**RETURN WITH BID**

Illinois Department of Transportation

# Local Public Agency
# Formal Contract Proposal

| PROPOSAL SUBMITTED BY | | |
|---|---|---|
| Contractor's Name | | |
| Street | | P.O. Box |
| City | State | Zip Code |

STATE OF ILLINOIS

COUNTY OF JO DAVIESS

CITY OF GALENA

(Name of City, Village, Town or Road District)

FOR THE IMPROVEMENT OF

STREET NAME OR ROUTE NO. Gear Street

SECTION NO. 10-00045-00-FP

TYPES OF FUNDS MFT

☒ SPECIFICATIONS (required) ☒ PLANS (required)

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**For Municipal Projects**

Submitted/Approved/Passed

☐ Mayor ☐ President of Board of Trustees ☐ Municipal Official

Date

**Department of Transportation**

☐ Released for bid based on limited review

Regional Engineer

Date

**For County and Road District Projects**

Submitted/Approved

Highway Commissioner

Date

Submitted/Approved

County Engineer/Superintendent of Highways

Date

**Note**: All proposal documents, including Proposal Guaranty Checks or Proposal Bid Bonds, should be stapled together to prevent loss when bids are processed.

**RETURN WITH BID**

# NOTICE TO BIDDERS

County Jo Daviess
Local Public Agency City of Galena
Section Number 10-00045-00-FP
Route Gear Street

Sealed proposals for the improvement described below will be received at the office of Galena City Hall
101 Green Street, Galena, IL 610 (Address) until 10.00 AM (Time) 16 January 2018 (Date)

Sealed proposals will be opened and read publicly at the office of Galena City Hall
101 Green Street, Galena, IL 61036 (Address) at 10.00AM (Time) 16 January 2018 (Date)

## DESCRIPTION OF WORK

Name Proposed Roadway Plans: Gear Street & S Bench Street Length: 6467.00 feet ( 1.22 miles)
Location Galena, IL 61036, Jo Daviess County
Proposed Improvement Roadway removal and reconstruction, PCC sidewalk, HMA & PCC driveways, water main installation, storm sewer removal and installation, erosion control, and seeding.

1. Plans and proposal forms will be available in the office of City of Galena website: http://www.cityofgalena.org/en/departments/engineering/bid_documents/ (Address)
2. ☒ Prequalification
   If checked, the 2 low bidders must file within 24 hours after the letting an "Affidavit of Availability" (Form BC 57), in duplicate, showing all uncompleted contracts awarded to them and all low bids pending award for Federal, State, County, Municipal and private work. One original shall be filed with the Awarding Authority and one original with the IDOT District Office.
3. The Awarding Authority reserves the right to waive technicalities and to reject any or all proposals as provided in BLRS Special Provision for Bidding Requirements and Conditions for Contract Proposals.
4. The following BLR Forms shall be returned by the bidder to the Awarding Authority:
   a. BLR 12200: Local Public Agency Formal Contract Proposal
   b. BLR 12200a Schedule of Prices
   c. BLR 12230: Proposal Bid Bond (if applicable)
   d. BLR 12325: Apprenticeship or Training Program Certification (**do not use for federally funded projects**)
   e. BLR 12326: Affidavit of Illinois Business Office
5. The quantities appearing in the bid schedule are approximate and are prepared for the comparison of bids. Payment to the Contractor will be made only for the actual quantities of work performed and accepted or materials furnished according to the contract. The scheduled quantities of work to be done and materials to be furnished may be increased, decreased or omitted as hereinafter provided.
6. Submission of a bid shall be conclusive assurance and warranty the bidder has examined the plans and understands all requirements for the performance of work. The bidder will be responsible for all errors in the proposal resulting from failure or neglect to conduct an in depth examination. The Awarding Authority will, in no case be responsible for any costs, expenses, losses or changes in anticipated profits resulting from such failure or neglect of the bidder.
7. The bidder shall take no advantage of any error or omission in the proposal and advertised contract.
8. If a special envelope is supplied by the Awarding Authority, each proposal should be submitted in that envelope furnished by the Awarding Agency and the blank spaces on the envelope shall be filled in correctly to clearly indicate its contents. When an envelope other than the special one furnished by the Awarding Authority is used, it shall be marked to clearly indicate its contents. When sent by mail, the sealed proposal shall be addressed to the Awarding Authority at the address and in care of the official in whose office the bids are to be received. All proposals shall be filed prior to the time and at the place specified in the Notice to Bidders. Proposals received after the time specified will be returned to the bidder unopened.
9. Permission will be given to a bidder to withdraw a proposal if the bidder makes the request in writing or in person before the time for opening proposals.

# PROPOSAL

County Jo Daviess
Local Public Agency City of Galena
Section Number 10-00045-00-FP
Route Gear Street

1. Proposal of _____

for the improvement of the above section by the construction of Roadway removal and reconstruction, PCC sidewalk, HMA & PCC driveways, water main installation, storm sewer removal and installation, erosion control, and seeding.

a total distance of 6467.00 feet, of which a distance of 6467.00 feet, ( 1.220 miles) are to be improved.

2. The plans for the proposed work are those prepared by WHKS & Co.
and approved by the Department of Transportation on December 1, 2016
3. The specifications referred to herein are those prepared by the Department of Transportation and designated as "Standard Specifications for Road and Bridge Construction" and the "Supplemental Specifications and Recurring Special Provisions" thereto, adopted and in effect on the date of invitation for bids.
4. The undersigned agrees to accept, as part of the contract, the applicable Special Provisions indicated on the "Check Sheet for Recurring Special Provisions" contained in this proposal.
5. The undersigned agrees to complete the work within 140 working days or by _____ unless additional time is granted in accordance with the specifications.
6. A proposal guaranty in the proper amount, as specified in BLRS Special Provision for Bidding Requirements and Conditions for Contract Proposals, will be required. Bid Bonds will be allowed as a proposal guaranty. Accompanying this proposal is either a bid bond if allowed, on Department form BLR 12230 or a proposal guaranty check, complying with the specifications, made payable to:

_____ Treasurer of _____

The amount of the check is _____ ( _____ ).

7. In the event that one proposal guaranty check is intended to cover two or more proposals, the amount must be equal to the sum of the proposal guaranties, which would be required for each individual proposal. If the proposal guaranty check is placed in another proposal, it will be found in the proposal for: Section Number _____.
8. The successful bidder at the time of execution of the contract _____ be required to deposit a contract bond for the full amount of the award. When a contract bond is not required, the proposal guaranty check will be held in lieu thereof. If this proposal is accepted and the undersigned fails to execute a contract and contract bond as required, it is hereby agreed that the Bid Bond or check shall be forfeited to the Awarding Authority.
9. Each pay item should have a unit price and a total price. If no total price is shown or if there is a discrepancy between the product of the unit price multiplied by the quantity, the unit price shall govern. If a unit price is omitted, the total price will be divided by the quantity in order to establish a unit price.
10. A bid will be declared unacceptable if neither a unit price nor a total price is shown.
11. The undersigned submits herewith the schedule of prices on BLR 12200a covering the work to be performed under this contract.
12. The undersigned further agrees that if awarded the contract for the sections contained in the combinations on BLR 12200a, the work shall be in accordance with the requirements of each individual proposal for the multiple bid specified in the Schedule for Multiple Bids below.

**RETURN WITH BID**

Illinois Department of Transportation

## SCHEDULE OF PRICES

County Jo Daviess
Local Public Agency City of Galena
Section 10-00045-00-FP
Route Gear Street

**Schedule for Multiple Bids**

| Combination Letter | Sections Included in Combinations | Total |
|---|---|---|
| | | |
| | | |
| | | |
| | | |

**Schedule for Single Bid**

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

Bidder's Proposal for making Entire Improvements

| Item No. | Items | Unit | Quantity | Unit Price | Total |
|---|---|---|---|---|---|
| 1 | EARTH EXCAVATION | CU YD | 15,100 | | |
| 2 | ROCK EXCAVATION | CU YD | 534 | | |
| 3 | RMVL AND DISPOSAL OF UNSUITABLE MATERIAL | CU YD | 1,844 | | |
| 4 | TRENCH BACKFILL | CU YD | 1,894.1 | | |
| 5 | GEOTECHNICAL FABRIC FOR GROUND STABILIZATION | SQ YD | 21,666 | | |
| 6 | TOPSOIL EXCAVATION AND PLACEMENT | CU YD | 1,201 | | |
| 7 | GRADING AND SHAPING DITCHES | FOOT | 1,085 | | |
| 8 | SEEDING, CLASS 1A | ACRE | 1.7 | | |
| 9 | NITROGEN FERTILIZER NUTRIENT | LB | 155 | | |
| 10 | PHOSPHORUS FERTILIZER NUTRIENT | LB | 155 | | |
| 11 | POTASSIUM FERTILIZER NUTRIENT | LB | 155 | | |
| 12 | MULCH, METHOD 3 | ACRE | 1.7 | | |
| 13 | TEMPORARY DITCH CHECKS | FOOT | 132 | | |
| 14 | PERIMETER EROSION BARRIER | FOOT | 3,424 | | |
| 15 | INLET AND PIPE PROTECTION | EACH | 62 | | |
| 16 | SUBBASE GRANULAR MATERIAL, TYPE A 12" | SQ YD | 691 | | |
| 17 | SUBBASE GRANULAR MATERIAL, TYPE A 18" | SQ YD | 15,558 | | |
| 18 | SUBBASE GRANULAR MATERIAL, TYPE A 30" | SQ YD | 5,417 | | |
| 19 | SUBBASE GRANULAR MATERIAL, TYPE B 4" | SQ YD | 2,219 | | |
| 20 | SUBBASE GRANULAR MATERIAL, TYPE B 6" | SQ YD | 754 | | |
| 21 | SUBBASE GRANULAR MATERIAL, TYPE B 8" | SQ YD | 129 | | |
| 22 | AGGREGATE SURFACE COURSE, TYPE B | TON | 52 | | |
| 23 | BITUMINOUS MATERIAL (PRIME COAT) | TON | 5.1 | | |
| 24 | AGGREGATE (PRIME COAT) | TON | 26.4 | | |
| 25 | TEMPORARY RAMP | SQ YD | 3,245 | | |

**RETURN WITH BID**

Bidder's Proposal for making Entire Improvements

| Item No. | Items | Unit | Quantity | Unit Price | Total |
|---|---|---|---|---|---|
| 26 | HOT MIX ASPHALT BINDER COURSE, IL-19.0, N70 | TON | 2,377 | | |
| 27 | HOT MIX ASPHALT SURFACE COURSE, MIX "D", N70 | TON | 1,426 | | |
| 28 | INCIDENTAL HOT-MIX ASPHALT SURFACING | TON | 98.9 | | |
| 29 | HIGH-EARLY-STRENGTH PCC PAVEMENT 9" | SQ YD | 734 | | |
| 30 | PCC DRIVEWAY PAVEMENT, 6 INCH | SQ YD | 590 | | |
| 31 | PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH | SQ FT | 19,970 | | |
| 32 | DETECTABLE WARNINGS | SQ FT | 216 | | |
| 33 | PAVEMENT REMOVAL | SQ YD | 481 | | |
| 34 | DRIVEWAY PAVEMENT REMOVAL | SQ YD | 723 | | |
| 35 | COMBINATION CURB AND GUTTER REMOVAL | FOOT | 548 | | |
| 36 | SIDEWALK REMOVAL | SQ FT | 3,555 | | |
| 37 | PIPE CULVERT REMOVAL | FOOT | 604 | | |
| 38 | HANDRAIL, SPECIAL | FOOT | 149 | | |
| 39 | PIPE CULVERTS, CLASS A, TYPE 1 15" | FOOT | 35 | | |
| 40 | PIPE CULVERTS, CLASS A, TYPE 1 18" | FOOT | 45 | | |
| 41 | PIPE CULVERTS, CLASS A, TYPE 1 EQ RND-SIZE 15" | FOOT | 35 | | |
| 42 | PIPE ELBOW, 15" | EACH | 1 | | |
| 43 | PIPE ELBOW, 24" | EACH | 1 | | |
| 44 | PRECAST REINFORCED CONC FLRD END SEC 15" | EACH | 9 | | |
| 45 | PRECAST REINFORCED CONC FLRD END SEC 18" | EACH | 2 | | |
| 46 | PRECAST REINF CONC FLRD END SEC, EQ RND-SIZE 15" | EACH | 2 | | |
| 47 | STM SEWERS, HDPE 15" | FOOT | 1374 | | |
| 48 | STM SEWERS, RUBBER GASKET, CLASS A, TYPE 1 15" | FOOT | 791 | | |
| 49 | STM SEWERS, RUBBER GASKET, CLASS A, TYPE 1 18" | FOOT | 37 | | |
| 50 | STM SEWERS, HDPE 24" | FOOT | 233 | | |
| 51 | STM SEWERS, RUBBER GASKET, CLASS A, TYPE 1 24" | FOOT | 49 | | |
| 52 | STM SEWER REMOVAL 12" | FOOT | 58 | | |
| 53 | STM SEWER REMOVAL 15" | FOOT | 253 | | |
| 54 | STM SEWER REMOVAL 18" | FOOT | 92 | | |
| 55 | STM SEWER REMOVAL 24" | FOOT | 274 | | |
| 56 | DUCTILE IRON WATER MAIN TEE, 8" x 6" | EACH | 1 | | |
| 57 | DUCTILE IRON WATER MAIN TEE, 10" x 6" | EACH | 7 | | |
| 58 | DUCTILE IRON WATER MAIN TEE, 10" x 8" | EACH | 1 | | |
| 59 | DUCTILE IRON WATER MAIN TEE, 10" X 10" | EACH | 1 | | |
| 60 | WATER MAIN 4" (PVC PER AWWA C909, DR 18) | FOOT | 7 | | |
| 61 | WATER MAIN 6" (PVC PER AWWA C909, DR 18) | FOOT | 159 | | |
| 62 | WATER MAIN 8" (PVC PER AWWA C909, DR 18) | FOOT | 33 | | |
| 63 | WATER MAIN 10" (PVC PER AWWA C909, DR 18) | FOOT | 952 | | |
| 64 | DUCTILE IRON WATER MAIN REDUCER, 8" X 4" | EACH | 1 | | |
| 65 | WATER VALVES 6" | EACH | 5 | | |
| 66 | WATER VALVES 8" | EACH | 1 | | |
| 67 | WATER VALVES 10" | EACH | 4 | | |
| 68 | WATER VALVES TO BE ADJUSTED | EACH | 24 | | |
| 69 | DUCTILE IRON WATER MAIN FITTINGS 8" 11.25° BEND | EACH | 1 | | |
| 70 | DUCTILE IRON WATER MAIN FITTINGS 4" 45.00° BEND | EACH | 2 | | |

Bidder's Proposal for making Entire Improvements

| Item No. | Items | Unit | Quantity | Unit Price | Total |
|---|---|---|---|---|---|
| 71 | DUCTILE IRON WATER MAIN FITTINGS 6" 45.00° BEND | EACH | 1 | | |
| 72 | DUCTILE IRON WATER MAIN FITTINGS 10" 45.00° BEND | EACH | 1 | | |
| 73 | DUCTILE IRON WATER MAIN FITTINGS 6" 90.00° BEND | EACH | 2 | | |
| 74 | WATER SERVICE LINE 1", TYPE K COPPER | FOOT | 630 | | |
| 75 | CORPORATION STOPS 1" | EACH | 30 | | |
| 76 | CURB STOP 1" w/ CURB BOX | EACH | 30 | | |
| 77 | 10" X 1" SADDLE | EACH | 30 | | |
| 78 | ADJUSTING CURB STOP BOXES | EACH | 45 | | |
| 79 | FIRE HYDRANTS TO BE ADJUSTED | EACH | 2 | | |
| 80 | FIRE HYDRANTS | EACH | 3 | | |
| 81 | CONCRETE HEADWALLS FOR PIPE DRAINS | EACH | 2 | | |
| 82 | PIPE UNDERDRAINS 4" | FOOT | 7395 | | |
| 83 | CATCH BASINS, TYPE B, TYPE 7 GRATE | EACH | 3 | | |
| 84 | INLETS, TYPE A, TYPE 8 GRATE | EACH | 2 | | |
| 85 | SINGLE GRATE INLET | EACH | 38 | | |
| 86 | 48" CIRCULAR SINGLE GRATE INLET | EACH | 2 | | |
| 87 | FRAME & GRATE FOR INLET SPEC. (DIST. STND 13.2B) | EACH | 35 | | |
| 88 | FRAME & GRATE FOR INLET SPEC. (DIST. STND 13.2D) | EACH | 5 | | |
| 89 | CURB OPENING CASTING (NEENAH #R-3262-3) | EACH | 1 | | |
| 90 | MANHOLES TO BE ADJUSTED | EACH | 15 | | |
| 91 | REMOVING MANHOLES | EACH | 4 | | |
| 92 | REMOVING INLETS | EACH | 4 | | |
| 93 | REMOVING INLETS TO MAINTAIN FLOW | EACH | 2 | | |
| 94 | COMBINATION CONC CURB & GUTTER, TYPE B-6.12 | FOOT | 8074 | | |
| 95 | COMBINATION CONC CURB & GUTTER, TYPE B-6.24 | FOOT | 290 | | |
| 96 | TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT | EACH | 1 | | |
| 97 | GUARDRAIL REMOVAL | FOOT | 129 | | |
| 98 | STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS) | FOOT | 55 | | |
| 99 | TRAFFIC CONTROL AND PROTECTION, STND 701801 | L SUM | 1 | | |
| 100 | PAINT PAVEMENT MARKING - LINE 6" | FOOT | 445 | | |
| 101 | PAINT PAVEMENT MARKING - LINE 24" | FOOT | 134 | | |
| 102 | STM SEWER CONNECTION TO EXISTING STM SEWER | EACH | 3 | | |
| 103 | STM SEWER CONNECTION TO EXISTING INLET | EACH | 1 | | |
| 104 | MANHOLE/CATCH BASIN CONNECT. OVER EX STM SEWER | EACH | 2 | | |
| 105 | FIRE HYDRANTS TO BE REMOVED & SALVAGED | EACH | 3 | | |
| 106 | DUCTILE IRON WATER MAIN FITTING - 10" PLUG | EACH | 1 | | |
| 107 | PLUG EX WATER MAIN | EACH | 15 | | |
| 108 | COMBINATION CONC CURB AND GUTTER, TYPE M-4.12 | FOOT | 91 | | |
| 109 | TRAFFIC CONTROL AND PROTECTION, (SPECIAL) | L SUM | 1 | | |
| 110 | AGGREGATE FOR TEMPORARY CROSSING | TON | 400 | | |
| 111 | SIDEWALK REPAIR (SPECIAL) | SQ FT | 120 | | |
| 112 | CONCRETE STEPS | CU YD | 2.6 | | |
| 113 | CONCRETE STEP REMOVAL | EACH | 3 | | |
| 114 | SEGMENTAL CONCRETE BLOCK RETAINING WALL | SQ FT | 644 | | |
| 115 | SANITARY SEWER, TYPE 1 8" | FOOT | 30 | | |

Bidder's Proposal for making Entire Improvements

| Item No. | Items | Unit | Quantity | Unit Price | Total |
|---|---|---|---|---|---|
| 116 | UNDERDRAIN CONNECTION TO STRUCTURE | EACH | 34 | | |
| 117 | WOOD FENCE TO BE REMOVED AND RE-ERECTED | FOOT | 75 | | |
| 118 | DRAIN FOR AGGREGATE BASE COURSE | SQ YD | 11 | | |
| 119 | COMBINATION CONC CURB AND GUTTER, TYPE M-4.12 | FOOT | 63 | | |
| 120 | CONSTRUCTION LAYOUT | L SUM | 1 | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

## CONTRACTOR CERTIFICATIONS

County: Jo Daviess
Local Public Agency: City of Galena
Section Number: 10-00045-00-FP
Route: Gear Street

The certifications hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder.

1. **Debt Deliquency.** The bidder or contractor or subcontractor, respectively, certifies that it is not delinquent in the payment of any tax administered by the Department of Revenue unless the individual or other entity is contesting, in accordance with the procedures established by the appropriate revenue Act, its liability for the tax or the amount of tax. Making a false statement voids the contract and allows the Department to recover all amounts paid to the individual or entity under the contract in a civil action.

2. **Bid-Rigging or Bid Rotating.** The bidder or contractor or subcontractor, respectively, certifies that it is not barred from contracting with the Department by reason of a violation of either 720 ILCS 5/33E-3 or 720 ILCS 5/33E-4.

   A violation of Section 33E-3 would be represented by a conviction of the crime of bid-rigging which, in addition to Class 3 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be barred for 5 years from the date of conviction from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent in behalf of the corporation.

   A violation of Section 33E-4 would be represented by a conviction of the crime of bid-rotating which, in addition to Class 2 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be permanently barred from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent in behalf of the corporation.

3. **Bribery.** The bidder or contractor or subcontractor, respectively, certifies that it has not been convicted of bribery or attempting to bribe an officer or employee of the State of Illinois or any unit of local government, nor has the firm made an admission of guilt of such conduct which is a matter of record, nor has an official, agent, or employee of the firm committed bribery or attempted bribery on behalf of the firm and pursuant to the direction or authorization of a responsible official of the firm.

4. **Interim Suspension or Suspension.** The bidder or contractor or subcontractor, respectively, certifies that it is not currently under a suspension as defined in Subpart I of Title 44 Subtitle A Chapter III Part 6 of the Illinois Administrative Code. Furthermore, if suspended prior to completion of this work, the contract or contracts executed for the completion of this work may be cancelled.

**RETURN WITH BID**

County Jo Daviess
Local Public Agency City of Galena
Section Number 10-00045-00-FP
Route Gear Street

## SIGNATURES

(If an individual)

Signature of Bidder _____

Business Address _____

---

(If a partnership)

Firm Name _____

Signed By _____

Business Address _____

Inset Names and Addressed of All Partners _____

---

(If a corporation)

Corporate Name _____

Signed By _____
President

Business Address _____

Insert Names of Officers
President _____
Secretary _____
Treasurer _____

Attest: _____
Secretary

Illinois Department of Transportation

# Local Agency Proposal Bid Bond

Route: Gear Street
County: Jo Daviess
Local Agency: City of Galena
Section: 10-00045-00-FP

**RETURN WITH BID**

## PAPER BID BOND

WE _____ as PRINCIPAL,

and _____ as SURETY,

are held jointly, severally and firmly bound unto the above Local Agency (hereafter referred to as "LA") in the penal sum of 5% of the total bid price, or for the amount specified in the proposal documents in effect on the date of invitation for bids whichever is the lesser sum. We bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly pay to the LA this sum under the conditions of this instrument.

WHEREAS THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH that, the said PRINCIPAL is submitting a written proposal to the LA acting through its awarding authority for the construction of the work designated as the above section.

THEREFORE if the proposal is accepted and a contract awarded to the PRINCIPAL by the LA for the above designated section and the PRINCIPAL shall within fifteen (15) days after award enter into a formal contract, furnish surety guaranteeing the faithful performance of the work, and furnish evidence of the required insurance coverage, all as provided in the "Standard Specifications for Road and Bridge Construction" and applicable Supplemental Specifications, then this obligation shall become void; otherwise it shall remain in full force and effect.

IN THE EVENT the LA determines the PRINCIPAL has failed to enter into a formal contract in compliance with any requirements set forth in the preceding paragraph, then the LA acting through its awarding authority shall immediately be entitled to recover the full penal sum set out above, together with all court costs, all attorney fees, and any other expense of recovery.

IN TESTIMONY WHEREOF, the said PRINCIPAL and the said SURETY have caused this instrument to be signed by their respective officers this _____ day of _____

**Principal**

_____ (Company Name)

By: _____ (Signature and Title)

_____ (Company Name)

By: _____ (Signature and Title)

(If PRINCIPLE is a joint venture of two or more contractors, the company names, and authorized signatures of each contractor must be affixed.)

**Surety**

_____ (Name of Surety)

By: _____ (Signature of Attorney-in-Fact)

STATE OF ILLINOIS,
COUNTY OF _____

I. _____, a Notary Public in and for said county,
do hereby certify that _____
( Insert names of individuals signing on behalf of PRINCIPAL & SURETY)

who are each personally known to me to be the same persons whose names are subscribed to the foregoing instrument on behalf of PRINCIPAL and SURETY, appeared before me this day in person and acknowledged respectively, that they signed and delivered said instruments as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this _____ day of _____

My commission expires _____

_____ (Notary Public)

## ELECTRONIC BID BOND

☐ **Electronic bid bond is allowed (box must be checked by LA if electronic bid bond is allowed)**

The Principal may submit an electronic bid bond, in lieu of completing the above section of the Proposal Bid Bond Form. By providing an electronic bid bond ID code and signing below, the Principal is ensuring the identified electronic bid bond has been executed and the Principal and Surety are firmly bound unto the LA under the conditions of the bid bond as shown above. (If PRINCIPAL is a joint venture of two or more contractors, an electronic bid bond ID code, company/Bidder name title and date must be affixed for each contractor in the venture.)

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |

Electronic Bid Bond ID Code

_____ (Company/Bidder Name)

_____ (Signature and Title)

_____ Date



BLR 12230 (Rev. 7/05

Illinois Department of Transportation

# Apprenticeship or Training Program Certification

**Return with Bid**

| | |
|---|---|
| Route | Gear Street |
| County | Jo Daviess |
| Local Agency | City of Galena |
| Section | 10-00045-00-FP |

***All contractors are required to complete the following certification***:

☒ For this contract proposal or for all groups in this deliver and install proposal.

☐ For the following deliver and install groups in this material proposal:

Illinois Department of Transportation policy, adopted in accordance with the provisions of the Illinois Highway Code, requires this contract to be awarded to the lowest responsive and responsible bidder. The award decision is subject to approval by the Department. In addition to all other responsibility factors, this contract or deliver and install proposal requires all bidders and all bidders' subcontractors to disclose participation in apprenticeship or training programs that are (1) approved by and registered with the United States Department of Labor's Bureau of Apprenticeship and Training, and (2) applicable to the work of the above indicated proposals or groups. Therefore, all bidders are required to complete the following certification:

I. Except as provided in paragraph IV below, the undersigned bidder certifies that it is a participant, either as an individual or as part of a group program, in an approved apprenticeship or training program applicable to each type of work or craft that the bidder will perform with its own employees.

II. The undersigned bidder further certifies for work to 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 or training program; or (B) will, prior to commencement of performance of work pursuant to this contract, establish participation in an approved apprenticeship or training program applicable to the work of the subcontract.

III. The undersigned bidder, by inclusion in the list in the space below, certifies the official name of each 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 employees. Types of work or craft 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 for which there is no applicable apprenticeship or training program available.

IV. Except for any work identified above, any bidder or subcontractor that shall perform all or part of the work of the contract or deliver and install proposal solely by individual owners, partners or members and not by employees to whom the payment of prevailing rates of wages would be required, check the following box, and identify the owner/operator workforce and positions of ownership. ☐

_____

_____

_____

_____

_____

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. 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. The Department 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. In order to fulfill the participation requirement, it shall not be necessary that any 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 or deliver and install proposal.

Bidder: _____ By: _____
(Signature)

Address: _____ Title: _____

Illinois Department of Transportation
Bureau of Construction
2300 South Dirksen Parkway/Room 322
Springfield, Illinois 62764

# Affidavit of Availability
**For the Letting of** _____

**Instructions:** Complete this form by either typing or using black ink. "Authorization to Bid" will not be issued unless both sides of this form are completed in detail. Use additional forms as needed to list all work.

**Part I. Work Under Contract**

List below all work you have under contract as either a prime contractor or a subcontractor. It is required to include all pending low bids not yet awarded or rejected. In a joint venture, list only that portion of the work which is the responsibility of your company. The uncompleted dollar value is to be based upon the most recent engineer's or owners estimate, and must include work subcontracted to others. If no work is contracted, show **NONE.**

| | 1 | 2 | 3 | 4 | Awards Pending | |
|---|---|---|---|---|---|---|
| Contract Number | | | | | | |
| Contract With | | | | | | |
| Estimated Completion Date | | | | | | |
| Total Contract Price | | | | | | Accumulated Totals |
| Uncompleted Dollar Value if Firm is the Prime Contractor | | | | | | |
| Uncompleted Dollar Value if Firm is the Subcontractor | | | | | | |
| | | | | Total Value of All Work | | |

**Part II. Awards Pending and Uncompleted Work to be done with your own forces.**

List below the uncompleted dollar value of work for each contract and awards pending to be completed with your own forces. All work subcontracted to others will be listed on the reverse of this form. In a joint venture, list only that portion of the work to be done by your company. If no work is contracted, show NONE.

| | | | | | | Accumulated Totals |
|---|---|---|---|---|---|---|
| Earthwork | | | | | | |
| Portland Cement Concrete Paving | | | | | | |
| HMA Plant Mix | | | | | | |
| HMA Paving | | | | | | |
| Clean & Seal Cracks/Joints | | | | | | |
| Aggregate Bases & Surfaces | | | | | | |
| Highway, R.R. and Waterway Structures | | | | | | |
| Drainage | | | | | | |
| Electrical | | | | | | |
| Cover and Seal Coats | | | | | | |
| Concrete Construction | | | | | | |
| Landscaping | | | | | | |
| Fencing | | | | | | |
| Guardrail | | | | | | |
| Painting | | | | | | |
| Signing | | | | | | |
| Cold Milling, Planning & Rotomilling | | | | | | |
| Demolition | | | | | | |
| Pavement Markings (Paint) | | | | | | |
| Other Construction (List) | | | | | | |
| | | | | | | |
| Totals | | | | | | |

Disclosure of this information is **REQUIRED** to accomplish the statutory purpose as outlined in the "Illinois Procurement Code." Failure to comply will result in non-issuance of an "Authorization To Bid." This form has been approved by the State Forms Management Center.

**Part III. Work Subcontracted to Others.**

For each contract described in Part I, list all the work you have subcontracted to others.

| | 1 | 2 | 3 | 4 | Awards Pending |
|---|---|---|---|---|---|
| Subcontractor | | | | | |
| Type of Work | | | | | |
| Subcontract Price | | | | | |
| Amount Uncompleted | | | | | |
| Subcontractor | | | | | |
| Type of Work | | | | | |
| Subcontract Price | | | | | |
| Amount Uncompleted | | | | | |
| Subcontractor | | | | | |
| Type of Work | | | | | |
| Subcontract Price | | | | | |
| Amount Uncompleted | | | | | |
| Subcontractor | | | | | |
| Type of Work | | | | | |
| Subcontract Price | | | | | |
| Amount Uncompleted | | | | | |
| Subcontractor | | | | | |
| Type of Work | | | | | |
| Subcontract Price | | | | | |
| Amount Uncompleted | | | | | |
| Total Uncompleted | | | | | |

I, being duly sworn, do hereby declare that this affidavit is a true and correct statement relating to ALL uncompleted contracts of the undersigned for Federal, State, County, City and private work, including ALL subcontract work, ALL pending low bids not yet awarded or rejected and ALL estimated completion dates.

Subscribed and sworn to before me

this _____ day of _____ , _____ Type or Print Name _____

Officer or Director Title

_____ Signed _____

Notary Public

My commission expires _____

Company _____

(Notary Seal)

Address _____

_____

Illinois Department of Transportation

# Storm Water Pollution Prevention Plan

| | | | |
|---|---|---|---|
| Route | Gear Street | Marked Rte. | Gear Street |
| Section | 10-0045-00-FP | Project No. | |
| County | Jo Daviess | Contract No. | |

This plan has been prepared to comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) Permit No. ILR10 (Permit ILR10), issued by the Illinois Environmental Protection Agency (IEPA) for storm water discharges from construction site activities.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

| | |
|---|---|
| Daniel J. Hingtgen | |
| Print Name | Signature |
| P.E. & P.L.S, | |
| Title | Date |
| WHKS & Co. | |
| Agency | |

## I. Site Description:

A. Provide a description of the project location (include latitude and longitude):

The project is located in Galena, Illinois, which is part of Jo Daviess County. The project runs along Gear Street from Bench Street to Highway 20. The approximate center of the project is located at the following coordinates:
Latitude: 42.41432 N
Longitude: 90.44177 W

B. Provide a description of the construction activity which is the subject of this plan:

The improvement includes HMA and PCC road demolition and reconstruction, HMA and PCC driveway demolition and reconstruction, PCC sidewalk reconstruction and additions, combination curb & gutter, storm sewer, water main, erosion control, seeding, pavement markings, and other miscellaneous improvements.

C. Provide the estimated duration of this project:

1 year

D. The total area of the construction site is estimated to be 9.24 acres.

The total area of the site estimated to be disturbed by excavation, grading or other activities is 6.30 acres.

E. The following is a weighted average of the runoff coefficient for this project after construction activities are completed:

0.53

F. List all soils found within project boundaries. Include map unit name, slope information, and erosivity:

29D2 - Dubuque Silt Loam, 10 to 18 percent slopes, eroded
280B2 - Fayette Silt Loam, 2 to 5 percent slopes, eroded
280C2 - Fayette Silt Loam, 5 to 10 percent slopes, eroded
280D2 - Fayette Silt Loam, 10 to 18 percent slopes, eroded
280F2 - Fayette Silt Loam, 18 to 35 percent slopes, eroded
569C2 - Medary Silty Clay Loam, 3 to 12 percent slopes, eroded
785F - Lacrescent Cobbly Silt Loam, 18 to 35 percent slopes, erosivity not specified

785G - Lacrescent Cobbly Silt Loam, 35 to 60 percent slopes, erosivity not specified
873E2 - Dunbarton-Dubuque Silt Loams, 18 to 25 percent slopes, eroded
3451A - Lawson Silt Loam, 0 to 2 percent slopes, erosivity not specified

G. Provide an aerial extent of wetland acreage at the site:

No wetlands exist on the project site.

H. Provide a description of potentially erosive areas associated with this project:

All exposed soil on this project may be considered as potentially erosive. The project site consists almost entirely of hills and steep slopes.

I. The following is a description of soil disturbing activities by stages, their locations, and their erosive factors (e.g. steepness of slopes, length of slopes, etc):

Clearing & grubbing, water main installation, culvert and storm sewer installation, road and ditch grading, and road fine grading. Locations are as shown on the plans.

J. See the erosion control plans and/or drainage plans for this contract for information regarding drainage patterns, approximate slopes anticipated before and after major grading activities, locations where vehicles enter or exit the site and controls to prevent offsite sediment tracking (to be added after contractor identifies locations), areas of soil disturbance, the location of major structural and non-structural controls identified in the plan, the location of areas where stabilization practices are expected to occur, surface waters (including wetlands) and locations where storm water is discharged to surface water including wetlands.

K. Identify who owns the drainage system (municipality or agency) this project will drain into:

City of Galena

L. The following is a list of General NPDES ILR40 permittees within whose reporting jurisdiction this project is located.

M. The following is a list of receiving water(s) and the ultimate receiving water(s) for this site. The location of the receiving waters can be found on the erosion and sediment control plans:

This project is tributary to the Galena River.

N. Describe areas of the site that are to be protected or remain undisturbed. These areas may include steep slopes, highly erodible soils, streams, stream buffers, specimen trees, natural vegetation, nature preserves, etc.

All trees, plantings, and natural vegetation that is not within the limits of construction is to remain undisturbed. All ditches will have temporary ditch checks until vegetation growth within the ditches has reached 70%. Perimeter erosion barrier and inlet filters will be utilized to assist in keeping suspended soils on-site.

O. The following sensitive environmental resources are associated with this project, and may have the potential to be impacted by the proposed development:

- ☐ Floodplain
- ☐ Wetland Riparian
- ☐ Threatened and Endangered Species
- ☐ Historic Preservation
- ☒ 303(d) Listed receiving waters for suspended solids, turbidity, or siltation
- ☒ Receiving waters with Total Maximum Daily Load (TMDL) for sediment, total suspended solids, turbidity or siltation
- ☐ Applicable Federal, Tribal, State or Local Programs
- ☐ Other

1. 303(d) Listed receiving waters (fill out this section if checked above):

a. The name(s) of the listed water body, and identification of all pollutants causing impairment:

Galena River - Polychlorinated Biphenyls, Zinc, & Fecal Coliform

b. Provide a description of how erosion and sediment control practices will prevent a discharge of sediment resulting from a storm event equal to or greater than a twenty-five (25) year, twenty-four (24) hour rainfall event:

All storm sewer inlets will be protected, silt fence will be placed at all off-site runoff areas, and temporary ditch checks will be used until final stabilization of the ground has occurred. Temporary erosion control seeding will also be used.

c. Provide a description of the location(s) of direct discharge from the project site to the 303(d) water body:

The discharge from the project site will travel through storm sewer and outlet at a rip-rapped endwall into the Galena River.

d. Provide a description of the location(s) of any dewatering discharges to the MS4 and/or water body:

No known dewatering discharges on this project.

2. TMDL (fill out this section if checked above)

a. The name(s) of the listed water body:

Galena River - Sedimentation/Siltation, TSS

b. Provide a description of the erosion and sediment control strategy that will be incorporated into the site design that is consistent with the assumptions and requirements of the TMDL:

All storm sewer inlets will be protected, silt fence will be placed at all off-site runoff areas, and temporary ditch checks will be used until final stablization of the ground has occurred. Temporary erosion control seeding will also be used.

c. If a specific numeric waste load allocation has been established that would apply to the project's discharges, provide a description of the necessary steps to meet that allocation:

N/A

P. The following pollutants of concern will be associated with this construction project:

| | | | |
|---|---|---|---|
| ☒ | Soil Sediment | ☒ | Petroleum (gas, diesel, oil, kerosene, hydraulic oil / fluids) |
| ☒ | Concrete | ☐ | Antifreeze / Coolants |
| ☒ | Concrete Truck Waste | ☒ | Waste water from cleaning construction equipment |
| ☒ | Concrete Curing Compounds | ☐ | Other (specify) |
| ☒ | Solid Waste Debris | ☐ | Other (specify) |
| ☒ | Paints | ☐ | Other (specify) |
| ☐ | Solvents | ☐ | Other (specify) |
| ☒ | Fertilizers / Pesticides | ☐ | Other (specify) |

## II. Controls:

This section of the plan addresses the controls that will be implemented for each of the major construction activities described in I.C. above and for all use areas, borrow sites, and waste sites. For each measure discussed, the Contractor will be responsible for its implementation as indicated. The Contractor shall provide to the Resident Engineer a plan for the implementation of the measures indicated. The Contractor, and subcontractors, will notify the Resident Engineer of any proposed changes, maintenance, or modifications to keep construction activities compliant with the Permit ILR10. Each such Contractor has signed the required certification on forms which are attached to, and are a part of, this plan:

A. **Erosion and Sediment Controls:** At a minimum, controls must be coordinated, installed and maintained to:

1. Minimize the amount of soil exposed during construction activity;
2. Minimize the disturbance of steep slopes;
3. Maintain natural buffers around surface waters, direct storm water to vegetated areas to increase sediment removal and maximize storm water infiltration, unless infeasible;
4. Minimize soil compaction and, unless infeasible, preserve topsoil.

B. **Stabilization Practices:** Provided below is a description of interim and permanent stabilization practices, including site- specific scheduling of the implementation of the practices. Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Stabilization practices may include but are not limited to: temporary seeding, permanent seeding, mulching, geotextiles, sodding, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures. Except as provided below in II(B)(1) and II(B)(2), stabilization measures shall be initiated **immediately** where construction activities have temporarily or permanently ceased, but in no case more than **one (1) day** after the construction activity in that portion of the site has temporarily or permanently ceases on all disturbed portions of the site where construction will not occur for a period of fourteen (14) or more calendar days.

1. Where the initiation of stabilization measures is precluded by snow cover, stabilization measures shall be initiated as soon as practicable.

2. On areas where construction activity has temporarily ceased and will resume after fourteen (14) days, a temporary stabilization method can be used.

The following stabilization practices will be used for this project:

- ☐ Preservation of Mature Vegetation
- ☐ Vegetated Buffer Strips
- ☒ Protection of Trees
- ☐ Temporary Erosion Control Seeding
- ☐ Temporary Turf (Seeding, Class 7)
- ☐ Temporary Mulching
- ☒ Permanent Seeding
- ☒ Erosion Control Blanket / Mulching
- ☐ Sodding
- ☐ Geotextiles
- ☐ Other (specify)
- ☐ Other (specify)
- ☐ Other (specify)
- ☐ Other (specify)

Describe how the stabilization practices listed above will be utilized during construction:

Temporary erosion control seeding will be applied to all bare earth areas to minimize exposed surface. Permanent seeding class 1A will be installed per IDOT specifications.
Mulching will be applied to protect the disturbed areas and prevent further erosion.

Describe how the stabilization practices listed above will be utilized after construction activities have been completed:

All areas disturbed by construction will be stabilized with permanent seeding and mulch immediately following the finish grading.

C. **Structural Practices:** Provided below is a description of structural practices that will be implemented, to the degree attainable, to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Such practices may include but are not limited to: perimeter erosion barrier, earth dikes, drainage swales, sediment traps, ditch checks, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins. The installation of these devices may be subject to Section 404 of the Clean Water Act.

The following structural practices will be used for this project:

- ☒ Perimeter Erosion Barrier
- ☒ Temporary Ditch Check
- ☒ Storm Drain Inlet Protection
- ☐ Sediment Trap
- ☐ Temporary Pipe Slope Drain
- ☐ Temporary Sediment Basin
- ☐ Temporary Stream Crossing
- ☒ Stabilized Construction Exits
- ☐ Turf Reinforcement Mats
- ☐ Permanent Check Dams
- ☐ Permanent Sediment Basin
- ☐ Aggregate Ditch
- ☐ Paved Ditch
- ☐ Rock Outlet Protection
- ☐ Riprap
- ☐ Gabions
- ☐ Slope Mattress
- ☒ Retaining Walls
- ☐ Slope Walls
- ☐ Concrete Revetment Mats
- ☐ Level Spreaders
- ☐ Other (specify)
- ☐ Other (specify)
- ☐ Other (specify)
- ☐ Other (specify)
- ☐ Other (specify)

Describe how the structural practices listed above will be utilized during construction:

Describe how the structural practices listed above will be utilized after construction activities have been completed:

D. **Treatment Chemicals**

Will polymer flocculants or treatment chemicals be utilized on this project: ☐ Yes ☐ No

If yes above, identify where and how polymer flocculants or treatment chemicals will be utilized on this project.

E. **Permanent Storm Water Management Controls:** Provided below is a description of measures that will be installed during the construction process to control volume and pollutants in storm water discharges that will occur after construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water Act.

1. Such practices may include but are not limited to: storm water detention structures (including wet ponds), storm water retention structures, flow attenuation by use of open vegetated swales and natural depressions, infiltration of runoff on site, and sequential systems (which combine several practices).

   The practices selected for implementation were determined on the basis of the technical guidance in Chapter 41 (Construction Site Storm Water Pollution Control) of the IDOT Bureau of Design and Environment Manual. If practices other than those discussed in Chapter 41 are selected for implementation or if practices are applied to situations different from those covered in Chapter 41, the technical basis for such decisions will be explained below.

2. Velocity dissipation devices will be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g. maintenance of hydrologic conditions such as the hydroperiod and hydrodynamics present prior to the initiation of construction activities).

   Description of permanent storm water management controls:

F. **Approved State or Local Laws:** The management practices, controls and provisions contained in this plan will be in accordance with IDOT specifications, which are at least as protective as the requirements contained in the Illinois Environmental Protection Agency's Illinois Urban Manual. Procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials shall be described or incorporated by reference in the space provided below. Requirements specified in sediment and erosion site plans, site permits, storm water management site plans or site permits approved by local officials that are applicable to protecting surface water resources are, upon submittal of an NOI, to be authorized to discharge under the Permit ILR10 incorporated by reference and are enforceable under this permit even if they are not specifically included in the plan.

Description of procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials:

G. **Contractor Required Submittals:** Prior to conducting any professional services at the site covered by this plan, the Contractor and each subcontractor responsible for compliance with the permit shall submit to the Resident Engineer a Contractor Certification Statement, BDE 2342a.

1. The Contractor shall provide a construction schedule containing an adequate level of detail to show major activities with implementation of pollution prevention BMPs, including the following items:

- Approximate duration of the project, including each stage of the project
- Rainy season, dry season, and winter shutdown dates
- Temporary stabilization measures to be employed by contract phases
- Mobilization timeframe
- Mass clearing and grubbing/roadside clearing dates
- Deployment of Erosion Control Practices
- Deployment of Sediment Control Practices (including stabilized construction entrances/exits)
- Deployment of Construction Site Management Practices (including concrete washout facilities, chemical storage, refueling locations, etc.)
- Paving, saw-cutting, and any other pavement related operations
- Major planned stockpiling operations
- Timeframe for other significant long-term operations or activities that may plan non-storm water discharges such as dewatering, grinding, etc.
- Permanent stabilization activities for each area of the project

2. The Contractor and each subcontractor shall provide, as an attachment to their signed Contractor Certification Statement, a discussion of how they will comply with the requirements of the permit in regard to the following items and provide a graphical representation showing location and type of BMPs to be used when applicable:

- Vehicle Entrances and Exits – Identify type and location of stabilized construction entrances and exits to be used and how they will be maintained.
- Material Delivery, Storage and Use – Discuss where and how materials including chemicals, concrete curing compounds, petroleum products, etc. will be stored for this project.
- Stockpile Management – Identify the location of both on-site and off-site stockpiles. Discuss what BMPs will be used to prevent pollution of storm water from stockpiles.
- Waste Disposal – Discuss methods of waste disposal that will be used for this project.
- Spill Prevention and Control – Discuss steps that will be taken in the event of a material spill (chemicals, concrete curing compounds, petroleum, etc.)
- Concrete Residuals and Washout Wastes – Discuss the location and type of concrete washout facilities to be used on this project and how they will be signed and maintained.
- Litter Management – Discuss how litter will be maintained for this project (education of employees, number of dumpsters, frequency of dumpster pick-up, etc.).
- Vehicle and Equipment Fueling – Identify equipment fueling locations for this project and what BMPs will be used to ensure containment and spill prevention.
- Vehicle and Equipment Cleaning and Maintenance – Identify where equipment cleaning and maintenance locations for this project and what BMPs will be used to ensure containment and spill prevention.
- Dewatering Activities – Identify the controls which will be used during dewatering operations to ensure sediments will not leave the construction site.
- Polymer Flocculants and Treatment Chemicals – Identify the use and dosage of treatment chemicals and provide the Resident Engineer with Material Safety Data Sheets. Describe procedures on how the chemicals will be used and identify who will be responsible for the use and application of these chemicals. The selected individual must be trained on the established procedures.
- Additional measures indicated in the plan.

**III. Maintenance:**

When requested by the Contractor, the Resident Engineer will provide general maintenance guides to the Contractor for the practices associated with this project. The following additional procedures will be used to maintain, in good and effective operating conditions, the vegetation, erosion and sediment control measures and other protective measures identified in this plan. It will be the Contractor's responsibility to attain maintenance guidelines for any manufactured BMPs which are to be installed and maintained per manufacture's specifications.

Seeding - All erodible bare earth areas will be temporarily seeded as needed to minimize the amount of erodible surface.
Mulching - Any mulched areas that have failed will be repaired immediately.
Ditch checks - Sediment will be removed from the ditch checks if the integrity of the ditch check is in jeopardy. Any ditch checks that have failed will be repaired or replaced immediately.
Inlet and pipe protection - Sediment will be removed if the integrity of the pipe protection is in jeopardy. Any pipe protection that fails will be repaired or replaced immediately.

## IV. Inspections:

Qualified personnel shall inspect disturbed areas of the construction site which have not yet been finally stabilized, structural control measures, and locations where vehicles and equipment enter and exit the site using IDOT Storm Water Pollution Prevention Plan Erosion Control Inspection Report (BC 2259). Such inspections shall be conducted at least once every seven (7) calendar days and within twenty-four (24) hours of the end of a storm or by the end of the following business or work day that is 0.5 inch or greater or equivalent snowfall.

Inspections may be reduced to once per month when construction activities have ceased due to frozen conditions. Weekly inspections will recommence when construction activities are conducted, or if there is 0.5" or greater rain event, or a discharge due to snowmelt occurs.

If any violation of the provisions of this plan is identified during the conduct of the construction work covered by this plan, the Resident Engineer shall notify the appropriate IEPA Field Operations Section office by email at: epa.swnoncomp@illinois.gov, telephone or fax within twenty-four (24) hours of the incident. The Resident Engineer shall then complete and submit an "Incidence of Non-Compliance" (ION) report for the identified violation within five (5) days of the incident. The Resident Engineer shall use forms provided by IEPA and shall include specific information on the cause of noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance. All reports of non-compliance shall be signed by a responsible authority in accordance with Part VI. G of the Permit ILR10.

The Incidence of Non-Compliance shall be mailed to the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Attn: Compliance Assurance Section
1021 North Grand East
Post Office Box 19276
Springfield, Illinois 62794-9276

Additional Inspections Required:

## V. Failure to Comply:

Failure to comply with any provisions of this Storm Water Pollution Prevention Plan will result in the implementation of a National Pollutant Discharge Elimination System/Erosion and Sediment Control Deficiency Deduction against the Contractor and/or penalties under the Permit ILR10 which could be passed on to the Contractor.

Illinois Department of Transportation

## Contractor Certification Statement

Prior to conducting any professional services at the site covered by this contract, the Contractor and every subcontractor must complete and return to the Resident Engineer the following certification. A separate certification must be submitted by each firm. Attach to this certification all items required by Section II.G of the Storm Water Pollution Prevention Plan (SWPPP) which will be handled by the Contractor/subcontractor completing this form.

| | | | |
|---|---|---|---|
| Route | Gear Street | Marked Rte. | Gear Street |
| Section | 10-0045-00-FP | Project No. | |
| County | Jo Daviess | Contract No. | |

This certification statement is a part of SWPPP for the project described above, in accordance with the General NPDES Permit No. ILR10 issued by the Illinois Environmental Protection Agency.

I certify under penalty of law that I understand the terms of the Permit No. ILR 10 that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

In addition, I have read and understand all of the information and requirements stated in SWPPP for the above mentioned project; I have received copies of all appropriate maintenance procedures; and, I have provided all documentation required to be in compliance with the Permit ILR10 and SWPPP and will provide timely updates to these documents as necessary.

☐ Contractor

☐ Sub-Contractor

| | |
|---|---|
| Print Name | Signature |
| Title | Date |
| Name of Firm | Telephone |
| Street Address | City/State/ZIP |

Items which this Contractor/subcontractor will be responsible for as required in Section II.G. of SWPPP:

Illinois Department of Transportation

# Traffic Control Authorization Request

District: 2

County JoDaviess

Project

Contract Number

Marked Route Gear Street

Section 10-00045-00-FP

Location

Inclusive Dates of Work to Work Hours ☐ AM ☐ PM to ☐ AM ☐ PM

Work Type ☐ Maintenance ☐ Construction ☐ Traffic ☐ Other

Describe Work

Contractor or Agency Doing Work

**Responsible Engineer:** (Construction Foreman/Superintendent, Maintenance/Traffic Field Engineer)

Name Telephone No. ( ) ( )
Office Home

(If traffic control is to be employed between 5:00 p.m. and 8:30 a.m. or on Saturday, Sunday or holidays give addition numbers)

Name Telephone No. ( ) ( )

Name Telephone No. ( ) ( )

Name Telephone No. ( ) ( )

**Controls:** (Describe specific controls to be used, including reference to appropriate Highway Standards or sections of manuals, and set forth any special controls proposed).

**Distribution**
District Operations/Traffic Engineer
Project Implementation Engineer
Field Engineer
Resident Engineer
ISP District

Submitted by:

Approved by:
(District Operations/Traffic Engineer)

INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2017

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

ERRATA Standard Specifications for Road and Bridge Construction
(Adopted 4-1-16) (Revised 1-1-17)

## SUPPLEMENTAL SPECIFICATIONS

CHECK SHEET
FOR
RECURRING SPECIAL PROVISIONS

Adopted April 1, 2016

The following RECURRING SPECIAL PROVISIONS indicated by an "X" are applicable to this contract and are included by reference:

RECURRING SPECIAL PROVISIONS

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CHECK SHEET
FOR
LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS

Adopted April 1, 2016

The following LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS indicated by an "X" are applicable to this contract and are included by reference:

LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS

Illinois Department of Transportation

# Special Provisions

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction", Adopted January 1, 2016 , the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways", and the "Manual of Test Procedures of Materials" in effect on the date of invitation of bids, and the Supplemental Specifications and Recurring Special Provisions indicated on the Check Sheet included here in which apply to and govern the construction of Section 10-00045-00-FP (Gear St) , and in case of conflict with any part, or parts, of said Specifications, the said Special Provisions shall take precedence and shall govern.

LOCATION OF PROJECT

Galena, IL 61036, Jo Daviess County

DESCRIPTION OF PROJECT

Roadway removal and reconstruction, PCC sidewalk, HMA & PCC driveways, water main installation, storm sewer removal and installation, erosion control, and seeding.

TRAFFIC CONTROL PLAN

Traffic Control shall be according to the applicable sections of the Standard Specifications for Road and Bridge Construction, the applicable guidelines contained in the National Manual on Uniform Traffic Control Devices for Streets and Highways, Illinois Supplement to the National Manual on Uniform Traffic Control Devices, these special provisions, and any special details and Highway Standards contained herin and in the plans.

Special attention is called to Articles 107.09 and 107.14 of the Standard Specifications for Road and Bridge Construction and the following Highway Standards relating to traffic control.

Standards:

701001 701006 701501 701011 701801 701901

Details:

MOBILIZATION

Mobilization will not be paid for separately and will be considered incidental to the project.

City of Galena
Gear Street
Section 10-00045-00-FP

# Archaeological Special Provision

## Coordination and Construction Monitoring by the Illinois State Archeological Survey

Due to the documented historic nature of the City of Galena, the Contractor **shall be** responsible for coordination with the **Illinois State Archaeological Survey, ISAS**, Northern Illinois Field Station throughout the duration of the Gear Street reconstruction project.

The Contractor **shall contact** the ISAS Northern Illinois Field Station 48 hours prior to any excavation operations and the City of Galena **shall contact** the ISAS Northern Illinois Field Office and the IDOT District 2 Bureau of Local Roads & Streets office with the time, date, location and contact person for the project pre-construction meeting as soon as this information is determined.

ISAS personnel **must attend** the preconstruction meeting to discuss monitoring procedures and safety protocols with IDOT staff, the City of Galena and the Contractor.

ISAS Archaeologists will monitor project excavations and ***will have the authority*** to halt excavations for no longer than two working days (or 48 hours) to document each location where an archaeological discovery is made.

***The contact information for the ISAS Northern Illinois Field Office is as follows:***

Ms. Paula Porubcan-Branster, RPA
ISAS Northern Illinois Field Station Coordinator
21 N. Union Street
Elgin, Illinois 60123
Phone: (224)–281-4730
Fax: (224)–281-4594
Email: porubcan@illinois.edu

Dr. Thomas J. Loebel, PhD, RPA
ISAS- Prairie Research Institute
23 Stadium Drive
Champaign, Illinois 61820
Phone: (217)-244-4244
Email: tjl2@illinois.edu

**Tracking Information**
IDOT Seq. No. 116381
ISAS Log No. 10074

***The contact information for the Illinois Department of Transportation Region 2/District 2 Office is as follows:***

Mr. Anthony M. Baratta, P.E.
Illinois Department of Transportation
District Local Roads Engineer
Region 2/ District 2
819 Depot Avenue
Dixon, Illinois 61021
Phone: (815)-284-5381
Email: Anthony.Baratta@illinois.gov

Mr. Mark Nardini
Illinois Department of Transportation
District Environmental Studies Supervisor
Region 2/District 2
819 Depot Avenue
Dixon, Illinois 61021
Phone: (815)-284-5460
Email: Mark.Nardini@illinois.gov

(rev. 9/6/16)

## TEMPORARY ALTERNATE PEDESTRIAN ACCESS ROUTE:

This project involves the reconstruction and closing of sidewalks, sidewalk corners/ curb ramps, and landing areas at various intersections depending upon the Contractor's schedule/plan to reconstruct curbs ramps, landing areas and sidewalks. If the pedestrian access route cannot be detoured or diverted as shown on IDOT Highway Standard 701801-06- "**Sidewalk, Corner or Crosswalk Closure**", the following shall apply:

When a pedestrian circulation path (i.e. sidewalk/curb ramp) is temporarily closed by construction, alterations, maintenance operations, or other conditions, an Alternate Pedestrian Access Route shall be marked and/or provided. Any pedestrian barricades and channelizing devices used shall comply with the **Illinois Supplement Manual on Uniform Traffic Control Devices (ILMUTCD)** and the **2009 Manual on Uniform Traffic Control Devices , (MUTCD)**

The ILMUTCD recommends that whenever possible, work should be done in a manner that does not create a need to detour pedestrians from existing pedestrian routes.

**Temporary sidewalks**: Where temporary sidewalks are provided, the following will apply:

a. **Width**: the width of temporary sidewalks should be equal to the existing sidewalk; however, the minimum continuous clear width will be 4 ft. (1.2m). Wider sidewalks should be considered where there are high pedestrian volumes. For temporary sidewalks with clear widths less than 5 ft. (1.5m), a 5 ft. x 5ft (1.5m x1.5m) passing space should be provided at least every 200 feet (60m).

b. **Surface**: The surface of the temporary sidewalks/curb ramps must be firm, stable and slip resistant. If the temporary sidewalk is to remain in place for ***more than*** four weeks, provide a 2 in (50mm) Portland cement or asphalt surface. The material selection will be at the contractor's option. For temporary sidewalks to remain in place ***less than*** four weeks, a 3 in.(75mm) compacted aggregate surface may be provided.

It shall be the contractor's responsibility to maintain accessible pedestrian access routes at all times during construction where they currently exist. If an existing sidewalk, or curb ramp will be closed for reconstruction, provide an Alternate Pedestrian Access Route (PAR) for each temporarily altered location that ***cannot*** be detoured or diverted per IDOT Highway Standard 701801-06.
This item, if needed, shall be considered incidental to the installation of the sidewalks, and no additional compensation will be allowed. The temporary sidewalk area or temporary curb ramp shall be removed upon opening of the newly constructed sidewalk and or curb ramp, and topsoil and seeding or sod placed as necessary to restore the temporary sidewalk area to the satisfaction of the engineer.

D2 LR 9/8/16

**WATERMAIN SPECIFICATIONS**

**These specifications will supersede all other specifications listed in the contract documents.**

**Section 40 — Pipe for Water Mains and service Connections**

Water Distribution Pipe: Water main shall be 10 inch PVC per AWWA C909 or C900, DR 18, Class 150. Hydrant leads shall be 6-inch DIP only, per AWWA C151, Class 350 or thicker; or alternatively 6 inch PVC per AWWA C909, DR 18, Class 150. PVC water main shall have elastomeric gaskets only. DIP joints shall be push-on type.

Fittings: All fittings shall be compact ductile iron conforming to AWWA C153, with mechanical joints and cement mortar lining.

Joint Restraint: Joint restraint shall be EBBA Iron, Series 810 "Coverall." Restrained joint pipe shall be bid on a lineal foot basis.

Water Service Lines: Water service lines shall be ¾ inch, sized to match existing or as specified on the drawings; Type K copper per ASTM B88. Bedding to be 4-inch depth sand or fine gravel with same material to cover pipe to 10 inches thick.

Corporation Stops: Corporation stops shall be Mueller H-15008 or AY MacDonald Q fitting or equal, all per AWWA C800. Install corporation stop into tapping saddle for PVC water rain.

Tapping Saddles: Tapping saddles for ¾-inch and 1-inch service lines shall be Smith Blair 317 with nylon coating for larger sizes or equal. Saddles shall have AWWA threaded outlets.

Curb Stops: Curb stops shall be Mueller H-15155 or AY MacDonald Q fitting or equal, all per AWWA C800.

Curb Box: Curb boxes shall be Mueller H-10300 or equal.

Depth: All water main and service connections are to be installed with a minimum of 5.5 feet of cover.

Indicator/Tracer Wire: Indicator wire shall be insulated 14 gauge stranded copper wire THW or THWN installed on top of the water main for indication of location. A 10 to 12-foot coil of wire shall be placed in the valve boxes. Splices shall be avoided if possible, otherwise waterproof connections are required.

Tracer Wire Terminal Box: A terminal box shall be installed and connected to the tracer wires at each fire hydrant. Installation of terminal box and connection of tracer wires to be in accordance with terminal box manufacturer's instructions, using a 1 inch PVC riser from the top of the water main into the terminal box.

**Section 41 – Pipe Installation for Water Mains**

Connection to Existing: Connections to existing mains will require a mechanical joint tee and Smith-Blair 441 coupling. See plan for these locations. The water main at these locations can be isolated by shut off valves at the time of making the connection. Contractor shall depressurize main prior to installation of the tee. Contractor shall assist City of Galena in notifying affected residents when water is to be shut off.

Testing: New main shall be pressure/leakage and bacteria tested prior to connection of service lines. The duration of each pressure test shall be not less than 2 hours.

**Section 42 – Gate Valves for Water Mains**

Valves**:** Valves shall be resilient seated gate valves per AWWA C509 with mechanical joints per AWWA C111. Valves shall be NRS and open clockwise. Gate valves will be Mueller or equivalent per AWWA standard.

**Section 44 – Valve Vaults and Boxes for Water Mains and Water Services**

Valve Boxes: The valve boxes shall be Mueller or equivalent per AWWA standard. Valve box shall include a Valve Box Adaptor II centering device by Adaptor Inc., sized to suit selected manufactured valve.

**Section 45 – Fire Hydrants**

Fire Hydrants: Hydrants shall be Mueller Centurion or Kennedy oil-lubricated with six feet bury depth.

Fire Hydrants will be purchased and furnished by the City of Galena for installation by the contractor.

BDE SPECIAL PROVISIONS
For the July 29 and September 16, 2016 Lettings

The following special provisions indicated by an "x" are applicable to this contract and will be included by the Project Development and Implementation Section of the BD&E. An * indicates a new or revised special provision for the letting.

| | File Name | # | | Special Provision Title | Effective | Revised |
|---|---|---|---|---|---|---|
| | 80099 | 1 | | Accessible Pedestrian Signals (APS) | April 1, 2003 | Jan. 1, 2014 |
| | 80274 | 2 | x | Aggregate Subgrade Improvement | April 1, 2012 | April 1, 2016 |
| | 80192 | 3 | x | Automated Flagger Assistance Device | Jan. 1, 2008 | |
| | 80173 | 4 | | Bituminous Materials Cost Adjustments | Nov. 2, 2006 | July 1, 2015 |
| | 80241 | 5 | | Bridge Demolition Debris | July 1, 2009 | |
| | 5026I | 6 | | Building Removal-Case I (Non-Friable and Friable Asbestos) | Sept. 1, 1990 | April 1, 2010 |
| | 5048I | 7 | | Building Removal-Case II (Non-Friable Asbestos) | Sept. 1, 1990 | April 1, 2010 |
| | 5049I | 8 | | Building Removal-Case III (Friable Asbestos) | Sept. 1, 1990 | April 1, 2010 |
| | 5053I | 9 | | Building Removal-Case IV (No Asbestos) | Sept. 1, 1990 | April 1, 2010 |
| * | 80366 | 10 | | Butt Joints | July 1, 2016 | |
| | 80360 | 11 | x | Coarse Aggregate Quality | July 1, 2015 | |
| | 80198 | 12 | | Completion Date (via calendar days) | April 1, 2008 | |
| | 80199 | 13 | | Completion Date (via calendar days) Plus Working Days | April 1, 2008 | |
| * | 80293 | 14 | | Concrete Box Culverts with Skews > 30 Degrees and Design Fills ≤ 5 Feet | April 1, 2012 | July 1, 2016 |
| | 80311 | 15 | x | Concrete End Sections for Pipe Culverts | Jan. 1, 2013 | April 1, 2016 |
| | 80277 | 16 | | Concrete Mix Design – Department Provided | Jan. 1, 2012 | April 1, 2016 |
| | 80261 | 17 | | Construction Air Quality – Diesel Retrofit | June 1, 2010 | Nov. 1, 2014 |
| | 80029 | 18 | | Disadvantaged Business Enterprise Participation | Sept. 1, 2000 | Jan. 2, 2016 |
| | 80363 | 19 | | Engineer's Field Office | April 1, 2016 | |
| | 80358 | 20 | x | Equal Employment Opportunity | April 1, 2015 | |
| | 80364 | 21 | x | Errata for the 2016 Standard Specifications | April 1, 2016 | |
| | 80229 | 22 | | Fuel Cost Adjustment | April 1, 2009 | July 1, 2015 |
| | 80304 | 23 | | Grooving for Recessed Pavement Markings | Nov. 1, 2012 | Aug. 1, 2014 |
| | 80246 | 24 | x | Hot-Mix Asphalt – Density Testing of Longitudinal Joints | Jan. 1, 2010 | April 1, 2016 |
| | 80347 | 25 | | Hot-Mix Asphalt – Pay for Performance Using Percent Within Limits – Jobsite Sampling | Nov. 1, 2014 | April 1, 2016 |
| * | 80367 | 26 | | Light Poles | July 1, 2016 | |
| * | 80368 | 27 | | Light Tower | July 1, 2016 | |
| | 80336 | 28 | | Longitudinal Joint and Crack Patching | April 1, 2014 | April 1, 2016 |
| * | 80369 | 29 | | Mast Arm Assembly and Pole | July 1, 2016 | |
| | 80045 | 30 | | Material Transfer Device | June 15, 1999 | Aug. 1, 2014 |
| | 80342 | 31 | | Mechanical Side Tie Bar Inserter | Aug. 1, 2014 | April 1, 2016 |
| * | 80370 | 32 | | Mechanical Splicers | July 1, 2016 | |
| | 80165 | 33 | | Moisture Cured Urethane Paint System | Nov. 1, 2006 | Jan. 1, 2010 |
| | 80361 | 34 | | Overhead Sign Structures Certification of Metal Fabricator | Nov. 1, 2015 | April 1, 2016 |
| | 80349 | 35 | x | Pavement Marking Blackout Tape | Nov. 1, 2014 | April 1, 2016 |
| * | 80371 | 36 | | Pavement Marking Removal | July 1, 2016 | |
| | 80298 | 37 | | Pavement Marking Tape Type IV | April 1, 2012 | April 1, 2016 |
| | 80365 | 38 | | Pedestrian Push-Button | April 1, 2016 | |
| * | 80372 | 39 | | Preventive Maintenance – Bituminous Surface Treatment (A-1) | Jan. 1, 2009 | July 1, 2016 |
| * | 80373 | 40 | | Preventive Maintenance – Cape Seal | Jan. 1, 2009 | July 1, 2016 |
| * | 80374 | 41 | | Preventive Maintenance – Micro-Surfacing | Jan. 1, 2009 | July 1, 2016 |
| * | 80375 | 42 | | Preventive Maintenance – Slurry Seal | Jan. 1, 2009 | July 1, 2016 |
| * | 80359 | 43 | | Portland Cement Concrete Bridge Deck Curing | April 1, 2015 | July 1, 2016 |
| | 80353 | 44 | | Portland Cement Concrete Inlay or Overlay | Jan. 1, 2015 | April 1, 2016 |

| File Name | # | | Special Provision Title | Effective | Revised |
|---|---|---|---|---|---|
| 80338 | 45 | | Portland Cement Concrete Partial Depth Hot-Mix Asphalt Patching | April 1, 2014 | April 1, 2016 |
| 80300 | 46 | | Preformed Plastic Pavement Marking Type D - Inlaid | April 1, 2012 | April 1, 2016 |
| 80328 | 47 | | Progress Payments | Nov. 2, 2013 | |
| 3426I | 48 | | Railroad Protective Liability Insurance | Dec. 1, 1986 | Jan. 1, 2006 |
| 80157 | 49 | | Railroad Protective Liability Insurance (5 and 10) | Jan. 1, 2006 | |
| 80306 | 50 | X | Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS) | Nov. 1, 2012 | April 1, 2016 |
| 80340 | 51 | | Speed Display Trailer | April 2, 2014 | April 1, 2016 |
| 80127 | 52 | | Steel Cost Adjustment | April 2, 2004 | July 1, 2015 |
| 80362 | 53 | X | Steel Slag in Trench Backfill | Jan. 1, 2016 | |
| 80317 | 54 | | Surface Testing of Hot-Mix Asphalt Overlays | Jan. 1, 2013 | April 1, 2016 |
| 80355 | 55 | | Temporary Concrete Barrier | Jan. 1, 2015 | July 1, 2015 |
| 20338 | 56 | | Training Special Provisions | Oct. 15, 1975 | |
| 80318 | 57 | | Traversable Pipe Grate | Jan. 1, 2013 | April 1, 2014 |
| 80288 | 58 | X | Warm Mix Asphalt | Jan. 1, 2012 | April 1, 2016 |
| 80302 | 59 | | Weekly DBE Trucking Reports | June 2, 2012 | April 2, 2015 |
| 80289 | 60 | | Wet Reflective Thermoplastic Pavement Marking | Jan. 1, 2012 | |
| 80071 | 61 | X | Working Days | Jan. 1, 2002 | |

The following special provisions and recurring special provisions are in the 2016 Standard Specifications.

| File Name | Special Provision Title | New Location | Effective | Revised |
|---|---|---|---|---|
| 80240 | Above Grade Inlet Protection | Articles 280.02, 280.04, and 1081.15 | July 1, 2009 | Jan. 1, 2012 |
| 80310 | Coated Galvanized Steel Conduit | Article 811.03 | Jan. 1, 2013 | Jan. 1, 2015 |
| 80341 | Coilable Nonmetallic Conduit | Article 1088.01 | Aug. 1, 2014 | Jan. 1, 2015 |
| 80294 | Concrete Box Culverts with Skews ≤ 30 Degrees Regardless of Design Fill and Skews > 30 Degrees with Design Fills > 5 Feet | Article 540.04 | April 1, 2012 | April 1, 2014 |
| 80334 | Concrete Gutter, Curb, Median, and Paved Ditch | Articles 606.02, 606.07, and 1050.04 | April 1, 2014 | Aug. 1, 2014 |
| 80335 | Contract Claims | Article 109.09 | April 1, 2014 | |
| Chk Sht #27 | English Substitution of Metric Reinforcement Bars | Article 508.09 | April 1, 1996 | Jan. 1, 2011 |
| 80265 | Friction Aggregate | Articles 1004.01 and 1004.03 | Jan. 1, 2011 | Nov. 1, 2014 |
| 80329 | Glare Screen | Sections 638 and 1085 | Jan. 1, 2014 | |
| Chk Sht #20 | Guardrail and Barrier Wall Delineation | Sections 635, 725, 782, and 1097 | Dec. 15, 1993 | Jan. 1, 2012 |
| 80322 | Hot-Mix Asphalt – Mixture Design Composition and Volumetric Requirements | Sections 312, 355, 406, 407, 442, 482, 601, 1003, 1004, 1030, and 1102 | Nov. 1, 2013 | Nov. 1, 2014 |
| 80323 | Hot-Mix Asphalt – Mixture Design Verification and Production | Sections 406, 1030, and 1102 | Nov. 1, 2013 | Nov. 1, 2014 |
| 80348 | Hot-Mix Asphalt – Prime Coat | Sections 403, 406, 407, 408, 1032, and 1102 | Nov. 1, 2014 | |
| 80315 | Insertion Lining of Culverts | Sections 543 and 1029 | Jan. 1, 2013 | Nov. 1, 2013 |
| 80351 | Light Tower | Article 1069.08 | Jan. 1, 2015 | |
| 80324 | LRFD Pipe Culvert Burial Tables | Sections 542 and 1040 | Nov. 1, 2013 | April 1, 2015 |
| 80325 | LRFD Storm Sewer Burial Tables | Sections 550 and 1040 | Nov. 1, 2013 | April 1, 2015 |
| 80337 | Paved Shoulder Removal | Article 440.07 | April 1, 2014 | |
| 80254 | Pavement Patching | Article 701.17 | Jan. 1, 2010 | |
| 80352 | Pavement Striping - Symbols | Article 780.14 | Jan. 1, 2015 | |

| File Name | Special Provision Title | New Location | Effective | Revised |
|---|---|---|---|---|
| Chk Sht #19 | Pipe Underdrains | Section 601 and Articles 1003.01, 1003.04, 1004.05, 1040.06, and 1080.05 | Sept. 9, 1987 | Jan. 1, 2007 |
| 80343 | Precast Concrete Handhole | Articles 814.02, 814.03, and 1042.17 | Aug. 1, 2014 | |
| 80350 | Retroreflective Sheeting for Highway Signs | Article 1091.03 | Nov. 1, 2014 | |
| 80327 | Reinforcement Bars | Section 508 and Articles 421.04, 442.06, 1006.10 | Nov. 1, 2013 | |
| 80344 | Rigid Metal Conduit | Article 1088.01 | Aug. 1, 2014 | |
| 80354 | Sidewalk, Corner, or Crosswalk Closure | Article 1106.02 | Jan. 1, 2015 | April 1, 2015 |
| 80301 | Tracking the Use of Pesticides | Article 107.23 | Aug. 1, 2012 | |
| 80356 | Traffic Barrier Terminals Type 6 or 6B | Article 631.02 | Jan. 1, 2015 | |
| 80345 | Underpass Luminaire | Articles 821.06 and 1067.04 | Aug. 1, 2014 | April 1, 2015 |
| 80357 | Urban Half Road Closure with Mountable Median | Articles 701.18, 701.19, and 701.20 | Jan. 1, 2015 | July 1, 2015 |
| 80346 | Waterway Obstruction Warning Luminaire | Article 1067.07 | Aug. 1, 2014 | April 1, 2015 |

The following special provisions require additional information from the designer. The additional information needs to be included in a separate document attached to this check sheet. The Project Development and Implementation section will then include the information in the applicable special provision. The Special Provisions are:

- Bridge Demolition Debris
- Building Removal-Case I
- Building Removal-Case II
- Building Removal-Case III
- Building Removal-Case IV
- Completion Date
- Completion Date Plus Working Days
- DBE Participation
- Material Transfer Device
- Railroad Protective Liability Insurance
- Training Special Provisions
- Working Days

# Illinois Department of Transportation

## Memorandum

| | |
|---|---|
| To: | Regional Engineers |
| From: | Omer M. Osman Osman, Omer 1/11/16 |
| Subject: | Special Provision for Aggregate Subgrade Improvement |
| Date: | January 8, 2016 |

This special provision was developed by the Bureau of Materials and Physical Research to allow the use of gravel in fills over 24 inches in thickness. This special provision has been revised to fit with the 2016 Standard Specifications.

The designer should check with the District Geotechnical Engineer to determine the appropriate thickness of the aggregate subgrade material.

When this special provision is used, BDE special provision, Reclaimed Asphalt Pavement and Reclaimed Asphalt Shingles should also be included in the contract.

It should be included in all contracts utilizing aggregate subgrade improvements.

The districts should include the BDE Check Sheet marked with the applicable special provisions for the April 22, 2016 and subsequent lettings. The Project Development and Implementation Section will include a copy in the contract.

This special provision will be available on the transfer directory January 8, 2016.

80274m

**AGGREGATE SUBGRADE IMPROVEMENT (BDE)**

Effective: April 1, 2012
Revised: April 1, 2016

Add the following Section to the Standard Specifications:

**"SECTION 303. AGGREGATE SUBGRADE IMPROVEMENT**

**303.01 Description.** This work shall consist of constructing an aggregate subgrade improvement.

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

| Item | Article/Section |
|---|---|
| (a) Coarse Aggregate | 1004.07 |
| (b) Reclaimed Asphalt Pavement (RAP) (Notes 1, 2, and 3) | 1031 |

Note 1. Crushed RAP, from either full depth or single lift removal, may be mechanically blended with aggregate gradations CS 01, CS 02, and RR 01 but shall not exceed 40 percent of the total product. The top size of the RAP shall be less than 4 in. (100 mm) and well graded.

Note 2. RAP having 100 percent passing the 1 1/2 in. (37.5 mm) sieve and being well graded, may be used as capping aggregate in the top 3 in. (75 mm) when aggregate gradations CS 01, CS 02, or RR 01 are used in lower lifts.

Note 3. The RAP used for aggregate subgrade improvement shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications".

**303.03 Equipment.** The vibratory machine shall be according to Article 1101.01, or as approved by the Engineer.

**303.04 Soil Preparation.** The stability of the soil shall be according to the Department's Subgrade Stability Manual for the aggregate thickness specified.

**303.05 Placing Aggregate.** The maximum nominal lift thickness of aggregate gradations CA 02, CA 06, or CA 10 shall be 12 in. (300 mm). The maximum nominal lift thickness of aggregate gradations CS 01, CS 02, and RR 01 shall be 24 in. (600 mm).

**303.06 Capping Aggregate.** The top surface of the aggregate subgrade shall consist of a minimum 3 in. (75 mm) of aggregate gradations CA 06 or CA 10. When the contract specifies that a granular subbase is to be placed on the aggregate subgrade improvement, the 3 in. (75 mm) of capping aggregate shall be the same gradation and may be placed with the underlying aggregate subgrade improvement material.

**303.07 Compaction.** All aggregate lifts shall be compacted to the satisfaction of the Engineer. If the moisture content of the material is such that compaction cannot be obtained, sufficient water shall be added so that satisfactory compaction can be obtained.

**303.08 Finishing and Maintenance of Aggregate Subgrade Improvement.** The aggregate subgrade improvement shall be finished to the lines, grades, and cross sections shown on the plans, or as directed by the Engineer. The aggregate subgrade improvement shall be maintained in a smooth and compacted condition.

**303.09 Method of Measurement.** This work will be measured for payment according to Article 311.08.

**303.10 Basis of Payment.** This work will be paid for at the contract unit price per cubic yard (cubic meter) or ton (metric ton) for AGGREGATE SUBGRADE IMPROVEMENT or at the contract unit price per square yard (square meter) for AGGREGATE SUBGRADE IMPROVEMENT, of the thickness specified."

Add the following to Section 1004 of the Standard Specifications:

"**1004.07 Coarse Aggregate for Aggregate Subgrade Improvement.** The aggregate shall be according to Article 1004.01 and the following.

(a) Description. The coarse aggregate shall be crushed gravel, crushed stone, or crushed concrete. In applications where greater than 24 in. (600 mm) of subgrade material is required, gravel may be used below the first 12 in (300 mm) of subgrade.

(b) Quality. The coarse aggregate shall consist of sound durable particles reasonably free of deleterious materials.

(c) Gradation.

(1) The coarse aggregate gradation for total subgrade thickness less than or equal to 12 in. (300 mm) shall be CA 2, CA 6, CA 10, or CS 01.

The coarse aggregate gradation for total subgrade thickness more than 12 in. (300 mm) shall be CS 01 or CS 02 as shown below or RR 01 according to Article 1005.01(c).

| | COARSE AGGREGATE SUBGRADE GRADATIONS | | | | |
|---|---|---|---|---|---|
| Grad No. | Sieve Size and Percent Passing | | | | |
| | 8" | 6" | 4" | 2" | #4 |
| CS 01 | 100 | 97 ± 3 | 90 ± 10 | 45 ± 25 | 20 ± 20 |
| CS 02 | | 100 | 80 ± 10 | 25 ± 15 | |

| | COARSE AGGREGATE SUBGRADE GRADATIONS (Metric) |
|---|---|

| Grad No. | Sieve Size and Percent Passing | | | | |
|---|---|---|---|---|---|
| | 200 mm | 150 mm | 100 mm | 50 mm | 4.75 mm |
| CS 01 | 100 | 97 ± 3 | 90 ± 10 | 45 ± 25 | 20 ± 20 |
| CS 02 | | 100 | 80 ± 10 | 25 ± 15 | |

(2) The 3 in. (75 mm) capping aggregate shall be gradation CA 6 or CA 10."

80274

All Regional Engineers

Eric E. Harm

Special Provision for Automated Flagger Assistance Devices

September 28, 2007

This special provision was developed by the Bureau of Safety Engineering to provide safer working conditions for flaggers. This Special Provision allows the use of Automated Flagger Assistance Devices (AFADs) on two-lane, two-way highways, at the option of the contractor. The use of this device is allowed by the FHWA memorandum, "MUTCD - Revised Interim Approval for the use of Automated Flagger Assistance Devices in Temporary Traffic Control Zones (IA-4R)", dated January 28, 2005.

This special provision should be used on two-lane highways where two-way traffic will be maintained over one lane of pavement. For example: rural milling and/or resurfacing projects, bridge maintenance projects, haul road crossings, pavement patching, or other similar projects with slow moving or stationary operations where the use of a flagger is required. AFADs should not be used on urban projects with numerous intersections where additional flaggers are required to control traffic.

Any questions regarding the use of AFADs should be directed to the Bureau of Safety Engineering.

The districts should include the BDE Check Sheet marked with the applicable special provisions for the January 18, 2008, and subsequent lettings. The Project Development and Implementation Section will include a copy in the contract.

This special provision will be available on the transfer directory September 28, 2007.

80192m

**AUTOMATED FLAGGER ASSISTANCE DEVICES (BDE)**

Effective: January 1, 2008

Description. This work shall consist of furnishing and operating automated flagger assistance devices (AFADs) as part of the work zone traffic control and protection for two-lane highways where two-way traffic is maintained over one lane of pavement. Use of these devices shall be at the option of the Contractor.

Equipment. AFADs shall be according to the FHWA memorandum, "MUTCD - Revised Interim Approval for the use of Automated Flagger Assistance Devices in Temporary Traffic Control Zones (IA-4R)", dated January 28, 2005. The devices shall be mounted on a trailer or a moveable cart and shall meet the requirements of NCHRP 350, Category 4.

The AFAD shall be the Stop/Slow type. This device uses remotely controlled "STOP" and "SLOW" signs to alternately control right-of-way.

Signs for the AFAD shall be according to Article 701.03 of the Standard Specifications and the MUTCD. The signs shall be 24 x 24 in. (600 x 600 mm) having an octagon shaped "STOP" sign on one side and a diamond shaped "SLOW" sign on the opposite side. The letters on the signs shall be 8 in. (200 mm) high. If the "STOP" sign has louvers, the full sign face shall be visible at a distance of 50 ft (15 m) and greater.

The signs shall be supplemented with one of the following types of lights.

(a) Flashing Lights. When flashing lights are used, white or red flashing lights shall be mounted within the "STOP" sign face and white or yellow flashing lights within the "SLOW" sign face.

(b) Stop and Warning Beacons. When beacons are used, a stop beacon shall be mounted 24 in. (600 mm) or less above the "STOP" sign face and a warning beacon mounted 24 in. (600 mm) or less above, below, or to the side of the "SLOW" sign face. As an option, a Type B warning light may be used in lieu of the warning beacon.

A "WAIT ON STOP" sign shall be placed on the right hand side of the roadway at a point where drivers are expected to stop. The sign shall be 24 x 30 in. (600 x 750 mm) with a black legend and border on a white background. The letters shall be at least 6 in. (150 mm) high.

This device may include a gate arm or mast arm that descends to a horizontal position when the "STOP" sign is displayed and rises to a vertical position when the "SLOW" sign is displayed. When included, the end of the arm shall reach at least to the center of the lane being controlled. The arm shall have alternating red and white retroreflective stripes, on both sides, sloping downward at 45 degrees toward the side on which traffic will pass. The stripes shall be 6 in. (150 mm) in width and at least 2 in. (50 mm) in height.

Flagging Requirements. Flaggers and flagging requirements shall be according to Article 701.13 of the Standard Specifications and the following.

AFADs shall be placed at each end of the traffic control, where a flagger is shown on the plans. The flaggers shall be able to view the face of the AFAD and approaching traffic during operation.

To stop traffic, the “STOP” sign shall be displayed, the corresponding lights/beacon shall flash, and when included, the gate arm shall descend to a horizontal position. To permit traffic to move, the “SLOW” sign shall be displayed, the corresponding lights/beacon shall flash, and when included, the gate arm shall rise to a vertical position.

If used at night, the AFAD location shall be illuminated according to Section 701 of the Standard Specifications.

When not in use, AFADs will be considered nonoperating equipment and shall be stored according to Article 701.11 of the Standard Specifications.

Basis of Payment. This work will not be paid for separately but shall be considered as included in the cost of the various traffic control items included in the contract.

80192

# Illinois Department of Transportation

## Memorandum

| | |
|---|---|
| To: | All Regional Engineers |
| From: | Omer M. Osman, P.E. |
| Subject: | Special Provision for Coarse Aggregate Quality |
| Date: | April 17, 2015 |

This special provision was developed by the Bureau of Materials and Physical Research to provide a quality test for oil-stained aggregates and to remove the Los Angeles Abrasion limits for crushed slag.

This special provision should be inserted in contracts using portland cement concrete and hot-mix asphalt.

The districts should include the BDE Check Sheet marked with the applicable special provisions for the July 31, 2015 and subsequent lettings. The Project Development and Implementation Section will include a copy in the contract.

This special provision will be available on the transfer directory April 17, 2015.

80360m

**COARSE AGGREGATE QUALITY (BDE)**

Effective: July 1, 2015

Revise Article 1004.01(b) of the Standard Specifications to read:

"(b) Quality. The coarse aggregate shall be according to the quality standards listed in the following table.

| COARSE AGGREGATE QUALITY | | | | |
|---|---|---|---|---|
| QUALITY TEST | CLASS | | | |
| | A | B | C | D |
| $Na_2SO_4$ Soundness 5 Cycle, ITP 104 [1/], % Loss max. | 15 | 15 | 20 | 25 [2/] |
| Los Angeles Abrasion, ITP 96 [11/], % Loss max. | 40 [3/] | 40 [4/] | 40 [5/] | 45 |
| Minus No. 200 (75 µm) Sieve Material, ITP 11 | 1.0 [6/] | --- | 2.5 [7/] | --- |
| Deleterious Materials [10/] | | | | |
| Shale, % max. | 1.0 | 2.0 | 4.0 [8/] | --- |
| Clay Lumps, % max. | 0.25 | 0.5 | 0.5 [8/] | --- |
| Coal & Lignite, % max. | 0.25 | --- | --- | --- |
| Soft & Unsound Fragments, % max. | 4.0 | 6.0 | 8.0 [8/] | --- |
| Other Deleterious, % max. | 4.0 [9/] | 2.0 | 2.0 [8/] | --- |
| Total Deleterious, % max. | 5.0 | 6.0 | 10.0 [8/] | --- |
| Oil-Stained Aggregate [10/], % max | 5.0 | --- | --- | |

1/ Does not apply to crushed concrete.

2/ For aggregate surface course and aggregate shoulders, the maximum percent loss shall be 30.

3/ For portland cement concrete, the maximum percent loss shall be 45.

4/ Does not apply to crushed slag or crushed steel slag.

5/ For hot-mix asphalt (HMA) binder mixtures, except when used as surface course, the maximum percent loss shall be 45.

6/ For crushed aggregate, if the material finer than the No. 200 (75 µm) sieve consists of the dust from fracture, essentially free from clay or silt, this percentage may be increased to 2.5.

7/ Does not apply to aggregates for HMA binder mixtures.

8/ Does not apply to Class A seal and cover coats.

9/ Includes deleterious chert. In gravel and crushed gravel aggregate, deleterious chert shall be the lightweight fraction separated in a 2.35 heavy media separation. In crushed stone aggregate, deleterious chert shall be the lightweight fraction separated in a 2.55 heavy media separation. Tests shall be run according to ITP 113.

10/ Test shall be run according to ITP 203.

11/ Does not apply to crushed slag.

All varieties of chert contained in gravel coarse aggregate for portland cement concrete, whether crushed or uncrushed, pure or impure, and irrespective of color, will be classed as chert and shall not be present in the total aggregate in excess of 25 percent by weight (mass).

Aggregates used in Class BS concrete (except when poured on subgrade), Class PS concrete, and Class PC concrete (bridge superstructure products only, excluding the approach slab) shall contain no more than two percent by weight (mass) of deleterious materials. Deleterious materials shall include substances whose disintegration is accompanied by an increase in volume which may cause spalling of the concrete."

80360

# Illinois Department of Transportation

## Memorandum

| | |
|---|---|
| To: | Regional Engineers |
| From: | Omer M. Osman 1/11/16 |
| Subject: | Special Provision for Concrete End Sections for Pipe Culverts |
| Date: | January 8, 2016 |

This special provision was developed by the Bureau of Design and Environment to establish construction requirements, a method of measurement and a basis of payment for the new Highway Standards for concrete end sections for pipe culverts.

This special provision has been revised to coordinate with the 2016 Standard Specifications and with the deletion of Highways Standards 542006 and 542016. These two Standards were no longer necessary since the individual end sections shown on Highway Standards 542001 and 542011 can be placed side-by-side for multi-pipe culvert installations.

This special provision should be inserted into contracts utilizing Highway Standards 542001 or 542011.

The districts should include the BDE Check Sheet marked with the applicable special provisions for the April 22, 2016 and subsequent lettings. The Project Development and Implementation Section will include a copy in the contract.

This special provision will be available on the transfer directory January 8, 2016.

80311m

## CONCRETE END SECTIONS FOR PIPE CULVERTS (BDE)

Effective: January 1, 2013
Revised: April 1, 2016

Description. This work shall consist of constructing cast-in-place concrete and precast concrete end sections for pipe culverts. These end sections are shown on the plans as Highway Standard 542001 or 542011. This work shall be according to Section 542 of the Standard Specifications except as modified herein.

Materials. Materials shall be according to the following Articles of Division 1000 – Materials of the Standard Specifications.

| Item | Article/Section |
|---|---|
| (a) Portland Cement Concrete (Note 1) | 1020 |
| (b) Precast Concrete End Sections (Note 2) | |
| (c) Coarse Aggregate (Note 3) | 1004.05 |
| (d) Structural Steel (Note 4) | 1006.04 |
| (e) Anchor Bolts and Rods (Note 5) | 1006.09 |
| (f) Reinforcement Bars | 1006.10(a) |
| (g) Nonshrink Grout | 1024.02 |
| (h) Chemical Adhesive Resin System | 1027 |
| (i) Mastic Joint Sealer for Pipe | 1055 |
| (j) Hand Hole Plugs | 1042.16 |

Note 1. Cast-in-place concrete end sections shall be Class SI, except the 14 day mix design shall have a compressive strength of 5000 psi (34,500 kPa) or a flexural strength of (800 psi) 5500 kPa and a minimum cement factor of 6.65 cwt/cu yd (395 kg/cu m).

Note 2. Precast concrete end sections shall be according to Articles 1042.02 and 1042.03(b)(c)(d)(e) of the Standard Specifications. The concrete shall be Class PC according to Section 1020, and shall have a minimum compressive strength of 5000 psi (34,000 kPa) at 28 days.

Joints between precast sections shall be produced with reinforced tongue and groove ends according to the requirements of ASTM C 1577.

Note 3. The granular bedding placed below a precast concrete end section shall be gradation CA 6, CA 9, CA 10, CA 12, CA 17, CA 18, or CA 19.

Note 4. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable.

Note 5. The anchor rods for the culvert ties shall be according to the requirements of ASTM F 1554, Grade 105 (Grade 725).

## CONSTRUCTION REQUIREMENTS

The concrete end sections may be precast or cast-in-place construction. Toe walls shall be either precast or cast-in-place, and shall be in proper position and backfilled according to the applicable paragraphs of Article 502.10 of the Standard Specifications prior to the installation of the concrete end sections. If soil conditions permit, cast-in-place toe walls may be poured directly against the soil. When poured directly against the soil, the clear cover of the sides and bottom of the toe wall shall be increased to 3 in. (75 mm) by increasing the thickness of the toe wall.

(a) Cast-In-Place Concrete End Sections. Cast-in-place concrete end sections shall be constructed according to the requirements of Section 503 of the Standard Specifications and as shown on the plans.

(b) Precast Concrete End Sections. When the concrete end sections will be precast, shop drawings detailing the slab thickness and reinforcement layout shall be submitted to the Engineer for review and approval.

The excavation and backfilling for precast concrete end sections shall be according to the requirements of Section 502 of the Standard Specifications, except a layer of granular bedding at least 6 in. (150 mm) in thickness shall be placed below the elevation of the bottom of the end section. The granular bedding shall extend a minimum of 2 ft (600 mm) beyond each side of the end section.

Anchor rods connecting precast sections shall be brought to a snug tight condition followed by an additional 2/3 turn on one of the nuts. Match marks shall be provided on the bolt and nut to verify relative rotation between the bolt and the nut.

When individual, precast end sections are placed side-by-side for a multi-pipe culvert installation, a 3 in. (75 mm) space shall be left between adjacent end section walls and the space(s) filled with Class SI concrete.

Method of Measurement. This work will be measured for payment as each, with each end of each culvert being one each.

Basis of Payment. This work will be paid for at the contract unit price per each for CONCRETE END SECTION, STANDARD 542001 or CONCRETE END SECTION, 542011, of the pipe diameter and slope specified.

# Illinois Department of Transportation

## Memorandum

| | |
|---|---|
| To: | All Regional Engineers |
| From: | Omer M. Osman, P.E. OMO/AAW |
| Subject: | Special Provision for Equal Employment Opportunity |
| Date: | January 9, 2015 |

This special provision was developed by the Bureau of Design and Environment and the Office of Chief Counsel to comply with changes to the Illinois Administrative Code, Title 44, Section 750 which revised the Equal Employment Opportunity Clause.

This special provision should be inserted into all contracts.

The districts should include the BDE Check Sheet marked with the applicable special provisions for the April 24, 2015 and subsequent lettings. The Project Development and Implementation Section will include a copy in the contract.

This special provision will be available on the transfer directory January 9, 2015.

80358m

**EQUAL EMPLOYMENT OPPORTUNITY (BDE)**

Effective: April 1, 2015

FEDERAL AID CONTRACTS. Revise the following section of Check Sheet #1 of the Recurring Special Provisions to read:

"EQUAL EMPLOYMENT OPPORTUNITY

In the event of the Contractor's noncompliance with the provisions of this Equal Employment Opportunity Clause, the Illinois Human Rights Act, or the Illinois Department of Human Rights Rules and Regulations, the Contractor may be declared ineligible for future contracts or subcontracts with the State of Illinois or any of its political sub-divisions or municipal corporations, and the contract may be cancelled 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 Contractor agrees as follows:

(1) That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, marital status, order of protection status, national origin or ancestry, citizenship status, age, physical or mental disability unrelated to ability, military status, 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.

(2) That, if it hires additional employees in order to perform this contract or any portion hereof, it will determine the availability (according to the Illinois Department of Human Rights 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.

(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, sexual orientation, marital status, order of protection status, national origin or ancestry, citizenship status, age, physical or mental disability unrelated to ability, military status or an unfavorable discharge from military service.

(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 Contractor's obligations under the Illinois Human Rights Act and the Illinois Department of Human Rights Rules and Regulations. If any labor organization or representative fails or refuses to cooperate with the Contractor in its efforts to comply with such Act and Rules and Regulations, the

Contractor will promptly so notify the Illinois Department of Human Rights and IDOT and will recruit employees from other sources when necessary to fulfill its obligations thereunder.

(5) That it will submit reports as required by the Illinois Department of Human Rights Rules and Regulations, furnish all relevant information as may from time to time be requested by the Illinois Department of Human Rights or IDOT, and in all respects comply with the Illinois Human Rights Act and the Illinois Department of Human Rights Rules and Regulations.

(6) That it will permit access to all relevant books, records, accounts, and work sites by personnel of IDOT and the Illinois Department of Human Rights for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and the Illinois Department of Human Rights Rules and Regulations.

(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 the provisions will be binding upon the subcontractor. In the same manner as with other provisions of this contract, the Contractor will be liable for compliance with applicable provisions of this clause by subcontractors; and further it will promptly notify IDOT and the Illinois Department of Human Rights in the event any subcontractor fails or refuses to comply with these provisions. In addition, the Contractor 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 subdivisions or municipal corporations."

STATE CONTRACTS. Revise Section II of Check Sheet #5 of the Recurring Special Provisions to read:

"II. EQUAL EMPLOYMENT OPPORTUNITY

In the event of the Contractor's noncompliance with the provisions of this Equal Employment Opportunity Clause, the Illinois Human Rights Act or the Illinois Department of Human Rights Rules and Regulations, the Contractor may be declared ineligible for future contracts or subcontracts with the State of Illinois or any of its political sub-divisions or municipal corporations, and the contract may be cancelled 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 Contractor agrees as follows:

1. That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, marital status, order of protection status, national origin or ancestry, citizenship status, age, physical or mental disability unrelated to ability, military status, 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.

2. That, if it hires additional employees in order to perform this contract or any portion hereof, it will determine the availability (according to the Illinois Department of Human Rights 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.

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, sexual orientation, marital status, order of protection status, national origin or ancestry, citizenship status, age, physical or mental disability unrelated to ability, military status, or an unfavorable discharge from military service.

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 Contractor's obligations under the Illinois Human Rights Act and the Illinois Department of Human Rights Rules and Regulations. If any labor organization or representative fails or refuses to cooperate with the Contractor in its efforts to comply with such Act and Rules and Regulations, the Contractor will promptly so notify the Illinois Department of Human Rights and IDOT and will recruit employees from other sources when necessary to fulfill its obligations thereunder.

5. That it will submit reports as required by the Illinois Department of Human Rights Rules and Regulations, furnish all relevant information as may from time to time be requested by the Illinois Department of Human Rights or IDOT, and in all respects comply with the Illinois Human Rights Act and the Illinois Department of Human Rights Rules and Regulations.

6. That it will permit access to all relevant books, records, accounts and work sites by personnel of IDOT and the Illinois Department of Human Rights for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and the Illinois Department of Human Rights Rules and Regulations.

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 the provisions will be binding upon the subcontractor. In the same manner as with other provisions of this contract, the Contractor will be liable for compliance with applicable provisions of this clause by subcontractors; and further it will promptly notify IDOT and the Illinois Department of Human Rights in the event any subcontractor fails or refuses to comply with these provisions. In addition, the Contractor 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 subdivisions or municipal corporations."

80358

# Illinois Department of Transportation

## Memorandum

| | |
|---|---|
| To: | Regional Engineers |
| From: | Omer M. Osman |
| Subject: | Special Provision for Errata for the 2016 Standard Specifications |
| Date: | January 8, 2016 |

This special provision was developed by the Bureau of Design & Environment (BDE) to correct errors and omissions in the Standard Specifications for Road and Bridge Construction, Adopted April 1, 2016.

This special provision should be inserted into all contracts.

The districts should include the BDE Check Sheet marked with the applicable special provisions for the April 22, 2016 and subsequent lettings. The Project Development and Implementation Section will include a copy in the contract.

This special provision will be available on the transfer directory January 8, 2016.

80364m

**ERRATA FOR THE 2016 STANDARD SPECIFICATIONS (BDE)**

Effective: April 1, 2016

Page 84 Article 204.02. In the seventh line of the first paragraph change "AASHTO T 99 (Method C)" to "Illinois Modified AASHTO T 99 (Method C)".

Page 90 Article 205.06. In the first sentence of the third paragraph change "AASHTO T 99 (Method C)" to "Illinois Modified AASHTO T 99 (Method C)".

Page 91 Article 205.06. In the first sentence of the fourth paragraph change "AASHTO T 99 (Method C)" to "Illinois Modified AASHTO T 99 (Method C)", and in the second sentence change "AASHTO T 224" to "Illinois Modified AASHTO T 99 (Annex A1)".

Page 91 Article 205.06. In the second line of the fifth paragraph change "AASHTO T 191" to "Illinois Modified AASHTO T 191".

Page 91 Article 205.06. In the sixth line of the eighth paragraph change "AASHTO T 99 (Method C)" to "Illinois Modified AASHTO T 99 (Method C)".

Page 148 Article 302.09. In the second sentence of the fifth paragraph change "AASHTO T 191" to "Illinois Modified AASHTO T 191", and in the third sentence change "AASHTO T 99" to "Illinois Modified AASHTO T 99".

Page 152 Article 310.09. In the second sentence of the second paragraph change "AASHTO T 191" to "Illinois Modified AASHTO T 191", and in the third sentence change "AASHTO T 99" to "Illinois Modified AASHTO T 99".

Page 155 Article 311.05(a). In the first sentence of the fifth paragraph change "AASHTO T 99 (Method C)" to "Illinois Modified AASHTO T 99 (Method C)", and in the second sentence change "AASHTO T 224" to "Illinois Modified AASHTO T 99 (Annex A1)".

Page 155 Article 311.05(a). In the second line of the sixth paragraph change "AASHTO T 191" to "Illinois Modified AASHTO T 191".

Page 163 Article 351.05(a). In the second sentence of the fifth paragraph change "AASHTO T 99 (Method C)" to "Illinois Modified AASHTO T 99 (Method C)", and in the third sentence change "AASHTO T 224" to "Illinois Modified AASHTO T 99 (Annex A1)".

Page 163 Article 351.05(a). In the second line of the sixth paragraph change "AASHTO T 191" to "Illinois Modified AASHTO T 191".

Page 169 Article 352.11. In the second sentence of the fourth paragraph change "AASHTO T 191" to "Illinois Modified AASHTO T 191", and in the third sentence change "AASHTO T 134 (Method B)" to "Illinois Modified AASHTO T 134 (Method B)".

Page 169 Article 352.12. In the first sentence of the first paragraph change "AASHTO T 22" to "Illinois Modified AASHTO T 22", and in the second sentence change "AASHTO T 134 (Method B)" to "Illinois Modified AASHTO T 134 (Method B)".

Page 196 Article 406.07(a). After the footnotes in Table 1 - Minimum Roller Requirements for HMA add the following:

"EQUIPMENT DEFINITION

$V_s$ - Vibratory roller, static mode, minimum 125 lb/in. (2.2 kg/mm) of roller width. Maximum speed = 3 mph (5 km/h) or 264 ft/min (80 m/min). If the vibratory roller does not eliminate roller marks, its use shall be discontinued and a tandem roller, adequately ballasted to remove roller marks, shall be used.

$V_D$ - Vibratory roller, dynamic mode, operated at a speed to produce not less than 10 impacts/ft (30 impacts/m).

P - Pneumatic-tired roller, max. speed 3 1/2 mph (5.5 km/h) or 308 ft/min (92 m/min). The pneumatic-tired roller shall have a minimum tire pressure of 80 psi (550 kPa) and shall be equipped with heat retention shields. The self-propelled pneumatic-tired roller shall develop a compression of not less than 300 lb (53 N) nor more than 500 lb (88 N) per in. (mm) of width of the tire tread in contact with the HMA surface.

$T_B$ - Tandem roller for breakdown rolling, 8 to 12 tons (7 to 11 metric tons), 250 to 400 lb/in. (44 to 70 N/mm) of roller width, max. speed = 3 1/2 mph (5.5 km/h) or 308 ft/min (92 m/min).

$T_F$ - Tandem roller for final rolling, 200 to 400 lb/in. (35 to 70 N/mm) of roller width with minimum roller width of 50 in. (1.25 m). Ballast shall be increased if roller marks are not eliminated. Ballast shall be decreased if the mat shoves or distorts.

3W- Three wheel roller, max. speed = 3 mph (5 km/h) or 264 ft/min (80 m/min), 300 to 400 lb/in. (53 to 70 N/mm) of roller width. The three-wheel roller shall weigh 10 to 12 tons (9 to 11 metric tons)."

Page 331 Article 505.04(p). Under Range of Clearance in the first table change "in. x $10^{-6}$" to "in. x $10^{-3}$".

Page 444 Article 542.03. In the Notes in Table IIIB add "CPP Corrugated Polypropylene (CPP) pipe with smooth interior".

Page 445 Article 542.03. In the fourth column in Table IIIB (metric) change the heading for Type 5 pipe from "CPE" to "CPP".

Page 445 Article 542.03. In the Notes in Table IIIB (metric) change "PE Polyethylene (PE) pipe with a smooth interior" to "CPP Corrugated Polypropylene (CPP) pipe with smooth interior".

Page 449 Article 542.04(f)(2). In the third line of the second paragraph change "AASHTO T 99 (Method C)" to "Illinois Modified AASHTO T 99 (Method C)".

Page 544 Article 639.03. In the first sentence of the first paragraph change "AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, Traffic Signals," to "AASHTO "LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals,"".

Page 546 Article 640.03. In the first sentence of the first paragraph change "AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals" to "AASHTO "LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals"".

Page 548 Article 641.03. In the first sentence of the first paragraph change "AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaire and Traffic Signals," to "AASHTO "LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals,"".

Page 621 Article 727.03. In the first sentence of the third paragraph change "AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals" to "AASHTO "LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals"".

Page 629 Article 734.03(a). In the fourth line of the second paragraph change "AASHTO T 99 (Method C)" to "Illinois Modified AASHTO T 99 (Method C)".

Page 649 Article 801.02. In the first sentence of the first paragraph change "AASHTO's Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals" to "AASHTO "LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals"".

Page 742 Article 1003.04(c). Under Gradation in the table change "(see Article 1003.02(c))" to "(see Article 1003.01(c))".

Page 755 Article 1004.03(b). Revise the third sentence of the first paragraph to read "For Class A (seal or cover coat), and other binder courses, the coarse aggregate shall be Class C quality or better.".

Page 809 Article 1020.04(e). In the third line of the first paragraph change "ITP SCC-3" to "ITP SCC-4".

Page 945 Article 1069.05. In the first sentence of the tenth paragraph change ""Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals"" to "AASHTO "LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals"".

Page 961 Article 1070.04(b)(1). In the third sentence of the first paragraph change ""Standard Specifications of Structural Supports for Highway Signs, Luminaires and Traffic Signals" published by AASHTO" to "AASHTO "LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals"".

Page 989 Article 1077.01. In the second sentence of the first paragraph change "Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, as published by AASHTO" to "AASHTO "LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals"".

Page 1121 Article 1103.13(a). In the first line of the first paragraph change "Bridge Deck Approach Slabs." to "Bridge Deck and Approach Slabs.".

# Illinois Department of Transportation

## Memorandum

| | |
|---|---|
| To: | Regional Engineers |
| From: | Omer M. Osman Osman. 1/11/16 |
| Subject: | Special Provision for Hot-Mix Asphalt – Density Testing of Longitudinal Joints |
| Date: | January 8, 2016 |

This special provision was developed by the Bureau of Materials and Physical Research to improve the performance of longitudinal joints in Hot-Mix Asphalt (HMA) pavements. It has been revised to fit with the 2016 Standard Specifications.

It should be inserted in HMA contracts utilizing Quality Control/Quality Assurance as the Quality Management Program for the pavement/resurfacing.

The districts should include the BDE Check Sheet marked with the applicable special provisions for the April 22, 2016 letting and subsequent lettings. The Project Development and Implementation Section will include a copy in the contract.

This special provision will be available on the transfer directory January 8, 2016.

80246m

**HOT-MIX ASPHALT - DENSITY TESTING OF LONGITUDINAL JOINTS (BDE)**

Effective: January 1, 2010
Revised: April 1, 2016

Description. This work shall consist of testing the density of longitudinal joints as part of the quality control/quality assurance (QC/QA) of hot-mix asphalt (HMA). Work shall be according to Section 1030 of the Standard Specifications except as follows.

Quality Control/Quality Assurance (QC/QA). Delete the second and third sentence of the third paragraph of Article 1030.05(d)(3) of the Standard Specifications.

Add the following paragraphs to the end of Article 1030.05(d)(3) of the Standard Specifications:

"Longitudinal joint density testing shall be performed at each random density test location. Longitudinal joint testing shall be located at a distance equal to the lift thickness or a minimum of 4 in. (100 mm), from each pavement edge. (i.e. for a 5 in. (125 mm) lift the near edge of the density gauge or core barrel shall be within 5 in. (125 mm) from the edge of pavement.) Longitudinal joint density testing shall be performed using either a correlated nuclear gauge or cores.

a. Confined Edge. Each confined edge density shall be represented by a one-minute nuclear density reading or a core density and shall be included in the average of density readings or core densities taken across the mat which represents the Individual Test.

b. Unconfined Edge. Each unconfined edge joint density shall be represented by an average of three one-minute density readings or a single core density at the given density test location and shall meet the density requirements specified herein. The three one-minute readings shall be spaced 10 ft (3 m) apart longitudinally along the unconfined pavement edge and centered at the random density test location."

Revise the Density Control Limits table in Article 1030.05(d)(4) of the Standard Specifications to read:

| "Mixture Composition | Parameter | Individual Test (includes confined edges) | Unconfined Edge Joint Density Minimum |
|---|---|---|---|
| IL-4.75 | Ndesign = 50 | 93.0 – 97.4% [1/] | 91.0% |
| IL-9.5 | Ndesign = 90 | 92.0 – 96.0% | 90.0% |
| IL-9.5,IL-9.5L | Ndesign < 90 | 92.5 – 97.4% | 90.0% |
| IL-19.0 | Ndesign = 90 | 93.0 – 96.0% | 90.0% |
| IL-19.0, IL-19.0L | Ndesign < 90 | 93.0 [2/]– 97.4% | 90.0% |
| SMA | Ndesign = 50 & 80 | 93.5 – 97.4% | 91.0%" |

# Illinois Department of Transportation

## Memorandum

| | |
|---|---|
| To: | All Regional Engineers |
| From: | Omer M. Osman, P.E. 7/11/14 |
| Subject: | Special Provision for Pavement Marking Blackout Tape |
| Date: | July 25, 2014 |

This special provision was developed by the Bureau of Operations to create a statewide specification for pavement marking blackout tape which can be used to temporarily cover existing pavement markings in work zones instead of removing them.

This special provision should be inserted into contracts where the district is requiring the existing pavement markings in a work zone to be temporarily covered.

The districts should include the BDE Check Sheet marked with the applicable special provisions for the November 7, 2014 and subsequent lettings. The Project Development and Implementation Section will include a copy in the contract.

This special provision will be available on the transfer directory July 25, 2014.

80349m

**PAVEMENT MARKING BLACKOUT TAPE (BDE)**

Effective: November 1, 2014

Revise the fourth paragraph of Article 701.04 of the Standard Specifications to read:

"The traffic control shall remain in place only as long as needed and shall be removed when directed by the Engineer. Signs that do not apply to current conditions shall be removed, covered, or turned from the view of motorists. All existing pavement markings which conflict with the revised traffic pattern shall be removed according to Section 783 or when specified, temporarily covered with pavement marking blackout tape. The width of blackout tape shall be at least 1 in. (25 mm) wider than the width of the pavement marking being covered. The removing or covering of existing markings shall be scheduled immediately to facilitate the revised traffic pattern. If darkness or inclement weather prohibits the removal or covering operations, such operations shall be resumed the next morning or when weather permits."

Revise Article 701.19(f) of the Standard Specifications to read:

"(f) Removal of existing pavement markings and raised reflective pavement markers will be measured for payment according to Article 783.05. Temporary covering of existing pavement markings with blackout tape will be measured for payment in feet (meters) in place. Removal of blackout tape will be measured for payment in square feet (square meters)."

Revise Article 701.20(j) of the Standard Specifications to read:

"(j) Removal of existing pavement markings and raised reflective pavement markers will be paid for according to Article 783.06. Temporary covering of existing pavement markings with blackout tape will be paid for at the contract unit price per foot for PAVEMENT MARKING BLACKOUT TAPE, of the line width specified." Removal of blackout tape will be paid for as work zone pavement marking removal according to Article 703.07."

Revise the first two paragraphs of Article 1095.06 of the Standard Specifications to read:

"**1095.06 Pavement Marking Tape.** White or yellow marking tape shall consist of glass spheres of high optical quality embedded into a binder on a suitable backing that is precoated with a pressure sensitive adhesive. The spheres shall be of uniform gradation and distributed evenly over the surface of the tape. Blackout marking tape shall be a Type III tape consisting of a matte black, non-reflective, patterned surface that is precoated with a pressure sensitive adhesive. The surface of the blackout pavement marking tape shall provide a minimum skid resistance value of 45 BPN when tested according to ASTM E 303-74.

The material shall be white, yellow, or matte black as specified. White and yellow colors shall conform closely to Federal color tolerances for pavement marking paint."

Revise the second table of Article 1095.06 to read:

| “Test | Type I | | Type III | | |
|---|---|---|---|---|---|
| Initial Thickness, mils (mm) | White | Yellow | White | Yellow | Blackout |
| | 20 (0.51) | 20 (0.51) | 20 (0.51) | 20 (0.51) | 65 (1.65) 1/<br>10 (0.25) 2/ |
| Durability (cycles) | 5,000 | 5,000 | 1,500 | 1,500 | 1,500 |

Notes:
1/ Measured at the thickest point of the patterned surface.
2/ Measured at the thinnest point of the patterned surface.”

80349

# Illinois Department of Transportation

## Memorandum

| | |
|---|---|
| To: | Regional Engineers |
| From: | Omer M. Osman |
| Subject: | Special Provision for Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS) |
| Date: | January 8, 2016 |

This special provision was developed by the Bureau of Materials and Physical Research to combine the existing two BDE special provisions, Reclaimed Asphalt Pavement and Reclaimed Asphalt Shingles into one.

This special provision has been revised to fit with the 2016 Standard Specifications and incorporates the revision from January 2, 2015.

This special provision should be inserted in all HMA contracts.

The districts should include the BDE Check Sheet marked with the applicable special provisions for the April 22, 2016 and subsequent lettings. The Project Development and Implementation Section will include a copy in the contract.

This special provision will be available on the transfer directory January 8, 2016.

80306m

**RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (BDE)**

Effective: November 1, 2012
Revise: April 1, 2016

Revise Section 1031 of the Standard Specifications to read:

**"SECTION 1031. RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES**

**1031.01 Description.** Reclaimed asphalt pavement and reclaimed asphalt shingles shall be according to the following.

(a) Reclaimed Asphalt Pavement (RAP). RAP is the material produced by cold milling or crushing an existing hot-mix asphalt (HMA) pavement. The Contractor shall supply written documentation that the RAP originated from routes or airfields under federal, state, or local agency jurisdiction.

(b) Reclaimed Asphalt Shingles (RAS). Reclaimed asphalt shingles (RAS). RAS is from the processing and grinding of preconsumer or post-consumer shingles. RAS shall be a clean and uniform material with a maximum of 0.5 percent unacceptable material, as defined in Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Shingle (RAS) Sources", by weight of RAS. All RAS used shall come from a Bureau of Materials and Physical Research approved processing facility where it shall be ground and processed to 100 percent passing the 3/8 in. (9.5 mm) sieve and 93 percent passing the #4 (4.75 mm) sieve based on a dry shake gradation. RAS shall be uniform in gradation and asphalt binder content and shall meet the testing requirements specified herein. In addition, RAS shall meet the following Type 1 or Type 2 requirements.

(1) Type 1. Type 1 RAS shall be processed, preconsumer asphalt shingles salvaged from the manufacture of residential asphalt roofing shingles.

(2) Type 2. Type 2 RAS shall be processed post-consumer shingles only, salvaged from residential, or four unit or less dwellings not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP).

**1031.02 Stockpiles.** RAP and RAS stockpiles shall be according to the following.

(a) RAP Stockpiles. The Contractor shall construct individual, sealed RAP stockpiles meeting one of the following definitions. No additional RAP shall be added to the pile after the pile has been sealed. Stockpiles shall be sufficiently separated to prevent intermingling at the base. Stockpiles shall be identified by signs indicating the type as listed below (i.e. "Homogeneous Surface").

Prior to milling, the Contractor shall request the District provide documentation on the quality of the RAP to clarify the appropriate stockpile.

(1) Fractionated RAP (FRAP). FRAP shall consist of RAP from Class I, HMA (High and Low ESAL) mixtures. The coarse aggregate in FRAP shall be crushed aggregate and may represent more than one aggregate type and/or quality, but shall be at least C quality. All FRAP shall be fractionated prior to testing by screening into a minimum of two size fractions with the separation occurring on or between the #4 (4.75 mm) and 1/2 in. (12.5 mm) sieves. Agglomerations shall be minimized such that 100 percent of the RAP shall pass the sieve size specified below for the mix into which the FRAP will be incorporated.

| Mixture FRAP will be used in: | Sieve Size that 100 % of FRAP Shall Pass |
|---|---|
| IL-19.0 | 1 1/2 in. (40 mm) |
| IL-9.5 | 3/4 in. (20 mm) |
| IL-4.75 | 1/2 in. (13 mm) |

(2) Homogeneous. Homogeneous RAP stockpiles shall consist of RAP from Class I, HMA (High and Low ESAL) mixtures and represent: 1) the same aggregate quality, but shall be at least C quality; 2) the same type of crushed aggregate (either crushed natural aggregate, ACBF slag, or steel slag); 3) similar gradation; and 4) similar asphalt binder content. If approved by the Engineer, combined single pass surface/binder millings may be considered "homogeneous" with a quality rating dictated by the lowest coarse aggregate quality present in the mixture.

(3) Conglomerate. Conglomerate RAP stockpiles shall consist of RAP from Class I, HMA (High and Low ESAL) mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality, but shall be at least C quality. This RAP may have an inconsistent gradation and/or asphalt binder content prior to processing. All conglomerate RAP shall be processed prior to testing by crushing to where all RAP shall pass the 5/8 in. (16 mm) or smaller screen. Conglomerate RAP stockpiles shall not contain steel slag.

(4) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Non-Quality".

RAP/FRAP containing contaminants, such as earth, brick, sand, concrete, sheet asphalt, bituminous surface treatment (i.e. chip seal), pavement fabric, joint sealants, etc., will be unacceptable unless the contaminants are removed to the satisfaction of the Engineer. Sheet asphalt shall be stockpiled separately.

(b) RAS Stockpiles. Type 1 and Type 2 RAS shall be stockpiled separately and shall not be intermingled. Each stockpile shall be signed indicating what type of RAS is present.

Unless otherwise specified by the Engineer, mechanically blending manufactured sand (FM 20 or FM 22) up to an equal weight of RAS with the processed RAS will be permitted to improve workability. The sand shall be "B Quality" or better from an approved Aggregate Gradation Control System source. The sand shall be accounted for in the mix design and during HMA production.

Records identifying the shingle processing facility supplying the RAS, RAS type, and lot number shall be maintained by project contract number and kept for a minimum of three years.

**1031.03 Testing.** RAP/FRAP and RAS testing shall be according to the following.

(a) RAP/FRAP Testing. When used in HMA, the RAP/FRAP shall be sampled and tested either during or after stockpiling.

(1) During Stockpiling. For testing during stockpiling, washed extraction samples shall be run at the minimum frequency of one sample per 500 tons (450 metric tons) for the first 2000 tons (1800 metric tons) and one sample per 2000 tons (1800 metric tons) thereafter. A minimum of five tests shall be required for stockpiles less than 4000 tons (3600 metric tons).

(2) After Stockpiling. For testing after stockpiling, the Contractor shall submit a plan for approval to the District proposing a satisfactory method of sampling and testing the RAP/FRAP pile either in-situ or by restockpiling. The sampling plan shall meet the minimum frequency required above and detail the procedure used to obtain representative samples throughout the pile for testing.

Each sample shall be split to obtain two equal samples of test sample size. One of the two test samples from the final split shall be labeled and stored for Department use. The Contractor shall extract the other test sample according to Department procedure. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

(b) RAS Testing. RAS or RAS blended with manufactured sand shall be sampled and tested during stockpiling according to Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Shingle (RAS) Source".

Samples shall be collected during stockpiling at the minimum frequency of one sample per 200 tons (180 metric tons) for the first 1000 tons (900 metric tons) and one sample per 250 tons (225 metric tons) thereafter. A minimum of five samples are required for stockpiles less than 1000 tons (900 metric tons). Once a $\leq$ 1000 ton (900 metric ton), five-sample/test stockpile has been established it shall be sealed. Additional incoming RAS or RAS blended with manufactured sand shall be stockpiled in a separate working pile as designated in the Quality Control plan and only added to the sealed stockpile when the test results of the working pile are complete and are found to meet the tolerances specified herein for the original sealed RAS stockpile.

Before testing, each sample shall be split to obtain two test samples. One of the two test samples from the final split shall be labeled and stored for Department use. The Contractor shall perform a washed extraction and test for unacceptable materials on the other test sample according to Department procedures. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

If the sampling and testing was performed at the shingle processing facility in accordance with the QC Plan, the Contractor shall obtain and make available all of the test results from start of the initial stockpile.

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

(a) Evaluation of RAP/FRAP Test Results. All of the extraction results shall be compiled and averaged for asphalt binder content and gradation, and when applicable $G_{mm}$. Individual extraction test results, when compared to the averages, will be accepted if within the tolerances listed below.

| Parameter | FRAP/Homogeneous/ Conglomerate |
|---|---|
| 1 in. (25 mm) | |
| 1/2 in. (12.5 mm) | ± 8 % |
| No. 4 (4.75 mm) | ± 6 % |
| No. 8 (2.36 mm) | ± 5 % |
| No. 16 (1.18 mm) | |
| No. 30 (600 µm) | ± 5 % |
| No. 200 (75 µm) | ± 2.0 % |
| Asphalt Binder | ± 0.4 % 1/ |
| $G_{mm}$ | ± 0.03 |

1/ The tolerance for FRAP shall be ± 0.3 %.

If more than 20 percent of the individual sieves and/or asphalt binder content tests are out of the above tolerances, the RAP/FRAP shall not be used in HMA unless the RAP/FRAP representing the failing tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

With the approval of the Engineer, the ignition oven may be substituted for extractions according to the ITP, "Calibration of the Ignition Oven for the Purpose of Characterizing Reclaimed Asphalt Pavement (RAP)".

(b) Evaluation of RAS and RAS Blended with Manufactured Sand Test Results. All of the test results, with the exception of percent unacceptable materials, shall be compiled and averaged for asphalt binder content and gradation. Individual test results, when compared to the averages, will be accepted if within the tolerances listed below.

| Parameter | RAS |
|---|---|
| No. 8 (2.36 mm) | ± 5 % |
| No. 16 (1.18 mm) | ± 5 % |
| No. 30 (600 µm) | ± 4 % |
| No. 200 (75 µm) | ± 2.0 % |
| Asphalt Binder Content | ± 1.5 % |

If more than 20 percent of the individual sieves and/or asphalt binder content tests are out of the above tolerances, or if the percent unacceptable material exceeds 0.5 percent by weight of material retained on the # 4 (4.75 mm) sieve, the RAS or RAS blend shall not be used in Department projects. All test data and acceptance ranges shall be sent to the District for evaluation.

**1031.05 Quality Designation of Aggregate in RAP/FRAP.**

(a) RAP. The aggregate quality of the RAP for homogeneous and conglomerate stockpiles shall be set by the lowest quality of coarse aggregate in the RAP stockpile and are designated as follows.

(1) RAP from Class I, Superpave/HMA (High ESAL), or (Low ESAL) IL-9.5L surface mixtures are designated as containing Class B quality coarse aggregate.

(2) RAP from Class I binder, Superpave/HMA (High ESAL) binder, or (Low ESAL) IL-19.0L binder mixtures are designated as containing Class C quality coarse aggregate.

(b) FRAP. If the Engineer has documentation of the quality of the FRAP aggregate, the Contractor shall use the assigned quality provided by the Engineer.

If the quality is not known, the quality shall be determined as follows. Coarse and fine FRAP stockpiles containing plus #4 (4.75 mm) sieve coarse aggregate shall have a maximum tonnage of 5000 tons (4500 metric tons). The Contractor shall obtain a representative sample witnessed by the Engineer. The sample shall be a minimum of 50 lb (25 kg). The sample shall be extracted according to Illinois Modified AASHTO T 164 by a consultant laboratory prequalified by the Department for the specified testing. The consultant laboratory shall submit the test results along with the recovered aggregate to the District Office. The cost for this testing shall be paid by the Contractor. The District will forward the sample to the Bureau of Materials and Physical Research Aggregate Lab for MicroDeval Testing, according to ITP 327. A maximum loss of 15.0 percent will be applied for all HMA applications.

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

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

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

(2) Steel Slag Stockpiles. Homogeneous RAP stockpiles containing steel slag will be approved for use in all HMA (High ESAL and Low ESAL) Surface and Binder Mixture applications.

(3) Use in HMA Surface Mixtures (High and Low ESAL). RAP/FRAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall be FRAP or homogeneous in which the coarse aggregate is Class B quality or better. RAP/FRAP from Conglomerate stockpiles shall be considered equivalent to limestone for frictional considerations. Known frictional contributions from plus #4 (4.75 mm) homogeneous RAP and FRAP stockpiles will be accounted for in meeting frictional requirements in the specified mixture.

(4) Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. RAP/FRAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be FRAP, homogeneous, or conglomerate, in which the coarse aggregate is Class C quality or better.

(5) Use in Shoulders and Subbase. RAP/FRAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be FRAP, homogeneous, or conglomerate.

(6) When the Contractor chooses the RAP option, the percentage of RAP shall not exceed the amounts indicated in Article 1031.06(c)(1) below for a given Ndesign.

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

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

(1) RAP/RAS. When RAP is used alone or RAP is used in conjunction with RAS, the percentage of virgin asphalt binder replacement shall not exceed the amounts listed in the Max RAP/RAS ABR table listed below for the given Ndesign.

**RAP/RAS Maximum Asphalt Binder Replacement (ABR) Percentage**

| HMA Mixtures 1/, 2/ | RAP/RAS Maximum ABR % | | |
|---|---|---|---|
| Ndesign | Binder/Leveling Binder | Surface | Polymer Modified |
| 30 | 30 | 30 | 10 |

| | | | |
|---|---|---|---|
| 50 | 25 | 15 | 10 |
| 70 | 15 | 10 | 10 |
| 90 | 10 | 10 | 10 |

1/ For Low ESAL HMA shoulder and stabilized subbase, the RAP/RAS ABR shall not exceed 50 percent of the mixture.

2/ When RAP/RAS ABR exceeds 20 percent, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent ABR would require a virgin asphalt binder grade of PG 64-22 to be reduced to a PG 58-28). If warm mix asphalt (WMA) technology is utilized and production temperatures do not exceed 275 °F (135 °C), the high and low virgin asphalt binder grades shall each be reduced by one grade when RAP/RAS ABR exceeds 25 percent (i.e. 26 percent RAP/RAS ABR would require a virgin asphalt binder grade of PG 64-22 to be reduced to a PG 58-28).

(2) FRAP/RAS. When FRAP is used alone or FRAP is used in conjunction with RAS, the percentage of virgin asphalt binder replacement shall not exceed the amounts listed in the FRAP/RAS table listed below for the given Ndesign.

**FRAP/RAS Maximum Asphalt Binder Replacement (ABR) Percentage**

| HMA Mixtures 1/, 2/ | FRAP/RAS Maximum ABR % | | |
|---|---|---|---|
| Ndesign | Binder/Leveling Binder | Surface | Polymer Modified 3/, 4/ |
| 30 | 50 | 40 | 10 |
| 50 | 40 | 35 | 10 |
| 70 | 40 | 30 | 10 |
| 90 | 40 | 30 | 10 |

1/ For Low ESAL HMA shoulder and stabilized subbase, the FRAP/RAS ABR shall not exceed 50 percent of the mixture.

2/ When FRAP/RAS ABR exceeds 20 percent for all mixes, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent ABR would require a virgin asphalt binder grade of PG 64-22 to be reduced to a PG 58-28). If warm mix asphalt (WMA) technology is utilized and production temperatures do not exceed 275 °F (135 °C), the high and low virgin asphalt binder grades shall each be reduced by one grade when FRAP/RAS ABR exceeds 25 percent (i.e. 26 percent ABR would require a virgin asphalt binder grade of PG 64-22 to be reduced to a PG 58-28).

3/ For SMA the FRAP/RAS ABR shall not exceed 20 percent.

4/ For IL-4.75 mix the FRAP/RAS ABR shall not exceed 30 percent.

**1031.07 HMA Mix Designs.** At the Contractor's option, HMA mixtures may be constructed utilizing RAP/FRAP and/or RAS material meeting the detailed requirements specified herein.

(a) RAP/FRAP and/or RAS. RAP/FRAP and/or RAS mix designs shall be submitted for verification. If additional RAP/FRAP and/or RAS stockpiles are tested and found that no more than 20 percent of the results, as defined under "Testing" herein, are outside of the control tolerances set for the original RAP/FRAP and/or RAS stockpile and HMA mix design, and meets all of the requirements herein, the additional RAP/FRAP and/or RAS stockpiles may be used in the original mix design at the percent previously verified.

(b) RAS. Type 1 and Type 2 RAS are not interchangeable in a mix design. A RAS stone bulk specific gravity (Gsb) of 2.300 shall be used for mix design purposes.

**1031.08 HMA Production.** HMA production utilizing RAP/FRAP and/or RAS shall be as follows.

(a) RAP/FRAP. The coarse aggregate in all RAP/FRAP used shall be equal to or less than the nominal maximum size requirement for the HMA mixture being produced.

To remove or reduce agglomerated material, a scalping screen, gator, crushing unit, or comparable sizing device approved by the Engineer shall be used in the RAP feed system to remove or reduce oversized material. If material passing the sizing device adversely affects the mix production or quality of the mix, the sizing device shall be set at a size specified by the Engineer.

If the RAP/FRAP control tolerances or QC/QA test results require corrective action, the Contractor shall cease production of the mixture containing RAP/FRAP and either switch to the virgin aggregate design or submit a new RAP/FRAP design.

(b) RAS. RAS shall be incorporated into the HMA mixture either by a separate weight depletion system or by using the RAP weigh belt. Either feed system shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all rates of production and batch sizes. The portion of RAS shall be controlled accurately to within ± 0.5 percent of the amount of RAS utilized. When using the weight depletion system, flow indicators or sensing devices shall be provided and interlocked with the plant controls such that the mixture production is halted when RAS flow is interrupted.

(c) RAP/FRAP and/or RAS. HMA plants utilizing RAP/FRAP and/or RAS shall be capable of automatically recording and printing the following information.

(1) Dryer Drum Plants.

a. Date, month, year, and time to the nearest minute for each print.

b. HMA mix number assigned by the Department.

c. Accumulated weight of dry aggregate (combined or individual) in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).

d. Accumulated dry weight of RAP/FRAP/RAS in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).

e. Accumulated mineral filler in revolutions, tons (metric tons), etc. to the nearest 0.1 unit.

f. Accumulated asphalt binder in gallons (liters), tons (metric tons), etc. to the nearest 0.1 unit.

g. Residual asphalt binder in the RAP/FRAP material as a percent of the total mix to the nearest 0.1 percent.

h. Aggregate and RAP/FRAP moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAP/FRAP are printed in wet condition.)

(2) Batch Plants.

a. Date, month, year, and time to the nearest minute for each print.

b. HMA mix number assigned by the Department.

c. Individual virgin aggregate hot bin batch weights to the nearest pound (kilogram).

d. Mineral filler weight to the nearest pound (kilogram).

e. RAP/FRAP/RAS weight to the nearest pound (kilogram).

f. Virgin asphalt binder weight to the nearest pound (kilogram).

g. Residual asphalt binder in the RAP/FRAP/RAS material as a percent of the total mix to the nearest 0.1 percent.

The printouts shall be maintained in a file at the plant for a minimum of one year or as directed by the Engineer and shall be made available upon request. The printing system will be inspected by the Engineer prior to production and verified at the beginning of each construction season thereafter.

**1031.09 RAP in Aggregate Surface Course and Aggregate Wedge Shoulders, Type B.** The use of RAP in aggregate surface course (temporary access entrances only) and aggregate wedge shoulders, Type B shall be as follows.

(a) Stockpiles and Testing. RAP stockpiles may be any of those listed in Article 1031.02, except "Non-Quality" and "FRAP". The testing requirements of Article 1031.03 shall not apply. RAP used shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications".

(b) Gradation. One hundred percent of the RAP material shall pass the 1 1/2 in. (37.5 mm) sieve. The RAP material shall be reasonably well graded from coarse to fine. RAP material that is gap-graded or single sized will not be accepted."

80306

# Illinois Department of Transportation

## Memorandum

| | |
|---|---|
| To: | Regional Engineers |
| From: | Omer M. Osman |
| Subject: | Special Provision for Steel Slag in Trench Backfill |
| Date: | September 23, 2015 |

This special provision was developed by the Bureau of Materials and Physical Research to allow the use of fine aggregate steel slag produced with an electric arc furnace for trench backfill.

This special provision should be inserted into contracts requiring trench backfill.

The districts should include the BDE Check Sheet marked with the applicable special provisions for the January 15, 2016 and subsequent lettings. The Project Development and Implementation Section will include a copy in the contract.

This special provision will be available on the transfer directory September 25, 2015.

cc: Omer M. Osman
Aaron A. Weatherholt
John Baranzelli
HST-57734
80362m

**STEEL SLAG IN TRENCH BACKFILL (BDE)**

Effective: January 1, 2016

Revise the second sentence of Article 1003.01(a)(8) of the Standard Specifications to read:

"Crushed steel slag shall be the nonmetallic product which is developed in a molten condition simultaneously with steel in an open hearth, basic oxygen, or electric arc furnace."

Revise Article 1003.04(a) of the Standard Specifications to read:

"(a) Description. The fine aggregate shall consist of sand, stone sand, chats, wet bottom boiler slag, slag sand, or granulated slag sand. Crushed concrete sand, construction and demolition debris sand, and steel slag sand produced from an electric arc furnace may be used in lieu of the above for trench backfill."

80362

# Illinois Department of Transportation

## Memorandum

| | |
|---|---|
| To: | Regional Engineers |
| From: | Omer M. Osman Osman, Omer 1/11/16 |
| Subject: | Special Provision for Warm Mix Asphalt |
| Date: | January 8, 2016 |

This special provision was developed by the Bureau of Materials and Physical Research to implement Warm-Mix Asphalt technology as part of the Federal Highway Administration Every Day Counts Initiative. This special provision has been revised to fit with the 2016 Standard Specifications.

This special provision should be inserted in all Hot-Mix Asphalt contracts.

The districts should include the BDE Check Sheet marked with the applicable special provisions for the April 22, 2016 and subsequent lettings. The Project Development and Implementation Section will include a copy in the contract.

This special provision will be available on the transfer directory January 8, 2016.

80288m

**WARM MIX ASPHALT (BDE)**

Effective: January 1, 2012
Revised: April 1, 2016

Description. This work shall consist of designing, producing and constructing Warm Mix Asphalt (WMA) in lieu of Hot Mix Asphalt (HMA) at the Contractor's option. Work shall be according to Sections 406, 407, 408, 1030, and 1102 of the Standard Specifications, except as modified herein. In addition, any references to HMA in the Standard Specifications, or the special provisions shall be construed to include WMA.

WMA is an asphalt mixture which can be produced at temperatures lower than allowed for HMA utilizing approved WMA technologies. WMA technologies are defined as the use of additives or processes which allow a reduction in the temperatures at which HMA mixes are produced and placed. WMA is produced by the use of additives, a water foaming process, or combination of both. Additives include minerals, chemicals or organics incorporated into the asphalt binder stream in a dedicated delivery system. The process of foaming injects water into the asphalt binder stream, just prior to incorporation of the asphalt binder with the aggregate.

Approved WMA technologies may also be used in HMA provided all the requirements specified herein, with the exception of temperature, are met. However, asphalt mixtures produced at temperatures in excess of 275 °F (135 °C) will not be considered WMA when determining the grade reduction of the virgin asphalt binder grade.

Equipment.

Revise the first paragraph of Article 1102.01 of the Standard Specifications to read:

"**1102.01 Hot-Mix Asphalt Plant.** The hot-mix asphalt (HMA) plant shall be the batch-type, continuous-type, or dryer drum plant. The plants shall be evaluated for prequalification rating and approval to produce HMA according to the current Bureau of Materials and Physical Research Policy Memorandum, "Approval of Hot-Mix Asphalt Plants and Equipment". Once approved, the Contractor shall notify the Bureau of Materials and Physical Research to obtain approval of all plant modifications. The plants shall not be used to produce mixtures concurrently for more than one project or for private work unless permission is granted in writing by the Engineer. The plant units shall be so designed, coordinated and operated that they will function properly and produce HMA having uniform temperatures and compositions within the tolerances specified. The plant units shall meet the following requirements."

Add the following to Article 1102.01(a) of the Standard Specifications.

"(11) Equipment for Warm Mix Technologies.

a. Foaming. Metering equipment for foamed asphalt shall have an accuracy of ± 2 percent of the actual water metered. The foaming control system shall be electronically interfaced with the asphalt binder meter.

b. Additives. Additives shall be introduced into the plant according to the supplier's recommendations and shall be approved by the Engineer. The system for introducing the WMA additive shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all rates of production and batch sizes."

Mix Design Verification.

Add the following to Article 1030.04 of the Standard Specifications.

"(e) Warm Mix Technologies.

(1) Foaming. WMA mix design verification will not be required when foaming technology is used alone (without WMA additives). However, the foaming technology shall only be used on HMA designs previously approved by the Department.

(2) Additives. WMA mix designs utilizing additives shall be submitted to the Engineer for mix design verification."

Construction Requirements.

Revise the second paragraph of Article 406.06(b)(1) of the Standard Specifications to read:

"The HMA shall be delivered at a temperature of 250 to 350 °F (120 to 175 °C). WMA shall be delivered at a minimum temperature of 215 °F (102 °C)."

Basis of Payment.

This work will be paid at the contract unit price bid for the HMA pay items involved. Anti-strip will not be paid for separately, but shall be considered as included in the cost of the work.

80288

All District Engineers, Walter S. Kos & Miguel d'Escoto

Michael L. Hine

Special Provision for Working Days

January 11, 2002

This special provision was developed by the Bureau of Design & Environment as a result of changes to the letting proposal.

It should be inserted into all working day contracts.

The districts should include the BDE Check Sheet marked with the applicable special provisions for the April 26, 2002 and subsequent lettings. The Project Development and Implementation Section will include the paper copy in the contract.

This special provision will be transferred through the E-mail System to the district offices on January 11, 2002.

80071m

**WORKING DAYS (BDE)**

Effective: January 1, 2002

The Contractor shall complete the work within 140 working days.

80071

**SEGMENTAL CONCRETE BLOCK WALL**
Effective: January 7, 1999
Revised: October 4, 2010

**Description.** This work shall consist of furnishing the design computations, shop plans, materials, equipment and labor to construct a Segmental Concrete Block Retaining Wall to the limits shown on the plans.

**General.** The wall shall consist of a leveling pad, precast concrete blocks (either dry-cast or wet cast), select fill and, if required by the design, soil reinforcement. The wall shall be designed and constructed according to the lines, grades, and dimensions shown on the contract plans and approved shop plans.

**Submittals**. The wall supplier shall submit design computations and shop plans to the Engineer according to Article 1042.03(b) of the Standard Specifications. No work or ordering of materials for the structure shall be done by the Contractor until the submittal has been approved in writing by the Engineer. The shop plans shall be sealed by an Illinois Licensed Structural Engineer and shall include all details, dimensions, quantities, and cross sections necessary to construct the wall and shall include, but not be limited to, the following items:

(a) Plan, elevation, and cross section sheet(s) for each wall showing the following:

(1) A plan view of the wall indicating the offsets from the construction centerline to the first course of blocks at all changes in horizontal alignment. These shall be calculated using the offsets to the front face of the block shown on the contract plans and the suppliers proposed wall batter. The plan view shall indicate bottom (and top course of block when battered), the excavation and select fill limits as well as any soil reinforcing required by the design. The centerline of any drainage structure or pipe behind or passing through/under the wall shall also be shown.

(2) An elevation view of the wall, indicating the elevation and all steps in the top course of blocks along the length of the wall. The top of these blocks shall be at or above the theoretical top of block line shown on the contract plans. This view shall also show the steps and proposed top of leveling pad elevations as well as the finished grade line at the wall face specified on the contract plans. These leveling pad elevations shall be located at or below the theoretical top of leveling line shown on the contract plans. The location, size, and length of any soil reinforcing connected to the blocks shall be indicated.

(3) Typical cross section(s) showing the limits of the select fill, soil reinforcement if used in the design. The right-of-way limits shall be indicated as well as the proposed excavation, cut slopes, and the elevation relationship between existing ground conditions and proposed grades.

(4) All general notes required for constructing the wall.

(b) All details for the leveling pads, including the steps, shall be shown. The theoretical top of the leveling pad shall either be below the anticipated frost depth or 1.5 ft. (450 mm) below the finished grade line at the wall face, whichever is greater; unless otherwise shown on the plans. The minimum leveling pad thickness shall be 6 in. (152 mm)

(c) Cap blocks shall be used to cover the top of the standard block units. The top course of blocks and cap blocks shall be stepped to satisfy the top of block line shown on the contract plans.

(d) All details of the block and/or soil reinforcement placement around all appurtenances located behind, on top of, or passing through the wall shall be clearly indicated. Any modifications to the design of these appurtenances to accommodate a particular design arrangement shall also be submitted.

(e) All details of the blocks, including color and texture shall be shown. The exterior face shall preferably be straight, textured with a "split rock face" pattern, and dark gray in color unless otherwise stated on the plans.

(f) All block types (standard, cap, corner, and radius turning blocks) shall be detailed showing all dimensions.

(g) All blocks shall have alignment/connection devices such as shear keys, leading/trailing lips, or pins. The details for the connection devices between adjacent blocks and the block to soil reinforcement shall be shown. The block set back or face batter shall be limited to 20 degrees from vertical, unless otherwise shown by the plans.

**Materials.** The materials shall meet the following requirements:

(a) Dry-Cast Concrete Block: Dry-cast concrete block proposed for use shall be pre-cast and produced according Article 1042.02 and the requirements of ASTM C1372 except as follows:

1. Fly ash shall be according to Articles 1010.01 and 1010.02(b).

2. Ground granulated blast-furnace slag shall be according to Articles 1010.01 and 1010.05.

3. Aggregate shall be according to Articles 1003.02 and 1004.02, with the exception of gradation.

4. Water shall be according to Section 1002.

5. Testing for freeze-thaw durability will not be required. However, unsatisfactory field performance as determined by the Department will be cause to prohibit the use of the block on Department projects.

(b) Wet-cast Concrete Block: Wet-cast concrete block proposed for use shall be pre-cast and produced according to Section 1020 and Article 1042.02. The concrete shall be Class PC with a minimum compressive strength of at least 3000 psi (31 MPa) at 28 days.

(c) Select fill: The select fill, defined as the material placed in the reinforced volume behind the wall, shall be according to Sections 1003 and 1004 of the Standard Specifications and the following:

(1) Select Fill Gradation. Either a coarse aggregate or a fine aggregate may be used. For coarse aggregate, gradations CA 6 thru CA 16 may be used. If geosynthetic reinforcing is used, the coarse aggregate gradations shall be limited to CA 12 thru CA 16. For fine aggregate, gradations FA 1, FA 2, or FA 20 may be used.

Other aggregate gradations may be used provided the maximum aggregate size is 1 1/2 in. (38 mm), the maximum material passing the #40 (425 μm) sieve is 60 percent, and the maximum material passing the #200 (75 μm) sieve is 15 percent.

(2) Select Fill Quality. The coarse or fine aggregate shall be Class B quality or better, except that a maximum of 15 percent of the material may be finer than the #200 (75 μm) sieve.

(3) Select Fill Internal Friction Angle. The effective internal friction angle for the coarse or fine aggregate shall be a minimum 34 degrees according to AASHTO T 236 on samples compacted to 95 percent density according to Illinois Modified AASHTO T 99. The AASHTO T 296 test with pore pressure measurement may be used in lieu of AASHTO T 236. If the vendor's design uses a friction angle higher than 34 degrees, as indicated on the approved shop drawings, this higher value shall be taken as the minimum required.

(4) Select Fill and Geosynthetic Reinforcing. When geosynthetic reinforcing is used, the select fill pH shall be 4.5 to 9.0 according to AASHTO T 289.

(5) Test Frequency. Prior to start of construction, the Contractor shall provide internal friction angle and pH to show the select fill material meets the specification requirements. However, the pH will be required only when geosynthetic reinforcing is used. All test results shall not be older than 12 months. In addition, a sample of select fill material will be obtained for testing and approval by the Department. Thereafter, the minimum frequency of sampling and testing at the jobsite will be one per 20,000 cubic yards (15,500 cubic meters) of select fill material.

When a fine aggregate is selected, the rear of all block joints shall be covered by a non-woven needle punch geotextile filter material according to Article 1080.05 of the Standard Specifications and shall have a minimum permeability according to ASTM D4491 of 0.008 cm/sec. All fabric overlaps shall be 6 in. (150 mm) and non-sewn. As an alternative to the geotextile, a coarse aggregate shall be placed against the back face of the blocks to create a minimum 12 in. (300 mm) wide continuous gradation filter to prevent the select fill material from passing through the block joints.

(d) Leveling pad: The material shall be either Class SI concrete according to Article 1020.04 or compacted coarse aggregate according to Articles 1004.04, (a) and (b). The compacted coarse aggregate gradation shall be CA 6 or CA 10.

(e) Soil Reinforcement: If soil reinforcement is required by the approved design, the Contractor shall submit a manufacturer's certification for the soil reinforcement properties which equals or exceeds those required in the design computations. The soil reinforcement shall be manufactured from high density polyethylene (HDPE) uniaxial or polypropylene biaxial resins or high tenacity polyester fibers with a PVC coating, stored between -20 and 140° F (-29 and 60° C). The following standards shall be used in determining and demonstrating the soil reinforcement capacities:

ASTM D638 Test Method for Tensile Properties of Plastic
ASTM D1248 Specification for Polyethylene Plastics Molding and Extrusion Materials
ASTM D4218 Test Method for Carbon Black Content in Polyethylene Compounds
ASTM D5262 Test Method for Evaluating the Unconfined Tension Creep Behavior of Geosynthetics
GG1-Standard Test Method for Geogrid Rib Tensile Strength
GG2-Standard Test Method for Geogrid Junction Strength
GG4-Standard Practice for Determination of the Long Term Design Strength of Geogrid
GG5-Standard Practice for Evaluating Geogrid Pullout Behavior

**Design Criteria.** The design shall be according to AASHTO Specifications and commentaries for Earth Retaining Walls or FHWA Publication No. HI-95-038, SA-96-071 and SA-96-072. The wall supplier shall be responsible for all internal stability aspects of the wall design.

Internal stability design shall insure that adequate factors of safety against overturning and sliding are present at each level of block. If required by design, soil reinforcement shall be utilized and the loading at the block/soil reinforcement connection as well as the failure surface must be indicated. The calculations to determine the allowable load of the soil reinforcement and the factor of safety against pullout shall also be included. The analysis of settlement, bearing capacity, and overall slope stability are the responsibility of the Department.

External loads such as those applied through structure foundations, from traffic or railroads, slope surcharge etc., shall be accounted for in the internal stability design. The presence of all appurtenances behind, in front of, mounted upon, or passing through the wall volume such as drainage structures, utilities, structure foundation elements, or other items shall be accounted for in the internal stability design of the wall.

**Construction Requirements.** The Contractor shall obtain technical assistance from the supplier during wall erection to demonstrate proper construction procedures and shall include all costs related to this technical assistance in the unit price bid for this item.

The foundation material for the leveling pad and select fill volume shall be graded to the design elevation and compacted according to Article 205.05, except the minimum required compaction

shall be 95 percent of the standard laboratory density. The Engineer will perform one density test per 1500 ft (450 m) of the entire length of foundation material through both cut and fill areas. Any foundation soils found to be unsuitable shall be removed and replaced as directed by the Engineer and shall be paid for according to Article 109.04.

The select fill lift placement shall closely follow the erection of each course of blocks. All aggregate shall be swept from the top of the block prior to placing the next block lift. If soil reinforcement is used, the select fill material shall be leveled and compacted before placing and attaching the soil reinforcement to the blocks. The soil reinforcement shall be pulled taut, staked in place, and select fill placed from the rear face of the blocks outward. The lift thickness shall be the lesser of 10 in. (255 mm) loose measurement or the proposed block height.

The select fill shall be compacted according to Article 205.05, except the minimum required compaction shall be 95 percent of the standard laboratory density. Compaction shall be achieved using a minimum of 3 passes of a lightweight mechanical tamper, roller, or vibratory system. The Engineer will perform one density test per 5000 cu yd (3800 cu m) and not less than one test per 2 ft (0.6m) of lift. The top 12 in. (300 mm) of backfill shall be a cohesive, impervious material capable of supporting vegetation, unless other details are specified on the plans.

The blocks shall be maintained in position as successive lifts are compacted along the rear face of the block. Vertical, horizontal, and rotational alignment tolerances shall not exceed 0.5 in. (12 mm) when measured along a 10 ft. (3 m) straight edge.

**Method of Measurement**. Segmental Concrete Block Wall will be measured by the square foot (square meter) of wall face from the top of block line to the theoretical top of the leveling pad for the length of the wall in a vertical plane, as shown on the contract plans.

**Basis of Payment**. This work will be paid for at the contract unit price per square foot (square meter) for SEGMENTAL CONCRETE BLOCK WALL.

State of Illinois
Department of Transportation
Bureau of Local Roads and Streets

# SPECIAL PROVISION FOR INSURANCE

Effective: February 1, 2007
Revised: August 1, 2007

All references to Sections or Articles in this specification shall be construed to mean specific Section or Article of the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation.

The Contractor shall name the following entities as additional insured under the Contractor's general liability insurance policy in accordance with Article 107.27:

City of Galena

WHKS and Company

The entities listed above and their officers, employees, and agents shall be indemnified and held harmless in accordance with Article 107.26.

State of Illinois
Department of Transportation
Bureau of Local Roads and Streets

# SPECIAL PROVISION FOR EQUIPMENT RENTAL RATES

Effective: January 1, 2012

All references to Sections or Articles in this specification shall be construed to mean a specific Section or Article of the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation.

Replace Article 109.04(b)(4) with the following:

"(4) Equipment. For any machinery or special equipment (other than small tools) the use of which has been authorized by the Engineer, the Contractor will be paid according to the latest revision of “SCHEDULE OF AVERAGE ANNUAL EQUIPMENT OWNERSHIP EXPENSE” and latest index factor as issued by the Illinois Department of Transportation. The equipment should be of a type and size reasonably required to complete the extra work.”

State of Illinois
DEPARTMENT OF TRANSPORTATION
Bureau of Local Roads & Streets

# SPECIAL PROVISION FOR FILLING HMA CORE HOLES WITH NON-SHRINK GROUT

Effective: January 1, 2008

All references to Sections and Articles in this Special Provision shall be construed to mean specific Sections and Articles in the Standard Specifications for Road and Bridge Construction adopted by the Department of Transportation.

Add the following after the first paragraph of Article 406.07(c) of the Standard Specifications:

> "Upon completion of coring for density testing, all free water shall be removed from the core holes prior to filling. All core holes shall be filled with a non-shrink grout from the Department's approved list, which shall be mixed in a separate container prior to placement in the hole. Only enough water to permit placement and consolidation by rodding shall be used, and the material shall be struck-off flush with the adjacent pavement."

State of Illinois
Department of Transportation
Bureau of Local Roads and Streets

# SPECIAL PROVISION FOR CONSTRUCTION AND MAINTENANCE SIGNS

Effective: January 1, 2004
Revised: June 1, 2007

All references to Sections or Articles in this specification shall be construed to mean a specific Section or Article of the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation.

701.14. Signs. Add the following paragraph to Article 701.14:

All warning signs shall have minimum dimensions of 1200 mm x 1200 mm (48" x 48") and have a black legend on a fluorescent orange reflectorized background, meeting, as a minimum, Type AP reflectivity requirements of Table 1091-2 in Article 1091.02.

**SPECIAL PROVISION**
Aggregate Surface Course, Type B

This material shall meet the requirements of Section 1004 of the Standard Specifications for Road and Bridge Construction with the following exception:

Change the first sub-paragraph of Article 1004.04(c) to read:

The gradation of the Aggregate Surface Course Type B shall be limited to CA 10 or the following special gradation:

| Sieves | 25 mm (1") | 12.5 mm (1/2") | 4.75 mm (No. 4) | 1.18 mm (No. 16) | 75 µm (No. 200) |
|---|---|---|---|---|---|
| % Passing | 100 | 80±15 | 52±13 | 30±15 | 9±4 |

If this special gradation is used, the following Plasticity Index requirements shall replace those shown in Article 1004.04(d):

The Plasticity Index shall be 1.0 to 9 unless the material retained on the 4.75 mm (No. 4) sieve contains a minimum of 40 percent by weight of crushed particles in which case a Plasticity Index of 0 to 9 will be permitted.

2-97
D2-LR 1

# SEEDING SPECIAL PROVISION
# (MUNICIPAL)

Revise Article 250.07 of the Standard Specifications to read:

Regardless of season, all disturbed areas shall be seeded with the following mixture:

| SEEDS | kg/ha (LBS/ACRE) |
|---|---|
| Kentucky Bluegrass | 100 (90) |
| Perennial Ryegrass | 25 (20) |

This work will be paid for at the contract unit price bid per hectare (acre) for SEEDING CLASS I.

5-94
D2-LR 10

## CONTRACTOR RESPONSIBILITY FOR TEMPORARY TRAFFIC CONTROL

The presence of temporary traffic control drawings or standards in the project plans, whether a pay item or not, does not relive the contractor of his obligation to provide protection to the public in accordance with Article 107.14 of the Standard Specifications for Road and Bridge Construction. This article stipulates that the contractor shall provide, to the satisfaction of the engineer, all protection deemed necessary beyond that shown in the plans or special provisions.

The expense of this work to the contractor shall be considered incidental to the contract.

5-94
D2-LR 11

# SPECIAL PROVISION
## Bidding Requirements and Conditions

"The provisions for prequalification of bidders as stated in LR 102-2 or LR 102-3 as applicable shall apply to this proposal."

Revise the second paragraph of this special provision to read:

"All bidders must file at the time of the letting a sworn affidavit, in duplicate, showing all uncompleted projects awarded to them and all low bids pending award for federal, state, county, municipal and private work, using the blank form made available for this affidavit. All copies shall be filed with the awarding authority."

# Jo Daviess County Prevailing Wage for July 2015

(See explanation of column headings at bottom of wages)

| Trade Name | RG | TYP | C | Base | FRMAN | M-F>8 | OSA | OSH | H/W | Pensn | Vac | Trng |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ASBESTOS ABT-GEN | | BLD | | 31.620 | 32.620 | 1.5 | 1.5 | 2.0 | 8.420 | 15.41 | 0.000 | 0.800 |
| ASBESTOS ABT-MEC | | BLD | | 22.700 | 23.700 | 1.5 | 1.5 | 2.0 | 6.700 | 5.050 | 0.000 | 0.650 |
| BOILERMAKER | | BLD | | 38.000 | 41.000 | 2.0 | 2.0 | 2.0 | 7.070 | 15.99 | 0.000 | 0.400 |
| BRICK MASON | | BLD | | 37.050 | 39.800 | 1.5 | 1.5 | 2.0 | 9.230 | 12.57 | 0.000 | 0.640 |
| CARPENTER | | BLD | | 27.130 | 28.980 | 1.5 | 1.5 | 2.0 | 7.450 | 10.74 | 0.000 | 0.510 |
| CARPENTER | | HWY | | 37.230 | 38.980 | 1.5 | 1.5 | 2.0 | 11.00 | 14.00 | 0.000 | 0.490 |
| CEMENT MASON | | ALL | | 34.050 | 36.800 | 1.5 | 1.5 | 2.0 | 9.050 | 16.26 | 0.000 | 0.500 |
| CERAMIC TILE FNSHER | | BLD | | 32.850 | 0.000 | 1.5 | 1.5 | 2.0 | 8.600 | 5.210 | 0.000 | 0.560 |
| COMMUNICATION TECH | | BLD | | 36.440 | 40.080 | 1.5 | 1.5 | 2.0 | 10.39 | 12.09 | 0.000 | 0.760 |
| ELECTRIC PWR EQMT OP | | ALL | | 37.890 | 51.480 | 1.5 | 1.5 | 2.0 | 5.000 | 11.75 | 0.000 | 0.380 |
| ELECTRIC PWR EQMT OP | | HWY | | 39.220 | 53.290 | 1.5 | 1.5 | 2.0 | 5.000 | 12.17 | 0.000 | 0.390 |
| ELECTRIC PWR GRNDMAN | | ALL | | 29.300 | 51.480 | 1.5 | 1.5 | 2.0 | 5.000 | 9.090 | 0.000 | 0.290 |
| ELECTRIC PWR GRNDMAN | | HWY | | 30.330 | 53.290 | 1.5 | 1.5 | 2.0 | 5.000 | 9.400 | 0.000 | 0.300 |
| ELECTRIC PWR LINEMAN | | ALL | | 45.360 | 51.480 | 1.5 | 1.5 | 2.0 | 5.000 | 14.06 | 0.000 | 0.450 |
| ELECTRIC PWR LINEMAN | | HWY | | 46.950 | 53.290 | 1.5 | 1.5 | 2.0 | 5.000 | 14.56 | 0.000 | 0.470 |
| ELECTRIC PWR TRK DRV | | ALL | | 30.340 | 51.480 | 1.5 | 1.5 | 2.0 | 5.000 | 9.400 | 0.000 | 0.300 |
| ELECTRIC PWR TRK DRV | | HWY | | 31.400 | 53.290 | 1.5 | 1.5 | 2.0 | 5.000 | 9.730 | 0.000 | 0.310 |
| ELECTRICIAN | E | BLD | | 42.960 | 47.260 | 1.5 | 1.5 | 2.0 | 10.39 | 17.47 | 0.000 | 0.860 |
| ELECTRICIAN | W | BLD | | 33.500 | 35.500 | 1.5 | 1.5 | 2.0 | 7.690 | 11.93 | 0.000 | 0.310 |
| ELEVATOR CONSTRUCTOR | | BLD | | 46.830 | 52.680 | 2.0 | 2.0 | 2.0 | 13.57 | 14.51 | 3.770 | 0.600 |
| GLAZIER | | BLD | | 23.820 | 25.320 | 1.5 | 1.5 | 2.0 | 6.940 | 6.920 | 0.000 | 0.450 |
| HT/FROST INSULATOR | | BLD | | 29.830 | 31.030 | 1.5 | 1.5 | 2.0 | 6.130 | 12.05 | 0.000 | 0.900 |
| IRON WORKER | E | ALL | | 36.290 | 38.100 | 2.0 | 2.0 | 2.0 | 10.24 | 23.19 | 0.000 | 0.500 |
| IRON WORKER | W | ALL | | 30.250 | 32.670 | 1.5 | 1.5 | 2.0 | 9.490 | 12.29 | 0.000 | 0.690 |
| LABORER | | BLD | | 31.620 | 32.620 | 1.5 | 1.5 | 2.0 | 8.420 | 15.41 | 0.000 | 0.800 |
| LABORER | | HWY | | 36.740 | 37.490 | 1.5 | 1.5 | 2.0 | 8.420 | 15.09 | 0.000 | 0.800 |
| LABORER, SKILLED | | HWY | | 39.390 | 40.140 | 1.5 | 1.5 | 2.0 | 8.420 | 15.09 | 0.000 | 0.800 |
| LATHER | | BLD | | 26.980 | 28.980 | 1.5 | 1.5 | 2.0 | 7.390 | 10.74 | 0.000 | 0.510 |
| MACHINIST | | BLD | | 45.350 | 47.850 | 1.5 | 1.5 | 2.0 | 7.260 | 8.950 | 1.850 | 0.000 |
| MARBLE FINISHERS | | BLD | | 32.850 | 0.000 | 1.5 | 1.5 | 2.0 | 8.600 | 5.210 | 0.000 | 0.560 |
| MARBLE MASON | | BLD | | 35.530 | 35.780 | 1.5 | 1.5 | 2.0 | 8.600 | 7.520 | 0.000 | 0.590 |
| MILLWRIGHT | | BLD | | 37.220 | 40.940 | 1.5 | 1.5 | 2.0 | 9.050 | 15.00 | 0.000 | 0.500 |
| OPERATING ENGINEER | | BLD | 1 | 43.800 | 47.800 | 2.0 | 2.0 | 2.0 | 17.55 | 11.80 | 2.350 | 1.300 |
| OPERATING ENGINEER | | BLD | 2 | 43.100 | 47.800 | 2.0 | 2.0 | 2.0 | 17.55 | 11.80 | 2.350 | 1.300 |
| OPERATING ENGINEER | | BLD | 3 | 40.650 | 47.800 | 2.0 | 2.0 | 2.0 | 17.55 | 11.80 | 2.350 | 1.300 |
| OPERATING ENGINEER | | BLD | 4 | 38.650 | 47.800 | 2.0 | 2.0 | 2.0 | 17.55 | 11.80 | 2.350 | 1.300 |
| OPERATING ENGINEER | | BLD | 5 | 47.550 | 47.800 | 2.0 | 2.0 | 2.0 | 17.55 | 11.80 | 2.350 | 1.300 |
| OPERATING ENGINEER | | BLD | 6 | 46.800 | 47.800 | 2.0 | 2.0 | 2.0 | 17.55 | 11.80 | 2.350 | 1.300 |
| OPERATING ENGINEER | | BLD | 7 | 43.800 | 47.800 | 2.0 | 2.0 | 2.0 | 17.55 | 11.80 | 2.350 | 1.300 |
| OPERATING ENGINEER | | HWY | 1 | 43.650 | 47.650 | 1.5 | 1.5 | 2.0 | 17.55 | 11.80 | 2.350 | 1.300 |
| OPERATING ENGINEER | | HWY | 2 | 43.100 | 47.650 | 1.5 | 1.5 | 2.0 | 17.55 | 11.80 | 2.350 | 1.300 |
| OPERATING ENGINEER | | HWY | 3 | 41.800 | 47.650 | 1.5 | 1.5 | 2.0 | 17.55 | 11.80 | 2.350 | 1.300 |
| OPERATING ENGINEER | | HWY | 4 | 40.350 | 47.650 | 1.5 | 1.5 | 2.0 | 17.55 | 11.80 | 2.350 | 1.300 |
| OPERATING ENGINEER | | HWY | 5 | 38.900 | 47.650 | 1.5 | 1.5 | 2.0 | 17.55 | 11.80 | 2.350 | 1.300 |
| OPERATING ENGINEER | | HWY | 6 | 46.650 | 47.650 | 1.5 | 1.5 | 2.0 | 17.55 | 11.80 | 2.350 | 1.300 |
| OPERATING ENGINEER | | HWY | 7 | 44.650 | 47.650 | 1.5 | 1.5 | 2.0 | 17.55 | 11.80 | 2.350 | 1.300 |
| PAINTER | | ALL | | 36.500 | 38.500 | 1.5 | 1.5 | 1.5 | 10.30 | 8.460 | 0.000 | 1.350 |
| PILEDRIVER | | BLD | | 29.130 | 30.980 | 1.5 | 1.5 | 2.0 | 7.450 | 10.74 | 0.000 | 0.510 |
| PILEDRIVER | | HWY | | 37.230 | 38.980 | 1.5 | 1.5 | 2.0 | 11.00 | 14.00 | 0.000 | 0.490 |
| PIPEFITTER | | ALL | | 43.100 | 46.120 | 1.5 | 2.0 | 2.0 | 8.220 | 11.29 | 0.000 | 1.000 |
| PIPEFITTER | | BLD | | 43.100 | 46.120 | 1.5 | 1.5 | 2.0 | 8.220 | 11.29 | 0.000 | 1.000 |
| PLASTERER | | BLD | | 34.280 | 37.710 | 1.5 | 1.5 | 2.0 | 9.050 | 12.55 | 0.000 | 0.500 |
| PLUMBER | | ALL | | 43.100 | 46.120 | 1.5 | 2.0 | 2.0 | 8.220 | 11.29 | 0.000 | 1.000 |
| PLUMBER | | BLD | | 43.100 | 46.120 | 1.5 | 1.5 | 2.0 | 8.220 | 11.29 | 0.000 | 1.000 |
| ROOFER | | BLD | | 41.000 | 44.000 | 1.5 | 1.5 | 2.0 | 8.280 | 10.54 | 0.000 | 0.530 |
| SHEETMETAL WORKER | | BLD | | 37.930 | 40.210 | 1.5 | 1.5 | 2.0 | 6.000 | 16.92 | 0.520 | 0.290 |
| SPRINKLER FITTER | | BLD | | 37.120 | 39.870 | 1.5 | 1.5 | 2.0 | 8.420 | 8.500 | 0.000 | 0.350 |
| STONE MASON | | BLD | | 37.050 | 39.800 | 1.5 | 1.5 | 2.0 | 9.230 | 12.57 | 0.000 | 0.640 |
| ~~SURVEY WORKER~~ | ->NOT IN EFFECT | | | ALL | 36.830 | 37.580 | 1.5 | 1.5 | 2.0 | 8.240 | 12.84 | 0.000 | 0.800 |
| TERRAZZO FINISHER | | BLD | | 32.850 | 0.000 | 1.5 | 1.5 | 2.0 | 8.600 | 5.210 | 0.000 | 0.560 |
| TERRAZZO MASON | | BLD | | 35.530 | 35.780 | 1.5 | 1.5 | 2.0 | 8.600 | 7.520 | 0.000 | 0.590 |
| TILE LAYER | | BLD | | 26.980 | 28.980 | 1.5 | 1.5 | 2.0 | 7.390 | 10.74 | 0.000 | 0.510 |
| TILE MASON | | BLD | | 35.530 | 35.780 | 1.5 | 1.5 | 2.0 | 8.600 | 7.520 | 0.000 | 0.590 |
| TRUCK DRIVER | | O&C | 1 | 27.280 | 30.220 | 1.5 | 1.5 | 2.0 | 11.40 | 5.440 | 0.000 | 0.250 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TRUCK DRIVER | | O&C | 2 | 27.680 | 30.220 | 1.5 | 1.5 | 2.0 | 11.40 | 5.440 | 0.000 | 0.250 |
| TRUCK DRIVER | | O&C | 3 | 27.860 | 30.220 | 1.5 | 1.5 | 2.0 | 11.40 | 5.440 | 0.000 | 0.250 |
| TRUCK DRIVER | | O&C | 4 | 28.110 | 30.220 | 1.5 | 1.5 | 2.0 | 11.40 | 5.440 | 0.000 | 0.250 |
| TRUCK DRIVER | | O&C | 5 | 28.850 | 30.220 | 1.5 | 1.5 | 2.0 | 11.40 | 5.440 | 0.000 | 0.250 |
| TRUCK DRIVER | E | ALL | 1 | 32.960 | 33.420 | 1.5 | 1.5 | 2.0 | 6.900 | 8.220 | 0.000 | 0.000 |
| TRUCK DRIVER | E | ALL | 2 | 33.110 | 33.420 | 1.5 | 1.5 | 2.0 | 6.900 | 8.220 | 0.000 | 0.000 |
| TRUCK DRIVER | E | ALL | 3 | 33.310 | 33.420 | 1.5 | 1.5 | 2.0 | 6.900 | 8.220 | 0.000 | 0.000 |
| TRUCK DRIVER | E | ALL | 4 | 33.420 | 33.420 | 1.5 | 1.5 | 2.0 | 6.900 | 8.220 | 0.000 | 0.000 |
| TRUCK DRIVER | W | ALL | 1 | 34.100 | 37.770 | 1.5 | 1.5 | 2.0 | 11.40 | 5.440 | 0.000 | 0.250 |
| TRUCK DRIVER | W | ALL | 2 | 34.600 | 37.770 | 1.5 | 1.5 | 2.0 | 11.40 | 5.440 | 0.000 | 0.250 |
| TRUCK DRIVER | W | ALL | 3 | 34.820 | 37.770 | 1.5 | 1.5 | 2.0 | 11.50 | 5.440 | 0.000 | 0.250 |
| TRUCK DRIVER | W | ALL | 4 | 34.140 | 37.770 | 1.5 | 1.5 | 2.0 | 11.40 | 5.440 | 0.000 | 0.250 |
| TRUCK DRIVER | W | ALL | 5 | 36.060 | 37.770 | 1.5 | 1.5 | 2.0 | 11.40 | 5.440 | 0.000 | 0.250 |
| TUCKPOINTER | | BLD | | 37.050 | 39.800 | 1.5 | 1.5 | 2.0 | 9.230 | 12.57 | 0.000 | 0.640 |

Legend: RG (Region)
TYP (Trade Type - All,Highway,Building,Floating,Oil & Chip,Rivers)
C (Class)
Base (Base Wage Rate)
FRMAN (Foreman Rate)
M-F>8 (OT required for any hour greater than 8 worked each day, Mon through Fri.
OSA (Overtime (OT) is required for every hour worked on Saturday)
OSH (Overtime is required for every hour worked on Sunday and Holidays)
H/W (Health & Welfare Insurance)
Pensn (Pension)
Vac (Vacation)
Trng (Training)

**Explanations**

JO DAVIESS COUNTY

ELECTRICIANS (EAST) - Townships of Warren, Rush, Nora, Stockton, Wards Grove, Pleasant Valley and Berrenman.

IRONWORKERS (EAST) - That part of the county East of a North-South line from the North county line through Elizabeth, and East of a diagonal line from Elizabeth through Derinda Center to the South county line.

TRUCK DRIVERS (WEST) - That part of the county West of Rt. 78 including Stockton.

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas Day and Veterans Day in some classifications/counties. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration. If in doubt, please check with IDOL.

Oil and chip resealing (O&C) means the application of road oils and liquid asphalt to coat an existing road surface, followed by application of aggregate chips or gravel to coated surface, and subsequent rolling of material to seal the surface.

EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date.
ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

CERAMIC TILE FINISHER, MARBLE FINISHER, TERRAZZO FINISHER

Assisting, helping or supporting the tile, marble and terrazzo mechanic by performing their historic and traditional work assignments required to complete the proper installation of the work covered by said crafts. The term "Ceramic" is used for naming the classification only and is in no way a limitation of the product handled. Ceramic takes into consideration most hard tiles.

COMMUNICATIONS TECHNICIAN

Installing, manufacturing, assembling and maintaining sound and intercom, protection alarm (security), fire alarm, master antenna

television, closed circuit television, low voltage control for computers and/or door monitoring, school communications systems, telephones and servicing of nurse and emergency calls, and the installation and maintenance of transmit and receive antennas, transmitters, receivers, and associated apparatus which operates in conjunction with above systems. All work associated with these system installations will be included EXCEPT the installation of protective metallic conduit in new construction projects (excluding less than ten-foot runs strictly for protection of cable) and 120 volt AC (or higher) power wiring and associated hardware.

LABORER, SKILLED - HIGHWAY

Individuals engaged in the following types of work, irrespective of the site of the work: asbestos abatement worker, handling of any materials with any foreign matter harmful to skin or clothing, track laborer, cement handlers, chloride handlers, the unloading and loading with steel workers and re-bars, concrete workers wet, tunnel helpers in free air, batch dumpers, mason tenders, kettle and tar men, tank cleaners, plastic installers, scaffold workers, motorized buggies or motorized unit used for wet concrete or handling of building materials, laborers with de-watering systems, sewer workers plus depth, rod and chainmen with technical engineers, rod and chainmen with land surveyors, rod and chainmen with surveyors, vibrator operators, cement silica, clay, fly ash, lime and plasters, handlers (bulk or bag), cofferdam workers plus depth, on concrete paving, placing, cutting and tying of reinforcing, deck hand, dredge hand, and shore laborers, bankmen on floating plant, grade checker, power tools, front end man on chip spreaders, cassion workers plus depth, gunnite nozzle men, lead man on sewer work, welders, cutters, burners and torchmen, chainsaw operators, jackhammer and drill operators, layout man and/or drainage tile layer, steel form setter - street and highway, air tamping hammermen, signal man on crane, concrete saw operator, screedman on asphalt pavers, laborers tending masons with hot material or where foreign materials are used, mortar mixer operators, multiple concrete duct - leadsman, lumen, asphalt raker, curb asphalt machine operator, ready mix scalemen (permanent, portable or temporary plant), laborers handling masterplate or similar materials, laser beam operator, concrete burning machine operator, coring machine operator, plaster tender, underpinning and shoring of buildings, pump men, manhole and catch basin, dirt and stone tamper, hose men on concrete pumps, hazardous waste worker, lead base paint abatement worker, lining of pipe, refusing machine, assisting on direct boring machine, the work of laying watermain, fire hydrants, all mechanical joints to watermain work, sewer worker, and tapping water service and forced lift station mechanical worker.

OPERATING ENGINEERS - BUILDING

Class 1. Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson Attachment; Batch Plant; Benoto (requires Two Engineers); Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver (over 27E cu. ft.): Concrete Paver (27 cu. ft. and under); Concrete Placer; Concrete Pump (Truck Mounted); Concrete Conveyor (Truck Mounted); Concrete Tower; Cranes, All; GCI and similar types (required two operators only); Cranes, Hammerhead; Creter Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, one, two and three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment - excluding hose work and any sewer work); Locomotives, All; Lubrication Technician; Manipulators; Motor Patrol; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Raised and Blind Hole Drill; Rock Drill (self-propelled); Rock Drill - Truck Mounted; Roto Mill Grinder; Scoops - Tractor Drawn; Slipform Paver; Scrapers Prime Movers; Straddle Buggies; Tie Back Machine; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Bobcat (over 3/4 cu. yd.); Boilers; Brick Forklift; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Laser Screed; Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Asphalt Spreader; Combination - Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators - (Rheostat Manual Controlled); Hydraulic Power Units (Pile Driving, Extracting, or Drilling - with a seat); Lowboys; Pumps, Over 3" (1 to 3 not to exceed total of 300 ft.); Pumps, Well Points;

Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches; Bobcat (up to and including 3/4 cu. yd.).

Class 4. Elevator push button with automatic doors; Hoists, Inside; Oilers; Brick Forklift.

Class 5. Assistant Craft Foreman

Class 6. Mechanics; Welders.

Class 7. Gradall

OPERATING ENGINEERS - HIGHWAY CONSTRUCTION

Class 1. Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Silo Tender; Asphalt Spreader; Autograder; ABG Paver; Backhoes with Caisson Attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Backhoe w/shear attachments; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Tower of all types; Creter Crane; Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Directional Boring Machine over 12"; Dredges; Formless Curb and Gutter Machine; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Mounted; Hoists, One, Two and Three Drum; Hydraulic Backhoes; Hydro Vac, Self Propelled, Truck Mounted (excluding hose work and any sewer work); Lubrication Technician; Manipulators; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Rock/Track Tamper; Roto Mill Grinder; Slip-Form Paver; Snow Melters; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; GCI Crane; Hydraulic Telescoping Form (Tunnel); Tie Back Machine; Tractor Drawn Belt Loader; Tractor Drawn Belt Loader with attached pusher; Tractor with Boom; Tractaire with Attachments; Traffic Barrier Conveyor Machine; Raised or Blind Hole Drills; Trenching Machine (over 12"); Truck Mounted Concrete Pump with Boom; Truck Mounted Concrete Conveyor; Work Boat (no license required - 90 h.p. or above); Underground Boring and/or Mining Machines; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw (large self-propelled - excluding walk-behinds and hand-held); Conveyor Muck Cars (Haglund or Similar Type); Drills, all; Finishing Machine - Concrete; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro Blaster; All Locomotives, Dinky; Off-Road Hauling Units; Non-Self Loading Dump; Ejection Dump; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc., self-propelled; Scoops - Tractor Drawn; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper; Scraper - Prime Mover in Tandem (Regardless of Size); Tank Car Heater; Tractors, Push, Pulling Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Fireman on Boilers; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper - Form - Motor Driven.

Class 4. Air Compressor - Small and Large; Asphalt Spreader, Backend Man; Bobcat (Skid Steer) all; Brick Forklift; Combination - Small Equipment Operator; Directional Boring Machine up to 12"; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Hydro-Blaster; Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Tractaire; Trencher 12" and under; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. Oilers and Directional Boring Machine Locator.

Class 6. Field Mechanics and Field Welders

Class 7. Gradall and machines of like nature.

SURVEY WORKER - Operated survey equipment including data collectors, G.P.S. and robotic instruments, as well as conventional levels and transits.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION - WEST

Class 1. Drivers on 2 axle trucks hauling less than 9 ton. Air compressor and welding machines and brooms, including those pulled by separate units, truck driver helpers, warehouse employees, mechanic helpers, greasers and tiremen, pickup trucks when hauling materials, tools, or workers to and from and on-the-job site, and fork lifts up to 6,000 lb. capacity.

Class 2. Two or three axle trucks hauling more than 9 ton but hauling less than 16 ton. A-frame winch trucks, hydrolift trucks, vactor trucks or similar equipment when used for transportation purposes. Fork lifts over 6,000 lb. capacity, winch trucks, four axle combination units, and ticket writers.

Class 3. Two, three or four axle trucks hauling 16 ton or more. Drivers on water pulls, articulated dump trucks, mechanics and working forepersons, and dispatchers. Five axle or more combination units.

Class 4. Low Boy and Oil Distributors.

Class 5. Drivers who require special protective clothing while employed on hazardous waste work.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION - EAST

Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; Teamsters; Unskilled dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnatrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

TRUCK DRIVER - OIL AND CHIP RESEALING ONLY.

This shall encompass laborers, workers and mechanics who drive contractor or subcontractor owned, leased, or hired pickup, dump, service, or oil distributor trucks. The work includes transporting materials and equipment (including but not limited to, oils, aggregate supplies, parts, machinery and tools) to or from the job site; distributing oil or liquid asphalt and aggregate; stock piling material when in connection with the actual oil and chip contract. The Truck Driver (Oil & Chip Resealing) wage classification does not include supplier delivered materials.

Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and

provide su h rate su h rate eing deemed to e ist y referen e in this do ument. If no neigh oring ounty rate applies to the tas the Department shall underta e a spe ial determination su h spe ial determination eing then deemed to have e isted under this determination. If a proje t re uires these or any lassifi ation not listed please onta t IDOL at 21 - 2-1 10 for wage rates or larifi ations.

LAND CAPIN

Lands aping wor falls under the e isting lassifi ations for la orer operating engineer and tru driver. he wor performed y lands ape plantsman and lands ape la orer is overed y the e isting lassifi ation of la orer. he wor performed y lands ape operators regardless of e uipment used or its si e is overed y the lassifi ations of operating engineer. he wor performed y lands ape tru drivers regardless of si e of tru driven is overed y the lassifi ations of tru driver.

MA ERIAL E ER MA ERIAL E ER/IN PEC OR I AND II

Notwithstanding the differen e in the lassifi ation title the lassifi ation entitled

IDOT District 2 Standards to be included:

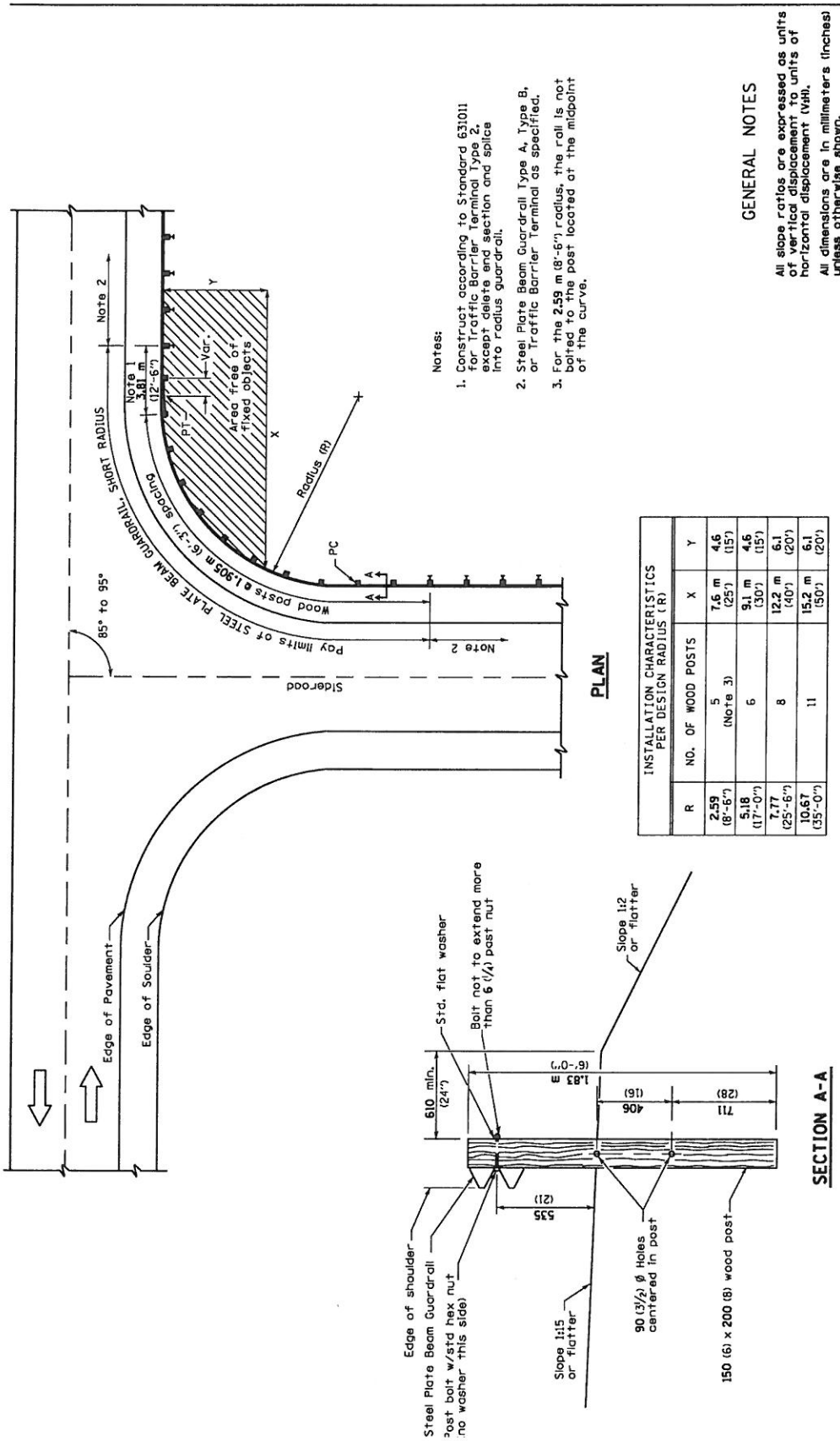
| | |
|---|---|
| F35-4L | Steel Plate Beam Guardrail, Short Radius |
| 10.2 | Inlet Special |
| 13.2B | Frame and Grate for Inlet Special |
| 13.2D | Frame and Grate for Inlet Special |
| 17.4 | Details for Curb & Gutter Replacement at Inlet |
| 25.1 | Entrance Approaches – Urban Area |
| 27.4 | Concrete Headwalls for Pipe Drains |
| 29.2 | Erosion Control Details for Silt Fence |
| 29.4 | Silicone Joint Seal (Concrete Details) |
| 32.1 | Sewer and Water Main Crossings |
| 32.4 | Pavement Patching for Hot-Mix Asphalt Surfaced Pavement |
| 34.4 | Thrust Block Details |
| 35.4 | Sidewalk and Driveway Pavement Pay Areas |
| 37.4 | Delineator and Post Orientation |
| 40.1 | Traffic Control for Road Closure |
| 41.1 | Typical Pavement Markings |
| 45.2 | Superelevation Transition on Two-Lane Highway |
| 53.1 | Remove and Reerect Steel Plate Beam Guardrail |
| 63.2 | Pipe Handrails for Steps |
| 64.2 | Pipe Handrail Special – For Retaining Walls |
| 71.4 | Details of Concrete Steps |
| 88.4 | Drain for Aggregate Base in Urban Areas |
| 90.2 | Mechanical Joints for Concrete Pipe and Box Culverts |
| 96.4 | Drain for Aggregate Base Course |
| 97.4 | Subgrade Replacement |

IDOT Highway Standards to be included:

| | |
|---|---|
| 001006 | Decimal of an inch and of a Foot |
| 280001 | Temporary Erosion Control Systems |
| 420111 | PCC Pavement Roundouts |
| 424001 | Perpendicular Curb Ramps for Sidewalks |
| 424006 | Diagonal Curb Ramps for Sidewalks |
| 424016 | Mid-Block Curb Ramps for Sidewalks |
| 424021 | Depressed Corner for Sidewalks |
| 424026 | Entrance/Alley Pedestrian Crossings |
| 542301 | Precast Reinforced Concrete Flared End Section |
| 542306 | Precast Reinforced Concrete Elliptical Flared End Section |
| 542311 | Grating for Concrete Flared End Section |
| 542401 | Metal End Section for Pipe Culverts |
| 601001 | Sub-Surface Drains |
| 601101 | Concrete Headwall for Pipe Drain |
| 602006 | Catch Basin Type B |
| 602301 | Inlet Type A |
| 604001 | Frame and Lids Type 1 |

IDOT Highway Standards to be included (continued):

| | |
|---|---|
| 604036 | Grate Type 8 |
| 606001 | Concrete Curb Type B & Combination Concrete Curb and Gutter |
| 630001 | Steel Plate Beam Guardrail |
| 630301 | Shoulder Widening for Type 1 (Special) Guardrail Terminals |
| 701006 | Off Rd. Operations 2L, 2W, 15’ to 24” From Edge of Pavement |
| 701501 | Urban Lane Closure, 2W, 2L, Undivided |
| 701701 | Urban Lane Closure, Multilane Intersection |
| 701801 | Sidewalk, Corner or Crosswalk Closure |
| 701901 | Traffic Control Devices |
| 720011 | Metal Posts for Signs, Markers & Delineators |
| 728001 | Telescoping Steel Sign Support |
| 729001 | Applications of Types A & B Metal Posts (for Signs & Markers) |
| BLR 10 | PCC Pavement Special (Nonreinforced) |
| BLR 14 | Portland Cement Concrete Pavement (Nonreinforced) |
| BLR 21 | Typical Application of Traffic Control Devices for Construction on Rural Local Highways |
| BLR 22 | Typical Application of Traffic Control Devices for Construction on Rural Local Highways |




| INSTALLATION CHARACTERISTICS PER DESIGN RADIUS (R) | | | |
|---|---|---|---|
| R | NO. OF WOOD POSTS | X | Y |
| 2.59 (8'-6") | 5 (Note 3) | 7.6 m (25') | 4.6 (15') |
| 5.18 (17'-0") | 6 | 9.1 m (30') | 4.6 (15') |
| 7.77 (25'-6") | 8 | 12.2 m (40') | 6.1 (20') |
| 10.67 (35'-0") | 11 | 15.2 m (50') | 6.1 (20') |

## STEEL PLATE BEAM GUARDRAIL, SHORT RADIUS

**Figure 35-4L**

When terminating the radius guardrail system, the guardrail on the intersecting roadway should be completed to any required length of need and terminated with an appropriate end treatment. On a very low-speed roadway (e.g., private driveway), this may be a Type 2 terminal. On most public roadways, or other roadways where higher speeds are possible, a Type 1 terminal should be used.

To allow for proper system performance, the designer should be aware of several important constraints:

1. Intersection Angle/Radii. Use of the detail in Figure 35-4L is limited to the radii shown and to intersection angles of 85° to 95°. No extrapolations to radii shorter than 8′-6″ (2.59 m) or longer than 35′-0″ (10.67 m) should be attempted. Any job-specific designs for intermediate radii and/or other intersection angles should incorporate all features of posts, attachment, etc., and should use only full length guardrail panels, shop bent to the design radius in 5 ft (1.5 m) increments.

2. Deflection Distance. Because of the required deflection distance, this design requires a considerable clear area behind the radius and adjacent guardrail. This area is detailed on Figure 35-4L with the x and y coordinates.

3. Slope. The slope in front of the installation should not be steeper than 1V:15H. Before installing this detail where there is superelevation on the main roadway, perform a special analysis to determine the potential for vaulting of a vehicle.

4. Embankment. It is important to provide the 2 ft (600 mm) earth embankment behind the CRT posts to provide adequate bearing strength if hit. It is desirable that the slopes behind the guardrail not be steeper than 1V:2H.

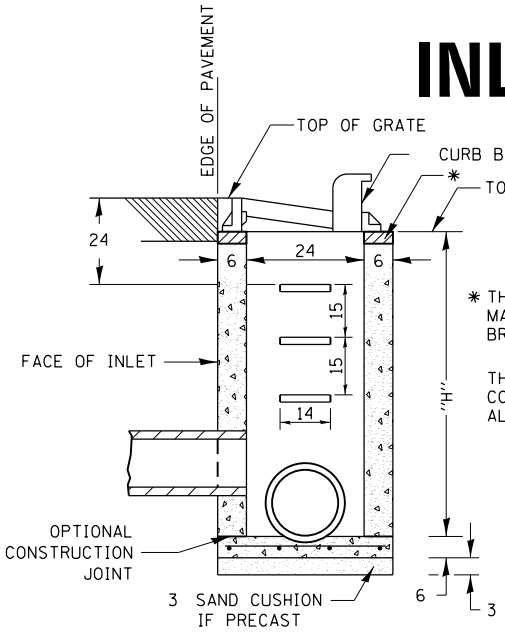
5. Bridges. When used in close proximity to a bridge, this design should not be used unless there is room to install an approved transition to the bridge rail.

6. Debris. In crash testing, some heavy debris was observed flying about in the area behind the impact. Judgment must be used when installing these sections where people are likely to be present in the area behind the curved section.

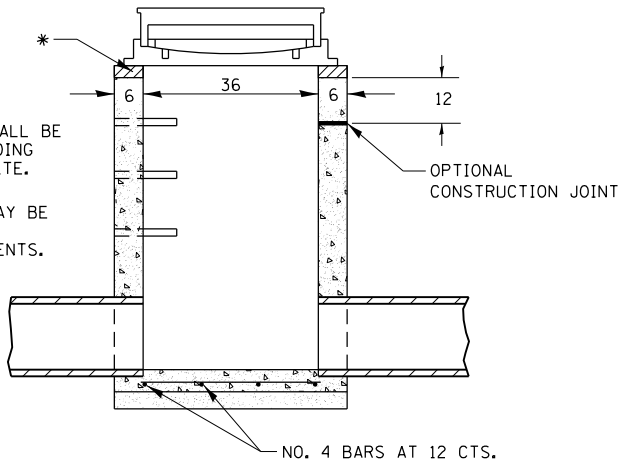
7. Additional Protection. Because the short-radius guardrail system still represents some compromise in roadside design, the designer should attempt to shadow it from impacts. This can be done by applying a tangent run of guardrail (the minimum is two Type 1 terminals, back-to-back) on the approach side of the intersecting roadway.

If the CRT short-radius design in Figure 35-4L cannot be used at the site, the final option is to install the Type A guardrail on the required radius. Do not use the Type B guardrail. Because the use of the Type A guardrail is a compromise in roadside safety, the designer should attempt to shadow it from impacts. This can be done by applying a tangent run of guardrail (the minimum is two Type 1 terminals, back-to-back) on the approach side of the intersecting roadway.

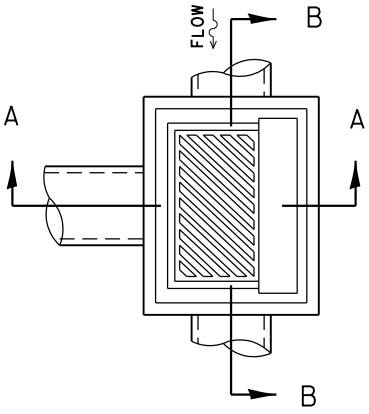
# INLETS, SPECIAL




SEC. A-A




SEC. B-B




NOTES

SEE STANDARD 602701 FOR DETAILS OF STEPS.

EXCEPT AS NOTED HEREON INLET SPECIAL SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS.

THE SIDE WALLS MAY BE BUILT AS PRECAST SEGMENTED SECTIONS.

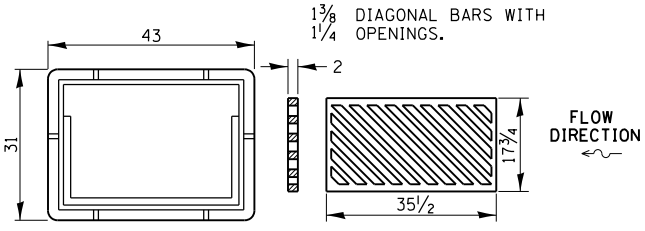
ALL VOIDS AROUND PIPE ENTRANCE, BOTH INSIDE AND OUTSIDE, SHALL BE SEALED WITH MORTAR.

WEIGHT OF CAST IRON FRAME & GRATE = 530 lbs. ± . STEPS SHALL BE OMITTED WHEN DEPTH OF "H" IS LESS THAN 5 ft.

CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED THROUGHOUT. PRECAST CONCRETE SHALL BE IN ACCORDANCE WITH ARTICLES 504.01 THRU 504.05 OF THE STANDARD SPECIFICATIONS EXCEPT THAT CONCRETE STRENGTH SHALL BE 4,000 psi AFTER 28 DAYS.

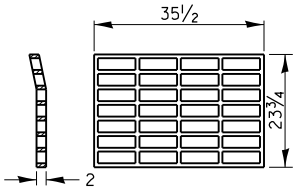
THE CONTRACT UNIT PRICE EACH FOR INLETS, SPECIAL SHALL INCLUDE THE COST OF CONSTRUCTING THE INLET BOX, FURNISHING AND INSTALLING THE FRAME AND GRATE, THE CAST IRON STEPS (IF USED), THE PRECAST FLOOR SLABS, SAND CUSHION (WHEN USED) AND REINFORCEMENT BARS.

## DETAIL OF FRAME & GRATE

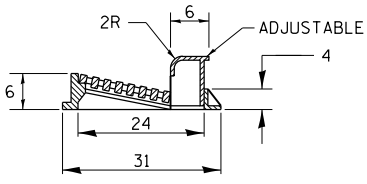



PLAN OF FRAME

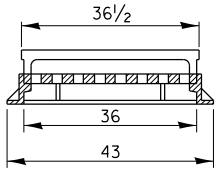
PLAN OF GRATE




PLAN OF GRATE *




SECTION A-A




SECTION B-B

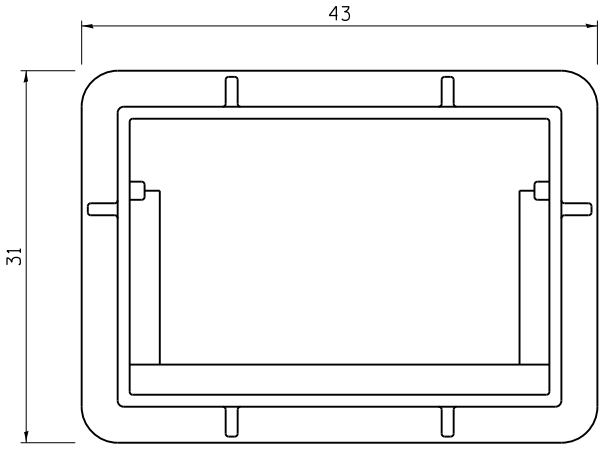
* THIS GRATE TO BE USED WITHOUT CURB BOX WHEN INLET IS IN DRIVEWAY.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

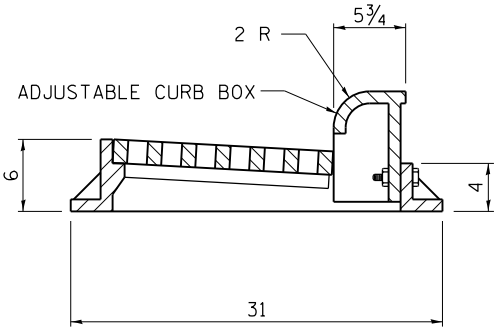
| | | | | | |
|---|---|---|---|---|---|
| REVISED - 1-05-16 | REGION 2 / DISTRICT 2 STANDARD | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS / SHEET NO. |
| REVISED - 6-27-14 | | | | | |
| REVISED - 10-13-11 | | | | CONTRACT NO. | |
| REVISED - | SCALE: 2.0000 ' / in. SHEET NO. OF SHEETS STA. TO STA. | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | |

PLOT DATE = 7/13/2016

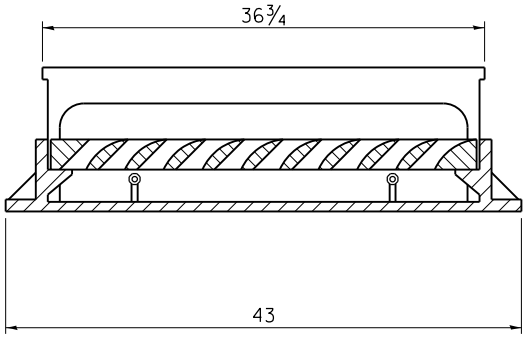
# FRAME AND GRATE FOR INLETS, SPECIAL



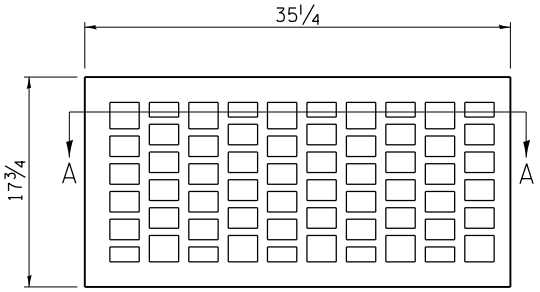

PLAN OF FRAME
WITHOUT GRATE AND CURB BOX



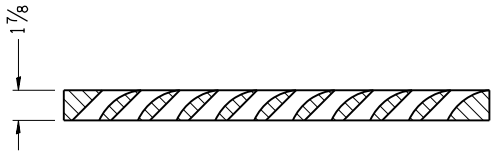

TRANSVERSE SECTION




LONGITUDINAL SECTION




PLAN OF GRATE




SECTION A-A

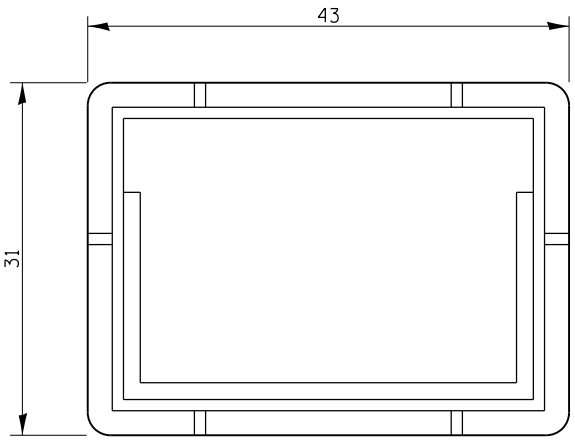
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

R 3067 OR EQUIVALENT
APPROXIMATE WEIGHT - 490 LBS.

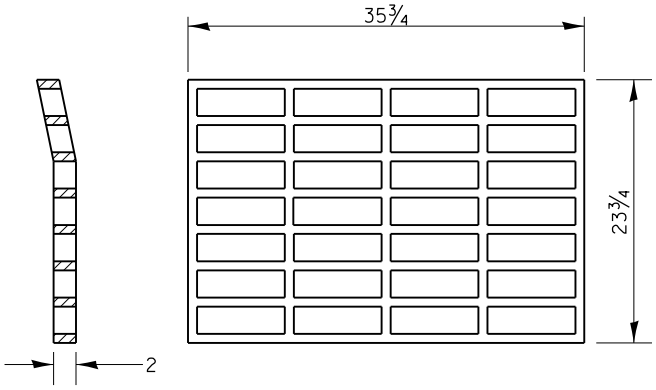
PLOT DATE = 7/13/2016

| | | | | | | |
|---|---|---|---|---|---|---|
| REVISED - 6-27-14 | REGION 2 / DISTRICT 2 STANDARD | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| REVISED - 10-13-11 | | | | | | |
| REVISED - | | | | CONTRACT NO. | | |
| REVISED - | SCALE: 2.0000 ' / in. SHEET NO. OF SHEETS STA. TO STA. | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

# FRAME AND GRATE FOR INLETS, SPECIAL

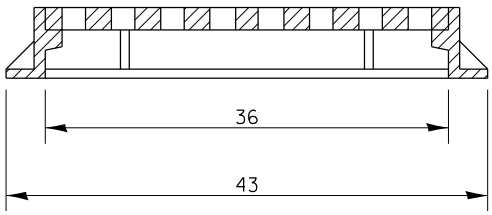



PLAN OF FRAME




PLAN OF GRATE *

* THIS GRATE TO BE USED WITHOUT CURB BOX WHEN INLET IS IN DRIVEWAY.




ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

R-3290-A OR EQUIVALENT
APPROXIMATE WEIGHT OF CAST IRON FRAME & GRATE - 530 LBS.

PLOT DATE = 7/13/2016

| | | | | | |
|---|---|---|---|---|---|
| REVISED - 4-14-15 | **REGION 2 / DISTRICT 2 STANDARD** | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS / SHEET NO. |
| REVISED - 6-27-14 | | | | | |
| REVISED - 10-14-11 | | | | CONTRACT NO. | |
| REVISED - | SCALE: 2.0000 ' / in. SHEET NO. OF SHEETS STA. TO STA. | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | |

# CATCH BASIN OR INLETS TO BE ADJUSTED OR RECONSTRUCTED

## (DETAILS FOR CURB & GUTTER REPLACEMENT)

CONCRETE CURB AND GUTTER SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 606 OF THE STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS, STANDARD 606001 AND THIS DRAWING.

CLASS SI CONCRETE SHALL BE USED THROUGHOUT. A HOLE 1-1/2 IN DIAMETER AND 9 DEEP SHALL BE DRILLED IN THE EXISTING CONCRETE CURB AS SHOWN. A 1-1/4 X 18 SMOOTH DOWEL BAR SHALL BE GROUTED IN THE HOLE LONGITUDINALLY.

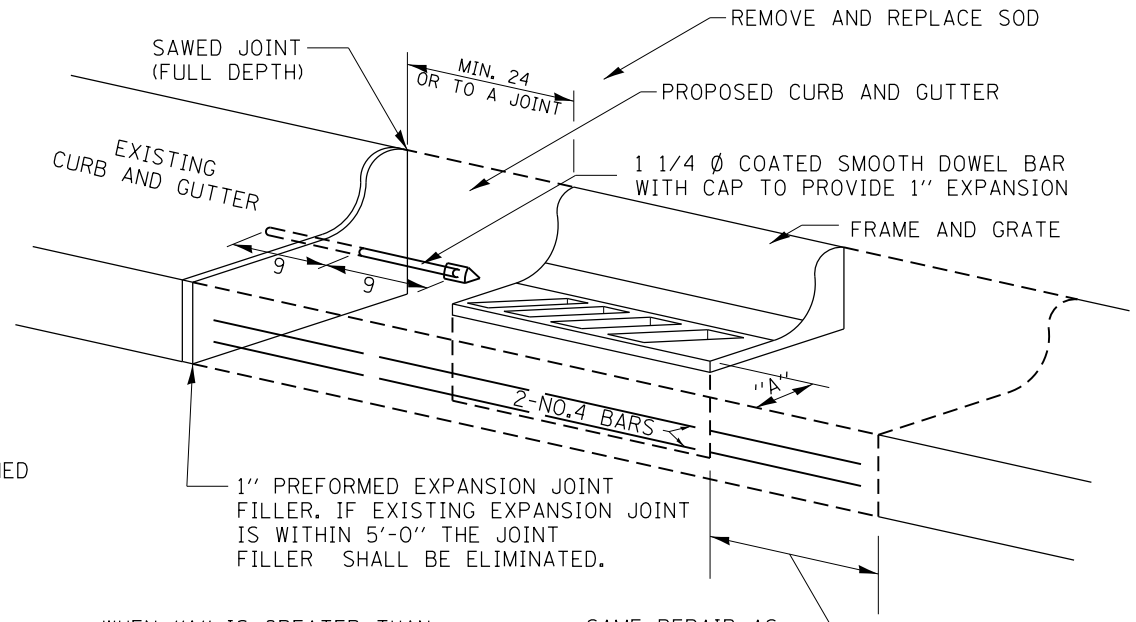
JOINTS OF A TYPE SIMILAR TO THAT IN THE UNDER-LYING PAVEMENT (EXPANSION OR CONTRACTION) SHALL BE INSTALLED IN THE CONCRETE CURB IN ALIGNMENT WITH THE JOINTS IN THE PAVEMENT.

THE PROPOSED CONFIGURATION OF THE CURB AND GUTTER SHALL MATCH THAT REMOVED.

THE LOCATION OF THE DOWEL BAR SHALL BE DETERMINED BY THE ENGINEER.

ALL EXISTING TIE BARS IN EDGE OF PAVEMENT SLAB THRU REPLACEMENT AREA SHALL BE CUT OFF.

THE WORK SHALL BE DONE IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS AND INCLUDES THE REMOVAL AND REPLACEMENT OF SOD, CONCRETE PAVEMENT AND/OR CURB AND GUTTER ADJACENT TO CATCH BASINS OR INLETS TO BE ADJUSTED OR RECONSTRUCTED AND SHALL BE INCLUDED IN THE PAY ITEM OF CATCH BASINS OR INLETS TO BE ADJUSTED OR RECONSTRUCTED AS SPECIFIED.




WHEN "A" IS GREATER THAN 2 , 2-NO. 4 BARS SHALL BE PLACED AS SHOWN.

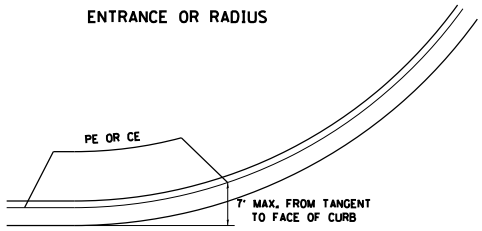
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

PLOT DATE = 7/13/2016

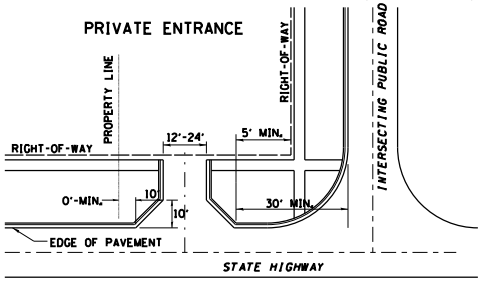
| | | | | | |
|---|---|---|---|---|---|
| REVISED - 9-30-11 | **REGION 2 / DISTRICT 2 STANDARD** | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS / SHEET NO. |
| REVISED - | | | | | |
| REVISED - | | | | CONTRACT NO. | |
| REVISED - | SCALE: 1.5455 '' / in. / SHEET NO. OF SHEETS / STA. / TO STA. | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | |

# ENTRANCE APPROACHES – URBAN AREA

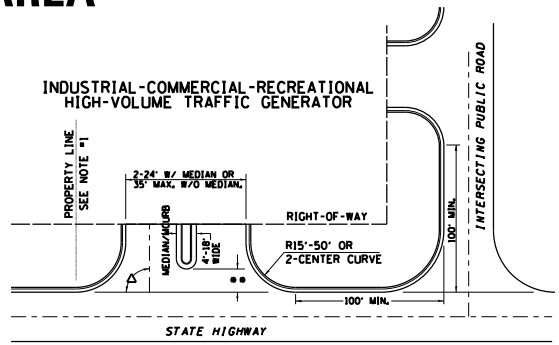
ENTRANCE OR RADIUS




PRIVATE ENTRANCE



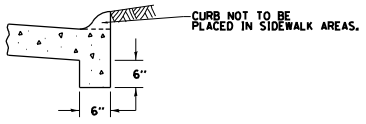

INDUSTRIAL-COMMERCIAL-RECREATIONAL
HIGH-VOLUME TRAFFIC GENERATOR



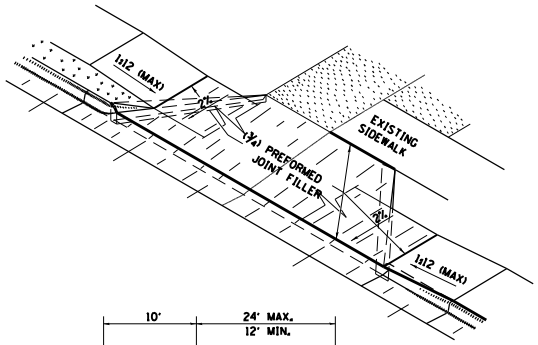

A MINIMUM OF 440 FEET SHALL BE MAINTAINED BETWEEN CENTER LINES OF ADJACENT DRIVEWAYS.
Δ 90° DESIRABLE, 45° MIN. ANGLE PERMITTED ONLY FOR ONE-WAY DRIVEWAYS.
60° MIN. ANGLE FOR TWO-WAY DRIVEWAYS.

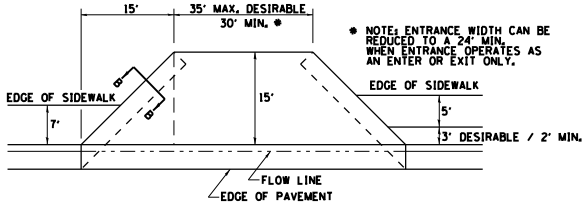
NOTE: *1 ENCROACHMENT ON THE ADJACENT PROPERTY OWNER LAND REQUIRES HIS OR HER WRITTEN APPROVAL.

** 4'-10' IF HIGHWAY CURBED.
AT EDGE OF SHOULDER IF HIGHWAY UNCURBED.

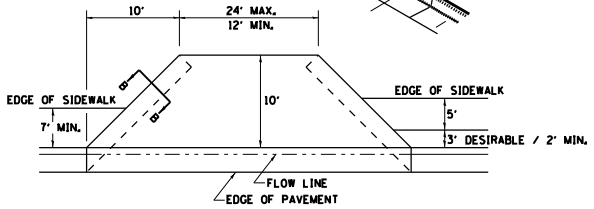



SEC B-B



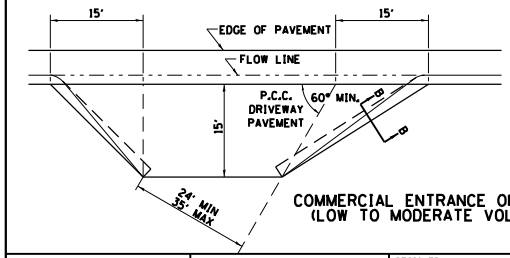




LOW TO MODERATE VOLUME COMMERCIAL ENTRANCE

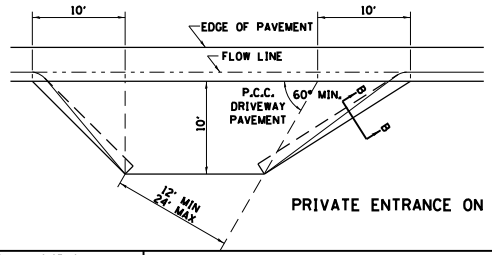



PRIVATE ENTRANCE

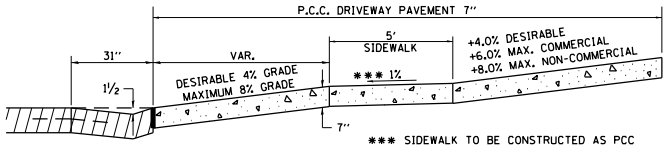
NOTE: CURVED ENTRANCE RETURNS MAY BE USED FOR LOW TO MODERATE VOLUME LOCATIONS WITH REVIEW ON A CASE-BY-CASE BASIS.




COMMERCIAL ENTRANCE ON SKEW
(LOW TO MODERATE VOLUME)

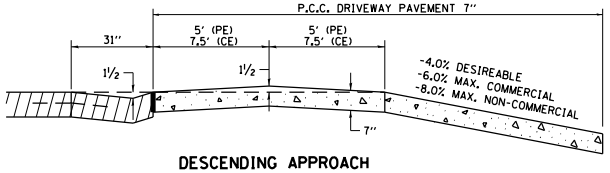



PRIVATE ENTRANCE ON SKEW

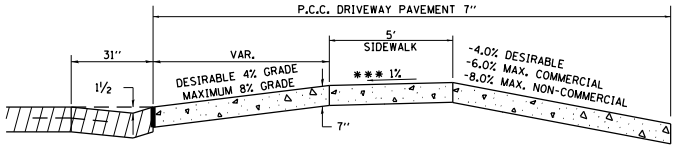



*** SIDEWALK TO BE CONSTRUCTED AS PCC DRIVEWAY PAVEMENT 7" THROUGH THE WIDTH OF THE DRIVEWAY. SEE DIST. STD. 35.4

ASCENDING APPROACH



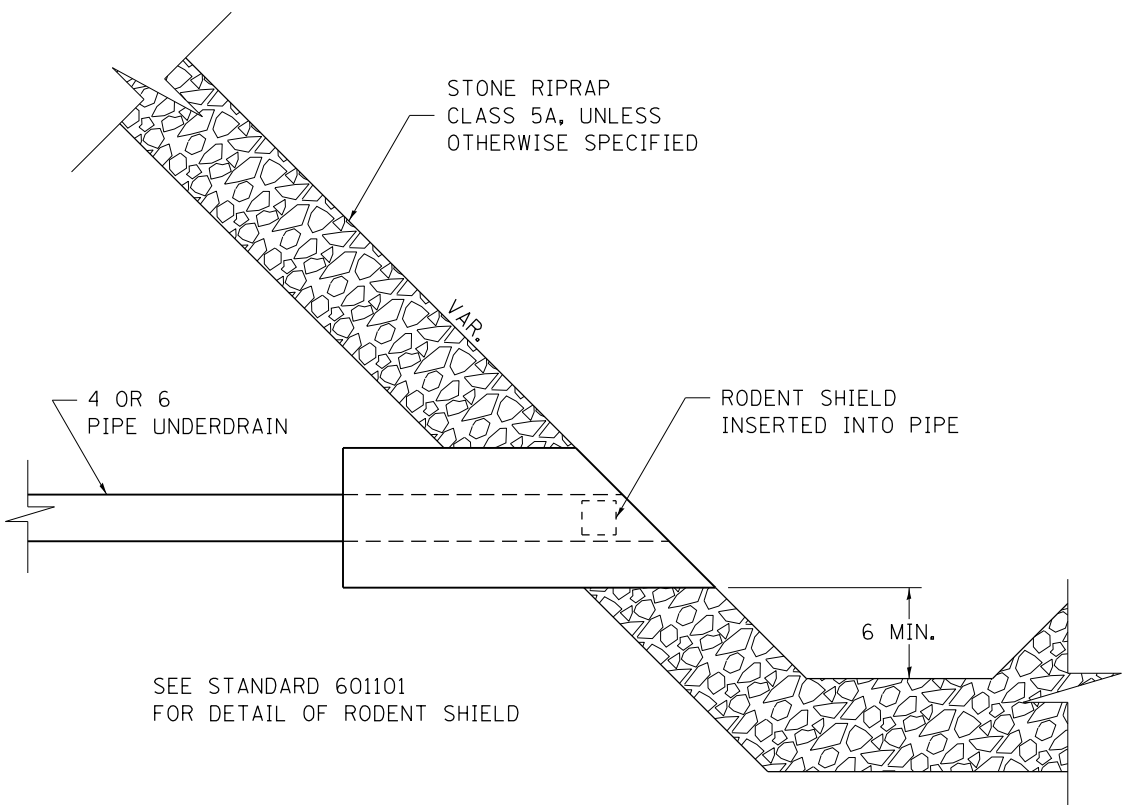

DESCENDING APPROACH
(NO SIDEWALK)

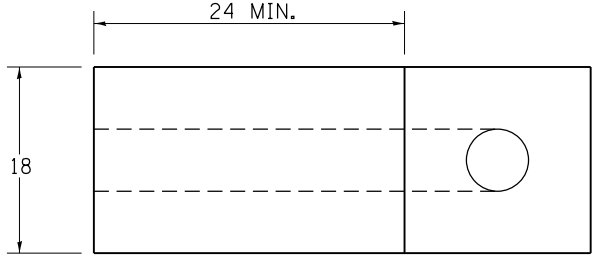


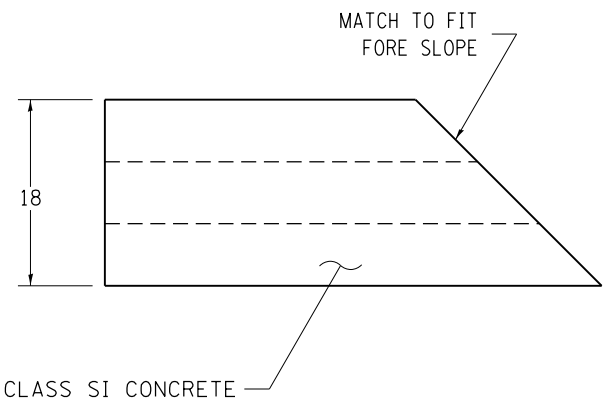

DESCENDING APPROACH
(WITH SIDEWALK)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| FILE NAME = District 2 Standard | USER NAME = IDOT/District 2 | DESIGNED - | REVISED - 6-27-14 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | REGION 2 / DISTRICT 2 STANDARD | | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | | DRAWN - | REVISED - 12-07-10 | | | | | | | | |
| | PLOT SCALE = 3.0909 ' / in. | CHECKED - | REVISED - | | | | | | CONTRACT NO. | | |
| | PLOT DATE = 7/13/2016 | DATE - | REVISED - | | SCALE: | SHEET NO. OF SHEETS STA. TO STA. | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

# CONCRETE HEADWALLS FOR PIPE DRAINS



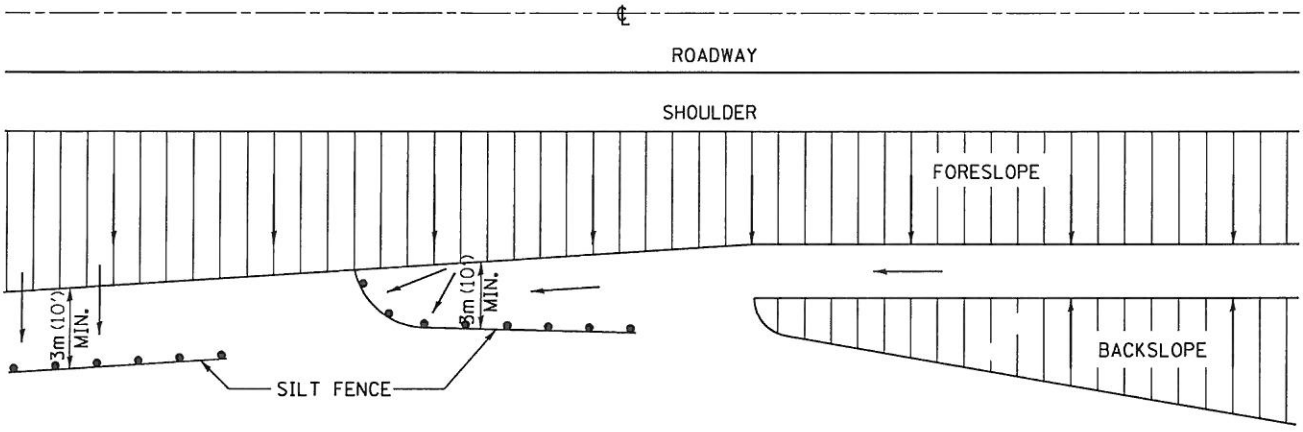



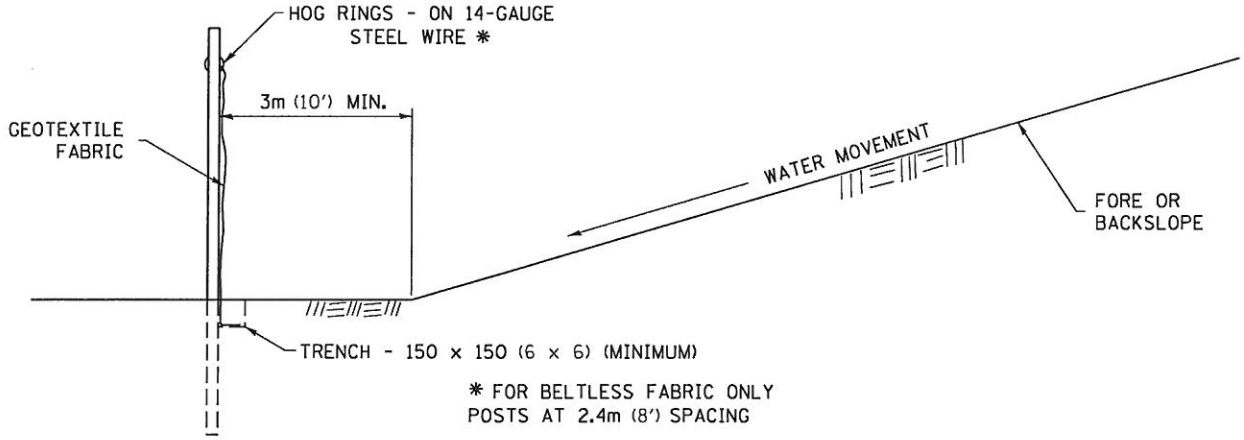

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

PLOT DATE = 7/13/2016

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| REVISED - 11-12-14 | **REGION 2 / DISTRICT 2 STANDARD** | | | | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| REVISED - 10-03-11 | | | | | | | | | |
| REVISED - | | | | | | | CONTRACT NO. | | |
| REVISED - | SCALE: 1.5455 " / in. | SHEET NO. | OF | SHEETS | STA. | TO STA. | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT |

# EROSION CONTROL DETAILS FOR SILT FENCE



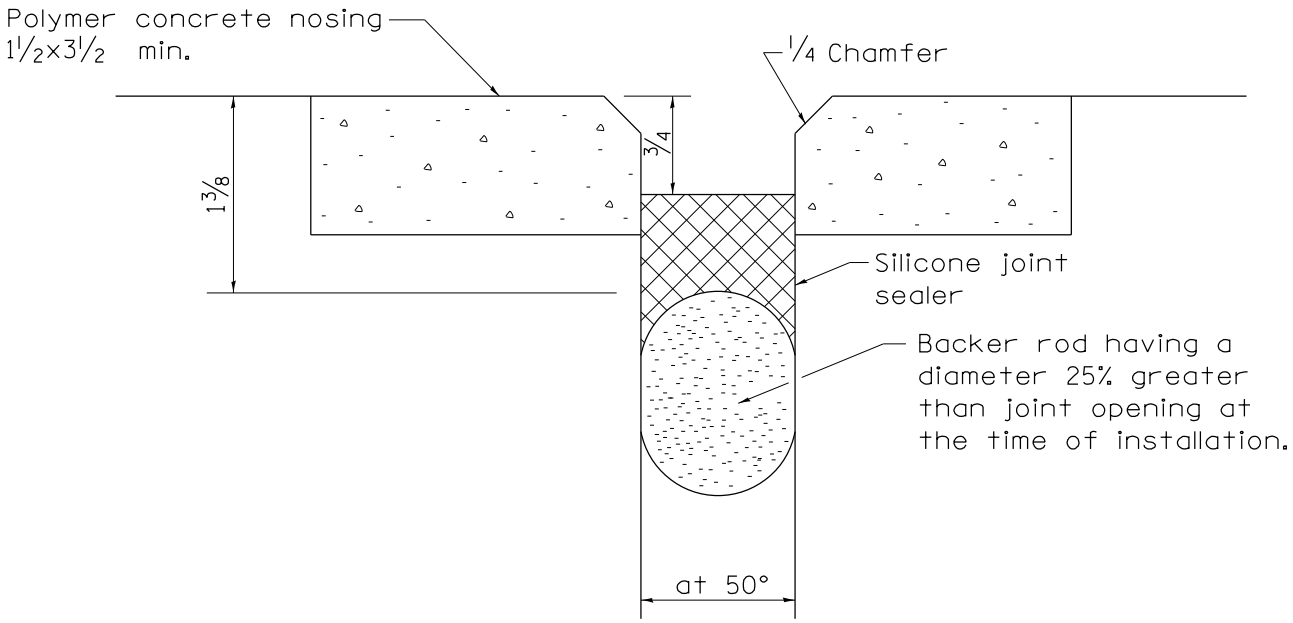

DETAILS OF SILT FENCE

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

| | | | | | | |
|---|---|---|---|---|---|---|
| REVISED - 10-22-01 | REGION 2 / DISTRICT 2 STANDARD | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| REVISED - | | | | | | |
| REVISED - | | | | CONTRACT NO. | | |
| REVISED - | SCALE: 1.0000 ' / IN. SHEET NO. OF SHEETS STA. TO STA. | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

PLOT DATE = Fri Sep 18 09:38:21 2009

# SILICONE JOINT SEAL (CONCRETE DETAILS)

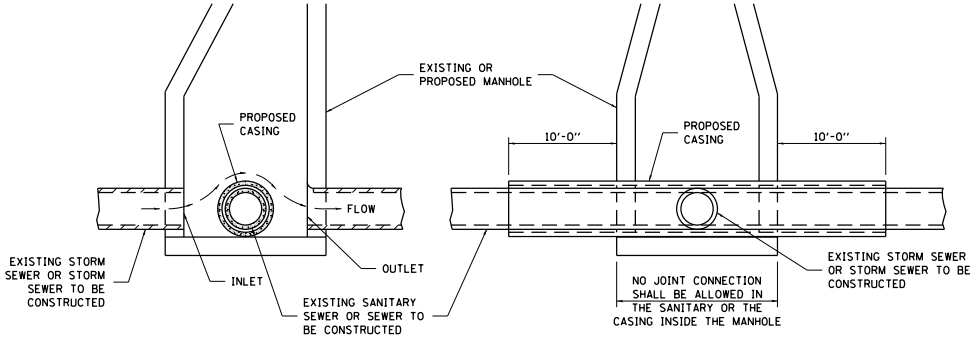



ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

PLOT DATE = 7/13/2016

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| REVISED - 10-03-11 | REGION 2 / DISTRICT 2 STANDARD | | | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS / SHEET NO. |
| REVISED - | | | | | | | |
| REVISED - | | | | | | CONTRACT NO. | |
| REVISED - | SCALE: 1.5455 " / in. | SHEET NO. OF SHEETS | STA. TO STA. | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | |

# SEWER AND WATER MAIN CROSSINGS




ELEVATION - ECCENTRIC

ELEVATION - CONCENTRIC

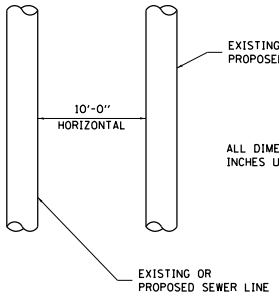
CASING SHALL BE CAST IRON WITH AN INSIDE DIAMETER 2" LARGER IN DIAMETER THAN ENCASED PIPE OUTSIDE DIAMETER WITH BOTH ENDS OF CASING SEALED

**AT GRADE CROSSING OF SANITARY AND STORM SEWER**

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

THIS DETAIL IS FOR UNKNOWN UTILITIES UNLESS QUANTITIES ARE INCLUDED IN THE PLANS THE EXTRA WORK WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04.

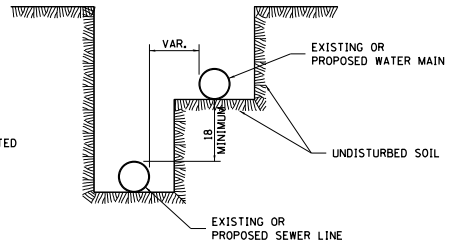
WHEN PROPOSED SEWER (OR WATER) IS LOCATED 10'-0" OR MORE FROM EXISTING WATER (OR SEWER) NO SPECIAL CONSTRUCTION REQUIRED.




ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

PLAN VIEW

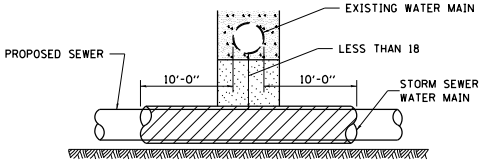
WHEN PROPOSED SEWER (OR WATER) IS LOCATED LESS THAN 10'-0" FROM EXISTING WATER (OR SEWER) DETAILS BELOW SHALL APPLY.




**WATER AND SEWER HORIZONTAL SEPARATION REQUIREMENTS**

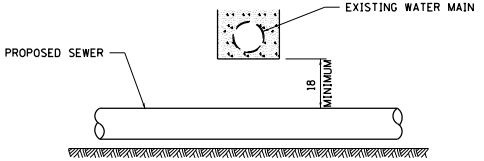
POINT LOADS SHALL NOT BE ALLOWED BETWEEN SEWER OR SEWER CASING AND WATER MAIN

PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH




PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH

MAINTAIN 18 MINIMUM VERTICAL SEPARATION FOR 10 FT. HORIZONTALLY

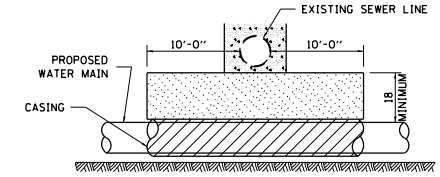



ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

**PROPOSED SEWER LINE BELOW EXISTING WATER MAIN**

PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE TO PREVENT DAMAGE DUE TO SETTLEMENT

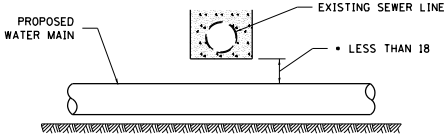
PLACE TRENCH BACKFILL FOR 10 FT. ON EITHER SIDE OF SEWER LINE




CASING SHALL BE CAST IRON WITH AN INSIDE DIAMETER 2" LARGER IN DIAMETER THAN ENCASED PIPE OUTSIDE DIAMETER WITH BOTH ENDS OF CASING SEALED

PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH

MAINTAIN 18 MINIMUM VERTICAL SEPARATION FOR 10 FT. HORIZONTALLY

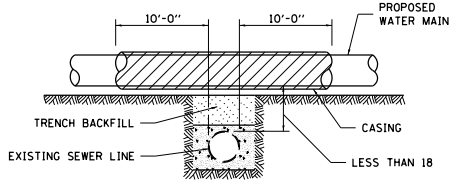



• NOT ALLOWED
MUST MAINTAIN 18 VERTICAL SEPARATION

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

**PROPOSED WATER MAIN BELOW EXISTING SEWER LINE**

POINT LOADS SHALL NOT BE ALLOWED BETWEEN WATER MAIN OR WATER MAIN CASING AND SEWER

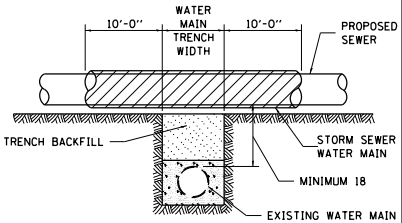



CASING SHALL BE CAST IRON WITH AN INSIDE DIAMETER 2" LARGER IN DIAMETER THAN ENCASED PIPE OUTSIDE DIAMETER WITH BOTH ENDS OF CASING SEALED

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

**PROPOSED WATER MAIN ABOVE EXISTING SEWER LINE**

PROVIDE ADEQUATE SUPPORT FOR SEWER TO PREVENT SETTLING AND BREAKING THE WATER MAIN.




ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

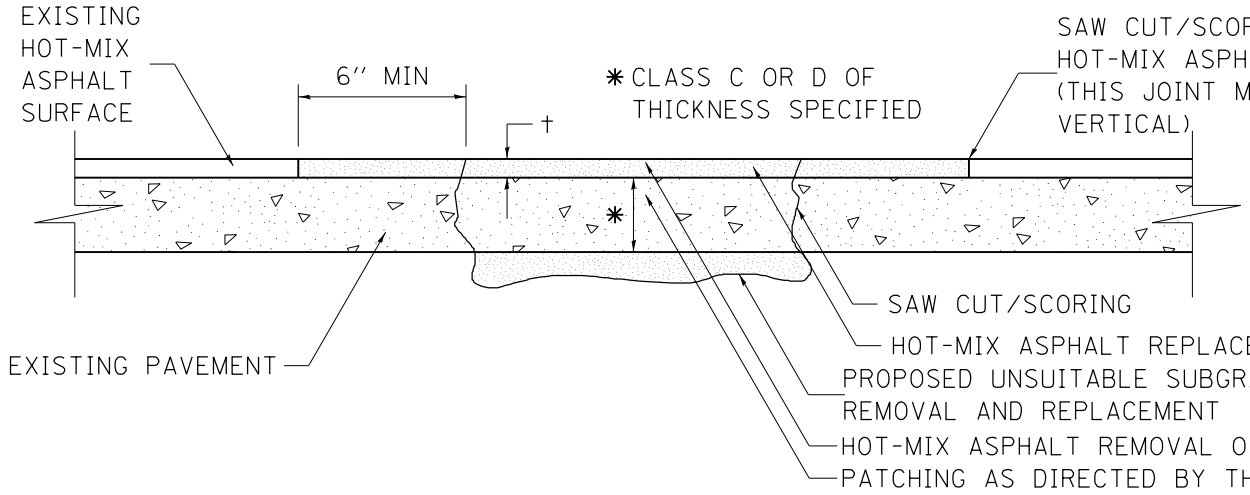
**EXISTING WATER MAIN BELOW PROPOSED SEWER LINE WITH MINIMUM 18 VERTICAL SEPARATION**

| | | | | | |
|---|---|---|---|---|---|
| FILE NAME = District 2 Standard | USER NAME = IDOT/District 2 | DESIGNED - | REVISED - 10-17-11 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | REGION 2 / DISTRICT 2 STANDARD |
| | | DRAWN - | REVISED - | | |
| | PLOT SCALE = 3.0909 ' / in. | CHECKED - | REVISED - | | |
| | PLOT DATE = 7/13/2016 | DATE - | REVISED - | | |

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| | | | | |
| | | CONTRACT NO. | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

# PAVEMENT PATCHING FOR HOT–MIX ASPHALT SURFACED PAVEMENT




**LIFT PLACEMENT:**

† < 4'' MAY BE PLACED IN ONE LIFT.

† > 4'' TO BE PLACED IN TWO LIFTS WITH 2'' MIN. COMPACTED TOP LIFT.

**SEQUENCE OF CONSTRUCTION:**

1. REMOVE THE EXISTING HOT-MIX ASPHALT SURFACE.
2. RESIDENT ENGINEER WILL DETERMINE IF LOCATION IS TO BE PATCHED OR TO ONLY REPLACE HOT-MIX ASPHALT SURFACE.
3. REMOVE AND REPLACE FULL DEPTH PATCHES AT LOCATIONS DIRECTED BY THE ENGINEER.
4. REPLACE HOT-MIX ASPHALT SURFACE OVER FULL DEPTH PATCHES AND AT LOCATIONS OF HOT-MIX ASPHALT SURFACE REMOVAL.

**GENERAL NOTES:**

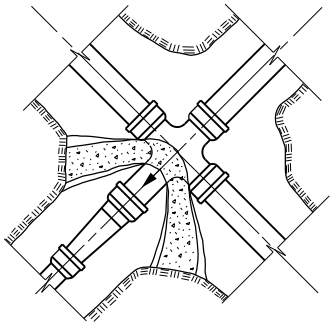
1. FOR BASIS OF PAYMENT: SEE THE RECURRING SPECIAL PROVISION ''PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL''.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

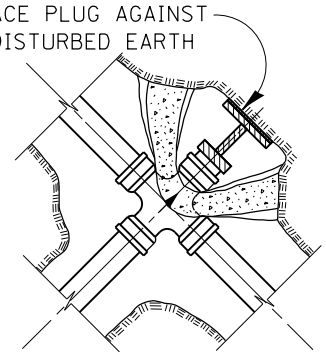
PLOT DATE = 7/13/2016

| | | | | | |
|---|---|---|---|---|---|
| REVISED - 10-03-11 | **REGION 2 / DISTRICT 2 STANDARD** | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS / SHEET NO. |
| REVISED - | | | | | |
| REVISED - | | | | CONTRACT NO. | |
| REVISED - | SCALE: 1.5455 '' / in. / SHEET NO. OF SHEETS / STA. / TO STA. | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | |

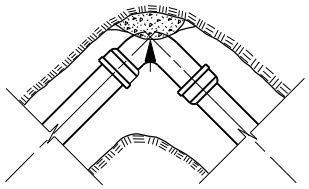
# THRUST BLOCK DETAILS



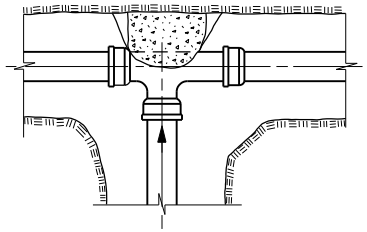
REDUCING CROSS



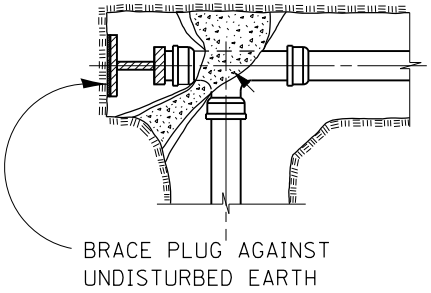

PLUGGED CROSS



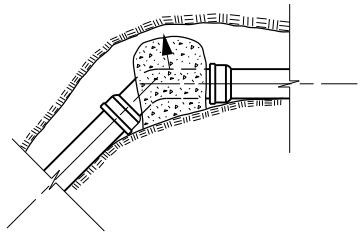
90° ELBOW



TEE




PLUGGED TEE



VERTICAL BEND

NOTES:
ALL BLOCKS TO BEAR AGAINST UNDISTURBED EARTH.
ARROWS INDICATE DIRECTION OF THRUST.
ALL BLOCKS TO BE CLASS SI CONCRETE.
ALL FITTINGS SHOWN IN PLAN EXCEPT VERTICAL BEND.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

PLOT DATE = 7/13/2016

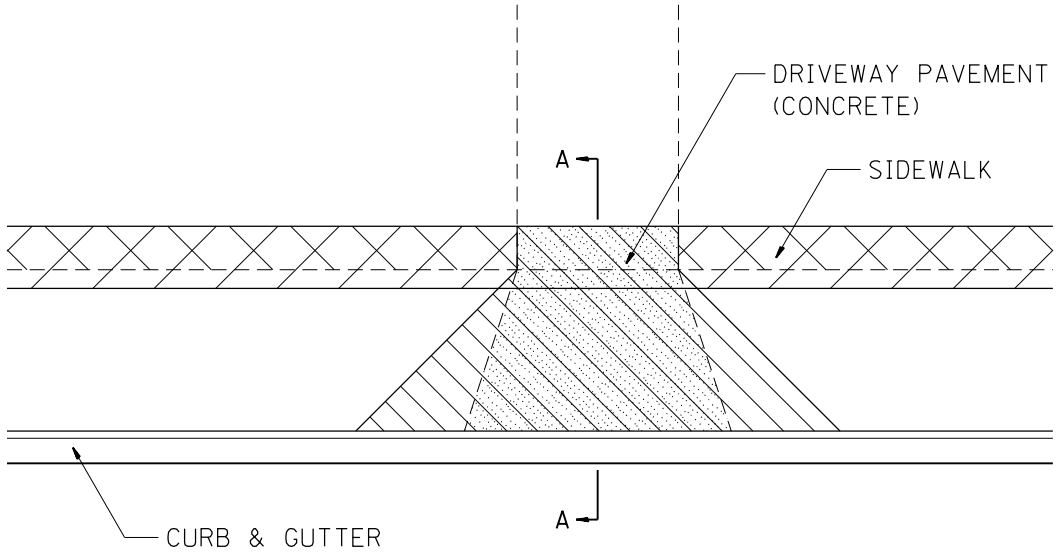
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| REVISED - 10-03-11 | **REGION 2 / DISTRICT 2 STANDARD** | | | | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| REVISED - | | | | | | | | | |
| REVISED - | | | | | | | CONTRACT NO. | | |
| REVISED - | SCALE: 1.5455 " / in. | SHEET NO. OF SHEETS | STA. | TO STA. | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

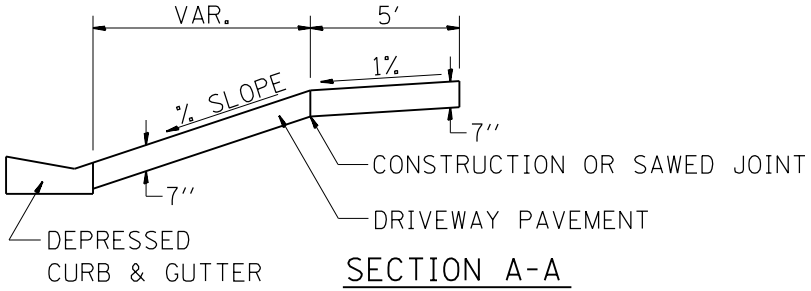
**THRUST BLOCK DETAILS** **34.4**

# SIDEWALK AND DRIVEWAY PAVEMENT PAY AREAS

PAY FOR AS

- SIDEWALK REMOVAL
- DRIVEWAY PAVEMENT REMOVAL
- PCC SIDEWALK 5
- PCC DRIVEWAY PAVEMENT 7




SECTION A-A

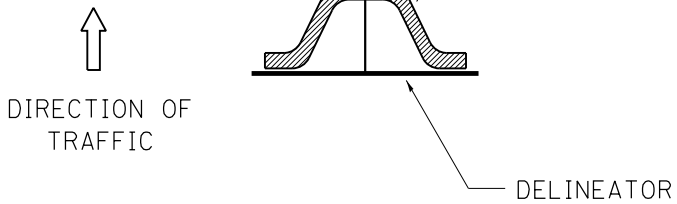
FOR DETAILS ON DIMENSIONS AND GRADES, SEE DISTRICT STANDARD 25.1 OR PLANS.

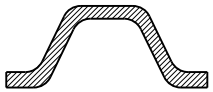
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

PLOT DATE = 7/13/2016

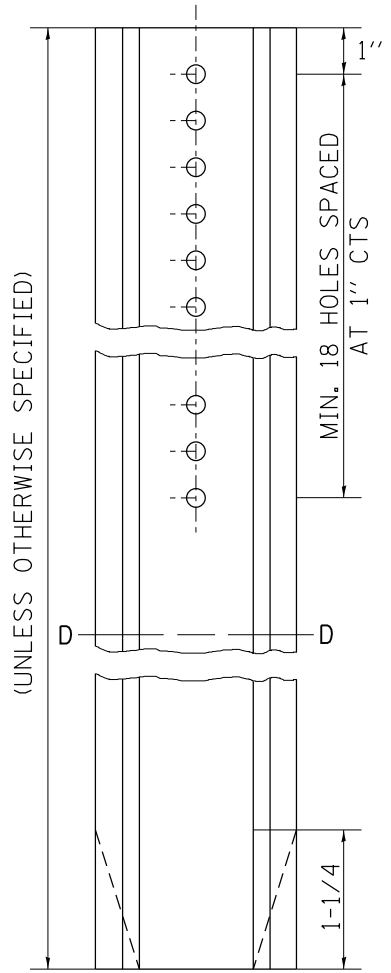
| | | | | | |
|---|---|---|---|---|---|
| REVISED - 6-27-14 | **REGION 2 / DISTRICT 2 STANDARD** | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS / SHEET NO. |
| REVISED - 10-03-11 | | | | | |
| REVISED - | | | | CONTRACT NO. | |
| REVISED - | SCALE: 1.5455 '/ in. / SHEET NO. OF SHEETS / STA. / TO STA. | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | |

# DELINEATOR AND POST ORIENTATION



SECTION D-D



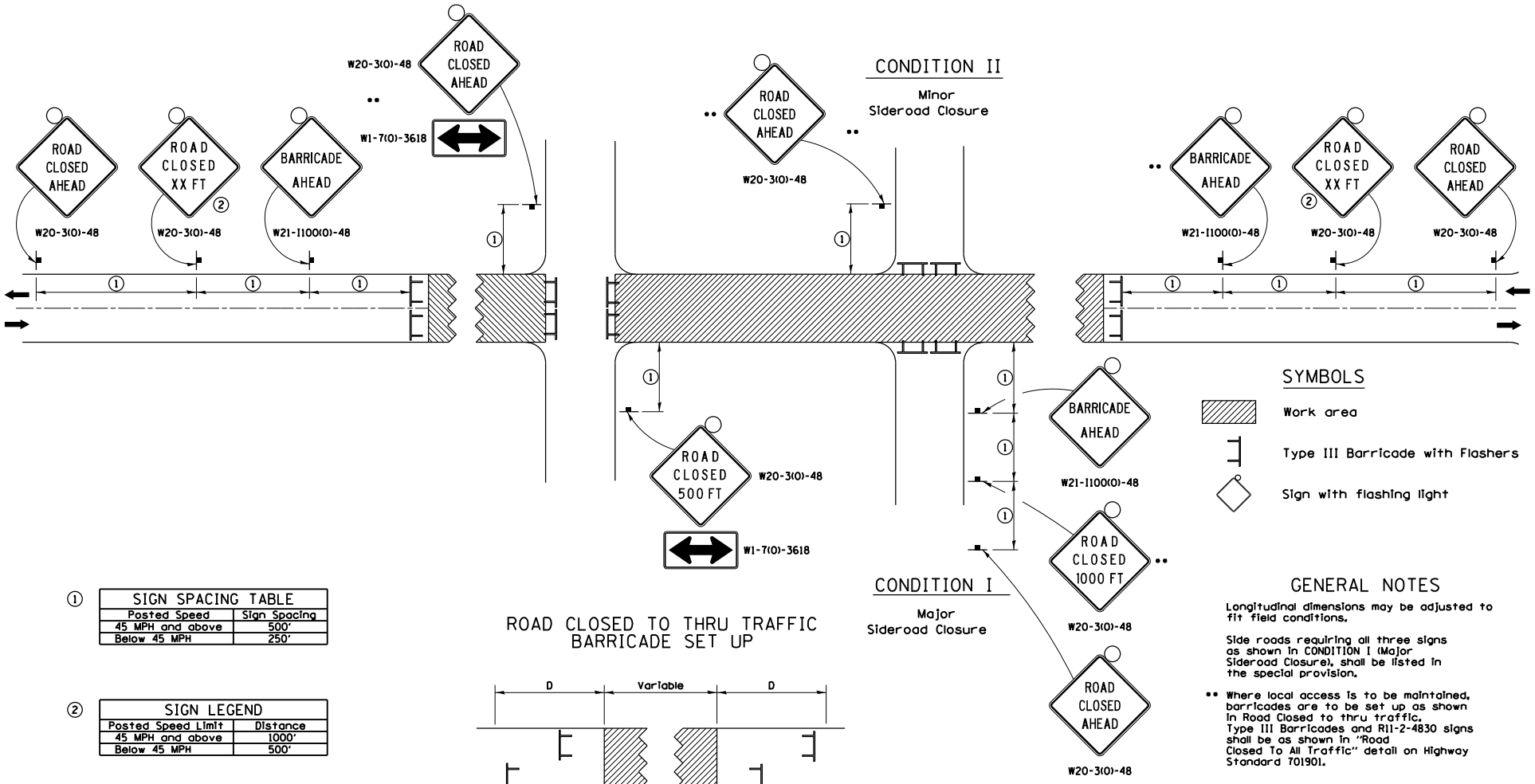

DELINEATORS SHALL BE INSTALLED ACCORDING TO STANDARD 635001 EXCEPT THAT THE POST SHALL BE ROTATED 180° . THE POST WILL HAVE THE WIDE SIDE FACING TRAFFIC AND THE DELINEATOR ATTACHECD AS SHOWN ABOVE.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

PLOT DATE = 7/13/2016

| | | | | | |
|---|---|---|---|---|---|
| REVISED - 10-03-11 | **REGION 2 / DISTRICT 2 STANDARD** | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS / SHEET NO. |
| REVISED - | | | | | |
| REVISED - | | | | CONTRACT NO. | |
| REVISED - | SCALE: 1.5455 '/ in. / SHEET NO. OF SHEETS / STA. / TO STA. | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | |

# TRAFFIC CONTROL FOR ROAD CLOSURE




① SIGN SPACING TABLE

| Posted Speed | Sign Spacing |
|---|---|
| 45 MPH and above | 500' |
| Below 45 MPH | 250' |

② SIGN LEGEND

| Posted Speed Limit | Distance |
|---|---|
| 45 MPH and above | 1000' |
| Below 45 MPH | 500' |

## ROAD CLOSED TO THRU TRAFFIC BARRICADE SET UP




Type III Barricades and R11-4-4830 signs shall be as shown in "Road Closed To Thru Traffic" detail on Highway Standard 701901. If the distance "D" exceeds 2000' an additional set of barricades and R11-4-4830 shall be placed at each end of the work area.

## GENERAL NOTES

Longitudinal dimensions may be adjusted to fit field conditions.

Side roads requiring all three signs as shown in CONDITION I (Major Sideroad Closure), shall be listed in the special provision.

•• Where local access is to be maintained, barricades are to be set up as shown in Road Closed to thru traffic. Type III Barricades and R11-2-4830 signs shall be as shown in "Road Closed To All Traffic" detail on Highway Standard 701901.

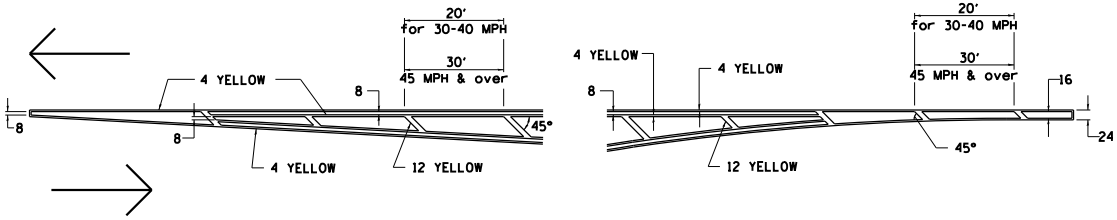
All dimensions are in inches unless otherwise shown.

TYPICAL APPLICATION FOR ROAD CLOSURE

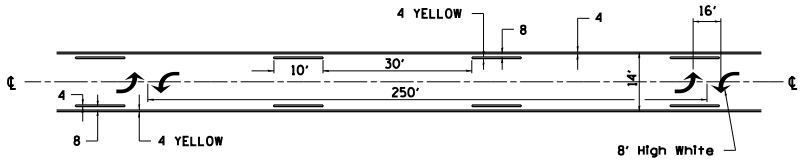
| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| FILE NAME = District 2 Standard | USER NAME = IDOT/District 2 | DESIGNED - | REVISED - 1-05-16 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | REGION 2 / DISTRICT 2 STANDARD | | | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | | DRAWN - | REVISED - 8-27-13 | | | | | | | | | |
| | PLOT SCALE = 3.0909 ' / in. | CHECKED - | REVISED - 10-17-11 | | | | | | | CONTRACT NO. | | |
| | PLOT DATE = 7/13/2016 | DATE - | REVISED - | | SCALE: | SHEET NO. OF SHEETS | STA. TO STA. | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

# TYPICAL PAVEMENT MARKINGS

## TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN AT LEFT TURN LANE

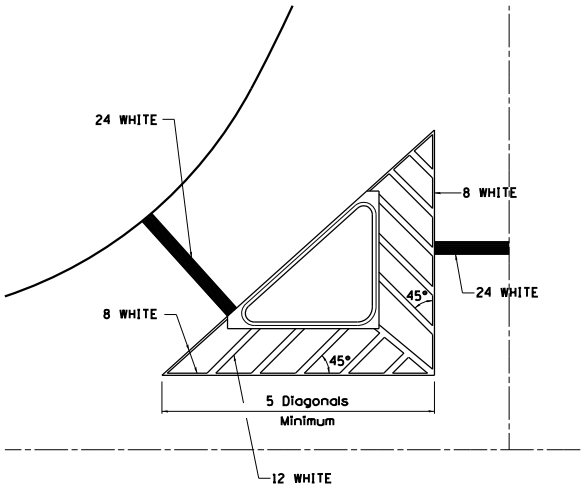



## MEDIAN PAVEMENT MARKING

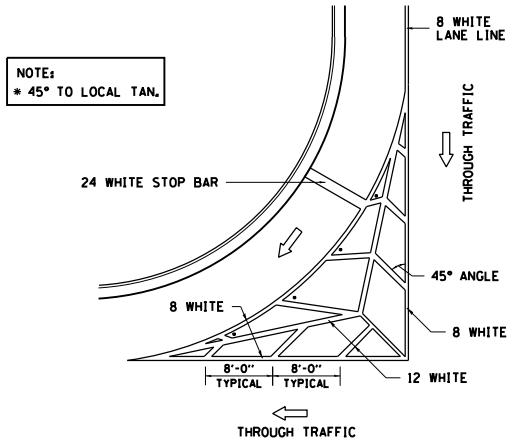



•• ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

## TYPICAL ISLAND OFFSET SHOULDER WIDTH

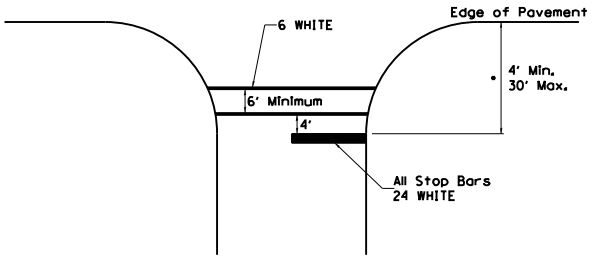



## TYPICAL MARKING FOR PAINTED ISLANDS




## STANDARD CROSSWALK MARKING

See Schedules for Locations

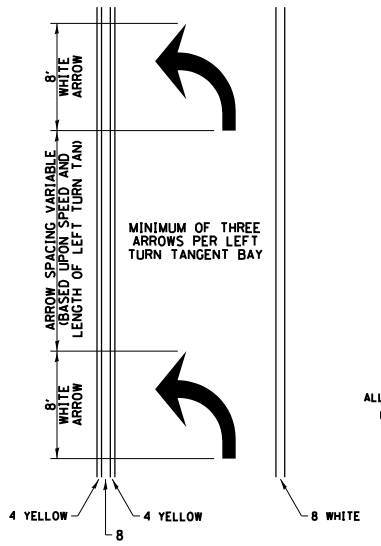


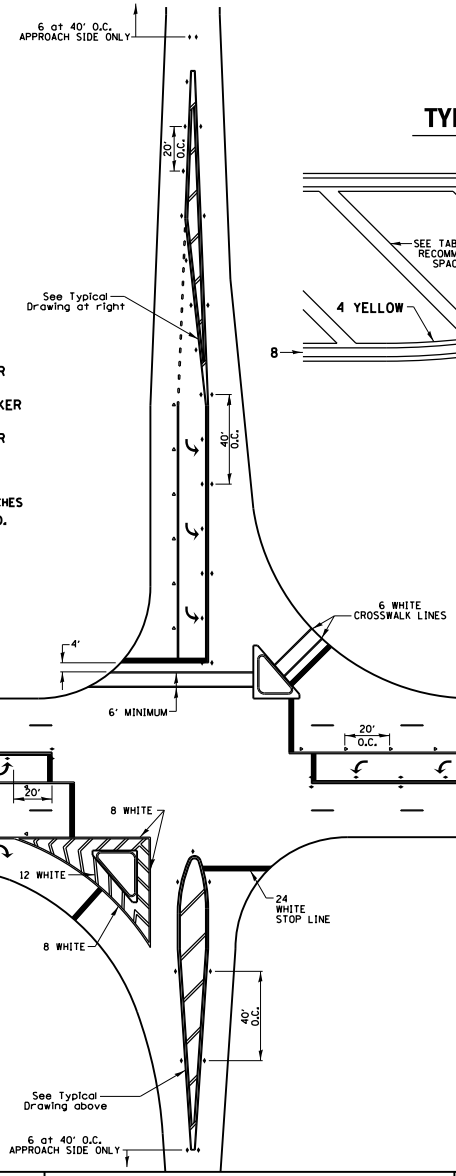

• Distance to the nearest edge of the intersecting roadway in the absence of a marked crosswalk.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| FILE NAME = District 2 Standard | USER NAME = IDOT/District 2 | DESIGNED - | REVISED - 6-27-14 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | REGION 2 / DISTRICT 2 STANDARD | F.A. RTE. | SECTION / COUNTY / TOTAL SHEETS / SHEET NO. |
| | | DRAWN - | REVISED - 3-05-12 | | | | |
| | PLOT SCALE = 3.0909 ' / in. | CHECKED - | REVISED - | | | | CONTRACT NO. |
| | PLOT DATE = 7/13/2016 | DATE - | REVISED - | | SCALE: / SHEET NO. OF SHEETS / STA. / TO STA. | FED. ROAD DIST. NO. | ILLINOIS / FED. AID PROJECT |

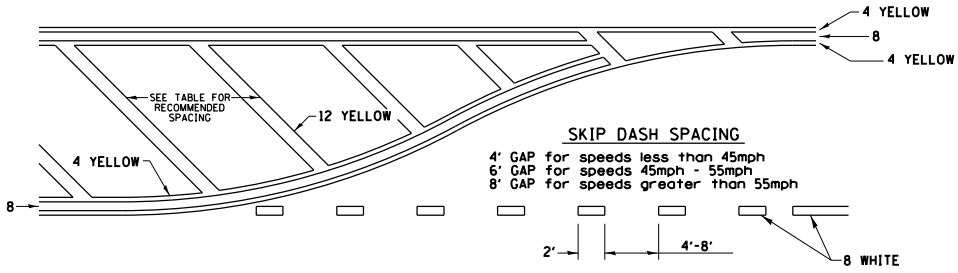
# TYPICAL PAVEMENT MARKINGS

## ARROW LAYOUT



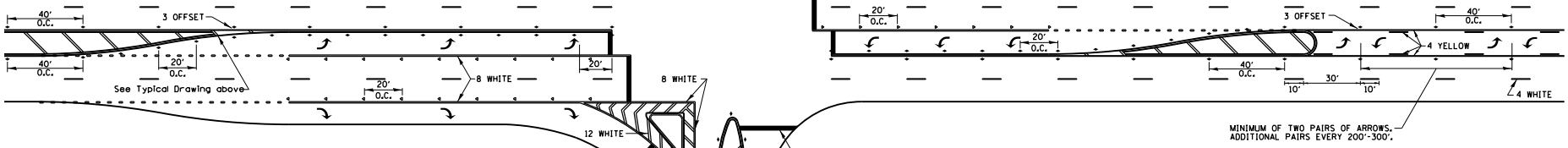

## TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN




## RECOMMENDED SPACING BETWEEN DIAGONALS (IN FEET)

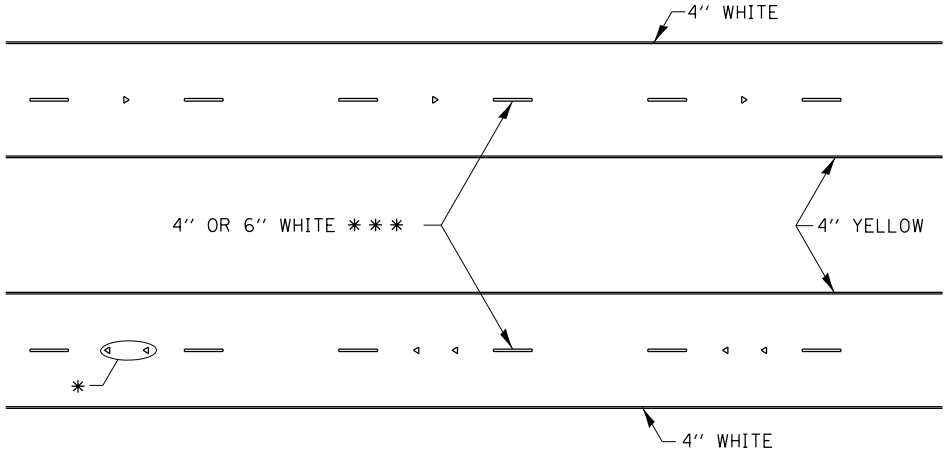
| Speed Limit Range | Continuous Median Area | Intersection Channelization | Objects (Islands) |
|---|---|---|---|
| less than 30MPH | 50' | 15' | 10' |
| 30-40MPH | 75' | 20' | 15' |
| 45MPH & over | 75' | 30' | 20' |

NOTE: If the spacing recommended in the Table does not permit at least five diagonal lines in the area being marked, the spacing from the next lowest speed range should be used. The recommended spacing is measured parallel to the pavement center line.



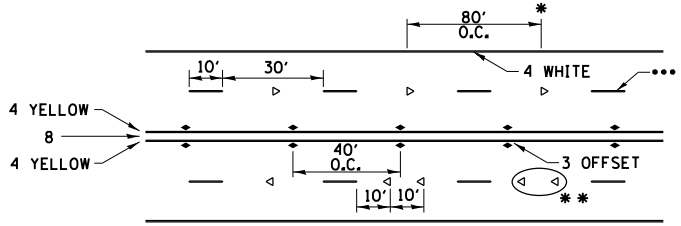

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| FILE NAME = District 2 Standard | USER NAME = IDOT/District 2 | DESIGNED - | REVISED - 6-27-14 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | REGION 2 / DISTRICT 2 STANDARD | F.A. RTE. | SECTION / COUNTY / TOTAL SHEETS / SHEET NO. |
| | | DRAWN - | REVISED - 3-05-12 | | | | |
| | PLOT SCALE = 3.0909 ' / in. | CHECKED - | REVISED - | | | | CONTRACT NO. |
| | PLOT DATE = 7/13/2016 | DATE - | REVISED - | | SCALE: SHEET NO. OF SHEETS STA. TO STA. | FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT |

# TYPICAL PAVEMENT MARKINGS




* SEE HIGHWAY STANDARD 781001 FOR SPACING DETAILS.
USE DOUBLE MARKERS WHEN ADT > 20,000.

## MULTI–LANE / DIVIDED



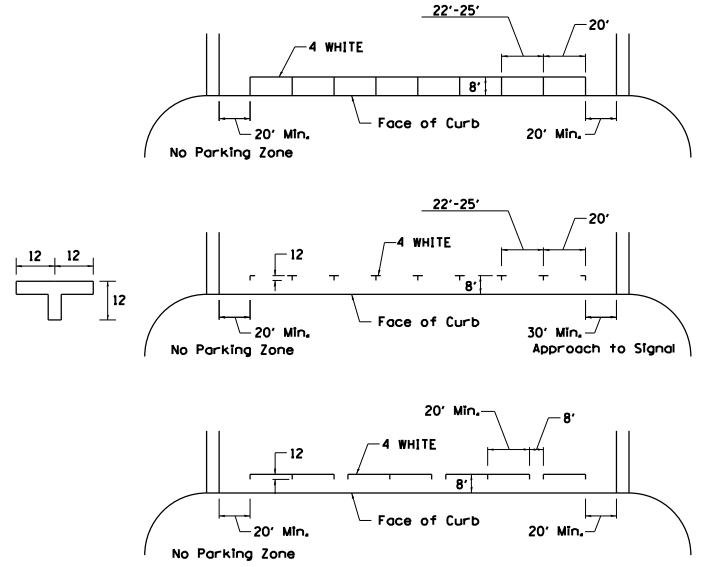

SYMBOLS

- REDUCE TO 40' O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 MPH LOWER THAN POSTED SPEEDS.
- ** USE DOUBLE MARKERS WHEN ADT ≥ 20,000
- *** CENTERLINE SKIP DASH PAVEMENT MARKING SPEED LIMIT LESS THAN 40 MPH USE 4'' LINE. SPEED LIMIT 40 MPH AND OVER USE 6'' LINE.

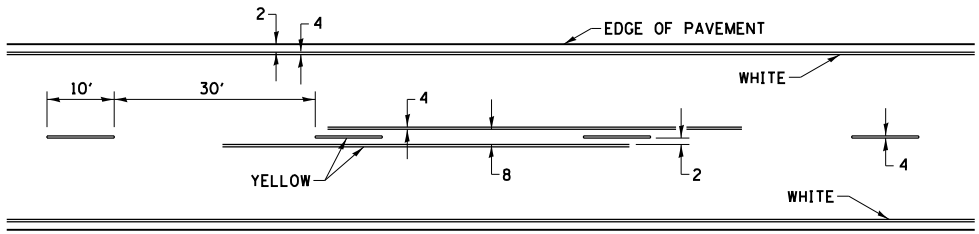
## MULTI–LANE / UNDIVIDED & ONE WAY

(FOR MULTI-LANE UNDIVIDED HIGHWAYS USE THIS DETAIL NOT HIGHWAY STANDARD 781001)

## TYPICAL PARKING SPACING



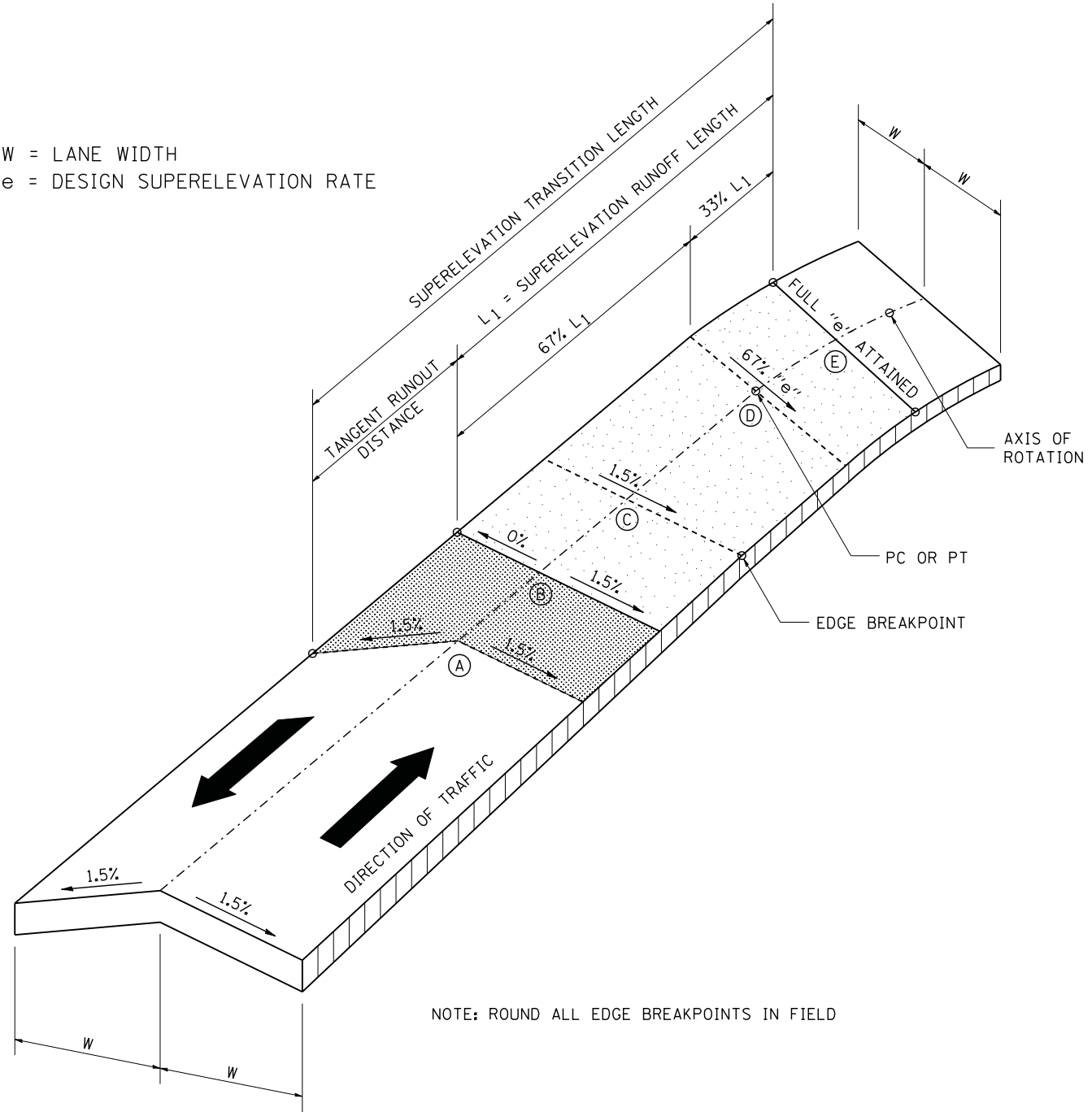

## TYPICAL PAVEMENT MARKING FOR TWO LANE SECTION – NO PASSING ZONES




| | | | | | | | |
|---|---|---|---|---|---|---|---|
| FILE NAME = District 2 Standard | USER NAME = IDOT/District 2 | DESIGNED - | REVISED - 6-27-14 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | REGION 2 / DISTRICT 2 STANDARD | F.A. RTE. | SECTION / COUNTY / TOTAL SHEETS / SHEET NO. |
| | | DRAWN - | REVISED - 8-27-13 | | | | |
| | PLOT SCALE = 3.0909 ' / in. | CHECKED - | REVISED - 11-28-12 | | | | CONTRACT NO. |
| | PLOT DATE = 7/13/2016 | DATE - | REVISED - | | SCALE: SHEET NO. OF SHEETS STA. TO STA. | FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT |

# SUPERELEVATION TRANSITION ON TWO–LANE HIGHWAY

W = LANE WIDTH
e = DESIGN SUPERELEVATION RATE




NOTE: ROUND ALL EDGE BREAKPOINTS IN FIELD

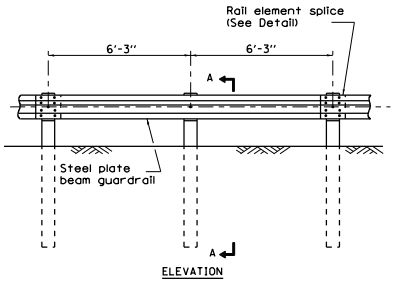
## TRANSITION CURVE TABLE

| CURVE PI STA. | SUPERELEVATION "e" | W | SUPERELEVATION TRANSITION LENGTH | TANGENT RUNOUT DISTANCE | SUPERELEVATION RUNOFF LENGTH |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| REVISED - 11-09-06 | REGION 2 / DISTRICT 2 STANDARD | | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| REVISED - | | | | | | | |
| REVISED - | | | | | CONTRACT NO. | | |
| REVISED - | SCALE: 1.0000 ' / IN. | SHEET NO. OF SHEETS STA. TO STA. | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

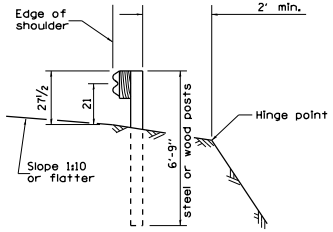
PLOT DATE = Fri Sep 18 09:30:37 2009

# REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL

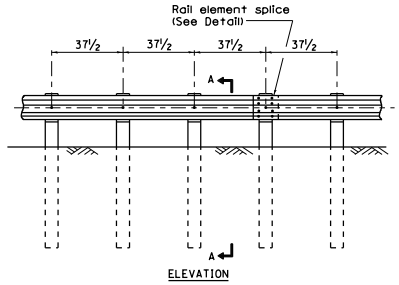



TYPE A

6'-3" Typical post spacing

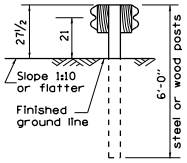



SECTION A-A

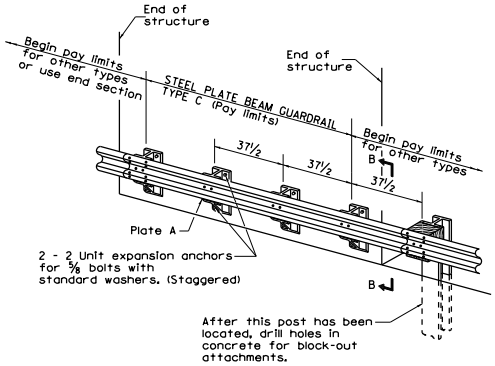



TYPE B

37½ Closed post spacing

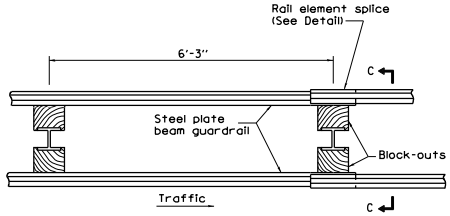



SECTION C-C




TYPE C

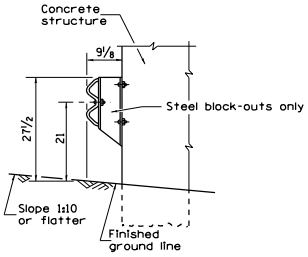
37½ Block-out spacing




PLAN

TYPE D

Double steel plate beam guardrail
6'-3" typical post spacing




SECTION B-B

## GENERAL NOTES

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

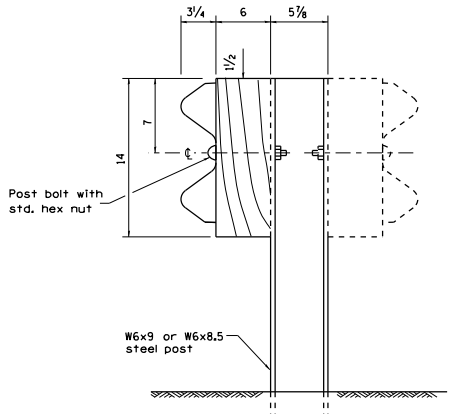
All dimensions are in inches unless otherwise shown.

The existing steel posts may be drilled to match the bolt pattern shown herein for the wood block-out, or a new steel post shall be provided.

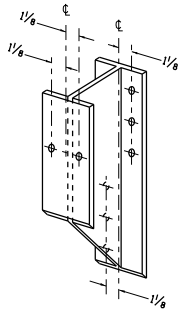
This detail is applicable to the guardrail system used prior to January 1, 2007. For details on the Midwest Guardrail System, see Standard 630001.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| FILE NAME = District 2 Standard | USER NAME = IDOT/District 2 | DESIGNED - | REVISED - 1-05-16 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | REGION 2 / DISTRICT 2 STANDARD | | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | | DRAWN - | REVISED - 10-18-11 | | | | | | | | |
| | PLOT SCALE = 3.0909 ' / in. | CHECKED - | REVISED - | | SCALE: | SHEET NO. OF SHEETS STA. TO STA. | | | CONTRACT NO. | | |
| | PLOT DATE = 7/13/2016 | DATE - | REVISED - | | | | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

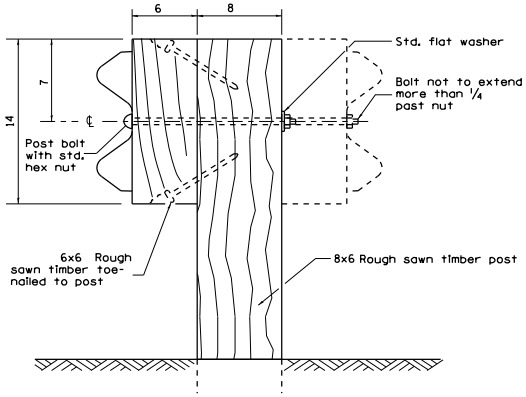
# REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL



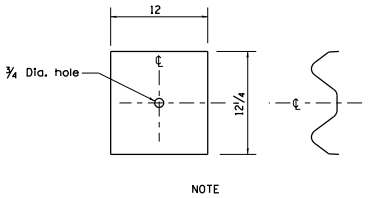

STEEL POST CONSTRUCTION




STEEL BLOCK-OUT DETAIL



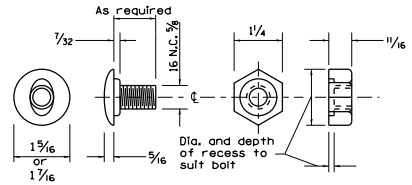

WOOD POST CONSTRUCTION




NOTE

Plate A shall be placed between rail element and block-out at non-splice mounting points only when steel block-outs are used.

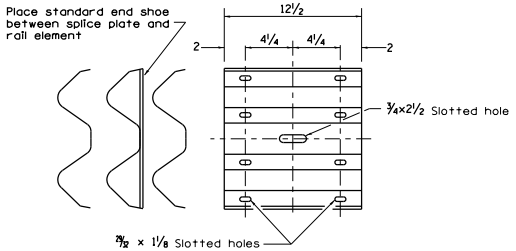
PLATE A



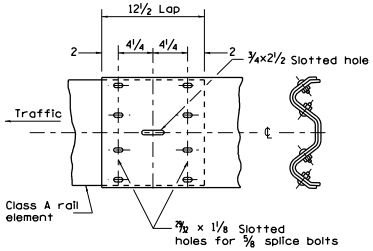

POST OR SPLICE BOLT & NUT

| | | | | | | |
|---|---|---|---|---|---|---|
| FILE NAME = District 2 Standard | USER NAME = IDOT/District 2 | DESIGNED - | REVISED - 1-05-16 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | REGION 2 / DISTRICT 2 STANDARD | F.A. RTE. / SECTION / COUNTY / TOTAL SHEETS / SHEET NO. |
| | | DRAWN - | REVISED - 10-18-11 | | | |
| | PLOT SCALE = 3.0909 ' / in. | CHECKED - | REVISED - | | SCALE: / SHEET NO. OF SHEETS / STA. / TO STA. | CONTRACT NO. |
| | PLOT DATE = 7/13/2016 | DATE - | REVISED - | | | FED. ROAD DIST. NO. / ILLINOIS / FED. AID PROJECT |

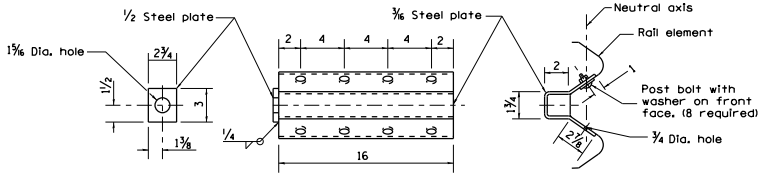
# REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL




SPLICE PLATE



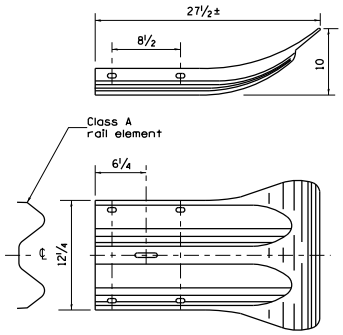

RAIL ELEMENT SPLICE



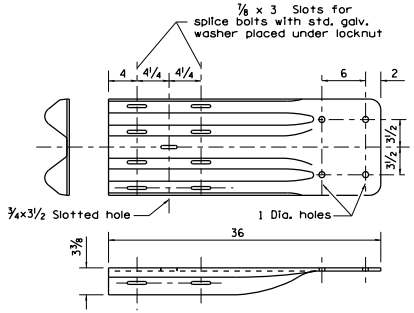

NOTE

Anchor plate T shall be used to attach cable assembly to guardrail when required on traffic barrier terminals.

ANCHOR PLATE T DETAILS




END SECTION



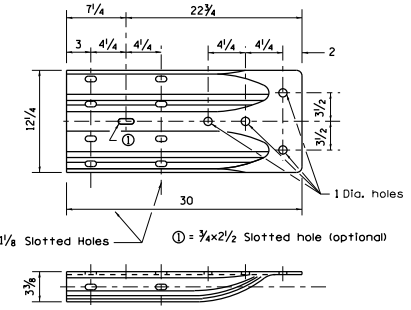

NOTE

When end shoe is attached to a bridge parapet which has an expansion joint, the bolts shall be provided with a locknut or double nut and shall be tightened only to a point that will allow guardrail movement.

The standard end shoe shall be attached to the concrete with pre-drilled or self-drilling anchor bolts. The anchor cone shall be set flush with the surface of the concrete.

Externally threaded studs protruding from the surface of the concrete will not be permitted.

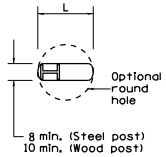
END SHOE



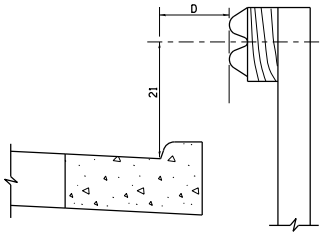

ALTERNATE END SHOE

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| FILE NAME = District 2 Standard | USER NAME = IDOT/District 2 | DESIGNED - | REVISED - 1-05-16 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | REGION 2 / DISTRICT 2 STANDARD | F.A. RTE. | SECTION / COUNTY / TOTAL SHEETS / SHEET NO. |
| | | DRAWN - | REVISED - 10-18-11 | | | | |
| | PLOT SCALE = 3.0909 ' / in. | CHECKED - | REVISED - | | SCALE: / SHEET NO. OF SHEETS / STA. / TO STA. | | CONTRACT NO. |
| | PLOT DATE = 7/13/2016 | DATE - | REVISED - | | | FED. ROAD DIST. NO. | ILLINOIS / FED. AID PROJECT |

# REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL



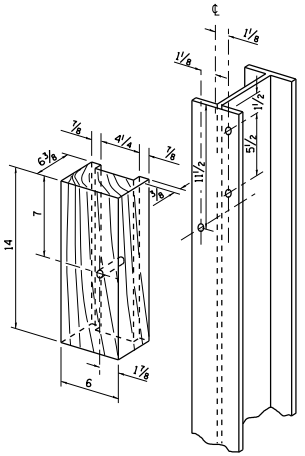

PLAN



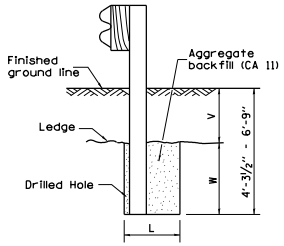

Note:
If it is necessary for D to be more than 12 and less than 10'-0" type M-2 curb and gutter (Std. 606001) shall be used in front of and in advance of the guardrail.

GUARDRAIL PLACED BEHIND CURB

(D = 0 desirable to 12 maximum)




WOOD BLOCK-OUT AND STEEL POST DETAILS

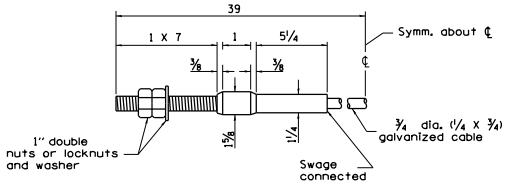



Note:
Ledge line is top of rock ledge or hard slag fill.

ELEVATION

FOOTING FOR POST WHEN IMPERVIOUS MATERIAL IS ENCOUNTERED

| V | W | L | |
|---|---|---|---|
| | | Steel Post | Wood Post |
| 0 - 18 | 24 | 21 | 23 |
| >18 - 41.5 | 12 | 8 | 10 |
| >41.5 - 53.5 | 12 - 0 | 8 | 10 |

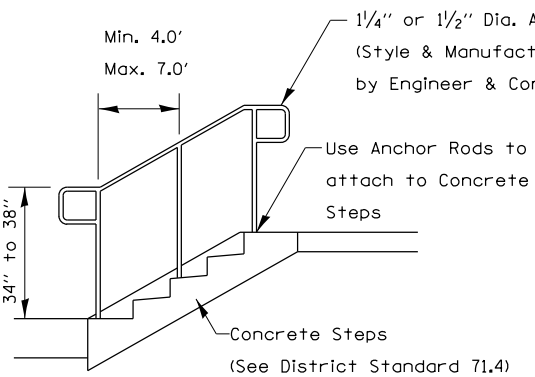



CABLE ASSEMBLY

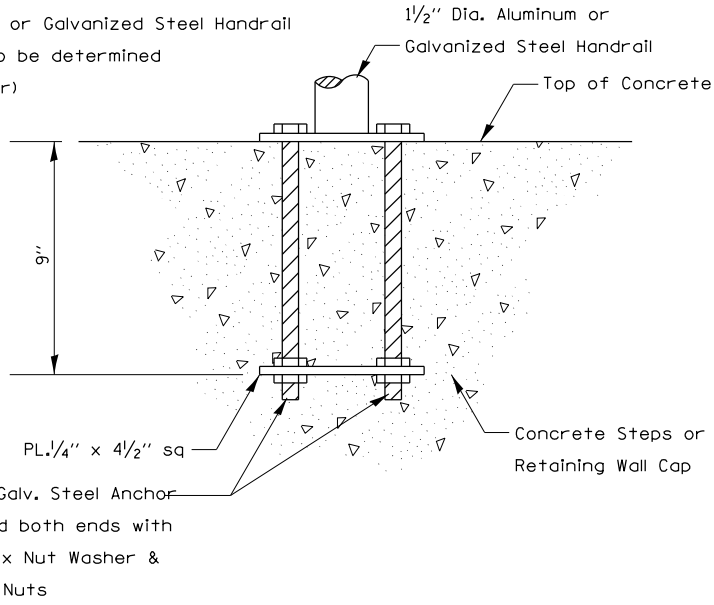
(40,000 lbs. min. breaking strength)
Tighten to taut tension.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| FILE NAME = District 2 Standard | USER NAME = IDOT/District 2 | DESIGNED - | REVISED - 1-05-16 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | REGION 2 / DISTRICT 2 STANDARD | | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | | DRAWN - | REVISED - 10-18-11 | | | | | | | | |
| | PLOT SCALE = 3.0909 ' / in. | CHECKED - | REVISED - | | SCALE: | SHEET NO. OF SHEETS STA. TO STA. | | | CONTRACT NO. | | |
| | PLOT DATE = 7/13/2016 | DATE - | REVISED - | | | | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

# PIPE HANDRAILS FOR STEPS

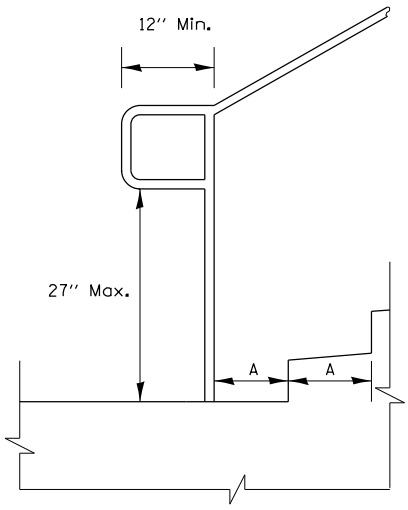



HANDRAIL FOR CONCRETE STEPS

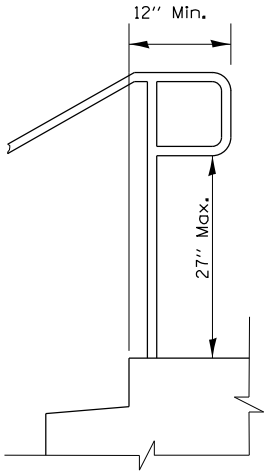



ANCHOR ROD DETAIL

(Included in the cost of Hand or Safety Rail)




Extension at Bottom of Run Detail




Extension at Top of Run Detail

Notes:

Stairways shall have continuous handrails both sides of all stairs.

The inside handrail on switchback or dogleg stairs shall always be continuous.

Gripping surfaces shall be uninterrupted by newel posts, other construction elements, or obstructions.

Ends of handrail shall be either rounded or returned smoothly to floor, wall, or post.

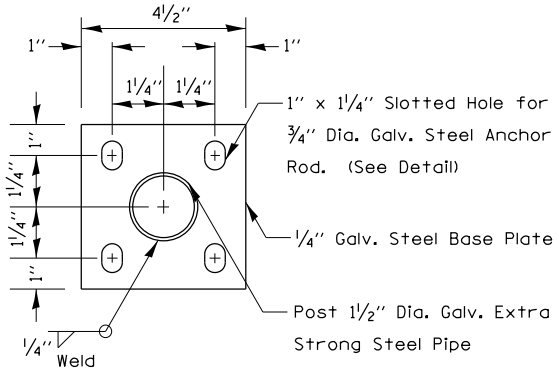
Hand & safety rails shall not rotate within their fittings.

The clear space between hanrails and any wall shall be 1½"

Handrail shall conform to Section 509 with the exception that all pipe and connections shall be welded galvanized or aluminum according to Article 1006.30, or 1006.34.

The diameter of the gripping surface of the handrail shall be 1-1/4" to 1-1/2"

This work shall be paid for at the contract unit price per FOOT for PIPE HANDRAIL.



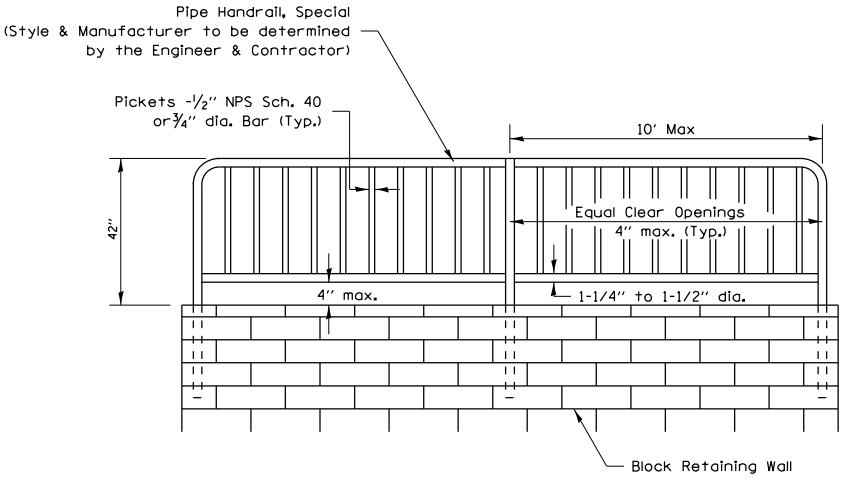

POST BASE PLATE DETAIL

(Included in the cost of Hand or Safety Rail)

PLOT DATE = 7/13/2016

| | | | | | |
|---|---|---|---|---|---|
| REVISED - 1-05-16 | REGION 2 / DISTRICT 2 STANDARD | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS / SHEET NO. |
| REVISED - 10-14-11 | | | | | |
| REVISED - | | | | CONTRACT NO. | |
| REVISED - | SCALE: 2.0000 ' / in. SHEET NO. OF SHEETS STA. TO STA. | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | |

# PIPE HANDRAIL, SPECIAL – FOR RETAINING WALLS




PIPE HANDRAIL, SPECIAL - FOR RETAINING WALL

(See details for installation options)

Notes:

Gripping surfaces shall be uninterrupted by construction elements, or obstructions.

Ends of handrail shall be rounded.

Handrail shall not rotate within their fittings.

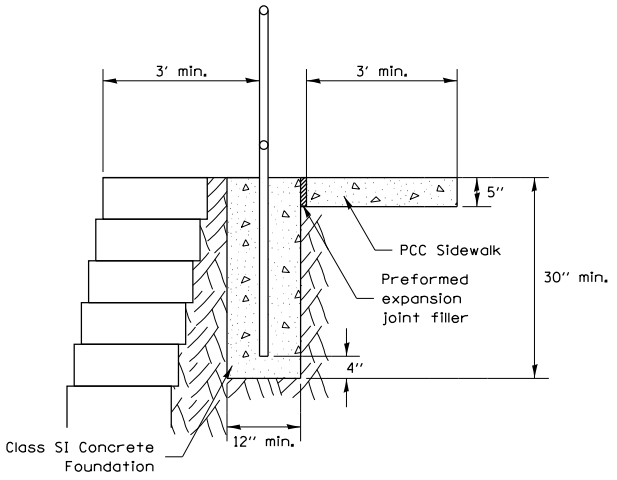
Handrail shall conform to Section 509 with the exception that all pipe and connections shall be welded galvanized or aluminum according to Article 1006.30, or 1006.34.

The diameter of the gripping surface of the handrail shall be 1-1/4" to 1-1/2"

Handrail required when wall height difference is 4' or greater

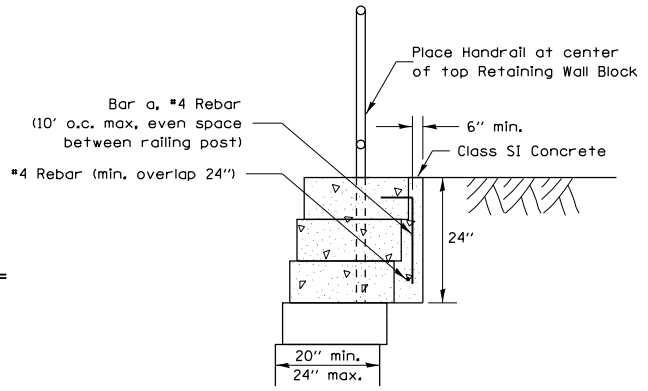
Drilling of blocks will be necessary for reinforcement placement.

This work shall consist of furnishing and erecting Handrails as listed above and according to this detail. This work shall be paid for at the contract UNIT price per FOOT for PIPE HANDRAIL, SPECIAL.



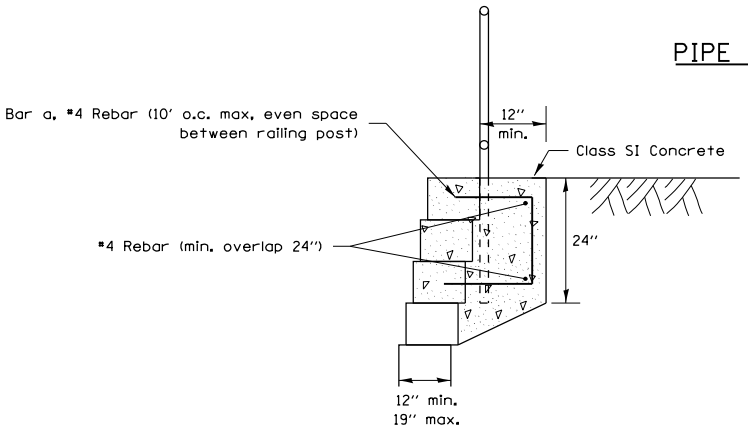

PIPE HANDRAIL, SPECIAL - FOR RETAINING WALL

(Option 1)



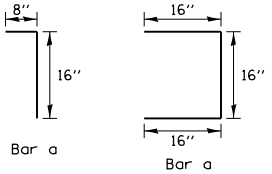

PIPE HANDRAIL, SPECIAL - FOR RETAINING WALL

(Option 2-Block depth greater than 20")




PIPE HANDRAIL, SPECIAL - FOR RETAINING WALL

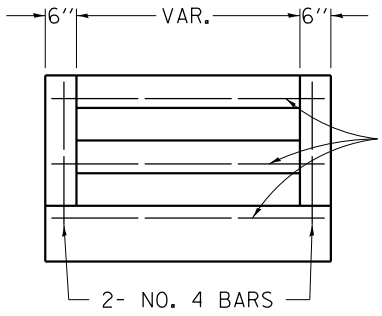
(Option 3 - Block depth 12" to 19")



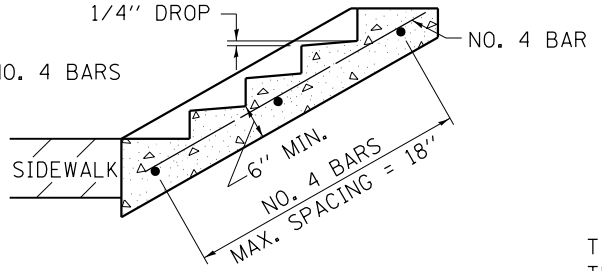

PLOT DATE = 7/13/2016

| | | | | | |
|---|---|---|---|---|---|
| REVISED - 1-05-16 | REGION 2 / DISTRICT 2 STANDARD | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS / SHEET NO. |
| REVISED - 12-03-14 | | | | | |
| REVISED - 2-01-10 | | | | CONTRACT NO. | |
| REVISED - | SCALE: 2.0000 ' / in. SHEET NO. OF SHEETS STA. TO STA. | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | |

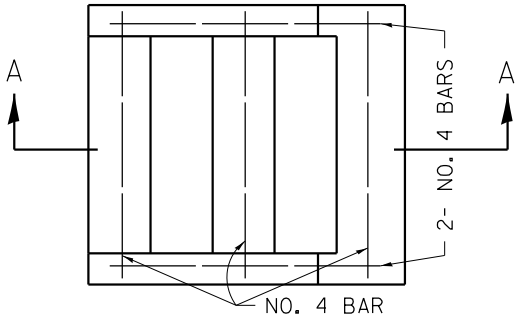
# DETAIL OF CONCRETE STEPS




END ELEVATION




SECTION A-A




PLAN

TABLE OF TREADS & RISERS

| SLOPE | TREAD | RISER |
|---|---|---|
| 1:2 | 12'' | 6'' |
| 1:3 | 15'' | 5'' |
| 1:4 | 17'' | 4 1/4'' |

WHERE SLOPES FALL BETWEEN THOSE SHOWN IN THE TABLE ABOVE, THE STAIR RAIL SHOULD FIT THE SLOPE AND THE TREAD IN INCHES x THE RISER IN INCHES SHOULD BE BETWEEN 72 AND 78.

EXAMPLE:

FOR A 1:4 SLOPE USE y = RISER HEIGHT $4y^2 = 75''$.
SOLVING $y^2 = \frac{75''}{4}$, $y = 4.3''$ (USE 4 1/4'' FOR CONVENIENCE.)

TREAD WOULD THEN BE 4 1/4'' x 4 = 17''

COST OF REINFORCEMENT BARS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LBS FOR REINFORCEMENT BARS.

CLASS SI CONCRETE SHALL BE USED THROUGHTOUT, WHICH SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR CONCRETE STEPS

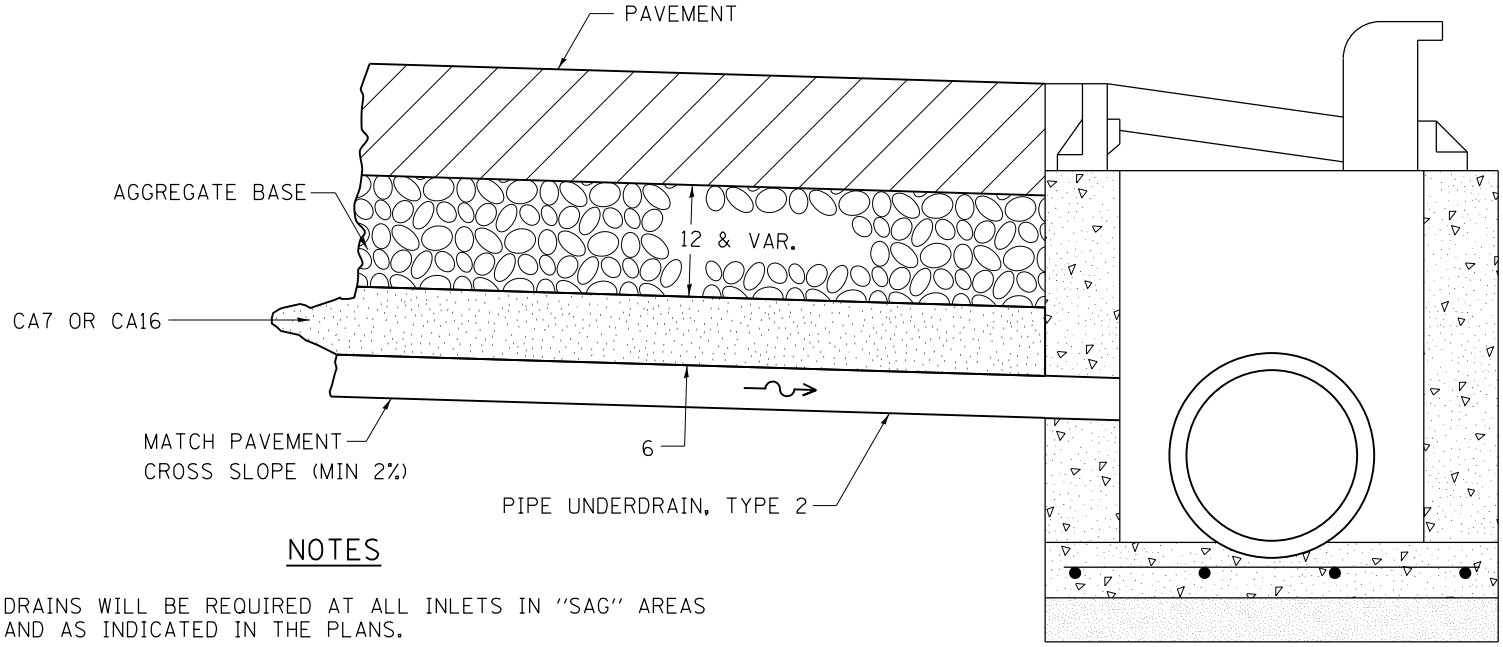
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

PLOT DATE = 7/13/2016

| | | | | | |
|---|---|---|---|---|---|
| REVISED - 8-27-13 | **REGION 2 / DISTRICT 2 STANDARD** | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS / SHEET NO. |
| REVISED - 10-03-11 | | | | | |
| REVISED - | | | | CONTRACT NO. | |
| REVISED - | SCALE: 1.5455 '' / in. / SHEET NO. OF SHEETS / STA. / TO STA. | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | |

**DETAIL OF CONCRETE STEPS** **71.4**

# DRAIN FOR AGGREGATE BASES IN URBAN AREAS




## NOTES

DRAINS WILL BE REQUIRED AT ALL INLETS IN "SAG" AREAS AND AS INDICATED IN THE PLANS.

THIS WORK SHALL BE COMPLETED ACCORDING TO SECTION 601 OF THE STANDARD SPECIFICATIONS.

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR PIPE UNDERDRAINS, TYPE 2 OF THE DIAMETER SPECIFIED WHICH PRICE SHALL INCLUDE THE CA7 OR CA16 AND THE CONNECTION TO THE INLET.

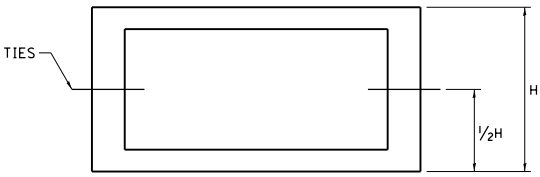
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

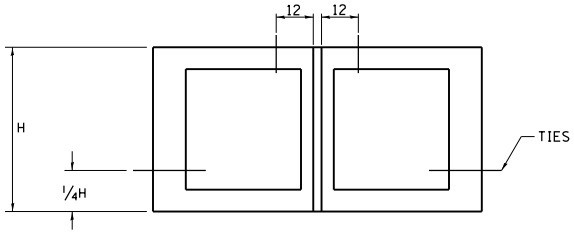
PLOT DATE = 7/13/2016

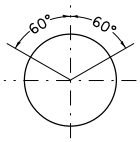
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| REVISED - 1-05-16 | **REGION 2 / DISTRICT 2 STANDARD** | | | | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| REVISED - 10-05-11 | | | | | | | | | |
| REVISED - | | | | | | | CONTRACT NO. | | |
| REVISED - | SCALE: 1.5455 " / in. | SHEET NO. OF SHEETS | STA. | TO STA. | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

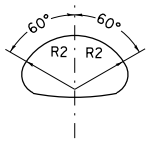
# MECHANICAL JOINTS FOR CONCRETE PIPE AND BOX CULVERTS

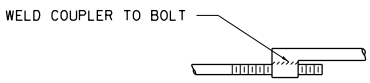
THE CULVERT TIES SHALL BE INCLUDED IN THE COST OF THE CONCRETE PIPE CULVERTS OR THE PRECAST CONCRETE BOX CULVERT. THE MECHANICAL TIES SHALL BE ON THE OUTSIDE OF THE CULVERT. THE NUTS AND WASHERS SHALL BE PLACED ON THE INSIDE OF OF THE CULVERT AND COVERED WITH MASTIC JOINT SEALER CONFORMING TO SECTION 1055 IN THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.



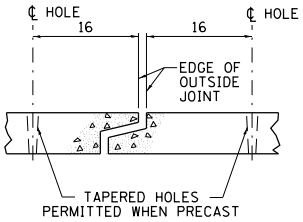



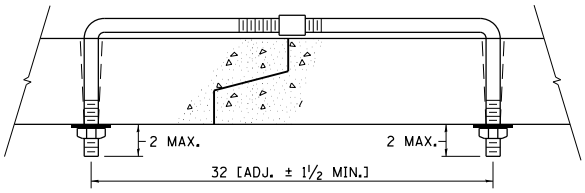



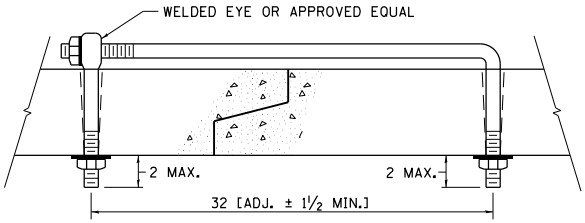

TOP VIEW



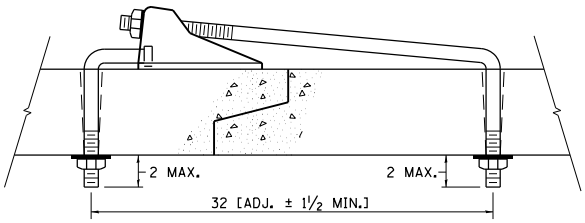




ADJUSTABLE TIE

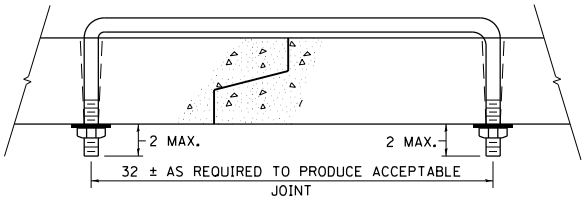
| PLACEMENT OF HOLES | | |
|---|---|---|
| BOX CULVERT FEET | PIPE SIZE INCHES | THREAD DIAMETER |
| | 12 | ⅝ ROLLED THREADS (SEE NOTE 4) |
| | 15 | |
| | 18 | |
| | 21 | |
| | 24 | |
| | 27 | |
| | 30 | ¾ CUT OR ROLLED |
| 3x2 | 33 | |
| 3x3 | 36 | |
| 4x2 | 42 | |
| 4x3 | 48 | |
| 4x4 | 54 | |
| 5x3 | 60 | |
| 5x4 | 66 | |
| 5x5 | 72 | 1 CUT OR ROLLED |
| 6x • | 78 | |
| 7x • | 84 | |
| 8x • | 90 | |
| 9x • | 96 | |
| 10x • | 102 | |
| | 108 | |
| | 120 | |
| | 132 | |
| 11 X • AND GREATER | 138 AND GREATER | 1¼ |




EYE BOLT TIE




CANOPY TIE




U BOLT TIE

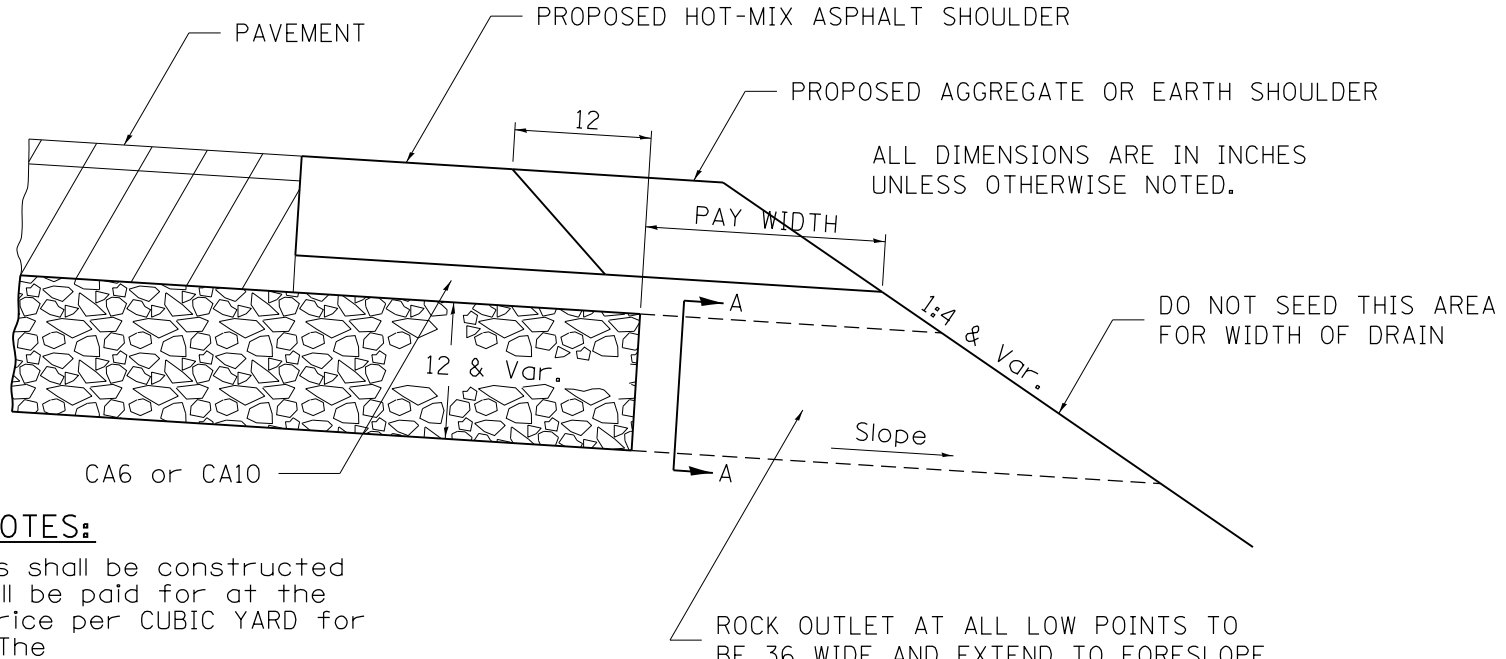
## NOTES:

1. HOLES SHALL BE CAST-IN OR DRILLED 16 FROM OUTSIDE EDGE OF JOINT.
2. NUTS AND WASHERS ARE NOT REQUIRED ON INSIDE OF 27 DIAM. PIPE OR LESS.
3. TIES ARE NOT REQUIRED FOR BELL PIPE 24 AND SMALLER. ON OTHER SIZES TIE MAY BE INSERTED FROM INSIDE.
4. CUT THREADS MAY BE USED IF WASHER AND NUT ARE USED.
5. PIPE SIZE LISTED IS INSIDE DIAM. OF ROUND PIPE OR EQUIVALENT DIAM. OF PIPE ARCH OR ELLIPTICAL.
6. GALVANIZING OF TIES IS REQUIRED.
7. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

PLOT DATE = 7/13/2016

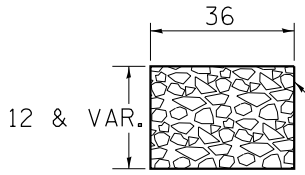
| | | | | | | |
|---|---|---|---|---|---|---|
| REVISED - 1-05-16 | REGION 2 / DISTRICT 2 STANDARD | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| REVISED - 11-12-14 | | | | | | |
| REVISED - 10-14-11 | | | | CONTRACT NO. | | |
| REVISED - | SCALE: 2.0000 ' / in. SHEET NO. OF SHEETS STA. TO STA. | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

# DRAIN FOR AGGREGATE BASE COURSE




## NOTES:

The rock outlets shall be constructed using CA7 and will be paid for at the contract unit price per CUBIC YARD for FRENCH DRAINS. The thickness shall be the same as the adjacent sub-base material as noted on the plans and shall include the cost of the filter fabric. The Rock outlets will be measured in CU YD , the width being 36 by the length shown above. The cost of the CA6 or CA10 under the shoulder shall be included in the contract unit price per SQ. YD. for AGGREGATE SUBGRADE IMPROVEMENT of the thickness specified. The fabric to be used shall conform to the Geotechnical Fabric For French Drains




Geotechnical Fabric For French Drains (on all sides except the foreslope)

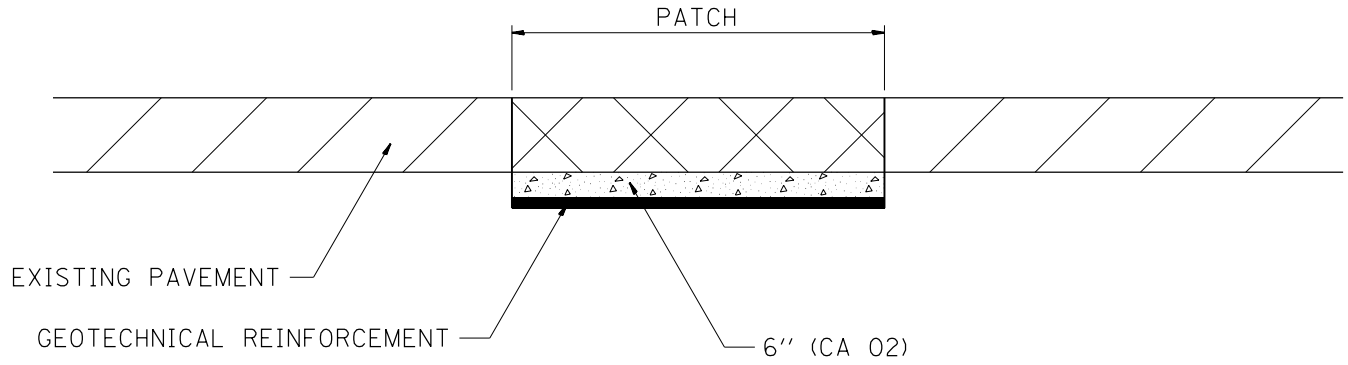
SECTION A-A

NOTE: Slope same as shoulder with 2% min.

PLOT DATE = 7/13/2016

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| REVISED - 8-27-13 | **REGION 2 / DISTRICT 2 STANDARD** | | | | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| REVISED - 10-09-12 | | | | | | | | | |
| REVISED - | | | | | | | CONTRACT NO. | | |
| REVISED - | SCALE: 1.5455 " / in. | SHEET NO. OF SHEETS | STA. | TO STA. | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

# SUBGRADE REPLACEMENT




NOTES:

THE CA 02 SHALL BE COMPACTED IN A MANNER APPROVED BY THE ENGINEER. IF THE MOISTURE CONTENT OF THE MATERIAL IS SUCH THAT COMPACTION SATISFACTORY TO THE ENGINEER CANNOT BE OBTAINED, SUFFICIENT WATER SHALL BE ADDED SO THAT SATISFACTORY COMPACTION CAN BE OBTAINED.

THE CA 02 SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CU YD FOR AGGREGATE SUBGRADE IMPROVEMENT WHICH SHALL ALSO INCLUDE ALL EARTH EXCAVATION.

THE GEOTECHNICAL REINFORCEMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQ YD FOR GEOTECHNICAL REINFORCEMENT.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

PLOT DATE = 7/13/2016

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| REVISED - 3-13-13 | **REGION 2 / DISTRICT 2 STANDARD** | | | | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| REVISED - | | | | | | | | | |
| REVISED - | | | | | | | CONTRACT NO. | | |
| REVISED - | SCALE: 1.5455 '/ in. | SHEET NO. | OF | SHEETS | STA. | TO STA. | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT |

## DECIMAL OF AN INCH AND OF A FOOT

| A | B | A | B | A | B | A | B | A | B | A | B |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.0052 | 1/16 | 11/64 0.171875 | 2 1/16 | 0.3385 | 4 1/16 | 0.5052 | 6 1/16 | 43/64 0.671875 | 8 1/16 | 0.8385 | 10 1/16 |
| 0.0104 | 1/8 | 0.1771 | 2 1/8 | 11/32 0.34375 | 4 1/8 | 0.5104 | 6 1/8 | 0.6771 | 8 1/8 | 27/32 0.84375 | 10 1/8 |
| 1/64 0.015625 | 3/16 | 0.1823 | 2 3/16 | 0.3490 | 4 3/16 | 33/64 0.515625 | 6 3/16 | 0.6823 | 8 3/16 | 0.8490 | 10 3/16 |
| 0.0208 | 1/4 | 3/16 0.1875 | 2 1/4 | 0.3542 | 4 1/4 | 0.5208 | 6 1/4 | 11/16 0.6875 | 8 1/4 | 0.8542 | 10 1/4 |
| 0.0260 | 5/16 | 0.1927 | 2 5/16 | 23/64 0.359375 | 4 5/16 | 0.5260 | 6 5/16 | 0.6927 | 8 5/16 | 55/64 0.859375 | 10 5/16 |
| 1/32 0.03125 | 3/8 | 0.1979 | 2 3/8 | 0.3646 | 4 3/8 | 17/32 0.53125 | 6 3/8 | 0.6979 | 8 3/8 | 0.8646 | 10 3/8 |
| 0.0365 | 7/16 | 13/64 0.203125 | 2 7/16 | 0.3698 | 4 7/16 | 0.5365 | 6 7/16 | 45/64 0.703125 | 8 7/16 | 0.8698 | 10 7/16 |
| 0.0417 | 1/2 | 0.2083 | 2 1/2 | 3/8 0.3750 | 4 1/2 | 0.5417 | 6 1/2 | 0.7083 | 8 1/2 | 7/8 0.8750 | 10 1/2 |
| 3/64 0.046875 | 9/16 | 0.2135 | 2 9/16 | 0.3802 | 4 9/16 | 35/64 0.546875 | 6 9/16 | 0.7135 | 8 9/16 | 0.8802 | 10 9/16 |
| 0.0521 | 5/8 | 7/32 0.21875 | 2 5/8 | 0.3854 | 4 5/8 | 0.5521 | 6 5/8 | 23/32 0.71875 | 8 5/8 | 0.8854 | 10 5/8 |
| 0.0573 | 11/16 | 0.2240 | 2 11/16 | 25/64 0.390625 | 4 11/16 | 0.5573 | 6 11/16 | 0.7240 | 8 11/16 | 57/64 0.890625 | 10 11/16 |
| 1/16 0.0625 | 3/4 | 0.2292 | 2 3/4 | 0.3958 | 4 3/4 | 9/16 0.5625 | 6 3/4 | 0.7292 | 8 3/4 | 0.8958 | 10 3/4 |
| 0.0677 | 13/16 | 15/64 0.234375 | 2 13/16 | 0.4010 | 4 13/16 | 0.5677 | 6 13/16 | 47/64 0.734375 | 8 13/16 | 0.9010 | 10 13/16 |
| 0.0729 | 7/8 | 0.2396 | 2 7/8 | 13/32 0.40625 | 4 7/8 | 0.5729 | 6 7/8 | 0.7396 | 8 7/8 | 29/32 0.90625 | 10 7/8 |
| 5/64 0.078125 | 15/16 | 0.2448 | 2 15/16 | 0.4115 | 4 15/16 | 37/64 0.578125 | 6 15/16 | 0.7448 | 8 15/16 | 0.9115 | 10 15/16 |
| 0.0833 | 1 | 1/4 0.2500 | 3 | 0.4167 | 5 | 0.5833 | 7 | 3/4 0.7500 | 9 | 0.9167 | 11 |
| 0.0885 | 1 1/16 | 0.2552 | 3 1/16 | 27/64 0.421875 | 5 1/16 | 0.5885 | 7 1/16 | 0.7552 | 9 1/16 | 59/64 0.921875 | 11 1/16 |
| 3/32 0.09375 | 1 1/8 | 0.2604 | 3 1/8 | 0.4271 | 5 1/8 | 19/32 0.59375 | 7 1/8 | 0.7604 | 9 1/8 | 0.9271 | 11 1/8 |
| 0.0990 | 1 3/16 | 17/64 0.265625 | 3 3/16 | 0.4323 | 5 3/16 | 0.5990 | 7 3/16 | 49/64 0.765625 | 9 3/16 | 0.9323 | 11 3/16 |
| 0.1042 | 1 1/4 | 0.2708 | 3 1/4 | 7/16 0.4375 | 5 1/4 | 0.6042 | 7 1/4 | 0.7708 | 9 1/4 | 15/16 0.9375 | 11 1/4 |
| 7/64 0.109375 | 1 5/16 | 0.2760 | 3 5/16 | 0.4427 | 5 5/16 | 39/64 0.609375 | 7 5/16 | 0.7760 | 9 5/16 | 0.9427 | 11 5/16 |
| 0.1146 | 1 3/8 | 9/32 0.28125 | 3 3/8 | 0.4479 | 5 3/8 | 0.6146 | 7 3/8 | 25/32 0.78125 | 9 3/8 | 0.9479 | 11 3/8 |
| 0.1198 | 1 7/16 | 0.2865 | 3 7/16 | 29/64 0.453125 | 5 7/16 | 0.6198 | 7 7/16 | 0.7865 | 9 7/16 | 61/64 0.953125 | 11 7/16 |
| 1/8 0.1250 | 1 1/2 | 0.2917 | 3 1/2 | 0.4583 | 5 1/2 | 5/8 0.6250 | 7 1/2 | 0.7917 | 9 1/2 | 0.9583 | 11 1/2 |
| 0.1302 | 1 9/16 | 19/64 0.296875 | 3 9/16 | 0.4635 | 5 9/16 | 0.6302 | 7 9/16 | 51/64 0.796875 | 9 9/16 | 0.9635 | 11 9/16 |
| 0.1354 | 1 5/8 | 0.3021 | 3 5/8 | 15/32 0.46875 | 5 5/8 | 0.6354 | 7 5/8 | 0.8021 | 9 5/8 | 31/32 0.96875 | 11 5/8 |
| 9/64 0.140625 | 1 11/16 | 0.3073 | 3 11/16 | 0.4740 | 5 11/16 | 41/64 0.640625 | 7 11/16 | 0.8073 | 9 11/16 | 0.9740 | 11 11/16 |
| 0.1458 | 1 3/4 | 5/16 0.3125 | 3 3/4 | 0.4792 | 5 3/4 | 0.6458 | 7 3/4 | 13/16 0.8125 | 9 3/4 | 0.9792 | 11 3/4 |
| 0.1510 | 1 13/16 | 0.3177 | 3 13/16 | 31/64 0.484375 | 5 13/16 | 0.6510 | 7 13/16 | 0.8177 | 9 13/16 | 63/64 0.984375 | 11 13/16 |
| 5/32 0.15625 | 1 7/8 | 0.3229 | 3 7/8 | 0.4896 | 5 7/8 | 21/32 0.65625 | 7 7/8 | 0.8229 | 9 7/8 | 0.9896 | 11 7/8 |
| 0.1615 | 1 15/16 | 21/64 0.328125 | 3 15/16 | 0.4948 | 5 15/16 | 0.6615 | 7 15/16 | 53/64 0.828125 | 9 15/16 | 0.9948 | 11 15/16 |
| 0.1667 | 2 | 0.3333 | 4 | 1/2 0.5000 | 6 | 0.6667 | 8 | 0.8333 | 10 | 1 1.0000 | 12 |

A = Fractions of Inch or Foot

B = Inch Equivalents to Foot Fractions

Illinois Department of Transportation

PASSED January 1, 1997
ENGINEER OF POLICY AND PROCEDURES

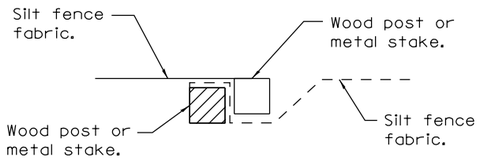
APPROVED January 1, 1997
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

| DATE | REVISIONS |
|---|---|
| 1-1-97 | New Standard. |
| | |
| | |
| | |
| | |
| | |

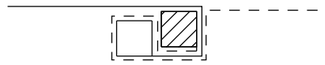
# DECIMAL OF AN INCH AND OF A FOOT

**STANDARD 001006**




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

**STEP 1**

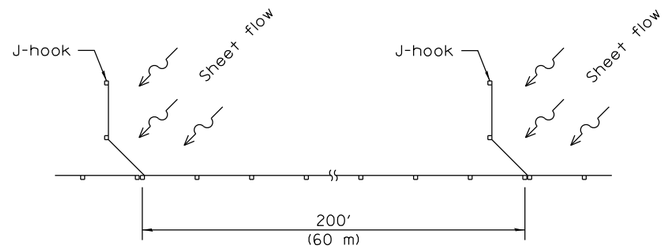


Rotate posts (stakes) together 180° clockwise and drive both posts (stakes) 18 (450) into ground.

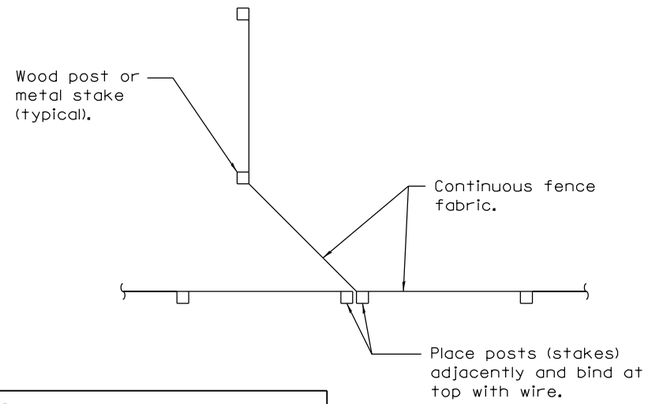
**STEP 2**

## ATTACHING TWO SILT FILTER FENCES

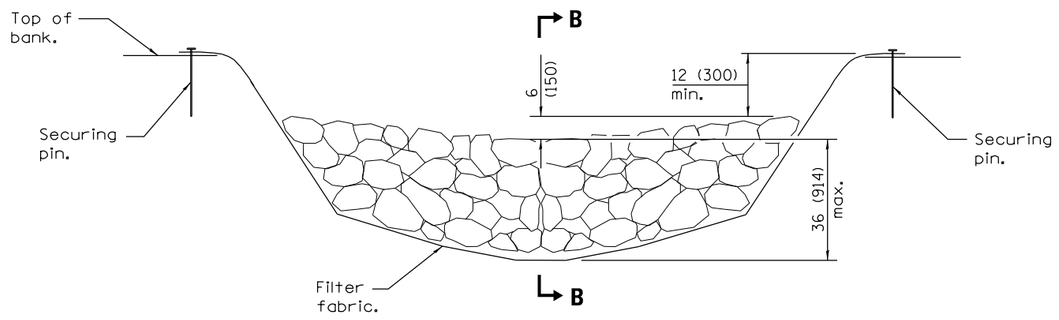
(Not applicable for J-hooks)




**SILT FILTER J–HOOK PLACEMENT**

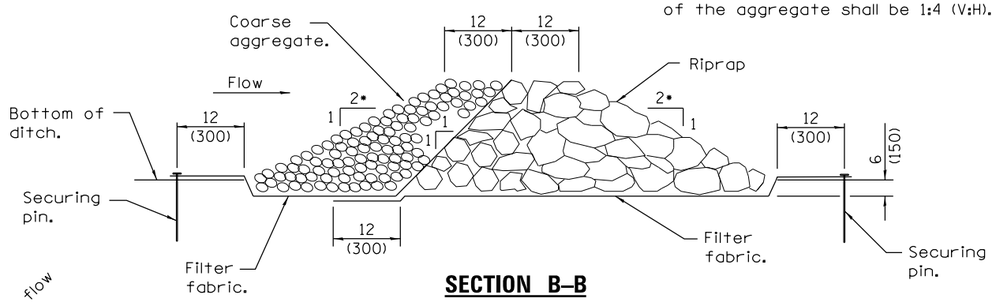



**J–HOOK**



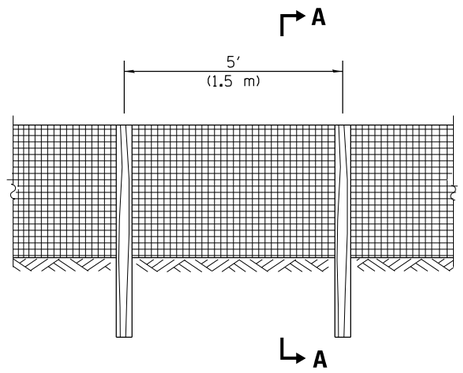

**ELEVATION**

- 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).



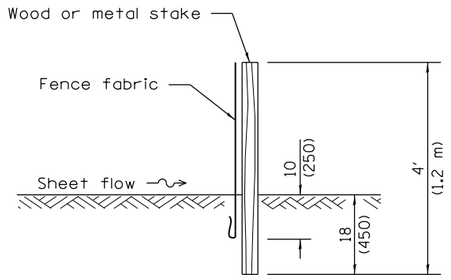

**SECTION B–B**

## AGGREGATE DITCH CHECK

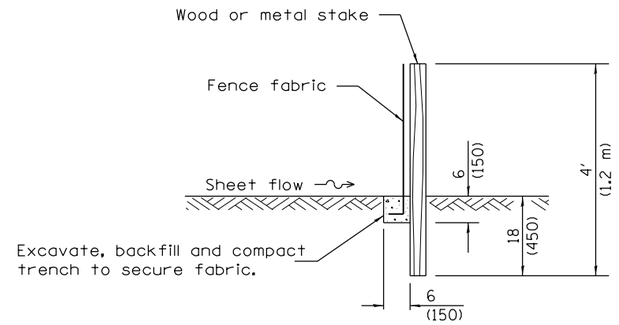



**ELEVATION**

## SILT FILTER FENCE AS A PERIMETER EROSION BARRIER




**SLICE METHOD**




**TRENCH METHOD**

**SECTION A–A**

## 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.

Illinois Department of Transportation

PASSED January 1, 2013
Michael Brand
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2013
ENGINEER OF DESIGN AND ENVIRONMENT

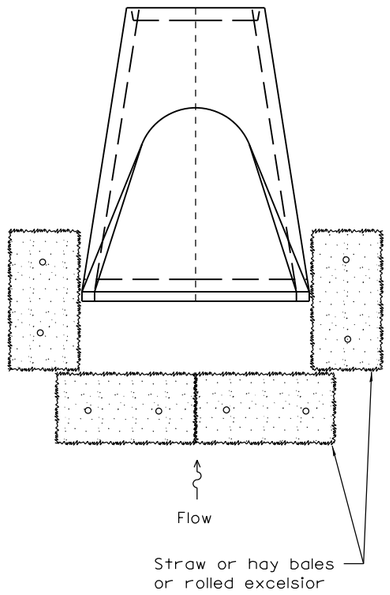
ISSUED 1-1-97

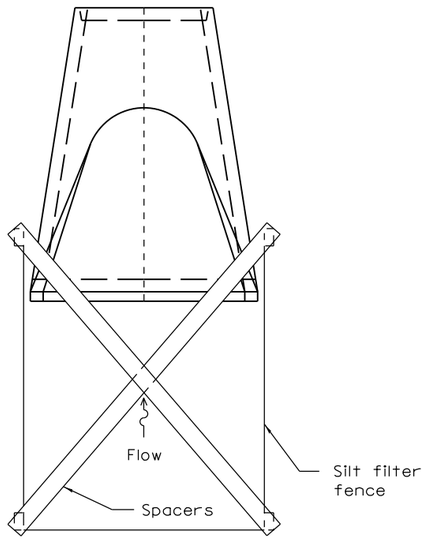
| DATE | REVISIONS |
|---|---|
| 1-1-13 | Corrected notation for |
| | flowline (℄ ) on SEDIMENT |
| | BASIN ELEVATION. |
| 1-1-12 | Omitted hay/straw perimeter |
| | barrier. Added SLICE METHOD |
| | to SECTION A-A. |

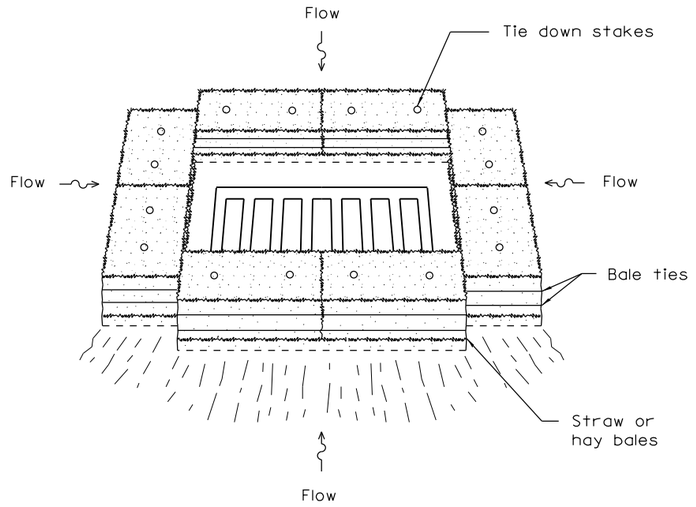
# TEMPORARY EROSION CONTROL SYSTEMS

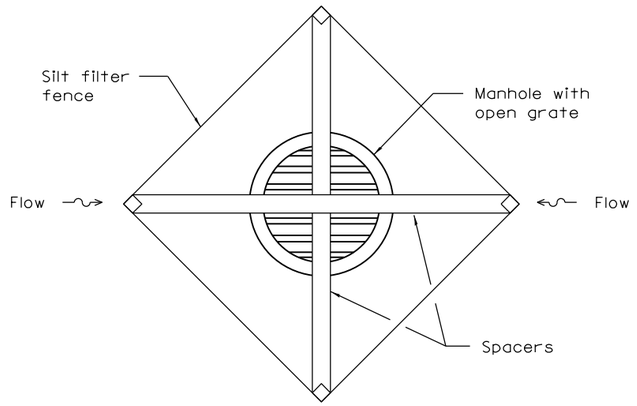
(Sheet 1 of 2)

**STANDARD 280001–07**

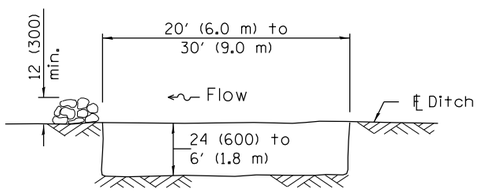


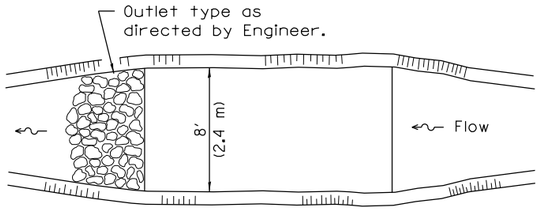




## INLET AND PIPE PROTECTION




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

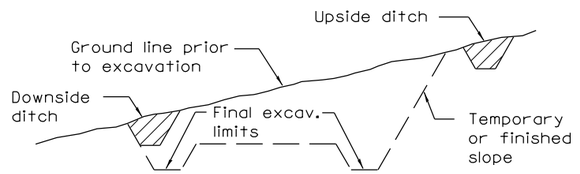
**ELEVATION**



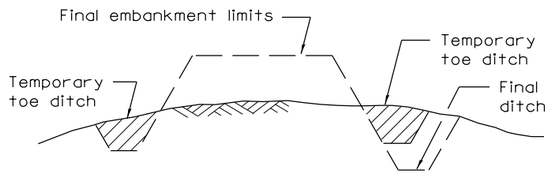

The long dimension should be parallel with the direction of the flow. Accumulated silt shall be removed anytime the basins become 75% filled.

**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
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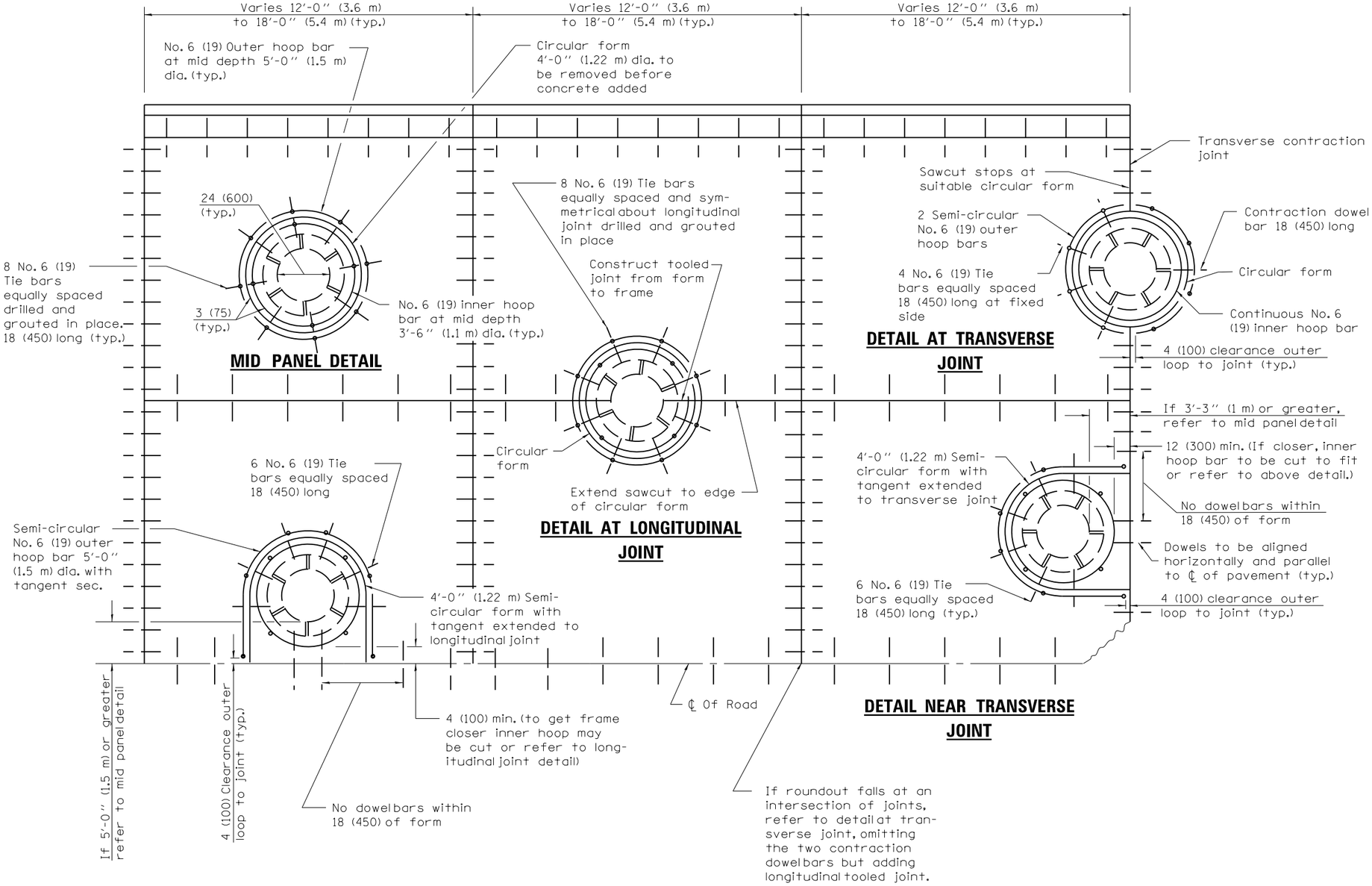
APPROVED January 1, 2013
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

# TEMPORARY EROSION CONTROL SYSTEMS

(Sheet 2 of 2)

STANDARD 280001-07




## GENERAL NOTES

Transverse joints may be moved to accommodate roundout. Edge of circular joint shall be minimum 24 (600) from transverse joint. Relocated transverse joint shall be continuous from edge of pavement to edge of pavement.

The transverse joint spacing should be adjusted to avoid using the DETAIL AT TRANSVERSE JOINT. If the joint cannot be adjusted to use the DETAIL NEAR TRANSVERSE JOINT, the joint must be in the center of the structure as shown.

Circular form shall be removed prior to drill and grout of tie bars.

Drill and grout is preferred, however tie bars can be poured in place if clearance is provided to outer edge of frame. Maximum 2 (50) clearance.

Shims shall be used to adjust all frames. After adjusting mortar has cured, the shims shall be removed and the voids under the frames filled with nonshrink grout.

Hoop reinforcement shall be one piece construction having a minimum lap length of 24 (600).

All situations not shown and may require combination of details.

WHEN USING CAST IN PLACE:
Frame shall be anchored to the structure to prevent movement during the paving operation.

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

Illinois Department of Transportation

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

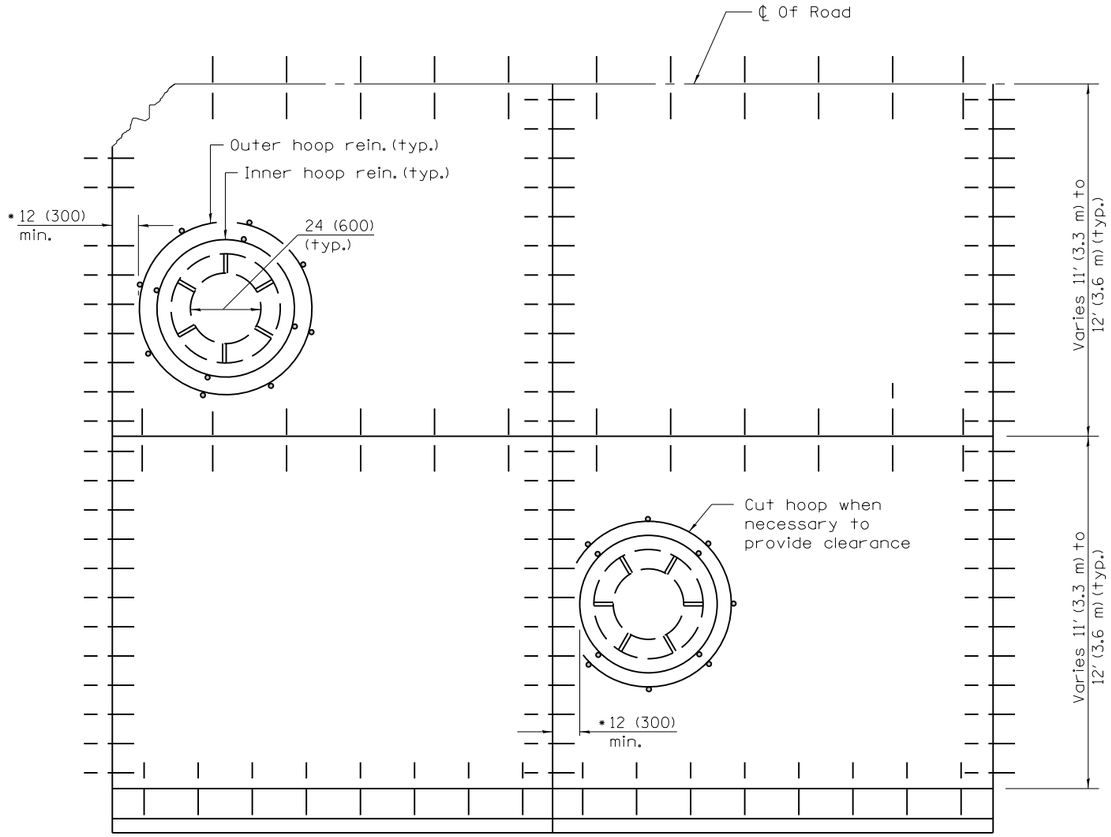
ISSUED 1-1-97

| DATE | REVISIONS |
|---|---|
| 1-1-11 | Corrected 'T/2' dim. on |
| | DETAIL OF REINFORCEMENT |
| | FOR PAVEMENT ROUNDOUT. |
| 1-1-08 | Switched units to |
| | English (metric). |
| | |

# PCC PAVEMENT ROUNDOUTS

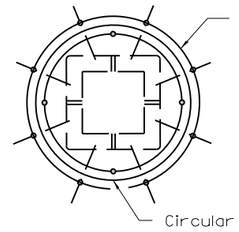
(Sheet 1 of 2)

**STANDARD 420111-03**

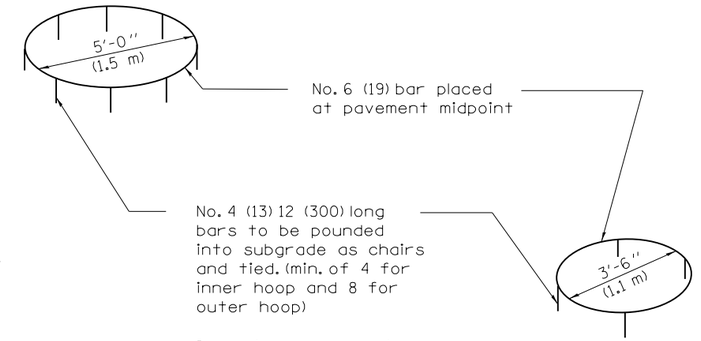


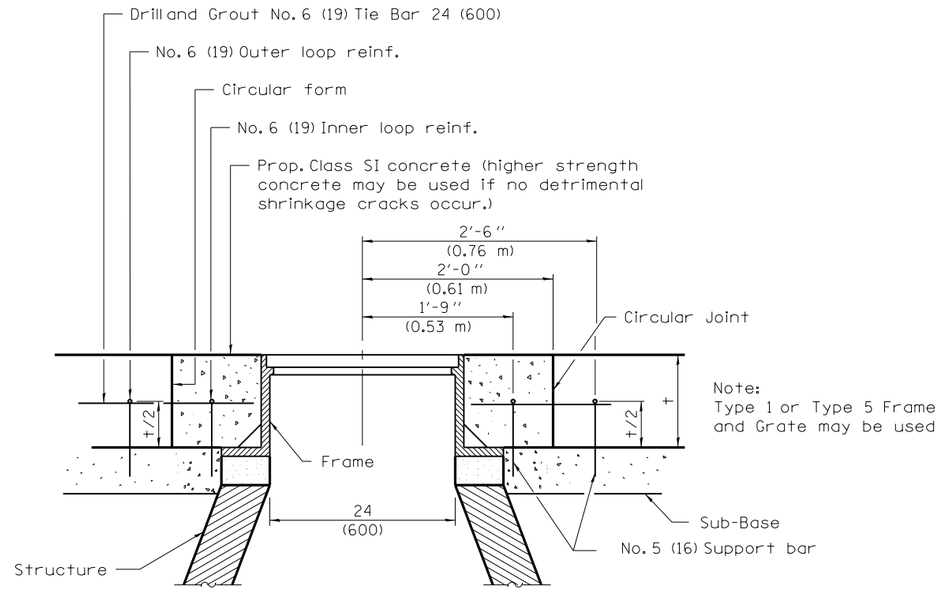

* Less than 12 (300) formed roundout to be used.

**CAST IN PLACE DETAIL**




**ROUNDOUT FOR SQUARE FRAME & GRATE AND MANHOLES**




**DETAIL OF REINFORCEMENT FOR PAVEMENT ROUNDOUT**

Illinois Department of Transportation

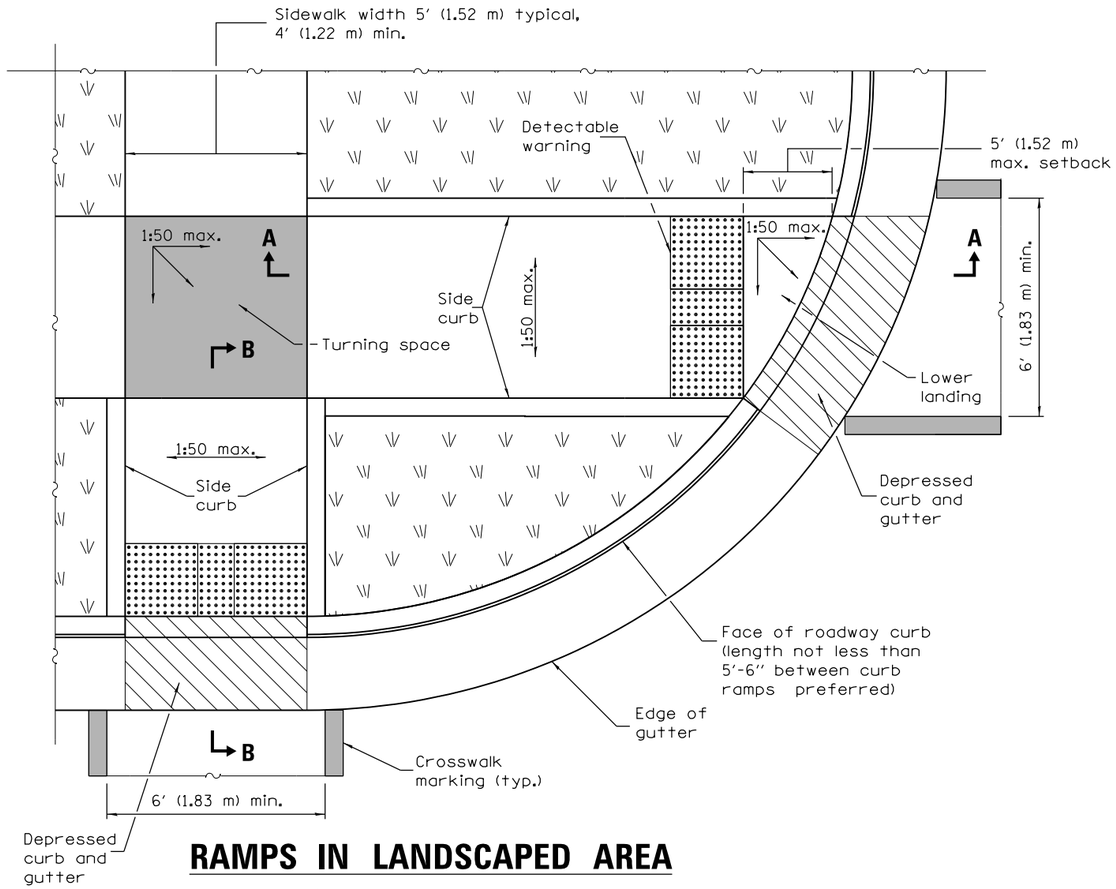
PASSED January 1, 2011
Michael Brand
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2011
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

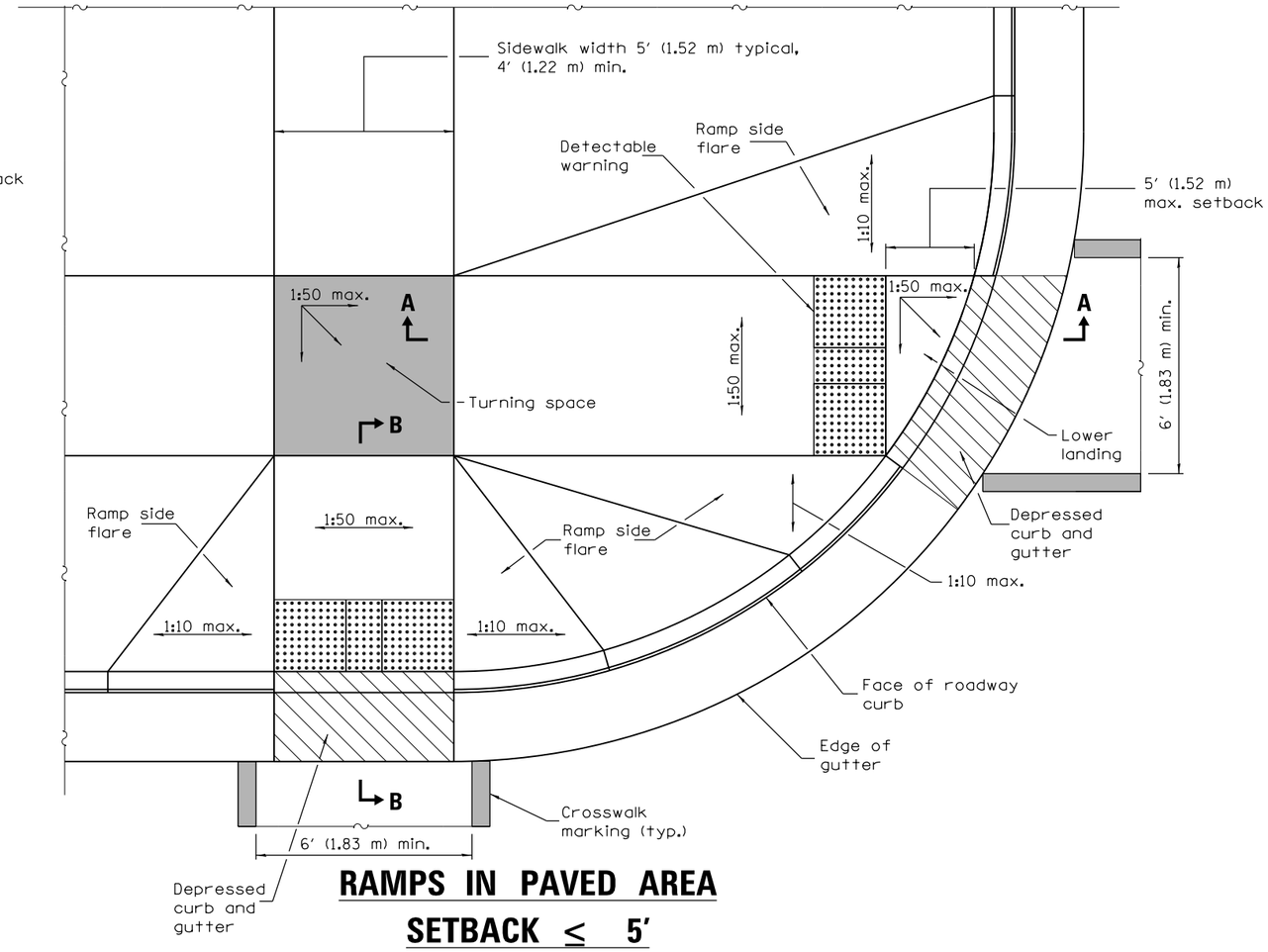
# PCC PAVEMENT ROUNDOUTS

(Sheet 2 of 2)

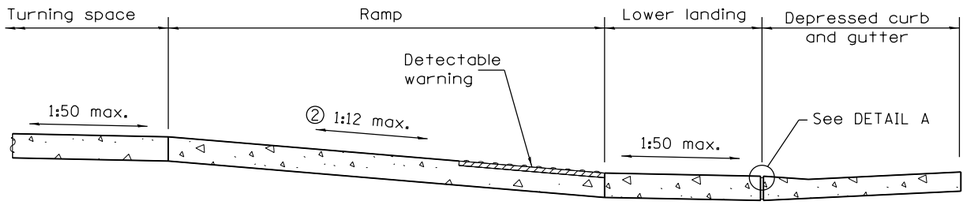
**STANDARD 420111-03**




## RAMPS IN LANDSCAPED AREA
## SETBACK ≤ 5′

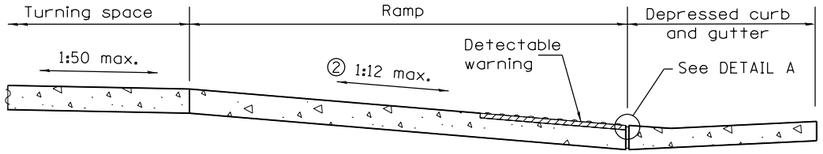



## RAMPS IN PAVED AREA
## SETBACK ≤ 5′



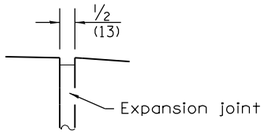

## SECTION A–A

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

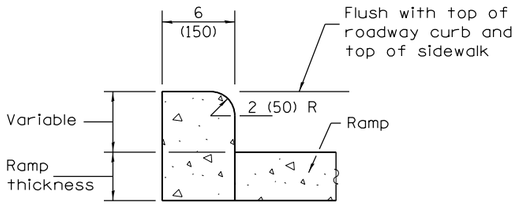



## SECTION B–B

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

Illinois Department of Transportation

PASSED January 1, 2017
Michael Brand
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2017
Maureen M. Bress
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-17

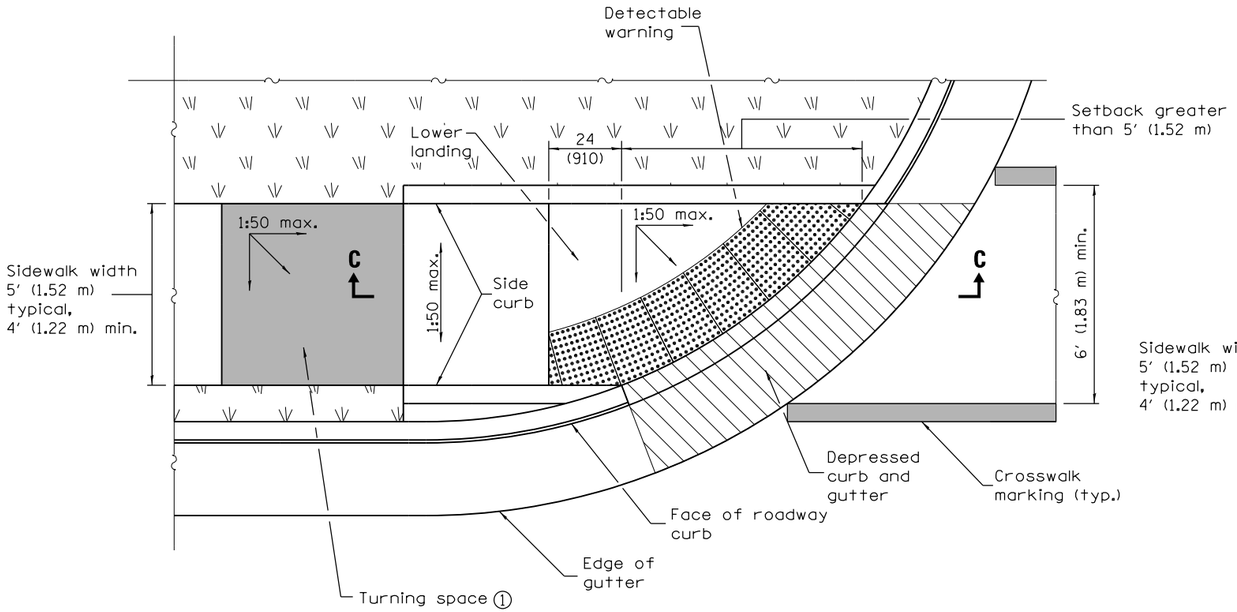
See Sheet 2 for GENERAL NOTES.

| DATE | REVISIONS |
|---|---|
| 1-1-17 | Added 2′ dimension to det. |
| | warnings for setbacks |
| | greater than 5′. |
| 1-1-15 | ① not appl. to int. sidewalks. |
| | Rev. gen. notes. Ch'd Upper |
| | landing to Turning space. |

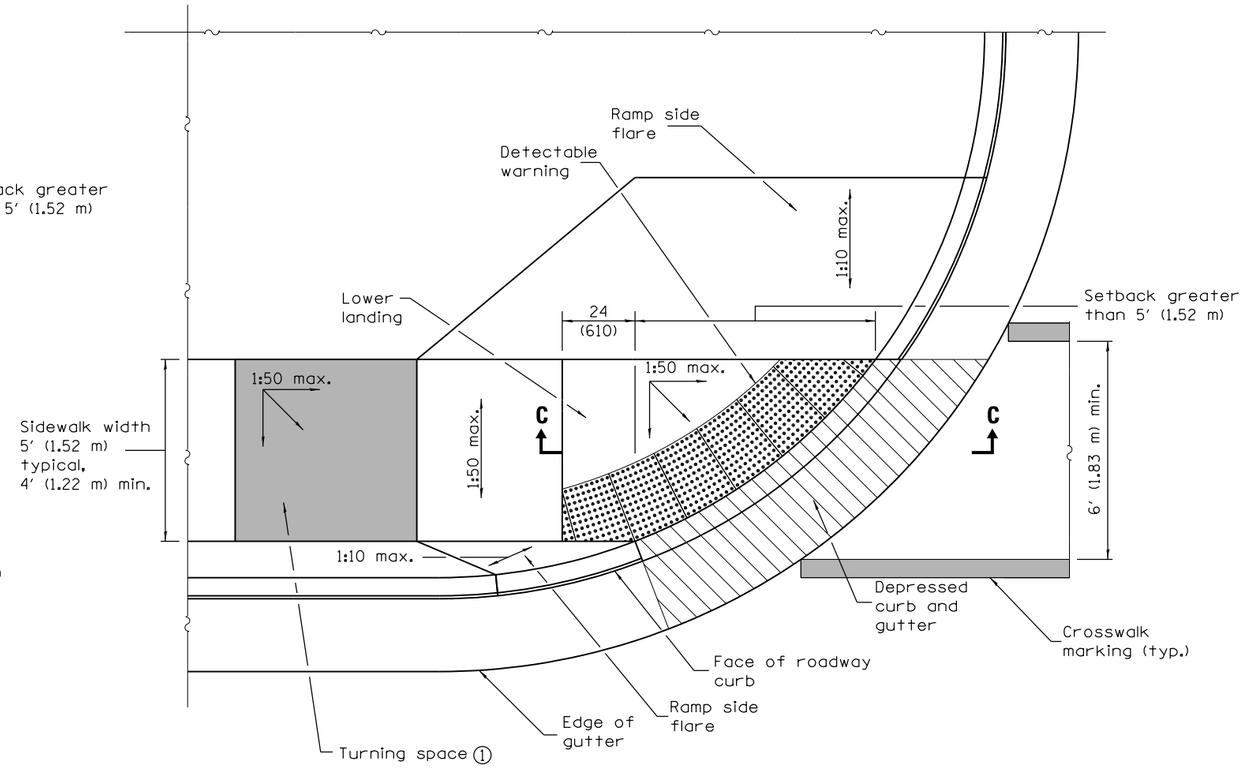
# PERPENDICULAR CURB RAMPS FOR SIDEWALKS

(Sheet 1 of 2)

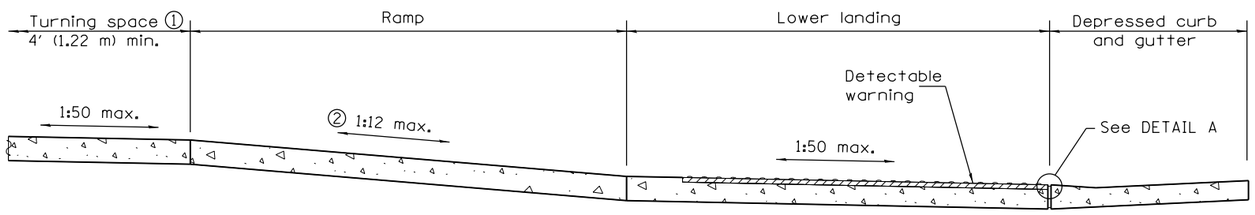
**STANDARD 424001–09**




## 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.

Illinois Department of Transportation

PASSED January 1, 2017
Michael Brand
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APPROVED January 1, 2017
Maureen M. Addis
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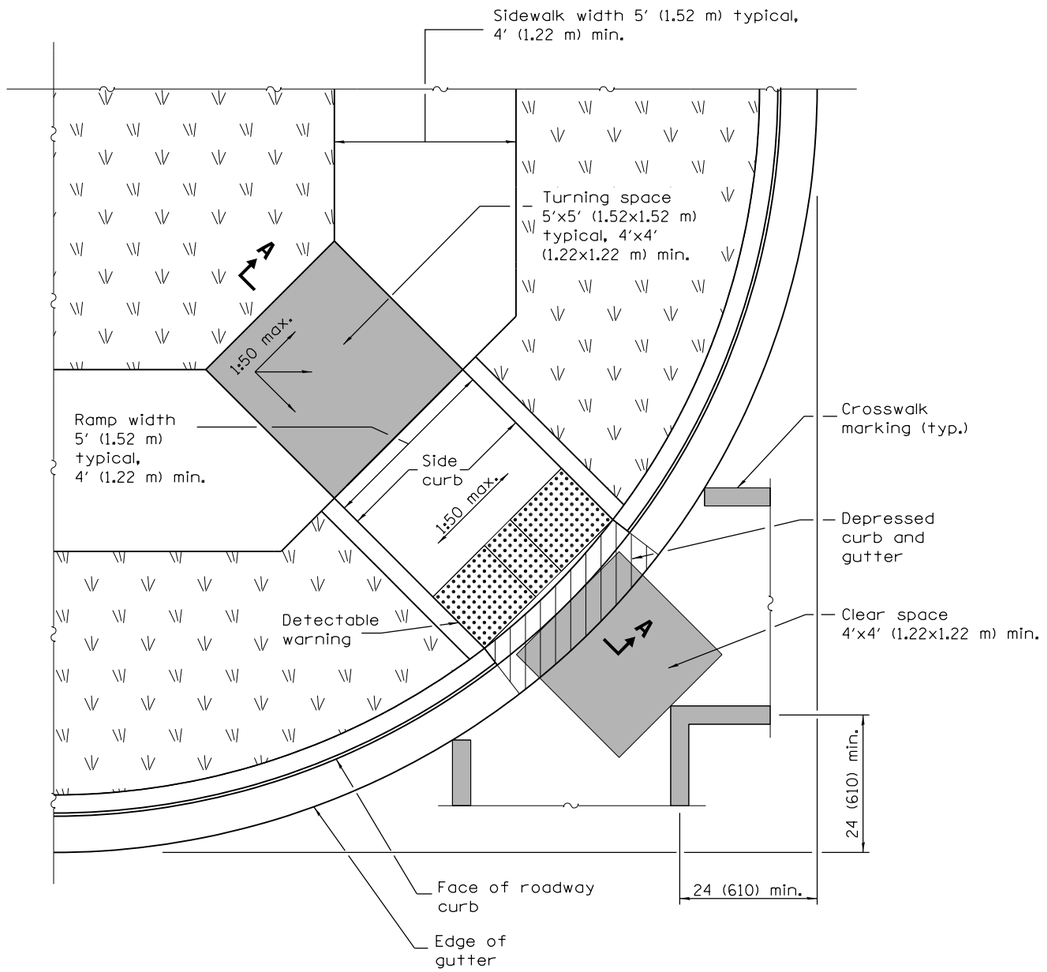
ISSUED 1-1-97

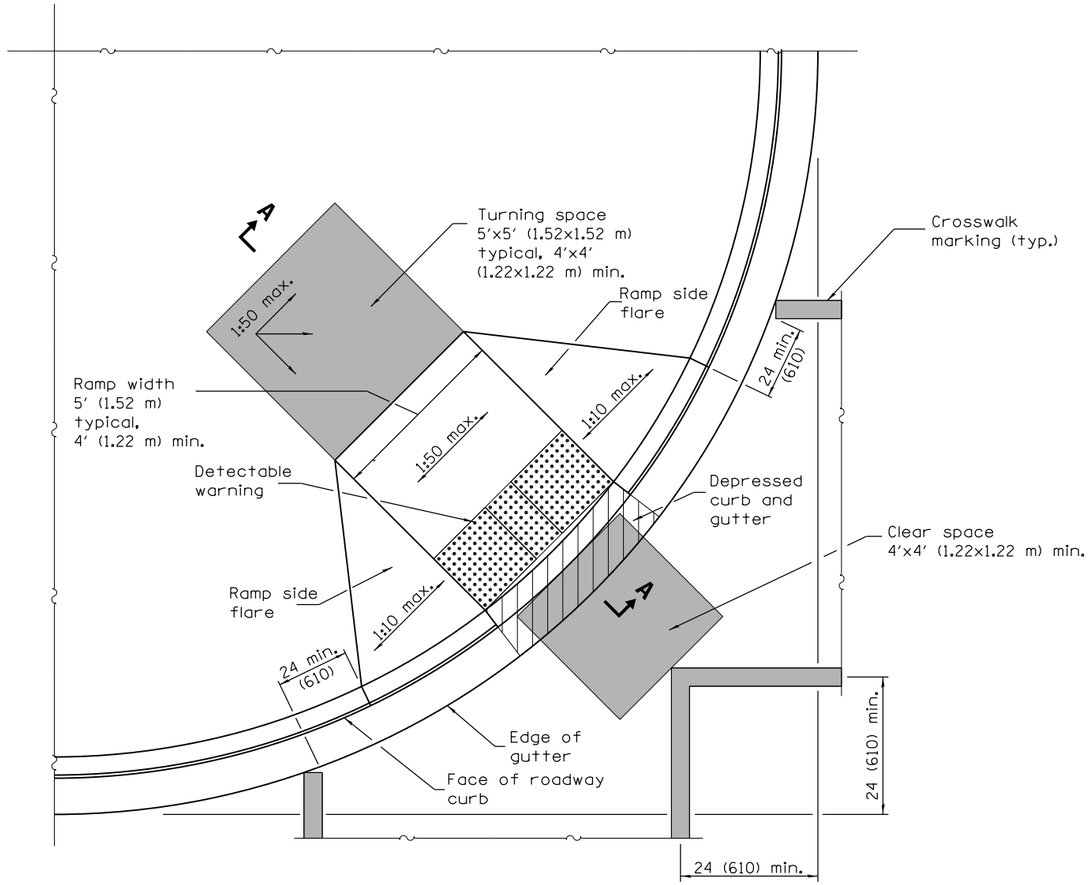
# PERPENDICULAR CURB RAMPS FOR SIDEWALKS

(Sheet 2 of 2)

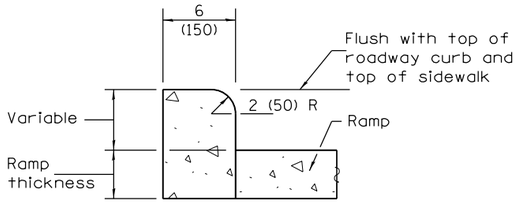
**STANDARD 424001–09**



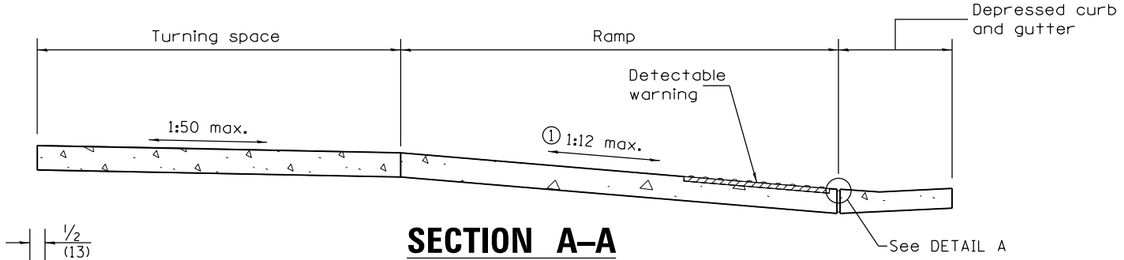

## RAMP IN LANDSCAPED AREA




## RAMP IN PAVED AREA

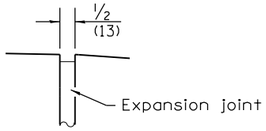



## SIDE CURB DETAIL




## 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

## 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.

Illinois Department of Transportation

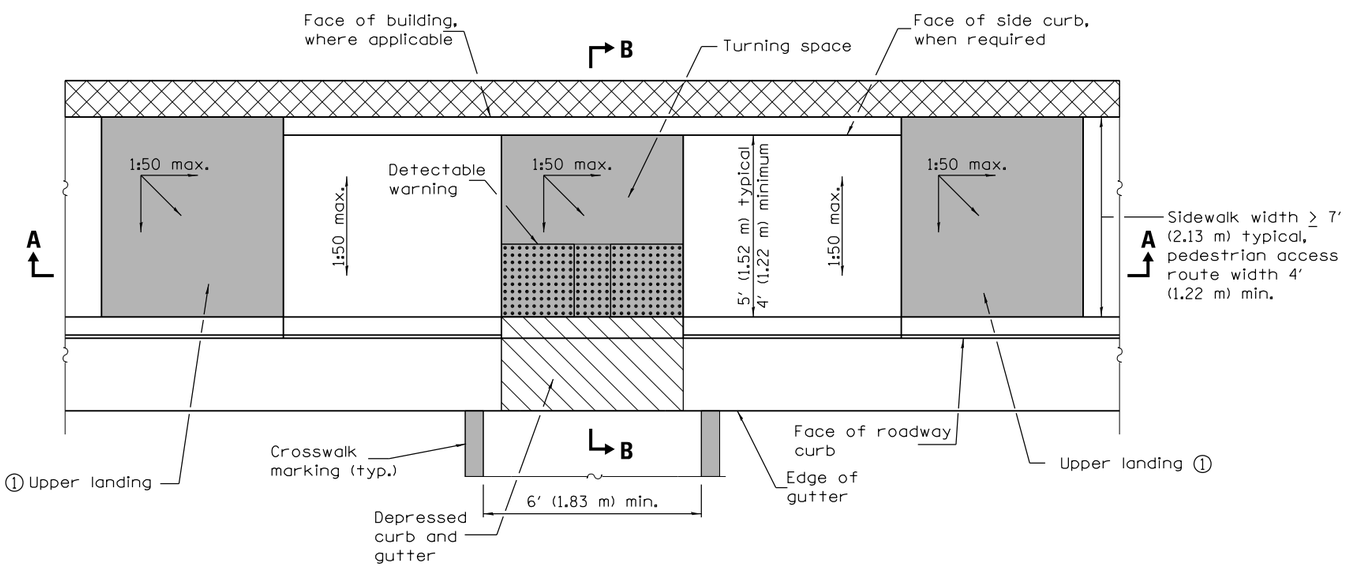
PASSED January 1. 2015
Michael Brand
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1. 2015
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-12

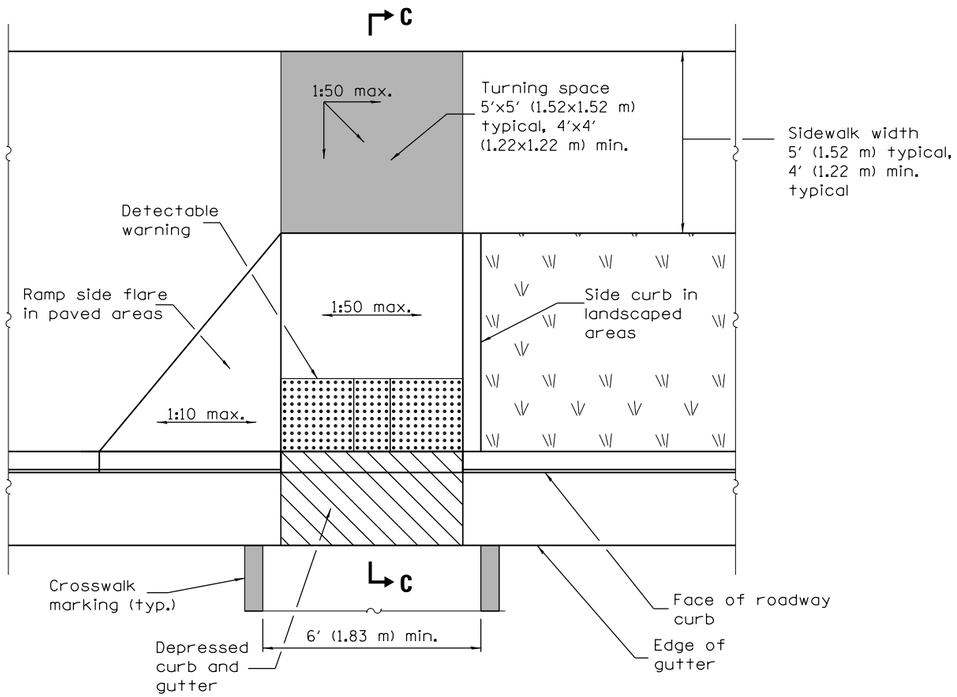
| DATE | REVISIONS |
|---|---|
| 1-1-15 | Changed 'Upper landing' to |
| | 'Turning space'. Added note |
| | reg. const. turning space. |
| 1-1-13 | Revised General Notes. |
| | |
| | |

# DIAGONAL CURB RAMPS FOR SIDEWALKS

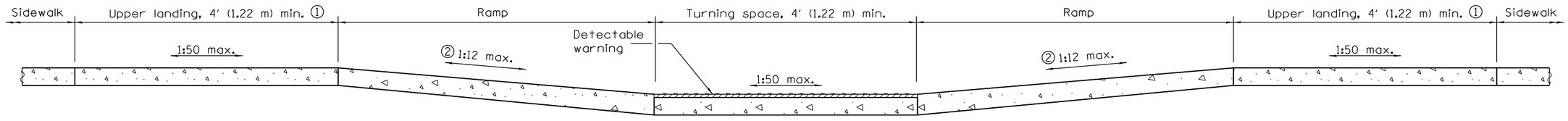
**STANDARD 424006–02**




## PARALLEL MID–BLOCK CURB RAMP



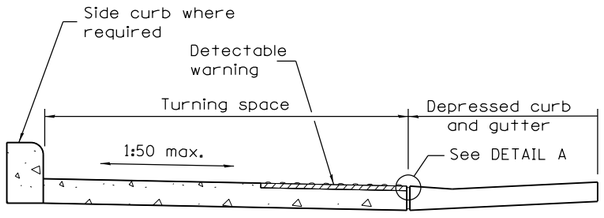

## PERPENDICULAR MID–BLOCK CURB RAMP



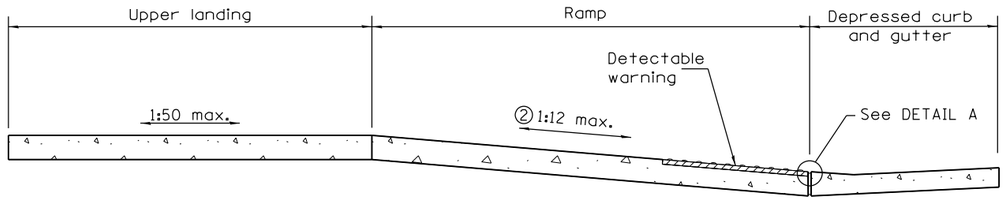

## SECTION A–A

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

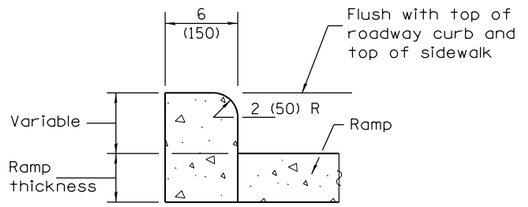
② The running slope of the curb ramp shall not require the ramp length to exceed 15' (4.5 m).



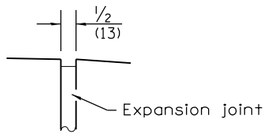

## SECTION B–B




## 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.

Illinois Department of Transportation

PASSED January 1, 2017
Michael Brand
ENGINEER OF POLICY AND PROCEDURES

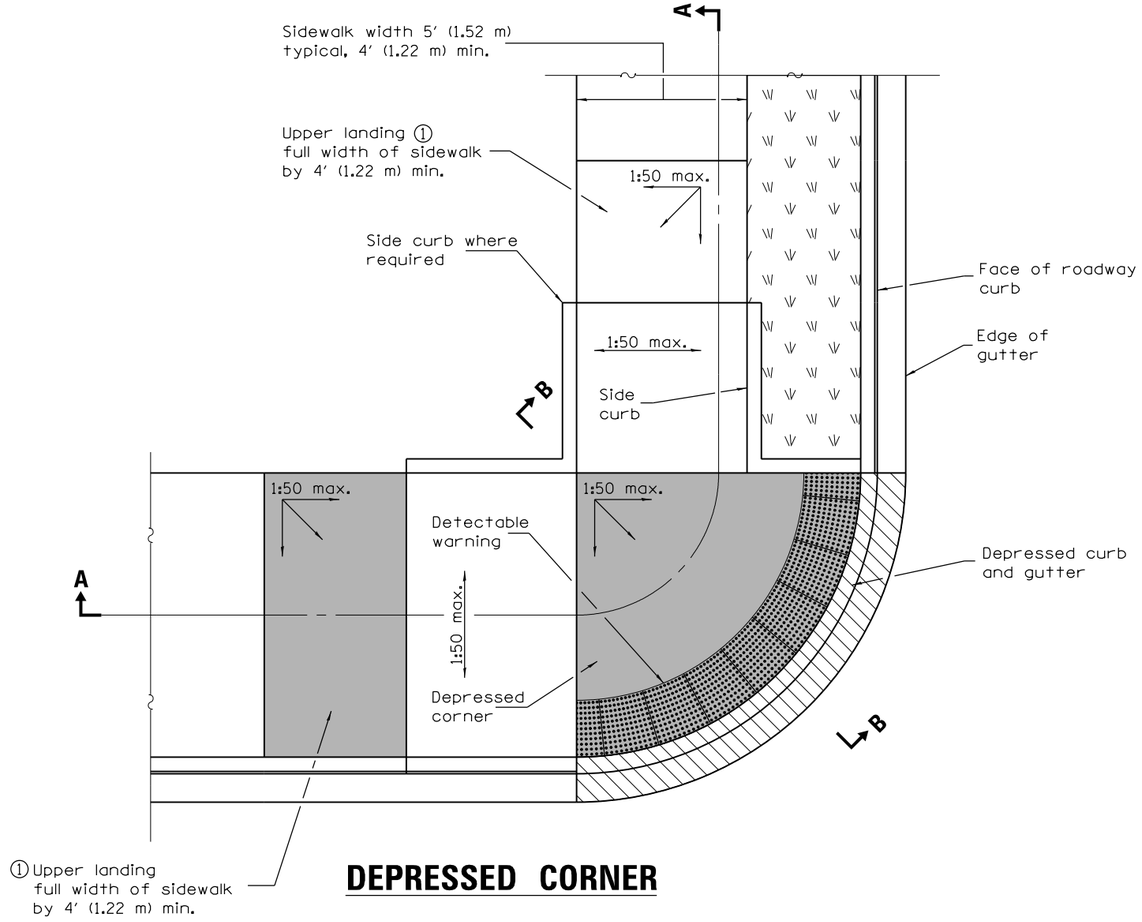
APPROVED January 1, 2017
Maureen M. Addis
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-12

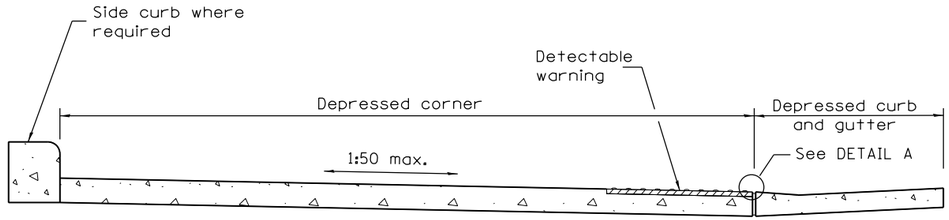
| DATE | REVISIONS |
|---|---|
| 1-1-17 | Revised sidewalk width to |
| | include 24 (610) buffer |
| | behind curb. |
| 1-1-13 | Widened crosswalk markings |
| | to 6' (1.83 m) min. inside |
| | dimension. Rev. Gen. Notes. |

# MID–BLOCK CURB RAMPS FOR SIDEWALKS

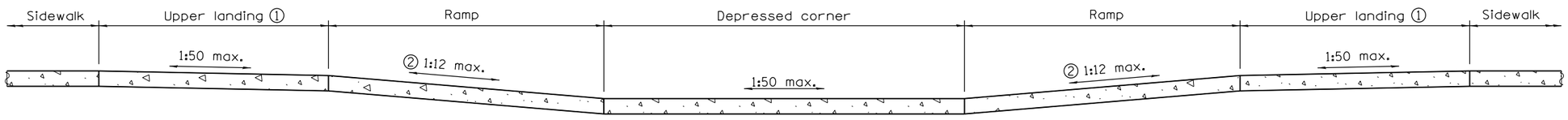
**STANDARD 424016–03**




## DEPRESSED CORNER



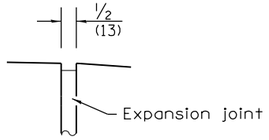

## SECTION B–B



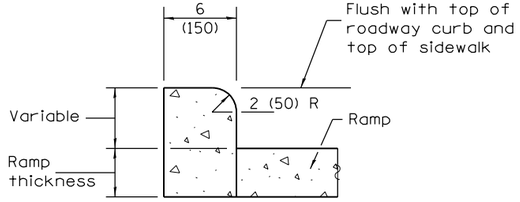

## SECTION A–A

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).




## DETAIL A




## SIDE CURB DETAIL

### 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.

Illinois Department of Transportation

PASSED January 1, 2015
Michael Brand
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2015
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-12

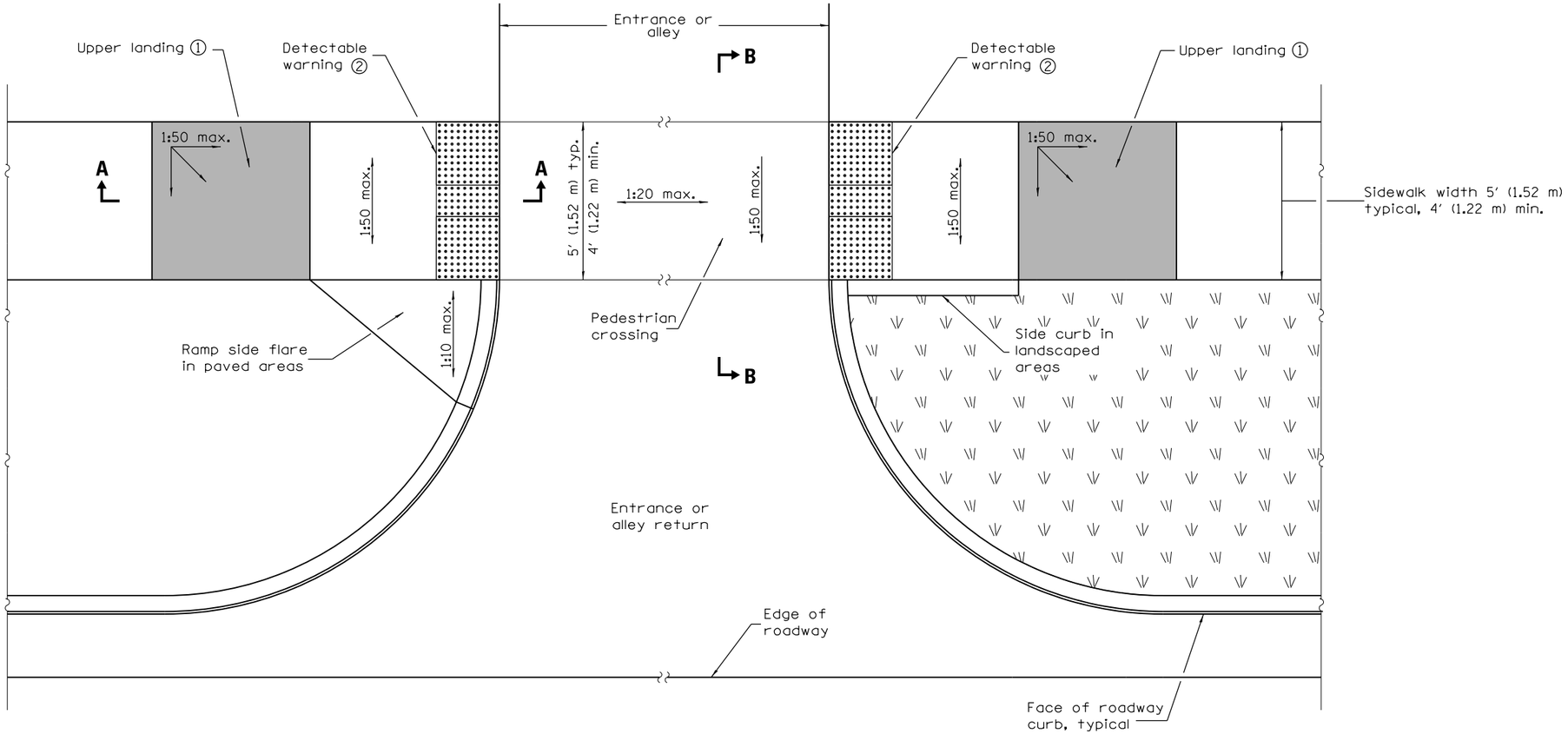
| DATE | REVISIONS |
|---|---|
| 1-1-15 | Added note ②. |
| | |
| | |
| 1-1-14 | Revised sidewalk width. |
| | Revised gen. notes to limit |
| | curb rad. to 6′ (1.83 m) min. |

# DEPRESSED CORNER FOR SIDEWALKS

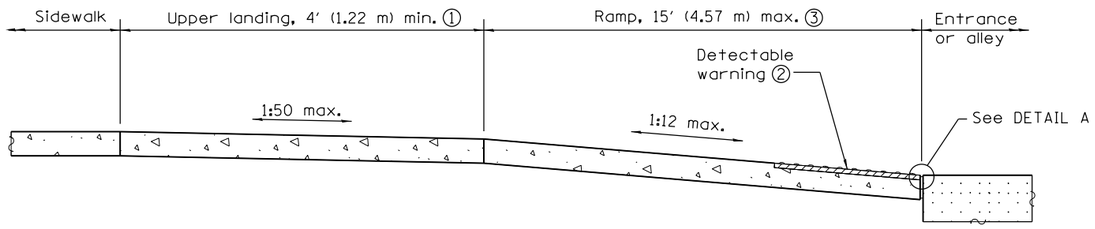
**STANDARD 424021–03**

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.

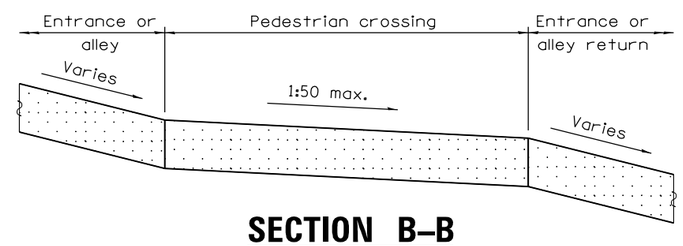



## ENTRANCE /ALLEY PEDESTRIAN CROSSING

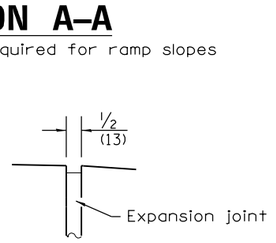



## SECTION A–A

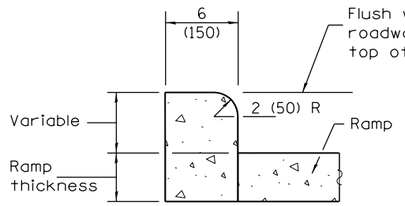
① Upper landing not required for ramp slopes flatter than 1:20.




## SECTION B–B




## DETAIL A




## 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.

Illinois Department of Transportation

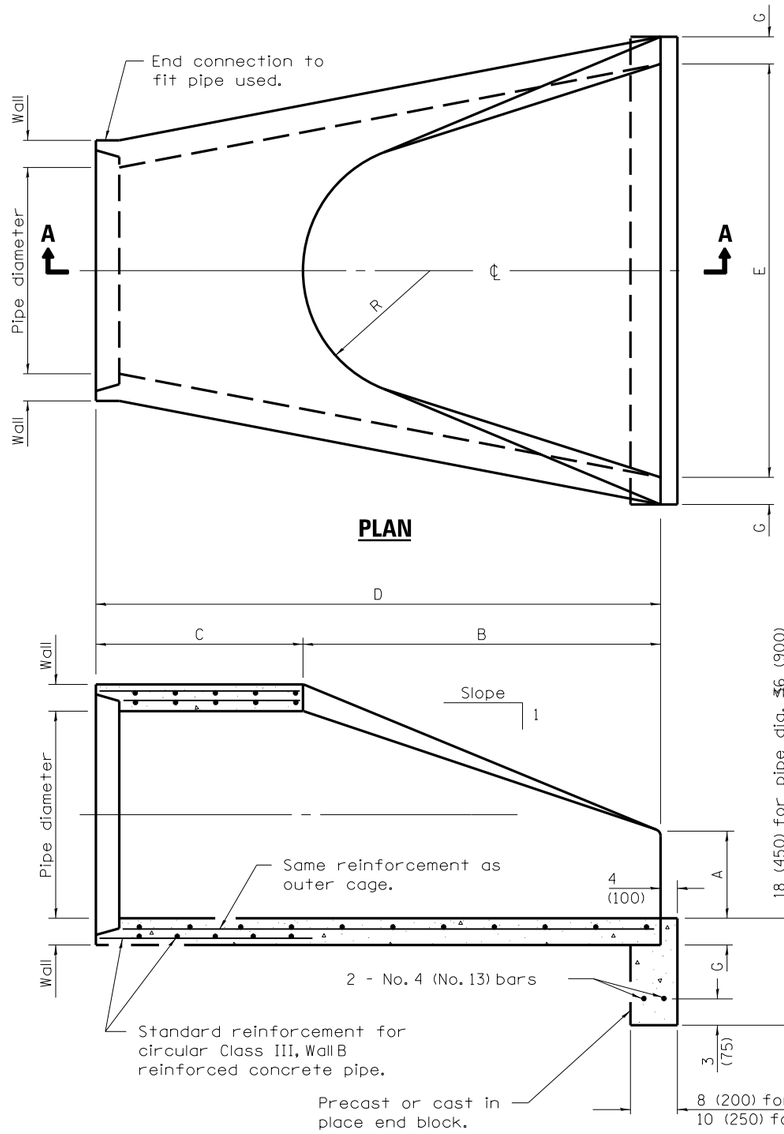
PASSED January 1, 2013
Michael Brand
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2013
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-12

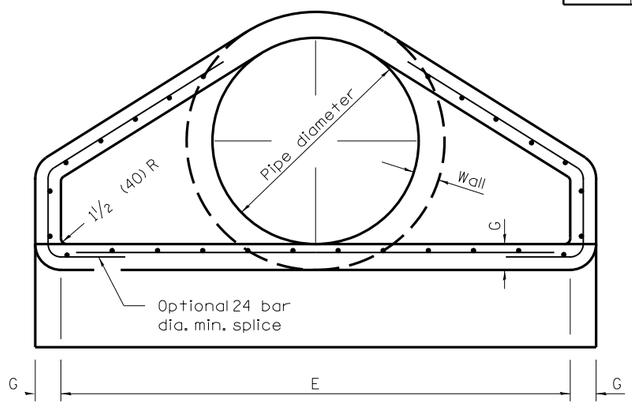
| DATE | REVISIONS |
|---|---|
| 1-1-13 | Revised General Notes. |
| | |
| | |
| 1-1-12 | New standard. |
| | |
| | |

# ENTRANCE / ALLEY PEDESTRIAN CROSSINGS

**STANDARD 424026–01**




**SECTION A–A**




**END VIEW**

| PIPE DIA. | APPROX. QTY. lbs. (kg) | WALL | A | B | C | D | E | G | R | APPROX. SLOPE |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 (300) | 530 (240) | 2 (51) | 4 (102) | 24 (610) | 4′-0⅞″ (1.241 m) | 6′-0⅞″ (1.851 m) | 24 (610) | 2 (51) | 9 (229) | 1:2.4 |
| 15 (375) | 740 (335) | 2¼ (57) | 6 (152) | 27 (686) | 3′-10″ (1.168 m) | 6′-1″ (1.854 m) | 30 (762) | 2¼ (57) | 11 (280) | 1:2.4 |
| 18 (450) | 990 (450) | 2½ (64) | 9 (229) | 27 (686) | 3′-10″ (1.168 m) | 6′-1″ (1.854 m) | 36 (914) | 2½ (64) | 12 (305) | 1:2.4 |
| 21 (525) | 1280 (580) | 2¾ (70) | 9 (229) | 35 (889) | 38 (965) | 6′-1″ (1.854 m) | 3′-6″ (1.067 m) | 2¾ (70) | 13 (330) | 1:2.4 |
| 24 (600) | 1520 (690) | 3 (76) | 9½ (241) | 3′-7½″ (1.105 m) | 30 (762) | 6′-1½″ (1.867 m) | 4′-0″ (1.219 m) | 3 (76) | 14 (356) | 1:2.5 |
| 27 (675) | 1930 (875) | 3¼ (83) | 10½ (267) | 4′-0″ (1.219 m) | 25½ (648) | 6′-1½″ (1.867 m) | 4′-6″ (1.372 m) | 3¼ (83) | 14½ (368) | 1:2.4 |
| 30 (750) | 2190 (995) | 3½ (89) | 12 (305) | 4′-6″ (1.375 m) | 19¾ (502) | 6′-1¾″ (1.874 m) | 5′-0″ (1.524 m) | 3½ (89) | 15 (381) | 1:2.5 |
| 33 (825) | 3200 (1450) | 3¾ (95) | 13½ (343) | 4′-10½″ (1.486 m) | 39¼ (997) | 8′-1¾″ (2.483 m) | 5′-6″ (1.676 m) | 3¾ (95) | 17½ (445) | 1:2.5 |
| 36 (900) | 4100 (1860) | 4 (102) | 15 (381) | 5′-3″ (1.6 m) | 34¾ (883) | 8′-1¾″ (2.483 m) | 6′-0″ (1.829 m) | 4 (102) | 20 (508) | 1:2.5 |
| 42 (1050) | 5380 (2440) | 4½ (114) | 21 (533) | 5′-3″ (1.6 m) | 35 (889) | 8′-2″ (2.489 m) | 6′-6″ (1.981 m) | 4½ (114) | 22 (559) | 1:2.5 |
| 48 (1200) | 6550 (2970) | 5 (127) | 24 (610) | 6′-0″ (1.829 m) | 26 (660) | 8′-2″ (2.489 m) | 7′-0″ (2.134 m) | 5 (127) | 22 (559) | 1:2.5 |
| 54 (1350) | 8240 (3740) | 5½ (140) | 27 (686) | 5′-5″ (1.651 m) | 35 (889) | 8′-4″ (2.54 m) | 7′-6″ (2.286 m) | 5½ (140) | 24 (610) | 1:2.0 |
| 60 (1500) | 8730 (3960) | 6 (152) | 35 (889) | 5′-0″ (1.524 m) | 39 (991) | 8′-3″ (2.515 m) | 8′-0″ (2.438 m) | 5 (127) | * | 1:1.9 |
| 66 (1650) | 10710 (4860) | 6½ (165) | 30 (762) | 6′-0″ (1.829 m) | 27 (686) | 8′-3″ (2.515 m) | 8′-6″ (2.591 m) | 5½ (140) | * | 1:1.7 |
| 72 (1800) | 12520 (5680) | 7 (178) | 36 (914) | 6′-6″ (1.981 m) | 21 (533) | 8′-3″ (2.514 m) | 9′-0″ (2.743 m) | 6 (152 | * | 1:1.8 |
| 78 (1950) | 14770 (6700) | 7½ (191) | 36 (914) | 7′-6″ (2.286 m) | 21 (533) | 9′-3″ (2.819 m) | 9′-6″ (2.896 m) | 6½ (165) | * | 1:1.8 |
| 84 (2100) | 18160 (8240) | 8 (203) | 36 (914) | 7′-6½″ (2.299 m) | 21 (533) | 9′-3½″ (2.832 m) | 10′-0″ (3.048 m) | 6½ (165) | * | 1:1.6 |

* Radius as furnished by manufacturer

## GENERAL NOTES

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

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

Illinois Department of Transportation

APPROVED January 1, 2011
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

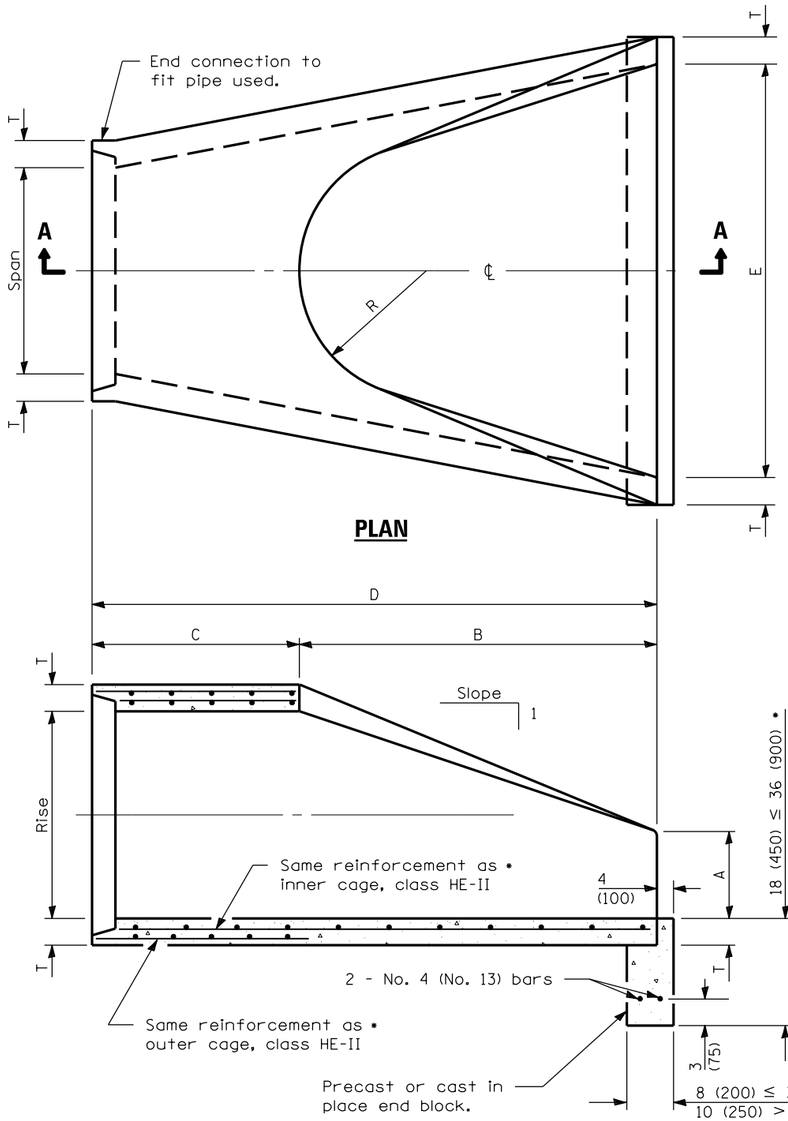
APPROVED January 1, 2011
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

| DATE | REVISIONS |
|---|---|
| 1-1-11 | Clarified ref. to pipe dia. |
| | on Section A-A. Changed |
| | 'inner' to 'outer' cage ref. |
| 1-1-09 | Switched units to |
| | English (metric). |
| | |

# PRECAST REINFORCED CONCRETE FLARED END SECTION

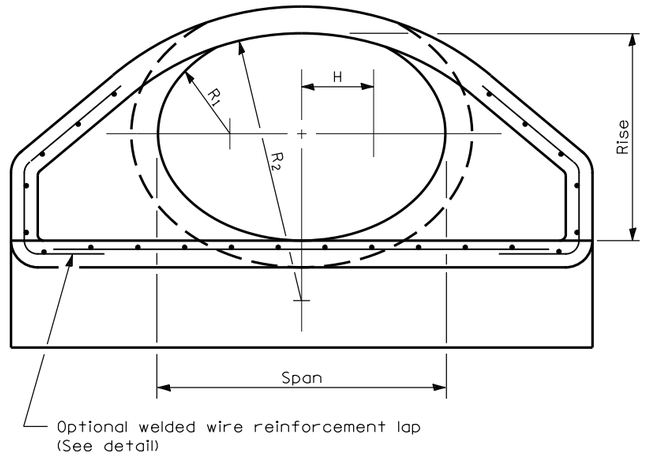
**STANDARD 542301–03**



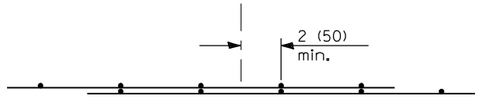

• Refers to the equivalent pipe diameter.

## SECTION A–A

| SPAN | RISE | EQUIV. DIA. | WALL T | A | B | C | D | E | H | R | $R_1$ | $R_2$ | APPROX. SLOPE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 23 (584) | 14 (356) | 18 (450) | 2¾ (70) | 8 (203) | 27 (686) | 3′-9″ (1.143 m) | 6′-0″ (1.829 m) | 36 (914) | 5⅜ (137) | 6 (152) | 6 (152) | 20 (508) | 1:3.1 |
| 30 (762) | 19 (483) | 24 (600) | 3¼ (83) | 8½ (216) | 39 (991) | 33 (838) | 6′-0″ (1.829 m) | 4′-0″ (1.219 m) | 6⅞ (175) | 7 (178) | 8¼ (210) | 26¼ (667) | 1:2.8 |
| 34 (864) | 22 (559) | 27 (675) | 3½ (89) | 9 (229) | 4′-0″ (1.219 m) | 24 (610) | 6′-0″ (1.829 m) | 4′-6″ (1.372 m) | 7¾ (197) | 8 (203) | 9¼ (235) | 29¼ (743) | 1:2.9 |
| 38 (965) | 24 (610) | 30 (750) | 3½ (95) | 9½ (241) | 4′-6″ (1.372 m) | 18 (475) | 6′-0″ (1.829 m) | 5′-0″ (1.524 m) | 8⅝ (219) | 9 (229) | 10¼ (260) | 32¾ (832) | 1:2.9 |
| 45 (1143) | 29 (737) | 36 (900) | 4½ (114) | 11¼ (286) | 5′-0″ (1.524 m) | 36 (914) | 8′-0″ (2.438 m) | 6′-0″ (1.829 m) | 10½ (267) | 12 (305) | 12¼ (311) | 39¼ (997) | 1:2.7 |
| 53 (1346) | 34 (864) | 42 (1050) | 5 (127) | 15¾ (400) | 5′-0″ (1.524 m) | 36 (914) | 8′-0″ (2.438 m) | 6′-6″ (1.981 m) | 12⅛ (308) | 13 (330) | 14½ (368) | 3′-10″ (1.168 m) | 1:2.6 |
| 60 (1524) | 38 (965) | 48 (1200) | 5½ (140) | 21 (533) | 5′-0″ (1.524 m) | 36 (914) | 8′-0″ (2.438 m) | 7′-0″ (2.134 m) | 13½ (343) | 14 (356) | 16½ (419) | 4′-3½″ (1.308 m) | 1:2.7 |
| 68 (1727) | 43 (1092) | 54 (1350) | 6 (152) | 26 (660) | 5′-0″ (1.524 m) | 36 (914) | 8′-0″ (2.438 m) | 7′-6″ (2.286 m) | 15¼ (387) | 16 (406) | 18¾ (476) | 4′-10½″ (1.486 m) | 1:2.6 |
| 76 (1930) | 48 (1219) | 60 (1500) | 6½ (165) | 31 (787) | 5′-0″ (1.524 m) | 36 (914) | 8′-0″ (2.438 m) | 8′-0″ (2.439 m) | 17 (432) | 18 (457) | 20¾ (527) | 5′-5″ (1.651 m) | 1:2.6 |




## END VIEW




## OPTIONAL WELDED WIRE REINFORCEMENT LAP

## GENERAL NOTES

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

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

Illinois Department of Transportation

APPROVED April 1, 2016
ENGINEER OF BRIDGES AND STRUCTURES

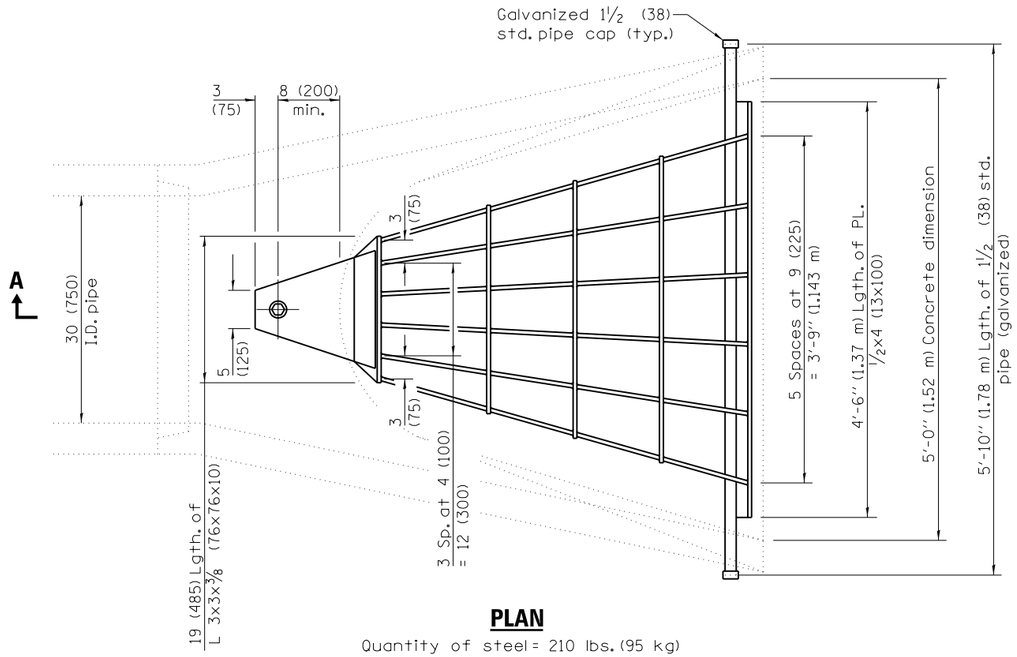
APPROVED April 1, 2016
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

| DATE | REVISIONS |
|---|---|
| 4-1-16 | Changed terminology to |
| | 'welded wire reinforcement'. |
| | Corrected min. lap dimension. |
| 1-1-09 | Switched units to |
| | English (metric). |
| | |

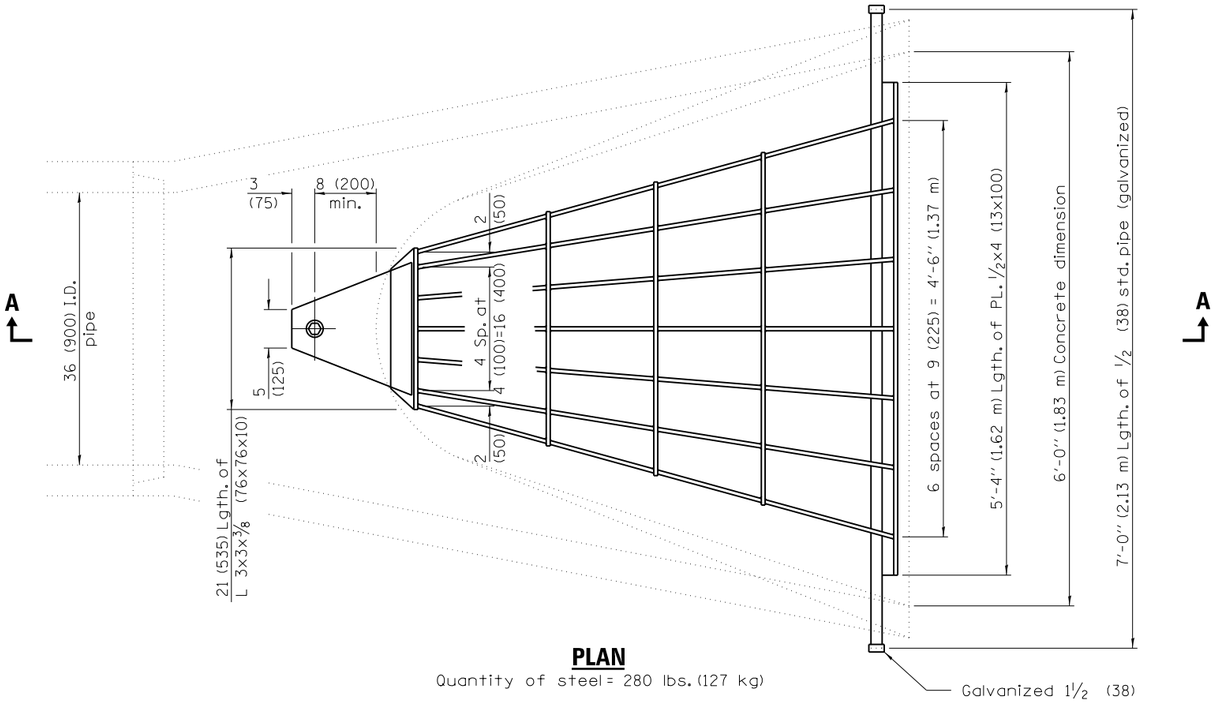
# PRECAST REINFORCED CONCRETE ELLIPTICAL FLARED END SECTION

**STANDARD 542306–03**



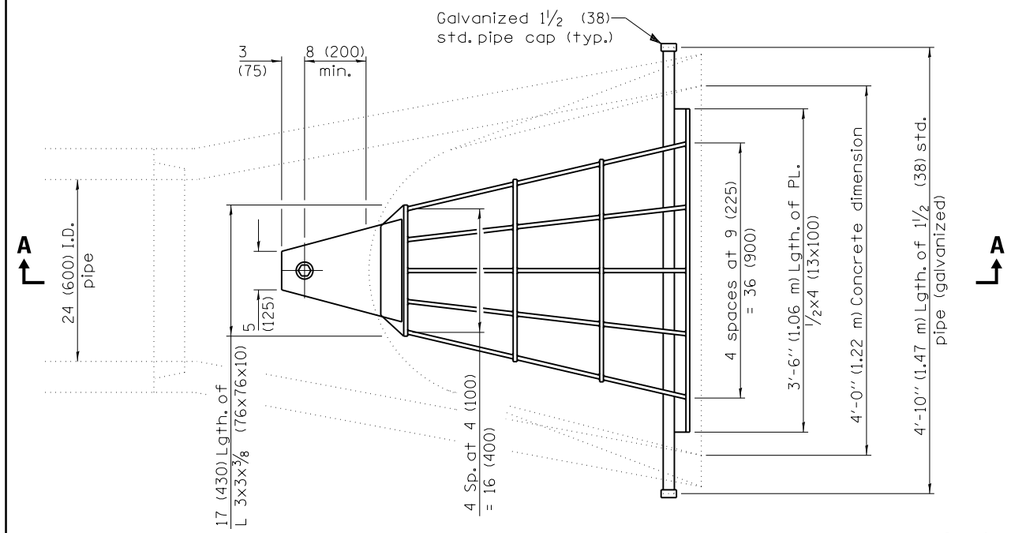

**PLAN**

Quantity of steel = 210 lbs. (95 kg)



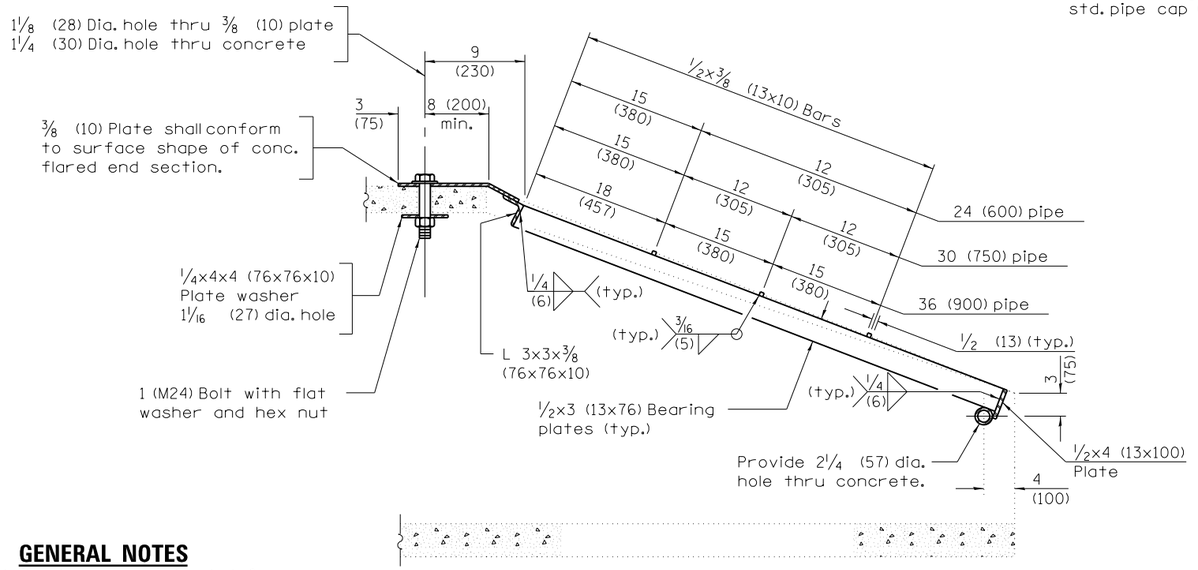

**PLAN**

Quantity of steel = 280 lbs. (127 kg)




**PLAN**

Quantity of steel = 150 lbs. (68 kg)




**SECTION A–A**

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

## GENERAL NOTES

Grating details shown are intended for use with particular sizes of precast reinforced concrete flared end sections as shown on standards 542301 and 542306.

Approximate quantity of steel shown includes total quantity of grating, bolts, nuts, washers and steel pipe.

Holes in the precast concrete flared end sections shall be cored to the diameters noted. If cone-out on the other end of the hole occurs, the hole shall be filled with grout to correct the diameter of the hole.

Illinois Department of Transportation

PASSED January 1. 2012
Michael Brand
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1. 2012
Scott Schaffter
ENGINEER OF DESIGN AND ENVIRONMENT

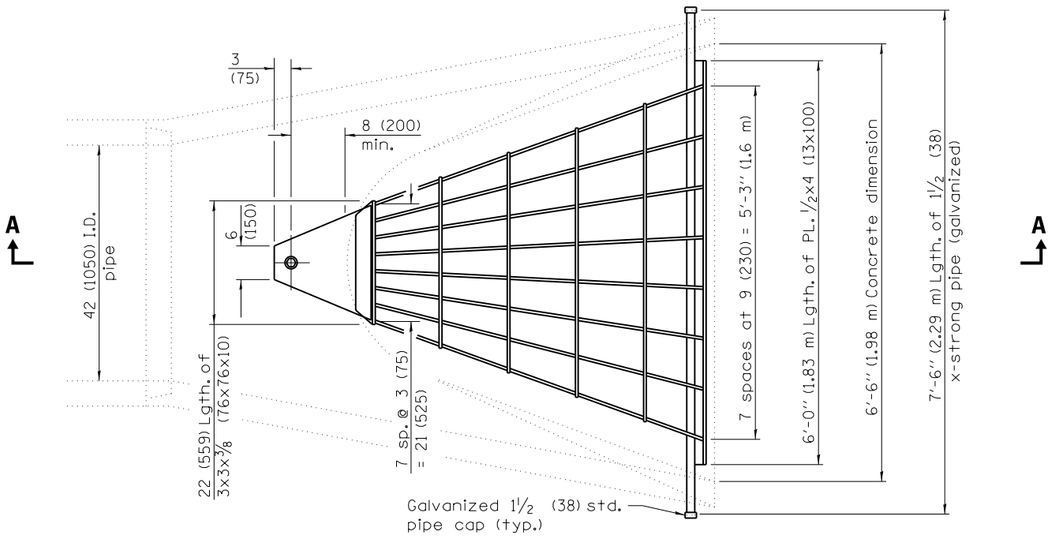
ISSUED 1-1-97

| DATE | REVISIONS |
|---|---|
| 1-1-12 | Corrected diameter |
| | dimension for 48 inch pipe. |
| | |
| 1-1-11 | Corrected weld symbols. |
| | |
| | |

# GRATING FOR CONCRETE FLARED END SECTION (FOR 24" (600 mm) THRU 54" (1350 mm) PIPE)

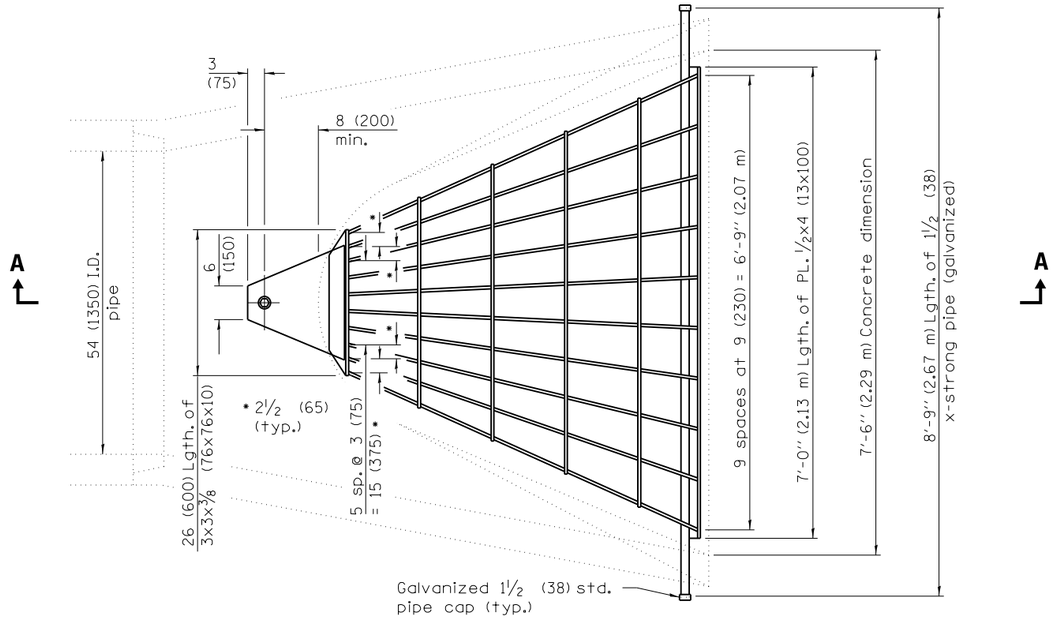
(Sheet 1 of 2)

## STANDARD 542311–03



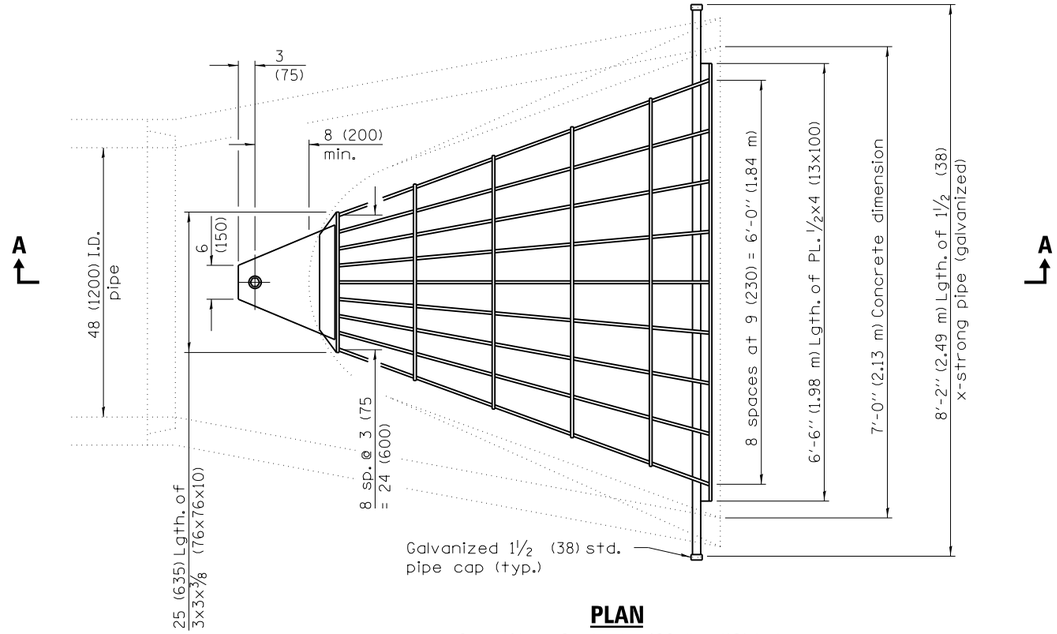

**PLAN**

Quantity of steel = 320 lbs. (145 kg)



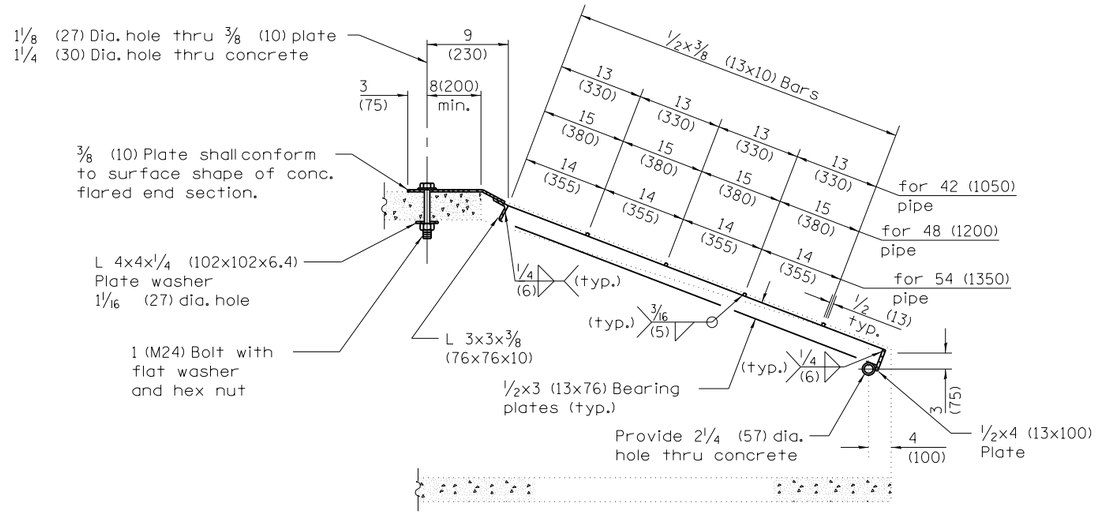

**PLAN**

Quantity of steel = 425 lbs. (193 kg)




**PLAN**

Quantity of steel = 400 lbs. (181 kg)




**SECTION A–A**

Illinois Department of Transportation

PASSED January 1, 2012
Michael Brand
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2012
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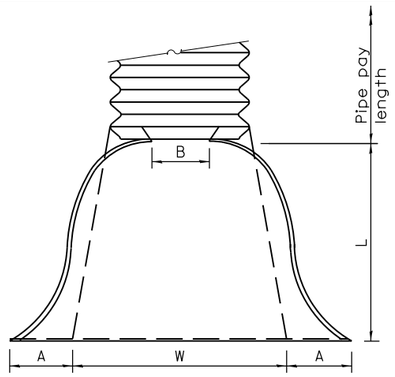
ISSUED 1-1-97

# GRATING FOR CONCRETE FLARED END SECTION (FOR 24" (600 mm) THRU 54" (1350 mm) PIPE)

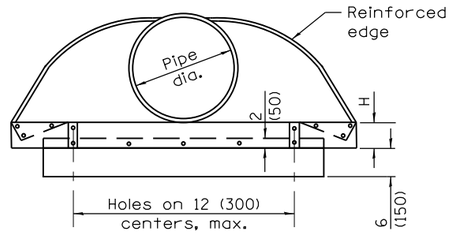
(Sheet 2 of 2)

**STANDARD 542311–03**

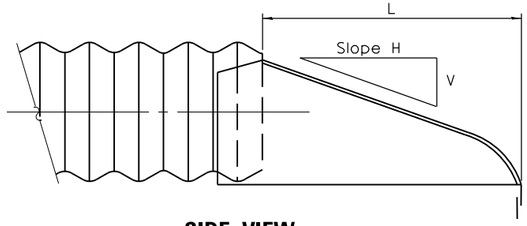
| PIPE DIA. | THICK-NESS | DIMENSIONS | | | | | SLOPE (Approx.) (V:H) | BODY |
|---|---|---|---|---|---|---|---|---|
| | | A | B | H | L | W | | |
| | | 1± (25) | (max.) | 1± (25) | 1½± (38) | 2± (50) | | |
| 12 (300) | 0.064 (1.63) | 6 (150) | 6 (150) | 6 (150) | 21 (535) | 24 (610) | 1:2½ | 1 Pc. |
| 15 (375) | 0.064 (1.63) | 7 (180) | 8 (205) | 6 (150) | 26 (660) | 30 (760) | 1:2½ | 1 Pc. |
| 18 (450) | 0.079 (2.01) | 8 (205) | 10 (255) | 6 (150) | 31 (785) | 36 (915) | 1:2½ | 1 Pc. |
| 21 (525) | 0.079 (2.01) | 9 (230) | 12 (305) | 6 (150) | 36 (915) | 42 (1.065 m) | 1:2½ | 1 Pc. |
| 24 (600) | 0.079 (2.01) | 10 (255) | 13 (330) | 6 (150) | 41 (1.040 m) | 48 (1.220 m) | 1:2½ | 1 Pc. |
| 30 (750) | 0.109 (2.77) | 12 (305) | 16 (405) | 8 (205) | 51 (1.295 m) | 60 (1.525 m) | 1:2½ | 1 Pc. |
| 36 (900) | 0.109 (2.77) | 14 (355) | 19 (480) | 9 (230) | 60 (1.525 m) | 72 (1.830 m) | 1:2½ | 2 Pc. |
| 42 (1050) | 0.079 (2.01) | 16 (405) | 22 (560) | 11 (280) | 69 (1.750 m) | 84 (2.135 m) | 1:2½ | 2 Pc. |
| 48 (1200) | 0.109 (2.77) | 18 (455) | 27 (685) | 12 (305) | 78 (1.980 m) | 90 (2.285 m) | 1:2¼ | 2 Pc. |
| 54 (1350) | 0.109 (2.77) | 18 (455) | 30 (760) | 12 (305) | 84 (2.135 m) | 102 (2.590 m) | 1:2 | 2 Pc. |
| 60 (1500) | 0.109 (2.77) | 18 (455) | 33 (840) | 12 (305) | 87 (2.210 m) | 114 (2.895 m) | 1:1¾ | 3 Pc. |
| 66 (1650) | 0.109 (2.77) | 18 (455) | 36 (915) | 12 (305) | 87 (2.210 m) | 120 (3.050 m) | 1:1½ | 3 Pc. |
| 72 (1800) | 0.138 (3.51) | 18 (455) | 39 (990) | 12 (305) | 87 (2.210 m) | 126 (3.200 m) | 1:1⅓ | 3 Pc. |
| 78 (1950) | 0.168 (4.27) | 18 (455) | 42 (1.065 m) | 12 (305) | 87 (2.210 m) | 132 (3.355 m) | 1:1¼ | 3 Pc. |
| 84 (2250) | 0.168 (4.27) | 18 (455) | 45 (1.145 m) | 12 (305) | 87 (2.210 m) | 138 (3.505 m) | 1:1⅙ | 3 Pc. |




**PLAN**




**END VIEW**



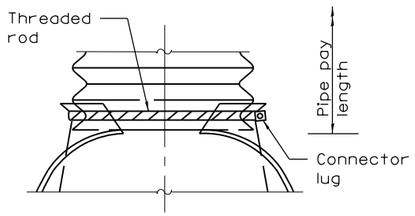

**SIDE VIEW**

**END SECTION**

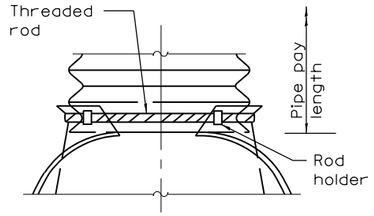
## NOTES

For 60 (1500) thru 84 (2250) sizes, reinforced edges shall be supplemented with stiffener angles. The angles shall be 2x2x¼(51x51x6.4) for 60 (1500) thru 72 (1800) diameter and 2½x2½x¼ (64x64x6.4) for 78 (1950) thru 84 (2250) diameter. The angles shall be attached by ⅜ (M10) rivets or bolts.

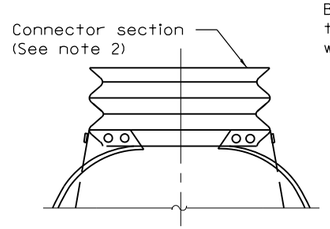
All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).



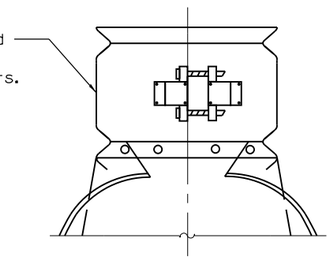

**TYPE 1**
For 12 (300) thru 24 (600) only
(See Note 1)



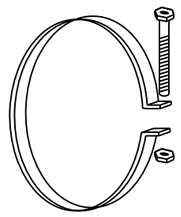

**TYPE 2**
For 30 (750) and 36 (900) only
(See Note 1)




**TYPE 3**
(See Note 2)




**TYPE 4**
(See Note 3)



1 (25) wide, 0.109 (2.77) thick strap with standard ½x6 (M12x150) band bolt and nut.

**ALTERNATE STRAP CONNECTOR**
(For Type 1 only)

**CONNECTIONS OF END SECTIONS**

## NOTES

1. Types 1 and 2 for pipes with annular ends only.
2. Type 3 connection may be used for all pipe sizes and includes 12 (300) of the pipe length. The connector section shall be attached to the end section by rivets or bolts and shall be the same metal thickness as the end section. Stub shall be either 2⅔ (68) pitch x ½ (13) depth or 3 (75) pitch x 1 (25) depth annular corrugated pipe.
3. Type 4 connection can be used for all pipe sizes. Coupler shall be 2⅔ x ½ (68x13) dimple, hugger, or annular band of 3x1 (75x25). The dimple, hugger, or annular band may be used with corrugated metal pipes having annular ends. For corrugated metal pipes having helical ends, only the dimple band will be allowed.

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

Illinois Department of Transportation

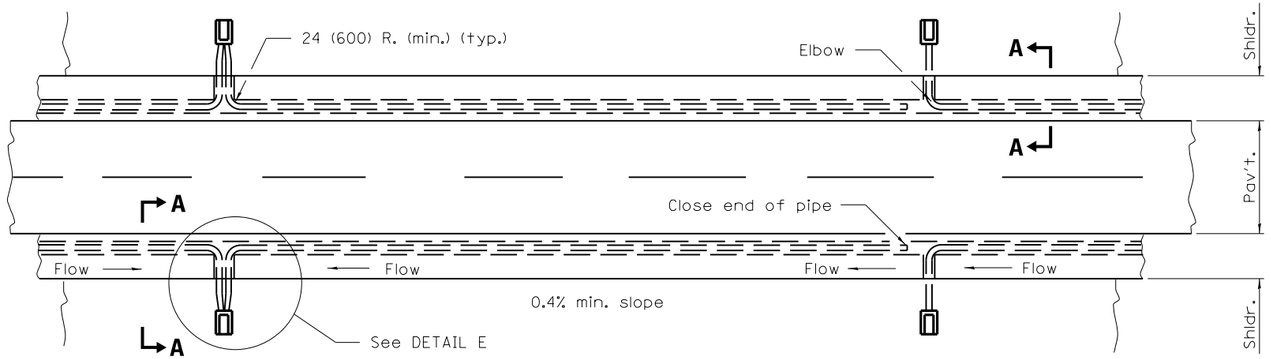
PASSED April 1, 2016
Michael Brand
ENGINEER OF POLICY AND PROCEDURES
APPROVED April 1, 2016
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

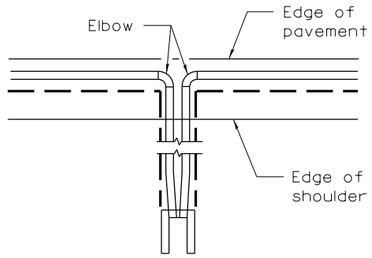
| DATE | REVISIONS |
|---|---|
| 4-1-16 | Revised THICKNESS values |
| | in table. |
| | |
| 1-1-09 | Switched units to |
| | English (metric). |
| | |

# METAL END SECTION FOR PIPE CULVERTS

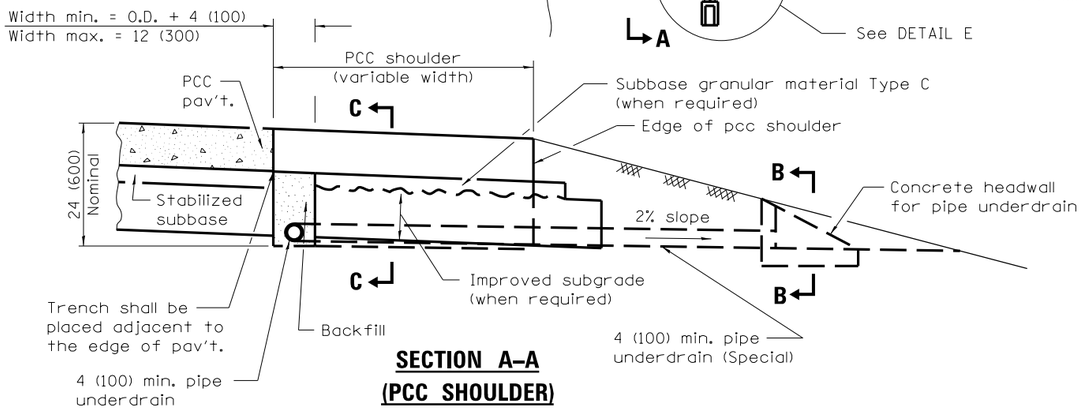
**STANDARD 542401–02**



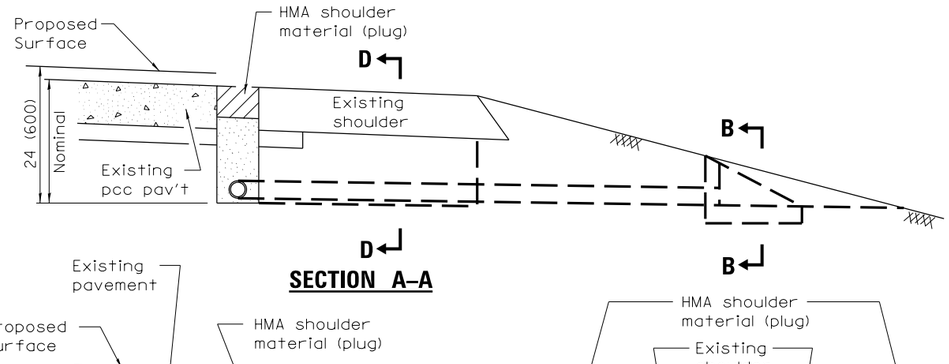

PLAN




DETAIL E




SECTION A–A
(PCC SHOULDER)



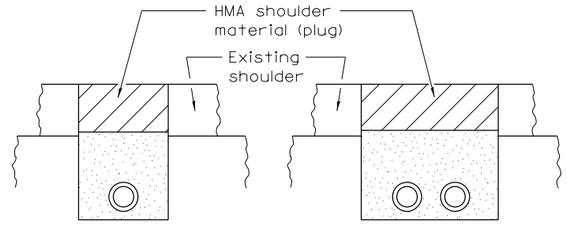

SECTION A–A




SECTION A–A
(HMA SHOULDER)
(Dimensions and notes not shown shall be as shown in the above Section A-A)

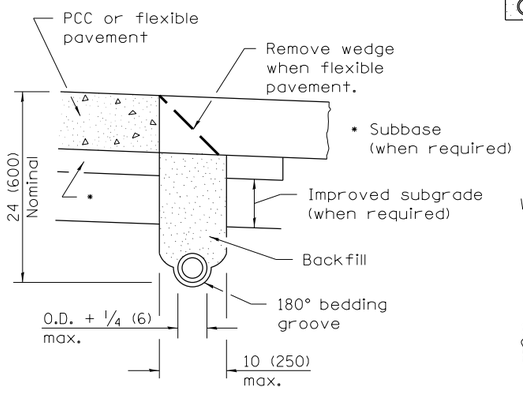



TRENCH FOR CORRUGATED POLYETHYLENE TUBING ALTERNATE

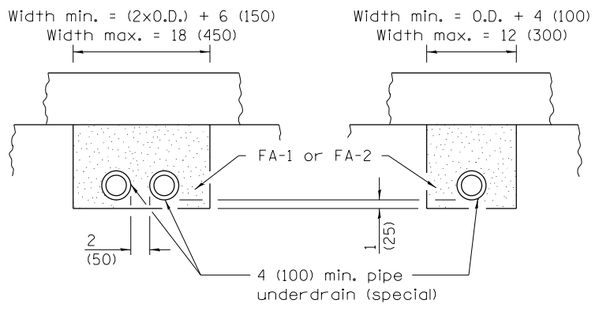



SECTION D–D

SECTION D–D
(Sag Locations)



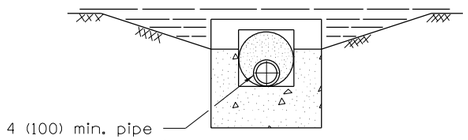

TRENCH FOR CORRUGATED POLYETHYLENE TUBING ALTERNATE



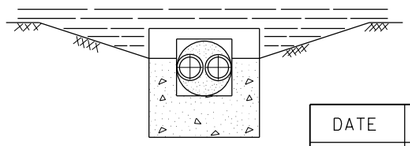

SECTION C–C
(Sag locations)

SECTION C–C

NEW CONSTRUCTION




SECTION B–B



SECTION B–B
(Sag locations)

## EXISTING CONSTRUCTION

(Except as noted or shown, dimensions and notes specified for Existing Construction are the same as those of New Construction)

## GENERAL NOTES

See Standard 601101 for details of concrete headwall.

See Standards 482001, 482006 and 483001 for details of shoulders not shown.

The 24 (600) radius on the drainage fitting is only a minimum. Larger radii meeting the approval of the Engineer may be substituted.

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

Illinois Department of Transportation

PASSED April 1, 2016
Michael Brand
ENGINEER OF POLICY AND PROCEDURES
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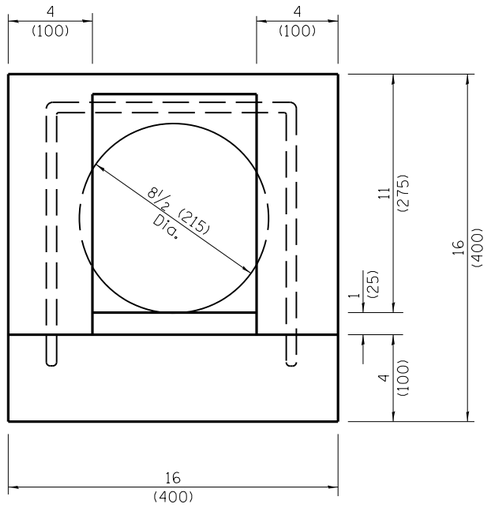
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

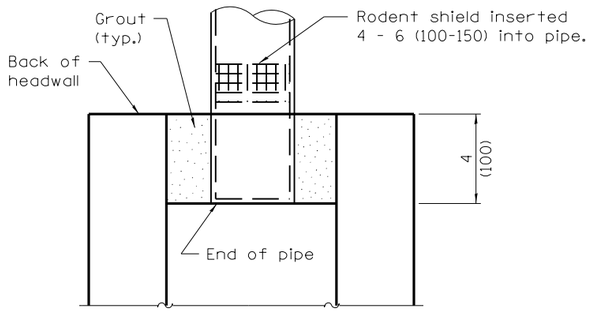
| DATE | REVISIONS |
|---|---|
| 4-1-16 | Renamed standard. Omitted |
| | drainage mat option. |
| | |
| 1-1-11 | Added 'PCC' and 'HMA' |
| | to SECTION A-A titles |
| | on Sheet 2. |

# PIPE UNDERDRAINS

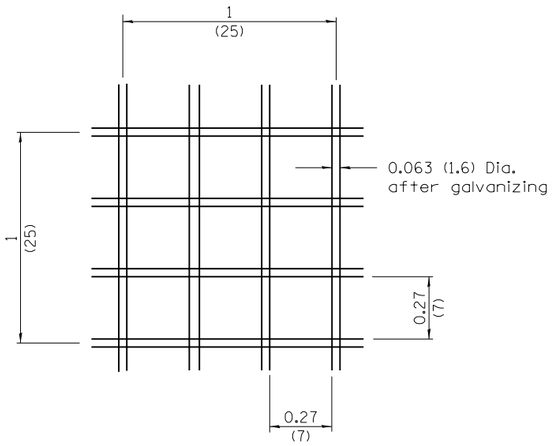
## STANDARD 601001–05



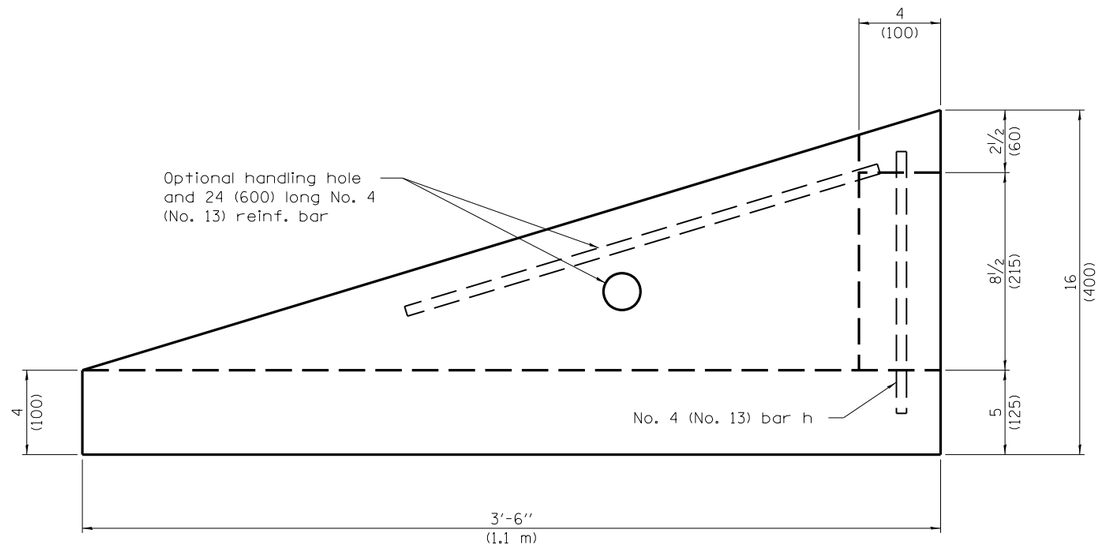

**FRONT VIEW**



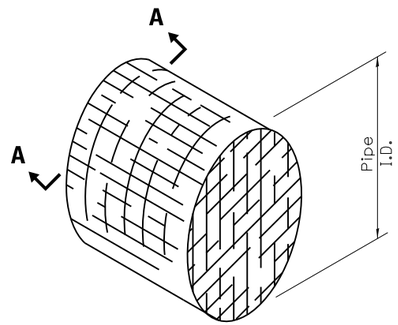

**RODENT SHIELD PLACEMENT**



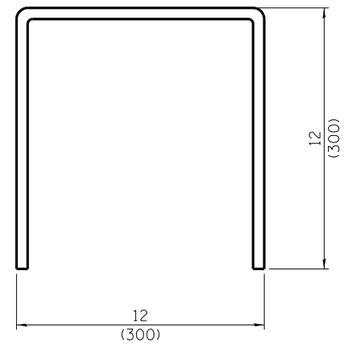

**SECTION A–A**




**SIDE VIEW**




**DETAIL OF RODENT SHIELD**




**BAR h**

## GENERAL NOTES

An alternate paved invert meeting the approval of the Engineer may be substituted for that shown in side view.

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

Illinois Department of Transportation

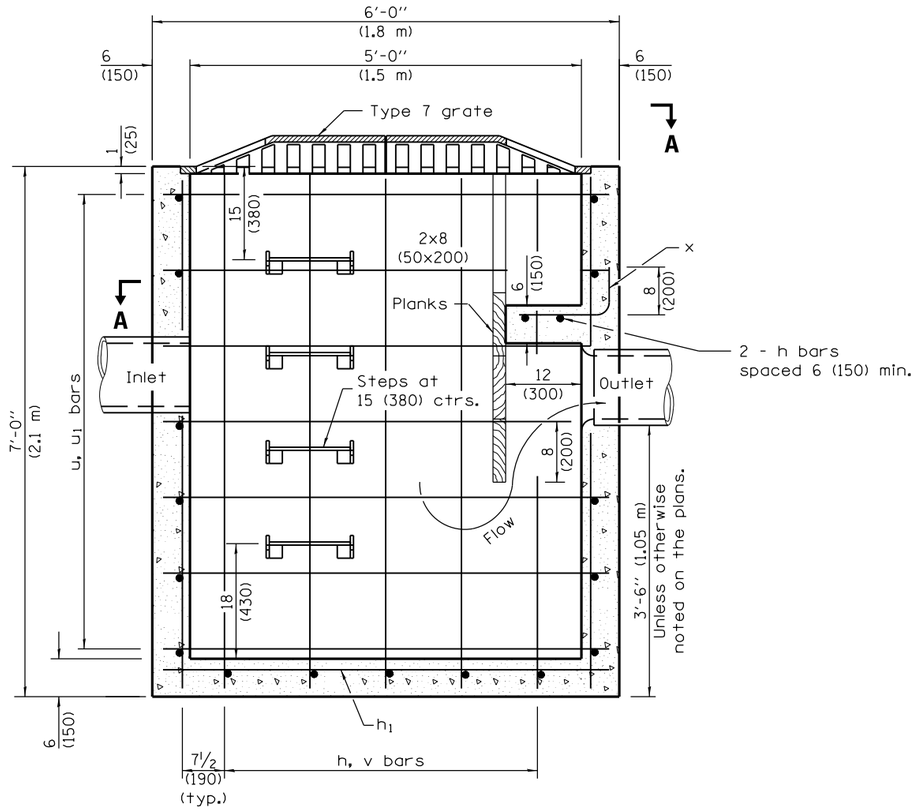
PASSED April 1. 2016
Michael Brand
ENGINEER OF POLICY AND PROCEDURES
APPROVED April 1. 2016
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

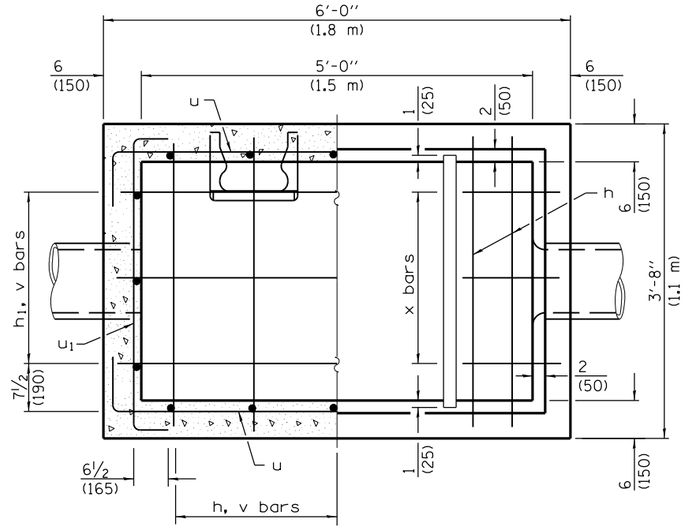
| DATE | REVISIONS |
|---|---|
| 4-1-16 | Renamed standard to be |
| | consistent with specs and |
| | other standards. |
| 1-1-09 | Switched units to |
| | English (metric). |
| | |

# CONCRETE HEADWALL FOR PIPE UNDERDRAINS

**STANDARD 601101–02**




## ELEVATION




## SECTION A–A

(Grating removed to show plan of baffles.)

## MATERIALS REQUIRED FOR ONE (1) TYPE B CATCH BASIN

| Bar | Qty. | Size | Shape | Length |
|---|---|---|---|---|
| h | 7 | No. 4 (No. 13) | ——— | 3'-5" (1.02 m) |
| $h_1$ | 3 | No. 4 (No. 13) | ——— | 5'-9" (1.72 m) |
| u | 14 | No. 4 (No. 13) | ⌊———⌋ | 7'-0" (2.10 m) |
| $u_1$ | 14 | No. 4 (No. 13) | ⌊———⌋ | 4'-6" (1.35 m) |
| v | 16 | No. 4 (No. 13) | ——— | 6'-9" (2.02 m) |
| x | 3 | No. 4 (No. 13) | ———⌋ | 1'-11" (580) |
| Concrete | | | cu. yd. ($m^3$) | 2.5 (1.90) |
| Reinforcement bars | | | lbs. (kg) | 210 (95) |

All bars shall be at 12 (300) centers unless otherwise shown. Reinforcement bar clearance shall be 1 1/2 (40).

## GENERAL NOTES

See Standard 602701 for details of steps.

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

Illinois Department of Transportation

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APPROVED January 1, 2013
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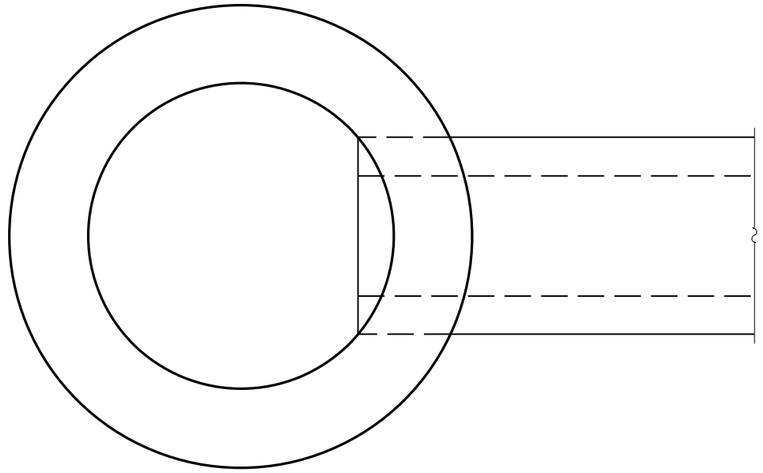
ISSUED 1-1-97

| DATE | REVISIONS |
|---|---|
| 1-1-13 | Revised and relocated |
| | steps. |
| | |
| 1-1-11 | Added additional bar |
| | identification. |
| | |

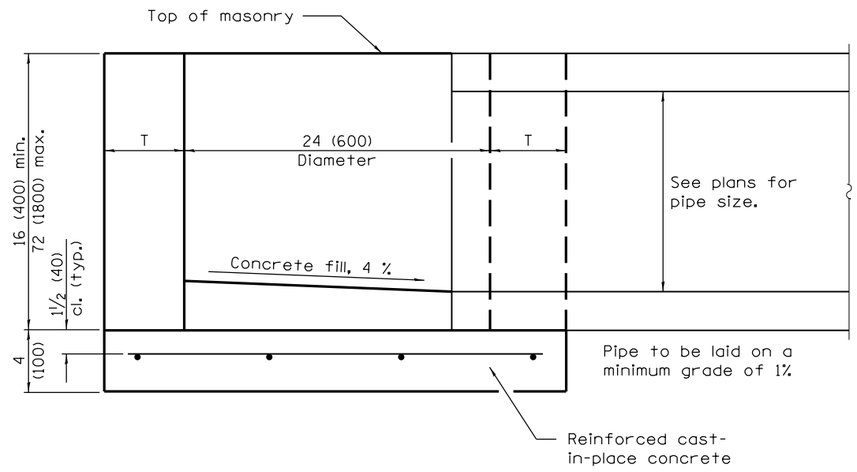
# CATCH BASIN TYPE B

**STANDARD 602006–04**

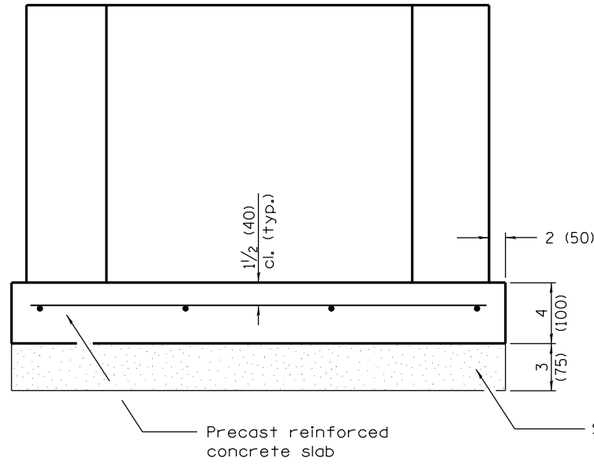


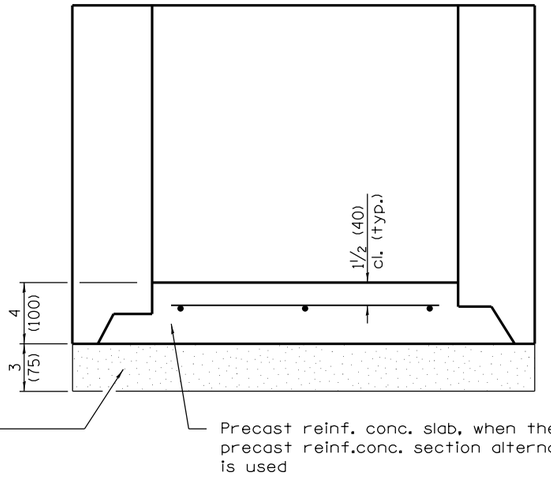
**PLAN**

| 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.

Illinois Department of Transportation

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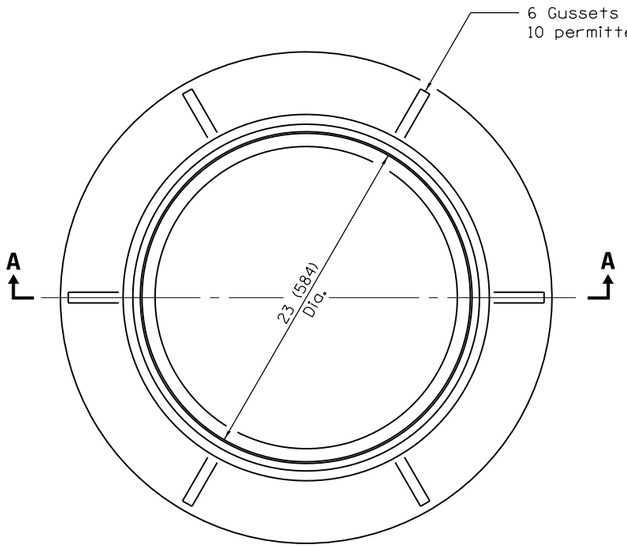
ISSUED 1-1-97

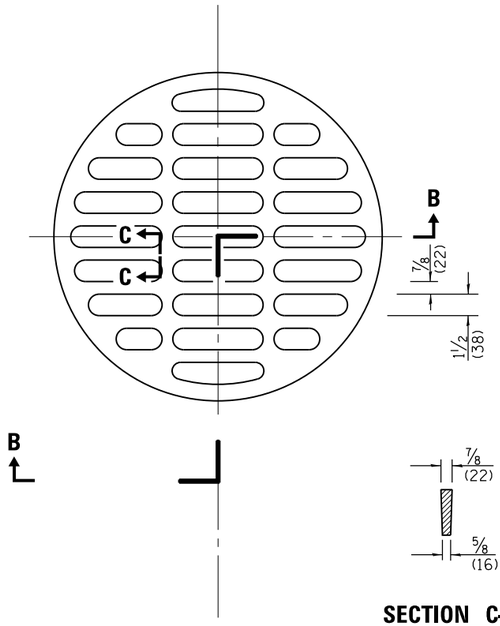
| DATE | REVISIONS |
|---|---|
| 1-1-14 | Increased height to |
| | 72 (1800) maximum. |
| | |
| 1-1-11 | Detailed rein. in slabs. |
| | Added max. limit to height. |
| | Added general notes. |

# INLET – TYPE A

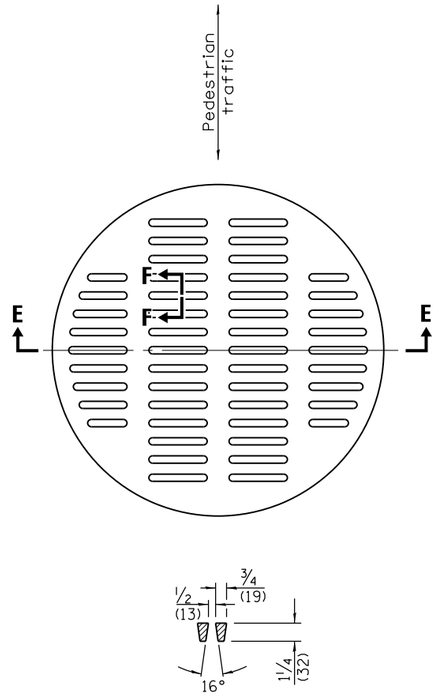
**STANDARD 602301–04**



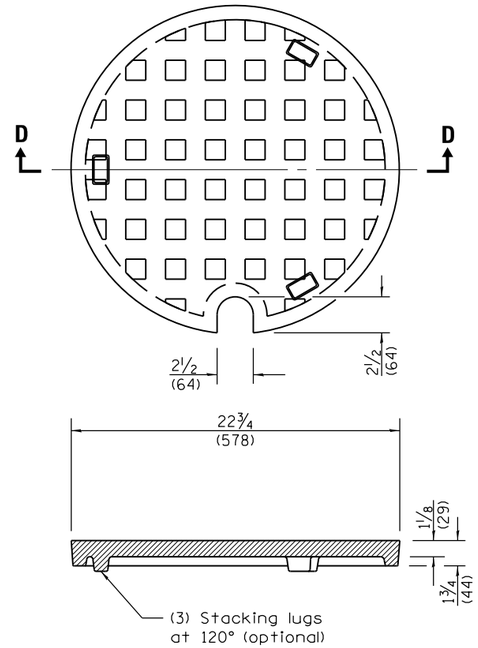

**CAST FRAME**



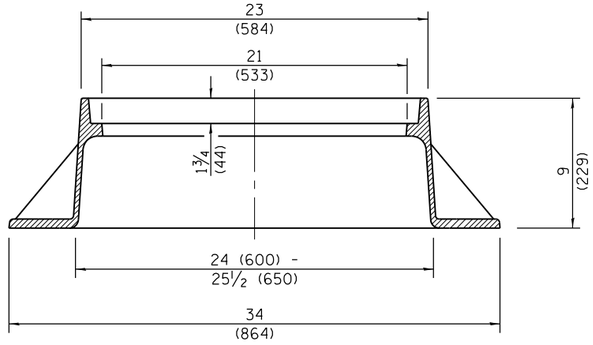

**SECTION C–C**



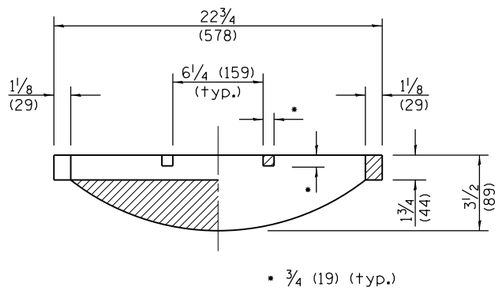

**SECTION F–F**




**SECTION D–D**

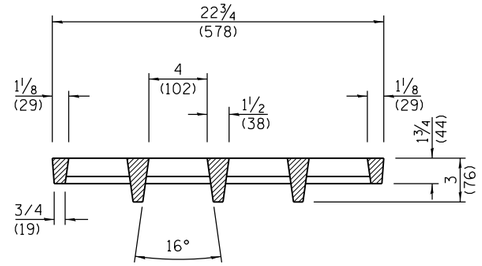



**SECTION A–A**
Gray Iron




**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

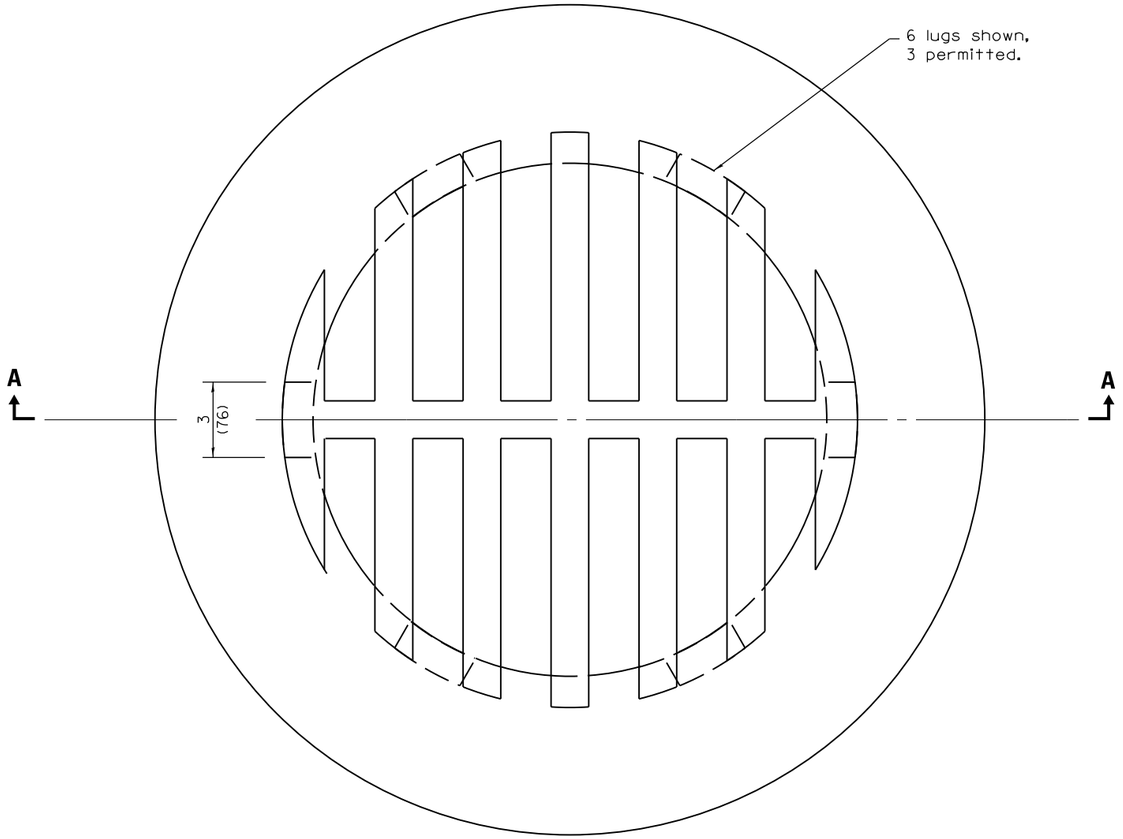
PASSED January 1, 2015
Michael Brand
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2015
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

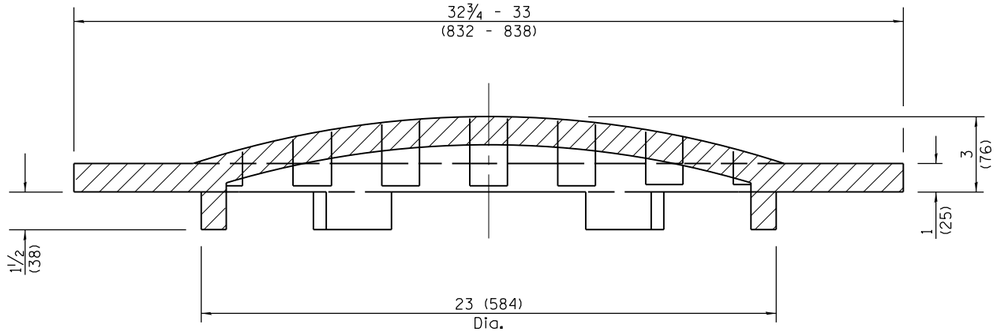
| DATE | REVISIONS |
|---|---|
| 1-1-15 | Revised dimensioning of |
| | frame. Added ADA compliant |
| | open lid. |
| 1-1-09 | Switched units to |
| | English (metric). |
| | |

# 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

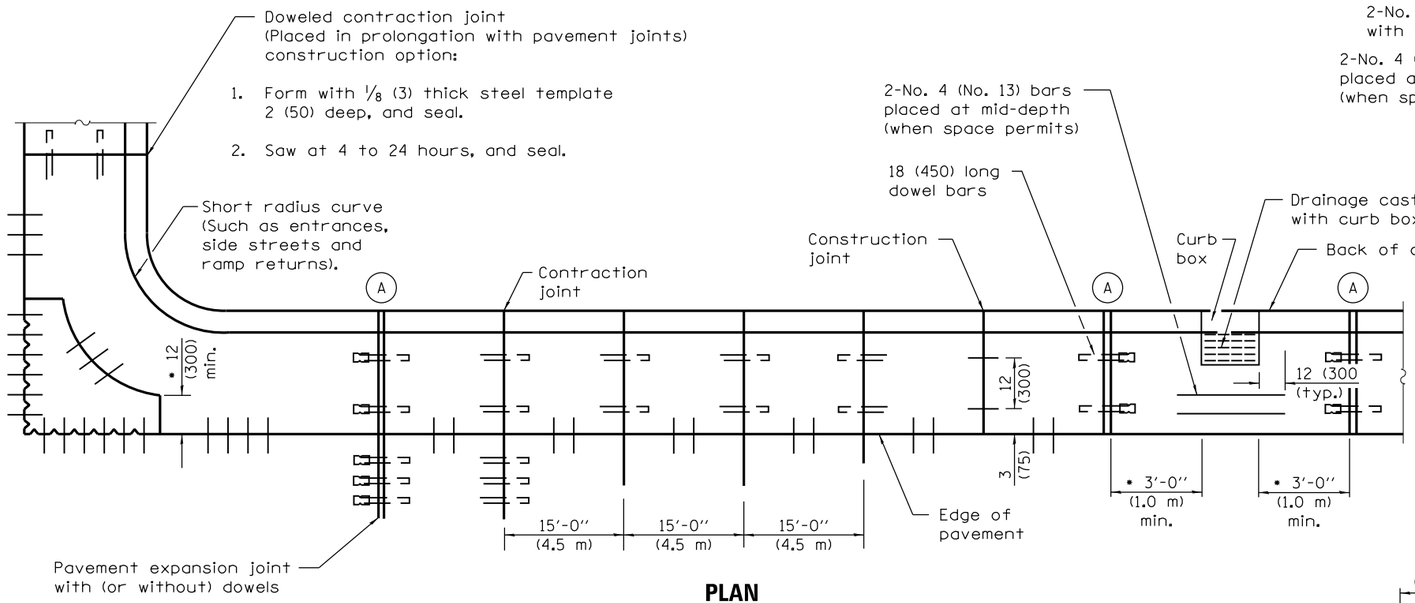
PASSED January 1. 2015
Michael Brand
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1. 2015
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-15

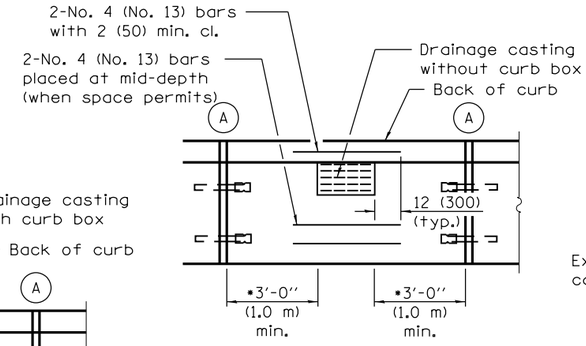
| DATE | REVISIONS |
|---|---|
| 1-1-15 | Revised dimensions. |
| | |
| | |
| 1-1-09 | Switched units to |
| | English (metric). |
| | |

# GRATE TYPE 8

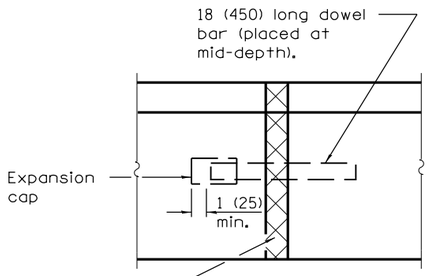
**STANDARD 604036–03**



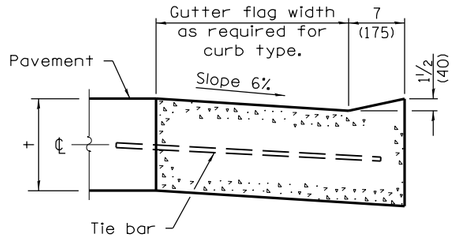

**PLAN**
**ADJACENT TO PCC PAVEMENT OR PCC BASE COURSE**



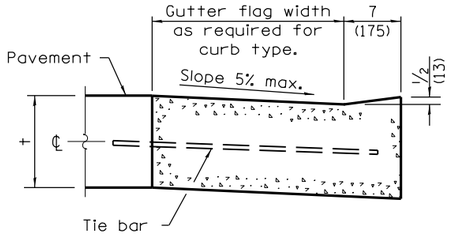

• This dimension shall be adjusted to align with joint on the adjacent pavement



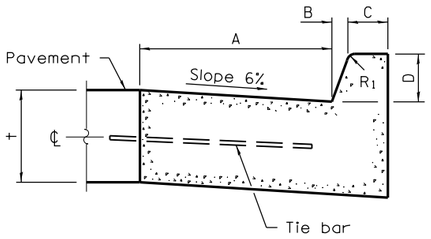

**DETAIL (A)**
**EXPANSION JOINT**




**DEPRESSED CURB (TYPICAL)**



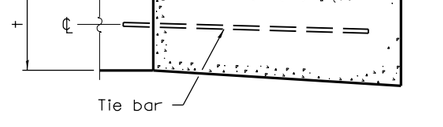

**DEPRESSED CURB ADJACENT TO CURB RAMP ACCESSIBLE TO THE DISABLED**




**BARRIER CURB**

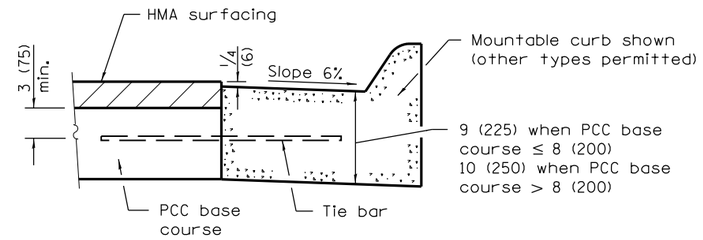
| TABLE OF DIMENSIONS BARRIER CURB | | | | | |
|---|---|---|---|---|---|
| TYPE | A | B | C | D | $R_1$ |
| B-6.06 * (B-15.15) | 6 (150) | 1 (25) | 6 (150) | 6 (150) | 1 (25) |
| B-6.12 (B-15.3) | 12 (300) | 1 (25) | 6 (150) | 6 (150) | 1 (25) |
| B-6.18 (B-15.45) | 18 (450) | 1 (25) | 6 (150) | 6 (150) | 1 (25) |
| B-6.24 (B-15.60) | 24 (600) | 1 (25) | 6 (150) | 6 (150) | 1 (25) |
| B-9.12 (B-22.30) | 12 (300) | 2 (50) | 5 (125) | 9 (225) | 1 (25) |
| B-9.18 (B-22.45) | 18 (450) | 2 (50) | 5 (125) | 9 (225) | 1 (25) |
| B-9.24 (B-22.60) | 24 (600) | 2 (50) | 5 (125) | 9 (225) | 1 (25) |

* For corner islands only.

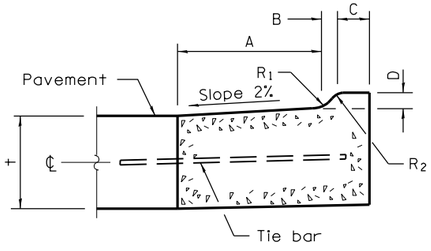



**MOUNTABLE CURB**

| TABLE OF DIMENSIONS MOUNTABLE CURB | | | | | | |
|---|---|---|---|---|---|---|
| TYPE | A | B | C | D | $R_1$ | $R_2$ |
| M-2.06 (M-5.15) | 6 (150) | 2 (50) | 4 (100) | 2 (50) | 3 (75) | 2 (50) |
| M-2.12 (M-5.30) | 12 (300) | 2 (50) | 4 (100) | 2 (50) | 3 (75) | 2 (50) |
| M-4.06 (M-10.15) | 6 (150) | 4 (100) | 3 (75) | 4 (100) | 3 (75) | NA |
| M-4.12 (M-10.30) | 12 (300) | 4 (100) | 3 (75) | 4 (100) | 3 (75) | NA |
| M-4.18 (M-10.45) | 18 (450) | 4 (100) | 3 (75) | 4 (100) | 3 (75) | NA |
| M-4.24 (M-10.60) | 24 (600) | 4 (100) | 3 (75) | 4 (100) | 3 (75) | NA |
| M-6.06 (M-15.15) | 6 (150) | 6 (150) | 2 (50) | 6 (150) | 2 (50) | NA |
| M-6.12 (M-15.30) | 12 (300) | 6 (150) | 2 (50) | 6 (150) | 2 (50) | NA |
| M-6.18 (M-15.45) | 18 (450) | 6 (150) | 2 (50) | 6 (150) | 2 (50) | NA |
| M-6.24 (M-15.60) | 24 (600) | 6 (150) | 2 (50) | 6 (150) | 2 (50) | NA |




**ADJACENT TO PCC BASE COURSE WITH HMA SURFACING**




**M–2.06 (M–5.15) and M–2.12 (M–5.30)**

## 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 24 (600) 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.

Illinois Department of Transportation

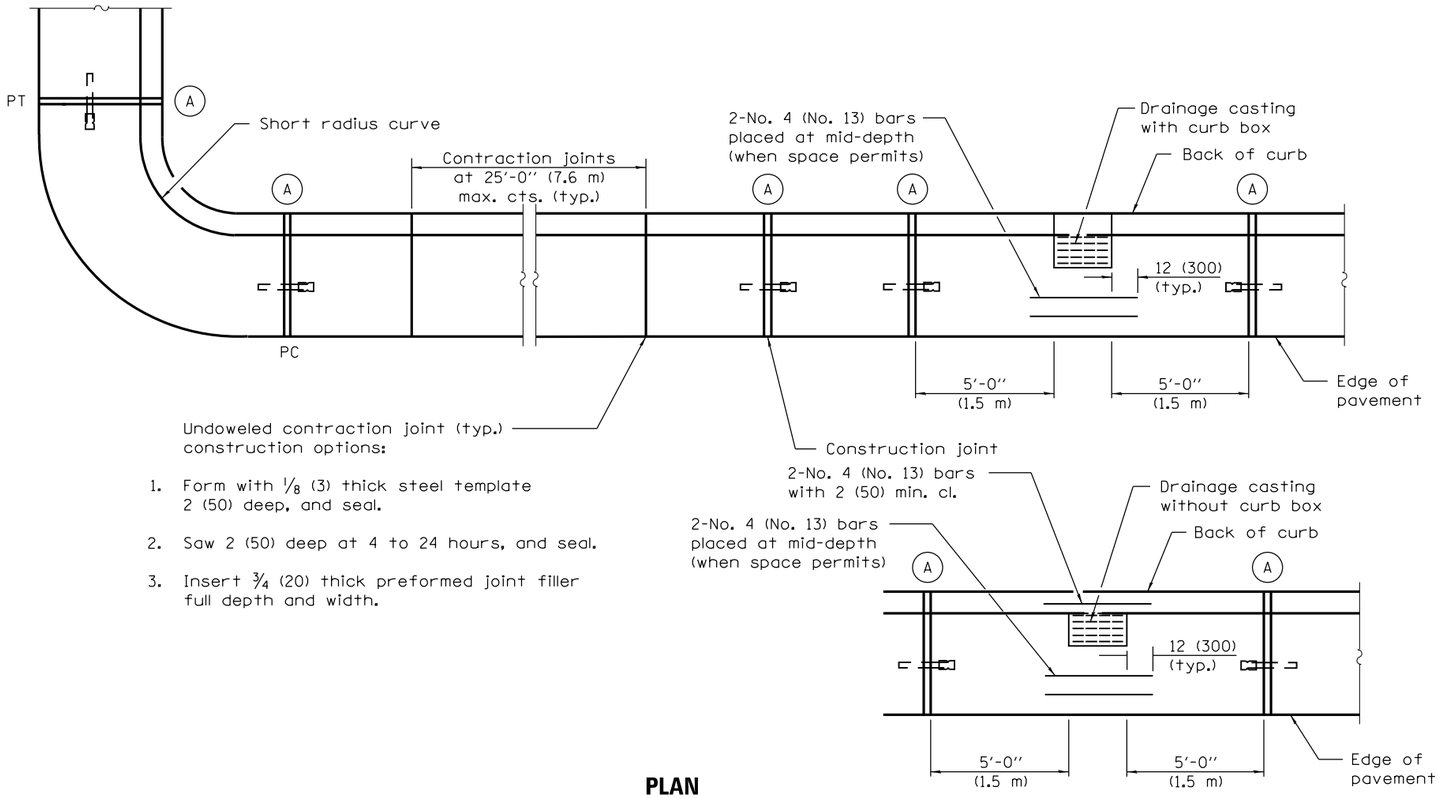
PASSED January 1, 2015
Michael Brand
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2015
ENGINEER OF DESIGN AND ENVIRONMENT
ISSUED 1-1-97

| DATE | REVISIONS |
|---|---|
| 1-1-15 | Added B-6.06 (B-15.15) barrier |
| | curb and gutter to table |
| | (corner islands only). |
| 1-1-13 | Added general note |
| | regarding requirement |
| | for dowel bars. |

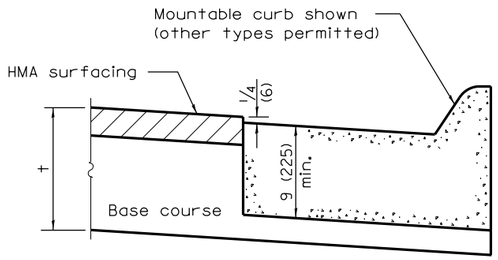
# CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER

(Sheet 1 of 2)

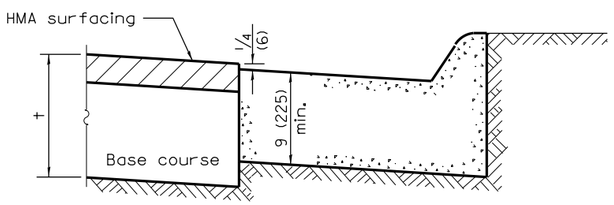
**STANDARD 606001–06**




**PLAN**

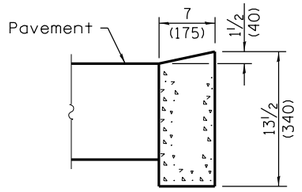



**ON DISTURBED SUBGRADE**

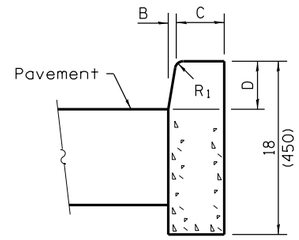



**ON UNDISTURBED SUBGRADE**

**ADJACENT TO FLEXIBLE PAVEMENT**

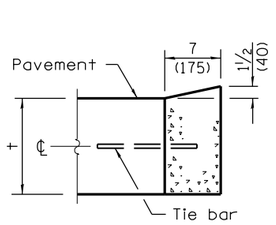



**DEPRESSED CURB**

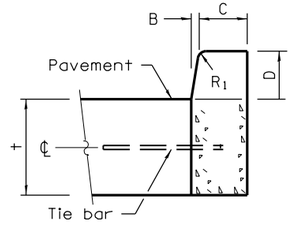



**BARRIER CURB**

**ADJACENT TO FLEXIBLE PAVEMENT**




**DEPRESSED CURB**




**BARRIER CURB**

**ADJACENT TO PCC PAVEMENT OR PCC BASE COURSE**

**CONCRETE CURB TYPE B**

Illinois Department of Transportation

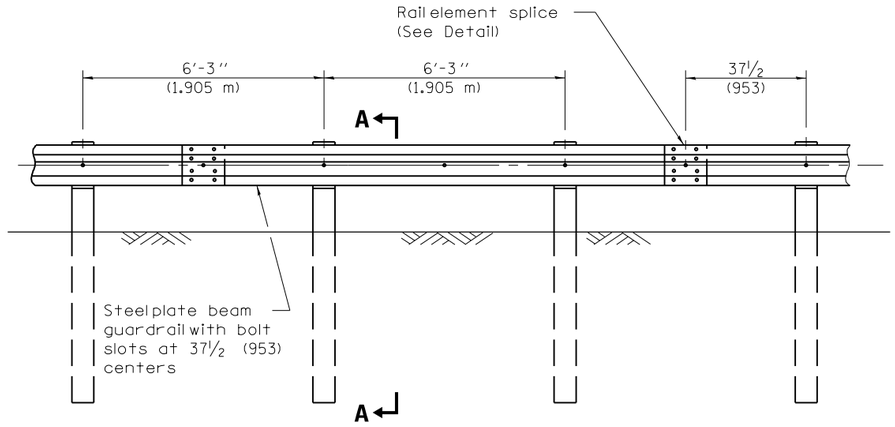
PASSED January 1, 2015
Michael Brand
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2015
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

# CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER



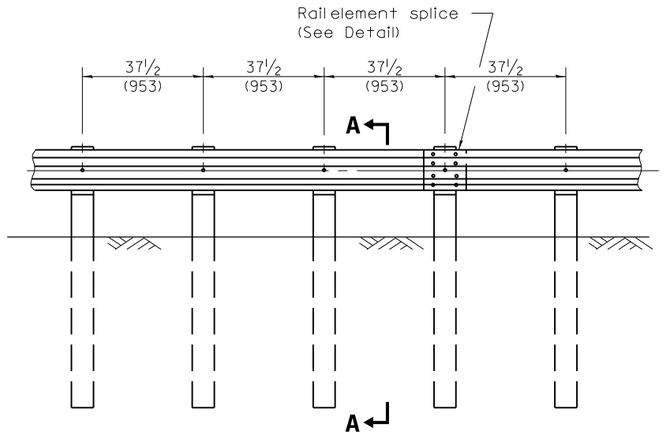
**STANDARD 606001–06**




## ELEVATION

## TYPE A

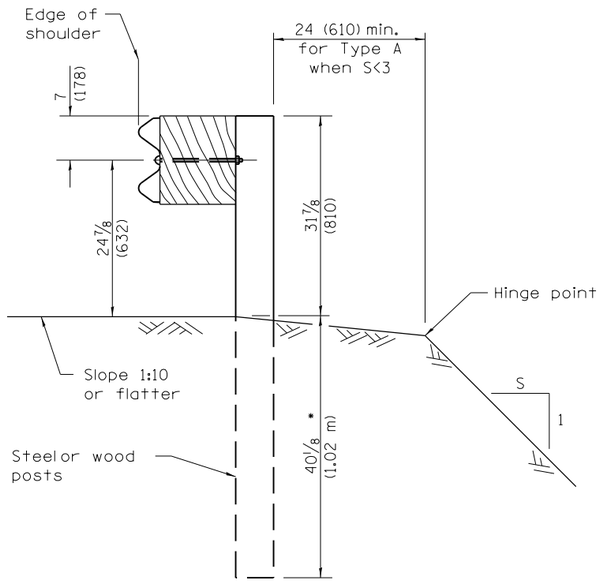
6'-3" (1.905 m) Typical post spacing




## ELEVATION

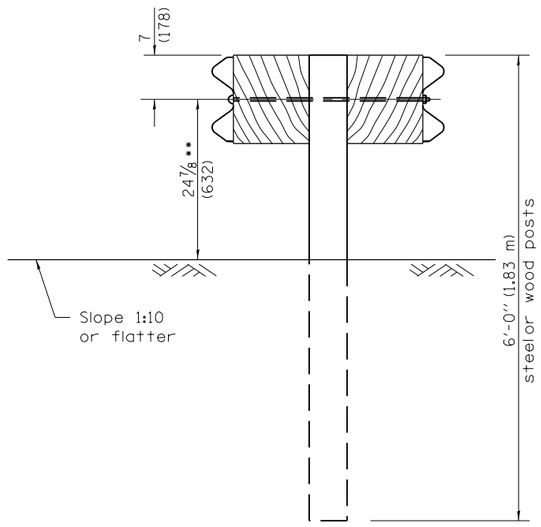
## TYPE B

37½ (953) Closed post spacing



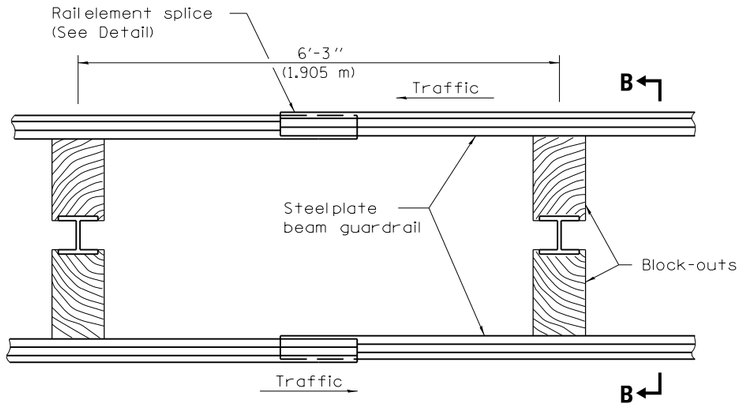

## SECTION A–A

* When "S" is less than 3 and the distance from the back of post is less than 24 (610), the post shall be steel and the embedment shall be 76⅛ (1934).




## SECTION B–B

** When connecting Type D guardrail to an impact attenuator, adjust this dimension to 21⅞ (556) over a distance of 25'-0" (7.62 m) from point of connection.




## PLAN

## TYPE D

Double steel plate beam guardrail
6'-3" (1.905 m) typical post spacing

## GENERAL NOTES

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

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

Illinois Department of Transportation

PASSED January 1, 2012
Michael Brand
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2012
Scott Bess
ENGINEER OF DESIGN AND ENVIRONMENT

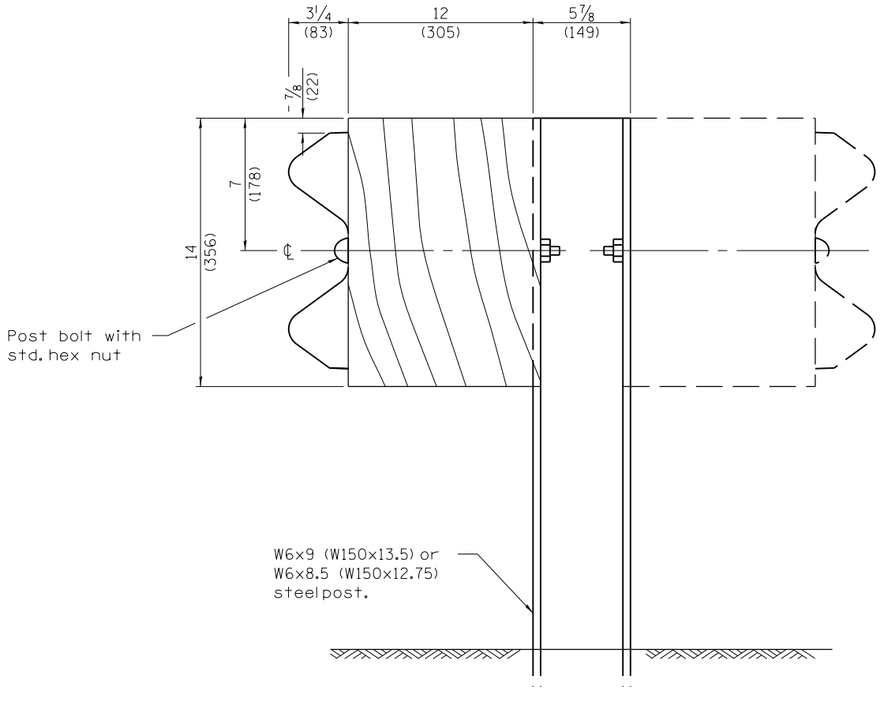
ISSUED 1-1-97

| DATE | REVISIONS |
|---|---|
| 1-1-12 | Added req. for 9 ft. posts |
| | to be steel. Modified set |
| | back of g'rail behind curb. |
| 1-1-11 | Added note to Section B-B |
| | for conn. to impact att. |
| | Revised table on Sheet 4. |

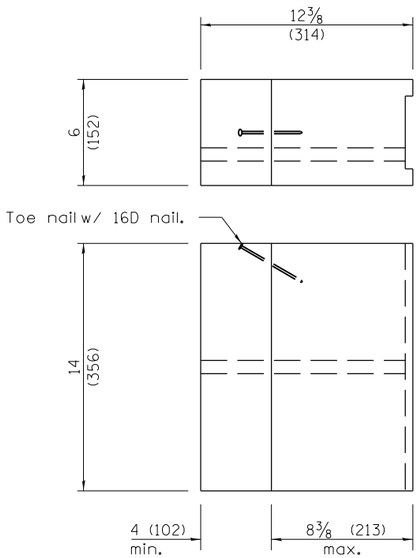
# STEEL PLATE BEAM GUARDRAIL

(Sheet 1 of 4)

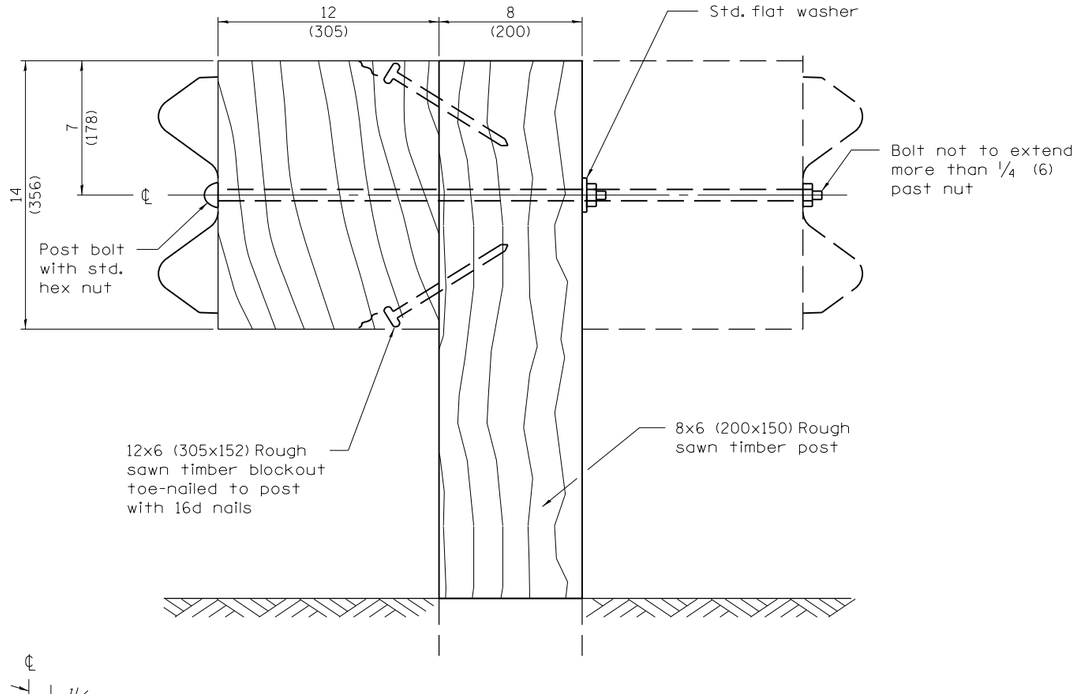
**STANDARD 630001–10**



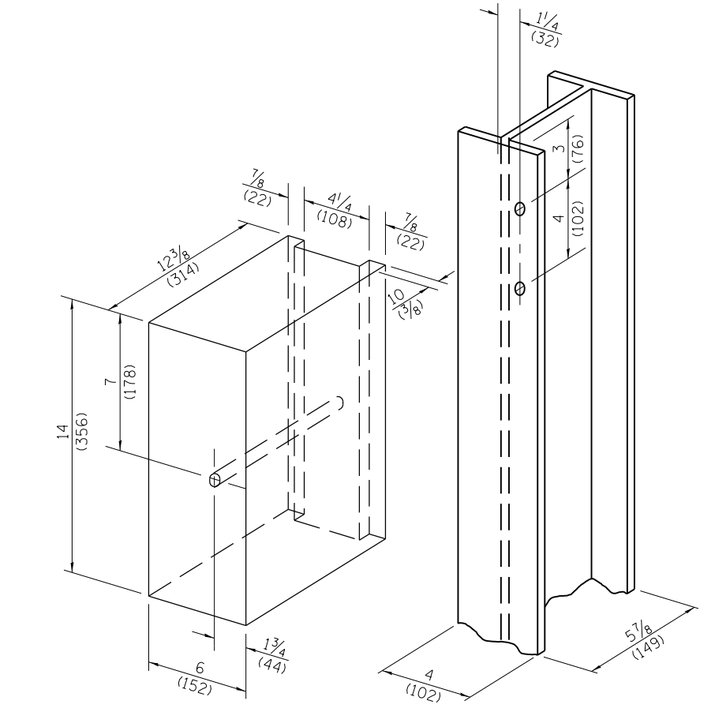

## STEEL POST CONSTRUCTION




## TWO–PIECE WOOD BLOCKOUT OPTION

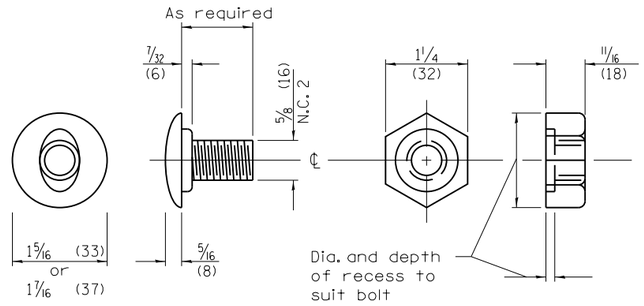



## WOOD POST CONSTRUCTION




Note:
All holes ¾ (20) dia.

## WOOD BLOCK–OUT AND STEEL POST DETAILS




## POST OR SPLICE BOLT & NUT

Illinois Department of Transportation

PASSED January 1, 2012
Michael Brand
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2012
Scott Essex
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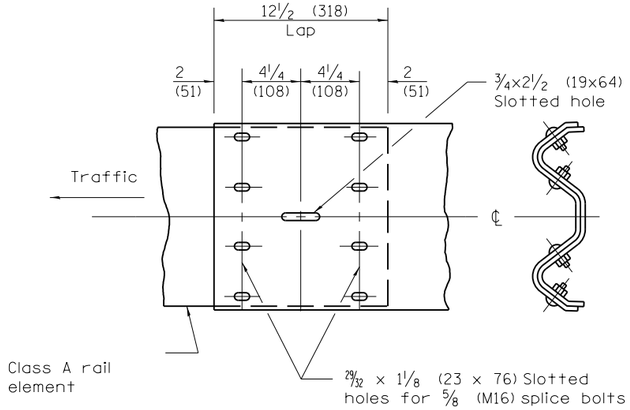
ISSUED 1-1-97

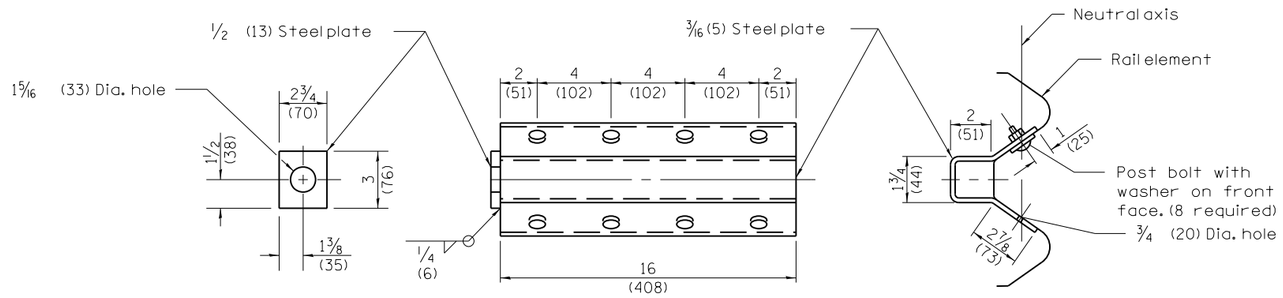
# STEEL PLATE BEAM GUARDRAIL

(Sheet 2 of 4)

**STANDARD 630001–10**

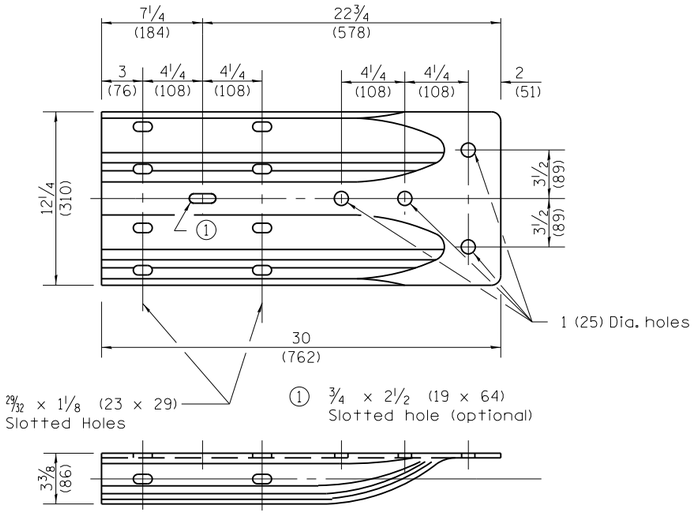



## RAIL ELEMENT SPLICE

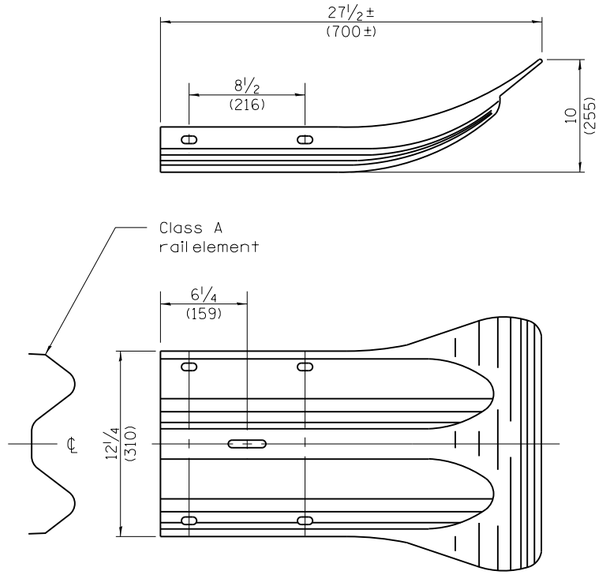



NOTE
Anchor plate T shall be used to attach cable assembly to guardrail when required on traffic barrier terminals.

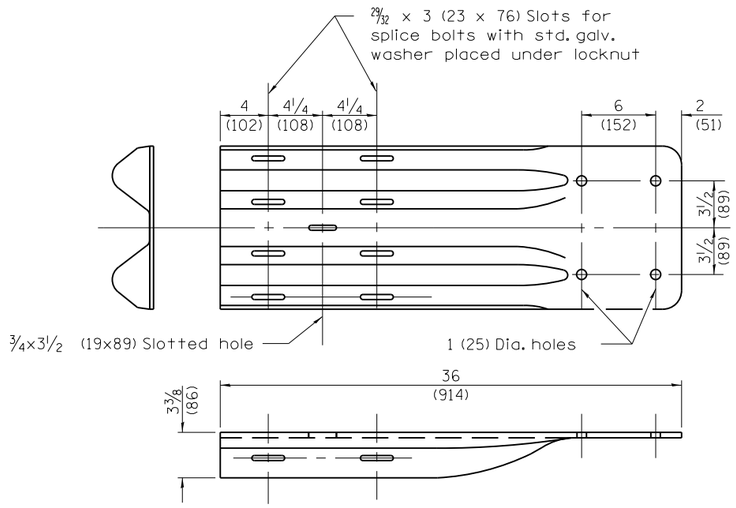
## ANCHOR PLATE T DETAILS




## ALTERNATE END SHOE




## END SECTION




NOTE
When end shoe is attached to a bridge parapet which has an expansion joint, the bolts shall be provided with a locknut or double nut and shall be tightened only to a point that will allow guardrail movement.

The standard end shoe shall be attached to the concrete with pre-drilled or self-drilling anchor bolts. The anchor cone shall be set flush with the surface of the concrete.

Externally threaded studs protruding from the surface of the concrete will not be permitted.

## END SHOE

Illinois Department of Transportation

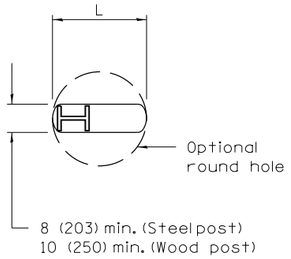
PASSED January 1, 2012
Michael Brand
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2012
Scott Bess
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

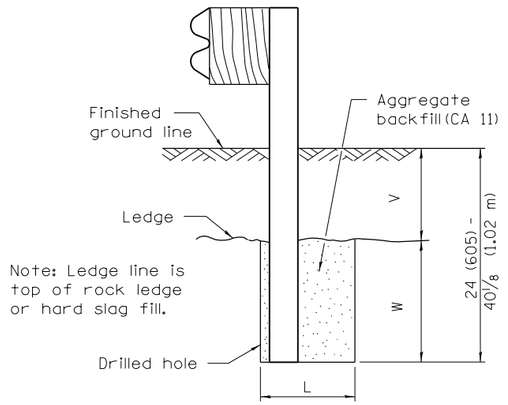
# STEEL PLATE BEAM GUARDRAIL



**STANDARD 630001–10**

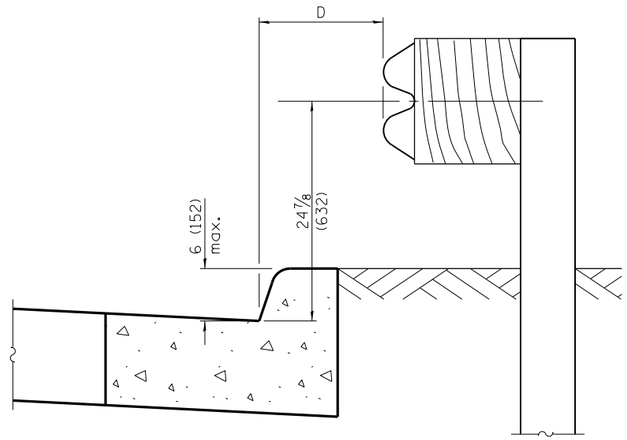



**PLAN**

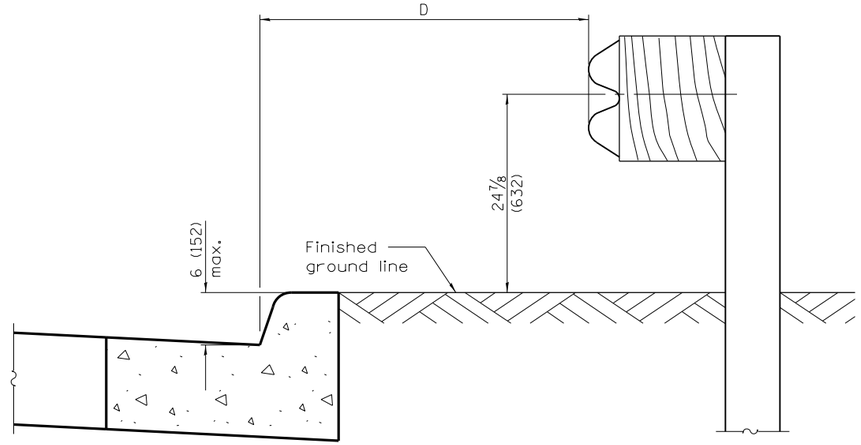



**ELEVATION**

**FOOTING FOR POST WHEN IMPERVIOUS MATERIAL IS ENCOUNTERED**




**0 ≤ D < 4'–0" (1.2 m)**

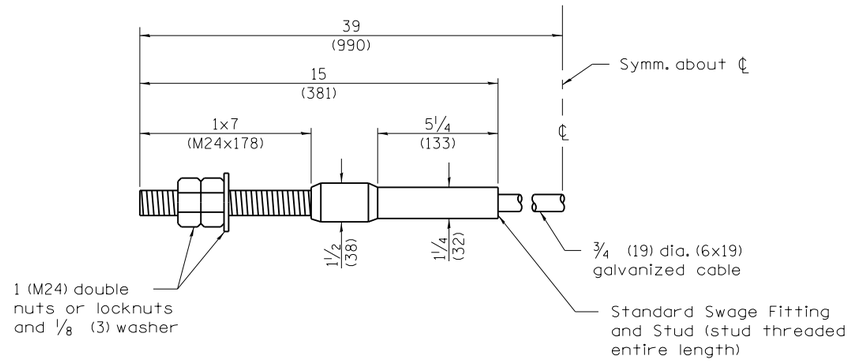



**4'–0" (1.2 m) ≤ D ≤ 12'–0" (3.7 m)**

**GUARDRAIL PLACED BEHIND CURB**

Note: 'D' shall not exceed 6 (152) for design speeds greater than 45 mph.

| V | W | L | |
|---|---|---|---|
| | | Steel Post | Wood Post |
| 0 - 6 (0 - 152) | 24 (610) | 21 (530) | 23 (580) |
| > 6 - 18 (> 152 - 458) | 18 (458) | 14½ (368) | 16½ (419) |
| > 18 - 31 (> 458 - 787) | 12 (305) | 8 (203) | 10 (250) |
| > 31 - 40⅛ (> 787 - 1.02 m) | 12 - 0 (305 - 0) | 8 (203) | 10 (250) |




**CABLE ASSEMBLY**

(40,000 lbs. (18,100 kg) min. breaking strength)
Tighten to taut tension.

Illinois Department of Transportation

PASSED January 1, 2012
Michael Brand
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2012
Scott Schoonover
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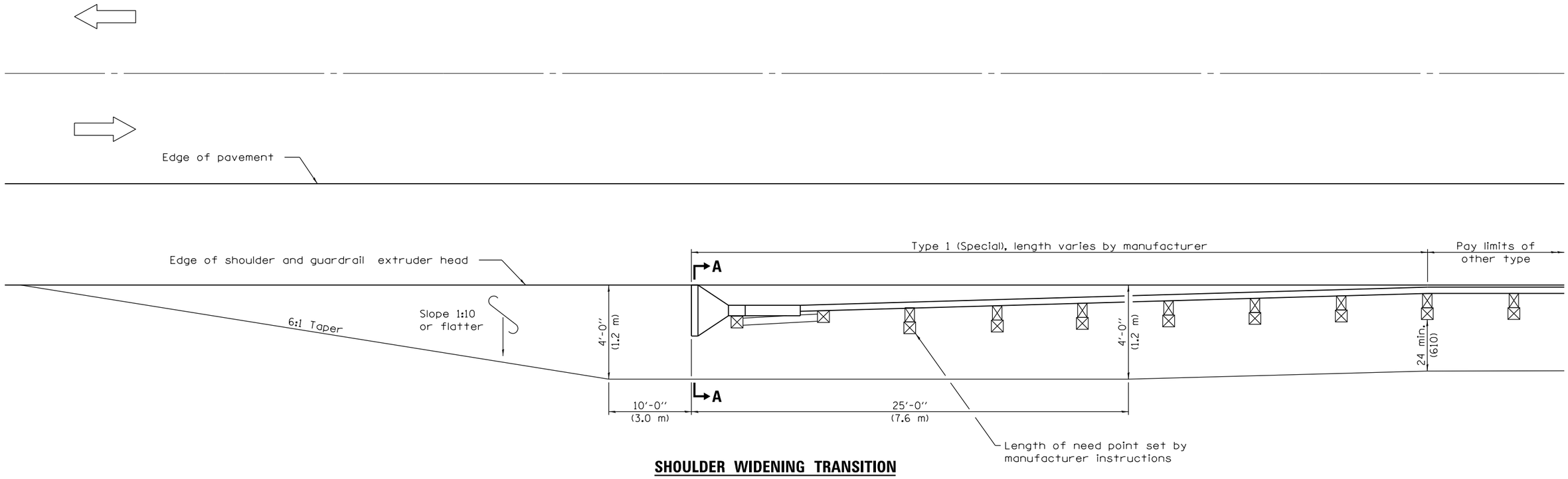
ISSUED 1-1-97

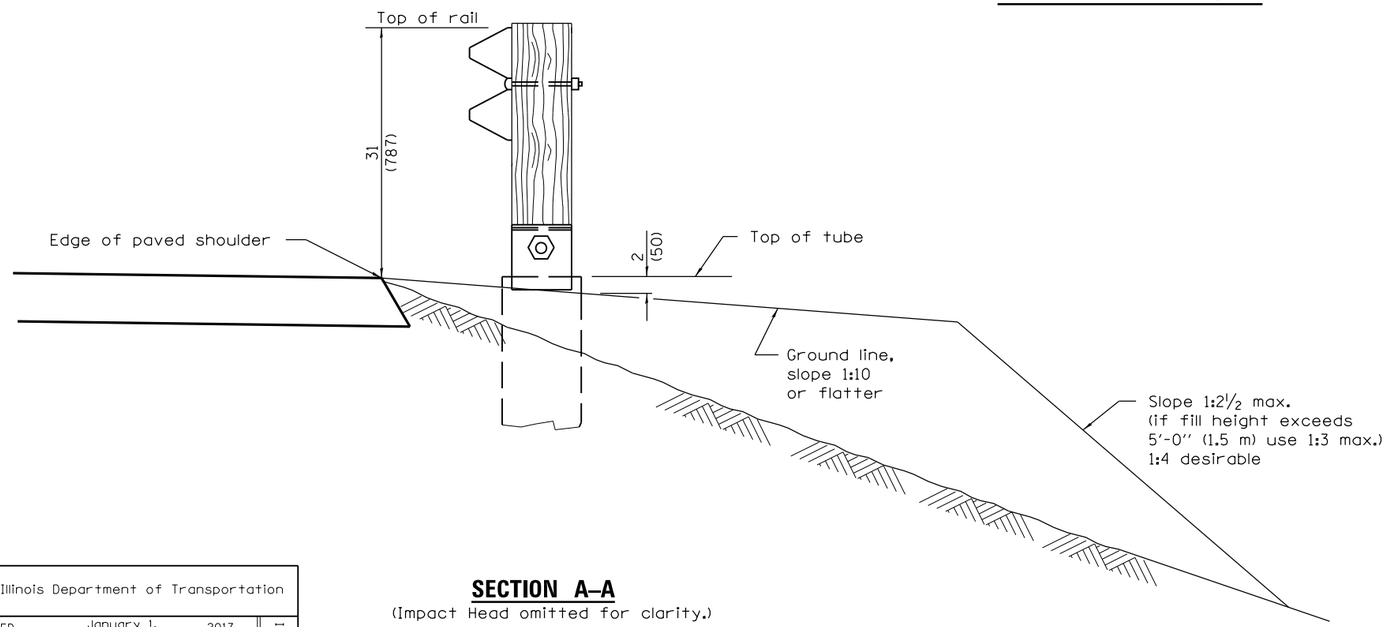
# STEEL PLATE BEAM GUARDRAIL



**STANDARD 630001–10**




## SHOULDER WIDENING TRANSITION FOR TANGENT TERMINAL




## SECTION A–A

(Impact Head omitted for clarity.)

## GENERAL NOTES

50:1 Taper required so the guardrail head will not encroach on the shoulder.

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

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

Illinois Department of Transportation

PASSED January 1. 2017
Michael Brand
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1. 2017
ENGINEER OF DESIGN AND ENVIRONMENT

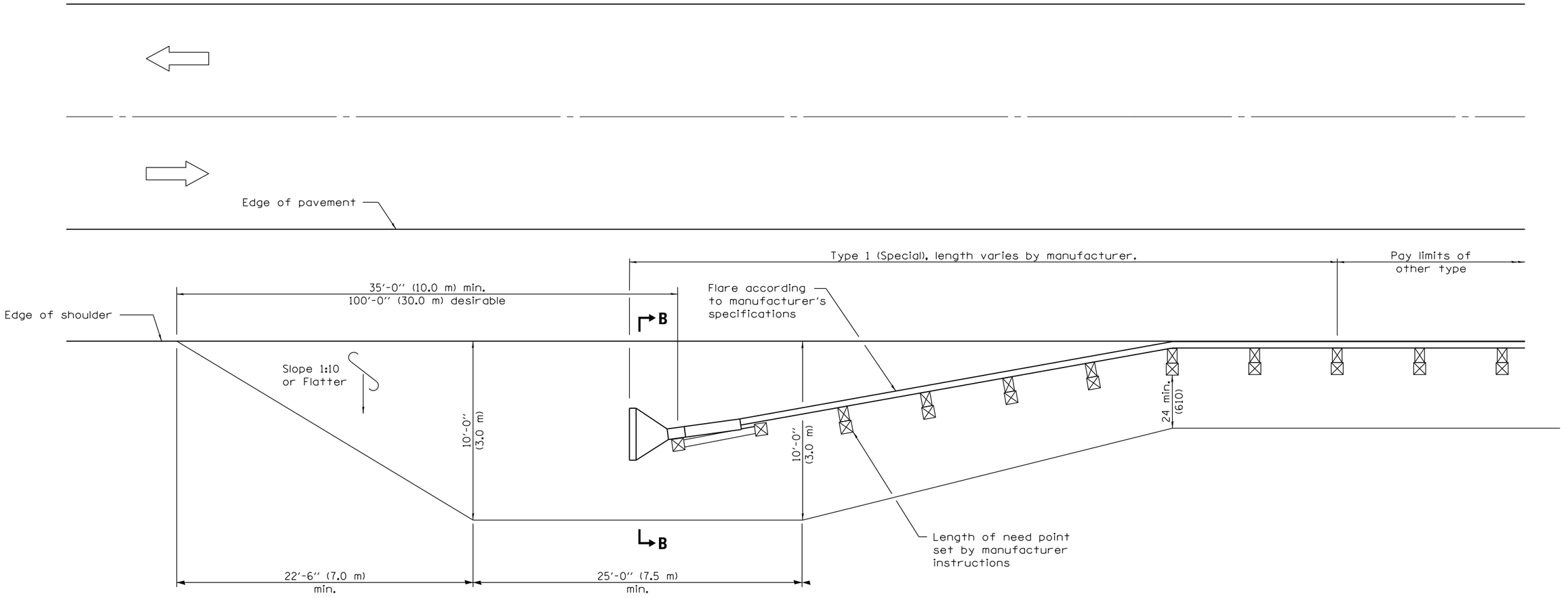
ISSUED 1-1-00

| DATE | REVISIONS |
|---|---|
| 1-1-17 | Changed length of Type 1 |
| | (Special) to vary by |
| | manufacturer. |
| 1-1-13 | Modified dimensioning of |
| | terminal. |
| | |

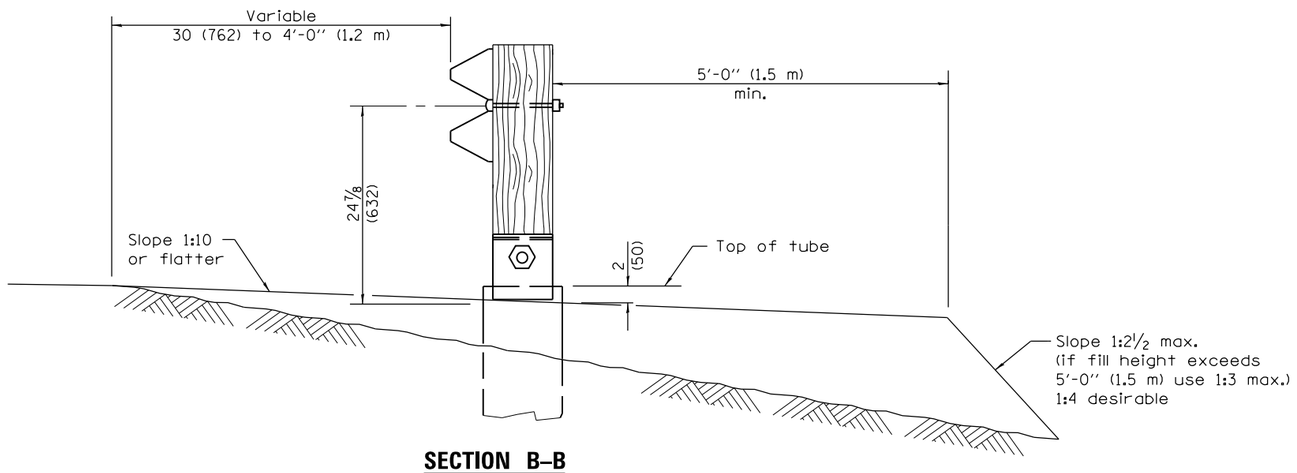
# SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS

(Sheet 1 of 2)

**STANDARD 630301–07**




## SHOULDER WIDENING TRANSITION FOR FLARED TERMINAL




## SECTION B–B

(Impact Head omitted for clarity.)

Illinois Department of Transportation

PASSED January 1. 2017
Michael Brand
ENGINEER OF POLICY AND PROCEDURES

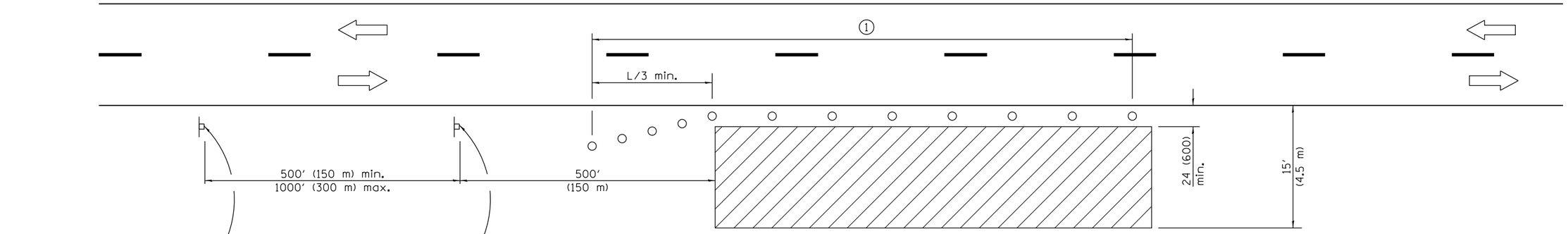
APPROVED January 1. 2017
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-00

# SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS

(Sheet 2 of 2)

**STANDARD 630301–07**




For contract construction projects


W20-I103(0)-48

W21-1(0)-48

For maintenance and utility projects


W20-1(0)-48

## TYPICAL APPLICATIONS

Utility operations
Culvert extensions
Side slope changes
Guardrail installation and maintenance
Delineator installation
Landscaping operations
Shoulder repair
Sign installation and maintenance

## SYMBOLS

Work area

Sign

Cone, drum or barricade

① When the work operation exceeds one hour, cones, drums or barricades shall be placed at 25′ (8 m) centers for L/3 distance, and at 50′ (15 m) centers through the remainder of the work area.

## GENERAL NOTES

This Standard is used where any vehicles, equipment, workers or their activities will encroach in the area 15′ (4.5 m) to 24 (600) from the edge of pavement.

Calculate L as follows:

| SPEED LIMIT | FORMULAS | |
|---|---|---|
| | English | (Metric) |
| 40 mph (70 km/h) or less: | $L=\frac{WS^2}{60}$ | $L=\frac{WS^2}{150}$ |
| 45 mph (80 km/h) or greater: | L=(W)(S) | L=0.65(W)(S) |

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

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

Illinois Department of Transportation

APPROVED January 1, 2014
ENGINEER OF SAFETY ENGINEERING

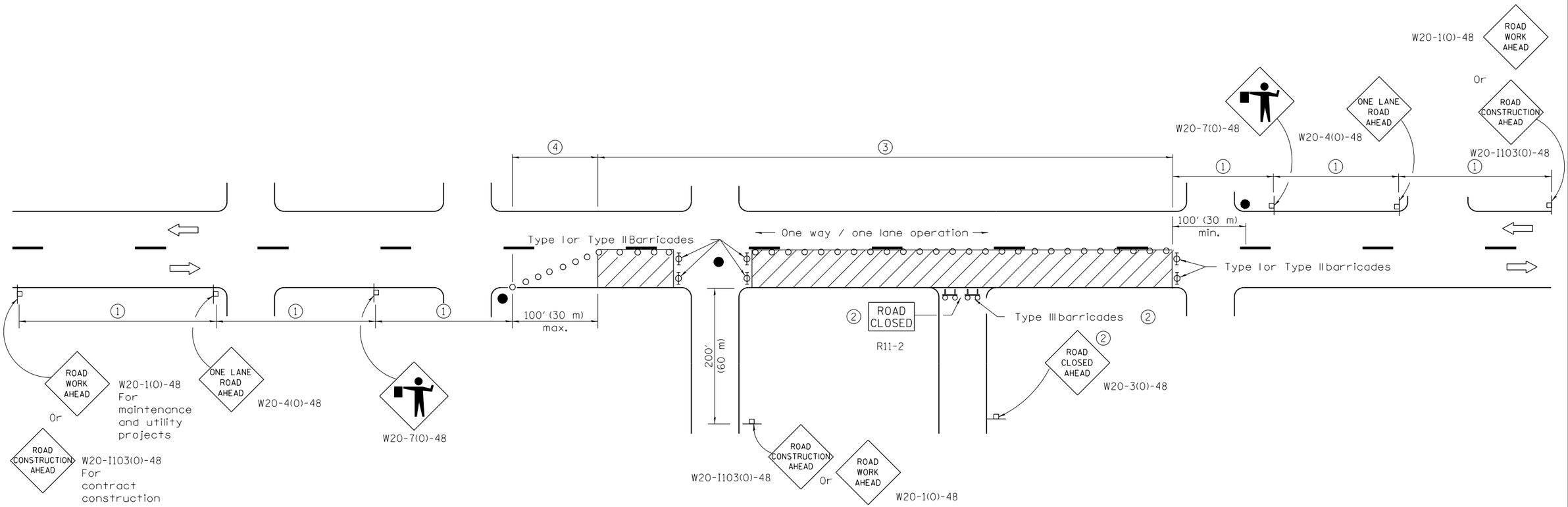
APPROVED January 1, 2014
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

| DATE | REVISIONS |
|---|---|
| 1-1-14 | Revised workers sign |
| | number to agree with |
| | current MUTCD. |
| 1-1-13 | Omitted text 'WORKERS' |
| | sign. |
| | |

# OFF–RD OPERATIONS, 2L, 2W, 15′ (4.5 m) TO 24″ (600 mm) FROM PAVEMENT EDGE

**STANDARD 701006–05**




| SIGN SPACING | |
|---|---|
| Posted Speed | Sign Spacing |
| 55 | 500′ (150 m) |
| 50-45 | 350′ (100 m) |
| <45 | 200′ (60 m) |

## SYMBOLS

- Work area
- Cone, drum or barricade (not required for moving operations)
- Sign on portable or permanent support
- Flagger with traffic control sign
- Barricade or drum with flashing light
- Type III barricade with flashing lights

(1) Refer to SIGN SPACING TABLE for distances.

(2) For approved sideroad closures.

(3) Cones at 25′ (8 m) centers for 250′ (75 m). Additional cones may be placed at 50′ (15 m) centers. When drums or Type I or Type II barricades are used, the interval between devices may be doubled.

(4) Cones, drums or barricades at 20′ (6 m) centers.

## GENERAL NOTES

This Standard is used where at any time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement requiring the closure of one traffic lane in an urban area.

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

Illinois Department of Transportation

APPROVED January 1, 2011
ENGINEER OF SAFETY ENGINEERING

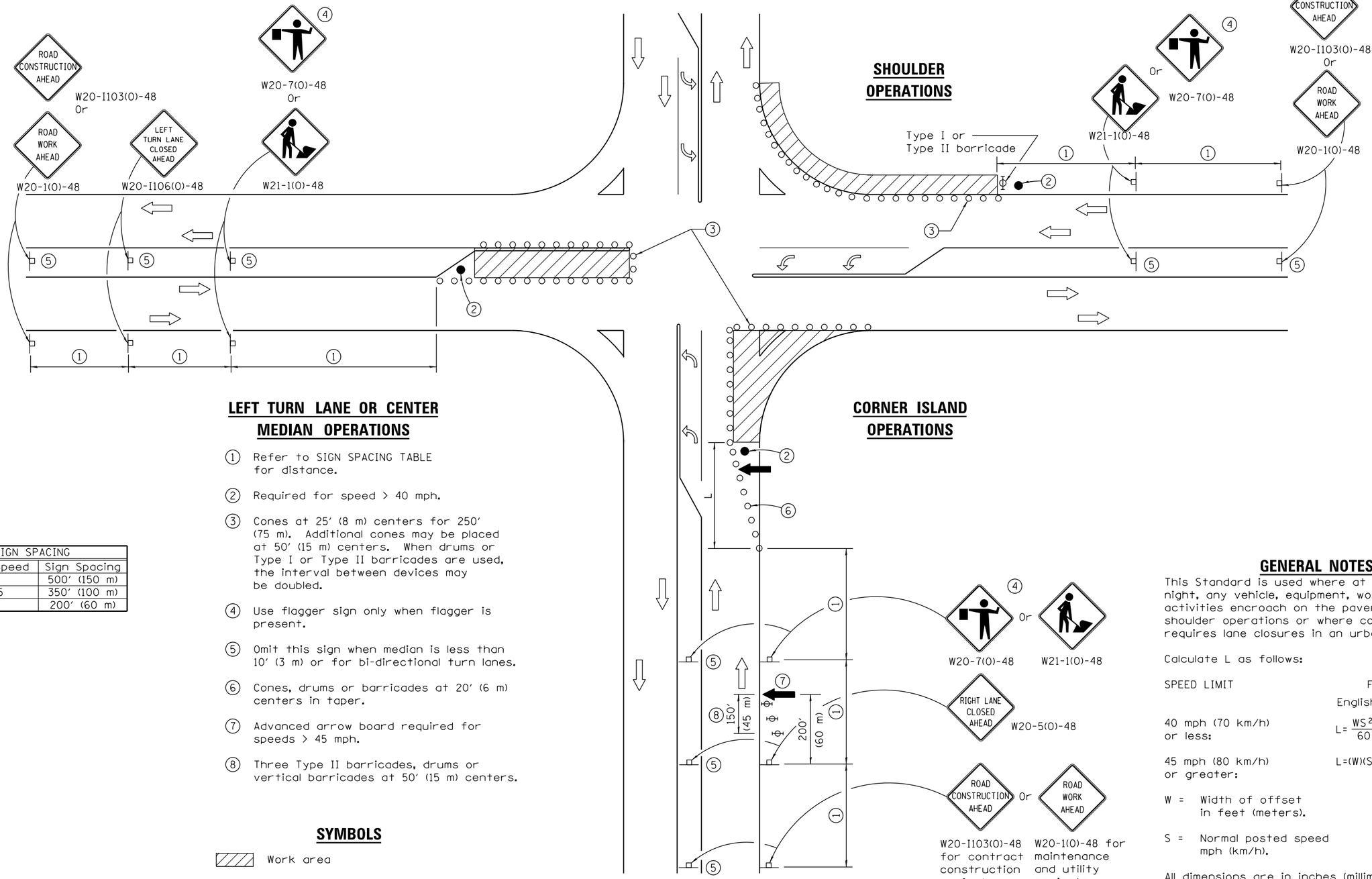
APPROVED Janyary 1, 2011
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

| DATE | REVISIONS |
|---|---|
| 1-1-11 | Revised flagger sign. |
| | |
| | |
| 1-1-09 | Switched units to |
| | English (metric). |
| | Corrected sign No.'s. |

# URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED

**STANDARD 701501–06**




## LEFT TURN LANE OR CENTER MEDIAN OPERATIONS

(1) Refer to SIGN SPACING TABLE for distance.

(2) Required for speed > 40 mph.

(3) Cones at 25′ (8 m) centers for 250′ (75 m). Additional cones may be placed at 50′ (15 m) centers. When drums or Type I or Type II barricades are used, the interval between devices may be doubled.

(4) Use flagger sign only when flagger is present.

(5) Omit this sign when median is less than 10′ (3 m) or for bi-directional turn lanes.

(6) Cones, drums or barricades at 20′ (6 m) centers in taper.

(7) Advanced arrow board required for speeds > 45 mph.

(8) Three Type II barricades, drums or vertical barricades at 50′ (15 m) centers.

| SIGN SPACING | |
|---|---|
| Posted Speed | Sign Spacing |
| 55 | 500′ (150 m) |
| 50-45 | 350′ (100 m) |
| <45 | 200′ (60 m) |

## SYMBOLS

- Work area
- Cone, drum or barricade
- Sign on portable or permanent support
- Arrow board
- Barricade or drum with flashing light
- Flagger with traffic control sign

## GENERAL NOTES

This Standard is used where at any time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement during shoulder operations or where construction requires lane closures in an urban area.

Calculate L as follows:

| SPEED LIMIT | FORMULAS English | FORMULAS (Metric) |
|---|---|---|
| 40 mph (70 km/h) or less: | $L = \frac{WS^2}{60}$ | $L = \frac{WS^2}{150}$ |
| 45 mph (80 km/h) or greater: | L=(W)(S) | L=0.65(W)(S) |

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

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

Illinois Department of Transportation

APPROVED April 1. 2016
ENGINEER OF SAFETY ENGINEERING

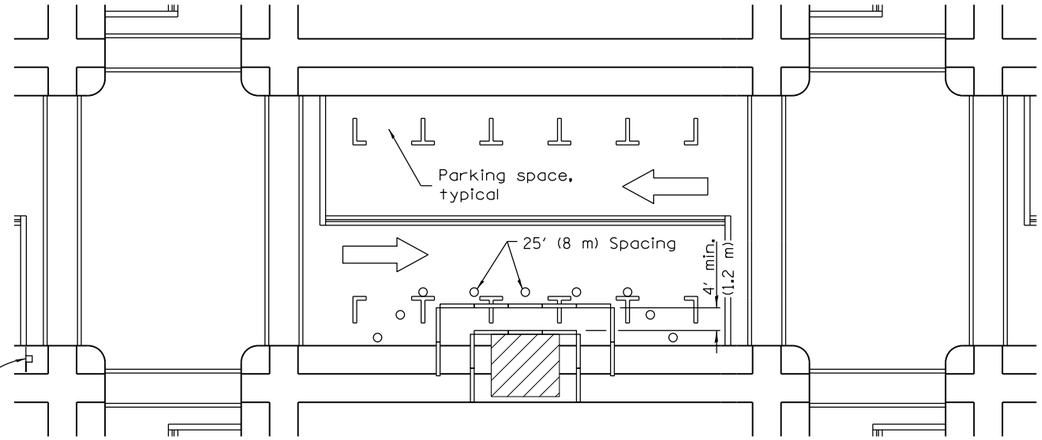
APPROVED April 1. 2016
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

| DATE | REVISIONS |
|---|---|
| 4-1-16 | Corrected sign number for |
| | LEFT TURN LANE CLOSED |
| | AHEAD. |
| 1-1-14 | Added devices at arrow |
| | board upstream from taper. |
| | Rev. workers sign number. |

# URBAN LANE CLOSURE, MULTILANE INTERSECTION

**STANDARD 701701–10**




① ROAD CONSTRUCTION AHEAD — W20-I103(0)-48 for contract construction projects

Or

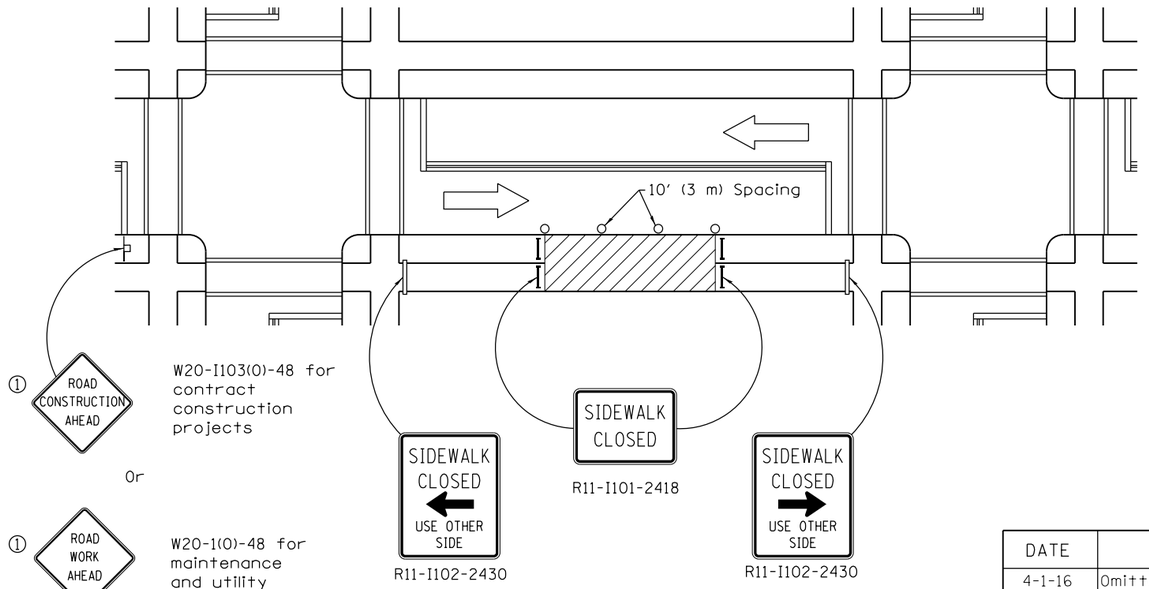
① ROAD WORK AHEAD — W20-I(0)-48 for maintenance and utility projects

## SIDEWALK DIVERSION

① Omit whenever duplicated by road work traffic control.

## SYMBOLS

- Work area
- Sign on portable or permanent support
- Barricade or drum
- Cone, drum or barricade
- Type III barricade
- Detectable pedestrian channelizing barricade




① ROAD CONSTRUCTION AHEAD — W20-I103(0)-48 for contract construction projects

Or

① ROAD WORK AHEAD — W20-I(0)-48 for maintenance and utility projects

## SIDEWALK CLOSURE

## GENERAL NOTES

This Standard is used where, at any time, pedestrian traffic must be rerouted due to work being performed.

This Standard must be used in conjunction with other Traffic Control & Protection Standards when roadway traffic is affected.

Temporary facilities shall be detectable and accessible.

The temporary pedestrian facilities shall be provided on the same side of the closed facilities whenever possible.

The SIDEWALK CLOSED / USE OTHER SIDE sign shall be placed at the nearest crosswalk or intersection to each end of the closure. Where the closure occurs at a corner, the signs shall be erected on the corners across the street from the closure. The SIDEWALK CLOSED signs shall be used at the ends of the actual closures.

Type III barricades and R11-2-4830 signs shall be positioned as shown in "ROAD CLOSED TO ALL TRAFFIC" detail on Standard 701901.

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

Illinois Department of Transportation

APPROVED April 1. 2016
ENGINEER OF SAFETY ENGINEERING

APPROVED April 1. 2016
ENGINEER OF DESIGN AND ENVIRONMENT

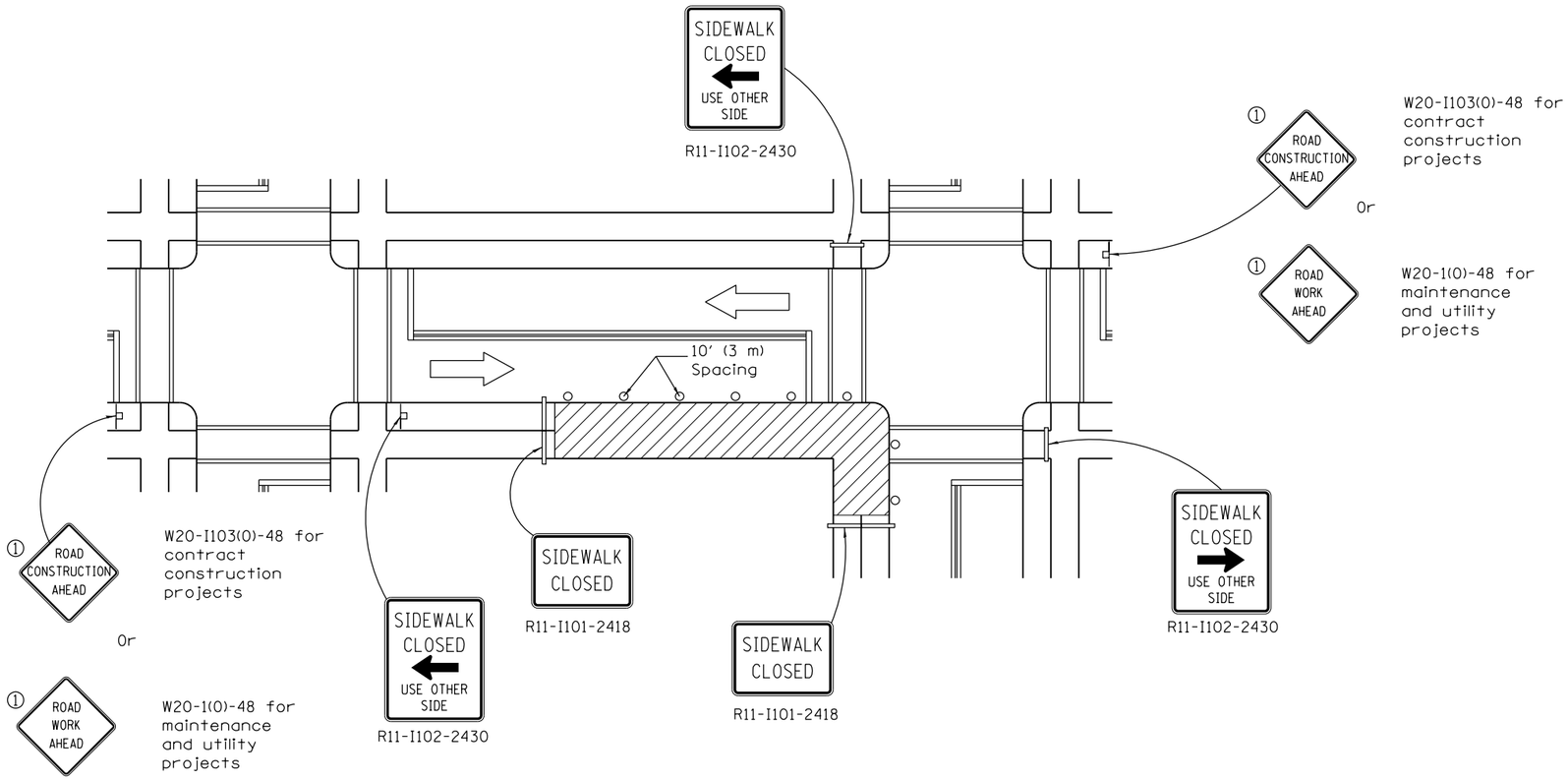
ISSUED 1-1-97

| DATE | REVISIONS |
|---|---|
| 4-1-16 | Omitted orange safety fence |
| | from standard as this is |
| | covered in the std. spec. |
| 1-1-12 | Added SIDEWALK DIVERSION. |
| | Modified appearance of |
| | plan views. Renamed Std. |

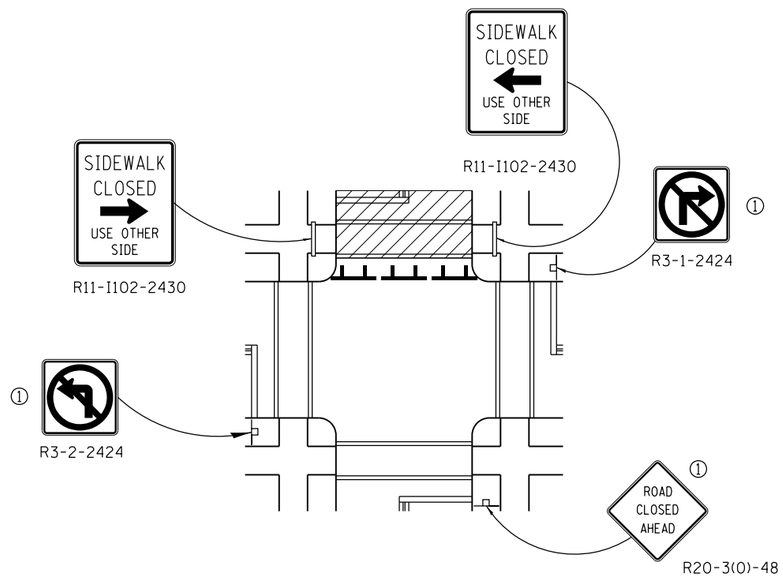
# SIDEWALK, CORNER OR CROSSWALK CLOSURE



**STANDARD 701801–06**




**CORNER CLOSURE**




**CROSSWALK CLOSURE**

Illinois Department of Transportation

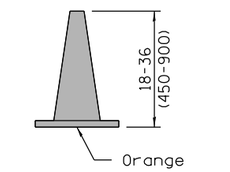
APPROVED April 1, 2016
ENGINEER OF SAFETY ENGINEERING
APPROVED April 1, 2016
ENGINEER OF DESIGN AND EVIRONMENT

ISSUED 1-1-97

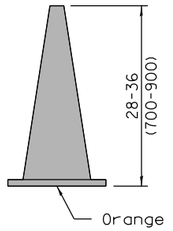
# SIDEWALK, CORNER OR CROSSWALK CLOSURE

(Sheet 2 of 2)

**STANDARD 701801–06**

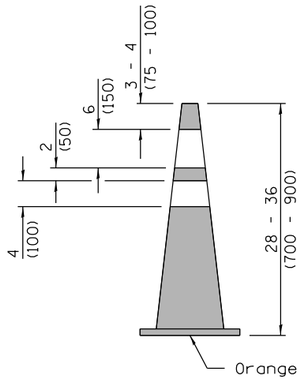



Posted speed < 45 mph

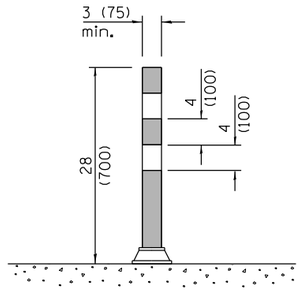



Posted speed ≥ 45 mph

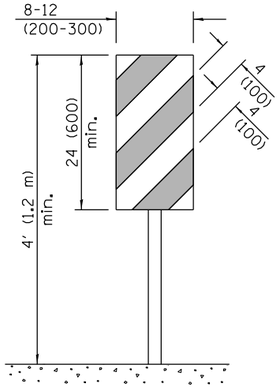
**CONE FOR DAYTIME**



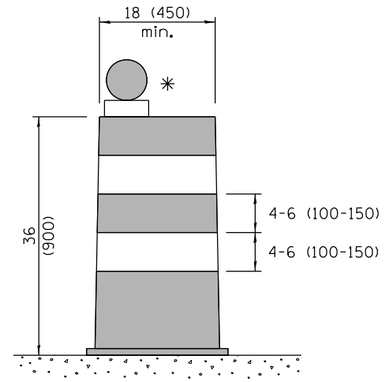

**REFLECTORIZED CONE FOR NIGHTTIME**



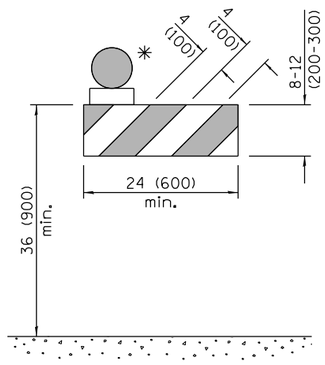

**TUBULAR MARKER**



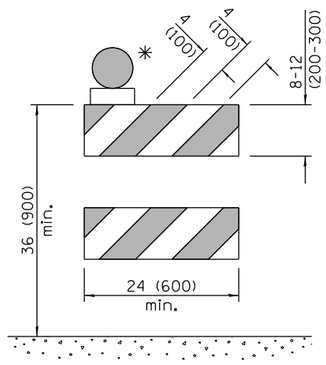

**VERTICAL PANEL**
POST MOUNTED



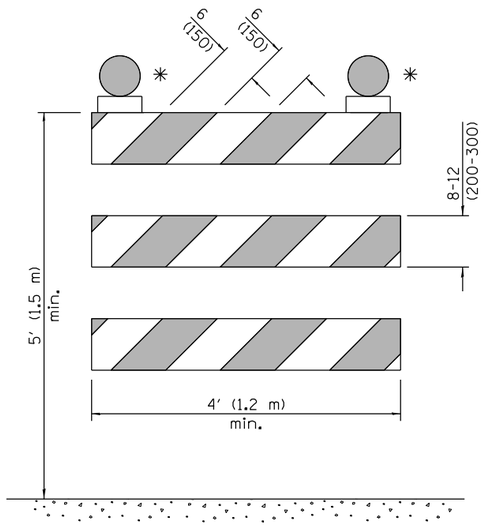

**DRUM**



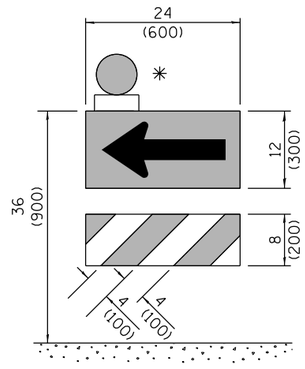

**TYPE I BARRICADE**



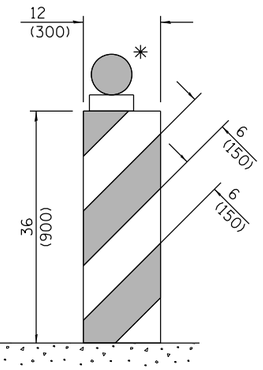

**TYPE II BARRICADE**



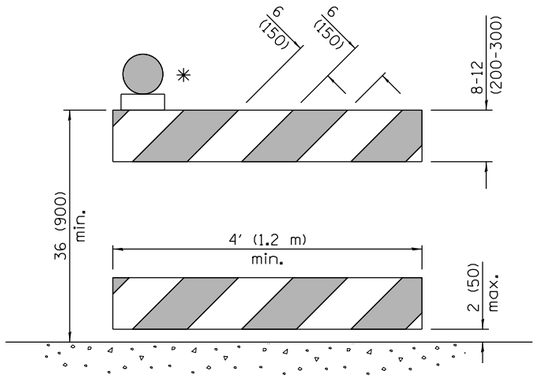

**TYPE III BARRICADE**




**DIRECTION INDICATOR BARRICADE**




**VERTICAL BARRICADE**




**DETECTABLE PEDESTRIAN CHANNELIZING BARRICADE**

✳ Warning lights (if required)

## GENERAL NOTES

All heights shown shall be measured above the pavement surface.

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

Illinois Department of Transportation

APPROVED January 1, 2017
ENGINEER OF OPERATIONS

APPROVED January 1, 2017
ENGINEER OF DESIGN AND ENVIRONMENT

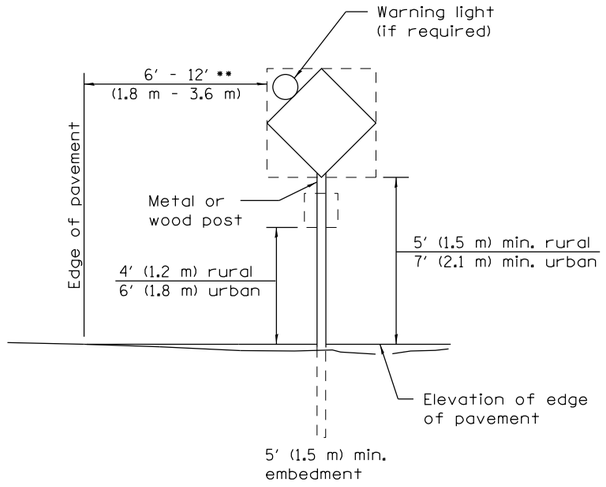
ISSUED 1-1-97

| DATE | REVISIONS |
|---|---|
| 1-1-17 | Changed FLEXIBLE DELINEATOR |
| | to TUBULAR MARKER. |
| | |
| 4-1-16 | Add dim's to barricades. Rev. |
| | note for post mnt. signs. |
| | Rev. cone dtls. Add W12-1103. |

# TRAFFIC CONTROL DEVICES

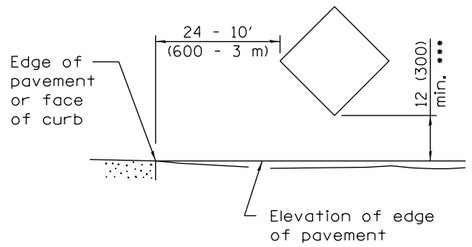
(Sheet 1 of 3)

**STANDARD 701901-06**



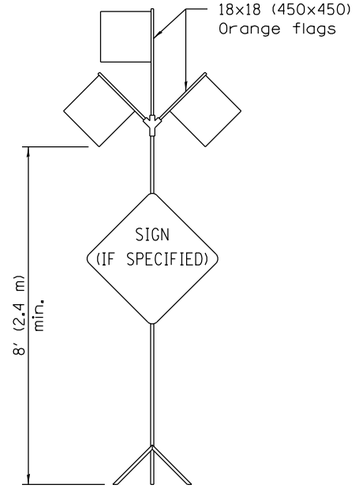

## POST MOUNTED SIGNS

•• When curb or paved shoulder are present this dimension shall be 24 (600) to the face of curb or 6′ (1.8 m) to the outside edge of the paved shoulder.

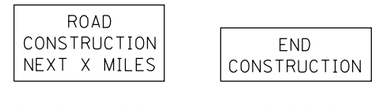



## SIGNS ON TEMPORARY SUPPORTS

••• When work operations exceed four days, this dimension shall be 5′ (1.5 m) min. If located behind other devices, the height shall be sufficient to be seen completely above the devices.




## HIGH LEVEL WARNING DEVICE




G20-I104(0)-6036 G20-I105(0)-6024

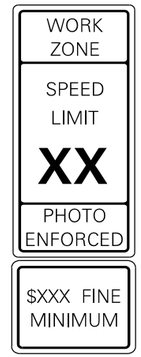
This signing is required for all projects 2 miles (3200 m) or more in length.

ROAD CONSTRUCTION NEXT X MILES sign shall be placed 500′ (150 m) in advance of project limits.

END CONSTRUCTION sign shall be erected at the end of the job unless another job is within 2 miles (3200 m).

Dual sign displays shall be utilized on multi-lane highways.

## WORK LIMIT SIGNING



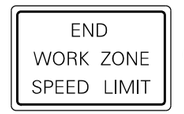

W21-III5(0)-3618

R2-1-3648

R10-I108p-3618 ••••

R2-I106p-3618

Sign assembly as shown on Standards or as allowed by District Operations.

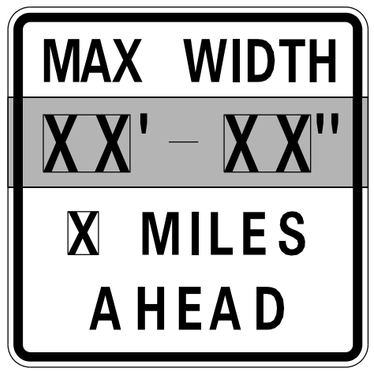



G20-I103(0)-6036

This sign shall be used when the above sign assembly is used.

## HIGHWAY CONSTRUCTION SPEED ZONE SIGNS

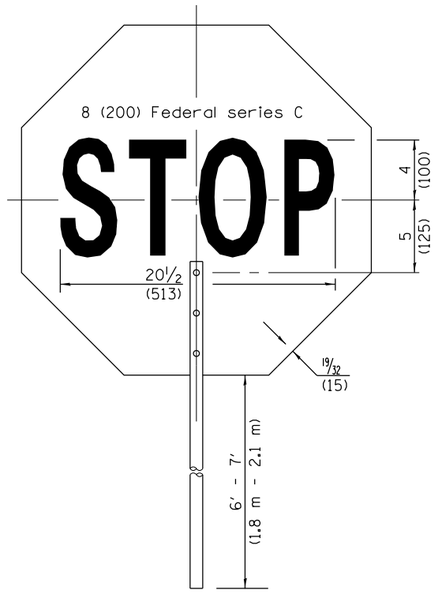
•••• R10-I108p shall only be used along roadways under the juristiction of the State.



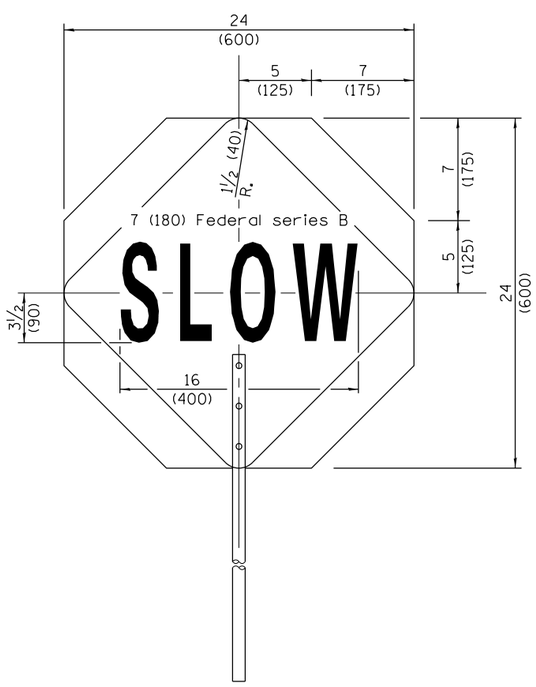

W12-I103-4848

## WIDTH RESTRICTION SIGN

XX′-XX″ width and X miles are variable.




FRONT SIDE




REVERSE SIDE

## FLAGGER TRAFFIC CONTROL SIGN

Illinois Department of Transportation

APPROVED January 1, 2017
ENGINEER OF OPERATIONS

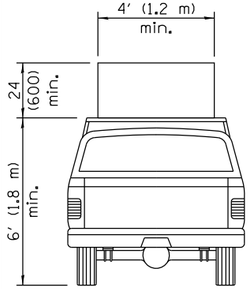
APPROVED January 1, 2017
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-17

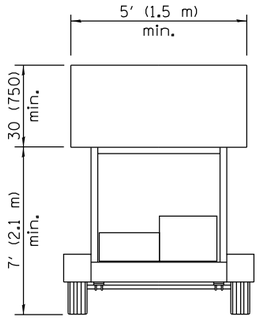
# TRAFFIC CONTROL DEVICES

(Sheet 2 of 3)

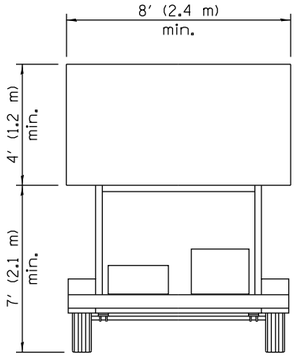
**STANDARD 701901–06**




**TYPE A ROOF MOUNTED**

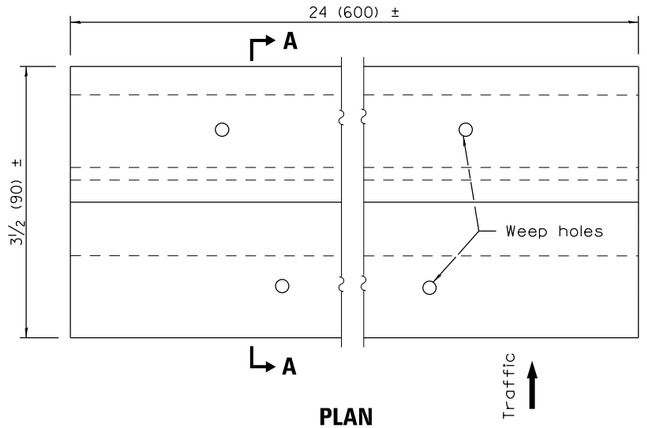



**TYPE B ROOF OR TRAILER MOUNTED**

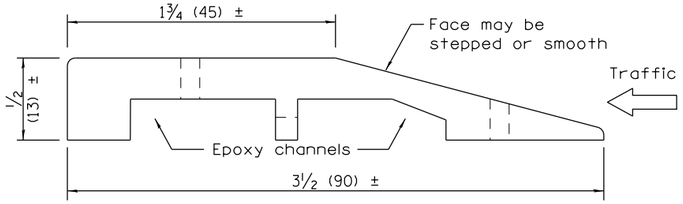



**TYPE C TRAILER MOUNTED**

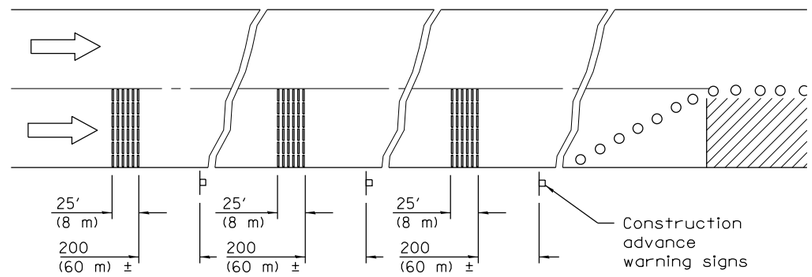
## ARROW BOARDS

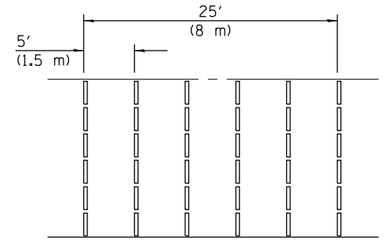



**PLAN**



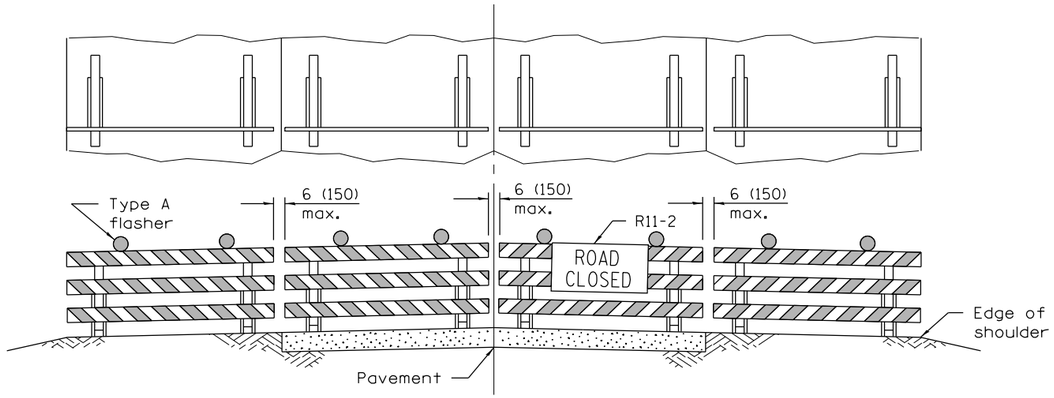

**SECTION A–A**



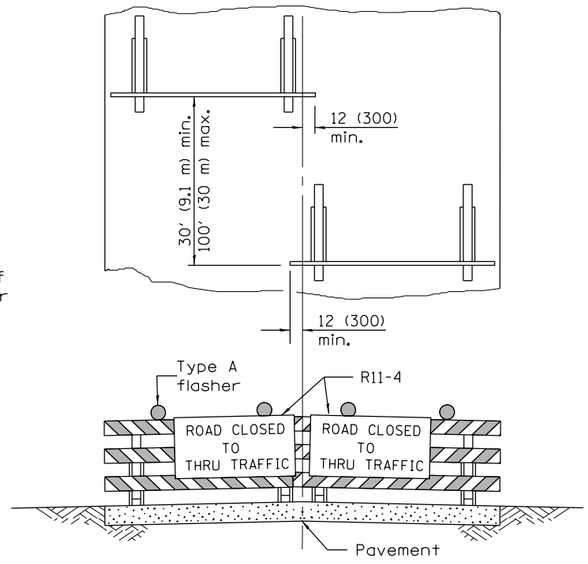

**TYPICAL INSTALLATION**

## TEMPORARY RUMBLE STRIPS




ROAD CLOSED TO ALL TRAFFIC

Reflectorized striping may be omitted on the back side of the barricades. If a Type III barricade with an attached sign panel which meets NCHRP 350 is not available, the sign may be mounted on an NCHRP 350 temporary sign support directly in front of the barricade.




ROAD CLOSED TO THRU TRAFFIC

Reflectorized striping shall appear on both sides of the barricades. If a Type III barricade with an attached sign panel which meets NCHRP 350 is not available, the signs may be mounted on NCHRP 350 temporary sign supports directly in front of the barricade.

## TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD

Illinois Department of Transportation

APPROVED January 1, 2017
ENGINEER OF OPERATIONS

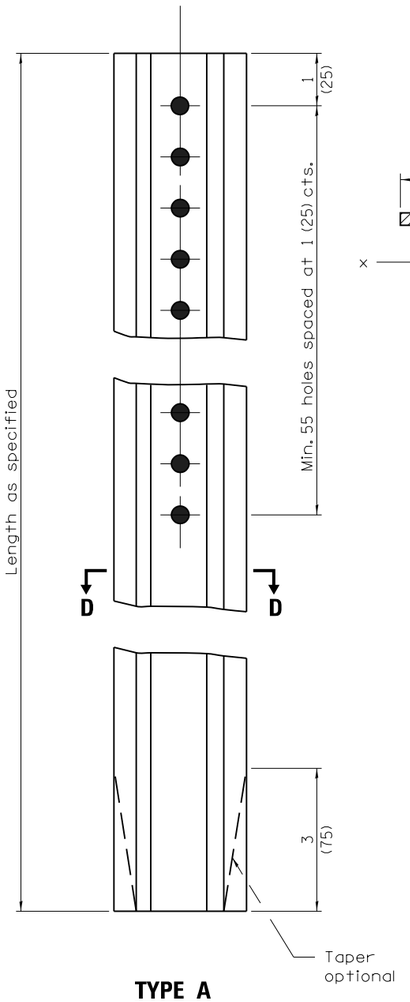
APPROVED January 1, 2017
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

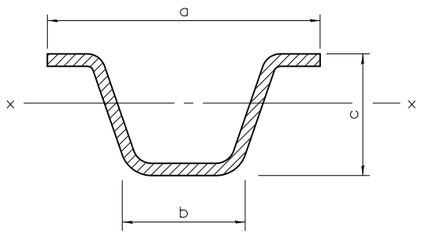
# TRAFFIC CONTROL DEVICES

(Sheet 3 of 3)

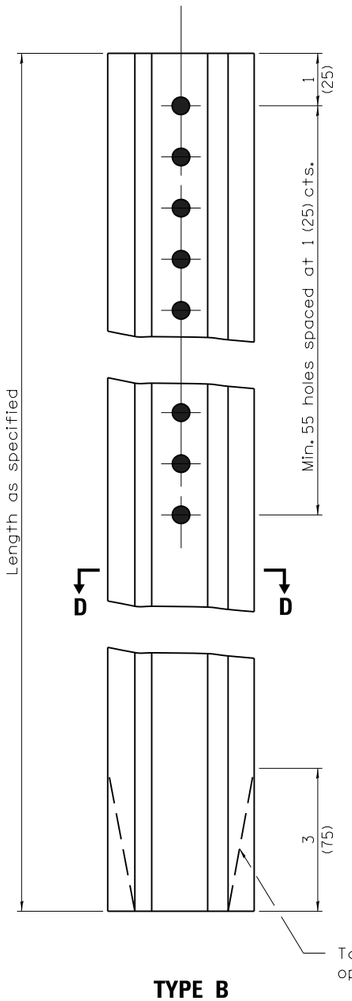
**STANDARD 701901–06**



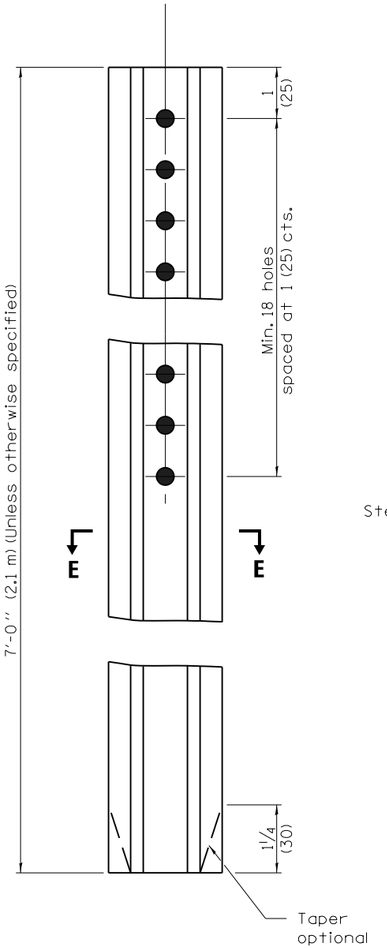

**TYPE A**



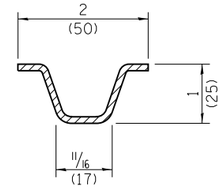

**SECTION D–D**




**TYPE B**




**TYPE C**




**SECTION E–E**

Steel - 1.12 lbs./ft. (1.67 kg/m)

| | | a | b | c | Sx-x in.$^3$ (mm$^3$) | lbs./ft. (kg/m) |
|---|---|---|---|---|---|---|
| TYPE A | Steel | 3/16 (78) | 1¼ (32) | 1 1/16 (37) | 0.223 (3,654) | 2.00 (2.98) |
| | Aluminum | 3½ (89) | 1⅝ (41) | 1⅞ (48) | 0.435 (7,128) | 0.90 (1.34) |
| TYPE B | Steel | 3 3/16 (81) | 1¼ (32) | 1½ (38) | 0.341 (5,588) | 3.00 (4.46) |
| | Aluminum | 4⅝ (118) | 2¼ (57) | 2⅜ (60) | 0.888 (14,552) | 1.30 (1.93) |

## GENERAL NOTES

Dimensions shown for cross sections are minimum.

All holes are ⅜ (10).

Sx-x is the minimum section modulus about the x-x axis of the post as shown. For posts in which holes are punched or drilled for more than half their length, Sx-x shall be computed for the net section.

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

Illinois Department of Transportation

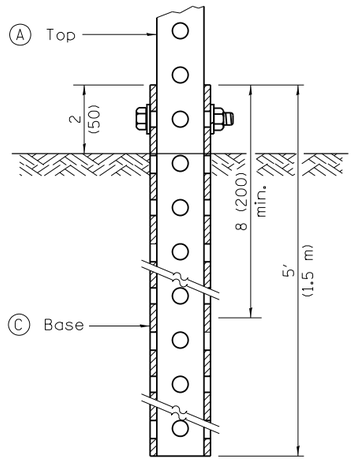
PASSED January 1. 2009
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1. 2009
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

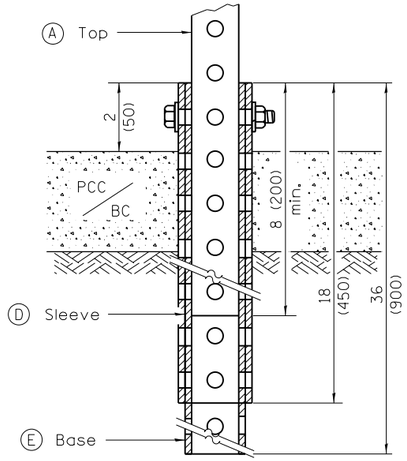
| DATE | REVISIONS |
|---|---|
| 1-1-09 | Switched units to |
| | English (metric). |
| | |
| 1-1-97 | Renum. Standard 2350-4. |
| | |
| | |

# METAL POSTS FOR SIGNS, MARKERS & DELINEATORS

**STANDARD 720011–01**

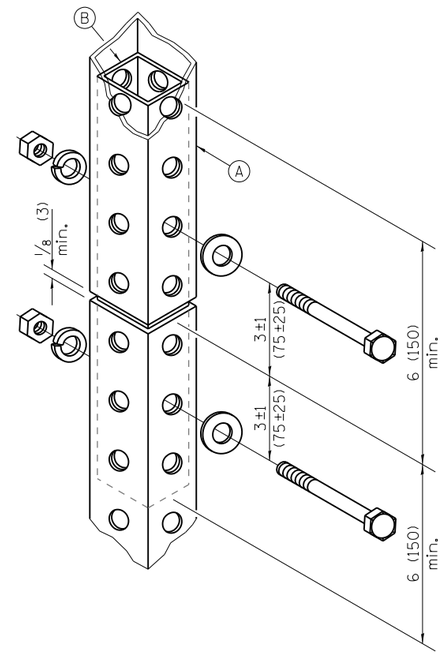



## GROUND MOUNT DETAIL




## PAVEMENT MOUNT DETAIL

| | |
|---|---|
| Ⓐ | 2 x 2 x var. (51 x 51 var.) |
| Ⓑ | 1¾ x 1¾ x 12 (44 x 44 x 300) |
| Ⓒ | 2¼ x 2¼ x 60 (57 x 57 x 1500) |
| Ⓓ | 2½ x 2½ x 18 (64 x 64 x 450) |
| Ⓔ | 2¼ x 2¼ x 36) (57 x 57 x 900) |




## SPLICE DETAIL

### GENERAL NOTES

All bolts ⅜ (M10) hex head zinc or cadmium plated.

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

Illinois Department of Transportation

APPROVED January 1, 2009
ENGINEER OF OPERATIONS

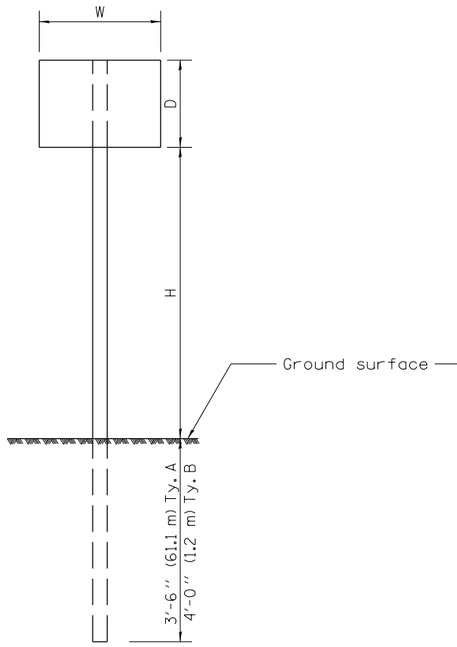
APPROVED January 1, 2009
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-07

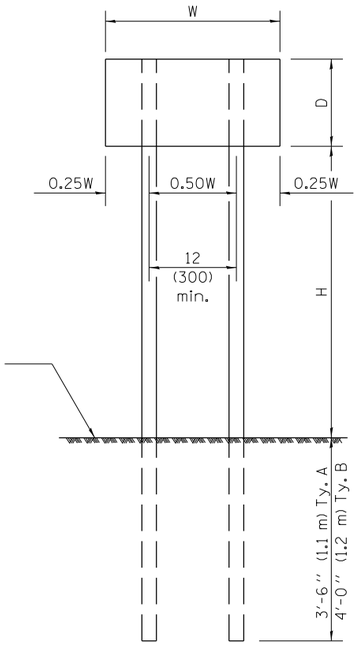
| DATE | REVISIONS |
|---|---|
| 1-1-09 | Switched units to |
| | English (metric). |
| | |
| 1-1-07 | New Standard. Used to |
| | be part of Standard |
| | 720006. |

# TELESCOPING STEEL SIGN SUPPORT

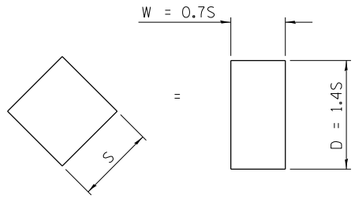
**STANDARD 728001-01**




**ONE POST INSTALLATION**

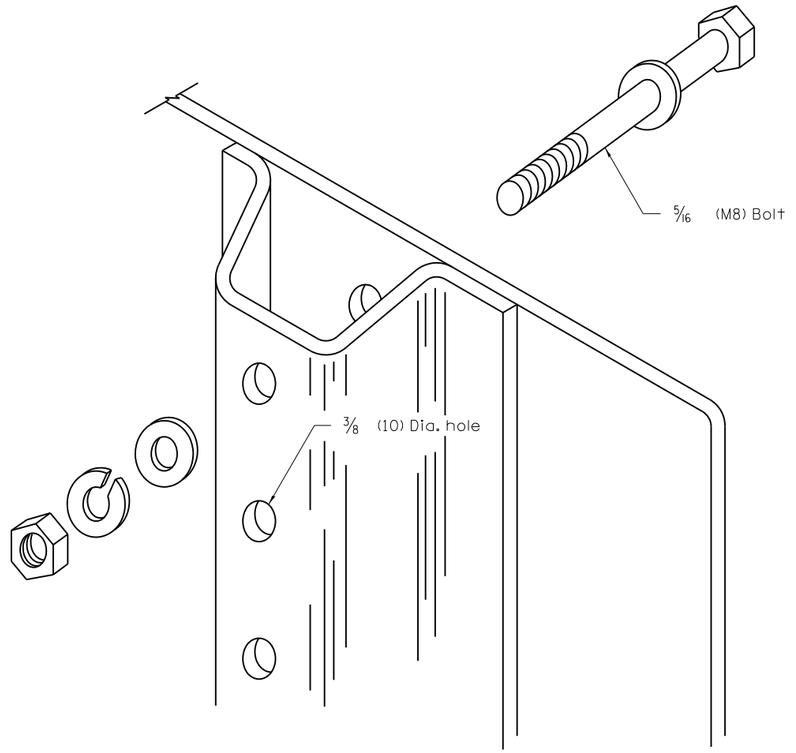



**TWO POST INSTALLATION**




For diamond shaped sign with side S as shown, use required post size for a sign with W = 0.7S and D = 1.4S.

| SIGN DEPTH (D) | H | NO. AND TYPE OF POST FOR SIGN WIDTH (W) | | | | |
|---|---|---|---|---|---|---|
| | | 12 (300) | 18 (450) | 24 (600) | 30 (750) | 36 (900) |
| 18 (450) | 5'-0" (1.5 m) | A | A | A | A | A |
| | 5'-6" (1.7 m) | A | A | A | A | A |
| | 6'-0" (1.8 m) | A | A | A | A | B |
| | 6'-6" (2.0 m) | A | A | A | A | B |
| | 7'-0" (2.1 m) | A | A | A | A | B |
| | 7'-6" (2.3 m) | A | A | A | A | B |
| | 8'-0" (2.4 m) | A | A | A | A | B |
| | 8'-6" (2.6 m) | A | A | A | B | B |
| | 9'-0" (2.7 m) | A | A | A | B | B |
| 24 (600) | 5'-0" (1.5 m) | A | A | A | A | B |
| | 5'-6" (1.7 m) | A | A | A | A | B |
| | 6'-0" (1.8 m) | A | A | A | B | B |
| | 6'-6" (2.0 m) | A | A | A | B | B |
| | 7'-0" (2.1 m) | A | A | A | B | B |
| | 7'-6" (2.3 m) | A | A | A | B | B |
| | 8'-0" (2.4 m) | A | A | A | B | 2A |
| | 8'-6" (2.6 m) | A | A | B | B | 2A |
| | 9'-0" (2.7 m) | A | A | B | B | 2A |
| 30 (750) | 5'-0" (1.5 m) | A | A | A | B | B |
| | 5'-6" (1.7 m) | A | A | A | B | 2A |
| | 6'-0" (1.8 m) | A | A | A | B | 2A |
| | 6'-6" (2.0 m) | A | A | A | B | 2A |
| | 7'-0" (2.1 m) | A | A | B | B | 2A |
| | 7'-6" (2.3 m) | A | A | B | B | 2A |
| | 8'-0" (2.4 m) | A | A | B | B | 2A |
| | 8'-6" (2.6 m) | A | A | B | 2A | 2A |
| | 9'-0" (2.7 m) | A | A | B | 2A | 2A |
| 36 (900) | 5'-0" (1.5 m) | A | A | B | B | 2A |
| | 5'-6" (1.7 m) | A | A | B | B | 2A |
| | 6'-0" (1.8 m) | A | A | B | B | 2A |
| | 6'-6" (2.0 m) | A | A | B | 2A | 2A |
| | 7'-0" (2.1 m) | A | A | B | 2A | 2A |
| | 7'-6" (2.3 m) | A | A | B | 2A | 2A |
| | 8'-0" (2.4 m) | A | B | B | 2A | 2A |
| | 8'-6" (2.6 m) | A | B | B | 2A | 2B |
| | 9'-0" (2.7 m) | A | B | 2A | 2A | 2B |
| 4'-0" (1.2 m) | 5'-0" (1.5 m) | A | A | B | 2A | 2A |
| | 5'-6" (1.7 m) | A | B | B | 2A | 2A |
| | 6'-0" (1.8 m) | A | B | B | 2A | 2A |
| | 6'-6" (2.0 m) | A | B | 2A | 2A | 2B |
| | 7'-0" (2.1 m) | A | B | 2A | 2A | 2B |
| | 7'-6" (2.3 m) | A | B | 2A | 2B | 2B |
| | 8'-0" (2.4 m) | A | B | 2A | 2B | 2B |
| | 8'-6" (2.6 m) | B | B | 2B | 2B | 2B |
| | 9'-0" (2.7 m) | B | 2A | 2B | 2B | 2B |




**DETAIL OF MOUNTING SIGN TO POST**

NOTE: Minimum of 2 bolts per post required.

## GENERAL NOTES

DESIGN: Current AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals.

LOADING: for 60 mph (95 km/h) wind velocity with 30% gust factor, normal to sign.

SOIL PRESSURE: Minimum allowable soil pressure 1.25 tsf (120 kPa).

See Standard 720011 for details of Types A and B posts.

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

Illinois Department of Transportation

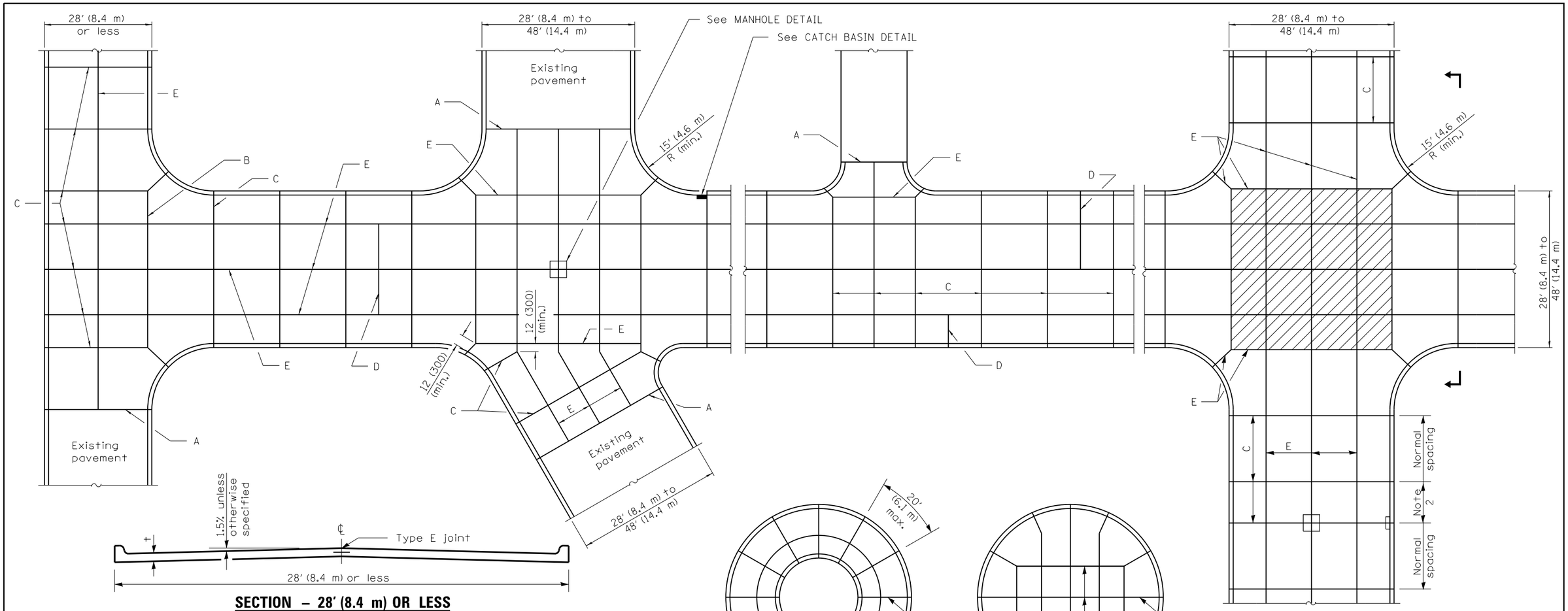
PASSED January 1. 2009
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1. 2009
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

| DATE | REVISIONS |
|---|---|
| 1-1-09 | Switched units to |
| | English (metric). |
| | |
| 1-1-97 | Renum. Standard 2363-2. |
| | |
| | |

# APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)

**STANDARD 729001-01**




**SECTION – 28′ (8.4 m) OR LESS**

**SECTION – 28′ (8.4 m) TO 35′ (10.6 m) WIDTH**

**SECTION – 36′ (10.8 m) TO 48′ (14.4 m) WIDTH**

**CUL DE SAC OPEN CENTER**

**CUL DE SAC FULLY PAVED**

† = See typical cross section on plans for thickness

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

Illinois Department of Transportation

APPROVED January 1, 2009
Charles J. Ingersoll
ENGINEER OF LOCAL ROADS AND STREETS

APPROVED January 1, 2009
Gene E. Hahn
ENGINEER OF DESIGN AND ENVIRONMENT

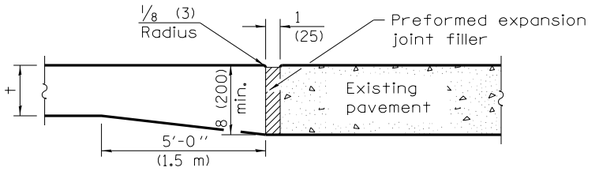
ISSUED 1-1-97

| DATE | REVISIONS |
|---|---|
| 1-1-09 | Switched units to |
| | English (metric). |
| | |
| 8-1-05 | Corrected manhole and |
| | catch basin notes on |
| | Sheet 1. |

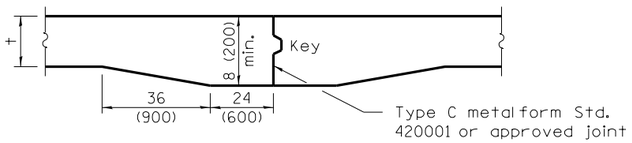
# PCC PAVEMENT SPECIAL (NONREINFORCED)

(Sheet 1 of 2)

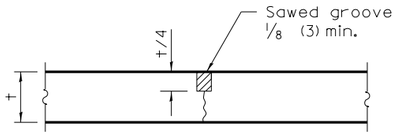
**STANDARD B.L.R. 10–6**



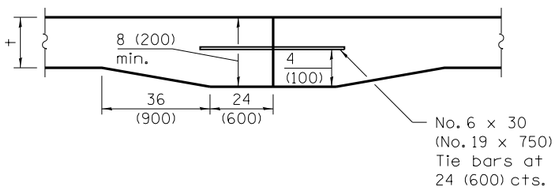

**TYPE A**
**EXPANSION JOINT**



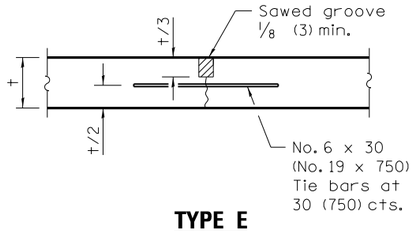

**TYPE B**
**KEYED JOINT**



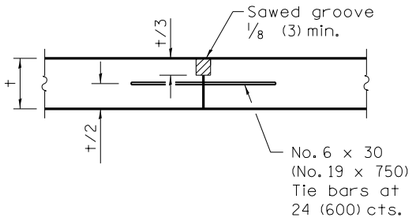

**TYPE C**
**SAWED TRANSVERSE JOINT**




**TYPE D**
**TIED TRANSVERSE CONSTRUCTION JOINT**




**TYPE E**
**SAWED LONGITUDINAL JOINT**




**TYPE E**
**LONGITUDINAL CONSTRUCTION JOINT**

## GENERAL NOTES

All catch basins shall be separated from the pavement and curb by boxing out as shown in the detail. Manhole castings within the pavement limits shall be boxed in a like manner except when telescoping type castings are used.

When a joint falls within 5 ft. (1.5 m) of or contacts basins, manholes, or other structures, shorten one or more panels either side of opening to permit joint to fall at the corners of the box out.

When specified, roundouts as shown on Standard 420111 shall be used in lieu of the manhole detail shown herein.

All transverse joints must extend through curbs and be continuous across pavement, except tied transverse construction joints. Expansion joints will be required as shown on the plans.

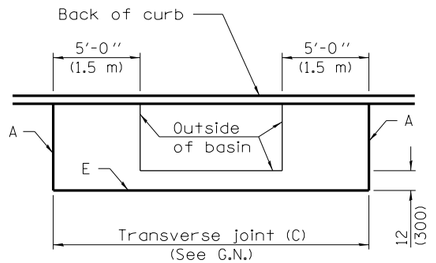
When specified, the pavement structure thickness at intersections shall be increased. This requirement generally will occur when the design traffic through the intersection exceeds the typical design of the pavement structure either side of the intersection.

Joints shall be sawed to a depth of t/4 for transverse joints and t/3 for longitudinal joints. Saw joints shall be sealed with material meeting the requirements of Section 1050 of the Standard Specifications.

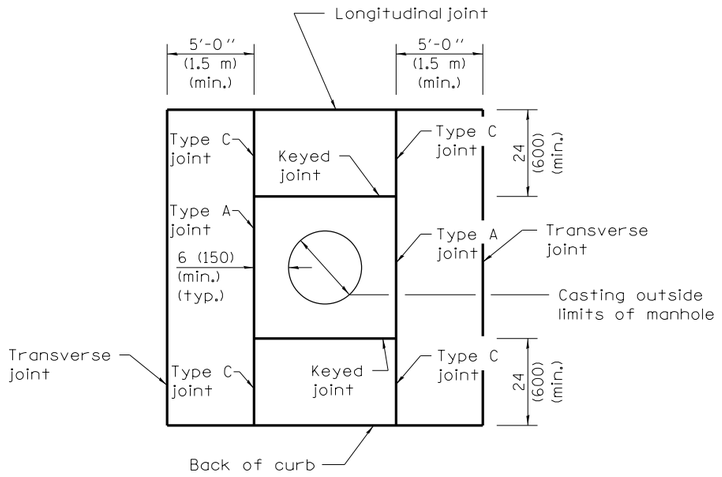
This alternate construction is at the Contractor's option and shall be constructed in accordance with Section 606 of the Standard Specifications. The combination concrete curb and gutter shall be measured in place and the area computed in sq. yards (sq. meters). This work will be paid for at the contract unit price per sq. yards (sq. meters) for portland cement concrete pavement special with integral curb of the thickness specified and shall include all materials and labor.

Transverse joint spacing shall not exceed 15 ft. (4.6 m).

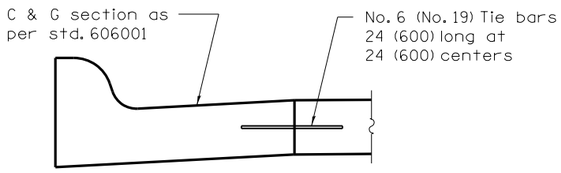
Construct TYPE D tied transverse construction joint when construction joint does not fall at a TYPE C sawed transverse joint.



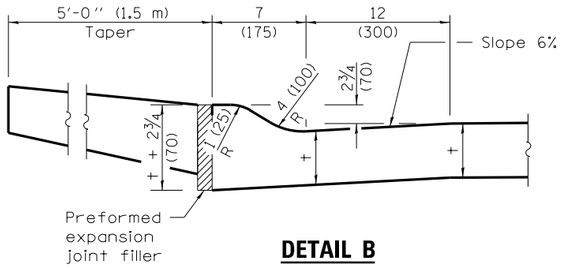

**CATCH BASIN DETAIL**



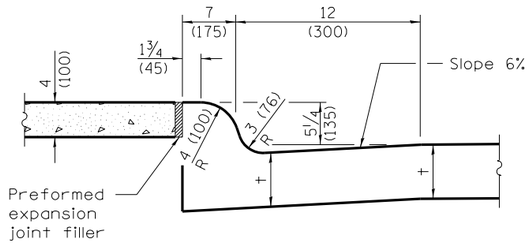

**MANHOLE DETAIL**
Showing Joint types



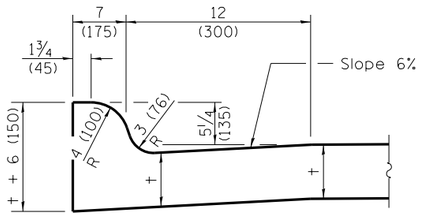

**COMB. CURB & GUTTER DETAIL**
Alt. const. see G.N.




**DETAIL B**




**DETAIL A**




**INTEGRAL CURB**
See DETAIL A for crosswalks
and DETAIL B for driveways.

Illinois Department of Transportation

APPROVED January 1, 2009
Charles V. Ingersoll
ENGINEER OF LOCAL ROADS AND STREETS

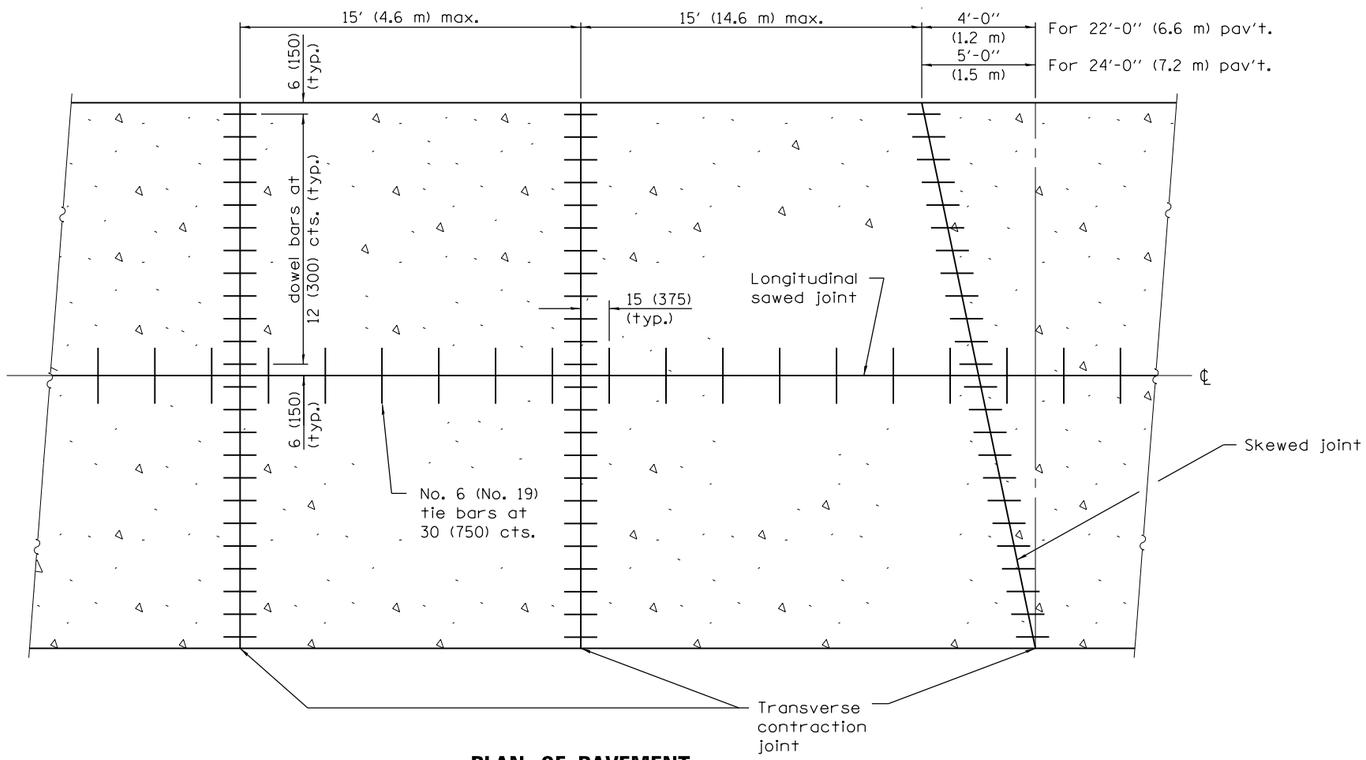
APPROVED January 1, 2009
Eric E. Harm
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

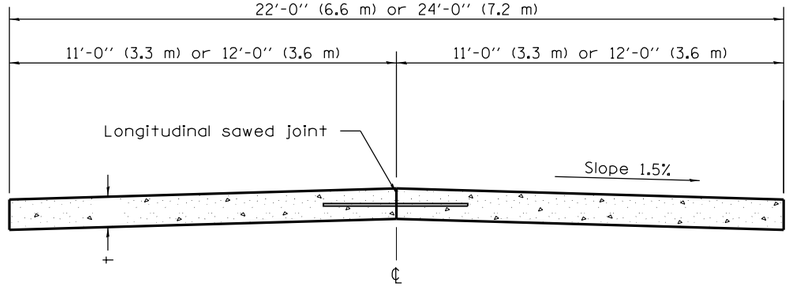
# PCC PAVEMENT SPECIAL (NONREINFORCED)



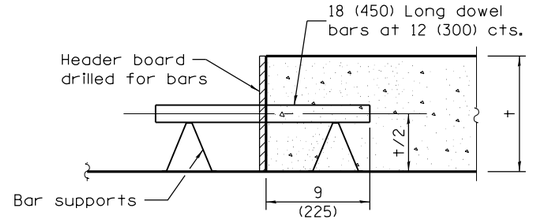
**STANDARD B.L.R. 10–6**



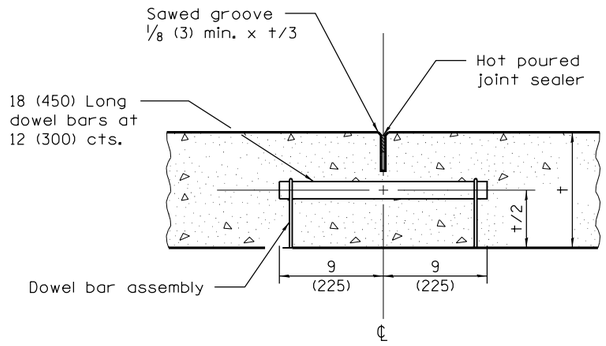

## PLAN OF PAVEMENT



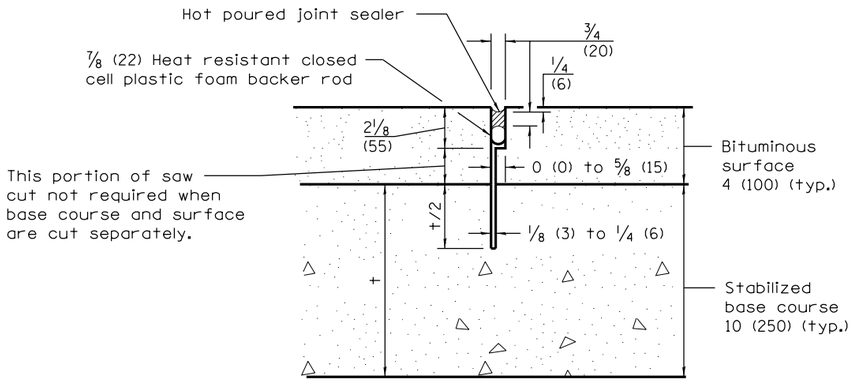

## CROSS SECTION OF PAVEMENT




## TRANSVERSE CONSTRUCTION JOINT




## TRANSVERSE CONTRACTION JOINT




## TRANSVERSE CONTRACTION JOINT

(For CAM, CFA and LFA Base Course Mixtures)

## GENERAL NOTES

See Standard 420001 for details of Transverse Expansion Joints, Longitudinal Sawed Joints and Longitudinal Construction Joints.

Skewed joints shall be used when specified by Special Provisions.

Dowel bars are only required for pavements having a design traffic factor of 3.0 or greater.

t = Pavement thickness (See Typical Cross Section)

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

## DOWEL BAR TABLE

| PAVEMENT THICKNESS | DOWEL BAR DIAMETER |
|---|---|
| 8 (200) or greater | 1 1/2 (38) |
| 7 (175) thru 7.99 (199) | 1 1/4 (32) |
| Less than 7 (175) | 1 (25) |

Illinois Department of Transportation

APPROVED January 1, 2015
ENGINEER OF LOCAL ROADS AND STREETS

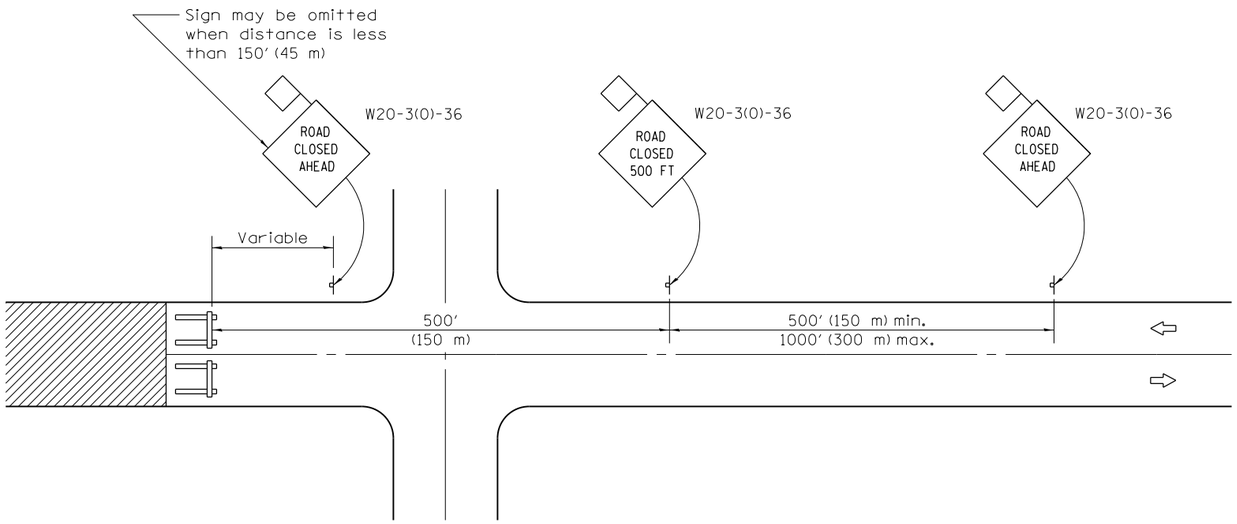
APPROVED January 1, 2015
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

| DATE | REVISIONS |
|---|---|
| 1-1-15 | Added general note |
| | regarding dowel bars. |
| | |
| 1-1-09 | Switched units to |
| | English (metric). |
| | |

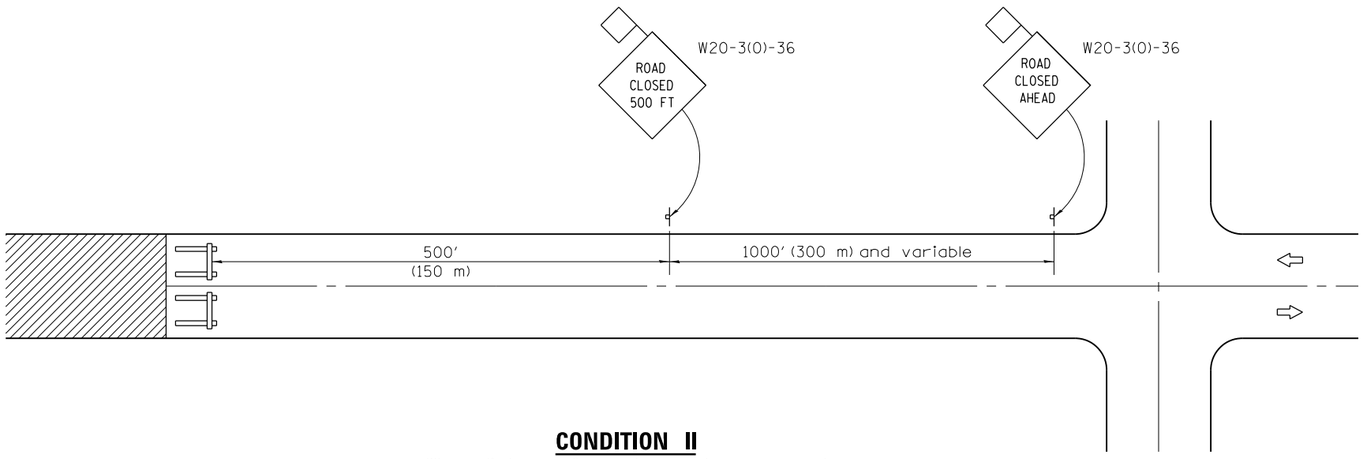
# PORTLAND CEMENT CONCRETE PAVEMENT (NONREINFORCED)

**STANDARD B.L.R. 14–11**




## CONDITION I

When distance from closure to crossroad is less than 1500′ (450 m)




## CONDITION II

When distance from closure to crossroad is greater than 1500′ (450 m)

## SYMBOLS

Work area

Type III Barricade

Sign with 18x18 (450x450) min. orange flag attached

## GENERAL NOTES

Type III Barricades and R11-2-4830 signs shall be positioned as shown in "Road Closed To All Traffic" detail on Highway Standard 701901.

Two Type A Low Intensity Flashing Lights shall be used on each approach in advance of the work area during hours of darkness. One light shall be installed above the barricades and the other above the first advance warning sign.

All warning signs shall have minimum dimensions of 36 x 36 (900 x 900) and have a black legend on an orange reflectorized background.

When fluorescent signs are used, orange flags are not required.

Longitudinal dimensions may be adjusted to fit field conditions.

When the distance between the barricade and the intersection is between 1500′ (450 m) and 2000′ (600 m), the advance sign shall be placed at the intersection. When the distance between the barricade and the intersection is over 2000′ (600 m), an additional sign shall be placed at the intersection. The additional sign shall give the distance to the barricade in miles or fractions of a mile.

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

Illinois Department of Transportation

APPROVED January 1, 2012
Darrell Lewis
ENGINEER OF LOCAL ROADS AND STREETS

APPROVED January 1, 2012
Scott Bess
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

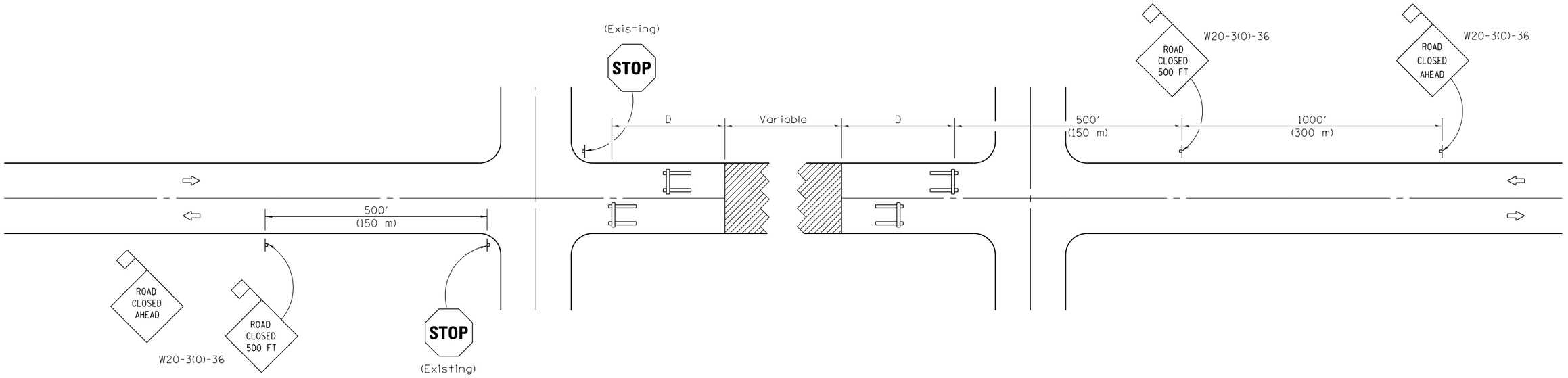
| DATE | REVISIONS |
|---|---|
| 1-1-12 | Omitted two notes from |
| | GENERAL NOTES. |
| | |
| 1-1-09 | Switched units to |
| | English (metric). |
| | |

# TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

## STANDARD B.L.R. 21–9

## CONDITION I
## APPROACH TRAFFIC STOPPED

## CONDITION II
## APPROACH TRAFFIC DOES NOT STOP




## SYMBOLS

Work area

Type III Barricade

Sign with 18x18 (450x450) min. orange flag attached

## GENERAL NOTES

Type III Barricades and R11-4-6030 signs shall be positioned as shown in the "Road Closed To All Traffic" detail on Highway Standard 701901. If the distance "D" exceeds 2000′ (600 m), an additional set of barricades and R11-4-6030 shall be placed at each end of the work area.

Two Type A Low Intensity Flashing Lights shall be used on each approach in advance of the work area. One light shall be installed above each barricade. If only one barricade is required, the other light shall be installed above the first advance warning sign.

All warning signs shall have minimum dimensions of 36 x 36 (900 x 900) and have a black legend on an orange reflectorized background.

When fluorescent signs are used, orange flags are not required.

Longitudinal dimensions may be adjusted to fit field conditions.

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

Illinois Department of Transportation

APPROVED January 1, 2012
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ISSUED 1-1-97

| DATE | REVISIONS |
|---|---|
| 1-1-12 | Omitted two notes from |
| | GENERAL NOTES. |
| | |
| 1-1-09 | Revised General Notes |
| | and switched units to |
| | English (metric). |

# TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
(TWO-LANE TWO WAY RURAL TRAFFIC)
(ROAD CLOSED TO THRU TRAFFIC)

# STANDARD B.L.R. 22–7