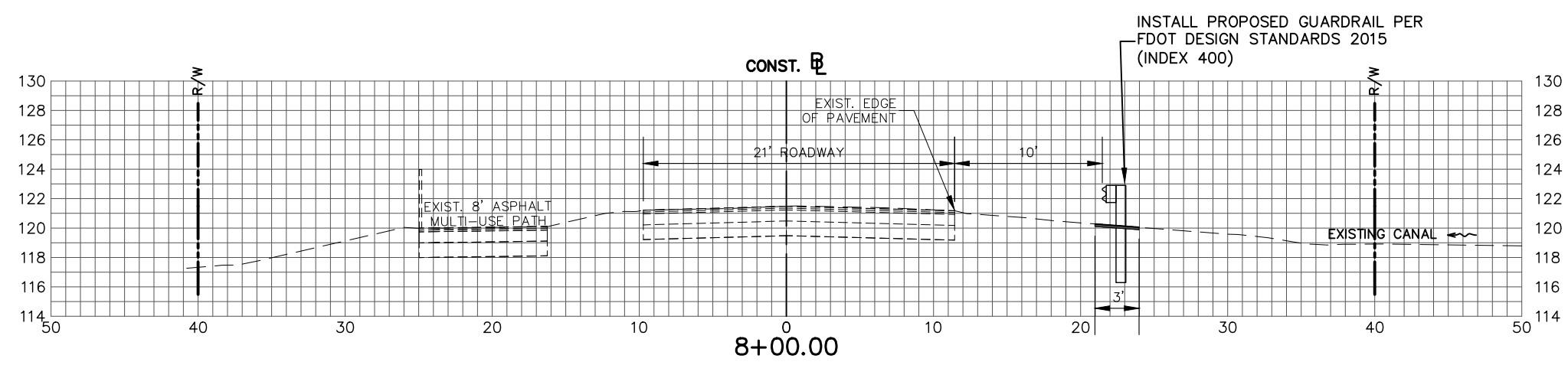
COLLEGE DRIVE GUARDRAIL SAFETY IMPROVEMENTS PLAN

SCALE: HORIZ. 1"=20' VERT. N/A	PROJECT NO. N/A	REV. 0
SHEET 5 OF 17		

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CROSS SECTION



CROSS SECTION

REVISIONS		
DATE	BY	DESCRIPTION
5/20/15	DMN	REVISE LENGTH AND NOTES

STATUS

FOR
BIDDING

DESIGNED BY:
KENYA ANDERSON

DRAWN BY:
STACEY MAHONEY

CHECKED BY:
KENYA ANDERSON

IN CHARGE:
CLINTON HOWERTON, P.E.

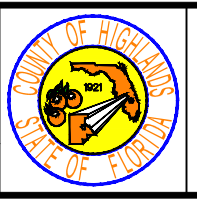
DATE:
4/24/17

**HIGHLANDS COUNTY
ENGINEERING DEPARTMENT**

505 S. COMMERCE AVENUE
SEBRING, FLORIDA 33870

APPROVED BY: CLINTON HOWERTON, JR., P.E.
FLORIDA REGISTRATION NO.: 61021

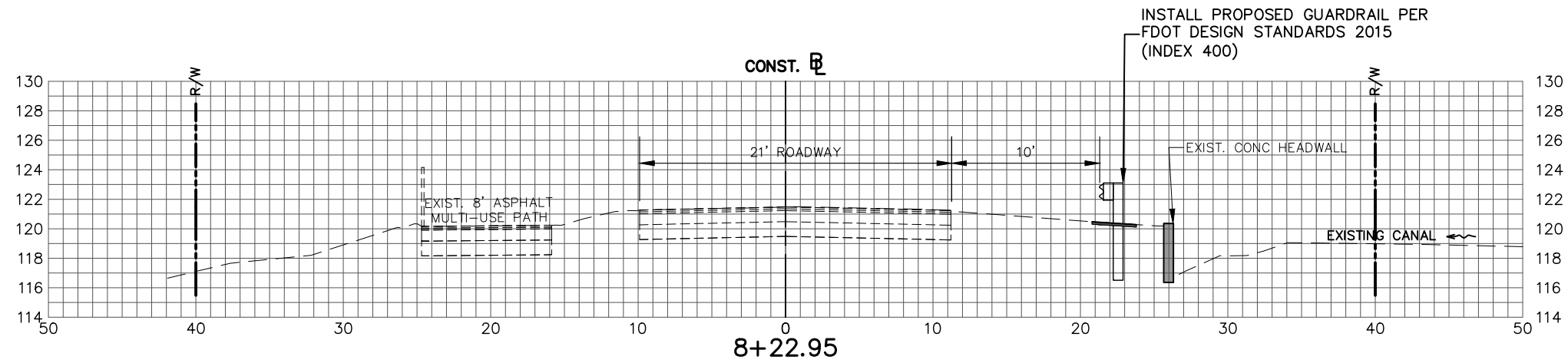
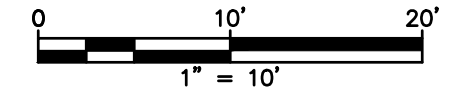
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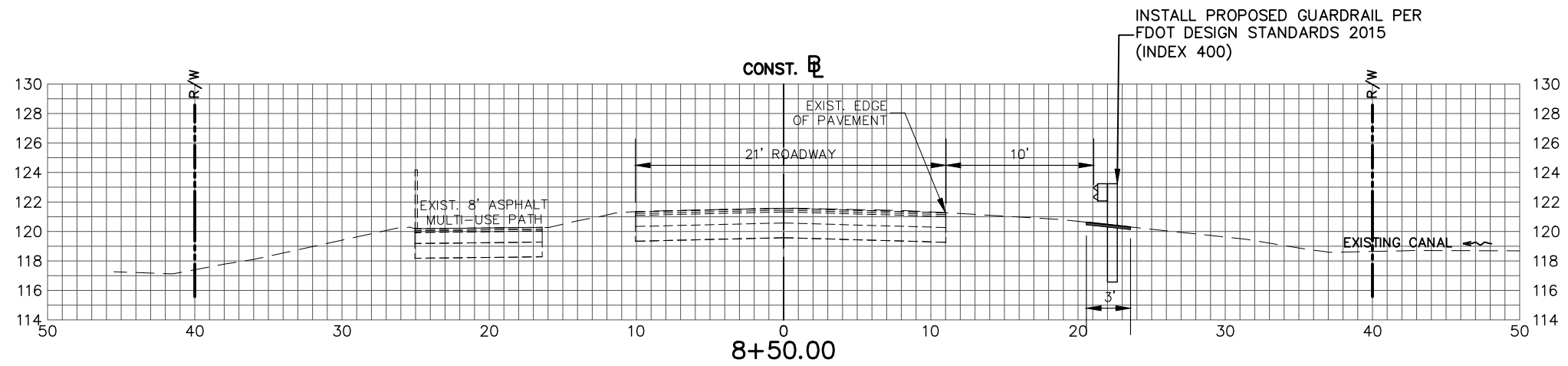
**COLLEGE DRIVE
GUARDRAIL SAFETY IMPROVEMENTS
CROSS SECTIONS**

SCALE: HORIZ. 1"=10' VERT. 1"=10'	
PROJECT NO. N/A	REV. 0
SHEET 6 OF 17	

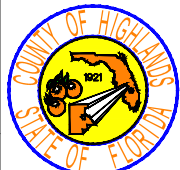
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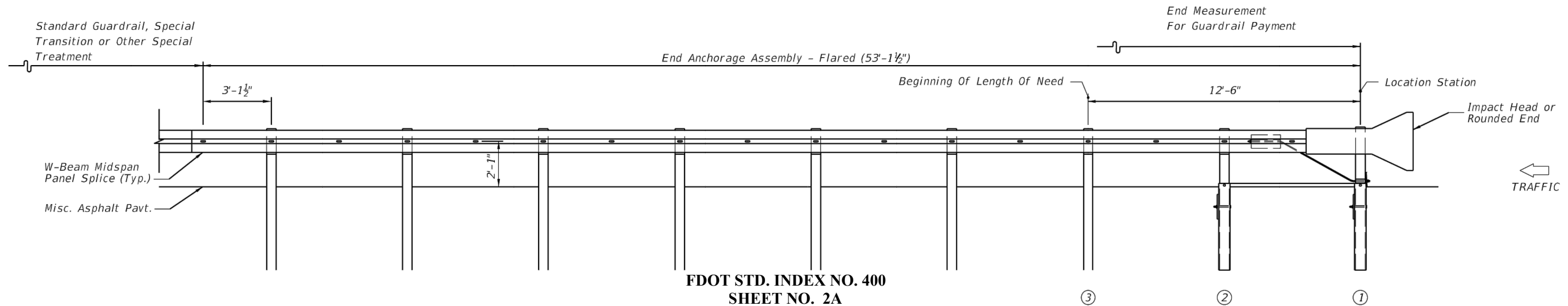


CROSS SECTION

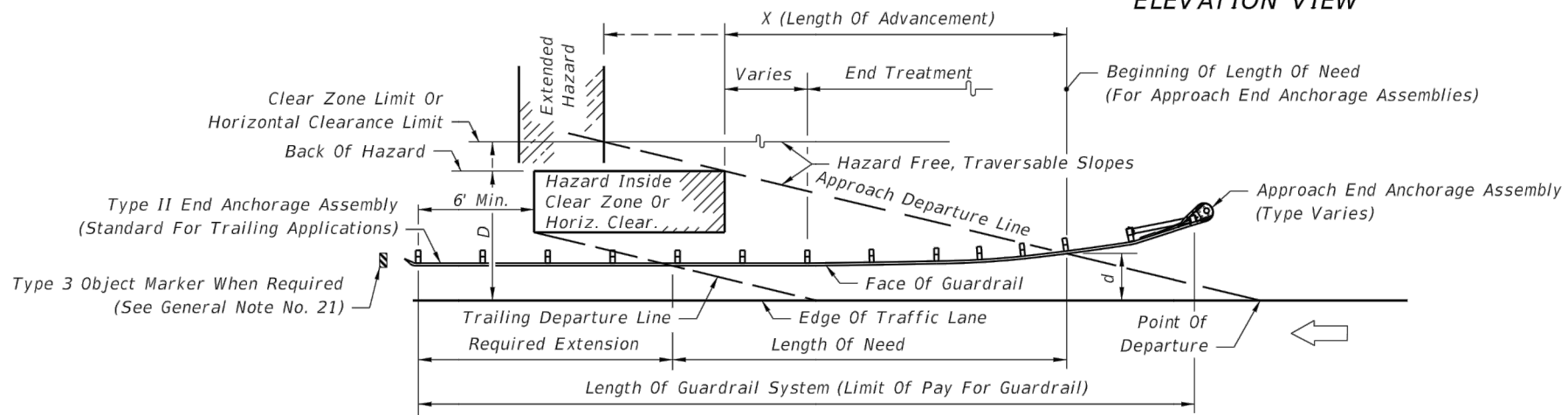


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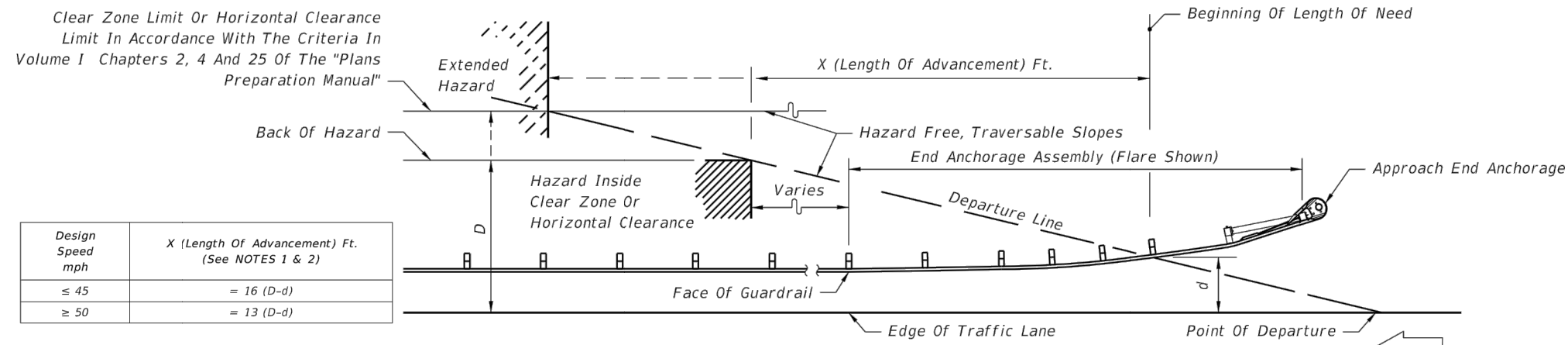
REVISIONS			STATUS	DESIGNED BY: KENYA ANDERSON	DRAWN BY: STACEY MAHONEY	CHECKED BY: KENYA ANDERSON	IN CHARGE: CLINTON HOWERTON, P.E.	DATE: 4/24/17	HIGHLANDS COUNTY ENGINEERING DEPARTMENT 505 S. COMMERCE AVENUE SEBRING, FLORIDA 33870		COLLEGE DRIVE GUARDRAIL SAFETY IMPROVEMENTS CROSS SECTIONS	SCALE:	PROJECT NO.	REV.								
DATE	BY	DESCRIPTION										HORIZ. 1"=10'	N/A	0								
5/20/15	DMN	REVISE LENGTH AND NOTES																				
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**FDOT STD. INDEX NO. 400
SHEET NO. 2A
FLARED OPTION
ELEVATION VIEW**



**(LEFT SIDE OPPOSITE HAND)
ONE-WAY TRAFFIC
FDOT STD. INDEX NO. 400
SHEET NO. 4**



**LENGTH OF ADVANCEMENT
FDOT STD. INDEX NO. 400
SHEET NO. 3**

**FDOT STD. INDEX NO. 400
SHEET NO. 3**

NOTES

1. Length of advancement determined from the diagram and equations above establishes the location of the upstream beginning length of need for guardrail, however, the length of advancement can be no less than that required by other details of this index.
2. The flared end anchorage with 4' nose offset is shown in the diagram above, however, the diagram applies to other configurations that may occur at the beginning of length of need, such as, other flare designs; upstream returns; and, other upstream deflected, tangent and curvilinear conditions.

Equation Variables:

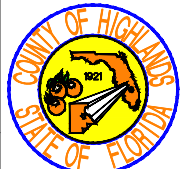
D = Distance in feet from near edge of the near approach traffic lane to either (a) the back of hazard, when the hazard is located inside the clear zone or horizontal clearance or (b) the clear zone or horizontal clearance outer limit, when the hazard extends to or goes beyond the clear zone or horizontal clearance limit. For left side hazards on two-way undivided facilities, *D* is measured from the inside edge of the near approach traffic lane (see Figure 2).

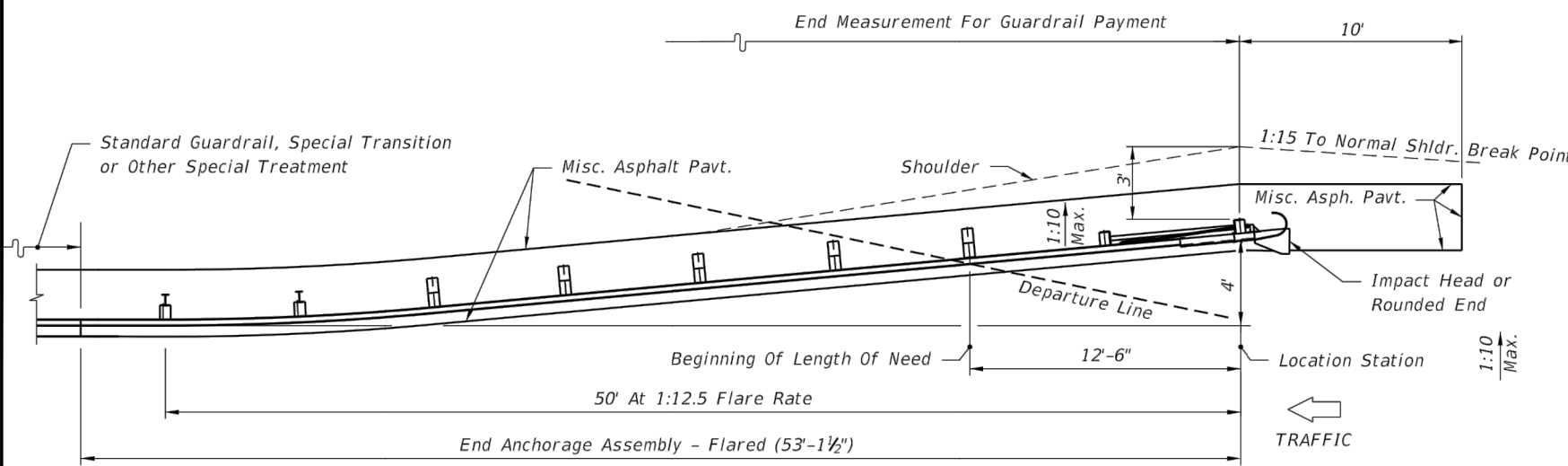
d = Distance in feet from the near edge of the near approach traffic lane to the face of guardrail at its intersection with the departure line. For left side hazards on two-way undivided facilities, *d* is measured from the inside edge of the near approach traffic lane (see Figure 2).

For flared and parallel end anchorage assemblies the beginning length of need is to be set at the center of post #3. That is, the departure line must intersect the face of the rail at post #3.

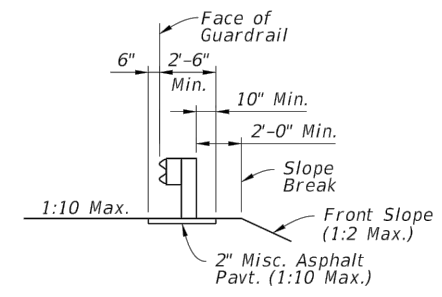
For flared end anchorage assemblies the offset distance "d" will equal the normal guardrail offset measured from the face of the guardrail to the edge of the near approach travel lane plus 1'-2" for 45 mph or less and 1'-9 1/4" for greater than 45 mph.

Design Speed mph	X (Length Of Advancement) Ft. (See NOTES 1 & 2)
≤ 45	= 16 (D-d)
≥ 50	= 13 (D-d)

REVISIONS			STATUS		HIGHLANDS COUNTY ENGINEERING DEPARTMENT 505 S. COMMERCE AVENUE SEBRING, FLORIDA 33870			COLLEGE DRIVE		SCALE: HORIZ. N/A VERT. N/A			
DATE	BY	DESCRIPTION	FOR BIDDING					GUARDRAIL SAFETY IMPROVEMENTS		PROJECT NO. N/A	REV. 0		
								DESIGNED BY: KENYA ANDERSON		FDOT STD. INDEX NO. 400 DETAILS			
								DRAWN BY: STACEY MAHONEY		APPROVED BY: CLINTON HOWERTON, JR., P.E.			
								CHECKED BY: KENYA ANDERSON		FLORIDA REGISTRATION NO.: 61021			
			IN CHARGE: CLINTON HOWERTON, P.E.		DATE:				SHEET 8 OF 17				



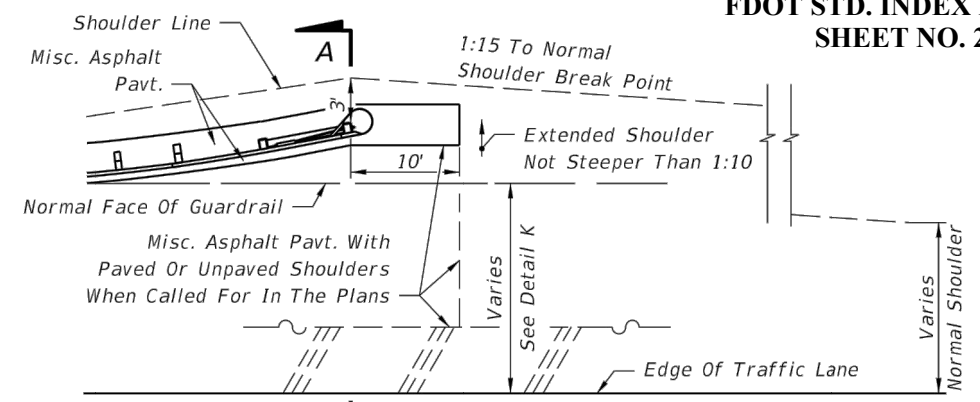
**FLARED OPTION
PLAN VIEW
FDOT STD. INDEX NO. 400
SHEET NO. 2**



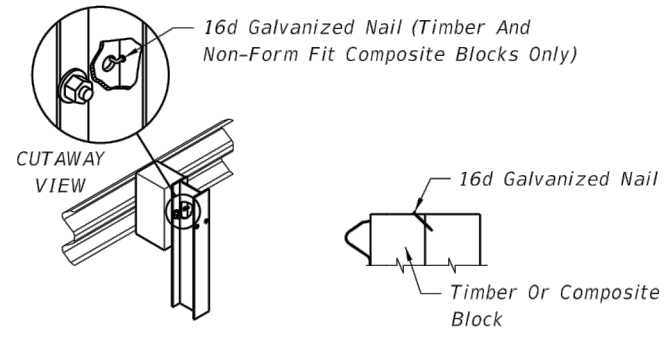
TYPICAL GRADING & PAVT. PLACEMENT DETAIL

TYPICAL GRADING & PAVEMENT PLACEMENT DETAIL: Construct features as depicted except where superseded by specific Guardrail Sections or the plans. Place the Slope Break a Minimum of 2' behind the post. For Deep Posts, the slope break may be placed at the ϕ Post with the 2" Miscellaneous Asphalt Pavement omitted.

**FDOT STD. INDEX NO. 400
SHEET NO. 6**

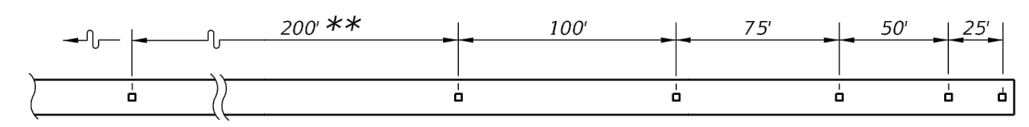


**SHOULDER WITH OR WITHOUT 5' PAVEMENT
FDOT STD. INDEX NO. 400
SHEET NO. 15**



STEEL POST

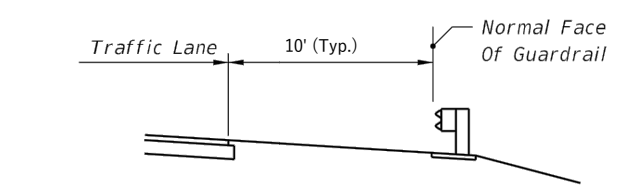
**16d NAIL FOR PREVENTION OF
OFFSET BLOCK ROTATION
FDOT STD. INDEX NO. 400
SHEET NO. 16**



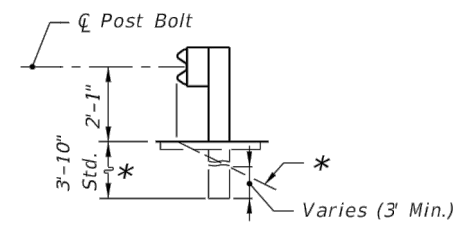
Note: Adjustment in spacing may be required to fit exact guardrail lengths as directed by the Engineer. For minimum installations (length 62.5') provide one barrier delineator at each end and one at the approximate center.

** For curves greater than 2° the spacing shall be reduced to 100' increments through the curve.

**BARRIER DELINEATOR SPACING
FDOT STD. INDEX NO. 400
SHEET NO. 17**



**STANDARD LOCATIONS
GUARDRAIL LOCATION-DETAIL K**



**W-BEAM
FDOT STD. INDEX NO. 400
SHEET NO. 16**

**PICTORIAL VIEW
BARRIER DELINEATOR MOUNTING**

BARRIER DELINEATORS - DETAIL M

**FDOT STD. INDEX NO. 400
SHEET NO. 17**

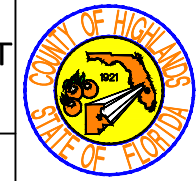
BARRIER DELINEATOR NOTES

- Barrier delineators shall conform to Section 993.
- Barrier delineator color (white or yellow) shall conform to the color of the near lane edgeline.
- Barrier delineators installed on median guardrail shall have retro-reflective sheeting on both sides of the barrier delineator.
- The cost for barrier delineators shall be included in the contract unit price for Guardrail.

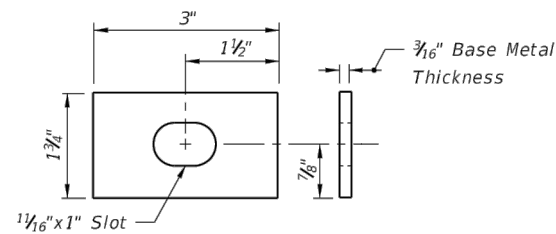
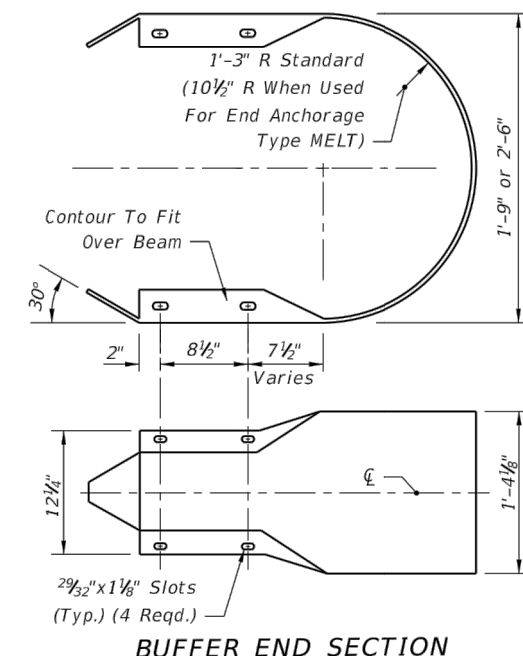
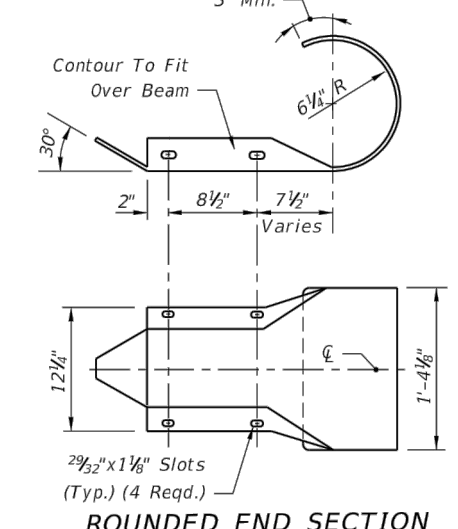
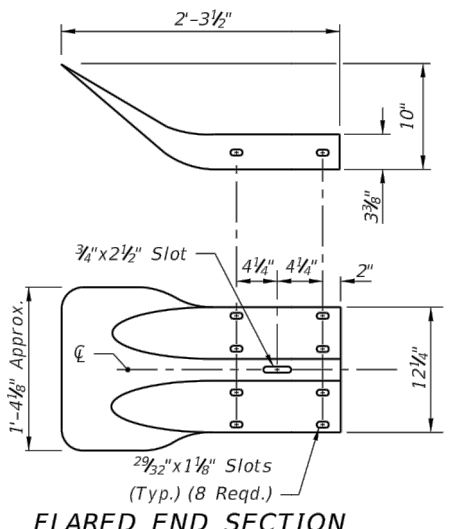
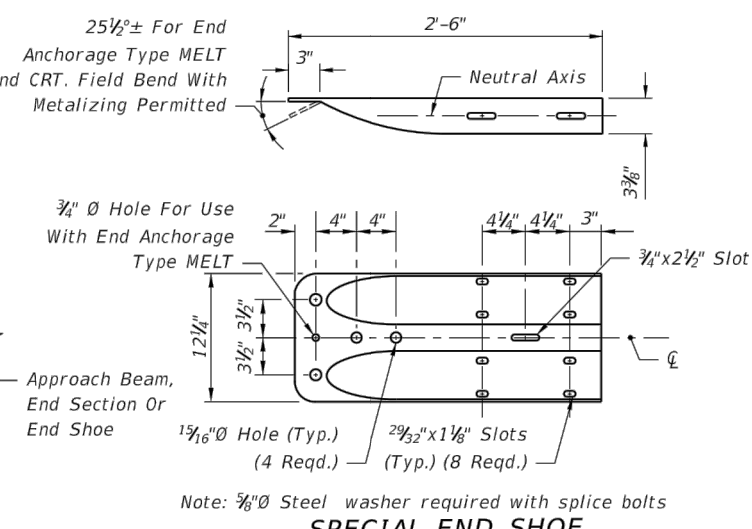
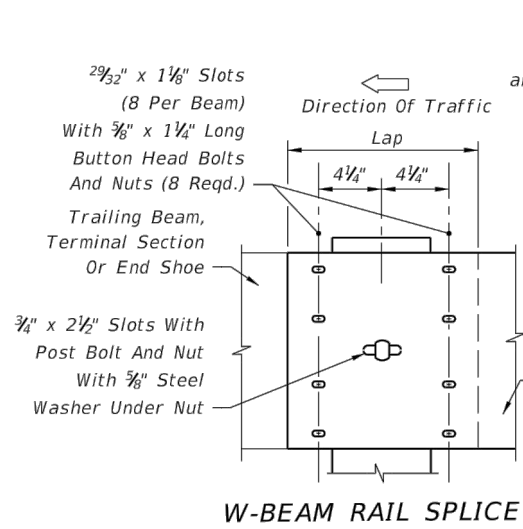
**SHOULDER WITH OR WITHOUT 5' PAVEMENT
FDOT STD. INDEX NO. 400
SHEET NO. 15**

**FDOT STD. INDEX NO. 400
SHEET NO. 17**

REVISIONS			STATUS	DESIGNED BY: KENYA ANDERSON	DRAWN BY: STACEY MAHONEY	CHECKED BY: KENYA ANDERSON	IN CHARGE: CLINTON HOWERTON, P.E.	DATE: 04/24/17	HIGHLANDS COUNTY ENGINEERING DEPARTMENT 505 S. COMMERCE AVENUE SEBRING, FLORIDA 33870	APPROVED BY: CLINTON HOWERTON, JR., P.E. FLORIDA REGISTRATION NO.: 61021	DATE:	SCALE: HORIZ. N/A VERT. N/A	PROJECT NO. N/A	REV. 0													
DATE	BY	DESCRIPTION																									
															FOR BIDDING												

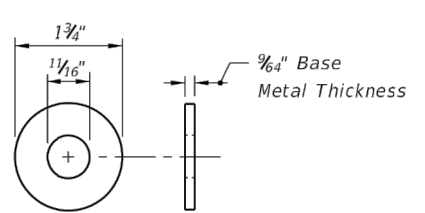


COLLEGE DRIVE
GUARDRAIL SAFETY IMPROVEMENTS
FDOT STD. INDEX NO. 400 DETAILS



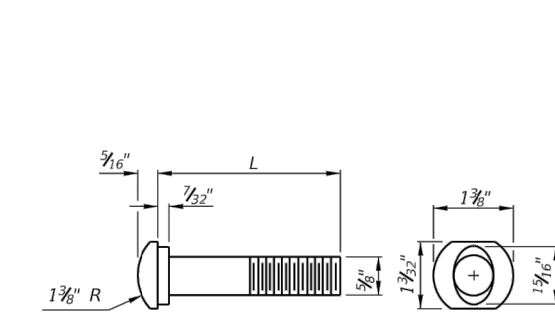
Note: For beam washer requirements on end terminals, see individual end anchorage assembly details. Washers are to be used where necessary to accomplish alignment or where the posts bolt head shows tendency to pull through the rail slot. Washers installed on guardrail, between end anchorages, prior to July 1, 1990 may remain in place until the guardrail is relocated or until repairs require removal and reinstallation of a post bolt.

(RECTANGULAR PLATE WASHER) BEAM WASHER



Note: The round washer is not intended for use under the recess nut for the beam to beam rail splice. The washer is required under the recess nut for connecting the beam to the special end shoe; under the post bolt nut for connecting the beam to the timber post and offset blocks; for connecting the beam to steel posts with timber offset blocks; under the hex bolt head for securing the beam anchor plate to the beam; and, for general guardrail connections by 5/8" Ø hex bolts and nuts and under hex nut for connecting rub rail to wood and steel posts. For supplemental information see BEAM ANCHOR PLATE, PERMISSIBLE POST AND OFFSET BLOCK COMBINATIONS, individual end anchorage assembly details, SPECIAL STEEL GUARDRAIL POSTS, SPECIAL END SHOE, W-BEAM RAIL SPLICE, THRIE-BEAM RAIL SPLICE, and THRIE-BEAM TERMINAL CONNECTOR details.

5/8" STEEL WASHER



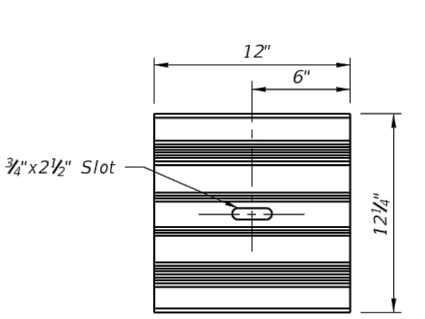
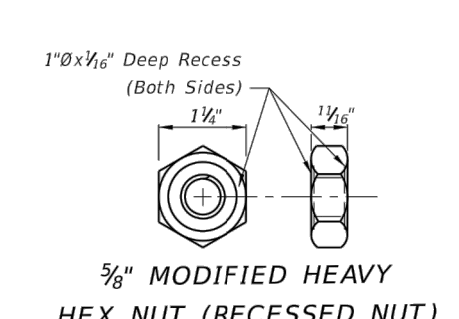
L (In.)	THREAD LENGTH (Min.) (In.)	APPLICATION
1 1/4"	Full Length	Rail Splice Bolt
10"	4"	Single Or Double Faced Guardrail Timber Or Composite Offset Block(s) On Steel Post As An Option, A Single 25"* Long Post Bolt May Be Used
18"	4"	Post Bolt - Single Faced Guardrail Timber Posts
25"*	4"	Post Bolt - Double Faced Guardrail Timber Posts Double Faced Guardrail Steel Posts

Special bolts having lengths of 10" or greater shall have a thread length of not less than 4".

For applications where special bolts having lengths greater than 25" are required, the Contractor may use a 5/8" Ø threaded rod (field cut to length). A hex nut and beam washer shall be used at the guardrail face with no more than 3/4" of the threaded rod projecting beyond the top of the nut. The projecting thread on both ends shall be distorted to secure the nuts, and both ends of the threaded rod metalized with organic zinc-rich coating.

*Use of the 25" AASHTO-AGC-ARTBA standard length post bolt on double faced guardrail that results in the bolt projecting more than 3/4" beyond the face of the nut after pull-up shall be trimmed to 3/4" reveal and metalized with organic zinc-rich coating.

5/8" OVAL SHOULDER BUTTON HEAD BOLT



Note: For application information see individual end anchorage assembly details.

W-BEAM BACK-UP PLATE

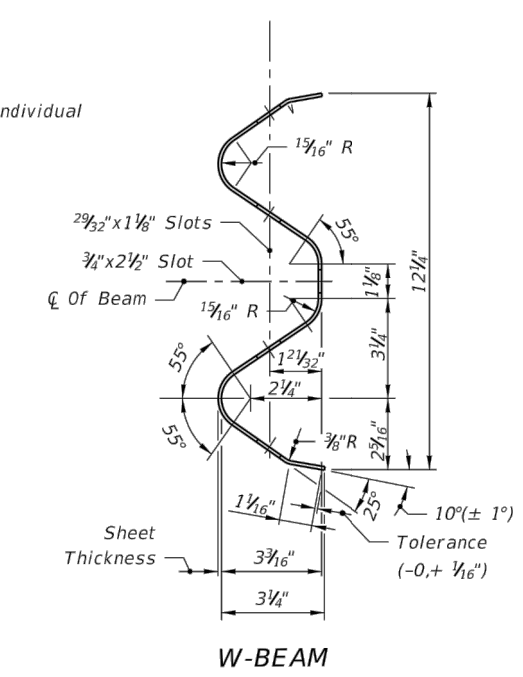
POST SPACING (Ft.)	OFFSETS (Ft.)			
	Measured From Face Of Guardrail To Front Of Above Ground Rigid Hazard			
	SINGLE BEAMS		NESTED BEAMS	
	W-Beam	Thrie-Beam	W-Beam	Thrie-Beam
6'-3"	5'-0"	3'-10"	N/A	N/A
3'-1 1/2"	3'-10"	3'-2"	3'-0"	2'-10"
1'-6 3/4"	3'-2"	2'-10"	2'-8"	2'-6"

Note: The values shown should be utilized unless changes are supported by empirical validation. Those desiring to develop offset values from the simulated deflection values shown in Table 5-6, "Summary of Maximum Deflections" of the AASHTO Roadside Design Guide are cautioned to proceed only if background in the table development is understood.

MINIMUM OFFSETS FOR SINGLE FACED GUARDRAIL (Ft.)

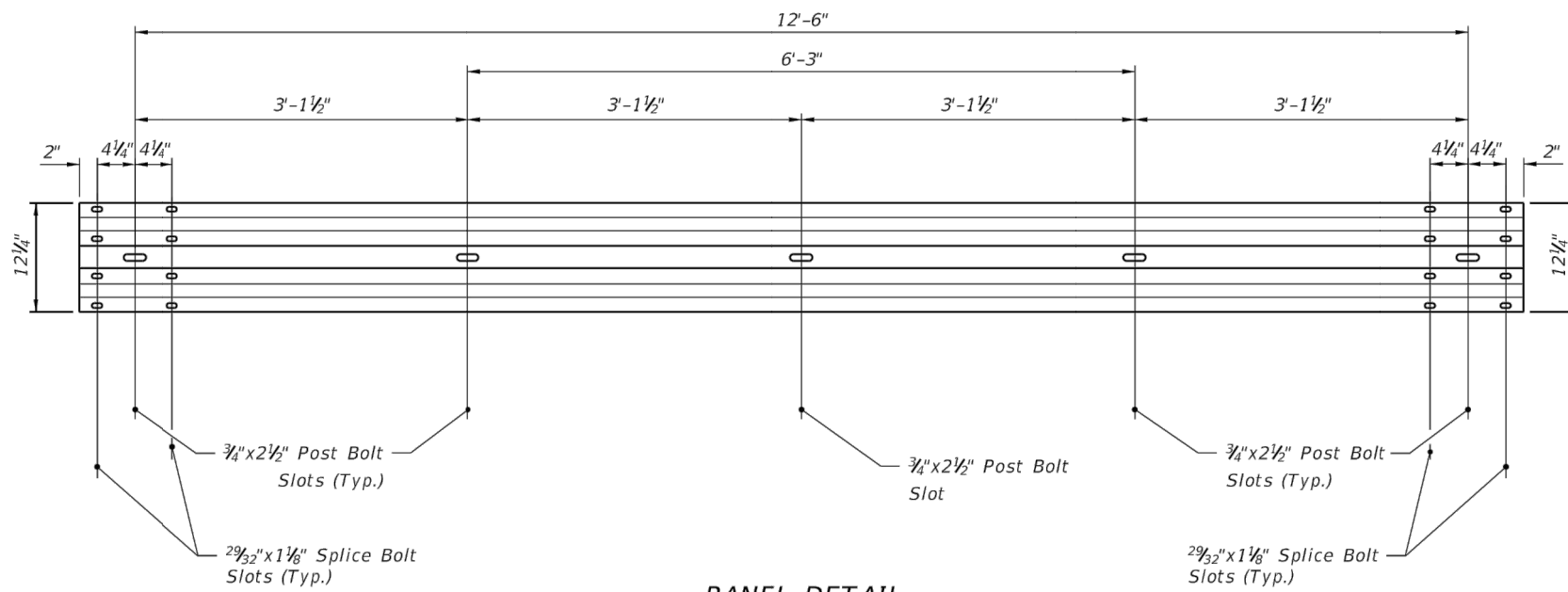
H5 Hex bolts for THRIE-BEAM TERMINAL CONNECTORS shall conform to the requirements of ASTM A449 (Type 1) with heavy hex nuts and washers. All other hex bolts shall conform to the requirements of ASTM A563. Bolts, nuts and washers shall be hot dip galvanized. Heavy hex nut may be used in lieu of hex nuts and hex nuts used for jam nuts.

HEX BOLTS AND NUTS



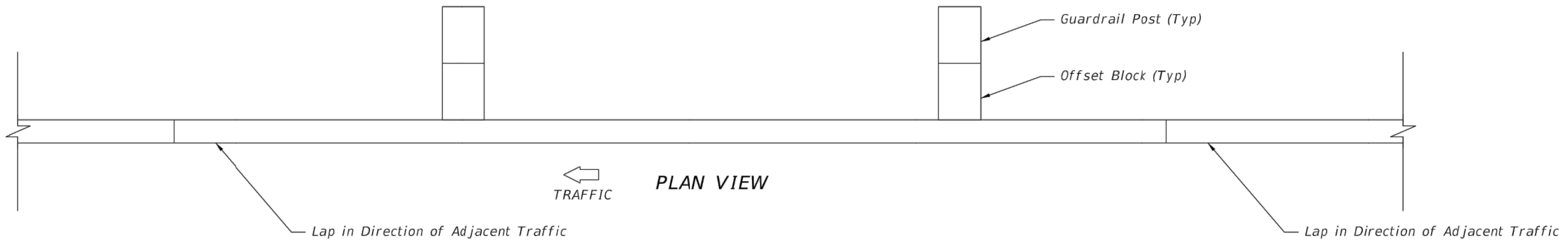
FDOT STD. INDEX NO. 400 SHEET NO. 19

REVISIONS			STATUS	DESIGNED BY: KENYA ANDERSON	DRAWN BY: STACEY MAHONEY	CHECKED BY: KENYA ANDERSON	IN CHARGE: CLINTON HOWERTON, P.E.	APPROVED BY: CLINTON HOWERTON, JR., P.E.	DATE: 4/24/17	FLORIDA REGISTRATION NO.: 61021	DATE:	SCALE: HORIZ. N/A VERT. N/A	PROJECT NO. N/A	REV. 0											
DATE	BY	DESCRIPTION																							
															FOR BIDDING	HIGHLANDS COUNTY ENGINEERING DEPARTMENT			505 S. COMMERCE AVENUE SEBRING, FLORIDA 33870			COLLEGE DRIVE GUARDRAIL SAFETY IMPROVEMENTS FDOT STD. INDEX NO. 400 DETAILS			SHEET 10 OF 17
																FLORIDA REGISTRATION NO.: 61021			DATE:			REV. 0			
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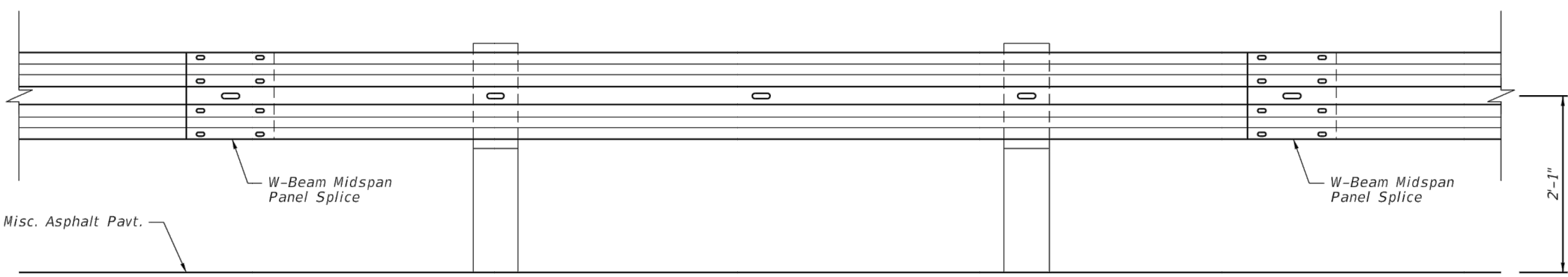


PANEL DETAIL

FDOT STD. INDEX NO. 400
SHEET NO. 20B



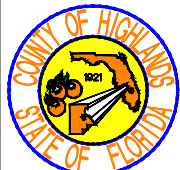
PLAN VIEW



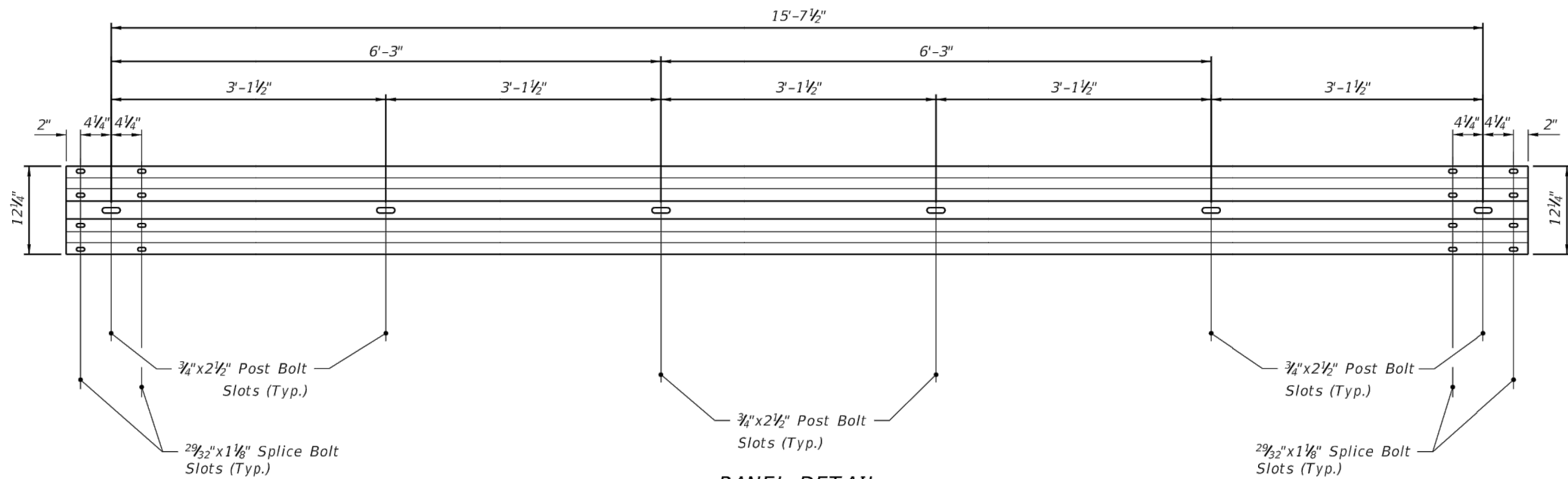
ELEVATION VIEW

12'-6" W-BEAM PANEL

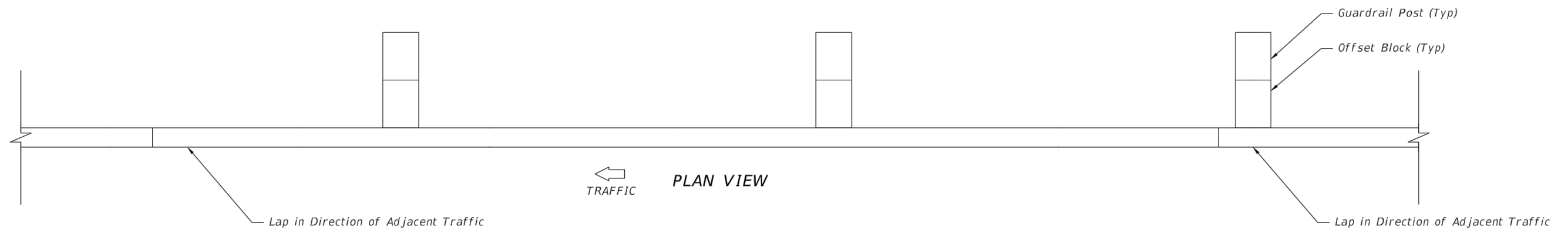
4-SPACE W-BEAM GUARDRAIL PANEL
RWM04a (AASHTO-AGC-ARTBA Report)

REVISIONS			STATUS	DESIGNED BY: KENYA ANDERSON	DRAWN BY: STACEY MAHONEY	CHECKED BY: KENYA ANDERSON	IN CHARGE: CLINTON HOWERTON, P.E.	DATE: 4/24/17	APPROVED BY: CLINTON HOWERTON, JR., P.E.	DATE:	FLORIDA REGISTRATION NO.: 61021		SCALE:		
DATE	BY	DESCRIPTION											HORIZ.	VERT.	
			FOR BIDDING	HIGHLANDS COUNTY ENGINEERING DEPARTMENT 505 S. COMMERCE AVENUE SEBRING, FLORIDA 33870								COLLEGE DRIVE		HORIZ. N/A	VERT. N/A
												GUARDRAIL SAFETY IMPROVEMENTS		PROJECT NO. N/A	REV. 0
												FDOT STD. INDEX NO. 400 DETAILS			
												SHEET 11 OF 17			

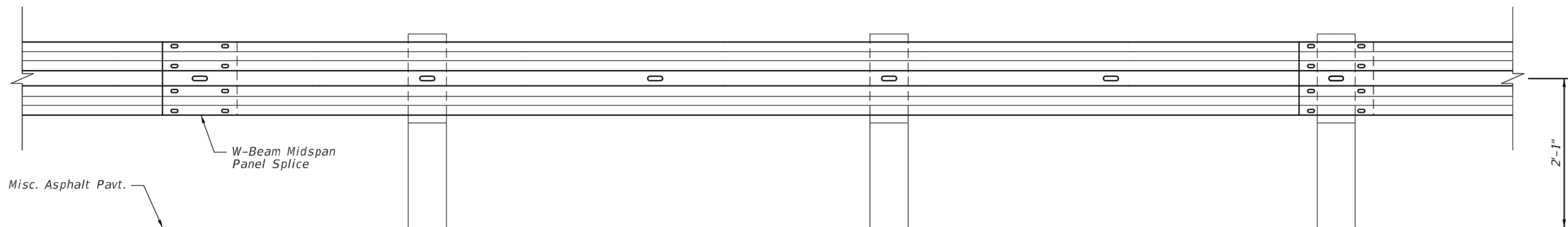
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PANEL DETAIL



PLAN VIEW



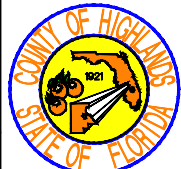
ELEVATION VIEW

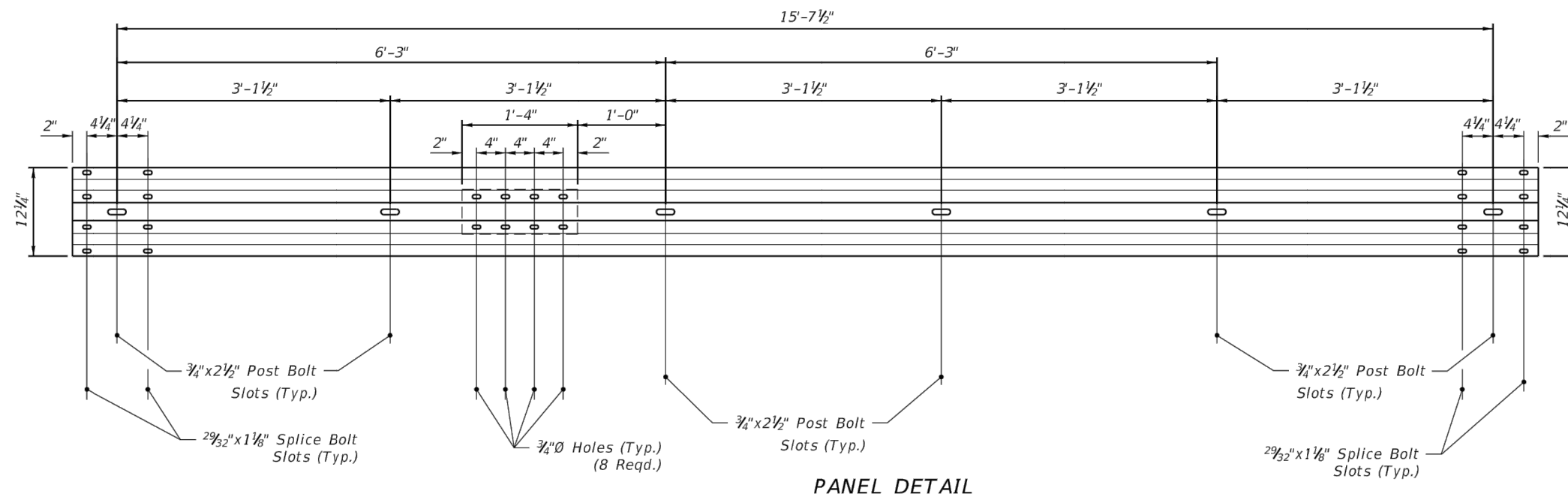
Note:

- The 5-Space 15'-7 1/2" W-beam Guardrail Panel shall be used at the downstream end of an End Anchor System that does not offset the W-beam Panel Splice to Midspan.

FDOT STD. INDEX NO. 400
SHEET NO. 20C
15'-7 1/2" W-BEAM PANEL

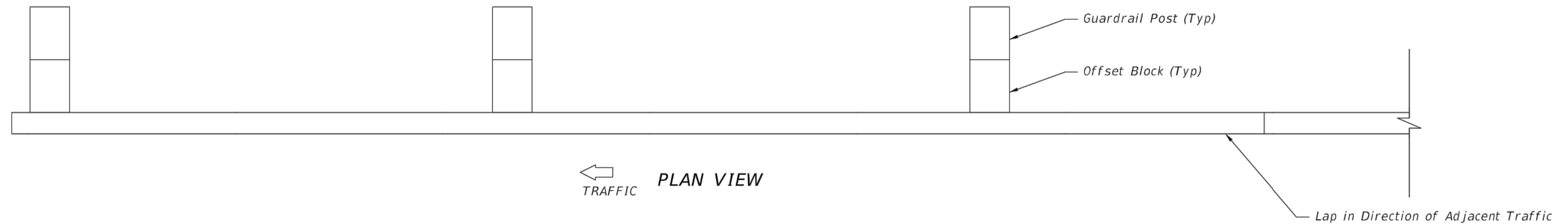
5-SPACE 15'-7 1/2" W-BEAM GUARDRAIL PANEL

REVISIONS			STATUS	DESIGNED BY: KENYA ANDERSON	HIGHLANDS COUNTY ENGINEERING DEPARTMENT 505 S. COMMERCE AVENUE SEBRING, FLORIDA 33870		COLLEGE DRIVE GUARDRAIL SAFETY IMPROVEMENTS FDOT STD. INDEX NO. 400 DETAILS		SCALE: HORIZ. N/A VERT. N/A
DATE	BY	DESCRIPTION					PROJECT NO. N/A	REV. 0	
			FOR BIDDING	DRAWN BY: STACEY MAHONEY	APPROVED BY: CLINTON HOWERTON, JR., P.E. FLORIDA REGISTRATION NO.: 61021	DATE: 4/24/17			SHEET 12 OF 17
				CHECKED BY: KENYA ANDERSON					
				IN CHARGE: CLINTON HOWERTON, P.E.					

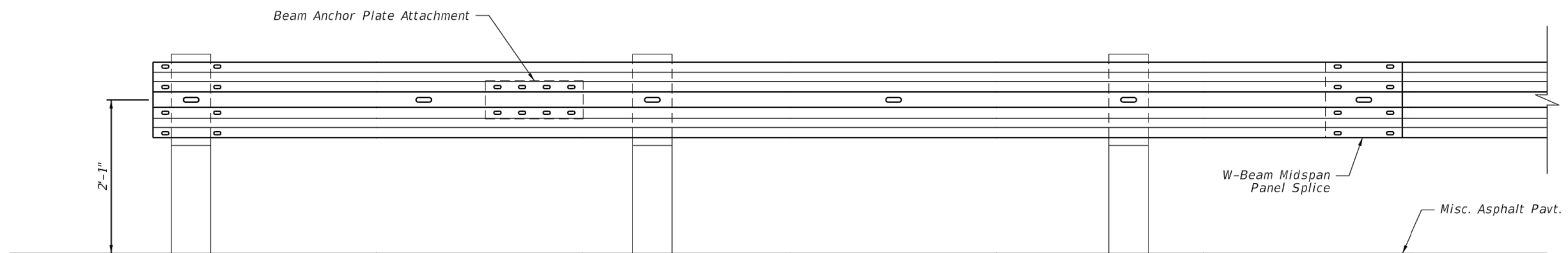


FDOT STD. INDEX NO. 400
SHEET NO. 20D

PANEL DETAIL



PLAN VIEW



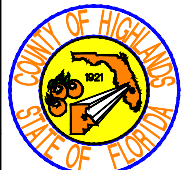
ELEVATION VIEW

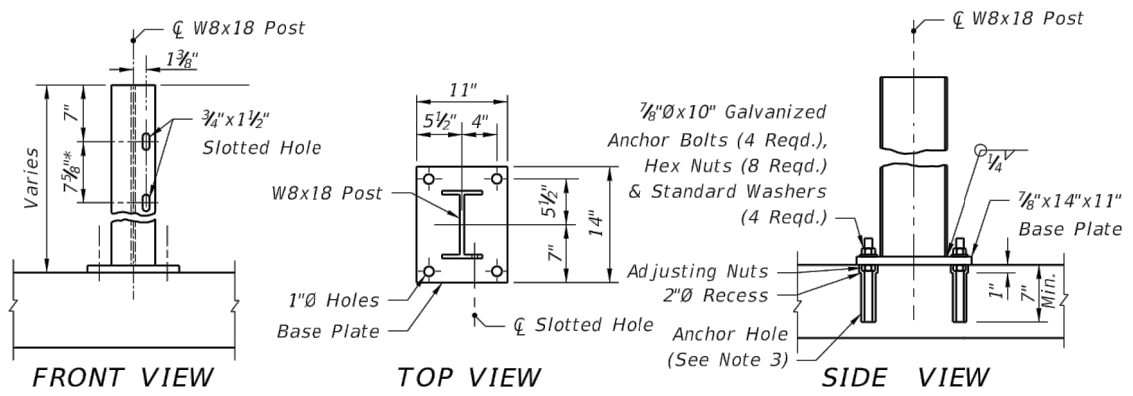
Note:

- The 5-Space 15'-7 1/2" W-beam Guardrail Panel with Beam Anchor Plate Attachment shall be used to Anchor the Type II or Type CRT End Anchorage Assemblies.

15'-7 1/2" W-BEAM END ANCHORAGE PANEL

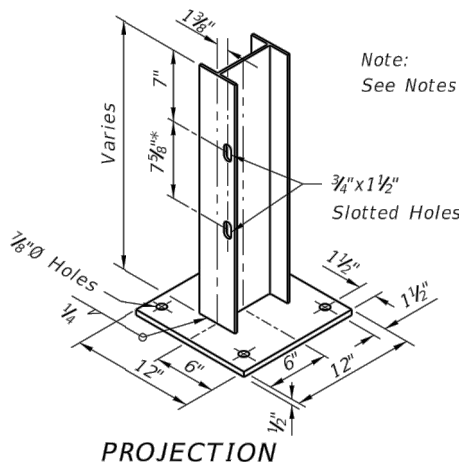
5-SPACE 15'-7 1/2" W-BEAM GUARDRAIL PANEL
WITH BEAM ANCHOR PLATE ATTACHMENT

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DATE	BY	DESCRIPTION					PROJECT NO. N/A	REV. 0	
			FOR BIDDING	DRAWN BY: STACEY MAHONEY	APPROVED BY: CLINTON HOWERTON, JR., P.E. FLORIDA REGISTRATION NO.: 61021	DATE: 4/24/17	SHEET 13 OF 17		
				CHECKED BY: KENYA ANDERSON					
				IN CHARGE: CLINTON HOWERTON, P.E.					

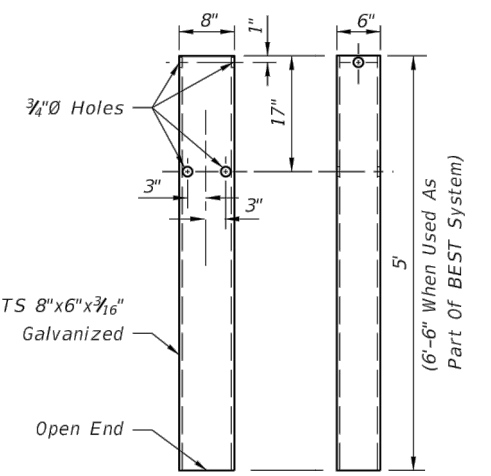


FOR REPLACEMENT OF EXISTING W8x18 GUARDRAIL POSTS ON APPROACH SLABS AND BRIDGES

* Additional slotted hole required when mounting thrie-beam guardrail



FOR CONSTRUCTION OF GUARDRAIL WHERE CULVERT, PIER FOOTING OR OTHER STRUCTURE PRECLUDES DRIVEN POST INSTALLATION



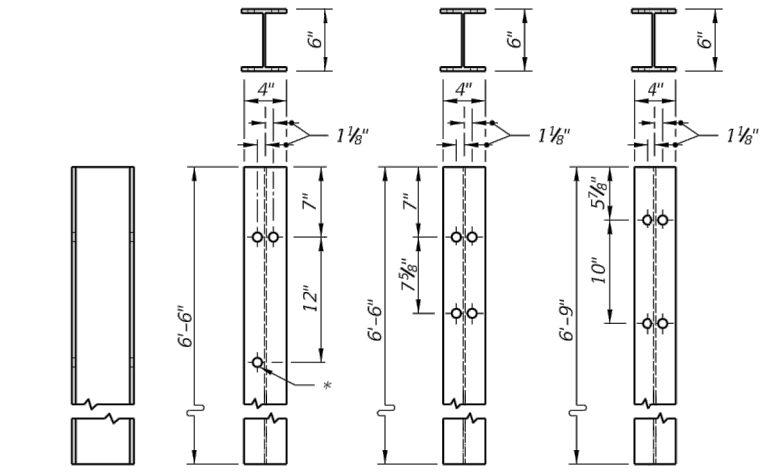
STEEL TUBE For Use In Combination With Short Timber Breakaway Post

NOTES: (SPECIAL STEEL POST)

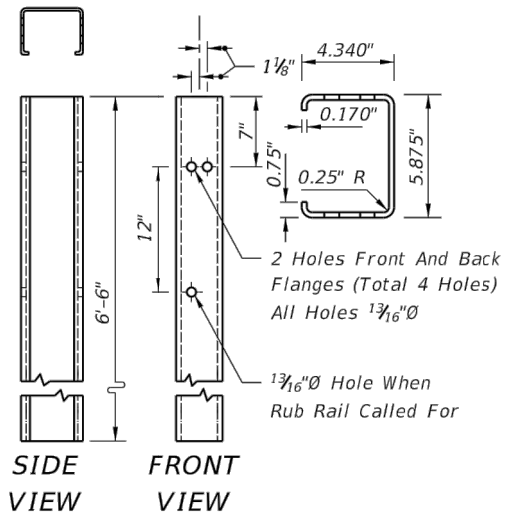
- See Index No. 402 for special steel posts required for construction and repair of guardrail transitions to bridge traffic railing barrier retrofits on existing bridges. See Structures Index Nos. 470 through 476 for steel posts required to construct traffic railing barrier retrofits on existing bridges.
- Either anchor bolts, concrete wedge anchors or approved Adhesive-Bonded Anchors for Structural Applications may be used. Anchor bolts, wedge anchors and adhesive anchors shall have a minimum tensile strength of 60,000 psi and galvanized in accordance with ASTM A153 (stainless steel components may be substituted but components plated in accordance with ASTM B-633 are not acceptable). Adhesive anchor rods shall be equal in diameter to that detailed for anchor bolts. Wedge anchors are to be installed in accordance with the manufacturer's recommendations, assuming 3,000 psi compressive strength for concrete. Wedge anchors shall also meet the following requirements:
 - tensile load each anchor: approach slabs 14,000 lbs.; other structures 8,000 lbs.
 - shear load each anchor: approach slabs 15,000 lbs.; other structures 7,800 lbs.

- Posts are to be plumbed by adjusting nuts or mortar seating. Posts installed using anchor bolts and adhesive anchors are to be set with adjusting nuts as detailed, unless the Engineer approves the use of mortar seating in lieu of adjusting nuts. Posts installed using wedge anchors are to be set with mortar seating. Base plates shall be grouted with neat finish.
- Adhesive-Bonded Anchors for Structural Applications shall comply with Section 937 and be installed in accordance with Section 416. Drilled hole diameter shall be in accordance with the manufacturer's instructions.
- Anchor holes and recesses shall be drilled; wedge anchor holes are to be drilled in accordance with the manufacturer's specifications. Encountered reinforcing steel shall be drilled through. Holes shall be thoroughly cleaned when setting bolts and anchors and dry when setting wedge anchors.
- Steel post and base units shall be galvanized in accordance with ASTM A123. Any damaged galvanized areas are to be metalized in accordance with Section 562 of the Standard Specifications.
- Special steel guardrail posts are not to be incorporated into a guardrail approach end anchor system.

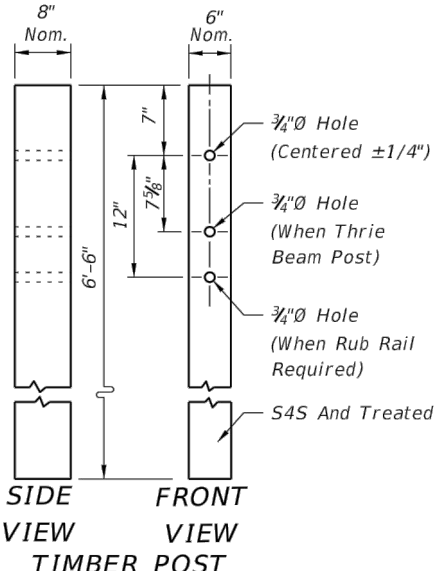
SPECIAL STEEL GUARDRAIL POSTS



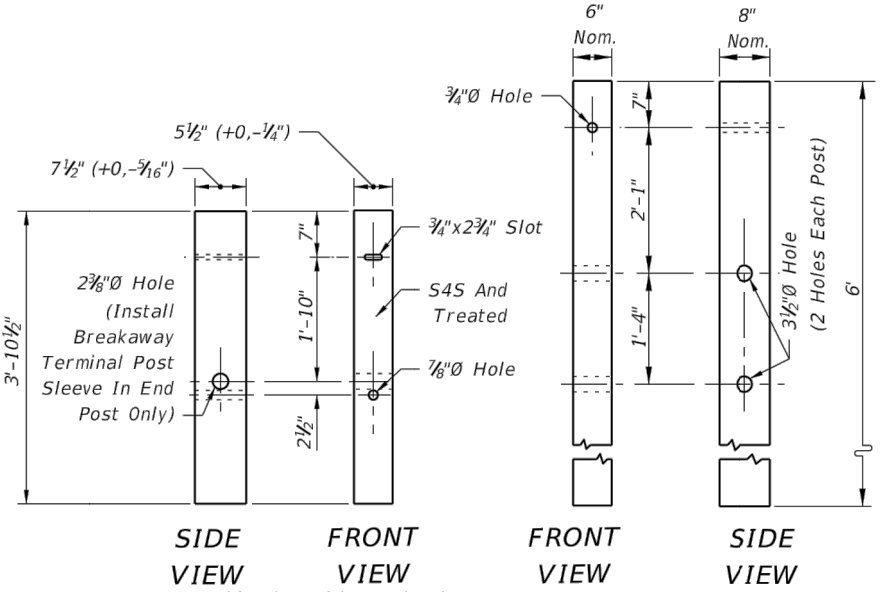
W-BEAM THRIE-BEAM THRIE-BEAM WITH STEEL MODIFIED THRIE-BEAM OFFSET BLOCKS



6" - C STEEL POST



TIMBER POST



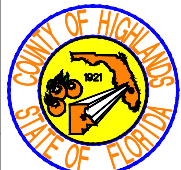
SHORT TIMBER BREAKAWAY POST CRT TIMBER POST

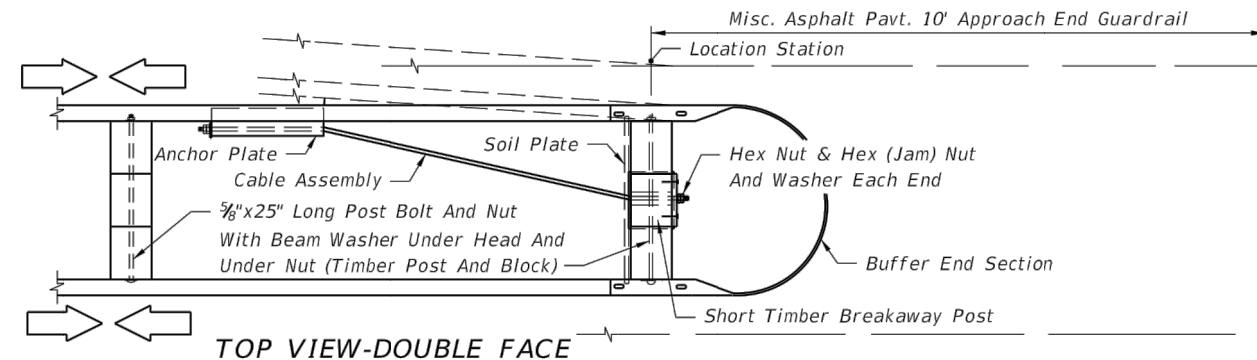
SPECIAL TIMBER GUARDRAIL POSTS

Note: W6x8.5 or W6x9 steel posts may be either rolled or welded structural shapes conforming to or exceeding the design properties of ASTM A6/A6M. Welding shall be in accordance with the requirements of ASTM A769/A769M. Posts shall be cut to length and the ends seal welded between web and flange before galvanizing. Posts to be galvanized in accordance with ASTM A123.

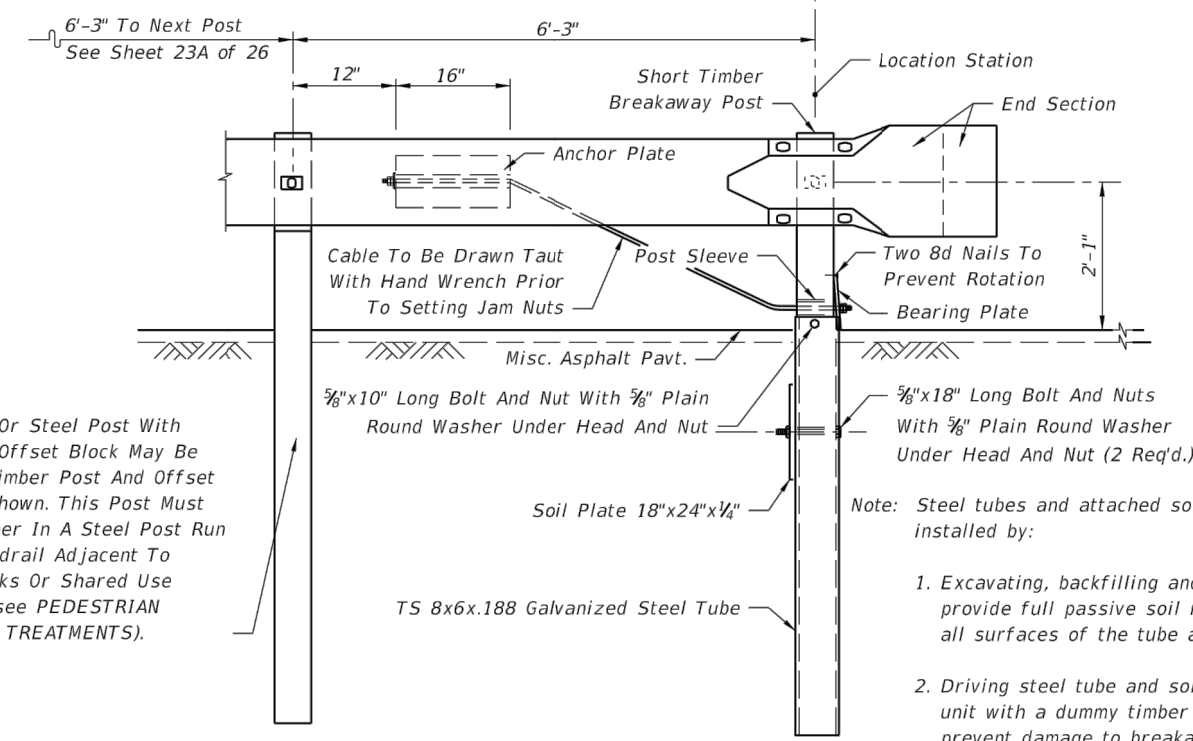
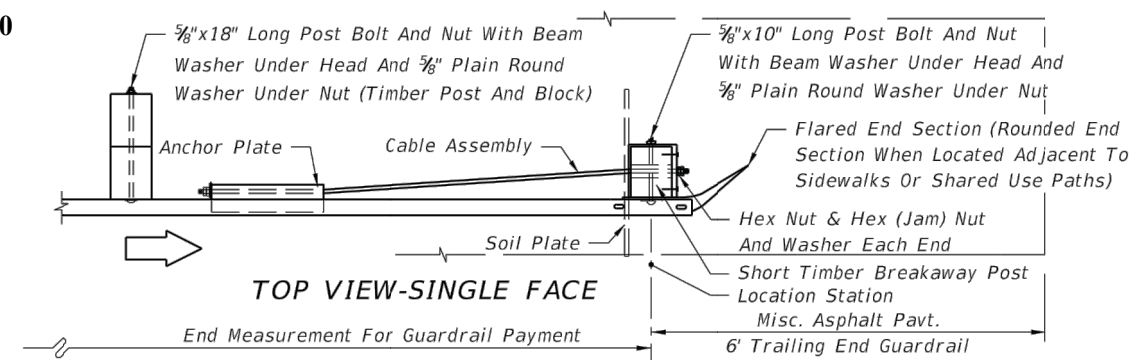
STANDARD W6x8.5 OR W6x9 STEEL POST GUARDRAIL POSTS

FDOT STD. INDEX NO. 400 SHEET NO. 21

REVISIONS			STATUS		DESIGNED BY: KENYA ANDERSON DRAWN BY: STACEY MAHONEY CHECKED BY: KENYA ANDERSON IN CHARGE: CLINTON HOWERTON, P.E. DATE: 4/24/17	HIGHLANDS COUNTY ENGINEERING DEPARTMENT 505 S. COMMERCE AVENUE SEBRING, FLORIDA 33870		COLLEGE DRIVE GUARDRAIL SAFETY IMPROVEMENTS		SCALE:
DATE	BY	DESCRIPTION	FOR BIDDING	FDOT STD. INDEX NO. 400 DETAILS				HORIZ. N/A		
				PROJECT NO. N/A				REV. 0		
APPROVED BY: CLINTON HOWERTON, JR., P.E.						DATE:		SHEET 14 OF 17		



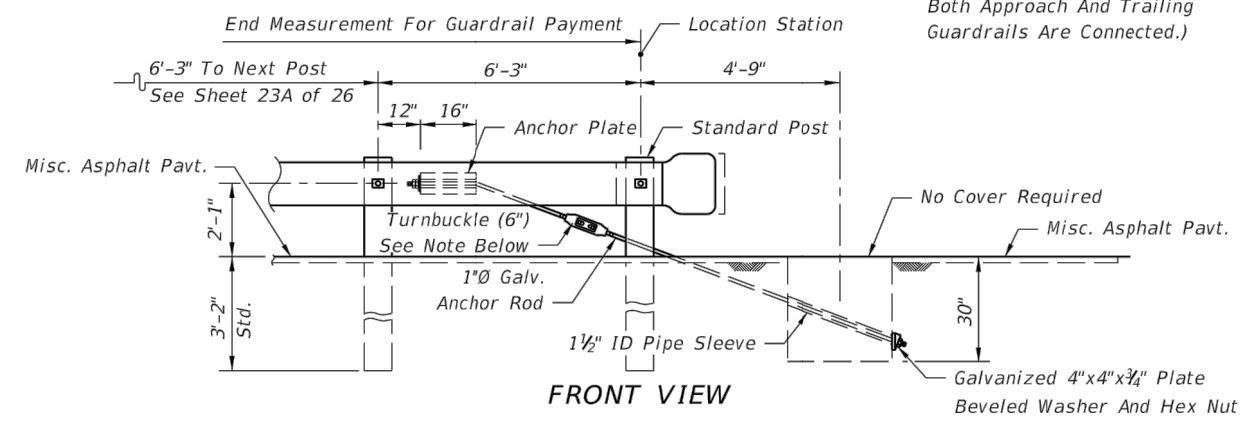
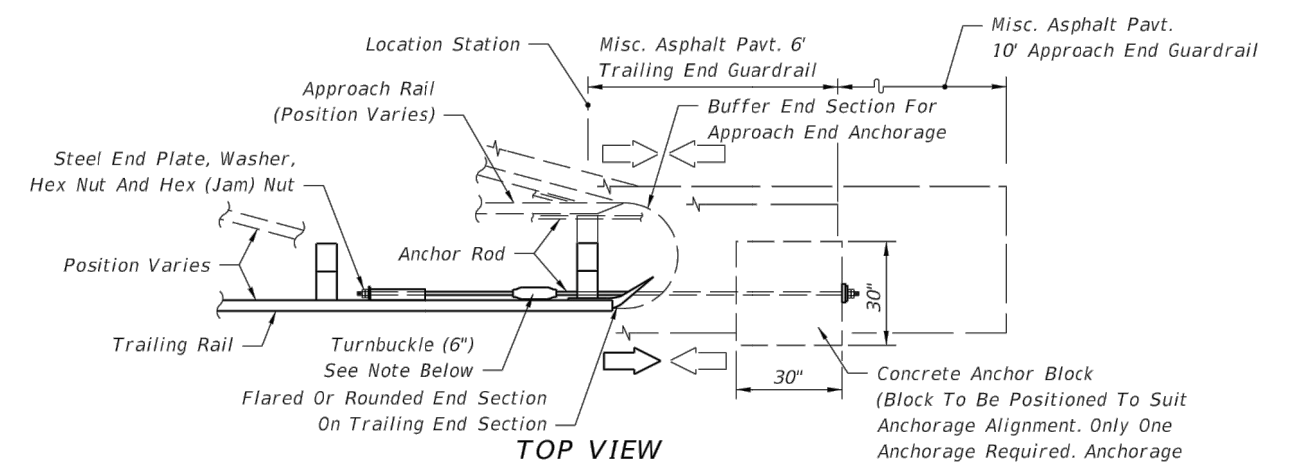
FDOT STD. INDEX NO. 400
SHEET NO. 23



Timber Or Steel Post With Timber Offset Block May Be Used, Timber Post And Offset Block Shown. This Post Must Be Timber In A Steel Post Run Of Guardrail Adjacent To Sidewalks Or Shared Use Paths (see PEDESTRIAN SAFETY TREATMENTS).

The payment for the items of End Anchorage Assembly Type II shall be full compensation for furnishing and installing either the Round or the Buffer End Section, the Beam Anchor Plate, Cable Assembly, Pipe Sleeve, Soil Plate, Steel Tube, Bearing Plate, Short Timber Breakaway Post, Offset Blocks and the necessary hardware.

**CABLE ANCHOR OPTION
END ANCHORAGE ASSEMBLY TYPE II**

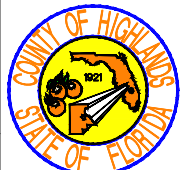


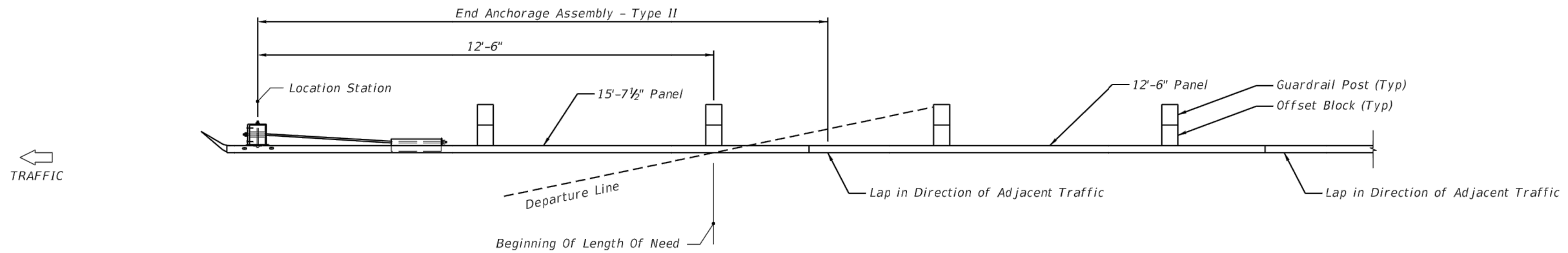
Turnbuckle shall be field cut, threaded 4" on each end, then cleaned and metalized in accordance with Sections 562 and 975 of the Standard Specifications. The cost for cutting, threading, metalizing and the turnbuckle shall be included in the contract unit price for End Anchorage Assembly Type II, EA.

The payment for the items of End Anchorage Assembly Type II shall be full compensation for furnishing and installing the Beam Anchor Plate, Anchor Rod, Pipe Sleeve, Anchor Block, either Flared, Rounded or Buffer End Section, and the necessary hardware.

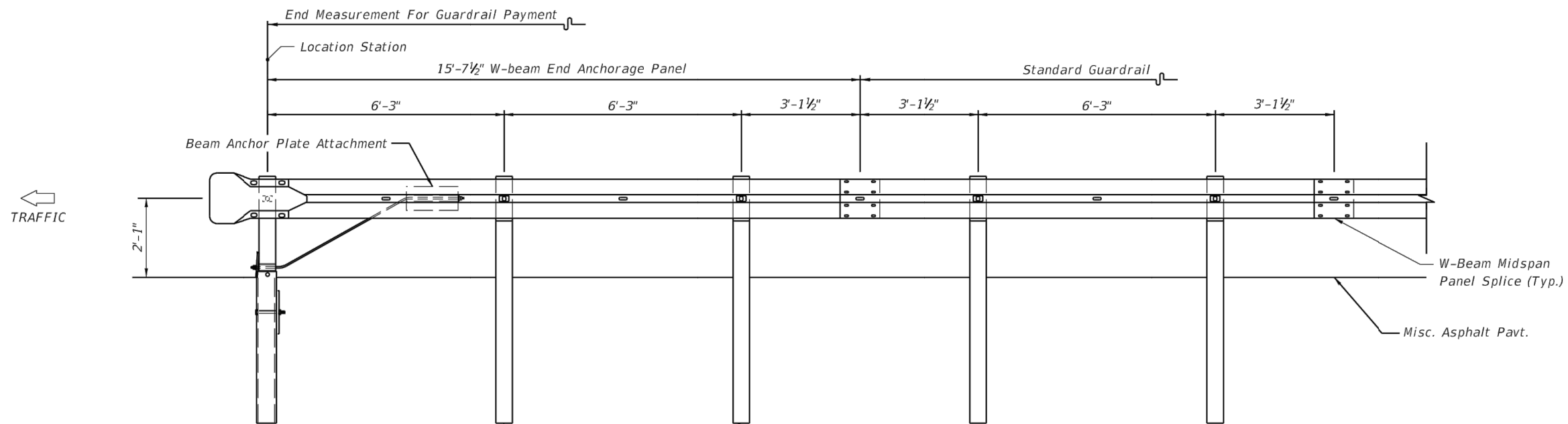
**CONCRETE ANCHOR BLOCK OPTION
TYPE II NOTES**

1. Unless specified in the plans, the contractor can supply either the cable anchor option or the concrete anchor block option.
 2. Type II end anchorage assemblies are approved for all speeds and are intended for use as:
 - a. trailing end anchors for single face free standing guardrail systems;
 - b. approach end anchors for single face free standing guardrail systems when the end anchor is located outside of the clear zone; and,
 - c. both approach and trailing ends of double face guardrail systems.
- Crash cushions shall be constructed at or in lieu of approach Type II end anchorages located inside the clear zone.
- End anchorage for thrie beam guardrail shall be constructed the same as detailed for W-beam, except use thrie beam rail and end section; and the Anchor Plate is to be attached to the bottom corrugation of the thrie beam.
3. These end anchors are to be paid for under the contract unit price for Guardrail, End Anchorage Assembly (Type II), EA as called for in the plans or by permit.

REVISIONS			STATUS	DESIGNED BY: KENYA ANDERSON	DRAWN BY: STACEY MAHONEY	CHECKED BY: KENYA ANDERSON	IN CHARGE: CLINTON HOWERTON, P.E.	DATE: 4/24/17	HIGHLANDS COUNTY ENGINEERING DEPARTMENT 505 S. COMMERCE AVENUE SEBRING, FLORIDA 33870 APPROVED BY: CLINTON HOWERTON, JR., P.E. FLORIDA REGISTRATION NO.: 61021		SCALE:								
DATE	BY	DESCRIPTION									HORIZ.	N/A							
FOR BIDDING											PROJECT NO. N/A	REV. 0							
CABLE ANCHOR OPTION END ANCHORAGE ASSEMBLY TYPE II											COLLEGE DRIVE GUARDRAIL SAFETY IMPROVEMENTS FDOT STD. INDEX NO. 400 DETAILS		SHEET 15 OF 17						



PLAN VIEW



ELEVATION VIEW

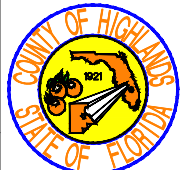
Timber Or Steel Posts With Timber Offset Blocks May Be Used, Timber Posts And Offset Blocks Are Shown. These Posts Must Be Timber In A Steel Post Run Of Guardrail Adjacent To Sidewalks Or Shared Use Paths (see PEDESTRIAN SAFETY TREATMENTS).

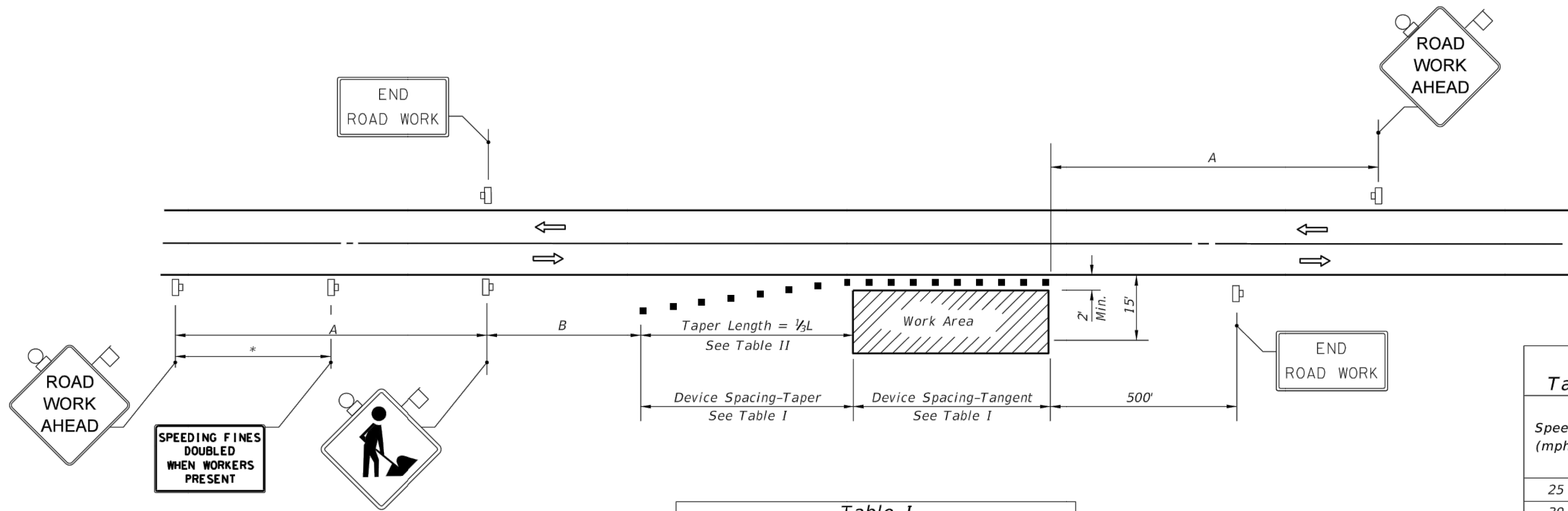
Note:

1. For Beam Anchor Plate Details see Sheet 20 of 26.
2. For Beam Anchor Plate Attachment Details see Sheet 20D of 26.

END ANCHORAGE ASSEMBLY TYPE II

**FDOT STD. INDEX NO. 400
SHEET NO. 23A**

REVISIONS			STATUS	DESIGNED BY: KENYA ANDERSON	HIGHLANDS COUNTY ENGINEERING DEPARTMENT 505 S. COMMERCE AVENUE SEBRING, FLORIDA 33870		COLLEGE DRIVE GUARDRAIL SAFETY IMPROVEMENTS FDOT STD. INDEX NO. 400 DETAILS		SCALE: HORIZ. N/A VERT. N/A
DATE	BY	DESCRIPTION					PROJECT NO. N/A	REV. 0	
			FOR BIDDING	DRAWN BY: STACEY MAHONEY	APPROVED BY: CLINTON HOWERTON, JR., P.E. FLORIDA REGISTRATION NO.: 61021	DATE: 4/24/17	SHEET 16 OF 17		
				CHECKED BY: KENYA ANDERSON					
				IN CHARGE: CLINTON HOWERTON, P.E.					



Speed	Spacing (ft.)	
	A	B
40 mph or less	200	200
45 mph	350	350
50 mph or greater	500	500

*Midway between signs.

Speed (mph)	Max. Distance Between Devices (ft.)			
	Cones or Tubular Markers		Type I or Type II Barricades or Vertical Panels or Drums	
	Taper	Tangent	Taper	Tangent
25	25	50	25	50
30 to 45	25	50	30	50
50 to 70	25	50	50	100

Speed (mph)	1/2 L (ft)			Notes
	8' Shldr.	10' Shldr.	12' Shldr.	
25	28	35	42	$L = \frac{WS^2}{60}$
30	40	50	60	
35	55	68	82	
40	72	90	107	
45	120	150	180	L=WS
50	133	167	200	
55	147	183	220	
60	160	200	240	
65	173	217	260	
70	187	233	280	

8' minimum shoulder width

1/2 L = Length of shoulder taper in feet

W = Width of total shoulder in feet (combined paved and unpaved width)

S = Posted speed limit (mph)

SYMBOLS

- Work Area
- Sign With 18" x 18" (Min.) Orange Flag And Type B Light
- Channelizing Device (See Index No. 600)
- Work Zone Sign
- Lane Identification + Direction of Traffic

GENERAL NOTES

- When four or more work vehicles enter the through traffic lanes in a one hour period or less (excluding establishing and terminating the work area), the advanced FLAGGER sign shall be substituted for the WORKERS sign. For location of flaggers and FLAGGER signs, see Index No. 603.
- SHOULDER WORK sign may be used as an alternate to the WORKER symbol sign only on the side where the shoulder work is being performed.
- When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in accordance with other applicable TCZ Indexes.
- For general TCZ requirements and additional information, refer to Index No. 600.

DURATION NOTES

- Signs and channelizing devices may be omitted if all of the following conditions are met:
 - Work operations are 60 minutes or less.
 - Vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.

CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH THE AREA CLOSER THAN 15' BUT NOT CLOSER THAN 2' TO THE EDGE OF TRAVEL WAY.

TWO-LANE, TWO-WAY, WORK ON SHOULDER

FDOT STD. INDEX NO. 602
SHEET NO. 1

REVISIONS			STATUS	DESIGNED BY: KENYA ANDERSON	DRAWN BY: STACEY MAHONEY	CHECKED BY: KENYA ANDERSON	IN CHARGE: CLINTON HOWERTON, P.E.	DATE: 4/24/17	APPROVED BY: CLINTON HOWERTON, JR., P.E.	DATE:	FLORIDA REGISTRATION NO.: 61021		COLLEGE DRIVE GUARDRAIL SAFETY IMPROVEMENTS MAINTENANCE OF TRAFFIC	SCALE:	PROJECT NO.	REV.
DATE	BY	DESCRIPTION												HORIZ.	N/A	VERT.
			FOR BIDDING													
														SHEET 17 OF 17		