



## INVITATION TO BID

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|-----------------------------------|---|
| <b>Requesting:</b>                | Bid(s) for Pavement Resurfacing – Venue 1012  |
| <b>Issue Date:</b>                | March 10, 2022  |
| <b>Pre-Bid Meeting:</b>           | N/A   |
| <b>Pre-Bid Meeting Location:</b>  | N/A   |
| <b>Last Date for Questions:</b>   | March 15, 2022, by 9:00 AM  |
| <b>Addendum Posted:</b>           | March 17, 2022, by 12:00 PM   |
| <b>Bids Due:</b>                  | March 23, 2022, at 10:00 AM   |
| <b>Projected Start Date:</b>      | April 1, 2022   |
| <b>Projected Completion Date:</b> | May 20, 2022  |
| <b>Bid submission Website:</b>    | <a href="http://www.demandstar.com">www.demandstar.com</a>  |
| <b>Public Bid Opening:</b>        | Bids will be virtually opened and read aloud publicly on the same day and time by going to <a href="http://bids.oswego.il.gov">bids.oswego.il.gov</a> or call (312)626-6799 just prior to the meeting. When prompted, enter passcode 812 5239 0580 from your phone. You will hear the audio of the meeting through our webinar service. |
| <b>Note:</b>                      | Project subject to the Illinois Prevailing Wage Act (820 ILCS130/1-1.01, <i>et seq.</i> )   |

All questions concerning this solicitation shall be submitted via e-mail to the Purchasing Manager before the date stated above. A written response in the form of a public addendum may be published on the Village's website by the stated date above.

Contact with anyone other than via email to the Purchasing Manager for matters relative to the project described in this invitation to bid during the bidding process is prohibited.

**Contact for this proposal:**

Shanel Gayle, Purchasing Manager in writing at [sgayle@oswegoil.org](mailto:sgayle@oswegoil.org)

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## LEGAL NOTICE INVITATION TO BID FOR FENCE INSTALLATION

The Village of Oswego will be accepting sealed bids for Pavement Resurfacing – Venue 1012 until March 23, 2022, at 10:00 AM local time. Bids will be virtually opened and read aloud publicly on the same day and time through [bids.oswegoil.org](https://bids.oswegoil.org).

Project Title: Invitation to Bid for Pavement Resurfacing – Venue 1012.

Proposal No. 22-6070-006

Bids must be submitted electronically. All necessary documents are available through the Village’s bid portal [www.demandstar.com](http://www.demandstar.com). Downloading documents and submitting Bids requires registration with “DemandStar.” If you are not already a member, you can obtain a FREE AGENCY SUBSCRIPTION to the Village of Oswego’s account by through [www.demandstar.com/register.rsp](http://www.demandstar.com/register.rsp). Instructions for DemandStar can be found on the Village’s website [www.oswegoil.org](http://www.oswegoil.org). Hard copy emailed or faxed Bids will not be accepted.

Infrequent or first-time users of electronic bidding are recommended to load their Bids at least twenty-four (24) hours prior to the due date. All technical questions regarding the use of DemandStar, must be emailed at least 48 hours before the due date to [sgayle@oswegoil.org](mailto:sgayle@oswegoil.org). All answers to questions related to technical issues with DemandStar, will be provided within one business day.

Bidders are advised of the following requirements of this contract:

1. This Project is subject to the Illinois Prevailing Wage Act (820 ILCS 130) , and the Illinois Preference Act (30 ILCS 570);
2. A 10% bid bond must be submitted with the bid submitted
3. 110% performance, labor and material payment bond on award of contract.

Questions regarding this legal notice or the proposal package must be in writing and emailed directly to [sgayle@oswegoil.org](mailto:sgayle@oswegoil.org) on or before March 15, 2022, at 9:00 AM local time. Responses will be posted in DemandStar by March 17, 2022, at 12:00 PM local time.

The bidder shall at all times observe and conform to all federal, state, and local laws, ordinances, and regulations, including those which may, in any manner, affect the preparation of bids or the performance of the contract.

Shanel Gayle  
Purchasing Manager

## DESCRIPTION OF WORK

This work includes mill and overlay of a 12,500 SY asphalt municipal parking lot, located at 1010 Station Drive (Venue 1012), and application of paint pavement markings, in accordance with Section 406, 408, 440, and 780 and of the IDOT's [Standard Specifications for Road and Bridge Construction](#), adopted January 1, 2022. The work shall include, but not be limited to, a 2" mill of hot-mix asphalt (HMA) surface, placement of 2" of HMA asphalt surface course, application of paint pavement markings and installation of handicapped parking signs. Signage and sign installation to be in accordance with Manual on Uniform Traffic Control Devices (MUTCD).

The work to be done under this contract includes but is not limited to the providing of all labor, materials, supervision, equipment, services, incidentals, and related items necessary to complete the work in accordance with the specifications and scope of work.

**All work shall be completed between May 1st and May 20<sup>th</sup>.**

**Exhibits showing areas are located in the appendices.**

## GENERAL CONDITIONS

### 1. Contractor Qualifications

The Contractor must be experienced in providing said services to local governments. Submitters that cannot demonstrate successful previous experience in the work in this bid will be considered not responsible and will not be considered for award of the contract.

The Contractor must possess (own or rent) and assure the availability of sufficient equipment and personnel to successfully pursue and professionally complete the work described in this invitation to bid.

### 2. Customer Service & Private Property

- Respect for the property is very important. The Contractor should consider specialized equipment to minimize property damage.
- The Contractor shall be responsible for defending and satisfying any claims for driveway or sidewalk damage.
  - All driveways or sidewalks in the construction zone should be photographed by the Contractor prior to initiation of work.
  - Said photographs will support defense by Contractor against claims for the same.
  - Unresolved claims against the Contractor will delay approval of the final payment.

### 3. Work Schedule

The Contractor shall complete the work required as soon as practicable. The only exception to this requirement will be extenuating circumstances as may be accepted by the Village. Requests for exceptions due to extenuating circumstances must be made in writing to the Village within 48 hours of the occurrence. The Village's decision to provide exceptions shall be made in its sole discretion, and any such decisions shall be final.

Subsequent to the award of the bid, at the commencement of weather conducive to providing these services, a notice to proceed shall be issued. The Contractor shall commence work as soon as possible thereafter, all work shall be completed by no later than May 20, 2022.

Work will not be permitted on Sunday or the following legal holidays:

|                  |                        |                                  |
|------------------|------------------------|----------------------------------|
| New Year's Day   | Labor Day              | Martin Luther King's Birthday    |
| President's Day  | Veteran's Day          | Thanksgiving Day                 |
| Memorial Day     | Day after Thanksgiving | Christmas Eve, ½ Day (afternoon) |
| Independence Day |                        | Christmas Day                    |

All work shall be prohibited during certain public events in said areas.

#### **4. Safety Officer**

- The Contractor shall provide a qualified Safety Officer contact for the Village to ensure work site and personnel safety compliance.
- The Safety Officer shall address all concerns, and communicate resolution to the Village, within a one (1) hour window.

#### **5. Method of Assignment**

The Village may add, delete, or change the work locations or details of the marking layouts at any time during the work period, with at least two (2) working days prior notice to the Contractor.

#### **6. Equipment**

All equipment required to perform the contract is the sole responsibility of the Contractor and should be included in the bid. Multiple mobilizations are expected and will not be treated as extras.

#### **7. Bid Bond**

Each bid shall be accompanied by a bid bond in an amount of ten percent (10%) of the full amount of the bid in the form of a certified or bank cashier's check or bid bond. In a reasonable time after the bid opening, bid deposits of all except the three lowest responsible bidders will be released. The remaining deposits will be released after the successful bidder has entered into the contract and furnished all necessary and required bonds and insurance documents. The bid deposit shall become the property of the Village if the successful bidder within fourteen (14) days from awarding the contract refuses or is unable to comply with the contract requirements, not as a penalty, but as liquidated damages.

The bid bond must be uploaded with the bid documents through the Demandstar bid portal and the original must be mailed to: Village of Oswego, Attn. Shanel Gayle, Bid Bond, 100 Parkers Mill, Oswego, IL 60543.

#### **8. Performance, Labor and Material Payment Bonds**

The Public Construction Bond Act applies to this project, and all contractors shall fully comply with this Act. A performance bond satisfactory to the Village, and in compliance with the Act, must be executed by a Surety Company authorized to do business in the State or otherwise secured in a manner satisfactory to the Village. The Village requires that the performance bond be in an amount equal to 110% of the contract price specified. The surety on the bond shall be through a company licensed by the Illinois Department of Insurance authorizing it to execute surety bonds and the company shall have a financial strength rating of at least A as rated by A.M. Best Company, Inc., Moody's Investors Service, Standard & Poor's Corporation, or a similar rating agency.

The successful bidder shall furnish, at the time of execution of the contract, a performance bond for one hundred and ten percent (110%) of the full amount of the contract to guarantee the completion of any work to be performed by the Contractor under the contract, payment of material used in such work, and for all labor performed in completing the work including by subcontractors.

Proof of all required bonds and sureties must be emailed to [sgayle@oswegoil.org](mailto:sgayle@oswegoil.org) and the original must be mailed (or otherwise delivered to: Village of Oswego, Attn. Shanel Gayle, Performance Bond, 100 Parkers Mill, Oswego, IL 60543).

In the event the bidder fails to furnish the bonds and execute the contract within fourteen (14) days after notification of the award, then the bid bond shall be retained by the Village as actual liquidated damages and not as a penalty. It is agreed that the sum of the bid bond is a fair estimate of damages that the Village will sustain due to the bidder's failure to furnish the bonds or execute the contract.

## **9. Delivery of Materials**

It shall be the Contractor's responsibility to ensure all materials and equipment are delivered within or adjacent to the area of installation or repair as specified by the Village.

The work described in this specification shall be done with the least inconvenience and the Contractor may be required to complete the work on each parking lot in stages so access to the public buildings is maintained at an adequate level. The amount of time that normal operations are interrupted must be kept to an absolute minimum and shall be coordinated with the Village.

The Contractor is responsible always to protect all existing and newly installed work, materials, equipment, improvements, utilities, structures, and vegetation during the course of the project contract.

## **10. Injury to Property**

In case any direct or indirect damage is done to public or private property by or because of the work, or in consequence of any act or omission on the part of the Contractor, its employees or agents, the Contractor shall, at its own cost, restore such property to a condition similar or equal to that existing before such damage was done, by repairing, rebuilding, or otherwise restoring, as may be required by the Village. Failure by the Contractor to promptly restore or make good such damage, the Village may, upon 48 hours written notice, proceed to repair, rebuild, or otherwise restore the damaged property as may be necessary, and the cost thereof will be deducted from any monies due or to become due to the Contractor under the Contract; or the Village may deduct from any monies due to the Contractor a sum sufficient, in the judgment of the Village, to reimburse the owners of the property so damaged.

## **11. Decisions and Explanations by Village**

The Village shall decide any and all questions which may arise as to the quality and acceptability of materials furnished and work performed and as to the manner of performance and rate of progress of the work and shall decide all questions which may arise as to the interpretations of any or all plans relating to the work and of the specifications, and all questions, as to the acceptable fulfillment of the Contract on the

part of the Contractor; the Village shall determine the amount and quantity of the several kinds of work performed and materials which are to be paid for under the Contract, and such decision and estimate shall be final and conclusive, and such estimate, in case any questions shall arise, shall be a condition precedent to the right of the Contractor to receive any money due under the Contract. Any doubt as to the meaning of any of the provisions of the specifications, contracts, or plans will be interpreted by the Village. The decision of the Village will be final.



## INSTRUCTIONS TO BIDDERS

### 1. **Preparation and Submission of Bids:**

- A. Each bid shall be submitted on the exact form furnished by the Village through DemandStar. All blank spaces for bid prices, unit costs and alternates must be filled in using both words and figures if indicated. In case of any discrepancy in the amount Bid, the prices expressed in written words shall govern.
- B. **Each Bidder must submit a complete Bid package, including the following items:**
  - a) **Signed Bid Sheet**
  - b) **Detailed Exception Sheet**
  - c) **Subcontractors List**
  - d) **References**
  - e) **Signed Contractor Bid Agreement**
  - f) **Bid Bond (scanned and mailed)**
  - g) **Documentation of compliance with SSPC ACS-1/NACE No. 13 Industrial Coating and Lining Application Specialist Qualification and Certification, as indicated in the Invitation to Bid and General Conditions 1–Contractor Qualifications.**
  - h) **Signed Contract or a statement of any exceptions to the contract which are conditions to acceptance. If the contract terms cannot be agreed to within fourteen (14) after bid acceptance, the Village will reject the bid and may proceed to award the contract to the next lowest responsible bidder.**
- C. Bidders may attach separate sheets to the Bid for the purpose of explanation, exception, alternate Bid and to cover unit prices, if needed.
- D. Bidders may withdraw their Bid either personally or by written request at any time before the hour set for the Bid opening and may resubmit a Bid. No Bid may be withdrawn or modified after the Bid opening except where the award of the contract has been delayed for a period of more than thirty (30) days.
- E. In submitting its Bid, the Bidder further declares that the only person or party interested in the bid as principals are those named therein; and that the Bid is made without collusion with any other person, firm or corporation.
- F. The Bidder further declares that it has carefully examined this entire Bid Package, and has familiarized itself with all of the local conditions affecting the contract and the detailed requirements of this work and understands that in making the Bid it waives all rights to plead a misunderstanding regarding same.
- G. The Bidder further agrees that if the Village decides to extend or shorten the work, or otherwise alters it by extras or deductions, including the elimination of one or more of the items, as provided in the specifications, it will perform the work as altered, increased or decreased.
- H. The Bidder further agrees that the Village representative may at any time during the progress of the 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 Bid or contract as a specific item covered by a lump sum price, and which are not included under the Bid price for other items in the Contract, shall be performed as extra work subject to the unit prices, or an agreed upon amount in a lump sum contract.
- I. The Bidder further agrees to execute all documents within this Bid Package which are required to be provided with the Bid, and if its Bid is accepted to obtain a Certificate of Insurance for this work and execute and present all required documents within fifteen (15) day safter the receipt of the Notice of Award and the Contract.

- J. The Bidder further agrees that the Work will be substantially complete and ready for final payment in accordance with the schedule parameters set forth in the Contract Documents, and to execute the work in such a manner and with sufficient materials, equipment and labor as will ensure its completion within the time limit specified within the Bid. The completion within the time limit is an essential part of the contract.
  - K. By submitting a Bid, the Bidder understands and agrees that, if his Bid is accepted, and he fails to enter into a contract forthwith, he shall be liable to the Village for any damages the Village may thereby suffer and forfeits the Bidder's Bid bond as actual damages suffered by the Village.
  - L. No Bid will be considered unless the party offering it furnishes evidence satisfactory to the Village that it has necessary facilities, ability, and pecuniary resources to fulfill the conditions of the Contract.
2. **Additional Information Request:** Questions regarding this Bid and specific questions regarding the specifications in this Bid can be emailed to Shanel Gayle, Purchasing Manager, at [sgayle@oswegoil.org](mailto:sgayle@oswegoil.org). Answers may be provided in writing to all potential Bidders in the form of an Addenda posted on the Bid page; No oral comments will be made to any Bidder as to the meaning of the Bid and Specifications or other contract documents. Bidders will not be relieved of obligations due to failure to examine or receive documents, visit the site or become familiar with conditions or facts of which the Bidder should have been aware, and the Village will reject all claims related to such failures.

Information (other than in the form of a written Addendum issued by the Village) from any officer, agent, or employee of the Village or any other person shall not affect the risks or obligations assumed by the Bidder or relieve him from fulfilling any of the conditions and obligations set forth in the bid and other contract documents. Before the bids are opened, all modifications or additions to the bid documents will be made in the form of a written Addendum issued by the Village. Any Addendum issued will be posted on the Village's DemandStar website. In the event of a conflict with the original contract documents, addenda shall govern all other bid documents to the extent specified. Subsequent addenda shall govern over prior addenda only to the extent specified.

The Bidder shall be required to acknowledge receipt of the formal Addendum by signing the Addendum and including it with the Bid. Failure of a Bidder to include a signed formal Addendum in its Bid shall deem its Bid non-responsive, provided that the Village may waive this requirement in its sole discretion.

3. **Conditions:** The Bidder is responsible for being familiar with all conditions, instructions, and documents governing this project and Bid. Failure to make such investigation and preparations shall not excuse the Contractor from the performance of the duties and obligations imposed under the terms of the contract. The Bidder acknowledges that local ordinance permits the Village to give preference to local businesses.
- A. The Village is exempt from Federal excise tax and the Illinois Retailer's Occupation Tax. This Bid cannot include any amounts of money for these taxes.
  - B. To be valid, the Bids shall be itemized so that selection for purchase may be made, there is included in the price of each unit the cost of delivery (FOB Destination).
  - C. The Village shall reserve the right to add or to deduct from the Alternate Bid any item at the prices indicated in the itemization of the Bid.
  - D. All Bids shall be good, valid, and binding on the Bidder for thirty (30) days from the date of the Bid opening.
  - E. Bidders are required to fully comply with the Illinois Prevailing Wage Act.

4. **Award of Bid:** The Village reserves the right to reject any or all bids or packages and to waive any informality or technical error and to accept any bid deemed most favorable to the interests of the Village.
  - A. The items of work not specifically mentioned in the Schedule which are necessary and required to complete the work intended shall be done incidentally to and as part of the items of work for which a unit price is given. No additional payment will be made for such incidental work. The Bidder shall be responsible for identifying all costs to complete the project on time in accordance with the Plans and Specifications.
  - B. The Village has the sole discretion to award the alternate bid based upon the best interest of the Village.
  - C. All awards are final determinations.
  - D. The Contract shall be deemed as have been awarded when formal notice of award shall have been duly served upon the intended awardee.
  - E. In addition to price, the Village will consider:
    - Ability, capacity, and skill to fulfill the contract as specified.
    - Ability to supply the commodities, provide the services or complete the work promptly, or within the time specified, without delay or interference.
    - Character, integrity, reputation, judgment, experience, and efficiency.
    - Quality of performance on previous contracts.
    - Previous and existing compliance with laws and ordinances relating to the contract.
    - Sufficiency of financial resources.
    - Quality, availability, and adaptability of the commodities, services or construction, in relation to the Village's requirements.
    - Ability to provide future maintenance and service under the contract.
    - Number and scope of conditions attached to the Bid.
    - Record of payments for taxes, licenses or other monies due to the Village.
    - Other factors as deemed appropriate by the Village to ascertain the lowest responsible bidder and otherwise award the contract to the Bidder the Village determines to be in the Village's best interests.
  
5. **Rejection of Bids:**
  - A. The Village reserves the right to cancel invitations for Bids or requests for bids without penalty when it is in the best interest of the Village. Notice of cancellation shall be sent to all individuals or entities solicited.
  - B. The Village reserves the right to reject any or all Bids, to waive any minor informality or irregularity in any Bid, to negotiate changes and/or modifications with the lowest responsible Bidder and to make an award to the response deemed to be the most advantageous to the Village.
  - C. Any Bid not conforming to the specifications or requirements set forth by the Village in the Bid request may be rejected.
  - D. Bids may also be rejected if they are made by a Bidder that is deemed non-responsible due to a lack of qualifications, capacity, skill, character, experience, reliability, financial stability or quality of services, supplies, materials, equipment or labor.
  
6. **Equal Opportunity:** The Bidder will not discriminate against any employee or applicant for employment because of race, color, religion, sex, ancestry, national origin, place of birth, age, handicap or any other protected class pursuant state or federal law unrelated to bona fide occupational qualifications.
  
7. **Non-Discrimination:** The Bidder, its employees, and subcontractors agree not to commit unlawful discrimination and agree to comply with applicable provisions of the Illinois Human Rights Act, the U.S.

Civil Rights Act and Section 504 of the Federal Rehabilitation Act, and rules applicable to each.

8. **Execution of Documents:** The Bidders shall conform to the following requirements:
  - A. Bids shall be signed by the Bidder. If the Bidder is a corporation, the proposal shall bear the name of the corporation, and shall be signed by an officer authorized to bind the corporation and be sealed with the corporate seal.
  - B. Bids that are signed for a partnership shall be signed by all of the partners or by an attorney-in-fact. If signed by an attorney-in-fact, there shall be attached to the Bid a power of attorney evidencing authority to sign the Bid, executed by the partners.

## CONTRACT FOR PAVEMENT RESURFACING – VENUE 1012

In consideration of the mutual promises set forth below, the Village of Oswego, Illinois, a municipal corporation and political subdivision of the State of Illinois, (hereinafter “Village”), and

\_\_\_\_\_ (hereinafter, “Contractor”) enter into this Contract as of the \_\_\_\_ day of \_\_\_\_\_ 2022, and hereby agree as follows:

The entire Bid Packet, together with all exhibits, specifications, attachments, and the Bidder’s Bid, shall become a part of this Contract. The Village assumes that submission of a bid means that the person submitting the bid has familiarized himself with all conditions and intends to comply with them unless noted otherwise. Where the terms of this Contract conflicts with the terms of the Technical Specifications, the Technical Specifications shall control to the extent of the conflict.

1. **Definitions:** The definitions set forth in the Bid Packet are incorporated herein.
2. **Conditions:** The Contractor is responsible for being familiar with all conditions, instructions, warranties, and documents governing this project and Bid. Failure to make such investigation and preparations shall not excuse the Contractor from the performance of the duties and obligations imposed under the terms of this contract.
3. **Retainage During Guarantee Period:** Contractor shall be responsible for providing all reasonable access to Village employees and agents for inspection, re-inspection, and testing of the work. Until Final Payment, Contractor shall, promptly, and without charge, repair, correct, or replace any part of the Work that is defective, damaged, flawed, or unsuitable or that fails to strictly conform to the requirements of the Contract or Specifications.
4. **Billing/Invoicing.** All billing and invoicing will be at the completion of the job, or a portion thereof as agreed by the Parties, with detailed itemized billing. Billing will include the date, the work performed, and the total cost. After receipt of a correct invoice, payments shall be due and owing by the Village in accordance with the terms and provisions of the Local Government Prompt Payment Act, 50 ILCS 505/1 et seq.

If in the opinion of the Village, the Contractor has not or is not satisfactorily performing the work covered by this Contract, and within forty-eight (48) hours of receipt of a written notice and demand for performance from the Village, has not cured any defect in performance specifically itemized in such demand, the Village may, at its option:

- A. Withhold payment;
- B. Consider all or any part of this contract breached and terminate the Contractor; or
- C. May hire another Contractor to cure any defects in performance or complete all work covered by this specification for the remaining term of this contract. Any demand for performance shall be specifically delivered to the Contractor by personal delivery, or by certified or registered US Mail.

5. **Insurance and Bond Requirements.** Contractor shall procure and maintain for the duration of the Contract insurance against claims for injuries to persons, damages to property, and other applicable damages that may arise in connection with the performance of work or services under this Contract as follows:
- A. Minimum Scope of Insurance – The insurance coverage to be procured and maintained by Contractors shall be at least as broad as the following:
- i. **Commercial General Liability Insurance.** Commercial general liability insurance with minimum coverage amounts of \$2,000,000 general aggregate; \$2,000,000 products-completed operations aggregate; and \$1,000,000 each occurrence for bodily injuries, death, and property damage, and personal injury resulting from any one occurrence, including the following endorsements, coverages, and/or conditions:
    1. Shall name the Village as an additional insured in accordance with the obligations and conditions set forth below.
    2. Blanket contractual liability coverage, to the extent permitted under Illinois law, including, but not limited to, Contractor’s contractual indemnity obligations under the Agreement.
    3. Premises-Operations and Independent Contractors.
    4. Broad form property damage coverage.
    5. Personal injury coverage.
    6. Must be endorsed as Primary and Non-Contributory as to any other insurance of the Additional Insureds.
    7. If the Additional Insureds have other insurance that is applicable to the loss, such other insurance shall be on an excess or contingent basis to any Subcontractor’s policy.
  - ii. **Comprehensive Automobile Liability Insurance.** Comprehensive automobile liability insurance with minimum coverage amounts of \$1,000,000 any one accident for bodily injuries, death, and property damage resulting from any one occurrence, including all owned, hired, and non-owned vehicles.
  - iii. **Workers’ Compensation and Employers Liability Insurance.** Statutory Workers’ Compensation coverage complying with the law of the State of Illinois and Employers’ Liability Insurance with minimum limits at \$1,000,000 each accident, including occupational disease coverage with a limit of \$1,000,000 per employee, subject to policy minimum limit of \$1,000,000 per annum.
  - iv. **Umbrella / Excess Liability Insurance** Umbrella / Excess Liability Insurance. Umbrella or excess liability insurance is written over the underlying employer’s liability, commercial general liability, and automobile liability insurance described above on a following – form basis with minimum coverage amounts of \$2,000,000 per occurrence and \$2,000,000 general aggregate, with coverage at least as broad as the underlying policies.
  - v. **Professional Liability Insurance.** Contractor shall procure and maintain professional liability insurance coverage: Each Occurrence: \$1,000,000.00. Such professional liability coverage shall be maintained for at least two years after completion of work and/or services under the Agreement. Evidence of such insurance shall be provided upon request from the Village during this two-year period. If the policy is written on a claims-made form, the retroactive date must be equal to or preceding the effective date of the contract. In the event the policy is cancelled, non-renewed or switched to an occurrence form, the Firm shall be required to purchase supplement extended reporting period coverage for a period of not less than 2 years.

- B. Deductibles and Self-Insured Retentions. Any deductibles or self-insured retentions must be declared to and approved by the Village. At the option of the Village, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the Village, its officials, employees, agents, and volunteers; or the Contractor shall procure a bond guaranteeing payment of losses and related investigation, claim administration and defense expenses.
- C. Contractor's Obligations. The Contractor shall have the following obligations with regard to required insurance under the Agreement:
- i. The insurance policies required under this Agreement, including excess or umbrella liability policies, shall be endorsed to contain the following provisions: the Village and its officers, officials, employees, agents, and volunteers are to be covered as additional insureds on each of the policies with respect to liability arising out of ongoing and completed operations performed by or on behalf of the Contractor, including materials, parts, or equipment furnished in connection with such work or operations and automobiles, owned, leased, hired or borrowed by or on behalf of the Contractor. General liability coverage additional insured status shall be provided in the form of an endorsement to Contractor's insurance at least as broad as ISO Form CG 20 10 11 85, or if not available, through both ISO Form CG 20 10, or CG 20 26 and CG 2037; 10 01 Edition date. All additional insured coverage shall be for both ongoing and completed operations.
  - ii. The Contractor shall provide evidence of the required insurance coverages under this Agreement by providing a copy of the actual policy/policies, endorsement(s) and certificates of insurance evidencing such coverages. All certificates of insurance required to be obtained by the Contractor shall provide those coverages under the policies named shall not be canceled, modified, reduced or allowed to expire without at least thirty (30) days prior written notice given to the Village. All certificates evidencing coverage extended beyond the date of final payment shall be provided at the time of the final Pay Request.
  - iii. The Contractor shall provide immediate notice to the Village upon the cancellation of any insurance policy or policies required hereunder.
  - iv. All insurance required of the Contractor shall state that it is Primary and Non-Contributory Insurance as to all additional insureds with respect to all claims arising out of operations by or on their behalf and shall be provided by Endorsement CG 20 01. If the Village has other applicable insurance coverages, those coverages shall be regarded as excess over the additional insured coverage. Contractor shall, with respect to all insurance required under this Agreement, endorse or require each policy to waive any and all rights of subrogation for losses and or damages arising from the work and/or services provided by the Contractor against the Village or other Additional Insured except where not permissible by law.
  - v. The Contractor shall require that every Subcontractor of any tier working on the Project associated with this Agreement to obtain insurance of the same types and amounts as that required of Contractor, naming the same as additional insureds subject to the same restrictions and obligations as set forth in the Contractor's insurance required under the Agreement, including waivers of subrogation in favor of the Village.
  - vi. Under no circumstances shall the Village be deemed to have waived any of the insurance requirements of this agreement by any act or omission, including, but not limited to:
    1. Allowing work by the Contractor or any Subcontractor of any tier to start before receipt of the required insurance policy, endorsement, and/or certificates of insurance; or
    2. Failure to examine, or to demand the correction of any deficiency, of any

insurance policy, endorsement, and/or certificate of insurance received. The Contractor agrees that the obligation to provide insurance is solely the responsibility of the Contractor and the Subcontractors of any tier and cannot be waived

- vii. by any act or omission of the Village.
  - viii. The purchase of insurance by the Contractor under this Agreement shall not be deemed to limit the liability of the Contractor in any way, for damages suffered by the Village in excess of policy limits or not covered by the policies purchased by the Contractor.
  - ix. The Contractor shall notify the Village, in writing, of any possible or potential claim for personal injury or property damage arising out of the work and/or services of this Agreement promptly whenever the occurrence giving rise to such a potential claim becomes known to the Contractor.
  - x. The Contractor further agrees to cause contractual liability endorsements to be issued by the insurance companies and attached to the above-mentioned policies to include under the coverage therein an extended obligation on the part of the insurers to insure against Contractor's contractual liability hereunder and to indemnify the Village and its agents against loss, liability, costs, expenses, attorneys' fees, and court costs, and further agrees that said coverage shall be afforded therein against all claims arising out of the operation of any structural work law or law imposing liability arising out of the use of scaffolds, hoists, cranes, stays, ladders, supports or other mechanical contrivances.
  - xi. All insurance and performance and payment bonds required hereunder shall be placed with an insurer or insurers authorized to conduct business in the State of Illinois with a current A.M. Best's rating of no less than A, unless otherwise acceptable to the Village.
6. **Indemnification.** To the fullest extent permitted by Illinois law, Contractor shall indemnify, defend, save and hold the Village, their trustees, officers, and employees harmless from and against all claims, damages, losses, and expenses, including, but not limited to, attorneys' fees, arising out of or resulting from performance of the work and/or services under the Agreement, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), caused by the negligent acts or omissions of the Contractor, anyone directly or indirectly employed by Contractor, or anyone for whose acts Contractor may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder or claimed to be due in whole or in part to the active, passive, or concurrent negligence or fault of a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Section.
7. **Force Majeure.** Whenever a period of time is provided for in this Agreement for the Contractor or the Village to do or perform any act or obligation, neither party shall be liable for any delays or inability to perform if such delay is due to a cause beyond its control and without its fault or negligence including, without limitation: a) Acts of nature; b) Acts or failure to act on the part of any governmental authority other than the Village or Contractor, including, but not limited to, enactment of laws, rules, regulations, codes or ordinances subsequent to the date of this Agreement; c) Acts of war; d) Acts of civil or military authority; e) Embargoes; f) Work stoppages, strikes, lockouts, or labor disputes; g) Public disorders, civil violence, or disobedience; h) Riots, blockades, sabotage, insurrection, or rebellion; i) Epidemics or pandemics; j) Terrorist acts; k) Fires or explosions; l) Nuclear accidents; m) Earthquakes, floods, hurricanes, tornadoes, or other similar calamities; n) Major environmental disturbances; or o) Vandalism. If a delay is caused by any of the force majeure circumstances set forth above, the time period shall be extended for only the actual amount of time said the party is so delayed.



Further, either party claiming a delay due to an event of force majeure shall give the other party written notice of such event within three (3) business days of its occurrence, or it shall be deemed to be waived.

8. **Liquidated Damages.** Time is of the essence in the performance of this Contract. Should the Contractor fail to complete the work within the specified time stipulated in the contract or within such extended time as may have been allowed, the Contractor shall be liable and shall pay to the Village the amount of \$500.00, not as a penalty but as liquidated damages, for each day of overrun in the contract time or such extended time as may have been allowed. The liquidated damages for failure to complete the contract on time are approximate, due to the impracticality of calculating and proving actual delay costs. These deductions are for the cost of delay to account for administration, engineering, inspection, supervision, and other costs and expenses during periods of extended and delayed performance. The costs of delay represented by this schedule are understood to be a fair and reasonable estimate of the costs that will be borne by the Village during an extended and delayed performance by the Contractor of the work.
9. **Contract Term.** The Contract shall begin upon contract approval and terminate upon completion of work.
10. **Change Orders.** After the contract is awarded, additional purchases or modifications may be made under the contract, or the terms of the contract may be extended, without rebidding the materials, supplies, services or equipment involved, provided that the change order:
  - A. Is not of such a size or nature as to undermine the integrity of the original Bidding process; and
  - B. Is germane to the original contract; and
  - C. Does not exceed twenty percent (20%) of the originally contracted amount; and
  - D. It is approved by the Board of Trustees, or in the event the change order is for less than twenty-five thousand dollars (\$25,000.00), by the Village Administrator.
11. **Compliance with Laws and Regulations.** In addition to the bid and performance bonds set forth above, the Contractor must furnish and pay for satisfactory any other security required by law or by the specifications for this particular project. Upon receipt of the performance bond, the Village will return the Bid bond to the Contractor. In addition:
  - E. The Contractor must comply with all applicable laws prerequisite to doing business in the state.
  - F. The Contractor must have a valid Federal Employer Tax Identification Number or Tax Identification Number (for individuals).
  - G. The Contractor must provide a Statement of Compliance with provisions of the State and Federal Equal Opportunity Employer requirements.
  - H. The Contractor must provide evidence of any professional or trade license required by law or local ordinance for any trade or specialty area in which the Contractor is seeking a contract award. Additionally, the Contractor must disclose any suspension or revocation of such license held by the company, or of any director, officer or manager of the company. Any material changes to the Contractor's status, at any time, must be reported in writing to the Village within 14 days of its occurrence.
  - I. Contractor is solely responsible for procuring all necessary permits, licenses, and other governmental approvals and authorizations necessary in connection with the Project.
12. **Independent Contractor.** There is no employee/employer relationship between the Contractor and the Village. Contractor is an Independent Contractor and not the Village's employee for all purposes, including, but not limited to, the application of the Fair Labor Standards Act minimum wage and overtime payments, Federal Insurance Contribution Act, the Social Security Act, the Federal Unemployment Tax Act, the Prevailing Wage Act, or the Worker's Compensation Act (820 ILCS

305/1, et seq.). The Village will not (i) provide any form of insurance coverage, including but not limited to health, worker’s compensation, professional liability insurance, or other employee benefits, or (ii) deduct any taxes or related items from the monies paid to Contractor. The performance of the services described herein shall not be construed as creating any joint employment relationship between the Contractor and the Village, and the Village is not and will not be liable for any obligations incurred by the Contractor, including but not limited to unpaid minimum wages and/or overtime premiums, nor does there exist an agency relationship or partnership between the Village and the Contractor.

13. **Approval and Use of Subcontractors.** The Contractor shall perform the Services with its own personnel and under the management, supervision, and control of its own organization unless otherwise approved by the Village in writing. All subcontractors and subcontracts used by the Contractor shall be at the discretion of the Village and approval in advance by the Village. The Village’s approval of any subcontractor or subcontract shall not relieve the Contractor of full responsibility and liability for the provision, performance, and completion of the Work in full compliance with, and as required by or pursuant to, this Contract. If the Contractor chooses to use subcontractors to perform any of the Work, the Work performed under any subcontract shall be subject to all of the provisions of this Contract in the same manner as if performed by employees of the Contractor. Every reference in this Contract to “Contractor” shall be deemed to also apply to all subcontractors of the Contractor. Every subcontract entered into by the Contractor to provide the Work, or any part thereof shall include a provision binding the subcontractor to all provisions of this Contract.

If any personnel or subcontractor fails to perform the part of the Work undertaken by it in a manner satisfactory to the Village, the Contractor shall immediately upon notice from the Village remove and replace such personnel or subcontractor. The Village shall have no claim for damages, for compensation in excess of the contract price, or for a delay or extension of the contract time as a result of any such removal or replacement.

14. **Waiver of Lien.** The Contractor shall, from time to time at the Village’s request, but in any event prior to Final Payment, provide to the Village such receipts, releases, certifications, and other evidence as necessary to establish that there are no liens against the Work or the public funds held by the Village. This shall not operate to relieve the Contractor’s surety or sureties from any of their obligations under the Bonds, or vest any right, interest, or entitlement in any subcontractor or supplier.
15. **Assignment.** Neither the Village nor the Contractor shall assign or transfer any rights or obligations under this Agreement without the prior written consent of the other party.
16. **Governing Law.** This Contract and the rights of the Village and Contractor under this Contract shall be interpreted according to the internal laws of the State of Illinois. The venue for any action related to this Contract will be in the Circuit Court of Kendall County, Illinois.
17. **Changes in Law.** Unless otherwise explicitly provided in this Contract, any reference to law shall include such laws as they may be amended or modified from time to time.
18. **Time.** The Contract Time is of the essence in the performance of this Contract. Except where otherwise stated, references in this Contract to days shall be construed to refer to calendar days.
19. **Termination.** The Village shall have the right at any time and for any reason (without any penalty) to terminate, in whole or in part, this Contract, provided that the Village shall provide Contractor at least thirty (30) days’ prior written notice of such termination whereupon this Agreement shall

automatically terminate immediately after the 31st day. Upon receipt of the termination notice Contractor shall stop all work.

- A. When this contract, or any portion hereof, is terminated or canceled by the Village, and the Contractor released before all items of work included in this contract has been completed, payment may be made be prorated as a percentage of completion of the actual work at contract unit prices, and no claims for loss of anticipated profits or other damages will be made and are hereby waived.
- B. Termination of a contract, as stated above, will not relieve the Contractor or his/her surety of the responsibility of replacing defective work or materials.

20. **Piggybacking Clause.** This contract's unit prices may be used to purchase supplies, equipment or perform any like work on facilities or properties under the jurisdiction of the Village of Oswego. This Contract may also be used as a joint purchase agreement between the Village, Oswego Community School District 308, Oswego land Park District, Oswego Library District, Oswego Township, Oswego Fire Protection District, as well as any other agencies at the discretion of the Village.

21. **Severability.** The provisions of this Contract shall be interpreted, when possible, to sustain their legality and enforceability as a whole. In the event any provision of this Contract or the Contract Documents shall be held invalid, illegal, or unenforceable by a court of competent jurisdiction, neither the validity of the remaining part of such provision or of any other provisions of this Contract shall be affected.

22. **Amendments.** No modification, addition, deletion, revision, alternation, or any other change to this Contract shall be effective unless and until such change is reduced to writing and executed by the Village and Contractor.

23. **Additional Items.** The Contractor hereby:

- C. Certifies that it is not barred from Bidding or contracting with the Village as a result of a violation of either Paragraph 33E-3 (Bid rigging) or 33E-4 (Bid rotating) of Act 5, Chapter 720 of the Illinois Compiled Statutes regarding criminal interference with public contracting; and
- D. Swears under oath that it is not delinquent in the payment of any tax administered by the Illinois Department of Revenue as required by Chapter 65, Act 5, paragraph 11-42.1 of the Illinois Compiled Statutes; and
- E. States that is has a written sexual harassment policy as required by the Illinois Human Rights Act (775 ILCS 5/2-105(A) (4) a copy of which shall be provided to the Village upon request; and
- F. Agrees to comply with the requirements of the Illinois Human Rights Act regarding Equal Employment Opportunities as required by Section 2-105 of the Illinois Human Rights Act (775 ILCS 5/2-105) and agrees to comply with the Equal Employment Opportunity Clause, Section 750, Part 750, Chapter X, Subtitle B of Title 44 of the Illinois Administrative Code incorporated herein by reference; and
- G. Agrees to comply with the civil rights standards set forth in Title VII of the Civil Rights Act as mandated in Executive Order No. 11246, U.S.C.A. Section 2000e n.114 (September 24, 1965); and
- H. Agrees to comply with the Substance Abuse Prevention on Public Works Projects Act(820 ILCS 265/1 et seq.) if this project is a “public work” within the meaning of the Illinois Prevailing Wage Act (820 ILCS 130/.01 et seq.) and prohibit substance abuse while performing such work and has a substance abuse prevention program; and
- I. Agrees to provide a drug-free workplace pursuant to the Drug-Free Workplace Act (30ILCS 580/1 et seq.) (25 or more employees under a contract of more than \$5,000 or for individuals only when greater than \$5,000); and

- J. Agrees to comply with the Employment of Illinois Workers on Public Works Act (30 ILCS 570/0.01 et seq.) and employ Illinois laborers if at the time of this contract is executed or if during the term of this contract there is excessive unemployment in Illinois as defined in the Act.

[SIGNATURE PAGE FOLLOWS]

**CONTRACT SIGNATURES**

IN WITNESS WHEREOF the parties hereto have executed or caused to be executed by their duly authorized agents, this contract in DUPLICATE, each of which shall be deemed original, on the day and year first written.

**Village of Oswego, Illinois,**

**CONTRACTOR:**

By: \_\_\_\_\_  
*Village President*

By: \_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Print Name and Title*

Attest:  
  
\_\_\_\_\_  
*Village Clerk*

Attest:  
  
\_\_\_\_\_  
*Witness*

**BID COST SHEET**

The undersigned, having examined the specifications, and all conditions affecting the specified project, offer to furnish all services, labor, and incidentals specified for the price below.

I (We) propose to complete the following project as more fully described in the specifications for the following:

| ITEM #                  | DESCRIPTION   | UNIT MEASUREMENT | ESTIMATED QUANTITY | UNIT PRICE | BID PRICE |
|-------------------------|---|------------------|--------------------|------------|-----------|
| 44000157                | HOT-MIX ASPHALT SURFACE REMOVAL, 2"                   | SQ YD            | 12,500             | \$         | \$        |
| 40800029                | BITUMINOUS MATERIALS (TACK COAT)                      | POUND            | 1,375              | \$         | \$        |
| 40604060                | HOT MIX ASPHALT SURFACE COURSE, MIX "D", IL-9.5 L,N50 | TON              | 906                | \$         | \$        |
| 78001100                | PAINT PAVEMENT MARKING, LETTERS & SYMBOLS             | SQ FT            | 46                 | \$         | \$        |
| 78001110                | PAINT PAVEMENT MARKING, LINE 4"                       | FEET             | 5,575              | \$         | \$        |
| 78001140                | PAINT PAVEMENT MARKING, LINE 8"                       | FEET             | 108                | \$         | \$        |
| 78001150                | PAINT PAVEMENT MARKING, LINE 12"                      | FEET             | 73                 | \$         | \$        |
| SP                      | INSTALLATION OF PARKING SIGNS                         | LUMP SUM         | 1                  | \$         | \$        |
| <b>TOTAL BID AMOUNT</b> |   |                  |                    |            | \$        |

**Bidders may indicate alternatives to these specifications if the proposed changes are equal to or greater than what is required by these specifications. All alternatives shall be separately listed and a justification shall be stated for such alternatives.**

**Name of Bidder:** \_\_\_\_\_

\_\_\_\_\_  
*Signature of Authorized Representative*

\_\_\_\_\_  
*Date*

**DETAIL EXCEPTION SHEET**

Any exception must be clearly noted on this sheet. Failure to do so may be the reason for rejection of the bid. It is not our intention to prohibit any potential Contractor from bidding by virtue of the specifications, but to describe the material(s) and service(s) actually required.

The Village reserves the right to accept or reject any or all exceptions. Contractor’s exceptions are:

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**EQUIPMENT LIST**

| <b>Name</b> | <b>Make</b> | <b>Model</b> | <b>Year</b> | <b>Use</b> |
|-------------|-------------|--------------|-------------|------------|
|             |             |              |             |            |
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|             |             |              |             |            |



## SUBCONTRACTOR LISTING

Provide the name, contact information, and value of work for each and every subcontractor which will be employed on this project.

### Subcontractor No. 1

---

*Business Name*

---

*Address*

*City, State, Zip Code*

---

*Contact Person*

*Telephone Number*

---

*Value of Work*

*Nature of Work*

### Subcontractor No. 2

---

*Business Name*

---

*Address*

*City, State, Zip Code*

---

*Contact Person*

*Telephone Number*

---

*Value of Work*

*Nature of Work*

### Subcontractor No. 3

---

*Business Name*

---

*Address*

*City, State, Zip Code*

---

*Contact Person*

*Telephone Number*

---

*Value of Work*

*Nature of Work*

## REFERENCES

Enter below current business references for whom you have performed work similar to that required by this bid.

### Reference No. 1

---

*Business Name*

---

*Address*

*City, State, Zip Code*

---

*Contact Person*

*Telephone Number*

---

*Dates of Service*

*Nature of Work*

### Reference No. 2

---

*Business Name*

---

*Address*

*City, State, Zip Code*

---

*Contact Person*

*Telephone Number*

---

*Dates of Service*

*Nature of Work*

### Reference No. 3

---

*Business Name*

---

*Address*

*City, State, Zip Code*

---

*Contact Person*

*Telephone Number*

---

*Dates of Service*

*Nature of Work*

## CONTRACTOR BID AGREEMENT

TO:

Village of Oswego  
100 Parkers Mill  
Oswego, IL 60543

Project Name: Pavement Resurfacing – Venue 1012

The undersigned Bidder, in compliance with your advertisement for Bids for work as specified, and related documents prepared by or at the direction of the Village of Oswego, Owner, and being familiar with all conditions surrounding the work, including availability of labor and material, do hereby propose to furnish materials, labor, equipment, and services and pay for same and shall perform all work required for the completion of the Project, in accordance with the Contract documents and at the price provided.

Bidder certifies this Bid to be for the project described in the Instruction to Bidders document and to be in accordance with plans, specifications, and Contract Documents, including the invitation for Bids.

In no event shall any delays or extensions of time be construed as cause or justification for payment of extra compensation to the Contractor. Any claims for an increase of the Contract time shall be made in writing to the Village within seven (7) days of the cause.

---

*Company Name*

---

*Address*

*City, State, Zip Code*

---

*Phone Number*

*Email Address*

---

*Printed Name of Authorized Representative*

*Title*

---

*Signature of Authorized Representative*

*Date*

**APPENDIX A**  
**COVID-19 CONTRACTOR POLICY**

**Village of Oswego  
Contractor Policy for Entering and Working in Village Buildings  
(Effective July 15, 2021)**

**\*\*All contractors shall read and comply with the following policy. \*\***

For the protection of the Village’s workforce, visitors and contractors, the Village of Oswego is taking additional measures for all contractors conducting work on behalf of the Village of Oswego on or at Village facilities.

**Compliance with applicable public health guidelines**

The Village of Oswego complies and will enforce with all contractors the relevant health guidelines regarding COVID-19. In accordance with Center for Disease Control and Prevention guidelines, the Village requires face coverings for all individuals who are not fully vaccinated when in Village facilities or when in outdoor spaces and unable to maintain social distancing.

The Village will require proof of vaccination or compliance with COVID-19 mitigation protocols, including the use of face coverings, social distancing and health screenings any time the contractor is entering a Village facility, in common spaces, or during in-person meetings, or in out-door settings when it is not possible to maintain adequate social distance.

The Village will require compliance with any updates to public health guidelines, including those guidelines that impose additional restrictions on operations.

**Contractor Symptom Assessment**

The Village encourages employees who are feeling ill to not report to work in order to reduce the spread of communicable diseases. The Village prohibits work within Village facilities by any individual who is not fully vaccinated and exhibits symptoms related to COVID-19, has known contact with an individual who is positive for COVID-19, or is otherwise instructed to self-quarantine by any medical professional. To that end, the Village is requiring proof of vaccination or certification that they do not meet any of the above criteria for all contractors prior to entering any Village facility. Vaccinated individuals who have known or suspected exposure to COVID-19 and begin to show the following symptoms are also prohibited from working on site.

COVID19 symptoms will be considered those symptoms as defined by the CDC and may be updated. The CDC identifies the following symptoms as indicative of COVID19:

1. Cough
2. Shortness of breath or difficulty breathing
3. Temperature – Using the provided no touch thermometers
4. Chills
5. Repeated shaking with chills
6. Muscle pain/unusual fatigue
7. Headache
8. Sore throat
9. New loss of taste or smell

**Symptom tracking process**

- A. When entering any Village facilities, all contractors will be required to show proof of vaccination or wear a face covering and complete the attached Symptom Self-Assessment Survey sheet

(Attachment A). Contractors should circle yes if they have experienced any symptoms indicative of COVID19 in the last 12 hours. Touchless thermometers are available at the Village’s primary facilities for contractor use. Please clean the thermometer before and after use. The Symptom Self-Assessment Survey sheet will be provided to the Village Representative. All forms will then be submitted to the Village’s Facilities department to be held confidentially. The Village will take all reasonable measures to maintain confidentiality related to health information.

- B. Any contractor who has a consistent body temperature reading of over 100.4 degrees Fahrenheit (a consistent body temperature is (2) two temperature readings taken (1) one minute apart), or answers “Yes” to any of the other above listed questions/symptoms on the Symptom Self-Assessment Survey is required to advise their Village Representative by phone immediately.
- C. If the contractor responds affirmatively to any of the symptoms, the contractor will be required to exit the building. The contracting company will be required to contact the Village Representative immediately, to provide the following information:
  - Did your employee have contact with any Village Staff Members?
  - Did your employee have contact with other staff members from your company, on the way to the site, or onsite?
- D. Any contractor who begins to experience any of the above symptoms during their shift, shall immediately notify their supervisor. At that time, the contractor should end his or her shift.
- E. If a contractor is required to leave a site because of COVID-19 symptoms, that contractor will be required to remain off Village of Oswego Properties, until that the employee can provide proof to their supervisor, that they are free of COVID-19 symptoms for a minimum of 14 days, or proof of a negative COVID-19 test on day 7 or later.
- F. Should any contractor begin experiencing symptoms of COVID19 within 14 days of conducting work for the Village, he or she is required to contact the Village.

---

*Company Name*

---

*Printed Name of Authorized Representative*

*Title*

---

*Signature of Authorized Representative*

*Date*

**Village of Oswego  
Symptom Self-Assessment Survey**

Company: \_\_\_\_\_

Contractor Name: \_\_\_\_\_

Village facility: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Please circle Yes if you have experienced any of the following in the last 12 hours:

|  |     |    |
|--|-----|----|
| Cough                                    | Yes | No |
| Shortness of breath/difficulty breathing | Yes | No |
| Temperature in excess of 100.4           | Yes | No |
| Chills                                   | Yes | No |
| Repeated shaking with chills             | Yes | No |
| Muscle pain/unusual fatigue              | Yes | No |
| Headache                                 | Yes | No |
| Sore throat                              | Yes | No |
| New loss of taste or smell               | Yes | No |

Please answer the following questions by circling Yes or No

- |  |     |    |
|--|-----|----|
| 1. I am currently experiencing symptoms similar to COVID19.                  | Yes | No |
| 2. I have been in contact with a COVID-positive patient in the last 14 days. | Yes | No |
| 3. I have been advised to self-quarantine in the last 14 days.               | Yes | No |

Signature: \_\_\_\_\_

**APPENDIX B**

**SPECIFICATIONS**



at the contract unit price per foot (meter) for REMOVE OVERHEAD SIGN STRUCTURE WALKWAY, or REMOVE AND RE-ERECT OVERHEAD SIGN STRUCTURE WALKWAY. New walkways will be paid for according to Article 733.11.

- (d) Sign Panels. The work of removing, or removing and reinstalling, existing sign panels that remain attached to the overhead sign superstructure or walkway will not be paid for separately but shall be considered as included in the cost of removing, or removing and re-erecting, the superstructure or walkway. For existing sign panels handled separately, this work will be paid for according to Article 724.05.
- (e) Concrete Foundations. New concrete foundations will be paid for according to Article 734.05.

**PAVEMENT MARKING**

**SECTION 780. PAVEMENT STRIPING**

**780.01 Description.** This work shall consist of furnishing and applying pavement marking.

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

| Item   | Article/Section |
|--|-----------------|
| (a) Thermoplastic Pavement Markings .....          | 1095.01         |
| (b) Paint Pavement Markings .....                  | 1095.02         |
| (c) Preformed Plastic Pavement Markings .....      | 1095.03         |
| (d) Epoxy Pavement Marking .....                   | 1095.04         |
| (e) Preformed Thermoplastic Pavement Marking ..... | 1095.05         |
| (f) Glass Beads for Pavement Markings .....        | 1095.07         |
| (g) Polyurea Pavement Marking .....                | 1095.08         |
| (h) Modified Urethane Pavement Marking .....       | 1095.09         |

**780.03 Equipment.** Equipment shall be according to the following.

| Item   | Article/Section |
|--|-----------------|
| (a) Thermoplastic Truck-Mounted (Note 1) ..... | 1105.01(a)      |
| (b) Thermoplastic Hand-Operated (Note 1) ..... | 1105.01(b)      |
| (c) Epoxy .....                                | 1105.02         |
| (d) Polyurea .....                             | 1105.03         |
| (e) Modified Urethane .....                    | 1105.04         |

Note 1. A mechanical beader approved by the Engineer shall be used.

**CONSTRUCTION REQUIREMENTS**

**780.04 General.** Thermoplastic, epoxy, modified urethane, and polyurea pavement markings shall only be applied by Contractors on the list of approved

**SECTION 406. HOT-MIX ASPHALT BINDER AND SURFACE COURSE**

**406.01 Description.** This work shall consist of constructing hot-mix asphalt (HMA) binder and/or surface course on a prepared base.

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

| Item   | Article/Section |
|--|-----------------|
| (a) Fine Aggregate .....                                     | 1003.03         |
| (b) Hot-Mix Asphalt .....                                    | 1030            |
| (c) Bituminous Materials (Note 1) .....                      | 1032            |
| (d) Longitudinal Joint Sealant (LJS).....                    | 1032.12         |
| (e) Full Lane Sealant (FLS).....                             | 1032.13         |
| (f) Temporary Rubber Ramps and Temporary Plastic Ramps ..... | 1033            |

Note 1. The bituminous material used for tack or prime coat shall be one of the types listed in the following table.

| Type of Construction                       | Bituminous Materials   |
|--|--|
| Tack Coat on Brick, Concrete, or HMA Bases | SS-1, SS-1h, SS-1hP, NTEA, RS-1, RS-2, CSS-1, CSS-1h, CSS-1hP, CRS-1, CRS-2, HFE-90, RC-70, PG 58-22, PG 58-28, PG 64-22 |
| Prime Coat on Aggregate Bases              | MC-30, PEP   |

When emulsified asphalts are used, any dilution with water shall be performed by the emulsion producer. The emulsified asphalt shall be thoroughly agitated within 24 hours of application and show no separation of water and emulsion. The use of RC-70 shall be limited to air temperatures below 60 °F (15 °C).

**406.03 Equipment.** Equipment shall be according to the following.

| Item  | Article/Section |
|---|-----------------|
| (a) Self-Propelled Pneumatic-Tired Roller ..... | 1101.01         |
| (b) Three-Wheel Rollers .....                   | 1101.01         |
| (c) Tandem Rollers .....                        | 1101.01         |
| (d) Vibratory Roller .....                      | 1101.01         |
| (e) Spreading and Finishing Machine .....       | 1102.03         |
| (f) General Use Pressure Distributor .....      | 1102.05(a)      |
| (g) LJS Pressure Distributor .....              | 1102.05(b)      |
| (h) FLS Pressure Distributor .....              | 1102.05(c)      |
| (i) LJS Melter Kettle .....                     | 1102.05(d)      |
| (j) Trench Roller .....                         | 1101.01         |
| (k) Pavement Surface Test Equipment .....       | 1101.10(a)      |
| (l) Spray Paver .....                           | 1102.06         |
| (m) Oscillatory Roller .....                    | 1101.01         |

**CONSTRUCTION REQUIREMENTS**

**406.04 Keeping Road Open to Traffic.** The road shall be kept open to traffic according to Article 701.17(c)(3).

**406.05 Preparing, Prime Coat for Aggregate Bases, and Tack Coat or Full Lane Sealant.** The base shall be prepared and primed, tacked, or full lane sealed according to the following.

- (a) Preparing. Aggregate base shall be prepared according to Section 358.

On existing pavements, excess crack filler and HMA patches which contain an excess of bitumen or which are unstable in hot weather shall be removed. Bitumen shall be removed from expansion joints and cracks more than 1 1/2 in. (38 mm) wide.

Open cracks and open expansion joints having a width of 1/2 in. (13 mm) or more, expansion joints and cracks that have been cleaned, and flangeways, shall be filled with mixture for cracks, joints, and flangeways. The mixture shall be hand tamped in place with hand tools.

Depressions 3/4 to 1 1/4 in. (19 to 31 mm) in the surface of the existing pavement shall be tacked and filled with IL-4.75 or IL-9.5FG binder (hand method). Depressions greater than 1 1/4 in. (31 mm) and spot locations where heavy disintegration and deep spalling exists, the area shall be cleaned of all loose and unsound material, tacked, and filled with IL-4.75, IL-9.5, or IL-9.5FG binder (hand method).

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

Waste material produced during pavement preparation operations shall be removed at the close of each day's work and shall be disposed of according to Article 202.03.

- (b) Prime Coat for Aggregate Bases. The bituminous material shall be applied uniformly with a general use pressure distributor on the prepared surface at a residual asphalt rate of  $0.25 \pm 0.01$  lb/sq ft ( $1.21 \pm 0.05$  kg/sq m). A hand spray wand shall be used at places not covered by the distributor. The entire length of the spray bar shall be set at the height above the surface recommended by the manufacturer for even distribution of the bituminous material. To prevent missing or overlapping at transverse joints, heavy paper shall be spread over the previously applied bituminous material and aggregate. In order to obtain a uniform application of the bituminous material, the distributor shall be traveling at the speed required for the specified rate of application when the spray bar crosses the paper. Adjacent construction such as concrete pavement, curb and gutter, and raised

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reflective pavement markers shall be protected by shields, covers, or other means.

The prime coat shall be permitted to cure until the penetration has been approved by the Engineer, but at no time shall the curing period be less than 24 hours for MC-30 or 4 hours for PEP. Pools of prime occurring in depressions shall be removed by brooming or squeegeeing the excess material over the surrounding surface the same day the prime coat is applied.

- (c) Tack Coat or Full Lane Sealant. The base or previous lift shall be cleaned of dust, debris, and any substance that will prevent the bituminous material from adhering to the base. Cleaning shall be accomplished by sweeping to remove large particles followed by air blasting or vacuum sweeping to remove dust. The bituminous material shall be applied according to Article 406.05(b), except as specified below.

- (1) Tack Coat for Brick, Concrete, or HMA Bases. The base shall be free of standing water at the time of application. The tack coat shall be applied to the base and between each lift of HMA uniformly and at a rate that will provide a residual asphalt rate on the prepared surface as specified in the following table.

| Type of Surface to be Tacked           | Residual Asphalt Rate<br>lb/sq ft (kg/sq m) |
|--|---|
| Concrete, Existing HMA, and Milled HMA | 0.05 (0.244)                                |
| New HMA and Brick                      | 0.025 (0.122)                               |

The bituminous material for the tack coat shall be placed one lane at a time. If a spray paver is not used, the tacked lane shall remain closed until the tack coat is fully cured and does not pickup under traffic. When placing tack coat through an intersection where it is not possible to keep the lane closed, the tack coat may be covered immediately following its application with fine aggregate mechanically spread at a uniform rate of 2 to 4 lb/sq yd (1 to 2 kg/sq m).

- (2) Full Lane Sealant (FLS) for HMA Bases. The base shall be dry for 24 hours prior to application of FLS and no rain in the forecast for 24 hours following application. If rain is anticipated but cannot be avoided, the FLS shall be covered immediately following its application with fine aggregate mechanically spread at a uniform rate of 2 to 4 lb/sq yd (1 to 2 kg/sq m). The FLS shall be applied uniformly with a FLS pressure distributor at a rate that will provide the residual rate on the prepared surface as specified in the following table.

| Type of Surface<br>Placed Above FLS | Residual Asphalt Rate<br>lb/sq ft (kg/sq m) |
|-------------------------------------|---|
| IL-9.5                              | 0.30 (1.464)                                |
| IL-9.5FG                            | 0.25 (1.221)                                |

FLS shall fully cure in less than 5 minutes. HMA may be placed once the FLS has cured.

The Contractor shall furnish to the Engineer a bill of lading for each tanker supplying material to the project.

The residual asphalt rate will be verified a minimum of once per type of surface to be tacked, primed, or full lane sealed as specified herein for which at least 2,000 tons (1,800 metric tons) of HMA will be placed. The test will be according to the Manual of Test Procedures for Materials "Determination of Residual Asphalt in Prime and Tack Coat Materials".

Tack or prime coat shall be fully cured prior to placement of HMA to prevent pickup by haul trucks or paving equipment. If pickup occurs, paving shall cease in order to provide additional cure time, and all areas where the pickup occurred shall be repaired.

If after five days, loss of tack, prime, or FLS is evident prior to covering with HMA, additional tack, prime, or FLS shall be placed as determined by the Engineer at no additional cost to the Department.

**406.06 Placing.** The HMA shall be placed according to the following.

- (a) **Pre-Production Meeting.** When HMA is placed under the Pay for Performance (PFP) or Quality Control for Performance (QCP) Quality Management Program, the Contractor shall schedule a pre-production meeting prior to the start of production of the mixture specified. The HMA QC Plan, test frequencies, and responsibilities of all parties involved in testing will be addressed. The Engineer will provide the random locations, tonnages, and subplot selected from each lot in a sealed envelope for the Contractor to sign at the pre-production meeting or prior to paving. The locations, tonnages, and subplot selected from each lot may be adjusted due to field conditions according to the documents "Hot-Mix Asphalt PFP and QCP Random Jobsite Sampling" and "Hot-Mix Asphalt PFP and QCP Procedure for Determining Random Density Locations". The signed, sealed envelope will be given to the Contractor after paving is complete, along with documentation of any adjustments. Personnel attending the meetings may include: Resident Engineer, District Mixtures Control Representative, QC Manager, Contractor Paving Superintendent, and Consultants involved in any part of the HMA sampling or testing.
- (b) **Start of HMA Production and Job Mix Formula (JMF) Adjustments.** Test strip construction shall be according to Article 1030.10.
- (c) **Placement Conditions.** HMA shall be placed on a clean, dry base and when weather conditions are suitable. Binder course shall be placed only when the air temperature in the shade is at least 40 °F (5 °C) and the forecast is for rising temperatures. Surface course shall be placed only when the air temperature in the shade is at least 45 °F (8 °C) and the forecast is for rising temperatures.

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In all cases, the mixture temperature shall never exceed 350 °F (180 °C).

For mixes placed under QC/QA criteria, the HMA and WMA shall be delivered at a minimum temperature of 250 °F (120 °C) and 215 °F (102 °C), respectively, except as specified below.

(1) Special Conditions for Mixture IL-4.75.

- a. The surface shall be dry for at least 24 hours, and clean, prior to placement of the mixture.
- b. Work shall not begin when local conditions indicate rain is imminent.
- c. The mixture shall be placed only when the temperature in the shade is at least 50 °F (10 °C) and the forecast is for rising temperatures.
- d. Mixes placed under QC/QA criteria shall be delivered at a minimum temperature of 310 °F (155 °C) and measured in the truck just prior to placement.
- e. The mixture shall be overlaid within 5 days of being placed.

(2) Special Conditions for SMA.

- a. SMA mixture shall be placed only when the temperature of the surface is above 50 °F (10 °C).
- b. Mixes placed under QC/QA criteria shall be placed at a minimum temperature of 310 °F (155 °C) when using SBS PG 76-28 and 300 °F (149 °C) when using SBS PG 76-22. The mixture temperature shall be measured immediately behind the paver screed.

Intermingling of different mixture designs, or the same mixture design produced at more than one HMA plant, in one paver will not be permitted.

- (d) Field Conditions. HMA shall be placed and compacted during daylight, unless artificial light satisfactory to the Engineer is provided.

In the event of sudden rain, the loading of trucks at the plant or from storage bins shall immediately stop. Material in transit will be permitted to be laid at the Contractor's risk providing the pavement is free of standing water and the proper temperature of the HMA is maintained. Approval to unload the trucks in transit shall in no way relax the requirements for quality, density, or smoothness of the HMA being placed.

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

| Mixture Composition | Type of Lift      | Minimum Compacted Lift Thickness, in. (mm) |
|---------------------|-------------------|--|
| IL-4.75             | Binder only       | 3/4 (19) over HMA surfaces <sup>1/</sup>   |
|                     |                   | 1 (25) over PCC surfaces <sup>1/</sup>     |
| IL-9.5FG            | Surface or Binder | 1 1/4 (31)                                 |
| IL-9.5, IL-9.5L     | Surface or Binder | 1 1/2 (38)                                 |
| SMA-9.5             | Surface or Binder | 1 1/2 (38)                                 |
| SMA-12.5            | Surface or Binder | 2 (50)                                     |
| IL-19.0, IL-19.0L   | Binder only       | 2 1/4 (56)                                 |

1/ The maximum compacted lift thickness for mixture IL-4.75 shall be 1 1/4 in. (31 mm).

- (f) Spreading and Finishing. The HMA shall be placed with a spreading and finishing machine to the typical section and grade shown on the plans or as established by the Engineer. In areas where irregularities, inaccessibility, or unavoidable objects make the use of the spreading and finishing machine impractical, the HMA may be spread, raked, and luted by hand.

When placing HMA within 200 ft (60 m) of a bridge abutment, the automatic electronic grade control on the paver shall be operated from a preset grade control stringline. At all other locations, a preset grade control stringline or a grade reference device traveling on the adjacent pavement surface shall be used. When traffic interference or sharp curves make the minimum 30 ft (9 m) device impractical, the grade reference device may be shortened to no less than 10 ft (3 m) as directed by the Engineer.

For HMA mixes placed under QC/QA criteria, the operating speed of the paver shall not exceed that speed which is necessary to produce a uniformly spread and struck off mat having a smooth texture without tearing or segregation. The paver speed shall be mated with the required roller speed and shall not exceed that which coincides with the average rate of delivery of HMA to the paver to provide, as nearly as possible, continuous operation of the paver. In no case shall the speed of the paver exceed 50 ft (15 m) per minute for High and Low ESAL mixes or 30 ft (9 m) per minute for SMA.

A stringline shall be used as a guide for the finishing machine in order to maintain a uniform edge alignment; if any other method is proposed, it shall meet the approval of the Engineer before being used. Irregularities in the alignment of the outside edges and along the longitudinal joint shall be corrected by adding or removing HMA before the edges are rolled. Excess HMA deposited on the existing base, binder course, or surface course outside the limits of the lane being laid shall be removed immediately and disposed of as directed by the Engineer.

- (g) Segregation Control. Paving operations shall be conducted in a manner to prevent medium or high segregation.

Plant operations, hauling of the mix, paver operations, and the compacted mat shall be continually monitored for segregation.

The in-place HMA shall be evaluated daily for segregation according to the document "Segregation Control of Hot-Mix Asphalt".

The Contractor's Annual Quality Control Plan or Addendum shall identify the individual(s) responsible for performing and documenting the daily evaluations. Quality Control Plans and Addendums for subsequent projects shall reflect the corrective actions taken, whether the corrective action was initiated by the Contractor or the Engineer.

- (h) Construction Joints. Transverse and longitudinal construction joints shall be constructed according to the following.

Joints between old and new pavements or between successive days' work shall be made so as to ensure thorough and continuous bond between the old and new mixtures.

(1) Transverse Joints. Transverse construction joints in previously laid material may be constructed by cutting the material back for its full depth to expose a fresh surface. Where a wooden header is used at a construction joint, the cutting may be omitted provided the joint conforms to the specified thickness.

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

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

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

The notched wedge longitudinal joint shall consist of a 1 to 1 1/2 in. (25 to 38 mm) vertical notch at the lane line, a 9 to 12 in. (230 to 300 mm) wide uniform taper sloped toward and extending into the open lane, and a second 1 to 1 1/2 in. (25 to 38 mm) vertical notch at the outside edge.

The notched wedge longitudinal joint shall be formed by the strike off device on the paver. The wedge shall then be compacted by the joint roller.

Tack coat shall be applied to the entire surface of the notched wedge joint immediately prior to placing the adjacent lift of binder. The material



shall be uniformly applied at a residual rate of 0.05 to 0.1 gal/sq yd (0.2 to 0.5 L/sq m).

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

The LJS shall be applied in a single pass with a LJS pressure distributor, LJS melter kettle, or from a pre-formed roll. At the time of installation, the pavement surface temperature and the ambient temperature shall be a minimum of 40 °F (5 °C) and rising.

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

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

The application rate of LJS shall be based on the HMA mixture and thickness placed above the LJS according to the following.

| LJS Application Rate, lb/ft (kg/m) <sup>1/2/</sup> |   |                                |                                 |
|--|---|--------------------------------|---------------------------------|
| Lift Thickness, in. (mm)                           | Coarse Graded Mixture (IL-19.0, IL-19.0L, IL-9.5, IL-9.5L, IL-4.75) | Fine Graded Mixture (IL-9.5FG) | SMA Mixture (SMA-9.5, SMA-12.5) |
| 3/4 (19)   | 0.88 (1.31)   |                                |                                 |
| 1 (25)   | 1.15 (1.71)   |                                |                                 |
| 1 1/4 (31)   | 1.31 (1.95)   | 0.88 (1.31)                    |                                 |
| 1 1/2 (38)   | 1.47 (2.19)   | 0.95 (1.42)                    | 1.26 (1.88)                     |
| 1 3/4 (44)   | 1.63 (2.43)   | 1.03 (1.54)                    | 1.38 (2.06)                     |
| 2 (50)   | 1.80 (2.68)   | 1.11 (1.65)                    | 1.51 (2.25)                     |
| $\geq 2 \frac{1}{4}$ (56)                          | 1.96 (2.92)   |                                |                                 |

1/ The application rate includes a surface demand for liquid. The thickness of the LJS may taper from the center of the application to a lesser thickness on the edge of the application, provided the correct width and application rate are maintained.

2/ If different mixture types are placed adjacent, the lower of the two application rates shall be used.

The Contractor shall furnish to the Engineer a bill of lading for each tanker supplying material to the project. The application rate of LJS shall be verified within the first 1,000 ft (300 m) of the day's placement

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and every 12,000 ft (3,600 m) thereafter. A suitable paper or pan shall be placed at a random location in the path of the LJS. After application of the LJS, the paper or pan shall be picked up, weighed, and the application rate calculated. The tolerance between the application rate shown in the LJS Application Table and the calculated rate shall be  $\pm 10$  percent. The LJS shall be replaced in the area where the sample was taken.

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

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

LJS in a pre-formed roll may also be used for small areas or for repairing damaged areas.

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

**406.07 Compaction.** The HMA shall be compacted according to the following requirements.

- (a) Rollers. Immediately after each lift of binder or surface course mixture is placed, each lift shall be compacted with equipment meeting the requirements listed in the following Table 1.

| TABLE 1 - MINIMUM ROLLER REQUIREMENTS FOR HMA        |  |   |   |
|--|--|---|---|
|  | Breakdown/Intermediate Roller<br>(one of the following)                  | Final Roller<br>(one or more of the following)                    | Density Requirement                         |
| IL-9.5, IL-9.5FG, IL-19.0 and IL-19.0L <sup>1/</sup> | V <sub>D</sub> , P, T <sub>B</sub> , 3W, O <sub>T</sub> , O <sub>B</sub> | V <sub>S</sub> , T <sub>B</sub> , T <sub>F</sub> , O <sub>T</sub> | As specified in Section 1030.               |
| IL-4.75 and SMA <sup>3/4/</sup>                      | T <sub>B</sub> , 3W, O <sub>T</sub>                                      | T <sub>F</sub> , 3W, O <sub>T</sub>                               | As specified in Section 1030.               |
| Mixtures on Bridge Decks <sup>2/</sup>               | T <sub>B</sub>   | T <sub>F</sub>  | As specified in Articles 582.05 and 582.06. |

1/ If the average delivery at the job site is 85 ton/hr (75 metric ton/hr) or less, any roller combination may be used provided it includes a steel wheel roller and the required density and smoothness is obtained.

2/ One T<sub>B</sub> may be used for both breakdown and final rolling on bridge decks 300 ft (90 m) or less in length, except when the air temperature is less than 60 °F (15 °C).

- 3/ Pneumatic-tired and vibratory rollers will not be allowed.
- 4/ The Contractor shall provide a minimum of two steel wheel tandem rollers ( $T_B$ ), and/or oscillatory rollers ( $O_T$ ), and/or three-wheel (3W) rollers for breakdown. 3W,  $T_B$ , and  $T_F$  rollers shall be a minimum of 280 lb/in. (50 N/mm). The 3W,  $O_T$ , and  $T_B$  rollers shall be operated at a uniform speed not to exceed 3 mph (5 km/h), with the drive roll for  $T_B$  rollers nearest the paver, and maintain an effective rolling distance of not more than 150 ft (45 m) behind the paver.

#### EQUIPMENT DEFINITION

- $V_s$  Vibratory roller, static mode, minimum 125 lb/in. (2.2 kg/mm) of roller width. Maximum speed = 3 mph (5 km/h) or 264 ft/min (80 m/min). If the vibratory roller in static mode does not eliminate roller marks, its use shall be discontinued and a tandem roller, adequately ballasted to remove roller marks, shall be used.
- $V_D$  Vibratory roller, dynamic mode, operated at a speed to produce not less than 10 impacts/ft (30 impacts/m).
- P Pneumatic-tired roller, maximum speed = 3 1/2 mph (5.5 km/h) or 308 ft/min (92 m/min). The pneumatic-tired roller shall have a minimum tire pressure of 80 psi (550 kPa) and shall be equipped with heat retention shields. The self-propelled pneumatic-tired roller shall develop a compression of 300 to 500 lb/in. (53 to 88 N/mm) per width of the tire tread in contact with the HMA surface.
- $T_B$  Tandem roller for breakdown rolling, 8 to 12 tons (7 to 11 metric tons), 250 to 400 lb/in. (44 to 70 N/mm) of roller width, maximum speed = 3 1/2 mph (5.5 km/h) or 308 ft/min (92 m/min).
- $T_F$  Tandem roller for final rolling, 200 to 400 lb/in. (35 to 70 N/mm) of roller width with minimum roller width of 50 in. (1.25 m). Ballast shall be increased if roller marks are not eliminated. Ballast shall be decreased if the mat shoves or distorts.
- 3W Three-wheel roller, maximum speed = 3 mph (5 km/h) or 264 ft/min (80 m/min), 300 to 400 lb/in. (53 to 70 N/mm) of roller width. The three-wheel roller shall weigh 10 to 12 tons (9 to 11 metric tons).
- $O_T$  Oscillatory roller, tangential impact mode. Maximum speed = 3.0 mph (4.8 km/h) or 264 ft/min (80 m/min).
- $O_B$  Oscillatory roller, tangential and vertical impact mode, operated at a speed to produce not less than 10 vertical impacts/ft (30 impacts/m).

When initial rolling causes undue displacement, hairline cracking, or checking in either the binder course or surface course, the time of rolling shall be adjusted to correct these conditions.

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In all places inaccessible to the rollers, such as locations adjacent to curbs, gutters, headers, manholes, and similar structures, the required compaction shall be secured with tampers.

HMA that becomes loose, broken, mixed with foreign material, or is in any way defective shall be removed and replaced with fresh HMA and compacted to conform to the surrounding area.

- (b) Rolling HMA Placed Under QC/QA Criteria. Rolling of the first lane of binder and surface course shall start longitudinally at the edge having the lower elevation and progress to the other edge, overlapping on successive trips to obtain uniform coverage. The roller shall not pass over an unprotected edge of the freshly laid HMA, unless directed by the Engineer. When directed by the Engineer, the edge shall be rolled with a pneumatic-tired roller.

When laying the HMA adjacent to a previously placed lane, the first pass of the roller shall be along the longitudinal joint on the fresh mixture with the compression wheel not more than 6 in. (150 mm) from the joint. The second pass of the roller shall overlap the longitudinal joint not more than 12 in. (300 mm) on the previously placed lane, after which the rolling shall proceed from the low side of the transverse slope to the high side, overlapping uniformly. Each stop shall be regulated to prevent trapping of water on the rolled surface. The steel wheel rollers shall be operated with the compression wheels toward the direction of paving.

The speed of the roller at all times shall be slow enough to avoid displacement of the HMA. If displacement occurs, it shall be corrected at once by raking and applying fresh HMA where required. To prevent adhesion of the HMA to the roller, the wheels shall be kept properly moistened without an excess of water.

Rolling of the binder and surface courses shall be continued until all roller marks are eliminated and the HMA is satisfactorily compacted. When required by the Engineer, the surface course shall be rolled diagonally in two directions with a tandem roller, the second rolling crossing the lines of the first, and, if the width of the pavement permits, it shall also be rolled at right angles to the centerline.

**406.08 Butt Joints.** Butt joints shall be constructed according to the details shown on the plans. The surface removal shall be performed according to Section 440. Construction of butt joints shall not begin prior to beginning general operations on the project.

When butt joints are to be constructed under traffic, temporary ramps shall be constructed and maintained at both upstream and downstream ends of the surface removal areas immediately upon completion of the surface removal operation. The temporary ramps shall be constructed by the following methods.

- (a) Temporary HMA Ramps. Temporary HMA ramps shall have a minimum taper rate of 1:40 (V:H). The HMA material used shall meet the approval of the Engineer. Cold-milled HMA tailings will not be acceptable.

- (b) Temporary Rubber and Temporary Plastic Ramps. Temporary rubber and temporary plastic ramps shall only be used on roadways with permanent posted speeds of 55 mph or less. The ramps shall have a minimum taper rate of 1:30 (V:H). The leading edge of the ramp shall have a maximum thickness of 1/4 in. (6 mm) and the trailing edge shall match the height of the adjacent pavement  $\pm$  1/4 in. ( $\pm$  6 mm).

Temporary rubber and temporary plastic ramps shall be installed according to the manufacturer's specifications and fastened with anchors meeting the manufacturer's recommendations. Temporary rubber or temporary plastic ramps that fail to stay in place or create a traffic hazard shall be replaced immediately with temporary HMA ramps at the Contractor's expense.

Temporary ramps shall be removed just prior to placing the proposed surface course. If work is suspended for the winter season prior to completion of surface course construction, precut butt joints shall be filled to the elevation of the existing pavement surface with compacted HMA.

**406.09 Approaches, Intersections, and Entrances.** The thickness of the HMA surface at the ends of the proposed resurfacing and adjacent to railroad grade crossings shall be diminished uniformly to a featheredge at a rate of 1:240 (V:H). At paved intersections, the HMA shall be feathered out in a distance of 10 ft (3 m), unless otherwise directed by the Engineer. At these locations, the thickness of the surface course shown on the plans shall be maintained to a point where the binder course has been reduced to 1 in. (25 mm) in thickness. Beyond this point, surface course only shall be used. At these locations where the HMA surface is diminished uniformly to a featheredge, the last 5 ft (1.5 m) shall receive an additional application of bituminous tack coat, just prior to placing the HMA.

Unpaved intersections and entrances shall be constructed as shown on the plans or designated by the Engineer. The existing surface shall be prepared according to Section 358 and receive an application of bituminous prime coat.

**406.10 Multi-Lane Pavement Resurfacing.** For multi-lane pavement resurfacing, the lift(s) of binder course shall be placed and compacted prior to start of placement of the surface course mixture. When HMA shoulder resurfacing is not being constructed simultaneously with the mainline pavement, a HMA wedge at least 3 ft (1 m) wide shall be placed on the shoulder simultaneously with binder placement on the mainline pavement. The wedge shall be constructed according to the details shown on the plans or as directed by the Engineer.

**406.11 Surface Tests.** The completed surface course will be tested for smoothness in the wheel paths with a 16 ft (5 m) straightedge. Surface variations of the mainline pavement shall not exceed 3/16 in. (5 mm). Mainline pavement is defined as all pavement, except the following: ramps which will be posted for speeds of 40 mph (70 km/h) or less, acceleration and deceleration lanes, crossovers, side street turns, and other miscellaneous pavement surfaces as determined by the Engineer. In all areas other than mainline pavement, surface variations shall not exceed 3/8 in. (10 mm).

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The smoothness test will not be performed on binder courses, but the Engineer reserves the right to require corrective measures when obvious surface variations are evident.

For each variation in the surface course that exceeds the maximum permissible specified above but is less than 3/4 in. (19 mm), a deduction will be made in the tonnage of surface course mixture measured for payment as specified in the following table.

| Binder and/or Surface Course Plan Thickness, in. (mm) | Surface Course Mixture Deduction Per Variation, ton (metric ton) |
|---|--|
| (Existing Surface Not Reprofiled)                     |  |
| 2 3/4 (69) or more                                    | 2 (2)  |
| Less than 2 3/4 (69)                                  | 1 (1)  |
| (Existing Surface Reprofiled)                         |  |
| All   | 2 (2)  |

In all cases where the variation in surface course equals or exceeds 3/4 in. (19 mm), the entire area affected shall be removed and replaced with fresh surface course mixture at the expense of the Contractor.

The Contractor shall furnish a 16 ft (5 m) straightedge and shall provide for its jobsite transportation at no additional cost to the Department.

**406.12 Protection of Pavement.** The Contractor shall protect all sections of newly compacted HMA from traffic until they have hardened to the satisfaction of the Engineer.

**406.13 Method of Measurement.** This work will be measured for payment as follows.

- (a) Contract Quantities. The requirement for the use of contract quantities shall be according to 202.07(a).
- (b) Measured Quantities. Bituminous material for tack, prime, or full lane sealant (FLS) will be measured for payment as specified in Section 1032.

Aggregate for covering tack or FLS will not be measured for payment.

Longitudinal joint sealant (LJS) will be measured for payment in place in feet (meters).

Mixture for cracks, joints and flangeways, binder (hand method), binder course, and surface course mixtures will be measured for payment in tons (metric tons) on approved platform scales, surge bin scales, or surge bin hopper scales equipped with automatic printers as specified in Article 1102.01(a)(7). HMA produced by a batch-type mixing plant may be measured by batch weights only when surge or storage bins are not used. An occasional check to verify the accuracy of the batch weights or automatic printers, will be made by weighing full truckloads of the HMA on an approved platform scale at the plant or on a commercial scale approved by the

Engineer. If it becomes apparent that the batch weights or automatic printers are not accurate in measuring the HMA, the scales and/or printers shall be repaired immediately. Quantities of materials wasted or disposed of in a manner not called for in the contract will be deducted from the final total measured quantities. The Contractor shall furnish a load ticket which records the net weight of the HMA in each truck, as specified in Article 1102.01(a)(7). In addition, the load ticket shall have sufficient space for signatures, identification of the HMA, date of delivery, and any other data which the Engineer may require. The Contractor shall submit the load ticket to the Engineer at the work site when the truck arrives.

Mixture for cracks, joints, and flangeways, binder (hand method), and binder course in excess of 103 percent of the quantity specified by the Engineer will not be measured for payment.

Surface course mixture in excess of 103 percent of the adjusted plan quantity will not be measured for payment. The adjusted plan quantity for surface course mixtures will be calculated as follows.

Adjusted Plan Quantity = C x quantity shown on the plans or as specified by the Engineer

where C = : English:  $C = \frac{G_{mb} \times 46.8}{U}$  metric:  $C = \frac{G_{mb} \times 24.99}{U}$

and where:  $G_{mb}$  = average bulk specific gravity from approved mix design  
 $U$  = unit weight of surface course shown on the plans in lb/sq yd/in. (kg/sq m/25 mm), used to estimate plan quantity  
 46.8 = English constant  
 24.99 = metric constant

If project circumstances warrant a new surface course mix design, the above equations shall be used to calculate the adjusted plan quantity for each mix design using its respective average bulk specific gravity.

Surface removal for butt joints will be measured for payment in place and the area computed in square yards (square meters).

Temporary ramps will be measured for payment in place and area computed in square yards (square meters).

When the option of placing HMA binder and surface course mixtures on shoulders is used, and shoulders at 6 ft (1.8 m) or less in width are placed simultaneously with the traffic lane as specified in Section 482, the quantity of HMA placed on the traffic lane will be limited to a calculated tonnage based upon actual mat width and length, plan thickness, or a revised thickness authorized by the Engineer, and design mix weight per inch (millimeter) of thickness. The difference between the total actual tonnage

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placed and the calculated tonnage used on the traffic lane will be measured and paid for as HMA shoulders according to Section 482.

When a HMA wedge is placed simultaneously with the binder course as specified in Article 406.10, the quantity of binder course placed on the traffic lane will be limited to 103 percent of the quantity specified by the Engineer. The difference between the total actual tonnage placed and 103 percent of the tonnage specified by the Engineer will be measured and paid for as HMA shoulders according to Section 482.

**406.14 Basis of Payment.** Prime coat, tack coat, and full lane sealant (FLS) will be paid for at the contract unit price per pound (kilogram) of residual asphalt for BITUMINOUS MATERIALS (PRIME COAT), BITUMINOUS MATERIALS (TACK COAT), POLYMERIZED BITUMINOUS MATERIALS (TACK COAT), and BITUMINOUS MATERIALS (FULL LANE SEALANT).

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

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

- (a) QCP Pay Adjustments. When the work is performed under QCP criteria, the following pay adjustments shall apply.
  - (1) Composite Pay Factor. Payment for the above pay items will be based on the calculation of the composite pay factor using QA test results for each mixture according to the document "Hot-Mix Asphalt QCP Pay Adjustments".
  - (2) Dust/AB Ratio. A monetary deduction will be made as specified in Article 1030.08 and the table below for dust/AB ratios that deviate from the 0.6 to 1.2 range.



| Range                                    | Deduct / Sublot               |
|--|-------------------------------|
| $0.6 \leq X \leq 1.2$                    | \$0                           |
| $0.5 \leq X < 0.6$ or $1.2 < X \leq 1.4$ | \$1,000                       |
| $0.4 \leq X < 0.5$ or $1.4 < X \leq 1.6$ | \$3,000                       |
| $X < 0.4$ or $X > 1.6$                   | Shall be removed and replaced |

1/ Does not apply to SMA.

- (b) PFP Pay Adjustments. When the work is performed under PFP criteria, the following pay adjustments shall apply.
- (1) Composite Pay Factor. Payment for the above pay items will be based on the calculation of the composite pay factor for each mixture according to the document "Hot-Mix Asphalt PFP Pay Adjustments".
  - (2) Dust/AB Ratio. A monetary deduction will be made as specified in Article 1030.07 and the table above for dust/AB ratios that deviate from the 0.6 to 1.2 range.
  - (3) Unconfined Edge Density. A monetary deduction will be made as specified in Article 1030.07 and the table below for densities less than 90 percent.

| Density       | Deduction / Sublot  |
|---------------|---|
| $\geq 90 \%$  | \$0   |
| 89.0 - 89.9 % | \$1,000   |
| 88.0 - 88.9 % | \$3,000   |
| $< 88.0 \%$   | Outer 1.0 ft (300 mm) will require remedial action acceptable to the Engineer |

Surface removal for butt joints will be paid for at the contract unit price per square yard (square meter) for HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT and PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT.

Temporary ramps will be paid for at the contract unit price per square yard (square meter) for TEMPORARY RAMP.

The cost of furnishing and introducing anti-stripping additives in the HMA shall be included in the contract unit price of the HMA item involved.

If provided as a payment item, the preparation of base will be measured and paid for as specified in Section 358. If not provided as a payment item, the cost of the preparation of the base will be paid for according to Article 109.04.

Contractors maintained by the Engineer of Operations and in effect on the date of advertisement for bids.

Pavement marking on freeways shall be placed with truck-mounted equipment. Markings on roads other than freeways may be placed with either truck-mounted or hand-operated equipment.

Before applying the pavement marking material, the pavement shall be cleaned according to the manufacturer, dry, and free of debris or any other material that would reduce the adhesion of the markings on the pavement.

The edge of a center line or lane line shall be offset a minimum distance of 2 in. (50 mm) from a longitudinal crack or joint. Edge lines shall be approximately 2 in. (50 mm) from the edge of pavement. The finished center and lane lines shall be straight, with the lateral deviation of any 10 ft (3 m) line 1 in. (25 mm) or less.

Pavement marking words and symbols shall conform closely to the dimensions and spacing specified in the MUTCD and the plans. Deviations from the required dimensions and spacing or other departures from reasonable standards of professionalism will be cause for rejection by the Engineer.

The words and symbols shall be as specified in Table 1 of Article 780.14.

**780.05 Thermoplastic.** Prior to applying the thermoplastic pavement markings, the existing pavement markings shall be removed according to Section 783. The area removed shall be no wider than the width of the existing pavement markings. The new thermoplastic pavement markings shall be applied over the location where the pavement markings were removed.

The Contractor shall notify the Engineer 72 hours prior to the placement of the thermoplastic markings. At the time of this notification, the Contractor shall indicate the manufacturer and lot numbers of thermoplastic and glass beads he/she intends to use.

The compound shall be installed in a molten state at a minimum temperature of 400 °F (205 °C) and maximum temperature of 475 °F (245 °C). Scorching or discoloration of material will be cause for rejection by the Engineer. The machinery shall be constructed so all mixing and conveying parts, up to and including the shaping-die, maintain the material in a molten state.

Thermoplastic shall be applied only when the pavement temperature is 55 °F (13 °C) or greater and no later than November 1 or earlier than April 15. If the thermoplastic markings cannot be placed according to these specifications and the road is to be opened to traffic between November 1 and April 15 and no adequate pavement markings are in place, the Contractor shall, at the direction of the Engineer, place temporary pavement markings according to Section 703. The Contractor shall remove the temporary pavement markings and place the thermoplastic pavement markings on or after April 15 or as agreed upon by the Engineer.

A binder sealer shall be applied on all hot-mix asphalt (HMA) pavements over 60 days old where the new thermoplastic material is to be installed. The binder sealer material shall be applied as recommended by the manufacturer of the

thermoplastic and in sufficient quantities to entirely cover the surface on which the thermoplastic is to be laid.

The thermoplastic material shall be applied at a thickness of not less than 100 mils (2.50 mm) but no greater than 110 mils (2.75 mm). Finished lines shall be within 1/4 in. (6 mm) of the width specified in the plans.

Thermoplastic markings shall be placed with drop on glass beads according to Article 1095.01, uniformly applied to assure adequate nighttime reflectivity. It shall be the Contractor's responsibility to use a compatible combination of thermoplastic material and beads to preclude the surface beads from sinking deeply into the thermoplastic.

The thickness of the markings will be measured above the pavement surface at random points as selected by the Engineer, to determine conformance.

- (a) If the measurements show less than 100 mils (2.50 mm), the Engineer will "chip" the edges of the markings at random points and measure the thickness of the chips to determine if the overall thickness of the markings is at least 100 mils (2.50 mm). When either the overall thickness or the thickness above the pavement surface is substantially in conformance with the thickness requirements, payment will be made at 100 percent of the contract unit prices involved.
- (b) If the thickness at a given location is less than 100 mils (2.50 mm), additional measurements will be taken on each side of the location by the Engineer to determine the extent of the deficient portion of the marking. If the average thickness of the deficient portion is less than 100 mils (2.50 mm) but more than 60 mils (1.50 mm), an adjusted unit price of 50 percent of the contract unit price involved will be used in computing payment for the area which is deficient.
- (c) If the measurements show the average thickness to be less than 60 mils (1.50 mm), the Contractor shall remove the surface of the deficient portions of the markings sufficiently to reduce the average thickness to approximately 50 mils (1.25 mm) or less. The Contractor shall then apply additional thermoplastic material and beads to bring the thickness of the markings to at least 100 mils (2.50 mm) and the reflectivity to the minimum required values.

**780.06 Paint.** Prior to application of the paint pavement marking, the pavement surface shall be dry and free of dirt or grease.

Paint shall be applied only when the air temperature is 50 °F (10 °C) or greater, unless approved by the Engineer.

The paint shall be applied at a minimum thickness of 16 mils (406 µm) and beads shall be applied to all painted surfaces at the minimum rate of 6.0 lb/gal (720 g/L) of paint used.

**780.07 Preformed Plastic.** The markings shall be capable of being applied on either new HMA surfaces by being inlaid into the surface, or on new and existing portland cement concrete and HMA surfaces, by means of a pressure-sensitive,

precoated adhesive, or liquid contact cement which shall be applied at the time of installation.

Cleaning operations shall not begin until a minimum of 30 days after the placement of new portland cement concrete pavement.

The cleaning operation shall remove all visible evidence of curing compound on the peaks and valleys of textured concrete surfaces, remove all loose and flaking material, and round any sharp edges and irregularities.

When recommended by the manufacturer, a primer sealer shall be applied on all pavement surfaces where new preformed plastic pavement marking material is to be applied. The primer sealer shall be recommended by the manufacturer of the preformed plastic pavement material and shall be compatible with the material being used. The primer sealer shall be applied in sufficient quantities to entirely cover the pavement surface where the plastic material is to be placed. The Contractor shall not install the preformed plastic pavement markings until the primer sealer dries according to the manufacturer's recommendations.

The markings placed on the pavement shall be rolled and compacted onto the pavement with a roller or tamper cart approved by the manufacturer. This roller shall be loaded with or weigh at least 200 lb (90 kg). The Contractor shall tamp and roll the material sufficiently to prevent easy removal or peeling. Care shall be taken to cut the material in and around pavement joints or cracks and roll the material into the cracks of joints.

- (a) Type B - Inlaid Application. On freshly placed HMA, the inlaid markings shall be applied before final compaction and when the pavement temperature has cooled to approximately 150 °F (65 °C) and when, in the opinion of the Engineer, the pavement is acceptable for vehicular traffic.

The markings shall be applied at a minimum thickness of 60 mils (1.5 mm).

The markings shall be placed on the pavement by means of a mechanical applicator or by a hand method and embedded into the pavement surface with a static compaction roller with minimum water on the roller.

The initial rolling of the markings shall be in the same direction as the application to minimize buckling in front of the roller. The roller shall not be allowed to turn on the markings.

A minimum of 50 percent of the marking thickness shall be embedded.

- (b) Type B or C - Standard Application. The material shall be applied to the pavement surface or to the bottom of the recessed groove as specified on the plans only when the air temperature is 50 °F (10 °C) or above and rising and the pavement temperature is 70 °F (21 °C) or greater. However, standard application of preformed plastic pavement markings will not be allowed after October 15.

When the preformed plastic markings cannot be placed according to these specifications and the road is to be opened to traffic after October 15 with no

adequate pavement markings in place, the Contractor shall place preformed tape for lane lines. All other pavement markings shall be placed according to Article 703.05. The Contractor shall then place the preformed pavement markings on or as soon after April 15 as the requirements of these specifications can be met.

**780.08 Preformed Thermoplastic.** The pavement markings shall be capable of being applied on either HMA or portland cement concrete surfaces by using a propane blowtorch.

A primer sealer recommended by the manufacturer of the preformed pavement marking material shall be applied on portland cement concrete surfaces prior to application of the preformed thermoplastic pavement marking material. The primer sealer material shall be applied in sufficient quantities to entirely cover the pavement surface where the pavement marking material is to be placed.

The pavement temperature and the ambient air temperature shall be at or above 32 °F (0 °C) at the time of installation of the pavement markings.

**780.09 Epoxy.** New portland cement concrete pavements shall be blast-cleaned to remove all laitents.

Markings shall be applied to the cleaned surface on the same calendar day. If this cannot be accomplished, the surface area shall be re-cleaned prior to applying the markings. No markings shall be placed until the Engineer approves the cleaning.

Widths, lengths, and shapes of the cleaned surface shall be of sufficient size to include the full area of the specified pavement marking to be placed or removed.

The cleaning operation shall be a continuous moving process with minimum interruption to any traffic.

The material shall be applied to the cleaned road surface at 20 mils  $\pm$  1 mil (0.51 mm  $\pm$  0.03 mm) in thickness, before the glass beads are applied. Glass beads shall be uniformly applied by means of a double drop pressurized bead applicator system. The system shall apply both the first drop glass beads and the second drop glass beads at a rate of 10 lb/gal (1.2 kg/L). Epoxy pavement marking shall be applied only when the air and surface temperatures are a minimum of 35 °F (2 °C) and rising. Where epoxy markings cannot be placed according to these specifications and the road is open to traffic with no adequate pavement markings in place, the Contractor shall place temporary pavement markings according to Article 703.05.

Lane lines shall be applied within four calendar days after removal of any existing lane lines.

**780.10 Polyurea.** There are two types of reflective media for polyurea pavement marking. Polyurea Pavement Marking Type I uses glass beads as a reflective media. Polyurea Pavement Marking, Type II uses a combination of composite reflective elements and glass beads as a reflective media.

New portland cement concrete pavements shall be blast-cleaned to remove all latents.

Markings shall be applied to the cleaned surfaces on the same calendar day. If this cannot be accomplished, the surface shall be re-cleaned prior to applying the markings. No markings shall be applied until the Engineer approves the cleaning.

Widths, lengths, and shapes of the cleaned surface shall be sufficient size to include the full area of the specified pavement marking to be placed.

The cleaning operation shall be a continuous moving operation process with minimum interruption to traffic.

The Contractor shall notify the Engineer 72 hours prior to the placement of the markings in order that he/she can be present during the operation. At the time of notification, the Contractor shall provide the Engineer the manufacturer and lot numbers of polyurea and reflective media that will be used.

The pavement markings shall be applied to the cleaned road surface, during conditions of dry weather and subsequently dry pavement surfaces at a minimum uniform wet thickness of 15 mils (0.4 mm) according to the manufacturer's installation instructions. On new HMA surfaces the pavement markings shall be applied at a minimum uniform wet thickness of 20 mils (0.5 mm). The application of and combination of reflective media (glass beads and/or reflective elements) shall be applied at a rate specified by the manufacturer. At the time of installation the pavement surface temperature and the ambient temperature shall be above 40 °F (4 °C) and rising. The polyurea pavement markings shall not be applied if the pavement shows any visible signs of moisture or it is anticipated that damage causing moisture, such as rain showers, may occur during the installation and set periods. The Engineer will determine the atmospheric conditions and pavement surface conditions that produce satisfactory results.

Using the application equipment, the pavement markings shall be applied in the following manner as a simultaneous operation.

- (a) The surface shall be air-blasted to remove any dirt and residue.
- (b) The resin shall be mixed and heated according to the manufacturer's recommendations and sprayed onto the pavement surface.

**780.11 Modified Urethane.** New portland cement concrete pavements shall be blast-cleaned to remove all curing compounds. New bituminous surfaces shall be in place a minimum of two weeks prior to marking applications.

Markings shall be applied on the same calendar day that the pavement surface is cleaned. If this cannot be accomplished, the surface shall be re-cleaned prior to applying the markings. Existing pavement markings shall be at least 90 percent removed. No markings shall be applied until the Engineer approves the cleaning.

Widths, lengths, and shapes of the cleaned surface shall be prepared wider than the modified urethane pavement marking material to be applied, such that a prepared area is on all sides of the urethane pavement marking material after application.

The Contractor shall notify the Engineer 72 hours prior to the placement of the markings in order that an inspector can be present during the operation. At the time of this notification, the Contractor shall indicate the manufacturer and lot numbers of urethane and reflective media that will be used. The Engineer will ensure that the approved lot numbers appear on the material package.

The pavement markings shall be applied during conditions of dry weather and subsequently dry pavement surfaces at a minimum uniform wet thickness of 25 mils (0.64 mm) according to the manufacturer's installation instructions. The application and combination of reflective media (glass beads and/or reflective elements) shall be applied at a rate specified by the manufacturer. At the time of installation the pavement surface temperature shall be 40 °F (5 °C) and rising and the ambient temperature shall be 35 °F (2 °C) and rising. The pavement surface temperature and the ambient temperatures shall be determined and documented before the start of each marking operation. The modified urethane pavement markings shall not be applied if the pavement shows any visible signs of moisture or it is anticipated that moisture, such as rain showers, may occur during the installation and curing periods.

**780.12 Inspection.** The epoxy, thermoplastic, preformed thermoplastic, preformed plastic Type B or C, polyurea, and modified urethane pavement markings will be inspected following installation, but no later than October 15 for preformed plastic markings, November 1 for thermoplastic and preformed thermoplastic markings, and December 15 for epoxy, polyurea, and modified urethane markings. In addition, they will be inspected following a winter performance period that extends 180 days from November 1.

Within 15 calendar days after the end of the winter performance period, a final performance inspection will be made. Final acceptance requirements are as follows.

- (a) Lane lines: 90 percent intact by area of each individual dashed line segment.
- (b) Crosswalks, stop lines, arrows, and words: 90 percent intact by area of each individual line, symbol, or letter.
- (c) Center lines, edge lines, gore markings, and channelizing lines: 90 percent intact by area measured over any 10 ft (3 m) length of any individual line regardless of width.
- (d) Entire project: measured in its entirety according to (a), (b), and (c) above, the entire project shall be 95 percent intact.

Upon completion of the final performance inspection, or after satisfactory completion of any necessary correction, the Engineer will notify the Contractor, in writing, of the date of such final performance inspection and release him/her from further performance responsibility.

If this inspection discloses any work, in whole or in part, which does not meet the inspection requirements, the Contractor shall, within 30 calendar days, completely repair or replace such work to the satisfaction of the Engineer.

This performance inspection and performance acceptance of the epoxy, thermoplastic, preformed thermoplastic, preformed plastic Type B and C, polyurea, and modified urethane markings shall not delay acceptance of the entire project and final payment due if the Contractor requires and receives from the subcontractor a third party "performance" bond naming the Department as obligee in the full amount of all pavement marking quantities listed in the contract, multiplied by the contract unit price. The bond shall be executed prior to acceptance and final payment of the non-pavement marking items and shall be in full force and effect until final performance inspection and performance acceptance of the epoxy, thermoplastic, preformed thermoplastic, preformed plastic, polyurea, and modified urethane pavement markings. Execution of the third party bond shall be the option of the Contractor.

**780.13 Method of Measurement.** This work will be measured for payment as follows.

- (a) Contract Quantities. The requirements for the use of contract quantities shall be according to Article 202.07(a).
- (b) Measured Quantities. Lines will be measured for payment in place in feet (meters). Double yellow lines will be measured as two separate lines.

Words and symbols shall conform to the sizes and dimensions specified in the MUTCD and Standard 780001 and will be measured based on the total areas indicated in Table 1 or as specified on the plans.

Removal of existing pavement markings will be measured for payment according to Article 783.05.

**780.14 Basis of Payment.** This work will be paid for at the contract unit prices per foot (meter) of applied line width, as specified, for THERMOPLASTIC PAVEMENT MARKING - LINE; PAINT PAVEMENT MARKING - LINE; EPOXY PAVEMENT MARKING - LINE; PREFORMED PLASTIC PAVEMENT MARKING - LINE - TYPE B, C, or B - INLAID; PREFORMED THERMOPLASTIC PAVEMENT MARKING - LINE; POLYUREA PAVEMENT MARKING TYPE I - LINE; POLYUREA PAVEMENT MARKING TYPE II - LINE; MODIFIED URETHANE PAVEMENT MARKING - LINE; and/or per square foot (square meter) for THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS; PAINT PAVEMENT MARKING - LETTERS AND SYMBOLS; EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS; PREFORMED PLASTIC PAVEMENT MARKING - TYPE B, C, or B - INLAID - LETTERS AND SYMBOLS; PREFORMED THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS; MODIFIED URETHANE PAVEMENT MARKING - LETTERS AND SYMBOLS; POLYUREA PAVEMENT MARKING TYPE I - LETTERS AND SYMBOLS; POLYUREA PAVEMENT MARKING TYPE II - LETTERS AND SYMBOLS.

When the Contractor has the option of applying Permanent Pavement Marking it shall be Thermoplastic, Preformed Plastic (Type B, C, or B - Inlaid), Epoxy, Preformed Thermoplastic, Polyurea, or Modified Urethane Pavement Markings. It will be paid for at the contract unit price per foot (meter) of applied line for PERMANENT PAVEMENT MARKING - LINE 4 (100), 5 (125), 6 (150), 8 (200), 12 (300), 16 (400), or 24 in. (600 mm) and per square foot (square meter) for PERMANENT PAVEMENT MARKING - LETTERS AND SYMBOLS.



Temporary pavement markings placed in lieu of permanent will be paid for according to Article 703.07.

Removal of existing pavement markings will be paid for according to Article 783.06.

\*TABLE 1

LETTERS  
sq ft (sq m)

| Size            | A             | B             | C             | D             | E             | F             | G             | H             | I             |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 6 ft<br>(1.8 m) | 3.1<br>(0.28) | 4.0<br>(0.37) | 2.7<br>(0.25) | 3.4<br>(0.31) | 3.3<br>(0.31) | 2.6<br>(0.24) | 3.3<br>(0.31) | 3.4<br>(0.31) | 1.5<br>(0.14) |
| 8 ft<br>(2.4 m) | 5.5<br>(0.51) | 7.1<br>(0.66) | 4.8<br>(0.45) | 6.1<br>(0.57) | 5.9<br>(0.55) | 4.7<br>(0.44) | 5.8<br>(0.54) | 6.0<br>(0.56) | 2.6<br>(0.24) |

| Size            | J             | K             | L             | M             | N             | O             | P             | Q             | R             |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 6 ft<br>(1.8 m) | 2.1<br>(0.2)  | 3.1<br>(0.28) | 2.2<br>(0.20) | 4.2<br>(0.39) | 4.0<br>(0.37) | 3.4<br>(0.31) | 3.0<br>(0.28) | 3.6<br>(0.33) | 3.6<br>(0.33) |
| 8 ft<br>(2.4 m) | 3.7<br>(0.34) | 5.7<br>(0.53) | 3.8<br>(0.45) | 7.4<br>(0.69) | 7.1<br>(0.65) | 6.0<br>(0.56) | 5.3<br>(0.49) | 6.3<br>(0.59) | 6.3<br>(0.59) |

| Size            | S             | T             | U             | V             | W             | X             | Y             | Z             |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 6 ft<br>(1.8 m) | 3.2<br>(0.30) | 2.2<br>(0.20) | 3.2<br>(0.30) | 2.7<br>(0.25) | 4.2<br>(0.39) | 2.7<br>(0.25) | 2.2<br>(0.20) | 2.9<br>(0.26) |
| 8 ft<br>(2.4 m) | 5.7<br>(0.53) | 3.8<br>(0.35) | 5.6<br>(0.52) | 4.8<br>(0.45) | 7.3<br>(0.68) | 4.8<br>(0.45) | 3.9<br>(0.36) | 5.1<br>(0.47) |

NUMBERS  
sq ft (sq m)

| Size            | 1             | 2             | 3             | 4             | 5             |
|-----------------|---------------|---------------|---------------|---------------|---------------|
| 6 ft<br>(1.8 m) | 1.5<br>(0.14) | 3.3<br>(0.31) | 3.3<br>(0.31) | 2.9<br>(0.26) | 3.5<br>(0.33) |
| 8 ft<br>(2.4 m) | 2.6<br>(0.24) | 5.8<br>(0.54) | 5.8<br>(0.54) | 5.1<br>(0.47) | 6.1<br>(0.57) |

| Size            | 6             | 7             | 8             | 9             | 0             |
|-----------------|---------------|---------------|---------------|---------------|---------------|
| 6 ft<br>(1.8 m) | 3.5<br>(0.33) | 2.2<br>(0.20) | 3.8<br>(0.35) | 3.5<br>(0.33) | 3.4<br>(0.31) |
| 8 ft<br>(2.4 m) | 6.2<br>(0.58) | 3.8<br>(0.35) | 6.7<br>(0.62) | 6.2<br>(0.58) | 6.0<br>(0.56) |

| SYMBOLS  |                            |                            |
|--|----------------------------|----------------------------|
| Symbol   | Large Size<br>sq ft (sq m) | Small Size<br>sq ft (sq m) |
| Through Arrow                                      | 11.5 (1.07)                | 6.5 (0.60)                 |
| Left or Right Arrow                                | 15.6 (1.47)                | 8.8 (0.82)                 |
| 2 Arrow Combination<br>Left (or Right) and Through | 26.0 (2.42)                | 14.7 (1.37)                |
| 3 Arrow Combination<br>Left, Right, and Through    | 38.4 (3.56)                | 20.9 (1.94)                |
| Lane Drop Arrow                                    | 41.5 (3.86)                | --                         |
| Wrong Way Arrow                                    | 24.3 (2.26)                | --                         |
| Railroad "R" 6 ft (1.8 m)                          | 3.6 (0.33)                 | --                         |
| Railroad "X" 20 ft (6.1 m)                         | 54.0 (5.02)                | --                         |
| International Symbol of<br>Accessibility           | 3.1 (0.29)                 | --                         |
| Bike Symbol  | 4.7 (0.44)                 | --                         |
| Shared Lane Symbol                                 | 8.0 (0.74)                 |                            |

\*Table applies to all types of pavement marking materials.

**SECTION 781. RAISED REFLECTIVE PAVEMENT MARKERS**

**781.01 Description.** This work shall consist of placing permanent and/or temporary raised reflective pavement markers or replacing the reflective element in a raised reflective pavement marker.

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

| Item   | Article/Section |
|--|-----------------|
| (a) Raised Reflective Pavement Markers .....           | 1096.01         |
| (b) Temporary Raised Reflective Pavement Markers ..... | 1096.02         |

**CONSTRUCTION REQUIREMENTS**

**781.03 General.** The reflector may be attached to the casting prior to or after the placement of the markers. The depression in the web shall be clean and dry. The reflector shall be laminated to an elastomeric pad and adhesively attached to the casting. The protective paper or plastic film covering the adhesive pad shall be removed immediately prior to placing the reflector on the casting. Once the film covering is removed, extreme care shall be taken to avoid contamination of the exposed pad surface. An adhesive meeting the marker manufacturer's specifications shall be used. The adhesive shall be placed either on the reflector or on the web in sufficient quantity so as to ensure complete coverage of the contact area with no voids present and with a slight excess after the reflector is pressed in place.

**SECTION 408. INCIDENTAL HOT-MIX ASPHALT SURFACING**

**408.01 Description.** This work shall consist of constructing a hot-mix asphalt (HMA) surface on a prepared base.

**408.02 Materials.** Materials shall be according to Article 406.02. Mixture composition IL-9.5 or IL-9.5FG, C or D, shall be used.

**CONSTRUCTION REQUIREMENTS**

**408.03 General.** The base shall be prepared according to Section 358.

Where incidental HMA surfacing will be subject to vehicular traffic, the base shall be primed or tacked according to Article 406.05(b).

The HMA may be spread and finished by approved hand methods or a spreading and finishing machine approved by the Engineer.

The HMA which will be subjected to vehicular traffic shall be compacted to the satisfaction of the Engineer with a tandem roller or vibratory roller. The HMA not subjected to traffic shall be compacted to the satisfaction of the Engineer.

**408.04 Method of Measurement.** Bituminous material for prime or tack will be measured for payment according to Article 406.13.

Incidental HMA surfacing will be measured for payment in tons (metric tons) according to Article 406.13. Aprons placed with extendible screeds during mainline paving will be considered an integral part of the mainline paving and will not be measured for payment as incidental HMA surfacing.

Preparation of base will be measured according to Article 358.06.

**408.05 Basis of Payment.** This work will be paid for at the contract unit price per pound (kilogram) of residual asphalt applied for BITUMINOUS MATERIALS (PRIME COAT), BITUMINOUS MATERIALS (TACK COAT), or POLYMERIZED BITUMINOUS MATERIALS (TACK COAT) and at the contract unit price per ton (metric ton) for INCIDENTAL HOT-MIX ASPHALT SURFACING.

Preparation of base will be paid for according to Article 358.07.



Removal of Existing Pavement and Appurtenances Art. 440.02

Detectable warnings will be measured for payment in place and the area computed in square feet (square meters).

Earth excavation will be measured for payment according to Article 202.07.

**424.13 Basis of Payment.** This work will be paid for at the contract unit price per square foot (square meter) for PORTLAND CEMENT CONCRETE SIDEWALK, of the thickness specified.

Detectable warnings will be paid for at the contract unit price per square foot (square meter) for DETECTABLE WARNINGS.

Earth excavation will be paid for according to Article 202.08.

**PAVEMENT REHABILITATION**

**SECTION 440. REMOVAL OF EXISTING PAVEMENT AND APPURTENANCES**

**440.01 Description.** This work shall consist of the complete removal of existing pavement, paved shoulders, driveway pavement, median, curb, gutter, combination curb and gutter, paved ditch, and sidewalk; the partial depth removal of concrete medians; and the removal of hot-mix asphalt (HMA) surfaces in preparation for subsequent resurfacing.

Pavement removal shall be defined as portland cement concrete or HMA pavement and shall include portland cement concrete or HMA bases, overlays, and stabilized subbase.

Paved shoulder removal shall be defined as portland cement concrete or HMA shoulders.

Gutter removal and combination curb and gutter removal shall include the complete removal of all inlets, outlets, and entrances contained within the limits of removal. The removal of outlets shall include the entire discharge trough and end curtain wall for trough type outlets and the concrete box and outlet pipe for drop box type outlets.

Paved ditch removal shall include the complete removal of all anchor walls and cut-off walls that are contained within the limits of removal.

**440.02 Equipment.** Equipment shall be according to the following.

| Item                                     | Article/Section |
|--|-----------------|
| (a) Self-Propelled Milling Machine ..... | 1101.16         |

**CONSTRUCTION REQUIREMENTS**



Art. 440.03 Removal of Existing Pavement and Appurtenances

**440.03 General.** All existing pavement, including surface courses, base courses, and stabilized subbases, and other appurtenances as listed above, which interfere with construction work shall be completely removed as shown on the plans or as directed by the Engineer.

When portions of existing pavement and appurtenances are to remain in place, provisions shall be made for satisfactory transitions between replacements and the portions remaining in place. A full depth, perpendicular, straight joint shall be sawn at the ends and all edges of portions to be removed. Any damage done to the existing pavement or appurtenance to remain in place shall be repaired or removed and replaced as directed by the Engineer.

The thickness of the existing pavement to be removed, including overlays and other appurtenances, will be shown on the plans.

Gutter removal shall include the complete removal of all inlets, outlets and entrances that are contained within the limits of the designated removal. The removal of outlets shall include the entire discharge trough and end curtain wall for trough type outlets and the concrete box and outlet pipe for drop box type outlets.

Paved ditch removal shall include the complete removal of all anchor walls and cut-off walls that are contained within the limits of the designated removal.

Any excavation made by the Contractor for the removal shall be replaced. The excavated space shall be filled with material satisfactory to the Engineer and placed according to Section 205 at no additional cost to the Department.

**440.04 HMA Surface Removal for Subsequent Resurfacing.** The existing HMA surface shall be removed to the depth specified on the plans with a self-propelled milling machine. The temperature at which the work is performed, the nature and condition of the equipment, and the manner of performing the work shall be such that the milled surface is not torn, gouged, shoved or otherwise damaged by the milling operation. Sufficient cutting passes shall be made so that all irregularities or high spots are eliminated to the satisfaction of the Engineer. When tested with a 16 ft (5 m) straightedge, the milled surface shall have no surface variations in excess of 3/16 in. (5 mm).

Removing the existing HMA surface to the required depth adjacent to structures in the pavement surface such as drain castings and utility covers shall be accomplished in a manner satisfactory to the Engineer using either machine or hand methods. Castings for existing utility or drainage structures within the pavement which are exposed to traffic after the pavement has been milled shall be protected according to Article 603.07.

Milled pavement shall be resurfaced within ten calendar days.

**440.05 Median Removal Partial Depth.** The portland cement concrete median shall be removed to the depth specified with a self-propelled milling machine.

**440.06 Disposal of Material.** Materials resulting from the removal of existing pavement and appurtenances as herein specified shall be disposed of according to Article 202.03.

**440.07 Method of Measurement.** This work will be measured for payment as follows.

- (a) Contract Quantities. The requirement for use of contract quantities shall be according to Article 202.07(a).
- (b) Measured Quantities. Pavement removal, driveway pavement removal, and paved shoulder removal will be measured for payment in place and the area computed in square yards (square meters).

HMA surface removal for subsequent resurfacing will be measured for payment in place and the area computed in square yards (square meters) for each specified increment thickness of material removed.

Curb removal, gutter removal, combination curb and gutter removal and paved ditch removal will be measured for payment in feet (meters). The measurement for curb removal and combination curb and gutter removal will be made along the face of the curb. The measurement for gutter removal and paved ditch removal will be made along the flow line.

Sidewalk removal, median removal and median removal partial depth will be measured for payment in place and the area computed in square feet (square meters).

Removal of any of the items listed above outside the designated limits as shown on the plans or as directed by the Engineer will not be measured for payment.

- (c) Adjustment of Quantities. The quantity of pavement removal and paved shoulder removal will be adjusted if their respective thickness varies more than 15 percent from that shown on the plans. The quantity will be either increased or decreased according to the following table.

| % change of thickness | % change of quantity |
|-----------------------|----------------------|
| 0 to less than 15     | 0                    |
| 15 to less than 20    | 10                   |
| 20 to less than 30    | 15                   |
| 30 to less than 50    | 20                   |

If the thickness of the existing pavement varies by 50 percent or more from that shown on the plans, the character of the work will be considered significantly changed and an adjustment to the contract will be made according to Article 104.02.

When an adjustment is made for variations in pavement or shoulder thickness, a resulting adjustment will also be made in the earthwork quantities when applicable.

No adjustment will be made for variations in the amount of reinforcement.

Art. 440.08 Hot-Mix Asphalt Pavement (Full-Depth) on Rubblized PCC

**440.08 Basis of Payment.** This work will be paid for at the contract unit price per square yard (square meter) for PAVEMENT REMOVAL, DRIVEWAY PAVEMENT REMOVAL and PAVED SHOULDER REMOVAL; at the contract unit price per square yard (square meter) for HOT-MIX ASPHALT SURFACE REMOVAL, of the thickness specified; at the contract unit price per foot (meter) for CURB REMOVAL, GUTTER REMOVAL, COMBINATION CURB AND GUTTER REMOVAL, and PAVED DITCH REMOVAL; and at the contract unit price per square foot (square meter) for SIDEWALK REMOVAL, MEDIAN REMOVAL and MEDIAN REMOVAL PARTIAL DEPTH.

**SECTION 441. HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH) ON RUBBLIZED PCC**

**441.01 Description.** This work shall consist of constructing hot-mix asphalt (HMA) pavement (full-depth) on a rubblized portland cement concrete (PCC) pavement.

**441.02 Materials.** Materials shall be according to Article 407.02, except as follows.

| Item                                | Article/Section |
|-------------------------------------|-----------------|
| (a) Coarse Aggregate (Note 1) ..... | 1004.01         |
| (b) Hot-Mix Asphalt (Note 2) .....  | 1030            |

Note 1. Coarse aggregate used for patching or to repair areas of the rubblized pavement shall be a Class D quality or better crushed stone, crushed concrete, or crushed gravel meeting a CA 6 or CA 10 gradation.

Note 2. HMA used for patching or to repair areas of the rubblized pavement shall be the same binder mixture used for the first lift of the HMA pavement.

**441.03 Equipment.** Equipment shall be according to the following.

| Item                                       | Article/Section |
|--|-----------------|
| (a) Vibratory Roller (Note 1) .....        | 1101.01         |
| (b) Pneumatic-Tired Rollers (Note 2) ..... | 1101.01         |
| (c) Z-Pattern Steel Grid Roller (Note 3)   |                 |
| (d) Multi-Head Breaker (Note 4)            |                 |
| (e) Resonant Breaker (Note 5)              |                 |

Note 1. The vibratory roller shall have two steel drums and a minimum gross weight of 10 tons (9 metric tons).

Note 2. The pneumatic-tired rollers shall develop a compression of not less than 300 lb/in. (50 N/mm), nor more than 500 lb/in. (90 N/mm), of width of the tire tread in surface contact.

Note 3. The Z-pattern steel grid roller shall consist of a self-contained, self-propelled vibratory steel wheel roller with a Z-pattern grid cladding mounted

## INSTALLATION OF PARKING SIGNS

**Description:** This work shall consist of the installation of handicapped parking signage, including supplying of all materials and incidentals.

**Materials:** The support poles shall be a 10' long, 1 ¾" Telspar pole with a 2" anchor. Signage shall include one (1) MUTCD R7-8P and eight (8) IDOT R7-8i101 signs.



IDOT R7-8i101



MUTCD R7-8P

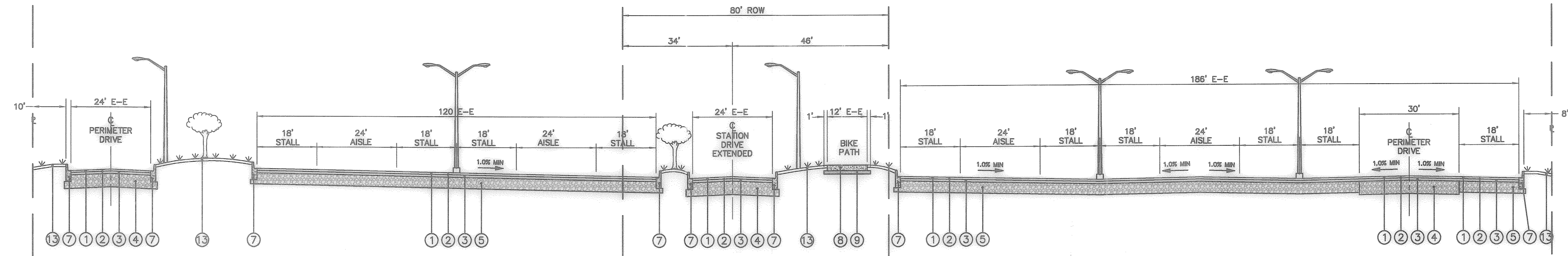
**Construction Requirements:** Installation of signs shall be in full compliance with MUTCD and Illinois Americans with Disabilities Act specifications and regulations.

**Basis of Payment:** this work will be paid for at the contract unit price lump sum for INSTALLATION OF PARKING SIGNS.



**APPENDIX C**

**EXHIBITS**

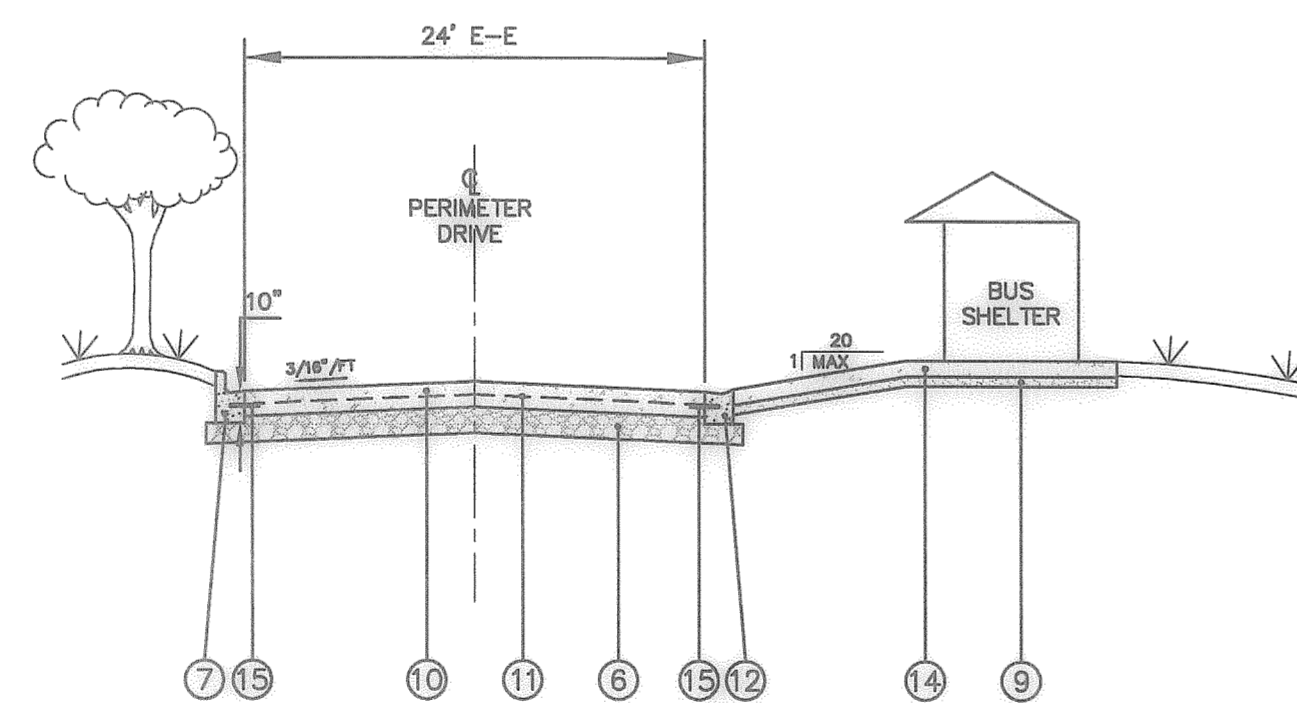


**PROPOSED PARKING LOT SECTION**

N.T.S.

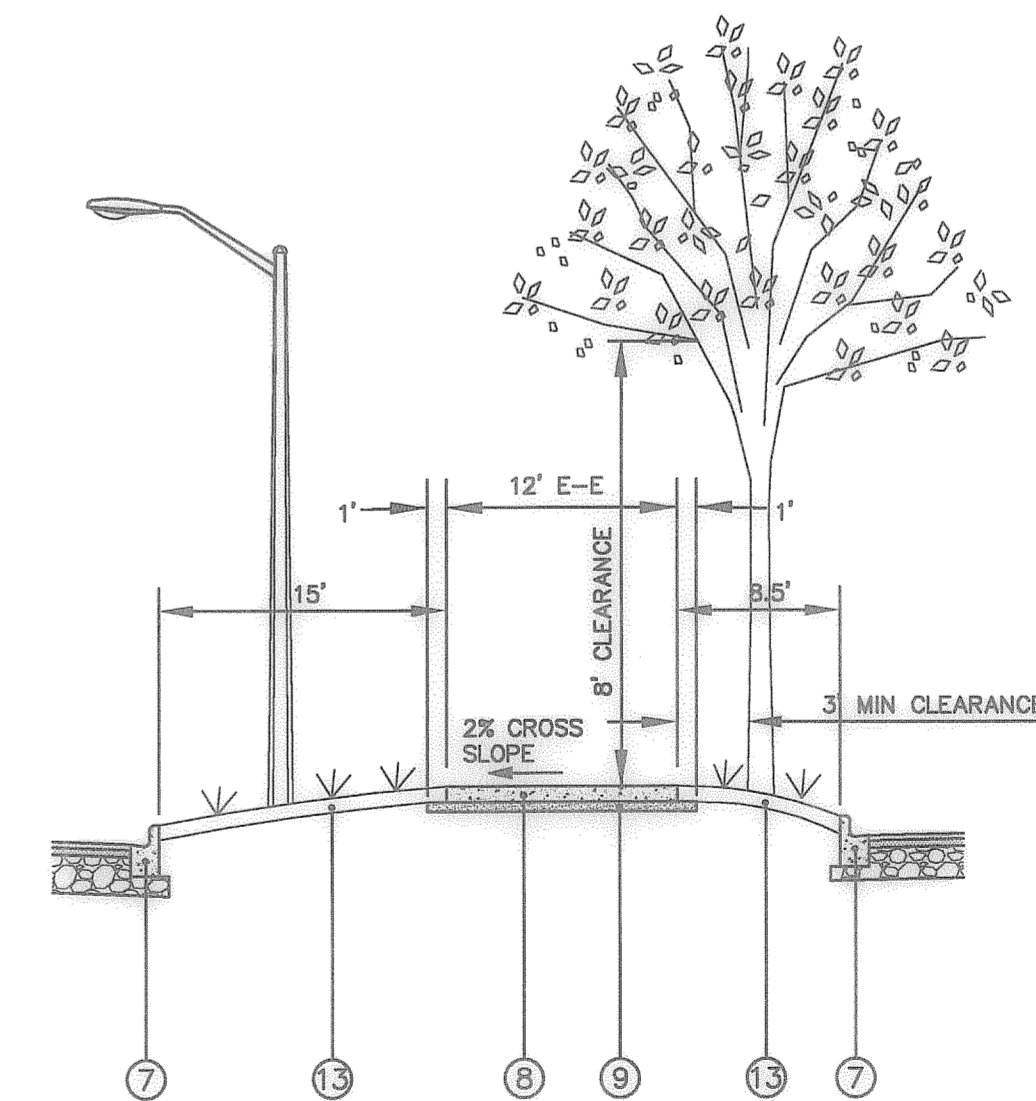
**LEGEND**

- |  |   |
|--|---|
| ① BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, IL-9.5, (LOW ESAL), 1 3/4"  | ⑧ PORTLAND CEMENT CONCRETE SIDEWALK, 5"   |
| ② BITUMINOUS MATERIALS (PRIME COAT)  | ⑨ AGGREGATE BASE COURSE, TYPE B, 3"   |
| ③ BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL-19.0L, (LOW ESAL), 2 1/4" | ⑩ PORTLAND CEMENT CONCRETE PAVEMENT, 8" (JOINTED)   |
| ④ AGGREGATE BASE COURSE, TYPE B, 12" (CA-6 CRUSHED)                          | ⑪ PAVEMENT FABRIC   |
| ⑤ AGGREGATE BASE COURSE, TYPE B, 10" (CA-6 CRUSHED)                          | ⑫ COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 (DEPRESSED)   |
| ⑥ AGGREGATE BASE COURSE, TYPE B, 8" (CA-6 CRUSHED)                           | ⑬ TOPSOIL, SEEDING CLASS 1 (MODIFIED) AND EROSION CONTROL BLANKET, SODDING, OR MULCH PER LANDSCAPE PLAN |
| ⑦ COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12                          | ⑭ PORTLAND CEMENT CONCRETE SIDEWALK, 6"   |
|  | ⑮ TIE BARS  |



**PROPOSED LOADING ZONE SECTION**

N.T.S.



**BIKE PATH DETAIL - THROUGH PARKING LOT AREA**

N.T.S.

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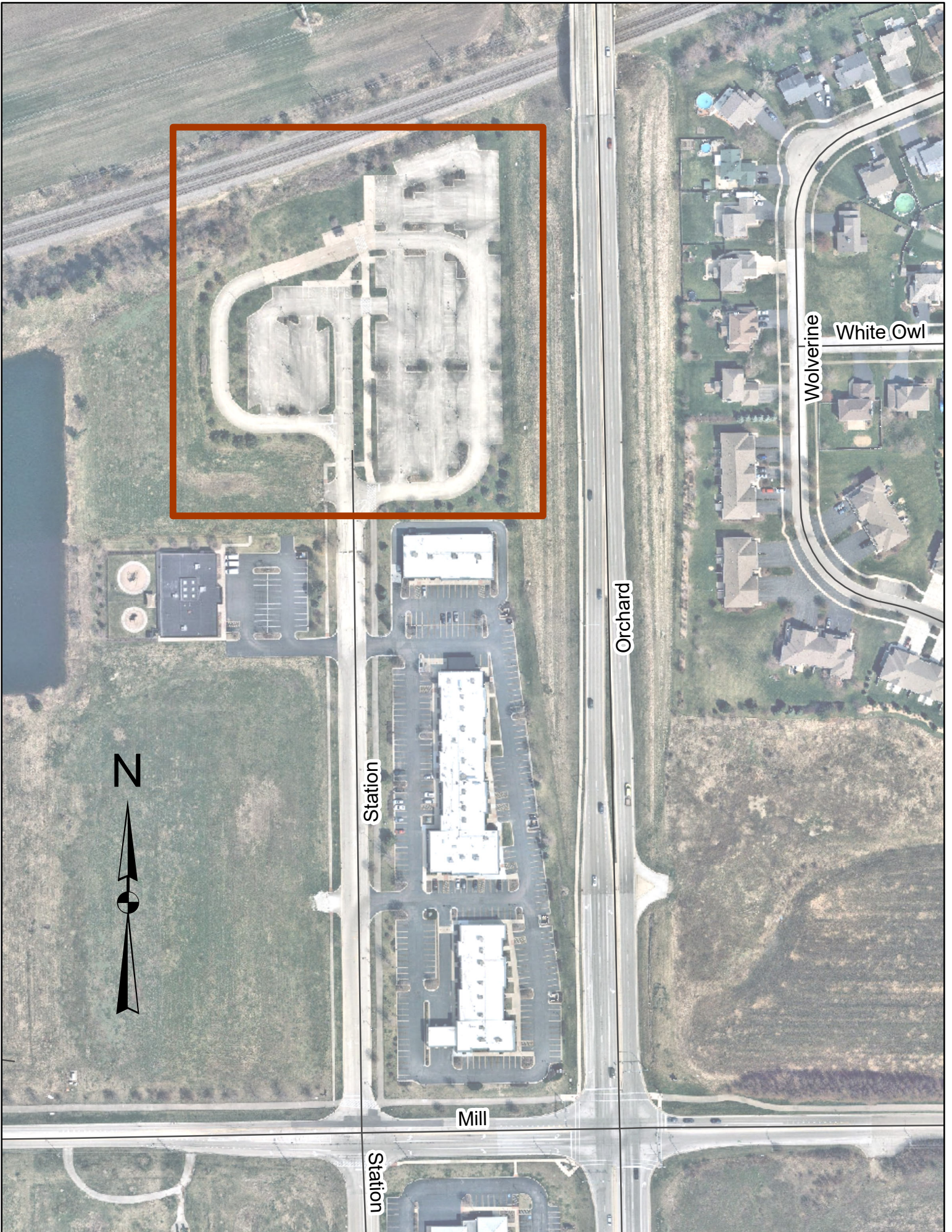
**Engineering Enterprises, Inc.**  
 Consulting Engineers  
 52 Wheeler Road  
 Sugar Grove, Illinois 60554

**Village of Oswego**  
 113 Main Street  
 Oswego, Illinois 60543

| NO. | DATE | REVISIONS |
|-----|------|-----------|
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|     |      |           |
|     |      |           |

**OSWEGO ORCHARD PARK AND RIDE**  
 VILLAGE OF OSWEGO  
 KENDALL COUNTY, ILLINOIS

**TYPICAL CROSS SECTION  
 PARKING LOT AND BIKE PATH**



Station

Mill

Station

Orchard

Wolverine

White Owl