



**CITY OF DUBLIN
INVITATION TO BID
BID #25-09-001**

Issue Date: September 26, 2025
OPENING DATE AND TIME: October 27, 2025 at 2:00 PM

The City of Dublin will receive sealed bids for furnishing supplies or services at:

**CITY OF DUBLIN PURCHASING OFFICE
702 E MADISON ST.
DUBLIN, GA 31021**

Bids will be publicly opened and read on the above stated date and time, local time prevailing. Late bids will not be accepted. No extension of the bidding period will be made. The City reserves the right to award a bid to multiple bidders when more than one item appears in a bid package.

Purchase requested by: Engineering Dept.

ITEM	SUPPLIES/SERVICES	QTY.	TOTAL COST
1.	2025 City of Dublin Street Resurfacing per attached specs	1 each	\$ _____

f.o.b. Dublin
Delivery Time: _____

**W-9 (Rev. March 2024) must be provided with bid.

**Supporting literature must be provided with bid.

In compliance with the above, the undersigned offers and agrees, if this bid is accepted within sixty (60) calendar days from the date of opening, to furnish any and all of the items upon which prices are quoted, at the price set opposite each item, delivered at the designated point(s) within the time specified in the schedule. Items on bid are exempt from federal excise tax and Georgia sales and use tax. Title shall pass to the City only upon actual receipt and acceptance of the items. In the event there is a discrepancy between the unit price and the extended price, the unit price shall govern. Terms are N30. Bids will not be accepted via facsimile or e-mail. _____ (Please initial)

NAME & ADDRESS OF BIDDER

SIGNATURE OF BIDDER

DATE

PHONE NUMBER & FAX NUMBER

SIGNER'S NAME & TITLE (Type or Print)

E-Mail: _____

For information regarding this bid, contact David Sawyer, Purchasing Dir., at sawyerd@dublinga.org.

INSTRUCTIONS FOR BIDDERS

- I. Bids must be received by the designated date and time.
Late bids will not be accepted.
 - II. Bids must be delivered to:

City of Dublin - Purchasing Department
P. O. Box 690
702 E Madison St. (31021)
Dublin, GA 31040
ATTN: David Sawyer
 - III. Bids must be sealed with the bid number clearly printed on the outside of the envelope.
 - IV. Bids must be complete and include:
 - A. Completed Bid Proposal Form
 - B. Executed Affidavit of Non-Collusion
 - C. Executed Bidder's Declaration
- All bids submitted shall be subject to acceptance or rejection and the City of Dublin specifically reserves the right to accept or reject any or all bids, to waive any technicalities and formalities in the bidding.
 - Failure of the bidder to sign the bid or have the signature of any authorized representative or agent on the bid/proposal **IN THE SPACE PROVIDED** may be cause for rejection of the bid. Signature must be written in ink. Typewritten or printed signatures are not acceptable.
 - All bids should be tabulated, totaled and checked for accuracy. The unit price will prevail in case of errors.
 - If only one bid is received, the bid will be forwarded to the Mayor and Council for a determination to accept and award the bid or to reject and re-bid.
 - Bids requiring bid bonds will not be read or considered if bond is not enclosed. Bond may be in the form of cash, certified check, cashier's check or Surety Bond issued by a Surety Company licensed to conduct business in Georgia.
 - Bids must meet or exceed the specifications in order to be considered by the City of Dublin. Any reference to brand name is to be considered generic. The City of Dublin reserves the right to award a bid to more than one bidder when two or more items appear on the bid schedule. Awards will be based on the lowest and best bid with local vendors within the City of Dublin receiving a 3% preference. Payment terms are N30 unless otherwise stated in the bid.
 - Bidders shall submit all required forms and information simultaneously with sealed bids, which forms and information become a part of the property of the City of Dublin and will not be returned to bidders

unless a written request to withdraw is received prior to the designated date and time of the bid opening.

- It shall be the responsibility of **all** bidders to indicate the brand name and model or series number of the product offered and to furnish with their bid such specifications, catalog pages, brochures, or other data that will provide an adequate basis for determining the quality and functional capabilities of the product offered. **Failure to provide the requested data or product demonstrations and/or sample may be considered valid justification for rejection of bid.**
- All bidders must be recognized and authorized dealers in the materials or equipment specified and be qualified to advise in their application or use. A bidder at any time requested must satisfy the Purchasing Office and City Council that he has the requisite organization, capital, plant, stock, ability and experience to satisfactorily execute the contract in accordance with the provisions of the contract in which he is interested.
- When requested, SAMPLES will be furnished free of expense, properly marked for identification and accompanied by a list where there is more than one sample. The City reserves the right to mutilate or destroy any samples submitted whenever it may be in the best interest of the City to do so for the purpose of testing.
- The unauthorized use of patented articles is done entirely at risk of successful bidder.
- The ESTIMATED QUANTITY given in the specifications or advertisement is for the purpose of bidding only. The City may purchase more or less than the estimated quantity, and the vendor must not assume that such estimated quantity is part of the contract.
- Only the latest model equipment as evidenced by the manufacturer's current published literature, will be considered. Obsolete models of equipment not in production will not be acceptable. Equipment shall be composed of new parts and materials. Any unit containing used parts or having seen any service other than the necessary tests will be rejected. In addition to the equipment specifically called for in the specifications, all equipment catalogued by the manufacturer as standard or required by the State of Georgia shall be furnished with the equipment. Where required by the State of Georgia Motor Vehicle Code, vehicles shall be inspected and bear the latest inspection sticker of the Georgia Department of Revenue.
- A contract will not be awarded to any corporation, firm or individual who is, from any cause, in arrears to the City or who has failed in any former contract with the City to perform work satisfactorily, either as to the character of the work, the fulfillment of the guarantee, or the time consumed in completing the work.
- Contracts may be cancelled by the City with or without cause with 30-day written notice.

BIDDER'S DECLARATION

The bidder understands, agrees and warrants:

- That the bidder has carefully read and fully understands the full scope of the specifications.
- That the bidder has the capability to successfully undertake and complete the responsibilities and obligations in said specifications.
- That this bid may be withdrawn by requesting such withdrawal in writing at any time prior to the scheduled bid opening, but may not be withdrawn after such date and time.
- That the City of Dublin reserves the right to reject any or all bids and to accept that bid which will, in its opinion, best serve the public interest. The City of Dublin reserves the right to award the bid to separate bidders when more than one item appears on the schedule. The City of Dublin reserves the right to waive any technicalities and formalities in the bidding.
- That the bidder understands that these specifications are the minimum requirements and must be met or exceeded in order to be considered by the City of Dublin. The bidder acknowledges that the item bid is suitable for the intended application.
- That by submission of this bid the bidder acknowledges that the City of Dublin has the right to make any inquiry or investigation it deems appropriate to substantiate or supplement information supplied by the bidder.

If a partnership, a general partner must sign.

If a corporation, the authorized corporate officer(s) must sign and the corporate seal must be affixed to this bid.

BIDDER:

Name

Title

Name

Title

AFFIX CORPORATE SEAL (if applicable)

TERMS AND CONDITIONS – INVITATION TO BID

1. CHANGES: No change will be made to this invitation except by written modification by the City Purchasing Office. Requests for changes must be in writing and received at least ten (10) calendar days prior to the time set for opening of the bids.

2. FOB POINT: Bid price to include shipping, packing, crating, and unloading at the address in the BID SCHEDULE. Title to remain with vendor until fully accepted by the City. Goods damaged or not meeting specifications will be rejected and removed at vendor's expense. Concealed damaged goods to remain the property of vendor until replaced or removed at City's direction. All bid responses received will be F.O.B. Dublin. Due to volume of order, delivery shipment schedule will be coordinated between the successful bidder and the City of Dublin.

3. RISK OF LOSS: Vendor agrees to bear all risk of loss, injury, and destruction of goods and materials ordered herein which occur prior to delivery to include concealed damage; and such loss, injury, or destruction shall not release vendor from any obligation.

4. BID IDENTIFICATION: All bids submitted as a result of this invitation must be returned in a sealed envelope with the bid number on the envelope.

5. WITHDRAWAL OF BIDS: Bids may be withdrawn by written request only, if the request is received prior to the time and date set for the opening of bids. Negligence on the part of the bidder in preparing his bid confers no right of withdrawal or modification of his bid after bid has been opened.

6. BID BONDS: A. Bid Bond: required
 B. Payment and Performance Bonds: required

7. SITE INSPECTIONS: When applicable, bidders should inspect the site to ascertain the nature and location of work and the general conditions which could affect the cost of the work. The City will assume no responsibility for representations or understandings made by its officers or employees unless included in this Invitation for Bid. While site inspections are not a mandatory requirement to submit a proposal, vendors are urged to schedule inspections to ascertain all the requirements of this invitation.

8. AWARD OF CONTRACT: Awards will be made to that responsible bidder whose bid, conforming to the Invitation for Bid, will be most advantageous to the City. Prices will not necessarily be controlling, but quality, equality, efficiency, delivery, suitability of item(s) offered, maintainability, and reputation of item(s) in general use will also be considered with any other relevant factors. The City reserves the right to reject any and/or all bids submitted and to waive any technicalities or minor irregularities in bids received. A written award mailed (or otherwise furnished) shall be deemed to result in a binding contract without further action by either party. Contract(s), if awarded, will be on a lump sum basis or individual item basis, whichever is found to be in the best interest of the City of Dublin.

8.1: In accepting this contract, the vendor attests that he is in compliance with the Nondiscrimination Clause contained in Section 202 of Executive Order 11246, as amended, relative to equal employment opportunity for all persons without regard to race, color, religion, sex, or national origin, and the implementing rules and prescribed by the Secretary of Labor, which is incorporated herein by reference.

9. EXCEPTIONS TO SPECIFICATIONS: Any award resulting from this invitation shall bind the bidder to all Terms, Conditions, and Specifications set forth in this invitation. Bidders whose bids do not conform should so note on a separate page if necessary and/or on the **Bid Schedule**. While the City reserves the right to make an award to a nonconforming bidder when in the best interest of the City, such awards will not be readily made, and bidders are urged to conform to the greatest extent possible. No exceptions will be considered to have been taken by bidder unless it is properly set out as provided above. No exception will be deemed to have been taken by the City unless incorporated in an award resulting from this invitation and so stated.

10. BID RESULTS: Interested parties may request, in writing, a **Bid Tabulation** by sending a self-addressed, stamped envelope with their request to City of Dublin Purchasing Department, P.O. Box 690, Dublin, GA 31040. Tabulations may also be requested by e-mail to sawyerd@dublinga.org.

11. PAYMENT: Payments will be made upon all items completed each month or completion of all work and acceptance by City on invoices submitted and approved by the proper city representative within thirty (30) days of receipt of invoice unless discounts apply (see item #13). Invoices are to be submitted to: City of Dublin, P.O. Box 690, Dublin, GA 31040.

11.1 Itemize all invoices in full. Mail the original invoice to the address above. A shipping or receiving ticket will be signed and a copy left with each delivery. Purchase order numbers must appear on all delivery tickets and invoices.

11.2 Vendor must furnish delivery receipt identifying that this order has been delivered in accordance with the specifications, quantities, and price as set forth on the purchase order. A City of Dublin employee's signature must appear on the delivery receipt or invoice.

11.3 Items on this order are exempt from Federal Excise Tax and Georgia Sales and Use Tax. A certificate will be furnished if requested. The CITY OF DUBLIN is exempt from taxes but the successful bidder shall pay all taxes required of him by law and the CITY OF DUBLIN cannot exempt others from tax.

11.4 Payment terms and provisions herein or otherwise found within the contract documents supersede all provisions of the Georgia Prompt Pay Act (House Bill 837; 13 O.C.G.A. chapter 11 **ET. SEQ.**).

12. INQUIRIES REGARDING PAYMENT: All inquiries regarding payment of invoices are to be directed to Accounts Payable at (478) 277-5018 or to City of Dublin, ATTN: Accounts Payable, P. O. Box 690, Dublin, GA 31040.

13. DISCOUNTS: Prompt payment discounts offered for a period of less than fifteen (15) days will not be considered in determining the low bidder on this invitation. However, such discounts, when offered, will be taken provided payment is made within the time specified. Time, in connection with discounts for prompt payments, will be computed from the date of acceptance of work for which payment is claimed, or the date the correct invoice is received by the City, whichever is later.

14. EXECUTION OF CONTRACT: Subsequent to the award, the successful bidder will be presented with a contract which may be in the form of a purchase order. Contract is to be executed with ten (10)

calendar days of from award notice. If the contract document is mailed, the date of presentation shall be the postmark date.

15. INCLUSION: All items and/or services which are standard, expected, necessary, and/or routine to such a project as this and not actually stated in this invitation will be the responsibility of the successful bidder to provide at no other cost to the City unless so stated on the successful bidder's proposal as additional cost items and accepted by the City at the time of the award and/or contract.

16. REGULATORY AGENCIES: Successful bidder will be responsible for all required permits or licenses required by regulatory agency of the City, County, State, or Federal Governments. Further, successful bidder will be responsible for meeting all requirements of any regulation(s) or guideline(s) of any of the said governments or any independent agency recognized by said Government as publisher of any such regulation(s) or guideline(s).

17. INDEPENDENT CONTRACTORS: The bidder represents to the CITY OF DUBLIN that he is fully experienced and properly qualified to perform the functions provided herein and that he is properly equipped, organized, and financed to perform such functions. The bidder shall finance his own operations hereunder, shall operate as an independent contractor and not as an agent of the CITY OF DUBLIN and nothing contained in this invitation or a contract resulting from same shall be construed to constitute the bidder or any of his employees, agents, or subcontractors as a partner, employee, or agent of the City nor shall either party have any authority to bind the other in any respect; it being intended that each shall remain an independent contractor.

18. ASSIGNMENT OF CONTRACTUAL RIGHTS: It is agreed that the successful bidder will not assign, transfer, convey, or otherwise dispose of a contract that results from this invitation or his right, title, or interest in or to the same, or any part thereof, without written consent of the City.

19. STARTING TIME: work will commence within the stated calendar days and commence in a routine, orderly manner until completion and acceptance by the City.

20. INDEMNITY: Successful bidder agrees, if entering into a contract as a result of this invitation, to defend, indemnify, and hold harmless the CITY OF DUBLIN from any and all courses of action or claims of damages arising out of or related to bidder's performance or actions or those of his employees or agents, under said contract.

21. TERMINATION: pursuant to O.C.G.A. 36-60-13, if applicable, any contract resulting from this invitation, if not sooner terminated pursuant to the provisions of terminations contained herein, is terminable by the CITY OF DUBLIN Council on December 31 of each calendar year during the term of said contract, except that said contract shall be renewed automatically on such date, and without any lapse, unless positive action is taken to terminate said contract by the Council in a public meeting and such action entered in the Official Minutes of the CITY OF DUBLIN Council.

22. APPROPRIATION OF FUNDS: Initial contract and any continuation contract(s) will terminate immediately and absolutely at any such time as there are no appropriated unobligated funds available to satisfy the City's obligations under said contract(s).

23. CANCELLATION FOR CAUSE: Should either party fail to comply with the Terms and Conditions of this contract, the aggrieved party must give, in writing, to the other party any complaint for non-compliance to the Terms and Conditions of this contract. The other party shall have fifteen (15) calendar days to correct the matter. If corrected to the satisfaction of both parties within the fifteen (15) calendar days and stated in writing, then the contract will continue uninterrupted. Failure to correct the matter will result in termination of this contract at the end of the thirty (30) calendar days following the date of the initial letter of complaint.

24. LIQUIDATED DAMAGES: Any liquidated damages will be listed in the Special Terms and Conditions.

25. COMMODITY STATUS: It is understood and agreed that materials delivered shall be new, of latest design, and in first quality condition, that all bags, container, etc. shall be new and suitable for storage; unless otherwise stated by the CITY OF DUBLIN.

26. USE OF TRADE NAMES: Reference to brand or trade names are for comparative purposes only. Proposers may submit proposals on items from other manufacturers. In these instances, proposals shall be accompanied with all descriptive information necessary for a thorough evaluation. Failure to provide supporting data shall be cause for rejection.

27. DESCRIPTIVE INFORMATION: Unless otherwise specifically provided in the specifications, reference to any equipment, material, article or patented process, by trade name, make or catalogue number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition.

28. TAXES: The City of Dublin is exempt from Federal Excise and State Sales Taxes.

29. LAWS/ORDINANCES: The Contractor shall observe and comply with all Federal, state, local and municipal laws, ordinances, rules and regulations that would apply to this contract.

30. INTEGRITY OF BID DOCUMENTS: Bidders shall use the original Bid Form(s) provided by the Purchasing Department and enter information only in the spaces where a response is requested. Bidders may use an attachment as an addendum to the Bid Form(s) if sufficient space is not available on the original form for the bidder to enter a complete response. Any modifications or alterations to the original bid documents by the bidder, whether intentional or otherwise, will constitute grounds for rejection of a bid. Any such modifications or alterations a bidder wishes to propose must be clearly stated in the bidder's proposal response and presented in the form of an addendum to the original bid documents.

31. FORCE MAJEURE: In the event that either party shall be delayed or hindered in or prevented from the performance required hereunder by reasons of strikes, lockouts, labor troubles, failure of power, riots, insurrection, war, acts of God, or other reasons of like nature not the fault of the party delayed in performing work or doing acts ("Permitted Delay"), such party shall be excused for the period of time equivalent to the delay caused by such Permitted Delay. Notwithstanding the foregoing, any extension of time for a Permitted Delay shall be conditioned upon the party seeking an extension of time delivery written notice of such Permitted Delay to the other party within (10) days of the event causing the delay.

CITY OF DUBLIN
P. O. BOX 690
DUBLIN, GA 31040

NO BID RESPONSE

IF FOR SOME REASON YOU ARE NOT BIDDING ON THIS PROPOSAL, PLEASE COMPLETE THE FOLLOWING AND RETURN TO THE ADDRESS BELOW BEFORE THE BID DEADLINE STATED ON THE ORIGINAL SCHEDULE.

REASON(S) FOR NO BID:

- ☐ CANNOT SUPPLY AT THIS TIME
☐ ENGAGED IN OTHER WORK
☐ QUANTITY TOO SMALL
☐ JOB TOO LARGE
☐ CANNOT MEET REQUIRED DELIVERY
☐ OPENING DATE DOES NOT ALLOW SUFFICIENT TIME TO PREPARE BID
☐ EQUIVALENT NOT PRESENTLY AVAILABLE

OTHER REASON OR REMARKS:

COMPANY OR FIRM NAME

SIGNATURE

TITLE

DATE

RETURN TO: CITY OF DUBLIN
PURCHASING DEPT.
PO BOX 690
DUBLIN, GA 31040



NON-COLLUSION AFFIDAVIT

The following affidavit is to accompany the bid:

STATE OF _____

COUNTY OF _____

Owner, Partner or Officer of Firm

Company Name, Address, City and State

being of lawful age, being first duly sworn, on oath says that he/she is the agent authorized by the bidder to submit the attached bid. Affiant further states as bidder, that they have not been a party to any collusion among bidders in restraint of competition by agreement to bid at a fixed price or to refrain from bidding. Affiant also states as bidder, that they have not been a party to any collusion with any officer of the City of Dublin or any of their employees as to quantity, quality or price in the prospective contract; and that discussions have not taken place between bidders and any office of the City of Dublin or any of their employees concerning exchange of money or other things of value for special consideration in submitting a sealed bid for:

Firm Name

Signature

Title

Subscribed and sworn to before me this _____ day of _____, 20____.

Notary Public



City of Dublin, Georgia
CONTRACTOR AFFIDAVIT AND AGREEMENT

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. 13-10-91, stating affirmatively that the individual, firm, or corporation which is contracting with the City of Dublin has registered with and is participating in a Federal Work Authorization Program* [any of the electronic verification of work authorization programs operated by the United States Department of Homeland Security to verify information of newly hired employees, pursuant to the Immigration Reform and Control Act of 1986 (IRCA) P.L. 99-603], in accordance with the applicability provisions and deadlines established in O.C.G.A. 13-10-91.

The undersigned further agrees that, should it employ or contract with any subcontractor(s) in connection with the physical performance of services pursuant to this contract the City of Dublin, contractor will secure from such contractor(s) similar verification of compliance with O.C.G.A. 13-10-91 on the Subcontractor Affidavit provided in Rule 300-10-01-.08 or a substantially similar form. Contractor further agrees to maintain records of such compliance and provide a copy of each such verification to the City of Dublin at the time the subcontractor(s) is retained to provide the service.

EEV/ Basic Pilot Program* User Identification Number

BY: Authorized Officer or Agent

Date

Title of Authorized Office or Agent

SUBSCRIBED AND SWORN BEFORE ME ON THIS _____ DAY OF _____ 20 _____

Notary Public

My Commission Expires: _____

*As of the effective date of O.C.G.A. 13-10-91, the applicable federal work authorization program is the "EEV/Basic Rule Pilot Program" operated by the U.S. Citizenship and Immigration Services Bureau of the U.S. Department of Homeland Security, in
Conjunction with the Social Security Administration (SSA)



City of Dublin, Georgia
SUBCONTRACTOR AFFIDAVIT AND AGREEMENT

By executing this affidavit, the undersigned subcontractor verifies its compliance with O.C.G.A. 13-10-91, stating affirmatively that the individual, firm, or corporation which is contracting with the City of Dublin has registered with and is participating in a federal work authorization program* [any of the electronic verification of work authorization programs operated by the United States Department of Homeland Security to verify information of newly hired employees, pursuant to the Immigration Reform and Control Act of 1986 (IRCA) P.L. 99-603], in accordance with the applicability provisions and deadlines established in O.C.G.A. 13-10-91

EEV/ Basic Pilot Program* User Identification Number

Date _____

BY: Authorized Officer or Agent
(Subcontractor Name)

Title of Authorized Office or Agent of Subcontractor

SUBSCRIBED AND SWORN BEFORE ME ON THIS THE _____ DAY OF _____ 20____

Notary Public: _____

My Commission Expires: _____

*As of the effective date of O.C.G.A. 13-10-91, the applicable federal work authorization program is the "EEV/Basic Rule Pilot Program" operated by the U.S. Citizenship and Immigration Services Bureau of the U.S. Department of Homeland Security, in
Conjunction with the Social Security Administration (SSA)



**SAVE COMPLIANCE AFFIDAVIT
O.C.G.A § 50-36-1(e) (2) Affidavit**

By executing this affidavit under oath, as an applicant for Contract or Services, as referenced O.C.G.A. C. § 50-36-1, from the City of Dublin, Georgia, the undersigned applicant verifies one of the following with respect to my application for a public benefit:

- 1) _____ I am a United State citizen.
- 2) _____ I am a legal permanent resident of the United States
- 3) _____ I am a qualified alien or non-immigrant under the Federal Immigration and Nationality Act with an alien number issued by the Department of Homeland Security or other federal immigration agency. My alien number issued by the Department of Homeland Security or other federal immigration agency is: _____.

The undersigned applicant also hereby verifies that he or she is 18 years of age or older and has provided at least one secure and verifiable document, as required by O.C.G.A. § 50-36-1(e) (1), with this affidavit. The secure and verifiable document provided with this affidavit can best be classified as:

_____.

In making the above representation under oath, I understand that any person who knowingly and willfully makes a false, fictitious, or fraudulent statement or representation in an affidavit shall be guilty of a violation of O.C.G.A. § 16-10-20, and face criminal penalties as allowed by such criminal statute.

Executed in _____ (city), _____ (state).

Signature of Applicant

Printed Name of Applicant

SUBSCRIBED AND SWORN BEFORE ME ON THIS THE

_____ DAY OF _____, 20_____

NOTARY PUBLIC

My Commission Expires:

CITY OF DUBLIN
Specifications for 2025 City of Dublin Street Resurfacing
BID #25-09-001
Item # 1

1. Sealed bid for the completion of the 2025 CITY OF DUBLIN STREET RESURFACING owned by the City of Dublin will be received by David Sawyer, Purchasing Director, at the Director's Office located at 702 E. Madison St., Dublin, GA 31021 until 2:00 p.m. on Monday, October 27, 2025, at which time they will be publicly opened. Digital submission of bids will also be accepted thru eProcurement sites www.Bidnet.com or www.demandstar.com. Bids will not be accepted by via facsimile.
2. The project shall include but is not limited to approximately 3.77 miles of hot mix asphalt resurfacing and re-striping of various streets within the City of Dublin.
3. Plans and Specifications are open to inspection at City Hall, Dublin, Georgia, or may be obtained from City of Dublin, Purchasing Department, Post Office Box 690, or 702 E. Madison Street Dublin, Georgia.
4. Bids shall be accompanied by a bid bond in an amount not less than 10% of the base bid. **No Irrevocable Letter of Credit will be accepted.** All bonds shall be by a surety company licensed in Georgia with an "A" minimum rating of performance and a financial strength of at least five (5) times the contract prices as listed in the most current publication of "Best's Key Rating Guide Property Liability." Performance and Payment Bonds, each in an amount equal to 100% of the contract price shall be required of the successful bidder if contract is awarded. No Irrevocable Letter of Credit will be accepted. Each Bond shall be accompanied by a "Power of Attorney" authorizing the attorney-in-fact to bind the surety and certified to include the date of the bond.
5. Liability and Worker's Compensation Certificate of Insurance must be provided.
6. City reserves the right to reject any or all Bids, including without limitation, the rights to Reject any or all nonconforming, non-responsive, unbalanced or conditional Bids and to reject the Bid of any Bidder if City believes that it would not be in the best interest of the Project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability to meet any other pertinent standard or criteria established by the City.

Technical Specifications

Note: All correspondence and coordination including submittals, testing results, pay requests, etc. referenced in the technical specifications shall be sent to the City of Dublin Engineering Department. This is a City of Dublin Georgia project and all correspondence shall be with the City of Dublin.

Index of Technical Specifications

Section 653	-	Thermoplastic Traffic Stripe
Section 2512	-	Asphaltic Concrete Binder/Surface Courses
Section 2570	-	Traffic Control

Section 653—Thermoplastic Traffic Stripe

653.1 General Description

This work includes furnishing and applying thermoplastic reflectorized pavement marking compound. Ensure that markings conform to Plan details and locations, these Specifications, and the Manual on Uniform Traffic Control Devices. Thermoplastic traffic stripe consists of solid or broken (skip) lines, words, and symbols according to Plan color, type, and location.

653.1.01 Definitions

Thermoplastic Marking Compound: A compound extruded or mechanically sprayed on the pavement that cools to pavement temperature. When combined with glass spheres it produces a reflectorized pavement marking.
Short Lines: Crosswalks, stop bars, arrows, symbols, and crosshatching. Extrude short lines rather than spraying them on. Unless otherwise specified, spray all other lines.

653.1.02 Related References

A. Referenced Documents

QPL 46 Federal Test Method Standard 141, Method 4252 ASTM D 1155 ASTM D 620
ASTM D 570 ASTM D 256 ASTM D 2240 ASTM E 28 ASTM 121

653.1.03 Submittals

Ensure that the producers of the thermoplastic compound and glass spheres furnish to the Department copies of certified test reports showing results of all tests specified in this Section. Also ensure that producers certify that the materials meet the other requirements of this Section by submitting copies of certification at the time of sampling. Final Acceptance, however, will be based on satisfactory test results from samples obtained before delivery.

653.2 Materials

A. General Characteristics of Thermoplastic

1. Deterioration

Use thermoplastic material with the following characteristics:

- a. Does not deteriorate upon contact with:
 - Pavement materials
 - Petroleum droppings from traffic
 - Chemicals, such as sodium chloride or calcium chloride, used to prevent formation of ice on roadways or streets

- b. Does not scorch, discolor, or deteriorate if kept at the manufacturer's recommended application temperature, or at least 375 °F (190 °C), for up to 4 hours.
- c. Has a temperature versus viscosity characteristic that remains constant from batch to batch through four re-heatings.

2. Fumes

Use material that in the plastic state does not give off fumes that are toxic or harmful to persons or property.

B. Detailed Characteristics of Thermoplastic

1. Material Composition

Use material binder with the following characteristics:

A mixture of synthetic resins, with at least one resin that is solid at room temperature, and high boiling point plasticizers

A total binder content of 18 percent to 35 percent by weight

A pigmented binder that is well-dispersed and free of dirt, foreign objects, or ingredients that cause bleeding, staining, or discoloration

The binder shall be Type A—alkyd. Ensure that at least 33% of the binder composition or at least 8% by weight of the entire material formulation is a maleic-modified glycerol ester of resin. Ensure that the finished thermoplastic pavement marking material is not adversely altered by contact with oily pavement materials or by contact from oil dropping onto the pavement surface from traffic. Ensure that the filler has the following characteristics:

White calcium carbonate or equivalent

Compressive strength of 5,000 psi (34.5 MPa)

2. Suitability for Markings

Use thermoplastic material that is especially compounded for traffic markings and has the following characteristics:

Prevents markings from smearing or spreading under normal traffic conditions at temperatures below 120 °F (49 °C)

Gives a uniform cross section, with pigment evenly dispersed throughout the material

Has a uniform material density and character throughout its thickness

Allows the stripe to maintain its original dimensions and placement

Ensures that the exposed surface is free from tack and is not slippery when wet

Does not lift from the pavement in freezing weather

Has cold ductility properties that permit normal movement with the road surface without chipping or cracking

3. Drying Time

When applied at a temperature range of 400 °F to 425 °F (204 oC – 218 oC) and a thickness of 1/8 in. to 3/16 in. (3 mm to 5 mm), the material shall set to bear traffic in a maximum of 2 minutes when the air temperature is 50 °F ± 3 °F (10 oC ± 2 oC) and shall set to bear traffic in a maximum of 10 minutes when the air temperature is 90 °F ± 3 °F (32 oC ± 2 oC).

4. ReflectORIZATION

Ensure that during manufacturing, reflectorizing glass spheres were mixed into the compound to the following specifications:

At least 16 percent by weight using glass spheres with a minimum refractive index of 1.65

At least 25 percent by weight using glass spheres with a minimum refractive index of 1.50

C. Physical Requirements of Thermoplastic

1. Color

Confirm the color of thermoplastic as follows:

- a. White thermoplastic material contains at least 8 percent by weight titanium dioxide that meets the requirements of ASTM D 476, Type II, Rutile. The white thermoplastic material shall be pure white and free from dirt or tint. Compare yellow material to match Federal Test Standard Number 595, Color 13538.

2. Color Retention

- a. Test specimens prepared from samples submitted according to ASTM D 620 by the Department Inspector.
- b. Use an ultraviolet light source as specified in the test procedure, or use a 275 watt sunlamp with a built-in reflector.
- c. Ensure that after 100 hours of exposure to the light source, the test specimens show no color change when compared to an unexposed specimen.

3. Water Absorption

Ensure that materials have no more than 0.5 percent by weight of retained water when tested by ASTM D 570, procedure (a).

4. Softening Point

Ensure that materials have a softening point of at least 175 °F (79 °C) as determined by ASTM E 28.

5. Specific Gravity

Ensure that the specific gravity of the thermoplastic compound at 77 °F (25 °C) is between 1.9 to 2.5.

6. Impact Resistance

Use material with an impact resistance of at least 10 in-lbs at 77 °F (1.13 N·m at 25 °C), tested as follows:

- a. Heat for 4 hours at 400 °F (204 °C).
- b. Cast into bars of 1 in² (625 mm²) cross sectional area, 3 in (75 mm) long.
- c. Place with 1 in (25 mm) extending above the vise in a cantilever beam (Izod type) tester using the 25 in-lbs (2.82 N·m) scale. This instrument is described in ASTM D 256.

7. Indentation Resistance

Measure the hardness by a Shore Durometer, Type A2, as described in ASTM D 2240. Maintain the temperature of the Durometer, 4.4 lb. (2 kg) load and the specimen at 115

°F (45 °C). Apply the Durometer and 4.4 lb. (2 kg) load to the specimen and the reading shall be between 50 to 75 units, after 15 seconds.

8. Low Temperature Stress Resistance

a. Furnish sample test blocks as follows:

- 1) Coat the samples using the same method as the planned installation of the compound.
- 2) Coat the samples with at least 32 in² (206 mm²) of the compound.

b. Have the samples tested as follows:

- 1) Immerse a sample in cold water for one hour.
- 2) Immediately place the sample in a freezer chest or other insulated cold compartment and maintain at a temperature of -20 °F (-29 °C) for 24 hours.
- 3) After 24 hours, remove the sample and bring it to normal room temperature. Following the test, confirm that the sample does not crack, flake, or fail to adhere to the substrate.

9. Reheating

Ensure that the compound does not break down, deteriorate, scorch, or discolor if held for 6 hours at the plastic temperature of 425 °F (218 °C); or if reheated up to the plastic temperature 4 times.

10. Abrasion Resistance

Have the material tested for abrasion resistance as follows:

- Ensure that the maximum loss of the material does not exceed 0.4 grams when subjected to 200 revolutions on a Taber Abraser at 77 °F (25 °C), using H-22 Calibrade wheels that are weighted to 500 grams.
- Keep the wearing surface wet with distilled water throughout the test.
- Prepare the panel by forming a representative lot of material at a thickness of 0.125 in. (3.18 mm) on a 4 in (100 mm) square steel plate with a thickness of 0.050 ± 0.001 in ($1.27 \text{ mm} \pm 0.03 \text{ mm}$), on which a primer has been previously applied.

11. Yellowness Index

The white thermoplastic material shall not exceed a yellowness index of 0.12 according to AASHTO T 250.

12. Flowability

After heating the thermoplastic material for 240 ± 5 minutes at $425 \text{ °F} \pm 3 \text{ °F}$ ($218 \text{ °C} \pm 2 \text{ °C}$) and testing the flowability, ensure that the white thermoplastic has a maximum of 21 percent residue according to AASHTO T 250.

13. Flowability-Extended Heating

After heating the thermoplastic material for 8.0 ± 0.5 hours at $425 \text{ °F} \pm 3 \text{ °F}$ ($218 \text{ °C} \pm 2 \text{ °C}$), while stirring the last 6 hours and testing for flowability, ensure that the thermoplastic has a maximum percent residue of 28 according to AASHTO T 250.

14. Storage Life

The material shall meet the requirements of this specification for 1 year. Ensure that the thermoplastic melts uniformly with no evidence of skins or unmelted particles during the 1-year period.

D. Physical Requirements of Glass Spheres

1. Premixed Glass Spheres

The glass spheres contained in the material shall meet the following requirements:

- Index of Refraction. Determine the index of refraction of the premixed glass spheres by the liquid immersion method at 77 °F (25 °C).
- Roundness. Ensure that the minimum percentages of premixed glass spheres are true spheres according to the following table:

Percent of Premixed Glass Spheres That are True Spheres (when tested according to ASTM D 1155)

Minimum Index of Refraction	Percent of Overall Beads	Percent of Beads Retained on any Sieve
1.65	At least 75%	At least 70%
1.50	At least 70%	At least 60%

- Imperfections. Ensure that no more than 5 percent of the spheres show air inclusions, bubbles, lap lines, chill wrinkles, or other imperfections when viewed through a 60-power microscope in the refractive index liquid.
- Foreign Matter. Ensure that the quantity of foreign matter does not exceed 1 percent.
- Gradation. Have the beads tested using ASTM: D 1214 to ensure they have the

following gradations:

Percent of Premixed Glass Spheres That are True Spheres (when tested according to ASTM D 1155)

Minimum Index of Refraction	Percent of Overall Beads	Percent of Beads Retained on any Sieve
1.65	At least 75%	At least 70%
1.50	At least 70%	At least 60%

U.S. Sieve Standard Sieve Size	Percent Passing
No 16 (1 18 mm)	100

- f. Chemical Resistance. Use material manufactured with glass spheres that withstand immersion in water and acids without corroding or etching, and withstand sulfides without darkening or decomposing. Have the chemical resistance tested by placing a 3 g to 5 g sample in each of three glass beakers or porcelain dishes and immersing as follows:
Cover the first with distilled water.
Cover the second with a 3N solution of sulfuric acid.
Cover the third with a solution of 50 percent sodium sulfide, 48 percent distilled water, and 2 percent Aerosol 1B or similar wetting agent.
Ensure that after one hour no darkening, hazing, or other evidence of instability is evident when examined microscopically.

2. Drop-On Glass Spheres

E. Requirements of Sealing Primer

Place the particular type of two-part epoxy binder-sealer at the application rate as recommended in writing by the thermoplastic material manufacturer.

653.2.01 Delivery, Storage, and Handling

Use material delivered in 50 lb (22.7 kg) unit cardboard containers or bags strong enough for normal handling during shipment and on-the-job transportation without loss of material. Ensure that each unit container is clearly marked to indicate the following:

- Color of the material
- Process batch number or similar manufacturer's identification
- Manufacturer's name
- Address of the plant
- Date of manufacture

653.3.02 Equipment

Depending on the marking required, use hand equipment or truck-mounted application units on roadway installations.

A. Spray Application Machine

Ensure that each spray application machine is equipped with the following features:

- Parts continuously mix and agitate the material.
- Truck-mounted units for lane, edge, and center lines can operate at a minimum of 5 mph (8 kph) while installing striping.

Conveying parts between the main material reservoir and the shaping die or gun prevent accumulation and clogging.

Parts that contact the material are easily accessible and exposable for cleaning and maintenance.

Mixing and conveying parts, including the shaping die or gun, maintain the material at the plastic temperature with heat transfer oil or electrical element-controlled heat. Do not use an external source of direct heat.

Parts provide continuously uniform stripe dimensions.

Applicator cleanly and squarely cuts off stripe ends and applies skip lines. Do not use pans, aprons, or similar appliances that the die overruns.

Parts produce varying widths of traffic markings.

Applicator is mobile and maneuverable enough to follow straight lines and make normal curves in a true arc.

B. Automatic Bead Dispenser

Apply glass spheres to the surface of the completed stripe using a dispenser attached to the striping machine to automatically dispense the beads instantaneously upon the installed line. Synchronize the glass sphere dispenser cutoff with the automatic cutoff of the thermoplastic material.

C. Special Kettles

Use special kettles for melting and heating the thermoplastic material. Kettles equipped with automatic thermostatic control devices provide positive temperature control and prevent overheating. Ensure that the applicator and kettles are equipped and arranged according to the requirements of the National Fire Underwriters.

D. Hand Equipment

Use hand equipment for projects with small quantities of lane lines, edge lines, and

center lines, or for conditions that require the equipment. Use hand equipment approved by the Engineer. Ensure that hand equipment can hold 150 lbs (68 kg) of molten material and is maneuverable to install crosswalks, arrows, legends, lane, edge, and center lines.

E. Auxiliary Vehicles Supply the necessary auxiliary vehicles for the operation.

653.3.05 Construction A. General Application

Thoroughly clean pavement areas to be striped. Use hand brooms, rotary brooms, air blasts, scrapers, or other approved methods that leave the pavement surface clean and undamaged. Take care to remove all vegetation and road film from the striping area. All

new Portland Cement Concrete pavement surfaces shall be mechanically wire brushed

or abrasive cleaned to remove all laitance and curing compound before being striped. Lay stripe with continuous uniform dimensions. Apply the type of stripe at each location according to the Plans, using one of the following methods:

Spray techniques

Extrusion methods wherein one side of the shaping die is the pavement, and the other three sides are contained by or are part of the suitable equipment to heat and control the flow of material.

1. Temperature

Apply thermoplastic traffic stripe only when the pavement temperature in the shade is above 40 °F (4 °C). To ensure optimum adhesion, install the thermoplastic material in a melted state at the manufacturer's recommended temperature but not at less than 375 °F (190 °C).

2. Moisture

Do not apply when the surface is moist. When directed by the Engineer, perform a moisture test on the Portland cement concrete pavement surface. Perform the test as follows:

- a. Place approximately 1 yd² (1m²) of roofing felt on the pavement surface.
- b. Pour approximately 1/2 gallon (2 L) of molten thermoplastic onto the roofing felt.
- c. After 2 minutes, lift the roofing felt and inspect to see if moisture is present on the pavement surface or underside of the roofing felt.
- d. If moisture is present, do not proceed with the striping operation until the surface has dried sufficiently to be moisture free.

3. Binder-Sealer

To ensure optimum adhesion, apply a binder-sealer material before installing the thermoplastic in each of the following cases:

Extruded thermoplastic

Where directed by the Engineer for sprayed thermoplastic

Old asphaltic concrete pavements with exposed aggregates

Portland cement concrete pavements as directed by the Engineer

Ensure that the binder-sealer material forms a continuous film that mechanically adheres to the pavement and dries rapidly. Use a binder-sealer currently in use and recommended by the thermoplastic material manufacturer according to QPL 46. To ensure optimum adhesion, apply a two-part epoxy binder-sealer on all Portland cement concrete pavements for either sprayed or extruded thermoplastic material. Apply the epoxy binder-sealer immediately in advance of, but concurrent with, the application of the thermoplastic material. Apply in a continuous film over the pavement surface.

4. Bonding to Old Stripe

The old stripe may be renewed by overlaying with new material. Ensure the new material bonds to the old line without splitting or cracking.

5. Offset from Construction Joints

Off-set longitudinal lines at least 2 in (50 mm) from construction joints of Portland cement concrete pavements.

6. Crosswalks, Stop Bars, and Symbols

Make crosswalks, stop bars, and symbols at least 3/32 in (2.4 mm) thick at the edges and no more than 3/16 in (4.8 mm) thick at the center.

7. Film Thickness

- a. Maintain the following minimum average film thicknesses on all open graded asphalt concrete friction courses:
 - 0.120 in (3.0 mm)* for lane lines
 - 0.090 in (2.3 mm)* for edge lines
 - 0.150 in (3.8 mm)* for gore area lines
- b. Maintain the following minimum average film thicknesses on all other pavement types:
 - 0.090 in (2.3 mm)* for lane lines
 - 0.060 in (1.5 mm)* for edge lines
 - 0.120 in (3.0 mm)* for gore area lines

8. Glass Spheres

- a. Apply glass spheres to installed stripe surface at a minimum rate of 14 lbs of spheres to each 100 square feet ((700 g/m²) of thermoplastic material.
- b. Apply the glass sphere top-coating with a pressure-type gun specifically designed for applying glass spheres that will embed at least one-half of the sphere's diameter into the thermoplastic immediately after the material has been applied to the pavement.

B. Removing Existing Stripe

Remove existing stripe according to Section 656. Remove 100 percent of existing traffic stripe from:

Portland cement concrete pavement where the new stripe will be placed at the same location as the existing marking
Pavement where the new stripe will be placed at a different location from the existing markings.

C. Tolerance and Appearance

No traffic stripe shall be less than the specified width and shall not exceed the specified width by more than 1/2 in (13mm). The length of the 10 ft (3 m) segment for skip stripe and the 30 ft (9 m) gap between segments may vary plus or minus 1 ft (300 mm). The alignment of the stripe shall not deviate from the intended alignment by more than 1 in (25 mm) on tangents and on curves up to and including 1 degree (radius of 1745 m or greater). On curves exceeding 1 degree (radius less than 1745 m), the alignment of the stripe shall not deviate from the intended alignment by more than 2 in (50 mm). Stop work when deviation exceeds the above dimensions, and remove the nonconforming stripe.

653.3.06 Quality Acceptance

Segments of the thermoplastic traffic stripe that have been placed according to the Plans and Specifications may be accepted 30 days after the required work is complete in that segment. If thermoplastic traffic stripe fails to meet Plan details or Specifications or deviates from stated dimensions, correct it at no additional cost to the Department. If removal of pavement markings is necessary, perform it according to Section 656 and place it according to this Specification. No additional payment will be made for removal and replacement of unsatisfactory striping.

653.3.07 Contractor Warranty and Maintenance

After segments are accepted, the Contractor will be relieved of maintenance on those segments.

653.4 Measurement

Measurement will be made per linear foot for each specified width.

A. Solid Traffic Stripe

Stripe is measured by the linear foot (meter), linear mile (kilometer), or square yard (meter). Breaks or omissions in solid lines or stripes at street or road intersections are not measured for payment.

B. Skip Traffic Stripe

Skip stripe is measured by the gross linear mile (kilometer) as specified. The unpainted space between the painted stripes is included in the overall measurement if the Plan ratio of one to three (10 ft [3 m] segment and 30 ft [9 m] gap or other patterns as designated on the Plans) remains uninterrupted. Measurement begins and ends on a stripe.

C. Words and Symbols

Each word or symbol complete according to Plan dimensions is measured by the Unit.

653.5 Payment

Payment is full compensation for the Work under this section, including:

- Cleaning and preparing surfaces
- Furnishing all materials
- Applying, curing, and protecting stripe
- Protecting traffic, including providing necessary warning signs
- Furnishing tools, machines, and other equipment necessary to complete the Item

Payment will be made per linear foot of striping for each specified width. Measurement and payment for removing pavement markings will be according to Section 656.

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SECTION 02512GA

ASPHALTIC CONCRETE BINDER/SURFACE COURSES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Surface Course
- B. Binder Course

1.2 RELATED SECTIONS

- A. Section 02204 – Grading Complete
- B. Section 02231 - Aggregate Base Course

1.3 MEASUREMENT AND PAYMENT

- A. Asphaltic Concrete Surface Course: Will be paid for at the contract unit price per ton of completed and accepted surface course for the thickness specified.
- B. Prime: Will not be paid for separately. The cost involved in cleaning and preparing the surface, furnishing and applying all materials including sand and water, for repairs and maintenance shall all be included in the contract unit price for the Base Item bid.
- C. Tack Coat: Will be paid for by the gallon.
- D. Payment for pavement and tack coat will be in full for preparing and cleaning, providing all materials, labor and equipment including placing, compacting and testing.

1.4 REFERENCES

- A. ASTM D 946-82 (Reapproved 1999) – Penetration-Graded Asphalt-Cement for Use in Pavement Construction.
- B. ASTM E 329-00b – Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction
- C. ASTM D 3740-01 – Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock Used in Engineering Design and Construction.
- D. ASTM D 2726-00 – Bulk Specific Gravity and Density of Non-Absorptive Compacted Bituminous Mixtures.
- E. ASTM D 2950-91 (Reapproved 1997) – Density of Bituminous Concrete in Place by Nuclear Methods.
- F. ASTM D 1754-97 - Effect of Heat and Air on Asphalt Materials (Thin-film Oven Test).
- G. ASTM D-1188-96e1 – Bulk Specific Gravity and Density of Compacted Bituminous Mixtures Using Paraffin-Coated Specimens.

1.5 QUALITY ASSURANCE

- A. Perform work in accordance with Georgia Department of Transportation Standard Specifications for Construction of Roads and Bridges - 1993 Edition.
- B. Mixing Plant: Conform to Georgia Department of Transportation Standard Specifications for Construction of Roads and Bridges – 1993 Edition.

1.6 ENVIRONMENTAL REQUIREMENTS

- A. Do not place asphalt mixture when ambient air temperature is less than that indicated in the Table nor when the surface is wet or frozen.

Lift Thickness	Min. Air Temperature, Degrees F.
1" or Less	55
1.1" to 2"	45
2.1" to 3"	35
3.1" to 4"	30
4.1" to 8"	Contractor's Discretion

- B. Mixture shall be delivered to the spreader at a temperature between 250 degrees F and 325 degrees F.

1.7 TESTING

- A. Testing laboratory shall operate in accordance to ASTM D 3740 and E 329 and shall be accepted by the Engineer.
- B. Testing laboratory and Project Engineer/Project Representative shall be given a minimum of 48 hours' notice prior to taking any tests.
- C. Testing shall be Contractor's responsibility and performed at Contractor's expense by a commercial testing laboratory operating in accordance with subparagraph A above.
- D. Test results shall be furnished to the Engineer.

PART 2 - PRODUCTS

2.1 TACK COAT

- A. Material: Shall be AC-20 or AC-30, asphalt cement, conforming to Sections 413 and 820 of the Georgia Department of Transportation Standard Specifications for Construction of Roads and Bridges. When the temperature in the shade exceeds 70 degrees F, an emulsion such as CRS - 2h or CRS - 3 may be used.

2.2 ASPHALT CEMENT AND ADDITIVES

- A. Asphalt Cement: Shall conform to the requirements of Section 820.01 of the Georgia Department of Transportation Standard Specifications for Construction of Roads and Bridges. The material shall be AC-20 or AC-30. The loss on heating from the Thin-Film Oven Test shall not exceed 0.75 percent.
- B. Anti-Stripping: Shall conform to requirements of Section 831.04 of the Georgia Department of Transportation Standard Specifications for Construction of Roads and Bridges.

2.3 AGGREGATES

- A. General: Mineral aggregate shall be composed of fine aggregate or a combination of fine and coarse aggregate. Coarse aggregate shall be that portion of the material retained on a No. 8 sieve.
- B. Fine aggregate shall be considered that portion passing the No. 8 sieve. Fine aggregate, coarse aggregate, and any additives in combination with the specified percentage of asphalt cement shall meet the requirements of tests specified, before approval may be given for their individual use.
- C. Fine Aggregate: Shall conform to the requirements of Section 802.01 of the Georgia Department of Transportation Standard Specifications for Construction of Roads and Bridges.
- D. Coarse Aggregate: Shall conform to the requirements of Section 802.02 of the Georgia Department of Transportation Standard Specifications for Construction of Roads and Bridges.
- E. Surface Course: The surface course shall consist of fine and coarse aggregate and mineral filler uniformly mixed with hot asphalt cement in an approved mixing plant. The gradations, asphalt content and stabilities shall be the following:

TYPE "E"

Square Sieve	% Passing
3/4"	100
1/2"	85 – 100
3/8"	70 – 85
No. 8	44 – 48
No. 50	13 – 22
No. 200	4 – 7
% Asphalt Cement	5.0 – 7.0
Marshall Stability @ 50 Blows (Design)	1,500
Air Voids, % (Design)	4.0 – 5.0

- F. Intermediate or Binder Course: The mineral aggregates and asphalt cement shall be combined in such proportions that the composition by weight of the finished mixture shall be within the following range limits:

TYPE "B"

Sieve Designation	Percentage by Weight Passing
1 inch	100
3/4 inch	85 - 100
3/8 inch	55 - 75
No. 8	30 - 36
No. 50	11 - 19
No. 200	4 - 7
% Asphalt Cement	4.0 - 5.5
Marshall Stability, lbs. @ 50 Blows (Design)	1,500
Air Voids, % (Design)	4.0 – 5.0

2.4 SOURCE QUALITY CONTROL AND TESTS

- A. Submit proposed mix design for review prior to beginning of work.
- B. Test samples in accordance with the requirements of these specifications.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. **ON-SITE OBSERVATIONS:** The Owner's Representative or Engineer will have the right to require any portion of the work be completed in his presence and if the work is covered up after such instruction, it shall be exposed by the Contractor for observation at no additional cost to the Owner. However, if the Contractor notifies the Owner such work is scheduled, and the Owner fails to appear within 48 hours, the Contractor may proceed without him. All work completed and materials furnished shall be subject to review by the Owner, Engineer or Project Representative. Improper work shall be reconstructed, and all materials, which do not conform to the requirements of the specifications, shall be removed from the work upon notice being received from the Engineer for the rejection of such materials. Engineer shall have the right to mark rejected materials so as to distinguish them as such.

Contractor shall give the Owner, Project Engineer or Project Representative a minimum of 48 hours notice for all required observations or tests.

- B. Contractor shall verify base has been inspected, is dry, and gradients and elevations are correct.

3.2 PREPARATION

- A. Apply tack coat in accordance with Section 413 of the Georgia Department of Transportation Standard Specifications for Construction of Roads and Bridges. Rate of application shall be 0.04 to 0.06 gallons per square yard of surface.
- B. Work shall be planned so no more tack coat than is necessary for the day's operation is placed on the surface. All traffic not essential to the work should be kept off the tack coat.
- C. Apply tack coat to contact surfaces of curbs and gutters. Apply in manner so exposed curb or gutter surfaces are not stained.
- D. Coat surfaces of manhole frames and inlet frames with oil to prevent bond with asphalt pavement. Do not tack coat these surfaces.

3.3 PLACEMENT

- A. Construction shall be in accordance with Sections 400 of the Georgia Department of Transportation Standard Specifications for Construction of Roads and Bridges, 1993 edition.
- B. Asphaltic concrete shall not be placed on a wet or frozen surface.
- C. Compaction shall commence as soon as possible after the mixture has been spread to the desired thickness. Compaction shall be continuous and uniform over the entire surface. Do not displace or extrude pavement from position. Hand compact in areas inaccessible to rolling equipment. Perform rolling with consecutive passes to achieve even and smooth finish without roller marks. Compaction rolling shall be complete before material temperature drops below 185° F.
- D. Areas of pavement with deficient thickness or density shall be removed and replaced at no additional cost to the Owner.

3.4 TOLERANCES

- A. General: All paving shall be subject to visual and straightedge inspection during construction operations and thereafter prior to final acceptance. A 10-foot straightedge shall be maintained in the vicinity of the paving operation at all times for the purpose of measuring surface irregularities on all paving courses. The straightedge and labor for its use shall be provided by the Contractor. The surface of all courses shall be inspected with the straightedge as necessary to detect surface irregularities. Irregularities such as rippling, tearing or pulling, which in the judgment of the Engineer indicate a continuing problem in equipment, mixture or operating technique, will not be permitted to recur. The paving operation shall be stopped until appropriate steps are taken by the Contractor to correct the problem.
- B. Flatness: All irregularities in excess of 1/8 inch in 10 feet for surface courses and 3/16 inch in 10 feet for intermediate and base courses shall be corrected.
- C. Variation from Design Elevation: Less than 1/4 inch.
- D. Scheduled Compacted Thickness: Less than 1/4 inch under tolerance.
- E. Pavement Deficient in Thickness: When measurement of any core indicates that the pavement is deficient in thickness, additional cores will be drilled 10 feet either side of the deficient core along the centerline of the lane until the cores indicate that the thickness conforms to the above specified requirements. A core indicating thickness deficiencies is considered a failed test. Pavement deficient in thickness shall be removed and replaced with the appropriate thickness of materials. If the Contractor believes that the cores and measurements taken are not sufficient to indicate fairly the actual thickness of the pavement, additional cores and measurements will be taken, provided the Contractor will bear the extra cost of drilling the cores and filling the holes in the roadway as directed.

3.5 FIELD QUALITY CONTROL

- A. Quality acceptance of the in-place density of the surface course shall be in accordance with the Georgia Department of Transportation Standard Specifications for Construction of Roads and Bridges, Section 400.05 subparagraphs F and G.
- B. Density Testing: Performed in accordance with ASTM D-2726 and ASTM D-2950. Core samples for each day's operation shall be taken, tested and results reported to the Engineer the following day. The areas sampled shall be properly restored by the Contractor at no additional cost to the Owner. Nuclear gauge tests shall be taken during the asphaltic concrete placement.
 - 1. The average pavement core density for a project shall be at least 96% of the maximum laboratory density as determined by the Marshall Method of test. Individual core densities shall not be less than 95% of the maximum laboratory density.
 - 2. The average pavement nuclear gauge density for a project shall be at least 100% of the target density obtained from a control strip. Individual nuclear tests should not be less than 98% of the target density.

C. Temperature:

1. Asphaltic concrete shall not exceed 325 degrees F at any time.
2. Asphaltic concrete shall not be placed once the temperature of the mix falls below 250 degrees F or the delivered temperature is more than 15 degrees F below the batch plant's delivery ticket.
3. Temperature at time of loading shall be recorded on the truck delivery ticket.

D. Frequency of Tests:

1. Asphaltic Concrete - One (1) test for each 250 tons placed.
 - a) Asphalt extraction and gradation test.
 - b) Marshall Stability Test
 - c) Core Sample
2. Field determination of density by nuclear method every 5,000 square feet during construction of the asphaltic concrete binder/surface course.

END OF SECTION.

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SECTION 02570 - TRAFFIC CONTROL

PART 1 - GENERAL

1.1 DESCRIPTION

- A. This section covers the furnishing, installation and maintenance of all traffic control devices, portable signal equipment, warning signs and temporary traffic lanes used during the construction of the project.

1.2 OMITTED

1.3 RESPONSIBILITY

- A. The Contractor shall furnish, install, and maintain all necessary automated signals, barricades, concrete traffic barriers, warning signs, traffic barriers, traffic lanes and other protective devices. Ownership of these temporary warning devices shall remain with the Contractor provided the devices are removed promptly after completion and acceptance of the area of work to which the devices pertain. If such warning devices are left in place for more than 30 days after the specified time for removal, the Owner shall have the right to remove such devices and to claim possession thereof.

1.4 MEASUREMENT AND PAYMENT

- A. There will be no measurement for this item. Payment shall be made as a lump sum.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. All barricades signs, and traffic control signal devices shall conform to the requirements of the current Manual on Uniform Traffic Control Devices for Streets and Highways except as may be modified in these project specifications.
- B. Portable traffic control signal devices, barricades, signs and other Control Devices shall be either new or in acceptable condition when first erected on the Project and shall remain in that acceptable condition throughout the construction period.
- C. All signs shall have a black legend and border on an orange reflectorized background and will be a minimum of engineering grade reflective.

PART 3 - EXECUTION

3.1 ERECTION

- A. Prior to the commencement of any actual construction on the project, the Contractor shall erect the appropriate advance warning signs and place the concrete traffic barriers where necessary. Subsequently, as the construction progresses and shifts from one side of the road to the other, temporary lanes must be installed to provide continuous two way traffic and bike thoroughfare. All

appropriate signs and traffic control devices pertinent to the work shall be erected ahead of the construction site to advise and warn the travelling public of the activity and any necessary detours.

3.2 DELAYS TO TRAFFIC

- A. Except in rare and unusual circumstances, two-way traffic shall be maintained at all times by temporary and/or permanent roads. There are to be no traffic delays during the hours between 7 AM - 10 AM and 4 PM - 10 PM. Between the hours of 10 AM and 4 PM the maximum delay is to be 15 minutes.
- B. When traffic is halted temporarily due to transition procedures including the ingress and egress of construction vehicles, the Contractor shall provide the necessary flagging personnel with proper equipment and clothing to hold such traffic.
- C. If contractor's proposed traffic control plan involves more than occasional disruption to alternating one way traffic through the work, then temporary, signalized control equipment will be required.

3.3 TEMPORARY TRAFFIC LANES

- A. Two-lane traffic shall be maintained at all times unless prior written permission has been given and all necessary flagging personnel and/or signage has been installed. Temporary lane line stripes shall be applied to the detour paving, as agreed to by the engineer and owner's representative. The no-passing double center-line stripes shall be yellow. Such stripes shall be a temporary, degradable, reflectorized tape strip. All temporary stripping shall be maintained throughout the period the traffic control is needed.
- B. Contractor is responsible for installation and removal of all temporary roads and trails throughout the construction process. These detour roads are to be in accordance with the Pavement Specifications herein.

3.4 SIGNS AND BARRICADES

- A. The contractor shall provide a detailed map showing the location and verbiage of all traffic control signs for the project. All critical warning signs for the project will be a minimum of engineering grade reflective material and include appropriate flashing lights.
- B. Appropriate Safety Barricades shall be installed between the bicycle trail and the temporary traffic lanes. These barricades shall be impact resistant for passenger vehicles with a travelling speed of 40 mph.
 - 1. Advance warning signs These signs shall be placed approximately 500 feet in advance of the construction site and detour on each approach to the construction area with subsequent warning signs every 250 feet, until the construction site is met.
 - 2. Road Construction Signs: Before and during construction of the detour, advance road construction signs shall be located as already stated above. The construction site detour lanes will have reflective trestle type barricade with flashing lights spaced a maximum of 25 feet apart to delineate each side of any temporary roadway. Additional signage shall be placed to indicate a reduced speed limit of 10 mph for the entire construction area. Other signs as appropriate to particular activity in the work area shall be erected in advance of that activity.
 - 3. Barricades: While the detour is open to traffic, a line of concrete traffic barricades shall be placed across the closed roadway to channelize the traffic onto the detour. They shall be

spaced across the blocked roadway end to end so that no vehicle will be able to pass between any two adjacent barricades.

4. Barriers: Shall be wooden having a minimum of 3 horizontal 6-inch rails spaced 20 inches on center. Markings for barrier rails shall be 6" wide alternate orange and white reflectorized stripes sloping downward at 45 degrees in the direction traffic is to pass.

During hours of darkness, the contractor shall place and maintain flashing warning lights on the tops of all barriers.

5. Direction Arrow Signs: At each change in traffic direction along the detour, the contractor shall install a sign with an arrow indicating the change in traffic direction. This sign is to be located across the pavement from and facing the on-coming traffic.
6. End Construction Sign: This sign shall be 60" x 24" and erected approximately 200 feet beyond the end of the construction area on the right- hand side.

ITEMIZED PROPOSED BID

BID # 25-09-001

Resurfacing 1 1/2" of 12.5MM Superpave, GP 2 Only, Including Bitum (165# per Sq. Yd.)

Street	Length(ft.)	Width(ft.)	QTY	Unit	Unit Price	Total
Johnson St.	1850	22	392	Tons		
Palmer St.	1000	18	173	Tons		
Dudley St.	1140	20	219	Tons		
West Ave.	1250	20	241	Tons		
Eleanor St.	920	24	213	Tons		
Benton	820	18	142	Tons		
Cypress	1650	26	413	Tons		
Grady	980	22	208	Tons		
Cordelia	910	20	175	Tons		
Pilot Place	700	20	135	Tons		
Five Points Way	400	24	92	Tons		
E. Moore	400	18	69	Tons		
Hillside	2500	24	578	Tons		
Sherwood	700	30	202	Tons		
Rutland	1350	26	338	Tons		
Burch	750	28	202	Tons		
Highland	1480	20	285	Tons		
Hudson	360	18	62	Tons		
Total			4,139	Tons	Total	

*Contractor must ensure any dirt or debris left from the clipping of the road must be put back or removed.

Item	QTY	Unit	Unit Price	Total
Solid Yellow (5")	37,600	FT		
Stop Bar (24" White)	460	FT		
Solid White (5")	32,440	FT		
			Total	

- *RR Symbols on Palmer and Grady*
- *Center Striping on every Street.*
- *Please make all lanes 10 Ft. where edge striping is required.*
- *All Clippings must be put back or removed.*
- *All driveways must be sloped off.*
- *Edge Striping on every street except Palmer, Benton, Moore, and Hudson.*

Miscellaneous Items

Item	QTY	Unit	Unit Price	Total
Traffic Control	18	Per Street		
Tack (.05 gallons per Sq. Yd.)	2307	Gallons		
Leveling	100	Tons		
RR Symbol	4	LS		
			Total	

Summary

Item	Total
Resurfacing	
Striping	
Miscellaneous	
GRAND TOTAL OF PROJECT	

Bid Amount (Written Out)

Signature

Title