AUTHORIZATION TO BID FORM

Addenda will be published to our Bid Letting page in the same manner as the plans and specifications. It is the sole responsibility of the plan holders to periodically check the website for plan addenda.

ALL BIDDERS PLANNING TO PLACE A BID MUST FILL OUT THIS FORM TO BE AUTHORIZED TO BID.

- This form must be completed, signed and either faxed to (309) 925-5533 or emailed to jsciortino@tazewell.com.
- Failure to submit this completed form will result in the bid not being accepted.
- Contractors may verify we have received their Authorization to Bid form by checking the Plan Holders List found under the corresponding letting date.
- If an email address is provided, a Notice of Addenda will be sent when updates are available.
- Bid results are typically posted by noon on the day of the letting and are preliminary until approved by the County Board on the last Wednesday of the month.

<table>
<thead>
<tr>
<th>Company Name:</th>
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<tbody>
<tr>
<td>Address:</td>
<td></td>
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<tr>
<td>Phone:</td>
<td></td>
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<tr>
<td>Fax:</td>
<td></td>
</tr>
<tr>
<td>Email:</td>
<td></td>
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<tr>
<td>Bid Letting Date:</td>
<td></td>
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</tbody>
</table>

Projects Intending to Bid on:

<table>
<thead>
<tr>
<th>Section Number:</th>
<th>Description:</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>
RETURN WITH BID

Local Public Agency
Formal Contract Proposal

PROPOSAL SUBMITTED BY

Contractor’s Name

Street

P.O. Box

City

State

Zip Code

STATE OF ILLINOIS

COUNTY OF TAZEWELL

(Name of City, Village, Town or Road District)

FOR THE IMPROVEMENT OF

STREET NAME OR ROUTE NO. VARIOUS

SECTION NO. 20-00000-01-GM

TYPES OF FUNDS MFT

☐ SPECIFICATIONS (required)  ☑ PLANS (required)

For Municipal Projects

Submitted/Approved/Passed

☐ Mayor  ☐ President of Board of Trustees  ☐ Municipal Official

Date

Department of Transportation

☑ Released for bid based on limited review

Regional Engineer

Date

For County and Road District Projects

Submitted/Approved

Highway Commissioner

Date

Submitted/Approved

County Engineer/Superintendent of Highways

04-01-2020

Date

Note: All proposal documents, including Proposal Guaranty Checks or Proposal Bid Bonds, should be stapled together to prevent loss when bids are processed.
NOTICE TO BIDDERS

Sealed proposals for the improvement described below will be received at the office of the Tazewell County Engineer, 21308 IL Route 9, Tremont, IL 61568 until 8:00 AM on April 20, 2020.

Sealed proposals will be opened and read publicly at the office of the Tazewell County Engineer, 21308 IL Route 9, Tremont, IL 61568 at 8:00 AM on April 20, 2020.

DESCRIPTION OF WORK

Name: Section 20-00000-01-GM  Length: 70049.00 feet (13.267 miles)
Location: Various Locations in Tazewell County - See Location Map
Proposed Improvement: Hot-Mix Asphalt Milling and Resurfacing various locations in Tazewell County.

1. Plans and proposal forms will be available in the office of the Tazewell County Engineer, 21308 IL Route 9, Tremont, IL 61568.

2. Prequalification
   If checked, the 2 low bidders must file within 24 hours after the letting an “Affidavit of Availability” (Form BC 57), in duplicate, showing all uncompleted contracts awarded to them and all low bids pending award for Federal, State, County, Municipal and private work. One original shall be filed with the Awarding Authority and one original with the IDOT District Office.

3. The Awarding Authority reserves the right to waive technicalities and to reject any or all proposals as provided in BLRS Special Provision for Bidding Requirements and Conditions for Contract Proposals.

4. The following BLR Forms shall be returned by the bidder to the Awarding Authority:
   a. BLR 12200: Local Public Agency Formal Contract Proposal
   b. BLR 12200a Schedule of Prices
   c. BLR 12230: Proposal Bid Bond (if applicable)
   d. BLR 12325: Apprenticeship or Training Program Certification (do not use for federally funded projects)
   e. BLR 12326: Affidavit of Illinois Business Office

5. The quantities appearing in the bid schedule are approximate and are prepared for the comparison of bids. Payment to the Contractor will be made only for the actual quantities of work performed and accepted or materials furnished according to the contract. The scheduled quantities of work to be done and materials to be furnished may be increased, decreased or omitted as hereinafter provided.

6. Submission of a bid shall be conclusive assurance and warranty the bidder has examined the plans and understands all requirements for the performance of work. The bidder will be responsible for all errors in the proposal resulting from failure or neglect to conduct an in depth examination. The Awarding Authority will, in no case be responsible for any costs, expenses, losses or changes in anticipated profits resulting from such failure or neglect of the bidder.

7. The bidder shall take no advantage of any error or omission in the proposal and advertised contract.

8. If a special envelope is supplied by the Awarding Authority, each proposal should be submitted in that envelope furnished by the Awarding Agency and the blank spaces on the envelope shall be filled in correctly to clearly indicate its contents. When an envelope other than the special one furnished by the Awarding Authority is used, it shall be marked to clearly indicate its contents. When sent by mail, the sealed proposal shall be addressed to the Awarding Authority at the address and in care of the official in whose office the bids are to be received. All proposals shall be filed prior to the time and at the place specified in the Notice to Bidders. Proposals received after the time specified will be returned to the bidder unopened.

9. Permission will be given to a bidder to withdraw a proposal if the bidder makes the request in writing or in person before the time for opening proposals.
PROPOSAL

1. Proposal of ____________________________
   for the improvement of the above section by the construction of Hot-Mix Asphalt Milling and Resurfacing various locations
   in Tazewell County

   a total distance of 70049.00 feet, of which a distance of 69614.00 feet, (13.184 miles) are to be improved.

2. The plans for the proposed work are those prepared by the Tazewell County Highway Department
   and approved by the Department of Transportation on ____________________________.

3. The specifications referred to herein are those prepared by the Department of Transportation and designated as
   "Standard Specifications for Road and Bridge Construction" and the "Supplemental Specifications and Recurring Special
   Provisions" thereto, adopted and in effect on the date of invitation for bids.

4. The undersigned agrees to accept, as part of the contract, the applicable Special Provisions indicated on the "Check
   Sheet for Recurring Special Provisions" contained in this proposal.

5. The undersigned agrees to complete the work within 45 working days or by ____________________________
   unless additional time is granted in accordance with the specifications.

6. A proposal guaranty in the proper amount, as specified in BLRS Special Provision for Bidding Requirements and
   Conditions for Contract Proposals, will be required. Bid Bonds will be allowed as a proposal guaranty. Accompanying this
   proposal is either a bid bond if allowed, on Department form BLR 12230 or a proposal guaranty check, complying with the
   specifications, made payable to:

   County ____________________________ Treasurer of ____________________________

   The amount of the check is ____________________________ (______________________).

7. In the event that one proposal guaranty check is intended to cover two or more proposals, the amount must be equal to
   the sum of the proposal guaranties, which would be required for each individual proposal. If the proposal guaranty check
   is placed in another proposal, it will be found in the proposal for: Section Number ____________________________.

8. The successful bidder at the time of execution of the contract will be required to deposit a contract bond for the full
   amount of the award. When a contract bond is not required, the proposal guaranty check will be held in lieu thereof. If this
   proposal is accepted and the undersigned fails to execute a contract and contract bond as required, it is hereby agreed
   that the Bid Bond or check shall be forfeited to the Awarding Authority.

9. Each pay item should have a unit price and a total price. If no total price is shown or if there is a discrepancy between
   the product of the unit price multiplied by the quantity, the unit price shall govern. If a unit price is omitted, the total price
   will be divided by the quantity in order to establish a unit price.

10. A bid will be declared unacceptable if neither a unit price nor a total price is shown.

11. The undersigned submits herewith the schedule of prices on BLR 12200a covering the work to be performed under this
    contract.

12. The undersigned further agrees that if awarded the contract for the sections contained in the combinations on
    BLR 12200a, the work shall be in accordance with the requirements of each individual proposal for the multiple bid
    specified in the Schedule for Multiple Bids below.
A bid will be declared unacceptable if neither a unit price nor total price is shown.

County **TAZEWELL**
Local Public Agency **TAZEWELL COUNTY**
Section **20-00000-01-GM**
Route **VARIOUS**

### Schedule for Multiple Bids

<table>
<thead>
<tr>
<th>Combination Letter</th>
<th>Sections Included in Combinations</th>
<th>Total</th>
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<tbody>
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</tbody>
</table>

### Schedule for Single Bid

(For complete information covering these items, see plans and specifications)

#### Bidder's Proposal for making Entire Improvements

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Items</th>
<th>Unit</th>
<th>Quantity</th>
<th>Unit Price</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LONG JOINT SEALANT</td>
<td>FOOT</td>
<td>69720</td>
<td></td>
<td></td>
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<tr>
<td>2</td>
<td>P BIT MATLS TACK CT</td>
<td>POUND</td>
<td>97969</td>
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<tr>
<td>3</td>
<td>HMA SURF REM BUTT JT</td>
<td>SQ YD</td>
<td>1825</td>
<td></td>
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<tr>
<td>4</td>
<td>TEMPORARY RAMP</td>
<td>SQ YD</td>
<td>225</td>
<td></td>
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<tr>
<td>5</td>
<td>P HMA SC &quot;C&quot; N50</td>
<td>TON</td>
<td>18159</td>
<td></td>
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<tr>
<td>6</td>
<td>MATL TRANSFER DEVICE</td>
<td>TON</td>
<td>18159</td>
<td></td>
<td></td>
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<tr>
<td>7</td>
<td>INCIDENTAL HMA SURF</td>
<td>TON</td>
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<td></td>
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<tr>
<td>8</td>
<td>HMA SURF REM 1 1/4</td>
<td>SQ YD</td>
<td>104281</td>
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<tr>
<td>9</td>
<td>HMA SURF REM 1 1/2</td>
<td>SQ YD</td>
<td>70250</td>
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<tr>
<td>10</td>
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<td>SQ YD</td>
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<td>11</td>
<td>AGGREGATE SHLDS B SPL</td>
<td>TON</td>
<td>3955</td>
<td></td>
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<tr>
<td>12</td>
<td>SHORT TERM PAVT MKING</td>
<td>FOOT</td>
<td>28176</td>
<td></td>
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<tr>
<td>13</td>
<td>SHRT TRM PAVT MK REM</td>
<td>SQ FT</td>
<td>3106</td>
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<tr>
<td>14</td>
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<td>EACH</td>
<td>822</td>
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<tr>
<td>15</td>
<td>RAISED REFL PAVT MKR</td>
<td>EACH</td>
<td>823</td>
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<tr>
<td>16</td>
<td>RR PROT LIABILITY INS</td>
<td>L SUM</td>
<td>1</td>
<td></td>
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<tr>
<td>17</td>
<td>TRAF CONT &amp; PROT SPL</td>
<td>L SUM</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>MOBILIZATION</td>
<td>L SUM</td>
<td>1</td>
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<td></td>
</tr>
</tbody>
</table>

Printed 3/25/2020
The certifications hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder.

1. **Debt Delinquency.** The bidder or contractor or subcontractor, respectively, certifies that it is not delinquent in the payment of any tax administered by the Department of Revenue unless the individual or other entity is contesting, in accordance with the procedures established by the appropriate revenue Act, its liability for the tax or the amount of tax. Making a false statement voids the contract and allows the Department to recover all amounts paid to the individual or entity under the contract in a civil action.

2. **Bid-Rigging or Bid Rotating.** The bidder or contractor or subcontractor, respectively, certifies that it is not barred from contracting with the Department by reason of a violation of either 720 ILCS 5/33E-3 or 720 ILCS 5/33E-4.

   A violation of Section 33E-3 would be represented by a conviction of the crime of bid-rigging which, in addition to Class 3 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be barred for 5 years from the date of conviction from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent in behalf of the corporation.

   A violation of Section 33E-4 would be represented by a conviction of the crime of bid-rotating which, in addition to Class 2 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be permanently barred from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent in behalf of the corporation.

3. **Bribery.** The bidder or contractor or subcontractor, respectively, certifies that it has not been convicted of bribery or attempting to bribe an officer or employee of the State of Illinois or any unit of local government, nor has the firm made an admission of guilt of such conduct which is a matter of record, nor has an official, agent, or employee of the firm committed bribery or attempted bribery on behalf of the firm and pursuant to the direction or authorization of a responsible official of the firm.

4. **Interim Suspension or Suspension.** The bidder or contractor or subcontractor, respectively, certifies that it is not currently under a suspension as defined in Subpart I of Title 44 Subtitle A Chapter III Part 6 of the Illinois Administrative Code. Furthermore, if suspended prior to completion of this work, the contract or contracts executed for the completion of this work may be cancelled.
RETURN WITH BID

SIGNATURES

(If an individual)

Signature of Bidder

Business Address

(If a partnership)

Firm Name

Signed By

Business Address

Inset Names and Addressed of All Partners

(If a corporation)

Corporate Name

Signed By

Business Address

President

Insert Names of Officers

Secretary

Treasurer

Attest: Secretary
RETURN WITH BID

PAPER BID BOND

WE ________________ as PRINCIPAL, and ________________ as SURETY, are held jointly, severally and firmly bound unto the above Local Agency (hereafter referred to as “LA”) in the penal sum of 5% of the total bid price, or for the amount specified in the proposal documents in effect on the date of invitation for bids whichever is the lesser sum. We bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly pay to the LA this sum under the conditions of this instrument.

WHEREAS THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH that, the said PRINCIPAL is submitting a written proposal to the LA acting through its awarding authority for the construction of the work designated as the above section.

THEREFORE if the proposal is accepted and a contract awarded to the PRINCIPAL by the LA for the above designated section and the PRINCIPAL shall within fifteen (15) days after award enter into a formal contract, furnish surety guaranteeing the faithful performance of the work, and furnish evidence of the required insurance coverage, all as provided in the “Standard Specifications for Road and Bridge Construction” and applicable Supplemental Specifications, then this obligation shall become void; otherwise it shall remain in full force and effect.

IN THE EVENT the LA determines the PRINCIPAL has failed to enter into a formal contract in compliance with any requirements set forth in the preceding paragraph, then the LA acting through its awarding authority shall immediately be entitled to recover the full penal sum set out above, together with all court costs, all attorney fees, and any other expense of recovery.

IN TESTIMONY WHEREOF, the said PRINCIPAL and the said SURETY have caused this instrument to be signed by their respective officers this __________ day of ________________

Principal

By: ________________ (Signature and Title)

Surety

By: ________________ (Signature of Attorney-in-Fact)

STATE OF ILLINOIS,
COUNTY OF ________________, I, __________________________, a Notary Public in and for said county, do hereby certify that ___________________________ (Insert names of individuals signing on behalf of PRINCIPAL & SURETY) who are each personally known to me to be the same persons whose names are subscribed to the foregoing instrument on behalf of PRINCIPAL and SURETY, appeared before me this day in person and acknowledged respectively, that they signed and delivered said instruments as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this __________ day of ________________

My commission expires ________________

(Electronic Bid Bond is allowed (box must be checked by LA if electronic bid bond is allowed)
The Principal may submit an electronic bid bond, in lieu of completing the above section of the Proposal Bid Bond Form. By providing an electronic bid bond ID code and signing below, the Principal is ensuring the identified electronic bid bond has been executed and the Principal and Surety are firmly bound unto the LA under the conditions of the bid bond as shown above. (If PRINCIPAL is a joint venture of two or more contractors, an electronic bid bond ID code, company/Bidder name title and date must be affixed for each contractor in the venture.)

Electronic Bid Bond ID Code

________________________ (Company/Bidder Name)

________________________ (Signature and Title)

Date
Affidavit of Availability
For the Letting of _______________

Instructions: Complete this form by either typing or using black ink. "Authorization to Bid" will not be issued unless both sides of this form are completed in detail. Use additional forms as needed to list all work.

Part I. Work Under Contract

List below all work you have under contract as either a prime contractor or a subcontractor. It is required to include all pending low bids not yet awarded or rejected. In a joint venture, list only that portion of the work which is the responsibility of your company. The uncompleted dollar value is to be based upon the most recent engineer's or owners' estimate, and must include work subcontracted to others. If no work is contracted, show NONE.

<table>
<thead>
<tr>
<th>Contract Number</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Awards Pending</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract With</td>
<td></td>
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<tr>
<td>Estimated Completion Date</td>
<td></td>
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<tr>
<td>Total Contract Price</td>
<td>Accumulated Totals</td>
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<tr>
<td>Uncompleted Dollar Value if Firm is the Prime Contractor</td>
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<tr>
<td>Uncompleted Dollar Value if Firm is the Subcontractor</td>
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</tbody>
</table>

Part II. Awards Pending and Uncompleted Work to be done with your own forces.

List below the uncompleted dollar value of work for each contract and awards pending to be completed with your own forces. All work subcontracted to others will be listed on the reverse of this form. In a joint venture, list only that portion of the work to be done by your company. If no work is contracted, show NONE.

<table>
<thead>
<tr>
<th>Accumulated Totals</th>
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</thead>
<tbody>
<tr>
<td>Earthwork</td>
</tr>
<tr>
<td>Portland Cement Concrete Paving</td>
</tr>
<tr>
<td>HMA Plant Mix</td>
</tr>
<tr>
<td>HMA Paving</td>
</tr>
<tr>
<td>Clean &amp; Seal Cracks/Joints</td>
</tr>
<tr>
<td>Aggregate Bases &amp; Surfaces</td>
</tr>
<tr>
<td>Highway, R.R. and Waterway Structures</td>
</tr>
<tr>
<td>Drainage</td>
</tr>
<tr>
<td>Electrical</td>
</tr>
<tr>
<td>Cover and Seal Coats</td>
</tr>
<tr>
<td>Concrete Construction</td>
</tr>
<tr>
<td>Landscaping</td>
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<tr>
<td>Fencing</td>
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<tr>
<td>Guardrail</td>
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<tr>
<td>Painting</td>
</tr>
<tr>
<td>Signing</td>
</tr>
<tr>
<td>Cold Milling, Planning &amp; Rotomilling</td>
</tr>
<tr>
<td>Demolition</td>
</tr>
<tr>
<td>Pavement Markings (Paint)</td>
</tr>
<tr>
<td>Other Construction (List)</td>
</tr>
</tbody>
</table>

$ 0.00

Total

Disclosure of this information is REQUIRED to accomplish the statutory purpose as outlined in the "Illinois Procurement Code." Failure to comply will result in non-issuance of an "Authorization To Bid." This form has been approved by the State Forms Management Center.
Part III. Work Subcontracted to Others.

For each contract described in Part I, list all the work you have subcontracted to others.

<table>
<thead>
<tr>
<th>Subcontractor</th>
<th>Type of Work</th>
<th>Subcontract Price</th>
<th>Amount Uncompleted</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Awards Pending</th>
</tr>
</thead>
<tbody>
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</table>

I, being duly sworn, do hereby declare that this affidavit is a true and correct statement relating to ALL uncompleted contracts of the undersigned for Federal, State, County, City and private work, including ALL subcontract work, ALL pending low bids not yet awarded or rejected and ALL estimated completion dates.

Subscribed and sworn to before me
this _______ day of __________ , _______ Type or Print Name __________________________ Officer or Director __________________________ Title __________________________

______________________________
Notary Public

My commission expires ___________

______________________________
(Notary Seal)

Company __________________________

______________________________
Address __________________________
All contractors are required to complete the following certification:

☐ For this contract proposal or for all groups in this deliver and install proposal.

☐ For the following deliver and install groups in this material proposal:

Illinois Department of Transportation policy, adopted in accordance with the provisions of the Illinois Highway Code, requires this contract to be awarded to the lowest responsive and responsible bidder. The award decision is subject to approval by the Department. In addition to all other responsibility factors, this contract or deliver and install proposal requires all bidders and all bidders’ subcontractors to disclose participation in apprenticeship or training programs that are (1) approved by and registered with the United States Department of Labor’s Bureau of Apprenticeship and Training, and (2) applicable to the work of the above indicated proposals or groups. Therefore, all bidders are required to complete the following certification:

I. Except as provided in paragraph IV below, the undersigned bidder certifies that it is a participant, either as an individual or as part of a group program, in an approved apprenticeship or training program applicable to each type of work or craft that the bidder will perform with its own employees.

II. The undersigned bidder further certifies for work to be performed by subcontract that each of its subcontractors submitted for approval either (A) is, at the time of such bid, participating in an approved, applicable apprenticeship or training program; or (B) will, prior to commencement of performance of work pursuant to this contract, establish participation in an approved apprenticeship or training program applicable to the work of the subcontract.

III. The undersigned bidder, by inclusion in the list in the space below, certifies the official name of each program sponsor holding the Certificate of Registration for all of the types of work or crafts in which the bidder is a participant and that will be performed with the bidder’s employees. Types of work or craft that will be subcontracted shall be included and listed as subcontract work. The list shall also indicate any type of work or craft job category for which there is no applicable apprenticeship or training program available.
IV. Except for any work identified above, any bidder or subcontractor that shall perform all or part of the work of the contract or deliver and install proposal solely by individual owners, partners or members and not by employees to whom the payment of prevailing rates of wages would be required, check the following box, and identify the owner/operator workforce and positions of ownership. ☐

The requirements of this certification and disclosure are a material part of the contract, and the contractor shall require this certification provision to be included in all approved subcontracts. The bidder is responsible for making a complete report and shall make certain that each type of work or craft job category that will be utilized on the project is accounted for and listed. The Department at any time before or after award may require the production of a copy of each applicable Certificate of Registration issued by the United States Department of Labor evidencing such participation by the contractor and any or all of its subcontractors. In order to fulfill the participation requirement, it shall not be necessary that any applicable program sponsor be currently taking or that it will take applications for apprenticeship, training or employment during the performance of the work of this contract or deliver and install proposal.

Bidder: ___________________________  By: ___________________________
Address: ___________________________  Title: ___________________________
(Signature)
RETURN WITH BID

Affidavit of Illinois Business Office

County: TAZEVELL
Local Public Agency: TAZEVELL COUNTY
Section Number: 20-00000-01-GM
Route: VARIOUS

State of ( ) ) ss.
County of ( )

I, (Name of Affiant) of (City of Affiant) , (State of Affiant)

being first duly sworn upon oath, states as follows:

1. That I am the officer or position bidder.

2. That I have personal knowledge of the facts herein stated.

3. That, if selected under this proposal, (bidder) , will maintain a business office in the State of Illinois which will be located in ( ) County, Illinois.

4. That this business office will serve as the primary place of employment for any persons employed in the construction contemplated by this proposal.

5. That this Affidavit is given as a requirement of state law as provided in Section 30-22(8) of the Illinois Procurement Code.

________________________________________
(Signature)

________________________________________
(Print Name of Affiant)

This instrument was acknowledged before me on day of ______________, ________.

(SEAL)

________________________________________
(Signature of Notary Public)
INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2020

This index contains a listing of SUPPLEMENTAL SPECIFICATIONS and frequently used RECURRING SPECIAL PROVISIONS.

ERRATA  Standard Specifications for Road and Bridge Construction  (Adopted 4-1-16)  (Revised 1-1-20)

SUPPLEMENTAL SPECIFICATIONS

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>106</td>
<td>1</td>
</tr>
<tr>
<td>107</td>
<td>2</td>
</tr>
<tr>
<td>109</td>
<td>3</td>
</tr>
<tr>
<td>205</td>
<td>4</td>
</tr>
<tr>
<td>403</td>
<td>5</td>
</tr>
<tr>
<td>404</td>
<td>6</td>
</tr>
<tr>
<td>405</td>
<td>17</td>
</tr>
<tr>
<td>406</td>
<td>27</td>
</tr>
<tr>
<td>420</td>
<td>28</td>
</tr>
<tr>
<td>424</td>
<td>30</td>
</tr>
<tr>
<td>442</td>
<td>31</td>
</tr>
<tr>
<td>502</td>
<td>32</td>
</tr>
<tr>
<td>503</td>
<td>35</td>
</tr>
<tr>
<td>504</td>
<td>38</td>
</tr>
<tr>
<td>506</td>
<td>39</td>
</tr>
<tr>
<td>522</td>
<td>40</td>
</tr>
<tr>
<td>542</td>
<td>41</td>
</tr>
<tr>
<td>586</td>
<td>42</td>
</tr>
<tr>
<td>602</td>
<td>44</td>
</tr>
<tr>
<td>603</td>
<td>45</td>
</tr>
<tr>
<td>630</td>
<td>46</td>
</tr>
<tr>
<td>631</td>
<td>49</td>
</tr>
<tr>
<td>670</td>
<td>50</td>
</tr>
<tr>
<td>701</td>
<td>51</td>
</tr>
<tr>
<td>704</td>
<td>53</td>
</tr>
<tr>
<td>780</td>
<td>55</td>
</tr>
<tr>
<td>781</td>
<td>56</td>
</tr>
<tr>
<td>888</td>
<td>57</td>
</tr>
<tr>
<td>1001</td>
<td>58</td>
</tr>
<tr>
<td>1003</td>
<td>59</td>
</tr>
<tr>
<td>1004</td>
<td>60</td>
</tr>
<tr>
<td>1006</td>
<td>63</td>
</tr>
<tr>
<td>1020</td>
<td>65</td>
</tr>
<tr>
<td>1043</td>
<td>67</td>
</tr>
<tr>
<td>1050</td>
<td>69</td>
</tr>
<tr>
<td>1069</td>
<td>71</td>
</tr>
<tr>
<td>1077</td>
<td>72</td>
</tr>
<tr>
<td>1096</td>
<td>73</td>
</tr>
<tr>
<td>1101</td>
<td>74</td>
</tr>
<tr>
<td>1102</td>
<td>75</td>
</tr>
<tr>
<td>1103</td>
<td>77</td>
</tr>
<tr>
<td>1105</td>
<td>79</td>
</tr>
<tr>
<td>1106</td>
<td>81</td>
</tr>
</tbody>
</table>
The Following Recurring Special Provisions Indicated By An "X" Are Applicable To This Contract And Are Included By Reference:

<table>
<thead>
<tr>
<th>Check Sheet #</th>
<th>Recurring Special Provisions</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Additional State Requirements for Federal-Aid Construction Contracts</td>
<td>83</td>
</tr>
<tr>
<td>2</td>
<td>Subletting of Contracts (Federal-Aid Contracts)</td>
<td>86</td>
</tr>
<tr>
<td>3</td>
<td>EEO</td>
<td>87</td>
</tr>
<tr>
<td>4</td>
<td>Specific EEO Responsibilities Non Federal-Aid Contracts</td>
<td>97</td>
</tr>
<tr>
<td>5</td>
<td>Required Provisions - State Contracts</td>
<td>102</td>
</tr>
<tr>
<td>6</td>
<td>Asbestos Bearing Pad Removal</td>
<td>108</td>
</tr>
<tr>
<td>7</td>
<td>Asbestos Waterproofing Membrane and Asbestos HMA Surface Removal</td>
<td>109</td>
</tr>
<tr>
<td>8</td>
<td>Temporary Stream Crossings and In-Stream Work Pads</td>
<td>110</td>
</tr>
<tr>
<td>9</td>
<td>Construction Layout Stakes Except for Bridges</td>
<td>111</td>
</tr>
<tr>
<td>10</td>
<td>Construction Layout Stakes</td>
<td>114</td>
</tr>
<tr>
<td>11</td>
<td>Use of Geotextile Fabric for Railroad Crossing</td>
<td>117</td>
</tr>
<tr>
<td>12</td>
<td>Subsealing of Concrete Pavements</td>
<td>119</td>
</tr>
<tr>
<td>13</td>
<td>Hot-Mix Asphalt Surface Correction</td>
<td>123</td>
</tr>
<tr>
<td>14</td>
<td>Pavement and Shoulder Resurfacing</td>
<td>125</td>
</tr>
<tr>
<td>15</td>
<td>Patching with Hot-Mix Asphalt Overlay Removal</td>
<td>126</td>
</tr>
<tr>
<td>16</td>
<td>Polymer Concrete</td>
<td>128</td>
</tr>
<tr>
<td>17</td>
<td>PVC Pipeliner</td>
<td>130</td>
</tr>
<tr>
<td>18</td>
<td>Bicycle Racks</td>
<td>131</td>
</tr>
<tr>
<td>19</td>
<td>Temporary Portable Bridge Traffic Signals</td>
<td>133</td>
</tr>
<tr>
<td>20</td>
<td>Work Zone Public Information Signs</td>
<td>135</td>
</tr>
<tr>
<td>21</td>
<td>Nighttime Inspection of Roadway Lighting</td>
<td>136</td>
</tr>
<tr>
<td>22</td>
<td>English Substitution of Metric Bolts</td>
<td>137</td>
</tr>
<tr>
<td>23</td>
<td>Calcium Chloride Accelerator for Portland Cement Concrete</td>
<td>138</td>
</tr>
<tr>
<td>24</td>
<td>Quality Control of Concrete Mixtures at the Plant</td>
<td>139</td>
</tr>
<tr>
<td>25</td>
<td>Quality Control/Quality Assurance of Concrete Mixtures</td>
<td>147</td>
</tr>
<tr>
<td>26</td>
<td>Digital Terrain Modeling for Earthwork Calculations</td>
<td>163</td>
</tr>
<tr>
<td>27</td>
<td>Reserved</td>
<td>165</td>
</tr>
<tr>
<td>28</td>
<td>Preventive Maintenance - Bituminous Surface Treatment (A-1)</td>
<td>166</td>
</tr>
<tr>
<td>29</td>
<td>Reserved</td>
<td>172</td>
</tr>
<tr>
<td>30</td>
<td>Reserved</td>
<td>173</td>
</tr>
<tr>
<td>31</td>
<td>Reserved</td>
<td>174</td>
</tr>
<tr>
<td>32</td>
<td>Temporary Raised Pavement Markers</td>
<td>175</td>
</tr>
<tr>
<td>33</td>
<td>Restoring Bridge Approach Pavements Using High-Density Foam</td>
<td>176</td>
</tr>
<tr>
<td>34</td>
<td>Portland Cement Concrete Inlay or Overlay</td>
<td>179</td>
</tr>
<tr>
<td>35</td>
<td>Portland Cement Concrete Partial Depth Hot-Mix Asphalt Patching</td>
<td>183</td>
</tr>
<tr>
<td>36</td>
<td>Longitudinal Joint and Crack Patching</td>
<td>186</td>
</tr>
</tbody>
</table>
The Following Local Roads And Streets Recurring Special Provisions Indicated By An "X" Are Applicable To This Contract And Are Included By Reference:

**Local Roads And Streets Recurring Special Provisions**

<table>
<thead>
<tr>
<th>Check Sheet #</th>
<th>Description</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRS 1</td>
<td>Reserved</td>
<td>189</td>
</tr>
<tr>
<td>LRS 2</td>
<td>Furnished Excavation</td>
<td>190</td>
</tr>
<tr>
<td>LRS 3</td>
<td>Work Zone Traffic Control Surveillance</td>
<td>191</td>
</tr>
<tr>
<td>LRS 4</td>
<td>Flaggers in Work Zones</td>
<td>192</td>
</tr>
<tr>
<td>LRS 5</td>
<td>Contract Claims</td>
<td>193</td>
</tr>
<tr>
<td>LRS 6</td>
<td>Bidding Requirements and Conditions for Contract Proposals</td>
<td>194</td>
</tr>
<tr>
<td>LRS 7</td>
<td>Bidding Requirements and Conditions for Material Proposals</td>
<td>200</td>
</tr>
<tr>
<td>LRS 8</td>
<td>Reserved</td>
<td>206</td>
</tr>
<tr>
<td>LRS 9</td>
<td>Bituminous Surface Treatments</td>
<td>207</td>
</tr>
<tr>
<td>LRS 10</td>
<td>Reserved</td>
<td>208</td>
</tr>
<tr>
<td>LRS 11</td>
<td>Employment Practices</td>
<td>209</td>
</tr>
<tr>
<td>LRS 12</td>
<td>Wages of Employees on Public Works</td>
<td>211</td>
</tr>
<tr>
<td>LRS 13</td>
<td>Selection of Labor</td>
<td>213</td>
</tr>
<tr>
<td>LRS 14</td>
<td>Paving Brick and Concrete Paver Pavements and Sidewalks</td>
<td>214</td>
</tr>
<tr>
<td>LRS 15</td>
<td>Partial Payments</td>
<td>217</td>
</tr>
<tr>
<td>LRS 16</td>
<td>Protests on Local Lettings</td>
<td>218</td>
</tr>
<tr>
<td>LRS 17</td>
<td>Substance Abuse Prevention Program</td>
<td>219</td>
</tr>
<tr>
<td>LRS 18</td>
<td>Multigrade Cold Mix Asphalt</td>
<td>220</td>
</tr>
<tr>
<td>SPECIAL PROVISIONS</td>
<td>TABLE OF CONTENTS</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>----------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Description of Work</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Traffic Control Plan</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Incidental Hot-Mix Asphalt Surfacing</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Aggregate Shoulders, Type B (Special)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Work Zone Pavement Marking</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Item 1: Manito Rd. Weight Limit</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Weight Limits</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Hot-Mix Asphalt Mixtures.</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>General Notes</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Payment for Use of Material Transfer Device.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Hot-Mix Asphalt Surface Removal.</td>
<td>3-5</td>
<td></td>
</tr>
<tr>
<td>Wages of Employees on Public Works.</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>BDE SPECIAL PROVISIONS</td>
<td>6-55</td>
<td></td>
</tr>
<tr>
<td>LRS SPECIAL PROVISIONS</td>
<td>56-59</td>
<td></td>
</tr>
<tr>
<td>SCHEDULE OF ROADS</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>LOCATION MAP</td>
<td>61</td>
<td></td>
</tr>
<tr>
<td>TABULATION OF QUANTITIES</td>
<td>62</td>
<td></td>
</tr>
<tr>
<td>ITEM 1: MANITO RD. – QUANTITIES</td>
<td>63-64</td>
<td></td>
</tr>
<tr>
<td>ITEM 1: MANITO RD. – CROSS SECTIONS.</td>
<td>65-67</td>
<td></td>
</tr>
<tr>
<td>ITEM 2: MANITO RD. – QUANTITIES</td>
<td>68</td>
<td></td>
</tr>
<tr>
<td>ITEM 2: MANITO RD. – CROSS SECTION</td>
<td>69</td>
<td></td>
</tr>
<tr>
<td>ITEM 3: FAST AVE. – QUANTITIES</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>ITEM 3: FAST AVE. – CROSS SECTION</td>
<td>71</td>
<td></td>
</tr>
<tr>
<td>ITEM 4: TOWNLINE RD. – QUANTITIES</td>
<td>72-73</td>
<td></td>
</tr>
<tr>
<td>ITEM 4: TOWNLINE RD. – CROSS SECTIONS</td>
<td>74-77</td>
<td></td>
</tr>
<tr>
<td>ITEM 5: TOWNLINE RD. – QUANTITIES</td>
<td>78</td>
<td></td>
</tr>
<tr>
<td>ITEM 5: TOWNLINE RD. – CROSS SECTIONS</td>
<td>79-82</td>
<td></td>
</tr>
</tbody>
</table>

Revised 4/1/2020
ITEM 6: SPRINGFIELD RD. – QUANTITIES . . . . . . . 83
ITEM 6: SPRINGFIELD RD. – CROSS SECTION . . . . . . . 84
ITEM 7: DEE-MACK RD. – QUANTITIES . . . . . . . 85
ITEM 7: DEE-MACK RD. – CROSS SECTIONS . . . . . . . 86-87
ITEM 8: ALLENTOWN RD. – QUANTITIES . . . . . . . 88-89
ITEM 8: ALLENTOWN RD. – CROSS SECTIONS . . . . . . . 90-93
ITEM 9: SERVICE ROADS – QUANTITIES . . . . . . . 94
ITEM 9: SERVICE ROADS – CROSS SECTION . . . . . . . 95
STANDARD FOR HMA SURFACING AT SIDEROADS, ENTRANCES, AND MAILBOXES . 96
HIGHWAY STANDARD 406101-D4 . . . . . . . . . . . . . 97-99
HIGHWAY STANDARD 440001-D4 . . . . . . . . . . . . . 100
HIGHWAY STANDARD 701006 . . . . . . . . . . . . . 101
HIGHWAY STANDARD 701011 . . . . . . . . . . . . . 102
HIGHWAY STANDARD 701201 . . . . . . . . . . . . . 103
HIGHWAY STANDARD 701301 . . . . . . . . . . . . . 104
HIGHWAY STANDARD 701306 . . . . . . . . . . . . . 105
HIGHWAY STANDARD 701901 . . . . . . . . . . . . . 106-108
HIGHWAY STANDARD 781001 . . . . . . . . . . . . . 109
The following Special Provision supplement the "Standard Specifications for Road and Bridge Construction", adopted April 1, 2016, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways", and the "Manual of Test Procedures of Materials" in effect on the date of invitation of bids, and the Supplemental Specification and Recurring Special Provisions indicated on the Check Sheet included here in which apply to and govern the construction of the above named section, and in case of conflict with any parts, or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

**DESCRIPTION OF WORK:** The work of this section consists of hot-mix asphalt surface removal and resurfacing work on various routes in Tazewell County.

**TRAFFIC CONTROL PLAN:** Traffic Control shall be in accordance with the applicable sections of the Standard Specifications for Road and Bridge Construction, the applicable guidelines contained in the Illinois Manual on Uniform Traffic Control Devices for Streets and Highways, these Special Provisions, and any special details and Highway Standards contained herein and in the plans and the Standard Specifications for Traffic Control Items.

At the pre-construction meeting, the Contractor shall furnish the name of the individual in his direct employ who is to be responsible for the installation and maintenance of the traffic control for this project. If the actual installation and maintenance are to be accomplished by a subcontractor, consent shall be requested of the Engineer at the time of the pre-construction meeting in accordance with Article 108.01 of the Standard Specifications for Road and Bridge Construction. This shall not relieve the Contractor of the foregoing requirement for a responsible individual in his direct employ. The County will provide the Contractor the name of its representative who will be responsible for the administration of the Traffic Control Plan. Special attention is called to Articles 107.09, 107.14, 107.15, 1095.06, 1106 of the Standard Specifications for Road and Bridge Construction and the following Highway Standards and Special Provisions relating to Traffic Control.

Special attention is also called to the Highway Standards, 701201, 701301, 701306, and 701901 contained herein.

The entire project shall be kept open to through traffic.

"NO PASSING ZONES NOT STRIPED NEXT____ MILES" signs shall be posted in accordance with Article 701.17.

The presence of temporary traffic control drawings or standards in the proposal or contract, whether a pay item or not, does not relieve the Contractor of his obligation to the public. The Contractor shall provide, if conditions warrant by the Engineer, all protection deemed necessary beyond that shown in the proposal or Special Provisions.

Construction signs shall meet the current Standard Specifications for Traffic Control Items.

Basis of Payment: All required Traffic Control shall be paid for at the contract-lump sum price for TRAFFIC CONTROL AND PROTECTION, (SPECIAL).
**INCIDENTAL HOT-MIX ASPHALT SURFACING:** Any preparation required prior to construction of INCIDENTAL HOT-MIX ASPHALT SURFACING will not be measured separately but shall be included in the contract unit price per ton for INCIDENTAL HOT-MIX ASPHALT SURFACING. To prevent damage to newly constructed bituminous surfaces, it is understood that an interval of up to one week shall lapse as determined by the Engineer after construction of the mainline pavement before shoulder operations begin, depending on weather and curing conditions.

**AGGREGATE SHOULDERS, TYPE B (SPECIAL):** This work shall be constructed in accordance with Section 481 of the Standard Specifications with the following exceptions and additions:

This work will include entrance radii and transitions to existing aggregate and earth entrances. Material placed at entrances shall be of the same type and gradation as the existing entrance except in the case of earth field entrances where a transition of aggregate shall be placed to provide safe entrance to the bituminous roadway.

Areas that are not accessible by mechanical spreader during normal shoulder operations will be constructed by handwork as necessary by any method that provides a usable surface and has a uniform and neat appearance and shall be compacted by a means approved by the Engineer.

No extra compensation will be allowed for handwork required to complete shoulders along roadway, entrances, or at driveway transitions.

To prevent damage to newly constructed bituminous surfaces, it is understood that an interval of up to two weeks shall lapse as determined by the Engineer after construction of the mainline pavement before shoulder operations begin, depending on weather and curing conditions.

**WORK ZONE PAVEMENT MARKING:** Section 703 of the Standard Specifications shall apply with the following changes and stipulations:

Permanent pavement markings will be applied by others, therefore the Contractor will not be responsible for replacing short-term markings with temporary or permanent pavement markings. The Contractor will be responsible for maintaining short-term markings for 30 days or until permanent pavement markings are applied whichever is first.

Article 703.02 Materials. Material shall be pavement marking tape as specified.

**ITEM 1: MANITO RD. WEIGHT LIMIT:** Structure 090-3203 (Sta. 15+87 to 16+93) has a weight limit of 6 TONS for Single Vehicles; 12 TONS for 3 or 4 Axles; and 12 TONS for 5 or more Axles. This structure is being omitted for milling and resurfacing because of the weight restriction. Contractor should plan the construction accordingly to observe the above weight limit. No permits will be issued for loads above these limits.

**WEIGHT LIMITS:** Legal weight limits shall be observed on Tazewell County highways and the structures they contain at all times. The Contractor shall apply for overweight and over dimension permits in advance to avoid delays in work.

**HOT-MIX ASPHALT MIXTURES:** The N Design and friction aggregate mixture for POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE are to be as specified on the typical cross section.
GENERAL NOTES: Where section or subsection monuments are encountered, the Engineer shall be notified before such monuments are removed. The Contractor shall protect and carefully preserve all property markers and monuments until the owner, and authorized surveyor or agent has witnessed or otherwise referenced their location.

PAYMENT FOR USE OF MATERIAL TRANSFER DEVICE
Effective April 23, 2010

This work shall be performed as specified in the plans and specifications herein. No payment will be made for tonnages of HMA items required to be placed with a material transfer device, but were not able to be placed with a material transfer device.

The maximum tonnage eligible for payment when placed with the material transfer device will be limited to the final pay quantity of the pay items placed.

HOT-MIX ASPHALT SURFACE REMOVAL
Effective: March 1, 1993
Revised: March 23, 2018

Description: This work shall consist of removing a portion of the existing hot-mix asphalt concrete surface course in accordance with the applicable portions of Section 440 and 1101 of the Standard Specifications, this special provision, details in the plans and as directed by the Engineer. All milled material shall remain the property of the Tazewell County Highway Department and shall be transported to the Tazewell County maintenance yard in Tremont, IL. Other sites may be determined by mutual agreement between the Contractor and the County. If other sites are approved, the Contractor will be responsible for preventing theft of milled material or unauthorized removal of said material from sites other than County property.

Equipment: The machine used for milling and planing shall be a self-propelled grinding machine having a minimum 12' (3.6 m) wide drum at least 28" (710 mm) in diameter. When a milling width in excess of 12’ is required and the Contractor’s milling machine is less than the required width shown in the plans, the remaining area shall be milled with a machine capable of meeting the requirements of this special provision. Milling attachments used with skid steer tractors will not be allowed for longitudinal areas to mill additional widths.

When the teeth become worn so that they do not produce a uniform surface texture, they shall all be changed at the same time (as a unit). Occasionally, individual teeth may be changed if they lock up or break, but this method shall not be used to avoid changing the set of teeth as a unit. Occasional gouges, due to deteriorated pavement condition, or separation of lifts will not be cause to replace all teeth. The Engineer will be the sole judge of the cause of the pavement gouging and the corrective work required. Corrective work due to negligence or poor workmanship shall be at the Contractor’s expense.

The moldboard is critical in obtaining the desired surface texture. It shall be straight, true, and free of excessive nicks or wear, and it shall be replaced as necessary to uniformly produce the required surface texture. Gouging of the pavement by more than 1/4 inch (6 mm) shall be sufficient cause to require replacement of all teeth.

Construction Requirements
General: Weather conditions, when milling work is performed, must be such that short term or temporary pavement markings can be placed the day the surface is milled in accordance with Section 703 “Work Zone Pavement Markings”.

Page 3 of 5
An automatic grade control device shall be used when milling mainline pavement and shall be capable of controlling the elevation of the drum relative to either a preset grade control stringline or a grade reference device traveling on the adjacent pavement surface. The automatic grade control device may be utilized only on one side of the machine with a automatic slope control device controlling the opposite side. The traveling grade reference device shall not be less than 30 feet (9 m) in length. When milling cross roads, turn lanes, intersections, crossovers, or other miscellaneous areas, the Engineer may permit the matching shoe. The Contractor, at his option, may also substitute an approved 6’ wide (1.8 m) machine for areas other than mainline pavement.

The Contractor shall mill a depth according to the plans herein at the centerline and project the proposed cross slope to the edge of pavement. In the event the milling at the outer edge of the lane would exceed 2 inches; then the Contractor shall reduce the cut at the centerline to provide the maximum cut of 1.75 inches at the edge of pavement. If deemed necessary, the Contractor may reduce the cross slope from normal 1.5% to 1%.

Surface tests will be performed in accordance with Article 406.11 of the Standard Specifications. The longitudinal profile will be taken 3 ft. (0.9 m) from and parallel to each edge of pavement and 3 ft. (0.9 m) from and parallel to the centerline on each side. If a shadow area is found at the 3 ft. (0.9 m) points the pavement smoothness tester will be moved sufficient distance either side to measure the Contractor’s milling efforts. Any surface variations exceeding the tolerance in Article 406.11 shall be corrected by reprofiling at no additional expense to the Department. In addition, the Contractor shall be responsible for refilling with approved hot-mix asphalt mixtures any area that lowered the pavement profile as a result of faulty milling operations if directed by the Engineer. The Contractor shall be responsible for providing the pavement smoothness tester described elsewhere to retest the pavement profile obtained.

If the milling depth is intended to expose the original concrete pavement, then additional hand or machine work may be necessary to remove any remaining veneer of bituminous pavement which may be left in place behind the milling machine. Such work will be at the direction of the Engineer and at no extra cost to the Department.

The Contractor shall provide a 10 foot (3 m) straightedge equipped with a carpenter’s level or a 7 foot (2.1 m) electronic straightedge to check the cross slope of the roadway at regular intervals as directed by the Engineer.

Surface Texture: Each tooth on the cutting drum shall produce a series of discontinuous longitudinal striations. There shall be 16 to 20 striations (tooth marks) for each tooth for each 6 feet (1.8 m) in the longitudinal direction, and each striation shall be 1.7 inches ± 0.2 inch (43 ± 5 mm) in length after the area is planed by the moldboard. Thus, the planed length between each pair of striations shall be 2.3 inches ± 0.2 inch (58 ± 5 mm). There shall be 80 to 96 rows of discontinuous longitudinal striations for each 5 feet (1.5 m) in the transverse dimension. The areas between the striations in both the longitudinal and transverse directions shall be flat topped and coplaner. The moldboard shall be used to cut this plane; and any time the operation fails to produce this flat plane interspersed with a uniform pattern of discontinuous longitudinal striations, the operation shall be stopped and the cause determined and corrected before recommencing. Other similar patterns of uniform discontinuous longitudinal striations interspersed on a flat plane may be approved by the Engineer. The drawing titled "Hot-Mix Asphalt Surface Removal" showing the desired surface texture is included in the plans.
The start-up milling speed shall be limited to a maximum of 50 foot (15 m) per minute. The Contractor shall limit his operations to this speed to demonstrate his ability to obtain the striations and ride ability as described above. If the Contractor is able to demonstrate that he can consistently obtain the desired striations and ride ability at a greater speed he will be permitted to run at the increased speed.

**Cleanup:** After cold milling a traffic lane and before opening the lane to traffic, the pavement shall be swept by a mechanical broom to prevent compaction of the cuttings onto the pavement. All loose material shall be removed from the roadway. Before the prime coat is placed, the pavement shall be cleaned of all foreign material to the satisfaction of the Engineer.

This cleanup work shall be considered included in the contract unit price per Square Yard for HOT-MIX ASPHALT SURFACE REMOVAL of the depth specified, and no additional compensation will be allowed.

**Method of Measurement:**
(a) Contract Quantities. The requirements for the use of Contract Quantities shall be Article 202.07(a) of the Standard Specifications.

(b) Measured Quantities. Cold milling and planing will be measured and the area computed in square yards of surface.

**Basis of Payment:** The work of this item will be paid for at the contract unit price per Square Yard for HOT-MIX ASPHALT SURFACE REMOVAL of the depth specified. Payment as specified will include variations in depth of cuts due to rutting, superelevations, and pavement crown and no additional compensation will be allowed.

**WAGES OF EMPLOYEES ON PUBLIC WORKS**
Add to paragraph #1 of the Special Provision for Wages of Employees on Public Works, Check Sheet LRS#12, the following: Prevailing wage rates may be obtained from the IDOL (Illinois Department of Labor) web-site at:

https://www2.illinois.gov/idol/Laws-Rules/CONMED/Pages/Rates.aspx
The following special provisions indicated by a “check mark” are applicable to this contract and will be included by the Project Coordination and Implementation Section of the BD&E. An * indicates a new or revised special provision for the letting.

<table>
<thead>
<tr>
<th>File Name #</th>
<th>Special Provision Title</th>
<th>Effective</th>
<th>Revised</th>
</tr>
</thead>
<tbody>
<tr>
<td>* 80099</td>
<td>Accessible Pedestrian Signals (APS)</td>
<td>April 1, 2003</td>
<td>April 1, 2020</td>
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<td>80274</td>
<td>Aggregate Subgrade Improvement</td>
<td>April 1, 2012</td>
<td>April 1, 2016</td>
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<tr>
<td>80192</td>
<td>Automated Flagger Assistance Device</td>
<td>Jan. 1, 2008</td>
<td></td>
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<tr>
<td>80426</td>
<td>Bituminous Surface Treatment with Fog Seal</td>
<td>Jan. 1, 2020</td>
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<td>80241</td>
<td>Bridge Demolition Debris</td>
<td>July 1, 2009</td>
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<tr>
<td>50261</td>
<td>Building Removal-Case I (Non-Friable and Friable Asbestos)</td>
<td>Sept. 1, 1990</td>
<td>April 1, 2010</td>
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<td>50481</td>
<td>Building Removal-Case II (Non-Friable Asbestos)</td>
<td>Sept. 1, 1990</td>
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<td>50491</td>
<td>Building Removal-Case III (Friable Asbestos)</td>
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<td>50531</td>
<td>Building Removal-Case IV (No Asbestos)</td>
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<td>Cape Seal</td>
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<td>80384</td>
<td>Compensable Delay Costs</td>
<td>June 2, 2017</td>
<td>April 1, 2019</td>
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<td>80198</td>
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<tr>
<td>80293</td>
<td>Concrete Box Culverts with Skews &gt; 30 Degrees and Design Fills ≤ 5 Feet</td>
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<td>80311</td>
<td>Concrete End Sections for Pipe Culverts</td>
<td>Jan. 1, 2013</td>
<td>April 1, 2016</td>
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<td>80277</td>
<td>Concrete Mix Design – Department Provided</td>
<td>Jan. 1, 2012</td>
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<td>80261</td>
<td>Construction Air Quality – Diesel Retrofit</td>
<td>June 1, 2010</td>
<td>Nov. 1, 2014</td>
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<td>80387</td>
<td>Contrast Preformed Plastic Pavement Marking</td>
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<td>80029</td>
<td>Disadvantaged Business Enterprise Participation</td>
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<td>80402</td>
<td>Disposal Fees</td>
<td>Nov. 1, 2018</td>
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<td>Dowel Bar Inserter</td>
<td>Jan. 1, 2017</td>
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<td>Elastomeric Bearings</td>
<td>Jan. 1, 2019</td>
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<td>80421</td>
<td>Electric Service Installation</td>
<td>Jan. 1, 2020</td>
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<td>80415</td>
<td>Emulsified Asphalts</td>
<td>Aug. 1, 2019</td>
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<td>80423</td>
<td>Engineer’s Field Office and Laboratory</td>
<td>Jan. 1, 2020</td>
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<td>80388</td>
<td>Equipment Parking and Storage</td>
<td>Nov. 1, 2017</td>
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<td>80229</td>
<td>Fuel Cost Adjustment</td>
<td>April 1, 2009</td>
<td>Aug. 1, 2017</td>
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<td>80417</td>
<td>Geotechnical Fabric for Pipe Underdrains and French Drains</td>
<td>Nov. 1, 2019</td>
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<tr>
<td>80420</td>
<td>Geotextile Retaining Walls</td>
<td>Nov. 1, 2019</td>
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<td>80304</td>
<td>Grooving for Recessed Pavement Markings</td>
<td>Nov. 1, 2012</td>
<td>Nov. 1, 2017</td>
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<td>80422</td>
<td>High Tension Cable Median Barrier Reflectors</td>
<td>Jan. 1, 2020</td>
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<td>80416</td>
<td>Hot-Mix Asphalt – Binder and Surface Course</td>
<td>July 2, 2019</td>
<td>Nov. 1, 2019</td>
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<td>80398</td>
<td>Hot-Mix Asphalt – Longitudinal Joint Sealant</td>
<td>Aug. 1, 2018</td>
<td>Nov. 1, 2019</td>
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<td>80347</td>
<td>Hot-Mix Asphalt – Pay for Performance Using Percent Within Limits – Jobsite Sampling</td>
<td>Nov. 1, 2014</td>
<td>July 2, 2019</td>
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<td>80383</td>
<td>Hot-Mix Asphalt – Quality Control for Performance</td>
<td>April 1, 2017</td>
<td>July 2, 2019</td>
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<td>80411</td>
<td>Luminaires, LED</td>
<td>April 1, 2019</td>
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<td>80393</td>
<td>Manholes, Valve Vaults, and Flat Slab Tops</td>
<td>Jan. 1, 2018</td>
<td>March 1, 2019</td>
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<td>80418</td>
<td>Mechanically Stabilized Earth Retaining Walls</td>
<td>Nov. 1, 2019</td>
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<td>80424</td>
<td>Micro-Surfacing and Slurry Sealing</td>
<td>Jan. 1, 2020</td>
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<td>* 80428</td>
<td>Mobilization</td>
<td>April 1, 2020</td>
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<td>80165</td>
<td>Moisture Cured Urethane Paint System</td>
<td>Nov. 1, 2006</td>
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<td>80412</td>
<td>Obstruction Warning Luminaires, LED</td>
<td>Aug. 1, 2019</td>
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<td>Pavement Marking Blackout Tape</td>
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</table>
The following special provisions are in the 2020 Supplemental Specifications and Recurring Special Provisions.

<table>
<thead>
<tr>
<th>File Name</th>
<th>Special Provision Title</th>
<th>New Location(s)</th>
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<th>Revised</th>
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<tr>
<td>80404</td>
<td>Coarse Aggregate Quality for Micro-Surfacing and Cape Seals</td>
<td>Article 1004.01(b)</td>
<td>Jan. 1, 2019</td>
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<td>80392</td>
<td>Lights on Barricades</td>
<td>Articles 701.16, 701.17(c)(2) &amp; 603.07</td>
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<td>80336</td>
<td>Longitudinal Joint and Crack Patching</td>
<td>Check Sheet #36</td>
<td>April 1, 2014</td>
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<td>80400</td>
<td>Mast Arm Assembly and Pole</td>
<td>Article 1077.03(b)</td>
<td>Aug. 1, 2018</td>
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<td>80394</td>
<td>Metal Flared End Section for Pipe Culverts</td>
<td>Articles 542.07(c) and 542.11</td>
<td>Jan. 1, 2018</td>
<td>April 1, 2018</td>
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<td>80390</td>
<td>Payments to Subcontractors</td>
<td>Article 109.11</td>
<td>Nov. 2, 2017</td>
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The following special provisions have been deleted from use.

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<thead>
<tr>
<th>File Name</th>
<th>Special Provision Title</th>
<th>Effective</th>
<th>Revised</th>
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<tbody>
<tr>
<td>80328</td>
<td>Progress Payments</td>
<td>Nov. 2, 2013</td>
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</table>

The following special provisions require additional information from the designer. The additional information needs to be submitted as a separate document. The Project Coordination and Implementation section will then include the information in the applicable special provision.

- Bridge Demolition Debris
- Building Removal - Case I
- Building Removal – Case II
- Building Removal - Case III
- Building Removal-Case IV
- Completion Date
- Completion Date Plus Working Days
- DBE Participation
- Material Transfer Device
- Railroad Protective Liability Insurance
- Training Special Provisions
- Working Days
Revise Article 107.40(b) of the Standard Specifications to read:

“(b) Compensation.  Compensation will not be allowed for delays, inconveniences, or damages sustained by the Contractor from conflicts with facilities not meeting the above definition; or if a conflict with a utility in an unanticipated location does not cause a shutdown of the work or a documentable reduction in the rate of progress exceeding the limits set herein.  The provisions of Article 104.03 notwithstanding, compensation for delays caused by a utility in an unanticipated location will be paid according to the provisions of this Article governing minor and major delays or reduced rate of production which are defined as follows.

(1) Minor Delay.  A minor delay occurs when the work in conflict with the utility in an unanticipated location is completely stopped for more than two hours, but not to exceed two weeks.

(2) Major Delay.  A major delay occurs when the work in conflict with the utility in an unanticipated location is completely stopped for more than two weeks.

(3) Reduced Rate of Production Delay.  A reduced rate of production delay occurs when the rate of production on the work in conflict with the utility in an unanticipated location decreases by more than 25 percent and lasts longer than seven calendar days.”

Revise Article 107.40(c) of the Standard Specifications to read:

“(c) Payment.  Payment for Minor, Major, and Reduced Rate of Production Delays will be made as follows.

(1) Minor Delay.  Labor idled which cannot be used on other work will be paid for according to Article 109.04(b)(1) and (2) for the time between start of the delay and the minimum remaining hours in the work shift required by the prevailing practice in the area.

    Equipment idled which cannot be used on other work, and which is authorized to standby on the project site by the Engineer, will be paid for according to Article 109.04(b)(4).

(2) Major Delay.  Labor will be the same as for a minor delay.

    Equipment will be the same as for a minor delay, except Contractor-owned equipment will be limited to two weeks plus the cost of move-out to either the
Contractor’s yard or another job and the cost to re-mobilize, whichever is less. Rental equipment may be paid for longer than two weeks provided the Contractor presents adequate support to the Department (including lease agreement) to show retaining equipment on the job is the most economical course to follow and in the public interest.

(3) Reduced Rate of Production Delay. The Contractor will be compensated for the reduced productivity for labor and equipment time in excess of the 25 percent threshold for that portion of the delay in excess of seven calendar days. Determination of compensation will be in accordance with Article 104.02, except labor and material additives will not be permitted.

Payment for escalated material costs, escalated labor costs, extended project overhead, and extended traffic control will be determined according to Article 109.13.”

Revise Article 108.04(b) of the Standard Specifications to read:

“(b) No working day will be charged under the following conditions.

(1) When adverse weather prevents work on the controlling item.

(2) When job conditions due to recent weather prevent work on the controlling item.

(3) When conduct or lack of conduct by the Department or its consultants, representatives, officers, agents, or employees; delay by the Department in making the site available; or delay in furnishing any items required to be furnished to the Contractor by the Department prevents work on the controlling item.

(4) When delays caused by utility or railroad adjustments prevent work on the controlling item.

(5) When strikes, lock-outs, extraordinary delays in transportation, or inability to procure critical materials prevent work on the controlling item, as long as these delays are not due to any fault of the Contractor.

(6) When any condition over which the Contractor has no control prevents work on the controlling item.”

Revise Article 109.09(f) of the Standard Specifications to read:

“(f) Basis of Payment. After resolution of a claim in favor of the Contractor, any adjustment in time required for the work will be made according to Section 108. Any adjustment in the costs to be paid will be made for direct labor, direct materials, direct equipment, direct jobsite overhead, direct offsite overhead, and other direct costs allowed by the resolution. Adjustments in costs will not be made for interest charges, loss of anticipated profit, undocumented loss of efficiency, home office overhead and unabsorbed overhead
other than as allowed by Article 109.13, lost opportunity, preparation of claim expenses and other consequential indirect costs regardless of method of calculation.

The above Basis of Payment is an essential element of the contract and the claim cost recovery of the Contractor shall be so limited.”

Add the following to Section 109 of the Standard Specifications.

“109.13 Payment for Contract Delay. Compensation for escalated material costs, escalated labor costs, extended project overhead, and extended traffic control will be allowed when such costs result from a delay meeting the criteria in the following table.

<table>
<thead>
<tr>
<th>Contract Type</th>
<th>Cause of Delay</th>
<th>Length of Delay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working Days</td>
<td>Article 108.04(b)(3) or Article 108.04(b)(4)</td>
<td>No working days have been charged for two consecutive weeks.</td>
</tr>
<tr>
<td>Completion Date</td>
<td>Article 108.08(b)(1) or Article 108.08(b)(7)</td>
<td>The Contractor has been granted a minimum two week extension of contract time, according to Article 108.08.</td>
</tr>
</tbody>
</table>

Payment for each of the various costs will be according to the following.

(a) Escalated Material and/or Labor Costs. When the delay causes work, which would have otherwise been completed, to be done after material and/or labor costs have increased, such increases will be paid. Payment for escalated material costs will be limited to the increased costs substantiated by documentation furnished by the Contractor. Payment for escalated labor costs will be limited to those items in Article 109.04(b)(1) and (2), except the 35 percent and 10 percent additives will not be permitted.

(b) Extended Project Overhead. For the duration of the delay, payment for extended project overhead will be paid as follows.

(1) Direct Jobsite and Offsite Overhead. Payment for documented direct jobsite overhead and documented direct offsite overhead, including onsite supervisory and administrative personnel, will be allowed according to the following table.

<table>
<thead>
<tr>
<th>Original Contract Amount</th>
<th>Supervisory and Administrative Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to $5,000,000</td>
<td>One Project Superintendent</td>
</tr>
<tr>
<td>Over $5,000,000 - up to $25,000,000</td>
<td>One Project Manager, One Project Superintendent or Engineer, and One Clerk</td>
</tr>
<tr>
<td>Over $25,000,000 - up to $50,000,000</td>
<td>One Project Manager, One Project Superintendent, One Engineer, and</td>
</tr>
</tbody>
</table>
(2) Home Office and Unabsorbed Overhead. Payment for home office and unabsorbed overhead will be calculated as 8 percent of the total delay cost.

(c) Extended Traffic Control. Traffic control required for an extended period of time due to the delay will be paid for according to Article 109.04.

When an extended traffic control adjustment is paid under this provision, an adjusted unit price as provided for in Article 701.20(a) for increase or decrease in the value of work by more than ten percent will not be paid.

Upon payment for a contract delay under this provision, the Contractor shall assign subrogation rights to the Department for the Department’s efforts of recovery from any other party for monies paid by the Department as a result of any claim under this provision. The Contractor shall fully cooperate with the Department in its efforts to recover from another party any money paid to the Contractor for delay damages under this provision.”

80384
DISPOSAL FEES (BDE)

Effective: November 1, 2018

Replace Articles 109.04(b)(5) – 109.04(b)(8) of the Standard Specifications with the following:

“(5) Disposal Fees. When the extra work performed includes paying for disposal fees at a clean construction and demolition debris facility, an uncontaminated soil fill operation or a landfill, the Contractor shall receive, as administrative costs, an amount equal to five percent of the first $10,000 and one percent of any amount over $10,000 of the total approved costs of such fees.

(6) Miscellaneous. No additional allowance will be made for general superintendence, the use of small tools, or other costs for which no specific allowance is herein provided.

(7) Statements. No payment will be made for work performed on a force account basis until the Contractor has furnished the Engineer with itemized statements of the cost of such force account work. Statements shall be accompanied and supported by invoices for all materials used and transportation charges. However, if materials used on the force account work are not specifically purchased for such work but are taken from the Contractor’s stock, then in lieu of the invoices, the Contractor shall furnish an affidavit certifying that such materials were taken from his/her stock, that the quantity claimed was actually used, and that the price and transportation claimed represent the actual cost to the Contractor.

Itemized statements at the cost of force account work shall be detailed as follows.

a. Name, classification, date, daily hours, total hours, rate, and extension for each laborer and foreman. Payrolls shall be submitted to substantiate actual wages paid if so requested by the Engineer.

b. Designation, dates, daily hours, total hours, rental rate, and extension for each unit of machinery and equipment.

c. Quantities of materials, prices and extensions.

d. Transportation of materials.

e. Cost of property damage, liability and workmen’s compensation insurance premiums, unemployment insurance contributions, and social security tax.

(8) Work Performed by an Approved Subcontractor. When extra work is performed by an approved subcontractor, the Contractor shall receive, as administrative costs, an amount equal to five percent of the total approved costs of such work with the minimum payment being $100.
(9) All statements of the cost of force account work shall be furnished to the Engineer not later than 60 days after receipt of the Central Bureau of Construction form “Extra Work Daily Report”. If the statement is not received within the specified time frame, all demands for payment for the extra work are waived and the Department is released from any and all such demands. It is the responsibility of the Contractor to ensure that all statements are received within the specified time regardless of the manner or method of delivery.”
EMULSIFIED ASPHALTS (BDE)

Effective: August 1, 2019

Revise Article 1032.06 of the Standard Specifications to read:

“1032.06 Emulsified Asphalts. Emulsified asphalts will be accepted according to the current Bureau of Materials Policy Memorandum, “Emulsified Asphalt Acceptance Procedure”. These materials shall be homogeneous and shall show no separation of asphalt after thorough mixing, within 30 days after delivery, provided separation has not been caused by freezing. They shall coat the aggregate being used in the work to the satisfaction of the Engineer and shall be according to the following requirements.

(a) Anionic Emulsified Asphalt. Anionic emulsified asphalts RS-1, RS-2, HFRS-2, SS-1h, and SS-1 shall be according to AASHTO M 140, except as follows.

(1) The cement mixing test will be waived when the emulsion is being used as a tack coat.

(2) The Solubility in Trichloroethylene test according to AASHTO T 44 may be run in lieu of Ash Content and shall meet a minimum of 97.5 percent.

(b) Cationic Emulsified Asphalt. Cationic emulsified asphalts CRS-1, CRS-2, CSS-1h, and CSS-1 shall be according to AASHTO M 208, except as follows.

(1) The cement mixing test will be waived when the emulsion is being used as a tack coat.

(2) The Solubility in Trichloroethylene test according to AASHTO T 44 may be run in lieu of Ash Content and shall meet a minimum of 97.5 percent.

(c) High Float Emulsion. High float emulsions HFE-90, HFE-150, and HFE-300 are medium setting and shall be according to the following table.

<table>
<thead>
<tr>
<th>Test</th>
<th>HFE-90</th>
<th>HFE-150</th>
<th>HFE-300</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity, Saybolt Furol, at 122 °F (50 °C), (AASHTO T 59), SFS †</td>
<td>50 min.</td>
<td>50 min.</td>
<td>50 min.</td>
</tr>
<tr>
<td>Sieve Test, No. 20 (850 µm), retained on sieve, (AASHTO T 59), %</td>
<td>0.10 max.</td>
<td>0.10 max.</td>
<td>0.10 max.</td>
</tr>
<tr>
<td>Storage Stability Test, 1 day, (AASHTO T 59), %</td>
<td>1 max.</td>
<td>1 max.</td>
<td>1 max.</td>
</tr>
<tr>
<td>Coating Test (All Grades), (AASHTO T 59), 3 minutes</td>
<td>stone coated thoroughly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distillation Test, (AASHTO T 59): Residue from distillation test to 500 °F (260 °C), %</td>
<td>65 min.</td>
<td>65 min.</td>
<td>65 min.</td>
</tr>
<tr>
<td>Oil distillate by volume, %</td>
<td>7 max.</td>
<td>7 max.</td>
<td>7 max.</td>
</tr>
</tbody>
</table>
Characteristics of residue from distillation test to 500 °F (260 °C): Penetration at 77 °F (25 °C), (AASHTO T 49), 100 g, 5 sec, dmm

<table>
<thead>
<tr>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penetration at 77 °F (25 °C),</td>
<td>90-150</td>
</tr>
<tr>
<td>(AASHTO T 49), 100 g, 5 sec, dmm</td>
<td>150-300</td>
</tr>
<tr>
<td>Float Test at 140 °F (60 °C),</td>
<td>1200 min.</td>
</tr>
<tr>
<td>(AASHTO T 50), sec.</td>
<td>1200 min.</td>
</tr>
<tr>
<td></td>
<td>1200 min.</td>
</tr>
</tbody>
</table>

1/ The emulsion shall be pumpable.

(d) Penetrating Emulsified Prime. Penetrating Emulsified Prime (PEP) shall be according to AASHTO T 59, except as follows.

<table>
<thead>
<tr>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity, Saybolt Furol, at 77 °F (25 °C), SFS</td>
<td>75 max.</td>
</tr>
<tr>
<td>Sieve test, retained on No. 20 (850 µm) sieve, %</td>
<td>0.10 max.</td>
</tr>
<tr>
<td>Distillation to 500 °F (260 °C) residue, %</td>
<td>38 min.</td>
</tr>
<tr>
<td>Oil distillate by volume, %</td>
<td>4 max.</td>
</tr>
</tbody>
</table>

The PEP shall be tested according to the current Bureau of Materials Illinois Laboratory Test Procedure (ILTP), "Sand Penetration Test of Penetrating Emulsified Prime (PEP)". The time of penetration shall be equal to or less than that of MC-30. The depth of penetration shall be equal to or greater than that of MC-30.

(e) Delete this subparagraph.

(f) Polymer Modified Emulsified Asphalt. Polymer modified emulsified asphalts, e.g. SS-1hP, CSS-1hP, CRS-2P (formerly CRSP), CQS-1hP (formerly CSS-1h Latex Modified) and HFRS-2P (formerly HFP) shall be according to AASHTO M 316, except as follows.

1) The cement mixing test will be waived when the polymer modified emulsion is being used as a tack coat.

2) CQS-1hP (formerly CSS-1h Latex Modified) emulsion for micro-surfacing treatments shall use latex as the modifier.

3) Upon examination of the storage stability test cylinder after standing undisturbed for 24 hours, the surface shall show minimal to no white, milky colored substance and shall be a homogenous brown color throughout.

4) The distillation for all polymer modified emulsions shall be performed according to AASHTO T 59, except the temperature shall be 374 ± 9 °F (190 ± 5 °C) to be held for a period of 15 minutes and measured using an ASTM 16F (16C) thermometer.

5) The specified temperature for the Elastic Recovery test for all polymer modified emulsions shall be 50.0 ± 1.0 °F (10.0 ± 0.5 °C).
(6) The Solubility in Trichloroethylene test according to AASHTO T 44 may be run in lieu of Ash Content and shall meet a minimum of 97.5 percent.

(g) Non-Tracking Emulsified Asphalt. Non-tracking emulsified asphalt NTEA (formerly SS-1vh) shall be according to the following.

<table>
<thead>
<tr>
<th>Test</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saybolt Viscosity at 77 °F (25 °C), (AASHTO T 59), SFS</td>
<td>20-100</td>
</tr>
<tr>
<td>Storage Stability Test, 24 hr, (AASHTO T 59), %</td>
<td>1 max.</td>
</tr>
<tr>
<td>Residue by Distillation, 500 ± 10 °F (260 ± 5 °C), or</td>
<td>50 min.</td>
</tr>
<tr>
<td>Residue by Evaporation, 325 ± 5 °F (163 ± 3 °C), (AASHTO T 59), %</td>
<td></td>
</tr>
<tr>
<td>Sieve Test, No. 20 (850 µm), (AASHTO T 59), %</td>
<td>0.3 max.</td>
</tr>
</tbody>
</table>

Tests on Residue from Evaporation

<table>
<thead>
<tr>
<th>Test</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penetration at 77 °F (25 °C), 100 g, 5 sec, (AASHTO T 49), dmm</td>
<td>40 max.</td>
</tr>
<tr>
<td>Softening Point, (AASHTO T 53), °F (°C)</td>
<td>135 (57) min.</td>
</tr>
<tr>
<td>Ash Content, (AASHTO T 111), % 1/</td>
<td>1 max.</td>
</tr>
</tbody>
</table>

1/ The Solubility in Trichloroethylene test according to AASHTO T 44 may be run in lieu of Ash Content and shall meet a minimum of 97.5 percent.

The different grades are, in general, used for the following.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS-1, SS-1h, RS-1, RS-2, CSS-1, CRS-1, CRS-2, CSS-1h, HFE-90, SS-1hP, CSS-1hP, NTEA (formerly SS-1vh)</td>
<td>Tack Coat</td>
</tr>
<tr>
<td>PEP</td>
<td>Prime Coat</td>
</tr>
<tr>
<td>RS-2, HFE-90, HFE-150, HFE-300, CRS-2P (formerly CRSP), HFRS-2P (formerly HFP), CRS-2, HFRS-2</td>
<td>Bituminous Surface Treatment</td>
</tr>
<tr>
<td>CQS-1hP (formerly CSS-1h Latex Modified)</td>
<td>Micro-Surfacing Slurry Sealing Cape Seal*</td>
</tr>
</tbody>
</table>

80415
EQUIPMENT PARKING AND STORAGE (BDE)

Effective: November 1, 2017

Replace the first paragraph of Article 701.11 of the Standard Specifications with the following.

“701.11 Equipment Parking and Storage. During working hours, all vehicles and/or nonoperating equipment which are parked, two hours or less, shall be parked at least 8 ft (2.5 m) from the open traffic lane. For other periods of time during working and for all nonworking hours, all vehicles, materials, and equipment shall be parked or stored as follows.

(a) When the project has adequate right-of-way, vehicles, materials, and equipment shall be located a minimum of 30 ft (9 m) from the pavement.

(b) When adequate right-of-way does not exist, vehicles, materials, and equipment shall be located a minimum of 15 ft (4.5 m) from the edge of any pavement open to traffic.

(c) Behind temporary concrete barrier, vehicles, materials, and equipment shall be located a minimum of 24 in. (600 mm) behind free standing barrier or a minimum of 6 in. (150 mm) behind barrier that is either pinned or restrained according to Article 704.04. The 24 in. or 6 in. measurement shall be from the base of the non-traffic side of the barrier.

(d) Behind other man-made or natural barriers meeting the approval of the Engineer.”

80388
HOT-MIX ASPHALT – BINDER AND SURFACE COURSE (BDE)

Effective: July 2, 2019
Revised: November 1, 2019

Description. This work shall consist of constructing a hot-mix asphalt (HMA) binder and/or surface course on a prepared base. Work shall be according to Sections 406 and 1030 of the Standard Specifications, except as modified herein.

Materials. Add the following after the second paragraph of Article 1003.03(c):

“For mixture IL-9.5FG, at least 67 percent of the required fine aggregate fraction shall consist of either stone sand, slag sand, steel slag sand, or combinations thereof meeting FA 20 gradation.”

Revise Article 1004.03(c) to read:

“(c) Gradation. The coarse aggregate gradations shall be as listed in the following table.

<table>
<thead>
<tr>
<th>Use</th>
<th>Size/Application</th>
<th>Gradation No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class A-1, A-2, &amp; A-3</td>
<td>3/8 in. (10 mm) Seal</td>
<td>CA 16 or CA 20</td>
</tr>
<tr>
<td>Class A-1</td>
<td>1/2 in. (13 mm) Seal</td>
<td>CA 15</td>
</tr>
<tr>
<td>Class A-2 &amp; A-3</td>
<td>Cover Coat</td>
<td>CA 14</td>
</tr>
<tr>
<td>HMA High ESAL</td>
<td>IL-19.0</td>
<td>CA 11 1/</td>
</tr>
<tr>
<td></td>
<td>SMA 12.5 2/</td>
<td>CA 13, CA 14, or CA 16</td>
</tr>
<tr>
<td></td>
<td>SMA 9.5 2/</td>
<td>CA 13 or CA 16 3/</td>
</tr>
<tr>
<td></td>
<td>IL-9.5</td>
<td>CA 16</td>
</tr>
<tr>
<td></td>
<td>IL-9.5FG</td>
<td>CA 16</td>
</tr>
<tr>
<td>HMA Low ESAL</td>
<td>IL-19.0L</td>
<td>CA 11 1/</td>
</tr>
<tr>
<td></td>
<td>IL-9.5L</td>
<td>CA 16</td>
</tr>
</tbody>
</table>

1/ CA 16 or CA 13 may be blended with the CA 11.

2/ The coarse aggregates used shall be capable of being combined with stone sand, slag sand, or steel slag sand meeting the FA/FM 20 gradation and mineral filler to meet the approved mix design and the mix requirements noted herein.

3/ The specified coarse aggregate gradations may be blended.”

HMA Nomenclature. Revise the “High ESAL” portion of the table in Article 1030.01 to read:

<table>
<thead>
<tr>
<th>“High ESAL”</th>
<th>Binder Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMA High ESAL</td>
<td>IL-19.0, IL-9.5, IL-9.5FG, IL-4.75, SMA 12.5, SMA 9.5</td>
</tr>
</tbody>
</table>
**Surface Courses**

| IL-9.5, IL-9.5FG, SMA 12.5, SMA 9.5 |

**Mixture Design.** Revise the table in Article 1030.04(a)(1) and add SMA 9.5 and IL-9.5FG mixture compositions as follows:

<table>
<thead>
<tr>
<th>Sieve Size</th>
<th>SMA 12.5</th>
<th>SMA 9.5</th>
<th>IL-9.5FG</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>min.</td>
<td>max.</td>
<td>min.</td>
</tr>
<tr>
<td>1 in. (25 mm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/4 in. (19 mm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/2 in. (12.5 mm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/8 in. (9.5 mm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#4 (4.75 mm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#8 (2.36 mm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#16 (1.18 mm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#30 (600 µm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#50 (300 µm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#100 (150 µm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#200 (75 µm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#635 (20 µm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ratio of Dust/Asphalt Binder</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1/ Based on percent of total aggregate weight.

2/ The mixture composition shall not exceed 44 percent passing the #8 (2.36 mm) sieve for surface courses with Ndesign = 90.
3/ Additional minus No. 200 (0.075 mm) material required by the mix design shall be mineral filler, unless otherwise approved by the Engineer.

4/ When establishing the adjusted job mix formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted above 24 percent.

5/ When the bulk specific gravity (Gsb) of the component aggregates vary by more than 0.2, the blend gradations shall be based on volumetric percentage.”

Revise the table in Article 1030.04(b)(1) to read:

```
<table>
<thead>
<tr>
<th>Ndesign</th>
<th>Voids in the Mineral Aggregate (VMA), % minimum</th>
<th>Voids Filled with Asphalt Binder (VFA), %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IL-19.0 IL-9.5 IL-9.5FG IL-4.75 1/</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>13.5 15.0 18.5 65 - 78 2/</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td></td>
<td>65 – 75 3/</td>
</tr>
<tr>
<td>90</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1/ Maximum draindown for IL-4.75 shall be 0.3 percent.

2/ VFA for IL-4.75 shall be 76-83 percent.

3/ VFA for IL-9.5FG shall be 65-78 percent.”

Revise the table in Article 1030.04(b)(3) to read:

```
<table>
<thead>
<tr>
<th>ESALs (million)</th>
<th>Ndesign</th>
<th>Design Air Voids Target, %</th>
<th>Voids in the Mineral Aggregate (VMA), % min.</th>
<th>Voids Filled with Asphalt (VFA), %</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 10</td>
<td>50</td>
<td>4.0</td>
<td>16.0</td>
<td>75 – 80</td>
</tr>
<tr>
<td>&gt; 10</td>
<td>80</td>
<td>4.0</td>
<td>17.0</td>
<td>75 – 80</td>
</tr>
</tbody>
</table>

1/ Maximum draindown shall be 0.3 percent.”

Quality Control/Quality Assurance (QC/QA). Revise the third paragraph of Article 1030.05(d)(3) to read:

“"If the Contractor and Engineer agree the nuclear density test method is not appropriate for the mixture, cores shall be taken at random locations determined according to the
Add the following paragraphs to the end of Article 1030.05(d)(3):

“Longitudinal joint density testing shall be performed at each random density test location. Longitudinal joint testing shall be located at a distance equal to the lift thickness or a minimum of 4 in. (100 mm), from each pavement edge (i.e. for a 5 in. (125 mm) lift the near edge of the density gauge or core barrel shall be within 5 in. (125 mm) from the edge of pavement). Longitudinal joint density testing shall be performed using either a correlated nuclear gauge or cores.

a. Confined Edge. Each confined edge density shall be represented by a one-minute nuclear density reading or a core density and shall be included in the average of density readings or core densities taken across the mat which represents the Individual Test.

b. Unconfined Edge. Each unconfined edge joint density shall be represented by an average of three one-minute density readings or a single core density at the given density test location and shall meet the density requirements specified herein. The three one-minute readings shall be spaced 10 ft (3 m) apart longitudinally along the unconfined pavement edge and centered at the random density test location.

When a longitudinal joint sealant (LJS) is applied, longitudinal joint density testing will not be required on the joint(s) sealed.”

Revise the second table in Article 1030.05(d)(4) and its notes to read:

<table>
<thead>
<tr>
<th>Mixture Composition</th>
<th>Parameter</th>
<th>Individual Test (includes confined edges)</th>
<th>Unconfined Edge Joint Density, minimum</th>
</tr>
</thead>
</table>
| IL-4.75             | N\text{design} = 50 | 93.0 – 97.4 %
| IL-9.5FG            | N\text{design} = 50 – 90 | 93.0 – 97.4 % | 91.0% |
| IL-9.5              | N\text{design} = 90 | 92.0 – 96.0 % | 90.0% |
| IL-9.5, IL-9.5L     | N\text{design} < 90 | 92.5 – 97.4 % | 90.0% |
| IL-19.0             | N\text{design} = 90 | 93.0 – 96.0 % | 90.0% |
| IL-19.0, IL-19.0L   | N\text{design} < 90 | 93.0 \(^2\) – 97.4 % | 90.0% |
| SMA                 | N\text{design} = 50 or 80 | 93.5 – 97.4 % | 91.0% |

1/ Density shall be determined by cores or by correlated, approved thin lift nuclear gauge.
2/ 92.0 % when placed as first lift on an unimproved subgrade.”

**Equipment.** Add the following to Article 1101.01 of the Standard Specifications:

“(h) Oscillatory Roller. The oscillatory roller shall be self-propelled and provide a smooth operation when starting, stopping, or reversing directions. The oscillatory roller shall be able to operate in a mode that will provide tangential impact force with or without vertical impact force by using at least one drum. The oscillatory roller shall be equipped with water tanks and sprinkling devices, or other approved methods, which shall be used to wet the drums to prevent material pickup. The drum(s) amplitude and frequency of the tangential and vertical impact force shall be approximately the same in each direction and meet the following requirements:

1. The minimum diameter of the drum(s) shall be 42 in. (1070 mm);
2. The minimum length of the drum(s) shall be 57 in. (1480 mm);
3. The minimum unit static force on the drum(s) shall be 125 lb/in. (22 N/m); and
4. The minimum force on the oscillatory drum shall be 18,000 lb (80 kN).”

**CONSTRUCTION REQUIREMENTS**

Add the following to Article 406.03 of the Standard Specifications:

“(j) Oscillatory Roller .................................................................1101.01”

Revise the third paragraph of Article 406.05(a) to read:

“All depressions of 1 in. (25 mm) or more in the surface of the existing pavement shall be filled with binder. At locations where heavy disintegration and deep spalling exists, the area shall be cleaned of all loose and unsound material, tacked, and filled with binder (hand method).”

Revise Article 406.05(c) to read.

“(c) Binder (Hand Method). Binder placed other than with a finishing machine will be designated as binder (hand method) and shall be compacted with a roller to the satisfaction of the Engineer. Hand tamping will be permitted when approved by the Engineer.”

Revise the special conditions for mixture IL-4.75 in Article 406.06(b)(2)e. to read:

“e. The mixture shall be overlaid within 5 days of being placed.”
Revise Article 406.06(d) to read:

“(d) Lift Thickness. The minimum compacted lift thickness for HMA binder and surface courses shall be as follows.

<table>
<thead>
<tr>
<th>Mixture Composition</th>
<th>Thickness, in. (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IL-4.75</td>
<td>3/4 (19) - over HMA surfaces 1/</td>
</tr>
<tr>
<td></td>
<td>1 (25) - over PCC surfaces 1/</td>
</tr>
<tr>
<td>IL-9.5FG</td>
<td>1 1/4 (32)</td>
</tr>
<tr>
<td>IL-9.5, IL-9.5L</td>
<td>1 1/2 (38)</td>
</tr>
<tr>
<td>SMA 9.5</td>
<td>1 1/2 (38)</td>
</tr>
<tr>
<td>SMA 12.5</td>
<td>2 (51)</td>
</tr>
<tr>
<td>IL-19.0, IL-19.0L</td>
<td>2 1/4 (57)</td>
</tr>
</tbody>
</table>

1/ The maximum compacted lift thickness for mixture IL-4.75 shall be 1 1/4 in. (32 mm)."

Revise Table 1 and Note 3/ of Table 1 in Article 406.07(a) of the Standard Specifications to read:

<table>
<thead>
<tr>
<th>Binder and Surface 1/</th>
<th>Breakdown Roller (one of the following)</th>
<th>Intermediate Roller</th>
<th>Final Roller (one or more of the following)</th>
<th>Density Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>IL-4.75 and SMA 4/5/</td>
<td>V_D, P, P, T_B, 3W, O_T, O_B</td>
<td>P, P, O_T, O_B</td>
<td>V_S, T_B, T_F, O_T</td>
<td>As specified in Articles: 1030.05(d)(3), (d)(4), and (d)(7).</td>
</tr>
<tr>
<td>Bridge Decks 2/</td>
<td>T_B</td>
<td>- -</td>
<td>T_F, 3W, O_T</td>
<td>As specified in Articles 582.05 and 582.06.</td>
</tr>
</tbody>
</table>

3/ A vibratory roller (V_D) or oscillatory roller (O_T or O_B) may be used in lieu of the pneumatic-tired roller on mixtures containing polymer modified asphalt binder.”

Add the following to EQUIPMENT DEFINITION in Article 406.07(a) contained in the Errata of the Supplemental Specifications:
“O_t - Oscillatory roller, tangential impact mode. Maximum speed is 3.0 mph (4.8 km/h) or 264 ft/min (80 m/min).

O_b - Oscillatory roller, tangential and vertical impact mode, operated at a speed to produce not less than 10 vertical impacts/ft (30 impacts/m).”

Basis of Payment. Replace the second through the fifth paragraphs of Article 406.14 with the following:

“HMA binder and surface courses will be paid for at the contract unit price per ton (metric ton) for MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS; HOT-MIX ASPHALT BINDER COURSE (HAND METHOD), of the Ndesign specified; HOT-MIX ASPHALT BINDER COURSE, of the mixture composition and Ndesign specified; HOT-MIX ASPHALT SURFACE COURSE, of the mixture composition, friction aggregate, and Ndesign specified; POLYMERIZED HOT-MIX ASPHALT BINDER COURSE (HAND METHOD), of the Ndesign specified; POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, of the mixture composition and Ndesign specified; POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, of the mixture composition, friction aggregate, and Ndesign specified; POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, STONE MATRIX ASPHALT, of the mixture composition and Ndesign specified; POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, of the mixture composition, friction aggregate, and Ndesign specified.”
HOT-MIX ASPHALT – LONGITUDINAL JOINT SEALANT (BDE)

Effective: August 1, 2018
Revised: November 1, 2019

Add the following to Article 406.02 of the Standard Specifications.

“(d) Longitudinal Joint Sealant (LJS) .................................................................1032”

Add the following to Article 406.03 of the Standard Specifications.

“(k) Longitudinal Joint Sealant (LJS) Pressure Distributor (Note 2)
(l) Longitudinal Joint Sealant (LJS) Melter Kettle (Note 3)

Note 2. When a pressure distributor is used to apply the LJS, the distributor shall be equipped with a heating and recirculating system along with a functioning auger agitating system or vertical shaft mixer in the hauling tank to prevent localized overheating. The distributor shall be equipped with a guide or laser system to aid in proper placement of the LJS application.

Note 3. When a melter kettle is used to transport and apply the LJS, the melter kettle shall be an oil jacketed double-boiler with agitating and recirculating systems. Material from the kettle may be dispensed through a pressure feed wand with an applicator shoe or through a pressure feed wand into a hand-operated thermal push cart.”

Revise Article 406.06(g)(2) of the Standard Specifications to read:

“(2) Longitudinal Joints. Unless prohibited by stage construction, any HMA lift shall be complete before construction of the subsequent lift. The longitudinal joint in all lifts shall be at the centerline of the pavement if the roadway comprises two lanes in width, or at lane width if the roadway is more than two lanes in width.

When stage construction prohibits the total completion of a particular lift, the longitudinal joint in one lift shall be offset from the longitudinal joint in the preceding lift by not less than 3 in. (75 mm). The longitudinal joint in the surface course shall be at the centerline of the pavement if the roadway comprises two lanes in width, or at lane width if the roadway is more than two lanes in width.

A notched wedge longitudinal joint shall be used between successive passes of HMA binder course that has a difference in elevation of greater than 2 in. (50 mm) between lanes on pavement that is open to traffic.

The notched wedge longitudinal joint shall consist of a 1 to 1 1/2 in. (25 to 38 mm) vertical notch at the lane line, a 9 to 12 in. (230 to 300 mm) wide uniform taper sloped toward and extending into the open lane, and a second 1 to 1 1/2 in. (25 to 38 mm) vertical notch at the outside edge.
The notched wedge longitudinal joint shall be formed by the strike off device on the paver. The wedge shall then be compacted by the joint roller.

Tack coat shall be applied to the entire surface of the notched wedge joint immediately prior to placing the adjacent lift of binder. The material shall be uniformly applied at a rate of 0.05 to 0.1 gal/sq yd (0.2 to 0.5 L/sq m).

When the use of longitudinal joint sealant (LJS) is specified, the surface to which the LJS is applied shall be thoroughly cleaned and dry. The LJS may be placed before or after the tack coat. When placed after the tack coat, the tack shall be fully cured prior to placement of the LJS.

The LJS shall be applied in a single pass with a pressure distributor, melter kettle, or hand applied from a roll. At the time of installation, the pavement surface temperature and the ambient temperature shall be a minimum of 40 °F (4 °C) and rising.

The LJS shall be applied at a width of 18 in. (450 mm) ± 1 1/2 in. (38 mm) and centered ± 2 in. (± 50 mm) under the joint of the next HMA lift to be constructed. If the LJS flows more than 2 in. (50 mm) from the initial placement width, LJS placement shall stop and remedial action shall be taken.

When starting another run of LJS placement, suitable release paper shall be placed over the previous application of LJS to prevent doubling up of thickness of LJS.

The application rate of LJS shall be according to the following.

<table>
<thead>
<tr>
<th>Overlay Thickness in. (mm)</th>
<th>Coarse Graded Application Rate 1/ (IL-19.0, IL-19.0L, IL-9.5, IL-9.5L, IL-4.75) lb/ft (kg/m)</th>
<th>Fine Graded Application Rate 1/ lb/ft (kg/m)</th>
<th>SMA Mixtures 1/2/</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4 (19)</td>
<td>0.88 (1.31)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (25)</td>
<td>1.15 (1.71)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 1/4 (32)</td>
<td>1.31 (1.95)</td>
<td>0.88 (1.31)</td>
<td></td>
</tr>
<tr>
<td>1 1/2 (38)</td>
<td>1.47 (2.19)</td>
<td>0.95 (1.42)</td>
<td>1.26 (1.88)</td>
</tr>
<tr>
<td>1 3/4 (44)</td>
<td>1.63 (2.43)</td>
<td>1.03 (1.54)</td>
<td>1.38 (2.06)</td>
</tr>
<tr>
<td>2 (50)</td>
<td>1.80 (2.68)</td>
<td>1.11 (1.65)</td>
<td>1.51 (2.25)</td>
</tr>
<tr>
<td>≥ 2 1/4 (60)</td>
<td>1.96 (2.92)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1/ The application rate has a surface demand for liquid included within it. The thickness of the LJS may taper from the center of the application to a lesser thickness on the edge of the application, provided the correct width and application rate are maintained.
If the joint is between SMA and either Coarse Graded or Fine Graded, the SMA rate shall be used.

The Contractor shall furnish to the Engineer a bill of lading for each tanker supplying material to the project. The application rate of LJS shall be verified within the first 1000 ft (300 m) of the day’s placement and every 12,000 ft (3600 m) thereafter. A suitable paper or pan shall be placed at a random location in the path of the LJS. After application of the LJS, the paper or pan shall be picked up, weighed, and the application rate calculated. The tolerance between the application rate shown in the LJS Application Table and the calculated rate shall be ± 10 percent. The LJS shall be replaced in the area where the sample was taken.

A 1 qt (1 L) sample shall be taken from the pressure distributor or melting kettle at the jobsite once for each contract and sent to the Central Bureau of Materials.

The LJS shall be suitable for construction traffic to drive on without pickup or tracking of the LJS within 30 minutes of placement. If pickup or tracking occurs, LJS placement shall stop and damaged areas shall be repaired.

Prior to paving, the Contractor shall ensure the paver end plate and grade control device is adequately raised above the finished height of the LJS.

The LJS shall not flush to the final surface of the HMA pavement.”

Add the following paragraph after the second paragraph of Article 406.13(b) of the Standard Specifications.

“Application of longitudinal joint sealant (LJS) will be measured for payment in place in feet (meters).”

Add the following paragraph after the first paragraph of Article 406.14 of the Standard Specifications.

“Longitudinal joint sealant will be paid for at the contract unit price per foot (meter) for LONGITUDINAL JOINT SEALANT.”

Add the following to Section 1032 of the Standard Specifications.

“1032.12 Longitudinal Joint Sealant (LJS). Longitudinal joint sealant (LJS) will be accepted according to the current Bureau of Materials and Physical Research Policy Memorandum, “Performance Graded Asphalt Binder Acceptance Procedure” with the following exceptions: Article 3.1.9 and 3.4.1.4 of the policy memorandum will be excluded. The bituminous material used for the LJS shall be according to the following table. Elastomers shall be added to a base asphalt and shall be either a styrene-butadiene diblock or triblock copolymer without oil extension, or a styrene-butadiene rubber. Air blown asphalt, acid modification, or other modifiers will not be allowed. LJS in the form of pre-formed rollout banding may also be used.
<table>
<thead>
<tr>
<th>Test</th>
<th>Test Requirement</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dynamic shear @ 88°C (unaged), G*/sin δ, kPa</td>
<td>1.00 min.</td>
<td>AASHTO T 315</td>
</tr>
<tr>
<td>Creep stiffness @-18°C (unaged), Stiffness (S), MPa, m-value</td>
<td>300 max. 0.300 min.</td>
<td>AASHTO T 313</td>
</tr>
<tr>
<td>Ash, %</td>
<td>1.0 – 4.0</td>
<td>AASHTO T 111</td>
</tr>
<tr>
<td>Elastic Recovery, 100 mm elongation, cut immediately, 25°C, %</td>
<td>70 min.</td>
<td>ASTM D 6084 (Procedure A)</td>
</tr>
<tr>
<td>Separation of Polymer, Difference in °C of the softening point (ring and ball)</td>
<td>3 max.</td>
<td>&quot;ITP Separation of Polymer from Asphalt Binder&quot;</td>
</tr>
</tbody>
</table>

80398
MATERIAL TRANSFER DEVICE (BDE)

Effective Date: June 15, 1999
Revised Date: January 1, 2014

Description. This work shall consist of placing HMA surface course mixtures according to Section 406 of the Standard Specifications, except that these materials shall be placed using a material transfer device (MTD).

Materials and Equipment. The MTD shall have a minimum surge capacity of 15 tons (13.5 metric tons), shall be self-propelled and capable of moving independent of the paver, and shall be equipped with the following:

(a) Front-Dump Hopper and Conveyor. The conveyor shall provide a positive restraint along the sides of the conveyor to prevent material spillage. MTDs having paver style hoppers shall have a horizontal bar restraint placed across the foldable wings which prevents the wings from being folded.

(b) Paver Hopper Insert. The paver hopper insert shall have a minimum capacity of 14 tons (12.7 metric tons).

(c) Mixer/Agitator Mechanism. This re-mixing mechanism shall consist of a segmented, anti-segregation, re-mixing auger or two full-length longitudinal paddle mixers designed for the purpose of re-mixing the hot-mix asphalt (HMA). The longitudinal paddle mixers shall be located in the paver hopper insert.

CONSTRUCTION REQUIREMENTS

General. The MTD shall be used for the placement of all HMA surface course mixtures placed with a paver. The MTD speed shall be adjusted to the speed of the paver to maintain a continuous, non-stop paving operation.

Use of a MTD with a roadway contact pressure exceeding 25 psi (172 kPa) will be limited to partially completed segments of full-depth HMA pavement where the thickness of binder in place is 10 in. (250 mm) or greater.

Structures. The MTD may be allowed to travel over structures under the following conditions:

(a) Approval will be given by the Engineer.

(b) The vehicle shall be emptied of HMA material prior to crossing the structure and shall travel at crawl speed across the structure.

(c) The tires of the vehicle shall travel on or in close proximity and parallel to the beam and/or girder lines of the structure.
Method of Measurement. This work will be measured for payment in tons (metric tons) for HMA surface course materials placed with a material transfer device.

Basis of Payment. This work will be paid for at the contract unit price per ton (metric ton) for MATERIAL TRANSFER DEVICE.

The various HMA mixtures placed with the MTD will be paid for as specified in their respective specifications. The Contractor may choose to use the MTD for other applications on this project; however, no additional compensation will be allowed.
MOBILIZATION (BDE)

Effective: April 1, 2020

Replace Articles 671.02(a), (b), and (c) of the Standard Specifications with the following:

“(a) Upon execution of the contract, 90 percent of the pay item will be paid.

(b) When 90 percent of the adjusted contract value is earned, the remaining ten percent of the pay item will be paid along with any amount bid in excess of six percent of the original contract amount.”
RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (BDE)

Effective: November 1, 2012
Revised: January 2, 2020

Revise Section 1031 of the Standard Specifications to read:

"SECTION 1031. RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES

1031.01 Description. Reclaimed asphalt pavement and reclaimed asphalt shingles shall be according to the following.

(a) Reclaimed Asphalt Pavement (RAP). RAP is the material produced by cold milling or crushing an existing hot-mix asphalt (HMA) pavement. The Contractor shall supply written documentation that the RAP originated from routes or airfields under federal, state, or local agency jurisdiction.

(b) Reclaimed Asphalt Shingles (RAS). Reclaimed asphalt shingles (RAS) are from the processing and grinding of preconsumer or post-consumer shingles. RAS shall be a clean and uniform material with a maximum of 0.5 percent unacceptable material, as defined in Central Bureau of Materials Policy Memorandum, "Reclaimed Asphalt Shingle (RAS) Sources", by weight of RAS. All RAS used shall come from a Central Bureau of Materials approved processing facility where it shall be ground and processed to 100 percent passing the 3/8 in. (9.5 mm) sieve and 93 percent passing the #4 (4.75 mm) sieve based on a dry shake gradation. RAS shall be uniform in gradation and asphalt binder content and shall meet the testing requirements specified herein. In addition, RAS shall meet the following Type 1 or Type 2 requirements.

(1) Type 1. Type 1 RAS shall be processed, preconsumer asphalt shingles salvaged from the manufacture of residential asphalt roofing shingles.

(2) Type 2. Type 2 RAS shall be processed post-consumer shingles only, salvaged from residential, or four unit or less dwellings not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP).

1031.02 Stockpiles. RAP and RAS stockpiles shall be according to the following.

(a) RAP Stockpiles. The Contractor shall construct individual, sealed RAP stockpiles meeting one of the following definitions. No additional RAP shall be added to the pile after the pile has been sealed. Stockpiles shall be sufficiently separated to prevent intermingling at the base. Stockpiles shall be identified by signs indicating the type as listed below (i.e. "Homogeneous Surface").

Prior to milling, the Contractor shall request the District provide documentation on the quality of the RAP to clarify the appropriate stockpile.
(1) Fractionated RAP (FRAP). FRAP shall consist of RAP from Class I, HMA (High and Low ESAL) mixtures. The coarse aggregate in FRAP shall be crushed aggregate and may represent more than one aggregate type and/or quality, but shall be at least C quality. All FRAP shall be fractionated prior to testing by screening into a minimum of two size fractions with the separation occurring on or between the #4 (4.75 mm) and 1/2 in. (12.5 mm) sieves. Agglomerations shall be minimized such that 100 percent of the RAP shall pass the sieve size specified below for the mix into which the FRAP will be incorporated.

<table>
<thead>
<tr>
<th>Mixture FRAP will be used in:</th>
<th>Sieve Size that 100 % of FRAP Shall Pass</th>
</tr>
</thead>
<tbody>
<tr>
<td>IL-19.0</td>
<td>1 1/2 in. (37.5 mm)</td>
</tr>
<tr>
<td>SMA 12.5</td>
<td>1 in. (25.0 mm)</td>
</tr>
<tr>
<td>IL-9.5, IL-9.5FG, SMA 9.5</td>
<td>3/4 in. (19.0 mm)</td>
</tr>
<tr>
<td>IL-4.75</td>
<td>1/2 in. (12.5 mm)</td>
</tr>
</tbody>
</table>

(2) Homogeneous. Homogeneous RAP stockpiles shall consist of RAP from Class I, HMA (High and Low ESAL) mixtures and represent: 1) the same aggregate quality, but shall be at least C quality; 2) the same type of crushed aggregate (either crushed natural aggregate, ACBF slag, or steel slag); 3) similar gradation; and 4) similar asphalt binder content. If approved by the Engineer, combined single pass surface/binder millings may be considered “homogeneous” with a quality rating dictated by the lowest coarse aggregate quality present in the mixture.

(3) Conglomerate. Conglomerate RAP stockpiles shall consist of RAP from Class I, HMA (High and Low ESAL) mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality, but shall be at least C quality. This RAP may have an inconsistent gradation and/or asphalt binder content prior to processing. All conglomerate RAP shall be processed prior to testing by crushing to where all RAP shall pass the 5/8 in. (16 mm) or smaller screen. Conglomerate RAP stockpiles shall not contain steel slag.

(4) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as “Non-Quality”.

RAP/FRAP containing contaminants, such as earth, brick, sand, concrete, sheet asphalt, bituminous surface treatment (i.e. chip seal), pavement fabric, joint sealants, etc., will be unacceptable unless the contaminants are removed to the satisfaction of the Engineer. Sheet asphalt shall be stockpiled separately.

(b) RAS Stockpiles. Type 1 and Type 2 RAS shall be stockpiled separately and shall not be intermingled. Each stockpile shall be signed indicating what type of RAS is present.

Unless otherwise specified by the Engineer, mechanically blending manufactured sand (FM 20 or FM 22) up to an equal weight of RAS with the processed RAS will be permitted
to improve workability. The sand shall be “B Quality” or better from an approved Aggregate Gradation Control System source. The sand shall be accounted for in the mix design and during HMA production.

Records identifying the shingle processing facility supplying the RAS, RAS type, and lot number shall be maintained by project contract number and kept for a minimum of three years.

1031.03 Testing. RAP/FRAP and RAS testing shall be according to the following.

(a) RAP/FRAP Testing. When used in HMA, the RAP/FRAP shall be sampled and tested either during or after stockpiling.

(1) During Stockpiling. For testing during stockpiling, washed extraction samples shall be run at the minimum frequency of one sample per 500 tons (450 metric tons) for the first 2000 tons (1800 metric tons) and one sample per 2000 tons (1800 metric tons) thereafter. A minimum of five tests shall be required for stockpiles less than 4000 tons (3600 metric tons).

(2) After Stockpiling. For testing after stockpiling, the Contractor shall submit a plan for approval to the District proposing a satisfactory method of sampling and testing the RAP/FRAP pile either in-situ or by restockpiling. The sampling plan shall meet the minimum frequency required above and detail the procedure used to obtain representative samples throughout the pile for testing.

Each sample shall be split to obtain two equal samples of test sample size. One of the two test samples from the final split shall be labeled and stored for Department use. The Contractor shall extract the other test sample according to Department procedure. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

(b) RAS Testing. RAS or RAS blended with manufactured sand shall be sampled and tested during stockpiling according to Central Bureau of Materials Policy Memorandum, “Reclaimed Asphalt Shingle (RAS) Source”.

Samples shall be collected during stockpiling at the minimum frequency of one sample per 200 tons (180 metric tons) for the first 1000 tons (900 metric tons) and one sample per 250 tons (225 metric tons) thereafter. A minimum of five samples are required for stockpiles less than 1000 tons (900 metric tons). Once a ≤ 1000 ton (900 metric ton), five-sample/test stockpile has been established it shall be sealed. Additional incoming RAS or RAS blended with manufactured sand shall be stockpiled in a separate working pile as designated in the Quality Control plan and only added to the sealed stockpile when the test results of the working pile are complete and are found to meet the tolerances specified herein for the original sealed RAS stockpile.
Before testing, each sample shall be split to obtain two test samples. One of the two test samples from the final split shall be labeled and stored for Department use. The Contractor shall perform a washed extraction and test for unacceptable materials on the other test sample according to Department procedures. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

If the sampling and testing was performed at the shingle processing facility in accordance with the QC Plan, the Contractor shall obtain and make available all of the test results from start of the initial stockpile.

**1031.04 Evaluation of Tests.** Evaluation of test results shall be according to the following.

(a) Evaluation of RAP/FRAP Test Results. All of the extraction results shall be compiled and averaged for asphalt binder content and gradation, and when applicable G_{mm}. Individual extraction test results, when compared to the averages, will be accepted if within the tolerances listed below.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>FRAP/Homogeneous/Conglomerate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 in. (25 mm)</td>
<td></td>
</tr>
<tr>
<td>1/2 in. (12.5 mm)</td>
<td>± 8 %</td>
</tr>
<tr>
<td>No. 4 (4.75 mm)</td>
<td>± 6 %</td>
</tr>
<tr>
<td>No. 8 (2.36 mm)</td>
<td>± 5 %</td>
</tr>
<tr>
<td>No. 16 (1.18 mm)</td>
<td></td>
</tr>
<tr>
<td>No. 30 (600 µm)</td>
<td>± 5 %</td>
</tr>
<tr>
<td>No. 200 (75 µm)</td>
<td>± 2.0 %</td>
</tr>
<tr>
<td>Asphalt Binder</td>
<td>± 0.4 % / 1/</td>
</tr>
<tr>
<td>G_{mm}</td>
<td>± 0.03</td>
</tr>
</tbody>
</table>

1/ The tolerance for FRAP shall be ± 0.3 %.

If more than 20 percent of the individual sieves and/or asphalt binder content tests are out of the above tolerances, the RAP/FRAP shall not be used in HMA unless the RAP/FRAP representing the failing tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

With the approval of the Engineer, the ignition oven may be substituted for extractions according to the ITP, "Calibration of the Ignition Oven for the Purpose of Characterizing Reclaimed Asphalt Pavement (RAP)".

(b) Evaluation of RAS and RAS Blended with Manufactured Sand Test Results. All of the test results, with the exception of percent unacceptable materials, shall be compiled and averaged for asphalt binder content and gradation. Individual test results, when compared to the averages, will be accepted if within the tolerances listed below.
### Parameter Table

<table>
<thead>
<tr>
<th>Parameter</th>
<th>RAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 8 (2.36 mm)</td>
<td>± 5 %</td>
</tr>
<tr>
<td>No. 16 (1.18 mm)</td>
<td>± 5 %</td>
</tr>
<tr>
<td>No. 30 (600 µm)</td>
<td>± 4 %</td>
</tr>
<tr>
<td>No. 200 (75 µm)</td>
<td>± 2.0 %</td>
</tr>
<tr>
<td>Asphalt Binder Content</td>
<td>± 1.5 %</td>
</tr>
</tbody>
</table>

If more than 20 percent of the individual sieves and/or asphalt binder content tests are out of the above tolerances, or if the percent unacceptable material exceeds 0.5 percent by weight of material retained on the # 4 (4.75 mm) sieve, the RAS or RAS blend shall not be used in Department projects. All test data and acceptance ranges shall be sent to the District for evaluation.

### 1031.05 Quality Designation of Aggregate in RAP/FRAP.

(a) **RAP.** The aggregate quality of the RAP for homogeneous and conglomerate stockpiles shall be set by the lowest quality of coarse aggregate in the RAP stockpile and are designated as follows.

(1) RAP from Class I, Superpave/HMA (High ESAL), or (Low ESAL) IL-9.5L surface mixtures are designated as containing Class B quality coarse aggregate.

(2) RAP from Class I binder, Superpave/HMA (High ESAL) binder, or (Low ESAL) IL-19.0L binder mixtures are designated as containing Class C quality coarse aggregate.

(b) **FRAP.** If the Engineer has documentation of the quality of the FRAP aggregate, the Contractor shall use the assigned quality provided by the Engineer.

If the quality is not known, the quality shall be determined as follows. Coarse and fine FRAP stockpiles containing plus #4 (4.75 mm) sieve coarse aggregate shall have a maximum tonnage of 5000 tons (4500 metric tons). The Contractor shall obtain a representative sample witnessed by the Engineer. The sample shall be a minimum of 50 lb (25 kg). The sample shall be extracted according to Illinois Modified AASHTO T 164 by a consultant laboratory prequalified by the Department for the specified testing. The consultant laboratory shall submit the test results along with the recovered aggregate to the District Office. The cost for this testing shall be paid by the Contractor. The District will forward the sample to the Central Bureau of Materials Aggregate Lab for MicroDeval Testing, according to ITP 327. A maximum loss of 15.0 percent will be applied for all HMA applications.

### 1031.06 Use of RAP/FRAP and/or RAS in HMA.

The use of RAP/FRAP and/or RAS shall be the Contractor’s option when constructing HMA in all contracts.
(a) RAP/FRAP. The use of RAP/FRAP in HMA shall be as follows.

1. Coarse Aggregate Size. The coarse aggregate in all RAP shall be equal to or less than the nominal maximum size requirement for the HMA mixture to be produced.

2. Steel Slag Stockpiles. Homogeneous RAP stockpiles containing steel slag will be approved for use in all HMA (High ESAL and Low ESAL) Surface and Binder Mixture applications.

3. Use in HMA Surface Mixtures (High and Low ESAL). RAP/FRAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall be FRAP or homogeneous in which the coarse aggregate is Class B quality or better. FRAP from Conglomerate stockpiles shall be considered equivalent to limestone for frictional considerations. Known frictional contributions from plus #4 (4.75 mm) homogeneous FRAP stockpiles will be accounted for in meeting frictional requirements in the specified mixture.

4. Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. RAP/FRAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be FRAP, homogeneous, or conglomerate, in which the coarse aggregate is Class C quality or better.

5. Use in Shoulders and Subbase. RAP/FRAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be FRAP, homogeneous, or conglomerate.

6. When the Contractor chooses the RAP option, the percentage of RAP shall not exceed the amounts indicated in Article 1031.06(c)(1) below for a given Ndesign.

(b) RAS. RAS meeting Type 1 or Type 2 requirements will be permitted in all HMA applications as specified herein.

(c) RAP/FRAP and/or RAS Usage Limits. Type 1 or Type 2 RAS may be used alone or in conjunction with RAP or FRAP in HMA mixtures up to a maximum of 5.0 percent by weight of the total mix.

1. RAP/RAS. When RAP is used alone or RAP is used in conjunction with RAS, the percentage of virgin asphalt binder replacement shall not exceed the amounts listed in the following table.

<table>
<thead>
<tr>
<th>HMA Mixtures (1/2/)</th>
<th>RAP/RAS Maximum ABR %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ndesign</td>
<td>Binder</td>
</tr>
<tr>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>
1/ For Low ESAL HMA shoulder and stabilized subbase, the RAP/RAS ABR shall not exceed 50 percent of the mixture.

2/ When RAP/RAS ABR exceeds 20 percent, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent ABR would require a virgin asphalt binder grade of PG 64-22 to be reduced to a PG 58-28). If warm mix asphalt (WMA) technology is utilized and production temperatures do not exceed 275 °F (135 °C), the high and low virgin asphalt binder grades shall each be reduced by one grade when RAP/RAS ABR exceeds 25 percent (i.e. 26 percent RAP/RAS ABR would require a virgin asphalt binder grade of PG 64-22 to be reduced to a PG 58-28).

(2) FRAP/RAS. When FRAP is used alone or FRAP is used in conjunction with RAS, the percentage of virgin asphalt binder replacement shall not exceed the amounts listed in the following table.

**FRAP/RAS Maximum Asphalt Binder Replacement (ABR) Percentage**

<table>
<thead>
<tr>
<th>HMA Mixtures 1/2/</th>
<th>FRAP/RAS Maximum ABR %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ndesign</td>
</tr>
<tr>
<td>30</td>
<td>50</td>
</tr>
<tr>
<td>50</td>
<td>40</td>
</tr>
<tr>
<td>70</td>
<td>40</td>
</tr>
<tr>
<td>90</td>
<td>40</td>
</tr>
<tr>
<td>SMA</td>
<td>-</td>
</tr>
<tr>
<td>IL-4.75</td>
<td>-</td>
</tr>
</tbody>
</table>

1/ For Low ESAL HMA shoulder and stabilized subbase, the FRAP/RAS ABR shall not exceed 50 percent of the mixture.

2/ When FRAP/RAS ABR exceeds 20 percent for all mixes, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent ABR would require a virgin asphalt binder grade of PG 64-22 to be reduced to a PG 58-28). If warm mix asphalt (WMA) technology is utilized and production temperatures do not exceed 275 °F (135 °C), the high and low virgin asphalt binder grades shall each be reduced by one grade when FRAP/RAS ABR exceeds 25 percent (i.e. 26 percent ABR would require a virgin asphalt binder grade of PG 64-22 to be reduced to a PG 58-28).
1031.07 HMA Mix Designs. At the Contractor’s option, HMA mixtures may be constructed utilizing RAP/FRAP and/or RAS material meeting the detailed requirements specified herein.

(a) RAP/FRAP and/or RAS. RAP/FRAP and/or RAS mix designs shall be submitted for verification. If additional RAP/FRAP and/or RAS stockpiles are tested and found that no more than 20 percent of the results, as defined under “Testing” herein, are outside of the control tolerances set for the original RAP/FRAP and/or RAS stockpile and HMA mix design, and meets all of the requirements herein, the additional RAP/FRAP and/or RAS stockpiles may be used in the original mix design at the percent previously verified.

(b) RAS. Type 1 and Type 2 RAS are not interchangeable in a mix design.

The RAP, FRAP, and RAS stone bulk specific gravities ($G_{sb}$) shall be according to the “Determination of Aggregate Bulk (Dry) Specific Gravity ($G_{sb}$) of Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS)” procedure in the Department’s Manual of Test Procedures for Materials.

1031.08 HMA Production. HMA production utilizing RAP/FRAP and/or RAS shall be as follows.

(a) RAP/FRAP. The coarse aggregate in all RAP/FRAP used shall be equal to or less than the nominal maximum size requirement for the HMA mixture being produced.

To remove or reduce agglomerated material, a scalping screen, gator, crushing unit, or comparable sizing device approved by the Engineer shall be used in the RAP feed system to remove or reduce oversized material.

If the RAP/FRAP control tolerances or QC/QA test results require corrective action, the Contractor shall cease production of the mixture containing RAP/FRAP and either switch to the virgin aggregate design or submit a new RAP/FRAP design.

(b) RAS. RAS shall be incorporated into the HMA mixture either by a separate weight depletion system or by using the RAP weigh belt. Either feed system shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all rates of production and batch sizes. The portion of RAS shall be controlled accurately to within ± 0.5 percent of the amount of RAS utilized. When using the weight depletion system, flow indicators or sensing devices shall be provided and interlocked with the plant controls such that the mixture production is halted when RAS flow is interrupted.

(c) RAP/FRAP and/or RAS. HMA plants utilizing RAP/FRAP and/or RAS shall be capable of automatically recording and printing the following information.

(1) Dryer Drum Plants.

   a. Date, month, year, and time to the nearest minute for each print.
b. HMA mix number assigned by the Department.

c. Accumulated weight of dry aggregate (combined or individual) in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).

d. Accumulated dry weight of RAP/FRAP/RAS in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).

e. Accumulated mineral filler in revolutions, tons (metric tons), etc. to the nearest 0.1 unit.

f. Accumulated asphalt binder in gallons (liters), tons (metric tons), etc. to the nearest 0.1 unit.

g. Residual asphalt binder in the RAP/FRAP material as a percent of the total mix to the nearest 0.1 percent.

h. Aggregate and RAP/FRAP moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAP/FRAP are printed in wet condition.)

(2) Batch Plants.

a. Date, month, year, and time to the nearest minute for each print.

b. HMA mix number assigned by the Department.

c. Individual virgin aggregate hot bin batch weights to the nearest pound (kilogram).

d. Mineral filler weight to the nearest pound (kilogram).

e. RAP/FRAP/RAS weight to the nearest pound (kilogram).

f. Virgin asphalt binder weight to the nearest pound (kilogram).

g. Residual asphalt binder in the RAP/FRAP/RAS material as a percent of the total mix to the nearest 0.1 percent.

The printouts shall be maintained in a file at the plant for a minimum of one year or as directed by the Engineer and shall be made available upon request. The printing system will be inspected by the Engineer prior to production and verified at the beginning of each construction season thereafter.

1031.09 RAP in Aggregate Surface Course and Aggregate Wedge Shoulders, Type B.
The use of RAP in aggregate surface course (temporary access entrances only) and aggregate wedge shoulders, Type B shall be as follows.
(a) Stockpiles and Testing. RAP stockpiles may be any of those listed in Article 1031.02, except “Non-Quality” and “FRAP”. The testing requirements of Article 1031.03 shall not apply. RAP used shall be according to the current Central Bureau of Materials Policy Memorandum, “Reclaimed Asphalt Pavement (RAP) for Aggregate Applications”.

(b) Gradation. One hundred percent of the RAP material shall pass the 1 1/2 in. (37.5 mm) sieve. The RAP material shall be reasonably well graded from coarse to fine. RAP material that is gap-graded or single sized will not be accepted.”

80306
REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES (BDE)

Effective: January 1, 2019
Revised: January 1, 2020

Revise Section 669 of the Standard Specifications to read:

“SECTION 669. REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES

669.01 Description. This work shall consist of the transportation and proper disposal of regulated substances. This work shall also consist of the removal, transportation, and proper disposal of underground storage tanks (UST), their contents and associated underground piping to the point where the piping is above the ground, including determining the content types and estimated quantities.

669.02 Equipment. The Contractor shall notify the Engineer of the delivery of all excavation, storage, and transportation equipment to a work area location. The equipment shall comply with OSHA and American Petroleum Institute (API) guidelines and shall be furnished in a clean condition. Clean condition means the equipment does not contain any residual material classified as a non-special waste, non-hazardous special waste, or hazardous waste. Residual materials include, but are not limited to, petroleum products, chemical products, sludges, or any other material present in or on equipment.

Before beginning any associated soil or groundwater management activity, the Contractor shall provide the Engineer with the opportunity to visually inspect and approve the equipment. If the equipment contains any contaminated residual material, decontamination shall be performed on the equipment as appropriate to the regulated substance and degree of contamination present according to OSHA and API guidelines. All cleaning fluids used shall be treated as the contaminant unless laboratory testing proves otherwise.

669.03 Pre-Construction Submittals and Qualifications. Prior to beginning this work, or working in areas with regulated substances, the Contractor shall submit a “Regulated Substances Pre-Construction Plan (RSPCP)” to the Engineer for review and approval using form BDE 2730. The form shall be signed by an Illinois licensed Professional Engineer or Professional Geologist.

As part of the RSPCP, the Contractor(s) or firm(s) performing the work shall meet the following qualifications.

(a) Regulated Substances Monitoring. Qualification for environmental observation and field screening of regulated substances work and environmental observation of UST removal shall require either pre-qualification in Hazardous Waste by the Department or demonstration of acceptable project experience in remediation and operations for contaminated sites in accordance with applicable Federal, State, or local regulatory requirements using BDE 2730.
Qualification for each individual performing regulated substances monitoring shall require a minimum of one-year of experience in similar activities as those required for the project.

(b) Underground Storage Tank Removal. Qualification for underground storage tank (UST) removal work shall require licensing and certification with the Office of the State Fire Marshall (OSFM) and possession of all permits required to perform the work. A copy of the permit shall be provided to the Engineer prior to tank removal.

The qualified Contractor(s) or firm(s) shall also document it does not have any current or former ties with any of the properties contained within, adjoining, or potentially affecting the work.

The Engineer will require up to 21 calendar days for review of the RSPCP. The review may involve rejection or revision and resubmittal; in which case, an additional 21 days will be required for each subsequent review. Work shall not commence until the RSPCP has been approved by the Engineer. After approval, the RSPCP shall be revised as necessary to reflect changed conditions in the field and documented using BDE 2730A “Regulated Substances Pre-Construction Plan (RSPCP) Addendum” and submitted to the Engineer for approval.

CONSTRUCTION REQUIREMENTS

669.04 Regulated Substances Monitoring. Regulated substances monitoring includes environmental observation and field screening during regulated substances management activities at the contract specific work areas. As part of the regulated substances monitoring, the monitoring personnel shall perform and document the applicable duties listed on form BDE 2732 “Regulated Substances Monitoring Daily Record (RSMDR)’’.

(a) Environmental Observation. Prior to beginning excavation, the Contractor shall mark the limits of the contract specific work areas. Once work begins, the monitoring personnel shall be present on-site continuously during the excavation and loading of material.

(b) Field Screening. Field screening shall be performed during the excavation and loading of material from the contract specific work areas, except for material classified according to Article 669.05(b)(1) or 669.05(c) where field screening is not required.

Field screening shall be performed with either a photoionization detector (PID) (minimum 10.6eV lamp) or a flame ionization detector (FID), and other equipment as appropriate, to monitor for potential contaminants associated with regulated substances. The PID or FID shall be calibrated on-site, and background level readings taken and recorded daily, and as field and weather conditions change. Field screen readings on the PID or FID in excess of background levels indicates the potential presence of regulated substances requiring handling as a non-special waste, special waste, or hazardous waste. PID or FID readings may be used as the basis of increasing the limits of removal with the approval of the Engineer but shall in no case be used to decrease the limits.
669.05 Regulated Substances Management and Disposal. The management and disposal of soil and/or groundwater containing regulated substances shall be according to the following:

(a) Soil Analytical Results Exceed Most Stringent MAC. When the soil analytical results indicate detected levels exceed the most stringent maximum allowable concentration (MAC) for chemical constituents in soil established pursuant to Subpart F of 35 Ill. Adm. Code 1100.605, the soil shall be managed as follows:

(1) When analytical results indicate inorganic chemical constituents exceed the most stringent MAC, but still considered within area background levels by the Engineer, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable. If the soils cannot be utilized within the right-of-way, they shall be managed and disposed of at a landfill as a non-special waste.

(2) When analytical results indicate inorganic chemical constituents exceed the most stringent MAC but do not exceed the MAC for a Metropolitan Statistical Area (MSA) County identified in 35 Ill. Admin. Code 742 Appendix A. Table G, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable, or managed and disposed of at a clean construction and demolition debris (CCDD) facility or an uncontaminated soil fill operation (USFO) within an MSA County provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.

(3) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, or the MAC within the Chicago corporate limits, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable, or managed and disposed of off-site at a CCDD facility or an USFO within an MSA County excluding Chicago or within the Chicago corporate limits provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.

(4) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable, or managed and disposed of off-site at a CCDD facility or an USFO within an MSA County excluding Chicago provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.

(5) When the Engineer determines soil cannot be managed according to Articles 669.05(a)(1) through (a)(4) above and the materials do not contain special waste or hazardous waste, as determined by the Engineer, the soil shall be managed and disposed of at a landfill as a non-special waste.

(6) When analytical results indicate soil is hazardous by characteristic or listing pursuant to 35 Ill. Admin. Code 721, contains radiological constituents, or the Engineer otherwise determines the soil cannot be managed according to Articles 669.05(a)(1)
through (a)(5) above, the soil shall be managed and disposed of off-site as a special waste or hazardous waste as applicable.

(b) Soil Analytical Results Do Not Exceed Most Stringent MAC. When the soil analytical results indicate that detected levels do not exceed the most stringent MAC, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable, or managed and disposed of off-site according to Article 202.03. However, the excavated soil cannot be taken to a CCDD facility or an USFO for any of the following reasons.

(1) The pH of the soil is less than 6.25 or greater than 9.0.

(2) The soil exhibited PID or FID readings in excess of background levels.

(c) Soil Analytical Results Exceed Most Stringent MAC but Do Not Exceed Tiered Approach to Corrective Action Objectives (TACO) Residential. When the soil analytical results indicate that detected levels exceed the most stringent MAC but do not exceed TACO Tier 1 Soil Remediation Objectives for Residential Properties pursuant to 35 Ill. Admin. Code 742 Appendix B Table A, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable, or managed and disposed of off-site according to Article 202.03. However, the excavated soil cannot be taken to a CCDD facility or an USFO.

(d) Groundwater. When groundwater analytical results indicate the detected levels are above Appendix B, Table E of 35 Ill. Admin. Code 742, the most stringent Tier 1 Groundwater Remediation Objectives for Groundwater Component of the Groundwater Ingestion Route for Class 1 groundwater, the groundwater shall be managed off-site as a special waste or hazardous waste as applicable. Special waste groundwater shall be containerized and trucked to an off-site treatment facility, or may be discharged to a sanitary sewer or combined sewer when permitted by the local sewer authority. Groundwater discharged to a sanitary sewer or combined sewer shall be pre-treated to remove particulates and measured with a calibrated flow meter to comply with applicable discharge limits. A copy of the permit shall be provided to the Engineer prior to discharging groundwater to the sanitary sewer or combined sewer.

Groundwater encountered within trenches may be managed within the trench and allowed to infiltrate back into the ground. If the groundwater cannot be managed within the trench, it may be discharged to a sanitary sewer or combined sewer when permitted by the local sewer authority, or it shall be containerized and trucked to an off-site treatment facility as a special waste or hazardous waste. The Contractor is prohibited from discharging groundwater within the trench through a storm sewer. The Contractor shall install backfill plugs within the area of groundwater contamination.

One backfill plug shall be placed down gradient to the area of groundwater contamination. Backfill plugs shall be installed at intervals not to exceed 50 ft (15 m). Backfill plugs are to be 4 ft (1.2 m) long, measured parallel to the trench, full trench width and depth. Backfill plugs shall not have any fine aggregate bedding or backfill, but shall be entirely cohesive
soil or any class of concrete. The Contractor shall provide test data that the material has a permeability of less than $10^{-7}$ cm/sec according to ASTM D 5084, Method A or per another test method approved by the Engineer.

The Contractor shall use due care when transferring contaminated material from the area of origin to the transporter. Should releases of contaminated material to the environment occur (i.e., spillage onto the ground, etc.), the Contractor shall clean-up spilled material and place in the appropriate storage containers as previously specified. Clean-up shall include, but not be limited to, sampling beneath the material staging area to determine complete removal of the spilled material.

The Contractor shall provide engineered barriers, when required, and shall include materials sufficient to completely line excavation surfaces, including sloped surfaces, bottoms, and sidewall faces, within the areas designated for protection.

The Contractor shall obtain all documentation including any permits and/or licenses required to transport the material containing regulated substances to the disposal facility. The Contractor shall coordinate with the Engineer on the completion of all documentation. The Contractor shall make all arrangements for collection and analysis of landfill acceptance testing. The Contractor shall coordinate waste disposal approvals with the disposal facility.

The Contractor shall provide the Engineer with all transport-related documentation within two days of transport or receipt of said document(s). For management of special or hazardous waste, the Contractor shall provide the Engineer with documentation that the Contractor is operating with a valid Illinois special waste transporter permit at least two weeks before transporting the first load of contaminated material.

Transportation and disposal of material classified according to Article 669.05(a)(5) or 669.05(a)(6) shall be completed each day so that none of the material remains on-site by the close of business, except when temporary staging has been approved.

Any waste generated as a special or hazardous waste from a non-fixed facility shall be manifested off-site using the Department's county generator number provided by the Bureau of Design and Environment. An authorized representative of the Department shall sign all manifests for the disposal of the contaminated material and confirm the Contractor's transported volume. Any waste generated as a non-special waste may be managed off-site without a manifest, a special waste transporter, or a generator number.

The Contractor shall select a landfill permitted for disposal of the contaminant within the State of Illinois. The Department will review and approve or reject the facility proposed by the Contractor to use as a landfill. The Contractor shall verify whether the selected disposal facility is compliant with those applicable standards as mandated by their permit and whether the disposal facility is presently, has previously been, or has never been, on the United States Environmental Protection Agency (U.S. EPA) National Priorities List or the Resource Conservation and Recovery Act (RCRA) List of Violating Facilities. The use of a Contractor selected landfill shall in no manner delay the construction schedule or alter the Contractor's responsibilities as set forth.
669.06 Non-Special Waste Certification. An authorized representative of the Department shall sign and date all non-special waste certifications. The Contractor shall be responsible for providing the Engineer with the required information that will allow the Engineer to certify the waste is not a special waste.

(a) Definition. A waste is considered a non-special waste as long as it is not:

(1) a potentially infectious medical waste;

(2) a hazardous waste as defined in 35 Ill. Admin. Code 721;

(3) an industrial process waste or pollution control waste that contains liquids, as determined using the paint filter test set forth in subdivision (3)(A) of subsection (m) of 35 Ill. Admin. Code 811.107;

(4) a regulated asbestos-containing waste material, as defined under the National Emission Standards for Hazardous Air Pollutants in 40 CFR Part 61.141;

(5) a material containing polychlorinated biphenyls (PCB's) regulated pursuant to 40 CFR Part 761;

(6) a material subject to the waste analysis and recordkeeping requirements of 35 Ill. Admin. Code 728.107 under land disposal restrictions of 35 Ill. Admin. Code 728;

(7) a waste material generated by processing recyclable metals by shredding and required to be managed as a special waste under Section 22.29 of the Environmental Protection Act; or

(8) an empty portable device or container in which a special or hazardous waste has been stored, transported, treated, disposed of, or otherwise handled.

(b) Certification Information. All information used to determine the waste is not a special waste shall be attached to the certification. The information shall include but not be limited to:

(1) the means by which the generator has determined the waste is not a hazardous waste;

(2) the means by which the generator has determined the waste is not a liquid;

(3) if the waste undergoes testing, the analytic results obtained from testing, signed and dated by the person responsible for completing the analysis;

(4) if the waste does not undergo testing, an explanation as to why no testing is needed;
(5) a description of the process generating the waste; and

(6) relevant material safety data sheets.

669.07 Temporary Staging. Soil classified according to Articles 669.05(a)(2), (b)(1), or (c) may be temporarily staged at the Contractor’s option. Soil classified according to Articles 669.05(a)(1), (a)(3), (a)(4), (a)(5), (a)(6), or (b)(2) shall be managed and disposed of without temporary staging to the greatest extent practicable. If circumstances beyond the Contractor’s control require temporary staging of these latter materials, the Contractor shall request approval from the Engineer in writing.

Temporary staging shall be accomplished within the right-of-way and the Contractor’s means and methods shall be described in the approved or amended RSPCP. Staging areas shall not be located within 200 feet (61 m) of a public or private water supply well; nor within 100 feet (30 m) of sensitive environmental receptor areas, including wetlands, rivers, streams, lakes, or designated habitat zones.

The method of staging shall consist of containerization or stockpiling as applicable for the type, classification, and physical state (i.e., liquid, solid, semisolid) of the material. Materials of different classifications shall be staged separately with no mixing or co-mingling.

When containers are used, the containers and their contents shall remain intact and inaccessible to unauthorized persons until the manner of disposal is determined. The Contractor shall be responsible for all activities associated with the storage containers including, but not limited to, the procurement, transport, and labeling of the containers. The Contractor shall not use a storage container if visual inspection of the container reveals the presence of free liquids or other substances that could cause the waste to be reclassified as a hazardous or special waste.

When stockpiles are used, they shall be covered with a minimum 20-mil plastic sheeting or tarps secured using weights or tie-downs. Perimeter berms or diversionary trenches shall be provided to contain and collect for disposal any water that drains from the soil. Stockpiles shall be managed to prevent or reduce potential dust generation.

When staging non-special waste, special waste, or hazardous waste, the following additional requirements shall apply:

(a) Non-Special Waste. When stockpiling soil classified according to Article 669.05(a)(1) or 669.05(a)(5), an impermeable surface barrier between the materials and the ground surface shall be installed. The impermeable barrier shall consist of a minimum 20-mil plastic liner material and the surface of the stockpile area shall be clean and free of debris prior to placement of the liner. Measures shall also be taken to limit or discourage access to the staging area.

(b) Special Waste and Hazardous Waste. Soil classified according to Article 669.05(a)(6) shall not be stockpiled but shall be containerized immediately upon generation in containers, tanks or containment buildings as defined by RCRA, Toxic Substances Control
Act (TSCA), and other applicable State or local regulations and requirements, including 35 Ill. Admin. Code Part 722, Standards Applicable to Generators of Hazardous Waste.

The staging area(s) shall be enclosed (by a fence or other structure) to restrict direct access to the area, and all required regulatory identification signs applicable to a staging area containing special waste or hazardous waste shall be deployed.

Storage containers shall be placed on an all-weather gravel-packed, asphalt, or concrete surface. Containers shall be in good condition and free of leaks, large dents, or severe rusting, which may compromise containment integrity. Containers must be constructed of, or lined with, materials that will not react or be otherwise incompatible with the hazardous or special waste contents. Containers used to store liquids shall not be filled more than 80 percent of the rated capacity. Incompatible wastes shall not be placed in the same container or comingled.

All containers shall be legibly labeled and marked using pre-printed labels and permanent marker in accordance with applicable regulations, clearly showing the date of waste generation, location and/or area of waste generation, and type of waste. The Contractor shall place these identifying markings on an exterior side surface of the container.

Storage containers shall be kept closed, and storage pads covered, except when access is needed by authorized personnel.

Special waste and hazardous waste shall be transported and disposed within 90 days from the date of generation.

669.08 Underground Storage Tank Removal. For the purposes of this section, an underground storage tank (UST) includes the underground storage tank, piping, electrical controls, pump island, vent pipes and appurtenances.

Prior to removing an UST, the Engineer shall determine whether the Department is considered an "owner" or "operator" of the UST as defined by the UST regulations (41 Ill. Adm. Code Part 176). Ownership of the UST refers to the Department's owning title to the UST during storage, use or dispensing of regulated substances. The Department may be considered an "operator" of the UST if it has control of, or has responsibility for, the daily operation of the UST. The Department may however voluntarily undertake actions to remove an UST from the ground without being deemed an "operator" of the UST.

In the event the Department is deemed not to be the "owner" or "operator" of the UST, the OSFM removal permit shall reflect who was the past "owner" or "operator" of the UST. If the "owner" or "operator" cannot be determined from past UST registration documents from OSFM, then the OSFM removal permit will state the "owner" or "operator" of the UST is the Department. The Department's Office of Chief Counsel (OCC) will review all UST removal permits prior to submitting any removal permit to the OSFM. If the Department is not the "owner" or "operator" of the UST then it will not register the UST or pay any registration fee.
The Contractor shall be responsible for obtaining permits required for removing the UST, notification to the OSFM, using an OSFM certified tank contractor, removal and disposal of the UST and its contents, and preparation and submittal of the OSFM Site Assessment Report in accordance with 41 Ill. Admin. Code Part 176.330.

The Contractor shall contact the Engineer and the OSFM's office at least 72 hours prior to removal to confirm the OSFM inspector's presence during the UST removal. Removal, transport, and disposal of the UST shall be according to the applicable portions of the latest revision of the "American Petroleum Institute (API) Recommended Practice 1604".

The Contractor shall collect and analyze tank content (sludge) for disposal purposes. The Contractor shall remove as much of the regulated substance from the UST system as necessary to prevent further release into the environment. All contents within the tank shall be removed, transported and disposed of, or recycled. The tank shall be removed and rendered empty according to IEPA definition.

The Contractor shall collect soil samples from the bottom and sidewalls of the excavated area in accordance with 35 Ill. Admin. Code Part 734.210(h) after the required backfill has been removed during the initial response action, to determine the level of contamination remaining in the ground, regardless if a release is confirmed or not by the OSFM on-site inspector.

In the event the UST is designated a leaking underground storage tank (LUST) by the OSFM's inspector, or confirmation by analytical results, the Contractor shall notify the Engineer and the District Environmental Studies Unit (DESU). Upon confirmation of a release of contaminants and notifications to the Engineer and DESU, the Contractor shall report the release to the Illinois Emergency Management Agency (IEMA) (e.g., by telephone or electronic mail) and provide them with whatever information is available ("owner" or "operator" shall be stated as the past registered "owner" or "operator", or the IDOT District in which the tank is located and the DESU Manager).

The Contractor shall perform the following initial response actions if a release is indicated by the OSFM inspector:

(a) Take immediate action to prevent any further release of the regulated substance to the environment, which may include removing, at the Engineer's discretion, and disposing of up to 4 ft (1.2 m) of the contaminated material, as measured from the outside dimension of the tank;

(b) Identify and mitigate fire, explosion and vapor hazards;

(c) Visually inspect any above ground releases or exposed below ground releases and prevent further migration of the released substance into surrounding soils and groundwater; and

(d) Continue to monitor and mitigate any additional fire and safety hazards posed by vapors and free product that have migrated from the tank excavation zone and entered into subsurface structures (such as sewers or basements).
The tank excavation shall be backfilled according to applicable portions of Sections 205, 208, and 550 with a material that will compact and develop stability. All uncontaminated concrete and soil removed during tank extraction may be used to backfill the excavation, at the discretion of the Engineer.

After backfilling the excavation, the site shall be graded and cleaned.

669.09 Regulated Substances Final Construction Report. Not later than 90 days after completing this work, the Contractor shall submit a “Regulated Substances Final Construction Report (RSFCR)” to the Engineer using form BDE 2733 and required attachments. The form shall be signed by an Illinois licensed Professional Engineer or Professional Geologist.

669.10 Method of Measurement. Non-special waste, special waste, and hazardous waste soil will be measured for payment according to Article 202.07(b) when performing earth excavation, Article 502.12(b) when excavating for structures, or by computing the volume of the trench using the maximum trench width permitted and the actual depth of the trench.

Groundwater containerized and transported off-site for management, storage, and disposal will be measured for payment in gallons (liters).

Backfill plugs will be measured in cubic yards (cubic meters) in place, except the quantity for which payment will be made shall not exceed the volume of the trench, as computed by using the maximum width of trench permitted by the Specifications and the actual depth of the trench, with a deduction for the volume of the pipe.

Engineered Barriers will be measured for payment in square yards (square meters).

669.11 Basis of Payment. The work of preparing, submitting and administering a Regulated Substances Pre-Construction Plan will be paid for at the contract lump sum price for REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN.

Regulated substances monitoring, including completion of form BDE 2732 for each day of work, will be paid for at the contract unit price per calendar day, or fraction thereof to the nearest 0.5 calendar day, for REGULATED SUBSTANCES MONITORING.

The installation of engineered barriers will be paid for at the contract unit price per square yard (square meter) for ENGINEERED BARRIER.

The work of UST removal, soil excavation, soil and content sampling, the management of excavated soil and UST content, and UST disposal, will be paid for at the contract unit price per each for UNDERGROUND STORAGE TANK REMOVAL.

The transportation and disposal of soil and other materials from an excavation determined to be contaminated will be paid for at the contract unit price per cubic yard (cubic meter) for
NON-SPECIAL WASTE DISPOSAL, SPECIAL WASTE DISPOSAL, or HAZARDOUS WASTE DISPOSAL.

The transportation and disposal of groundwater from an excavation determined to be contaminated will be paid for at the contract unit price per gallon (liter) for SPECIAL WASTE GROUNDWATER DISPOSAL or HAZARDOUS WASTE GROUNDWATER DISPOSAL. When groundwater is discharged to a sanitary or combined sewer by permit, the cost will be paid for according to Article 109.05.

Backfill plugs will be paid for at the contract unit price per cubic yard (cubic meter) for BACKFILL PLUGS.

Payment for temporary staging of soil classified according to Articles 669.05(a)(1), (a)(3), (a)(4), (a)(5), (a)(6), or (b)(2) will be paid for according to Article 109.04. The Department will not be responsible for any additional costs incurred, if mismanagement of the staging area, storage containers, or their contents by the Contractor results in excess cost expenditure for disposal or other material management requirements.

Payment for accumulated stormwater removal and disposal will be according to Article 109.04. Payment will only be allowed if appropriate stormwater and erosion control methods were used.

Payment for decontamination, labor, material, and equipment for monitoring areas beyond the specified areas, with the Engineer’s prior written approval, will be according to Article 109.04.

When the waste material for disposal requires sampling for landfill disposal acceptance, the samples shall be analyzed for TCLP VOCs, SVOCs, RCRA metals, pH, ignitability, and paint filter test. The analysis will be paid for at the contract unit price per each for SOIL DISPOSAL ANALYSIS using EPA Methods 1311 (extraction), 8260B for VOCs, 8270C for SVOCs, 6010B and 7470A for RCRA metals, 9045C for pH, 1030 for ignitability, and 9095A for paint filter.

The work of preparing, submitting and administering a Regulated Substances Final Construction Report will be paid for at the contract lump sum price REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT.”
SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE)

Effective: November 2, 2017
Revised: April 1, 2019

Replace the second paragraph of Article 109.12 of the Standard Specifications with the following:

“This mobilization payment shall be made at least seven days prior to the subcontractor starting work. The amount paid shall be at the following percentage of the amount of the subcontract reported on form BC 260A submitted for the approval of the subcontractor’s work.

<table>
<thead>
<tr>
<th>Value of Subcontract Reported on Form BC 260A</th>
<th>Mobilization Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $10,000</td>
<td>25%</td>
</tr>
<tr>
<td>$10,000 to less than $20,000</td>
<td>20%</td>
</tr>
<tr>
<td>$20,000 to less than $40,000</td>
<td>18%</td>
</tr>
<tr>
<td>$40,000 to less than $60,000</td>
<td>16%</td>
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<tr>
<td>$60,000 to less than $80,000</td>
<td>14%</td>
</tr>
<tr>
<td>$80,000 to less than $100,000</td>
<td>12%</td>
</tr>
<tr>
<td>$100,000 to less than $250,000</td>
<td>10%</td>
</tr>
<tr>
<td>$250,000 to less than $500,000</td>
<td>9%</td>
</tr>
<tr>
<td>$500,000 to $750,000</td>
<td>8%</td>
</tr>
<tr>
<td>Over $750,000</td>
<td>7%</td>
</tr>
</tbody>
</table>
TRAFFIC CONTROL DEVICES - CONES (BDE)

Effective: January 1, 2019

Revise Article 701.15(a) of the Standard Specifications to read:

“(a) Cones. Cones are used to channelize traffic. Cones used to channelize traffic at night shall be reflectorized; however, cones shall not be used in nighttime lane closure tapers or nighttime lane shifts.”

Revise Article 1106.02(b) of the Standard Specifications to read:

“(b) Cones. Cones shall be predominantly orange. Cones used at night that are 28 to 36 in. (700 to 900 mm) in height shall have two white circumferential stripes. If non-reflective spaces are left between the stripes, the spaces shall be no more than 2 in. (50mm) in width. Cones used at night that are taller than 36 in. (900 mm) shall have a minimum of two white and two fluorescent orange alternating, circumferential stripes with the top stripe being fluorescent orange. If non-reflective spaces are left between the stripes, the spaces shall be no more than 3 in. (75 mm) in width.

The minimum weights for the various cone heights shall be 4 lb for 18 in. (2 kg for 450 mm), 7 lb for 28 in. (3 kg for 700 mm), and 10 lb for 36 in. (5 kg for 900 mm) with a minimum of 60 percent of the total weight in the base. Cones taller than 36 in. shall be weighted per the manufacturer’s specifications such that they are not moved by wind or passing traffic.”

80409
WORKING DAYS (BDE)

Effective: January 1, 2002

The Contractor shall complete the work within 45 working days.
State of Illinois
Department of Transportation
Bureau of Local Roads and Streets

SPECIAL PROVISION
FOR
INSURANCE

Effective: February 1, 2007
Revised: August 1, 2007

All references to Sections or Articles in this specification shall be construed to mean specific
Section or Article of the Standard Specifications for Road and Bridge Construction, adopted by
the Department of Transportation.

The Contractor shall name the following entities as additional insured under the Contractor's
general liability insurance policy in accordance with Article 107.27:

Tazewell County

The entities listed above and their officers, employees, and agents shall be indemnified and
held harmless in accordance with Article 107.26.
State of Illinois
Department of Transportation
Bureau of Local Roads and Streets

SPECIAL PROVISION
FOR
EQUIPMENT RENTAL RATES

Effective: January 1, 2012

All references to Sections or Articles in this specification shall be construed to mean a specific Section or Article of the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation.

Replace Article 109.04(b)(4) with the following:

“(4) Equipment. For any machinery or special equipment (other than small tools) the use of which has been authorized by the Engineer, the Contractor will be paid according to the latest revision of “SCHEDULE OF AVERAGE ANNUAL EQUIPMENT OWNERSHIP EXPENSE” and latest index factor as issued by the Illinois Department of Transportation. The equipment should be of a type and size reasonably required to complete the extra work.”
State of Illinois  
Department of Transportation  
Bureau of Local Roads and Streets  

SPECIAL PROVISION  
FOR  
RAILROAD PROTECTIVE LIABILITY INSURANCE FOR LOCAL LETTINGS  

Effective: March 1, 2005  
Revised: January 1, 2006  

All references to Sections or Articles in this specification shall be construed to mean a specific Section or Article of the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation.  

**Railroad Protective Liability Insurance.** The contractor will be required to carry Railroad Protective Liability and Property Damage Liability Insurance in accordance with Article 107.11 of the Standard Specifications. A separate policy is required for each railroad indicated on the attached form unless otherwise noted. The limits of liability for each policy are listed on the attached form. The minimum limits of liability shall be in accordance with Article 107.11 of the Standard Specifications.  

**Basis of Payment.** The costs for providing insurance, as noted above, will be paid for at the contract unit price per Lump Sum for RAILROAD PROTECTIVE LIABILITY INSURANCE.  

APPROVAL OF INSURANCE: The ORIGINAL and one CERTIFIED copy of each required policy shall be submitted for approval to the following address:  

**Toledo, Peoria and Western Railway Corp**  
1990 E. Washington St.  
East Peoria, IL 61611  

The contractor will be advised when approval of the insurance has been received from the railroad(s). Before any work begins on railroad right-of-way, the Contractor shall submit to the Resident Engineer evidence that the required railroad protective liability insurance has been approved by the railroad(s). The Contractor shall also provide the Resident Engineer with expiration date of each required policy.
RAILROAD PROTECTIVE LIABILITY INSURANCE FORM

NAMED INSURED & ADDRESS
Toledo, Peoria and Western Railway Corporation
1990 E. Washington St
East Peoria, IL 61611

NUMBER & SPEED OF PASSENGER TRAINS
0

NUMBER & SPEED OF FREIGHT TRAINS
2 @ 25 MPH

DOT/AAR Number: 801909P
RR Mile Post: 96.10

Liability Limits: Combined Single Limit $2,000,000
Aggregate Limit $6,000,000

For Freight/Passenger Information Contact: Josh Thomas
Phone: (309) 303-9404

For Insurance Information Contact: Crystal Galbreath
Phone: (904) 596-7782

DOT/AAR Number: 
RR Mile Post: 

Liability Limits: Combined Single Limit 
Aggregate Limit $

For Freight/Passenger Information Contact: 
Phone:

For Insurance Information Contact: 
Phone:

DOT/AAR Number: 
RR Mile Post: 

Liability Limits: Combined Single Limit 
Aggregate Limit $

For Freight/Passenger Information Contact: 
Phone:

For Insurance Information Contact: 
Phone:

DOT/AAR Number: 
RR Mile Post: 

Liability Limits: Combined Single Limit 
Aggregate Limit $

For Freight/Passenger Information Contact: 
Phone:

For Insurance Information Contact: 
Phone:
<table>
<thead>
<tr>
<th>No.</th>
<th>Road Description</th>
<th>Distance (miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Manito Rd. (CH 16) - IL 29 to East of Wagonseller Rd.</td>
<td>1.321</td>
</tr>
<tr>
<td>2</td>
<td>Manito Rd. (CH 16) - West of Wagonseller Rd. (Sta. 41+24) to Garman Rd. (Sta. 89+64)</td>
<td>0.917</td>
</tr>
<tr>
<td>3</td>
<td>Fast Ave. (CH 23) - Village of Mackinaw easterly to Mackinaw Road District</td>
<td>1.102</td>
</tr>
<tr>
<td>4</td>
<td>Townline Rd. (CH 7) I-155 to Bolliger Bridge</td>
<td>2.213</td>
</tr>
<tr>
<td>5</td>
<td>Townline Rd. (CH 7) - Mackinaw River Bridge easterly to Top of Hill</td>
<td>0.846</td>
</tr>
<tr>
<td>6</td>
<td>Springfield Rd. (CH 1) - IL 122 to Toboggan Rd. (CH 14)</td>
<td>2.020</td>
</tr>
<tr>
<td>7</td>
<td>Dee-Mack Rd. (CH 6) - US 24 Bypass South to US 24</td>
<td>1.493</td>
</tr>
<tr>
<td>8</td>
<td>Allentown Rd. (CH 5) - Springfield Rd. (CH 1) to I-155</td>
<td>2.791</td>
</tr>
<tr>
<td>9</td>
<td>Tremont County Complex Service Roads</td>
<td>0.564</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>13.267 miles</strong></td>
</tr>
</tbody>
</table>
TAZEWELL COUNTY
20-00000-01-GM

1. Manito Rd. (CH 16) 1.321 miles
2. Manito Rd. (CH 16) 0.917 miles
3. Fast Ave. (CH 23) 1.102 miles
4. Townline Rd. (CH 7) 2.213 miles
5. Townline Rd. (CH 7) 0.846 miles
6. Springfield Rd. (CH 1) 2.020 miles
7. Dee-Mack Rd. (CH 6) 1.493 miles
8. Allentown Rd. (CH 5) 2.791 miles
9. County Service Roads 0.564 miles
13.267 miles
## Tabulation of Quantities

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. LONGITUDINAL JOINT SEALANT:</strong></td>
<td>6,975</td>
<td>4,672</td>
<td>5,820</td>
<td>11,685</td>
<td>4,467</td>
<td>10,665</td>
<td>7,882</td>
<td>14,574</td>
<td>2,980</td>
<td>69,720 FOOT</td>
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<tr>
<td><strong>II. POLYMERIZED BITUMINOUS MATERIALS (TACK COAT):</strong></td>
<td>11,349</td>
<td>7,950</td>
<td>7,214</td>
<td>15,713</td>
<td>6,633</td>
<td>18,524</td>
<td>9,248</td>
<td>17,760</td>
<td>3,578</td>
<td>97,969 POUND</td>
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<tr>
<td><strong>III. HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT:</strong></td>
<td>360</td>
<td>175</td>
<td>175</td>
<td>245</td>
<td>125</td>
<td>150</td>
<td>350</td>
<td>175</td>
<td>70</td>
<td>1,825 SQ YD</td>
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<td><strong>IV. TEMPORARY RAMP:</strong></td>
<td>30</td>
<td>30</td>
<td>20</td>
<td>20</td>
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<td>15</td>
<td>30</td>
<td>30</td>
<td>20</td>
<td>225 SQ YD</td>
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<tr>
<td><strong>V. POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE &quot;C&quot; N50:</strong></td>
<td>2,388</td>
<td>1,695</td>
<td>1,195</td>
<td>2,792</td>
<td>1,188</td>
<td>3,384</td>
<td>1,678</td>
<td>3,170</td>
<td>668</td>
<td>18,159 TON</td>
</tr>
<tr>
<td><strong>VI. MATERIAL TRANSFER DEVICE:</strong></td>
<td>2,388</td>
<td>1,695</td>
<td>1,195</td>
<td>2,792</td>
<td>1,188</td>
<td>3,384</td>
<td>1,678</td>
<td>3,170</td>
<td>668</td>
<td>18,159 TON</td>
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<tr>
<td><strong>VII. INCIDENTAL HOT-MIX ASPHALT SURFACING:</strong></td>
<td>95</td>
<td>42</td>
<td>202</td>
<td>188</td>
<td>67</td>
<td>98</td>
<td>64</td>
<td>193</td>
<td>949</td>
<td>18,159 TON</td>
</tr>
<tr>
<td><strong>VIII. HOT-MIX ASPHALT SURFACE REMOVAL 1 1/4:</strong></td>
<td>2,388</td>
<td>1,695</td>
<td>1,195</td>
<td>2,792</td>
<td>1,188</td>
<td>3,384</td>
<td>1,678</td>
<td>3,170</td>
<td>668</td>
<td>18,159 TON</td>
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<tr>
<td><strong>IX. HOT-MIX ASPHALT SURFACE REMOVAL 1 1/2:</strong></td>
<td>998</td>
<td>155</td>
<td>155</td>
<td>41,015</td>
<td>20,202</td>
<td>41,015</td>
<td>20,202</td>
<td>7,880</td>
<td>949</td>
<td>104,281 SQ YD</td>
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<tr>
<td><strong>X. HOT-MIX ASPHALT SURFACE REMOVAL 1 3/4:</strong></td>
<td>23,862</td>
<td>17,492</td>
<td>1,245</td>
<td>288</td>
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<td>288</td>
<td>1,245</td>
<td>288</td>
<td>1,774</td>
<td>41,354 SQ YD</td>
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<tr>
<td><strong>XI. AGGREGATE SHOULDERS, TYPE B (SPECIAL):</strong></td>
<td>3,060</td>
<td>2,532</td>
<td>1,752</td>
<td>3,816</td>
<td>3,348</td>
<td>5,772</td>
<td>2,280</td>
<td>4,716</td>
<td>900</td>
<td>28,176 FOOT</td>
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<td><strong>XII. SHORT TERM PAVEMENT MARKING:</strong></td>
<td>340</td>
<td>281</td>
<td>195</td>
<td>424</td>
<td>372</td>
<td>641</td>
<td>253</td>
<td>524</td>
<td>75</td>
<td>3,106 SQ FT</td>
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<td><strong>XIII. SHORT TERM PAVEMENT MARKING REMOVAL:</strong></td>
<td>88</td>
<td>59</td>
<td>72</td>
<td>136</td>
<td>56</td>
<td>134</td>
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<td>183</td>
<td>823</td>
<td>823 EACH</td>
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<tr>
<td><strong>XIV. RAISED REFLECTIVE PAVEMENT MARKER REMOVAL:</strong></td>
<td>88</td>
<td>59</td>
<td>72</td>
<td>136</td>
<td>56</td>
<td>134</td>
<td>95</td>
<td>183</td>
<td>823</td>
<td>823 EACH</td>
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<td><strong>XV. RAISED REFLECTIVE PAVEMENT MARKER:</strong></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<td>1</td>
<td>1 L SUM</td>
</tr>
<tr>
<td><strong>XVI. RAILROAD PROTECTIVE LIABILITY INSURANCE:</strong></td>
<td>1</td>
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<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1 L SUM</td>
</tr>
<tr>
<td><strong>XVII. TRAFFIC CONTROL &amp; PROTECTION, (SPECIAL):</strong></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1 L SUM</td>
</tr>
<tr>
<td><strong>XVIII. MOBILIZATION:</strong></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1 L SUM</td>
</tr>
</tbody>
</table>
Item 1:
Manito Rd. (CH 16) - IL 29 to East of Wagon seller Rd. - Page 1 of 2

Sec. Q-15D Sta. 0+72 (IL 29) to Sta. 30+20
Road Length: 2,950 Feet
Omission @ Structure #090-3203 Sta. 15+87 to 16+93: 106 Feet
Net Improvement Length: 2,844 Feet
Road Width: 26 Feet
Hot-Mix Asphalt Shoulder Length: Sta. 0+72 to 6+00 528 Feet
Hot-Mix Asphalt Shoulder Width: 6 Feet

Sec. Q-15D Sta. 30+20 to Sta. 45+00; Sec. 10-1A Sta. 0+00 to Sta. 25+46
Road Length: 4,025 Feet
Road Width: 24 Feet
Hot-Mix Asphalt Shoulder Width: 4 Feet

P HMA Surface Course thickness: 1.75 Inches

Bituminous Area:
Roadway & Shoulders: 23,231 SY
Turnlane @ Powerton: 1,139 SY
Sideroads, Drives, Etc.: 850 SY
Total 25,220 SY

LONGITUDINAL JOINT SEALANT:
To be placed on milled surface
6,975 FOOT

POLYMERIZED BITUMINOUS MATERIALS (TACK COAT):
0.05 lb/SF on Milled Surface
11,349 POUND

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT:
Ends, Bridge, & Sideroads 360 SY

TEMPORARY RAMPS:
30 SY

POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE "C" N50:
Roadway, Shoulders, and Turnlane 2,388 TON

MATERIAL TRANSFER DEVICE:
HMA Surface Course 2,388 TON

INCIDENTAL HOT-MIX ASPHALT SURFACING:
Sideroads, Entrances, etc.: 95 TON

HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2":
Over Bridge 090-0113: Sta. 37+90 to 41+05: 998 SY

HOT-MIX ASPHALT SURFACE REMOVAL, 1 3/4":
23,862 SY
Item 1:
Manito Rd. (CH 16) - IL 29 to East of Wagonseller Rd. - Page 2 of 2

SHORT-TERM PAVEMENT MARKING:
Yellow 3 Lifts 4’ / 40’ = 2100 foot
White 3 Lifts 4’ / 100’ x 2 = 960 foot

\[ \text{3060 foot} \]

3,060 FOOT

SHORT TERM PAVEMENT MARKING REMOVAL:
340 SQ FT

RAISED REFLECTIVE PAVEMENT MARKERS REMOVAL:
88 EACH

RAISED REFLECTIVE PAVEMENT Marker:
1 marker / 80’
88 EACH
TYPICAL CROSS SECTION
C.H. 16 - MANITO ROAD
Sec. Q-15D - Sta. 0+72 to 30+20

EXISTING AGGREGATE BASE

EXISTING 9" X 20' PCC PAVT.
WIDENED TO 26' WITH HOT-MIX ASPHALT -
MILL TOP 1.75" OF ROADWAY
(OMIT BRIDGE STA. 15+87 TO 16+93)

EXISTING 6' AGGREGATE
SHOULDER

PROPOSED 1.75" POLY HMA SC "C" N50
(OMIT BRIDGE STA. 15+87 TO 16+93)

PROPOSED LONGITUDINAL JOINT SEALANT
(ON MILLED SURFACE)

NOTE: 6' HOT-MIX ASPHALT SHOULDER LOCATION
Sta. 0+72 to 6+00 - MILL AND REPLACE WITH ROADWAY

<table>
<thead>
<tr>
<th>Location: CH 16 - Manito Rd.</th>
<th>Mixture Uses:</th>
<th>Surface Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>PG:</td>
<td>SBS PG70-22</td>
<td></td>
</tr>
<tr>
<td>RAP % (Max):</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Design Air Void:</td>
<td>4.0 @ No50</td>
<td></td>
</tr>
<tr>
<td>Mixture Composition:</td>
<td>IL-9.5 only</td>
<td></td>
</tr>
<tr>
<td>Friction Aggregate:</td>
<td>Mixture C</td>
<td></td>
</tr>
</tbody>
</table>

Section: 20-00000-01-GM
Item: 1 (Sheet 1 of 3)
Route: CH 16 - MANITO RD.
Location: Sec. Q-15D -
Sta. 0+72 (IL 29) to 30+20
TYPICAL CROSS SECTION
C.H. 16 - MANITO ROAD
Sec. Q-15D - Sta. 30+20 to 45+00

Location: CH 16 - Manito Rd.
Mixture Uses: Surface Course
PG: SBS PG70-22
RAP % (Max): 10%
Design Air Voids: 4.0 @ N=50
Mixture Composition: IL 9.5 only
Friction Aggregate: Mixture C

Section: 20-00000-01-GM
Item: 1 (Sheet 2 of 3)
Route: CH 16 - MANITO RD.
Location: Sec. Q-15D - Sta. 30+20 to 45+00
TYPICAL CROSS SECTION
C.H. 16 - MANITO ROAD
Sec. 10-1A - Sta. 0+00 to 25+46

| Location:  | CH 16 - Manito Rd. |
| Mixture Uses: | Surface Course |
| PG: | SBS PG70-22 |
| RAP % (Max): | 10% |
| Design Air Void: | 4.0 @ N=50 |
| Mixture Composition: (Gradation Mixture) | IL 5.5 only |
| Friction Aggregate: | Mixture C |

Section: 20-00000-01-GM
Item: 1 (Sheet 3 of 3)
Route: CH 16 - MANITO RD.
Location: Sec. 10-1A -
Sta. 0+00 to 25+46
Item 2: 
Manito Rd. (CH 16) - West of Wagnseller Rd. (Sta. 41+24) to Garman Rd. (Sta. 89+64) 
Road Length: 4,840 Feet 
Omission @ Structure #090-3000: 168 Feet 
Net Improvement Length: 4,672 Feet 
Road Width: 24 Feet 
Hot-Mix Asphalt Shoulder Width: 4 Feet 
P HMA Surface Course thickness: 1.75 Inches 

Bituminous Area: 
Roadway & Shoulders: 16,612 SY 
Turnlane: 680 SY 
Sideroads, Drives, Etc.: 375 SY 

Total 17,667 SY 

LONGITUDINAL JOINT SEALANT: 
4,672 FOOT 
To be placed on milled surface 

POLYMERIZED BITUMINOUS MATERIALS (TACK COAT): 
0.05 lb/SF on Milled Surface 7,950 POUND 

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT: 
175 SY 
Ends, Bridge, & Sideroads 

TEMPORARY RAMPS: 
30 SY 

POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE "C" N50: 
Roadway, Shoulders, and Turnlane 1,695 TON 

MATERIAL TRANSFER DEVICE: 
HMA Surface Course 1,695 TON 

INCIDENTAL HOT-MIX ASPHALT SURFACING: 
42 TON 
Sideroads, Entrances, etc.: 

HOT-MIX ASPHALT SURFACE REMOVAL, 1 3/4": 
17,492 SY 

SHORT-TERM PAVEMENT MARKING: 
Yellow 3 Lifts 4' / 40' = 1404 foot 
White 3 Lifts 4' / 100' x 2 = 1128 foot 
2532 foot 
2,532 FOOT 

SHORT TERM PAVEMENT MARKING REMOVAL: 281 SQ FT 

RAISED REFLECTIVE PAVEMENT MARKERS REMOVAL: 59 EACH 

RAISED REFLECTIVE PAVEMENT MARKER: 59 EACH 
1 marker / 80'
TYPICAL CROSS SECTION
C.H. 16 - MANITO ROAD
Sec. 10-1A - Sta. 41+24 to 89+64

EXISTING 10" AGGREGATE BASE
EXISTING 12" HOT-MIX ASPHALT SURFACE - MILL TOP 1.75" OF ROADWAY & SHOULDERS
NOTE: MILL AND RESURFACE EXISTING 17" HOT-MIX ASPHALT TURN LANE AT POWERTON LAKE

<table>
<thead>
<tr>
<th>Location: CH 16 - Manito Rd.</th>
<th>Mixture Uses: Surface Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>PG:</td>
<td>SBS PG70-22</td>
</tr>
<tr>
<td>RAP %: (Max)</td>
<td>10%</td>
</tr>
<tr>
<td>Design Air Void:</td>
<td>4.0 @ N=50</td>
</tr>
<tr>
<td>Mixture Composition:</td>
<td>IL 9.5 only</td>
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<tr>
<td>(Gradation Mixture)</td>
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<tr>
<td>Friction Aggregate:</td>
<td>Mixture C</td>
</tr>
</tbody>
</table>

Section: 20-00000-01-GM
Item: 2
Route: CH 16 - MANITO RD.
Location: West of Wagonstore Rd.
(Sta. 41+24) to Garman Rd. (Sta. 89+64)
Item 3:
Fast Ave. (CH 23) - Village of Mackinaw easterly to Mackinaw Road District
Road Length: 5,820 Feet
Road Width: 22 Feet

P HMA Surface Course thickness: 1.5 Inches

Bituminous Area:
Roadway: 14,227 SY
Sideroads, Drives, Etc.: 1805 SY

<table>
<thead>
<tr>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>16,032 SY</td>
</tr>
</tbody>
</table>

**LONGITUDINAL JOINT SEALANT:**
To be placed on milled surface

5,820 FOOT

**POLYMERIZED BITUMINOUS MATERIALS (TACK COAT):**
0.05 lb/SF on Milled Surface

7,214 POUND

**HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT:**
Ends, Sideroads, & Entrances

175 SY

**TEMPORARY RAMPS:**

20 SY

**POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE "C" N50:**
Roadway

1,195 TON

**MATERIAL TRANSFER DEVICE:**
HMA Surface Course

1,195 TON

**INCIDENTAL HOT-MIX ASPHALT SURFACING:**
Sideroads, Entrances, etc.: 202 TON

**HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/4":**

15,857 SY

**SHORT-TERM PAVEMENT MARKING:**
Yellow 3 Lifts 4' / 40':

1,752 FOOT

**SHORT TERM PAVEMENT MARKING REMOVAL:**

195 SQ FT

**RAISED REFLECTIVE PAVEMENT MARKERS REMOVAL:**

71 EACH

**RAISED REFLECTIVE PAVEMENT MARKER:**

1 marker / 80'
EXISTING 8.5" AGGREGATE BASE
EXISTING 3' AGGREGATE SHOULDERS
EXISTING CROSS SLOPE VARIES
EXISTING 6.25" HOT-MIX ASPHALT SURFACE - MILL TOP 1.25" OF ROADWAY
EXISTING 8.5" AGGREGATE BASE

Location: CH 23 - Fast Ave.
Mixture Uses: Surface Course
PG: SBS PG70-22
RAP %: (Max) 10%
Design Air Voids: 4.0 @ N=50
Mixture Composition: IL 9.5 only
Friction Aggregate: Mixture C

Section: 20-00000-01-GM
Item: 3
Route: CH 23 - FAST AVE.
Location: Village of Mackinaw easterly to Mackinaw Road District
Item 4:
Townline Rd. (CH 7) I-155 to Bolliger Bridge - Page 1 of 2
Road Length: I-155 overpass to Miller Rd. 1325 Feet
Bituminous Area: I-155 Overpass to Miller Rd. 6765 SY
Road Length: Miller Rd. to Bolliger Bridge 10,360 Feet
Road Width: 22 Feet
Aggregate Shoulder Width: 4 Feet

P HMA Surface Course thickness: 1.5 Inches

Bituminous Area:
Roadway: I-155 overpass to Miller Rd. 6,765 SY
Roadway: Miller Rd. to Bolliger Bridge 25,324 SY
6' Hot-Mix Asphalt Shoulders
Sta. 46+75 to Sta. 52+25 733 SY
Sta. 63+70 to Sta. 66+85 420 SY
Sideroads, Drives, Etc.: 1675 SY

6' Hot-Mix Asphalt Shoulders
Sta. 46+75 to Sta. 52+25 733 SY
Sta. 63+70 to Sta. 66+85 420 SY
Sideroads, Drives, Etc.: 1675 SY

LONGITUDINAL JOINT SEALANT: 11,685 FOOT
To be placed on milled surface

POLYMERIZED BITUMINOUS MATERIALS (TACK COAT):
0.05 lb/SF on Milled Surface 15,713 POUND

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT: 245 SY
Ends & Sideroads

TEMPORARY RAMPS: 20 SY

POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE "C" N50:
Roadway & Shoulders 2,792 TON

MATERIAL TRANSFER DEVICE:
HMA Surface Course 2,792 TON

INCIDENTAL HOT-MIX ASPHALT SURFACING: 188 TON
Sideroads, Entrances, etc.: 

HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/4": 34,517 SY

HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2": 155 SY
Over Bridge 090-3009: Sta. 60+44 to 61+02:

AGGREGATE SHOULDERS, TYPE B (SPECIAL):
Roadway: 1101 TONS
Radius', Drives, etc.: 143 TONS
Total 1245 TONS 1,245 TON
Item 4:
Townline Rd. (CH 7) I-155 to Bolliger Bridge - Page 2 of 2

SHORT-TERM PAVEMENT MARKING:

Yellow 3 Lifts 4' / 40' = 3240 foot
White 3 Lifts 4' / 100' x 2 = 576 foot

\[ \frac{3240 + 576}{2} = 3816 \text{ foot} \]

3,816 FOOT

SHORT TERM PAVEMENT MARKING REMOVAL: 424 SQ FT
RAISED REFLECTIVE PAVEMENT MARKERS REMOVAL: 136 EACH
RAISED REFLECTIVE PAVEMENT MARKER: 136 EACH
EXISTING 12" LIME MODIFIED SOIL

PROPOSED 8' HOT-MIX ASPHALT SHOULDER

PROPOSED CROSS SLOPE - 3/16" / FT

EXISTING CROSS SLOPE - VARIES 1/2" / FT (TYP)

%: (Max)

Location: CH 7 - Townline Rd.
Mixture Uses: Surface Course
PG: SBS PG70-22
Design Air Voids: 4.0 @ N=50
Mixture Composition: IL 9.5 only
Friction Aggregate: Mixture C
RAP: 10%

Section: 20-00000-01-GM
Item: 4 (Sheet 1 of 4)
Route: CH 7 - TOWNLINE RD.
Location: Sta. 0+00 (I-155) to 2+00
EXISTING 8" LIME MODIFIED SOIL
EXISTING 11" HOT-MIX ASPHALT-MILL TOP 1.25" OF ROADWAY AND SHOULDERS
EXISTING 2.5' AGGREGATE SHOULDER
EXISTING 8' HOT-MIX ASPHALT SHOULDER
EXISTING ISLAND VARIES 2' to 18'

PROPOSED 8' HOT-MIX ASPHALT SHOULDER

PROPOSED 1.5" POLY HMA SC "C" N50

TYPICAL CROSS SECTION
C.H. 7 - TOWNLINE ROAD
Sta. 2+00 to 8+72

Location: CH 7 - Townline Rd.
Mixture Use: Surface Course
PG: SBS PG70-22
Design Air Voids: 4.0 @ N=50
Mixture Composition: IL 9.5 only
Friction Aggregate: Mixture C

Section: 20-00000-01-GM
Item: 4 (Sheet 2 of 4)
Route: CH 7 - TOWNLINE RD.
Location: Sta. 2+00 to 8+72
TYPICAL CROSS SECTION
C.H. 7 - TOWNLINE ROAD
Sta. 8+72 to 13+25

EXISTING 12" LIME MODIFIED SOIL

EXISTING 2.5' AGGREGATE SHOULDER

EXISTING 6' to 8' HOT-MIX ASPHALT SHOULDER

EXISTING 10" HOT-MIX ASPHALT-MILL TOP 1.25" OF ROADWAY AND SHOULDERS

PROPOSED 6' to 8' HOT-MIX ASPHALT SHOULDER

PROPOSED 1.5" POLY HMA SC "C" NS0

PROPOSED LONGITUDINAL JOINT SEALANT
(ON MILLED SURFACE)

Location: CH 7 - Townline Rd.

<table>
<thead>
<tr>
<th>Mixture Uses:</th>
<th>Surface Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC:</td>
<td>SBS PG70-22</td>
</tr>
<tr>
<td>RAP % (Max)</td>
<td>10%</td>
</tr>
<tr>
<td>Design Air Voids:</td>
<td>4.0 @ N=50</td>
</tr>
<tr>
<td>Mixture Composition: (Gradation Mixture)</td>
<td>IL 9.5 only</td>
</tr>
<tr>
<td>Friction Aggregate:</td>
<td>Mixture C</td>
</tr>
</tbody>
</table>

Section: 20-00000-01-GM
Item: 4 (Sheet 3 of 4)
Route: CH 7 - TOWNLINE RD.
Location: Sta. 8+72 to 13+25
EXISTING 9" AGGREGATE BASE
EXISTING 4' AGGREGATE SHOULDERS
EXISTING 7.75" HOT-MIX ASPHALT SURFACE - MILL TOP 1.25" OF ROADWAY (MILL TOP 1.5" OVER BRIDGE STA. 60+44 TO 61+02)
EXISTING 9" AGGREGATE BASE

PROPOSED 1.5" POLY HMA SC "C" N50
PROPOSED LONGITUDINAL JOINT SEALANT (ON MILLED SURFACE)

NOTE: 6' HOT-MIX ASPHALT SHOULDER LOCATION
Sta. 46+75 to 52+25; Sta. 63+70 to 66+85
MILL AND REPLACE WITH ROADWAY

Location: CH 7 - Townline Rd.
Mixture Uses: Surface Course
PG: SBS PG70-22
RAP %: (Max) 10%
Design Air Voids: 4.0 @ N=50
Mixture Composition: IL 9.5 only
Friction Aggregate: Mixture C

Section: 20-00000-01-GM
Item: 4 (Sheet 4 of 4)
Route: CH 7 - TOWNLINE RD.
Location: Sta. 13+25 to 116+85
Item 5:
Townline Rd. (CH 7) - Mackinaw River Bridge Sta. 0+08 easterly to Top of Hill Sta. 44+75

Road Length: 4,467 Feet
Road Width: 22 Feet
Hot Mix Asphalt Shoulder Width:
Sta. 0+08 to 28+55; 39+50 to 44+75: 3 Feet
Sta. 28+55 to 39+50: 4 Feet
Aggregate Shoulder Width:
Sta. 0+08 to 28+55; 42+15 to 44+75: 3 Feet

P HMA Surface Course thickness: 1.5 Inches

<table>
<thead>
<tr>
<th>Bituminous Area:</th>
<th>Roadway &amp; Shoulders: 14,141 SY</th>
<th>Sideroads, Drives, Etc.: 600 SY</th>
<th>total 14,741 SY</th>
</tr>
</thead>
</table>

**LONGITUDINAL JOINT SEALANT:**
To be placed on milled surface

**POLYMERIZED BITUMINOUS MATERIALS (TACK COAT):**
0.05 lb/SF on Milled Surface

**HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT:**
Ends, Bridge, Railroad, & Sideroads

**TEMPORARY RAMPS:**

**POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE "C" N50:**
Roadway & Shoulders

**MATERIAL TRANSFER DEVICE:**
HMA Surface Course

**INCIDENTAL HOT-MIX ASPHALT SURFACING:**
Sideroads, Entrances, etc.

**HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/4”:**

**AGGREGATE SHOULDERS, TYPE B (SPECIAL):**
Roadway: 236 TONS
Radius', Drives, etc.: 51 TONS
Total 288 TONS

**SHORT-TERM PAVEMENT MARKING:**
Yellow 3 Lifts 4' / 40' = 3348 foot

**SHORT TERM PAVEMENT MARKING REMOVAL:**
372 SQ FT

**RAISED REFLECTIVE PAVEMENT MARKERS REMOVAL:**
56 EACH

**RAISED REFLECTIVE PAVEMENT MARKER:**
1 marker / 80'
EXISTING 3" AGGREGATE BASE

EXISTING 3' AGGREGATE SHOULDERS

EXISTING 3" HOT-MIX ASPHALT SHOULDER

EXISTING 7.5" HOT-MIX ASPHALT SURFACE-MILL TOP 1.25" OF ROADWAY & SHOULDERS

EXISTING 9" AGGREGATE BASE

PROPOSED 3' AGGREGATE SHOULDERS, TYPE B (SPL)

PROPOSED 1.5" POLY HMA SC "C" N50

PROPOSED LONGITUDINAL JOINT SEALANT (ON MILLED SURFACE)

Location: CH 7 - Townline Rd.

Mixture Uses: Surface Course

PG: SBS PG70-22

RAP %: (Max) 10%

Design Air Voids: 4.0 @ N=50

Mixture Composition: IL 9.5 only

Friction Aggregate: Mixture C

Section: 20-00000-01-GM
Item: 5 (Sheet 1 of 4)
Route: CH 7 - TOWNLINE RD.
Location: Sta. 0+08 (Mackinaw River Bridge) to 28+55
TYPICAL CROSS SECTION
C.H. 7 - TOWNLINE RD.
Sta. 28+55 to 39+50

EXISTING 9" AGGREGATE BASE

EXISTING CROSS SLOPE VARIES

EXISTING CROSS SLOPE - %/ft.

\( \frac{1}{2'} / FT (TYP) \)

\( \frac{1}{2'} / FT (TYP) \)

EXISTING 9" HOT-MIX ASPHALT BASE

EXISTING 4' HOT-MIX ASPHALT SHOULDER

PROPOSED 1.5" POLY HMA SC "C" N50

PROPOSED LONGITUDINAL JOINT SEALANT (ON MILLED SURFACE)

EXISTING 7.5" HOT-MIX ASPHALT SURFACE-MILL TOP 1.25" OF ROADWAY & SHOULDERS

PROPOSED 4' HOT-MIX ASPHALT SHOULDER

Location: CH 7 - Townline Rd.
Mixture Uses: Surface Course
PG: SBS PG70-22
RAP %: (Max) 10%
Design Air Voids: 4.0 @ N=50
Mixture Composition: IL 9.5 only
Friction Aggregate: Mixture C

Section: 20-00000-01-GM
Item: 5 (Sheet 2 of 4)
Route: CH 7 - TOWNLINE RD.
Location: Sta. 28+55 to 39+50
TYPICAL CROSS SECTION
C.H. 7 - TOWNLINE RD.
Sta. 39+50 to 42+15

Location: CH 7 - Townline Rd.
Mixture Uses: Surface Course
PG: SBS PG70-22
RAP %: (Max) 10%
Design Air Voids: 4.0 @ N=50
Mixture Composition: IL 9.5 only
Friction Aggregate: Mixture C

Section: 20-00000-01-GM
Item: 5 (Sheet 3 of 4)
Route: CH 7 - TOWNLINE RD.
Location: Sta. 39+50 to 42+15
TYPICAL CROSS SECTION
C.H. 7 - TOWNLINE RD.
Sta. 42+15 to 44+75

Location: CH 7 - Townline Rd.
Mixture Uses: Surface Course
PG: SBS PG70-22
RAP %: (Max) 10%
Design Air Voids: 4.0 @ N=50
Mixture Composition: IL 9.5 only
Friction Aggregate: Mixture C

Section: 20-00000-01-GM
Item: 5 (Sheet 4 of 4)
Route: CH 7 - TOWNLINE RD.
Location: Sta. 42+15 to 44+75
Item 6:
Springfield Rd. (CH 1) - IL 122 to Toboggan Rd. (CH 14)
Road Length: 10,665 Feet
Road Width: 22 Feet
Bituminous Shoulder Width: 6 Feet

P HMA Surface Course thickness: 1.5 Inches

Bituminous Area: Roadway & Shoulders: 40,290 SY
Sideroads, Drives, Etc.: 875 SY
total 41,165 SY

LONGITUDINAL JOINT SEALANT: 10,665 FOOT
To be placed on milled surface

POLYMERIZED BITUMINOUS MATERIALS (TACK COAT): 18,524 POUND
0.05 lb/SF on Milled Surface

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT: 150 SY
Ends, Bridge, & Sideroads

TEMPORARY RAMPS: 15 SY

POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE "C" N50: 3,384 TON
Roadway & Shoulders

MATERIAL TRANSFER DEVICE: 3,384 TON
HMA Surface Course

INCIDENTAL HOT-MIX ASPHALT SURFACING: 98 TON
Sideroads, Entrances, etc.: 

HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2": 41,015 SY

SHORT-TERM PAVEMENT MARKING:
Yellow 3 Lifts 4’ / 40’ = 3204 foot
White 3 Lifts 4’ / 100’ x 2 = 2568 foot
5772 foot

SHORT TERM PAVEMENT MARKING REMOVAL: 641 SQ FT

RAISED REFLECTIVE PAVEMENT MARKERS REMOVAL: 134 EACH

RAISED REFLECTIVE PAVEMENT MARKER: 134 EACH
1 marker / 80'
TYPICAL CROSS SECTION
C.H. 1 - SPRINGFIELD ROAD

| Location: | CH 1 - Springfield Rd. |
| Mixture Uses: | Surface Course |
| PG: | SBS PG70-22 |
| RAP % (Max): | 10% |
| Design Air Voids: | 4.0 @ N=50 |
| Mixture Composition: | IL 9.5 only |
| (Gradation Mixture): | |
| Friction Aggregate: | Mixture C |

Section: 20-00000-01-GM
Item: 6
Route: CH 1 - SPRINGFIELD RD.
Location: IL 122 to Toboggan Rd. (CH 14)
Item 7:
Dee-Mack Rd. (CH 6) - US 24 Bypass South to US 24
Road Length: 7,882 Feet
Road Width: 22 Feet
Hot-Mix Asphalt Shoulder Length: Sta. 0+00 to 3+12 312 Feet
Hot-Mix Asphalt Shoulder Width: 4 Feet
Aggregate Shoulder Width: 3 Feet

P HMA Surface Course thickness: 1.5 Inches

Bituminous Area:
Roadway: 19,977 SY
Sideroads, Drives, Etc.: 575 SY
total 20,552 SY

LONGITUDINAL JOINT SEALANT:
To be placed on milled surface 7,570 FOOT

POLYMERIZED BITUMINOUS MATERIALS (TACK COAT):
0.05 lb/SF on Milled Surface 9,248 POUND

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT:
Ends, Railroad, Sideroads 350 SY

TEMPORARY RAMPS:
30 SY

POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE "C" N50:
Roadway & Shoulders 1,678 TON

MATERIAL TRANSFER DEVICE:
HMA Surface Course 1,678 TON

INCIDENTAL HOT-MIX ASPHALT SURFACING:
Sideroads, Entrances, etc.: 64 TON

HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2": 20,202 SY

AGGREGATE SHOULDERS, TYPE B (SPECIAL):
Roadway: 599 TONS
Radius', Drives, etc.: 49 TONS
Total 648 TONS

SHORT-TERM PAVEMENT MARKING:
Yellow 3 Lifts 4' / 40' 2,280 FOOT

SHORT TERM PAVEMENT MARKING REMOVAL: 253 SQ FT

RAISED REFLECTIVE PAVEMENT MARKERS REMOVAL: 95 EACH

RAISED REFLECTIVE PAVEMENT MARKER:
1 marker / 80' 95 EACH

RAILROAD PROTECTIVE LIABILITY INSURANCE: 1 L SUM
TYPICAL CROSS SECTION
C.H. 6 - DEE-MACK RD.
Sta. 0+00 to 3+12

Location: CH 6 - Dee-Mack Rd.
Mixture Uses: Surface Course
PG: SBS PG70-22
RAP %: (Max) 10%
Design Air Voids: 4.0 @ N=50
Mixture Composition: IL 9.5 only
Friction Aggregate: Mixture C

Section: 20-00000-01-GM
Item: 7 (Sheet 1 of 2)
Route: CH 6 - DEE-MACK RD.
Location: Sta. 0+00 (US 24 Bypass) to 3+12
TYPICAL CROSS SECTION
C.H. 6 - DEE-MACK RD.
Sta. 3+12 to 78+82

Location: CH 6 - Dee-Mack Rd.
Mixture Uses: Surface Course
PG: SBS PG70-22
RAP % (Max): 10%
Design Air Voids: 4.0 @ N=50
Mixture Composition: IL 9.5 only
(Gradation Mixture)
Friction Aggregate: Mixture C

Section: 20-00000-01-GM
Item: 7 (Sheet 2 of 2)
Route: CH 6 - DEE-MACK RD.
Location: Sta. 3+12 to 78+82
Item 8:
Allentown Rd. (CH 5) - Springfield Rd. (CH 1) to I-155 - Page 1 of 2
Road Length: 14,735 Feet
Omission @ Structure #090-3238: 161 Feet
Net Improvement Length: 14,574 Feet
Road Width: 22 Feet
Aggregate Shoulder Width: 5 Feet

P HMA Surface Course thickness: 1.5 Inches

Bituminous Area:
Roadway: 35,625 SY
5' Gutter (Sta. 63+90 - 68+25): 483 SY
3' HMA Shoulders (Sta. 95+40 - 104+35 LT): 299 SY
3' HMA Shoulders (Sta. 101+10 - 106+70 RT): 187 SY
6' HMA Shoulders (Sta. 138+75 - 147+35): 1147 SY
Sideroads, Drives, Etc.: 1725 SY

Total 39,466 SY

LONGITUDINAL JOINT SEALANT: 14,574 FOOT
To be placed on milled surface

POLYMERIZED BITUMINOUS MATERIALS (TACK COAT):
0.05 lb/SF on Milled Surface 17,760 POUND

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT: 175 SY
Ends, Bridge, & Sideroads

TEMPORARY RAMPS: 30 SY

POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE "C" N50:
Roadway & Shoulders 3,170 TON

MATERIAL TRANSFER DEVICE:
HMA Surface Course 3,170 TON

INCIDENTAL HOT-MIX ASPHALT SURFACING: 193 TON
Sideroads, Entrances, etc.

HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/4": 39,291 SY

AGGREGATE SHOULDERS, TYPE B (SPECIAL):
Roadway: 1,627 TONS
Radius', Drives, etc.: 147 TONS
Total 1,774 TONS

SHORT-TERM PAVEMENT MARKING:
Yellow 3 Lifts 4' / 40' = 4380 foot
White 3 Lifts 4' / 100' x 2 = 336 foot
4716 foot 4,716 FOOT

SHORT TERM PAVEMENT MARKING REMOVAL: 524 SQ FT
Item 8:
Allentown Rd. (CH 5) - Springfield Rd. (CH 1) to I-155 - Page 2 of 2

RAISED REFLECTIVE PAVEMENT MARKERS REMOVAL: 183 EACH

RAISED REFLECTIVE PAVEMENT MARKER:
1 marker / 80' 183 EACH
TYPICAL CROSS SECTION
C.H. 5 - ALLENTOWN RD.

Location: CH 5 - Allentown Rd.

<table>
<thead>
<tr>
<th>Mixture Uses:</th>
<th>Surface Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>PG:</td>
<td>SBS PG70-22</td>
</tr>
<tr>
<td>RAP %: (Max)</td>
<td>10%</td>
</tr>
<tr>
<td>Design Air Voids:</td>
<td>4.0 @ N=50</td>
</tr>
<tr>
<td>Mixture Composition:</td>
<td>IL 9.5 only</td>
</tr>
<tr>
<td>Friction Aggregate:</td>
<td>Mixture C</td>
</tr>
</tbody>
</table>

Section: 20-00000-01-GM
Item: 8 (Sheet 1 of 4)
Route: CH 5 - ALLENTOWN RD.
Location: Springfield Rd. (CH 1) to I-155
EXISTING 9" AGGREGATE BASE
EXISTING 5' HOT-MIX ASPHALT SHOULDERS
EXISTING 7.75" HOT-MIX ASPHALT SURFACE-MILL TOP 1.25" OF ROADWAY & SHOULDERS
EXISTING 9" AGGREGATE BASE

Location:          CH 5 - Allentown Rd.
Mixture Uses:                                            Surface Course
PG:                                                            SBS PG70-22
RAP %: (Max)                                                10%
Design Air Voids:                                         4.0 @ N=50
Mixture Composition:                                   IL 9.5 only
(Gradation Mixture)
Friction Aggregate:                                    Mixture C

Section: 20-00000-01-GM
Item: 8 (Sheet 2 of 4)
Route: CH 5 - ALLENTOWN RD.
Location: Sta. 63+90 to 68+25
EXISTING 9" AGGREGATE BASE

TYPICAL CROSS SECTION
C.H. 5 - ALLENTOWN RD.
Sta. 95+40 to 104+35 LT &
Sta. 101+10 to 106+70 RT

EXISTING CROSS SLOPE VARIES

EXISTING CROSS SLOPE - $\frac{3}{16}$ / ft.

EXISTING 7.75" HOT-MIX ASPHALT SURFACE-
MILL TOP 1.25" OF ROADWAY & SHOULDERS

EXISTING 2' AGGREGATE SHOULDERS

EXISTING 3' HOT-MIX ASPHALT SHOULDERS

PROPOSED 1.5" POLY HMA SC "C" N50

PROPOSED LONGITUDINAL JOINT SEALANT
(ON MILLED SURFACE)

PROPOSED 2' AGGREGATE SHOULDERS, TYPE B (SPL)

EXISTING 2' AGGREGATE SHOULDERS

EXISTING 3' HOT-MIX ASPHALT SHOULDER

EXISTING 9" AGGREGATE BASE

Section: 20-00000-01-GM
Item: 8 (Sheet 3 of 4)
Route: CH 5 - ALLENTOWN RD.
Location: Sta. 95+40 to 104+35 LT & Sta. 101+10 to 106+70 RT
EXISTING 9" AGGREGATE BASE

EXISTING HOT-MIX ASPHALT SHOULDERS

EXISTING 6' HOT-MIX ASPHALT SHOULDERS

EXISTING 7.75" HOT-MIX ASPHALT SURFACE-
MILL TOP 1.25" OF ROADWAY & SHOULDERS

EXISTING 9" AGGREGATE BASE

EXISTING CROSS SLOPE VARIES

EXISTING CROSS SLOPE - 3/16"/ft

1/2" / FT (TYP)

6'

6'

11'

11'

6'

PROPOSED 1.5" POLY HMA SC "C" N50

PROPOSED LONGITUDINAL JOINT SEALANT
(ON MILLED SURFACE)

PROPOSED 6' HOT-MIX ASPHALT SHOULDERS

Location:

CH 5 - Allentown Rd.

Mixture Uses:
Surface Course

PG:
SBS PG70-22

RAP %: (Max)
10%

Design Air Voids:
4.0 @ N=50

Mixture Composition:
IL 9.5 only

Gradation Mixture

Friction Aggregate:
Mixture C

Section: 20-00000-01-GM

Item: 8 (Sheet 4 of 4)

Route: CH 5 - ALLENTOWN RD.

Location: Sta. 138+75 to 147+35

C.H. 5 - ALLENTOWN RD.
Sta. 138+75 to 147+35

TYPICAL CROSS SECTION
Item 9:
Tremont County Complex Service Roads

Road Length - IL 9 to EMA: 2,140 Feet
Road Length - Service Rd. to Animal Control: 840 Feet
Net Road Length: 2,980 Feet
Road Width: 22.5 Feet

P HMA Surface Course thickness: 1.5 Inches

Bituminous Area:
- Roadway 7,450 SY
- Intersections Radii Area: 500 SY
  total 7,950 SY

LONGITUDINAL JOINT SEALANT:
To be placed on milled surface 2,980 FOOT

POLYMERIZED BITUMINOUS MATERIALS (TACK COAT):
0.05 lb/SF on Milled Surface 3,578 POUND

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT:
Ends and Sideroads 70 SY

TEMPORARY RAMP:
20 SY

POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE "C" N50:
Roadway 668 TON

MATERIAL TRANSFER DEVICE:
HMA Surface Course 668 TON

HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2": 7,880 SY

SHORT TERM PAVEMENT MARKING:
Yellow 3 Lifts 4' / 40': 900 Foot 900 FOOT

SHORT TERM PAVEMENT MARKING REMOVAL:
75 SQ FT
TYPICAL CROSS SECTION
TREMONT COUNTY COMPLEX
SERVICE ROADS

Section: 20-00000-01-GM
Item: 9
Route: SERVICE ROADS
Location: IL 9 to EMA & Service Rd. to Animal Control

<table>
<thead>
<tr>
<th>Location: Tremont County Complex Service Roads</th>
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<tbody>
<tr>
<td>Mixture Uses: Surface Course</td>
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<tr>
<td>PG: SBS PG70-22</td>
</tr>
<tr>
<td>RAP %: (Max): 10%</td>
</tr>
<tr>
<td>Design Air Voids: 4.0 @ N=50</td>
</tr>
<tr>
<td>Mixture Composition: IL 9.5 only</td>
</tr>
<tr>
<td>Friction Aggregate: Mixture C</td>
</tr>
</tbody>
</table>
STANDARD FOR HOT-MIX ASPHALT SURFACING
AT SIDERoadS, ENTRANCES AND MAILBOXES

Notes: 1. Dimensions are approximate and may be adjusted in the field by the Engineer
2. The cost of preparing driveways will be considered included in the type of surface
   being constructed and will not be measured separately for payment. (See Spec. Prov.)
3. Place AGGREGATE SHOULDERS, TYPE B (SPECIAL) behind drives to blend into existing
   aggregate drives.
CASE 3: HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)

TIE-IN TO EXISTING BITUMINOUS TAPER

Exist. overlay ————
Exist. overlay

Saw cut to the depth of the proposed surface course

Temporary ramp taper
Saw cut to the depth of the proposed surface course

Exist. overlay

Prop. hot mix asphalt surf. removal (cold milling) thickness; see plans

Milled surface

Exist. pavt. or base case,

Exist. pavt. or base case,

Saw cut to the depth of the proposed surface course

Saw cut to the depth of the proposed surface course

TIE-IN TO EXISTING BITUMINOUS TAPER

Exist. overlay

Exist. overlay

Milled surface

Exist. pavt. or base case,

Exist. pavt. or base case,

DETAIL TEMPORARY RAMP

All dimensions are in inches (millimeters) unless otherwise noted.

EXIST. PAVT. OR EXIST. PAVT. OR
BASE CASE.

EXIST. PAVT. OR EXIST. PAVT. OR
BASE CASE.

EXIST. PAVT. OR EXIST. PAVT. OR
BASE CASE.

EXIST. PAVT. OR EXIST. PAVT. OR
BASE CASE.

EXIST. PAVT. OR EXIST. PAVT. OR
BASE CASE.

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BASE CASE.

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BASE CASE.

EXIST. PAVT. OR EXIST. PAVT. OR
BASE CASE.

EXIST. PAVT. OR EXIST. PAVT. OR
BASE CASE.

EXIST. PAVT. OR EXIST. PAVT. OR
BASE CASE.
CASE 4: SINGLE LIFT OVERLAY WITH EQUIVALENT DEPTH

HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)

TIE-IN TO EXISTING BITUMINOUS TAPER

Saw cut to the depth of the proposed surface course.

Prop. Hot Mix Asphalt surf. removal (cold milling) per plans.

Exist. overlay

Exist. pav't. or base cse.

Removal limits

Length: 10 feet (3.0 m)
General notes:

1. Coldmilling shall consist of two processes: Cutting with carbide teeth mounted on a rotating drum, and planing with a moldboard mounted immediately behind the cutting drum.

2. Other similar patterns will be acceptable if they consist of a smooth, flat, planed surface interspersed with a pattern of discontinuous longitudinal striations.

3. Unless otherwise noted, all dimensions are in inches (millimeters).

existing bituminous surfacing left after cold milling

existing hot mix asphalt surfacing left after cold milling

1. Coldmilling shall consist of two processes:
   Cutting with carbide teeth mounted on a rotating drum, and planing with a moldboard mounted immediately behind the cutting drum.
   
   2. Other similar patterns will be acceptable if they consist of a smooth, flat, planed surface interspersed with a pattern of discontinuous longitudinal striations.

3. Unless otherwise noted, all dimensions are in inches (millimeters).
GENERAL NOTES
This Standard is used where any vehicles, equipment, workers or their activities will encroach on the area 15' (4.5 m) to 24' (600 mm) from the edge of pavement.

FORMULAS

\[ L = \begin{cases} \frac{60}{S} & \text{English (Metric)} \\ \frac{200}{S} & \text{METRIC (MKS)} \end{cases} \]

\[ \text{Width of offset} = \frac{60}{\text{Normal posted speed (mph)}} \times \frac{(S/60) \times \text{Width of lane}}{2} \]

\[ \text{Normal posted speed ( mph (km/h) } \]

\[ S = \begin{cases} \text{Normal posted speed (mph)} & \text{if less than 40 mph (60 km/h)} \\ \text{Normal posted speed (km/h) + 10} & \text{if greater than 40 mph (60 km/h)} \end{cases} \]

\[ L = \frac{(W)(S)}{2} \]


TYPICAL APPLICATIONS

- Utility operations
- Culvert extensions
- Side slope changes
- Gravel road and maintenance
- Delineator installation
- Landscaping operations
- Shoulder repair
- Sign installation and maintenance

SYMBOLS

- Work area
- Sign
- Cone, drum or barricade

1. When the work operation exceeds one hour, cones, drums or barricades shall be placed at 25' (8 m) centers for L/3 distance, and at 50' (15 m) centers through the remainder of the work area.

2. When the work operation exceeds one hour, cones, drums or barricades shall be placed at 15' (4.5 m) to 24' (600 mm) from the edge of pavement.
TYPICAL APPLICATIONS

- Shoulder work
- Utility operations

SYMBOLS

- Work area
- Sign
- Flagger with traffic control sign when required

GENERAL NOTES

- This standard is used where at any time, any vehicle, equipment, or persons moving or standing on or near the traveled way require an intermittent or continuous moving operation on the shoulder, where the average speed is 1 mph (2 km/h) or less.

- Minimum distance is 200' (60 m); maximum distance to be determined by the Engineer but should not exceed 1/2 the length required for one normal working day's operation, or 4 miles (6.4 km) whichever is less.

- All dimensions are in inches (millimeters) unless otherwise shown.

- Revised workers sign number to agree with MUTCD.

- Traffic control may be according to Standard 70100.

- Major left and right changes are indicated by + and - symbols.

- OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY

STANDARD 701011-04

Page 102
Devices at 20’ (6 m) centers in the taper.

Cones at 25’ (8 m) centers for the first 150’ (45 m). Additional cones may be placed at 50’ (15 m) centers. When drums or barricades are used, these intervals between devices may be doubled.

\[
\begin{align*}
\text{For contract construction projects} & : \quad W20-1(0)-48 \\
\text{For maintenance and utility projects} & : \quad W20-1(0)-48 \\
\text{Isolated patching} & : \quad W20-7(0)-48 \\
\text{Utility operations} & : \quad W20-7(0)-48 \\
\text{Storm sewer} & : \quad W20-7(0)-48 \\
\text{Culverts} & : \quad W20-7(0)-48 \\
\text{Cable placement} & : \quad W20-7(0)-48 \\
\end{align*}
\]

\begin{itemize}
\item Work area
\item Sign
\item Barricade or drum
\item Cone, drum or barricade
\item Flagger with traffic control sign
\end{itemize}

**Symbols**

**TYPICAL APPLICATIONS**

- Isolated patching
- Utility operations
- Storm sewer
- Culverts
- Cable placement

**GENERAL NOTES**

This Standard is used where at any time, any vehicles, equipment, workers or their activities will encroach in the area between the center line and a line 24 (600) outside the edge of pavement for daylight operation.

When the distance between successive work areas exceeds 2000’ (600 m), additional warning signs, flaggers, and taper shall be placed as shown.

All dimensions are in inches (millimeters) unless otherwise shown.

**DATE:**

1-1-19 Revised device spacing in taper

1-1-11 Revised flagger sign

**REVISIONS:**

**LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH**

**STANDARD 701201-05**
For any operation that encroaches in the area between the centerline and a line 24 (600) outside the edge of the pavement for a period of less than 15 minutes.

Vehicle with dual flashers or flashing amber dome light operating.

For any operation that encroaches in the area between the centerline and a line 24 (600) outside the edge of the pavement for a period of less than 60 minutes.

Vehicle with dual flashers or flashing amber dome light operating.

For any operation that encroaches in the area between the centerline and a line 24 (600) outside the edge of the pavement for a period in excess of 15 minutes but less than 60 minutes.

Vehicle with dual flashers or flashing amber dome light operating.

TYPICAL APPLICATIONS

- Marking patches
- Field survey
- String line
- Utility operations
- Cleaning up debris on pavement

SYMBOLS

- Work area
- Sign on portable or permanent support
- Flagger with traffic control sign

STANDARD 701301-04

LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS

All dimensions are in inches (millimeters) unless otherwise shown.

1-1-11 Revised flagger sign
1-1-09 Switched units to English (metric)

Page 104
**GENERAL NOTES**

All heights shown shall be measured above the pavement surface.

All dimensions are in inches (millimeters) unless otherwise shown.

---

**TRAFFIC CONTROL DEVICES**

---

**DATE**

1-1-19

**REVISIONS**

1-1-19

Revised cone usage and added cones >36" (900 mm) height.

1-1-18

Revised END WORK ZONE

SPEED LIMIT sign from orange to white background.

---

**STANDARD 701901-08**

---

Page 106
**POST MOUNTED SIGNS**

** When curbs or paved shoulders are present this dimension shall be 24 (600) to the face of curb or 6' (1.8 m) to the outside edge of the paved shoulder.

---

**MAX WIDTH**

**XX'- XX" X MILES AHEAD**

**WIDTH RESTRICTION SIGN**

**XX'-XX" width and X miles are variable.**

---

**MAX SPEED LIMIT**

**XX**

---

**STOP**

---

**SLOW**

---

**WARNING LIGHTS**

**Edge of pavement**

---

**Elevation of edge of pavement**

---

**METAL OR WOOD POSTS**

---

**ELEVATION OF EDGE OF PAVEMENT**

---

**5' (1.5 m) min. embedment**

---

**5' (1.5 m) min. embedment**

---

**EDGEOF PAVEMENT**

---

**STOP TRAFFIC CONTROL SIGN**

---

**SLOW TRAFFIC CONTROL SIGN**

---

**FRONT SIDE**

---

**REVERSE SIDE**

---

**HIGH LEVEL WARNING DEVICE**

---

**SPEED ZONE SIGNS**

---

**HIGHWAY CONSTRUCTION WORK LIMIT SIGNING**

---

**TRAFFIC CONTROL DEVICES**

---

**STANDARD 701901-08**

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**ILLINOIS DEPARTMENT OF TRANSPORTATION**

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**APPROVED January 1, 2019**

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**ENGINEER OF DESIGN AND ENVIRONMENT**

---

**ISSUED 1-1-13**

---

**ENGINEER OF SAFETY PROG. AND ENGINEERING**

---

**APPROVED**
ROAD CLOSED TO THRU TRAFFIC

Temporary Rumble Strips

Typical Installation

Section A-A

Type III Barricades Closing a Road

Typical Applications of Type III Barricades Closing a Road

Reflectorized striping may be omitted on the back side of the barricade. If a Type III barricade with an attached sign panel which meets NCHRP 350 is not available, the sign may be mounted on an NCHRP 350 temporary sign support directly in front of the barricade.

Reflectorized striping shall appear on both sides of the barricade. If a Type III barricade with an attached sign panel which meets NCHRP 350 is not available, the sign may be mounted on an NCHRP 350 temporary sign support directly in front of the barricade.

Type A

Type B

Type C

Arrow Boards

Typical Installation

Plan

Traffic

Weep holes

Epoxy channels

Face may be stepped or smooth

Construction Advance warning signs

Traffic Control Devices

STANDARD 701901-08

Illinois Department of Transportation

January 1, 2019

APPROVED

ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED

Page 108

Sheet 3 of 3
Reduced to 40' (12.2 m) o.c. on curves with posted or advisory speeds of 45 mph (70 km/h) or less.

**TWO-LANE / TWO-WAY**

LANE REDUCTION TRANSITION

**MULTI-LANE UNDIVIDED**

MULTI-LANE DIVIDED

**SEE MULTI LANE DIVIDED detail for lane marker notes.**

**TWO-WAY LEFT TURN**

FREEWAY EXIT RAMP

SYMBOLS

- Yellow stripe
- White stripe
- One-way amber marker
- One-way crystal marker
- Two-way amber marker

All dimensions are in inches (millimeters) unless otherwise shown.