



Meeting Agenda
Thursday, April 4, 2024

7:00 PM

REGULAR

Cocoa Beach Country Club - 5000 Tom Warriner Boulevard, Cocoa Beach, 32931

WELCOME

Meeting re-broadcasts on: Spectrum - Channel 499 and www.cityofcocoabeach.com.
Meeting Video Archives: www.cityofcocoabeach.com

Packets: Packets are on the City's website (www.cityofcocoabeach.com) and at Commission meetings

Rules of Order: Robert's Rules of Order and the Florida Sunshine Law govern the conduct of our meeting

Speaking Courtesy Rules:

- The Commission accepts relevant comments.
- A time limit of three minutes is imposed on each speaker. If speaking for a group, the Commission may grant an additional three minutes
- Please direct comments and questions through the Mayor
- Complete speaker cards are required for each of the items you wish to address. Submit the card to the City Clerk prior to the introduction of the item. Speaker Cards are available in the rear of the Commission Room and in the City Clerk's office prior to the meeting. The purpose of the card is to obtain the spelling of your name, contact information if follow-up is needed, and provide for efficient meeting administration
- Upon being recognized by the Mayor, please approach the dais, state your name and address, and speak into the microphone

Approval Of Order Of Business:

Note: Members of the public, Commission and Staff may remove items from the Consent Agendas, if they wish to discuss them. Requests for removal need to be made known to the City Commission under the Approval of the Order of Business, at the beginning of the meeting

Appealing a Decision:

Any person desiring to appeal any decision made by the City Commission, with respect

to any matter considered at such meeting or hearing, will need a record of the proceedings and for such purposes must ensure that a verbatim record and transcript of the proceeding is made in a form acceptable for official court proceedings, which record includes the testimony and evidence upon which the appeal is to be based. It shall be the responsibility of the person desiring to appeal any decision to prepare a verbatim record and transcript at his/her own expense as the City does not provide one

American with Disabilities Act:

ATTN: PERSONS WITH DISABILITIES. In accordance with the Americans with Disabilities Act and Section 286.26, Florida Statutes, persons needing special accommodations to participate in this proceeding shall, at least forty-eight (48) hours prior to the meeting, contact the Office of the City Clerk at (321) 868-3286; Florida Relay Service (800) 955-8771 (TDD); or (800) 955-8770 (Voice) or 711.

THANK YOU for participating in your Cocoa Beach City Government.

A. MEETING CALLED TO ORDER

1. Pledge of Allegiance
2. Invocation by ____
3. Roll Call

B. APPROVAL OF THE AGENDA

(Note: Members of the public, Commission and Staff may remove items from the Consent Agendas if they wish to discuss them. Requests for removal need to be made known to the City Commission under the Approval of the Order of Business, at the beginning of the meeting.)

C. PUBLIC COMMENTS

Comments will be heard on items that do not appear on the agenda of this meeting. Citizens will limit their comments to three (3) minutes. Per Commission Procedures, the City Commission will not take any action or discuss items brought up under the "Public Comment" section of the agenda. The City Commission may schedule such items as regular agenda items and act upon them in the future.

D. STAFF REPORTS AND ANNOUNCEMENTS

E. CITY ATTORNEY REPORTS AND ANNOUNCEMENTS

F. CITY COMMISSION REPORTS AND ANNOUNCEMENTS

G. NEW BUSINESS

1. Approve Resolution 2024-04, which will institute a 6-month long pilot program for the operation of pedicabs along the Ocean Beach Boulevard right-of-way.
Representative: Randy Stevenson, Development Services Director
Recommendation: Approve

2. Approve the Scope of Work for 2 sanitary sewer pipe repairs to be performed by CK Contractors & Development for a total amount of \$75,941.00. These repairs are 100% reimbursable expenses through our CDBG-MIT Grant through Florida Commerce.

Representative: Brad Kalsow, Water Reclamation Director

Recommendation: Approve

3. Approve Resolution 2024-06 to amend the Fiscal Year 2023-2024 Budget estimates of revenues and expenditures based upon staff recommendations

Representative: Patrisha Draycott, Chief Financial Officer

Recommendation: Approve

H. GENERAL PUBLIC COMMENT

(Only if not accommodated in the 30-minute Public Comment period earlier)

I. ADJOURNMENT

City of Cocoa Beach City Commission Agenda Item Summary

**DEPARTMENT MAKING
REQUEST/NAME:**

Development Services /
Karin Grooms, City Clerk

MEETING DATE

April 4, 2024

REQUESTED MOTION/ACTION

Approve Resolution 2024-04, which will institute a 6-month long pilot program for the operation of pedicabs along the Ocean Beach Boulevard right-of-way.

Representative: Randy Stevenson, Development Services Director

Recommendation: Approve

IS THIS ITEM BUDGETED (IF APPLICABLE)?

BACKGROUND:

After consideration and discussion of a presentation and proposal from a local resident, the City Commission approved the implementation of a pilot program to allow one (1) company operating a maximum of two (2) pedicabs in the Ocean Beach Boulevard right-of-way from Wakulla Lane on the south to the corporate limits of the city on the north. The area of operation also includes the east/west streets between Ocean Beach Boulevard and SR A-1-A, but no access is granted to the SR A-1-A right-of way.

Resolution 2024-04 provides for the implementation of the pilot program and details the requirements and limitations associated with the operation of pedicabs as part of the pilot program.

RESOLUTION NO. 2024-04

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF COCOA BEACH, FLORIDA ESTABLISHING A PILOT PROGRAM FOR THE OPERATION OF PEDICABS AT SPECIFIED LOCATIONS WITHIN THE CORPORATE LIMITS OF THE CITY OF COCOA BEACH, AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City Commission of the City of Cocoa Beach has authorized the establishment of a six-month pilot program for the operation of a Pedi-Cab service within the corporate limits of the City of Cocoa Beach by Resolution; and,

WHEREAS, the approved location for the Pilot Program for Pedicab operation is within the right-of-way of Ocean Beach Boulevard from the City's northern corporate limit to the southern terminus of Ocean Beach Boulevard at Wakulla Lane and to include the east/west streets between Ocean Beach Boulevard and SR A-1-A, but no access is granted to the SR A-1-A right-of-way; and,

WHEREAS, the Pilot Program is limited to a six (6) month period and is further limited to one (1) Pedicab business/operator (vendor/owner) with no more than two (2) Pedi-Cab vehicles; and,

NOW, THEREFORE, BE IT RESOLVED by the City Commission of the City of Cocoa Beach, Florida, as follows:

Section 1: The vendor/owner shall have each prospective pedicab inspected by a qualified bicycle mechanic and shall present to the police department, planning division, and the public works department, a safety certificate fully executed by the qualified bicycle mechanic. No business tax receipt will be issued or renewed regarding any pedicab unless the safety certificate indicates that the pedicab is in safe operating condition. A new safety certificate shall be supplied each year with the renewal of the business tax receipt.

Section 2: No driver of a Pedicab vehicle regulated under this Resolution shall:

- (1) Operate a pedicab without a valid driver's license;
- (2) Solicit patronage in a loud or annoying tone of voice or by any sound making devise, horn or whistle or in any manner annoying any person or obstructing the movement of any persons, or following any person for the purpose of soliciting patronage;
- (3) Operate a pedicab while carrying a number of passengers that exceeds the number of passengers the seats were designed to accommodate;
- (4) Permit a passenger to stand in the pedicab while the pedicab is in motion;
- (5) Collect fares while the pedicab is in motion;
- (6) Solicit business for any hotel, restaurant or attraction, or attempt to divert patronage from one hotel, restaurant or attraction to another; engage in selling alcoholic beverages or solicit business for any illicit purpose or house of ill repute or use the pedicab for any purpose other than the transporting of passengers;
- (7) Sit, sleep, loiter or permit others to sit, sleep or loiter within the passenger compartment of any pedicab while parked on a public street;

- (8) Use indecent or profane language, be guilty of loud or boisterous talking, shouting or disorderly conduct or vex or annoy any passenger or any other person;
- (9) Use intoxicants either immediately before or while on duty or use controlled substances at any time;
- (10) Operate a pedicab on streets designated as state roads or on routes deemed restricted by the city. Vehicles shall operate only on streets where the posted speed limit is 35 miles per hour or less. All pedicab vehicles must be fully equipped with headlamps, stop lamps, turn signal lamps, taillamps, reflex reflectors, and vehicle identification numbers.
- (11) Demand from a passenger a fare greater than the fare contained in the posted fare schedule;
- (12) Stand or stop a pedicab other than in an area designated as an authorized staging or loading area. The staging areas to be used by the applicant shall be only those approved in advance as part of the business tax receipt application process through the planning division and public works department;
- (13) Operate a pedicab so as to impede the flow of pedestrians;
- (14) Operate a pedicab with more than one trailer or sidecar attached thereto;
- (15) Operate a pedicab in a manner that results in damage to public or private property;
- (16) Operate a pedicab on or within a designated park or on a sidewalk, with the exception of designated multi-use trails eight feet wide or greater;
- (17) Leave any pedicab unattended at any time except to perform such duties as required to service passengers;
- (18) Permit a passenger or anyone other than the driver to sit anywhere other than the passenger seat within the pedicab;
- (19) Create, or materially contribute to, a parking problem or traffic congestion as a result of operation of the pedicab;
- (20) Pedicab drivers shall comply with all applicable state traffic law including, but not limited to F.S. §§ 316.2065 and 316.2122, respectively, as same may be amended from time to time;
- (21) Obstruct other vehicular traffic by unnecessarily weaving or changing lanes of travel;
- (22) Operate, maneuver, incline, spin, tilt, tip, slope or position a pedicab or low-speed vehicle in any manner that would unnecessarily place a passenger in any position other than seated upright;
- (23) Allow either the driver or any other passenger or occupant of the pedicab to drink or consume alcoholic beverages or to possess an open container of alcoholic beverages;
- (24) Refuse or neglect to transport to any place in the designated Pilot Program approved location any orderly person who is willing to pay the prescribed fare regardless of race, sex, religion, color, national origin, age or physical disability, including a seeing-eye dog or other service animal, who is willing and able to pay the prescribed fare. Drivers may

refuse service to any person who is disorderly or inebriated, or to any person who causes a driver to have a reasonable apprehension of fear for his or her safety.

Section 3: Liability insurance coverage required.

- (1) No business tax receipt shall be issued or continued in force by the Development Services Department unless there is in force a liability insurance policy for each pedicab authorized and operated in an amount of \$1,000,000.00 combined single limit for each accident or bodily injury. Such liability insurance policy shall designate the city as an additional insured and require that the same may not be canceled by the insured or the insurance carrier without 30 days' written notice to the city and shall insure to the benefit of the city and any person who shall be injured or shall sustain damages to property proximately caused by the negligence or intentional misconduct of a pedicab owner or operator, or the servants or agents of the pedicab owner.
- (2) The liability insurance policy shall give the names of the owners of the pedicab and make, model and serial number of the pedicab insured, all of which shall be shown upon the face of the policy. A certificate showing issuance of such policy with the city named as an additional insured and containing statements as to coverage, the cancellation clause, and the payment of current premium shall be filed with the Development Services Department.

Section 4: Advertising on Pedicabs.

No applicant, owner or driver shall permit advertising inconsistent with this article to be placed in, on or about the pedicab. One advertisement shall be permitted per pedicab and shall be located on the back or side panels of the pedicab. No advertisement shall be permitted which references branded tobacco products or alcoholic beverages. No advertisement shall be permitted which contains any sexual content. Violation of this section shall be grounds for revocation, suspension or termination of any business tax receipt issued pursuant to this article.

Section 5: Business Tax Receipt required to engage in business.

After the applicable provisions of this article have been complied with and before any pedicabs shall be operated, an application shall be made to the Development Services Department/business tax office for a business tax receipt to engage in the business of operating pedicabs in the city. The amount which shall be paid for the local business tax receipt shall be the same as taxicabs, as detailed in subsection [82-205\(438\)](#). A business tax receipt is required for each pedicab that is to be operated. The safety certificate and an application for a pedicab business tax receipt, or renewals thereof, shall be in writing and contain:

- (1) The name, residence address, and place of business of the vendor/owner, the name of the vendor's/owner's business, and the trade name, if applicable, under which the business will operate.
- (2) Whether the vendor, owner, or drivers have ever been convicted or had adjudication withheld of a felony, driving under the influence of drugs or alcohol, reckless driving, any violation of F.S. ch. 800, pertaining to lewdness and indecent exposure, or any violation of F.S. ch. 796, pertaining to prostitution, or whether the applicant is a registered sexual predator or offender. The police department will conduct a police background check for each driver and owner of a pedicab. The cost of these background checks shall be the

responsibility of the vendor/owner. A copy of the owner's and all driver's police background reports shall be attached to the application for a business tax receipt.

- (3) Whether the vendor's, owner's, or any driver's driver's license has ever been revoked. A copy of the owner's and any and all driver's department of highway safety and motor vehicles driver license records shall be attached to the application.
- (4) Any facts which the vendor/owner believes tend to prove that the applicant is qualified to engage in the business of pedicab transport in the city.
- (5) The number, type, model and body style of all pedicabs proposed to be operated or controlled by the vendor/owner. A color photograph of each pedicab to be operated or controlled by the vendor/owner shall be included with the application.
- (6) The trade name to be used to designate the pedicabs of the vendor/owner.
- (7) The days and hours of the operation and the rates of fare to be charged.
- (8) The names, addresses, and driver's license numbers for each pedicab driver.
- (9) Proof of insurance and a safety certificate for each pedicab to be operated or controlled by the vendor/owner.
- (10) A map depicting the proposed location at which the pedicab will be loaded and unloaded from a truck or trailer, if applicable.
- (11) The location of the storage facility for the pedicab when not in use.

Section 6: Pedicab vehicles business tax receipt; contents; display.

Every pedicab business tax receipt issued under the provisions of this Resolution shall contain the following information:

- (1) The name and place of the business of the vendor/owner.
- (2) The date of issuance.
- (3) The make, type and identification number of the pedicab for which the pedicab vehicle business tax receipt is obtained.

A copy of the business tax receipt shall be displayed in a location on the pedicab visible to the passengers at all times during the operation of the pedicab described in the pedicab permit. No pedicab business tax receipt shall be displayed in or upon any pedicab other than the pedicab for which such business tax receipt has been issued.

Section 7: Charge for service of Pedicab to begin.

The time for which a pedicab shall charge for its services shall begin with the arrival of such pedicab at the place to which it has been called, or the time consumed while standing at the direction of the customer thereof, but no charge shall be made for time that such pedicab is not in motion, due to the inefficiency of the pedicab or its operator to any order for the services thereof.

Section 8: Enforcement

The police department is responsible for the enforcement of this article and shall report any violations to the Development Services Department that would establish grounds for suspension or revocation of the business tax receipt or Code Enforcement action.

Section 9: Effective Date

This Resolution shall have an effective date of April 4, 2024 and shall expire at the end of six (6) months from the effective date or sooner, at the discretion of the City Commission.

Ayes: _____

Nays: _____

Absent or Abstaining: _____

Keith Capizzi, Mayor

ATTEST:

Karin Grooms

City of Cocoa Beach City Commission Agenda Item Summary

**DEPARTMENT MAKING
REQUEST/NAME:**

Water Reclamation /
Karin Grooms, City Clerk

MEETING DATE

April 4, 2024

REQUESTED MOTION/ACTION

Approve the Scope of Work for 2 sanitary sewer pipe repairs to be performed by CK Contractors & Development for a total amount of \$75,941.00. These repairs are 100% reimbursable expenses through our CDBG-MIT Grant through Florida Commerce.

Representative: Brad Kalsow, Water Reclamation Director

Recommendation: Approve

IS THIS ITEM BUDGETED (IF APPLICABLE)?

BACKGROUND:

Stantec engineering and All Webb's Enterprises, Inc are familiar with the City's well operations as both were contracted in 2013 to drill the Injection Wells. Further more, both were involved with the Wells Acid Wash in 2021 which needs to occur every 5 years for maintenance purposes.

The existing wellheads are experiencing corrosion issues and need to be addressed sooner than later. The City is currently under a permit review by the Florida Department of Environmental Protection Underground Injection Control Aquifer Protection Program. Prior to a site visit being conducted by FDEP, the City would like to address these issues beforehand.

All Webb's

Enterprises, Inc (AWE) has been requested by Stantec on behalf of the City of Cocoa Beach to provide a cost proposal to repair the wellheads on SZMW-

1 and TPW. SZMW-1 is

separated into two options based on the integrity of the PVC casing once the concrete monument is demolished.

AWE has offered two options and prefers to construct Option A based on cost, time and effort needed to be complete. If there is not enough PVC casing available above the pit and surface casing to tie into the final PVC string casing, Option 2 will require demolition of the pad and cutting down the existing casings to tie into.

TPW-1 will need a new 18" flange with accompanying ports for the 6" gate valve as well as (2) 2" kill ports. Additionally, a new 2" weld- o- let will be installed. All valves, nipples, and flanges will be 316L graded stainless steel.

Lastly, both wells will be killed to complete onsite activities with development to artesian flow post construction included in the pricing.

City of Cocoa Beach Commission
Agenda Item Summary (Adopted on January 2014)

1. DEPARTMENT MAKING REQUEST/NAME: **BRAD KALSOW, WATER RECLAMATION DIRECTOR**

2. MEETING DATE: **APRIL 4, 2024**

3. REQUESTED MOTION/ACTION (SUMMARY THAT WILL APPEAR ON THE AGENDA):

Approve the Scope of Work for 2 sanitary sewer pipe repairs to be performed by CK Contractors & Development for a total amount of \$75,941.00. These repairs are 100% reimbursable expenses through our CDBG-MIT Grant through Florida Commerce.

4. AGENDA

STAFF PRESENTATION	☐
CONSENT	☐
SITE PLAN CONSENT	☐
UNFINISHED BUSINESS	☐
NEW BUSINESS	☒

5. IS THIS ITEM BUDGETED (IF APPLICABLE)? YES ☒ NO ☐ IF NO, CITY ACTION REQUIRED ☐ N/A

DETAILED ANALYSIS ATTACHED?: YES ☒ NO ☐

BACKGROUND: (WHY IS THE ACTION NECESSARY, WHAT ACTION WILL BE ACCOMPLISHED, (WHO, WHERE, WHEN & HOW))

As part of the CDBG-MIT grant through Florida Commerce, contractors inspecting the gravity sewer pipes have found several locations that need immediate attention before rehabilitation of the pipes can occur.

Staff has spoken with Florida Commerce and asked if these costs would be eligible for reimbursement as these repairs fall within the gravity sewer rehabilitation grant agreement service areas.

An amendment to the CDBG-MIT agreement is being drafted by Florida Commerce to include these additional pipe repairs and others that have already been performed in FY23.

These costs will be eligible for reimbursement as long as the total overall grant agreement of \$3,332,323 is not exceeded. Staff expects the total cost of the project to be lower than the grant agreement and there is a high probability that some or all of these repair expenses will be reimbursed.

If the overall total project total is above the grant agreement amount, the funds would be covered out of Water Reclamation Contingency fund 431-9000-519-99-30.

Regardless if these expenses are reimbursed, the repairs need to be made in order for the current contractors to rehabilitate the pipe.

FDOT Permits have been secured by Staff for these repairs

CK Contractors are under contract with the City under our Minor Construction Project RFP CB-001.

UTILITY PERMIT

PERMIT NO: 2024-H-590-00065

STATE ROAD INFORMATION

County: Brevard	Section: 70060000	State Road No: SR A1A	Beginning Mile Post: 31.163	Ending Mile Post: 31.382
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APPLICANT INFORMATION

The Utility Agency Owner (UAO) shall be identified in this Applicant Information Box. When the UAO is a City or County and desires to have the Utility Builder make a joint permit applicant, as prescribed in Section 2.1(4) of the 2017 Utility Accommodation Manual (UAM), the Utility Builder shall also be identified in this Applicant Information Box. A Utility Builder alone cannot apply for a utility permit without the City or County adding them as a joint applicant.

Utility Agency/Owner (UAO)
Name: City of Cocoa Beach
Contact Person: City of Cocoa Beach
Address: 1600 Minutemen Causeway
City: Cocoa Beach
State: Florida
Zip: 329312010
Telephone: 3218683243
Email: sbarber@cityofcocoa beach.com

Utility Builder (only applicable when the UAO is a City or County)
Name: _____
Contact Person: _____
Address: _____
City: _____
State: _____
Zip: _____
Telephone: _____
Email: _____

WORK DESCRIPTION

The Applicant(s) requests permission from the Florida Department of Transportation (FDOT) to construct, operate, and maintain the utilities as described below and as depicted in the incorporated documentation.

Replace 10LF of 8" Gravity Sewer. Remove and replace approximately 15LF of sidewalk

Utility Work No: _____

Additional sheets are attached and are incorporated into this permit Yes ☒ No ☐

For FDEP certification, the FDOT agency report is attached in accordance with UAM Section 2.4.1 (13) Yes ☐ No ☒

TRAFFIC CONTROL (TCP)

- ☒ The TCP will comply with the following 600 series index(es) 615, 600, 660
☐ A TCP has been attached and incorporated into this permit application in compliance with UAM Section 2.4.2.

MOT Technician's contact information (may be supplied at the two (2) business day notification to FDOT):

Name: _____ Telephone: _____ Email: _____

COMMENCEMENT OF WORK

The UAO and/or Utility Builder shall commence actual construction in good faith within sixty (60) calendar days after approval of the permit application. If the beginning date is more than sixty (60) calendar days from the date of approval, the UAO and/or Utility Builder must review the permit with the FDOT Approving Engineer listed to make sure no changes have occurred to the transportation facility that would affect the permit's continued approval. The UAO and/or Utility Builder shall make good faith efforts to expedite the work and complete the work within the calendar days indicated.

Anticipated Start Date: 4/29/2024

Calendar days needed to completed: 3

Approved
2024-H-590-00065
William Rickard
3/14/2024

UTILITY PERMIT**PERMIT NO:** 2024-H-590-00065**APPLICANT SIGNATURE**

By the below signature(s) the UAO and/or Utility Builder agree(s) to construct, operate, and maintain the work as noted in the above Work Description, shown in plans and incorporated documents, in compliance with the UAM, all instructions noted in the FDOT Special Instructions Box, and special instructions incorporated into this permit. The UAO and/or Utility Builder declares, the location of all existing utilities that it owns or has an interest in, both aerial and underground, are accurately shown on the plans of the work areas. In accordance with UAM Section 2.8, the UAO and/or Utility Builder further declares that a letter of notification was delivered to the owners of other facilities within the work areas and that those listed below are the only facility owners known to be involved or potentially impacted by the proposed work.

Date Notified:

3/4/2024

Name of other facility owners (attach additional sheets if necessary).

City of Cocoa Beach

Utility Agency/Owner

Utility Builder (when applicable)

Signature: Brad Kalsow (digital signature) Date: 3/4/2024Name (printed): Brad Kalsow

Title: _____

Signature: _____ Date: _____

Name (printed): _____

Title: _____

FDOT PROJECT INFORMATION

Pursuant to UAM Section 2.1(10), the utility work is within FDOT projects listed below and must have a Utility Work Schedule for each project approved prior to commencement of work within the FDOT project limits:

There are NO FDOT constructions (proposed or underway).

This work is NOT related to an approved utility work Schedule.

FDOT SPECIAL INSTRUCTIONS

In accordance with UAM Section 2.7, FDOT incorporates the below and attached special instructions into this permit.

Due to drop off hazard, MOT for vehicular and pedestrian traffic must comply with FDOT Standard Plan 102-600 FY 2024-25 (sheet 8 of 11).

Additional FDOT Special Instructions are attached and incorporated into this permit. Yes ☐ No ☒

PERMIT APPROVAL

By signature below, FDOT gives permission to the UAO and /or Utility Builder to construct, operate, and maintain the utilities indicated in this Utility Permit in compliance with the UAM, all incorporated documents, and special instructions. Any changes to the approved work must be approved by the FDOT's Approving Engineer and attached and incorporated into this permit in accordance with UAM Section 2.11.

Approving Engineer: William Rickard (digital signature) Date: 3/14/2024Name: William RickardTitle: MAINTENANCE MANAGER/PERMITSNotification of Utility Work to be provided to: Telephone (321) 634-6115 ext. _____ or Email: curtis.keels@dot.state.fl.us

An FDOT Representative is required to be present on the worksite prior to commencement of work. Yes ☒ No ☐

Rep. Name: William Rickard Telephone 3216346086 Email: william.rickard@dot.state.fl.us

2024-H-590-00065
William Rickard
3/14/2024

Florida Department of Transportation
UTILITY PERMIT

December 14, 2016

PERMIT NO: 2024-H-590-00065

CERTIFICATION

I, the undersigned UAO and/or Utility Builder, hereby CERTIFY that the utilities were constructed and inspected in compliance with the UAM all incorporated documents, and special instructions. Pursuant to UAM Section 2.11, all changes have been approved by the FDOT's Approving Engineer and incorporated into this permit along with all other material certifications, test results, bore logs, approved plans changes, as-built plans or other required documentation.

I also CERTIFY that work began on _____ and was completed on _____ and that the area was left in as good or better condition than when the work began.

Utility Agency/Owner

Utility Builder (when applicable)

Signature: _____ Date _____

Signature: _____ Date _____

Name (printed): _____

Name (printed): _____

Title: _____

Title: _____

FINAL INSPECTION OF WORK

☐ The work was inspected and found to be in non-compliance as noted below:

☐ All issues of non-compliance listed above have been brought into compliance and/or FDOT has no outstanding issues that need to be addressed by the UAO and/or Utility Builder. However, this final inspection does not release the UAO and/or Utility Builder of their continuing responsibilities pursuant to Rule 14-46.001, the UAM, all incorporated documents, and special instructions.

FDOT Inspector: _____ Date: _____

Name: _____

Title: _____

Approved
2024-H-590-00065
William Rickard
3/14/2024

10/3/2023 10:53:44 AM

SHEET	TABLE OF CONTENTS
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4	Flagger Control Survey Work Zones Signs
5	Work Zone Sign Supports
6	Commonly Used Warning and Regulatory Signs In Work Zones
7	Manholes/Crosswalks/Joints Truck Mounted Attenuators Signals Channelizing Devices Channelizing Devices Consistency Advanced Warning Arrow Boards
8	Drop-Offs In Work Zones
9	Business Entrance Temporary Asphalt Separator
10	Channelizing Devices Notes Temporary Barrier Notes
11	Pavement Markings

GENERAL NOTES:

1. 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.
2. Use this Index in accordance with the Plans and Indexes 102-601 through 102-680. Indexes 102-601 through 102-680 are Department-specific typical applications of commonly encountered situations. Adjust device location or number thereof as recommended by the Worksite Traffic Supervisor and approved by the Engineer. Devices include, but are not limited to, flaggers, portable temporary signals, signs, pavement markings, and channelizing devices. Comply with MUTCD or applicable Department criteria for any changes and document the reason for the change.
3. Except for emergencies, any road closure on State Highway System must comply with Section 335.15, F.S.

TABLE 1 CHANNELIZING DEVICE SPACING				
Work Zone Speed (mph)	Max. Spacing (feet)			
	Cones or Temporary Tubular Markers		Type I Barricades, Type II Barricades, Vertical Panels, or Drums	
	Taper	Tangent	Taper	Tangent
≤ 45	25	50	25	50
≥ 50	25	50	50	100

TABLE 3 WORK ZONE SIGN SPACING "X"	
Road Type	Min. Spacing (feet)
Arterials and Collectors with Work Zone Speed ≤ 40 mph	200
Arterials and Collectors with Work Zone Speed ≥ 45 mph	500
Limited Access Roadways *	1,500
* For Limited access roadways with work zone speed ≤ 55 mph, the minimum spacing may be reduced in accordance with the MUTCD and as approved by the Engineer.	

SYMBOLS:	
	Work Area
	Channelizing Device
	Work Zone Sign
	Type III Barricade
	Lane Identification and Direction of Traffic

TABLE 2 TAPER LENGTH "L"	
Work Zone Speed (mph)	Min. Length (feet)
≤ 40	$L = \frac{WS^2}{60}$
≥ 45	$L = WS$
Where: W = width of offset in feet S = speed in mph	

TABLE 4 BUFFER LENGTH "B"	
Work Zone Speed (mph)	Min. Length (feet)
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645
70	730
Note: When Buffer Length "B" cannot be attained due to geometric constraints, use the greatest length possible, but not less than 155 feet.	

LAST REVISION	DESCRIPTION:
11/01/23	



FY 2024-25
STANDARD PLANS

GENERAL INFORMATION FOR TRAFFIC
CONTROL THROUGH WORK ZONES

Approved
2024-H-590-00065
William Rickard
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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 runout 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:

1. 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.
2. 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. Do not store temporary traffic control devices on the shoulder, sidewalk, or other roadway facility not affected by the work when work is suspended.
3. Arrow Boards, Portable Changeable Message Signs, Radar Speed Display Trailer, Portable Regulatory Signs, and any other trailer mounted device shall be delineated with a channelizing 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.

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.

OVERHEAD WORK: (Cont.)

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 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 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:

1. 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.
2. 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:

1. 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.
2. For aboveground hazards within a work zone the clear zone required should be based on the regulatory speed posted during construction.

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 FDOT Design Manual 215.2.

TABLE 5 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
NOTE: For temporary conditions where existing curb has been removed but not reconstructed, curb and gutter values may be used.		

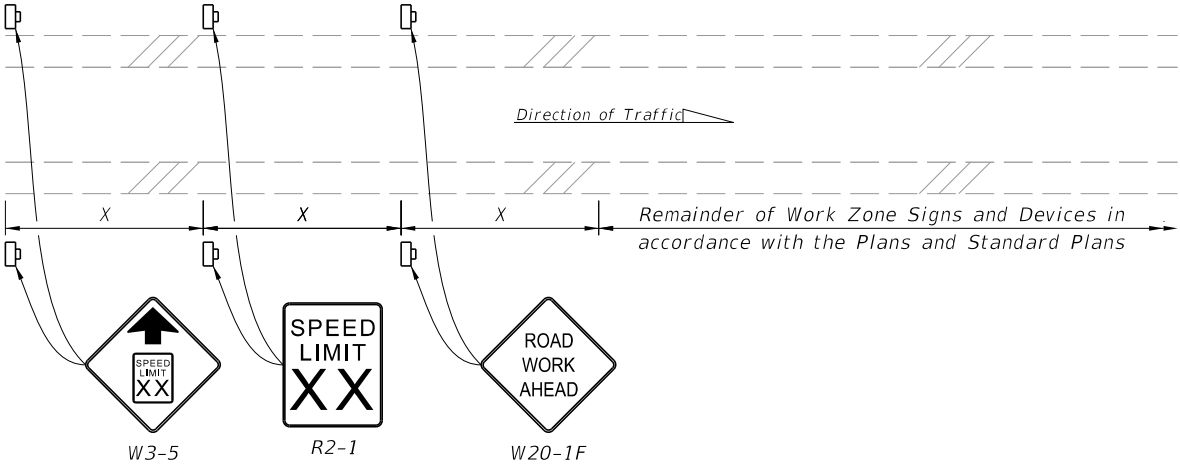
SUPERELEVATION:

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.

TABLE 6 MINIMUM RADII FOR NORMAL CROWN	
WORK ZONE POSTED SPEED	MINIMUM RADIUS
MPH	feet
70	4090
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:

For interstates and state highways with a posted speed of 55MPH or greater, lane closures must not exceed 3 miles (includes taper, buffer, and work zone) in any given direction and must not close two consecutive interchanges.



NOTES:

1. X = Work Zone Sign Spacing
2. When called for in the Plans, use this detail in accordance with the Plans and Standard Plans. Place the speed reduction signs (W3-5 and R2-1) in advance of the "Road Work Ahead" sign (W20-1F) as shown.
3. Do not use this detail in conjunction with the Motorist Awareness System.
4. For speed reductions greater than 10 MPH, reduce the speed in 10 MPH increments of 'X' distance. Do not reduce the speed below the minimum statutory speed for the class of facility.
5. Place additional "Speed Limit" signs (R2-1) at intervals of no more than one mile for rural conditions and 1,000 feet for urban conditions.
6. For undivided roadways, omit the signs shown in the median.
7. Remove temporary regulatory speed signs 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.

SPEED REDUCTION SIGNING

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. Provide minimum widths for work zone travel lanes 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 all other limited access roadways; 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.



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FLAGGER CONTROL:

Regulatory Speed (In Work Zones)

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 area so that approaching road users will have sufficient distance to stop before entering the work area. 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 102 Series of 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.

SURVEY WORK ZONES: (Cont.)

(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-retroreflectice vinyl signs may only be used for daylight operations. Non-retroreflectice 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 Indexes.

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.

SIGNS: (Cont.)

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.

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 102-600, ADJOINING AND/OR OVERLAPPING WORK ZONE SIGNING.

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 and bicycle 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 700-013.
 - d. Bridge mounted signs per Index 700-012.

3. Use only approved systems listed on the Department's Approved Products List (APL).

4. *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.*

5. Provide 3 lb/ft Steel U-Channel Posts with a minimum section modulus of 0.43 in^3 for 60 ksi steel, a minimum section modulus of 0.37 in^3 for 70 ksi steel, or a minimum section modulus of 0.34 in^3 for 80 ksi steel.

6. Provide 4 lb/ft Steel U-Channel Posts with a minimum section modulus of 0.56 in^3 for 60 ksi steel, or a minimum section modulus of 0.47 in^3 for 70 ksi or 80 ksi steel.

7. 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.

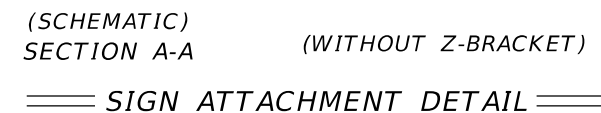
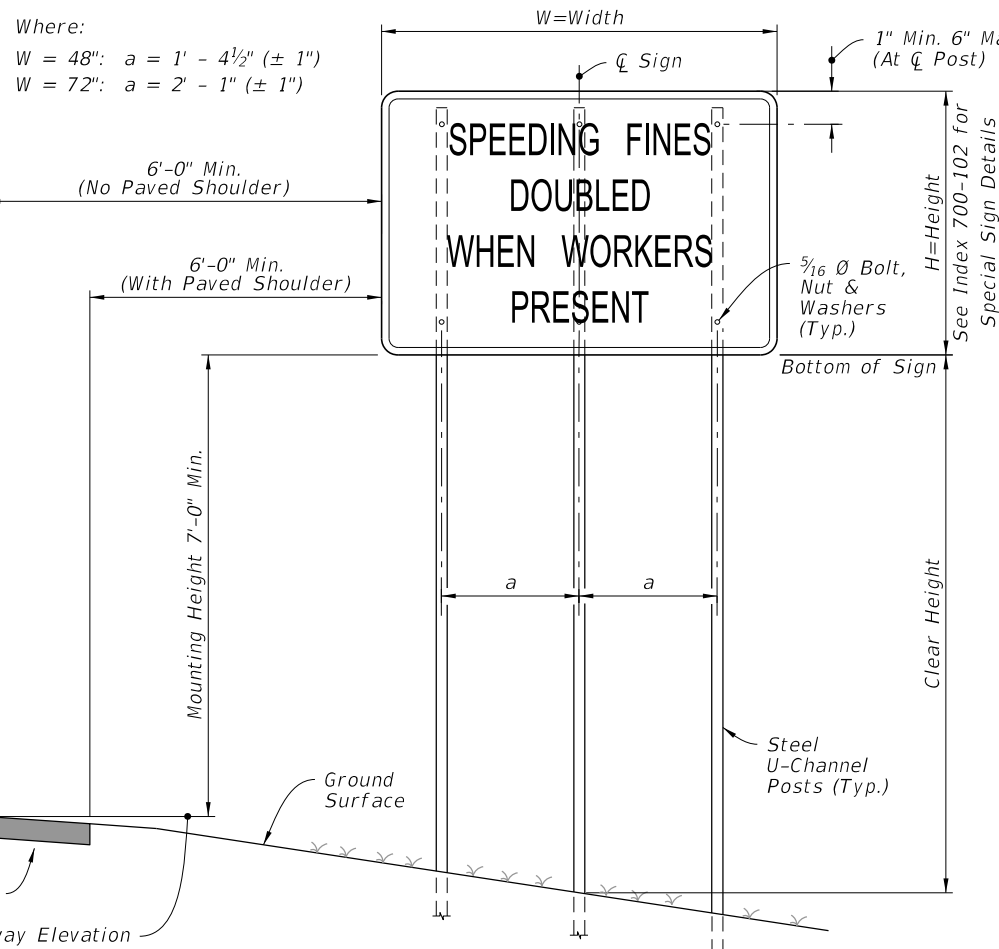
8. Sign attachment bolts, washers, nuts, and spacers shall conform with ASTM A307 or A 36.

9. Install 4 lb/ft Steel U-Channel Posts with approved breakaway splice in accordance with the manufacturer's detail shown on the APL.

10. 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.

11. Install all posts plumb.

12. 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.



<i>SIGN SHAPE</i>	<i>SIGN SIZE (inches)</i>	<i>NUMBER OF STEEL U CHANNEL POSTS</i>
<i>Octagon</i>	30x30	1
<i>Triangle</i>	36x36x36	1
	48x48x48	1
	60x60x60	2
<i>Rectangle (W x H)</i>	24x18	1
	24x30	1
	30x24	1
	36x18	1
	36x24	1
	48x18	1
	48x24	1
	36x48	2
	48x30	2
	48x36	2
	54x36	2
	48x60	3
<i>Square</i>	72x48	3
	30x30	1
	36x36	2
<i>Diamond</i>	48x48	2
<i>Circle</i>	36Ø	2

Notes For Table:

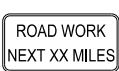
- 1. Use 3 lb/ft posts for Clear Height up to 10' and 4 lb/ft posts for Clear Height up to 12'.*
- 2. Minimum foundation depth is 4.0' for 3 lb/ft posts and 4.5' for 4 lb/ft posts.*
- 3. For both 3 lb/ft and 4 lb/ft base or sign posts installed in rock, a minimum cumulative depth of 2' of rock layer is required.*
- 4. The soil 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.*
- 5. For diamond warning signs with supplement plaque (up to 5 ft² in area), use 4 lb/ft posts for up to 10 ft Clear Height (measure to the bottom of diamond warning sign).*



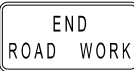
E5-2
B/O



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



R4-11
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



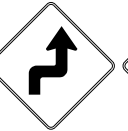
R11-2
B/W



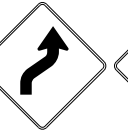
W1-1R
B/O



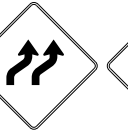
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B/O



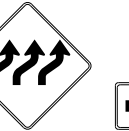
W1-3R
B/O



W1-4R
B/O



W1-4b
B/O



W1-4c
B/O



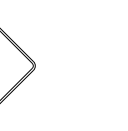
W1-6
B/O



W1-7
B/O



W1-8
B/O



W3-1
RB/O



W3-2
RB/O



W3-3
B(RYG)/O



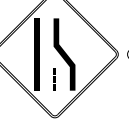
W3-4
B/O



W3-5
B/O



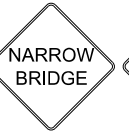
W4-1
B/O



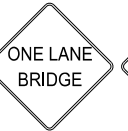
W4-2
B/O



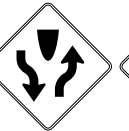
W5-1
B/O



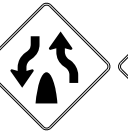
W5-2
B/O



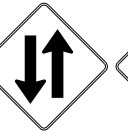
W5-3
B/O



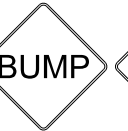
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B/O



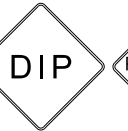
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B/O



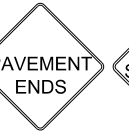
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B/O



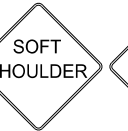
W8-1
B/O



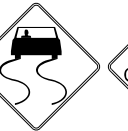
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B/O



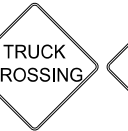
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B/O



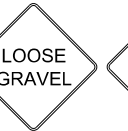
W8-4
B/O



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



W8-15P
B/O



W9-1L
B/O



W9-1R
B/O



W9-2L
B/O



W9-2R
B/O



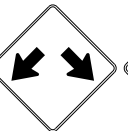
W10-1
B/O



W11-1
B/O



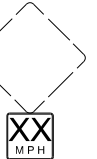
W11-2
B/O



W12-1
B/O



W12-2
B/O



W13-1
B/O



W13-1
B/O



W16-1P
B/O



W16-2P
B/O



W16-7P
B/O



W20-1A
B/O



W20-1B
B/O



W20-1C
B/O



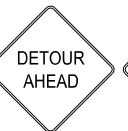
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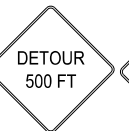
W20-1E
B/O



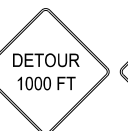
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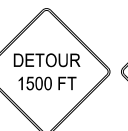
W20-2A
B/O



W20-2B
B/O



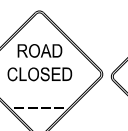
W20-2C
B/O



W20-2D
B/O



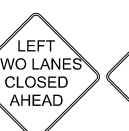
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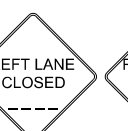
W20-3
B/O



W20-4
B/O



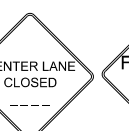
W20-5a
B/O



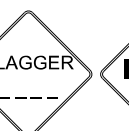
W20-5L
B/O



W20-5R
B/O



W20-5C
B/O



W20-7A
B/O



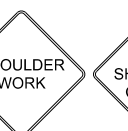
W20-7
B/O



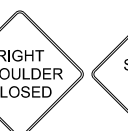
W21-1A
B/O



W21-1
B/O



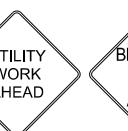
W21-5
B/O



W21-5a
B/O



W21-6
B/O



W21-7
B/O



W22-1
B/O



W22-2
B/O



W22-3
B/O

NOTES:

1. The size of diamond shaped Temporary Traffic Control (TTC) warning signs shall be a minimum of 48" X 48".
2. Fluorescent orange shall be used for all orange colored work zone signs.
3. The sign shields, symbols and messages contained on this sheet are provided for ready reference to those signs used in the development of the 102 Series of Indexes 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.

The sign codes shown on this sheet are for the purpose of identifying cell names found in the Traffic Control Cell Library (TCZ.Cel).

The STANDARD HIGHWAY SIGNS MANUAL should be referenced for the official sign codes for use in the development of traffic control plans.

See Index 700-102 for MOT sign details.

COLOR CODES:

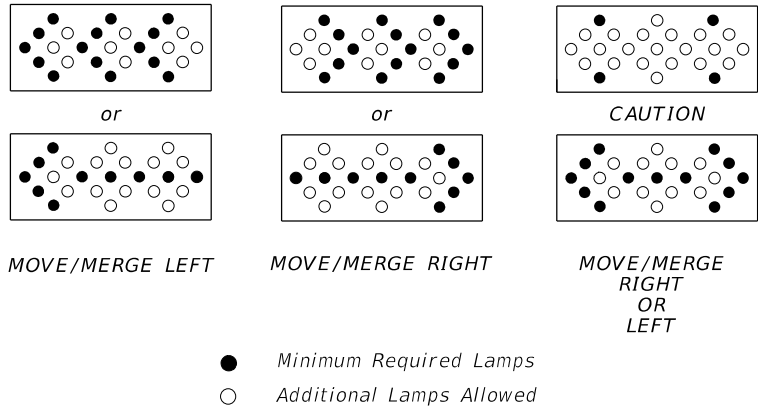
Legend and/or
Symbol Background

R-Red (Reflectorized)
Y-Yellow (Reflectorized)
G-Green (Reflectorized)
O-Orange (Reflectorized)
B-Black (Non-Reflectorized)
W-White (Reflectorized)

COMMONLY USED WARNING AND REGULATORY SIGNS IN WORK ZONES

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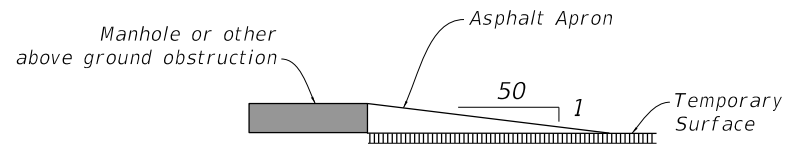
NOTES:
An arrow board in the arrow or chevron mode shall be used only for stationary or moving lane closures on multilane roadways.

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.

ADVANCE WARNING ARROW BOARDS

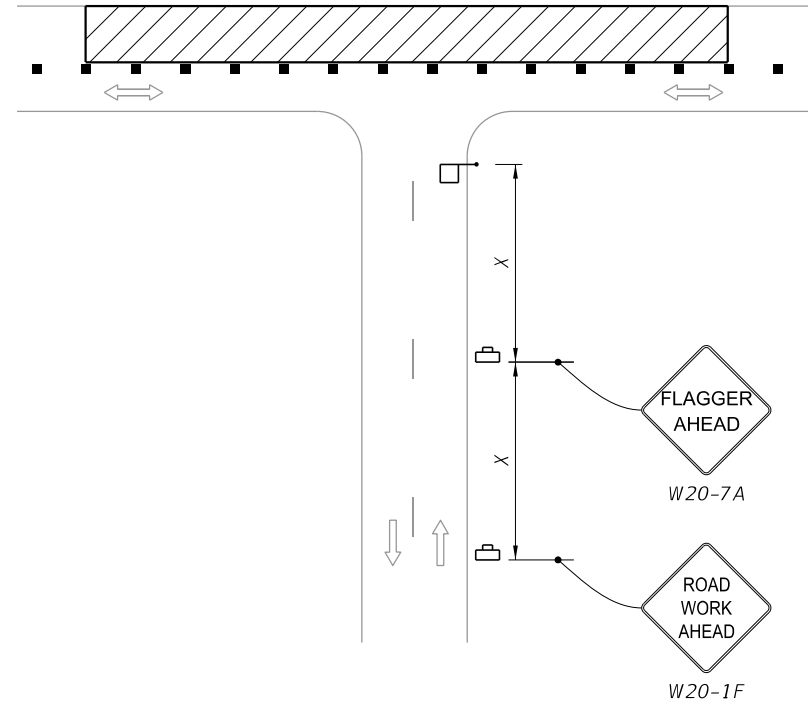


NOTES:
Manholes extending 1" or more above the travel lane and crosswalks having an uneven surface greater than 1/4" shall have a temporary asphalt apron constructed as shown above.

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

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.

MANHOLES/CROSSWALKS/JOINTS



NOTE:
Optionally, use "Flagger Ahead" sign with text (W20-7A) instead of "Flagger Ahead" sign with symbol (W20-7).

SIDE ROAD INTERSECTING THE WORK ZONE

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

Refer to Specification 102-9 for additional information.

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 the 102 Series of Indexes. Lighting Devices must not be used to supplement channelization. Omit tapers and channelizing devices for paved shoulders less than 4' in width.

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.

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 102-607. For short-term, stationary operations, see Part VI of the MUTCD.

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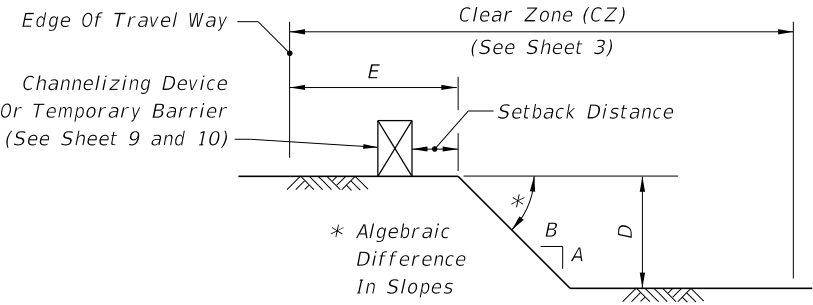
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GENERAL INFORMATION FOR TRAFFIC
CONTROL THROUGH WORK ZONES

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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 8). 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. In superelevated sections, the algebraic difference in slopes should not exceed 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, LS. Use of this treatment in lieu of a temporary 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. For Setback Distance, refer to the Index or Approved Products List (APL) drawing of the selected barrier.
- 5. For Conditions 1 and 3 provided in Table 8, any drop-off condition that is created and restored within the same work period will not be subject to use of temporary barriers; however, channelizing devices will be required.
- 6. When permanent curb heights are ≥ 6", no channelizing device will be required. For curb heights < 6", see Table 8.

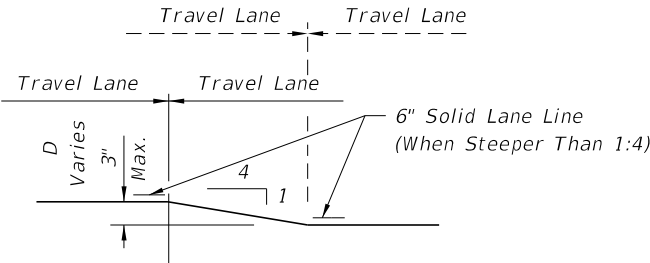


DROP-OFF CONDITION DETAIL

Table 8 Drop-off Protection Requirements			
Condition	E (ft)	D (in.)	Device Required
1	0-12	> 3	Temporary Barrier
2	> 12-CZ	> 3 to ≤ 5	Channelizing Device
3	0-CZ	> 5	Temporary Barrier
4	Removal of Bridge or Retaining Wall Barrier		Temporary Barrier
5	Removal of portions of Bridge Deck		Temporary Barrier

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 ½ mile maximum.
- 3. If D is 1½" 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 WAY DROP-OFF CONDITION NOTES

- 1. A pedestrian 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 way
 - b. a slope steeper than 1:2 that begins closer than 2' from the edge of the pedestrian way when the total drop-off is greater than 60"
- 2. Protect any drop-off adjacent to a pedestrian way with pedestrian longitudinal channelizing devices, temporary barrier wall, or approved handrail.

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DROP-OFFS IN WORK ZONES

INDEX
102-600

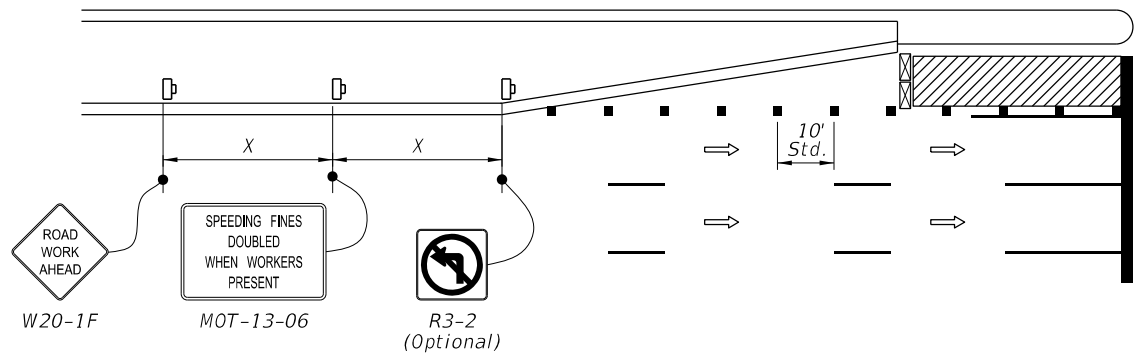
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LAST REVISION	DESCRIPTION:
11/01/20	

FDOT

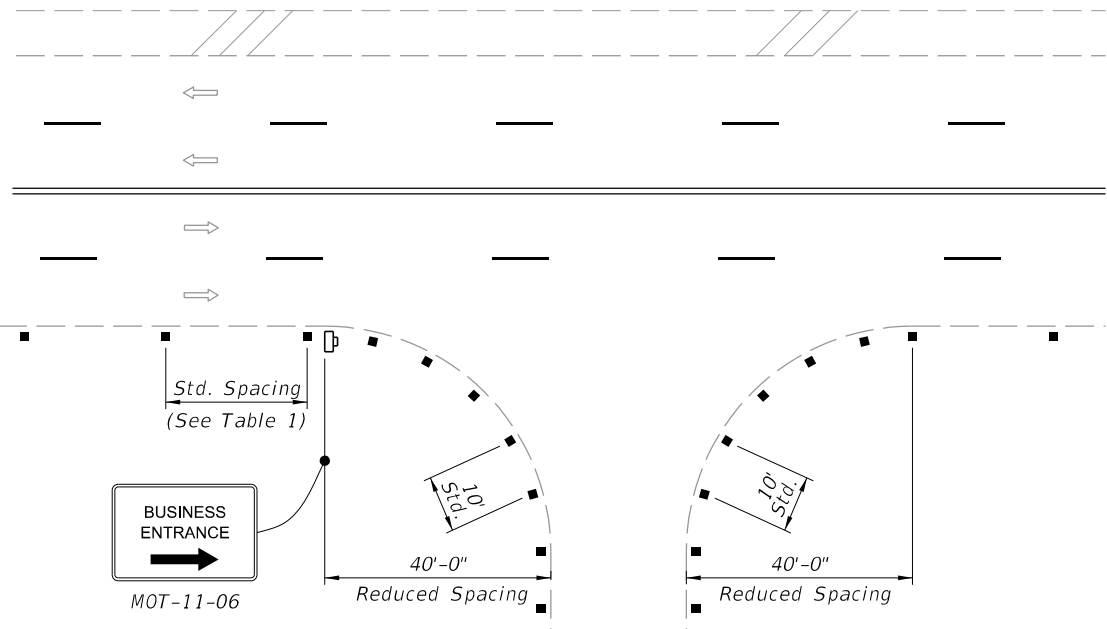
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GENERAL INFORMATION FOR TRAFFIC CONTROL THROUGH WORK ZONES



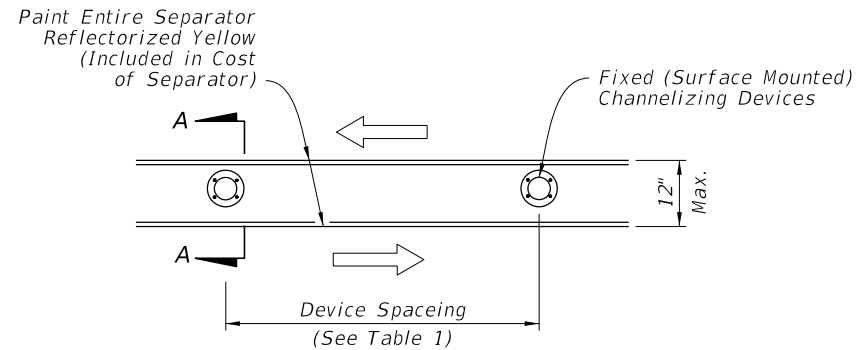
- NOTES:**
1. X = Work Zone Sign Spacing (See Table 3).
 2. The *SPEEDING FINES DOUBLE WHEN WORKERS PRESENT* sign (MOT-13-06) may be omitted when work operation will be in place for 24 hours or less.

AUXILIARY LANE CLOSURE

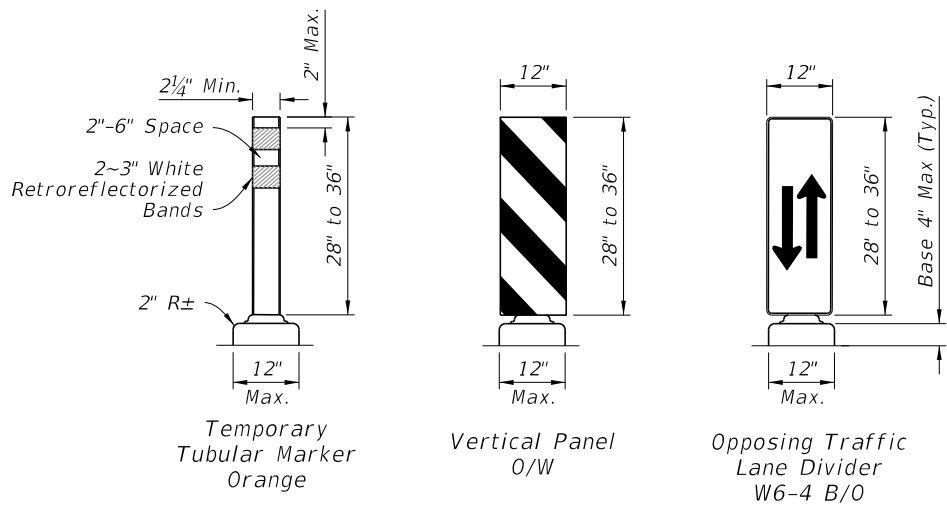


- NOTES:**
1. For single business entrances, place one 24" x 36" *BUSINESS ENTRANCE* sign (MOT-11-06) showing the specific business name for each affected driveway entrance. Logos may be provided by business owners. Standard *BUSINESS ENTRANCE* sign (MOT-11-06) may be used when approved by the Engineer.
 2. When several businesses share a common driveway entrance, place one 24" x 36" standard *BUSINESS ENTRANCE* sign (MOT-11-06) in accordance with Index 700-102 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.

BUSINESS ENTRANCE SIGNS AND CHANNELIZING DEVICES PLACEMENT AT BUSINESS ENTRANCE



PLAN



SECTION A-A

- NOTES:**
1. Temporary lane separators shall be supplemented with any of the following approved fixed (surface mounted) channelizing devices: temporary 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. Temporary 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.

FIXED CHANNELIZING DEVICES (Temporary Lane Separators)

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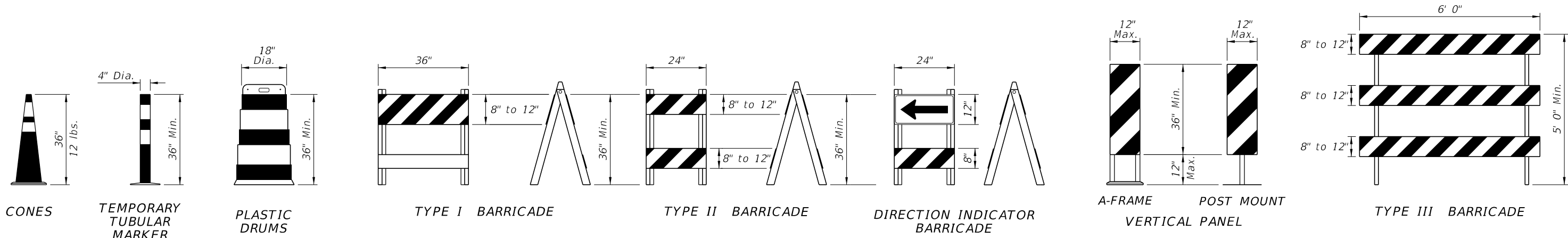
FY 2024-25
STANDARD PLANS

GENERAL INFORMATION FOR TRAFFIC
CONTROL THROUGH WORK ZONES

LAST
REVISION
11/01/23

DESCRIPTION:

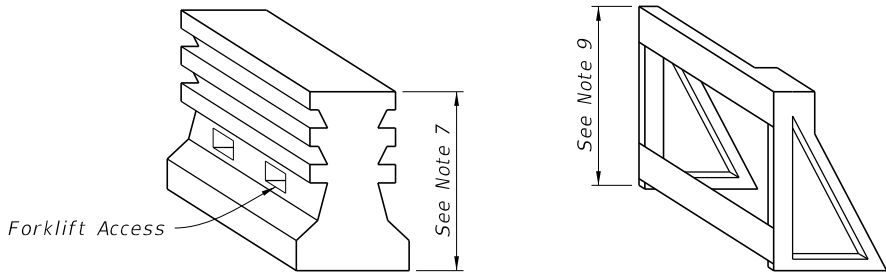
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CHANNELIZING DEVICES

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 Approved Products List (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 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.
 - Be reflectorized as per the MUTCD with Department-approved reflective collars when used at night.
- 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.



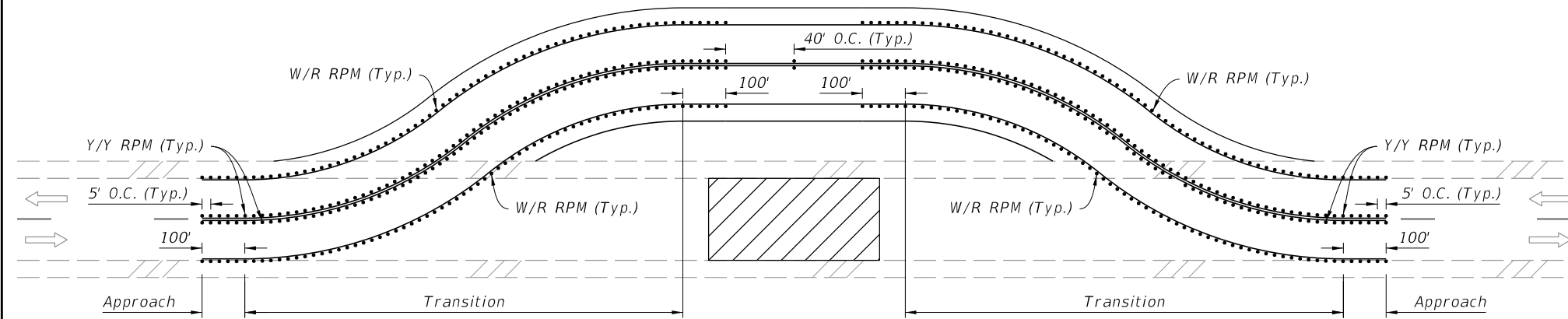
PEDESTRIAN LONGITUDINAL CHANNELIZING DEVICES

TEMPORARY BARRIER NOTES:

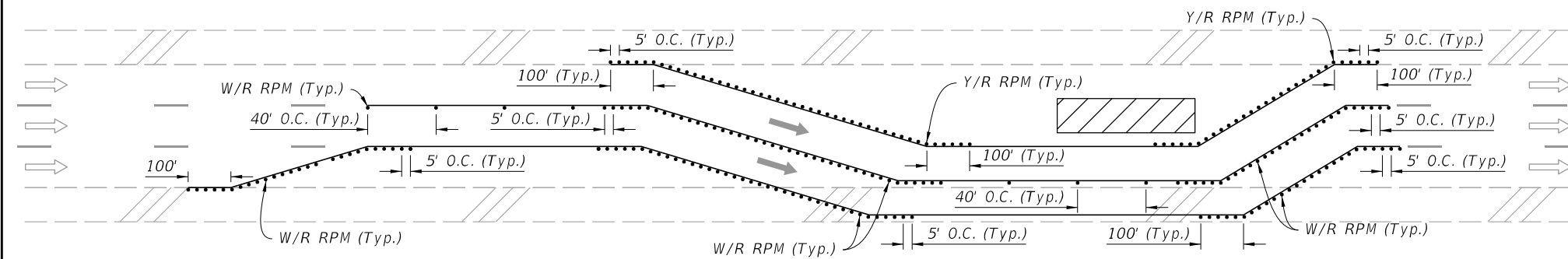
- Where a barrier is specified, any of the types below may be used in accordance with the applicable Index:

Index	Description
102-100	Temporary Barrier
102-120	Low Profile Barrier
536-001	Guardrail
- Trailer Mounted Barriers may be used to provide positive protection for workers within the work areas. APL drawings may be used as a guide to develop project specific Temporary Traffic Control Plans that are signed and sealed by the Contractor's Engineer.

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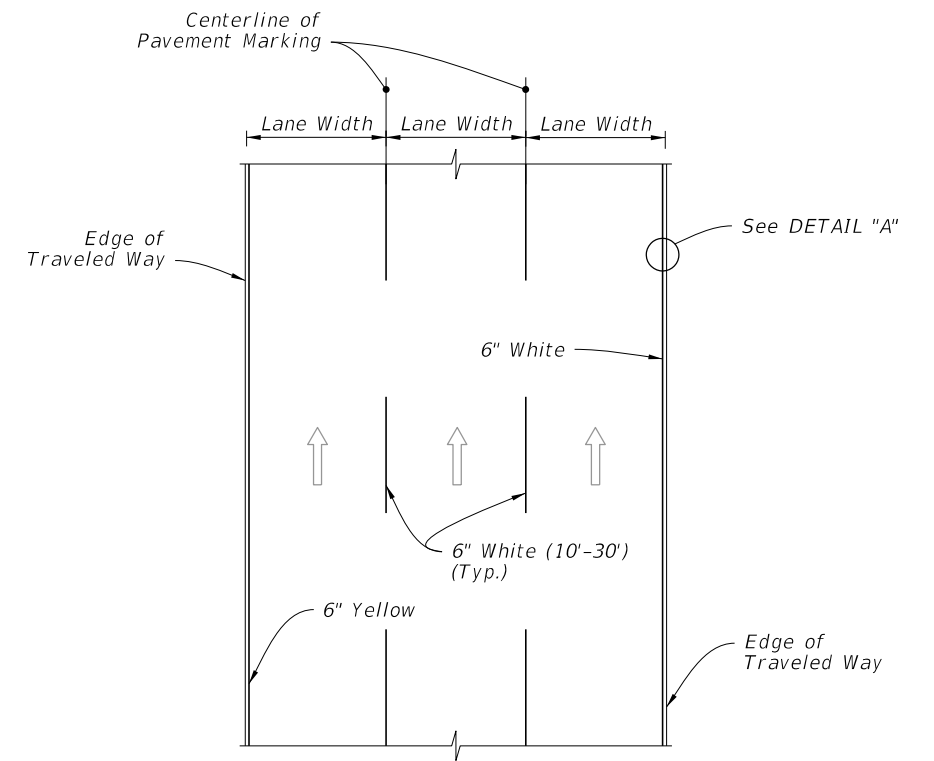
RPM PLACEMENT ON TWO-LANE ROADWAYS



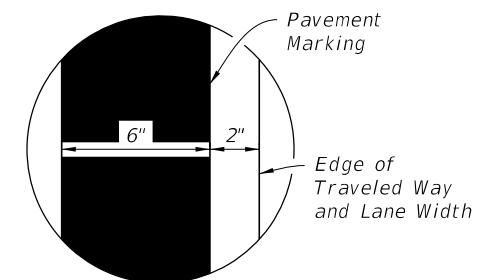
RPM PLACEMENT ON MULTILANE ROADWAYS
(Lane Shift Shown, Other Multilane Typical Applications Similar)

NOTES:

1. Install RPMs as a supplement to:
 - a. All lane lines
 - b. Edge lines in transitions (e.g., merges, diversions, lane shifts)
 - c. Edge lines of gore areas
2. Extend pavement marking and 5' RPM spacing by 100' in each direction for all transitions regardless of the line type.
3. Place RPMs in accordance with this detail and Index 706-001.



PLAN VIEW



DETAIL "A"

RPM PLACEMENT IN WORK ZONES

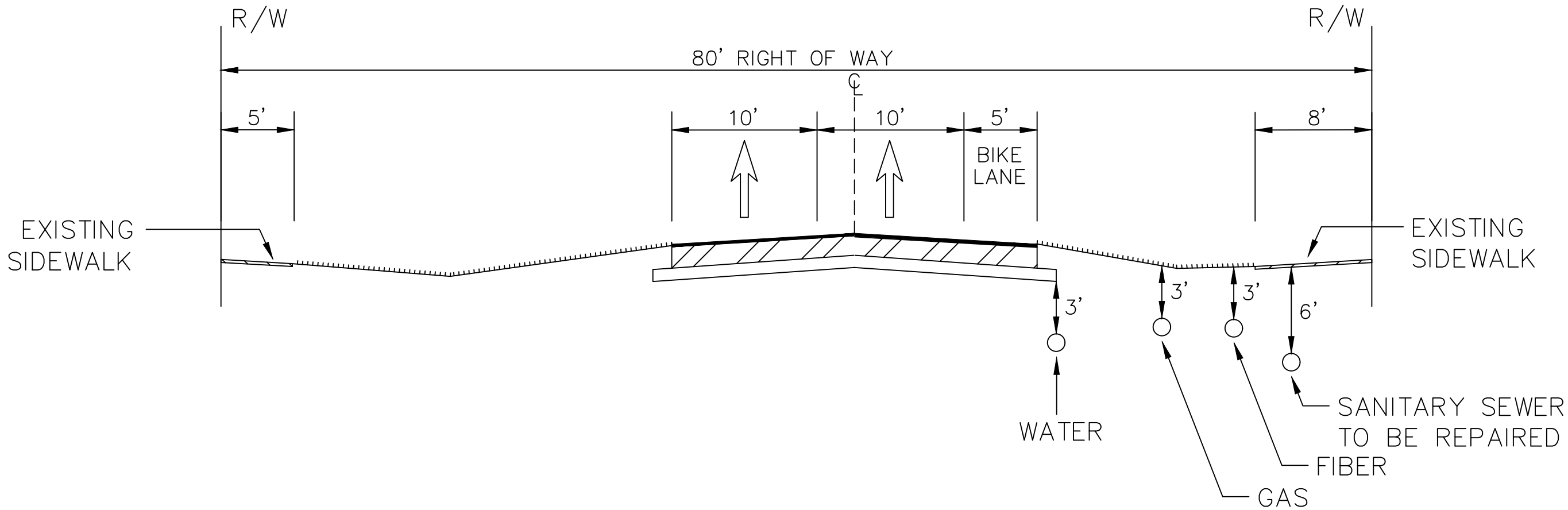
PAVEMENT MARKINGS PLACEMENT

10/3/2023 10:54:49 AM

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PATH: L:\WATERREC\GRAVITY SEWER REPAIRS\2024\1801 AND 3115 S ATLANTIC AVE.DWG



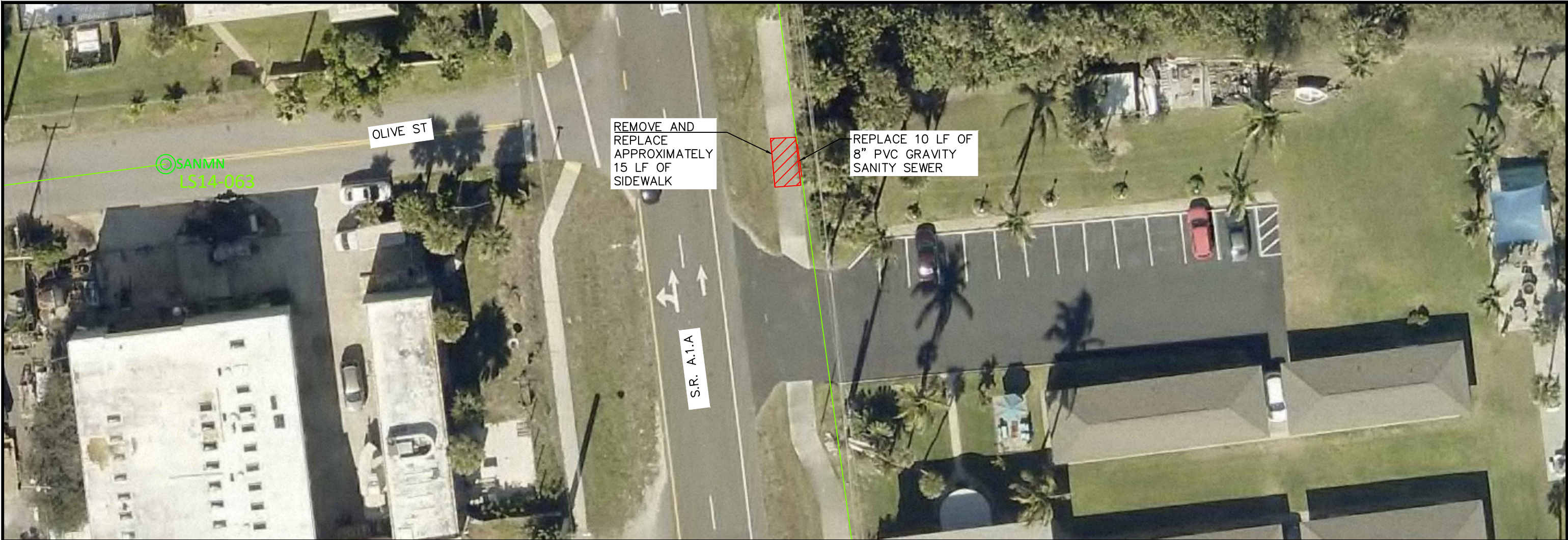
NOTES:

EXCAVATED MATERIALS SHALL BE PLACED SO AS NOT TO IMPEDE PEDESTRIAN OR VEHICULAR TRAFFIC. WHEN UNAVOIDABLE, ADA PEDESTRIAN ROUTES SHALL BE INSTALLED TO COMPLY WITH FDOT STANDARD PLANS INDEX 102-660.



DESIGNED	JAF	DATE	01/16/2024	ENGINEER OF RECORD: Digitally signed by Jared Francis, P.E. DN: cn=Jared Francis, P.E. gn=Jared Francis, P.E. c=US United States l=US United States o=City of Cocoa Beach ou=Engineering e=jared.francis@cityofcocoa-beach.com Reason: As required Location: Date: 2024-03-12 14:17-04:00 JARED FRANCIS, P.E. LICENSE NO. 78612 CITY ENGINEER CITY OF COCOA BEACH Public Works Department 1600 Minutemen Causeway Cocoa Beach, Florida 32931 Tel. (321) 868-3219  	PROJECT:	SCALE: 1" = 30'
DRAWN	MMZ	DATE	03/12/2024		GRAVITY SEWER REPAIR 1801 S ATLANTIC AVE	SHEET 2
CHECKED		DATE				OF 2
APPROVED		DATE				Project Code: 2024-H-390-00065 William Rickard
						SHEET:

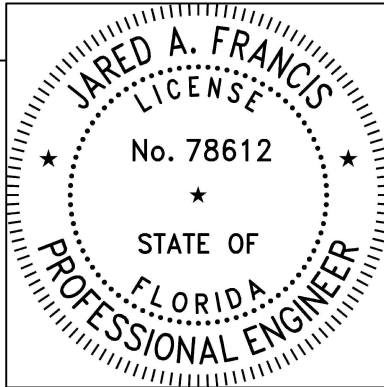
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NOTES:

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DESIGNED	JAF	DATE	01/16/2024	ENGINEER OF RECORD: Digitally signed by Jared Francis, P.E. DN: cn=Jared Francis, P.E., ou=Jared Francis, P.E., c=US, email=jared.francis@cityofcocoa.com, o=City of Cocoa Beach, Reason: As required, Location: , Date: 2024-03-04 14:18:05-00 JARED FRANCIS, P.E. LICENSE NO. 78612 CITY ENGINEER CITY OF COCOA BEACH Public Works Department 1600 Minutemen Causeway Cocoa Beach, Florida 32931 Tel. (321) 868-3219  	PROJECT:	GRAVITY SEWER REPAIR 1801 S ATLANTIC AVE		SCALE: 1" = 30'
DRAWN	MMZ	DATE	01/25/2024		SHEET: 1		Approved 2024-H-550-00065 William Rickard 3/14/2024	
CHECKED		DATE			CONSTRUCTION PLAN			
APPROVED		DATE						

PLAN NOT TO SCALE

TABLE 1 CHANNELIZING DEVICE SPACING				
Work Zone Speed (mph)	Max. Spacing (feet)			
	Cones or Temporary Tubular Markers	Type I Barricades, Vertical Panels, or Drums	Taper	Tangent
≤ 45	25	50	25	50
≥ 50	25	50	50	100

TABLE 2 TAPER LENGTH "L"	
Work Zone Speed (mph)	Min. Length (feet)
≤ 40	$L = WS$
≥ 45	$L = WS$
Where: W = width of offset in feet S = speed in mph	

TABLE 3 WORK ZONE SIGN SPACING "X"	
Road Type	Min. Spacing (feet)
Arterials and Collectors with Work Zone Speed ≤ 40 mph	200
Arterials and Collectors with Work Zone Speed ≥ 45 mph	500
Limited Access Roadways	1,500
For Limited access roadways with work zone speed ≤ 55 mph, the minimum spacing may be reduced in accordance with the MUTCD and as approved by the Engineer.	

TABLE 4 BUFFER LENGTH "B"	
Work Zone Speed (mph)	Min. Length (feet)
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645
70	730
Note: When Buffer Length "B" cannot be attained due to geometric constraints, use the greatest length possible, but not less than 155 feet.	

SPEED
LIMIT
35



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Temporary Traffic Control (TTC) Advanced Course.

Date Expires: 05/28/2024 Certificate # 62609
Instructor: Juan Morales FDOT Provider # 37

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donna.clark@atssa.com



Approved
2024-H-590-00065
William Rickard
2/14/2024

SHEET	TABLE OF CONTENTS
1	General Notes, TTC Tables
2	Definitions Temporary Traffic Control Devices 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 Speed Reduction Signing
4	Flagger Control Survey Work Zones Signs
5	Work Zone Sign Supports
6	Commonly Used Warning and Regulatory Signs In Work Zones
7	Manholes/Crosswalks/Joints Truck Mounted Attenuators Signals Channelizing Devices Channelizing Devices Consistency Advanced Warning Arrow Boards
8	Drop-Offs In Work Zones
9	Business Entrance Temporary Asphalt Separator
10	Channelizing Devices Notes Temporary Barrier Notes
11	Pavement Markings

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1. 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.
2. Use this Index in accordance with the Plans and Indexes 102-601 through 102-680. Indexes 102-601 through 102-680 are Department-specific typical applications of commonly encountered situations. Adjust device location or number thereof as recommended by the Worksite Traffic Supervisor and approved by the Engineer. Devices include, but are not limited to, flaggers, portable temporary signals, signs, pavement markings, and channelizing devices. Comply with MUTCD or applicable Department criteria for any changes and document the reason for the change.
3. Except for emergencies, any road closure on State Highway System must comply with Section 335.15, F.S.

TABLE 1 CHANNELIZING DEVICE SPACING				
Work Zone Speed (mph)	Max. Spacing (feet)			
	Cones or Temporary Tubular Markers		Type I Barricades, Type II Barricades, Vertical Panels, or Drums	
	Taper	Tangent	Taper	Tangent
≤ 45	25	50	25	50
≥ 50	25	50	50	100

TABLE 2 TAPER LENGTH "L"	
Work Zone Speed (mph)	Min. Length (feet)
≤ 40	$L = \frac{WS^2}{60}$
≥ 45	$L = WS$
Where: W = width of offset in feet S = speed in mph	

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50	425
55	495
60	570
65	645
70	730
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FY 2023-24
STANDARD PLANS

GENERAL INFORMATION FOR TRAFFIC
CONTROL THROUGH WORK ZONES

Approved
2024-H-590-06065

INDEX

SHEET

1 of 11

William Rickard
3/14/2024

LAST
REVISION
11/01/20

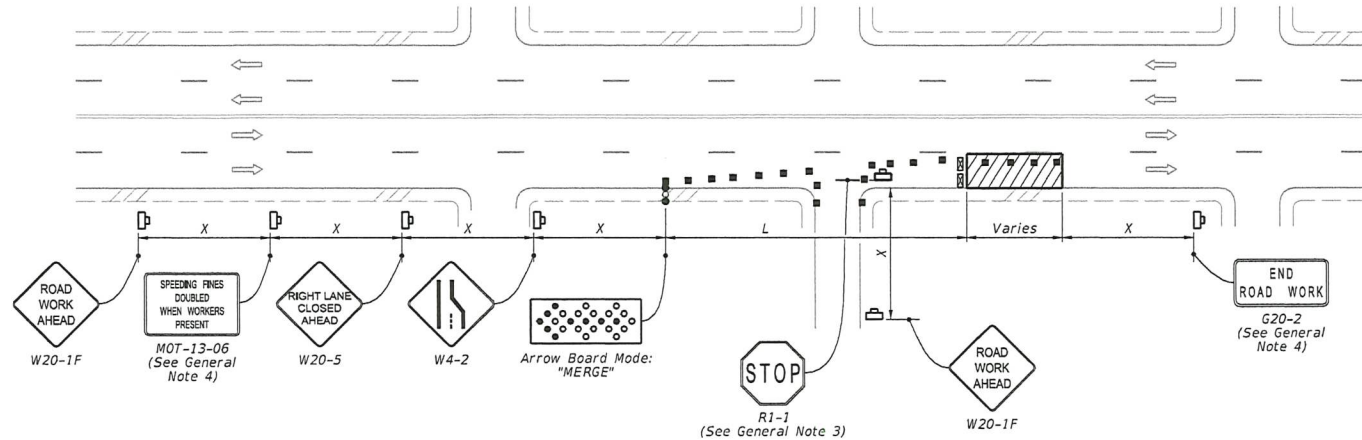
REVISION DESCRIPTION:

NOTE:

Confine work operations to the following lane or lane combinations:

- a. Outside travel lane
- b. Outside auxiliary lane
- c. Outside travel lane and adjoining auxiliary lane
- d. Inside travel lane
- e. Inside auxiliary lane
- f. Inside travel lane and adjoining auxiliary lane

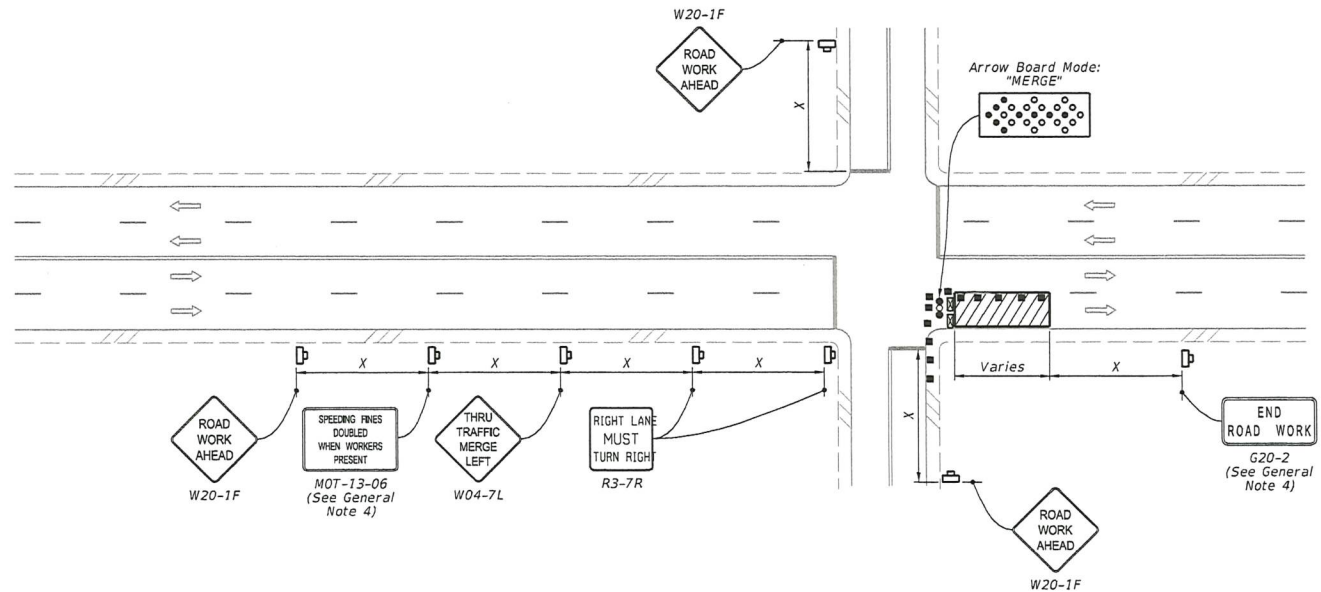
If the work area is confined to an auxiliary lane, the work area must be barricaded. Replace the RIGHT (LEFT) LANE CLOSED AHEAD signs with ROAD WORK AHEAD signs, and omit the merge symbol signs and arrow board.



RIGHT LANE CLOSED ON FAR SIDE OF MINOR SIDE STREET

SYMBOLS:

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Type III Barricade
- Arrow Board
- Stop Bar
- Lane Identification and Direction of Traffic



RIGHT LANE CLOSED ON FAR SIDE OF INTERSECTION WITH SIGNIFICANT RIGHT TURNING MOVEMENTS

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LAST REVISION 11/01/22	DESCRIPTION: FY 2023-24 STANDARD PLANS	MULTILANE ROADWAY, INTERSECTION WORK	INDEX 102-615	SHEET 2 of 5
------------------------------	--	--------------------------------------	------------------	-----------------

Approved

2024-H-590-00065
 William Rickard
 3/14/2024

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FDOT

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FDOT Provider # 37

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NOTES:

1. L = Taper Length
B = Buffer Length
X = Work Zone Sign Distance
See Index 102-600 for "L", "B", "X", channelizing device spacing values.
2. Provide a 5' wide temporary pedestrian way with a maximum cross-slope of 0.02, except where space restrictions warrant a minimum width of 4'. Provide a 5' x 5' passing space for temporary pedestrian ways less than 5' in width at intervals not to exceed 200'.
3. When temporary pedestrian ways require curb ramps, meet the requirements of Index 522-002. Detectable warnings are not required for curb ramps diverting pedestrian traffic into a closed lane.
4. The "Speeding Fines Doubled When Workers Present" signs (MOT-13-06) and "End Road Work" signs (G20-2), along with associated work zone sign distances, may be omitted when the work operation will be in place for 24 hours or less.
5. Pedestrian Diversion Option 2 may only be used when called for in the Plans or as approved by an Engineer.

SYMBOLS:

- Work Area
- Temporary Pedestrian Way
- Channelizing Device (See Index 102-600)
- Pedestrian Longitudinal Channelizing Device (LCD)
- Work Zone Sign
- Arrow Board
- Crash Cushion
- Lane Identification and Direction of Traffic

PEDESTRIAN DIVERSION - OPTION 1
(Temporary Barrier Shown, Low Profile Barrier Similar)

PEDESTRIAN DIVERSION - OPTION 2
(Work Zone Speed 35 mph or Less)

PEDESTRIAN SPECIAL DETOUR

LAST REVISION	DESCRIPTION:	FY 2023-24 STANDARD PLANS	SIDEWALK CLOSURE	INDEX	SHEET
11/01/21				102-660	2 of 2

Approved
2024-H-590-00065
William Rickard
3/14/2024

Page 32 of 71

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NOTES:

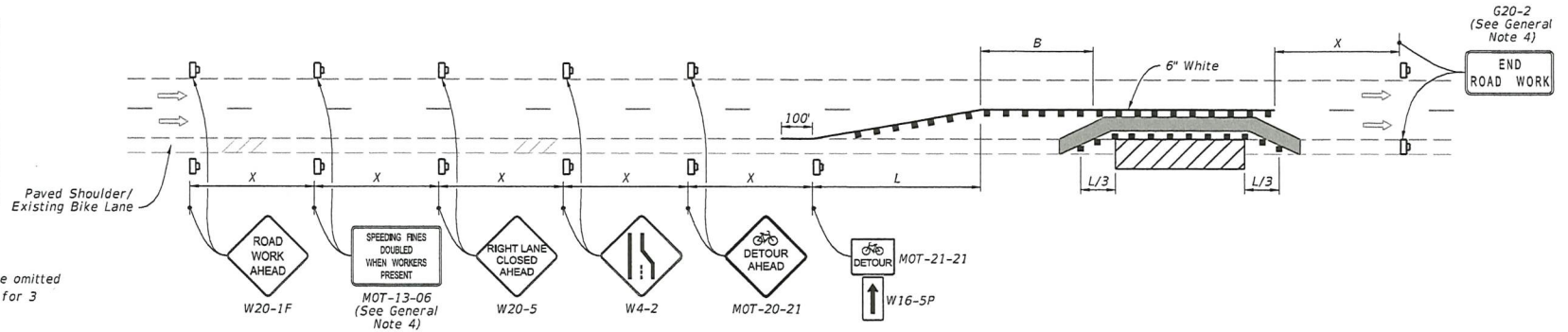
1. Temporary pavement markings may be omitted when the work operation is in place for 3 days or less.
2. If the Closed Bicycle Facility is a marked bicycle lane, use sign MOT 22-21 instead of sign W21-5a.
3. If the travel lane is less than 14' wide, use sign R4-11.

SYMBOLS:

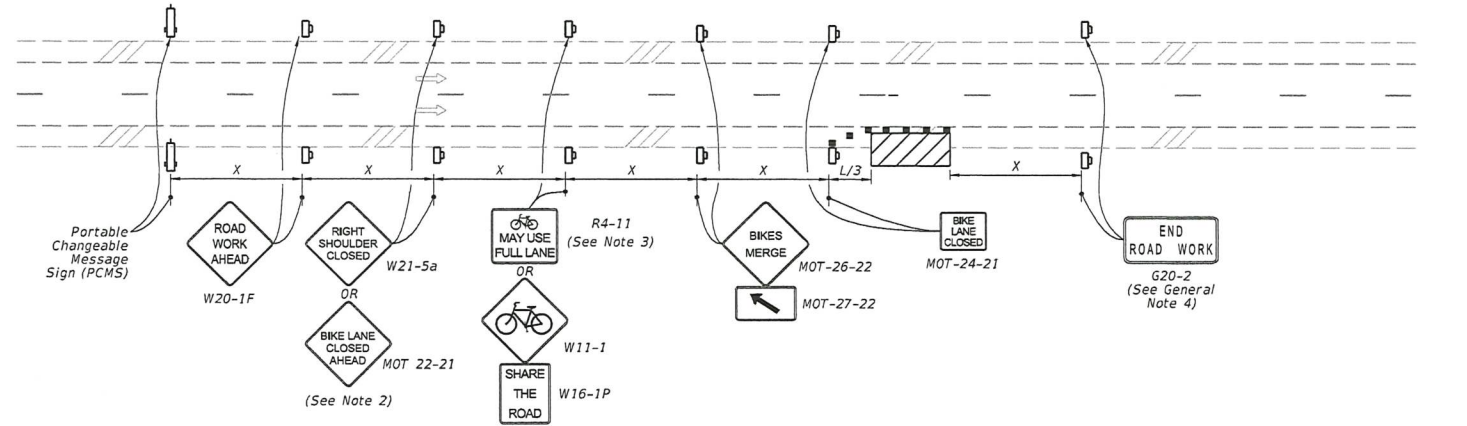
- Work Area
- Temporary Bicycle Way
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Arrow Board
- Lane Identification and Direction of Traffic
- (1) PCMS=Portable Changeable (Variable) Message Sign

TYPICAL PCMS DISPLAY:

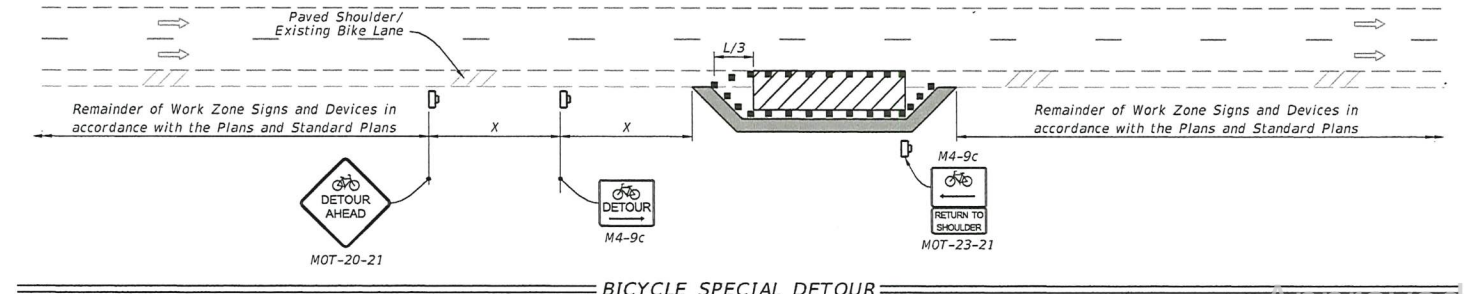
Message 1: BIKE FACILITY CLOSED
Message 2: BICYCLES ON ROAD



BICYCLE FACILITY SHIFT (With Lane Closure)



BICYCLE FACILITY SHIFT (Work Zone Speed of 35 mph or Less)



BICYCLE SPECIAL DETOUR

LAST REVISION	DESCRIPTION:
11/01/21	



FY 2023-24
STANDARD PLANS

BICYCLE FACILITY CLOSURES

Approved
2024-F-596-00065
William Rickard
3/14/2024
INDEX SHEET
102-661 2 of 2

UTILITY PERMIT

PERMIT NO: 2024-H-590-00066

STATE ROAD INFORMATION

County: Brevard	Section: 70060000	State Road No: SR A1A	Beginning Mile Post: 31.151	Ending Mile Post: 31.032
---------------------------	-----------------------------	---------------------------------	---------------------------------------	------------------------------------

APPLICANT INFORMATION

The Utility Agency Owner (UAO) shall be identified in this Applicant Information Box. When the UAO is a City or County and desires to have the Utility Builder make a joint permit applicant, as prescribed in Section 2.1(4) of the 2017 Utility Accommodation Manual (UAM), the Utility Builder shall also be identified in this Applicant Information Box. A Utility Builder alone cannot apply for a utility permit without the City or County adding them as a joint applicant.

Utility Agency/Owner (UAO)
Name: City of Cocoa Beach
Contact Person: City of Cocoa Beach
Address: 1600 Minutemen Causeway
City: Cocoa Beach
State: Florida
Zip: 329312010
Telephone: 3218683243
Email: sbarber@cityofcocoa beach.com

Utility Builder (only applicable when the UAO is a City or County)
Name: _____
Contact Person: _____
Address: _____
City: _____
State: _____
Zip: _____
Telephone: _____
Email: _____

WORK DESCRIPTION

The Applicant(s) requests permission from the Florida Department of Transportation (FDOT) to construct, operate, and maintain the utilities as described below and as depicted in the incorporated documentation.

Replace 30LF of 8" Gravity Sewer. Remove and replace approximately 40LF of Sidewalk

Utility Work No: _____

Additional sheets are attached and are incorporated into this permit Yes ☒ No ☐

For FDEP certification, the FDOT agency report is attached in accordance with UAM Section 2.4.1 (13) Yes ☐ No ☒

TRAFFIC CONTROL (TCP)

- ☒ The TCP will comply with the following 600 series index(es) 600, 615, 660
☐ A TCP has been attached and incorporated into this permit application in compliance with UAM Section 2.4.2.

MOT Technician's contact information (may be supplied at the two (2) business day notification to FDOT):

Name: _____ Telephone: _____ Email: _____

COMMENCEMENT OF WORK

The UAO and/or Utility Builder shall commence actual construction in good faith within sixty (60) calendar days after approval of the permit application. If the beginning date is more than sixty (60) calendar days from the date of approval, the UAO and/or Utility Builder must review the permit with the FDOT Approving Engineer listed to make sure no changes have occurred to the transportation facility that would affect the permit's continued approval. The UAO and/or Utility Builder shall make good faith efforts to expedite the work and complete the work within the calendar days indicated.

Anticipated Start Date: 4/29/2024

Calendar days needed to completed: 3

Approved
2024-H-590-00066
William Rickard
3/14/2024

UTILITY PERMIT**PERMIT NO:** 2024-H-590-00066**APPLICANT SIGNATURE**

By the below signature(s) the UAO and/or Utility Builder agree(s) to construct, operate, and maintain the work as noted in the above Work Description, shown in plans and incorporated documents, in compliance with the UAM, all instructions noted in the FDOT Special Instructions Box, and special instructions incorporated into this permit. The UAO and/or Utility Builder declares, the location of all existing utilities that it owns or has an interest in, both aerial and underground, are accurately shown on the plans of the work areas. In accordance with UAM Section 2.8, the UAO and/or Utility Builder further declares that a letter of notification was delivered to the owners of other facilities within the work areas and that those listed below are the only facility owners known to be involved or potentially impacted by the proposed work.

Date Notified:

3/4/2024

Name of other facility owners (attach additional sheets if necessary).

City of Cocoa Beach

Utility Agency/Owner

Utility Builder (when applicable)

Signature: Brad Kalsow (digital signature) Date: 3/4/2024Name (printed): Brad Kalsow

Title: _____

Signature: _____ Date: _____

Name (printed): _____

Title: _____

FDOT PROJECT INFORMATION

Pursuant to UAM Section 2.1(10), the utility work is within FDOT projects listed below and must have a Utility Work Schedule for each project approved prior to commencement of work within the FDOT project limits:

There are NO FDOT constructions (proposed or underway).

This work is NOT related to an approved utility work Schedule.

FDOT SPECIAL INSTRUCTIONS

In accordance with UAM Section 2.7, FDOT incorporates the below and attached special instructions into this permit.

Due to drop off hazard, MOT for vehicular and pedestrian traffic must comply with FDOT Standard Plan 102-600 FY 2024-25 (sheet 8 of 11).

Additional FDOT Special Instructions are attached and incorporated into this permit. Yes ☐ No ☒

PERMIT APPROVAL

By signature below, FDOT gives permission to the UAO and /or Utility Builder to construct, operate, and maintain the utilities indicated in this Utility Permit in compliance with the UAM, all incorporated documents, and special instructions. Any changes to the approved work must be approved by the FDOT's Approving Engineer and attached and incorporated into this permit in accordance with UAM Section 2.11.

Approving Engineer: William Rickard (digital signature) Date: 3/14/2024Name: William RickardTitle: MAINTENANCE MANAGER/PERMITSNotification of Utility Work to be provided to: Telephone (321) 634-6115 ext. _____ or Email: curtis.keels@dot.state.fl.us

An FDOT Representative is required to be present on the worksite prior to commencement of work. Yes ☒ No ☐

Rep. Name: William Rickard Telephone 3216346086 Email: william.rickard@dot.state.fl.us

2024-H-590-00066
William Rickard
3/14/2024

Florida Department of Transportation
UTILITY PERMIT

December 14, 2016

PERMIT NO: 2024-H-590-00066

CERTIFICATION

I, the undersigned UAO and/or Utility Builder, hereby CERTIFY that the utilities were constructed and inspected in compliance with the UAM all incorporated documents, and special instructions. Pursuant to UAM Section 2.11, all changes have been approved by the FDOT's Approving Engineer and incorporated into this permit along with all other material certifications, test results, bore logs, approved plans changes, as-built plans or other required documentation.

I also CERTIFY that work began on _____ and was completed on _____ and that the area was left in as good or better condition than when the work began.

Utility Agency/Owner

Utility Builder (when applicable)

Signature: _____ Date _____

Signature: _____ Date _____

Name (printed): _____

Name (printed): _____

Title: _____

Title: _____

FINAL INSPECTION OF WORK

☐ The work was inspected and found to be in non-compliance as noted below:

☐ All issues of non-compliance listed above have been brought into compliance and/or FDOT has no outstanding issues that need to be addressed by the UAO and/or Utility Builder. However, this final inspection does not release the UAO and/or Utility Builder of their continuing responsibilities pursuant to Rule 14-46.001, the UAM, all incorporated documents, and special instructions.

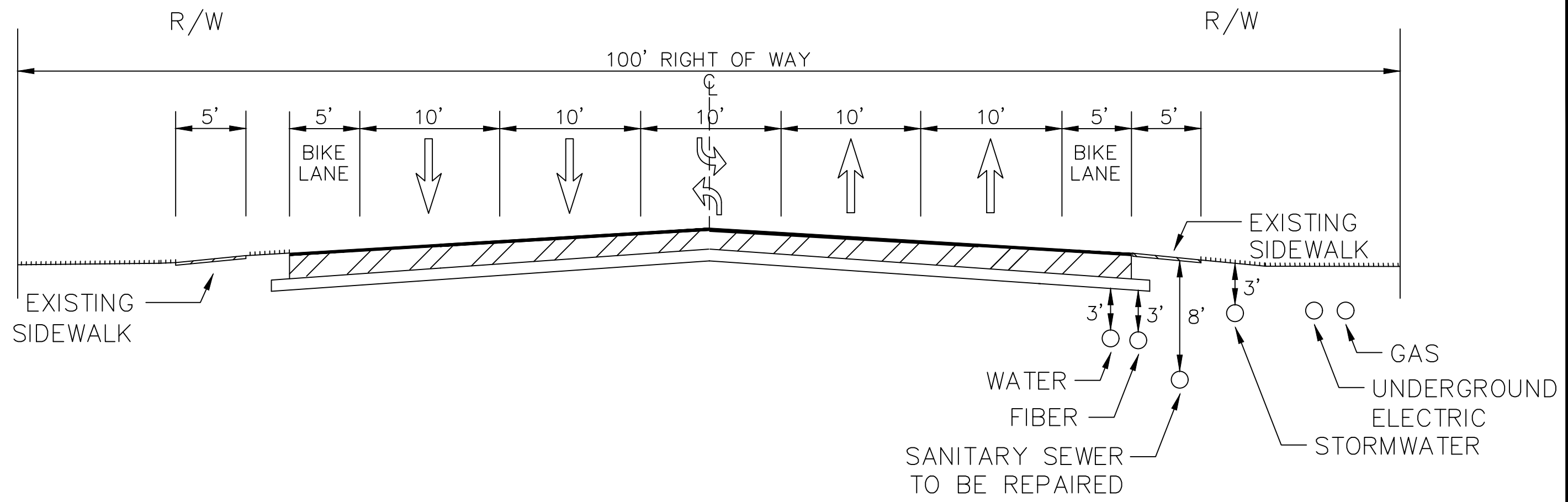
FDOT Inspector: _____ Date: _____

Name: _____

Title: _____

Approved
2024-H-590-00066
William Rickard
3/14/2024

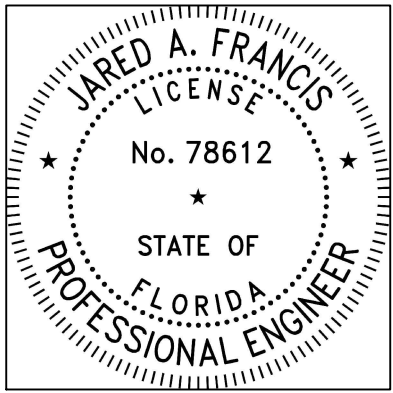
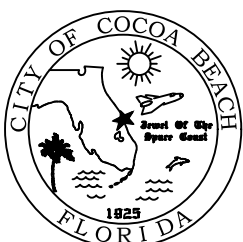
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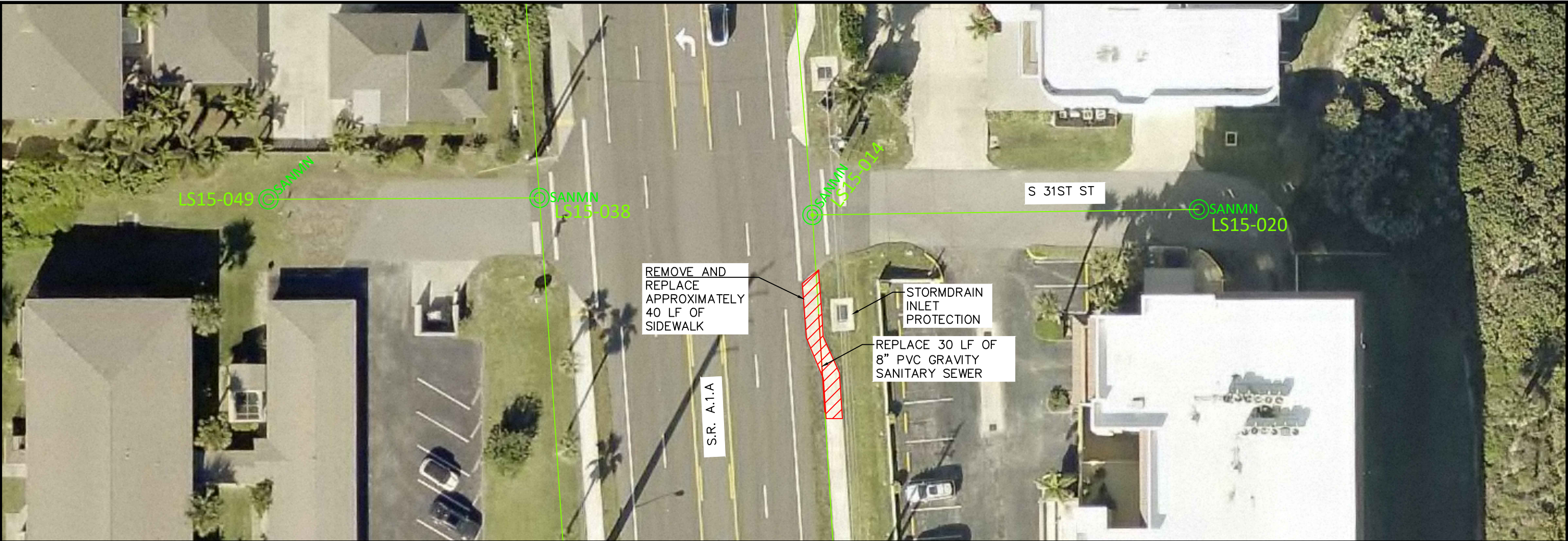
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DESIGNED	JAF	DATE	01/16/2024	ENGINEER OF RECORD: Digitally signed by Jared Francis, P.E. DN: cn=Jared Francis, P.E. gn=Jared Francis, P.E. c=US United States l=US United States o=City of Cocoa Beach ou=Engineering e=jared.francis@cityofcocoa.com Reason: As required Location: Date: 2024-03-12 14:17:04:00 JARED FRANCIS, P.E. LICENSE NO. 78612 CITY ENGINEER CITY OF COCOA BEACH Public Works Department 1600 Minutemen Causeway Cocoa Beach, Florida 32931 Tel. (321) 868-3219  	PROJECT:	GRAVITY SEWER REPAIR 3115 S ATLANTIC AVE	SCALE:	NONE	
DRAWN	MMZ	DATE	03/12/2024		SHEET 2 OF 2		2024-H-390-00066 William Rickard 3/14/2024		
CHECKED		DATE				SHEET:			
APPROVED		DATE							
CONSTRUCTION CROSS SECTION						Approved			

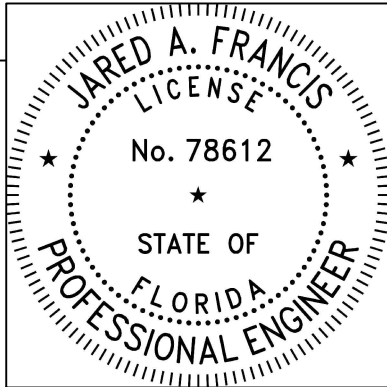
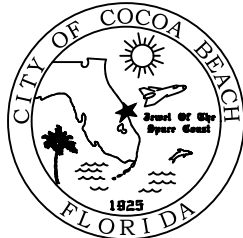
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DRAWN	MMZ	DATE	01/25/2024		SHEET 1		
CHECKED		DATE			OF 1		
APPROVED		DATE			SHEET:	CONSTRUCTION PLAN	Project Code: 2024-H-330-00066 William Rickard 3/14/2024

PLAN NOT TO SCALE

Work Zone Speed (mph)	Max. Spacing (feet)			
	Cones or Temporary Tubular Markers		Type I Barricades, Type II Barricades, Vertical Panels, or Drums	
	Taper	Tangent	Taper	Tangent
	≤ 45	25 50	25 50	50 100
≥ 45	25	50	50	100

Work Zone Speed (mph)	Min. Length (feet)
≤ 40	$L = \frac{WS^2}{60}$
≥ 45	$L = WS$

Where: W = width of offset
in feet

Road Type	Min. Spacing (feet)
Arterials and Collectors with Work Zone Speed ≤ 40 mph	200
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40	305
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Date Expires: 05/28/2024 **Certificate #** 62609
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Approved
2024-H-590-00066
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3/4/2024

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TABLE 1 CHANNELIZING DEVICE SPACING				
Work Zone Speed (mph)	Max. Spacing (feet)			
	Cones or Temporary Tubular Markers		Type I Barricades, Type II Barricades, Vertical Panels, or Drums	
	Taper	Tangent	Taper	Tangent
≤ 45	25	50	25	50
≥ 50	25	50	50	100

TABLE 2 TAPER LENGTH "L"	
Work Zone Speed (mph)	Min. Length (feet)
≤ 40	$L = \frac{WS^2}{60}$
≥ 45	$L = WS$

Where: W = width of offset in feet
S = speed in mph

TABLE 3 WORK ZONE SIGN SPACING "X"	
Road Type	Min. Spacing (feet)
Arterials and Collectors with Work Zone Speed ≤ 40 mph	200
Arterials and Collectors with Work Zone Speed ≥ 45 mph	500
Limited Access Roadways *	1,500

* For Limited access roadways with work zone speed ≤ 55 mph, the minimum spacing may be reduced in accordance with the MUTCD and as approved by the Engineer.

TABLE 4 BUFFER LENGTH "B"	
Work Zone Speed (mph)	Min. Length (feet)
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645
70	730

Note: When Buffer Length "B" cannot be attained due to geometric constraints, use the greatest length possible, but not less than 155 feet.

Edoardo Meyers

FDOT
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EDOARDO MEYERS
Has Completed a Florida Department of Transportation Approved
Temporary Traffic Control (TTC) Advanced Course.
Date Expires: 05/28/2024 Certificate # 62609
Instructor: Juan Morales FDOT Provider # 37

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FY 2023-24
STANDARD PLANS

GENERAL INFORMATION FOR TRAFFIC
CONTROL THROUGH WORK ZONES

Approved
2024-H-590-06066

INDEX
102-600

SHEET
1 of 11

William Rickard
3/14/2024

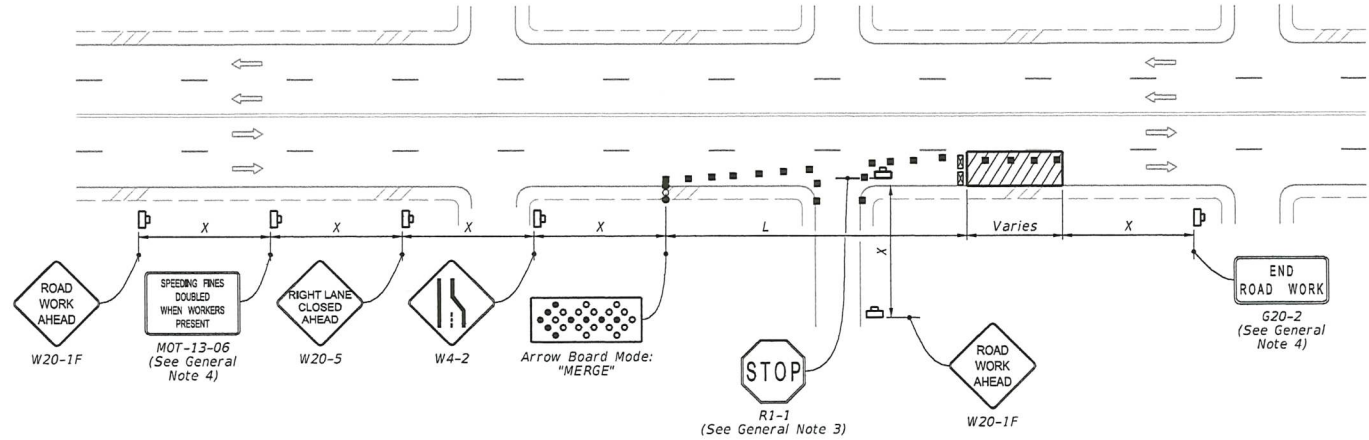
LAST REVISION	DESCRIPTION:
11/01/20	

NOTE:

Confine work operations to the following lane or lane combinations:

- Outside travel lane
- Outside auxiliary lane
- Outside travel lane and adjoining auxiliary lane
- Inside travel lane
- Inside auxiliary lane
- Inside travel lane and adjoining auxiliary lane

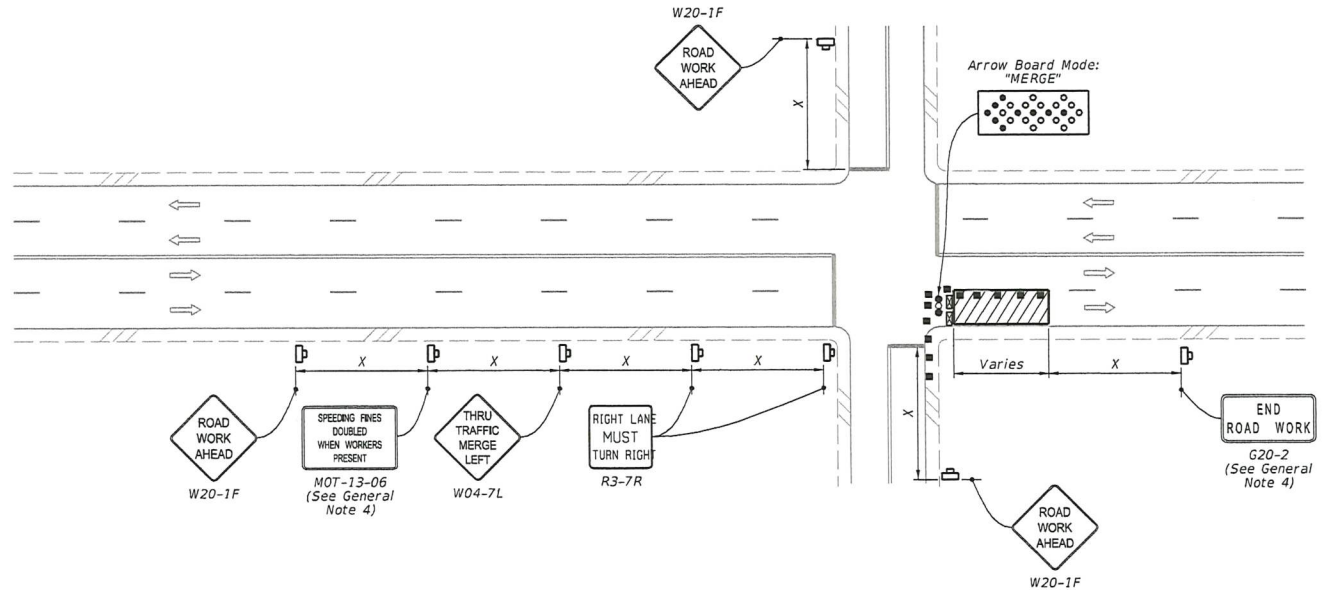
If the work area is confined to an auxiliary lane, the work area must be barricaded. Replace the RIGHT (LEFT) LANE CLOSED AHEAD signs with ROAD WORK AHEAD signs, and omit the merge symbol signs and arrow board.



RIGHT LANE CLOSED ON FAR SIDE OF MINOR SIDE STREET

SYMBOLS:

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Type III Barricade
- Arrow Board
- Stop Bar
- Lane Identification and Direction of Traffic



RIGHT LANE CLOSED ON FAR SIDE OF INTERSECTION WITH SIGNIFICANT RIGHT TURNING MOVEMENTS

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FY 2023-24
STANDARD PLANS

MULTILANE ROADWAY, INTERSECTION WORK

INDEX SHEET
102-615 2 of 5

LAST
REVISION
11/01/22
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3/14/2024

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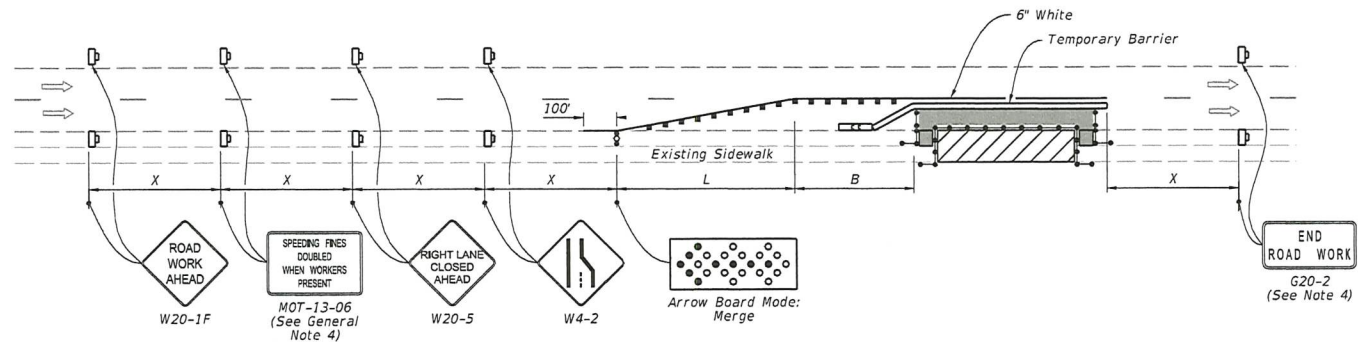
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NOTES:

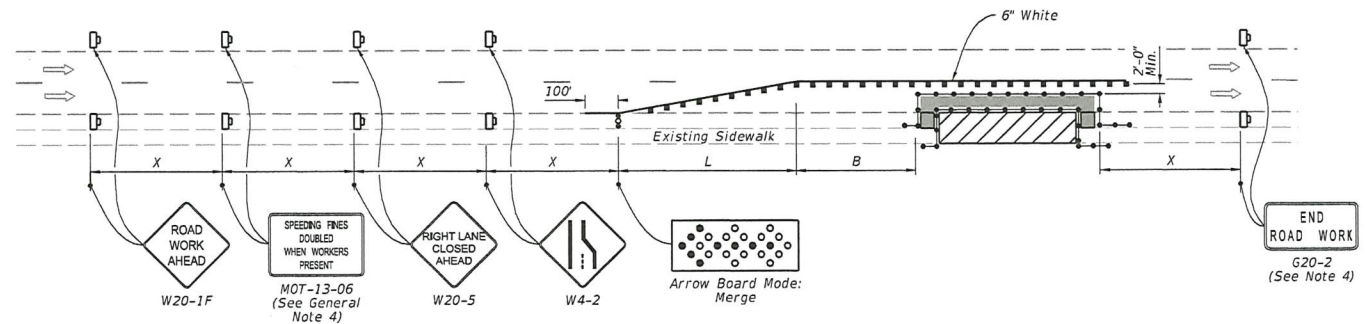
1. L = Taper Length
 B = Buffer Length
 X = Work Zone Sign Distance
 See Index 102-600 for "L", "B", "X", channelizing device spacing values.
2. Provide a 5' wide temporary pedestrian way with a maximum cross-slope of 0.02, except where space restrictions warrant a minimum width of 4'. Provide a 5' x 5' passing space for temporary pedestrian ways less than 5' in width at intervals not to exceed 200'.
3. When temporary pedestrian ways require curb ramps, meet the requirements of Index 522-002. Detectable warnings are not required for curb ramps diverting pedestrian traffic into a closed lane.
4. The "Speeding Fines Doubled When Workers Present" signs (MOT-13-06) and "End Road Work" signs (G20-2), along with associated work zone sign distances, may be omitted when the work operation will be in place for 24 hours or less.
5. Pedestrian Diversion Option 2 may only be used when called for in the Plans or as approved by an Engineer.

SYMBOLS:

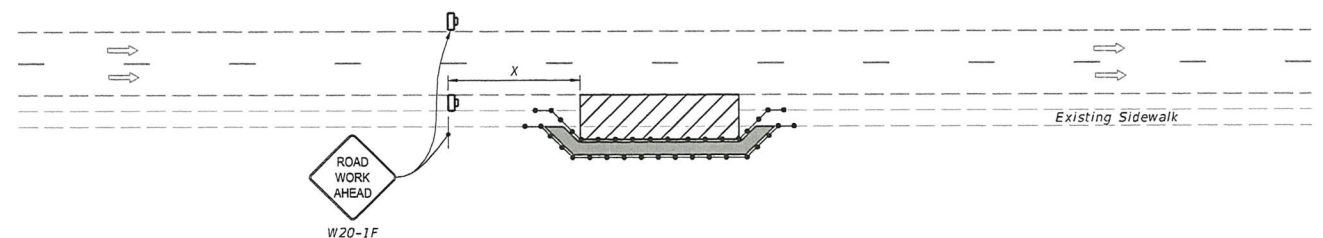
- Work Area
- Temporary Pedestrian Way
- Channelizing Device (See Index 102-600)
- Pedestrian Longitudinal Channelizing Device (LCD)
- Work Zone Sign
- Arrow Board
- Crash Cushion
- Lane Identification and Direction of Traffic



PEDESTRIAN DIVERSION - OPTION 1
 (Temporary Barrier Shown, Low Profile Barrier Similar)



PEDESTRIAN DIVERSION - OPTION 2
 (Work Zone Speed 35 mph or Less)



PEDESTRIAN SPECIAL DETOUR

LAST REVISION 11/01/21	DESCRIPTION:	FY 2023-24 STANDARD PLANS	SIDEWALK CLOSURE	INDEX 102-660	SHEET 2 of 2
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 2024-H-590-00066
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 3/14/2024

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Paved Shoulder/
Existing Bike Lane

NOTES:

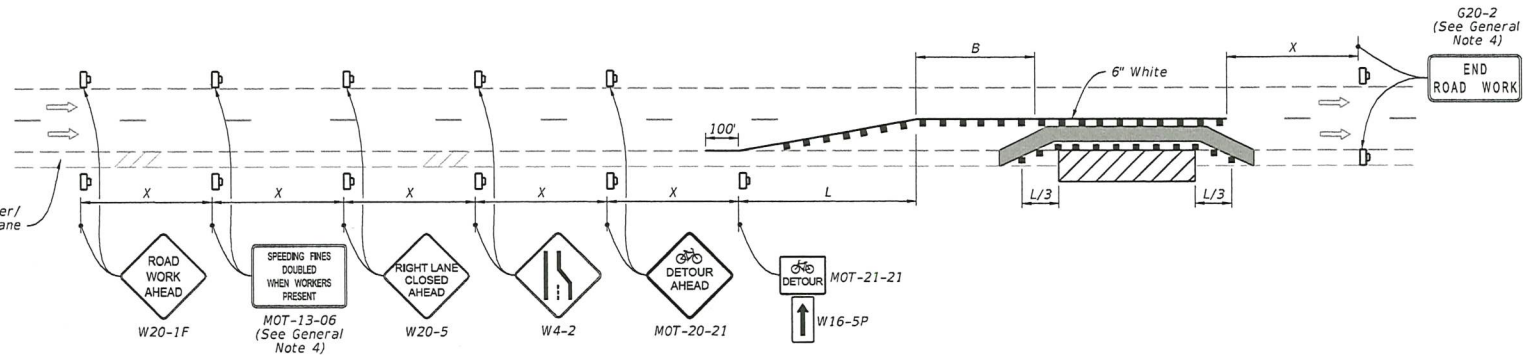
1. Temporary pavement markings may be omitted when the work operation is in place for 3 days or less.
2. If the Closed Bicycle Facility is a marked bicycle lane, use sign MOT 22-21 instead of sign W21-5a.
3. If the travel lane is less than 14' wide, use sign R4-11.

SYMBOLS:

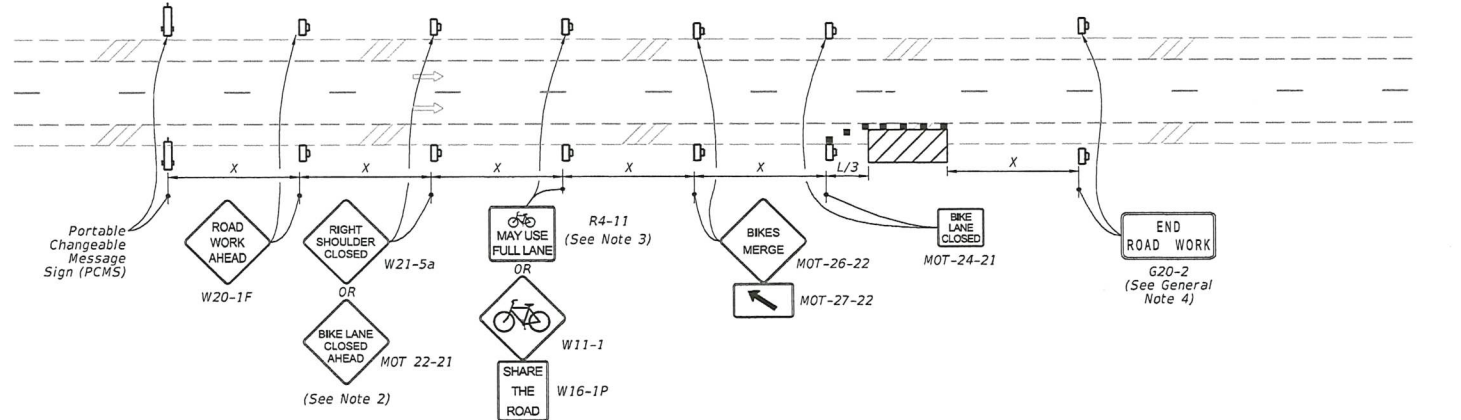
- Work Area
- Temporary Bicycle Way
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Arrow Board
- Lane Identification and Direction of Traffic
- (1) PCMS=Portable Changeable (Variable) Message Sign

TYPICAL PCMS DISPLAY:

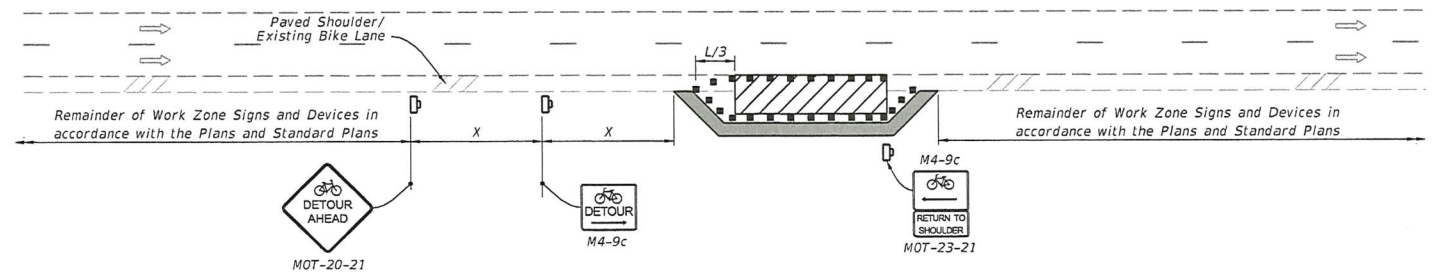
Message 1: BIKE FACILITY CLOSED
Message 2: BICYCLES ON ROAD



BICYCLE FACILITY SHIFT (With Lane Closure)



BICYCLE FACILITY SHIFT (Work Zone Speed of 35 mph or Less)



BICYCLE SPECIAL DETOUR

LAST
REVISION
11/01/21

DESCRIPTION:



FY 2023-24
STANDARD PLANS

BICYCLE FACILITY CLOSURES

Approved

2024-H-598-00086
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3/14/2024

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SHEET	TABLE OF CONTENTS
1	General Notes, TTC Tables
2	Definitions Temporary Traffic Control Devices 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 Speed Reduction Signing
4	Flagger Control Survey Work Zones Signs
5	Work Zone Sign Supports
6	Commonly Used Warning and Regulatory Signs In Work Zones
7	Manholes/Crosswalks/Joints Truck Mounted Attenuators Signals Channelizing Devices Channelizing Devices Consistency Advanced Warning Arrow Boards
8	Drop-Offs In Work Zones
9	Business Entrance Temporary Asphalt Separator
10	Channelizing Devices Notes Temporary Barrier Notes
11	Pavement Markings

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Road Type	Min. Spacing (feet)
Arterials and Collectors with Work Zone Speed ≤ 40 mph	200
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Limited Access Roadways *	1,500
* For Limited access roadways with work zone speed ≤ 55 mph, the minimum spacing may be reduced in accordance with the MUTCD and as approved by the Engineer.	

SYMBOLS:	
	Work Area
	Channelizing Device
	Work Zone Sign
	Type III Barricade
	Lane Identification and Direction of Traffic

TABLE 2 TAPER LENGTH "L"	
Work Zone Speed (mph)	Min. Length (feet)
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50	425
55	495
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70	730
Note: When Buffer Length "B" cannot be attained due to geometric constraints, use the greatest length possible, but not less than 155 feet.	

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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 runout 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:

1. 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.
2. 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. Do not store temporary traffic control devices on the shoulder, sidewalk, or other roadway facility not affected by the work when work is suspended.
3. Arrow Boards, Portable Changeable Message Signs, Radar Speed Display Trailer, Portable Regulatory Signs, and any other trailer mounted device shall be delineated with a channelizing 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.

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.

OVERHEAD WORK: (Cont.)

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 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 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:

1. 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.
2. 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:

1. 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.
2. For aboveground hazards within a work zone the clear zone required should be based on the regulatory speed posted during construction.

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 FDOT Design Manual 215.2.

TABLE 5 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
NOTE: For temporary conditions where existing curb has been removed but not reconstructed, curb and gutter values may be used.		

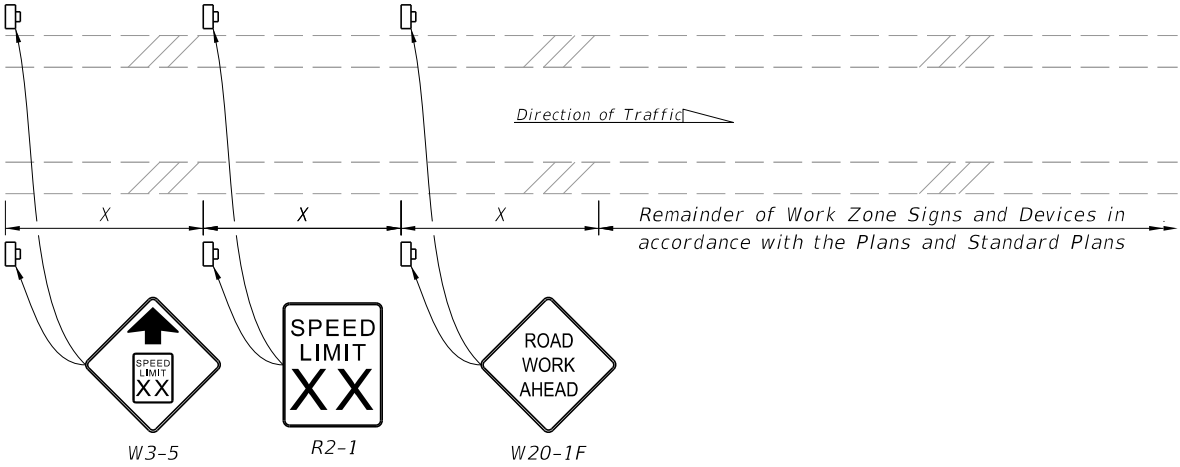
SUPERELEVATION:

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.

TABLE 6 MINIMUM RADII FOR NORMAL CROWN	
WORK ZONE POSTED SPEED	MINIMUM RADIUS
MPH	feet
70	4090
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:

For interstates and state highways with a posted speed of 55MPH or greater, lane closures must not exceed 3 miles (includes taper, buffer, and work zone) in any given direction and must not close two consecutive interchanges.



NOTES:

1. X = Work Zone Sign Spacing
2. When called for in the Plans, use this detail in accordance with the Plans and Standard Plans. Place the speed reduction signs (W3-5 and R2-1) in advance of the "Road Work Ahead" sign (W20-1F) as shown.
3. Do not use this detail in conjunction with the Motorist Awareness System.
4. For speed reductions greater than 10 MPH, reduce the speed in 10 MPH increments of 'X' distance. Do not reduce the speed below the minimum statutory speed for the class of facility.
5. Place additional "Speed Limit" signs (R2-1) at intervals of no more than one mile for rural conditions and 1,000 feet for urban conditions.
6. For undivided roadways, omit the signs shown in the median.
7. Remove temporary regulatory speed signs 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.

SPEED REDUCTION SIGNING

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. Provide minimum widths for work zone travel lanes 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 all other limited access roadways; 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.

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3/14/2024

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FLAGGER CONTROL:

Regulatory Speed (In Work Zones)

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 area so that approaching road users will have sufficient distance to stop before entering the work area. 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 102 Series of 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.

SURVEY WORK ZONES: (Cont.)

(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-retroreflectice vinyl signs may only be used for daylight operations. Non-retroreflectice 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 Indexes.

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.

SIGNS: (Cont.)

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.

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 102-600, ADJOINING AND/OR OVERLAPPING WORK ZONE SIGNING.

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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 and bicycle 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 700-013.
 - d. Bridge mounted signs per Index 700-012.

3. Use only approved systems listed on the Department's Approved Products List (APL).

5. Provide 3 lb/ft Steel U-Channel Posts with a minimum section modulus of 0.43 in^3 for 60 ksi steel, a minimum section modulus of 0.37 in^3 for 70 ksi steel, or a minimum section modulus of 0.34 in^3 for 80 ksi steel.

6. Provide 4 lb/ft Steel U-Channel Posts with a minimum section modulus of 0.56 in^3 for 60 ksi steel, or a minimum section modulus of 0.47 in^3 for 70 ksi or 80 ksi steel.

7. 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.

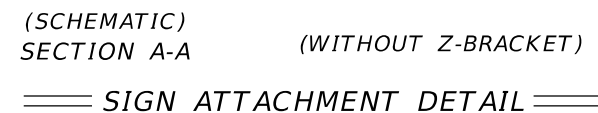
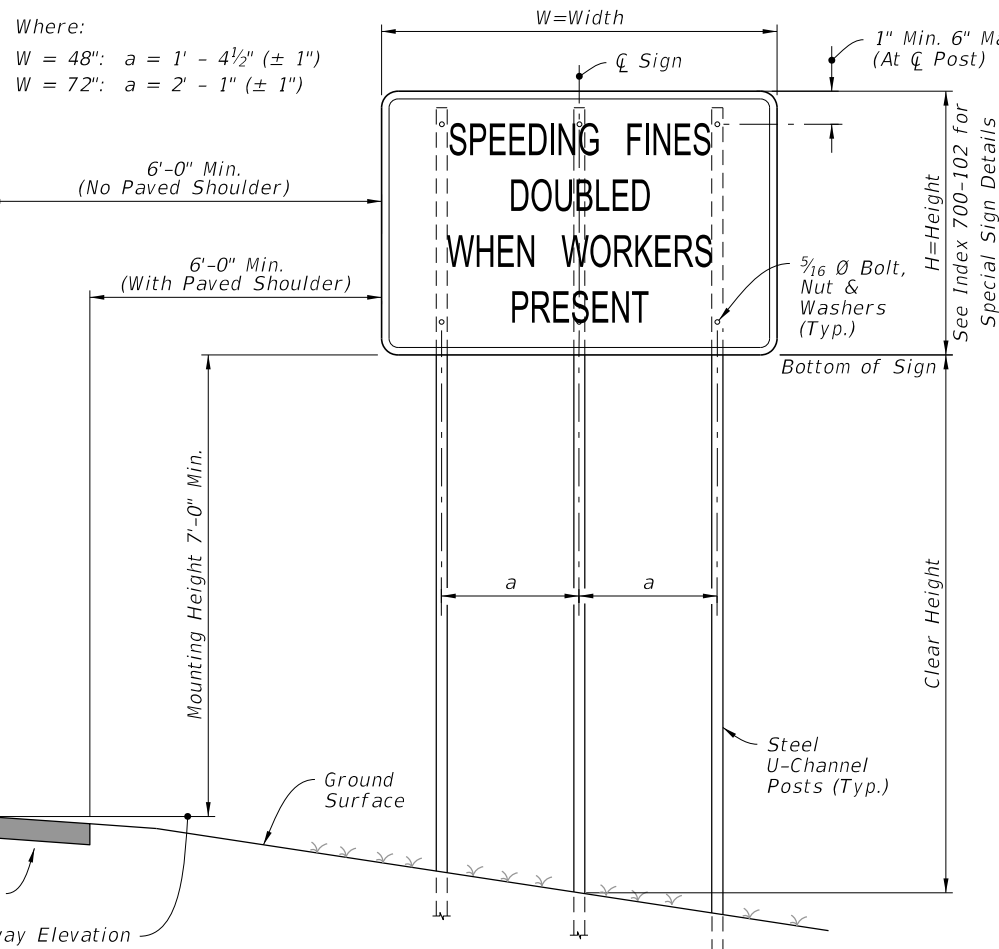
8. Sign attachment bolts, washers, nuts, and spacers shall conform with ASTM A307 or A 36.

9. Install 4 lb/ft Steel U-Channel Posts with approved breakaway splice in accordance with the manufacturer's detail shown on the APL.

10. 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.

11. Install all posts plumb.

12. 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.



<i>SIGN SHAPE</i>	<i>SIGN SIZE (inches)</i>	<i>NUMBER OF STEEL U CHANNEL POSTS</i>
<i>Octagon</i>	30x30	1
<i>Triangle</i>	36x36x36	1
	48x48x48	1
	60x60x60	2
<i>Rectangle (W x H)</i>	24x18	1
	24x30	1
	30x24	1
	36x18	1
	36x24	1
	48x18	1
	48x24	1
	36x48	2
	48x30	2
	48x36	2
	54x36	2
	48x60	3
<i>Square</i>	72x48	3
	30x30	1
	36x36	2
<i>Diamond</i>	48x48	2
<i>Circle</i>	36Ø	2

Notes For Table:

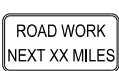
- 1. Use 3 lb/ft posts for Clear Height up to 10' and 4 lb/ft posts for Clear Height up to 12'.*
- 2. Minimum foundation depth is 4.0' for 3 lb/ft posts and 4.5' for 4 lb/ft posts.*
- 3. For both 3 lb/ft and 4 lb/ft base or sign posts installed in rock, a minimum cumulative depth of 2' of rock layer is required.*
- 4. The soil 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.*
- 5. For diamond warning signs with supplement plaque (up to 5 ft² in area), use 4 lb/ft posts for up to 10 ft Clear Height (measure to the bottom of diamond warning sign).*



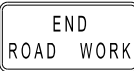
E5-2
B/O



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



R4-11
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



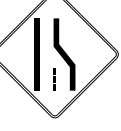
W3-4
B/O



W3-5
B/O



W4-1
B/O



W4-2
B/O



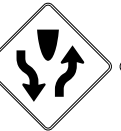
W5-1
B/O



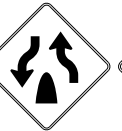
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B/O



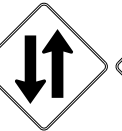
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B/O



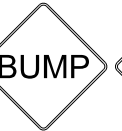
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B/O



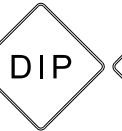
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B/O



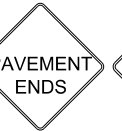
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B/O



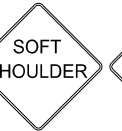
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B/O



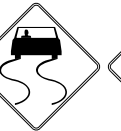
W8-2
B/O



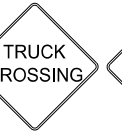
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B/O



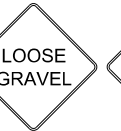
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B/O



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



W8-15P
B/O



W9-1L
B/O



W9-1R
B/O



W9-2L
B/O



W9-2R
B/O



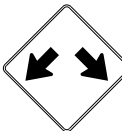
W10-1
B/O



W11-1
B/O



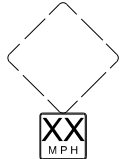
W11-2
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W12-1
B/O



W12-2
B/O



W13-1
B/O



W13-1
B/O



W16-1P
B/O



W16-2P
B/O



W16-7P
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



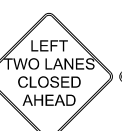
W20-2E
B/O



W20-3
B/O



W20-4
B/O



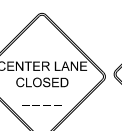
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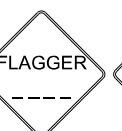
W20-5L
B/O



W20-5R
B/O



W20-5C
B/O



W20-7A
B/O



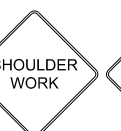
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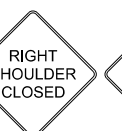
W21-1A
B/O



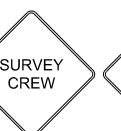
W21-1
B/O



W21-5
B/O



W21-5a
B/O



W21-6
B/O



W21-7
B/O



W22-1
B/O



W22-2
B/O



W22-3
B/O

NOTES:

1. The size of diamond shaped Temporary Traffic Control (TTC) warning signs shall be a minimum of 48" X 48".
2. Fluorescent orange shall be used for all orange colored work zone signs.
3. The sign shields, symbols and messages contained on this sheet are provided for ready reference to those signs used in the development of the 102 Series of Indexes 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.

The sign codes shown on this sheet are for the purpose of identifying cell names found in the Traffic Control Cell Library (TCZ.Cel).

The STANDARD HIGHWAY SIGNS MANUAL should be referenced for the official sign codes for use in the development of traffic control plans.

See Index 700-102 for MOT sign details.

COLOR CODES:

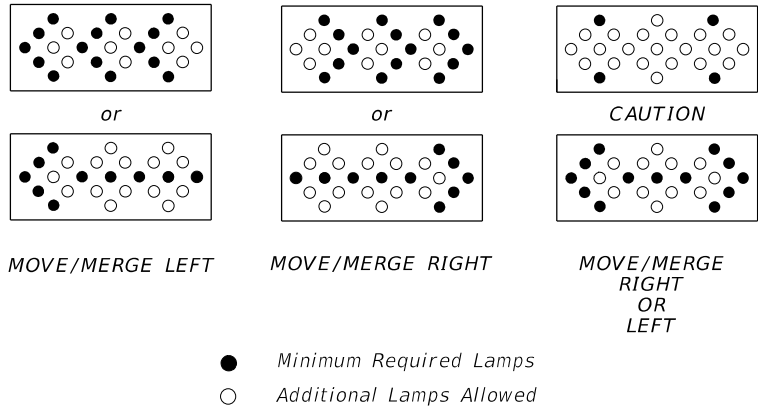
Legend and/or
Symbol Background

R-Red (Reflectorized)
Y-Yellow (Reflectorized)
G-Green (Reflectorized)
O-Orange (Reflectorized)
B-Black (Non-Reflectorized)
W-White (Reflectorized)

COMMONLY USED WARNING AND REGULATORY SIGNS IN WORK ZONES

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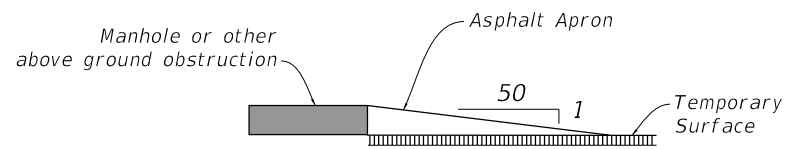
NOTES:
An arrow board in the arrow or chevron mode shall be used only for stationary or moving lane closures on multilane roadways.

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.

ADVANCE WARNING ARROW BOARDS

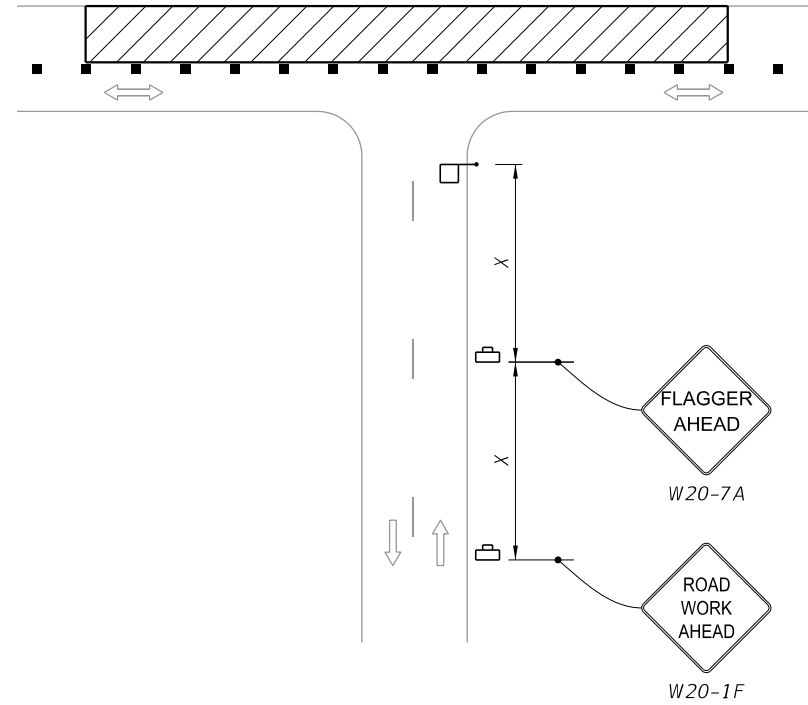


NOTES:
Manholes extending 1" or more above the travel lane and crosswalks having an uneven surface greater than 1/4" shall have a temporary asphalt apron constructed as shown above.

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

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.

MANHOLES/CROSSWALKS/JOINTS



NOTE:
Optionally, use "Flagger Ahead" sign with text (W20-7A) instead of "Flagger Ahead" sign with symbol (W20-7).

SIDE ROAD INTERSECTING THE WORK ZONE

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

Refer to Specification 102-9 for additional information.

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 the 102 Series of Indexes. Lighting Devices must not be used to supplement channelization. Omit tapers and channelizing devices for paved shoulders less than 4' in width.

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.

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 102-607. For short-term, stationary operations, see Part VI of the MUTCD.

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11/01/21	



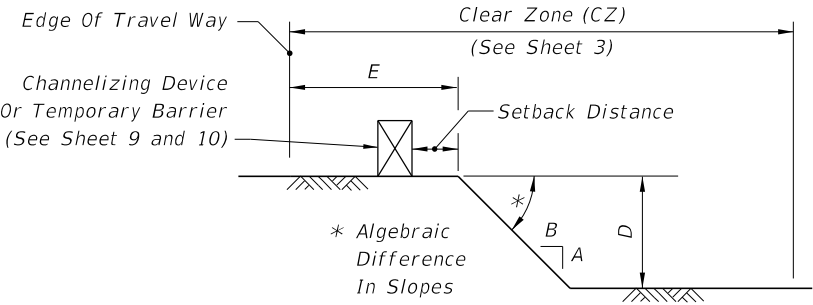
FY 2024-25
STANDARD PLANS

GENERAL INFORMATION FOR TRAFFIC
CONTROL THROUGH WORK ZONES

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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 8). 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. In superelevated sections, the algebraic difference in slopes should not exceed 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, LS. Use of this treatment in lieu of a temporary 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. For Setback Distance, refer to the Index or Approved Products List (APL) drawing of the selected barrier.
- 5. For Conditions 1 and 3 provided in Table 8, any drop-off condition that is created and restored within the same work period will not be subject to use of temporary barriers; however, channelizing devices will be required.
- 6. When permanent curb heights are ≥ 6", no channelizing device will be required. For curb heights < 6", see Table 8.

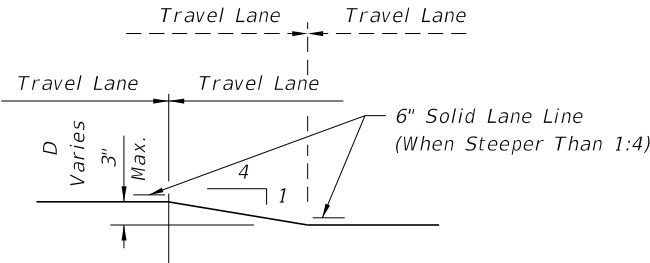


DROP-OFF CONDITION DETAIL

Table 8 Drop-off Protection Requirements			
Condition	E (ft)	D (in.)	Device Required
1	0-12	> 3	Temporary Barrier
2	> 12-CZ	> 3 to ≤ 5	Channelizing Device
3	0-CZ	> 5	Temporary Barrier
4	Removal of Bridge or Retaining Wall Barrier		Temporary Barrier
5	Removal of portions of Bridge Deck		Temporary Barrier

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 ½ mile maximum.
- 3. If D is 1½" 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 WAY DROP-OFF CONDITION NOTES

- 1. A pedestrian 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 way
 - b. a slope steeper than 1:2 that begins closer than 2' from the edge of the pedestrian way when the total drop-off is greater than 60"
- 2. Protect any drop-off adjacent to a pedestrian way with pedestrian longitudinal channelizing devices, temporary barrier wall, or approved handrail.

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DROP-OFFS IN WORK ZONES

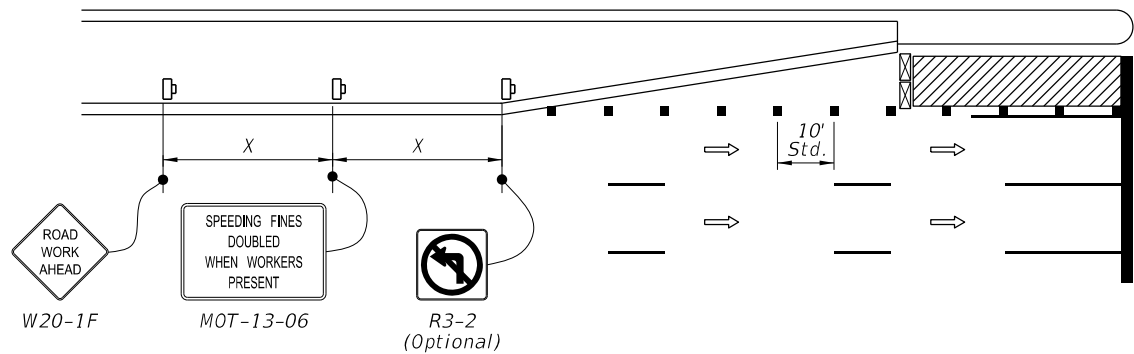
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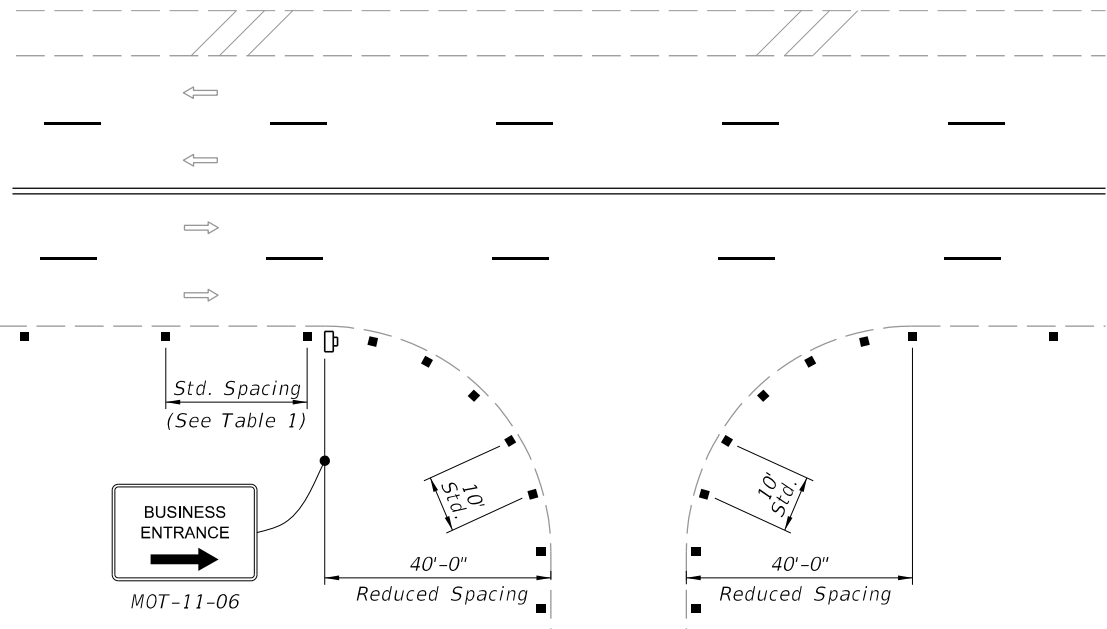
FY 2024-25
STANDARD PLANS

GENERAL INFORMATION FOR TRAFFIC
CONTROL THROUGH WORK ZONES



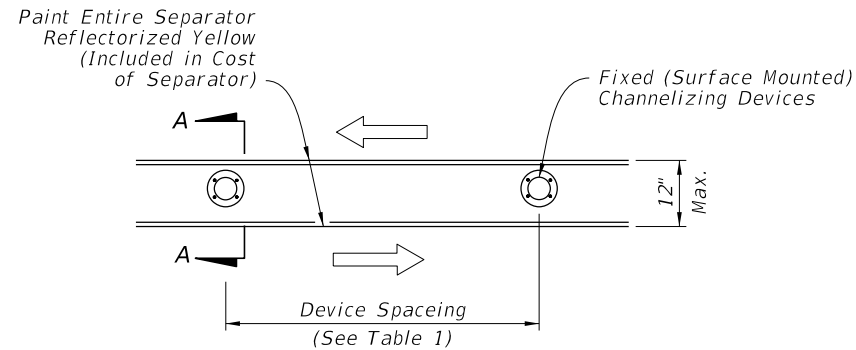
- NOTES:**
1. X = Work Zone Sign Spacing (See Table 3).
 2. The *SPEEDING FINES DOUBLE WHEN WORKERS PRESENT* sign (MOT-13-06) may be omitted when work operation will be in place for 24 hours or less.

AUXILIARY LANE CLOSURE

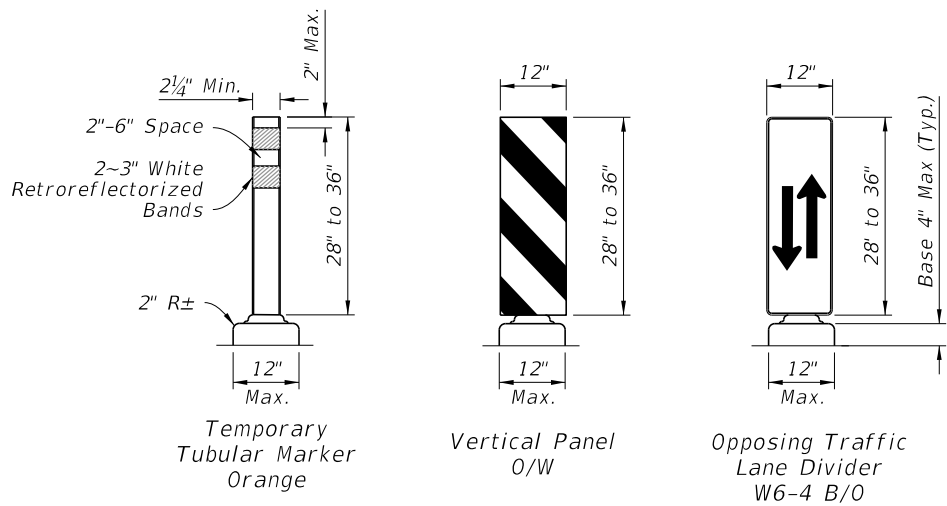


- NOTES:**
1. For single business entrances, place one 24" x 36" *BUSINESS ENTRANCE* sign (MOT-11-06) showing the specific business name for each affected driveway entrance. Logos may be provided by business owners. Standard *BUSINESS ENTRANCE* sign (MOT-11-06) may be used when approved by the Engineer.
 2. When several businesses share a common driveway entrance, place one 24" x 36" standard *BUSINESS ENTRANCE* sign (MOT-11-06) in accordance with Index 700-102 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.

BUSINESS ENTRANCE SIGNS AND CHANNELIZING DEVICES PLACEMENT AT BUSINESS ENTRANCE



PLAN



SECTION A-A

- NOTES:**
1. Temporary lane separators shall be supplemented with any of the following approved fixed (surface mounted) channelizing devices: temporary 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. Temporary 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.

FIXED CHANNELIZING DEVICES (Temporary Lane Separators)

Approved
2024-H-590-00066
William Rickard
3/14/2024
INDEX
102-600
SHEET
9 of 11
Page 52 of 71



FY 2024-25
STANDARD PLANS

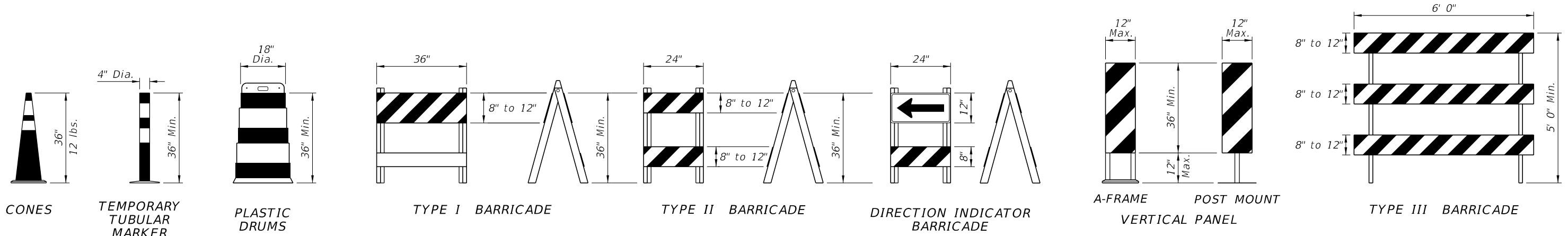
GENERAL INFORMATION FOR TRAFFIC
CONTROL THROUGH WORK ZONES

LAST
REVISION
11/01/23

DESCRIPTION:

10/3/2023 10:54:35 AM

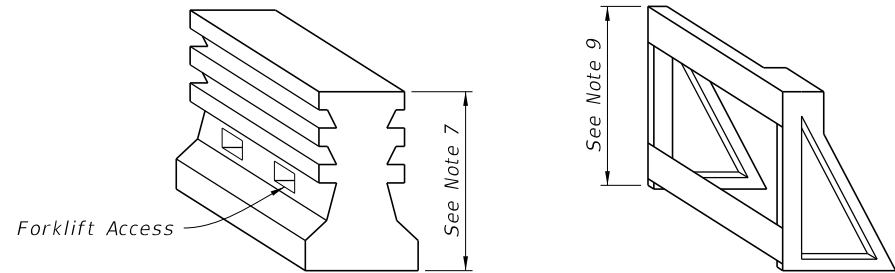
10/3/2023 10:54:42 AM



CHANNELIZING DEVICES

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 Approved Products List (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 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.
 - Be reflectorized as per the MUTCD with Department-approved reflective collars when used at night.
- 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.

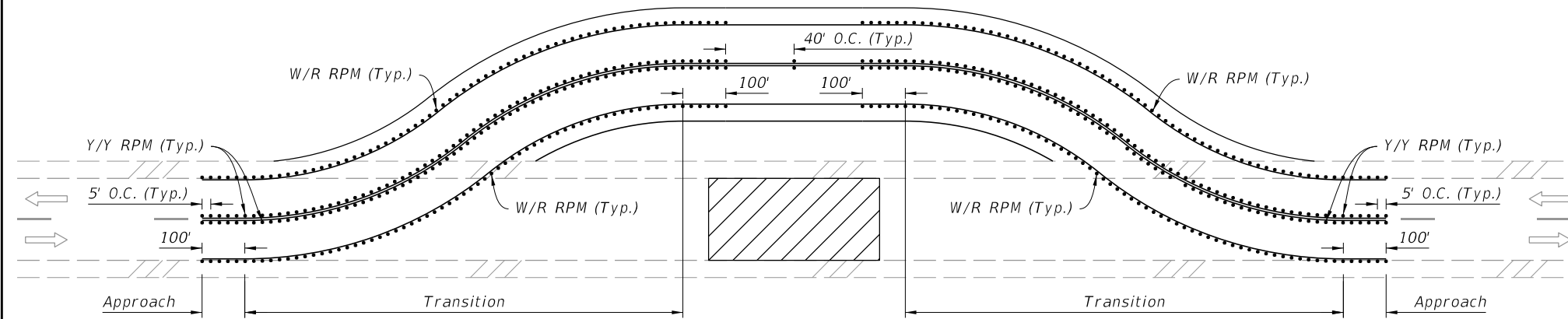


PEDESTRIAN LONGITUDINAL CHANNELIZING DEVICES

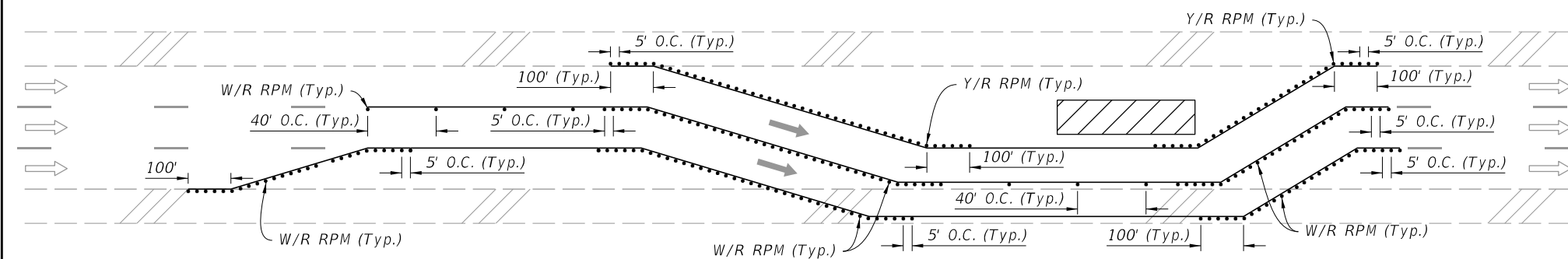
TEMPORARY BARRIER NOTES:

- Where a barrier is specified, any of the types below may be used in accordance with the applicable Index:

Index	Description
102-100	Temporary Barrier
102-120	Low Profile Barrier
536-001	Guardrail
- Trailer Mounted Barriers may be used to provide positive protection for workers within the work areas. APL drawings may be used as a guide to develop project specific Temporary Traffic Control Plans that are signed and sealed by the Contractor's Engineer.



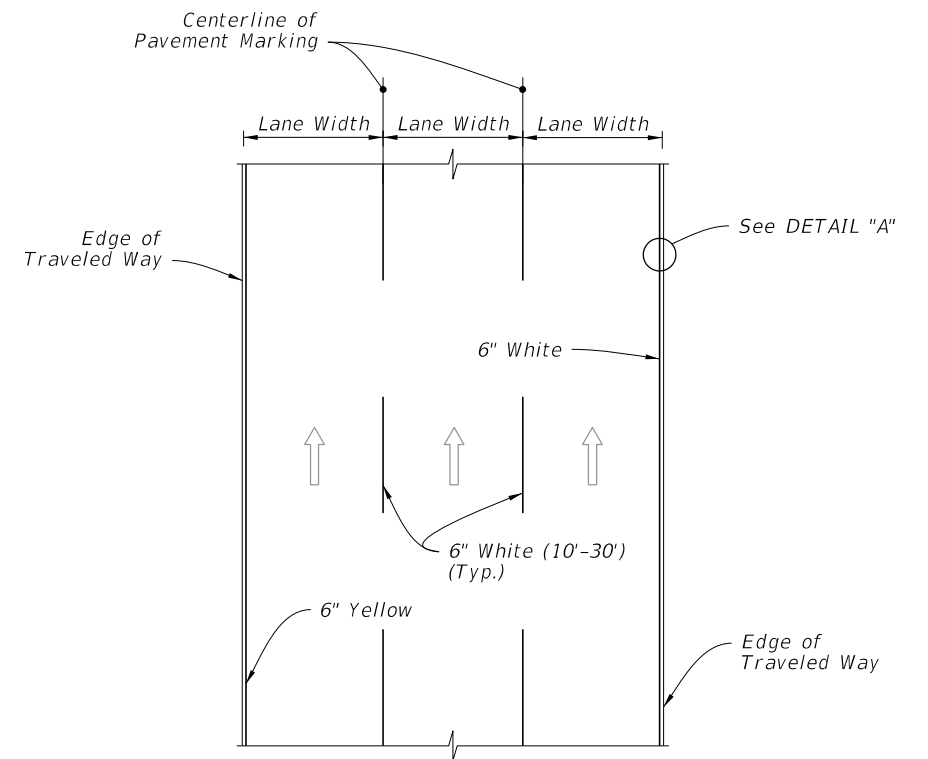
RPM PLACEMENT ON TWO-LANE ROADWAYS



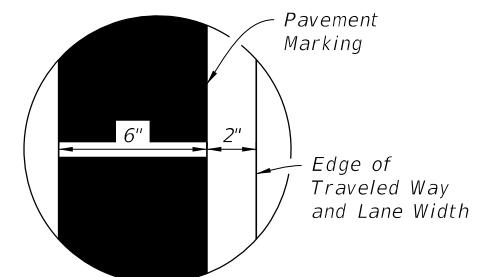
RPM PLACEMENT ON MULTILANE ROADWAYS
(Lane Shift Shown, Other Multilane Typical Applications Similar)

NOTES:

1. Install RPMs as a supplement to:
 - a. All lane lines
 - b. Edge lines in transitions (e.g., merges, diversions, lane shifts)
 - c. Edge lines of gore areas
2. Extend pavement marking and 5' RPM spacing by 100' in each direction for all transitions regardless of the line type.
3. Place RPMs in accordance with this detail and Index 706-001.



PLAN VIEW



DETAIL "A"

RPM PLACEMENT IN WORK ZONES

PAVEMENT MARKINGS PLACEMENT



Office Address:

1100 Technology Place, Suite 122

West Palm Beach, Florida 33407

Phone: (561) 932-1070

Fax: (561) 228-8918

To:	City Of Cocoa Beach	Contact:	Brad Kalsow
Address:	Cocoa Beach, FL	Phone:	
		Fax:	
Project Name:	Cocoa Beach Repair - FDOT 3115,1801 S. Atlantic Ave.	Bid Number:	24-02161
Project Location:		Bid Date:	3/15/2024

Item Description	Estimated Quantity	Unit	Unit Price	Total Price
------------------	--------------------	------	------------	-------------

General Conditions

Mobilization / Supervision / General Conditions	1.00	LS	\$8,345.00	\$8,345.00
Total Price for above General Conditions Items:				\$8,345.00

3115 S. Atlantic Ave.

Maintenance Of Traffic	1.00	LS	\$3,805.00	\$3,805.00
Concrete Removal & Disposal	100.00	SF	\$23.00	\$2,300.00
Remove & Dispose Existing Sanitary Sewer Main	1.00	LS	\$7,190.00	\$7,190.00
8" SDR26 PVC Sewer (8')	1.00	EACH	\$6,825.00	\$6,825.00
Connect To Existing Sewer Main	2.00	EACH	\$1,125.00	\$2,250.00
8" Baserock	18.00	SY	\$177.00	\$3,186.00
Concrete Sidewalk Replacement	1.00	EACH	\$3,505.00	\$3,505.00
Restoration And Sod	1.00	EACH	\$3,685.00	\$3,685.00
Total Price for above 3115 S. Atlantic Ave. Items:				\$32,746.00

1801 S. Atlantic Ave

Maintenance Of Traffic	1.00	LS	\$3,800.00	\$3,800.00
Concrete Removal & Disposal	160.00	SF	\$18.00	\$2,880.00
Remove & Dispose Existing Sanitary Sewer Main	1.00	LS	\$7,190.00	\$7,190.00
8" SDR26 PVC Sewer Deep (8')	1.00	EACH	\$6,825.00	\$6,825.00
Connect To Existing Sewer Main	2.00	EACH	\$1,125.00	\$2,250.00
8" Baserock	22.00	SY	\$145.00	\$3,190.00
Concrete Sidewalk Replacement	1.00	EACH	\$5,030.00	\$5,030.00
Restoration And Sod	1.00	EACH	\$3,685.00	\$3,685.00
Total Price for above 1801 S. Atlantic Ave Items:				\$34,850.00

Total Bid Price: \$75,941.00

Notes:

- Not responsible for Permits, Fees, Density Testing, Bonds or Soil Conditioning.
- Any other items not specifically mentioned in this proposal are excluded
- This estimate is based on information provided. If found to be inaccurate, price is subject to change.
- Design changes during the duration of the project are subject to change order.
- Dewatering permit is NOT included. If required, we will provide pump data to the Engineer of Record for obtaining this permit.
- Not responsible for any Franchise Utility Relocation/Pole Holds and/or conflict with existing utilities.
- Should a vac truck be deemed necessary, it is to be provided by the city of Cocoa Beach.
- These prices are based on ONE standard Mobilization. Additional mobilizations will be priced accordingly
- All FDOT Permitting and Fees to be acquired and paid for by the City

ACCEPTED:

The above prices, specifications and conditions are satisfactory and are hereby accepted.

Buyer: _____

Signature: _____

Date of Acceptance: _____

CONFIRMED:

CK Contractors & Development Florida

Authorized Signature: _____

Estimator: PJK

City of Cocoa Beach City Commission Agenda Item Summary

**DEPARTMENT MAKING
REQUEST/NAME:**

Finance /
Karin Grooms, City Clerk

MEETING DATE

April 4, 2024

REQUESTED MOTION/ACTION

Approve Resolution 2024-06 to amend the Fiscal Year 2023-2024 Budget estimates of revenues and expenditures based upon staff recommendations

Representative: Patrisha Draycott, Chief Financial Officer

Recommendation: Approve

IS THIS ITEM BUDGETED (IF APPLICABLE)?

BACKGROUND:

1. The City of Cocoa Beach Fire Department received a donation in the amount of \$16,000 to be used for the specific purpose of purchasing a jetski and trailer.
2. City staff secured additional grant funding for the McNabb Outfall Bioretention Project and the Ramp Road Parking Lot Stormwater improvements. The additional funding is from Save Our Indian River Lagoon Program and the State .

Florida Statutes, Section 166.241(4) requires the governing body to amend the budget in the same manner as the original budget was adopted.

General Fund		
Account Number	Description	Amount
001-2820-366.20-20	Donations	16,000
001-2820-522.64-20	Capital Equipment	16,000

Stormwater Fund		
Account Number	Description	Amount
441-4400-337.35-00	Local/County Grants	2,401
441-4400-331.35-00	Federal Grants	110,091
441-4420-538.63-20	Improvements Other Than Buildings	12,492
441-4420-538.31-00	Professional Services	100,000

RESOLUTION NO. 2024-06

A RESOLUTION OF THE CITY OF COCOA BEACH, FLORIDA, ADOPTING AN AMENDMENT TO THE ANNUAL OPERATING BUDGET FOR FISCAL YEAR 2023-2024 WHICH BEGINS OCTOBER 1, 2023 AND ENDS SEPTEMBER 30, 2024, INCLUDING ADJUSTMENTS FOR REVENUES AND EXPENDITURES; PROVIDING FOR LEGISLATIVE FINDINGS AND INTENT; PROVIDING FOR IMPLEMENTING ADMINISTRATIVE ACTIONS BY THE CITY MANAGER; AND PROVIDING FOR SCRIVENER'S ERRORS, CONFLICTS, SEVERABILITY, AND EFFECTIVE DATE.

WHEREAS, The City Commission has adopted the 2023-2024 Budget; and

WHEREAS, The City of Cocoa Beach has determined that the 2023-2024 Budget estimates of revenues and expenditures require amendments based upon staff recommendations; and

WHEREAS, the 2023-2024 budgets for General Fund and Stormwater Fund require amendments to reflect adjustments to the revenues and expenditures as described in Exhibit #1, which is attached, is necessary; and

WHEREAS, The City Commission hereby finds and concludes that the actions taken herein are consistent with sound and generally accepted public management and finance principles and serve an important public purpose;

WHEREAS, Florida Statutes, Section 166.241(4) requires the governing body to amend the budget in the same manner as the original budget was adopted; and

NOW, THEREFORE, BE IT RESOLVED BY THE COCOA BEACH CITY COMMISSION, AS FOLLOWS:

SECTION 1. Legislative Findings and Intent. The City Commission of the City of Cocoa Beach directs the City Manager or her designee to make the necessary budget amendments as described in Exhibit #1.

SECTION 2. Implementing Administrative Actions. The City Manager is hereby authorized and directed to take such actions as she may deem necessary and appropriate in order to implement the provisions of this Resolution. The City Manager may, as deemed appropriate, necessary and convenient, delegate the powers of implementation as herein set forth to such City employees as deemed effectual and prudent.

SECTION 3. Scrivener's Errors. Typographical errors and other matters of a similar nature that do not affect the intent of this Resolution, as determined by the City Clerk and City Attorney, may be corrected.

SECTION 4. Conflicts. All resolutions or parts of resolutions in conflict with any of the provisions of the Resolution are hereby repealed.

SECTION 5. Severability. If any Section or portion of a Section of this Resolution proves to be invalid, unlawful, or unconstitutional, it shall not be held to be invalidate or impair the validity, force, or effect of any other Section or part of this Resolution.

SECTION 6. Effective Date. This Resolution shall become effective immediately upon its passage and adoption.

Upon **MOTION** by Commissioner _____, and Seconded by Commissioner _____, this Resolution was duly adopted at a Regular Meeting of the City Commission of the City of Cocoa Beach, Florida held on the _____ day of April 04, 2024.

Ayes: _____
Nays: _____
Absent or Abstaining: _____

Keith Capizzi
Mayor-Commissioner

ATTEST:

Karin Grooms, MPA, CMC
City Clerk

Resolution 2024-06

BUDGET AMENDMENT/ADJUSTMENT FORM

Use this form to adjust current year budget accounts.

Date: 2/23/24

Department: Fire

- ☐ Mid-Year Amendment Request
☐ Year End Amendment Request
☒ Other Amendment Request

Proposed amendment must be balanced.

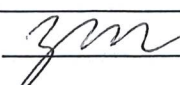
- Moving within expense accounts? Increase one expense account and decrease an expense account
- Increase a revenue account? Increase a revenue account and a corresponding expense account
- Reduction in revenue account? Reduce revenue account and reduce corresponding expense account

Transfer from				
Account Name	Account #	Current Budget Amount	Amendment Amount	New Total Budget Amount
Other/Donations/Other	001-2820-366.20-20	0	16,000	16000
Transfer to				
Account Name	Account #	Current Budget Amount	Amendment Amount	New Total Budget Amount
Machinery & Equipment	001-2820-522.64-20	15334.60	16000	31334.60
		15,373		31,373

Justification:

\$16,000.00 donation received for new jetski and trailer.

Requested by: Signature:  Title: Deputy Chief Date: 2/26/2024	Approval(s): Finance Director:  Signature City Manager:  Signature Date: 2/28/24
--	--

Finance Review:  2/26/24

COCOA BEACH FIRE DEPARTMENT MEMORANDUM



TO: Finance Department

FROM: Fire Department

SUBJECT: Donation from Drown Zero

DATE: January 31, 2024

On January 31st, 2024, The Drown Zero Association donated \$16,000.00 (via check) to the Cocoa beach Fire Department, to provide funding for a jet ski and trailer.

*Fire Donation
Code - 001-2820-366-20-20*

"An ISO Class-II Fire Department"

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THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND ON WHITE PAPER AND ORIGINAL DOCUMENT SECURITY SCREEN ON BACK WITH PADLOCK SECURITY ICON.



DROWN ZERO INTERNATIONAL

63-9138/2631

51

501c3
7 Colonial Dr
Cocoa Beach, Florida
321-704-0151

PAY
TO THE
ORDER OF

Cocoa Beach Fire Dept.

DATE

1/29/24

\$ 16,000.00

DOLLARS

Trust

MEMO

Jet Ski Trailer



AUTHORIZED SIGNATURE

⑈000051⑈ ⑆263191387⑆1100026429895⑈

Security features included. Details on back.

RIVA Space Coast

480 N Washington Ave

Titusville FL 32796

321-269-5941

CITY OF COCOA BEACH

50 S ORLANDO AVE
COCOA BEACH FL 32932

H W

Buyer's Order

Date 02/27/2024
Deal No. 99014337
Salesperson Shane Hildy
Lienholder DEFAULT

C 321-868-3328

Email JGRIMES@CITYOFCOCOABEACH.COM

I hereby agree to purchase the following unit(s) from you under the terms and conditions specified. Delivery is to be made as soon as possible. It is agreed, however, that neither you nor the manufacturer will be liable for failure to make delivery.

Unit Information

New/U	Year	Make	Model	Serial No.	Stock No.	Dealer Retail Price
New	2024	YAMAHA	VX1900CAA	YAMA4567A424	YW802987	\$11,994.75
New	2024	MAGIC TILT	PWCV1250A	1M5BA1014R1E45144	MT45144	\$1,999.00

Options:

Unit(s) Price	\$13,993.75
Freight	\$595.00
Dealer Prep / Rigging Fee	\$560.00
Net Sale	\$15,148.75
 Tire & Battery Waste Tax	 \$3.50

Electronic Filing Fee \$128.10

Title/License/Registration Fees \$55.25
Document Fees \$0.00
Sales Tax \$0.00

Cash Price \$15,335.60
Trade Allowance \$0.00
Payoff \$0.00
Net Trade \$0.00

Notes:

Sub Total \$15,335.60
Cash Down Payment \$0.00

Amount to Pay/Finance \$15,335.60

Trade Information

**** ALL SALES FINAL ****

**** Price includes all rebates / incentives.****

** Receipt of a filled in copy of this agreement is hereby acknowledged by purchaser. The matter printed above is the entire agreement expressed in writing. Signature indicates acceptance to its terms. Signature certifies buyer is of legal age. All used vehicles sold 'As Is'. NO REFUNDS OR LAYAWAYS.

** Above prices reflect cash payment only. Additional fees may be added for other forms of payment.

NOTICE TO BUYER: (1) Do not sign this agreement before you read it or if it contains any blank spaces to be filled in. (2) You are entitled to a completely filled in copy of this agreement. (3) If you default in the performance of your obligations under this agreement, the vehicle may be repossessed and you may be subject to suit and liability for the unpaid indebtedness evidenced by this agreement.

TRADE-IN NOTICE: Customer represents that all trade in units described above are free of all liens and encumbrances except as noted.

*With Approved Credit. Interest rates and monthly payment are approximate and may vary from those determined by the lender.

Customer Signature _____ Dealer Signature _____

Thank You for Your Business!

RIVA Space Coast
480 N Washington Ave
Titusville FL 32796
321-269-5941

CITY OF COCOA BEACH

Buyer's Order

Date 02/16/2024
Deal No.
Salesperson Shane Hildy
Lienholder CASH NO DOC STAMP
Email JGRIMES@CITYOFCOCOABEACH.COM

50 S ORLANDO AVE
COCOA BEACH FL 32932

H W C 321-868-3328

I hereby agree to purchase the following unit(s) from you under the terms and conditions specified. Delivery is to be made as soon as possible. It is agreed, however, that neither you nor the manufacturer will be liable for failure to make delivery.

Unit Information

New/U	Year	Make	Model	Serial No.	Stock No.	Dealer Retail Price
New	2024	YAMAHA	VX1900CAA			\$11,994.75
New	2024	MAGIC TILT	PWCV1250A			\$1,999.00

Options:

Unit(s) Price	\$13,993.75
Freight	\$595.00
Dealer Prep / Rigging Fee	\$560.00
Net Sale	\$15,148.75
 Tire & Battery Waste Tax	 \$3.50

Electronic Filing Fee \$128.10

Title/License/Registration Fees \$110.25
Document Fees \$0.00
Sales Tax \$0.00

Cash Price \$15,390.60
Trade Allowance \$0.00
Payoff \$0.00
Net Trade \$0.00

Notes:

Sub Total \$15,390.60
Cash Down Payment \$0.00

Amount to Pay/Finance \$15,390.60

Trade Information

**** ALL SALES FINAL ****

**** Price includes all rebates / incentives.****

**** Receipt of a filled in copy of this agreement is hereby acknowledged by purchaser. The matter printed above is the entire agreement expressed in writing. Signature indicates acceptance to its terms. Signature certifies buyer is of legal age. All used vehicles sold 'As Is'. NO REFUNDS OR LAYAWAYS.**

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NOTICE TO BUYER: (1) Do not sign this agreement before you read it or if it contains any blank spaces to be filled in. (2) You are entitled to a completely filled in copy of this agreement. (3) If you default in the performance of your obligations under this agreement, the vehicle may be repossessed and you may be subject to suit and liability for the unpaid indebtedness evidenced by this agreement.

TRADE-IN NOTICE: Customer represents that all trade in units described above are free of all liens and encumbrances except as noted.

*With Approved Credit. Interest rates and monthly payment are approximate and may vary from those determined by the lender.

Customer Signature _____ Dealer Signature _____

Thank You for Your Business!

Resolution 2024-06

BUDGET AMENDMENT/ADJUSTMENT FORM

Use this form to adjust current year budget accounts.

Date: 3/25/24

Department: Public Works

- ☐ Mid-Year Amendment Request
☐ Year End Amendment Request
☒ Other Amendment Request

Proposed amendment must be balanced.

- Moving within expense accounts? Increase one expense account and decrease an expense account
- Increase a revenue account? Increase a revenue account and a corresponding expense account
- Reduction in revenue account? Reduce revenue account and reduce corresponding expense account

Increase				
Account Name	Account #	Current Budget Amount	Amendment Amount	New Total Budget Amount
Brevard County	441-4400-337.35-00	602,500	2,401	604,901
Federal Grants	441-4400-331.35-00	325,000	110,091	435,091
Increase				
Account Name	Account #	Current Budget Amount	Amendment Amount	New Total Budget Amount
Imp-other than buildings / Infrastructure	441-4420-538.63-20	1,850,000	12,492	1,862,492
Professional Services	441-4420-538.31-00	750,000	100,000	850,000

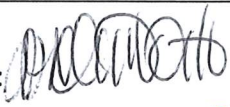
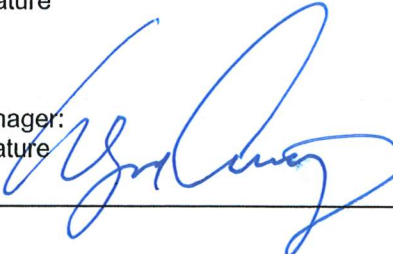
823,716

923,716

2,260,723

Justification:

City staff has secured additional grant funding for McNabb Outfall Bioretention Project and Ramp Road Parking Lot and Stormwater Improvements. The previous budget adjustment for the grants we received was approved on January 4, 2024. We have received an additional \$12,492 for McNabb Outfall Bioretention Project and \$100,000 for Ramp Road Parking Lot and Stormwater Improvements design. The additional funding is from the Save Our Indian River Lagoon Program and State American Rescue Plan Act (ARPA) funds from the Florida Department of Environmental Protection.

Requested by: Signature:  Title: Staff Engineer Date: 3/25/24	Approval(s): Finance Director:  25 March 2024 Signature: _____ Date: _____ City Manager:  3/25/24 Signature: _____ Date: _____
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**STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
GRANT WORK PLAN
DEP AGREEMENT NO.: MN042**

ATTACHMENT 3

PROJECT TITLE: City of Cocoa Beach Stormwater Improvement Projects

PROJECT LOCATION: The Project will be located in the City of Cocoa Beach within Brevard County.

PROJECT BACKGROUND: In 2021, DEP updated the Basin Management Action Plans (BMAPs) for implementation of the Total Maximum Daily Loads (TMDLs) for the North Indian River Lagoon, Central Indian River Lagoon, and the Banana River Lagoon requiring nutrient load reductions of nitrogen and phosphorus. On January 19, 2023, Governor Ron DeSantis announced nearly \$20 million to support water quality improvement projects along the Indian River Lagoon (IRL). The projects will help collect stormwater runoff and treat it to reduce the amount of pollutants and nutrients that enter the IRL.

In February 2013, the Florida Department of Environmental Protection adopted a BMAP for implementation of the TMDLs for the Banana River Lagoon (BRL) requiring nutrient load reductions of nitrogen and phosphorus. This planned water quality project will assist the City in striving to meet the pollutant removal allocation required by the BMAP. This project is designed to provide removal efficiencies that help meet TMDL requirements for the BRL and will provide a net water quality benefit to the IRL.

PROJECT DESCRIPTION: All projects in this work plan will help Brevard County reduce nutrient loadings to the IRL that will ultimately help meet the TMDL requirements for the IRL.

The Grantee does not anticipate that the funding under this Agreement for Task 1 will result in a fully completed project. Since design and permitting for this project is nearly complete, the funds associated with this Agreement will be used for construction, monitoring, and/or education.

The Grantee anticipates that the funding under this Agreement for Task 2 will result in a fully completed project

TASKS: All documentation should be submitted electronically unless otherwise indicated.

TASK 1

TASK TITLE: McNabb Outfall Bioretentions

TASK LOCATION: The Project will be in the City of Cocoa Beach within Brevard County; Capri Rd. (28.325432, -80.61627); Naish Ave. (28.323447, -80.616452).

TASK DESCRIPTION: In two separate basins (~7.49ac and ~10.18ac) totaling 17.67 acres in a low density residential neighborhood in Cocoa Beach, curbs intercept sheet flow and lead water to flumes which outfall directly into the BRL. The BRL is where most of the seagrass loss in the Indian River Lagoon has occurred, as well as where most of the algae blooms and fish kills have happened.

Currently nonpoint source pollution comes from the roadway and properties in this low density residential area. This pollution flows directly into the BRL via two separate flumes with no treatment. Task 1 will reduce the amount of directly connected impervious area and the associated stormwater runoff. This will

reduce nutrient loading to the BRL by creating two bioretention areas that will be lined with biosorption activated media (BAM) and planted with native Florida plants. This will also greatly reduce the canal/lagoon discharge, as well as reducing both the storm runoff volume – and nutrient/pollutant loading to the receiving water while also protecting the barrier island’s surficial aquifer.

Task 1 will create two separate bioretention areas on McNabb Parkway in Cocoa Beach to treat stormwater from low-density residential areas. The retention areas will be lined with BAM and planted with Florida native grasses such as frog fruit, muhly, fakahatchee and cordgrass. Task 1 will also require repair/replacement of two sections of failing seawall. Public education conducted through social media and in presentations to City officials and citizens will highlight Green Stormwater Infrastructure (GSI) elements.

Task 1a: Construction

Deliverables: The Grantee will construct two bioretention areas lined with BAM and planted with native Florida plants. Each of these areas will be constructed in accordance with the construction contract documents. The Grantee will obtain all necessary permits for construction of the project.

Documentation: The Grantee will submit: 1) a copy of the final design and executed construction contract; 2) a signed acceptance of the completed work to date, as provided in the Grantee’s Certification of Payment Request; 3) a signed statement from a Florida Licensed Professional Engineer (Engineer’s Certification of Payment Request) indicating construction has been completed in accordance with the construction contract documents; 4) dated color photographs of the construction site(s) prior to, during, and immediately following completion of the construction task; and 5) signed acceptance of the completed work by the Grantee.

Performance Standard: The Department’s Grant Manager will review the documentation to verify that the deliverables have been completed as described above. Upon review and written acceptance by the Department’s Grant Manager, the Grantee may proceed with payment request submittal.

Payment Request Schedule: The Grantee may submit a payment request for cost reimbursement no more frequently than monthly.

TASK 1 BUDGET TABLE

Task No.	Task Title	Budget Category	Grant Amount	Task Start Date	Task End Date
1a	Construction	Contractual Services	\$220,000	03/01/2024	09/30/2024
Total:			\$220,000		

TASK 2

TASK TITLE: Ramp Road Park Improvements

TASK LOCATION: The Project will be located in the City of Cocoa Beach within Brevard County; Lat/Long (28.3097, -80.6141).

TASK DESCRIPTION: Ramp Road Park is a heavily frequented boat ramp located in Cocoa Beach. Originally, the stormwater runoff system was designed to allow water to percolate into the soil through porous concrete. However, over the nearly 30 years since its construction, the porous concrete has become clogged, allowing runoff to flow directly into the BRL. Task 2 aims to address this issue by modifying a nearby pond. The modifications include the installation of side bank filters, floating vegetated islands, and a modified weir structure to increase the treatment capacity of the pond. The stormwater runoff from Ramp Road Park will be rerouted into this pond to undergo improved treatment.

Initial calculations suggest that these modifications will result in annual reductions of approximately 41 pounds of Total Nitrogen and 8 pounds of Total Phosphorous.

Task 2 will add parking to Ramp Road Park while increasing stormwater treatment and park safety. The proposed work includes new piping, GSI, and structures to redirect the park runoff into the adjacent pond. In addition, pervious pavement will be constructed along Ramp Road to collect streetside runoff. The pond will be modified to include side bank filters and floating vegetated islands. The outfall structure will be modified to provide additional storage. These modification will result in additional stormwater treatment and flood mitigation.

Task 2a: Design and Permitting

Deliverables: The Grantee will complete the design of the Ramp Road Park Improvements and obtain all necessary permits for construction of the project.

Documentation: The Grantee will submit: 1) a signed acceptance of the completed work to date, as provided in the Grantee's Certification of Payment Request; and 2) a summary of design (or preconstruction) activities to date, indicating the percentage of design completion for the time period covered in the payment request. For the final documentation, the Grantee will also submit a copy of the design completed with the funding provided for this task and a list of all required permits identifying issue dates and issuing authorities.

Performance Standard: The Department's Grant Manager will review the documentation to verify that the deliverables have been completed as described above. Upon review and written acceptance by the Department's Grant Manager, the Grantee may proceed with payment request submittal.

Payment Request Schedule: The Grantee may submit a payment request for cost reimbursement no more frequently than monthly.

Task 2b: Bidding and Contractor Selection

Deliverables: The Grantee will prepare a bid package, publish a public notice, solicit bids, conduct pre-bid meetings, and respond to bid questions in accordance with the Grantee's procurement process, to select one or more qualified and licensed contractors to complete construction of the Ramp Road Park Improvements.

Documentation: The Grantee will submit: 1) the public notice of advertisement for the bid; 2) the bid package; and 3) a written notice of selected contractor(s).

Performance Standard: The Department's Grant Manager will review the documentation to verify that the deliverables have been completed as described above. Upon review and written acceptance by the Department's Grant Manager, the Grantee may proceed with payment request submittal.

Payment Request Schedule: The Grantee may submit a payment request for cost reimbursement following the conclusion of the task.

Task 2c: Construction

Deliverables: The Grantee will construct the Ramp Road Park Improvements in accordance with the construction contract documents.

Documentation: The Grantee will submit 1) a copy of the final design; 2) a signed acceptance of the completed work to date, as provided in the Grantee's Certification of Payment Request; and 3) a signed Engineer's Certification of Payment Request; 4) dated color photographs of the construction site(s) prior to, during, and immediately following completion of the construction task; 5) signed acceptance of the completed work by the Grantee; and, 3) signed statement from an Environmental Scientist indicating construction has been completed in accordance with the design.

Performance Standard: The Department's Grant Manager will review the documentation to verify that the deliverables have been completed as described above. Upon review and written acceptance by the Department's Grant Manager, the Grantee may proceed with payment request submittal.

Payment Request Schedule: The Grantee may submit a payment request for cost reimbursement no more frequently than quarterly.

TASK 2 BUDGET TABLE

Task No.	Task Title	Budget Category	Grant Amount	Task Start Date	Task End Date
2a	Design and Permitting	Contractual Services	\$100,000	12/01/2023	08/30/2024
2b	Bidding and Contractor Selection	Contractual Services	\$20,000	07/01/2024	12/31/2024
2c	Construction	Contractual Services	\$730,000	09/01/2024	6/30/2026
Total:			\$850,000		

PROJECT TIMELINE & BUDGET DETAIL: The tasks must be completed by, and all documentation received by, the corresponding task end date. Cost reimbursable grant funding must not exceed the budget amounts as indicated below.

Task No.	Task Title	Budget Category	Grant Amount	Task Start Date	Task End Date
1	McNabb Outfall Bioretentions	Contractual Services	\$220,000	03/01/2024	09/30/2024
2	Ramp Road Park Improvements	Contractual Services	\$850,000	12/01/2023	06/30/2026
Total:			\$1,070,000		

**STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Standard Grant Agreement**

This Agreement is entered into between the Parties named below, pursuant to Section 215.971, Florida Statutes:

1. Project Title (Project): McNabb Outfall Bioretention	Agreement Number: NS086
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2. Parties State of Florida Department of Environmental Protection, 3900 Commonwealth Boulevard Tallahassee, Florida 32399-3000	(Department)
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Grantee Name: City of Cocoa Beach	Entity Type: Local Government
Grantee Address: 1600 Minutemen Causeway; Cocoa Beach, FL 32931	FEID: 59-6000300 (Grantee)

3. Agreement Begin Date: Upon Execution	Date of Expiration: September 30, 2025
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4. Project Number: <i>(If different from Agreement Number)</i>	Project Location(s): Brevard County
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Project Description: **This project will create two separate bioretention areas to treat stormwater from low-density residential areas. Retention areas will be lined with BAM (bioactivated media), and planted with Florida native grasses**

5. Total Amount of Funding:	Funding Source?	Award #s or Line Item Appropriations:	Amount per Source(s):
\$124,768.00	☒ State ☐ Federal	SWAG, GAA LI 1658, FY 19-20, GR	\$109,667.28
	☒ State ☐ Federal	SWAG, GAA LI 1641, FY 15-16, LATF	\$15,100.72
	☐ Grantee Match		
Total Amount of Funding + Grantee Match, if any:			\$124,768.00

6. Department's Grant Manager Name: David Ragsdale or successor Address: 3900 Commonwealth Blvd., MS 3570 Tallahassee, FL 32399-3000 Phone: _____ Email: David.Ragsdale@FloridaDEP.gov	Grantee's Grant Manager Name: Jessica Bruso or successor Address: 1600 Minuteman Causeway Cocoa Beach, FL 32931 Phone: 321-868-3292 Email: jessica.bruso@cityofcocoa beach.com
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7. The Parties agree to comply with the terms and conditions of the following attachments and exhibits which are hereby incorporated by reference:

☒ Attachment 1: Standard Terms and Conditions Applicable to All Grants Agreements
☒ Attachment 2: Special Terms and Conditions
☒ Attachment 3: Grant Work Plan
☒ Attachment 4: Public Records Requirements
☒ Attachment 5: Special Audit Requirements
☐ Attachment 6: Program-Specific Requirements
☐ Attachment 7: Grant Award Terms (Federal) *Copy available at https://facts.fldfs.com , in accordance with §215.985, F.S.
☐ Attachment 8: Federal Regulations and Terms (Federal)
☐ Additional Attachments (if necessary):
☒ Exhibit A: Progress Report Form
☐ Exhibit B: Property Reporting Form
☒ Exhibit C: Payment Request Summary Form
☐ Exhibit D: Quality Assurance Requirements for Grants
☐ Exhibit E: Advance Payment Terms and Interest Earned Memo
☒ Additional Exhibits (if necessary): Exhibit G Maintenance Plan; Exhibit H Green Stormwater Infrastructure Final Report

ATTACHMENT E

Recipient Name:	City of Cocoa Beach
Project Name:	McNabb Outfall Bioretention
Agreement Number:	23-219

Estimated Project Cost-Share Table							
Task Number	Task Description	Task Cost	Grant 1 (FDEP GSI)	Grant 2 (State ARPA)	Grant 3 (_____)	Eligible Lagoon Tax Cost Share, Adjusted	Local Match
1	Permitting	\$ 2,695.00					\$ 2,695.00
2	Engineering	\$ 64,045.00					\$ 64,045.00
3	Construction	\$ 370,000.00	\$ 124,768.00	\$ 220,000.00		\$ 21,824.00	\$ 3,408.00
	Total	\$ 436,740.00	\$ 124,768.00	\$ 220,000.00	\$ -	\$ 21,824.00	\$ 70,148.00

Save Our Indian River Lagoon Funding Eligibility Calculation	
Project Type	LID
Pounds of Nitrogen Reduction	43.55
Eligible Cost Share per Pound	\$ 501.13
Eligible Tax Funding Cost Share	\$ 21,824.00
Reduction so Sum of Grants does not exceed Project Cost	\$ (0)
Eligible Cost Share, Adjusted	\$ 21,824.00
Cost Share Percentage	5%