

## TOWN OF SOUTHWEST RANCHES



### INVITATION FOR BIDS

### STIRLING ROAD GUARDRAILS INSTALLATION PROJECT

IFB No. 17-006

Date: August 14, 2017

TOWN OFFICIALS

Doug McKay, Mayor

Steve Breitkreuz, Vice Mayor

Freddy Fisikelli, Council Member

Gary Jablonski, Council Member

Denise Schroeder, Council Member

Andrew D. Berns, Town Administrator

Russell Muñiz, Assistant Town Administrator/Town Clerk

Martin D. Sherwood, Town Financial Administrator

Keith M. Poliakoff, Town Attorney

TOWN OF SOUTHWEST RANCHES, FLORIDA  
STIRLING ROAD GUARDRAILS INSTALLATION PROJECT  
IFB No. 17-006

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**DOCUMENTS TO BE SUBMITTED**  
**(PLEASE SUBMIT DOCUMENTS IN THE ORDER LISTED BELOW)**

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**EXHIBITS**

**EXHIBIT “A”** AGREEMENT FORM – TO BE EXECUTED AFTER AWARD OF CONTRACT

**EXHIBIT “B”** DRAWINGS AND CONSTRUCTION PLANS PREPARED BY CRAIG A. SMITH & ASSOCIATES  
(CAS PROJ. No. 17-1930)

**EXHIBIT “C”** MOT INDEX 600 SERIES

TOWN OF SOUTHWEST RANCHES, FLORIDA  
STIRLING ROAD GUARDRAILS INSTALLATION PROJECT  
IFB No. 17-006

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**CONTRACT DATA**

Contract Title: STIRLING ROAD GUARDRAILS INSTALLATION PROJECT

Contract Number: IFB No.: 17-006

Contract Owner: Town of Southwest Ranches

Contract Address: 13400 Griffin Road  
Southwest Ranches, FL 33330

Owner's Representative: Andrew D. Berns, Town Administrator  
13400 Griffin Road  
Southwest Ranches, FL 33330  
Phone: 954-434-0008  
Fax: 954-434-1490

Designated Contract Manager:  
Rod Ley  
Town Engineer  
13400 Griffin Road  
Southwest Ranches, FL 33330  
Phone: 954-434-0008  
Fax: 954-434-1490

TOWN OF SOUTHWEST RANCHES, FLORIDA  
STIRLING ROAD GUARDRAILS INSTALLATION PROJECT  
IFB No. 17-006

---

**Date: August 14, 2017**

**PUBLIC NOTICE OF INVITATION FOR BIDS (IFB)**

The Town of Southwest Ranches, Florida, hereinafter referred to as Town, will receive sealed Bids at the Office of Mara Semper, Town Procurement and Budget Officer, Town of Southwest Ranches, 13400 Griffin Road, Southwest Ranches, Florida, 33330 until 11:00 a.m., Thursday, September 14, 2017 at which time they will be publicly opened and read for:

**“IFB No.: 17-006 STIRLING ROAD GUARDRAILS INSTALLATION PROJECT”**

The project includes, but is not limited to the furnishing of all labor, materials, tools, equipment, machinery, expertise, services, and all else necessary and reasonably inferable from the Contract Documents for proper construction and installation of guardrails generally along Stirling Road from SW 142nd Avenue to SW 148th Avenue and from SW 130<sup>th</sup> Avenue to the 12600 Block of Stirling Road. The project site is located on Stirling Road in Southwest Ranches, Florida.

A **non-mandatory** Pre-Bid Meeting is scheduled for 11:00 a.m., Monday, August 28, 2017 in the Southwest Ranches Grand Oaks conference room, 13400 Griffin Road, Southwest Ranches, FL 33330.

The awarded contractor will be required to execute a contract with the Town of Southwest Ranches in substantially the form attached hereto as Exhibit “A.”

Bids must be accompanied by a Cashier’s Check or Bid Bond made payable to the Town of Southwest Ranches in an amount not less than five percent (5%) of the base bid as a guarantee that in the event the contract is awarded to the Bidder, they will promptly enter into a contract, and furnish any Payment Bond and Performance Bond, and Insurance Certificates required by the terms of this Invitation for Bids. The return of Cashier’s Checks or other cash security to Bidders shall be subject to the time periods for payment in the Florida Prompt Payment Act, Section 287.70, *et seq.* It is anticipated that bids will be opened at 11:00 a.m. at the Southwest Ranches Town Hall located at 13400 Griffin Road, Southwest Ranches, FL 33330 on Thursday, September 14, 2017. Any bid(s) delivered or received after 11:00 a.m. local time on said date will not be accepted under any circumstances. Any uncertainty regarding the time a bid is received will be resolved against the Bidder.

**In accordance with Florida Statutes, Section 119.071(1)(b)(2), bids are exempt from public disclosure until such time as the Town provides notice of an intended award or until 30 days after the opening, whichever is earlier.**

The Town reserves the right to reject all or any portions of any bid, to reject all bids, to waive any informality, non-material irregularity or technicality in any bid, to re-advertise for bids, or take any other such actions that may be deemed to be in the best interest of the Town.

Questions concerning this IFB should be sent via **facsimile** or **emailed** to:

Mara Semper, Procurement and Budget Officer

Phone: 954-434-0008

Fax Number: 954-434-1490

Email: [msemper@southwestranches.org](mailto:msemper@southwestranches.org)

TOWN OF SOUTHWEST RANCHES, FLORIDA  
STIRLING ROAD GUARDRAILS INSTALLATION PROJECT  
IFB No. 17-006

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**INSTRUCTIONS TO BIDDERS**

The Town intends to award a contract to the lowest, responsive and responsible Bidder whose bid meets the requirements of this IFB, and in accordance with the Town's Procurement Code.

Bid packages can be obtained through DemandStar, downloaded from the Southwest Ranches website at: <http://www.southwestranches.org/procurement/> or by contacting Mara Semper by email at [msemper@southwestranches.org](mailto:msemper@southwestranches.org) or calling 954-343-7477.

**1. COPIES OF SUBMISSION**

One **unbound original**, two (2) bound copies, and one compact disk of the entire Bid, Bid Form and required submittal documents in PDF format shall be submitted to the Town of Southwest Ranches at the office of Ms. Mara Semper, Procurement and Budget Officer, Town Hall, 13400 Griffin Road, Southwest Ranches, Florida 33330.

Sealed bids clearly marked **“IFB No.: 17-006 Stirling Road Guardrails Installation Project” must be received by the Procurement and Budget Officer either by mail or hand delivery, no later than 11:00 a.m. local time, Thursday, September 14, 2017.** A public opening will take place at 11:00 a.m. in the Town's Grand Oaks conference room located at Town Hall on the same date.

The identity of the Bidders and respective total bid price shall be read aloud. However, neither the bids nor information set forth therein shall be made public until the time of a notice of an “Intended award” or 30 days from the Bid Opening, whichever is earlier, and in accordance with Florida Statutes, Chapter 119.

Facsimile or email submittals will not be accepted. Bids delivered or received after 11:00 a.m. local time on the above referenced date will not be accepted under any circumstances. Any uncertainty regarding the time a bid is delivered or received will be resolved against the Bidder.

**2. ADDENDA OR ADDITIONAL INFORMATION**

Any questions or requests for clarifications concerning this IFB shall be submitted in writing by facsimile or E-mail and directed to Ms. Mara Semper, Procurement and Budget Officer, Town of Southwest Ranches, 13400 Griffin Road, Southwest Ranches FL, 33330; By Fax number (954) 434-1490; or E-mail address: [msemper@southwestranches.org](mailto:msemper@southwestranches.org). The IFB number and title shall be referenced on all correspondence and in the subject section of the email. **All questions must be received no later than seven (7) calendar days prior to the scheduled bid opening date but no later than noon on Thursday, September 7, 2017.** All responses to questions/clarifications, if deemed necessary by the Town, will be posted on the Town Website at <http://www.southwestranches.org/procurement/> or through DemandStar. No questions will be received verbally, and/or, after the deadline. Bidders are hereby notified that a “Cone of Silence” is hereby imposed from the date of advertising and shall terminate at the time that the Town Council commences to meet for purposes of making a final decision regarding a Contract award. A Bidder who violates the Cone of Silence shall be subject to automatic disqualification from further consideration.

**3. SECURITY AND BONDING REQUIREMENTS:**

**i. BID SECURITY**

Simultaneous with the delivery of an executed Bid to the Town, Bidders shall furnish a Bid Security in an amount equal to five percent (5%) of the total base bid price. The Bid Security shall be issued in the form of a bond issued by a Surety authorized to transact business in the State of Florida, having an agent in the State of Florida, or in the form of Money Order or Cashier's payable to the Town of Southwest Ranches, Florida and drawn on a Florida Bank, or in the form of an irrevocable letter of credit. Bonds shall be submitted on the forms provided herein by the Town. Failure to supply Bid Security with the Bid at the time of Bid opening shall automatically disqualify the Bidder as non-responsive.

**ii. PERFORMANCE AND PAYMENT BONDS**

Simultaneous with the delivery of the executed contract form, the Contractor shall furnish to the Town executed Performance and Payment Bonds each in the amount equal to one hundred percent (100%) of the Contract value, as security for the faithful and timely performance of the Work under the Contract and for the payment of all persons furnishing labor, materials, services, and/or equipment in connection with the Work. The condition of this obligation is such that, if the Contractor shall promptly and faithfully perform said contract, make payments to all claimants (as defined by section 713.01, Florida Statutes) for all labor, materials, services, and equipment used directly or indirectly, or reasonably required for use, in the performance of the contract, and shall fully indemnify and save harmless the Town and its agents for all costs and damages it may suffer by reason of Contractor's failure to do so, then this obligation shall be null and void; otherwise it shall remain in full force and effect. Bonds shall be in a form acceptable to the Town and as prescribed by section 255.05, Florida Statutes.

**iii. QUALIFICATIONS OF SURETY**

Surety companies issuing Performance and Payment Bonds shall fulfill each of the following provisions, and the Bidder shall provide satisfactory evidence to document such fulfillment:

- A. The surety company is licensed to do business in the State of Florida.
- B. The surety company holds a currently valid certificate of authority authorizing it to write surety bonds in the State of Florida.
- C. The surety company has twice the minimum surplus and capital required by the Florida Insurance Code at the time that this Invitation for Bids was issued.
- D. The surety company is otherwise in compliance with the provision of the Florida Insurance Code.
- E. The surety company holds a currently valid certificate of authority issued by the United States Department of the Treasury under 31 U.S.C. § 9304-9308.
- F. Each bond shall contain all provisions required by §255.05, Florida Statutes.
- G. Each bond shall be issued by a Florida agent.

**iv. DURATION OF BONDS**

The Performance Bond shall guarantee all work and materials furnished under the Contract including losses resulting from defects in the materials or improper performance of Work under the Contract that may appear or be discovered during performance of the Work or during any applicable warranty period after completion of all Work, and for latent defects, during the time periods set forth in section 95.11(3)(c), Florida Statutes. The Payment Bond shall stay in effect until the time required by section 255.05, Florida Statutes, for the making of claims under such Bond, or when all claimants submitting valid claims have been paid, whichever is later.

**v. NON-COMPLIANCE**

An awarded Bidder's failure to timely deliver an executed Contract, and any Performance Bond, Payment Bond, and Insurance Certificates required by the terms of this Invitation for Bids, all in forms acceptable to the Town, shall result in the cancellation of any Contract and the Bidder's forfeiture of any and all bid securities.

**4. BIDDER WARRANTY**

Bidder warrants that the prices, terms and conditions quoted in the bid will be firm for a period of 90 days from the date of the bid opening. Incomplete, unresponsive, irresponsible, vague, and ambiguous responses to the Invitations for Bid will be cause for rejection, as determined in the sole discretion of the Town.

**5. GUARANTEES**

No guarantee or warranty is given or implied by the Town as to a minimum or total amount of services that may or may not be purchased from any resulting contract or award. The quantities and frequencies provided herein are for proposal purposes only and will be used for tabulation and presentation of the Proposal. The Town reserves the right to increase or decrease service quantities and frequencies, as deemed necessary to serve the best interests of the Town.

**6. BID WITHDRAWAL**

Any Bidder may withdraw its bid prior to opening of bids by providing a written notice to the Town. After bids are opened, they shall be irrevocable for a period of ninety (90) days. Bidders who unilaterally withdraw a bid without permission of the Town before 90 days have elapsed from the date of the opening of bids may be debarred and are subject to forfeiture of the Bid Security.

**7. CONE OF SILENCE**

A Cone of Silence is hereby imposed and made applicable to this IFB, and in accordance with the Town's Procurement Code. The Cone of Silence shall become effective from the time this IFB is advertised, and shall terminate at the time that the Town Council commences to meet for purposes of making a final decision regarding a Contract award, rejects all responses, or takes other action which ends the IFB process. During the effective time period of the Cone of Silence, any person or entity which submits a bid/response, or that will be subject to evaluation under the terms of this IFB, shall not have any communication with the members of the Town Council relative to this IFB, except as may be permitted or required during public meetings of the Town Council. **NOTE:** A Bidder who violates the Cone of Silence shall be subject to automatic disqualification from further consideration.

A "**Cone of Silence**" means a prohibition on any communication regarding a particular request for proposal, request for qualification or invitation to bid, and as set forth in the Town's Procurement Code.

8. **NOTICE TO PROCEED**

After execution of the Contract, the Town anticipates issuance of a Notice to Proceed or other written work authorization to the Contractor, or as otherwise set forth in the Contract. Contractor shall be required to attend a pre-construction meeting. The date, time and place of the meeting will be set by the Town. A Notice to Proceed may be issued at the pre-construction meeting.

Contractor shall be instructed to commence work by written instructions by the Town Administrator or his designee by issuance of a Notice to Proceed. The Notice(s) to Proceed will not be issued until Contractor submits to the Town all required bonds, insurance certificates and/or other documents and after execution of the Contract by both parties. The receipt of all necessary building and regulatory permits by Contractor, if any, is a condition precedent to the issuance of a Notice to Proceed. Contractor warrants to the Town that it shall expeditiously apply for all building permits and shall thereafter, diligently and continuously perform such Work to achieve Substantial Completion and Final Completion, within the times set forth in the Contract Documents, with time being of the essence. To the extent set forth in the Contract, the Town may, in its sole discretion, impose liquidated damages for failure to complete the Work within the time required.

Contractor shall furnish sufficient forces and equipment and shall Work such hours, including overtime operations, as may be necessary to timely perform the Work in accordance with the schedules submitted by Contractor to the Town for its approval. If Contractor falls behind the progress schedule, Contractor shall take such steps as may be necessary to improve its progress by increasing the number of shifts, overtime operations, and days of Work within the project limits as may be required, at no additional cost to the Town.

9. **EQUAL EMPLOYMENT OPPORTUNITY/COMPLIANCE WITH GRANT TERMS**

Contractor shall not discriminate against any employee or applicant for employment because of race, religion, age, color, sex or national origin, or physical or mental handicap, or marital status. Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during their employment without regard to their race, religion, age, color, sex or national origin, or physical or mental handicap, or marital status. Such actions shall include, but not be limited to the following: employment, upgrading, demotion, or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation; and selection for training, including apprenticeship.

Contractor agrees to post in conspicuous places available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause. Contractor further agrees that he/she will ensure that subcontractors, if any, will be made aware of and will comply with this nondiscrimination clause.

Additionally, to the extent that this Project is funded in whole or in part by any Federal, State, or local grant, the Contractor shall comply with any and all applicable grant terms or conditions, including Florida Department of Transportation (FDOT) Grant. It is up to the Bidders to inquire and ascertain what grants/terms apply to this IFB.

**10. PUBLIC ENTITY CRIMES**

Pursuant to the provisions of section 287.133(2)(a), Florida Statutes -"A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded to perform work as a Contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, for Category Two for a period of 36 months from the date of being placed on the convicted vendor list".

**11. CONFLICT OF INTEREST**

The award of any Contract hereunder is subject to the provisions of Chapter 112, Florida State Statutes. Bidders must disclose with their Bids, the name of any officer, director, partner, associate, agent, Advisory Board member or client/customer who is also an officer, former officer, or employee of the Town of Southwest Ranches or its agencies.

**12. TAXES**

To the fullest extent provided by Florida law, Bidders should not include taxes in bid prices. The Town is exempt from Florida sales tax on direct purchases of tangible property or services.

**13. SUBMISSION OF BIDS**

It is the responsibility of the Bidder to ensure that the Bid reaches the Office of the Procurement and Budget Officer on or before the closing hour and date shown on the public notice of this Invitation for Bid. The Town is not responsible for the Bidder's costs associated with preparation of the bid or proposal.

**14. BID FORMS**

Bidders must use the Bid form(s) furnished by the Town. Failure to do so may cause the Bid to be rejected. Removal or replacement of any of the Bid documents may invalidate the Bid. Also, Bids having an erasure or corrections must be initialed by the Bidder in ink. Bids shall be signed in ink; and all pricing shall be typewritten or filled in with ink. A bid submission in pencil will not be accepted.

**15. MISTAKE**

If there is a discrepancy in the unit and extended prices, the calculated total price based on unit prices shall prevail. Bidders are responsible for checking their calculations. Failure to do so will be at the Bidder's risk, and errors will not release the Bidder from performance of the Contract, if awarded, at the Bid price.

**16. DELIVERY**

All delivery costs and charges for materials shall be included in the Bid price. Delivery shall be freight on board (F.O.B.) to the project site in the Town of Southwest Ranches, Florida.

**17. LIABILITY, INSURANCE, LICENSING & PERMITS**

Where a Contractor is required to enter onto the Town of Southwest Ranches property to deliver materials or to perform work or services as a result of a Bid award, the Contractor will assume the full duty, obligation, and expense of obtaining all necessary licenses, permits, inspections, and insurance required. The Contractor shall be liable for any damages or loss to the Town occasioned by negligence or intentional acts or omissions of the Bidder (or his agents) or any person or subcontractor the Bidder utilizes in the completion of his contract as a result of the Bid. Contractor shall be required to furnish a certified copy of all licenses, certificates of competency or other licensure requirements necessary to practice his profession as required by Florida Statutes, Florida Building Code, Broward County, or Town of Southwest Ranches Code. These documents shall be furnished to the Town along with the Bid response. Failure to furnish these documents or to have required licensure will be grounds for rejecting the Bid as non-responsive or otherwise.

The Bid shall include Certificate(s) of Insurance or written proof of the ability to provide the required insurance by an insurance company authorized to do business in the State of Florida or otherwise secured in a manner satisfactory to the Town in an amount equal to 100% of the requirements. Prior to award and in any event prior to commencing Work, the Successful Bidder/Proposer shall provide the Town with certified copies of all insurance policies providing coverage which meets the requirements as outlined below:

**A. WORKER'S COMPENSATION**

Worker's Compensation Insurance is to apply to all employees in compliance with the "Workers' Compensation Law" of the State of Florida and all applicable federal laws. Contractor shall carry Worker's Compensation Insurance with the statutory limits, as required by Florida Statutes, chapter 440, as amended, which shall include employer's liability insurance with a limit of not less than Five Hundred Thousand Dollars (\$500,000) for each accident, and Five Hundred Thousand Dollars (\$500,000) for each disease. Policy(ies) must be endorsed with waiver of subrogation against Town.

**B. BUSINESS AUTOMOBILE LIABILITY INSURANCE:**

Contractor shall carry business automobile liability insurance with minimum limits of One Million Dollars (\$1,000,000) per occurrence, combined single limits bodily injury liability and property damage. The policy must be no more restrictive than the latest edition of the business automobile liability policy without restrictive endorsements, as filed by the Insurance Services Office, and must include all owned vehicles and all hired or non-owned vehicles.

**C. COMMERCIAL GENERAL LIABILITY:**

Contractor shall carry Commercial General Liability Insurance with limits of not less than One Million Dollars (\$1,000,000) per occurrence combined single limit for bodily injury and property damage, and not less than Two Million Dollars (\$2,000,000) in the aggregate. The insurance policy

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must include coverage that is no more restrictive than the latest edition of the commercial general liability policy, without restrictive endorsements as filed by the Insurance Service Office (ISO), and the policy must include coverage's for premises and/or operations, independent contractors, products and/or completed operations for contracts, contractual liability, broad form contractual coverage, broad form property damage, and personal injury. Personal injury coverage shall include coverage that has the employee and contractual exclusions removed. The ISO form of the policy must be acceptable to the Town.

**D. ENVIRONMENTAL POLLUTION INSURANCE:**

The Contractor shall carry an Environmental Pollution Insurance for pollution-related incidents, including the cost of cleaning up a site after a pollution incident, with limits not less than \$500,000.00 Dollars per occurrence with deductible not greater than \$100,000.00. An additional Form or endorsement to the Commercial General Liability Insurance to include an Environmental Pollution Insurance coverage providing the specified coverage, is acceptable.

**\*All insurance policies shall name and endorse the following as “Additional Named Insureds”:**

TOWN OF SOUTHWEST RANCHES  
Attn: Andrew D. Berns, Town Administrator.  
13400 Griffin Road.  
Southwest Ranches, FL 33330

**\*The additional named insured endorsement shall be reflected on the Certificate of Insurance.**

All insurance shall be issued by companies rated “A-” or better per A.M. Best's Key Rating Guide, latest edition and authorized to issue insurance in the State of Florida. It shall be the responsibility of the vendor and insurer to notify the Town Administrator of cancellation, lapse, or material modification of any insurance policies insuring the vendor, which relate to the activities of such vendor and the Town.

**Such notification shall be in writing, and shall be submitted to the Town Administrator within thirty (30) days prior to cancellation of such policies. This requirement shall be reflected on the Certificate of Insurance.**

Bidders are required to submit a list of claims presently outstanding and claims within the past ten (10) years against their liability coverage. This information must be listed on the form provided below and signed by the agent of the insurance carrier. If no outstanding claims exist, a statement of this fact must be signed by the agent of the insurance carrier.

Failure to fully and satisfactorily comply with the Town's insurance and bonding requirements set forth herein will authorize the Town Administrator to implement a rescission or cancellation of the Bid award within thirty (30) days of awarding. The Bidder hereby holds the Town harmless and agrees to indemnify Town and covenants not to file a Bid protest or sue the Town by virtue of such cancellation or rescission.

**18. AWARD OF CONTRACT**

The Town reserves the right to accept or reject any and/or all Bids or parts of bids, to waive any informality, irregularities or technicalities, to re-advertise for Bids, or take any other actions that may be deemed to be in the best interests of the Town. The Town also reserves the right to award the Contract on a split order basis, group by group, or item by item, or such combination as will best serve the interests of the Town, unless otherwise stated. The Town also reserves the right to waive minor variations to the specifications. Final determination and award of Contract shall be made by the Town Council.

After opening of bids, the Town will look for any unbalanced bids to ensure that unit prices are within industry standards and that the Bidders are not charging excessive unit prices for those items the Town will utilize the most. The Town intends to award a Contract to the lowest, responsive and responsible Bidder in accordance with the terms of this IFB and the Town's Procurement Code.

In the award of a Contract pursuant to this IFB, the services shall be provided on a "non-exclusive" basis, and the Town may utilize the services of other vendors as may be deemed necessary at the Town's discretion.

**19. BID CONSIDERATIONS**

The Town, at its discretion, reserves the right to inspect any/all Bidder's facilities to determine their capability of meeting the requirements for this IFB and the Contract to be awarded. Also, price, responsibility, and responsiveness of the Bidder, including the financial position, experience, staffing, equipment, materials, and references of Contractor, and past history of service by Contractor to the Town and/or with other units of State, and/or Local governments in Florida, or comparable private entities, may be taken into consideration in the award of a Contract. If the project involves services or costs based upon a unit price or ongoing services, the Town reserves the right to reduce the level of service within its sole discretion.

**20. ASSIGNMENT**

This IFB and any Contract awarded pursuant hereto shall be binding upon and shall inure to the benefit of the Town and to any and all of its successors and assigns, whether by merger, consolidation, and transfer of substantially all assets or any similar transaction. Notwithstanding the foregoing, the Contract is personal to the Contractor, and Contractor may not, either directly or indirectly, assign its rights or delegate its obligations to Town hereunder without first obtaining the Town's consent in writing. Any such attempted assignment or delegation shall be deemed of no legal force and effect whatsoever.

**21. DISPUTES**

After an award of the Contract, disputes shall be resolved as set forth in the Contract form which is attached to this IFB. Any default under this IFB shall subject Bidder to liability for any and all damages to Town caused thereby. Bidder agrees to reimburse Town for all costs and expenses, including attorney's fees and costs, incurred by the Town by reason of such default whether or not suit is brought, and in any litigation commenced, at both the trial and appellate levels.

**22. CANCELLATION**

Failure on the part of the awarded Bidder to comply with the terms of this IFB and to execute and deliver any required Contract Documents, bonds, and insurance, will result in the cancellation or rescission of the award, and a forfeiture of the Bid security. In that event, the Town may proceed to award the Contract to the next lowest, responsive and responsible Bidder, or to re-advertise the project, and in its sole discretion whenever deemed in the best interests of the Town.

**23. RELATION TO PARTIES**

It is understood and agreed that nothing contained in this IFB or the Contract shall be deemed to create a partnership or joint venture with the Town. Contractor shall be in the relation of an independent contractor and is to have entire charge, control and supervision of the Work to be performed hereunder.

**24. COMPLIANCE WITH LAW**

Contractor shall comply with all applicable laws, regulations and ordinances of any Federal, State, or Local Governmental authority having jurisdiction with respect to this IFB and any Contract awarded and shall obtain and maintain any and all material permits, licenses, approvals and consents necessary for the lawful conduct of the activities contemplated hereunder.

**25. WAIVER OF LIABILITY**

The Town shall not in any way be answerable or accountable for any violations of applicable laws or for any injury, loss or damage arising from the negligence, acts or omissions of Contractor or any one of its employees, subcontractors or agents, or anyone else for whose actions Contractor may be responsible.

**26. INDEMNIFICATION**

To the fullest extent permitted by Florida law, including Florida Statutes, Section 725.06, the Contractor hereby agrees to and shall indemnify, defend and hold harmless the Town, its officers and employees, from liabilities, damages, losses, costs, and expenses including, but not limited to, reasonable attorney fees (at both the trial and appellate levels), to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the Contractor and persons employed or utilized by the Contractor in the performance of the Contract or anyone else for whose actions Contractor may be responsible, regardless of the partial fault of any party indemnified hereunder.

**27. SECONDARY/OTHER VENDORS**

The Town reserves the right in the event the primary vendor cannot provide an item(s) or service(s) in a timely manner as requested, to seek other sources without violating the intent of the this IFB or any Contract awarded.

**28. DEFAULT PROVISION**

In case of default by the Contractor, the Town may procure the articles or services from other sources and hold the Bidder or Contractor responsible for any excess costs occasioned or incurred thereby.

**29. GOVERNING LAW**

The validity of this IFB and any Contract awarded and the interpretation and performance of all of their respective terms shall be construed and enforced in accordance with the laws of the State of Florida, without regard to principles of conflict of laws thereof. The location of any action or proceeding commenced under, pursuant, or relating to this IFB or the Contract shall be in the State Courts of Florida located in Broward County, Florida.

**30. REMEDIES FOR BREACH**

Should the selected Contractor fail to perform after Contract execution, the Town shall notify Contractor in writing of such failure to perform and Contractor shall have fourteen (14) days to cure such failure or such shorter time as may be set forth in the Contract. If Contractor fails to cure, then the Town shall have the right to immediately terminate the Contract for cause. In that event, the Town shall also be free to sue Contractor for damages, in addition to any other right or remedy that it may have under the Contract, at law or in equity. Nothing herein shall be construed as precluding the Town's right to terminate the Contract for convenience, and as set forth in the Contract.

**31. WRITTEN CONTRACT**

The successful Bidder shall be required to enter into a written Contract with the Town, the Contract form shall be prepared by the Town, and shall incorporate the terms of this IFB, the accepted Bid, and include a termination for convenience clause, liquidated damages clause and other terms which may be required by the Town or its Procurement Code, and acceptable to the Town Council. The Contract shall be substantially in the form attached to this IFB. No Work shall be performed or payment due unless a written Contract is fully executed and has been approved by the Town Council. The successful Bidder further understands and agrees that before commencing the Work or before recommencing the Work after a default or abandonment, the Contractor shall provide to the Town a certified copy of the recorded Payment Bond required hereunder; and that notwithstanding the terms of the Contract or any other law governing prompt payment for construction services to the contrary, the Town shall not make any payment to the Contractor until the Contractor has recorded the Payment Bond and provided the Town with a certified copy, as required by section 255.05(1)(b), Florida Statutes.

**32. PUBLIC RECORDS LAW**

The Town is subject to Chapter 119, Florida Statutes, "Public Records Law." No claim of confidentiality or proprietary information in all or any portion of a response will be honored unless a specific exemption from the Public Law exists and is cited in the response. An incorrectly claimed exemption does not disqualify the firm, only the exemption claimed. Contractor acknowledges the public shall have access at all reasonable times, to all documents and information pertaining to Town's contracts, subject to the provisions of Chapter 119, Florida Statutes, and agrees to allow access by the Town and the public to all documents subject to disclosures under applicable law.

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To the extent that Contractor has been provided access to or has received security sensitive information, as defined by Florida Statutes, Section 119.071 and/or has executed a Confidential Information Acknowledgement and Agreement as part of the IFB process, Contractor shall keep and maintain the security sensitive information as confidential and exempt from public disclosures as required by Florida Statutes.

Contractor agrees to keep and maintain public records required by the Town to perform the service in Contractor's possession or control in connection with Contractor's performance under this IFB and any Contract awarded, and upon the request from the Town's custodian of public records, to provide the Town with a copy of the requested records or allow the records to be inspected or copied within a reasonable amount of time at a cost that does not exceed the cost provided in Chapter 119 or as otherwise provided by law. Contractor shall 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 contract term and following completion of the Contract if the Contractor does not transfer the records to the Town.

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

Contractor's failure or refusal to comply with the provisions of this section shall result in the immediate termination for cause of the Contract by Town.

**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 PHONE: (954) 434-0008; EMAIL: [RMUNIZ@SOUTHWESTRANCHES.ORG](mailto:RMUNIZ@SOUTHWESTRANCHES.ORG); RUSSELL MUNIZ, ASSISTANT TOWN ADMINISTRATOR/TOWN CLERK, TOWN OF SOUTHWEST RANCHES, 13400 GRIFFIN ROAD, SOUTHWEST RANCHES, FLORIDA, 33330.**

[End of Section]

## GENERAL CONDITIONS

### A. DEFINITIONS

**Contract:** The written agreement between Town and Bidder whose bid has been accepted, covering the Work to be performed, and which incorporates the other Contract Documents to be made a part thereof and as referenced therein.

**Addenda:** Written or graphic instruments issued prior to the opening of Bids which clarify, correct or change the bidding documents or the Contract Documents.

**Bid:** The offer or proposal of a Bidder submitted on the prescribed form(s) and including all information and submission required by the IFB.

**Bonds:** Bid, performance and payment bonds and other instruments of security.

**Change Order:** A document which is signed by Contractor and Town and authorizes an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Time, issued on or after the Effective Date of the Contract.

**Construction Change Directive:** A document which is signed by the Town which directs the Contractor to proceed with revised or changed Work, where the Town and Contractor cannot agree on an adjustment in the Contract Price or the Contract Time, or both, issued on or after the Effective Date of the Contract. The subject of a Construction Change Directive may be the basis for a Change Order if later agreed to by the Town and Contractor.

**Contract Documents:** The Contract, Addenda (which pertain to the Contract Documents), Contractor's Bid (including documentation accompanying the Bid), the Bonds if required, these General Conditions, and any Drawings, Exhibits and Attachments referenced in this IFB, together with all amendments, modifications and supplements issued on or after the Effective Date of the Contract.

**Contract Price:** The monies payable by Town to the Contractor under the Contract Documents as stated in the Contract for the full and timely performance of the Work.

**Contractor:** The person, firm or corporation with whom Town has entered into the Contract with for performance of the Work.

**Day:** Shall mean calendar day, unless otherwise specified.

**Defective:** An adjective which when modifying the word Work refers to Work that is unsatisfactory, faulty, or deficient, or does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, applicable codes, test or approval referred to in the Contract Documents, or has been damaged prior to Town's final payment.

**Effective Date of the Contract:** The date indicated in the Contract on which it becomes effective, but if no such date is indicated it means the date on which the Contract is signed and delivered by the last of the two parties to sign and deliver, subject to formal acceptance by the Town Council.

**Final Completion:** This term shall mean that point at which, as certified in writing by the Town Engineer or other person designated in the Contract, the Project is at a level of final completion in strict compliance with the Contract, and that Contractor has furnished all Project-close out documentation including, but not limited to, final lien waivers from Contractor and all lower-tiered subcontractors and suppliers, written

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warranties and guarantees, written O&M Manuals, Record as-built drawings, all as required by the Contract Documents.

**Project:** The whole or any part of the total construction of the Work to be provided under this IFB and the Contract Documents.

**Substantial Completion:** This term shall mean that point at which, as certified in writing by the Town Engineer or other person designated in the Contract, the Project is at a level of completion in strict compliance with the Contract such that the Town or its designee can enjoy beneficial use or occupancy and can use or operate it in all respects, for its intended purpose, and as defined in the Contract Documents. However, partial use or occupancy of the Project shall not necessarily result in the Project being deemed substantially complete, and such partial use or occupancy shall not necessarily be evidence of Substantial Completion.

**Town:** The Town of Southwest Ranches, Florida.

**Work:** The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work is the result of performing services, furnishing labor and furnishing and incorporating materials and equipment into the construction, all as required by the Contract Documents.

**B. PRELIMINARY MATTERS**

**Upon completion of Construction**

The Contractor shall notify and request Town for a substantial or final completion inspection. Payment to Contractor will be dependent upon satisfactory completion of the Work and in strict accordance with the Contract Documents.

**C. CONTRACT DOCUMENTS**

The Contract Documents comprise the entire agreement between the Town and Contractor concerning the Work. Any Work, materials or equipment that may be reasonably inferred from the Contract Documents as being required to produce the intended result will be supplied whether or not specifically called for. Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the Laws or Regulations of any governmental authority, or to any permits and conditions thereof, whether such reference by specific or by implication, shall mean the latest standard specification, manual, code or Laws or Regulations or permit in effect at the time of executing the Contract, except as may otherwise be specifically stated. Clarifications and interpretations of the Contract Documents may be issued by the Town.

If during the performance of the Work, Contractor finds a conflict, error or discrepancy in the Contract Documents, Contractor shall so report to the Town in writing at once, and shall obtain a written interpretation or clarification from the Town, before proceeding with the Work affected thereby. Failure to obtain such written interpretation or clarification before proceeding with the Work affected thereby shall result in a conclusive forfeiture and abandonment of any claim by Contractor for additional compensation or time, or both, which could have been avoided by such interpretation or clarification, and Contractor shall bear all costs associated with removal, replacement, correction, repair or restoration of such Work.

**Amending and Supplementing Contract Documents**

The Contract Documents may be amended to provide for additions, deletions and revisions in the Work or to modify the terms and conditions thereof as outlined in this section, Item G – “Changes in the Work”, and pursuant to the Contract.

**D. PHYSICAL CONDITONS**

The Town shall furnish, as indicated in the Contract Documents, the lands upon which the Work is to be performed, including all applicable rights-of-way and easements. Contractor shall have full responsibility with respect to physical conditions in or relating to existing surface and subsurface structures. By submitting its Bid, Contractor represents that it has visited the Site and/or otherwise become generally familiar with such conditions, including any local conditions affecting the Work, and has accounted for same within its Bid.

Contractor shall, promptly after becoming aware and before performing any Work, notify the Town of any differing site conditions or conflicts at the site. The Town will review the pertinent conditions with respect to any deletions or revisions in the Work and any potential modifications to the terms and conditions as outlined in Section 2, Item G – “Changes in the Work”.

Contractor shall have full responsibility for reviewing and checking all information and data, for locating all Underground Facilities, for coordination of the Work with the owners of such Underground Facilities during construction, for the safety and protection thereof as provided in chapter 556, Florida Statutes, and repairing any damage thereto resulting from the Work, the cost of all of which will be considered as having been included in the Contract Price.

**E. INSURANCE AND BONDS**

Throughout the term of the Contract and for all applicable statutes of limitation periods, Contractor shall maintain in full force and effect all of the insurance coverages as set forth in the terms of this IFB. Also, the Contractor shall provide separate Payment and Performance Bonds for the Project that in all respects comply with (a) the requirements and forms set forth in Florida Statutes, Section 255.05 and (b) the terms of this IFB regarding the amount, duration and recording requirements.

**F. CONTRACTOR’S RESPONSIBILITIES**

Contractor shall supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, procedures, and safety precautions necessary for construction. Contractor shall also be responsible to see that the finished Work strictly complies with the Contract Documents.

Contractor shall keep on the Project site at all times during the progress of the Work a competent resident superintendent and shall supply competent, suitably qualified personnel to perform construction as required by the Contract Documents. For purposes of communicating the Town’s needs, the resident superintendent must be able to read, write, and speak English. The President/Chief Operating Officer of the contracting firm must be available to attend meetings with the Town and/or its designee within 24 hours of notification.

The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work and shall comply with all OSHA safety requirements while performing the Work. As a minimum, all personnel performing the work subject to this IFB and any

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Contract awarded will be required to wear safety equipment and clothing appropriate for the work, which may, for example, include Level 2 International Safety Equipment Association (ISEA) approved vests. Any personnel improperly prepared shall be dismissed until proper equipment is secured.

All debris removed from the Town must be legally disposed of according to the Town's Code of Ordinances and in accordance with Local, State and Federal Regulations. Contractor hereby agrees to and shall indemnify, defend and hold harmless the Town, its officers and employees, from liabilities, damages, losses, costs, and expenses, including, but not limited to, reasonable attorney's fees (at both the trial and appellate levels), to the extent caused by Contractor's improper disposal or site cleanup or failure to comply with any applicable environmental laws.

If the Bidder intends to use sub-contractors to perform any work pursuant to this IFB, these sub-contractors are subject to prior approval by Town. Contractor shall be fully responsible to Town for all acts and omissions of any sub-contractors, suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with Contractor just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents shall create any contractual relationship between Town and any such sub-contractor, supplier or other person or organization, nor shall it create any obligation on the part of the Town to pay or see to payment of any monies due any such sub-contractor, supplier or other person or organization.

All Work shall be done according to local laws and ordinances and shall be performed during regular working hours. During the progress of the Work, Contractor shall keep the Project site and premises free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work, Contractor shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, construction equipment and machinery, and surplus materials and shall leave the site clean and ready for use by the Town. Contractor shall restore to original condition all property not designated for alteration by the Contract Documents.

Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to other property at the Project site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and other items not designated for removal, relocation, replacement or improvement in the course of construction.

As set forth in the terms of this IFB, Contractor shall pay all sales, consumer, use and other similar taxes and should not include taxes in Bid prices. The Town is exempt from Florida sales tax on direct purchases of tangible property or services. Also, it is the responsibility of the Contractor to procure all necessary permits and licenses the cost of which shall be deemed included in the Bid price.

**G. CHANGES IN THE WORK**

Without invalidating the Contract and without notice to any surety, the Town may, at any time or from time to time, order additions, deletions or revisions in the Work; these will be authorized by a written Change Order or written Construction Change Directive. Upon receipt of a Change Order or written Construction Change Directive, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

**Change Orders and Construction Change Directives**

The Town and Contractor shall execute appropriate Change Orders or Construction Change Directives covering changes in the Work which are ordered by the Town which may include: **1)** additions, deletions or revisions to the scope of services; **2)** acceptance of defective Work under this section, Item I – "Warranty

and Guarantee, Correction, Removal or Acceptance of Defective Work”; or 3) correcting defective Work under this section, Item I – “Warranty and Guarantee, Correction, Removal or Acceptance of Defective Work”.

**Surety**

If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be Contractor’s responsibility, and the amount of each applicable Bond may be adjusted accordingly.

**H. CHANGE IN THE CONTRACT PRICE OR CONTRACT TIME**

The Bid price constitutes the total compensation (subject to authorized adjustments) payable to the Contractor for the complete and timely performance of the Work. All duties, responsibilities and obligations assigned to or undertaken by Contractor shall be at his expense without change in the Contract Price or Contract Time.

Quantities shown in the Bid and Proposal Form are approximate only and are subject to either increase or decrease. The quantities indicated are estimated based on the scope of the project. Unless authorized by the Town by Change Order or Construction Change Directive, variation in the estimated quantities shall not be a basis for the Contractor to seek payment beyond the price stipulated in the Bid and Proposal Form and Contract.

**Change Order**

The Contract may only be changed by a Change Order approved by the Town. Any increase or decrease in the Contract Price or adjustment in the Contract Time shall be based on written notice by the Contractor delivered promptly to the Town (but in no event later than seven (7) days) after the acknowledgement or occurrence of the event giving rise to the claim and stating the general nature of the claim. Within fourteen (14) days thereafter, notice of the amount of the claim with all supporting data shall cover all amounts (direct, indirect and consequential) to which the claimant is entitled as a result of the occurrence of said event. All claims for adjustment in the Contract Price or Contract Time shall be determined by the Town. Contractor acknowledges and agrees that no claim for an adjustment in the Contract Price or Contract Time will be valid or enforceable if not submitted in strict accordance with this paragraph.

The value of any Work covered by a Change Order or of any claim for an increase or decrease in the Contract Price or Contract Time shall be determined by: 1) mutual acceptance of a lump sum (which may include an allowance for overhead and profit) or 2) by application of unit prices contained in the Contract Documents to the quantities of the items involved. The Town shall decide, in its sole discretion, whether to issue and agree to a Change Order, and verbal representations or instructions may not be relied upon by the Contractor.

**Unit Prices**

Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the established unit prices for each separately identified item times the estimated quantity of each item. The estimated quantities of items are not guaranteed.

Each unit price will be determined to include an amount considered by Contractor to be adequate to cover Contractor’s overhead and profit for each separately identified item.

**I. WARRANTY AND GUARANTEE; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK**

In addition to any manufacturer’s warranties, Contractor warrants and guarantees to the Town that all work will be in strict accordance with the Contract Documents and will not be defective. All defective Work, whether or not in place, may be rejected, corrected or accepted as provided below.

**Owner May Stop the Work**

If the Work is defective or Contractor fails to supply sufficiently skilled workers or suitable materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will strictly conform to the Contract Documents, Town may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated. However, this right of Town to stop the Work shall not give rise to any duty on the part of Town to exercise this right for the benefit of Contractor or any other party.

**Correction or Removal of Defective Work**

If required by Town, Contractor shall promptly, as directed and at its sole expense, either correct all defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by Town, remove it from the site and replace it with non-defective Work. Contractor shall bear all direct, indirect and consequential costs of such correction or removal (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) made necessary thereby.

**One Year Correction Period**

In the event any work is found to be defective within one year after the date of Final Completion, Contractor shall promptly, without cost to Town and in accordance with Town’s written instructions, either correct such defective Work, or, if it has been rejected by Town, remove it from the site and replace it with non-defective Work. If Contractor does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, Town may have the defective Work corrected or the rejected Work removed and replaced, and all direct, indirect and consequential costs of such removal and replacement (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) will be promptly paid by Contractor. Nothing in this IFB or the Contract shall be construed as a limitation on any right or remedy for breach of the Contract or defects in the Work. All rights set forth herein and in the Contract shall be deemed cumulative and in addition to any rights or remedies which may be afforded by Florida law.

**Acceptance of Defective Work**

If, instead of requiring correction or removal and replacement of defective Work, the Town prefers to accept it, the Town may do so. Contractor shall bear all direct, indirect and consequential costs attributable to Town’s evaluation of and determination to accept such defective Work (such costs to include but not be limited to fees and charges of engineers, architects, attorneys and other professionals).

If any such acceptance occurs prior to final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Town shall be entitled to an appropriate decrease in Contract Price, and, if the parties are unable to agree as to the amount thereof, Town may make a claim therefore as provided in this section, Item H – “Change in the Contract Price or Contract Time”. If the acceptance occurs after final payment, an appropriate amount and consistent with the above will be paid by Contractor to Town promptly upon requests.

**Town may Correct Defective Work; Chapter 558, F.S. Not Applicable.**

If Contractor fails within a reasonable time, as determined by the Town, after written notice by the Town, to proceed to correct defective Work or to remove and replace rejected Work as required by Town, or if Contractor fails to perform the Work in strict accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Town may, after seven (7) day's written notice to Contractor, correct and remedy any such deficiency. In exercising the rights and remedies under this paragraph Town shall proceed expeditiously. To the extent necessary to complete corrective and remedial action, Town may exclude Contractor from all or part of the site, take possession of all or part of the Work, suspend Contractor's services related thereto, and take possession of Contractor's tools, appliances, construction equipment, and machinery at the site and incorporate in the Work all materials and equipment stored at the site. Contractor shall allow Town and its representatives, agents and employees such access to the site and Contractor's tools, appliances, construction equipment and machinery as may be necessary to enable Town to exercise the rights and remedies under this paragraph. All direct, indirect and consequential costs of Town in exercising such rights and remedies will be charged against Contractor in a Change Order that incorporates the necessary revisions in the Contract Documents with respect to the Work; and Town shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the decrease or amount due the Town, Town may make claim therefor as provided in this section, Item H – "Change in the Contract Price or Contract Time" against Contractor and its surety without prejudice to any other right or remedies available to Town and regardless of whether or not the Contract is terminated. Such direct, indirect and consequential costs will include but not be limited to fees and charges of engineers, architects, attorneys and other professionals, including paralegals, all court and arbitration costs and all costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of Contractor's defective Work. Notwithstanding the requirements of any bond to the contrary, Contractor and its surety remain liable for all costs and charges in accordance with this paragraph regardless of whether Contractor is terminated.

**Chapter 558, F.S. Does Not Apply:** The Contractor and the Town understand and agree that chapter 558, Florida Statutes (Construction Defects), shall not apply to the Contract or claims, if any, by the Town arising out of or relating to this IFB or the Contract. The Contractor and the Town further hereby agree to "opt out" of the procedures set forth at chapter 558, Florida Statutes.

**J. PAYMENT**

The payment to Contractor is for all materials, labor, services, equipment and all else necessary or reasonably inferable to construct and fully complete the Work. The Work includes all accessories, appurtenances or other work required for completion of the Contract.

Contractor shall render all Work to the Town at the quoted prices stipulated in the Bid and Proposal Form and Town shall pay Contractor for the satisfactory and timely completion of the Work in strict accordance with the Contract Documents at said prices stipulated in Bid Proposal Form.

In no event shall Town be liable for any cost increases or price escalations associated with labor, services, materials, equipment, or any other charges that may arise during the performance of the Work, regardless of any delays in the Work, whether occasioned by Town or Contractor, or both. In the event the cost of the Work exceeds the amounts set forth and included in the Contract Price, Contractor shall pay such excess from its own funds and Town shall not be required to pay any part of such excess. The only exception shall be any adjustments to the Contract Price pursuant to any written Change Order duly executed by Town and

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Contractor in accordance with the terms and conditions of this IFB and the Contract, and with the same formality and of equal dignity associated with the original execution of the Contract.

Town and Contractor agree that payment under the Contract will be subject to (a) the delivery of an appropriate invoice or payment application by Contractor to Town, and (b) verification by Town that the Work is acceptable and has been performed in strict accordance with the Contract. Upon verification by Town that the invoiced Work has been satisfactorily performed in strict accordance with the Contract, Town shall have thirty (30) days thereafter to pay said invoice, or such undisputed portion as Town shall determine in its sole discretion.

The Town shall pay the Contract Price to the Contractor in accordance with the procedures set forth in chapter 218.70, Florida Statutes, "Local Government Prompt Payment Act." Progress payments may be submitted by Contractor to the Town for partial completion of the Work, but no more than once monthly, for the period ending at end of the month. Each payment request must be accompanied by all necessary supporting information and documentation. Subject to the provisions of section 218.735, Florida Statutes, each progress payment shall be reduced by ten (10) percent for retainage. The final retainage will be released after Final Completion of the Project, and after Town's receipt of acceptable reports and other Project-close out documentation required by the Contract Documents, including but not limited to certification of Contractor's payment to all lower-tiered subcontractors and suppliers providing labor, materials or services on the Project, but no earlier than 30 days of the Contractor's last progress payment request.

The Contractor's final payment request must be accompanied by written notice from Contractor that the entire Work has been completed in strict accordance with the Contract Documents. The Town will make a final inspection and notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective; provided however, that nothing herein shall waive or release claims for latent defects or the Contractor's obligations to correct defective work set forth hereinabove. Contractor shall immediately take such measures as are necessary to remedy such deficiencies. Contractor's obligation to perform and complete the Work in strict accordance with the Contract Documents shall be absolute. The Town may refuse payment if (a) the Work is defective or completed Work has been damaged requiring correction or replacement, (b) the Town has been required to correct defective Work or complete Work in accordance with Section I above, or (c) because claims have been made against the Town on account of Contractor's performance or furnishing of the Work or liens or claims have been filed in connection with the Work or there are other items entitling the Town to set-off against the amount due. No payment will be made for Work performed by the Contractor to replace defective work and for work which is not shown or ordered, and which is outside the limits shown or ordered, or additional work performed by Contractor without prior written approval of Town. Nothing herein shall be construed as authorizing or consenting to waive sovereign immunity or permitting liens to be asserted against the Town's property; provided however, that Contractor shall nonetheless be required to furnish partial and final releases of liens and other evidence as may be deemed acceptable by the Town to confirm that all lower-tiered subcontractors and suppliers on the Project have been paid.

**K. SUSPENSION OF WORK AND TERMINATION**

The Town may, at any time and without cause, suspend Work or any portion thereof for a period of not more than ninety (90) days by notice in writing to Contractor. Contractor shall resume work on a date so determined by the Town. Contractor shall not be allowed an increase in the Contract Price for any such suspension lasting not more than ninety (90) days. If, through no fault of Contractor, the Work is suspended for a period of more than ninety (90) days, then Contractor may, upon seven (7) days' written notice to the

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Town, terminate the Contract and recover from the Town payment for all Work properly executed up to the date of the notice to the Town including reasonable overhead and profit thereon except as otherwise limited by this IFB or the Contract; provided however, that in no event shall Town be liable for consequential damages, including but not limited to, lost profits on Work not yet performed. The Town may terminate all Work if Contractor violates in any substantial way any provisions of the Contract Documents. In such case, the Town may, after giving Contractor written notice pursuant to the Contract, terminate the services of the Contractor, exclude Contractor from the site, take possession of the Work including Contractor's tools, appliances, construction equipment and machinery, and finish the Work as the Town may deem expedient under the circumstances. In such case, Contractor shall not be entitled to receive any further payment until the Work is finished. If such costs of completing the Work (including correction of defective Work) exceed such unpaid balance, Contractor shall promptly pay the difference to the Town. When exercising any rights or remedies under this paragraph the Town shall not be required to obtain the lowest price for the Work performed, nor obtain competitive bids for the Work except as may otherwise be required by Florida law.

Where Contractor's services have been terminated by the Town, the termination will not affect any rights or remedies of the Town against Contractor or any surety then existing or which may thereafter accrue. Any payment of monies due Contractor by the Town will not release the Contractor from liability for defective Work or otherwise and such payment shall not be evidence of acceptance of any defective Work.

Upon written notice to Contractor, the Town may, without cause and without prejudice to any other right or remedy, elect to abandon the Work and terminate the Contract for the convenience of Town. In such case, Contractor shall be paid for all Work executed and any direct and reasonable expense sustained up to the date of receipt of the written notice. In no event shall Town be liable for consequential damages, including but not limited to, lost profits on Work not yet performed.

**L. EQUIPMENT**

All equipment shall be maintained in an efficient and safe operating condition while performing Work under the Contract. Equipment shall have all proper safety devices required by law, properly maintained and in use at all times. If equipment does not contain proper safety devices and/or is being operated in an unsafe manner, the Town may direct the Contractor to remove such equipment and/or the operator until the deficiency is corrected; provided however, that nothing in this paragraph shall create a duty by the Town to Contractor or anyone else to exercise this right. The Contractor shall be solely responsible and liable for injury to persons, and/or property damage caused by performance of the Work and operation of the equipment.

**M. EQUIPMENT STORAGE AND MOBILIZATION**

The Contractor must be fully capable of servicing the Town's needs and providing all of the materials and equipment to fulfill the requirements of the Contract Documents, and shall be responsible for the storage of all materials and equipment at Contractor's sole expense. Storage shall not be permitted at any of the sites specified herein or at/on any other Town properties.

**N. HOURS OF OPERATION**

The Contractor shall perform work Monday through Friday, except Holidays, between 7:00 a.m. and 5:00 p.m.

**O. CONTRACTOR'S PERFORMANCE**

The Contractor shall commence the performance of the Work identified in the Notice to Proceed or other written authorization on the effective date of the Notice to Proceed and shall diligently and continuously prosecute its performance to and until Substantial Completion and Final Completion of the Work. The Contractor shall accomplish Substantial Completion and Final Completion of each assigned task within the allotted calendar days indicated in the Notice to Proceed.

**[End of Section]**

**TENTATIVE SCHEDULE OF EVENTS**

The **tentative schedule** of events relative to this procurement shall be as follows. Town reserves the right to modify the tentative dates.

<b><u>Event</u></b>	<b><u>Date</u></b>
1. Issuance of Invitation for Bids	Monday, August 14, 2017
2. Non Mandatory Pre-Bid Meeting	Monday, August 28, 2017 @ 11:00 a.m.
3. Deadline for Request for Clarification	Thursday, September 7, 2017 @ 12:00 noon
4. Bids Due / Opening of Bids	Thursday, September 14, 2017 @ 11:00 a.m.
5. Completion of Bid Evaluations	TBD
6. Award of Contract (Town Council Action)	TBD
7. Pre-Construction Meeting	TBD
8. Issue Notice to Proceed (NTP)	TBD
9. Substantial Completion of Project	45 Calendar Days after NTP
10. Final Completion of Project	60 Calendar Days after NTP

**[Remainder of page intentionally left blank]**

TOWN OF SOUTHWEST RANCHES, FLORIDA  
 STIRLING ROAD GUARDRAILS INSTALLATION PROJECT  
 IFB No. 17-006

**BID SCHEDULE**

1. BIDDER AGREES TO PERFORM ALL THE WORK DESCRIBED IN THIS BID SCHEDULE TO PROVIDE A COMPLETE PROJECT FOR THE FOLLOWING LUMP SUM AND/OR UNIT PRICES.
2. THE TOWN RESERVES THE RIGHT TO SUBSTITUTE AND/OR DELETE ITEMS AS NECESSARY TO MEET FUNDING BUDGET. FULL ITEM QUANTITIES SHOULD BE BID, HOWEVER, THERE IS NO GUARANTEE THAT THE FULL QUANTITY WILL BE CONSTRUCTED.
3. BIDS SHALL INCLUDE SALES TAX AND ALL OTHER APPLICABLE TAXES, FEES AND PERMITS.
4. EXTENDED TOTALS FOR EACH ITEM IS THE RESULT OF MULTIPLYING THE QUANTITY BY THE STATED UNIT COST IN THE BID. ANY DISCREPANCY BETWEEN THE UNIT AND THE TOTAL, THE UNIT COST PREVAILS.

**GENERAL LUMP SUM (LS) ITEMS 1-6**

THE LUMP SUM (LS) COST FOR ITEMS 1-6 SHALL BE PERFORMED IN ACCORDANCE WITH THE CONTRACT AND GOVERNING STANDARDS .

ITEM NO	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
1	<b>Mobilization and Demobilization</b> Includes mobilization and demobilization, bonds, and general conditions. This lump sum amount shall include preparatory and closing work and operations in mobilizing for beginning and completing work at the end of the project; including, but not limited to those operations necessary for the movement of personnel, equipment, materials, supplies and incidentals to and from the project location. Include any state and local laws and regulations; the costs of providing and maintaining current all bonds, insurance and any other expenses necessary for the start and completion of the work, excluding the cost of construction materials, are to be included in this bid item.	1	LS	_____	_____
2	<b>Maintenance of Traffic (FDOT Index 600 Series)</b> Maintenance of Traffic (M.O.T.) in accordance with the Florida Department of Transportation (FDOT) Standard Specifications for Road & Bridge Construction Latest edition and the Roadway & Traffic Design Standards Index 600 Series, latest editions. The contractor's proposed maintenance of traffic plan is to be submitted to and approved by the Engineer and any other jurisdictional agencies (City, FDOT, County Road & Bridges etc.).	1	LS	_____	_____
3	<b>Survey Stakeout and As-Builts</b> Includes construction survey, stake out, and preparation of As- Built record drawings signed and sealed by a Florida Licensed Surveyor. All survey is to be done in conformance with the drawings, specifications, permit and agency requirements.	1	LS	_____	_____
4	<b>Density Testing</b> Provide density tests as required to achieve design specifications in plans, governing standards and to meet the requirements of specifications contained herein. Include densities for canal bank restoration areas.	1	LS	_____	_____
5	<b>Pre-Construction Video and Photography</b> Record pre-construction video and photography to capture existing conditions of all areas of work and provide a copy to the Engineer prior to beginning work.	1	LS	_____	_____
6	<b>Erosion Control / SWPPP</b> Furnish and install all erosion and turbidity control devices, including perimeter silt fence and any other BMP's necessary to prevent sediment from washing into surrounding areas during rainfall events. Obtain and maintain NPDES permit	1	LS	_____	_____

**SUB-TOTAL BID AMOUNT (ITEMS 1-6)      \$ \_\_\_\_\_**

**BIDDER: \_\_\_\_\_**

**TOWN OF SOUTHWEST RANCHES, FLORIDA  
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**GUARDRAIL INSTALLATION - ITEMS 7-15**

THE PRICE FOR EACH WORK ITEM SHALL INCLUDE BUT NOT BE LIMITED TO ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO INSTALL AND CONSTRUCT THESE ITEMS IN ACCORDANCE WITH THE APPLICABLE FDOT INDEX AND THE CONTRACT DOCUMENTS.

ITEM NO	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
7	<b>Install Guardrail</b>  Install Guardrail in accordance with FDOT Design Standard Index 400 & Standard Specification Section 536. The cost for this item includes all equipment, site preparation, end sections, steel posts, blocks, asphalt repair, canal bank restoration, cleanup etc. to install guardrail in accordance with contract documents and governing specifications. Guardrail to be installed using techniques that will minimize disturbance to canal bank and will match existing site features such as retaining walls, decorative walls & fencing etc. at termination. The cost will include replacement of damaged edge line striping to match existing striping.	3,300.0	LF	_____	_____
8	<b>End Anchorage Assembly</b>  Install end treatments in accordance with FDOT Design Standard Index 400 and Standard Specification Section 536 and related sections. The cost of this item includes all required material, preparation and restoration.	16.0	EA	_____	_____
9	<b>Remove and Relocate Existing End Anchorage Assembly</b>  Remove and relocate existing end treatments in accordance with FDOT Design Standard Index 400 and Standard Specification Section 536 and related sections. The cost of this item includes all required material, preparation and restoration.	3.0	EA	_____	_____
10	<b>Special Guardrail Post</b>  This item includes the cost of special guardrail posts or extended length posts that would be necessary to meet minimum embedment depth in areas of steep canal bank slope.	318.0	EA	_____	_____
11	<b>Canal Bank Restoration</b>  This item includes the cost of canal bank restoration as shown on plan and in accordance with governing specifications. This item does not include restoration due to means and methods of construction	80.0	SY	_____	_____
12	<b>Remove existing Headwall, Extend 30" RCP Culvert, Construct Sand Cement Endwall with Reinforced Concrete Cap</b>  This item includes all cost associated with the removal of the existing endwall, extending the existing 30" RCP culvert and construction of a new sand cement endwall with concrete cap per CBWCD Detail.	1.0	EA	_____	_____
13	<b>Remove &amp; Reinstall Mailbox</b>  This item includes the removal and reinstallation of mailboxes when necessary to facilitate guardrail installation and to avoid conflicts. Mailboxes shall be reinstalled and located to allow access for owner and mail delivery. Cost includes replacement of units damaged during construction.	0.0	EA	_____	_____
14	<b>Remove &amp; Reinstall Sign</b>  This item includes the removal and reinstallation of signs when necessary to facilitate guardrail installation and to avoid conflicts. Relocated signs shall be in accordance with MUTCD and FDOT standards and specifications. Cost includes replacement of signs damaged during construction.	13.0	EA	_____	_____
15	<b>Furnish &amp; Install Bahia Sod Replacement</b>  Install sod around posts and disturbed canal bank to match existing sodding. Work shall be in accordance FDOT Specification 570.	375.0	SY	_____	_____

**SUB-TOTAL BID AMOUNT (ITEMS 7-15) \$ \_\_\_\_\_**

**BID TOTAL (ITEMS 1-15) \$ \_\_\_\_\_**

TOWN OF SOUTHWEST RANCHES, FLORIDA  
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The quantities indicated in the Bid and Proposal Forms are estimates of the work. The Town does not guarantee the quantities shown on the bid form. Bidder/Proposer shall refer to the Contract Documents, exhibits and specifications for additional information.

The Substantial Completion of the Project shall occur no later than **forty-five (45) calendar days** from date of issuance of the Notice to Proceed, and Final Completion shall occur no later than **sixty (60) calendar days** from date of issuance of the Notice to Proceed.

The undersigned, as Bidder, hereby declares that the only person or persons interested in the bid as Principal or Principals is/are named herein and that no other person than herein mentioned has any interest in this Bid or in the Contract to be entered into; that this Bid is made without connection with any other person, company or parties making a bid or proposal; and that it is in all respects fair and in good faith without collusion or fraud.

The Bidder shall furnish prices for all Bid items. Failure to do so may render the Bid invalid and cause its rejection. Also, evidence that the Bidder holds appropriate licenses to perform the Work which is the subject of this Bid, and as required by Florida Statutes and Local law, must be submitted along with the Bid. Bidders must also have the insurances and any applicable bonding capacity sufficient to satisfy the requirements of this solicitation, as set forth herein.

All applicable federal, state and local taxes, permit fees, insurance, and performance and payment bonds are included in the Bid price. In the event of any discrepancy in the line item amounts, the calculated total shall control.

Both the Bidder and the licensee shall fill in the information on next page, pursuant to chapter 489, Florida Statutes. Licensee is defined as the person who is the licensed Contractor who qualifies the Bidding Company, Corporation or Partnership. If the Bidder is an individual, he must be licensed. (Please print or type, excluding signatures).

**[Remainder of page intentionally left blank]**

TOWN OF SOUTHWEST RANCHES, FLORIDA  
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NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

FEIN: \_\_\_\_\_

LICENSE NUMBER: \_\_\_\_\_ STATE OR COUNTY: \_\_\_\_\_

LICENSE TYPE: \_\_\_\_\_

(Attach copy of license)

LICENSE LIMITATIONS, IF ANY: \_\_\_\_\_

(Attach a separate sheet, if necessary)

LICENSEE SIGNATURE: \_\_\_\_\_

LICENSEE NAME: \_\_\_\_\_

BIDDER'S SIGNATURE: \_\_\_\_\_

BIDDER'S NAME: \_\_\_\_\_

BIDDER'S ADDRESS: \_\_\_\_\_

BIDDER'S PHONE NUMBER: Office: \_\_\_\_\_ Cell: \_\_\_\_\_

BIDDER'S EMAIL ADDRESS: \_\_\_\_\_

By: \_\_\_\_\_

\_\_\_\_\_  
Name of Corporation/Entity

\_\_\_\_\_  
Address of Corporation/Entity

\_\_\_\_\_  
Signature of President or Authorized Principal

By: \_\_\_\_\_

Title: \_\_\_\_\_ (If the Bidder is a Corporation, affix corporate seal)

**DRUG FREE WORKPLACE**

Bidders must certify that they will provide a drug-free workplace. In order to have a drug-free workplace program, a business shall:

- 1) Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
- 2) Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
- 3) Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
- 4) In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction or plea.
- 5) Impose a sanction on (or require the satisfactory participation in a drug abuse assistance or rehabilitation program, if such is available in the employee's community), any employee who is so convicted or takes a plea.
- 6) Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.

**BIDDER'S SIGNATURE:** \_\_\_\_\_

**BIDDER:** \_\_\_\_\_

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**SWORN STATEMENT PURSUANT TO SECTION 287.133(3) (a)  
FLORIDA STATUTES ON PUBLIC ENTITY CRIMES**

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement is submitted to \_\_\_\_\_  
by \_\_\_\_\_  
for \_\_\_\_\_  
whose business address is \_\_\_\_\_

\_\_\_\_\_ and (if applicable) its Federal Employer Identification Number (FEIN) is \_\_\_\_\_

- 2. I understand that a "public entity crime" as defined in Paragraph 287.133(1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any bid, proposal, reply or contract for goods or services, any lease for real property, or any contract for the construction or repair of a public building or public work, involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.
- 3. I understand that "convicted" or "conviction" as defined in Para. 287.133(1) (b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, non-jury trial, or entry of a plea of guilty or nolo contendere.
- 4. I understand that an "affiliate" as defined in Para. 287.133(1) (a), Florida Statutes, means:
  - (i). A predecessor or successor of a person convicted of a public entity crime; or
  - (ii). An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.
- 5. I understand that a "person" as defined in Para. 287.133(1) (e), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person"

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includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

6. The statement which I have marked below is true in relation to the entity submitting this sworn statement. (Indicate which statement applies.)

\_\_\_\_\_ Neither the entity submitting this sworn statement, nor any of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, nor any affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

\_\_\_\_\_ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

However, there has been a subsequent proceeding before a Hearing Officer of the State of Florida, Division of Administrative Hearings and the Final Order entered by the Hearing Officer of the State of Florida, Division of Administrative Hearings and the Final Order entered by the Hearing Officer determined that it was not in the public interest to place the entity submitting this sworn statement on the convicted vendor list. (Attach a copy of the final order)

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH 1 (ONE) ABOVE IS FOR THAT PUBLIC ENTITY ONLY AND, THAT THIS FORM IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT I AM REQUIRED TO INFORM THE PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 287.017, FLORIDA STATUTES, FOR CATEGORY TWO, OF ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

BIDDER: \_\_\_\_\_

**[Signatures on next page]**

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By: \_\_\_\_\_

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Title)

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_

Personally known \_\_\_\_\_

Or Produced Identification \_\_\_\_\_  
(Type of Identification)

Notary Public - State of \_\_\_\_\_

\_\_\_\_\_  
Notary Signature

My Commission Expires \_\_\_\_\_

(Printed, typed, or stamped commissioned name of notary public)

BIDDER: \_\_\_\_\_



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---

By: \_\_\_\_\_

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Title)

Sworn to and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_,

Personally known \_\_\_\_\_

Or Produced Identification \_\_\_\_\_  
(Type of Identification)

Notary Public - State of \_\_\_\_\_

\_\_\_\_\_  
(Notary Signature)

My Commission Expires: \_\_\_\_\_

(Printed, typed, or stamped commissioned name of notary public)

BIDDER: \_\_\_\_\_











TOWN OF SOUTHWEST RANCHES, FLORIDA  
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By: \_\_\_\_\_

Title: \_\_\_\_\_

IN PRESENCE OF: \_\_\_\_\_  
(Individual or Partnership Principal)

(SEAL)

\_\_\_\_\_  
(Business Address)

\_\_\_\_\_  
(City/State/Zip)

\_\_\_\_\_  
(Business Phone)

SURETY: \_\_\_\_\_

By: \_\_\_\_\_

(SEAL) \_\_\_\_\_  
(Business Address)

\_\_\_\_\_  
(City/State/Zip)

\_\_\_\_\_  
(Business Phone)

**IMPORTANT**

Surety companies executing bonds must appear on the Treasury Department's most current list (circular 570 as amended) and be authorized to transact business in the State of Florida.

Countersigned by Florida Agent: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

TOWN OF SOUTHWEST RANCHES, FLORIDA  
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**GOVERNMENTAL CONTACT INFORMATION**

Please list **NAME OF AGENCY, ADDRESS, PHONE NUMBER, AND CONTACT PERSON** of any other Governmental Agencies or Quasi-governmental agencies for which you have conducted business on similar project within the past five years.

<b>NAME OF AGENCY</b>	<b>ADDRESS</b>	<b>PHONE NUMBER</b>	<b>CONTACT PERSON</b>

BIDDER: \_\_\_\_\_

**ACKNOWLEDGMENT OF CONFORMANCE  
WITH O.S.H.A. STANDARDS**

TO THE TOWN OF SOUTHWEST RANCHES:

\_\_\_\_\_, hereby acknowledges and agrees that as Contractor for the Town of Southwest Ranches within the limits of the Town of Southwest Ranches, Florida, we have the sole responsibility for compliance with all requirements of the Federal Occupational Safety and Health regulations, and agree to indemnify and hold harmless the Town of Southwest Ranches, including its Council Members, officers and employees, from and against any and all legal liability or loss the Town may incur due to \_\_\_\_\_'s failure to comply with such regulations.

\_\_\_\_\_  
ATTEST

\_\_\_\_\_  
CONTRACTOR

BY: \_\_\_\_\_

\_\_\_\_\_  
Print Name

Date: \_\_\_\_\_

BIDDER: \_\_\_\_\_

TOWN OF SOUTHWEST RANCHES, FLORIDA  
STIRLING ROAD GUARDRAILS INSTALLATION PROJECT  
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**BIDDER CONFIRMATION OF QUALIFICATIONS**

The Contract will be awarded only to a responsible and eligible Bidder, qualified by experience and capable of providing required insurance, and bonds and in a financial position to do the Work specified within the Invitation for Bids, and which can complete the Work within the time schedule specified.

At the time of the Bid, the Bidder shall hold all Contractor and other qualification certificates and licenses required to be held by the Contractor by Florida Statutes or ordinances of the Town of Southwest Ranches and Broward County in order to perform the Work which is the subject of this Invitation for Bids.

All license, certificate and experience requirements must be met by the Bidder (as opposed to the Subcontractor) at the time of Bid submission. Bids submitted by Bidders who do not directly hold required licenses and certificates or who rely on a Subcontractor to meet the license, certificate or experience criteria will be rejected. By executing this Form and submitting its Bid, Bidder represents that it meets the requirements set forth above, and as set forth in the Bid Documents, and acknowledges and understands that such representation is material and that the Town shall be relying on this representation with respect to a Contract award.

Bidder: \_\_\_\_\_

Bidder's Name: \_\_\_\_\_

Bidder's Address: \_\_\_\_\_  
\_\_\_\_\_

Bidder's Phone Number: \_\_\_\_\_

Bidder's Email: \_\_\_\_\_

Contractor's License and License number(s) (attach copies of license(s) required for the work described in this IFB):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

BIDDER: \_\_\_\_\_

**[Signatures on next page]**

TOWN OF SOUTHWEST RANCHES, FLORIDA  
STIRLING ROAD GUARDRAILS INSTALLATION PROJECT  
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State of Florida

County of \_\_\_\_\_

The foregoing instrument was acknowledged before me this \_\_\_ day of \_\_\_\_\_, 20\_\_ by \_\_\_\_\_ of \_\_\_\_\_ (Bidder), who is personally known to me or who has produced \_\_\_\_\_ as identification and who did (did not) take an oath.

WITNESS my hand and official seal.

NOTARY Public Records of \_\_\_\_\_ County, Florida

\_\_\_\_\_  
Notary Signature

Name of Notary Public: (Print, Stamp, or type as Commissioned)

BIDDER: \_\_\_\_\_

TOWN OF SOUTHWEST RANCHES, FLORIDA  
STIRLING ROAD GUARDRAILS INSTALLATION PROJECT  
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**BIDDER EXPERIENCE QUESTIONNAIRE**

The Bidder's response to this questionnaire will be utilized as part of the Town's Bid Evaluation and Contractor selection. Bidders must have current licensures applicable to this type of work and must have experience on comparable work.

List comparable contract experience and client references:

Project Name: \_\_\_\_\_

Contract Amount: \_\_\_\_\_

Contract Date: \_\_\_\_\_

Client Name: \_\_\_\_\_

Address: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Contact Person Tel. No.: \_\_\_\_\_

Project Name: \_\_\_\_\_

Contract Amount: \_\_\_\_\_

Contract Date: \_\_\_\_\_

Client Name: \_\_\_\_\_

Address: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Contact Person Tel. No.: \_\_\_\_\_

Project Name: \_\_\_\_\_

Contract Amount: \_\_\_\_\_

Contract Date: \_\_\_\_\_

Client Name: \_\_\_\_\_

Address: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Contact Person Tel. No.: \_\_\_\_\_

BIDDER: \_\_\_\_\_

TOWN OF SOUTHWEST RANCHES, FLORIDA  
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**SUB-CONTRACTOR LIST**

In the form below, the Bidder shall list all Subcontractors to be used on this project if the Bidder is awarded the Contract for this project. This list shall not be amended without the prior written consent of Town.

<b><u>CLASSIFICATION OF WORK</u></b>	<b><u>NAME</u></b>	<b><u>ADDRESS</u></b>

BIDDER: \_\_\_\_\_

**ACKNOWLEDGEMENT OF ADDENDA**

Bidder shall indicate receipt of any addendum by initialing below for each addendum received.

Addendum No.1 \_\_\_\_\_

Addendum No.2 \_\_\_\_\_

Addendum No.3 \_\_\_\_\_

Addendum No.4 \_\_\_\_\_

**[Remainder of page intentionally left blank]**

**BIDDER:** \_\_\_\_\_

**LIABILITY CLAIMS**

Please list the following information for **all** Liability Claims for the past ten (10) years:

1. Name and Location of project: \_\_\_\_\_  
\_\_\_\_\_
2. Contact information for Project Owner:
  - a. Name: \_\_\_\_\_
  - b. Address: \_\_\_\_\_
  - c. Phone: \_\_\_\_\_
  - d. Email: \_\_\_\_\_
3. Nature of Claim: \_\_\_\_\_  
\_\_\_\_\_
4. Date of Claim: \_\_\_\_\_
5. Resolution Date of Claim and how resolved: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
6. If applicable:
  - a. Court Case Number: \_\_\_\_\_
  - b. County: \_\_\_\_\_
  - c. State: \_\_\_\_\_

BIDDER: \_\_\_\_\_

**INSERT W – 9**

**1 page**

**STATEMENT OF NO RESPONSE**

Recipients of this solicitation may elect not to respond. The Town is interested in learning the reason(s) for non-response. If you elect **not** to respond with an offer to this solicitation, the Town requests that the reason(s) are indicated below and this form is returned to:

Mara Semper, Procurement and Budget Officer  
Town of Southwest Ranches  
13400 Griffin Road  
Southwest Ranches, FL 33330

or

Email: [msemper@southwestranches.org](mailto:msemper@southwestranches.org)

**REASONS**

1. \_\_\_\_\_ Do not offer this product/service or equivalent.
2. \_\_\_\_\_ Schedule would not permit.
3. \_\_\_\_\_ Insufficient time to respond to solicitation.
4. \_\_\_\_\_ Unable to meet specifications / scope of work.
5. \_\_\_\_\_ Specifications “too tight” (i.e. geared to specific brand or manufacturer).
6. \_\_\_\_\_ Specifications not clear.
7. \_\_\_\_\_ Unable to meet bond and / or insurance requirements.
8. \_\_\_\_\_ Solicitation addressed incorrectly, delayed in forwarding of mail.
9. \_\_\_\_\_ Other (Explanation provided below or by separate attachment).

Explanation: \_\_\_\_\_  
\_\_\_\_\_

The Town may delete the names of those persons or businesses who fail to respond to three (3) solicitations, who fail to return this Statement, or as requested.

Desire to receive future Town solicitations?     Yes     No

COMPANY: \_\_\_\_\_

NAME: \_\_\_\_\_ TITLE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

TELEPHONE: (\_\_\_\_\_) \_\_\_\_\_ DATE: \_\_\_\_\_



**EXHIBIT "A"**

**AGREEMENT**

**BETWEEN THE**

**TOWN OF SOUTHWEST RANCHES**

**AND**

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**FOR**

**STIRLING ROAD GUARDRAILS INSTALLATION PROJECT**

**IFB No. 17-006**

TOWN OF SOUTHWEST RANCHES, FLORIDA  
STIRLING ROAD GUARDRAILS INSTALLATION PROJECT  
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AGREEMENT FOR  
STIRLING ROAD GUARDRAILS INSTALLATION PROJECT

**THIS IS AN AGREEMENT (“Agreement” or “Contract”) made and entered into on this \_\_\_\_\_ day of \_\_\_\_\_ 201\_ by and between the Town of Southwest Ranches, a Municipal Corporation of the State of Florida, (hereinafter referred to as “Town”) and \_\_\_\_\_ (hereinafter referred to as “Contractor”).**

**WHEREAS**, the Town desires to \_\_\_\_\_ (“Project”); and

**WHEREAS**, the Town advertised an Invitation for Bids, IFB No. \_\_\_\_\_ on \_\_\_\_\_, 201\_ (“IFB”); and

**WHEREAS**, \_\_ bids were received by the Town on \_\_\_\_\_, 201\_; and

**WHEREAS**, the Town has adopted Resolution No. 201\_- \_\_\_\_\_ at a public meeting of the Town Council approving the recommended award and has selected \_\_\_\_\_ for award of the Project.

**NOW THEREFORE**, in consideration of the foregoing premises and the mutual terms and conditions herein, the Town and Contractor hereby agree as follows:

**Section 1: Scope of Services**

- 1.1 Upon execution of this Agreement, the Contractor agrees to perform the duties and responsibilities as defined herein and in the IFB to which this Agreement is EXHIBIT “A” and which is made a part hereof by this reference (hereinafter referred to as “Work”). This Agreement, as well as all Exhibits, the IFB, the Contractor’s Bid, including all forms attached thereto, and all addenda, specifications, drawings and plans, shall be hereinafter collectively referred to as the “Contract Documents” and incorporated herein by reference. To the extent of any conflict among the Contract Documents, the more stringent criteria relative to the Contractor’s performance of the Work shall govern over the less stringent criteria.
- 1.2 All Work rendered pursuant to this Agreement by Contractor shall be performed in accordance with the applicable standard of care for persons or entities performing similar work in Broward County, Florida. Contractor shall perform the Work in strict accordance with the requirements of this Agreement, all of the other Contract Documents, good construction practices for this type of Work performed in Broward County, Florida and all applicable codes, ordinances, rules, laws and regulations governing the Work, including, but not limited to, the Florida Building Code, along with Broward County Amendments to it.
- 1.3 By submitting its Bid and entering into this Agreement, Contractor represents that it has visited the location of the Work and informed itself of the conditions that exist at the site, including conditions of the facilities and difficulties attending the execution of the Work and such existing site conditions have been accounted for within the Contract Price (as defined below). Furthermore, all costs for the

proper disposal of excess material generated on site in the performance of the Work have likewise been included and accounted for within the Contract Price (as defined below).

- 1.4 Contractor, in addition to any manufacturer's warranty for materials or equipment, hereby warrants that its work will be free of defects and deficiencies for a period of one year(s) from the Final Completion Date (as defined below). If any defects or deficiencies arise within the warranty period, the Contractor shall correct the defect or deficiency at no cost to the Town. Nothing herein shall be construed as a waiver, limitation or release of any right or remedy that the Town may have for breach of this Agreement, which rights are cumulative and in no way limited by the warranty.

**Section 2: Term of this Agreement and Agreement Time**

- 2.1 Town and Contractor agree that Contractor shall perform all Work under this Agreement for

**STIRLING ROAD GUARDRAILS INSTALLATION PROJECT**

- 2.2 Town shall have the ability to terminate this Agreement as provided in "Section 18: Termination."
- 2.3 Contractor shall not be entitled to any claim for damages against Town on account of hindrance or delays from any cause whatsoever. If, however, Contractor is delayed in the prosecution of the Work occasioned by an act of God, or by act or omission on the part of the Town, or due to changes ordered in the Work by Town which expand the scope and costs of the Work, such act, hindrance, or delay shall only entitle Contractor to receive an extension of time as its sole and exclusive remedy for such hindrance or delays and Contractor waives any and all other claims against Town.
- 2.4 Time being of the essence, Town and Contractor agree that Contractor shall perform all Work under this Agreement and achieve substantial completion of the Work within **forty-five (45) calendar days of the date of the Notice to Proceed**, subject to appropriate extensions of time as provided in this Agreement ("Substantial Completion Date").
- 2.4.1 Substantial Completion of the Work at the Project shall be defined as the date upon which the last of all of the following events have occurred:
- (i) All necessary approvals have been issued with respect to the Work by the appropriate governmental authorities;
  - (ii) Restoration of all utilities to operation that have been affected during performance of the Work;
  - (iii) All Work has been completed; and
  - (iv) The Town's engineer/architect of record for the Project, Town of Southwest Ranches Drainage Improvements, has issued its written acceptance of the Work performed by Contractor and executed and delivered to the Town a Certificate of Substantial Completion.
- 2.4.2 Given that the parties agree that time is of the essence with respect to this Agreement and any breach of same shall go to the essence hereof, and Contractor, in agreeing to substantially complete the Work within the time herein mentioned, has taken into consideration and made allowances for all hindrances and delays incident to its Work.

**Liquidated Damages (“LD’s”)** – In the event Contractor does not achieve Substantial Completion of the Work as defined in Paragraph 2.4.1 above, in whole or in part due to its own fault, the parties hereto acknowledge that any delay beyond the scheduled Substantial Completion Date may cause grave injury and damage to the Town by virtue of locating, moving to and paying rent for temporary quarters, loss of use, extension of overhead costs, additional costs of design professionals and otherwise. Accordingly, the calculation of the actual damages to the Town would be uncertain and difficult if not impossible to determine. Consequently, if the Contractor has not achieved Substantial Completion of the Work within **forty-five (45) days after the issuance of the Notice to Proceed** and has not obtained written authorization for such delay, time being of the essence, then the parties hereto agree that as liquidated delay damages and not as a penalty, the Contractor shall pay to the Town an amount equal to **\$200.00** for each day or portion thereof, that the date of completion is later than the scheduled Substantial Completion Date set forth above. Contractor shall be entitled to an extension of time and relief from liquidated damages to the extent that additional out of scope work is authorized by the Town in accordance with a properly executed Change Order and such work causes a critical path delay in meeting the Substantial Completion Date set forth above. All such liquidated damage amounts, if any, shall be paid by Contractor to Town weekly, immediately upon each such failure of Contractor to comply with the scheduled Substantial Completion Date, as set forth above. In the event that the Contractor fails to make any one or more of the payments to Town as required under this Paragraph, the Town shall have the right to deduct any and all such amounts from any amounts due or to become due to Contractor. This Section 2.4.2 shall survive termination of this Agreement pursuant to Sections 18C or 18E herein, or other termination for cause.

Contractor shall achieve final completion of the Work within **fifteen (15) days after the date of Substantial Completion or no later than sixty (60) days from the issuance of the Notice to Proceed** (“Final Completion Date”). Final Completion Date is defined as the date when all punch list items have been completed as evidenced by the issuance of a written Certification of Final Completion by the Town’s design professional for this Project, and all other conditions precedent to Final Completion as outlined below have been satisfied:

Contractor shall:

- (i) Deliver to the Town all warranties, final certifications and similar documentation to confirm that all necessary approvals have been issued with respect to the Work by the appropriate governmental authorities;
- (ii) Complete all Punch List items of Work;
- (iii) Remove temporary facilities from the site, along with construction tools and similar elements;
- (iv) Complete final clean-up including repair, replace and restore any items damaged by Contractor as a consequence of performing Work;
- (v) Deliver to the Town confirmation that all permits have been closed; and
- (vi) Confirm that the Town’s engineer/architect of record for the Project, Town of Southwest Ranches Drainage Improvements, has issued its written acceptance of the Work performed by Contractor and executed and delivered to the Town a Certificate of Final Completion.

**Section 3: Compensation & Method of Payment**

- 3.1 Contractor shall render all Work to the Town under the Agreement for the total not to exceed lump sum price of \$\_\_\_\_\_Dollars (“Contract Price”).
- 3.2 Town shall not be liable for any cost increases or escalation associated with labor, services, materials, equipment or any other costs that may arise during the performance of the Work. In the event the cost of the Work exceeds the amounts defined in Section 3.1 herein of the Contract Price, Contractor shall pay such excess from its own funds and Town shall not be required to pay any part of such excess. The only exception shall be any adjustments to the Contract Price pursuant to any written Change Order duly executed by Town and Contractor in accordance with the terms and conditions of this Agreement, and with the same formality and of equal dignity associated with the original execution of this Agreement.
- 3.3 Town and Contractor agree that payment under this Agreement will be subject to (a) the delivery of an appropriate invoice or payment application by Contractor to Town with such invoices being delivered by Contractor no more often than once every 30 days, and (b) verification by Town and its designated professional that the Work being invoiced has been performed in accordance with this Agreement. Upon verification by Town and the design professional that the invoiced Work has been performed in accordance with this Agreement, Town shall have thirty (30) days thereafter to pay said invoice.
- 3.4 Each invoice or payment application must be accompanied by all supporting documentation and other information reasonably requested by Town, including, but not limited to a Partial Release of Lien or Final Release of Lien as appropriate in the forms set forth in Chapter 713.20, Florida Statutes. Reference herein to Chapter 713, Florida Statutes is for convenience, and shall not be construed as a waiver of sovereign immunity or authority for imposition of liens against public property. Each progress payment shall be reduced by 10% retainage. Subject to other requirements of the Contract Documents, retainage shall be released after final completion of the Work and Town’s receipt of acceptable reports and other documentation including certification of payment to subcontractors, if any, and a Final Release of Lien in the form set forth in Section 713.20, Florida Statutes, as well as satisfaction of the conditions set forth at Section 3.5 of this Agreement.
- 3.5 A final payment invoice or application must be accompanied by written notice from Contractor that the entire Work is completed. The Town’s engineer/architect of record will make a final inspection and notify Contractor in writing with a punch list of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete the punch list and remedy deficiencies. Contractor’s obligation to perform and complete the Work in strict accordance with the Contract Documents shall be absolute. The Town may refuse payment if (a) the Work is defective or completed Work has been damaged requiring correction or replacement, (b) the Town has been required to correct defective Work or complete Work in accordance with the Contract Documents, or (c) because claims have been made against the Town on account of Contractor’s performance or furnishing of

the Work or liens or claims have been filed or asserted in connection with the Work or there are other items entitling the Town to a set-off against the amount due. No payment will be made for Work performed by the Contractor to replace defective work; for work which is not shown or ordered in the Contract Documents; or additional work performed by Contractor without prior written approval of Town.

**Section 4: Assignment**

No assignment of this Agreement or of the Work hereunder by Contractor shall be valid without the express written consent of Town, which may be given or withheld, in Town's sole discretion. All Work to be performed pursuant to this Agreement shall be performed by the Contractor, and no Work shall be subcontracted to other parties or firms without the prior written consent and approval of the Town Administrator.

**Section 5: Contractor's Responsibility for Safety**

- 5.1 Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work provided pursuant to this Agreement in order to prevent, inter alia, damage, injury or loss to (a) all employees performing the Work and all other persons who may be affected thereby, (b) all the Work and all materials and equipment to be incorporated therein and (c) other property at the site or adjacent thereto. Contractor shall timely provide all notices and comply with all applicable laws, ordinances, rules, regulations and orders of any public authority or other authority with jurisdiction bearing on the safety of persons and property in order to provide protection from damage injury or loss.

**Section 6: Insurance**

- 6.1 Throughout the term of this Agreement and for all applicable statutes of limitation periods, Contractor shall maintain in full force and affect all of the insurance coverages as set forth in this Section.
- 6.2 All Insurance Policies shall be issued by companies that (a) are authorized to transact business in the State of Florida, (b) have agents upon whom service of process may be made in Broward County, Florida, and (c) have a rating of "A-" or better in accordance with A.M. Best's Key Rating Guide.
- 6.3 All Insurance Policies shall name and endorse the following as an additional named insured:
- Town of Southwest Ranches  
13400 Griffin Road  
Southwest Ranches, FL 33330-2628
- 6.4 All Insurance Policies shall be endorsed to provide that (a) Contractor's Insurance is primary to any other Insurance available to Town or any other additional insured with respect to claims covered under the policy and (b) Contractor's insurance applies separately to each insured against who claims are made or suit is brought, and (c) that the inclusion of more than one insured shall not operate to increase the Insurer's limit of liability. Self-insurance by Contractor shall not be acceptable as providing any of the required insurance coverages required in this Agreement.
- 6.5 If the Contractor fails to submit the required insurance certificate in the manner prescribed with the executed Agreement submitted to the Town at the time of execution of this Agreement, Contractor shall be deemed in default, and the Agreement shall be cancelled or rescinded without liability by the Town to the Contractor.
- 6.6 Contractor shall carry the following minimum types of Insurance:
- A. **WORKER'S COMPENSATION:** Worker's Compensation Insurance is to apply to all employees in compliance with the "Workers' Compensation Law" of the State of Florida and all applicable federal laws. Contractor shall carry Worker's Compensation Insurance

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with the statutory limits, which shall include employer's liability insurance with a limit of not less than **Five Hundred Thousand Dollars (\$500,000)** for each accident, and **Five Hundred Thousand Dollars (\$500,000)** for each disease. Policy(ies) must be endorsed with waiver of subrogation against Town.

- B. **BUSINESS AUTOMOBILE LIABILITY INSURANCE:** Contractor shall carry business automobile liability insurance with minimum limits of **One Million Dollars (\$1,000,000)** per occurrence, combined single limits bodily injury liability and property damage. The policy must be no more restrictive than the latest edition of the business automobile liability policy without restrictive endorsements, as filed by the Insurance Services Office, and must include all owned vehicles and all hired or non-owned vehicles.
- C. **COMMERCIAL GENERAL LIABILITY:** Contractor shall carry Commercial General Liability Insurance with limits of not less than **One Million Dollars (\$1,000,000)** per occurrence combined single limit for bodily injury and property damage, and not less than **Two Million Dollars (\$2,000,000)** in the aggregate. The insurance policy must include coverage that is no more restrictive than the latest edition of the commercial general liability policy, without restrictive endorsements as filed by the Insurance Service Office (ISO), and the policy must include coverages for premises and/or operations, independent contractors, products and/or completed operations for contracts, contractual liability, broad form contractual coverage, broad form property damage, products, completed operations, personal injury and explosion, collapse and underground (X-C-U). Personal injury coverage shall include coverage that has the employee and contractual exclusions removed. The ISO form of the policy must be acceptable to the Town.
- D. **ENVIRONMENTAL POLLUTION INSURANCE:**  
The Contractor shall carry an Environmental Pollution Insurance for pollution-related incidents, including the cost of cleaning up a site after a pollution incident, with limits not less than \$500,000.00 Dollars per occurrence with deductible not greater than \$100,000.00. An additional Form or endorsement to the Commercial General Liability Insurance to include an Environmental Pollution Insurance coverage providing the specified coverage, is acceptable.

- 6.7 Contractor shall provide Town with a copy of the Certificates of Insurance or endorsements evidencing the types of Insurance and coverages required by this Section prior to beginning the performance of any Work under this Agreement and, at any time thereafter, upon request by Town.
- 6.8 Contractor's Insurance Policies shall be endorsed to provide Town with at least thirty (30) calendar days prior written notice of cancellation, non-renewal, restrictions, or reduction in coverages or limits. Notice shall be sent to:

Town of Southwest Ranches  
13400 Griffin Road  
Southwest Ranches, Florida 33330

And

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Keith M. Poliakoff, Esq.  
Arnstein & Lehr  
200 East Las Olas Boulevard  
Suite 1000  
Fort Lauderdale, Florida 33301

- 6.9 Contractor's Commercial General Liability Insurance policy shall be on an "occurrence" basis only and shall not be a "claims-made" policy.
- 6.10 If any of Contractor's Insurance policies include a general aggregate limit and provides that claims investigation or legal defense costs are included in the general aggregate limit, the general aggregate limit that is required shall be at least five (5) times the occurrence limits specified above in this article.
- 6.11 The Contractor shall not commence operations, and/or labor to complete any of the Work pursuant to this Agreement until certification or proof of insurance issued directly by the insurance company underwriting department or insurance agent, detailing terms and provisions of coverage, has been received and approved by the Town.
- 6.12 If any of Contractor's initial insurance expires prior to the completion of the Work, renewal copies of Policies shall be furnished to Town at least thirty (30) days prior to the date of their expiration, and Town shall be an additional named insured by endorsement on all of Contractor's renewal policies.
- 6.13 **UPON EXECUTION OF THIS AGREEMENT, CONTRACTOR SHALL SUBMIT TO TOWN COPIES OF ITS CERTIFICATE(S) OF INSURANCE EVIDENCING THE REQUIRED COVERAGES REQUIRED HEREIN AND SPECIFICALLY PROVIDING THE ENDORSEMENT TO THE POLICIES THAT SHOWS THE TOWN OF SOUTHWEST RANCHES IS AN ADDITIONAL NAMED INSURED WITH RESPECT TO THE REQUIRED COVERAGES AND CONTRACTOR'S WORK UNDER THE AGREEMENT.**
- 6.14 The official title of the owner is Town of Southwest Ranches. This official title shall be used in all insurance policies and documentation.
- 6.15 All required insurance policies shall preclude any insurer's or underwriter's rights of recovery or subrogation against Town with the express intention of the parties being that the required insurance coverage protects both parties as the primary coverage for any and all losses covered by the above described insurance.
- 6.16 Contractor shall ensure that any company issuing insurance to satisfy the requirements contained in this Agreement agrees that they shall have no recourse against Town for payment or assessments in any form on any policy of insurance.
- 6.17 The clauses "Other Insurance Provisions" and "Insured Duties in the Event of an Occurrence, Claim or Suit" as it appears in any policy of insurance in which Town is named as an additional named insured shall not apply to Town in any respect. Town shall use its best efforts to provide written notice of occurrence within thirty (30) working days after Town's actual notice of such event.

6.18 Notwithstanding any other provisions of this Agreement, Contractor's obligation to maintain all required insurance as specified in this Section of the Agreement shall survive the expiration or earlier termination of this Agreement.

**Section 7: Copyrights and Patent Rights**

Contractor warrants that there has been no violation of copyrights, trademarks, or patent rights in manufacturing, producing, and/or selling the item(s) ordered or shipped as a result of this Agreement; and Contractor agrees to indemnify and hold harmless Town, its employees, agents, or servants, its employees, agents, or servants against any and all liability, loss, or expense resulting from any such violation(s).

**Section 8: Laws and Regulations**

Contractor agrees to abide by all applicable Federal, State, County, and local laws, rules, regulations, ordinances and codes in performing all Work under this Agreement.

**Section 9: Taxes and Costs**

All federal, state and local taxes relating to the Contractor's Work under this Agreement and, similarly, all costs for licenses, permits, or certifications to perform the Work under this Agreement shall be paid by the Contractor.

**Section 10: Indemnification**

To the fullest extent permitted by Florida law, including Florida Statutes, Section 725.06, the Contractor shall indemnify, defend and hold harmless the Town, its officers and employees, from liabilities, damages, losses and costs, including, but not limited to, reasonable attorney's fees (at both the trial and appellate levels), to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the Contractor and persons employed or utilized by the Contractor in the performance of the Contract or anyone else for whose actions Contractor may be responsible, regardless of the partial fault of any party indemnified hereunder. Notwithstanding any other provisions of this Agreement, the Contractor's duty to indemnify, defend and hold the Town harmless shall survive the termination or earlier expiration of this Agreement.

**Section 11: Non-discrimination**

Contractor shall not discriminate against any client, employee or applicant for employment because of race, gender, age, color, religion, sex, national origin, physical or mental disability, or marital status. Contractor shall take affirmative action to ensure that applicants, subcontractors, Independent contractors, and employees are treated without discrimination in regard to their race, gender, age, color, religion, sex, national origin, physical or mental disability, or marital status. Contractor shall comply with all applicable sections of the Americans with Disabilities Act. Contractor agrees that compliance with this Article constitutes a material condition to this Agreement, and that it is binding upon the Contractor, its successors, transferees, and assignees for the period during which any Work is provided. Contractor further assures that all subcontractors and independent contractors are not in violation of the terms of this Section of the Agreement.

**Section 12: Sovereign Immunity**

Nothing in this Agreement is intended nor shall it be construed or interpreted to waive or modify the Town's Sovereign Immunity defense or any other of the Town's immunities and limitations on liability as provided for in Florida Statutes, as now worded or as may hereafter be amended and all Florida case law interpreting same.

**Section 13: Prevailing Party Attorneys' Fees**

In the event either party to this Agreement incurs legal fees, legal expenses or costs to enforce the terms of this Agreement on trial or on appeal at all levels, the prevailing party shall be entitled to recover the reasonable costs of such action so incurred, including, without limitation, reasonable attorney's fees and costs and expert witness fees and costs incurred.

**Section 14: No Third Party Beneficiaries**

This Agreement is solely for the benefit of the parties hereto, and is not entered into for the benefit of any other person or entity. Nothing in this Agreement shall be deemed or construed to create or confer any benefit, right or cause of action for any third party or entity.

**Section 15: Funding**

The obligation of Town for payment to Contractor for the Work is limited to the availability of funds appropriated in a current fiscal period, and continuation of any contractual relationship into a subsequent fiscal period is subject to appropriation of funds, unless otherwise authorized by law.

**Section 16: Manner of Performance**

Contractor agrees to perform its Work in a professional manner and in accordance with all applicable Local, State, County, and Federal laws, rules, ordinances, regulations and codes. Contractor agrees that the Work provided shall be provided by employees that are educated, trained, experienced, certified, and licensed in all areas encompassed within their designated duties. Contractor agrees to furnish to Town any and all documentation, certification, authorization, license, permit, or registration currently required by applicable laws, rules, and regulations. Contractor further certifies that it and its employees will keep all licenses, permits, registrations, authorizations, or certifications required by applicable laws or regulations in full force and effect during the term of this Agreement. Failure of Contractor to comply with this paragraph shall constitute a material breach of this Agreement.

**Section 17: Public Records**

The Town is subject to Chapter 119, Florida Statutes, "Public Records Law." No claim of confidentiality or proprietary information in all or any portion of a response will be honored unless a specific exemption from the Public Law exists and is cited in the response. An incorrectly claimed exemption does not disqualify the firm, only the exemption claimed. Contractor acknowledges the public shall have access at all reasonable times, to all documents and information pertaining to Town's contracts, subject to the provisions of Chapter 119, Florida Statutes, and agrees to allow access by the Town and the public to all documents subject to disclosures under applicable law.

To the extent that Contractor has been provided access to or has received security sensitive information, as defined by Florida Statutes, Section 119.071 and/or has executed a Confidential Information Acknowledgement and Agreement as part of the IFB process, Contractor shall keep and maintain the security sensitive information as confidential and exempt from public disclosures as required by Florida Statutes.

Contractor agrees to keep and maintain public records required by the Town to perform the service in Contractor's possession or control in connection with Contractor's performance under this IFB and any Contract awarded, and upon the request from the Town's custodian of public records, to provide the Town with a copy of the requested records or allow the records to be inspected or copied within a

reasonable amount of time at a cost that does not exceed the cost provided in Chapter 119 or as otherwise provided by law. Contractor shall 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 contract term and following completion of the Contract if the Contractor does not transfer the records to the Town.

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

Contractor's failure or refusal to comply with the provisions of this section shall result in the immediate termination for cause of the Contract by Town.

**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 PHONE: (954) 434-0008; EMAIL: [RMUNIZ@SOUTHWESTRANCHES.ORG](mailto:RMUNIZ@SOUTHWESTRANCHES.ORG); RUSSELL MUNIZ, ASSISTANT TOWN ADMINISTRATOR/TOWN CLERK, TOWN OF SOUTHWEST RANCHES, 13400 GRIFFIN ROAD, SOUTHWEST RANCHES, FLORIDA, 33330.**

**Section 18: Termination**

The Agreement may be terminated upon the following events:

- A. **Termination by Mutual Agreement.** In the event the parties mutually agree in writing, this Agreement may be terminated on the terms and dates stipulated therein.
- B. **Termination for Convenience.** This Agreement may be terminated for Convenience by Town upon Town providing Contractor with **thirty (30) calendar day's** written notice of Town's intent to terminate this Agreement for Convenience. In the event that this Agreement is terminated by Town for Convenience, Contractor shall be paid ONLY for Work performed and approved by the Town as of the date of this Agreement is terminated, plus any direct and reasonable expense sustained up to the date of receipt of the written notice. In no event shall Town be liable for consequential damages, including but not limited to, lost profits on Work not yet performed, and no other compensation or damages other than as set forth in this Section shall be paid to or recovered by Contractor in any legal proceeding against Town. Upon being notified of Town's election to terminate, Contractor shall immediately cease performing any further Work or incurring additional expenses. Contractor acknowledges and agrees that Ten Dollars (\$10.00) of the compensation to be paid by Town, the adequacy of which is hereby acknowledged by Contractor, is given as specific consideration to Contractor for Town's right to terminate this Agreement for Convenience.

- C. **Termination for Cause.** In the event of a material breach by Contractor, Town shall provide Contractor written notice of its material breach. Contractor shall thereafter have fourteen (14) days from the date of its receipt of such notification to cure such material breach. If Contractor does not cure the material breach within that time period, Town may terminate this Agreement immediately. Material breaches shall include, but are not limited to, Contractor's violations of governing standards, failure to carry out the work in strict accordance with the Contract Documents, failure to supply sufficient work forces, violations of state or federal laws, violation of Town's policies and procedures, or violation of any of the terms and conditions of this Agreement. In the event that Town elects to terminate Contractor for cause as provided for in this Section, and Town's termination for cause is later determined by a court of competent jurisdiction to be improper, or in any other way wrongful or in breach of this Agreement, the termination will be automatically deemed converted to one for Convenience, and Contractor shall solely be paid and Contractor's damages are solely limited to the compensation Contractor would be entitled to pursuant to subparagraph (B) of this Section.
- D. **Termination for Lack of Funds.** In the event the funds to finance the Work under this Agreement become unavailable or other funding source applicable, Town may provide Contractor with thirty (30) days written notice of termination. Nothing in this Agreement shall be deemed or construed to prevent the parties from negotiating a new Agreement in this scenario. In the event that Town elects to terminate Contractor for lack of funds as provided for in this Section, and Town's termination for lack of funds is later determined by a court of competent jurisdiction to be improper, or in any other way wrongful or in breach of this Agreement, the termination will be automatically deemed converted to one for Convenience, and Contractor shall solely be paid and Contractor's damages are solely limited to the compensation Contractor would be entitled to pursuant to subparagraph (B) of this Section.
- E. **Immediate Termination by Town.** In addition to any other grounds stated herein, Town, in its sole discretion, may terminate this Agreement immediately upon the occurrence of any of the following events:
1. Contractor's violation of the Public Records Act;
  2. Contractor's insolvency, bankruptcy or receivership;
  3. Contractor's violation or non-compliance with Section 11 of this Agreement;
  4. Contractor's failure to maintain any Insurance required by Section 6 of this Agreement; or
  5. Contractor's violation of Section 19 of this Agreement.

**Section 19: Public Entity Crimes Information Statement**

Pursuant to Florida Statutes, Section 287.133: "A person or affiliate who has been placed on the convicted vendor list following a conviction for public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, for CATEGORY TWO for a period of 36 months from

the date of being placed on the convicted vendor list." Violation of this section by Contractor shall result in Town's immediate termination of this Agreement.

**Section 20: Use of Awarded Bid by Other Governmental Units**

Contractor agrees that this Agreement may be utilized by other governmental entities or units to provide the specified services. Town does not become obligated in any way, to pay for or become, in any way, responsible or liable for Contractor's provision of Work or services to any other governmental unit.

**Section 21: Change Orders and Modification of Agreement**

Town and Contractor may request changes that would increase, decrease or otherwise modify the Scope of Work to be provided under this Agreement. Such changes only become part of this Agreement and increase, decrease or otherwise modify the Work or the Contract Price under this Agreement if evidenced by a written Change Order executed by Town and Contractor, with the same formality and of equal dignity associated with the original execution of the Agreement.

**Section 22: No Waiver of Rights**

Neither the Town's review, approval or payment for any of the Work required under this Agreement shall be construed to operate as a waiver of any of Town's rights under this Agreement or of any causes of action arising out Contractor's performance of the Work under this Agreement, and Contractor shall be and remain liable to the Town for all damages to the Town caused by the Contractor's negligent or improper performance of any of the Work furnished under this Agreement, irrespective of the Town's review, approval or payment for any of the Work under this Agreement. The rights and remedies of the Town provided for under this Agreement are in addition to all other rights and remedies provided to Town by law.

**Section 23: Jurisdiction and Venue**

The exclusive venue for any litigation arising from or relating to the Agreement shall be in a court of competent jurisdiction in the 17<sup>th</sup> Judicial Circuit in and for Broward County, Florida. This Agreement shall be governed by the substantive laws of the State of Florida.

**Section 24: WAIVER OF RIGHT TO JURY TRIAL**

**BY ENTERING INTO THIS AGREEMENT, CONTRACTOR AND TOWN HEREBY EXPRESSLY WAIVE ANY RIGHTS EITHER PARTY MAY HAVE TO A TRIAL BY JURY IN ANY CIVIL LITIGATION RELATED TO, OR ARISING OUT OF THIS AGREEMENT.**

**Section 25: Gender**

Wherever the context shall so require, all words herein in the masculine gender shall be deemed to include the feminine, and all words herein in the feminine gender shall be deemed to include the masculine. All singular words shall include the plural, and all plural words shall include the singular.

**Section 26: Time is of the Essence; Liquidated Damages**

Time is of the essence for all of Contractor's obligations under this Agreement. The Town will be entitled to Liquidated Damages as set forth at Section 2.4.2.

**Section 27: Days**

The terms "days" as referenced in this Agreement shall mean consecutive calendar days.

**Section 28: Written Mutual Agreement**

This Agreement is binding upon the parties hereto, their successors and assigns, and replaces and supersedes any and all prior agreements or understanding between the parties hereto whether written or oral which are merged herein.

**Section 29: No Amendment or Waiver**

This Agreement may not be changed, altered or modified except by an instrument in writing signed by all parties hereto, with the same formality and of equal dignity as the execution of this Agreement prior to the initiation of any Work reflecting such change.

**Section 30: Severability**

In the event any term or provision of this Agreement shall be determined by appropriate judicial authority to be illegal or otherwise invalid, such provision shall be given its nearest legal meaning so as to remain in full force and effect, or be deemed severed from the Agreement so as not to affect the validity or enforceability of the remaining provisions of the Agreement. In case any one or more of the provisions of this Agreement shall be determined by appropriate judicial authority to be invalid, illegal or unenforceable, in any respect, the validity of the remaining provisions of this Agreement shall be in no way affected, prejudiced, or disturbed thereby.

**Section 31: Resolution of Disputes; Florida Statutes, Chapter 558 Not Applicable**

To prevent litigation, it is agreed by the parties hereto that Town Administrator shall solely decide all questions, claims, difficulties and disputes of, whatever nature, which may arise relative to this Agreement, including but not limited to, Contractor's fulfillment of its obligations under this Agreement as to the character, quality, amount and value of any Work done and materials furnished, or proposed, to be done or furnished, under or by reason of, the Agreement. Further, to the extent required or permitted by the agreement between the Town and its design professional for this Project, the design professional shall have access to the Work, the right to conduct testing or inspections, to reject non-conforming work, and to review pay applications. The Town Administrator's decision shall be reduced to writing, and a copy furnished to the Contractor within a reasonable time following submission to the Town of the question, claim, difficulty or dispute as referenced above. The Town Administrator's decision shall be final and conclusive. Additionally, the parties understand and agree that Florida Statutes, Chapter 558 does not apply to this Agreement or the Work, and that the parties hereby "opt out" of the procedures set forth at Chapter 558.

**Section 32: Notice**

Whenever either party desires to give notice unto the other, such notice must be in writing by certified or registered mail, postage prepaid, return receipt requested, hand delivery, or facsimile transmission prior to 5:00 p.m. on the date of transmission (e.d.t. or e.s.t. as applicable), or via overnight express courier service. For the present, the parties designate the following individuals as the respective parties and places for giving of notice:

If to Town:

Town of Southwest Ranches  
Town Administrator  
13400 Griffin Road  
Southwest Ranches, Florida 33330

TOWN OF SOUTHWEST RANCHES, FLORIDA  
STIRLING ROAD GUARDRAILS INSTALLATION PROJECT  
IFB No. 17-006

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With a copy to:

Keith M. Poliakoff, Esq.  
Arnstein & Lehr  
200 East Las Olas Boulevard  
Suite 1000  
Fort Lauderdale, Florida 33301

If to Contractor:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Section 33: Miscellaneous**

- A. Ownership of Documents.** Unless otherwise provided by law, any and all reports, surveys, and other data and documents provided or created in connection with this Agreement by Contractor and all persons or entities employed or otherwise retained by Contractor are and shall remain the property of Town. In the event of termination of this Agreement for any reason, any reports, photographs, surveys and other data and documents prepared by Contractor, whether finished or unfinished, shall become the property of Town and shall be delivered by Contractor to the Town Administrator within seven (7) days of termination of this Agreement for any reason. Any compensation due to Contractor shall be withheld until all documents are received by Town as provided herein.
- B. Audit and Inspection Rights and Retention of Records.** Town shall have the right to audit the books, records and accounts of Contractor that are related to this Agreement. Contractor shall keep such books, records, and accounts as may be necessary in order to record complete and correct entries related to this Agreement.

Contractor shall preserve and make available, at reasonable times for examination and audit by Town, all financial records, supporting documents, statistical records, and any other documents pertinent to this Agreement for the required retention period of the Florida Public Records Act (Chapter 119, Florida Statutes), if applicable, or, if the Florida Public Records Act is not applicable, for a minimum period of three (3) years after expiration or earlier termination of this Agreement, unless Contractor is notified in writing by Town of the need to extend the retention period. Such retention of such records and documents shall be at Contractor's sole expense. If any audit has been initiated and audit findings have not been resolved at the end of the retention period or three (3) years, whichever is longer, the books, records, and accounts shall be retained until resolution of the audit findings. If the Florida Public Records Act is determined by Town to be applicable to Contractor's records, Contractor shall comply with all requirements thereof.

However, no confidentiality or non-disclosure requirement of either federal or state law shall be violated by Contractor. Any incomplete or incorrect entry in such books, records, and accounts shall be a basis for Town's disallowance and recovery of any payment upon such entry. In addition,

TOWN OF SOUTHWEST RANCHES, FLORIDA  
STIRLING ROAD GUARDRAILS INSTALLATION PROJECT  
IFB No. 17-006

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Contractor shall respond to the reasonable inquiries of successor Contractors and allow successor Contractors to receive working papers relating to matters of continuing significance. In addition, Contractor shall provide a complete copy of all working papers to the Town, prior to final payment by the Town under this Agreement.

- C. Independent Contractor.** Contractor is an independent contractor of Town under this Agreement. Services provided by Contractor pursuant to this Agreement shall be subject to the supervision of Contractor. In providing such services, neither Contractor nor its agents shall act as officers, employees or agents of the Town. Personnel policies, tax responsibilities, social security and health insurance, employee benefits, purchasing policies and other similar administrative procedures applicable to the Work and services rendered under this Agreement shall be exclusively and solely those of Contractor. This Agreement shall not constitute or make Town and Contractor a partnership or joint venture.
- D. Conflicts.** Neither Contractor nor its employees shall have or hold any continuing or frequently recurring employment or contractual relationship that is substantially antagonistic or incompatible with Contractor's loyal and conscientious exercise of judgment related to its performance under this Agreement. Contractor agrees that none of its officers or employees shall, during the term of this Agreement, serve as an expert witness against Town in any legal or administrative proceeding in which he or she is not a party, unless compelled by court process. Further, Contractor agrees that such persons shall not give sworn testimony or issue a report or writing, as an expression of his or her expert opinion, which is adverse or prejudicial to the interests of Town in connection with any such pending or threatened legal or administrative proceeding. The limitations of this section shall not preclude Contractor or any other persons from representing themselves in any action or in any administrative or legal proceeding.

In the event Contractor is permitted to utilize subcontractors to perform any services required by this Agreement, Contractor agrees to prohibit such subcontractors, by written contract, from having any conflicts within the meaning of this Section.

- E. Contingency Fee.** Contractor warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for Contractor, to solicit or secure this Agreement and that it has not paid or agreed to pay any person, company, corporation, individual or firm, other than a bona fide employee working solely for Contractor, any fee, commission, percentage, gift, or other consideration contingent upon or resulting from the award or making of this Agreement. For a breach or violation of this provision, Town shall have the right to terminate this Agreement without liability and, at its discretion, to deduct from the Agreement price or otherwise recover the full amount of such fee, commission, percentage, gift or consideration.
- F. Materiality and Waiver of Breach.** Town and Contractor agree that each requirement, duty, and obligation set forth herein is substantial and important to the formation of this Agreement and, therefore, is a material term hereof. Town's failure to enforce any provision of this Agreement shall not be deemed a waiver of such provision or modification of this Agreement. A waiver of any breach of a provision of this Agreement shall not be deemed a waiver of any subsequent breach and shall not be construed to be a modification of the terms of this Agreement.
- G. Joint Preparation.** Town and Contractor both acknowledge that they have sought and received whatever competent advice and legal counsel as was necessary for them to form a full and complete understanding of all rights and obligations herein and that the preparation of this Agreement has

TOWN OF SOUTHWEST RANCHES, FLORIDA  
STIRLING ROAD GUARDRAILS INSTALLATION PROJECT  
IFB No. 17-006

---

been their joint effort. The language agreed to herein express their mutual intent and the resulting document shall not, solely as a matter of judicial construction, be construed more severely against one of the parties than the other.

- H. Drug-Free Workplace.** Contractor shall maintain a drug-free workplace.
- I. Headings.** Headings are for convenience of reference only and shall not be considered in any interpretation of this Agreement.
- J. Binding Authority.** Each person signing this Agreement on behalf of either party individually warrants that he or she has full legal power to execute this Agreement on behalf of the party for whom he or she is signing, and to bind and obligate such party with respect to all provisions contained in this Agreement.
- K. Truth-in-Negotiation Certificate.** Signature of this Agreement by Contractor shall act as the execution of a truth-in-negotiation certificate stating that wage rates and other factual unit costs supporting the compensation of this Agreement are accurate, complete, and current at the time of contracting.

[Signatures on next page]

TOWN OF SOUTHWEST RANCHES, FLORIDA  
STIRLING ROAD GUARDRAILS INSTALLATION PROJECT  
IFB No. 17-006

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**IN WITNESS WHEREOF**, the parties have made and executed this Agreement on the respective dates under each signature: \_\_\_\_\_, and the TOWN OF SOUTHWEST RANCHES, signing by and through its Mayor duly authorized to execute same by Council action on the \_\_\_ day of \_\_\_\_\_ 2017.

**WITNESSES:**

\_\_\_\_\_  
\_\_\_\_\_

**CONTRACTOR:**

By: \_\_\_\_\_  
\_\_\_\_\_, \_\_\_\_\_ (title)  
\_\_\_ day of \_\_\_\_\_ 201\_

**TOWN OF SOUTHWEST RANCHES**

By: \_\_\_\_\_  
Doug McKay, Mayor  
\_\_\_ day of \_\_\_\_\_ 201\_

By: \_\_\_\_\_  
Andrew D. Berns, Town Administrator  
\_\_\_ day of \_\_\_\_\_ 201\_

**ATTEST:**

\_\_\_\_\_  
Russell Muñiz, Assistant Town Administrator/Town Clerk

**APPROVED AS TO FORM AND CORRECTNESS:**

\_\_\_\_\_  
Keith M. Poliakoff, Town Attorney

TOWN OF SOUTHWEST RANCHES, FLORIDA  
STIRLING ROAD GUARDRAILS INSTALLATION PROJECT  
IFB No. 17-006

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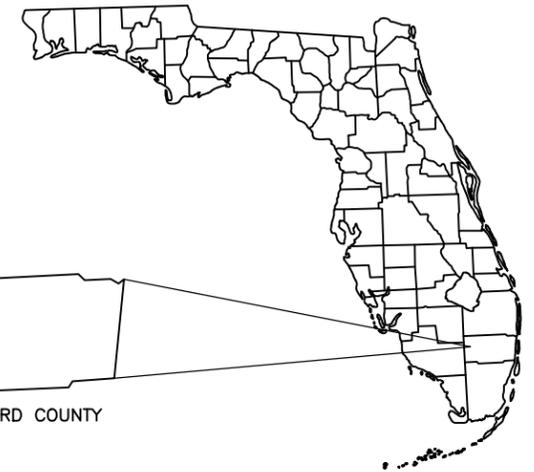
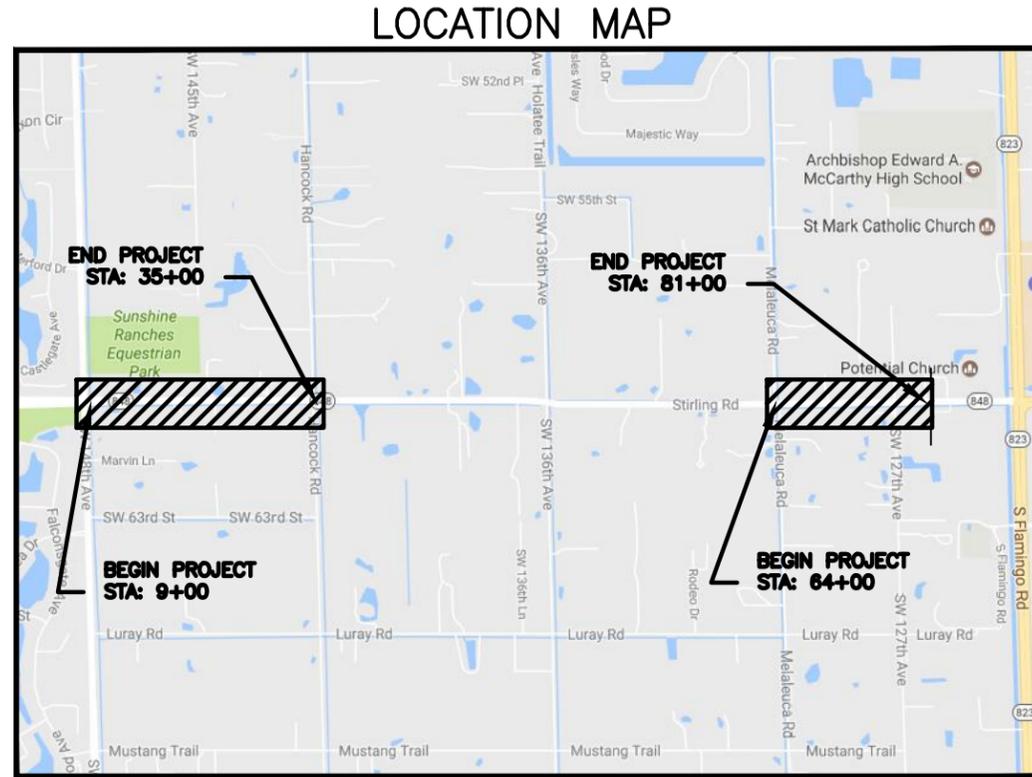


**EXHIBIT "B"**

DRAWINGS AND CONSTRUCTION PLANS PREPARED BY CRAIG A. SMITH & ASSOCIATES, INC.

# STIRLING ROAD

FROM SW 148TH AVE TO SW 142ND AVE & FROM SW 136TH AVE TO 12600 BLK  
 GUARDRAIL INSTALLATION – PHASE II – FM#436040-2-54-01



VICINITY MAP  
 SCALE: N.T.S.

TOWN COUNCIL	
MAYOR	DOUG MCKAY
VICE MAYOR	STEVE BREITKREUZ
COUNCIL MEMBER	FREDDY FISIKELLI
COUNCIL MEMBER	GARY JABLONSKI
COUNCIL MEMBER	DENISE SCHROEDER
TOWN ADMINISTRATOR	ANDREW BERNIS

PREPARED FOR:  
**TOWN OF  
 SOUTHWEST RANCHES**

CAS PROJECT No. 17-1930



Know what's below.  
 Call before you dig.

FILE NAME: 00-1930-G-00-COV.dwg



**CRAIG A. SMITH & ASSOCIATES**  
 CONSULTING ENGINEERS-PLANNERS-SURVEYORS  
 7777 GLADES ROAD, SUITE 410 – BOCA RATON, FLORIDA 33434  
 (561) 314-4445 WWW.CRAIGASMITH.COM  
 CERTIFICATE OF AUTHORIZATION NUMBER: LB0003110



JAMES R. ORTH, P.E. (CML)  
 DATE \_\_\_\_\_  
 FLORIDA PROFESSIONAL ENGINEER NO. 50126

P:\Cities\_Villages\_Towns\Southwest-Ranches\17-1930-Stirling-Rd-Guardrail-Phase2\09-Plans\00-1930-G-00-COV.dwg, 8/11/2017 3:10:49 PM, mmarenco, 1:2

### GENERAL ABBREVIATIONS

ABRV	DESCRIPTION	ABRV	DESCRIPTION
A/C	AIR CONDITION PAD	NTS	NOT TO SCALE
ACP	ASBESTOS CEMENT PIPE	ORB	OFFICIAL RECORDS BOOK
ALUM	ALUMINUM	O / S	OFF SET
APPROX	APPROXIMATELY	(P)	PLAT
B.C.R.	BROWARD COUNTY RECORDS	P.B.	PLAT BOOK
B/L	BASELINE	P.B.C.R.	PALM BEACH COUNTY RECORDS
BOTT	BOTTOM	PC	POINT OF CURVE
(C)	CALCULATED	PCP	PERMANENT CONTROL POINT
CIP	CAST IRON PIPE	PGS	PAGES
CL	CENTER LINE	PHDPE	PERFORATED HIGH DENSITY POLYETHYLENE
CONC	CONCRETE	PI	POINT OF INTERSECTION
D	DEED/DESCRIPTION	PK&D	PK NAIL AND DISK
D.E.	DRAINAGE EASEMENT	PRC	POINT OF REVERSE CURVE
DIA	DIAMETER	PROP	PROPOSED
DIP	DUCTILE IRON PIPE	PRM	PERMANENT REFERENCE MARKER
ELEV	ELEVATION	PSM	PROFESSIONAL SURVEYOR AND MAPPER
EOW	EDGE OF WATER	PT	POINT OF TANGENCY
EP	EDGE OF PAVEMENT	PVC	POLY VINYL CHLORIDE
EXIST	EXISTING	R	RADIUS
FF	FINISHED FLOOR	RCP	REINFORCED CONCRETE PIPE
FND	FOUND	R.E.	RIM ELEVATION
FPL	FLORIDA POWER & LIGHT	RGE	RANGE
GFF	GARAGE FINISHED FLOOR	R/W	RIGHT-OF-WAY LINE
HDPE	HIGH DENSITY POLYETHYLENE	SEC	SECTION
I.E.	INVERT ELEVATION	TOB	TOP OF BANK
IR	IRON ROD	TOE	TOE OF SLOPE
IR&C	IRON ROD AND CAP	TOP	TOP OF PIPE
IP	IRON PIPE	TWP	TOWNSHIP
L	ARC LENGTH	TYP	TYPICAL
LB	LICENSED BUSINESS	U.E.	UTILITY EASEMENT
LF	LINEAR FEET	VCP	VITRIFIED CLAY PIPE
(M)	MEASURED	Δ	DELTA

### GENERAL SYMBOL LEGEND

SYM.	DESCRIPTION	SYM.	DESCRIPTION
☒	AERIAL TARGET	GM	GAS METER
⊙	BENCH MARK	GMH	GAS MANHOLE
■	CONCRETE MONUMENT	GSV	GAS VALVE
○	IRON PIPE	MW	MONITORING WELL
●	IRON ROD	VEP	VAPOR EXTRACTION POINT
⊙ ND	NAIL & DISC	GSP	FUEL PUMP DISPENSER
△	TRAVERSE POINT	GASM	GAS MARKER
⊙	IRON ROD AND CAP	VTP	VENT PIPE
⊗	X CUT	VBG	GAS VALVE BOX
● DH	DRILL HOLE	FCAP	FUEL FILL CAP
┌	11.25' PIPE BEND	PJB	TELEPHONE JUNCTION BOX
└	22.5' PIPE BEND	PR	TELEPHONE RISER
└┐	45' PIPE BEND	TMH	TELEPHONE MANHOLE
└┐└	90' PIPE BEND	FIBO	FIBER OPTIC CABLE MARKER
└┐└┐	CROSS PIPE FITTING	CATV	CATV RISER
└┐└┐└	TEE PIPE FITTING	BP	BACKFLOW PREVENTOR
└┐└┐└┐	WYE PIPE FITTING	BO	BLOW OFF
└┐└┐└┐└	REDUCER PIPE FITTING	ARV	AIR RELEASE VALVE
○ EMH	ELECTRIC MANHOLE	SP	SAMPLE POINT
⊙ EMTR	ELECTRIC MOTOR	FH	FIRE HYDRANT
⊕	ELECTRICAL OUTLET	SIA	SIAMESE CONNECTION
⊕	GROUND LIGHT	WM	WATER METER
⊕ EJB	ELECTRIC JUNCTION BOX	WV	WATER VALVE
⊕ EM	ELECTRIC METER	WS	WATER SPIGOT
⊕ LPB	LIGHT POLE BOX	ICV	IRRIGATION CONTROL VALVE
⊕ TCB	TRAFFIC CONTROL BOX	IM	IRRIGATION METER
⊕ ER	ELECTRICAL RISER	SPR	SPRINKLER
⊕ FPL	TRANSFORMER	CT	CITRUS TREE
←	GUY WIRE	CT	CYPRESS TREE
⊕	GUY POLE	GT	GENERIC TREE
⊕	LIGHT POLE	OT	OAK TREE
⊕	CONCRETE UTILITY POLE	PT	PINE TREE
⊕	METAL UTILITY POLE	PT	PALM TREE
⊕	WOOD UTILITY POLE	PT	MANGROVE
⊕	MAST ARM POLE	GPR	GROUND PENETRATING RADAR
○ CO	CLEAN OUT	BH	BORING HOLE
○ SMH	SANITARY MANHOLE	M	METER (UNKNOWN)
○ SO	STUB OUT	B	BOLLARD
⊕ SV	SEWER VALVE	MB	MAIL BOX
▨ CB	CATCH BASIN	FP	FLAG POLE
○ SDMH	STORM DRAIN MANHOLE	HM	HANDICAP MARKER
⊕ YD	YARD DRAIN	MH	MANHOLE (UNKNOWN)
⊕	CURB INLET	S	SATELLITE DISH
⊕	CURB INLET W/ MANHOLE	PM	PARKING METER
⊕	CURB INLET W/ GRATE	P	POST
⊕	CI W/ MANHOLE & GRATE	UB	UTILITY BOX
		UR	UTILITY RISER
		+	CEMETERY HEAD STONE

### STANDARD HATCH PATTERNS

SYM	DESCRIPTION	SYM	DESCRIPTION
▨	CONCRETE	▨	STONE
▨	BRICK	▨	ASPHALT

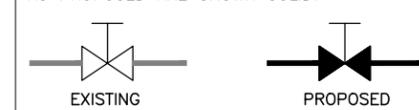
### SHEET INDEX

SHEET	DESCRIPTION
G-00	COVER SHEET
G-01	CIVIL ABBREVIATIONS, INDEX & LEGEND SHEET
G-02	KEY SHEET
C-01 TO C-04	PLAN VIEW
C-05 TO C-10	GENERAL CONSTRUCTION NOTES & STANDARD DETAILS
C-11 TO C-12	EROSION CONTROL DETAILS
C-13 TO C-14	CROSS SECTIONS

### LINE WEIGHTS

	<b>EXISTING</b>	SHADED SOLID LINES & TEXT DENOTE EXISTING EQUIPMENT, STRUCTURES AND WORK.
	<b>FUTURE</b>	NON-SHADED DASHED LINES & TEXT DENOTE FUTURE EQUIPMENT, STRUCTURES AND WORK.
	<b>PROPOSED</b>	NON-SHADED, BOLD, SOLID LINES & TEXT DENOTE PROPOSED EQUIPMENT, STRUCTURES AND WORK.

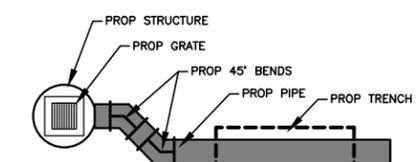
**NOTE:** FOR GRAPHICAL CLARIFICATION ON PLANS CONTAINING BACKGROUND AERIAL PHOTOS EXISTING ITEMS ARE SHOWN HOLLOW WHERE AS PROPOSED ARE SHOWN SOLID.



### STANDARD LINETYPES

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
---	BASELINE	---	BURIED TRAFFIC CONTROL
---	PARCEL LINE	---	COMMUNICATIONS DUCTBANK CL
---	BOUNDARY LINE	---	FIBER OPTIC DUCTBANK CL
---	EASEMENT LINE	---	OVERHEAD WIRE
---	LOT LINE	---	BURIED ELECTRIC
---	RIGHT OF WAY LINE	---	BURIED STREET LIGHTING
---	CENTER LINE	---	ELECTRICAL DUCTBANK CENTER LINE
---	SECTION LINE	---	FORCE MAIN
---	LANDSCAPE LINE	---	SANITARY SEWER
---	EDGE OF WATER	---	SANITARY SERVICE
	RR TRACKS	---	VACUUM SEWER
---	PLAT LINE	---	STORM DRAIN
---	CURB & GUTTER	---	FIRE LINE
---	FENCE LINE	---	RAW WATER LINE
---	GUARD RAIL	---	WATER LINE MAIN
---	UNKNOWN UTILITY	---	WATER LINE CHILLED
---	ABANDONED UTILITY	---	WATER SERVICE
---	NON FIELD VERIFIED UTILITY	---	IRRIGATION LINE
---	BURIED CABLE TV	---	GAS LINE ABOVE GROUND
---	BURIED COMMUNICATIONS LINE	---	BURIED GAS LINE
---	FIBER OPTIC CABLE	---	BURIED GAS SERVICE LINE
---	BURIED TELEPHONE	---	FUEL LINE

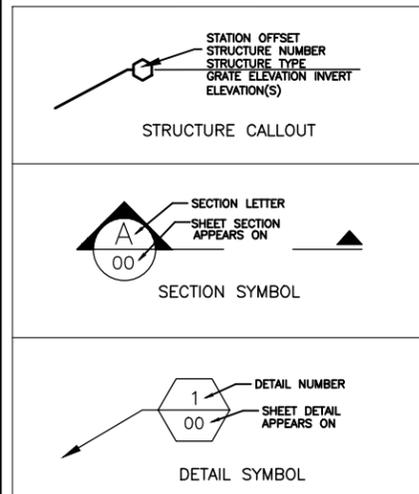
### PIPE LEGEND



### PIPE FITTINGS

SYM	DESC	SYM	DESC
┌	11.25' BEND	└	45' BEND
└	22.5' BEND	└┐	90' BEND
└┐	TEE	└┐└	WYE
└┐└	REDUCER	⊕	PLUG
]	CAP		

### TAGS



**NOTE:** THE LEGEND SHOWN HEREON IS REPRESENTATIVE OF ALL CAS DRAFTING STANDARDS AND IS NOT PROJECT SPECIFIC.

NO.	DATE	REVISION	BY

Date: 04/11/17  
Designed: JRO  
Drawn: MM  
Checked: JRO

APPROVED BY: JAMES R. ORTH, P.E.  
DATE: \_\_\_\_\_  
FLORIDA PROFESSIONAL ENGINEER NO. 50126

**CRAIG A. SMITH & ASSOCIATES**  
CONSULTING ENGINEERS-PLANNERS-SURVEYORS  
7777 GLADES ROAD, SUITE 410  
BOCA RATON, FLORIDA 33434  
(561) 314-4445  
CERTIFICATE NO. LB0003110

PREPARED FOR:  
**TOWN OF SOUTHWEST RANCHES**  
BROWARD COUNTY, FLORIDA

**STIRLING ROAD**  
GUARDRAIL INSTALLATION PHASE II  
CIVIL ABBREVIATIONS, INDEX & LEGEND SHEET

FILE NAME: 00-1930-G-01-LGND.dwg  
LAST SAVED: 08/11/17 - 3:09pm  
CAS PROJECT NUMBER  
17-1930

SHEET  
**G-01**

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0 200 400 800  
 HORIZONTAL GRAPHIC SCALE  
 24" X 36" SCALE: 1" = 400'-0"  
 11" X 17" SCALE: 1" = 800'-0"



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NO.	DATE	REVISION	BY

Date: 04/11/17  
 Designed: JRO  
 Drawn: MM  
 Checked: JRO

APPROVED BY: JAMES R. ORTH, P.E.  
 DATE: \_\_\_\_\_  
 FLORIDA PROFESSIONAL ENGINEER NO. 50126

**CRAIG A. SMITH & ASSOCIATES**  
 CONSULTING ENGINEERS-PLANNERS-SURVEYORS  
 7777 GLADES ROAD, SUITE 410 BOCA RATON, FLORIDA 33434 (561) 314-4445 CERTIFICATE NO. LB0003110 

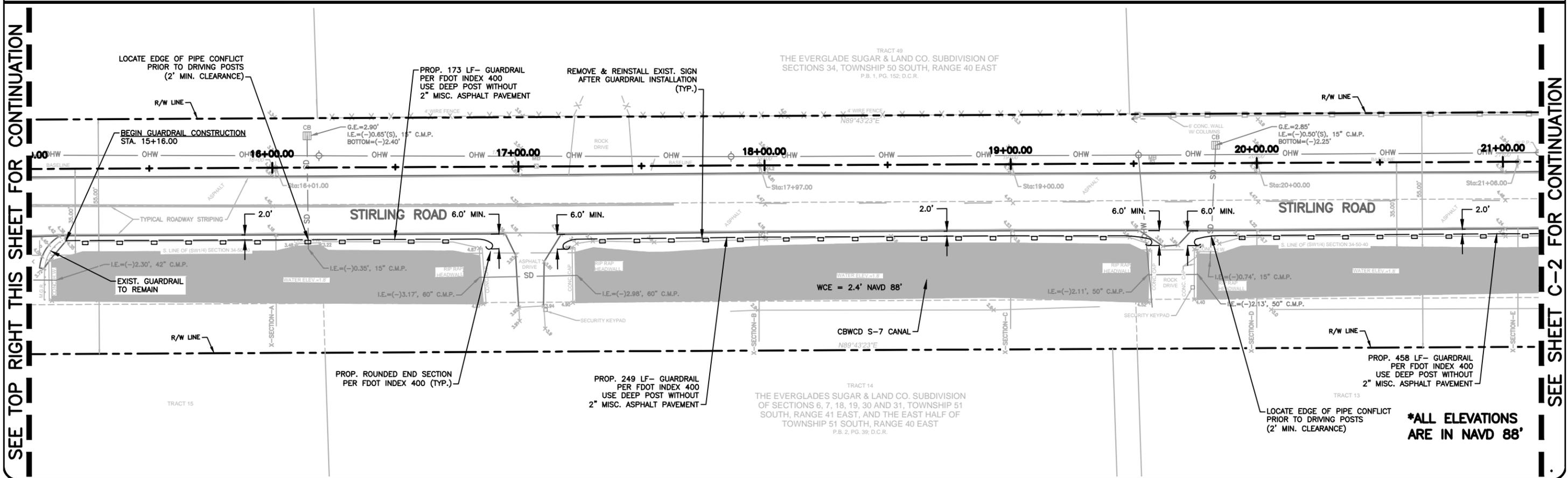
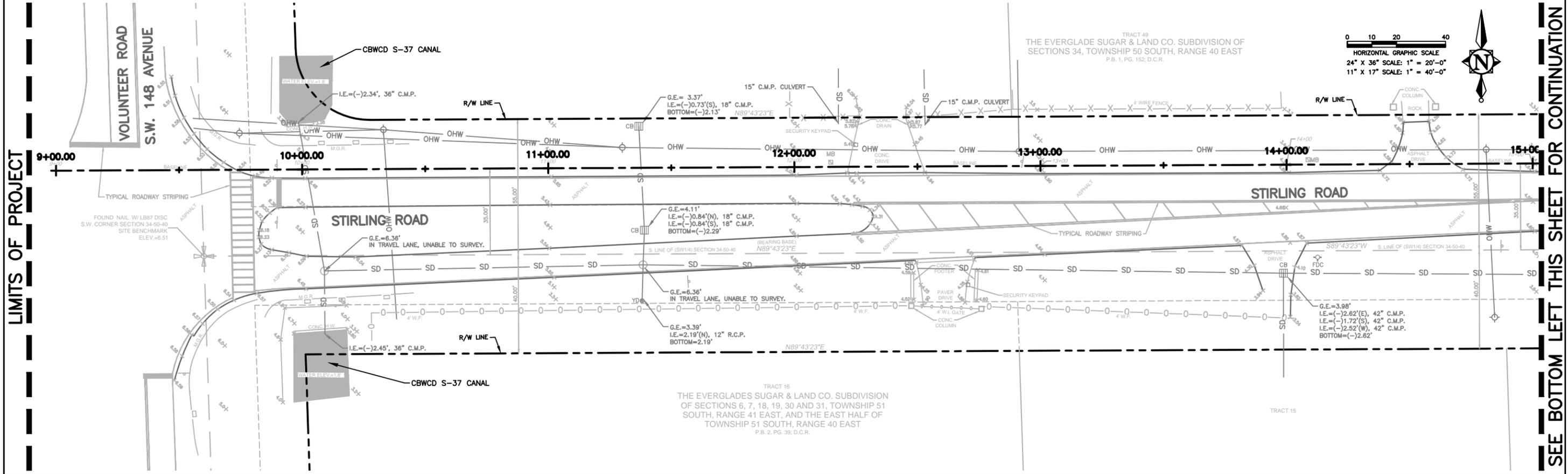
PREPARED FOR:  
 TOWN OF  
 SOUTHWEST RANCHES  
 BROWARD COUNTY, FLORIDA

STIRLING ROAD  
 GUARDRAIL INSTALLATION PHASE II  
 KEY SHEET  
 & SHEET INDEX

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 17-1930

SHEET  
**G-02**

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NO.	DATE	REVISION	BY
		N.R.T.S.	

Date: 04/11/17  
 Designed: JRO  
 Drawn: MM  
 Checked: JRO

APPROVED BY: JAMES R. ORTH, P.E.  
 DATE: \_\_\_\_\_  
 FLORIDA PROFESSIONAL ENGINEER NO. 50126

**CRAIG A. SMITH & ASSOCIATES**  
 CONSULTING ENGINEERS-PLANNERS-SURVEYORS  
 7777 GLADES ROAD, SUITE 410  
 BOCA RATON, FLORIDA 33434  
 (561) 314-4445  
 CERTIFICATE NO. LB0003110

PREPARED FOR:  
**TOWN OF SOUTHWEST RANCHES**  
 BROWARD COUNTY, FLORIDA

**STIRLING ROAD**  
 GUARDRAIL INSTALLATION PHASE II  
 PLAN VIEW  
 STA: 09+00 - 21+14

FILE NAME: 10-1930-C-01-PLAN.dwg  
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 CAS PROJECT NUMBER  
 17-1930

SHEET  
**C-01**

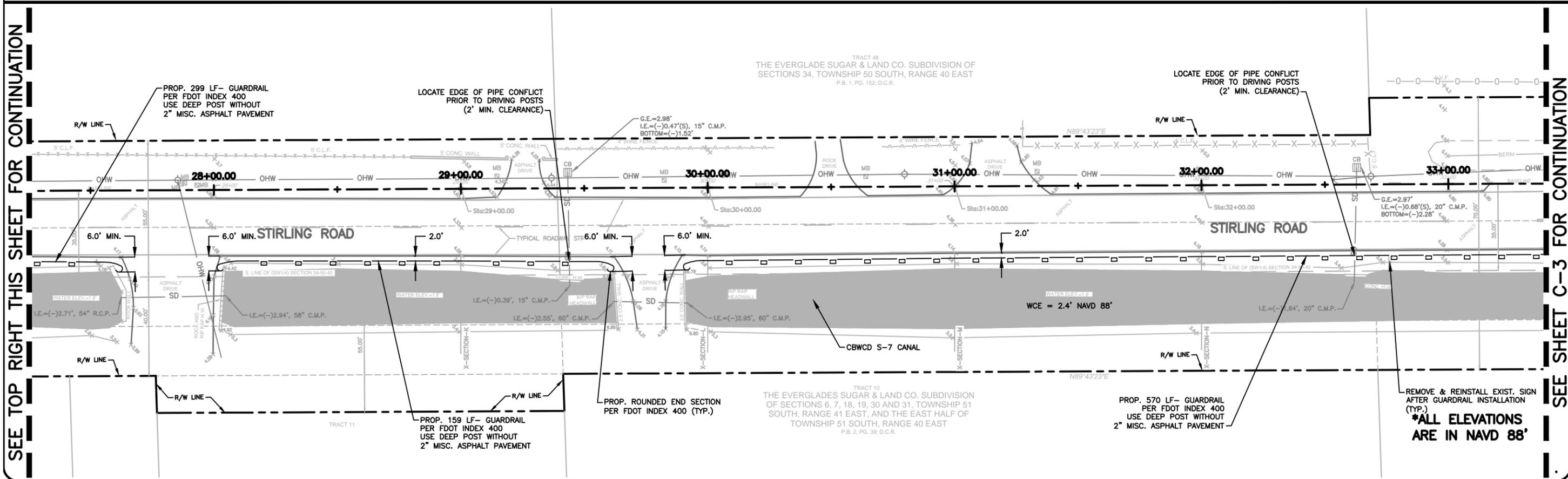
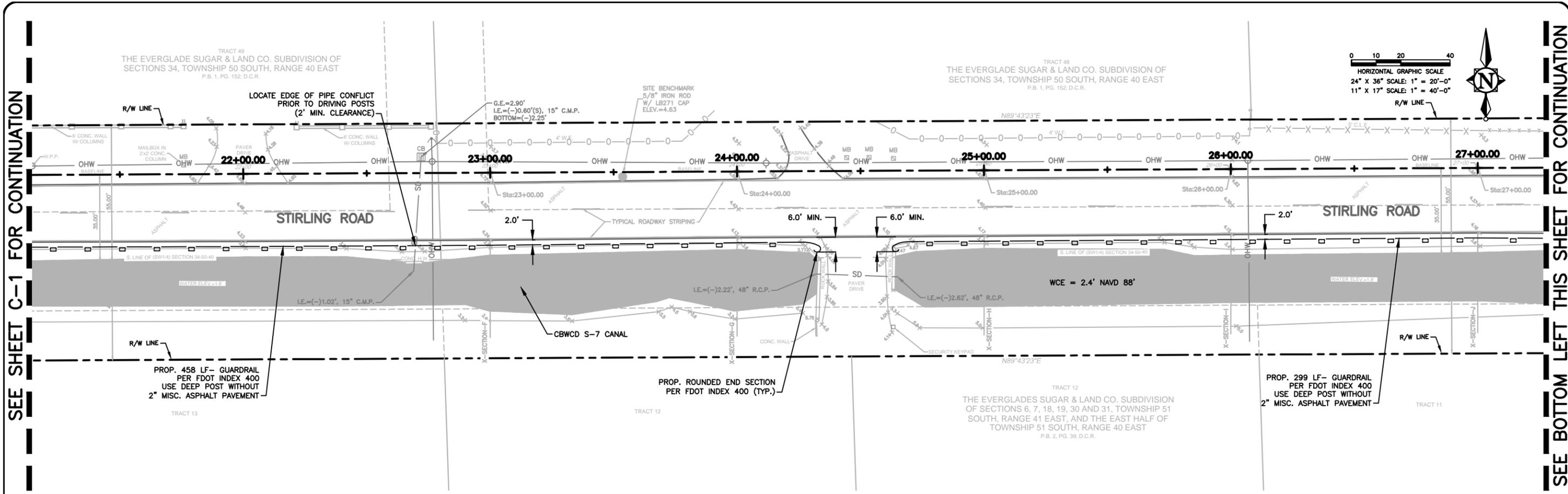
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SEE SHEET C-1 FOR CONTINUATION

SEE TOP RIGHT THIS SHEET FOR CONTINUATION

SEE BOTTOM LEFT THIS SHEET FOR CONTINUATION

SEE SHEET C-3 FOR CONTINUATION



NO.	DATE	REVISION	BY

Date: 04/11/17  
 Designed: JRO  
 Drawn: MM  
 Checked: JRO

APPROVED BY: JAMES R. ORTH, P.E.  
 DATE: \_\_\_\_\_  
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PREPARED FOR:  
**TOWN OF SOUTHWEST RANCHES**  
 BROWARD COUNTY, FLORIDA

**STIRLING ROAD**  
 GUARDRAIL INSTALLATION PHASE II  
 PLAN VIEW  
 STA: 21+14 - 33+39

FILE NAME: 10-1930-C-02-PLAN.dwg  
 LAST SAVED: 06/05/17 - 10:57am  
 CAS PROJECT NUMBER  
 17-1930

SHEET  
**C-02**

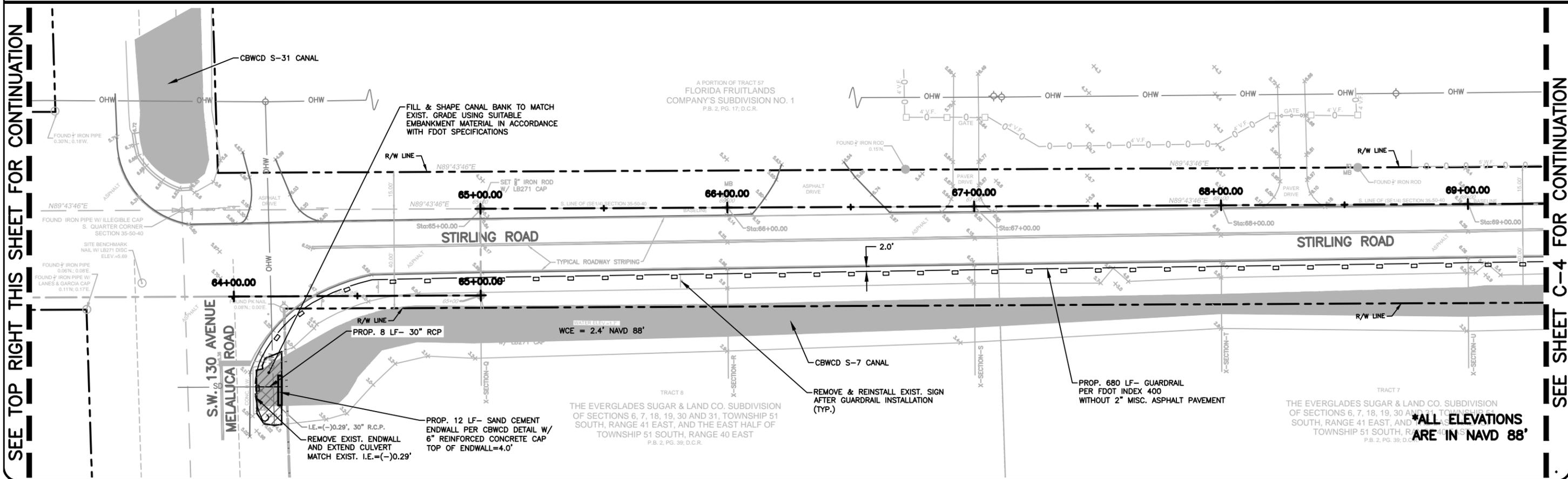
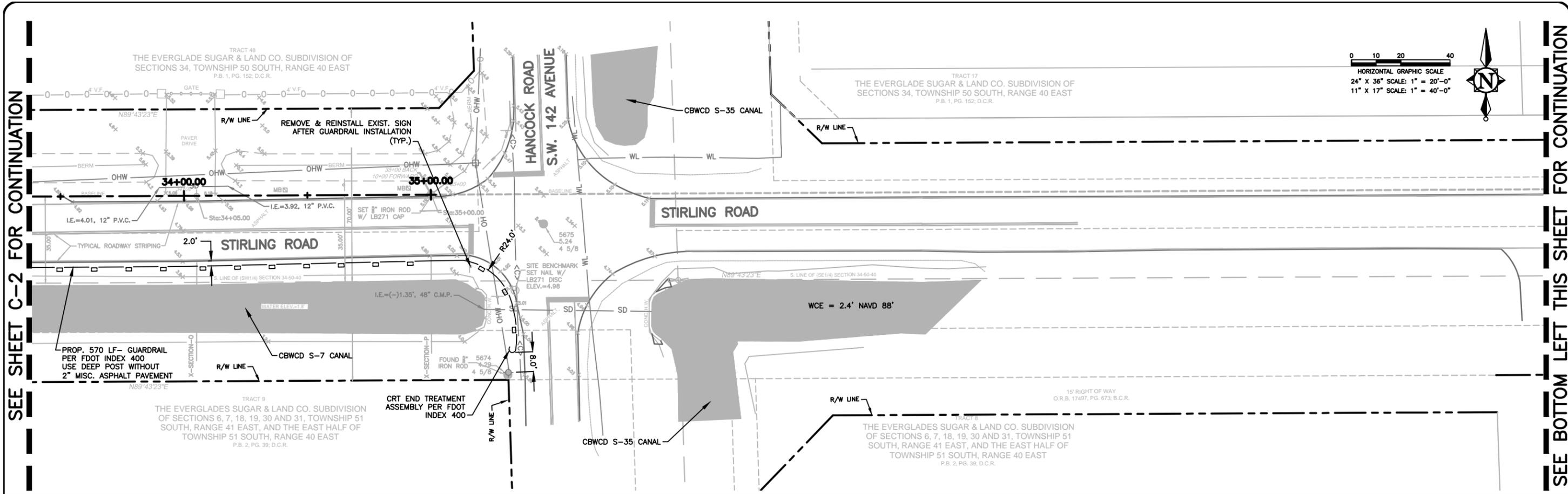
**\*ALL ELEVATIONS ARE IN NAVD 88'**

SEE SHEET C-2 FOR CONTINUATION

SEE SHEET C-4 FOR CONTINUATION

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SEE SHEET C-4 FOR CONTINUATION



NO.	DATE	REVISION	BY

Date: 04/11/17  
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**TOWN OF SOUTHWEST RANCHES**  
 BROWARD COUNTY, FLORIDA

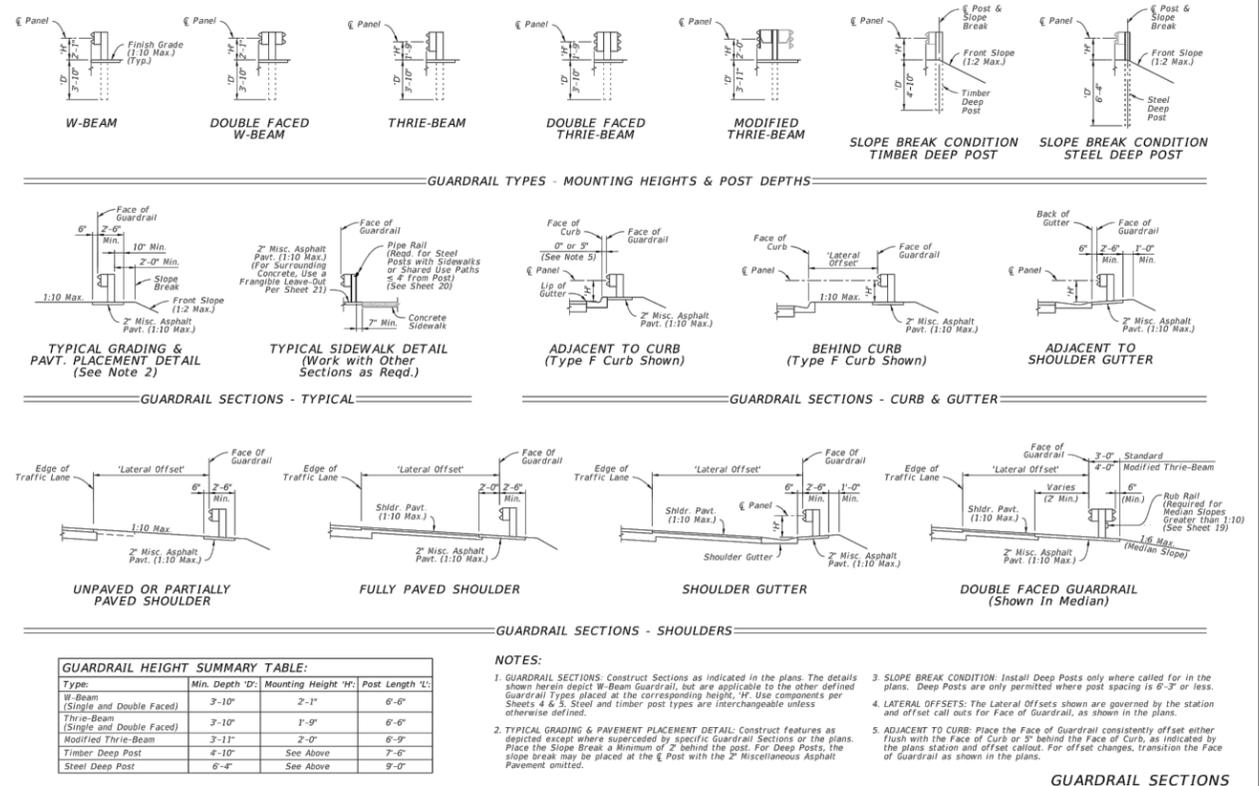
**STIRLING ROAD**  
 GUARDRAIL INSTALLATION PHASE II  
 PLAN VIEW  
 STA: 21+14 - 35+00 / 64+00 - 69+30

FILE NAME: 10-1930-C-03-PLAN.dwg  
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 CAS PROJECT NUMBER  
 17-1930

SHEET  
**C-03**

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LAST REVISION	DESCRIPTION:	FY 2017-18 DESIGN STANDARDS	INDEX NO.	SHEET NO.
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**DEFINITIONS**  
**Regulatory Speed (In Work Zones)**  
 The maximum permitted travel speed posted for the work zone is indicated by the regulatory speed limit signs. The work zone speed must be shown or noted in the plans. This speed shall be used as the minimum design speed to determine runout lengths, departure rates, flare rates, lengths of need, clear zone widths, taper lengths, crash cushion requirements, marker spacings, super-elevation and other similar features.

**Advisory Speed**  
 The maximum recommended travel speed through a curve or a hazardous area.

**Travel Way**  
 The portion of the roadway for the movement of vehicles. For traffic control through work zones, travel way may include the temporary use of shoulders and any other permanent or temporary surface intended for use as a lane for the movement of vehicular traffic.

a. **Travel Lane:** The designated widths of roadway pavement marked to carry through traffic and to separate it from opposing traffic or traffic occupying other traffic lanes.

b. **Auxiliary Lane:** The designated widths of roadway pavement marked to separate speed change, turning, passing and climbing maneuvers from through traffic.

**Detour, Lane Shift, and Diversion**  
 A detour is the redirection of traffic onto another roadway to bypass the temporary traffic control zone. A lane shift is the redirection of traffic onto a different section of the permanent pavement. A diversion is the redirection of traffic onto a temporary roadway, usually adjacent to the permanent roadway and within the limits of the right of way.

**Aboveground Hazard**  
 An aboveground hazard is any object, material or equipment other than traffic control devices that encroaches upon the travel way or that is located within the clear zone which does not meet the Department's safety criteria, i.e., anything that is greater than 4" in height and is firm and unyielding or doesn't meet breakaway requirements.

**TEMPORARY TRAFFIC CONTROL DEVICES**  
 All temporary traffic control devices shall be ON the Department's Approved Products List (APL). Ensure the appropriate APL number is permanently marked on the device in a readily visible location.

All temporary traffic control devices shall be removed as soon as practical when they are no longer needed. When work is suspended for short periods of time, temporary traffic control devices that are no longer appropriate shall be removed or covered.

Arrow Boards, Portable Changeable Message Signs, Radar Speed Display Trailer, Portable Regulatory Signs, and any other trailer mounted device shall be delineated with a temporary traffic control device placed at each corner when in use and shall be moved outside the travel way and clear zone or be shielded by a barrier or crash cushion when not in use.

**PEDESTRIAN AND BICYCLIST**  
 When an existing pedestrian way or bicycle way is located within a traffic control work zone, accommodation must be maintained and provision for the disabled must be provided.

Only approved pedestrian longitudinal channelizing devices may be used to delineate a temporary traffic control zone pedestrian walkway.

Advanced notification of sidewalk closures and marked detours shall be provided by appropriate signs.

**OVERHEAD WORK**  
 Work is only allowed over a traffic lane when one of the following options is used:

**OPTION 1 (OVERHEAD WORK USING A MODIFIED LANE CLOSURE)**  
 Overhead work using a modified lane closure is allowed if all of the following conditions are met:

- Work operation is located in a signalized intersection and limited to signals, signs, lighting and utilities.
- Work operations are 60 minutes or less.
- Speed limit is 45 mph or less.
- Aerial lift equipment in the work area has high-intensity, rotating, flashing, oscillating, or strobe lights operating.
- Aerial lift equipment is placed directly below the work area to close the lane.
- Traffic control devices are placed in advance of the vehicle/equipment closing the lane using a minimum 100 foot taper.
- Volume or complexity of the roadway may dictate additional devices, signs, flagmen and/or a traffic control officer.

**OPTION 2 (OVERHEAD WORK ABOVE AN OPEN TRAFFIC LANE)**  
 Overhead work above an open traffic lane is allowed if all of the following conditions are met:

- Work operation is located on a utility pole, light pole, signal pole, or their appurtenances.
- Work operations are 60 minutes or less.
- Speed limit is 45 mph or less.
- No encroachment by any part of the work activities and equipment within an area bounded by 2 feet outside the edge of travel way and 18 feet high.
- Aerial lift equipment in the work area has high-intensity, rotating, flashing, oscillating, or strobe lights operating.
- Volume or complexity of the roadway may dictate additional devices, signs, flagmen and/or a traffic control officer.
- Adequate precautions are taken to prevent parts, tools, equipment and other objects from falling into open lanes of traffic.
- Other Governmental Agencies, Rail facilities, or Codes may require a greater clearance. The greater clearance required prevails as the rule.

**OPTION 3 (OVERHEAD WORK ADJACENT TO AN OPEN TRAFFIC LANE)**  
 Overhead work adjacent to an open traffic lane is allowed if all of the following conditions are met:

- Work operation is located on a utility pole, light pole, signal pole, or their appurtenances.
- Work operations are 1 day or less.
- Speed limit is 45 mph or less.
- No encroachment by any part of the work activities and equipment within 2 feet from the edge of travel way up to 18' height.
- Above 18' in height, no encroachment by any part of the work activities and equipment over the open traffic lane (except as allowed in Option 2 for work operations of 60 minutes or less).
- Aerial lift equipment in the work area has high-intensity, rotating, flashing, oscillating, or strobe lights operating.
- Volume or complexity of the roadway may dictate additional devices, signs, flagmen and/or a traffic control officer.
- Adequate precautions are taken to prevent parts, tools, equipment and other objects from falling into open lanes of traffic.
- Other Governmental Agencies, Rail facilities, or Codes may require a greater clearance. The greater clearance required prevails as the rule.

**OPTION 4 (OVERHEAD WORK MAINTAINING TRAFFIC WITH NO ENCROACHMENT BELOW THE OVERHEAD WORK AREA)**  
 Traffic shall be detoured, shifted, diverted or paced as to not encroach in the area directly below the overhead work operations in accordance with the appropriate standard index drawing or detailed in the plans. This option applies to, but not limited to, the following construction activities:

- Beam, girder, segment, and bent/pier cap placement.
- Form and falsework placement and removal.
- Concrete placement.
- Balling construction located at edge of deck.
- Structure demolition.

**OPTION 5 (CONDUCTOR/CABLE PULLING ABOVE AN OPEN TRAFFIC LANE)**  
 Overhead cable and/or de-energized conductor installations initial pull to proper tension shall be done in accordance with the appropriate Standard Index or temporary traffic control plan.

Continuous pulling operations of secured cable and/or conductors are allowed over open lanes of traffic with no encroachment by any part of the work activities, materials or equipment within the minimal vertical clearance above the travel way. The utility shall take precautions to ensure that pull ropes and conductors/cables at no time fall below the minimum vertical clearance.

On Limited Access facilities, a site specific temporary traffic control plan is required. The temporary traffic control plan shall include:

- The temporary traffic control set up for the initial pulling of the pull rope across the roadway.
- During pulling operations, advance warning consisting of no less than a Changeable Message Sign upstream of the work area with alternating messages, "Overhead Work Ahead" and "Be Prepared to Stop" followed by a traffic control officer and police vehicle with blue lights flashing during the pulling operation.

**RAILROADS**  
 Railroad crossings affected by a construction project shall be evaluated for traffic controls to reduce queuing on the tracks. The evaluation should include as a minimum: traffic volumes, distance from the tracks to the intersections, lane closure and taper locations, signal timing, etc.

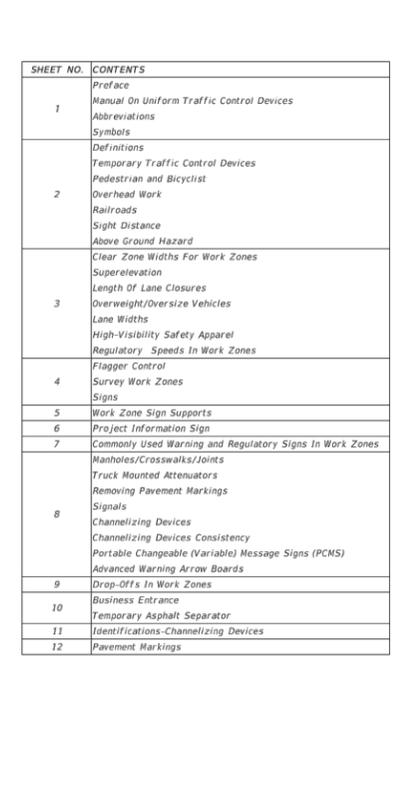
**SIGHT DISTANCE**  
 Tapers: Transition tapers should be obvious to drivers. If restricted sight distance is a problem (e.g., a sharp vertical or horizontal curve), the taper should begin well in advance of the view obstruction. The beginning of tapers should not be hidden behind curves.

Intersections: Traffic control devices at intersections must provide sight distances for the road user to perceive potential conflicts and to traverse the intersection safely. Construction equipment and materials shall not restrict intersection sight distance.

**ABOVEGROUND HAZARD**  
 Aboveground hazards (see definitions) are to be considered work areas during working hours and treated with appropriate work zone traffic control procedures. During nonworking hours, all objects, materials and equipment that constitute an aboveground hazard must be stored/placed outside the travel way and clear zone or be shielded by a barrier or crash cushion.

For aboveground hazards within a work zone the clear zone required should be based on the regulatory speed posted during construction.

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**CLEAR ZONE WIDTHS FOR WORK ZONES**  
 The term "clear zone" describes the unobstructed relatively flat area, impacted by construction, extending outward from the edge of the traffic lane. The table below gives clear zone widths in work zones for medians and roadside conditions other than for roadside canals; where roadside canals are present, clear zone widths are to conform with the distances to canals as described in the PPM, Volume 1, Chapter 4.

WORK ZONE SPEED (MPH)	TRAVEL LANES & MULTILANE RAMPS (feet)	AUXILIARY LANES & SINGLE LANE RAMPS (feet)
60-70	30	18
55	24	14
45-50	18	10
30-40	14	10

ALL SPEEDS CURB & GUTTER 4' BEHIND FACE OF CURB 4' BEHIND FACE OF CURB

**LANE WIDTHS**  
 Lane widths of through roadways should be maintained through work zone travel ways wherever practical. The minimum widths for work zone travel lanes shall be as follows: 11' for Interstate with at least one 1/2 lane provided in each direction, unless formally excepted by the Federal Highway Administration; 11' for freeways; and 10' for all other facilities.

**HIGH-VISIBILITY SAFETY APPAREL**  
 All high-visibility safety apparel shall meet the requirements of the International Safety Equipment Association (ISEA) and the American National Standards Institute (ANSI) for "High-Visibility Safety Apparel", and labeled as ANSI/ISEA 107-2004 or newer. The apparel background (outer) material color shall be either fluorescent orange-red or fluorescent yellow-green as defined by the standard. The retro-reflective material shall be orange, yellow, white, silver, yellow-green, or a fluorescent version of these colors, and shall be visible at a minimum distance of 1,000 feet. Class 3 apparel may be substituted for Class 2 apparel. Replace apparel that is not visible at 1,000 feet.

**WORKERS:** All workers within the right-of-way shall wear ANSI/ISEA Class 2 apparel. Workers operating machinery or equipment in which loose clothing could become entangled during operation shall wear fitted high-visibility safety apparel. Workers inside the bucket of a bucket truck are not required to wear high-visibility safety apparel.

**UTILITIES:** When other industry apparel safety standards require utility workers to wear apparel that is inconsistent with FDOT requirements such as NFPA, OSHA, ANSI, etc., the other standards for apparel may prevail.

**FLAGGERS:** For daytime activities, flaggers shall wear ANSI/ISEA Class 2 apparel. For nighttime activities, flaggers shall wear ANSI/ISEA Class 3 apparel.

**LENGTH OF LANE CLOSURES**  
 Lane closures must not exceed the following total lengths (includes taper, buffer space and work space) in any given direction on the interstate or on state highways with a posted speed of 55 MPH or greater:

- 3 miles for Rumble Stripping.
- 2 miles for all other operations.

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**PREFACE**  
 All projects and works on highways, roads and streets shall have a traffic control plan. All work shall be executed under the established plan and Department-approved procedures. This index contains information specific to the Federal and State guidelines and standards for the preparation of traffic control plans and for the execution of traffic control in work zones, for construction and maintenance operations and utility work on highways, roads and streets on the State Highway System. Certain requirements in this Index are based on the high volume nature of State Highways. For highways, roads and streets off the State Highway System, the local agency (City/County) having jurisdiction may adopt requirements based on the minimum requirements provided in the MUTCD.

Index 600 provides Department policy and standards. Changes are only to be made thru Department-approved procedures.

Indexes 601 thru 670 provide typical applications for various situations. Modification can be made to these Indexes as long as the changes comply with the MUTCD and Department Design Standards.

The sign spacing shown on the Indexes are typical (recommended) distances. In order to avoid conflicts or to improve site specific traffic controls, except for emergencies, any road closure on State Highway System shall comply with Section 335.15, F.S.

**MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES**  
 The Florida Department of Transportation has adopted the "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD) and subsequent revisions and addendums, as published by the U.S. Department of Transportation, Federal Highway Administration, for mandatory use on the State Maintained Highway System whenever there exists the need for construction, maintenance operations or utility work.

**SYMBOLS**  
 The symbols shown are found in the FDOT site menu under Traffic Control cell library on the CADD system. Symbols assigned to the 600 series Design Standards and applicable to traffic control plans, unless otherwise identified in the plans, are as follows:

- Work Area, Hazard Or Work Phase (Any pattern within a boundary)
- Channelizing Device
- Pedestrian Longitudinal Channelizing Device (LDC)
- Type III Barricade
- Work Zone Sign
- Flagger
- Automated Flagger Assistance Device (AFAD)
- Temporary Traffic Signal
- Advance Warning Arrow Board
- Crash Cushion
- Stop Bar
- Work Vehicle With Flashing Beacon
- Shadow (S) Dr. Advance Warning (AW) Vehicle (W) Advance Warning Arrow Board And Warning Sign
- Truck/Trailer Mounted Attenuator (THA)
- Law Enforcement Officer
- Portable Regulatory Sign
- Radar Speed Display Unit
- Portable Changeable (Variable) Message Sign
- Lane Identification + Direction Of Traffic
- Traffic Control Officer

**GENERAL INFORMATION FOR TRAFFIC CONTROL THROUGH WORK ZONES**

**INDEX NO. 600**

**SHEET NO. 1 of 12**

**REGULATORY SPEEDS IN WORK ZONES**  
 Traffic Control Plans (TCPs) for all projects must include specific regulatory speeds for each phase of work. This can either be the posted speed or a reduced speed. The speed shall be noted in the TCPs, this includes indicating the existing speed if no reduction is to be made. Regulatory speeds are to be uniformly established through each phase.

In general, the regulatory speed should be established to route vehicles safely through the work zone as close as to normal highway speed as possible. The regulatory speed should not be reduced more than 10 mph below the posted speed and never below the minimum statutory speed for the class of facility. When a speed reduction greater than 10 mph is imposed, the reduction is to be done in 10 mph per 500 increments.

Temporary regulatory speed signs shall be removed as soon as the conditions requiring the reduced speed no longer exist. Once the work zone regulatory speeds are removed, the regulatory speed existing prior to construction will automatically go back into effect unless new speed limit signing is provided for in the plans.

On projects with interspersed work activities, speed reductions should be located in proximity to those activities which merit a reduced speed, and not "blanketed" for the entire project. At the departure of such activities, the normal highway speed should be posted to give the motorist notice that normal speed can be resumed.

If the existing regulatory speed is to be used, consideration should be given to supplementing the existing signs when the construction work zone is between existing regulatory speed signs. For projects where the reduced speed conditions exist for greater than 1 mile in rural areas (non-interstate) and on rural or urban interstate, additional regulatory speed signs are to be placed at no more than 1 mile intervals. Engineering judgment should be used in placement of the additional signs. Locating these signs beyond ramp entrances and beyond major intersections are examples of proper placement. For urban situations (non-interstate), additional speed signs are to be placed at a maximum of 1000' apart.

When field conditions warrant speed reductions different from those shown in the TCP the contractor may submit to the project engineer for approval by the Department, a signed and sealed study to justify the need for further reducing the existing regulatory speed signs. For projects where the reduced speed conditions exist for greater than 1 mile in rural areas (non-interstate) and on rural or urban interstate, additional regulatory speed signs are to be placed at no more than 1 mile intervals. Engineering judgment should be used in placement of the additional signs. Locating these signs beyond ramp entrances and beyond major intersections are examples of proper placement. For urban situations (non-interstate), additional speed signs are to be placed at a maximum of 1000' apart.

For additional information, refer to the Plans Preparation Manual, Volume 1, Chapter 10.

**GENERAL INFORMATION FOR TRAFFIC CONTROL THROUGH WORK ZONES**

**INDEX NO. 600**

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APPROVED BY: JAMES R. ORTH, P.E.  
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PREPARED FOR:  
**TOWN OF SOUTHWEST RANCHES**  
 BROWARD COUNTY, FLORIDA

**STIRLING ROAD**  
 GUARDRAIL INSTALLATION PHASE II  
 STANDARD ROADWAY DETAILS

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 17-1930

SHEET  
**C-05**

**FLAGGER CONTROL**

Where flaggers are used, a FLAGGER symbol or legend sign must replace the WORKERS symbol or legend sign.

The flagger must be clearly visible to approaching traffic for a distance sufficient to permit proper response by the motorist to the flagging instructions, and to permit traffic to reduce speed or to stop as required before entering the work site. Flaggers shall be positioned to maintain maximum color contrast between the flagger's high-visibility safety apparel and equipment and the work area background.

**Hand-Signaling Devices**

STOP/SLOW paddles are the primary hand-signaling device. The STOP/SLOW paddle shall have an octagonal shape on a rigid handle. If the STOP/SLOW paddle is placed on a rigid staff, the minimum length of the staff, measured from the bottom of the paddle to the end of the staff that rests on the ground, must not be less than 6 ft. STOP/SLOW paddles shall be at least 24 inches wide with letters at least 6 inches high and should be fabricated from light semirigid material. The background of the STOP face shall be red with white letters and border. The background of the SLOW face shall be orange with black letters and border. When used at night-time, the STOP/SLOW paddle shall be retroreflectorized.

Flag use is limited to immediate emergencies, intersections, and when working on the centerline or shared left turn lanes where two (2) flaggers are required and there is opposing traffic in the adjacent lanes. Flags, when used, shall be a minimum of 24 inches square, made of a good grade of red material, and securely fastened to a staff that is approximately 36 inches in length. When used at night-time, flags shall be retroreflectorized red.

Flashlight, lantern or other lighted signal that will display a red warning light shall be used at night.

**Flagger Stations**

Flagger stations shall be located far enough in advance of the work space so that approaching road users will have sufficient distance to stop before entering the work space. When used at night-time, the flagger station shall be illuminated.

**SURVEY WORK ZONES**

The SURVEY CREW AHEAD symbol or legend sign shall be the principal Advance Warning Sign used for Traffic Control Through Survey Work Zones and may replace the ROAD WORK AHEAD sign when lane closures occur, at the discretion of the Party Chief.

When Traffic Control Through Work Zones is being used for survey purposes only, the END ROAD WORK sign is called for on certain 600 Series Indexes should be omitted.

**Survey Between Active Traffic Lanes or Shared Left Turn Lanes**

The following provisions apply to Main Roadway Traffic Control Work Zones. These provisions must be adjusted by the Party Chief to fit roadway and traffic conditions when the Survey Work Zone includes intersections.

(A) A STAY IN YOUR LANE (MOT-3-06) sign shall be added to the Advance Warning Sign sequence as the second most immediate sign from the work area.

(B) Elevation Surveys—Cones may be used at the discretion of the Party Chief to protect the backstop tripod and/or instrument. Cones shall be placed at the equipment, and up to 50' intervals for at least 200' towards the flow of traffic.

(C) Horizontal Control—With traffic flow in the same direction, cones shall be used to protect the backstop tripod and/or instrument. Cones shall be placed at the equipment, and up to 50' intervals for at least 200' towards the flow of traffic.

(D) Horizontal Control—With traffic flow in opposite directions, cones shall be used to protect the backstop tripod and/or instrument. Cones shall be placed at the equipment, and up to 50' intervals for at least 200' in both directions towards the flow of traffic.

**SIGNS**

**SIGN MATERIALS**

Mesh signs and non-retroreflectorized vinyl signs may only be used for daylight operations. Non-retroreflectorized vinyl signs must meet the requirements of Specifications Section 994.

Retroreflectorized vinyl signs meeting the requirements of Specification Section 994 may be used for daytime or night operations not to exceed 1 day except as noted in the standards.

Rigid or Lightweight sign panels may be used in accordance with the vendor APL drawing for the sign stand to which they are attached.

**INTERSECTING ROAD SIGNING**

Signing for the control of traffic entering and leaving work zones by way of intersecting crossroads shall be adequate to make drivers aware of work zone conditions. When work operations exceed 60 minutes, place the ROAD WORK AHEAD sign on the side street entering the work zone.

**ADJOINING AND/OR OVERLAPPING WORK ZONE SIGNING**

Adjoining work zones may not have sufficient spacing for standard placement of signs and other traffic control devices in their advance warning areas or in some cases other areas within their traffic control zones. Where such restraints or conflicts occur or are likely to occur, one of the following methods will be employed to avoid conflicts and prevent conditions that could lead to misunderstanding on the part of the traveling public as to the intended travel way by the traffic control procedure applied:

(A) For scheduled projects the engineer in responsible charge of project design will resolve anticipated work zone conflicts during the development of the project traffic control plan. This may entail revision of plans on preceding projects and coordination of plans on concurrent projects.

(B) Unanticipated conflicts arising between adjoining in progress highway construction projects will be resolved by the Resident Engineer for projects under his residency, and, by the District Construction Engineer for in progress projects under adjoining residencies.

(C) The District Maintenance Engineer will resolve anticipated and occurring conflicts within scheduled maintenance operations.

(D) The Unit Maintenance Engineer will resolve conflicts that occur within routine maintenance works; between routine maintenance work, unscheduled work and/or permitted work; and, between unit controlled maintenance works and highway construction projects.

**SIGN COVERING AND INTERMITTENT WORK STOPPAGE SIGNING**

Existing or temporary traffic control signs that are no longer applicable or are inconsistent with intended travel paths shall be removed or fully covered.

Sign blanks or other available coverings must completely cover the existing sign. Rigid sign coverings shall be the same size as the sign it is covering, and bolted in a manner to prevent movement.

Sign covers are incidental to work operations and are not paid for separately.

**SIGNING FOR DETOURS, LANE SHIFTS AND DIVERSIONS**

Detours should be signed clearly over their entire length so that motorists can easily determine how to return to the original roadway. The reverse curve (W1-4) warning sign should be used for the advanced warning for a lane shift. A diversion should be signed as a lane shift.

**EXTENDED DISTANCE ADVANCE WARNING SIGN**

Advance Warning Signs shall be used at extended distance of one-half mile or more when limited sight distance or the nature of the obstruction may require a motorist to bring their vehicle to a stop. Extended distance Advance Warning Signs may be required on any type roadway, but particularly be considered on multilane divided highways where vehicle speed is generally in the higher range (45 MPH or more).

**UTILITY WORK AHEAD SIGN**

The UTILITY WORK AHEAD (W21-2) sign may be used as an alternate to the ROAD WORK AHEAD or the ROAD WORK XX FT (W20-1) sign for utility operations on or adjacent to a highway.

**LENGTH OF ROAD WORK SIGN**

The length of road work sign (G20-1) bearing the legend ROAD WORK NEXT \_\_\_\_\_ MILES is required for all projects of more than 2 miles in length. The number of miles entered should be rounded up to the nearest mile. The sign shall be located at begin construction points.

**SPEEDING FINES DOUBLED WHEN WORKERS PRESENT SIGN**

The SPEEDING FINES DOUBLED WHEN WORKERS PRESENT sign should be installed on all projects, but may be omitted if the work operation is less than 1 day. The placement should be 500 feet beyond the ROAD WORK AHEAD sign or midway to the next sign whichever is less.

**GROOVED PAVEMENT AHEAD SIGN**

The GROOVED PAVEMENT AHEAD sign is required 300 feet in advance of a milled or grooved surface open to traffic. The WB-15P placard shall be used in conjunction with the GROOVED PAVEMENT AHEAD sign.

**END ROAD WORK SIGN**

The END ROAD WORK sign (G20-2) should be installed on all projects, but may be omitted where the work operation is less than 1 day. The sign should be placed approximately 500 feet beyond the end of a construction or maintenance project unless other distance is called for in the plans. When other Construction or Maintenance Operations occur within 1 mile this sign should be omitted and signing coordinated in accordance with Index No. 600, ADJOINING AND/OR OVERLAPPING WORK ZONE SIGNING.

**PROJECT INFORMATION SIGN**

The Project information sign shall be installed when called for in the plans.

**GENERAL NOTES:**

1. All signs shall be post mounted when work operations exceed one day except for:

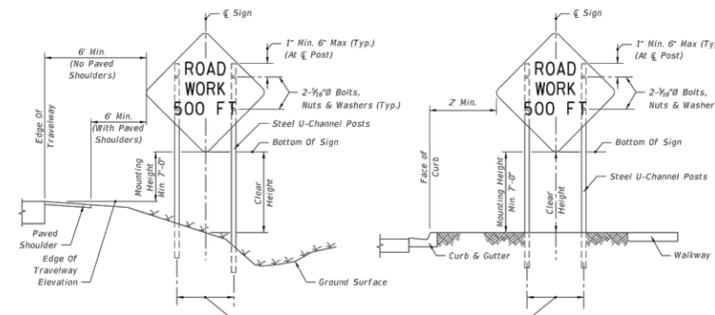
- a. Road closure signs mounted in accordance with the vendor drawing for the Type III barricade shown on the APL.
- b. Pedestrian advanced warning or pedestrian regulatory signs mounted on sign supports in accordance with the vendor drawing shown on the APL.
- c. Median barrier mounted signs per Index 11871.

**TEMPORARY SIGN SUPPORT NOTE:**

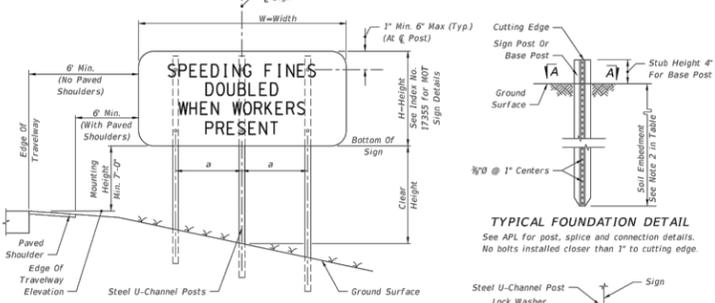
1. Unless shielded with barrier or outside of the Clear Zone, signs mounted on temporary supports or barricades, and barricade/sign combination must be crashworthy in accordance with NCHRP 350 requirements and included on the Approved Products List (APL).

**POST MOUNTED SIGN NOTES:**

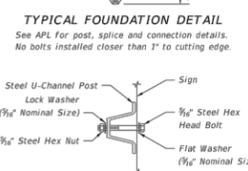
- 1. Use only approved systems listed on the Department's Approved Products List (APL).
- 2. Manufacturers seeking approval of U-Channel and steel square tube sign support assemblies for inclusion on the Approved Products List (APL) must submit an APL application, design calculations (for square tube only), and detailed drawings showing the product meets all the requirements of this Index.
- 3. Provide 3 lb/ft Steel U-Channel Posts with a minimum section modulus of 0.43 in<sup>3</sup> for 60 ksi steel, a minimum section modulus of 0.37 in<sup>3</sup> for 70 ksi steel, or a minimum section modulus of 0.34 in<sup>3</sup> for 80 ksi steel.
- 4. Provide 4 lb/ft Steel U-Channel Posts with a minimum section modulus of 0.56 in<sup>3</sup> for 60 ksi steel, or a minimum section modulus of 0.47 in<sup>3</sup> for 70 ksi or 80 ksi steel.
- 5. All U-Channel posts shall conform with ASTM A 499, Grade 60, or ASTM A 576, Grade 1080 (with a minimum yield strength of 80 ksi). Square tube posts shall conform with ASTM A 633, Grade 50, or ASTM A 1011, Grade 50.
- 6. Sign attachment bolts, washers, nuts, and spacers shall conform with ASTM A307 or A 36.
- 7. For diamond warning signs with supplement plaque (up to 5 ft<sup>2</sup> in area), use 4 lb/ft posts for up to 10 ft Clear Height (measure to the bottom of diamond warning sign).
- 8. Install 4 lb/ft Steel U-Channel Posts with approved breakaway splice in accordance with the manufacturer's detail shown on the APL.
- 9. The contractor may install 3 lb/ft Steel U-Channel Posts with approved breakaway splice in accordance with the manufacturer's detail shown on the APL.
- 10. Install all posts plumb.
- 11. The contractor may set posts in preformed holes to the specified depth with suitable backfill tamped securely on all sides, or drive 3 lb/ft sign posts and any size base post in accordance with the manufacturer's detail shown on the APL.



2 POST SIGN SUPPORT MOUNTING DETAILS (SINGLE POST SIMILAR) RURAL URBAN



3 POST SIGN SUPPORT MOUNTING DETAILS SPEEDING FINES DOUBLED WHEN WORKERS PRESENT



TYPICAL FOUNDATION DETAIL SIGN ATTACHMENT DETAIL (WITHOUT Z-BRACKET)

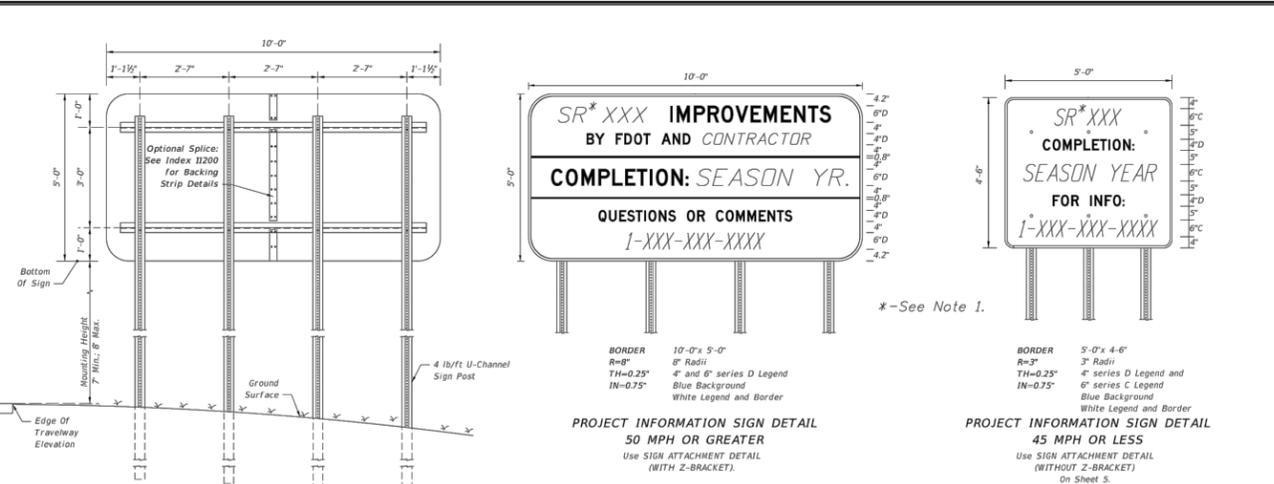
**POST AND FOUNDATION TABLE FOR WORK ZONE SIGNS**

SIGN SHAPE	SIGN SIZE (INCHES)	NUMBER OF STEEL U CHANNEL POSTS
Octagon	36x36x36	1
	30x30x30	1
	48x48x48	2
	60x60x60	2
	24x18	1
	24x30	1
Triangle	36x18	1
	36x24	1
	48x18	1
	48x24	1
	36x48	2
	48x36	2
	48x36	2
	54x36	2
	48x60	3
	60x54	3
Rectangle (W x H)	72x48	4
	120x60	4
	30x50	1
	36x36	2
Square	48x48	2
	48x48	2
Diamond (See Note 7)	48x48	2
	360	2

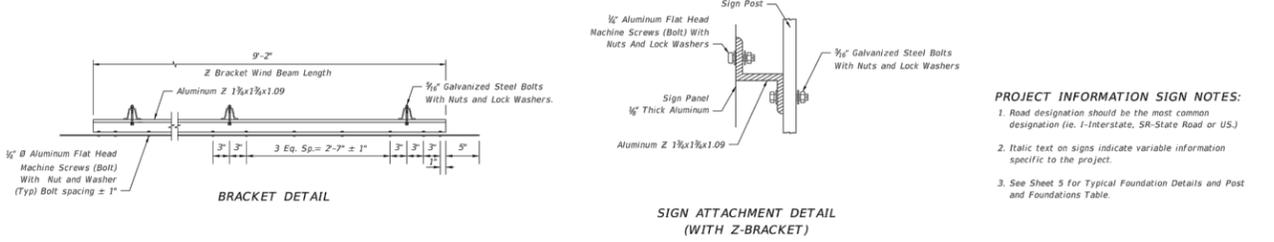
Notes For Table:

- 1. Use 3 lb/ft posts for Clear Height up to 10' and 4 lb/ft posts for Clear Height up to 12'.
- 2. Use 4 lb/ft U-Channel sign post with a mounting height of 7' min. and 8' max. Attach sign panel using Z-bracket detail on Sheet 6.
- 3. For both 3 lb/ft and 4 lb/ft base or sign posts installed in rock, a minimum cumulative depth of 2' of rock layer is required.
- 4. The soil pile as shown on the APL vendor drawing is not required for base posts or sign posts installed in existing rock (as defined in Note 3), asphalt roadway, shoulder pavement or soil under sidewalk.

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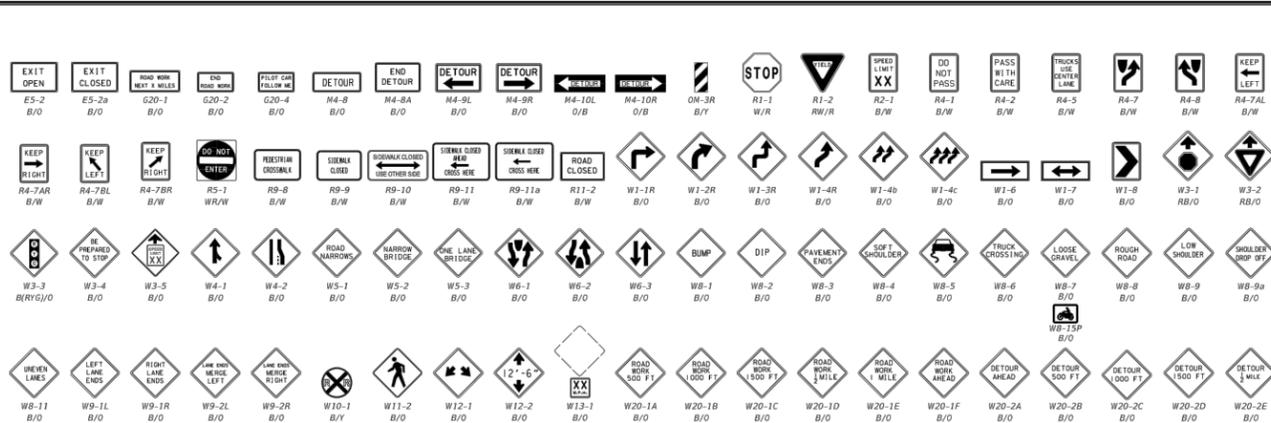


4 POST SIGN SUPPORT MOUNTING DETAIL SIGN ATTACHMENT DETAIL (WITH Z-BRACKET)



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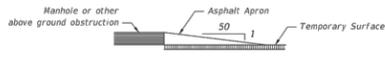
LAST REVISION 11/01/16	DESCRIPTION	FDOT FY 2017-18 DESIGN STANDARDS	GENERAL INFORMATION FOR TRAFFIC CONTROL THROUGH WORK ZONES	INDEX NO. 600	SHEET NO. 5 of 12
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**MANHOLES/CROSSWALKS/JOINTS**

Manholes extending 1' or more above the travel lane and crosswalks having an uneven surface greater than 1/4" shall have a temporary asphalt apron constructed as shown in the diagram below.

All transverse joints that have a difference in elevation of 1" or more shall have a temporary asphalt apron constructed as shown in the diagram below.



The apron is to be removed prior to constructing the next lift of asphalt. The cost of the temporary asphalt shall be included in the contract unit price for Maintenance of Traffic, LS.

**REMOVING PAVEMENT MARKINGS**

Existing pavement markings that conflict with temporary work zone delineation shall be removed by any method approved by the Engineer, where operations exceed one daylight period. Remove conflicting pavement marking using a method that will not damage the surface texture of the pavement, unless the pavement will be restored prior to traffic use. Painting over existing pavement markings with black paint or spraying with asphalt shall not be accepted as substitute for removal or obliteration. Full pavement with overlays of either a structural or friction course (non-final surface) are an acceptable alternate means to achieve removal.

**SIGNALS**

Existing traffic signal operations that require modification in order to carry out work zone traffic control shall be included in the TCP and be approved by the District Traffic Operations Engineer.

Maintain all existing actuated or traffic responsive mode signal operations for main and side street movements for the duration of the Contract and require restoration of any loss of detection within 12 hours. The contractor shall select only detection technology listed on the Department's Approved Products List (APL) and approved by the Engineer to restore detection capabilities.

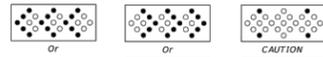
**ADVANCE WARNING ARROW BOARDS**

An arrow board in the arrow or chevron mode shall be used only for stationary or moving lane closures on multi-lane roadways.

For shoulder work, blocking the shoulder, for roadside work near the shoulder, or for temporarily closing one lane on a two-lane, two-way roadway, an arrow board shall be used only in the caution mode.

A single arrow board shall not be used to merge traffic laterally more than one lane. When arrow boards are used to close multiple lanes, a single board shall be used at the merging taper for each closed lane.

When Advance Warning Arrow Boards are used at night, the intensity of the flashers shall be reduced during darkness when lower intensities are desirable.



Minimum Required Lamps (●) and Additional Lamps Allowed (○) for various arrow board modes.

MODES: MOVE/MERGE LEFT, MOVE/MERGE RIGHT, MOVE/MERGE RIGHT OR LEFT

Legend for lamp requirements: ● Minimum Required Lamps, ○ Additional Lamps Allowed

**MODES**

**PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS)**

The PCMS can be used to: 1. Supplement standard signing in construction or maintenance work zones. 2. Reinforce static advance warning messages. 3. Provide motorists with updated guidance information.

PCMS should be placed approx. 500 to 800 feet in advance of the work zone conflicts or 0.5 to 2 miles in advance of complex traffic control schemes which require new and/or unusual traffic maneuvers.

If PCMS are to be used at night, the intensity of the flashers shall be reduced during darkness when lower intensities are desirable.

For additional information refer to the FDOT Plans Preparation Manual, Volume I, Chapter 10.

**TRUCK/TRAILER-MOUNTED ATTENUATORS**

Truck/Trailer-mounted attenuators (TMA) can be used for moving operations and short-term stationary operations. For moving operations, see Index Nos. 607 and 619. For short-term, stationary operations, see Part VI of the MUTCD.

**CHANNELIZING DEVICES**

Channelizing devices for work zone traffic control shall be as prescribed in Part VI of the MUTCD, subject to supplemental revisions provided in the contract documents and Index 600 requirements. Lighting Devices must not be used to supplement channelization.

**CHANNELIZING DEVICE CONSISTENCY**

Barricades, vertical panels, cones, tubular markers and drums shall not be intermixed within either the lateral transition or within the tangent alignment.

**DROP-OFF CONDITION NOTES**

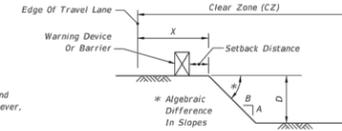
- These conditions and treatments can be applied only in work areas that fall within a properly signed work zone.
- When drop-offs occur within the clear zone due to construction or maintenance activities, protection devices are required (See Table 1). A drop-off is defined as a drop in elevation, parallel to the adjacent travel lanes, greater than 3" with slope (A/B) steeper than 1:4 and an algebraic difference in slopes greater than 0.25 (See Drop-off Condition Detail).
- Drop-offs may be mitigated by placement of slopes with optional base material per Specifications Section 285. Slopes shallower than 1:4 may be required to avoid algebraic difference in slopes greater than 0.25. Include the cost for the placement and removal of the material in Maintenance of Traffic, LSD. Use of this treatment in lieu of a barrier is not eligible for CSIP consideration. Conduct daily inspections for deficiencies related to erosion, excessive slopes, rutting or other adverse conditions. Repair any deficiencies immediately.
- Distance X is to be the maximum practical under project conditions.
- For Clear Zone widths, see Index No. 600, Sheet 3.
- For Setback Distance, refer to the Standard Index drawing of the selected barrier for the required deflection space.
- Distance from the travel lane to the barrier or warning device should be maximum practical for project conditions.
- For Conditions 1 and 3 provided in Table 1, any drop-off condition that is created and restored within the same work period will not be subject to the use of barriers; however, warning devices will be required.
- When permanent curb heights are ≥ 6", no warning device will be required. For curb heights < 6", see Table 1.
- Where a barrier is specified, any of the types below may be used in accordance with the applicable Index:
 

Index No.	Description
400	Guardrail
412	Low Profile Barrier
414	Type K Temporary Concrete Barrier System
415	Temporary Concrete Barrier

 For other types of temporary barriers see the APL.
- Drop-off condition and protection requirements apply to all speeds.

**Table 1**  
**Drop-off Protection Requirements**

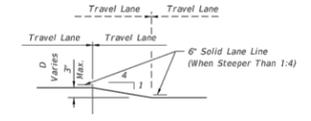
Condition	X (ft)	D (in.)	Device Required
1	0-12	> 3	Barrier (See Note 8)
2	> 12-CZ	> 3 to ≤ 5	Warning Device
3	0-CZ	> 5	Barrier (See Note 8)
4	Removal of Bridge or Retaining Wall Barrier		Barrier
5	Removal of portions of Bridge Deck		Barrier



**DROP-OFF CONDITION DETAIL**

**TRAVEL LANE TREATMENT FOR MILLING OR RESURFACING NOTES**

- This treatment applies to resurfacing or milling operations between adjacent travel lanes.
- Whenever there is a difference in elevation between adjacent travel lanes, the WB-11 sign with "UNEVEN LANES" is required at intervals of 1/2 mile maximum.
- If D is 1/2' or less, no treatment is required.
- Treatment allowed only when D is 3" or less.
- If the slope is steeper than 1:4 (not to be steeper than 1:1), the R4-1 and M01-1.06 signs shall be used as a supplement to the WB-11; this condition should never exceed 3 miles in length.



**TRAVEL LANE TREATMENT FOR MILLING OR RESURFACING DETAIL**

**PEDESTRIAN AND/OR BICYCLIST WAY DROP-OFF CONDITION NOTES**

- A pedestrian and/or bicyclist way drop-off is defined as:
  - a drop in elevation greater than 10" that is closer than 2' from the edge of the pedestrian or bicyclist way
  - a slope steeper than 1:2 that begins closer than 2' from the edge of the pedestrian or bicyclist way when the total drop-off is greater than 60"
- Protect any drop-off adjacent to a pedestrian or bicyclist way with warning devices, temporary barrier wall, or approved handrail.

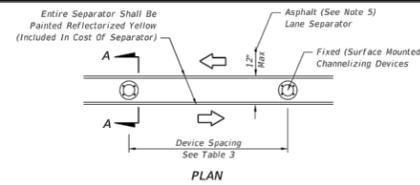
**DROP-OFFS IN WORK ZONES**

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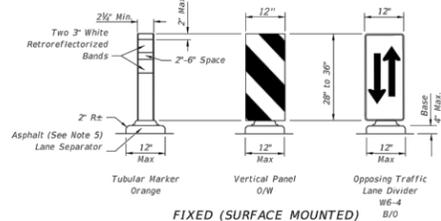
LAST REVISION: 11/01/16	DESCRIPTION: FDOT FY 2017-18 DESIGN STANDARDS	GENERAL INFORMATION FOR TRAFFIC CONTROL THROUGH WORK ZONES	INDEX NO. 600	SHEET NO. 9 of 12
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**Table 3**  
**Device Spacing**

Speed (mph)	Max. Distance Between Devices (ft.)			
	Taper	Tangent	Taper	Tangent
25	25	50	25	50
30 to 45	25	50	30	50
50 to 70	25	50	50	100



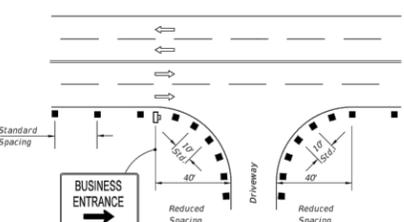
**PLAN**



**SECTION AA**

**FIXED (SURFACE MOUNTED) CHANNELIZING DEVICES**

**TEMPORARY LANE SEPARATOR**

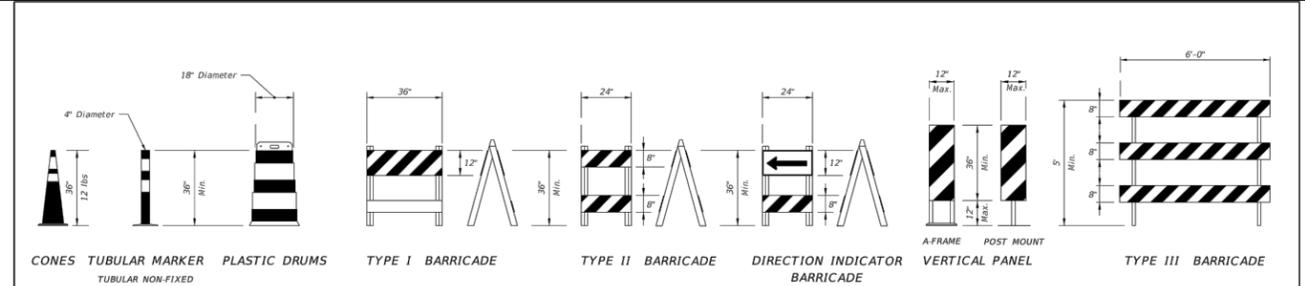


**PLACEMENT OF BUSINESS ENTRANCE SIGNS AND CHANNELIZING DEVICES AT BUSINESS ENTRANCE**

- For single business entrances, place one 24" x 36" business sign for each driveway entrance affected. Signs shall show specific business names. Logos may be provided by business owners. Standard BUSINESS ENTRANCE sign in Index 17355 may be used when approved by the Engineer.
- When several businesses share a common driveway entrance, place one 24" x 36" standard BUSINESS ENTRANCE sign in accordance with Index 17355 at the common driveway entrance.
- Channelizing devices shall be placed at a reduced spacing on each side of the driveway entrance, but shall not restrict sight distance for the driveway users.
- Business entrance signs are intended to guide motorists to business entrances moved/modified or disturbed during construction projects. Business entrance signs are not required where there is minimal disruption to business driveways which is often the case with resurfacing type projects.

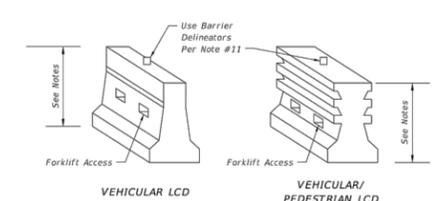
**PLACEMENT OF BUSINESS ENTRANCE SIGNS AND CHANNELIZING DEVICES AT BUSINESS ENTRANCE**

LAST REVISION: 07/01/15	DESCRIPTION: FDOT FY 2017-18 DESIGN STANDARDS	GENERAL INFORMATION FOR TRAFFIC CONTROL THROUGH WORK ZONES	INDEX NO. 600	SHEET NO. 10 of 12
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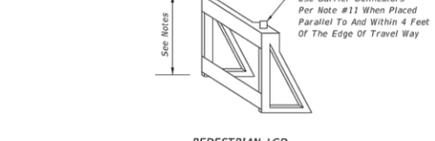
**CHANNELIZING DEVICE NOTES**

- The details shown on this sheet are for the following purposes:
  - For ease of identification and
  - To provide information that supplements or supersedes that provided by the MUTCD.
- The Type III Barricade shall have a unit length of 6'-0" only. When barricades of greater lengths are required those lengths shall be in multiples of the 6'-0" unit.
- No sign panel should be mounted on any channelizing device unless the channelizing device/sign combination was found to be crashworthy and the sign panel is mounted in accordance with the vendor drawing for the channelizing device shown on the APL.
- Ballast shall not be placed on top rails or any striped rails or higher than 12" above the driving surface.
- The direction indicator barricade may be used in tapers and transitions where specific directional guidance to drivers is necessary. If used, direction indicator barricades shall be used in series to direct the driver through the transition and into the intended travel lane.
- The spacing of sheeting is not permitted on either channelizing devices or NOT signs.
- For rails less than 3'-0" long, 4" stripes shall be used.
- Cones shall:
  - Be used only in active work zones where workers are present.
  - Not exceed 2 miles in length of use at any one time.
  - Be reflectorized as per the MUTCD with Department-approved reflective collars when used at night.
- Vehicular longitudinal channelizing devices shall not exceed 36" in height. For vehicular longitudinal channelizing devices (LCDs) less than 32" in height, the LCD shall be supplemented with approved fixed (surface mounted) channelizing devices (tubular markers, vertical panels, etc.) along the run of the LCD, at the ends, at 50' centers on tangents, and 25' centers on radii. The cost of the fixed supplemented channelizing devices shall be included in the cost of the LCD. LCDs less than 32" in height shall not be used for speeds greater than 45 mph.
- For pedestrian longitudinal channelizing devices, the device shall have a minimum of 8" continuous detectable edging above the walkway. A gap not exceeding a height of 2" is allowed to facilitate drainage. The top surface of the device shall be a minimum height of 32" and have a 1/8" or less difference in any plane at all connection points between the devices to facilitate hand trailing. The bottom and the top surface of the device shall be in the same vertical plane. If pedestrian drop-off protection is required, the device shall have a footprint or offset of at least 2', otherwise the device must be at least 42" in height above the walkway and be anchored or ballasted to withstand a 200 lb lateral point load at the top of the device.
- Barrier Delineators: Meet Specifications Section 993. Place on top of unit so that retroreflective sheeting faces vehicular traffic. Spacing must be a maximum of 50' centers in transitions, 100' centers on curves and 200' centers on tangents. Color must match adjacent longitudinal pavement marking.



**VEHICULAR LCD**

**VEHICULAR/PEDESTRIAN LCD**



**PEDESTRIAN LCD**

**LONGITUDINAL CHANNELIZING DEVICE**

**IDENTIFICATIONS - CHANNELIZING DEVICES**

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NO.	DATE	REVISION	BY

Date: 04/11/17  
Designed: JRO  
Drawn: MM  
Checked: JRO

APPROVED BY: JAMES R. ORTH, P.E.  
DATE: \_\_\_\_\_  
FLORIDA PROFESSIONAL ENGINEER NO. 50126

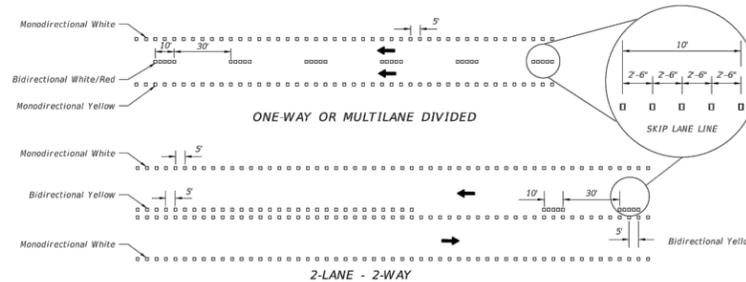
**CRAIG A. SMITH & ASSOCIATES**  
CONSULTING ENGINEERS-PLANNERS-SURVEYORS  
7777 GLADES ROAD, SUITE 410  
BOCA RATON, FLORIDA 33434  
(561) 314-4445  
CERTIFICATE NO. LB0003110

PREPARED FOR:  
**TOWN OF SOUTHWEST RANCHES**  
BROWARD COUNTY, FLORIDA

**STIRLING ROAD**  
GUARDRAIL INSTALLATION PHASE II  
STANDARD ROADWAY DETAILS

FILE NAME: 10-1930-C-07-DTLS.dwg  
LAST SAVED: 08/11/17 - 1:36pm  
CAS PROJECT NUMBER  
17-1930

SHEET  
**C-07**

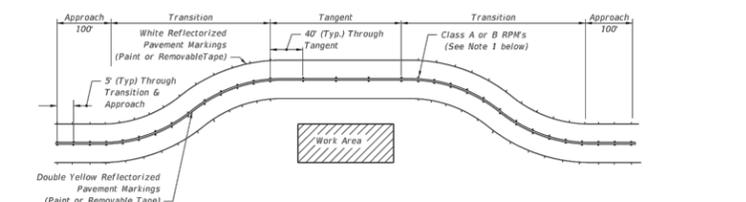


**NOTES FOR RETROREFLECTIVE PAVEMENT MARKERS**

- The color of the raised pavement marker under both day and night conditions shall conform to the color of the marking for which they serve as a positioning guide, or for which they supplement or substitute.
- To provide contrast on concrete pavement, or light asphalt, the five (5) white RPMs shall be followed by five black RPMs. The spacing between RPMs shall be 2'-6". Black RPMs will not be required for contrast with yellow RPMs.
- RPMs used to supplement lane lines are to be paid for as Reflective Pavement Marker (Temporary), EA. RPMs used as a temporary substitute for paint or removable tape due to equipment malfunction are to be placed at the Contractor's expense.

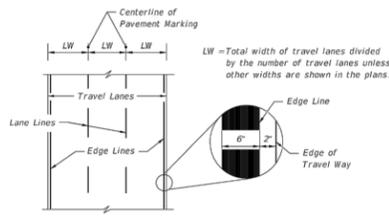
**TEMPORARY SUBSTITUTION OF RPMs FOR PAINT OR REMOVABLE TAPE**

- Paint or removable tape are the required work zone markings and shall be placed in accordance with the plans and specifications. If these work zone markings can not be placed due to weather restrictions identified in the appropriate specification, temporary substitution of RPMs for work zone markings will be allowed until the weather condition permits the placement of appropriate work zone marking. Temporary substitution of RPMs for work zone markings will be allowed for equipment malfunction, placement of the appropriate work zone marking shall be made within 3 days, or sooner if possible. When RPMs are used as a temporary substitution for work zone markings the following shall apply:
  - Lane widths identified in the plans must be maintained. Placement of RPMs should consider where work zone markings will be placed as soon as conditions allow. If the RPMs can not be placed so that the lane width is maintained after the placement of the work zone markings, the conflicting RPMs must be removed.
  - The color of the RPM body and the reflective face shall conform to the color of the marking for which they substitute.
- In work zones, B RPMs must be used to form lane lines, edge lines and temporary gore areas as a temporary substitute for paint or removable tape at the spacing shown above.



**USE OF RPMs TO SUPPLEMENT PAINT OR REMOVABLE TAPE IN WORK ZONES**

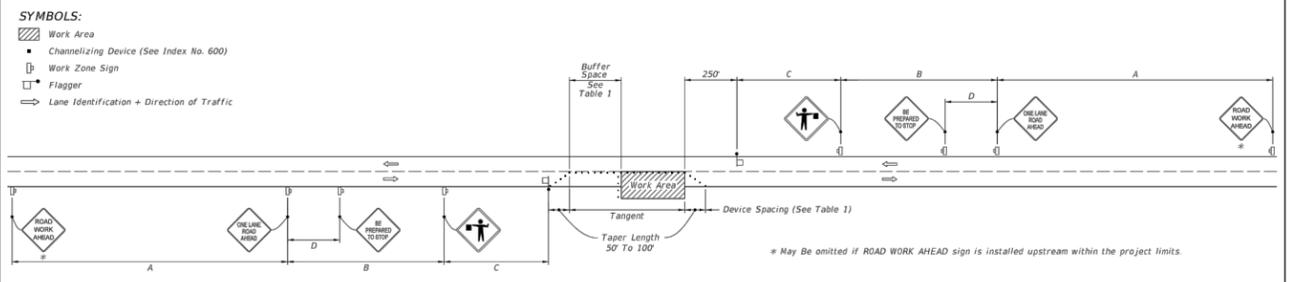
- RPMs shall be installed as a supplement to:
  - All lane lines.
  - Edge lines in transition & approach areas.
  - Edge lines of gore areas.
- Placement of RPMs should be as shown in Index No. 17352 with the following exceptions:
  - RPMs shall be placed at 5 feet center to center in approach and transition areas.



**PLACEMENT OF PAVEMENT MARKINGS**

**PAVEMENT MARKINGS**

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**GENERAL NOTES:**

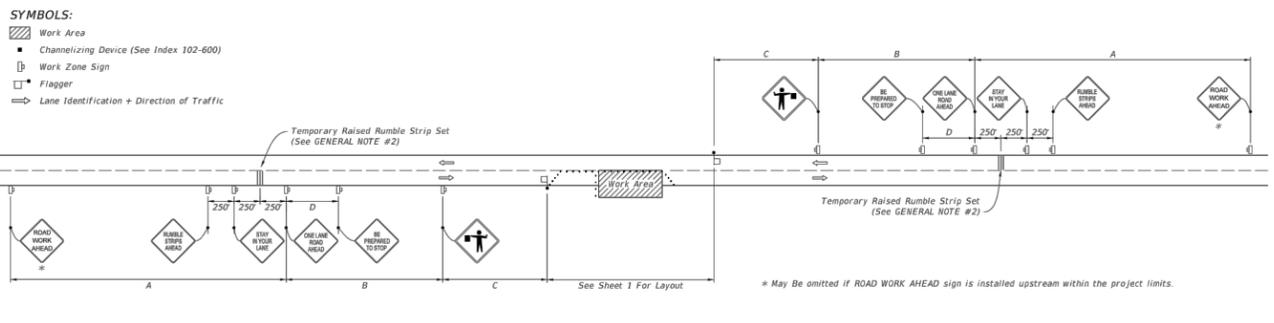
- Special Conditions may be required in accordance with these notes and the following sheets:
  - If an active railroad crossing is located closer to the Work Area than the queue length plus 300 feet, extend the Buffer Space as shown on Sheet 2.
  - If the queuing of vehicles across an active railroad crossing cannot be avoided, provide a uniformed traffic control officer or flagger at the highway-rail grade crossing to prevent vehicles from stopping within the highway-rail grade crossing, even if automatic train warning devices are in place.
- Temporary Raised Rumble Strips:
  - Use when both of the following conditions are met concurrently:
    - Existing Posted Speed is 55 mph or greater;
    - Work duration is greater than 60 minutes.
  - Use a consistent Strip color throughout the work zone.
  - Place each Rumble Strip Set transversely across the lane at locations shown.
  - Use Option 1 or Option 2 as shown on Sheet 2. Use only one option throughout work zone.
- Additional one-way control may be provided by the following means:
  - Flag-carrying vehicle;
  - Official vehicle;
  - Pilot vehicles;
  - Traffic signals.
- When flaggers are the sole means of one-way control, the flaggers must be in sight of each other or in direct communication at all times.
- When a side road intersects the highway within the TTC zone, place additional TTC devices in accordance with other applicable TTC indexes.
- The two channelizing devices directly in front of the work area may be omitted provided vehicles in the work area have high-intensity rotating, flashing, oscillating, or strobe lights operating.
- When Buffer Space cannot be attained due to geometric constraints, use the greatest attainable length, not less than 200 ft, for posted speeds greater than 25 mph.
- ROAD WORK AHEAD and BE PREPARED TO STOP signs may be omitted if all of the following conditions are met:
  - Work operations are 60 minutes or less.
  - Speed limit is 45 mph or less.
  - There are no sight obstructions to vehicles approaching the work area for a distance equal to the Buffer Space shown in Table 1.
  - Vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.
  - Volume and complexity of the roadway has been considered.
  - If a railroad crossing is present, vehicles will not queue across rail tracks.
  - AFADs are not in use.
- See Index 600 for general TCZ requirements and additional information.
- Automated Flagger Assistance Devices (AFADs) may be used in accordance with Specifications Section 102.990 and the APL vendor drawings.

**TABLE 1**

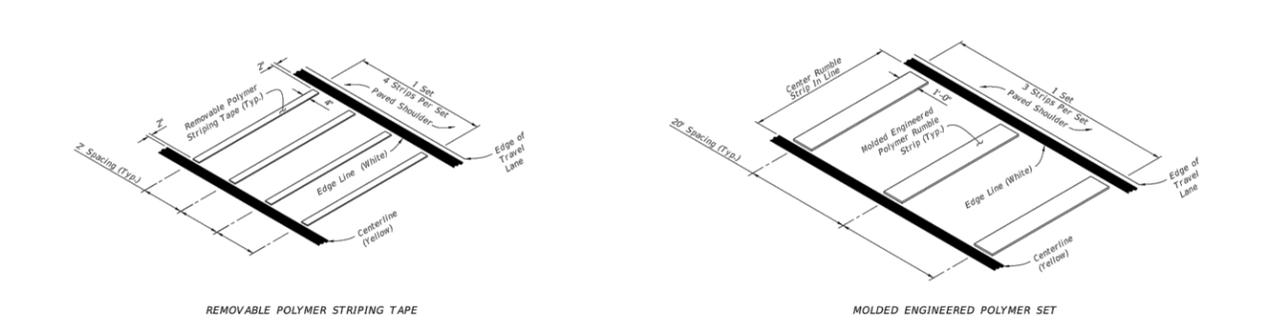
Posted Speed	DEVICE SPACING				Distance Between Signs				Buffer Space
	Maximum Spacing of Cones or Tubular Markers	Maximum Spacing of Type I or Type II Barricades/Panels/Drums	On a Taper	On a Tangent	A	B	C	D	
25	20'	50'	20'	50'	200'	200'	200'	100'	155'
30	20'	50'	20'	50'	200'	200'	200'	100'	200'
35	20'	50'	20'	50'	200'	200'	200'	100'	250'
40	20'	50'	20'	50'	200'	200'	200'	100'	300'
45	20'	50'	20'	50'	350'	350'	350'	175'	360'
50	20'	50'	20'	100'	500'	500'	500'	250'	425'
55	20'	50'	20'	100'	2640'	1500'	1000'	500'	495'
60	20'	50'	20'	100'	2640'	1500'	1000'	500'	570'
65	20'	50'	20'	100'	2640'	1500'	1000'	500'	645'
70	20'	50'	20'	100'	2640'	1500'	1000'	500'	730'

**CONDITIONS**  
WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCRoACH THE AREA BETWEEN THE CENTERLINE AND A LINE 2' OUTSIDE THE EDGE OF TRAVEL WAY.

LAST REVISION	DESCRIPTION:	FY 2017-18 DESIGN STANDARDS	INDEX NO. 603	SHEET NO. 1 OF 3
01/01/16				

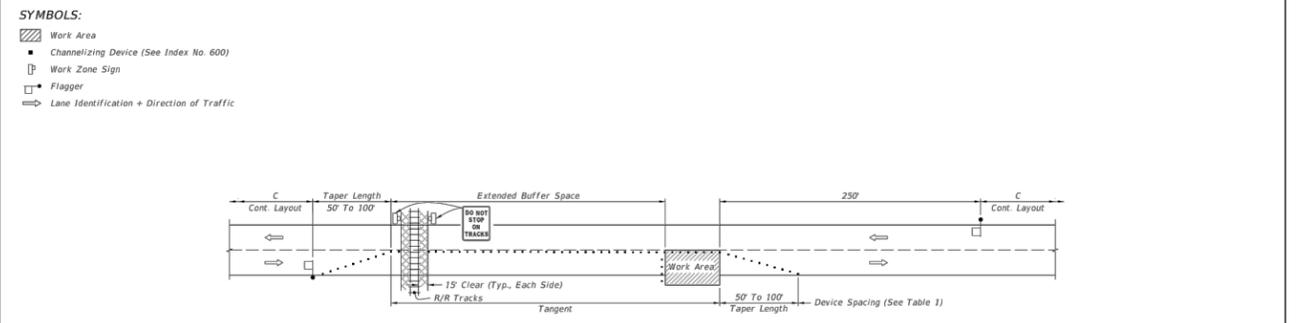


**WITH TEMPORARY RAISED RUMBLE STRIPS (When Required See GENERAL NOTE #2)**

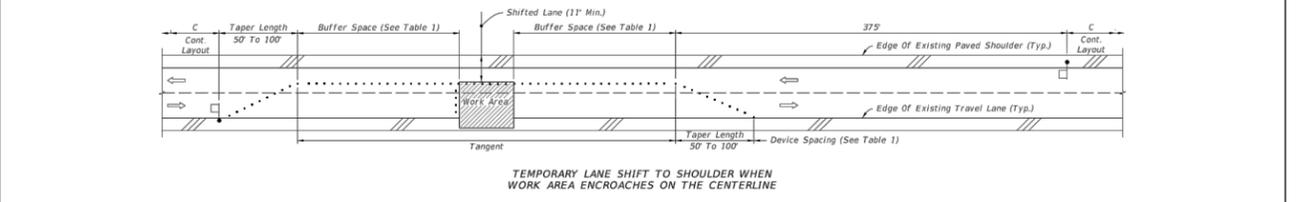


**REMOVABLE POLYMER STRIPING TAPE**  
**MOLDED ENGINEERED POLYMER SET**

LAST REVISION	DESCRIPTION:	FY 2017-18 DESIGN STANDARDS	INDEX NO. 603	SHEET NO. 2 OF 3
11/01/17				



**TEMPORARY RAILROAD CROSSING BUFFER SPACE EXTENSION**



**TEMPORARY LANE SHIFT TO SHOULDER WHEN WORK AREA ENCRoACHES ON THE CENTERLINE**

**SPECIAL CONDITIONS**

Cross Reference:  
1. See General Note #1, Sheet 1 for more information.

LAST REVISION	DESCRIPTION:	FY 2017-18 DESIGN STANDARDS	INDEX NO. 603	SHEET NO. 3 OF 3
01/01/16				

**SPECIAL CONDITIONS**

LAST REVISION	DESCRIPTION:	FY 2017-18 DESIGN STANDARDS	INDEX NO. 603	SHEET NO. 3 OF 3
01/01/16				

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NO.	DATE	REVISION	BY

Date: 04/11/17  
Designed: JRO  
Drawn: MM  
Checked: JRO

APPROVED BY: JAMES R. ORTH, P.E.  
DATE: \_\_\_\_\_  
FLORIDA PROFESSIONAL ENGINEER NO. 50126

**CRAIG A. SMITH & ASSOCIATES**  
CONSULTING ENGINEERS-PLANNERS-SURVEYORS  
7777 GLADES ROAD, SUITE 410  
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(561) 314-4445  
CERTIFICATE NO. LB0003110

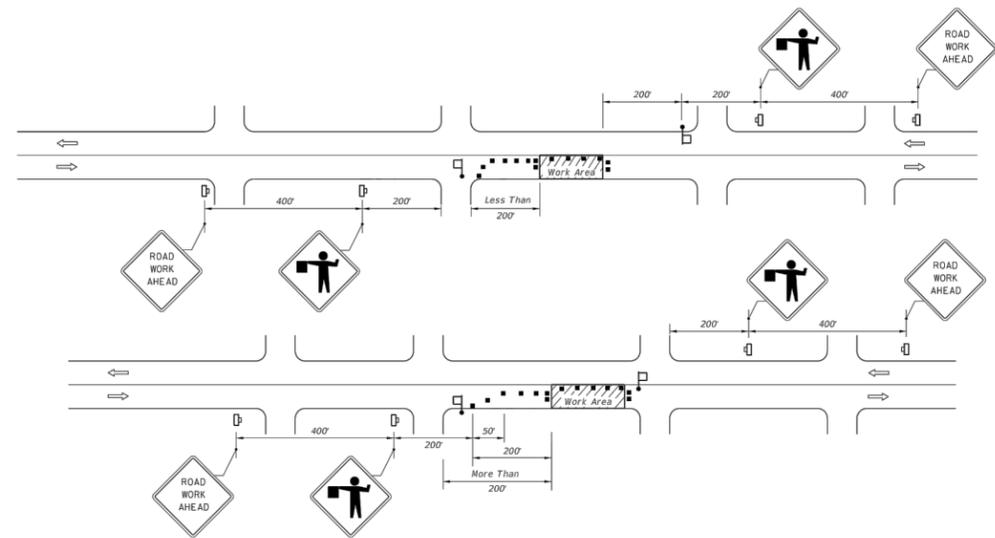
PREPARED FOR:  
**TOWN OF SOUTHWEST RANCHES**  
BROWARD COUNTY, FLORIDA

**STIRLING ROAD**  
GUARDRAIL INSTALLATION PHASE II  
STANDARD ROADWAY DETAILS

FILE NAME: 10-1930-C-08-DTLs.dwg  
LAST SAVED: 08/11/17 - 1:39pm  
CAS PROJECT NUMBER  
17-1930

SHEET  
**C-08**

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**CONDITIONS**  
 WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCR OACH ON THE PAVEMENT REQUIRING THE CLOSURE OF ONE TRAFFIC LANE, FOR WORK AREAS LESS THAN 200' DOWNSTREAM FROM AN INTERSECTION FOR A PERIOD OF MORE THAN 60 MINUTES.

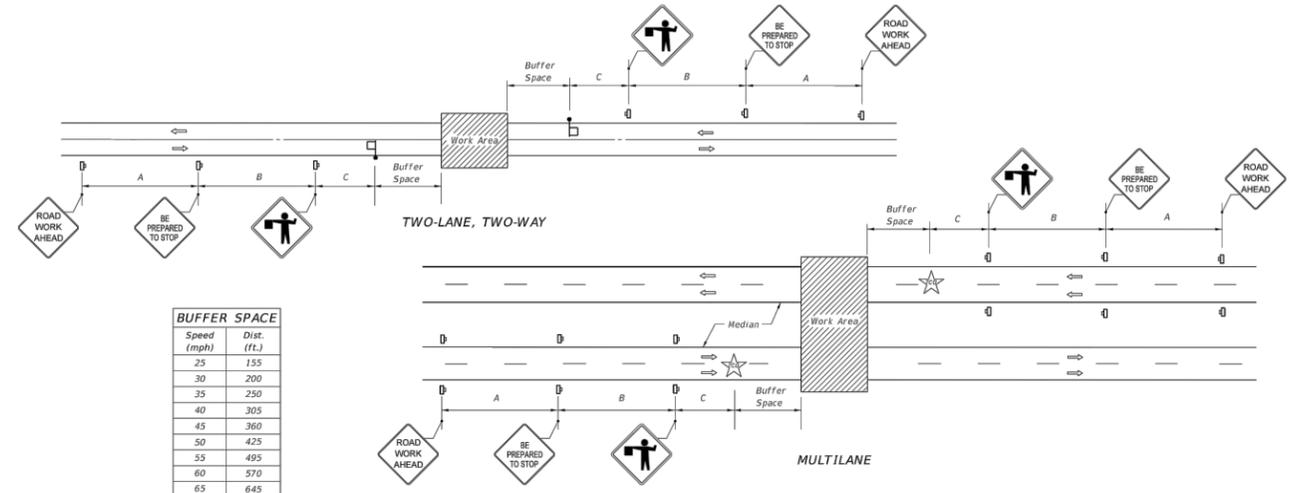
**CONDITIONS**  
 WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCR OACH ON THE PAVEMENT REQUIRING THE CLOSURE OF ONE TRAFFIC LANE, FOR WORK AREAS 200' OR MORE DOWNSTREAM FROM AN INTERSECTION FOR A PERIOD OF MORE THAN 60 MINUTES.

- SYMBOLS**
- ▨ Work Area
  - Channelizing Device (See Index No. 600)
  - Work Zone Sign
  - Flagger
  - Lane Identification + Direction of Traffic

- GENERAL NOTES**
- Work operations shall be confined to one travel lane, leaving the opposing travel lane open to traffic.
  - When vehicles in a parking zone block the line of sight to TCZ signs or when TCZ signs encroach on a normal pedestrian walkway, the signs shall be post mounted and located in accordance with Index No. 17302.
  - If work area is confined to an outside auxiliary lane, the work area shall be barricaded and the FLAGGER signs replaced by ROAD WORK AHEAD signs. Flaggers are not required.
  - Flaggers shall be in sight of each other or in direct communication at all times.
  - The FLAGGER legend sign may be substituted for the symbol sign.
  - The maximum spacing between devices shall be no greater than 25'.
  - For general TCZ requirements and additional information, refer to Index No. 600.
  - The two channelizing devices directly in front and directly at the end of the work area may be omitted provided vehicles in the work area have high-intensity rotating, flashing, oscillating, or strobe lights operating.
  - Use Temporary Raised Rumble Strips in accordance with Index 603. Placement of Rumble Strips and additional signs should begin at FLAGGER sign location.

- DURATION NOTES**
- ROAD WORK AHEAD sign may be omitted if all of the following conditions are met:
    - a. Work operations are 60 minutes or less.
    - b. Speed is 45 mph or less.
    - c. No sight obstructions to vehicles approaching the work area for a distance of 600 feet.
    - d. Vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.
    - e. Volume and complexity of the roadway has been considered.

LAST REVISION 07/01/15	DESCRIPTION:	FY 2017-18 DESIGN STANDARDS	TWO-LANE, TWO-WAY, WORK NEAR INTERSECTION	INDEX NO. 605	SHEET NO. 1 of 1
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**BUFFER SPACE**

Speed (mph)	Dist. (ft.)
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645

**DISTANCE BETWEEN SIGNS**

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

- SYMBOLS**
- ▨ Work Area
  - Work Zone Sign
  - Flagger
  - ★ Traffic Control Officer
  - Lane Identification + Direction of Traffic

- GENERAL NOTES**
- This Index does not apply to limited access facilities.
  - When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in accordance with applicable TCZ Indexes.
  - Traffic volume or complexity of the roadway may dictate additional devices, signs, flagmen and/or a traffic control officer.
  - The buffer space may be omitted if there are no sight obstructions to vehicles approaching the Flagger/Officer for distance equal to the buffer space.
  - A Flagger may be substituted for a Traffic Control Officer and the BE PREPARED TO STOP sign may be omitted, when the following conditions are met:
    - a. Speed limit is 45 mph or less.
    - b. No sight obstructions to vehicles approaching the Flagger/Officer for a distance equal to the buffer space.
    - c. Vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.
  - On undivided highways the median sign as shown are to be omitted.
  - For general TCZ requirements and additional information refer to FDOT Index No. 600.

**CONDITIONS**  
 PLANNED CLOSURE NOT EXCEEDING 5 MINUTES.

LAST REVISION 07/01/15	DESCRIPTION:	FY 2017-18 DESIGN STANDARDS	TEMPORARY ROAD CLOSURE 5 MINUTES OR LESS	INDEX NO. 625	SHEET NO. 1 of 1
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NO.	DATE	REVISION	BY

Date: 04/11/17  
 Designed: JRO  
 Drawn: MM  
 Checked: JRO

APPROVED BY: JAMES R. ORTH, P.E.  
 DATE: \_\_\_\_\_  
 FLORIDA PROFESSIONAL ENGINEER NO. 50126

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 BOCA RATON, FLORIDA 33434  
 (561) 314-4445  
 CERTIFICATE NO. LB0003110

PREPARED FOR:  
 TOWN OF  
 SOUTHWEST RANCHES  
 BROWARD COUNTY, FLORIDA

STIRLING ROAD  
 GUARDRAIL INSTALLATION PHASE II  
 STANDARD ROADWAY DETAILS

FILE NAME: 10-1930-C-09-DTLS.dwg  
 LAST SAVED: 08/11/17 - 1:40pm  
 CAS PROJECT NUMBER  
 17-1930

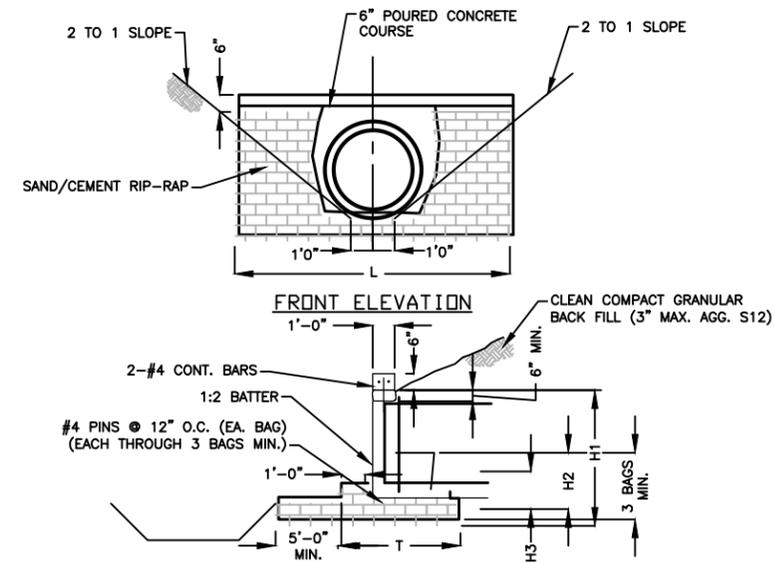
SHEET  
 C-09

**CENTRAL BROWARD WATER CONTROL DISTRICT GENERAL NOTES:**

- THE FOLLOWING GENERAL NOTES ARE REQUIRED BY CENTRAL BROWARD WATER CONTROL DISTRICT. THEY ARE NOT MEANT TO BE ALL INCLUSIVE, AND IT IS THE ENGINEERS' RESPONSIBILITY TO ADD ANY NOTES WHICH WILL INFORM THE OWNER AND THE CONTRACTOR OF ANY ADDITIONAL REQUIREMENT OF CENTRAL BROWARD WATER CONTROL DISTRICT.
- LIMEROCK BASE COURSE SHALL CONFORM TO THE REQUIREMENTS OF SECTION 911 OF FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, EXCEPT THE MINIMUM PERCENTAGE OF CARBONATES OF CALCIUM AND MAGNESIUM SHALL BE SIXTY PERCENT (60%).
- CENTRAL BROWARD WATER CONTROL DISTRICT WILL BE CALLED 24 HOURS PRIOR TO BACK-FILLING OF DRAINAGE TRENCH AND PRIOR TO THE PLACEMENT OF ASPHALT. CALL (954) 432-5110.
- ANY REVISIONS TO THESE PLANS MUST BE APPROVED BY CENTRAL BROWARD WATER CONTROL DISTRICT PRIOR TO CONSTRUCTION.
- BONDS & INSPECTION:
  - UPON DISTRICT BOARD OF COMMISSIONERS APPROVAL OF PLANS, BUT BEFORE CONSTRUCTION CAN COMMENCE, THE FOLLOWING ITEMS MUST BE COMPLIED WITH:
    - BOND (CASH OR SURETY), IN THE DISTRICT'S FAVOR, MUST BE POSTED IN THE AMOUNT OF 110 PERCENT OF THE DEVELOPER'S ENGINEER'S (ENGINEER OF RECORD) ESTIMATE OF COST OF CONSTRUCTION OF THE PAVING AND DRAINAGE WORKS. (SUBJECT TO APPROVAL OF THE COST ESTIMATE BY THE DISTRICT ENGINEERS.)
    - ALL EASEMENTS, DEED RESTRICTIONS, MAINTENANCE AGREEMENTS, AND DEEDS AS REQUIRED BY THE BOARD SHALL BE PRESENTED TO THE DISTRICT MANAGER AND ATTORNEY FOR APPROVAL BEFORE RECORDATION. ALL COSTS OF RECORDING THE APPLICABLE INSTRUMENT WILL BE BORNE BY THE DEVELOPER.
    - UPON COMPLIANCE WITH THE CONDITIONS REQUIRED BY THE BOARD FOR APPROVAL, AND RECEIPT OF APPROVED PLANS FROM THE DISTRICT ENGINEER, THE DISTRICT SECRETARY WILL MARK THE PLANS "APPROVED"; SIGN SAME, AND DISTRIBUTE THE APPROVED PLANS TO THE GOVERNMENTAL AGENCY INVOLVED, THE DEVELOPER, AND THE DISTRICT FILES.
    - THE DISTRICT'S BOND FORM IS THE ONLY FORM APPROVED FOR USE, AND IT SHALL BE A RECORDED INSTRUMENT. RELEASE OR REDUCTION FROM THE RECORDED INSTRUMENT SHALL BE THE RESPONSIBILITY OF THE APPLICANT.
    - BONDS SHALL BE PROVIDED BY THE PRINCIPALS OF DEVELOPMENT ONLY. CONTRACTOR OR SUB-CONTRACTOR BONDS ARE NOT ACCEPTABLE.
  - WHEN CONSTRUCTION IS IN PROGRESS, THE DISTRICT'S INSPECTOR WILL INSPECT THE INSTALLATION OF DRAINAGE WORKS, ACCORDING TO AN INSPECTION SCHEDULE ESTABLISHED BY THE BOARD OF COMMISSIONERS. INSPECTION MUST BE MADE BY DISTRICT PERSONNEL OF ALL UNDERGROUND STORM DRAIN FACILITIES BEFORE BACKFILLING; CALL (954) 432-5110 FOR AN INSPECTION APPOINTMENT A MINIMUM OF TWENTY-FOUR (24) HOURS IN ADVANCE. ALL COSTS OF PERIODIC INSPECTIONS OF CONSTRUCTION BY THE DISTRICT SHALL BE BORNE BY THE DEVELOPER.
  - SWALES, LAKE BANKS, SLOPES, CANALS, AND OTHER EXCAVATIONS SHALL BE BONDED SEPARATELY FROM OTHER DRAINAGE IMPROVEMENTS, AND WILL BE HELD BY THE DISTRICT UNTIL SUCCESSFUL COMPLETION. THE AMOUNT OF THIS SEPARATE BOND WILL BE DETERMINED BY THE DISTRICT BOARD OF COMMISSIONERS AND BY RECOMMENDATION OF THE DISTRICT SECRETARY.
  - CERTIFIED "AS-BUILT" PLANS FROM THE ENGINEER OF RECORD WILL BE REQUIRED BEFORE RELEASE OF PERFORMANCE BONDS. AS-BUILTS SHALL BE PROVIDED AS AN OVERLAY ON THE APPROVED CONSTRUCTION DRAWINGS AT THE SAME SCALE FOR COMPARISON PURPOSES. AS-BUILT SUBMITTALS SHALL FOLLOW THE SAME FORMAT OF GENERAL REVIEW AS OUTLINED IN SECTION 3.2 (2) OF CENTRAL BROWARD WATER CONTROL DISTRICT'S CRITERIA.
- LAKE AND CANAL AS-BUILTS WILL BE CROSS SECTIONED SHOWING THE DESIGNED SECTION AS DASHED, AS-BUILT SECTION AS SOLID, AND HAVE THE TOP OF BANK REFERENCE TO THE LAKE/CANAL MAINTENANCE EASEMENT. SPACING BETWEEN EACH CROSS-SECTION SHALL BE SUCH AS TO PROVIDE ENOUGH DATA TO DETERMINE IF THE LAKE/CANAL WAS CONSTRUCTED AS DESIGNED.
- UPON SUCCESSFUL COMPLETION OF CONSTRUCTION, AND ACCEPTANCE OF "AS-BUILTS"; A PERCENTAGE OF THE PERFORMANCE BOND AS DETERMINED BY THE DISTRICT BOARD, AND RETAINED BY THE DISTRICT, MAY BE RELEASED. THE BALANCE OF BOND SHALL REMAIN IN FULL FORCE AND EFFECT FOR AN ADDITIONAL TWELVE (12) MONTHS AFTER FINAL INSPECTION AND APPROVAL, UNLESS SUPPLEMENTED BY NEW BOND FORMS IN THE REQUIRED AMOUNTS, AND APPROVED BY THE DISTRICT ATTORNEY.

**CONSTRUCTION NOTES:**

- GUARDRAIL SHALL BE INSTALLED IN ACCORDANCE WITH FDOT 2017-2018 DESIGN STANDARDS INDEX 400 AND FDOT STANDARD SPECIFICATION 536.
- CONTRACTOR SHALL TAKE ALL MEASURES TO UTILIZE INSTALLATION TECHNIQUES THAT WILL ENSURE PROTECTION OF AND WILL AVOID DISTURBANCE TO THE CANAL BANK.
- GUARDRAIL POSTS ARE SHOWN FOR GRAPHICAL PURPOSE ONLY. THE ACTUAL NUMBER AND SPACING OF POSTS SHALL BE IN ACCORDANCE WITH INDEX 400.
- CONTRACTOR SHALL NOT STOCKPILE MATERIAL IN THE PUBLIC RIGHT-OF-WAY NOR ON PRIVATE PROPERTY AND WILL INDEPENDENTLY SECURE AN ACCEPTABLE LOCATION.
- AT THE END OF EACH WORK DAY, CONTRACTOR SHALL THOROUGHLY CLEAR RIGHT-OF-WAY, OPEN LANES FOR NORMAL TRAFFIC AND SHIELD UNFINISHED WORK PRODUCT TO PROVIDE VEHICULAR SAFETY.
- CONTRACTOR SHALL REPAIR STRIPING DAMAGED DURING CONSTRUCTION.
- CONTRACTOR SHALL PROTECT OR REMOVE/REINSTALL ALL ROAD SIGNS AND STRUCTURES DURING CONSTRUCTION TO INCLUDE SIGNAGE, MAILBOXES, FENCE, ETC. TO ENSURE CONSISTENT LINE AND GRADE GUARDRAIL INSTALLATION.
- CONTRACTOR SHALL OBTAIN ANY REQUIRED NPDES PERMITS AND WILL PROVIDE ALL SEDIMENT AND TURBIDITY CONTROL DEVICES USING BEST MANAGEMENT PRACTICES (BMP'S).
- CONTRACTOR SHALL PREPARE A TRAFFIC CONTROL PLAN IN ACCORDANCE WITH FDOT DESIGN STANDARDS 600 SERIES TO BE APPROVED BY THE TOWN OF SOUTHWEST RANCHES AND THE PROJECT CEI TEAM.
- CONTRACTOR SHALL PROTECT ALL UTILITIES WITHIN PROJECT LIMITS WHETHER SHOWN OR NOT ON PLANS AND SHALL ASSUME RESPONSIBILITY FOR ALL DAMAGED DURING CONSTRUCTION.
- CONTRACTOR SHALL NOTIFY ALL AGENCIES WITH JURISDICTION PRIOR TO CONSTRUCTION TO INCLUDE ALL UTILITIES, SHERIFF, SCHOOL BOARD, TOWN OF SOUTHWEST RANCHES, ETC.
- SELECT CROSS-SECTIONS ARE SHOWN FOR CONTRACTOR TO DETERMINE NEED FOR SPECIAL POST LENGTH, IF APPLICABLE.
- CONTRACTOR SHALL PROVIDE ALL SHOP DRAWINGS TO ENGINEER FOR APPROVAL.

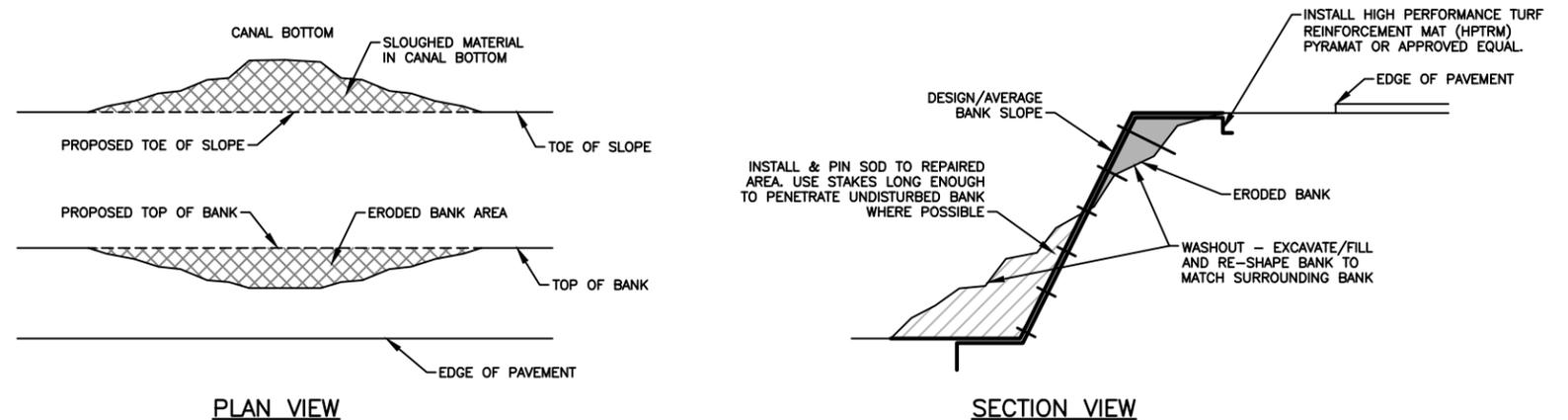


DIA	H1	H2	H3	T	L
10"	3' 10"	0	0	1' 0"	8' 0"
24"	4' 5"	2' 5"	0	2' 0"	9' 8"
30"	5' 0"	3' 0"	0	2' 0"	11' 3"
36"	5' 7"	3' 7"	0	2' 0"	12' 11"
42"	6' 3"	4' 3"	2' 3"	3' 0"	14' 7"
48"	6' 10"	4' 10"	2' 10"	3' 0"	16' 3"
54"	7' 6"	5' 6"	3' 6"	3' 0"	18' 0"
60"	8' 2"	6' 2"	4' 2"	3' 0"	19' 9"
66"	8' 7"	6' 7"	4' 7"	3' 0"	21' 7"
72"	9' 2"	7' 2"	5' 2"	3' 0"	23' 3"

- NOTES:
- SPLASH APRON OPTIONAL DEPENDING ON SOIL CONDITIONS.
  - REFER TO LATEST FDOT REQ. FOR BAGTIE TO HEIGHT REQ.
  - OWNER SHALL RETAIN A PROFESSIONAL ENGINEER TO INSPECT AND CERTIFY TO THE INSTALLATION.
  - CONTRACTOR'S ENGINEER OR SURVEYOR SHALL SUPPLY RECORD DRAWINGS SHOWING INVERT(S), TOP OF ENDWALL, CROWN OF ROAD, UPSTREAM AND DOWNSTREAM CROSS SECTION OF EXCAVATED CANAL.

**HEADWALL DETAIL**

N. T. S.



**TYPICAL BANK REPAIR DETAIL**

N. T. S.

NO.	DATE	REVISION	BY

Date: 04/11/17  
 Designed: JRO  
 Drawn: MM  
 Checked: JRO

APPROVED BY: JAMES R. ORTH, P.E.  
 DATE: \_\_\_\_\_  
 FLORIDA PROFESSIONAL ENGINEER NO. 50126

**CRAIG A. SMITH & ASSOCIATES**  
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 CERTIFICATE NO. LB0003110

PREPARED FOR:  
**TOWN OF SOUTHWEST RANCHES**  
 BROWARD COUNTY, FLORIDA

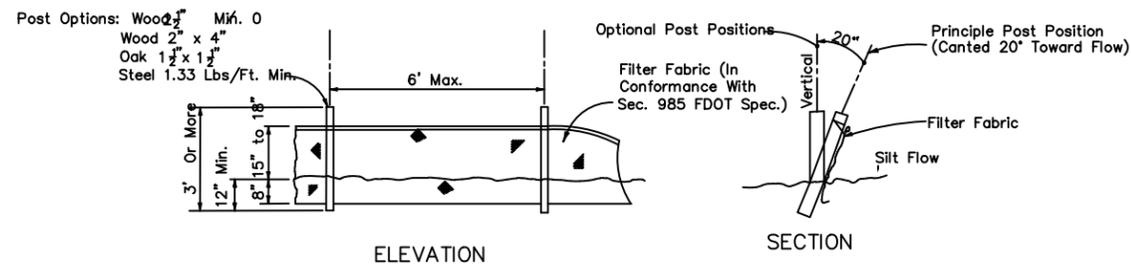
**STIRLING ROAD**  
 GUARDRAIL INSTALLATION PHASE II  
 GENERAL CONSTRUCTION NOTES & STANDARD DETAILS

FILE NAME: 10-1930-C-10-DTLS.dwg  
 LAST SAVED: 07/24/17 - 1:39pm  
 CAS PROJECT NUMBER  
 17-1930

SHEET  
**C-10**

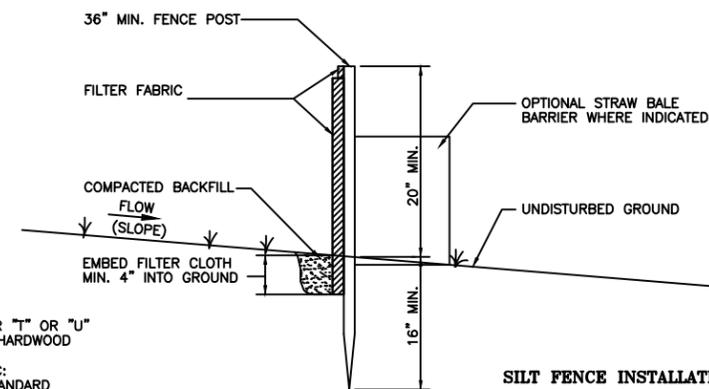
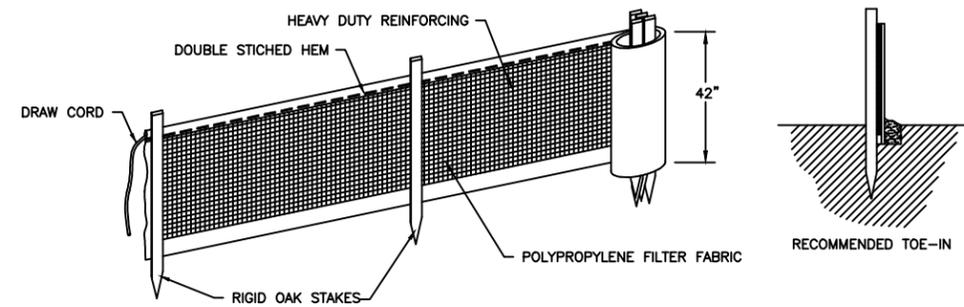
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Note: Silt Fence to be paid for under the contract unit price for Staked Silt Fence (LF).

TYPE ~~~ SILT FENCE



POSTS:  
STEEL, EITHER "T" OR "U"  
TYPE OR 2" HARDWOOD

FILTER FABRIC:  
PER FDOT STANDARD  
SPECIFICATION PER  
FDOT INDEX 102

PREFABRICATED UNIT:  
GEOFAB, ENVIROFENCE,  
OR APPROVED EQUAL

SILT FENCE INSTALLATION

**SILT FENCE NOTES:**

1. FILTER FABRIC FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO POSTS WITH TIES SPACED EVERY 24 INCHES AT TOP AND MID. SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE OR DEPTH OF ACCUMULATED SEDIMENT REACHES 6 INCHES.
5. SILT FENCE SHALL BE INSTALLED PER MANUFACTURERS SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION AND SHALL NOT BE REMOVED UNTIL CONSTRUCTION IS COMPLETE.
6. THE CONTRACTOR SHALL INSPECT AND REPAIR THE SILT FENCE AFTER EACH RAIN EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
7. REMOVED SEDIMENT SHALL BE DEPOSITED IN AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFFSITE AND CAN BE PERMANENTLY STABILIZED.
8. THE SILT FENCE SHALL BE PLACED ON SLOPE CONTOUR TO MAXIMIZE ITS PONDING EFFICIENCY.
9. IF DITCH LEVEL IS DEEPER THAN 30", THEN A FLOATING SILT SCREEN SHALL BE USED

NO.	DATE	REVISION	BY

Date: 04/11/17  
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Drawn: MM  
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APPROVED BY: JAMES R. ORTH, P.E.  
DATE: \_\_\_\_\_  
FLORIDA PROFESSIONAL ENGINEER NO. 50126

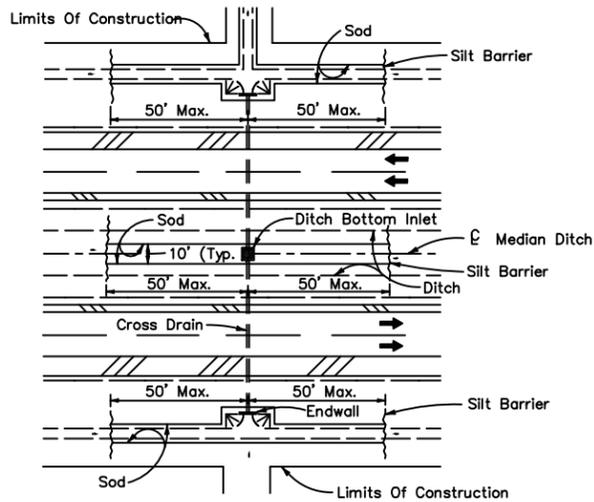
**CRAIG A. SMITH & ASSOCIATES**  
CONSULTING ENGINEERS-PLANNERS-SURVEYORS  
7777 GLADES ROAD, SUITE 410  
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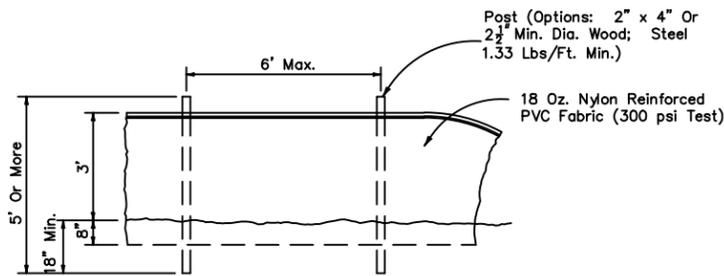
**STIRLING ROAD  
GUARDRAIL INSTALLATION PHASE II  
GUIDE FOR SEDIMENT & EROSION  
CONTROL BMP'S**

FILE NAME: 10-1930-C-11-DTL5.dwg  
LAST SAVED: 06/05/17 - 2:42pm  
CAS PROJECT NUMBER  
17-1930

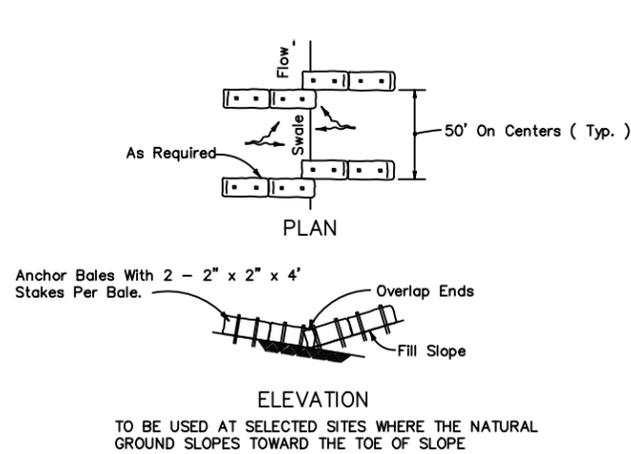
SHEET  
**C-11**



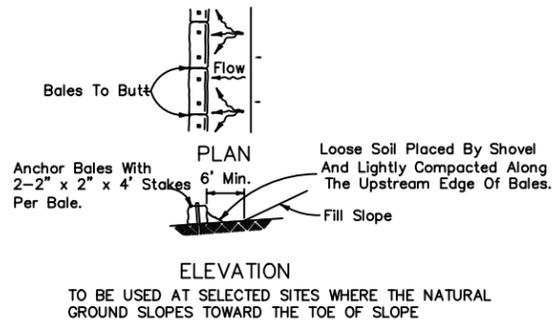
DITCH INSTALLATIONS AT DRAINAGE STRUCTURES



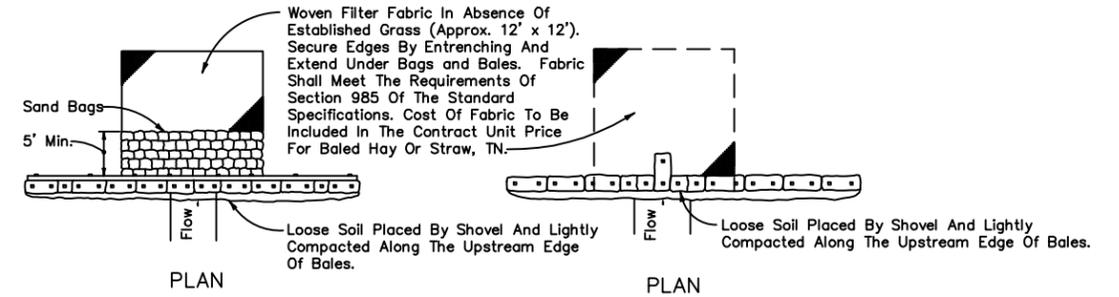
STAKED TURBIDITY BARRIER



TO BE USED AT SELECTED SITES WHERE THE NATURAL GROUND SLOPES TOWARD THE TOE OF SLOPE

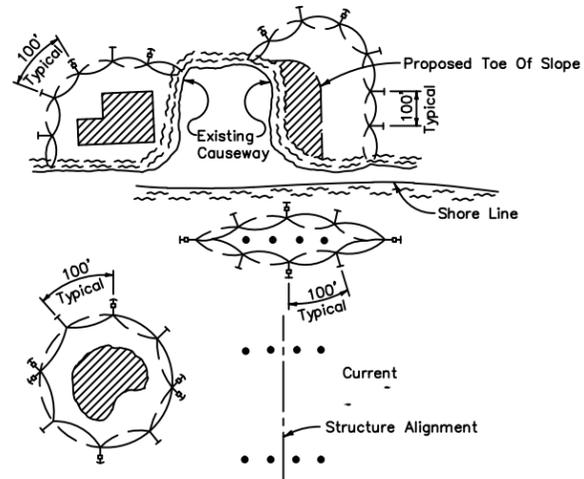


BARRIERS FOR FILL SLOPES



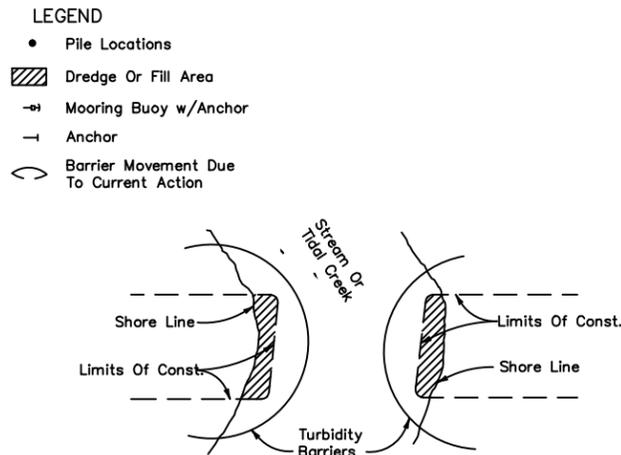
TYPE II TYPE I

BARRIER FOR UNPAVED DITCHES

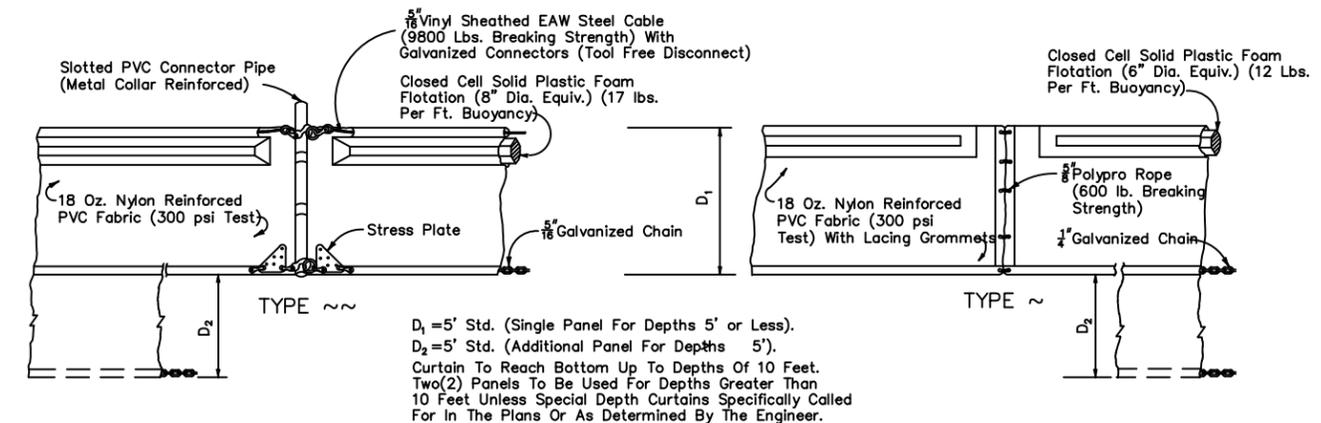


- NOTES:
1. Turbidity barriers are to be used in all permanent bodies of water regardless of water depth.
  2. Number and spacing of anchors dependent on current velocities.
  3. Deployment of barrier around pile locations may vary to accommodate construction operations.
  4. Navigation may require segmenting barrier during construction operations.
  5. For additional information see Section 104 of the Standard Specifications.

TURBIDITY BARRIER APPLICATIONS



Note: Turbidity barriers for flowing streams and tidal creeks may be either floating, or staked types or any combinations of types that will suit site conditions and meet erosion control and water quality requirements. The barrier type(s) will be at the Contractors option unless otherwise specified in the plans, however payment will be under the pay item(s) established in the plans for Floating Turbidity Barrier and/or Staked Turbidity Barrier. Posts in staked turbidity barriers to be installed in vertical position unless otherwise directed by the Engineer.



D<sub>1</sub> = 5' Std. (Single Panel For Depths 5' or Less).  
D<sub>2</sub> = 5' Std. (Additional Panel For Depths 5').  
Curtain To Reach Bottom Up To Depths Of 10 Feet.  
Two(2) Panels To Be Used For Depths Greater Than 10 Feet Unless Special Depth Curtains Specifically Called For In The Plans Or As Determined By The Engineer.

NOTICE: COMPONENTS OF TYPES ~ AND ~~ MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES ~ AND ~~ SHALL BE AS APPROVED BY THE ENGINEER.

FLOATING TURBIDITY BARRIERS

GENERAL NOTES

1. Floating turbidity barriers are to be paid for under the contract unit price for Floating Turbidity Barrier, LF.
2. Staked turbidity barriers are to be paid for under the contract unit price for Staked Turbidity Barrier, LF.

NO.	DATE	REVISION	BY

Date: 04/11/17  
Designed: JRO  
Drawn: MM  
Checked: JRO

APPROVED BY: JAMES R. ORTH, P.E.  
DATE: \_\_\_\_\_  
FLORIDA PROFESSIONAL ENGINEER NO. 50126

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CERTIFICATE NO. LB0003110

PREPARED FOR:  
**TOWN OF SOUTHWEST RANCHES**  
BROWARD COUNTY, FLORIDA

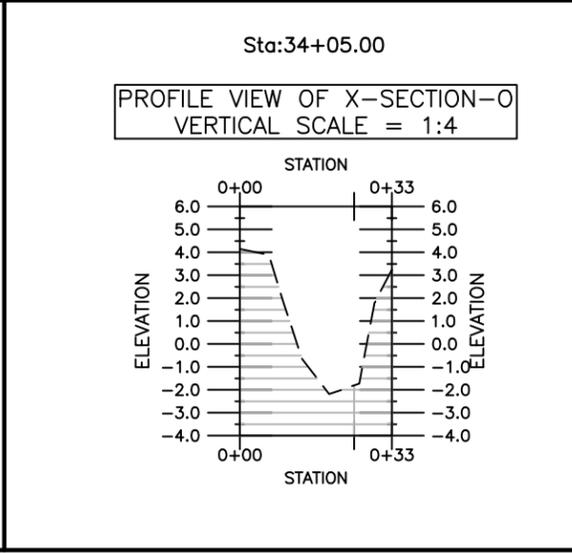
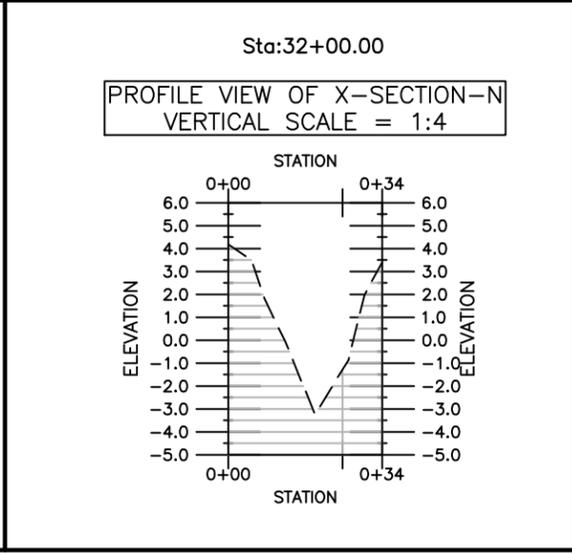
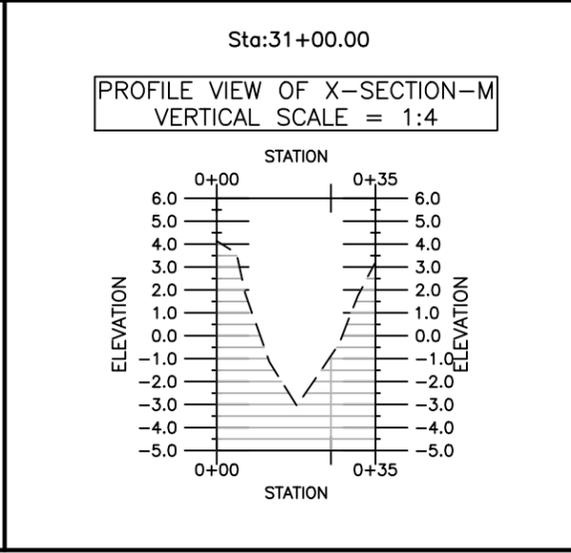
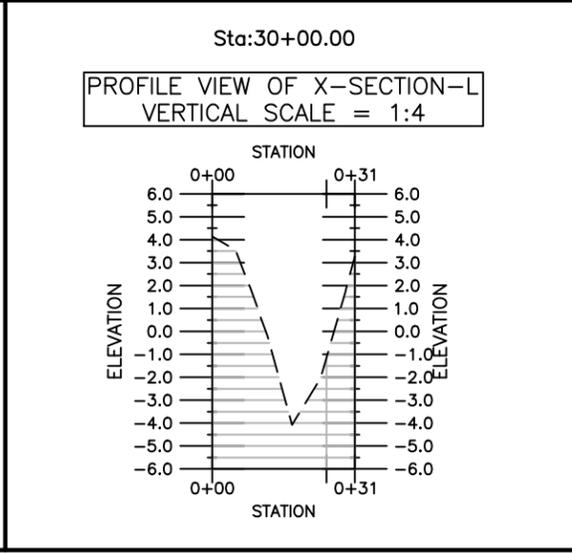
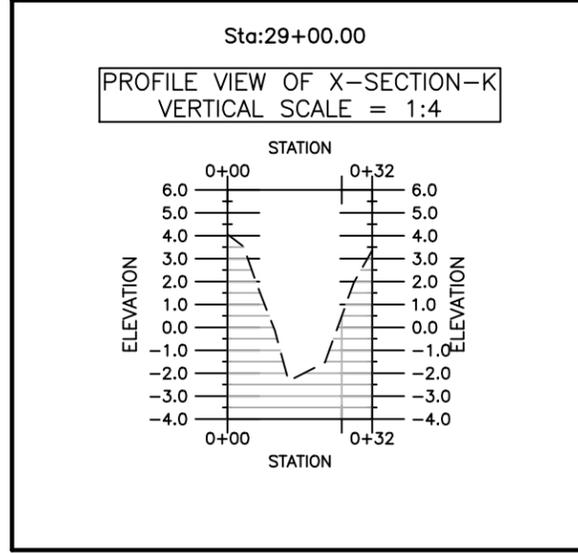
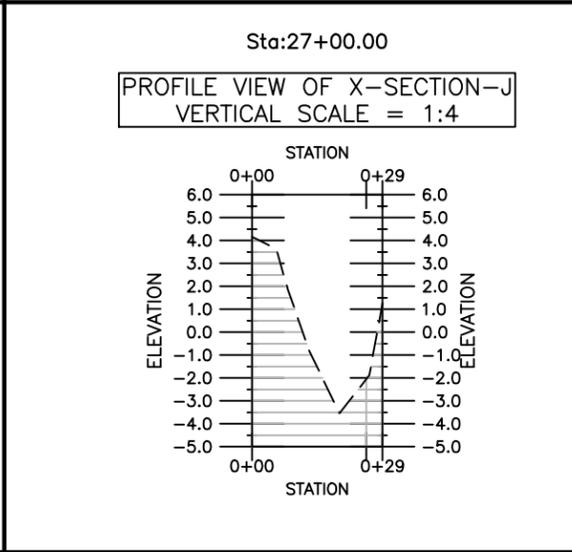
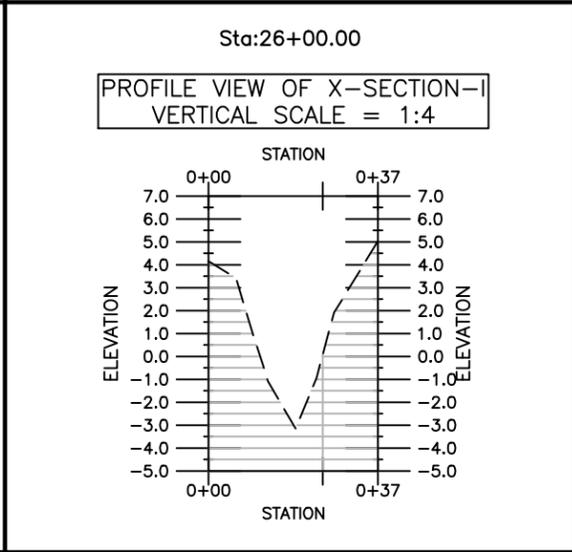
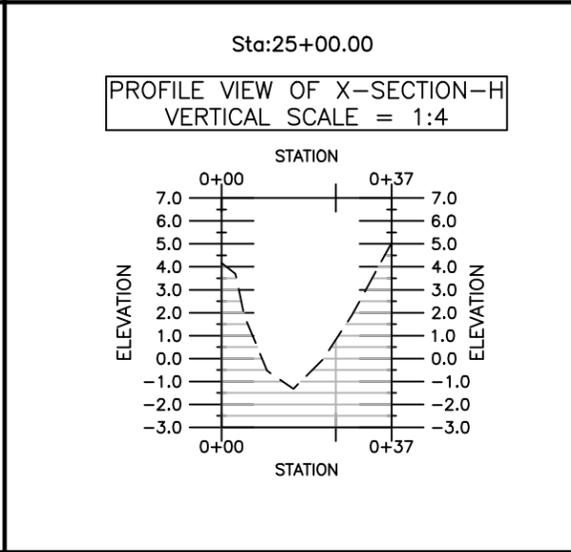
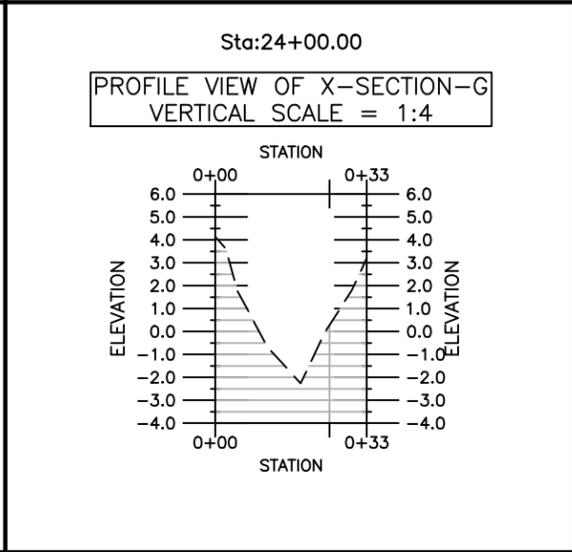
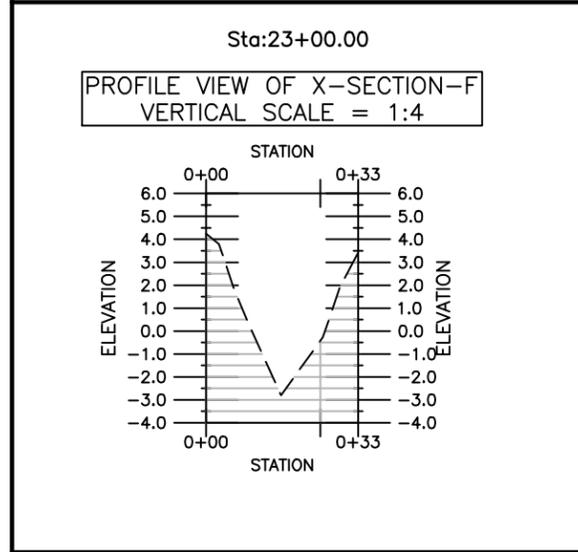
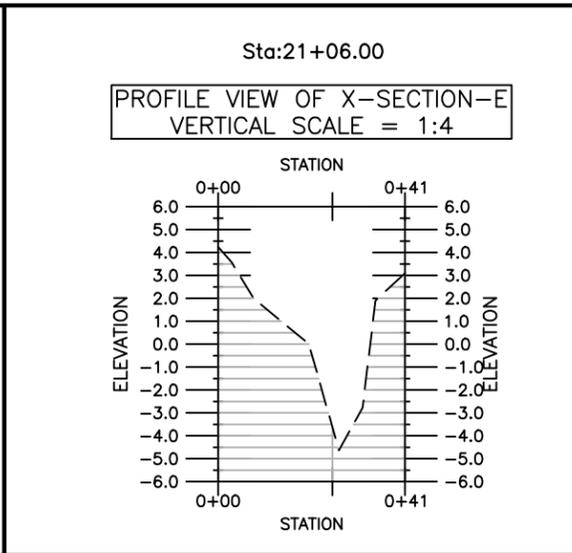
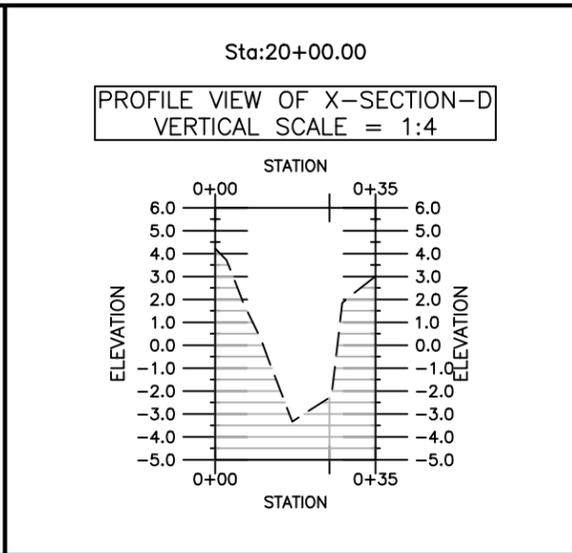
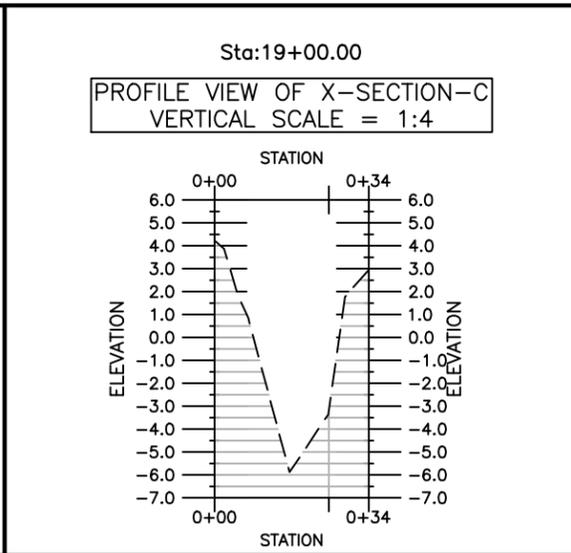
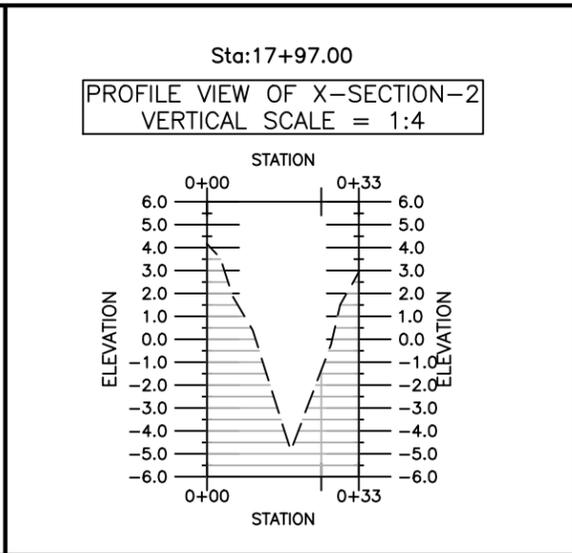
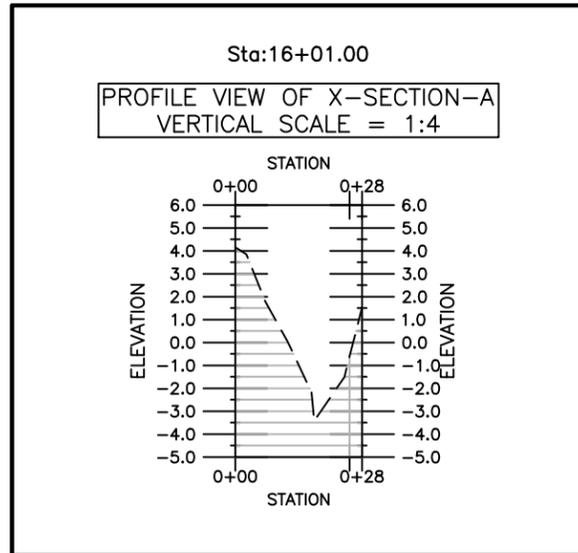
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Date: 04/11/17  
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Drawn: MM  
Checked: JRO

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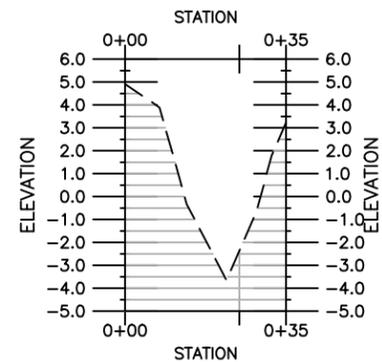
PREPARED FOR:  
**TOWN OF  
SOUTHWEST RANCHES  
BROWARD COUNTY, FLORIDA**

**STIRLING ROAD  
GUARDRAIL INSTALLATION PHASE II**  
CROSS SECTIONS

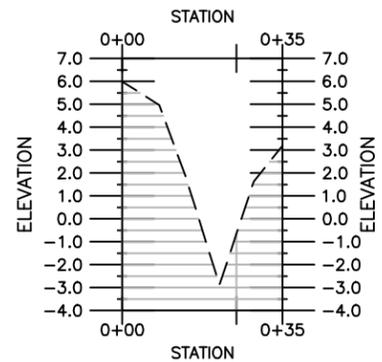
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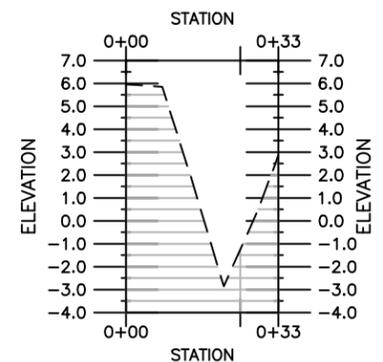
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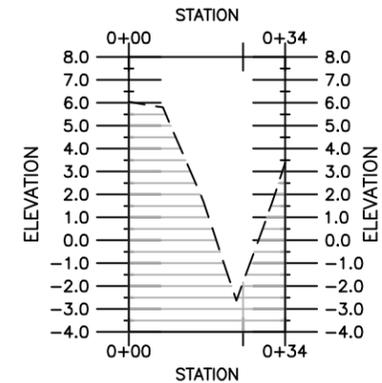
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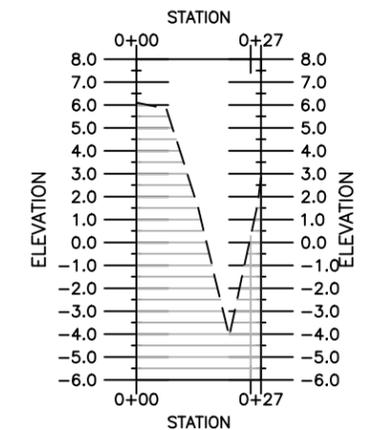
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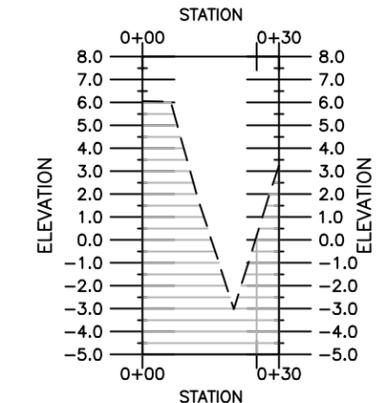
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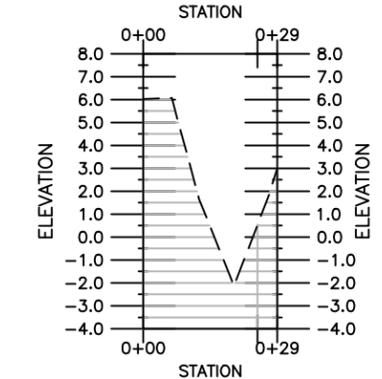
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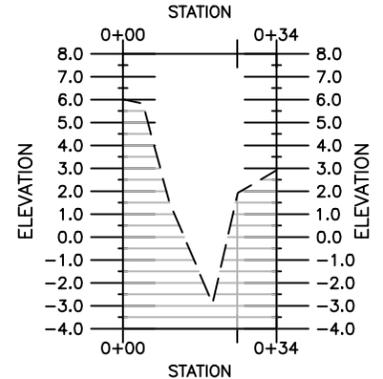
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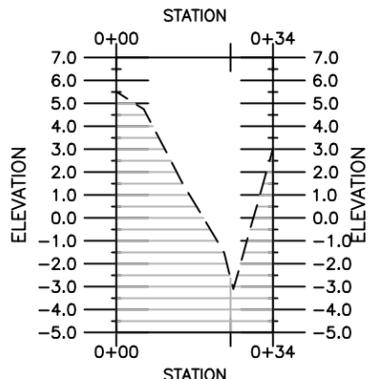
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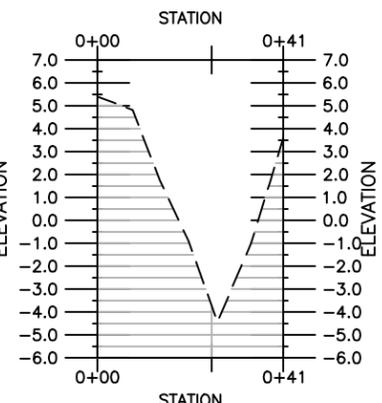
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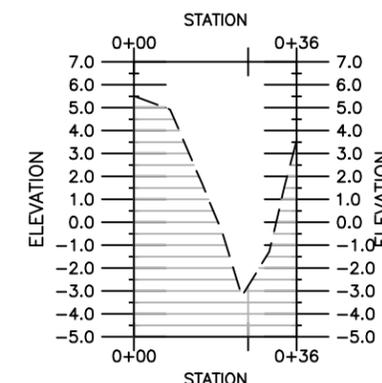
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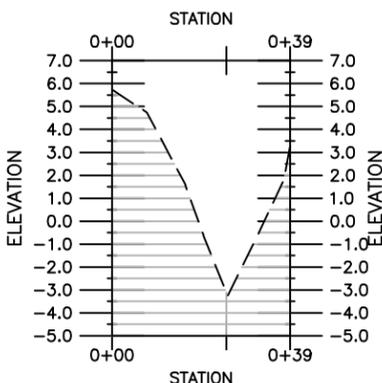
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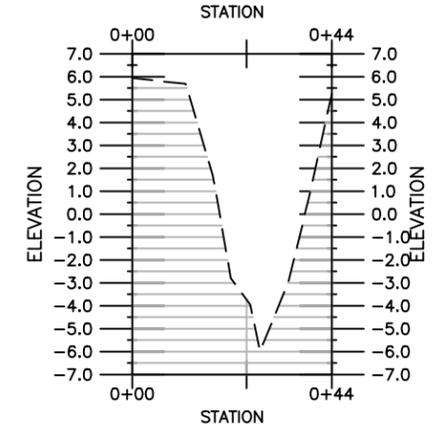
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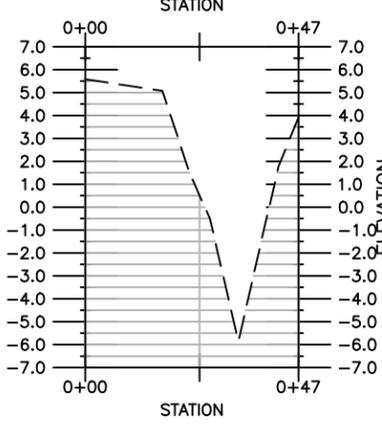
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NO.	DATE	REVISION	BY

Date: 04/11/17  
Designed: JRO  
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APPROVED BY: JAMES R. ORTH, P.E.  
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PREPARED FOR:  
**TOWN OF  
SOUTHWEST RANCHES  
BROWARD COUNTY, FLORIDA**

**STIRLING ROAD  
GUARDRAIL INSTALLATION PHASE II**  
CROSS SECTIONS

FILE NAME: 10-1930-C-14-XSEC.dwg  
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TOWN OF SOUTHWEST RANCHES, FLORIDA  
STIRLING ROAD GUARDRAILS INSTALLATION PROJECT  
IFB No. 17-006

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**EXHIBIT "C"**

MOT INDEX 600 SERIES

SHEET NO.	CONTENTS
1	Preface Manual On Uniform Traffic Control Devices Abbreviations Symbols
2	Definitions Temporary Traffic Control Devices Pedestrian and Bicyclist Overhead Work Railroads Sight Distance Above Ground Hazard
3	Clear Zone Widths For Work Zones Superelevation Length Of Lane Closures Overweight/Oversize Vehicles Lane Widths High-Visibility Safety Apparel Regulatory Speeds In Work Zones
4	Flagger Control Survey Work Zones Signs
5	Work Zone Sign Supports
6	Project Information Sign
7	Commonly Used Warning and Regulatory Signs In Work Zones
8	Manholes/Crosswalks/Joints Truck Mounted Attenuators Removing Pavement Markings Signals Channelizing Devices Channelizing Devices Consistency Portable Changeable (Variable) Message Signs (PCMS) Advanced Warning Arrow Boards
9	Drop-Offs In Work Zones
10	Business Entrance Temporary Asphalt Separator
11	Identifications-Channelizing Devices
12	Pavement Markings

## PREFACE

All projects and works on highways, roads and streets shall have a traffic control plan. All work shall be executed under the established plan and Department-approved procedures. This index contains information specific to the Federal and State guidelines and standards for the preparation of traffic control plans and for the execution of traffic control in work zones, for construction and maintenance operations and utility work on highways, roads and streets on the State Highway System. Certain requirements in this Index are based on the high volume nature of State Highways. For highways, roads and streets off the State Highway System, the local agency (City/County) having jurisdiction may adopt requirements based on the minimum requirements provided in the MUTCD.

Index 600 provides Department policy and standards. Changes are only to be made thru Department-approved procedures.

Indexes 601 thru 670 provide typical applications for various situations. Modification can be made to these Indexes as long as the changes comply with the MUTCD and Department Design Standards.

The sign spacing shown on the Indexes are typical (recommended) distances. These distances may be increased or decreased based on field conditions, in order to avoid conflicts or to improve site specific traffic controls.

Except for emergencies, any road closure on State Highway System shall comply with Section 335.15, F.S.

## MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

The Florida Department of Transportation has adopted the "Manual On Uniform Traffic Control Devices For Streets And Highways" (MUTCD) and subsequent revisions and addendums, as published by the U.S. Department of Transportation, Federal Highway Administration, for mandatory use on the State Maintained Highway System whenever there exists the need for construction, maintenance operations or utility work.

## SYMBOLS

The symbols shown are found in the FDOT site menu under Traffic Control cell library on the CADD system. Symbols assigned to the 600 series Design Standards and applicable to traffic control plans, unless otherwise identified in the plans, are as follows:

-  Work Area, Hazard Or Work Phase (Any pattern within a boundary)
-  Channelizing Device
-  Pedestrian Longitudinal Channelizing Device (LCD)
-  Type III Barricade
-  Work Zone Sign
-  Flagger
-  Automated Flagger Assistance Device (AFAD)
-  Temporary Traffic Signal
-  Advance Warning Arrow Board
-  Crash Cushion
-  Stop Bar
-  Work Vehicle With Flashing Beacon
-  Shadow (S) Or Advance Warning (AW) Vehicle With Advance Warning Arrow Board And Warning Sign
-  Truck/Trailer Mounted Attenuator (TMA)
-  Law Enforcement Officer
-  Portable Regulatory Sign
-  Radar Speed Display Unit
-  Portable Changeable (Variable) Message Sign
-  Lane Identification + Direction Of Traffic
-  Traffic Control Officer

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LAST REVISION 11/01/16	REVISION	DESCRIPTION:	 <b>FY 2017-18 DESIGN STANDARDS</b>	<b>GENERAL INFORMATION FOR TRAFFIC CONTROL THROUGH WORK ZONES</b>	INDEX NO. <b>600</b>	SHEET NO. <b>1 of 12</b>
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## DEFINITIONS

### Regulatory Speed (In Work Zones)

The maximum permitted travel speed posted for the work zone is indicated by the regulatory speed limit signs. The work zone speed must be shown or noted in the plans. This speed should be used as the minimum design speed to determine runoff lengths, departure rates, flare rates, lengths of need, clear zone widths, taper lengths, crash cushion requirements, marker spacings, superelevation and other similar features.

### Advisory Speed

The maximum recommended travel speed through a curve or a hazardous area.

### Travel Way

The portion of the roadway for the movement of vehicles. For traffic control through work zones, travel way may include the temporary use of shoulders and any other permanent or temporary surface intended for use as a lane for the movement of vehicular traffic.

- a. **Travel Lane:** The designated widths of roadway pavement marked to carry through traffic and to separate it from opposing traffic or traffic occupying other traffic lanes.
- b. **Auxiliary Lane:** The designated widths of roadway pavement marked to separate speed change, turning, passing and climbing maneuvers from through traffic.

### Detour, Lane Shift, and Diversion

A detour is the redirection of traffic onto another roadway to bypass the temporary traffic control zone. A lane shift is the redirection of traffic onto a different section of the permanent pavement. A diversion is the redirection of traffic onto a temporary roadway, usually adjacent to the permanent roadway and within the limits of the right of way.

### Aboveground Hazard

An aboveground hazard is any object, material or equipment other than traffic control devices that encroaches upon the travel way or that is located within the clear zone which does not meet the Department's safety criteria, i.e., anything that is greater than 4" in height and is firm and unyielding or doesn't meet breakaway requirements.

## TEMPORARY TRAFFIC CONTROL DEVICES

All temporary traffic control devices shall be ON the Department's Approved Products List (APL). Ensure the appropriate APL number is permanently marked on the device in a readily visible location.

All temporary traffic control devices shall be removed as soon as practical when they are no longer needed. When work is suspended for short periods of time, temporary traffic control devices that are no longer appropriate shall be removed or covered.

Arrow Boards, Portable Changeable Message Signs, Radar Speed Display Trailer, Portable Regulatory Signs, and any other trailer mounted device shall be delineated with a temporary traffic control device placed at each corner when in use and shall be moved outside the travel way and clear zone or be shielded by a barrier or crash cushion when not in use.

## PEDESTRIAN AND BICYCLIST

When an existing pedestrian way or bicycle way is located within a traffic control work zone, accommodation must be maintained and provision for the disabled must be provided.

Only approved pedestrian longitudinal channelizing devices may be used to delineate a temporary traffic control zone pedestrian walkway.

Advanced notification of sidewalk closures and marked detours shall be provided by appropriate signs.

## OVERHEAD WORK

Work is only allowed over a traffic lane when one of the following options is used:

### OPTION 1 (OVERHEAD WORK USING A MODIFIED LANE CLOSURE)

Overhead work using a modified lane closure is allowed if all of the following conditions are met:

- a. Work operation is located in a signalized intersection and limited to signals, signs, lighting and utilities.
- b. Work operations are 60 minutes or less.
- c. Speed limit is 45 mph or less.
- d. Aerial lift equipment in the work area has high-intensity, rotating, flashing, oscillating, or strobe lights operating.
- e. Aerial lift equipment is placed directly below the work area to close the lane.
- f. Traffic control devices are placed in advance of the vehicle/equipment closing the lane using a minimum 100 foot taper.
- g. Volume or complexity of the roadway may dictate additional devices, signs, flagmen and/or a traffic control officer.

### OPTION 2 (OVERHEAD WORK ABOVE AN OPEN TRAFFIC LANE)

Overhead work above a open traffic lane is allowed if all of the following conditions are met:

- a. Work operation is located on a utility pole, light pole, signal pole, or their appurtenances.
- b. Work operations are 60 minutes or less.
- c. Speed limit is 45 mph or less.
- d. No encroachment by any part of the work activities and equipment within an area bounded by 2 feet outside the edge of travel way and 18 feet high.
- e. Aerial lift equipment in the work area has high-intensity, rotating, flashing, oscillating, or strobe lights operating.
- f. Volume or complexity of the roadway may dictate additional devices, signs, flagmen and/or a traffic control officer.
- g. Adequate precautions are taken to prevent parts, tools, equipment and other objects from falling into open lanes of traffic.
- h. Other Governmental Agencies, Rail facilities, or Codes may require a greater clearance. The greater clearance required prevails as the rule.

### OPTION 3 (OVERHEAD WORK ADJACENT TO AN OPEN TRAFFIC LANE)

Overhead work adjacent to an open traffic lane is allowed if all of the following conditions are met:

- a. Work operation is located on a utility pole, light pole, signal pole, or their appurtenances.
- b. Work operations are 1 day or less.
- c. Speed limit is 45 mph or less.
- d. No encroachment by any part of the work activities and equipment within 2 foot from the edge of travel way up to 18' height.
  - Above 18' in height, no encroachment by any part of the work activities and equipment over the open traffic lane (except as allowed in Option 2 for work operations of 60 minutes or less).
- e. Aerial lift equipment in the work area has high-intensity, rotating, flashing, oscillating, or strobe lights operating.
- f. Volume or complexity of the roadway may dictate additional devices, signs, flagmen and/or a traffic control officer.
- g. Adequate precautions are taken to prevent parts, tools, equipment and other objects from falling into open lanes of traffic.
- h. Other Governmental Agencies, Rail facilities, or Codes may require a greater clearance. The greater clearance required prevails as the rule.

### OPTION 4 (OVERHEAD WORK MAINTAINING TRAFFIC WITH NO ENCROACHMENT BELOW THE OVERHEAD WORK AREA)

Traffic shall be detoured, shifted, diverted or paced as to not encroach in the area directly below the overhead work operations in accordance with the appropriate standard index drawing or detailed in the plans. This option applies to, but not limited to, the following construction activities:

- a. Beam, girder, segment, and bent/pier cap placement.
- b. Form and falsework placement and removal.
- c. Concrete placement.
- d. Railing construction located at edge of deck.
- e. Structure demolition.

### OPTION 5 (CONDUCTOR/CABLE PULLING ABOVE AN OPEN TRAFFIC LANE)

Overhead cable and/or de-energized conductor installations initial pull to proper tension shall be done in accordance with the appropriate Standard Index or temporary traffic control plan.

Continuous pulling operations of secured cable and/or conductors are allowed over open lane(s) of traffic with no encroachment by any part of the work activities, materials or equipment within the minimal vertical clearance above the travel way. The utility shall take precautions to ensure that pull ropes and conductors/cables at no time fall below the minimum vertical clearance.

On Limited Access facilities, a site specific temporary traffic control plan is required. The temporary traffic control plan shall include:

- a. The temporary traffic control set up for the initial pulling of the pull rope across the roadway.
- b. During pulling operations, advance warning consisting of no less than a Changeable Message Sign upstream of the work area with alternating messages, "Overhead Work Ahead" and "Be Prepared to Stop" followed by a traffic control officer and police vehicle with blue lights flashing during the pulling operation.

## RAILROADS

Railroad crossings affected by a construction project should be evaluated for traffic controls to reduce queuing on the tracks. The evaluation should include as a minimum: traffic volumes, distance from the tracks to the intersections, lane closure or taper locations, signal timing, etc.

## SIGHT DISTANCE

Tapers: Transition tapers should be obvious to drivers. If restricted sight distance is a problem (e.g., a sharp vertical or horizontal curve), the taper should begin well in advance of the view obstruction. The beginning of tapers should not be hidden behind curves.

Intersections: Traffic control devices at intersections must provide sight distances for the road user to perceive potential conflicts and to traverse the intersection safely. Construction equipment and materials shall not restrict intersection sight distance.

## ABOVEGROUND HAZARD

Aboveground hazards (see definitions) are to be considered work areas during working hours and treated with appropriate work zone traffic control procedures. During nonworking hours, all objects, materials and equipment that constitute an aboveground hazard must be stored/placed outside the travel way and clear zone or be shielded by a barrier or crash cushion.

For aboveground hazards within a work zone the clear zone required should be based on the regulatory speed posted during construction.

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LAST REVISION 07/01/15	REVISION	DESCRIPTION:	 <b>FY 2017-18 DESIGN STANDARDS</b>	<b>GENERAL INFORMATION FOR TRAFFIC CONTROL THROUGH WORK ZONES</b>	INDEX NO. <b>600</b>	SHEET NO. <b>2 of 12</b>
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## CLEAR ZONE WIDTHS FOR WORK ZONES

The term 'clear zone' describes the unobstructed relatively flat area, impacted by construction, extending outward from the edge of the traffic lane. The table below gives clear zone widths in work zones for medians and roadside conditions other than for roadside canals; where roadside canals are present, clear zone widths are to conform with the distances to canals as described in the PPM, Volume I, Chapter 4.

CLEAR ZONE WIDTHS FOR WORK ZONES		
WORK ZONE SPEED (MPH)	TRAVEL LANES & MULTILANE RAMPS (feet)	AUXILIARY LANES & SINGLE LANE RAMPS (feet)
60-70	30	18
55	24	14
45-50	18	10
30-40	14	10
ALL SPEEDS CURB & GUTTER	4' BEHIND FACE OF CURB	4' BEHIND FACE OF CURB

## SUPERELEVATION

Horizontal curves constructed in conjunction with work zone traffic control should have the required superelevation applied to the design radii. Under conditions where normal crown controls curvature, the minimum radii that can be applied are listed in the table below.

MINIMUM RADII FOR NORMAL CROWN	
WORK ZONE POSTED SPEED	MINIMUM RADIUS
MPH	feet
65	3130
60	2400
55	1840
50	1390
45	1080
40	820
35	610
30	430
Superelevate When Smaller Radii is Used	

## LENGTH OF LANE CLOSURES

Lane closures must not exceed the following total lengths (includes taper, buffer space and work space) in any given direction on the interstate or on state highways with a posted speed of 55 MPH or greater:

- 3 miles for Rumble Striping.
- 2 miles for all other operations.

## OVERWEIGHT/OVERSIZE VEHICLES

Restrictions to Lane Widths, Heights or Load Capacity can greatly impact the movement of over dimensioned loads. The Contractor shall notify the Engineer who in turn shall notify the State Permits Office, phone no. (850) 410-5777, at least seven calendar days in advance of implementing a maintenance of traffic plan which will impact the flow of overweight/oversized vehicles. Information provided shall include location, type of restriction (height, width or weight) and restriction time frames. When the roadway is restored to normal service the State Permits Office shall be notified immediately.

## LANE WIDTHS

Lane widths of through roadways should be maintained through work zone travel ways wherever practical. The minimum widths for work zone travel lanes shall be as follows: 11' for Interstate with at least one 12' lane provided in each direction, unless formally excepted by the Federal Highway Administration; 11' for freeways; and 10' for all other facilities.

## HIGH-VISIBILITY SAFETY APPAREL

All high-visibility safety apparel shall meet the requirements of the International Safety Equipment Association (ISEA) and the American National Standards Institute (ANSI) for "High-Visibility Safety Apparel", and labeled as ANSI/ISEA 107-2004 or newer. The apparel background (outer) material color shall be either fluorescent orange-red or fluorescent yellow-green as defined by the standard. The retroreflective material shall be orange, yellow, white, silver, yellow-green, or a fluorescent version of these colors, and shall be visible at a minimum distance of 1,000 feet. Class 3 apparel may be substituted for Class 2 apparel. Replace apparel that is not visible at 1,000 feet.

**WORKERS:** All workers within the right-of-way shall wear ANSI/ISEA Class 2 apparel. Workers operating machinery or equipment in which loose clothing could become entangled during operation shall wear fitted high-visibility safety apparel. Workers inside the bucket of a bucket truck are not required to wear high-visibility safety apparel.

**UTILITIES:** When other industry apparel safety standards require utility workers to wear apparel that is inconsistent with FDOT requirements such as NFPA, OSHA, ANSI, etc., the other standards for apparel may prevail.

**FLAGGERS:** For daytime activities, Flaggers shall wear ANSI/ISEA Class 2 apparel. For nighttime activities, Flaggers shall wear ANSI/ISEA Class 3 apparel.

## REGULATORY SPEEDS IN WORK ZONES

Traffic Control Plans (TCP's) for all projects must include specific regulatory speeds for each phase of work. This can either be the posted speed or a reduced speed. The speed shall be noted in the TCPs; this includes indicating the existing speed if no reduction is to be made. Regulatory speeds are to be uniformly established through each phase.

In general, the regulatory speed should be established to route vehicles safely through the work zone as close as to normal highway speed as possible. The regulatory speed should not be reduced more than 10 mph below the posted speed and never below the minimum statutory speed for the class of facility. When a speed reduction greater than 10 mph is imposed, the reduction is to be done in 10 mph per 500' increments.

Temporary regulatory speed signs shall be removed as soon as the conditions requiring the reduced speed no longer exist. Once the work zone regulatory speeds are removed, the regulatory speed existing prior to construction will automatically go back into effect unless new speed limit signing is provided for in the plans.

On projects with interspaced work activities, speed reductions should be located in proximity to those activities which merit a reduced speed, and not "blanketed" for the entire project. At the departure of such activities, the normal highway speed should be posted to give the motorist notice that normal speed can be resumed.

If the existing regulatory speed is to be used, consideration should be given to supplementing the existing signs when the construction work zone is between existing regulatory speed signs. For projects where the reduced speed conditions exist for greater than 1 mile in rural areas (non-interstate) and on rural or urban interstate, additional regulatory speed signs are to be placed at no more than 1 mile intervals. Engineering judgement should be used in placement of the additional signs. Locating these signs beyond ramp entrances and beyond major intersections are examples of proper placement. For urban situations (non-interstate), additional speed signs are to be placed at a maximum of 1000' apart.

When field conditions warrant speed reductions different from those shown in the TCP the contractor may submit to the project engineer for approval by the Department, a signed and sealed study to justify the need for further reducing the posted speed, or, the engineer may request the District Traffic Operations Engineer (DTOE) to investigate the need. It will not be necessary for the DTOE to issue regulations for regulatory speeds in work zones due to the revised provisions of F.S. 316.07451(2) (b). Advisory Speed plates will be used at the option of the field engineer for temporary use while processing a request to change the regulatory speed specified in the plans when deemed necessary. Advisory speed plates cannot be used alone but must be placed below the construction warning sign for which the advisory speed is required.

For additional information, refer to the Plans Preparation Manual, Volume I, Chapter 10.

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## FLAGGER CONTROL

Where flaggers are used, a FLAGGER symbol or legend sign must replace the WORKERS symbol or legend sign.

The flagger must be clearly visible to approaching traffic for a distance sufficient to permit proper response by the motorist to the flagging instructions, and to permit traffic to reduce speed or to stop as required before entering the work site. Flaggers shall be positioned to maintain maximum color contrast between the flagger's high-visibility safety apparel and equipment and the work area background.

### Hand-Signaling Devices

STOP/SLOW paddles are the primary hand-signaling device. The STOP/SLOW paddle shall have an octagonal shape on a rigid handle. If the STOP/SLOW paddle is placed on a rigid staff, the minimum length of the staff, measured from the bottom of the paddle to the end of the staff that rests on the ground, must not be less than 6 ft. STOP/SLOW paddles shall be at least 24 inches wide with letters at least 6 inches high and should be fabricated from light semirigid material. The background of the STOP face shall be red with white letters and border. The background of the SLOW face shall be orange with black letters and border. When used at night-time, the STOP/SLOW paddle shall be retroreflectorized.

Flag use is limited to immediate emergencies, intersections, and when working on the centerline or shared left turn lanes where two (2) flaggers are required and there is opposing traffic in the adjacent lanes. Flags, when used, shall be a minimum of 24 inches square, made of a good grade of red material, and securely fastened to a staff that is approximately 36 inches in length. When used at nighttime, flags shall be retroreflectorized red.

Flashlight, lantern or other lighted signal that will display a red warning light shall be used at night.

### Flagger Stations

Flagger stations shall be located far enough in advance of the work space so that approaching road users will have sufficient distance to stop before entering the work space. When used at nighttime, the flagger station shall be illuminated.

## SURVEY WORK ZONES

The SURVEY CREW AHEAD symbol or legend sign shall be the principal Advance Warning Sign used for Traffic Control Through Survey Work Zones and may replace the ROAD WORK AHEAD sign when lane closures occur, at the discretion of the Party Chief.

When Traffic Control Through Work Zones is being used for survey purposes only, the END ROAD WORK sign as called for on certain 600 Series Indexes should be omitted.

## Survey Between Active Traffic Lanes or Shared Left Turn Lanes

The following provisions apply to Main Roadway Traffic Control Work Zones. These provisions must be adjusted by the Party Chief to fit roadway and traffic conditions when the Survey Work Zone includes intersections.

- (A) A STAY IN YOUR LANE (MOT-1-06) sign shall be added to the Advance Warning Sign sequence as the second most immediate sign from the work area.
- (B) Elevation Surveys-Cones may be used at the discretion of the Party Chief to protect prism holder and flagger(s). Cones, if used, may be placed at up to 50' intervals along the break line throughout the work zone.
- (C) Horizontal Control-With traffic flow in the same direction, cones shall be used to protect the backsight tripod and/or instrument. Cones shall be placed at the equipment, and up to 50' intervals for at least 200' towards the flow of traffic.
- (D) Horizontal Control-With traffic flow in opposite directions, cones shall be used to protect the backsight tripod and/or instrument. Cones shall be placed at the equipment, and up to 50' intervals for at least 200' in both directions towards the flow of traffic.

## SIGNS

### SIGN MATERIALS

Mesh signs and non-retroreflective vinyl signs may only be used for daylight operations. Non-retroreflective vinyl signs must meet the requirements of Specifications Section 994.

Retroreflective vinyl signs meeting the requirements of Specification Section 994 may be used for daylight or night operations not to exceed 1 day except as noted in the standards.

Rigid or Lightweight sign panels may be used in accordance with the vendor APL drawing for the sign stand to which they are attached.

### INTERSECTING ROAD SIGNING

Signing for the control of traffic entering and leaving work zones by way of intersecting crossroads shall be adequate to make drivers aware of work zone conditions. When Work operations exceed 60 minutes, place the ROAD WORK AHEAD sign on the side street entering the work zone.

### ADJOINING AND/OR OVERLAPPING WORK ZONE SIGNING

Adjoining work zones may not have sufficient spacing for standard placement of signs and other traffic control devices in their advance warning areas or in some cases other areas within their traffic control zones. Where such restraints or conflicts occur or are likely to occur, one of the following methods will be employed to avoid conflicts and prevent conditions that could lead to misunderstanding on the part of the traveling public as to the intended travel way by the traffic control procedure applied:

- (A) For scheduled projects the engineer in responsible charge of project design will resolve anticipated work zone conflicts during the development of the project traffic control plan. This may entail revision of plans on preceding projects and coordination of plans on concurrent projects.
- (B) Unanticipated conflicts arising between adjoining in progress highway construction projects will be resolved by the Resident Engineer for projects under his residency, and, by the District Construction Engineer for in progress projects under adjoining residencies.
- (C) The District Maintenance Engineer will resolve anticipated and occurring conflicts within scheduled maintenance operations.
- (D) The Unit Maintenance Engineer will resolve conflicts that occur within routine maintenance works; between routine maintenance work, unscheduled work and/or permitted work; and, between unit controlled maintenance works and highway construction projects.

## SIGN COVERING AND INTERMITTENT WORK STOPPAGE SIGNING

Existing or temporary traffic control signs that are no longer applicable or are inconsistent with intended travel paths shall be removed or fully covered.

Sign blanks or other available coverings must completely cover the existing sign. Rigid sign coverings shall be the same size as the sign it is covering, and bolted in a manner to prevent movement.

Sign covers are incidental to work operations and are not paid for separately.

### SIGNING FOR DETOURS, LANE SHIFTS AND DIVERSIONS

Detours should be signed clearly over their entire length so that motorists can easily determine how to return to the original roadway. The reverse curve (W1-4) warning sign should be used for the advanced warning for a lane shift. A diversion should be signed as a lane shift.

### EXTENDED DISTANCE ADVANCE WARNING SIGN

Advance Warning Signs shall be used at extended distance of one-half mile or more when limited sight distance or the nature of the obstruction may require a motorist to bring their vehicle to a stop. Extended distance Advanced Warning Signs may be required on any type roadway, but particularly be considered on multilane divided highways where vehicle speed is generally in the higher range (45 MPH or more).

### UTILITY WORK AHEAD SIGN

The UTILITY WORK AHEAD (W21-7) sign may be used as an alternate to the ROAD WORK AHEAD or the ROAD WORK XX FT (W20-1) sign for utility operations on or adjacent to a highway.

### LENGTH OF ROAD WORK SIGN

The length of road work sign (G20-1) bearing the legend ROAD WORK NEXT \_\_\_\_\_ MILES is required for all projects of more than 2 miles in length. The number of miles entered should be rounded up to the nearest mile. The sign shall be located at begin construction points.

### SPEEDING FINES DOUBLED WHEN WORKERS PRESENT SIGN

The SPEEDING FINES DOUBLED WHEN WORKERS PRESENT sign should be installed on all projects, but may be omitted if the work operation is less than 1 day. The placement should be 500 feet beyond the ROAD WORK AHEAD sign or midway to the next sign whichever is less.

### GROOVED PAVEMENT AHEAD SIGN

The GROOVED PAVEMENT AHEAD sign is required 500 feet in advance of a milled or grooved surface open to traffic. The W8-15P placard shall be used in conjunction with the GROOVED PAVEMENT AHEAD sign.

### END ROAD WORK SIGN

The END ROAD WORK sign (G20-2) should be installed on all projects, but may be omitted where the work operation is less than 1 day. The sign should be placed approximately 500 feet beyond the end of a construction or maintenance project unless other distance is called for in the plans. When other Construction or Maintenance Operations occur within 1 mile this sign should be omitted and signing coordinated in accordance with Index No. 600, ADJOINING AND/OR OVERLAPPING WORK ZONE SIGNING.

### PROJECT INFORMATION SIGN

The Project information sign shall be installed when called for in the plans.

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**GENERAL NOTES:**

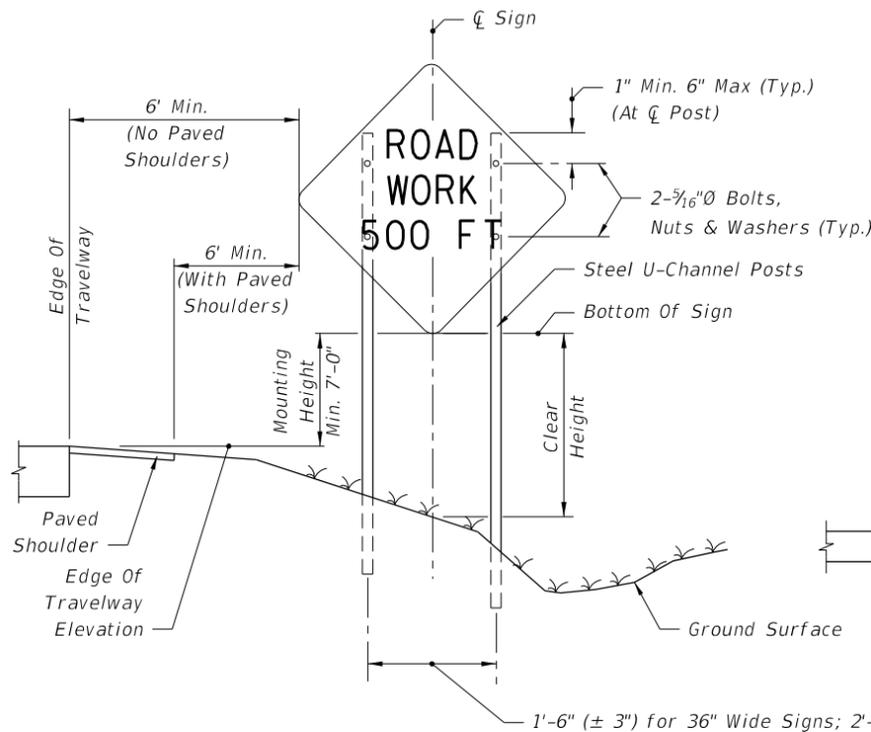
- All signs shall be post mounted when work operations exceed one day except for:
  - Road closure signs mounted in accordance with the vendor drawing for the Type III Barricade shown on the APL.
  - Pedestrian advanced warning or pedestrian regulatory signs mounted on sign supports in accordance with the vendor drawing shown on the APL.
  - Median barrier mounted signs per Index 11871.

**TEMPORARY SIGN SUPPORT NOTE:**

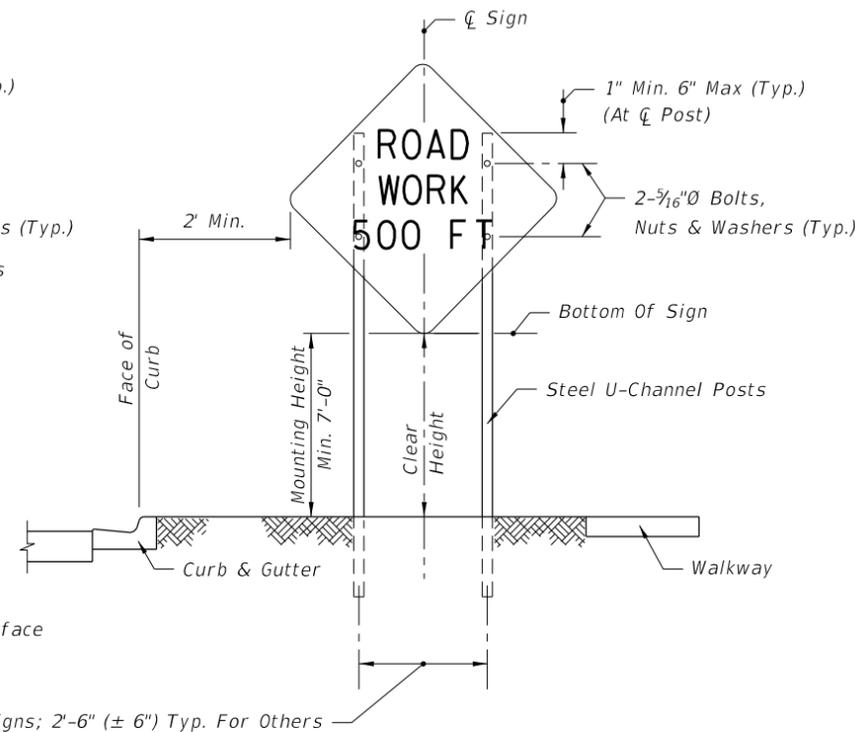
- Unless shielded with barrier or outside of the Clear Zone, signs mounted on temporary supports or barricades, and barricade/sign combination must be crashworthy in accordance with NCHRP 350 requirements and included on the Approved Products List (APL).

**POST MOUNTED SIGN NOTES:**

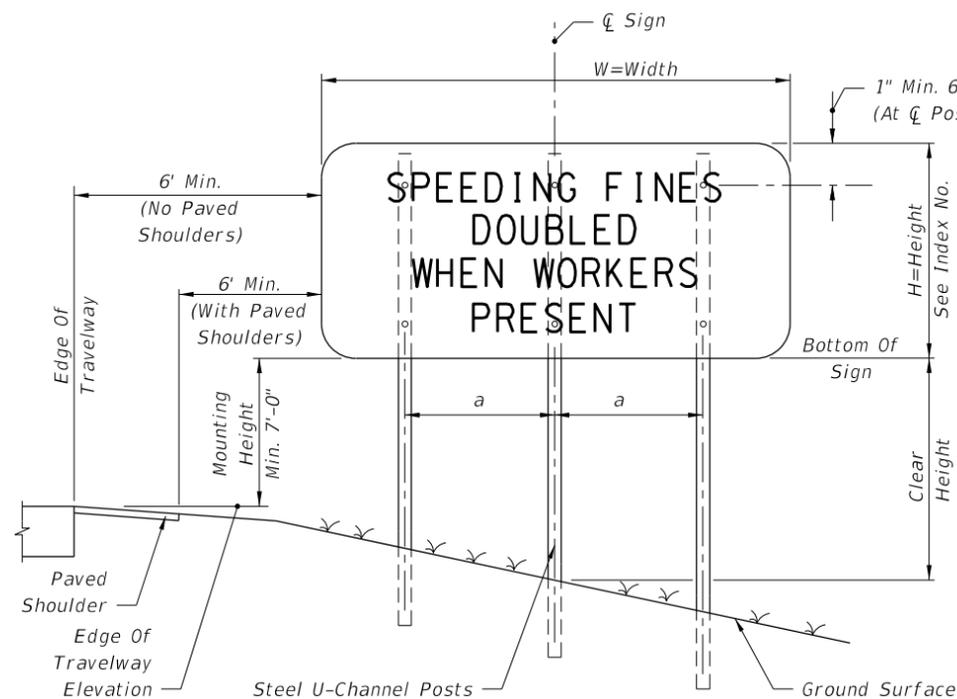
- Use only approved systems listed on the Department's Approved Products List (APL).
- Manufacturers seeking approval of U-Channel and steel square tube sign support assemblies for inclusion on the Approved Products List (APL) must submit a APL application, design calculations (for square tube only), and detailed drawings showing the product meets all the requirements of this Index.
- Provide 3 lb/ft Steel U-Channel Posts with a minimum section modulus of 0.43 in<sup>3</sup> for 60 ksi steel, a minimum section modulus of 0.37 in<sup>3</sup> for 70 ksi steel, or a minimum section modulus of 0.34 in<sup>3</sup> for 80 ksi steel.
- Provide 4 lb/ft Steel U-Channel Posts with a minimum section modulus of 0.56 in<sup>3</sup> for 60 ksi steel, or a minimum section modulus of 0.47 in<sup>3</sup> for 70 ksi or 80 ksi steel.
- U-channel posts shall conform with ASTM A 499, Grade 60, or ASTM A 576, Grade 1080 (with a minimum yield strength of 60 ksi). Square tube posts shall conform with ASTM A 653, Grade 50, or ASTM A 1011, Grade 50.
- Sign attachment bolts, washers, nuts, and spacers shall conform with ASTM A307 or A 36.
- For diamond warning signs with supplement plaque (up to 5 ft<sup>2</sup> in area), use 4 lb/ft posts for up to 10 ft Clear Height (measure to the bottom of diamond warning sign).
- Install 4 lb/ft Steel U-Channel Posts with approved breakaway splice in accordance with the manufacturer's detail shown on the APL.
- The contractor may install 3 lb/ft Steel U-Channel Posts with approved breakaway splice in accordance with the manufacturer's detail shown on the APL.
- Install all posts plumb.
- The contractor may set posts in preformed holes to the specified depth with suitable backfill tamped securely on all sides, or drive 3 lb/ft sign posts and any size base post in accordance with the manufacturer's detail shown on the APL.



**2 POST SIGN SUPPORT MOUNTING DETAILS (SINGLE POST SIMILAR) RURAL**

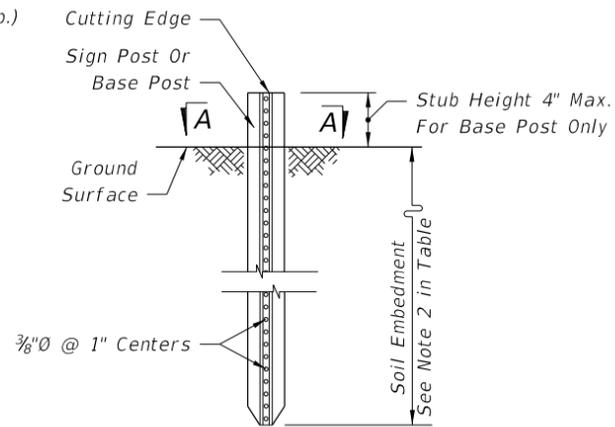


**2 POST SIGN SUPPORT MOUNTING DETAILS (SINGLE POST SIMILAR) URBAN**



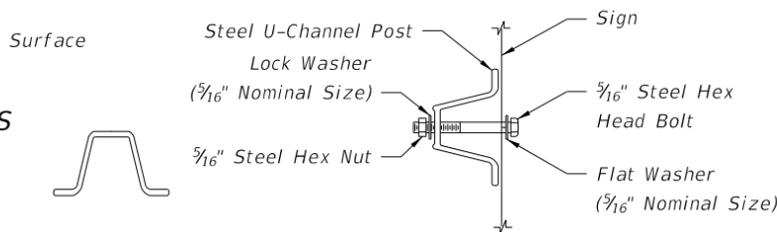
**3 POST SIGN SUPPORT MOUNTING DETAILS**

Where  $W = 48"$ :  $a = 1' - 4\frac{1}{2}" (\pm 1")$   
 $W = 60"$ :  $a = 1' - 9" (\pm 1")$   
 $W = 72"$ :  $a = 2' - 1" (\pm 1")$



**TYPICAL FOUNDATION DETAIL**

See APL for post, splice and connection details. No bolts installed closer than 1" to cutting edge.



**SECTION A-A (SCHEMATIC) SIGN ATTACHMENT DETAIL (WITHOUT Z-BRACKET)**

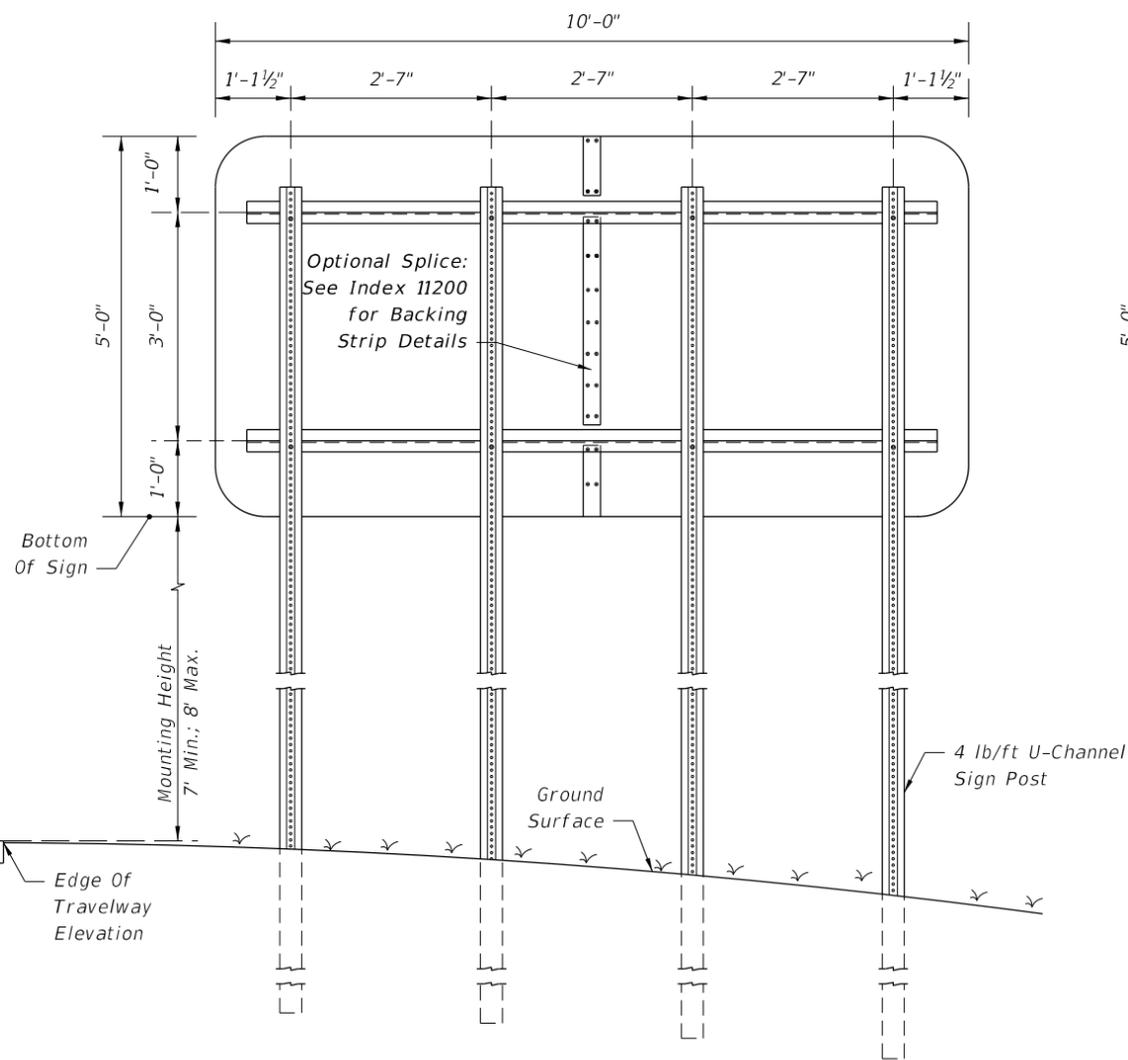
POST AND FOUNDATION TABLE FOR WORK ZONE SIGNS		
SIGN SHAPE	SIGN SIZE (inches)	NUMBER OF STEEL U CHANNEL POSTS
Octagon	30x30	1
	36x36x36	1
	48x48x48	1
Triangle	48x48x48	1
	60x60x60	2
	24x18	1
Rectangle (W x H)	24x30	1
	30x24	1
	36x18	1
	36x24	1
	48x18	1
	48x24	1
	36x48	2
	48x30	2
	48x36	2
	54x36	2
	48x60	3
	60x54	3
	72x48	3
	120x60*	4*
Square	30x30	1
	36x36	2
	48x48	2
Diamond (See Note 7)	48x48	2
Circle	360	2

**Notes For Table:**

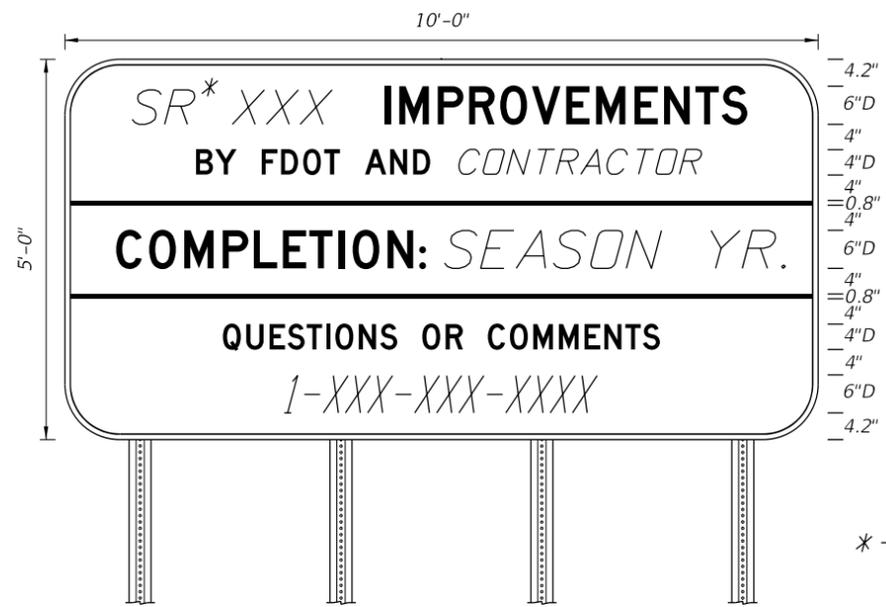
- Use 3 lb/ft posts for Clear Height up to 10' and 4 lb/ft posts for Clear Height up to 12'.
- \* Use 4 lb/ft U-channel sign post with a mounting height of 7' min. and 8' max. Attach sign panel using Z-bracket detail on Sheet 6.
- Minimum foundation depth is 4.0' for 3 lb/ft posts and 4.5' for 4 lb/ft posts.
- For both 3 lb/ft and 4 lb/ft base or sign posts installed in rock, a minimum cumulative depth of 2' of rock layer is required.
- The soil plate as shown on the APL vendor drawing is not required for base posts or sign posts installed in existing rock (as defined in Note 3), asphalt roadway, shoulder pavement or soil under sidewalk.

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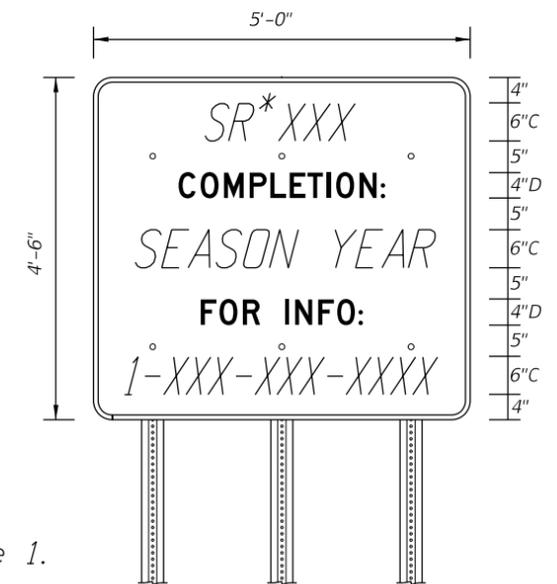


4 POST SIGN SUPPORT MOUNTING DETAIL



BORDER 10'-0" x 5'-0"  
 R=8" 8" Radii  
 TH=0.25" 4" and 6" series D Legend  
 IN=0.75" Blue Background  
 White Legend and Border

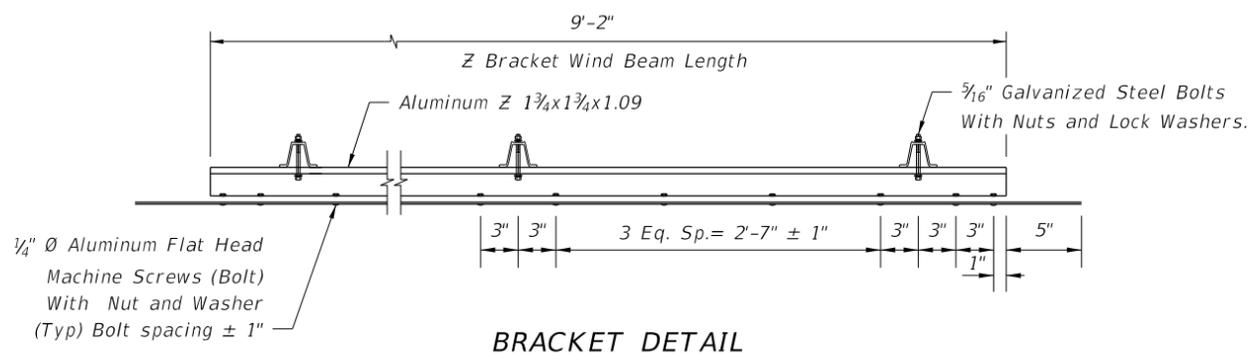
PROJECT INFORMATION SIGN DETAIL  
 50 MPH OR GREATER  
 Use SIGN ATTACHMENT DETAIL  
 (WITH Z-BRACKET).



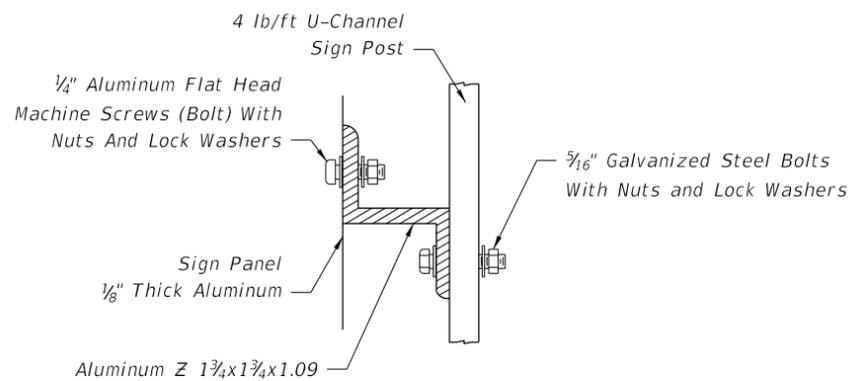
BORDER 5'-0" x 4'-6"  
 R=3" 3" Radii  
 TH=0.25" 4" series D Legend and  
 6" series C Legend  
 IN=0.75" Blue Background  
 White Legend and Border

PROJECT INFORMATION SIGN DETAIL  
 45 MPH OR LESS  
 Use SIGN ATTACHMENT DETAIL  
 (WITHOUT Z-BRACKET)  
 On Sheet 5.

\*-See Note 1.



BRACKET DETAIL



SIGN ATTACHMENT DETAIL  
 (WITH Z-BRACKET)

PROJECT INFORMATION SIGN NOTES:

1. Road designation should be the most common designation (ie. I-Interstate, SR-State Road or US.)
2. Italic text on signs indicate variable information specific to the project.
3. See Sheet 5 for Typical Foundation Details and Post and Foundations Table.

PROJECT INFORMATION SIGN

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E5-2 B/O	E5-2a B/O	G20-1 B/O	G20-2 B/O	G20-4 B/O	M4-8 B/O	M4-8A B/O	M4-9L B/O	M4-9R B/O	M4-10L O/B	M4-10R O/B	OM-3R B/Y	R1-1 W/R	R1-2 RW/R	R2-1 B/W	R4-1 B/W	R4-2 B/W	R4-5 B/W	R4-7 B/W	R4-8 B/W	R4-7AL B/W
R4-7AR B/W	R4-7BL B/W	R4-7BR B/W	R5-1 WR/W	R9-8 B/W	R9-9 B/W	R9-10 B/W	R9-11 B/W	R9-11a B/W	R11-2 B/W	W1-1R B/O	W1-2R B/O	W1-3R B/O	W1-4R B/O	W1-4b B/O	W1-4c B/O	W1-6 B/O	W1-7 B/O	W1-8 B/O	W3-1 RB/O	W3-2 RB/O
W3-3 B(RYG)/O	W3-4 B/O	W3-5 B/O	W4-1 B/O	W4-2 B/O	W5-1 B/O	W5-2 B/O	W5-3 B/O	W6-1 B/O	W6-2 B/O	W6-3 B/O	W8-1 B/O	W8-2 B/O	W8-3 B/O	W8-4 B/O	W8-5 B/O	W8-6 B/O	W8-7 B/O	W8-8 B/O	W8-9 B/O	W8-9a B/O
W8-11 B/O	W9-1L B/O	W9-1R B/O	W9-2L B/O	W9-2R B/O	W10-1 B/Y	W11-2 B/O	W12-1 B/O	W12-2 B/O	W13-1 B/O	W20-1A B/O	W20-1B B/O	W20-1C B/O	W20-1D B/O	W20-1E B/O	W20-1F B/O	W20-2A B/O	W20-2B B/O	W20-2C B/O	W20-2D B/O	W20-2E B/O
W20-3 B/O	W20-4 B/O	W20-5a B/O	W20-5L B/O	W20-5R B/O	W20-5C B/O	W20-7A B/O	W20-7 B/O	W21-1A B/O	W21-1 B/O	W21-5 B/O	W21-5a B/O	W21-6 B/O	W21-7 B/O	W8-15P B/O						
W22-1 B/O	W22-2 B/O	W22-3 B/O																		
<p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>The size of diamond shaped Temporary Traffic Control (TTC) warning signs shall be a minimum of 48" X 48".</li> <li>Fluorescent orange shall be used for all orange colored work zone signs.</li> <li>The sign shields, symbols and messages contained on this sheet are provided for ready reference to those signs used in the development of the 600 series Design Standards and are commonly used in the development of traffic control plans. For additional signs and sign detail information refer to the STANDARD HIGHWAY SIGNS MANUAL as specified in the MUTCD. Special signs for traffic control plans will be as approved by the State Traffic Plans Engineer.</li> </ol> <p>The sign codes shown on this sheet are for the purpose of identifying cell names found in the Traffic Control Cell Library (TCZ.Cel).</p> <p>The STANDARD HIGHWAY SIGNS MANUAL should be referenced for the official sign codes for use in the development of traffic control plans.</p> <p>See Index No. 17355 for MOT sign details.</p>																				
<p><b>COLOR CODES</b> Legend and/or Symbol Background</p> <p>O-Orange (Reflectorized)      R-Red (Reflectorized) B-Black (Non-Reflectorized)    Y-Yellow (Reflectorized) W-White (Reflectorized)        G-Green (Reflectorized)</p>																				
MOT-1-06 B/O	MOT-4-06 B/O	MOT-5-06 B/O	MOT-7-06 B/O	MOT-8-06 B/O	MOT-9-06 B/O	MOT-10-06 B/O	MOT-11-06 BLUE/W	MOT-12-06R B/W	MOT-12-06L B/W	MOT-13-06 (Limited access facilities)	MOT-14-06 (All other facilities)	MOT-15-06 B/O	MOT-16-06 B/O	MOT-17-06 B/O	MOT-18-10 B/O	W8-15P B/O				

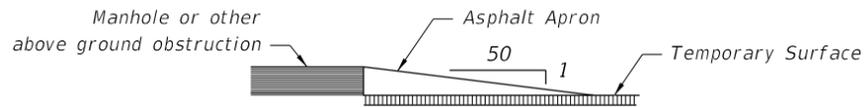
**COMMONLY USED WARNING AND REGULATORY SIGNS IN WORK ZONES**

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## MANHOLES/CROSSWALKS/JOINTS

Manholes extending 1" or more above the travel lane and crosswalks having an uneven surface greater than 1/4" shall have a temporary asphalt apron constructed as shown in the diagram below.

All transverse joints that have a difference in elevation of 1" or more shall have a temporary asphalt apron constructed as shown in the diagram below.



The apron is to be removed prior to constructing the next lift of asphalt. The cost of the temporary asphalt shall be included in the contract unit price for Maintenance of Traffic, LS.

## REMOVING PAVEMENT MARKINGS

Existing pavement markings that conflict with temporary work zone delineation shall be removed by any method approved by the Engineer, where operations exceed one daylight period. Remove conflicting pavement marking using a method that will not damage the surface texture of the pavement, unless the pavement will be restored prior to traffic use. Painting over existing pavement markings with black paint or spraying with asphalt shall not be accepted as substitute for removal or obliteration. Full pavement width overlays of either a structural or friction course (non-final surface) are an acceptable alternate means to achieve removal.

## SIGNALS

Existing traffic signal operations that require modification in order to carry out work zone traffic control shall be included in the TCP and be approved by the District Traffic Operations Engineer.

Maintain all existing actuated or traffic responsive mode signal operations for main and side street movements for the duration of the Contract and require restoration of any loss of detection within 12 hours. The contractor shall select only detection technology listed on the Department's Approved Products List (APL) and approved by the Engineer to restore detection capabilities.

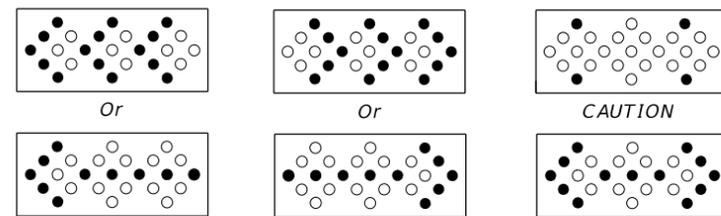
## ADVANCE WARNING ARROW BOARDS

An arrow board in the arrow or chevron mode shall be used only for stationary or moving lane closures on multilane roadways.

For shoulder work, blocking the shoulder, for roadside work near the shoulder, or for temporarily closing one lane on a two-lane, two-way roadway, an arrow board shall be used only in the caution mode.

A single arrow board shall not be used to merge traffic laterally more than one lane. When arrow boards are used to close multiple lanes, a single board shall be used at the merging taper for each closed lane.

When Advance Warning Arrow Boards are used at night, the intensity of the flashers shall be reduced during darkness when lower intensities are desirable.



MOVE/MERGE LEFT

MOVE/MERGE RIGHT

MOVE/MERGE RIGHT OR LEFT

- Minimum Required Lamps
- Additional Lamps Allowed

### MODES

## PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS)

The PCMS can be used to:

1. Supplement standard signing in construction or maintenance work zones.
2. Reinforce static advance warning messages.
3. Provide motorists with updated guidance information.

PCMS should be placed approx. 500 to 800 feet in advance of the work zone conflicts or 0.5 to 2 miles in advance of complex traffic control schemes which require new and/or unusual traffic maneuvers.

If PCMS are to be used at night, the intensity of the flashers shall be reduced during darkness when lower intensities are desirable.

For additional information refer to the FDOT Plans Preparation Manual, Volume I, Chapter 10.

## TRUCK/TRAILER-MOUNTED ATTENUATORS

Truck/Trailer-mounted attenuators (TMA) can be used for moving operations and short-term stationary operations. For moving operations, see Index Nos. 607 and 619. For short-term, stationary operations, see Part VI of the MUTCD.

## CHANNELIZING DEVICES

Channelizing devices for work zone traffic control shall be as prescribed in Part VI of the MUTCD, subject to supplemental revisions provided in the contract documents and Index 600 requirements. Lighting Devices must not be used to supplement channelization.

## CHANNELIZING DEVICE CONSISTENCY

Barricades, vertical panels, cones, tubular markers and drums shall not be intermixed within either the lateral transition or within the tangent alignment.

LAST REVISION 11/01/16	REVISION	DESCRIPTION:	 FY 2017-18 DESIGN STANDARDS	GENERAL INFORMATION FOR TRAFFIC CONTROL THROUGH WORK ZONES	INDEX NO. 600	SHEET NO. 8 of 12
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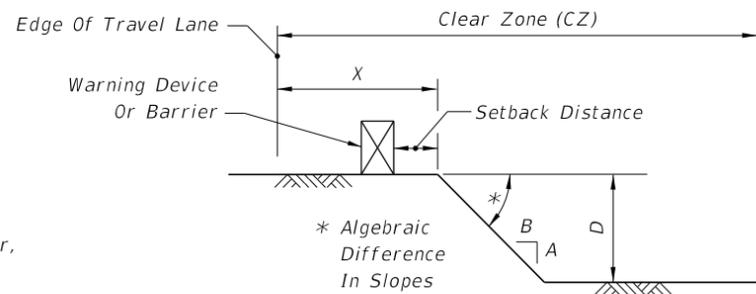
**DROP-OFF CONDITION NOTES**

1. These conditions and treatments can be applied only in work areas that fall within a properly signed work zone.
2. When drop-offs occur within the clear zone due to construction or maintenance activities, protection devices are required (See Table 1). A drop-off is defined as a drop in elevation, parallel to the adjacent travel lanes, greater than 3" with slope (A:B) steeper than 1:4 and an algebraic difference in slopes greater than 0.25 (See Drop-off Condition Detail).
3. Drop-offs may be mitigated by placement of slopes with optional base material per Specifications Section 285. Slopes shallower than 1:4 may be required to avoid algebraic difference in slopes greater than 0.25. Include the cost for the placement and removal of the material in Maintenance of Traffic, LSD. Use of this treatment in lieu of a barrier is not eligible for CSIP consideration. Conduct daily inspections for deficiencies related to erosion, excessive slopes, rutting or other adverse conditions. Repair any deficiencies immediately.
4. Distance X is to be the maximum practical under project conditions.
5. For Clear Zone widths, see Index No. 600, Sheet 3.
6. For Setback Distance, refer to the Standard Index drawing of the selected barrier for the required deflection space.
7. Distance from the travel lane to the barrier or warning device should be maximum practical for project conditions.
8. For Conditions 1 and 3 provided in Table 1, any drop-off condition that is created and restored within the same work period will not be subject to the use of barriers; however, warning devices will be required.
9. When permanent curb heights are  $\geq 6"$ , no warning device will be required. For curb heights  $< 6"$ , see Table 1.
10. Where a barrier is specified, any of the types below may be used in accordance with the applicable Index:
 

Index No.	Description
400	Guardrail
412	Low Profile Barrier
414	Type K Temporary Concrete Barrier System
415	Temporary Concrete Barrier

For other types of temporary barriers see the APL.
11. Drop-off condition and protection requirements apply to all speeds.

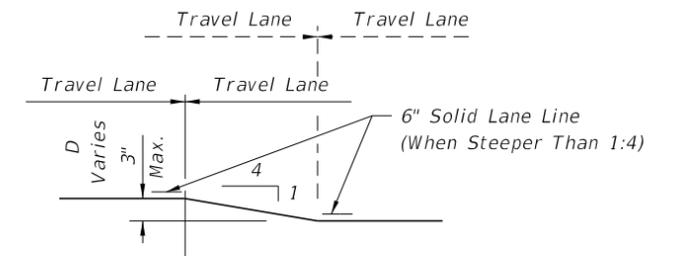
Condition	X (ft)	D (in.)	Device Required
1	0-12	> 3	Barrier (See Note 8)
2	> 12-CZ	> 3 to $\leq 5$	Warning Device
3	0-CZ	> 5	Barrier (See Note 8)
4	Removal of Bridge or Retaining Wall Barrier		Barrier
5	Removal of portions of Bridge Deck		Barrier



**DROP-OFF CONDITION DETAIL**

**TRAVEL LANE TREATMENT FOR MILLING OR RESURFACING NOTES**

1. This treatment applies to resurfacing or milling operations between adjacent travel lanes.
2. Whenever there is a difference in elevation between adjacent travel lanes, the W8-11 sign with "UNEVEN LANES" is required at intervals of 1/2 mile maximum.
3. If D is 1 1/2" or less, no treatment is required.
4. Treatment allowed only when D is 3" or less.
5. If the slope is steeper than 1:4 (not to be steeper than 1:1), the R4-1 and MOT-1-06 signs shall be used as a supplement to the W8-11; this condition should never exceed 3 miles in length.



**TRAVEL LANE TREATMENT FOR MILLING OR RESURFACING DETAIL**

**PEDESTRIAN AND/OR BICYCLIST WAY DROP-OFF CONDITION NOTES**

1. A pedestrian and/or bicyclist way drop-off is defined as:
  - a. a drop in elevation greater than 10" that is closer than 2' from the edge of the pedestrian or bicyclist way
  - b. a slope steeper than 1:2 that begins closer than 2' from the edge of the pedestrian or bicyclist way when the total drop-off is greater than 60"
2. Protect any drop-off adjacent to a pedestrian or bicyclist way with warning devices, temporary barrier wall, or approved handrail.

**WARNING DEVICE NOTES**

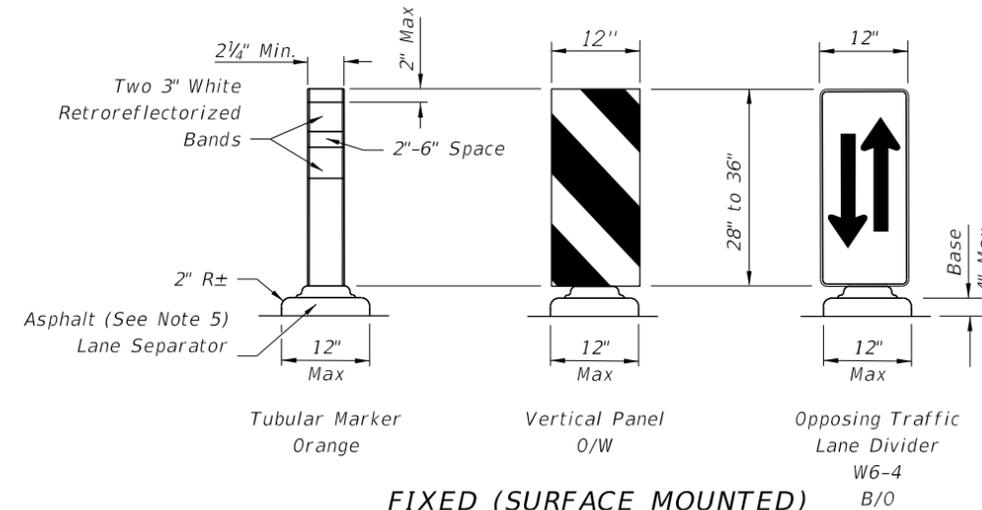
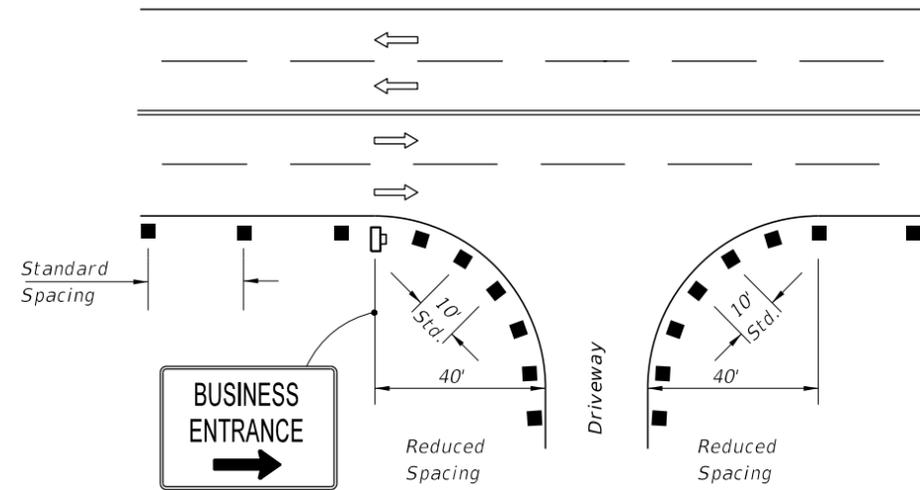
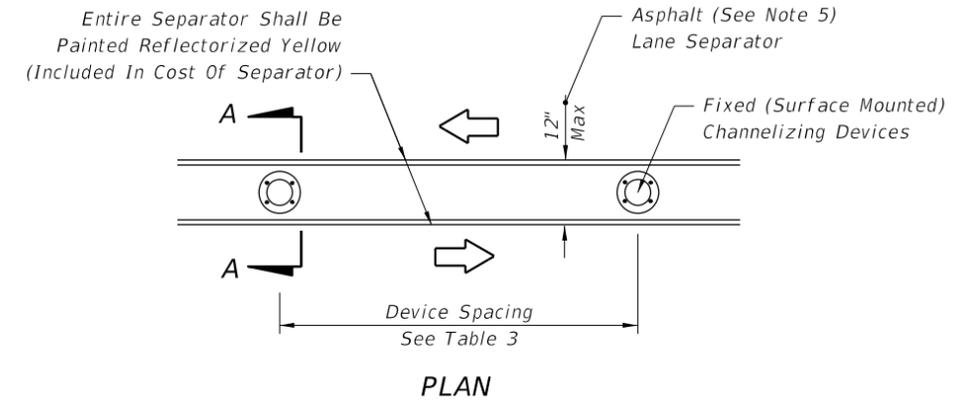
1. The following are defined as acceptable warning devices:
  - a. Vertical panel
  - b. Type I Or Type II barricades
  - c. Drum
  - d. Cone (where allowed)
  - e. Tubular marker (where allowed)
2. Use the warning device spacing shown in Table 2.

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

**DROP-OFFS IN WORK ZONES**

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Speed (mph)	Max. Distance Between Devices (ft.)			
	Tubular Markers		Vertical Panels or Opposing Traffic Lane Divider	
	Taper	Tangent	Taper	Tangent
25	25	50	25	50
30 to 45	25	50	30	50
50 to 70	25	50	50	100



FIXED (SURFACE MOUNTED)  
CHANNELIZING DEVICES

SECTION AA

1. For single business entrances, place one 24" x 36" business sign for each driveway entrance affected. Signs shall show specific business names. Logos may be provided by business owners. Standard BUSINESS ENTRANCE sign in Index 17355 may be used when approved by the Engineer.
2. When several businesses share a common driveway entrance, place one 24" x 36" standard BUSINESS ENTRANCE sign in accordance with Index 17355 at the common driveway entrance.
3. Channelizing devices shall be placed at a reduced spacing on each side of the driveway entrance, but shall not restrict sight distance for the driveway users.
4. Business entrance signs are intended to guide motorist to business entrances moved/modified or disturbed during construction projects. Business entrance signs are not required where there is minimal disruption to business driveways which is often the case with resurfacing type projects.

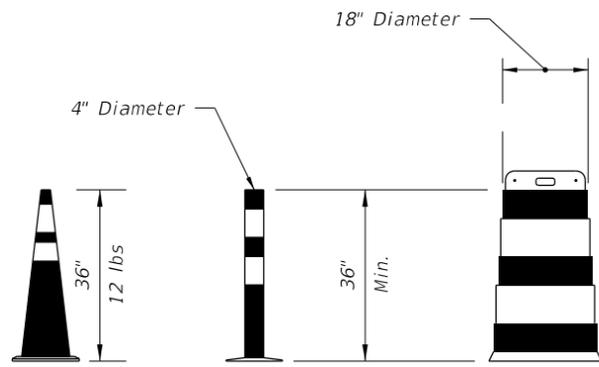
1. Temporary lane separators shall be supplemented with any of the following approved fixed (surface mounted) channelizing devices: tubular markers, vertical panels, or opposing traffic lane divider panels. Opposing traffic lane divider panels (W6-4) shall only be used as center lane dividers to separate opposing vehicular traffic on a two-lane, two-way operation. Tubular Markers, Vertical Panels and Opposing Traffic Lane Divider panels shall not be intermixed within the limits where the temporary lane separator is used. The connection between the channelizing device and the temporary lane separator curb shall hold the channelizing device in a vertical position.
2. Reflectorized materials shall have a smooth sealed outer surface which will display the same approximate color day and night. Furnish channelizing devices having retroreflective sheeting meeting the requirements of Section 990.
3. 12" openings for drainage shall be constructed in the asphalt and portable temporary lane separator at a maximum spacing of 25' in areas with grades of 1% or less or 50' in areas with grades over 1% as directed by the Engineer.
4. Tapered ends shall be used at the beginning and end of each run of the temporary lane separator to form a gradual increase in height from the pavement level to the top of the temporary lane separator.
5. The Contractor has the option of using portable temporary lane separators containing fixed channelizing devices in lieu of the temporary asphalt separator and channelizing devices detailed on this sheet. The portable temporary lane separator shall come in portable sections that can be connected to maintain continuous alignment between the separate curb sections. Each temporary lane separator section shall be 36 inches to 48 inches in total length. Portable temporary lane separators shall duplicate the color of the pavement marking. Portable temporary lane separators shall be one of those listed on the Approved Products List.
6. Any damage to existing pavement caused by the removal of temporary lane separator shall be satisfactorily repaired and the cost of such repairs are to be included in the cost of Maintenance of Traffic, LS.

PLACEMENT OF BUSINESS ENTRANCE SIGNS AND  
CHANNELIZING DEVICES AT BUSINESS ENTRANCE

TEMPORARY LANE SEPARATOR

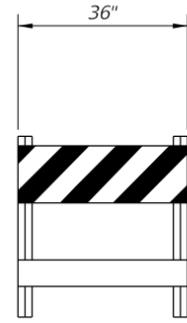
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LAST REVISION 07/01/15	DESCRIPTION:	 FY 2017-18 DESIGN STANDARDS	GENERAL INFORMATION FOR TRAFFIC CONTROL THROUGH WORK ZONES	INDEX NO. 600	SHEET NO. 10 of 12
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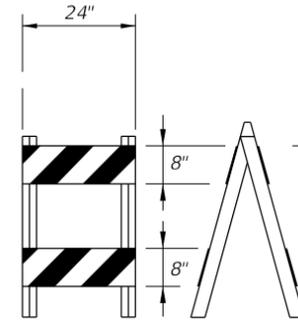


**CONES TUBULAR MARKER PLASTIC DRUMS**

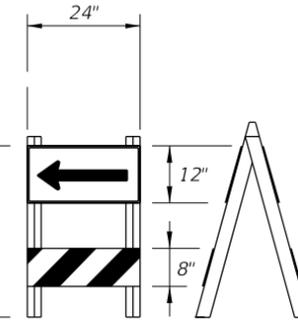
TUBULAR NON-FIXED  
MARKER TO BE USED  
DURING DAYLIGHT ONLY



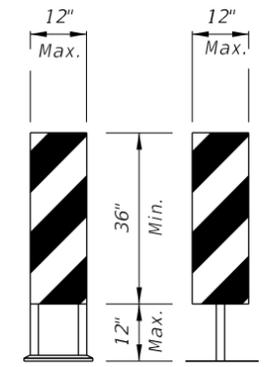
**TYPE I BARRICADE**



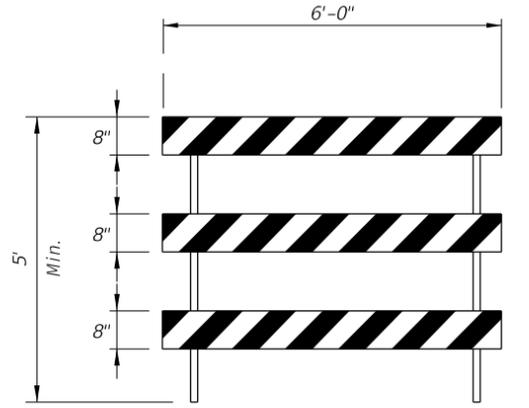
**TYPE II BARRICADE**



**DIRECTION INDICATOR  
BARRICADE**



**A-FRAME POST MOUNT  
VERTICAL PANEL**

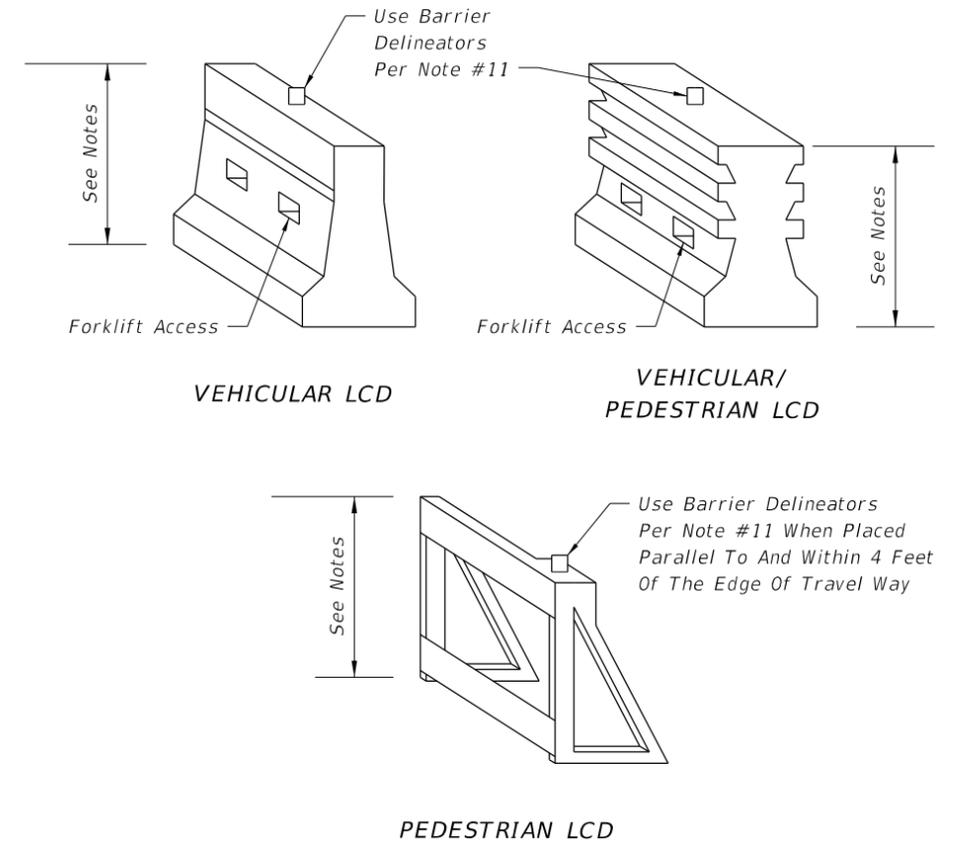


**TYPE III BARRICADE**

**CHANNELIZING DEVICE NOTES**

- The details shown on this sheet are for the following purposes:
  - For ease of identification and
  - To provide information that supplements or supersedes that provided by the MUTCD.
- The Type III Barricade shall have a unit length of 6'-0" only. When barricades of greater lengths are required those lengths shall be in multiples of the 6'-0" unit.
- No sign panel should be mounted on any channelizing device unless the channelizing device/sign combination was found to be crashworthy and the sign panel is mounted in accordance with the vendor drawing for the channelizing device shown on the APL.
- Ballast shall not be placed on top rails or any striped rails or higher than 13" above the driving surface.
- The direction indicator barricade may be used in tapers and transitions where specific directional guidance to drivers is necessary. If used, direction indicator barricades shall be used in series to direct the driver through the transition and into the intended travel lane.
- The splicing of sheeting is not permitted on either channelizing devices or MOT signs.
- For rails less than 3'-0" long, 4" stripes shall be used.
- Cones shall:
  - Be used only in active work zones where workers are present.
  - Not exceed 2 miles in length of use at any one time.
  - Be reflectorized as per the MUTCD with Department-approved reflective collars when used at night.

- Vehicular longitudinal channelizing devices shall not exceed 36" in height. For vehicular longitudinal channelizing devices (LCDs) less than 32" in height, the LCD shall be supplemented with approved fixed (surface mounted) channelizing devices (tubular markers, vertical panels, etc.) along the run of the LCD, at the ends, at 50' centers on tangents, and 25' centers on radii. The cost of the fixed supplemented channelizing devices shall be included in the cost of the LCD. LCDs less than 32" in height shall not be used for speeds greater than 45 mph.
- For pedestrian longitudinal channelizing devices, the device shall have a minimum of 8" continuous detectable edging above the walkway. A gap not exceeding a height of 2" is allowed to facilitate drainage. The top surface of the device shall be a minimum height of 32" and have a 1/8" or less difference in any plane at all connection points between the devices to facilitate hand trailing. The bottom and the top surface of the device shall be in the same vertical plane. If pedestrian drop-off protection is required, the device shall have a footprint or offset of at least 2', otherwise the device must be at least 42" in height above the walkway and be anchored or ballasted to withstand a 200 lb lateral point load at the top of the device.
- Barrier Delineators: Meet Specifications Section 993. Place on top of unit so that retroreflective sheeting faces vehicular traffic. Spacing must be a maximum of 50' centers in transitions, 100' centers on curves and 200' centers on tangents. Color must match adjacent longitudinal pavement marking.



**VEHICULAR LCD**

**VEHICULAR/  
PEDESTRIAN LCD**

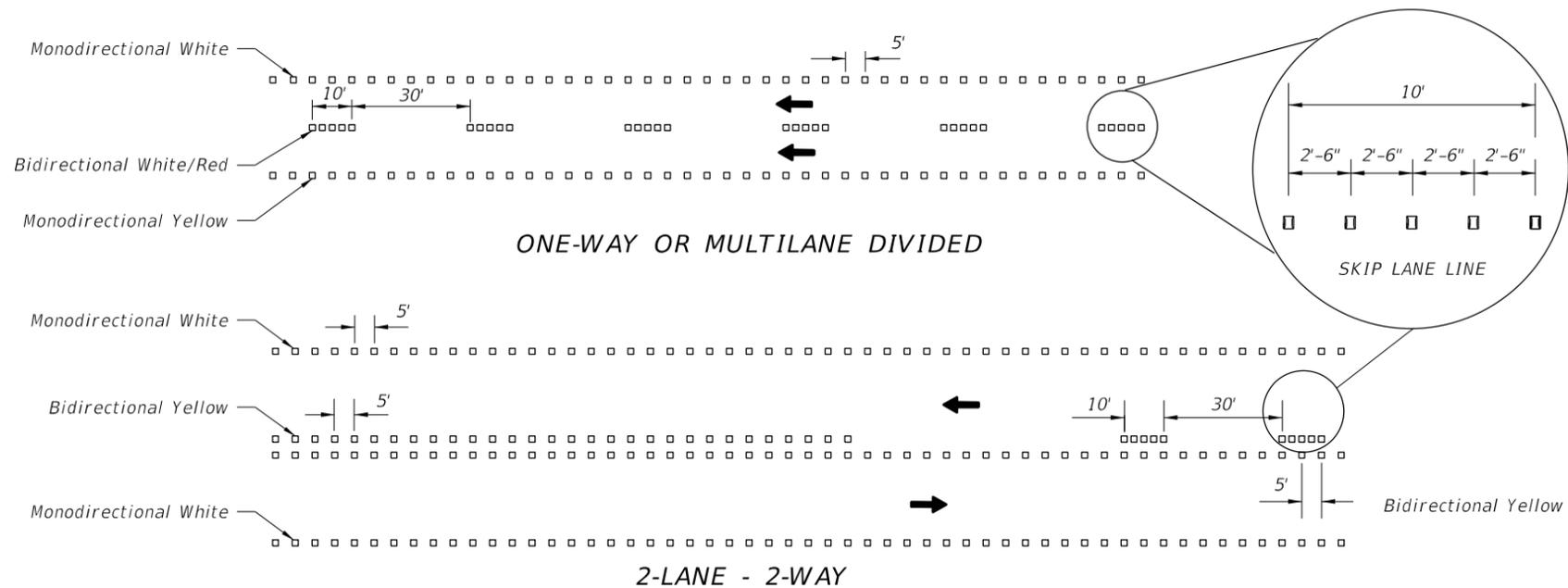
**PEDESTRIAN LCD**

**LONGITUDINAL CHANNELIZING DEVICE**

**IDENTIFICATIONS - CHANNELIZING DEVICES**

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LAST REVISION 11/01/16	REVISION	DESCRIPTION:	 <b>FY 2017-18 DESIGN STANDARDS</b>	<b>GENERAL INFORMATION FOR TRAFFIC CONTROL THROUGH WORK ZONES</b>	INDEX NO. <b>600</b>	SHEET NO. <b>11 of 12</b>
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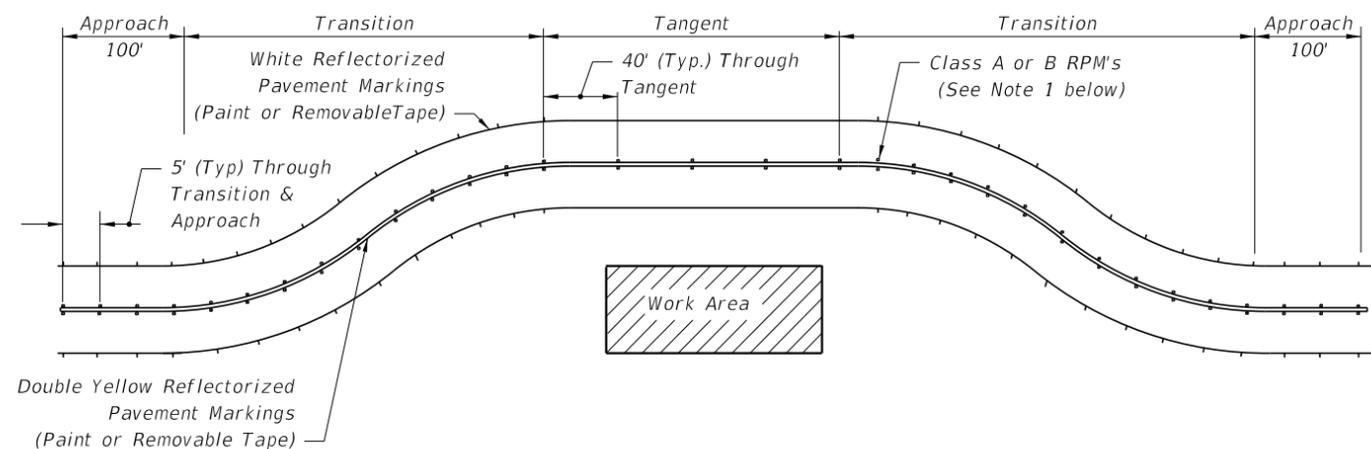
**TEMPORARY SUBSTITUTION OF RPM'S FOR PAINT OR REMOVABLE TAPE**

1. Paint or removable tape are the required work zone markings and shall be placed in accordance with the plans and specifications. If these work zone markings can not be placed due to weather restrictions identified in the appropriate specification, temporary substitution of RPM's for work zone markings will be allowed until the weather condition permits the placement of appropriate work zone marking. Temporary substitution of RPM's for work zone markings will be allowed for equipment malfunction, placement of the appropriate work zone marking shall be made within 3 days, or sooner if possible. When RPM's are used as a temporary substitution for work zone markings the following shall apply:

- a. Lane widths identified in the plans must be maintained. Placement of RPM's should consider where work zone markings will be placed as soon as conditions allow. If the RPM's can not be placed so that the lane width is maintained after the placement of the work zone markings, the conflicting RPM's must be removed.
- b. The color of the RPM body and the reflective face shall conform to the color of the marking for which they substitute.
- c. In work zones, B RPM's must be used to form lane lines, edge lines and temporary gore areas as a temporary substitute for paint or removable tape at the spacing shown above.

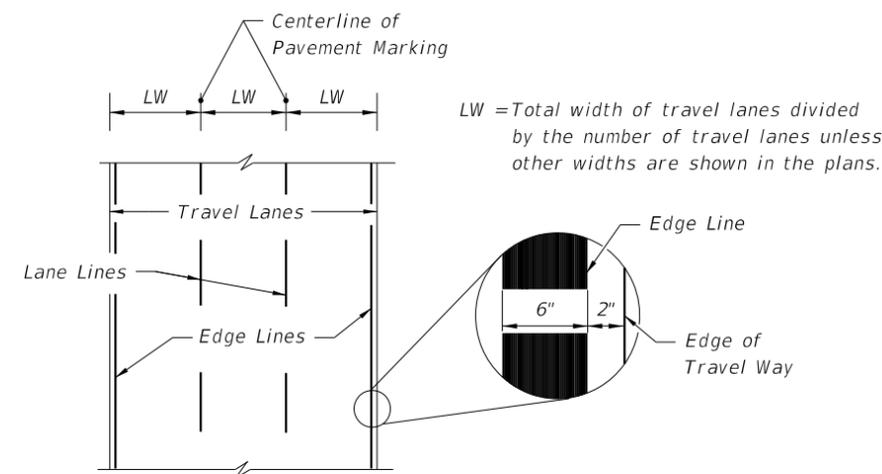
**NOTES FOR RETROREFLECTIVE PAVEMENT MARKERS**

1. The color of the raised pavement marker under both day and night conditions shall conform to the color of the marking for which they serve as a positioning guide, or for which they supplement or substitute.
2. To provide contrast on concrete pavement, or light asphalt, the five (5) white RPM's shall be followed by five black RPM's. The spacing between RPM's shall be 2'-6". Black RPM's will not be required for contrast with yellow RPM's.
3. RPM's used to supplement lane lines are to be paid for as Reflective Pavement Marker (Temporary), EA. RPM's used as a temporary substitute for paint or removable tape due to weather restrictions are to be paid for as Reflective Pavement Marker (Temporary), EA. RPM's used as a temporary substitute for paint or removable tape due to equipment malfunction are to be placed at the Contractor's expense.



**USE OF RPM'S TO SUPPLEMENT PAINT OR REMOVABLE TAPE IN WORK ZONES**

1. RPM's shall be installed as a supplement to:
  - a. All lane lines.
  - b. Edge lines in transition & approach areas.
  - c. Edge lines of gore areas.
2. Placement of RPM's should be as shown in Index No. 17352 with the following exceptions:
  - RPM's shall be placed at 5 feet center to center in approach and transition areas.



**PLACEMENT OF PAVEMENT MARKINGS**

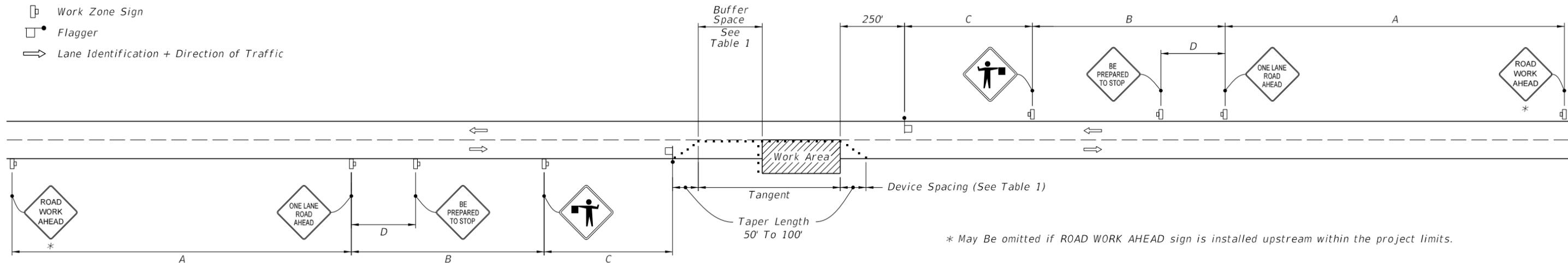
**PAVEMENT MARKINGS**

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LAST REVISION 01/01/16	DESCRIPTION:	 <b>FY 2017-18 DESIGN STANDARDS</b>	<b>GENERAL INFORMATION FOR TRAFFIC CONTROL THROUGH WORK ZONES</b>	INDEX NO. <b>600</b>	SHEET NO. <b>12 of 12</b>
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**SYMBOLS:**

-  Work Area
-  Channelizing Device (See Index No. 600)
-  Work Zone Sign
-  Flagger
-  Lane Identification + Direction of Traffic



\* May Be omitted if ROAD WORK AHEAD sign is installed upstream within the project limits.

**WITHOUT TEMPORARY RAISED RUMBLE STRIPS**

**GENERAL NOTES:**

1. Special Conditions may be required in accordance with these notes and the following sheets:
  - A. Railroad Crossings:
    - a. If an active railroad crossing is located closer to the Work Area than the queue length plus 300 feet, extend the Buffer Space as shown on Sheet 3.
    - b. If the queuing of vehicles across an active railroad crossing cannot be avoided, provide a uniformed traffic control officer or flagger at the highway-rail grade crossing to prevent vehicles from stopping within the highway-rail grade crossing, even if automatic train warning devices are in place.
  - B. If the Work Area encroaches on the Centerline, use the Layout for Temporary Lane Shift to Shoulder on Sheet 3 only if the Existing Paved Shoulder width is sufficient to provide for an 11' lane between the Work Area and the Edge of Existing Paved Shoulder. Reduce the posted speed when appropriate.
2. Temporary Raised Rumble Strips:
  - A. Use when both of the following conditions are met concurrently:
    - a. Existing Posted Speed is 55 mph or greater;
    - b. Work duration is greater than 60 minutes.
  - B. Use a consistent Strip color throughout the work zone.
  - C. Place each Rumble Strip Set transversely across the lane at locations shown.
  - D. Use Option 1 or Option 2 as shown on Sheet 2. Use only one option throughout work zone.
3. Additional one-way control may be provided by the following means:
  - A. Flag-carrying vehicle;
  - B. Official vehicle;
  - C. Pilot vehicles;
  - D. Traffic signals.

When flaggers are the sole means of one-way control, the flaggers must be in sight of each other or in direct communication at all times.
4. When a side road intersects the highway within the TTC zone, place additional TTC devices in accordance with other applicable TCZ Indexes.
5. The two channelizing devices directly in front of the work area may be omitted provided vehicles in the work area have high-intensity rotating, flashing, oscillating, or strobe lights operating.
6. When Buffer Space cannot be attained due to geometric constraints, use the greatest attainable length, not less than 200 ft, for posted speeds greater than 25 mph.
7. ROAD WORK AHEAD and the BE PREPARED TO STOP signs may be omitted if all of the following conditions are met:
  - A. Work operations are 60 minutes or less.
  - B. Speed limit is 45 mph or less.
  - C. There are no sight obstructions to vehicles approaching the work area for a distance equal to the Buffer Space shown in Table 1.
  - D. Vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.
  - E. Volume and complexity of the roadway has been considered.
  - F. If a railroad crossing is present, vehicles will not queue across rail tracks.
  - G. AFADs are not in use.
8. See Index 600 for general TCZ requirements and additional information.
9. Automated Flagger Assistance Devices (AFADs) may be used in accordance with Specifications Section 102, 990 and the APL vendor drawings.

TABLE 1									
Posted Speed	DEVICE SPACING				Distance Between Signs				Buffer Space
	Maximum Spacing of Cones or Tubular Markers		Maximum Spacing of Type I or Type II Barricades/Panels/Drums		A	B	C	D	
	On a Taper	On a Tangent	On a Taper	On a Tangent					
25	20'	50'	20'	50'	200'	200'	200'	100'	155'
30	20'	50'	20'	50'	200'	200'	200'	100'	200'
35	20'	50'	20'	50'	200'	200'	200'	100'	250'
40	20'	50'	20'	50'	200'	200'	200'	100'	305'
45	20'	50'	20'	50'	350'	350'	350'	175'	360'
50	20'	50'	20'	100'	500'	500'	500'	250'	425'
55	20'	50'	20'	100'	2640'	1500'	1000'	500'	495'
60	20'	50'	20'	100'	2640'	1500'	1000'	500'	570'
65	20'	50'	20'	100'	2640'	1500'	1000'	500'	645'
70	20'	50'	20'	100'	2640'	1500'	1000'	500'	730'

**CONDITIONS**

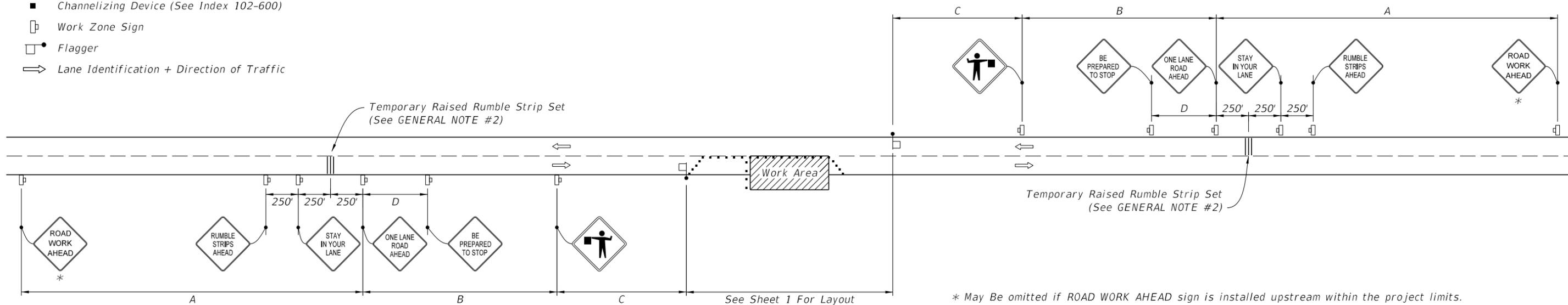
WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH THE AREA BETWEEN THE CENTERLINE AND A LINE 2' OUTSIDE THE EDGE OF TRAVEL WAY.

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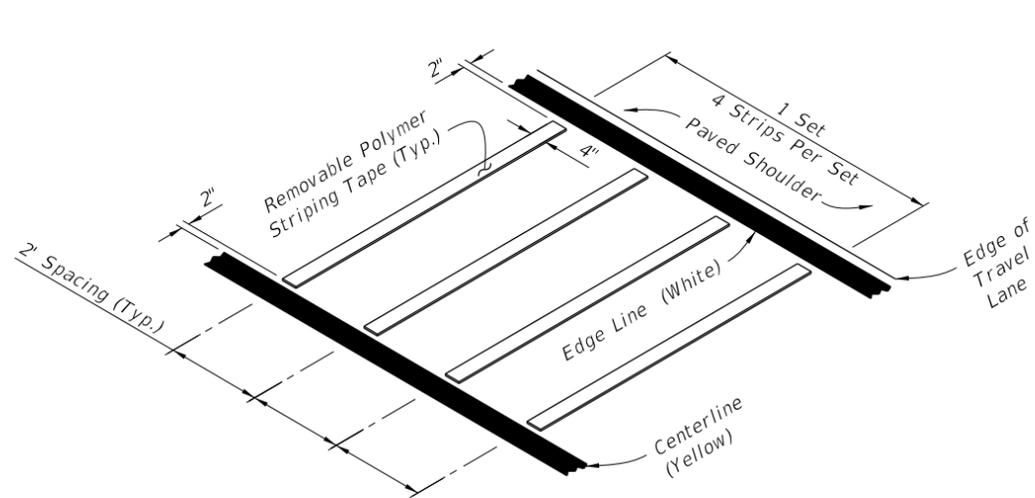
LAST REVISION 01/01/16	REVISION	DESCRIPTION:	 <b>FY 2017-18 DESIGN STANDARDS</b>	<b>TWO-LANE, TWO-WAY, WORK WITHIN THE TRAVEL WAY</b>	INDEX NO. <b>603</b>	SHEET NO. <b>1 of 3</b>
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**SYMBOLS:**

-  Work Area
-  Channelizing Device (See Index 102-600)
-  Work Zone Sign
-  Flagger
-  Lane Identification + Direction of Traffic

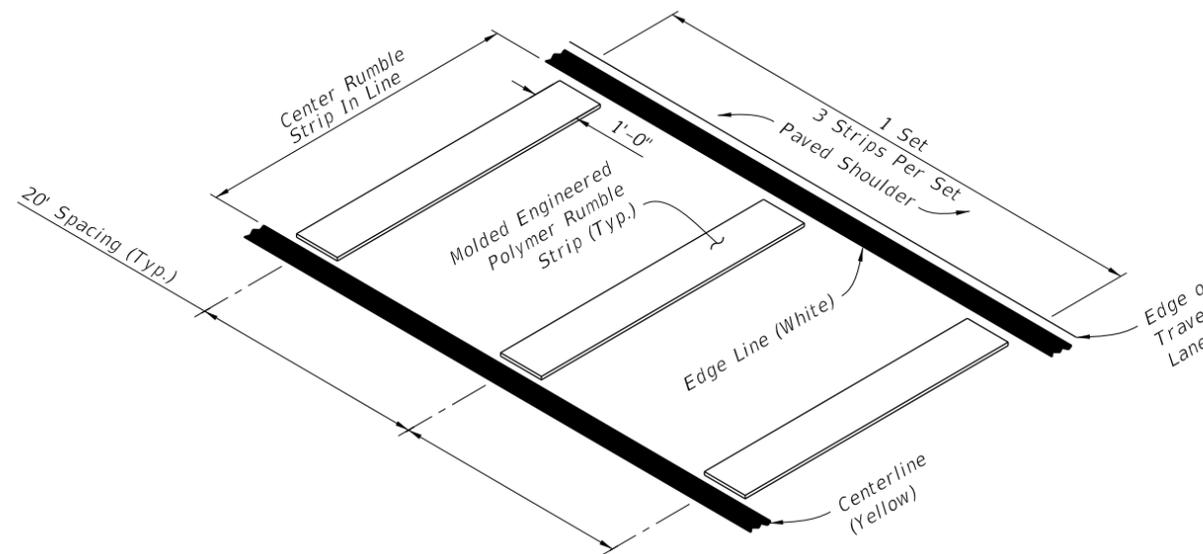


**WITH TEMPORARY RAISED RUMBLE STRIPS**  
(When Required See GENERAL NOTE #2)



REMOVABLE POLYMER STRIPING TAPE

RUMBLE STRIP SET  
OPTION - 1



MOLDED ENGINEERED POLYMER SET

RUMBLE STRIP SET  
OPTION - 2

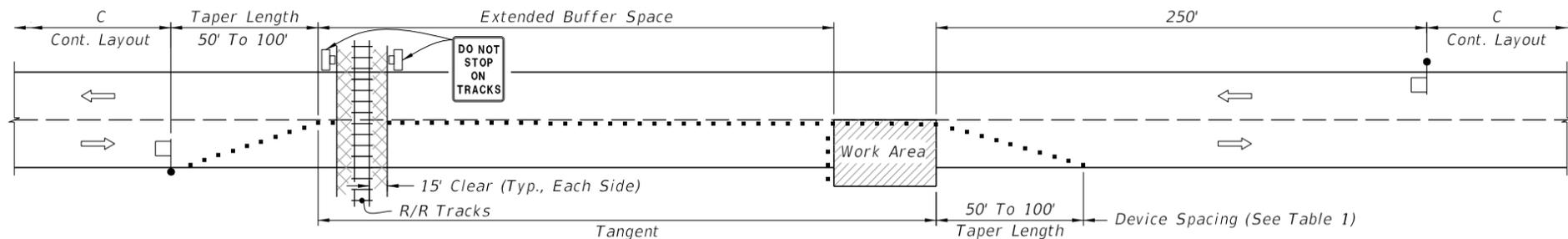
**TEMPORARY RAISED RUMBLE STRIPS**

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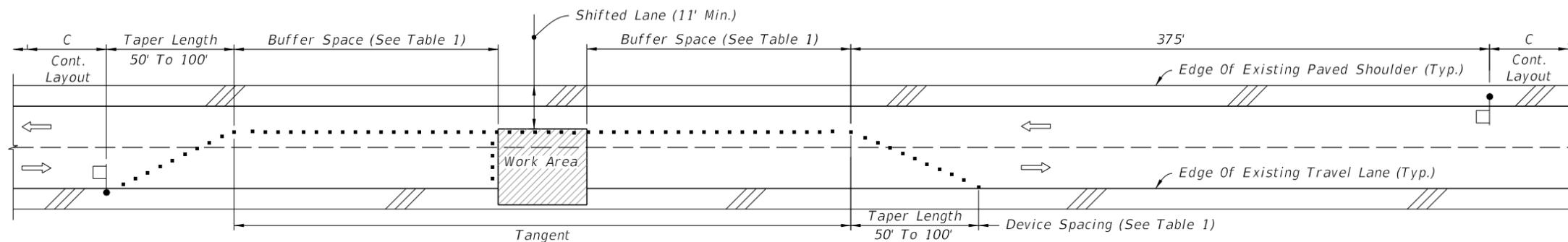
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**SYMBOLS:**

-  Work Area
-  Channelizing Device (See Index No. 600)
-  Work Zone Sign
-  Flagger
-  Lane Identification + Direction of Traffic



TEMPORARY RAILROAD CROSSING BUFFER SPACE EXTENSION



TEMPORARY LANE SHIFT TO SHOULDER WHEN WORK AREA ENCROACHES ON THE CENTERLINE

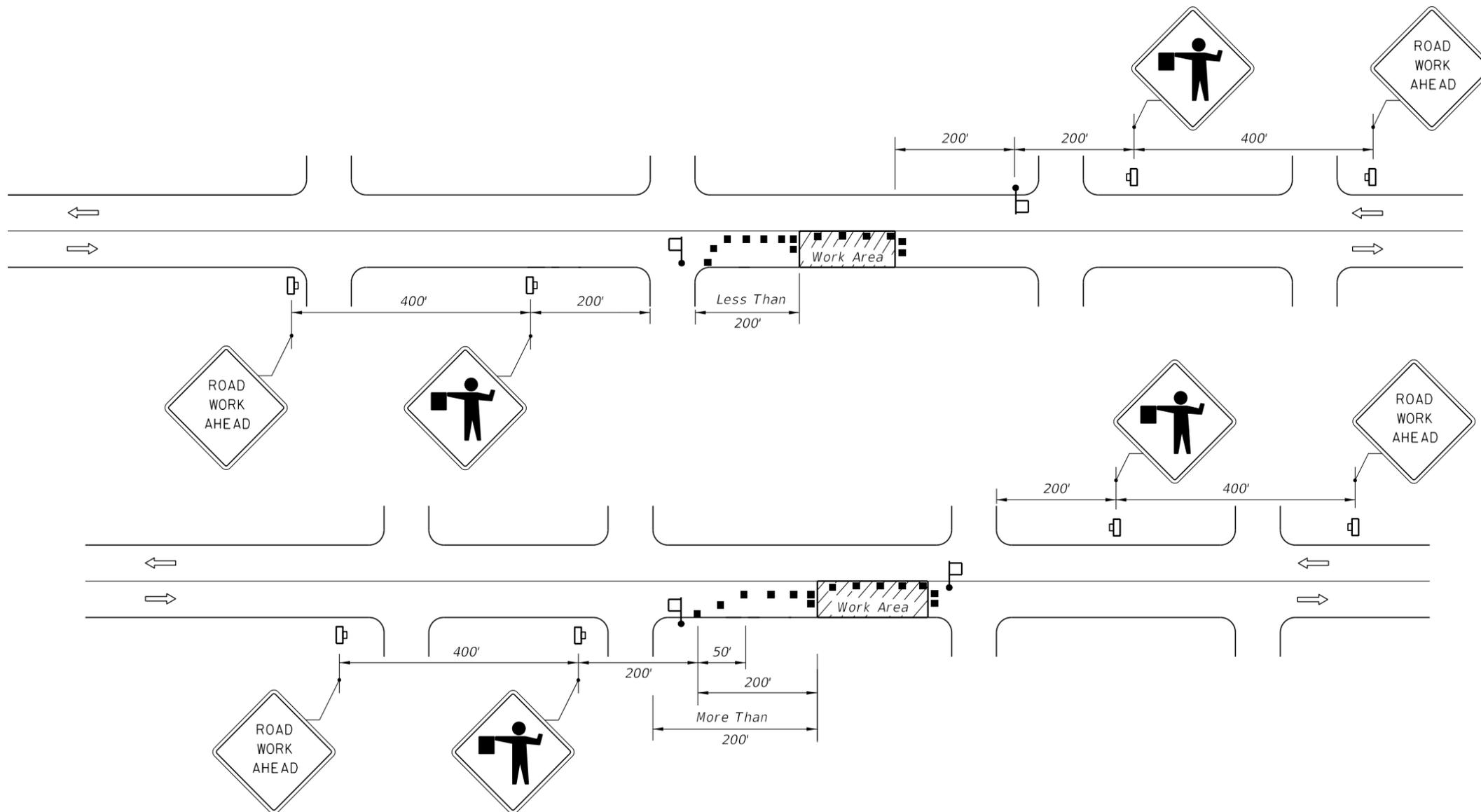
**SPECIAL CONDITIONS**

Cross Reference:  
1. See General Note #1, Sheet 1 for more information.

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LAST REVISION 01/01/16	REVISION	DESCRIPTION:	 <b>FY 2017-18 DESIGN STANDARDS</b>	<b>TWO-LANE, TWO-WAY, WORK WITHIN THE TRAVEL WAY</b>	INDEX NO. <b>603</b>	SHEET NO. <b>3 of 3</b>
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**SPECIAL CONDITIONS**



**CONDITIONS**

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH ON THE PAVEMENT REQUIRING THE CLOSURE OF ONE TRAFFIC LANE, FOR WORK AREAS LESS THAN 200' DOWNSTREAM FROM AN INTERSECTION FOR A PERIOD OF MORE THAN 60 MINUTES.

**CONDITIONS**

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH ON THE PAVEMENT REQUIRING THE CLOSURE OF ONE TRAFFIC LANE, FOR WORK AREAS 200' OR MORE DOWNSTREAM FROM AN INTERSECTION FOR A PERIOD OF MORE THAN 60 MINUTES.

**DURATION NOTES**

1. ROAD WORK AHEAD sign may be omitted if all of the following conditions are met:
  - a. Work operations are 60 minutes or less.
  - b. Speed is 45 mph or less.
  - c. No sight obstructions to vehicles approaching the work area for a distance of 600 feet.
  - d. Vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.
  - e. Volume and complexity of the roadway has been considered.

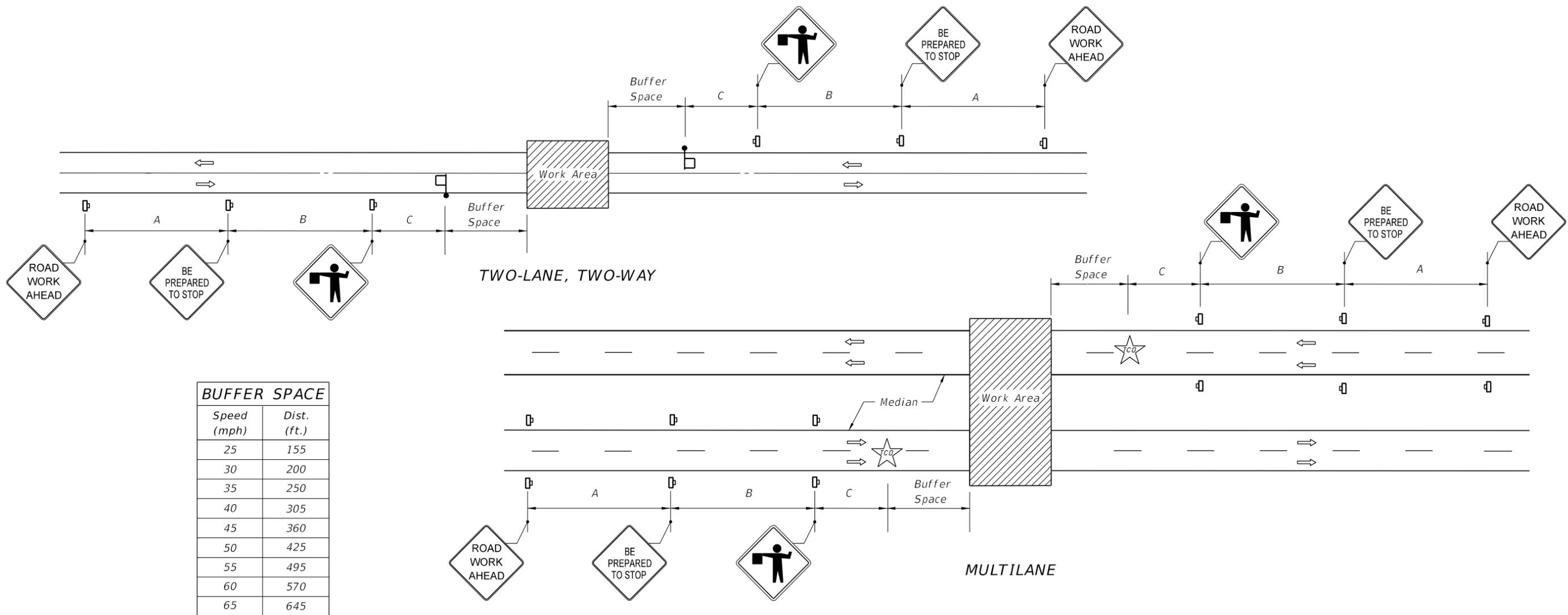
- SYMBOLS**
- Work Area
  - Channelizing Device (See Index No. 600)
  - Work Zone Sign
  - Flagger
  - Lane Identification + Direction of Traffic

**GENERAL NOTES**

1. Work operations shall be confined to one travel lane, leaving the opposing travel lane open to traffic.
2. When vehicles in a parking zone block the line of sight to TCZ signs or when TCZ signs encroach on a normal pedestrian walkway, the signs shall be post mounted and located in accordance with Index No. 17302.
3. If work area is confined to an outside auxiliary lane, the work area shall be barricaded and the FLAGGER signs replaced by ROAD WORK AHEAD signs. Flaggers are not required.
4. Flaggers shall be in sight of each other or in direct communication at all times.
5. The FLAGGER legend sign may be substituted for the symbol sign.
6. The maximum spacing between devices shall be no greater than 25'.
7. For general TCZ requirements and additional information, refer to Index No. 600.
8. The two channelizing devices directly in front and directly at the end of the work area may be omitted provided vehicles in the work area have high-intensity rotating, flashing, oscillating, or strobe lights operating.
9. Use Temporary Raised Rumble Strips in accordance with Index 603. Placement of Rumble Strips and additional signs should begin at FLAGGER sign location.

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LAST REVISION 07/01/15	REVISION	DESCRIPTION:	 FY 2017-18 DESIGN STANDARDS	TWO-LANE, TWO-WAY, WORK NEAR INTERSECTION	INDEX NO. <b>605</b>	SHEET NO. <b>1 of 1</b>
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BUFFER SPACE	
Speed (mph)	Dist. (ft.)
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645

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

**SYMBOLS**

- Work Area
- Work Zone Sign
- Flagger
- Traffic Control Officer
- Lane Identification + Direction of Traffic

**GENERAL NOTES**

- This Index does not apply to limited access facilities.
- When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in accordance with applicable TCZ Indexes.
- Traffic volume or complexity of the roadway may dictate additional devices, signs, flagmen and/or a traffic control officer.
- The buffer space may be omitted if there are no sight obstructions to vehicles approaching the Flagger/Officer for distance equal to the buffer space.
- A Flagger may be substituted for a Traffic Control Officer and the BE PREPARED TO STOP sign may be omitted, when the following conditions are met:
  - Speed limit is 45 mph or less.
  - No sight obstructions to vehicles approaching the Flagger/Officer for a distance equal to the buffer space.
  - Vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.
- On undivided highways the median sign as shown are to be omitted.
- For general TCZ requirements and additional information refer to FDOT Index No. 600.

**CONDITIONS**  
 PLANNED CLOSURE NOT EXCEEDING 5 MINUTES.

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