

VILLAGE OF DOWNERS GROVE
Report for the Village
9/17/2019

SUBJECT:	SUBMITTED BY:
Design-Build Services for St. Joseph Creek Restoration	Nan Newlon Director of Public Works

SYNOPSIS

A motion is requested to award a contract for the St. Joseph Creek Restoration Design-Build to V3 Construction Group (V3), Woodridge, Illinois in the amount of \$1,169,500.00.

STRATEGIC PLAN ALIGNMENT

The goals for 2017-2019 include *Top Quality Infrastructure*.

FISCAL IMPACT

This project will span FY19 and FY20. The total cost for FY19 is \$1,036,170.50 and is covered via the FY19 budget and two grants:

- The FY19 budget includes \$615,950 in the Stormwater Fund for this project.
- A Section 319 Grant through the Illinois Environmental Protection Agency (IEPA) in the amount of \$345,942
- A Water Quality Improvement Program Grant from DuPage County (County) in the amount of \$74,278.50

The remaining \$133,329.50 will be included in the FY20 Budget.

UPDATE & RECOMMENDATION

This item was discussed at the September 10, 2019 Village Council meeting. Staff recommends approval on the September 17, 2019 consent agenda.

BACKGROUND

A study of the South Branch of St. Joseph Creek between Fairmount Avenue and Main Street was performed in 2016. The results of the study identified areas for improved flow, erosion control, and small-scale storage on Village-owned parcels. Grants through the IEPA and the County were applied for and received for assistance in implementing the recommended improvements.

To improve the water quality of St. Joseph's Creek the Village is proposing stream channel restoration, stream channel stabilization, wetland restoration, permanent vegetative cover, rock outlet protection and tree plantings.

On July 15, 2019, staff requested Design-Build proposals for:

- Development of final plans;
- Permitting of improvements;
- Access and clearing, slope grading and stabilization;
- Replacement of box culverts under Lyman and Fairmount Avenues;
- Native area planting with 3-year monitoring and maintenance activities

The Village received two responses to the Design-Build request for proposals. Methods and costs proposed by V3 align most closely with the Village's project objectives and budget. The contract includes a 20% contingency for the construction and design fees, as well as a total of \$22,800 for resident engineering services to be authorized by staff, if required. In addition, sediment removal east of Fairmount is proposed to ensure functionality as water enters Barth Pond.

Upon approval of this contract, V3 and its team will begin the development of final plans and permitting. The permitting process will be extensive due to work within the mapped floodplain and floodway. It is anticipated that design and permitting will occur in 2019 and construction in 2020. Included with the construction is the replacement of culverts at Lyman and Fairmount Avenues.

V3 has successfully performed creek channel improvements on Lacey Creek and Prentiss Creek, as well as design-build improvements for Brookbank Road and associated stormwater improvements in 2018. Staff recommends award of this contract to V3 based on their design-build team's proposal and their record of satisfactorily performing similar construction work.

ATTACHMENTS

Contract Documents
Contractor Evaluation



PROPOSAL



TECHNICAL PROPOSAL

St. Joseph Creek South Restoration Design Build



SUBMITTED TO

Village of Downers Grove



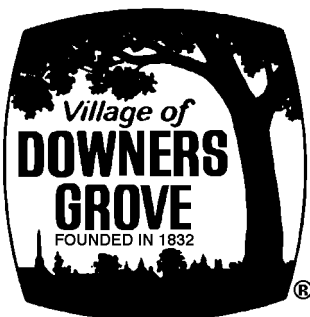
SUBMITTED ON

August 1, 2019



PROPOSAL #

SW-088-19



REQUEST FOR PROPOSAL (Professional Services)

Name of Proposing Company: V3 Construction Group, Ltd.

Project Name: St. Joseph Creek South Restoration Design Build

Proposal No.: SW-088-19

Proposal Due: Thursday, August 1, 2019 @ 10:00 A.M – Public Works

Pre-Proposal Conference: Thursday, July 18, 2019 @ 10:00 A.M – Public Works (OPTIONAL)

Required of All Proposers:

Deposit/Bid Bond: No
 Letter of Capability of Acquiring Performance Bond: Yes

Required of Awarded Contractor:

Performance Bond/Letter of Credit: Yes
 Certificate of Insurance: Yes

Date Issued: Monday, July 15, 2019

This document consists of 168 pages.

Return **original** and an **electronic copy** (.pdf) of the Technical Proposal and an **original** of the Cost Proposal in **separate sealed envelopes** marked with the Proposal Number as noted above to:

JOHN WELCH
 ASSISTANT DIRECTOR PUBLIC WORKS – ENGINEERING
 VILLAGE OF DOWNERS GROVE
 5101 WALNUT AVENUE
 DOWNERS GROVE, IL 60515
 PHONE: 630/434-5494
 FAX: 630/434-5495
www.downers.us

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The VILLAGE OF DOWNERS GROVE will receive proposals Monday thru Friday, 8:00 A.M. to 5:00 P.M. at the Public Works Facility, 5101 Walnut Avenue, Downers Grove, IL 60515.

SPECIFICATIONS MUST BE MET AT THE TIME THE PROPOSAL IS DUE.

The Village Council reserves the right to accept or reject any and all proposals, to waive technicalities and to accept or reject any item of any proposal.

The documents constituting component parts of this contract are the following:

- I. REQUEST FOR PROPOSALS
- II. TERMS & CONDITIONS
- III. PROJECT SPECIFICATIONS
- IV. SPECIAL PROVISIONS
- V. PROPOSER'S RESPONSE TO RFP (DESIGN/BUILD SERVICES)
- V. PROPOSAL/CONTRACT FORM

DO NOT DETACH ANY PORTION OF THIS DOCUMENT. INVALIDATION COULD RESULT. Proposers MUST submit an original and an electronic copy in the form of a .pdf file of the Technical Proposal and an original of the Cost Proposal. Upon formal award of the proposal, this RFP document shall become the contract. The successful Proposer will receive a copy of the executed contract.

I. REQUEST FOR PROPOSALS

1. QUALIFICATIONS

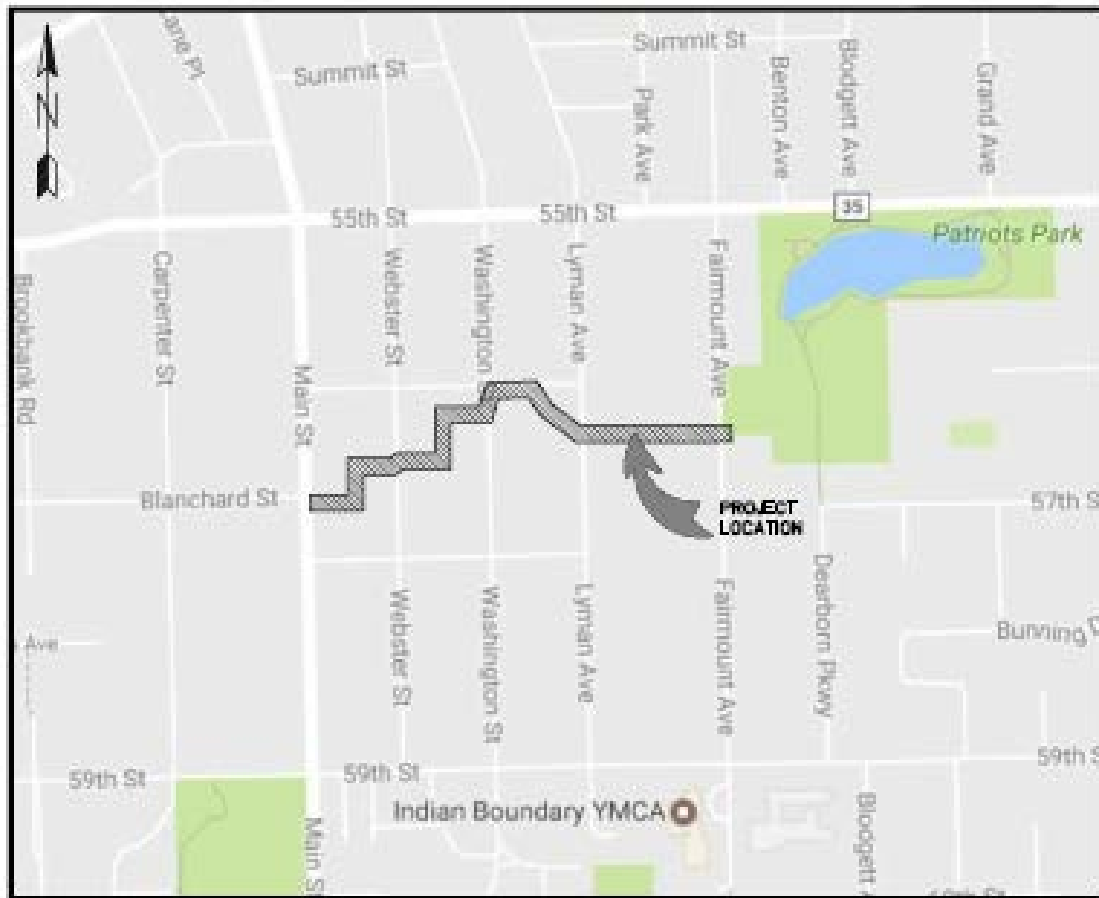
- 1.1 The Village of Downers Grove (Village) is seeking technical cost proposals from pre-qualified Firms (Proposers) to provide Permitting and Design/Build Services for improvements to St. Joseph Creek South.

2. PROJECT INFORMATION

2.1 Project Description:

This work includes permitting and design/construction relating to the rehabilitation/maintenance of existing culvert pipes, streambank stabilization, installing natural features and channel modification. The Village has received IEPA 319 Grant funding as well as DuPage County Water Quality Grant funding for this work. The Project Details Section of the 319 Grant Application are included as Appendix A. Preliminary plans developed in 2017 are included in Appendix B. Village Standard Details are included in Appendix C.

2.1.1 Project Location:



LOCATION MAP

Village of Downers Grove – St. Joseph Creek South Restoration Design Build (SW-088-19)

2.1.2 Anticipated Improvements:

The Village of Downers Grove is proposing creek restoration for St. Joseph Creek South, within the area between Main Street and Fairmount Avenue. The stream channel cross-section shall maintain the bankfull width (approximately 9 feet), and graded to a maximum outer bend side slope of 4:1 and inner bend side slope of 6:1 where possible, and a lower bankfull elevation.

The Village has also acquired several residential properties adjacent to the creek, which will allow the Village to construct additional meanders within the creek. The profile of the creek shall be reestablished to remove the effects of downcutting. The new meanders shall be designed with point bar river rock on inside bends and pool areas on outside bends. The straight segments between the curves shall be enhanced in seven locations with riffle areas (sands, gravels, cobbles, and boulders). The goal of the riffle sequences is to accelerate the water column velocity over these heavy substrates, so as to improve aeration and thus dissolved oxygen. In addition, these riffle-run sections shall aggrade new sands and small gravel to the design matrix of gravel, cobble and boulders and create new stream habitat currently absent within the project area. The new channel shall also be installed with improved substrate composition. Approximately 975 linear feet of the creek shall be remeandered, enhanced with riffle pool sequences, and reestablished with lower bank slopes.

Sections of the St. Joseph Creek banks are currently or were previously stabilized with wood retaining walls, cinder block retaining walls, and concrete lining, among other methods. The removal of the retaining walls and installation of bioengineering stabilization methods that provide enhanced water quality benefits shall be performed. The proposed project includes 2,455 linear feet of bioengineered streambank stabilization. Stabilization practices that shall be utilized include rock vanes and rock toe in combination with native plugs (at a rate of three plants per linear foot). Rock vanes shall be used adjacent to slopes that are steeper than 4:1 on outside bends. Rock toe and plugs shall be used on outside bends where the slopes are 4:1 or greater. Point bar river rock and plugs shall be used on inside bends of the new meanders where the slopes are 6:1 or greater. Native vegetation and maximum slope of 4:1 shall be utilized on regraded banks in straight stream segments.

Coordination of all permits is required (i.e. US Army Corps of Engineers, DuPage County, the Kane-DuPage Soil and Water Conservation District, Illinois Department of Natural Resources – Office of Water Resources, Village of Downers Grove, etc.), including final sign-off (if required), for the design alternative(s) and all work associated with obtaining permits, i.e. hydraulic/hydrologic calculations, stormwater pollution prevention plans, Notice of Intent, etc.

2.2.3 Base Lump Sum Cost and Contingency

Proposer shall provide a Base Lump Sum Cost for the proposed work, and shall include alternate pricing for any proposed design alternatives. Unit price costs for

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each proposed treatment shall be given, only to be used in the event that the amount of each proposed treatment is increased/reduced as a result of final design and permitting. Proposer shall include a contingency value, over and above the base lump sum cost for the project, which shall be used only in the event of an increase in cost due to changes in the final design and permitting process. Utilizing the unit prices given for each treatment, a final project construction cost shall be calculated, but under no circumstances shall the total project cost exceed the Base Lump Sum Cost plus the Contingency amount.

- 2.3 The Proposer's response to this RFP shall include two separate sealed envelopes as follows:
Sealed Envelope #1: Technical Proposal; **COST PROPOSAL NOT INCLUDED**
Sealed Envelope #2: Cost Proposal
- 2.4 Notice is hereby given that Village of Downers Grove will receive sealed proposals up to **Thursday, August 1, 2019 – 10:00 A.M.**
- 2.5 Proposals must be received at the Village of Downers Grove by the time and date specified. Proposals received after the specified time and date will not be accepted and will be returned unopened to the Proposer.
- 2.6 Technical and Cost Proposals shall be sent to the Village of Downers Grove, ATTN: JOHN WELCH, PE, CFM in a separate sealed envelopes marked "SEALED TECHNICAL PROPOSAL" and "SEALED COST PROPOSAL." The envelopes shall be marked with the name of the project, date, and time set for receipt of proposals.
 - 2.6.1 Technical proposals shall include the following information:
 - Proposed inspection process
 - Proposed design of improvements
 - Anticipated permits required
 - Proposed means and methods for construction
 - Proposed project schedule
 - 2.6.2 Cost proposals shall include the following information:
 - Proposed Lump Sum Cost, including separate costs for any design alternatives, and a 20% Contingency amount
 - Proposed schedule of values including sub-totals for design, permitting, construction and maintenance (if necessary)
 - Permit review fees shall be included for all necessary reviewing agencies
- 2.7 All proposals must be submitted on the forms supplied by the Village and signed by a proper official of the company submitting proposal. Telephone, email and fax proposals will not be accepted.
- 2.8 By submitting this proposal, the Proposer certifies under penalty of perjury that they have not acted in collusion with any other Proposer or potential Proposer.
- 2.9 Defined Terms:

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- 2.9.1 Village – the Village of Downers Grove acting through its officers or agents.
- 2.9.2 Contract Documents – this document plus any drawings issued therewith, any addenda and the Proposer’s completed proposal, bonds and all required certifications.
- 2.9.3 Proposal – this document completed by an individual or entity and submitted to the Village.
- 2.9.4 Proposer – the individual or entity that submits or intends to submit technical and cost proposals to the Village.
- 2.9.5 Contractor – the individual or entity whose proposal is selected by the Village and who enters into a contract with the Village.
- 2.9.6 Work – the construction or service defined herein.
- 2.9.7 Day – unless otherwise stated all references to day “Day” “Days”, “day” or “days” shall refer to calendar days.
- 2.9.8 Proposal Guaranty – the required proposal deposit.
- 3. PREPARATION OF PROPOSAL**
- 3.1 It is the responsibility of the Proposer to carefully examine the specifications and proposal documents and to be familiar with all of the requirements, stipulations, provisions, and conditions surrounding the proposed services.
- 3.2 The Proposer shall inspect the site of the proposed Work in detail, investigate and become familiar with all the local conditions affecting the Work and become fully acquainted with the detailed requirements of the Work. Submitting a Proposal shall be a conclusive assurance and warranty that the Proposer has made these examinations and that the Proposer understands all requirements for the performance of the Work. If the Proposal is accepted, the Proposer will be responsible for all errors in the proposal resulting from his willful or neglectful failure to comply with these instructions. IN NO CASE WILL THE VILLAGE BE RESPONSIBLE FOR ANY COSTS, EXPENSES, LOSSES OR CHANGES IN ANTICIPATED MARGINS OF PROFIT RESULTING FROM THE WILLFUL OR NEGLECTFUL FAILURE OF THE PROPOSER TO MAKE THESE EXAMINATIONS. THE VILLAGE WILL NOT BE RESPONSIBLE FOR ANY COSTS, EXPENSES, LOSSES OR CHANGES IN ANTICIPATED MARGINS OF PROFIT RESULTING FROM THE WILLFUL OR NEGLECTFUL FAILURE OF THE CONTRACTOR TO PROVIDE THE KNOWLEDGE, EXPERIENCE AND ABILITY TO PERFORM THE WORK REQUIRED BY THE CONTRACT. No changes in the prices, quantities or contract provisions shall be made to accommodate the inadequacies of the Proposer, which might be discovered subsequent to award of a contract. The Proposer shall take no advantage of any error or omission in the Contract Documents nor shall any error or omission in the Contract Documents serve as the basis for an adjustment of the

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amounts paid to the Proposer.

- 3.3 When the Contract Documents include information pertaining to subsurface explorations, borings, test pits, and other preliminary investigations, such information is included solely for the convenience of the Proposer. *The Village assumes no responsibility whatsoever with respect to the sufficiency of the information, and does not warrant, neither expressly nor by implication, that the conditions indicated represent those existing throughout the Work, or that unanticipated developments may not occur.*
- 3.4 Any information shown in the Contract Documents regarding the locations of underground utility facilities is included solely for the convenience of the Proposer. The Village assumes no responsibility whatsoever with respect to the sufficiency, accuracy or inadequacy of such information. It shall be the Proposer's responsibility to obtain detailed information from the respective utility companies relating to the location of their facilities and the work schedules of the utility companies for removing or adjusting them. Utilities whose facilities may be affected by the work include, but may not be limited to, the following: Nicor, ComEd, SBC, Comcast Cable, Downers Grove Sanitary District, and Village water, storm sewer, and street lighting systems.
- 3.5 No oral or telephone interpretations of specifications shall be binding upon the Village. All requests for interpretations or clarifications shall be made in writing and received by the Village at least five (5) business days prior to the date set for receipt of proposals or the pre-proposal conference, if offered. The Village shall make all changes or interpretations of the Contract Documents in a written addendum and shall provide an addendum to all proposers of record. Any and all changes to the Contract Documents are valid only if they are included by written addendum to all Proposers. Each Proposer, by acknowledging receipt of any addenda, is responsible for the contents of the addenda and any changes to the Proposal therein. Failure to acknowledge any addenda may cause the Proposal to be rejected. The Village will not assume responsibility for receipt of any addenda. In all cases, it will be the Proposer's responsibility to obtain all addenda issued. Proposers will provide written acknowledgement of receipt of each addendum issued with the proposal submission.
- 3.6 In case of error in the extension of prices in the Proposal, the hourly rate or unit price will govern. In case of discrepancy in the price between the written and numerical amounts, the written amount will govern.
- 3.7 All costs incurred in the preparation, submission, and/or presentation of any proposal including any proposer's travel or personal expenses shall be the sole responsibility of the Proposer and will not be reimbursed by the Village.
- 3.8 The Proposer hereby affirms and states that the prices quoted within its written proposal shall constitute the total cost to the Village for all work involved in the respective items as well as the materials to be furnished in accordance with the collective requirements of the Contract Documents. The Proposer also affirms that this cost also includes all insurance, bonds, royalties, transportation charges, use of all tools and equipment, superintendence, overhead expense, all profits and all other work, services and conditions necessarily

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involved in the work to be done and materials to be furnished in accordance with the requirements of the Contract Documents considered severally and collectively.

- 3.9 The Proposer shall complete and submit with the Proposal an "Affidavit" (IDOT Form BC-57, or similar) listing all uncompleted contracts, including subcontract work; all pending low bids not yet awarded or rejected, and equipment available.

4. PRE- PROPOSAL CONFERENCE

- 4.1 A pre-proposal conference may be offered to provide additional information, inspection or review of current facilities or equipment, and to provide an open forum for questions from proposers. This pre-proposal conference is not mandatory (unless stated "Required" on the cover of this document), but attendance by proposers is strongly advised as this will be the last opportunity to ask questions concerning the proposal.

- 4.2 Questions may be posed in writing to the Village (faxed and emailed questions are acceptable), but must be received by the Village prior to the scheduled time for the pre-proposal conference. Questions received will be considered at the conference. An addendum may be issued as a result of the pre-proposal conference. Such an addendum is subject to the provisions for issuance of an addendum as set forth in Section 2.5 above.

- 4.3 If attendance at the pre-proposal conference is required, no Contract Documents will be issued after the pre-proposal conference except to attendees.

5. COST PROPOSAL SUBMISSION

- 5.1 An original copy of the sealed cost proposal marked as indicated in this Section shall be submitted to the Village.

6. MODIFICATION OR WITHDRAWAL OF PROPOSALS

- 6.1 A Proposal that is in the possession of the Village may be altered by a letter bearing the signature or name of the person authorized for submitting a proposal, provided that it is received prior to the time and date set for the proposal opening. Telephone, email or verbal alterations of a proposal will not be accepted.

- 6.2 A Proposal that is in the possession of the Village may be withdrawn by the Proposer, up to the time set for the proposal opening, by a letter bearing the signature or name of the person authorized for submitting proposals. Proposals may not be withdrawn after the proposal opening and shall remain valid for a period of ninety (90) days from the date set for the proposal opening, unless otherwise specified.

7. PROPOSAL REJECTION

- 7.1 Proposals that contain omissions, erasures, alterations, additions not called for, conditional proposals or alternate proposals not called for, or irregularities of any kind, shall be rejected as informal or insufficient. The Village reserves the right however, to reject any or all proposals and to waive such technical error as may be deemed in the best interest of the Village.

8. PROPOSER COMPETENCY

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- 8.1 No Proposal will be accepted from or contract awarded to any person, firm or corporation that is in arrears or is in default upon any debt or contract. The Proposer, if requested, must present evidence to the Village of ability and possession of necessary facilities, and financial resources to comply with the terms of the Contract Documents. Evidence must be presented within three (3) business days of a request.

9. PROPOSER DISQUALIFICATION

- 9.1 Any one or more of the following causes may be considered as sufficient for the disqualification of a Proposer and the rejection of their Proposal.

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

9.1.2 Evidence of collusion among Proposers.

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

9.1.4 Failure to submit a unit price for each item of Work listed in the Proposal Form (if applicable).

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

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

9.1.7 Uncompleted work which, in the judgment of the Village, might hinder or prevent the prompt completion of this Work.

9.1.8 Failure to submit a signed Proposer's Certificate stating the following:

9.1.8.1 That the Proposer is not barred from bidding on this Contract as a result of a violation of Sections 720 ILCS 5/33-E3 and 720 ILCS 5/33-E4 of the Illinois Compiled Statutes; and

9.1.8.2 The Proposer is not delinquent in the payment of any tax administered by the Illinois Department of Revenue; and

9.1.8.3 The Proposer will maintain the types and levels of insurance required by the terms of this Contract; and

9.1.8.4 The Proposer will comply with the Illinois Prevailing Wage Act, 820 ILCS 130/1 *et seq.*

10. BASIS OF AWARD

- 10.1 The Village reserves the exclusive right to accept or reject any and all proposals or to waive sections, technicalities and irregularities, or to accept or reject any Proposal or any item of

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any Proposal.

11. AWARD OF CONTRACT

- 11.1 Unless the Village exercises its right to reject all proposals, the Contract will be awarded to that responsible Proposer whose Proposal, conforming to the Contract Documents, will be most advantageous to the Village, price and other factors considered. (the credentials, financial information, bonding capacity, insurance protection, qualifications of the labor and management of the firm, past experience and ability to complete the project within time frame required - lowest responsible bidder)
- 11.2 Unless otherwise specified, if a Contract is not awarded within ninety (90) days after the opening of proposals, a Proposer may file a written request with the Village for the withdrawal of its Proposal. The Village will have a maximum of ten (10) days after the receipt of such request to award the Contract or release the Proposer from further obligation by return of the Proposer's bid deposit. Any attempt or actual withdrawal or cancellation of a Proposal by the awarded contractor who has been notified by the Village of the acceptance of said Proposal shall be considered a breach of contract.

12. FAILURE TO ENTER INTO CONTRACT

- 12.1 Failure on the part of the successful Proposer to execute a Contract and provide acceptable bonds, as provided herein, within ten (10) days from the date of receipt of the Contract and Notice of Award from the Village, will be considered as just cause for breach of contract.
- 12.2 The Proposer shall not be allowed to claim lack of receipt where the Contract and Notice of Award was mailed by U.S. Postal Services certified mail to the business address listed in the Proposal. In case the Village does not receive evidence of receipt within ten (10) days of the date of Notice of Award, the Village may revoke the award. The Proposer shall then forfeit the proposal security to the Village, not as a penalty but in payment of liquidated damages sustained as the result of such failure to execute the Contract.
- 12.3 By submitting a Proposal, the Proposer understands and agrees that, if his proposal is accepted, and he fails to enter into a contract forthwith, he shall be liable to the Village for any damages the Village may thereby suffer.

13. SECURITY FOR PERFORMANCE

- 13.1 The awarded contractor, within thirteen (13) calendar days after acceptance of the Proposer's proposal by the Village, shall furnish a Performance Bond and a Materials and Labor Payment Bond acceptable to the Village in the full amount of the construction cost portion of the Proposal. Said bonds shall guarantee the Proposer's performance under the Contract Documents and shall guarantee payment of all subcontractors and material suppliers. Furnish security for performance acceptable to the Village when required under the documents. Such security shall be either a satisfactory performance bond (bonding company must be licensed to do business in Illinois) or a letter of credit on the form provided by the Village and available from the Village's Purchasing Manager. Any bond shall include a provision that will guarantee faithful performance of the Illinois Prevailing Wage Act, 820 ILCS 130/1 et seq. **NOTE: As evidence of capability to provide such security for performance, each Proposer shall submit with the proposal either a letter**

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executed by its surety company indicating the Proposer's performance bonding capability, or a letter from a bank or savings and loan within twenty-five miles of the corporate boundaries of the Village indicating its willingness and intent to provide a letter of credit for the Proposer.

14. DELIVERY

- 14.1 All proposal prices are to be quoted, delivered F.O.B. Village of Downers Grove, 5101 Walnut Avenue, Downers Grove, IL 60515.

15. TAX EXEMPTION

- 15.1 The Village is exempt from Illinois sales or use tax for direct purchases of materials and supplies. A copy of the Illinois Sales Tax Exemption Form will be issued upon request. The Village's federal identification will also be provided to selected vendor.

16. RESERVED RIGHTS

- 16.1 The Village reserves the exclusive right to waive sections, technicalities, irregularities and informalities and to accept or reject any and all proposals and to disapprove of any and all subcontractors as may be in the best interest of the Village. Time and date requirements for receipt of proposals will not be waived.

17. CATALOGS AND SHOP DRAWINGS

- 17.1 Each Proposer shall submit catalogs, descriptive literature, and detailed drawings, where applicable, to fully illustrate and describe the work or material he proposes to furnish.

18. TRADE NAMES AND SUBSTITUTIONS

- 18.1 Certain materials and equipment are specified by a manufacturer or trade name to establish standards or quality and performance and not for the purpose of limiting competition. Products of other manufacturers may be substituted, if, in the opinion of the Village, they are equal to those specified in quality, performance, design, and suitability for intended use. If the Proposer proposes to furnish an "equal", the proposed "equal" item must be so indicated in the technical proposal. Where two or more items are specified, the selection among those specified is the Proposer's option, or he may submit his Proposal on all such items. Detail specification sheets shall be provided by Proposer for all substituted items.

II. TERMS AND CONDITIONS

1. VILLAGE ORDINANCES

- 1.1 The successful Proposer shall strictly comply with all ordinances of the Village of Downers Grove and laws of the State of Illinois.

2. USE OF VILLAGE'S NAME

- 2.1 The Proposer is specifically denied the right of using in any form or medium the name of the Village for public advertising unless express permission is granted by the Village.

3. HOURS OF WORK

- 3.1 The Contractor shall do no work between the hours of 7:00 p.m. and 7:00 a.m., nor on Saturdays, Sundays or legal holidays, unless otherwise approved in writing by the Village. However, such work may be performed at any time if necessary, for the proper care and protection of work already performed, or in case of an emergency. All after-hour work is still subject to the permission of the Village. This provision does not apply to design/permitting work performed prior to construction at the contractor's place of business unless such work shall be performed out of doors and within the Village limits.

4. PERMITS AND LICENSES

- 4.1 The Contractor shall obtain all necessary permits and licenses required to complete the Work. The cost of acquisition of all necessary permits, bonds, insurance and services as specified herein shall be considered INCIDENTAL, and no additional compensation will be allowed the Contractor.

5. INSPECTION

- 5.1 The Village shall have the right to inspect, by its authorized representative, any material, components or workmanship as herein specified. Materials, components or workmanship that have been rejected by the Village as not in accordance with the terms of the contract specifications shall be replaced by the Contractor at no cost to the Village.

6. DELIVERIES

- 6.1 All materials shipped to the Village must be shipped F.O.B. designated location, Downers Grove, Illinois.

7. SPECIAL HANDLING

- 7.1 Prior to delivery of any product which is caustic, corrosive, flammable or dangerous to handle, the Proposer will provide written directions as to methods of handling such products, as well as the antidote or neutralizing material required for its first aid before delivery. Proposer shall also notify the Village and provide material safety data sheets for all substances used in connection with this contract which are defined as toxic under the Illinois Toxic Substances Disclosure to Employees Act.

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8. INDEMNITY AND HOLD HARMLESS AGREEMENT

- 8.1 To the fullest extent permitted by law, the Proposer shall indemnify, keep and save harmless the Village and its agents, officers, and employees, against all injuries, deaths, losses, damages, claims, suits, liabilities, judgments, costs and expenses, which may arise directly or indirectly from any negligence or from the reckless or willful misconduct of the Proposer, its employees, or its subcontractors, and the Proposer shall at its own expense, appear, defend and pay all charges of attorneys and all costs and other expenses arising therefrom or incurred in connection therewith, and, if any judgment shall be rendered against the Village in any such action, the Proposer shall, at its own expense, satisfy and discharge the same. This agreement shall not be construed as requiring the Proposer to indemnify the Village for its own negligence. The Proposer shall indemnify, keep and save harmless the Village only where a loss was caused by the negligent, willful or reckless acts or omissions of the Proposer, its employees, or its subcontractors.

9. NONDISCRIMINATION

- 9.1 Proposer shall, as a party to a public contract:
- 9.1.1 Refrain from unlawful discrimination in employment and undertake affirmative action to assure equality of employment opportunity and eliminate the effects of past discrimination;
- 9.1.2 By submission of this proposal, the Proposer certifies that he is an "equal opportunity employer" as defined by Section 2000(e) of Chapter 21, Title 42, U.S. Code Annotated and Executive Orders #11246 and #11375, which are incorporated herein by reference. The Equal Opportunity clause, Section 6.1 of the Rules and Regulations of the Department of Human Rights of the State of Illinois, is a material part of any contract awarded on the basis of this proposal.
- 9.1.3 It is unlawful to discriminate on the basis of race, color, sex, national origin, ancestry, age, marital status, physical or mental handicap or unfavorable discharge for military service. Proposer shall comply with standards set forth in Title VII of the Civil Rights Act of 1964, 42 U.S.C. Sec. 2000 et seq., The Human Rights Act of the State of Illinois, 775 ILCS 5/1-101 et. seq., and The Americans With Disabilities Act, 42 U.S.C. Sec. 12101 et. seq.

10. SEXUAL HARASSMENT POLICY

- 10.1 The Proposer, as a party to a public contract, shall have a written sexual harassment policy that:
- 10.1.1 Notes the illegality of sexual harassment;
- 10.1.2 Sets forth the State law definition of sexual harassment;
- 10.1.3 Describes sexual harassment utilizing examples;
- 10.1.4 Describes the Proposer's internal complaint process including penalties;

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- 10.1.5 Describes the legal recourse, investigative and complaint process available through the Illinois Department of Human Rights and the Human Rights Commission and how to contact these entities; and
- 10.1.6 Describes the protection against retaliation afforded under the Illinois Human Rights Act.

11. EQUAL EMPLOYMENT OPPORTUNITY

- 11.1 In the event of the Proposer's non-compliance with the provisions of this Equal Employment Opportunity Clause, the Illinois Human Rights Act or the Rules and Regulations of the Illinois Department of Human Rights ("Department"), the Proposer may be declared ineligible for future contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations, and the contract may be canceled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation. During the performance of this contract, the Proposer agrees as follows:
 - 11.1.1 That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, marital status, national origin or ancestry, age, physical or mental disability unrelated to ability, military status, order of protection status, sexual orientation, sexual identity or an unfavorable discharge from military service; and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.
 - 11.1.2 That, if it hires additional employees in order to perform this Contract or any portion thereof, it will determine the availability (in accordance with the Department's Rules and Regulations) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.
 - 11.1.3 That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, marital status, national origin or ancestry, age, physical or mental disability unrelated to ability, military status, order of protection status, sexual orientation, or an unfavorable discharge from military services.
 - 11.1.4 That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the Proposer's obligations under the Illinois Human Rights Act and the Department's Rules and Regulations. If any such labor organization or representative fails or refuses to cooperate with the Proposer in its efforts to comply with such Act and Rules and Regulations, the Proposer will promptly so notify the Department and the contracting agency and will recruit employees from other sources when necessary to fulfill its obligations thereunder.

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- 11.1.5 That it will submit reports as required by the Department's Rules and Regulations, furnish all relevant information as may from time to time be requested by the Department or the contracting agency, and in all respects comply with the Illinois Human Rights Act and the Department's Rules and Regulations.
- 11.1.6 That it will permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency and the Department for purpose of investigation to ascertain compliance with the Illinois Human Rights Act and the Department's Rules and Regulations.
- 11.1.7 That it will include verbatim or by reference the provisions of this clause in every subcontract it awards under which any portion of the contract obligations are undertaken or assumed, so that such provisions will be binding upon such subcontractor. In the same manner as with other provisions of this contract, the Proposer will be liable for compliance with applicable provisions of this clause by such subcontractors; and further it will promptly notify the contracting agency and the Department in the event any subcontractor fails or refuses to comply therewith. In addition, the Proposer will not utilize any subcontractor declared by the Illinois Human Rights Commission to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivision or municipal corporations.

12. DRUG FREE WORK PLACE

- 12.1 Proposer, as a party to a public contract, certifies and agrees that it will provide a drug free workplace by:
- 12.1.1 Publishing a statement: (1) Notifying employees that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance, including cannabis, is prohibited in the Village's or proposer's workplace. (2) Specifying the actions that will be taken against employees for violations of such prohibition. (3) Notifying the employee that, as a condition of employment on such contract or grant, the employee will: (A) abide by the terms of the statement; and (B) notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction.
- 12.1.2 Establishing a drug free awareness program to inform employees about: (1) the dangers of drug abuse in the workplace; (2) the Village's or proposer's policy of maintaining a drug free workplace; (3) any available drug counseling, rehabilitation and employee assistance programs; (4) the penalties that may be imposed upon employees for drug violations.
- 12.1.3 Providing a copy of the statement required above to each employee engaged in the performance of the contract or grant and to post the statement in a prominent place in the workplace.

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- 12.1.4 Notifying the contracting or granting agency within ten (10) days after receiving notice of any criminal drug statute conviction for a violation occurring in the workplace from an employee or otherwise receiving actual notice of such conviction.
- 12.1.5 Imposing a sanction on, or requiring the satisfactory participation in a drug abuse assistance or rehabilitation program by any employee who is so convicted as required by section 5 of the Drug Free Workplace Act.
- 12.1.6 Assisting employees in selecting a course of action in the event drug counseling, treatment and rehabilitation is required and indicating that a trained referral team is in place.
- 12.1.7 Making a good faith effort to continue to maintain a drug free workplace through implementation of the Drug Free Workplace Act.

13. SUBSTANCE ABUSE PREVENTION ON PUBLIC WORKS PROJECTS ACT

- 13.1 In the event this is a public works project as defined under the Prevailing Wage Act, 820 ILCS 130/2, Proposer agrees to comply with the Substance Abuse Prevention on Public Works Projects Act, 820 ILCS 265/1 *et seq.*, and further agrees that all of its subcontractors shall comply with such Act. As required by the Act, Proposer agrees that it will file with the Village prior to commencing work its written substance abuse prevention program and/or that of its subcontractor(s) which meet or exceed the requirements of the Act.

14. PREVAILING WAGE ACT

- 14.1 If applicable, Contractor agrees to comply with the Illinois Prevailing Wage Act, 820 ILCS 130/1 *et seq.*, for all work completed under this Contract. Contractor agrees to pay the prevailing wage and require that all of its subcontractors pay prevailing wage to any laborers, workers or mechanics who perform work pursuant to this Contract or related subcontract. For applicable rates, go to the State of Illinois – Department of Labor website (www.state.il.us/agency/idol/rates/rates.HTM) and use the most current DuPage County rate. The Department revises the prevailing wage rates and the Contractor or subcontractor has an obligation to check the Department’s website for revisions to prevailing wage rates throughout the duration of this Contract.
- 14.2 Contractor and each subcontractor shall keep or cause to be kept accurate records of all laborers, mechanics and other workers employed by them on the public works project, which records must include each worker’s name, address, telephone number when available, social security number, classification, hourly wage paid (including itemized hourly cash and fringe benefits paid in each pay period), number of hours worked each day, and the starting and ending times of work each day. These records shall be open to inspection at all reasonable hours by any representative of the Village or the Illinois Department of Labor and must be preserved for five (5) years from the date of the last payment on the public work.
- 14.3 Since this is a contract for a public works project, as defined in 820 ILCS 130/2, Contractor

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agrees to post at the job site in an easily accessible place, the prevailing wages for each craft or type of worker or mechanic needed to execute the contract or work to be performed.

- 14.4 Because this is a public works project as defined under the Prevailing Wage Act, 820 ILCS 130/2, any and all contractors and subcontractors shall submit certified payroll records to the Village no later than the tenth (10th) day of each calendar month for the immediately preceding month in which construction on a public works project has occurred. **WITHOUT THIS PAPERWORK, NO INVOICE SHALL BE PAID BY THE VILLAGE.** Contractors and subcontractors must also submit a statement affirming that the records are true and accurate, that the wages paid to each worker are not less than the prevailing rate, and that the contractor and subcontractor are aware that filing false records is a Class A misdemeanor. The records must include the name, address, telephone number, social security number, job classification, hours of work, hourly rate, and start and end time of work each day for every worker employed on the public work. The Village reserves the right to check the pay stubs of the workers on the job. The Village further cautions that payment for any services rendered pursuant to this Contract may be predicated upon receipt of said records.
- 14.5 In the event that this is a construction project where Motor Fuel tax monies or state grant monies are used in the construction, maintenance and extension of municipal streets, traffic control signals, street lighting systems, storm sewers, pedestrian subways or overhead crossings, sidewalks and off-street parking facilities, and the like, the Village will require an Apprenticeship and Training Certification, attached after the Bidder's Certification.
- 14.6 Any bond furnished as security for performance shall include a provision as will guarantee faithful performance of the Illinois Prevailing Wage Act, 820 ILCS 130/1 et seq.

15. PATRIOT ACT COMPLIANCE

- 15.1 The Proposer represents and warrants to the Village that neither it nor any of its principals, shareholders, members, partners, or affiliates, as applicable, is a person or entity named as a Specially Designated National and Blocked Person (as defined in Presidential Executive Order 13224) and that it is not acting, directly or indirectly, for or on behalf of a Specially Designated National and Blocked Person. The Proposer further represents and warrants to the Village that the Proposer and its principals, shareholders, members, partners, or affiliates, as applicable are not, directly or indirectly, engaged in, and are not facilitating, the transactions contemplated by this Contract on behalf of any person or entity named as a Specially Designated National and Blocked Person. The Proposer hereby agrees to defend, indemnify and hold harmless the Village, and its elected or appointed officers, employees, agents, representatives, engineers and attorneys, from and against any and all claims, damages, losses, risks, liabilities and expenses (including reasonable attorney's fees and costs) arising from or related to any breach of the foregoing representations and warranties.

16. INSURANCE REQUIREMENTS

- 16.1 Prior to starting the Work, Contractor and any Subcontractors shall procure, maintain and pay for such insurance as will protect against claims for bodily injury or death, or for damage to property, including loss of use, which may arise out of operations by the

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Contractor or Subcontractor or any Sub-Sub Contractor or by anyone employed by any of them, or by anyone for whose acts any of them may be liable. Such insurance shall not be less than the greater of coverages and limits of liability specified below or any coverages and limits of liability specified in the Contract Documents or coverages and limits required by law unless otherwise agreed to by the Village.

Workers Compensation	\$500,000	Statutory
Employers Liability	\$1,000,000	Each Accident
	\$1,000,000	Disease Policy Limit
	\$1,000,000	Disease Each Employee
Comprehensive General Liability	\$2,000,000	Each Occurrence
	\$2,000,000	Aggregate <i>(Applicable on a Per Project Basis)</i>
Commercial Automobile Liability	\$1,000,000	Each Accident
Professional Errors & Omissions (pursuant to section .9 below)	\$2,000,000	Each Claim
	\$2,000,000	Annual Aggregate
Umbrella Liability	\$ 5,000,000	

- 16.2 Comprehensive General Liability Insurance required under this paragraph shall be written on an occurrence form and shall include coverage for Products/Completed Operations, Personal Injury with Employment Exclusion (if any) deleted, Blanket XCU and Blanket Contractual Liability insurance applicable to defense and indemnity obligations and other contractual indemnity assumed under the Contract Documents. The limit must be on a “Per Project Basis”.
- 16.3 Commercial Automobile Liability Insurance required under this paragraph shall include coverage for all owned, hired and non-owned automobiles.
- 16.4 Worker’s Compensation coverage shall include a waiver of subrogation against the Village.
- 16.5 Comprehensive General Liability, Employers Liability and Commercial Automobile Liability Insurance may be arranged under single policies for full minimum limits required, **or** by a combination of underlying policies with the balance provided by Umbrella and/or Excess Liability policies.
- 16.6 Contractor and all Subcontractors shall have their respective Comprehensive General Liability (including products/completed operations coverage), Employers Liability, Commercial Automobile Liability, and Umbrella/Excess Liability policies endorsed to add

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the “Village of Downers Grove, its officers, officials, employees and volunteers” as “additional insureds” with respect to liability arising out of operations performed; claims for bodily injury or death brought against the Village by any Contractor or Subcontractor employees, or the employees of Subcontractor’s subcontractors of any tier, however caused, related to the performance of operations under the Contract Documents. Such insurance afforded to the Village shall be endorsed to provide that the insurance provided under each policy shall be ***Primary and Non-Contributory***.

- 16.7 Contractor and all Subcontractors shall maintain in effect all insurance coverages required by the Contract Documents at their sole expense and with insurance carriers licensed to do business in the State of Illinois and having a current A. M. Best rating of no less than A-VIII. In the event that the Contractor or any Subcontractor fails to procure or maintain any insurance required by the Contract Documents, the Village may, at its option, purchase such coverage and deduct the cost thereof from any monies due to the Contractor or Subcontractor, or withhold funds in an amount sufficient to protect the Village, or terminate this Contract pursuant to its terms.
- 16.8 All insurance policies shall contain a provision that coverages and limits afforded hereunder shall not be canceled, materially changed, non-renewed or restrictive modifications added, without thirty (30) days prior written notice to the Village. Renewal certificates shall be provided to the Village not less than five (5) days prior to the expiration date of any of the required policies. All Certificates of Insurance shall be in a form acceptable to the Village and shall provide satisfactory evidence of compliance with all insurance requirements. The Village shall not be obligated to review such certificates or other evidence of insurance, or to advise Contractor or Subcontractor of any deficiencies in such documents, and receipt thereof shall not relieve the Contractor or Subcontractor from, nor be deemed a waiver of the right to enforce the terms of the obligations hereunder. The Village shall have the right to examine any policy required and evidenced on the Certificate of Insurance.
- 16.9 Only in the event that the Work under the Contract Documents includes design, consultation, or any other professional services, Contractor or the Subcontractor shall procure, maintain, and pay for Professional Errors and Omissions insurance with limits of not less than \$2,000,000 per claim and \$2,000,000 annual aggregate. If such insurance is written on a claim made basis, the retrospective date shall be prior to the start of the Work under the Contract Documents. Contractor and all Subcontractors agree to maintain such coverage for three (3) years after final acceptance of the Project by the Village or such longer period as the Contract Documents may require. Renewal policies during this period shall maintain the same retroactive date.
- 16.10 Any deductibles or self-insured retentions shall be the sole responsibility of the Insured. At the option of the Village, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the Village, its officers, officials, employees and volunteers; or the Proposer shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

17. COPYRIGHT/PATENT INFRINGEMENT

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17.1 The Proposer agrees to indemnify, defend, and hold harmless the Village against any suit, claim, or proceeding brought against the Village for alleged use of any equipment, systems, or services provided by the Proposer that constitutes a misuse of any proprietary or trade secret information or an infringement of any patent or copyright.

18. COMPLIANCE WITH OSHA STANDARDS

18.1 Equipment supplied to the Village must comply with all requirements and standards as specified by the Occupational Safety and Health Act. All guards and protectors as well as appropriate markings will be in place before delivery. Items not meeting any OSHA specifications will be refused.

19. CERCLA INDEMNIFICATION

19.1 In the event this is a contract that has environment aspects, the Proposer shall, to the maximum extent permitted by law, indemnify, defend, and hold harmless the Village, its officers, employees, agents, and attorneys from and against any and all liability, including without limitation, costs of response, removal, remediation, investigation, property damage, personal injury, damage to natural resources, health assessments, health settlements, attorneys' fees, and other related transaction costs arising under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, 42 U.S.C.A. Sec. 9601, et seq., as amended, and all other applicable statutes, regulations, ordinances, and under common law for any release or threatened release of the waste material collected by the Proposer, both before and after its disposal.

20. BUY AMERICA

20.1 The Contractor agrees to comply with 49 U.S.C.5323(j), the Federal Transportation Administration's (FTA) Buy America regulations at 49 C.F.R. Part 661, and any amendments thereto, and any implementing guidance issued by the FTA, with respect to this Contract, when financed by Federal funds (through a grant agreement or cooperative agreement).

20.2 As a condition of responsiveness, the Contractor agrees to submit with its Proposal submission, an executed Buy America Certificate, attached hereto.

21. CAMPAIGN DISCLOSURE

21.1 Any contractor, proposer, bidder, or vendor who responds by submitting a bid or proposal to the Village shall be required to submit with its bid submission, an executed Campaign Disclosure Certificate, attached hereto.

21.2 The Campaign Disclosure Certificate is required pursuant to the Village of Downers Grove Council Policy on Ethical Standards and is applicable to those campaign contributions made to any member of the Village Council.

21.3 Said Campaign Disclosure Certificate requires any individual or entity bidding to disclose campaign contributions, as defined in Section 9-1.4 of the Election Code (10 ILCS 5/9-1.4), made to current members of the Village Council within the five (5) year period preceding the date of the bid or proposal release.

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- 21.4 By signing the Proposal documents, contractor/proposer/bidder/vendor agrees to refrain from making any campaign contributions as defined in Section 9-1.4 of the Election Code (10 ILCS 5/9-1.4) to any Village Council member and any challengers seeking to serve as a member of the Downers Grove Village Council.

22. SUBLETTING OF CONTRACT

- 22.1 No contract awarded by the Village shall be assigned or any part subcontracted without the written consent of the Village Manager. In no case shall such consent relieve the Proposer from their obligation or change the terms of the Contract.
- 22.2 All approved subcontracts shall contain language which incorporates the terms and conditions of this Contract.

23. TERM OF CONTRACT

- 23.1 This Contract may be extended no more than twice for subsequent annual periods (two annual extensions) by mutual agreement of both parties, providing such agreement complies with Village purchasing policies and the availability of funds. However, if this Contract is not one that is subject to extension, such information will be available in the detailed specifications or special conditions section.

24. TERMINATION OF CONTRACT

- 24.1 The Village reserves the right to terminate the whole or any part of this Contract, upon written notice to the Contractor, for any reason and/or in the event that sufficient funds to complete the Contract are not appropriated by the Village.
- 24.2 The Village further reserves the right to terminate the whole or any part of this Contract, upon written notice to the Contractor, in the event of default by the Contractor. Default is defined as failure of the Contractor to perform any of the provisions of this Contract or failure to make sufficient progress so as to endanger performance of this Contract in accordance with its terms. In the event that the Contractor fails to cure the default upon notice, and the Village declares default and termination, the Village may procure, upon such terms and in such manner as the Village may deem appropriate, supplies or services similar to those so terminated. The Contractor shall be liable for any excess costs for such similar supplies or services unless acceptable evidence is submitted to the Village that failure to perform the Contract was due to causes beyond the control and without the fault or negligence of the Contractor. Any such excess costs incurred by the Village may be set-off against any monies due and owing the Contractor by the Village.

25. BILLING & PAYMENT PROCEDURES

- 25.1 Payment will be made upon receipt of an invoice referencing Village purchase order number. Once an invoice and receipt of materials or service have been verified, the invoice will be processed for payment in accordance with the Village payment schedule. The Village will comply with the Local Government Prompt Payment Act, 50 ILCS 505/1 et seq., in that any bill approved for payment must be paid or the payment issued to the Proposer within sixty (60) days of receipt of a proper bill or invoice. If payment is not issued to the Proposer within this 60 day period, an interest penalty of 1.0% of any amount approved and unpaid shall be added for each month or fraction thereof after the end of this

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60 day period, until final payment is made.

- 25.2 The Village shall review in a timely manner each bill or invoice after its receipt. If the Village determines that the bill or invoice contains a defect making it unable to process the payment request, the Village shall notify the Contractor requesting payment as soon as possible after discovering the defect pursuant to rules promulgated under 50 ILCS 505/1 et seq. The notice shall identify the defect and any additional information necessary to correct the defect.
- 25.3 If this Contract is for work defined as a “fixed public work” project under the Illinois Prevailing Wage Act, 820 ILCS 130/2, any contractor or subcontractor is required to submit certified payroll records along with the invoice. No invoice shall be paid without said records.
- 25.4 Please send all invoices to the attention of Village of Downers Grove, Public Works Department, 5101 Walnut Avenue, Downers Grove, IL 60515.

26. RELATIONSHIP BETWEEN THE CONTRACTOR AND THE VILLAGE

- 26.1 The relationship between the Village and the Contractor is that of a buyer and seller of professional services and it is understood that the parties have not entered into any joint venture or partnership with the other.

27. STANDARD OF CARE

- 27.1. Services performed by Contractor under this Contract will be conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. No other representations express or implied, and no warranty or guarantee is included or intended in this Contract, or in any report, opinions, and documents or otherwise.
- 27.2 If the Contractor fails to meet the foregoing standard, Contractor will perform at its own cost, and without reimbursement from the Village, the professional services necessary to correct errors and omissions caused by Contractor’s failure to comply with the above standard and reported to Contractor within one (1) year from the completion of Contractor’s services for the Project.

28. GOVERNING LAW

- 28.1 This Contract will be governed by and construed in accordance with the laws of the State of Illinois without regard for the conflict of laws provisions. Venue is proper only in the County of DuPage and the Northern District of Illinois.

29. SUCCESSORS AND ASSIGNS

- 29.1 The terms of this Contract will be binding upon and inure to the benefit of the parties and their respective successors and assigns; provided, however, that neither party will assign this Contract in whole or in part without the prior written approval of the other. The Proposer will provide a list of key staff, titles, responsibilities, and contact information to include all expected subcontractors.

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30. WAIVER OF CONTRACT BREACH

30.1 The waiver by one party of any breach of this Contract or the failure of one party to enforce at any time, or for any period of time, any of the provisions hereof will be limited to the particular instance and will not operate or be deemed to waive any future breaches of this Contract and will not be construed to be a waiver of any provision except for the particular instance.

31. AMENDMENT

31.1 This Contract will not be subject to amendment unless made in writing and signed by all parties.

32. CHANGE ORDERS

32.1 The contract price is a “not-to-exceed” cost. At any time additional work is necessary or requested, and the not-to-exceed price is increased thereby, any change, addition or price increase must be agreed to in writing by all parties.

32.2 Change orders for public works projects which authorize an increase in the contract price that is 50% or more of the original contract price or that authorize or necessitate any increase in the price of a subcontract under the contract that is 50% or more of the original subcontract price must be resubmitted for bidding in the same manner by which the original contract was bid. (50 ILCS 525/1)

33. SEVERABILITY OF INVALID PROVISIONS

33.1 If any provisions of this Contract are held to contravene or be invalid under the laws of any state, country or jurisdiction, contravention will not invalidate the entire Contract, but it will be construed as if not containing the invalid provision and the rights or obligations of the parties will be construed and enforced accordingly.

34. NOTICE

34.1 Any notice will be in writing and will be deemed to be effectively served when deposited in the mail with sufficient first class postage affixed, and addressed to the party at the party's place of business. Notices shall be addressed to the Village as follows:

**Village Manager
Village of Downers Grove
801 Burlington Ave.
Downers Grove, IL 60515**

and to the Proposer as designated in the Contract Form.

35. COOPERATION WITH FOIA COMPLIANCE

35.1 Contractor acknowledges that the Freedom of Information Act may apply to public records in possession of the Contractor or a subcontractor. Contractor and all of its subcontractors shall cooperate with the Village in its efforts to comply with the Freedom of Information Act. 5 ILCS 140/1 et. seq.

36. EMPLOYMENT OF ILLINOIS WORKERS ON PUBLIC WORKS ACT

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36.1 If the work contemplated by this Contract is funded or financed in whole or in part with State Funds or funds administered by the State, Contractor agrees to comply with the terms of the Employment of Illinois Workers on Public Works Act by employing at least 90% Illinois laborers on the project. 30 ILCS 570/1 et seq. Contractor agrees further to require compliance with this Act by all of its subcontractors.

37. GUARANTEE PERIOD

37.1 The Contractor shall guarantee all work and provide a maintenance bond for the full amount of the contract, covering a minimum period of one (1) year after approval and acceptance of the Work. The bond shall be in such form as the Village may prescribe, unless otherwise noted in the Specifications, and shall be submitted before receiving final payment. If longer guarantee periods are required, they will be noted in the Special Provisions for this project.

III. PROJECT SPECIFICATIONS

GENERAL PROVISIONS

1. STANDARD SPECIFICATIONS

1.1 The following standards shall govern the construction of the proposed improvements:

1.1.1 Standard Specifications for Water and Sewer Main Construction in Illinois, Seventh Edition, 2014 (the Water & Sewer Specs.); and

1.1.2 Standard Specifications for Road and Bridge Construction as adopted by the Illinois Department of Transportation, April 1, 2016; along with Supplemental Specifications and Recurring Special Provisions (collectively the “SSRBC”) as adopted by the Illinois Department of Transportation, April 1, 2016 and January 1, 2019; and

1.1.3 Standard Detail Drawings, Village of Downers Grove, Illinois revised January 2018.

1.2 These Contract Documents shall take precedence whenever there are conflicts in the wording or statements made by the above specifications and these Contract Documents.

1.3 Unless otherwise referenced herein, Division I of the Water and Sewer Specs and Section 102 and Articles 104.02, 104.03, 104.07, 107.02, 107.27, 107.35, 108.10, 108.11, and 108.12 of the SSRBC are hereby suspended.

2. FINAL DESIGN AND COOPERATION OF CONTRACTOR

2.1 The Contractor shall be solely liable for the final design of the project. The Contractor shall submit final design plans with any approved design changes for review by the Village.

2.2 The Contractor shall have on the work site at all times, as the Contractor's agent, a competent English-speaking representative capable of reading and thoroughly understanding the Contract Documents, and thoroughly experienced in the type of work being performed. The representative shall also be capable of receiving instruction from the Village, and shall have full authority to promptly respond to such instruction. He shall be capable of supplying such materials, equipment, tools, labor and incidentals as may be required. This individual shall be subject to approval by the Village. The Contractor shall not replace him without prior written notification to and approval by the Village.

The Contractor shall keep one set of the approved plans and contract assemblies shall be kept available on the work site at all times. The Contractor shall give the work site constant attention necessary to facilitate the progress thereof, and shall cooperate with the Village in every way possible.

3. LEGAL REGULATIONS AND RESPONSIBILITY TO THE PUBLIC

3.1 Section 107 of the SSRBC shall govern the Contractor's legal regulations and

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responsibility to the public, with the following additions:

3.1.1 PROJECT SAFETY. Add the following to Article 107.28:

3.1.1.1 The Contractor shall conduct his work in such a manner as to provide an environment consistent with the safety, health and well being of those engaged in the completion of the Work specified in this Contract.

3.1.1.2 The Contractor shall comply with all State and Federal Safety Regulations as outlined in the latest revisions of the Federal Construction Safety Standards (Series 1926) and with applicable provisions and/or regulations of the Occupation Safety and Health Administration (OSHA) and Standards of the Williams-Stelger Occupational Health Safety Act of 1970 (Revised). SPECIAL ATTENTION SHALL BE PAID TO COMPLIANCE WITH OSHA'S SUBPART P – EXCAVATIONS STANDARD.

3.1.1.3 The Contractor and Village shall each be responsible for their own respective agents and employees.

3.1.1.4 The Contractor shall, prior to performing any work, request information from the Village regarding any existing confined spaces owned by the Village that may be entered in the course of the work, and shall obtain all required confined space entry permits prior to entering any confined spaces. Contractor shall follow all current laws and regulations with regard to confined space entry. Contractor shall maintain and, upon request, provide full documentation of compliance with the appropriate confined space permits for each separate confined space entered on the project.

3.1.2 BACKING PRECAUTIONS. Pursuant to Sections 14-139(b) and 14-171.1 of the Downers Grove Municipal Code, any motor vehicle which has an obstructed view to the rear and is to be operated at any time in reverse gear on the public streets of the Village by the Contractor or any subcontractor shall either be equipped with a reverse signal alarm (backup alarm) audible above and distinguishable from the surrounding noise level, or shall provide an observer to signal that it is safe to back up.

3.1.3 OVERWEIGHT, OVERWIDTH AND OVERHEIGHT PERMITS. The Village has and supports an overweight truck enforcement program. Contractors are required to comply with weight requirements and safety requirements as established by Illinois Law or Village Ordinance, for vehicles, vehicle operators and specialty equipment. In some instances, specialty equipment for road repairs or construction projects requires the movement of overweight, overwidth, or overheight loads utilizing a Village roadway. Such movement will require obtaining a permit from the Village Police Department's Traffic Supervisor.

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- 3.1.4 **BARRICADES AND WARNING SIGNS.** The Contractor shall provide the Village with a telephone number of a person or company who is available 24 hours per day, seven days per week, to erect additional barricades or signs. If the Village or its representative deems it necessary for the Public's safety to erect additional barricades or signs during normal working hours, the Contractor will furnish the necessary barricades or signs, and have them in place within 30 minutes. If, after normal working hours, the requested signs are not in place within three hours after the request is made, the Village reserves the right to have the barricades and signs erected. The cost of erecting the barricades and signs shall be deducted by the Village from any payments due the Contractor.
- 3.1.5 **CONTRACTOR'S RESPONSIBILITY.** Note the following regarding Article 107.30:
No natural event will be considered cataclysmic.
- 4. Reserved.**
- 5. Reserved.**
- 6. PROSECUTION AND PROGRESS**
- 6.1 Section 108 of the SSRBC shall govern the prosecution and progress of the work, with the following additions:
- 6.1.1 Prior to commencing construction, a meeting will be held with the Contractor and the Village. Any questions concerning procedures, general conditions, special provisions, plans or specific items related to the project shall be answered and clarified. No Pre-Construction meeting shall be scheduled until submittals, performance bonds, and certificates of insurance are delivered to, and approved by, the Village.
- 6.1.2 Weekly progress meetings may be required by the Village. If required, the Contractor shall have a capable person, such as a site superintendent or project manager, attend such meetings and be prepared to report on the prosecution of the Work according to the progress schedule.
- 7. MEASUREMENT AND PAYMENT**
- 7.1 Section 109 of the SSRBC shall govern measurement and payment, with the following additions:
- 7.1.1 Modifies Article 109.07 - Partial payments will be made per Section 36 of Part II of this document (Billing and Payment Procedures.)
- 7.1.2 The Village will require that partial and final affidavits for all labor, materials and equipment used on the Project, be submitted with the partial and final payment requests. Such waivers shall indicate that charges for all labor, materials and equipment used on the project have been paid. Partial waivers from suppliers and subcontractors may be submitted after the first payment to the Contractor, and before the subsequent payment to that which they apply. However, partial waivers

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from the Contractor must accompany the invoice of the payment to which it applies. All final waivers, from all suppliers and subcontractors MUST accompany the Contractor's invoice upon submittal for final payment. A sworn statement by the Contractor shall accompany full waivers. Such requirement for full waivers is solely for the benefit of the Village and shall not be construed to benefit any other person. Partial payment for work done shall in no way imply acceptance of the work to that date.

8. GENERAL CONSTRUCTION REQUIREMENTS

- 8.1 The following general requirements are intended to govern the overall priority for the performance of the work described in this contract. As general requirements, they are not intended to dictate to the Contractor the precise method by which these tasks shall be performed.
- 8.2 All street openings made prior to November 15th shall be fully restored according to the applicable special provisions, and the street reopened to regular traffic upon the availability of hot-mix asphalt. The Contractor shall assume the risk of restoration over those reaches of pipe installed but not yet pressure-tested for pipe integrity.
- 8.3 No more than three hundred linear feet (300 LF) of pavement may be open-cut and closed to use by the motoring public. Access to all individual drives within the current work zone must be restored at the end of each workday.
- 8.4 The Contractor shall maintain traffic flow on ALL STREETS during the day in accordance with the applicable special provision. Adequate signing and flagging is of particular importance for safe travel of all residents.

9. CONSTRUCTION STAKING AND RECORD DRAWINGS

- 9.1 Section 5-7 of the Water and Sewer Specs shall be replaced in its entirety by the following:
- 9.1.1 The Contractor shall furnish and place all construction layout stakes for this project. Competent personnel with suitable equipment shall conduct this work, supervised by a licensed Illinois Land Surveyor. The Contractor shall be responsible for having the finished work conform substantially to the lines, grades, elevations and dimensions shown on the plans.
- 9.1.2 The Contractor shall provide adequate control points to construct the individual Project elements, and shall provide the Engineer with adequate control in close proximity to check the compliance of the elements constructed.
- 9.1.3 The Contractor shall record all field notes in standard survey field notebooks and those books shall become the property of the Village at the completion of the Project. All notes shall be neat, orderly and in an accepted format.
- 9.1.4 Prior to final payment and within 28 calendar days of substantial completion, as determined in section III.4.1.1, the Contractor shall provide the Village with record drawings showing the elevations of all constructed storm and sanitary sewer

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manholes, catch basins, inlets, clean-outs, and any other structures defined by the Engineer as part of the project, including all rim elevations, and invert elevations of all pipes. Rim elevation of all curb structures shall be taken at the flowline of the gutter. Significant changes to the design plans shall also be depicted. Red-lined plans or electronically-generated as-built plans are acceptable. Digital copies of as-built drawings must also be provided (TIF files or approved equal), along with two full-sized paper copies. All work related to generating the as-built drawings shall be supervised by a licensed Illinois Land Surveyor.

10. PRECONSTRUCTION VIDEO

- 10.1 Description: This work shall consist of furnishing all materials and labor required to perform a videotape survey of the construction limits, adjacent right-of-way, and adjacent structures bordering the work. This shall include, but not be limited to, existing buildings, garages, pavements, curb and gutter, sidewalks, fences, trees and landscaping. Two (2) copies of the videotape shall be furnished to the Owner in DVD format. Videotaping shall be performed by a reputable company meeting the approval of the Owner, in the presence of a representative of the Owner, and shall be performed prior to the commencement of construction. The videotape survey shall serve as a basis for establishing damage that has occurred as a result of construction operations.

11. ACCESS AND WATER SHUT-OFF NOTIFICATION

- 11.1 If access to a driveway will be blocked, or water will be turned off, the Contractor shall give that resident or business proper written notification at least 24 hours in advance. The Contractor must provide them the opportunity to remove their cars from the drive or make other arrangements, and prepare for any shutdown of the water system. Samples of written notices shall be submitted to the Engineer for approval.
- 11.2 In addition, the Contractor shall be responsible for notifying the resident or business verbally on the morning of any driveway closure, to ensure awareness of the lack of access.

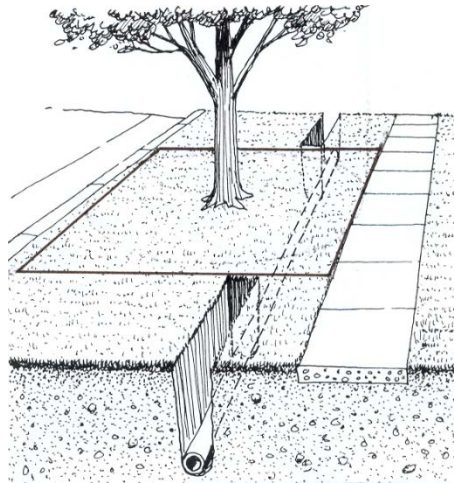
12. TREE PROTECTION

- 12.1 Municipal Codes regarding trees, including tree protection requirements for public parkway trees, are located in Chapter 24 of the Downers Grove Municipal Code. Specifically, Municipal Codes 24-7 and 24-8 detail the public parkway tree protection sizes and fines for violations. The Village Forester shall approve all tree protection measures and any deviations. All tree protection measures and any deviations shall be noted in the contract specifications and on approved project plan sheets and permits using the guidelines listed below.
- 12.2 Tree protection shall include avoiding damage to the above ground tree branches and trunk, and the below ground root system and surrounding soil. Tree crowns and trunks shall not suffer any branch or bark loss. Roots shall be protected from compaction, storage of materials, severing, regrading of the parkway or excavation unless specifically noted on the project plan sheets.
- 12.3 The Critical Root Zone, or CRZ, is the area immediately surrounding a tree that must be protected from damage. In a municipal parkway setting with utilities and paved or concrete

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surfaces, the size of the CRZ has been adjusted to form a rectangle around the parkway tree trunk with minimum dimensions listed in the following table. The depth of the CRZ extends to 4 feet below the natural ground surface level.

Parkway Tree diameter at 4.5'	Width street to property (min. curb to sidewalk)	Length along street street (minimum)	Depth
0 – 12.0 inches	10.0 feet	10 feet	4 feet
12.1 – 24.0 inches	10.0 feet	20 feet	4 feet
24.1 or more inches	10.0 feet	30 feet	4 feet



- 12.4 For projects that involve excavations of less than one (1) foot in depth in the parkway or street and are replacing structures in the same location, fencing of the public parkway trees shall not be required. Example projects include, but are not limited to, street pavement resurfacing, curb removal/replacement, driveway removal/replacement, or sidewalk removal/repairs or new sidewalk installations. Contractors shall be mindful of the CRZ dimensions and potential for fines if any parkway trees suffer any unauthorized damage as determined by the Village Forester.
- 12.5 For projects that involve excavations of one (1) or more feet in depth in the parkway or street or both, fencing of the public parkway trees shall be required. Example projects include, but are not limited to, watermain replacements with new roadway, keystops and domestic service box installations, sanitary line replacements and new service connections, new or replacement natural gas services, new or replacement phone or fiber optic lines, or new or replacement storm sewers, or projects that widen roads which in turn decreases the parkway soil volume around public parkway trees.
- 12.6 Projects that require fencing (listed above) shall fence the public parkway trees with six (6) foot high chain link construction fence secured to metal posts driven in the ground which are spaced no further than ten (10) feet apart. The dimensions of the fence shall depend on the tree diameter size and shall follow the table listed for the CRZ above, or as large as practical dependent on driveways and other field conditions. The fenced rectangle shall have three (3) sides with the opening facing the adjacent residences for easy access for

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mowing or tree care. Under no circumstances shall any items be stored within the fence. All fence shall be maintained daily in an upright good condition. The size and location of all fencing shall be shown on the project plan sheets.

- 12.7 To avoid damage to the CRZ, utilities must be augered underneath the public parkway trees. Excavation pits for augering equipment are to be outside the fenced area and are to be shown on the project plan sheets. Excavation pits for roundway keystops and domestic service boxes are to be as small as practical with excavation occurring in a direction away from the adjacent public parkway tree.
- 12.8 In cases when severing of roots within a portion of the CRZ may be unavoidable (ex. sidewalk installation, curb replacement, water or sanitary service replacement), subject to the approval of the Village Forester, sharp clean cuts shall be made on root ends to promote wound closure and root regeneration. Root pruning and excavation activities shall occur such that the smallest volume of soil and roots is disturbed, and the locations shall be shown on the project plan sheets.
- 12.9 In addition to fines and citations that may be assessed for violations of any Chapter 24 of the Municipal Code (such as not maintaining fencing around the CRZ or unauthorized removal of protected trees), the contractor may be subject to the following provisions:
- issuance of an invoice for the value or partial value of the tree lost due to damage to either the above ground or below ground portions of the parkway tree, or unauthorized tree removal.
 - costs of repairs, such as pruning or cabling, or costs for removal of the damaged parkway tree along with the stump if the tree cannot remain in the right-of-way.
 - fines of \$500 for the 1st offense; \$1,000 for the 2nd offense; \$2,500 for the 3rd and subsequent offenses.
 - each day during which a violation continues shall be construed as a separate and distinct offense.
- 12.10 The value or partial value of the tree lost shall be determined by the Village Forester using the most current edition of the Guide for Plant Appraisal (prepared by the Council of Tree & Landscape Appraisers and the International Society of Arboriculture) and the most current edition of the Species Ratings & Appraisal Factors for Illinois (prepared by the Illinois Arborist Association). The total cost determined for the damage shall be deducted from the payments made to the Contractor for the project. Should the Village hire another Contractor or tree service to complete pruning work, these costs shall also be deducted from the payments made to the Contractor.

13. EROSION AND SEDIMENTATION CONTROL

- 13.1 Throughout each and every phase of the project, all downstream ditches and storm sewers shall be protected from the run-off of roadway surfaces, excavations, and other construction activities generating the movement of dirt, mud, dust and debris. This work shall consist of constructing erosion and sedimentation control systems as agreed upon by the Village and Contractor and in compliance with applicable permit regulations. The work shall be placed by methods and with materials in accordance with Sections 280, 1080 and

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1081 of the SSRBC, except as amended herein.

- 13.2 All erosion and sedimentation control measures shall be installed on the project site prior to beginning any construction activities which will potentially create conditions subject to erosion. Erosion control devices shall be in place and approved by the Engineer as to proper placement and installation prior to beginning other work. Erosion control protection for Contractor equipment storage sites, plant sites, and other sites shall be installed by the Contractor and approved by the Engineer prior to beginning construction activities at each site.
- 13.3 The Contractor is responsible for all compliance with the General NPDES Permit (No. ILR10) for Storm Water Discharges from Construction Site Activities. This shall include, but not be limited to, preparation and submittal of all required forms such as the NOI, ION, NOT, SWPPP, etc. The Contractor is responsible for performing all soil erosion and sediment control inspections, maintaining inspections, reports, logs, etc. and for keeping an up to date SWPPP on site at all times.
- 14. TRAFFIC CONTROL, MAINTENANCE OF TRAFFIC, DETOURS**
- 14.1 This item shall include the furnishing, installing, maintaining, relocating and removing of all traffic control devices and personnel used for the purpose of regulating, warning, or directing traffic during the construction of this project. All traffic control devices used on this project shall conform to the Standard Specifications for Traffic Control Devices and the Illinois Manual on Uniform Traffic Control Devices.
- 14.2 No waiving of these requirements will be allowed without prior written approval of the Engineer.
- 14.3 The Contractor shall protect all workers engaged in the project, and shall provide for safe and convenient public travel by providing adequate traffic control under all circumstances. Such circumstances may include, but not be limited to work performed along the route under construction, road closures for construction operations of any type, or when any section of the road is opened to traffic prior to completion of all work. The Contractor shall ensure that the work zone in question is properly signed, barricaded and otherwise marked.
- 14.4 The Contractor will be responsible for the proper location, installation, and arrangement of all traffic control devices during the period of construction. All open excavations shall be protected by Type I barricades equipped with working bi-directional flashing lights at each end of the excavation, as well as at 50-foot intervals between ends for excavations greater than 50 feet in length and weighted down by **one sandbag per each barricade**. All street closures shall be protected by Type III barricades equipped with working bi-directional flashing lights and weighted down by **eight sandbags per each barricade**.
- 14.5 The Contractor shall plan his work so that there will be no open excavations during non-working hours and that all barricades not necessary have been removed from the pavement during non-working hours.
- 14.6 In the event that one direction of vehicular travel must be closed, the Contractor has the option

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- of setting up a detour route or using flaggers (minimum of two) to direct traffic around the work area. The Engineer shall approve proper signing and barricading of the detour route and lane closures, and shall issue written authorization prior to closure.
- 14.7 In the event that both directions of vehicular travel must be closed, the Contractor shall set up a detour route to direct traffic around the work area. The Engineer shall approve proper signing and barricading of the detour route and shall issue written authorization prior to closure.
- 14.8 The Contractor shall maintain his operations in a manner such that traffic flow shall not be substantially impeded during the construction of the proposed improvements. Where traffic must cross open trenches during a given work day, the Contractor shall provide steel plates at street intersections and driveways. Prior to the end of a given work day, the pavement surface shall be temporarily restored.
No open excavation may be left overnight or on the weekend without the express written permission of the Engineer.
- 14.9 No street closure shall be permitted without the express written permission of the Engineer. No street closure may exceed 800 linear feet, nor be in effect from Friday night at 4:30PM to Monday morning at 9:00AM. Where it is necessary to establish a temporary detour, all the requirements of the Standard Specifications and MUTCD shall be met.
- 14.10 As the condition and location of the work changes, the Contractor shall maintain all traffic control devices and personnel engaged in traffic control, in a manner that will accommodate the changing particulars of the work at any given time. Advance warnings, detour and directional information and other controls or directions necessary for safe passage of traffic around the work site shall be reviewed and changed, if necessary, to meet the needs of the situation. Signage erected, but not necessary or proper for the situation ahead shall be covered or taken down. Barricading and signage shall be monitored by the Contractor on a daily basis to ensure that it meets the requirements for work zone safety for the conditions of the particular work being performed.
- 14.11 The Contractor shall provide a name and phone number of a responsible party capable of providing emergency service, 24 hours per day, for the duration of the Project.
- 15. STREET SWEEPING AND DUST CONTROL**
- 15.1 All roadway surfaces shall be kept free of dirt, mud, dust and debris of any kind throughout every phase of the project. Dirt, mud, dust and debris of any kind shall be removed from the roadway surface to the satisfaction of the Engineer by approved mechanical sweeping equipment.
- 15.2 Whenever directed by the Engineer, the Contractor shall mechanically sweep the pavement adjacent to the work site.

IV. SPECIAL PROVISIONS

If required for construction of the improvement chosen by the Village, the following Special Provisions shall modify, supersede, or supplement the Standard Specifications referred to in General Provisions. Any deviation from these Special Provisions requires notification to, and ultimate approval by, the Village. The Proposer shall provide its own special provisions for its proposed design and construction of the improvements to meet the Village's objectives of the improvements identified herein, which shall be reviewed by the Village prior to commencement.

Where any section, subsection, paragraph, or subparagraph of the Standard Specifications is *supplemented* by any of the following paragraphs, the provisions of such section, subsection, paragraph, or subparagraph shall remain in effect. The Special Provisions shall govern in addition to the particular Standard Specification so supplemented, and not in lieu thereof.

Where any section, subsection, paragraph, or subparagraph of the Standard Specifications is *amended, voided, or superseded* by any of the following paragraphs, any provision of such section, subsection, paragraph, or subparagraph standing unaffected, shall remain in effect. The Special Provisions shall govern in lieu of any particular provision of the Standard Specification so amended, voided, or superseded, and not in addition to the portion changed.

CLEARING, TREE AND HEDGE REMOVAL

Description: This work shall consist of the removal and disposal of all obstructions encountered during the construction of these improvements. Clearing shall consist of the removal and disposal of all obstructions such as fences, walls, accumulations of rubbish of whatever nature and all logs, shrubs, brush, grass, weeds, other vegetation and stumps of diameter less than 6 inches. Tree removal shall consist of the cutting, grubbing, removal and disposal of all trees and stumps as hereinafter defined. Hedge removal shall consist of the pulling or grubbing, removal and disposal of all hedge trees or bushes, as hereinafter defined.

A tree shall be defined as a woody, perennial plant having a single main stem or trunk, the diameter of which is 6 inches or more at a point 4 1/2 feet (diameter breast height) above the highest ground level at the tree. Trees with a diameter less than 6 inches will be considered as shrubs. A hedge shall be defined as trees or bushes planted for fence or windbreak purposes in rows containing 20 or more trees or bushes per 100 linear feet. Rows containing less than 20 trees or bushes per 100 linear feet, and scattered hedge trees or bushes will not be considered as hedge but as trees or shrubs, in accordance with the diameter measurements herein specified.

All trees, stumps, shrubs, hedges, and bushes designated for removal shall be removed to a depth of not less than 12 inches below the elevation of the sub-grade, the finished earth surface or the ground line. All trees and shrubs designated to be saved shall be protected during clearing and subsequent construction operations. Overhanging limbs shall be trimmed or cut off to provide a minimum vertical clearance of 7 feet from the finished surface. This shall be considered as clearing. In the event that the Contractor damages any tree or shrub designated to be saved, such plants shall immediately be repaired or replaced as directed by the Engineer in accordance with standard horticultural practice for such work, at the Contractor's expense. Hedge shall not be cut off at the ground level, but shall be

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pulled or grubbed in such a manner as to ensure complete removal. Scattered hedge trees or shrubs not classified as hedge shall be removed as specified for hedge. No trees, shrubs, bushes, hedges, etc. shall be pruned or removed without the consent of the Engineer.

ROOT PRUNING

Description: This work shall consist of root pruning of trees in areas as shown on the plans or as directed by the Engineer or Village Forester. Root pruning shall be performed by making sharp clean cuts on root ends to promote wound closure and root regeneration. Any waste material generated during root pruning shall be disposed of offsite by the Contractor in accordance with Article 202.03 of the SSRBC.

EARTH EXCAVATION AND PLACEMENT

Description: This work shall consist of earth excavation and onsite re-use of the material as approved by the Engineer. All work shall be performed in accordance with Section 202 of the SSRBC. All transportation, stockpiling and associated temporary erosion control measures, and replacement and compaction of suitable excavated materials shall be considered incidental. No additional compensation will be made to the Contractor should the Contractor choose to import fill for site grading in lieu of transporting site excavated material to embankment locations. All stockpile locations shall be outside the limits of the floodplain and approved by the Engineer.

EARTH EXCAVATION AND DISPOSAL

Description: This work shall consist of earth excavation and offsite disposal of excess material. All work shall be performed in accordance with Section 202 of the SSRBC. All transportation, stockpiling, temporary erosion control measures, and offsite disposal of all excess materials shall be considered incidental. No additional compensation will be made to the Contractor for the disposal of any unsuitable material or material classified as non-hazardous special waste. All testing required for classification and disposal of material shall be the responsibility of the contractor. All stockpile locations shall be outside the limits of the floodplain and approved by the Engineer.

TOPSOIL EXCAVATION AND PLACEMENT

Description: This work shall consist of topsoil excavation and onsite re-use of the material as approved by the Engineer. Topsoil shall be placed to a minimum thickness of 6-inches in turf locations and 12-inches in naturalized areas and all work shall be performed in accordance with Section 211 of the SSRBC. All transportation, stockpiling, associated temporary erosion control measures and replacement of topsoil materials shall be considered incidental. No additional compensation will be made to the Contractor should the Contractor choose to export topsoil or import topsoil material in lieu of transporting site excavated topsoil material to embankment locations. All stockpile locations shall be outside the limits of the floodplain and approved by the Engineer.

EXPLORATION TRENCH, SPECIAL

Description: This item shall consist of excavating an area for the purpose of locating existing utilities within the construction limits of the proposed improvement. This work shall be performed in locations as directed by the Engineer. The exploration trench shall be excavated to the length, width and depth as directed by the Engineer.

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After the excavation has been inspected, it shall be backfilled as directed by the Engineer. If it is located in a paved area (existing or proposed), the excavation shall be backfilled with Trench Backfill as specified herein. Otherwise, the excavation shall be backfilled with excavated material compacted to the satisfaction of the Engineer. Any excess or waste material shall be disposed of offsite by the Contractor in accordance with Article 202.03 of the SSRBC.

TRENCH BACKFILL

Description: All trenches and excavations beneath pavements and driveways, as shown on plans or as directed by the Engineer in the field, will require **SELECTED GRANULAR BACKFILL**

Trench Backfill, CA-6 shall meet the requirements of Section 1004 of the SSRBC, gradation to be “CA-6”, except that GR-7 gravel will not be allowed. Select Granular Backfill, CA-6 should be used when under or within 2’ of paved areas or structures, and shall extend from 1’ above the pipe to the bottom of the aggregate base course layer of the pavement section.

Backfill shall be compacted by vibrating plate or other mechanical compacting device in a manner consistent with the Standard Specifications, to ensure that no future settlement occurs.

All backfilling shall be done in accordance with Section 20-4.06 of the Water and Sewer Specs. Specifically, all trenches and excavations other than those shown on the plans or designated by the Engineer to receive **SELECTED GRANULAR BACKFILL, CA-6** shall be backfilled by any acceptable method which will not dislodge or damage the pipe, or cause bridging action in the trench. Spoil material may be used as backfill in turf areas. In turf areas, **SELECTED GRANULAR BACKFILL, CA-11** shall be used to a height of one (1) foot above the top of the storm sewer pipe, and the balance of the backfill may be approved excavated material.

Where granular bedding as encasement material is not specified, selected excavation material free from clods or stones shall be used between the bottom of the trench and a point six inches above the top of the pipe.

Selected granular backfill shall be furnished for backfilling to the full width of the trench. This item also includes the disposal of the surplus excavated material that is replaced by selected granular backfill. Any material meeting the aforementioned gradation that has been excavated from the trenches may be used for backfilling the trenches.

SOD RESTORATION

Description: This item shall be done in accordance with the applicable portions of Sec. 252 of the Standard Specifications and the following provisions.

As contract work progresses, restoration work shall commence in a timely manner in areas where permanent placement of new curb and gutter, driveways, sidewalks, etc., has been completed. Under no circumstances shall the Contractor prolong final grading, shaping and sod placement so that the entire project can be permanently restored at the same time.

This work shall consist of the excavation, topsoiling and sodding from a minimum of one and one-half (1-1/2) feet to a maximum of three (3) feet behind or adjacent to all curbs, sidewalks and

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driveways removed and replaced during the course of construction or as directed by the Engineer. Restoration will also be performed on areas disturbed by storm sewer or culvert construction.

All topsoil to be used for turf restoration shall be obtained from outside the limits of this improvement, transported to the site and placed at required locations to a minimum depth of 6". All materials shall meet the requirements of Art. 1081.05 of the Standard Specifications. All placement of topsoil shall meet the requirements of Sec. 211 of the Standard Specifications.

All sod within Village rights-of-way shall be salt tolerant meeting the requirements of Art. 1081.03 of the Standard Specifications. All placement of sod shall meet the requirements of Sec. 252 of the Standard Specifications.

For the period prior to full restoration, the Contractor shall backfill and grade all disturbed areas so as to insure the safety of the general public. Parkways shall be left in a safe, clean and usable condition conducive to foot traffic and to the satisfaction of the Village. The Contractor shall protect these unfinished areas against erosion and work to keep them weed free.

INLET AND PIPE PROTECTION

Description: This work shall be in accordance with Section 280 of the Standard Specifications except as modified herein.

The Inlet Protector shall be a reinforced sediment bag with a frame that is inserted between the existing frame and grate. The Inlet Protector shall have an overflow feature to prevent ponding during heavy storms.

Inlet protectors, as described above, shall be used unless there is an unusual structure or circumstance which prevents the baskets from being properly installed.

Cleaning and/or replacement of the Inlet Protector shall be done by Contractor at the discretion of the Engineer.

PCC SIDEWALK REMOVE AND REPLACE

Description: This work shall consist of installation of new P.C.C. and the removal and replacement of existing P.C.C. sidewalk as indicated by location or shown on the plans. All P.C.C. sidewalks shall be removed and replaced by methods and with materials in accordance with Articles 424 and 1020.04 of the SSRBC, except as amended herein.

Removal of existing sidewalk shall include saw cutting and disposal of existing concrete as directed by the Engineer, removal of tree roots, bituminous paved sidewalks and/or bituminous overlayment of existing sidewalks.

Placement of sidewalk shall include the following:

- a) Any necessary excavation, clearing, and proper disposal of excavated materials, removal and disposal of all obstructions such as fences, walls, foundations and buildings;
- b) The placement and compaction of four inches (4") of Subbase Granular

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- material, Type B, CA 6 with the methods and with materials in accordance with Section 311 and of Article 1004.04 of the SSRBC;
- c) The set up of form work such that the maximum running slope of the finished walk does not exceed 5 percent (1:20) or not to exceed the general grade established for the roadway, and the cross slope is not more than 2 percent (1:50).
 - c) The placement of five inch (5") thick, Class SI Portland Cement Concrete, 5.65 cwt/cy mix, with 5-8% air entrainment, 2"-4" slump, and six inch (6") thickness through or in residential driveways or where subject to vehicular traffic, to the width specified on the plans or as directed by the Engineer;
 - d) The tooling of contraction joints, three-quarter inch (3/4") radius and one inch (1") deep, five feet (5') on center;
 - f) The placement of one half inch (1/2") thick pre-molded expansion joints at 50 foot intervals on center, or abutting existing concrete sidewalk, or at the end of a pour;
 - g) The adjustment to proper grade of all utility structures encountered;
 - h) For sidewalks passing over newly constructed utility trenches, three equally spaced epoxy coated No. 4 reinforcing bars shall be centered over all utility trenches. Bars shall extend a minimum of five feet (5') beyond the walls of the utility trench. Reinforcement shall be incidental to the cost of the pay item.
 - i) The replacement of all traffic control devices or parking meters removed;
 - j) The proper curing of all concrete work utilizing methods and materials outlined in Articles 424 and 1022.01 of the SSRBC, (Type III membrane curing compound white pigmented);
 - k) The complete restoration of abutting asphalt driveways damaged as a result of installation, or where new sidewalk surface is more than one half inch (1/2") higher or lower than the original grade of the asphalt drive. Restoration shall consist of a minimum of one foot either side of the sidewalk; with a minimum of three inch (3") thick Hot-Mix Asphalt Surface, Mixture D, N50 (IL 9.5) surface course; and restoration of gravel drives with similar HMA restoration.
 - l) Installation of ADA compliant ramps for curbed and non-curbed streets.

When sidewalks are closed to pedestrians a minimum of two barricades (one on either side of the work zone) shall be used.

STRUCTURE TO BE REPAIRED

Description: This item shall consist of the repair of any utility structures at locations noted on the plans and in accordance with the construction detail for Utility Structure Adjustment including all labor and materials. This item shall be done in accordance with Sec. 602 of the SSRBC and the following provisions. All excavation for structure adjustment shall be replaced with Class SI concrete.

Castings shall be set in bituminous mastic beds. The adjustment of the casting to the required final grade shall be made with precast concrete adjusting rings. Brick, concrete block, or wooden shims will not be permitted.

When adjustments include new frame and grate or new frame and lid, all replacement frames, grates and lids shall be heavy duty. Cost of construction of new frame and grate at the curb shall

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include removal and replacement of curb and gutter, including 5 feet on either side of the casting.

Although the cost of adjusting structures per this specification will be paid for under this contract, the contractor shall be aware that many of the structures are not the property of the Village of Downers Grove, and that such work may require inspections and/or permits from other governmental agencies.

TREE PRUNING

This work shall consist of pruning branches, for aesthetic and structural enhancement, of existing trees as shown on the plans or as directed by the Engineer. All pruning shall be done according to ANSI A300 (Part 1) – Pruning standard.

All trees designated to be saved shall be protected during clearing and subsequent construction operations. Overhanging limbs shall be pruned or cut off to provide a minimum vertical clearance of seven (7) feet from the finished surface.

LANDSCAPE REMOVAL AND REPLACEMENT

Description: Unless noted otherwise, any existing landscaping requiring removal shall be replaced in-kind. Landscaping plans shall be presented to the Village for review as part of the final design package. Every attempt shall be made by the Contractor to minimize impacts to existing landscaping.

SIGNAGE

Description: Interpretive signs will be erected describing the functions, services, and significance of the sustainable NPS pollution management project at various places along the sidewalks as noted in the preliminary plans and at Patriot's Park. These signs will explain the specific stabilization practices used on site, the need for them, and long term maintenance involved. Information will also be disseminated through the Village website. The signage and website will provide NPS pollution educational opportunities.

MAINTENANCE AND MONITORING PLAN

Description: The plantings will be inspected at least once a year for a three-year term, or until compliance with the following performance criteria has been met. Vegetation monitoring will occur by a meander survey. The purpose of the monitoring is to determine the effectiveness of the restoration and recommend changes in management if failing. A monitoring report will be provided to the Village by January 31st following each inspection. The report will include a summary relative to the proposed performance standards, maintenance performed during that year and recommend changes in management if the plantings are failing, and representative photographs of each planting area. Areas which do not meet the establishment standards will be replanted.

- First year: 90% coverage of the cover crop shall be established within the first three months. There shall be no bare areas greater than 0.5 meters. By the end of the first complete growing at least 25% of the species present shall be native/non-invasive or those of what was planted in the above list.
- Second year: At least 50% of the species present shall be native/non-invasive or those of what

Village of Downers Grove – St. Joseph Creek South Restoration Design Build (SW-088-19)

was planted in the above list. There shall be no bare areas greater than 0.5 meters.

- Third year: At least 75% of the species present shall be native/non-invasive or those of what was planted in the above list. None of the three most dominant species may be non-native or invasive or constitute greater than 25% aerial coverage (individually or cumulatively) by the end of the third growing season. There shall be no bare areas greater than 0.5 meters.

Invasive and non-native species, and woody plant species not specified as part of the planting plan, shall be controlled by appropriate management practices of the approved plan. Invasive species for the purposes of this project include, but are not limited to the following:

Cirsium arvense Canada Thistle
 Dipsacus laciniatus Cut-leaved Teasel
 Dipsacus sylvestris Common Teasel
 Lythrum salicaria Purple Loosestrife
 Melilotus alba White Sweet Clover
 Phalaris arundinacea Reed Canary Grass
 Phragmites australis Giant Reed
 Polygonum cuspidatum (Fallopia japonica) Japanese Knotweed
 Rhamnus Cathartica or frangula Buckthorn

Maintenance Procedures:

Debris Removal: All debris will be removed, via non-invasive methods, from within the restored channel and buffer area during the initial maintenance period and subsequently dependent on arrival of new debris.

Mowing: Several mowing methods will be utilized at the establishment stage of the plantings to allow the planted species to outcompete invasive species.

Herbicide Application: Selective herbiciding to control invasive species is proposed. Herbicides non-toxic to animal and aquatic life will be applied by the appropriate method by a certified and licensed pesticide applicator to prevent killing of desirable native species.

Prescribed Burning: A prescribed burn is suggested every other late fall/early spring following the 3rd year within the planted areas dependent on the presence of fuel and root establishment.

V. PROPOSER’S RESPONSE TO RFP (Professional Services)

(Selected Firm shall insert fee proposal here. DO NOT insert a form contract. This RFQ/RFP document including detail specs and Proposer’s response will become the contract with the Village.)



TECHNICAL PROPOSAL



POINT OF CONTACT

MIKE FAMIGLIETTI, P.E.

Client Contact

Direct: 630.729.6223

Mobile: 630.330.7626

Email: mfamiglietti@v3co.com



SUBMITTED TO

JOHN WELCH

Assistant Director Public Works

Village of Downers Grove

5101 Walnut Avenue

Downers Grove, IL 60515

Phone: 630.434.2453

Email: jwelch@downers.us

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- *Proposed Design of Improvements*
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- *Proposed Means & Methods for Construction*
- *Proposed Project Schedule*

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Section 3: SURETY COMMITMENT LETTER & BID BOND





August 1, 2019

John Welch, Assistant Director Public Works – Engineering
Village of Downers Grove
5101 Walnut Avenue
Downers Grove, IL 60515

Proposal: St. Joseph Creek South Restoration Design Build

Dear Mr. Welch,

Thank you for the opportunity to submit our proposal for St. Joseph Creek South Restoration Design Build project. We are proud of our past contributions to the Village of Downers Grove and look forward to this opportunity.

As requested, we have enclosed our submittal which includes the technical proposal and cost proposal in separate sealed envelopes.

We look forward to working with the Village and are available immediately to begin work. If you have any questions regarding our qualifications, please feel free to contact me at 630.729.6223 or via email at mfamiglietti@v3co.com.

Sincerely,
V3 Companies, Ltd.

A handwritten signature in blue ink, appearing to read 'Mike Famiglietti', with a long horizontal flourish extending to the right.

Mike Famiglietti
Vice President
Director of Construction & Ecological Restoration

SECTION 1



TECHNICAL PROPOSAL



TECHNICAL PROPOSAL

Proposed Design of Improvements

STREAM RESTORATION COMPONENTS

V3's has relied on the concept plan set prepared by Engineering Resource Associates for the basic components of the proposed design. We have extensive experience in the installation of rock riffles, boulder / rock toe protection, large woody debris habitat structures, rock vanes, riffles and bank grading as depicted in the concept drawings provided by the Village. Once additional flow characteristics of the system and/or other typical site constraints (access, utility conflicts, etc.) are observed, V3 will confirm the types and locations of the proposed stabilization measures that will maximize their effectiveness (this is often the case with the location of rock vanes or riffles). Building off the provided plan set, V3 will develop a final engineering plan set that shows the design intent and general limit of the proposed improvements that can be used for permitting purposes. The plan set will include a plan view, updated profile (if deemed necessary), erosion control and typical details of the selected stabilization and restoration measures. The plans will also show the best available information related to property limits and the surveyed limit of the wetland / Waters delineation for submittal to the applicable regulatory agencies.

PLANTING PLANS & PERFORMANCE STANDARDS

V3's restoration ecologist will evaluate and revise the proposed seed and plug mixes based on our experience with the successful establishment of native wetland, prairie and shoreline vegetation. The revised seed and plant mixes will also be based on meeting the required three-year performance standards for stream restoration projects.

Anticipated Permits Required

We anticipate the following permits to be required:

1. USACE Regional Permit 5
2. DuPage County Stormwater and Floodplain Ordinance Permit - Village of Downers Grove
3. Soil Erosion and Sediment Control Review & Approval - Kane/DuPage SWCD
4. NPDES ILR 10 Permit/SWPPP Approval – Illinois EPA

PERMITTING

FLOODWAY/FLOODPLAIN PERMITTING

The proposed improvements are located within mapped floodplain and floodway of St. Joseph Creek Southwest Tributary. Work within mapped floodway typically requires a Floodway Construction permit, which is usually issued by the Illinois Department of Natural Resources – Office of Water Resources (IDNR-OWR) or DuPage (if delegated by IDNR-OWR to DuPage). However, the new Flood Insurance Study (FIS) for DuPage County suggests that the tributary drainage area to St. Joseph Creek Southwest Tributary is less than one square mile at the project location (0.7 square miles at the downstream



TECHNICAL PROPOSAL

confluence with St. Joseph Creek). As such, IDNR-OWR should not take jurisdiction over the mapped floodway and would not delegate to DuPage County so it is anticipated that the floodway and floodplain requirements of the DuPage County Stormwater and Floodplain Ordinance (“Ordinance”) will be reviewed by the Village.

Although it is our opinion that much of the proposed bank stabilization work meets the criteria for a General Certification Pertaining To the Construction of Shoreline or Stream Bank Stabilization Measures, the overall magnitude of the project (especially the relocation / remeandering of the creek) will require a full tabular stormwater submittal.

For the purposes of this proposal, it is our understanding that the necessary hydraulic modeling of the proposed improvements will need to demonstrate “no adverse impact” but the modeling will not be used to remap the regulatory floodway and/or floodplain. Specifically, if the regulatory FEQ model was used in the preliminary design, it is expected that only the long time series will be run and the hydraulic evaluation will not include the PVSTATS analysis needed to establish new Base Flood Elevations (BFEs). Additionally, if FEQ is used to model the proposed improvements, there will be no floodway modeling. The net result, especially where the creek is being relocated, is that the mapped floodway (primarily) and potentially the mapped floodplain will not align with the as-built project. If the Village would like to proceed with a Letter of Map Change for the overall project area that would be provided as a separate service (this approach is recommend especially since DuPage County and FEMA are still working through the LOMC process for FEQ).

U.S. ARMY CORPS OF ENGINEERS REGIONAL PERMIT 5

St. Joseph’s Creek is a Waters of the U.S. under the regulation of the USACE Chicago District. The USACE’s Regional Permit 5 will be required for the project. RP 5 can be used to authorize Aquatic Habitat Restoration, Establishment and Enhancement, with no size or length limitation as long as there is a net gain in aquatic resource functions and values. V3 has successfully utilized RP5 for large scale stream restoration projects. RP 5 will take from 3-6 month to obtain.

VILLAGE OF DOWNERS GROVE STORMWATER MANAGEMENT PERMIT CERTIFICATION SUBMITTAL

Although the Village of Downers Grove is a full waiver community and it is anticipated that the Village will “self-permit” this project, V3 understands that the Village will need a typical stormwater permit submittal for the project. The permit submittal will include the floodway/floodplain components described above but will also address stormwater requirements (no PCBMPs or detention but includes erosion control) as well as wetland, waterway and buffer requirements. V3 will prepare a full DuPage County Stormwater and Floodplain Ordinance tabular submittal that the Village can either review internally or send to one of the Village’s review consultants.

NDPES ILR10 PERMIT/ SWPPP PERMITTING

Since the project will disturb more than one acre, an ILR10 permit will be required from IEPA before construction can begin. The Notice of Intent (NOI) will be submitted after finalizing the design (depending on design modifications) and it typically takes 30 – 45 days to get approval. The SWPPP will also include the necessary erosion control plans, notes and details to obtain a permit from Kane DuPage Soil & Water Conservation District as part of the USACE permitting.



TECHNICAL PROPOSAL

PROPOSED MEANS & METHODS FOR CONSTRUCTION

ACCESS & CLEARING

Existing conditions include moderately wooded and vegetated slopes on both sides of the creek. Access routes are anticipated to be established from each of the available street crossings (Main, Webster, Washington & Lyman). Clearing operations will be performed as needed to install the proposed improvements or provide an access corridor to reach the location of proposed improvements. During the design phase of the project we will take into account any desirable trees to remain that will be incorporated into our final design. The design will consider maintaining a visual tree buffer adjacent to residents wherever possible.



SLOPE GRADING

The anticipated slope grading will be performed to limit excess material exported from the site but still meet the guidelines set forth in the bid documents. Grading and will be constructed within an approximate 15-foot zone of the water's edge excepting in areas of proposed re-meander sections. These will be graded to the elevations depicted in the concept drawings provided by the Village.

The equipment anticipated for this operation will include skid steer loaders and a small to medium size excavator.



STABILIZATION

The proposed stabilization in the base bid is limited to construction of rock toe, point bars, rock vanes, rock riffles and installation of native vegetation with three-year establishment. Vegetation will consist of native seeding on the slope along with erosion control blanket; and native plug planting at the water line.

NATIVE AREA MANAGEMENT

V3's approach to management and maintenance activities is to first gain an understanding of the site conditions and the goals of the project. Whether it is mitigation, restoration, water quality improvements, habitat creation or any other type of enhancement or restoration, it is critical that the project goals are understood in order to implement the proper maintenance to achieve success. V3 will utilize an experienced team of restoration ecologists and construction professionals to execute the required activities. All work is performed with in-house crews and equipment.



TECHNICAL PROPOSAL

Typical maintenance activities will include chemical and mechanical weed control, native seeding and planting, prescribed burning, selective clearing and limestone bike trail restorations.

This work requires extensive knowledge and training of local area ecosystems; and how to achieve the maximum performance success on each project. Critical to achieving this is an extensive knowledge of native plant characteristics in order to design the most appropriate management plan for establishment and promotion of the desired species. Equal to understanding the native species is the understanding of invasive species and the various techniques that can be implemented to eradicate these species.

The success of any native vegetation is the implementation of an adaptive management plan. Each site is unique and presents its own challenges. A management plan should be assembled that includes annual monitoring and planning of future maintenance activities. Future maintenance depends upon the performance observed from past efforts. V3 will work closely with our client to develop and implement this adaptive management plan in order to meet the defined performance objectives while maintaining the function and appearance of the native plant communities.



V3's construction experts and ecologists have been involved in numerous projects that involve the construction and/or restoration of sensitive wetland, lake, aquatic and upland habitats and environments. This has included the construction of created, restored or enhanced wetlands, lakes, naturalized shorelines and upland prairies and woodlands.

The V3 experienced restoration ecologists have been extremely successful in the establishment of all types of native vegetation. V3's success is based on our experience in all three aspects of successful native vegetation installation and establishment—design, construction and ecological management. Our professional staff has more than a decade's worth of understanding what succeeds in the field and is the result of our hybrid approach that melds scientific expertise and practical experience. One of the keys to our success is the ability to balance and coordinate the sensitive scheduling of essential earthwork tasks with the narrow planting windows for successful native vegetation establishment.

V3's projects routinely achieve agency mitigation and restoration performance standards within three growing seasons of the standard five-year requirement.





TECHNICAL PROPOSAL

PROPOSED PROJECT SCHEDULE

▪ Wetland Delineation & Field Verification	September 2019
▪ Complete Final Design Plans	November 29, 2019
▪ Complete Permitting Applications & Documents	January 1, 2020
▪ Apply for Permits	January 1, 2020
▪ Receive all Permits	June 30, 2020
▪ Begin Construction	Summer 2020
▪ Complete Construction	Fall 2020
▪ Complete Dormant Seeding	Winter 2020/2021
▪ Complete Plant Plug Installation	July 2021
▪ Begin Year one of Management & Monitoring	July 2021
▪ Complete year three of M&M	September 2023
▪ Submit final monitoring report	December 2023
▪ Obtain Agency Sign-off	May 2024

SECTION 2



REQUEST FOR PROPOSAL DOCUMENTS

Village of Downers Grove – St. Joseph Creek South Restoration Design Build (SW-088-19)

VI. PROPOSAL/CONTRACT FORM

*****THIS PROPOSAL, WHEN ACCEPTED AND SIGNED BY AN AUTHORIZED SIGNATORY OF THE VILLAGE OF DOWNERS GROVE, SHALL BECOME A CONTRACT BINDING UPON BOTH PARTIES.**

Entire Block Must Be Completed When A Submitted Bid Is To Be Considered For Award

PROPOSER:

V3 Construction Group, Ltd. _____

Company Name

Date: 7/26/2019

7325 Janes Avenue _____

Street Address of Company

mfamiglietti@v3co.com

Email Address

Woodridge, IL, 60517 _____

City, State, Zip

Mike Famiglietti, P.E.

Contact Name (Print)

630.724.9200 _____

Business Phone

630.330.7626

24-Hour Telephone

630.724.9202 _____

Fax



Signature of Officer, Partner or Sole Proprietor

ATTEST: If a Corporation



Signature of Corporation Secretary

Mike Famiglietti, P.E., President

Print Name & Title

VILLAGE OF DOWNERS GROVE:

Authorized Signature

ATTEST:

Title

Signature of Village Clerk

Date

Date

In compliance with the specifications, the above-signed offers and agrees, if this Proposal is accepted within **90** calendar days from the date of opening, to furnish any or all of the services upon which prices are quoted, at the price set opposite each item, delivered at the designated point within the time specified above.

Village of Downers Grove – St. Joseph Creek South Restoration Design Build (SW-088-19)

VI. PROPOSAL/CONTRACT FORM

*****THIS PROPOSAL, WHEN ACCEPTED AND SIGNED BY AN AUTHORIZED SIGNATORY OF THE VILLAGE OF DOWNERS GROVE, SHALL BECOME A CONTRACT BINDING UPON BOTH PARTIES.**

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PROPOSER:

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Company Name

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7325 Janes Avenue

Street Address of Company

mfamiglietti@v3co.com

Email Address

Woodridge, IL, 60517

City, State, Zip

Mike Famiglietti, P.E.

Contact Name (Print)

630.724.9200

Business Phone

630.330.7626

24-Hour Telephone

630.724.9202

Fax



Signature of Officer, Partner or Sole Proprietor

Mike Famiglietti, P.E., President

Print Name & Title

ATTEST: If a Corporation


Signature of Corporation Secretary

VILLAGE OF DOWNERS GROVE:

Authorized Signature

ATTEST:

Title

Signature of Village Clerk

Date

Date

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Village of Downers Grove – St. Joseph Creek South Restoration Design Build (SW-088-19)



VENDOR W-9 REQUEST FORM

The law requires that we maintain accurate taxpayer identification numbers for all individuals and partnerships to whom we make payments, because we are required to report to the I.R.S all payments of \$600 or more annually. We also follow the I.R.S. recommendation that this information be maintained for all payees including corporations.

Please complete the following substitute W-9 letter to assist us in meeting our I.R.S. reporting requirements. The information below will be used to determine whether we are required to send you a Form 1099. Please respond as soon as possible, as failure to do so will delay our payments.

BUSINESS (PLEASE PRINT OR TYPE):

NAME: V3 Construction Group, Ltd.

ADDRESS: 7325 Janes Avenue

CITY: Woodridge

STATE: Illinois

ZIP: 60517

PHONE: 630.724.9200 **FAX:** 630.724.9200

TAX ID #(TIN): 36-4152165

(If you are supplying a social security number, please give your full name)

REMIT TO ADDRESS (IF DIFFERENT FROM ABOVE):

NAME: _____

ADDRESS: _____

CITY: _____

STATE: _____ **ZIP:** _____

TYPE OF ENTITY (CIRCLE ONE):

- | | |
|----------------------|---|
| Individual | Limited Liability Company –Individual/Sole Proprietor |
| Sole Proprietor | Limited Liability Company-Partnership |
| Partnership | Limited Liability Company-Corporation |
| Medical Corporation | |
| Charitable/Nonprofit | Government Agency |

SIGNATURE: *[Handwritten Signature]*

DATE: 7/26/2019

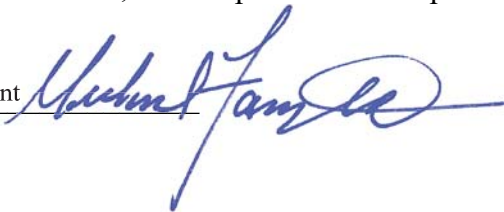
Village of Downers Grove – St. Joseph Creek South Restoration Design Build (SW-088-19)

PROPOSER'S CERTIFICATION

St. Joseph Creek South
Restoration Design Build
With regard to (SW-088-19), proposer V3 Companies, Ltd. hereby certifies
(Name of Project) (Name of Proposer)
the following:

1. Proposer is not barred from bidding this contract as a result of violations of Section 720 ILCS 5/33E-3 (Bid Rigging) or 720 ILCS 5/33E-4 (Bid-Rotating);
2. Proposer certifies that it has a written sexual harassment policy in place and is in full compliance with 775 ILCS §12-105(A)(4);
3. Bidder certifies that not less than the prevailing rate of wages as determined by the Village of Downers Grove, DuPage County or the Illinois Department of Labor shall be paid to all laborers, workers and mechanics performing work for the Village of Downers Grove. All bonds shall include a provision as will guarantee the faithful performance of such prevailing wage clause. Bidder agrees to comply with the Illinois Prevailing Wage Act, 820 ILCS 130/1 *et seq.*, for all work completed. Bidder agrees to pay the prevailing wage and require that all of its subcontractors pay prevailing wage to any laborers, workers or mechanics who perform work pursuant to this Contract or related subcontract. Bidder and each subcontractor shall keep or cause to be kept an accurate record of names, occupations and actual wages paid to each laborer, workman and mechanic employed by the Bidder in connection with the contract. This record shall be sent to the Village on a monthly basis along with the invoice and shall be open to inspection at all reasonable hours by any representative of the Village or the Illinois Department of Labor and must be preserved for five (5) years following completion of the contract. Bidder certifies that Bidder and any subcontractors working on the project are aware that filing false payroll records is a Class A misdemeanor and that the monetary penalties for violations are to be paid pursuant to law by the Bidder, contractor and subcontractor. The Village shall not be liable for any underpayments. If applicable: Since this is a contract for a fixed public works project, as defined in 820 ILCS 130/2, Contractor agrees to post at the job site in an easily accessible place, the prevailing wages for each craft or type of worker or mechanic needed to execute the contract or work to be performed;
4. Proposer certifies that it is in full compliance with the Federal Highway Administrative Rules on Controlled Substances and Alcohol Use and Testing, 49 C. F.R. Parts 40 and 382 and that all employee drivers are currently participating in a drug and alcohol testing program pursuant to the Rules.
5. Proposer further certifies that it is not delinquent in the payment of any tax administered by the Department of Revenue, or that Proposer is contesting its liability for the tax delinquency or the amount of a tax delinquency in accordance with the procedures established by the appropriate Revenue Act. Proposer further certifies that if it owes any tax payment(s) to the Department of Revenue, Proposer has entered into an agreement with the Department of Revenue for the payment of all such taxes that are due, and Proposer is in compliance with the agreement.

BY: Mike Famiglietti, P.E., Vice President
Proposer's Authorized Agent



Village of Downers Grove – St. Joseph Creek South Restoration Design Build (SW-088-19)

3 6 - 4 1 5 2 1 5 6

FEDERAL TAXPAYER IDENTIFICATION NUMBER

or _____
Social Security Number

Subscribed and sworn to before me
this 26 day of July, 2019.



Notary Public)
State of Illinois
County of DuPage

(Fill Out Applicable Paragraph Below)

(a) **Corporation**

The Proposer is a corporation organized and existing under the laws of the State of
Illinois, which operates under the Legal name of _____,
and the full names of its Officers are as follows:

President: Mike Famiglietti

Secretary: Tom Foster

Treasurer: Rob Petroelje

and it does have a corporate seal. (In the event that this bid is executed by other than the President, attach hereto a certified copy of that section of Corporate By-Laws or other authorization by the Corporation which permits the person to execute the offer for the corporation.)

(b) **Partnership**

Signatures and Addresses of All Members of Partnership:

The partnership does business under the legal name of: _____
which name is registered with the office of _____ in the state of _____.

Village of Downers Grove – St. Joseph Creek South Restoration Design Build (SW-088-19)

(c) **Sole Proprietor**

The Supplier is a Sole Proprietor whose full name is: _____
and if operating under a trade name, said trade name is: _____
which name is registered with the office of _____ in the state of _____.

6. Are you willing to comply with the Village’s preceding insurance requirements within 13 days of the award of the contract? Yes

Insurer’s Name DSP Insurance Services

Agent John Adams

Street Address 1900 E. Golf Road, Suite 650

City, State, Zip Code Schaumburg, IL, 60173

Telephone Number 847.934.6100

I/We affirm that the above certifications are true and accurate and that I/we have read and understand them.

Print Name of Company: V3 Construction Group, Ltd.

Print Name and Title of Authorizing Signature: Mike Famiglietti, P.E., President

Signature:  _____

Date: 7/26/2019

Village of Downers Grove – St. Joseph Creek South Restoration Design Build (SW-088-19)

MUNICIPAL REFERENCE LIST

Municipality: Lake County Forest Preserve
 Address: 1899 West Winchester Rd, Libertyville, Illinois 60048
 Contact Name: Michael Haug - mhaug@lcfpd.org Phone #: 847-968-3275
 Name of Project: Ft.Sheridan Public Access
 Contract Value: \$1,901,000.00 Date of Completion: Spring 2019

Municipality: DuPage County - SWM
 Address: 421 North County Farm Rd, Wheaton, IL 60187
 Contact Name: Jenna Fahey - Jenna.Fahey@dupageco.org Phone #: 630-407-6728
 Name of Project: West Branch Dupage River Klien Road Fen
 Contract Value: \$8,009,000.00 Date of Completion: 2013 - 2019

Municipality: DuPage County Forest Preserve
 Address: 3 S. 580 Naperville Rd, Wheaton, IL 60189-8761
 Contact Name: Scott Meister - smeister@dupageforest.org Phone #:
 Name of Project: Springbrook Creek & Wetland
 Contract Value: \$1,940,000.00 Date of Completion: 2017

Municipality: Wheaton Park District
 Address: 855 W. Prairie Avenue, Wheaton, Illinois 60187
 Contact Name: Steve Hinchee - shinchee@wheatonparks.org Phone #: 630-665-4710
 Name of Project: Rathje Park Improvements
 Contract Value: \$568,000.00 Date of Completion: 2018

Municipality: Village of Orland Park
 Address: 14700 Ravinia Avenue, Orland Park, IL 60462
 Contact Name: Gary Couch - gcouch@orlandpark.org Phone #: 708-403-6150
 Name of Project: Park Hill Ponds PH-1, 2, & 3
 Contract Value: \$400,000.00 Date of Completion: 2017

Village of Downers Grove – St. Joseph Creek South Restoration Design Build (SW-088-19)

SUBCONTRACTORS LIST

The Bidder hereby states the following items of work will not be performed by its organization.
 (List items to be subcontracted as well as the names, addresses and phone numbers of the subcontractors.)

1) Accu-Paving Type of Work Asphalt Paving

Addr: Broadview, Illinois City _____ State ___ Zip _____

2) N / A Type of Work _____

Addr: _____ City _____ State ___ Zip _____

3) N / A Type of Work _____

Addr: _____ City _____ State ___ Zip _____

4) N / A Type of Work _____

Addr: _____ City _____ State ___ Zip _____

5) N / A Type of Work _____

Addr: _____ City _____ State ___ Zip _____

6) N / A Type of Work _____

Addr: _____ City _____ State ___ Zip _____

7) N / A Type of Work _____

Addr: _____ City _____ State ___ Zip _____

8) N / A Type of Work _____

Addr: _____ City _____ State ___ Zip _____

Village of Downers Grove – St. Joseph Creek South Restoration Design Build (SW-088-19)

Apprenticeship and Training Certification

(Does not apply to federal aid projects. Applicable only to maintenance and construction projects that use Motor Fuel Tax funds or state grant monies.)

Name of Bidder: V3 Construction Group, Ltd.

In accordance with the provisions of Section 30-22 (6) of the Illinois Procurement Code, the Bidder certifies that it is a participant, either as an individual or as part of a group program, in the approved apprenticeship and training programs applicable to each type of work or craft that the bidder will perform with its own forces. The Bidder further certifies for work that will be performed by subcontract that each of its subcontractors submitted for approval either (a) is, at the time of such bid, participating in an approved, applicable apprenticeship and training program; or (b) will, prior to commencement of performance of work pursuant to this Contract, begin participation in an approved apprenticeship and training program applicable to the work of the subcontract. The Illinois Department of Labor, at any time before or after award, may require the production of a copy of each applicable Certificate of Registration issued by the United States Department of Labor evidencing such participation by the contractor and any or all of its subcontractors. Applicable apprenticeship and training programs are those that have been approved and registered with the United States Department of Labor. The Bidder shall list in the space below, the official name of the program sponsor holding the Certificate of Registration for all of the types of work or crafts in which the Bidder is a participant and that will be performed with the Bidder's forces. Types of work or craft work that will be subcontracted shall be included and listed as subcontract work. The list shall also indicate any type of work or craft job category that does not have an applicable apprenticeship or training program. **The Bidder is responsible for making a complete report and shall make certain that each type of work or craft job category that will be utilized on the project is accounted for and listed. Return this with the Bid.**

Local 150 Operators Union, Local Teamsters Union, Local Laborers Union

The requirements of this certification and disclosure are a material part of the Contract, and the Contractor shall require this certification provision to be included in all approved subcontracts. In order to fulfill this requirement, it shall not be necessary that an applicable program sponsor be currently taking or that it will take applications for apprenticeship, training or employment during the performance of the work of this Contract.

Print Name and Title of Authorizing Signature: Thomas A. Foster - Secretary

Signature:  _____
Date: 7/26/2019

Village of Downers Grove – St. Joseph Creek South Restoration Design Build (SW-088-19)

BUY AMERICA CERTIFICATION

Certification requirement for procurement of steel, iron, or manufactured products when Federal funds (Grant Agreement or Cooperative Agreement) are used.

Instructions:

Bidder to complete the Buy America Certification listed below. Bidder shall certify EITHER COMPLIANCE OR NON-COMPLIANCE (not both). This Certification MUST BE submitted with the Bidder's bid response.

Special Note: Make sure you have signed only one of the above statements – either Compliance OR Non-Compliance (not both).

<i>Certificate of Compliance</i>

The bidder or offeror hereby certifies that it **will meet** the requirements of 49 U.S.C. 5323(j)(1), as amended, and the applicable regulations in 49 CFR Part 661.

Signature _____

Company Name V3 Construction Group, Ltd.Title PresidentDate 7/26/2019

<i>Certificate of Non-Compliance</i>

The bidder or offeror hereby certifies that it **cannot comply** with the requirements of 49 U.S.C. 5323(j)(1), as amended, and 49 C.F.R. 661, but it may qualify for an exception pursuant to 49 U.S.C. 5323(j)(2)(A), 5323(j)(2)(B), or 5323(j)(2)(D), and 49 C.F.R. 661.7.

Signature _____

Company Name V3 Construction Group, Ltd.Title PresidentDate 7/26/2019

AFTER THIS CERTIFICATE HAS BEEN EXECUTED, A BIDDER MAY NOT SEEK A WAIVER.

Note: The U.S./Canadian Free Trade Agreement does not supersede the Buy America requirement.

Village of Downers Grove – St. Joseph Creek South Restoration Design Build (SW-088-19)

Suspension or Debarment Certificate
--

Non-Federal entities are prohibited from contracting with or making sub-awards under covered transactions to parties that are suspended or debarred or whose principals are suspended or debarred. Covered transactions include procurement for goods or services equal to or in excess of \$100,000.00. Contractors receiving individual awards for \$100,000.00 or more and all sub-recipients must certify that the organization and its principals are not suspended or debarred.

By submitting this offer and signing this certificate, the bidder certifies to the best of its knowledge and belief, that the company and its principals:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any federal, state or local governmental entity, department or agency.
2. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction, or convicted of or had a civil judgment against them for a violation of Federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (2) of this certification: and
4. Have not within a three-year period preceding this application/proposal/contract had one or more public transactions (Federal, State or local) terminated for cause or default.

If the bidder is unable to certify to any of the statements in this certification, bidder shall attach an explanation to this certification.

Company Name: V3 Construction Group, Ltd.

Address: 7325 Janes Avenue

City: Woodridge Zip Code: 60517

Telephone: (630) 724.9200 Fax Number: (630) 724.9202

E-mail Address: mfamiglietti@v3co.com

Authorized Company Signature:  _____

Print Signature Name: Mike Famiglietti, P.E. Title of Official: President

Date: 7/26/2019

Village of Downers Grove – St. Joseph Creek South Restoration Design Build (SW-088-19)

CAMPAIGN DISCLOSURE CERTIFICATE

Any contractor, proposer, bidder or vendor who responds by submitting a bid or proposal to the Village of Downers Grove shall be required to submit with its bid submission, an executed Campaign Disclosure Certificate.

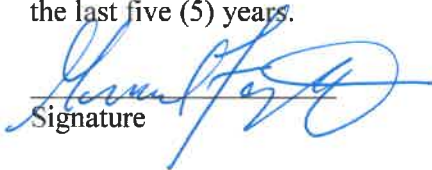
The Campaign Disclosure Certificate is required pursuant to the Village of Downers Grove Council Policy on Ethical Standards and is applicable to those campaign contributions made to any member of the Village Council.

Said Campaign Disclosure Certificate requires any individual or entity bidding to disclose campaign contributions, as defined in Section 9-1.4 of the Election Code (10 ILCS 5/9-1.4), made to current members of the Village Council within the five (5) year period preceding the date of the bid or proposal release.

By signing the bid documents, contractor/proposer/bidder/vendor agrees to refrain from making any campaign contributions as defined in Section 9-1.4 of the Election Code (10 ILCS 5/9-1.4) to any Village Council member and any challengers seeking to serve as a member of the Downers Grove Village Council.

Under penalty of perjury, I declare:

Bidder/vendor has not contributed to any elected Village position within the last five (5) years.


Signature

Mike Famiglietti, P.E.
Print Name

Bidder/vendor has contributed a campaign contribution to a current member of the Village Council within the last five (5) years.

Print the following information:

Name of Contributor: _____
(company or individual)

To whom contribution was made: _____

Year contribution made: _____ Amount: \$ _____

Signature

Print Name

APPENDIX A – IEPA 319 Grant Project Details and Overflow Pages (24 pages)

OVERFLOW ATTACHMENT SHEET

5. Project Description (continued)

In 2007, the DuPage River Salt Creek Workgroup (DRSCW) members began collecting data throughout the East Branch DuPage River watershed. Three monitoring stations were established along St. Joseph Creek in order to collect chemical, biological, and habitat information. Two of these monitoring stations are downstream of the project area and thus reflect the effects of the project area stream. DRSCW collected fIBI, mIBI, and QHEI data at each of these stations in 2007, 2011, and 2014. At the downstream station closest to the project area, the fIBI and mIBI data indicated a severe impairment in stream quality in all sample years. Statistical analysis of the parameters sampled determined that the prominent stressors to water quality are high nitrogen levels, poor channel conditions, lack of riffles, and poor substrate within the waterway. Additionally, pollutants of concern within St. Joseph Creek are Biochemical Oxygen Demand, Total Suspended Solids, Total Nitrogen, and oil and grease, as identified by the IEPA and DRSCW. The St. Joseph Creek Watershed Plan included a STEPL model of these pollutants of concern (with the exception of oil and grease) to establish background levels.

The St. Joseph Creek Watershed Plan identifies several best management practices that would improve the water quality throughout the watershed. The report notes that riparian buffers on the creek average 15-feet in width and have low quality vegetation, and recommends a replacement of traditional landscapes, such as turf grass lawns, with native riparian areas. Additionally, the report notes that the creek has a lack of pool and riffle sequences and a dominance of mud substrates. Additionally, the project reach consists of fairly straight stream segments connected by sharp angles. The report recommends improving channel sinuosity, installing natural features, and reestablishing a cobble stream bottom. Finally, the report notes that many segments have eroding streambanks, which creates a pollutant source, causes loss of land and damage to infrastructure, and causes a disconnection of the channel from its floodplain. The report recommends streambank stabilization with bio-engineered practices, converting floodplain and riparian areas to native areas, and channel modification.

A detailed field stream assessment was also performed in 2016 and 2017 within the entire project area, and confirmed the findings of the Watershed Plan. The existing creek has been channelized in many of these segments as the various subdivisions were developed. The creek bottom is littered with concrete, bricks, and metal from previous attempts at structural bank stabilization. Downcutting within the channel and steepening and raising of the banks has limited the effectiveness of the overbank floodplain areas. Additionally, many of the overbank areas were cleared and replanted with turf grass, which has greatly reduced soil stability and pollutant treatment within the floodplain. The habitat throughout the entire reach is generally poor, with a few exceptions in the wetland area just west of Fairmount Avenue. There are very few pool and riffle systems within these segments.

As such, the Village of Downers Grove is proposing creek restoration within these segments. The stream channel cross-section will maintain the bankfull width (approximately 9 feet), but will be graded to a maximum outer bend side slope of 4:1 and inner bend side slope of 6:1 where possible, and a lower bankfull elevation. This will divert some of the existing hydraulic energy (erosive capacity) from stormwater discharges confined within the existing bankfull channel and allow that water to access the expanded riparian floodplain, thus allowing higher frequency storms to access the floodplain areas with greater regularity. This will also improve water quality through drop-out and aggradation of suspended sediments within the point bars and floodplain where subsequent nutrient loads can be captured through assimilation in the native riparian areas.

The Village has also acquired several residential properties adjacent to the creek, which will allow the Village to construct additional meanders within the creek. The profile of the creek will be reestablished to remove the effects of downcutting. The new meanders will be designed with point bar river rock on inside bends and pool areas on outside bends. The straight segments between the curves will be enhanced in seven locations with riffle areas (sands, gravels, cobbles, and boulders). The goal of the riffle sequences is to accelerate the water column velocity over these heavy substrates, so as to improve aeration and thus dissolved oxygen. In addition, these riffle-run sections will aggrade new sands and small gravel to the design matrix of gravel, cobble and boulders and create new stream habitat currently absent within the site that shall serve to attract and sustain certain benthic macroinvertebrates, fish, and mussel species absent within the reach. The new channel will also be installed with improved substrate composition. Approximately 975 linear feet of the creek will be remeandered, enhanced with riffle pool sequences, and reestablished with lower bank slopes.

Sections of the St. Joseph Creek banks are currently or were previously stabilized with wood retaining walls, cinder block retaining walls, and concrete lining, among other methods. While these methods partially stabilize the banks, they do not provide the pollutant assimilation water quality benefits of other bioengineering stabilization practices, and in most cases, are beginning to fail. As such, the Village proposes removal of the retaining walls and installation of bioengineering stabilization methods that provide enhanced water quality benefits. The proposed project includes 2,455 linear feet of bioengineered streambank stabilization. Stabilization practices that will be utilized include rock vanes and rock toe in combination with native plugs (at a rate of three plants per linear foot). Rock vanes will be used adjacent to slopes that are steeper than 4:1 on outside bends. Rock toe and plugs will be used on outside bends where the slopes are 4:1 or greater. Point bar river rock and plugs will be used on inside bends of the new meanders where the slopes are 6:1 or greater. Native vegetation and maximum slope of 4:1 will be utilized on regraded banks in straight stream segments. The combination of these practices will reduce nutrient and TSS loads.

Large woody structures will be placed along the shoreline and incorporated into the pools on the outside bends of the creek. These in-stream structures will further

improve DO and will increase the niche food web of bacteria, zooplankton and phytoplankton associated with such wood debris dams. The woody debris will also increase the capacity of the creek to capture and assimilate allochthonous carbon sources that can then be processed along with TSS loads by metabolic pathways of the improved aquatic food web, bringing greater diversity and abundance of aquatic life. The enhancement of the benthic macroinvertebrates, fish, and mussels within the creek will move aquatic assemblage IBIs towards meeting the aquatic life designated use.

The proposed riparian/buffer restoration plan involves removal of non-native invasive species along the banks of St Joseph Creek and creating a floodplain terrace in the overbank areas. These overbank areas will be flattened to increase the residence time of stormwater runoff and create habitat through interspersed vegetation zones. This area will be vegetated with riparian and mesic prairie vegetation. Approximately 1.2 acres of native riparian buffer will be created in these areas. These areas will also provide a transition area between the creek and residential upland areas to treat direct residential runoff before it enters the creek.

These proposed improvements are designed to function in a complementary fashion to improve the overall quality of St. Joseph Creek, Barth Pond, and the receiving waters of the East Branch DuPage River. The river restoration will aim to alleviate the impacts from decades of urbanization and its effects on water quality. The practices proposed will reduce the sources of impairment within St. Joseph Creek, including low dissolved oxygen, total suspended solids, and oil and grease. The DuPage River Salt Creek Workgroup will continue to monitor water quality and biological indices at the two St. Joseph Creek locations downstream, which will allow for measurement and assessment of the project effectiveness. The monitoring occurs on a three to four year cycle, and will include the chemical, biological, and habitat sampling noted previously.

Educational signage is proposed to be installed along the project area to describe the project, explain the water quality benefits, and denote the funding sources for the project. Signage may also be installed where the creek enters Barth Pond, as this is a higher pedestrian traffic area. Information will also be disseminated through the Village website, which will provide pollution prevention and water quality educational opportunities.

Planting Plan

All planting areas shall have at least twelve inches of clean un-compacted topsoil. Graded portions of the planting areas that do not expose suitable planting mediums shall be over excavated and re-spread with 12in of topsoil. The subsoil shall be loosened and topsoil applied to minimize compaction. All clumps, stones, and debris shall be removed and disposed of legally off-site. The top 2in of the soil shall be raked prior to seeding within the planting areas.

The cover crop matrix will be seeded and matted with 100% biodegradable soil erosion control blanket throughout the vegetation enhancement areas and temporary impact areas immediately after project completion to prevent erosion. All

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seeding shall be drill seeded or hand broadcast at twice the drill seed rate. The cover crop matrix will be planted throughout the temporary impact area immediately after project completion to prevent erosion if conditions are not conducive for native species seeding. Permanent native species shall be dormant seeded or seeded during the first available growing season at the appropriate time and conditions for such plantings. The seed will be lightly raked in, rolled, and watered.

Plugs to be planted at a rate of 3/LF after May 1st when frost is no longer likely. Holes for plugs shall be as deep or slightly deeper than the plug roots and soil shall be lightly packed around the roots of the plug. The soil surface should be damp for the first two weeks following planting; as such, watering may be necessary. The proposed species, specifications, and drill seeding rates for the planting areas are provided in the following tables:

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Low-profile Prairie Mix*		
<u>Botanical Name</u>	<u>Common Name</u>	<u>PLS Ounces/Acre</u>
Permanent Grasses:		
<i>Bouteloua curtipendula</i>	Side Oats Grama	16.00
<i>Carex spp.</i>	Prairie Carex Mix	4.00
<i>Elymus canadensis</i>	Canada Wild Rye	32.00
<i>Koeleria pyramidata</i>	June Grass	1.00
<i>Panicum virgatum</i>	Switch Grass	1.00
<i>Schizachyrium scoparium</i>	Little Bluestem	36.00
Temporary Cover:		
<i>Avena sativa</i>	Common Oat	360.00
<i>Lolium multiflorum</i>	Annual Rye	100.00
Forbs:		
<i>Amorpha canescens</i>	Lead Plant	0.50
<i>Anemone cylindrica</i>	Thimbleweed	0.50
<i>Asclepias syriaca</i>	Common Milkweed	2.00
<i>Asclepias tuberosa</i>	Butterfly Milkweed	2.00
<i>Baptisia alba</i>	White Wild Indigo	2.00
<i>Chamaecrista fasciculata</i>	Partridge Pea	12.00
<i>Coreopsis lanceolata</i>	Sand Coreopsis	5.00
<i>Coreopsis palmata</i>	Prairie Coreopsis	1.00
<i>Dalea candida</i>	White Prairie Clover	1.50
<i>Dalea purpurea</i>	Purple Prairie Clover	1.50
<i>Desmanthus illinoensis</i>	Illinois Sensitive Plant	3.00
<i>Echinacea purpurea</i>	Broad-Leaved Purple Coneflower	7.00
<i>Eryngium yuccifolium</i>	Rattlesnake Master	3.00
<i>Lespedeza capitata</i>	Round-Head Bush Clover	2.00
<i>Liatris aspera</i>	Rough Blazing Star	0.50
<i>Lupinus perennis</i>	Wild Lupine	4.00
<i>Monarda fistulosa</i>	Wild Bergamot	0.75
<i>Oligoneuron rigidum</i>	Stiff Goldenrod	1.00
<i>Parthenium integrifolium</i>	Wild Quinine	1.00
<i>Penstemon digitalis</i>	Foxglove Beard Tongue	0.50
<i>Penstemon hirsutus</i>	Hairy Beard Tongue	0.50
<i>Pycnanthemum virginianum</i>	Common Mountain Mint	1.00
<i>Ratibida pinnata</i>	Yellow Coneflower	4.00
<i>Rudbeckia hirta</i>	Black-Eyed Susan	5.00
<i>Rudbeckia subtomentosa</i>	Sweet Black-Eyed Susan	1.00
<i>Silphium terebinthinaceum</i>	Prairie Dock	0.50
<i>Solidago speciosa</i>	Showy Goldenrod	0.50
<i>Symphyotrichum ericoides</i>	Heath Aster	0.25
<i>Symphyotrichum laeve</i>	Smooth Blue Aster	1.00
<i>Symphyotrichum novae-angliae</i>	New England Aster	0.50
<i>Tradescantia ohiensis</i>	Common Spiderwort	0.75
<i>Verbena stricta</i>	Hoary Vervain	1.00
<i>Vernonia spp.</i>	Ironweed (Various Mix)	1.75
<i>Veronicastrum virginicum</i>	Culvers Root	0.25

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Wetland Edge Seed Mix*		PLS
<u>Botanical Name</u>	<u>Common Name</u>	<u>Ounces/Acre</u>
Permanent Grasses/Sedges:		
<i>Bolboschoenus fluviatilis</i>	River Bulrush	0.50
<i>Carex comosa</i>	Bristly Sedge	1.00
<i>Carex cristatella</i>	Crested Oval Sedge	2.00
<i>Carex frankii</i>	Bristly Cattail Sedge	6.00
<i>Carex vulpinoidea</i>	Brown Fox Sedge	3.00
<i>Eleocharis palustris</i>	Great Spike Rush	0.50
<i>Elymus virginicus</i>	Virginia Wild Rye	12.00
<i>Glyceria striata</i>	Fowl Manna Grass	1.00
<i>Juncus effusus</i>	Common Rush	1.00
<i>Leersia oryzoides</i>	Rice Cut Grass	0.50
<i>Schoenoplectus americanus</i>	Chairmaker's Bulrush	1.00
<i>Schoenoplectus tabernaemontani</i>	Softstem Bulrush	2.50
<i>Scirpus atrovirens</i>	Dark Green Rush	1.00
<i>Scirpus cyperinus</i>	Wool Grass	0.75
		Total: 32.75
Temporary Cover:		
<i>Avena sativa</i>	Common Oat	360.00
<i>Lolium multiflorum</i>	Annual Rye	100.00
		Total: 460.00
Forbs:		
<i>Acorus americanus</i>	Sweet Flag	0.50
<i>Alisma spp.</i>	Water Plantain (Various Mix)	2.00
<i>Asclepias incarnata</i>	Swamp Milkweed	2.00
<i>Bidens spp.</i>	Bidens (Various Mix)	2.00
<i>Doellingeria umbellata</i>	Flat-Topped Aster	0.25
<i>Eupatorium perfoliatum</i>	Common Boneset	1.00
<i>Helenium autumnale</i>	Sneezeweed	2.00
<i>Iris virginica</i>	Blue Flag	4.00
<i>Lobelia cardinalis</i>	Cardinal Flower	0.10
<i>Lobelia siphilitica</i>	Great Blue Lobelia	0.25
<i>Lycopus americanus</i>	Common Water Horehound	0.25
<i>Mimulus ringens</i>	Monkey Flower	1.50
<i>Penthorum sedoides</i>	Ditch Stonecrop	0.50
<i>Polygonum spp.</i>	Pinkweed (Various Mix)	0.50
<i>Rudbeckia laciniata</i>	Wild Golden Glow	0.75
<i>Sagittaria latifolia</i>	Common Arrowhead	2.00
<i>Senna hebecarpa</i>	Wild Senna	2.00
<i>Sparganium eurycarpum</i>	Common Bur Reed	4.00
<i>Symphyotrichum puniceum</i>	Swamp Aster	1.00
<i>Thalictrum dasycarpum</i>	Purple Meadow Rue	0.50
<i>Verbena hastata</i>	Blue Vervain	1.50
<i>Verbesina alternifolia</i>	Wingstem	2.00
<i>Vernonia spp.</i>	Ironweed (Various Mix)	2.00

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Shoreline Supplemental Plugs*		
<u>Scientific Name</u>	<u>Common Name</u>	<u>Percentage</u>
<i>Alisma subcordatum</i>	Common Water Plantain	8.00%
<i>Carex emoryi</i>	Riverbank Sedge	7.50%
<i>Carex frankii</i>	Bristly Cattail Sedge	8.50%
<i>Carex lupulina</i>	Common Hop Sedge	7.50%
<i>Carex stricta</i>	Common Tussock Sedge	7.50%
<i>Hibiscus laevis</i>	Halberd-Leaved Rose Mallow	7.50%
<i>Iris virginica shrevei</i>	Blue Flag	7.50%
<i>Liatris spicata</i>	Marsh Blazing Star	7.00%
<i>Lobelia cardinalis</i>	Cardinal Flower	7.50%
<i>Pontederia cordata</i>	Pickereel Weed	7.00%
<i>Sagittaria latifolia</i>	Common Arrowhead	7.50%
<i>Scirpus validus creber</i>	Great Bulrush	8.50%
<i>Sparganium eurycarpum</i>	Common Bur Reed	8.50%

*Please note that the planting lists are subject to change based on the final design.

Maintenance & Monitoring Plan

The plantings will be inspected at least once a year for a three-year term, or until compliance with the following performance criteria has been met. (Note: only one year of maintenance and monitoring is included in the grant application.) Vegetation monitoring will occur by a meander survey. The purpose of the monitoring is to determine the effectiveness of the restoration and recommend changes in management if failing. A monitoring report will be provided to the Village of Downers by January 31st following each inspection. The report will include a summary relative to the proposed performance standards, maintenance performed during that year and recommend changes in management if the plantings are failing, and representative photographs of each planting area. Areas which do not meet the establishment standards will be replanted.

- First year: 90% coverage of the cover crop shall be established within the first three months. There shall be no bare areas greater than 0.5 meters. By the end of the first complete growing at least 25% of the species present shall be native/non-invasive or those of what was planted in the above list.
- Second year: At least 50% of the species present shall be native/non-invasive or those of what was planted in the above list. There shall be no bare areas greater than 0.5 meters.
- Third year: At least 75% of the species present shall be native/non-invasive or those of what was planted in the above list. None of the three most dominant species may be non-native or invasive or constitute greater than 25% aerial coverage (individually or cumulatively) by the end of the third growing season. There shall be no bare areas greater than 0.5 meters.

Invasive and non-native species, and woody plant species not specified as part of the planting plan, shall be controlled by appropriate management practices of the approved plan. Invasive species for the purposes of this project include, but are not limited to the following:

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Cirsium arvense Canada Thistle
Dipsacus laciniatus Cut-leaved Teasel
Dipsacus sylvestris Common Teasel
Lythrum salicaria Purple Loosestrife
Melilotus alba White Sweet Clover
Phalaris arundinacea Reed Canary Grass
Phragmites australis Giant Reed
Polygonum cuspidatum (Fallopia japonica) Japanese Knotweed
Rhamnus Cathartica or frangula Buckthorn

Maintenance Procedures:

Debris Removal: All debris will be removed, via non-invasive methods, from within the restored channel and buffer area during the initial maintenance period and subsequently dependent on arrival of new debris.

Mowing: Several mowing methods will be utilized at the establishment stage of the plantings to allow the planted species to outcompete invasive species.

Herbicide Application: Selective herbiciding to control invasive species is proposed. Herbicides non-toxic to animal and aquatic life will be applied by the appropriate method by a certified and licensed pesticide applicator to prevent killing of desirable native species.

Prescribed Burning: A prescribed burn is suggested every other late fall/early spring following the 3rd year within the planted areas dependent on the presence of fuel and root establishment. Controlled burns are essential for even germination, establishment of deep root systems, and maintenance of non-native invasive species.

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Schedule

SCHEDULE	DESCRIPTION
Installation	
Fall '19	Install SC150 Sediment & Erosion Control blanket & permanent seed
Spring '20	Install native plant plugs.
1st Year Maintenance	
Summer '20/Fall '20	Mow/whip weed & wick apply chemicals to invasive species.
Summer '20	Monitoring (Report to be submitted by Jan. 31st)
Fall '20/Spring '21	Conduct specialized high mowing
2nd Year Maintenance*	
Spring '21/Summer '21	Mow/whip weed & wick apply chemical to invasive species.
Summer '21	Monitoring (Report to be submitted by Jan. 31st)
Fall '21/Spring '22	Conduct specialized high mowing
3rd Year Maintenance*	
Spring '22/Summer '22	Mow/whip weed & Wick apply chemical to invasive species.
Summer '22	Monitoring (Report to be submitted by Jan. 31st)
Fall '22	Conduct prescribed burn w/in planted areas if able otherwise conduct specialized high mowing

*Years 2 & 3 are not included in the grant application total amount, but will be performed to ensure the success of the native areas.

Long Term Maintenance: Mowing, whip weeding, and selective herbiciding will take place on an as-needed basis. Prescribed burns are suggested every other year to maintain the proposed enhancement areas. Long term maintenance in addition to the installation of the above referenced plantings will be the responsibility of the Owner.

13. Pollutant Load Reduction

Bank Stabilization Values:

The values used for the Bank Lengths are based upon the concept plan. The heights along these segments average 1.6-3.2 feet in height. An LRR value of 0.3 was used as the banks are bare with rills and severe vegetative overhang. Also, the stream features exposed tree roots, fallen trees, slumps, and impacted fences and utility poles.

Bank Stabilization

If estimating for just one bank, put "0" in areas for Bank #2.

Please select a soil textural class:

<input type="radio"/> Sands, loamy sands	<input type="radio"/> Silty clay loam, silty clay
<input type="radio"/> Sandy loam	<input type="radio"/> Clay loam
<input type="radio"/> Fine sandy loam	<input type="radio"/> Clay
<input type="radio"/> Loams, sandy clay loams, sandy clay	<input type="radio"/> Organic
<input checked="" type="radio"/> Silt loam	

Please fill in the gray areas below:

Parameter	Bank #1	Bank #2	Example
Length (ft)	1280	1175	500
Height (ft)	2.4	2.4	15
Lateral Recession Rate (ft/yr)*	0.3	0.3	0.5
Soil Weight (tons/ft ³)	0.0425	0.0425	0.04
Soil P Conc (lb/lb soil)**	DEFAULT	0.0005	0.0005
Soil N Conc (lb/lb soil)**	DEFAULT	0.001	0.001

** If not using the default values, users must provide input (in red) for Total P and Total N soil concentrations

*Lateral Recession Rate (LRR) is the rate at which bank deterioration has taken place and is measured in feet per year. This rate may not be easily determined by direct measurement. Therefore best professional judgement may be required to estimate the LRR. Please refer to the narrative descriptions in Table 1.

Estimated Load Reductions

	BMP Efficiency* Bank #1	BMP Efficiency* Bank #2	Bank #1	Bank #2	Example
Sediment Load Reduction (ton/year)	0.6	0.6	23.5	21.6	90
Phosphorus Load Reduction (lb/year)			23.5	21.6	90
Nitrogen Load Reduction (lb/yr)			47.0	43.1	180

* BMP efficiency values should be between 0 and 1, and 1 means 100% pollutant removal efficiency.

Table 1

LRR (ft/yr)	Category	Description
0.01 - 0.05	Slight	Some bare bank but active erosion not readily apparent. Some rills but no vegetative overhang.
0.06 - 0.2	Moderate	Bank is predominantly bare with some rills and vegetative overhang.
0.3 - 0.5	Severe	Bank is bare with rills and severe vegetative overhang. Many exposed tree roots and some fallen trees and slumps or slips. Some changes in cultural features such as fence corners missing and realignment of roads or trails. Channel cross-section becomes more U-shaped as opposed to V-shaped.
0.5+	Very Severe	Bank is bare with gullies and severe vegetative overhang. Many fallen trees, drains and culverts eroding out and changes in cultural features as above. Massive slips or washouts common. Channel cross-section is U-shaped and streamcourse or gully may be meandering.

Source: Steffen, L.J. 1982. Channel Erosion (personal communication), as printed in "Pollutants Controlled Calculation and Documentation for Section 319 Watersheds Training Manual," June 1999 Revision; Michigan Department of Environmental Quality - Surface Water Quality Division - Nonpoint Source Unit. EQP 5841 (6/99).

Permanent Vegetative Cover Values:

This segment of the stream has a tributary area of approximate 262 acres. A majority of the tributary area consists of single-family residential properties, with the remainder being public parks (open space) and roadways (transportation facilities). Approximately 10% of the tributary area drains overland to the stream reach, with the remaining 90% being sewered.

URBAN RUNOFF BMP POLLUTANT LOAD REDUCTION WORKSHEET

Please fill in the **gray** areas below.

Notes:
The methodology and efficiency values used in this worksheet were developed by the Illinois Environmental Protection Agency.

Please Select a Best Management Practice:

<input checked="" type="radio"/> Vegetated Filter Strips	<input type="radio"/> Sand Filters	<input type="radio"/> Sand Filter/Infiltration Basin
<input type="radio"/> Grass Swales	<input type="radio"/> WQ Inlets	<input type="radio"/> WQ Inlet w/ Sand Filter
<input type="radio"/> Infiltration Device	<input type="radio"/> Weekly Street Sweeping	<input type="radio"/> Oil/Grit Separator
<input type="radio"/> Extended Wet Detention	<input type="radio"/> Infiltration Basin	<input type="radio"/> Wet Pond
<input type="radio"/> Wetland Detention	<input type="radio"/> Infiltration Trench	
<input type="radio"/> Dry Detention	<input type="radio"/> Porous Pavement	
<input type="radio"/> Settling Basin	<input type="radio"/> Concrete Grid Pavement	

Please enter landuse of contributing/drainage area in acres:

	Sewered	Unsewered
Commercial	0	0
Industrial	0	0
Institutional	0	0
Transportation	15	2
Multi-Family	0	0
Residential	206	23
Agriculture	0	0
Vacant	0	0
Open Space	14	2

Note: Sewered and Unsewered refer to storm sewers.

Estimated Load and Load Reductions

	Load before BMP (lbs/yr)	Load after BMP (lbs/yr)	Load Reduction (lbs/yr)
BOD	5,610	2,777	2,833
COD	45,398	27,239	18,159
TSS	104,650	28,256	76,395
LEAD	94	52	42
COPPER	20	U	U
ZINC	249	99	149
TDS	203,478	U	U
TN	1,532	919	613
TKN	1,007	U	U
DP	61	U	U
TP	211	116	95
CADMIUM	1	U	U

U = Removal Efficiency for the particular BMP and constituent unavailable.

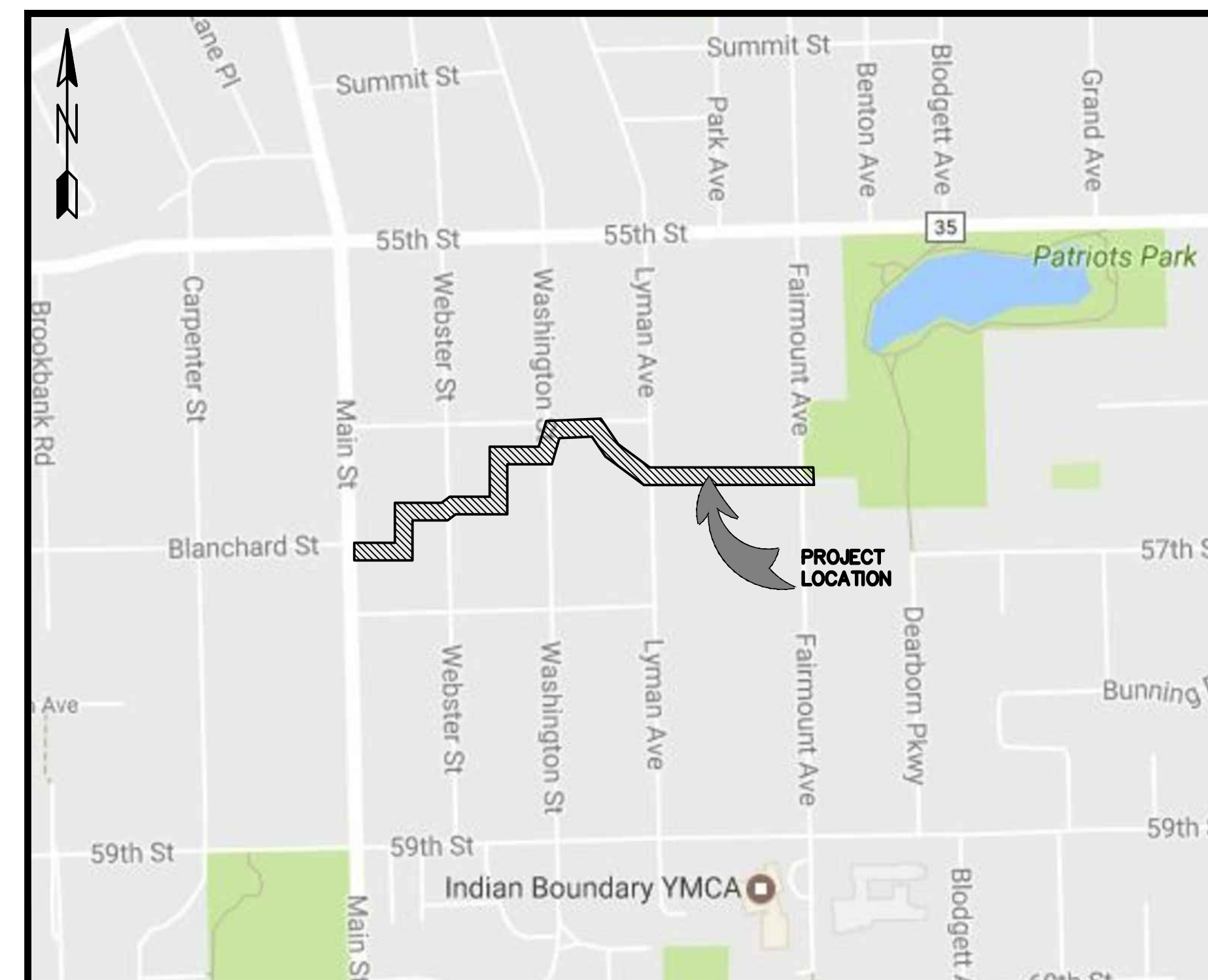
APPENDIX B – St. Joseph Creek South Concept Plans (10 pages)

ST. JOSEPH CREEK RESTORATION

VILLAGE OF DOWNERS GROVE, ILLINOIS

INDEX TO DRAWINGS

1. COVER
2. PLAN VIEW STA. 0+00 TO STA. 5+71
3. PLAN VIEW STA. 5+71 TO STA. 11+75
4. PLAN VIEW STA. 11+75 TO STA. 18+25
5. PLAN VIEW STA. 18+25 TO STA. 23+50
6. PLAN VIEW STA. 23+50 TO STA. 27+85
7. CREEK BED PROFILE STA. 0+00 TO STA. 11+50
8. CREEK BED PROFILE STA. 11+50 TO STA. 23+50
9. CREEK BED PROFILE STA. 23+50 TO STA. 27+75



LOCATION MAP

PREPARED FOR:

VILLAGE OF DOWNERS GROVE
 5101 WALNUT AVENUE
 DOWNERS GROVE, ILLINOIS 60515
 PHONE: (630) 434-5460



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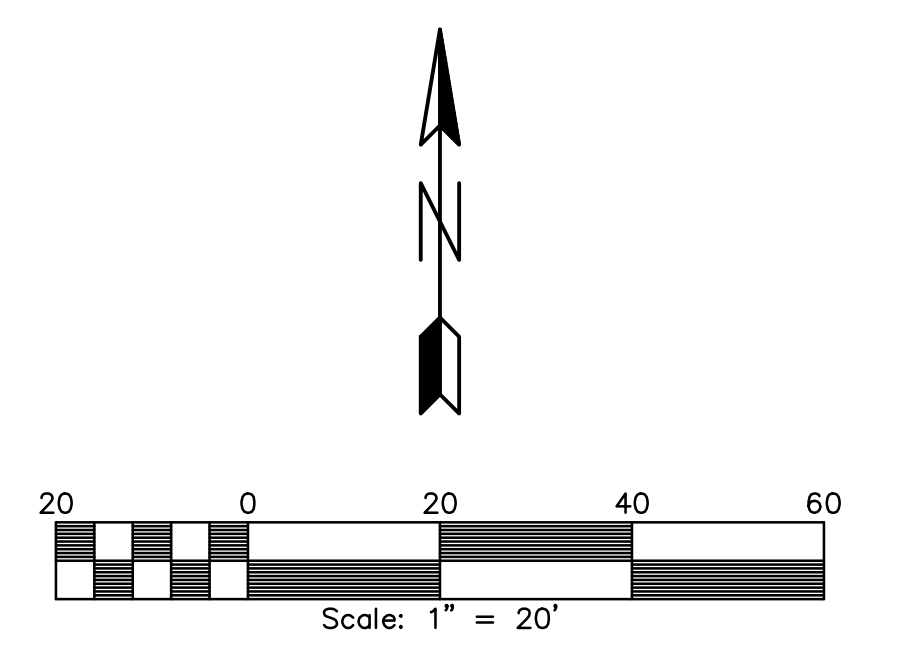
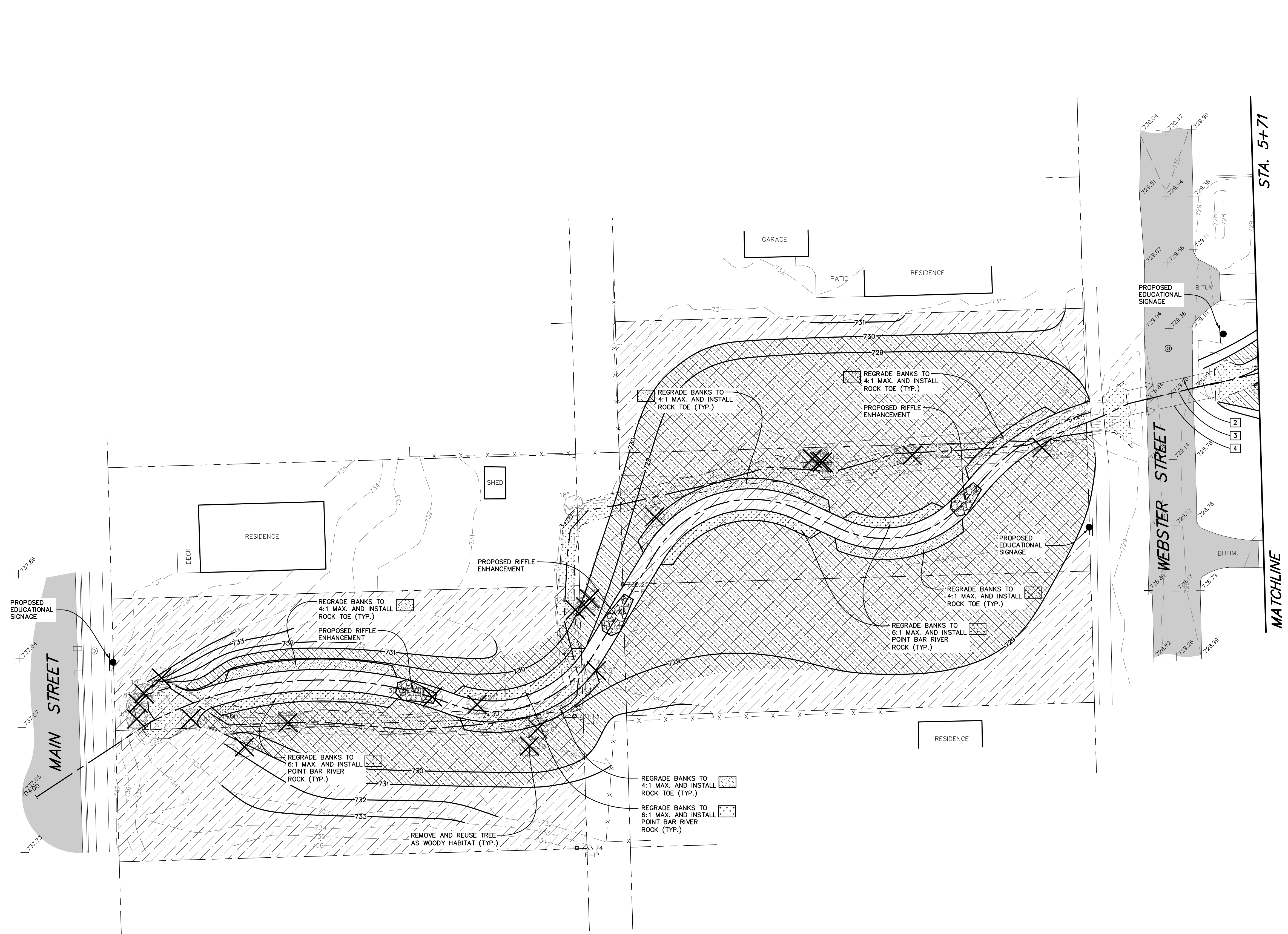
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10 S. RIVERSIDE PLAZA, SUITE 875
 CHICAGO, ILLINOIS 60606
 PHONE (312) 474-7841
 FAX (312) 474-6099

ORIGINAL SUBMITTAL: NOVEMBER 9, 2017

ERA JOB NO.: 161114



STORM STRUCTURES

- 1 36" RCP F.E.S.
INV: 731.04
- 2 24"x38" ELLIPTICAL RCP
INV: 725.61 W
INV: 725.36 E
- 3 24"x38" ELLIPTICAL RCP
INV: 725.67 W
INV: 725.39 E
- 4 24"x38" ELLIPTICAL RCP
INV: 725.67 W
INV: 725.27 E

LEGEND

- VILLAGE OWNED PROPERTY
- WETLANDS/WATERS OF THE US
- PROPOSED NATIVE PLANTINGS

REVISIONS:					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DRAWN BY: A.J.
 CHECKED BY: M.M.
 APPROVED BY: M.M.

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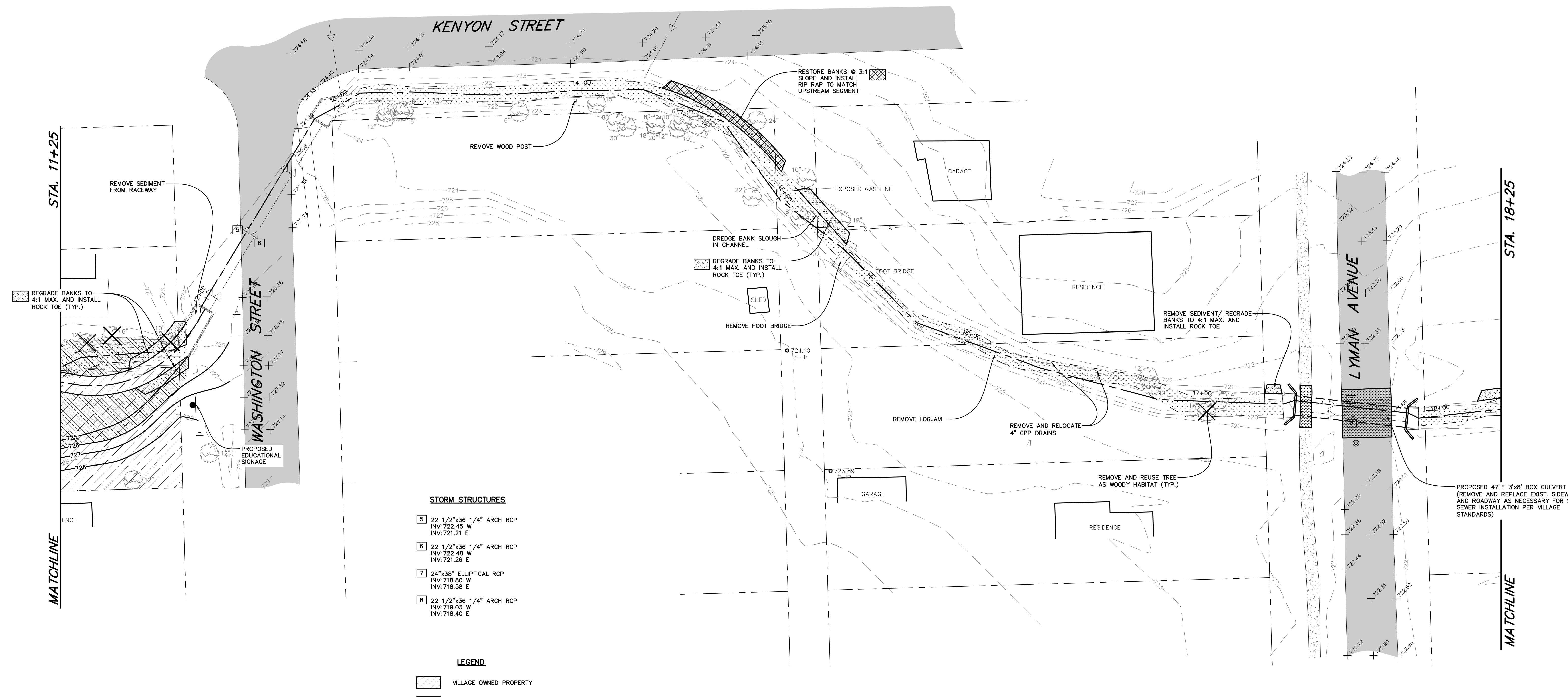
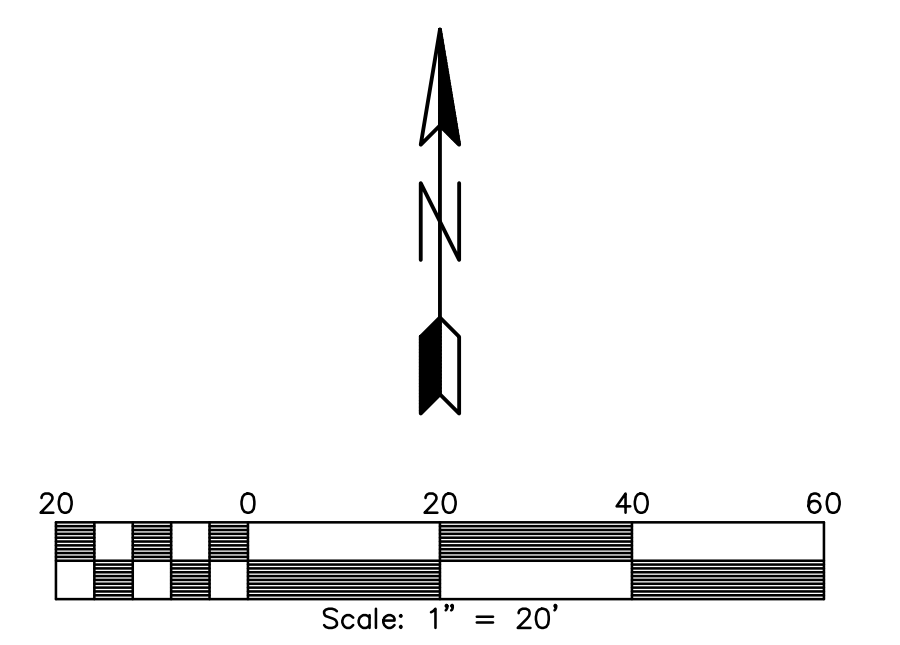
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VILLAGE OF DOWNERS GROVE
 5101 WALNUT AVENUE
 DOWNERS GROVE, ILLINOIS 60515

TITLE: **ST. JOSEPH CREEK
 PROPOSED CHANNEL IMPROVEMENTS
 STA. 0+00 TO STA. 5+71**

SCALE: 1"=20'
 DATE: NOVEMBER, 2017
 JOB NO: 161114
 SHEET 2 OF 9



- STORM STRUCTURES**
- 5 22 1/2"x36 1/4" ARCH RCP
INV: 722.45 W
INV: 721.21 E
 - 6 22 1/2"x36 1/4" ARCH RCP
INV: 722.48 W
INV: 721.26 E
 - 7 24"x38" ELLIPTICAL RCP
INV: 718.80 W
INV: 718.58 E
 - 8 22 1/2"x36 1/4" ARCH RCP
INV: 719.03 W
INV: 718.40 E

- LEGEND**
- VILLAGE OWNED PROPERTY
 - WETLANDS/WATERS OF THE US
 - PROPOSED NATIVE PLANTINGS

REVISIONS:

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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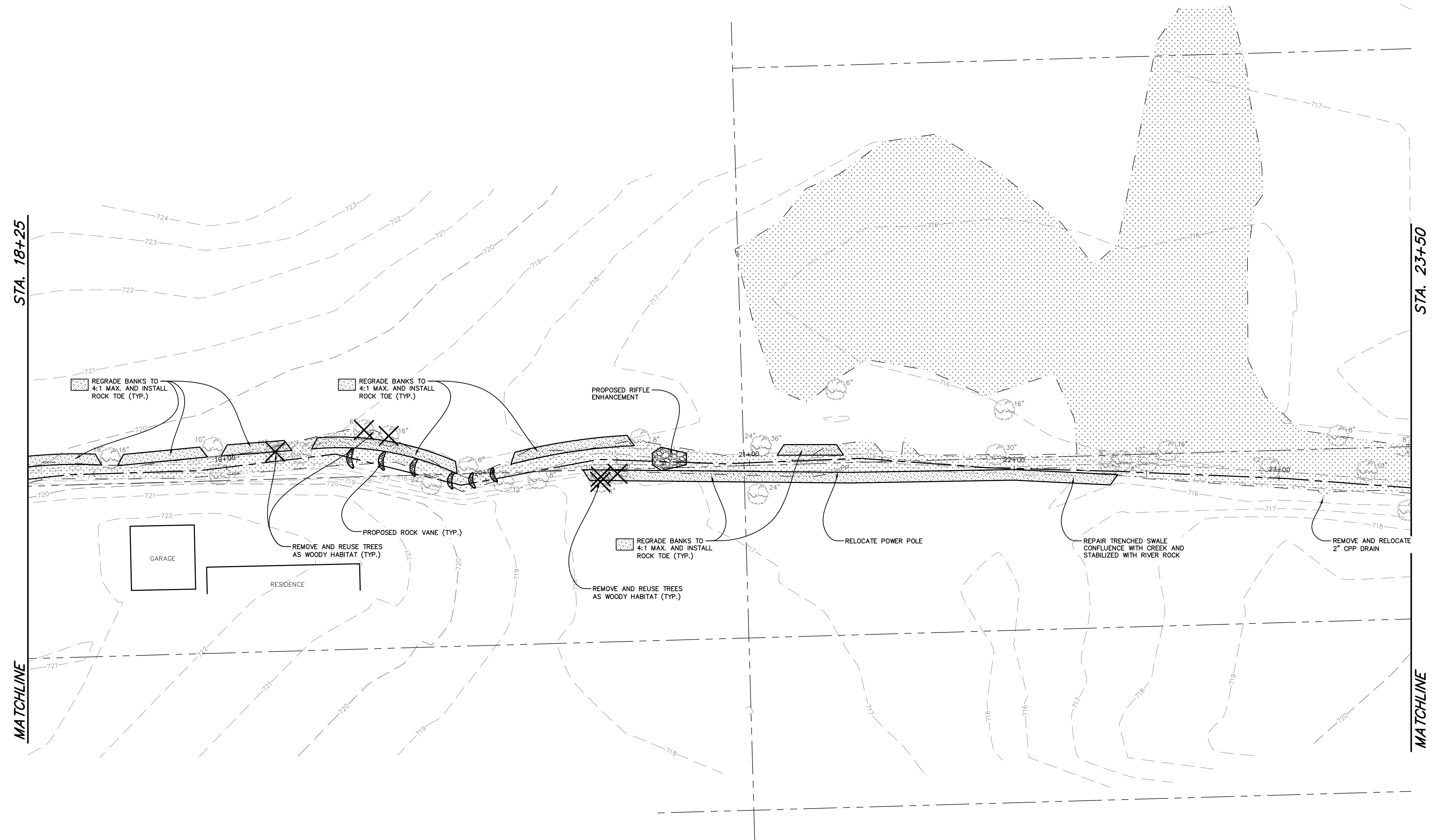
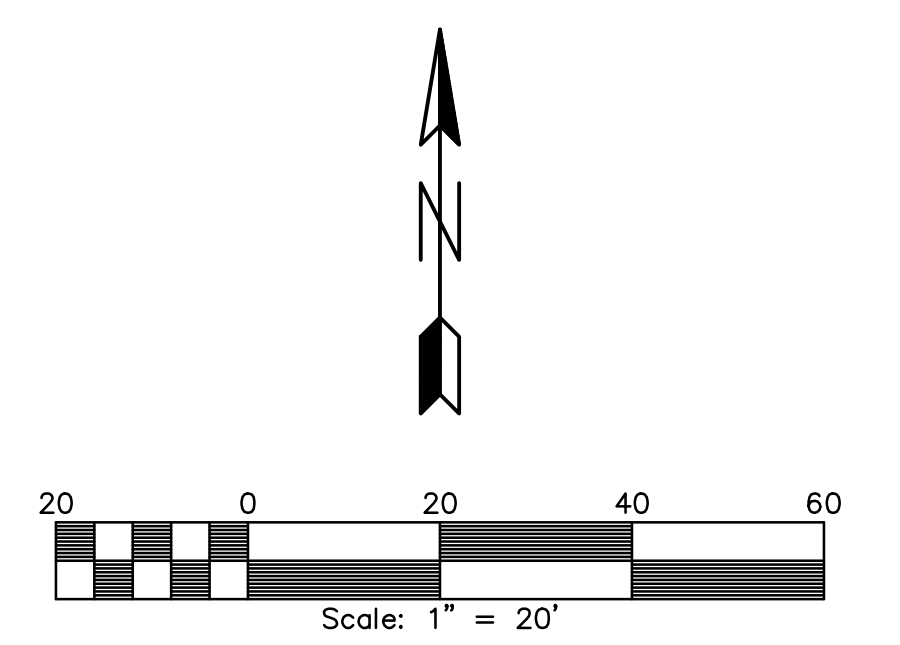
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TITLE:
 ST. JOSEPH CREEK
 PROPOSED CHANNEL IMPROVEMENTS STA.
 11+25 TO STA. 18+25

SCALE: 1"=20'
 DATE: NOVEMBER, 2017
 JOB NO: 161114
 SHEET 4 OF 9

V:\Downers Grove\161114 St. Joe Creek Streambank\CADD\161114 St. Joe Creek Survey.dwg Updated by: austusch 7/30/2018



- LEGEND**
- VILLAGE OWNED PROPERTY
 - WETLANDS/WATERS OF THE US
 - PROPOSED NATIVE PLANTINGS

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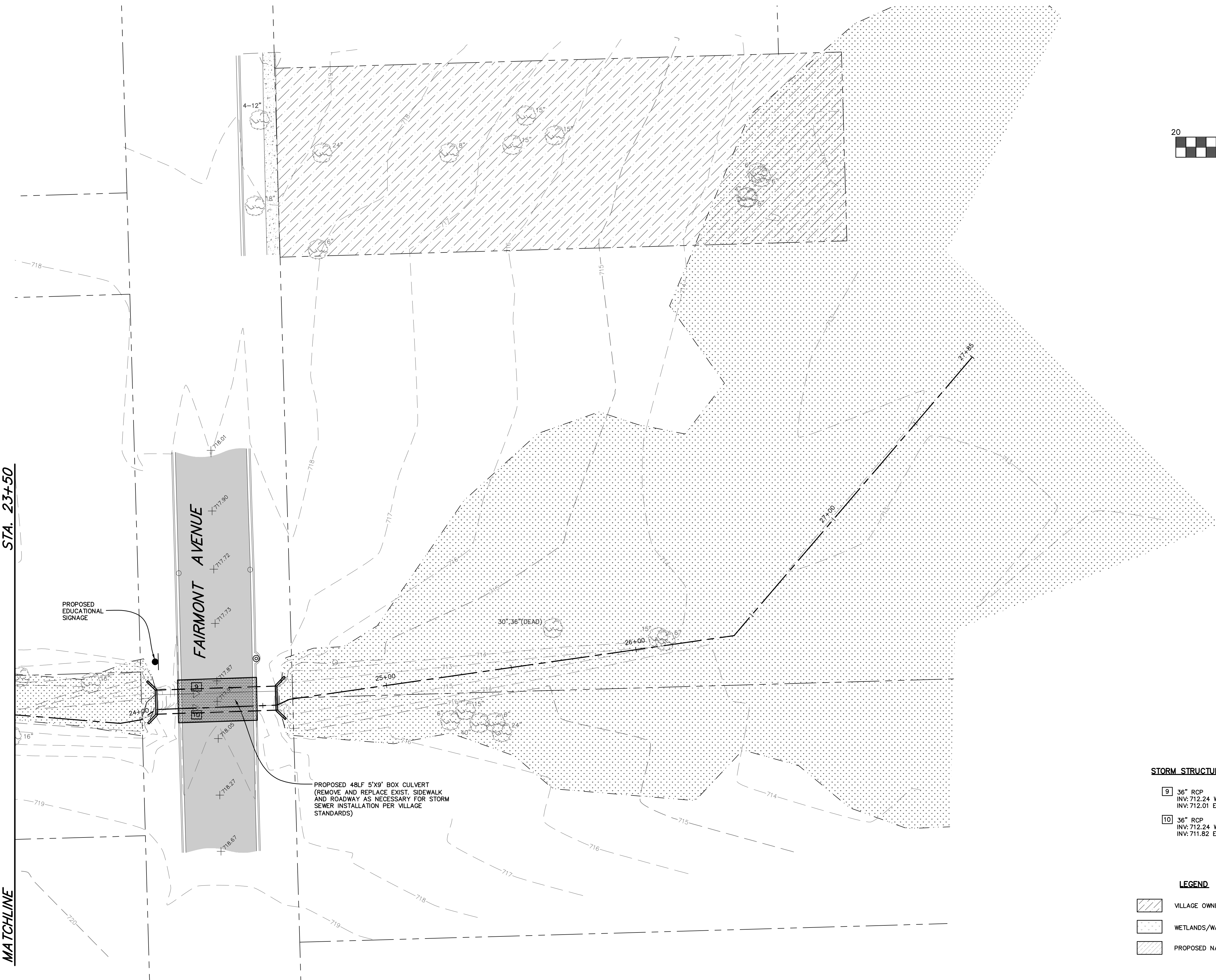
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 DOWNERS GROVE, ILLINOIS 60515

TITLE: ST. JOSEPH CREEK
 PROPOSED CHANNEL IMPROVEMENTS
 STA. 18+25 TO STA. 23+50

SCALE: 1"=20'
 DATE: NOVEMBER, 2017
 JOB NO: 161114
 SHEET 5 OF 9

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STORM STRUCTURES

- 9 36" RCP
INV: 712.24 W
INV: 712.01 E
- 10 36" RCP
INV: 712.24 W
INV: 711.82 E

LEGEND

- VILLAGE OWNED PROPERTY
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- PROPOSED NATIVE PLANTINGS

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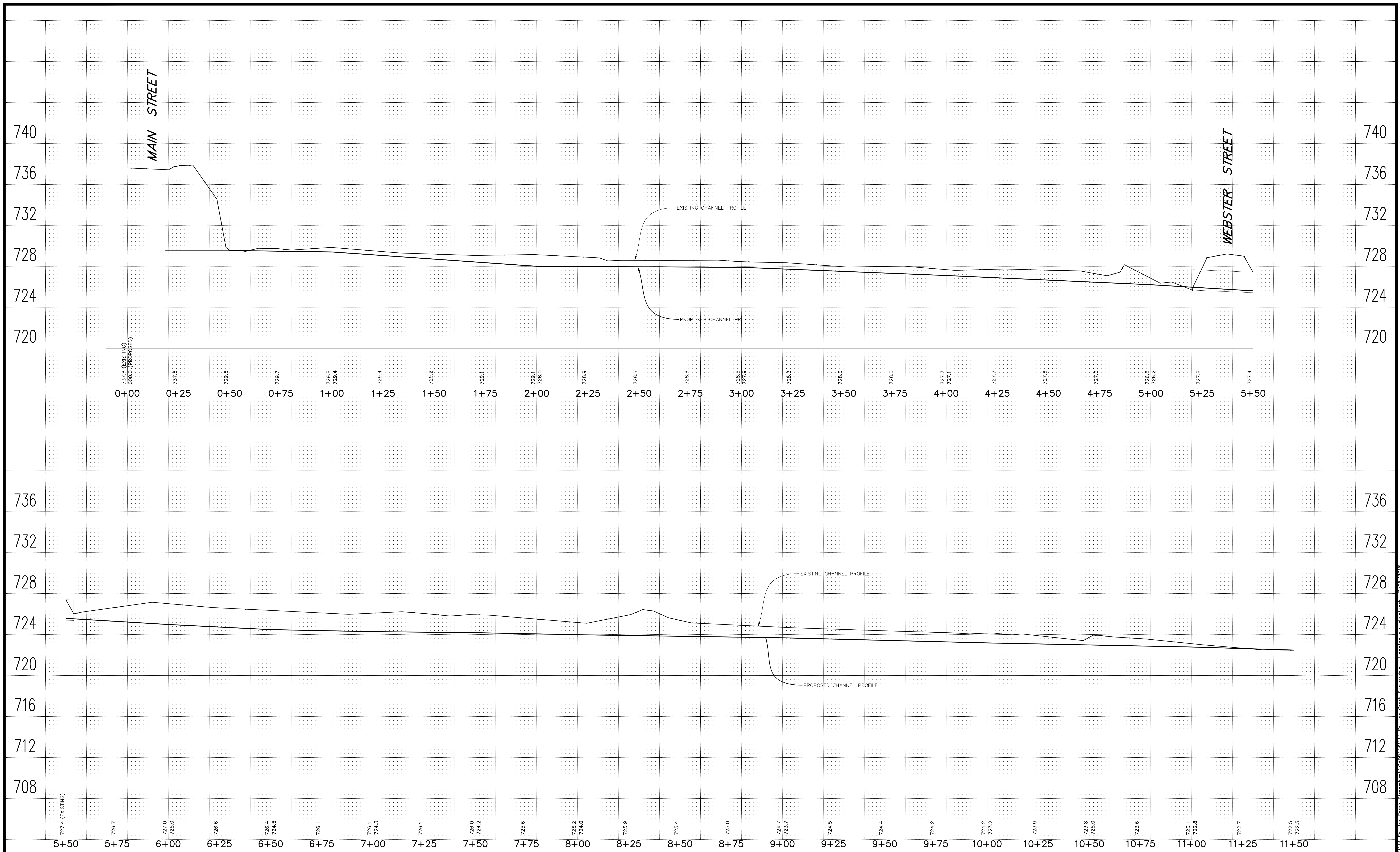
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TITLE: **ST. JOSEPH CREEK**
PROPOSED CHANNEL IMPROVEMENTS
 STA. 23+50 TO STA. 27+85

SCALE: 1"=20'
 DATE: NOVEMBER, 2017
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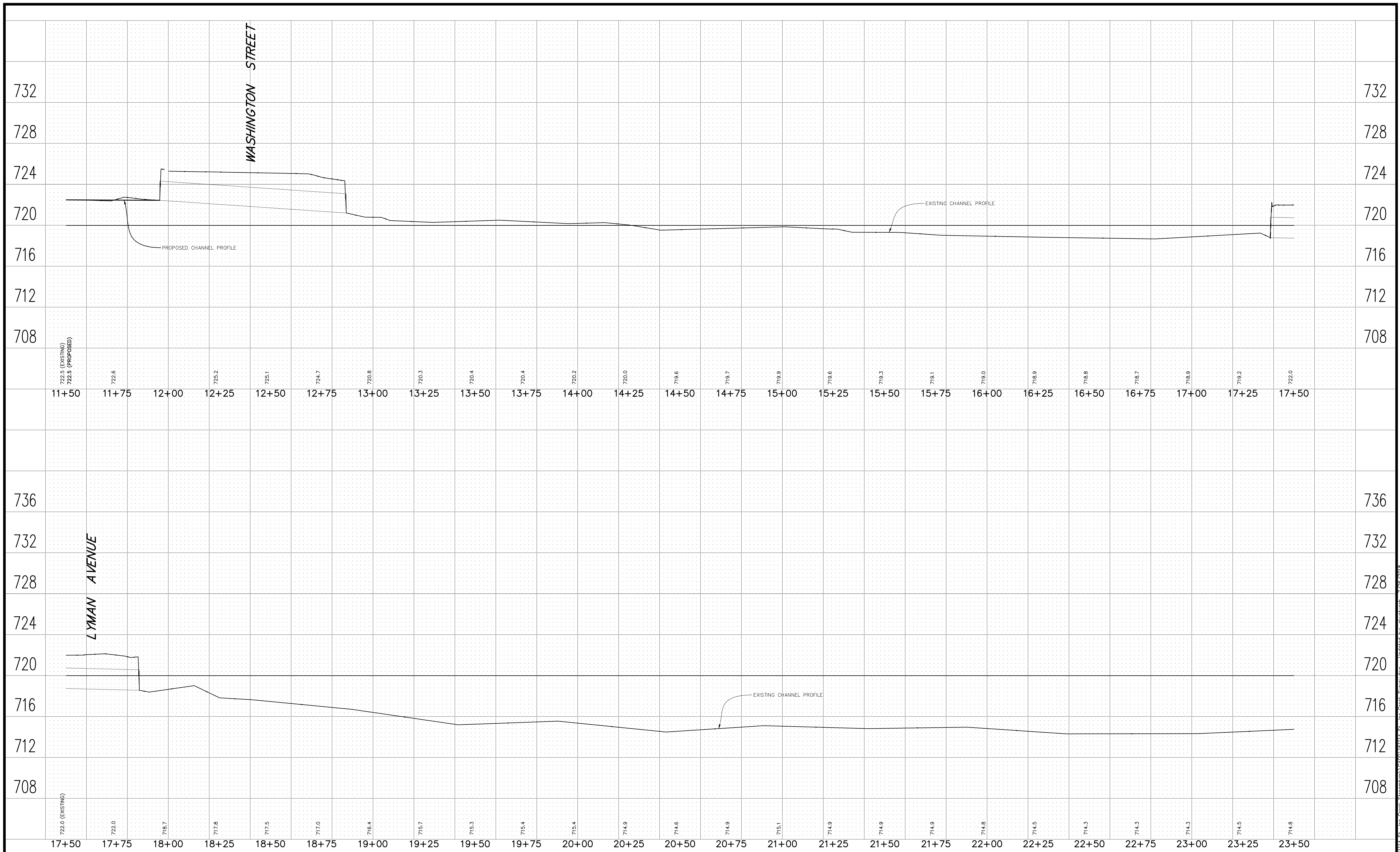
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TITLE: ST. JOSEPH CREEK DRAINAGE SURVEY
 CREEK BED PROFILE
 STA. 0+00 TO STA. 11+50

SCALE: 1"=20'
 DATE: NOVEMBER, 2017
 JOB NO.: 161114
 SHEET 7 OF 9

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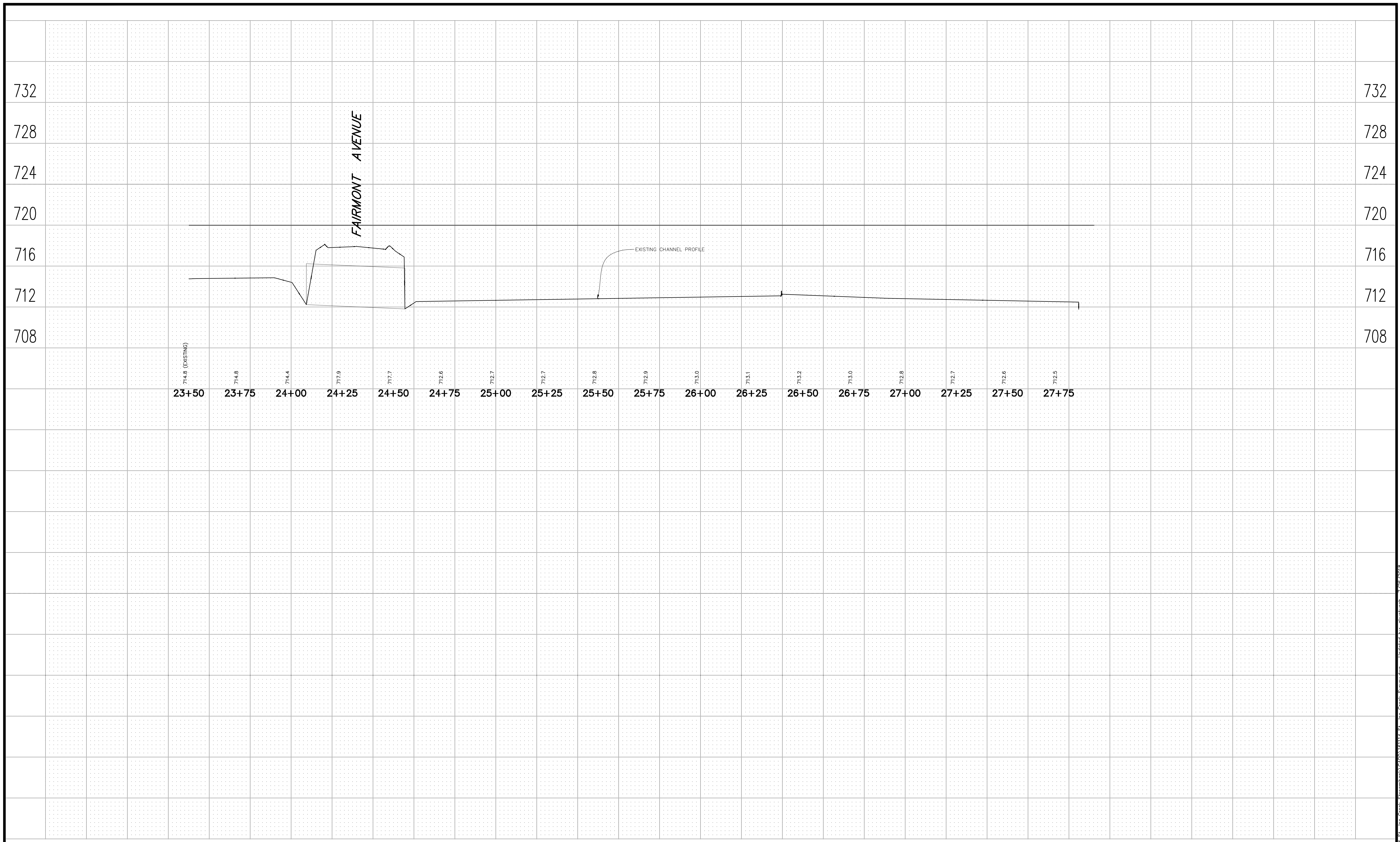
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 DOWNERS GROVE, ILLINOIS 60515

TITLE: ST. JOSEPH CREEK DRAINAGE SURVEY
 CREEK BED PROFILE
 STA. 11+50 TO STA. 23+50

SCALE: 1"=20'
 DATE: NOVEMBER, 2017
 JOB NO: 161114
 SHEET 8 OF 9

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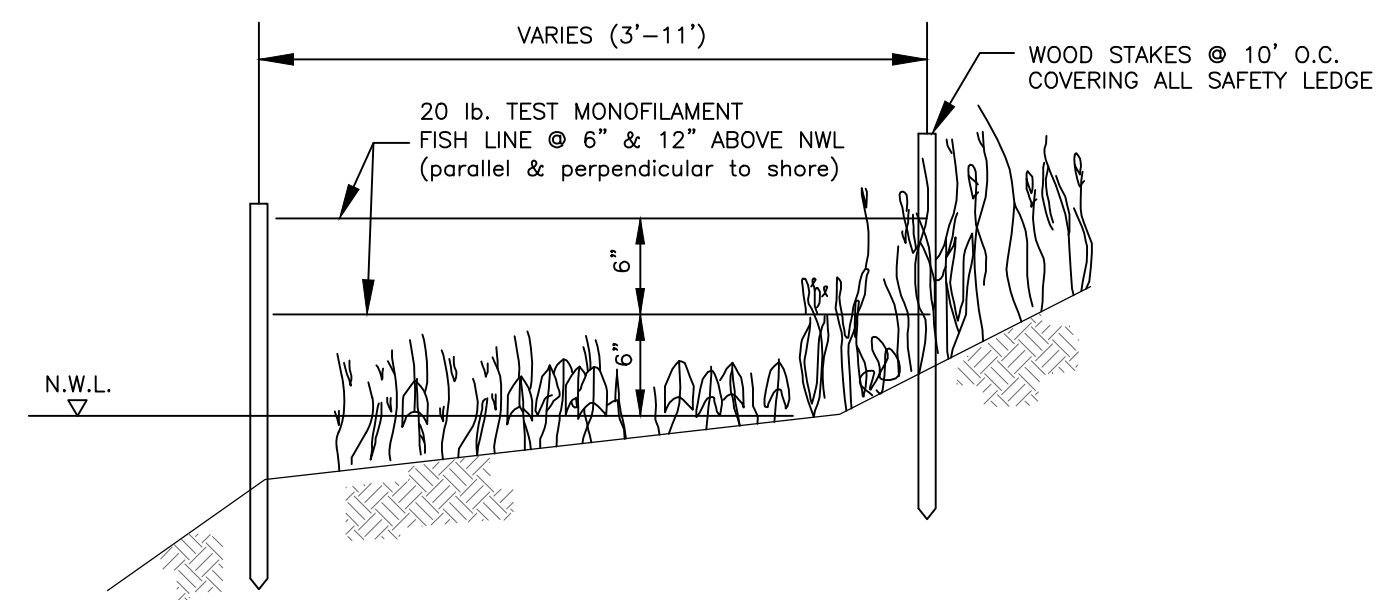
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 DOWNERS GROVE, ILLINOIS 60515

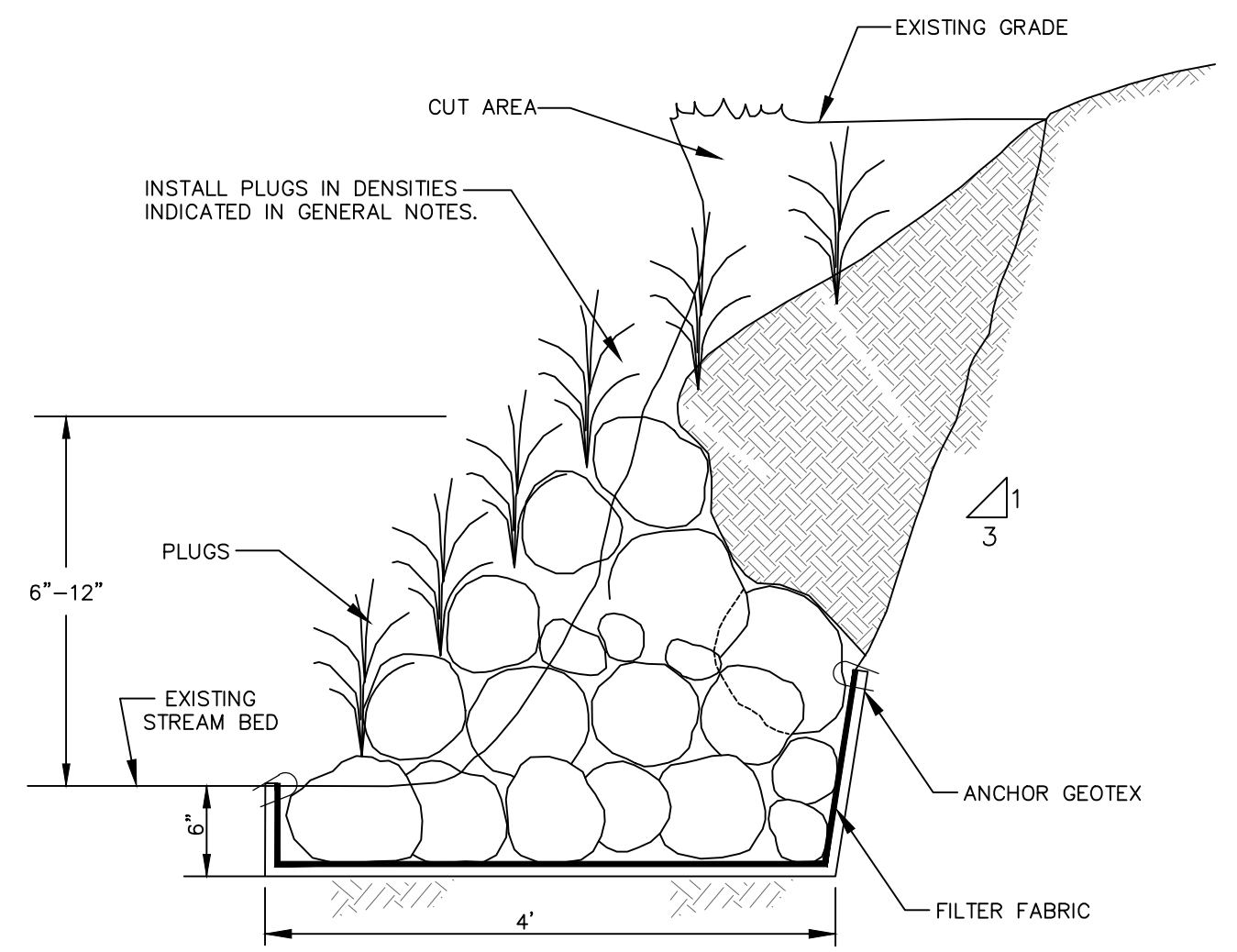
TITLE: ST. JOSEPH CREEK DRAINAGE SURVEY
 CREEK BED PROFILE
 STA. 23+50 TO STA. 27+75

SCALE: 1"=20'
 DATE: NOVEMBER, 2017
 JOB NO: 161114
 SHEET 9 OF 9

V:\Downers Grove\161114 St. Joe Creek Streambank\CADD\161114 St. Joe Creek Survey.dwg Updated by: akustusch 7/26/2018

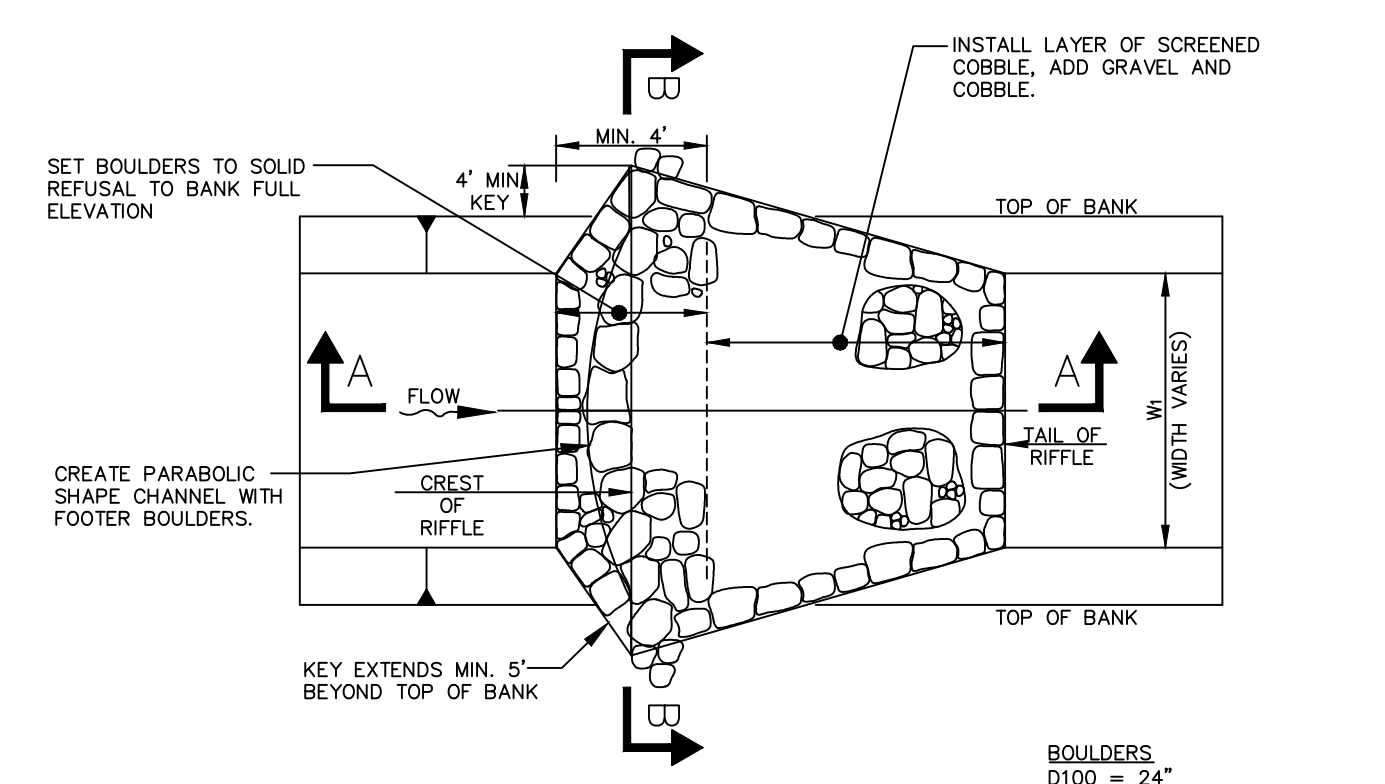


GOOSE GRID BARRIER DETAIL
NOT TO SCALE



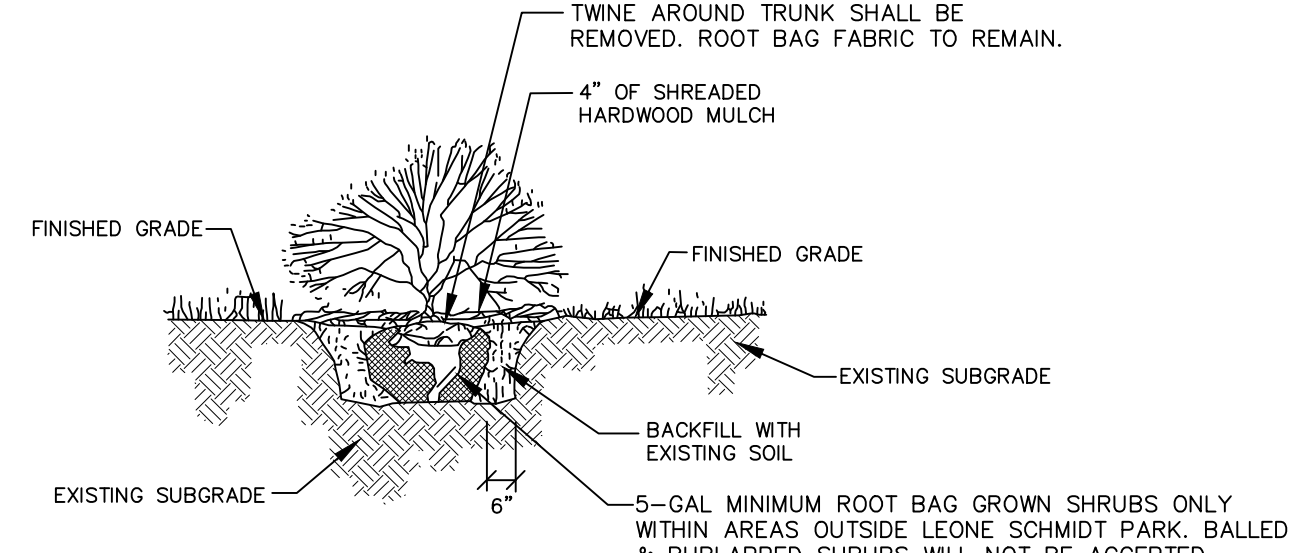
- NOTES:**
1. ROCK SLOPE SHALL BE CONSTRUCTED ON STABLE BASE MATERIAL.
 2. LIVE STAKES SHALL BE 10"-12" LONG, AND PLACED SUCH THAT THE BUTT ENDS CONTACT THE NATIVE SLOPE AND THE BRANCH TIPS PROTRUDE FROM THE ROCK 6" MIN.
 3. LIVE STAKES SHALL BE PLACED AT A 20' (MIN.) ANGLE INTO THE SLOPE.
 4. INSTALL ONE LIVE STAKE PLANTING EVERY 6'-8' THROUGH ROCK AND FILTER FABRIC WHERE CAPABLE.
 5. REPEAT ABOVE PROCEDURES TO CREATE A 2.5:1 MAXIMUM SLOPE.
 6. INSTALL S75BN OR EQUIVALENT ALONG DISTURBED AREAS FROM THE TOP OF SLOPE TO TOP OF BANK.
 7. INSTALL S75BN OR EQUIVALENT ALONG DISTURBED AREAS BEYOND TOP OF BANK.

VEGETATED ROCK TOE
NOT TO SCALE

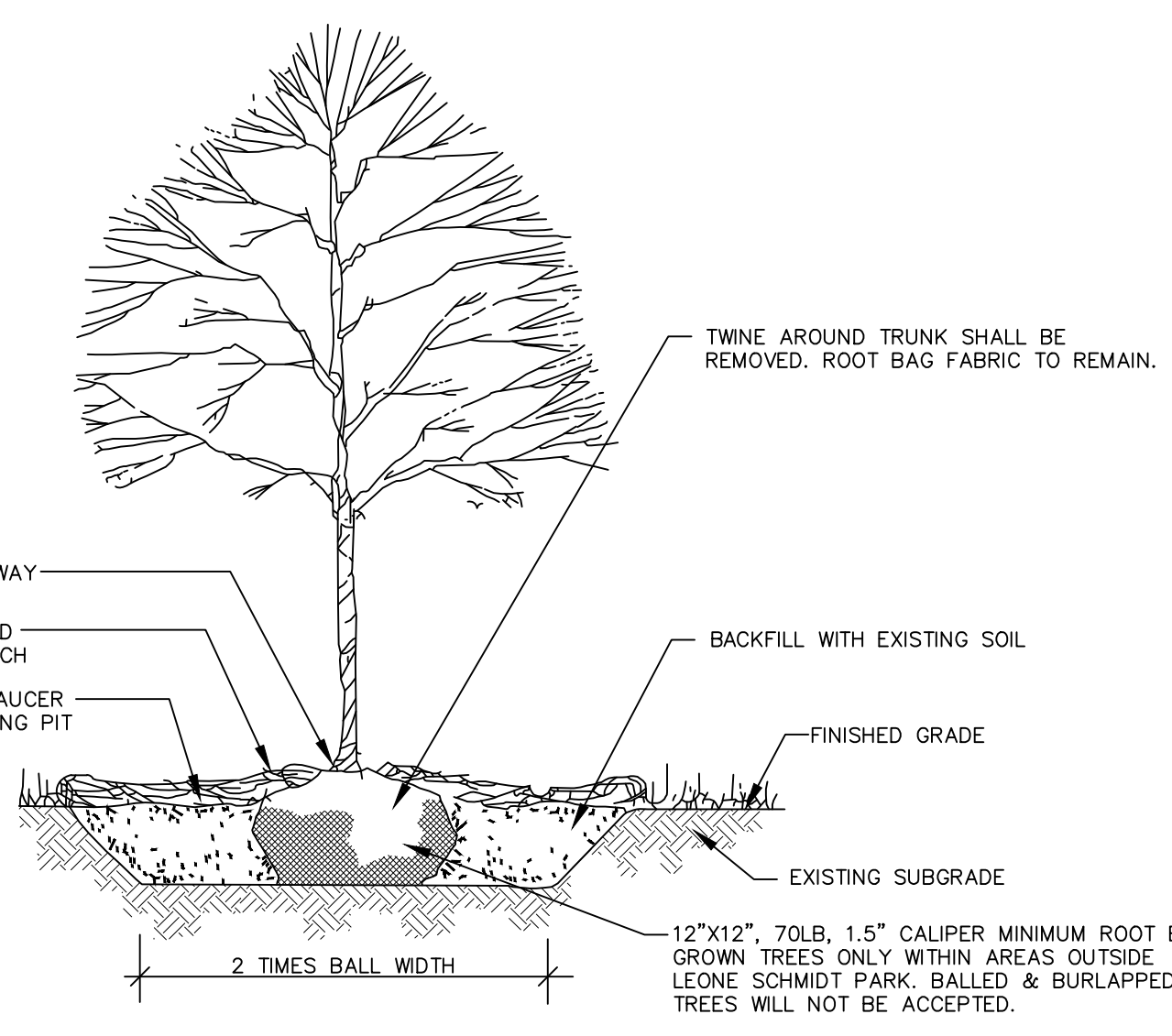


- NOTES:**
1. RIFFLE SHALL BE CONSTRUCTED ON STABLE BASE MATERIAL.
 2. INSTALL BOULDERS WITHIN CREST SECTION. USE LARGEST 3 STONES FROM AVAILABLE MATERIAL FOR CREST STONES.
 3. SPACE BOULDERS AT CREST.
 4. SET RIFFLE TAIL BED KEY BOULDERS TO POINT OF REFUSAL.
 5. INSTALL LAYER OF BANK RUN GRAVEL AND COBBLE & SCREENED COBBLE MATERIAL WITHIN RIFFLE TAIL SECTION. USE LARGEST INDIVIDUAL STONES FROM AVAILABLE FOR EMERGENT BOULDERS.
 6. RIFFLE SURFACE SHOULD BE ROUGH, WITH VARYING WATER DEPTHS. DO NOT GRADE SMOOTH.
- BOULDERS**
D100 = 24"
D50 = 20"
D10 = 18"
- SCREENED COBBLE**
D100 = 10"
D50 = 5"
D10 = 3"
- BANK RUN GRAVEL & COBBLE**
D100 = 4"
D50 = 2"
D10 = No. 4

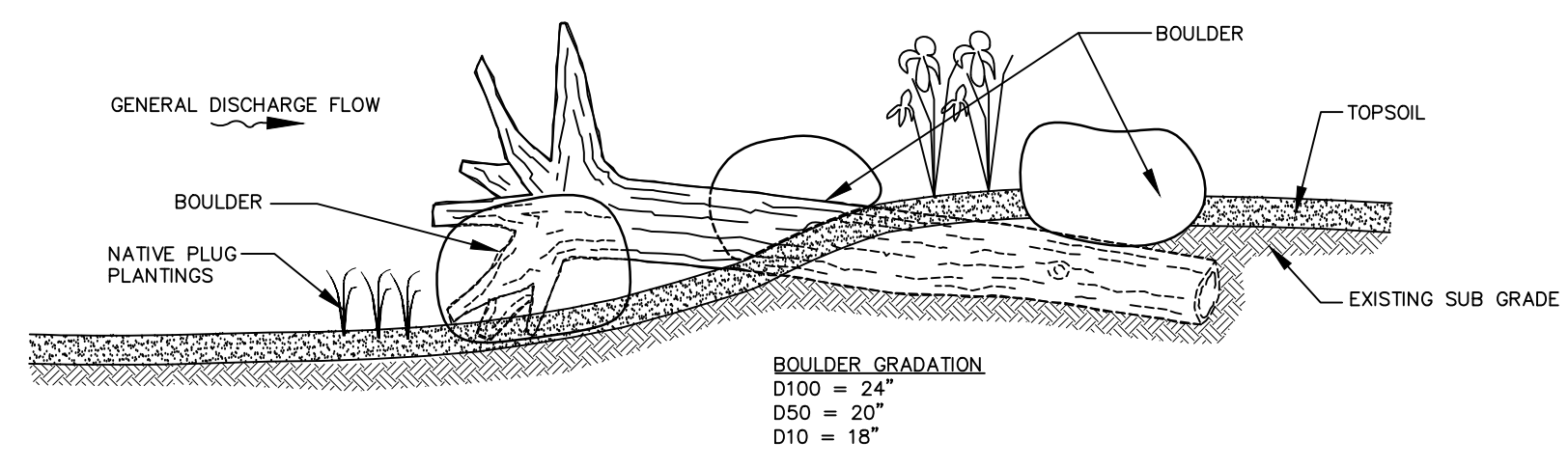
PLAN VIEW



SHRUB DETAIL
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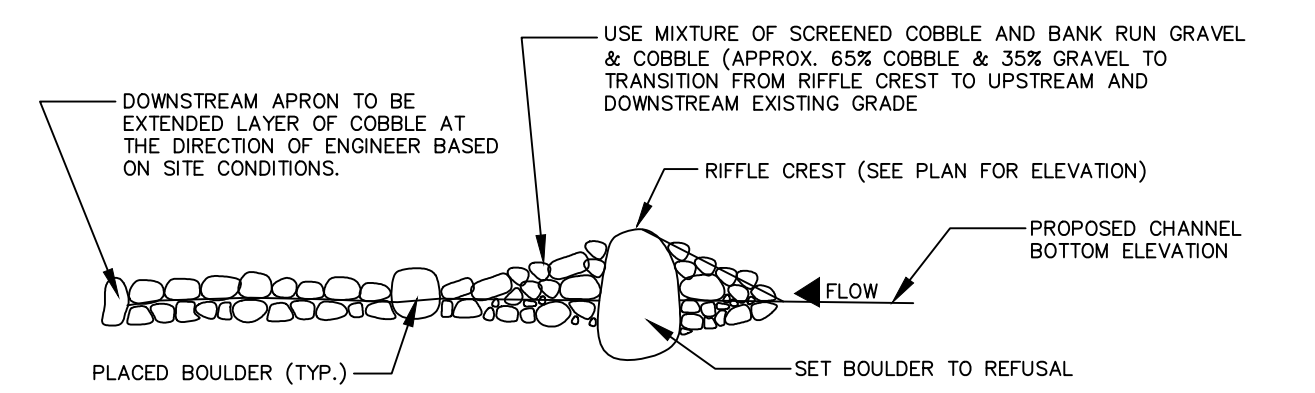


DECIDUOUS TREE PLANTING
NOT TO SCALE

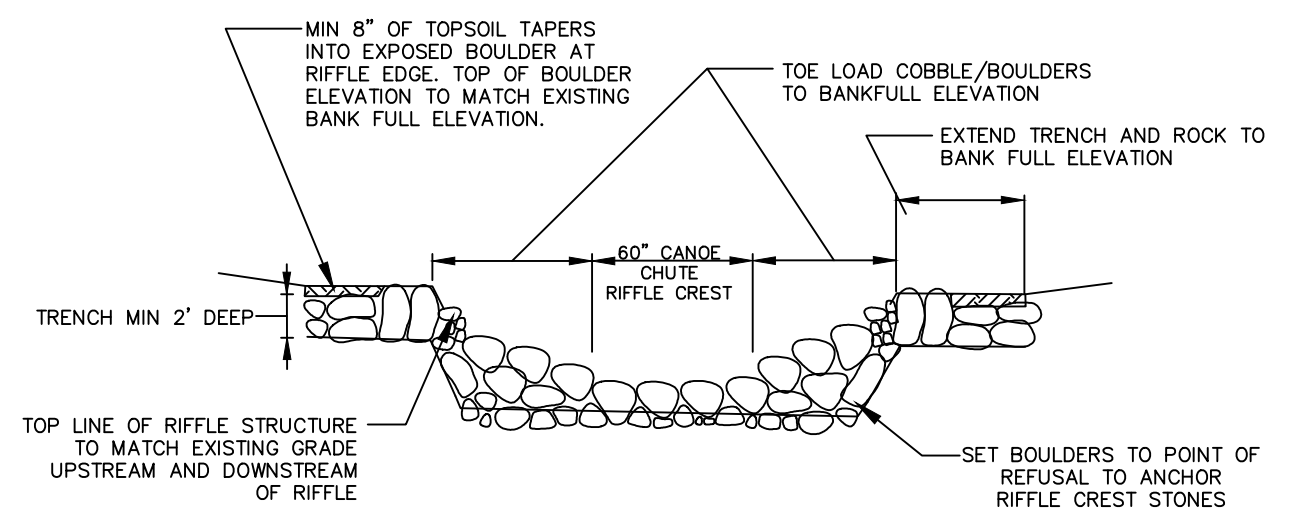


- NOTES:**
1. TREE TRUNK WITH ROOTWAD IN TACT WILL BE HARVESTED FROM SITE PER DEMOLITION PLAN.
 2. SUB GRADE SHALL BE EXCAVATED 2'-3' TO RECEIVE TREE TRUNK.
 3. TREE SHALL BE ANCHORED WITH ONE BOULDER ON TOP OF END OF TRUNK AND ONE BOULDER ON THE UP AND DOWN STREAM EDGE OF ROOT WAD, FOR HORIZONTAL LARGE WOODY DEBRIS; FOR VERTICAL LARGE WOODY DEBRIS ANCHOR ROOTWAD WITH ONE BOULDER ON THE DOWNSTREAM SIDE OF ROOT WAD.
 4. TOPSOIL SHALL BE PLACED SURROUNDING LARGE WOODY DEBRIS TO ACHIEVE FINAL GRADE.
 5. THE AREA SHALL THEN BE PLANTED WITH SPECIES PER THE PLANTING PLAN.
 6. LARGE WOODY DEBRIS SHALL BE HARVESTED ONSITE, OF DIAMETER 15" OR GREATER, FROM TREE REMOVAL LIST.

LARGE WOODY DEBRIS DETAIL
NOT TO SCALE

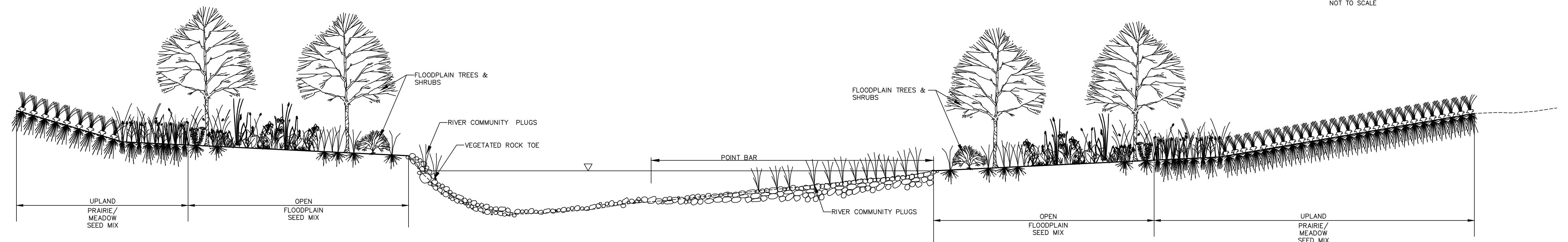


SECTION A-A



SECTION B-B

RIFPLE DETAIL
NOT TO SCALE



TYPICAL MEANDER & PLANTING CROSS SECTION
NOT TO SCALE

REVISIONS:					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DRAWN BY:
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APPROVED BY:



ENGINEERING RESOURCE ASSOCIATES, INC.
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FAX (217) 355-1902

VILLAGE OF DOWNERS GROVE
5101 WALNUT AVENUE
DOWNERS GROVE, ILLINOIS 60515

TITLE:
ST. JOSEPH CREEK
STABILIZATION & PLANTING DETAILS

SCALE: N.T.S.
DATE: NOVEMBER, 2017
JOB NO: 161114
SHEET OF

Village of Downers Grove – St. Joseph Creek South Restoration Design Build (SW-088-19)

APPENDIX C – Complete Village of Downers Grove Standard Detail Drawings (76 pages)

Standard Detail Drawings



**Village of Downers Grove
Public Works Departments
January 1, 2018**

REVISIONS

05/07/18 – SWK-08

Drawing Index

General Design Details

Drawing No. GEN-01	Frames and Grates – 01/18
Drawing No. GEN-02	Utility Structure Adjustment – 01/18
Drawing No. GEN-03	Typ. Sanitary Replacement with New Utility – 01/18

Pavement Design and Right-of-Way Restoration

Drawing No. PVT-01	Asphalt Approach on Unimproved Roadway w/ Culvert – 01/18
Drawing No. PVT-02	Asphalt Approach on Unimproved Roadway – 01/18
Drawing No. PVT-03	Asphalt Approach with Curb – 01/18
Drawing No. PVT-04	Brick Approach Unimproved Roadway – 01/18
Drawing No. PVT-05	Brick Approach Unimproved Roadway w/ Culvert – 01/18
Drawing No. PVT-06	Brick Approach with Curb – 01/18
Drawing No. PVT-07	Concrete Approach on Unimproved Roadway – 01/18
Drawing No. PVT-08	Concrete Approach on Unimp. Roadway w/ Culvert – 01/18
Drawing No. PVT-09	Concrete Approach with Curb – 01/18
Drawing No. PVT-10	Curb and Gutter – 01/18
Drawing No. PVT-13	Bituminous Improved Roadway Cross-section – 01/18
Drawing No. PVT-15	Bituminous Unimproved Roadway Cross-section – 01/18
Drawing No. PVT-16	Street Opening Bituminous with Conc. Base – 01/18
Drawing No. PVT-17	Street Opening Bituminous – 01/18
Drawing No. PVT-18	Street Opening Brick with Bituminous Base – 01/18
Drawing No. PVT-19	Street Opening Temporary – 01/18
Drawing No. PVT-20	Street Opening Concrete Streets – 01/18
Drawing No. PVT-30	Improved Residential Alley Detail – 01/18
IDOT Standard 442101-08	Class B Patches
IDOT Standard 606001-07	Concrete Curb Type B and Combination Concrete Curb and Gutter
IDOT Standard 780001-05	Typical Pavement Markings

Public Sidewalk

Drawing No. SWK-01	Public Sidewalk – 01/18
Drawing No. SWK-03	ADA Ramps on Non-curbed Streets – 01/18
Drawing No. SWK-08	Downtown Business District Sidewalk Requirements – 05/18
IDOT Standard 424001-10	Perpendicular Curb Ramps for Sidewalks
IDOT Standard 424006-03	Diagonal Curb Ramps for Sidewalks
IDOT Standard 424011-03	Corner Parallel Curb Ramps for Sidewalks
IDOT Standard 424016-04	Mid-Block Curb Ramps for Sidewalks
IDOT Standard 424021-04	Depressed Corner for Sidewalks
IDOT Standard 424026-02	Entrance/Alley Pedestrian Crossings
IDOT Standard 424031-01	Median Pedestrian Crossings

Storm Drainage System

Drawing No. STM-02	Conflict Manhole – 01/18
Drawing No. STM-03	Outlet Control Structure – 6' – 01/18
Drawing No. STM-09	Sump Pump Air Gap – 01/18

Illinois Urban Manual Standard Drawings:

IUM-514	Rolled Erosion Control Products
IUM-561C1	Inlet Protection Paved Areas – Curb Protection
IUM-561D	Inlet Protection Paved Areas – Drop-In Protection
IUM-620A	Silt Fence Plan

IDOT Standard 280001-07	Temporary Erosion Control Systems (amended to prohibit straw/hay bales)
IDOT Standard 602001-02	Catch Basin Type A (amended to prohibit brick masonry/CMU)
IDOT Standard 602011-02	Catch Basin Type C (amended to prohibit brick masonry/CMU)
IDOT Standard 602301-04	Inlet – Type A (amended to prohibit brick masonry/CMU)
IDOT Standard 602306-03	Inlet – Type B (amended to prohibit brick masonry/CMU)
IDOT Standard 602401-04	Precast Manhole Type A 4' Diameter
IDOT Standard 602601-05	Precast Reinforced Concrete Flat Slab Top
IDOT Standard 602701-02	Manhole Steps
IDOT Standard 604001-04	Frame and Lids Type 1
IDOT Standard 604036-03	Grate Type 8

Water System

Drawing No. WTR-01	Water Main Connection – 01/18
Drawing No. WTR-02	Water and Sewer Separation Requirements - Horizontal Separation – 01/18
Drawing No. WTR-03	Water and Sewer Separation Requirements - Vertical Separation Above – 01/18
Drawing No. WTR-04	Water and Sewer Separation Requirements -Vertical Separation Below – 01/18
Drawing No. WTR-05	Typical Thrust Block Installation – 01/18
Drawing No. WTR-06	Megalug Mechanical Joint Restraint – 01/18
Drawing No. WTR-07	All Stainless Steel Casing Spacer – 01/18
Drawing No. WTR-08	Water Valve Vault – 01/18
Drawing No. WTR-09	Watermain Pressure Connection – 01/18
Drawing No. WTR-10	Typical Hydrant Installation – 01/18
Drawing No. WTR-11	Typical Tap Service Connection – 01/18
Drawing No. WTR-12	Typ. Water Service Connection from B-Box to House – 01/18

Trees

Drawing No. TRE-01	Parkway Tree Protection Requirements – 01/18
Drawing No. TRE-02	Suitable Parkway Tree Species List – 01/18

Village of Downers Grove Frame and Grate Selection Procedure

Barrier Curb

- If storm sewer is less than 12" in diameter, use IDOT Type 1 OL (Neenah R-1713 or EJ 1050Z1)
- If storm sewer is equal to or greater than 12" in diameter:
 - use EJW 7045Z 7050T1 7045M1 Set for CBs and inlets
 - use Neenah R-3250-A or EJW 7550Z with Hood for junctions
- If storm sewer is in special drainage area, use custom frame/grate as approved

Mountable or Depressed Curb

- use Neenah R-1713, R-3506-A2, R-3506-B or EJ 1050Z1 **grate must meet ADA requirements in sidewalk or pedestrian areas


Ditches and Non-paved Sags

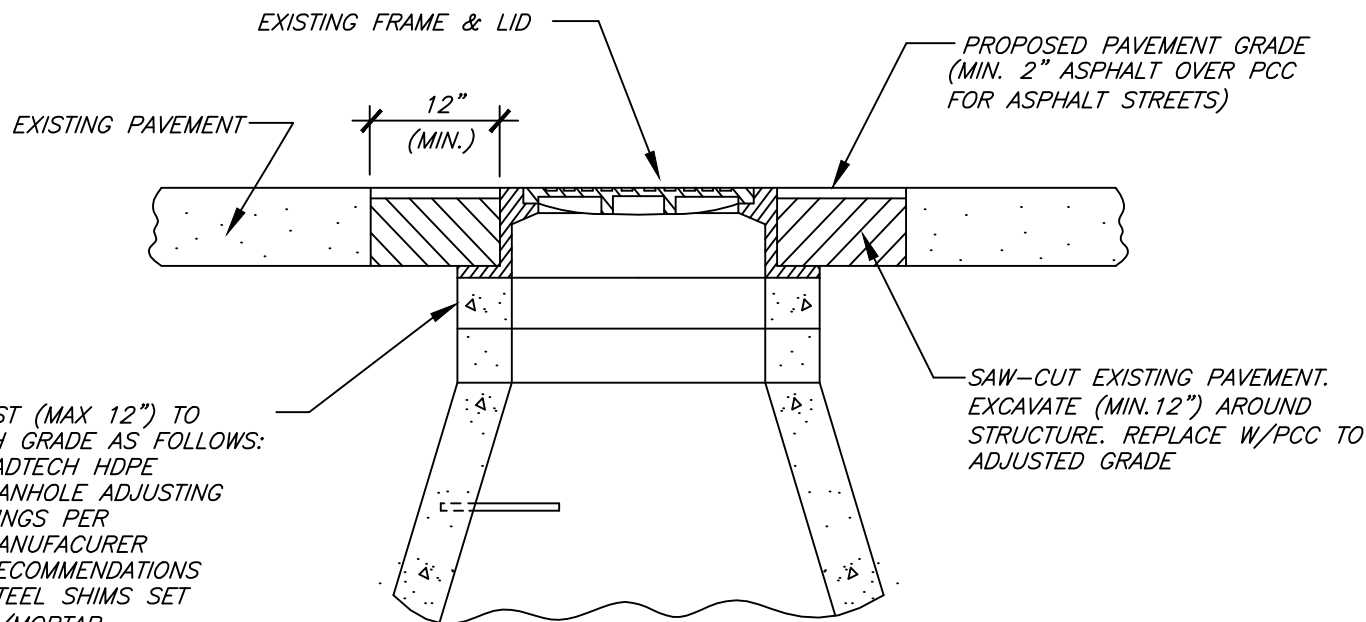
- Use IDOT Type 8 (Neenah R-4340-B, Neenah R-4342, OR EJ 6527N1)

Junctions (Storm Manholes, Water Valve Vaults)

- Use IDOT Type 1 CL (Neenah R-1713 or EJ 1050Z1)

Note: All closed lids shall be stamped "WATER" or "STORM," and all storm inlets shall be stamped "DUMP NO WASTE, DRAINS TO FRESH WATER" or similar as approved.

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	02/23/07		J.P.T.	M.D.M.	<p>FRAMES AND GRATES</p>
	03/25/11		S.A.V.	A.J.S.	
	03/01/15		A.J.S.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
	DRAWING NO. GEN-01				
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ADJUST (MAX 12") TO FINISH GRADE AS FOLLOWS:

- LADTECH HDPE MANHOLE ADJUSTING RINGS PER MANUFACTURER RECOMMENDATIONS
- STEEL SHIMS SET W/MORTAR
- EJ INFRARISER RUBBER ADJUSTMENT RINGS PER MANUFACTURER RECOMMENDATIONS (MAX 3")

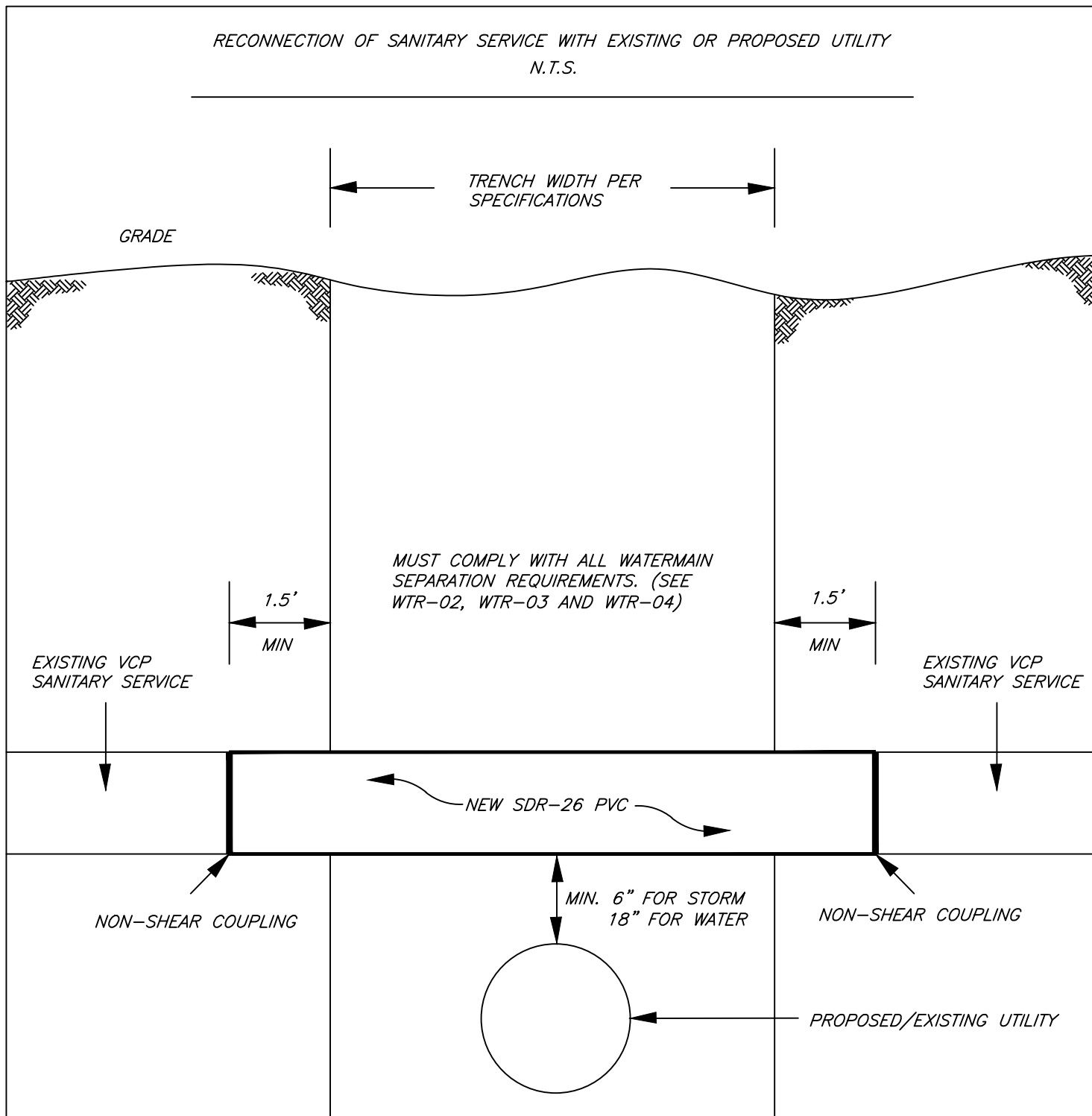
BRICK AND MORTAR NOT ALLOWED

NOTES:


1. AFTER STRUCTURE HAS BEEN ADJUSTED AND IF STREET IS OPEN TO TRAFFIC, A TYPE 1 BARRICADE W/FLASHER SHALL BE PLACED AT EACH STRUCTURE.
2. SANITARY MANHOLES SHALL BE ADJUSTED IN ACCORDANCE WITH THE MOST CURRENT DOWNERS GROVE SANITARY DISTRICT SPECIFICATIONS.

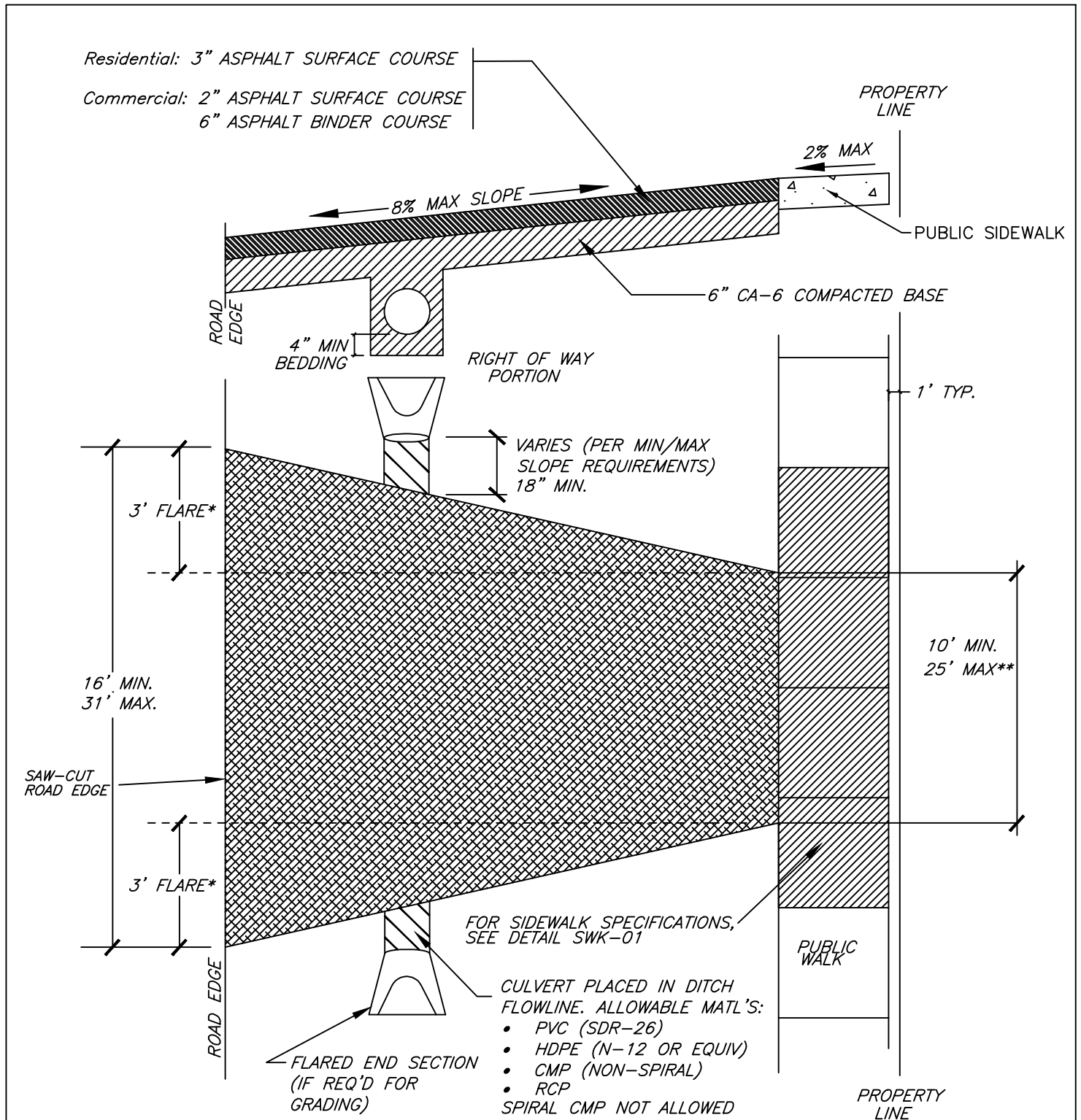
N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	06/01/04		R.W.B.	M.D.M.	<p>UTILITY STRUCTURE ADJUSTMENT</p>
	03/25/11		S.A.V.	A.J.S.	
	03/01/15		A.J.S.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. GEN-02					
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RECONNECTION OF SANITARY SERVICE WITH EXISTING OR PROPOSED UTILITY
N.T.S.




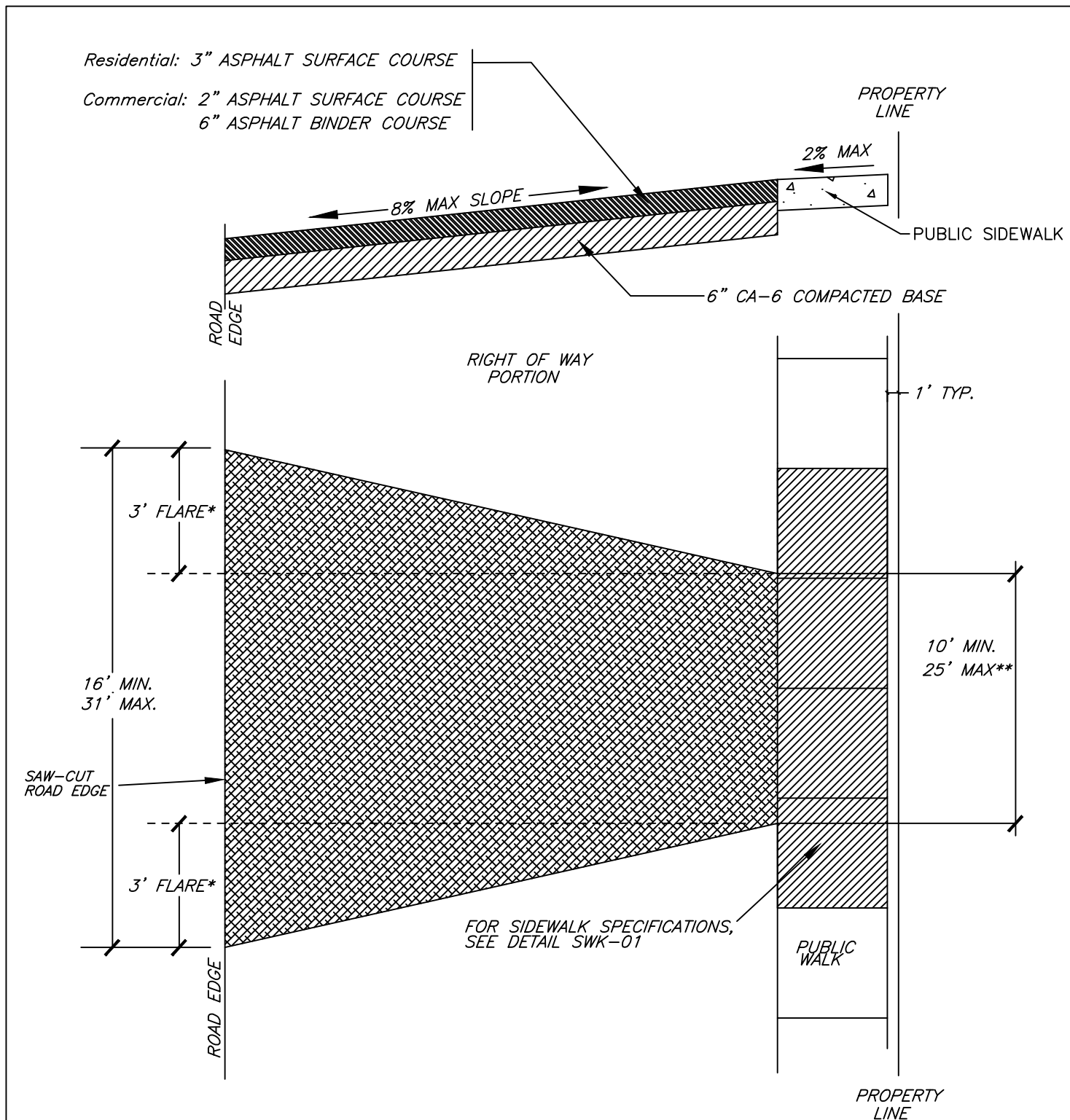
NO RECONNECTION SHALL BE BACKFILLED UNTIL INSPECTED AND APPROVED BY THE DOWNERS GROVE SANITARY DISTRICT. (630-969-0664)

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	02/20/07		W.J.M.	M.D.M.	<p>TYPICAL SANITARY REPLACEMENT WITH NEW UTILITY</p>
	03/25/11		S.A.V.	A.J.S.	
	03/01/15		A.J.S.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. GEN-04					
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*COMMERCIAL FLARES SHALL BE 6' UNLESS OTHERWISE APPROVED
**COMMERCIAL MAX WIDTH AT ROW LINE IS 40' UNLESS OTHERWISE APPROVED

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	10/03/14		A.J.S.	A.J.S.	ASPHALT APPROACH ON UNIMPROVED ROADWAY WITH CULVERT
	03/01/15		A.J.S.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. PVT-01					
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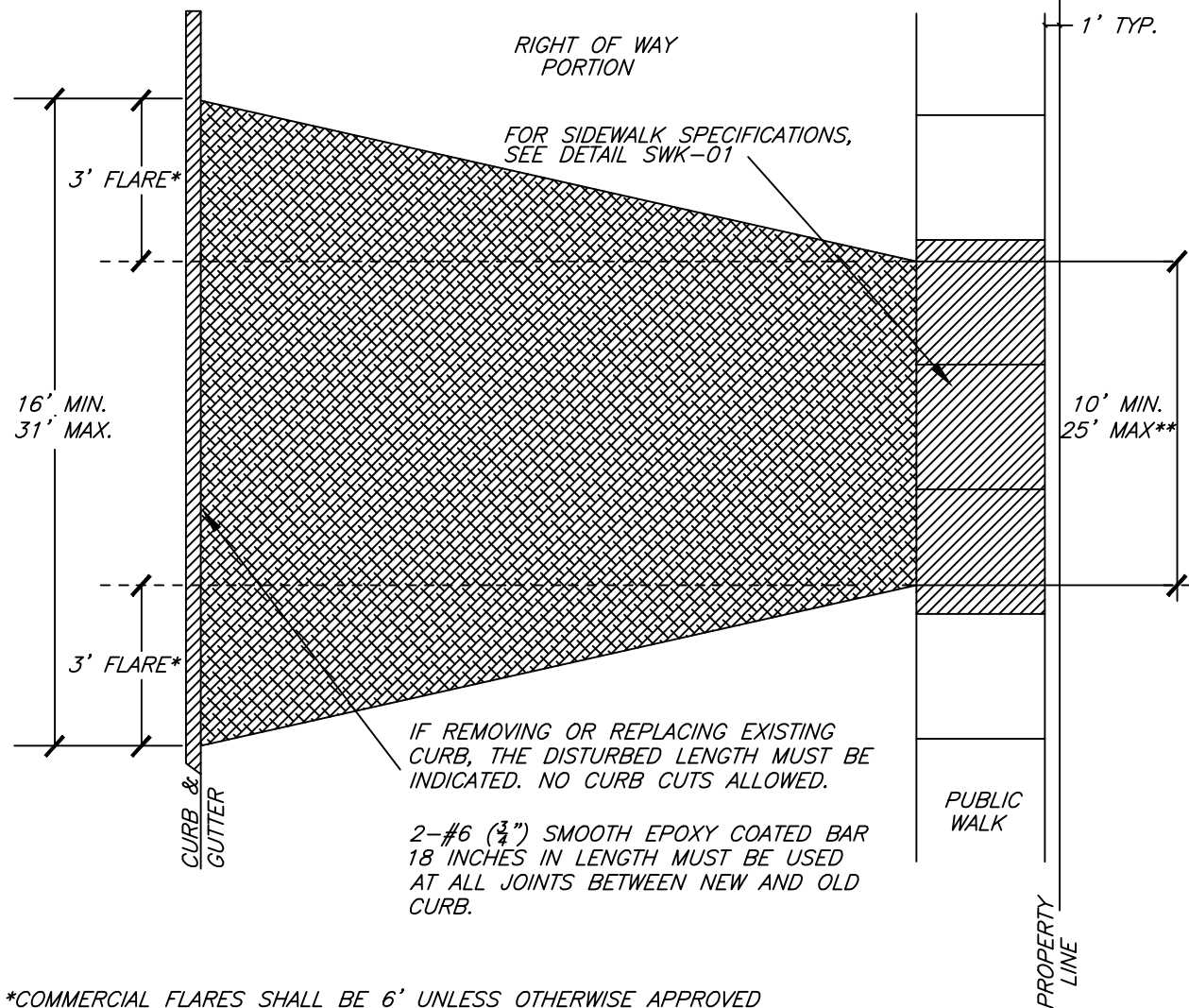
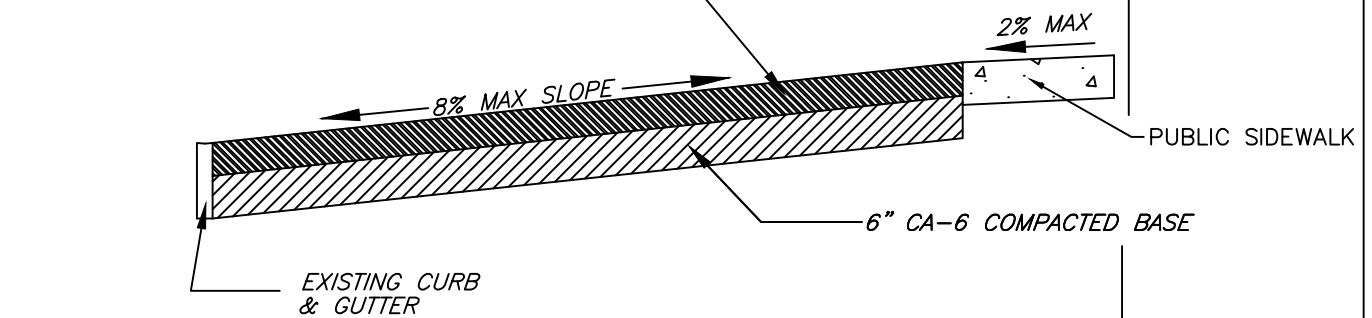


*COMMERCIAL FLARES SHALL BE 6' UNLESS OTHERWISE APPROVED
 **COMMERCIAL MAX WIDTH AT ROW LINE IS 40' UNLESS OTHERWISE APPROVED

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	11/07/14		S.A.V.	A.J.S.	ASPHALT APPROACH ON UNIMPROVED ROADWAY
	03/01/15		A.J.S.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. PVT-02					
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Residential: 3" ASPHALT SURFACE COURSE


Commercial: 2" ASPHALT SURFACE COURSE
6" ASPHALT BINDER COURSE



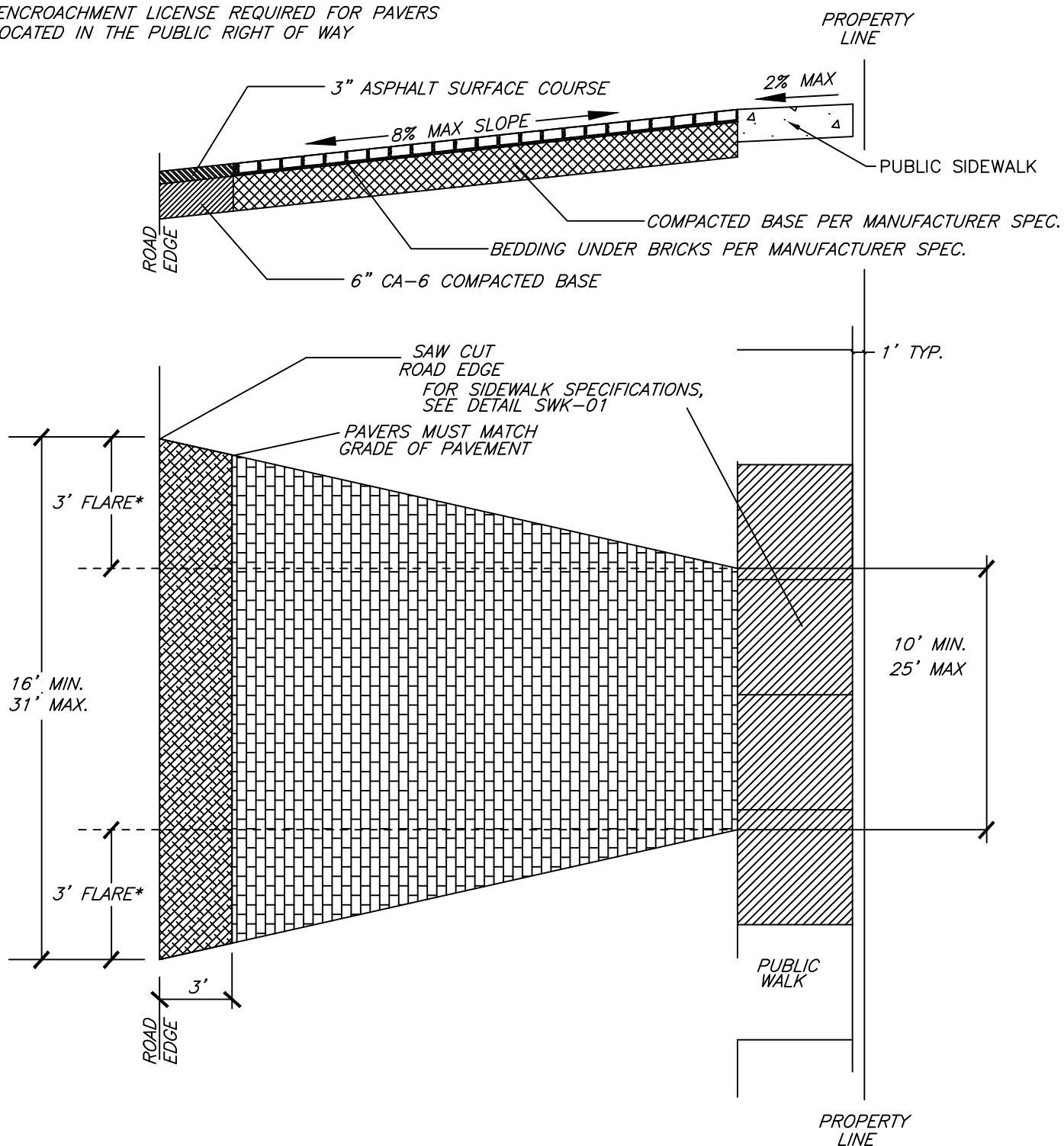
IF REMOVING OR REPLACING EXISTING CURB, THE DISTURBED LENGTH MUST BE INDICATED. NO CURB CUTS ALLOWED.


2-#6 (3/4") SMOOTH EPOXY COATED BAR 18 INCHES IN LENGTH MUST BE USED AT ALL JOINTS BETWEEN NEW AND OLD CURB.

*COMMERCIAL FLARES SHALL BE 6' UNLESS OTHERWISE APPROVED
**COMMERCIAL MAX WIDTH AT ROW LINE IS 40' UNLESS OTHERWISE APPROVED

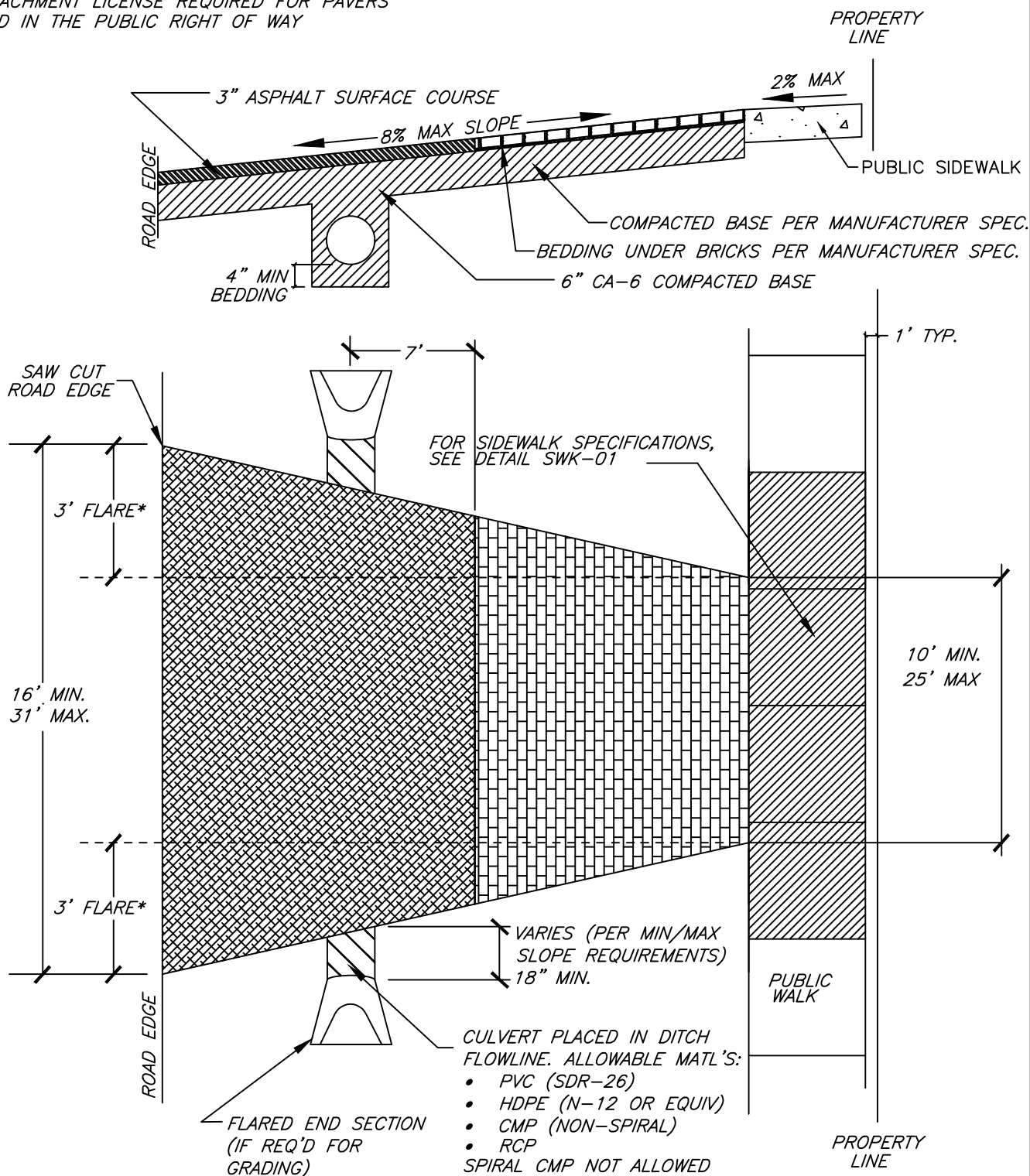
N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	03/25/11		S.A.V.	A.J.S.	<p>ASPHALT APPROACH WITH CURB</p>
	05/21/14		S.A.V.	A.J.S.	
	03/01/15		A.J.S.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. PVT-03					
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*ENCROACHMENT LICENSE REQUIRED FOR PAVERS LOCATED IN THE PUBLIC RIGHT OF WAY



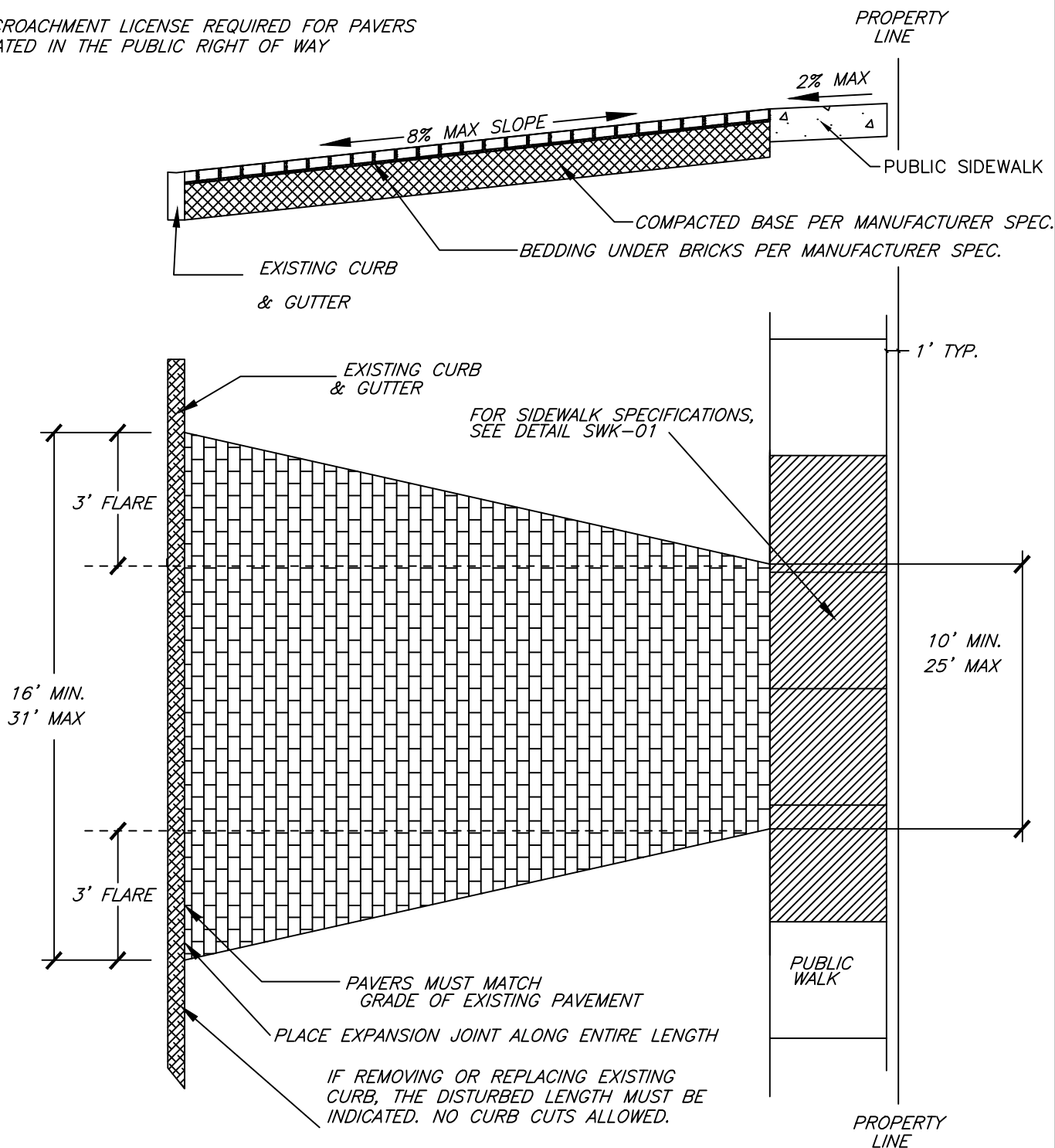
N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	03/25/11		S.A.V.	A.J.S.	BRICK APPROACH UNIMPROVED ROADWAY
	05/21/14		S.A.V.	A.J.S.	
	03/01/15		A.J.S.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. PVT-04					
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*ENCROACHMENT LICENSE REQUIRED FOR PAVERS
LOCATED IN THE PUBLIC RIGHT OF WAY




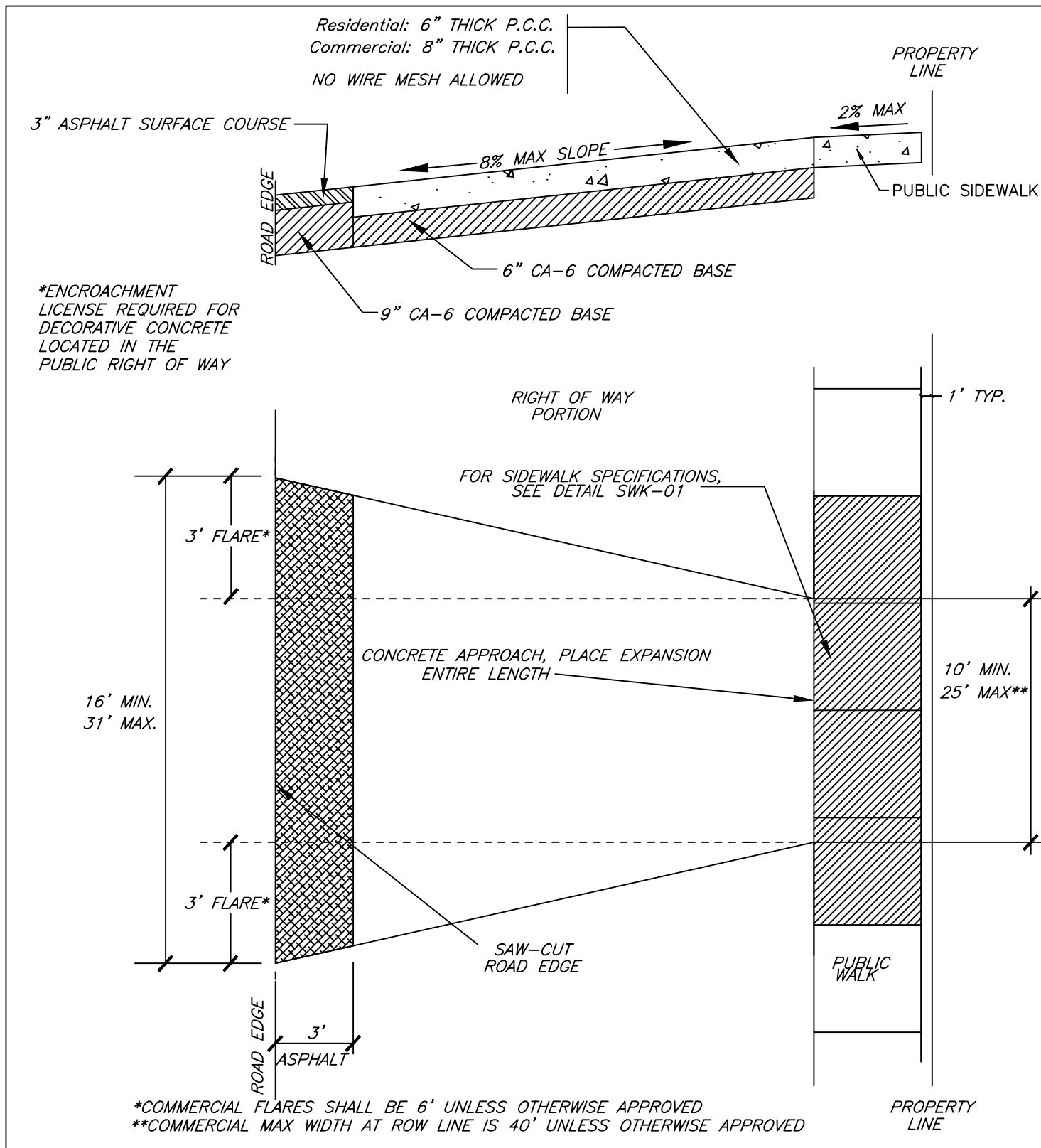
N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	10/03/14		A.J.S.	A.J.S.	<p>BRICK APPROACH UNIMPROVED ROADWAY WITH CULVERT</p>
	03/01/15		A.J.S.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. PVT-05					
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*ENCROACHMENT LICENSE REQUIRED FOR PAVERS LOCATED IN THE PUBLIC RIGHT OF WAY

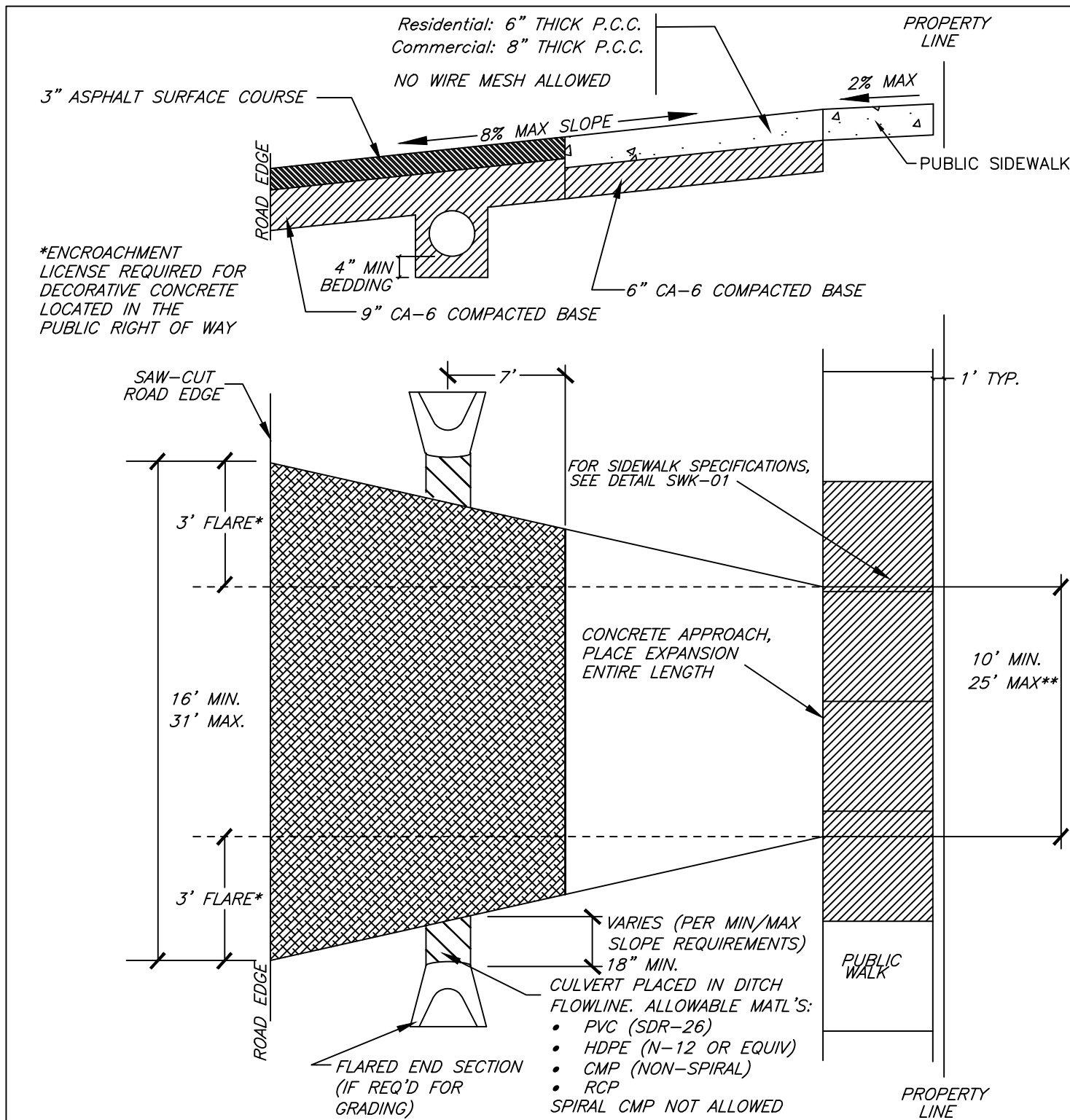


2-#6 (3/4") SMOOTH EPOXY COATED BAR 18 INCHES IN LENGTH MUST BE USED AT ALL JOINTS BETWEEN NEW AND OLD CURB.

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	02/20/07		J.M.L.	M.D.M.	<p>BRICK APPROACH WITH CURB</p>
	03/25/11		S.A.V.	A.J.S.	
	03/01/15		A.J.S.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. PVT-06					
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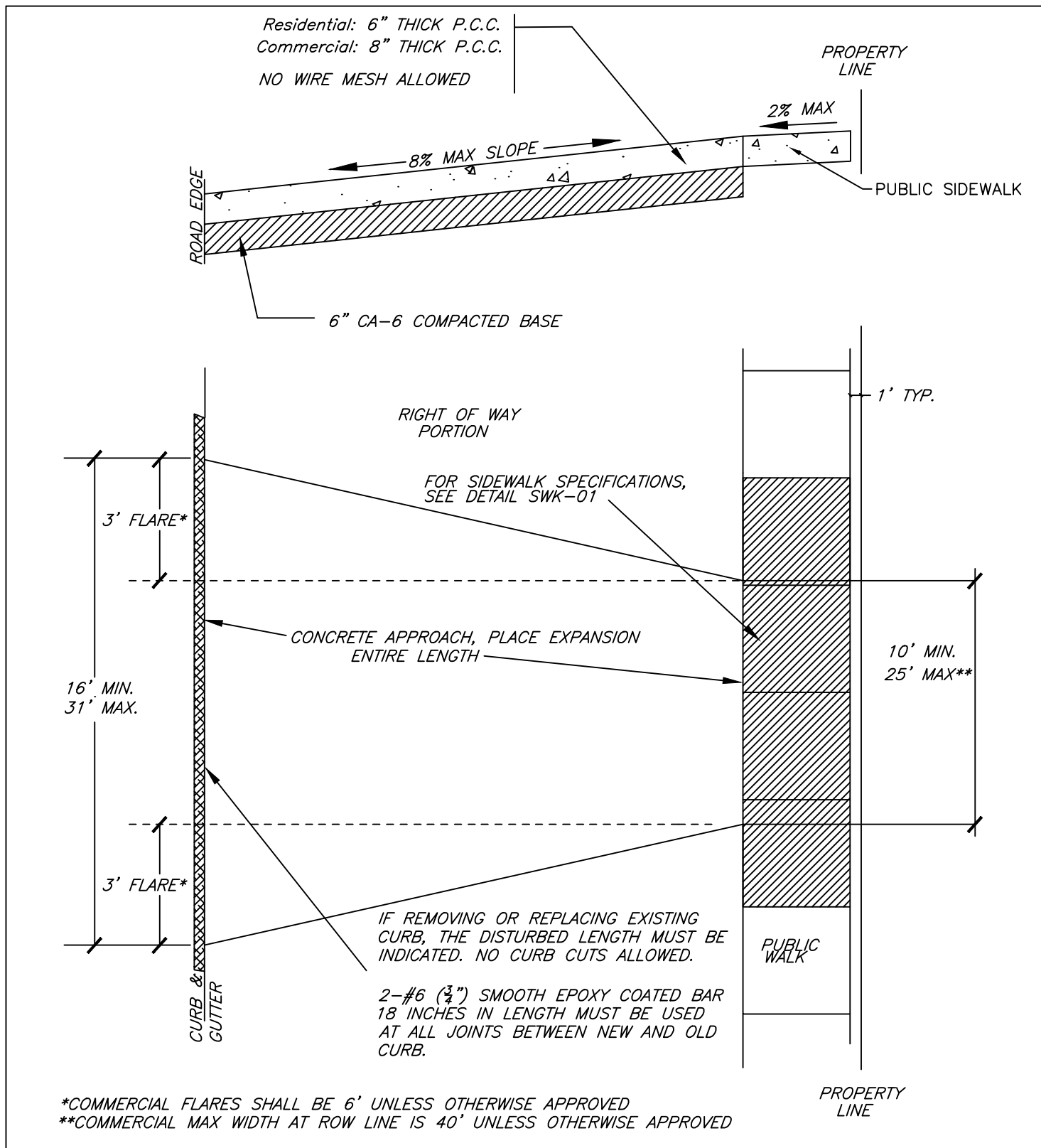
N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	03/25/11		S.A.V.	A.J.S.	CONCRETE APPROACH ON UNIMPROVED ROADWAY
	05/21/14		S.A.V.	A.J.S.	
	03/01/15		A.J.S.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. PVT-07					
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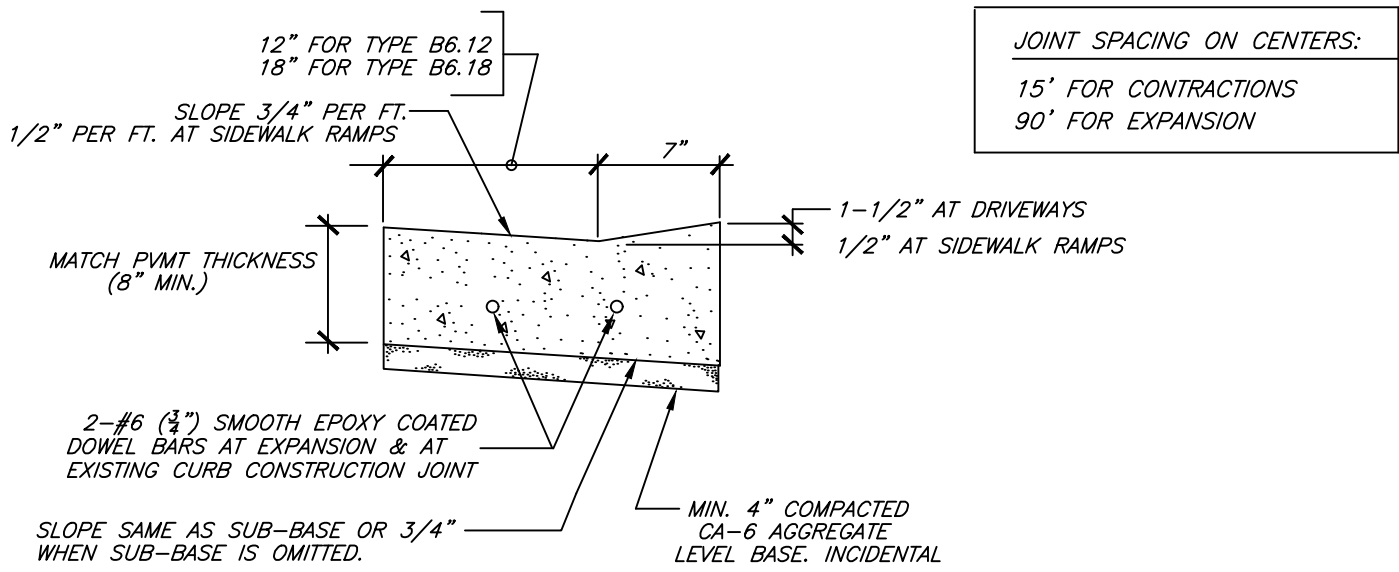
*COMMERCIAL FLARES SHALL BE 6' UNLESS OTHERWISE APPROVED
 **COMMERCIAL MAX WIDTH AT ROW LINE IS 40' UNLESS OTHERWISE APPROVED

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	10/03/14		A.J.S.	A.J.S.	CONCRETE APPROACH ON UNIMPROVED ROADWAY WITH CULVERT
	03/01/15		A.J.S.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
	DRAWING NO. PVT-08				
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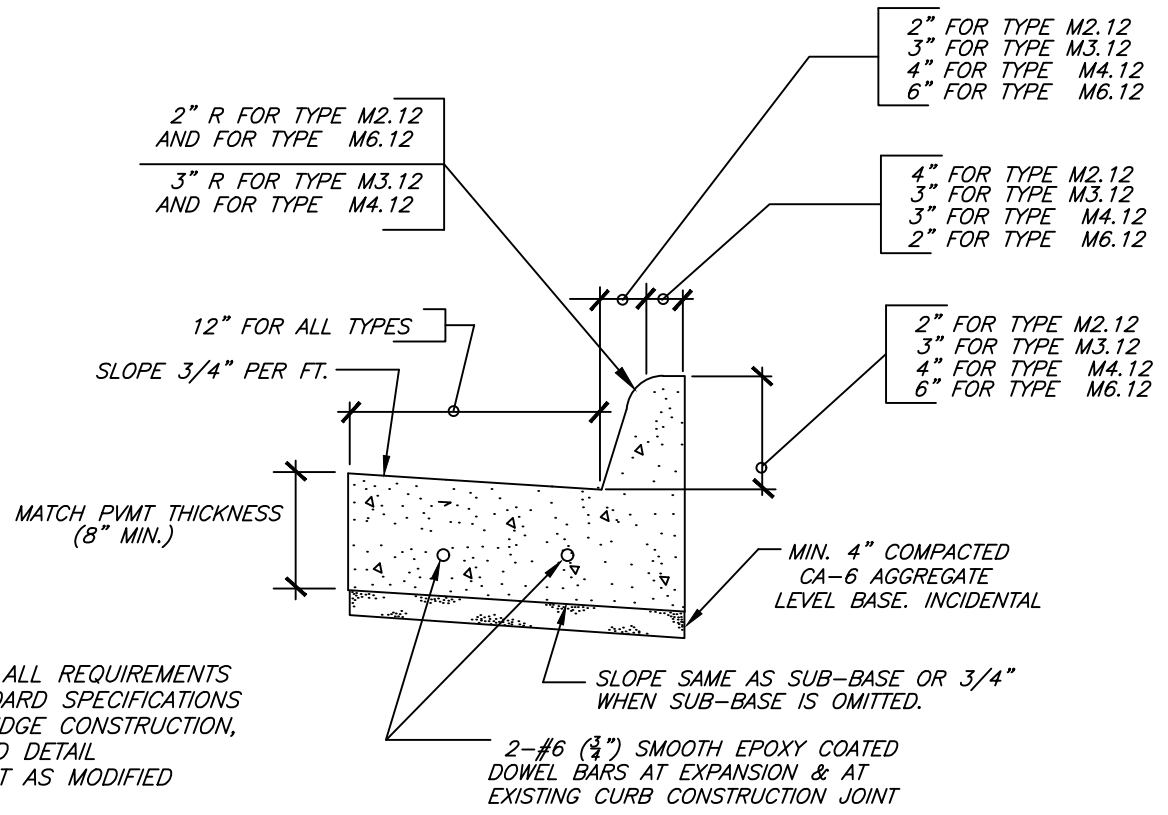


N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	02/20/07		J.M.L.	M.D.M.	<p>CONCRETE APPROACH WITH CURB</p>
	03/25/11		S.A.V.	A.J.S.	
	03/01/15		A.J.S.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. PVT-09					
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JOINT SPACING ON CENTERS:
15' FOR CONTRACTIONS
90' FOR EXPANSION

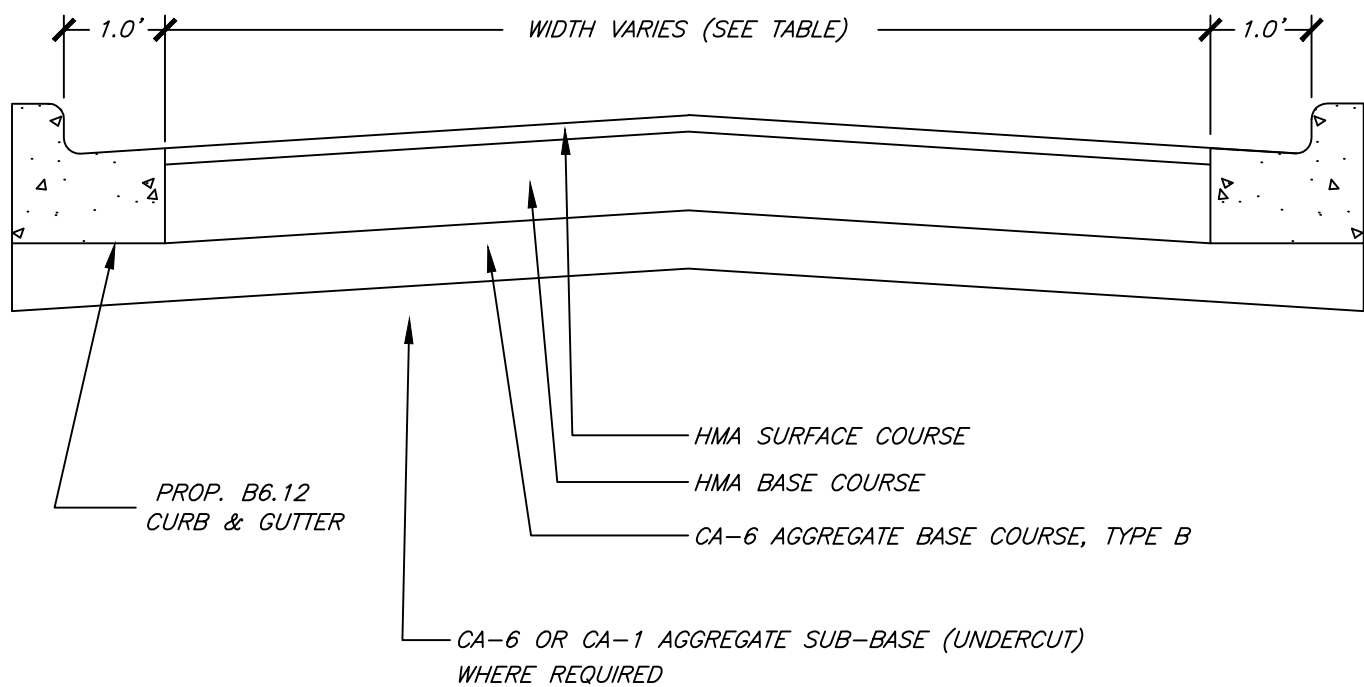
DEPRESSED CURB



*NOTE: MUST MEET ALL REQUIREMENTS OF THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AND IDOT STANDARD DETAIL 606001-06, EXCEPT AS MODIFIED HEREIN

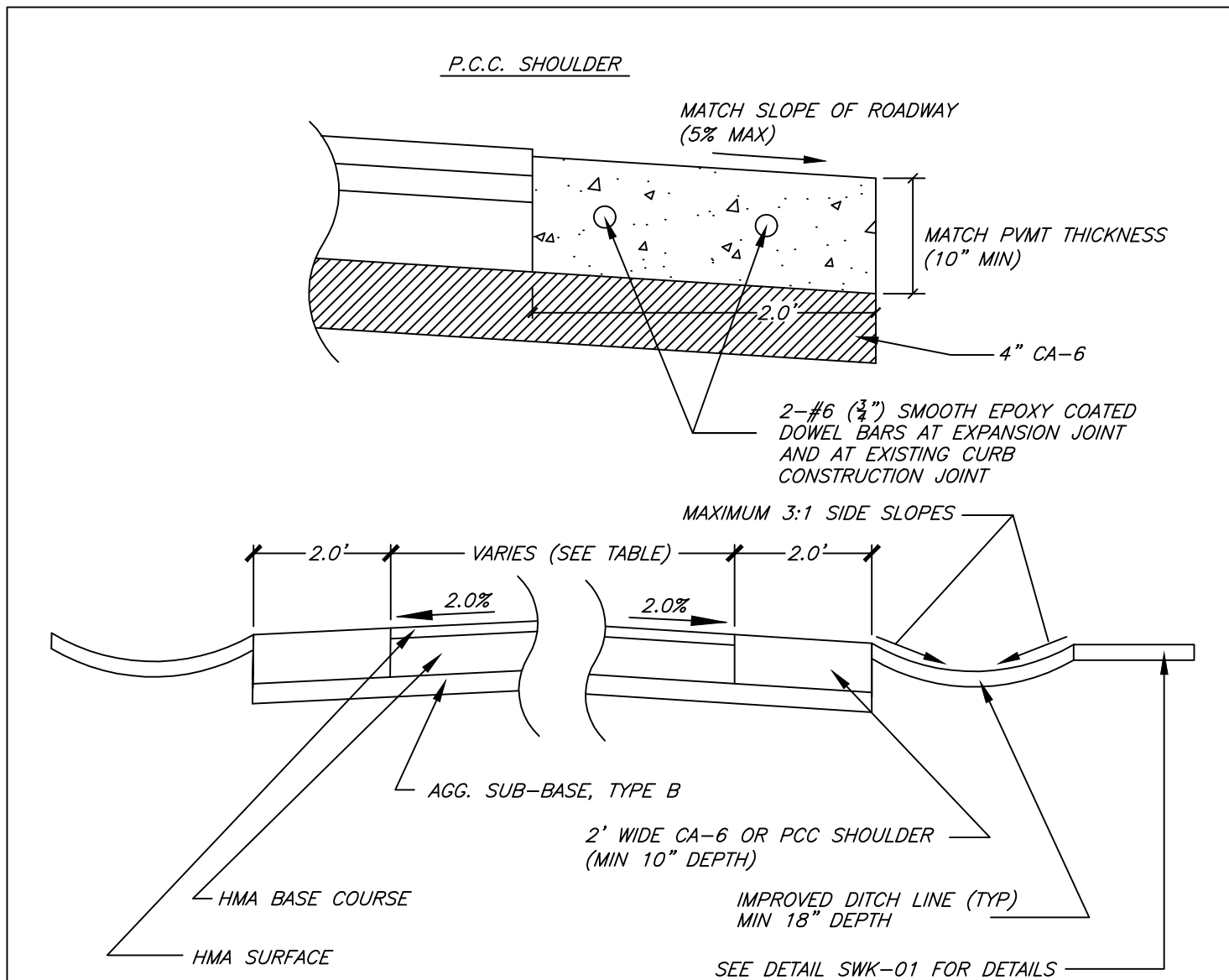
MOUNTABLE OR BARRIER CURB

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	02/20/07		J.M.L.	M.D.M.	<p>CURB AND GUTTER</p>
	03/25/11		S.A.V.	A.J.S.	
	03/01/15		A.J.S.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. PVT-10					
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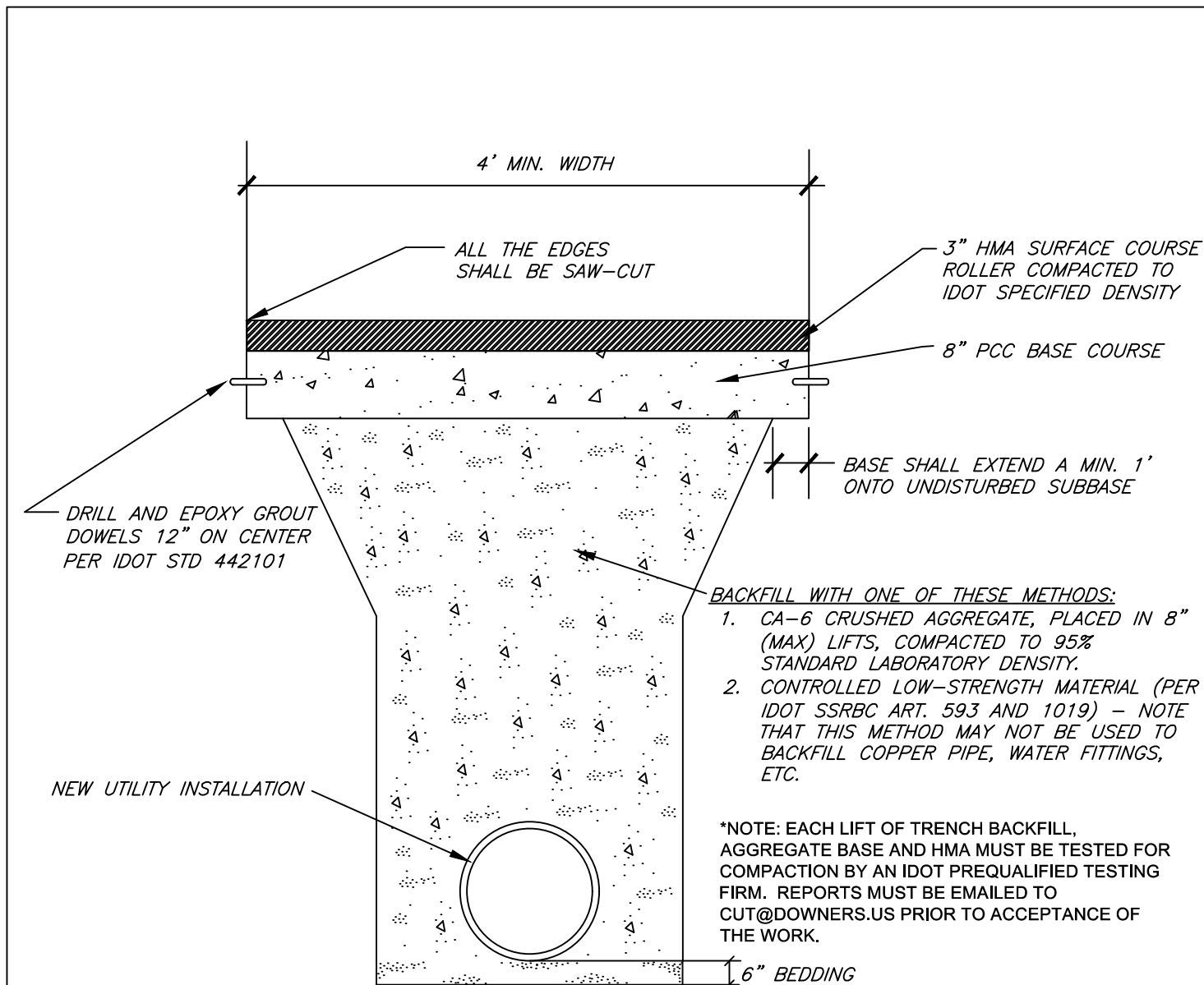
	ARTERIAL STREETS	COLLECTOR STREETS	RESIDENTIAL STREETS
PAVEMENT WIDTH	60'	36'	28'
HMA SURFACE COURSE	2.5"	2"	2"
HMA BASE COURSE	10"	8"	6"
AGG. BASE COURSE	6"	6"	6"
AGG. SUB-BASE (UNDERCUT)	0 TO 24" AS DETERMINED BY ENGINEER	0 TO 24" AS DETERMINED BY ENGINEER	0 TO 24" AS DETERMINED BY ENGINEER

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	02/20/07		J.M.L.	M.D.M.	BITUMINOUS IMPROVED ROADWAY
	03/25/11		S.A.V.	A.J.S.	
	03/01/15		A.J.S.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. PVT-13					
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	ARTERIAL STREETS	COLLECTOR STREETS	RESIDENTIAL STREETS
PAVEMENT WIDTH	60'	36'	28'
HMA SURFACE COURSE	2.5"	2"	2"
HMA BASE COURSE	10"	8"	6"
AGG. BASE COURSE	6"	6"	6"
AGG. SUB-BASE (UNDERCUT)	0 TO 24" AS DETERMINED BY ENGINEER	0 TO 24" AS DETERMINED BY ENGINEER	0 TO 24" AS DETERMINED BY ENGINEER

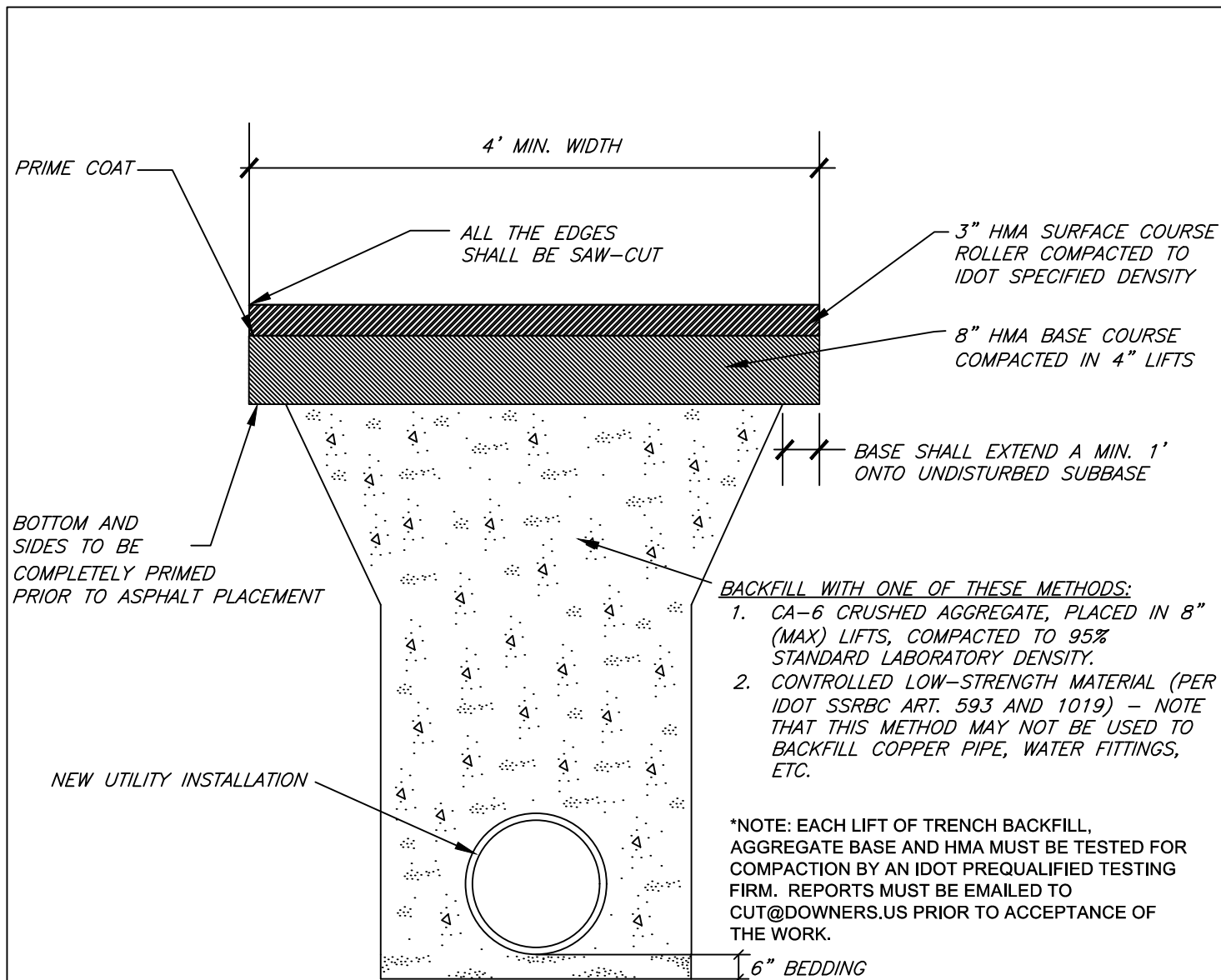
N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	02/20/07		J.M.L.	M.D.M.	BITUMINOUS UNIMPROVED ROADWAY
	03/25/11		S.A.V.	A.J.S.	
	03/01/15		A.J.S.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. PVT-15					
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NOTES

- * ALL CONSTRUCTION MATERIALS AND METHODS SHALL COMPLY WITH THE LATEST VERSION OF THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN THE STATE OF ILLINOIS" AND THE "STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION", UNLESS OTHERWISE SPECIFIED HEREIN, OR BY THE DIRECTOR OF PUBLIC WORKS.
- * ALL ROADWAYS SHALL REMAIN OPEN TO TRAFFIC WITH AT LEAST 1/2 THE WIDTH.
- * IF MORE THAN 30% OF THE ROADWAY WIDTH IS AFFECTED, THE ENTIRE WIDTH OF THE ROADWAY MUST BE RESURFACED.
- * ALL STREET OPENINGS MUST BE FULLY RESTORED WITHIN TEN DAYS.
- * REFER TO CONDITIONS OF THE PERMIT AND CHAPTER 19 OF THE VILLAGE CODE FOR ADDITIONAL REQUIREMENTS.

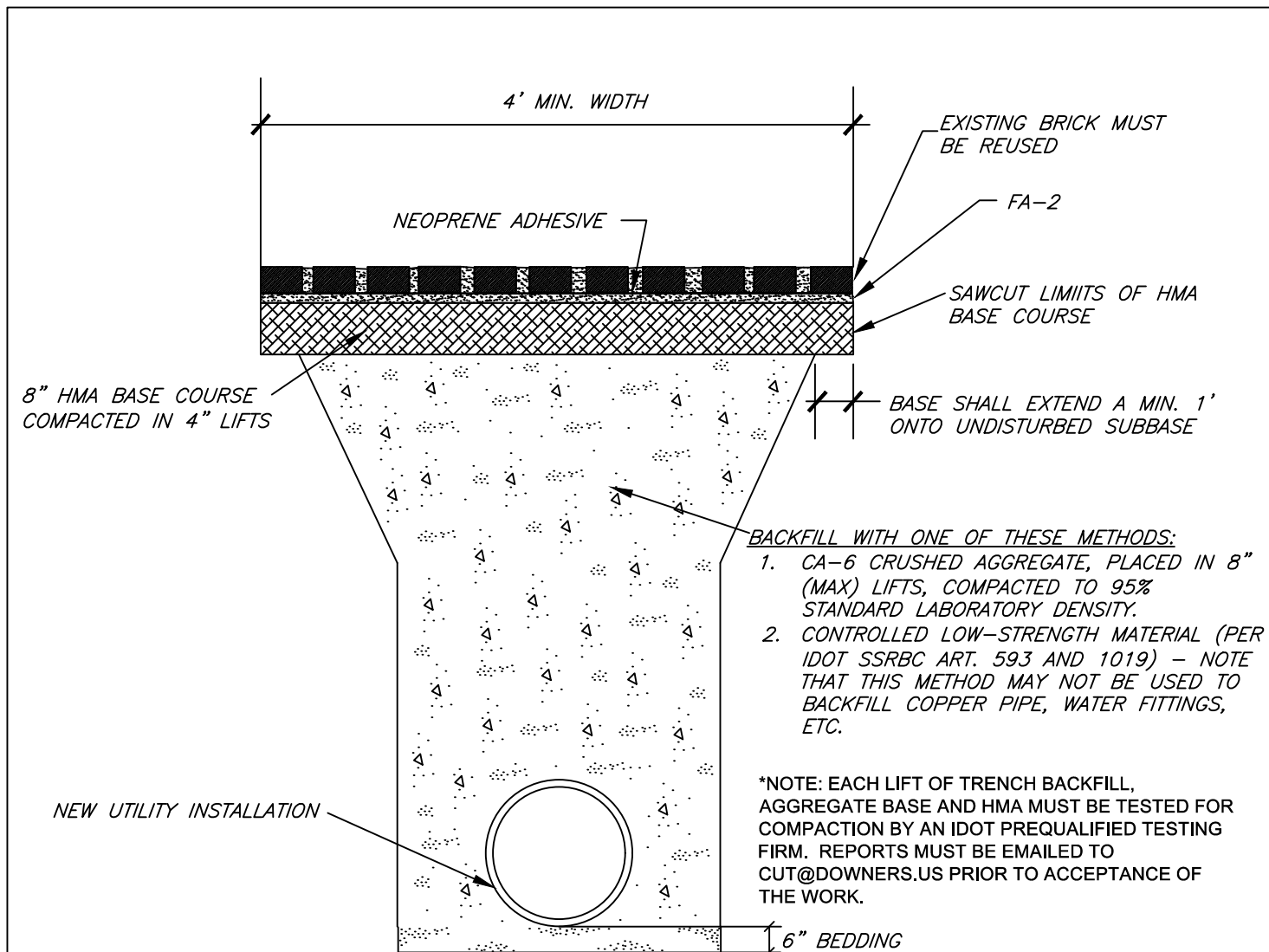
N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	02/20/07		J.M.L.	M.D.M.	<p>STREET OPENING BITUMINOUS WITH CONCRETE BASE</p>
	03/25/11		S.A.V.	A.J.S.	
	03/01/15		A.J.S.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. PVT-16					
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NOTES


- * ALL CONSTRUCTION MATERIALS AND METHODS SHALL COMPLY WITH THE LATEST VERSION OF THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN THE STATE OF ILLINOIS" AND THE "STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION", UNLESS OTHERWISE SPECIFIED HEREIN, OR BY THE DIRECTOR OF PUBLIC WORKS.
- * ALL ROADWAYS SHALL REMAIN OPEN TO TRAFFIC WITH AT LEAST 1/2 THE WIDTH.
- * IF MORE THAN 30% OF THE ROADWAY WIDTH IS AFFECTED, THE ENTIRE WIDTH OF THE ROADWAY MUST BE RESURFACED.
- * ALL STREET OPENINGS MUST BE FULLY RESTORED WITHIN TEN DAYS.
- * REFER TO CONDITIONS OF THE PERMIT AND CHAPTER 19 OF THE VILLAGE CODE FOR ADDITIONAL REQUIREMENTS.

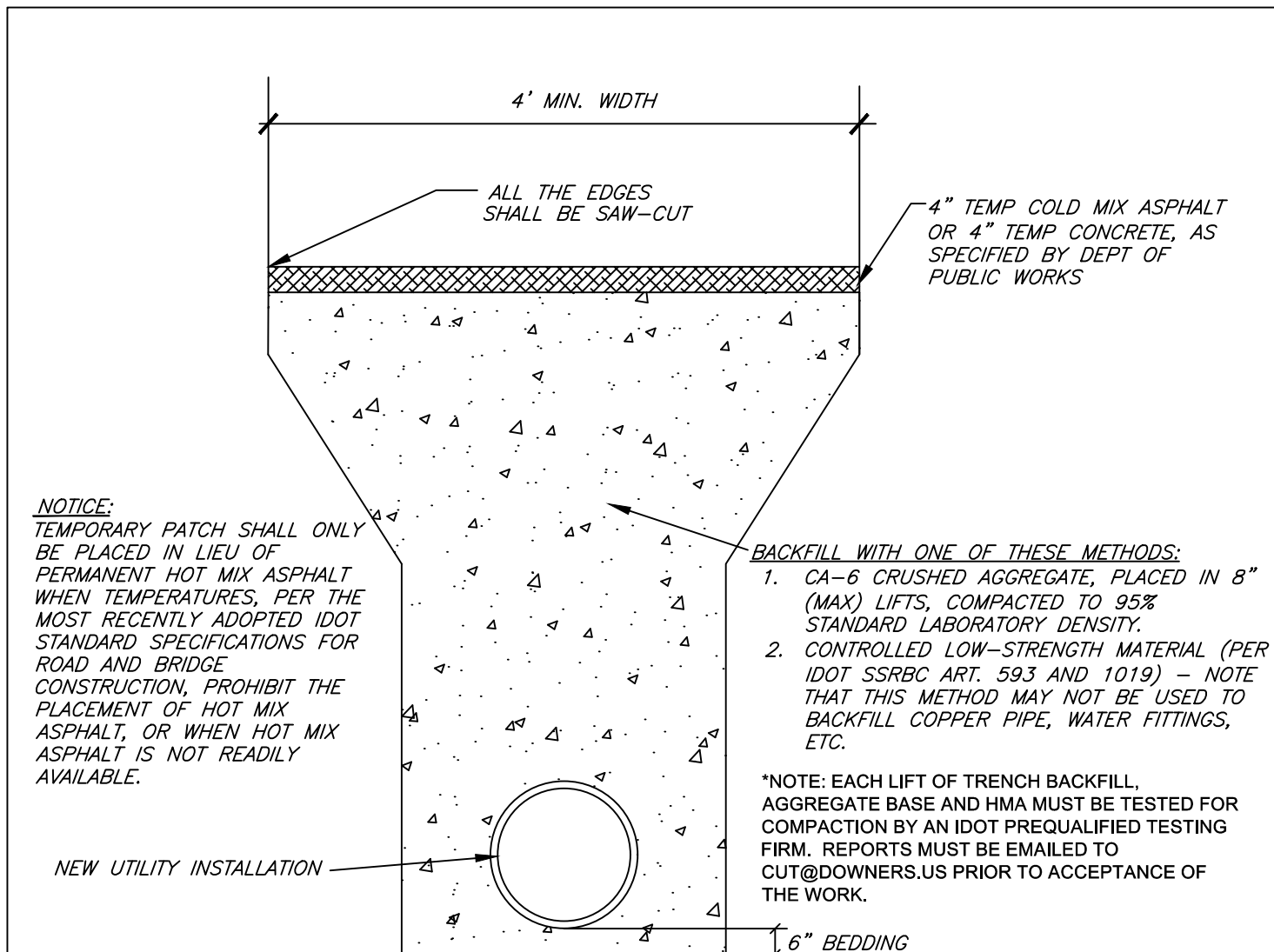
N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	02/20/07		J.M.L.	M.D.M.	<p>STREET OPENING BITUMINOUS</p>
	03/25/11		S.A.V.	A.J.S.	
	03/01/15		A.J.S.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. PVT-17					
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NOTES

- * ALL CONSTRUCTION MATERIALS AND METHODS SHALL COMPLY WITH THE LATEST VERSION OF THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN THE STATE OF ILLINOIS" AND THE "STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION", UNLESS OTHERWISE SPECIFIED HEREIN, OR BY THE DIRECTOR OF PUBLIC WORKS.
- * ALL ROADWAYS SHALL REMAIN OPEN TO TRAFFIC WITH AT LEAST 1/2 THE WIDTH.
- * IF MORE THAN 30% OF THE ROADWAY WIDTH IS AFFECTED, THE ENTIRE WIDTH OF THE ROADWAY MUST BE RESURFACED.
- * ALL STREET OPENINGS MUST BE FULLY RESTORED WITHIN TEN DAYS.
- * REFER TO CONDITIONS OF THE PERMIT AND CHAPTER 19 OF THE VILLAGE CODE FOR ADDITIONAL REQUIREMENTS.

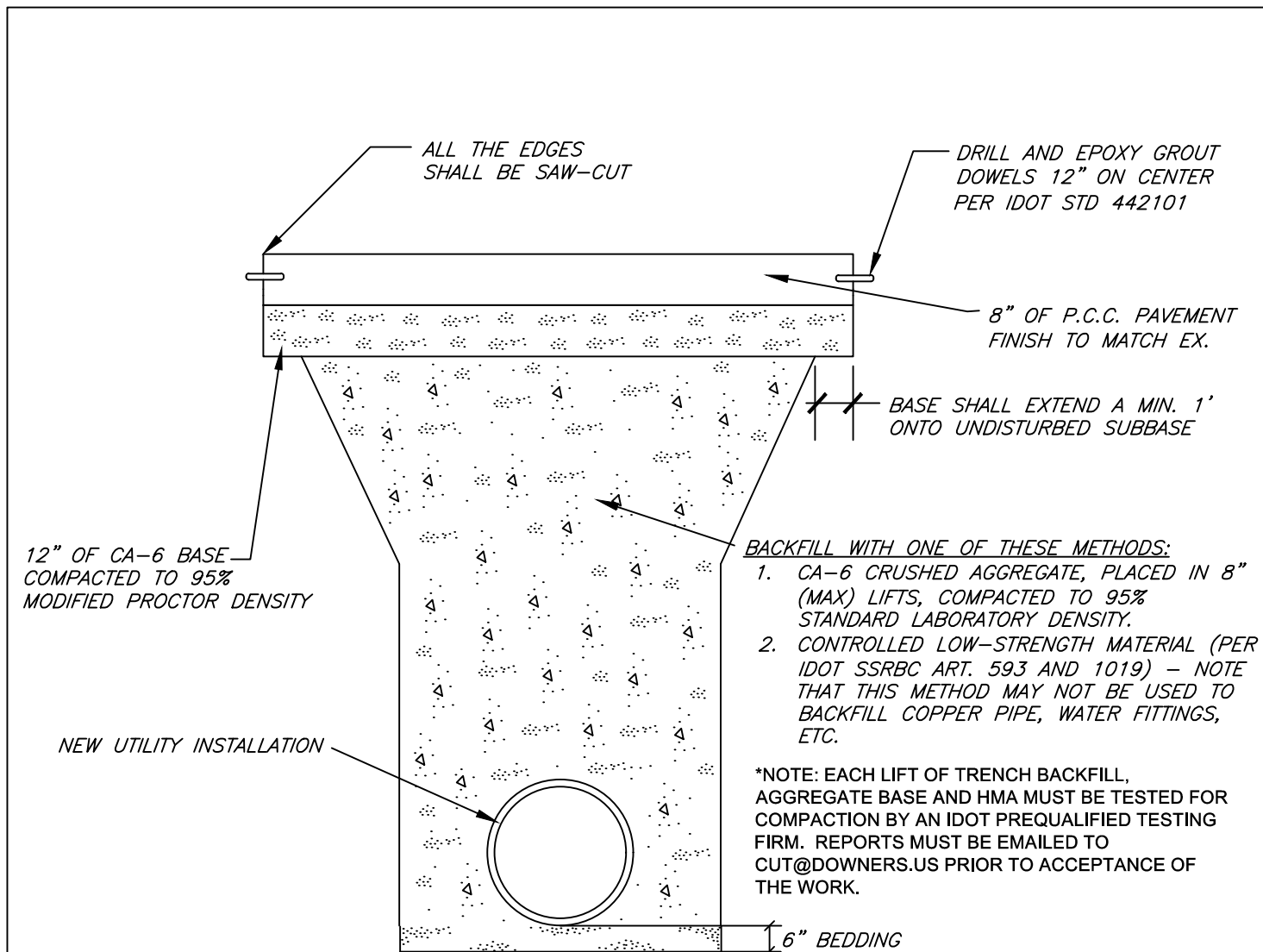
N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	02/20/07		J.M.L.	M.D.M.	<p style="font-size: 2em;">STREET OPENING BRICK WITH BIT. BASE</p>
	03/25/11		S.A.V.	A.J.S.	
	03/01/15		A.J.S.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. PVT-18					
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NOTES


- * TEMPORARY PATCH TO BE REMOVED AND REPLACED WITH FINAL PAVEMENT PATCH WHEN WEATHER PERMITS AS DIRECTED BY THE DEPARTMENT OF PUBLIC WORKS.
- * ALL CONSTRUCTION MATERIALS AND METHODS SHALL COMPLY WITH THE LATEST VERSION OF THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN THE STATE OF ILLINOIS" AND THE "STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION", UNLESS OTHERWISE SPECIFIED HEREIN, OR BY THE DIRECTOR OF PUBLIC WORKS.
- * ALL ROADWAYS SHALL REMAIN OPEN TO TRAFFIC WITH AT LEAST 1/2 THE WIDTH.
- * IF MORE THAN 30% OF THE ROADWAY WIDTH IS AFFECTED, THE ENTIRE WIDTH OF THE ROADWAY MUST BE RESURFACED.
- * ALL STREET OPENINGS MUST BE FULLY RESTORED WITHIN TEN DAYS.
- * REFER TO CONDITIONS OF THE PERMIT AND CHAPTER 19 OF THE VILLAGE CODE FOR ADDITIONAL REQUIREMENTS.

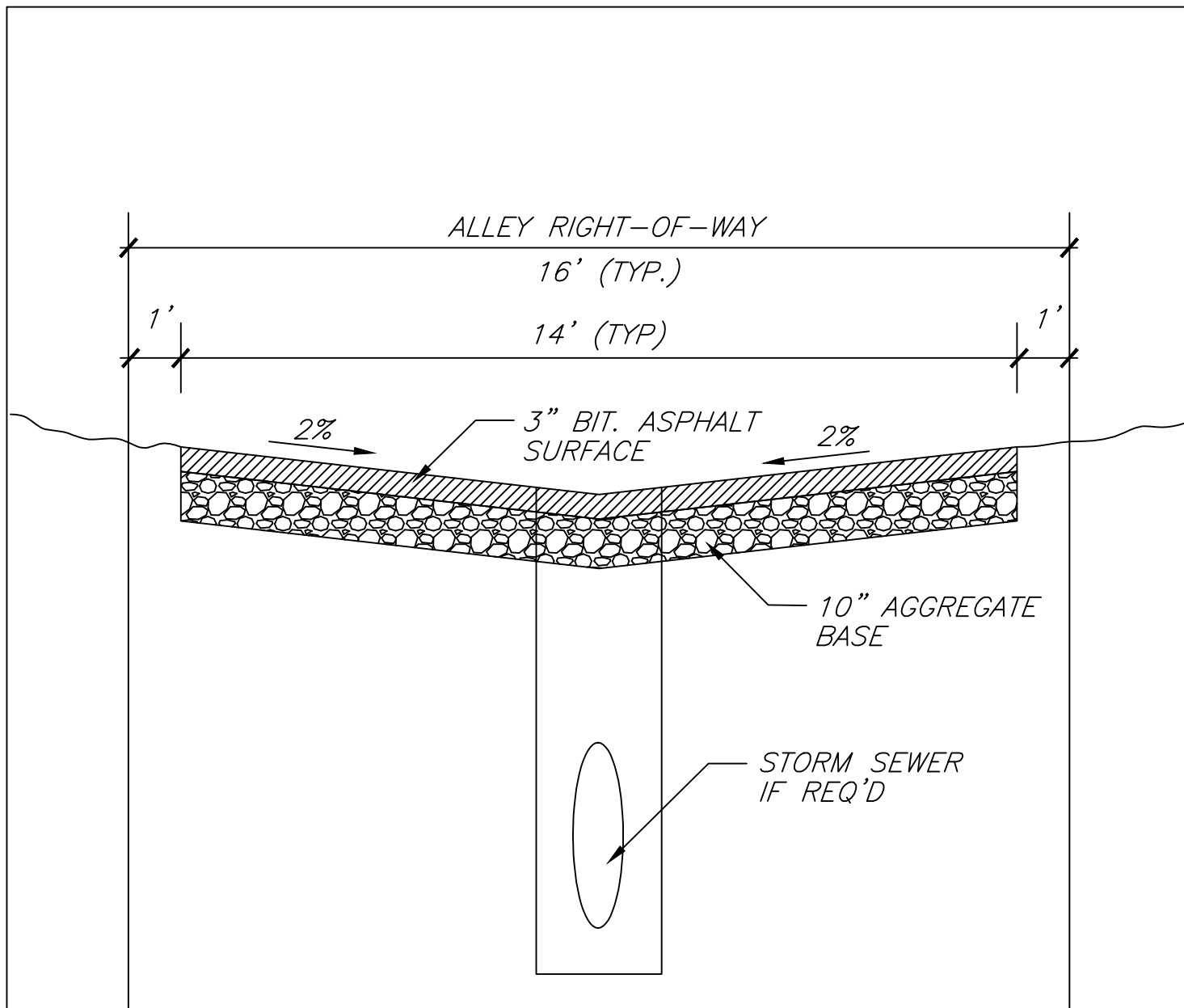
N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	02/20/07		J.M.L.	M.D.M.	<p style="font-size: 2em;">STREET OPENING TEMPORARY</p>
	03/25/11		S.A.V.	A.J.S.	
	03/01/15		A.J.S.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. PVT-19					
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NOTES

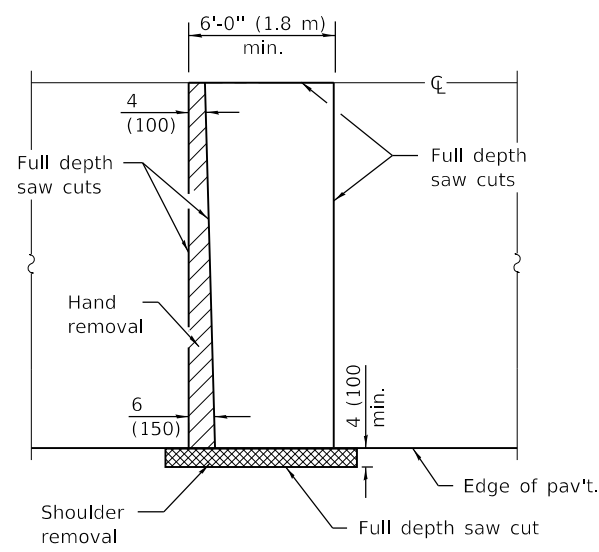
- * ALL CONSTRUCTION MATERIALS AND METHODS SHALL COMPLY WITH THE LATEST VERSION OF THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN THE STATE OF ILLINOIS" AND THE "STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION", UNLESS OTHERWISE SPECIFIED HEREIN, OR BY THE DIRECTOR OF PUBLIC WORKS.
- * ALL ROADWAYS SHALL REMAIN OPEN TO TRAFFIC WITH AT LEAST 1/2 THE WIDTH.
- * IF MORE THAN 30% OF THE ROADWAY WIDTH IS AFFECTED, THE ENTIRE WIDTH OF THE ROADWAY MUST BE RESURFACED.
- * ALL STREET OPENINGS MUST BE FULLY RESTORED WITHIN TEN DAYS.
- * REFER TO CONDITIONS OF THE PERMIT AND CHAPTER 19 OF THE VILLAGE CODE FOR ADDITIONAL REQUIREMENTS.

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	02/20/07		J.M.L.	M.D.M.	<p>STREET OPENING CONCRETE STREETS</p>
	03/25/11		S.A.V.	A.J.S.	
	03/01/15		A.J.S.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. PVT-20					
I:\LIBRARY\DETAILS\PAVEMENT\PVT-20					



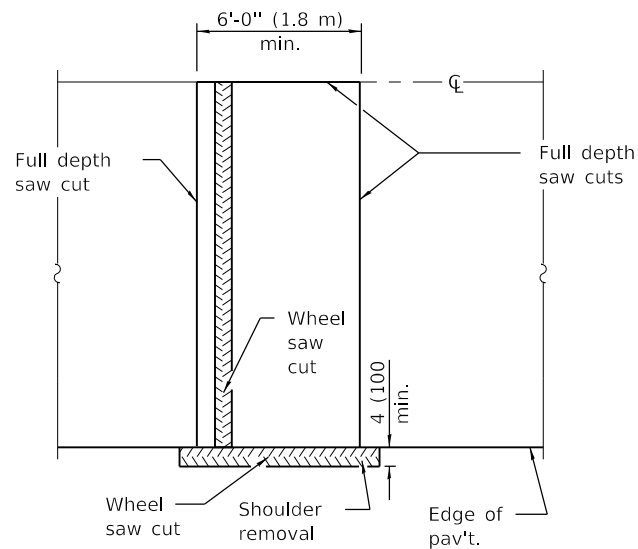
NOTE
 * GRADING AND DRAINAGE TO BE DETERMINED BY LICENSED P.E.

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	04/21/14		R.W.B.	A.J.S.	IMPROVED RESIDENTIAL ALLEY DETAIL
	03/01/15		R.W.B.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. PVT-30					
I:\LIBRARY\DETAILS\PAVEMENT\PVT-30					



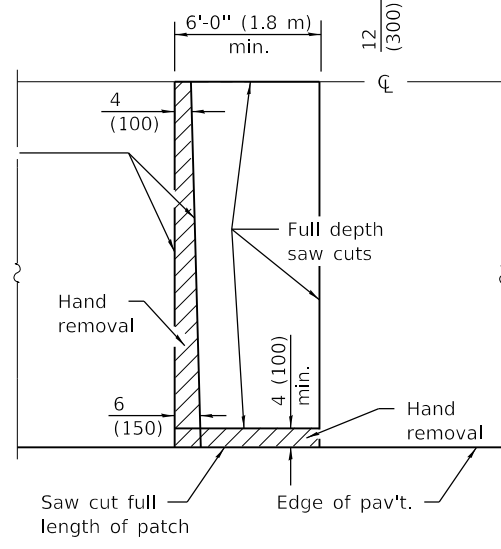
PAVEMENT SAWING DETAIL

(HMA SHOULDER)



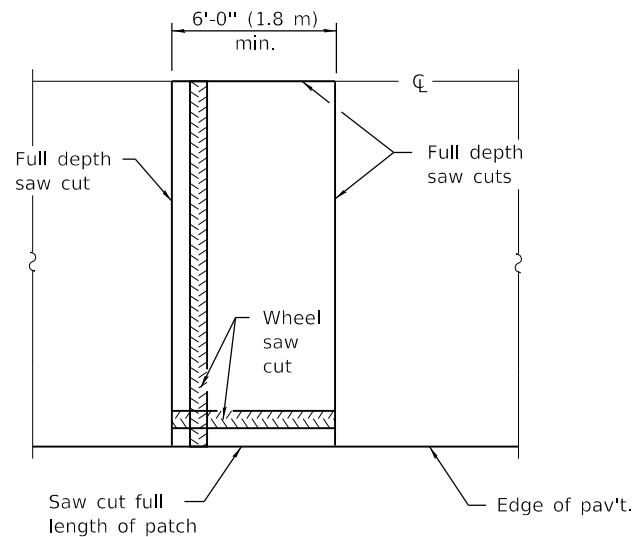
ALTERNATE SAWING DETAIL

(HMA SHOULDER)



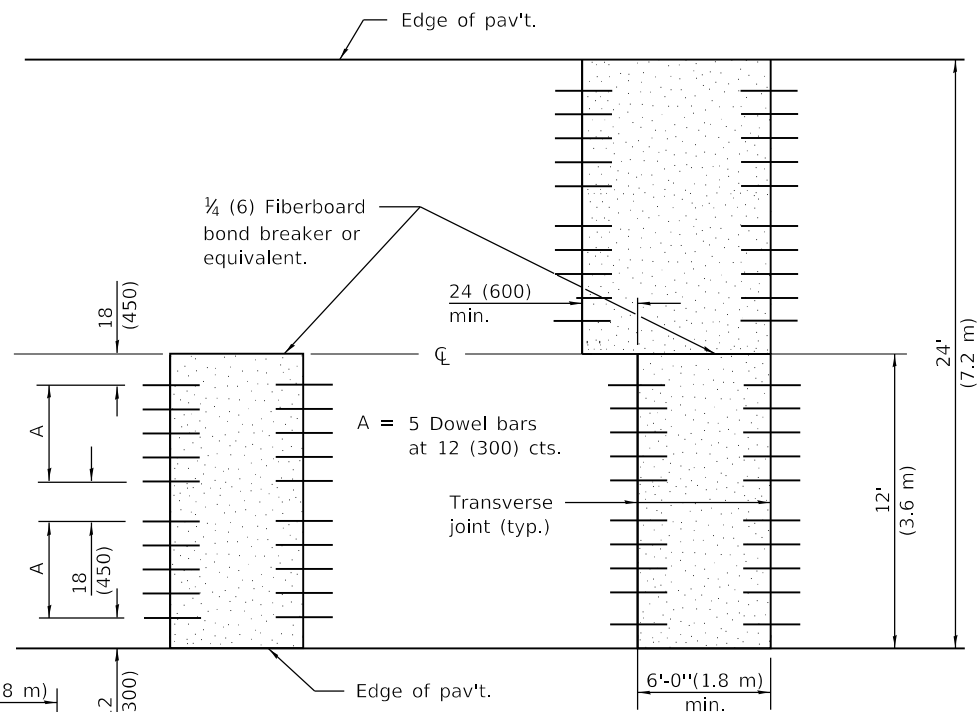
PAVEMENT SAWING DETAIL

(PCC SHOULDER)

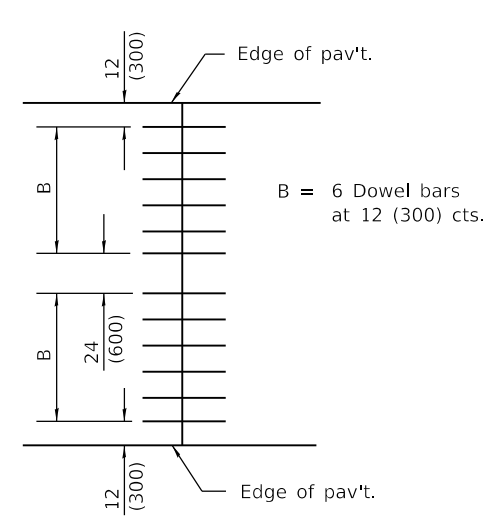


ALTERNATE SAWING DETAIL

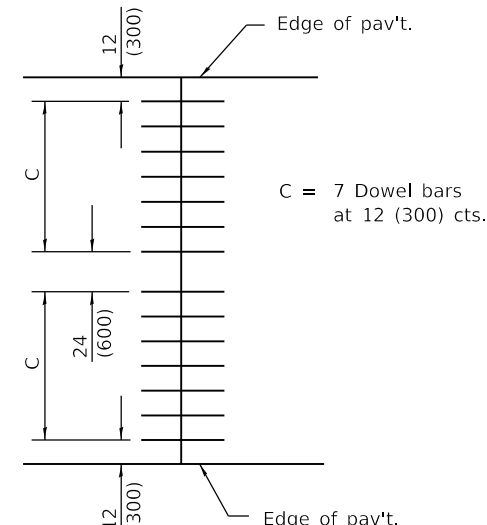
(PCC SHOULDER)



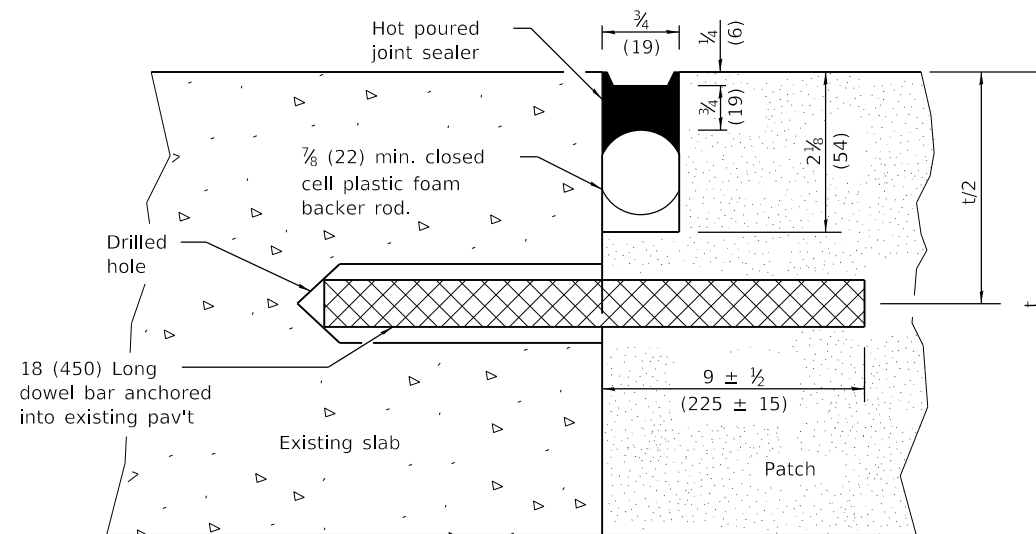
12' (3.6 m) WIDE LANES



14' (4.2 m) WIDE RAMP

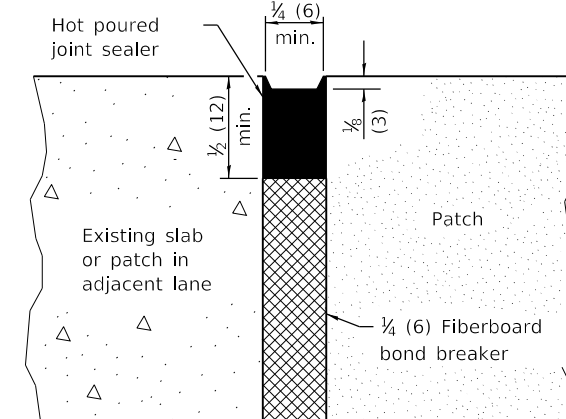


16' (4.8 m) WIDE RAMP



TRANSVERSE JOINT

DOWEL BAR TABLE		
PAVEMENT THICKNESS	DOWEL BAR DIAMETER	HOLE DIAMETER
10 (250) or greater	1½ (38)	1¾ (41)
8 (200) thru 9.99 (249)	1¼ (32)	1⅝ (35)
Less than 8 (200)	1 (25)	1⅜ (29)



CENTERLINE JOINT

GENERAL NOTES

The transverse joints for Class B patches shall align with joints or cracks in the adjacent lane whenever possible.

See Standard 420701 for details of pavement fabric.

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

DATE	REVISIONS
1-1-18	Revised DOWEL BAR TABLE.
1-1-08	Switched units to English (metric).

CLASS B PATCHES

(Sheet 1 of 2)

STANDARD 442101-08

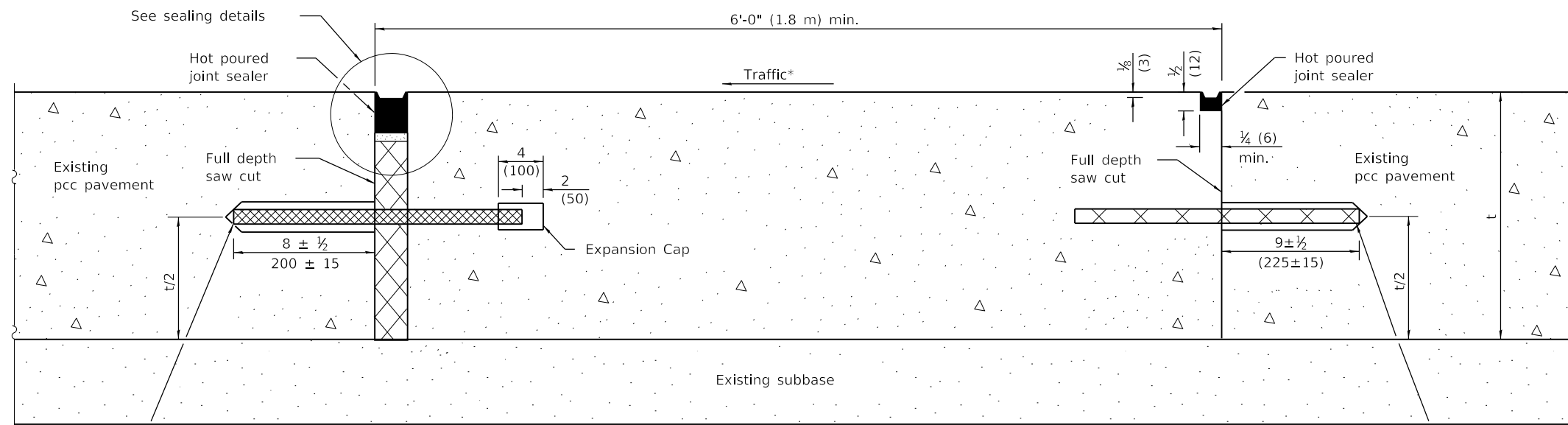
Illinois Department of Transportation

PASSED January 1, 2018
Michael Brand
 ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2018
Marcus M. Beck
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-18

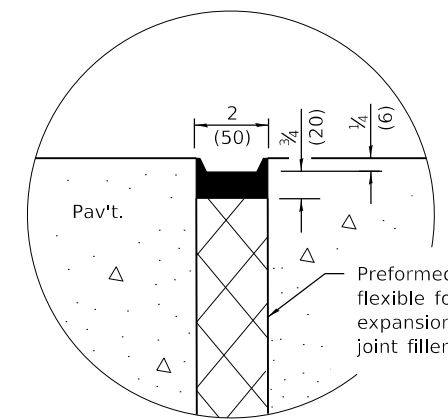
TRANSVERSE EXPANSION JOINTS



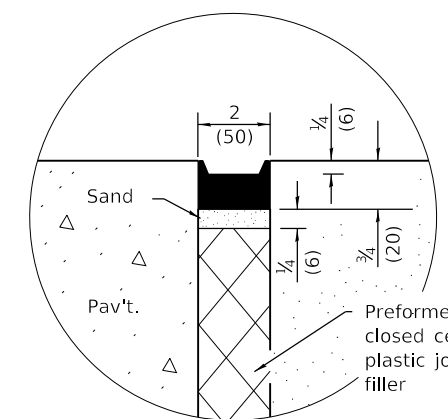
18 (450) Long dowel bars anchored into existing pavement at 12 (300) cts.

METHOD I
(Without Resurfacing)

No. 10x18 (No. 32x450) Tie bars anchored into existing pavement at 12 (300) cts.



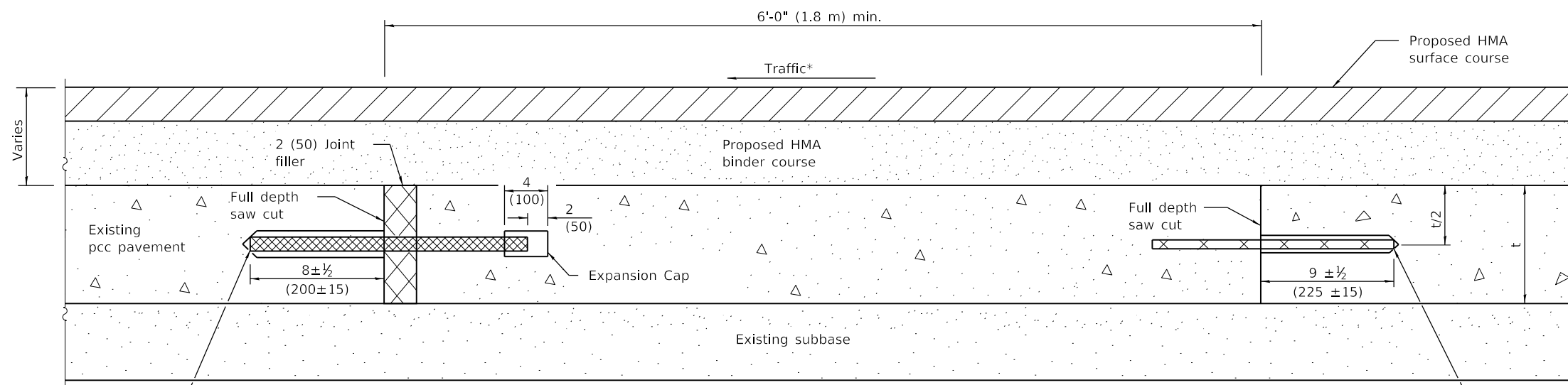
SEALING DETAIL



SEALING DETAIL

NOTE

* When re-establishing a transverse expansion joint on a two-lane, two-way road, reverse the orientation of the dowel bars with respect to traffic for one of the patches such that the joint will be continuous across both lanes.



18 (450) Long dowel bars anchored into existing pavement at 12 (300) cts.

METHOD II
(With Resurfacing)

No. 10x18 (No. 32x450) Tie bars anchored into existing pavement at 12 (300) cts.

Illinois Department of Transportation

PASSED January 1, 2018
Michael Beard
 ENGINEER OF POLICY AND PROCEDURES

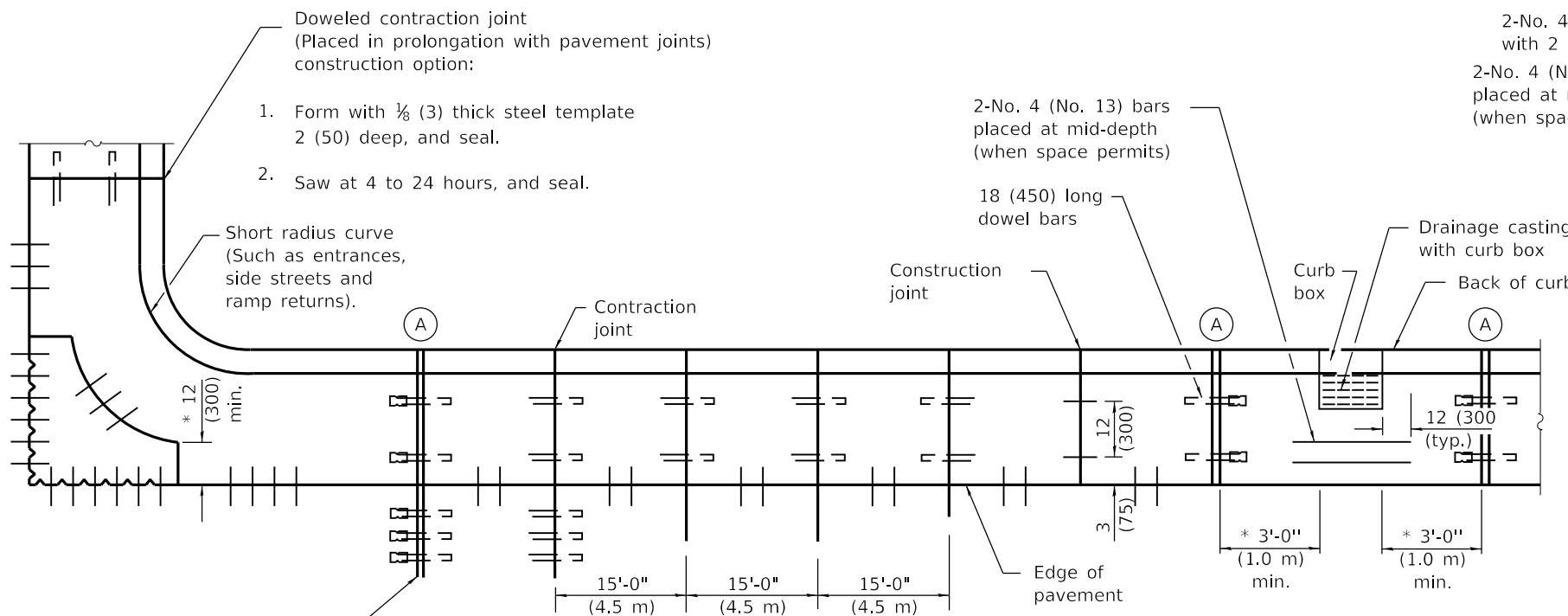
APPROVED January 1, 2018
Maureen M. Beck
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

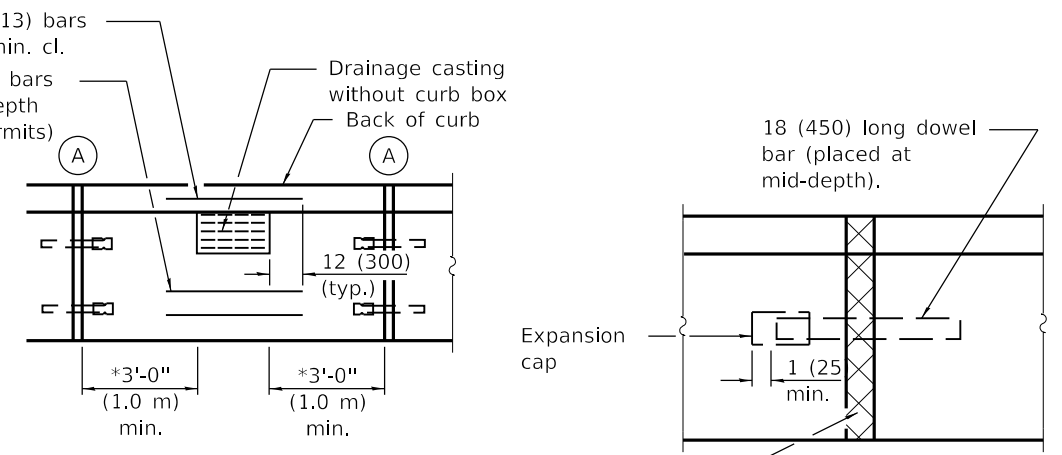
CLASS B PATCHES

(Sheet 2 of 2)

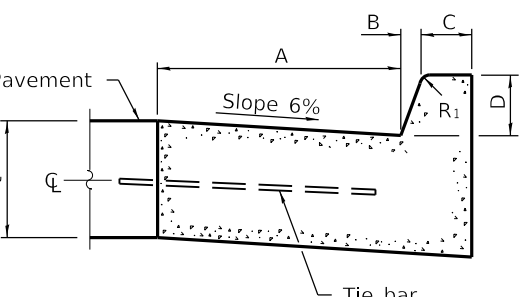
STANDARD 442101-08



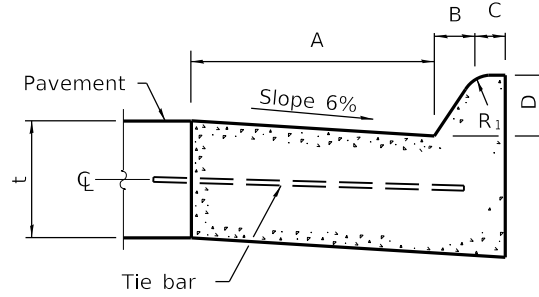
PLAN
ADJACENT TO PCC PAVEMENT OR PCC BASE COURSE



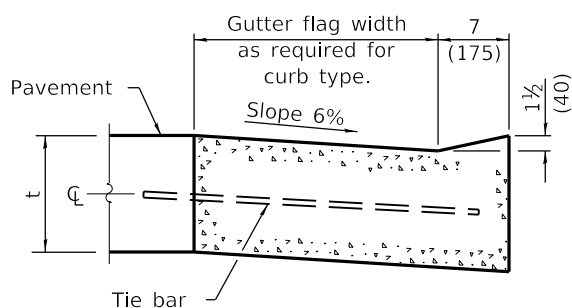
DETAIL A
EXPANSION JOINT



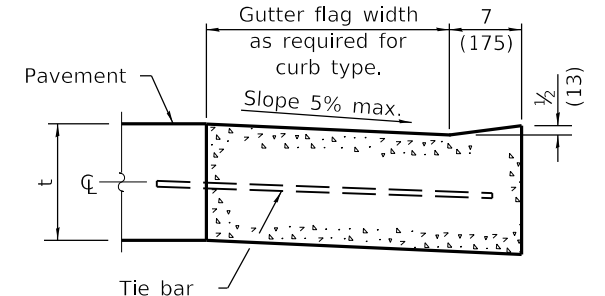
BARRIER CURB



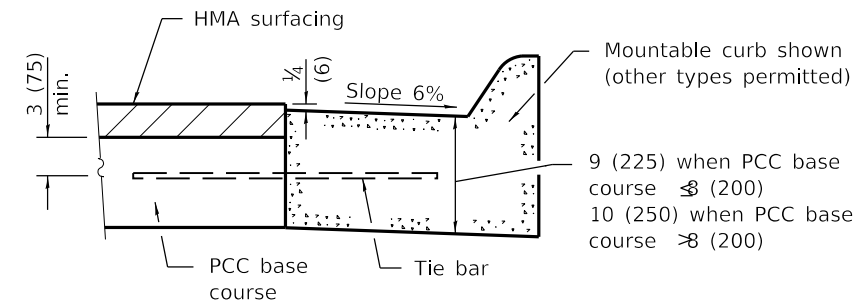
MOUNTABLE CURB



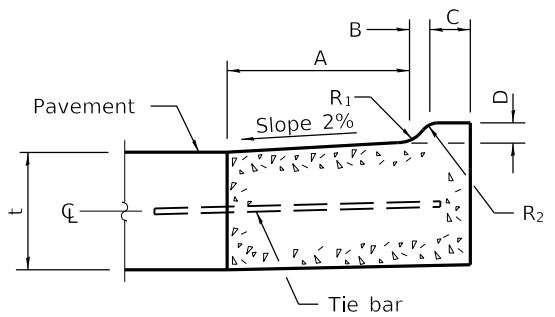
DEPRESSED CURB (TYPICAL)



DEPRESSED CURB ADJACENT TO CURB RAMP ACCESSIBLE TO THE DISABLED



ADJACENT TO PCC BASE COURSE WITH HMA SURFACING



M-2.06 (M-5.15) and M-2.12 (M-5.30)

TABLE OF DIMENSIONS BARRIER CURB					
TYPE	A	B	C	D	R ₁
B-6.06 *	6	1	6	6	1
(B-15.15)	(150)	(25)	(150)	(150)	(25)
B-6.12	12	1	6	6	1
(B-15.3)	(300)	(25)	(150)	(150)	(25)
B-6.18	18	1	6	6	1
(B-15.45)	(450)	(25)	(150)	(150)	(25)
B-6.24	24	1	6	6	1
(B-15.60)	(600)	(25)	(150)	(150)	(25)
B-9.12	12	2	5	9	1
(B-22.30)	(300)	(50)	(125)	(225)	(25)
B-9.18	18	2	5	9	1
(B-22.45)	(450)	(50)	(125)	(225)	(25)
B-9.24	24	2	5	9	1
(B-22.60)	(600)	(50)	(125)	(225)	(25)

* For corner islands only.

TABLE OF DIMENSIONS MOUNTABLE CURB						
TYPE	A	B	C	D	R ₁	R ₂
M-2.06	6	2	4	2	3	2
(M-5.15)	(150)	(50)	(100)	(50)	(75)	(50)
M-2.12	12	2	4	2	3	2
(M-5.30)	(300)	(50)	(100)	(50)	(75)	(50)
M-4.06	6	4	3	4	3	NA
(M-10.15)	(150)	(100)	(75)	(100)	(75)	NA
M-4.12	12	4	3	4	3	NA
(M-10.30)	(300)	(100)	(75)	(100)	(75)	NA
M-4.18	18	4	3	4	3	NA
(M-10.45)	(450)	(100)	(75)	(100)	(75)	NA
M-4.24	24	4	3	4	3	NA
(M-10.60)	(600)	(100)	(75)	(100)	(75)	NA
M-6.06	6	6	2	6	2	NA
(M-15.15)	(150)	(150)	(50)	(150)	(50)	NA
M-6.12	12	6	2	6	2	NA
(M-15.30)	(300)	(150)	(50)	(150)	(50)	NA
M-6.18	18	6	2	6	2	NA
(M-15.45)	(450)	(150)	(50)	(150)	(50)	NA
M-6.24	24	6	2	6	2	NA
(M-15.60)	(600)	(150)	(50)	(150)	(50)	NA

GENERAL NOTES

The bottom slope of combination curb and gutter constructed adjacent to pcc pavement shall be the same slope as the subbase or 6% when subbase is omitted.

t = Thickness of pavement.

Longitudinal joint tie bars shall be No. 6 (No. 19) at 36 (900) centers in accordance with details for longitudinal construction joint shown on Standard 420001.

A minimum clearance of 2 (50) between the end of the tie bar and the back of the curb shall be maintained.

The dowel bars shown in contraction joints will only be required for monolithic construction.

See Standard 606301 for details of corner islands.

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

DATE	REVISIONS
1-1-18	Revised General Note for tie bar spacing to 36 (900) cts.
1-1-15	Added B-6.06 (B-15.15) barrier curb and gutter to table (corner islands only).

CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
(Sheet 1 of 2)

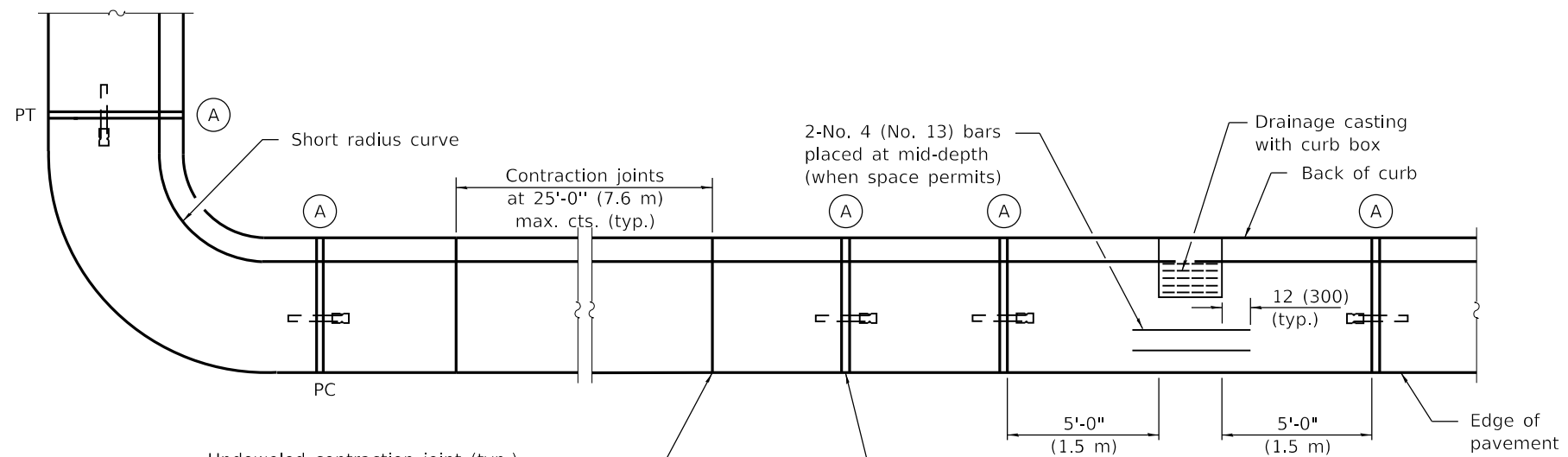
STANDARD 606001-07

Illinois Department of Transportation

PASSED January 1, 2018
Michael Brand
ENGINEER OF POLICY AND PROCEDURES

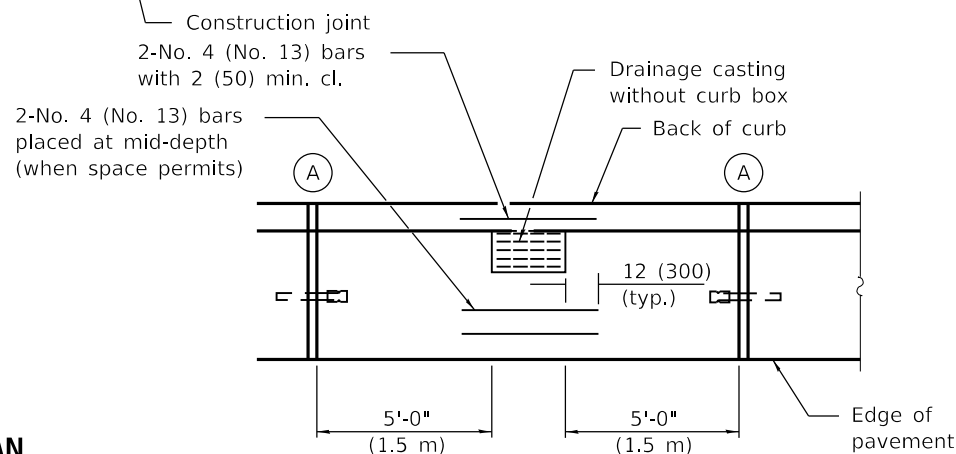
APPROVED January 1, 2018
Maureen M. Beck
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

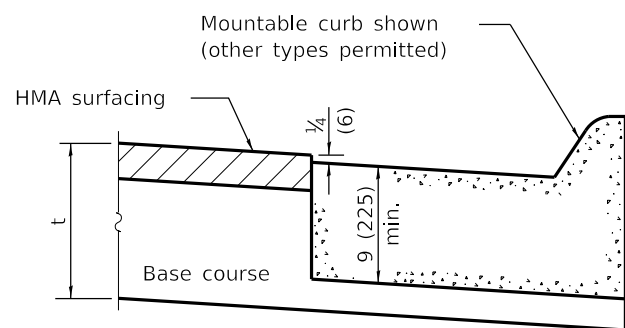


Undoweled contraction joint (typ.) construction options:

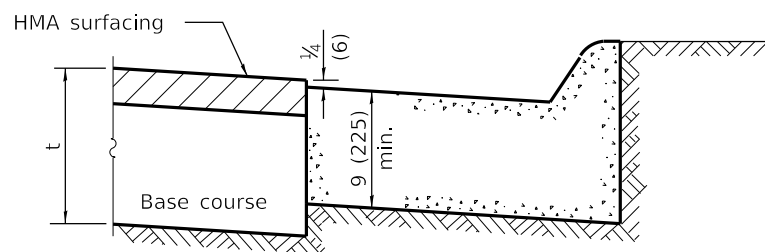
1. Form with 1/8 (3) thick steel template 2 (50) deep, and seal.
2. Saw 2 (50) deep at 4 to 24 hours, and seal.
3. Insert 3/4 (20) thick preformed joint filler full depth and width.



PLAN

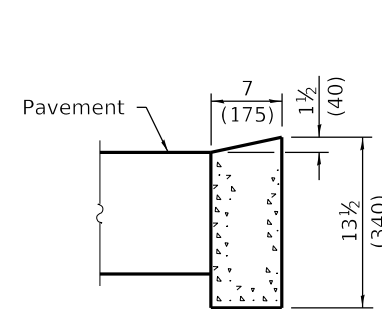


ON DISTURBED SUBGRADE

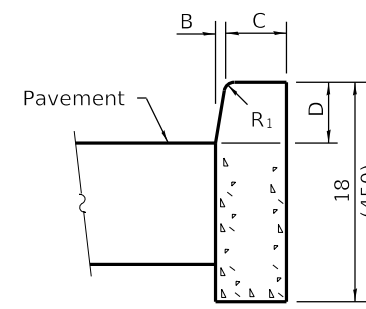


ON UNDISTURBED SUBGRADE

ADJACENT TO FLEXIBLE PAVEMENT

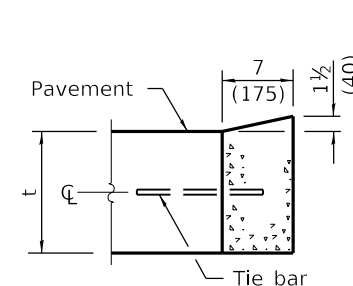


DEPRESSED CURB

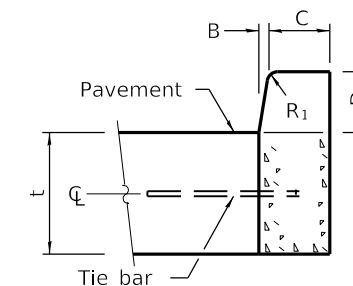


BARRIER CURB

ADJACENT TO FLEXIBLE PAVEMENT



DEPRESSED CURB



BARRIER CURB

ADJACENT TO PCC PAVEMENT OR PCC BASE COURSE

CONCRETE CURB TYPE B

CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER

(Sheet 2 of 2)

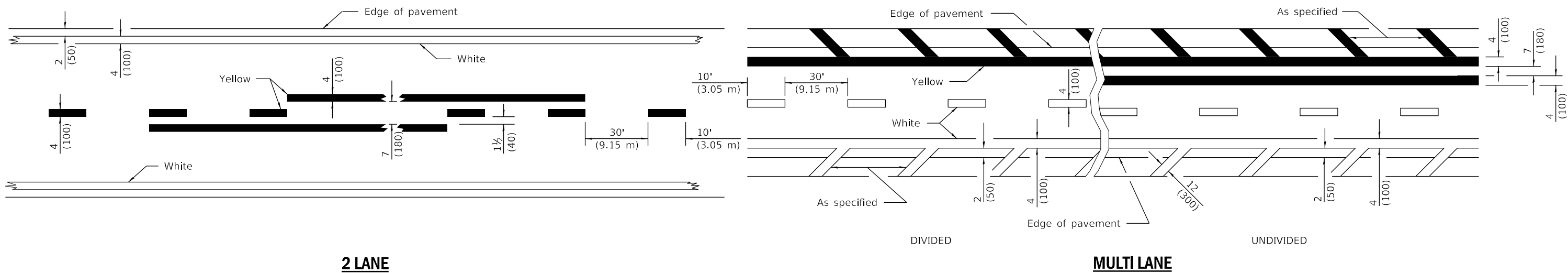
STANDARD 606001-07

Illinois Department of Transportation

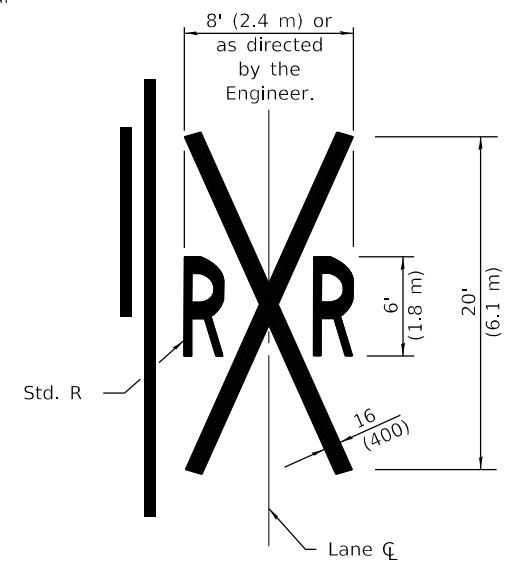
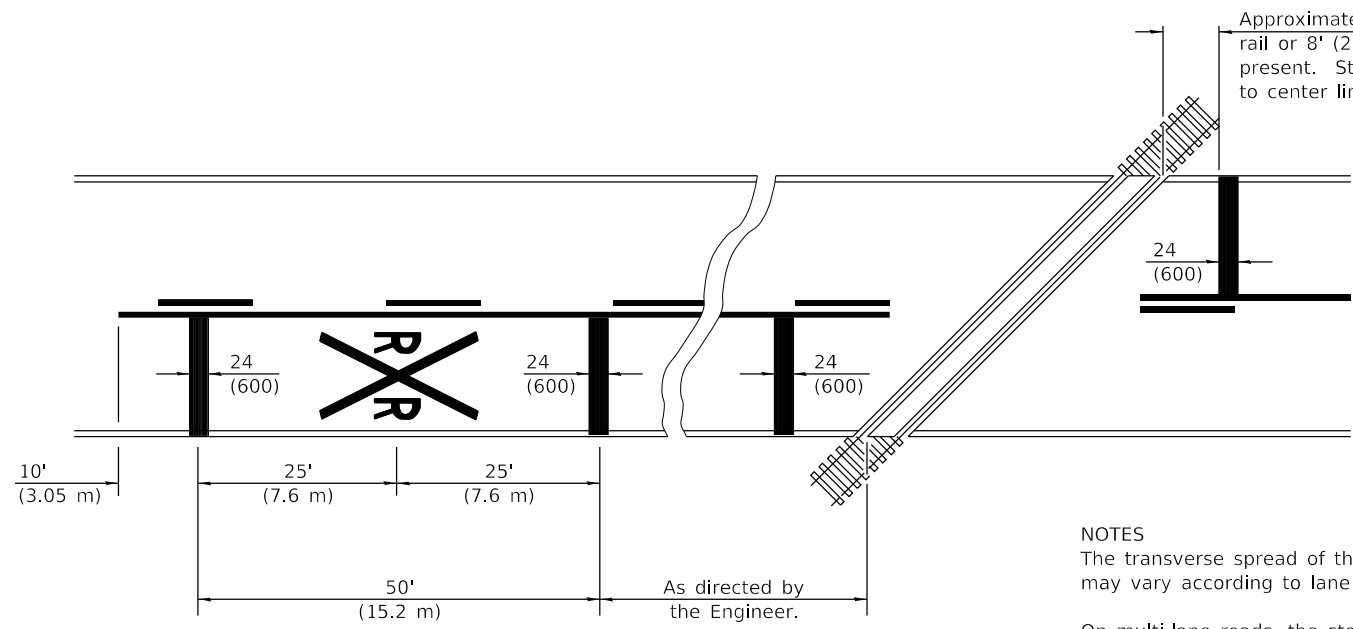
PASSED January 1, 2018
Michael Beard
 ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2018
Marcus M. Beck
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97



LANE AND EDGE LINES



NOTES
 The transverse spread of the "X" may vary according to lane width.
 On multi-lane roads, the stop lines shall extend across all approach lanes and separate RXR symbols shall be placed adjacent to each other in each lane.
 When the pavement marking symbol is used, a portion of the symbol should be located directly adjacent to the Advance Warning Sign (W10-1) as placed by Table 2C-4, Condition B of the MUTCD.

PAVEMENT MARKINGS AT RAILROAD-HIGHWAY GRADE CROSSING

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

DATE	REVISIONS
1-1-15	Added symbols. Revised bike symbol. Revised note for stop line at RR crossing.
1-1-14	Added bike symbol. Renamed 'LANE DROP ARROW' detail to 'LANE-REDUCTION ARROW'.

TYPICAL PAVEMENT MARKINGS

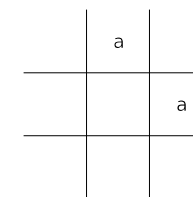
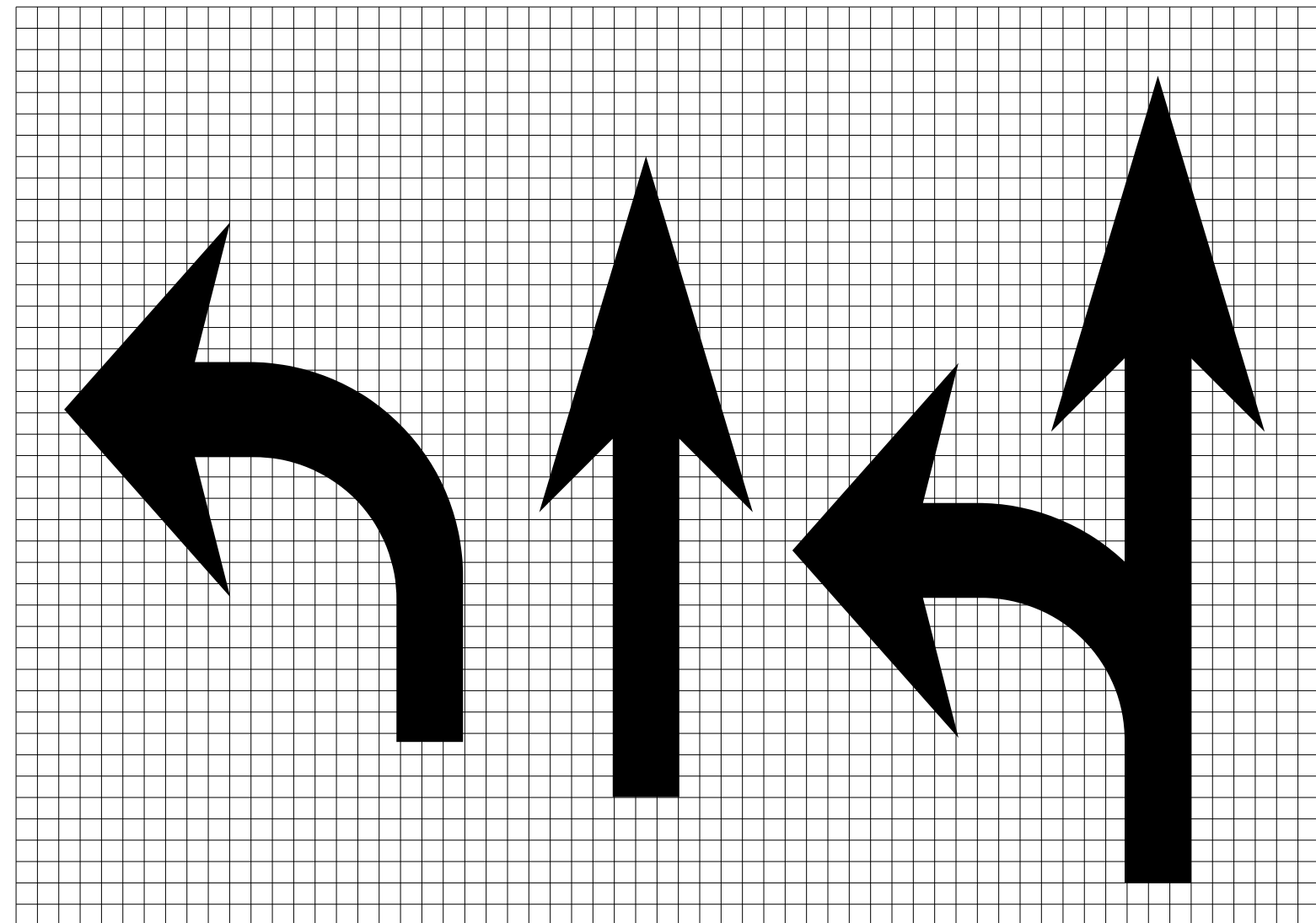
(Sheet 1 of 3)

STANDARD 780001-05

Illinois Department of Transportation

PASSED January 1, 2015
 ENGINEER OF OPERATIONS
 APPROVED January 1, 2015
 ENGINEER OF DESIGN AND ENVIRONMENT


ISSUED 1-1-97



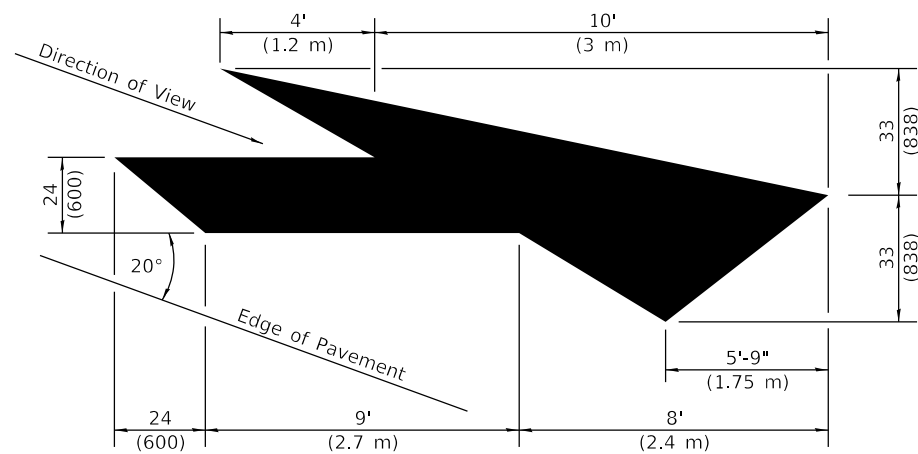
Legend Height	Arrow Size	a
6' (1.8 m)	Small	2.9 (74)
8' (2.4 m)	Large	3.8 (96)

The space between adjacent letters or numerals should be approximately 3 (75) for 6' (1.8 m) legend and 4 (100) for 8' (2.4 m) legend.

LETTER AND ARROW GRID SCALE

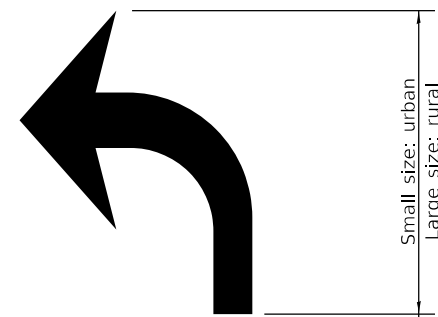

 Illinois Department of Transportation
 PASSED January 1, 2015
Amy Allen
 ENGINEER OF OPERATIONS
 APPROVED January 1, 2015
[Signature]
 ENGINEER OF DESIGN AND ENVIRONMENT
 ISSUED 1-1-97

TYPICAL PAVEMENT MARKINGS
 (Sheet 2 of 3)
STANDARD 780001-05



LANE-REDUCTION ARROW

Right lane-reduction arrow shown.
Use mirror image for left lane.

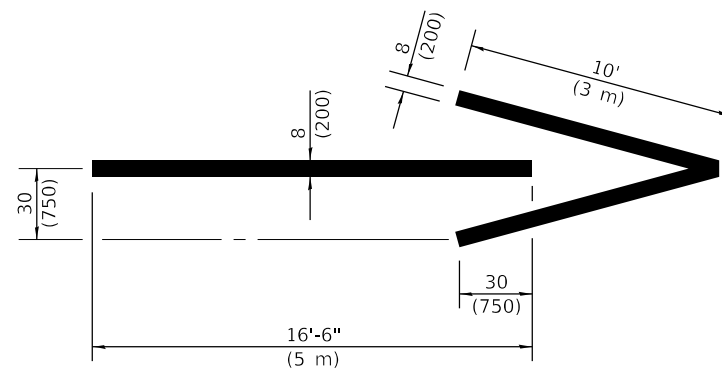


20' (6 m): urban
50' (15 m): rural
(Between arrow
and word or
between words)

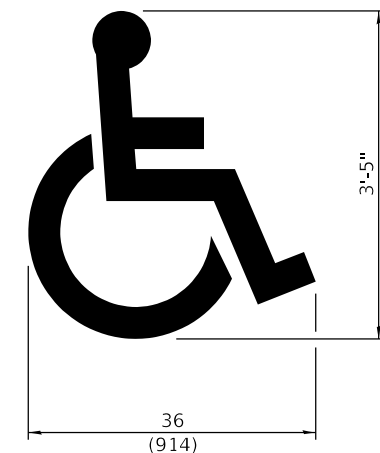
ONLY

6' (1.8 m): urban
8' (2.4 m): rural

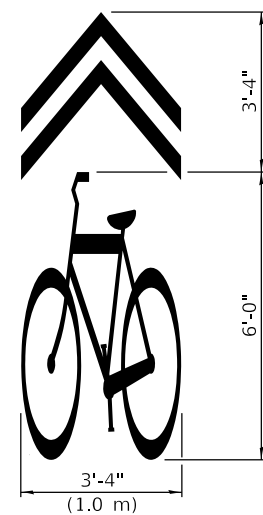
WORD AND ARROW LAYOUT



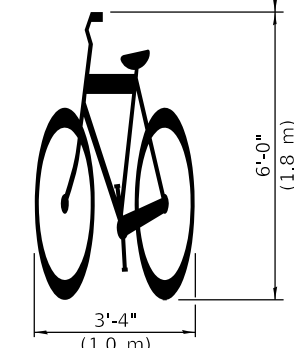
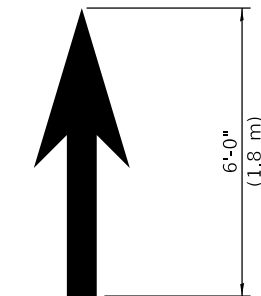
WRONG WAY ARROW



**INTERNATIONAL
SYMBOL OF
ACCESSIBILITY**



**SHARED LANE
SYMBOL**



BIKE SYMBOL
(Arrow is optional.)

Illinois Department of Transportation

PASSED January 1, 2015
Amy Eller
 ENGINEER OF OPERATIONS

APPROVED January 1, 2015
[Signature]
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

**TYPICAL PAVEMENT
MARKINGS**

(Sheet 3 of 3)

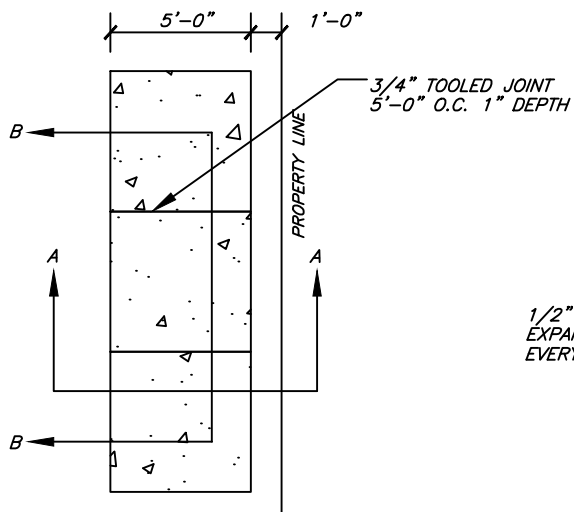
STANDARD 780001-05

ALL CONSTRUCTION MATERIALS AND METHODS SHALL COMPLY WITH THE "STANDARD SPECIFICATION FOR ROAD & BRIDGE CONSTRUCTION" AS ADOPTED BY THE ILLINOIS DEPT. OF TRANSPORTATION UNLESS OTHERWISE SPECIFIED HEREIN

ABSOLUTELY NO CHLORIDE ACCELERANT OR WIRE MESH WILL BE PERMITTED

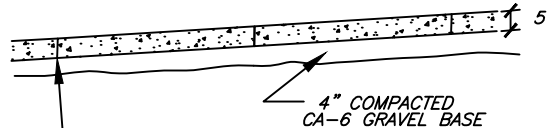
TYPICAL SIDEWALK PLACEMENT IN R.O.W.

PLACE 1/2" PRE-MOLDED EXPANSION JOINT WHERE ABUTTING EXISTING CONC. BOTH SIDES OF UTILITY STRUCTURE @ EVERY 50' O.C.



MAX RUNNING SLOPE = 5% (1:20) OR MATCH EXIST GRADE OF THE STREET

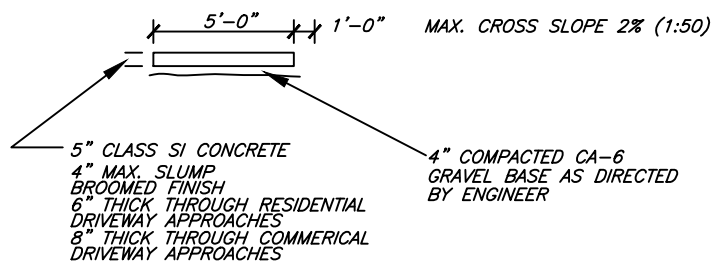
1/2" PREMOULD EXPANSION JOINT EVERY 50 FEET




SECTION B-B

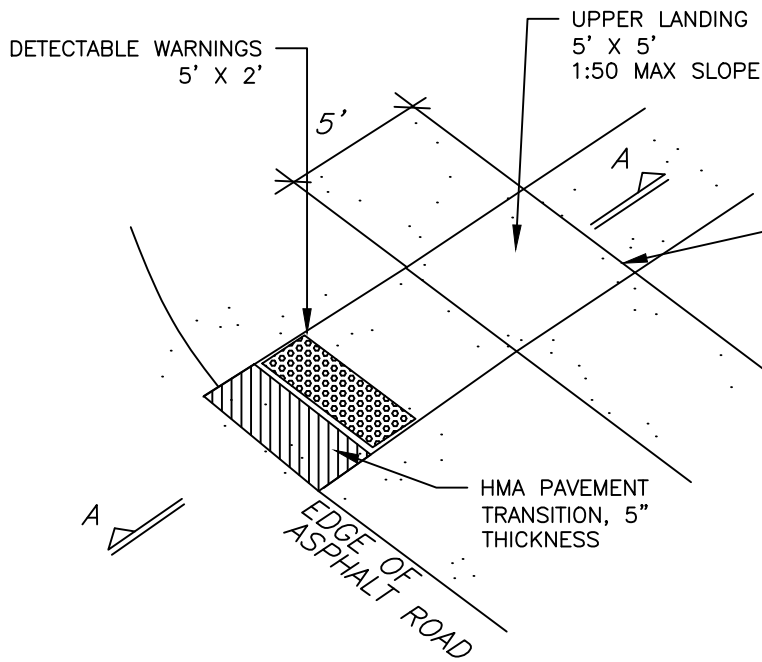
SAW CUT EXISTING CURB PERPENDICULAR TO BACK 6" FROM EDGE OF WALK UNLESS CUT FALLS WITHIN 5' OF EXIST. JOINT, REMOVE TO EXIST. JOINT. FOR FURTHER DETAILS SEE CURB & GUTTER SPECIFICATIONS

BARRICADING
PLACE TYPE II BARRICADES WITH FLASHING LIGHTS ON ALL SIDES OF EXCAVATIONS. MAINTAIN BARRICADES FOR MIN. 72 HRS AFTER PLACEMENT

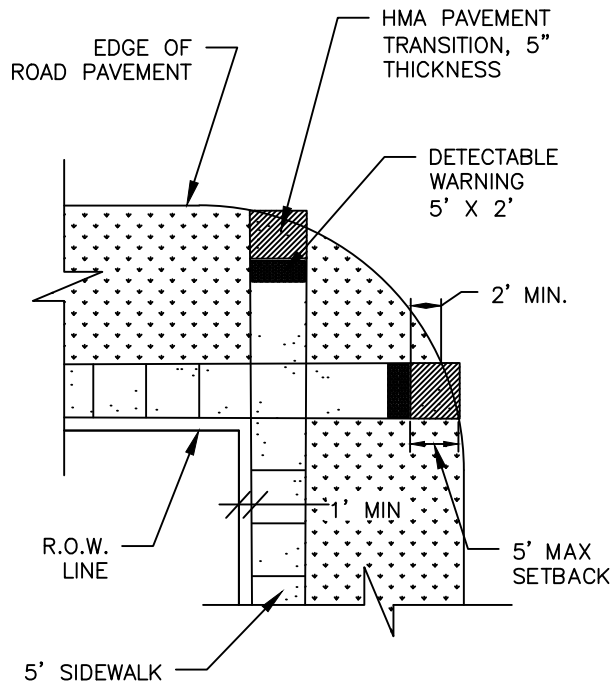


SECTION A-A

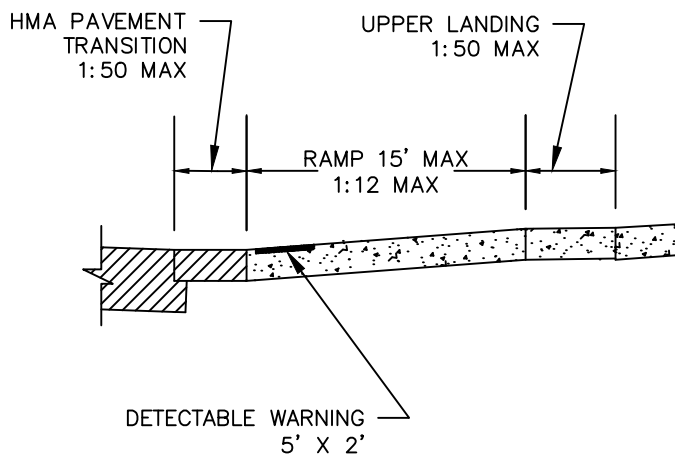
N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	10/10/11		S.A.V.	A.J.S.	<p>PUBLIC SIDEWALK</p>
	05/01/12		T.J.T.	A.J.S.	
	03/01/15		A.J.S.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. SWK-01					
I:\LIBRARY\DETAILS\SIDEWALK\SWK-01					



ISOMETRIC VIEW



PLAN




SECTION A-A

RAMPS SHALL MEET REQUIREMENTS OF IDOT STD. DETAILS FOR CURB RAMPS.


INSERT ADA DETECTABLE WARNING SURFACE TILE AS SPECIFIED. DYED CONCRETE NOT ALLOWED.

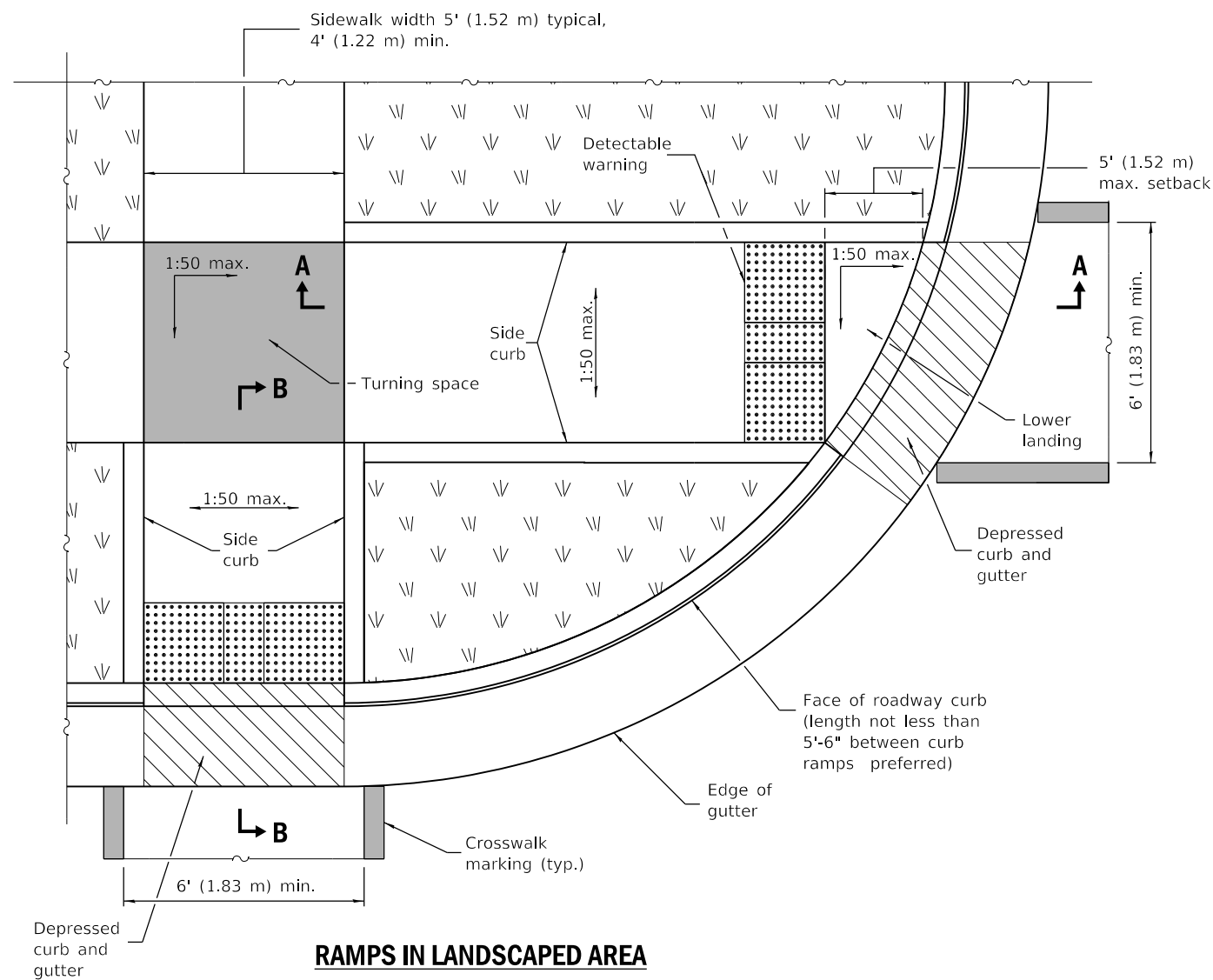
THE TYPE OF DETECTABLE WARNING TILE SHALL BE ARMOR-TILE, ACCESS TILE, OR TUFTILE TACTILE WARNING SYSTEMS.

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	03/25/11		S.A.V.	A.J.S.	A.D.A RAMPS ON NON-CURBED STREETS
	03/26/12		T.J.T.	A.J.S.	
	03/01/15		A.J.S.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO.SWK-03					
I:\LIBRARY\DETAILS\SIDEWALK\SWK-03					

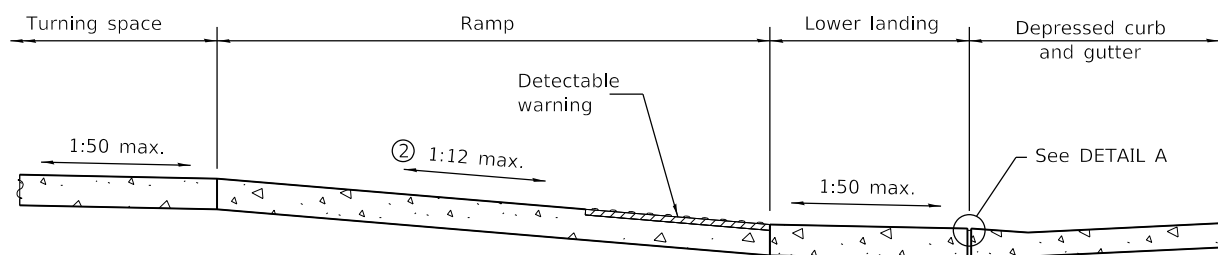
DOWNTOWN BUSINESS DISTRICT SIDEWALK CONSTRUCTION REQUIREMENTS

1. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MOST CURRENT CONSTRUCTION DETAILS FOR THE VILLAGE OF DOWNERS GROVE FOR SIDEWALK (SWK-01 AND SWK-03) AND ILLINOIS DEPARTMENT OF TRANSPORTATION CONSTRUCTION DETAILS FOR CURB RAMPS.
2. ENTIRE CONCRETE SIDEWALK SQUARES AFFECTED BY IMPROVEMENTS SHALL BE REMOVED AND REPLACED AT THE NEAREST JOINT TO MATCH EXISTING SURROUNDING SIDEWALK. PARTIAL SQUARE REPLACEMENT WILL NOT BE ALLOWED. LIMITS OF SIDEWALK IMPROVEMENTS SHALL BE NOTED ON THE PLANS.
3. CONCRETE SIDEWALK SHALL BE COLORED WITH CONCRETE COLORANT, "HARVEST WHEAT" (PRODUCT #U16), SUPPLIED BY BUTTERFIELD COLOR (1-800-282-3388), OR APPROVED EQUAL. CONCRETE COLORANT SHALL BE APPROVED BY THE ENGINEER BEFORE USE.
4. ALL PIPES, CONDUITS, OR OTHER MATERIALS SHALL BE DISTRIBUTED ALONG RIGHT-OF-WAY IN A MANNER TO MINIMIZE HAZARDS TO PUBLIC, MINIMIZE OBSTACLES, AND TO NOT CAUSE DAMAGE TO EXISTING RIGHT-OF-WAY TREES OR OTHER ITEMS.
5. A TRAFFIC CONTROL AND PEDESTRIAN PROTECTION PLAN THAT MEETS ALL APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS SHALL BE SUBMITTED AND APPROVED BY THE VILLAGE OF DOWNERS GROVE PRIOR TO THE START OF CONSTRUCTION.
6. TYPE II BARRICADES WITH FLASHING LIGHTS SHALL BE PLACED ON ALL SIDES OF EXCAVATIONS AND MUST BE MAINTAINED FOR A MINIMUM OF 72 HOURS AFTER PLACEMENT OF NEW CONCRETE.
7. ALL WORK SHALL BE PHASED TO MINIMIZE INTERFERENCE WITH PEDESTRIAN AND VEHICLE TRAFFIC.

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	01/01/17		N.R.H.	J.M.W.	DOWNTOWN BUSINESS DISTRICT PUBLIC SIDEWALK REQUIREMENTS
	01/01/18		N.R.H.	J.M.W.	
	05/07/18		N.R.H.	J.M.W.	
DRAWING NO. SWK-08					
I:\LIBRARY\DETAILS\SIDEWALK\SWK-08					

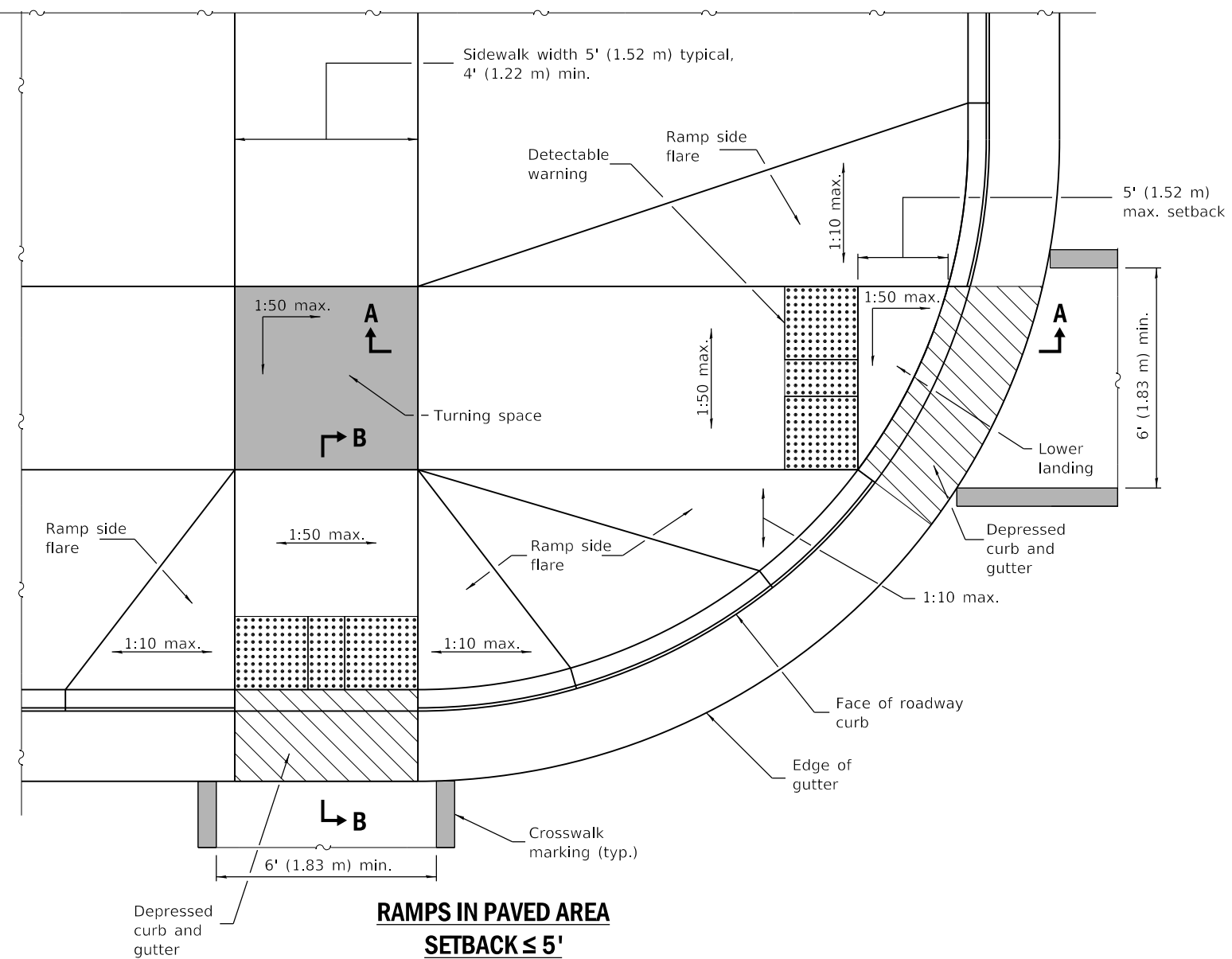


**RAMPS IN LANDSCAPED AREA
SETBACK ≤ 5'**

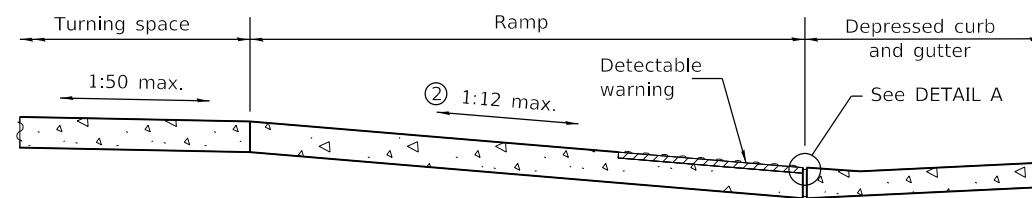


SECTION A-A

② The running slope of the curb ramp shall not require the ramp length to exceed 15' (4.5 m).

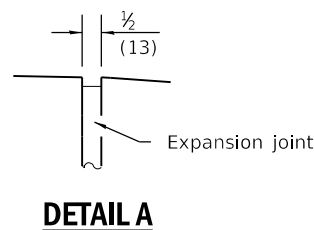


**RAMPS IN PAVED AREA
SETBACK ≤ 5'**

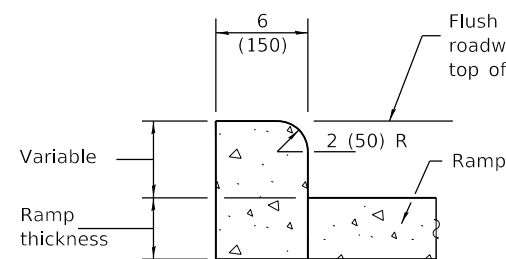


SECTION B-B

② The running slope of the curb ramp shall not require the ramp length to exceed 15' (4.5 m).



DETAIL A



SIDE CURB DETAIL

See Sheet 2 for GENERAL NOTES.

DATE	REVISIONS
1-1-18	Omitted diagonal slope at turning spaces and lower landings.
1-1-17	Added 2' dimension to det. warnings for setbacks greater than 5'.

**PERPENDICULAR CURB RAMPS
FOR SIDEWALKS**

(Sheet 1 of 2)

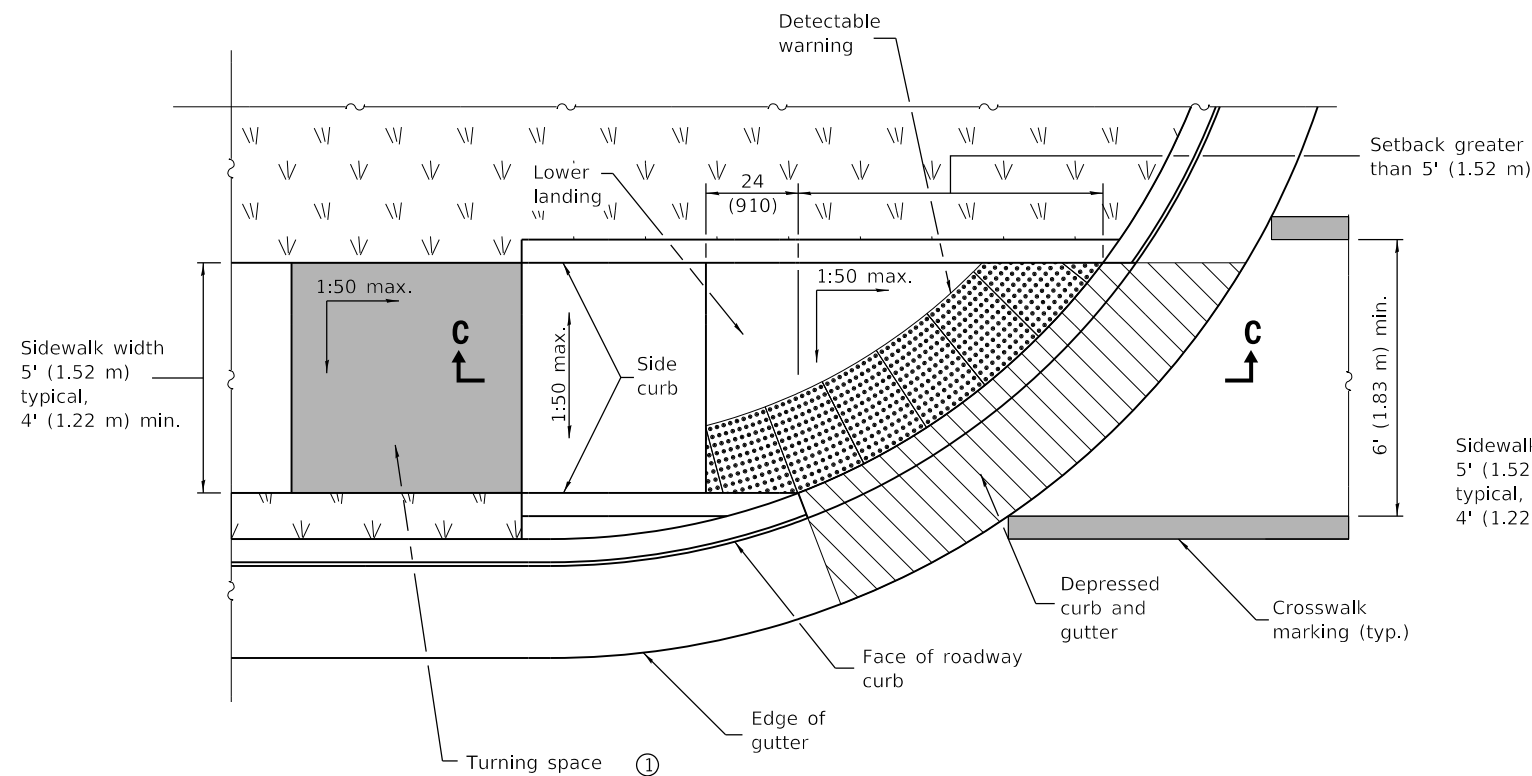
STANDARD 424001-10

Illinois Department of Transportation

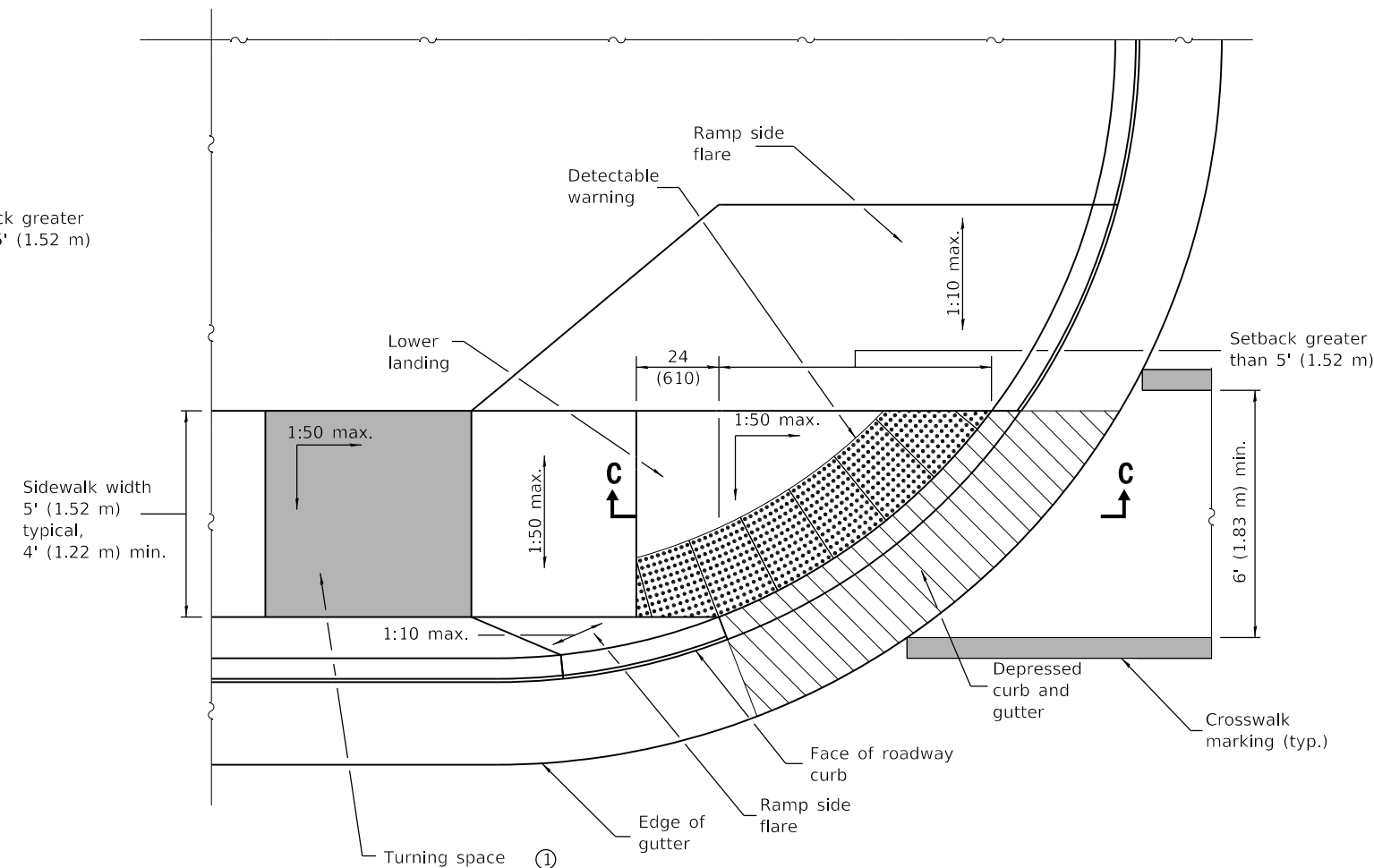
PASSED January 1, 2018
Michael Beard
 ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2018
Marcus M. Beck
 ENGINEER OF DESIGN AND ENVIRONMENT

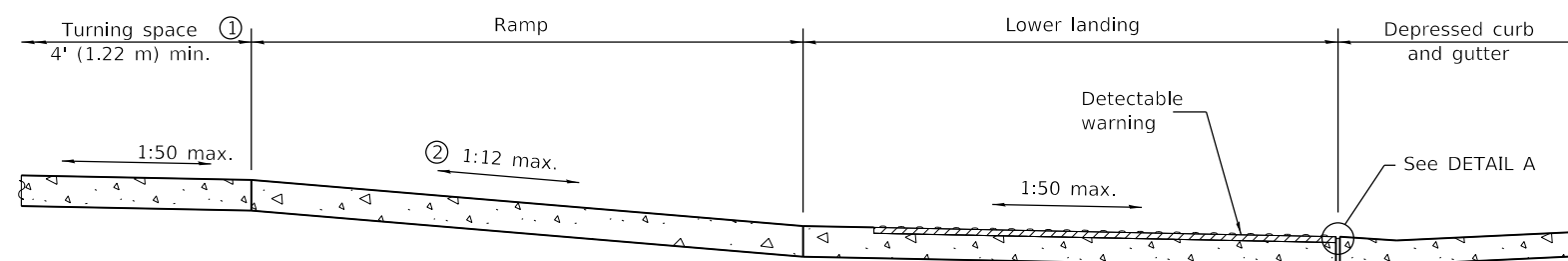
ISSUED 1-1-97



**RAMP IN LANDSCAPED AREA
SETBACK > 5'**



**RAMP IN PAVED AREA
SETBACK > 5'**



SECTION C-C

- ① Turning space not required for ramp slopes flatter than 1:20.
- ② The running slope of the curb ramp shall not require the ramp length to exceed 15' (4.5 m).

GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

Where the turning space is constrained on a side opposite a ramp, the minimum length of the turning space in the direction of the ramp-run shall be 5' (1.52 m).

Where 1:50 maximum slope is shown, 1:64 is preferred.

See Standard 606001 for details of depressed curb adjacent to curb ramp.

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

**PERPENDICULAR CURB RAMPS
FOR SIDEWALKS**

(Sheet 2 of 2)

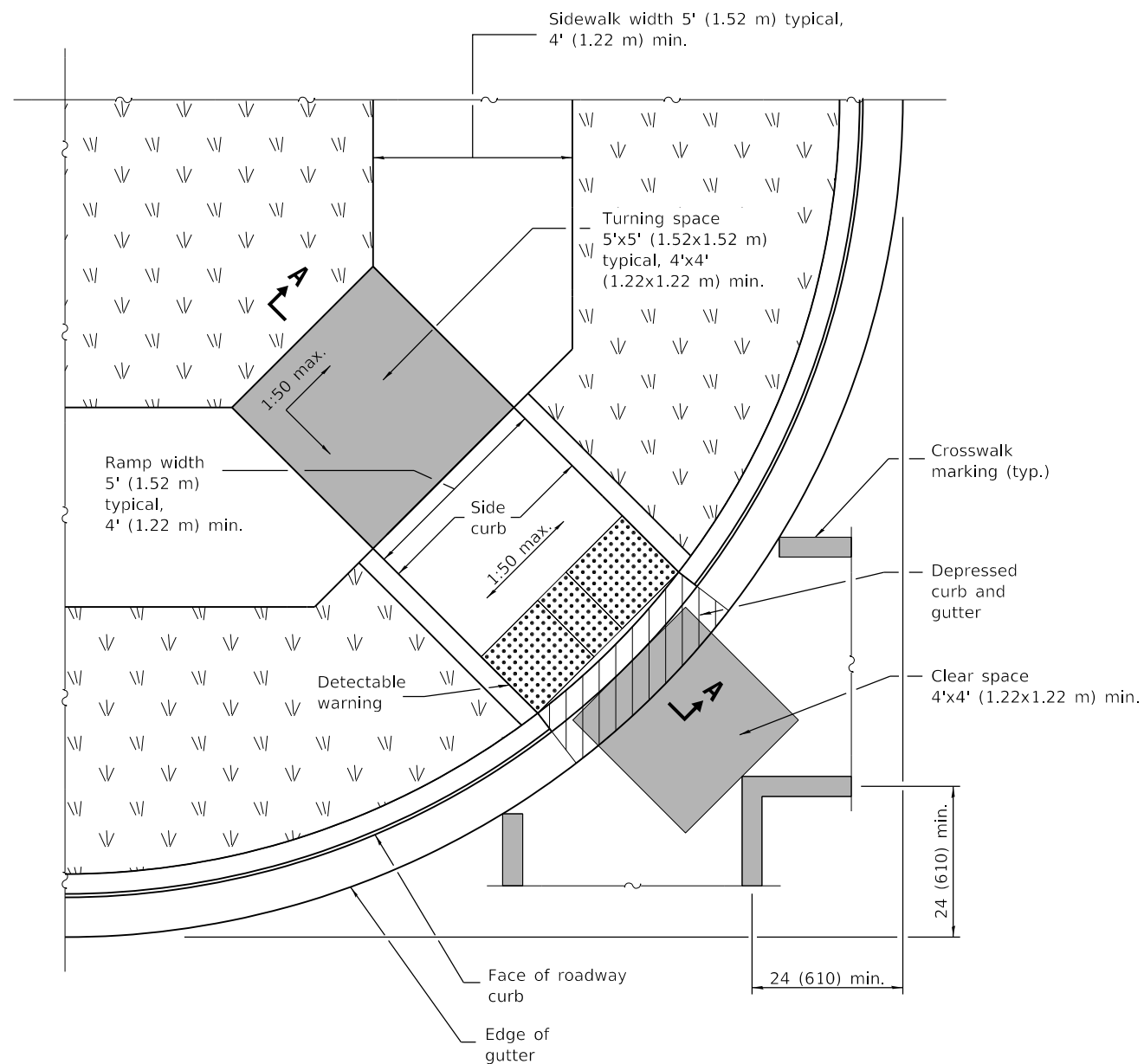
STANDARD 424001-10

Illinois Department of Transportation

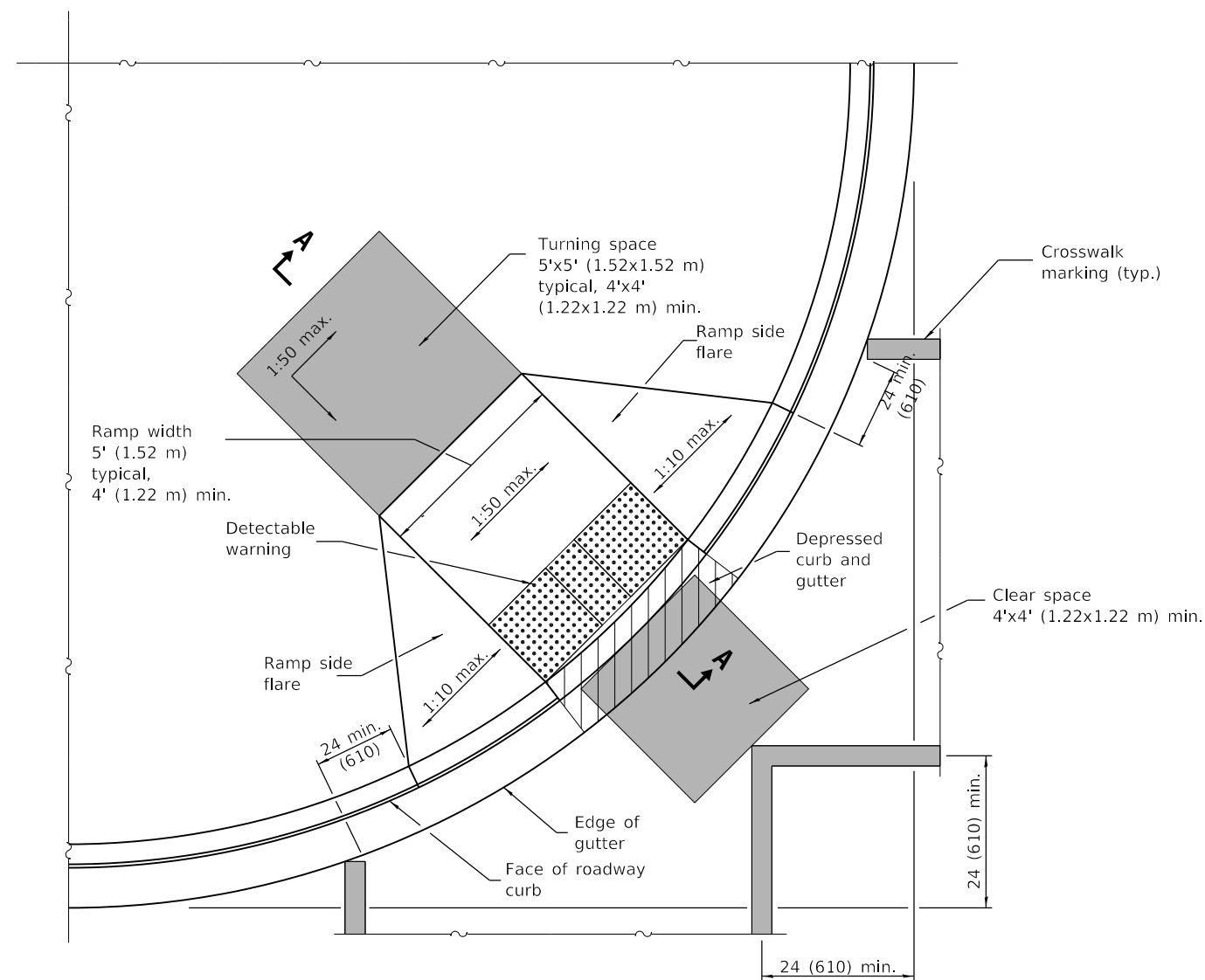
PASSED January 1, 2018
Michael Beard
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2018
Marcus M. Adams
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97



RAMP IN LANDSCAPED AREA



RAMP IN PAVED AREA

GENERAL NOTES

This Standard shall only be used for curb radii of 20 ft. (6.1 m) or greater.

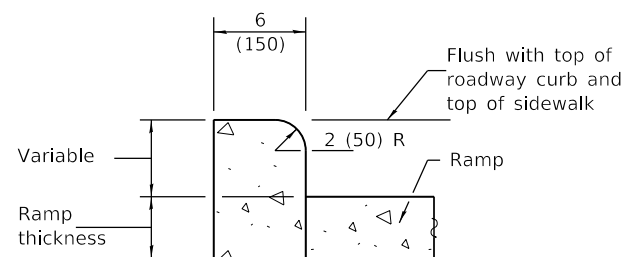
Where the turning space is constrained on a side opposite a ramp, the minimum length of the turning space in the direction of the ramp-run shall be 5' (1.52 m).

Where 1:50 maximum slope is shown, 1:64 is preferred.

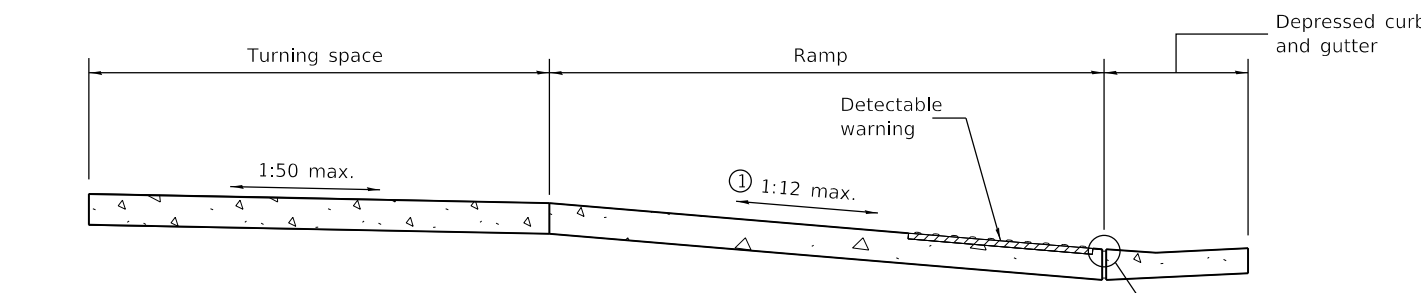
All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

See Standard 606001 for details of depressed curb adjacent to curb ramp.

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

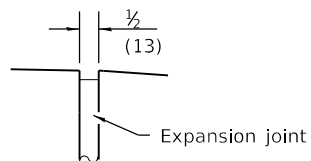


SIDE CURB DETAIL



SECTION A-A

① The running slope of the curb ramp shall not require the ramp length to exceed 15' (4.5 m).



DETAIL A

DATE	REVISIONS
1-1-18	Omitted diagonal slope at turning spaces.
1-1-15	Changed 'Upper landing' to 'Turning space'. Added note reg. const. turning space.

DIAGONAL CURB RAMPS FOR SIDEWALKS

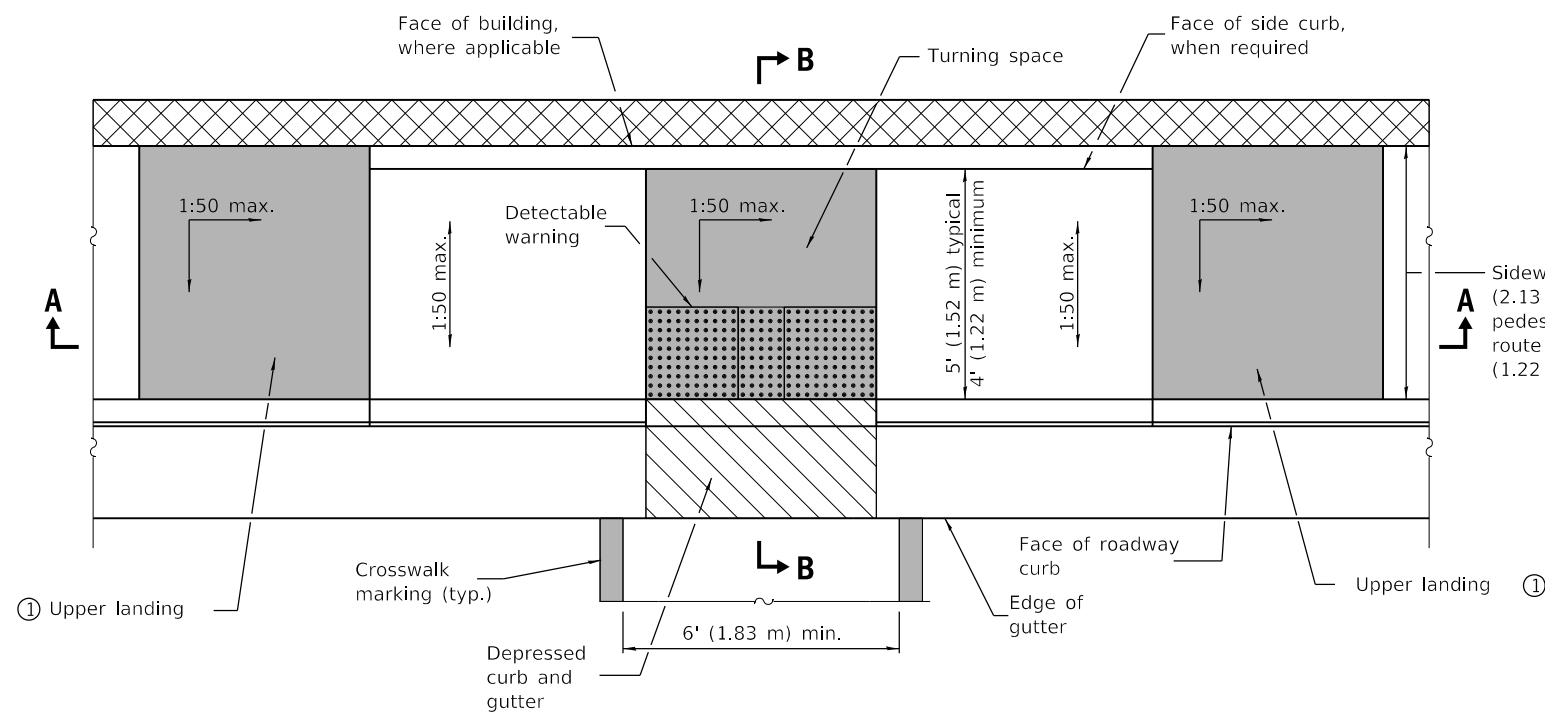
STANDARD 424006-03

Illinois Department of Transportation

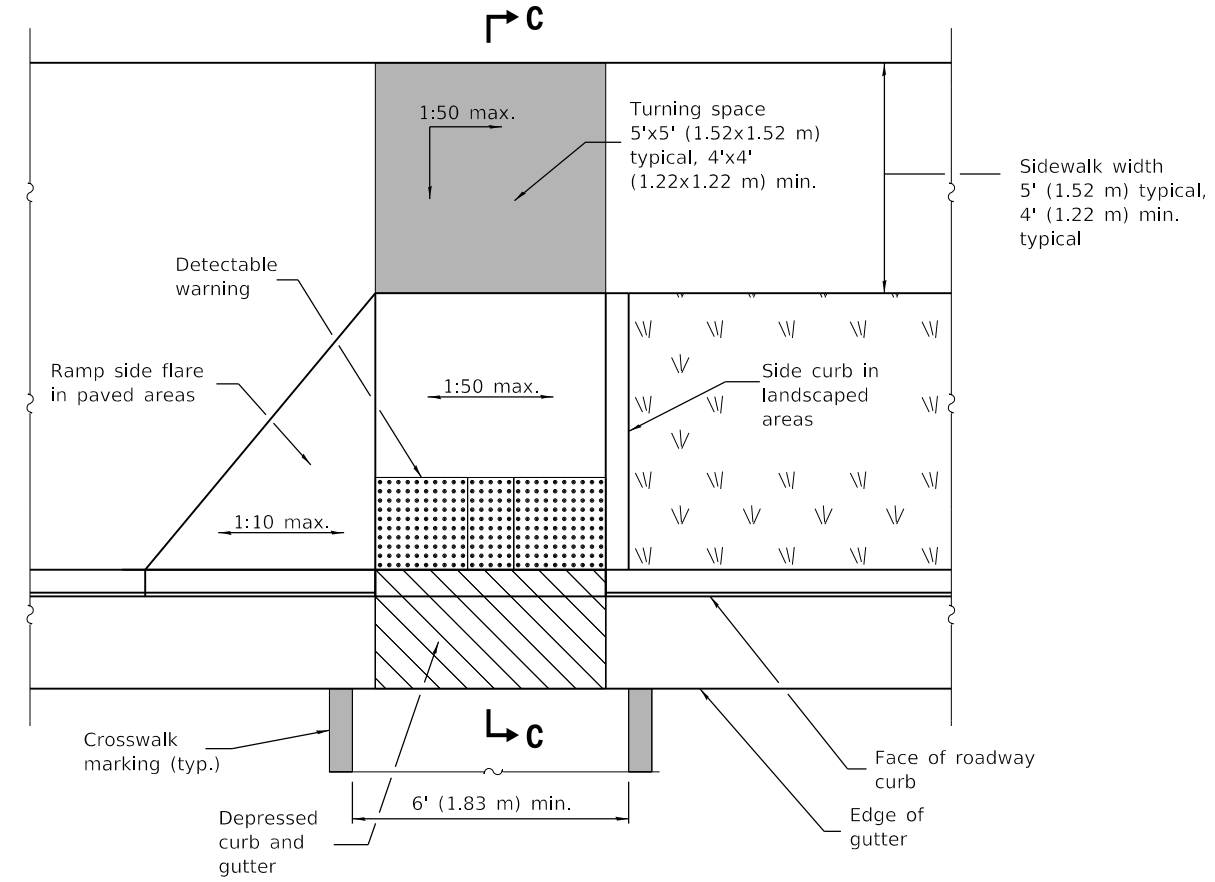
PASSED January 1, 2018
Michael Beard
 ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2018
Marcus M. Beck
 ENGINEER OF DESIGN AND ENVIRONMENT

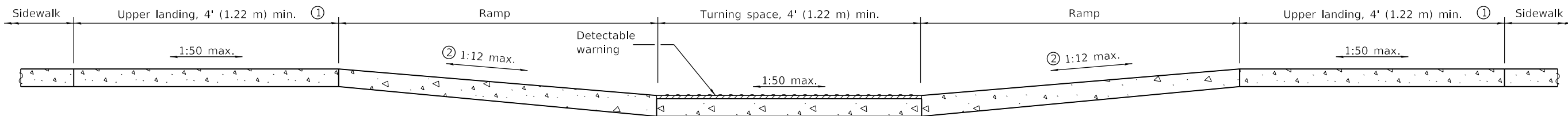
ISSUED 1-1-12



PARALLEL MID-BLOCK CURB RAMP

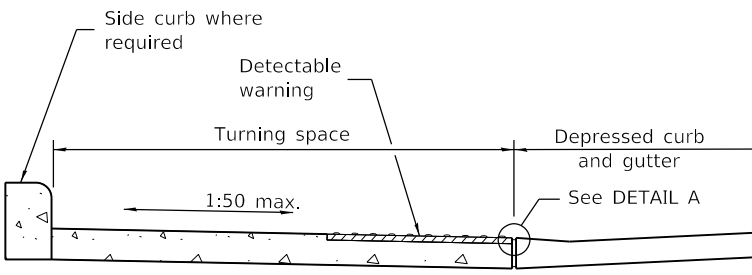


PERPENDICULAR MID-BLOCK CURB RAMP

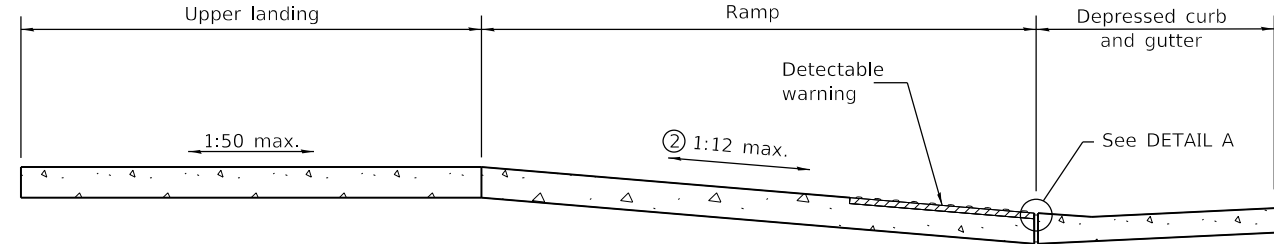


SECTION A-A

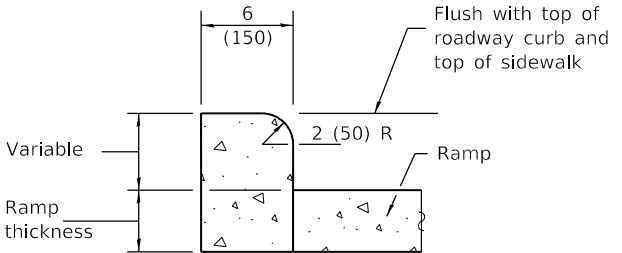
- ① Upper landing(s) not required for ramp slopes flatter than 1:20.
- ② The running slope of the curb ramp shall not require the ramp length to exceed 15' (4.5 m).



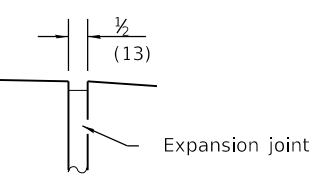
SECTION B-B



SECTION C-C



SIDE CURB DETAIL



DETAIL A

GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

Where the turning space is constrained on a side opposite a ramp, the minimum length of the turning space in the direction of the ramp-run shall be 5' (1.52 m).

Where 1:50 maximum slope is shown, 1:64 is preferred.

See Standard 606001 for details of depressed curb adjacent to curb ramp.

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

DATE	REVISIONS
1-1-18	Omitted diagonal slope at turning spaces and upper landings.
1-1-17	Revised sidewalk width to include 24 (610) buffer behind curb.

MID-BLOCK CURB RAMPS FOR SIDEWALKS

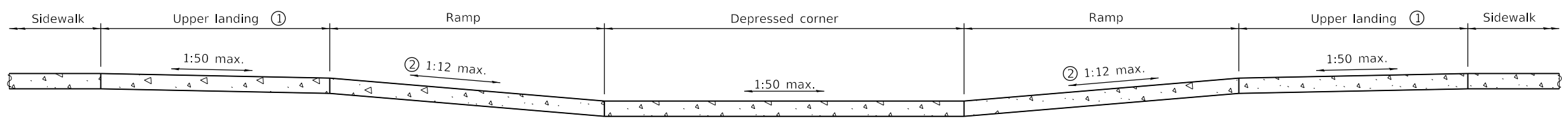
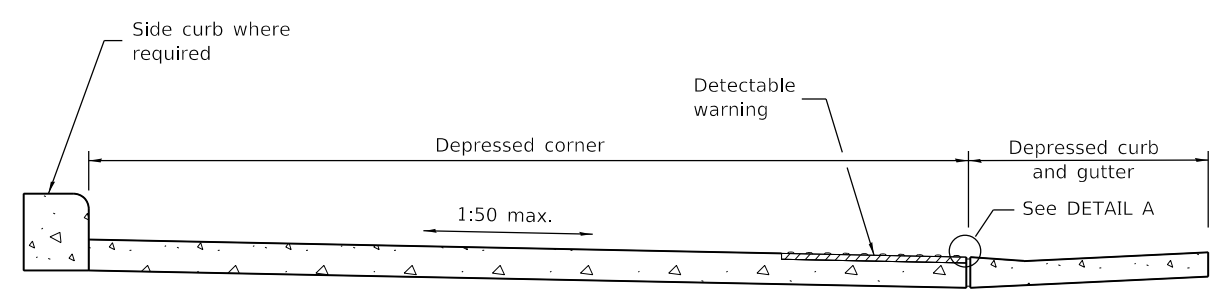
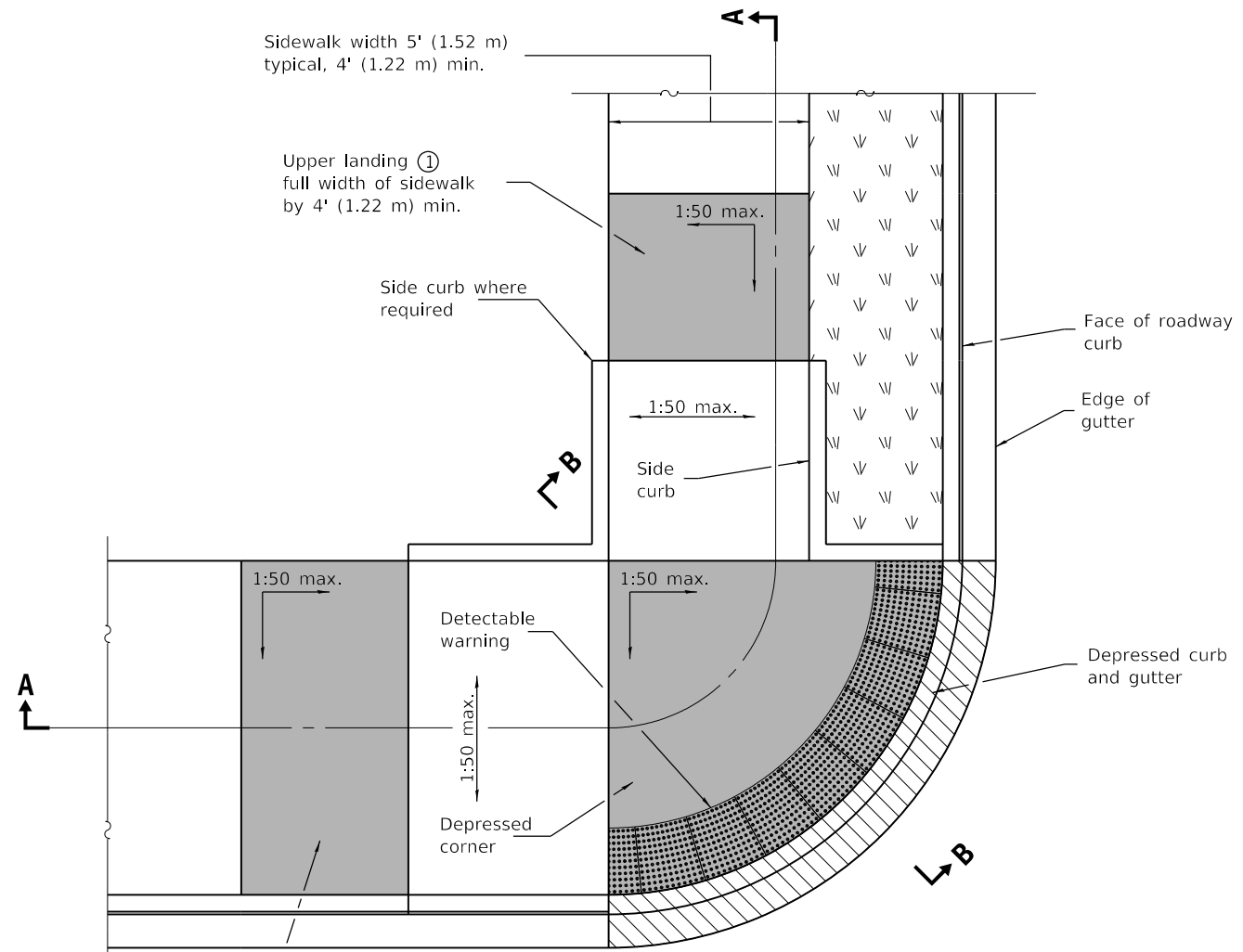
STANDARD 424016-04

Illinois Department of Transportation

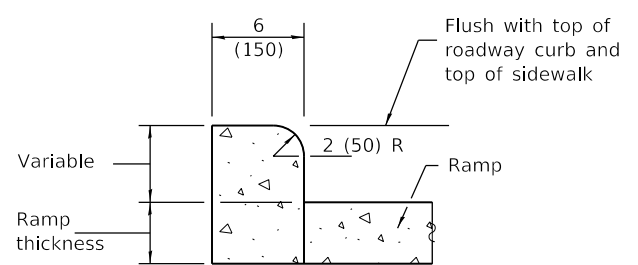
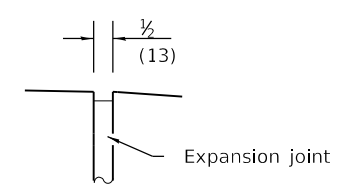
PASSED January 1, 2018
Michael Beard
 ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2018
Marcus M. Beck
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-12



- ① Upper landing(s) not required for ramp slopes flatter than 1:20.
- ② The running slope of the curb ramp shall not require the ramp length to exceed 15' (4.5 m).



GENERAL NOTES

This standard shall only be used for curb radii of 6 ft. (1.83 m) or greater.

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

Where 1:50 maximum slope is shown, 1:64 is preferred.

See Standard 606001 for details of depressed curb adjacent to curb ramp.

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

DATE	REVISIONS
1-1-18	Omitted diagonal slope at turning spaces and upper landings.
1-1-15	Added note ②.

DEPRESSED CORNER FOR SIDEWALKS

STANDARD 424021-04

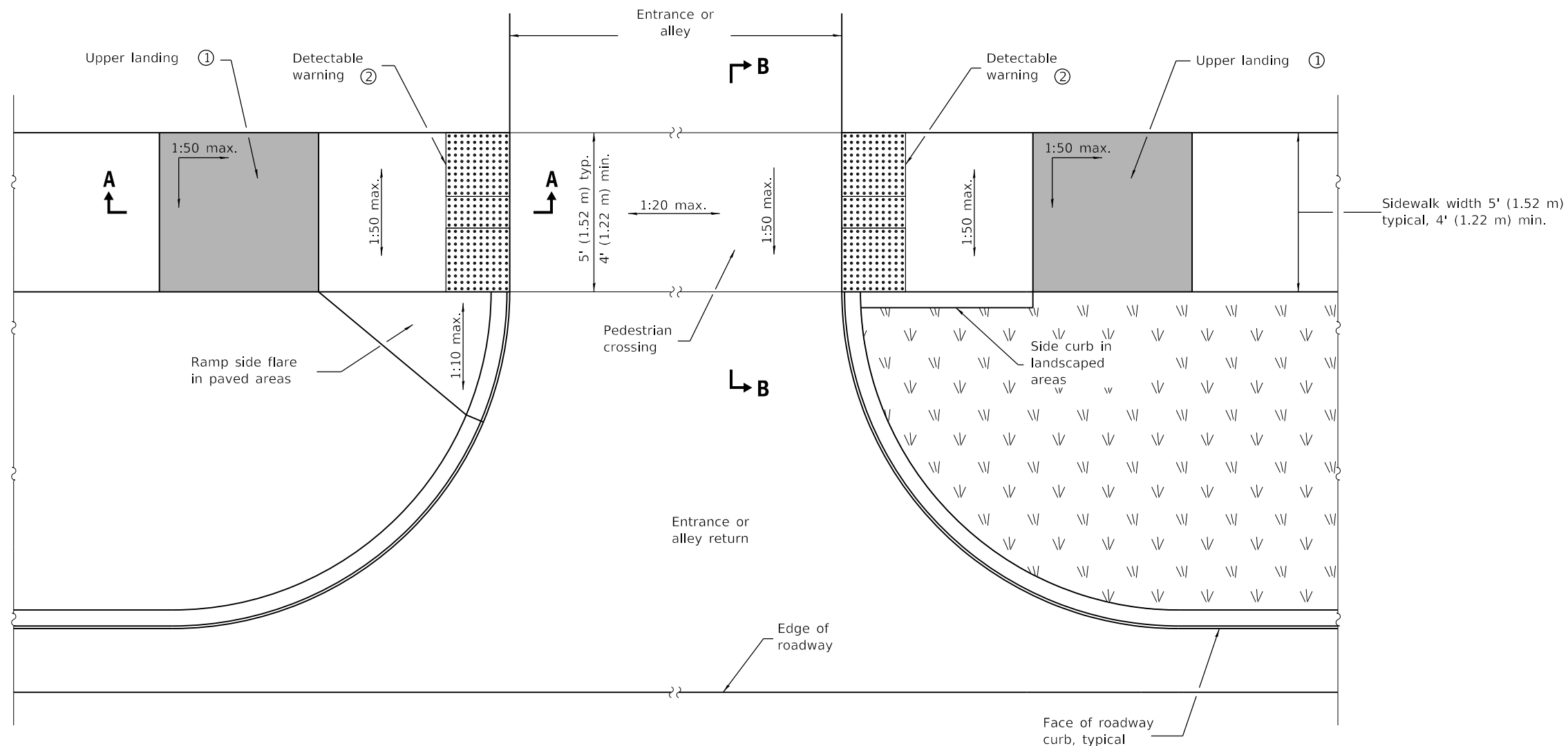
Illinois Department of Transportation

PASSED January 1, 2018
Michael Beard
 ENGINEER OF POLICY AND PROCEDURES

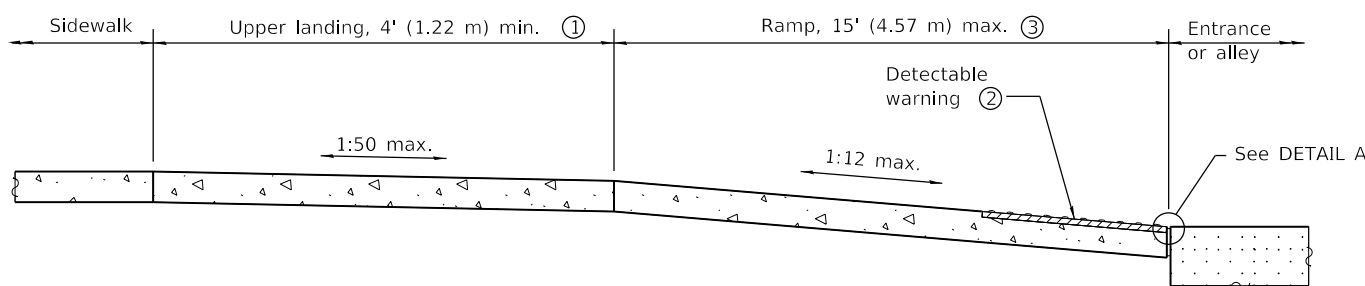
APPROVED January 1, 2018
Marcus M. Beck
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-12

- ② Detectable warning shall only be installed at entrances/alleys with permanent traffic control devices (i.e. stop signs, signals).
- ③ Where possible, maintain the grade of the sidewalk across the entrance/alley to avoid the need for ramps and upper landings.

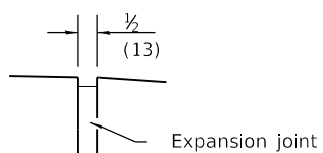


ENTRANCE / ALLEY PEDESTRIAN CROSSING

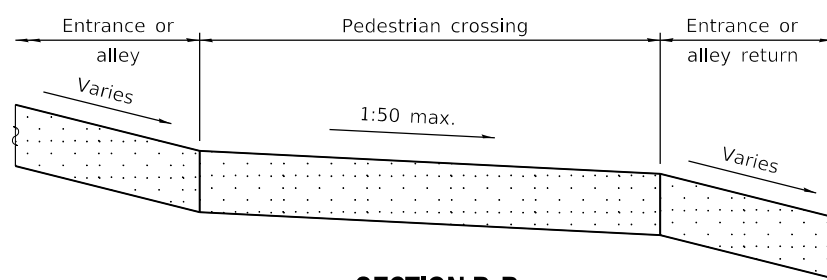


SECTION A-A

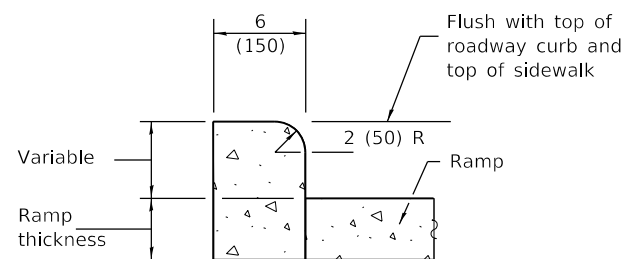
① Upper landing not required for ramp slopes flatter than 1:20.



DETAIL A



SECTION B-B



SIDE CURB DETAIL

GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

Where 1:50 maximum slope is shown, 1:64 is preferred.

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

DATE	REVISIONS
1-1-18	Omitted diagonal slope at upper landings.
1-1-13	Revised General Notes.

ENTRANCE / ALLEY PEDESTRIAN CROSSINGS

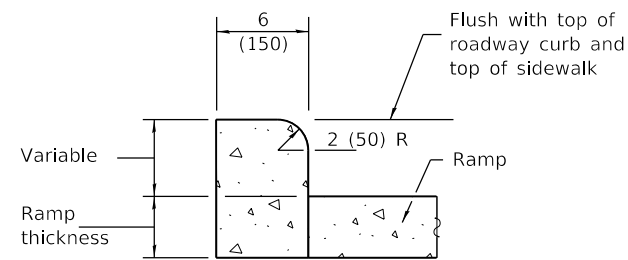
STANDARD 424026-02

Illinois Department of Transportation

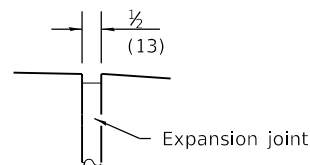
APPROVED January 1, 2018
Michael Beard
 ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2018
Marcus M. Beck
 ENGINEER OF DESIGN AND ENVIRONMENT

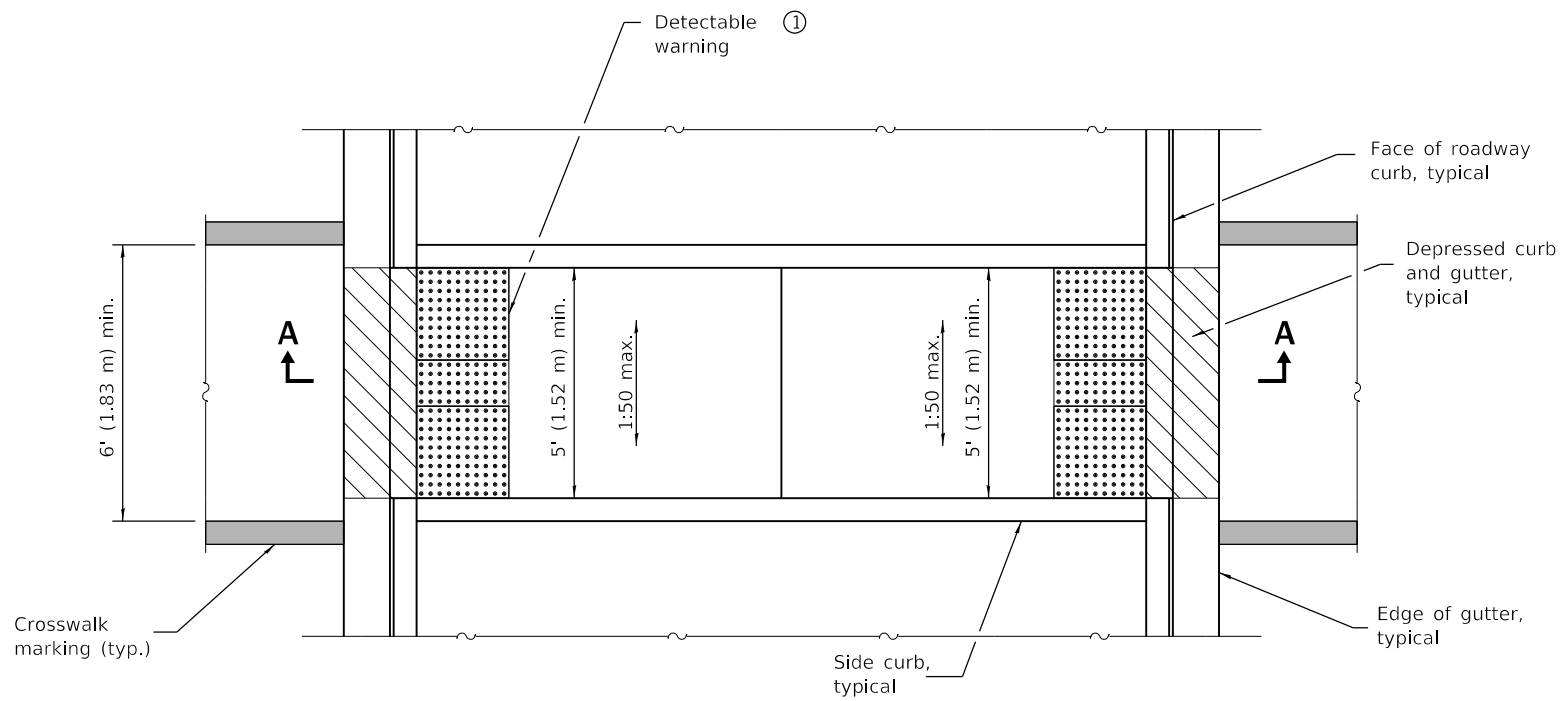
ISSUED 1-1-12



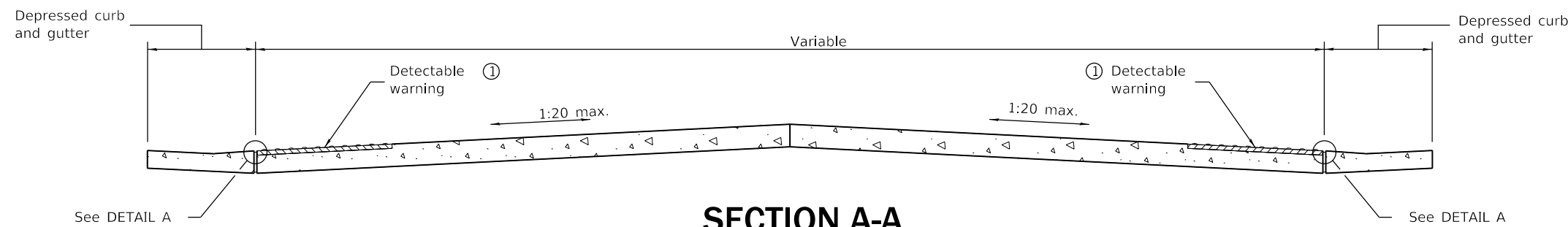
SIDE CURB DETAIL



DETAIL A



MEDIAN PEDESTRIAN CROSSING



SECTION A-A

① Omit detectable warnings when distance between back of curbs is less than 6' (1.83 m).

GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

Where 1:50 maximum slope is shown, 1:64 is preferred.

See Standard 606001 for details of depressed curb adjacent to curb ramp.

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

DATE	REVISIONS
1-1-12	Widened crosswalk to 6' (1.83 m) min. inside dimension.
	Revised General Notes.
1-1-12	New standard.

MEDIAN PEDESTRIAN CROSSINGS

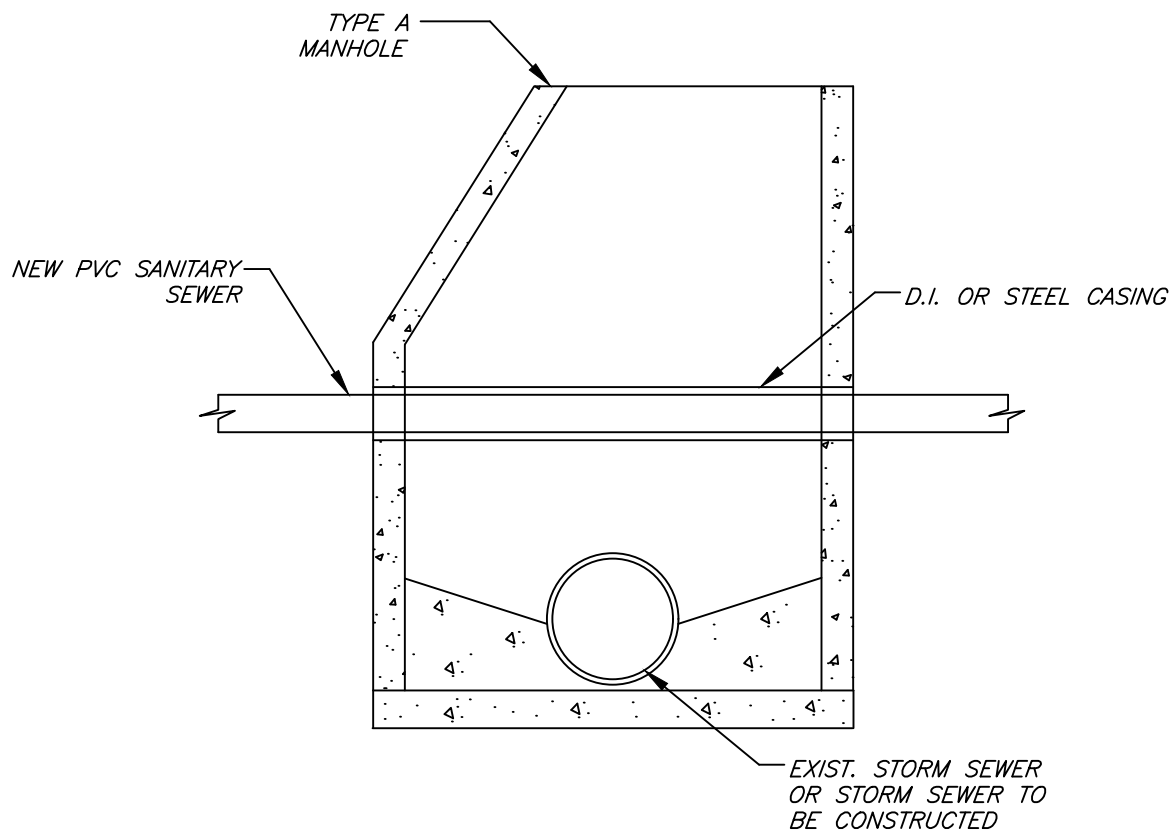
STANDARD 424031-01

Illinois Department of Transportation

PASSED January 1, 2013
Michael Beard
 ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2013
[Signature]
 ENGINEER OF DESIGN AND ENVIRONMENT

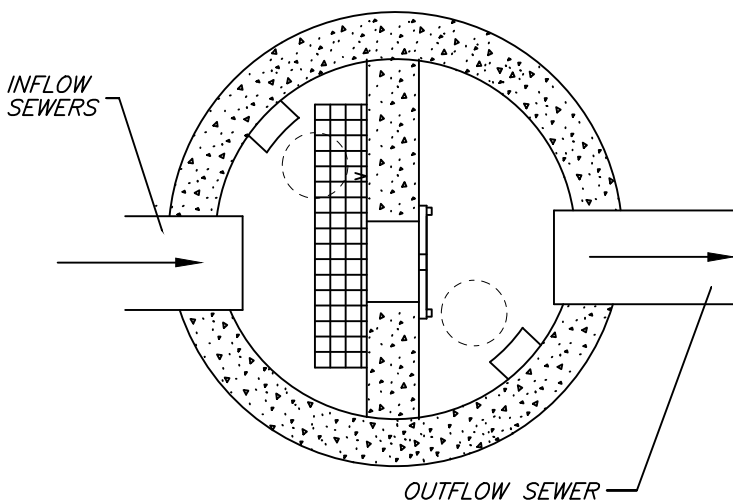
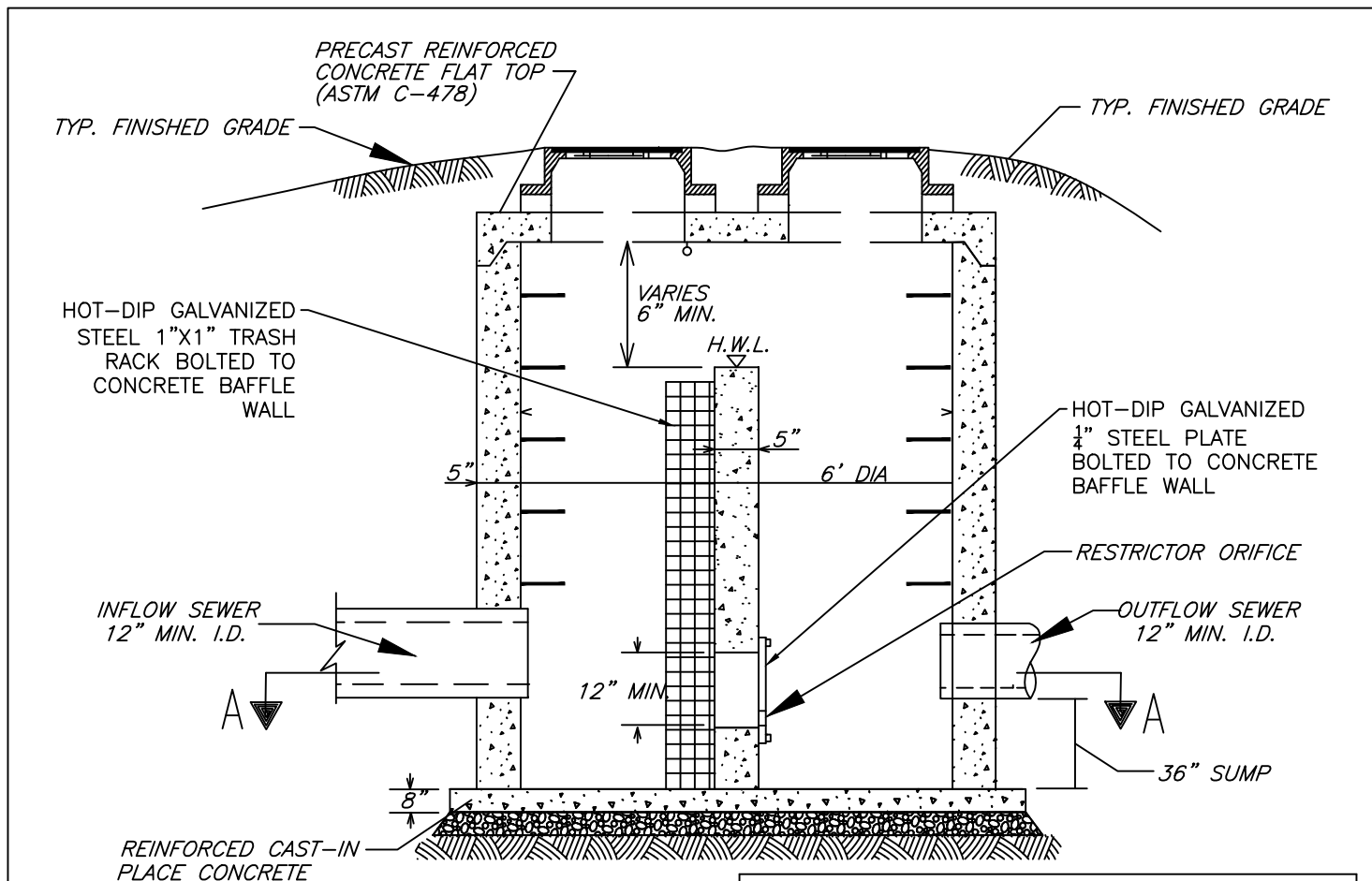
ISSUED 1-1-12



GENERAL NOTES

1. NEW PVC SANITARY SEWER TO BE ASTM 2241.
2. HOLES FOR SANITARY CASING AND MAIN TO BE CORED INTO STRUCTURE WALLS & RESTORED WITH HYDRAULIC CEMENT.

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	03/25/11		S.A.V.	A.J.S.	<p>CONFLICT MANHOLE (SANITARY)</p>
	03/01/15		S.A.V.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. STM-02					
I:\LIBRARY\DETAILS\STORM\STM-02					



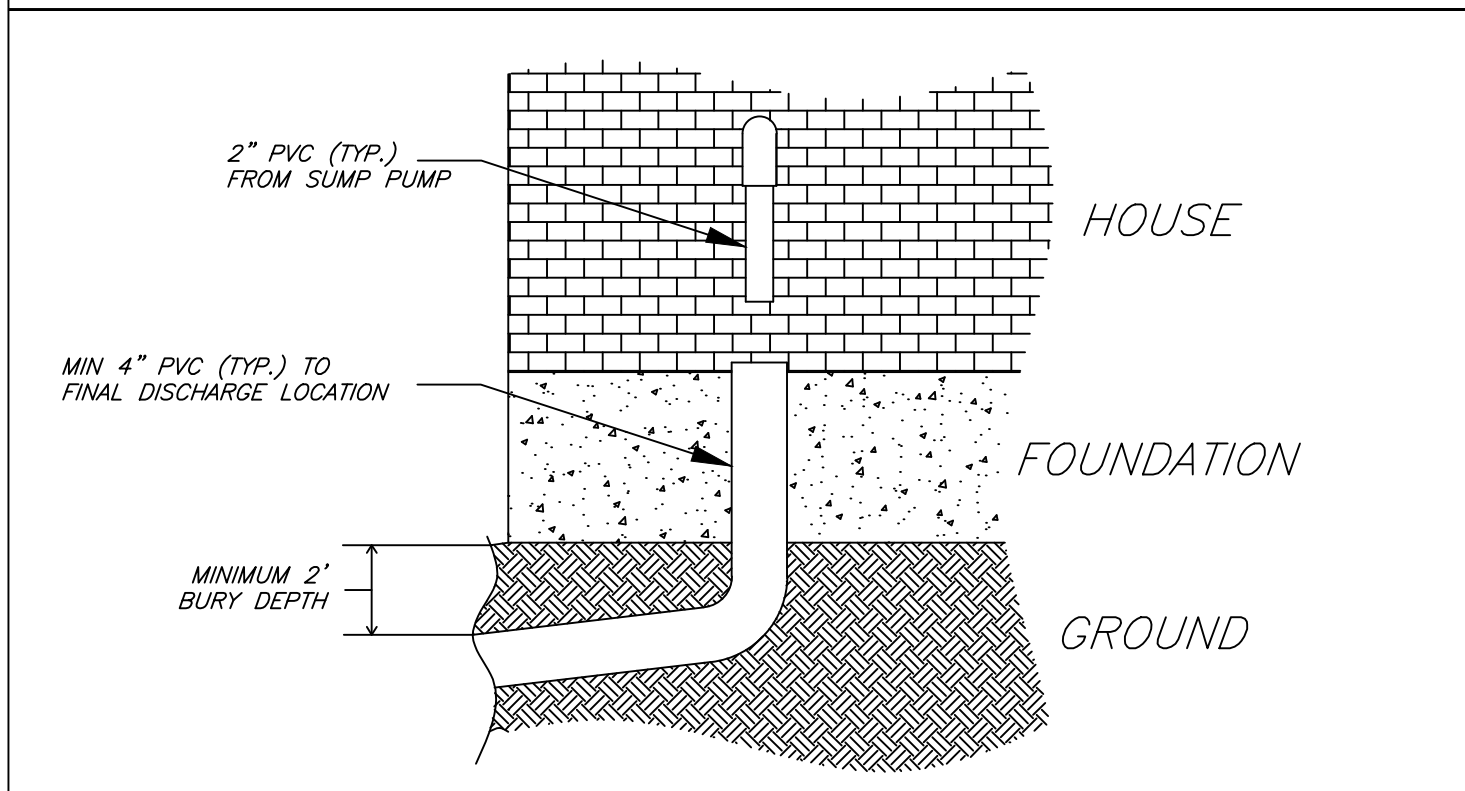
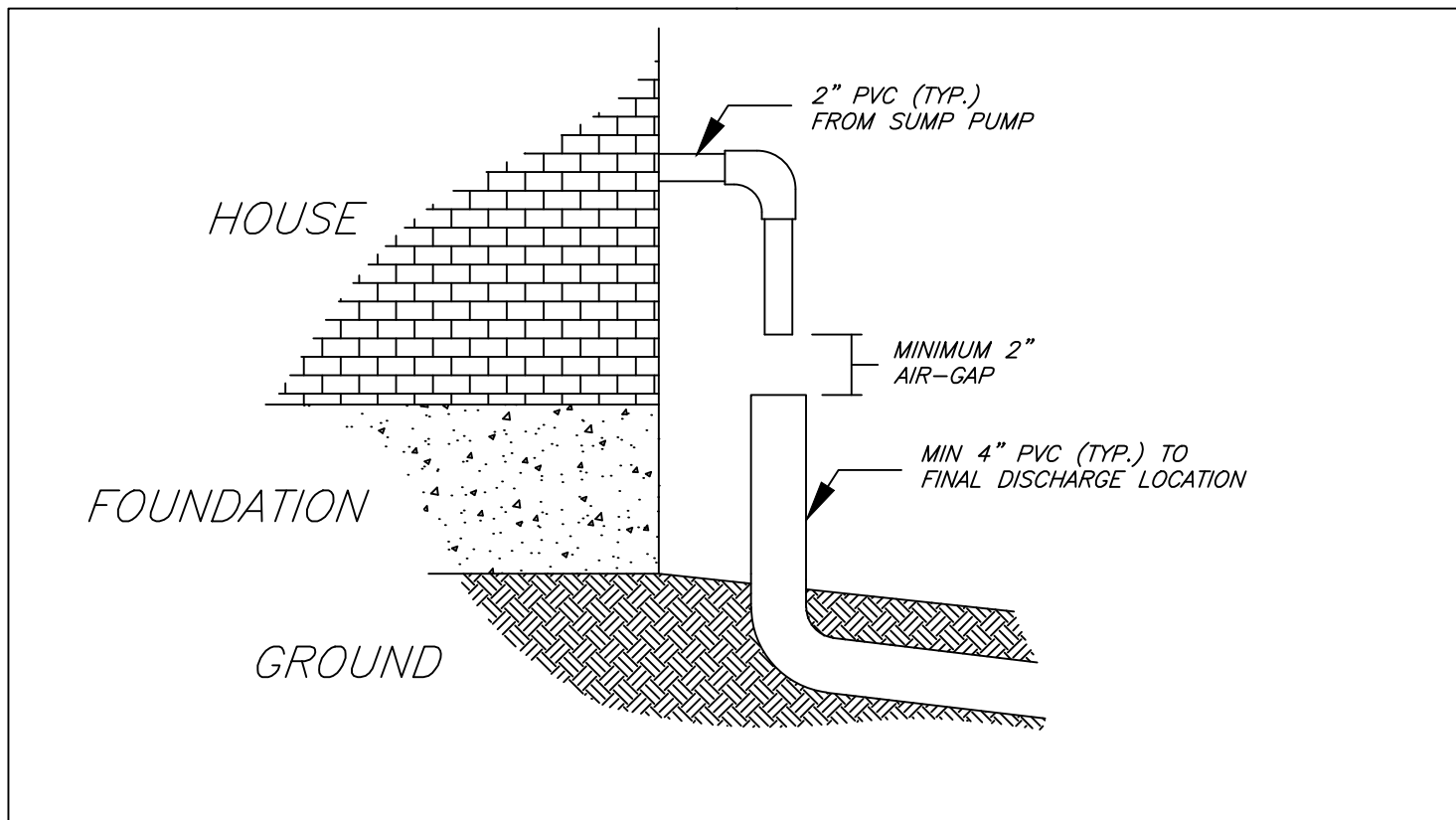
SECTION A-A


OUTLET CONTROL STRUCTURE RESTRICTOR SIZES			
BASIN #	OCS #	RESTRICTOR SIZE & ELEVATION	100 YR HWL
1	1		

NOTES:

1. STRUCTURAL DESIGN DETAILS TO BE PROVIDED BY MANUFACTURER'S LICENSED STRUCTURAL ENGINEER, INCLUDING PROVISIONS FOR TRUCK LOADING AND HYDRAULIC FORCES.
2. CONTRACTOR MUST VERIFY ELEVATIONS AND DIMENSIONS. ANY DISCREPANCY FROM PLAN ELEV. AND DIMENSIONS SHALL BE CORRECTED AT CONTRACTOR COST.
3. THIS STRUCTURE IS NOT TO BE LOCATED WITHIN AN OVERFLOW WEIR.
4. SEE IDOT STANDARD 602701 FOR DETAILS OF MANHOLE STEPS.
5. FASTENERS FOR TRASH RACK AND ORIFICE PLATE SHALL BE GALV. OR STAINLESS STEEL.
6. RESTRICTOR SIZE, ELEVATION, AND 100 YR OVERFLOW WEIR. HWL TO BE DETERMINED BY ENGINEER ON RECORD.

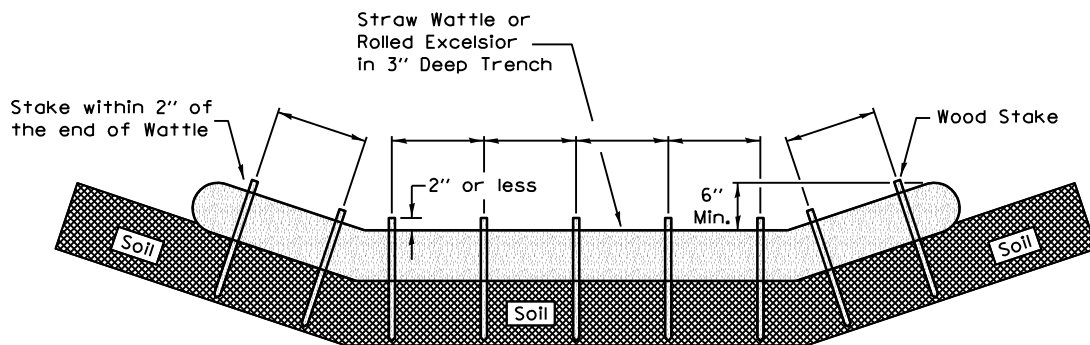
N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	06/09/04		R.W.B.	M.D.M.	<p>OUTLET CONTROL STRUCTURE - 6'</p>
	03/25/11		S.A.V.	A.J.S.	
	03/01/15		A.J.S.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. STM-03					
I:\LIBRARY\DETAILS\STORM\STM-03					



N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	02/27/07		J.M.L.	M.D.M.	<p>SUMP PUMP AIR-GAP</p>
	03/25/11		S.A.V.	A.J.S.	
	03/01/15		A.J.S.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. STM-09					
I:\LIBRARY\DETAILS\STORM\STM-09					

ROLLED EROSION CONTROL PRODUCTS

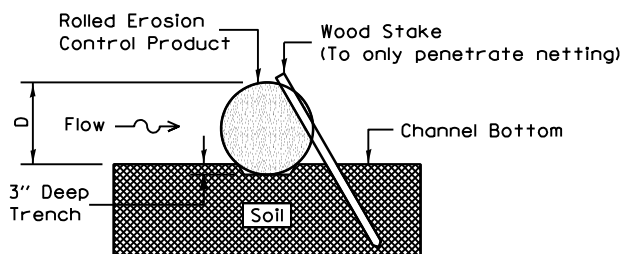
Staking Pattern Guide



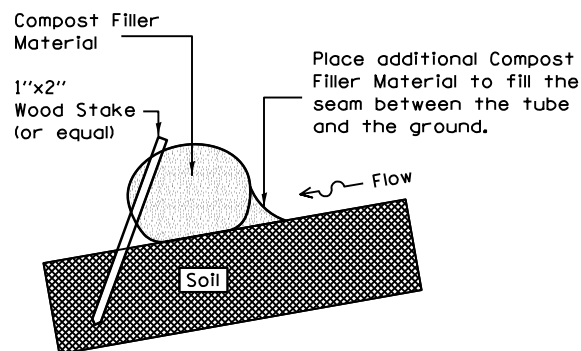
Notes:

1. Overlap minimum is the diameter of the roll.
2. 4' spacing for wattles.
3. 2' spacing for rolled excelsior.
4. Or space according to manufacturer's specifications.

Stake Detail



Compost Filter Sock Detail



When compost filter sock ditch check is used, place a compost berm upstream of the filter sock (see IUM 805). A trench is not required.

Notes:

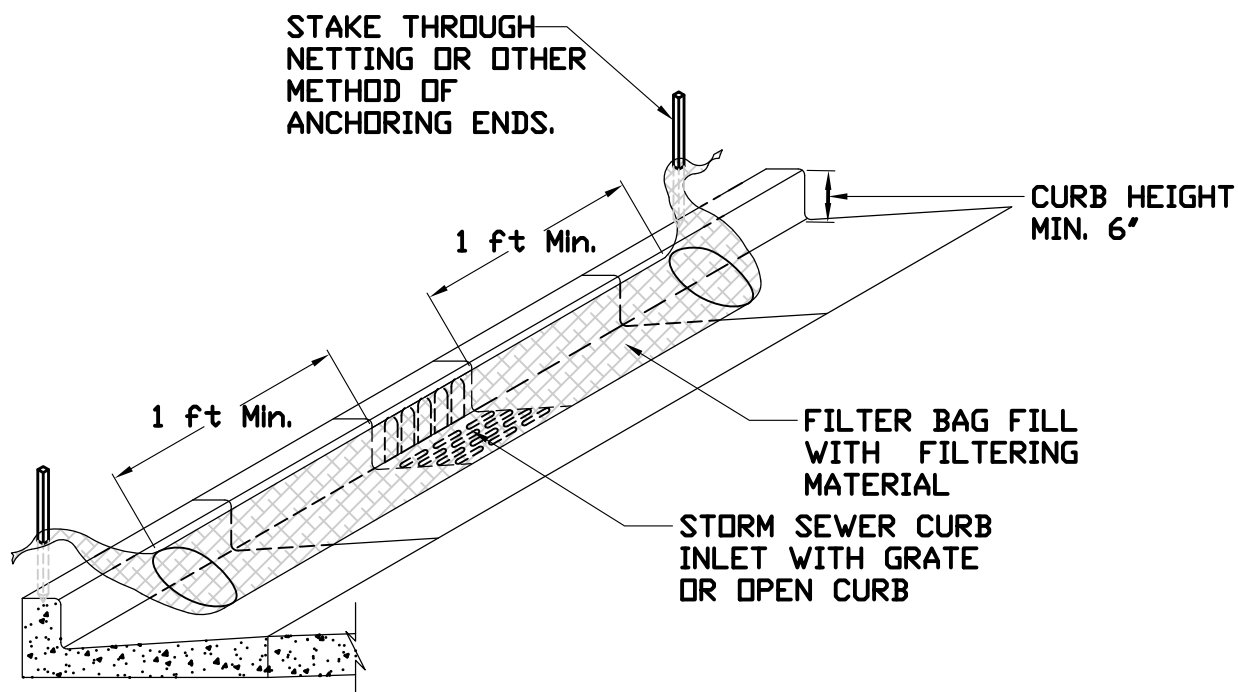
1. Drawings are not to scale.
2. Ends of wattles or rolled excelsior shall be turned at least 6" upslope.
3. Recommended stakes are 1 1/8" wide x 1 1/8" thick x 30" long
4. Stakes shall not extend above the straw wattle more than 2".
5. Spacing: The toe of the upstream ditch check shall create a horizontal line with the top of the downstream ditch check.
6. When compost filter sock ditch check is used, place a compost berm upstream of the filter sock (see IUM 805). A trench is not required.

REFERENCE	
Project	_____
Designed	_____ Date _____
Checked	_____ Date _____
Approved	_____ Date _____



STANDARD DWG. NO.
IUM-514
SHEET 1 OF 1
DATE 8-19-11

INLET PROTECTION - PAVED AREAS CURB PROTECTION

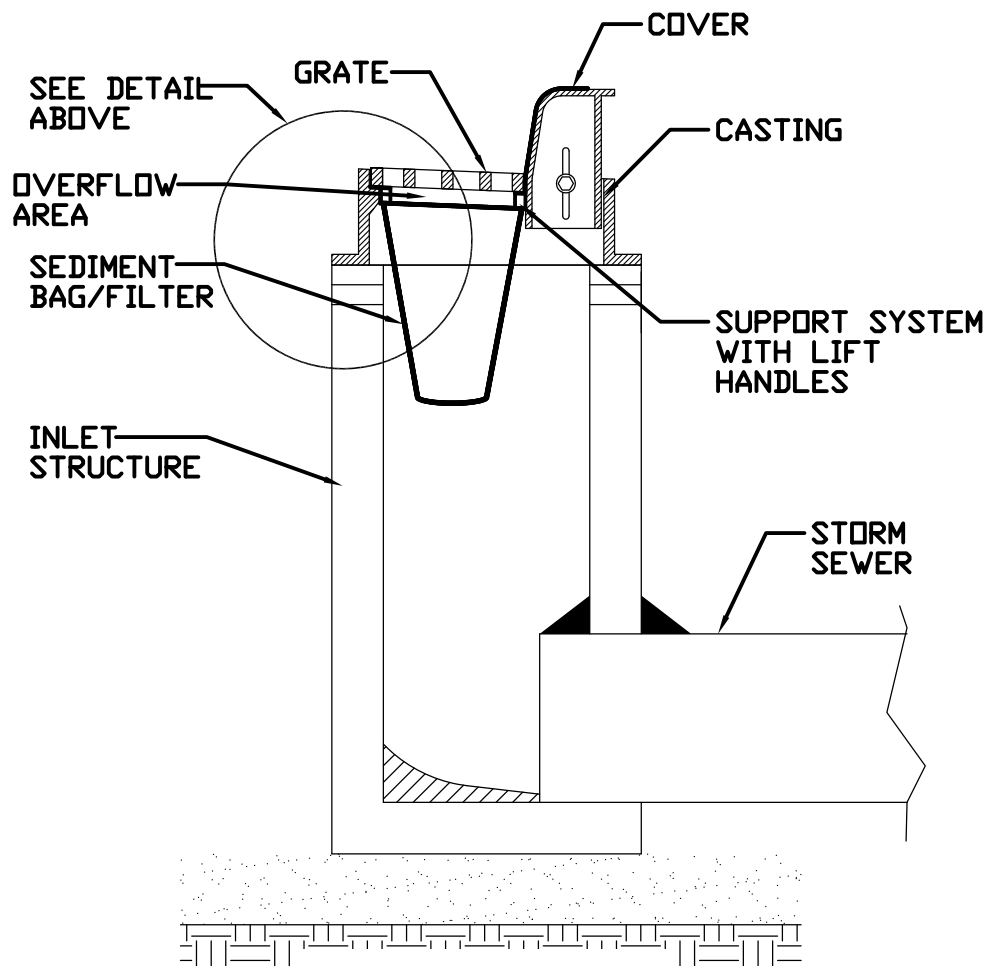
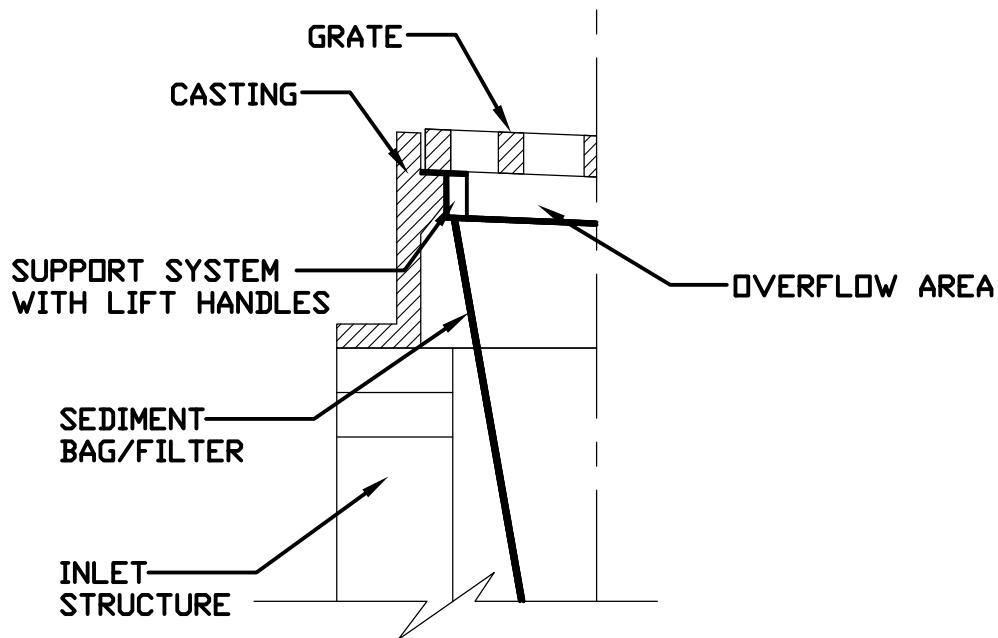


REFERENCE	
Project	_____
Designed	_____ Date _____
Checked	_____ Date _____
Approved	_____ Date _____



STANDARD DWG. NO.
IUM-561C
 SHEET 1 OF 1
 DATE 01-11-11

INLET PROTECTION - PAVED AREAS DROP-IN PROTECTION



REFERENCE

Project	_____
Designed	_____ Date _____
Checked	_____ Date _____
Approved	_____ Date _____



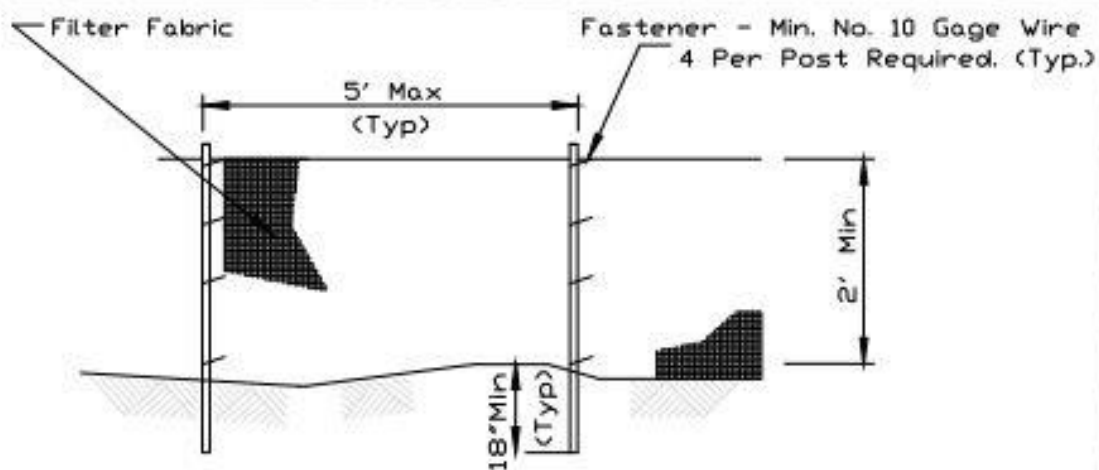
STANDARD DWG. NO.

IUM-561D

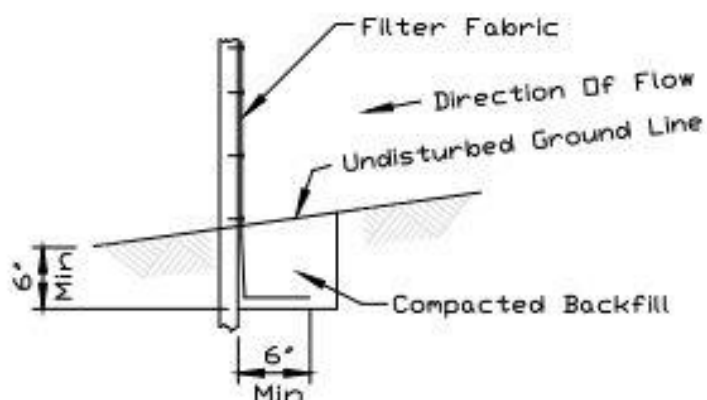
SHEET 1 OF 1

DATE 01-11-11

SILT FENCE PLAN



ELEVATION



FABRIC ANCHOR DETAIL

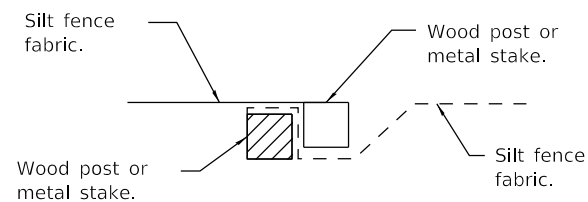
NOTES:

1. Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.
2. Filter fabric shall meet the requirements of material specification 592 Geotextile based upon performance needed.
3. Fence posts shall be either standard steel post or wood post with a minimum cross-sectional area of 2' x 2' nominal size.

REFERENCE	
Project	_____
Designed	_____ Date _____
Checked	_____ Date _____
Approved	_____ Date _____

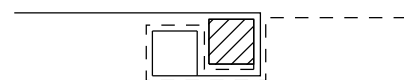


STANDARD DWG. NO.
IUM-620
SHEET 1 OF 2
DATE 3-16-12



Place end-post (stake) of first silt fence adjacent to end-post (stake) of second silt fence with fabric positioned as shown.

STEP 1

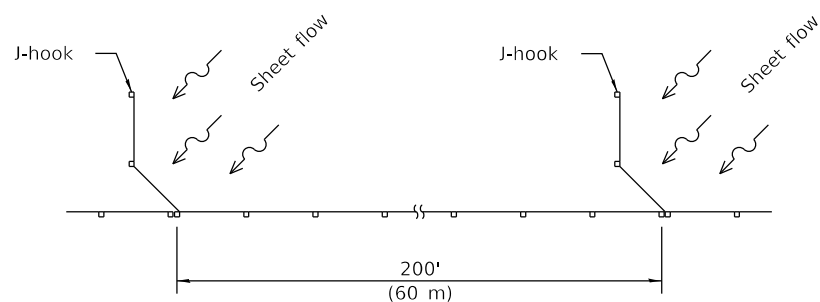


Rotate posts (stakes) together 180° clockwise and drive both posts (stakes) 18 (450) into ground.

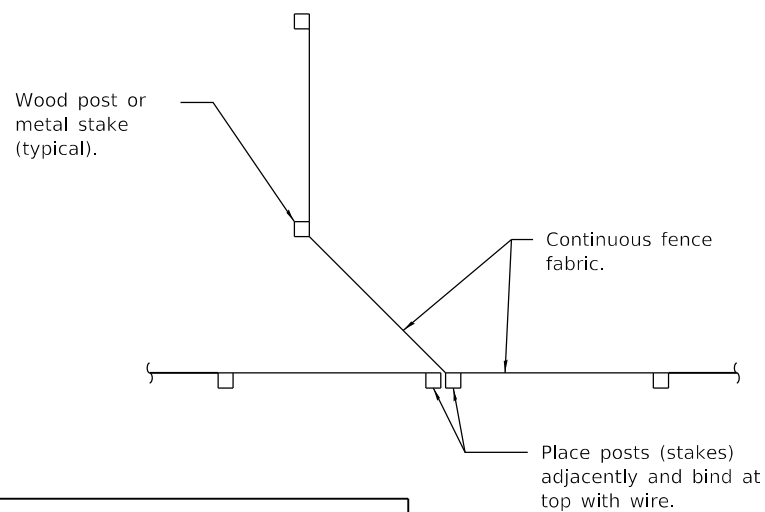
STEP 2

ATTACHING TWO SILT FILTER FENCES

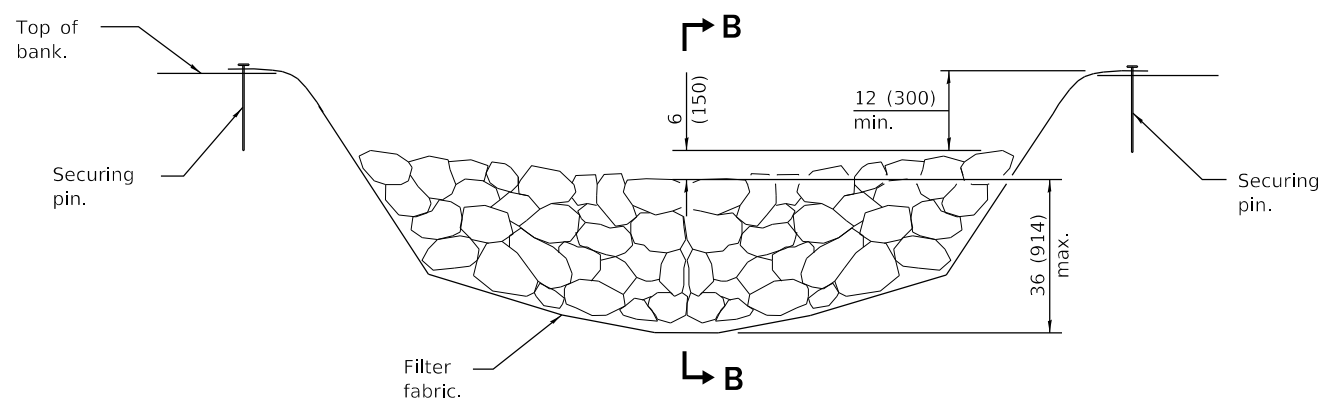
(Not applicable for J-hooks)



SILT FILTER J-HOOK PLACEMENT

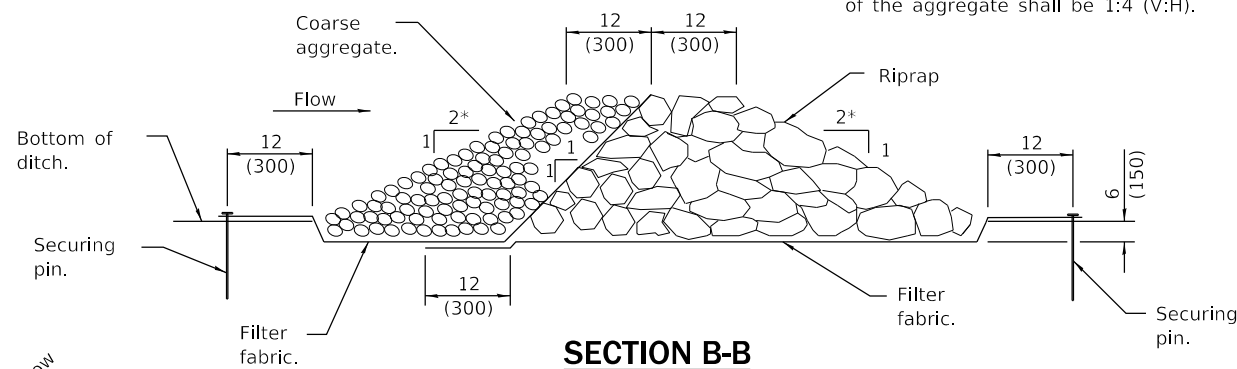


J-HOOK



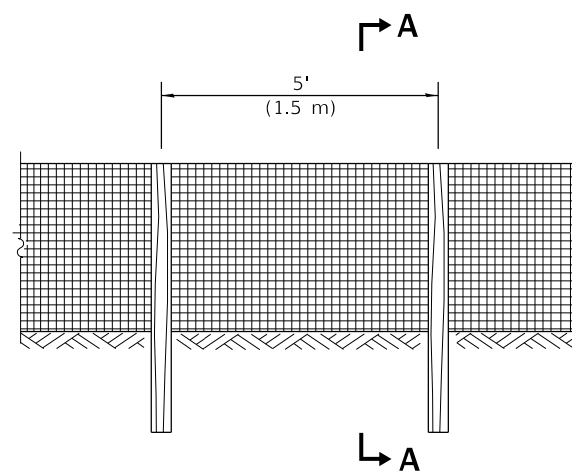
ELEVATION

* When the ditch check is within the clear zone and the road is open to traffic, the traffic approach slope of the aggregate shall be 1:4 (V:H).



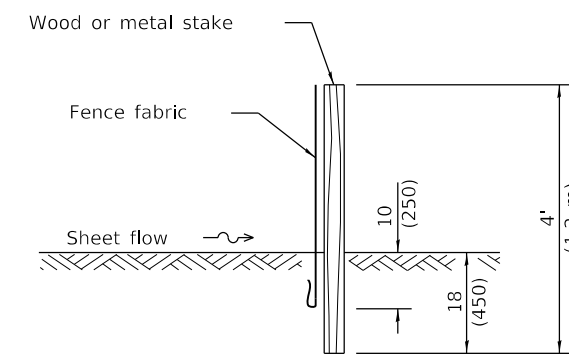
SECTION B-B

AGGREGATE DITCH CHECK

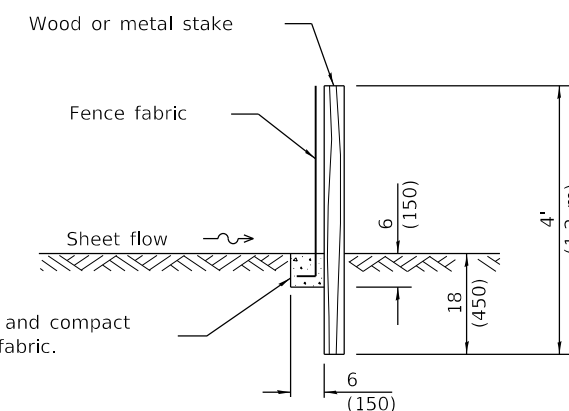


ELEVATION

SILT FILTER FENCE AS A PERIMETER EROSION BARRIER



SLICE METHOD



TRENCH METHOD

SECTION A-A

Excavate, backfill and compact trench to secure fabric.

GENERAL NOTES

The installation details and dimensions shown for perimeter erosion barriers shall also apply for inlet and pipe protection.

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

DATE	REVISIONS
1-1-13	Corrected notation for flowline (f _L) on SEDIMENT BASIN ELEVATION.
1-1-12	Omitted hay/straw perimeter barrier. Added SLICE METHOD to SECTION A-A.

TEMPORARY EROSION CONTROL SYSTEMS

(Sheet 1 of 2)

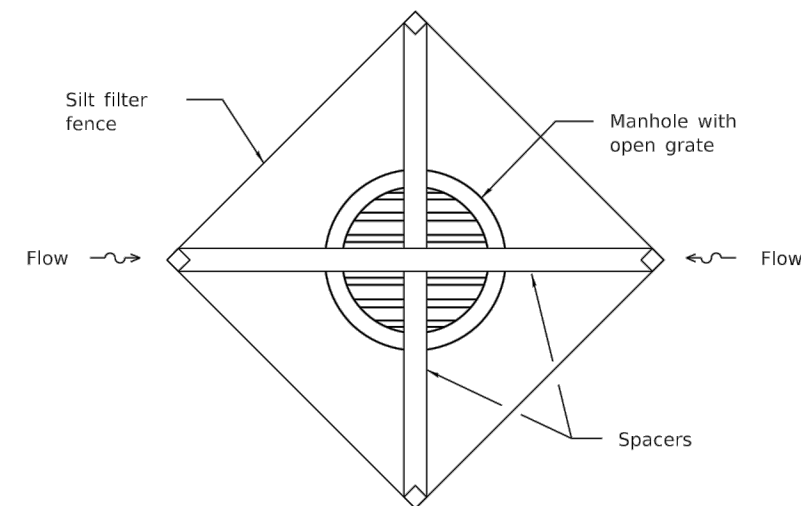
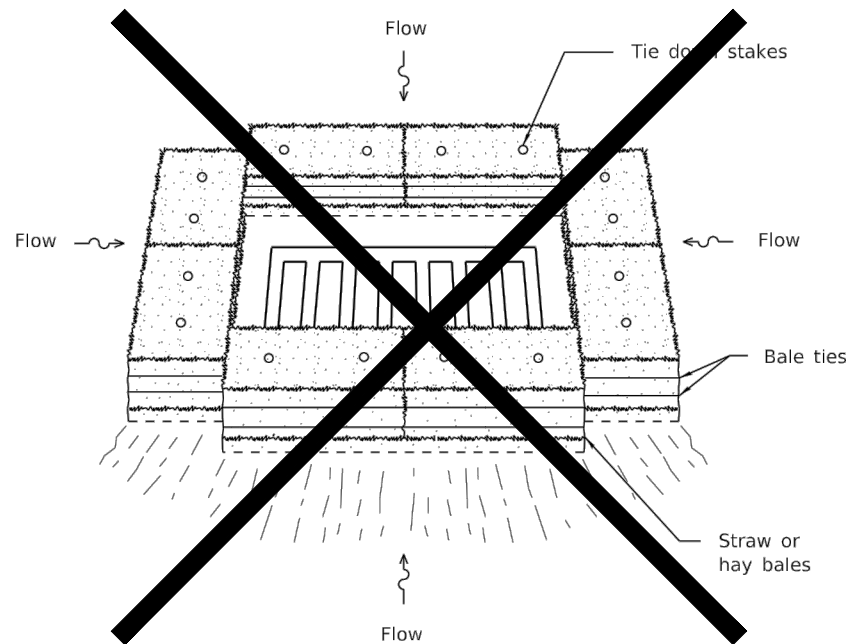
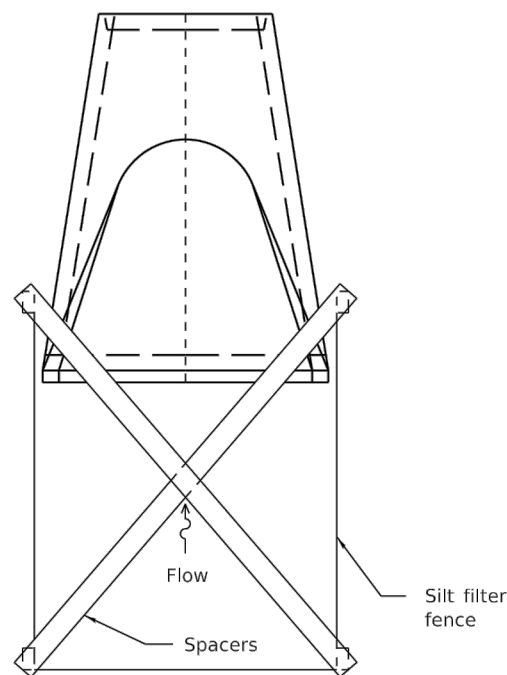
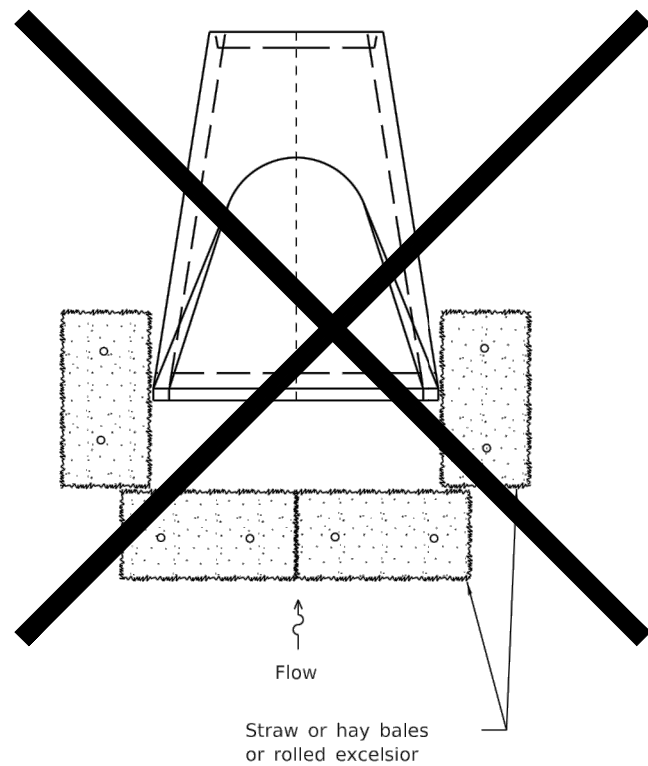
STANDARD 280001-07

Illinois Department of Transportation

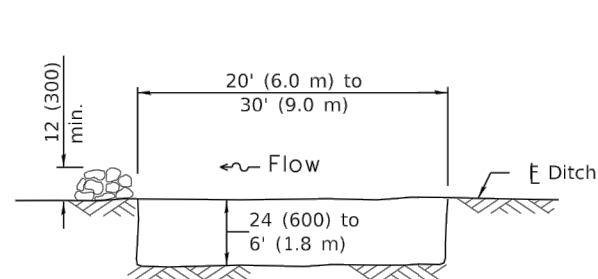
PASSED January 1, 2013
Michael Beard
 ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2013
[Signature]
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

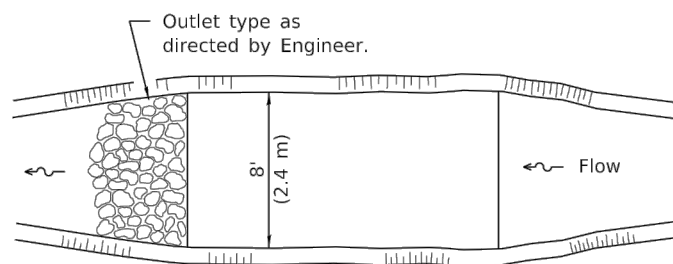


INLET AND PIPE PROTECTION



The performance of the basin will improve if put into a series.

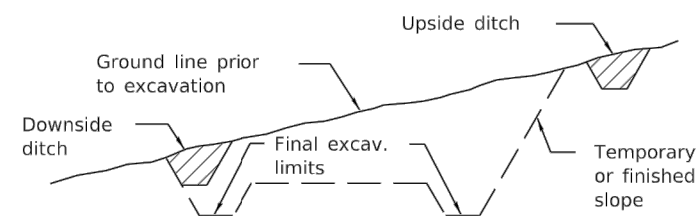
ELEVATION



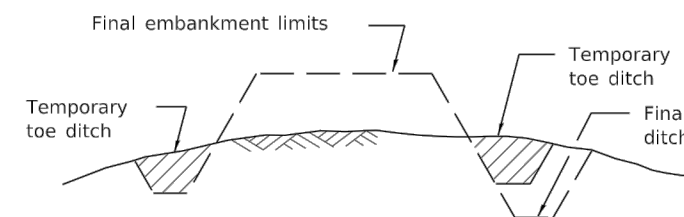
The long dimension should be parallel with the direction of the flow. Accumulated silt shall be removed anytime the basins become 75% filled.

PLAN

SEDIMENT BASIN



TYPICAL CUT CROSS-SECTION



TYPICAL FILL CROSS-SECTION

TEMPORARY DITCHES FOR CUT & FILL SECTIONS

Illinois Department of Transportation

PASSED January 1, 2013
Michael Brand
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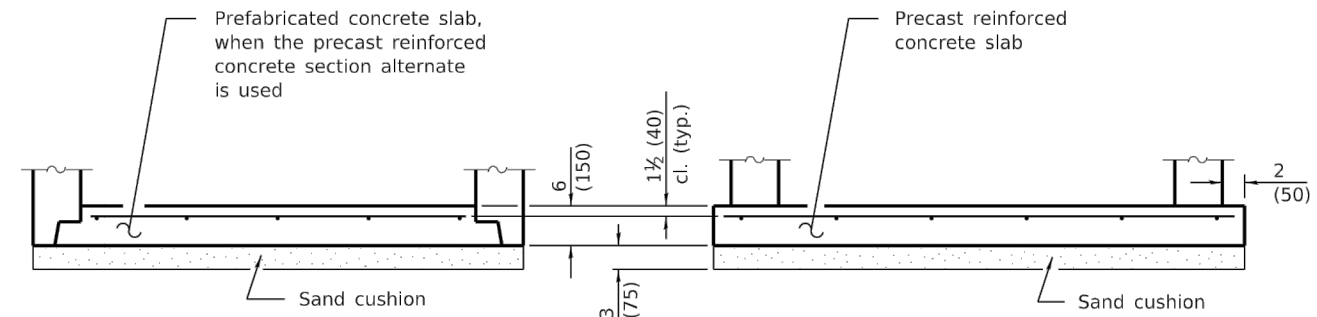
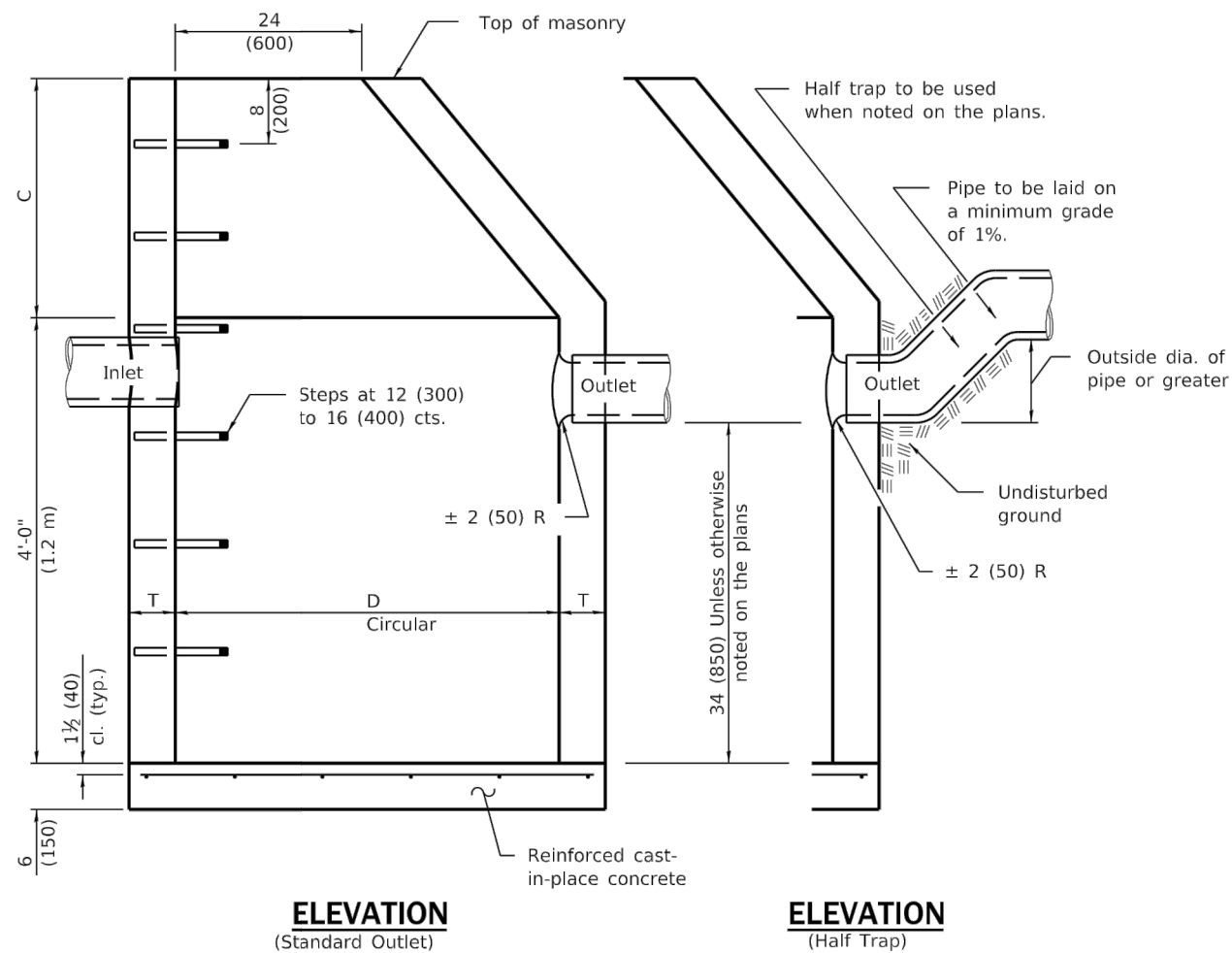
APPROVED January 1, 2013
[Signature]
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

TEMPORARY EROSION CONTROL SYSTEMS

(Sheet 2 of 2)

STANDARD 280001-07



ALTERNATE BOTTOM SLAB

ALTERNATE MATERIALS FOR WALLS	D	C*	T (min.)
Precast Reinforced Concrete Section	4'-0" (1.2 m) 5'-0" (1.5 m)	30 (750) 3'-9" (1.15 m)	4 (100) 5 (125)
Cast-in-place Concrete	4'-0" (1.2 m) 5'-0" (1.5 m)	30 (750) 3'-9" (1.15 m)	6 (150) 6 (150)

* For precast reinforced concrete sections, dimension "C" may vary from the dimension given to plus 6 (150).

GENERAL NOTES

Bottom slabs shall be reinforced with a minimum of 0.20 sq. in./ft (420 sq. mm/m) in both directions with a maximum spacing of 12 (300).

Bottom slabs may be connected to the riser as determined by the fabricator; however, only a single row of reinforcement around the perimeter may be utilized.

See Standard 602601 for optional precast reinforced concrete flat slab top.

See Standard 602701 for details of steps.

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

DATE	REVISIONS
1-1-11	Added 'Outside' to half trap note. Detail rein. in slabs.
	Revised general notes.
1-1-09	Switched units to English (metric).

CATCH BASIN TYPE A

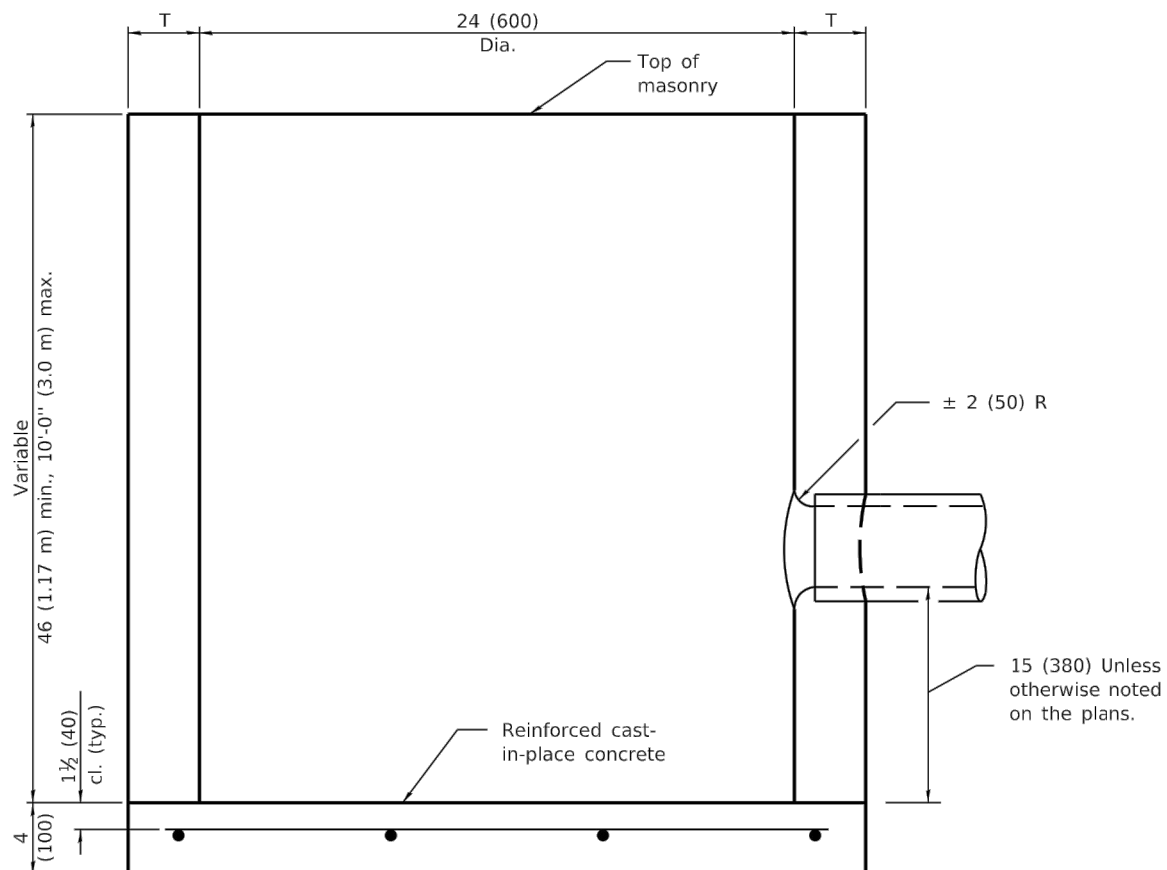
STANDARD 602001-02

Illinois Department of Transportation

PASSED January 1, 2011
Michael Brand
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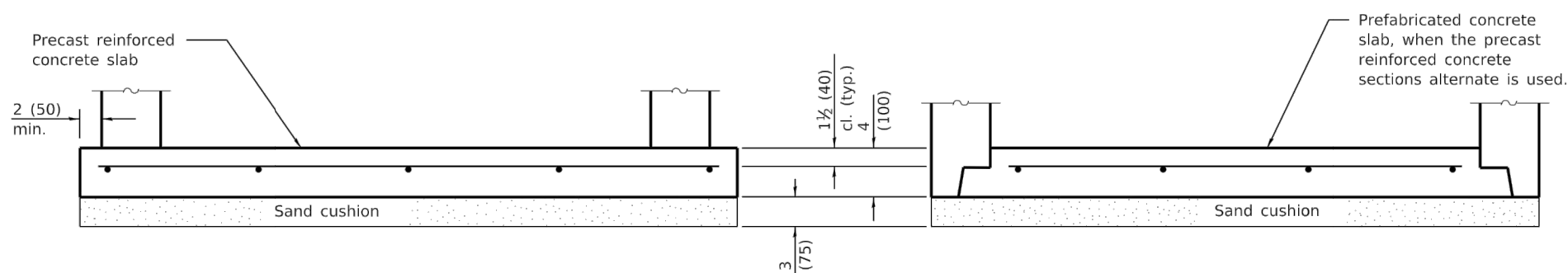
APPROVED January 1, 2011
Scott Smith
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97



ALTERNATE MATERIALS FOR WALLS	T (min)
Precast Reinforced Concrete Section	3 (75)
Concrete Masonry Unit	5 (125)
Cast-in-Place Concrete	6 (150)
Brick Masonry	8 (200)

ELEVATION



ALTERNATE BOTTOM SLAB

GENERAL NOTES

Bottom slabs shall be reinforced with a minimum of 0.27 sq. in./ft. (570 sq. mm/m) in both directions with a maximum spacing of 9 (230).

Bottom slabs may be connected to the riser as determined by the fabricator; however, only a single row of reinforcement around the perimeter may be utilized.

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

DATE	REVISIONS
1-1-11	Detailed rein. in slabs.
	Added max. limit to height.
	Added general notes.
1-1-09	Switched units to English (metric).

CATCH BASIN TYPE C

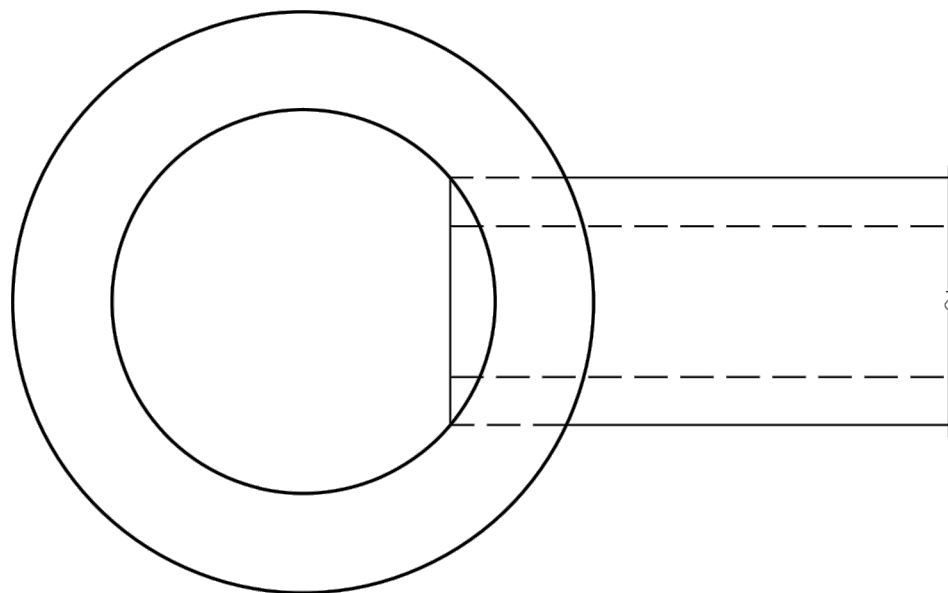
STANDARD 602011-02

Illinois Department of Transportation

PASSED January 1, 2011
Michael Brand
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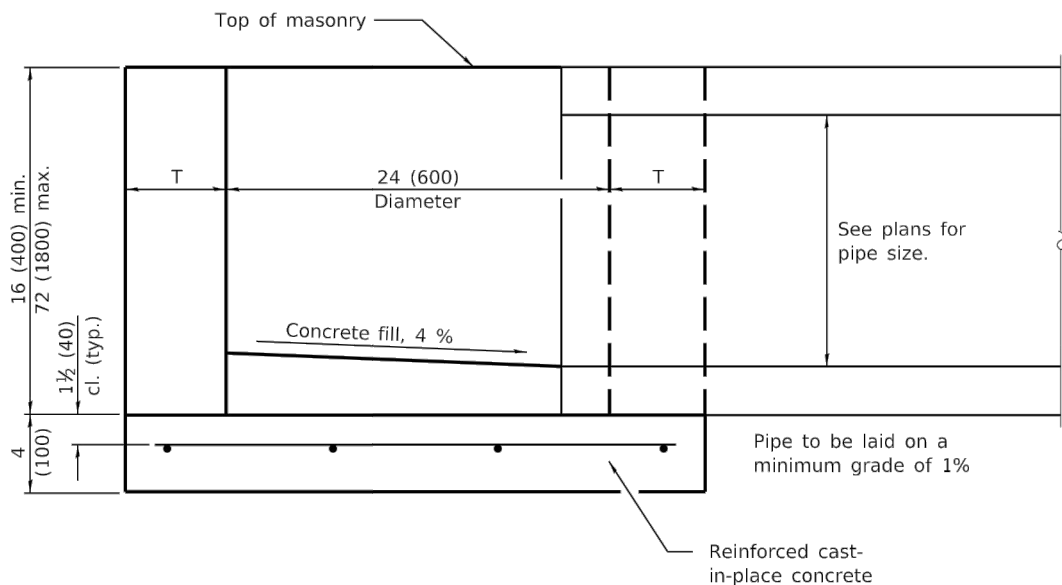
APPROVED January 1, 2011
Scott Smith
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

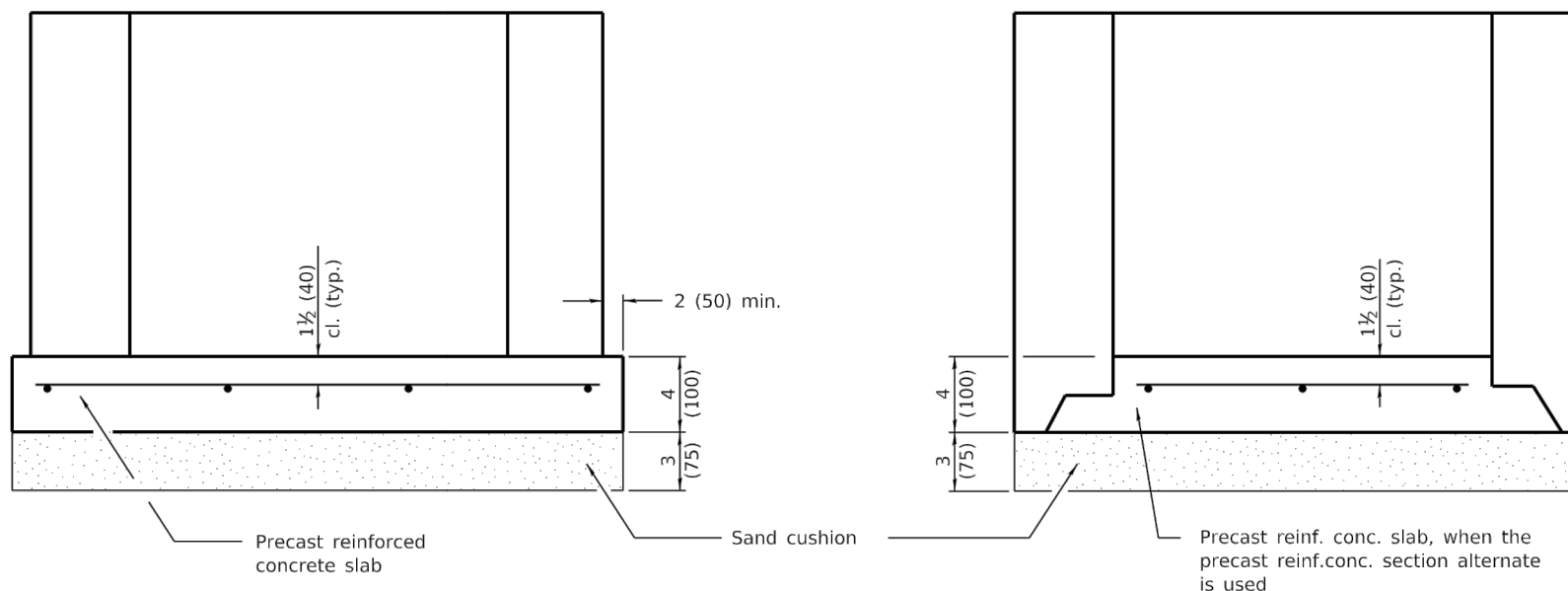


PLAN

ALTERNATE MATERIALS FOR WALLS	T
BRICK MASONRY	8 (200)
CAST-IN-PLACE CONCRETE	6 (150)
CONCRETE MASONRY UNIT	5 (125)
PRECAST REINFORCED CONCRETE SECTION	3 (75)



ELEVATION



ALTERNATE METHODS

GENERAL NOTES

Bottom slabs shall be reinforced with a minimum of 0.24 sq. in./ft. (510 sq. mm/m) in both directions with a maximum spacing of 10 (250).

Bottom slabs may be connected to the riser as determined by the fabricator; however, only a single row of reinforcement around the perimeter may be utilized.

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

DATE	REVISIONS
1-1-14	Increased height to 72 (1800) maximum.
1-1-11	Detailed rein. in slabs.
	Added max. limit to height.
	Added general notes.

INLET - TYPE A

STANDARD 602301-04

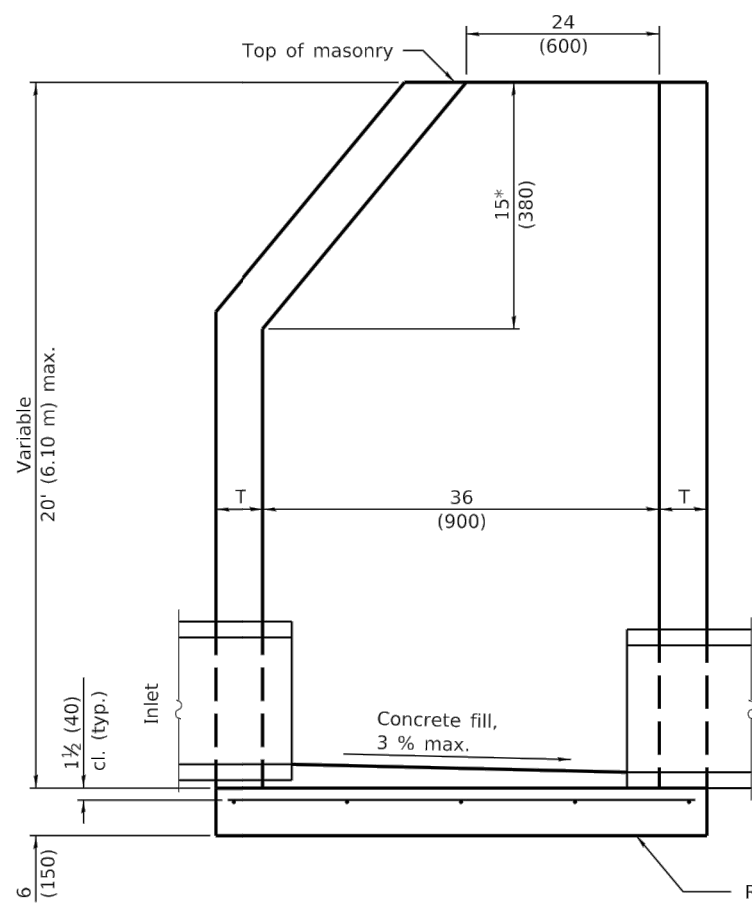
Illinois Department of Transportation

PASSED January 1, 2014
Michael Brand
 ENGINEER OF POLICY AND PROCEDURES

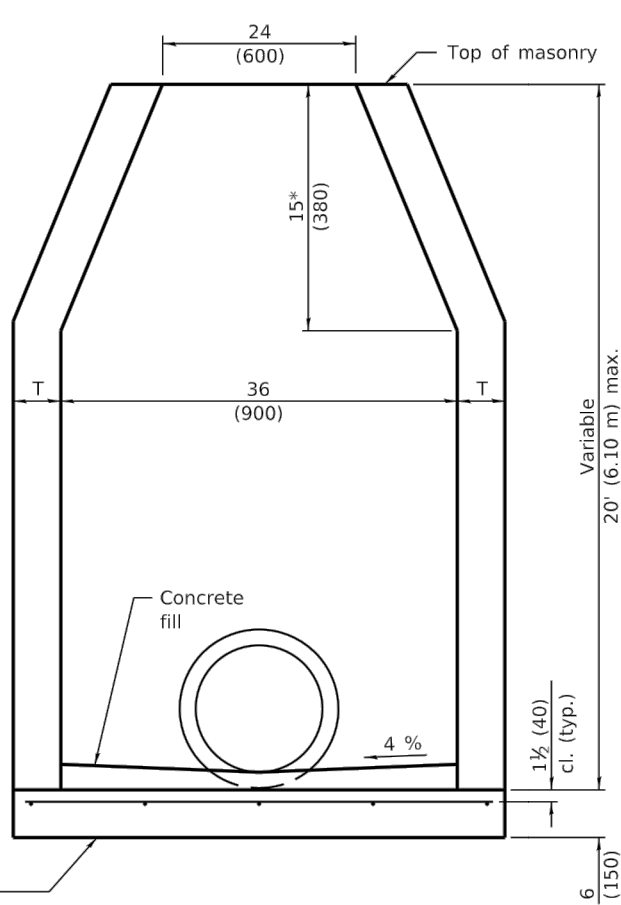
APPROVED January 1, 2014
[Signature]
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

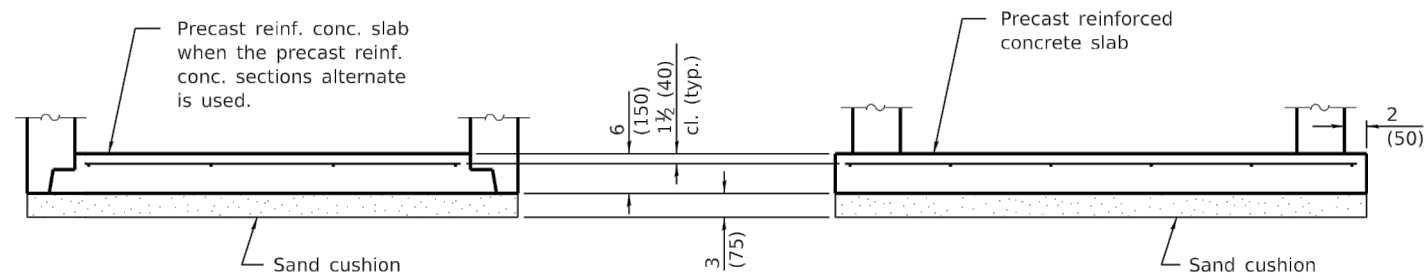
* For precast reinforced concrete sections, this dimension may vary from the dimension given to plus 6 (150).



ELEVATION - ECCENTRIC



ELEVATION - CONCENTRIC



ALTERNATE BOTTOM SLAB

ALTERNATE MATERIALS FOR WALLS	T (min.)
Concrete Masonry Unit	5 (125)
Brick Masonry	8 (200)
Precast Reinforced Concrete Section	3 (75)
Cast-in-Place Concrete	6 (150)

GENERAL NOTES

Bottom slabs shall be reinforced with a minimum of 0.20 sq. in./ft. (420 sq. mm/m) in both directions with a maximum spacing of 12 (300).

Bottom slabs may be connected to the riser as determined by the fabricator; however, only a single row of reinforcement around the perimeter may be utilized.

See Standard 602601 for optional Precast Reinforced Concrete Flat Slab Top.

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

DATE	REVISIONS
1-1-11	Detailed rein. in slabs.
	Added max. limit to height.
	Revised general notes.
1-1-09	Switched units to English (metric).

INLET - TYPE B

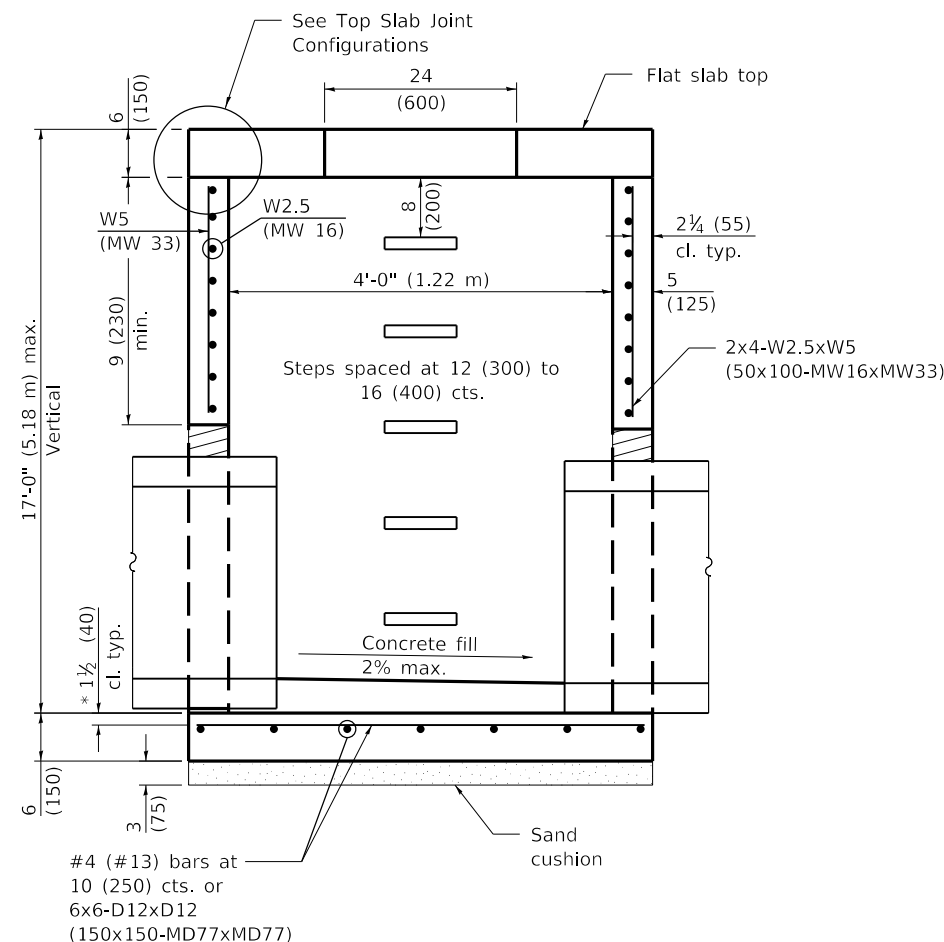
STANDARD 602306-03

Illinois Department of Transportation

PASSED January 1, 2011
Michael Brand
 ENGINEER OF POLICY AND PROCEDURES

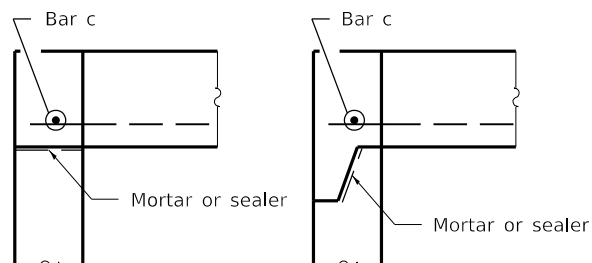
APPROVED January 1, 2011
Scott Smith
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

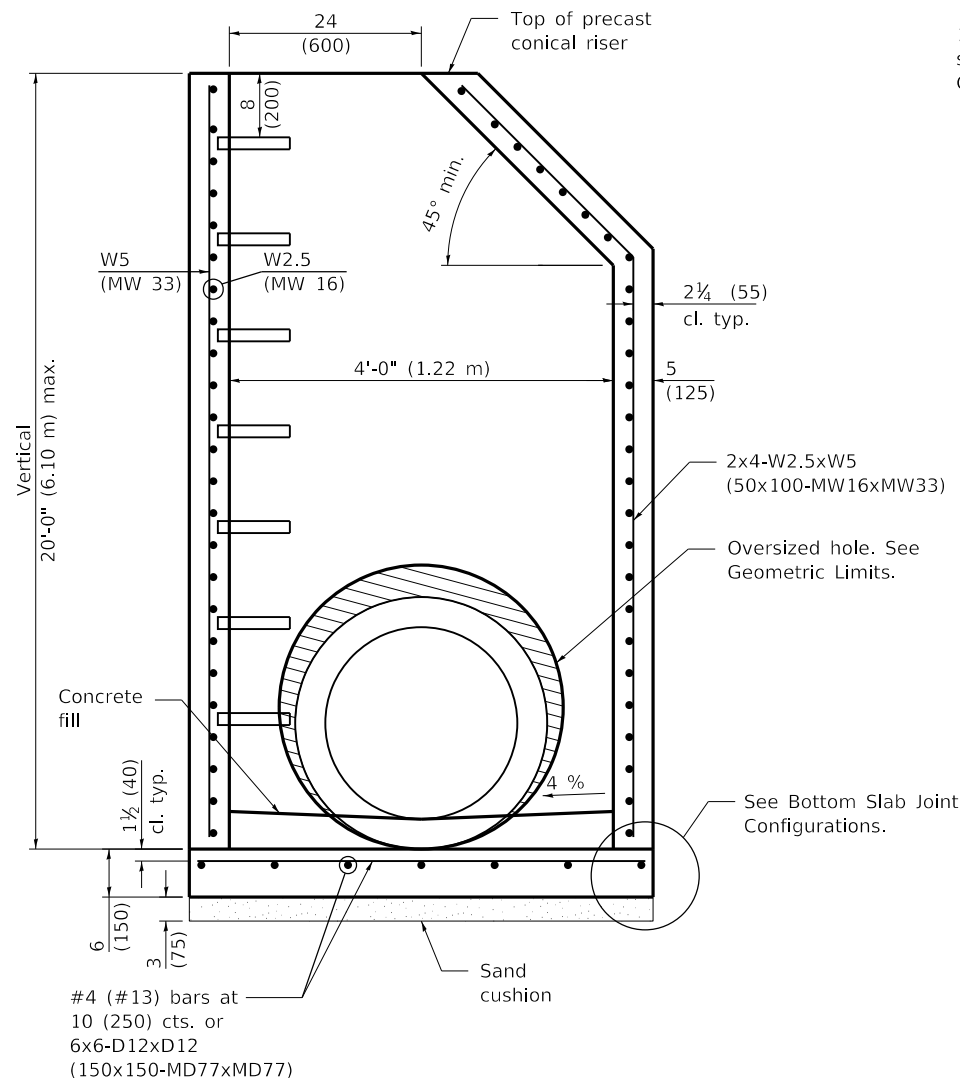


SECTION THRU MANHOLE
(With flat slab top only)

* Typical for top and bottom slabs.



TOP SLAB JOINT CONFIGURATIONS
(Shown at access hole)

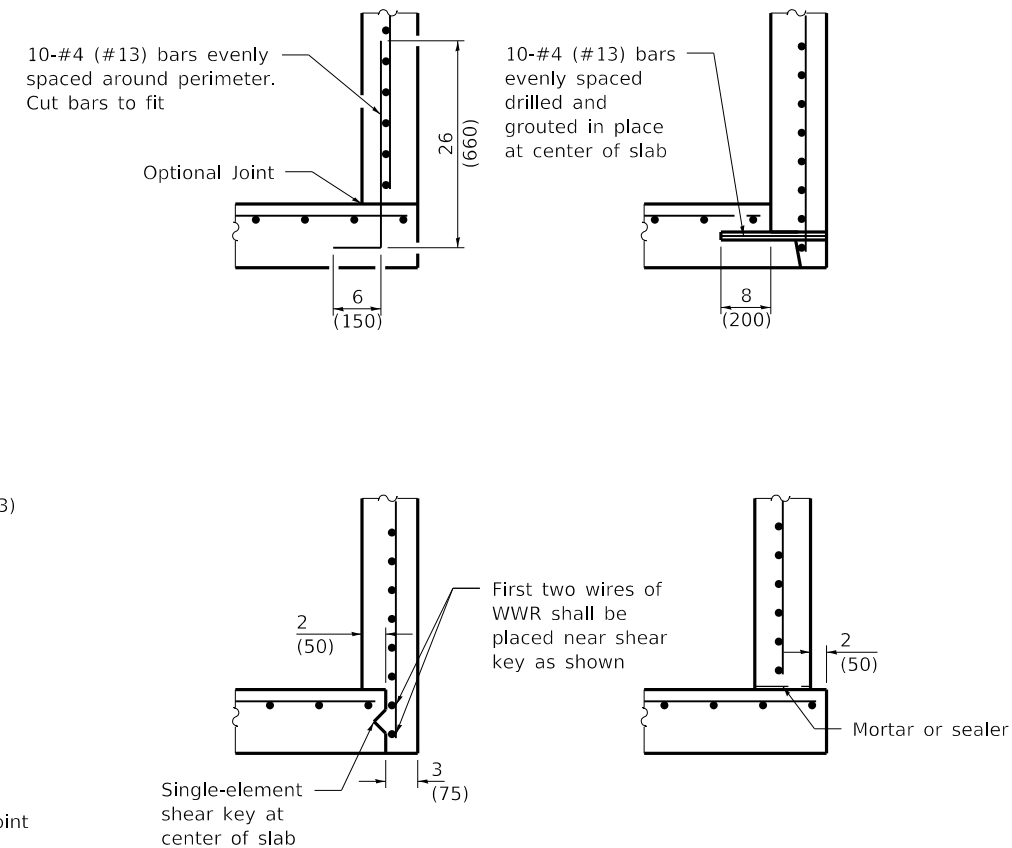


SECTION THRU MANHOLE
(With riser)

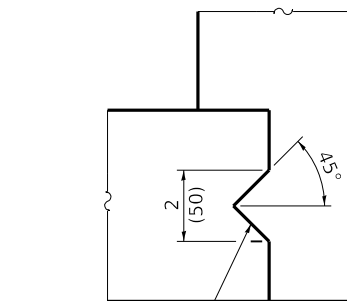
GEOMETRIC LIMITS

Oversized holes, as necessary for constructability, shall satisfy the following requirements:

1. A minimum of 9 (230) of monolithic reinforced concrete shall be maintained above the fabricated pipe hole.
2. A minimum 9 (230) inside arc length of reinforced concrete, extending vertically from bottom slab to top slab, shall be maintained between the fabricated pipe holes.
3. A maximum of 60 percent of the inside perimeter of the reinforced concrete manhole walls may be removed.
4. Horizontal joints through pipe holes shall be spliced when the remaining column between holes, measured along inside arc length, is less than 24 (600). See detail.
5. The recommended oversized hole is equal to the O.D. of the pipe plus 4 (100).



BOTTOM SLAB JOINT CONFIGURATIONS



Single-element shear key at center of slab
SHEAR KEY GEOMETRY
(Reinforcement not Shown for Clarity)

See Sheet 2 for General Notes.

DATE	REVISIONS
1-1-18	Completely revised std. for LRFD. Renamed std. Moved 5' (1.5 m) manhole to new std.
1-1-11	Detailed rein. in slabs.
	Added max. limit to height.
	Revised general notes.

PRECAST MANHOLE TYPE A
4' (1.22 m) DIAMETER

(Sheet 1 of 2)

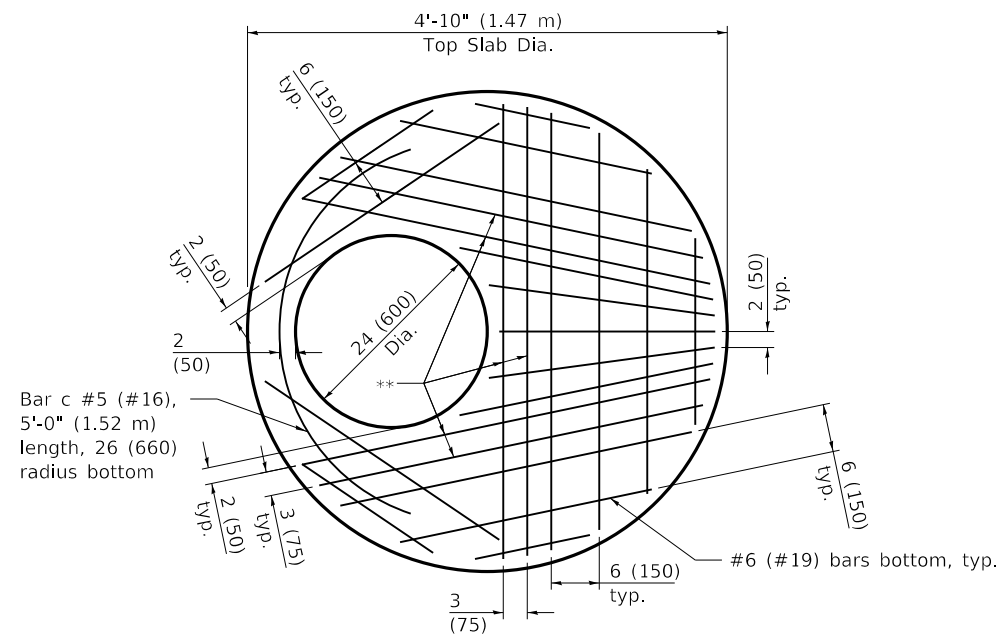
STANDARD 602401-04

Illinois Department of Transportation

PASSED January 1, 2018
Michael Beard
ENGINEER OF POLICY AND PROCEDURES

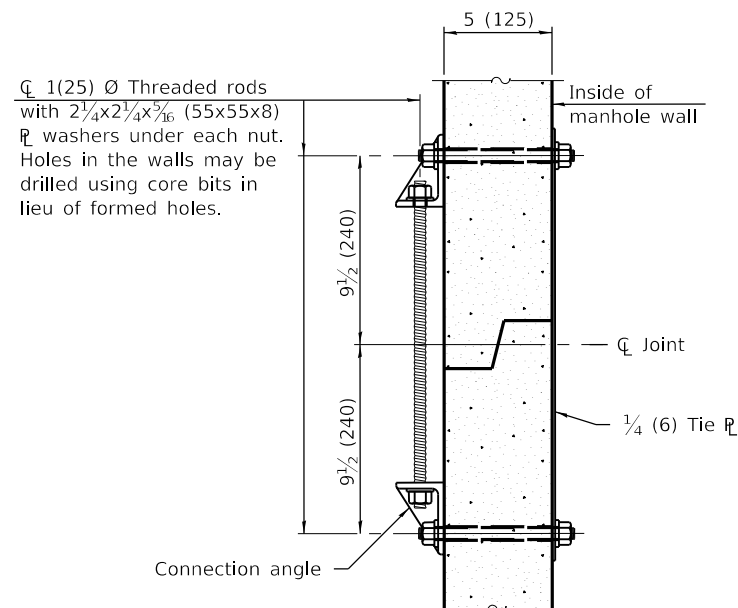
APPROVED January 1, 2018
Maureen M. Adams
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

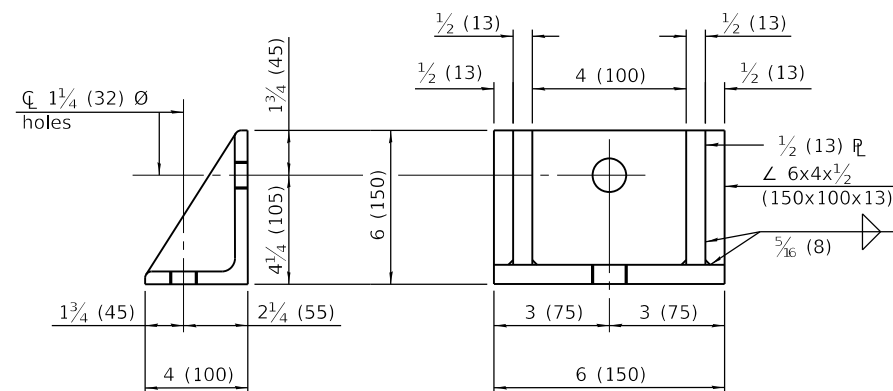


PLAN

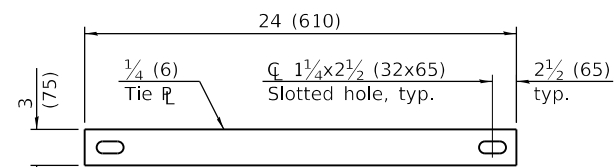
(Showing Layout of Reinforcement Bars)



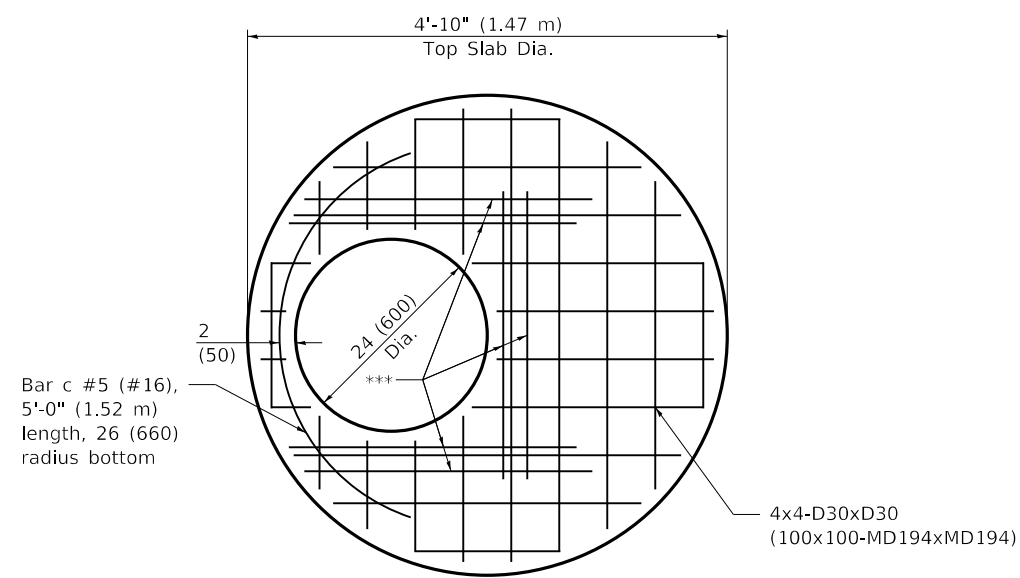
JOINT SPLICE



CONNECTION ANGLE



TIE PLATE



PLAN

(Showing Layout of Welded Wire Reinforcement)

** #5 (#16) bars at 3 (75) cts. bottom.

*** #5 (#16) bars at 3 (75) cts. 36 (910) long bottom. Bundle first bar with closest WWR bar to the opening.

GENERAL NOTES

Joint configuration and dimensions of flat slab shall match and fit the riser joint detail.

The manufacturer shall ensure that all precast manhole sections are additionally reinforced where required to resist damage from handling, shipping and installation stresses.

Lifting holes shall be located in the sections as per the manufacturer's recommendations and grouted prior to backfilling.

See Standard 602701 for details of manhole steps.

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

**PRECAST MANHOLE TYPE A
4' (1.22 m) DIAMETER**

(Sheet 2 of 2)

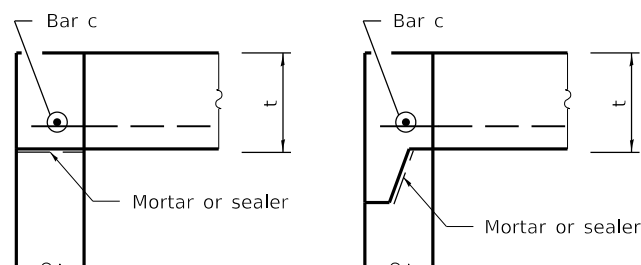
STANDARD 602401-04

Illinois Department of Transportation

PASSED January 1, 2018
Michael Beard
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2018
Marcus M. Adams
ENGINEER OF DESIGN AND ENVIRONMENT

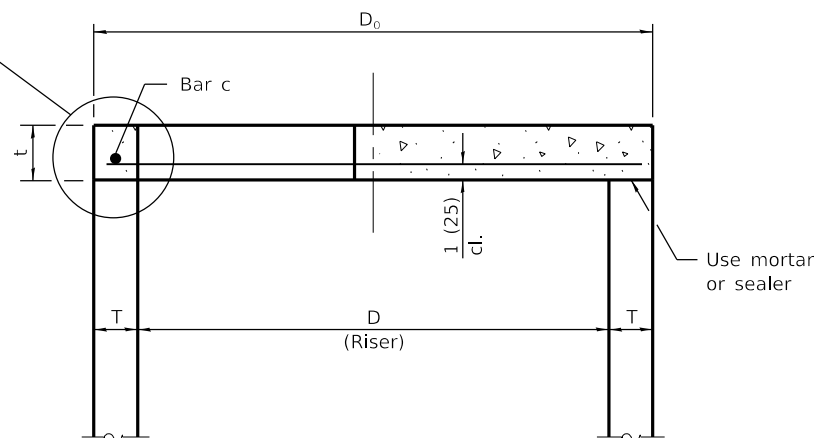
ISSUED 1-1-97



**TOP SLAB JOINT CONFIGURATIONS
FOR D = 36 (900) AND D = 4'-0" (1.22 m)**

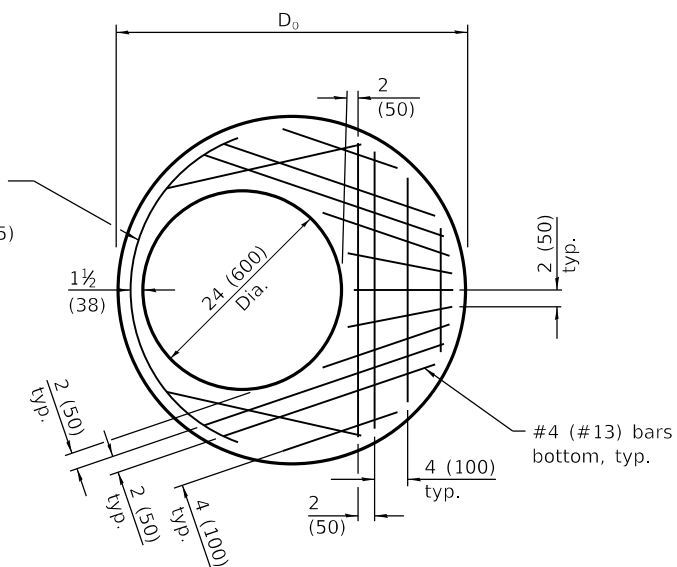
(Shown at access hole)

See Top Slab Joint Configurations for D=36 (900) and D=4'-0" (1.22 m)



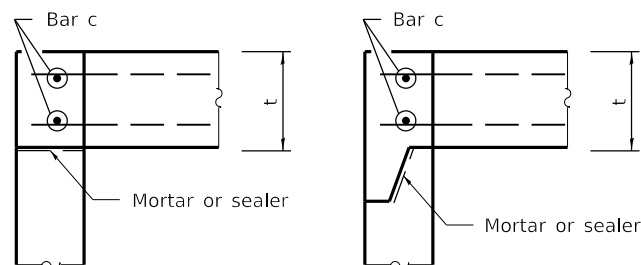
**TOP SECTION THRU INLET OR CATCH BASIN
FOR D = 36 (900) AND D = 4'-0" (1.22 m)**

Bar c #4 (#13), 4'-0" (1.22 m) length, 19 1/2 (495) radius bottom



PLAN FOR D = 36 (900)

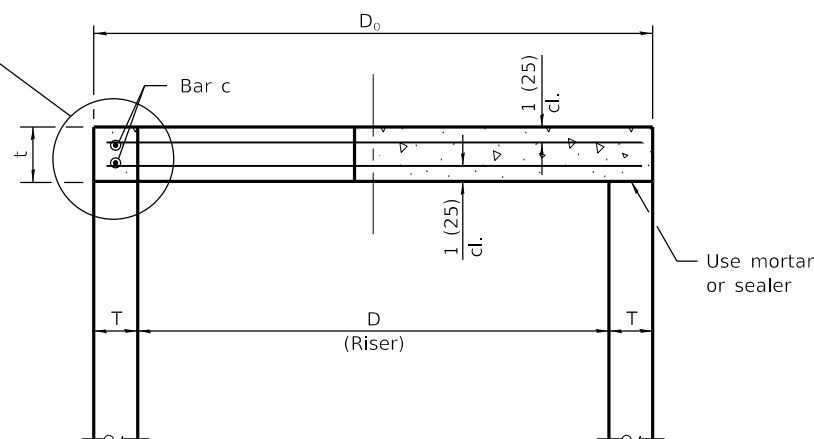
(Showing Layout of Reinforcement Bars)



**TOP SLAB JOINT CONFIGURATIONS
D = 5'-0" (1.52 m)**

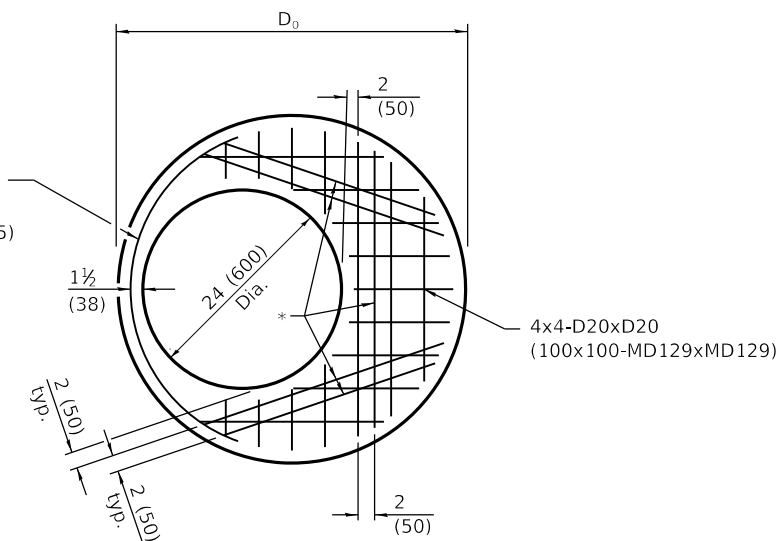
(Shown at access hole)

See Top Slab Joint Configurations for D=5'-0" (1.52 m)



**TOP SECTION THRU CATCH BASIN
FOR D = 5'-0" (1.52 m)**

Bar c #4 (#13), 4'-0" (1.22 m) length, 19 1/2 (495) radius bottom



PLAN FOR D = 36 (900)

(Showing Layout of Welded Wire Reinforcement)

* #4 (#13) bars bottom. Bundle first bar with WWR bar closest to the opening.

TABLE

D	T	D ₀ (min.)	t
36 (900)	See applicable Standards	D + 2T	6 (150)
4'-0" (1.2 m)			6 (150)
5'-0" (1.5 m)			8 (200)

GENERAL NOTES

The flat slab top may be used in lieu of the tapered tops shown on Standards 602001, 602016, or 602306 at the option of the Contractor or when field conditions prohibit the use of tapered tops.

Lifting holes shall be located in the sections as per the manufacturer's recommendations and grouted prior to backfilling.

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

DATE	REVISIONS
1-1-18	Revised for compliance with LRFD.
4-1-16	Changed terminology to 'welded wire reinforcement'.

**PRECAST REINFORCED
CONCRETE FLAT SLAB TOP**

(Sheet 1 of 2)

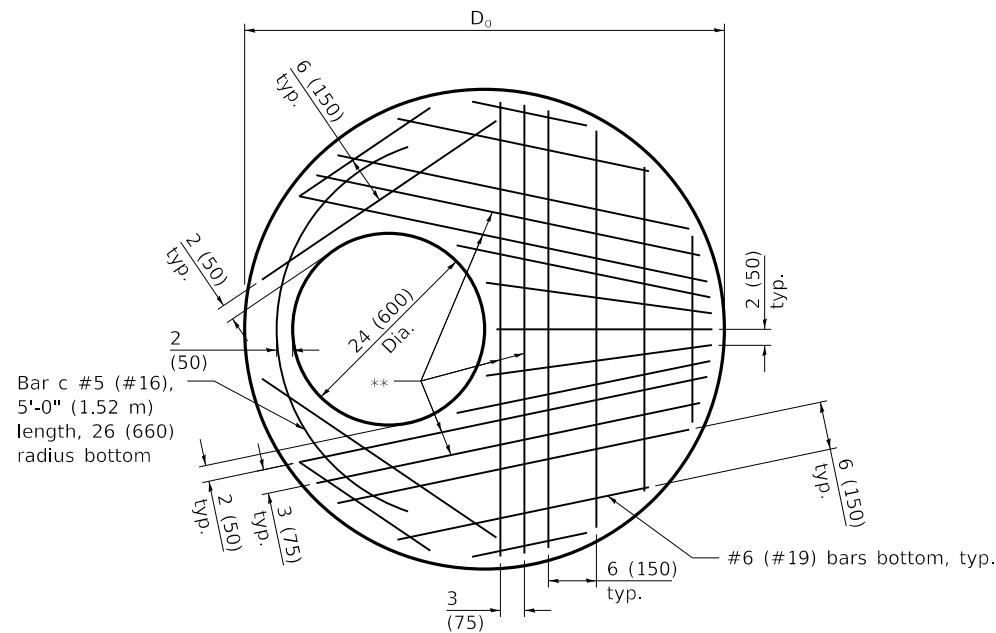
STANDARD 602601-05

Illinois Department of Transportation

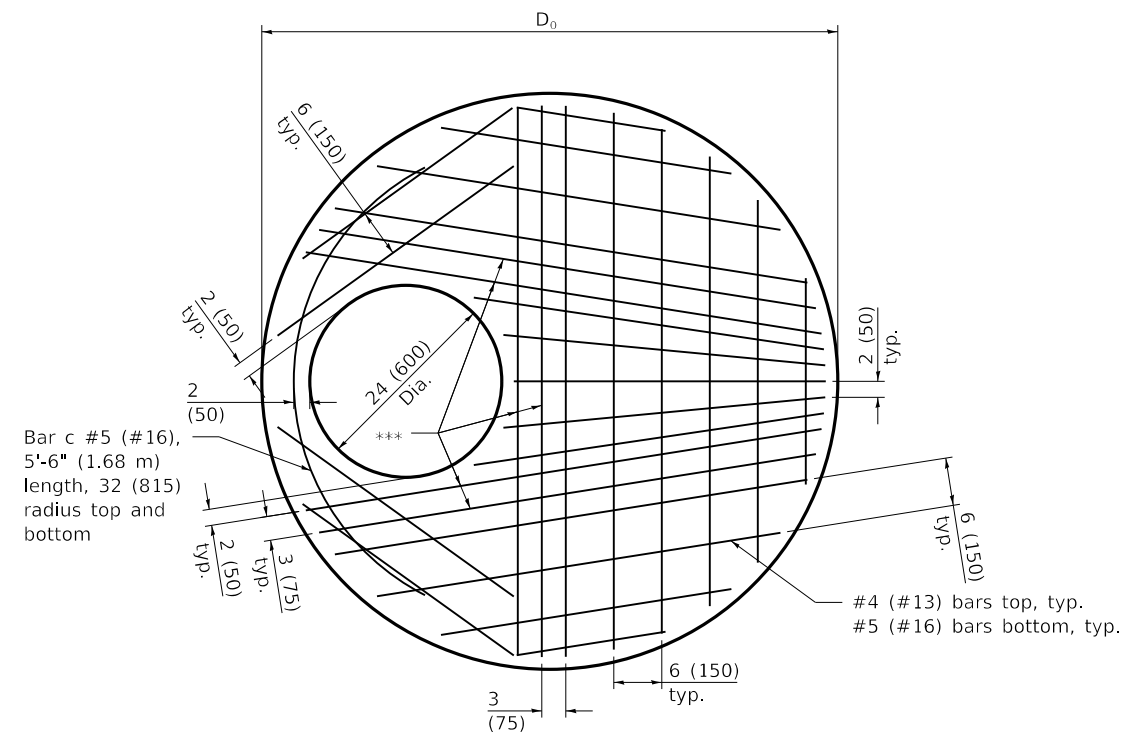
PASSED January 1, 2018
Michael Beard
 ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2018
Maureen M. Adams
 ENGINEER OF DESIGN AND ENVIRONMENT

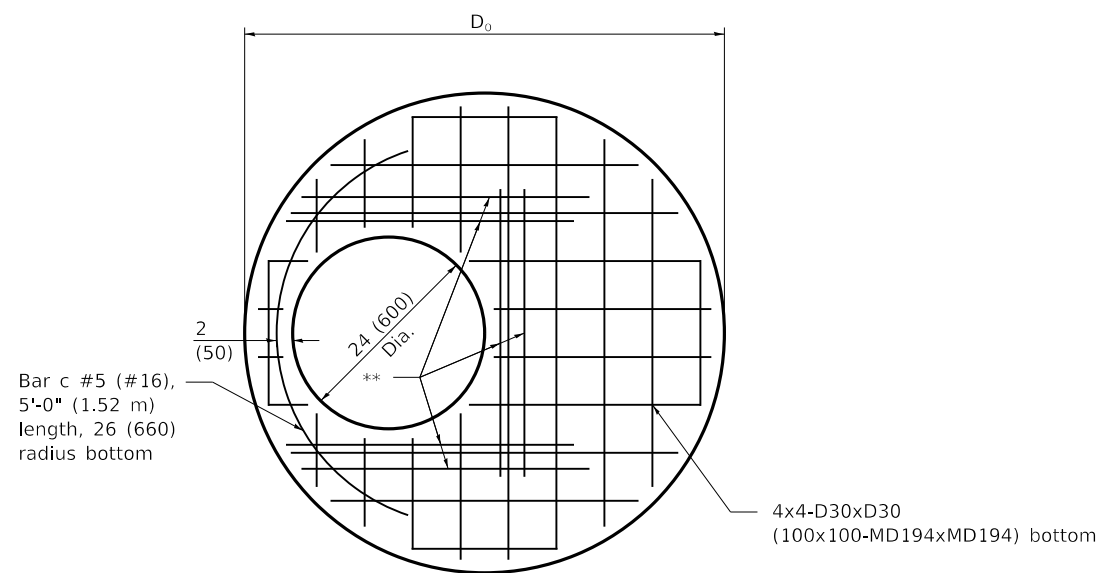
ISSUED 1-1-97



PLAN FOR D = 4'-0" (1.22 m)
(Showing Layout of Reinforcement Bars)

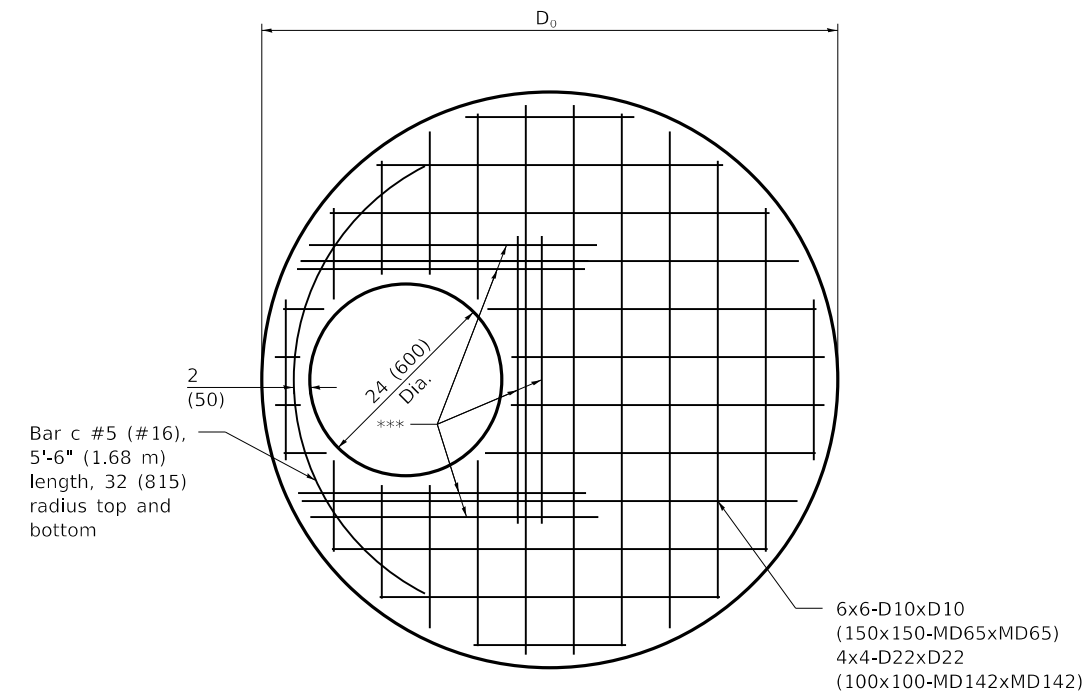


PLAN FOR D = 5'-0" (1.52 m)
(Showing Layout of Reinforcement Bars)



PLAN FOR D = 4'-0" (1.22 m)
(Showing Layout of Welded Wire Reinforcement)

** #5 (#16) bars bottom. For WWR, bundle first bar with WWR bar closest to the opening.



PLAN FOR D = 5'-0" (1.52 m)
(Showing Layout of Welded Wire Reinforcement)

*** #5 (#16) bars top and bottom. For WWR, bundle first bar with WWR bar closest to the opening.

Illinois Department of Transportation

PASSED January 1, 2018
Michael Beard
ENGINEER OF POLICY AND PROCEDURES

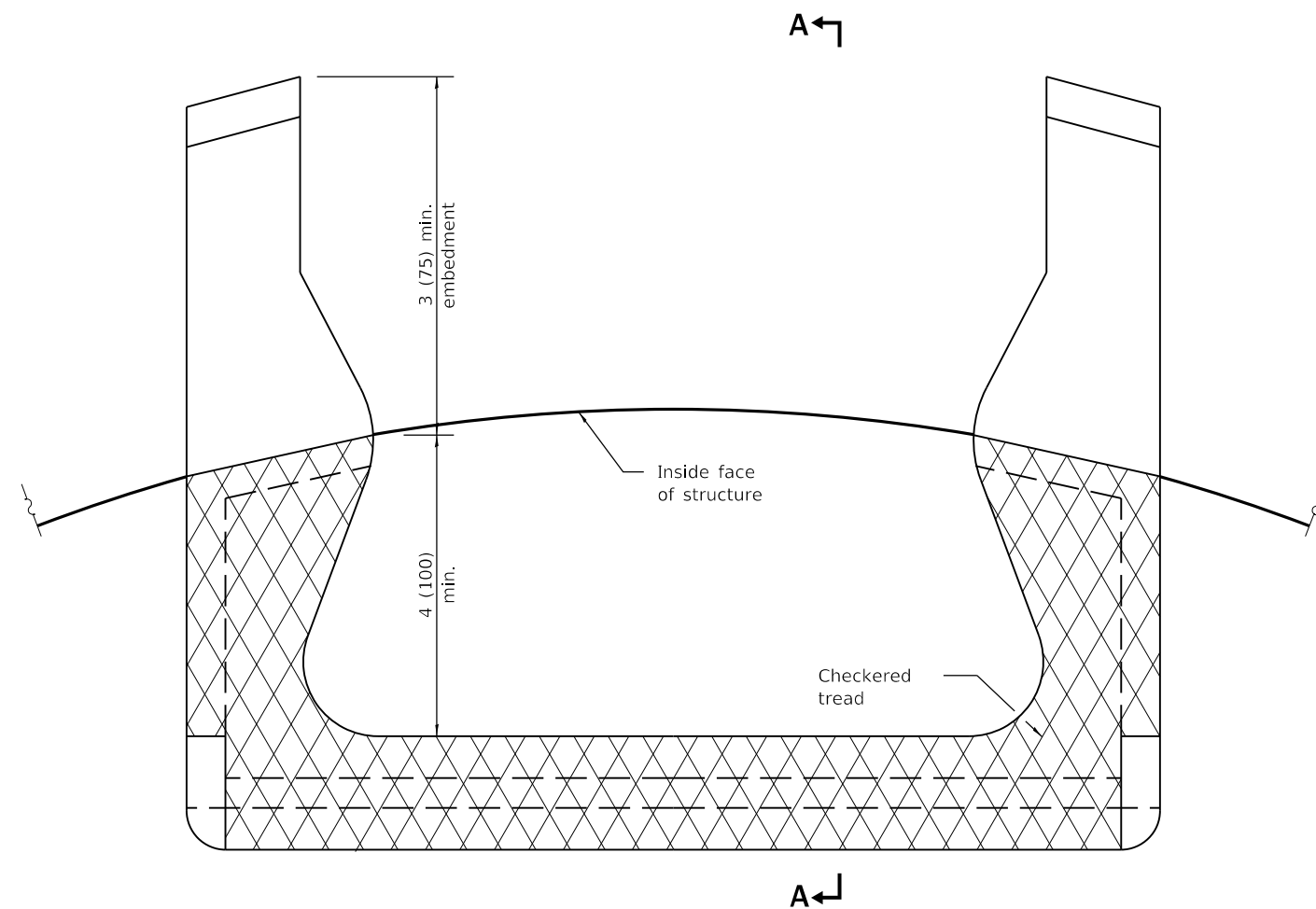
APPROVED January 1, 2018
Marcus M. Adams
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

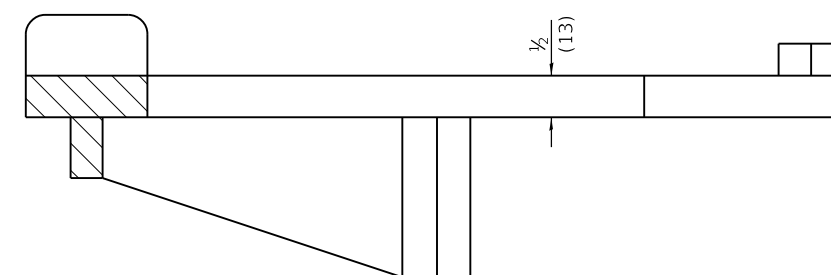
**PRECAST REINFORCED
CONCRETE FLAT SLAB TOP**
(Sheet 2 of 2)

STANDARD 602601-05

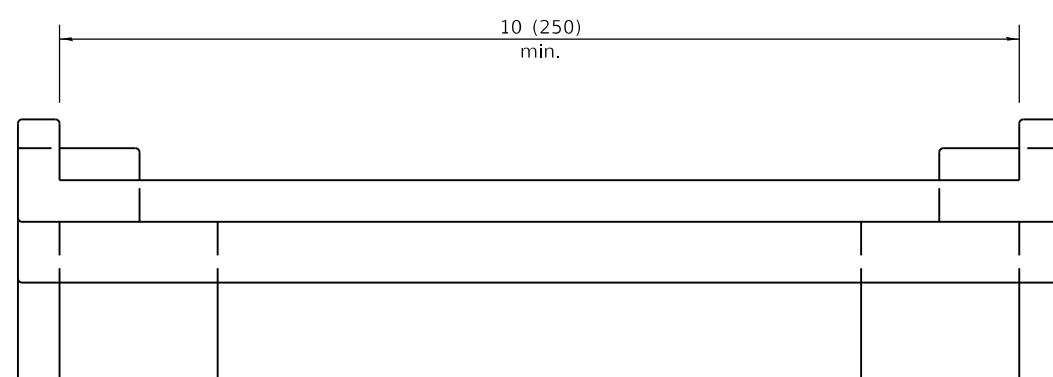
CAST IRON STEPS



PLAN VIEW



SECTION A-A



ELEVATION VIEW

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

Illinois Department of Transportation

PASSED January 1, 2009
[Signature]
 ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2009
[Signature]
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

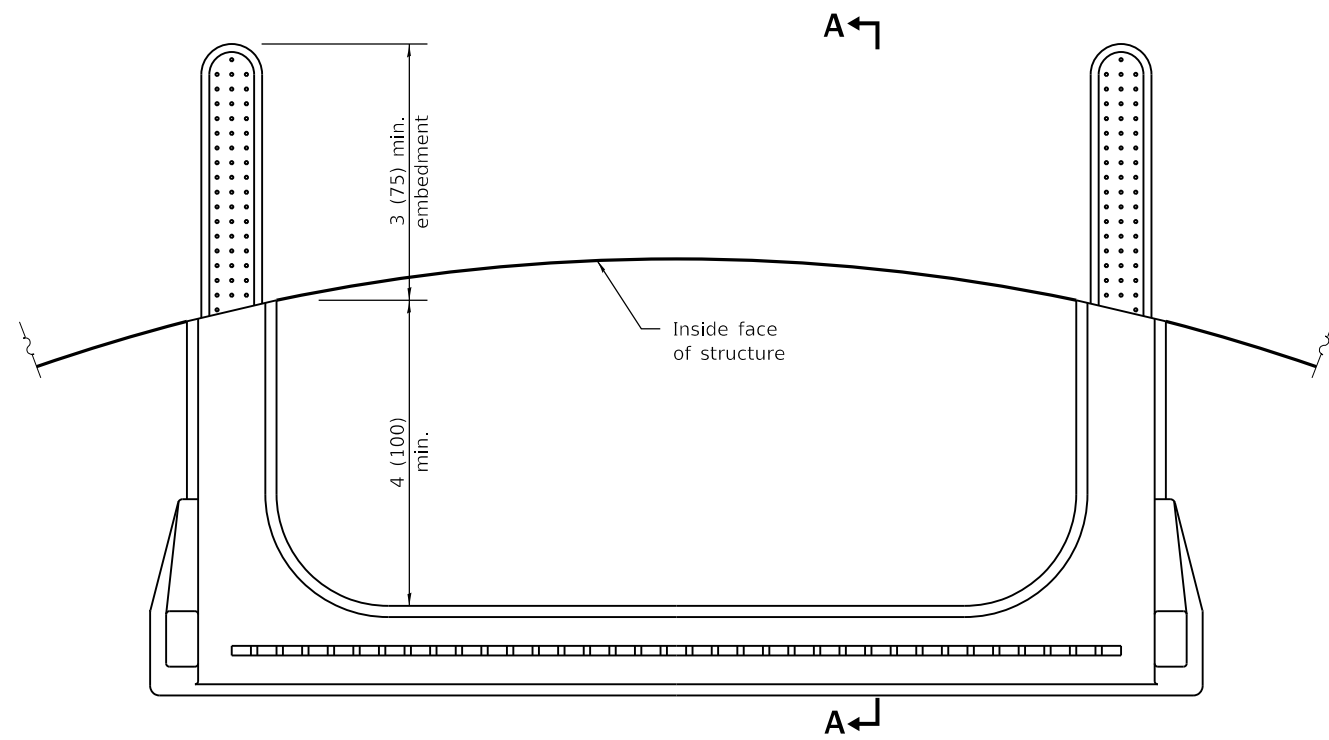
DATE	REVISIONS
1-1-09	Switched units to English (metric).
4-1-06	Revised title, drawings, and added plastic steps on sheet 2.

MANHOLE STEPS

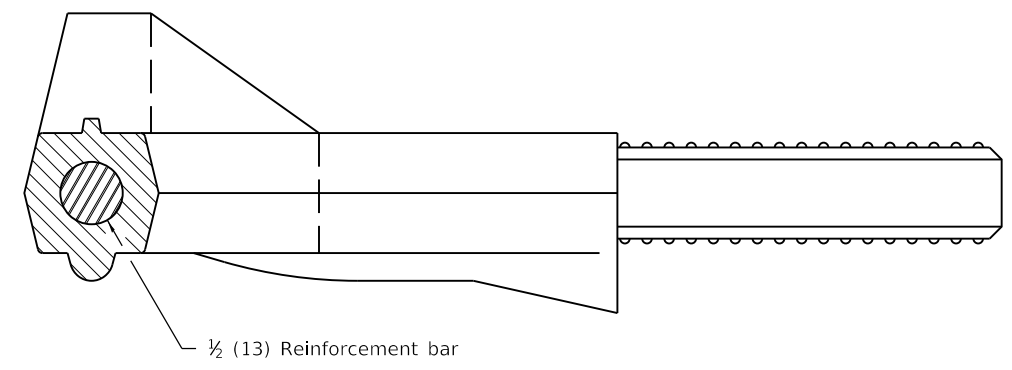
(Sheet 1 of 2)

STANDARD 602701-02

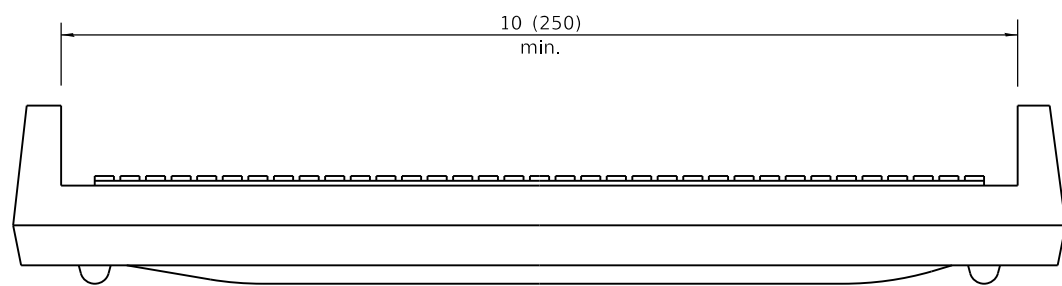
PLASTIC STEPS




PLAN VIEW



SECTION A-A

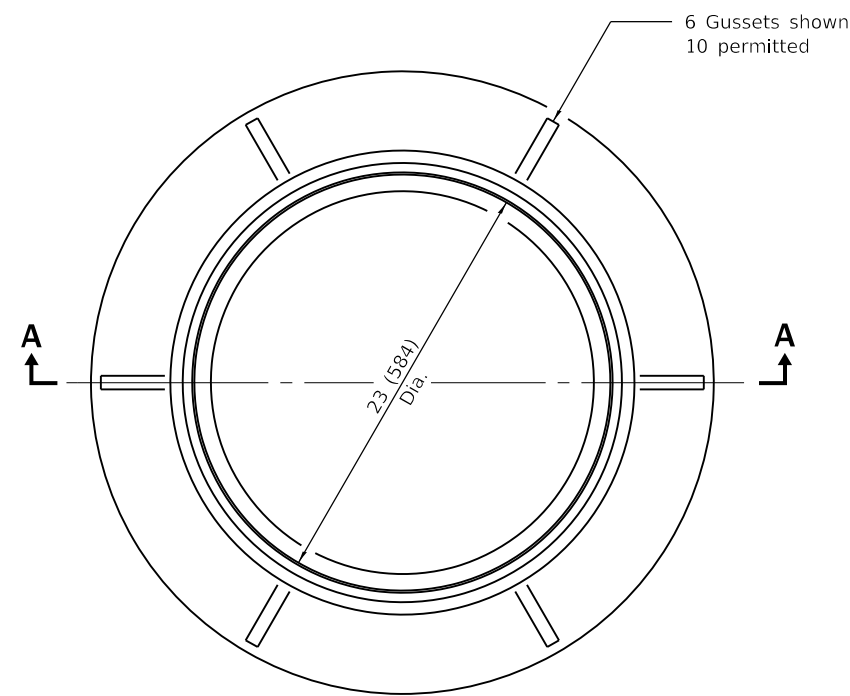


ELEVATION VIEW

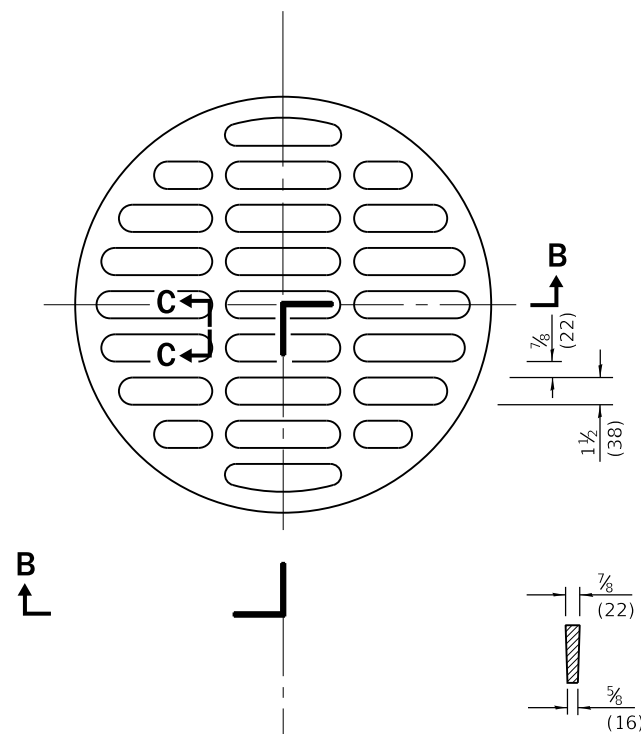
 Illinois Department of Transportation
 PASSED January 1, 2009
[Signature]
 ENGINEER OF POLICY AND PROCEDURES
 APPROVED January 1, 2009
[Signature]
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

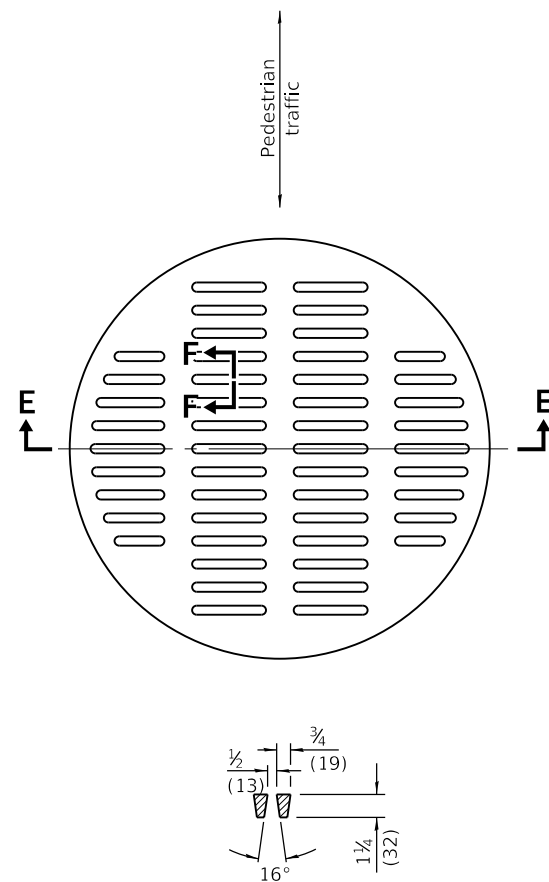
MANHOLE STEPS
 (Sheet 2 of 2)
STANDARD 602701-02



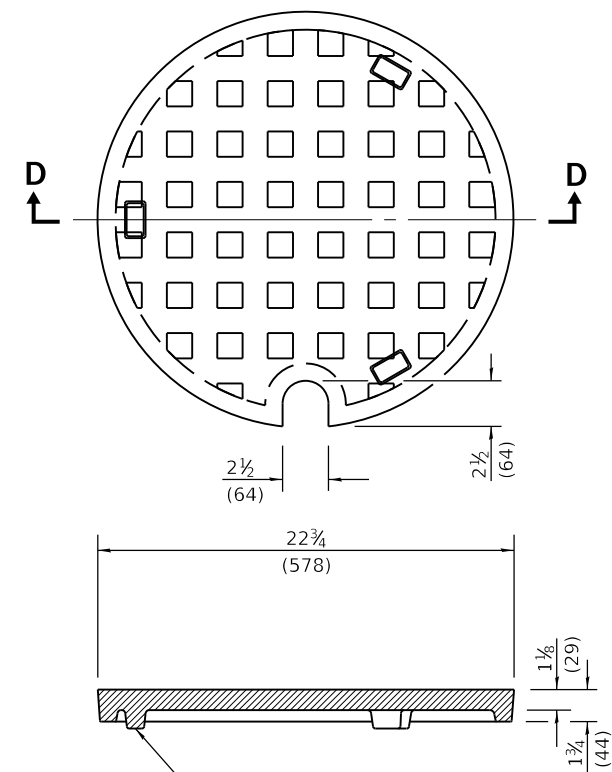
CAST FRAME



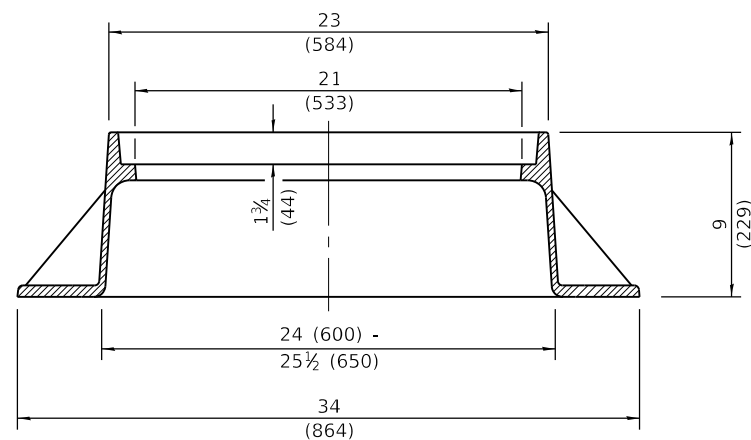
SECTION C-C



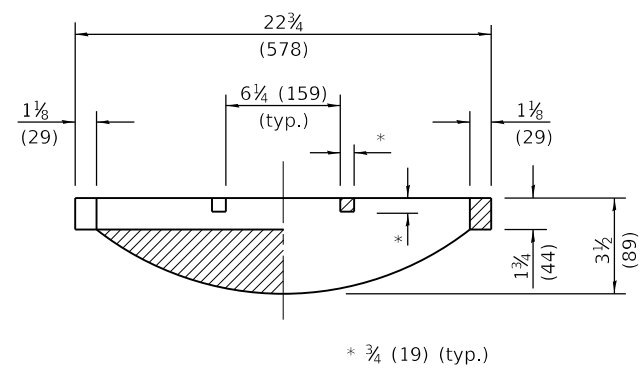
SECTION F-F



SECTION D-D

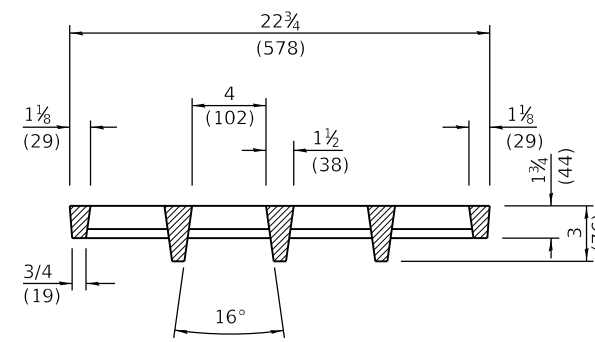


SECTION A-A
Gray Iron



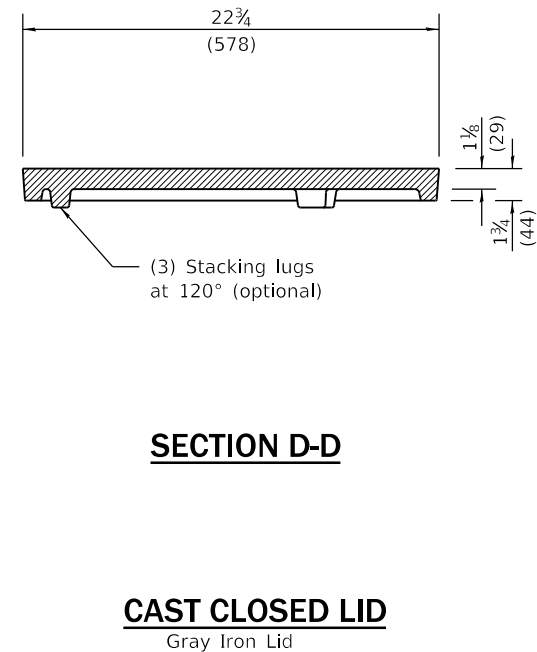
SECTION B-B

CAST OPEN LID



SECTION E-E

**ADA COMPLIANT
CAST OPEN LID**



CAST CLOSED LID
Gray Iron Lid

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

Illinois Department of Transportation

PASSED January 1, 2015
Michael Beard
ENGINEER OF POLICY AND PROCEDURES

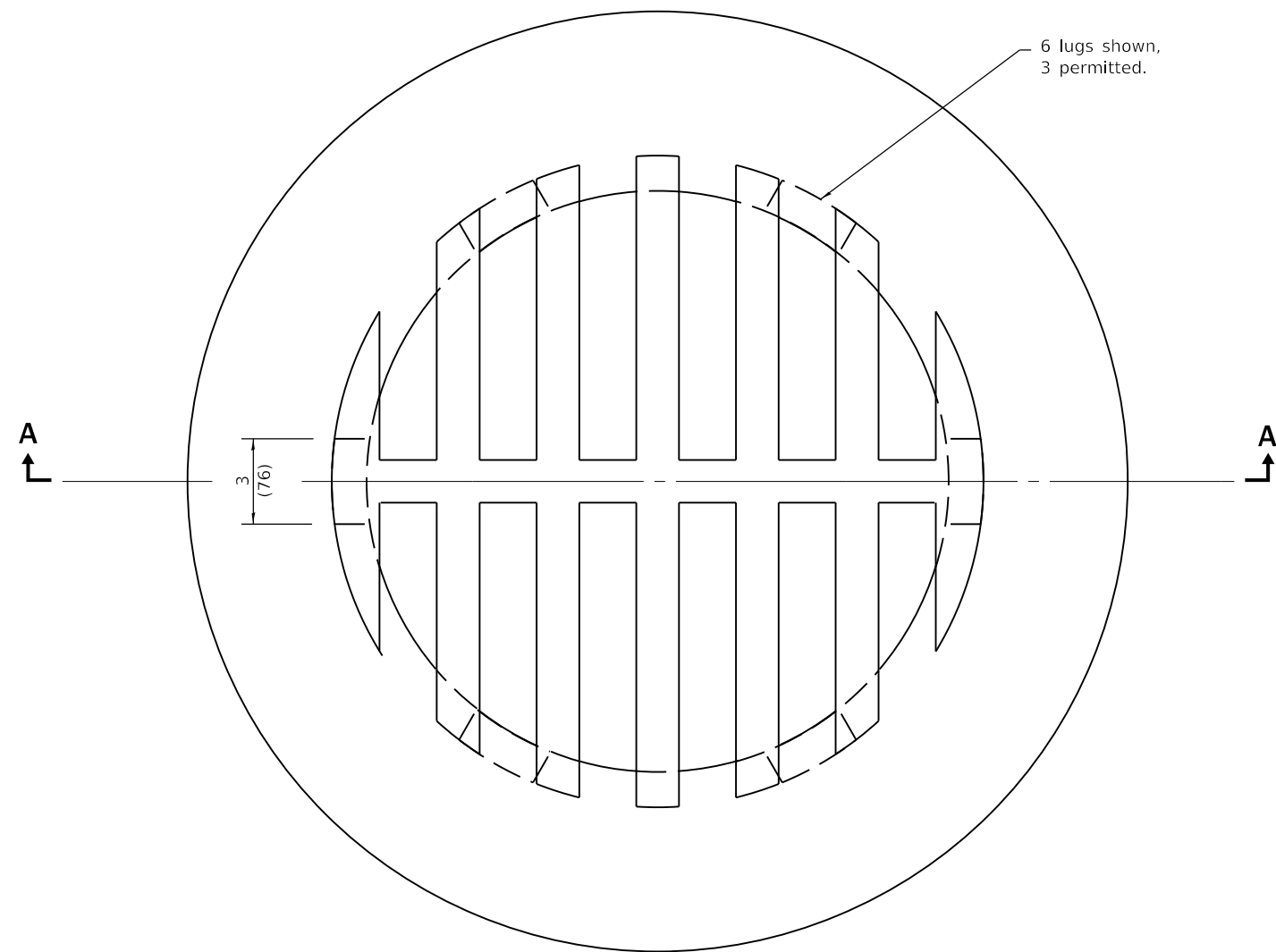
APPROVED January 1, 2015
[Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-15 6-1-1

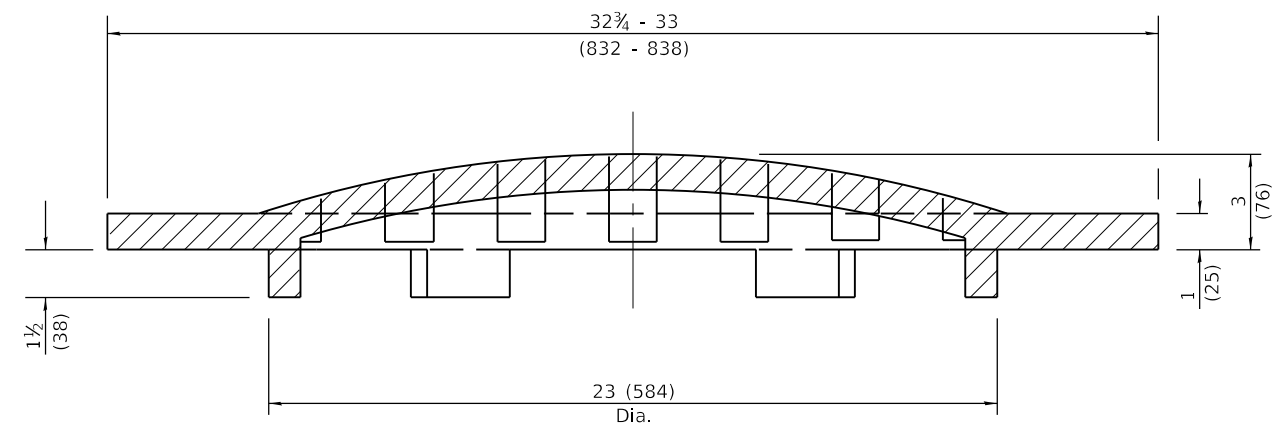
DATE	REVISIONS
1-1-15	Revised dimensioning of frame. Added ADA compliant open lid.
1-1-09	Switched units to English (metric).

**FRAME AND LIDS
TYPE 1**

STANDARD 604001-04




CAST GRATE



SECTION A-A

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


 Illinois Department of Transportation
 PASSED January 1, 2015
Michael Beard
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 APPROVED January 1, 2015
[Signature]
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

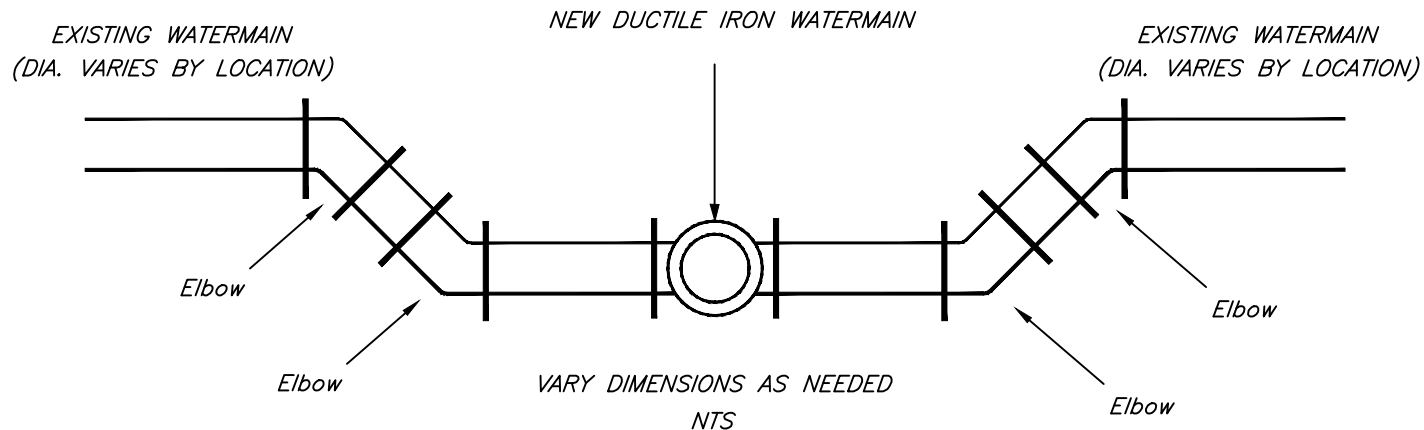
DATE	REVISIONS
1-1-15	Revised dimensions.
1-1-09	Switched units to English (metric).

GRATE TYPE 8

STANDARD 604036-03

TYPICAL WATERMAIN CONNECTION
MAY BE USED FOR "T" OR "CROSS" SECTION

PROFILE VIEW



ALL FITTINGS TO HAVE MEGALUG GLANDS AND ALL BOLTS & NUTS TO BE STAINLESS STEEL 304 BOLTS & T-BOLTS NUTS 316 NUTS.

ALL BENDS AND ELBOWS ARE TO BE THRUST BLOCKED, PER VILLAGE STANDARD WTR-05.

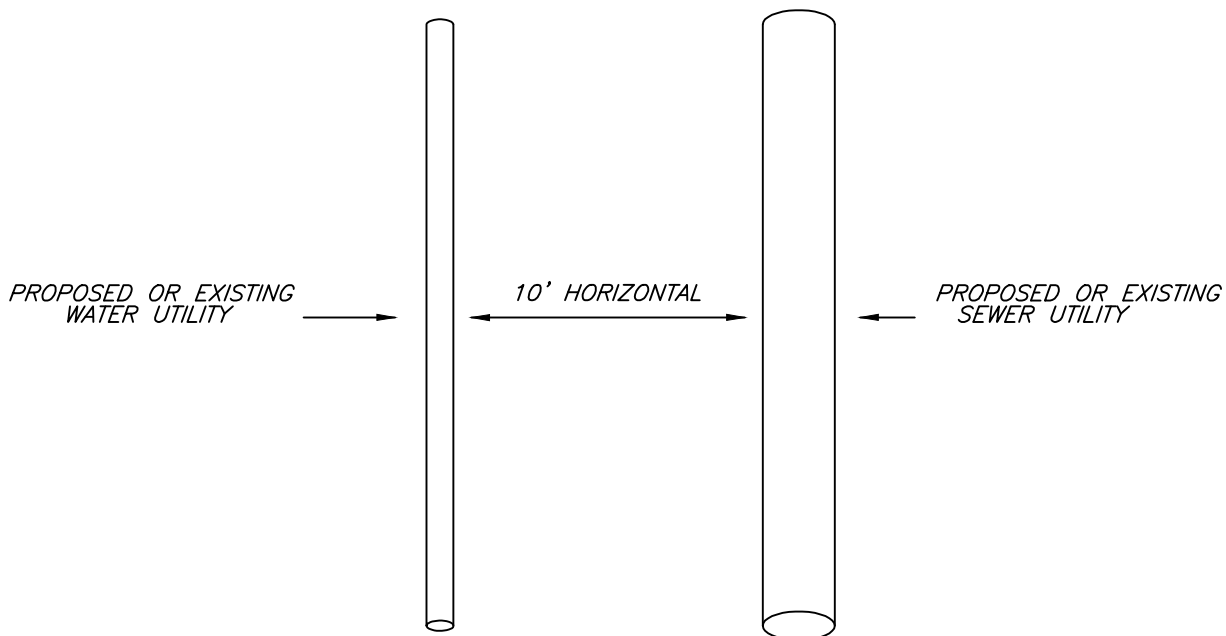
ALL ELBOWS SHALL BE 45 DEGREE ANGLES.

ALL NEW DUCTILE IRON WATER MAINS SHALL BE ENCASED IN A POLYETHELENE TUBE ACCORDING TO ANSI/AWWA C105/A21.5-93. METHOD A SHALL BE UTILIZED IN PLACING ENCASEMENT MATERIAL. HIGH-DENSITY, CROSS-LAMINATED POLYETHELENE FILM CONFORMING TO ASTM D1248-89 SHALL BE USED.

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	02/20/07		W.J.M.	M.D.M.	<p>WATERMAIN CONNECTION</p>
	03/25/11		S.A.V.	A.J.S.	
	03/01/15		A.J.S.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. WTR-01					
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HORIZONTAL SEPARATION

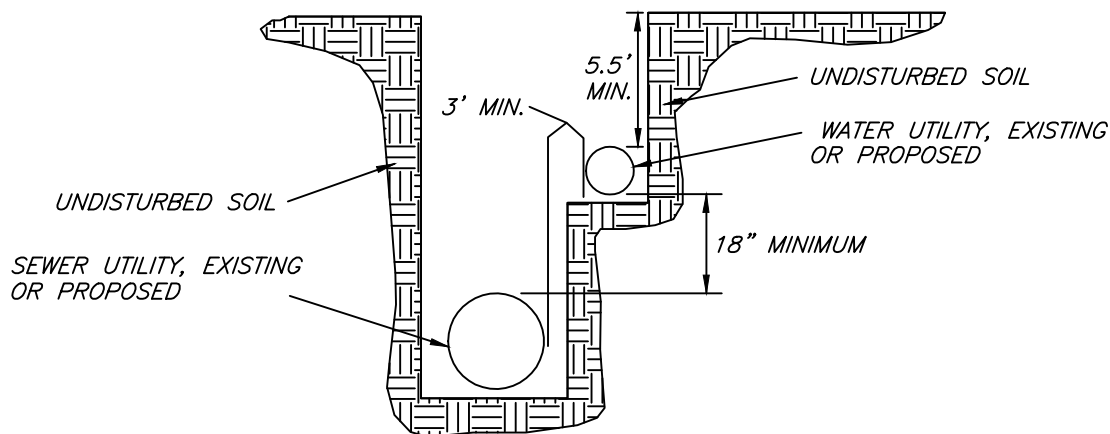
PROPOSED SEWER (OR WATER) IS LOCATED 10 FEET OR MORE FROM EXISTING WATER (SEWER)



PLAN VIEW

VERTICAL/SHELVED SEPARATION

PROPOSED SEWER (OR WATER) IS LOCATED LESS THAN 10 FEET FROM EXISTING WATER (OR SEWER)



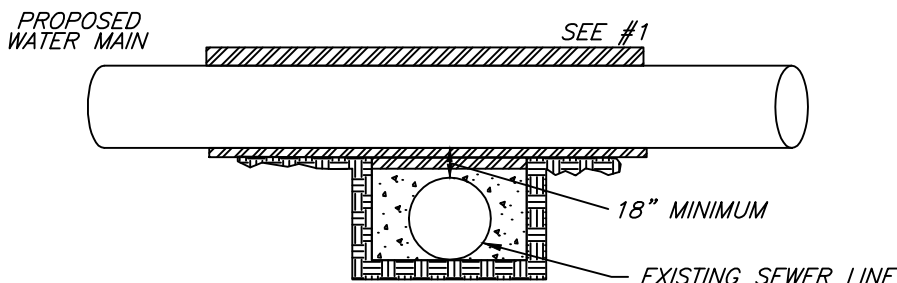
N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	02/20/07		W.J.M.	M.D.M.	WATER AND SEWER SEPARATION REQUIREMENTS HORIZONTAL SEPARATION
	03/25/11		S.A.V.	A.J.S.	
	03/01/15		S.A.V.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. WTR-02					
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VERTICAL SEPARATION

ABOVE

PROPOSED WATER MAIN ABOVE EXISTING SEWER LINE WITH 18" MINIMUM SEPARATION

NOTE: CLASS 5 MATERIAL SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR MAXIMUM DENSITY

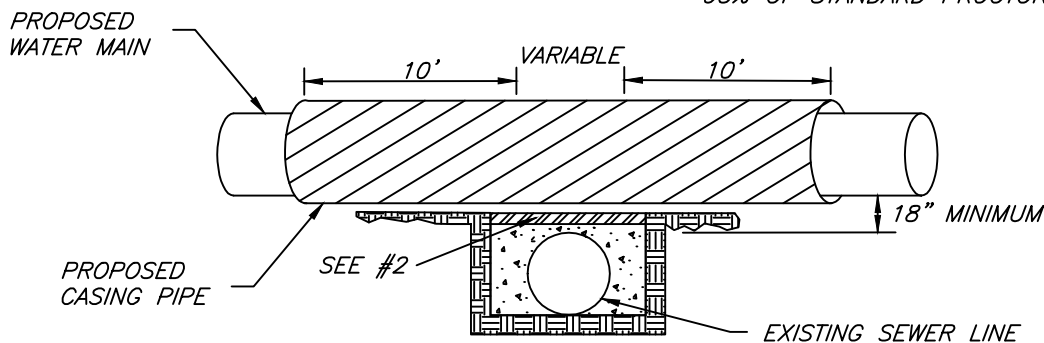


GUIDELINES


1. OMIT SELECT GRANULAR CRADLE AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF PIPE AND USE SELECT EXCAVATED MATERIAL (CLASS 5) AND COMPACT FOR 10 FEET ON EITHER SIDE OF SEWER LINE
2. IF SELECT GRANULAR MATERIAL EXISTS, REMOVE WITHIN WIDTH OF EXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS 5) AND COMPACT

PROPOSED WATER MAIN ABOVE EXISTING SEWER LINE WITH LESS THAN 18" MINIMUM SEPARATION

NOTE: CLASS 5 MATERIAL SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR MAXIMUM DENSITY



1. OMIT SELECT GRANULAR CRADLE AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF PIPE AND USE SELECT EXCAVATED MATERIAL (CLASS 5) AND COMPACT FOR 10 FEET ON EITHER SIDE OF SEWER LINE
2. IF SELECT GRANULAR MATERIAL EXISTS, REMOVE WITHIN WIDTH OF EXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS 5) AND COMPACT
3. USE A CASING FOR PROPOSED WATER MAIN AND SEAL BOTH ENDS OF CASING PIPE. SEE DETAIL WTR-07 FOR CASING AND SPACER INFORMATION
4. POINT LOADS SHALL NOT BE ALLOWED BETWEEN WATER MAIN OR WATER MAIN CASING PIPE OR SEWER LINE

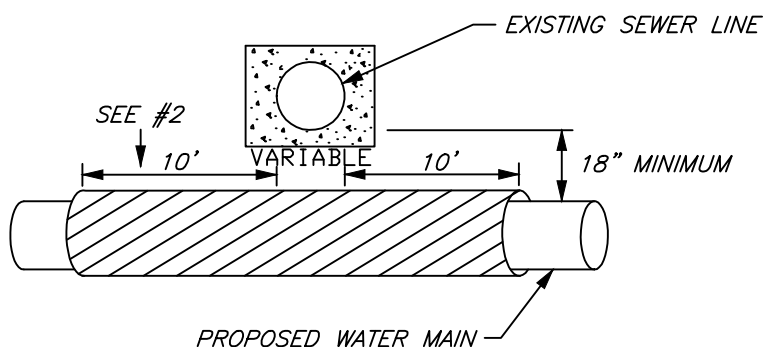
N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	02/20/07		W.J.M.	M.D.M.	WATER AND SEWER SEPARATION REQUIREMENTS VERTICAL SEPARATION ABOVE
	03/25/11		S.A.V.	A.J.S.	
	03/01/15		A.J.S.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. WTR-03					
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VERTICAL SEPARATION

PROPOSED WATER MAIN BELOW EXISTING SEWER LINE WITH 18" MINIMUM SEPARATION

NOTE: CLASS 5 MATERIAL SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR MAXIMUM DENSITY

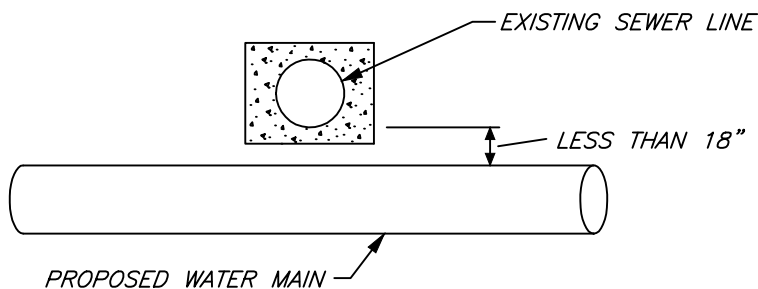
1. OMIT SELECT GRANULAR CRADLE AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF PIPE AND USE SELECT EXCAVATED MATERIAL (CLASS 5) AND COMPACT FOR 10 FEET ON EITHER SIDE OF SEWER LINE
2. IF SELECT GRANULAR MATERIAL EXISTS, REMOVE WITHIN WIDTH OF EXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS 5) AND COMPACT
3. USE A CASING FOR PROPOSED WATER MAIN AND SEAL BOTH ENDS OF CASING PIPE. SEE DETAIL WTR-07 FOR CASING AND SPACER INFORMATION
4. PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE TO PREVENT DAMAGE DUE TO SETTLEMENT




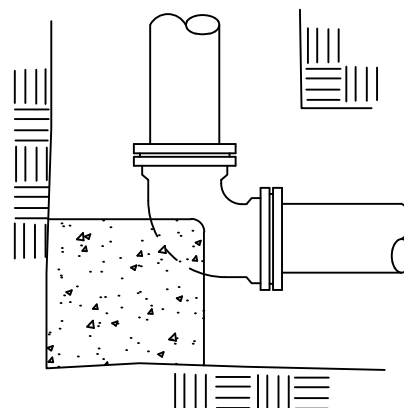
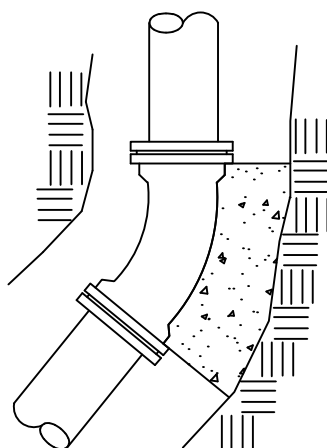
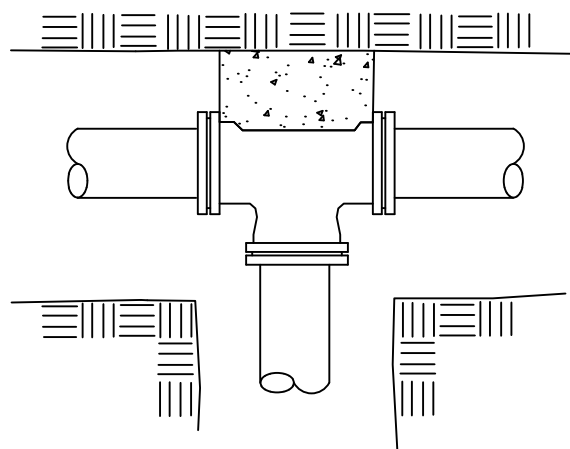
PLAN VIEW

PROPOSED WATER MAIN BELOW EXISTING SEWER LINE WITH LESS THAN 18" MINIMUM SEPARATION

*** NOT ALLOWED ***
MUST MAINTAIN 18" VERTICAL SEPARATION




N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	02/20/07		W.J.M.	M.D.M.	WATER AND SEWER SEPARATION REQUIREMENTS VERTICAL SEPARATION BELOW
	03/25/11		S.A.V.	A.J.S.	
	03/01/15		S.A.V.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. WTR-04					
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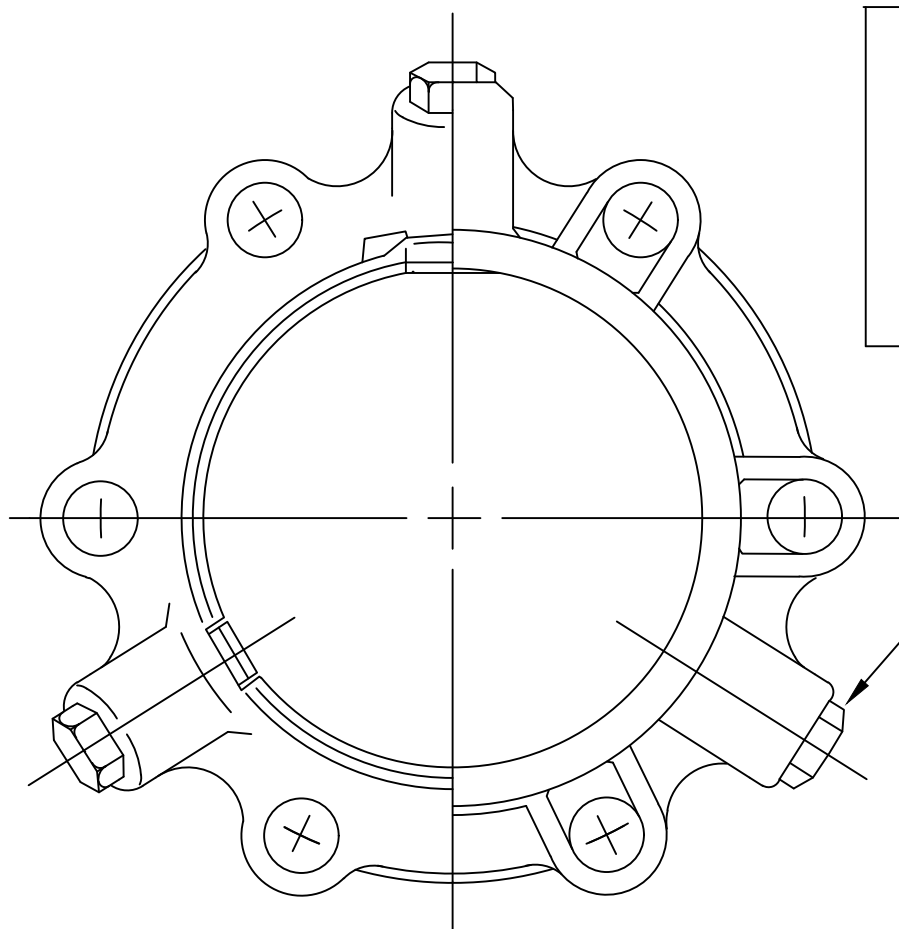
NOTES:

1. THRUST BLOCKS SHALL BE USED AT ALL BENDS 22-1/2 DEGREES OR GREATER
2. ALL BLOCKS TO BE 3000 P.S.I. CONCRETE
3. THE COST OF INSTALLING THE THRUST BLOCK SHALL BE INCIDENTAL TO THE CONSTRUCTION OF THE WATER MAIN

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	02/20/07		W.J.M.	M.D.M.	<p>TYPICAL THRUST BLOCK INSTALLATION</p>
	03/25/11		S.A.V.	A.J.S.	
	03/01/15		A.J.S.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
	DRAWING NO. WTR-05				
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MEGALUG MECHANICAL JOINT RESTRAINT DETAIL

N.T.S.



1100 SERIES SPECIFICATIONS:

NOMINAL PIPE SIZE=6"

SERIES NUMBER=1106

SHIPPING WT.=12.00 LBS.

RATED PRESSURE=250 @ 2:1

TWIST OFF NUTS SHALL BE USED TO INSURE PROPER ACTUATING OF THE RESTRAINING DEVICES.


REAR VIEW

FRONT VIEW

NOTES:

RESTRAINING DEVICES SHALL BE OF DUCTILE IRON HEAT TREATED TO A MINIMUM HARDNESS OF 370 BHN AND SHALL HAVE A WORKING PRESSURE OF AT LEAST 250 PSI WITH A MINIMUM SAFETY FACTOR OF 2:1 AND SHALL BE EBAA IRON, INC. EGALUG OR EQUAL.

ALL BOLTS & NUTS SHALL BE STAINLESS STEEL 304 T-BOLTS & 316 NUTS.

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	03/25/11		S.A.V.	A.J.S.	MEGALUG MECHANICAL JOINT RESTRAINT
	03/01/15		S.A.V.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	08/18/17	BOLTS & NUTS GRADES	N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. WTR-06					
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CASING PIPE REQUIREMENTS

1. CASING PIPE SHALL BE NEW WELDED STEEL PIPE CAPABLE OF WITHSTANDING A MINIMUM FORCE OF 35,000 PSI AND SHALL MEET THE REQUIREMENTS OF ASTM-139, GRADE B

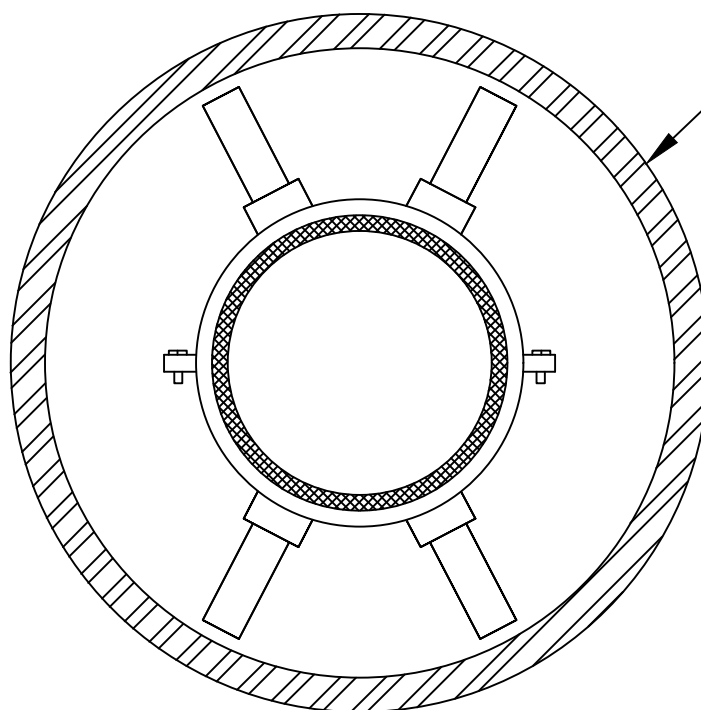
2. THE FOLLOWING TABLE SHALL DETERMINE THE DIAMETER SIZE AND WALL THICKNESS OF THE STEEL CASING PIPE:

<u>DIA. OF WATER MAIN</u>	<u>DIA. OF CASING</u>	<u>MINIMUM WALL THICKNESS</u>
6"	12"	.250"
8"	16"	.282"
12"	20"	.344"

3. ENDS OF CASING PIPE SHALL BE SEALED WITH BRICK AND MORTAR PRIOR TO BACKFILLING

4. ALTERNATE CASING PIPE MATERIALS MUST BE WATER MAIN QUALITY AND APPROVED BY THE VILLAGE OF DOWNERS GROVE WATER DEPARTMENT

ALL STAINLESS STEEL CASING SPACER
N.T.S.



PROPOSED DUCTILE IRON OR STEEL PIPE SEE SPECIFICATIONS, FOR LOCATIONS WHERE SPACER IS APPLICABLE.

NOTE:

ONE SPACER SHALL BE PLACED NOT MORE THAN TWO FEET FROM EACH END OF CASING. SUBSEQUENT SPACERS SHALL BE PLACED AT 8' INTERVALS WITHIN THE CASING.

MATERIAL SPECIFICATIONS:

1. SHELL & RISER TO BE A MIN. 14 GAUGE T 304 STAINLESS STEEL
2. FASTENERS TO BE 5/16" T 304 STAINLESS STEEL
3. LINER TO BE PVC 090 THICK 85-90 DUROMETER
4. RUNNERS TO BE ULTRA HIGH MOLECULAR WEIGHT POLYMER

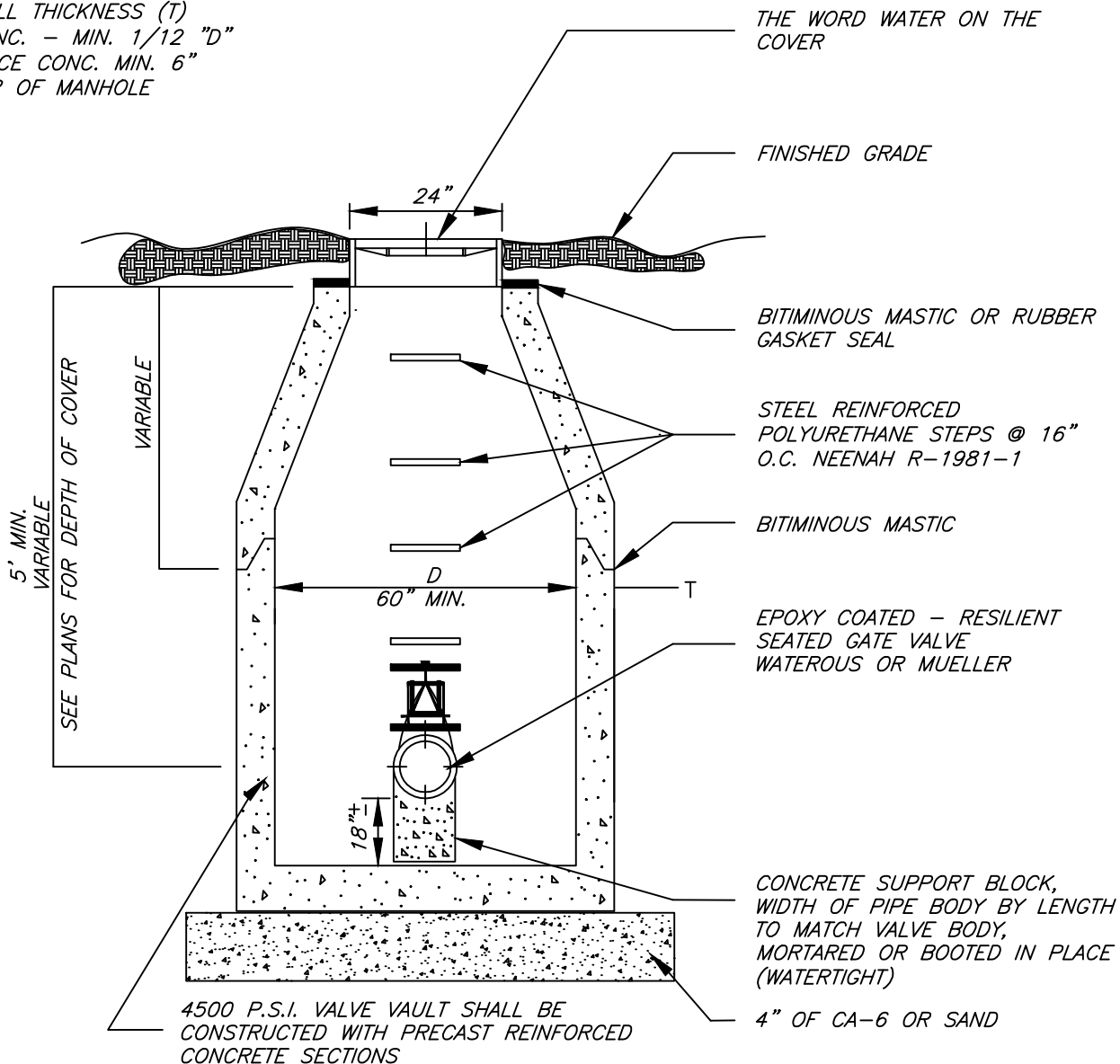
CENTERED: POSITION CARRIER IN CENTER OF CASING. PROVIDES RESTRAINT AGAINST MOVEMENT. BEST MECHANICALLY RESTRAINED PIPE JOINTS.

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	02/20/07		W.J.M.	M.D.M.	<p>CASING PIPE & ALL STAINLESS STEEL CASING SPACER</p>
	03/25/11		S.A.V.	A.J.S.	
	03/01/15		S.A.V.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. WTR-07					
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TYPICAL WATER VALVE VAULT

N.T.S.

MATERIAL WALL THICKNESS (T)
 PRECAST CONC. - MIN. 1/12 "D"
 CAST-IN PLACE CONC. MIN. 6"
 D= DIAMETER OF MANHOLE



NOTES:

D = DIAMETER OF MANHOLE
 VALVE VAULT DIAMETER SHALL BE 60" FOR VALVES 6" - 8"
 VALVE VAULT DIAMETER SHALL BE 72" FOR VALVES 10" AND LARGER

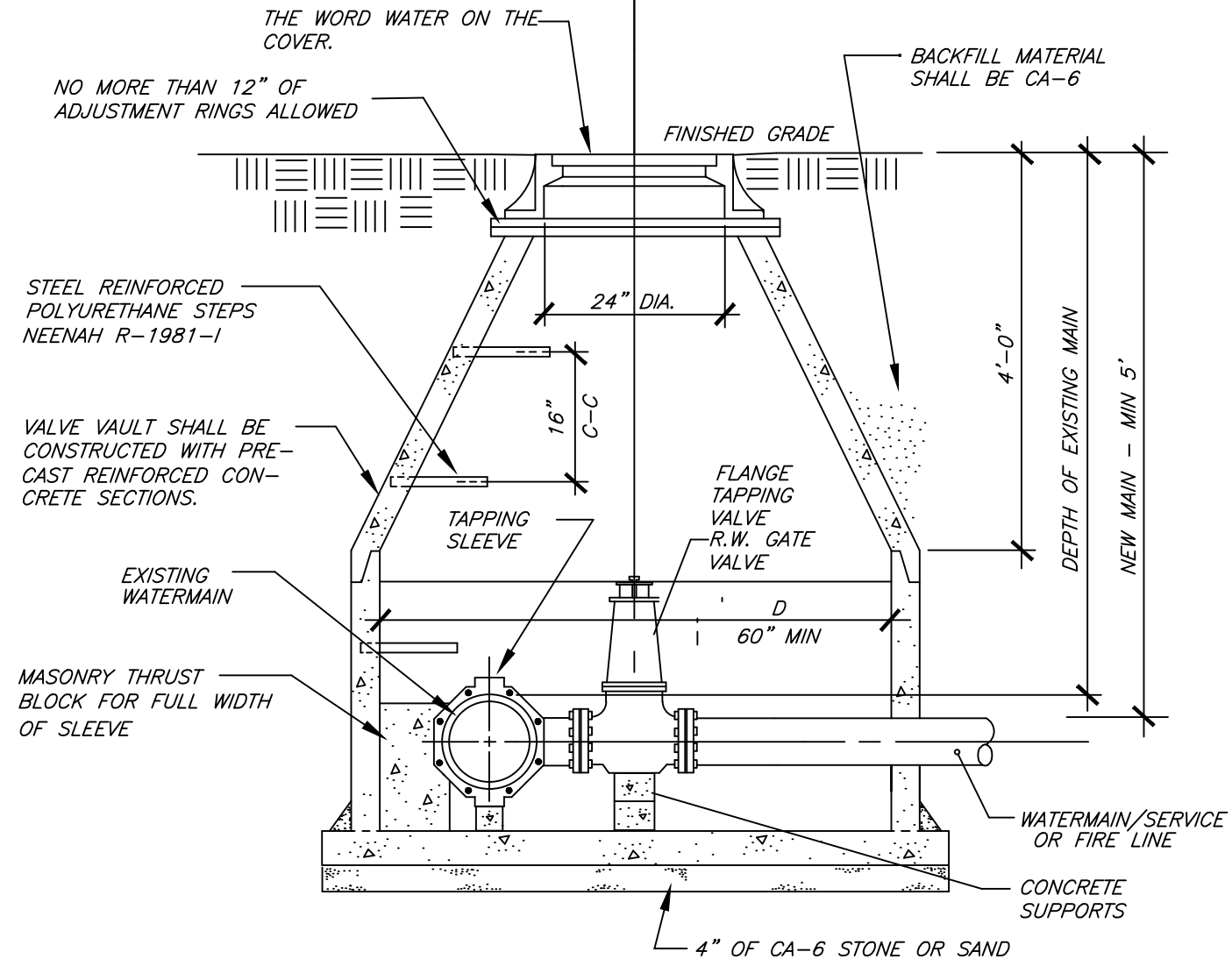
ALL FITTINGS SHALL BE MEGALUG AND ALL BOLTS & NUTS SHALL BE STAINLESS STEEL 304 T-BOLTS & 316 NUTS.
 ALL OPENINGS ON PRECAST VALVE VAULT SHALL BE BLOCKED AND MORTARED

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	02/20/07		W.J.M.	M.D.M.	<p>WATER VALVE VAULT</p>
	03/25/11		S.A.V.	A.J.S.	
	03/01/15		S.A.V.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. WTR-08					
I:\LIBRARY\DETAILS\WATER\WTR-08					

TYPICAL WATERMAIN PRESSURE CONNECTION

N.T.S.

MATERIAL WALL THICKNESS (T)
 PRECAST CONC. - MIN. 1/12 "D"
 CAST-IN PLACE CONC. MIN. 6"
 D= DIAMETER OF MANHOLE

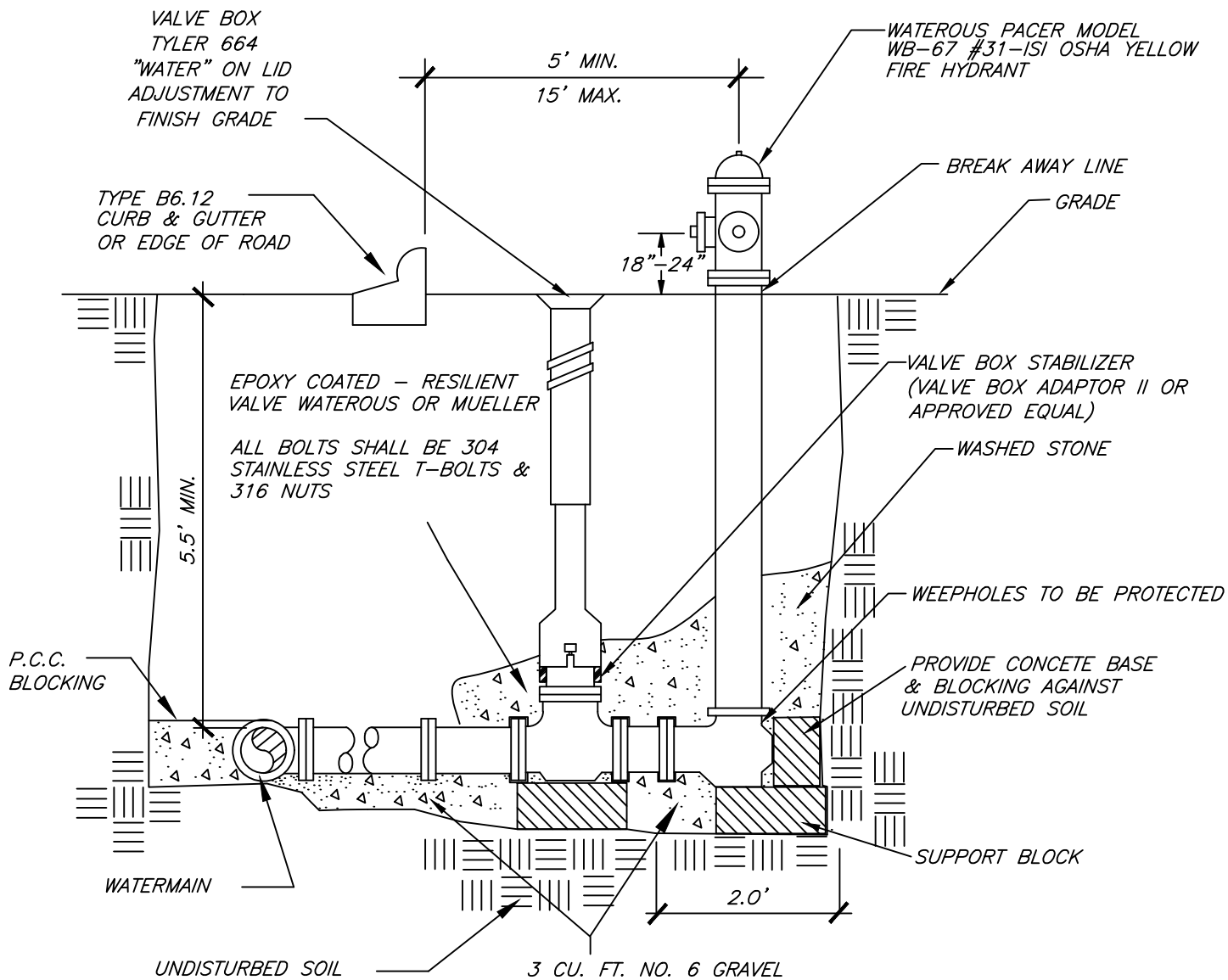


NOTES:
 D = DIAMETER OF MANHOLE
 VALVE VAULT DIAMETER SHALL BE 60" FOR VALVES 6" - 8"
 VALVE VAULT DIAMETER SHALL BE 72" FOR VALVES 10" AND LARGER

ALL FITTINGS SHALL BE MEGALUG AND ALL BOLTS & NUTS SHALL BE STAINLESS STEEL 304 T-BOLTS & 316 NUTS.
 ALL OPENINGS ON PRECAST VALVE VAULT SHALL BE BLOCKED AND MORTARED

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	02/20/07		W.J.M.	M.D.M.	WATERMAIN PRESSURE CONNECTION
	03/25/11		S.A.V.	A.J.S.	
	03/01/15		S.A.V.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. WTR-09					
I:\LIBRARY\DETAILS\WATER\WTR-09					

FIRE HYDRANT
N.T.S.



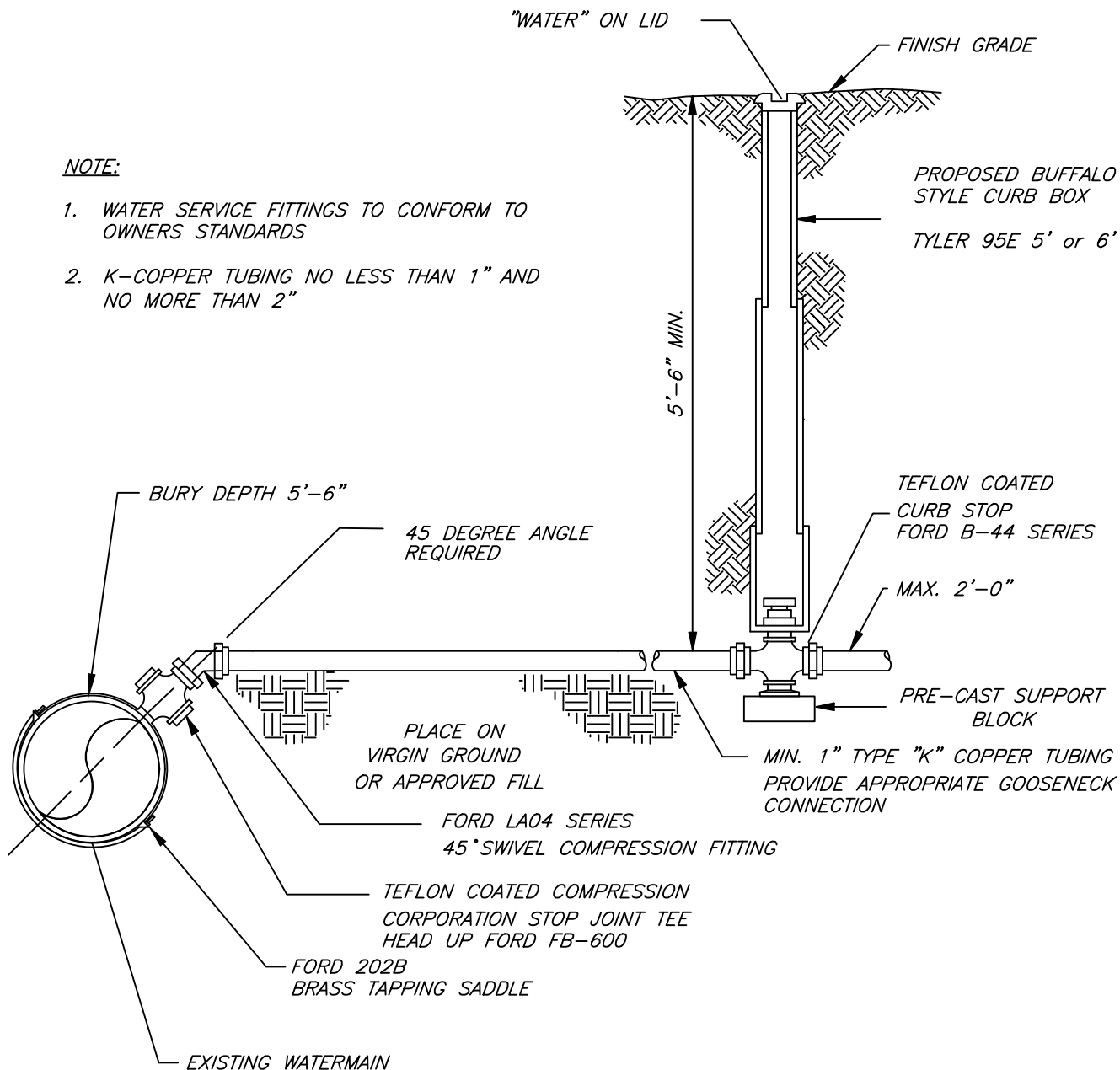
GUIDELINES


HYDRANTS SHALL BE LOCATED NOT LESS THAN FIVE FEET (5) NOR MORE THAN TEN FEET (10) BEHIND THE CURB ON IMPROVED STREETS

HYDRANTS SHALL BE LOCATED NOT LESS THAN SIX FEET (6) NOR MORE THAN FIFTEEN FEET (15) BEHIND PAVEMENT ON UNIMPROVED STREETS

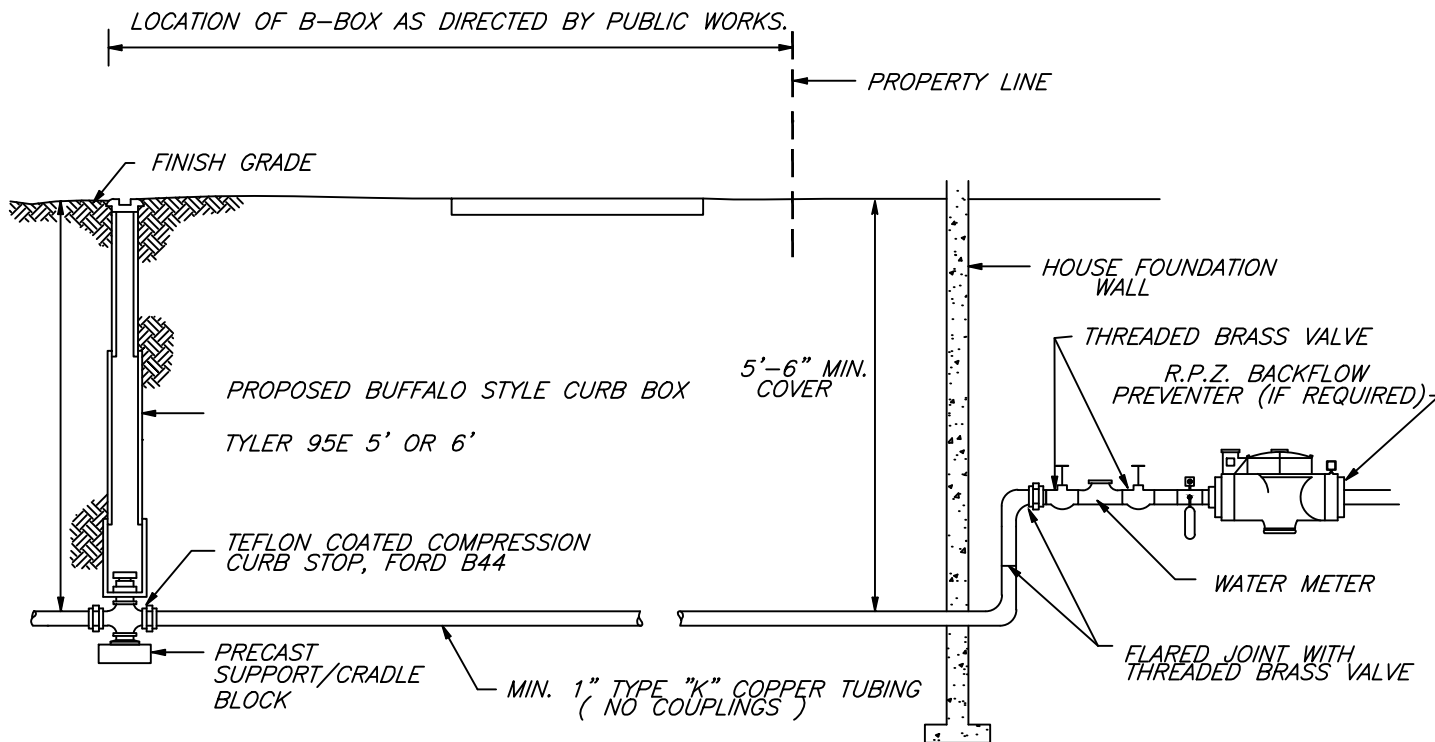
N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	03/25/11		S.A.V.	A.J.S.	<p>TYPICAL HYDRANT INSTALLATION</p>
	03/01/15		S.A.V.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	08/18/17	ADDED STABILIZER	N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. WTR-10					
I:\LIBRARY\DETAILS\WATER\WTR-10					

TAP SERVICE CONNECTION
N.T.S.



N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	03/25/11		S.A.V.	A.J.S.	TYPICAL TAP SERVICE CONNECTION
	03/01/15		S.A.V.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	08/18/17	REMOVED TYLER 100E	N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. WTR-11					
I:\LIBRARY\DETAILS\WATER\WTR-11					

2" MAX. STANDARD WATER SERVICE CONNECTION BUFFALO BOX TO HOUSE
N.T.S.



NOTE:

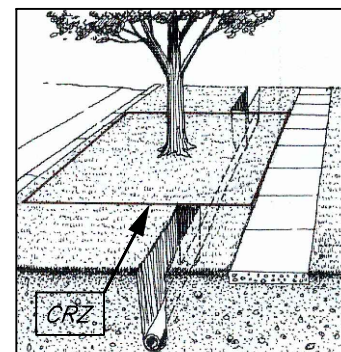
TEN FOOT MINIMUM HORIZONTAL SEPERATION BETWEEN WATER SERVICE AND SEWER MUST BE MAINTAINED UP TO AND THROUGH HOUSE FOUNDATION OR AS DIRECTED BY PUBLIC WORKS DIRECTOR

ACTUAL WATER SERVICE SIZE MAY VARY IN ACCORDANCE WITH THE ILLINOIS STATE PLUMBING CODE

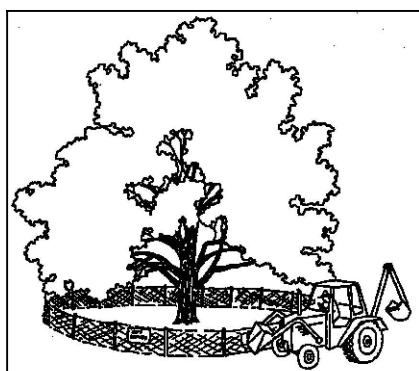
N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	03/25/11		S.A.V.	A.J.S.	TYPICAL WATER SERVICE CONNECTION FROM B-BOX TO HOUSE
	03/01/15		S.A.V.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	08/18/17	ADDED TYLER 95E ONLY	N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. WTR-12					
I:\LIBRARY\DETAILS\WATER\WTR-12					

Municipal Codes regarding trees, including tree protection requirements for public parkway trees, are located in Chapter 24 of the Downers Grove Municipal Code <http://www.downers.us/code/chapters/24> . Parkway tree protection shall involve avoiding damage to both the above ground tree trunk, including the branches, and the below ground root system. Roots are the most vital part of a tree with the majority of nutrient and water absorbing roots in the upper 18 to 24 inches of soil. Tree roots must be protected from severing or changes in their soil environment (such as compaction or grade changes) to prevent irreversible tree decline or death in the coming years.

The Critical Root Zone, or CRZ, is the area immediately surrounding a tree that needs to be protected from damage. The size of this area, measured from the center of the tree, is ideally a circle with a radius of one foot for each inch of trunk diameter. The depth of the CRZ extends to 4 feet below the natural ground surface level. In a municipal parkway setting with utilities and paved or concrete surfaces, the CRZ cannot always be the ideal size. Instead, the CRZ has been adjusted to form a rectangle around the parkway tree trunk with the minimum dimensions listed in the following table. At a minimum, the listed CRZ shall be fenced with a 6 foot high temporary chain link construction fence secured to metal posts spaced no further than 10 feet apart. Whenever possible, the entire parkway shall be fenced in except where access has been permitted. Any exceptions shall be noted on the drawings submitted for a given permit.



<u>PARKWAY TREE DIAMETER AT 4.5'</u>	<u>WIDTH FROM STREET TO PROPERTY (MINIMUM CURB TO SIDEWALK)</u>	<u>LENGTH ALONG STREET (MINIMUM)</u>	<u>DEPTH</u>
0-12.0 INCHES	10.0 FEET	10 FEET	4 FEET
12.1-24.0 INCHES	10.0 FEET	20 FEET	4 FEET
24.1 OR MORE INCHES	10.0 FEET	30 FEET	4 FEET



For public parkway trees, roots located within the determined CRZ shall be protected from compaction, severing, and the storage of materials or equipment. Utilities must be augered underneath the tree as shown above. In cases when severing of roots within a portion of the CRZ may be unavoidable (ex. sidewalk installation, curb replacement, water main or sanitary main disconnects in the parkway), subject to the approval of the Village Forester, the smallest possible area shall be disturbed and sharp clean cuts shall be made on root ends to promote wound closure and root regeneration. All CRZ fencing shall be a 6 foot high temporary chain link construction fence secured to metal posts spaced no further than 10 feet apart, and shall be maintained daily in good condition. Any exceptions to the fence dimensions or parkway position shall be noted on the permit.

In addition to fines and citations that may be assessed for violations of any Chapter 24 municipal code (such as not maintaining fencing around the CRZ or unauthorized removal of parkway trees), violators may be subject to the following provisions:

- issuance of an invoice for the monetary loss in tree value or partial value due to damage to either the above ground or below ground portions of the parkway tree, or unauthorized tree removal.
- forfeiture of bonds issued for the work should funds be sufficient to cover tree values and fines.
- costs of repairs, such as pruning or cabling, or costs for removal of the damaged parkway tree along with the stump if the tree cannot remain in the right-of-way.
- fines of \$500 for the 1st offense; \$1,000 for the 2nd offense; \$2,500 for 3rd and subsequent offenses.
- each day during which a violation continues shall be construed as a separate and distinct offense.

For more information, contact the Forestry Division at 630-434-5475 or 630-434-5476.



N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	02/20/07		J.M.L.	M.D.M.	<p>PARKWAY TREE PROTECTION REQUIREMENTS</p>
	03/25/11		S.A.V.	A.J.S.	
	03/01/15		S.A.V.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
DRAWING NO. TRE-01					
I:\LIBRARY\DETAILS\TREES\TRE-01					

SUITABLE TREE SPECIES FOR PLANTING IN PARKWAYS OF DOWNERS GROVE

TREES WITH LARGE MATURE HEIGHTS FOR PARKWAYS WITH ADEQUATE SPACE

PLANTING SEASON AVAILABLE

THRIVES IN NEW SUBDIVISIONS?

COMMONLY AVAILABLE:

FREEMAN MAPLE	SPRING AND FALL	YES
NORWAY MAPLE (NO CRIMSON LEAF CULTIVARS)	SPRING AND FALL	YES
SUGAR MAPLE	SPRING AND FALL	VARIES
KENTUCKY COFFEETREE	SPRING AND FALL	YES
HYBRID ELMS	SPRING AND FALL	YES
HACKBERRY	SPRING AND FALL	YES
HONEYLOCUST (THORNLESS AND SEEDLESS)	SPRING AND FALL	YES
AMERICAN LINDEN	SPRING AND FALL	YES
LITTLELEAF LINDEN	SPRING AND FALL	YES
BUR OAK	SPRING	YES
ENGLISH OAK INCLUDING HYBRID OAKS	SPRING	YES
SWAMP WHITE OAK	SPRING	YES
PEAR (CULTIVARS OTHER THAN BRADFORD)	SPRING	YES

MAY HAVE LIMITED AVAILABILITY:

BALDCYPRESS	SPRING	VARIES
RIVER BIRCH	SPRING	VARIES
HORNBEAM, AMERICAN OR EUROPEAN	SPRING	VARIES
RED HORSECHESTNUT	SPRING	VARIES
CATALPA	SPRING AND FALL	YES
GINKGO	SPRING AND FALL	NO
IRONWOOD	SPRING	NO
SILVER LINDEN	SPRING AND FALL	VARIES
MIYABE MAPLE	SPRING AND FALL	YES
CHINKAPIN OAK	SPRING	YES
RED OAK	SPRING	NO
SHINGLE OAK	SPRING	YES
LONDON PLANETREE	SPRING	VARIES
SWEETGUM	SPRING	VARIES
TURKISH FILBERT	SPRING AND FALL	VARIES
TULIPTREE	SPRING	VARIES


TREES WITH SHORT MATURE HEIGHTS FOR PARKWAYS WITH OVERHEAD WIRES

PLANTING SEASON AVAILABLE

THRIVES IN NEW SUBDIVISIONS?

CRABAPPLE (SELECTIONS WITHOUT LARGE FRUIT OR DISEASE PROBLEMS)	SPRING AND FALL	YES
COCKSPUR HAWTHORN (THORNLESS)	SPRING AND FALL	YES
CORNELIANCHERRY DOGWOOD	SPRING AND FALL	VARIES
DWARF MAPLES	SPRING AND FALL	YES
SERVICEBERRY SPP.	SPRING AND FALL	YES
JAPANESE TREE LILAC	SPRING AND FALL	YES

THE FORESTRY DIVISION MAY APPROVE ADDITIONAL TREE SPECIES NOT CURRENTLY LISTED.

N.T.S.	DATE	REVISIONS	DRAWN BY	APPVD BY	STANDARD DETAIL
	09/28/07		J.M.L.	M.D.M.	<p>SUITABLE PARKWAY TREE SPECIES LIST</p>
	03/25/11		S.A.V.	A.J.S.	
	03/01/15		S.A.V.	A.J.S.	
	01/01/17		N.R.H.	J.M.W.	
	01/01/18		N.R.H.	J.M.W.	
	DRAWING NO. TRE-02				
I:\LIBRARY\DETAILS\TREES\TRE-02					

SECTION 3



SURETY COMMITMENT LETTER
& BID BOND



1900 E. Golf Road, Suite 650
Schaumburg, IL 60173
P 847 934 6100
F 847 934 6186
www.dspins.com

July 30, 2019

Village of Downers Grove
5105 Walnut Avenue
Downers Grove, IL 60515

Re: V3 Construction Group, LTD
Project: St. Joseph Creek South Restoration Design/Build SW-088-19

To Whom it my Concern:

Through our agency, V3 Construction Group, LTD, has advised their surety company, Washington International Insurance Company, of their intention to bid the work for the above captioned project.

At the present time, we are providing bonds for single contracts up to \$15,000,000, subject to an aggregate bonding limit of \$40,000,000.

In the event that V3 Construction Group, LTD is awarded a contract by your firm, it is the intention of Washington International Insurance Company to provide the performance and payment bond subject to review of the final contract documents and evidence that 100% of the construction financing is in place.

Our consideration and issuance of bonds is a matter solely between V3 Construction Group, LTD and ourselves, and we assume no liability to third parties or to you by the issuance of this letter.

If you should have any questions, please feel free to give me a call.

Sincerely
Washington International Insurance Company

A handwritten signature in blue ink, appearing to read 'Christine Eitel', is written over the printed name.

Christine Eitel
Attorney in Fact

SWISS RE CORPORATE SOLUTIONS

NORTH AMERICAN SPECIALTY INSURANCE COMPANY
WASHINGTON INTERNATIONAL INSURANCE COMPANY

GENERAL POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, THAT North American Specialty Insurance Company, a corporation duly organized and existing under laws of the State of New Hampshire, and having its principal office in the City of Kansas City, Missouri, and Washington International Insurance Company, a corporation organized and existing under the laws of the State of New Hampshire and having its principal office in the City of Kansas City, Missouri, each does hereby make, constitute and appoint:

J.S. POHL, ROBERT B. SCHUTZ, JAMES L. SULKOWSKI, CAROL A. DOUGHERTY, SHERENE L. HEMLER, MIKE POHL, JOHN E. ADAMS, GERALD C. OLSON
ROBERT W. MIELKE, KIRK LISKIEWITZ, COURTNEY A. FLASKA, SAMANTHA BRADTKE, BRIEN T. SPODEN, LUCIANNE BISCHOFF and CHRISTINE EITEL

JOINTLY OR SEVERALLY

Its true and lawful Attorney(s)-in-Fact, to make, execute, seal and deliver, for and on its behalf and as its act and deed, bonds or other writings obligatory in the nature of a bond on behalf of each of said Companies, as surety, on contracts of suretyship as are or may be required or permitted by law, regulation, contract or otherwise, provided that no bond or undertaking or contract or suretyship executed under this authority shall exceed the amount of: FIFTY MILLION (\$50,000,000.00) DOLLARS

This Power of Attorney is granted and is signed by facsimile under and by the authority of the following Resolutions adopted by the Boards of Directors of both North American Specialty Insurance Company and Washington International Insurance Company at meetings duly called and held on the 9th of May, 2012:

"RESOLVED, that any two of the Presidents, any Managing Director, any Senior Vice President, any Vice President, any Assistant Vice President, the Secretary or any Assistant Secretary be, and each or any of them hereby is authorized to execute a Power of Attorney qualifying the attorney named in the given Power of Attorney to execute on behalf of the Company bonds, undertakings and all contracts of surety, and that each or any of them hereby is authorized to attest to the execution of any such Power of Attorney and to attach therein the seal of the Company; and it is

FURTHER RESOLVED, that the signature of such officers and the seal of the Company may be affixed to any such Power of Attorney or to any certificate relating thereto by facsimile, and any such Power of Attorney or certificate bearing such facsimile signatures or facsimile seal shall be binding upon the Company when so affixed and in the future with regard to any bond, undertaking or contract of surety to which it is attached."



By [Signature]
Steven P. Anderson, Senior Vice President of Washington International Insurance Company
& Senior Vice President of North American Specialty Insurance Company



By [Signature]
Michael A. Ito, Senior Vice President of Washington International Insurance Company
& Senior Vice President of North American Specialty Insurance Company

IN WITNESS WHEREOF, North American Specialty Insurance Company and Washington International Insurance Company have caused their official seals to be hereunto affixed, and these presents to be signed by their authorized officers this 8th day of APRIL, 2019.

North American Specialty Insurance Company
Washington International Insurance Company

State of Illinois
County of Cook ss:

On this 8th day of APRIL, 2019, before me, a Notary Public personally appeared Steven P. Anderson, Senior Vice President of Washington International Insurance Company and Senior Vice President of North American Specialty Insurance Company and Michael A. Ito, Senior Vice President of Washington International Insurance Company and Senior Vice President of North American Specialty Insurance Company, personally known to me, who being by me duly sworn, acknowledged that they signed the above Power of Attorney as officers of and acknowledged said instrument to be the voluntary act and deed of their respective companies.



[Signature]
M. Kenny, Notary Public

I, Jeffrey Goldberg, the duly elected Assistant Secretary of North American Specialty Insurance Company and Washington International Insurance Company, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney given by said North American Specialty Insurance Company and Washington International Insurance Company, which is still in full force and effect.

IN WITNESS WHEREOF, I have set my hand and affixed the seals of the Companies this 30th day of July, 2019.

[Signature]
Jeffrey Goldberg, Vice President & Assistant Secretary of
Washington International Insurance Company & North American Specialty Insurance Company

AIA[®] Document A310[™] - 2010

Bid Bond

CONTRACTOR:

(Name, legal status and address)
 V3 Construction Group, LTD
 7325 Janes Avenue
 Woodridge, IL 60517

SURETY:

(Name, legal status and principal place of business)
 Washington International Insurance Company: New Hampshire Corporation
 1450 American Lane, Suite 1100
 Schaumburg, IL 60173

OWNER:

(Name, legal status and address)
 Village of Downers Grove
 5101 Walnut Avenue
 Downers Grove, IL 60515

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

BOND AMOUNT: Five Percent of the Amount of Bid----- (--5%--)

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

PROJECT:


(Name, location or address, and Project number, if any)
 St. Joseph Creek South Restoration Design Build SW-088-19

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


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

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

Signed and sealed this 1st day of August, 2019.



 (Witness)



 (Witness)

V3 Construction Group, LTD
 _____ (Principal) _____ (Seal)

 _____ (Title) SECRETARY
 Washington International Insurance Company
 _____ (Surety) _____ (Seal)


 _____ (Title) Christine Eitel, Attorney In Fact

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

Surety Company Acknowledgement

STATE OF **ILLINOIS**
COUNTY OF **COOK** SS.:

On this 1st day of August, 2019, before me personally appeared **Christine Eitel**, to me known, who, being by me duly sworn, did depose and say: that (s)he resides at **Schaumburg, Illinois**, that (s)he is the **Attorney in Fact** of **Washington International Insurance Company**, the corporation described in and which executed the annexed instrument; that (s)he knows the corporate seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation; that (s)he signed his/her name thereto by like order; and that the liabilities of said corporation do not exceed its assets as ascertained in the manner provided by law.



Notary Public in and for the above County and State

My Commission Expires: 04/22/22



SWISS RE CORPORATE SOLUTIONS

NORTH AMERICAN SPECIALTY INSURANCE COMPANY
WASHINGTON INTERNATIONAL INSURANCE COMPANY

GENERAL POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, THAT North American Specialty Insurance Company, a corporation duly organized and existing under laws of the State of New Hampshire, and having its principal office in the City of Kansas City, Missouri, and Washington International Insurance Company, a corporation organized and existing under the laws of the State of New Hampshire and having its principal office in the City of Kansas City, Missouri, each does hereby make, constitute and appoint:

J.S. POHL, ROBERT B. SCHUTZ, JAMES L. SULKOWSKI, CAROL A. DOUGHERTY, SHERENE L. HEMLER, MIKE POHL, JOHN E. ADAMS, GERALD C. OLSON
ROBERT W. MIELKE, KIRK LISKIEWITZ, COURTNEY A. FLASKA, SAMANTHA BRADTKE, BRIEN T. SPODEN, LUCIANNE BISCHOFF and CHRISTINE EITEL

JOINTLY OR SEVERALLY

Its true and lawful Attorney(s)-in-Fact, to make, execute, seal and deliver, for and on its behalf and as its act and deed, bonds or other writings obligatory in the nature of a bond on behalf of each of said Companies, as surety, on contracts of suretyship as are or may be required or permitted by law, regulation, contract or otherwise, provided that no bond or undertaking or contract or suretyship executed under this authority shall exceed the amount of:
FIFTY MILLION (\$50,000,000.00) DOLLARS

This Power of Attorney is granted and is signed by facsimile under and by the authority of the following Resolutions adopted by the Boards of Directors of both North American Specialty Insurance Company and Washington International Insurance Company at meetings duly called and held on the 9th of May, 2012:

"RESOLVED, that any two of the Presidents, any Managing Director, any Senior Vice President, any Vice President, any Assistant Vice President, the Secretary or any Assistant Secretary be, and each or any of them hereby is authorized to execute a Power of Attorney qualifying the attorney named in the given Power of Attorney to execute on behalf of the Company bonds, undertakings and all contracts of surety, and that each or any of them hereby is authorized to attest to the execution of any such Power of Attorney and to attach therein the seal of the Company; and it is

FURTHER RESOLVED, that the signature of such officers and the seal of the Company may be affixed to any such Power of Attorney or to any certificate relating thereto by facsimile, and any such Power of Attorney or certificate bearing such facsimile signatures or facsimile seal shall be binding upon the Company when so affixed and in the future with regard to any bond, undertaking or contract of surety to which it is attached."



By [Signature]
Steven P. Anderson, Senior Vice President of Washington International Insurance Company
& Senior Vice President of North American Specialty Insurance Company



By [Signature]
Michael A. Ito, Senior Vice President of Washington International Insurance Company
& Senior Vice President of North American Specialty Insurance Company

IN WITNESS WHEREOF, North American Specialty Insurance Company and Washington International Insurance Company have caused their official seals to be hereunto affixed, and these presents to be signed by their authorized officers this 8th day of APRIL, 2019.

North American Specialty Insurance Company
Washington International Insurance Company

State of Illinois
County of Cook ss:

On this 8th day of APRIL, 2019, before me, a Notary Public personally appeared Steven P. Anderson, Senior Vice President of Washington International Insurance Company and Senior Vice President of North American Specialty Insurance Company and Michael A. Ito, Senior Vice President of Washington International Insurance Company and Senior Vice President of North American Specialty Insurance Company, personally known to me, who being by me duly sworn, acknowledged that they signed the above Power of Attorney as officers of and acknowledged said instrument to be the voluntary act and deed of their respective companies.



[Signature]
M. Kenny, Notary Public

I, Jeffrey Goldberg, the duly elected Assistant Secretary of North American Specialty Insurance Company and Washington International Insurance Company, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney given by said North American Specialty Insurance Company and Washington International Insurance Company, which is still in full force and effect.

IN WITNESS WHEREOF, I have set my hand and affixed the seals of the Companies this 1st day of August, 2019.

[Signature]
Jeffrey Goldberg, Vice President & Assistant Secretary of
Washington International Insurance Company & North American Specialty Insurance Company



UNITED STATES | CANADA | HAITI | V3CO.COM

VISIO, VERTERE, VIRTUTE | THE VISION TO TRANSFORM WITH EXCELLENCE



August 28, 2019

John Welch, Assistant Director Public Works – Engineering
Village of Downers Grove
5101 Walnut Avenue
Downers Grove, IL 60515

**Proposal: Revised Submittal – VDG Revised Scope
St. Joseph Creek South Restoration Design Build**

Dear Mr. Welch,

As requested, enclosed is V3's revised submittal which includes the items as identified in the email transmittal from the Village of Downers Grove on August 22, 2019. A copy of this email is attached for reference.

Please feel free to contact me directly with any questions or to discuss anything in greater detail.

Sincerely,
V3 Companies, Ltd.

A handwritten signature in blue ink, appearing to read 'Mike Famiglietti', with a long horizontal flourish extending to the right.

Mike Famiglietti
Vice President
Director of Construction & Ecological Restoration

Attachment: VDG Revised Scope Email – August 22, 2019

From: John Welch <jwelch@downers.us>
Sent: Friday, August 23, 2019 2:10 PM
To: Mike Famiglietti <mfamiglietti@v3co.com>
Cc: Kerry Behr <kbehr@downers.us>
Subject: Fwd: St. Joseph Creek South Cost Proposal

Mike,

Please modify the request below to return to me by end of day Wednesday, August 28 instead of Monday.

Thanks & have a great weekend!

John

John M. Welch, PE, CFM
Assistant Director of Public Works - Engineering
Public Works Department
5101 Walnut Avenue
Downers Grove, IL 60515
office: 630-434-5494
jwelch@downers.us

----- Forwarded message -----

From: John Welch <jwelch@downers.us>
Date: Thu, Aug 22, 2019 at 3:39 PM
Subject: St. Joseph Creek South Cost Proposal
To: John Welch <jwelch@downers.us>
Cc: Kerry Behr <kbehr@downers.us>

All,

Could you please re-work your cost proposal for the St. Joseph Creek design-build project to include the following:?

Please have the base bid include:

- RE work for job
- Geotech
- Culvert removal and replacements on Lyman and Fairmount
- H&H modeling assuming IDNR/OWR doesn't delegate floodway review to DuPage County as tributary area is less than 1 square mile (i.e., doesn't take review). As a complete waiver community, Downers Grove is responsible for compliance with the entire Stormwater Ordinance, including the floodway review. The current regulatory model is FEQ.

- Traffic Control
- **ADDITIONAL ITEM FROM PREVIOUS SCOPE:** Permitting and any modeling required for the maintenance work to restore the flow of drainage from Fairmount downstream to Barth Pond. No channel improvements anticipated. This work was not identified in neither the IEPA nor DuPage County Grant, however, we feel it should be permitted at the same time with the upstream work.

Alternate Bid Items

- H&H Modeling through IDNR/OWR and DuPage County (include permit fees)
- CLOMR/LOMR
- PvStats modeling
- **ADDITIONAL ITEM FROM PREVIOUS SCOPE:** Construction costs for work downstream of Fairmount to Barth Pond. Anticipate the removal of sediment, possibly a burn (if deemed BMP), planting. No channel reconfiguration or major earthwork. This work was not identified in neither the IEPA nor DuPage County Grant, however, we feel it should be permitted at the same time with the upstream work.

I have attached Exhibits B and E from the IEPA 319 Grant Agreement, which the Village received on August 6. These outline important dates and the performance measures the Village requests assistance with. The 10-year reference in Exhibit E #2 is not part of this contract. The 3-year monitoring and maintenance as outlined in the RFP still governs. The Village will perform years 3-7 under separate contract.

Please email back to me by the end of the day on Monday, August 26.

Thank you very much!

John

John M. Welch, PE, CFM
Assistant Director of Public Works - Engineering
Public Works Department
5101 Walnut Avenue
Downers Grove, IL 60515
office: 630-434-5494
jwelch@downers.us



To:	Village of Downers Grove	Contact:	John Welch
Address:	5101 Walnut Avenue Downers Grove, Illinois 60515	Phone:	630-434-5494
		Email:	jjwelch@downers.us
Project Name:	St. Joseph Creek South Restoration Design Build	Ref #:	B19-100 & SW-088-19
Location:	Downers Grove, Illinois	Date:	8/28/2019R1
		Estimator:	Tom Foster

**ST. JOSEPH CREEK SOUTH RESTORATION DESIGN BUILD - DOWNERS GROVE, ILLINOIS
HARD CONSTRUCTION COSTS & CONTINGENCY**

1.00	STREAM CHANNEL & BANK STABILIZATION (FY2020)	\$	528,000.00
2.00	PLANTING & MAINTENANCE 2021 - 2023	\$	123,500.00
3.00	STORM SEWER IMPROVEMENTS	\$	167,300.00
	PROJECT CONTINGENCY (20%):	\$	163,800.00
	SUBTOTAL:	\$	982,600.00

4.00	PROJECT SOFT COSTS	QUANTITY	UNIT	UNIT PRICE	TOTAL
4.10	SURVEY & CONSTRUCTION LAYOUT				
4.11	Establish Site Control & Topographic Map Check	1.000	LSUM	\$ 9,000.00	\$ 9,000.00
4.20	ENGINEERING DESIGN				
4.21	Wetland Delineation & Corps Regional Permit	1.000	LSUM	\$ 11,000.00	\$ 11,000.00
4.22	Final Engineering / Design	1.000	LSUM	\$ 5,000.00	\$ 5,000.00
4.23	DuPage County Stormwater Permit	1.000	LSUM	\$ 7,000.00	\$ 7,000.00
4.24	FEQ Model	1.000	LSUM	\$ 10,000.00	\$ 10,000.00
4.25	ILR 10/SWPPP Permit	1.000	LSUM	\$ 2,500.00	\$ 3,000.00
4.26	CCDD Testing & Documentation	1.000	LSUM	\$ 7,100.00	\$ 7,100.00
4.27	Permitting, Modeling, & Wetland Delineation / (Barth)	1.000	LSUM	\$ 3,500.00	\$ 3,500.00
4.30	FIELD ENGINEERING				
4.31	Resident Engineering Services	160.000	HOUR	\$ 130.00	\$ 20,800.00
4.32	Geotech (Construction Testing)	1.000	LSUM	\$ 2,000.00	\$ 2,000.00
4.40	AGENCY PERMIT FEES				
4.41	SWPPP Fee	1.000	LSUM	\$ 1,000.00	\$ 1,000.00
4.42	Kane DuPage Review Fee	1.000	LSUM	\$ 3,000.00	\$ 3,000.00
	SUBTOTAL:			\$	82,400.00

BASE BID TOTAL: \$ 1,065,000.00

ALTERNATE BID ITEMS - ST. JOSEPH CREEK SOUTH RESTORATION DESIGN BUILD - DOWNERS GROVE, ILLINOIS

5.00	H&H MODELING & IDNR / FEMA PERMITTING	\$	62,000.00
6.00	CHANNEL MAINTENANCE FAIRMONT TO BARTH	\$	35,500.00
7.00	PRESCRIBED FIRE	\$	7,000.00
	SUBTOTAL ALTERNATE BID ITEMS:	\$	104,500.00

Notes:

- 1 Permit fee schedules for base and alternate bids are an allowance. Should actual fees exceed the allowance amount or additional permit fees not directly referenced be required, we intend on deducting any overages from the general contingency.
- 2 This estimate specifically excludes the handling or disposal of hazardous materials or non-hazardous special waste material.



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Location:	Downers Grove, Illinois	Date:	8/28/2019R1
		Estimator:	Tom Foster

1.00	STREAM CHANNEL & BANK STABILIZATION (FY2020)	QUANTITY	UNIT	UNIT PRICE	TOTAL
1.10	EROSION CONTROL				
1.11	Construction Entrance	7.000	EACH	\$ 2,950.00	\$ 20,650.00
1.12	Silt Fence Installation	3,245.000	LF	\$ 2.10	\$ 6,814.50
1.13	Silt Fence Removal	3,245.000	LF	\$ 1.25	\$ 4,056.25
1.14	Erosion Control Blanket (S75BN)	7,400.000	SY	\$ 2.10	\$ 15,540.00
1.15	Erosion Control Blanket (S150BN)	2,650.000	SY	\$ 2.65	\$ 7,022.50
1.16	Tree Trunk Protection	10.000	EACH	\$ 150.00	\$ 1,500.00
1.20	DEMOLITION				
1.21	Clearing & Grubbing	1.000	LSUM	\$ 42,147.50	\$ 42,147.50
1.22	Pre-Seeding Weed Control	2.500	ACRE	\$ 1,250.00	\$ 3,125.00
1.23	Wood Retaining Wall Disposal	10.000	LOAD	\$ 950.00	\$ 9,500.00
1.24	Broken Concrete Disposal	5.000	LOAD	\$ 500.00	\$ 2,500.00
1.25	Misc. Minor Site Demo (Foot Bridge, Log Jam Etc.)	1.000	LSUM	\$ 1,500.00	\$ 1,500.00
1.30	EXCAVATION & GRADING				
1.31	Mobilization	1.000	LSUM	\$ 20,927.00	\$ 20,927.00
1.32	Topsoil Excavation to Stockpile (12")	1,525.000	CY	\$ 8.25	\$ 12,581.25
1.33	Earth Excavation to Off-Site Disposal	5,800.000	CY	\$ 38.00	\$ 220,400.00
1.34	Channel Grading Complete	1,580.000	LF	\$ 5.95	\$ 9,401.00
1.35	Topsoil Stockpile to Respread	1,525.000	CY	\$ 11.00	\$ 16,775.00
1.36	Subgrade / Fine Grade Topsoil	7,750.000	SY	\$ 1.25	\$ 9,687.50
1.40	FEATURE INSTALLATION				
1.41	Stone Toe Installation Complete	1,130.000	LF	\$ 47.00	\$ 53,110.00
1.42	Point Bar River Rock Installation	480.000	LF	\$ 45.00	\$ 21,600.00
1.43	Rock Riffle Installation	5.000	EACH	\$ 2,800.00	\$ 14,000.00
1.44	Rock Vane Installation	6.000	EA	\$ 1,250.00	\$ 7,500.00
1.45	Large Woody Debris Installation	4.000	EACH	\$ 1,250.00	\$ 5,000.00
1.50	PLANTING & SEEDING				
1.51	Seedbed Preparation	2.500	ACRE	\$ 1,895.00	\$ 4,737.50
1.52	Wetland Edge Seed Mix	0.500	ACRE	\$ 7,125.00	\$ 3,562.50
1.53	Low Profile Prairie Seed Mix	1.500	ACRE	\$ 4,475.00	\$ 6,712.50
1.54	Turf Seed Mix	0.500	ACRE	\$ 8,500.00	\$ 4,250.00
1.60	ADDITIONAL ITEMS				
1.61	Educational Signage	4.000	EACH	\$ 850.00	\$ 3,400.00
SUBTOTAL:					\$ 528,000.00

2.00	PLANTING & MAINTENANCE 2021 - 2023	QUANTITY	UNIT	UNIT PRICE	TOTAL
2.10	LANDSCAPE PLANTING				
1.55	Live Stake Installation	270.000	EACH	\$ 3.25	\$ 877.50
1.56	Native Plug Planting	8,000.000	EACH	\$ 4.25	\$ 34,000.00
1.57	Native Tree Installation (1.25")	100.000	EACH	\$ 180.00	\$ 18,000.00
1.58	Native Shrub Installation (3 GAL)	400.000	EACH	\$ 75.00	\$ 30,000.00
1.59	Plant Plug Irrigation	1.000	LSUM	\$ 4,622.50	\$ 4,622.50
2.20	NATIVE AREAS STEWARDSHIP				
2.21	Chemical & Mechanical Weed Control (2AC)	3.000	YEAR	\$ 6,000.00	\$ 18,000.00
2.22	Site Monitoring	3.000	YEAR	\$ 3,200.00	\$ 9,600.00
2.22	Reporting (IEPA Grant, Corps & Village)	3.000	YEAR	\$ 2,800.00	\$ 8,400.00
SUBTOTAL:					\$ 123,500.00



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3.00 STORM SEWER IMPROVEMENTS	QUANTITY	UNIT	UNIT PRICE	TOTAL
3.10 STORM SEWER IMPROVEMENTS LYMAN AVENUE				
3.11 Pavement Demolition	1.000	LSUM	\$ 1,425.00	\$ 1,425.00
3.12 Install 3' x 8' PCBC	47.000	LF	\$ 930.00	\$ 43,710.00
3.13 Install 3' x 8' PCBC Headwall	2.000	EACH	\$ 12,250.00	\$ 24,500.00
3.14 Install Steel Handrail	40.000	LF	\$ 100.00	\$ 4,000.00
3.15 Sidewalk R&R	90.000	SF	\$ 18.50	\$ 1,665.00
3.16 Traffic Control	1.000	LSUM	\$ 3,100.00	\$ 3,100.00
3.17 Restoration	1.000	LSUM	\$ 3,450.00	\$ 3,450.00
3.20 STORM SEWER IMPROVEMENTS FAIRMONT AVENUE				
3.21 Pavement Demolition	1.000	LSUM	\$ 1,760.00	\$ 1,760.00
3.22 Install 5' x 9' PCBC	48.000	LF	\$ 980.00	\$ 47,040.00
3.23 Install 5' x 9' PCBC Headwall	2.000	EACH	\$ 13,000.00	\$ 26,000.00
3.24 Install Steel Handrail	40.000	LF	\$ 100.00	\$ 4,000.00
3.25 Traffic Control	1.000	LSUM	\$ 3,200.00	\$ 3,200.00
3.26 Restoration	1.000	LSUM	\$ 3,450.00	\$ 3,450.00
SUBTOTAL:				\$ 167,300.00

ALTERNATE BID ITEMS	QUANTITY	UNIT	UNIT PRICE	TOTAL
5.00 H&H MODELING & IDNR / FEMA PERMITTING				
5.01 H&H Modeling (IDNR/OWR & DuPage Co.)	1.000	LSUM	\$ 12,000.00	\$ 12,000.00
5.02 CLOMR With PVStats Modeling	1.000	LSUM	\$ 15,000.00	\$ 15,000.00
5.03 LOMR With PVStats Modeling	1.000	LSUM	\$ 10,000.00	\$ 10,000.00
5.10 MODELING PERMIT FEES				
5.11 H&H Modeling Review Fee	1.000	LSUM	\$ 10,000.00	\$ 10,000.00
5.12 CLOMR Review Fee	1.000	LSUM	\$ 7,000.00	\$ 7,000.00
5.13 LOMR Review Fee	1.000	LSUM	\$ 8,000.00	\$ 8,000.00
6.00 CHANNEL MAINTENANCE FAIRMONT TO BARTH				
6.01 Mobilization	1.000	LSUM	\$ 4,055.75	\$ 4,055.75
6.02 Construction Entrance	100.000	SY	\$ 28.00	\$ 2,800.00
6.03 Channel Grading W/ Flow Bypass (No Erosion Control)	435.000	LF	\$ 23.25	\$ 10,113.75
6.04 NAG S150BN ECB (10' x 440LF)	490.000	SY	\$ 2.45	\$ 1,200.50
6.05 Native Plant Plug Installation	1,760.000	EACH	\$ 4.25	\$ 7,480.00
6.06 Sediment Removal (Allowance)	10.000	LOAD	\$ 985.00	\$ 9,850.00
7.00 PRESCRIBED FIRE				
7.01 Prescribed Burn (Each)	1.000	EACH	\$ 7,000.00	\$ 7,000.00
SUBTOTAL:				\$ 104,500.00



Village of Downers Grove

Consultant Evaluation

Consultant: V3 Construction Group

Project: 2018 Brookbank Road Design Build Roadway and Stormwater Improvements

Primary Contact: Mike Famiglietti

Phone: 630-729-6223

Time Period: May 2018 – July 2018

On Schedule (allowing for uncontrollable circumstances) Yes No

Provide details if early or late completion: _____

Change Orders (attach information if needed): None

Difficulties / Positives: Doland Engineering performed work as requested.

Interaction with public:

Excellent Good Average Poor

(Attach information on any complaints or compliments)

General Level of Satisfaction with work:

Well Satisfied Satisfied Not Satisfied

Reviewers: John Welch

Date: October 2018