THE VILLAGE OF TINLEY PARK
Cook County, Illinois
Will County, Illinois

RESOLUTION
NO. 2018-R-044

A RESOLUTION APPROVING A CONTRACT BETWEEN THE VILLAGE OF TINLEY PARK AND “D” CONSTRUCTION FOR THE 2019 MUNICIPAL PARKING LOT IMPROVEMENTS

JACOB C. VANDENBERG, PRESIDENT
KRISTIN A. THIRION, VILLAGE CLERK

MICHAEL J. PANNITTO
BRIAN H. YOUNKER
CYNTHIA A. BERG
WILLIAM P. BRADY
MICHAEL W. GLOTZ
JOHN A. CURRAN
Board of Trustees

Published in pamphlet form by authority of the President and Board of Trustees of the Village of Tinley Park
RESOLUTION NO. 2018-R-044

A RESOLUTION APPROVING A CONTRACT BETWEEN THE VILLAGE OF TINLEY PARK AND “D” CONSTRUCTION FOR THE 2019 MUNICIPAL PARKING LOT IMPROVEMENTS

WHEREAS, the Village of Tinley Park, Cook and Will Counties, Illinois, is a Home Rule Unit pursuant to the Illinois Constitution of 1970; and

WHEREAS, the Corporate Authorities of the Village of Tinley Park, Cook and Will Counties, Illinois, have considered entering into an Agreement with “D” Construction, a true and correct copy of such Agreement being attached hereto and made a part hereof as EXHIBIT 1; and

WHEREAS, the Corporate Authorities of the Village of Tinley Park, Cook and Will Counties, Illinois, have determined that it is in the best interests of said Village of Tinley Park that said Agreement be entered into by the Village of Tinley Park;

NOW, THEREFORE, Be It Resolved by the President and Board of Trustees of the Village of Tinley Park, Cook and Will Counties, Illinois, as follows:

Section 1: The Preambles hereto are hereby made a part of, and operative provisions of, this Resolution as fully as if completely repeated at length herein.

Section 2: That this President and Board of Trustees of the Village of Tinley Park hereby find that it is in the best interests of the Village of Tinley Park and its residents that the aforesaid “Agreement” be entered into and executed by said Village of Tinley Park, with said Agreement to be substantially in the form attached hereto and made a part hereof as EXHIBIT 1.

Section 3: That the President and Clerk of the Village of Tinley Park, Cook and Will Counties, Illinois are hereby authorized to execute for and on behalf of said Village of Tinley Park the aforesaid Agreement.

Section 4: That this Resolution shall take effect from and after its adoption and approval.

ADOPTED this 17th day of July, 2018, by the Corporate Authorities of the Village of Tinley Park on a roll call vote as follows:

AYES: Younker, Pannitto, Berg, Brady, Glotz, Curran

NAYS: None

ABSENT: None

APPROVED this 17th day of July, 2018, by the President of the Village of Tinley Park.

Village President

ATTEST:

Deputy Village Clerk
EXHIBIT 1

“D” CONSTRUCTION AGREEMENT
CERTIFICATE

I, KRISTIN A. THIRION, Village Clerk of the Village of Tinley Park, Counties of Cook and Will and State of Illinois, DO HEREBY CERTIFY that the foregoing is a true and correct copy of Resolution No. 2018-R-044, “A RESOLUTION APPROVING A CONTRACT BETWEEN THE VILLAGE OF TINLEY PARK AND “D” CONSTRUCTION FOR THE 2019 MUNICIPAL PARKING LOT IMPROVEMENTS,” which was adopted by the President and Board of Trustees of the Village of Tinley Park on July 17, 2018.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the corporate seal of the Village of Tinley Park this ______ day of ____________________ 2018.

_____________________________________
VILLAGE CLERK
VILLAGE OF TINLEY PARK
COOK & WILL COUNTIES, ILLINOIS
NOTICE TO CONTRACTORS

The Village of Tinley Park will receive sealed proposals for the following improvements at the Clerk's office, 16250 South Oak Park Avenue, Tinley Park, Illinois 60477, until 9:30 AM on Thursday July 5, 2018.

FY 2019 MUNICIPAL PARKING LOT IMPROVEMENTS

Proposals will be publicly read aloud on Thursday July 5, 2018 after 9:31 AM. No bid shall be withdrawn after the opening of the proposals without the consent of the President and Board of Trustees for a period of ninety days after the scheduled time of closing bids.

All proposals shall be sealed in an envelope, addressed to the Village of Tinley Park, attention Clerk's office. The name and address of the bidder and the name of the project shall also appear on the outside of the envelope. Proposals must be submitted on the forms provided by the Engineer.

The Bid Documents, including specifications, are on file at the office of the Engineer, Robinson Engineering, Ltd., 17000 South Park Avenue, South Holland Illinois 60473, (phone 708-331-6700), and may be obtained from the Engineer's office upon payment of Twenty-Five Dollars ($25.00) for each paper copy and/or Ten Dollars ($10.00) per CD format. The bid documents will be issued until 4:30 PM on the last business day preceding the bid. No refund will be made for documents received from the Engineer.

A certified check/bank draft drawn on a solvent bank or a bid bond, payable without condition to the Village of Tinley Park in an amount not less than ten percent (10%) of the bid shall be submitted with each proposal, as a guarantee that, if the proposal is accepted, a contract will be entered into and the performance of the contract is properly secured.

A performance bond in a sum equal to one hundred percent (100%) of the amount of the bid, with sureties to be approved by the President and Board of Trustees for the faithful performance of the contract must be furnished by the successful bidder. All bids or proposals shall contain an offer to furnish bond upon acceptance of such bid or proposal.

The right is reserved to reject any or all proposals, to waive technicalities, to postpone the bid opening, or to advertise for new proposals, if in the judgment of the President and Board of Trustees their best interests will be promoted thereby.

The contractor will be required to pay not less than the prevailing wage rates on this project as established by the United States Department of Labor. He shall also comply with all applicable Federal, State and local regulations.

The Village of Tinley Park Local Vendor Purchasing Policy provides local vendors with preferential treatment when competing for contracts with the Village. A local vendor is defined as a business that has an actual business location within the Village of Tinley Park and is licensed by the Village. As such, when considering contracts, the Village of Tinley Park reserves the right to forego the lowest and responsible bid in favor of a local vendor under the following circumstances:
<table>
<thead>
<tr>
<th>Contract Value</th>
<th>Range (up to a maximum of)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0-$250,000</td>
<td>5%</td>
</tr>
<tr>
<td>$250,000-$500,000</td>
<td>4%</td>
</tr>
<tr>
<td>$500,000-$750,000</td>
<td>3%</td>
</tr>
<tr>
<td>$750,000-$1,000,000</td>
<td>2%</td>
</tr>
<tr>
<td>$1,000,000-$2,000,000</td>
<td>1%</td>
</tr>
</tbody>
</table>

Responsible bidders are determined pursuant to the criteria set forth in the Village's Responsible Bidder Ordinance No. 2009-O-002.

Bidder qualifications and experience will also be included in the basis for determining the lowest responsible bidder. Prequalifications will be required to be submitted to the engineer by all potential bidders. If in the opinion of the engineer and the President and Board of Trustees, an applicant would not be able to serve the best interest of the Village, a proposal will not be issued to the applicant.

President and Board of Trustees
Village of Tinley Park
Cook & Will Counties, Illinois
PROPOSAL
and
CONTRACT
PROPOSAL

TO THE OWNER, Village of Tonka Beach

   (name and address of bidder)
   1988 S. Lindsey Blvd. Ft. Lauderdale
   C. Treasury & Construction, Inc. (email address of bidder)
   for the improvement described in the NOTICE TO CONTRACTORS.

2. In submitting this proposal, the undersigned declares that the only persons or parties interested in the proposal as principals are those named herein; and that proposal is made without collusion with any other person, firm or corporation.

3. The undersigned further declares that he has carefully examined the proposal, plans, specifications, form of contract and contract bond, and special provisions (if any), and that he has inspected in detail the site of the proposed work, and that he has familiarized himself with all of the local conditions affecting the contract and the detailed requirements of construction, and understands that in making this proposal he waives all right to plead any misunderstanding regarding the same.

4. The undersigned further understands and agrees that if this proposal is accepted, he is to furnish and provide all necessary machinery, tools, apparatus and other means of construction, and to do all of the work, and to furnish all of the materials specified in the contract, except such materials as are to be furnished by the Owner, in the manner and at the time therein prescribed, and in accordance with the requirements therein set forth, and is fully responsible for the construction means, methods, techniques, sequences and safety procedures and programs incident thereto.

5. The undersigned declares that he understands that the quantities mentioned are approximate only and that they are subject to increase or decrease; that he will take in full payment therefore the amount and the summation of the actual quantities, as finally determined, multiplied by the unit prices shown in the schedule of prices contained herein.

6. The undersigned further agrees that the unit prices submitted herewith are for the purpose of obtaining a gross sum, and for use in computing the value of extras and deductions; if there is a discrepancy between the gross sum bid and that resulting from the summation of the quantities multiplied by their respective unit prices, the latter shall apply.

7. The undersigned further agrees that if the Owner decides to extend or shorten the improvement, or otherwise alter it by extras or deductions, including the elimination of any one or more of the items, as provided in the specifications, he will perform the work as altered, increased or decreased at the contract unit prices.
8. The undersigned further agrees that the Owner may at any time during the progress of work covered by this contract order other work or materials incidental thereto and that all such work and materials as do not appear in the proposal or contract as a specific item accompanied by a unit price, and which are not included under the bid price for other items in this contract, shall be performed as extra work, and that he will accept as full compensation therefore the actual cost plus fifteen per cent (15%), the actual cost to be determined as provided in the specifications.

9. The undersigned further agrees to execute a contract for this work and present the same to the Owner within fifteen (15) days after the date of notice of the award of the contract to him.

10. The undersigned further agrees that he and his surety will execute and present within fifteen (15) days after the date of notice of the award of contract, a contract bond satisfactory to and in the form prescribed by the Owner, in the penal sum of the full amount of the contract, guaranteeing the faithful performance of the work in accordance with the terms of the contract.

11. The undersigned further agrees to begin work not later than ten (10) days after the execution and approval of the contract and contract bond, unless otherwise provided, and to prosecute the work in such manner and with sufficient materials, equipment, labor and safety precautions as will insure its completion within the time limit specified herein, it being understood and agreed that the completion within the time limit is an essential part of the contract. The undersigned agrees to complete the work within ______ calendar days after the date of the execution of the contract by both parties, or by /_____/ if this is a completion day contract, unless additional time shall be granted by the Engineer in accordance with the provisions of the specifications. In case of failure to complete the work within the time limits herein or within such extra time as may have been allowed by extensions, the undersigned agrees that the Owner shall withhold from such sums as may be due him under the terms of this contract, the costs set forth in the specifications, which cost shall be considered and treated not as a penalty, but as damages due the Owner form the undersigned by reason of inconvenience to the public, added cost of engineering and construction observation, maintenance of detours, and other items which have caused an expenditure of public funds resulting from the failure of the undersigned to complete the work within the time specified in the contract.

12. Accompanying this proposal is a bank draft, bank cashier's check, certified check or bid bond, complying with the requirements of the specifications, made payable to: ______________________

______________________________

The amount of the bond, check or draft is Ten percent and 00/100
If the proposal and the undersigned shall fail to execute a contract and contract bond as required herein, it is hereby agreed that the amount of the check or draft substituted in lieu thereof, shall become the property of the Owner, and shall be considered as payment of damages due to delay and other causes suffered by the Owner because of the failure to execute said contract and contract bond; otherwise said check or draft substituted in lieu thereof shall be returned to the undersigned.

ATTACH BANK DRAFT, BID BOND, BANK CASHIER'S CHECK OR CERTIFIED CHECK HERE

In the event that one check, bond, or draft is intended to cover two or more proposals, the amount must be equal to the sum of the proposal guarantees of the individual sections covered.

13. The undersigned submits herewith his schedule of prices covering the work to be performed under this contract; he understands that he must show in the schedule the unit prices for which he proposes to perform each item of work; that the extensions must be made by him; and that if not so done, his proposal may be rejected as irregular.

14. The undersigned firm certifies that it is not barred from bidding on this contract as a result of a conviction for the violation of State laws prohibiting bid-rigging or bid-rotating.
Bid Bond

CONTRACTOR:
(Name, legal status and address)
D. Construction, Inc.
1488 S. Broadway
Coal City, IL 60416

SURETY:
(Name, legal status and principal place of business)
Liberty Mutual Insurance Company
175 Berkeley Street
Boston, MA 02116

OWNER:
(Name, legal status and address)
Village of Tinley Park
16250 S. Oak Park Ave.
Tinley Park, IL 60477

BOND AMOUNT: 10% Ten Percent of Amount Bid

PROJECT:
(Name, location or address, and Project number, if any)
FY 2019 Municipal Parking Lot Improvements

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agree to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for any extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this 8th day of July, 2018.

D. Construction, Inc.
(Principal)

Liberty Mutual Insurance Company
(Surety)

By

R. L. McWethy, Attorney-in-Fact
State of Illinois

County of DuPage

On the 5th day of July, 2018, before me, a Notary Public in and for said County and State, residing therein, duly commissioned and sworn, personally appeared R. L. McWethy known to me to be Attorney-in-Fact of Liberty Mutual Insurance Company the corporation described in and that executed the within and foregoing instrument, and known to me to be the person who executed the said instrument in behalf of the said corporation, and he duly acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year stated in this certificate above.

My Commission Expires 06/24/2022

Debra A. Couch, Notary Public
CONTRACTOR'S STATEMENT

1. Do you have sufficient knowledge of Drawings and Specifications of the work covered by this Contract to warrant submitting a Proposal for this work?  
   Yes

2. (a) Have you done work of this nature?  Yes
   (b) To what extent? (Dollar value) $1,000,000
   (c) For whom? Various owners and municipalities as well as private owners

3. Do you have sufficient equipment to perform this work?  Yes
   If so, list major items:  See attached list

   Address: 200 W. Main St., Prairie, IL 60050

5. List names and addresses of major suppliers:
   Drugs, Inc. - 300 Main St., Prairie, IL 60050
   Hardware Co. - 500 Main St., Prairie, IL 60050

6. Have you ever had, or do you now have, funds withheld for non-completion of work to the satisfaction of any municipality?  No
   (a) If so where?  No
   (b) For what reason?  No

7. Have you ever been disqualified by a Governmental Agency for failure to satisfactorily complete a public improvement?  No
CONTRACTOR'S STATEMENT (cont.)

8. Have you ever been cited for failing to withhold or report payroll deductions for Federal Income Tax? 

9. Have you ever been cited by the Federal Government for any violation of the Copeland Act (Anti-kick-back Law)? 

10. If awarded contract, work will begin in _____ calendar days.
CERTIFICATE OF ELIGIBILITY TO BID

(Contractor), pursuant to section 33E-11 of the Illinois Criminal Code of 1961 as amended, hereby certifies that neither (he, she, it) nor any of (his, her, its) partners, officers, or owners of (his, her, its) business has been convicted in the past five (5) years of the offense of bid-rigging under section 33E-3 of the Illinois Criminal Code of 1961 as amended and that neither (he, she, it) nor any of (his, her, its) business has ever been convicted of the offense of bid-rotating under section 33E-4 of the Illinois Criminal Code of 1961 as amended.

Date: 7/5/18

By:

(Name of Contractor)

President

>Title)
The undersigned submits herewith his schedule of prices covering the work to be performed under this contract; he understands that he must show in the schedule the unit prices for which he proposes to perform each item of work; that the extensions must be made by him, and if not so done, his proposal may be rejected as irregular.

### Schedule for Single Bid

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

<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>PREPARATION OF BASE</td>
<td>SQ YD</td>
<td>125</td>
<td>5.00</td>
<td>625.00</td>
</tr>
<tr>
<td>2</td>
<td>BITUMINOUS MATERIALS (TACK COAT)</td>
<td>POUND</td>
<td>11,520</td>
<td>0.01</td>
<td>115.00</td>
</tr>
<tr>
<td>3</td>
<td>HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2&quot;</td>
<td>SQ YD</td>
<td>5,500</td>
<td>1.55</td>
<td>8,475.00</td>
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<tr>
<td>4</td>
<td>RECLAIM ASPHALT SURFACE CURB AND GUTTER</td>
<td>SQ YD</td>
<td>2,920</td>
<td>4.25</td>
<td>12,655.00</td>
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<tr>
<td>5</td>
<td>COMBINATION CURB AND GUTTER REMOVAL</td>
<td>FOOT</td>
<td>540</td>
<td>6.50</td>
<td>3,510.00</td>
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<tr>
<td>6</td>
<td>CLASS D PATCHES, TYPE IV, 4 INCH</td>
<td>SQ YD</td>
<td>110</td>
<td>4.90</td>
<td>539.00</td>
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<tr>
<td>7</td>
<td>CLASS D PATCHES, TYPE II, 10 INCH</td>
<td>SQ YD</td>
<td>80</td>
<td>6.80</td>
<td>544.00</td>
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<tr>
<td>8</td>
<td>REMOVE AND REPLACE CURB AND GUTTER (SPECIAL)</td>
<td>FOOT</td>
<td>320</td>
<td>12.00</td>
<td>3,840.00</td>
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<tr>
<td>9</td>
<td>SPECIAL DEMOLITION ITEM 1</td>
<td>SQ FT</td>
<td>200</td>
<td>15.00</td>
<td>3,000.00</td>
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<tr>
<td>10</td>
<td>PAINT PAVEMENT MARKING - LINE 4&quot;</td>
<td>FOOT</td>
<td>26,100</td>
<td>1.30</td>
<td>34,930.00</td>
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<td>PAINT PAVEMENT MARKING - LINE 6&quot;</td>
<td>FOOT</td>
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<td>9,000.00</td>
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<td>12</td>
<td>PAINT PAVEMENT MARKING - LINE 24&quot;</td>
<td>FOOT</td>
<td>250</td>
<td>8.00</td>
<td>2,000.00</td>
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<tr>
<td>13</td>
<td>DRILLING HOLE STRUCTURES TO BE ADJUSTED</td>
<td>EACH</td>
<td>16</td>
<td>8.00</td>
<td>128.00</td>
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<tr>
<td>14</td>
<td>DRAINAGE &amp; UTILITY STRUCTURES TO BE RECONSTRUCTED</td>
<td>EACH</td>
<td>3</td>
<td>1,900.00</td>
<td>5,700.00</td>
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<td>15</td>
<td>REBAR ADJUSTING RINGS</td>
<td>EACH</td>
<td>10</td>
<td>5.00</td>
<td>50.00</td>
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<tr>
<td>16</td>
<td>STEEL ADJUSTING RINGS</td>
<td>EACH</td>
<td>5</td>
<td>115.00</td>
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<td>TOPSOIL FURNISH AND PLACE, 4&quot;</td>
<td>SQ YD</td>
<td>160</td>
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<td>800.00</td>
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<td>Item No.</td>
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<td>Quantity</td>
<td>Unit Price</td>
<td>Total</td>
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<tr>
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<tr>
<td>24</td>
<td>SODDING SPECIAL</td>
<td>SQ YD</td>
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<tr>
<td>25</td>
<td>SIDEWALK REMOVAL</td>
<td>SQ FT</td>
<td>160</td>
<td></td>
<td>440</td>
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<td>PAVEMENT REMOVAL</td>
<td>SQ YD</td>
<td>445</td>
<td></td>
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<td>27</td>
<td>PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH</td>
<td>SQ FT</td>
<td>280</td>
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<td></td>
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<tr>
<td>28</td>
<td>HOTMIX ASPHALT DRIVEWAY PAVEMENT 8&quot;</td>
<td>SQ YD</td>
<td>160</td>
<td></td>
<td></td>
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</table>
SIGNATURES

(If an individual)
Signature of Bidder .................................................
Business Address ...................................................

(If a co-partnership)
Firm Name ................................................................ (SEAL)
Signed by ................................................................ (SEAL)
Business Address ..............................................................
Insert
Names and Addresses of All Members of the Firm

(If a corporation)
Corporate Name ..........................................................
Signed By: President
Business Address ..........................................................
(Corporate Seal)
Insert
Names of Officers
President
Secretary
Treasurer
Attest: Secretary
Phone Number 815-634-0555
BIDDER'S CERTIFICATE

The undersigned, having executed the attached bid for the construction of:

**Fy 2017 Municipal Street Lighting Improvements**

Name of Project

for the Village/City/Town of **Tinley Park**, County of **Cook**.

State of **Illinois** hereby certifies that he has read all of the Contract Documents, including the Notice to Bidders, Instructions to Bidders, Proposal Forms, General conditions of the contract, Detail Specifications, Forms of contract, Form of Performance Bond and Form of Maintenance Bond, and that he has examined the plans and that his proposal for the work is based on the conditions and requirements therein; and should the contract be awarded to him, he agrees to execute the work in strict accordance therewith, including compliance with the Insurance Requirements of the General Conditions.

Name of Bidder

By: ____________________________
Company Name: __________________

Date: ___/____/____

*Signature*

President
CONTRACT

1. THIS AGREEMENT, made and concluded this 17th day of July, 2010, between the Village of Tinley Park, (city/village/town of) acting by and through its Mayor-Board of Trustees (President-Board of Trustees/Mayor-City Council) known as the party of the first part, and D. Construction, Inc. (Contractor) his/their executors, administrators, successors or assigns, known as the party of the second part.

2. WITNESSETH: That for and in consideration of the payment and agreements mentioned in the Proposal hereto attached, to be made and performed by the party of the first part, and according to the terms expressed in the Bond referring to these presents, the party of the second part agrees with said party of the first part at his/their own proper cost and expense to do all the work, furnish all materials and all labor necessary to complete the work in accordance with the plans and specifications hereinafter described, and in full compliance with all of the plans of this agreement and the requirements of the Engineer under it.

3. And it is also understood and agreed that the Notice to Contractors, proposals, contract bond, General Requirements and Covenants (Division I), Technical Specifications (Division II), Special Provisions (Division III) and Standard drawings (Division IV), in addition to any specific plans and specifications upon which the contractor’s proposal is based, are all incorporated by reference into this contract and are therefore made a part hereof.

4. IN WITNESS WHEREOF, the said parties have executed these presents on the date above mentioned.

FOR THE VILLAGE OF TINLEY PARK (Party of the First Part)

By: __________________________
Title: Jacob C. Vandenberg, Mayor
Attest: __________________________
Title: LAURA GODETTE, DEPUTY CLERK

FOR THE CONTRACTOR (Party of the Second Part)

D. Construction, Inc

By: __________________________
Title: President
Attest: __________________________
Title: Secretary

MUNICIPAL SEAL

CORPORATE SEAL
CONTRACT BOND

KNOWN ALL MEN BY THESE PRESENTS, that we, D. Construction, Inc., 1488 S. Broadway, Coal City, IL 60416, a corporation organized under the laws of the State of Illinois, and licensed to do business in the State of Illinois, as principal, and Liberty Mutual Insurance Company, a corporation organized and existing under the laws of the State of MA, with authority to do business in the State of Illinois, as Surety, are held and firmly bound unto the Village of Tinley Park, State of Illinois, in the penal sum of Four Hundred Forty-Three Thousand, Three Hundred Seventy Dollars and 20/100 Dollars ($ 443,370.20), lawful money of the United States, well and truly to be paid unto said Village of Tinley Park, for the payment of which we bind ourselves, our successors and assigns, jointly, severally, and firmly by these presents.

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH that whereas, the said Principal has entered into a written contract with an Owner which is the Village of Tinley Park and acts through its Mayor and Board of Trustees or the construction of the work designated RLTID# 18-R0362-2019 Municipal Parking Lot Improvements, which contract hereby is referred to and made a part hereof, as if written herein in length, and whereby the said Principal has promised and agreed to perform said work in accordance with the terms of said Contract, and has promised to pay all sums of money due for any labor, materials, apparatus, fixtures or machinery furnished to such Principal for the purpose of performing such work and has further agreed to pay all direct and indirect damages to any person, firm, company, or corporation suffered or sustained on account of the performance of such work, for any reason whatsoever, during the time thereof and until such work is completed and accepted; and has further agreed that this bond shall inure to the benefit of any person, firm, company or corporation, to whom any money may be due from the Principal, subcontractor or otherwise, for any such labor, materials, apparatus, fixtures or machinery so furnished, and that suit may be maintained on such bond by any such person, firm, company or corporation, for the recovery of any such money.

NOW, THEREFORE, if the said Principal shall well and truly perform said work in accordance with the terms of said contract, and shall pay all sums of money due or to become due for any labor, materials, apparatus, fixtures or machinery furnished to him for the purpose of constructing such work, and shall commence and complete the work within the time prescribed in said contract, and shall pay and discharge all damages, direct and indirect, that may be suffered or sustained on account of
such work, for any reason whatsoever, during the time of the performance thereof and until the said work shall have been accepted, and shall hold the aforesaid Owner and its or his agents harmless on account of any such damages, and shall in all respects fully and faithfully comply with all the provisions, conditions and requirements of said contract, then this obligation to be void, otherwise to remain in full force and effect.

IN WITNESS WHEREOF, we have duly executed the foregoing obligation this 20th day of July A.D. 2018

Contractor's corporate name: D. Construction, Inc.

By: Kenneth Sandeno, President
Attest: Tamara L. Hansen
Attestor's Title: Secretary

Surety's corporate name: Liberty Mutual Insurance Company

By: R. L. McWethy, Attorney-in-fact
Attest: Attorney-in-fact

APPROVED THIS 17th DAY OF July A.D. 2018

VILLAGE OF TINLEY PARK, IL

By: Jacob C. Vandenberg, Mayor

ATTEST FOR VILLAGE OF TINLEY PARK, IL

By: LAURA GODETTE, DEPUTY CLERK
STATE OF Illinois )
COUNTY OF DuPage )

I, Debra A. Couch, a Notary Public in and for said County in the State aforesaid, do hereby certify that Kenneth Sandeno and Tamara L. Hansen, personally known to be president and secretary, respectively, of D. Construction, Inc., a corporation, and also known to me to be the persons whose names are subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that as such president and secretary respectively they signed, sealed and delivered the said instrument as the free and voluntary act of said Corporation, for the purposes therein set forth, and that they were duly authorized to execute the same by the Board of Directors of said Corporation.

GIVEN UNDER MY HAND AND NOTARIAL SEAL THIS 20th DAY OF July ________ A.D. 2018

[Signature]
Notary Public

STATE OF Illinois )
COUNTY OF DuPage )

I, Debra A. Couch, a Notary Public in and for said County in the State aforesaid, do hereby certify that R. L. McWethy who is personally known to me to be the same person who signed the above and foregoing instrument as the Attorney in Fact for Liberty Mutual Insurance Company appeared before me this day in person and acknowledged that he signed the name of R. L. McWethy thereto, as his Principal, and his own name as Attorney in Fact, as the free and voluntary act of his said Principal for the purposes therein set forth, and that he executed the said instrument under authority given him by said Principal.

GIVEN UNDER MY HAND AND NOTARIAL SEAL THIS 20th DAY OF July ________ A.D. 2018

[Signature]
Notary Public
This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated. Not valid for mortgage, note, loan, letter of credit, bank deposit, currency rate, interest rate or residual value guarantees. To confirm the validity of this Power of Attorney call 610-832-8240 between 9:30 am and 4:30 pm EST on any business day.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

POWERS OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"). 

Any person, firm, corporation, association or other body politic and corporate, hereinafter referred to as "the Obligee" (such person, firm, corporation, association or other body politic and corporate being hereinafter called for the purpose of this instrument the "Obligee") herewith appoints and authorizes the person, firm, corporation, association or other body politic and corporate hereinafter named and described as "the Applicants" (such person, firm, corporation, association or other body politic and corporate being hereinafter called for the purpose of this instrument the "Applicants") the true and lawful attorneys-in-fact, with full power and authority hereby conferred to sign, execute and acknowledge the following surety bond:

Principal Name: D. Construction, Inc.
Obligee Name: Village of Tinley Park
Surety Bond Number: 268011756

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 20th day of July, 2018.

By: ____________________________
    D. Construction, Inc.

By: ____________________________
    Village of Tinley Park

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect as follows:

ARTICLE IV—OFFICERS—Section 12. Power of Attorney. Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorneys-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII—Execution of Contracts—SECTION 5. Surety Bonds and Undertakings. Any officer of the Company authorized for that purpose in writing by the Chairman or the President, and subject to such limitations as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed such instruments shall be as binding as if signed by the President and attested to by the Secretary. Certificate of Designation—The President of the Company, acting pursuant to the By-laws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization—By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a true, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 20th day of July, 2018.

By: ____________________________
    Renee C. Llewellyn, Assistant Secretary
**CERTIFICATE OF LIABILITY INSURANCE**

**DATE (MM/DD/YYYY)**
7/20/2018

**PRODUCER**
Hub International Midwest
1411 Opus Place, Suite 450
Downers Grove IL 60515

**INFORMED**
D Construction, Inc.
1488 S. Broadway
Coal City IL 60416

**PRODUCER**
Jo-Ann E. Billo, CISR, CRIS
Hub International Midwest
Tel: 815-215-4712
Fax: (Inc No): 877-224-9706
E-mail: Jo-Ann.Billo@HUBinternational.com

**INFORMED**

<table>
<thead>
<tr>
<th>INSURER(S) AFFORDING COVERAGE</th>
<th>NAIC#</th>
</tr>
</thead>
<tbody>
<tr>
<td>INSURER A: Allied World National Assurance Company</td>
<td>10690</td>
</tr>
<tr>
<td>INSURER B: Hartford Fire Insurance Company</td>
<td>19682</td>
</tr>
<tr>
<td>INSURER C: Axis Insurance Company</td>
<td>37273</td>
</tr>
<tr>
<td>INSURER D: HARTFORD INS CO OF THE MIDWEST</td>
<td>37478</td>
</tr>
<tr>
<td>INSURER E: Navigators Insurance Company</td>
<td>42307</td>
</tr>
<tr>
<td>INSURER F: Travelers Property Casualty Company of America</td>
<td>26874</td>
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</table>

**COVERAGE**

<table>
<thead>
<tr>
<th>INSR TYPE OF INSURANCE</th>
<th>ADDL SUBR</th>
<th>INSURED</th>
<th>POLICY NUMBER</th>
<th>POLICY EFF</th>
<th>POLICY EXP</th>
<th>LIMITS</th>
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<tbody>
<tr>
<td>C UMBRELLA LIAB</td>
<td>OCCUR CLAIMS-MADE</td>
<td>2</td>
<td>MAU78658801</td>
<td>4/5/2018</td>
<td>4/5/2019</td>
<td>EACH OCCURRENCE</td>
</tr>
</tbody>
</table>

**DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES**

Re: REL Project # 18-R0362; FY2019 Municipal Parking Lot Improvements

Village of Tinley Park; Robinson Engineering, Ltd are included as additional insureds, on a primary & non-contributory basis, under General Liability & Auto Liability, when agreed in a written contract, subject to policy terms, conditions and exclusions. Waiver of Subrogation in favor of the additional insureds applies under General Liability, Auto Liability & Workers Compensation if required by written contract. Umbrella follows form.

**CERTIFICATE HOLDER**

Village of Tinley Park
16250 Oak Park Ave.
Tinley Park IL 60477

**CANCELLATION**

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

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ADDITIONAL INSURED - OWNERS, LESSEES OR CONTRACTORS - SCHEDULED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

<table>
<thead>
<tr>
<th>Name Of Additional Insured Person(s)</th>
<th>Location(s) Of Covered Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any owners, lessees or contractors whom you have agreed to include as an additional insured under a written contract provided that such was executed prior to an occurrence.</td>
<td>All Locations</td>
</tr>
</tbody>
</table>

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

A. **Section II – Who Is An Insured** is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured(s) at the location(s) designated above.

However:

1. The insurance afforded to such additional insured only applies to the extent permitted by law; and
2. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

1. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
2. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.
C. With respect to the insurance afforded to these additional insureds, the following is added to Section III—Limits Of Insurance:

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the contract or agreement; or

2. Available under the applicable Limits of Insurance shown in the Declarations; whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.
THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED - OWNERS, LESSEES OR CONTRACTORS - COMPLETED OPERATIONS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

SCHEDULE

<table>
<thead>
<tr>
<th>Name Of Additional Insured Person(s) or Organization(s)</th>
<th>Location And Description Of Completed Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any owners, lessees or contractors whom you have agreed to include as an additional insured under a written contract provided that such was executed prior to an occurrence.</td>
<td>All Locations and Completed Operations</td>
</tr>
</tbody>
</table>

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

A. Section II - Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by "your work" at the location designated and described in the Schedule of this endorsement performed for that additional insured and included in the "products-completed operations hazard".

However:

1. The insurance afforded to such additional insured only applies to the extent permitted by law; and

2. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

B. With respect to the insurance afforded to these additional insureds, the following is added to Section III - Limits Of Insurance:

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the contract or agreement; or

2. Available under the applicable Limits of Insurance shown in the Declarations; whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.
SECTION 1. DEFINITION OF TERMS

1-1 DESCRIPTION
1-2 ABBREVIATIONS
1-3 ADDENDA
1-4 AWARD
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<td>CONTRACTOR'S UNDERSTANDING</td>
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<td>2-17</td>
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5-6 COOPERATION BETWEEN CONTRACTORS

5-7 CONSTRUCTION STAKES

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5-11 REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK

5-12 FINAL ACCEPTANCE

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6-6 MISCELLANEOUS MATERIALS
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6-8 STORED MATERIALS
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7-16 GUARANTEE PERIOD
7-17 PERSONAL LIABILITY OF OWNER'S AGENTS
7-18 NO WAIVER OF LEGAL RIGHTS
7-19 SAFETY
7-20 USE OF PRIVATE LAND
1-3 **ADDENDA**
Written or graphic instruments issued prior to the execution of the Agreement, which modify or interpret the Contract Documents, Drawings, and Specifications by additions, deletions, clarifications or corrections.

1-4 **AWARD**
The decision of the Owner to accept the proposal of the lowest responsive, responsible bidder for the work, subject to the execution of and approval of a satisfactory Contract therefore, and bond to secure the performance thereof, and to such other conditions as may be specified or otherwise required by law.

1-5 **BASE COURSE**
The layer or layers of specified or selected material of designed thickness placed on a sub-base or a subgrade to support the surface course.

1-6 **BITUMINOUS PAVEMENT**
A pavement structure which maintains intimate contact and distributes loads to the subgrade and depends upon aggregate interlock particle friction and cohesion for stability, and a pavement structure which includes a bituminous concrete surface course over a bituminous concrete base course or a portland cement concrete base course.

1-7 **BIDDER**
Any individual, firm, partnership or corporation submitting a proposal for the Work contemplated, acting directly or through a duly authorized representative.

1-8 **CONTRACT**
The written agreement between the Owner and the Contractor setting forth the obligations of the parties thereunder, including, but not limited to, the performance of the Work (the furnishing of labor and materials, and the basis of payment).
The Contract includes such of the following document parts as may be utilized. These document parts so utilized will be as fully part of the Contract as if therein set out verbatim, or, if not attached, as if attached thereto. The controlling order of priority for these documents on the project is as follows (e.g., A is controlling over B-N, etc.):

A. Supplemental Agreements (Change Order)
B. Addenda
C. Special Conditions of Contract
D. General Conditions of Contract
E. Special Provisions to the Specifications
F. Detailed Specifications
G. Complete Project Plans or Drawings
H. General Specifications
I. Contract
J. Contractor's Contract Bond
K. Contractor's Proposal
L. Notice to Proceed
M. Notice of Award
N. Notice to Bidders

1-9 CONTRACTOR
The Bidder awarded the Contract for the Work.

1-10 CONTRACT BOND
The approved form of security furnished by the Contractor and his surety as a guaranty that he will execute the Work in accordance with the terms of the Contract.

1-11 CORPORATION
With respect to the execution and performance of the Contract, a corporate body authorized or licensed to do business in the State of Illinois for projects in Illinois and in the State of Indiana for projects in Indiana.

1-12 CULVERT
A drainage structure extending across and beneath a traveled way and having a tubular or box-type cross-section open on both ends.
1-13  ENGINEER
ROBINSON ENGINEERING, LTD. or an engineer of a municipality, including such assistants as are authorized to represent them, who represents the Owner during the construction phase activities of the Work.

1-14  FORCE MAIN
A pipe constructed or used to carry sewage under pressure.

1-15  ENGINEERING OBSERVER
The authorized representative of the Owner or of the Engineer assigned to observe the progress of the Work to determine only if the Work is proceeding in accordance with the technical plans and specifications.

1-16  LABORATORY
An established testing laboratory approved by the Engineer.

1-17  MANHOLE
A vertical enclosed structure providing access to a pipe line or other structure.

1-18  NOTICE TO BIDDERS
The official notice, included in the proposal form, inviting bids for the proposed improvement, including a brief description of the Work.

1-19  OWNER
The Village, City, Town, Sanitary District, or other governmental body, corporation, partnership or individual initiating the project, acting through its legally constituted officials, officers or employees. The Department as referenced in the State Specifications.

1-20  PAVEMENT STRUCTURE
The combination of sub-base, base course and surface course placed on a sub-grade to support the traffic load and distribute it to the roadbed.
1-21 PLANS
All official drawings or reproductions of drawings pertaining to the Work provided for in the contract.

1-22 PLUMBING
Plumbing shall be as defined in the latest adopted Illinois State Plumbing Code, copies of which are available from the Illinois Department of Public Health, Division of Engineering and Sanitation, 535 West Jefferson Street, Springfield, Illinois 62706.

1-23 PROPOSAL (BID)
The written offer of the Bidder to perform the proposed Work.

1-24 PROPOSAL GUARANTY
The security designated in the proposal to be furnished by the Bidder as a guaranty that said Bidder will enter into a Contract with the Owner for the acceptable performance of the Work and will furnish the required Contract Bond, if the Work is awarded to him.

1-25 RAILROAD
The Railroad or Railway Company whose property is involved in the Work.

1-26 RIGHT-OF-WAY AND EASEMENTS
The areas owned, or acquired by permanent easement; also, the areas acquired by temporary easement during the time the easement is in effect.

1-27 SEWER, COMBINED
Any sewer constructed or used for the purpose of carrying both storm water and waterborne wastes to a treatment facility.

1-28 SEWER, SANITARY
Any sewer constructed or used for the purpose of carrying waterborne wastes to a treatment facility.
1-29  **SEWER, SERVICE**
A branch sanitary sewer line constructed from the main sanitary sewer line to a point described in the Special Provisions or Plans or to a point established by the Engineer.

1-30  **SEWER, STORM**
A sewer constructed or used for carrying storm water or sub-surface water to a storm water outlet.

1-31  **SPECIAL PROVISIONS**
Specific directions, provisions, requirements and revisions of the Specifications peculiar to the Work under consideration which are not satisfactorily provided for in the Specifications. The Special Provisions set forth the final contractual intent as to the matter involved. The Special Provisions included in the Contract shall not operate to annul those portions of the Specifications with which they are not in conflict.

1-32  **SPECIFICATIONS**
The body of directions, provisions and requirements contained herein, or in any supplement to this document referred to in the Special Provisions, together with written agreements and all documents of any description made or to be made pertaining to the method or manner of performing the Work, the quantities or the quality of materials to be furnished under the contract.

1-33  **STATE SPECIFICATIONS**
IDOT, Standard Specifications for Road and Bridge Construction, latest edition at the time of Bid. This book outlines the general requirements and covenants to all improvements, as well as provisions relating to materials, equipment and construction requirements for individual items of work.

1-34  **SUBCONTRACTOR**
The individual, firm, partnership or corporation to whom the Contractor, with the written consent of the Engineer, sublets, assigns, or otherwise disposes of any part of the Work covered by the contract.

1-35  **SUB-BASE**
The layer or layers of specified or selected material of designed thickness placed on a sub-grade to support a base course.
1-36 SUB-GRADE
The top of surface of a roadbed upon which the pavement structure and shoulders are constructed.

1-37 SUPPLEMENTAL AGREEMENT
The written agreement executed by the Owner and the Contractor, with the assent of the Contractor's surety, covering modifications or alterations of the terms of the original Contract.

1-38 SUPPLIER
Any person or organization who supplies materials or equipment for the Work including that fabricated to a special design.

1-39 SURETY
The corporate body, individual or individuals which engage to be responsible for the Bidder's acts in the execution of the Contract in the event of its being awarded to him; or, which are bound with and for the Contractor to insure his acceptable performance of the Contract, his payment of all obligations pertaining to the Work, and his fulfillment of such other conditions as may be specified or otherwise required by law.

1-40 SURFACE COURSE
One or more layers of a pavement structure designed to accommodate the traffic load, the top layer of which resists skidding, traffic abrasion, and the disintegrating effects of climate. The top layer is sometimes called "wearing course".

1-41 WATER MAIN
A pipe constructed or used to carry potable water under pressure.

1-42 WATER SERVICE LINE
That line connected to the water main, which delivers potable water to the user's facilities.

1-43 THE WORK
The improvement advertised for bids, described in the Proposal form, indicated on the Plans and covered in the Specifications, Special Provisions, Contract, authorized alterations, extensions and deductions, and supplementary agreements, or any part or parts thereof.
SECTION 2. PROPOSAL REQUIREMENTS AND CONDITIONS

2-1 CONTENTS OF THE PROPOSAL FORM
Bidders will be furnished with forms stating the location and description of the Work contemplated, the approximate quantities of Work to be performed, the amount of the Proposal Guarantee, requirements pertaining to labor, and the date, time and place of filing and opening Proposals. All documents bound with or attached to the proposal shall be considered a part thereof, and shall not be detached or altered.

2-2 INTERPRETATION OF ESTIMATE OF QUANTITIES
An estimate of quantities of Work to be done and materials to be furnished under the Specifications is given in the Proposal. It is given as a basis for comparison of Proposals and the award of the Contract. The Owner and Engineer do not expressly or by implication agree that the actual quantities involved will correspond therewith; nor shall the Bidder plead misunderstanding or deception because of such estimate of quantities pertaining to the Work.

Payment will be based on the actual quantities of Work performed in accordance with Contract, at the Contract unit prices specified. No allowance will be made for any change in anticipated profits due to an increase or decrease in the original estimate of quantities. The Owner reserves the right to omit any item entirely, or to increase or decrease any or all items as provided in Section 4-3.

2-3 EXAMINATION OF PLANS, SPECIFICATIONS, SPECIAL PROVISIONS, AND SITE OF WORK
The bidder shall, before submitting his bid, carefully examine the Proposal, Plans, Specifications, Special Provisions, and form of Contract and bond. He shall inspect in detail the site of the proposed Work and familiarize himself with all the local conditions affecting the Contract and the detailed requirements of construction. If his Bid is accepted, he will be responsible for all errors in his Proposal resulting from his failure or neglect to comply with these instructions. The Owner or Engineer will, in no case, be responsible for any change in anticipated profits resulting from such failure or neglect.

When the Plans or Special Provisions include information pertaining to sub-surface exploration, borings, test pits, and other preliminary investigations, such information is included only for the convenience of the Bidder. The Owner or Engineer assumes no responsibility whatever in respect to the sufficiency of the information, and there is no guaranty, either expressed or implied, that the conditions indicated are representative of those existing throughout the Work, or that unanticipated developments may not occur.

When the Plans or Special Provisions include information pertaining to the location of underground utility facilities, such information is only included for the convenience of the Bidder. The Owner or Engineer assumes no responsibility whatever in respect to the sufficiency or accuracy of the information, or lack of information, shown on the Plans relative to the location of underground utility
facilities. It shall be the Contractor's responsibility to obtain from the respective utility companies detailed information relative to the location of their facilities and the work schedules of the utility companies for removing or adjusting them.

2-4  **ENGINEER'S ESTIMATE**

The Engineer's "Estimate of Cost" as prepared for the Owner for the work to be completed under this contract may or may not be available to the Bidders at the discretion of the Owner or the Engineer. If the "Estimate of Cost" is available, it shall be given to all prospective bidders upon request.

2-5  **PREPARATION OF THE PROPOSAL**

The Bidder shall submit his Proposal on the form furnished by the Owner. The Proposal shall be executed properly, and Bids shall be made for all items indicated in the proposal form, except that when alternate bids are asked, a Bid on more than one alternate for each item is not required, unless the Special Provisions provide otherwise. The Bidder shall indicate, in figures, a unit price or lump sum for each of the separate items called for in the Proposal; he shall show the products of respective quantities and unit prices in the column provided for that purpose, and the gross sum shown in the place indicated in the Proposal shall be the summation of said products. All writing shall be with ink or typewriter, except the signature of the bidder, which shall be written with ink.

If the Proposal is made by an individual, his name and post office address shall be shown. If made by a firm, joint venture, or partnership, the name and post office address of each member of the firm, joint venture, or partnership shall be shown. If made by a corporation, the Proposal shall show the names, titles, and business addresses of the president, secretary, and treasurer, certified to by the secretary.

2-6  **MULTIPLE BIDS**

If multiple Bids are to be received, bidding shall be in accordance with the instructions in the Special Provisions.

2-7  **REJECTION OF PROPOSALS**

Proposals that contain omissions, erasures, alterations, additions not called for, conditional or alternate bids unless called for, irregularities of any kind, or proposals otherwise regular which are not accompanied by the proper proposal guaranty shall be rejected as informal or insufficient. However, the Owners reserve the right to reject any or all Proposals and to waive such technical error as may be deemed best for the interest of the Owner.
2-8 PROPOSAL GUARANTY
Each proposal shall be accompanied by a bid bond, bank draft, bank cashier's check, or properly certified check for not less than ten per cent (10%) of the amount Bid unless otherwise specified in the Special Provisions.

If a multiple Bid is submitted, the bid bond, bank draft, bank cashier's check, or certified checks, which accompany the individual Proposals making up the combination, will be considered as also covering the multiple Bid.

See Paragraph 3-3 regarding return of Proposal Guaranty.

The bid bond, bank draft, cashier's checks, or certified checks accompanying Proposals shall be made payable to the Owner.

2-9 DELIVERY OF PROPOSALS
Proposals shall be delivered prior to the time and at the place indicated in the notice to bidders. Each Proposal shall be placed in an envelope sealed and plainly marked to indicate its contents. Only sealed Proposals will be accepted.

Proposals will not be opened unless received at the place of letting and prior to the time stated in the Notice to Bidders.

2-10 WITHDRAWAL OF PROPOSALS
Permission will be given a Bidder to withdraw a Proposal if he makes his request in writing before the time for opening Proposals. If a Proposal is withdrawn, the Bidder will not be permitted to submit another Proposal for the same Work at the same letting.

2-11 WITHDRAWAL OF PROPOSAL GUARANTY
See Paragraphs 3-2 and 3-3 on award of Contract and return of Proposal Guaranty.

2-12 PUBLIC OPENING OF PROPOSALS
Unless otherwise specified, Proposals will be opened and read publicly at the time and place specified in the Notice to Bidders. Bidders, their authorized agents, and other interested parties are invited to be present.
2-13 DISQUALIFICATION OF BIDDERS

Any one or more of the following causes may be considered as sufficient for the disqualification of a Bidder and rejection of his Proposal.

A. More than one Proposal for the same Work from an individual, firm, partnership, or corporation under the same or different names.

B. Evidence of collusion among bidders.

C. Unbalanced Proposals in which the prices for some items are substantially out of proportion to the prices for other items.

D. Failure to submit a unit price for each item of Work listed in the Proposal.

E. If the Proposal form is other than that furnished by the Engineer or if the form is altered or any part thereof is detached.

F. If there are omissions, erasures, alterations, unauthorized additions, conditional or alternate bids, or irregularities of any kind which may tend to make the Proposal incomplete, indefinite or ambiguous as to its meaning.

G. If the bidder adds any provisions reserving the right to accept or reject an award, or to enter into a contract pursuant to an award.

H. If the Proposal is not accompanied by the proper proposal guaranty.

I. If the Proposal is prepared with other than ink or typewriter.

J. Lack of competency as revealed by financial statement or experience questionnaire.

K. Unsatisfactory performance record as shown by past work judged from the standpoint of workmanship and progress.

L. Uncompleted work, which, in the judgment of the Owner, might hinder or prevent the prompt completion of additional work.

M. False information provided on a Bidder's "Contractor's Statement."

N. Failure to comply with any prequalification regulations of the Owner.

O. Default under previous contracts.

2-14 COMPETENCY OF BIDDERS

The Bidder, if a corporation, shall show the name of the State in which the corporation is chartered. Each Bidder shall furnish the Owner within two (2) weeks after request, with satisfactory evidence of his competency to perform the Work contemplated. When requested, he shall submit to the Owner a
financial statement prepared by a Certified Public Accountant showing his financial condition at the end of his past fiscal year. The accountant who prepares the statement shall certify that he holds a valid and unrevoked certificate as a Certified Public Accountant, issued in accordance with the laws of the State in which he is licensed. The Bidder, if requested, shall also answer and submit questionnaires relating to his experience and available equipment for performing construction work similar to that for which he is offering a proposal, and shall do so within the same two weeks from the time of request.

Before an award is made, the Bidder may, at the option of the Owner be required to furnish a statement showing the value of all uncompleted work for which he has entered into contracts.

2-15 MATERIAL SUBSTITUTIONS
If restrictions of any governmental authority prohibit the use of certain items that are required by the Plans and Specifications, substitution for such items will be determined by the Owner.

Each Bidder shall base his bid on the furnishing of all items exactly as shown on the Plans and as described in the Specifications. The successful Bidder will not be authorized to make any substitutions on his own volition, but in each and every case must obtain a properly authorized change order from the Owner on his Contract before installing any work in variance with the Contract requirements.

2-16 CONTRACTOR'S UNDERSTANDING
It is understood and agreed that the Contractor has, by careful examination, satisfied himself as to the nature and location of the work, the conformation of the ground, the character, quality and quantity of the materials to be encountered, the character of equipment and facilities needed preliminary to and during the prosecution of the Work, the general and local conditions, and all other matters which can in any way affect the Work under this Contract. No verbal agreement or conversation with any officer, agent, or employee of the Owner and Engineer, either before or after the execution of this Contract, shall affect or modify any of the terms or obligations herein contained.

2-17 STATUS OF RIGHT-OF-WAY, EASEMENT AND CONSTRUCTION EASEMENT ACQUISITION
Each bidder is instructed to fully acquaint himself with the status of the right-of-way, easement and construction easement acquisition at the time of submission of his proposal and the possibility of the acquisition of the parcels remaining to be acquired, if any, in time so as not to interfere with the progress of his work under this contract, and the owner shall not be liable to any damage that may occur to him for any and all delay through delay of the owner in securing the necessary right-of-way, easement and construction easement.

The owner agrees that it will make every effort to acquire any right-of-way, easement and construction easement with all speed and diligence possible.
SECTION 3. AWARD AND EXECUTION OF CONTRACT

3-1 CONSIDERATION OF PROPOSALS

The proposals received will be compared on the basis of the summation of the products of the items of Work listed and the unit prices offered. In case of discrepancy between the gross sum shown in the Proposal prices, the unit prices shall govern, and any errors found in said products shall be corrected. In awarding Contracts, the Owner will, in addition to considering the amounts stated in the Proposals, take into consideration the responsibility of the various Bidders as determined from a study of the data required under the previous article and from other investigations, which the Owner may elect to make.

3-2 AWARD OF CONTRACT

Except in cases where the Owner exercises the right reserved to reject any or all Proposals, the Contract will be awarded by the Owner, as soon as practicable after the opening of Proposals.

Unless otherwise specified, if a Contract is not awarded within forty-five (45) days after the opening of Proposals, a Bidder may file a written request with the Owner for the withdrawal of his bid or award date may be extended by mutual consent of the Owner and Bidder. The Owner will have a maximum of ten (10) days after the receipt of such request to award the Contract or release the Bidder from further obligation by return of the Bidder's Proposal Guaranty.

3-3 RETURN OF PROPOSAL GUARANTY

The Proposal Guaranties of all except the two lowest Bidders will be returned promptly after the Proposals have been checked. Proposal Guaranties of the two lowest Bidders will be returned as soon as the Contract and Bond of the successful bidder have been properly executed and approved.

If Contracts cannot be awarded promptly, the Owner shall permit the two (2) lowest Bidders to substitute for the bank cashier's checks, or certified checks which they may have submitted with their Proposals as Proposal Guaranties, a bid bond executed by a corporate surety company satisfactory to the Owner, but such substitutions shall not be made until a period of three (3) days has elapsed after the date of opening Proposals.

3-4 REQUIREMENT OF CONTRACT BOND

The successful Bidder, at the time of the execution of the Contract, shall deposit with the Owner a surety bond for the full amount of the Contract. The form of bond shall be that furnished by the Owner, and the surety shall be acceptable to the Owner.
3-5 EXECUTION OF THE CONTRACT
The contract shall be executed by the successful Bidder. The bond, when required, shall be executed by the principal and the sureties, and executed Contract and Contract Bond shall be presented to the Owner within fifteen (15) days after the date of notice of the award of the Contract.

Each Contract must be executed in three (3) original counterparts, and there shall be executed original counterparts of the Contract Bond in equal number to the executed original counterparts of the Contract. One (1) copy each of such executed documents will be retained by the Owner and the Engineer, the third will be delivered to the Contractor.

3-6 FAILURE TO EXECUTE CONTRACT
Failure on the part of the successful Bidder to execute a Contract and an acceptable Contract Bond and acceptable insurance certificates as provided herein, within fifteen (15) days from the date of receipt of Contract documents from the Owner will be considered as just cause for the annulment of the award and the forfeiture of the proposal guaranty to the Owner, not as a penalty but in payment of liquidated damages sustained as a result of such failure.
SECTION 4. SCOPE OF WORK

4-1 INTENT OF THE PLANS AND SPECIFICATIONS
The intent of the contract is to prescribe a complete outline of work which the Contractor undertakes to do in full compliance with the contract, plans and specifications. The Contractor shall furnish all required materials, equipment, tools, labor, and incidentals, unless otherwise provided in the contract, and shall include the cost of these items in the unit prices bid for the several units of work. Contractor shall be solely responsible for all safety procedures and safety violations. The quantities appearing in the bid schedule of prices are estimates prepared for the establishment of pay item prices and the comparison of bids. Payment to the Contractor will be made for the actual measured quantities performed and accepted or material furnished and accepted according to the contract, and the scheduled quantities may be increased, decreased, or omitted as herein provided.

Under no circumstances shall the Contractor exceed any established pay item quantity without notification to the Engineer and receipt of written authorization as provided herein.

The latest edition of the State Specifications and Standard Specifications for Water and Sewer Construction in Illinois shall be the basis and govern this contract unless otherwise provided by special provision or exception.

4-2 SPECIAL WORK
Should any construction or requirement not covered by the Specifications be anticipated on any proposed Work, Special Provisions for the same will be prepared and included in the Proposal form, which Special Provisions shall be considered as a part of the Specifications the same as though contained fully herein.

4-3 CHANGES
The Owner reserves the right to make, in writing, at any time during work, changes in quantities, alterations in work, and the performance of extra work to satisfactorily complete the project. Such changes in quantities, alterations, and extra work shall not invalidate the contract nor release the surety, and the Contractor agrees to perform the work as altered.

If the alterations or changes in quantities significantly change the character of the work under the contract, whether or not changed by any such different quantities or alterations, an adjustment, excluding loss of anticipated profits, will be made to the contract. The basis for the adjustment shall be agreed upon prior to the performance of the work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the Contractor in such amount as the Owner may determine to be fair and equitable.
If alterations or changes in quantities do not significantly change the character of the work to be performed under contract, the altered work will be paid for as provided elsewhere in the contract.

The term “significant change” shall be construed to apply only when the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction or when a major item, defined as an item whose total original contract costs exceeds ten percent of the total original contract amount, is increased in excess of 125 percent or decreased below 75 percent of the original contract quantity.

All alterations, cancellations, extensions, and deductions shall be authorized in writing by the Owner before work is started. Such authorizations shall set up the items of work involved and the method of payment for each item.

The Contractor shall accept payment for alterations which result in an increase or decrease in the quantities of work to be performed according to the following:

A. All increases in work of the type which appear in the contract as pay items accompanied by unit prices will, except as provided under paragraph (C) herein, be paid for at the contract unit prices. Decreases in quantities included in the contract will be deducted from the contract at the unit bid prices. No allowance will be made for delays or anticipated profits.

B. Major items of work for which the quantities are increased by not more than 125 percent or reduced to not less than 75 percent of the original contract quantities will be paid for as specified in paragraph (a) above. Any adjustments for increased quantities for major items of work increased more than 125 percent shall only apply to that portion in excess of 125 percent of original contract quantities. Any adjustments made for major items of work which are decreased to less than 75 percent of the original contract quantities shall apply to the actual amount of work performed.

C. Extra work which is not included in the contract as pay items at unit prices and is not included in other items of the contract will be paid for according to Section 9-4.

4-4 PERIODIC AND FINAL CLEANUP

From time to time or as may be ordered by the Owner and immediately after completion of the Work, the Contractor shall at his own expense clean up and remove all refuse and unused materials of any kind resulting from the Work. Upon failure to do so within five (5) working days after receipt of written request from the Owner, the Work may be done by the Owner and the cost thereof be charged to the Contractor and be deducted from his Contract price. Upon completion of the Work, the Contractor shall remove all his equipment and put the area of the Work in a neat and clean condition and do all other cleaning required to complete the Work in a workmanlike manner, ready for use and satisfactory to the Owner.
All Cleanup shall be performed as specified in the various sections of these Specifications or in the Special Provisions.

4-5 **LUMP SUM CONTRACTS**
On lump sum Contract, when specified in Special Provisions, or Contracts containing lump sum items, the lump sum contract price shall include the furnishing and installation of all Work described in the Specifications and/or shown on the Plans.

4-6 **LOCAL ORDINANCES AND REGULATIONS**
The Contractor shall keep himself fully informed of all existing laws, ordinances, and regulations of the municipality affecting the work and/or material of this Contract. If any inconsistency is discovered between the Plans, Specifications and those covered by local municipal laws, ordinances, or regulations, it shall be reported to the Owner and Engineer.

4-7 **PREFERENCE TO VETERANS**
Attention is called to assure compliance with Illinois Revised State Chapter 126 Section 23. Preference to veterans upon public works: “In the employment and appointment to fill positions in the construction, addition to, or alteration of all public works undertaken or contracted for by the state, or by any political subdivision thereof, preference shall be given to persons who were engaged in the military or naval service of the United States in time of war”.

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SECTION 5. CONTROL OF THE WORK

5-1 PLANS AND WORKING DRAWINGS
The Contractor shall submit to the Engineer such shop, working, or layout drawings pertaining to the
collection of the Work, as may be required. These drawings shall be reviewed by Engineer for
general conformance with the design concept only. This review by the Engineer does not relieve the
Contractor and/or fabricator/vendor of responsibility for conformance with the Contract documents
(see 1-8) and applicable codes, all of which have priority over these shop, working and layout drawings.
Corrections or comments made on the shop drawings by the Engineer during this review process do not
relieve the Contractor from compliance with the requirements of the Contract documents (1-8) and
applicable codes.

When the Contract includes Work adjacent to a railroad and false work, cofferdams, or sheeting is
required, the Contractor shall submit to the Engineer for his approval and the Railroad Engineer's
approval, plans for the false work, cofferdams, or sheeting by a Registered Structural Engineer. It shall
be the responsibility of the Contractor to contact the railroad to determine how to meet their
requirements. The cost of meeting those requirements shall be borne by the Contractor. The plans
shall be submitted sufficiently in advance of the time the Contractor intends to start work to permit
checking. No such work shall be started prior to receipt by the Contractor of approval of the Plans for
the false work, cofferdams, or sheeting.

The cost of furnishing such Drawings shall be incidental to the contract and no additional compensation
will be allowed the Contractor for any delays resulting therefrom.

5-2 CONFORMITY WITH PLANS AND SPECIFICATIONS
It is the intent of the Specifications that all Work performed and all materials furnished shall be in
conformity with the lines, grades, cross section, dimensions and material requirements shown on the
Plans or indicated in the Specifications.

In the event the Engineer finds the materials or the finished product in which the materials are used or
the Work performed are not in conformity with the Engineering Plans and technical Specifications
including tolerances and have resulted in an inferior or unsatisfactory product, the Work or material
shall be removed and replaced or otherwise corrected by and at the expense of the Contractor.

5-3 COORDINATION OF COMPONENT PARTS OF THE CONTRACT
The Specifications, the accompanying Plans, the Proposal, the Special Provisions, and all other contract
documents are intended to describe a complete Work and are essential parts of the Contract. A
requirement occurring in any of them is binding. In case of discrepancy, figured dimensions shall govern
over scaled dimensions, Plans shall govern over Specifications, Special Provisions shall govern over both
Specifications and Plans, and quantities shown on the plans shall govern over those shown in the
Proposal. Neither the Owner, Engineer, nor the Contractor shall take advantage of any apparent error or omission in the Plans or Specifications, and the Owner shall be permitted to make such minor changes or alterations as may be deemed necessary for the fulfillment of the intent of the Plans and Specifications. Any corrections or alterations so made shall be subject to the provisions of Section 4-3.

5-4  COOPERATION BY CONTRACTOR
The Contractor will be furnished necessary copies of the Plans and Special Provisions, and he shall have one copy of each available on the work at all times during its prosecution. He shall give the work his constant attention to facilitate the progress thereof, and shall cooperate with the Owner and Engineer in every way possible. He shall have on the Work site at all times a competent, English-speaking representative authorized to receive orders and act for him and shall not replace him without prior written notification to the Owner.

5-5  UTILITIES
Not all of the gas, power, telephone or cable television lines, whether above or below ground, have been shown on the drawings. The location of existing underground utilities, such as water mains, sewers gas mains, etc., as shown on the drawings, have been determined from the best available information and are given for the convenience of the Contractor. The Contractor must assume responsibility for location and protection of all utilities, whether shown or not, and must realize that the actual locations of the utilities shown on the drawings may be different from the location indicated.

It is the responsibility of the Contractor to phone the Joint Utility Locating Information for Excavators (J.U.L.I.E.) at least 48 hours before excavation starts (except Saturday, Sunday and Holidays) phone toll free 1-800-892-0123. The Contractor shall also be responsible for having the "Dig Number" assigned as a result of the phone request available at the construction site and at his office.

It is understood and agreed that the Contractor has considered in his Proposal all of the permanent and temporary utility appurtenances shown or otherwise indicated on the Plans in their present positions and that no additional compensation will be allowed for any delays, inconvenience, or damage sustained by him due to any interference from the said utility appurtenances of the operation of moving them either by the utilities company or by the Contractor; or on account of any special construction methods required in prosecuting his work due to the existence of said appurtenances.

5-6  COOPERATION BETWEEN CONTRACTORS
If separate contracts are let for Work comprising an entire improvement, each Contractor shall conduct his Work so as not to interfere with or hinder the progress or completion of the Work being performed by other Contractors.
The Contractor shall as far as possible arrange his Work, and place and dispose of the materials being used so as not to interfere with the operations of the other contractors within the limits of the same improvement. He shall join his work with that of the others in an acceptable manner and shall perform it in proper sequence to that of the others. In case of dispute, the latest approved progress schedule shall govern.

5-7 CONSTRUCTION STAKES
Construction stakes and/or paint will be furnished and set by the Engineer to mark the general location, alignment, elevation and grade of the Work. The Contractor shall exercise proper care in the preservation of stakes set for his use or the use of the Engineer. The Contractor shall pay for the cost of replacing stakes damaged by his operation or those stolen by others.

5-8 AUTHORITY AND DUTIES OF OBSERVERS
Observers employed by the Owner or by the Engineer shall be authorized to observe the progress of the Work to determine if the Work is proceeding in accordance with the technical Plans and Specifications, and to perform such other duties as may be designated by the Engineer. However, the Engineer shall not be responsible for the construction means, methods, techniques, sequences or safety procedures and precautions in connection with the work by the contractors.

5-9 ENGINEER'S FIELD OFFICE AND/OR LABORATORY
When required by the Special Provisions, the Contractor shall furnish a field office and laboratory. The field office and/or laboratory shall be a weatherproof building for the exclusive use of the Engineer. It shall be independent of any building used by the Contractor. All keys to the building shall be turned over to the Engineer. The Engineer shall designate the location of the building and it shall remain on the site until released by the Engineer.

The building shall conform to the following requirements:

- Floor space, not less than ................................................................. 120 square feet
- Height of ceiling, not less than ......................................................... 8 feet
- Windows, not less than ................................................................. 3
- Door, with lock approved by the Engineer ...................................... 1
- Instrument locker, 2 feet x 3 feet x 4 feet, with adjustable shelves
- Hinged wall table ................................................................. 3 feet x 6 feet
The Contractor shall provide lights, heat, and when electric power is available, summer air conditioning for the building. The conditions shall be acceptable to the Engineer.

When shown on the plans or specified in the Special Provisions, the Contractor shall furnish two (2) buildings conforming to the above requirements, one to be used as a field laboratory, and each to be located where designated by the Engineer.

With the approval of the Engineer, a mobile building or buildings of approximately the same dimensions and having similar facilities may be substituted for the above described building or buildings.

The cost of furnishing the building or buildings, light, heat, and air conditioning shall be paid for at the contract lump sum price for "FIELD OFFICE AND/OR LABORATORY". The office and/or laboratory shall remain the property of the Contractor when the Work is completed.

5-10 CONSTRUCTION OBSERVATION

All materials and each part or detail of the Work may be subject at all times to observation by the Engineer and the Owner, or their authorized representatives, and the Contractor will be held strictly to the true intent of the Contract documents in regard to quality of materials, workmanship and the diligent execution of the Contract. Observations may be made at the site or at the source of material supply whether mill, plant or shop. The Engineer, or his representatives, shall be allowed access to all parts of the Work and shall be furnished with such information and assistance by the Contractor as is required to make his observations and construction review. The duty of the Engineer to conduct observations and construction review of the Contractor's performance shall not include review of the adequacy of the Contractor's safety measures in, on, or near the construction site.

Engineer shall not at any time supervise, direct, or have control over any contractors' work, nor shall Engineer have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected or used by any contractor, nor for safety precautions and programs in connection with the contractors' work, nor for any failure of any Contractor to comply with laws and regulations applicable to contractors' work. Engineer neither guarantees the performance of any contractor nor assumes responsibility for any contractor's failure to furnish and perform its work. Engineer shall have no authority to stop the work of any contractor on the Project. The Engineer's efforts will be directed toward providing assurance for the Owner that the completed project will conform to the Plans and Specifications as prepared by the Engineer, to safeguard the Owner against variances and deviations from the Plans and Specifications, and to assist in a correct interpretation of the Plans and Specifications.

The Engineer shall not have control of the construction and does not have a right, duty or responsibility to stop work for any reason including any contractor's failure to follow proper safety precautions or any acts or omissions. The Engineer shall not be responsible for the acts, errors or omissions of any contractor or any of their agents or employees or any other person performing any of the Work under the Contract.
The Contractor shall, upon written notice from the Owner, remove or uncover such portions of the finished Work as he may direct, before the final acceptance of the same. After examination, the Contractor shall restore said portion of the Work to the standard required by the Contract documents. If the Work thus exposed or examined proves acceptable, the expenses of uncovering or removing and the replacing of the parts removed shall be paid for as Extra work, unless otherwise provided in the Contract documents, but if the Work so exposed or examined is unacceptable, the expense of uncovering or removing and the replacing of the same in accordance with the Contract documents shall be borne by the Contractor.

The Contractor shall supervise and direct the Work. He will be solely responsible for the means, methods, techniques, sequences and procedures of construction.

Any reference to "supervision" by the Engineer in the Illinois Department of Transportation, Standard Specifications for Road and Bridge Construction or any other referenced documents shall be changed to "observation."

When the State and/or Federal Government is to pay a portion of the cost of the Work covered by the Contract, the Work shall be subject to the observation of the representatives of those Governments, but such observation shall in no sense make those Governments a part of the Contract.

5-11 REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK

Work done without lines and grades being given, or beyond the lines shown on the Plans or as given, except as herein provided, or any extra work done without authority will be considered as unauthorized and at the expense of the Contractor, and will not be measured or paid for. Work so done may be ordered by the Owner to be removed or replaced at the Contractor's expense.

All work, which has been rejected, shall be remedied or removed and replaced so as to comply with the Plans and Specifications by the Contractor at his own expense. Upon failure on the part of the Contractor to comply promptly with any order of the Owner made under the provisions of this article, the Owner shall, after giving written notice to the Contractor, have the authority to cause defective work to be remedied, or removed and replaced, or to cause unauthorized work to be removed, and to deduct the cost thereof from the contract price due or become due to the Contractor.

5-12 FINAL ACCEPTANCE

The Engineer shall make final acceptance of all Work included in the Contract, as soon as practicable after notification by the Contractor that the Work is completed. If the Work is not acceptable to the Engineer, he shall inform the Contractor in writing as to the particular defects to be remedied before final acceptance can be made.
The Contractor shall be relieved of normal maintenance responsibilities for any sections of the work, which are completed and accepted by the Owner prior to project completion. For the remainder of the Work, the guarantee period shall be as stated in Section 7-16.

When the Contract includes work for which the County, State and/or Federal Government is to pay a portion of the cost thereof, such work shall also be subject to the inspection and approval of the representatives of those governments.

5-13 PUBLIC CONSTRUCTION BID ACT, 30 ILCS 557/1
It is agreed that the Public Construction Bid Act, 30 ILCS 557/1, shall not be applicable to this contract pursuant to the home rule powers of the community.
SECTION 6. CONTROL OF MATERIAL

6-1 QUALITY OF MATERIALS
It is the intent of the Specifications that first-class materials shall be used throughout the Work, and that they shall be incorporated as to produce completed construction, which is workmanlike and acceptable in every detail. The cost or collecting and furnishing of samples of all test material shall be borne by the Contractor. The cost of all testing shall be borne by the Owner. Only materials, which conform to the requirements of these Specifications, shall be incorporated in the Work.

6-2 DEFECTIVE MATERIALS
All materials not conforming to the requirements of the Specifications shall be considered as defective and shall be removed from the Work; if in place, they shall be removed by the Contractor at his expense and replaced with acceptable materials. No defective materials, the defects of which have been subsequently corrected, shall be used until approval has been given. Upon failure of the Contractor to comply forthwith with any written order of the Owner pursuant to the provisions of this article, the Owner shall have authority to remove and replace defective materials and to deduct the cost of removal and replacement from any monies due to become due the Contractor.

6-3 TESTING MATERIALS
All materials should be tested and approved by the Engineer before incorporation in the Work. The Contractor shall give sufficient advance notice of placing orders to permit tests to be completed before the materials are incorporated in the Work and the Contractor shall afford such facilities as the Engineer may require for collecting and forwarding samples and making observations.

6-4 SAND, GRAVEL AND CRUSHED STONE
The source of sand, gravel and crushed stone construction shall be approved by the Engineer prior to usage. The approval shall be based upon testing of samples furnished by the Contractor and tested by the Engineer for conformance with Specifications. Approval shall be contingent upon the Contractor using materials on the job, which conform with the samples satisfactorily tested.

6-5 CONCRETE
Samples of concrete used in construction shall be taken by the Contractor and made into test cylinders in conformance with ASTM C31. The Owner shall provide the services of an independent testing laboratory to collect and test the cylinders in conformance with ASTM C39, and furnish a copy of test results to the Engineer. Any concrete, which tests indicate failed to conform to the Specifications, shall be removed and replaced at Contractor's expense. At the option of the Owner, the concrete may be accepted and agreed upon adjustment in payment.

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6-6  MISCELLANEOUS MATERIALS
Fittings, valves, castings, hydrants, house service pipes, masonry blocks, bricks, manhole sections or other miscellaneous manufactured materials used in water and sewer construction shall be furnished with the implied guarantee that such materials conform with the requirements of the Specifications. The Engineer reserves the right to require a certified statement from the manufacturer of such materials that the specific materials have been inspected and tested and conform with the Specifications.

6-7  JOB SITE OBSERVATION
Regardless of any tests of materials made at the source, the Contractor shall carefully inspect all materials before installation and reject any materials, which have been damaged or have visible flaws. The Engineer also reserves the right to make such observation, but failure to detect irregularities does not relieve the Contractor of responsibility to remove and replace materials, which are found to be defective after installation.

6-8  STORED MATERIALS
If it is necessary to store materials, they shall be protected in such a manner as to insure the preservation of their quality and fitness for the Work. All stored materials shall be inspected at the time of use in the Work, even though they may have been inspected and approved before being placed in storage. The Contractor may use the right-of-way for storage of materials. If stockpiling is done outside the right-of-way, the additional space required shall be provided by the Contractor at his expense.

6-9  "OR EQUAL" CLAUSE
Whenever, in any of the Contract Documents, an article, material or equipment is defined by describing a proprietary product, or by using the name of a manufacturer, or vendor, the term "or equal", if not inserted shall be implied except where the Proposal provides for alternate bids. The specific article, materials, or equipment mentioned shall be understood as indication of the type function, minimum standard or design, efficiency and quality desired and shall not be construed in such a manner as to exclude manufacturer's products of comparable quality, design and efficiency. The Contractor shall comply with the requirements of the Contract Documents relative to an Owner's approval of materials and equipment before they are incorporated in the project.
SECTION 7. LEGAL REGULATIONS AND RESPONSIBILITY TO PUBLIC

7-1 LAWS TO BE OBSERVED

The Contractor shall at all times observe and comply with all Federal laws, State laws, County laws, local laws, ordinances, and regulations which in any manner affect the conduct of the Work, and all such orders or decrees as exist at the time Bids are advertised, of legislative bodies or tribunals having legal jurisdiction or authority over the work and no plea of misunderstanding or ignorance thereof will be considered. The Engineer shall not be responsible for determining whether the Contractor is in compliance with these laws, ordinances and regulations.

The Contractor shall indemnify and save harmless the Owner, the Engineer, and all of their officers, agents, employees and servants against any claim or liability, including legal fees, arising from or based on the violation of such law, ordinance, regulation, order or decree, whether by themselves or their employees.

7-1.01 INDEMNIFICATION

To the fullest extent permitted by law, the Contractor shall defend, indemnify and hold harmless Owner and REL and their respective officers, agents and employees, from and against all claims, damages, losses, costs, expenses, judgments and liabilities, including but not limited to attorney's fees, costs and expenses, arising out of or in connection with Contractor's performance of or failure to perform this Agreement, provided that any such claim, damage, loss, costs, expenses, judgments or liabilities are attributable to bodily injury, sickness, disease or death, or to injury or destruction of tangible personal property, including the loss of use resulting therefrom, that is caused in whole or in part by any act or omission of the Contractor, any subcontractor, anyone directly or indirectly employed by them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by any party indemnified hereunder.

Contractor shall defend, indemnify and hold harmless Owner, REL, and their respective officers, agents and employees from and against all claims, damages, losses, costs and expenses arising out of, relating to, or incurred in connection with the use by Contractor, its officers, agents, subcontractors and employees of any equipment, materials, tools, construction equipment, machinery, and/or motor vehicles owned or leased by Owner. The indemnification provided by this Section shall apply regardless of whether Owner consents to the use of equipment by Contractor.

In the event such indemnity as described above is prohibited by law, then said indemnity shall only be to the extent caused by the negligent acts or omissions of the Contractor, subcontractors, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, or to the extent allowed by applicable law.
The indemnification obligation under this paragraph shall not be limited in any way by any limitations on the amount or type of damages, compensation or benefits payable by or for the benefit of Contractor or any indemnities under any Worker's Compensation Act, Occupational Disease Act, Disability Benefits Act, or any other employee benefits act. The Contractor further agrees to waive any and all liability limitations based upon the Worker's Compensation Act court interpretations or otherwise.

Contractor agrees that a similar waiver of liability limitation will be incorporated in its agreements with subcontractors or anyone directly or indirectly employed by them. Contractor agrees that in the event it fails to incorporate such a waiver of liability limitation in its agreements with said subcontractors and others, then it will be responsible for any additional liability arising out of said failure. The defense and indemnification obligations set forth in this provision shall survive the termination or expiration of this Agreement.

Contractor further agrees that all future contracts in furtherance of this contract between Contractor and any of its subcontractors will designate Owner and REL as intended third party beneficiaries of that contract. Contractor hereby agrees to specifically label Owner and REL as an "intended third party beneficiaries" in all contracts entered in furtherance of this contract.

7-2 INSURANCE REQUIREMENTS

7-2.01 GENERAL
The Contractor and any Subcontractors shall obtain and thereafter keep in force for the term of the contract the insurance coverage specified in 7-2.02 MINIMUM INSURANCE REQUIREMENTS.

The Contractor shall not commence work under the Contract until all the insurance required by this section or any Special Provisions has been obtained. The insurance companies must be authorized to do business in the State of Illinois for Work in Illinois and the State of Indiana for Work in Indiana.

The insurance companies providing coverage shall be rated in the Best's Key Rating Guide with a rating not lower than A- and shall have a financial size category of not less than VII.

The Contractor shall be solely responsible for enforcing compliance with these insurance requirements by all Subcontractors of any tier.

A. PRIMARY INSURANCE
All insurance required of the Contractor shall be specifically endorsed so that it is Primary Insurance as to all additional insureds with respect to all claims arising out of operations by or on their behalf. If additional insureds have other applicable insurance coverage, those coverages shall be deemed to be on an excess or contingent basis.
B. **NO WAIVER OF INSURANCE REQUIREMENT BY OWNER**

Under no circumstances shall the Owner be deemed to have waived any of the insurance requirements of this Contract by any act or omission, including, but not limited to:

1. Allowing work by Contractor or any Subcontractor of any tier to start before receipt of certificates of insurance, endorsements, and other required insurance documents; or

2. Failure to examine, or to demand correction of any deficiency of, any certificate of insurance received.

The Contractor agrees that the obligation to provide insurance is solely the Contractor's responsibility and cannot be waived by any act or omission of the Owner.

C. **INSURANCE DOES NOT LIMIT LIABILITY**

The purchase of insurance by the Contractor under this Contract shall not be deemed to limit the liability of the Contractor in any way for damages suffered by Owner (e.g., in excess of policy limits, because of deductibles, or not covered by the policies purchased).

D. **NOTIFICATION OF PERSONAL INJURY/PROPERTY DAMAGE**

The Contractor shall notify the Owner, in writing, of any possible or potential claim for personal injury or property damage arising out of the work of this Contract promptly whenever the occurrence giving rise to such a potential claim becomes known to the Contractor.

7-2.02 **MINIMUM INSURANCE REQUIREMENTS**

The insurance coverage required of the Contractor and any Subcontractors shall be written for not less than the following, or greater if required by law:

A. **Workers' Compensation and Occupational Disease Insurance** in accordance with applicable state and federal laws, and Employer's Liability Insurance with a bodily injury per accident limit of liability of at least $500,000, bodily injury by disease limit each employee of $500,000 and bodily injury by disease policy limit of $500,000 or such greater sum as may be reasonably required by Owner.
B. **Commercial General Liability Insurance** provided by ISO form CG 0001 with a combined Bodily Injury and Property Damage limit of at least $1,000,000 per occurrence, $2,000,000 products and completed operations aggregate and $2,000,000 general aggregate, or such greater sum as may be reasonably required by Owner.

1. Completed Operations and Products liability insurance shall be maintained for a period of 2-years after completion and acceptance of the Project by Owner, or such longer period as may be reasonably required by the Owner.

2. The above policy shall include an endorsement identifying Owner, Robinson Engineering, Ltd, and any other parties as may be reasonably required by Owner or REL as Additional Insured. ISO endorsements CG 2010 and CG 2037 any edition, or equivalent forms, must be used to provide this coverage. Copies of the endorsements must be included with the certificate of insurance as required in paragraph L.

3. Claims-Made coverage triggers are not acceptable to Owner.

4. ISO form CG2503, Designated Construction Project(s) General Aggregate Limit or an equivalent form must be endorsed to the policy and identified on the certificate of insurance. An Owners and Contractors Protective Liability policy can be utilized in lieu of aggregate limits per project, (see 7-2.020 for OCP requirements)

5. The policy shall not contain a sunset provision, commutation clause or any other provision which would prohibit the reporting of a claim and the subsequent defense and indemnity that would normally be provided by the policy.

6. The policy shall not contain any provision, definition or endorsement which would serve to eliminate third party action over claims.

7. Residential Work exclusions or limitations, in any form, are not acceptable to Contractor.

C. **Comprehensive Automobile Liability Insurance** covering use of all owned, non-owned and hired vehicles with Bodily Injury and Property Damage limit of at least $1,000,000 Combined Single Limit, or such greater sum as may be reasonably required by the Owner. This policy shall include coverage for Owner, REL, and any other parties as may be reasonably required by Owner, for liability arising out of the actions of Contractor, whether by endorsement or otherwise.
D. **Excess or Umbrella Liability Insurance** limits of no less than $5,000,000 per occurrence for Employer’s Liability, Commercial General Liability and Comprehensive Automobile Liability, in excess of the minimum policy limits stated below:

<table>
<thead>
<tr>
<th>Type</th>
<th>Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employer’s Liability</td>
<td>$500,000 / $500,000 / $500,000</td>
</tr>
<tr>
<td>Commercial General Liability</td>
<td>$1,000,000 per occurrence</td>
</tr>
<tr>
<td>Commercial General Liability</td>
<td>$2,000,000 general aggregate</td>
</tr>
<tr>
<td>Commercial General Liability</td>
<td>$2,000,000 completed operations aggregate</td>
</tr>
<tr>
<td>Comprehensive Auto Liability</td>
<td>$1,000,000 combined single limit</td>
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</tbody>
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Excess/Umbrella coverage shall be provided as no less than Follow Form and shall name Owner, REL, and any other parties as may be reasonably required by Owner, as Additional Insured on a Primary and Non-Contributory basis.

E. **Pollution Liability** in the amount of $1,000,000 per occurrence and in the aggregate or such sum as may be reasonably required by the Owner. This requirement covers the Contractor’s use of, transportation, removal and/or disposal of hazardous materials and/or pollutants. Additionally, this requirement must apply to any disposal site receiving hazardous materials and/or pollutants. Pollution means the actual or alleged discharge, dispersal, release, seepage, migration, growth, or escape of smoke, soot, fumes, acids, alkalis, toxic chemicals, mold, mildew, spores, fungi, microbes, bacterial matter, legionella pneumophila, asbestos, lead, silica, liquids or gases, waste materials, contaminants, or other irritants, into or upon land, the atmosphere, any structure on land, the atmosphere contained within that structure, or any watercourse or body of water, including groundwater. Radioactive matter shall also be considered a pollutant, except as otherwise covered or protected by insurance or protections provided pursuant to 42 U.S.C. § 2014(w), as amended, or Section 170 of the Atomic Energy Act of 1954, as amended.

F. **Professional Liability** in the amount of $2,000,000 per occurrence and in the aggregate or such sum as may be reasonably required by the Owner. This requirement covers the Contractor’s duties that involve professional architectural, engineering, design or consultation work. Any applicable deductibles and/or retention’s must be noted on the Certificate of Insurance. Policy exclusions are not allowed for pollution, including mold, fungi or bacteria including the vapor produced or arising therefrom. Please see the project Special Provisions for the project specific needs of this policy.
G. Property and Equipment  Contractor shall purchase and maintain at its own discretion and expense, Builder’s Risk/Installation Floater Insurance in an amount equal to the insurable value of the Contractor’s property, whether off site or in transit, to cover any equipment, tools or tangible personal property. Contractor assumes all liability and risks, and agrees to waive all claims against Owner and REL for damage to or loss of equipment, machinery, tools, supplies and other tangible personal property owned or supplied by Contractor and utilized or intended to be utilized during the course of Contractor’s Work. Any insurance carried by Contractor covering such damage or loss shall be endorsed with a waiver of subrogation in favor of Owner and REL. Any and all subcontractors agree to assume the same liabilities and risks as Contractor.

H. Each of Contractor’s General Liability, Auto Liability, Pollution Liability, Professional Liability and Excess/Umbrella Liability policies must be endorsed as Primary and Non-Contributory as to any insurance maintained by the Additional Insured(s) and shown on the certificate of insurance.

I. An endorsement in favor of the Additional Insured(s) waiving the Contractor’s and its insurer’s rights of subrogation shall be issued with respect to the Commercial General Liability, Comprehensive Auto Liability, Pollution Liability, Professional Liability and Workers’ Compensation and Employers Liability policies. Evidence of this endorsement must be noted on the certificate of insurance.

J. Self-funded or other non-risk transfer insurance mechanisms or deductibles/self-insured retentions greater than $25,000 per occurrence are not acceptable to Owner on any insurance coverage required in this agreement. If the Contractor has such a program, full disclosure must be made to Owner and REL prior to any consideration being given.

K. Any subcontractor employed by Contractor shall have equivalent coverage.

L. A Certificate of Insurance, including copies of the Additional Insured endorsements, shall be sent to REL prior to the commencement of any Work (please see the sample attached at the end of Section 7). All Certificates of Insurance and Endorsements verifying the existence of the above required insurance shall be in form and content satisfactory and acceptable to Owner and REL and shall be submitted to REL in a timely manner so as to confirm Contractor’s full compliance with these insurance requirements stated herein, throughout the entire term of this Agreement.

Certificates must be sent to: RELcertificates@thehortongroup.com
M. Contractor shall provide written notice via email to RELcertificates@thehortongroup.com of any cancellation notice received by Contractor from any insurer providing insurance as required in this Agreement within two (2) business days of Contractor's receipt of such notice.

N. Permitting Contractor to commence Work prior to REL's receipt of the required certificate shall not be a waiver of the Contractor's obligation to provide all of the above insurance. Acceptance by Owner or REL of insurance submitted by Contractor shall not relieve or decrease in any manner the liability of the Contractor for its performance under this Agreement.

In the event Contractor fails to obtain or maintain any of the foregoing required coverage, the Owner may purchase such coverage and charge the expense thereof to the Contractor, or may terminate this Agreement.

These Insurance provisions are intended to be a separate and distinct obligation on the part of Contractor. Therefore, these provisions shall be enforceable and Contractor shall be bound thereby regardless of whether or not the Indemnity provisions of this Agreement are determined at any time to be enforceable in the jurisdiction in which the Work covered by this Agreement is performed. The obligation of the Contractor to provide the insurance herein specified shall not limit in any way the liability or obligations assumed by the Contractor elsewhere in this Agreement.

In the event Contractor or its insurance carrier(s) defaults on any obligations under this Insurance provision, Contractor agrees that it will be liable for all reasonable expenses and attorneys' fees incurred by Owner in the enforcement of the terms of this provision.

O. Owner's And Contractor's Protective Liability Insurance
If the Contractor is unable or unwilling to provide the required General Liability Additional Insured forms, an Owner's and Contractor's Protective Policy can be purchased as an acceptable alternate; Required limits of insurance;

1. Bodily Injury and Property Damage Combined
   - $5,000,000 Each Occurrence
   - $10,000,000 Annual Aggregate

2. The Contractor will furnish and maintain during the entire period of construction an Owner's and Contractor's Protective Liability policy written in the name of the Owner and REL with not less than the limits indicated. The named insureds shall be:
a. Owner
b. Robinson Engineering, Ltd.

3. Proof of insurance for the coverages required to be purchased by the Contractor, including the Owner's and Contractor's Protective Policy shall be submitted to REL for transmittal to the Owner for his approval prior to the start of construction. Proof of the Owner's Protective Policy shall consist of providing an entire copy of that policy to REL. With respect to all other coverages required to be purchased by the Contractor, proof of insurance shall consist of a Certificate of Insurance issued by the Contractor’s insurance agency.

4. It is further understood that any insurance maintained or carried by Owner and Robinson Engineering, Ltd. shall be in excess of any coverage provided by any Contractor or Subcontractor.

P. Railroad Protective Insurance will be required by Special Provisions if needed.

Q. Builder's Risk Insurance is not provided by the Owner. The Contractor is responsible for any loss that would be insured by such coverage. On Contracts for construction of buildings, bridges, or other structures, all Builder's Risk coverage may be required by Special Provisions. Such coverage shall name the Owner, Contractor, subcontractors, and suppliers, as their interests may appear as named insureds.

7-3 PERMITS AND LICENSES

The Contractor, prior to commencing work, shall at his own expense procure all permits, licenses, and bonds necessary for the prosecution of the work, required by Municipal, County, State and Federal regulations, unless specifically provided otherwise in the Special Conditions of the Contract.

The Contractor shall also give all notice, pay all fees, and comply with all Federal, State, County and Municipal laws, ordinances, rules and regulations and building and construction codes bearing on the conduct of the Work.

7-4 PATENTS AND ROYALTIES

If any design, device, material or process covered by letters patent or copyright is used by the Contractor, he shall provide for such use by legal agreement with the owner of the patent or a duly authorized licensee of such owner, and shall save harmless the Owner and the Engineer from any and all loss or expense on account thereof, including its use by the Owner.
7-5 STATE AND FEDERAL PARTICIPATION
When the County, State, and/or the Federal Government pays all or any portion of the cost of the Work, the Work shall be subject to the inspection of the appropriate agency.

7-6 SANITARY PROVISIONS
The Contractor shall comply with all rules and regulations of the Federal, State, County, and local health departments, and shall take precautions to avoid creating unsanitary conditions. The Engineer shall not be responsible for determining whether the Contractor is in compliance with these rules and regulations.

7-7 PUBLIC CONVENIENCE AND SAFETY
The Contractor shall notify the Owner at least five (5) days in advance of the starting of Work, which might in any way inconvenience or endanger traffic, so that arrangements may be made, if necessary, for closing the road and providing suitable detours. The Contractor shall at all times conduct the Work as to insure the least obstruction to vehicular and pedestrian traffic. The convenience of the general public and of residents along the roadway shall be provided for in an adequate and satisfactory manner. (See also 7-9, 7-14 and 8-6.)

If a temporary road is required for the convenience of the general public and/or residents along the roadway, temporary road requirements will not be paid for separately, but will be incidental to the Contract and no extra compensation will be allowed.

7-8 BARRICADES AND WARNING SIGNS
When any section of road is closed to traffic, the Contractor shall provide, erect, and maintain barricades, red flags, signs and lights at each end of the closed section and at all intersecting roads in accordance with the Illinois Manual of Uniform Traffic Control Devices.

If during the progress of the work, it is necessary to provide access to private property along the road, the Contractor shall provide, erect, and maintain within the closed portion of the road, such barricades, signs, flags and lights as may be necessary to protect the Work and to safeguard local traffic.

When traffic is to be permitted to use the road during construction, the Contractor shall protect the work and provide for safe and convenient public travel by providing, erecting, and maintaining such barricades, red flags, and lights as are necessary.

The Contractor's responsibility for the work, as provided in Section 7-15, shall apply, even though barricades, signs, red flags, and lights are installed as required above.
The cost of furnishing and maintaining barricades, warning signs, red flags, and lights as required herein shall be incidental to the Contract and no extra compensation will be allowed. The Engineer shall not be responsible for determining whether the Contractor is in compliance with these rules and regulations.

7-9 DEBRIS ON TRAVELED SURFACE OR STRUCTURES
Where the Contractor's equipment is operated on any portion of the traveled surface or structures used by traffic on or adjacent to the section under construction, the Contractor shall clean the traveled surface of all dirt and debris at the end of each day's operation.

The cost of this work shall be included in the unit prices bid and no additional compensation will be allowed. The Engineer shall not be responsible for determining whether the Contractor is in compliance with these rules and regulations.

7-10 EQUIPMENT ON TRAVELED SURFACE AND STRUCTURES
The traveled surface and structures on or adjacent to the work shall be protected, from damage by lugs or cleats on treads or wheels of equipment.

All equipment used in the prosecution of the work shall comply with the legal loading limits established by the statutes of the State of Illinois or local regulations when moved over or operated on any traveled surface or structure unless permission in writing has been issued by the Owner. Before using any equipment, which may exceed the legal loading, the Contractor shall secure a permit, allowing ample time for making an analysis of stresses to determine whether or not the proposed loading would be within safe limits. The Owner will not be responsible for any delay in construction operations or for any costs incurred by the Contractor as a result of compliance with the above requirements. The Engineer shall not be responsible for determining whether the Contractor is in compliance with these rules and regulations.

7-11 USE OF EXPLOSIVES
When the use of explosives is necessary for the prosecution of the Work, the Contractor shall be governed by the rules and regulations of the Department of Mines and Minerals of the State of Illinois and any local regulations, which govern the use of explosives. The Engineer shall not be responsible for determining whether the Contractor is in compliance with these rules and regulations.

7-12 USE OF FIRE HYDRANTS
If the Contractor desires to use water from hydrants, he shall make application to the proper authorities, and shall conform to the municipal ordinances, rules or regulations concerning their use. Water from
hydrants or other sources shall be at the Contractor's expense unless otherwise provided in the Special Provisions.

Fire hydrants shall be accessible at all times to the Fire Department. No material or other obstructions shall be placed closer to a fire hydrant than permitted by municipal ordinances, rules or regulations, or within ten feet (10') of a fire hydrant, in the absence of such ordinances, rules or regulations.

7-13 PROTECTION AND RESTORATION OF PROPERTY
If corporate or private property interferes with the Work, the Contractor shall notify, in writing, the owners of such property, advising them of the nature or disposition of such property. The Contractor shall furnish the Owner with copies of such notifications and with copies of any agreements between him and the property owners concerning such protection or disposition.

The Contractor shall take all necessary precautions for the protection of corporate or private property, such as walls and foundations of buildings, vaults, underground structures of public utilities, underground drainage facilities, overhead structures of public utilities, trees, shrubbery, crops and fences contiguous to the Work, of which the Contract does not provide for removal. The Contractor shall protect and carefully preserve all official survey monuments, property marks, section markers, and Geological Survey monuments, or other similar monuments, until the Owner or an authorized surveyor or agent has witnessed or otherwise referenced their location or relocation. The Contractor shall take reasonable precautions to avoid disturbing any archeological and other historic remains encountered during construction. The Contractor shall notify the Owner of the presence of any such survey or property monuments or archeological and other historic remains as soon as they are discovered.

The Contractor shall be responsible for the damage or destruction of property of any character resulting from error, neglect, misconduct or omission in his manner or method of execution or non-execution of the Work, or caused by defective Work or the use of unsatisfactory materials, and such responsibility shall not be released until the Work shall have been completed and accepted and the requirements of the Specifications complied with.

Whenever public or private property is so damaged or destroyed, the Contractor shall at his own expense, restore such property to a condition equal to that existing before such damage or injury was done by repairing, rebuilding, or replacing it as may be directed, or he shall otherwise make good such damage or destruction in an acceptable manner. If he fails to do so, the Owner may, after the expiration of a period of forty-eight (48) hours after giving him notice in writing, proceed to repair, rebuild, or otherwise restore such property as may be deemed necessary, and the cost thereof shall be deducted from any compensation due, or which may become due the Contractor under his contract.

The Contractor shall remove all mailboxes within the limits of construction, which interfere with construction operations and shall erect them at temporary locations. As soon as construction
operations permit, he shall set the mailboxes at their permanent locations. The Contractor shall replace at his own expense any mailbox or post which has been damaged by his operations.

The cost of all materials required and all labor necessary to comply with the above provisions will not be paid for separately, but shall be considered as incidental to the Contract, unless otherwise specified in the Special Provisions.

7-14 PROTECTION AND RESTORATION OF TRAFFIC SIGNS
Any traffic sign within the limits of construction, which interferes with construction operations, may be removed by the Contractor when authorized by the traffic sign owner. Any traffic sign, which has been removed, shall be re-erected immediately by the Contractor at the temporary location designated by the traffic sign owner, and as soon as construction operations permit, the sign shall be set at its permanent location. The cost of all materials required and all labor necessary to comply with this provision will not be paid for separately, but shall be considered as incidental to the contract.

The Contractor shall replace at his own expense any traffic sign or post which has been damaged due to his operations.

Any traffic sign designated as critical by the traffic sign owner shall not be disturbed and no additional compensation will be allowed the Contractor for any delays, inconvenience, or damage sustained by him due to any special construction methods required in prosecuting his work due to the existence of such traffic signs.

7-15 CONTRACTOR'S RESPONSIBILITY FOR WORK
The Work shall be under the control and care of the Contractor until final acceptance or use or occupancy by the Owner. The Contractor shall assume all responsibility for injury or damage to the Work by action of the elements or from any other cause whatsoever, and shall rebuild, repair, restore, and make good, at his expense, all injuries or damages to the Work, except that when the Work is opened to usage by written order of the Owner, the provisions of this article shall not apply to damage caused by such use and not due to the Contractor's fault or negligence.

When materials are furnished to the Contractor by the Owner for inclusion in the work, the Contractor's responsibility for handling and installation of all such materials shall be the same as for materials furnished by him.

In case of suspension of Work by the Contractor, the Contractor shall be responsible for the Work and shall take such precautions as may be necessary to prevent damage to the Work, provide for normal drainage and shall erect any necessary temporary structures, signs, or other facilities at his expense.
7-16 GUARANTEE PERIOD
The Contractor shall warrant all Work performed for a period of one (1) year from the date of final acceptance in writing by the Engineer. In case of acceptance of a part of the work for use or occupancy prior to final acceptance of the entire Work, the guarantee for the part so accepted shall be for a period of one year from the date of such partial acceptance, in writing, by the Engineer.

In placing orders for equipment, the Contractor shall purchase same only under a written guarantee from the respective manufacturers that the equipment supplied will function satisfactorily as an integral part of the completed Work in accordance with the Plans and Specifications, and that the manufacturer will repair or otherwise make good any defects in workmanship or materials which may develop within a period of one (1) year from the date of final acceptance. Furthermore, the Contractor shall require that the manufacturer agree in writing at the time the order for equipment is placed that he will be responsible for the proper functioning of the equipment in cooperation with the Contractor, and that whenever necessary during the installation period or tuning up period following construction period, the manufacturer will supply without additional cost to the Owner, such superintendence and mechanical labor and any adjustments and additional parts and labor needed to make the equipment function satisfactorily, even if same was not shown on the approved shop drawings.

7-17 PERSONAL LIABILITY OF OWNER'S AGENTS
In carrying out the provisions of this contract, or in exercising any power or authority granted to the Owner, there shall be no personal liability upon any officer or authorized agent of the Owner provided the Owner is a governmental body, it being understood that all such persons act as agents and representatives of the Owner.

7-18 NO WAIVER OF LEGAL RIGHTS
The Owner and the Engineer shall not be precluded by any measurement, estimate, or certificate made either before or after the completion and acceptance of the Work and payment therefor, from showing the true amount and character of the Work performed and materials furnished by the Contractor, or from showing that any such measurement, estimate, or certificate is untrue or incorrectly made, or that the Work or materials do not conform in fact to the Contract. The Owner shall not be precluded, notwithstanding any such measurement, estimate, or certificate and payment in accordance therewith, from recovering from the Contractor and his sureties such damages as if it may sustain by reason of his failure to comply with the terms of the Contract. Neither the acceptance by the Owner, nor any representative of the Owner, nor any payment for or acceptance of the whole or any part of the work, nor any extension of time, nor any possession taken by the Owner, shall operate as a waiver of any portion of the Contract, or of any power herein reserved, or any right to damages herein provided. A waiver of any breach of the Contract shall not be held to be a waiver of any other or subsequent breach.
7-19  **SAFETY**
Contractor shall comply with State and Federal Safety regulations as outlined in latest revision of Federal Construction Safety Standards (Series 1926) and with applicable provisions and regulation of Occupation Safety and Health Administration (OSHA) Standards of the Williams-Steiger Occupational Health and Safety Act of 1970 (rev.). The Engineer shall not be responsible for determining the Contractor's compliance with these regulations.

The Contractor is solely responsible for the safety procedures, programs and methods of its employees, subcontractors of every tier, and agents. Contractor shall hold the Owner and the Engineer harmless for any and all damages resulting from violations thereof.

7-20  **USE OF PRIVATE LAND**
The Contractor shall not use any vacant lot or private land as a plant site, depository for materials, or as a spoil site without the written authorization of the owner of the land (or his agent), a copy of which authorization shall be filed with the Owner.

7-21  **USE OF WATER**
Contractors desiring to use water furnished by the Owner will be required to make application for extension to the proper authorities and conform to the rules and regulations provided in such cases by the municipal ordinances and pay the usual water rates.

7-22  **COST OF SERVICES**
The Contractor will be required to pay the established water rates for water obtained from the Owner. Large quantities of water for flushing trenches, filling mains, testing or other operations shall be drawn only at night or at times specifically authorized by the Owner.

The cost of all power, lighting and heating required during construction shall be paid by the Contractor and its costs merged in the contract price.

7-23  **WORK IN BAD WEATHER**
No construction work shall be done during stormy, freezing or inclement weather, except such as can be done satisfactorily, and to secure first-class construction throughout, and then only subject to permission of the Owner.

7-24  **SUNDAY WORK**
No work shall be performed under these specifications at night or on Sunday and legal holidays without the approval of the Owner. If it is found necessary to continue the work at night or on Sunday or on a legal holiday, the Contractor will be charged for the Engineering and observation at such times at the rate of Seven Hundred Fifty Dollars ($750.00) per day of eight (8) working hours for each person doing such work on the job, and the amount will be deducted from money due to the Contractor at the time of settlement.

7-25 WATCHMEN
Watchmen are to be provided by the Contractor at the site of the project to prevent loss, damage to property, or accidents.

7-26 CONSTRUCTION DEBRIS
The Contractor shall not conduct any generation, transportation, or recycling of construction or demolition debris, clean or general or uncontaminated soil generated during construction, remodeling, repair, and demolition of utilities, structures, and roads that is not commingled with any waste, without the maintenance of documentation identifying the hauler, generator, place of origin of the debris or soil, the weight or volume of the debris or soil, and the location, owner, and operator of the facility where the debris or soil was transferred, disposed, recycled or treated. This documentation must be maintained by the Contractor for 3 years.
**CERTIFICATE OF LIABILITY INSURANCE**

**IMPORTANT:** If the certificate holder is an additional insured, the policy(ies) must be endorsed. Subrogation is waived, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

**YOUR INSURANCE AGENT**

<table>
<thead>
<tr>
<th>CONTACT</th>
<th>( \text{INSURER} )</th>
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</thead>
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<td>EMAIL</td>
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**INSURED**

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**DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES (If any) ACORD 21, Additional Reference Schedule if more space is required**

**MN JOB NUMBER AND PROJECT NAME AND ADDRESS:**

Additional insured with respect to General Liability, Auto Liability, and Umbrella/Excess Liability on a primary and non-contributory basis when required by written contract. Owner and Robinson Engineering Inc. Owner is Certificate Holder. Warranties of Subrogation in favor of issued additional insured with respect to General Liability, Auto Liability, Umbrella/Excess Liability and Workers' Compensation policies. Additional insured with respect to General Liability coverage per ISO forms CG2010 and CG2037 or equivalent forms. Umbrella/Excess is on follow up basis and is primary and non-contributory.

**CANCELLATION**

**OWNER**


**AUTHORIZED REPRESENTATIVE**


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SECTION 8. PROSECUTION AND PROGRESS

8-1 SUBLETTING OR ASSIGNMENT OF CONTRACT
The Contractor shall not sublet, sell, transfer, assign, or otherwise dispose of the Contract or Contracts or any portion thereof, or of his right, title, or interest therein, without written consent of the Owner. In case such consent is given, the Contractor will be permitted to sublet a portion thereof, but shall perform with his own organization, Work amounting to not less than 50 per cent of the total Contract, except that any items designated in the Contract as "specialty items" may be performed by subcontract and may be deducted from the total Contract price before computing the amount of work required to be performed by the Contractor with his own organization. No subcontracts, or transfer of Contract, shall in any case release the Contractor of his liability under the Contract. All transactions of the Owner shall be with the Contractor; subcontractors shall be recognized only in the capacity of employees or workmen and shall be subject to the same requirements as to character and competence.

8-2 PROGRESS SCHEDULE
Promptly after the award of the contract, if requested, the Contractor shall submit to the Owner a satisfactory progress schedule, which shall show the proposed sequence of work, and how the Contractor proposes to complete the various items of work within the number of days set up on the contract. The progress schedule shall be reviewed and revised periodically as working conditions warrant. The Contractor shall confer with the Owner in regard to the prosecution of the Work in accordance with this schedule. This schedule shall be used as a basis for establishing major construction operations, and for checking progress of the Work.

8-3 PRE-CONSTRUCTION CONFERENCE
Unless the need for a preconstruction conference is waived by the Engineer, the Contractor shall make himself and his representatives available to meet with the Engineer and other representatives of the Owner, prior to the start of construction to discuss scheduling, handling of materials, payments, etc.

8-4 PROSECUTION OF THE WORK
The Contractor shall begin the Work to be performed under the contract not later than ten (10) days after the execution and acceptance of the Contract, unless otherwise provided, but not prior to the execution of the Contract.

8-5 COMPLETION DATE
The Contractor shall complete all Work on or before the stipulated completion date, or on or before a later date determined as specified herein; otherwise, the Owner may proceed to collect liquidated damages described hereinafter.
When a delay occurs due to unforeseen causes beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of the public enemy, governmental acts, fires, floods, epidemics, strikes, extraordinary delays in delivery of materials caused by strikes, lockouts, wrecks, freight embargoes, governmental acts, or acts of God, the time of completion shall be extended in whatever amount is determined by the Owner.

An "Act of God" means an earthquake, flood, cloudburst, cyclone, or other cataclysmic phenomena of nature beyond the power of the Contractor to foresee or make preparation in defense against. A rain, windstorm or other natural phenomenon of normal intensity, based on U.S. Weather Bureau reports, for the particular locality and for the particular season of the year in which the work is being prosecuted, shall not be construed as an "Act of God", and no extension of time will be granted for the delays resulting therefrom.

8-6 LIMITATIONS OF OPERATIONS
The Contractor shall conduct his work so as to create a minimum amount of inconvenience to vehicular and pedestrian traffic. At any time when, in the judgment of the Owner, the Contractor has obstructed or closed the road or is carrying on operations on a greater portion of a street than is necessary for the proper prosecution of the Work, the Owner may require the Contractor to finish the section on which Work is in progress before the Work is started on any additional section. (See also Section 7-7).

8-7 SUSPENSION OF WORK
The Owner shall have authority to suspend the Work wholly or in part, for such period of time as he may deem necessary, due to conditions unfavorable for the satisfactory prosecution of the Work, or to conditions which in his opinion warrant such action; or for such time as is necessary by reason of failure on the part of the Contractor to carry out orders given, or to perform any or all provisions of the Contract. No additional compensation will be paid the Contractor because of any costs caused by such suspension, except when the suspension is ordered for reasons not resulting from any act or omission on the part of the Contractor. If it becomes necessary to stop Work for an indefinite period of time, the Contractor shall store all material in such manner that they will not obstruct or impede the traveling public unnecessarily or become damaged in any way, take every precaution to prevent damage or deterioration of the Work performed, provided suitable drainage of the roadway, and erect temporary structures where necessary. The Contractor shall not suspend Work without written authority from the Owner. (See also Section 7-15).

8-8 DETERMINATION AND EXTENSION OF CONTRACT TIME FOR COMPLETION
When the time for completion of the Work contemplated is specified in the Contract, it is understood that the completion of the Work within the time specified is an essential part of the Contract. If the Contractor finds it impossible to complete the Work within the time specified in the Contract, he may, at
any time prior to the last thirty (30) days of the Contract time specified, make written request to the Owner for an extension of Contract time. He shall set forth in full in his request the reasons, which he believes justify the granting of his request. If the Owner finds that the Work is delayed because of conditions beyond the control of the Contractor, or that the quantities of work done, or to be done, are in excess, he shall promptly grant an extension of time for completion, which appears reasonable and proper. The extended time for completion shall then be considered as in effect the same as if it were the original Contract time for completion.

8-9    FAILURE TO COMPLETE THE WORK ON TIME

Should the Contractor fail to complete the Work within the Contract time the Contractor shall be liable to the Owner in the amount shown in the following schedule of deductions, as liquidated damages, and not as a penalty, for each day of overrun in the Contract time or such extended time as may have been allowed.

**SCHEDULE OF DEDUCTIONS FOR EACH DAY OF OVERRUN IN CONTRACT TIME**

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<thead>
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<th>Original Contract Amount</th>
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8-10    DEFAULT ON CONTRACT

If the Contractor fails to begin the Work under Contract within the time specified, or fails to perform the Work with sufficient workmen and equipment or with sufficient materials to insure the completion of said Work within the Contract time, or shall perform the Work unsuitable, or shall neglect or refuse to remove materials or perform anew such Work as shall be rejected as defective and unsuitable, or shall discontinue the prosecution of the Work, or if the Contractor shall become insolvent or be declared bankrupt, or shall commit any act of bankruptcy or insolvency, or shall make an assignment for the benefit of creditors, the Owner shall give notice in writing to the Contractor and his surety of such delinquency, said notice to specify the corrective measures required.

If the Contractor, within a period of ten (10) days after said notice, shall not proceed in accordance therewith, the Owner shall have full power and authority to forfeit the rights of the Contractor and at its
option to call upon the surety to complete the Work in accordance with the terms of the contract, or it may take over the Work, including any or all materials and equipment on the ground as may be suitable and acceptable, and may complete the Work with his own forces, or may enter into a new agreement for the completion of said Contract according to the terms and provisions thereof, or use such other methods as, in its opinion, shall be required for the completion of said Contract in an acceptable manner.

All costs and charges incurred by the Owner, together with the cost of completing the work under Contract, shall be deducted from the Contract amount. In case the expense so incurred by the Owner shall be less than the sum which would have been payable under the Contract if it had been completed by the Contractor, the Contractor shall be entitled to receive the difference subject to any claims for liens thereon in case such expense shall exceed the sum which would have been payable under the Contract, the Contractor and the surety shall be liable and shall pay to the Owner the amount of such excess.

**8-11 TERMINATION OF THE CONTRACTOR'S RESPONSIBILITY**

Whenever the Work called for by the Contract shall have been completely performed on the part of the Contractor and all parts of the Work have been approved and deemed to be in compliance with the Technical Plans and Specifications by the Engineer, according to the Contract, and the final estimate paid, the Contractor's obligations shall be considered fulfilled, except as set forth in his Bond, in Section 7-18 and his one-year guarantee, in Section 7-16.
SECTION 9. MEASUREMENT AND PAYMENT

9-1 MEASUREMENT OF QUANTITIES
All Work completed under the Contract will be measured by the Engineer according to United States Standard Measures. The method of measurement shall be described in the Specifications or the Special Provisions.

9-2 SCOPE OF PAYMENT
The Contractor shall receive and accept the compensation as herein provided, in full payment for furnishing all materials, labor, tools and equipment; for performing all Work contemplated and embraced under the Contract; for all loss or damage arising out of the nature of the Work or from action of the elements; for any unforeseen difficulties or obstructions which may arise or be encountered during the prosecution of the Work until its final acceptance by the Owner; for all risks of every description connected with the prosecution of the Work; also, for all such expenses incurred by or in consequence of suspension or discontinuance of such prosecution of the Work as herein specified, or for any infringement of patents, trademarks, or copyrights, and for completing the Work in an acceptable manner according to the Contract Documents.

Contractor will be paid in cash and/or negotiable warrants at intervals, and in accord with the terms of the Contract. Except for subdivision contracts, the Owner will retain ten percent (10%) of each periodic payment until final completion and acceptance by the Owner of all Work included in the Contract.

The payment of any current estimate prior to final acceptance of the Work by the Owner shall in no way constitute an acknowledgment of the acceptance of the Work, nor in any way prejudice or affect the obligation of the Contractor, at his expense, to repair, correct, renew, or replace any defects or imperfections in the construction or in the strength or quality of the materials used in or about the construction of the Work under Contract and its appurtenances, nor any damage due or attributable to such defects, which defects, imperfections, or damage shall have been discovered on or before the final inspection and acceptance of the Work. Defects, imperfections, or damage, shall be determined by the Engineer observing the work for compliance with the Plans and Specifications, and the Contractor shall be liable to the Owner for failure to correct the same as provided herein.

9-3 INCREASED OR DECREASED QUANTITIES
Whenever the quantity of any item of Work as given in the Proposal shall be increased or decreased, payment shall be made on the basis of the actual quantity completed at the unit price for such item named in the Proposal, except as otherwise provided in Sections 4-3 or in the detailed specifications for each class of Work.
9-4  PAYMENT FOR EXTRA WORK

Extra Work which results from any of the changes as specified in Section 4-3 shall not be started, except in case of an emergency, until receipt of a written authorization or Work order from the Owner, which authorization shall state the items of work to be performed and the method of payment for each item. Work performed without such order will not be paid for.

Extra work will be paid for:

A. Either at a lump sum price or at unit prices agreed upon by the Contractor and the Owner. (In case a Supplemental Agreement is signed between the Contractor and the Owner, the agreed prices pertaining thereto shall prevail).

B. If acceptable to the Engineer, on the following force account basis:

1. Labor. The Contractor will be paid the actual amount of wages for all labor and foreman in direct charge of the specific Work for each hour that said labor and foreman are actually engaged in such Work, to which cost shall be added twenty percent (20%) of the sum thereof.

2. Bond, Insurance, Tax, Welfare Fund and other Payments. The Contractor will receive the actual cost of Contractor's bond, public liability and property damage insurance, workmen's compensation insurance, social security tax, welfare fund and other payments, if any, in accordance with agreements applicable to the Contract, required for force account work, to which no percentage shall be added. The Contractor shall furnish satisfactory evidence of the rate or rates paid for such bond, insurance tax, welfare fund and other payments.

3. Materials. The Contractor will receive the actual cost for all materials which are an integral part of the finished Work, including freight charges as shown by the original receipted bills, to which shall be added fifteen percent (15%) of the sum thereof.

The Contractor will be reimbursed for any materials used in the construction of the Work, such as sheeting, false work, form lumber, curing materials, etc., which are not an integral part of the finished Work. The amount of reimbursement shall be agreed upon in writing before such Work is begun, and no percent shall be added. The salvage value of such materials shall be taken into consideration in the reimbursement agreed upon.
4. Equipment. Machinery and equipment, which the Contractor has on the job for use on contract items, shall be used on extra Work as deemed necessary or desirable. The Contractor will be paid for all machinery and equipment used on extra work in accordance with the latest revision of "SCHEDULE OF AVERAGE ANNUAL EQUIPMENT OWNERSHIP EXPENSE WITH OPERATING COST" as issued by the Department of Transportation, State of Illinois, for the period that said machinery and equipment are in use on such Work, to which no percent shall be added. In the event that equipment is used which is not included in aforesaid publication, the latest edition of the "Compilation of Nationally Averaged Rental Rates for Construction Equipment" compiled by Equipment Distributors, 615 West 22nd Street, Oak Brook, Illinois 60521, shall be used to determine equipment rental rates and no percent shall be added to the rates indicated in such publication.

9-5 PAYMENT FOR SUBCONTRACTING, EXTRA WORK
Where an authorized subcontractor performs some or all of the Work qualifying as an Extra Work item and compensation is to be based on the terms of paragraph 9-4 (2), the cost of labor, bonds, material and equipment shall be the cost to the subcontractor on these items and an additional allowance to the prime Contractor of five percent (5%) of all costs as determined in paragraph 9-4 (2) shall be made in such instances.

9-6 PARTIAL PAYMENTS
Once each month, the Contractor will make an approximate estimate, in writing, of the materials in place complete, the amount of Work performed, and the value thereof, at the contract unit prices. From the amount so determined of completed work there shall be deducted ten percent (10%) to be retained until after the completion of the entire Work to the satisfaction of the Owner, and the balance certified to the Owner for payment.

In addition, an estimate may, at the discretion of the Owner and upon presentation of receipted bills and freight bills, be made for payment of the value of acceptable non-perishable materials delivered at the Work site or in acceptable storage places and not used at the time of such estimate. The care and storage of such material shall be the Contractor's responsibility. In the absence of receipted bills, an estimate may, at the request of the Contractor and at the discretion of the Owner, be made for payment of the value of materials in acceptable storage places and not used at the time of the estimate, but in such an event payment shall be made of such amounts by a check requiring the endorsement of both the Contractor and materials supplier. Endorsement of such a check by the materials supplier shall be construed a waiver of lien for the cost of materials covered by the check. Such materials, when so paid for by the Owner, shall become the property of the Owner, and in the event of default on the part of the Contractor, the Owner may use or cause to be used such materials in the construction of the Work.
provided for in the Contract. The amount thus paid by the Owner shall be deducted from estimates due the Contractor as the material is used in the Work.

9-7 ACCEPTANCE AND FINAL PAYMENT

Whenever the Work provided for by the Contract shall have been completely performed on the part of the Contractor, and all parts of the Work have been deemed to be in substantial compliance with the Plans and Specifications by the Engineer and accepted by the Owner, a final estimate showing the value of the Work will be prepared by the Engineer as soon as the necessary measurements and computations can be made, all prior estimates upon which payments have been made being approximate only and subject to correction in the final payment. The amount of this estimate, less any sums that have been deducted or retained under the provisions of the Contract, will be paid to the Contractor as soon as practicable after the final acceptance, provided the Contractor has furnished to the Owner satisfactory evidence that all sums of money due for any labor, materials, apparatus, fixtures, or machinery furnished for the purpose of such Work have been paid or that the person or persons to whom the same may be due have consented to such final payment.

Neither the final payment on this contract by the Owner nor any provisions in the contract documents shall relieve the Contractor of the responsibility for negligence in the furnishing and installation of faulty materials or for faulty workmanship which shows up within the extent and period provided by law or within the guarantee period of one (1) year from final acceptance of the work performed under this Contract, whichever is greater, nor of the responsibility of remedying such faulty workmanship and materials.

The acceptance by the Contractor of the final payment shall constitute a release and waiver of all claims by the Contractor except those previously made and still unsettled.

9-8 OWNER'S RIGHT TO WITHHOLD CERTAIN AMOUNTS

The Owner may withhold, in addition to retained percentages, from payment to the Contractor, such an amount or amounts as may be necessary to cover:

A. Payments that may be earned or due for just claims for labor and materials furnished in and about the Work.
B. For defective Work not remedied.
C. For failure of the Contractor to make proper payments to his subcontractors.
D. For reasonable doubt that the contract can be completed for the balance then unpaid.

The Owner will disburse and shall have the right to act as agent for the Contractor in disbursing such funds as have been withheld pursuant to this paragraph to the party or parties who are entitled to payment therefrom. The Owner will render to the Contractor a proper accounting of all such funds disbursed in behalf of the Contractor.
The Owner also reserves the right, even after full completion and acceptance of the Work, to refuse payment of the final ten percent (10%) due the Contractor, until it is satisfied that all subcontractors, material suppliers, and employees of the Contractor have been paid in full.

9-9 RELEASE OF CLAIMS AND LIENS
Neither the final payment nor any part of the retained percentage shall become due until the Contractor shall deliver to the Owner a complete release of all claims or liens arising out of this contract, or receipts in full in lieu thereof and, if required in either case, an affidavit that so far as he has knowledge or information the release and receipts include all the labor and materials for which a lien or claim could be filed; but the Contractor may, if a subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the Owner to indemnify the Owner against any claim or lien (in cases where such payment is not already guaranteed by surety bond). If any claim or lien remains unsatisfied after all payments are made, the Contractor shall refund to the Owner all monies that the latter may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.
<table>
<thead>
<tr>
<th>SECTIONS</th>
<th>EXCAVATION AND BACKFILL FOR UNDERGROUND CONDUITS</th>
<th>RESTORATION OF SURFACES</th>
<th>FINISHING AND CLEAN UP FOR UNDERGROUND CONDUITS</th>
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<td>CONSTRUCTION DETAILS</td>
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SECTION 1. EXCAVATION AND BACKFILL FOR UNDERGROUND CONDUITS

1-1 DESCRIPTION

For the purpose of this section, underground conduits shall be considered sewer pipe, water main or any other pipe conduit indicated on the Plans. Wherever the term "pipe" or "pipe line" is used, it shall mean underground conduit.

Excavation and backfill shall include all excavation, backfilling, compacting, disposal of surplus material, restoration of all disturbed surface, and all other work incidental to the construction of trenches, including any additional excavation which may be required for manholes or other structures forming a part of the pipe line.

1-2 CONSTRUCTION DETAILS

1-2.01 SURFACE REMOVAL AND TOPSOIL PRESERVATION

Along the proposed pipe lines as indicated on the Plans, the Contractor shall remove the surface materials only to such widths as will permit a trench to be excavated which will afford sufficient room for proper efficiency and proper construction. Where sidewalks, driveways, pavements and curb and gutter are encountered, care shall be taken to protect such against fracture or disturbance beyond reasonable working limits. In areas specified on the Plans, topsoil suitable for final grading and landscaping shall be piled separately in locations approved by the Owner and preserved so that it may be restored after the remainder of the backfill is replaced.

1-2.02 WIDTH OF EXCAVATION

A. The bottom width of the trench at and below the top of the pipe and inside the sheeting and bracing, if used, shall be in accordance with Section 550.04 of the Standard Specifications, unless otherwise noted.

Note: The strength or class of pipe shall be as indicated on the Plans.

B. Trench sheeting and bracing or a trench shield shall be used as required by the rules and regulations of O.S.H.A. The Engineer shall not be responsible for determining whether the contractor is in compliance with this provision. The bottom of the trench excavation shall conform to the details shown on the Plan.

C. If these trench widths are exceeded without the written permission of the Engineer, the pipe shall be installed with a concrete cradle or with concrete encasement or a stronger pipe than originally specified shall be used as approved by the Engineer.
1-2.03 EXCAVATION BELOW GRADE

In cases where the excavation is carried beyond or below the lines and grades given by the Engineer, the Contractor shall, at his own expense, refill all such excavated space with suitable granular material.

1-2.04 ROCK EXCAVATION

A. GENERAL
Wherever "rock" is used as the name of an excavated material, it shall mean boulders or pieces of rock, concrete, or masonry measuring one-half (1/2) cubic yard or more, hard shale or solid ledge rock and masonry which requires for its removal the continuous use of pneumatic tools or drilling and blasting.

Before payment is allowed for "Rock Excavation", the Contractor shall be required to demonstrate the material cannot be removed "by hand pick" or by power operated excavator or shovel. No payment will be made for Rock Excavation unless air tools or explosives were used by the Contractor. No payment will be made for "Rock Excavation" unless the Engineer approves such payment in writing in advance upon being satisfied that the material meets the above criteria.

B. MEASUREMENT FOR PAYMENT
Where "Rock Excavation" is to be measured for payment, quantities will be determined by the Engineer. Rock required to be removed shall be computed by the cubic yard. Width for pay purposes shall be the measured width of rock removed, but shall not exceed the width specified in Section 550.04 of the Standard Specifications, plus any sheeting and bracing if required. Depth for pay purposes shall be the difference in elevation between the top and bottom of the rock as determined by the Engineer. Where rock is encountered in the bottom of the trench, the maximum depth for payment purposes will be six inches (6") below the bottom of the pipe. Where the proposal does not contain a pay item for "Rock Excavation", the additional cost of rock removal as defined by the specifications shall be paid on extra work basis. (Division I, Section 9-4).

C. PAYMENT
Payment shall be made at the Contract unit price per cubic yard of "Rock Excavation". These prices shall be full compensation for furnishing all materials; for all preparation, excavation and disposal of rock; and for all labor, equipment, tools and incidentals necessary to complete the item.
1-2.05 SUBSURFACE EXPLORATION

All information available to the Owner, if any, on subsurface exploration will be made available for examination by prospective Bidders. However, it is understood and agreed that the Owner shall in no way be held responsible for interpretation of this information, its accuracy or its thoroughness. Prospective Bidders shall make such subsurface explorations as they believe necessary to verify and supplement information received from the Owner.

1-2.06 EXPLORATORY EXCAVATION

A. GENERAL
Whenever, in the opinion of the Engineer, it is necessary to explore an excavate in advance of the Work to determine the best line and grade for the construction of the proposed pipe line, the Contractor shall make explorations and excavations for such purposes.

B. PAYMENT
The cost of such excavation will be paid at the contract unit price per foot for "Exploration Trench", or if no Bid Item is included, on an extra work basis.

1-2.07 BRACED AND SHEETED TRENCHES

A. GENERAL
Open-cut trenches shall be sheeted and braced or otherwise protected as required by any governing Federal or State laws and municipal ordinances, and as may be necessary to protect life, property, or the Work. In any event, the minimum protection shall conform to the recommendations in the Occupational Safety and Health Act Standards for Construction (OSHA). A sand box or trench shield may be used in lieu of sheeting as permitted by OSHA. When close-sheeting is used, it shall be so driven as to prevent adjacent soil from entering the trench either below or through such sheeting. Tight sheeting shall be used in that portion of the excavation in or along state and county highways below the intersection of a 1 to 1 slope line from the nearest face of the excavation to the edge of the pavement.

Where sheeting and bracing are used, the trench width shall be increased accordingly. The sheeting will be driven to the full depth of work, or to a depth where the soil has the stability necessary to meet the OSHA standards, whichever is lower. The shallower depth of required sheeting may be established by soil boring and analysis, to be performed at the Contractor's sole cost. The owner shall have the right of consent in the selection of the soils engineer for the sampling and analysis. This provision shall not relieve the contractor, in any degree, from his responsibilities under the contract.
Sheeting and bracing, which are required to be left in place shall be cut off at the specified elevation. Trench bracing, except that specified to be left in place, may be removed when the backfilling reaches the said bracing's level. All sheeting except that required to be left in place may be removed as the excavation is refilled, in such a manner as to avoid bank cave-in(s) or disturbance to the adjacent area(s) or structure(s). The voids left by the withdrawal of the sheeting shall be carefully filled by jetting, vibrating, ramming or other satisfactory means.

**B. PAYMENT**

Payment for sheeting and bracing, and all other Work incidental to sheeting and bracing, shall not be made separately but shall be included in the Contract price for the pipe size, except when ordered left in place.

Payment for timber sheeting left in place when shown on the plans or directed by the Engineer shall be made at the Contract unit price per 1,000 board feet of "Timber Sheet Left in Place."

Payment for steel sheet piling when specified shall be made at the Contract unit price per square foot for "Steel Sheet Piling."

Payment for steel sheet piling left in place when shown on the plans or directed by the Engineer shall be made at the Contract unit price per square foot for "Steel Sheet Piling Left in Place."

**1-2.08 TRENCHES WITH SLOPING SIDES, LIMITED**

The Contractor may, at his option, where working conditions and right-of-way permit, excavate pipe line trenches with sloping sides, but with the following limitations:

A. In general, only braced and vertical trenches will be permitted in traveled streets, alleys or narrow easements.

B. Where trenches with sloping sides are permitted, the slopes shall not extend below the top of the pipe, and trench excavations below this point shall be made with vertical sides with widths not exceeding those specified hereinbefore for the various sizes of pipe.
1-2.09 SHORT TUNNELS

In some instances, trees, fire hydrants, sidewalks and other obstructions may be encountered, the proximity of which may be a hindrance to open-cut excavation. In such cases, the Contractor shall excavate by means of short tunnels in order to protect such obstructions against damage. Where such obstructions are shown on the Plans, short tunnel work shall be considered incidental to the construction of the pipe line and shall not be grounds for extra payment or payment for tunnel work. Where such obstructions are not shown on the Plans, payment will be at the Contract unit price or as extra work in accordance with Division I, Section 9-4.

1-2.10 PILING EXCAVATION MATERIAL

All excavated material shall be stockpiled to avoid obstructing streets, sidewalks and driveways. Excavated material suitable for backfilling shall be stockpiled separately on the site. No material shall be placed closer than 2'0" to the edge of an excavation. Fire hydrants under pressure, valve pit covers, valve boxes, curb top boxes, or other utility controls shall be left unobstructed and accessible until the Work is completed. Gutters shall be kept clear or other satisfactory provisions made for street drainage. Natural watercourses shall not be obstructed or polluted. Surplus material and excavated material unsuitable for backfilling shall be transported and disposed of off the site in disposal areas obtained by the Contractor.

1-2.11 REMOVAL OF WATER

The Contractor shall at all times during construction provide and maintain ample means and devices with which to promptly remove and properly dispose of all water entering the excavations or other parts of the Work until all Work to be performed therein has been completed. No sanitary sewer shall be used for disposal of trench water, unless specifically approved by the Engineer and then only if the trench water does not ultimately arrive at existing pumping or sewage treatment facilities. No water containing settle able solids shall be discharged into storm sewers.

1-2.12 BLASTING

Blasting for excavation will be permitted only after securing the approval of the Owner and only when proper precautions are taken for the protections of persons and property. The hours of blasting will be reviewed by the Owner. Any damage caused by blasting shall be repaired by the Contractor at his expense. The Contractor's methods of procedure in blasting shall conform to Federal and State laws and municipal ordinances and O.S.H.A. rules and regulations. The Engineer shall not be responsible for determining whether the contractor is in compliance with these rules and regulations.
1-2.13 SAFETY

A. BARRICADES, GUARDS AND SAFETY PROVISIONS

To protect persons from injury and to avoid property damage, adequate barricades, construction signs, lights and guards as required shall be placed and maintained by the Contractor at his expense during the progress of the construction Work and until it is safe for traffic to use the roads and streets. All material piles, equipment and pipe which may serve as obstructions to traffic shall be enclosed by fences or barricades and shall be protected by proper lights when the visibility is poor. The rules and regulations of O.S.H.A. and appropriate authorities respecting safety provisions shall be observed. The Engineer shall not be responsible for determining whether the contractor is in compliance with these rules and regulations.

B. STRUCTURE PROTECTION

Temporary support, adequate protection and maintenance of all underground and surface structures, drains, sewers and other obstructions encountered in the progress of the Work shall be furnished to the Contractor at his expense. Any structures which may have been disturbed shall be restored upon completion of the Work.

C. PROTECTION OF PROPERTY AND SURFACE STRUCTURES

Trees, shrubbery, fences, poles and all other property and surface structures shall be protected during construction operations unless their removal for purposes of construction is authorized by the Engineer. Any fences, poles, or other man-made surface improvements which are moved or disturbed by the Contractor shall be restored to the original conditions, after construction is completed, at the Contractor's expense. Any trees, shrubbery or other vegetation which are approved for removal or ordered for removal by the Engineer in order to facilitate construction operations shall be removed completely, including stumps and roots, by the Contractor. Responsibility for any damage or claims for damage caused by construction operations to shrubbery or other landscape improvements which were not authorized for removal by the Engineer shall be assumed by the Contractor.

1-2.14 DEVIATIONS OCCASIONED BY STRUCTURES OR UTILITIES

Wherever obstructions are encountered during the progress of the Work and interfere to such an extent that an alteration in the plan is required, the Engineer shall have the authority to change the Plans and order a deviation from the line and grade or arrange with the owners of the structures for the removal, relocation or reconstruction of the obstructions. Where gas, water, telephone, electrical, hot water, steam, or other existing utilities are an impediment to the vertical or horizontal alignment of the proposed pipe line, the Engineer shall order a change in grade or alignment or shall direct the Contractor to arrange with the owners of the utilities for their removal.
1-2.15 INTERRUPTION TO UTILITIES
The Contractor shall proceed with caution in the excavation and preparation of the trench so that the exact location of underground structures may be determined. Prior to proceeding with trench excavation, the Contractor shall contact all utility companies in the area to aid in locating their underground services.

The Contractor shall take all reasonable precautions against damage to existing utilities. However, in the event of a break in an existing water main, gas main, sewer or underground cable, he shall immediately notify the responsible official of the organization operating the utility interrupted. The Contractor shall lend all possible assistance in restoring services and shall assume all cost, charges, or claims connected with the interruption and repair of such services if the location of said utility was marked by the owner thereof prior to excavation.

1-2.16 MAINTENANCE OF TRAFFIC AND CLOSING OF STREETS
The Contractor shall carry on the Work in a manner which will cause a minimum of interruption to traffic, and may close to through travel not more than two consecutive blocks, including the cross street intersected. Where traffic must cross open trenches, the Contractor shall provide suitable bridges at street intersections and driveways. The Contractor shall post suitable signs indicating that a street is closed and necessary detour signs for the proper maintenance of traffic. Prior to closing of any streets, the Contractor shall notify responsible municipal authorities at least five (5) days in advance of the starting of the Work, unless otherwise approved by the municipality.

1-2.17 CONSTRUCTION IN EASEMENTS
In easements across private property, the Contractor shall confine all operations in the easement area and shall be responsible and liable for all damage outside of the easement area. Trees, fences, shrubbery or other type of surface improvements located in the easements will require protection during construction. The provisions of Section 1-2.14C above shall apply to all easement areas as well as to public right-of-way. Precautions shall be taken by adequate sheeting or other approved method to prevent any cave-in or subsidence beyond the easement limits or damage to improvements within the easement. In general, the easement area is intended to provide reasonable access and working area for efficient operation by the Contractor. Where easement space for efficient operation is not provided, the Contractor shall be responsible for organizing his operations to perform within the restrictions shown on the Plans. The Owner shall make available to the Contractor a copy of the construction easements.
1-2.18 UNDERGROUND CONDUIT CONSTRUCTED IN TUNNEL

A. GENERAL
Where shown on the plans or where specifically authorized by the Engineer, pipe lines shall be constructed in tunnel. This work will be made in accordance with requirements of any permits obtained by the Owner from railroads or state or county highway departments for tunnel work or in accordance with the following paragraph.

B. MATERIALS
Pipe materials shall be as shown on the Plans or as described in the Special Provisions.

C. EXCAVATION AND LAYING
Requirements for excavation and laying and for joints shall be those applicable for the type of pipe line involved, unless otherwise specified.

Before starting excavations for tunnel shafts or jacking or augering pits, the Contractor shall submit drawings of proposed sheeting and bracing arrangements which have been prepared, signed and sealed by a structural Engineer registered in the State of Illinois for Work in Illinois and by a structural Engineer registered in the State of Indiana for Work in Indiana.

An adequate ventilation system shall be provided to properly ventilate all parts of the tunnel.

D. METHODS OF CONSTRUCTION

1. The tunnel shall be only of sufficient width and height to provide free working space. The sides and roof of the tunnel shall be braced sufficiently to support the external loads and to prevent caving, bulging, and settlement of the earth.

2. The Contractor shall backfill all tunnels with well compacted sand, fine gravel or stone screenings as rapidly as the conditions permit.

3. The backfill material shall be deposited in the tunnel in such a manner as not to injure or disturb the pipe. The filling of the tunnel shall be carried on simultaneously on both sides of the pipe in such a manner that injurious side pressures do not occur. Special care shall be taken to compact the backfill under the haunches of the pipe. The remainder of the tunnel, or such portion of the remainder as may be possible, shall then be backfilled by one of the following methods, at the option of the Contractor.

a. The material shall be deposited in uniform layers not to exceed twelve inches (12") thick (loose measure) and such layer either inundated or deposited in water.
b. The tunnel shall be backfilled with loose material or only partly backfilled at a time, if necessary, and settlement secured in either case by introducing water through holes jetted into the material to a point approximately two feet (2') above the top of the pipe.

4. If neither of the above methods is practicable or can be used for only a portion of the backfill, the remainder of the tunnel shall be completely backfilled with material carefully deposited in uniform layers and each layer compacted by ramming or tamping with appropriate tools.

5. When sheeting and bracing have been used, sufficient bracing shall be left across the trench as the backfilling progresses to hold the sides and top firmly in place without caving or settlement before the backfilling has been placed. This bracing may be removed as soon as practicable.

6. Any depressions which may develop within the area involved in the construction operations due to settlement of the backfilling material shall be filled.

E. USE OF CASING PIPE

The Contractor may use metal casing pipe as a tunnel liner in place of timber shoring for tunnel sections. The design data for such pipe, including, but not necessarily limited to, the diameter, gauge, type of pipe, method of placing and installation will be submitted for the owner’s review. The void space between tunnel liners or casing pipe and the carrier pipe shall be filled with compacted sand or other approved material.

F. JACKING OR BORING OF PIPE

The Contractor may, subject to the approval of the Owner, use special cast iron or specially designed reinforced concrete jacking pipe jacked and/or bored into position with or without tunnel liners, for tunneled sections pipe.

G. MEASUREMENT AND PAYMENT

Underground conduit constructed in tunnel will be paid for at the unit prices Bid for "Underground Conduit Constructed in Tunnel" for the various type and sizes for the actual length of tunnel Work. Payment shall include all labor, materials and equipment necessary to construct the conduit and tunnel, complete in place, including excavation and backfill, shoring and bracing, furnishing and laying casing pipe where required and carrier pipe, and all other Work necessary for a complete installation.
A. GENERAL
The methods of excavating and backfilling sanitary sewer pipe shall be in compliance with the latest edition of the Illinois Department of Transportation, "Standard Specifications for Road and Bridge Construction", and the Metropolitan Water Reclamation District of Greater Chicago, "Manual of Procedure", latest revision. Where there is a conflict of these specifications, the MWRDGC, "Manual of Procedure" shall be used.

B. MATERIAL
Pipe material shall be as shown on the Plans or as described in the Special Provisions. No substitution of material shall be made without written approval from the Owner.

C. EXCAVATION AND BEDDING
The trench shall be excavated to an elevation to allow for the following bedding.

Bedding, other than concrete embedment, shall consist of gravel, crushed gravel, crushed stone or crushed slag, 1/4" to 1" in size. As a minimum, the material shall conform to the requirements of Article 1004.01 of the State Specifications or ASTM Designation C-33. The gradation shall conform to Section 1004, gradation CA 11 or CA 13 or to ASTM Gradation No. 67. The pipe shall be laid so that it will be uniformly supported and the entire length of the pipe barrel will have full bearing. No blocking of any kind shall be used to adjust the pipe to grade except when used with embedment concrete. Bedding shall be required for all sewer construction, except ductile iron pipe, and shall be of a thickness equal to 1/4 of the outside diameter of the sewer pipe with a maximum thickness of eight inches (8") but shall not be less than four inches (4").

Where unsuitable material is encountered at the grade established, all such unsuitable soil shall be removed under the pipe and for the width of the trench, and shall be replaced with well compacted bedding material, to the satisfaction of the Engineer.

Where rock is encountered, it shall be removed below grade and replaced with a cushion of well compacted bedding material having a thickness under the pipe of not less than eight inches (8").

The cost of furnishing, placing and compacting bedding material will be considered as incidental work and no additional compensation will be allowed.

D. BACKFILLING
The backfilling of the sanitary sewer pipe trench shall be the same as for storm sewer pipe described in Section 550.07 of the Standard Specifications.
E. **METHOD OF MEASUREMENT**

The method of measurement shall be the same as for storm sewer pipe described in Section 550.09 of the Standard Specifications except measurements will be made to the center of manholes.

F. **BASIS OF PAYMENT**

This work will be paid for at the Contract unit price per foot for "Sanitary Sewer" of the type and diameter specified and measured as specified.

"Trench Backfill", when specified, will be measured and paid for at the Contract unit price per foot unless otherwise stated in the Special Provisions or contract documents.

1-2.20 **WATER MAINS**

A. **GENERAL**

The method of excavating and backfilling water mains shall be in compliance with the latest edition of the Illinois Department of Transportation, "Standard Specifications for Road and Bridge Construction," and those below.

B. **MATERIAL**

Pipe material shall be as shown on the Plans or as described in the Special Provisions. No substitution of material shall be made without written approval of the Owner.

C. **EXCAVATION AND BEDDING**

The trench shall be excavated to an elevation to allow the minimum cover over the pipe as called for on the plans. Provision must be made by the Contractor to allow for any future cuts to be made to the ground over the pipe to assure that the minimum cover is maintained.

Bedding as described in Section 1-2.21C for sanitary sewers shall be required for all water mains, except ductile iron pipe that requires no bedding. The method of bedding for unsuitable material and where rock is encountered shall also comply with the conditions of that Section.

The cost of furnishing, placing and compacting bedding material will be considered as incidental work and no additional compensation will be allowed.

D. **BACKFILLING**

The backfilling of the water main pipe shall be the same as for storm sewer pipe as described in Section 550.07 of the Standard Specifications except that the moist fine aggregate backfill to the elevation of the center of the pipe will not be required for ductile iron pipe. For PVC or any other type of pipe, the moist fine aggregate shall be
brought to a level 12" above the top of the pipe and it shall be compacted as described in that Section.

E. **METHOD OF MEASUREMENT**

"Water main" pipe of the different types and diameters will be measured by the lineal foot in place.

Unless they are listed as separate Bid items, the water main item shall include all fittings required and all other material, except trench backfill within the specified trench.

F. **BASIS OF PAYMENT**

This work will be paid for at the Contract unit price per lineal foot for "Water main" of the type and diameter specified and measured as specified.

"Trench Backfill", when specified, will be measured and paid for at the Contract unit price per foot, unless otherwise specified in the special provisions or contract documents.
SECTION 2. RESTORATION OF SURFACES

2-1 GENERAL

Restoration of surfaces shall include the removal of the existing surface, the disposal of surplus material, and the construction of new surfaces as indicated on the plans or Special Provisions. The type of surface restoration required shall be shown on the Plans or described in the Special Provisions.

2-2 CONSTRUCTION DETAILS

2-2.01 TEMPORARY SURFACE OVER TRENCH

Wherever conduits are constructed under traveled roadways, driveways, sidewalks, or other traveled surfaces, a temporary surface shall be placed over the top of the trench as soon as possible after compaction, as specified above, has been satisfactorily completed. The temporary surface shall consist of a minimum of six inches (6") of coarse aggregate conforming to the current specifications of the State Specifications for Grade No. CA-9 or CA-10. The top of the temporary surface shall be smooth and meet the grade of the adjacent undisturbed surface. The temporary surface shall be maintained at the Contractor's expense until final restoration of the street surface is completed, unless specific items for temporary aggregate is specified. No permanent restoration of street surface shall be initiated until authorized by the Engineer.

2-2.02 REMOVAL OF PAVEMENT, SIDEWALK, DRIVEWAY AND CURB

Wherever the pipe is located along or across an improved surface, the width of the trench shall be held as nearly as possible to the maximum width specified in Section 1-2.02. Where brick or concrete pavement, sidewalk, driveway or curbing is cut, the width of the cut shall exceed the actual width of the top of the trench by twelve inches (12") on each side or a total of two feet (2'). Exposed surfaces of portland cement or asphaltic concrete shall be cut with a pavement saw before breaking. Care shall be taken in cutting to insure that a straight joint is sawed.

2-2.03 REPLACEMENT OF PERMANENT TYPE PAVEMENT, SIDEWALKS, DRIVEWAYS, CURBS, GUTTERS AND STRUCTURES.

The Contractor shall restore (unless otherwise specified or ordered by the Engineer) all permanent type pavements, sidewalks, driveways, curbs, gutters, shrubbery, fences, poles and other property and surface structures removed or disturbed during or as a result of construction operations to a condition which is equal in appearance and quality to the condition that existed before the Work began. The surface of all improvements shall be constructed of the same material and match in appearance the surface of the improvement which was removed. Where trench backfill is used, the restoration shall be made as soon as possible after jetting of the backfill has been completed.
REPLACING EXISTING TEMPORARY STREET AND ALLEY SURFACES

A. GENERAL

For the purpose of this specification, all existing street and alley surfaces shall be considered temporary except:

(1) concrete or brick pavements; (2) an asphaltic concrete or a bituminous treated surface over a soil cement, concrete, crushed stone or selected gravel base. Specifically included as temporary street surfaces, shall be compacted earth, cinders, shale, mixtures of gravel and earth or crushed stone and earth, whether or not these respective materials are further stabilized by road oil or bituminous surface treatment. This work should not be confused with Temporary Surface Over Trench as specified in Section 2-2.01.

Where conduits are constructed under temporary street or alley surfaces, or where such surfaces are used for the placement of backfill material or are disturbed by construction operations, the Contractor shall reconstruct, by grading and shaping, the entire width of roadway, and any drainage facilities which may have existed, to the original condition at the Contractor’s expense, including that portion within the specified trench width where removal and restoration is paid for under a separate payment item.

Where, in the opinion of the Engineer, the conduit is located in the traveled portion of the temporary street or alley traveled surface, a new temporary surface shall be constructed over the trench, as specified in Section 2-2.01 of this Division. After this surface has been placed, it shall be maintained by the Contractor until final restoration is authorized. Just prior to final restoration, the entire width of the street to be restored shall be scarified. For final surface restoration, the Contractor shall apply a bituminous treatment to the entire width of the traveled surface, as ordered by the Engineer. The bituminous treatment shall consist of the application of a bituminous prime coat and a bituminous surface treatment corresponding to the materials and construction methods described in the State Specifications for bituminous surface treatment, Class A-1, A-2, or A-3 as specified, or shown in the bid items.

The Engineer reserves the right to order the omission of Bituminous Surface Treatment in any locations where such omission may be, in his opinion, in the public interest.

B. MEASUREMENT

Measurement for purposes of payment shall be computed by using the actual length and width of surface to which treatment is applied, in accordance with these Specifications.
C. PAYMENT
The cost of final restoration of the surface shall be paid for at the contract unit price per foot, unless so stated in the Special Provisions or for all State of Illinois projects, for "Bituminous Surface Treatment", of the type specified. Such price shall include the cost of all labor and materials necessary to provide the bituminous treatment as specified.

2-2.05 DISPOSAL OF SURPLUS EXCAVATED MATERIAL
Surplus excavated material not needed for backfill shall be promptly removed from the site to locations provided by the Contractor. The cost of removal and disposal of surplus excavated materials will be included in the respective unit prices for pipeline or conduit construction and no additional payment will be allowed therefor.

2-2.06 CLEANING UP
All surplus materials and all tools and temporary structures shall be removed from the site by the Contractor. All dirt, rubbish and excess earth from the excavation shall be hauled to a dump provided by the Contractor and the construction site left clean and acceptable to the Owner at the earliest possible date.
SECTION 3. FINISHING AND CLEAN UP FOR UNDERGROUND CONDUITS

3-1 CLEAN UP

Before acceptance of underground conduits construction, all pipes, manholes, catch basins, fire hydrants and other appurtenances shall be cleaned of all debris and foreign material.

After all backfill has been completed, the ground surface shall be shaped to conform to the contour of adjacent surfaces. General clean up of the entire construction area shall otherwise conform to applicable requirements specified.
# INDEX

FOR

SUPPLEMENTAL SPECIFICATIONS

AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2018

This index contains a listing of SUPPLEMENTAL SPECIFICATIONS, frequently used RECURRING SPECIAL PROVISIONS, and LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS.

ERRATA  Standard Specifications for Road and Bridge Construction  
(Adopted 4-1-16) (Revised 1-1-18)

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SPECIAL PROVISIONS
VILLAGE OF TINLEY PARK

FY2019 MUNICIPAL PARKING LOT IMPROVEMENTS

SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction", adopted April 1, 2016; the latest editions of the "Supplemental Specifications and Interim Special Provisions" and the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways"; the "Manual of Test Procedures for Materials" in effect on the date of the invitation for bids; the Division I General Requirements and Covenants; and the Division II Technical Specifications which apply to and govern the proposed improvement in Cook and Will Counties, and in case of conflict with any part, or parts, of said specifications, the said Special Provisions shall take precedence and shall govern.

However, in all cases, the Division I General Requirements and Covenants of the specifications shall take precedence over the Division 100 General Requirements and Covenants of the Standard Specifications for Road and Bridge Construction and shall govern.

LOCATION OF IMPROVEMENTS (Exhibits enclosed in bid documents)

Location #1 - 80th Avenue North Metra Lot
Location #2 - Village Hall
Location #3 - South Street Metra Lot
Location #4 - Public Safety Building

SCOPE OF WORK

Location #1 - 80th Avenue North Metra Lot: The work to be performed at this location will consist of combination curb and gutter removal and replacement and removal and replacement of hot-mix asphalt surface course, pavement markings, and all incidental and collateral work necessary to complete the improvements as shown on the plans and as described herein. Full closure of the North-South entrance road will not be allowed, and work must be completed in stages. See sheet 3 for more detail. The Contractor will be responsible for all closure notification well in advance at the lots and in the areas commonly used by commuters (i.e. pay stations).

Location #2 – Village Hall: The work to be performed at this location will consist of various Class D Patches and all incidental and collateral work necessary to complete the improvement as shown on the plans and as described herein. Final patching locations are subject to change based on field condition and will be marked in the field by the Engineer. Coordination of work on this lot must be done well in advance due to access issues. See sheet 4 for more detail.

Location #3 – South Street Lot: The work to be performed at this location will consist of combination curb and gutter removal and replacement and removal and replacement of hot-mix asphalt surface course, pavement markings, and all incidental and collateral work necessary to complete the improvements as shown on the plans and as described herein. Full closure of the lot will not be allowed, and work must be completed in stages. See sheet 5 for more detail. The Contractor will be responsible for all closure notification well in advance at the lots and in the areas commonly used by commuters (i.e. pay stations). As part of the resurfacing of this lot, the west entrance will be permanently closed and converted into additional parking spaces. Some work in South Street and the associated right of way to remove the entrance and curb and add sidewalk will be required.
Location #4 – Public Safety Building: The work to be performed at this location will consist of combination curb and gutter removal and replacement and removal and replacement of hot-mix asphalt surface course, pavement markings, and all incidental and collateral work necessary to complete the improvements as shown on the plans and as described herein. Full closure of the lot will not be allowed, and work must be completed in stages. See sheet 5 for more detail.

The quantities called for in this contract for ALL locations indicate the approximate amount of work to be expected. The actual amounts for the various items may vary depending upon actual field conditions. The Village reserves the right to reduce or increase the scope of project quantities and to delete entire line items. It shall be understood and agreed upon that the unit prices for these items shall prevail throughout the period of the contract and that no additional compensation per unit price or otherwise will be allowed for any increase or decrease in the quantities including, but not limited to, decreases due to the deletion of an entire location/section of the improvement. No increase in unit price will be allowed if method of construction changes due to increased or decreased quantity.

PREQUALIFICATION
The Contractor shall have sufficient experience, as determined by the Village and his representatives, in the field of municipal parking lot construction/reconstruction to warrant release of the bid documents. The Contractor shall provide such documentation as is deemed necessary upon request. If this information is not satisfactorily completed, the bid documents shall be withheld.

PREFERENCE TO VETERANS
Attention is called to assure compliance with Illinois Compiled Statutes Veteran's Preference Act 330 ILCS 55/. "In the employment and appointment to fill positions in the construction, addition to, or alteration of all public works undertaken or contracted for by the state, or by any political subdivision thereof, preference shall be given to persons who have been members of the armed forces or allies of armed forces of allies of the United States in time of hostilities with a foreign country..."

WAGE RATES
This contract calls for the construction of a "public work," within the meaning of the Illinois Prevailing Wage Act, 820 ILCS 130/.01 et seq. ("the Act"). The Act requires contractors and subcontractors to pay laborers, workers and mechanics performing services on public works projects no less than the "prevailing rate of wages" (hourly cash wages plus fringe benefits) in the county where the work is performed. For information regarding current prevailing wage rates, please refer to the Illinois Department of Labor's website at: http://www.state.il.us/agency/idol/rates/rates.HTM. All contractors and subcontractors rendering services under this contract must comply with all requirements of the Act, including but not limited to, all wage, notice and record keeping duties.

INSURANCE COVERAGE
The Insurance Requirements can be found in Section 7 of the General Requirements "Legal Relations and Responsibility to the Public". The Contractor and any Subcontractors shall obtain and thereafter keep in force for the term of the contract the insurance coverage specified in this section. The Contractor shall not commence work under the Contract until all the insurance required by this section or any Special Provision has been obtained.

Section 7-2.02E Pollution Liability WILL be required as part of this project.

Section 7-2.02F Professional Liability WILL NOT be required as part of this project.

PUBLIC CONSTRUCTION ACT, 30 ILCS 557/1
Pursuant to the home rule powers of the Village, Public Construction Act 30 ILCS 557/1 shall not be applicable to this contract.
COORDINATION/SCHEDULING OF WORK
Because of limited parking, the work in the lots must be phased. Each location will have the phasing/staging requirements specified on the exhibits. Once one phase is 100% complete including striping per the preconstruction conditions, work can begin on the next phase.

The Contractor shall be advised that the work of all subcontractors will be coordinated by the General Contractor and not by the Village or the Engineer.

If the Contractor is required to impede access to any property for any reason during the course of this project, the Contractor shall provide 24 hour advanced written notice to the affected residents. The notification shall be of a form and method as approved by the Village of Tinley Park.

Additional requirements regarding notification signage and traffic movement signage is specified on the appropriate exhibits. The Contractor will be responsible for all closure notification well in advance at the lots and in the areas commonly used by commuters at the Metra Lots (i.e. pay stations). The communication shall be of a form and method approved by the Village.

All equipment parking and work in general must be coordinated with the Village. There will be days when the parking lot is completely unavailable for construction. All work must be 100% completed before these dates.

All equipment must be removed from the parking lot during all holiday weekends at the request of the Village.

Work hours will be 7AM to 7PM Monday through Friday. Weekend work hours as approved by the Village. No work including the startup of machinery can occur outside of these hours.

Priming/tacking of the parking lot must be done on the day of paving.

Prior to HMA surface removal, all curb removal and replacement and curb slot restoration must be completed.

Sweeping will be required after grinding operations and within 24 hours before paving.

The Contractor is expected to inspect all locations before beginning work and have all material on hand to complete the project. No compensation will be given for inadequate inventory, shipping, trucking or re-stocking of materials.

At the end of each working day, the contractor shall provide a steel plate, barricades, warning tape and any other safety measures deemed necessary by the Village over the excavated area so that traffic, parking or access is not impeded during non-working hours. Access to the property shall be maintained at all times. Placement of temporary aggregate in the roadway and in driveway areas disturbed by the construction shall be used until final conditions are met. Street clean up and sweeping is also required at the end of each working day. The cost for materials and traffic control items necessary to meet these requirements shall be considered incidental to the contract.

All water use shall be coordinated with the Village and be in compliance with their rules and regulations.

GEOTECHNICAL INFORMATION
The Village and Authorized Representative assumes no responsibility in regard to the nature of the information or the conditions which may be encountered during construction. The Bidder may satisfy themselves prior to bidding, by such methods as they may prefer, including their own borings/cores with the Village's consent, as to the nature of the pavement cross section and/or subsurface conditions, including any obstructions, which may be encountered.
during construction. Failure to make such borings shall not relieve the Contractor of the responsibility for carrying out to successful completion the work contemplated by the Project Documents for the price specified in the Bid.

PUBLIC UTILITIES
There are existing underground and above ground public and private, municipal and non-municipal utilities at the site, such as, but not necessarily limited to parking stall identification signage, electrical and telephone cables including fiber-optic facilities, natural gas pipes, sewers, and water main, etc. All due notifications, vertical/horizontal separations, and other safety precautions required by the owners/operators of the facilities being crossed shall be observed by the Contractor and/or all sub-contractors at all times. Any damage caused by the construction to any of the existing facilities on-site shall be promptly repaired to the satisfaction of the owners/operators of the facility involved, at no additional compensation.

It shall be the Contractor's responsibility to very carefully inspect the site, identify and locate both horizontally and vertically all existing facilities, contact their owner/operators for their notification, separation, and safety requirements, and follow such requirements very carefully. It shall be the Contractor's responsibility to notify J.U.L.I.E. at least 48 hours prior to excavation to verify locations of all utilities.

The Contractor shall protect and save harmless the Village of Tinley Park and Robinson Engineering, Ltd from any claim(s) of damage resulting from his/her activities at the site or from failing to undertake due and proper safety measures to avoid such damage to any utilities during the construction.

The Contractor shall repair any damage to any of the utilities, caused by his/her work, to the satisfaction of the involved utility and the Village of Tinley Park at no additional compensation. The cost of compliance with this provision shall be considered incidental to the contract and will not be compensated for separately.

TRAFFIC CONTROL PLAN
Effective: September 30, 1985
Revised: January 1, 2007

Traffic Control shall be in accordance with the applicable sections of the Standard Specifications, the Supplemental Specifications, and the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways", any special details and Highway Standards contained in the plans and the Special Provisions contained herein.

Special attention is called to Article 107.09 of the Standard Specifications and the following Highway Standards, Details, Quality Standard for Work Zone Traffic Control Devices, Recurring Special Provisions and Special Provisions contained herein, relating to traffic control.

The Contractor shall contact the Resident Engineering Representative at least 72 hours in advance of beginning work.

STANDARDS: 701006-05, 701301-04, 701311-03, 701501-06, 701801-06, 701901-07

DISTRICT ONE DETAILS: TC-10, TC-13

SPECIAL PROVISIONS: Traffic Control Plan, Maintenance of Roadways

The Contractor shall not remove any traffic control or safety devices until the entire job is complete. The Contractor shall obtain, erect, maintain and remove all signs, barricades, flagmen and other traffic control devices as may be necessary for the purpose of regulating, warning or guiding traffic. Placement and maintenance of all traffic control devices shall be in accordance with the applicable parts of Article 107.14 of the Standard Specifications and the
Illinois Manual on Uniform Traffic Control Devices for Streets and Highways and the attached special provisions. The Contractor is solely responsible for ensuring all traffic control devices are installed and maintained in accordance with applicable state standards.

Work Zone Traffic Control will not be paid for separately but will be considered incidental to the contract.

The Contractor is hereby advised that notification to all affected residents is his responsibility including the placement of No Parking signs at least 48 hours prior to paving operations. In addition, signage indicating road conditions such as “Bump,” “Rough Surface,” “Fresh Oil,” “Dip,” etc., as requested by the Village will also be required at no additional expense.

MATERIAL INSPECTION REPORTS
The Contractor shall be responsible for material inspection required for various items incorporated in this project. Also, all documentation is to be submitted to the Village or Authorized Representative, immediately following completion of this project. Five percent (5%) of the final contract amount due the Contractor will be withheld pending receipt of said documentation.

GUARANTEE
All materials and equipment shall be guaranteed for a period of one (1) year from the date of written acceptance by the Village. Upon receipt of notice from the Village of failure of any part of the improvements during the guarantee period, replacement of the improvements shall be furnished and installed by the Contractor at no additional cost to the Village of Tinley Park.

COMPLETION SCHEDULE
The Contractor is advised that all work shall be completed on or before November 1, 2018. Penalties for not meeting the completion date and any other restrictions outlined herein shall be assessed at the rate of $1,000 per calendar day.

TRACKING OF QUANTITIES
During the course of the contract, the Contractor shall maintain a list of each location for which work was performed along with the individual quantities and cost breakdown. This tracking will help ensure that the funding allotment is not exceeded during the work. It is the responsibility of the Contractor to ensure his work does not exceed the funding limits established by the Village.

VIDEO OF CONSTRUCTION ROUTE
Prior to the start of any construction or excavation, the Contractor shall video record the existing conditions in the area of the construction route. The video shall be done on standard color DVD. The Contractor shall supply the Village or Authorized Representative with two copies of the video prior to starting construction. The video shall include the following:

1. Full right-of-way
2. Parkway condition
3. Pavement condition
4. Curb condition
5. Driveway condition
6. Existing manholes
7. Fire hydrants
8. Fences
9. Trees and landscaped areas

The video recordings shall also supply a continuous audio record of the location (preferably with address), all anticipated problem areas, items, and features for the complete area to be affected by the construction. The video recording shall be made on a DVD or other approved equal and shall conform to Japan Electronics and Information Technology Industries Association (JEITA) standards. The format of recording and type of media used shall remain the same throughout the project. When the recorded video information is replayed and reviewed, it shall be free of electrical interference.
The audio portion of the composite signal shall be sufficiently free of electrical interference, background noise, and heavy foreign or regional accents to provide an oral report that is clear and complete and easily discernible. The audio portion of the video report shall be recorded by the operating technician on the video as they are being produced and shall include references to the street address and type of construction to be performed at the site as specified in the plans. Audio comments pertaining to special circumstances, which may arise during the excavation, shall also be included. Dubbing the audio information onto the video tract after the video is completed will not be permitted.

Video recordings shall be enclosed in vinyl plastic containers, which shall clearly indicate the date the video was taken, the designated section(s) of construction contained on the tape, and the label “VILLAGE OF TINLEY PARK FY2019 Municipal Parking Lot Improvements (Project #18-R0362).” One (1) copy of the finished video shall be delivered to the Village or Authorized Representative prior to commencing excavation.

The surface condition of excavated areas after final restoration shall be the same or better than the pre-construction site conditions as shown in the video. The cost of video and log preparation shall not be compensated for separately but shall be considered incidental to the contract.

The surface condition of excavated areas after final restoration shall be the same or better than the pre-construction site conditions as shown in the videotape. The cost of videotaping and log preparation shall not be compensated for separately but shall be considered incidental to the contract.

CLEAN CONSTRUCTION OR DEMOLITION DEBRIS (CCDD) REQUIREMENTS PER 35 IAC 1100
If the Contractor is planning on disposing of uncontaminated soils at an Illinois Environmental Protection Agency (IEPA) permitted CCDD facility, the work shall be conducted in accordance with the criteria set forth in 35 Illinois Administrative Code (IAC) 1100 as amended on August 27, 2012. The following protocol must be followed:

1. The Contractor must identify in writing the name / location of the Contractor’s intended CCDD facility to the Village (or Engineer) prior to the commencement of any construction activities.

2. The Village (or Engineer) will contact the Contractor’s CCDD facility to identify the laboratory testing or certifications required for disposal acceptance.

3. The Contractor will assist the Village (or Engineer) in obtaining the sample(s) through the use of the Contractor’s equipment at locations determined by the Village (or Engineer). The Contractor shall expose soils at one or more distinct locations as directed by the Village (or Engineer). The Contractor may need to remove pavement, sidewalk or other surface improvements to expose the soil. The Village (or Engineer) will determine the number, location and depth of the samples that will need to be collected for characterization of the excess soil that will be generated during the construction project.

4. The Village (or Engineer) will be responsible for the sampling / testing of the soil and preparation of the required certification form.

5. The samples will be run with standard 5 to 7 working day turnaround time unless a rush is required by the Contractor. If so, the Contractor will be responsible for additional fees associates with fast-tracking the samples.

6. Once the appropriate certifications have been prepared, the Contractor will be responsible for all hauling/disposal of material at the CCDD facility.

The work contained within this special provision shall be considered incidental to the contract.
The Village will test for the following: VOC's, SVOC's, Pesticides, RCRA 8 total metals and pH. If the Contractor elects to utilize a CCDD facility that requires the full MAC list, the Contractor will be responsible for paying all sampling costs above $1,000.00.

If any contaminated soil is encountered that requires landfill disposal as a non-special waste, special waste or hazardous waste, it will be paid for per Article 109.04 of the Standard Specifications.

SAW CUT JOINTS
The removal and/or replacement of any driveways, pavement, curb, sidewalk, etc. shall be accomplished by means of a straight saw cut joint, at the direction of the Village or Authorized Representative. This work shall not be paid for separately but will be included in the unit price bid for the various removal items.

QUANTITIES FOR PAVEMENT PATCHING
The quantities called for in this contract indicate the approximate amount of patching work to be expected. The actual amounts for the various patching items shall be as marked out by the Engineer in the field. It shall be understood and agreed upon that the unit price for these items shall prevail throughout the period of the contract and that no additional compensation per unit price will be allowed for any increase or decrease in the patching quantity.

PATCHING LIMITATIONS
It is hereby understood and agreed that no pavement patching will be permitted after Friday at 3:00 PM of each and every week and no holes will be allowed to remain open overnight or over the weekend.

CLASS D PATCHES
This work shall be done in accordance with the applicable articles in Sections 406 and 442 of the Standard Specifications.

Class D patches, 4 inch shall consist of 4 inches of binder.

Class D patches, 10 inch shall consist of 10 inches of binder (in front of curb slots).

REMOVE AND REPLACE CURB AND GUTTER (SPECIAL)
This item shall consist of the removal and replacement of the concrete ribbon curb and gutter, in accordance with Sections 440 and 606 of the Standard Specifications and the detail shown on the plans (South Street Metra Lot Location #3, sheet #5) at locations as designated by the Engineer.

The surfaces shall be removed by full depth sawed joints and one-half inch (1/2") preformed joint filler shall be used between new concrete and existing concrete; where concrete driveways, walks, etc. meet curbs; and between the curb and all steel castings. Where curb and gutter is removed at driveway locations, access to the property shall be maintained with temporary aggregate. When replacing curb near an inlet, all curbs must be drilled and dowelled using number 6 smooth rods and expansion material.

All existing pavement removed due to the removal and replacement of combination concrete curb and gutter or concrete curb shall be replaced in two layers with a patch consisting of Hot-Mix Binder Surface Course, Mix D, N50 not less than ten-inches (10") below the existing surface elevation at a minimum width of one foot wide. Saw cutting shall be required as directed by the Engineer to secure a straight joint and shall be paid for in the curb removal item. Concrete will not be allowed to fill in the gap between the new curb and existing pavement. The replacement of the pavement shall be paid for in the respective Class D patch items. The material, any aggregate, required rebar, rods, required, expansion material and any labor and incidentals for a complete job shall be paid for at the contract unit price bid per FOOT of REMOVE AND REPLACE CURB AND GUTTER (SPECIAL).
REMOVE AND REINSTALL BRICK PAVER

This work shall consist of the removal and replacement of the existing brick paver areas within the South Street Metra Lot (Location #3, sheet #5) adjacent to the ribbon curb removal and replacement at the locations as shown on the plans or as directed by the Engineer.

Where existing brick pavers are to be removed, as directed by the Engineer, the removed pavers shall be salvaged and reinstalled at the existing grades with a minimum of four inches (4") of cushion of compacted CA 6 stone, one inch (1") of sand or paver base and the existing brick pavers on a properly compacted sub-base. After installation, sand shall be spread over the pavers and worked into the joints and compacted. This work shall be done in conformance with applicable portions of Sections 424 and 440 of the Standard Specifications. A maximum width of brick paver removal and reinstallation shall be 18 inches from the existing back of curb unless otherwise agreed to by the Engineer. Unless otherwise requested to be disposed of, any excess brick pavers shall remain the property of the Village and shall be properly stacked at a location specified by the property owner.

Any additional excavation required to reinstall these brick paver areas with the proposed cross section will be considered incidental.

This work will be paid for at the contract unit price per SQUARE FOOT for REMOVE AND REINSTALL BRICK PAVER, which shall include the removal and salvaging of the existing brick pavers, additional excavation, subgrade preparation, aggregate base, sand cushion, reinstallation of the brick pavers, sand topping and any additional materials, labor and equipment necessary for this work.

DRAINAGE & UTILITY STRUCTURES TO BE ADJUSTED OR RECONSTRUCTED

This work shall consist of the adjustment and/or reconstruction of drainage and utility structures at those locations as indicated in the plans or as directed by the Engineer in the field.

The existing pavement around each structure to be adjusted or reconstructed shall be removed by a straight, saw-cut joint.

All structures requiring frame and lid adjustment, or reconstruction shall also be cleaned to the satisfaction of the Engineer in accordance with Article 602.15. This work shall not be paid for separately but shall be considered included in the cost of the adjustment or reconstruction.

Any trench backfill needed to fill in the area around the adjusted or reconstructed structure will not be paid for separately but shall be considered included in the cost of the adjustment or reconstruction.

After adjustment or reconstruction is completed, the pavement around the structure shall be replaced with HMA binder (IL-19.00 mm), N50. The binder will be placed on a compacted, prepared subgrade, and the thickness shall match existing conditions. The pavement replacement will not be paid for separately but shall be considered incidental to the structure being adjusted or reconstructed.

The General Contractor shall be responsible for coordinating this work with the subcontractor, not the Village or their Engineer. This work shall be completed in accordance with the applicable portions of Section 602 of the Standard Specifications. All adjustments shall be made with rubber adjustment rings unless otherwise directed by the Engineer. The cost for the rubber adjustment rings will be paid for separately and shall not be included in the cost of the structure adjustment.

Concrete will not be allowed to fill the gap between the structure and the existing pavement. A full depth patch will be required for adjustments not within the curb and the cost of that work will be incidental to the adjustment. This work will be paid for at the contract unit price EACH for DRAINAGE & UTILITY STRUCTURES TO BE ADJUSTED and for DRAINAGE & UTILITY STRUCTURES TO BE RECONSTRUCTED.
RUBBER ADJUSTING RINGS
This work shall consist of the adjustment and/or reconstruction of drainage and utility structures at those locations as directed by the Village or Engineer in the field using rubber fibrepolyurethane prepolymer composite adjusting rings. This pay item reflects the cost of the material only. Installation shall be included in the pay item for the drainage and utility structures to be adjusted or reconstructed. Tapered adjusting rings shall be used where necessary to match the profile of the pavement. In order to minimize the number of rings used, thicker rings shall be used where practical (i.e. one 3 inch ring rather than 3- one inch rings). The Contractor shall examine all adjustments in the field prior to ordering materials.

This work will be paid for at the contract unit price EACH for RUBBER ADJUSTING RINGS.

STEEL ADJUSTING RINGS
This work shall consist of the adjustment and/or reconstruction of drainage and utility structures at those locations as directed by the Engineer in the field using steel adjusting rings. This pay item reflects the cost of the material only which shall be in accordance with Article 1006.04 of the Standard Specifications. Installation shall be included in the pay item for the drainage and utility structures to be adjusted or reconstructed.

This work will be paid for at the contract unit price EACH for STEEL ADJUSTING RINGS.

HMA DRIVEWAY PAVEMENT, 8"
Where the existing driveway entrance from south street is to be removed and replaced with additional parking, the existing driveway disturbed by the construction shall be removed by means of a straight saw cut joint at locations indicated on the plans or as directed by the Engineer. All pavement removal work shall be in accordance with Section 440 of the Standard Specifications.

The new parking area shall be restored with a six inch (6") Aggregate Base Course, Type B, five inch (5") Hot-Mix Asphalt Binder Course, and a three inch (3") Hot-Mix Asphalt Surface Course, Mix “D”, N50. All work shall be done in conformance with Sections 351 and 406 of the State Specifications.

Removal and replacement of all headwalls, culverts underneath driveways, landscape timbers, decorative brick and/or stone, lights, and all other specialty landscape accents shall not be paid for separately but shall be considered incidental to the unit price for hot-mix asphalt driveway pavement.

Measurement for payment for driveway replacement shall be made in square yards. The cost for saw cutting, removal and disposal of existing pavement and construction of the new driveway including the 6" Aggregate Base Course, Type B, HMA Binder Course, and the HMA Surface Course Mix “D”, N50 shall be paid for at the contract unit price bid per SQUARE YARD for HMA DRIVEWAY PAVEMENT.

PROJECT HOT-MIX ASPHALT MIXTURE REQUIREMENT CHART

<table>
<thead>
<tr>
<th>ITEM</th>
<th>HOT-MIX ASPHALT MIXTURE REQUIREMENT CHART</th>
<th>AIR VOIDS @ Ndes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RESURFACING</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HMA Surface Course, Mix “D”, N50 (IL 9.5 mm); 2&quot;</td>
<td>4% @ 50 Gyr.</td>
</tr>
<tr>
<td></td>
<td>HMA Surface Course, Mix “D”, N50 (IL 9.5 mm); 1.5&quot;</td>
<td>4% @ 50 Gyr.</td>
</tr>
<tr>
<td></td>
<td>PATCHING</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class D Patches (HMA Binder IL-19mm); 4&quot;</td>
<td>4% @ 70 Gyr.</td>
</tr>
<tr>
<td></td>
<td>Class D Patches (HMA Binder IL-19mm); 10&quot;</td>
<td>4% @ 70 Gyr.</td>
</tr>
</tbody>
</table>
The "AC Type" for Non-Polymerized HMA the "AC Type" shall be "PG 64-22" unless modified by District One Special Provisions. For Use of Recycled Materials, see Special Provisions.

The unit weight used to calculate all Hot-Mix Asphalt Surface Mixtures is 112 lbs/sq yd/in.

PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
Where new concrete sidewalk is to be constructed, it shall be constructed with a minimum four inches (4") of cushion of CA 6 stone and five inches (5") of PC Concrete. This work shall be done in conformance with Sections 424 and 440 of the Standard Specifications except as modified herein.

All sidewalk replacement shall be done with a minimum form size of 2 inches by 6 inches. Form material can be wood or steel. All sidewalks through driveways shall be 7 inches thick but paid for as PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH.

The saw cutting and any additional excavation required to construct these sidewalks will be considered incidental to the sidewalk removal. The placement of a minimum four inches (4") of CA 6 stone will be considered incidental to sidewalk placement. This work will be paid for at the contract unit price per SQUARE FOOT for PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH.

TOPSOIL FURNISH AND PLACE, 4"
This work shall consist of the furnishing and placing of four inches (4") of pulverized topsoil at all areas disturbed by the construction. All work shall be done in accordance with Sections 211 of the Standard Specifications with the exception the timeframe. All topsoil must be placed within 14 days of the curb replacement regardless of the schedule for the sod replacement. If this topsoil is not placed the Contractor will be charged $500 per day after day 14 in liquidated damages. In addition, if the Village has to undertake this work, the Contractor will be responsible for the cost to the Village to procure the work and this amount will be withheld from any amount due the Contractor by the Village.

If, in the opinion of the Engineer, more surface area than necessary has been damaged, it shall be replaced by the Contractor as specified herein without additional compensation. The maximum width for restoration will be three feet (3').

This work, including the topsoil, pulverizing, etc. shall be paid for at the contract unit price per SQUARE YARD for TOPSOIL FURNISH AND PLACE, 4".

SODDING, SPECIAL
This work shall consist of preparing the ground surface, fertilizing the areas to be sodded and furnishing and placing the sod. All work shall be in accordance with the applicable portions of Section 252 of the Standard Specifications. The maximum pay width shall be three (3') feet unless specifically directed otherwise by the engineer.

180 pounds of fertilizer nutrients per acre shall be applied at a 1:1:1 ratio as follows:

1. Nitrogen Fertilizer Nutrient 60 lb/acre
2. Phosphorus Fertilizer Nutrient 60 lb/acre
3. Potassium Fertilizer Nutrient 60 lb/acre
Watering shall be done as directed by the Engineer, in accordance with Article 252.08 of the Standard Specifications.

This work shall be measured in place and the area calculated in square yards and shall be paid for at the contract unit price per SQUARE YARD for SODDING, SPECIAL, which price shall be full compensation for all labor, equipment, and material needed to complete the work as specified in these Special Provisions.

VILLAGE OF TINLEY PARK LOCAL VENDOR PURCHASING POLICY

The Village of Tinley Park believes it is important to provide local vendors with opportunities to provide goods and services to the Village of Tinley Park. This belief is based upon the fact that the active uses of commercial properties in Tinley Park benefits the community through stabilization of property tax, the creation of local sales tax and the provision of employment opportunities for citizens of the community and surrounding region. In an effort to promote the aforementioned benefits, the Village of Tinley Park wishes to provide local vendors with preferential treatment when competing for contracts with the Village. A local vendor is defined as a business that has an actual business location within the Village of Tinley Park and is licensed by the Village. The Village will not award a contract to a local vendor when the difference between the local vendors bid and the otherwise lowest responsive and responsible bid exceeds the applicable percentage indicated as follows. As such, when considering contracts, the Village of Tinley Park reserves the right to forego the lowest responsive and responsible bid exceeds the applicable percentage indicated as follows. As such, when considering contracts, the Village of Tinley Park reserves the right to forego the lowest responsive and responsible bid in favor of a local vendor under the following circumstances:

<table>
<thead>
<tr>
<th>Contract Value</th>
<th>Range (up to a maximum of)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0 to $250,000</td>
<td>5%</td>
</tr>
<tr>
<td>$250,000 to $500,000</td>
<td>4%</td>
</tr>
<tr>
<td>$500,000 to $750,000</td>
<td>3%</td>
</tr>
<tr>
<td>$750,000 to $1,000,000</td>
<td>2%</td>
</tr>
<tr>
<td>$1,000,000 to $2,000,000</td>
<td>1%</td>
</tr>
</tbody>
</table>

Under no circumstances will any contract be awarded to a local vendor when the local vendor's bid exceeds the lowest responsive and responsible bid by $25,000 or more.

This policy shall ONLY apply if formal notice of the aforementioned criteria is provided as part of the bid specifications. In addition, it should be noted that the Village of Tinley Park shall not be obligated to forego the low bidder in favor of the local vendor under any circumstances. However, this policy simply provides the Village with the option of doing so when applicable. Furthermore, this policy shall not apply in any situation where any portion of the contract amount is being paid with funds other than Village monies. Specifically, this policy shall not apply in any situation where the Village has received a grant or otherwise received a source of funds other than its own funds.
RESPONSIBLE BIDDER
For any construction project undertaken by the Village to which the Illinois Prevailing Wage Act, 820 ILCS 130/0.01 et seq. is applicable, in order to be considered a "responsible bidder" on Village Public Works Projects, a bidder must comply with the following criteria, and submit acceptable evidence of such compliance, in addition to any other requirements as determined from time to time by the Village for the specific type of work to be performed:

(a) Compliance with all applicable laws and Village Codes and Ordinances prerequisite to doing business in Illinois and in the Village;

(b) Compliance with:
   a. Submittal of Federal Employer Tax Identification Number or Social Security Number (for individual), and
   b. Provisions of Section 2000e of Chapter 21, Title 42 of the United States Code and Federal Executive Order No. 11246 as amended by Federal Executive Order No. 11375 (known as the Equal Employment Opportunity Provisions);

(c) Furnishing certificates of insurance indicating at least the following coverages at minimum limits established by the Village: general liability, workers' compensation, completed operations, automobile, hazardous occupation, product liability, and professional liability;

(d) Compliance with all provisions of the Illinois Prevailing Wage Act, including wages, medical and hospitalization insurance and retirement for those trades covered by the Act;

(e) Participation in apprenticeship and training programs approved by and registered with the United States Department of Labor's Bureau of Apprenticeship and Training;

(f) Compliance with the applicable provisions of the Illinois Human Rights Act and the rules of the Illinois Human Rights Commission, including the adoption of a written sexual harassment policy;

(g) Furnishing of required performance and payment bonds;

(h) Furnishing certification of no delinquency in the payment of any tax administered by the Illinois Department of Revenue;

(i) Furnishing certification that the bidder is not barred from bidding or contracting as a result of a violation of either Section 33E or 33E-4 of Chapter 720, Article 5 of the Illinois Compiled Statutes; and

(j) Furnishing evidence that the bidder has not only the financial responsibility but also the ability to respond to the needs of the Village by the discharge of the Contractor's obligations in accordance with what is expected or demanded under the terms of the contract.
Revise Article 1004.03(a) of the Standard Specifications to read:

"1004.03 Coarse Aggregate for Hot-Mix Asphalt (HMA). The aggregate shall be according to Article 1004.01 and the following.

(a) Description. The coarse aggregate for HMA shall be according to the following table.

<table>
<thead>
<tr>
<th>Use</th>
<th>Mixture</th>
<th>Aggregates Allowed</th>
</tr>
</thead>
</table>
| Class A              | Seal or Cover            | Allowed Alone or in Combination 5^:
|                      |                          | Gravel                                                  |
|                      |                          | Crushed Gravel                                         |
|                      |                          | Carbonate Crushed Stone                                 |
|                      |                          | Crystalline Crushed Stone                               |
|                      |                          | Crushed Sandstone                                       |
|                      |                          | Crushed Slag (ACBF)                                     |
|                      |                          | Crushed Steel Slag                                      |
|                      |                          | Crushed Concrete                                        |
| HMA Low ESAL         | Stabilized Subbase or    | Allowed Alone or in Combination 5^:
|                      | Shoulders                | Gravel                                                  |
|                      |                          | Crushed Gravel                                          |
|                      |                          | Carbonate Crushed Stone                                 |
|                      |                          | Crystalline Crushed Stone                               |
|                      |                          | Crushed Sandstone                                       |
|                      |                          | Crushed Slag (ACBF)                                     |
|                      |                          | Crushed Steel Slag                                      |
|                      |                          | Crushed Concrete                                        |
| HMA High ESAL Low ESAL| Binder IL-19.0 or IL-19.0L| Allowed Alone or in Combination 5^/6^:
<p>|                      | SMA Binder               | Crushed Gravel                                          |
|                      |                          | Carbonate Crushed Stone                                 |
|                      |                          | Crystalline Crushed Stone                               |
|                      |                          | Crushed Sandstone                                       |
|                      |                          | Crushed Slag (ACBF)                                     |
|                      |                          | Crushed Concrete                                        |</p>
<table>
<thead>
<tr>
<th>Use</th>
<th>Mixture</th>
<th>Aggregates Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMA</td>
<td>C Surface and Levelling Binder IL-9.5 or IL-9.5L</td>
<td>Allowed Alone or in Combination ²:</td>
</tr>
<tr>
<td>High ESAL</td>
<td></td>
<td>Crushed Gravel</td>
</tr>
<tr>
<td>Low ESAL</td>
<td>SMA Ndesign 50 Surface</td>
<td>Carbonate Crushed Stone ²</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Crystalline Crushed Stone</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Crushed Sandstone</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Crushed Slag (ACBF)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Crushed Steel Slag ³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Crushed Concrete ³</td>
</tr>
<tr>
<td>HMA</td>
<td>D Surface and Levelling Binder IL-9.5</td>
<td>Allowed Alone or in Combination ⁵:</td>
</tr>
<tr>
<td>High ESAL</td>
<td></td>
<td>Crushed Gravel</td>
</tr>
<tr>
<td></td>
<td>SMA Ndesign 50 Surface</td>
<td>Carbonate Crushed Stone (other than Limestone) ²</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Crystalline Crushed Stone</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Crushed Sandstone</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Crushed Slag (ACBF)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Crushed Steel Slag ³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Crushed Concrete ³</td>
</tr>
<tr>
<td></td>
<td><strong>Other Combinations Allowed:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Up to...</td>
<td>With...</td>
</tr>
<tr>
<td></td>
<td>25% Limestone</td>
<td>Dolomite</td>
</tr>
<tr>
<td></td>
<td>50% Limestone</td>
<td>Any Mixture D aggregate other than Dolomite</td>
</tr>
<tr>
<td></td>
<td>75% Limestone</td>
<td>Crushed Slag (ACBF) or Crushed Sandstone</td>
</tr>
<tr>
<td>HMA</td>
<td>E Surface IL-9.5</td>
<td>Allowed Alone or in Combination ⁵⁶:</td>
</tr>
<tr>
<td>High ESAL</td>
<td></td>
<td>Crystalline Crushed Stone</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Crushed Sandstone</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Crushed Slag (ACBF)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Crushed Steel Slag</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No Limestone.</td>
</tr>
<tr>
<td></td>
<td><strong>Other Combinations Allowed:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Up to...</td>
<td>With...</td>
</tr>
<tr>
<td></td>
<td>50% Dolomite ²</td>
<td>Any Mixture E aggregate</td>
</tr>
<tr>
<td>Use</td>
<td>Mixture</td>
<td>Aggregates Allowed</td>
</tr>
<tr>
<td>---------------------</td>
<td>------------------</td>
<td>------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>75% Dolomite</strong>&lt;sup&gt;2/&lt;/sup&gt; Crushed Sandstone, Crushed Slag (ACBF), Crushed Steel Slag, or Crystalline Crushed Stone</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>75% Crushed Gravel</strong>&lt;sup&gt;2/&lt;/sup&gt; or Crushed Concrete&lt;sup&gt;3/&lt;/sup&gt; Crushed Sandstone, Crystalline Crushed Stone, Crushed Slag (ACBF), or Crushed Steel Slag</td>
</tr>
<tr>
<td>HMA F Surface</td>
<td>F Surface IL-9.5</td>
<td>Allowed Alone or in Combination&lt;sup&gt;5/6/&lt;/sup&gt;: Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag No Limestone.</td>
</tr>
<tr>
<td></td>
<td>SMA Ndesign 80</td>
<td>Other Combinations Allowed: Up to... With... 50% Crushed Gravel&lt;sup&gt;2/&lt;/sup&gt;, Crushed Concrete&lt;sup&gt;3/&lt;/sup&gt;, or Dolomite&lt;sup&gt;2/&lt;/sup&gt; Crushed Sandstone, Crushed Slag (ACBF), Crushed Steel Slag, or Crystalline Crushed Stone</td>
</tr>
<tr>
<td></td>
<td>Surface</td>
<td></td>
</tr>
</tbody>
</table>

1/ Crushed steel slag allowed in shoulder surface only.
2/ Carbonate crushed stone (limestone) and/or crushed gravel shall not be used in SMA Ndesign 80. In SMA Ndesign 50, carbonate crushed stone shall not be blended with any of the other aggregates allowed alone in Ndesign 50 SMA binder or Ndesign 50 SMA surface.
3/ Crushed concrete will not be permitted in SMA mixes.
4/ Crushed steel slag shall not be used as leveling binder.
5/ When combinations of aggregates are used, the blend percent measurements shall be by volume."
6/ Combining different types of aggregate will not be permitted in SMA Ndesign 80."

**GROUND TIRE RUBBER (GTR) MODIFIED ASPHALT BINDER (DISTRICT 1)**

Effective: June 26, 2006
Revised: April 1, 2016

Add the following to the end of article 1032.05 of the Standard Specifications:

"(c) Ground Tire Rubber (GTR) Modified Asphalt Binder. A quantity of 10.0 to 14.0 percent GTR (Note 1) shall be blended by dry unit weight with a PG 64-28 to make a GTR 70-28 or a PG 58-28 to make a GTR 64-28. The base PG 64-28 and PG 58-28 asphalt binders shall meet the requirements of Article 1032.05(a)."
Compatible polymers may be added during production. The GTR modified asphalt binder shall meet the requirements of the following table.

<table>
<thead>
<tr>
<th>Test</th>
<th>Asphalt Grade GTR 70-28</th>
<th>Asphalt Grade GTR 64-28</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point (C.O.C.), AASHTO T 48, °F (°C), min.</td>
<td>450 (232)</td>
<td>450 (232)</td>
</tr>
<tr>
<td>Rotational Viscosity, AASHTO T 316 @ 275 °F (135 °C), Poises, Pa·s, max.</td>
<td>30 (3)</td>
<td>30 (3)</td>
</tr>
<tr>
<td>Softening Point, AASHTO T 53, °F (°C), min.</td>
<td>135 (57)</td>
<td>130 (54)</td>
</tr>
<tr>
<td>Elastic Recovery, ASTM D 6084, Procedure A (sieve waived) @ 77 °F, (25 °C), aged, ss, 100 mm elongation, 5 cm/min., cut immediately, %, min.</td>
<td>65</td>
<td>65</td>
</tr>
</tbody>
</table>

Note 1. GTR shall be produced from processing automobile and/or light truck tires by the ambient grinding method. GTR shall not exceed 1/16 in. (2 mm) in any dimension and shall contain no free metal particles or other materials. A mineral powder (such as talc) meeting the requirements of AASHTO M 17 may be added, up to a maximum of four percent by weight of GTR to reduce sticking and caking of the GTR particles. When tested in accordance with Illinois modified AASHTO T 27, a 50 g sample of the GTR shall conform to the following gradation requirements:

<table>
<thead>
<tr>
<th>Sieve Size</th>
<th>Percent Passing</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 16 (1.18 mm)</td>
<td>100</td>
</tr>
<tr>
<td>No. 30 (600 μm)</td>
<td>95 ± 5</td>
</tr>
<tr>
<td>No. 50 (300 μm)</td>
<td>&gt; 20</td>
</tr>
</tbody>
</table>

Add the following to the end of Note 1. of article 1030.03 of the Standard Specifications:

"A dedicated storage tank for the Ground Tire Rubber (GTR) modified asphalt binder shall be provided. This tank must be capable of providing continuous mechanical mixing throughout by continuous agitation and recirculation of the asphalt binder to provide a uniform mixture. The tank shall be heated and capable of maintaining the temperature of the asphalt binder at 300 °F to 350 °F (149 °C to 177 °C). The asphalt binder metering systems of dryer drum plants shall be calibrated with the actual GTR modified asphalt binder material with an accuracy of ± 0.40 percent."

Revise 1030.02(c) of the Standard Specifications to read:

"(c) RAP Materials (Note 5) ............................................................................1031"

Add the following note to 1030.02 of the Standard Specifications:

Add the following note to 1030.02 of the Standard Specifications:
Note 5. When using reclaimed asphalt pavement and/or reclaimed asphalt shingles, the maximum asphalt binder replacement percentage shall be according to the most recent special provision for recycled materials.
HMA MIXTURE DESIGN REQUIREMENTS (D-1)
Effective: January 1, 2013
Revised: January 1, 2018

1) Design Composition and Volumetric Requirements

Revise the table in Article 406.06(d) of the Standard Specifications to read:

<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)</td>
</tr>
<tr>
<td>SMA-9.5, IL-9.5, IL-9.5L</td>
<td>1 1/2 (38)</td>
</tr>
<tr>
<td>SMA-12.5</td>
<td>2 (50)</td>
</tr>
<tr>
<td>IL-19.0, IL-19.0L</td>
<td>2 1/4 (57)*</td>
</tr>
</tbody>
</table>

Revise the table in Article 1004.03(c) of the Standard Specifications to read:

<table>
<thead>
<tr>
<th>*Use</th>
<th>Size/Application</th>
<th>Gradation No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class A-1, 2, &amp; 3</td>
<td>3/8 in. (10 mm) Seal</td>
<td>CA 16</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; 3</td>
<td>Cover</td>
<td>CA 14</td>
</tr>
<tr>
<td>HMA High ESAL</td>
<td>IL-19.0</td>
<td>CA 11 1/2</td>
</tr>
<tr>
<td></td>
<td>IL-9.5</td>
<td>CA 16, CA 13 3/4</td>
</tr>
<tr>
<td>HMA Low ESAL</td>
<td>IL-19.0L</td>
<td>CA 11 1/2</td>
</tr>
<tr>
<td></td>
<td>IL-9.5L</td>
<td>CA 16</td>
</tr>
<tr>
<td></td>
<td>Stabilized Subbase or Shoulders</td>
<td></td>
</tr>
<tr>
<td>SMA 2/</td>
<td>1/2 in. (12.5mm) Binder &amp; Surface IL 9.5</td>
<td>CA13 3/4, CA14 or CA16</td>
</tr>
<tr>
<td></td>
<td>Surface</td>
<td>CA16, CA 13 3/4</td>
</tr>
</tbody>
</table>

1/ CA 16 or CA 13 may be blended with the gradations listed.
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/ CA 13 shall be 100 percent passing the 1/2 in. (12.5mm) sieve.

Revise Article 1004.03(e) of the Supplemental Specifications to read:

"(e) Absorption. For SMA the coarse aggregate shall also have water absorption ≤ 2.0 percent."
Revise the last paragraph of Article 1102.01 (a) (5) of the Standard Specifications to read:

"IL-4.75 and Stone Matrix Asphalt (SMA) mixtures which contain aggregate having absorptions greater than or equal to 2.0 percent, or which contain steal slag sand, shall have minimum surge bin storage plus haul time of 1.5 hours."

Revise the nomenclature table in Article 1030.01 of the Standard Specifications to read:

<table>
<thead>
<tr>
<th>&quot;High ESAL&quot;</th>
<th>IL-19.0 binder; IL-9.5 surface; IL-4.75; SMA-12.5, SMA-9.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low ESAL</td>
<td>IL-19.0L binder; IL-9.5L surface; Stabilized Subbase (HMA)^1; HMA Shoulders^2</td>
</tr>
</tbody>
</table>

1/ Uses 19.0L binder mix.

2/ Uses 19.0L for lower lifts and 9.5L for surface lift.

Revise Article 1030.02 of the Standard Specifications and Supplemental Specifications to read:

**1030.02 Materials.** Materials shall be according to the following.

<table>
<thead>
<tr>
<th>Item</th>
<th>Article/Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Coarse Aggregate</td>
<td>1004.03</td>
</tr>
<tr>
<td>(b) Fine Aggregate</td>
<td>1003.03</td>
</tr>
<tr>
<td>(c) RAP Material</td>
<td>1031</td>
</tr>
<tr>
<td>(d) Mineral Filler</td>
<td>1011</td>
</tr>
<tr>
<td>(e) Hydrated Lime</td>
<td>1012.01</td>
</tr>
<tr>
<td>(f) Slaked Quicklime (Note 1)</td>
<td></td>
</tr>
<tr>
<td>(g) Performance Graded Asphalt Binder (Note 2)</td>
<td>1032</td>
</tr>
<tr>
<td>(h) Fibers (Note 3)</td>
<td></td>
</tr>
<tr>
<td>(i) Warm Mix Asphalt (WMA) Technologies (Note 4)</td>
<td></td>
</tr>
</tbody>
</table>

Note 1. Slaked quicklime shall be according to ASTM C 5.

Note 2. The asphalt binder shall be an SBS PG 76-28 when the SMA is used on a full-depth asphalt pavement and SBS PG 76-22 when used as an overlay, except where modified herein. The asphalt binder shall be an Elvaloy or SBS PG 76-22 for IL-4.75, except where modified herein. The elastic recovery shall be a minimum of 80.

Note 3. A stabilizing additive such as cellulose or mineral fiber shall be added to the SMA mixture according to Illinois Modified AASHTO M 325. The stabilizing additive shall meet the Fiber Quality Requirements listed in Illinois Modified AASHTO M 325. Prior to approval and use of fibers, the
Contractor shall submit a notarized certification by the producer of these materials stating they meet these requirements. Reclaimed Asphalt Shingles (RAS) may be used in Stone Matrix Asphalt (SMA) mixtures designed with an SBA polymer modifier as a fiber additive if the mix design with RAS included meets AASHTO T305 requirements. The RAS shall be from a certified source that produces either Type I or Type 2. Material shall meet requirements noted herein and the actual dosage rate will be determined by the Engineer.

Note 4. Warm mix additives or foaming processes shall be selected from the current Bureau of Materials and Physical Research Approved List, "Warm Mix Asphalt Technologies."

Revise Article 1030.04(a)(1) of the Standard Specifications and the Supplemental Specifications to read:
*(1) High ESAL Mixtures. The Job Mix Formula (JMF) shall fall within the following limits.

<table>
<thead>
<tr>
<th>Sieve Size</th>
<th>IL-19.0 (mm) min</th>
<th>IL-19.0 (mm) max</th>
<th>SMA 4/ IL-12.5 (mm) min</th>
<th>SMA 4/ IL-12.5 (mm) max</th>
<th>SMA 4/ IL-9.5 (mm) min</th>
<th>SMA 4/ IL-9.5 (mm) max</th>
<th>IL-9.5 (mm) min</th>
<th>IL-9.5 (mm) max</th>
<th>IL-4.75 (mm) min</th>
<th>IL-4.75 (mm) max</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 1/2 in</td>
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<tr>
<td>1/2 in.</td>
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<tr>
<td>3/8 in.</td>
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<td>#100</td>
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<td>(75 µm)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ratio Dust/Asphalt Binder</td>
<td>1.0</td>
<td>1.5</td>
<td>1.5</td>
<td>1.0</td>
<td>1.0</td>
<td></td>
<td></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 N\text{design} = 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/ The maximum percent passing the #635 (20 µm) sieve shall be ≤ 3 percent.
5/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted above the percentage stated on the table.

6/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted below 34 percent.

Revise Article 1030.04(b)(1) of the Standard Specifications to read:

"(1) High ESAL Mixtures. The target value for the air voids of the HMA shall be 4.0 percent and for IL-4.75 it shall be 3.5 percent at the design number of gyrations. The VMA and VFA of the HMA design shall be based on the nominal maximum size of the aggregate in the mix, and shall conform to the following requirements.

<table>
<thead>
<tr>
<th>VOLUMETRIC REQUIREMENTS</th>
<th>High ESAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Voids in the Mineral Aggregate (VMA), % minimum</td>
</tr>
<tr>
<td>Ndesign</td>
<td>IL-19.0</td>
</tr>
<tr>
<td></td>
<td>50</td>
</tr>
<tr>
<td>IL-19.0</td>
<td>13.5</td>
</tr>
<tr>
<td>IL-9.5</td>
<td></td>
</tr>
<tr>
<td>IL-4.75</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1/ Maximum Draindown for IL-4.75 shall be 0.3 percent</td>
</tr>
</tbody>
</table>
|                         | 2/ VFA for IL-4.75 shall be 72-85 percent"

Replace Article 1030.04(b)(3) of the Standard Specifications with the following:

"(3) SMA Mixtures.

<table>
<thead>
<tr>
<th>Volumetric Requirements</th>
<th>SMA 1/</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ndesign</td>
<td>Design Air Voids Target %</td>
</tr>
<tr>
<td>80 4/</td>
<td>3.5</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
|                         | 1/ Maximum draindown shall be 0.3 percent. The draindown shall be determined at the JMF asphalt binder content at the mixing temperature plus 30 °F."
2/ Applies when specific gravity of coarse aggregate is \( \geq 2.760 \).

3/ Applies when specific gravity of coarse aggregate is \(< 2.760 \).

4/ Blending of different types of aggregate will not be permitted.

For surface course, the coarse aggregate can be crushed steel slag, crystalline crushed stone or crushed sandstone. For binder course, coarse aggregate shall be crushed stone (dolomite), crushed gravel, crystalline crushed stone, or crushed sandstone.

Add to the end of Article 1030.05 (d) (2) a. of the Standard Specifications:

"During production, the Contractor shall test SMA mixtures for draindown according to AASHTO T305 at a frequency of 1 per day of production."

Delete last sentence of the second paragraph of Article 1102.01(a) (4) b. 2.

Add to the end of Article 1102.01 (a) (4) b. 2.:

"As an option, collected dust (baghouse) may be used in lieu of manufactured mineral filler according to the following:

(a.) Sufficient collected dust (baghouse) is available for production of the SMA mix for the entire project.

(b.) A mix design was prepared based on collected dust (baghouse).

2) Design Verification and Production

Revise Article 1030.04 (d) of the Standard Specifications to read:

"(d) Verification Testing. High ESAL, IL-4.75, and SMA mix designs submitted for verification will be tested to ensure that the resulting mix designs will pass the required criteria for the Hamburg Wheel Test (IL mod AASHTO T-324) and the Tensile Strength Test (IL mod AASHTO T-283). The Department will perform a verification test on gyratory specimens compacted by the Contractor. If the mix fails the Department’s verification test, the Contractor shall make the necessary changes to the mix and resubmit compacted specimens to the Department for verification. If the mix fails again, the mix design will be rejected.

All new and renewal mix designs will be required to be tested, prior to submittal for Department verification and shall meet the following requirements:
(1) Hamburg Wheel Test criteria. The maximum allowable rut depth shall be 0.5 in. (12.5 mm). The minimum number of wheel passes at the 0.5 in. (12.5 mm) rut depth criteria shall be based on the high temperature binder grade of the mix as specified in the mix requirements table of the plans.

<table>
<thead>
<tr>
<th>Asphalt Binder Grade</th>
<th># Repetitions</th>
<th>Max Rut Depth (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PG 70 -XX (or higher)</td>
<td>20,000</td>
<td>12.5</td>
</tr>
<tr>
<td>PG 64 -XX (or lower)</td>
<td>10,000</td>
<td>12.5</td>
</tr>
</tbody>
</table>

1/ When produced at temperatures of 275 ± 5 °F (135 ± 3 °C) or less, loose Warm Mix Asphalt shall be oven aged at 270 ± 5 °F (132 ± 3 °C) for two hours prior to gyratory compaction of Hamburg Wheel specimens.

Note: For SMA Designs (N-80) the maximum rut depth is 6.0 mm at 20,000 repetitions.
For IL 4.75mm Designs (N-50) the maximum rut depth is 9.0mm at 15,000 repetitions.

(2) Tensile Strength Criteria. The minimum allowable conditioned tensile strength shall be 60 psi (415 kPa) for non-polymer modified performance graded (PG) asphalt binder and 80 psi (550 kPa) for polymer modified PG asphalt binder. The maximum allowable unconditioned tensile strength shall be 200 psi (1380 kPa).

Production Testing. Revise first paragraph of Article 1030.06(a) of the Standard Specifications to read:

“(a) High ESAL, IL-4.75, WMA, and SMA Mixtures. For each contract, a 300 ton (275 metric tons) test strip, except for SMA mixtures it will be 400 ton (363 metric ton), will be required at the beginning of HMA production for each mixture at the beginning of each construction year according to the Manual of Test Procedures for Materials “Hot Mix Asphalt Test Strip Procedures”. At the request of the Producer, the Engineer may waive the test strip if previous construction during the current construction year has demonstrated the constructability of the mix using Department test results.”

Add the following after the sixth paragraph in Article 1030.06 (a) of the Standard Specifications:

“The Hamburg Wheel test shall also be conducted on all HMA mixtures from a sample taken within the first 500 tons (450 metric tons) on the first day of production or during start up with a split reserved for the Department. The mix sample shall be tested according to the Illinois Modified AASHTO T 324 and shall meet the requirements specified herein. Mix production shall not exceed 1500 tons (1350 metric tons) or one day’s production, whichever comes first, until the testing is completed and the mixture is found to be in conformance. The requirement to cease mix production may be waived if the plant produced mixture demonstrates conformance prior to start of mix production for a contract. If the mixture fails to meet the Hamburg Wheel criteria, no further mixture will be accepted until the Contractor takes such action as is necessary to furnish a mixture meeting the criteria"
Method of Measurement:

Add the following after the fourth paragraph of Article 406.13 (b):

"The plan quantities of SMA mixtures shall be adjusted using the actual approved binder and surface Mix Design's $G_{mb}$.

Basis of Payment.

Replace the fourth paragraph of Article 406.14 of the Standard Specifications with the following:

"Stone matrix asphalt will be paid for at the contract unit price per ton (metric ton) for POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, of the mixture composition and Ndesign specified; and POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, STONE MATRIX ASPHALT, of the mixture composition and Ndesign specified."

RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (DISTRICT 1)

Effective: November 1, 2012
Revise: January 1, 2018

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 resulting from cold milling or crushing an existing hot-mix asphalt (HMA) pavement. RAP will be considered processed FRAP after completion of both crushing and screening to size. 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). RAS is 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 90 percent passing the #4 (4.75 mm) sieve. RAS 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. Additional processed RAP (FRAP) shall be stockpiled in a separate working pile, as designated in the QC Plan, and only added to the sealed stockpile when test results for the working pile are complete and are found to meet tolerances specified herein for the original sealed FRAP stockpile. Stockpiles shall be sufficiently separated to prevent intermingling at the base. All stockpiles (including unprocessed RAP and FRAP) shall be identified by signs indicating the type as listed below (i.e. “Non-Quality, FRAP #4 or Type 2 RAS”, etc.).

1. **Fractionated RAP (FRAP).** FRAP shall consist of RAP from Class I, HMA (High and Low ESAL) or equivalent 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 processed prior to testing and sized into 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 in the coarse fraction shall pass the maximum sieve size specified for the mix the FRAP will be used in.

2. **Restricted FRAP (B quality) stockpiles shall consist of RAP from Class I, HMA (High ESAL), or HMA (High ESAL).** If approved by the Engineer, the aggregate from a maximum 3.0 in. (75 mm) single combined pass of surface/binder milling will be classified as B quality. All millings from this application will be processed into FRAP as described previously.

3. **Conglomerate.** Conglomerate RAP stockpiles shall consist of RAP from Class I, HMA (High and Low ESAL) or equivalent 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 (FRAP) prior to testing. Conglomerate RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.

4. **Conglomerate “D” Quality (DQ).** Conglomerate DQ RAP stockpiles shall consist of RAP from HMA shoulders, bituminous stabilized subbases or HMA (Low ESAL)/HMA (Low ESAL) IL-19.0L binder mixture. The coarse aggregate in this RAP may be crushed or round but shall be at least D quality. This RAP may have an inconsistent gradation and/or asphalt binder content. Conglomerate DQ RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.

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

RAP or FRAP containing contaminants, such as earth, brick, sand, concrete, sheet asphalt, bituminous surface treatment (i.e. chip seal), pavement fabric, joint sealants, plant cleanout 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 be sufficiently separated to prevent intermingling at the base. Each stockpile shall be signed indicating what type of RAS is present.

However, a RAS source may submit a written request to the Department for approval to blend mechanically a specified ratio of Type 1 RAS with Type 2 RAS. The source will not be permitted to change the ratio of
the blend without the Department prior written approval. The Engineer's written approval will be required, to mechanically blend RAS with any fine aggregate produced under the AGCS, up to an equal weight of RAS, to improve workability. The fine aggregate shall be "B Quality" or better from an approved Aggregate Gradation Control System source. The fine aggregate shall be one that is approved for use in the HMA mixture and 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. FRAP and RAS testing shall be according to the following.

(a) FRAP Testing. When used in HMA, the FRAP shall be sampled and tested either during processing or after stockpiling. It shall also be sampled during HMA production.

(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) Incoming Material. For testing as incoming material, washed extraction samples shall be run at a minimum frequency of one sample per 2000 tons (1800 metric tons) or once per week, whichever comes first.

(3) 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.

Before extraction, each field sample of FRAP, shall be split to obtain two 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 shall be sampled and tested during stockpiling according to Central Bureau of Materials Policy Memorandum, "Reclaimed Asphalt Shingle (RAS) Sources". The Contractor shall also sample as incoming material at the HMA plant.

(1) During Stockpiling. Washed extraction and testing for unacceptable materials shall be run 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 1000 tons (900 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 shall be 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.

(2) Incoming Material. For testing as incoming material at the HMA plant, washed extraction shall be run at the minimum frequency of one sample per 250 tons (227 metric tons). A minimum of five samples are required for stockpiles less than 1000 tons (900 metric tons). The incoming material test results shall meet the tolerances specified herein.
The Contractor shall obtain and make available all test results from start of the initial stockpile sampled and tested at the shingle processing facility in accordance with the facility’s QC Plan.

Before extraction, each field sample shall be split to obtain two 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 procedures. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

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

(a) Evaluation of FRAP Test Results. All test results shall be compiled to include asphalt binder content, gradation and, when applicable (for slag), $G_{mm}$. A five test average of results from the original pile will be used in the mix designs. Individual extraction test results run thereafter, shall be compared to the average used for the mix design, and will be accepted if within the tolerances listed below.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>FRAP</th>
</tr>
</thead>
<tbody>
<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. 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>± 0.3 %</td>
</tr>
<tr>
<td>$G_{mm}$</td>
<td>± 0.03 '</td>
</tr>
</tbody>
</table>

1/ For stockpile with slag or steel slag present as determined in the current Manual of Test Procedures Appendix B 21, “Determination of Reclaimed Asphalt Pavement Aggregate Bulk Specific Gravity”.

If any individual sieve and/or asphalt binder content tests are out of the above tolerances when compared to the average used for the mix design, the FRAP stockpile shall not be used in Hot-Mix Asphalt unless the FRAP representing those tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

The Contractor shall maintain a representative moving average of five tests to be used for Hot-Mix Asphalt production.

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)” or Illinois Modified AASHTO T-164-11, Test Method A.

(b) Evaluation of RAS 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. A five test average of results from the original pile will be used in the mix designs. Individual test results run thereafter, when compared to the average used for the mix design, will be accepted if within the tolerances listed below.

<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>
</tbody>
</table>
If any individual sieve and/or asphalt binder content tests are out of the above tolerances when compared to the average used for the mix design, the RAS shall not be used in Hot-Mix Asphalt unless the RAS representing those tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

(c) Quality Assurance by the Engineer. The Engineer may witness the sampling and splitting conduct assurance tests on split samples taken by the Contractor for quality control testing a minimum of once a month.

The overall testing frequency will be performed over the entire range of Contractor samples for asphalt binder content and gradation. The Engineer may select any or all split samples for assurance testing. The test results will be made available to the Contractor as soon as they become available.

The Engineer will notify the Contractor of observed deficiencies.

Differences between the Contractor's and the Engineer's split sample test results will be considered acceptable if within the following limits.

<table>
<thead>
<tr>
<th>Test Parameter</th>
<th>Acceptable Limits of Precision</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Passing: 1/</td>
<td>FRAP</td>
</tr>
<tr>
<td>1/2 in.</td>
<td>5.0%</td>
</tr>
<tr>
<td>No. 4</td>
<td>5.0%</td>
</tr>
<tr>
<td>No. 8</td>
<td>3.0%</td>
</tr>
<tr>
<td>No. 30</td>
<td>2.0%</td>
</tr>
<tr>
<td>No. 200</td>
<td>2.2%</td>
</tr>
<tr>
<td>Asphalt Binder Content</td>
<td>0.3%</td>
</tr>
<tr>
<td>$G_{mm}$</td>
<td>0.030</td>
</tr>
</tbody>
</table>

1/ Based on washed extraction.

In the event comparisons are outside the above acceptable limits of precision, the Engineer will immediately investigate.

(d) Acceptance by the Engineer. Acceptable of the material will be based on the validation of the Contractor's quality control by the assurance process.

1031.05 Quality Designation of Aggregate in RAP and FRAP.

(a) RAP. The aggregate quality of the RAP for homogeneous, conglomerate, and conglomerate “D” quality 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, HMA (High ESAL), or (Low ESAL) IL-9.5L surface mixtures are designated as containing Class B quality coarse aggregate.

(2) RAP from HMA (Low ESAL) IL-19.0L binder mixture is designated as Class D quality coarse aggregate.

(3) RAP from Class I, HMA (High ESAL) binder mixtures, bituminous base course mixtures, and bituminous base course widening mixtures are designated as containing Class C quality coarse aggregate.

(4) RAP from bituminous stabilized subbase and BAM shoulders are designated as containing Class D 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. Fractionated RAP stockpiles containing plus #4 (4.75 mm) sieve coarse aggregate shall have a maximum tonnage of 5,000 tons (4,500 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 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. The fine aggregate portion of the fractionated RAP shall not be used in any HMA mixtures that require a minimum of “B” quality aggregate or better, until the coarse aggregate fraction has been determined to be acceptable thru a MicroDeval Testing.

1031.06 Use of FRAP and/or RAS in HMA. The use of FRAP and/or RAS shall be the Contractor’s option when constructing HMA in all contracts.

(a) FRAP. The use of FRAP in HMA shall be as follows.

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

(2) Steel Slag Stockpiles. FRAP stockpiles containing steel slag or other expansive material, as determined by the Department, shall be homogeneous and will be approved for use in HMA (High ESAL and Low ESAL) mixtures regardless of lift or mix type.

(3) Use in HMA Surface Mixtures (High and Low ESAL). FRAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall have coarse aggregate that is Class B quality or better. FRAP shall be considered equivalent to limestone for frictional considerations unless produced/screened to minus 3/8 inch.

(4) Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. FRAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be FRAP in which the coarse aggregate is Class C quality or better.
(5) Use in Shoulders and Subbase. FRAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be FRAP, Restricted FRAP, conglomerate, or conglomerate DQ.

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

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

When FRAP is used alone or FRAP is used in conjunction with RAS, the percent of virgin asphalt binder replacement (ABR) shall not exceed the amounts indicated in the table below for a given N Design.

Max Asphalt Binder Replacement for FRAP with RAS Combination

<table>
<thead>
<tr>
<th>HMA Mixtures</th>
<th>Maximum % ABR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Binder/Leveling</td>
</tr>
<tr>
<td></td>
<td>Binder</td>
</tr>
<tr>
<td>Ndesign</td>
<td></td>
</tr>
<tr>
<td>30L</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>4.75 mm N-50</td>
<td></td>
</tr>
<tr>
<td>SMA N-80</td>
<td></td>
</tr>
</tbody>
</table>

1/ For Low ESAL HMA shoulder and stabilized subbase, the percent asphalt binder replacement shall not exceed 50% of the total asphalt binder in the mixture.

2/ When the binder replacement exceeds 15% for all mixes, except for SMA and IL-4.75, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25% binder replacement using a virgin asphalt binder grade of PG64-22 will be reduced to a PG58-28). When constructing full depth HMA and the ABR is less than 15%, the required virgin asphalt binder grade shall be PG64-28.

3/ When the ABR for SMA or IL-4.75 is 15% or less, the required virgin asphalt binder shall be SBS PG76-22 and the elastic recovery shall be a minimum of 80. When the ABR for SMA or IL-4.75 exceeds 15%, the virgin asphalt binder grade shall be SBS PG70-28 and the elastic recovery shall be a minimum of 80.

4/ When FRAP or RAS is used alone, the maximum percent asphalt binder replacement designated on the table shall be reduced by 10%.

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) FRAP and/or RAS. FRAP and/or RAS mix designs shall be submitted for verification. If additional FRAP or RAS stockpiles are tested and found to be within tolerance, as defined under "Evaluation of Tests" herein, and meet all requirements herein, the additional FRAP or RAS stockpiles may be used in the original 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 specific gravities (Gsb) shall be according to the "Determination of Aggregate Bulk (Dry) Specific Gravity (Gsb) or 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 FRAP and/or RAS shall be as follows.

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 RAS and FRAP feed system to remove or reduce oversized material.

If during mix production, corrective actions fail to maintain FRAP, RAS or QC/QA test results within control tolerances or the requirements listed herein the Contractor shall cease production of the mixture containing FRAP or RAS and conduct an investigation that may require a new mix design.

(a) 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.

(b) HMA Plant Requirements. HMA plants utilizing 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 RAS and FRAP 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 RAS and FRAP material as a percent of the total mix to the nearest 0.1 percent.
   h. Aggregate RAS and FRAP moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAS and FRAP are printed in wet condition.)
   i. When producing mixtures with FRAP and/or RAS, a positive dust control system
shall be utilized.

j. Accumulated mixture tonnage.
k. Dust Removed (accumulated to the nearest 0.1 ton (0.1 metric ton))

(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).
f. RAS and FRAP weight to the nearest pound (kilogram).
g. Virgin asphalt binder weight to the nearest pound (kilogram).
h. Residual asphalt binder in the RAS and FRAP 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 or FRAP in aggregate surface course and aggregate shoulders 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. The RAP material shall meet the gradation requirements for CA 6 according to Article 1004.01(c), except the requirements for the minus No. 200 (75 µm) sieve shall not apply. The sample for the RAP material shall be air dried to constant weight prior to being tested for gradation.”
Add the following to Section 1020 of the Standard Specifications:

"1020.16 Quality Control/Quality Assurance of Concrete Mixtures. This Article specifies the quality control responsibilities of the Contractor for concrete mixtures (except Class PC and PS concrete), cement aggregate mixture II, and controlled low-strength material incorporated in the project, and defines the quality assurance and acceptance responsibilities of the Engineer.

A list of quality control/quality assurance (QC/QA) documents is provided in Article 1020.16(g), Schedule D.

A Level I Portland Cement Concrete (PCC) Technician shall be defined as an individual who has successfully completed the Department’s training for concrete testing.

A Level II Portland Cement Concrete (PCC) Technician shall be defined as an individual who has successfully completed the Department’s training for concrete proportioning.

A Level III Portland Cement Concrete (PCC) Technician shall be defined as an individual who has successfully completed the Department’s training for concrete mix design.

A Concrete Tester shall be defined as an individual who has successfully completed the Department’s training to assist with concrete testing and is monitored on a daily basis.

Aggregate Technician shall be defined as an individual who has successfully completed the Department’s training for gradation testing involving aggregate production and mixtures.

Mixture Aggregate Technician shall be defined as an individual who has successfully completed the Department’s training for gradation testing involving mixtures.

Gradation Technician shall be defined as an individual who has successfully completed the Department’s training to assist with gradation testing and is monitored on a daily basis.

(a) Equipment/Laboratory. The Contractor shall provide a laboratory and test equipment to perform their quality control testing.
The laboratory shall be of sufficient size and be furnished with the necessary equipment, supplies, and current published test methods for adequately and safely performing all required tests. The laboratory will be approved by the Engineer according to the current Bureau of Materials and Physical Research Policy Memorandum "Minimum Private Laboratory Requirements for Construction Materials Testing or Mix Design". Production of a mixture shall not begin until the Engineer provides written approval of the laboratory. The Contractor shall refer to the Department's "Required Sampling and Testing Equipment for Concrete" for equipment requirements.

Test equipment shall be maintained and calibrated as required by the appropriate test method, and when required by the Engineer. This information shall be documented on the Department's "Calibration of Concrete Testing Equipment" forms BMPR PCCQ01 through BMPR PCCQ09.

Test equipment used to determine compressive or flexural strength shall be calibrated each 12 month period by an independent agency, using calibration equipment traceable to the National Institute of Standards and Technology (NIST). The Contractor shall have the calibration documentation available at the test equipment location.

The Engineer will have unrestricted access to the plant and laboratory at any time to inspect measuring and testing equipment, and will notify the Contractor of any deficiencies. Defective equipment shall be immediately repaired or replaced by the Contractor.

(b) Quality Control Plan. The Contractor shall submit, in writing, a proposed Quality Control (QC) Plan to the Engineer. The QC Plan shall be submitted a minimum of 45 calendar days prior to the production of a mixture. The QC Plan shall address the quality control of the concrete, cement aggregate mixture II, and controlled low-strength material incorporated in the project. The Contractor shall refer to the Department's "Model Quality Control Plan for Concrete Production" to prepare a QC Plan. The Engineer will respond in writing to the Contractor's proposed QC Plan within 15 calendar days of receipt.

Production of a mixture shall not begin until the Engineer provides written approval of the QC Plan. The approved QC Plan shall become a part of the contract between the Department and the Contractor, but shall not be construed as acceptance of any mixture produced.

The QC Plan may be amended during the progress of the work, by either party, subject to mutual agreement. The Engineer will respond in writing to a Contractor's proposed QC Plan amendment within 15 calendar days of receipt. The response will indicate the approval or denial of the Contractor's proposed QC Plan amendment.

(c) Quality Control by Contractor. The Contractor shall perform quality control inspection, sampling, testing, and documentation to meet contract requirements. Quality control includes the recognition of obvious defects.
and their immediate correction. Quality control also includes appropriate action when passing test results are near specification limits, or to resolve test result differences with the Engineer. Quality control may require increased testing, communication of test results to the plant or the jobsite, modification of operations, suspension of mixture production, rejection of material, or other actions as appropriate. The Engineer shall be immediately notified of any failing tests and subsequent remedial action. Passing tests shall be reported no later than the start of the next work day.

When a mixture does not comply with specifications, the Contractor shall reject the material, unless the Engineer accepts the material for incorporation in the work, according to Article 105.03.

(1) Personnel Requirements. The Contractor shall provide a Quality Control (QC) Manager who will have overall responsibility and authority for quality control. The jobsite and plant personnel shall be able to contact the QC Manager by cellular phone, two-way radio, or other methods approved by the Engineer.

The QC Manager shall visit the jobsite a minimum of once a week. A visit shall be performed the day of a bridge deck pour, the day a non-routine mixture is placed as determined by the Engineer, or the day a plant is anticipated to produce more than 1000 cu yd (765 cu m). Any of the three required visits may be used to meet the once per week minimum requirement.

The Contractor shall provide personnel to perform the required inspections, sampling, testing, and documentation in a timely manner. The Contractor shall refer to the Department's "Qualifications and Duties of Concrete Quality Control Personnel" document.

A Level I PCC Technician shall be provided at the jobsite during mixture production and placement, and may supervise concurrent pours on the project. For concurrent pours, a minimum of one Concrete Tester shall be required at each pour location. If the Level I PCC Technician is at one of the pour locations, a Concrete Tester is still required at the same location. Each Concrete Tester shall be able to contact the Level I PCC Technician by cellular phone, two-way radio, or other methods approved by the Engineer. A single Level I PCC Technician shall not supervise concurrent pours for multiple contracts.

A Level II PCC Technician shall be provided at the plant, or shall be available, during mixture production and placement. A Level II PCC Technician may supervise a maximum of three plants. Whenever the Level II PCC Technician is not at the plant during mixture production and placement, a Concrete Tester or Level I PCC Technician shall be present at the plant to perform any necessary concrete tests. The Concrete Tester, Level I PCC Technician, or other individual shall also be trained to perform any necessary aggregate moisture tests, if the Level II PCC Technician is not at the plant during mixture production and placement. The Concrete Tester, Level I PCC Technician, plant personnel, and jobsite personnel shall have the ability to contact the
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Level II PCC Technician by cellular phone, two-way radio, or other methods approved by the Engineer.

For a mixture which is produced and placed with a mobile portland cement concrete plant as defined in Article 1103.04, a Level II PCC Technician shall be provided. The Level II PCC Technician shall be present at all times during mixture production and placement. However, the Level II PCC Technician may request to be available if operations are satisfactory. Approval shall be obtained from the Engineer, and jobsite personnel shall have the ability to contact the Level II PCC Technician by cellular phone, two-way radio, or other methods approved by the Engineer.

A Concrete Tester, Mixture Aggregate Technician, and Aggregate Technician may provide assistance with sampling and testing. A Gradation Technician may provide assistance with testing. A Concrete Tester shall be supervised by a Level I or Level II PCC Technician. A Gradation Technician shall be supervised by a Level II PCC Technician, Mixture Aggregate Technician, or Aggregate Technician.

(2) Required Plant Tests. Sampling and testing shall be performed at the plant, or at a location approved by the Engineer, to control the production of a mixture. The required minimum Contractor plant sampling and testing is indicated in Article 1020.16(g) Schedule A.

(3) Required Field Tests. Sampling and testing shall be performed at the jobsite to control the production of a mixture, and to comply with specifications for placement. For standard curing, after initial curing, and for strength testing, the location shall be approved by the Engineer. The required minimum Contractor jobsite sampling and testing is indicated in Article 1020.16(g), Schedule B.

(d) Quality Assurance by Engineer. The Engineer will perform quality assurance tests on independent samples and split samples. An independent sample is a field sample obtained and tested by only one party. A split sample is one of two equal portions of a field sample, where two parties each receive one portion for testing. The Engineer may request the Contractor to obtain a split sample. Aggregate split samples and any failing strength specimen shall be retained until permission is given by the Engineer for disposal. The results of all quality assurance tests by the Engineer will be made available to the Contractor. However, Contractor split sample test results shall be provided to the Engineer before Department test results are revealed. The Engineer's quality assurance independent sample and split sample testing are indicated in Article 1020.16(g), Schedule C.

(1) Strength Testing. For strength testing, Article 1020.09 shall apply, except the Contractor and Engineer strength specimens may be placed in the same field curing box for initial curing and may be cured in the same water storage tank for final curing.
(2) Comparing Test Results. Differences between the Engineer's and the Contractor's split sample test results will be considered reasonable if within the following limits:

<table>
<thead>
<tr>
<th>Test Parameter</th>
<th>Acceptable Limits of Precision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slump</td>
<td>0.75 in. (20 mm)</td>
</tr>
<tr>
<td>Air Content</td>
<td>0.9%</td>
</tr>
<tr>
<td>Compressive Strength</td>
<td>900 psi (6200 kPa)</td>
</tr>
<tr>
<td>Flexural Strength</td>
<td>90 psi (620 kPa)</td>
</tr>
<tr>
<td>Slump Flow (Self-Consolidating Concrete (SCC))</td>
<td>1.5 in. (40 mm)</td>
</tr>
<tr>
<td>Visual Stability Index (SCC)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>J-Ring (SCC)</td>
<td>1.5 in. (40 mm)</td>
</tr>
<tr>
<td>L-Box (SCC)</td>
<td>10 %</td>
</tr>
<tr>
<td>Hardened Visual Stability Index (SCC)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Dynamic Segregation Index (SCC)</td>
<td>1.0 %</td>
</tr>
<tr>
<td>Flow (Controlled Low-Strength Material (CLSM))</td>
<td>1.5 in. (40 mm)</td>
</tr>
<tr>
<td>Strength (CLSM)</td>
<td>40 psi (275 kPa)</td>
</tr>
</tbody>
</table>

When acceptable limits of precision have been met, but only one party is within specification limits, the failing test shall be resolved before the material may be considered for acceptance.

(3) Test Results and Specification Limits.

a. Split Sample Testing. If either the Engineer's or the Contractor's split sample test result is not within specification limits and the other party is within specification limits, immediate retests on a split sample shall be performed for slump, air content, slump flow, visual stability index, J-Ring, L-Box, dynamic segregation index, flow (CLSM), or aggregate gradation. A passing retest result by each party will require no further action. If either the Engineer's or Contractor's slump, air content, slump flow, visual stability index, J-Ring, L-Box, dynamic segregation index, flow (CLSM), or aggregate gradation split sample retest result is a failure; or if either the Engineer's or Contractor's strength or hardened visual stability index test result is a failure and the other party is within specification limits; the following actions shall be initiated to investigate the test failure:

1. The Engineer and the Contractor shall investigate the sampling method, test procedure, equipment condition, equipment calibration, and other factors.
2. The Engineer or the Contractor shall replace test equipment, as determined by the Engineer.

3. The Engineer and the Contractor shall perform additional testing on split samples, as determined by the Engineer.

For aggregate gradation, jobsite slump, jobsite air content, jobsite slump flow, jobsite visual stability index, jobsite J-Ring, jobsite L-Box, jobsite dynamic segregation index, and jobsite flow (CLSM), if the failing split sample test result is not resolved according to 1., 2., or 3., and the mixture has not been placed, the Contractor shall reject the material; unless the Engineer accepts the material for incorporation in the work, according to Article 105.03. If the mixture has already been placed, or if a failing strength or hardened visual stability index test result is not resolved according to 1., 2., or 3., the material will be considered unacceptable.

If a continued trend of difference exists between the Engineer's and the Contractor's split sample test results, or if split sample test results exceed the acceptable limits of precision, the Engineer and the Contractor shall investigate according to items 1., 2., and 3.

b. Independent Sample Testing. For aggregate gradation, jobsite slump, jobsite air content, jobsite slump flow, jobsite visual stability index, jobsite J-Ring, jobsite L-Box, jobsite dynamic segregation index, jobsite flow (CLSM), if the result of a quality assurance test on a sample independently obtained by the Engineer is not within specification limits, and the mixture has not been placed, the Contractor shall reject the material; unless the Engineer accepts the material for incorporation in the work, according to Article 105.03. If the mixture has already been placed or the Engineer obtains a failing strength or hardened visual stability index test result, the material will be considered unacceptable.

(e) Acceptance by the Engineer. Final acceptance will be based on the Standard Specifications and the following:

(1) The Contractor's compliance with all contract documents for quality control.

(2) Validation of Contractor quality control test results by comparison with the Engineer's quality assurance test results using split samples. Any quality control or quality assurance test determined to be flawed may be declared invalid only when reviewed and approved by the Engineer. The Engineer will declare a test result invalid only if it is proven that improper sampling or testing occurred. The test result is to be recorded and the reason for declaring the test invalid will be provided by the Engineer.
(3) Comparison of the Engineer’s quality assurance test results with specification limits using samples independently obtained by the Engineer.

The Engineer may suspend mixture production, reject materials, or take other appropriate action if the Contractor does not control the quality of concrete, cement aggregate mixture II, or controlled low-strength material for acceptance. The decision will be determined according to (1), (2), or (3).

(f) Documentation.

(1) Records. The Contractor shall be responsible for documenting all observations, inspections, adjustments to the mix design, test results, retest results, and corrective actions in a bound hardback field book, bound hardback diary, or appropriate Department form, which shall become the property of the Department. The documentation shall include a method to compare the Engineer’s test results with the Contractor’s results. The Contractor shall be responsible for the maintenance of all permanent records whether obtained by the Contractor, the consultants, the subcontractors, or the producer of the mixture. The Contractor shall provide the Engineer full access to all documentation throughout the progress of the work.

The Department’s form BMPR MI504, form BMPR MI654, and form BMPR MI655 shall be completed by the Contractor, and shall be submitted to the Engineer weekly or as required by the Engineer. A correctly completed form BMPR MI504, form BMPR MI654, and form BMPR MI655 are required to authorize payment by the Engineer for applicable pay items.

(2) Delivery Truck Ticket. The following information shall be recorded on each delivery ticket or in a bound hardback field book: initial revolution counter reading (final reading optional) at the jobsite, if the mixture is truck-mixed; time discharged at the jobsite; total amount of each admixture added at the jobsite; and total amount of water added at the jobsite.

(g) Basis of Payment and Schedules. Quality Control/Quality Assurance of portland cement concrete mixtures will not be paid for separately, but shall be considered as included in the cost of the various concrete contract items.
## CHECK SHEET #25

### SCHEDULE A

### CONTRACTOR PLANT SAMPLING AND TESTING

<table>
<thead>
<tr>
<th>Item</th>
<th>Test</th>
<th>Frequency</th>
<th>IL Modified AASHTO, IL Modified ASTM, or Illinois Test Procedure 1/</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregates (Arriving at Plant)</td>
<td>Gradation 2/</td>
<td>As needed to check source for each gradation number</td>
<td>ITP 2, ITP 11, ITP 27, and ITP 248</td>
</tr>
<tr>
<td>Aggregates (Stored at Plant in Stockpiles or Bins)</td>
<td>Gradation 2/</td>
<td>2500 cu yd (1900 cu m) for each gradation number 3/</td>
<td>ITP 2, ITP 11, ITP 27, and ITP 248</td>
</tr>
<tr>
<td>Aggregates (Stored at Plant in Stockpiles or Bins)</td>
<td>Moisture 4/ Fine Aggregate</td>
<td>Once per week for moisture sensor, otherwise daily for each gradation number</td>
<td>Flask, Dunagan, Pychnometer Jar, or ITP 255</td>
</tr>
<tr>
<td>Aggregates (Stored at Plant in Stockpiles or Bins)</td>
<td>Moisture 4/ Coarse Aggregate</td>
<td>As needed to control production for each gradation number</td>
<td>Dunagan, Pychnometer Jar, or ITP 255</td>
</tr>
<tr>
<td>Mixture 5/</td>
<td>Slump</td>
<td>As needed to control production</td>
<td>R 60 and T 119, R 60 and T 152 or T 196, R 60 and T 121, ITP SCC-1 and ITP SCC-2, ITP SCC-1 and ITP SCC-3, ITP SCC-1 and ITP SCC-4, R 60 and ASTM C 1064</td>
</tr>
<tr>
<td></td>
<td>Air Content</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unit Weight / Yield</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Slump Flow (SCC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Visual Stability Index (SCC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>J-Ring (SCC) 6/</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>L-Box (SCC) 6/</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Temperature</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixture (CLSM) 7/</td>
<td>Flow</td>
<td>As needed to control production</td>
<td>ITP 307</td>
</tr>
<tr>
<td></td>
<td>Air Content</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Temperature</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1/ Refer to the Department’s "Manual of Test Procedures for Materials".

2/ All gradation tests shall be washed. Testing shall be completed no later than 24 hours after the aggregate has been sampled.

3/ One per week (Sunday through Saturday) minimum, unless the stockpile has not received additional aggregate material since the previous test.

One per day minimum for a bridge deck pour, unless the stockpile has not received additional aggregate material since the previous test. The sample shall be taken and testing completed prior to the pour. The bridge deck aggregate sample may be taken the day before the pour or as approved by the Engineer.

4/ If the moisture test and moisture sensor disagree by more than 0.5 percent, retest. If the difference remains, adjust the moisture sensor to an average of two or more moisture tests. The Department’s "Water/Cement Ratio Worksheet" form (BMPR PCCW01) shall be completed, when applicable.
5/ The Contractor may also perform strength testing according to Illinois Modified AASHTO R 60, T 23, and T 22 or T 177; or water content testing according to Illinois Modified AASHTO T 318.

The Contractor may also perform other available self-consolidating concrete (SCC) tests at the plant to control mixture production.

6/ The Contractor shall select the J-Ring or L-Box test for plant sampling and testing.

7/ The Contractor may also perform strength testing according to ITP 307.
## CONTRACTOR JOBSITE SAMPLING & TESTING

<table>
<thead>
<tr>
<th>Item</th>
<th>Measured Property</th>
<th>Random Sample Testing Frequency per Mix Design and per Plant</th>
<th>IL Modified AASHTO, IL Modified ASTM, or Illinois Test Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pavement, Shoulder, Base Course, Base Course Widening, Driveway Pavement, Railroad Crossing, Cement Aggregate Mixture II</td>
<td>Slump $^{3/4}$</td>
<td>1 per 500 cu yd (400 cu m) or minimum 1/day</td>
<td>R 60 and T 119</td>
</tr>
<tr>
<td></td>
<td>Air Content $^{3/5/6}$</td>
<td>1 per 100 cu yd (80 cu m) or minimum 1/day</td>
<td>R 60 and T 152 or T 196</td>
</tr>
<tr>
<td></td>
<td>Compressive Strength $^{7/6}$ or Flexural Strength $^{7/8}$</td>
<td>1 per 1250 cu yd (1000 cu m) or minimum 1/day</td>
<td>R 60, T 22 and T 23 or R 60, T 177 and T 23</td>
</tr>
<tr>
<td>Bridge Approach Slab $^9$, Bridge Deck $^9$, Bridge Deck Overlay $^9$, Superstructure $^9$, Substructure, Culvert, Miscellaneous Drainage Structures, Retaining Wall, Building Wall, Drilled Shaft Pile &amp; Encasement Footing, Foundation, Pavement Patching, Structural Repairs</td>
<td>Slump $^{3/4}$</td>
<td>1 per 50 cu yd (40 cu m) or minimum 1/day</td>
<td>R 60 and T 119</td>
</tr>
<tr>
<td></td>
<td>Air Content $^{3/5/6}$</td>
<td>1 per 50 cu yd (40 cu m) or minimum 1/day</td>
<td>R 60 and T 152 or T 196</td>
</tr>
<tr>
<td></td>
<td>Compressive Strength $^{7/6}$ or Flexural Strength $^{7/8}$</td>
<td>1 per 250 cu yd (200 cu m) or minimum 1/day</td>
<td>R 60, T 22 and T 23 or R 60, T 177 and T 23</td>
</tr>
<tr>
<td>Seal Coat</td>
<td>Slump $^9$</td>
<td>1 per 250 cu yd (200 cu m) or minimum 1/day</td>
<td>R 60 and T 119</td>
</tr>
<tr>
<td></td>
<td>Air Content $^{3/5/6}$</td>
<td>1 per 250 cu yd (200 cu m) or minimum 1/day when air is entrained</td>
<td>R 60 and T 152 or T 196</td>
</tr>
<tr>
<td></td>
<td>Compressive Strength $^{7/6}$ or Flexural Strength $^{7/8}$</td>
<td>1 per 250 cu yd (200 cu m) or minimum 1/day</td>
<td>R 60, T 22 and T 23 or R 60, T 177 and T 23</td>
</tr>
<tr>
<td>Item</td>
<td>Slump Flow 3/4</td>
<td>VSI 3/4</td>
<td>J-Ring 3/11</td>
</tr>
<tr>
<td>------</td>
<td>----------------</td>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>Curb, Gutter, Median, Barrier, Sidewalk, Slope Wall, Paved Ditch, Fabric Formed Concrete Revetment Mat 10/1, Miscellaneous Items, Incidental Items</td>
<td>Slump 3/4</td>
<td>1 per 100 cu yd (80 cu m) or minimum 1/day</td>
<td>R 60 and T 119</td>
</tr>
<tr>
<td></td>
<td>Air Content 3/5/6</td>
<td>1 per 50 cu yd (40 cu m) or minimum 1/day</td>
<td>R 60 and T 152 or T 196</td>
</tr>
<tr>
<td></td>
<td>Compressive Strength 7/8/10 or Flexural Strength 7/8/10</td>
<td>1 per 400 cu yd (300 cu m) or minimum 1/day</td>
<td>R 60, T 22 and T 23 or R 60, T 177 and T 23</td>
</tr>
<tr>
<td></td>
<td>Slump Flow 3/4</td>
<td>VSI 3/4</td>
<td>J-Ring 3/11</td>
</tr>
<tr>
<td></td>
<td>Flow, Air Content, Compressive Strength (28-day) 7/8, and Temperature</td>
<td>First truck load delivered and as needed to control production thereafter</td>
<td>ITP 307</td>
</tr>
</tbody>
</table>

1/ Sampling and testing of small quantities of curb, gutter, median, barrier, sidewalk, slope wall, paved ditch, miscellaneous items, and incidental items may be waived by the Engineer, if requested by the Contractor. However, quality control personnel are still required according to Article 1020.16(c)(1). The Contractor shall also provide recent evidence that similar material has been found to be satisfactory under normal sampling and testing.

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procedures. The total quantity that may be waived for testing shall not exceed 100 cu yd (76 cu m) per contract.

If the Contractor's or Engineer's test result for any jobsite mixture test is not within the specification limits, all subsequent truck loads delivered shall be tested by the Contractor until the problem is corrected.

2/ If one mix design is being used for several construction items during a day's production, one testing frequency may be selected to include all items. The construction items shall have the same slump, air content, and water/cement ratio specifications. For self-consolidating concrete, the construction items shall have the same slump flow, visual stability index, J-Ring, L-Box, air content, and water/cement ratio specifications. The frequency selected shall equal or exceed the testing required for the construction item.

One sufficiently sized sample shall be taken to perform the required test(s). Random numbers shall be determined according to the Department's "Method for Obtaining Random Samples for Concrete". The Engineer will provide random sample locations.

3/ The temperature, slump, and air content tests shall be performed on the first truck load delivered, for each pour. For self-consolidating concrete, the temperature, slump flow, visual stability index, J-Ring or L-Box, and air content tests shall be performed on the first truck load delivered, for each pour. Unless a random sample is required for the first truck load, testing the first truck load does not satisfy random sampling requirements.

4/ The slump random sample testing frequency shall be a minimum 1/day for a construction item which is slipformed.

5/ If a pump or conveyor is used for placement, a correction factor shall be established to allow for a loss of air content during transport. The first three truck loads delivered shall be tested, before and after transport by the pump or conveyor, to establish the correction factor. Once the correction is determined, it shall be re-checked after an additional 50 cu yd (38 cu m) is pumped, or an additional 100 cu yd (76 cu m) is transported by conveyor. This shall continue throughout the pour. If the re-check indicates the correction factor has changed, a minimum of two truckloads is required to re-establish the correction factor. The correction factor shall also be re-established when significant changes in temperature, distance, pump or conveyor arrangement, and other factors have occurred. If the correction factor is greater than 3.0 percent, the Contractor shall take corrective action to reduce the loss of air content during transport by the pump or conveyor. The Contractor shall record all air content test results, correction factors, and corrected air contents. The corrected air content shall be reported on form BMPR M654.

6/ If the Contractor's or Engineer's air content test result is within the specification limits, and 0.2 percent or closer to either limit, the next truck load delivered shall be tested by the Contractor. For example, if the specified air content range is 5.0 to 8.0 percent and the test result is 5.0, 5.1, 5.2, 7.8, 7.9, or 8.0 percent, the next truck shall be tested by the Contractor.
7/ The test of record for strength shall be the day indicated in Article 1020.04. For cement aggregate mixture II, a strength requirement is not specified and testing is not required. Additional strength testing to determine early falsework and form removal, early pavement or bridge opening to traffic, or to monitor strengths is at the discretion of the Contractor. Strength shall be defined as the average of two 6 x 12 in. (150 x 300 mm) cylinder breaks, three 4 x 8 in. (100 x 200 mm) cylinder breaks, or two beam breaks for field tests. Per Illinois Modified AASHTO T 23, cylinders shall be 6 x 12 in. (150 x 300 mm) when the nominal maximum size of the coarse aggregate exceeds 1 in. (25 mm). Nominal maximum size is defined as the largest sieve which retains any of the aggregate sample particles.

8/ In addition to the strength test, a slump test, air content test, and temperature test shall be performed on the same sample. For self-consolidating concrete, a slump flow test, visual stability index test, J-Ring or L-Box test, air content test, and temperature test shall be performed on the same sample as the strength test. For mixtures pumped or conveyed, the Contractor shall sample according to Illinois Modified AASHTO R 60.

9/ The air content test will be required for each delivered truck load.

10/ For fabric formed concrete revetment mat, the slump test is not required and the flexural strength test is not applicable.

11/ The Contractor shall select the J-Ring or L-Box test for jobsite sampling and testing.

12/ In addition to the hardened visual stability index (HVSI) test, a slump flow test, visual stability index (VSI) test, J-Ring or L-Box test, air content test, and temperature test shall be performed on the same sample. The Contractor shall retain all hardened visual stability index cut cylinder specimens until the Engineer notifies the Contractor that the specimens may be discarded.

13/ The test of record for strength shall be the day indicated in Article 1019.04. In addition to the strength test, a flow test, air content test, and temperature test shall be performed on the same sample. The strength test may be waived by the Engineer if future removal of the material is not a concern.
### ENGINEER QUALITY ASSURANCE INDEPENDENT SAMPLE TESTING

<table>
<thead>
<tr>
<th>Location</th>
<th>Measured Property</th>
<th>Testing Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>Gradation of aggregates stored in stockpiles or bins, Slump and Air Content</td>
<td>As determined by the Engineer.</td>
</tr>
<tr>
<td>Jobsite</td>
<td>Slump, Air Content, Slump Flow, Visual Stability Index, J-Ring, L-Box, Hardened Visual Stability Index, Dynamic Segregation Index, and Strength</td>
<td>As determined by the Engineer.</td>
</tr>
<tr>
<td></td>
<td>Flow, Air Content, Strength (28-day), and Dynamic Cone Penetration for Controlled Low-Strength Material (CLSM)</td>
<td>As determined by the Engineer.</td>
</tr>
</tbody>
</table>

### ENGINEER QUALITY ASSURANCE SPLIT SAMPLE TESTING

<table>
<thead>
<tr>
<th>Location</th>
<th>Measured Property</th>
<th>Testing Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>Gradation of aggregates stored in stockpiles or bins</td>
<td>At the beginning of the project, the first test performed by the Contractor. Thereafter, a minimum of 10% of total tests required of the Contractor will be performed per aggregate gradation number and per plant.</td>
</tr>
<tr>
<td>Jobsite</td>
<td>Slump, Air Content, Slump Flow (SCC), Visual Stability Index (SCC), J-Ring (SCC), and L-Box (SCC)</td>
<td>As determined by the Engineer.</td>
</tr>
<tr>
<td></td>
<td>Slump, Air Content, Slump Flow, Visual Stability Index, J-Ring and L-Box</td>
<td>At the beginning of the project, the first three tests performed by the Contractor. Thereafter, a minimum of 20% of total tests required of the Contractor will be performed per plant, which will include a minimum of one test per mix design.</td>
</tr>
<tr>
<td></td>
<td>Hardened Visual Stability Index</td>
<td>As determined by the Engineer.</td>
</tr>
<tr>
<td></td>
<td>Dynamic Segregation Index</td>
<td>As determined by the Engineer.</td>
</tr>
<tr>
<td></td>
<td>Strength</td>
<td>At the beginning of the project, the first test performed by the Contractor. Thereafter, a minimum of 20% of total tests required of the Contractor will be performed per plant, which will include a minimum of one test per mix design.</td>
</tr>
<tr>
<td></td>
<td>Flow, Air Content, and Strength (28-day) for Controlled Low-Strength Material (CLSM)</td>
<td>As determined by the Engineer.</td>
</tr>
</tbody>
</table>
1/ The Engineer will perform the testing throughout the period of quality control testing by the Contractor.

2/ The Engineer will witness and take immediate possession of or otherwise secure the Department’s split sample obtained by the Contractor.

3/ Before transport by pump or conveyor, a minimum of 20 percent of total tests required of the Contractor will be performed per mix design and per plant. After transport by pump or conveyor, a minimum of 20 percent of total tests required of the Contractor will be performed per mix design and per plant.
CHECK SHEET #25

SCHEDULE D

CONCRETE QUALITY CONTROL AND QUALITY ASSURANCE DOCUMENTS

(a) Model Quality Control Plan for Concrete Production (*)
(b) Qualifications and Duties of Concrete Quality Control Personnel (*)
(c) Development of Gradation Bands on Incoming Aggregate at Mix Plants (*)
(d) Required Sampling and Testing Equipment for Concrete (*)
(e) Method for Obtaining Random Samples for Concrete (*)
(f) Calibration of Concrete Testing Equipment (BMPR PCCQ01 through BMPR PCCQ09) (*)
(g) Water/Cement Ratio Worksheet (BMPR PCCW01) (*)
(h) Field/Lab Gradations (BMPR M1504) (*)
(i) Concrete Air, Slump and Quantity (BMPR M1654) (*)
(j) P.C. Concrete Strengths (BMPR M1655) (*)
(k) Aggregate Technician Course or Mixture Aggregate Technician Course (*)
(l) Portland Cement Concrete Tester Course (*)
(m) Portland Cement Concrete Level I Technician Course - Manual of Instructions for Concrete Testing (*)
(n) Portland Cement Concrete Level II Technician Course - Manual of Instructions for Concrete Proportioning (*)
(o) Portland Cement Concrete Level III Technician Course - Manual of Instructions for Design of Concrete Mixtures (*)
(p) Manual of Test Procedures for Materials

* Refer to Appendix C of the Department's "Manual of Test Procedures for Materials" for more information.
## BDE SPECIAL PROVISIONS

For the August 3 and September 21, 2018 Lettings

The following special provisions indicated by an "x" are applicable to this contract and will be included by the Project Development 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>#</th>
<th>Special Provision Title</th>
<th>Effective</th>
<th>Revised</th>
</tr>
</thead>
<tbody>
<tr>
<td>80099</td>
<td>1</td>
<td>Accessible Pedestrian Signals (APS)</td>
<td>April 1, 2003</td>
<td>Jan. 1, 2014</td>
</tr>
<tr>
<td>80382</td>
<td>2</td>
<td>Adjusting Frames and Grates</td>
<td>April 1, 2017</td>
<td></td>
</tr>
<tr>
<td>80274</td>
<td>3</td>
<td>Aggregate Subgrade Improvement</td>
<td>April 1, 2012</td>
<td>April 1, 2016</td>
</tr>
<tr>
<td>80192</td>
<td>4</td>
<td>Automated Flagger Assistance Device</td>
<td>Jan. 1, 2008</td>
<td></td>
</tr>
<tr>
<td>80173</td>
<td>5</td>
<td>Bituminous Materials Cost Adjustments</td>
<td>Nov. 2, 2006</td>
<td>Aug. 1, 2017</td>
</tr>
<tr>
<td>80241</td>
<td>6</td>
<td>Bridge Demolition Debris</td>
<td>July 1, 2009</td>
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<tr>
<td>50261</td>
<td>7</td>
<td>Building Removal-Case I (Non-Friable and Friable Asbestos)</td>
<td>Sept. 1, 1990</td>
<td>April 1, 2010</td>
</tr>
<tr>
<td>50481</td>
<td>8</td>
<td>Building Removal-Case II (Non-Friable Asbestos)</td>
<td>Sept. 1, 1990</td>
<td>April 1, 2010</td>
</tr>
<tr>
<td>50491</td>
<td>9</td>
<td>Building Removal-Case III (Friable Asbestos)</td>
<td>Sept. 1, 1990</td>
<td>April 1, 2010</td>
</tr>
<tr>
<td>50531</td>
<td>10</td>
<td>Building Removal-Case IV (No Asbestos)</td>
<td>Sept. 1, 1990</td>
<td>April 1, 2010</td>
</tr>
<tr>
<td>80366</td>
<td>11</td>
<td>Butt Joints</td>
<td>July 1, 2016</td>
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<tr>
<td>80386</td>
<td>12</td>
<td>Calcium Aluminate Cement for Class PP-5 Concrete Patching</td>
<td>Nov. 1, 2017</td>
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<tr>
<td>80396</td>
<td>13</td>
<td>Class A and B Patching</td>
<td>Jan. 1, 2018</td>
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<tr>
<td>80384</td>
<td>14</td>
<td>Compensable Delay Costs</td>
<td>June 2, 2017</td>
<td></td>
</tr>
<tr>
<td>80198</td>
<td>15</td>
<td>Completion Date (via calendar days)</td>
<td>April 1, 2008</td>
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</tr>
<tr>
<td>80199</td>
<td>16</td>
<td>Completion Date (via calendar days) Plus Working Days</td>
<td>April 1, 2008</td>
<td></td>
</tr>
<tr>
<td>80293</td>
<td>17</td>
<td>Concrete Box Culverts with Skews &gt; 30 Degrees and Design Fills ≤ 5 Feet</td>
<td>April 1, 2012</td>
<td>July 1, 2016</td>
</tr>
<tr>
<td>80311</td>
<td>18</td>
<td>Concrete End Sections for Pipe Culverts</td>
<td>Jan. 1, 2013</td>
<td>April 1, 2016</td>
</tr>
<tr>
<td>80277</td>
<td>19</td>
<td>Concrete Mix Design – Department Provided</td>
<td>Jan. 1, 2012</td>
<td>April 1, 2016</td>
</tr>
<tr>
<td>80261</td>
<td>20</td>
<td>Construction Air Quality – Diesel Retrofit</td>
<td>June 1, 2010</td>
<td>Nov. 1, 2014</td>
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<tr>
<td>80387</td>
<td>21</td>
<td>Contrast Preformed Plastic Pavement Marking</td>
<td>Nov. 1, 2017</td>
<td></td>
</tr>
<tr>
<td>80378</td>
<td>22</td>
<td>Dowel Bar Inserter</td>
<td>Jan. 1, 2017</td>
<td>Jan. 1, 2018</td>
</tr>
<tr>
<td>80388</td>
<td>23</td>
<td>Equipment Parking and Storage</td>
<td>Nov. 1, 2017</td>
<td></td>
</tr>
<tr>
<td>80229</td>
<td>24</td>
<td>Fuel Cost Adjustment</td>
<td>April 1, 2009</td>
<td>Aug. 1, 2017</td>
</tr>
<tr>
<td>80394</td>
<td>25</td>
<td>Grooving for Recessed Pavement Markings</td>
<td>Nov. 1, 2012</td>
<td>Nov. 1, 2017</td>
</tr>
<tr>
<td>80391</td>
<td>26</td>
<td>Hot-Mix Asphalt - Density Testing on Conditioned Joint</td>
<td>Jan. 1, 2017</td>
<td></td>
</tr>
<tr>
<td>80383</td>
<td>27</td>
<td>Hot-Mix Asphalt – Quality Control for Performance</td>
<td>April 1, 2017</td>
<td>Nov. 1, 2017</td>
</tr>
<tr>
<td>80376</td>
<td>28</td>
<td>Hot-Mix Asphalt – Tack Coat</td>
<td>Nov. 1, 2016</td>
<td></td>
</tr>
<tr>
<td>80393</td>
<td>29</td>
<td>Lights on Barricades</td>
<td>Jan. 1, 2018</td>
<td></td>
</tr>
<tr>
<td>80336</td>
<td>30</td>
<td>Longitudinal Joint and Crack Patching</td>
<td>April 1, 2014</td>
<td>April 1, 2016</td>
</tr>
<tr>
<td>80394</td>
<td>32</td>
<td>Metal Flared End Section for Pipe Culverts</td>
<td>Jan. 1, 2018</td>
<td>April 1, 2018</td>
</tr>
<tr>
<td>80165</td>
<td>33</td>
<td>Moisture Cured Urethane Paint System</td>
<td>Nov. 1, 2006</td>
<td>Jan. 1, 2010</td>
</tr>
<tr>
<td>80349</td>
<td>34</td>
<td>Pavement Marking Blackout Tape</td>
<td>Nov. 1, 2014</td>
<td>April 1, 2016</td>
</tr>
<tr>
<td>80371</td>
<td>35</td>
<td>Pavement Marking Removal</td>
<td>July 1, 2016</td>
<td></td>
</tr>
<tr>
<td>80390</td>
<td>36</td>
<td>Payments to Subcontractors</td>
<td>Nov. 2, 2017</td>
<td></td>
</tr>
<tr>
<td>80377</td>
<td>37</td>
<td>Portable Changeable Message Signs</td>
<td>Nov. 1, 2016</td>
<td>April 1, 2017</td>
</tr>
<tr>
<td>80399</td>
<td>38</td>
<td>Portland Cement Concrete</td>
<td>Nov. 1, 2017</td>
<td></td>
</tr>
<tr>
<td>80359</td>
<td>39</td>
<td>Portland cement deck curing</td>
<td>April 1, 2015</td>
<td>Nov. 1, 2017</td>
</tr>
<tr>
<td>80351</td>
<td>40</td>
<td>Portland cement pour out concrete</td>
<td></td>
<td></td>
</tr>
<tr>
<td>80352</td>
<td>41</td>
<td>Portland cement pour out concrete</td>
<td></td>
<td></td>
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<tr>
<td>80353</td>
<td>42</td>
<td>Portland cement pour out concrete</td>
<td></td>
<td></td>
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<tr>
<td>80354</td>
<td>43</td>
<td>Portland cement pour out concrete</td>
<td></td>
<td></td>
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<tr>
<td>80355</td>
<td>44</td>
<td>Portland cement pour out concrete</td>
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<tr>
<td>80356</td>
<td>45</td>
<td>Portland cement pour out concrete</td>
<td></td>
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<table>
<thead>
<tr>
<th>File Name</th>
<th>Special Provision Title</th>
<th>New Location</th>
<th>Effective</th>
<th>Revised</th>
</tr>
</thead>
<tbody>
<tr>
<td>80385</td>
<td>Portland Cement Concrete Sidewalk</td>
<td></td>
<td>Aug. 1, 2017</td>
<td></td>
</tr>
<tr>
<td>80300</td>
<td>Preformed Plastic Pavement Marking Type D - Inlaid</td>
<td></td>
<td>April 1, 2012</td>
<td>April 1, 2016</td>
</tr>
<tr>
<td>80328</td>
<td>Progress Payments</td>
<td></td>
<td>Nov. 2, 2013</td>
<td></td>
</tr>
<tr>
<td>80157</td>
<td>Railroad Protective Liability Insurance (5 and 10)</td>
<td></td>
<td>Jan. 1, 2006</td>
<td></td>
</tr>
<tr>
<td>80306</td>
<td>Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS)</td>
<td>Nov. 1, 2012</td>
<td>Jan. 1, 2018</td>
<td></td>
</tr>
<tr>
<td>80395</td>
<td>Sloped Metal End Section for Pipe Culverts</td>
<td></td>
<td>Jan. 1, 2018</td>
<td></td>
</tr>
<tr>
<td>80340</td>
<td>Speed Display Trailer</td>
<td></td>
<td>April 2, 2014</td>
<td>Jan. 1, 2017</td>
</tr>
<tr>
<td>80127</td>
<td>Steel Cost Adjustment</td>
<td></td>
<td>April 2, 2004</td>
<td>Aug. 1, 2017</td>
</tr>
<tr>
<td>80387</td>
<td>Subcontractor and DBE Payment Reporting</td>
<td></td>
<td>April 2, 2016</td>
<td></td>
</tr>
<tr>
<td>80391</td>
<td>Subcontractor Mobilization Payments</td>
<td>Nov. 2, 2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>80298</td>
<td>Temporary Pavement Marking (NOTE: This special provision was previously named &quot;Pavement Marking Tape Type IV&quot;.)</td>
<td>April 1, 2012</td>
<td>April 1, 2017</td>
<td></td>
</tr>
<tr>
<td>20338</td>
<td>Training Special Provisions</td>
<td>Oct. 15, 1975</td>
<td></td>
<td></td>
</tr>
<tr>
<td>80318</td>
<td>Traversable Pipe Grate for Concrete End Sections (NOTE: This special provision was previously named &quot;Traversable Pipe Grate&quot;).</td>
<td>Jan. 1, 2013</td>
<td>Jan. 1, 2018</td>
<td></td>
</tr>
<tr>
<td>80288</td>
<td>Warm Mix Asphalt</td>
<td>Jan. 1, 2012</td>
<td>April 1, 2016</td>
<td></td>
</tr>
<tr>
<td>80302</td>
<td>Weekly DBE Trucking Reports</td>
<td>June 2, 2012</td>
<td>April 2, 2015</td>
<td></td>
</tr>
<tr>
<td>60071</td>
<td>Working Days</td>
<td>Jan. 1, 2002</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following special provisions are in the 2018 Supplemental Specifications and Recurring Special Provisions:

<table>
<thead>
<tr>
<th>File Name</th>
<th>Special Provision Title</th>
<th>New Location</th>
<th>Effective</th>
<th>Revised</th>
</tr>
</thead>
<tbody>
<tr>
<td>80368</td>
<td>Light Tower</td>
<td>Article 1069.08</td>
<td>July 1, 2016</td>
<td></td>
</tr>
<tr>
<td>80369</td>
<td>Mast Arm Assembly and Pole</td>
<td>Article 1077.03(a)(1)</td>
<td>July 1, 2016</td>
<td></td>
</tr>
<tr>
<td>80338</td>
<td>Portland Cement Concrete Partial Depth Hot-Mix Asphalt Patching</td>
<td>Recurring CS #35</td>
<td>April 1, 2014</td>
<td>April 1, 2016</td>
</tr>
<tr>
<td>80379</td>
<td>Steel Plate Beam Guardrail</td>
<td>Articles 630.02, 630.05, 630.06, and 630.08</td>
<td>Jan. 1, 2017</td>
<td></td>
</tr>
<tr>
<td>80381</td>
<td>Traffic Barrier Terminal, Type 1 Special</td>
<td>Article 631.04</td>
<td>Jan. 1, 2017</td>
<td></td>
</tr>
<tr>
<td>80380</td>
<td>Tubular Markers</td>
<td>Articles 701.03, 701.15, 701.18, and 1106.02</td>
<td>Jan. 1, 2017</td>
<td></td>
</tr>
</tbody>
</table>

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

- 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
- DBE Participation
- Training Special Provisions
- Working Days
ADJUSTING FRAMES AND GRATES (BDE)

Effective: April 1, 2017

Add the following to Article 602.02 of the Standard Specifications:

“(s) High Density Expanded Polystyrene Adjusting Rings
with Polyurea Coating (Note 4) ................................................................. 1043.04
(t) Expanded Polypropylene (EPP) Adjusting Rings (Note 5) ..................... 1043.05

Note 4. High density expanded polystyrene adjusting rings with polyurea coating shall meet the design load requirements of AASHTO HS20/25. The rings may be used to adjust the frames and grates of drainage and utility structures up to a maximum of 6 in. (150 mm). They shall be installed and sealed underneath the frames according to the manufacturer’s specifications.

Note 5. Riser rings fabricated from EPP may be used to adjust the frames and grates of drainage and utility structures up to a maximum of 6 in. (150 mm). An adhesive meeting ASTM C 920, Type S, Grade N5, Class 25 shall be used with EPP adjustment rings. The top ring of the adjustment stack shall be a finish ring with grooves on the lower surface and flat upper surface. The joints between all manhole adjustment rings and the frame and cover shall be sealed using the approved adhesive. In lieu of the use of an adhesive, an internal or external mechanical frame-chimney seal may be used for watertight installation. EPP adjustment rings shall not be used with heat shrinkable infiltration barriers.

Add the following to Section 1043 of the Standard Specifications:

1043.04 High Density Expanded Polystyrene Adjusting Rings with Polyurea Coating. High density expanded polystyrene adjustment rings with polyurea coating shall be designed and tested to meet or exceed an HS25 wheel load according to the AASHTO Standard Specifications for Highway Bridges (AASHTO M306 HS-25). The raw material suppliers shall provide certifications of quality or testing using the following ASTM standards, and upon request, certify that only virgin material was used in the manufacturing of the expanded polystyrene rings.

| Physical Property                  | Test Standard | Value
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Compression Resistance</td>
<td>ASTM D 1621</td>
<td>3.0 lb/cu ft</td>
</tr>
<tr>
<td>at 10% deformation</td>
<td></td>
<td>50 - 70</td>
</tr>
<tr>
<td>at 5% deformation</td>
<td></td>
<td>45 - 60</td>
</tr>
<tr>
<td>at 2% deformation</td>
<td></td>
<td>15 - 20</td>
</tr>
<tr>
<td>Flexural Strength</td>
<td>ASTM D 790</td>
<td>90 - 120</td>
</tr>
<tr>
<td>Water Absorption</td>
<td>ASTM D 570</td>
<td>2.0%</td>
</tr>
<tr>
<td>Coefficient of Linear Expansion</td>
<td>ASTM D 696</td>
<td>2.70E-06 in./in./°F</td>
</tr>
<tr>
<td>Shear Strength</td>
<td>ASTM D 732</td>
<td>55</td>
</tr>
</tbody>
</table>
High density expanded polystyrene adjustment rings with polyurea coating shall have no void areas, cracks, or tears. The actual diameter or length shall not vary more than 0.125 in. (3 mm) from the specified diameter or length. Variations in height are limited to ± 0.063 in. (± 1.6 mm). Variations shall not exceed 0.25 in. (6 mm) from flat (dish, bow, or convoluting edge) or 0.125 in. (3 mm) for bulges or dips in the surface.

1043.05 Expanded Polypropylene (EPP) Adjusting Rings. The EPP adjusting rings shall be manufactured using a high compression molding process to produce a minimum finished density of 7.5 lb/cu ft (120 g/l). The EPP rings shall be made of materials meeting ASTM D 3575 and ASTM D 4819-13. The grade adjustments shall be designed and tested according to the AASHTO Standard Specifications for Highway Bridges (AASHTO M 306 HS-25).

Grade rings shall contain upper and lower keyways (tongue and groove) for proper vertical alignment and sealing. The top ring, for use directly beneath the cast iron frame, shall have keyways (grooves) on the lower surface with a flat upper surface.

Adhesive or sealant used for watertight installation of the manhole grade adjustment rings shall meet ASTM C 920, Type S, Grade NS, Class 25, Uses NT, T, M, G, A, and O.

EPP adjustment rings shall have no void areas, cracks, or tears. The actual diameter or length shall not vary more than 0.125 in. (3 mm) from the specified diameter or length. Variations in height are limited to ± 0.063 in. (± 1.6 mm). Variations shall not exceed 0.25 in. (6 mm) from flat (dish, bow, or convoluting edge) or 0.125 in. (3 mm) for bulges or dips in the surface.
CONSTRUCTION AIR QUALITY – DIESEL RETROFIT (BDE)

Effective: June 1, 2010
Revised: November 1, 2014

The reduction of emissions of particulate matter (PM) for off-road equipment shall be accomplished by installing retrofit emission control devices. The term “equipment” refers to diesel fuel powered devices rated at 50 hp and above, to be used on the jobsite in excess of seven calendar days over the course of the construction period on the jobsite (including rental equipment).

Contractor and subcontractor diesel powered off-road equipment assigned to the contract shall be retrofitted using the phased in approach shown below. Equipment that is of a model year older than the year given for that equipment’s respective horsepower range shall be retrofitted:

<table>
<thead>
<tr>
<th>Effective Dates</th>
<th>Horsepower Range</th>
<th>Model Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 1, 2010</td>
<td>600-749</td>
<td>2002</td>
</tr>
<tr>
<td></td>
<td>750 and up</td>
<td>2006</td>
</tr>
<tr>
<td>June 1, 2011</td>
<td>100-299</td>
<td>2003</td>
</tr>
<tr>
<td></td>
<td>300-599</td>
<td>2001</td>
</tr>
<tr>
<td></td>
<td>600-749</td>
<td>2002</td>
</tr>
<tr>
<td></td>
<td>750 and up</td>
<td>2006</td>
</tr>
<tr>
<td>June 1, 2012</td>
<td>50-99</td>
<td>2004</td>
</tr>
<tr>
<td></td>
<td>100-299</td>
<td>2003</td>
</tr>
<tr>
<td></td>
<td>300-599</td>
<td>2001</td>
</tr>
<tr>
<td></td>
<td>600-749</td>
<td>2002</td>
</tr>
<tr>
<td></td>
<td>750 and up</td>
<td>2006</td>
</tr>
</tbody>
</table>

1/ Effective dates apply to Contractor diesel powered off-road equipment assigned to the contract.
2/ Effective dates apply to Contractor and subcontractor diesel powered off-road equipment assigned to the contract.

The retrofit emission control devices shall achieve a minimum PM emission reduction of 50 percent and shall be:

a) Included on the U.S. Environmental Protection Agency (USEPA) Verified Retrofit Technology List (http://www.epa.gov/cleandiesel/verification/verif-list.htm), or verified by the California Air Resources Board (CARB) (http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm); or

b) Retrofitted with a non-verified diesel retrofit emission control device if verified retrofit emission control devices are not available for equipment proposed to be used on the project, and if the Contractor has obtained a performance certification from the retrofit
device manufacturer that the emission control device provides a minimum PM emission reduction of 50 percent.

Note: Large cranes (Crawler mounted cranes) which are responsible for critical lift operations are exempt from installing retrofit emission control devices if such devices adversely affect equipment operation.

Diesel powered off-road equipment with engine ratings of 50 hp and above, which are unable to be retrofitted with verified emission control devices or if performance certifications are not available which will achieve a minimum 50 percent PM reduction, may be granted a waiver by the Department if documentation is provided showing good faith efforts were made by the Contractor to retrofit the equipment.

Construction shall not proceed until the Contractor submits a certified list of the diesel powered off-road equipment that will be used, and as necessary, retrofitted with emission control devices. The list(s) shall include (1) the equipment number, type, make, Contractor/rental company name; and (2) the emission control devices make, model, USEPA or CARB verification number, or performance certification from the retrofit device manufacturer. Equipment reported as fitted with emissions control devices shall be made available to the Engineer for visual inspection of the device installation, prior to being used on the jobsite.

The Contractor shall submit an updated list of retrofitted off-road construction equipment as retrofitted equipment changes or comes on to the jobsite. The addition or deletion of any diesel powered equipment shall be included on the updated list.

If any diesel powered off-road equipment is found to be in non-compliance with any portion of this special provision, the Engineer will issue the Contractor a diesel retrofit deficiency deduction.

Any costs associated with retrofitting any diesel powered off-road equipment with emission control devices shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed. The Contractor’s compliance with this notice and any associated regulations shall not be grounds for a claim.

Diesel Retrofit Deficiency Deduction

When the Engineer determines that a diesel retrofit deficiency exists, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency continues to exist. The calendar day(s) will begin when the time period for correction is exceeded and end with the Engineer’s written acceptance of the correction. The daily monetary deduction will be $1,000.00 for each deficiency identified.

The deficiency will be based on lack of diesel retrofit emissions control.

If a Contractor accumulates three diesel retrofit deficiency deductions for the same piece of equipment in a contract period, the Contractor will be shutdown until the deficiency is corrected.
Such a shutdown will not be grounds for any extension of the contract time, waiver of penalties, or be grounds for any claim.
HOT-MIX ASPHALT - DENSITY TESTING OF LONGITUDINAL JOINTS (BDE)

Effective: January 1, 2010
Revised: August 1, 2018

Description. This work shall consist of testing the density of longitudinal joints as part of the quality control/quality assurance (QC/QA) of hot-mix asphalt (HMA). Work shall be according to Section 1030 of the Standard Specifications except as follows.

Quality Control/Quality Assurance (QC/QA). Delete the second and third sentence of the third paragraph of Article 1030.05(d)(3) of the Standard Specifications.

Add the following paragraphs to the end of Article 1030.05(d)(3) of the Standard Specifications:

"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 Density Control Limits table in Article 1030.05(d)(4) of the Standard Specifications to read:

<table>
<thead>
<tr>
<th>&quot;Mixture Composition</th>
<th>Parameter</th>
<th>Individual Test (includes confined edges)</th>
<th>Unconfined Edge Joint Density Minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>IL-4.75</td>
<td>Ndesign = 50</td>
<td>93.0 – 97.4%</td>
<td>91.0%</td>
</tr>
<tr>
<td>IL-9.5</td>
<td>Ndesign = 90</td>
<td>92.0 – 96.0%</td>
<td>90.0%</td>
</tr>
<tr>
<td>IL-9.5, IL-9.5L</td>
<td>Ndesign &lt; 90</td>
<td>92.5 – 97.4%</td>
<td>90.0%</td>
</tr>
<tr>
<td>IL-19.0</td>
<td>Ndesign = 90</td>
<td>93.0 – 96.0%</td>
<td>90.0%</td>
</tr>
<tr>
<td>IL-19.0, IL-19.0L</td>
<td>Ndesign &lt; 90</td>
<td>93.0 2- 97.4%</td>
<td>90.0%</td>
</tr>
</tbody>
</table>
HOT-MIX ASPHALT – TACK COAT (BDE)

Effective: November 1, 2016

Revise Article 1032.06(a) of the Standard Specifications to read:

"(a) Anionic Emulsified Asphalt. Anionic emulsified asphalts shall be according to AASHTO M 140. SS-1h emulsions used as a tack coat shall have the cement mixing test waived."

80376
PORTLAND CEMENT CONCRETE (BDE)

Effective: November 1, 2017

Revise the Air Content % of Class PP Concrete in Table 1 Classes of Concrete and Mix Design Criteria in Article 1020.04 of the Standard Specifications to read:

<table>
<thead>
<tr>
<th>Class of Conc.</th>
<th>Use</th>
<th>Air Content %</th>
</tr>
</thead>
<tbody>
<tr>
<td>PP</td>
<td>Pavement Patching Bridge Deck Patching (10)</td>
<td>4.0 - 8.0'</td>
</tr>
<tr>
<td></td>
<td>PP-1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PP-2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PP-3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PP-4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PP-5</td>
<td></td>
</tr>
</tbody>
</table>

Revise Note (4) at the end of Table 1 Classes of Concrete and Mix Design Criteria in Article 1020.04 of the Standard Specifications to read:

"(4) For all classes of concrete, the maximum slump may be increased to 7 in (175 mm) when a high range water-reducing admixture is used. For Class SC, the maximum slump may be increased to 8 in. (200 mm). For Class PS, the maximum slump may be increased to 8 1/2 in. (215 mm) if the high range water-reducing admixture is the polycarboxylate type."
PREVAILING WAGES
<table>
<thead>
<tr>
<th>Trade Title</th>
<th>Region</th>
<th>Type</th>
<th>Class</th>
<th>Base Wage</th>
<th>Foreman Wage</th>
<th>M-F OT</th>
<th>OSA</th>
<th>OSH</th>
<th>H/W</th>
<th>Pension</th>
<th>Vacation</th>
<th>Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASBESTOS ABT-GEN</td>
<td>ALL</td>
<td>ALL</td>
<td></td>
<td>41.20</td>
<td>42.20</td>
<td>1.5</td>
<td>1.5</td>
<td>2</td>
<td>14.65</td>
<td>12.32</td>
<td>0.00</td>
<td>0.50</td>
</tr>
<tr>
<td>ASBESTOS ABT-MEC</td>
<td>ALL</td>
<td>BLD</td>
<td></td>
<td>37.46</td>
<td>39.96</td>
<td>1.5</td>
<td>1.5</td>
<td>2</td>
<td>11.62</td>
<td>11.06</td>
<td>0.00</td>
<td>0.72</td>
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- **M-F OT** Unless otherwise noted, OT pay is required for any hour greater than 8 worked each day, Mon through Fri. The number listed is the multiple of the base wage.
- **OSA** Overtime pay required for every hour worked on Saturdays
- **OSH** Overtime pay required for every hour worked on Sundays and Holidays
- **H/W** Health/Welfare benefit

### Explanations COOK COUNTY

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas Day and Veterans Day in some classifications/counties. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration. If in doubt, please check with IDOL.

- **TRUCK DRIVERS (WEST)** - That part of the county West of Barrington Road.

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EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date. ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

CERAMIC TILE FINISHER

The grouting, cleaning, and polishing of all classes of tile, whether for interior or exterior purposes, all burned, glazed or unglazed products; all composition materials, granite tiles, warning detectable tiles, cement tiles, epoxy composite materials, pavers, glass, mosaics, fiberglass, and all substitute materials, for tile made in tile-like units; all mixtures in tile like form of cement, metals, and other materials that are for and intended for use as a finished floor surface, stair treads, promenade roofs, walks, walls, ceilings, swimming pools, and all other places where tile is to form a finished interior or exterior. The mixing of all setting mortars including but not limited to thin-set mortars, epoxies, wall mud, and any other sand and cement mixtures or adhesives when used in the preparation, installation, repair, or maintenance of tile and/or similar materials. The handling and unloading of all sand, cement, lime, tile, fixtures, equipment, adhesives, or any other materials to be used in the preparation, installation, repair, or maintenance of tile and/or similar materials. Ceramic Tile Finishers shall fill all joints and voids regardless of method on all tile work, particularly and especially after installation of said tile work. Application of any and all protective coverings to all types of tile installations including, but not be limited to, all soap compounds, paper products, tapes, and all polyethylene coverings, plywood, masonite, cardboard, and any new type of products that may be used to protect tile installations, Blastrac equipment, and all floor scarifying equipment used in preparing floors to receive tile. The clean up and removal of all waste and materials. All demolition of existing tile floors and walls to be re-tiled.

COMMUNICATIONS ELECTRICIAN

Installation, operation, inspection, maintenance, repair and service of radio, television, recording, voice sound vision production and reproduction, telephone and telephone interconnect, facsimile, data apparatus, coaxial, fibre optic and wireless equipment, appliances and systems used for the transmission and reception of signals of any nature, business, domestic, commercial, education, entertainment, and residential purposes, including but not limited to, communication and telephone, electronic and sound equipment, fibre optic and data communication systems, and the performance of any task directly related to such installation or service whether at new or existing sites, such tasks to include the placing of wire and cable and electrical power conduit or other raceway work within the equipment room and pulling wire and/or cable through conduit and the installation of any incidental conduit, such that the employees covered hereby can complete any job in full.

MARBLE FINISHER
Loading and unloading trucks, distribution of all materials (all stone, sand, etc.), stocking of floors with material, performing all rigging for heavy work, the handling of all material that may be needed for the installation of such materials, building of scaffolding, polishing if needed, patching, waxing of material if damaged, pointing up, caulking, grouting and cleaning of marble, holding water on diamond or Carborundum blade or saw for setters cutting, use of tub saw or any other saw needed for preparation of material, drilling of holes for wires that anchor material set by setters, mixing up of molding plaster for installation of material, mixing up thin set for the installation of material, mixing up of sand to cement for the installation of material and such other work as may be required in helping a Marble Setter in the handling of all material in the erection or installation of interior marble, slate, travertine, art marble, serpentine, alberene stone, blue stone, granite and other stones (meaning as to stone any foreign or domestic materials as are specified and used in building interiors and exteriors and customarily known as stone in the trade), carrara, sanionyx, vitrolite and similar opaque glass and the laying of all marble tile, terrazzo tile, slate tile and precast tile, steps, risers treads, base, or any other materials that may be used as substitutes for any of the aforementioned materials and which are used on interior and exterior which are installed in a similar manner.

MATERIAL TESTER I: Hand coring and drilling for testing of materials; field inspection of uncured concrete and asphalt.

MATERIAL TESTER II: Field inspection of welds, structural steel, fireproofing, masonry, soil, facade, reinforcing steel, formwork, cured concrete, and concrete and asphalt batch plants; adjusting proportions of bituminous mixtures.

OPERATING ENGINEER - BUILDING

Class 1. Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson Attachment; Batch Plant; Benoto (requires Two Engineers); Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End Loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Conveyor (Truck Mounted); Concrete Paver Over 27E cu. ft; Concrete Paver 27E cu. ft. and Under; Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower; Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type); Creter Crane; Spider Crane; Crusher, Stone, etc.; Derrick, All; Derrick, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Heavy Duty Self-Propelled Transporter or Prime Mover; Highlift Shovels or Front End Loader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, One, Two and Three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Lubrication Technician; Manipulators; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes: Squeeze Cretes-Screw Type Pumps; Gypsum Bulker and Pump; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-Form Paver; Straddle Buggies; Operation of Tie Back Machine; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Boilers; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Highlift Shovels or Front End Loaders under 2-1/4 yd.; Hoists, Automatic; Hoists, Inside Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum;
Laser Screed; Rock Drill (Self-Propelled); Rock Drill (Truck Mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Combination Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators (remodeling or renovation work); Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Low Boys; Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 4. Bobcats and/or other Skid Steer Loaders; Oilers; and Brick Forklift.

Class 5. Assistant Craft Foreman.


Class 7. Mechanics; Welders.

OPERATING ENGINEERS - HIGHWAY CONSTRUCTION

Class 1. Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Spreader; Autograder/GOMACO or other similar type machines: ABG Paver; Backhoes with Caisson Attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Tower Cranes of all types: Creter Crane; Spider Crane; Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Dredges; Elevators, Outside type Rack & Pinion and Similar Machines; Formless Curb and Gutter Machine; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Truck Mounted; Hoists, One, Two and Three Drum; Heavy Duty Self-Propelled Transporter or Prime Mover; Hydraulic Backhoes; Backhoes with shear attachments up to 40' of boom reach; Lubrication Technician; Manipulators; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Rock/Track Tamper; Roto Mill Grinder; Slip-Form Paver; Snow Melters; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Operation of Tieback Machine; Tractor Drawn Belt Loader; Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Traffic Barrier Transfer Machine; Trenching; Truck Mounted Concrete Pump with Boom; Raised or Blind Hole Drills (Tunnel Shaft); Underground Boring and/or Mining Machines 5 ft. in diameter and over tunnel, etc; Underground Boring and/or Mining Machines under 5 ft. in diameter; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (Less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.;
Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine - Concrete; Highlift Shovels or Front End Loader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blaster; Hydro Excavating (excluding hose work); Laser Screed; All Locomotives, Dinky; Off-Road Hauling Units (including articulating) Non Self-Loading Ejection Dump; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc., self-propelled; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper - Single/Twin Engine/Push and Pull; Scraper - Prime Mover in Tandem (Regardless of Size); Tractors pulling attachments, Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than Asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper-Form-Motor Driven.

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Vacuum Trucks (excluding hose work); Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. SkidSteer Loader (all); Brick Forklifts; Oilers.

Class 6. Field Mechanics and Field Welders

Class 7. Dowell Machine with Air Compressor; Gradall and machines of like nature.

OPERATING ENGINEER - FLOATING

Class 1. Craft Foreman; Master Mechanic; Diver/Wet Tender; Engineer; Engineer (Hydraulic Dredge).

Class 2. Crane/Backhoe Operator; Boat Operator with towing endorsement; Mechanic/Welder; Assistant Engineer (Hydraulic Dredge); Leverman (Hydraulic Dredge); Diver Tender.

Class 3. Deck Equipment Operator, Machineryman, Maintenance of Crane (over 50 ton capacity) or Backhoe (115,000 lbs. or more); Tug/Launch Operator; Loader/Dozer and like equipment on Barge, Breakwater Wall, Slip/Dock, or Scow, Deck Machinery, etc.

Class 4. Deck Equipment Operator, Machineryman/Fireman (4 Equipment Units or More); Off Road Trucks; Deck Hand, Tug Engineer, Crane Maintenance (50 Ton Capacity and Under) or Backhoe Weighing (115,000 pounds or less); Assistant Tug Operator.
Class 5. Friction or Lattice Boom Cranes.

Class 6. ROV Pilot, ROV Tender

TERRAZZO FINISHER

The handling of sand, cement, marble chips, and all other materials that may be used by the Mosaic Terrazzo Mechanic, and the mixing, grinding, grouting, cleaning and sealing of all Marble, Mosaic, and Terrazzo work, floors, base, stairs, and wainscoting by hand or machine, and in addition, assisting and aiding Marble, Masonic, and Terrazzo Mechanics.

TRAFFIC SAFETY

Work associated with barricades, horses and drums used to reduce lane usage on highway work, the installation and removal of temporary lane markings, and the installation and removal of temporary road signs.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION - EAST & WEST

Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; Teamsters; Unskilled Dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnatrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

Other Classifications of Work:
For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.

MATERIAL TESTER & MATERIAL TESTER/INSPECTOR I AND II

Notwithstanding the difference in the classification title, the classification entitled "Material Tester I" involves the same job duties as the classification entitled "Material Tester/Inspector I". Likewise, the classification entitled "Material Tester II" involves the same job duties as the classification entitled "Material Tester/Inspector II".
STANDARD DRAWINGS
**TYPICAL APPLICATIONS**

- Utility operations
- Culvert extensions
- Guardrail installation and maintenance
- Delineator installation
- Landscaping operations
- Shoulder repair
- Sign installation and maintenance

**SYMBOLS**

- Work area
- Sign
- Cone, drum or barricade

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**GENERAL NOTES**

This Standard is used where any vehicles, equipment, workers or their activities will encroach in the area 15' (4.5 m) to 24' (600 mm) from the edge of pavement.

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.

**SPEED LIMIT FORMULAS**

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<th>English</th>
<th>Metric</th>
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<tr>
<td>40 mph (60 km/h) or less:</td>
<td>$L = \frac{W S}{5}$</td>
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<tr>
<td>45 mph (70 km/h) or greater:</td>
<td>$L = \frac{0.65 W S}{5}$</td>
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Where $W$ is the width of offset in feet (meters) and $S$ is the normal posted speed in mph (km/h).

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

---

**DATE**

| 1-1-14 | Revised workers sign number to agree with current MUTCD. |
| 1-1-13 | Omitted (per WORKERS' sign). |

**STANDARD 701006-05**

**OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24' (600 mm) FROM PAVEMENT EDGE**
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 is more than 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.

TYPICAL APPLICATIONS

Marking switches
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

SIGN SPACING

Posted speed  Sign spacing
55  500' (150 m)
50-45  350' (100 m)
<45  200' (60 m)

1 = Refer to SIGN SPACING table for distances.

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

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

STANDARD 701301-04

All dimensions are in inches (millimeters) unless otherwise shown.
TYPICAL APPLICATIONS
- Landscaping work
- Utility work
- Pavement marking
- Weed spraying
- Road sensor measurements
- Debris cleanup
- Crack pouring

SYMBOLS
- Arrow board (Hazard Mode only)
- Truck with headlights, emergency flashers and flashing amber light (visible from all directions)
- 18x18 (450x450) min. orange flag (use when guide-wire is utilized)
- Truck-mounted attenuator

GENERAL NOTES
This Standard is used where any vehicle, equipment, workers or their activities will require a continuous moving operation where the average speed is greater than 3 mph (5 km/h).

For shoulder operations not encroaching on the pavement, use DETAIL A, Standard 701426.

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

DATE REVISIONS
1-1-09 Switched units to English metrics. Omitted
Pass With Care sign.
1-1-00 25 mph speed restrictions
In Standard title.

LANE CLOSURE 2L, 2W
MOVING OPERATIONS-
DAY ONLY

STANDARD 701311-03
**GENERAL NOTES**

This Standard is used where at any time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement requiring the closure of one traffic lane in an urban area.

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

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**URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED**

**DATE**

1-1-11 Revised flagger sign.

1-1-09 Switched units to English (metric).

**REVISIONS**

Corrected sign No.'s.

**STANDARD 701501-06**
**SYMBOLS**

- Work area
- Sign on portable or permanent support
- Barricade or drum
- Cone, drum or barricade
- Type III barricade
- Detectable pedestrian channelizing barricade

**SIDEWALK DIVERSION**

1. W20-110(30)-48 for contract construction projects
2. W20-110(30)-48 for maintenance and utility projects

**GENERAL NOTES**

This Standard is used where, at any time, pedestrian traffic must be rerouted due to work being performed.

This Standard must be used in conjunction with other Traffic Control & Protection Standards when roadway traffic is affected.

Temporary facilities shall be detectable and accessible.

The temporary pedestrian facilities shall be positioned on the same side of the closed facilities whenever possible.

The SIDEWALK CLOSED / USE OTHER SIDE sign shall be placed at the nearest crosswalk or transition to each end of the closure. Where the closure occurs at a corner, the signs shall be erected on the corners across the street from the closure. The SIDEWALK CLOSED signs shall be used at the ends of the actual closures.

Type III barriers and R11-2-4830 signs shall be positioned as shown in "ROAD CLOSED TO ALL TRAFFIC" dwell on Standard 701901.

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

---

**STANDARD 701801-06**

**DATE** | **REVISIONS**
--- | ---
4-1-16 | Omit orange safety fence
1-1-12 | Added SIDEWALK DIVERSION
1-1-12 | Modified appearance of plan views, Renamed Std.
POST MOUNTED SIGNS

** When curb or paved shoulder 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.

Elevation of edge of pavement

** (1.8 m - 3.6 m)

6' (1.8 m)

Metal or wood post

5' (1.5 m) min. rural

4' (1.2 m) rural

5' (1.5 m) min. urban

4' (1.2 m) urban

Elevation of edge of curb

Elevation of edge of pavement

MAX WIDTH

XX' - XX"

X MILES AHEAD

STOP

SLOW

FLAGGER TRAFFIC CONTROL SIGN

SLOWZED(#LED) 7 (180) Federal series B

STOP (200) Federal series C

INFORMATIONAL

WARNING

SIGN

SIGN OF SPECIFIED

12x18 (450x450)

Orange flags

MAX WIDTH

XX' - XX"

X MILES AHEAD

W12-1103-4848

WIDTH RESTRICTION SIGN

XX'-XX" width and x miles are variable.
**Typical Applications of Type III Barricades Closing a Road**

Reflectorized striping may be omitted on the back side of the barricades. 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.

**Temporary Rumble Strips**

Reflectorized striping shall appear on both sides of the barricades. 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.

---

**Traffic Control Devices**

Standard 701901-07
Doweled contraction joint (placed in prolongation with pavement joints) construction option:
1. Form with \( \frac{1}{2} \) (3) thick steel template 2 (50) deep, and seal.
2. Saw at 4 to 24 hours, and seal.

2-No. 4 (No. 13) bars placed at mid-depth (when space permits).

10 (450) long dowel bars

- This dimension shall be adjusted to align with joint on the adjacent pavement

- \( \frac{3}{4} \) (1.0 m) min.

- \( \frac{3}{4} \) (1.0 m) min.

Full depth & width 1 (25) thick (min.) preformed expansion joint filler.

- \( \frac{3}{4} \) (1.0 m) min.

BARRIER CURB

MOUNTABLE CURB

<table>
<thead>
<tr>
<th>TYPE</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>R1</th>
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- For corner islands only.

CONCRETE CURB TYPE B AND COMBINATION CURB AND GUTTER

EXHIBIT 1-15 A DDED B-6.06 (B-15.15) barrier curb and gutter to table

(CORNER ISLANDS ONLY)

DATE REVISIONS
1-1-18 Revised General Note for tie bar spacing to 36 (900) cm.
1-1-15 Added B-6.06 (B-15.15) barrier curb and gutter to table

(Standard 606001-07)
Undoweled contraction joint (typ.)
construction options:

1. Torn with % (3) thick steel template
2. Saw 2 (50) deep at 4 to 24 hours, and seal.
3. Insert % (20) thick preformed joint filler

HMA surfacing

Mountable curb shown
(other types permitted)

ON DISTURBED SUBGRADE

ON UNDISTURBED SUBGRADE

CONCRETE CURB TYPE B

ADJACENT TO FLEXIBLE PAVEMENT

ADJACENT TO PCC PAVEMENT OR PCC BASE COURSE

DEPRESSED CURB

BARRIER CURB
The space between adjacent letters or numerals should be approximately \( \frac{3 \text{ (75)}}{4 \text{ (100)}} \) for 6' (1.8 m) legend and \( \frac{4 \text{ (100)}}{6 \text{ (1.8 m)}} \) for 8' (2.4 m) legend.

**LETTER AND ARROW GRID SCALE**

<table>
<thead>
<tr>
<th>Legend Height (ft</th>
<th>Arrow Size</th>
<th>Arrow Size (in)</th>
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<tbody>
<tr>
<td>6' (1.8 m)</td>
<td>Small</td>
<td>2.9 (74)</td>
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<tr>
<td>8' (2.4 m)</td>
<td>Large</td>
<td>3.0 (76)</td>
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LANE-REDUCTION ARROW
Right lane-reduction arrow shown. Use mirror image for left lane.

WORD AND ARROW LAYOUT

WRONG WAY ARROW

INTERNATIONAL SYMBOL OF ACCESSIBILITY

SHARED LANE SYMBOL

BIKE SYMBOL
(Arrow is optional.)

TYPICAL PAVEMENT MARKINGS
(Sheet 3 of 3)
STANDARD 780001-05
VILLAGE of TINLEY PARK
FY 2019 MUNICIPAL PARKING LOT IMPROVEMENTS
LOCATION MAP

LOCATION #1
SOUTH STREET METRA LOT

LOCATION #2
VILLAGE HALL

LOCATION #3
SOUTH STREET METRA LOT

LOCATION #4
PUBLIC SAFETY BUILDING

PREPARED BY:
Robinson ENGINEERING
<table>
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<tr>
<th>NO.</th>
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<td>PREPARATION OF BASE</td>
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<td>2</td>
<td>AGGREGATE BASE REPAIR</td>
<td>TON</td>
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<td>3</td>
<td>BITUMINOUS MATERIALS (STACK COAT)</td>
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<td>4</td>
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<td>CLASS D PATCHES, TYPE II, 4 INCH</td>
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<td>CLASS D PATCHES, TYPE IV, 4 INCH</td>
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<td>COMBINATION CONCRETE CURB AND GUTTER, TYPE B-E-12</td>
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<td>13</td>
<td>REMOVE AND REPLACE CURB AND GUTTER (SPECIAL)</td>
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**GENERAL NOTES**

1. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION".

2. ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED TO BE THE LATEST HIGHWAY STANDARDS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

3. BOTH THE ROBINSON ENGINEERING, LTD. FIELD OFFICE (708-331-3700) AND THE VILLAGE OF TINLEY PARK VILLAGE ENGINEER (708-444-5500) SHALL BE NOTIFIED A MINIMUM OF TWO (2) WORKING DAYS BEFORE CONSTRUCTION BEGINS.

4. AREAS DISTURBED BY CONSTRUCTION SHALL BE LEFT IN A MINIMUM CONDITION, AND RESTORED TO IT'S PREVIOUS CONDITION AS BEST AS POSSIBLE, AS DIRECTED BY THE ENGINEER.

5. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, CONDITIONS, AND CONTENT OF THE WORK TO BE ACCOMPLISHED UNDER THIS CONTRACT, AT THE CONTRACTOR'S EXPENSE.

6. CONTRACTOR SHALL ENSURE ALL DRAWINGS AND SPECIFICATIONS FOR ANY WORK MARKED FOR EACH RESPECTIVE SUBCONTRACTOR AND INCLUDE SUCH WORK IN THEIR BID.

7. ALL DIMENSIONS INDICATED ON THE DRAWINGS SHALL BE ADJUSTED TO TWO DECIMAL PLACES TO CONFORM WITH THE STANDARDS SPECIFIED HEREIN.

8. WORK IN THE CONSTRUCTION OPERATION IS SUBJECT TO CHANGE AT THE DISCRETION OF THE CONTRACTOR. IN THE EVENT OF A CHANGE IN ANY WORK SPECIFIED IN THE PLANS OR SPECIFICATIONS, CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE ENGINEER AS SOON AS POSSIBLE.

9. THE REMOVAL AND REPLACEMENT OF ANY EMBANKMENT, BRIDGE, CURB, SIDEWALK, ETC., SHALL BE ACCOMPLISHED BY MEANS OF A SAW CUT JOINTS, AT THE OPTION OF THE ENGINEER. THE SAW CUTTING SHALL NOT BE PAID FOR SEPARATELY, BUT MAY BE INCLUDED IN THE UNIT PRICE FOR THE VARIOUS RELEVANT ITEMS.

10. WORKS EXISTING SERVICE LINES ARE DISTURBED ARE DISTURBED BY CONSTRUCTION, BARRICADES, SIGNS AND LIGHTS SHALL BE PROVIDED WHEREVER REQUIRED TO PREVENT ANY ACCIDENT OR INJURY TO PERSONS OR PROPERTY, AND TO MAINTAIN THE WORK IN ACCORDANCE WITH THE LEGEND AND NOTES. THE WORK IN CONSEQUENCE OF THE EXCAVATION, USE OR OCCUPANCY OF STREETS, HIGHWAYS OR RIGHT-OF-WAY. OPERATION OF FLASHER LIGHTS WILL BE PERFORMED AT THE DIRECTION OF THE ENGINEER.

11. THE CONTRACTOR SHALL FURNISH, ERECT AND MAINTAIN SUCH BARRICADES, SIGNS AND LIGHTS AS ARE NECESSARY TO SAFEGUARD TRAFFIC AND PROTECT THE WORK AS DETERMINED BY THE MUNICIPALITY. COMPLIANCE WITH THE ABOVE REQUIREMENTS SHALL BE CONSIDERED INCIDENT TO THE CONTRACT, AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

12. THE TOP AREA OF ALL STRUCTURES SHALL BE MAINTAINED IN THE ORIGINAL CONDITION. NO ADDITIONAL CONSTRUCTION SHALL BE ALLOWED BEFORE DELAYS OR INCONVENIENCES CAUSED BY SUCH ADJUSTMENTS.

13. CONTRACTOR SHALL PROVIDE THE ENGINEER WITH WRITTEN DETAIL OF ALL SURFACE CONDITIONS WITHIN THE PROJECT AREA PRIOR TO COMMENCEMENT. ALL RESTORATION SHALL BE COMPLETED TO THE SATISFACTION OF THE MUNICIPALITY.

14. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A NARROW OR FIELD OFFICE ON VILLAGE PROPERTY WITHOUT PERMISSION FROM THE MUNICIPALITY.

15. THE TOP AREA OF ALL STRUCTURES SHALL BE MAINTAINED IN THE ADJACENT SURFACE ELEVATION.

16. THE THICKNESS OF HMA MIXTURE STATED IN THE SPECIFICATIONS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS ARE ALLOWED UP TO ±IRREGULARITIES IN THE EXISTING SUMMARY OF QUANTITIES SURFACE OR BASE ON WHICH THE HMA SURFACE IS PLACED.

17. CLASS D PATCHES SHALL BE PAINTED AND APPLIED IN TWO PASSES, WHICH IS REFLECTED IN THE OVERALL QUANTITY FOR EACH PAY ITEM.

**NOTES FOR ALL LOCATIONS**

1. ALL PAVEMENT MARKINGS TO BE ADJUSTED AS DIRECTED BY THE ENGINEER.

2. FINAL PAVING LOCATIONS TO BE DETERMINED IN THE FIELD BY THE ENGINEER, PATCHING SHALL OCCUR AFTER MOLLING.

3. FINAL CURB & GUTTER REMOVAL AND REPLACEMENT LOCATIONS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

4. REMOVE AND REPLACE CURB AND GUTTER (SPECIAL) SHALL BE PERFORMED BY THE CONTRACTOR AND COORDINATED WITH THE VILLAGE. THIS SHALL BE INCIDENTAL TO THE CONTRACT.

5. FOLLOWING LOCATIONS OF UTILITY STRUCTURES TO BE ADJUSTED AND RECONSTRUCTED AS DIRECTED BY THE ENGINEER.

6. FOLLOWING LOCATIONS OF UTILITY STRUCTURES TO BE ADJUSTED AND RECONSTRUCTED AS DIRECTED BY THE ENGINEER.

7. SCHEDULING AND PARKING LOGISTICS TO BE COORDINATED WITH THE VILLAGE AND BUSINESS OWNERS.

---

**GENERAL NOTES**

8. THE REMOVAL AND REPLACEMENT OF ANY EMBANKMENT, BRIDGE, CURB, SIDEWALK, ETC., SHALL BE ACCOMPLISHED BY MEANS OF A SAW CUT JOINTS, AT THE OPTION OF THE ENGINEER. THE SAW CUTTING SHALL NOT BE PAID FOR SEPARATELY, BUT MAY BE INCLUDED IN THE UNIT PRICE FOR THE VARIOUS RELEVANT ITEMS.

9. WORKS EXISTING SERVICE LINES ARE DISTURBED ARE DISTURBED BY CONSTRUCTION, BARRICADES, SIGNS AND LIGHTS SHALL BE PROVIDED WHEREVER REQUIRED TO PREVENT ANY ACCIDENT OR INJURY TO PERSONS OR PROPERTY, AND TO MAINTAIN THE WORK IN ACCORDANCE WITH THE LEGEND AND NOTES. THE WORK IN CONSEQUENCE OF THE EXCAVATION, USE OR OCCUPANCY OF STREETS, HIGHWAYS OR RIGHT-OF-WAY. OPERATION OF FLASHER LIGHTS WILL BE PERFORMED AT THE DIRECTION OF THE ENGINEER.

10. THE CONTRACTOR SHALL FURNISH, ERECT AND MAINTAIN SUCH BARRICADES, SIGNS AND LIGHTS AS ARE NECESSARY TO SAFEGUARD TRAFFIC AND PROTECT THE WORK AS DETERMINED BY THE MUNICIPALITY. COMPLIANCE WITH THE ABOVE REQUIREMENTS SHALL BE CONSIDERED INCIDENT TO THE CONTRACT, AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

11. THE TOP AREA OF ALL STRUCTURES SHALL BE MAINTAINED IN THE ORIGINAL CONDITION. NO ADDITIONAL CONSTRUCTION SHALL BE ALLOWED BEFORE DELAYS OR INCONVENIENCES CAUSED BY SUCH ADJUSTMENTS.

12. THE TOP AREA OF ALL STRUCTURES SHALL BE MAINTAINED IN THE ORIGINAL CONDITION. NO ADDITIONAL CONSTRUCTION SHALL BE ALLOWED BEFORE DELAYS OR INCONVENIENCES CAUSED BY SUCH ADJUSTMENTS.

13. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A NARROW OR FIELD OFFICE ON VILLAGE PROPERTY WITHOUT PERMISSION FROM THE MUNICIPALITY.

14. THE TOP AREA OF ALL STRUCTURES SHALL BE MAINTAINED IN THE ADJACENT SURFACE ELEVATION.

15. THE THICKNESS OF HMA MIXTURE STATED IN THE SPECIFICATIONS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS ARE ALLOWED UP TO ±IRREGULARITIES IN THE EXISTING SUMMARY OF QUANTITIES SURFACE OR BASE ON WHICH THE HMA SURFACE IS PLACED.

16. CLASS D PATCHES SHALL BE PAINTED AND APPLIED IN TWO PASSES, WHICH IS REFLECTED IN THE OVERALL QUANTITY FOR EACH PAY ITEM.
LOCATION SPECIFIC NOTES:

1. The South Street parking lot (Location 3) may not be closed at the same time as work is occurring at this lot.
2. Contractor shall close half of the N-S access road at a time for resurfacing and striping activities. The other half of the road will remain open for commuter use.
3. Access to the west lot must be maintained at all times. Contractor is advised to schedule work affecting the west lot entrance outside peak commuter hours.
4. The access road and parking lot work cannot be done to the drop-off area. The access to the drop-off area must be maintained at all times.
5. Any curb and gutter replacement shall also have a Class 2 patch, type 1, 10" in front of it. See special provision for details.
LOCATION SPECIFIC NOTES:

1. SCHEDULING LOGISTICS TO BE COORDINATED WITH COLBY ZEMNTIS, VILLAGE ENGINEER AT LEAST ONE WEEK IN ADVANCE OF WORK AT THIS LOCATION.

1700 SOUTH PARK AVENUE
TINLEY PARK, ILLINOIS 60477

(708) 331-3410
(708) 331-3412

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PARKING LOT IMPROVEMENTS
LOCATION #2
VILLAGE HALL

TINLEY PARK, ILLINOIS
LOCATION SPECIFIC NOTES:

1. THE 80TH AVENUE NORTH LOT (LOCATION #1) MAY NOT BE CLOSED AT THE SAME TIME AS WORK IS OCCURRING AT THIS LOT.

2. CONTRACTOR SHALL CLOSE 1/3 OF THE EAST SIDE AT A TIME FOR REMOVAL, RESURFACING AND STRIPING ACTIVITIES. THE OTHER 2/3 OF THE LOT SHALL REMAIN OPEN FOR COMMUTERS. FULL CLOSURE WILL NOT BE ALLOWED.

3. CONTRACTOR SHALL CLOSE 1/2 OF THE EAST SIDE AT A TIME FOR REMOVAL, RESURFACING AND STRIPING ACTIVITIES. THE OTHER 1/2 OF THE LOT SHALL REMAIN OPEN FOR COMMUTERS. FULL CLOSURE WILL NOT BE ALLOWED.

4. ALL CURB ADJACENT TO BRICK PAVERS SHALL BE PAID FOR AS RIBBON CURB. SEE DETAIL ON THIS SHEET.

5. ANY CURB AND GUTTER REPLACEMENT SHALL ALSO HAVE A CLASS D PATCH, TYPE 1, 10" IN FRONT OF IT. SEE SPECIAL PROVISION FOR DETAILS.
EXISTING CONDITIONS

LEGEND
- COMBINATION CURB AND GUTTER REMOVAL
- SIDEWALK REMOVAL

NOTES
1. FULL DEPTH PAVEMENT REMOVAL SHALL INCLUDE A FULL DEPTH SAWCUT AT THE PROJECT LIMITS. A TEN FOOT BUTT JOINT SHALL BE PROVIDED AT EACH TERMINUS JUST PRIOR TO SURFACE PLACEMENT.
2. ALL WORK SHALL BE COORDINATED WITH SOUTH STREET RECONSTRUCTION PROJECT AS NECESSARY.

PROPOSED IMPROVEMENTS

LEGEND
- TOPSOIL PLACEMENT, 6" AND SEEDING (SPECIAL)
- TYPE B-5-12 COMBINATION CONCRETE CURB AND GUTTER
- BASE COURSE, TYPE 8, 4"
- PORTLAND CEMENT CONCRETE SIDEWALK, 5"

NOTES
1. GEOMETRY SHOWN IS BASED ON THE "SOUTH STREET" MASTER PLAN. THE CORNER GEOMETRY MAY CHANGE TO REFLECT CURRENT PLAN UPDATES.
2. ALL WORK SHALL BE COORDINATED WITH SOUTH STREET RECONSTRUCTION PROJECT AS NECESSARY.
LOCATION SPECIFIC NOTES:

1. Only one half of this lot will be allowed to be closed at any one time, at least two access points from a public street must be maintained for the duration of the project. Access points will be at the southeast corner of the lot, and all work, including striping, is complete on first half.

2. Scheduling and parking logistics to be coordinated with Colby Zemaitis, Village Engineer and Steve Klotz, Deputy Fire Chief.

3. Surface removal and replacement at this lot will be 1.5".