

NOTICE

Thank you for your inquiry regarding the City of Portage project listed below:

Sanitary Sewer Service Repair – Call In

If your firm plans to bid on this project, please send an e-mail response to purchasing@portagemi.gov with the following information:

Firm Name: _____

Project Name: _____

Firm's Contact Person: _____

Telephone Number: _____

Fax Number: _____

E-Mail Address: _____

Postal Address: _____

The City of Portage Purchasing Department will use this information to communicate with you in the event an addendum or change to this project is issued. If you do not send this information to the City of Portage, you will not receive any follow-up notification of any changes to the project.

Date of Issue: January 30, 2012

NOTICE TO BIDDERS

The City of Portage will open sealed bids on Thursday, February 23, 2012 at 3:00 p.m. prevailing local time in the City Hall Conference Room #1 at 7900 South Westnedge Avenue for:

Sanitary Sewer Service Repair – Call In

You are invited to submit a bid for this project. Sealed bids may be mailed or delivered to the City of Portage, Purchasing Department, 7900 South Westnedge Avenue, Portage, MI 49002. Envelopes should be plainly marked:

SEALED BID: Sanitary Sewer Service Repair – Call In

FOR OPENING: February 23, 2012

General specifications, description and conditions upon which the bid proposal is to be based are available at the City of Portage at www.portagemi.gov/Departments/Purchasing/BidOpportunities.aspx. Documents and plans for bidding purposes must be requested from the City of Portage Purchasing Department at (269) 329-4534. Complete bid packages will also be mailed upon request.

There will be a pre-bid meeting at 10:00 a.m. on Thursday, February 9, 2012 in Conference Room #3 in the Portage City Hall, 7900 South Westnedge Avenue, Portage, Michigan.

The City reserves the right to reject any or all bids, to waive any irregularities, and further reserves the right to accept any bid or parts of bids which it deems to best serve the interest of the City.

If you have any questions regarding purchasing procedures, please phone the Purchasing Department at (269) 329-4534. If you have any questions regarding the specifications, please contact Jereme Rowland, Project Manager, at (269) 329-4422.

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1. INSTRUCTIONS TO BIDDERS

- 1.1. FORM – Each Bid shall be made on a form prepared by the Purchasing Agent and included as one of the Contract Documents, and except for bids submitted via facsimile equipment, shall be submitted in a sealed envelope bearing the title of work and the name of the bidder, and shall be signed by an individual authorized to execute the proposal on behalf of the bidder.
- 1.2. MODIFICATIONS – Proposal shall not contain any recapitulations of the work to be done. Alternate proposals will not be considered unless called for. Oral proposals or modifications will not be considered.
- 1.3. EXAMINATION OF BID DOCUMENTS AND VISIT TO SITE – Before submitting a Proposal, Bidders shall carefully examine the Specifications, and other Contract Documents, shall visit the site of work, and shall fully inform themselves as to all existing conditions and limitations and shall indicate on the Proposal the sum to cover the cost of all items included on the proposal form.
- 1.4. DELIVERY OF PROPOSALS – Proposals shall be delivered by the time and to the place stipulated in the Advertisement. It is the sole responsibility of the Bidder to see that his Proposal is received in proper time. Any bids received after the bid opening date and time shall be returned to the Bidder unopened.
- 1.5. WITHDRAWAL – Any Bidder may withdraw his Proposal, either personally, by facsimile, or by written request, at any time prior to the scheduled closing time for receipt of Proposals.
- 1.6. OPENING – Bids will be opened and publicly read aloud at the time and place set forth in the Notice to Bidders.
- 1.7. INTERPRETATION OF DOCUMENTS – If any person contemplating submitting a Proposal is in doubt as to the true meaning of any part of any drawing or specification, he may submit to the Purchasing Agent a written request for an interpretation or correction thereof. The person submitting the request will be responsible for its prompt delivery. Any interpretation or correction of the documents will be made only by Addendum duly issued and a copy of the Addendum will be mailed or delivered to each person on record as receiving as set of the Contract Document. Neither the City nor the Purchasing Agent will be responsible for any other explanations or interpretations of the Contract Documents.
- 1.8. ADDENDA – Any addenda issued during the time of bidding, or forming a part of the Contract Documents provided to the Bidder for the preparation of his Proposal, shall be covered in the Proposal and shall be made a part of the Contract. Receipt of each Addendum shall be acknowledged in the Proposal.

- 1.9. BIDDERS INTERESTED IN MORE THAN ONE PROPOSAL – No person, firm or corporation shall be allowed to make, file or to be interested in more than one Proposal for the same work, unless alternate Proposals are called for. A person, firm, or corporation who has submitted a sub-proposal to a Bidder is not hereby disqualified from submitting a sub-proposal or quoting prices to other Bidders.
- 1.10. NONDISCRIMINATION The Contractor agrees to comply with the Federal Civil Rights Act of 1964 as amended; the Federal Civil Rights Act of 1991 as amended; the Americans With Disabilities Act of 1990 as amended; the Elliott-Larsen Civil Rights Act, Article 2, Act no. 453, Public Act of 1976 as amended; the Michigan Handicapper’s Civil Rights Act, Article 2, Act. No. 220; Public Act of 1976, as amended and all other applicable Federal, State and Local laws and regulations. Specifically, contractors and subcontractors are required not to discriminate against any employee or applicant for employment with respect to such person’s hire, tenure, terms, conditions, or privileges of employment, or any matter directly or indirectly related to employment because of such person’s height, weight, race, color, religion, national origin, ancestry, age, marital status, sex or disability, as defined by law. Breach of this covenant may be regarded as a material breach of the contract.

The City of Portage in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 USC 2000d to 2000d-4 and Title 49, Code of Federal Regulations, Department of Federally-assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of gender, disability, race, color or national origin in consideration for an award..

- 1.11. PROPOSAL GUARANTEE – Each proposal shall be accompanied by a certified check or bid bond acceptable to the City in an amount equal to at least five percent (5%) of the proposal, payable without condition to the City as a guaranty that the bidder, if awarded the Contract, will promptly execute the Agreement in accordance with the proposal and the other contract documents, and will furnish good and sufficient bond for the faithful performance of the same, and for the payment to all persons supplying labor and material for the work. Bids that do not include a certified check or bid bond will be considered non-responsive and will be rejected. Company or personal checks will not be accepted as substitute for a certified check or bid bond. Bids offering personal or company checks in lieu of a certified check or bid bond will be considered non-responsive and will be rejected. The Proposal Guarantees of all Bidders, except the three lowest, will be returned promptly after the canvass of Proposals.
- 1.12. PERFORMANCE, MAINTENANCE AND LABOR & MATERIAL BONDS – The successful Bidder, simultaneously with the execution of the contract, will be required to furnish a faithful Performance Bond in an amount equal to one hundred percent (100%) of the Contract Amount, a Maintenance and Guarantee Bond equal to twenty-five percent (25%) of the Contract Amount which shall be effective for two years beyond the date of

final payment, and a Labor and Material Payment Bond equal to one hundred percent (100%) of the Contract Amount; said bonds shall be secured from an insurance company satisfactory to the City. Typical Bond forms are included in the Contract Documents.

1.13. DURATION OF PROPOSAL – Each proposal shall be considered binding and in effect for a period of ninety (90) days after the date of opening set forth in the advertisement.

1.14. BIDS SUBMITTED VIA FACSIMILE EQUIPMENT -- Bids may be submitted via facsimile equipment in the following manner to (269) 329-4535

1.14.1. Transmittal page must be plainly marked:

“Sealed Bid _____ for opening _____.”
Bid Name Date

1.14.2. When bids are submitted via facsimile equipment, both the original document and the facsimile printout are counterpart originals.

1.14.3. Whenever a proposal guaranty/bond is required, bids submitted via facsimile equipment can comply with this provision by submitting a facsimile copy of the bond document. When a cashier’s check is elected to meet the proposal guaranty/bond requirement, the cashier’s check must be physically in the possession of the City by the date and time outlined on the Notice to Bidders, or such bid may be considered non-responsive.

1.14.4. **In electing to use the facsimile option, the bidder assumes full responsibility for any and all errors, omissions, or mistakes that result in a bid not being submitted in a timely manner, whether or not the mistake was the fault of the bidder.**

1.15. CITY OF PORTAGE CONTRACT CONDITIONS AND SPECIFICATIONS

All bids submitted shall be in full compliance with the Contract Conditions and Specifications of the City of Portage. The Contract Conditions and Specifications can be obtained from the Purchasing Department. The first set will be provided to the Firm at no cost and subsequent sets or copies must be purchased for \$25.00. Contract Conditions and Specifications are also available at www.portagemi.gov/government/bid_on_project.asp

1.16. INSURANCE REQUIREMENTS

Prior to commencement of the Work, the Contractor shall purchase and maintain during the entire term of the project such insurance as will protect the Contractor, the City, and the Engineer(s) from claims arising out of the Work described in this contract and performed by the Contractor, Subcontractor(s), or Sub-subcontractor(s). The certificate of insurance must contain the following statement: The City of Portage, its agents, elected officials, and employees, is included as an additionally insured party. This insurance must consist of:

1.16.1. Workers Compensation

Workers Compensation insurance, including Employer's Liability to cover employee injuries or disease compensable under the Workers Compensation statutes of the states in which work is conducted under this contract.

1.16.2. Comprehensive General Liability

A Comprehensive General Liability policy to cover bodily injury to persons other than employees and for damage to tangible property, including loss of use thereof, including the following exposures.

- A) All premises and operations.
- B) Explosion, collapse and underground damage.
- C) Protective coverage for Independent Contractors or Subcontractors employed by the Contractor.
- D) Contractual Liability for the obligation assumed in the Indemnification or Hold Harmless agreement found in the contract.
- E) Personal Injury Liability endorsement with no exclusions pertaining to employment.
- F) Products and Completed Operations coverage. This coverage shall extend through the contract guarantee period.

1.16.3. Comprehensive Automobile Liability

A Comprehensive Automobile Liability policy to cover bodily injury and property damage arising out of the ownership, maintenance or use of any motor vehicle, including owned, non-owned, and hired vehicles. In the light of

standard policy provisions concerning (a) loading and unloading and (b) definitions pertaining to motor vehicles licensed for road use vs. unlicensed or self-propelled construction equipment, it is strongly recommended that the Comprehensive General Liability and the Comprehensive Auto Liability be written by the same insurance carrier, though not necessarily in one policy.

1.16.4. Umbrella or Excess Liability

The City, or representatives of the City, may for certain projects, require limits higher than those stated as follows. The Contractor is granted the option of arranging coverage under a single policy for the full limit required or by a combination of underlying policies with the balance provided by an Excess or Umbrella Liability policy equal to the total limit(s) requested. Umbrella or Excess policy wording shall be at least as broad as the primary or underlying policy and shall apply to both the general liability, and to the automobile liability insurance of the Contractor.

1.16.5. Limits of Liability

The required limits of liability for insurance coverage shall not be less than the following:

A.	Workers Compensation	Statutory
B.	Comprehensive General Liability Combined Single Limit (including sub-contractors)	\$1,000,000
C.	Comprehensive Automobile Liability Combined Single Limit (Injury and Property Damage)	\$1,000,000
D.	Umbrella or Excess Liability	\$2,000,000

1.16.6. Notice of Cancellation or Intent not to Renew

Policies will be endorsed to provide a prior written notice shall be given to the City and to the Engineer of cancellation or of intent not to renew.

1.16.7. Evidence of Coverage

The Insurance Certificates referenced in Paragraph 1 above must be submitted within ten (10) working days of notification of award and prior to the execution of any Work under this contract.

It shall be the responsibility of the Contractor to provide similar insurance for each Subcontractor, or to provide evidence that each Subcontractor carries insurance in like amounts, prior to the time such Subcontractor proceeds to perform under the contract.

1.17. BASIS OF AWARD

Award will be made to a responsive and responsible bidder who's lowest Grand Total Bid is determined by the City to be in the best interest of the City. Each proposal shall have the unit prices and extensions checked for correctness. If discrepancies appear between the unit prices and extensions submitted, the unit price submitted for the particular pay item shall govern, and the dollar amount of the proposal adjusted accordingly. The estimated quantities of items of unit price work are not guaranteed and are solely for the purpose of comparison of bids and determining an initial contract price.

1.18. INDEMNIFICATION

To the fullest extent permitted by Laws and Regulations, the Contractor shall indemnify and hold harmless the City and its officers, directors, employees, agents and consultants from and against all claims, costs, losses and damages (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals and all court or arbitration or other dispute resolution costs) caused by, arising out of or resulting from the performance of the Work or from the failure to comply with any covenant or term of the contract, provided that any such claim, cost, loss or damage: (i) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself), including the loss of use resulting therefrom or (ii) is caused in whole or in part by any act or omission of the Contractor, any Subcontractor, any Supplier, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, regardless of whether or not caused in part by any act or omission of a person or entity indemnified hereunder or whether liability is imposed upon such indemnified party by Laws and Regulations regardless of the negligence of any such person or entity.

In any and all claims against the City or any consultants, agents, officers, directors or employees of the City by any employee (or the survivor or personal representative of such employee) of the Contractor, any Subcontractor, any Supplier, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation above shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any such Subcontractor, Supplier or other person or organization under workers' compensation Acts, disability benefit Acts or other employee benefit Acts.

Insurance coverage required by the contractor constitutes the minimum requirements and those requirements shall in no way lessen or limit the liability of the contractor under the terms of the contract. The contractor shall procure and maintain at contractor's own cost and expense any additional claims or amounts of insurance that, in the judgment of the City, may be necessary for contractor's proper protection in the prosecution of the work.

1.19. Length of Contract

This contract shall run for one calendar year from the date of execution of the contract.

2. SCOPE OF WORK

2.1. BACKGROUND

The City is required by ordinance to investigate potential sanitary sewer service problems and determine the responsible party for repair costs. A copy of the ordinance provision is attached for the information of the contractor. This project is intended to provide a contract to a single contractor to annually investigate and repair sanitary sewer service on an as-needed basis. The contractor will be compensated based on the contract bid unit prices for the specific repair incident. Each incident will be authorized and paid for separately. The typical yearly number of incidents varies from zero to five. The typical repair includes the excavation of sanitary sewer services on local streets, major streets and lawn/parkway areas.

2.2. TYPICAL PROJECT SEQUENCE

The typical sanitary sewer investigations follow the following sequence of events.

- 2.2.1 Sewer customer contacts the City with sewer back up complaint.
- 2.2.2 The City authorizes the to provide a videotape record of the problem service to determine the problem/repair area.
- 2.2.3 If the problem is determined to be the responsibility of the City, then the contractor is notified to excavate the problem area to investigate and repair the service. The contractor is issued a purchase order to cover the estimated costs of the repair based upon the unit prices.
- 2.2.4 The problem sewer service is repaired and appropriate surface restoration is completed. The contractor submits an invoice to the City based upon the actual construction items.
- 2.2.5 If it is determined that the repair is the responsibility of the property owner, then the contractor will be directed to either terminate the repair work and backfill the excavation, or continue the repair at the direction of the engineer. If the repair is determined to be the responsibility of the property owner, then the City will give the property owner the opportunity to contract directly with the contractor if mutually acceptable. The City reserves the right to direct the contractor to complete the repair, make payments to the contractor and pursue reimbursement for the repair from the property owners.

2.3. STANDARD PLANS AND DRAWINGS

The repair work will vary from location to location so no individual drawings of each repair will be available. Existing as-built drawings will be used to determine estimated location, depth, groundwater elevation (if any), and size of the repair area. Standard City details (attached) shall be used for all replacement, repair and restoration work.

2.4. EXTRA WORK

Based upon unique site conditions, some repair locations will require work items outside the unit price bid items of the contract. Upon discovery of work items outside the original scope of work, the contractor shall immediately notify the City project manager in accordance with Article 10 of the general conditions.

3. SPECIFICATIONS

3.1. All work shall be done according to the City of Portage Standard Contract Conditions and Specifications, unless otherwise specified in the Special Provisions contained in Section 4.

4. SPECIAL PROVISIONS

4.1 CONSTRUCTION SIGNING AND TRAFFIC CONTROL

4.1.1 General Requirements:

Local traffic shall be maintained on all roads at all times throughout the construction. The Contractor is advised that the current Michigan Manual of Uniform Traffic Control Devices is hereby established as governing all work in connection with traffic control devices, barricade lighting, etc., required on this project. The Contractor shall coordinate this work with other contractors performing work within the construction influence area or adjoining areas to avoid conflicts in the maintenance of traffic, construction signing and the orderly progress of work.

The Contractor shall furnish, erect, maintain and upon completion of the work, remove all traffic control devices and barricade lights within the Construction Influence Area for the safety and protection of through and local traffic. This includes, but is not limited to, advance, regulatory and warning signs, barricades and channeling devices at the intersecting street on which traffic is to be maintained and all other traffic control devices required to maintain traffic as called for on the plans.

4.1.2 Project – General:

The Contractor shall provide all barrels, barricades and necessary signage during construction operations, whenever one or more lanes which are open to traffic will be temporarily blocked.

Necessary emergency work performed by the City will be billed against the Contractor.

Walks, driveways and entrances to buildings shall not be unnecessarily blocked. Vehicular access shall be maintained to all properties designated by the Engineer at all times.

4.1.3 Traffic Control Devices:

All traffic control devices and their usage shall be in accordance with provisions in the Michigan Manual of Uniform Traffic Control Devices (MMUTCD), 1994 Edition as revised. All construction signs, unless otherwise noted, shall be 48 x 48 inches, mounted at a bottom height of 5 feet and placed as indicated on the plans. When signs are no longer applicable, they shall be removed or have their legend completely covered with plywood or approved equal. When signs are mounted on Type III barricades, all signs shall be mounted above the Type III barricade.

Channeling devices shall be used to separate traffic from the work and if directed by the Engineer or shown in the plan sheets to separate opposing traffic lanes. Type II Lighted Barricades (plastic drums) may be used during both daytime and night time operations.

Plastic cones may be used as channeling devices only during daylight hours. If plastic cones are used, they shall be a minimum of 28 inches in height and placed as directed by the Engineer. Metal drums or metal barrels shall not be used as traffic control devices.

All signs, unless otherwise noted, shall be placed on 3 pound driven posts and each Type III Barricade (8 foot and 12 foot) shall be weighted with a minimum of 12 sandbags each weighing 30 pounds.

4.1.4 Basis of Payment:

Payment for all work of maintaining traffic shall be paid for at the contract unit price for each complete installation required.

4.2 PUBLIC UTILITIES – UTILITY COORDINATION

4.2.1. The following utility owners have facilities located within the public right-of-way:

Natural Gas & Electric Consumers Energy Company
2500 East Cork Street, Kalamazoo, MI
(269) 381-6130

Cable Charter Communications
4176 Commercial Avenue, Portage, MI
(269) 353-0904

Telephone AT&T
2919 Millcork Street, Kalamazoo, MI
(269) 323-0003

Sewer & Water City of Portage,
United Water, Contract Operator
7719 S. Westnedge Ave, Portage, MI
(269) 324-9235

4.2.2. The Contractor shall call “Miss Dig” a minimum of three working days prior to beginning construction operations. Saturday, Sundays and Holidays shall not be included as a working day. On all projects:

“3 Days before you Dig – Call Miss Dig – Toll Free” (800) 482-7171

4.2.3. The owners of existing service facilities that are within grading or structure limits will move them to locations designated by the Engineer or will remove them entirely from the highway right-of-way. Owners of Public Utilities will not be required by the City to move additional poles or structures in order to facilitate the operation of construction equipment unless it is determined by the Engineer that such poles or structures constitute hazard to the public or are extraordinarily dangerous to the Contractor’s operations.

4.2.4. No additional compensation will be paid to the Contractor for delays due to material shortages or other reasons beyond the control of the City, or for delays of construction due to the encountering of existing utilities that are, or are not, shown on the plans.

4.2.5. Work stoppage by employees of utility companies which results in a delay of utility revisions on any portion of this project may be considered the basis for a claim for an extension of time for completion, but will not be considered the basis for a claim for extra compensation or an adjustment in contract unit prices.

4.3 DEWATERING

4.3.1 Description

This work shall consist of the installation, operation and removal of a trench dewatering system in accordance with Article 202.3 of the general specifications.

4.3.2. Basis of Payment

This work shall be paid for per vertical foot of groundwater drawdown required per service trench. Drawdown shall be paid for in the following increments: 0-2 feet of drawdown or 2-4 feet of drawdown. Dewatering depth in excess of 4 feet, if required, will be authorized by the City and paid for at a negotiated unit price.

4.4 CONTRACTOR RESPONSE TIME

4.4.1 The contractor shall, after city authorization, contact Miss Dig within two (2) working days. Have the affected sanitary sewer video taped to verify the location and possible cause of sanitary sewer failure. The contractor shall within four (4) working days make all preparation to begin excavation and make service repair. After the sanitary sewer service has been repaired and trench backfilled and compacted, the contractor shall install 22-A gravel and the base and leveling courses of bituminous pavement, as detailed on the standard detail #165 (attached). After 10 working days of sanitary sewer repair, the contractor shall have completed all surface repair including the top course of bituminous pavement.

CITY OF PORTAGE PROPOSAL FORM

The undersigned has examined the specifications and sites of the work and is fully informed of the nature of the work and understands that the quantities shown are approximate and are subject to increase or decrease.

The undersigned hereby proposes to furnish all labor, construction equipment, materials and supplies; and to do all the work in strict accordance with the plans and specifications applying to the work specified for which prices are submitted.

The undersigned hereby acknowledges the fact that the City of Portage will award the project to the successful bidder conditional upon the availability of funds.

The City of Portage reserves the right to accept or reject any or all bids in the best interest of the City. Each division may be awarded separately or jointly as may be determined to be in the best interest of the City. The Contractor's qualifications to complete the work in a timely and satisfactory manner will be considered in making the award.

The undersigned affirms that in making such Proposal neither he nor any company that he may represent, nor anyone in behalf of him or company, directly or indirectly, has entered into any combination, collusion, undertaking or agreement with any other bidder or bidders to maintain the prices of said work, and further affirms that such proposal is made without regard or reference to any other bidder or Proposal and without any agreement or understanding or combination, either directly or indirectly, with any other person or persons with reference to such bidding in any way or manner whatsoever.

The undersigned hereby agrees that if the foregoing proposal shall be accepted by the City, he will within ten (10) consecutive calendar days after receiving notice of the acceptance of such proposal, enter into contract in the appropriate form to furnish the labor, materials and equipment necessary for the full and complete execution of the work, at and for the price named in his proposal; and, he will furnish the labor, materials and equipment necessary for the full and complete execution of the work, at and for the price named in his proposal; and, he will furnish the labor, materials and equipment necessary for the full and complete execution of the work, at and for the price named in his proposal.

The undersigned affirms that he has examined the surface and subsurface conditions where the work is to be performed, the legal requirements and conditions affecting cost, progress or performance of the work and has made such independent investigations as the contract deems necessary.

The undersigned attaches hereto a bidder's bond in the sum of _____ Dollars (\$_____) as required in the Instructions to Bidders, and the undersigned agrees that, in case he shall fail to fulfill his obligations under the foregoing Proposal and agreement, the City may, at its option, determine that the undersigned has abandoned his rights and interests in such Proposal and that the certified check or bidder's bond accompanying his proposal has been forfeited to the City; but otherwise, the Certified check or bidder's bond shall be returned to the undersigned upon the rejection of his Proposal.

Disclosure: Asphalt, concrete or other material(s) requiring removal from the job site will be disposed of at: _____

(address of disposal site*)

Name & Address of _____

Disposal Site Owner _____

*Attach separate Sheet(s) for multiple disposal sites.

<u>Item</u>	<u>Description</u>	<u>Unit.</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Extension</u>
1	Sanitary sewer service replacement, 6" PVC SDR 35, 0-10' depth	L.F.	50	\$ _____ -	\$ _____
2	Sanitary sewer service replacement, 6" PVC SDR 26, 10'-16' depth	L.F.	50	\$ _____ -	\$ _____
3	Water main replacement, 8", DIP class 52	L.F.	50	\$ _____ -	\$ _____
4	Video tape existing sanitary sewer service	L.F.	50	\$ _____ -	\$ _____
5	Bituminous pavement removal & replacement, major street	S.Y.	40	\$ _____ -	\$ _____
6	Bituminous pavement removal & replacement, local street	S.Y.	30	\$ _____ -	\$ _____
7	Concrete curb & gutter removal & replacement	L.F.	80	\$ _____ -	\$ _____
8	Dewatering service, trench, 0'-2' vertical drawdown	V.F.	2	\$ _____ -	\$ _____
9	Dewatering service, trench, 2'-4' vertical drawdown	V.F.	2	\$ _____ -	\$ _____
10	Lawn restoration, Class A	S.Y.	25	\$ _____ -	\$ _____
11	Construction signage & traffic control (lane shift w/arrow board)	E.A.	1	\$ _____ -	\$ _____
12	Drainage structure reconstruction	E.A.	3	\$ _____ -	\$ _____
GRAND TOTAL					\$ _____

I, the undersigned, acknowledge receipt of addenda numbers _____ issued for this contract and which are considered a part of said contract.

BIDDER FIRM _____ DATE: _____

BY: _____
Signature

BY: _____ POSITION: _____
Print or Type

ADDRESS: _____

PHONE: _____ FAX: _____

DRAFT CONTRACT AGREEMENT

Following is a “*draft copy*” of the contract that will be executed by the City and the Firm for the completion of this project.

CITY OF PORTAGE

DRAFT CONTRACT

THIS CONTRACT made the _____ day of _____, 2012, by and between _____, hereinafter called the “Contractor,” and the City of Portage, 7900 South Westnedge Avenue, Portage, Michigan 49002, hereinafter called the “City.”

WITNESSETH, THAT the Contractor and the City for the consideration stated herein agree as follows:

ARTICLE I - SCOPE OF WORK

The Contractor shall perform everything to be performed and shall provide and furnish all of the labor, materials, necessary tools, expendable equipment, and all utility and transportation services required to perform and complete in a workmanlike manner all the work required for Emergency Sanitary Sewer Service Repair Project all in strict accordance with the Plans and Specifications, including any and all addenda, which plans and specifications are made a part of this contract, and in strict compliance with the Contractor’s proposal and other contract documents herein mentioned which are a part of this contract; and the Contractor shall do everything required by this contract and the other documents constituting a part hereof.

ARTICLE II - COMPENSATION TO BE PAID TO THE CONTRACTOR

In consideration of the completion of the work described herein and in fulfillment of all stipulations of this contract to the satisfaction and acceptance of the City, the City shall pay and the said Contractor further agrees to receive and accept payment based on the prices bid per unit for material and labor as set forth in the conformed copy of the Contractor’s proposal (or bid) as filed with the City on the _____ day of _____, 2012, the sum of which shall be,

_____ \$ _____
(amount in words) (in figures)

as full compensation for furnishing all the equipment and materials, and for the costs of all premiums on insurance and bonds and for doing all the work contemplated and specified in this contract; also for all loss or damage arising out of the nature of the work aforesaid, or from the action of the elements, or from any unforeseen obstructions or difficulties which may be encountered in the prosecution of the same; and for all risks of every description connected with the work; and for well and faithfully completing the work and the whole thereof, in full compliance with the Plans and Specifications and the requirements under them. Payments are to be made to the Contractor in accordance with and subject to the provisions embodied in the contract documents hereto attached.

ARTICLE III - COMPONENT PARTS OF THIS CONTRACT

This contract consists of the following component parts, all of which are as fully a part of this contract as if herein set out verbatim, or, if not attached, as if hereto attached.

1. Contract (this document)
2. Contractor's Proposal (or bid)
3. Details
4. City of Portage Contract Conditions and Specifications
5. Scope of Work
6. Specifications
7. Special Provisions
8. Instructions to Bidders
9. Advertisement for Bids

In the event that any provision in any of the above component parts of this contract conflicts with any provision in any other of the component parts, the provision in the component part first enumerated above shall govern over any other component part which follows it numerically, except as may be otherwise specifically stated.

IN WITNESS WHEREOF, the parties have caused this instrument to be executed in four original counterparts the day and year first above written.

(SEAL)

CONTRACTOR

Attest:

By: _____
Signature

Print name and Title

Print Name and Title

(SEAL)

CITY OF PORTAGE

Attest:

By: _____
Maurice S. Evans, City Manager

Approved as to Form:

Randall L. Brown, Portage City Attorney

INSTRUCTIONS FOR EXECUTING CONTRACT WITH CITY OF PORTAGE

A. If the contractor is a corporation, the following certificate must be executed:

I, _____, certify that I am the Secretary of
print or type name
the corporate entity named as Contractor in the contract and that such corporate entity is a corporation
in good standing in the State of _____ and has authority
print or type name of state
to transact business in the State of Michigan. I certify that the contract between the City of Portage
and _____, Inc. was validly executed on behalf of the
print or type name of corporation
corporation by _____ who was then the _____
print or type name print or type name of title
of said corporation and has the authority to bind the corporation to the contractual agreements pursuant
to the authority of its governing body and by-laws and is within the scope of its corporate powers.

Print or type name of corporation

Dated: _____, 20____ By: _____
Its: _____

B. If contractor is an LLC, the following certificate must be executed:

I, _____, certify that I am a member of the
print or type name
Limited liability company named as Contractor in the contract and that such LLC is in good standing
in the State of _____ and that the LLC has the
print or type name of state
authority to transact business in the State of Michigan. I certify that the contract between the City of
Portage and _____ LLC was validly executed on behalf
print or type name of LLC
of the LLC by _____ who was then a member of said
print or type name
LLC and has the authority to bind the LLC to contractual agreements and that such contract is within
the scope of its powers.

Print or type name of LLC

Dated: _____, 20____ By: _____
Its: _____

CITY OF PORTAGE

LABOR AND MATERIAL BOND

KNOW ALL MEN BY THESE PRESENTS, that we, _____,
hereinafter called the Principal, and _____, hereinafter called the Surety,
are held and firmly bound unto CITY OF PORTAGE, 7900 South Westnedge Avenue, Portage,
Michigan 49002, in the sum of _____ Dollars (\$_____)
lawful money of the United States of America, to the Payment whereof, well and truly to be made, we
bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally,
firmly by these presents.

Sealed with our seals and dated this _____ day of _____, _____.

WHEREAS, the above named Principal has entered into a certain contract with the CITY OF
PORTAGE dated the _____ day of _____, _____ (hereinafter called the "Contract")
for _____ (**name of project**), which contract and specifications for said work
shall be deemed a part hereof as fully if set out herein.

AND WHEREAS, this bond given in compliance with and subject to the provisions of Act No.
213 of the Public Acts of Michigan, for the year 1963.

NOW, THEREFORE, the condition of this obligation is such that if payment shall be made by
the Principal to any Subcontractor or by him or any Subcontracts as the same may become due and
payable of all indebtedness which may arise from him to a Subcontractor or a party performing labor
or furnishing materials or supplies, or any Subcontractor to any person, firm, or corporation on account
of any labor performed or materials or supplies furnished in the performance of said contract, then this
obligation shall be void, otherwise the same shall be in full force and effect.

AND PROVIDED, that any alterations which may be made in the terms of said contract, or in
the work to be done under it, or the giving by the party of the first part to said contract any extension
of

Labor and Material Bond

Page 2

time for the performance of said contract or any other forbearance on the part of either party to the other, shall not in any way release the Principal and the Surety or either of them, their heirs, executors, administrators, successors or assigns from any liability hereunder, notice to the Surety of any such alterations, extensions of time or of any forbearance being hereby waived.

IN WITNESS THEREOF, the parties thereto have caused this instrument to be executed by their respective authorized officers this _____ day of _____, _____.

Signed, sealed, and delivered in
the presence of:

:

PRINCIPAL:

Its: _____

SURETY:

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, THAT _____ Contractors,
as principal and _____, as surety,
are held and firmly bound unto the _____
in the sum of _____

Dollars (\$ _____) to be paid to the City for which payment well and truly to be made
we, jointly and severally bind ourselves, our heirs, executors, administrators, and assigns firmly by the
presents.

THE CONDITIONS OF THE ABOVE OBLIGATIONS ARE SUCH THAT, WHEREAS, the said
_____ did, on the _____ day of _____, 20____
enter into contract with the City for
the _____.

NOW, THEREFORE, if said Contractor shall save and hold harmless the said CITY from all public
liability and damages of every description in connection therewith, shall well and faithfully in all
things fulfill the said contract according to all the conditions and stipulations therein contained in all
respects, and shall save and hold harmless the said CITY from and against all liens and claims of every
description in connection therewith, then this obligation shall be void and of no effect; but otherwise it
shall remain in full force and virtue, and, in the event that said CITY shall extend the time for
completion of said work or otherwise modify elements of the contract in accordance with provisions
thereof, such extension of item or modification of the contract shall not in any way release the sureties
of this bond.

WITNESS our hands and seal this _____ day of _____, 20____.

WITNESSES:

Principal (Seal)

Surety (Seal)

MAINTENANCE AND GUARANTEE BOND

KNOW ALL MEN BY THESE PRESENTS, that _____
_____, Contractor, as principal and
_____, as surety are held and firmly bound unto
the City of Portage, Michigan, 7900 South Westnedge Avenue, Portage, Michigan 49002, hereinafter
known as the City, in the sum of _____
_____ Dollars (\$ _____) to be paid to said City, its legal
representatives and assigns, for which payment well and truly be made, we bind ourselves, our heirs,
executors, administrators, successors and assigns, and each and every one of them jointly, firmly by
these presents.

Sealed with our seals and dated this _____ day of _____, 20____.

WHEREAS, the above named Principal has entered into a certain contract with the City of
Portage, Michigan, dated this _____ day of _____, 20____
wherein the said principal covenanted and agreed as follows, to wit:

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that by and
under said contract, the above named principal has agreed with the City that for a period of two (2)
years from the date of payment of Final Estimate, to keep in good order and repair any defect in all the
work done under said contract wither by the principal or his subcontractors, or his material supplies,
that may develop during said period due to improper materials, defective equipment, workmanship or
arrangements, and any other work affected in making good such imperfections, shall also be made
good all without the consent or approval of the principal after the final acceptance of the work, and
that whenever directed to do so by the City, by notice served in writing, either personally or by mail,
on the principal at

_____ or _____
_____ legal representatives, or successors, or on the surety at

WILL PROCEED at once to make such repairs as directed by said City and in case of failure to do so
within one week from the date of service of such notice, or within reasonable time not less than one
week, as shall be fixed in said notice, then the said City shall have the right to purchase such materials
and employ such labor and equipment as may be necessary for the purpose, and to undertake, do and
make such repairs and charge the expense thereof to, and receive same, from said principal or surety.

If any repair is necessary to be made at once to protect life and property, then and in that case, the said City may take immediate steps to repair or barricade such defects without notice to the Contractor. In such accounting the said City shall not be held to obtain the lowest figures for the doing of the work, or any part thereof, but all sums actual paid therefore shall be charged to the principal surety. In this connection the judgement of the said City is Final and conclusive. If the said principal for a period of two (2) years from the date of payment of Final Estimated, shall keep said work so constructed under said contract in good order and repair, excepting only such part or parts of said work which may have been disturbed without the consent or approval of said principal after the final acceptance of the same, and shall whenever notice is given as hereinbefore specified, at once proceed to make repair as in said notice directed, or shall reimburse the City for any expense incurred by making such repairs, should the principal or surety fail to do as hereinbefore specified, and shall fully indemnify, defend and save harmless the said City from all suits and actions for damages of every name and description brought or claimed against it for or on account of any injury or damage to person or property received or sustained by any party or parties, by or from any of the acts or omissions or through negligence of said principal, servants, agents, or employees in the prosecution of the work included in said contract, and from any and all claims arising under the Worker's Compensation Act, so-called, of the State of Michigan, then the above obligation shall be void, otherwise too remain in full force and effect.

IN WITNESS THEREOF, the parties hereto have caused this instrument to be executed by their respective authorized officers this _____ day of _____, 20____.

Signed, sealed, and Delivered
in the Presence of:

Principal (Seal)

Surety (Seal)

Sec. 82-306. Maintenance.

(a) A building sewer to a public sewer shall be maintained by the customer/user it serves, except when it is determined that:

- (1) The building sewer requires work in the street right-of-way; and
- (2) The need for repair is caused by activities occurring in the right-of-way not under the control of the customer/user, such as intrusion of roots from plantings in the street right-of-way, construction activities in the right-of-way that causes damage to the building sewer or flaws in the original installation of the building sewer from the public sewer to the property line.

(b) When a problem with a building sewer has been reported, the department of transportation and utilities shall investigate the cause of the building sewer problem. When necessary, such investigation may include excavating the building sewer to determine the cause and location of the problem. The department of transportation and utilities shall hire a licensed contractor to make the necessary repairs and the cost of such repairs shall be paid by the city if the conditions of subsection (a)(1) and (a)(2) of this section are both satisfied. However, if the repair is needed in an area outside of the right-of-way, on private property, or in the right-of-way but caused by the customer/user, property owner, or their predecessors, or the hired contractor or agents of the customer/user or property owner, the city shall charge the customer/user for the cost of making the repairs. Such charge shall be placed on the sewer bill of the customer/user. If the charge is not paid on the next bill sent in accordance with section 82-374, collection of such charge may be collected in the same manner as any other sewer bill in accordance with sections 82-375 and 82-376.

(Min. Bk. 1979, p. 53, Vol. 8, 10-9-1979; Code 1983, § 1042.15; Ord. No. 00-01, 1-11-2000)

Sec. 82-307. Inspection.

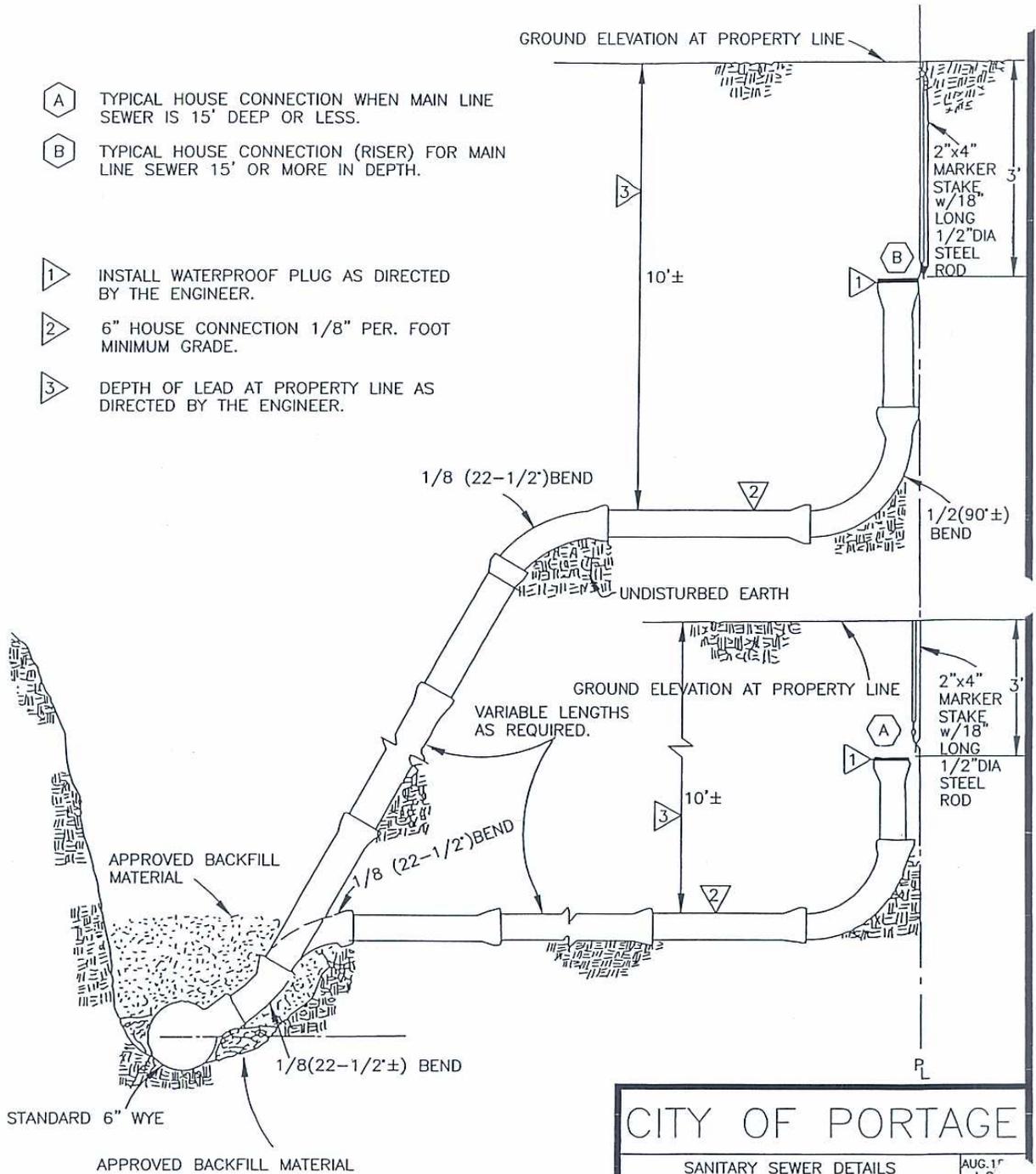
The applicant for a building sewer permit shall notify the director of community development when the building sewer is ready for inspection and connection to the public sewer. The director or his authorized representative shall then inspect the building and plumbing construction therein, and if such construction meets the requirements of this article, the director shall approve the sewer usage subject to this article.

(Min. Bk. 1979, p. 53, Vol. 8, 10-9-1979; Code 1983, § 1042.28)

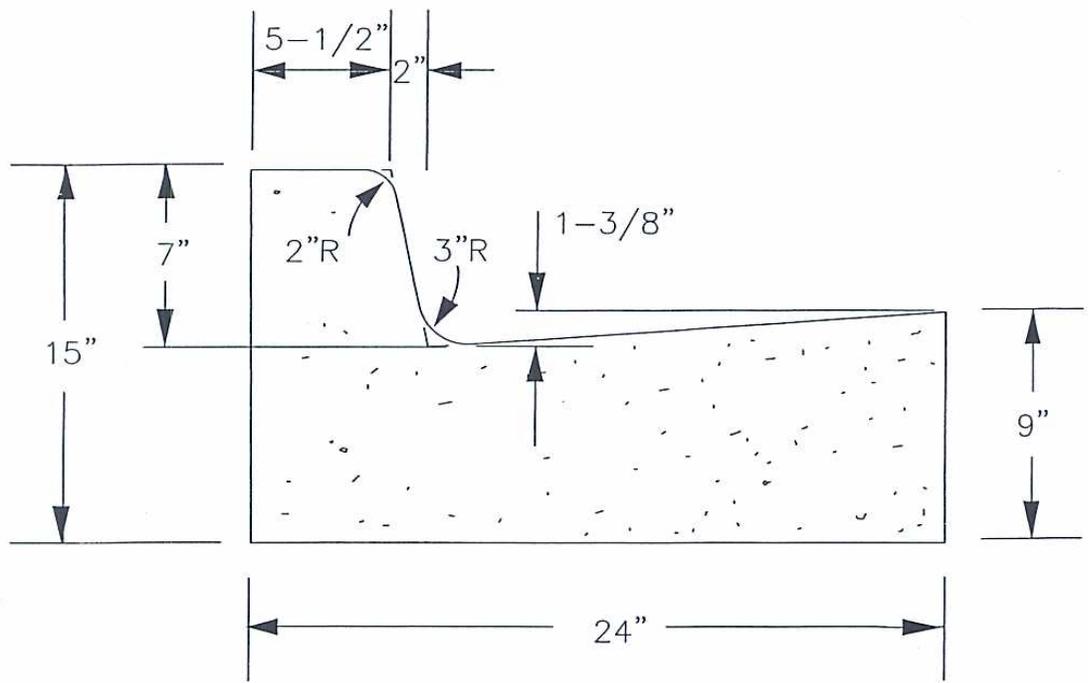
Secs. 82-308--82-330. Reserved.

- A TYPICAL HOUSE CONNECTION WHEN MAIN LINE SEWER IS 15' DEEP OR LESS.
- B TYPICAL HOUSE CONNECTION (RISER) FOR MAIN LINE SEWER 15' OR MORE IN DEPTH.

- 1 INSTALL WATERPROOF PLUG AS DIRECTED BY THE ENGINEER.
- 2 6" HOUSE CONNECTION 1/8" PER. FOOT MINIMUM GRADE.
- 3 DEPTH OF LEAD AT PROPERTY LINE AS DIRECTED BY THE ENGINEER.



CITY OF PORTAGE	
SANITARY SEWER DETAILS STANDARD HOUSE CONNECTIONS (PROPERTY LINE RISER)	
STANDARD DESIGN	SD-110
AUG. 17 LG	AUG. 6 drw (caj)
	NOV. 25, 97 drw (cad)
	DEC. 97 drw (cad)
	FEB. 98 drw (cad)
	JULY 05



CURB DETAIL

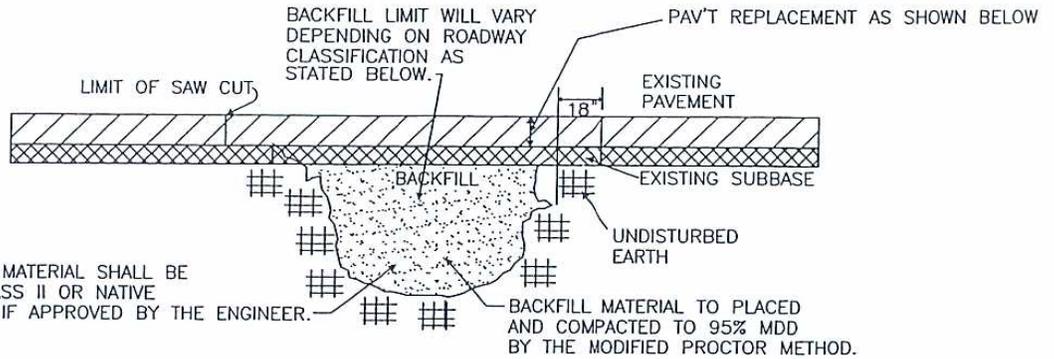
STANDARD MDOT C-4 CURB WITHOUT REBAR

CITY OF PORTAGE

STANDARD
CURB

AUG.17.93
L.G.N.
JULY'05
J&H

STANDARD
DESIGN SD-113

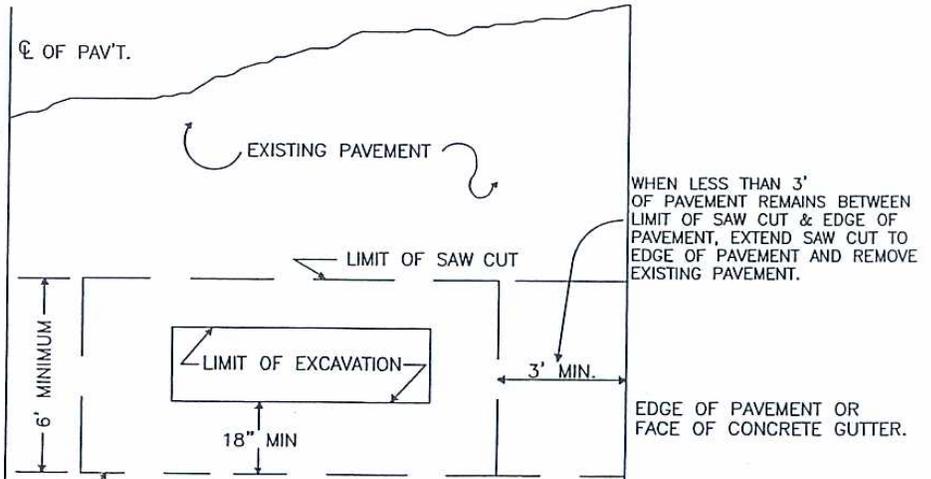


BACKFILL MATERIAL SHALL BE MDOT CLASS II OR NATIVE MATERIAL IF APPROVED BY THE ENGINEER.

CROSS SECTION
NO SCALE

- **PAVEMENT REPLACEMENT:**
 MAJOR ROAD (ADT > 2000): 4" (COMPACTED) MDOT 22A, 5" MDOT 13A HMA BASE COURSE (TWO LIFTS MIN.) AND 3" OF MDOT 13A HMA - LEVELING AND TOP COURSES.
 LOCAL ROAD (ADT < 2000): 6" (COMPACTED) MDOT 22A, 2" MDOT 13A HMA & 1-1/2" OF MDOT 36A HMA.

NOTE: LENGTH AND WIDTH OF THE PATCH VARY DEPENDING ON THE DEPTH OF THE EXCAVATION.



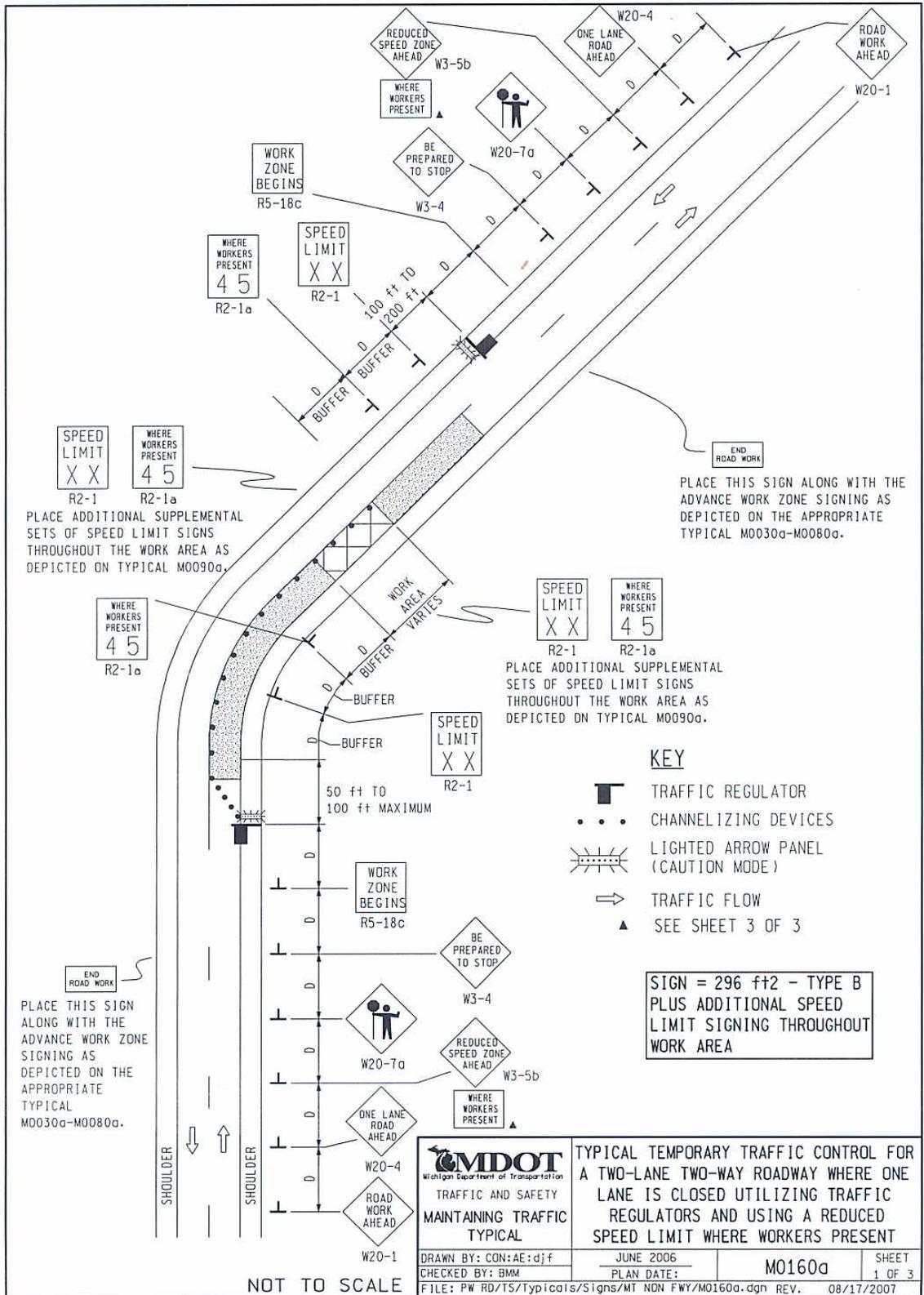
FINISH NEAT SAWCUT AS DETAILED HEREIN ONLY WHEN EXCAVATION IS COMPLETE AND PREPARATION FOR FINISH REPAIR IS BEING IMPLEMENTED.

PLAN VIEW

NO SCALE

1. ALL NON UTILITY PAVEMENT REPLACEMENT REQUESTS WILL REQUIRE A PERMIT ISSUED BY THE TRANSPORTATION AND UTILITIES DEPARTMENT.
2. 48 HOURS NOTICE IS TO BE GIVEN TO THE CITY OF PORTAGE TRANSPORTATION & UTILITIES DEPT. PRIOR TO ANY LANE RESTRICTION, CLOSURE OR DETOUR IMPLEMENTATION.
3. EXISTING PAVEMENT SHALL BE SAW CUT A MINIMUM OF 18" FROM THE EDGE OF THE EXCAVATION.
4. A MIN. PATCH WIDTH OF 6' IS REQUIRED SO AS TO FACILITATE A STEEL WHEELED ROLLER WHEN RUNNING PERPENDICULAR TO CENTERLINE OF ROADWAY.
5. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CITY OF PORTAGE CONTRACT CONDITIONS AND SPECIFICATIONS.

CITY OF PORTAGE	
PAVEMENT REPLACEMENT DETAIL	4-96 D.R.W. T2-97 D.R.W. JAN'98 DRW FEB'98 DRW AUG'05 J&H
STANDARD DESIGN	SD-165
APPROVED BY	<i>wcb</i>



NOT TO SCALE

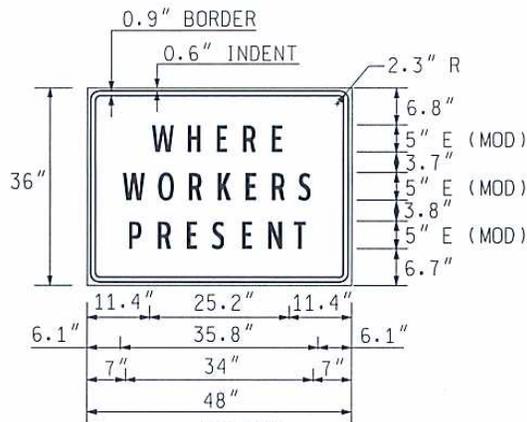
NOTES

- 1H. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES AND LENGTH OF LONGITUDINAL BUFFERS
SEE M0020a FOR "D" VALUES.
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE SPACING OF CHANNELIZING DEVICES SHOULD NOT EXCEED 15 FEET WHEN USED FOR TAPER CHANNELIZATION, AND SHOULD NOT EXCEED 90 FEET WHEN USED FOR TANGENT CHANNELIZATION.
5. FOR OVERNIGHT CLOSURES, CHANNELIZING DEVICES SHALL BE LIGHTED PLASTIC DRUMS.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHY REQUIREMENTS STIPULATED IN THE 2005 EDITION OF THE MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION, THE STANDARD PLANS AND APPLICABLE SPECIAL PROVISIONS. ONLY DESIGNS AND MATERIALS APPROVED BY MDOT WILL BE ALLOWED.
9. ALL TRAFFIC REGULATORS SHALL BE PROPERLY TRAINED AND SUPERVISED.
- 9A. IN ANY OPERATION INVOLVING MORE THAN ONE TRAFFIC REGULATOR, ONE PERSON SHOULD BE DESIGNATED AS HEAD TRAFFIC REGULATOR.
10. ALL TRAFFIC REGULATORS' CONDUCT, THEIR EQUIPMENT, AND TRAFFIC REGULATING PROCEDURES SHALL CONFORM TO THE CURRENT EDITION OF THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD) AND THE CURRENT EDITION OF THE MDOT HANDBOOK ENTITLED "TRAFFIC REGULATORS INSTRUCTION MANUAL."
11. WHEN TRAFFIC REGULATING IS ALLOWED DURING THE HOURS OF DARKNESS, APPROPRIATE LIGHTING SHALL BE PROVIDED TO SUFFICIENTLY ILLUMINATE THE TRAFFIC REGULATOR'S STATIONS.
- 12E. THE MAXIMUM DISTANCE BETWEEN THE TRAFFIC REGULATORS SHALL BE NO MORE THAN 2 MILES IN LENGTH UNLESS RESTRICTED FURTHER IN THE SPECIAL PROVISIONS FOR MAINTAINING TRAFFIC. ALL SEQUENCES OF MORE THAN 2 MILES IN LENGTH WILL REQUIRE WRITTEN PERMISSION FROM THE ENGINEER BEFORE PROCEEDING.
13. WHEN INTERSECTING ROADS OR SIGNIFICANT TRAFFIC GENERATORS (SHOPPING CENTERS, MOBILE HOME PARKS, ETC.) OCCUR WITHIN THE ONE-LANE TWO-WAY OPERATION, INTERMEDIATE TRAFFIC REGULATORS AND APPROPRIATE SIGNING SHALL BE PLACED AT THESE LOCATIONS.

 Michigan Department of Transportation TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL	TYPICAL TEMPORARY TRAFFIC CONTROL FOR A TWO-LANE TWO-WAY ROADWAY WHERE ONE LANE IS CLOSED UTILIZING TRAFFIC REGULATORS AND USING A REDUCED SPEED LIMIT WHERE WORKERS PRESENT						
DRAWN BY: CON:AE:djf CHECKED BY: BMM	<table style="width: 100%; border: none;"> <tr> <td style="width: 33%; text-align: center;">JUNE 2006</td> <td style="width: 33%; text-align: center;">M0160a</td> <td style="width: 33%; text-align: center;">SHEET</td> </tr> <tr> <td style="text-align: center;">PLAN DATE:</td> <td></td> <td style="text-align: center;">2 OF 3</td> </tr> </table>	JUNE 2006	M0160a	SHEET	PLAN DATE:		2 OF 3
JUNE 2006	M0160a	SHEET					
PLAN DATE:		2 OF 3					
FILE: PW RD/TS/Typicals/Signs/MT NDN FWY/M0160a.dgn REV. 08/17/2007							

NOT TO SCALE

- 14. ADDITIONAL SIGNING AND/OR ELONGATED SIGNING SEQUENCES SHOULD BE USED WHEN TRAFFIC VOLUMES ARE SIGNIFICANT ENOUGH TO CREATE BACKUPS BEYOND THE W3-4 SIGNS.
- 15. THE HAND HELD (PADDLE) SIGNS REQUIRED BY THE MMUTCD TO CONTROL TRAFFIC WILL BE PAID FOR AS PART OF FLAG CONTROL.
- 28E. THE TRAFFIC REGULATORS SHOULD BE POSITIONED AT OR NEAR THE SIDE OF THE ROAD SO THAT THEY ARE SEEN CLEARLY AT A MINIMUM DISTANCE OF 500 FEET. THIS MAY REQUIRE EXTENDING THE BEGINNING OF THE LANE CLOSURE TO OVERCOME VIEWING PROBLEMS CAUSED BY HILLS AND CURVES.
- 29D. THE TYPE OF REFLECTIVE SHEETING USED FOR THE "WHERE WORKERS PRESENT" PLAQUE SHALL BE THE SAME AS THE TYPE USED FOR THE PARENT SIGN.



COLORS
 LEGEND AND BORDER - BLACK (NON-REFLECTORIZED)
 BACKGROUND - ORANGE (REFLECTORIZED)

SIGN SIZES

DIAMOND WARNING	- 48" x 48"
"WORKERS PRESENT" PLAQUE	- 48" x 36"
RECTANGULAR REGULATORY	- 48" x 60"
R5-18c REGULATORY	- 48" x 48"

NOT TO SCALE



TRAFFIC AND SAFETY
 MAINTAINING TRAFFIC
 TYPICAL

TYPICAL TEMPORARY TRAFFIC CONTROL FOR
 A TWO-LANE TWO-WAY ROADWAY WHERE ONE
 LANE IS CLOSED UTILIZING TRAFFIC
 REGULATORS AND USING A REDUCED
 SPEED LIMIT WHERE WORKERS PRESENT

DRAWN BY: CON:AE:djf

JUNE 2006

M0160a

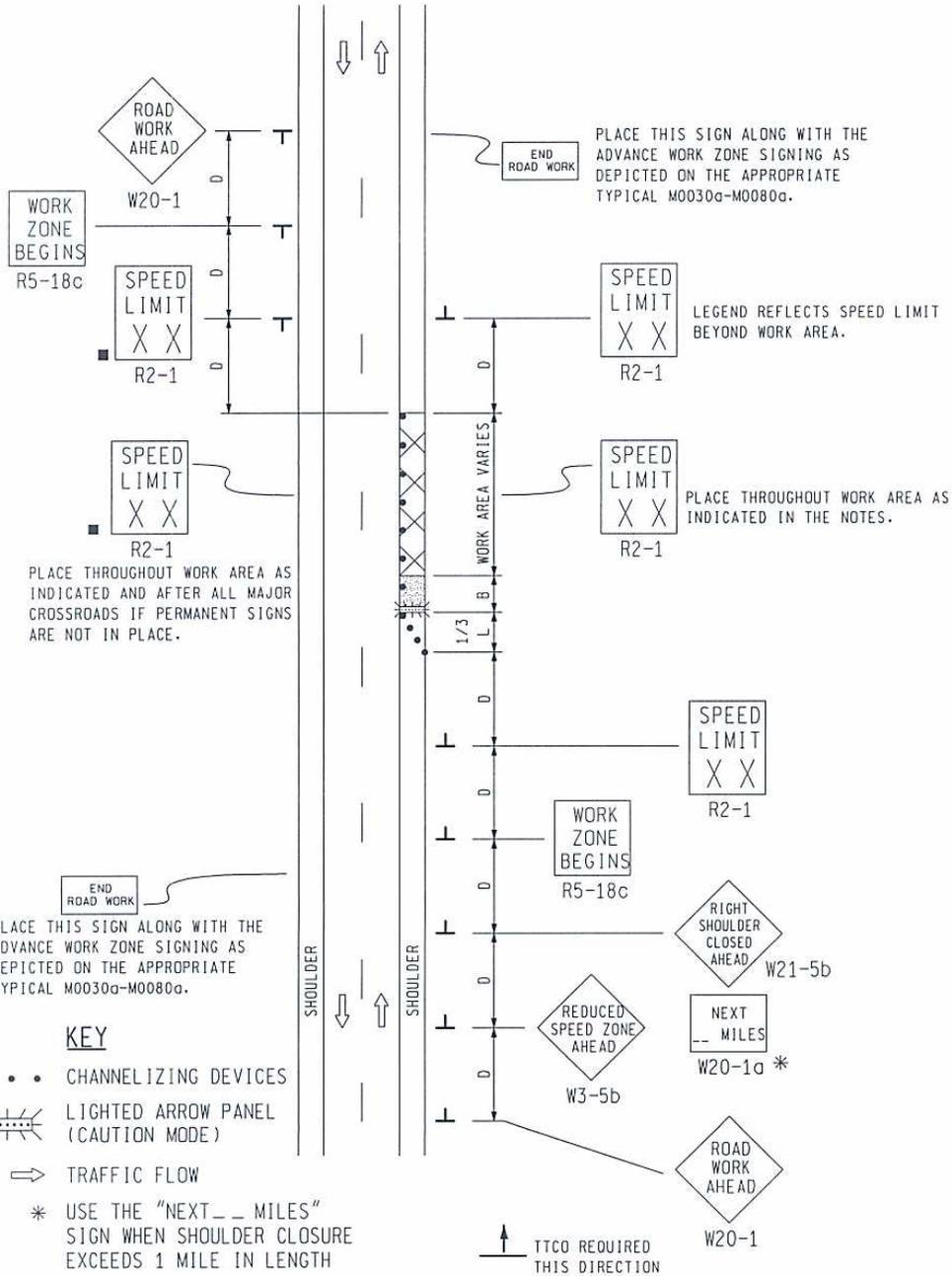
SHEET

CHECKED BY: BMM

PLAN DATE:

3 OF 3

FILE: PW RD/TS/Typicals/Signs/MT NON FWY/M0160a.dgn REV. 08/17/2007



SIGN = 172 ft2 - TYPE B
 W/PLAQUE = 184 ft2 - TYPE B
 PLUS ADDITIONAL R2-1's
 THROUGHOUT WORK AREA

MDOT
 Michigan Department of Transportation
 TRAFFIC AND SAFETY
 MAINTAINING TRAFFIC
 TYPICAL

TYPICAL TEMPORARY TRAFFIC CONTROL
 FOR A SHOULDER CLOSURE ON A TWO
 LANE TWO-WAY ROADWAY USING A SINGLE
 STEP DOWN IN SPEED LIMIT IN
 ONE DIRECTION ONLY

DRAWN BY: CON:AE:djf
 CHECKED BY: BMM

JUNE 2006
 PLAN DATE:

M0120a

SHEET
 1 OF 2

NOT TO SCALE

FILE: PW RD/TS/Typicals/Signs/MT NON FWY/M0120a.dgn REV. 08/16/2007

NOTES

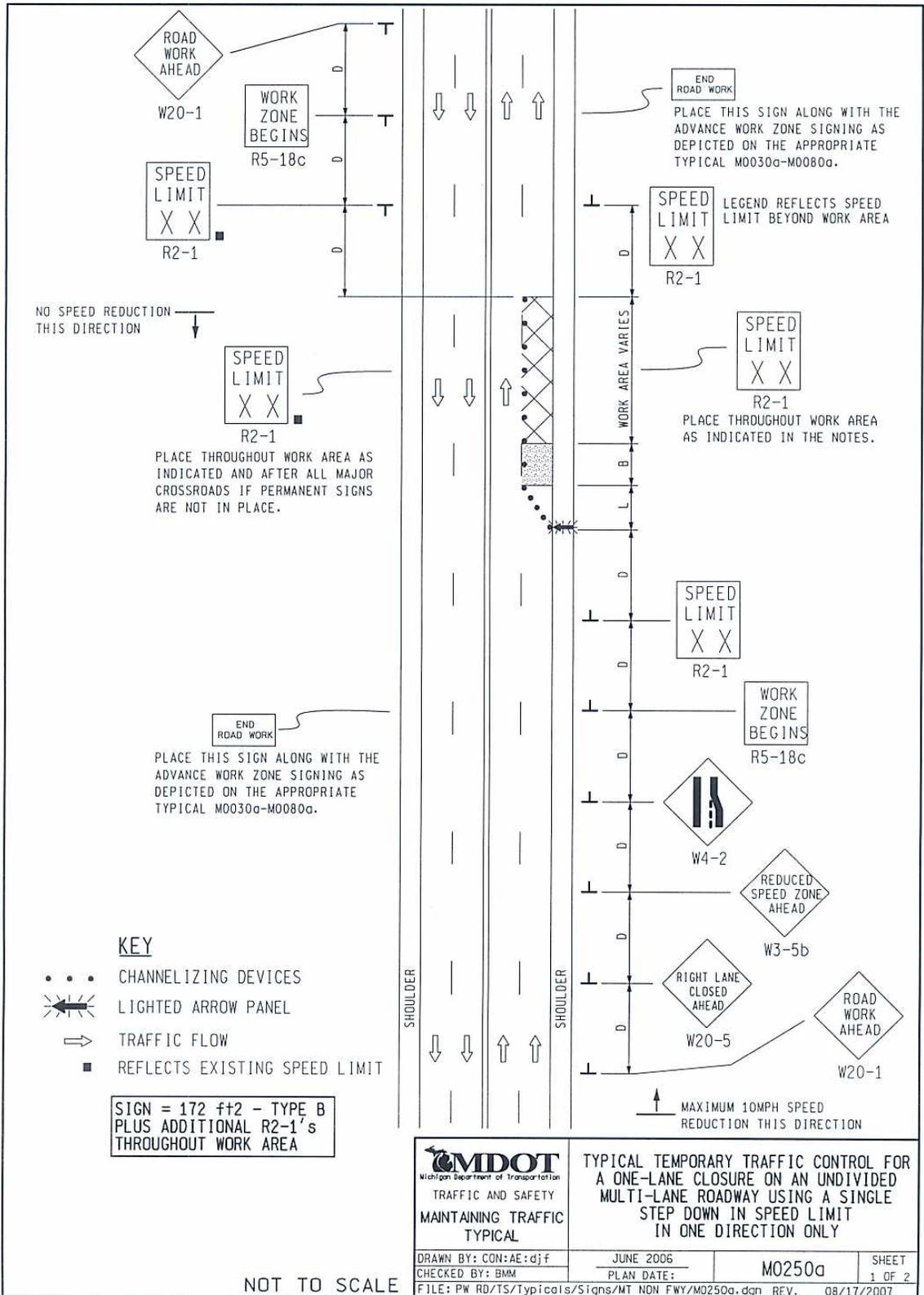
1. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
 1/3 L = MINIMUM LENGTH OF TAPER
 B = LENGTH OF LONGITUDINAL BUFFER
 SEE M0020a FOR "D," "L," AND "B" VALUES
2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
5. FOR OVERNIGHT CLOSURES, CHANNELIZING DEVICES SHALL BE LIGHTED PLASTIC DRUMS.
6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHY REQUIREMENTS STIPULATED IN THE 2005 EDITION OF THE MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION, THE STANDARD PLANS AND APPLICABLE SPECIAL PROVISIONS. ONLY DESIGNS AND MATERIALS APPROVED BY MDT WILL BE ALLOWED.
8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16A. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH MAJOR CROSSROAD THAT INTERSECTS THE WORK AREA WHERE THE REDUCED SPEED IS IN EFFECT, AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
- 29A. THE TYPE OF REFLECTIVE SHEETING USED FOR THE W20-1a PLAQUE SHALL BE THE SAME AS THE TYPE USED FOR THE PARENT SIGN.

SIGN SIZES

DIAMOND WARNING - 48" x 48"
 W20-1a PLAQUE - 48" x 36"
 R2-1 REGULATORY - 48" x 60"
 R5-18c REGULATORY - 48" x 48"

NOT TO SCALE

 TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL	TYPICAL TEMPORARY TRAFFIC CONTROL FOR A SHOULDER CLOSURE ON A TWO LANE TWO-WAY ROADWAY USING A SINGLE STEP DOWN IN SPEED LIMIT IN ONE DIRECTION ONLY	
	DRAWN BY: CON:AE:djf CHECKED BY: BMM	JUNE 2006 PLAN DATE:
FILE: PW RD/TS/Typicals/Signs/MT NON FWY/M0120a.dgn REV. 08/16/2007		



NO SPEED REDUCTION THIS DIRECTION

PLACE THROUGHOUT WORK AREA AS INDICATED AND AFTER ALL MAJOR CROSSROADS IF PERMANENT SIGNS ARE NOT IN PLACE.

PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

- KEY**
- CHANNELIZING DEVICES
 - ← LIGHTED ARROW PANEL
 - TRAFFIC FLOW
 - REFLECTS EXISTING SPEED LIMIT

SIGN = 172 ft2 - TYPE B PLUS ADDITIONAL R2-1's THROUGHOUT WORK AREA

PLACE THIS SIGN ALONG WITH THE ADVANCE WORK ZONE SIGNING AS DEPICTED ON THE APPROPRIATE TYPICAL M0030a-M0080a.

LEGEND REFLECTS SPEED LIMIT BEYOND WORK AREA

PLACE THROUGHOUT WORK AREA AS INDICATED IN THE NOTES.

MAXIMUM 10MPH SPEED REDUCTION THIS DIRECTION

MDOT
Michigan Department of Transportation
TRAFFIC AND SAFETY
MAINTAINING TRAFFIC
TYPICAL

TYPICAL TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON AN UNDIVIDED MULTI-LANE ROADWAY USING A SINGLE STEP DOWN IN SPEED LIMIT IN ONE DIRECTION ONLY

DRAWN BY: CON:AE:djf
CHECKED BY: BMM

JUNE 2006
PLAN DATE: M0250a
SHEET 1 OF 2

NOT TO SCALE

NOTES

- 1B. D = DISTANCE BETWEEN TRAFFIC CONTROL DEVICES
 L = MINIMUM LENGTH OF TAPER
 B = LENGTH OF LONGITUDINAL BUFFER
 SEE M0020a FOR "D," "L," AND "B" VALUES
- 2. ALL NON-APPLICABLE SIGNING WITHIN THE CIA SHALL BE MODIFIED TO FIT CONDITIONS, COVERED OR REMOVED.
- 3. DISTANCES BETWEEN SIGNS, THE VALUES FOR WHICH ARE SHOWN IN TABLE D, ARE APPROXIMATE AND MAY NEED ADJUSTING AS DIRECTED BY THE ENGINEER.
- 3A. THE "WORK ZONE BEGINS" (R5-18c) SIGN SHALL BE USED ONLY IN THE INITIAL SIGNING SEQUENCE IN THE WORK ZONE. SUBSEQUENT SEQUENCES IN THE SAME WORK ZONE SHALL OMIT THIS SIGN AND THE QUANTITIES SHALL BE ADJUSTED APPROPRIATELY.
- 4E. THE MAXIMUM RECOMMENDED DISTANCE(S) BETWEEN CHANNELIZING DEVICES SHOULD BE EQUAL IN FEET TO THE POSTED SPEED IN MILES PER HOUR ON TAPER(S) AND TWICE THE POSTED SPEED IN THE PARALLEL AREA(S).
- 5. FOR OVERNIGHT CLOSURES, CHANNELIZING DEVICES SHALL BE LIGHTED PLASTIC DRUMS.
- 6. WHEN CALLED FOR IN THE FHWA ACCEPTANCE LETTER FOR THE SIGN SYSTEM SELECTED, THE TYPE A WARNING FLASHER, SHOWN ON THE WARNING SIGNS, SHALL BE POSITIONED ON THE SIDE OF THE SIGN NEAREST THE ROADWAY.
- 7. ALL TEMPORARY SIGNS, TYPE III BARRICADES, THEIR SUPPORT SYSTEMS AND LIGHTING REQUIREMENTS SHALL MEET NCHRP 350 CRASHWORTHLY REQUIREMENTS STIPULATED IN THE 2005 EDITION OF THE MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION, THE STANDARD PLANS AND APPLICABLE SPECIAL PROVISIONS. ONLY DESIGNS AND MATERIALS APPROVED BY MDT WILL BE ALLOWED.
- 8. WHEN BUFFER AREAS ARE ESTABLISHED, THERE SHALL BE NO EQUIPMENT OR MATERIALS STORED OR WORK CONDUCTED IN THE BUFFER AREA.
- 16A. ADDITIONAL SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED SHALL BE PLACED AFTER EACH MAJOR CROSSROAD THAT INTERSECTS THE WORK AREA WHERE THE REDUCED SPEED IS IN EFFECT, AND AT INTERVALS ALONG THE ROADWAY SUCH THAT NO SPEED LIMIT SIGNS REFLECTING THE REDUCED SPEED ARE MORE THAN TWO MILES APART.
- 16B. WHEN REDUCED SPEED LIMITS ARE UTILIZED IN THE WORK AREA, ADDITIONAL SPEED LIMIT SIGNS RETURNING TRAFFIC TO ITS NORMAL SPEED SHALL BE PLACED BEYOND THE LIMITS OF THE REDUCED SPEED AS INDICATED.
- 16E. WHEN EXISTING SPEED LIMITS ARE REDUCED MORE THAN 10 MPH, THE SPEED LIMIT SHALL BE STEPPED DOWN IN NO MORE THAN 10 MPH INCREMENTS.
- 21. ALL EXISTING PAVEMENT MARKINGS WHICH ARE IN CONFLICT WITH EITHER PROPOSED CHANGES IN TRAFFIC PATTERNS OR PROPOSED TEMPORARY TRAFFIC MARKINGS, SHALL BE REMOVED BEFORE ANY CHANGE IS MADE IN THE TRAFFIC PATTERN. EXCEPTION WILL BE MADE FOR DAYTIME-ONLY TRAFFIC PATTERNS THAT ARE ADEQUATELY DELINEATED BY OTHER TRAFFIC CONTROL DEVICES.
- 26. THE LIGHTED ARROW PANEL SHALL BE LOCATED AT THE BEGINNING OF THE TAPER AS SHOWN. WHEN PHYSICAL LIMITATIONS RESTRICT ITS PLACEMENT AS INDICATED, THEN IT SHALL BE PLACED AS CLOSE TO THE BEGINNING OF THE TAPER AS POSSIBLE.

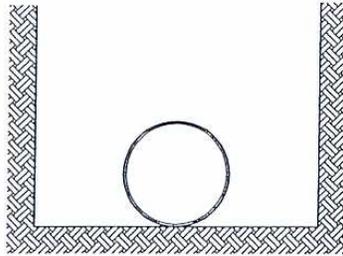
SIGN SIZES

DIAMOND WARNING - 48" x 48"
 RECTANGULAR REGULATORY - 48" x 60"
 R5-18c REGULATORY - 48" x 48"

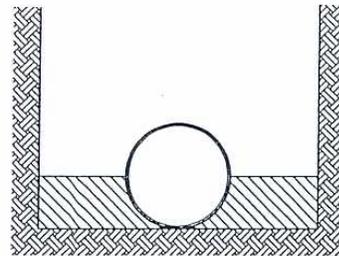
 TRAFFIC AND SAFETY MAINTAINING TRAFFIC TYPICAL	TYPICAL TEMPORARY TRAFFIC CONTROL FOR A ONE-LANE CLOSURE ON AN UNDIVIDED MULTI-LANE ROADWAY USING A SINGLE STEP DOWN IN SPEED LIMIT IN ONE DIRECTION ONLY		
	DRAWN BY: CON:AE:djf CHECKED BY: BMM	JUNE 2006 PLAN DATE:	M0250a
FILE: PW RD/TS/Typicals/Signs/MT NON FWY/M0250a.dgn REV. 08/17/2007			

NOT TO SCALE

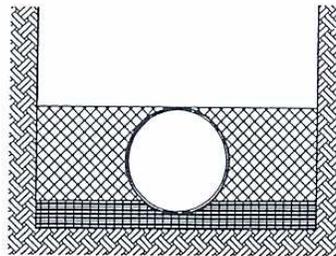
LAYING CONDITIONS FOR DUCTILE IRON PIPE.



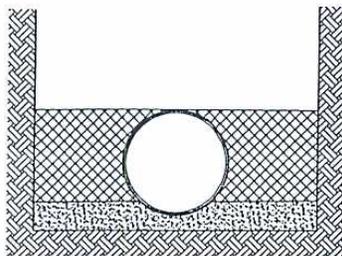
TYPE 1: *
FLAT BOTTOM TRENCH. ** LOOSE BACKFILL



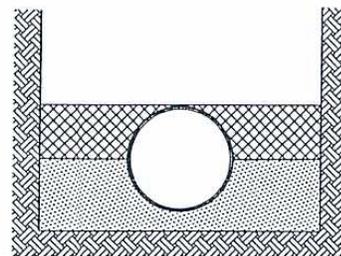
TYPE 2:
FLAT BOTTOM TRENCH. ** BACKFILL LIGHTLY
CONSOLIDATED TO CENTERLINE OF PIPE.



TYPE 3:
PIPE BEDDED IN 4 IN. MINIMUM OF LOOSE SOIL. ***
BACKFILL LIGHTLY CONSOLIDATED TO TOP OF PIPE.



TYPE 4:
PIPE BEDDED IN SAND, GRAVEL OR CRUSHED STONE TO
DEPTH OF 1/8 PIPE DIAMETER, 4IN. MINIMUM.
BACKFILL COMPACTED TO TOP OF PIPE.
(APPROXIMATELY 80% STANDARD PROCTOR, AASHTO T-99.)



TYPE 5:
PIPE BEDDED IN COMPACTED GRANULAR MATERIAL TO
CENTERLINE OF PIPE. COMPACTED GRANULAR OR
SELECT MATERIAL++ TO TOP OF PIPE. (APPROXIMATELY
90% STANDARD PROCTOR, AASHTO T-99.)

NOTES:

1. MINIMUM DEPTH 5'
2. MAXIMUM DEPTH 6'
3. *FOR 14 IN. AND LARGER PIPE, CONSIDERATION SHOULD BE GIVEN TO THE USE OF LAYING CONDITIONS OTHER THAN TYPE 1.
4. ***"FLAT BOTTOM" IS DEFINED AS UNDISTURBED EARTH.
5. ++ "LOOSE SOIL" OR "SELECT MATERIAL" IS DEFINED AS NATIVE SOIL EXCAVATED FROM THE TRENCH, FREE OF ROCKS, FOREIGN MATERIALS AND FROZEN EARTH.

CITY OF PORTAGE

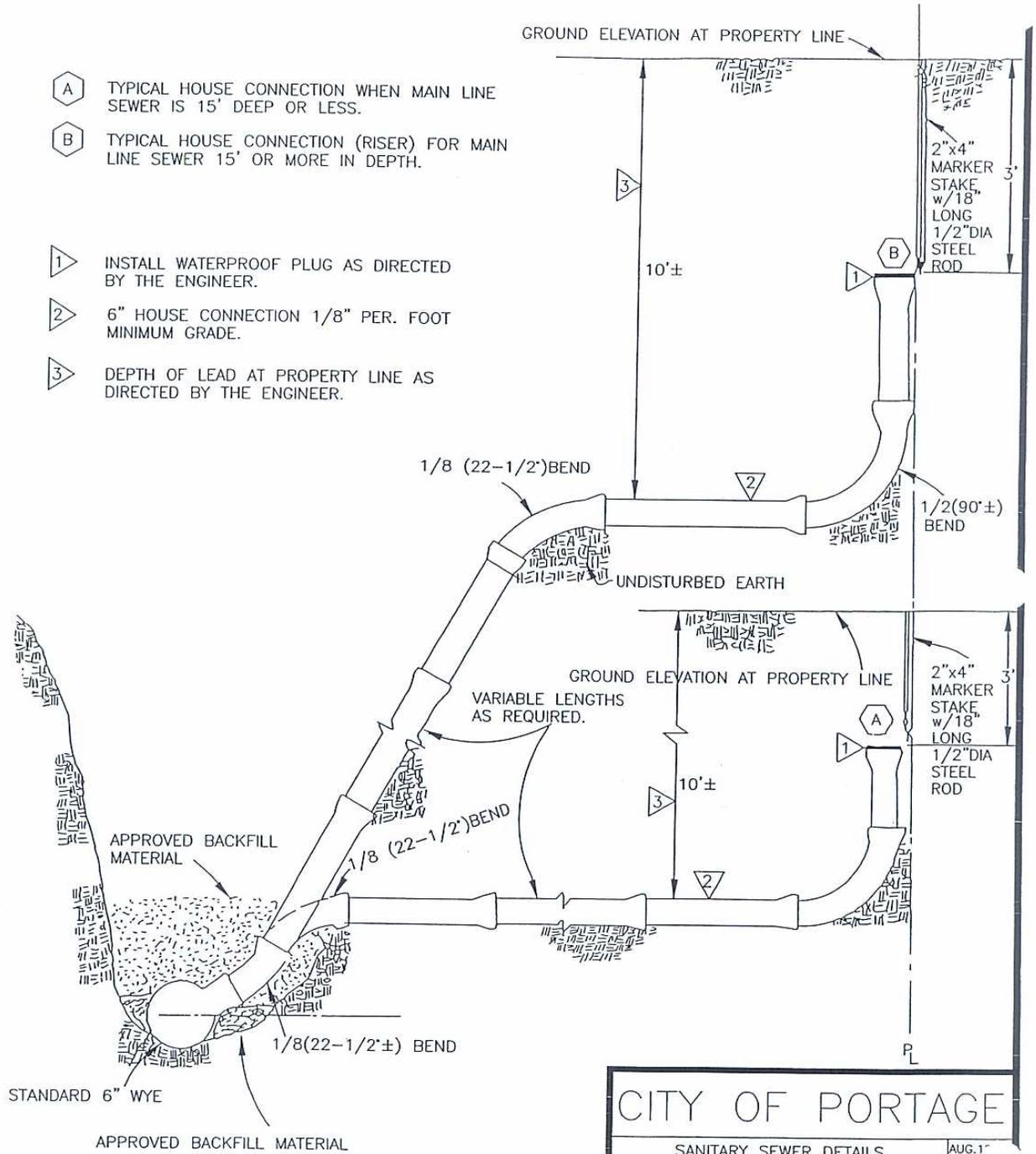
STANDARD TRENCH DETAIL
FOR DUCTILE IRON
WATER MAIN

AUG'05
J&H

STANDARD
DESIGN SD-168

APPROVED BY *WCS*

- A** TYPICAL HOUSE CONNECTION WHEN MAIN LINE SEWER IS 15' DEEP OR LESS.
- B** TYPICAL HOUSE CONNECTION (RISER) FOR MAIN LINE SEWER 15' OR MORE IN DEPTH.
- 1** INSTALL WATERPROOF PLUG AS DIRECTED BY THE ENGINEER.
- 2** 6" HOUSE CONNECTION 1/8" PER. FOOT MINIMUM GRADE.
- 3** DEPTH OF LEAD AT PROPERTY LINE AS DIRECTED BY THE ENGINEER.



CITY OF PORTAGE	
SANITARY SEWER DETAILS STANDARD HOUSE CONNECTIONS (PROPERTY LINE RISER)	
STANDARD DESIGN	SD-110
AUG. 17 L.C.	AUG. 97 drw(cad)
	NOV. 25, 97 drw(cad)
	DEC. 97 drw(cad)
	FEB. 98 drw(cad)
	JULY 05