

**STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
MEMORANDUM OF 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 HAINES CITY** (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. _____ dated the _____ day of _____, _____, 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 be 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:

Four (4) quarterly lump sum payments will be made in the amount of **Six Thousand One Hundred Forty-Seven Dollars and Eighty-Four Cents (\$6,147.84)**. The total annual contract/expenditure amount is **Twenty-Four Thousand Five Hundred Ninety-One Dollars and Thirty-Six Cents (\$24,591.36)** unless the contract is amended.

The total contract amount, unless amended, for all three (3) years is **Seventy-Three Thousand Seven Hundred Seventy-Four Dollars and Eight Cents (\$73,774.08)**.

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 Chief Financial Officer of the State of Florida under Chapters 215 and 216, Florida Statutes. Deliverable(s) must be received and accepted in writing by the Contract Manager on the **DEPARTMENT**'s invoice transmittal forms prior to payment. If the **DEPARTMENT** determines that the performance of the **AGENCY** is unsatisfactory, the **DEPARTMENT** shall notify the **AGENCY** for the deficiency to be corrected, which the correction shall be made within a time frame to be specified by the **DEPARTMENT**. The **AGENCY** shall, within five days after notice from the **DEPARTMENT**, provide the **DEPARTMENT** with a corrective action plan describing how the **AGENCY** will address all issues of contract non-performance, unacceptable performance, failure to meet the minimum performance levels, deliverable deficiencies, or non-compliance with the Agreement. If the corrective action plan is unacceptable to the **DEPARTMENT**, the **AGENCY** shall be assessed a non-performance retainage equivalent to 10% of the total invoice amount. The retainage shall be applied to the invoice for the then-current billing period. The retainage shall be withheld until the **AGENCY** resolves the deficiency. If the deficiency is subsequently resolved, the **AGENCY** may bill the **DEPARTMENT** for the retained amount during the next billing period. If the **AGENCY** is unable to resolve the deficiency, the funds retained may be forfeited at the end of the Agreement term.
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.
3. To the extent permitted by law, **AGENCY** shall indemnify, defend and hold harmless **DEPARTMENT** against any actions, claims, or damages arising out of, relating to, or resulting from negligent or wrongful act(s) of **AGENCY**, or any of its officers, agents or employees, acting within the scope of their office or employment, in connection with the obligations and rights granted to or exercised by **AGENCY** hereunder, to the extent and within the limitations of Section 768.28, Florida Statutes. The foregoing indemnification shall not constitute a waiver of sovereign immunity beyond the limits set forth in Florida Statutes, Section 768.28, nor shall the same be construed to constitute agreement by **AGENCY** to indemnify **DEPARTMENT** for the negligent acts or omissions of **DEPARTMENT**, its officers, agents, or employees, or for the acts of third parties. Nothing herein shall be construed as consent by **AGENCY** to be sued by third parties in any manner arising out of this agreement. The **AGENCY** shall also require all contractors and subcontractors who conduct operations within the Project to indemnify and hold **DEPARTMENT** harmless against any actions, claims, or damages arising out of, relating to, or resulting from negligent or wrongful act(s) of said Contractor or Subcontractor or any of their officers, agents, or employees, acting within the scope of their office or employment. The indemnities assumed by the **AGENCY** shall survive termination of this agreement.

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 HAINES CITY has caused this Agreement to be executed in its behalf, by the _____ 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 _____ day of _____, _____.
FDOT to enter effective date.

HAINES CITY, FLORIDA

ATTEST:

CLERK NAME

(SEAL)

SIGNATURE

TITLE

DATE

LEGAL REVIEW:

DATE

PRINT NAME

DATE

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

^{DS}
MJ

DISTRICT MAINTENANCE ENGINEER
Amarilys Alfonso-Perez, P.E.

PRINT NAME

DATE

DISTRICT ONE SECRETARY OR DESIGNEE
Keith Slater, P.E.

PRINT NAME

DATE

^{DS}
DC

LEGAL REVIEW:

DATE

AVAILABILITY OF FUNDS APPROVAL:
March 1, 2023

DATE

ATTACHMENT "A"
LOCATIONS AND PRICES FOR CITY OF HAINES CITY

Location: 1

Section: 16020000 **Mile Post:** 20.883-22.770
State Road: US 17/US 92, From Kentucky Street to 17th Street

Activity	Quantity	Units	Cycles	Unit Cost	Location Cost
Large Machine Mowing	11.09	Acres	11	\$17.00	\$2,073.83
Intermediate Machine Mowing	3.3	Acres	11	\$50.67	\$1,839.32
Litter Removal	14.39	Acres	14	\$9.40	\$1,893.72
Mechanical Sweeping	3.12	Miles	12	\$39.61	\$1,483.00
Edging	2.64	Miles	6	\$85.00	\$1,346.40

Location: 2

Section: 16050000 **Mile Post:** 0.000 - 0.5000
State Road: US 17/US 92, From Hinson Avenue to CR 580

Activity	Quantity	Units	Cycles	Unit Cost	Location Cost
Large Machine Mowing	3	Acres	11	\$17.00	\$561.00
Intermediate Machine Mowing	1.8	Acres	11	\$50.67	\$1,003.27
Litter Removal	4.8	Acres	14	\$9.40	\$631.68

Location: 3

Section: 16090000 **Mile Post:** 32.765 - 34.807
State Road: US 17, From South City Limits to US 17/US 92

Activity	Quantity	Units	Cycles	Unit Cost	Location Cost
Large Machine Mowing	4.65	Acres	11	\$17.00	\$869.55
Intermediate Machine Mowing	3.3	Acres	11	\$50.67	\$1,839.32
Litter Removal	7.95	Acres	14	\$9.40	\$1,046.22
Mechanical Sweeping	2.43	Miles	12	\$39.61	\$1,155.03
Edging	4.87	Miles	6	\$85.00	\$2,483.70

MAINTENANCE AGREEMENT NO.: BEF21

FM NO.: 432727-1-78-43

Page 2 of 2

Location: 4

Section:
State Road:

16140000

Mile Post:

10.500 -
11.647

SR 544, From West City Limits to SR 17

Activity	Quantity	Units	Cycles	Unit Cost	Location Cost
Large Machine Mowing	5.8	Acres	11	\$17.00	\$1,084.60
Intermediate Machine Mowing	4.7	Acres	11	\$50.67	\$2,619.64
Litter Removal	10.5	Acres	14	\$9.40	\$1,381.80
Mechanical Sweeping	1.2	Miles	12	\$39.61	\$570.38
Edging	1.39	Miles	6	\$85.00	\$708.90

SUMMARY

Activity	Quantity	Units Cost	Cycles
Large Machine Mowing	24.54	\$17.00	11
Intermediate Machine Mowing	13.1	\$50.67	11
Litter Removal	37.64	\$9.40	14
Mechanical Sweeping	6.75	\$39.61	12
Edging	8.9	\$85.00	6

Total Annual Cost	\$24,591.36
--------------------------	--------------------

Four Quarterly Payments	\$6,147.84
--------------------------------	-------------------

**Attachment "B"
SPECIFICATIONS**

**AWARD AND EXECUTION OF CONTRACT – PUBLIC RECORDS.
(REV 10-17-16) (FA 10-24-16) (7-22)**

ARTICLE 3-9 is expanded by the following:

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

District 1

863-519-2623

D1prcustodian@dot.state.fl.us

Florida Department of Transportation

District 1 – Office of General Counsel

801 N. Broadway Avenue

Bartow, FL 33830

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.

102-2 Materials.

Meet the following requirements:

Bituminous Adhesive.....	Section 970J\$
Temporary Raised 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, Standard Plans 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 reclaimed asphalt pavement (RAP) 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.

102-3.3 Lane Closures: Approval for all lane closures, mobile operations, and traffic pacing operations is required. Submit routine requests to the Engineer fourteen calendar days in advance of planned lane closures, mobile operations, and traffic pacing operations. For unforeseen events that require cancelling or rescheduling lane closures, mobile operations, and traffic pacing operations, revise the lane closure request as soon as possible.

102-4 Alternative Traffic Control Plan.

The Contractor may propose an alternative traffic control plan (TCP) to the plan presented in the Contract Documents. The Contractor's Engineer of Record must sign and seal the alternative plan and submit to the Engineer. Prepare the TCP in conformance with and in the form outlined in the current version of the FDOT Design 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.

For projects with nighttime lane closure restrictions where paving is expected to extend into the winter months, the Contractor may propose an alternative TCP allowing for daytime lane closures for friction course paving. The alternative TCP must be a lane closure analysis based on actual traffic counts and prepared in accordance with the FDOT Design Manual.

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 Standard Plans 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 median opening, road or street crossing the project unless approved by the Engineer. Before beginning any construction, submit to 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 must be a high intensity amber or white rotating, flashing, oscillating or strobe light. Lights must be unobstructed by ancillary vehicle equipment such as ladders, racks or booms and be visible 360 degrees around the vehicle. If the light is obstructed, additional lights will be required. The lights must be operating when the vehicle is in a work area where a potential hazard exists, when operating at less than the average speed for the facility while performing work activities, making frequent stops or called for in the Plans or Standard Plans.

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, including pedestrians and bicyclists, from any existing facility, 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 temporary walkway surfaces and ramps are required to be constructed, ensure surfaces are stable, firm, slip resistant, and kept free of any obstructions and hazards such as holes, debris, mud, construction equipment and stored materials.

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 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, the Engineer will, within 10 calendar days submit an approved material list to the Contractor and the appropriate Department storage yard.

Submit the name of 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.

102-6.7 Special Detour: A special detour is defined as a diversion or lane shift for vehicular traffic that requires temporary pavement.

102-6.8 Pedestrian Special Detour: A pedestrian special detour is defined as a temporary pedestrian way that requires temporary pavement or other stable, firm, slip-resistant surface.

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. When directing traffic/overriding the signal in a signalized intersection.
2. When Standard Plans, Index 102-619 is used on freeway facilities (interstates, toll roads, and expressways) at nighttime for work within the travel lane.
3. When Standard Plans, Index 102-655 Traffic Pacing 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 Standard Plans, Index 102-625 Temporary Road Closure 5 Minutes or Less is used.
6. When performing lane closures during nighttime operations on roadways with posted speed limits 55 mph or greater.

At the Contractor's option, traffic control officers may be used for operations other than those listed above.

Cost for traffic control officers will be paid for as described in 102-11.2.

The Department will not consider any claim arising from the failure of a traffic control officer to be present or available on the project. A noncompensable time extension may be granted when a state or local emergency requires all area law enforcement officers to be on-duty and not available for hire.

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 General: Use only devices that are listed on the APL. Immediately remove or cover, using any method of covering approved by the Engineer, any existing or temporary devices that do not apply to current conditions.

The use of NCHRP Report 350 Recommended Procedures for the Safety Performance Evaluation of Highway Features devices purchased prior to January 1, 2020 is permitted on projects let prior to January 1, 2030. All devices manufactured or purchased on or after January 1, 2020 must be MASH compliant in accordance with Section 990.

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

Notify the Engineer in writing 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 applicable temporary traffic control devices must meet the classification category of Acceptable as defined in the American Traffic Safety Services Association (ATSSA) Quality Guidelines for Temporary Traffic Control Devices and Features. Temporary concrete barriers must meet the classification category of Acceptable defined in the Department's Temporary Concrete Barrier Evaluation Guide, which may be viewed at the following URL:https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/implemented/urlinspecs/files/docs/default-source/content-docs/programmanagement/implemented/urlinspecs/files/temporaryconcretebarrierguide.pdf.pdf?sfvrsn=343b4c97_10.

Pedestrian longitudinal channelizing devices (LCDs) must meet the classification category of Acceptable as defined in the Pedestrian LCD Evaluation Guide, which may be viewed at the following URL: https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/implemented/urlinspecs/files/lcdevaluationguide.pdf?sfvrsn=166e0f16_2.

Immediately repair, replace or clean damaged, defaced or dirty devices. Traffic control devices must not be cleaned while installed/used. Use of warning lights on any temporary traffic control device is prohibited, with the exception of the trailer mounted portable regulatory signs.

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 channelizing 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 classification category of Acceptable as defined in the Pedestrian LCD Evaluation Guide and the ATSSA Quality Guidelines for Temporary Traffic Control Devices and Features. The CDS shall submit the monthly certification on letterhead for channelizing devices installed/used within the work zone. The CDS 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 Pedestrian LCD Evaluation Guide and the ATSSA Quality Guidelines for Temporary Traffic Control Devices and Features." If the Contractor chooses to provide and maintain cones, the Contractor must submit a monthly Contractor certification on letterhead that all cones installed/used within the work zone meet acceptable standards as outlined in the ATSSA Quality Guidelines for Temporary Traffic Control Devices and Features. The Contractor certification shall include the following statement, "I certify that I have provided and maintained cones in accordance with the ATSSA Quality Guidelines for Temporary Traffic Control Devices and Features."

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. A CDS may elect to provide a one-time submittal of this information to the State Construction Office for review and pre-approval. Department approved CDSs are listed on the State Construction Office website. 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 1029.1 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 channelizing 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,
 3. Beginning and ending date of CDS project activities,
 4. Location of project (city, state),
 5. Monetary amount of CDS work on project,

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

7. 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 Standard Plans, Index 102-600.

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.

102-9.2.3 Barrier Mounted Signs: If post mounting criteria cannot be achieved in accordance with Standard Plans, Index 102-600 and a barrier or traffic railing exists, use temporary sign criteria provided in Standard Plans, Index 700-013.

102-9.3 Business Signs: Provide and place signs in accordance with the Plans and Standard Plans, Index 102 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 Standard Plans, Index 102 series. Furnish signs having retroreflective sheeting meeting the requirements of Section 990.

102-9.5 Channelizing Devices: Furnish, install, maintain, remove and relocate channelizing devices in accordance with the Plans and Standard Plans.

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 must 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 Longitudinal Channelizing Devices (LCDs): Use LCDs listed on the APL and meeting the requirements of Section 990 and the Standard Plans. LCDs must be interlocked except for the stand-alone unit placed perpendicular to a sidewalk. For LCDs requiring internal ballasting, an indicator that clearly identifies the proper ballast level will be required. For LCDs requiring external ballasting, the ballasting methods must be detailed in the APL drawings including ballasting type and minimum weight.

Ensure that joints on the pedestrian LCDs are free of sharp edges and have a maximum offset of 1/2 inch in any plane.

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

102-9.6 Temporary Barrier: Furnish, install, maintain, remove and relocate temporary barrier in accordance with the Plans and Standard Plans. Obtain and use precast temporary concrete barrier from a manufacturing plant that is on the Department's Production Facility Listing. Temporary concrete barrier must meet the material and construction requirements of Section 521 unless noted otherwise in the Standard Plans. Proprietary temporary concrete, steel, or water filled barrier used must be listed on the APL.

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

Temporary barrier must comply with Standard Plans, Index 102-100 or 102-120. Install temporary barriers as either anchored or freestanding as shown in the Plans or the Standard Plans. An anchored unit is defined as having at least one stake or bolt into the underlying pavement or bridge deck. All other units, including those with keeper pins, are considered freestanding.

Remove temporary asphalt pads and repair all attachment scars to permanent structures and pavements after barrier removal. Make necessary repairs due to defective material, work, or Contractor operations at no cost to the Department. Restore barrier damaged by the traveling public within 24 hours after notification as authorized by the Engineer.

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.

102-9.6.2.1 Temporary Barrier Meeting the Requirements of Standard Plans, Index 102-120 and 102-110: Ensure the marking requirements of the respective Index are met.

102-9.6.2.2: Proprietary Precast Temporary Concrete Barrier Fabricated prior to 2005: Submit a certification stating that all unmarked barrier units meet the requirements of the Specifications and the Standard Plans. Certifications will be project specific and non-transferable.

102-9.6.2.3 Proprietary Precast Temporary Concrete Barrier Fabricated in 2005 or later: Ensure each barrier 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 fabricated prior to 2016 and marked with the "INDX 521" in lieu of the APL number will be permitted.

102-9.6.2.4 Temporary Concrete Barrier Repair: Before beginning the repair, remove all laitance, loose material, and any other deleterious matter to sound concrete or a minimum depth of one inch. Additionally, when reinforcing bars, inserts or weldments are exposed, remove the concrete to provide a minimum one inch clearance all around. Fill the repair area with an approved high performance concrete repair material in accordance with 930-5 and the manufacturer's recommendations. Restore surfaces and edges to the original dimensions and shape of the barrier.

Repairs are not allowed on barrier units that have one or more of the following deficiencies: structural cracking or cracks that exist through the entire cross-section; unit-to-unit connection assemblies or anchor slots are broken or no longer in a fixed position.

Do not paint repaired barriers.

102-9.7 Barrier Delineators: Install barrier delineators on top of temporary barrier and vehicular LCDs meeting the requirements of Section 705.

102-9.8 Temporary Glare Screen: 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 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, barrier delineators will not be required.

102-9.9 Temporary Crash Cushion (Redirective or Gating): Furnish, install, maintain and subsequently remove temporary crash cushions in accordance with the details and notes shown in the Plans, Standard Plans, and requirements of the pre-approved alternatives listed on the APL.

Temporary crash cushions can be either new or used functionally sound refurbished devices. Performance of intended function is the only condition for acceptance. All metallic components must be galvanized in accordance with Section 967.

Anchor abutting temporary barrier in accordance the Standard Plans or APL drawings, as required. Bidirectional installations must have a transition panel installed between the crash cushion and the abutting barrier. Delineate the crash cushion in accordance with Section 544. Maintain the crash cushions until their authorized removal. Do not place any materials or equipment within the length of the crash cushion.

Remove temporary asphalt or concrete pads and 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.

102-9.10 Temporary Guardrail: Furnish temporary guardrail in accordance with the Plans and Standard Plans. Meet the requirements of Section 536.

102-9.11 Arrow Board: Furnish arrow boards that meet the requirements of Section 990 as required by the Plans and Standard Plans to advise approaching traffic of lane closures or shoulder work. Ensure that the arrow board display panel is raised to a fully upright position and is fully visible to motorists. 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 must 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.

102-9.12 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 Standard Plans to supplement other temporary traffic control devices used in work zones. Ensure that the PCMS display panel is raised to a fully upright position and is fully visible to motorists.

Messages must have no more than two phases. The display time for each phase must be at least two seconds but no more than three seconds. The sum of the display time must be a maximum of six seconds.

102-9.13 Portable Regulatory Signs (PRS): Furnish PRSs that meet the requirements of Section 990 as required by the Plans and Standard Plans. Ensure that the PRS sign panel is raised to a fully upright position and is fully visible to motorists.

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

102-9.14 Radar Speed Display Unit (RSDU): Furnish RSDUs that meet the requirements of Section 990 as required by the Plans and Standard Plans to inform motorists of the posted speed and their actual speed. Ensure that the RSDU display panel is mounted in accordance with the manufacturer's recommendations.

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

102-9.15 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 alternate temporary traffic control until the signalization is restored.

Provide traffic signal equipment that meets the requirements of the Standard Plans 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. For temporary signals used for lane closure operations on two-lane, two-way roadways meet the requirements in 102-9.21.

102-9.16 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.

102-9.17 Truck Mounted Attenuators and Trailer Mounted Attenuators: Furnish, operate and maintain APL listed truck mounted and trailer mounted attenuators in accordance with the manufacturer's recommendations.

For posted speeds of 50 mph or greater, use either truck mounted attenuators or trailer mounted attenuators that meet TL-3 criteria. For posted speeds of 45 mph or less, use either truck mounted attenuators or trailer mounted attenuators that meet TL-2 or TL-3 criteria.

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 Maintenance of Traffic, lump sum. Payment includes all costs, including furnishing, operating maintaining and removal when no longer required, and all materials, labor, tools, equipment and incidentals required for attenuator maintenance.

102-9.18 Temporary Raised Rumble Strip Set: Furnish, install, maintain, remove, and reinstall temporary raised rumble strips per the manufacturer's recommendations and in accordance with Standard Plans, Index 102-603.

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

102-9.19 Automated Flagger Assistance Devices (AFAD): Furnish, install, maintain, remove, and relocate AFADs in accordance with the Plans, Standard Plans, Index 102-603, and APL vendor drawings.

Position AFADs where they are clearly visible to oncoming traffic. AFADs may be placed on the centerline if they have been successfully crash tested in accordance with MASH TL-3 criteria. A gate arm is required in accordance with Section 990 if a single AFAD is used on the shoulder to control one direction 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 location. Use only flaggers trained in accordance with Section 105 and in the operation of the AFAD. When in use, each AFAD must be in view of, and attended at all times by, the flagger operating the device.

Provide two flaggers on-site and use one of the following methods in the deployment of AFADs:

1. Place an AFAD at each end of the temporary traffic control zone, or
2. Place an AFAD at one end of the temporary traffic control zone and a flagger at the opposite end.

A single flagger may simultaneously operate two AFADs as described in (1) or a single AFAD as described in (2) if all of the following conditions are met:

1. The flagger has an unobstructed view of the AFAD(s),
2. The flagger has an unobstructed view of approaching traffic in both directions,
3. For two AFADs, the AFADs are less than 800 feet apart. For one AFAD, the AFAD and the flagger are less than 800 feet apart.
4. Two flaggers are available on-site to provide normal flagging operations should an AFAD malfunction.

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.

Illuminate the flagging station when the AFAD is used at night. When the AFAD is not in use, remove or cover signs and move the AFAD device outside the clear zone or shield it with a barrier.

AFADs will not be paid for separately. AFADs may be used as a supplement or an alternate to flaggers in accordance with the Plans, Standard Plans, Index 102-603, and the APL vendor drawings. Include the cost for AFADs in Maintenance of Traffic, Lump Sum.

102-9.20 Temporary Lane Separator: Furnish, install, maintain, remove and relocate temporary lane separator in accordance with the Plans and Standard Plans, Index 102-600. 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.

102-9.21 Temporary Signals for Lane Closures on Two-Lane, Two-Way Roadways: Furnish, install, maintain, remove, and relocate temporary signals for lane closure operations on two-lane, two-way roadways at the locations shown in the Plans. Temporary signals may be used, at the Contractor's option, as an alternate to flaggers for lane closure operations on two-lane, two-way roadways in accordance with Standard Plans, Index 102-606. Temporary signals can either be portable signals or span wire signals and must be listed on the APL.

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 Standard Plans.

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

102.10.2 Painted Pavement Markings:

102-10.2.1 General: Use painted pavement markings meeting the requirements of Section 710. Use standard 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 as shown in the Plans 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 Raised Pavement Markers (RPMs): Use Class B RPMs except for work that consists of ground-in rumble strips at centerline locations. For ground-in rumble strips at centerline locations, use temporary RPMs in accordance with Section 710. Provide only temporary RPMs listed on the APL. Install all markers in accordance with the manufacturer's recommendations, the Standard Plans, and Section 706. After initial installation, replace broken or missing temporary RPMs in locations where more than three consecutive temporary RPMs are broken or 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. Include the cost of any work that is necessary to meet the requirements of the Contract Documents for MOT under Maintenance of Traffic, lump sum when separate payment is not provided.

102-11.2 Traffic Control Officers: The quantity to be paid for traffic control officers as specified in 102-7(1) through (5) 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.

Cost for traffic control officers as specified in 102-7(6) or used at the Contractor's option will be paid for under Maintenance of Traffic, lump sum.

102-11.3 Special Detours: When a special detour is shown in the Plans, the work of constructing, maintaining, and subsequently removing such detour facilities will be paid for under Special Detour, lump sum. 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 Maintenance of Traffic, lump sum.

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 Standard Plans.

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.

Work zone signs may be installed fourteen days prior to the start of Contract Time with the approval of the Engineer and at no additional cost to the Department.

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 Maintenance of Traffic, lump sum.

102-11.8 Channelizing Devices: The number of drums, vertical panels, and Type I, Type II, Type III, or direction indicator barricades, certified as installed/used on the project meeting the requirements of Standard Plans, Index 102-600 and have been properly maintained will be paid for at the Contract unit prices for channelizing device.

Payment for drums, vertical panels, and Type I, Type II, Type III, and direction indicator barricades will be paid per each per day.

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 Standard Plans, Index 102-600 and have been properly maintained will be paid for at the Contract unit price for channelizing device.

Payment for pedestrian LCDs will be paid as the plan quantity length in feet, in place and accepted. For sidewalk closures, the plan quantity length will be based on the width of the sidewalk. The quantity of pedestrian LCDs will be paid for regardless of whether materials are new, used, or relocated from a previous installation on the project. Placement of pedestrian LCDs at locations not shown in the Plans, or not authorized by the Engineer, will be at the Contractor's expense. Payment for pedestrian LCD mounted signs will be made under Work Zone Signs, per each per day.

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 Temporary Barrier: The quantity to be paid for will be the length, in feet, of freestanding units or anchored units certified as installed/used on the project. The quantity to be paid for relocating barrier will be based on the relocated installation type. No separate payment will be made for the asphalt pad. For freestanding units transitioned to a crash cushion, the cost of anchoring the transition units will be included in the cost of the temporary crash cushion in accordance with 102-11.12.

102-11.10 Barrier Delineators: No separate payment will be made for barrier delineators installed on top of temporary barrier and vehicular LCDs. Include the cost for barrier delineators in the cost of the barrier or vehicular LCD.

102-11.11 Temporary Glare Screen: 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: No separate payment will be made for the concrete or asphalt pad.

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 anchoring of temporary barrier necessary for transition to the crash cushion and delineation.

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 anchoring of temporary barrier necessary for transition to the crash cushion and delineation.

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 certified 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 certified 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 certified 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 certified 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: Painted pavement markings will be paid as specified in 710-10. The quantity of removable tape to be paid for solid, 10'-30' skip, 3'-9' dotted, 6'-10' dotted, and 2'-4' dotted lines will be the length, in gross miles, authorized and acceptably applied under this Section and certified as installed/used on the project. The quantity of removable tape to be paid for transverse lines will be the length, in linear feet, authorized and acceptably applied under this Section and certified as installed/used on the project. The quantity of removable tape to be paid for pavement messages, symbols, and arrows will be per each, authorized and acceptably applied under this Section and certified as installed/used on the project. The quantity of temporary RPMs to be paid will be the number of RPMs 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 Standard Plans, Index 102-603. 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 to be paid for will be the field measure, in feet, of temporary lane separator certified as installed/used on the project, including drainage gaps, completed and accepted.

102-11.23 Temporary Signals for Lane Closures on Two-Lane, Two-Way Roadways: The quantity to be paid for will be the number of temporary signals per day installed/used at the locations shown in the Plans. Temporary signals installed/used at the Contractor's option as an alternative to flaggers will be included in Maintenance of Traffic, lump sum.

102-11.24 Temporary Highway Lighting: When temporary highway lighting is required by the Plans, the work of constructing, maintaining, and removing the temporary highway lighting, including all materials and any necessary design work, will be paid for under temporary highway lighting, lump sum.

102-11.25 Pedestrian Special Detours: When a pedestrian special detour is shown in the Plans, the work of constructing, maintaining, and subsequently removing such detour facilities will be paid for under pedestrian special detour, lump sum. However, traffic control devices, warning devices, barriers, signing, pavement markings, and restoration to final configuration will be paid for under their respective pay items.

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 Temporary Barrier: Price and payment will be full compensation for furnishing, installing, maintaining, and removing the barrier and asphalt pad. When called for, temporary barrier (relocate) will be full compensation for relocating the barrier.

102-13.10 Temporary Glare Screen: 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.

102-13.11 Temporary Crash Cushion (Redirective or Gating): Price and payment will be full compensation for furnishing, installing, maintaining, and removing crash cushions and concrete or asphalt pads.

102-13.12 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.

102-13.13 Arrow Board: Price and payment will be full compensation for furnishing, installing, operating, relocating, maintaining and removing arrow boards.

102-13.14 Portable Changeable Message Sign: Price and payment will be full compensation for furnishing, installing, operating, relocating, maintaining and removing portable changeable message signs.

102-13.15 Portable Regulatory Signs: Price and payment will be full compensation for furnishing, installing, relocating, operating, maintaining and removing a completely functioning system as described in these Specifications.

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.

102-13.16 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 ensure 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 MOT operations. Price and payment will be full compensation for furnishing, installing, operating, relocating, maintaining and removing radar speed display unit.

102-13.17 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.

102-13.18 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.

102-13.19 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 or durable paint may be substituted for standard paint at no additional cost to the Department.

Payment for temporary RPMs used to supplement line markings will be paid for under temporary raised pavement markers. Install these RPMs as detailed in the Standard Plans.

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

102-13.22 Temporary Signals for Lane Closures on Two-Lane, Two-Way Roadways: Price and payment will be full compensation for furnishing, installing, operating, maintaining and removing temporary traffic signal including all equipment and components necessary to provide an operable portable traffic signal.

102-13.23 Temporary Highway Lighting: Price and payment will be full compensation for providing all temporary highway lighting shown in the Plans.

102-13.24 Pedestrian Special Detours: Price and payment will be full compensation for providing all pedestrian special detours shown in the Plans.

102-13.25 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- 4-	Pedestrian Special Detour - lump sum.
Item No. 102- 14-	Traffic Control Officer - per hour.
Item No. 102- 30-	Temporary Highway Lighting - lump sum.
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-	Temporary Barrier - per foot.
Item No. 102- 75-	Temporary Lane Separator - per foot
Item No. 102- 73-	Temporary Guardrail - per foot.
Item No. 102- 74-	Channelizing Devices
Item No. 102- 76-	Arrow Board - per each per day.
Item No. 102- 78-	Temporary Raised Pavement Markers - each.
Item No. 102- 81-	Temporary Crash Cushion, Gating - per location.

Item No. 102- 89-	Temporary Crash Cushion, Redirective - per location.
Item No. 102- 94-	Glare Screen - per foot.
Item No. 102- 99-	Portable Changeable Message Sign - 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. 102-120-	Temporary Signal for Lane Closures on Two-Lane, Two-Way Roadways – per each 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. 102-913-	Removable Tape.
Item No. 710-	Painted Pavement Markings.
Item No. 711-	Thermoplastic Pavement Markings.

MAINTENANCE OF TRAFFIC.

(REV 3-2-20) (7-22)

SUBARTICLE 102-3.1 is deleted and the following substituted:

102-3.1 Contractor's Responsibility: Time begins when the Engineer is notified that setup is complete and flagging operations and maintenance of all temporary traffic control devices are ready for work to begin. Time ends when work has been completed. Notify the Engineer immediately when work has been completed. Travel time to and from the work site, as well as installation and removal of temporary traffic control devices is not included as compensable time. Provide only one person for the maintenance of devices unless otherwise directed by the Engineer.

SUBARTICLE 102-3.3 is deleted.

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 median opening, 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, submit to 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 102-9.1 is deleted and the following substituted:

102-9 Temporary Traffic Control Devices.

102-9.1 General: Use only devices that are listed on the APL and use in conformance with the APL drawings. Immediately remove or cover, using any method of covering approved by the Engineer, any existing or temporary devices (e.g. signs) that do not apply to current conditions. When in use, place a channelizing device at each corner of arrow boards, portable changeable message signs, radar speed display trailers, and any other trailer-mounted device. When not in use, move arrow boards, portable changeable message signs, radar speed display trailers, and any other trailer-mounted device outside of the clear zone or place them at the appropriate setback distance behind an existing barrier or temporary barrier that is present for shielding other items.

The use of NCHRP Report 350 Recommended Procedures for the Safety Performance Evaluation of Highway Features devices purchased prior to January 1, 2020 is permitted on projects let prior to January 1, 2030. All devices manufactured or purchased on or after January 1, 2020 must be MASH compliant in accordance with Section 990.

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

Notify the Engineer in writing of any scheduled operation that will affect traffic patterns or safety sufficiently in advance of commencing such operation to allow adequate time to review 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 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. All applicable temporary traffic control devices must meet the classification category of Acceptable as defined in the American Traffic Safety Services Association (ATSSA) Quality Guidelines for Temporary Traffic Control Devices and Features. Temporary concrete barriers must meet the classification category of Acceptable defined in the Department's Temporary Concrete Barrier Evaluation Guide, which may be viewed at the following URL: https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/implemented/urlinspecs/files/docs/default-source/content-docs/programmanagement/implemented/urlinspecs/files/temporaryconcretebarrierguide.pdf.pdf?sfvrsn=343b4c97_10.

Pedestrian longitudinal channelizing devices (LCDs) must meet the classification category of Acceptable as defined in the Pedestrian LCD Evaluation Guide, which may be viewed at the following URL: https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/programmanagement/implemented/urlinspecs/files/lcdevaluationguide.pdf?sfvrsn=166e0f16_2.

Immediately repair, replace or clean damaged, defaced or dirty devices. Traffic control devices must not be cleaned while installed/used. Use of warning lights on any temporary traffic control device is prohibited, with the exception of the trailer mounted portable regulatory signs.

SUBARTICLE 102-9.1.1 is deleted.

SUBARTICLE 102-9.16 is deleted and the following substituted:

102-9.16 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 for materials, labor, tools, equipment and incidentals required for performing the work described in this Section.

SUBARTICLE 102-11.1 is deleted and the following substituted:

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.

For this Contract, all pay items with unit "Each Day (ED)" and "Hour (HR)" will be defined as follows:

1. Time for "Each Day" will be calculated in 24 hour increments starting at the time specified in the Work Document.

2. "Hour" rates will be paid in increments of 1 hour, rounded up to the hour.

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

102-11.27 MOT Maintenance Services: The quantity to be paid will be the number of hours that MOT duties are performed, beginning when setup is complete to the initiation of takedown.

102-11.28 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 102-13.1 is deleted and the following substituted:

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.

When the proposal does not include a separate item for Maintenance of Traffic, all work and incidental costs specified as being covered under this Section will be included for payment under the several scheduled items of the overall Contract and no separate payment will be made therefore.

SUBARTICLE 13.25 is deleted and the following substituted:

102-13.25 MOT Maintenance Services: Price and payment will be full compensation for work performed.

102-13.26 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.

102-13.27 Payment Items: Payment will be made under the items shown in the Bid Price Proposal.

LITTER REMOVAL AND MOWING.

(REV 8-19-21) (7-22)

SECTION 107 is deleted and the following substituted:

107-1 Description.

107.1.1 Litter Removal: Provide pickup, removal, and disposal of litter and debris within the maintained limits from the outside edge of travel way to the right of way line, including the median on divided highways from the inside edge of travel way to the inside edge of travel way, ponds, and remote areas as specified in the Contract Documents. Litter or debris includes but is not limited to varied sizes of bottles, cans, paper, tires, tire pieces, lumber, vehicle parts, metal junk, small outdoor advertisement signs, brush, tree limbs, and other items to be removed under this work.

107-1.2 Mowing: Mow grass or vegetation within the project limits at locations identified in the Contract Documents. Locations may consist of roadside areas, ponds, ditches,

or other areas as specified. 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 project limits as directed by the Engineer. Use specialized equipment or hand labor when required to perform specified work in certain areas or situations. 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".

107-1.2.1 Large Machine Mowing: Provide large machine mowing in areas conducive to large machine mowing equipment with a 3 horizontal to 1 vertical or less slope.

107-1.2.2 Slope Mowing: Provide slope mowing on slopes with a greater or steeper than 3 horizontal to 1 vertical slope or other areas that are relatively inaccessible to the use of conventional style equipment.

107-1.2.3 Intermediate Machine Mowing: Provide intermediate machine mowing in areas of 3 horizontal to 1 vertical slope or less that are not accessible by large machine mowing equipment but not conducive to the use of small machine mowing equipment.

107-1.2.4 Small Machine Mowing: Provide small machine mowing in areas of 3 horizontal to 1 vertical slope or less that are not accessible by large and intermediate machine mowing equipment.

107-1.2.5 Manual Weed Control: For areas with densely planted trees and steep slopes that are not accessible to mowing equipment, when directed by the Work Document, remove grasses, weeds, vines, and other underbrush using hand or power tools.

Unless otherwise specified, manual labor required to perform work around appurtenances will be incidental to the type of mowing being performed. Appurtenances may consist of signpost and bases, delineator post, fences, guardrail, barrier walls, end walls, retaining walls, pipes, drainage structures, poles, guys, mailboxes, handrails, landscaped areas, and trees.

107-2 Frequency.

107-2.1 Litter Removal: The number of litter removal cycles may be increased or decreased based on litter conditions or special events, as directed by the Engineer. Areas or portions of areas within the project limits may be increased or decreased. The estimated number of litter removal cycles is approximately **14**.

Complete each litter removal cycle within **(to be determined by the engineer)** calendar days of beginning the cycle when the litter removal cycle is concurrent with a mowing cycle. When litter pick up is issued concurrently with a mowing cycle, remove litter prior to and in conjunction with mowing operations in all areas.

Complete each independent litter removal cycle within **(to be determined by the engineer)** calendar days of beginning the cycle.

107-2.2 Mowing: 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 mowing cycles to be completed.

The number of acres to be completed per cycle may vary depending upon soil conditions. The number of acres to be completed will vary per cycle when wildflowers are in bloom or are re-seeding. Complete each mowing cycle within **(to be determined by the engineer)** calendar days of beginning the cycle. 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>N/A</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
Manual Weed Control	<u>N/A</u> cycles (<u>N/A</u> minimum cycles)

Notify the Engineer prior to beginning work in areas with questionable mowing capabilities. Adjustments to quantities will not be made once work begins.

107-3 Equipment.

107-3.1 Litter Removal: Transport litter using equipment capable of preventing further distribution or loss of litter along the roadway. Cover and secure all open top carriers with tarpaulins.

Specialized mechanical equipment capable of successfully removing litter and debris may be used upon written approval by the Engineer. Additional safety devices or precautions may be required when using unique equipment.

Provide equipment that does not damage curbs, pavement, or turf.

107-3.2 Mowing: Provide 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.

Maintain mowing equipment to produce a clean, sharp cut and uniform distribution of the cuttings at all times. Provide mowing equipment with the capability of cutting a height from 4 inches to 12 inches.

Provide equipment of a type and quantity to perform the work satisfactorily within the specified time periods.

Immediately remove equipment deficient in safety devices and keep the equipment out of service until the deficiency is corrected.

The Engineer's inspection of equipment 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.

107-4 Method of Operation.

107-4.1 Litter Removal: Store equipment to remain on the project right of way while not in use outside the clear zone. Do not park or store equipment or supply vehicles in median areas. Conduct all service and supply operations between the travel-way and the right-of-way line and outside of the clear zone. Do not allow supply vehicles to enter the median. Do not allow service vehicles to enter the median except when necessary to repair or remove inoperable equipment.

Perform all litter removal during daylight hours.

Worksite personnel must wear high visibility apparel that meets the standards for High-Visibility Safety Apparel as established by The American National Standards Institute (ANSI) when performing litter removal activities.

107-4.2 Mowing: Perform all work operations in accordance with the appropriate temporary traffic control and lane closure requirements. Furnish, place, and maintain all traffic control devices throughout the duration of the work within the maintenance limits for the protection of the public and employees.

Operate the equipment in the same direction of the traffic unless the adjacent lane is closed to traffic when mowing within four feet of the travel-way (travel lane).

Perform all work during daylight hours.

Begin mowing cycles as directed by the Engineer in the Work Document.

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. Follow the pattern adopted for the first cycle with subsequent mowing cycles.

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. A complete cycle includes all manual labor around appurtenances.

If weather conditions or other situations of a temporary nature prevent the mowing of any areas, and such conditions are eliminated during the period designated for that mowing cycle, the adopted pattern for mowing may be altered to complete mowing of these areas during the mowing cycle.

Notify the Engineer of areas saturated with standing water to the point that standard mowing equipment would cause excessive damage to the turf. Mow the saturated areas during a subsequent cycle or cut to the surface of the water using hand labor or other specialized equipment as directed by the Engineer. Consult with the Engineer prior to beginning work in any questionable area.

Notify the Engineer when mowing areas or cycles have been completed. If any area does not meet the specified requirements, re-mow the areas at no additional cost to the Department.

107-5 Disposal.

107-5.1 Litter Removal: During each litter removal cycle, bag and remove all litter or piles at the end of each working day. Dispose of litter as necessary in accordance with applicable Federal, State, and Local Rules and Regulations. Do not store or stockpile litter within the project limits.

107.5.2 Mowing: In some areas it may be necessary to collect and remove grass clippings from the mowing operation, Dispose of vegetation cuttings in accordance with applicable Federal, State, and Local Rules and Regulations.

107-6 Requirements.

107-6.1 Litter Removal: Perform litter removal in a manner that results in areas being free of litter and debris.

107-6.2 Mowing: Mow all grass and vegetation to a height of 6 inches plus or minus 1/2 inch. Mow grass and vegetation to a height of 4 inches plus or minus 1/2 inch in specified areas as directed by the Engineer.

Perform mowing in a manner that will not result in streaking or scalping. Mow areas of different widths in a manner that will result in smooth flowing transitions. Do not allow accumulation or piling of cuttings as a result of cleaning the mowing 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, mailboxes, appurtenances, etc. will be repaired or replaced at no additional cost to the Department. Complete repairs prior to submission of the invoice for work accomplished during the cycle.

Do not leave an accumulation of clippings in curb and gutters or on sidewalks. The use of blowers (away from traffic) to remove cuttings may be allowed unless prohibited by Federal, State, and Local Rules and Regulations.

107-7 Method of Measurement.

107.7.1 Litter Removal: The quantities to be paid for litter removal will be the number of acres of litter removal completed and accepted.

107.7.2 Mowing: Use of specialized equipment will be of no additional cost to the Department.

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

The number of acres scheduled to be mowed per cycle will not be reduced for wildflower areas not mowed if the area is less than one acre.

The number of acres scheduled to be mowed per cycle will not be reduced for saturated areas that cannot be mowed when the area is less than one acre.

When alternate methods to mow saturated areas are required by the Engineer, payment will be based on the actual work performed.

107-8 Basis of Payment.

107-8.1 Litter Removal: Payment will be full compensation for furnishing all equipment, materials, labor, disposal, and incidentals necessary to complete litter and debris removal. Landfill receipts may be required with invoice submittals.

107-8.2 Mowing: 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 for the number of acres completed and accepted.

Payment will be made under:

- Item No. E107 - 1-1 Litter Removal - per acre.
- Item No. E107 - 2-1 Large Machine Mowing - per acre
- Item No. E107 - 2-2 Slope Machine Mowing - per acre
- Item No. E107 - 2-3 Intermediate Machine Mowing - per acre
- Item No. E107 - 2-4 Small Machine Mowing - per acre
- Item No. E107 - 2-5 Manual Weed Control

110-31 ROAD AND BRIDGE SWEEPING.**(REV 8-1-13) (7-22)**

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

**SECTION 110-31
ROAD AND BRIDGE SWEEPING****110-31.1 Description.**

Provide routine mechanized road and/or bridge sweeping to clean and remove sand, soil, paper, glass, cans, grass clippings, and other debris. Areas to be swept include but are not limited to; curb and gutters, valley gutters, bridge decks and curbs, inside and outside highway interchange ramps (with paved shoulders greater than 12 inches), outside and median paved shoulders, gore areas, toll plazas (when applicable), bi-directional lanes, areas adjacent to barrier walls, areas adjacent to median-noses and splitter islands, areas on top of inlet grates and other designated sites as determined by the Engineer.

110-31.2 Frequency of Sweeping.

Mechanically sweep specified areas approximately 12 times. The total number of sweeping cycles within the contract period may be increased or decreased as determined by the Engineer to meet field conditions.

Complete each sweeping cycle within **(to be determined by the engineer)** calendar days after issuance of the work document. Complete each sweeping cycle in its entirety prior to the beginning of another cycle. In assessing liquidated damages, the calendar days established in this Section will be used for determining delinquency of progress for each sweeping cycle.

No sweeping operations will be performed between the hours of **(to be determined by the engineer)** and **(to be determined by the engineer)**.

Submit sweeping schedules to the Engineer for approval.

110-31.3 Safety.

Provide Maintenance of traffic in accordance with Section 102. The work vehicle (sweeping machine) will have an operating flashing beacon and the shadow vehicles will be equipped with an approved advance warning arrow panel, warning sign, and truck mounted attenuator (crash cushion system).

All sweeping will be accomplished with or in the same direction as the traffic, sweeping opposing the traffic will not be permitted.

The foregoing requirements are to be considered as minimum and the 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.

110-31.4 Equipment.

Furnish equipment of a type and quantity to perform the work satisfactorily within the time specified. The sweeping equipment will be capable of meeting the quality requirements of 110-31.8 in one pass and a maximum of two passes for areas determined unsatisfactory by the Engineer.

The mechanized road sweeper(s) will have a minimum capacity of four cubic yards.

The Engineer or his representative prior to being placed into service will inspect all safety devices on the sweeping operation equipment. Any deficient safety devices will be corrected or replaced immediately and service will not begin until the deficiency is corrected.

Inspection and approval 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 Contractor's operations.

Equipment that damages pavement, curbs, or turf will not be allowed. Damages as a result of the operations will be repaired at no cost to the Department.

110-31.5 Dust Control Equipment.

The sweeping operation will not create excessive airborne dust or other particles, as determined by the Engineer. Equipment supplied with a functioning water spray system normal to the industry for dust control will satisfy this requirement.

110-31.6 Parked Vehicles.

Vehicles that are parked in the sweeping area are to be swept around. The area occupied by a parked vehicle will be considered as work accomplished.

110-31.7 Removal and Disposal of Debris.

Debris may be encountered that is larger than the mechanized sweeper can remove such as; tires, tire parts, hub caps, large stones, boxes, tree limbs, wood, cable, and other such materials. Remove all debris encountered using other means (hand or mechanized), regardless of the size.

Piles of soil may be encountered and vegetation that may require special removal methods during the sweeping operations. Furnish all labor, materials, and equipment required to accomplish removal of these built-up areas.

Stockpiling or disposal of debris on the Department's right-of-way shall not be permitted.

Provide areas for disposing of debris in accordance with all Federal, State, and Local Rules and Regulations in effect at the time of the disposal. Cost involved with the disposal of debris will be included in the contract unit price per mile of mechanized (mechanical) sweeping.

110-31.8 Quality.

Pick up and remove from the areas to be swept, any obstacle such as wood, tires, cans, etc. that can not be picked-up by the sweeper to include areas under guardrail on paved shoulders. Remove all items such as newspapers, magazines, large boxes, etc. that would be torn, ripped, or scattered by the sweeper and result in an objectionable appearance.

Completed work will be clean and free of all accumulated debris immediately after sweeping, as determined by the Engineer.

Areas determined unsatisfactory by the Engineer will be re-swept to the satisfaction of the Engineer within the time specified, at no additional cost to the Department.

110-31.9 Method of Measurement.

The quantities to be paid for under this Section will be the number of miles completed and accepted measured longitudinally to the travel lane to the nearest one hundredth of a mile. A second unit of measurement will be required from the Contractor. The cubic yards of material picked up, will be reported to the inspector for each sweeping cycle completed. If the contract is for more than one county, the number of cubic yards picked up will be prorated by county based on the number of miles swept in each county.

The width will be sufficient to cover the entire width of curb and gutters, valley gutters, bridge decks and curbs, inside and outside highway interchange ramps (with paved shoulders greater than 12 inches in width, outside and median paved shoulders, concrete barriers, gore areas, toll plazas (when applicable), and other designated sites. Areas requiring more than one sweeping pass to sufficiently remove the debris will not be compensated twice.

110-31.10 Basis of Payment.

Payment will be full compensation for furnishing all equipment, materials, labor, and incidentals necessary to complete all sweeping operations, including hand work, as specified. Compensation will be at the unit price per mile times the actual miles completed and accepted.

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

110-32 EDGING

(REV 7-12-19) (7-22)

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

**SECTION 110-32
EDGING****110-32.1 Description.**

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

110-32.2 Frequency

The Engineer will determine the total number of edging cycles and when to begin each cycle. All areas designated are to be edged approximately 6 times per year. Complete each cycle within **(to be determined by the engineer)** 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 effective means to control dust from all edging operations, including removal and disposal of debris.

Use equipment for removal or transportation of debris or litter that prevents 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.

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

Sweep all debris (grass, weeds, soil, litter, etc.) from the curb and gutters, inlet throats and grates, sidewalk and sidewalk joints, and bike paths to produce a clean appearance. The use of blowers (away from traffic) **(to be determined by the engineer)** be allowed to remove the cuttings.

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, including sidewalk joints. Removal of vegetation includes 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.

Remove and properly dispose of all debris produced by the edging, vegetation removal and sweeping operations from the job site daily. Do not stockpile or store debris on the right-of-way overnight. Dispose of all debris in accordance with Federal, State, and Local Rules and Regulations. Include the cost of vegetation removal, sweeping, and disposal of the debris, litter, soil and vegetation trimmings in the contract unit price for edging. Remove any debris that falls into any part of the storm water system at no additional compensation.

Conduct all edging 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 operations within the limits worked by the conclusion of each workday. In areas where access is blocked by parked vehicles or other obstructions, return to the area(s) to complete the edging as necessary at no additional expense to the Department.

The quality and acceptance of work will be determined by the Engineer. Re-edge, including vegetation removal and sweeping, 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.

Quantities to be paid will be the total number of miles of edging operations completed and accepted, including each pass for roadside, median island, inlet throats, curbs and gutters, bike paths and sidewalks. Areas that are maintained by others, or areas where the grass and/or weeds fail to grow sufficiently to justify performing this work may be omitted as determined by the Engineer.

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:

E110- 32- 2- Edging - mile.