



**CITY OF BANGOR  
REQUEST FOR PROPOSALS  
AS-NEEDED CONCRETE WORK IN PUBLIC RIGHT-OF-WAYS**

**December 10, 2024**

**CITY OF BANGOR  
REQUEST FOR PROPOSALS  
AS-NEEDED CONCRETE WORK**

It is the intent of the City of Bangor to receive bids for as-needed concrete work in designated areas in the City of Bangor.

Sealed proposals must be received by the City of Bangor, 257 W Monroe Street, Bangor, Michigan, 49013, Attn: Ms. Shelly Umbanhowar, City Clerk, by **11:00 a.m. local time, Tuesday, January 7, 2025**, at which time the proposals will be publicly opened and read aloud. Proposals must be submitted on the official proposal form attached. Sealed proposal envelopes must be clearly marked on the outside “2024 Concrete Bid”.

Copies of the Requests for Proposals (RFP) that contain the minimum specifications and official proposal forms are available at the City Clerk’s office at City Hall, 257 W Monroe Street, Bangor, Michigan, 49013 or online from the City’s Web site: <https://www.cityofbangormi.org/>.

Any questions regarding this RFP or the minimum specifications shall be directed to **Shelly Umbanhowar, Clerk at 269.427.5831**.

The City of Bangor reserves the right to reject any or all bids or any parts of the same, to waive any irregularities, and to accept any bid in its own best interest.

Justin Weber  
City Manager

**END OF SECTION**

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BANGOR, MICHIGAN  
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**December 10, 2024**

INSTRUCTIONS TO BIDDERS

1. **SPECIAL CONDITIONS:** Special conditions included in these Bid Documents shall take precedence over any provisions stipulated hereunder.
2. **APPLICABLE LAWS:** The revised code of the State of Michigan, Charter of the City of Bangor, and all city ordinances insofar as they apply to the laws of competitive bidding, contracts, and the purchases, are made a part hereof.
3. **WORKMEN'S COMPENSATION:** Insofar as Workmen's Compensation is concerned, the bidder of contractor agrees to furnish, upon request, certified copies of policies and adequate certificates pertaining thereto as evidence that bidder carries Workmen's Compensation Insurance.
4. **INFRINGEMENTS AND INDEMNIFICATIONS:** The bidder, if awarded an order or contract, agrees to protect, defend, and save the City harmless against any demand for payment for the use of any patented material, process, article, or device that may enter into the manufacture, construction, or form as part of the work covered by either order or contract. He/she further agrees to indemnify and save the City harmless from suits or actions of every nature and description brought against it, for or on account of any injuries or damages sustained by a party or parties, by or from any of the acts of the contractor, his/her servants, or agents.

To this extent the bidder or contractor agrees to furnish adequate Public Liability and Property Damage Insurance, the amounts of which will be determined by the City whenever such insurance is deemed necessary. When so required, the types and amounts of insurance to be provided will be set forth in these Bid Documents.

5. **DEFAULT PROVISIONS:** In case of default by the bidder or contractor, the City of Bangor may procure the articles of services from other sources and hold the bidder or contractor responsible for any excess costs occasioned thereby.

In case of an error by the bidder in making up a proposal, the City Manager may reject such a proposal upon presentation of a petition accompanied by a sworn affidavit of error which sets forth the error, the cause thereof and sufficient evidence to substantiate the claim.

6. **PRICING:** Prices should be stated in units of quantity specified in the Proposal Form, which is the last section of these Bid Documents. In case of discrepancy in computing the amount of the bid, the unit prices quoted will govern.
7. **QUANTITIES:** When estimated or approximate quantities are stated, the City reserves the right to increase or decrease the quantity as best fits its needs.

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8. **DELIVERY:** Quotations should include all charges for delivery, packing, crating, containers, etc. Unless otherwise stated by the bidder, prices quoted will be considered as being based on delivery to the destination designated in these Bid Documents and to include all delivery and packing charges.
9. **SPECIFICATIONS:** Unless otherwise stated by the bidder, the proposal will be considered as being in strict accordance with the specifications outlined in these Bid Documents.

References to a particular trade name, manufacturer's catalog, or model number are made for descriptive purposes to guide the bidder in interpreting the requirements of the City. They should not be construed as excluding proposals on other types of materials, equipment and supplies. However, the bidder, if awarded a contract, will be required to furnish the particular item referred to in the specifications or description unless a departure or substitution is clearly noted and described in the proposal.

10. **SAMPLES:** Samples, when requested, shall be filed prior to the opening of bids and must be furnished free of expense to the City and if not destroyed, will upon request be returned at the bidder's expense.
11. **TAXES:** Contractor shall include and be deemed to have included in his bid and contract price, Michigan State Sales and Use Taxes currently imposed by Legislative enactment and as administered by the Michigan Department Treasury, Revenue Division, on the bid date. If the Contractor is not required to pay or bear the burden, or obtains a refund or drawback in whole or in part of any Michigan Sales or Use Tax, interest or penalty thereon, which was required to be and was deemed to have been included in the bid and contract price, the contract price shall be reduced by the amount thereof and the amount of such reduction, whether as a refund or otherwise, shall endure solely to the benefit of the City of Bangor.
12. **BID INFORMALITIES AND REJECTION:** The City reserves the right to waive any nonconformity, irregularity or informalities in any bid, to negotiate with the selected bidder, and to award the bid in its determination of its best interest.
13. **AWARD:** Unless otherwise specified in these Bid Documents, the City reserves the right to accept or reject any item in the bid. Unless otherwise stated in these Bid Documents, bidders may submit proposals on any item or group of items, provided however that the unit prices are shown as requested.

As soon as the Award is made, an order or contract documents will be sent to the successful bidder for execution and bond if necessary. If the contracts are not executed and returned to the City of Bangor within 10 days of the date of sending, the Bid Surety, if required, will be declared forfeited as liquidated damages.

14. **PAYMENTS:** Partial payments may be made upon presentation of a properly executed claim voucher, unless otherwise stated in these Bid Documents. The final payment will be made by the City when the materials, supplies or equipment have been fully delivered and accepted, or the work completed to the full satisfaction of the City. A minimum 10% retainer may be held

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by the City pending satisfactory completion of the scope and/or expiration of the warranty period. **Increases in contract costs shall be preapproved in writing prior to excess expense being incurred. Approval of increases may require formal action by City Council.**

15. **BIDDER'S SIGNATURE:** Each proposal and bid surety form must be signed by the bidder with his usual signature. All signatures should be in full.

Bids by partnership must be signed by one or more of the partners in the following manner: "John Jones and James Smith, D.B.A., Smith Jones Company, by John Jones, a partner".

Bids by corporations must be signed with the names of the corporation, followed by the signature and designation of the president, vice-president or person authorized to bind it in the matter.

16. **SUBMISSION AND RECEIPT OF BIDS:**

- a) Proposals to receive consideration must be received prior to the specified time of opening and reading as designated in the invitation.
- b) *Bidder must use the bid document proposal forms furnished by the City as none other may be accepted.*
- c) *Proposal forms must be returned intact.*
- d) *Removal of any proposal forms thereof may invalidate the bid.*
- e) Specifications and plans referred to in these bid documents by reference only, need not be returned with the bid, however, no excision of material physically incorporated in these bid documents will be permitted.
- f) Bids are to be submitted in sealed envelopes and identified as requested in these bid documents.
- g) Separate proposal forms must be submitted on each reference number and proposals shall be typewritten or written in ink.
- h) Proposal forms having any erasures or corrections thereon may be rejected unless explained or noted over the signature of the bidder.

17. **INTERPRETATION OF BID AND/OR CONTRACT DOCUMENTS:** No oral interpretation will be made to any bidder as to the meaning of the bid and/or Contract documents or any part thereof. Every request for such an interpretation shall be made in writing to the City of Bangor. Any inquiry received within a reasonable time prior to the date fixed for the opening of bids will be given consideration. Every interpretation made to a bidder will be on file in the Clerk's office of the City of Bangor. All bidders shall be bound by such interpretations whether or not received by the bidders.

18. **CHANGES AND ADDENDA TO THESE BID DOCUMENTS:** Each change or addenda issued in relation to these bid documents will be on file in the Clerk's Office of the City of Bangor.

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It shall be the bidder's responsibility to make inquiry as to the changes or addenda issued. All such changes or addenda shall become part of the contract and all bidders shall be bound by such changes or addenda. Information on all changes or addenda issued will be available at the office of the City Clerk.

**IF BID SURETY IS REQUESTED ON THE PROPOSAL FORM, PLEASE OBSERVE THE FOLLOWING:**

19. **BID SURETY:** All Proposals must be accompanied by the bid bond, deposit of cash, certified check, bank cashier's or bank official's check, drawn on a solvent bank payable to the Treasurer of the City of Bangor in the amount determined by the City as stated in the Proposal Form, as a guarantee that if the bid is accepted a contract will be entered into.

The City will determine the sufficiency of the surety.

The bid bond should be executed by an authorized surety, guaranty, or trust company.

If corporate surety is given, the surety or guaranty company should indicate the bond in the State in which it is incorporated. A certificate of authority authorizing the "attorney-in-fact" to sign the bond, should accompany the Proposal Form unless the certificate is on file in the Office of the City Clerk.

The surety signature should be witnessed.

20. **PERFORMANCE SURETY:** The successful bidder may be required to furnish a bond or certified check on a solvent bank, payable to the Treasurer of the City of Bangor, in the amount stated in the Proposal Form as a guarantee for the faithful performance of the contract. At a minimum, a 10% retainer may be held by the City pending satisfactory completion of the scope and/or expiration of the warranty period.
21. **PROJECT COMPLETION:** All other concrete work and handicap approaches must be complete by December 1, 2025. \$200 per day will be assessed to the contractor for each day past this deadline.
22. **Illicit Discharge Elimination Plan & BMP Training:** The contractor must provide to the City documentation that each and every employee has received training with regards to identifying and reporting an illicit discharge, and that the contractor is following any and all storm water BMP's that cover the work the contractor is performing.
23. **INSURANCE REQUIREMENTS:** The Contractor will secure and maintain insurance during the term of the contract from an insurance company authorized to do business in the State of Michigan that will protect contractors and subcontractors and the City from all liability (public liability, personal injury and property damage) claims which may arise from operations under the contract. The Contractor may not start work until evidence of all required insurance has been submitted and approved by the City. The contractor must cease work if any of the required insurance is canceled or expires. Three (3) copies of Certificates of Insurance shall be submitted to be approved by the City prior to the execution of the contract. The certificates shall

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specifically name the City as an additional insured party. The certificates must contain the agreement of the insurance company notifying the City in writing ten (10) days prior to any cancellation or material alteration of the policy. The Contractor shall not allow any work under the contract to be performed by a subcontractor unless evidence of similar insurance covering the activities of the subcontractor is submitted to and approved by the City. The limits of insurance shall not be less than the following:

- A. Workers Compensation Insurance in the amount required by Michigan Law.
- B. General Liability:
  - Bodily Injury and Property Damage combined:
 

Each Occurrence	\$1,000,000.00
Aggregate	\$1,000,000.00
Personal Injury	\$1,000,000.00
- C. Automobile Insurance for Vehicles:
 

Bodily Injury Each Person	\$1,000,000.00
Bodily Injury Each Accident	\$1,000,000.00
Property Damage Each Accident	\$1,000,000.00

24. **REFERENCES:** Please list three (3) references (Municipal Government) wherein your company has provided Over Band Crack Sealing services of this type being proposed for the City of Bangor. Failure to list references may result in your company being disqualified.

MUNICIPALTY \_\_\_\_\_  
 ADDRESS \_\_\_\_\_  
 CONTACT PERSON \_\_\_\_\_  
 PHONE NUMBER \_\_\_\_\_  
 EMAIL \_\_\_\_\_

MUNICIPALTY \_\_\_\_\_  
 ADDRESS \_\_\_\_\_  
 CONTACT PERSON \_\_\_\_\_  
 PHONE NUMBER \_\_\_\_\_  
 EMAIL \_\_\_\_\_

MUNICIPALTY \_\_\_\_\_  
 ADDRESS \_\_\_\_\_  
 CONTACT PERSON \_\_\_\_\_  
 PHONE NUMBER \_\_\_\_\_  
 EMAIL \_\_\_\_\_

**END OF SECTION**

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**SCOPE OF SERVICES and TIMEFRAME**

The scopes of services which the successful bidder will be expected to perform are outlined below:

- A preconstruction meeting with City representatives is required prior to starting any work on this project.
- The contractor is required to remove, form, pour and reopen segments of sidewalk, curb and/or ADA accessible (handicap) approaches within one work week, which is defined as Monday through Friday. The contractor may not remove more concrete than can be poured and opened within the same week.
- The contractor will be responsible for the removal and disposal of all concrete, asphalt, slag, stone and various fill material for the installation of approximately 500 linear feet of curb, 1,600 square feet of sidewalk and four (4) ADA accessible (handicap) approaches in the City of Bangor. The City reserves the right for first refusal of all material. All material must be disposed of at an approved land fill.
- The contractor is required to remove, form, pour and reopen segments of sidewalk, curb and/or ADA accessible (handicap) approaches within one work week, which is defined as Monday through Friday. The contractor may not remove more concrete than can be poured and opened within the same week.
- Removal of all forms, excess concrete and materials, leaving the area clean and ready for topsoil if necessary. The City will be placing topsoil and seed.
- Sidewalks in areas of driveways shall be placed a minimum of six (6) inches in depth. All other sidewalks to be placed a minimum of four (4) inches in depth. Concrete driveways to be placed at a minimum thickness of six (6) inches.
- Any concrete found not to be at the proper thickness shall be removed and replaced by the successful bidder to the proper thickness at no charge to the City.
- The successful bidder shall provide all necessary lighted barricades. Any missing concrete or tripping hazards must be protected by lighted barricades. All freshly poured concrete must be protected and barricaded.
- All traffic control and devices shall comply with the Manual on Uniform Traffic Control Devices, Current Edition. Traffic control shall be in place before construction begins and not removed until clean up is complete. All such devices are the responsibility of the contractor.
- The successful bidder will be required to complete all work, labor, material and any additions in the scope of this RFP on or before December 1, 2025 or \$200.00 per day will be assessed to the contractor for each day past this deadline.



# DEPARTMENT OF PUBLIC WORKS

## SPECIFICATIONS FOR CONCRETE SIDEWALK AND CONCRETE CURB

### SECTION 02523 – CONCRETE WALKS AND DRIVEWAY APPROACHES

#### PART 1 - GENERAL

##### 1.1 SUMMARY

- A. This Section includes the furnishing and installation of concrete walks.

##### 1.2 REFERENCES

- A. Except as herein specified or as indicated on the drawings, the work of this Section shall comply with the following:
  - 1. ASTM Standard Specifications:
    - a. A185 - Steel Welded Wire Reinforcement, Plain, for Concrete
    - b. C260 - Air-Entraining Admixtures for Concrete
    - c. C309 - Liquid Membrane-Forming Compounds for Curing Concrete
    - d. D1751 - Preformed Expansion Joint Fillers for Concrete Paving and Structural Construction (Non-extruding and Resilient Bituminous Types)
  - 2. MDOT:
    - a. 2003 Standard Specifications for Construction
    - b. Standard Plan R-28 and R-29
  - 3. Americans with Disabilities Act (ADA)

#### PART 2 - PRODUCTS

##### 2.1 MATERIALS

- A. Concrete:
  - 1. In accordance with MDOT 601 and 701 Grade P1 or S2.
    - a. Aggregates: Crushed limestone for all exterior walks
    - b. Air Content: 5% to 8%, ASTM C260
- B. Fillers:
  - 1. Provide fillers where indicated or specified
  - 2. Fiber Joint Filler: MDOT 914
- C. Curing Compound: White membrane type in accordance with MDOT 903
- D. Sand Cushions and Sand Fill: In accordance with City of Bangor's ROW permit and current MDOT standards, whichever is stricter.

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### E. Detectable Warning Ramps:

1. By East Jordan Ironworks or equal if approved by the Director of Public Works.
2. 24-inch by 24-inch and 12-inch by 24-inch cast iron detectable warning plates with black asphalt dip finish.
3. Each ramp shall have a total continuous surface area consisting of three plates for a total size of 2-feet by 5 feet.
4. In accordance with Americans with Disabilities Act (ADA).

## PART 3 - EXECUTION

### 3.1 EARTHWORK

- A. Earthwork required for the performance of the work of this Section shall be performed in accordance with The City of Bangor's ROW permit or MDOT standards, whichever is stricter.

### 3.2 INSTALLATION

#### A. Weather and Temperature Limitations:

1. Do not place concrete unless the temperature of the air away from artificial heat is at least 25 degrees F and rising.
2. Do not place concrete if portions of the base, sub-base, or sub-grade layer are frozen, or if the grade exhibits poor stability from excessive moisture levels.
3. Do not place concrete when the temperature of the plastic concrete at the point of placement is above 90 degrees F.

#### B. Preparation of Base:

1. Excavate to the required depth and to a width that will permit forming.
2. Remove unsuitable material below the required depth and replace with sound earth.
3. Shape and compact the base to conform to the depth of forms.

#### C. Forms:

1. Use fixed forms or slip forms.
2. Provide straight, full depth forms free of warp and strong enough to resist springing during concrete placement.
3. Firmly stake fixed forms.

#### D. Placing and Finishing Concrete:

1. Moisten base before placing concrete.
2. Place concrete and consolidate, including along the faces of the forms, before finishing.
3. Place and finish in a continuous operation.
4. When replacing gutters along with concrete walk ramps, construct the gutter to the same dimensions and profile and use the same reinforcement pattern as the existing gutter.
5. Float the surface just enough to produce a smooth surface free from irregularities.
6. Round edges and joints with an approved finishing tool.
7. Broom finish concrete walks and ramps by drawing a fine-hair broom across the concrete surface, perpendicular to the line of traffic. Repeat operation if required to provide a fine line texture acceptable to the City.

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### E. Joints:

1. Provide transverse and longitudinal expansion joints as herein specified, at intervals not to exceed 30 feet.
2. Provide transverse and longitudinal control joints not over 6 feet on centers except where indicated on the drawings.
3. Align transverse joints with like joints in adjacent slabs.
4. Construct joints with faces perpendicular to the surface of the concrete walk and not more than  $\frac{1}{4}$  inch from the position indicated on the drawings.
5. Construct transverse joints at right angles to the centerline of the concrete walk and longitudinal joints parallel to the centerline.
6. Thoroughly spade or vibrate and compact the concrete to fill voids at the faces of all joints.
7. Cut control joints  $\frac{1}{4}$  to  $\frac{1}{3}$  the thickness of the concrete walk and  $\frac{1}{8}$  inch to  $\frac{1}{4}$ -inch wide. Finish the cut joint smooth and true to line.
8. Extend expansion joint filler the full depth of the joint with the top slightly below the finished grade of the concrete walk.
9. Do not seal the joints.
10. Provide expansion joints between abutting walks, buildings and walks, walls, curbs and driveways unless otherwise indicated on the drawings.

### F. Thickness:

1. Except as otherwise specified or indicated on the drawings, provide a minimum thickness of 4 inches.
2. Where walkways cross driveways, sidewalk ramps provide a minimum thickness of 6 inches.

### G. Ramps:

1. As indicated in ROW permit.
2. Press detectable plates into fresh concrete to form detectable warnings on ramp surface.

### H. Backfilling:

1. After the concrete has gained sufficient strength, remove fixed forms and backfill with sound earth.
2. Compact and level the backfill 1-inch below the surface of the concrete.

## 3.3 CURING

### A. General:

1. After texturing operations have been completed and after the free water has left the surface, coat the concrete walk surface and sides of slip-formed concrete walks with a uniform layer of membrane curing compound.
2. Apply one coat of curing compound on non-grooved surfaces and two coats on grooved surfaces.
3. Apply not less than one gallon per 25 square yards of concrete for each application.
4. Apply the second coat after the first has dried sufficiently but do not exceed two hours between coats.
5. Keep the compound thoroughly mixed according to the manufacturer's recommendations.
6. Do not thin curing compound.
7. Reapply curing compound immediately to surfaces damaged by rain, joint sawing, foot traffic or other activities.
8. If fixed forms are removed during the curing period, coat the entire area of the sides of the concrete walk with curing compound immediately after removal of forms.

## **DEPARTMENT OF PUBLIC WORKS**

- B. These requirements are minimum requirements only. Repair or replacement of concrete showing damage due to inadequate curing is required. All costs associated with this corrective work will be borne by the Contractor.

### **3.4 PROTECTION**

- A. Protect the walks from damage until acceptance of the work.
- B. Protect the concrete from freezing until the concrete has attained a compressive strength of at least 1000 psi.
- C. Maintain walks as clean as practical by removing surface stains and spillage of materials as they occur.
- D. Sweep concrete walks and wash free of stains, discolorations, dirt and other foreign material just prior to final inspection.

### **3.5 DEFECTIVE WORK**

- A. The following list of deficiencies shall be considered defective work and shall be replaced by the Contractor at no cost to the owner:
  - 1. Difference in elevation between panels of 1/4-inch or greater.
  - 2. Cracks of any lengths that are 1/8-inch wide or wider.
  - 3. Surface spalling covering in excess of 20% of the area of any 1 panel.
  - 4. A hole that is 1/2 inch or greater in depth and 2 inches or greater in diameter.
  - 5. Residual splatter that is 1/4- inch or higher and attached to a panel.
  - 6. Elevation difference of 3/4 inch in 10 feet caused by settling that has not caused an elevation difference between panels.
  - 7. Multiple hairline cracking.
  - 8. Footprints, bike tire tracks, animal tracks, or the like, created while concrete was not cured.

**END OF SECTION 02523**

# DEPARTMENT OF PUBLIC WORKS

## SECTION 02522 – CONCRETE CURBS

### PART 4 - GENERAL

#### 4.1 SUMMARY

- A. This section includes the furnishing and installation of all materials necessary for construction of concrete curbs, and concrete curbs and gutters.

#### 4.2 REFERENCES

- A. Except as herein specified or as indicated on the drawings, the work of this section shall comply with the following:
  - 1. ASTM Standard Specifications:
    - a. A615 – Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.
    - b. C260 - Air-Entraining Admixtures for Concrete
    - c. C309 - Liquid Membrane - Forming Compounds for Curing Concrete
    - d. D1751 - Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Non-extruding and Resilient Bituminous Types)
  - 2. MDOT:
    - a. 2003 Standard Specifications for Construction.

#### 4.3 DELIVERY, STORAGE AND HANDLING

- A. Reject damaged, deteriorated or contaminated material and immediately remove from the site. Replace rejected materials with new materials at no additional cost to owner.
- B. Product Handling: Protect the materials before, during and after installation and during the curing period.

### PART 5 - PRODUCTS

#### 5.1 MATERIALS

- A. Concrete: In accordance with MDOT 802:
  - 1. MDOT Class P1, S2
  - 2. Aggregates: Crushed limestone
- B. Reinforcement: ASTM A615, Grade 60, deformed billet-steel bars
- C. Joint Fillers:
  - 1. In accordance with 8.16 of MDOT Standard Specifications for Construction
  - 2. Fiber joint filler: ASTM D1751
- D. Curing Compound:
  - 1. White membrane in accordance with MDOT 903.
  - 2. ASTM C309, Type 2 white, Class B vehicle, VOC compliant, minimum 30% solids

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### PART 6 - EXECUTION

#### 6.1 INSTALLATION

##### A. Forming:

1. Forms shall be metal and of an approved section. They shall be straight, free from distortions, and shall show no vertical variation greater than 1/8 inch in 10 feet, and shall show no lateral variation greater than ¼ inch in 10 feet from the true plain surface on the vertical face of the form.
2. Forms shall be of the full depth of the structure and be so constructed as to permit the inside forms to be securely fastened to the outside forms.
3. Securely hold forms in place true to the lines and grades indicated on drawings
4. Wood forms may be used on sharp turns and for special sections as approved by the City.
5. Where wooden forms are used, they shall be free from warp and the nominal depth of the structure.
6. All mortar and dirt shall be removed from forms and all forms shall be thoroughly oiled or wetted before any concrete is deposited.
7. The supply of forms shall be sufficient to permit their remaining in place at least 12 hours after the concrete has been placed.
8. Slip form methods may be used with equipment and methods meeting the City.
9. Repair honeycombed areas or voids with mortar prior to applying membrane curing compound.

##### B. Joints:

1. Construct joints true to line with their faces perpendicular to the surface of the structure and within 1/4-inch of their designated position.
2. Thoroughly spade and compact the concrete at the faces of all joints to fill all voids.
3. Install expansion joint materials at the point of curve at all street returns.
4. Install expansion joint material behind the curb at abutment to sidewalks and adjacent structures.
5. Place contraction joints every 10 feet along the length of the curbs and gutters.
6. Form contraction joints using steel templates or division plates which conform to the cross section of the structure. Leave the templates in place until the concrete has set sufficiently to hold its shape, but remove them while the forms are still in place.
7. Contraction joint templates or plates shall not extend below the top of the steel reinforcement or shall be notched to permit the reinforcement to be continuous through the joint.
8. Contraction joints shall be a minimum of 1½ inch deep.

##### C. Finishing:

1. Strike off the surface with a template, and finish the surface with a wood float using heavy pressure, after which contraction joints shall be made and the surface finished with a wood float or steel trowel.
2. Finish the face of the curbs at the top and bottom with an approved finishing tool of the radius indicated on the drawings.
3. Finish edges with an approved finishing tool having a 1/4-inch radius.
4. Provide a final broom finish by lightly combing with a stiff broom after trowelling is complete.
5. The finished surface shall not vary more than 1/8 inch in 10 feet from the established grade.

##### D. Concrete Curing:

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1. After finishing operations have been completed and immediately after the free water has left the surface, the surface of the structure shall be completely coated and sealed with a uniform layer of curing compound.
2. The compound shall be applied in one or two applications as directed by the City. When the compound is applied in two increments, the second application shall follow the first application within 30 minutes.
3. The compound shall be applied in a continuous uniform film by means of a pressure sprayer as approved by the City at the rate directed by City, but not less than one gallon per 200 square feet of surface.
4. The equipment shall provide adequate stirring of the compound during application.
5. Should the method of applying the compound not produce a uniform film, its use shall be discontinued, and the curing shall be by another method approved by the City.

E. Protection:

1. Provide and use sufficient coverings for the protection of the concrete in case of rain or breakdown of curing equipment.
2. Provide necessary barricades and lights to protect the work and rebuild or repair all damage caused by people, vehicles, animals, rain, contractor's operations and the like at no additional expense to owner.

F. Driveway and Sidewalk Ramp Openings:

1. Provide driveway openings of the widths and at locations as indicated on the drawings and directed by the City.
2. Provide sidewalk ramp openings as indicated on the drawings and as directed by the City.

G. Backfilling:

1. After the concrete has set sufficiently, the spaces on both sides of the curb, gutter, and combined curb and gutter shall be backfilled, and the materials compacted and left in a neat and workmanlike condition.
2. Curbs to be used in the construction of asphalt pavements shall be backfilled prior to placement of base material.

### 6.2 CLEANING

- A. Clean all curbs, curbs and gutters, and related structures in accordance with restoration section.

**END OF SECTION 02522**

# **DEPARTMENT OF PUBLIC WORKS**

## **SPECIFICATIONS FOR RESTORATION**

### **1.0 DESCRIPTION OF WORK**

Initial restoration (rough grading, temporary aggregate if necessary, removal of excess excavated material and debris) shall be done each day to the extent necessary to allow the movement of local traffic and permit access to all properties for emergency vehicles. Maintenance of streets, drives, sidewalks, etc. shall be the responsibility of the contractor (including dust control, grading, stabilization, etc.) until the restoration is complete.

### **2.0 GRADING**

All streets, walks, and other improved surfaces disturbed by construction operations shall be replaced to uniform lines and grades established by the contractor, approved by the City. The finish grade line will be established within three (3) inches of the existing ground profile shown on the plans unless a proposed grade is shown which indicates otherwise. The contractor shall perform all grading, compacting, shaping, and related work required to prepare the sub grade to the satisfaction of the City. The cost for preparing the sub grade as specified herein shall be incidental to the cost of the project, and no specific payment will be made therefore.

### **3.0 REPLACEMENT OF CONCRETE IMPROVEMENTS**

The contractor shall replace all concrete sidewalk, drives, curb and gutter, and pavement removed during the installation of this project or broken by the contractor.

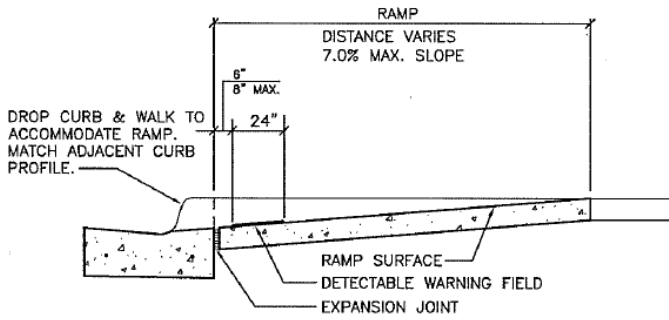
### **4.0 TOPSOIL AND SEEDING**

The City will place topsoil and seed areas disturbed by the construction activities.

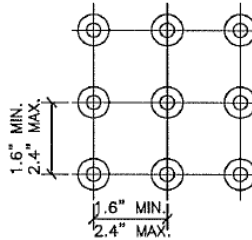
**-END OF SECTION-**



# DEPARTMENT OF PUBLIC WORKS

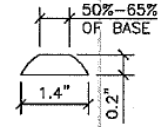


**RAMP SECTION**  
NO SCALE

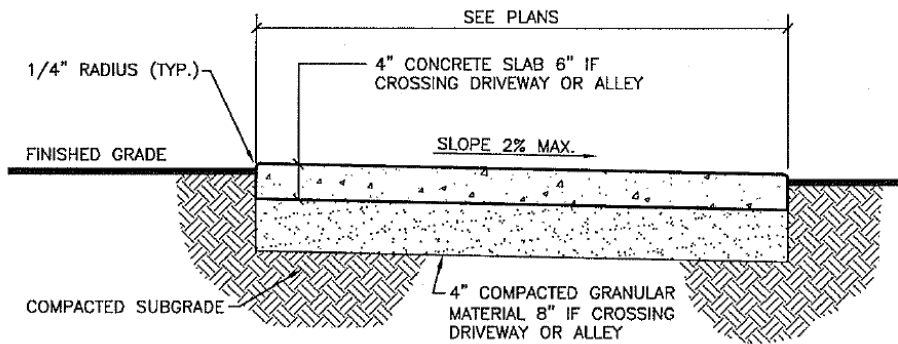


**DETECTABLE WARNING DOME DETAIL**

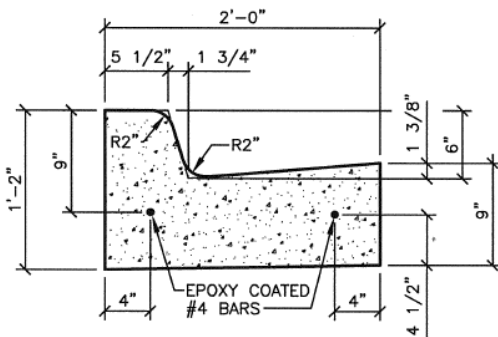
APPROVED MANUFACTURERS:  
EJW, SERIES 7005 CAST IRON WARNING PLATE,  
BLACK ASPHALT DIPPED



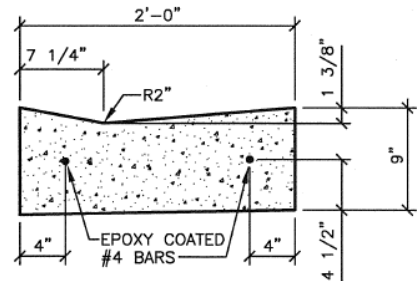
SIDEWALK RAMPS TO BE CONSTRUCTED ACCORDING TO SLOPE AND  
DETAIL REQUIREMENTS OF MDOT STANDARD PLAN R-28-F.



**SIDEWALK DETAIL**  
NO SCALE 02523-02



**STANDARD CROWN CURB & GUTTER**  
NO SCALE 02522-01-MDOT



**STANDARD VALLEY GUTTER**  
NO SCALE

WHEN NO REBAR IS REQUIRED FREEZE LAYER "REBAR".

## PROPOSAL FORM

**DEPARTMENT OF PUBLIC WORKS**

**January 7, 2025**

Ms. Shelly Umbanhowar  
Bangor City Clerk  
257 W Monroe Street  
Bangor, MI 49013

\_\_\_\_\_ Date

Dear Ms. Umbanhowar:

Completely in accordance with your notice, instructions and specifications dated December 10, 2024, the undersigned declares that they have carefully examined the requirements of specifications contained herein, and propose to furnish and deliver to the City of Bangor the services, materials and labor for the items listed below. The City of Bangor may, at its sole discretion, contract with the bidder that is deemed to be in the best interest of the City of Bangor.

<b>Item No.</b>	<b>Description</b>	<b>Estimated Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Item Total</b>
1	Install Concrete sidewalk	3,000	SQFT		
2	Install concrete curb	100	LF		
3	Install handicap sidewalk approaches (5' x 5' with plate)	200	SQFT		
4	Remove and dispose of existing concrete sidewalk	3,000	SQFT		
6	Remove and dispose of existing concrete curb	100	LF		
7	Remove and dispose of existing sidewalk approaches	200	SQFT		

NET TOTAL: \$ \_\_\_\_\_

**DEPARTMENT OF PUBLIC WORKS**

In submitting this Bid, Bidder represents, as set forth in the Agreement, that:

- A. Bidder has examined and carefully studied the Bidding Documents and the following Addenda, receipt of all which is hereby acknowledged:

***PROPOSAL FORM CON'T***

**Addendum Number**

**Addendum Date**


**REFERENCES:** Please list three (3) references (Municipal Government) wherein your company has provided Over Band Crack Sealing services of this type being proposed for the City of Bangor. Failure to list references may result in your company being disqualified.

MUNICIPALTY \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CONTACT PERSON \_\_\_\_\_  
PHONE NUMBER \_\_\_\_\_  
EMAIL \_\_\_\_\_

MUNICIPALTY \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CONTACT PERSON \_\_\_\_\_  
PHONE NUMBER \_\_\_\_\_  
EMAIL \_\_\_\_\_

MUNICIPALTY \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CONTACT PERSON \_\_\_\_\_  
PHONE NUMBER \_\_\_\_\_  
EMAIL \_\_\_\_\_

**NOTE**

Previous experience and performance may be a factor in making the award.

**DEPARTMENT OF PUBLIC WORKS**

**BIDDERS INFORMATION:**

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(Bidder's Company Name)

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(Bidder's Telephone Number)

---

(Street/Mailing Address)

---

(City/State/Zip)

---

(Bidder's Signature)

---

(Print Bidder's Name)

**-END OF SECTION-**