

**RESOLUTION 11-96**

**A RESOLUTION TO AUTHORIZE 2011 PAVING PROJECTS**

**WHEREAS**, to better serve the citizens of Spring Hill, the City accepted proposals for road improvements on September 12, 2011; and

**WHEREAS**, the City of Spring Hill approved road improvement projects in the 2011-2012 Capital Improvement Plan; and

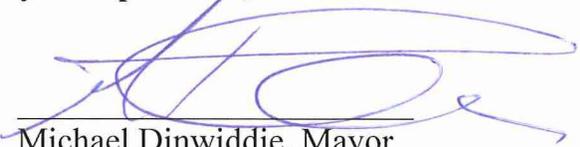
**WHEREAS**, the City of Spring Hill received proposals for the paving of the following roads: Campbell Station Parkway and Buckner Lane; and

**NOW, THEREFORE BE IT RESOLVED**, that the City of Spring Hill authorizes awarding the above referenced Multi-Road paving projects to the following companies as stated below as recommended by staff and Spring Hill Budget and Finance Advisory Committee on September 12, 2011:

Gallagher Asphalt	A. Campbell Station Parkway (Main St. to Port Royal)	\$181,131.60
Gallagher Asphalt	B. Buckner Ln (Port Royal to Monoco)	\$ 51,240.00

**BE IT FURTHER RESOLVED** that funding for this paving project to be drawn from the General Funds, Streets Department (approximately 80%) and from the State Street Aid Fund (approximately 20%).

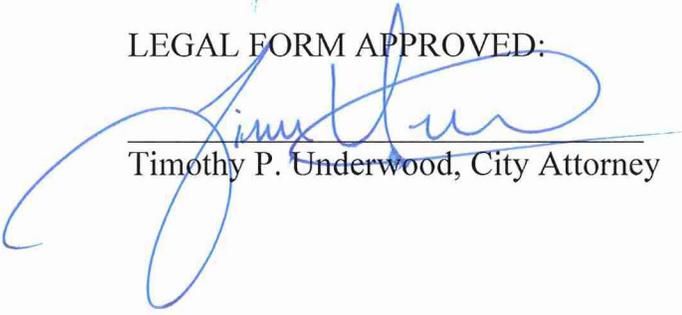
**Passed and adopted by the Board of Mayor and Aldermen of the City of Spring Hill, Tennessee on the 19<sup>th</sup> day of September, 2011.**

  
Michael Dinwiddie, Mayor

ATTEST:

  
April Goad, City Recorder

LEGAL FORM APPROVED:

  
Timothy P. Underwood, City Attorney

**CITY OF SPRING HILL, TENNESSEE**

**2011 ROADWAY IMPROVEMENTS**

**CAMPBELL STATION PARKWAY  
CAMPBELL STATION SECTION 16**

**PORT ROYAL ROAD**

**BUCKNER LANE**

**BUCKNER ROAD**

**BID OPENING**

**SEPTEMBER 12, 2011**

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**LEGAL NOTICE**

**INVITATION TO SUBMIT QUOTATIONS**

The City of Spring Hill will accept quotations for the annual asphalt paving for the Public Works Department. Bidders shall submit sealed quotations in the format specified in the Invitation to Submit Quotations no later than **10:00 am, Monday, September 12, 2011** at which time bids will be publicly opened and read aloud. No bid may be withdrawn after the scheduled closing time for a period of 90 days. Bidding documents may be obtained at Spring Hill City Hall during regular business hours. Quotations should be mailed or hand delivered to:

Mr. Victor Lay, City Administrator  
Spring Hill City Hall  
**Sealed Bid: Campbell Station Parkway, Campbell Station Sec. 16, Port  
Royal Rd, Buckner Ln, and Buckner Rd Asphalt Paving**  
199 Town Center Parkway  
Spring Hill, TN 37174

The City of Spring Hill will not discriminate in the purchase of all goods and services on the basis of race, color, religion, sex, national origin, age, disability or any other lawfully protected classification.

Verbal quotations or quotations received after the closing date will not be accepted. The City of Spring Hill reserves the right to reject any and all bids, to waive technicalities or informalities and to accept any bid deemed to be in the best interest of the City of Spring Hill.

**SECTION I - GENERAL INFORMATION**

- A. The City of Spring Hill desires to contract for asphalt paving services for the Public Works Department.

City of Spring Hill, TN  
199 Town Center Parkway  
Smyrna, TN 37167

Questions should be directed:

Jamie Pierce (931) 486-1265.  
e-mail: [jpierce@springhilltn.org](mailto:jpierce@springhilltn.org)

- B. The City of Spring Hill reserves the right to reject any and all bids, to waive technicalities or informalities and to accept any bid deemed to be in the best interest of the City. No bid may be withdrawn after the scheduled closing time for a period of 90 days.
- C. The bidder shall abide by and comply with the true intent of these specifications and not take advantage of any unintentional error or omission, but shall fully address the full intent and meaning of each aspect of the specifications.
- D. All forms shall be completed and included as an integral part of each bidder's proposal.
- E. Freight shall be paid by vendor and should be included in unit price bids.
- F. The City is a tax exempt organization.
- G. Mail is delivered after **11:00** a.m. Monday through Friday.
- H. The City of Spring Hill reserves the right to bid specific road projects and quantities to be installed separately and at its discretion. The City may choose to perform all work listed within these bid documents or a portion based on review of the bids and funding availability.

## **SECTION II - ASPHALT PAVING REQUIREMENTS**

Scope: The work covered by this item shall consist of the repairing and repaving of existing streets as designated and described below and or as directed by the City of Spring Hill.

Should additional different street locations be desired to be paved the City will provide a list streets along with estimated quantities. These different or additional streets, if any, will be determined by the City only after award of bid, depending on budgetary conditions. The unit costs as bid will be utilized for the different and/or additional streets. The base bid quantities directed to be installed may also be limited based on the available budget of the City. The City requires the contractor to start and continuously (normal Monday through Friday standard business hours) perform the work indicated within the base bid streets and additional street list, if any, until completed. If the contractor is unable to comply with these conditions this would breach the contract.

Certain base bid items (streets) and quantities may be reduced and/or omitted at the direction of the City, based on budgetary conditions.

The following conditions shall apply to the bid:

1. The price quoted for the bid items shall include all materials, equipment, labor, insurance, bonding and all other items incidental to the work performed. Bid items shall be installed at the locations directed by the designated official of the City of Spring Hill and shall include roadway work items such as bituminous prime coat, leveling scratch course as required, bituminous tack coat, 1/1/2" asphalt surfacing, hot-in-place recycling (HIPR one pass operation and HIPR two pass operation with thin 3/4" asphalt topping layer), full depth reclamation with cement, road surface rejuvenation, and replacement of traffic markings. The unit bid costs shall include all required traffic control in accordance with MUTCD, roadway preparation (sweeping), any required clipping/grading the shoulder to achieve proper drainage and road width, and all cleaning and disposal of excess materials.
2. No bidder may withdraw a bid for a period of ninety (90) days after bids have been opened.
3. The right is reserved to reject any and all bids and to waive all technicalities in doing so.
4. Bidding will be in accordance with the Tennessee General Contractor's License Law. Bidders on construction to the amount of \$25,000.00 or more must be licensed contractors as required by chapter 135 of the public acts of 1945 of the General Assembly of the State of Tennessee, Article I, and amendments thereto. Bidder's name and license number must be placed on the envelope containing his proposal; otherwise the bid will not be opened.
5. ERROR IN BID - in case of error in the extension of prices in the bid, the unit price will govern. No bid shall be altered, amended, or withdrawn after specified time for opening bids. Negligence on the part of the bidder in preparing the bid confers no right for the withdrawal of the bid after it has been opened.

6. INSPECTION - Final inspection and acceptance or rejection will be made at a delivery destination, but all materials and all workmanship shall be subject to inspection and test at all times and places, and when practicable, during construction. The right is reserved to reject articles which contain defective material and workmanship. Rejected materials shall be removed by and at the expense of the contractor promptly after notification or rejection. Final inspection and acceptance or rejection of the materials shall be made as promptly as practicable, but impose no liability on the City of Spring Hill or any subdivision thereof for such materials as are not in accordance with the specifications. Final inspection or acceptance does not relieve the contractor from liability for use of materials or construction standards as are not in accordance with the specifications or industry practices. If it is determined (by testing methods and samples) that materials or supplies not conforming to the specifications are installed, payment will not be made and the contractor shall replace such materials at no additional cost to the City.

All materials, asphalt design mix and mix formulas shall be in accordance with TDOT specifications. Quality control measures such as mix and testing will be performed. Trucks will be pulled and mixes tested at random.

7. SPECIFICATIONS - it is understood that reference to available specifications such as Tennessee Department of Transportation (TDOT) shall be sufficient to make the terms of such specifications binding on the contractor. Other specific specifications shall be included herein.
8. Unit bid item quantities are estimated and it is the responsibility of the contractor to verify quantities prior to submitting his bid. Installed quantities may be increased or decreased at the direction of the City of Spring Hill.
9. COMPENSATION INSURANCE - The contractor shall maintain during the life of this contract workman's compensation insurance for all of his employees to be engaged in work on the project under this contract, and in case any such work is sublet, the contractor shall require the subcontractor similarly to provide worker's compensation insurance for all of the latter's employees to be engaged in such work unless such employees are covered by the protection afforded by the contractor's worker's compensations insurance.
10. PUBLIC LIABILITY AND PROPERTY DAMAGE INSURANCE - The contractor shall take out and maintain during the life of this contract such liability and property damage insurance as shall protect him and any subcontractor performing work covered by this contract from claims for damage for personal injury, including accidental death, as well as from claims for property damage which may arise from operations under this contract, whether such operations are by himself or by any subcontractor or by anyone directly or indirectly employed by either of them. The amount of such insurance will be as follows and will name the City as an additional insured.
  - A. Public Liability insurance in the amount of not less than \$1,000,000.00 for injuries, including accidental death to any one person, and subject to the same limit for each person, in an amount not less than \$1,000,000.00 on account of one accident.

B. Property damage insurance in an amount not less than \$1,000,000.00 for any one damage claim, and in an aggregate amount up to \$1,000,000.00 during a period of twelve months.

11. PROOF OF INSURANCE - The contractor shall furnish the City with satisfactory proof for the insurance required.
12. PERFORMANCE AND OTHER BONDS - CONTRACTOR shall furnish performance and payment Bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all CONTRACTOR'S obligations under the Contract Documents. These Bonds shall remain in effect at least until one year after the date when final payment becomes due, except as otherwise provided by Law or Regulation or by the Contract Documents. All bonds signed by an agent must be accompanied by a certified copy of the authority to act. If the surety on any Bond furnished by CONTRACTOR is declared a bankrupt or becomes insolvent or it's right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of the preceding paragraph. CONTRACTOR shall within five days thereafter substitute another Bond and Surety, both of which must be acceptable to the CITY.
13. TERM - The term shall be for 60 days from the date of contract execution. Upon mutual agreement of both parties, the unit bid cost quotes may be renewed by the City of Spring Hill for additional work items to be performed during the subsequent 12 month period, after completion of this contract work. The 12 month renewal period shall begin at the end of the current 60-day contract. If accepted by the City and agreed to by the contractor, this 12 month period will extend into the City's fiscal year of 2012-2013.
14. ADJUSTMENTS TO CONTRACT UNIT PRICES - During the initial term of this contract no adjustments to the unit prices will be allowed. During the subsequent extension period the contractor may submit a request to adjust individual unit prices to reflect fluctuations in material costs only. This request must be supported by documentation of the initial material cost and current cost as purchased by the contractor from the same supplier and material specification. This request must be submitted in writing to the Public Works Director 30 days prior to the proposed effective date for consideration. The Public Works Director will respond in writing with approval or denial of the adjustment request within 30 days. In no event shall the adjustment to any unit price increase by greater than 10% in any 12 month period.
15. SPRING HILL BUSINESS LICENSE - Subject to the exceptions enumerated hereinafter, persons subject to the Spring Hill Business Tax operating from an established place of business in one county who extend their operations into other counties and/or municipalities without establishing an office, headquarters or other place of business therein shall not be subject to the Spring Hill Business Tax in such other counties and/or municipalities. Tax on total receipts from all taxable sales shall be due to the county and municipality, if any, in which the established place of business is located. Excepted from the rule as stated in previous paragraph are:
  - (a) Persons with no established place of business in this state.
  - (b) Contractors with taxable receipts of \$50,000 and out of state contractors.

### **SECTION III - PRICE QUOTATION**

Bid Item Methods described below shall include furnishing and installing roadway improvements, including labor, materials, overhead, profit, and all other required incidentals to provide a complete roadway improvement project, in accordance with TDOT specifications and methods along with specifications contained herein.

#### **Roadway Improvement Method 1:**

**Hot-In-Place Recycled (HIPR) Asphalt One Pass Method:** This bid item and procedure will be performed in accordance with all TDOT Standard Specifications for Road and Bridge Construction, March 1, 2006 (and as amended) along with the HIPR specifications contained herein. This method will consist of sufficiently heating the existing asphalt topping layer, while minimizing damage to the existing binder layer, applying an approved asphalt rejuvenator agent (ARA), scarifying and mixing the existing pavement with ARA, spreading and finishing the rejuvenated asphalt mix material, rolling of the material to achieve uniform and consist density, and compacting the rejuvenated asphalt mix material. Permanent painted or permanent thermoplastic traffic markings shall be bid separately as shown in the bid tabulation and shall be selected upon review of the bids.

#### **Roadway Improvement Method 2:**

**Hot-In-Place Recycled (HIPR) Asphalt Two Pass Method:** This bid item and procedure will be performed in accordance with all TDOT Standard Specifications for Road and Bridge Construction, March 1, 2006 (and as amended) along with the HIPR specifications contained herein. This bid item and method will include sufficiently heating the existing asphalt topping layer, while minimizing damage to the existing binder layer, applying an approved asphalt rejuvenator agent (ARA) at an approximate rate of 0.10 gal/sy, scarifying and mixing the existing pavement with ARA, spreading and finishing the rejuvenated asphalt mix material, rolling of the material to achieve uniform and consist density, and compacting the rejuvenated asphalt mix material. Installation of temporary traffic markings is required. Allow adequate time for the newly installed HIPR asphalt to set up, install a bituminous tack coat (0.10 gal/sy), and install new virgin material of approximately 3/4" thick TDOT 411-E mix asphalt topping layer. Permanent painted or permanent thermoplastic traffic markings shall be bid separately as shown in the bid tabulation and shall be selected upon review of the bids.

#### **Roadway Improvement Method 3:**

**Full width new virgin asphalt topping mix method:** This bid item and procedure will be performed in accordance with all TDOT Standard Specifications for Road and Bridge Construction, March 1, 2006 (and as amended). This work shall include roadway preparation, applying a bituminous tack coat at a rate of 0.10 gal/sy, and installation of 1-1/2" of new TDOT 411-E mix. The compacted depth shall be no less than 1-1/2" at any location. An additional bid item shall be the leveling/scratch course of TDOT 307-B modified mix. Prior to installation of the 1-1/2" of 411-E mix, areas that require a leveling/scratch course shall be coordinated with the City of Spring Hill field representative. The leveling/scratch course shall be a separate

bid item and shall be paid for by the ton installed. Permanent painted or permanent thermoplastic traffic markings shall also bid separately as shown in the bid tabulation and shall be selected upon review of the bids.

**Roadway Improvement Method 4:**

**Asphalt Rejuvenating Agent (ARA) Method:** This bid item and procedure will be performed in accordance with all TDOT Standard Specifications for Road and Bridge Construction, March 1, 2006 (and as amended) along with the ARA specifications contained herein. This method will consist of uniform application of the ARA. The ARA shall be Reclamite (or an approved equal) and shall contain two parts rejuvenating agent and one part water, or a dilution ratio as specified by the manufacturer. The ARA shall be applied by a distribution truck in a uniform and consist pattern, at a rate of 0.20 gal/sy with a sand blotting application rate of approximately 1.5 lbs/sy. Sweeping will be required to remove the excess sand after proper cure time has been allowed. Permanent painted or permanent thermoplastic traffic markings shall be bid separately as shown in the bid tabulation and shall be selected upon review of the bids.

**Roadway Improvement Method 5:**

**Cement Treated Full Depth Reclamation (CTFDR) Method:** This bid item and procedure will be performed in accordance with all TDOT Standard Specifications for Road and Bridge Construction, March 1, 2006 (and as amended) along with the CTFDR specifications contained herein. This method will consist of constructing a uniform treated single layer, free of loose or segregated areas, with the required compaction and moisture content, with a smooth surface that conforms to the typical sections, lines, and grades of the existing roadway. The existing roadway section (asphalt topping, asphalt binder, and stone base) shall be pulverized and scarified to a depth of 8"-10", apply the cement slurry to pulverized roadway material, mix slurry with existing materials, spread and shape the homogenous material to the correct elevations/grades/lines, compact material to proper density, finish grade the roadway surface and edges, maintain moisture content during curing period and allow roadway to cure. Install bituminous prime coat (0.30 gal/sy), and install new virgin material of 2" TDOT 411-D mix asphalt topping layer. Permanent painted or permanent thermoplastic traffic markings shall be bid separately as shown in the bid tabulation and shall be selected upon review of the bids.

All Bid Item Methods 1-5 described above shall include incidental items of work such as traffic control (in accordance with MUTCD), all necessary and required roadway preparation, sweeping, casting adjustments, installation of driveway aprons and side road aprons (to a point at the end of the radius), temporary traffic markings, and erosion control measures.

The contractor shall be responsible, at no additional cost to the City, for any and all damages to existing utilities, mailboxes, shrubs, landscaping, fencing, concrete curbs, sidewalks, driveways or any other existing items that are damaged during construction of the roadway improvements.

**BIDFORMS**

**BASE BID ITEMS**

<b>Item</b>	<b>Description</b>	<b>Estimated Qty</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Total Cost</b>
<b>A Campbell Station Parkway (Main Street to New Port Royal Road)</b>					
Method 2		21,648	S.Y.	\$ 7.95	\$ 172,101.60
Thermoplastic Traffic Markings					
a. 4" double yellow (center)		395	L.F.	\$ 2.00	\$ 780.00
b. 4" single solid white		340	L.F.	\$ 1.00	\$ 340.00
c. 2' straight arrow		2	Each	\$ 150.00	\$ 300.00
d. 2' left turn arrow		3	Each	\$ 225.00	\$ 675.00
e. 2' stop bar		15	Each	\$ 180.00	\$ 2700.00
f. 2' right turn arrow		3	Each	\$ 225.00	\$ 675.00
g. 4" line channelization		750	S.F.	\$ 4.00	\$ 3000.00
h. 10' wide crosswalk		55	L.F.	\$ 10.00	\$ 550.00
<b>Subtotal Cost</b>					\$ 181,131.60
<b>B Buckner Lane (Port Royal Road to Monoco Drive)</b>					
Method 1		6,000	S.Y.	\$ 8.45	\$ 50,700.00
Thermoplastic Traffic Markings					
a. 2' stop bar		3	Each	\$ 180.00	\$ 540.00
<b>Subtotal Cost</b>					\$ 51,240.00
<b>C Port Royal Road [Tom Lunn Rd (North) to Tom Lunn Rd (South)]</b>					
Method 1		16,238	S.Y.	\$ 8.45	\$ 137,211.10
Thermoplastic Traffic Markings					
a. 4" single white (edge)		11,000	L.F.	\$ 1.00	\$ 11,000.00
b. 4" double yellow (center)		5,500	L.F.	\$ 2.00	\$ 11,000.00
c. 4" dashed white		275	L.F.	\$ 1.00	\$ 275.00
d. 4" single solid white		185	L.F.	\$ 1.00	\$ 185.00
e. 2' straight arrow		6	Each	\$ 150.00	\$ 900.00
f. 2' left turn arrow		3	Each	\$ 225.00	\$ 675.00
g. 2' stop bar		1	Each	\$ 180.00	\$ 180.00
h. 2' right turn arrow		3	Each	\$ 225.00	\$ 675.00
i. 4" line channelization		3,950	S.F.	\$ 4.00	\$ 15,800.00
<b>Subtotal Cost</b>					\$ 177,901.10

**BASE BID ITEMS (CONTINUED)**

<b>Item</b>	<b>Description</b>	<b>Estimated Qty</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Total Cost</b>
<b>D</b>	<b>Buckner Road (Main Street to Buckner Lane)</b>				
Method 4		32,000	S.Y.	\$	\$
Thermoplastic Traffic Markings					
a. 4" single white (edge)		20,000	L.F.	\$	\$
b. 4" double yellow (center)		10,800	L.F.	\$	\$
c. 4" dashed white		670	L.F.	\$	\$
d. 4" single solid white		215	L.F.	\$	\$
e. 2' straight arrow		3	Each	\$	\$
f. 2' left turn arrow		3	Each	\$	\$
g. 2' stop bar		22	Each	\$	\$
h. 2' right turn arrow		2	Each	\$	\$
<b>Subtotal Cost</b>					\$
<b>E</b>	<b>Campbell Station Subdivision Section 16 (see below note)</b>				
Method 3		11,500	S.Y.	\$	\$
Leveling/Scratch Course TDOT 307-B Modified		100	Tons	\$	\$
<b>Subtotal Cost</b>					\$
<b>Total Base Bid Cost</b>					\$410,272.79

**Note:** Bidform Item D is a total quantity for Campbell Station Subdivision Section 16 paving and shall consist of the following streets:

1. St. Hubbins (Paddy Trace to Portview)
2. Paddy Trace (St. Hubbins to Woodside)
3. Burney Court
4. Kilbrian Court
5. Clavie Crew Court

**ALTERNATE BID ITEMS**

<b>Item</b>	<b>Description</b>	<b>Estimated Qty</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Subtotal Cost</b>
<b>A</b>	<b>Campbell Station Parkway (Main Street to New Port Royal Road)</b>				
Method 1		21,648	S.Y.	\$	\$
Painted Traffic Markings					
a. 4" double yellow (center)		395	L.F.	\$	\$
b. 4" single solid white		340	L.F.	\$	\$
c. 2' straight arrow		2	Each	\$	\$
d. 2' left turn arrow		3	Each	\$	\$
e. 2' stop bar		15	Each	\$	\$
f. 2' right turn arrow		3	Each	\$	\$
g. 4" line channelization		750	S.F.	\$	\$
h. 10' wide crosswalk		55	L.F.	\$	\$
<b>Painted Traffic Markings Subtotal Cost</b>					\$

**ALTERNATE BID ITEMS (CONTINUED)**

<b>B Buckner Lane (Port Royal Road to Monoco Drive)</b>				
Method 2	6,000	S.Y.	\$ 7.95	\$ 47,700.00
Painted Traffic Markings				
a. 2' stop bar	3	Each	\$ 90.00	\$ 270.00
<b>C Port Royal Road (Kedron Road to Duplex Road)</b>				
Method 5	81,800	S.Y.	\$	\$
Thermoplastic Traffic Markings				
a. 4" single white (edge)	44,800	L.F.	\$	\$
b. 4" double yellow (center)	20,15	L.F.	\$	\$
c. 4" dashed white	5,600	L.F.	\$	\$
d. 4" single solid white	2,015	L.F.	\$	\$
e. 2' straight arrow	9	Each	\$	\$
f. 2' left turn arrow	21	Each	\$	\$
g. 2' stop bar	13	Each	\$	\$
h. 2' right turn arrow	14	Each	\$	\$
i. 4" yellow line channelization	27,950	S.F.	\$	\$
j. 10' Wide Crosswalk	60	L.F.	\$	\$
k. "ONLY"	8	Each	\$	\$
l. "YIELD"	2	Each	\$	\$
m. 2' straight/right arrow	3	Each	\$	\$
Painted Traffic Markings Subtotal Cost				\$
Painted Traffic Markings				
a. 4" single white (edge)	44,800	L.F.	\$	\$
b. 4" double yellow (center)	20,15	L.F.	\$	\$
c. 4" dashed white	5,600	L.F.	\$	\$
d. 4" single solid white	2,015	L.F.	\$	\$
e. 2' straight arrow	9	Each	\$	\$
f. 2' left turn arrow	21	Each	\$	\$
g. 2' stop bar	13	Each	\$	\$
h. 2' right turn arrow	14	Each	\$	\$
i. 4" line channelization	27,950	S.F.	\$	\$
j. 10" Crosswalk	60	L.F.	\$	\$
k. "ONLY"	8	Each	\$	\$
l. "YIELD"	2	Each	\$	\$
m. 2' straight/right arrow	3	Each	\$	\$
Painted Traffic Markings Subtotal Cost				\$

**ALTERNATE BID ITEMS (CONTINUED)**

<u>Item</u>	<u>Description</u>	<u>Estimated Qty</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Subtotal Cost</u>
<b>D Buckner Road (Main Street to Buckner Lane)</b>					
Method 1		32,000	S.Y.	\$ 8.45	\$ 270,400. <sup>00</sup>
Method 2		32,000	S.Y.	\$ 7.95	\$ 254,400. <sup>00</sup>
Method 3		32,000	S.Y.	NO Bid	
Painted Traffic Markings					
a. 4" single white (edge)		20,000	L.F.	\$ <del>1.30</del> <sup>.30</sup>	\$ 6,000. <sup>00</sup>
b. 4" double yellow (center)		10,800	L.F.	\$ .60	\$ 6,480. <sup>00</sup>
c. 4" dashed white		670	L.F.	\$ <del>28</del> <sup>.30</sup>	\$ 201. <sup>00</sup>
d. 4" single solid white		215	L.F.	\$ .30	\$ 64. <sup>50</sup>
e. 2' straight arrow		3	Each	\$ 50. <sup>00</sup>	\$ 150. <sup>00</sup>
f. 2' left turn arrow		3	Each	\$ 75. <sup>00</sup>	\$ 225. <sup>00</sup>
g. 2' stop bar		22	Each	\$ 90. <sup>00</sup>	\$ 1,980. <sup>00</sup>
h. 2' right turn arrow		2	Each	\$ 75. <sup>00</sup>	\$ 150. <sup>00</sup>
Painted Traffic Markings Subtotal Cost					\$ 15,250. <sup>50</sup>

The contract shall be awarded based on the base bid. The contractor's references, experience, available equipment, manpower, schedule availability and other items will be reviewed prior to award of contract. The City of Spring Hill reserves the right to select any or all base bid items, any alternate bid item, select individual bid items, or select partial bid item quantities to be performed depending on bid item costs, budgetary conditions and the road paving priorities of the City.

In compliance with the all described requirements, specifications and standards, the undersigned offers, and agrees, if this bid is accepted within 90 days from the opening date, to furnish and install all items at the price set above. This agreement and unit bid costs will be effective for 12 months from the date of the contract execution.

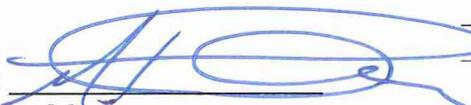
DATE: 9-12-11

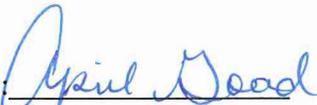
Owner:  
City of Spring Hill, TN

By Contractor: Gallagher Asphalt Corporation



Jeffrey L. Kolmodin, Vice-President

By:   
Mayor

Attest:   
City Recorder

Address for giving notices:  
18100 South Indiana Avenue  
Thornton, IL 60476

Address for giving notices:  
199 Town Center Parkway  
Spring Hill, TN 37174

Agent for service to process: \_\_\_\_\_  
License No. \_\_\_\_\_  
License Expiration Date: \_\_\_\_\_

(If CONTRACTOR is a corporation, attach evidence of authority to sign.)

This contract is limited to the bid award in the attached Resolution 11-96.

**RESOLUTION 11-96**

**A RESOLUTION TO AUTHORIZE 2011 PAVING PROJECTS**

**WHEREAS**, to better serve the citizens of Spring Hill, the City accepted proposals for road improvements on September 12, 2011; and

**WHEREAS**, the City of Spring Hill approved road improvement projects in the 2011-2012 Capital Improvement Plan; and

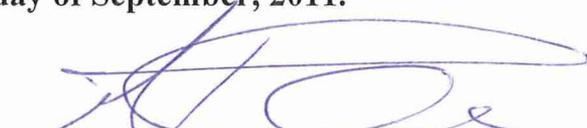
**WHEREAS**, the City of Spring Hill received proposals for the paving of the following roads: Campbell Station Parkway and Buckner Lane; and

**NOW, THEREFORE BE IT RESOLVED**, that the City of Spring Hill authorizes awarding the above referenced Multi-Road paving projects to the following companies as stated below as recommended by staff and Spring Hill Budget and Finance Advisory Committee on September 12, 2011:

Gallagher Asphalt	A. Campbell Station Parkway (Main St. to Port Royal)	\$181,131.60
Gallagher Asphalt	B. Buckner Ln (Port Royal to Monoco)	\$ 51,240.00

**BE IT FURTHER RESOLVED** that funding for this paving project to be drawn from the General Funds, Streets Department (approximately 80%) and from the State Street Aid Fund (approximately 20%).

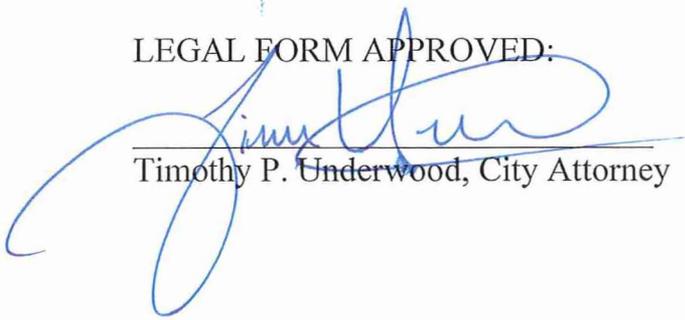
**Passed and adopted by the Board of Mayor and Aldermen of the City of Spring Hill, Tennessee on the 19<sup>th</sup> day of September, 2011.**

  
Michael Dinwiddie, Mayor

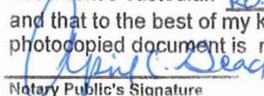
ATTEST:

  
April Goad, City Recorder

LEGAL FORM APPROVED:

  
Timothy P. Underwood, City Attorney

State of TN  
County of Maury

On this 19<sup>th</sup> day of Sept, 2011, I certify that this document is a true, exact, complete, and unaltered copy made by me and presented to me, by the document's custodian Res. 11-96 - Approved 9-19-11 and that to the best of my knowledge, that the photocopied document is not a publicly recorded document  
  
Notary Public's Signature



**SECTION IV - SPECIFICATION COMPLIANCE**

Unless otherwise noted, all quotations for the asphalt paving for the Public Works Department shall be in complete compliance of all requirements set herein and in accordance with all specifications detailed herein.

Bidders shall note in the space provided below any exceptions or deviations in any way from the specifications of any section of this bid form. Bidders should provide complete detail of exceptions or deviations.

Proposal Exceptions

Section	Brief Description
<u>  A11  </u>	<u>Bid Reflects Bituminous Index</u>
_____	<u>Price of \$556.82 (Liquid Asphalt/Ton)</u>
_____	_____
_____	_____
_____	_____

By signature below, vendor acknowledges any quotation to be in full compliance with all aspects of each section of the bid form not noted above.

Gallagher Asphalt Corporation  
COMPANY

18100 South Indiana Avenue Thornton, IL  
ADDRESS, CITY, STATE, ZIP      60476

Jeffrey L. Kolmodin  
REPRESENTATIVE NAME

708-877-7160  
TELEPHONE NUMBER

  
SIGNATURE

jkolmodin@gallagherasphalt.com  
EMAIL ADDRESS

# DRUG-FREE WORK FORCE AFFIDAVIT

STATE OF Illinois  
COUNTY OF Cook

DRUG-FREE WORKPLACE AFFIDAVIT  
OF PRIME BIDDER

NOW COMES AFFIANT, who being duly sworn, deposes and says:

1. He/She is the principal officer for: Gallagher Asphalt Corporation
2. That the bidding entity has submitted a bid to the City of Spring Hill for the installation of asphalt paving of Campbell Station Parkway, Campbell Station Section 16, Port Royal Road, Buckner Lane, and Buckner Road.
3. That the bidding entity employs no less than five (5) employees;
4. That Affiant certifies that the bidding entity has in effect, at the time of submission of its bid to perform the construction referred to above, a drug-free workplace program that complies with §50-9-113, *Tennessee Code Annotated*.
5. That this affidavit is made on personal knowledge.

Further Affiant saith not.

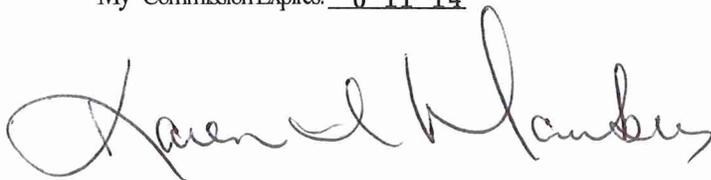
  
\_\_\_\_\_

AFFIANT

SUBSCRIBED AND SWORN TO before me this 12th day of Sept. 2011



My Commission Expires: 6-11-14



**50-9-113. State and local government construction contracts.**

- (a) Each employer with no less than five (5) employees receiving pay who contracts with the state or any local government to provide construction services or who is awarded a contract to provide construction services or who provides construction services to the state or local government shall submit an affidavit stating that such employer has a drug-free workplace program that complies with this chapter, in effect at the time of such submission of a bid at least to the extent required of governmental entities. Any private employer that certifies compliance with the drug-free workplace program, only to the extent required by this section, shall not receive any reduction in workers' compensation premiums and shall not be entitled to any other benefit provided by compliance with the drug-free workplace program set forth in this chapter. Nothing in this section shall be construed to reduce or diminish the rights or privileges of any private employer who has a drug-free workplace program that fully complies with this chapter. For purposes of compliance with this section, any private employer shall obtain a certificate of compliance with the applicable portions of the Drug-free Workplace Act from the department of labor and workforce development. No local government or state governmental entity shall enter into any contract or award a contract for construction services with an employer who does not comply with the provisions of this section.
- b) For the purposes of this section, "employer" does not include any utility or unit of local government. "Employer" includes any private company and/or corporation.
- (c) If it is determined that an employer subject to the provisions of this section has entered into a contract with a local government or state agency and such employer does not have a drug-free workplace pursuant to this section, such employer shall be prohibited from entering into another contract with any local government or state agency until such employer can prove compliance with the drug-free workplace program pursuant to this section. If the same employer again contracts with any local government or state agency and does not have a drug-free workplace program pursuant to this section, then such employer shall be prohibited from entering into another contract with any local government or state agency for not less than three (3) months from the date such violation was discovered and verified and shall be prohibited from entering into another contract until such employer complies with the drug-free workplace program pursuant to this section. If the same employer for a third time contracts with any local government or state agency and does not have a drug-free workplace program pursuant to this section, then such employer shall be prohibited from entering into another contract with any local government or state agency for not less than one (1) year from the date such violation was discovered and verified and shall be prohibited from entering into another contract until such employer complies with the drug-free workplace program pursuant to this section.
- (d) A written affidavit by the principal officer of a covered employer provided to a local government at the time such bid or contract is submitted stating that the employer is in compliance with this section shall absolve the local government of all further responsibility under this section and any liability arising from the employer's compliance or failure of compliance with the provisions of this section.

[Acts 2000, ch.918, §§ 1,2.]

## CERTIFICATE OF NONDISCRIMINATION

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As Bidder, Contractor, or Subcontractor on City of Spring Hill Construction Project (Campbell Station Parkway, Campbell Station Section 16, Port Royal Road, Buckner Lane, and Buckner Road Paving) the undersigned states that he does not discriminate against any subcontractor, employee or applicant for employment on the grounds of race, color, national origin or sex and, if awarded a contract for this project, agrees in performance of work:

1. not to discriminate against any subcontractor, employee, or applicant for employment on the grounds of race, color, national origin or sex;
2. to maintain payrolls of laborers and mechanics employed on this contract until 90 days after final release and final payment by the City;
3. require a similar certificate to be executed by each subcontractor at the time a subcontractor is executed under the contract with the requirement that such subcontractor agrees to require a similar certificate of requirement on any lower tier of subcontractors.

Contractor's Name Gallagher Asphalt Corp Date 9-12-11

Signature  Title Vice-President  
Printed or typed Name and title  
**Jeffrey L. Kolmodin**

## TITLE VI COMPLIANCE SURVEY

The City of Spring Hill intends to fully comply with the Tennessee Department of Transportation's policy regarding TITLE VI of the CIVIL RIGHTS ACT of 1964; 49 CFT, PART 21; related statutes and regulations to the end that no person shall be excluded from participation in or be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance from the U.S. Department of Transportation on the grounds of race, color, gender, age, disability or national origin.

Please complete the following information: NAME OF COMPANY \_\_\_\_\_

NAME OF OWNER/CONTRACTOR: Gallagher Asphalt Corporation

ADDRESS OF OWNER/CONTRACTOR: 18100 South Indiana Avenue

Thornton, IL 60476

COUNTY: Cook

TYPE OF SERVICES PROVIDED: Asphalt Paving

**CONTRACT:**

Campbell Station Parkway, Campbell Station Section 16, Port Royal Road, Buckner Lane, and Buckner Road Paving

**OWNER/CONTRACTOR**  
(Race/Gender)

**EMPLOYEES**  
(Number in each category)

White Male	<u>✓</u>
White Female	<u>      </u>
African-American Male	<u>      </u>
African-American Female	<u>      </u>
Hispanic Male	<u>      </u>
Hispanic Female	<u>      </u>
Native American Male	<u>      </u>
Native American Female	<u>      </u>
Asian-American Male	<u>      </u>
Asian-American Female	<u>      </u>
Other _____ Male	<u>      </u>
Other _____ Females	<u>      </u>

White Males	<u>133</u>
White Females	<u>21</u>
African-American Males	<u>22</u>
African-American Females	<u>3</u>
Hispanic Males	<u>24</u>
Hispanic Females	<u>11</u>
Native American Males	<u>—</u>
Native American Females	<u>—</u>
Asian-American Males	<u>1</u>
Asian-American Females	<u>—</u>
Other _____ Males	<u>      </u>
Other _____ Females	<u>      </u>

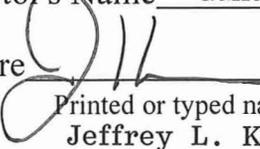
## CERTIFICATE OF NON-ILLEGAL IMMIGRANT USE

As Bidder, Contractor, or Subcontractor on City of Spring Hill Construction Project  
(Campbell Station Parkway, Campbell Station Section 16, Port Royal Road, Buckner  
Lane, and Buckner Road Paving)

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1. the undersigned states that he does not knowingly utilize the services of **illegal immigrants** in the performance of a contract for goods or services entered into with the City of Spring Hill:
2. and will not knowingly utilize the services of any subcontractor who will utilize the services of **illegal immigrants** in the performance of the contract;
3. If any person who contracts to supply goods or services to the City of Spring Hill or who submits a bid to contract to supply goods or services to the state or other state entities, is discovered to have knowingly utilized the services of **illegal immigrants** in the performance of the contract to supply goods or services to the City of Spring Hill, the City of Spring Hill shall declare that person to be prohibited from contracting for or submitting a bid for any contract to supply goods or services to the City of Spring Hill for a period of one (1) year from the date of discovery of the usage of **illegal** immigrant services in the performance of a contract to supply goods or services to the City of Spring Hill.

Contractor's Name Gallagher Asphalt Corporation

Signature  Title Vice-President

Printed or typed name and title  
Jeffrey L. Kolmodin

## CERTIFICATE OF NONCOLLUSION

As Bidder, Contractor, or Subcontractor on City of Spring Hill Construction Project  
(Campbell Station Parkway, Campbell Station Section 16, Port Royal Road, Buckner  
Lane, and Buckner Road Paving)

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the undersigned hereby declares that no person or party other than the undersigned has any interest whatever in the submitted bid proposal, that it is without any connection or collusion with any person or persons making or having made any proposal for the same work and without any previous understanding with such person or persons as to relative prices, obviating competition, and that it is made in good faith.

Contractor's Name Gallagher Asphalt Corporation

Signature  \_\_\_\_\_

Title Vice-President

Printed or typed name and title  
Jeffrey L. Kolmodin

## **SPECIFICATIONS**

## HOT-IN-PLACE RECYCLING

### DESCRIPTION

Construct the hot-in-place recycling of the existing asphalt surface as specified in the Contract Documents. The activities associated with this work include heating the existing pavement, scarifying and/or shearing the existing surface, adding a rejuvenating agent, mixing, spreading, leveling, and compacting the recycled material. This process is referred to as Hot-In-Place Recycled (HIPR) Asphalt Pavement. The term surface recycling and HIPR are synonymous in the specification.

### MATERIALS

a. Asphalt Rejuvenating Agent (ARA). Provide ARA (emulsion or oil) that complies with TDOT specifications and/or specification contained herein.

### CONSTRUCTION REQUIREMENTS

a. **Pavement Preparation.** Before commencing surface recycling, remove all material from the surface of the pavement that would be detrimental to the HIPR.

b. **Heating and Shearing/Scarifying Operations.** During heating and shearing/scarifying, begin work to fulfill the requirements of one of the following heating and shearing/scarifying operations:

(1) Two-Pass Operation:

- (a) Heat shall be applied under an enclosed or shielded hood and shall extend at least four inches beyond the width of scarification on both sides. The heating units shall be of sufficient capacity to heat the pavement material as necessary for efficient processing, but be designed as to minimize the damage to the asphalt binder.
- (b) Scarifying shall be accomplished with pressure scarifying tines. The heating-scarifying operation shall not exceed 30 feet per minute. When an HIPR pass is being made adjacent to a previously placed mat, the longitudinal repaving seam shall extend at least two inches into the previously placed mat.

(2) One-Pass Operation:

- (a) The heating units shall be of sufficient capacity to heat the pavement material as necessary for efficient processing, but be designed as to minimize the damage to the asphalt binder. The heating system shall also have provisions for cooling the asphalt surface to 350°F.
- (b) The self-containment requirement for the recycling unit shall mean once the existing asphalt pavement is sheared, it remains contained in the recycling unit, and shall be immediately mixed with the rejuvenating agent. The recycled asphalt pavement shall not be exposed to atmospheric conditions except when placed for compaction.

Flames on the pavement can be prevented by heating the roadway more slowly using additional heaters. Intermittent or occasional flaming on the roadway or in the windrow that extinguishes on its own within 10 seconds is permissible, but if in the opinion of the City's representative it is detrimental to the final product, production will cease. In addition, production will cease when

smoke is being produced continuously. (Smoke caused when the heaters pass over a maintenance patch is excluded from this clause.) The Contractor and City's representative will agree to a course of action to prevent this overheating before production is resumed. If flames or excessive smoke persist, then production is ceased until the Contractor modifies the operation and can demonstrate acceptable results without excessive smoke or flames on the pavement or in the windrows. Provide adequate provisions for equipment calibration.

**c. Process Control.**

- (1) Depth Check. The City's representative will determine the depth behind the screed by probing 3 points and using the average of the 3-point probe tests of the un-compacted surface. A minimum depth of 2" shall be maintained for the hot sheared material.
- (2) Temperature Requirements: Maintain the temperature of the HIR, directly behind the paver, between 190°F and 300°F. HIR temperatures taken within 2 feet of each other, transverse to the roadway, shall not vary by more than 30°F.

**d. Rejuvenating and Mixing Operations.** After heating, begin work to fulfill the requirements of one of the following rejuvenating and mixing operations:

- (1) Two-Pass Operation.
  - (a) Immediately before the scarifying operation, an approved asphalt modifier shall be applied at the approximate rate of 0.10 gallon per square yard.
- (2) One-Pass Operation.
  - (a) Use a recycling/remixing unit capable of loosening the heated asphalt pavement to the specified depth in a uniform pattern, loading existing asphalt and adding heated rejuvenator into a heated mixing plant for a minimum of 30 seconds. The rate of application of the rejuvenating agent shall be adjustable to maintain the appropriate application rate in the relation to the operating speed of the machine. Metering devices shall be incorporated into the distribution systems for recording the quantities of asphalt rejuvenating agent. The mixing shall take place in a heated rotating drum mix plant for at least 30 seconds in such a manner as to ensure complete blending. On-board asphalt plant temperature must be maintained at a minimum of 300°F to establish maximum blending and coating.

**e. Spreading and Compacting Operations.** Immediately following heating, scarifying, adding ARA and mixing operations, begin work to fulfill the requirements of one of the following operations:

- (1) Two-Pass Operation.
  - (a) Spread/finish the rejuvenated mixture with an acceptable attached paving screed.
  - (b) Provide density using an approved rolling procedure. The City's representative will determine the initial approved rolling procedure from densities obtained with various roller combinations. Density will be determined by using a nuclear gauge. Use the approved rolling procedure. If there is a significant change in factors affecting density, such as weather or compaction equipment, the City's representative will reevaluate and modify the rolling procedure as required. Stop the HIPR operation whenever rolling is not being performed according to the approved rolling procedure.

- (c) Compaction shall be accomplished with an 8 to 10-ton steel wheel roller in vibratory and/or static mode as needed. The roller shall be equipped with an adequate scraping or cleaning device on each wheel to prevent the accumulation of material on the wheels. When used for the compaction of bituminous mixtures, the roller shall be equipped with a water system that will keep all wheels uniformly wet to prevent material pickup when required.
  - (d) Maintain the rejuvenated pavement surface until the surface treatment is completed. Apply a tack coat before placing the surface treatment. If a HMA overlay is included in the Contract Documents, start the HMA a maximum of 1 week after spreading and compacting the HIPR. If a seal coat, asphalt seal, micro-surfacing, or ultra-thin bonded asphalt surface is included in the Contract Documents, allow the HIPR surface to cure before sealing.
- (2) One-Pass Operation.
- (a) Spread and finish the rejuvenated mixture with a recycling unit capable of placing and leveling the recycling asphalt pavement in a condition for immediate re-compaction. The recycling unit shall also have an adjustable, heated, vibratory screed capable of placing the mixture to the required cross-section, profile and alignment. The newly recycled material shall be placed at the minimum temperature 225°F at the screed. Surface texture shall be uniform and consistent with no segregation or excessive asphalt cement,
  - (b) Provide density using an approved rolling procedure. The City's representative will determine the initial approved rolling procedure from densities obtained with various roller combinations. Density will be determined by using a nuclear gauge. Use the approved rolling procedure. If there is a significant change in factors affecting density, such as weather or compaction equipment, the City's representative will reevaluate and modify the rolling procedure as required. Stop the HIPR operation whenever rolling is not being performed according to the approved rolling procedure.
  - (c) Compaction shall be accomplished with an 8 to 10-ton steel wheel roller in vibratory and/or static mode as needed. The roller shall be equipped with an adequate scraping or cleaning device on each wheel to prevent the accumulation of material on the wheels. When used for the compaction of bituminous mixtures, the roller shall be equipped with a water system that will keep all wheels uniformly wet to prevent material pickup when required.

**f. Finished Pavement.** The finished pavement shall meet the following tolerances:

1. The finished surface shall meet the local specified surface requirements.
2. The modified binder shall have a Penetration Value (25°C, 100g, 5 sec.) of 45 to 65.
3. The recycled pavement after compaction shall have a density (percent of maximum Theoretical density) of 92 to 96.
4. The gradation of the recycled pavement shall be within +5 percent of the original pavement on the amount passing the 4.75 mm (No. 4) sieves.

5. The gradation of the recycled pavement on all sleeves, except for the 4.75 mm (No. 4) Sieve, shall be within the gradation bands of the original pavement type (i.e., 404,446 Type 1H, 448 Types 1, etc.).
- g. Testing:** The contractor shall be responsible for all compaction testing and shall furnish the City with a copy of compaction tests (by a certified materials testing company) at intervals taken to represent all pavement has been installed correctly. All costs associated with compaction testing, gradation and mix design testing of HIPR and new virgin asphalt mix necessary to verify these specifications and materials utilized on this project meet all specifications shall be the responsibility of the contractor and shall be considered incidental to the project.
- h. Weather and Seasonal Limitations.** Construct surface recycling when the surface is dry, and the weather is not foggy or rainy. Construct surface recycling when either the ambient air temperature is equal to or greater than 45°F or the road surface temperature is equal to or greater than 55°F. The above requirements may be waived with written approval from the City's representative.
- i. Traffic.** Traffic shall not be allowed on the compacted pavement until it has cooled sufficiently to prevent dislodging of the aggregate. Any areas, which are damaged by traffic, shall be repaired at no additional cost, as directed by the City.

## ASPHALT REJUVENATING AGENT

### Description

This work shall consist of furnishing all labor, material, and equipment necessary to perform all operations for the application of an asphalt rejuvenating agent to asphalt concrete surface courses. The rejuvenation of surface courses shall be by spray application of a cationic rejuvenating agent composed of petroleum oils and resins emulsified with water. All work shall be in accordance with the specifications, the applicable drawings, and subject to the terms and conditions of this contract.

### Material Specifications

The asphalt rejuvenating agent shall be an emulsion composed of a petroleum resin oil base uniformly emulsified with water. Each bidder must submit with their bid a certified statement from the asphalt rejuvenator manufacturer showing that the asphalt rejuvenating emulsion conforms to the required physical and chemical requirements.

SPECIFICATIONS	TEST METHOD		REQUIREMENTS	
<u>Tests</u>	<u>ASTM</u>	<u>AASHTO</u>	<u>MIN</u>	<u>MAX</u>
Tests on Emulsion:				
Viscosity @25°C, SFS	D-244	T-59	15	40
Residue, %W <sup>1</sup>	D-244 (mod.)	T-59 (mod.)	60	65
Miscibility Test <sup>2</sup>	D-244 (mod.)	T-59 (mod.)	No Coagulation	
Sieve Test, %W <sup>3</sup>	D-244 (mod.)	T-59 (mod.)	-	0.1
Particle Charge Test	D-244	T-59	Positive	
Percent Light Transmittance	GB	GB	-	30
Tests on Residue from Distillation:				
Flash Point, COC, °C	D-92	T-48	196	-
Viscosity # 60°C, cst	D-445	-	100	200
Asphaltenes, %W	D-2006-70	-	-	1.00
Maltene Dist. Ratio <sup>4</sup> $\frac{PC + A_1}{S + A_2}$	D-2006-70	-	0.3	0.6
PC/S Ratio <sup>4</sup>	D-2006-70	-	0.5	Saturated
Hydrocarbons, S <sub>4</sub>	D-2006-70	-	21	28

<sup>1</sup> ASTM D-244 Modified Evaporation Test for percent of residue is made by heating 50 gram sample to 149°C (300°F) until foaming ceases, then cool immediately and calculate results.

<sup>2</sup> Test procedure identical with ASTM D-244-60 except that .02 Normal Calcium Chloride solution shall be used in place of distilled water.

<sup>3</sup> Test procedure identical with ASTM D-244 except that distilled water shall be used in place of two percent sodium oleate solution.

<sup>4</sup>Chemical composition by ASTM Method D-2006-70:

PC = Polar Compounds,      A<sub>1</sub> = First Acidaffins

A<sub>2</sub> = Second Acidaffins,      S = Saturated Hydrocarbons

**Material Performance**

The rejuvenating agent shall have a record of at least five years of satisfactory service as an asphalt rejuvenating agent and in-depth sealer. Satisfactory service shall be based on the penetration value of the asphalt binder as follows. The viscosity shall be reduced by a minimum of 45 percent and the penetration value shall be increased by a minimum of 25 percent. Testing shall be performed on extracted asphalt cement from a pavement to a depth of three eighths inch (3/8"). In addition, the pavement shall be in-depth sealed to the intrusion of air and water.

The bidder must submit with their bid the manufacturer's certification that the material proposed for use is in compliance with the specification requirements. The bidder must submit for approval by the City previous use documentation and test data conclusively demonstrating that; the rejuvenating agent has been used successfully for a period of five years by government agencies such as cities, counties, etc.; and that the asphalt rejuvenating agent has been proven to perform, as heretofore required, through field testing by government agencies as to the required change in the asphalt binder viscosity and penetration number. Testing data shall be submitted indicating such product performance on a sufficient number of projects, each being tested for a minimum period of three years to insure reasonable longevity of the treatment, as well as product consistency.

**Applicator Experience**

The asphalt rejuvenating agent shall be applied by an experienced applicator of such material. The bidder shall have a minimum of three years experience in applying the product proposed for use. They must submit a list of five projects on which they applied said rejuvenator. They shall indicate the project dates, number of square yards treated in each, and the name and phone number of the representative in charge of each project.

A project superintendent knowledgeable and experienced in application of the asphalt rejuvenating must be in control of each day's work. The bidder shall submit a written experience outline of the project superintendent.

**Handling of Asphalt Rejuvenating Agent**

Contents in tank cars or storage tanks shall be circulated at least forty-five minutes before withdrawing any material for application. When loading the distributor, the asphalt rejuvenating agent concentrate shall be loaded first and then the required amount of water shall be added. The water shall be added into the distributor with enough force to cause agitation and thorough mixing of the two materials. To prevent foaming, the discharge end of the water hose or pipe shall be kept below the surface of the material in the distributor which shall be used as a spreader. The distributor truck will be cleaned of all its asphalt materials, and washed out to the extent that no discoloration of the emulsion may be perceptible. Cleanliness of the spreading equipment shall be subject to the approval and satisfaction of the City's representative.

**Resident Notification**

The Contractor shall distribute by hand, a typed notice to all residents and businesses on the street to be treated. The notice will be delivered no more than 24 hours prior to the treatment of the road. The notice will have a local phone number that the residents may call to ask questions. The notice shall be of the door hanger type which secures to the door handle of each dwelling. Unsecured notices will not be allowed. The contractor shall also place the notice on the windshield of any parked cars on the street. Hand distribution of this notice will be considered incidental to the contract.

**Application Equipment**

The distributor for spreading the emulsion shall be self-propelled, and shall have pneumatic tires. The distributor shall be designed and equipped to distribute the asphalt rejuvenating agent uniformly on variable widths of surface at readily determined and controlled rates from 0.05 to 0.5 gallons per square yard of surface, and with an allowable variation from any specified rate not to exceed 5 percent of the specified rate.

Distributor equipment shall include full circulation spray bars, pump tachometer, volume measuring device and a hand hose attachment suitable for application of the emulsion manually to cover areas inaccessible to the distributor. The distributor shall be equipped to circulate and agitate the emulsion within the tank.

A check of distributor equipment as well as application rate accuracy and uniformity of distribution shall be made when directed by the City's representative.

The truck used for sanding shall be equipped with a spreader that allows the sand to be uniformly distributed onto the pavement. The spreader shall be able to apply 1/2 pound to 3 pounds of sand per square yard in a single pass. The spreader shall be adjustable so as not to broadcast sand onto driveways, trees or lawns.

The sand to be used shall be free flowing, without any leaves, dirt stones, etc. Any wet sand shall be rejected from the job site.

Any equipment which is not maintained in full working order, or is proven inadequate to obtain the results prescribed, shall be repaired or replaced at the direction of the City's representative.

**Application of Rejuvenating Agent**

The temperature of the asphalt rejuvenating emulsion, at the time of application shall be as recommended by the manufacturer. The asphalt rejuvenating agent shall be applied only when the existing surface to be treated is thoroughly dry. Additionally, application of the asphalt rejuvenating agent shall be prohibited when weather forecasts indicate a chance of a rain event in the work area, which would produce in excess of 0.10 inches of rain within four hours of the application of the asphalt rejuvenating agent. The contractor shall perform follow-up inspections of stormwater inlets, culverts, and drainage ditches in the vicinity of the asphalt rejuvenating agent application operations, whenever a precipitation event, in excess of 0.10 inches of rain, occurs during a two day period following application of the asphalt rejuvenating agent. The asphalt rejuvenating agent shall not be applied when the ambient temperature is below 40° F.

The asphalt rejuvenating agent shall be applied by a distributor truck at the temperature recommended by the manufacturer and at the pressure required for the proper distribution. The emulsion shall be applied so that uniform distribution is obtained at all points of the areas to be treated. Distribution shall be commenced with a running start to insure full rate of spread over the entire area to be treated. Areas inadvertently missed shall receive additional treatment as may be required by hand sprayer application.

Application of asphalt rejuvenating agent shall be on one-half width of the pavement at a time. When the second half of the surface is treated, the distributor nozzle nearest the center of the road shall overlap the previous application by at least one-half the width of the nozzle spray. In any event the centerline construction joint of the pavement shall be treated in both application passes of the distributor truck.

Before spreading, the asphalt rejuvenating agent shall be blended with water at the rate of two (2) parts rejuvenating agent to one (1) part water, by volume or as specified by the manufacturer. The combined mixture of asphalt rejuvenating agent and water shall be spread at the rate of 0.20 gallons per square yard, or as approved by the City's representative.

Where more than one application is to be made, succeeding applications shall be made as soon as penetration of the preceding application has been completed and approval is granted for additional applications by the City's representative.

Grades or super elevations of surfaces that may cause excessive runoff, in the opinion of the City's representative, shall have the required amounts applied in two or more applications as directed.

After the street has been treated, the area within one foot of the curb line on both sides of the road shall receive additional treatment of the asphalt rejuvenating emulsion. Said treatment shall be uniformly applied by a method acceptable by the City's representative.

The Contractor shall furnish a quality inspection report showing the source, manufacturer, and the date shipped, for each load of asphalt rejuvenating agent. When directed by the City's representative, the Contractor shall take representative samples of material for testing.

A sand blotting application shall be installed after the rejuvenating agent is applied and shall be at a rate of approximately 1.5 lbs/S.Y. of clean dry sand suitable for this type of roadway rejuvenation application.

### **Street Sweeping**

The Contractor shall be responsible for sweeping and cleaning of the streets prior to, and after treatment. Prior to treatment, the street will be cleaned of all standing water, dirt, leaves, foreign materials, etc. This work shall be accomplished by hand-brooming, power blowing or other approved methods. If, in the opinion of the City's representative, the hand cleaning is not sufficient then a self-propelled street sweeper shall be used.

All sand used during the treatment must be removed no later than 48 hours after treatment of the street. This shall be accomplished by a combination of hand and mechanical sweeping. All turnouts, cul-de-sacs, etc. must be cleaned of any material to the satisfaction of the City's representative. Street sweeping will be included in the price bid per square yard for asphalt rejuvenating agent.

If, after sand is swept and in the opinion of the City's representative, a hazardous condition exists on the roadway, the contractor must apply additional sand and sweep same no later than 24 hours following reapplication. No additional compensation will be allowed for reapplications and removal of sand.

**Traffic Control**

All traffic control shall be coordinated with the City's representative and local emergency responders. All traffic control shall be performed by qualified and trained traffic control staff and all traffic control shall be performed in accordance with the MUTCD standards and requirements. The Contractor shall schedule his operations and carry out the work in a manner to cause the least disturbance and/or interference with the normal flow of traffic over the areas to be treated. Treated portions of the pavement surfaces shall be kept closed and free from traffic until penetration, in the opinion of the City's representative, has become complete and the area is suitable for traffic.

When, in the opinion of the City's representative, traffic must be maintained at all times on a particular street, then the Contractor shall apply asphalt rejuvenating agent to one lane at a time. Traffic shall be maintained in the untreated lane until traffic may be switched to the completed lane.

The contractor shall be responsible for all traffic control and signing required to permit safe travel. The contractor shall notify the City's police and fire departments as to the streets that are to be treated each day. If, in the opinion of the City's representative, proper signing is not being used, the Contractor shall stop all operations until safe signing and barricading is achieved.

No additional payment will be allowed for traffic control staff, equipment, barricades, signage, flagmen or other required items in accordance with MUTCD. Traffic control shall be considered incidental to this work and all work called for under this contract. The contractor shall include the cost of traffic control within his unit bid cost for the bid items of this project. The City shall not allow additional costs for any required traffic control.

**Method of Measurement**

Asphalt rejuvenating agent will be measured by the square yard as provided for in the Contract Documents. The accepted quantities, measured as provided for above, will be paid for at the contract unit price for asphalt rejuvenating agent.

## **CEMENT TREATED FULL DEPTH RECLAMATION**

**Description.** Mix and compact cement, water, and subgrade or base (with or without asphalt concrete pavement) in the roadway.

**Materials.** Furnish uncontaminated materials of uniform quality that meet the requirements of the plans and specifications. Notify the City's representative of the proposed sources of materials and of changes to material sources at least 30 days before production. When a source is changed the contractor shall verify to the City, through testing results and materials documentation, to indicate the specification requirements are met. The City's representative may sample and test project materials at any time before compaction to randomly verify materials are in accordance with these specifications. All testing of materials will be at the expense of the contractor and no additional cost shall be allowed.

- A. Hydraulic Cement. Furnish Type I, IP, or II cement that meets the requirements of TDOT "Hydraulic Cement," and TDOT's Cement Quality Monitoring Program (CQMP).
- B. Flexible Base. Furnish new base material that meets the requirements of TDOT, "Flexible Base," for the type and grade required.
- C. Water. Furnish water free of industrial waste and other objectionable material. The contractor will be required to purchase the water from the City with a fire hydrant meter.
- D. Asphalt. When permitted for curing purposes, furnish asphalt or emulsion that meets the requirements of TDOT "Asphalts, Oils, and Emulsions,"
- E. Mix Design. The contractor shall submit a mix design for review and approval by the City. A cement content that will produce a stabilized mixture that meets the strength requirements shall be included within the mix design. The contractor shall furnish test results indicating the compressive strength of the proposed mix design for review and approval by the City's representative. The mix will not include more than 50% asphalt concrete.

**Equipment.** Provide machinery, tools, and equipment necessary for proper execution of the work.

- A. Cement Storage Facility. Store cement in closed, weatherproof containers.
- B. Cement Slurry Equipment. Use agitated slurry tanks to slurry cement on the project or other approved location. Provide a pump for agitating the slurry when the distributor truck is not equipped with an agitator. Equip the distributor truck with a sampling device.
- C. Compaction Equipment. Provide rollers in accordance with TDOT specifications "Rolling".
- D. Pulverization Equipment. Provide pulverization equipment which cuts and pulverizes material uniformly to the proper depth with cutters that will plane to a uniform surface over the entire width of the cut; allows a visible indication of the depth of cut (minimum 8"-10") at all times; and uniformly mixes the materials.

- E. Weighing and Measuring Equipment. Provide weighing and measuring equipment that meets the requirements of TDOT, “Weighing and Measuring Equipment.”

**Construction.** Construct a uniformly treated single layer, free of loose or segregated areas; with the required compaction and moisture content; with a smooth surface that conforms to the typical sections, lines, and grades of the existing roadway and or as established by the City’s representative.

- A. Preparation of Existing Base or Subgrade for Treatment. Before treating, remove unsuitable existing asphalt concrete pavement. Prepare existing material by constructing and shaping to conform to the typical sections of the existing roadway and as to provide a neat roadway section with adequate width, crown and edges. Steep drop off areas will not be allowed for the newly formed roadway section. When new base is required to be mixed with existing base, deliver, place, and spread the new base material and uniformly mix it with existing material to the specified depth before shaping. When more than 50% of the mixture is asphalt concrete, remove and replace the asphalt concrete pavement as required to develop a suitable mix. Correct any unsuitable soft spots that may not be able to be corrected and/or bridged with the new roadway base mix to be installed by this procedure.
- B. Pulverization. Pulverize or scarify existing pavement and/or base materials after shaping so that 100% passes a 2-1/2-in. sieve. If the material cannot be uniformly processed to the required depth in a single pass, excavate and windrow the material to expose a secondary grade to achieve processing to plan depth.

For subgrade treatment, pulverize or scarify existing subgrade in accordance with Table 1. When the subgrade contains a substantial amount of aggregate, the City’s representative may waive this minimum pulverization requirement. The City’s representative will obtain a sample of the material at roadway moisture and remove all non-slaking aggregates retained on a 3/4-in. sieve. The remainder of the mixture must meet the pulverization requirement when tested in accordance with TDOT standards.

**Table 1  
Pulverization Requirements**

Sieve Size	Minimum Percent Passing
1-3/4 in.	100
3/4 in.	85
No. 4	60

- C. Application of Cement. Uniformly place cement dry or as a slurry. Apply cement only on an area where the mixing, compacting, and finishing operations can be completed during the same working day. Do not start the cement treatment operation unless the air temperature is at least 35°F and rising, or is at least 40°F. The temperature will be taken in the shade and away from artificial heat. Do not apply cement when, in the opinion of the City’s representative, weather conditions are unsuitable.

1. Dry Placing. Before applying cement, sprinkle the prepared roadway with water until optimum moisture content is attained. Distribute the required quantity of dry cement, in bags or with approved equipment, at a uniform rate. Minimize scattering of cement by wind. Do not apply cement when wind conditions, in the opinion of the City's representative, cause blowing cement to become dangerous to traffic or objectionable to adjacent property owners.
  2. Slurry Placing. Mix the required quantity of cement with water, as approved. Produce slurry free of objectionable materials and with a consistency that can be easily applied. Agitate the slurry continuously. Apply slurry within 2 hours of adding water and when the roadway is at a moisture content drier than optimum. Dispense and spread slurry uniformly by making successive passes over a measured section of the roadway at the rate directed until the required cement content is attained.
- D. Mixing. Thoroughly mix the material and cement using approved equipment. Mix until a homogeneous mixture is obtained. Sprinkle the treated materials during the mixing operation, as directed, to maintain optimum mixing moisture. Spread and shape the completed mixture in a uniform layer.

The City's representative may obtain a sample of the material at roadway moisture. Remove all non-slaking aggregates retained on a 3/4-in. sieve. The remainder of the mixture must meet the pulverization requirements of Table 1 when tested by the contractor's testing company. When approved by the City's representative, the pulverization requirement may be waived when the material contains a substantial amount of aggregate.

- E. Compaction. Compact the mixture in one lift using ordinary compaction or density control. Complete compaction within 2 hours after the application of the cement.

Sprinkle the treated material in accordance with TDOT standards, "Sprinkling." Adjust the moisture content of the mixture during compaction so that it is within 2.0 percentage points of optimum as determined by TDOT Compaction Test Method. Determine the moisture content of the mixture at the beginning and during compaction in accordance TDOT standards. Adjust operations if required.

Begin rolling longitudinally at the sides and proceed towards the center, overlapping on successive trips by at least one-half the width of the roller unit. On super-elevated curves, begin rolling at the low side and progress toward the high side. Offset alternate trips of the roller. Operate rollers at a speed between 2 and 6 miles per hour.

Remove areas that lose required stability, compaction, or finish. Replace with cement-treated mixture at the Contractor's expense.

1. Ordinary Compaction. Roll with approved compaction equipment, as directed. Correct irregularities, depressions, and weak spots immediately by scarifying the areas affected, adding or removing treated material as required, reshaping, and recompact.

2. Density Control. Compact to meet at least 95% of optimum density as determined in accordance with TDOT standards. The contractor's certified testing company shall provide density test results to the City's representative for review and approval. Remove and replace material that does not meet density requirements. Compact and test replacement material in accordance with density control methods.

The City's representative may accept the section if no more than 1 of the 5 most recent density tests is below the specified density and the failing test is no more than 3 lb. per cubic foot below the specified density.

F. Finishing. Immediately after completing compaction, clip, skin, or tight-blade the surface of the cement treated material with a maintainer or subgrade trimmer to a depth of approximately 1/4 in. Remove loosened material and dispose of at an approved location. Roll the clipped surface immediately with a pneumatic tire roller until a smooth surface is attained. Add small increments of water as needed during rolling. Shape and maintain the course and surface in conformity with the typical sections, lines and grades shown on the plans or as directed.

In areas where surfacing is to be placed, trim grade deviations greater than 1/4 in. in cross section and 1/4 in. in 16 ft. measured longitudinally for the entire width of the cross-section. Remove excess material, reshape, and roll with a pneumatic tire roller. If material is more than 1/4 in. low, correct as directed. Do not surface patch.

G. Curing. Maintain the moisture content of the finished section at no lower than 2 percentage points below optimum by sprinkling or by applying an asphalt material at the rate of 0.30 gal. per square yard, until the subsequent 2" TDOT 411-D asphalt topping is placed or as otherwise directed by the City's representative. Do not allow equipment on the finished course except as required to complete curing, unless otherwise approved. At least 2 days of curing may required before opening the finished section to traffic, unless otherwise approved by the City's representative.

**Measurement.**

- A. Cement. Cement will be measured by the ton (dry weight). Weighing equipment must meet the requirements TDOT "Weighing and Measuring Equipment."

When cement is furnished in bags, indicate the manufacturer's certified weight. Bags varying more than 5% from that weight may be rejected. The average weight of bags in any shipment, as determined by weighing 10 bags taken at random, must be at least the manufacturer's certified weight.

Cement slurry will be measured by the ton (dry weight) of the cement used to prepare the slurry at the job site or from the minimum percent dry solids content of the slurry, multiplied by the weight of the slurry in tons delivered.

- B. Cement Treatment. Cement treatment will be measured by the square yard of the surface area determined by the widths shown on the plans and the lengths measured at placement.

## **EXHIBITS**





PAVING BID ITEM "A"  
 CAMPBELL STATION PARKWAY  
 FROM: MAIN STREET  
 TO: NEW PORT ROYAL ROAD

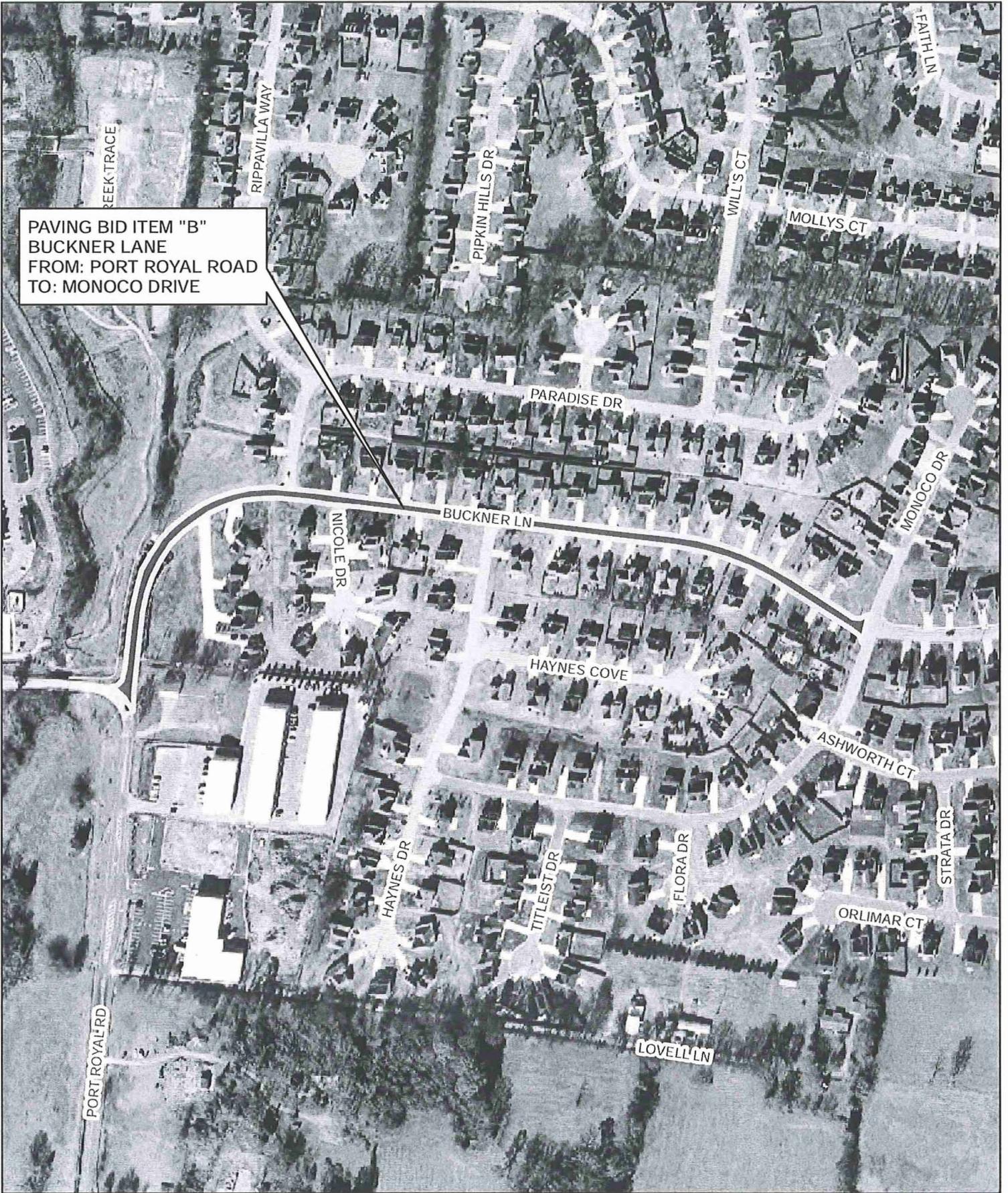


0 425 850 1,700  
 Feet

2011 ASPHALT PAVING PROJECTS  
 BID ITEM "A"  
 CAMPBELL STATION PARKWAY  
 CITY OF SPRING HILL, TENNESSEE

Dempsey, Dilling & Associates, P.C.  
 Engineering Consultants  
 502 Hazelwood Drive  
 Smyrna, Tn 37167  
 phone: 615.220.5800





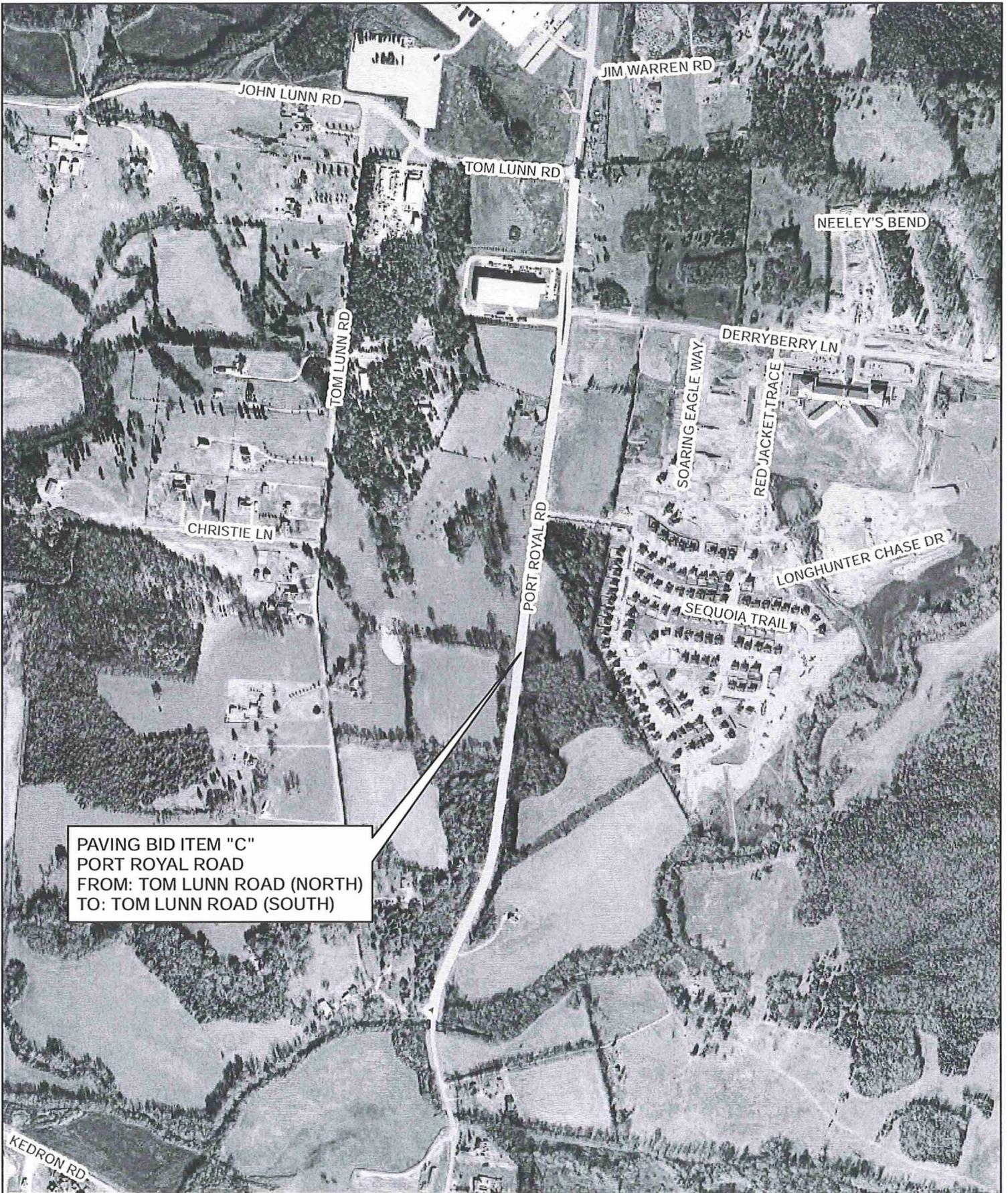
PAVING BID ITEM "B"  
 BUCKNER LANE  
 FROM: PORT ROYAL ROAD  
 TO: MONOCO DRIVE



2011 ASPHALT PAVING PROJECTS  
 BID ITEM "B"  
 BUCKNER LANE  
 CITY OF SPRING HILL, TENNESSEE

Dempsey, Dilling & Associates, P.C.  
 Engineering Consultants  
 502 Hazelwood Drive  
 Smyrna, Tn 37167  
 phone: 615.220.5800





PAVING BID ITEM "C"  
 PORT ROYAL ROAD  
 FROM: TOM LUNN ROAD (NORTH)  
 TO: TOM LUNN ROAD (SOUTH)

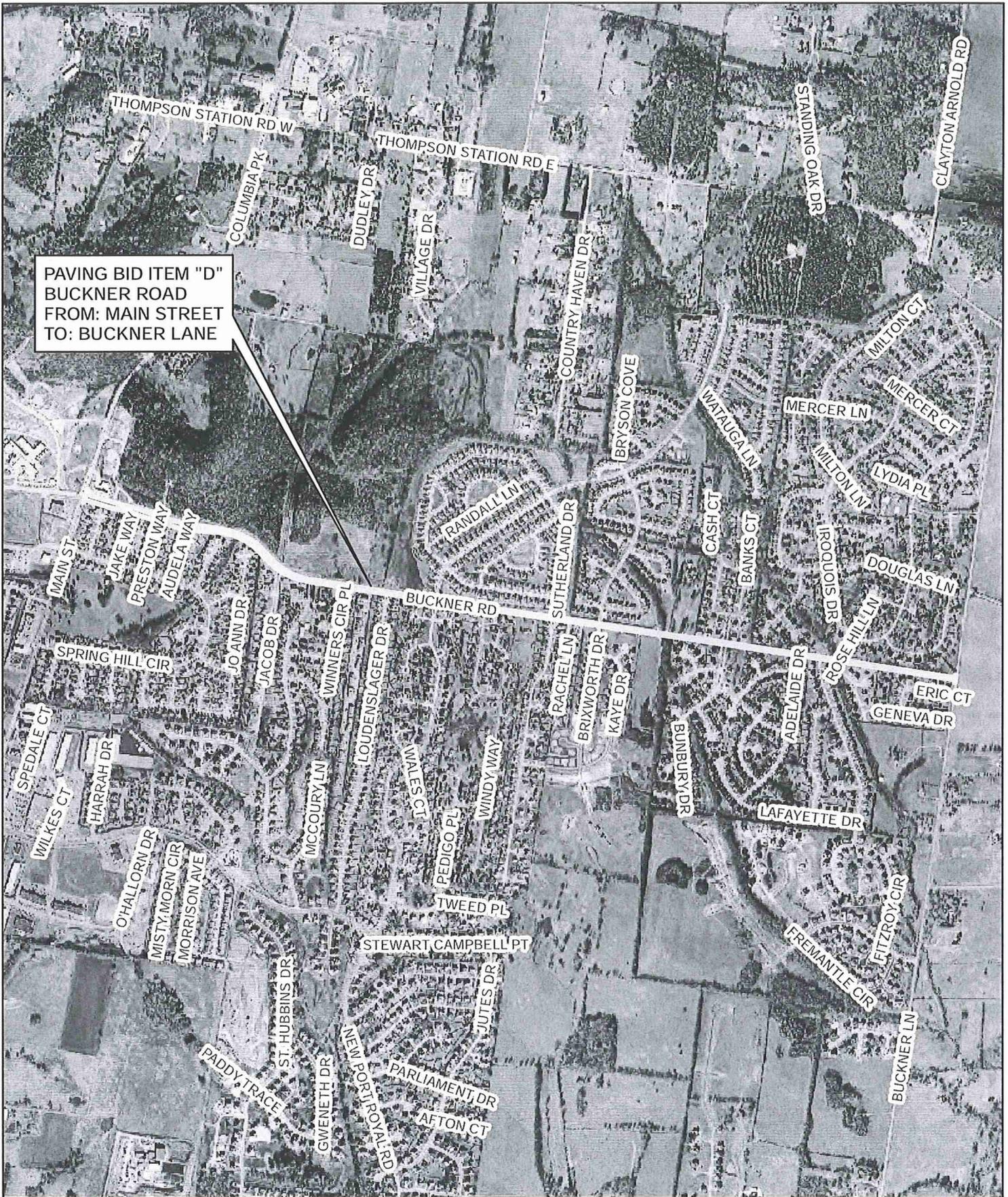


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 Feet

2011 ASPHALT PAVING PROJECTS  
 BASE BID ITEM "C"  
 PORT ROYAL ROAD  
 CITY OF SPRING HILL, TENNESSEE

Dempsey, Dilling & Associates, P.C.  
 Engineering Consultants  
 502 Hazelwood Drive  
 Smyrna, Tn 37167  
 phone: 615.220.5800





PAVING BID ITEM "D"  
 BUCKNER ROAD  
 FROM: MAIN STREET  
 TO: BUCKNER LANE



0 700 1,400 2,800  
 Feet

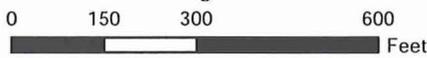
2011 ASPHALT PAVING PROJECTS  
 BID ITEM "D"  
 BUCKNER ROAD  
 CITY OF SPRING HILL, TENNESSEE

Dempsey, Dilling & Associates, P.C.  
 Engineering Consultants  
 502 Hazelwood Drive  
 Smyrna, Tn 37167  
 phone: 615.220.5800





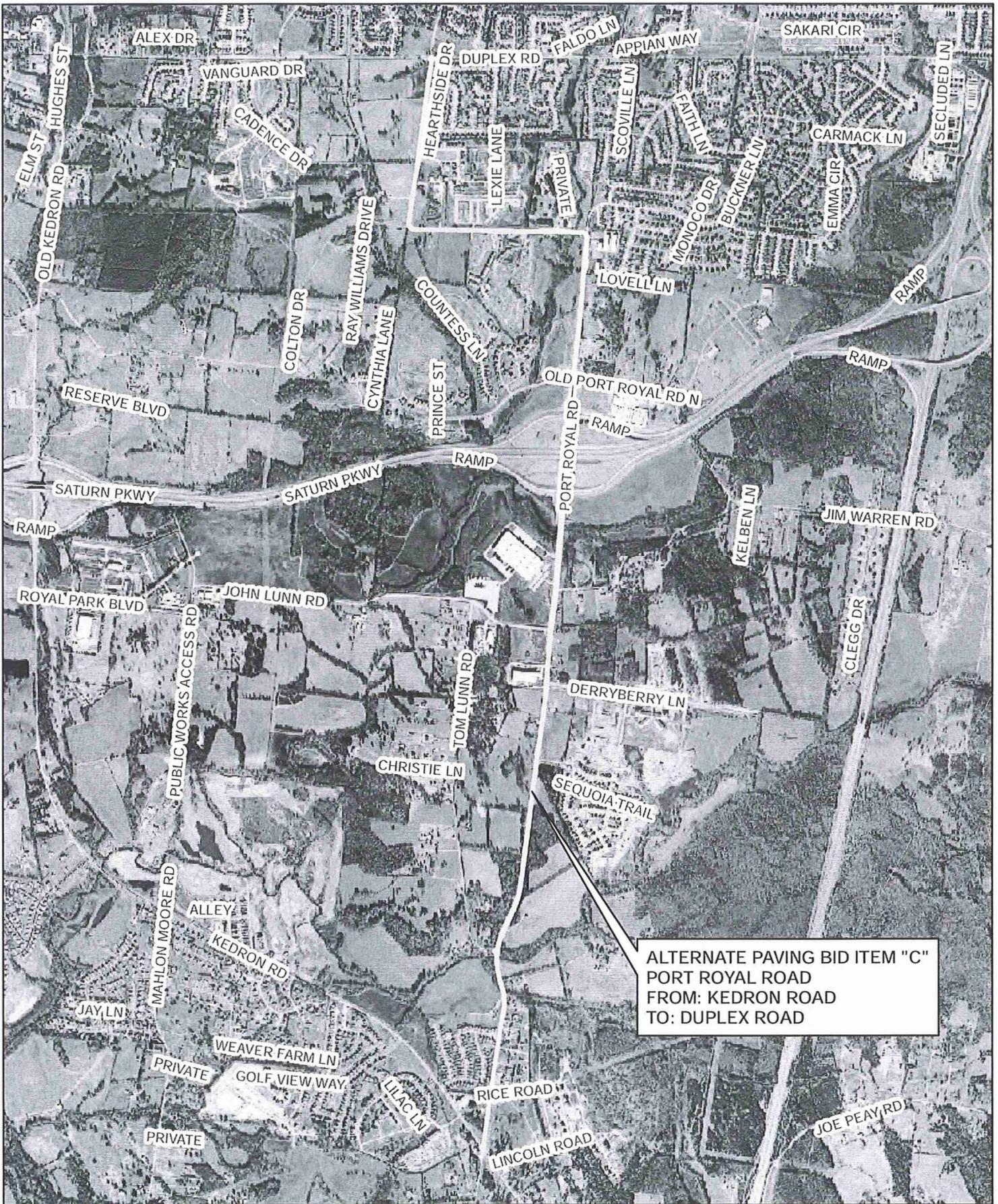
PAVING BID ITEM "E"  
CAMPBELL STATION SUBDIVISION  
SECTION 16



2011 ASPHALT PAVING PROJECTS  
BID ITEM "E"  
CAMPBELL STATION SUB - SEC 16  
CITY OF SPRING HILL, TENNESSEE

Dempsey, Dilling & Associates, P.C.  
Engineering Consultants  
502 Hazelwood Drive  
Smyrna, Tn 37167  
phone: 615.220.5800





ALTERNATE PAVING BID ITEM "C"  
 PORT ROYAL ROAD  
 FROM: KEDRON ROAD  
 TO: DUPLEX ROAD



0 700 1,400 2,800  
 Feet

2011 ASPHALT PAVING PROJECTS  
 ALTERNATE BID ITEM "C"  
 PORT ROYAL ROAD  
 CITY OF SPRING HILL, TENNESSEE

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