

RESOLUTION 2016-06

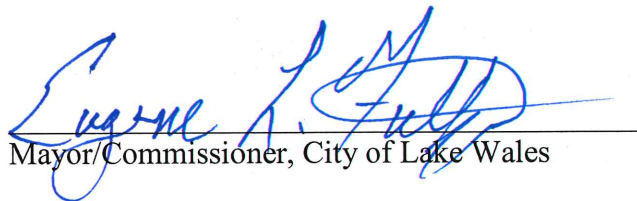
A RESOLUTION AUTHORIZING THE MAYOR TO EXECUTE ON BEHALF OF THE CITY AN AGREEMENT BETWEEN THE CITY OF LAKE WALES AND THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION FOR THE MAINTENANCE OF CERTAIN STATE ROAD RIGHTS OF WAY.

WHEREAS, the City of Lake Wales and the State of Florida Department of Transportation hereto mutually recognize the need for entering into an Agreement pursuant to Section 163.01, Florida Statutes, designating and setting forth the responsibilities of each party in regards to maintenance of certain state road rights-of-way within the boundaries of the city.

NOW, THEREFORE, BE IT RESOLVED by the City Commission of Lake Wales, that:

1. The City Commission approves entering into a Maintenance Agreement with the State of Florida Department of Transportation which Agreement is designated as Contract No. BE123, Financial Project No. 432727-1-78-17 for maintenance of certain state road rights-of-way within the boundaries of the City as described in Attachment "A" and
2. The Mayor is hereby authorized to execute the above referenced Maintenance Agreement on behalf of the City of Lake Wales.

THIS RESOLUTION INTRODUCED AND PASSED by the City Commission of the City of Lake Wales, Polk County, Florida at its regular meeting on February 16, 2016.


Mayor/Commissioner, City of Lake Wales

ATTEST:


City Clerk Clara VanBlargan, MMQ

**STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE AGREEMENT**

This is an Agreement by and between the **STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION**, an Agency of the State of Florida, (hereinafter, "**DEPARTMENT**") and the **CITY OF LAKE WALES** (hereinafter, "**AGENCY**") for the **AGENCY** to provide maintenance services.

WITNESSETH

1. WHEREAS, the **AGENCY** has the authority to enter into said Agreement and to undertake the project hereinafter described, and the **DEPARTMENT** has been granted the authority to function adequately in all areas of appropriate jurisdiction and is authorized under Fla. Stat. §334.044 to enter into this Agreement; and
2. WHEREAS, the **AGENCY** by Resolution No. 2016-06 dated the 11th day of February, 2016, a copy of which is attached hereto and made a part hereof, has authorized its officers to enter into this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants, promises and representations contained herein, the parties agree as follows:

I. SERVICES AND PERFORMANCE

1. The **AGENCY** shall furnish certain services as described in ATTACHMENTS A and B, attached hereto and made a part hereof.
2. Locations, activities, quantities, cycles, and unit costs to be performed are listed in ATTACHMENT A.
3. Descriptions of how the activities are to performed are included in ATTACHMENT B.
4. A Supplemental Agreement shall be executed by both parties for any additions or deletions to the work described in ATTACHMENTS A and/or ATTACHMENT B. No work may commence without an executed Supplemental Agreement involving any such changes or revisions required to be covered in a Supplemental Agreement. Performance of any such services prior to the execution of a Supplemental Agreement will result in nonpayment of those services.
5. The **DEPARTMENT** will be entitled at all times to be advised, at its request, as to the status of work being done by the **AGENCY** and of the details thereof. Coordination shall be maintained by the **AGENCY** with representatives of the **DEPARTMENT**.
6. All services shall be performed by the **AGENCY** to the satisfaction of the Director who shall decide all questions, difficulties and disputes of any nature whatsoever that may arise under or by reason of this Agreement. The Director's decision upon all claims, questions and disputes shall be final and binding upon all parties. Adjustments of compensation and contract time because of any major changes in the work that may become necessary or desirable shall be left to the absolute discretion of the Director.

7. The work specified in this Agreement is governed by ATTACHMENT A and ATTACHMENT B.
8. Reference herein to Director shall mean the **DEPARTMENT'S** District Secretary for District One, or authorized designee.
9. Upon execution of the Agreement, the NOTICE TO PROCEED signed by the District Secretary, or designee, will be sent to the **AGENCY**. The NOTICE TO PROCEED must be issued to the **AGENCY** within sixty (60) days after Agreement execution.

II. TERM

1. This Agreement shall take effect on the execution date listed on page 7. The term for providing service under this Agreement shall be a period of three (3) years ("INITIAL SERVICE TERM"). Calculation for the INITIAL SERVICE TERM shall begin on the fourteenth (14th) calendar day after issuance of the NOTICE TO PROCEED, or on the day the **AGENCY** begins work after receipt of the NOTICE TO PROCEED, whichever date is earlier.
2. Prior to expiration of the INITIAL SERVICE TERM, and subject to mutual agreement of the parties, this Agreement may be renewed ("RENEWAL TERM") for an additional three (3) years. Renewals shall be contingent upon satisfactory performance evaluations by the **DEPARTMENT**. The **DEPARTMENT'S** performance and obligation to pay under any such renewal is contingent upon an annual appropriation by the Legislature. Any renewal or extension shall be in writing and executed by both parties, and shall be subject to the same terms and conditions set forth in this Agreement.
3. The **AGENCY** shall provide services unless terminated in accordance with Section VI below of this Agreement.

III. COMPENSATION AND PAYMENT

1. The **DEPARTMENT** shall pay the **AGENCY** for services rendered in accordance with this Agreement annually, as follows:

Three (3) quarterly lump sum payments will be made in the amount of Six Thousand Five Hundred Fifty Two Dollars and Sixty Three Cents (\$6,552.63). One (1) quarterly lump sum payment will be made in the amount of Six Thousand Five Hundred Fifty Two Dollars and Sixty Two Cents (\$6,552.62). The total annual contract/expenditure amount is Twenty Six Thousand Two Hundred Ten Dollars and Fifty One Cents (\$26,210.51), unless the contract is amended.

The total contract amount, unless amended, for all three (3) years is Seventy Eight Thousand Six Hundred Thirty One Dollars and Fifty Three Cents (\$78,631.53).

2. The lump sum payment above is based on the unit price for services that are listed in ATTACHMENT A.
3. The **DEPARTMENT** shall have the right to retain out of any payment due the **AGENCY** under this Agreement an amount sufficient to satisfy any amount due and owing to the **DEPARTMENT** by the **AGENCY** on any other Agreement between the **AGENCY** and the **DEPARTMENT**.
4. Payment shall be made only after receipt and approval of goods and services unless advance payments are authorized by the State Comptroller under Fla. Stat. §215.422(14).
5. If this Agreement involves units of deliverables, then such units must be received and accepted in writing by the **DEPARTMENT'S** Project Manager prior to payments.
6. Bills for fees or other compensation for services or expenses shall be submitted in detail sufficient for a proper pre-audit and post-audit thereof.
7. **AGENCY** providing goods and services to the **DEPARTMENT** should be aware of the following time frames. Upon receipt, the **DEPARTMENT** has five (5) working days to inspect and approve the goods and services, unless the Agreement specifies otherwise. The **DEPARTMENT** has twenty (20) days to deliver a request for payment (voucher) to the **DEPARTMENT** of Banking and Finance. The twenty (20) days are measured from the latter of the date the invoice is received or the goods or services are received, inspected and approved.
8. If a payment is not available within forty (40) days, a separate interest penalty in accordance with Fla. Stat. §215.422(3)(b), will be due and payable, in addition to the invoice amount, to the **AGENCY**. Interest penalties of less than one (1) dollar will not be enforced unless the **AGENCY** requests payment. Invoices which have to be returned to an **AGENCY** because of **AGENCY** preparation errors will result in a delay in the payment. The invoice payment requirements do not start until a properly completed invoice is provided to the **DEPARTMENT**.
9. A Vendor Ombudsman has been established within the **DEPARTMENT** of Banking and Finance. The duties of this individual include acting as an advocate for contractors/vendors who may be experiencing problems in obtaining timely payment(s) from a state **AGENCY**. The Vendor Ombudsman may be contacted at (850) 413-5516.
10. Records of costs incurred under terms of this Agreement shall be maintained and made available upon request to the **DEPARTMENT** at all times during the period of this Agreement and for three (3) years after final payment is made. Copies of these documents and records shall be furnished to the **DEPARTMENT** upon request. Records of costs incurred include the **AGENCY'S** general accounting records and the project records, together with supporting documents and records of the **AGENCY** and all subcontractors performing work on the project, and all other records of the **AGENCY** and subcontractors considered necessary by the **DEPARTMENT** for a proper audit of costs.
11. The **DEPARTMENT**, during any fiscal year, shall not expend money, incur any liability, or enter into any contract which, by its terms, involves the expenditure of money in excess of the amounts budgeted as available for expenditure during such fiscal year. Any contract, verbal or written, made in violation of this subsection is null and void, and no

money may be paid on such contract. The **DEPARTMENT** shall require a statement from the Comptroller of the **DEPARTMENT** that funds are available prior to entering into any such contract or other binding commitment of funds. Nothing herein contained shall prevent the making of contracts for periods exceeding one year, but any contract so made shall be executory only for the value of the services to be rendered or agreed to be paid for in succeeding fiscal years. Accordingly, the State of Florida's performance and obligation to pay under this Agreement is contingent upon an annual appropriation by the Legislature.

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

IV. INDEMNITY AND INSURANCE

1. **LIABILITY INSURANCE.** The **AGENCY** shall carry and keep in force during the period of this Agreement a general liability insurance policy or policies with a company or companies authorized to do business in Florida, affording public liability insurance with combined bodily injury limits of at least \$250,000 per person and \$500,000 each occurrence, and property damage insurance of at least \$50,000 each occurrence, for the services to be rendered in accordance with this Agreement. In the alternative, the **AGENCY** may satisfy the requirements of this paragraph by providing to the **DEPARTMENT** written evidence of being self-insured.
2. **WORKER'S COMPENSATION.** The **AGENCY** shall also carry and keep in force Worker's Compensation insurance as required for the State of Florida under the Worker's Compensation Law. In the alternative, the **AGENCY** may satisfy the requirements of this paragraph by providing to the **DEPARTMENT** written evidence of being self-insured.

V. COMPLIANCE WITH LAWS

1. The **AGENCY** shall allow public access to all documents, papers, letters, or other material subject to the provisions of Fla. Stat. §119, and made or received by the **AGENCY** in conjunction with this Agreement. Failure by the **AGENCY** to grant such public access shall be grounds for immediate unilateral cancellation of this Agreement by the **DEPARTMENT**.
2. The **AGENCY** shall comply with all federal, state and local laws and ordinances applicable to the work or payment for work thereof, and shall not discriminate on the grounds of race, color, religion, sex or national origin in the performance of work under this Agreement.

3. E-Verify. The Agency shall utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the Agency during the term of the Agreement and shall expressly require any subcontractors performing work or providing services pursuant to the Agreement to likewise utilize the U.S. Department of Homeland Security's E-Verify System to verify the employment eligibility of all new employees hired by the subcontractor during the Agreement term.

VI. TERMINATION AND DEFAULT

1. This Agreement may be canceled by the **DEPARTMENT** in whole or in part at any time the interest of the **DEPARTMENT** requires such termination. The **DEPARTMENT** also reserves the right to seek termination or cancellation of this Agreement in the event the **AGENCY** shall be placed in either voluntary or involuntary bankruptcy. The **DEPARTMENT** further reserves the right to terminate or cancel this Agreement in the event an assignment is made for the benefit of creditors. This Agreement may be canceled by the **AGENCY** upon sixty (60) days written notice to the **DEPARTMENT**.
2. If the **DEPARTMENT** determines that the performance of the **AGENCY** is not satisfactory, the **DEPARTMENT** shall have the option of (a) immediately terminating the Agreement, or (b) notifying the **AGENCY** of the deficiency with a requirement that the deficiency be corrected within a specified time, otherwise the Agreement will be terminated at the end of such time, or (c) take whatever action is deemed appropriate by the **DEPARTMENT**.
3. If the **DEPARTMENT** requires termination of the Agreement for reasons other than unsatisfactory performance of the **AGENCY**, the **DEPARTMENT** shall notify the **AGENCY** of such termination, with instructions to the effective date of termination or specify the stage of work at which the Agreement is to be terminated.

If the Agreement is terminated before performance is completed, the **AGENCY** shall be paid only for that work satisfactorily performed for which costs can be substantiated. Such payment, however, may not exceed an amount which is the same percentage of the contract price as the amount of work satisfactorily completed is a percentage of the total work called for by this Agreement. All work in progress will become the property of the **DEPARTMENT** and will be turned over promptly by the **AGENCY**.

VII. MISCELLANEOUS

1. The **AGENCY** and the **DEPARTMENT** agree that the **AGENCY**, its employees, and subcontractors are not agents of the **DEPARTMENT** as a result of this Agreement for purposes other than those set out in Fla. Stat. §337.274.
2. All words used herein in the singular form shall extend to and include the plural. All words used in the plural form shall extend to and include the singular. All words used in any gender shall extend to and include all genders.
3. This Agreement embodies the whole agreement of the parties. There are no promises, terms, conditions, or obligations other than those contained herein, and this Agreement shall supersede all previous communications, representations, or agreements, either verbal

or written, between the parties hereto.

4. It is understood and agreed by the parties hereto that if any part, term or provision of this Agreement is by the courts held to be illegal or in conflict with any law of the State of Florida, the validity of the remaining portions or provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Agreement did not contain the particular part, term or provision held to be invalid.
5. This Agreement shall be governed by and construed in accordance with the laws of the State of Florida.

VIII. ATTACHMENTS

1. All ATTACHMENTS referenced in this Agreement are incorporated and made a part of this Agreement.

ATTACHMENT A – Location and Cost Breakdown

ATTACHMENT B – Description of Maintenance Activities

IX. EXECUTION

In witness whereof, the CITY OF LAKE WALES has caused this Agreement to be executed in its behalf, by the Mayor or its designee, as authorized by its Resolution, and the FLORIDA DEPARTMENT OF TRANSPORTATION has caused this agreement to be executed in its behalf through its District Secretary or authorized designee. The execution date of this Agreement shall be this 7th day of March, 2016.
FDOT to enter effective date.

LAKE WALES, FLORIDA

ATTEST:

BY: Clara VanBorgen
CLERK
(SEAL)

Clara VanBorgen 2/19/2016
DATE

BY: Eugene E. Fultz
Mayor
TITLE

Eugene Fultz 2/19/2016
PRINT NAME DATE

CITY ATTORNEY LEGAL REVIEW:

BY: [Signature] 2-3-16
DATE

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

ATTEST:

BY: Cheryl Willetts
EXECUTIVE SECRETARY (SEAL)
Cheryl Willetts 3/7/16
PRINT NAME DATE

LEGAL REVIEW:
[Signature] 3/4/16
DATE

BY: [Signature]
DISTRICT ONE SECRETARY OR DESIGNEE
Randell E. Prescott 3/7/16
PRINT NAME DATE

AVAILABILITY OF FUNDS APPROVAL:
2/2/2016
DATE
DISTRICT MAINTENANCE ADMINISTRATOR
APPROVAL: [Signature] 2/29/16
DATE

ATTACHMENT "A"
LOCATIONS AND PRICES FOR THE CITY OF LAKE WALES

Location: 1**Section:****16090-000****Mile Post:****18.291 - 20.688****State Road:****State Road 17, Begin North of Winston Avenue to North of
Entrance to Findlay Ind.**

Activity	Quantity	Units	Cycles	Unit Cost	Location Cost
Large Machine Mowing	12.534	Acres	11	\$14.38	\$1,982.63
Intermediate Machine Mowing	3.456	Acres	11	\$58.34	\$2,217.85
Manual Weed Control	0.16	Acres	4	\$317.38	\$203.12
Litter Removal	15.99	Acres	12	\$10.07	\$1,932.23
Edging and Sweeping	9.59	Curb Mi	6	\$72.89	\$4,194.09

Location: 2**Section:****16110-000****Mile Post:****29.578 - 30.632****State Road:****State Road 60, Begin East of US 27 Overpass to State Road 17**

Activity	Quantity	Units	Cycles	Unit Cost	Location Cost
Slope Mowing	0.63	Acres	6	\$75.63	\$285.88
Intermediate Machine Mowing	3.27	Acres	11	\$58.34	\$2,098.49
Litter Removal	3.9	Acres	12	\$10.07	\$471.28
Edging and Sweeping	7.9	Curb Mi	6	\$72.89	\$3,454.99

Location: 3**Section:****16130-000****Mile Post:****0.000 - 1.812****State Road:****State Road 60, Begin East of State Road 17 to Tangelo Street**

Activity	Quantity	Units	Cycles	Unit Cost	Location Cost
Slope Mowing	1.5	Acres	6	\$75.63	\$680.67
Intermediate Machine Mowing	4.9	Acres	11	\$58.34	\$3,144.53
Litter Removal	6.4	Acres	12	\$10.07	\$773.38
Edging and Sweeping	10.91	Curb Mi	6	\$72.89	\$4,771.38

SUMMARY			
Activity	Quantity	Units Cost	Cycles
Large Machine Mowing	12.534	\$14.38	11
Slope Mowing	2.13	\$75.63	6
Intermediate Machine Mowing	11.626	\$58.34	11
Manual Weed Control	0.16	\$317.38	4
Litter Removal	26.29	\$10.07	12
Edging and Sweeping	28.4	\$72.89	6

Total Annual Cost	\$26,210.51
Three Quarterly Payments	\$6,552.63
One Quarterly Payment	\$6,552.62

ATTACHMENT "B"
SPECIFICATIONS

SECTION 102
MAINTENANCE OF TRAFFIC

102-1 Description.

Maintain traffic within the limits of the project for the duration of the construction period, including any temporary suspensions of the work. Construct and maintain detours. Provide facilities for access to residences, businesses, etc., along the project. Furnish, install and maintain traffic control and safety devices during construction. Furnish and install work zone pavement markings for maintenance of traffic (MOT) in construction areas. Provide any other special requirements for safe and expeditious movement of traffic specified in the Plans. MOT includes all facilities, devices and operations as required for safety and convenience of the public within the work zone.

Do not maintain traffic over those portions of the project where no work is to be accomplished or where construction operations will not affect existing roads. Do not obstruct or create a hazard to any traffic during the performance of the work, and repair any damage to existing pavement open to traffic.

Include the cost of any work that is necessary to meet the requirements of the Contract Documents under the MOT pay item, when there is not a pay item provided.

102-2 Materials.

Meet the following requirements:

Bituminous Adhesive	Section 970
Temporary Retroreflective Pavement Markers...	Section 990
Paint	Section 971
Removable Tape	Section 990
Glass Spheres	Section 971
Temporary Traffic Control Device Materials	Section 990
Retroreflective and Nonreflective Sheeting for Temporary Traffic Control Devices	Section 994

102-2.1 Temporary Traffic Control Devices: Use only the materials meeting the requirements of Section 990, Section 994, Design Standards and the Manual on Uniform Traffic Control Devices (MUTCD).

102-2.2 Detour: Provide all materials for the construction and maintenance of all detours.

102-2.3 Commercial Materials for Driveway Maintenance: Provide materials of the type typically used for base, including recycled asphalt pavement material, and having stability and drainage properties that will provide a firm surface under wet conditions.

102-3 Specific Requirements.

102-3.1 Beginning Date of Contractor's Responsibility: Maintain traffic starting the day work begins on the project or on the first day Contract Time is charged, whichever is earlier.

102-3.2 Worksite Traffic Supervisor: Provide a Worksite Traffic Supervisor who is responsible for initiating, installing, and maintaining all temporary traffic control devices as described in this Section and the Contract Documents. Provide all equipment and materials

needed to set up, take down, maintain traffic control, and handle traffic-related situations. Use approved alternate Worksite Traffic Supervisors when necessary.

The Worksite Traffic Supervisor must meet the personnel qualifications specified in Section 105.

The Worksite Traffic Supervisor is to perform the following duties:

1. On site direction of all temporary traffic control on the project.
2. Is on site during all set up and take down, and performs a drive through inspection immediately after set up.
3. Is on site during all nighttime operations ensuring proper temporary traffic control.
4. Immediately corrects all safety deficiencies and corrects minor deficiencies that are not immediate safety hazards within 24 hours.
5. Is available on a 24 hour per day basis and present at the site within 45 minutes after notification of an emergency situation and is prepared to respond to maintain temporary traffic control or to provide alternate traffic arrangements.
6. Conducts daily daytime and weekly nighttime inspections of projects with predominately daytime work activities, and daily nighttime and weekly daytime inspections of projects with predominantly nighttime work activities of all traffic control devices, traffic flow, pedestrian, bicyclist, and business accommodations.

Advise the project personnel of the schedule of these inspections and give them the opportunity to join in the inspection as deemed necessary. Pedestrians are to be accommodated with a safe, accessible travel path around work sites separated from mainline traffic in compliance with the Americans with Disabilities Act (ADA) Standards for Transportation Facilities. Maintain existing or detour bicycle facilities satisfactorily throughout the project limits. Existing businesses in work areas are to be provided with adequate entrances for vehicular and pedestrian traffic during business hours.

The Department may disqualify and remove from the project a Worksite Traffic Supervisor who fails to comply with the provisions of this Section. The Department may temporarily suspend all activities, except traffic, erosion control and such other activities that are necessary for project maintenance and safety, for failure to comply with these provisions.

102-4 Alternative Traffic Control Plan.

The Contractor may propose an alternative traffic control plan (TCP) to the plan presented in the Contract Documents. Have the Contractor's Engineer of Record sign and seal the alternative plan. Prepare the TCP in conformance with and in the form outlined in the current version of the Department's Plans Preparation Manual. Indicate in the plan a TCP for each phase of activities. Take responsibility for identifying and assessing any potential impacts to a utility that may be caused by the alternate TCP proposed by the Contractor, and notify the Department in writing of any such potential impacts to utilities.

Engineer's approval of the alternate TCP does not relieve the Contractor of sole responsibility for all utility impacts, costs, delays or damages, whether direct or indirect, resulting from Contractor initiated changes in the design or construction activities from those in the original Contract Specifications, Design Plans (including TCPs) or other Contract Documents and which effect a change in utility work different from that shown in the Utility Plans, joint project agreements or utility relocation schedules.

The Department reserves the right to reject any alternative TCP. Obtain the Engineer's written approval before beginning work using an alternate TCP. The Engineer's written approval is required for all modifications to the TCP. The Engineer will only allow changes to the TCP in

an emergency without the proper documentation.

102-5 Traffic Control.

102-5.1 Standards: FDOT Design Standards are the minimum standards for the use in the development of all TCPs. The MUTCD, Part VI is the minimum national standard for traffic control for highway construction, maintenance, and utility operations. Follow the basic principles and minimum standards contained in these documents for the design, application, installation, maintenance, and removal of all traffic control devices, warning devices and barriers which are necessary to protect the public and workers from hazards within the project limits.

102-5.2 Maintenance of Roadway Surfaces: Maintain all lanes that are being used for the MOT, including those on detours and temporary facilities, under all weather conditions. Keep the lanes reasonably free of dust, potholes and rutting. Provide the lanes with the drainage facilities necessary to maintain a smooth riding surface under all weather conditions.

102-5.3 Number of Traffic Lanes: Maintain one lane of traffic in each direction. Maintain two lanes of traffic in each direction at existing four (or more) lane cross roads, where necessary to avoid undue traffic congestion. Construct each lane used for MOT at least as wide as the traffic lanes existing in the area before commencement of construction. Do not allow traffic control and warning devices to encroach on lanes used for MOT.

The Engineer may allow the Contractor to restrict traffic to one-way operation for short periods of time provided that the Contractor employs adequate means of traffic control and does not unreasonably delay traffic. When a construction activity requires restricting traffic to one-way operations, locate the flaggers within view of each other when possible. When visual contact between flaggers is not possible, equip them with 2-way radios, official, or pilot vehicles, or use traffic signals.

102-5.4 Crossings and Intersections: Provide and maintain adequate accommodations for intersecting and crossing traffic. Do not block or unduly restrict any road or street crossing the project unless approved by the Engineer. Before beginning any construction, provide the Engineer the names and phone numbers of persons that can be contacted when signal operation malfunctions.

102-5.5 Access for Residences and Businesses: Provide continuous access to all residences and all places of business.

102-5.6 Protection of the Work from Injury by Traffic: Where traffic would be injurious to a base, surface course, or structure constructed as a part of the work, maintain all traffic outside the limits of such areas until the potential for injury no longer exists.

102-5.7 Flagger: Provide flaggers to control traffic when traffic in both directions must use a single lane and in other situations as required. All flaggers must meet the personnel qualifications specified in Section 105.

102-5.8 Conflicting Pavement Markings: Where the lane use or where normal vehicle or pedestrian paths are altered during construction, remove all pavement markings (paint, tape, thermoplastic, raised pavement markers, etc.) that will conflict with the adjusted vehicle or pedestrian paths. Use of paint to cover conflicting pavement markings is prohibited. Remove conflicting pavement markings using a method that will not damage the surface texture of the pavement and which will eliminate the previous marking pattern regardless of weather and light conditions.

Remove all pavement markings that will be in conflict with "next phase of operation" vehicle pedestrian paths as described above, before opening to vehicle traffic or use by pedestrians.

Cost for removing conflicting pavement markings (paint, tape, thermoplastic,

raised pavement markers, etc.) to be included in Maintenance of Traffic, Lump Sum.

102-5.9 Vehicle and Equipment Visibility: Equip all pickups and automobiles used on the project with a minimum of one Class 2 warning light that meets the Society of Automotive Engineers Recommended Practice SAE J595, dated November 1, 2008, or SAE J845, dated December 1, 2007, and incorporated herein by reference. Existing lights that meet SAE J845, dated March, 1992, or SAE J1318, dated April, 1986, may be used to their end of service life. The warning lights shall be a high intensity amber or white rotating, flashing, oscillating or strobe light. Lights shall be unobstructed by ancillary vehicle equipment such as ladders, racks or booms. If the light is obstructed, additional lights will be required. The lights shall be operating when a vehicle is in a work area where a potential hazard exists, when operating the vehicle at less than the average speed for the facility while performing work activities, making frequent stops or called for in the Plans or Design Standards.

Equip all other vehicles and equipment with a minimum of 4 square feet of retroreflective sheeting or warning lights.

102-5.10 No Waiver of Liability: Conduct operations in such a manner that no undue hazard results due to the requirements of this Article. The procedures and policies described herein in no way acts as a waiver of any terms of the liability of the Contractor or his surety.

102-6 Detours.

102-6.1 General: Construct and maintain detour facilities wherever it becomes necessary to divert traffic from any existing roadway or bridge, or wherever construction operations block the flow of traffic.

102-6.2 Construction: Plan, construct, and maintain detours for the safe passage of traffic in all conditions of weather. Provide the detour with all facilities necessary to meet this requirement. Where pedestrian facilities are detoured, blocked or closed during the work, provide safe alternate accessible routes through or around the work zone meeting the requirements of the ADA Standards for Transportation Facilities.

When the Plans call for the Department to furnish detour bridge components, construct the pile bents in accordance with the Plans, unless otherwise authorized by the Engineer.

Provide two Contractor representatives, who will be directly involved in the erection of Department-owned temporary bridging, to attend a mandatory one-day training session to be conducted at the Department's storage facility. No bridging will be released to the Contractor prior to the completion of this training.

Submit a letter with the following: company name, phone number, office address, project contact person, names of the representatives who will attend the training described above, project number, detour bridge type, bridge length, span length, location and usage time frames, to the Engineer at least 30 calendar days before the intended pick-up date, to obtain the storage facility location and list of components for the project. Upon receipt of letter, the Engineer will, within 10 calendar days provide an approved material list to the Contractor and the appropriate Department storage yard.

Provide a letter with an original company seal, identifying the representative with authority to pick up components, to the Engineer at least 10 calendar days before the proposed pick-up date. The Department is not obligated to load the bridge components without this notice. Take responsibility and sign for each item loaded at the time of issuance.

Provide timber dunnage, and transport the bridge components from the designated storage facility to the job site. Unload, erect, and maintain the bridge, then dismantle the bridge and load and return the components to the designated storage facility.

Notify the Engineer in writing at least 10 calendar days before returning the components. Include in this notice the name of the Contractor's representative authorized to sign for return of the bridge components. The yard supervisor is not obligated to unload the bridge components without this notice.

The Department will provide equipment and an operator at the Department's storage facility to assist in loading and unloading the bridge components. Furnish all other labor and equipment required for loading and unloading the components.

The Department's representative will record all bridge components issued or returned on the Detour Bridge Issue and Credit Ticket. The tickets must be signed by a Department and a Contractor representative, after loading or unloading each truck to document the quantity and type of bridging issued or returned.

Bind together all bridge components to be returned in accordance with the instructions given by the storage facility. The yard supervisor will repack components that are not packed in compliance with these instructions. Upon request, written packing instructions will be made available to the Contractor, before dismantling of the bridge for return to the Department's storage facility.

Assume responsibility for any shortage or damage to the bridge components. Monies due the Contractor will be reduced at the rate of \$35.00 per hour plus materials for repacking, repairs or replacement of bridge components.

The skid resistance of open steel grid decking on the detour bridge may decrease gradually after opening the bridge to traffic. The Department will furnish a pneumatic floor scabbler machine for roughening the roadway surface of the detour bridge decking. Provide an air compressor at the job site with 200 cubic feet per minute capacity, 90 psi air pressure for the power supply of the machine, and an operator. Transport the scabbler machine to and from the Department's structures shop. Repair any damage to the scabbler machine caused by operations at no expense to the Department. Perform scabbling when determined necessary by the Engineer. The Department will pay for the cost of scabbling as Unforeseeable Work in accordance with 4-4.

Return the bridge components to the designated storage facility beginning no later than 10 calendar days after the date the detour bridge is no longer needed, the date the new bridge is placed in service, or the date Contract Time expires, whichever is earliest. Return the detour bridging at an average of not less than 200 feet per week. Upon failure to return the bridge components to the Department within the time specified, compensate the Department for the bridge components not returned at the rate of \$5.00 per 10 feet, per day, per bridge, for single lane; and \$10.00 per 10 feet, per day, per bridge, for dual lane until the bridge components are returned to the Department.

102-6.3 Construction Methods: Select and use construction methods and materials that provide a stable and safe detour facility. Construct the detour facility to have sufficient durability to remain in good condition, supplemented by maintenance, for the entire period that the detour is required.

102-6.4 Removal of Detours: Remove detours when they are no longer needed and before the Contract is completed. Take ownership of all materials from the detour and dispose of them, except for the materials on loan from the Department with the stipulation that they are returned.

102-6.5 Detours Over Existing Roads and Streets: When the Department specifies that traffic be detoured over roads or streets outside the project area, do not maintain such roads or streets. However, maintain all signs and other devices placed for the purpose of the detour.

102-6.6 Operation of Existing Movable Bridges: The Department will maintain and

operate existing moveable bridges that are to be removed by the Contractor until such time as they are closed to traffic. During this period, make immediate repairs of any damage to such structures caused by use or operations related to the work at no expense to the Department, but do not provide routine repairs or maintenance. In the event that use or operations result in damage to a bridge requiring repairs, give such repairs top priority to any equipment, material, or labor available.

102-7 Traffic Control Officer.

Provide uniformed law enforcement officers, including marked law enforcement vehicles, to assist in controlling and directing traffic in the work zone when the following types of work is necessary on projects:

1. Directing traffic/overriding the signal in a signalized intersection.
2. When Design Standards, Index No. 619 is used on freeway facilities (interstates, toll roads, and expressways) at nighttime for work within the travel lane.
3. When Design Standards, Index No. 655 Traffic Pacing for overhead work is called for in the Plans or approved by the Engineer.
4. When pulling conductor/cable above an open traffic lane on limited access facilities, when called for in the Plans or approved by the Engineer.
5. When Design Standards, Index No. 625 Temporary Road Closure 5 Minutes or Less is used.

102-8 Driveway Maintenance.

102-8.1 General: Ensure that each residence and business has safe, stable, and reasonable access.

102-8.2 Construction Methods: Place, level, manipulate, compact, and maintain the material, to the extent appropriate for the intended use.

As permanent driveway construction is accomplished at a particular location, the Contractor may salvage and reuse previously placed materials that are suitable for reuse on other driveways.

102-9 Temporary Traffic Control Devices.

102-9.1 Installation and Maintenance: Install and maintain temporary traffic control devices as detailed in the Plans, Index 600 of the Design Standards and when applicable, in accordance with the approved vendor drawings, as provided on the Department's Approved Product List (APL). Erect the required temporary traffic control devices to prevent any hazardous conditions and in conjunction with any necessary traffic re-routing to protect the traveling public, workers, and to safeguard the work area. Use only those devices that are on the APL or meeting the requirements of the Design Standards. Immediately remove or cover any devices that do not apply to existing conditions.

All temporary traffic control devices must meet the requirements of National Cooperative Highway Research Program Report 350 (NCHRP 350) or the Manual for Assessing Safety Hardware 2009 (MASH) and current FHWA directives. Manufacturers seeking evaluation must furnish certified test reports showing that their product meets all test requirements set forth by NCHRP 350 or the MASH. Manufacturers seeking evaluation of Category I devices for inclusion on the APL shall include the manufacturer's self-certification letter. Manufacturer's seeking evaluation of Category II and Category III devices for inclusion on the APL shall include the FHWA WZ numbered acceptance letter with attachments and vendor drawings of the device in sufficient detail to enable the Engineer to distinguish between this and similar devices.

For devices requiring field assembly or special site preparation, vendor drawings shall include all field assembly details and technical information necessary for proper application and installation. Vendor drawings for Category III devices must be signed and sealed by a Professional Engineer registered in the State of Florida. Manufacturers seeking evaluation of Category IV devices for inclusion on the APL must comply with the requirements of Section 990 and include detailed vendor drawings of the device along with technical information necessary for proper application, field assembly and installation.

The APL number is to be permanently marked on the device at a readily visible location. Sheeting used on devices is exempt from this marking requirement.

Notify the Engineer of any scheduled operation that will affect traffic patterns or safety sufficiently in advance of commencing such operation to permit review of the plan for the proposed installation of temporary traffic control devices.

Assign an employee the responsibility of maintaining the position and condition of all temporary traffic control devices throughout the duration of the Contract. Keep the Engineer advised at all times of the identification and means of contacting this employee on a 24 hour basis.

Maintain temporary traffic control devices in the correct position, properly oriented, clearly visible and clean, at all times. All traffic control devices must meet the classification level of Acceptable as defined in the American Traffic Safety Services Association (ATSSA) Quality Guidelines for Temporary Traffic Control Devices and Features (2008-09 Edition). Immediately repair, replace or clean damaged, defaced or dirty devices. Traffic control devices shall not be cleaned while installed/used. Use of warning lights on any temporary traffic control device shall be prohibited.

Employ an approved independent Channelizing Device Supplier (CDS) to provide and maintain the condition of the following non-fixed channelizing devices: drums, cones, vertical panels, barricades, tubular markers, and longitudinal channeling devices. Cones may be provided and maintained by the Contractor.

The CDS shall not be affiliated with the Contractor and shall be approved by the Engineer in accordance with 102-9.1.1. The CDS shall submit a monthly certification on letterhead that the channelizing devices mentioned above installed/used within the work zone meet acceptable standards as outlined in ATSSA Quality Guidelines for Temporary Traffic Control Devices and Features. The certification shall include the following statement, "I certify that I have provided and maintained the following devices <list devices covered under the certification> in accordance with the ATSSA Quality Guidelines for Temporary Traffic Control Devices and Features." If the Contractor chooses to provide and maintain cones, the Contractor shall submit a monthly certification on a Department approved form that all cones installed/used within the work zone meet acceptable standards as outlined in ATSSA Quality Guidelines for Temporary Traffic Control Devices and Features, and the CDS shall submit the monthly certification for any other channelizing devices installed/used within the work zone.

102-9.1.1 Approved Independent Channelizing Device Supplier (CDS)

Requirements: Submit the following documents to the Engineer for independent CDS approval at the preconstruction conference. CDSs may elect to provide a one-time submittal of this information for approval and have the information posted on the State Construction Office website for use by Department personnel. Inform the Engineer at the preconstruction conference of this approval.

1. A letter on company letterhead signed and dated by the owner of the company or company officer with the following information and statements:

- a. The company's owners, stockholders, and officers.

b. A statement declaring that the company will not perform as a CDS on any project where there is common ownership, directly or indirectly, between the company and the Contractor.

c. A statement declaring that the company will furnish and maintain the condition of all channelizing devices with the exception of cones as required in 102-9.1 with its own forces.

d. A statement declaring at least five years of experience in providing channelizing device supplier services, with its own inventory of channelizing devices.

e. On a separate sheet, list a sample project history of the company's experience as a channeling device supplier for the five years declared in item 1(d) above including the following information:

1. Project name and number and a brief description of CDS work performed,

2. Beginning and ending date of CDS project activities,

3. Location of project (city, state),

4. Monetary amount of CDS work on project,

5. Owner of project, contact person and phone number with area code,

6. Name of Contractor (client) that the work was performed for and phone number with area code.

2. A maintenance plan for approval by the Department that outlines the frequency and methods for maintaining the condition of all channelizing devices, except cones owned and maintained by the Contractor, installed/used in the work zone.

102-9.2 Work Zone Signs: Furnish, install, maintain, remove and relocate signs in accordance with the Plans and Design Standards, Index No. 600. Use signs that meet the material and process requirements of Section 994. Use Type IV sheeting for fluorescent orange work zone signs. Roll-up signs must meet the requirements of Type VI sheeting. Use Type IV or Type XI sheeting for all other work zone signs. Attach the sign to the sign support using hardware meeting the manufacturer's recommendations on the APL vendor drawings or as specified in the Design Standards.

102-9.2.1 Post Mounted Signs: Meet the requirements of 990-8.

102-9.2.2 Portable Signs: Use only approved systems, which includes sign stands and attachment hardware (nuts, bolts, clamps, brackets, braces, etc.), meeting the vendor requirements specified on the APL drawings. Provide Federal Highway Administration's (FHWA) accepted sign substrate for use with accepted sign stands on the National Highway System (NHS) under the provisions of the NCHRP Report 350 "Recommended Procedures for the Safety Performance Evaluation of Highway Features."

102-9.2.3 Barrier Mounted Signs: If post mounting criteria cannot be achieved in accordance with Design Standards, Index No. 600 and a barrier or traffic railing exists, use temporary sign criteria provided in Design Standards, Index No. 11871.

102-9.3 Business Signs: Provide and place signs in accordance with the Plans and Design Standards, Index No. 600 series. Furnish signs having retroreflective sheeting meeting the requirements of Section 990.

102-9.4 Project Information Signs: Provide and place signs in accordance with the Plans and Design Standards, Index No. 600 series. Furnish signs having retroreflective sheeting meeting the requirements of Section 990.

102-9.5 Channelizing Devices: Furnish and install channelizing devices in accordance with the Plans and Design Standards.

102-9.5.1 Retroreflective Collars for Traffic Cones: Use collars for traffic cones listed on the APL that meet the requirements of Section 990. Use cone collars at night designed to properly fit the taper of the cone when installed. Place the upper 6 inch collar a uniform 3-1/2 inches distance from the top of the cone and the lower 4 inch collar a uniform 2 inches distance below the bottom of the upper 6 inch collar. Collars are to be capable of being removed for temporary use or attached permanently to the cone in accordance with the manufacturer's recommendations. Provide a white sheeting having a smooth outer surface and that has the property of a retroreflector over its entire surface.

102-9.5.2 Barrier Wall (Temporary): Furnish, install, maintain, remove and relocate temporary barrier wall in accordance with the Plans. Obtain and use precast temporary barrier wall from a manufacturing plant that is on the Department's list of Producers of Incidental Precast/Prestressed Concrete Products with an Accepted Quality Control Program at the time of production. Producers seeking inclusion on the list shall meet the requirements of 105-3. Temporary barrier wall must meet the material and construction requirements of Section 521 unless noted otherwise in the Design Standards.

The maximum allowable height increase between consecutive temporary barrier wall units in the direction of traffic is 1 inch.

Temporary concrete barrier wall used on roadway sections must comply with Design Standards, Index Nos. 412, 415 or 414. Temporary concrete barrier wall used on bridge and wall sections, shall comply with Design Standards, Index No 414.

Temporary water filled barrier wall used on roadway sections shall meet the NCHRP Report 350 or MASH criteria and be listed on the APL.

Barriers meeting the requirements of Design Standards, Index Nos. 412, 415 or temporary water filled barriers on the APL will not be accepted as an alternate to barriers meeting the requirements of Design Standards, Index No. 414.

Trailer mounted barriers listed on the APL may be used at the option of the Contractor. Trailer mounted barriers listed on the APL must have an FHWA eligibility letter and be successfully crash tested in accordance with MASH TL-3 criteria. All trailer mounted barriers must be equipped with an APL listed truck mounted attenuator, an APL listed vehicle mounted arrow board and vehicle warning lights in accordance with this Section.

102-9.5.2.1 Temporary Barrier Wall Meeting the Requirements of Design Standards, Index Nos. 412 and 414: Ensure the marking requirements of the respective Index are met.

102-9.5.2.2: Proprietary Precast Temporary Barrier Wall Fabricated prior to 2005: The Contractor must submit a certification stating that all unmarked barrier wall units meet the requirements of the Specifications and the Design Standards. Certifications will be project specific and non-transferable

102-9.5.2.3 Proprietary Precast Temporary Barrier Wall Fabricated in 2005 or later: Ensure each wall unit has permanent clear markings, showing the manufacture date, serial number, manufacturer's name or symbol, and the APL number. Label the markings on a plate, plaque, or cast in the unit. Proprietary barrier wall fabricated prior to 2016 and marked with the "INDX 521" in lieu of the APL number will be permitted.

102-9.5.3 Glare Screen (Temporary): Use temporary glare screens listed on the APL that meet the requirements of Section 990. Furnish, install, maintain, remove and relocate glare screen systems in conjunction with temporary barrier wall at locations identified in the Plans.

The anchorage of the glare screen to the barrier must be capable of safely resisting an equivalent tensile load of 600 pounds per foot of glare screen, with a requirement to

use a minimum of three fasteners per barrier section.

When glare screen is utilized on temporary barrier wall, barrier delineators will not be required.

102-9.5.4 Longitudinal Channelizing Devices (LCDs): Furnish LCDs in accordance with the Plans and Design Standards. LCDs are categorized as vehicular or pedestrian and shall be interlocked. For LCDs requiring internal ballasting, an indicator that clearly identifies the proper ballast level will be required.

Use alternating orange and white pattern for solid color vehicular LCDs. Vehicular LCDs may be substituted for drums, vertical panels, or barricades.

102-9.6 Temporary Crash Cushion (Redirective/Gating): Furnish, install, maintain and subsequently remove temporary crash cushions in accordance with the details and notes shown in the Plans, the Design Standards, and requirements of the pre-approved alternatives listed on the APL. Maintain the crash cushions until their authorized removal. Repair all attachment scars to permanent structures and pavements after crash cushion removal. Make necessary repairs due to defective material, work, or Contractor operations at no cost to the Department. Restore crash cushions damaged by the traveling public within 24 hours after notification as authorized by the Engineer.

102-9.7 Guardrail (Temporary): Furnish guardrail (temporary) in accordance with the Plans and Design Standards. Meet the requirements of Section 536.

102-9.8 Arrow Board: Furnish arrow boards that meet the requirements of Section 990 as required by the Plans and Design Standards to advise approaching traffic of lane closures or shoulder work. Type B arrow boards may be used on low to intermediate speed (0 mph to 50 mph) facilities or for maintenance or moving operations on any speed facility. Type C arrow boards shall be used for all other operations on high-speed (50 mph and greater) facilities and may be substituted for Type B arrow boards on any speed facility.

102-9.9 Portable Changeable Message Sign (PCMS): Furnish PCMSs or truck mounted changeable message signs that meet the requirements of Section 990 as required by the Plans and Design Standards to supplement other temporary traffic control devices used in work zones.

102-9.10 Portable Regulatory Signs (PRS): Furnish PRSs that meet the requirements of 990 as required by the Plans and Design Standards.

Activate portable regulatory signs only during active work activities and deactivate when no work is being performed.

102-9.11 Radar Speed Display Unit (RSDU): Furnish RSDUs that meet the requirements of Section 990 as required by the Plans and Design Standards to inform motorists of the posted speed and their actual speed.

Activate the radar speed display unit only during active work activities and deactivate when no work is being performed.

102-9.12 Temporary Signalization and Maintenance: Provide temporary signalization and maintenance at existing, temporary, and new intersections including but not limited to the following:

1. Installation of temporary poles and span wire assemblies as shown in the Plans,
2. Temporary portable traffic signals as shown in the Plans,
3. Adding or shifting signal heads,
4. Trouble calls,
5. Maintaining intersection and coordination timing and preemption devices. Coordination timing will require maintaining functionality of system communications.

Restore any loss of operation within 12 hours after notification.

Provide traffic signal equipment that meets the requirements of the Design Standards and 603-2. The Engineer may approve used signal equipment if it is in acceptable condition. Replacement components for traffic signal cabinet assemblies will be provided by the maintaining agency.

102-9.13 Temporary Traffic Detection and Maintenance: Provide temporary traffic detection and maintenance at existing, temporary, and new signalized intersections. Provide temporary traffic detection equipment listed on the APL. Restore any loss of detection within 12 hours. Ensure 90% accuracy per signal phase, measured at the initial installation and after any lane shifts, by comparing sample data collected from the detection system with ground truth data collected by human observation. Collect the sample and ground truth data for a minimum of five minutes during a peak and five minutes during an off-peak period with a minimum three detections for each signal phase. Perform the test in the presence of the Engineer.

102-9.14 Truck Mounted Attenuators and Trailer Mounted Attenuators: Furnish, install and maintain only those attenuators that meet the requirements of NCHRP 350 or the MASH.

Use truck mounted attenuators or trailer mounted attenuators, when called for in the Design Standards. Use attenuators listed on the APL.

When attenuators are called for, use either a truck mounted attenuator or a trailer mounted attenuator system designed and installed in accordance with the manufacturers recommendations.

Equip the attenuator cartridge with lights and reflectors in compliance with applicable Florida motor vehicle laws, including turn signals, dual tail lights, and brake lights. Ensure that lights are visible in both the raised and lowered positions if the unit is capable of being raised.

Install either alternating black with yellow or white with orange sheeting on the rear of trailer mounted attenuators and on truck mounted attenuators, in both the operating and raised position. Use Type III (work zone) or Type IV sheeting consisting of 4 or 6 inch wide stripes installed to form chevrons that point upward. All sheeting except black shall be retroreflective.

Attenuators will not be paid for separately. Include the cost of the truck with either a truck mounted attenuator or a trailer mounted attenuator in MOT Lump Sum. Payment includes all costs, including furnishing, maintaining and removal when no longer required, and all materials, labor, tools, equipment and incidentals required for attenuator maintenance.

102-9.15 Temporary Raised Rumble Strip Set: Furnish, install, maintain, remove, and reinstall temporary raised rumble strips per the manufacturer's recommendations and in accordance with Design Standards, Index No. 603.

The temporary raised rumble strip may be either a removable polymer striping tape or a molded engineered polymer material.

102-9.16 Automated Flagger Assistance Devices (AFAD): Furnish, install, maintain, remove and relocate AFADs in accordance with the Plans and Design Standards. Position AFADs where they are clearly visible to oncoming traffic and out of the lane of traffic. The devices may be operated either by a single flagger at one end of the traffic control zone, from a central location, or by a separate flagger near each device's location.

AFADs may be either a remotely controlled Stop/Slow AFAD mounted on either a trailer or a movable cart system, or a remotely controlled Red/Yellow Lens AFAD.

AFADs will not be paid for separately. AFADs may be used as a supplement or an alternate to flaggers in accordance with Index 603. Include the cost for AFADs in

Maintenance of Traffic Lump Sum.

102-9.17 Temporary Lane Separator: Furnish, install, maintain, remove and relocate temporary lane separator in accordance with the Plans and Design Standards, Index No 600. Anchor the portable temporary lane separator with a removable anchor bolt. Use epoxy on bridge decks where anchoring is not allowed. Remove the epoxy from the bridge deck by hydroblasting or other method approved by the Engineer.

102-10 Work Zone Pavement Marking.

102-10.1 Description: Furnish and install work zone pavement markings for MOT in construction areas and in close conformity with the lines and details shown in the Plans and Design Standards.

Centerlines, lane lines, edge lines, stop bars and turn arrows will be required in work zones prior to opening the road to traffic.

The most common types of work zone pavement markings are painted pavement markings and removable tape. Other types of work zone pavement markings may be identified in the Plans.

102-10.2 Painted Pavement Markings:

102-10.2.1 General: Use painted pavement markings meeting the requirements of Section 710. Use standard waterborne paint unless otherwise identified in the Plans or approved by the Engineer.

102-10.3 Removable Tape:

102-10.3.1 General: Use removable tape listed on the APL and meeting the requirements of 990-4.

102-10.3.2 Application: Apply removable tape with a mechanical applicator to provide pavement lines that are neat, accurate and uniform. Equip the mechanical applicator with a film cut-off device and with measuring devices that automatically and accumulatively measure the length of each line placed within an accuracy tolerance of plus or minus 2%. Ensure removable tape adheres to the road surface. Removable tape may be placed by hand on short sections, 500 feet or less, if it is done in a neat accurate manner.

102-10.3.3 Retroreflectivity: Apply white and yellow pavement markings that will attain an initial retroreflectivity of not less than 300 mcd/lx·m² for white and contrast markings and not less than 250 mcd/lx·m² for yellow markings. Black portions of contrast tapes and black masking tapes must be non-reflective and have a reflectance of less than 5 mcd/lx·m². At the end of the six month service life, the retroreflectance of white and yellow removable tape shall not be less than 150 mcd/lx·m².

102-10.3.4 Removability: Provide removable tape capable of being removed from bituminous concrete and portland cement concrete pavement intact or in substantially large strips, either manually or by a mechanical roll-up device, at temperatures above 40°F, without the use of heat, solvents, grinding or blasting.

102-10.4 Temporary Retroreflective Pavement Markers (RPM's): Use markers listed on the APL. Install all markers in accordance with the manufacturer's recommendations and in accordance with Design Standards, Index Nos. 600 and 17352, prior to opening the road to traffic. After initial installation, replace markers any time more than three consecutive markers fail or are missing at no expense to the Department.

102-11 Method of Measurement.

102-11.1 General: Devices installed/used on the project on any calendar day or portion thereof, within the Contract Time, including time extensions which may be granted, will be paid

for at the Contract unit price for the applicable pay item, except those paid for as Lump Sum.

102-11.2 Traffic Control Officers: The quantity to be paid for will be at the Contract unit price per hour (4 hour minimum) for the actual number of officers certified to be on the project site, including any law enforcement vehicles and all other direct and indirect costs. Payment will be made only for those traffic control officers specified in the Plans and authorized by the Engineer.

102-11.3 Special Detours: When a diversion or lane shift that requires temporary pavement is shown in the Plans, the work of constructing, maintaining, and subsequently removing such detour facilities will be paid for as a special detour. However, traffic control devices, warning devices, barriers, signing, pavement markings, and restoration to final configuration will be paid for under their respective pay items.

When the Plans show more than one special detour, each special detour will be paid for separately, at the Contract lump sum price for each.

102-11.4 Commercial Material for Driveway Maintenance: The quantity to be paid for will be the certified volume, in cubic yards, of all materials authorized by the Engineer, acceptably placed and maintained for driveway maintenance. The volume, which is authorized to be reused, and which is acceptably salvaged, placed, and maintained in other designated driveways will be included again for payment.

102-11.5 Work Zone Signs: The number of temporary post-mounted signs (temporary regulatory, warning and guide) certified as installed/used on the project will be paid for at the Contract unit price for work zone signs. When multiple signs are located on single or multiple posts, each sign panel will be paid individually. Signs greater than 20 square feet and detailed in the Plans will be paid for under Lump Sum MOT.

Temporary portable signs (excluding mesh signs) and vehicular mounted signs will be included for payment under work zone signs, only if used in accordance with the Design Standards.

The number of temporary barrier mounted signs (temporary regulatory, warning and guide) certified as installed/used on the project will be paid for at the Contract unit price for barrier mounted work zone signs.

102-11.6. Business Signs: The number of business signs certified as installed/used on the project will be paid for at the Contract unit price for business signs.

102-11.7 Project Information Signs: No separate payment will be made for project information signs. Payment will be included under Lump Sum MOT.

102-11.8 Channelizing Devices: The number of drums, vertical panels, pedestrian LCDs, and Type I, Type II, Type III, or direction indicator barricades, certified as installed/used on the project meeting the requirements of Design Standards, Index No. 600 and have been properly maintained will be paid for at the Contract unit prices for channelizing device. Payment for vehicular LCDs will be paid as the length in feet installed divided by the device spacing for barricades, vertical panels, and drums and certified as installed/used on the project meeting the requirements of Design Standards, Index No. 600 and have been properly maintained will be paid for at the Contract unit price for channelizing device. Payment will not be made for channelizing devices unsatisfactorily maintained, as determined by the Engineer. Payment will be made for each channelizing device that is used to delineate trailer mounted devices. Payment will be made for channelizing devices delineating portable changeable message signs during the period beginning 14 working days before Contract Time begins as authorized by the Engineer.

102-11.9 Barrier Wall (Temporary): The Contract unit price for barrier wall (temporary) will be full compensation for furnishing, installing, maintaining, and removing the barrier wall. When called for, the Contract unit price for barrier wall (temporary/relocate) will be

full compensation for relocating the barrier. The certified quantity to be paid for will be determined by the number of sections times the nominal length of each section.

102-11.10 Barrier Delineators: The number of barrier delineators, installed on top of barrier wall, used on the project, meeting the requirements of the Design Standards and Section 705.

102-11.11 Glare Screen (Temporary): The certified quantity to be paid for will be determined by the number of sections times the nominal length of each section.

102-11.12 Temporary Crash Cushions:

102-11.12.1 Redirective: The quantity to be paid for will be the number of temporary crash cushions (redirective) certified as installed/used and maintained on the project, including object marker.

102-11.12.2 Gating: The quantity to be paid for will be the number of temporary crash cushions (gating) certified as installed/used and maintained on the project, including object marker.

102-11.13 Temporary Guardrail: The quantity to be paid for will be the length, in feet, of temporary guardrail constructed and certified as installed/used on the project. The length of a run of guardrail will be determined as a multiple of the nominal panel lengths.

102-11.14 Arrow Board: The quantity to be paid at the contract unit price will be for the number of arrow boards certified as installed/used on the project on any calendar day or portion thereof within the Contract Time.

102-11.15 Portable Changeable Message Sign: The quantity to be paid at the Contract unit price will be for the number of PCMSs or truck mounted changeable message signs certified as installed/used on the project on any calendar day or portion thereof within the Contract Time. Payment will be made for each portable changeable message sign that is used during the period beginning fourteen working days before Contract Time begins as authorized by the Engineer.

102-11.16 Portable Regulatory Signs: The quantity to be paid for will be the number of portable regulatory signs certified as installed/used on the project on any calendar day or portion thereof within the Contract Time, will be paid for the Contract unit price for portable regulatory sign.

102-11.17 Radar Speed Display Unit: The quantity to be paid for will be the number of radar speed display units certified as installed/used on the project on any calendar day or portion thereof within the Contract Time, will be paid for the Contract unit price for radar speed display unit.

102-11.18 Temporary Signalization and Maintenance: For existing intersections, the quantity to be paid for will be the number of signalized intersections per day for the full duration of the Contract. For temporary intersections, the quantity to be paid for will be the number of signalized intersections per day for the duration of the temporary intersection. No separate payment will be made for temporary signalization and maintenance at new intersections.

102-11.19 Temporary Traffic Detection and Maintenance: For existing intersections, the quantity to be paid for will be the number of signalized intersections per day beginning the day Contract Time begins and ending the day the permanent detection is operational and the final lane configuration is in place. For temporary and new intersections, the quantity to be paid for will be the number of signalized intersections per day beginning the day the temporary detection is functional and ending the day the permanent detection is operational and the final lane configuration is in place for a new intersection; or, when the detection is removed for a temporary intersection.

102-11.20 Work Zone Pavement Markings: The quantities, furnished and installed, to be paid for will be the length of skip and solid pavement markings, and the area of pavement

markings placed as follows:

1. The total transverse distance, in feet, of skip pavement marking authorized and acceptably applied. The length of actual applied line will depend on the skip ratio of the material used. Measurement will be the distance from the beginning of the first stripe to the end of the last stripe with proper deductions made for unpainted intervals as determined by plan dimensions or stations, subject to 9-1.3.

2. The net length, in feet, of solid pavement marking authorized and acceptably applied.

3. The number of directional arrows or pavement messages authorized and acceptably applied.

4. The number of temporary RPM's authorized and acceptably applied.

102-11.21 Temporary Raised Rumble Strips: The quantity to be paid for will be the number of calendar days, or portions thereof, that temporary raised rumble strips are certified as installed/used on the project within the Contract Time. The number of strips used must meet the requirements of the Design Standards, Index No. 603. No adjustment will be made to the per day measurement for the number of strips or sets used, or for the number of times the sets are relocated.

102-11.22 Temporary Lane Separator: The quantity of temporary lane separator to be paid for will be field measure, in feet, including drainage gaps, completed and accepted.

102-12 Submittals.

102-12.1 Submittal Instructions: Prepare a certification of quantities, using the Department's current approved form, for certified MOT payment items for each project in the Contract. Submit the certification of quantities to the Engineer. The Department will not pay for any disputed items until the Engineer approves the certification of quantities.

102-12.2 Contractor's Certification of Quantities: Request payment by submitting a certification of quantities no later than Twelve O'clock noon Monday after the estimate cut-off date or as directed by the Engineer, based on the amount of work done or completed. Ensure the certification consists of the following:

1. Contract Number, FPID Number, Certification Number, Certification Date and the period that the certification represents.

2. The basis for arriving at the amount of the progress certification, less payments previously made and less an amount previously retained or withheld. The basis will include a detail breakdown provided on the certification of items of payment in accordance with 102-13. After the initial setup of the MOT items and counts, the interval for recording the counts will be made weekly on the certification sheet unless there is a change. This change will be documented on the day of occurrence. Some items may necessitate a daily interval of recording the counts.

102-13 Basis of Payment.

102-13.1 Maintenance of Traffic (General Work): When an item of work is included in the proposal, price and payment will be full compensation for all work and costs specified under this Section except as may be specifically covered for payment under other items.

102-13.2 Traffic Control Officers: Price and payment will be full compensation for the services of the traffic control officers.

102-13.3 Special Detours: Price and payment will be full compensation for providing all detour facilities shown in the Plans and all costs incurred in carrying out all requirements of this Section for general MOT within the limits of the detour, as shown in the Plans.

102-13.4 Commercial Materials for Driveway Maintenance: Price and payment will

be full compensation for all work and materials specified for this item, including specifically all required shaping and maintaining of driveways.

102-13.5 Work Zone Signs: Price and payment will be full compensation for all work and materials for furnishing signs, supports and necessary hardware, installation, relocating, maintaining and removing signs.

102-13.6. Business Signs: Price and payment will be full compensation for all materials and labor required for furnishing, installing, relocating, maintaining, and removing the signs as well as the cost of installing any logos provided by business owners.

102-13.7 Project Information Signs: Price and payment will be full compensation for all materials and labor for furnishing, installing, relocating, maintaining and removing signs.

102-13.8 Channelizing Devices: Prices and payment will be full compensation for furnishing, installing, relocating, maintaining and removing the channelizing devices.

102-13.9 Barrier Wall (Temporary): Price and payment will be full compensation for furnishing, installing, maintaining, and removing the barrier. When called for, barrier wall (temporary) (relocate) will be full compensation for relocating the barrier.

102-13.10 Barrier Delineators: No separate payment will be made for barrier delineators installed on top of temporary barrier wall. The cost of furnishing, installing and maintaining the barrier delineators will be included in the cost of the temporary barrier wall.

102-13.11 Glare Screen (Temporary): Price and payment will be full compensation for furnishing, installing, maintaining, and removing the glare screen certified as installed/used on the project. When called for, glare screen (relocate) will be full compensation for relocating the glare screen.

102-13.12 Temporary Crash Cushion (Redirective/Gating): Price and payment will be full compensation for furnishing, installing, maintaining and subsequently removing such crash cushions.

102-13.13 Temporary Guardrail: Price and payment will be full compensation for furnishing all materials required for a complete installation, including end anchorage assemblies and any end connections to other structures and for installing, maintaining and removing guardrail.

102-13.14 Arrow Board: Price and payment will be full compensation for furnishing, installing, operating, relocating, maintaining and removing arrow boards.

102-13.15 Portable Changeable Message Sign: Price and payment will be full compensation for furnishing, installing, operating, relocating, maintaining and removing portable changeable message signs.

102-13.16 Portable Regulatory Signs: Price and payment will be full compensation for furnishing, installing, relocating, maintaining and removing a completely functioning system as described in these Specifications portable regulatory signs. Price and payment will be full compensation for furnishing, installing, operating, relocating, maintaining and removing portable regulatory signs.

Payment will include all labor, materials, incidentals, repairs and any actions necessary to operate and maintain the unit at all times that work is being performed or traffic is being affected by construction and/or MOT operations.

102-13.17 Radar Speed Display Unit: Price and payment will be made only for a completely functioning system as described in these specifications. Payment will include all labor, hardware, accessories, signs, and incidental items necessary for a complete system. Payment will include any measurements needed to insure that the unit conforms to all specification requirements.

Payment will include all labor, materials, incidentals, repairs and any actions

necessary to operate and maintain the unit at all times that work is being performed or traffic is being affected by construction and/or MOT operations. Price and payment will be full compensation for furnishing, installing, operating, relocating, maintaining and removing radar speed display unit.

102-13.18 Temporary Signalization and Maintenance: Price and payment will constitute full compensation for furnishing, installing, operating, maintaining and removing temporary traffic control signals including all equipment and components necessary to provide an operable traffic signal. Payment will be withheld for each day at each intersection where the temporary signalization is not operational within 12 hours after notification.

102-13.19 Temporary Traffic Detection and Maintenance: Price and payment will constitute full compensation for furnishing, installing, operating, maintaining and removing temporary traffic detection including all equipment and components necessary to provide an acceptable signalized intersection. Take ownership of all equipment and components. Payment will be withheld for each day at each intersection where the temporary detection is not operational within 12 hours after notification.

102-13.20 Temporary Raised Rumble Strips: Price and payment will be full compensation for all work and materials described in this Section, including all cleaning and preparing of surfaces, disposal of all debris, furnishing of all materials, application, curing, removal, reinstalling and protection of all items, protection of traffic, furnishing of all tools, machines and equipment, and all incidentals necessary to complete the work.

102-13.21 Work Zone Pavement Markings: Price and payment will be full compensation for all work specified including, all cleaning and preparing of surfaces, furnishing of all materials, application, curing and protection of all items, protection of traffic, furnishing of all tools, machines and equipment, and all incidentals necessary to complete the work. Final payment will be withheld until all deficiencies are corrected.

Removable tape may be substituted for work zone paint at no additional cost to the Department.

Payment for temporary RPMs used to supplement line markings will be paid for under temporary retroreflective pavement markers. Install these markers as detailed in the Design Standards.

102-13.22 Temporary Lane Separator: Price and payment will be full compensation for all work specified in this Section.

102-13.23 Payment Items: Payment will be made under:

Item No. 102- 1-	Maintenance of Traffic - lump sum.
Item No. 102- 2-	Special Detour - lump sum.
Item No. 102- 3-	Commercial Material for Driveway Maintenance - per cubic yard.
Item No. 102- 14-	Traffic Control Officer - per hour.
Item No. 102- 60-	Work Zone Sign - per each per day.
Item No. 102- 61-	Business Sign - each.
Item No. 102- 62-	Barrier Mounted Work Zone Sign – per each per day
Item No. 102- 71-	Barrier Wall - per foot.
Item No. 102- 75-	Temporary Lane Separator - per foot
Item No. 102- 94-	Glare Screen - per foot.
Item No. 102- 73-	Guardrail (Temporary) - per foot.
Item No. 102- 74-	Channelizing Devices - per each per day.
Item No. 102- 76-	Arrow Board - per each per day.
Item No. 102- 78-	Temporary Retroreflective Pavement Markers - each.

Item No. 102- 81-	Crash Cushion (Gating) (Temporary) - per location.
Item No. 102- 89-	Crash Cushion (Redirective) (Temporary) - per location.
Item No. 102- 99-	Portable Changeable Message Sign (Temporary) - per each per day.
Item No. 102-104-	Temporary Signalization and Maintenance - per intersection per day.
Item No. 102-107-	Temporary Traffic Detection and Maintenance - per intersection per day.
Item No. 102-150-	Portable Regulatory Sign - per each per day.
Item No. 102-150-	Radar Speed Display Unit - per each per day.
Item No. 102-909-	Temporary Raised Rumble Strips - per day.
Item No. 102-911-	Removable Tape (White/Black) - per foot.
Item No. 102-912-	Removable Tape (Yellow) - per foot.
Item No. 710-	Painted Pavement Markings.
Item No. 711-	Thermoplastic Pavement Markings.

MAINTENANCE OF TRAFFIC.

(REV 9-22-15) (1-16)

ARTICLE 102-3 is deleted and the following substituted:

102-3 Specific Requirements.

102-3.1 Beginning Date of Contractor's Responsibility: Maintain traffic starting the day work begins on the project or on the first day Contract Time is charged, or on the day work begins on the work order, whichever is earlier.

102-3.2 Worksite Traffic Supervisor: Provide a Worksite Traffic Supervisor who is responsible for initiating, installing, and maintaining all temporary traffic control devices as described in this Section and the Contract Documents. Provide all equipment and materials needed to set up, take down, maintain traffic control, and handle traffic-related situations. Use approved alternate Worksite Traffic Supervisors when necessary.

The Worksite Traffic Supervisor must meet the personnel qualifications specified in Section 105.

The Worksite Traffic Supervisor is to perform the following duties:

1. On site direction of all temporary traffic control on the project.
2. Is on site during all set up and take down, and performs a drive through inspection immediately after set up.
3. Is on site during all nighttime operations ensuring proper temporary traffic control.
4. Immediately corrects all safety deficiencies and corrects minor deficiencies that are not immediate safety hazards within 24 hours.
5. Is available on a 24 hour per day basis and present at the site within 45 minutes after notification of an emergency situation and is prepared to respond to maintain temporary traffic control or to provide alternate traffic arrangements.

6. Conducts daily daytime and weekly nighttime inspections of projects with predominately daytime work activities, and daily nighttime and weekly daytime inspections of projects with predominantly nighttime work activities of all traffic control devices, traffic flow, pedestrian, bicyclist, and business accommodations.

Advise the project personnel of the schedule of these inspections and give them the opportunity to join in the inspection as deemed necessary. Pedestrians are to be accommodated with a safe, accessible travel path around work sites separated from mainline traffic in compliance with the Americans with Disabilities Act (ADA) Standards for Transportation Facilities. Maintain existing or detour bicycle facilities satisfactorily throughout the project limits. Existing businesses in work areas are to be provided with adequate entrances for vehicular and pedestrian traffic during business hours.

The Department may disqualify and remove from the project a Worksite Traffic Supervisor who fails to comply with the provisions of this Section. The Department may temporarily suspend all activities, except traffic, erosion control and such other activities that are necessary for project maintenance and safety, for failure to comply with these provisions.

102-3.3 Necessary Maintenance Services (Straight Time): Provide personnel to perform MOT duties Monday through Thursday. Time begins when the Engineer is notified that MOT set-up is complete and flagging operations and maintenance of devices is ready to begin. Travel time to and from the work site is not included. Provide only one person for the maintenance of devices unless otherwise directed by the Engineer. Notify the Engineer when straight time ends and set-up or take-down begins.

102-3.4 Necessary Maintenance Services (Over-Time): Provide personnel to perform MOT duties Friday through Sunday and Holidays. Time begins when the Engineer is notified that set-up is complete and flagging and maintenance of devices is ready to begin. Travel time to and from the work site is not included. Provide only one person for the maintenance of devices unless otherwise directed by the Engineer. Notify the Engineer when over-time ends and set-up or take-down begins.

102-3.5 Emergency Maintenance of Traffic: Provide MOT set-up, maintenance and take-down when a work document is issued with a start date of less than 72 hours. Mobilization and all costs incurred will be considered incidental to the work.

SUBARTICLE 102-5.4 is deleted and the following substituted:

102-5.4 Crossings and Intersections: Provide and maintain adequate accommodations for intersecting and crossing traffic. Do not block or unduly restrict any road or street crossing the project unless approved by the Engineer. Maintain all existing actuated or traffic responsive mode signal operations for main and side street movements for the duration of the work. Restore any loss of detection within 12 hours. Use only detection technology listed on the Department's Approved Products List (APL) and approved by the Engineer to restore detection capabilities. Before beginning any construction, provide the Engineer the names and phone numbers of persons that can be contacted when signal operation malfunctions.

ARTICLE 102-7 is expanded by the following:

Provide off-duty law enforcement officer when required by the work document or as directed by the Engineer.

SUBARTICLE 102-9.14 is deleted and the following substituted:

102-9.14 Truck Mounted Attenuators and Trailer Mounted Attenuators: Furnish, install and maintain only those attenuators that meet the requirements of NCHRP 350 or the MASH.

Use truck mounted attenuators or trailer mounted attenuators, when called for in the Design Standards. Use attenuators listed on the APL.

When attenuators are called for, use either a truck mounted attenuator or a trailer mounted attenuator system designed and installed in accordance with the manufacturers recommendations.

Equip the attenuator cartridge with lights and reflectors in compliance with applicable Florida motor vehicle laws, including turn signals, dual tail lights, and brake lights. Ensure that lights are visible in both the raised and lowered positions if the unit is capable of being raised.

Install either alternating black with yellow or white with orange sheeting on the rear of trailer mounted attenuators and on truck mounted attenuators, in both the operating and raised position. Use Type III (work zone) or Type IV sheeting consisting of 4 or 6 inch wide stripes installed to form chevrons that point upward. All sheeting except black shall be retroreflective.

Payment will be made per day when included in the work document or as directed by the Engineer. Payment includes all costs, including furnishing, maintaining and removal when no longer required, and all materials, labor, tools, equipment and incidentals required for attenuator maintenance.

SUBARTICLE 102-11.2 is expanded by the following:

The quantity to be paid for off-duty law enforcement officers will be at the Contract unit price per hour for the actual number of officers certified to be on the project site, including any law enforcement vehicles and all other direct and indirect costs. Payment will be made only for those traffic control officers authorized by the Engineer.

ARTICLE 102-11 is expanded by the following new Subarticles:

102-11.23 Necessary Maintenance Services (Straight-Time): The quantity to be paid will be the number of calendar days, per day, that MOT duties are performed (Monday through Thursday).

102-11.24 Necessary Maintenance Services (Over-Time): The quantity to be paid will be the number of calendar days, per day, that MOT duties are performed (Friday through Sunday).

102-11.25 Truck Mounted Attenuator: The quantity to be paid will be the number of days, per day, regardless of the number of locations work is performed at each site.

ARTICLE 102-12 is deleted.

ARTICLE 102-13 is deleted and the following substituted:

102-12 Basis of Payment.

102-12.1 Maintenance of Traffic (General Work): When an item of work is included in the proposal, price and payment will be full compensation for all work and costs specified under this Section except as may be specifically covered for payment under other items.

102-12.2 Traffic Control Officers: Price and payment will be full compensation for the services of the traffic control officers.

102-12.3 Special Detours: Price and payment will be full compensation for providing all detour facilities shown in the Plans and all costs incurred in carrying out all requirements of this Section for general MOT within the limits of the detour, as shown in the Plans.

102-12.4 Commercial Materials for Driveway Maintenance: Price and payment will be full compensation for all work and materials specified for this item, including specifically all required shaping and maintaining of driveways.

102-12.5 Work Zone Signs: Price and payment will be full compensation for all work and materials for furnishing signs, supports and necessary hardware, installation, relocating, maintaining and removing signs.

102-12.6. Business Signs: Price and payment will be full compensation for all materials and labor required for furnishing, installing, relocating, maintaining, and removing the signs as well as the cost of installing any logos provided by business owners.

102-12.7 Project Information Signs: Price and payment will be full compensation for all materials and labor for furnishing, installing, relocating, maintaining and removing signs.

102-12.8 Channelizing Devices: Prices and payment will be full compensation for furnishing, installing, relocating, maintaining and removing the channelizing devices.

102-12.9 Barrier Wall (Temporary): Price and payment will be full compensation for furnishing, installing, maintaining, and removing the barrier. When called for, barrier wall (temporary) (relocate) will be full compensation for relocating the barrier.

102-12.10 Barrier Delineators: No separate payment will be made for barrier delineators installed on top of temporary barrier wall. The cost of furnishing, installing and maintaining the barrier delineators will be included in the cost of the temporary barrier wall.

102-12.11 Glare Screen (Temporary): Price and payment will be full compensation for furnishing, installing, maintaining, and removing the glare screen certified as installed/used on the project. When called for, glare screen (relocate) will be full compensation for relocating the glare screen.

102-12.12 Temporary Crash Cushion (Redirective/Gating): Price and payment will be full compensation for furnishing, installing, maintaining and subsequently removing such crash cushions.

102-12.13 Temporary Guardrail: Price and payment will be full compensation for furnishing all materials required for a complete installation, including end anchorage assemblies and any end connections to other structures and for installing, maintaining and removing guardrail.

102-12.14 Arrow Board: Price and payment will be full compensation for furnishing, installing, operating, relocating, maintaining and removing arrow boards.

102-12.15 Portable Changeable Message Sign: Price and payment will be full compensation for furnishing, installing, operating, relocating, maintaining and removing portable changeable message signs.

102-12.16 Portable Regulatory Signs: Price and payment will be full compensation for furnishing, installing, relocating, maintaining and removing a completely functioning system as described in these Specifications portable regulatory signs. Price and payment will be full compensation for furnishing, installing, operating, relocating, maintaining and removing portable regulatory signs.

Payment will include all labor, materials, incidentals, repairs and any actions necessary to operate and maintain the unit at all times that work is being performed or traffic is being affected by construction and/or MOT operations.

102-12.17 Radar Speed Display Unit: Price and payment will be made only for a completely functioning system as described in these specifications. Payment will include all labor, hardware, accessories, signs, and incidental items necessary for a complete system. Payment will include any measurements needed to insure that the unit conforms to all specification requirements.

Payment will include all labor, materials, incidentals, repairs and any actions necessary to operate and maintain the unit at all times that work is being performed or traffic is being affected by construction and/or MOT operations. Price and payment will be full compensation for furnishing, installing, operating, relocating, maintaining and removing radar speed display unit.

102-12.18 Temporary Signalization and Maintenance: Price and payment will constitute full compensation for furnishing, installing, operating, maintaining and removing temporary traffic control signals including all equipment and components necessary to provide an operable traffic signal. Payment will be withheld for each day at each intersection where the temporary signalization is not operational within 12 hours after notification.

102-12.19 Temporary Traffic Detection and Maintenance: Price and payment will constitute full compensation for furnishing, installing, operating, maintaining and removing temporary traffic detection including all equipment and components necessary to provide an acceptable signalized intersection. Take ownership of all equipment and components. Payment will be withheld for each day at each intersection where the temporary detection is not operational within 12 hours after notification.

102-12.20 Temporary Raised Rumble Strips: Price and payment will be full compensation for all work and materials described in this Section, including all cleaning and preparing of surfaces, disposal of all debris, furnishing of all materials, application, curing, removal, reinstalling and protection of all items, protection of traffic, furnishing of all tools, machines and equipment, and all incidentals necessary to complete the work.

102-12.21 Work Zone Pavement Markings: Price and payment will be full compensation for all work specified including, all cleaning and preparing of surfaces, furnishing of all materials, application, curing and protection of all items, protection of traffic, furnishing of all tools, machines and equipment, and all incidentals necessary to complete the work. Final payment will be withheld until all deficiencies are corrected.

Removable tape may be substituted for work zone paint at no additional cost to the Department.

Payment for temporary RPMs used to supplement line markings will be paid for under temporary retroreflective pavement markers. Install these markers as detailed in the Design Standards.

102-12.22 Temporary Lane Separator: Price and payment will be full compensation for all work specified in this Section.

102-12.23 Necessary Maintenance Services (Straight-Time): Price and payment will be full compensation for MOT duties performed (Monday through Thursday).

102-12.24 Necessary Maintenance Services (Over-Time): Price and payment will be the full compensation MOT duties performed (Friday through Sunday).

102-12.25 Truck Mounted Attenuator: Price and payment will be full compensation for providing truck mounted attenuators each day regardless of the number of locations work is performed at each site.

102-12.26 Payment Items: Payment will be made under the items shown in the Bid Price Proposal.

104-40 ROADSIDE MOWING.

(REV 9-24-14) (1-16)

The following new Section is added after Section 104:

SECTION 104-40 ROADSIDE MOWING

104-40.1 Description.

Mow grass or vegetation in roadside areas with conventional mowing equipment. Use specialized equipment or hand labor when required to perform specified work in certain areas or during certain times. Vegetation consists of planted and/or natural grasses, weeds, and other vegetation within the area to be mowed. Comply with the current edition of the Department's "A Guide to Roadside Vegetation Management".

104-40.2 Types of Mowing Areas.

104-40.2.1 General: The Engineer will determine the areas to be cut and type of mowing to be accomplished in each.

All hand labor required to perform the specified work around appurtenances will be incidental to the type of mowing being performed. Appurtenances include, but are not limited to, sign post and bases, delineator post, fences, guardrail, barrier walls, end walls, pipes, drainage structures, poles, guys, mail boxes, landscaped areas, and trees.

104-40.2.2 Large Machine Mowing: Large machine mowing encompasses the routinely mowed areas of shoulders, front and back slopes that are 3 horizontal to 1 vertical or less, roadside ditch bottoms, large median islands and similar areas conducive to the use of large machine mowing equipment.

104-40.2.3 Slope Mowing: Slope mowing is generally limited to slopes greater or steeper than 3 horizontal to 1 vertical and are relatively inaccessible to the use of conventional style equipment, e.g., steep slopes, wet roadside ditch bottoms, canal banks, intersections, overpasses, etc. These type areas will require the use of specialized equipment designed for slope mowing.

104-40.2.4 Intermediate Machine Mowing: Intermediate machine mowing consists of mowing areas not accessible by large machine mowing equipment but not conducive to the use of small machine mowing equipment. These areas consist of shoulders, roadside ditch bottoms, raised median islands, various width utility strips, and similar areas.

104-40.2.5 Small Machine Mowing: Small machine mowing consists of mowing areas not accessible by large and intermediate machine mowing equipment. These areas consist of narrow shoulders, landscaped shoulders, narrow roadside ditch bottoms, raised landscaped median islands, narrow width utility strips, and similar areas.

104-40.3 Frequency of Mowing.

The area and limits of mowing have been previously established and are distinguishable in the field. Where landscaping has been established or natural landscaping has been preserved, mow conforming to the established mowing contours. Mow up to the limits maintained by the Department and around existing appurtenances located within the roadway right-of-way as directed by the Engineer.

The Engineer will determine the type of mowing, the estimated number of acres to be accomplished within a specified number of calendar days (cycle), when to begin each mowing cycle, and the total number of cycles. Complete each mowing cycle within N/A calendar days of beginning the cycle, weather permitting. The approximate number of cycles for each type of mowing will be as follows:

Large Machine Mowing	<u>11</u> cycles (<u>N/A</u> minimum cycles)
Slope Mowing	<u>6</u> cycles (<u>N/A</u> minimum cycles)
Intermediate Machine Mowing	<u>11</u> cycles (<u>N/A</u> minimum cycles)
Small Machine Mowing	<u>N/A</u> cycles (<u>N/A</u> minimum cycles)
Mow Wildflower plots approximately	<u>N/A</u> times per year.

Wildflower plots or naturally occurring wildflowers are to be avoided when in bloom and when re-seeding. A deduction will not be made from the pay quantities for any wildflower area not mowed, unless it exceeds one acre.

Quantities will be agreed upon prior to beginning work in any area in question.

104-40.4 Equipment.

Equip all mowing equipment with a slow moving vehicle sign located on the rear of the tractor, amber flashing light or white strobe light mounted on the tractor, 18 inch X 18 inch fluorescent orange warning flags mounted on each side of the rear of the mower, protective devices on the mower to prevent objects from being thrown into traffic, and safety devices installed by the manufacturer. Properly install and maintain safety devices at all times when the equipment is in use.

If the Engineer determines that any equipment is deficient in safety devices, remove the equipment from service immediately. Keep the equipment out of service until the deficiency is corrected to the satisfaction of the Engineer. Inspection of the equipment by the Engineer will not relieve the Contractor of responsibility or liability for injury to persons or damage to property caused by the operation of the equipment, nor will it relieve the Contractor of the responsibility to meet the established time for the completion of the mowing cycle.

Maintain the mowing equipment so as to produce a clean, sharp cut and uniform distribution of the cuttings at all times. The mowing equipment used will have the capability of cutting a height from 4 inches to 12 inches.

Furnish equipment of a type and quantity to perform the work satisfactorily within the time specified herein.

104-40.5 Method of Operation.

Begin any mowing cycle when authorized by the Engineer in writing.

Notify the Engineer when a cycle is started and when work is interrupted for any reason.

Prior to beginning work on the first cycle, provide a pattern or plan for mowing to the Engineer for approval. Subsequent cycles will follow the pattern adopted for the first cycle.

Mow shoulders and medians concurrently within the limits of the area mowed so that not more than one mile will be left partially mowed at the conclusion of the working day. Mow grass and vegetation on slopes or around appurtenances concurrent with the mowing operation.

Complete each mowing cycle in its entirety prior to beginning another cycle.

When work by other's, or weather conditions of a temporary nature, prevent the mowing of any areas, and such conditions are eliminated during the period designated for that mowing cycle, the Engineer may require mowing of these areas as part of the cycle without penalty for exceeding the time allowed or additional compensation.

Do not mow-grassed areas saturated with standing water to the point standard mowing equipment may not be used without excessive damage to the turf. At the Engineer's discretion, mow the areas during a subsequent cycle, or cut to the surface of the water using hand labor or other specialized equipment. Additional compensation may be requested for alternate methods used to mow wet areas (as specified in 104-40-9). Quantities will be agreed upon prior to beginning work in any area in question. No deduction will be made from the pay quantities for any one area authorized by the Engineer to remain un-mowed during a cycle unless it exceeds one acre in extent.

Prior to mowing, pickup, remove and dispose from the right-of-way, any large items such as wood, tires, cans, bags of trash, newspapers, magazines, large boxes, etc., that would be torn, ripped, or scattered by the mower and result in an objectionable appearance.

Exercise the necessary care to preclude any source of litter.

104-40.6 Limitation of Operation.

Maintenance of traffic will be in accordance with Section 102. When mowing within four feet of the travel-way (travel lane), operate the equipment in the same direction of the traffic, unless the adjacent lane is closed to traffic. All lane closures will have the prior approval of the Engineer. Mowers may operate in either direction when mowing four feet or more from the travel-way.

Perform all work during daylight hours.

The foregoing requirements are to be considered as minimum and compliance will in no way relieve the Contractor of final responsibility for providing adequate traffic control devices for the protection of the public and employees throughout the work areas.

104-40.7 Quality.

Completed areas will be reviewed for quality and acceptance by the Engineer. Re-mow areas determined to be unsatisfactory, by the Engineer, at no additional cost to the Department. Complete areas requiring re-mowing within the mowing cycle time specified in Subarticle 104-40-3.

Mow all grass and vegetation to a height of 6 inches plus or minus 1/2 inch. When determined by the Engineer, certain areas, due to location, may be cut to a height of 4 inches plus or minus 1/2 inch.

No streaking or scalping will be allowed in the areas mowed. Mowing areas of different widths will be connected with smooth flowing transitions. No accumulation or piling of cuttings will be allowed as a result of cleaning of the equipment.

Mow all grass and vegetation on slopes or around appurtenances to the same height and quality as the surrounding mowed area when using hand tools.

Negligence that results in damage to turf, curbs, sidewalks, pavement, signs or structures, mail boxes, appurtenances, etc. will be repaired or replaced to the satisfaction of the Engineer at no additional cost to the Department. Complete repairs prior to submission of the invoice for work accomplished during the cycle.

It is not required to remove grass or other vegetation cuttings from the right-of-way, or required to rake or pick up the cuttings in rural areas. In Urban Areas, with Small, Intermediate, or Large Machine Mowing the cuttings will need to be removed from sidewalks, curb & gutter, gutter, and inlets by the Contractor. The use of blowers (away from traffic) will be allowed to remove the cuttings.

104-40.8 Method of Measurement.

The quantities to be paid for will be the area, in acres, of mowing completed and accepted.

104-40.9 Basis of Payment.

Additional compensation for hand labor or the use of specialized equipment in cutting wet areas will be included under Item No. E104-4-2 Slope Mowing.

Prices and payment will be full compensation for furnishing all equipment, materials, labor, and incidentals necessary to complete all mowing operations specified. Compensation will be the unit price per acre for mowing times the actual acres completed and accepted.

Payment will be made under the items specified in the Bid Price Proposal.

110-30 ROADSIDE LITTER REMOVAL.

(REV 8-1-13) (1-16)

The following new Section is added at the end of Section 110:

**SECTION 110-30
ROADSIDE LITTER REMOVAL**

110-30.1 Description.

Provide pickup, removal, disposal of litter, and otherwise undesirable or objectionable appearing debris within the maintained limits of the highway right-of-way.

Litter or debris may consist of varied sizes of bottles, cans, paper, tires, tire pieces, lumber, vehicle parts, metal junk, brush, and other items to be removed under this work.

110-30.2 Frequency of Removal.

The Engineer will determine when to begin each pickup. Areas or portions of areas may be increased or decreased, as determined by the Engineer. The total number and the timing of pickup will depend upon the litter conditions that exist. Areas specified as litter removal areas will be picked up approximately 12 times. The actual number of litter pickups may be increased or decreased, as determined by the Engineer, due to the intensity of litter or special events.

Complete each litter removal cycle within N/A calendar days of beginning the cycle, weather permitting, as determined by the Engineer.

110-30.3 Equipment.

Equipment that is utilized to transport litter will be constructed in a manner to preclude further distribution or loss of litter along the roadway. Cover and secure all open top carriers with tarpaulins.

Submit a written request for approval, to the Engineer, for the use of specialized equipment designed for mechanized removal of litter and debris. Demonstrate satisfactory results at no cost to the Department that the specialized equipment will produce quality litter removal, if deemed necessary by the Engineer. The Engineer may require additional safety devices or precautions unique to the equipment.

Equipment that damages curbs, pavement, or turf will not be allowed.

110-30.4 Limitation of Operation.

Any equipment left on the right-of-way overnight will be parked outside the clear zone, except in median areas where no equipment will be permitted to be parked overnight. All service and supply operations will be conducted between the travel-way and the right-of-way line and be outside the clear zone. No supply vehicles will enter the median for any purpose. No service vehicle will enter the median except when necessary to repair or remove inoperable equipment.

No work will be permitted during non-daylight hours.

Workmen will wear orange clothing of high visibility such as a vest, shirt, or jacket, when performing litter pickup operations.

110-30.5 Disposal of Litter and Debris.

Provide locations for disposal and remove all litter that has been placed in trash bags for pick up from the right-of-way at the end of each working day. Be responsible for disposal of litter and debris and any cost that may incur in accordance with applicable local and state laws. Storage or stockpiling of litter or debris on the right-of-way will not be permitted.

Provide the landfill receipts with each invoice submittal.

110-30.6 Quality.

Completed areas will be reviewed for quality and acceptance by the Engineer. Areas determined to be unsatisfactory, by the Engineer, will be re-cleaned at no additional cost. Areas will be cleaned in a manner that they are left reasonably free of all litter and debris. The Engineer will not penalize for litter and debris that may have been deposited between the time the work was completed and the time when the Engineer approves the work. However, the Engineer's judgment when evaluating completed work will be final.

110-30.7 Method of Measurement.

The quantities to be paid for under this Section will be the number of acres of roadside cleaned and accepted.

110-30.8 Basis of Payment.

Payment will be full compensation for furnishing all equipment, materials, labor, disposal, and incidentals necessary to complete designated areas of litter and debris removal, less any areas omitted.

Payment will be made under the items specified in the Bid Price Proposal.

110-32 EDGING AND SWEEPING.**(REV 9-16-09) (1-16)**

The following new Section is added at the end of Section 110:

**SECTION 110-32
EDGING AND SWEEPING**

110-32.1 Description.

Edge, sweep, remove and dispose of vegetation from curb and gutter and sidewalk areas including, but not limited to, median island curbs, roadside curbs, the front and/or backside of sidewalks and gutters, bike paths, curb inlets throats and other areas as designated by the Engineer.

110-32.2 Frequency of Edging and Sweeping.

The Engineer will determine the total number of edging and sweeping cycles and when to begin each cycle. All areas designated are to be edged and swept approximately 6 times per year. Complete each cycle within N/A calendar days from the beginning of the cycle, weather permitting, as determined by the Engineer.

Quantities will be agreed upon prior to beginning work in any area in question.

110-32.3 Equipment.

Provide positive means to control dust from edging and sweeping operations.

Use equipment for removal or transportation of debris or litter that precludes distribution or loss of debris or litter along the roadway.

Operate moving equipment in the same direction as the flow of traffic.

110-32.4 Method of Operation.

Do not begin work until authorized, in writing, by the Engineer. Develop a work pattern from the locations listed in the work document, unless the Engineer designates the priority of the work.

Edging – The blade of the edger must produce a clear sharp cut. The trench resulting from the actions of the cutting blade will not exceed one inch in width from the edge of the surface being edged. Do not push grass or weeds into the trench.

Vegetation - Vegetation consists of grass, weeds, or bushes up to one inch in diameter that extend beyond the normal grassed areas onto the curb, sidewalk, bike paths, or other designated areas. Uniformly cut and remove all vegetation, extending over the curb, sidewalk, bike paths, or other designated area to the back edge of the curb, sidewalk, bike path, or other designated area.

Sweeping - Sweep all debris (grass, weeds, soil, litter, etc.) from the curb and gutters, inlet throats and grates, sidewalks, and bike paths to produce a clean appearance. Do not use blowers in the edging, sweeping or debris removal operation. Remove and dispose of properly the soil and vegetation from the gutter or sidewalk, including joint areas.

Debris Disposal – Remove debris and/or litter produced by the edging or sweeping from the job site daily. Do not stockpile or store debris or litter on the right-of-way overnight. Dispose of all debris in accordance with local, state, and federal laws. Include the cost of disposal of the debris, litter, and vegetation trimmings in the contract unit price for edging and sweeping. Remove any debris that falls into curb and inlet structures.

Return at a later time and complete the edging and sweeping operations in areas where access is blocked by parked vehicles or other obstructions.

Conduct all edging, sweeping, and disposal activities during daylight hours only, unless otherwise specified in the contract documents or approved by the Engineer. The Engineer may approve nighttime operations upon request, at no additional compensation for nighttime traffic control. The Engineer may restrict the hours of operations based on peak traffic hours, local conditions, or special events. Complete all required edging, sweeping, and disposal of debris within the limits worked by the conclusion of each workday.

The quality and acceptance of work will be determined by the Engineer. Re-edge or re-sweep areas that are determined to be unacceptable at no additional cost to the Department.

Repair or replace damage to curbs, sidewalks, pavement, or turf due to negligence to the satisfaction of the Engineer at no additional compensation.

110-32.5 Method of Measurement.

The quantities to be paid will be the total miles of edges of curb and gutter, paved shoulders, sidewalks or other areas, edged and/or swept, completed and accepted. Areas that are maintained by businesses, groups, individuals, or areas where the grass and/or weeds fail to grow sufficiently to justify performing this work will be omitted as determined by the Engineer.

Areas requiring more than one edging/sweeping pass to sufficiently remove the debris will not be compensated twice.

110-32.6 Basis of Payment.

Price and payment will be full compensation for all the work specified in this Section and will include all equipment, labor, materials, and incidentals necessary to complete the work.

Payment will be made under the items specified in the Bid Price Proposal.