RETURN WITH BID

Illinois Department of Transportation

Local Public Agency Formal Contract Proposal

E-mail | Reset Form

COVER SHEET

Proposal Submitted By:

Contractor's Name

Contractor's Address | City | State | Zip Code

STATE OF ILLINOIS

Local Public Agency: Village of Buffalo Grove | County: Cook | Section Number:

Route(s) (Street/Road Name): Bernard Drive | Type of Funds: General (Local)

☐ Proposal Only ☑ Proposal and Plans ☐ Proposal only, plans are separate

Submitted/Approved
For Local Public Agency:

~~**For a County and Road District Project**~~

~~Submitted/Approved~~
~~Highway Commissioner Signature & Date~~

~~Submitted/Approved~~
~~County Engineer/Superintendent of Highways Signature & Date~~

For a Municipal Project

Submitted/Approved/Passed
Signature & Date

Official Title

~~**Department of Transportation**~~

~~Released for bid based on limited review~~
~~Regional Engineer Signature & Date~~

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

Local Public Agency	County	Section Number	Route(s) (Street/Road Name)
Village of Buffalo Grove	Cook		Bernard Drive

NOTICE TO BIDDERS

Sealed proposals for the project described below will be received at the office of www.vbg.org/bids
Name of Office

Address until 9:30 AM Time on 11/16/23 Date.

Sealed proposals will be opened and read publicly at the office of during a live, online meeting hosted by the Village.
Name of Office

Microsoft Teams video conferencing platform. https://shorturl.at/ekw26 Address at 9:30 AM Time on 11/16/23 Date.

DESCRIPTION OF WORK

Location	Project Length
Bernard Drive	3015 feet

Proposed Improvement

Earth excavation, pavement removal, construction of storm sewers and sanitary sewer, aggregate subbase, HMA roadway pavement, combination concrete curb and gutter, PCC sidewalk and multi-use path, ADA ramps with detectable warnings, driveway removal and replacement, drainage and utility structure adjustments, traffic signal detector loop removal and replacement, tree removal, landscaping, erosion control, and thermoplastic pavement markings.

1. Plans and proposal forms will be available in the office of

www.vbg.org/bids
Office of the Purchasing Manager - (847) 459-2500

2. ☑ Prequalification

If checked, the 2 apparent as read low bidders must file within 24 hours after the letting an "Affidavit of Availability" (Form BC 57) in triplicate, 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 two originals 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. Local Public Agency Formal Contract Proposal (BLR 12200)
   b. Schedule of Prices (BLR 12201)
   c. Proposal Bid Bond (BLR 12230) (if applicable)
   d. Apprenticeship or Training Program Certification (BLR 12325) (do not use for project with Federal funds.)
   e. Affidavit of Illinois Business Office (BLR 12326) (do not use for project with Federal funds)

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.

Local Public Agency	County	Section Number	Route(s) (Street/Road Name)
Village of Buffalo Grove	Cook		Bernard Drive

PROPOSAL

1. Proposal of _____
Contractor's Name

_____.
Contractor's Address

2. The plans for the proposed work are those prepared by Christopher B. Burke Engineering, Ltd.
~~and approved by the Department of Transportation on~~ _____.

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 _____ working days or~~ by 08/30/24 unless additional time is granted in accordance with the specifications.

6. The successful bidder at the time of execution of the contract will 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 of check shall be forfeited to the Awarding Authority.

7. 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 products 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. A bid may be declared unacceptable if neither a unit price nor a total price is shown.

8. The undersigned submits herewith the schedule of prices on BLR 12201 covering the work to be performed under this contract.

9. The undersigned further agrees that if awarded the contract for the sections contained in the combinations on BLR 12201, 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.

10. 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 Buffalo Grove.

The amount of the check is Bid Bond (10% of Total Bid) (_____).

Attach Cashier's Check or Certified Check Here

In the event that one proposal guaranty check is intended to cover two or more bid proposals, the amount must be equal to the sum of the proposal guaranties which would be required for each individual bid proposal. If the proposal guaranty check is placed in another bid proposal, state below where it may be found.

The proposal guaranty check will be found in the bid proposal for: Section Number _____.

SCHEDULE OF PRICES

Base Bid Scope of Work:

For the complete scope of work and information covering these items, see the plans and specifications.

BERNARD DRIVE RECONSTRUCTION

The following Unit Prices will be used for basis of payment and shall be the bidder's proposal for completing the entire improvements herein.

BASE BID

ITEM NO.	Item	Quantity	Unit	Unit Price	Total Price
1	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	86	UNIT		
2	TREE REMOVAL (OVER 15 UNITS DIAMETER)	810	UNIT		
3	TREE ROOT PRUNING	5	EACH		
4	EARTH EXCAVATION	2325	CU YD		
5	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	705	CU YD		
6	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	13300	SQ YD		
7	INLET FILTERS	43	EACH		
8	AGGREGATE SUBGRADE IMPROVEMENT	200	CU YD		
9	SUBBASE GRANULAR MATERIAL, TYPE B 4"	6310	SQ YD		
10	AGGREGATE BASE COURSE, TYPE B 9"	12000	SQ YD		
11	BITUMINOUS MATERIALS (PRIME COAT)	27000	POUND		
12	BITUMINOUS MATERIALS (TACK COAT)	2594	POUND		
13	LONGITUDINAL JOINT SEALANT	3015	FOOT		
14	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH	615	SQ YD		
15	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	35540	SQ FT		
16	PAVEMENT REMOVAL	12787	SQ YD		
17	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	158	SQ YD		
18	DRIVEWAY PAVEMENT REMOVAL	659	SQ YD		
19	COMBINATION CURB AND GUTTER REMOVAL	6230	FOOT		
20	SIDEWALK REMOVAL	23470	SQ FT		
21	STORM SEWERS, CLASS A, TYPE 1 12"	551	FOOT		
22	STORM SEWERS, CLASS A, TYPE 2 15"	154	FOOT		
23	STORM SEWERS, CLASS A, TYPE 2 18"	240	FOOT		
24	STORM SEWERS, CLASS A, TYPE 2 24"	788	FOOT		
25	STORM SEWERS, CLASS A, TYPE 2 30"	127	FOOT		

ITEM NO.	Item	Quantity	Unit	Unit Price	Total Price
26	STORM SEWERS, CLASS A, TYPE 2 36"	929	FOOT		
27	STORM SEWERS, CLASS A, TYPE 2 48"	212	FOOT		
28	ADJUSTING WATER SERVICE LINES	750	FOOT		
29	DOMESTIC WATER SERVICE BOXES TO BE ADJUSTED	61	EACH		
30	PIPE UNDERDRAINS 4" (SPECIAL)	1100	FOOT		
31	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, OPEN LID	2	EACH		
32	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 11 FRAME AND GRATE	39	EACH		
33	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	7	EACH		
34	MANHOLES, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	12	EACH		
35	MANHOLES, TYPE A, 6'-DIAMETER, TYPE 1 FRAME, CLOSED LID	8	EACH		
36	MANHOLES, TYPE A, 7'-DIAMETER, TYPE 1 FRAME, CLOSED LID	1	EACH		
37	MANHOLES, TYPE A, 8'-DIAMETER, TYPE 1 FRAME, CLOSED LID	1	EACH		
38	INLETS, TYPE A, TYPE 1 FRAME, OPEN LID	1	EACH		
39	INLETS, TYPE A, TYPE 11 FRAME AND GRATE	3	EACH		
40	CATCH BASINS TO BE RECONSTRUCTED WITH NEW TYPE 1 FRAME, CLOSED LID	1	EACH		
41	MANHOLES TO BE ADJUSTED	2	EACH		
42	INLETS TO BE ADJUSTED	1	EACH		
43	REMOVING MANHOLES	2	EACH		
44	REMOVING CATCH BASINS	3	EACH		
45	REMOVING INLETS	1	EACH		
46	CONCRETE CURB, TYPE B	200	FOOT		
47	MOBILIZATION	1	L SUM		
48	CHANGEABLE MESSAGE SIGN	70	CAL DA		
49	SIGN PANEL - TYPE 1	131	SQ FT		
50	REMOVE SIGN PANEL ASSEMBLY - TYPE A	3	EACH		
51	RELOCATE SIGN PANEL ASSEMBLY - TYPE A	3	EACH		
52	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	25	FOOT		
53	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	900	FOOT		
54	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	1100	FOOT		
55	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	110	FOOT		
56	GROOVING FOR RECESSED PAVEMENT MARKING 5"	25	FOOT		
57	GROOVING FOR RECESSED PAVEMENT MARKING 7"	900	FOOT		

ITEM NO.	Item	Quantity	Unit	Unit Price	Total Price
58	GROOVING FOR RECESSED PAVEMENT MARKING 13"	1100	FOOT		
59	GROOVING FOR RECESSED PAVEMENT MARKING 25"	110	FOOT		
60	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	1	EACH		
61	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	346	FOOT		
62	DETECTOR LOOP, TYPE I	78	FOOT		
63	REMOVE ELECTRIC CABLE FROM CONDUIT	346	FOOT		
64	PROPOSED STORM SEWER CONNECTION TO EXISTING MANHOLE	1	EACH		
65	STORM SEWER TO BE FILLED	9	CU YD		
66	WATER MAIN SUPPORT	4	EACH		
67	TRENCH BACKFILL (SPECIAL)	4638	CU YD		
68	EXPLORATION TRENCH (SPECIAL)	150	FOOT		
69	TEMPORARY ACCESS (PRIVATE ENTRANCE)	51	EACH		
70	TEMPORARY ACCESS (ROAD)	14	EACH		
71	TEMPORARY RAMP (SPECIAL)	375	SQ YD		
72	DETECTABLE WARNINGS (SPECIAL)	500	SQ FT		
73	CLASS D PATCHES, TYPE IV, 5 INCH (SPECIAL)	419	SQ YD		
74	MANHOLES, SANITARY, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	2	EACH		
75	SANITARY MANHOLES TO BE ADJUSTED	15	EACH		
76	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	22	EACH		
77	COMBINATION CONCRETE CURB AND GUTTER, TYPE B (SPECIAL)	6098	FOOT		
78	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	1	L SUM		
79	SUMP PUMP LINE CONNECTION	4	EACH		
80	TRAFFIC CONTROL AND PROTECTION (DETOUR)	1	L SUM		
81	CONCRETE TRUCK WASHOUT	1	L SUM		
82	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 3"	51	SQ YD		
83	CONSTRUCTION LAYOUT	1	L SUM		
84	STORM SEWER (WATER MAIN REQUIREMENTS) 12 INCH	522	FOOT		
85	STORM SEWER (WATER MAIN REQUIREMENTS) 15 INCH	38	FOOT		
86	STORM SEWER (WATER MAIN REQUIREMENTS) 24 INCH	237	FOOT		
87	STORM SEWER (WATER MAIN REQUIREMENTS) 36 INCH	135	FOOT		
88	SANITARY SEWER 12"	211	FOOT		
89	CLASS D PATCHES, 4 INCH (SPECIAL)	400	SQ YD		

ITEM NO.	Item	Quantity	Unit	Unit Price	Total Price
90	DETECTABLE WARNINGS (FURNISHED BY OTHERS)	150	SQ FT		
91	GENERAL LANDSCAPE RESTORATION (SPECIAL)	4300	SQ YD		
92	HOT-MIX ASPHALT BINDER COURSE, (SPECIAL)	1612	TON		
93	HOT-MIX ASPHALT SURFACE COURSE, (SPECIAL)	1290	TON		
94	MOWING	5	EACH		
95	TEMPORARY EROSION CONTROL SEEDING (SPECIAL)	4300	SQ YD		
96	TEMPORARY MULCH CONTROL 3A (SPECIAL)	4300	SQ YD		

TOTAL BASE BID PRICE IN NUMBERS: $_____

TOTAL BASE BID PRICE WRITTEN: $_____

Base Bid Scope of Work:

For the complete scope of work and information covering these items, see the plans and specifications.

BERNARD DRIVE RECONSTRUCTION

The following Unit Prices will be used for basis of payment and shall be the bidder's proposal for completing the entire improvements herein.

ALTERNATE 01

ITEM NO.	Item	Quantity	Unit	Unit Price	Total Price
1	TREE, CELTIS OCCIDENTALIS CHICAGOLAND, (CHICAGOLAND COMMON HACKBERRY), 2" CALIPER, BALLED AND BURLAPPED	3	EACH		
2	TREE, GINKGO BILOBA AUTUMN GOLD (AUTUMN GOLD GINKGO), 2" CALIPER, BALLED AND BURLAPPED	6	EACH		
3	TREE, GYMNOCLADUS DIOICUS (KENTUCKY COFFEETREE), 2" CALIPER, BALLED AND BURLAPPED	2	EACH		
4	TREE, LIQUIDAMBAR STYRACIFLUA MORAINE (MORAINE SWEETGUM), 2" CALIPER, BALLED AND BURLAPPED	7	EACH		
5	TREE, QUERCUS BICOLOR (SWAMP WHITE OAK), 2" CALIPER, BALLED AND BURLAPPED	1	EACH		
6	TREE, TAXODIUM DISTICHUM (COMMON BALD CYPRESS), 2" CALIPER, BALLED AND BURLAPPED	1	EACH		
7	TREE, TILIA AMERICANA REDMOND (REDMOND AMERICAN LINDEN), 2" CALIPER, BALLED AND BURLAPPED	2	EACH		
8	TREE, CLADRASTIS KENTUCKEA (AMERICAN YELLOWWOOD), 2" CALIPER, BALLED AND BURLAPPED	4	EACH		

TOTAL ALTERNATE 01 BID PRICE IN NUMBERS: $_____

TOTAL ALTERNATE 01 BID PRICE WRITTEN: $_____

Local Public Agency	County	Section Number	Route(s) (Street/Road Name)
Village of Buffalo Grove	Cook		Bernard Drive

CONTRACTOR CERTIFICATIONS

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 Delinquency.** 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 procedure established by the appropriate Revenue Act, its liability for the tax or the amount of the 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: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract 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 on 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 of 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 on 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 or 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 canceled.

RETURN WITH BID

Local Public Agency	County	Section Number	Route(s) (Street/Road Name)
Village of Buffalo Grove	Cook		Bernard Drive

SIGNATURES

(If an individual)

Bidder Signature & Date

Business Address

City | State | Zip Code

(If a partnership)

Firm Name

Signature & Date

Title

Business Address

City | State | Zip Code

Insert the Names and Addresses of all Partners

(If a corporation)

Corporate Name

Signature & Date

Title

Business Address

City | State | Zip Code

Insert Names of Officers

President

Secretary

Attest:

RETURN WITH BID

Secretary

Treasurer

Illinois Department of Transportation

Local Public Agency Proposal Bid Bond

E-mail | Reset Form

Local Public Agency: Village of Buffalo Grove | County: Cook | Section Number:

WE, _____ as PRINCIPAL, and

_____ as SURETY, are held jointly, severally and firmly bound unto the above Local Public Agency (hereafter referred to as "LPA") in the penal sum of 10% 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 LPA 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 LPA 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 LPA 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 LPA determines the PRINCIPAL has failed to enter into a formal contract in compliance with any requirements set forth in the preceding paragraph, then the LPA 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 _____ (Month and Year)

Principal

Company Name	Company Name
Signature & Date By:	Signature & Date By:
Title	Title

(If Principal 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	Signature of Attorney-in-Fact Signature & Date By:

STATE OF IL

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) day of _____ (Month and Year) .

Notary Public Signature & Date

(SEAL, if required by the LPA)

Date commission expires _____

Illinois Department of Transportation

Affidavit of Illinois Business Office

E-mail | Reset Form

Local Public Agency	County	Street Name/Road Name	Section Number
Village of Buffalo Grove	Cook	Bernard Drive	

I, _____ of _____, _____,
Name of Affiant | City of Affiant | State of Affiant

being first duly sworn upon oath, state as follows:

1. That I am the _____ of _____.
Officer or Position | Bidder

2. That I have personal knowledge of the facts herein stated.

3. That, if selected under the proposal described above, _____, will maintain a business office in the
Bidder

State of Illinois, which will be located in _____ County, Illinois.
County

4. That this business office will serve as the primary place of employment for any persons employed in the construction contemplated by this proposal.

5. That this Affidavit is given as a requirement of state law as provided in Section 30-22(8) of the Illinois Procurement Code.

Signature & Date

Print Name of Affiant

Notary Public

State of IL

County _____

Signed (or subscribed or attested) before me on _____ by
(date)

_____, authorized agent(s) of
(name/s of person/s)

_____.
Bidder

Notary Public Signature & Date

(SEAL)

My commission expires _____

Illinois Department of Transportation

Affidavit of Availability

For the Letting of

Bureau of Construction
2300 South Dirksen Parkway/Room 322
Springfield, IL 62764

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	Accumulated Totals
Contract Number						
Contract With						
Estimated Completion Date						
Total Contract Price						
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.

Earthwork						
Portland Cement Concrete Paving						
HMA Plant Mix						
HMA Paving						
Clean & Seal Cracks/Joints						
Aggregate Bases, Surfaces						
Highway, R.R., Waterway Struc.						
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					

Notary

I, being duly sworn, do hereby declare 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.

Officer or Director

Title

Signature

Date

Company

Address

City

State

Zip Code

Subscribed and sworn to before me

this _____ day of _____ , _____

_____

(Signature of Notary Public)

My commission expires _____

(Notary Seal)

☐ Add pages for additional contracts

EXHIBIT A - PUBLIC CONTRACT STATEMENT

This Public Contract Statement (the "**Contract Statement**") has been executed by the below supplier, Contractor or vendor (collectively the "**Contractor**") in order for the Village of Buffalo Grove to obtain certain information necessary prior to awarding a public contract. The Contract Statement shall be executed and notarized and submitted as part of the Bid Proposal.

CERTIFICATION OF CONTRACTOR/BIDDER

In order to comply with 720 Illinois Compiled Statutes 5/33 E-1 et seq., the Village of Buffalo Grove requires the following certification be acknowledged:

> The Contractor certifies that it is not barred from bidding or supplying any goods, services or construction let by the Village of Buffalo Grove with or without bid, due to any violation of either Section 5/33 E-3 or 5/33 E-4 of Article 33E, Public Contracts, of the Chapter 720 of the Illinois Compiled Statutes, as amended. This act relates to interference with public contracting, bid rigging and rotating, kickbacks, and bidding.

CERTIFICATION RELATIVE TO 65 ILCS 5/11-42.1.1

In order to comply with 65 Illinois Complied Statutes 5/11-42.1.1, the Village of Buffalo Grove requires the following certification:

> The Contractor does hereby swear and affirm that it is not delinquent in the payment of any tax administered by the Illinois Department of Revenue unless it is contesting such tax in accordance with the procedures established by the appropriate revenue act, its liability for the tax or the amount of the tax. The undersigned further understands that making a false statement herein: (1) is a Class A misdemeanor, and (2) voids the contract and allows the Village to recover all amounts paid to it under the contract.

CONFLICT OF INTEREST

The Village of Buffalo Grove Municipal Code requires the following verification relative to conflict of interest and compliance with general ethics requirements of the Village:

> The Contractor represents and warrants to the Village of Buffalo Grove as a term and condition of acceptance of their Bid Proposal that none of the following Village officials is either an officer or director of Contractor nor owns five percent (5%) or more of the Contractor: the Village President, the members of the Village Board of Trustees, the Village Clerk, the Village Treasurer, the members of the Zoning Board of Appeals and the Plan Commission, the Village Manager and his/her Assistant, or the heads of the various departments within the Village.

If the foregoing representation and warranty is inaccurate, state the name of the Village official who either is an officer or director of your business entity or owns five percent (5%) or more thereof: _____.

OTHER COMMITMENTS

Has your firm ever been debarred by a governmental agency in the State of Illinois within the last 7 years? If no, please check the box. ☐

I have read, understand and am able to fulfill the requirements of the contract documents. If yes, please check the box. ☐

I can provide insurance documents that meet the terms of the contract documents, which includes original endorsements that explicitly names the Village of Buffalo Grove (and others per the contract documents). If yes, please check the box. ☐

In the past 7 years has your firm been involved in litigation, arbitration, or mediation with a governmental agency? If no, please check the box. ☐
If yes, please provide a brief description.

IN WITNESS WHEREOF, the below Contractor has signed and sealed this Contract Statement as of this ____ day of _____, 20___.

_____
Print Name of Contractor

_____
Signature

_____
Print Title

Given under my hand and official seal, this _____ day of _____, 20___.

_____
Notary Public

Description of Work
Bernard Drive Reconstruction
Lincoln Terrace to Buffalo Grove Road
Village of Buffalo Grove

The following is a list of streets including limits, lengths, area, and a brief description of work:

BASE BID:

Street	From/To	Length
Bernard Drive	Lincoln Terrace to Buffalo Grove Road	3,015 FT (0.57 miles)

Base Bid Improvements. The work consists of earth excavation, pavement removal, construction of storm sewers and sanitary sewers, aggregate subbase, HMA roadway pavement, combination concrete curb and gutter, PCC sidewalk and multi-use path, ADA ramps with detectable warnings, driveway removal and replacement, drainage and utility structure adjustments, traffic signal detector loop replacement, tree removal, erosion control, thermoplastic pavement markings, parkway restoration, and other associated improvements.

ALTERNATE 01:

Street	From/To	Length
Bernard Drive	Lincoln Terrace to Buffalo Grove Road	3,015 FT (0.57 miles))

Alternate Bid 01 Improvements. The work consists of the furnishing and planting of trees.

INDEX OF SPECIAL PROVISIONS

STATE OF ILLINOIS
SPECIAL PROVISIONS

It is the policy of the Municipality and other governing agencies to set standards for the performance of road and bridge construction. This contract shall expressly adhere to the "Standard Specifications for Road and Bridge Construction" (hereinafter referred to as the "Standard Specifications"), the "Standard Specifications for Water and Sewer Main Construction in Illinois", the "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD); the "Manual of Test Procedures for Materials" latest editions in effect on the date of invitation for bids; and the "Supplemental Specifications and Recurring Special Provisions", adopted January 1, 2023, indicated on the Check Sheet, unless otherwise specified herein, will apply to and govern the construction of:

Bernard Drive
Lincoln Terrace to Buffalo Grove Road
Village of Buffalo Grove

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

This project is located in the Village of Buffalo Grove, Cook County. The project limits along Bernard Drive are from Lincoln Terrace to Buffalo Grove Road. The project has a total gross and net length of 3,015 feet (0.57 miles).

DESCRIPTION OF IMPROVEMENT

Base Bid – The work consists of earth excavation, pavement removal, construction of storm sewers and sanitary sewers, aggregate subbase, HMA roadway pavement, combination concrete curb and gutter, PCC sidewalk and multi-use path, ADA ramps with detectable warnings, driveway removal and replacement, drainage and utility structure adjustments, traffic signal detector loop replacement, tree removal, erosion control, thermoplastic pavement markings, parkway restoration, and all incidental and collateral work necessary to complete the project as shown on the plans and as described herein.

Alternate Bid 1 – The work consists of the furnishing and planting of trees.

SCOPE OF WORK

The provisions of Article 104.02 of the Standard Specifications are hereby amended as follows: "The Village of Buffalo Grove (Village) expressly reserves the right to remove from or add to the project any portions thereof included in the Bernard Drive Reconstruction. Such reductions or additions, if any, shall be made in writing by the Village prior to execution of the Contract Documents. Any reduction in the scope of work required by the Village prior to the execution of the Contract Documents shall not result in an adjustment to the contract or to the price originally bid."

DEFINITION OF VILLAGE OF BUFFALO GROVE

All references in the contract relating to the Department, Awarding Authority, Village of Buffalo Grove, Village, etc. shall mean the Village of Buffalo Grove.

CLEAN CONSTRUCTION AND DEMOLITION DEBRIS (CCDD) MATERIAL DISPOSAL

Work under this item shall be performed in compliance with the Illinois Environmental Protection Agency (IEPA) guidelines in effect at the time of construction. A letter is included within these special provisions from Bluff City Materials, Inc. stating that they have reviewed the 663 certification (also included in these special provision) and that they agree to accept CCDD material at their facilities located in Elgin and Lake in the Hills, IL. The letter should be reviewed by the Contractor for additional details.

The Contractor will be required to make all arrangements for coordination and submission of the necessary documents with their chosen CCDD or other suitable disposal facility. Written confirmation of preliminary approval must be provided from the disposal facility and confirmed by the Owner as acceptable.

All surplus, clean material generated from the Contractor's activities must be disposed of at an IEPA permitted CCDD or otherwise acceptable facility. The Contractor is responsible for providing documentation to the Village for each load hauled off-site showing the quantity of material and the location where the material was disposed of.

Disposal of clean material not in compliance with these requirements will constitute breach of contract. If the Contractor fails to provide adequate documentation supporting the legal disposal of clean material according to this special provision, the Contractor shall be fined $1,000 per load of material and will assume all liability associated with material disposed of not in compliance with this special provision.

No extra compensation will be allowed to the Contractor for any expenses incurred when complying with these requirements including but not limited to delays, inconvenience, or interruptions in the work resulting from compliance with these requirements. All costs

associated with material disposal shall be included into the appropriate unit bid prices for the work.

JULIE NOTIFICATION

The Contractor shall call the Joint Utility Locating Information for Excavators (JULIE) (1-800-892-0123 or 811), a minimum of forty-eight (48) hours in advance of work being done in the area in accordance with Article 107.39 of the Standard Specifications.

For utilities which are not members, excluding homeowners, the Contractor shall contact the owners directly. The Contractor will be required to cooperate with all utility companies and municipal agencies involved in connection with the removal, temporary relocation, reconstruction, or abandonment by these agencies of any and all services.

Cook County is not a member of JULIE. For location information on Cook County Traffic Signal equipment, Traffic Signal Interconnect equipment, Flashing Beacons equipment, Lighting equipment, etc., please contact the Mechanical, Electrical, Architectural and Landscaping Division at (312) 603-1734. If this contract requires the services of an electrical contractor, the Contractor shall be responsible at his/her own expense for locating existing IDOT and CCDOTH facilities prior to performing any work.

No additional compensation will be allowed the Contractor for any expense incurred by complying with these requirements, or because of delays, inconvenience or interruptions in his work resulting from the failure of the municipal agencies or utility company to remove, relocate, reconstruct, or abandon their services.

PREQUALIFICATION OF BIDDERS

Bidders shall be prequalified with the Illinois Department of Transportation in accordance with Article 102.01 of the Standard Specifications and is required by all bidders.

All bidders are required to fully register with the Village of Buffalo Grove, including IRS Form W-9, at:

https://vrapp.vendorregistry.com/Vendor/Register/Index/buffalo-grove-village-of-il-vendor-registration

OR

www.vbg.org/bids
Select the link ‘Register My Business’

Please contact Vendor Registry at (844) 802-9202 for assistance in the registration process.

The Village of Buffalo Grove reserves the right to reject any or all proposals if the bidder does not comply with the requirements as stated herein.

COMPLETION DATE

The Contractor shall commence the work to be performed under this contract, 10 days following the execution of the contract. The work shall be prosecuted in such a manner and with such a supply of materials, equipment and labor as considered necessary to ensure its completion according to the time specified in the contract. The Contractor shall substantially complete all work in the contract by Friday, August 30, 2024, including landscape restoration, as defined in Article 108.04 of the Standard Specifications.

Following substantial completion, the Contractor shall provide the Engineer written notice in accordance with Article 105.13 of the Standard Specifications. The Contractor will have fourteen (14) calendar days to correct any deficiencies following the scheduled final inspection and punch list submittal by the Engineer.

In case of failure to complete the work on time by the interim completion date, final completion date, working days, and/or the deficient punch list items, the provisions of Article 108.09 of the Standard Specifications shall apply, except regardless of the contract amount, the daily charge shall be $2,000 per calendar day overrun. Landscape restoration planting times shall follow Article 250.07 of the Standard Specifications.

The estimated Village Board award date for this project is Monday, December 4, 2023 with an anticipated commencement date of Monday, April 1, 2024.

CONTRACT SEQUENCING

The Contractor shall notify the Engineer at least 72 hours in advance of beginning work. Construction operations shall be conducted in a manner such that streets will remain open to traffic. At no time shall residents or business owners be kept out of their driveway over a weekend or holiday as defined in Article 107.09 of the Standard Specifications.

Work shall be scheduled so that it is continuous on Bernard Drive. The Contractor and approved SubContractor(s) shall, at all times, employ and provide sufficient labor, tolls, equipment, and other incidental items for prosecuting the work to full completion in the manner and time required by the contract.

CONSTRUCTION WORK PERIODS

Construction operations shall be completed in accordance with Article 107.09 of the Standard Specifications. All work shall be confined to the period beginning at 7:00 AM and

ending at 6:00 PM on weekdays. No work shall be permitted on Saturdays unless prior written approval is granted by the Village. All requests to work on a Saturday shall be submitted by 4:00 PM the Wednesday prior to the date requested. If work is allowed, it shall be confined to the period beginning at 8:30 AM and ending at 6:00 PM. The completion date shall be reduced by one (1) calendar day for each Saturday the Contractor elects to work, regardless of if the Saturday worked is a full or partial working day. No work shall be done on Sundays or legal holiday periods as defined in article 107.09 of the Standard Specifications.

Any work outside the allowed time periods in accordance with the Village Ordinance, including but not limited to, material deliveries, mobilization of equipment, warming up machinery, or truck staging, a penalty of $1,000 per occurrence may be imposed.

Suggested Construction Sequencing

Due to the multiple permits, dry utility relocations and segmented nature of the work, project sequencing is of utmost importance to the Village to ensure this project is completed on budget and within the timeframe specified.

The Contractor shall be prepared to discuss the project sequencing along with the project schedule at the preconstruction meeting and recommend any changes to the below plan. Changes to the suggested sequencing may cause temporary work in order to perform the improvements as proposed. Any additional temporary work other than what is outlined in the current plan/bid documents will not be paid for separately but would be included in the cost of the item requiring the temporary work.

1. General

Parking will not be allowed on Bernard Drive during the construction of the proposed improvements. The Contractor shall erect No Parking signs along both sides of the roadway. The Contractor shall maintain access to all driveways and side roads at all times, except for periods of time as noted in these special provisions. One eastbound drivable/passable lane shall be available at all times on Bernard Drive. A detour plan is provided in the plans for westbound traffic.

The Contractor shall water the subgrade/aggregate base course, as directed by the Engineer, to control dust. This work will be paid for separately as Dust Control Watering.

2. Storm Sewer Construction

The first phase of the project will be the installation of all drainage improvements on Bernard Drive, Glendale Road, Diane Drive, and Lauren Lane, and the construction of sanitary sewer, east of Navajo Trail. When storm sewer laterals are being installed in Stage 1 (within the existing pavement), traffic shall be maintained through the use of

flaggers in accordance with IDOT Highway Standard 701501. A quantity for 'Class D Patch, 4 Inch' has been included for patching the existing pavement at each lateral to be constructed. The Contractor shall only remove the pavement necessary to construct the storm sewer, sanitary sewer, and structures. Pavement removal beyond what is necessary to construct the storm sewer, sanitary sewer, and structures will not be allowed in this phase. The Contractor shall backfill all trenches with Trench Backfill (Special) to the top of the trench, as shown in the plans, except for the laterals as previously noted. New drainage structures within the Bernard Drive pavement shall be constructed with a metal plate over the top of the structure. The structures on Bernard Drive shall be adjusted to final grade (with frames and lids) following placement of the HMA binder course. Final adjustment of new structures shall be included in the cost of the drainage structures.

One-way eastbound traffic shall be maintained on Bernard Drive during this phase. Two-way traffic will be allowed on Glendale Road, Diane Drive, and Lauren Lane. Flaggers shall be on site during working hours to direct traffic. Access to driveways and sideroads must be accessible at the end of each workday. At the discretion of the Resident Engineer, Type III barricades shall be erected on side streets to limit/remove access to Bernard Drive.

3. Roadway, Curb & Gutter, Driveway Aprons, Sidewalk

The second phase of the project shall be the construction of all roadway items on Bernard Drive including, but not limited to aggregate base course, HMA binder, curb & gutter, driveway aprons, and sidewalk. In addition, pavement patching shall be completed on Glendale Road, Diane Drive, and Lauren Lane. The Contractor shall prepare a sequence of construction for this work and present it to the Village for approval. Existing structures within the pavement, which are to remain, shall be adjusted in accordance with the special provision for Frames and Lids to be Adjusted (Special).

There shall be an aggregate surface available at the end of each workday to maintain one-way traffic on Bernard Drive following pavement removal. Pay items and quantities have been provided for Temporary Access (Private Entrance) for driveways, Temporary Access (Road) for side streets, and Temporary Ramp (Special). The Contractor shall limit traffic on the newly constructed aggregate base course. Driveway closures shall be limited to the timeframes outlined in these special provisions. Heavy construction equipment will not be allowed on the finished binder course.

4. Final Restoration/Tree Planting/Final Surface & Pavement Markings

The third phase of the project shall be the restoration of parkways and the planting of trees (trees to be included at the discretion of the Village as they are part of Alternate Bid 01), followed by the final surface course and pavement markings. The detour for westbound Bernard Drive shall be removed in Stage 4 and the roadway opened to two-

way traffic. Two-way traffic shall be maintained through the use of flaggers (in accordance with IDOT Highway Standard 701501) while workers are present.

PRECONSTRUCTION MEETING

There shall be a pre-construction meeting with the Village prior to commencing construction operations. The Village or Engineer will set the time and date of the meeting following Contract award.

The following shall be submitted by the Contractor for review at the pre-construction meeting:

- A Progress Schedule in accordance with Article 108.02.
- The 24-hour emergency phone number and contact information of the assigned Contractor's superintendent, or otherwise.
- The name and 24-hour emergency phone number of the person in the direct employ of the Contractor who is responsible for administrating the Traffic Control and Protection on the Contract
- A list of subcontractors with contact information, including but not limited to name, phone number, and email address, and include quantity and type of work to be sublet for each respective subcontractor in accordance with Article 108.01 of the Standard Specifications.
- A list of proposed sources of material.
- Hot-mix asphalt and concrete mix designs, and respective quality control plans.* Any applicable shop drawing submittals.*

*Shop drawings and mix designs for concrete and bituminous items to be installed on the project shall be submitted to the Village no less than ten (10) calendar days from the effective notice to proceed dated letter or the scheduled date of the pre- construction meeting, whichever occurs earlier. A monetary penalty of $500 may be imposed for each required submittal thereafter.

SUBCONTRACTING

Add the following to the end of ARTICLE 108.01 SUBCONTRACTING.

"The apparent low Bidder on a "Request for Approval of a Subcontractor" (BC 260a) form shall submit to the office of Engineer within ten (10) calendar days after the receipt of bids, a list of the names of Bidder's proposed subcontractors along with a description of the work

to be performed by each. The Village will then review and reserves the right to reject the use of any subcontractor on the project due to past performance or the apparent inability to properly perform the item of work."

AUTHORITY OF THE ENGINEER

Revise ARTICLE 105.01 AUTHORITY OF ENGINEER to read:

"All work shall be done in accordance with the requirements of the Contract, the Engineer shall have the right, but not the obligation, to observe all work. The Engineer shall decide all questions that arise as to the interpretation of the Plans and Specifications and as to disputes and mutual rights between Contractors under the Specifications. The Engineer shall advise the Village of Buffalo Grove as to the quality and acceptability of materials furnished and work performed, rate of progress of the work, and acceptable fulfillment of the Contract. The Engineer will determine the amount of materials furnished and work performed. The Engineer's advice and determinations shall be conditions precedent to the right of the Contractor to receive money due the Contractor under the Contract."

"The Engineer will notify the Contractor in writing if the work is to be suspended by the Village of Buffalo Grove wholly or in part due to the failure of the Contractor to carry out provisions of the contract; for failure to carry out orders; for such periods due to unsuitable weather; for conditions considered unsuitable for the prosecution of the work or for any other condition or reason deemed to be in the public interest."

"In case of failure on the part of the Contractor to execute work as directed by the Engineer, the Village of Buffalo Grove may, at the expiration of a period of 48 hours after giving notice in writing to the Contractor, proceed to execute such work as may be deemed necessary, and the cost thereof shall be deducted from compensation due or which may become due to the Contractor under the contract."

The Engineer shall not assume any of the responsibilities of the Contractor's superintendent or of subcontractors; shall not expedite the work for the Contractor; and shall not advise on, or issue directions concerning aspects of construction means, methods, techniques, sequences or procedures, or safety precautions in connection with the work.

STATUS OF UTILITIES

Effective: June 1, 2016
Revised: January 1, 2020

Utility companies and/or municipal owners located within the construction limits of this project have provided the following information regarding their facilities and the proposed

improvements. The tables below contain a description of specific conflicts to be resolved and/or facilities which require some action on the part of the Department's contractor to proceed with the work. Each table entry includes identification of the action necessary and, if applicable, the estimated duration required for the resolution.

UTILITIES TO BE ADJUSTED

Conflicts noted below have been identified by following the suggested staging plan included in the contract. The company has been notified of all conflicts and will be required to obtain the necessary permits to complete their work; in some instances, resolution will be a function of the construction staging. The responsible agency must relocate, or complete new installations as noted below; this work has been deemed necessary to be complete for the Department's contractor to then work in the stage under which the item has been listed.

This list represents potential utility conflicts determined by the Design Engineer. A response has not been provided by the responsible agency to date.

Stage/Location	Type	Description	Responsible Agency
Pre-Stage	Utility Pole Relocation	Stations 62+00, Rt, 64+05, Rt, 75+20, Rt, 78+05, Rt	ComEd

The following contact information is what was used during the preparation of the plans as provided by the owner of the facility. The Design JULIE locate request was submitted on October 17, 2023 by the Design Engineer.

Agency/Company Responsible to Resolve Conflict	Name of Contact	Phone	E-mail address
Astound	Juan Del Real	(312) 955-2020	Juan.delreal@astound.com
AT&T Distribution	Jamel McGinnis		g11629@att.com
Comcast	Martha Gieras	(224) 229-5862	Martha_gieras@cable.comcast.com
ComEd	Lisa Argast	(630) 437-3381	plansubmittalsandmaprequests@exceloncorp.com
Nicor Gas	Charles "Chip" Parrot	(630) 388-3319	gasmaps@southernco.com
Northwest Water Commission	David Neybert	(847) 635-0777	dneybert@northwestwater.org
Unite Private Network	Bryan Foster	(816) 490-0894	upngis@upnfiber.com
Windstream KDL/McLeod USA Damage Prevention	Locate-desk	(800) 289-1901	Locate.Desk@Windstream.com

UTILITIES TO BE WATCHED AND PROTECTED

The areas of concern noted below have been identified by following the suggested staging plan included for the contract. The information provided is not a comprehensive list of all remaining utilities, but those which during coordination were identified as ones which might require the Department's contractor to take into consideration when making the determination of the means and methods that would be required to construct the proposed improvement. In some instances, the contractor will be responsible to notify the owner in advance of the work to take place so necessary staffing on the owner's part can be secured.

No facilities requiring extra consideration.

The following contact information is what was used during the preparation of the plans as provided by the owner of the facility. The Design JULIE locate request was submitted on October 17, 2023 by the Design Engineer.

(See previous Contact Information Table above.)

The above represents the best information available to the Department and is included for the convenience of the bidder. The days required for conflict resolution should be considered in the bid as this information has also been factored into the timeline identified for the project when setting the completion date. The applicable portions of the Standard Specifications for Road and Bridge Construction shall apply.

Estimated duration of time provided above for the first conflicts identified will begin on the date of the executed contract regardless of the status of the utility relocations. The responsible agencies will be working toward resolving subsequent conflicts in conjunction with contractor activities in the number of days noted.

The estimated relocation duration must be part of the progress schedule submitted by the contractor. A utility kickoff meeting will be scheduled between the Department, the Department's contractor and the utility companies when necessary. The Department's contractor is responsible for contacting J.U.L.I.E. prior to all excavation work.

MAINTENANCE OF ROADWAYS AND EROSION CONTROL

Beginning on the date that the Contractor begins work on this project, he shall assume responsibility for normal maintenance of all existing roadways and trenches within the limits of the improvement. This normal maintenance shall include all repair work deemed necessary by the Engineer but shall not include snow removal operations. Traffic control and protection for maintenance of roadways will be provided by the Contractor as required by the contract documents.

The Contractor shall be required to control dust or air-borne dirt resulting from construction operations by utilizing a mechanical street sweeper on all pavements within or adjacent to the project work zone. The resulting debris shall be disposed of off-site in accordance with Article 202.3 of the Standard Specifications. Individual fire hydrant use shall not be permitted to control dust at specific locations. The Contractor shall provide dust control operations daily or as directed by the Engineer.

The cost of this work shall be included in the unit prices bid and no additional compensation shall be allowed to control dust as specified herein.

No excavations shall be left open during non-work hours unless approved by the Village and adequately protected from the public.

The Contractor will be required over the course of construction to clean inlet filter baskets weekly or prior to a forecasted rain event. Many of the homes in the Village have lower garages and are susceptible to damage when streets flood. The Contractor shall be held liable for any damage to private structures if it is determined that the damage was due to the Contractor's neglect as specified herein. In the event water is not properly running through inlet filter baskets caused by debris, the Village crews may respond to resident calls about street flooding. Any Village expense occurred in labor or materials responding to these calls will be back charged to the Contractor and deducted from a future pay request.

The Contractor will be required to perform erosion control best management practices as listed on the plans, specifications, and details during construction. Discharge of sediment-laden water or construction debris into the storm sewer system or waterways will not be permitted and subjected to a monetary penalty as noted in the monetary penalties general condition. In addition, the Contractor will be responsible for cleaning all storm sewer systems and waterways to their preconstruction condition to the satisfaction of the Engineer. In the event of an illicit discharge, regardless of blame, the Contractor shall concentrate their work efforts on remedying the situation to correct the deficiency.

The work zone shall be maintained in accordance with Section 701 of the Standard Specifications. Negligence by the Contractor to follow these minimum guidelines that result in or cause damage to Village equipment during snowfall removal or any other similar Village operation will be the direct responsibility of the Contractor to repair. The repair will be completed by the Village and the cost of the repair will be deducted from the next pay request due to the Contractor.

All operations by the Contractor such as flushing, dewatering, leaking water trucks or equipment, repairs to broken water services or water main, or similar that cause freezing of

water on the pavement or sidewalk shall be maintained by salting, sanding, or removal of the condition by the Contractor to the satisfaction of the Engineer.

If items of work have not been provided for in the contract, or otherwise specified for payment, such items, including the accompanying traffic control and protection required by the Engineer, will be paid for in accordance with Article 109.04 of the Standard Specifications.

CONSTRUCTION STAGING AND MAINTENANCE OF BASE COURSE

All pavement removal, curb installation, and hot-mix asphalt binder installation shall be completed in accordance with Section(s) 202, 406, 423, 440, and 606 of the Standard Specifications and as specified herein.

Pavement removal and hot-mix asphalt binder course placement shall be staged in a manner to minimize the exposure of vehicular traffic over the existing base course following pavement removal.

No pavement removal operations shall commence if rain is in the forecast within the following five working days. If the Contractor does not follow this requirement, any disking, drying or undercut operations required by the Engineer to provide a sufficient subbase prior to paving shall be completed by the Contractor at no additional cost to the Village.

Roadways excavated to subgrade and/or subbase material shall have the hot-mix asphalt binder course installed within seven (7) calendar days from the first day of pavement removal on that respective street segment.

There shall be no placement of hot-mix asphalt permitted on scheduled days of refuse pickup. The Contractor shall be responsible for determining the current refuse schedule and incorporating it into their progress schedule accordingly.

No resident shall be without driveway access and no sidewalk shall be barricaded or closed for more than seven (7) calendar days unless specifically listed otherwise in the plans or herein.

Prior to driveway access impediment due to proposed curb and gutter or driveway pavement operations, the Contractor shall be required to deliver resident notification letters approved by the Engineer to each respective residence or business owner notifying them of the day and time they will not be able to get in and out of their driveway. After the new concrete curb has set, the Contractor shall install all required forms for installation of the driveway pavement for inspection by the Engineer. The Contractor is required to install curb and driveway pavement within two (2) calendar days of each other. Example: If the curb is

poured on Monday the driveways will be required to be poured on the same day after the curb is set or on Tuesday. If the curb in front of the resident is not being replaced the Contractor shall frame and pour the driveway on the same day. The driveways shall be properly barricaded until the concrete is sufficiently cured. If, at the discretion of the Engineer, the driveway requires that the old aggregate base course be removed and replaced, it shall be completed prior to pouring the new concrete combination curb & gutter or not until after it has been allowed to cure for a minimum of three (3) calendar days, or after the concrete has reached 2,500 psi as verified by cylinder breaks. Any additional cylinders cast and testing costs associated with this verification shall be included in the cost of the contract. Proposed portland cement concrete sidewalk shall follow the same timeframe as noted above.

If the Contractor does not install proposed concrete curb, driveway pavement, and/or sidewalk in the time frame specified herein, a monetary penalty of $250 per calendar day will be imposed for each day, and each occurrence the work is not completed.

The Contractor will be required to furnish and install a temporary ramp immediately following pavement removal operations. Each ramp shall be installed the full driveway width of material determined by the Contractor. Each temporary ramp shall be removed prior to paving operations, the respreading of stone on the base or paving over hot-mix asphalt ramps will not be allowed. If the Contractor fails to install or maintain a temporary ramp in a timely manner, a monetary penalty of $250 per calendar day will be imposed.

The Contractor shall make themselves aware of the surroundings and of private property. The Village will not tolerate entering private property or driving equipment/vehicles on a driveway within the public right of way to remain for any reason during construction unless prior approval has been granted by the property owner. The Contractor will incur a monetary penalty of $500 per occurrence as determined by the Engineer for violation of this requirement.

PERIOD OF ESTABLISHMENT

Pulverized topsoil shall be placed to a maximum depth of four (4) inches and not be placed until the area has been shaped, trimmed, and finished to the lines and grades as directed by the Engineer. All irregularities, depressions, or high points in the surface shall be filled or smoothed out before topsoil is placed. The surface of the topsoil shall be blended to match the existing terrain and adjacent roadway, and be free from clogs, stones, sticks, and debris.

The Contractor shall furnish and place the IDOT class of seed specified, and be produced and tested in the current year, be of good quality, and free of weeds. Fertilizer nutrients shall be applied at a 1:1 ratio in accordance with Article 250.04 of the Standard

Specifications. Within 24 hours of seed placement, mulch shall be placed by method 3A in accordance with Article 251.03(d) of the Standard Specifications.

It is recommended that the Contractor water the area every other day at a rate of three (3) gallons per square yard, however, it is the sole and exclusive responsibility of the Contractor to make required adjustments to the watering rate or schedule.

To be acceptable for final payment, the landscaped areas shall undergo a 30-day period of establishment beginning on the last day that seed is sowed. During this period, the Contractor shall be responsible for, at no additional cost to the Village, watering, removing weeds and maintaining the seeded areas and repairing any damage to the seeded areas due to but not limited to, errant vehicles, severe weather, or all other causes. At the end of the 30-day period of establishment, the Village or Engineer will inspect the landscaped area and if deemed unsatisfactory or to have less than 90% growth, the Contractor shall be required to provide means and methods necessary to establish a live, healthy turf area. Should the seed not germinate because of prevailing cool weather, the period of establishment may be adjusted as determined by the Engineer. It shall be the sole and exclusive responsibility of the Contractor, not the Engineer, for maintaining and monitoring the landscape restoration during the period of establishment. If the placed landscape restoration has not been approved by the Village or Engineer sixty (60) calendar days following installation, the Contractor will incur a monetary penalty of $1000 per calendar day.

Planting shall be performed when the ambient temperature is between 45° F and 80° F for a minimum of seven (7) consecutive days and is forecasted to be within the same range for the next five (5) days according to the National Weather Service.

The Contractor shall provide the Engineer with proper documentation on the landscaping materials supplied to the project such as topsoil source, topsoil certification, fertilizer bags, seed tags, and seed bags.

Upon placement of topsoil, seed, fertilizer nutrients, and mulch, 50 percent of each respective pay item will be paid. Upon final acceptance of the topsoil, seed, fertilizer nutrients, and mulch placed, the remaining 50 percent of each respective pay item will be paid.

The Village may postpone permanent seeding operations if deemed necessary. In such an event, the completion date may be extended accordingly.

SAW CUTTING

The Contractor shall be required to perform a perpendicularly straight joint by full-depth machine sawing of all proposed items to be removed prior to removal operations to prevent damage or spalling to existing hardscape to remain. Simple or partial depth scoring shall not be permitted. Saw cut locations may or may not be shown on the plans, however, shall be required in the field. All sawcut slurry, regardless of the amount, shall be promptly removed to prevent tracking. Any slurry tracked or left on surfaces to remain shall be thoroughly cleaned or replaced, at the direction of the Village or Engineer, by the Contractor at no additional cost to the Village.

The Contractor shall replace, at no additional cost to the Village, any hardscape, outside of the limit of improvements, damaged by the Contractor's operations due to neglect, misconduct, or poor workmanship.

USE OF FIRE HYDRANTS

The indiscriminate use of fire hydrants is strictly prohibited. The Contractor can obtain non-potable water in bulk at no charge at the Buffalo Grove Public Works Department, 51 Raupp Blvd. The Contractor shall provide a water truck or containment and driver to obtain and transport the water. All water obtained from the Village shall be used for this project only. If deemed necessary, the Village reserves the right to restrict or refuse the use of Village water. The Contractor will be responsible for executing the required paperwork and follow all requirements of the Village. If it is determined that the Contractor or its subcontractors operate or use a Village fire hydrant, a monetary penalty of $1,000 per occurrence will be imposed by the Village.

EXISTING HARDSCAPE

Any damage to existing hardscape from tracked equipment or due to the Contractor's negligence, workmanship, or neglect shall be replaced at the Contractor's expense. It is recommended rubber tired or rubber tracked equipment is used. Any unwarranted disturbance to the existing hardscape to remain will warrant repairs made joint to joint. The Engineer and Village shall determine the limit of removal and replacement operations, and all work shall be completed to the satisfaction of the Engineer.

TREE PROTECTION AND PRESERVATION

This work shall consist of pruning existing trees, shrubs, or bushes in accordance with Section 201 of the Standard Specifications, except as modified herein.

Breaking off branches of plant material to remain during clearing or construction operations will not be allowed. Preceding any existing tree pruning or trimming operations, the Contractor shall demonstrate that there is no other practical method to complete the work and request permission from the Engineer. All pruning shall be done according to the current ANSI A300 (Part 1) – Pruning Standard.

All branches and foliage pruned or trimmed shall be disposed of off-site in accordance with Article 202.03 of the Standard Specifications.

All existing trees larger than 6" in diameter and not specifically designated for removal, which are removed or damaged due to the Contractor's neglect, shall be inspected by the Village Forester or his designated representative. For each infraction that causes damage to a tree, a monetary penalty of $1,000 may be imposed and the replacement of the damaged tree required, depending on the extent of injury caused to each tree. No replacement tree shall have a diameter of less than 3" or more than 6", unless authorized by the Village of Buffalo Grove. All new plantings shall be completed in accordance with Section 253 of the Standard Specifications.

USE OF THE WORK SITE

The Contractor shall use the Work Site solely to complete the Work and such related activities as may be authorized or directed by the Village. Except as provided herein, Contractor shall not (nor shall Contractor cause or permit any employee or person under Contractor's control) to display or broadcast commercial, political, or religious messages or advertisements of any nature at the Work Site or in connection with the Work. The foregoing shall not be construed to prohibit the following at the Work Site or in connection with the Work: (a) the use of equipment, materials, or other items (e.g. personnel uniforms and clothing) that identify the Contractor (such as by displaying the Contractor's name, logo, slogan, contact information, or similar messages) or that identify the maker or supplier of such equipment, material, or item; or (b) the use or display of signs, flags, cones, traffic control devices, markers, or other similar devices that reasonably relate to the Work, Work Site safety, public safety, or regulatory compliance; or (c) personal speech, religious practice, or expression by any individual performing Work or at the Work Site; or (d) upon written approval or direction of the Village, the display of information regarding the sponsor of the Work or funding sources for the Work.

In addition, Contractor shall not (nor shall Contractor require or permit its personnel, subcontractors, or subcontractors' personnel to) conduct any prohibited political activity at the Work Site or while performing the Work. Contractor and its personnel or subcontractors (including any subcontractor's personnel) shall not intentionally or knowingly use the Work Site or any other property or resources of the Village in connection with any prohibited political activity. For purposes of this section, the term "prohibited political activity" shall

have the meaning set forth in Section 5 of the State Officials and Employees Ethics Act, 5 ILCS 430/1-5.

INDEMNIFICATION

To the fullest extent permitted by law, the Contractor agrees to defend, pay on behalf of, indemnify, and hold harmless the Village, its elected and appointed officials, agents, employees and volunteers and others working on behalf of the Village against any and all claims, demands, suits or loss, including all costs connected therewith, and for any damages which may be asserted, claimed or recovered against or from the Village, its elected and appointed officials, agents, employees and volunteers and others working on behalf of the Village, by reason of personal injury, including bodily injury and death, and/or property damage, whether damage to property of the Village or of a third party, including loss of use thereof, which arises out of or is in any way connected or associated with the Contract and the Work.

For this project, the Village also hired a Consultant, Gewalt Hamilton Associates. The Contractor shall indemnify the Consultant in the same manner as the Village, as stated above.

INSURANCE REQUIREMENTS

12.04.080 - Insurance.

A. Required Coverages and Limits. Unless otherwise provided by franchise, license, or similar agreement, each Contractor occupying right-of-way or constructing any facility in the right-of-way shall secure and maintain the following liability insurance policies insuring the Contractor as named insured and naming the Village, and its elected and appointed officers, officials, agents, and employees and Gewalt Hamilton Associates, Inc. and employees as additional insureds on the policies listed in subsection (A)(1) and (A)(2) of this section:

    1. Commercial general liability insurance, including premises-operations, explosion, collapse, and underground hazard (commonly referred to as "X," "C," and "U" coverages) and products-completed operations coverage with limits not less than:

    a. Five million dollars for bodily injury or death to each person,

    b. Five million dollars for property damage resulting from any one accident, and

    c. Five million dollars for all other types of liability;

2. Automobile liability for owned, non-owned and hired vehicles with a combined single limit of one million dollars for personal injury and property damage for each accident;
3. Worker's compensation with statutory limits; and
4. Employer's liability insurance with limits of not less than one million dollars per employee and per accident.

If the Contractor is not providing such insurance to protect the contractors and subcontractors performing the work, then such contractors and subcontractors shall comply with this section.

B. Excess or Umbrella Policies. The coverages required by this section may be in any combination of primary, excess, and umbrella policies. Any excess or umbrella policy must provide excess coverage over underlying insurance on a following-form basis such that when any loss covered by the primary policy exceeds the limits under the primary policy, the excess or umbrella policy becomes effective to cover such loss.

C. Copies Required. The Contractor shall provide copies of any of the policies including all endorsements or certificates required by this section to the Village within ten calendar days following receipt of a written request therefor from the Village.

D. Maintenance and Renewal of Required Coverages. The insurance policies required by this section shall contain the following endorsement:

"It is hereby understood and agreed that this policy may not be canceled nor the intention not to renew be stated until thirty (30) calendar days after receipt by the Village, by registered mail or certified mail, return receipt requested, of a written notice addressed to the Village Manager of such intent to cancel or not to renew."

Within ten (10) calendar days after receipt by the Village of said notice, and in no event later than ten (10) calendar days prior to said cancellation, the Contractor shall obtain and furnish to the Village evidence of replacement insurance policies meeting the requirements of this section.

E. Self-Insurance. A Contractor may self-insure all or a portion of the insurance coverage and limit requirements required by subsection A of this section. A Contractor that self-insures is not required, to the extent of such self-insurance, to comply with the requirement for the naming of additional insureds under subsection A of this section, or the requirements of subsections B through D of

this section. A Contractor that elects to self-insure shall provide to the Village evidence sufficient to demonstrate its financial ability to self-insure the insurance coverage and limit requirements required under subsection A of this section, such as evidence that the Contractor is a "private self-insurer" under the Workers Compensation Act.

F. Effect of Insurance and Self-Insurance on Contractor's Liability. The legal liability of the Contractor to the Village and any person for any of the matters that are the subject of the insurance policies or self-insurance required by this section shall not be limited by such insurance policies or self-insurance or by the recovery of any amounts thereunder.

G. Insurance Companies. All insurance provided pursuant to this section shall be effected under valid and enforceable policies, issued by insurers legally able to conduct business with the licensee in the State of Illinois. All insurance carriers and surplus line carriers shall be rated "A-" or better and of a class size "X" or higher by A.M. Best Company.

H. Verification of Coverage. Contractor shall furnish the Village with certificates of insurance naming the Village, its officials, agents, employees, and volunteers as additional insured's and with original endorsements, affecting coverage required herein. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates and endorsements are to be received and approved by the Village before any work commences. The Village reserves the right to request full certified copies of the insurance policies and endorsements.

I. Subcontractors. Contractor shall include all subcontractors as insured's under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverage's for subcontractors shall be subject to all of the requirements stated herein.

J. Assumption of Liability. The contractor assumes liability for all injury to or death of any person or persons including employees of the contractor, any subcontractor, any supplier or any other person and assumes liability for all damage to property sustained by any person or persons occasioned by or in any way arising out of any work performed pursuant to the Contract.

K. Workers' Compensation and Employers' Liability Coverage. The insurer shall agree to waive all rights of subrogation against the Village of Buffalo Grove, its officials, employees, agents and volunteers for losses arising from work performed by Contractor for the municipality.

L. Failure to Comply. In the event the Contractor fails to obtain or maintain any insurance coverage’s required under this contract, The Village may purchase such insurance coverage’s and charge the expense thereof to the Contractor.

Nothing contained herein is intended to constitute, nor shall it constitute a waiver of the rights, defenses and/or other immunities provided or available to the Village under law including, but not limited to, the Local Governmental and Governmental Employees Tort Immunity Act.

ACCIDENTS

In the event of any accident of any kind that involves the general public or property of the Village or a third party, the Contractor shall immediately notify the Village by phone as well as provide Notice of the same. The Notice shall include a full accounting of all details of the accident. The Contractor shall furnish the Village with copies of all reports of such accidents at the same time that the reports are forwarded to any other interested parties.

NO ASSIGNMENT

If the Contractor sublets or assigns any part of the Work then the Contractor shall not under any circumstances be relieved of its liabilities hereunder. All transactions of the Village shall be with the Contractor. Subcontractors shall be recognized only in the capacity of employees or workmen and shall be subject to the same requirements as to character and competence. The Contractor shall not assign, transfer, convey, sell or otherwise dispose of the whole or any part of this Contract to any person, firm or corporation without written consent of the Village or authorized representative.

DEFAULT

The following shall constitute a default an “Event of Default” by the Contractor under this Contract:

A. If the Contractor fails to strictly observe or perform one or more of the terms, conditions, covenants and agreement of this Contract.

B. If there shall be placed on any property owned by the Village any mechanics’, materialmens’ or suppliers’ lien;

C. If there shall be instituted any proceeding against the Contractor seeking liquidation, dissolution or similar relief and the same shall not be dismissed within forty-five (45) calendar days;

D. If there shall be appointed any trustee, receiver or liquidator of the Contractor and such appointment shall not have been vacated within forty-five (45) calendar days; and

E. If the Contractor fails to maintain or obtain any and all permits, licenses and the like, if any, required by the Village, State or Federal governments for the Work.

Upon any Event of Default the Village shall have the option of (i) terminating the Contract; (ii) pursuing any remedy available to it at law or in equity; or (iii) pursuing both simultaneously. In addition, upon an Event of Default, the Village may withhold payments due to the Contractor until it has hired a replacement of the Contractor and deducted all costs of hiring a replacement.

DELAYS

The Contractor shall not be liable in damages for delays in performance when such delay is the result of fire, flood, strike, acts of God, or by any other circumstances which are beyond the control of the Contractor; provided, however, under such circumstances the Village may, at its option, cancel the Contract.

COMPLIANCE WITH LAWS

The Contractor shall comply with all applicable laws, regulations and rules promulgated by any federal, state, local, or other governmental authority or regulatory body pertaining to all aspects of the Work, now in effect, or which may become in effect during the performance of the Work. The scope of the laws, regulations, and rules referred to in this paragraph includes, but is in no way limited to, the Illinois Human Rights Act, Illinois Equal Pay Act of 2003, Occupational Safety & Health Act along with the standards and regulations promulgated pursuant thereto (including but not limited to those safety requirements involving work on elevated platforms), all forms of traffic regulations, public utility, Interstate and Intrastate Commerce Commission regulations, Workers' Compensation Laws, Public Construction Bond Act, Public Works Preference Act, Employment of Illinois Workers on Public Works Act, USA Security Act, federal Social Security Act (and any of its titles), and any other law, rule or regulation of the Illinois Department of Labor, Department of Transportation, Illinois Environmental Protection Act, Illinois Department of Natural Resources, Illinois Department of Human Rights, Human Rights Commission, EEOC, and the Village of Buffalo Grove. Notwithstanding the following, the Contractor shall particularly note that:

A. **NO DISCRIMINATION** – The Contractor shall comply with the provisions of the Illinois Public Works Employment Discrimination Act and the Illinois Human Rights Act/Equal Opportunity Clause which, pursuant to Illinois law, are deemed to be part of this Contract.

B. **FREEDOM OF INFORMATION** - The Contractor agrees to furnish all documentation related to the Contract, the Work and any documentation related to the Village required under an Illinois Freedom of Information Act (ILCS 140/1 et. seq.) ("FOIA") request within five (5) calendar days after the Village issues Notice of such request to the Contractor. The Contractor agrees to defend,

indemnify and hold harmless the Village, and agrees to pay all reasonable costs connected therewith (including, but not limited to attorney's and witness fees, filing fees and any other expenses) for the Village to defend any and all causes, actions, causes of action, disputes, prosecutions, or conflicts arising from Contractor's actual or alleged violation of FOIA or the Contractor's failure to furnish all documentation related to a FOIA request within five (5) calendar days after Notice from the Village for the same. Furthermore, should the Contractor request that the Village utilize a lawful exemption under FOIA in relation to any FOIA request thereby denying that request, Contractor agrees to pay all costs connected therewith (such as attorneys' and witness fees, filing fees and any other expenses) to defend the denial of the request. This defense shall include, but not be limited to, any challenged or appealed denials of FOIA requests to either the Illinois Attorney General or a court of competent jurisdiction.

C. **ILLINOIS WORKERS ON PUBLIC WORKS ACT** - To the extent applicable, the Contractor shall comply with the Illinois Workers on Public Works Act, 30 ILCS 570/1 et seq., and shall provide to the Village any supporting documentation necessary to show such compliance.

D. **NOT A BLOCKED PERSON -** The Contractor affirms and covenants that neither the Contractor nor any individual employed by the Contractor for this Work or under this Contract is a person forbidden from doing business with a unit of local government under Executive Order No. 13224 (Sept 23, 2001), 66 Fed.Reg. 49,079 (Sept 23, 2001) or is a person registered on the Specially Designated Nationals and Blocked Persons List. The Contractor shall indemnify the Village from all costs associated with failure to comply with this paragraph.

E. **SUBSTANCE ABUSE PREVENTION ON PUBLIC WORKS ACT -** The Contractor knows, understands and acknowledges its obligations under the Substance Abuse Prevention on Public Works Act (820 ILCS 265/1 et seq.), and shall comply and require all subcontractors and lower tiered contractors to comply with the requirements and provisions thereof.

NO WAIVER OF RIGHTS

A waiver by the Village of any Event of Default or any term of provision of this Contract shall not be a waiver of the same Event of Default, another Event of Default or any other term or provision of this Contract.

TERMINATION OF THE CONTRACT

Voluntary Termination. Notwithstanding any other provision hereof, the Village may terminate this Contract during the Initial Term with or without cause, at any time upon thirty (30) calendar days prior written notice to the Contractor.

Termination for Breach. Either party may terminate this Contract upon written notice to the other party following material breach of a material provision of this Contract by the other party if the breaching party does not cure such breach within fifteen (15) calendar days of receipt of written notice of such breach from the non-breaching party.

CONTROLLING LAW AND VENUE

This Contract is entered into in the State of Illinois, for work to be performed in the State of Illinois and shall be governed by and construed in accordance with the laws of the State of Illinois. Any legal matters or dispute shall be resolved in the Circuit Court of Cook County and the Parties hereby submit to the jurisdiction of such Circuit Court. This Contract shall be construed without regard to any presumption or other rule requiring construction against the Party causing the Contract to be drafted.

MISCELLANEOUS

A. **AMENDMENT** – This Contract may be amended only in writing executed by both Parties.

B. **NO RECORDING** – This Contract, or a memorandum thereof, may not be recorded in any form by either Party. If either Party records this Contract, or a memorandum thereof, they shall immediately file a release of the same.

C. **SECTION HEADINGS –** The headings in the Contract are intended for convenience only and shall not be taken into consideration in any construction or interpretation of the Contract.

D. **NO THIRD PARTY BENEFICIARIES –** This Contract does not confer any rights or benefits on any third party.

E. **BINDING EFFECT –** This Contract shall be binding and inure to the benefit of the Parties hereto, their respective legal representatives, heirs and successors-in-interest.

F. ENTIRE AGREEMENT – This Contract supersedes all prior agreements and understandings and constitutes the entire understanding between the Parties relating to the subject matter hereof.

G. SEVERABILITY – If any term, condition or provision of the Contract is adjudicated invalid or unenforceable, the remainder of the Contract shall not be affected and shall remain in full force and effect, to the fullest extent permitted by law.

H. TORT IMMUNITY DEFENSES – Nothing contained in this Contract is intended to constitute nor shall constitute a waiver of the rights, defenses, and immunities

provided or available to the Village under the Local Governmental and Governmental Employees Tort Immunity Act, 745 ILCS 10 et seq.

APPLICATION FOR PAYMENT

At least once each month, the Engineer will make a written estimate of the quantity of work performed in accordance with the Contract, and the value thereof at the contract unit prices according to Article 109.02 of the Standard Specifications. For each pay period, the quantity cut off will be the first Saturday of each month. During the second week, the Engineer and Contractor will agree to the quantities completed to- date. The Contractor shall submit an agreed upon invoice electronically to the Engineer by the end of the working day of the third Monday of the month. The Village will begin their payment process and will result in the review of the payment at the next regularly scheduled Village Board meeting. Prior to the release of payment, the Contractor shall submit electronically, all certified payroll reports, applicable waivers, and a notarized and signed clarifying statement for Village Attorney review and subsequent approval. Prior to the release of the check, hard-copies of all applicable waivers and the clarifying statement shall be received by the Village.

All payments under this Contract must be approved by the Village Board at a regularly scheduled meeting. The Village reserves the right to request any receipts, invoices, proof of payments as the Village, in its sole discretion, may deem necessary to justify the payment requested prior to paying the requested payment. A Final Lien Waiver from the Contractor, its subcontractors, and all material suppliers shall be furnished with the final application for payment.

The Contractor acknowledges that the Village is a unit of local government and that all payments under the Contract are subject to the Local Government Prompt Payment Act, 50 ILCS 505 et seq. To that extent, the Village shall have forty-five calendar (45) days from receipt of a bill or invoice to pay the same before it is considered late under the Contract. Interest, if any, charged for any late payments will be subject to the interest rate caps specified in the Prompt Payment Act.

CERTIFIED PAYROLL REPORTS

Pursuant to PA 100-1177 the Illinois Department of Labor (IDOL) has activated an electronic database (Payroll Portal) capable of accepting and retaining certified payrolls submitted under the State of Illinois Prevailing Wage Act (820 ILCS/130/1). All contractors and subcontractors completing work for the Village of Buffalo Grove pursuant to the Act

must submit all certified payroll through the IDOL Payroll Portal.

The Village is an Illinois unit of local government and the Work hereunder is subject to the Illinois Prevailing Wage Act, 820 ILCS 130/0.01, et seq. Consequently, the Contractor and each subcontractor shall submit with their application for payment(s) the email certification received from their IDOL Payroll Portal submittal with each of their pay requests. Any delay in processing the payments due to a lack of aforementioned email certification shall not be an event of default by the Village and shall not excuse any delay by the Contractor who shall proceed with the Work as if no delay in payment has occurred. The Contractor and Village shall agree to take any further steps not outlined above to ensure compliance with the Prevailing Wage Act. Upon two business days' Notice, the Contractor and each subcontractor shall make available to the Village their records to confirm compliance with the Prevailing Wage Act. Finally, to ensure compliance with Prevailing Wage Act, the Contractor and each subcontractor shall keep for a period of not less than 5 years after the Work has been completed records of all laborers, mechanics, and other workers employed by them for the Work; the records shall include each worker's name, address, telephone number, classification or classifications, the hourly wages paid in each period, the number of hours worked each day, the starting and ending times of work each day and, when available, last four digits of the social security number. The Contractor shall provide a list of every name, address, phone number and email of every sub-contractor for the Work.

If the contractor must submit the payroll to the Village of Buffalo Grove for reasons outside of their control, the Village requests that the Contractor submit all certified payroll reports, including subcontractors, and EEO reporting be sent electronically in separate files for each respective Contractor/subcontractor with the weeks ending date in the file name to kjohnson@vbg.org (i.e. Contractor Name Week Ending.pdf) as shown in the sample letter in Exhibit D.

The Contractor is responsible for providing all records in accordance with the Illinois Department of Labor's (IDOL) requirements pertaining to the Prevailing Wage Act on the standard IDOL form. Only the last four (4) digits of the employee's social security number will be required; the remaining digits shall be "X" or redacted. To complete the certified payroll request for release of payment, the Contractor must supply a signed and notarized written statement that all necessary documentation has been turned over for the pay period pertaining to that payment requested.

Under P.A. 98-0328, the public body must retain copies of the certified payroll for 5 years rather than 3 years as was the case previously. The Illinois Department of Labor (IDOL) has created model certified payroll forms which can be found at the IDOL website www.illinois.gov/idol. the new form consists of three pages identified as the "certified transcript of payroll affidavit" and "certified transcript of payroll instructions". The new forms on the IDOL website can be filled in online and then printed out. under P.A. 98-0482, contractors and subcontractors will have to provide additional information with respect to working hours, wage rates, overtime rates and fringe benefits.

The IDOL's model certified payroll forms are the most current forms for compliance with P.A. 98-0482 and should be used in public works contracts.

MONETARY PENALTIES

All work shall be completed in accordance with the Contract Documents in a reasonable and timely manner. For each occurrence that work is not completed in a reasonable and timely manner, a monetary penalty will be deducted from the final pay application. The Contractor shall make themselves and all Subcontractors aware of the following deficiency and deductions:

Description	Penalty	Per Occurrence
Failure to Sweep Roadway	$250	Calendar Day
Failure to Maintain Trench	$250	Calendar Day
Failure to Adhere to Period of Establishment	$250	Calendar Day
Distributing Unapproved Resident Notices	$100	Household
Failure to Distribute Notices in a Timely Manner	$100	Household
Failure to Distribute Notice to Resident	$100	Household
Failure to Provide Access in a Timely Manner	$250	Household Per Day
Failure to Provide Weekly Update to Engineer/Maintain Schedule	$1,000	Per Occurrence
Failure to Attend a Scheduled Weekly Meeting	$1,000	Per Occurrence
Failure to Respond in a Timely Manner to a Resident	$250	Calendar Day
Failure to Ramp Roadway or Driveway	$250	Household/Roadway Per Day
Use of Fire Hydrant or Valve	$1,000	Each
Failure to Provide Maintenance of Roadway in a Timely Manner as Determined by the Engineer	$1,000	Calendar Day
Entering Private Property	$500	Per Occurrence
Failure to Provide Portable Facilities	$100	Calendar Day
Illicit Discharge of Silt or Construction Debris	$1,000	Per Occurrence
Failure to Submit Shop Drawings on Time	$500	Per Occurrence
Failure to Maintain Erosion and/or Sediment Control Devices	$1,000	Per Occurrence
Working Outside Allowable Work Hours	$1,000	Per Occurrence
Damage to Tree	$1,000	Per Occurrence

At the discretion of the Engineer and without notice, the Contractor shall have deducted the monetary penalty amount as listed above for each occurrence on the final pay application

WEEKLY PROGRESS MEETING AND SCHEDULE UPDATES

The Contractor will be required to provide weekly schedule updates with the anticipated schedule for the following week by 3:00PM every Thursday starting ten (10) calendar days after contract execution and continuing until the project is formally accepted by the Village. The Contractor will be required to submit an initial weekly schedule update with the anticipated schedule the Thursday prior to construction commencement; if the Contractor fails to submit this initial notice, no work shall be permitted to begin. The weekly progress update shall be emailed to the Resident Engineer and Village project representative. The Contractor shall make every effort to maintain the schedule within one (1) calendar day of delay, excluding weather or unforeseen circumstances. Failure to maintain the schedule may result in a monetary penalty of $1,000 per calendar day if it is determined that substantial effort to maintain the schedule is not made.

If, at the discretion of the Village or Engineer, a mandatory weekly progress meeting may be scheduled to coordinate anticipated work. This meeting will be held on Thursday following receipt of the weekly progress update. If the Contractor fails to attend a mandatory weekly meeting requested by the Village or Engineer a monetary penalty of $1,000 per occurrence will be imposed

PUBLIC NOTIFICATION

The Contractor shall be required to provide and distribute letters to residents or business owners anytime access will be affected to a home or utility service is interrupted. Letters shall be typed on standard 8.5" x 11" paper and an envelope may or may not be used. All letters, including those written and distributed by a subcontractor, shall be printed on the General Contractor's letterhead and shall include the name, address, and telephone number of the General Contractor's person in charge.

Letters shall be taped to a non-painted surface using painters tape or approved equal, and will be placed in as many locations as needed to ensure they will be visible to residents. Distributing letters via mailbox is discouraged, however, must be compliant with all United States Postal Service federal regulations. Notification letters shall include, but is not limited to, the following information:

- Exact day and time work is to begin that will affect access (weather permitting).
- How the resident will know they may resume normal access to their property.
- The anticipated length of the closure (no more than one week will be permitted).
- Specific location where parking is permitted, both overnight and during the working

day (as signed and normally permitted during daytime).

- The Village of Buffalo Grove Police Department has been notified that overnight parking will be permitted. (It shall be the responsibility of the Contractor to confirm this with the Village.)
- The Contractor will go door-to-door the moment prior to work is to begin to ensure all accommodations are made.
- General Contractor's person in charge name and contact information for additional information or specific requests.
- If applicable, provide Resident flushing procedures (following reconnection of the water service, resident to flush inside of the house via the bath or utility sink for ten minutes prior to consumption).

Notification letters shall be distributed a minimum of 24 hours prior to access being affected or otherwise. If this requirement is not met, work shall not commence**. All letters must be approved by the Village or Engineer prior to and for each individual distribution**.

Additional letters may be required when weather or other unforeseen circumstances change the schedule. When requested, the Contractor is required to return or provide correspondence from a resident within 24 hours.

Under special circumstances, the Village may choose to write a notification letter and the Contractor shall still be responsible for delivering the letter as specified herein. An example of a resident notification letter is included in the Village Communications Documents section of these specifications.

The Contractor must comply with all of the above-mentioned statements, otherwise a monetary penalty of $100 per household, per calendar day shall be imposed.

MAINTENANCE LETTER OF CREDIT

The Contractor will be required to post a Letter of Credit for a period of One Year (1-yr) from date of final acceptance by the Village. Final acceptance will be the date the Final Payment is made to the Contractor. The Letter of Credit shall be in a form acceptable to the Village in the amount of 10% (ten percent) of the awarded contract value. Unless under emergency situations the Village will offer the Contractor the ability to fix or repair any item prior to drawing from the Letter of Credit. If the Contractor elects to perform the repairs themselves all work must be complete within 14 calendar days of notice from the Village or the Village reserves the right to perform the repairs themselves.

The Letter of Credit shall cover all necessary repairs or replacements as deemed necessary by the Village due to poor workmanship, failed materials, any settlement, excessively spalled, chert popped or cracked concrete, storm, sanitary and water main

failures, restoration establishment, and other items as completed by the Contractor under the Contract.

All required pavement repairs shall be from curb line to the nearest cold joint. Pavement repairs shall have all joints routed and filled with crack seal material including along the edge of pavement 30 calendar days after installation.

If the Contractor elects to not perform the repairs or does not perform them in the time allotted the Village will perform the work and collect from the Letter of Credit any damages incurred by the Village to perform the repairs.

WATER AND SEWER SERVICES

The Village of Buffalo Grove will not locate private water and sewer service lines as part of the JULIE notification system. The property owner is the owner of these services from the building to the main and are exempt from the JULIE system.

The Contractor is fully responsible for protecting all utilities near or in their excavation area and shall make themselves fully aware of the exact location of each utility; marked or not marked.
The Contractor may elect to locate any and all utilities marked or unmarked, at their expense. Repeated damage to service lines will need to be repaired from the main to the right-of-way as directed by the Engineer. The Contractor shall be responsible for repairs to all damaged utilities incurred as determined by the Village and/or Engineer.

All repairs to damaged water and sewer service lines shall be completed with material equal to, including size, of the existing service. Connections of dissimilar materials shall be made with stainless steel non-shear mission couplings or appropriate flare couplings for water services. All fittings for copper water service lines shall be of the "flare" type regardless of temporary or permanent use. Any damage to existing water service lines during construction shall be repaired with the existing main under pressure. The Contractor shall have a crimping tool and e-z out or freeze kit on-site to make repairs as required. Repair of service lines in this manner shall only be performed on lines that will be abandoned as part of this project, if applicable.

The Engineer shall approve all materials used for repairs to ensure they meet the material requirements of the Village of Buffalo. This work shall not be paid for separately and no additional cost incurred will be the responsibility of the Village.

RETAINAGE AND WAIVERS

The Village of Buffalo Grove has the option to retain from the amount due to the Contractor a maximum of ten percent (10%) from each pay request. The Contractor may request the retainage be reduced and provide reasoning for such reduction in writing to the Village. The Village has the option to accept or deny the request and shall be considered final. The retainage may be held until the Village determines the project to be final and accepted, at which time any warranty or maintenance period shall commence.

The Contractor shall submit, for each pay request submittal, original partial or final waivers from all subcontractors and material suppliers for the work payment is requested from the Village; trailing waivers will not be permitted. The Village will not remit payment to the Contractor until all original hard-copies of waivers for the work the Contractor is requesting payment for are received and reviewed. To help expedite the process, the Village is willing to review draft waivers after the invoice has been submitted for the pay request. When the draft waivers are reviewed and found acceptable, and the check is cut according to the Village's Warrant schedule, then the check and final waivers can be exchanged accordingly.

FINAL SITE INSPECTION

After the Contractor has submitted the notice of final completion to the Village, the Contractor shall schedule a final site inspection with the Village and Engineer. The Contractor shall provide a laborer or Contractor's representative for the final inspection that will be responsible for the following:

1. Open and inspect all existing and newly installed storm structures, sanitary structures, and valve vaults.
2. Key all hydrant auxiliary boxes and operate the valve.
3. Key all b-box's and operate the valve.
4. Key all valves and operate the valve.
5. Review general site cleanliness and condition of landscaping, curb, sidewalk, pavement, etc.

Upon completion of the final site inspection, the Engineer will provide the Contractor a list of any deficiencies documented. The Contractor will have fourteen (14) calendar days to correct any deficiencies following the scheduled final inspection and punch list submittal by the Engineer.

PERMITS AND LICENSES

The Contractor shall procure all permits and licenses, pay all charges and fees, and give all notices necessary to the due and lawful prosecution of the work in accordance with Article 107.04 of the Standard Specifications. No work shall be performed until all applicable permit requirements are fulfilled.

The following permits shall be applicable to this Contract:

- Cook County Department of Transportation and Highways – Buffalo Grove Road
- IEPA – Division of Water Pollution Control (SWPPP)
- Village of Buffalo Grove – Overweight and Oversize Truck Permit

RED LINE AS-BUILTS

This work shall consist of supplying red line as-builts of the installed utility improvements including but not limited to rim, inverts, top of pipe elevations, service locations, vertical offsets, underdrain installations, and other underground utilities.

The as-builts shall have red marks and installed elevations wherever on the engineering drawings a proposed grade, structure, invert or any other proposed item is shown. All elevations shall be recorded on the NAVD 88 datum, consistent with the plans. The as-builts shall be submitted to the Village in red marked PDF file on the issued for construction drawings.

As-builts with insufficient recorded information will be rejected. As-builts must be turned in with the Contractors notice of completion. Failure to submit as-builts with the notice of completion will begin to trigger liquidated damages after the project completion date or when working days have been exhausted. This work shall not be paid for separately but shall be considered included in the cost of the Contract.

STORM SEWERS AND PIPE UNDERDRAINS

Whenever during construction operations any loose material is deposited in the flow line of drainage structures such that the natural flow of water is obstructed, it shall be removed at the close of each working day. At the conclusion of construction operations, all utility structures shall be free from dirt and debris. The cost of all materials required and all labor necessary to comply with these provisions will not be paid for separately but shall be considered as included in the cost of the storm sewers installed and drainage structures installed, adjusted, or reconstructed as part of this project.

The Contractor shall furnish all labor, equipment, and material necessary for dewatering trench excavations as well as shoring trench walls during utility operations. The cost to comply with the above shall be included in the cost of the storm sewers, drainage structures, valve vaults, watermain, and fire hydrants installed as part of this project.

Removal of sleeves on existing storm sewers shall be included in the cost of the storm sewer being removed.

When existing drainage facilities are disturbed, the Contractor shall provide and maintain temporary outlets and connections for all private or public drains, sewers or catch basins. The Contractor shall provide facilities to take in all storm water which will be received by these drains and sewers and discharge the same. The Contractor shall provide and maintain an efficient pumping plant, if necessary, and a temporary outlet. The Contractor shall be prepared at all times to dispose of the water received from temporary connections until such time as the permanent connections with sewers are built and in service. This work will not be paid for separately but shall be included in the cost of the storm sewers and drainage structures installed as part of this project.

Top of frame (“rim”) elevations given on the plans are only to assist the Contractor in determining the approximate overall height of each structure. Frames on all new structures shall be adjusted to the final elevations of the areas in which they are located. This work will not be paid for separately but shall be included in the cost of the drainage structures installed, adjusted, or reconstructed as part of this project.

No more than two precast concrete adjusting rings with six-inch maximum height adjustment shall be allowed. A minimum one 2” ring shall be installed on installed on new structures. All adjustment rings less than 2” shall be HDPE rings. Only one HDPE may be used within the precast tolerances. Only precast concrete or HDPE adjustment rings are permitted. A ½” x 3.5” mastic shall be used between all frames, rings, and structures. Mortar shall be used around rings, but not between them. A bed of mortar can be used on a cone or flat top of a structure.

Unless otherwise noted on the plans, the existing drainage facilities shall remain in use during the period of construction. The locations of existing drainage structures and sewers as shown on the plans are approximate. Prior to commencing work the Contractor shall determine the exact locations of existing structures which are within the proposed construction limits.

During construction, if the Contractor encounters or otherwise becomes aware of any sewers, underdrains, or field drains within the right-of-way other than those shown on the plans, he shall so inform the Engineer, who shall direct the work necessary to maintain or replace the facilities in service and to protect them from damage during construction if maintained. The existing facilities to be maintained that are damaged because of the non-

compliance with this provision shall be replaced at the Contractor's own expense. Should the Engineer have directed the replacement of a facility, the necessary work and payment shall be in accordance with Sections 550 and 601, and Article 104.02 of the Standard Specifications.

The Contractor shall determine when flat slab tops are required on manholes and catch basins. No additional compensation shall be allowed for the use of flat slab tops.

The Contractor shall be aware that at times the Engineer may require a change in storm sewer elevation due to a utility line or other obstruction. If such a grade change does not alter the pipe classification, the additional excavation, backfill, and sheeting required shall be included in the cost of the storm sewer being installed. If the revised grade results in a change in pipe classification, payment will be made for the revised type of storm sewer.

The cost of coring existing and proposed drainage structures to connect proposed pipe underdrains shall be included in the cost of the pipe underdrain being installed.

Removal of existing pipe underdrains shall be included in the cost of EARTH EXCAVATION.

The Contractor shall always maintain flows through sewer systems at all times. The existing structures shall be inspected before construction starts. As directed by the engineer, any accumulation of material in the structure due to construction operations shall be removed by the Contractor at his/her expense. The cost of all materials required and all labor necessary to comply with the above provisions will not be paid for separately but shall be considered as included in the cost of mobilization, and no additional compensation will be allowed.

UTILITY CASTINGS

All frames, lids, and grates shall be furnished in accordance with the Village details in the plans and the following.

Type 1, Closed Lids shall be East Jordan Iron Works 1022 or Neenah R-1713. Type 1, Open Lids shall be East Jordan Iron Works 1022 or Neenah R-1713.

Type 11, Frame and Grates located in barrier curb shall be East Jordan Iron Works 7210, Neenah 3281-A, or Neenah 3170.

Type 11, Frame and Grates located in depressed curb shall be East Jordan Iron Works 7210 with an M3 grate.

No 4" depth frames shall be allowed.

DOMESTIC WATER SERVICE BOXES TO BE ADJUSTED

Description: This work shall consist of adjusting existing domestic water service boxes.

Construction Requirements: Boxes shall be adjusted to proposed grade by rotating the upper screw-threaded element, or in another manner with the approval of the Engineer. The adjustment shall not lift the lower piece off the shutoff valve, and the Contractor shall ensure that the box remains tight fitting to the valve nozzle.

If extensions are required, they will not be paid for separately, but shall be included in the cost of the work.

Method of Measurement: This work will be measured for payment in place in units of each existing water service box adjusted to proposed grade.

Basis of Payment: This item will be paid for at the contract unit price per each for DOMESTIC WATER SERVICE BOXES TO BE ADJUSTED.

PIPE UNDERDRAINS 4" (SPECIAL)

Description. This work shall include all labor, material, and equipment necessary to install longitudinal pipe underdrains at all curbline drainage structures. This work shall be performed according to Section 601 of the Standard Specifications except as modified herein and according to the details in the plans.

General: Pipe underdrains shall be installed behind the back of curb per the details in the plans. It shall be installed from each curbline drainage structure for fifty (50) feet in each parallel direction or as directed by the Engineer. It shall also be installed transversely across the road at each profile low point. Pipe bends and fittings shall be required for radii less than or equal to 50 feet.

The aggregate backfill material and fabric sock, as specified in the Engineering plans and as specified herein, shall be included in the cost of this pay item, regardless of the depth of pipe underdrain. When connecting a proposed underdrain to an existing storm sewer structure, a new hole shall be machine cored with a minimum six (6) inch diameter, circular hole. Cutting a new pipe opening by any other method shall not be permitted.

Method of Measurement. This work will be measured for payment per foot of pipe underdrain installed.

Basis of Payment. This work will be paid for at the contract unit price per foot for PIPE UNDERDRAINS 4" (SPECIAL), which shall include all labor, equipment, and materials necessary to complete the work.

CHANGEABLE MESSAGE SIGN

The Contractor shall provide portable message signs in accordance with Articles 701.15(j) and 1106.02(i) of the Standard Specifications. The message signs shall be used as directed by the Engineer. It is anticipated that the message boards will be displayed for one week before construction begins, and prior to construction staging changes at locations, as directed by the Engineer.

Basis of Payment. Changeable message signs will be paid for at the contract unit price per calendar day.

TRAFFIC SIGNAL WORK GENERAL

Effective: 5/1/21
Revised: 2/1/21 (Revised Phone Number)

All work and equipment performed and installed under this contract, shall be governed and shall comply to the State of Illinois "Standard Specifications for Road and Bridge Construction" latest edition, herein referred to as the Standard Specifications and the "District One Standard Design Details"; the State of Illinois "Manual on Uniform Traffic Control Devices for Streets and Highways", latest edition; the "National Electrical Code" latest edition herein referred to as the NEC; the National Electrical Manufacturers Association, herein referred to as NEMA (all publications for traffic control items) latest editions; the International Municipal Signal Association, herein referred to as IMSA "Official Wire & Cable Specifications Manual" latest edition; the Institute of Transportation Engineers, herein referred to as the ITE, Technical Report No.1, "A Standard for Adjustable Face Vehicular Traffic Control Heads"; AASHTO "Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals" and the "Supplemental Specifications" and "Recurring Special Provisions" noted herein.

The following Special Provisions supplement the above specifications, manuals, and code. The intent of these Special Provisions is to prescribe the materials and construction methods commonly used for traffic signal installations. All material furnished shall be new unless otherwise noted herein. The locations and the details of all installations shall be as indicated on the Plans or as directed by the Engineer. Traffic signal construction and maintenance work shall be performed by personnel holding IMSA Traffic Signal Technician Level II certification. The work to be done under this contract consists of furnishing and installing all traffic signal work as specified in the Plans and as specified

herein in a manner acceptable and approved by the Engineer. In case of conflict with any part or parts of said documents, these Special Provisions shall take precedence and shall govern.

In order to reduce possible vehicular conflicts with fixed objects and avoid public criticism, it is necessary to require that no posts, poles, heads, or controller cabinets be installed until all traffic signal control equipment is brought to and located on the job site.

The construction, installation and/or removal work shall be accomplished at all the intersections within the limits of this project or as shown in the plans.

Description of Work. The work to be done under this contract consists of furnishing and installing all traffic signal work as specified on the Plans and as specified herein in a manner acceptable and approved by the Engineer.

Control of Traffic Signal Materials.

All work shall meet the requirements of the "Standard Specifications for Road and Bridge Construction", except as follows:

The controller and all control equipment shall be of a manufacturer that is approved by this Department. All equipment shall have a representative and shop located in the six (6) county Chicago areas. All equipment installed in the controller cabinet shall be from a single supplier. The supplier shall be responsible for service and support for this equipment.

The intent of this Section is to prescribe the materials and construction methods commonly used for traffic signal installations. All material furnished shall be new unless otherwise noted herein. Traffic materials and equipment shall bear the U.L. label whenever such labeling is available.

All iron and steel products which are to be incorporated into work shall be domestically manufactured or produced and fabricated. The contractor shall obtain from the iron or steel producer and/or fabricator, in addition to the mill analysis, a certification that all iron or steel materials meet these domestic source requirements.

The application of all coatings, epoxy, galvanizing, painting, etc., to metal products shall be domestically applied.

Metal material other than iron and steel, which are not domestically produced, may be accepted provided:

(a) The contractor notifies the Department in advance of his/her intension to use other than domestically manufactured or produced material.

(b) Written evidence is provided in English of compliance with all requirements of the specifications.

(c) Physical tests conducted by the department verify the acceptability of the material.

Before any signal equipment, including mast arm assemblies, poles, controller cabinets, all control equipment and signal heads, are delivered to the job site, the Contractor shall obtain and forward to the Engineer a certified, notarized statement from the manufacturer, containing the catalog numbers of the equipment and/or material, guaranteeing that the equipment and/or material, after manufacture, comply in all respects with the requirements of the Specifications and these Special Provisions.

All material approval requests shall be within thirty (30) consecutive calendar days after the Contract is awarded, or at the pre-construction meeting, whichever is first. A list of major traffic signal items can be found in Article 801.05. Material or equipment which is similar or identical shall be the product of the same manufacturer, unless necessary for system continuity. Traffic signal materials and equipment shall bear the U.L. label whenever such labeling is available.

All cost of work and materials required to comply with the above requirements shall be included in the pay item bid prices, under which the subject materials and signal equipment are paid, and no additional compensation will be allowed. Materials and signal equipment not complying with the above requirements that have been installed on the job will be done at the Contractor's own risk and may be subject to removal and disposal at the Contractor's expense.

The Contractor must submit the following for approval by the Engineer:

- Four (4) complete set of manufacturer's descriptive literature, drawings, and specifications of the traffic signal equipment, handholes, junction box, cable, conduit and all associated items that will be installed on the contract. If the literature contains more than one item, the Contractor shall indicate which item or items will be furnished.

- Partial or incomplete submittal will be returned without review.

- The contractor shall supply samples of all wire and cable, and shall make up and supply samples of each type of cable splice proposed for use in the work for the Engineer's approval.

- Seven (7) complete shop drawings of the mast arm assemblies and poles including combination mast arm poles are required, showing in detail the fabrication, anchor

bolts, reinforcing materials, design material, thickness of sections and weld sizes. These drawing shall be approved by IDOT at least 11" x 17" (275mm x 425mm) in size and adequate quality for microfilming.

- Certain non-standard mast arm poles and assemblies will require additional review. The Contractor shall account for additional review time in their schedule.

- Seven (7) copies of a letter from the Traffic Signal Contractor on company letterhead listing contract number or permit number, project location limits, pay item number and description and listing the manufacturer's name and model numbers of the proposed equipment to be supplied and stating that the proposed equipment meets all Contract requirements. The letter will be reviewed by the Engineer to determine whether the equipment to be used is approvable. The letters will be stamped as approved or not approved accordingly and returned to the Contractor.

- Five (5) copies of a letter from the Traffic Signal Contractor listing the System Coordination and Timing (SCAT) consultant's name shall be supplied. The letter will be reviewed by the Engineer to determine whether the SCAT consultant to be used is approved. The letters will be stamped as approved or not approved accordingly and returned to the Contractor.

- Where certifications and/or warranties are specified. The information submitted for approval shall include certifications and warranties. Certifications involving inspections and/or tests of material shall be complete with all test data, dates and times.

- All above shall be stamped with the Section Number, Permit Number, or Contract Number and Intersection(s) name(s). Pay item numbers shall also be included. If the above required information is not on each sheet of the above literature or letters, the equipment and material cuts will not be reviewed and shall be returned to the Contractor.

- All submitted items reviewed and marked 'APPROVED AS SUBMITTED', 'APPROVED AS NOTED', 'DISAPPROVED', 'INCOMPLETE' or ' NOT REVIEW' are to be resubmitted in their entirety, unless otherwise indicated within the submittal comments, with a disposition of previous comments to verify contract compliance at no additional cost to the contract.

- Exceptions, Deviations and Substitutions. In general, exceptions to and deviations from the requirements of the Contract Documents will not be allowed. It is the Contractor's responsibility to note any deviations from Contract requirements at the time of submittal and to make any requests for deviations in writing to the Engineer. In general, substitutions will not be acceptable. Requests for substitutions must

demonstrate that the proposed substitution is superior to the material or equipment required by the Contract Documents. No exceptions, deviations or substitutions will be permitted without the approval of the Engineer.

a.

- After the engineer reviews the submittals for conformance with the design concept of the project, the Engineer will stamp the drawings indicating their status. The Engineer's review is for conformance with design concept only. It is the Contractor's responsibility to coordinate the various items into a working system as specified. The Contractor shall not be relieved from responsibility for errors or omissions in the shop working, layout drawings, or other documents by the Departments approval thereof. The Contractor must be in full compliance with contract and specification requirements.

- Contractor shall not order major equipment such as mast arm assemblies prior to Engineer approval of the Contractor marked proposed traffic signal equipment locations to assure proper placement of contract required traffic signal displays, push buttons and other facilities. Field adjustments may require changes in proposed mast arm length and other coordination.

Marking Proposed Locations.

Revise the following to Article 801.09 of the Standard Specifications:

Revise "Marking Proposed Locations for Highway Lighting System" to read "Marking Proposed Locations for Highway Lighting System and Traffic Signals."

It shall be the contractor's responsibility to verify all dimensions and conditions existing in the field prior to ordering materials and beginning construction. This shall include locating the mast arm foundations and verifying the mast arms lengths.

Maintenance and Responsibility.

Revise Article 801.11 to read as follows.

a) Existing traffic signal installations and/or any electrical facilities at all or various locations may be altered or reconstructed totally or partially as part of the work on this Contract. The Contractor is hereby advised that all traffic control equipment, presently installed at these locations, may be the property of the State of Illinois, Department of Transportation, Division of Highways, Cook County Highway Department, Private Developer, or the Municipality in which they are located. Once the Contractor has begun any work on any portion of the project all traffic signals within the limits of this contract or those which have the item "Maintenance of Existing Traffic Signal Installation", "Temporary Traffic Signal Installation(s)"

and/or “Maintenance of Existing Flashing Beacon Installation”, shall become the full responsibility of the Contractor. Automatic Traffic Enforcement equipment is not owned by the County and the Contractor shall not be responsible for maintaining it during construction. The Contractor shall supply the engineer and the Department’s Electrical Maintenance Contractor a 24-hour emergency contact name and telephone number.

b) When the project has a pay item for "Maintenance of Existing Traffic Signal Installation", “Temporary Traffic Signal Installation(s)” and/or “Maintenance of Existing Flashing Beacon Installation”, the Contractor must notify both the Design Engineer at (312) 603-1734 and the Department’s Electrical Maintenance Contractor, of their intent to begin any physical construction work on the Contract or any portion thereof. This notification must be made a minimum of seven (7) working days prior to the start of construction to allow sufficient time for inspection of the existing traffic signal installation(s) and transfer of maintenance to the Contractor. If work is started prior to an inspection, maintenance of the traffic signal installation(s) will be transferred to the Contractor without an inspection. The Contractor will become responsible for repairing or replacing all equipment that is not operating properly or is damaged at no cost to the owner of the traffic signal. Final repairs or replacement of damaged equipment must meet the approval of the Engineer prior to or at the time of final inspection otherwise the traffic signal installation will not be accepted.

c) Regional transit, County and other agencies may also have equipment connected to existing traffic signal or peripheral equipment such as PTZ cameras, switches, transit signal priority (TSP and BRT) servers and other devices that shall be included with traffic signal maintenance at no additional cost to the contract.

d) Contracts such as pavement grinding or patching which result in the destruction of traffic signal loops will require a maintenance transfer. The Contractor is required to notify of intent to work and an inspection. A minimum of seven (7) working days prior to the loop removal, the Contractor shall notify the Design Engineer at (312) 603-1734, the Department’s Electrical Maintenance Contractor and the owner of automatic traffic enforcement prior to the loop removal, at which time arrangements will be made to adjust the traffic controller timing to compensate for the absence of detection. Damaged Automatic Traffic Enforcement equipment, including cameras, detectors, or other peripheral equipment, shall be replaced by others, per Permit agreements or other agreements, at no cost to the contract except for City of Chicago projects in which the detectors shall be replaced. See additional requirements in these specifications under Inductive Loop Detector.

e) The Contractor is further advised that the existing traffic signal(s), and/or the existing temporary installation(s), must remain in operation during all construction

stages except for the most essential down time. Any shutdown of the traffic signal installation(s), for a period to exceed fifteen (15) minutes, must have the prior approval of the Engineer. Such approval will generally only be granted during the period extending from 10:00 a.m. to 3:00 p.m. on weekdays. Shutdowns will not be allowed during inclement weather or during Holiday periods. Any other traffic signal shutdown, either for periods in excess of one (1) hour or outside of the 10:00 a.m. to 3:00 p.m. weekday period must have prior approval of the Engineer. The Contractor, prior to the commencement of his work, shall notify the State Electrical Maintenance Contractor, the Cook County Electrical Maintenance Contractor, or the concerned Municipality, of his intent to perform this work.

f) The Contractor shall be fully responsible for the safe and efficient operation of the traffic signals. Any inquiry, complaint or request by the Department, the Department's Electrical Maintenance Contractor or the public, shall be investigated and repairs begun within one hour. Failure to provide this service will result in liquidated damages of $1000 per day per occurrence. In addition, the Department reserves the right to assign any work not completed within this timeframe to the Electrical Maintenance Contractor. All costs associated to repair this uncompleted work shall be the responsibility of the Contractor. Failure to pay these costs to the Electrical Maintenance Contractor within one month after the incident will result in additional liquidated damages of $1000 per month per occurrence. Unpaid bills will be deducted from the cost of the Contract. The Department's Electrical Maintenance Contractor may inspect any signalizing device on the Department's highway system at any time without notification.

g) Any proposed activity in the vicinity of a highway-rail grade crossing must adhere to the guidelines set forth in the current edition of the Manual on Uniform Traffic Control Devices (MUTCD) regarding work in temporary traffic control zones in the vicinity of highway-rail grade crossings which states that lane restrictions, flagging, or other operations shall not create conditions where vehicles can be queued across the railroad tracks. If the queuing of vehicles across the tracks cannot be avoided, a uniformed law enforcement officer or flagger shall be provided at the crossing to prevent vehicles from stopping on the tracks, even if automatic warning devices are in place.

h) The Contractor shall be responsible for clearing snow, ice, dirt, debris or other condition that obstructs visibility of any traffic signal display.

i) The Contractor shall maintain the traffic signal in normal operation during short or long-term loss of utility or battery back-up power at critical locations designated by the Engineer. Critical locations may include traffic signals interconnected to railroad warning devices, expressway ramps, intersection with an SRA route, critical corridors or other locations identified by the Engineer. Temporary power to

the traffic signal must meet applicable NEC and OSHA guidelines and may include portable generators and/or replacement batteries.

Damage to Traffic Signal System.

Add the following to Article 801.12(b).

a) Any damaged equipment or equipment not operating properly from any cause whatsoever shall be replaced with new equipment provided by the contractor at no additional cost to the Contract and/or owner of the traffic signal system all as approved by the Engineer. Final repairs or replacement of damaged equipment must meet the approval of the Engineer prior to or at the time of final inspection otherwise the traffic signal will not be accepted. Cable splices outside the controller cabinet will not be allowed.

b) Temporary replacement of damaged or knockdown of a mast arm pole assembly shall require construction of a full or partial span wire signal installation or other method approved by the Engineer to assure signal heads are located overhead and over traveled pavement. Temporary replacement of mast arm mount signals with post mount signals will not be permitted.

c) Automatic Traffic Enforcement equipment, such as Red-Light Enforcement cameras, detectors, and peripheral equipment, damaged or not operating properly from any cause whatsoever, shall be the responsibility of the municipality or the Automatic Traffic Enforcement Company per Permit agreement or other agreements.

Traffic Signal Inspection (Turn – On).

Revise Article 801.15b to read as follows.

a) The Contractor must have all electric work completed, the electrical service installation connected by the utility company and equipment field tested by the Vendor prior to the Department's "turn-on" field inspection. If in the event the Engineer determines the work is not complete and the inspection will require more than two (2) hours to complete, the inspection shall be canceled and the Contractor will be required to reschedule at another date. The maintenance of the traffic signals will not be accepted until all punch list work is corrected and re-inspected. The Department will not grant a field inspection until written certification is provided from the Contractor stating the equipment has been field tested and the intersection is operating according to Contract requirements.

b) When the road is open to traffic, except as otherwise provided in Section 850 of the

Standard Specification, the Contractor may request a turn-on and inspection of the completed traffic signal installation at each separate location. This request must be made to the Design Engineer at (312) 603-1734 a minimum of seven (7) working days prior to the time of the requested inspection. The Department will not grant a field inspection until notification is provided from the Contractor that the equipment has been field tested and the intersection is operating according to Contract requirements. The Contractor must invite local fire department personnel to the turn-on when Emergency Vehicle Pre-emption (EVP) is included in the project. When the contract includes the item RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM, OPTIMIZE TRAFFIC SIGNAL SYSTEM, or TEMPORARY TRAFFIC SIGNAL TIMINGS, the Contractor must notify the SCAT Consultant of the turn-on schedule, as well as stage changes and phase changes during construction.

c) The Contractor must have all traffic signal work completed and the electrical service installation connected by the utility company prior to requesting an inspection and turn-on of the traffic signal installation. The Contractor shall be responsible to provide a Police Officer to direct traffic at the time of testing.

d) The Contractor shall provide a representative from the control Equipment Vendor's office to attend the traffic signal inspection for both permanent and temporary traffic signal turn-ons. Upon demonstration that the signals are operating and all work is completed in accordance with the Contract and to the satisfaction of the Engineer, the Engineer will then allow the signals to be placed in continuous operation. The Agency that is responsible for the maintenance of each traffic signal installation will assume the maintenance upon successful completion of this inspection.

e) Acceptance of the traffic signal equipment by the Department shall be based upon inspection results at the traffic signal turn-on, completeness of the required documentation and successful operation during a minimum 72 hour “burn-in” period following activation of the traffic signal. If approved, traffic signal acceptance shall be verbal at the turn-on inspection followed by written correspondence from the Engineer. The Contractor shall be responsible for all traffic signal equipment and associated maintenance thereof until Departmental acceptance is granted.

f) All equipment and/or parts to keep the traffic signal installation operating shall be furnished by the Contractor. No spare traffic signal equipment is available from the Department.

g) All punch list work shall be completed within two (2) weeks after the final inspection. The Contractor shall notify the Design Engineer at (312) 603-1734 to inspect all punch list work. Failure to meet these time constraints shall result in liquidated damage charges of $500 per month per incident.

h) All cost of work and materials required to comply with the above requirements shall be included in the pay item bid prices under which the subject materials and signal equipment are paid and no additional compensation will be allowed. Materials and signal equipment not complying with the above requirements that have been installed on the job will be at the Contractor's own risk and shall be subject to removal and disposal at the Contractor's expense.

i) The Contractor shall furnish the Cook County Highway Department with any special tools or wrenches that may be required for assembling or maintaining the control equipment and traffic control signal head assemblies.

j) All control cable, when complete in place but before permanent connection, shall be subject to insulation tests at the discretion of the Engineer. The tests shall be made with approved insulation resistance testing equipment rated at 500 volts D.C. and witnessed by the Engineer. Results of these tests shall be submitted to the Department in written form, bearing the Engineers signature and shall become part of the project records. A final inspection of the traffic signal installation shall not be held until results of this insulation test have been received.

k) All equipment such as new controllers and allied central equipment with the exception of cable, conduit, and other materials which require the use of the State of Illinois Materials Testing Laboratories, shall be built in the suppliers shop and inspected by a representative of this Department prior to the installation of such equipment, and upon approval of this equipment an inspection ticket will be issued to the Contractor by the inspection agency (State of Illinois Material Testing Laboratory or the Cook County Highway Mechanical-Electrical Section). The controller and allied control equipment shall be prepared in the suppliers shop and run under a load of a minimum of 500 watts per phase for at least 48 hours before it is inspected for proper operation and sequencing. After it passes this test an inspection ticket will be issued by the Cook County Highway Mechanical-Electrical Section representative and it can then be delivered to the job site for installation.

l) Upon completion of the installation, a final inspection will be carried out by qualified representatives of the Highway Agencies involved.

m) If the Contractor fails to comply with any of the requirements, the County shall impose such sanction as it may determine to be appropriate including but not limited to withholding all payments to the Contractor on this contract until the provisions of this special provision are complete with and/or implementation of article 108.10 of the standard specifications.

At the final inspection it will be required that the Contractor will have submitted to the Engineer all necessary inspection tickets for all new equipment and materials installed under this Contract. If the Contractor has not obtained the inspection tickets on any

portion of the new equipment and materials, the representative of this Department will have the authority to postpone the final inspection until the above has been satisfied. Any postponement of the final inspection for this reason shall not relieve the Contractor of his full maintenance responsibilities until such time as the installation is re-inspected and accepted by the County.

The County requires the following Final Project Documentation from the Contractor at traffic signal turn-ons in electronic format in addition to hard copies where noted. A CD/DVD shall be submitted with separate folders corresponding to each numbered title below. The CD/DVD shall be labelled with date, project location, company and contract or permit number. Record Drawings, Inventory and Material Approvals shall be submitted prior to traffic signal turn-on for review by the Department as described here-in.

The County requires the following from the Contractor at traffic signal turn-on.

1) The Contractor shall, at the turn-on furnish one hard copy set of signal plans (24”x36”) of record with field revisions marked in red ink to the maintaining agency.

2) Field Testing. Written notification from the Contractor and the equipment vendor of satisfactory field testing with corresponding material performance measurements, such as for detector loops and fiber optic systems (see Article 801.13). One hard copy of all contract required performance measurement testing shall also be provided.

3) A knowledgeable representative of the controller equipment supplier shall be required at the permanent and temporary traffic signal turn-on. The representative shall be knowledgeable of both cabinet design and controller functions and shall have sufficient test and spare equipment to make the traffic signal installation operational.

4) Pictures. Digital pictures of a minimum 12M pixels of each intersection approach showing all traffic signal displays and equipment. Pictures shall include controller cabinet equipment in enough detail to clearly identify manufacture and model of major equipment.

5) Materials Approval. The material approval letter. A hard copy shall also be provided.

6) Manuals. Operation and service manuals of the signal controller and associated control equipment. One hard copy shall also be provided.

7) Cabinet Wiring Diagram and Cable Logs. Five (5) hard copies 11” x 17" of the cabinet wiring diagrams shall be provided along with electronic pdf and dgn files of the cabinet wiring diagram. Five hard copies of the cable logs and electronic excel files shall be provided with cable #, number of conductors and spares, connected device/signal head and intersection location.

8) Controller Programming Settings. The traffic signal controller's timings; backup timings; coordination splits, offsets, and cycles; TBC Time of Day, Week and Year Programs; Traffic Responsive Program, Detector Phase Assignment, Type and Detector Switching; and any other functions programmable from the keyboard. The controller manufacturer shall also supply a printed form, not to exceed 11" x 17" for recording that data noted above. The form shall include a location, date, manufacturer's name, controller model and software version. The form shall be approved by the Engineer and a minimum of three (3) copies must be furnished at each turn-on. The manufacturer must provide all programming information used within the controller at the time of turn-on.

9) All Manufacturer and Contractor warranties and guaranties required by Article 801.14.

10) GPS coordinate of traffic signal equipment as describe in the Record Drawings section herein.

RECORD DRAWINGS

The requirements listed for Electrical Installation shall apply for Traffic Signal Installations in Article 801.16. Revise the 2nd paragraph of Article 801.16 of the Standard Specifications to read:

a. When the work is complete, and seven days before the request for a final inspection, the full-size set of contract drawings. Stamped "RECORD DRAWINGS", shall be submitted to the Engineer for review and approval and shall be stamped with the date and the signature of the Contractor's supervising Engineer or electrician. The record drawings shall be submitted in PDF format on CDROM as well as hardcopy for review and approval. If the contract consists of multiple intersections, each intersection shall be saved as an individual PDF file with TS# and location name in its file name.
b. In addition to the record drawings, copies of the final catalog cuts which have been Approved or Approved as Noted shall be submitted in PDF format along with the record drawings. The PDF files shall clearly indicate the pay item either by filename or PDF Table of Contents referencing the respective pay item number for multi-item PDF files. Specific part or model numbers of items which have been selected shall be clearly visible."

Add the following to Article 801.16 of the Standard Specifications:

"In addition to the specified record drawings, the Contactor shall record GPS coordinates of the following traffic signal components being installed, modified or being affected in other ways by this contract:

- All Mast Arm Poles and Posts
- Traffic Signal Wood Poles
- Rail Road Bungalow
- UPS
- Handholes
- Conduit roadway crossings
- Controller Cabinets
- Communication Cabinets
- Electric Service Disconnect locations
- CCTV Camera installations
- Fiber Optic Splice Locations
- Conduit Crossings

Datum to be used shall be North American 1983.

Data shall be provided electronically and in print form. The electronic format shall be compatible with MS Excel. Latitude and Longitude shall be in decimal degrees with a minimum of 6 decimal places. Each coordinate shall have the following information:

1. File shall be named: TSXXX-YY-MM-DD (i.e. TS22157_15-01-01)
2. Each intersection shall have its own file
3. Row 1 should have the location name (i.e. 103rd Street at Central Avenue)
4. Row 2 is blank
5. Row 3 is the headers for the columns
6. Row 4 starts the data
7. Column A (Date) – should be in the following format: MM/DD/YYYY
8. Column B (Item) – as shown in the table below
9. Column C (Description) – as shown in the table below
10. Column D and E (GPS Data) – should be in decimal form, per the County special provisions

Examples:

Date	Item	Description	Latitude	Longitude
01/01/2015	MP (Mast Arm Pole)	NEQ, NB, Dual, Combination Pole	41.580493	-87.793378
01/01/2015	HH (Handhole)	Heavy Duty, Fiber, Intersection, Double	41.558532	-87.792571
01/01/2015	ES (Electrical Service)	Ground mount, Pole mount	41.765532	-87.543571
01/01/2015	CC (Controller Cabinet)		41.602248	-87.794053
01/01/2015	RSC (Rigid Steel Crossing)	IL 31 east side crossing south leg to center HH at Klausen	41.611111	-87.790222
01/01/2015	PTZ (PTZ)	NEQ extension pole	41.593434	-87.769876

01/01/2015	POST (Post)		41.651848	-87.762053
01/01/2015	MCC (Master Controller Cabinet)		41.584593	-87.793378
01/01/2015	COMC (Communication Cabinet)		41.584600	-87.793432
01/01/2015	BBS (Battery Backup System)		41.558532	-87.792571

Prior to the collection of data, the contractor shall provide a sample data collection of at least six data points of known locations to be reviewed and verified by the Engineer to be accurate within 1 feet. Upon verification, data collection can begin. Data collection can be made as construction progresses, or can be collected after all items are installed. If the data is unacceptable the contractor shall make corrections to the data collection equipment and or process and submit the data for review and approval as specified.

Accuracy. Data collected is to be mapping grade. A handheld mapping grade GPS device shall be used for the data collection. The receiver shall support differential correction and data shall have a minimum 1-foot accuracy after post processing GPS receivers integrated into cellular communication devices, recreational and automotive GPS devices are not acceptable.

The GPS shall be the product of an established major GPS manufacturer having been in the business for a
minimum of 6 years."

Location of Underground State and County Maintained Facilities. Revise Article 803 to read as follows.

County traffic signal facilities are not part of any of the one-call locating service such as J.U.L.I.E or Digger. If this contract requires the services of an electrical contractor, the Contractor shall be responsible at his/her own expense for locating existing IDOT and CCHD facilities prior to performing any work. If this contract does not require the services of electrical contractor, the Contractor may request one free locate for existing IDOT and CCHD electrical facilities from the Electrical Maintenance Contractor(s) prior to the start of any work. Additional requests may be at the expense of the Contractor. The location of underground traffic facilities does not relieve the Contractor of their responsibility to repair any facilities damaged during construction at their expense.

The exact location of all utilities shall be field verified by the Contractor before the installation of any components of the traffic signal system. For locations of utilities, locally owned equipment, and leased enforcement camera system facilities, the local Counties or Municipalities may need to be contacted, in the City of Chicago contact D.I.G.G.E.R. at (312) 744-7000 and for all other locations contact J.U.L.I.E. at 1-800- 892-0123.

Restoration. All areas and plant material damaged by the installation of Traffic Signal

posts, mast arm poles, underground cables or conduits, handholes and control cabinets shall be replaced as follows:

- Grass Areas: Replace top soil to a depth of four (4) inches (100 mm), re-grade shoulders, ditch slopes, and open areas back to former existing grades, fertilize, seed and mulch all damaged areas.
- Sod Areas (areas adjacent to residential, commercial and industrial properties and any other areas as directed by the engineer): Fertilize and re-sod damaged areas.
- Plant Materials: Remove and replace damaged trees, shrubs and vines with the same varieties that existed prior to damage.
- Shoulders other than Stabilized and Backslopes, medians, sidewalks, pavement, etc.: Replace shoulder to original condition and restore edge of backslope to original lines and grades. Medians, sidewalks and pavement shall be replaced in kind.
- All brick pavers disturbed in the work area shall be restored to their original configuration or as directed by the Engineer. All damaged brick pavers shall be replaced with a comparable material approved by the Engineer

All damaged landscape shall be replaced in accordance with Section 250 through 254 of the Standard Specifications.

Any damage, due to the installation of traffic signal equipment; or necessary removal at handholes, jacking pits, and inspection openings, of sidewalks, curbs, gutters, median and island paving, and/or pavement, shall be repaired or replaced by the Contractor. Repair or replacement shall be made with a like material of like thickness to the existing surface. Restoration of traffic signal work area shall be included in related pay items such as foundation, conduit, handhole, trench and backfill, etc.

Bagging Signal Heads.

Light tan colored traffic and pedestrian signal reusable covers shall be used to cover dark/un-energized signal sections and visors. Covers shall be made of outdoor fabric with urethane coating for repelling water, have elastic fully sewn around the cover ends for a tight fit over the visor, and have a minimum of two straps with buckles to secure the cover to the backplate. A center mesh strip allows viewing without removal for signal status testing purposes. Covers shall include a message indicating the signal is not in service.

DETECTOR LOOP
Effective: 7/1/16
Revised: N/A

This work shall consist of furnishing and installing detector loop in accordance with the requirements of Section 886 and 1079 of the Standard Specifications, except as follows:

Description.
This work shall consist of furnishing and installing a detector loop in the pavement.

Procedure.
A minimum of seven (7) working days prior to the Contractor cutting loops, the Contractor shall have the proposed loop locations marked and contact the CCHD Design Engineer at (312) 603-1730 to inspect and approve the layout. When preformed detector loops are installed, the Contractor shall have them inspected and approved prior to the pouring of the portland cement concrete surface, using the same notification process as above.

Failure to provide proper notification may require the Department's Electrical Maintenance Contractor to be called to investigate complaints of inadequate traffic signal timing. All costs associated with these expenses will be paid for by the Contractor at no additional expense to the Department according to Section 109 of the "Standard Specifications."

Installation.
Each loop lead-in shall be placed in a separate conduit from edge of pavement to handhole. Loop detectors shall be installed according to the requirements of the "District 1 Standard Traffic Signal Design Details". Saw-cuts (homerun on preformed detector loops) from the loop to the edge of pavement shall be made perpendicular to the edge of pavement when possible in order to minimize the length of the saw cut (homerun on preformed detector loops) unless directed otherwise by the Engineer or as shown on the plans. Spacing between the lead-ins (holes drilled in the pavement) shall not be less than one (1) foot (300 mm) and shall be located one (1) foot (300 mm) from the edge of pavement. Loop lead-in wires should be twisted to provide a minimum of five (5) turns per foot (fifteen [15] turns per meter) from the loop to the splice.

The cable splice connection of the detector loop and the lead-in cable to the controller shall conform to Section 873 of the Standard Specifications or the requirements set forth in the "District 1 Standard Traffic Signal Design Details".

Each loop detector lead-in wire shall be labeled in the handhole using a water proof tag from an approved vendor secured to each wire with nylon ties. The lead-in wire, including all necessary connections for proper operation, from the edge of pavement to the handhole shall be included in the price of the detector loop.

The detector loop cable insulation shall be labeled with the cable specifications.

Resistance to ground shall be a minimum of 100 megohms under any conditions of weather or moisture. Inductance shall be more than 50 and less than 700 microhenries. Quality readings shall be greater than 5.

Type I:

- All loops installed in new asphalt pavement shall be installed in the binder course and not in the surface course. The edge of pavement or the curb shall be cut with a 1/4" (6.3 mm) x 4" (100 mm) long sawcut to mark the location of each loop lead-in.

- Loop sealant shall be a two-component thixotropic chemically cured polyurethane from an approved vender. The sealant shall be installed 1/8" (3 mm) below the pavement surface, if installed above the surface the overlap shall be removed immediately.

- The corners of all loops shall be core drilled with a two (2) inch (50 mm) bit. All joints and cracks in the pavement that the loop crosses must be core drilled.

Preformed:

This work shall consist of furnishing and installing a rubberized heat resistant preformed traffic signal loop in accordance with the Standard Specifications, except for the following:

- Preformed detector loops shall be installed in new pavement constructed of portland cement concrete using mounting chairs or tied to re-bar or the preformed detector loops may be placed in the sub-base. Loop lead-ins shall be extended to a temporary protective enclosure near the proposed handhole location. The protective enclosure shall provide sufficient protection from other construction activities and may be buried for additional protection.

- Handholes shall be placed next to the shoulder or back of curb when preformed detector loops enter the handhole. Non-metallic coilable duct, included in this pay item, shall be used to protect the preformed lead-ins from back of curb to the handhole.

- Preformed detector loops shall be factory assembled with ends capped and sealed against moisture and other contaminants. Homeruns and interconnects shall be pre-wired and shall be an integral part of the loop assembly. The loop configurations and homerun lengths shall be assembled for the specific

application. The loop and homerun shall be constructed using 11/16" (17.2 mm) outside diameter (minimum), 3/8" (9.5 mm) inside diameter (minimum) Class A oil resistant synthetic cord reinforced hydraulic hose with 250 psi (1,720 kpa) internal pressure rating or a similar sized XLPE cable jacket. Hose for the loop and homerun assembly shall be one continuous piece. No joints or splices shall be allowed in the hose except where necessary to connect homeruns or interconnects to the loops. This will provide maximum wire protection and loop system strength. Hose tee connections shall be heavy duty high temperature synthetic rubber. The tee shall be of proper size to attach directly to the hose, minimizing glue joints. The tee shall have the same flexible properties as the hose to insure that the whole assembly can conform to pavement movement and shifting without cracking or breaking. For XLPE jacketed preformed loops, all splice connections shall be soldered, sealed, and tested before being sealed in a high impact glass impregnated plastic splice enclosure. The wire used shall be #16 THWN stranded copper.

- The number of turns in the loop shall be application specific. Homerun wire pairs shall be twisted a minimum of four turns per foot. No wire splices will be allowed in the preformed loop assembly. The loop and homeruns shall be filled and sealed with a flexible sealant to ensure complete moisture blockage and further protect the wire. The preformed loops shall be constructed to allow a minimum of 6.5 feet of extra cable in the handhole. Six foot (1.8 m) round loop(s) may be substituted for six foot (1.8 m) by six foot (1.8 m) square loop(s) and shall be paid for as 24 feet (7.2 m) of detector loop.

Method of Measurement.
This work will be measured for payment in feet (meters) in place. Type I detector loop will be measured along the sawed slot in the pavement containing the loop and lead-in, rather than the actual length of the wire. Preformed detector loops will be measured along the detector loop and lead-in embedded in the pavement, rather than the actual length of the wire. Detector loop measurements shall include the sawcut and the length of the loop lead-in leading to the edge of pavement. The lead-in wire, including all necessary connections for proper operations, from the edge of pavement to the handhole, shall be incidental to include in the price of the detector loop. Unit duct, trench and backfill, cable splicing and drilling of pavement or handholes shall be incidental to detector loop quantities included in this item.

Basis of Payment. This work will be paid for at the contract unit price per FOOT (METER) of DETECTOR LOOP, TYPE I or PREFORMED DETECTOR LOOP, as specified in the plans, which price shall be payment in full and for furnishing, installing and testing the Detector Loop and all related connections for proper operation.

COILABLE NON-METALLIC CONDUIT

Effective: 7/1/16
Revised: N/A

This work shall consist of furnishing and installing empty Coilable Non-Metallic Conduit (CNC) in trench of the type and size specified. The installation of CNC shall meet all applicable requirements of the Standard Specifications of Section 810, 811 and 1088.01 (c). Polyethylene duct shall be used for all detector loop raceways to handholes. All duct shall be placed a minimum depth of 30 inches (750 mm) or as shown on the contract plans or standard details.

The conduit shall be a polyethylene duct which is intended for underground use and which can be manufactured and coiled or reeled in continuous transportable lengths and uncoiled for further processing and/or installation without adversely affecting its properties of performance. The conduit and its manufacture shall conform to the standards of NEMA Publication TC7, ASTM Standard Specifications D3485 and NEC Article 353.

On temporary traffic signal installations with detector loops, CNC shall be used for detector loop raceways from the saw-cut to 10 feet (3 m) up the wood pole, unless otherwise shown on the plans.

As specified in NEMA TC7, the conduit shall be clearly and durably marked at least every 10 feet (3 meters) with the material designation (HDPE for high density polyethylene), nominal size of the conduit and the name and/or trademark of the manufacturer.

Basis of Payment. All installations of CNC for loop detection shall be included in pay item of DETECTOR LOOP, as specified and not paid for separately.

ELECTRIC CABLE

Effective: 7/1/16
Revised: 4/26/19 (added cable that is not solid)

The installation of an electric cable shall meet the requirements of Section 873, 1088.01 and 1076.04 of the Standard Specifications and District One Standard Traffic Signal Design Details with the addition as the following:

The jacket for electric cable in this contract shall be of the polyvinyl chloride type meeting the requirements of IMSA 19-1. (Traffic signal cable shall be solid copper No. 14 unless otherwise specified in the plans or these Special Provisions). No other type of jacket will be allowed, except as follows:

The service cable may have a XLP jacket. Service cable may be single or multiple conductor cable.

Communications and lead-in cable shall have a gray or chrome jacket.

Electric cable sized No. 12 AWG and smaller shall be solid except for railroad cable, loop detector lead-in cable, emergency vehicle priority system line sensor cable and LED internally illuminated street name sign cable.

The length of cable slack shall be in accordance with District One Standard Traffic Signal Design Details.

The cable splice connection of the detector loop and the lead-in cable to the controller shall conform to Section 873 of the Standard Specifications or to the requirements set forth in the "District 1 Standard Traffic Signal Design Details ".

Heat shrink splices shall be used according to "District 1 Standard Traffic Signal Design Details".

Basis of Payment. This work will be paid for at the contract unit price per FOOT (METER) for ELECTRIC CABLE of the type, size and number of conductors as specified., which price shall be payment in full for furnishing the material and making all electrical connections and installing the cable complete, measured as specified.

MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION

Effective: 1/1/18
Revised: N/A

This item shall consist of maintaining the existing traffic signal installation at an intersection as shown on the plans and as described herein. Full maintenance responsibility shall start as soon as the Contractor begins any physical work on the contract or any portion thereof. If Contract work is started prior to a traffic signal inspection, maintenance of the traffic signal installation(s) will be transferred to the Contractor without an inspection. The energy charges for the operation of the traffic signal installation shall be paid for by others. The maintenance of an existing traffic signal installation shall meet the requirements of Section 801.11 and 850 of the Standard Specifications except as follows:

This item shall include maintenance of all traffic signal equipment at the intersection, including emergency vehicle pre-emption equipment, master controllers, uninterruptible power supply (UPS and batteries), telephone service installations, communications cables, flashing beacons, PTZ cameras, vehicle detection, handholes, lighted signs and conduit to adjacent intersections, and other traffic signal equipment, but shall not include Automatic Traffic Enforcement equipment, such as Red Light Enforcement cameras, detectors, or peripheral equipment, not owned by the State and County. This equipment is operated and

maintained by the local municipality and should be de-activated while on contractor maintenance.

Regional transit, County, State and other agencies may also have equipment connected to existing traffic signal or peripheral equipment such as PTZ cameras, switches, transit signal priority (TSP and BRT) servers, radios and other devices that shall be included with traffic signal maintenance at no additional cost to the contract.
Seven days prior to assuming maintenance of the existing traffic signal installation(s) under this contract, the Contractor shall request that the Resident Engineer contact the Cook County Design Engineer at (312) 603-1730 for an inspection of the installation(s). The Design Engineer shall establish a date and time of inspection and at this time shall check the installation to determine if any corrective work should be done by the State, the County, or the Municipalities Electrical Maintenance Contractor prior to the Contractor taking over the maintenance of the installation(s). The Resident Engineer, the Design Engineer, and the State, County, or Municipality Maintenance Contractor and the Contractor shall mutually agree on the date of maintenance transfer to the Contractor for this contract.

Maintenance Procedures The Contractor shall perform the following maintenance procedures for each existing installation designated to remain in operation during construction:

- Have on staff electricians with IMSA Level II certification to provide signal maintenance. A copy of the certification shall be immediately available upon request of the Engineer.

- Patrol and inspect each installation every two (2) weeks for proper alignment of signal heads, light detectors, lamp failures, and general operation of the traffic signal.

- Check all controllers every two (2) weeks, which will include visually inspecting all timing intervals, relays, detectors, and pre-emption equipment to ensure that they are functioning properly. This item includes, as routine maintenance, all portions of emergency vehicle pre-emption equipment. The Contractor shall check signal system communications and phone lines to assure proper operation. This item includes, as routine maintenance, all portions of emergency vehicle pre-emption equipment. Prior to the traffic signal maintenance transfer, the contractor shall supply a detailed maintenance schedule that includes dates, locations, names of electricians providing the required checks and inspections along with any other information requested by the Engineer.

- Provide immediate corrective action to replace burned out lamps or damaged sockets. When lamps are replaced, the reflector and lens shall be cleaned. All replacement lamps shall meet the approval of the Engineer. The Contractor shall repair or replace all defective equipment from any cause whatsoever.

- Maintain in stock at all times a sufficient amount of materials and equipment to provide effective temporary and permanent repairs.

- Provide immediate corrective action when any part or parts of the system fail to function properly. Two far side heads facing each approach shall be considered the minimum acceptable signal operation pending permanent repairs. A near right signal must also be maintained. When repairs at a signalized intersection require that the controller be disconnected or otherwise removed from normal operation, and power is available, the Contractor shall place the traffic signal installation on flashing operation. The signals shall flash RED for all directions unless a different indication has been specified by the Engineer. The Contractor is required to place stop signs (R1-1-36) at each approach to the intersection as a temporary means of regulating traffic. When the signals operate in flash, the Contractor shall furnish and equip all his vehicles assigned to the maintenance of traffic signal installations with a sufficient number of Stop Signs as specified herein. The Contractor shall maintain sufficient number of spare Stop Signs in stock at all times to replace Stop Signs which may be damaged or stolen.

- Replace defective or damaged equipment. If the proper sequence with full detection cannot be obtained immediately, a controller which will provide the proper sequence and full detection shall be installed within twelve (12) hours of removal of the original controller.

- The Contractor shall be required to maintain the existing type of equipment and sequence of operations during the period that the original control equipment is being overhauled

- Provide the Engineer with the names, addresses, and telephone numbers of two (2) persons qualified and assigned to the maintenance of the traffic signal installation. These people must be made available 24 hours per day, each day of the year for emergency calls by the Engineer.

- Respond to all emergency calls from the Department or others within one hour after notification and provide immediate corrective action. When equipment has been damaged or becomes faulty beyond repair, the Contractor shall replace it with new and identical equipment. The cost of furnishing and installing the replaced equipment shall be borne by the Contractor at no additional charge to the State or County. The Contractor may institute action to recover damages from a responsible third party. If at any time the Contractor fails to perform all work as specified herein to keep the traffic signal installation in proper operating condition or if the Engineer cannot contact the Contractor's designated personnel, the Engineer shall have the State's or the County's Electrical Maintenance Contractor perform the maintenance work required. The State's or County's Electrical Maintenance Contractor shall bill the Contractor for the total cost of the work. The Contractor shall be responsible for all of the Electrical Maintenance Contractor’s cost and liquidated damages of $1000 per day per occurrence. The

contractor shall pay this bill within thirty (30) days of the date of receipt of the invoice or the cost of such work will be deducted from the amount due the Contractor. The Contractor shall allow the Electrical Maintenance Contractor to make reviews of the Existing Traffic Signal Installation that has been transferred to the Contractor for Maintenance.

- Traffic signal equipment which is lost or not returned to the Department for any reason shall be replaced with new equipment meeting the requirements of the Standard Specifications and these special provisions.

- Any proposed activity in the vicinity of a highway-rail grade crossing must adhere to the guidelines set forth in the current edition of the Manual on Uniform Traffic Control Devices (MUTCD) regarding work in temporary traffic control zones in the vicinity of highway-rail grade crossings which states that lane restrictions, flagging, or other operations shall not create conditions where vehicles can be queued across the railroad tracks. If the queuing of vehicles across the tracks cannot be avoided, a uniformed law enforcement officer or flagger shall be provided at the crossing to prevent vehicles from stopping on the tracks, even if automatic warning devices are in place.

- Equipment included in this item that is damaged or not operating properly from any cause shall be replaced with new equipment meeting current District One traffic signal specifications and provided by the Contractor at no additional cost to the Contract and/or owner of the traffic signal system, all as approved by the Engineer. Final replacement of damaged equipment must meet the approval of the Engineer prior to or at the time of final inspection otherwise the traffic signal installation will not be accepted. Cable splices outside the controller cabinet shall not be allowed.

- Automatic Traffic Enforcement equipment, such as Red-Light Enforcement cameras, detectors, and peripheral equipment, damaged or not operating properly from any cause, shall be the responsibility of the municipality or the Automatic Traffic Enforcement Company per Permit agreement.

- The Contractor shall be responsible to clear snow, ice, dirt, debris or other condition that obstructs visibility of any traffic signal display.

- The Contractor shall maintain the traffic signal in normal operation during short or long-term loss of utility or battery back-up power at critical locations designated by the Engineer. Critical locations may include traffic signals interconnected to railroad warning devices, expressway ramps, intersection with an SRA route, critical corridors or other locations identified by the Engineer. Temporary power to the traffic signal must meet applicable NEC and OSHA guidelines and may include portable generators and/or replacement batteries.

- Temporary replacement of damaged or knockdown of a mast arm pole assembly shall require construction of a full or partial span wire signal installation or other method approved by the Engineer to assure signal heads are located overhead and over traveled pavement. Temporary replacement of mast arm mount signals with post mount signals will not be permitted.

- Any shutdown of the traffic signal installation, which exceeds fifteen (15) minutes, must have prior approval of the Engineer. Approval to shut down the traffic signal installation will only be granted during the period extending from 10:00 a.m. to 3:00 p.m. on weekdays. Shutdowns shall not be allowed during inclement weather or holiday periods.

Basis of Payment. This work will be paid for at the contract unit price EACH for MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION, which price shall be payment in full for all materials, equipment, and labor necessary to maintain the existing traffic signals. Each intersection shall be paid for separately. Maintenance of a standalone and or not connected flashing beacon shall be paid for at the contract unit price EACH for MAINTENANCE OF EXISTING FLASHING BEACON INSTALLATION. Each flashing beacon will be paid for separately. Following the completion of the traffic signal maintenance transfer to the Contractor, 30 percent of the bid price will be paid. Following the traffic signal maintenance transfer to County, state and/or local agency, 30 percent of the bid price will be paid. The remaining 40 percent will be paid when all items on the punch list are done to the satisfaction of the engineer.

PROPOSED STORM SEWER CONNECTION TO EXISTING MANHOLE

Description: This work shall consist of coring existing manholes to accept proposed storm sewer.

Construction Requirements: Structures shall be core-drilled to accept the proposed storm sewer. Hammering or sawing of structures will not be allowed.

Basis of Payment: This item will be paid for at the contract unit price per each for PROPOSED CTORM SEWER CONNECTION TO EXISTING MANHOLE.

STORM SEWER TO BE FILLED

Description. This work shall consist of plugging and filling existing storm sewers that are to be abandoned.

Construction Requirements. All storm sewers to be filled shall be plugged at both ends with at least 2 feet of Class SI Concrete or mortar plug. After the concrete or mortar has set, the abandoned storm sewers can be filled. The controlled low-strength material used to fill the storm sewers and the filling operation shall be in accordance with Section 593 of the Standard Specifications.

Basis of Payment. This work will be paid for at the contract unit price per cubic yard for STORM SEWER TO BE FILLED.

WATER MAIN SUPPORT

Description. This work shall consist of supporting Village-owned water main to allow for the construction of proposed storm sewer beneath the water main.

General. The Contractor shall provide shop drawings to the Engineer detailing the means and methods for supporting the water main.

This work shall also include all labor and materials necessary to construct the temporary support system. The Contractor shall assume that the water main will be active at all times. The work shall also include all excavation necessary to locate the water main. Pavement removal and replacement, and all other restoration, will be paid for separately.

Basis of Payment. This work shall be paid for at the contract unit price per each for WATER MAIN SUPPORT.

TRENCH BACKFILL (SPECIAL)

Description. This work shall be performed in accordance with Section 208 of the Standard Specifications with the following alterations.

The material used for this item shall be exclusively Class B fine aggregate material meeting the gradation of CA-11 in accordance with Section 1004 of the Standard Specifications. All stone shall be crushed; rounded aggregate will not be permitted. The stone shall be compacted to 95% modified proctor density as required by ASTM D1557 or AASHTO T-180. Jetting of trenches is not permitted. Recycled materials are permitted from IDOT approved sources meeting the correct gradations.

Trench Backfill (Special) shall be placed as per the details in the plans.

EXPLORATION TRENCH, SPECIAL

Description: This work shall be performed according to Article 611.03 and Section 213 of the Standard Specifications except as modified herein. This item shall consist of excavating a trench at locations designated by the Engineer for the purpose of locating existing tile lines or other underground facilities within the limits of the proposed improvement.

This work shall not be completed without prior approval from the Engineer.

General: Exploration Trench work will be done with hydro excavation equipment, unless otherwise directed by the Engineer. The trench shall be deep enough to expose the line but not more than one foot deeper than the line, and the width of the trench shall be sufficient to allow proper investigation to determine if the line needs to be relocated or replaced.

The exploration trench shall be backfilled with gradation CA-11 stone, the cost of which shall be included in the item of EXPLORATION TRENCH, SPECIAL.

Method of Measurement: An estimated length of exploration trench that will be measured by FOOT has been shown in the summary of quantities to establish a unit price only. Payment shall be based on the actual length of trench explored measured per foot without a change in unit price because of adjustment in plan quantities.

Basis of Payment: This work will be paid for at the contract unit price per foot for EXPLORATION TRENCH, SPECIAL, regardless of the depth required, and no extra compensation will be allowed for any delays, inconveniences or damages sustained by the Contractor in performing the work.

TEMPORARY RAMP, SPECIAL

Description. This work shall consist of constructing temporary HMA ramps to serve as a transition between the existing/proposed pavement and curb and gutter at driveways and crosswalks.

General. This work shall be completed in accordance with Section 406 of the Standard Specifications, , and as directed by the Engineer. Ramp slopes shall not exceed 1" vertical to 1' horizontal. HMA mix used for the ramps shall be approved by the Engineer. Removal of temporary ramps, special will not be paid for separately but shall be included in the cost of the work.

Basis of Payment. This work will be paid for at the contract unit price per square yard for TEMPORARY RAMP, SPECIAL.

DETECTABLE WARNINGS (SPECIAL)

Description. Work under this item shall consist of installing cast iron or steel detectable warning tiles as shown on the plans. Work shall be performed according to Section 424 of the Standard Specifications, except as herein modified.

The detectable warning plates required shall be produced and supplied by one of the following:

Neenah Enterprises, Inc.
2121 Brooks Avenue
Neenah, WI 54956
Phone: 920-725-7000

East Jordan Iron Works
310 Garnet Drive
New Lenox, IL 60451
Phone: 815-740-1640

The color of the detectable warning plates shall be federal #22144. The detectable warning plates that are to be ordered shall be 24”x36” and installed adjacent to the detectable warnings furnished by the Village for proposed five-foot sidewalks.

The Contractor shall order the detectable warning plates within two weeks following the pre-construction meeting. Any delays to the project caused by backordered materials will not constitute extension of the project completion date.

The cutting of detectable warning plates will only be allowed in accordance with the manufacturer’s specifications and recommendation. Radius Plates shall be used as deemed necessary by the Engineer. Both types, Quick Connect Plates and Bolted Plates, are acceptable.

Materials. Detectable warning tiles shall be of uniform quality, and free of surface defects. The detectable warnings shall be constructed out of one of the following:

1. Cast iron meeting requirements of ASTM A 48 Class 30 or better.
2. Galvanized steel – 10 gauge, G90 galvanization or better
3. Stainless steel – 10 gauge or better

The dome size and spacing of the detectable warnings shall meet all requirements of Sections R305.1.1 and R305.1.2 of PROWAG.

If a concrete border is required for installation of the detectable warnings, it shall comply with Section R305.2 of PROWAG.

Responsibility of the Contractor: The contractor shall verify all dimensions with the product manufacturer. If using radial units, the contractor shall verify that the radius of the detectable warnings supplied by the manufacturer matches that of the curb radius.

The contractor shall ensure that the supplied detectable warnings allow placement of the rows of domes that are aligned parallel with the path of travel. Where detectable warnings are radial, dome orientation is not significant.

The contractor shall ensure a maximum vertical transition of ¼" between the edge of the detectable warnings and adjacent concrete.

Measurement and Payment. This work will be measured and paid for at the contract unit price per square foot for DETECTABLE WARNINGS (SPECIAL).

CLASS D PATCHES (SPECIAL)

General: This work shall include all labor, material, and equipment necessary to complete the removal and replacement of hot-mix asphalt pavement and/or aggregate subbase material, of the type and depth specified, where marked by the Engineer in accordance with Section 442 of the Standard Specifications, the details in the plans, and as specified herein.

The hot-mix asphalt mixture requirements shall be in accordance with the special provision for HOT-MIX ASPHALT BINDER COURSE (SPECIAL) and HOT-MIX SURFACE COURSE (SPECIAL). See the plan details for HMA thicknesses.

Basis of Payment: This work will be measured in place and paid for at the contract unit price per square yard for CLASS D PATCHES, of the type and depth specified, (SPECIAL), which shall include all labor, material, and equipment required to complete the work as specified herein.

MANHOLES, SANITARY

Description. This work shall consist of furnishing and installing sanitary manholes with frames and lids.

General. This work shall be completed in accordance with Section 602 of the Standard Specifications and as specified herein.

The sanitary manhole shall be precast reinforced concrete sections furnished with cast in watertight resilient rubber gasket couplings manufactured in accordance with ASTM C-923. The units shall be sealed with external sealing bands, preformed flexible joint sealant or mastic joint sealer, and shall be watertight. An external chimney seal shall be furnished in accordance with ASTM C-923 and installed according to the manufacturer's recommendation. The lid shall be cast iron with the word 'Sanitary' imprinted and embossed with 'Village of Buffalo Grove and have concealed pick holes and watertight gaskets installed in accordance with Section 604 of the Standard Specifications.

All proposed sanitary manholes shall be tested by either ASTM C-969 or ASTM C-1244.

Method of Measurement and Basis of Payment. This work will be measured in place and paid for at the contract unit price per each for MANHOLES, SANITARY, of the diameter and lid type specified, which price shall include all labor, material, and equipment required to complete the work as specified herein.

SANITARY MANHOLES TO BE ADJUSTED

Description. This work shall consist of adjusting sanitary sewer manholes.

General. This work shall be completed in accordance with applicable portions of Section 602 of the Standard Specifications and the provisions below.

Construction Requirements. The frame and lid shall be set in a full bituminous mastic bed or approved rubber gasket seal. The frame and lid shall be set accurately to the finished elevation so that no subsequent adjustment will be necessary. A chimney sealing system in accordance with ASTM C-923 shall be furnished and installed as per the manufacturer's recommendations.

Adjusting rings shall be in accordance with Section 1042, Article 1043.02 or Article 1043.03 of the Standard Specifications. The minimum thickness for concrete adjusting rings shall be 2".

Basis of Payment. This work will be paid for at the contract unit price per each for SANITARY MANHOLES TO BE ADJUSTED.

FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)

Description. This work shall consist of removing frames and lids from existing drainage and utility structures prior to roadway reconstruction and reinstalling them following placement of the binder course.

General. This work shall be performed in conformance with applicable provisions of Sections 353, 406, 602 and 603 of the Standard Specifications and IDOT BD-08 (Details for Frames and Lids Adjustment), which may be found in the plans. Following is a general sequence for the work:

Stage I (Before Pavement Removal)

A. Remove a minimum of 12” of the pavement from around the structure.
B. Remove the existing frame and lid from the structure.
C. Cover the structure opening with a 36” diameter metal plate.
D. Backfill with crushed stone and a minimum 1½” thick bituminous material approved by the Engineer.

Stage II (After Binder)

A. Remove the bituminous material and crushed stone.
B. Install the frame and lid and adjust the frame to its final surface elevation.
C. The surrounding space shall be filled with Class PP-1 concrete to the elevation of the surface of the existing binder course.

Additionally, this work shall include the removal of any debris which has accumulated in the structure. Also, any mortar repairs, which need to be made around existing sewer pipes shall be included.

This work shall pertain to existing structures only. Adjustment of proposed structures will be included in the cost of the proposed structure and will not be paid separately.

Method of Measurement and Basis of Payment. This work will be paid for at the contract unit price per each for FRAMES AND LIDS TO BE ADJUSTED (SPECIAL).

COMBINATION CONCRETE CURB AND GUTTER, TYPE B (SPECIAL)

Description. This work shall consist of constructing combination concrete curb and gutter with barrier shape and 4-inch curb height.

General. This work shall be completed in accordance with applicable portions of Section 606 of the Standard Specifications and Village B4.12 Curb and Gutter Detail in the plans.

This work shall include the installation of two #4 continuous reinforcing bars as shown on the Engineering plans along the full length of the new curb and gutter. Where new curb and gutter abuts existing concrete, smooth epoxy coated #4 dowel-bars shall be installed at 24" on center.

The proposed curb and gutter material shall be Portland cement concrete in accordance with Section 1020 of the Standard Specifications and shall have polyurethane coated fiber in the mix. The fiber shall be mixed in the concrete at a rate of 1.5 lbs per cubic yard of concrete at the ready-mix plant. Mixing of the concrete and fibers shall not be permitted on the project site.

Method of Measurement. Combination curb and gutter will be measured for payment in feet in the flow line of the gutter, which measurement will include drainage castings incorporated in the curb and gutter.

Basis of Payment. This work shall be paid for at the contract unit price per foot for COMBINATION CONCRETE CURB AND GUTTER, TYPE B (SPECIAL), which price shall include all materials, labor and equipment necessary to perform the work as here in specified.

TRAFFIC CONTROL AND PROTECTION

Specific traffic control plan details and Special Provisions have been prepared for this contract. This work shall include all labor, materials, transportation, handling and incidental work necessary to furnish, install, maintain and remove all traffic control devices required as indicated in the plans and as approved by the Engineer.

When traffic is to be directed over a detour route, the Contractor shall furnish, erect, maintain and remove all applicable traffic control devices along the detour route according to the details shown in the plans.

Basis of Payment: All traffic control and protection required to construct the proposed improvements will be paid at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION (SPECIAL).

All traffic control and protection required to set up, maintain, and remove the signing, barricades, etc. for the detour route will be paid at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION (DETOUR).

TRAFFIC CONTROL PLAN (D-1)

Effective: September 30, 1985
Revised: January 1, 2007

Traffic Control shall be in accordance with the applicable sections of the Standard Specifications, the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways", any special details and Highways Standards contained in the plans, and the Special Provisions contained herein.

Special attention is called to Article 107.09 of the Standard Specification and the following Highway Standards, Details, Quality Standard for Work Zone Traffic Control Devices, Recurring Special Provisions and Special Provisions contained herein, relating to traffic control.

The Contractor shall contact the District One Bureau of Traffic at least 72 hours in advance of beginning work.

STANDARDS: 701006, 701301, 701311, 701501, 701701, 701801, 701901

DETAILS: Traffic Control and Protection for Side Roads, Intersections and Driveways (TC-10)
District One Typical Pavement Markings (TC-13)

SPECIAL PROVISIONS: Maintenance of Roadways (D1)
Public Convenience and Safety (D1)
Vehicle and Equipment Warning Lights (BDE)
Work Zone Traffic Control Devices (BDE)

SUMP PUMP LINE CONNECTION

Description. This work shall consist of connecting existing residential sump pumps to the proposed storm sewer.

General. This work shall be completed in accordance with the details in the plans and as directed by the Engineer. The work shall include excavation, backfilling with trench backfill, pipe, fittings, and all labor and materials necessary to install the sump pump line including connections to the existing residential sump pump drain and drainage structures.

Basis of Payment. This work shall be paid at the contract unit price per each location for SUMP PUMP LINE CONNECTION.

CONCRETE TRUCK WASHOUT

Description: The Contractor shall take sufficient precautions to prevent pollution of streams, lakes, reservoirs, and wetlands with fuels, oils, bitumens, calcium chloride, or other harmful materials according to Article 107.23 of the "Standard Specifications".

General: To prevent pollution by residual concrete and/or the by-product of washing out the concrete trucks, concrete washout facilities shall be constructed and maintained on any project which includes cast-in-place concrete items. The concrete washout shall be constructed, maintained, and removed according to this special provision. Concrete washout facilities shall be required regardless of the need for NPDES permitting. On projects requiring NPDES permitting, concrete washout facilities shall also be addressed in the Storm Water Pollution Prevention Plan.

The concrete washout facility shall be constructed on the job site in accordance with Illinois Urban Manual practice standard for Temporary Concrete Washout Facility (Code 954). The Contractor may elect to use a pre-fabricated portable concrete washout structure. The Contractor shall submit a plan for the concrete washout facility, to the Engineer for approval, a minimum of 10 calendar days before the first concrete pour. The working concrete washout facility shall be in place before any delivery of concrete to the site. The Contractor shall ensure that all concrete washout activities are limited to the designated area.

The concrete washout facility shall be located no closer than 50 feet from any environmentally sensitive areas, such as water bodies, wetlands, and/or other areas indicated on the plans.

Adequate signage shall be placed at the washout facility and elsewhere as necessary to clearly indicate the location of the concrete washout facility to the operators of concrete trucks.

The concrete washout facility shall be adequately sized to fully contain the concrete washout needs of the project. The contents of the concrete washout facility shall not exceed 75% of the facility capacity. Once the 75% capacity is reached, concrete placement shall be discontinued until the facility is cleaned out. Hardened concrete shall be removed and properly disposed of outside the right-of-way. Slurry shall be allowed to evaporate, or shall be removed and properly disposed of outside the right-of-way. The Contractor shall immediately replace damaged basin liners or other washout facility components to prevent leakage of concrete waste from the washout facility. Concrete washout facilities shall be inspected by the Contractor after each use. Any and all spills shall be reported to the

Engineer and cleaned up immediately. The Contractor shall remove the concrete washout facility when it is no longer needed.

Basis of Payment: The cost of all materials required and all labor necessary to comply with the above will be paid for at the lump sum price for CONCRETE TRUCK WASHOUT. The unit price shall include all labor, equipment and materials necessary to complete the work, regardless of the number washout facilities required.

HOT-MIX ASPHALT DRIVEWAY PAVEMENT

Description. This work shall consist of the construction of HMA driveway pavement.

Construction Requirements. The proposed driveway pavement shall be constructed in accordance with the details in the plans.

The Contractor shall machine-saw a perpendicular clean joint between that portion of the driveway to be removed and that which is to remain in place. If the Contractor removes or damages the existing driveway outside the limits designated by the Engineer for removal and replacement, he/she will be required to remove and replace that portion at his/her own expense to the satisfaction of the Engineer.

Method of Measurement. This work will be measured in place in square yards.

Basis of Payment. This work will be paid for at for at the contract unit price per square yard for HOT-MIX ASPHALT DRIVEWAY PAVEMENT of the thickness specified.

CONSTRUCTION LAYOUT

In addition to the requirements of the special provision for construction layout stakes (Illinois Department of Transportation check sheet #10), the Contractor shall reestablish, monument, and tie all control points used to complete the work as specified including all centerline pi's, pc's, pt's, and pot's as shown on the Alignment, Ties and Benchmarks plan sheet. The type of monumentation used will be pk nails, iron pipes, RR spikes or items as approved by the Engineer.

This work shall also include the staking of temporary easements prior to construction.

Record Drawings: This work shall consist of supplying red line as-builts of the installed utility improvements including but not limited to rim and inverts. The as-builts shall have red marks and installed elevations wherever on the engineering drawings a proposed grade, structure, invert or any other proposed item is shown. All elevations shall be recorded on the NAVD 88 datum, consistent with the plans. As-builts with insufficient recorded

information will be rejected. In particular the Contractor shall note where all elevation adjustments and alignment adjustments have been installed.

As-builts must be turned in with the Contractor's notice of completion. Failure to submit as-builts with the notice of completion will begin to trigger liquidated damages after the project completion date or when working days have been exhausted.

Basis of Payment: The cost of all materials required and all labor necessary to comply with the above will be paid at the contract unit price of LUMP SUM for CONSTRUCTION LAYOUT. The unit price shall include all labor, equipment and materials necessary to complete the work.

STORM SEWER, (WATER MAIN QUALITY PIPE)

Effective January 1, 2011
Revised January 1, 2021

This work consists of constructing storm sewer to meet water main standards, as required by the IEPA or when otherwise specified. The work shall be performed in accordance with applicable parts of Section 550 of the Standard Specifications, applicable sections of the current edition of the IEPA Regulations (Title 35 of the Illinois Administrative Code, Subtitle F, Chapter II, Section 653.119), the applicable sections of the current edition of the "Standard Specifications for Water and Sewer Main Construction in Illinois", and as herein specified.

This provision shall govern the installation of all storm sewers which do not meet IEPA criteria for separation distance between storm sewers and water mains. Separation criteria for storm sewers placed adjacent to water mains and water service lines are as follows:

(1) Water mains and water service lines shall be located at least 10 feet (3.05 meters) horizontally from any existing or proposed drain, storm sewer, sanitary sewer, or sewer service connections.

(2) Water mains and water service lines may be located closer than 10 feet (3.05 meters) to a sewer line when:

(a) Local conditions prevent a lateral separation of 10 feet (3.05 meters); and

(b) The water main or water service invert is 18 inches (460 mm) above the crown of the sewer; and

(c) The water main or water service is either in a separate trench or in the same trench on an undisturbed earth shelf located to one side of the sewer.

(3) A water main or water service shall be separated from a sewer so that its invert is a minimum of 18 inches (460 mm) above the crown of the drain or sewer whenever water mains or services cross storm sewers, sanitary sewers or sewer service connections. The vertical separation shall be maintained for that portion of the water main or water services located within 10 feet (3.05 meters) horizontally of any sewer or drain crossed.

When it is impossible to meet (1), (2) or (3) above, the storm sewer shall be constructed of concrete pressure pipe, slip-on or mechanical joints ductile iron pipe, or PVC pipe equivalent to water main standards of construction. Construction shall extend on each side of the crossing until the perpendicular distance from the water main or water service to the sewer or drain line is at least 10 feet (3.05 meters). Storm sewer meeting water main requirements shall be constructed of the following pipe materials:

Concrete Pressure Pipe

Concrete pressure pipe shall conform to the latest ANSI/AWWA C300, C301, or C303.

Joints shall conform to Article 41-2.07B of the "Standard Specifications for Water and Sewer Main Construction in Illinois."

Ductile Iron Pipe

Ductile Iron pipe shall conform to ANSI A 21.51 (AWWA C151), class or thickness designed per ANSI A 2150 (AWWA C150), tar (seal) coated and/or cement lined per ANSI A 21.4 (AWWA C104), with a mechanical or rubber ring (slip seal or push on) joints.

Joints for ductile iron pipe shall be in accordance with the following applicable specifications.

1. Mechanical Joints - AWWA C111 and C600
2. Push-On Joints - AWWA C111 and

C600 Plastic Pipe

Plastic pipe shall be marked with the manufacturer’s name (or trademark); ASTM

or AWWA specification; Schedule Number, Dimension Ratio (DR) Number or Standard Dimension Ratio (SDR) Number; and Cell Class. The pipe and fittings shall also meet NSF Standard 14 and bear the NSF seal of approval. Fittings shall be compatible with the type of pipe used. The plastic pipe options shall be in accordance with the following:

1. Polyvinyl Chloride (PVC) conforming to ASTM Standard D 1785. Schedule 80 is the minimum required for all pipe sizes, except when the pipe is to be threaded, and then it shall be Schedule 120. It shall be made from PVC compound meeting ASTM D 1784, Class 12454C.
2. Polyvinyl Chloride (PVC) conforming to ASTM D 2241. A minimum wall thickness of SDR 26 is required for all pipe sizes (Note: The lower the SDR number, the higher the wall thickness and pressure rating). It shall be made from PVC compound meeting ASTM D 1784, Class 12454B.
3. Chlorinated Polyvinyl Chloride (CPVC) conforming to ASTM F 441. A minimum of Schedule 80 is required for all pipe sizes. Threaded joints are not allowed. It shall be made from CPVC compound meeting ASTM D 1784, Class 23447B.
4. Chlorinated Polyvinyl Chloride (CPVC) conforming to ASTM F 442M/F422M. A minimum wall thickness of SDR 26 is required for all pipe sizes (Note: The lower the SDR number, the higher the wall thickness and pressure rating). It shall be made from CPVC compound meeting ASTM D 1784.
5. Polyvinyl Chloride (PVC) conforming to ANSI/AWWA C900. A minimum wall thickness of DR 25 is required for all pipe sizes (Note: The lower the DR number, the higher the wall thickness and pressure rating). It shall be made from PVC compound meeting ASTM D 1784, Class 12454.
6. Polyvinyl Chloride (PVC) conforming to ANSI/AWWA C905. A minimum wall thickness of DR 26 is required for all pipe sizes (Note: The lower the DR number, the higher the wall thickness and pressure rating). It shall be made from PVC compound meeting ASTM D 1784, Class 12454.

Joining of plastic pipe shall be by push-on joint, solvent welded joint, heat welded joint, flanged joint, or threaded joint, butt fused, or electro fused, in accordance with the pipe manufacturer's instructions and industry standards. Special precautions shall be taken to insure clean, dry contact surfaces when making solvent or heat welded joints. Adequate setting time shall be allowed for maximum strength.

Elastometric seals (gaskets) used for push-on joints shall comply with ASTM F477.

Solvent cement shall be specific for the plastic pipe material and shall comply with ASTM D 2564 (PVC) or ASTM F 493 (CPVC) and be approved by NSF.

This work will be measured and paid for at the contract unit price per foot for STORM SEWER, WATER MAIN QUALITY PIPE, of the diameter and type specified.

SANITARY SEWER

Description. This work shall consist of furnishing and installing sanitary sewer, of the diameter, material and strength class specified in accordance with Section 550 of the Standard Specifications and as specified herein.

Materials. The material used for pipe and fittings shall be exclusively PVC SDR 26, of the diameter specified, conforming to ASTM D-3034 pipe standards with rubber gasket joints conforming to ASTM D-3212.

Testing. All sanitary sewer shall be tested in accordance with the Standard Specifications for Water and Sewer Construction in Illinois. All flexible sanitary sewer pipe shall be tested by Method D and either Method A, B, or C as outlined in Section 31-1.12. All sanitary sewer must also be tested by Method E. The Contractor shall provide the Engineer a copy of the video on a digital video disc. The video must be in color and proceed no faster than one (1) foot per second.

Trench Backfill. The trench shall be backfilled with IDOT certified Class B course aggregate material meeting the gradation of CA-11 in accordance with Section 1004 of the Standard Specifications. All aggregate must be crushed, rounded aggregate will not be permitted. The backfill material shall be compacted to 95% modified proctor density as required by ASTM D1557 or AASHTO T-180.

Method of Measurement and Basis of Payment. This work will be measured and paid for at the contract unit price per foot for SANITARY SEWER, of the diameter specified.

DETECTABLE WARNINGS (FURNISHED BY OTHERS)

Description. This work shall include all labor, material, and equipment necessary to place furnished detectable warning plates at locations shown on the Engineering plans in accordance with Section 424 of the Standard Specifications and as specified herein.

General. The Village of Buffalo Grove will furnish 24”x24” and 24”x30” detectable warning plates. The Contractor shall coordinate the retrieval of materials from the Department of Public Works Facility at 51 Raupp Boulevard from 7 AM to 3 PM, a minimum of 48 hours in advance of when the plates will be needed.

Cutting of the detectable warning plates will only be allowed in accordance with the manufacturer's recommendation. The cutting of two panels to develop a radius will not be permitted.

Basis of Payment. This work will be measured in place and paid for at the contract unit price per square foot (SF) for DETECTABLE WARNINGS (FURNISHED BY OTHERS), which shall include all labor, material, and equipment required to complete the work as specified herein.

GENERAL LANDSCAPE RESTORATION (SPECIAL)

Description. This work shall include all labor, material, and equipment necessary to furnish, place, and maintain pulverized topsoil, seed, fertilizer nutrients, and Mulch Method 3A in accordance with Section(s) 211, 250, and 251 of the Standard Specifications and as specified herein.

General. Pulverized topsoil shall be placed to a maximum depth of four (4) inches and not be placed until the area has been shaped, trimmed, and finished to the lines and grades as directed by the Engineer. All irregularities, depressions, or high points in the surface shall be filled or smoothed out before topsoil is placed. The surface of the topsoil shall be blended to match the existing terrain and adjacent hardscape, and be free from clods, stones, sticks, and debris.

The Contractor shall furnish and place IDOT Class 1A salt tolerant lawn mixture, produced and tested in the current year, be of good quality, and free of weeds. Nitrogen and potassium fertilizer nutrients shall be applied at a 1:1 ratio in accordance with Article 250.04 of the Standard Specifications (phosphorus is not permitted). Within 24 hours of seed placement, mulch shall be placed my method 3A in accordance with Article 251.03(d) of the Standard Specifications.

It is recommended that the Contractor water the area every other day at a rate of three (3) gallons per square yard, however, it is the sole and exclusive responsibility of the Contractor to make required adjustments to the watering rate or schedule.

To be acceptable for final payment, the landscaped areas shall undergo a 30-day period of establishment beginning on the last day that seed is sowed. During this period, the Contractor shall be responsible for, at no additional cost to the Village, watering, removing weeds and maintaining the seeded areas and repairing any damage to the seeded areas due to but not limited to, errant vehicles, severe weather or all other causes. At the end of the 30-day period of establishment, the Owner or Engineer will inspect the landscaped area and if deemed unsatisfactory, the Contractor shall be required to provide means and methods necessary to establish a live, healthy turf area. Should the seed not germinate

because of prevailing cool weather, the period of establishment may be adjusted as determined by the Engineer. It shall be the sole and exclusive responsibility of the Contractor, not the Engineer, for maintaining and monitoring the landscape restoration during the period of establishment. If the placed landscape restoration has not been approved by the Owner or Engineer sixty (60) calendar days following installation, the Contractor will incur a monetary penalty of $250 per calendar day.

Planting times shall be April 1 to June 15 and August 1 to November 1 in accordance with Article 250.07 of the Standard Specifications.

The Contractor shall provide the Engineer with proper documentation on the landscaping materials supplied to the project such as topsoil source, topsoil certification, fertilizer bags, seed tags, and seed bags.

Upon placement of topsoil, seed, fertilizer nutrients, and mulch, 75 percent of each respective pay item will be paid. Upon final acceptance of the topsoil, seed, fertilizer nutrients, and mulch placed, the remaining 25 percent of each respective pay item will be paid.

The Village may postpone permanent seeding operations if deemed necessary. In such an event, the completion date may be extended accordingly.

Method of Measurement and Basis of Payment. This work will be measured in place and paid for at the contract unit price per square yard (SY) for GENERAL LANDSCAPE RESTORATION (SPECIAL), which shall include all labor, material, and equipment required to complete the work as specified herein.

HOT-MIX ASPHALT BINDER COURSE AND SURFACE COURSE (SPECIAL)

This work shall include all labor, material, and equipment necessary to furnish and place hot-mix asphalt, of the type specified, in accordance with Section 406 of the Standard Specifications and as specified herein.

The type of mix specified is commonly known as ‘MURPHY MIX’.

Hot-Mix Asphalt Mixtures: The Contractor shall submit mix designs, for approval, for each required mixture, at least one week in advance of scheduled placement.

Surface: N-50 Hot Mix Asphalt 9.5-mm Surface Course Mix “C or D”

The AJMF during production shall have a minimum of 40% passing on the #8 sieve and still meet IDOT volumetric requirements.

Binder: N-50 Hot-Mix Asphalt 19.0-mm Binder Course Mix 'B'.
The AJMF during production shall have a minimum of 40% passing on the #4 sieve and still meet IDOT volumetric requirements.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS:

Item	AC Type Overlay	AC Type Full Depth	Air Voids
Hot-Mix Asphalt Surface Course, Mix "C/D", N50	PG 58-22 / 58-28*	PG 58-28 / 46-34*	3.5% @ 50 GYR
Leveling Binder (Machine Method), N50	PG 58-22 / 58-28*	PG 58-28 / 46-34*	3.5% @ 50 GYR
Hot-Mix / Asphalt Binder Course, IL-19, N50	PG 58-22 / 58-28*	PG 58-28 / 46-34* PG 58-28 when below 4" in depth	3.5% @ 50 GYR

1. All production shall trend about 3.5% Air Voids.
2. Re-proportioning (within SSRBC adjustments allowed) of IDOT verified mix designs may be allowed and the Contractor must submit these values for a review by the Engineer at least one week prior to the first day of production.
3. One field TSR test by the Contractor will be required to validate changes.
4. The AJMF submitted and during production shall meet remaining IDOT volumetric requirements.
5. When Asphalt Binder Replacement (ABR) exceeds 15%, the new asphalt binder in the mix shall be changed as noted above. No more than 30% ABR and no more than 2.0% Reclaimed Asphalt Shingles (RAS) shall be allowed in the asphalt.

Hot Mix Asphalt Construction

1. Tack coat all longitudinal joints (hot and cold) and curb faces.
2. Pneumatic tired roller is required on all lifts, all mixes, except surface courses.
3. Auger extensions are required on all lifts, all mixes.
4. Reverse augers must be installed properly.
5. Roll (compact) the confined and curb line longitudinal joint by overlapping by 6" from the hot to cold side of mat and / or curbing.
6. Paving of the full roadway width shall be completed at the end of each day. Longitudinal joints shall be closed daily and within one truck load of HMA to prevent cold joints. Any violation shall require saw cutting edge back 3" to expose straight edge, shall be tack coated twice, and will be straight and uniform.
7. The Village may consider allowing a full road closure with detours at the Contractors request in order to allow for full width surface paving to facilitate this requirement on 24' wide roads. However, detour and/or additional traffic control devises will be at Contractors expense.
8. Asphalt along the curb line shall be compacted such that the asphalt is ¼" above the flag of gutter.

9. Temporary ramps, regardless of material, shall be removed prior to placement of the next pavement course.
10. Any compromises of 16' ski or ¼" gutter flag exposure shall be brought to the engineers attention and discussed. Failure to do so may result in repairs at the Contractors expense.

This work will be measured in place and paid for at the contract unit price per ton (TN) for HOT-MIX ASPHALT BINDER COURSE (SPECIAL), and HOT-MIX ASPHALT SURFACE COURSE (SPECIAL), of the depth specified, which shall include all labor, material, and equipment required to complete the work as specified herein.

TEMPORARY LANDSCAPE RESTORATION (SPECIAL)

Description. This work shall include all labor, material, and equipment necessary to furnish, install, maintain, and remove temporary landscape restoration in accordance with Section(s) 211, 250, and 251 of the Standard Specifications and as specified herein.

Any restoration work completed outside of the planting times as defined by Article 250.07 of the Standard Specifications will be considered temporary and will be paid for separately.

At the direction of the Engineer, the Contractor will be required to mow the temporary grass as part of the temporary landscape work and it is anticipated that the Contractor will be required to mow every two (2) weeks. The Contractor will have 48-hours following written notice by the Engineer to complete mowing operations as requested. Failure to mow when requested will result in a monetary penalty of $1,000 per day until the mowing has been completed.

This work will be measured in place and paid for at the contract unit price per square yard for TEMPORARY EROSION CONTROL SEEDING (SPECIAL), the contract unit price per square yard for TEMPORARY MULCH METHOD 3A (SPECIAL), and the contract unit price per each for MOWING, which shall include all labor, material, and equipment required to complete the work as specified herein.

PUBLIC CONVENIENCE AND SAFETY (D1)

Effective: May 1, 2012
Revised: July 15, 2012

Add the following to the end of the fourth paragraph of Article 107.09:

> "If the holiday is on a Saturday or Sunday, and is legally observed on a Friday or Monday, the length of Holiday Period for Monday or Friday shall apply."

Add the following sentence after the Holiday Period table in the fourth paragraph of Article 107.09:

> "The Length of Holiday Period for Thanksgiving shall be from 5:00 AM the Wednesday prior to 11:59 PM the Sunday After"

Delete the fifth paragraph of Article 107.09 of the Standard Specifications:

> "On weekends, excluding holidays, roadways with Average Daily Traffic of 25,000 or greater, all lanes shall be open to traffic from 3:00 P.M. Friday to midnight Sunday except where structure construction or major rehabilitation makes it impractical."

AGGREGATE SURFACE COURSE FOR TEMPORARY ACCESS
Effective: April 1, 2001
Revised: January 2, 2007

Revise Article 402.10 of the Standard Specifications to read:

"**402.10 For Temporary Access.** The contractor shall construct and maintain aggregate surface course for temporary access to private entrances, commercial entrances and roads according to Article 402.07 and as directed by the Engineer.

The aggregate surface course shall be constructed to the dimensions and grades specified below, except as modified by the plans or as directed by the Engineer.

(a) Private Entrance. The minimum width shall be 12 ft (3.6 m). The minimum compacted thickness shall be 6 in. (150 mm). The maximum grade shall be eight percent, except as required to match the existing grade.

(b) Commercial Entrance. The minimum width shall be 24 ft (7.2 m). The minimum compacted thickness shall be 9 in. (230 mm). The maximum grade shall be six percent, except as required to match the existing grade.

(c) Road. The minimum width shall be 24 ft (7.2 m). The minimum compacted thickness shall be 9 in. (230 mm). The grade and elevation shall be the same as the removed pavement, except as required to meet the grade of any new pavement constructed.

Maintaining the temporary access shall include relocating and/or regrading the aggregate surface coarse for any operation that may disturb or remove the temporary

access. The same type and gradation of material used to construct the temporary access shall be used to maintain it.

When use of the temporary access is discontinued, the aggregate shall be removed and utilized in the permanent construction or disposed of according to Article 202.03."

Add the following to Article 402.12 of the Standard Specifications:

"Aggregate surface course for temporary access will be measured for payment as each for every private entrance, commercial entrance or road constructed for the purpose of temporary access. If a residential drive, commercial entrance, or road is to be constructed under multiple stages, the aggregate needed to construct the second or subsequent stages will not be measured for payment but shall be included in the cost per each of the type specified."

Revise the second paragraph of Article 402.13 of the Standard Specifications to read:

"Aggregate surface course for temporary access will be paid for at the contract unit price per each for TEMPORARY ACCESS (PRIVATE ENTRANCE), TEMPORARY ACCESS (COMMERCIAL ENTRANCE) or TEMPORARY ACCESS (ROAD).

Partial payment of the amount bid for temporary access, of the type specified, will be paid according to the following schedule:

(a) Upon construction of the temporary access, sixty percent of the contract unit price per each, of the type constructed, will be paid.

(b) Subject to the approval of the Engineer for the adequate maintenance and removal of the temporary access, the remaining forty percent of the pay item will be paid upon the permanent removal of the temporary access."

DRAINAGE AND INLET PROTECTION UNDER TRAFFIC (D1)

Effective: April 1, 2011
Revised: April 2, 2011

Add the following to Article 603.02 of the Standard Specifications:

"(i) Temporary Hot-Mix Asphalt (HMA) Ramp (Note 1) ……1030
(j) Temporary Rubber Ramps (Note 2)

Note 1. The HMA shall have maximum aggregate size of 3/8 in. (95 mm).

Note 2. The rubber material shall be according to the following.

Property	Test Method	Requirement
Durometer Hardness, Shore A	ASTM D 2240	75 ±15
Tensile Strength, psi (kPa)	ASTM D 412	300 (2000) min
Elongation, percent	ASTM D 412	90 min
Specific Gravity	ASTM D 792	1.0 - 1.3
Brittleness, °F (°C)	ASTM D 746	-40 (-40)”

Revise Article 603.07 of the Standard Specifications to read:

“**603.07 Protection Under Traffic.** After the casting has been adjusted and the Class PP concrete has been placed, the work shall be protected by a barricade and two lights according to Article 701.17(e)(3)b.

When castings are under traffic before the final surfacing operation has been started, properly sized temporary ramps shall be placed around the drainage and/or utility castings according to the following methods.

(a) Temporary Asphalt Ramps. Temporary hot-mix asphalt ramps shall be placed around the casting, flush with its surface and decreasing to a featheredge in a distance of 2 ft (600 mm) around the entire surface of the casting.

(b) Temporary Rubber Ramps. Temporary rubber ramps shall only be used on roadways with permanent posted speeds of 40 mph or less and when the height of the casting to be protected meets the proper sizing requirements for the rubber ramps as shown below.

Dimension	Requirement
Inside Opening	Outside dimensions of casting + 1 in. (25 mm)
Thickness at inside edge	Height of casting ± 1/4 in. (6 mm)
Thickness at outside edge	1/4 in. (6 mm) max.
Width, measured from inside opening to outside edge	8 1/2 in. (215 mm) min

Placement shall be according to the manufacturer's specifications.

Temporary ramps for castings shall remain in place until surfacing operations are undertaken within the immediate area of the structure. Prior to placing the surface course, the temporary ramp shall be removed. Excess material shall be disposed of according to Article 202.03."

FRICTION AGGREGATE (D-1)

Effective: January 1, 2011
Revised: December 1, 2021

Revise Article 1004.03(a) of the Standard Specifications to read:

"**1004.03 Coarse Aggregate for Hot-Mix Asphalt (HMA).** The aggregate shall be according to Article 1004.01 and the following.

(a) Description. The coarse aggregate for HMA shall be according to the following table.

Use	Mixture	Aggregates Allowed
Class A	Seal or Cover	Allowed Alone or in Combination [5/]: Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag Crushed Concrete

Use	Mixture	Aggregates Allowed
HMA Low ESAL	Stabilized Subbase or Shoulders	<u>Allowed Alone or in Combination</u> [5/]: Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag[1/] Crushed Concrete
HMA High ESAL Low ESAL	Binder IL-19.0 or IL-19.0L SMA Binder	<u>Allowed Alone or in Combination</u> [5/ 6/]: Crushed Gravel Carbonate Crushed Stone[2/] Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Concrete[3/]
HMA High ESAL Low ESAL	C Surface and Binder IL-9.5 IL-9.5FG or IL-9.5L	<u>Allowed Alone or in Combination</u> [5/]: Crushed Gravel Carbonate Crushed Stone[2/] Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag[4/] Crushed Concrete[3/]
HMA High ESAL	D Surface and Binder IL-9.5 or IL-9.5FG	<u>Allowed Alone or in Combination</u> [5/]: Crushed Gravel Carbonate Crushed Stone (other than Limestone)[2/] Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag[4/]
		<u>Other Combinations Allowed:</u> *Up to...* | *With...*

<table>
<tr><td>Use</td><td>Mixture</td><td colspan="2">Aggregates Allowed</td></tr>
<tr><td rowspan="3"></td><td rowspan="3"></td><td>25% Limestone</td><td>Dolomite</td></tr>
<tr><td>50% Limestone</td><td>Any Mixture D aggregate other than Dolomite</td></tr>
<tr><td>75% Limestone</td><td>Crushed Slag (ACBF) or Crushed Sandstone</td></tr>
<tr><td rowspan="6">HMA
High ESAL</td><td rowspan="6">E Surface
IL-9.5

SMA
Ndesign 80
Surface</td><td colspan="2"><u>Allowed Alone or in Combination</u> [5/] [6/]:

Crushed Gravel
Crystalline Crushed Stone
Crushed Sandstone
Crushed Slag (ACBF)
Crushed Steel Slag

No Limestone.</td></tr>
<tr><td colspan="2"><u>Other Combinations Allowed:</u></td></tr>
<tr><td>Up to...</td><td>With...</td></tr>
<tr><td>50% Dolomite[2/]</td><td>Any Mixture E aggregate</td></tr>
<tr><td>75% Dolomite[2/]</td><td>Crushed Sandstone, Crushed Slag (ACBF), Crushed Steel Slag, or Crystalline Crushed Stone</td></tr>
</table>

<table>
<tr><td>Use</td><td>Mixture</td><td colspan="2">Aggregates Allowed</td></tr>
<tr><td></td><td></td><td>75% Crushed Gravel[2/]</td><td>Crushed Sandstone, Crystalline Crushed Stone, Crushed Slag (ACBF), or Crushed Steel Slag</td></tr>
<tr><td rowspan="4">HMA
High ESAL</td><td rowspan="4">F Surface
IL-9.5

SMA
Ndesign 80
Surface</td><td colspan="2"><u>Allowed Alone or in Combination</u> [5/] [6/]:

Crystalline Crushed Stone
Crushed Sandstone
Crushed Slag (ACBF)
Crushed Steel Slag
No Limestone.</td></tr>
<tr><td colspan="2"><u>Other Combinations Allowed</u>:</td></tr>
<tr><td>Up to...</td><td>With...</td></tr>
<tr><td>50% Crushed Gravel[2/] or Dolomite[2/]</td><td>Crushed Sandstone, Crushed Slag (ACBF), Crushed Steel Slag, or Crystalline Crushed Stone</td></tr>
</table>

1/ Crushed steel slag allowed in shoulder surface only.
2/ Carbonate crushed stone (limestone) and/or crushed gravel shall not be used in SMA Ndesign 80.
3/ Crushed concrete will not be permitted in SMA mixes.
4/ Crushed steel slag shall not be used as binder.
5/ When combinations of aggregates are used, the blend percent measurements shall be by volume."
6/ Combining different types of aggregate will not be permitted in SMA Ndesign 80."

Illinois Department of Transportation

Check Sheet for Recurring Special Provisions

Local Public Agency	County	Section Number
Village of Buffalo Grove	Cook	

☐ **Check this box for lettings prior to 01/01/2023.**

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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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:

Village of Buffalo Grove

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

BDE SPECIAL PROVISIONS
For the November 17, 2023 Letting

The following special provisions indicated by a “check mark” are applicable to this contract and will be included by the Project Coordination and Implementation Section of the Bureau of Design & Environment (BDE).

	File Name	#		Special Provision Title	Effective	Revised
	80099	1	☐	Accessible Pedestrian Signals (APS)	April 1, 2003	Jan. 1, 2022
	80274	2	☒	Aggregate Subgrade Improvement	April 1, 2012	April 1, 2022
	80192	3	☐	Automated Flagger Assistance Devices	Jan. 1, 2008	April 1, 2023
	80173	4	☒	Bituminous Materials Cost Adjustments	Nov. 2, 2006	Aug. 1, 2017
	80426	5	☐	Bituminous Surface Treatment with Fog Seal	Jan. 1, 2020	Jan. 1, 2022
	80436	6	☒	Blended Finely Divided Minerals	April 1, 2021	
*	80241	7	☐	Bridge Demolition Debris	July 1, 2009	
*	5053I	8	☐	Building Removal	Sept. 1, 1990	Aug. 1, 2022
*	5026I	9	☐	Building Removal with Asbestos Abatement	Sept. 1, 1990	Aug. 1, 2022
	80449	10	☐	Cement, Type IL	Aug. 1, 2023	
	80384	11	☐	Compensable Delay Costs	June 2, 2017	April 1, 2019
*	80198	12	☐	Completion Date (via calendar days)	April 1, 2008	
*	80199	13	☐	Completion Date (via calendar days) Plus Working Days	April 1, 2008	
	80453	14	☐	Concrete Sealer	Nov. 1, 2023	
	80261	15	☒	Construction Air Quality – Diesel Retrofit	June 1, 2010	Nov. 1, 2014
	80434	16	☐	Corrugated Plastic Pipe (Culvert and Storm Sewer)	Jan. 1, 2021	
*	80029	17	☐	Disadvantaged Business Enterprise Participation	Sept. 1, 2000	Mar. 2, 2019
	80229	18	☐	Fuel Cost Adjustment	April 1, 2009	Aug. 1, 2017
	80452	19	☐	Full Lane Sealant Waterproofing System	Nov. 1, 2023	
	80447	20	☐	Grading and Shaping Ditches	Jan. 1, 2023	
	80433	21	☐	Green Preformed Thermoplastic Pavement Markings	Jan. 1, 2021	Jan. 1, 2022
	80443	22	☐	High Tension Cable Median Barrier Removal	April 1, 2022	
	80446	23	☒	Hot-Mix Asphalt - Longitudinal Joint Sealant	Nov. 1, 2022	Aug. 1, 2023
	80438	24	☐	Illinois Works Apprenticeship Initiative – State Funded Contracts	June 2, 2021	Sept. 2, 2021
	80045	25	☐	Material Transfer Device	June 15, 1999	Jan. 1, 2022
	80450	26	☐	Mechanically Stabilized Earth Retaining Walls	Aug. 1, 2023	
	80441	27	☒	Performance Graded Asphalt Binder	Jan. 1, 2023	
	80451	28	☒	Portland Cement Concrete	Aug. 1, 2023	
*	3426I	29	☐	Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2022
	80445	30	☒	Seeding	Nov. 1, 2022	
	80448	31	☐	Source of Supply and Quality Requirements	Jan. 2, 2023	
	80340	32	☐	Speed Display Trailer	April 2, 2014	Jan. 1, 2022
	80127	33	☐	Steel Cost Adjustment	April 2, 2004	Jan. 1, 2022
	80397	34	☐	Subcontractor and DBE Payment Reporting	April 2, 2018	
	80391	35	☐	Subcontractor Mobilization Payments	Nov. 2, 2017	April 1, 2019
	80437	36	☐	Submission of Payroll Records	April 1, 2021	Nov. 1, 2022
	80435	37	☐	Surface Testing of Pavements – IRI	Jan. 1, 2021	Jan. 1, 2023
	80410	38	☐	Traffic Spotters	Jan. 1, 2019	
*	20338	39	☐	Training Special Provisions	Oct. 15, 1975	Sept. 2, 2021
	80429	40	☐	Ultra-Thin Bonded Wearing Course	April 1, 2020	Jan. 1, 2022
	80439	41	☒	Vehicle and Equipment Warning Lights	Nov. 1, 2021	Nov. 1, 2022
	80440	42	☐	Waterproofing Membrane System	Nov. 1, 2021	
	80302	43	☐	Weekly DBE Trucking Reports	June 2, 2012	Nov. 1, 2021
	80454	44	☐	Wood Sign Support	Nov. 1, 2023	
	80427	45	☒	Work Zone Traffic Control Devices	Mar. 2, 2020	
*	80071	46	☐	Working Days	Jan. 1, 2002	

Highlighted items indicate a new or revised special provision for the letting.

An * indicates the special provision requires additional information from the designer, which needs to be submitted separately. The Project Coordination and Implementation Section will then include the information in the applicable special provision.

The following special provisions have been deleted from use.

File Name	Special Provision Title	Effective	Revised
5048I	Building Removal-Case II (Non-Friable Asbestos)	Sept. 1, 1990	April 1, 2010
5049I	Building Removal-Case III (Friable Asbestos)	Sept. 1, 1990	April 1, 2010

The following special provisions are in the 2023 Supplemental Specifications and Recurring Special Provisions.

File Name	Special Provision Title	New Location(s)	Effective	Revised
80293	Concrete Box Culverts with Skews > 30 Degrees and Design Fills ≤ 5 Feet	Articles 540.04 & 540.06	April 1, 2012	July 1, 2016
80311	Concrete End Sections for Pipe Culverts	Articles 540.07, 542.01, 542.02, 542.07, 542.11 & 542.12	Jan. 1, 2013	April 1, 2016
80422	High Tension Cable Median Barrier	Articles 644.02, 644.05, 782.01, 782.04, 782.07 & 1097.02	Jan. 1, 2020	Jan. 1, 2022
80442	Hot-Mix Asphalt	Articles 1030.09 & 1030.10	Jan. 1, 2022	Aug. 1, 2022
80444	Hot-Mix Asphalt – Patching	Errata – Article 442.08(b)	April 1, 2022	
80411	Luminaires, LED	Articles 801.05(a), 821.02(d), 821.03, 821.08 & 1067.01-1067.06	April 1, 2019	Jan. 1, 2022
80418	Mechanically Stabilized Earth Retaining Walls	Articles 1003.07 & 1004.06	Nov. 1, 2019	Nov. 1, 2020
80430	Portland Cement Concrete – Haul Time	Article 1020.11(a)(7)	July 1, 2020	
80395	Sloped Metal End Section for Pipe Culverts	Articles 540.07, 542.01, 542.02, 542.07, 542.11 & 542.12	Jan. 1, 2018	
80318	Traversable Pipe Grate for Concrete End Sections	Articles 540.04, 540.07, 540.08 & 542.01, 542.02, 542.07, 542.11 & 542.12	Jan. 1, 2013	Jan. 1, 2018

AGGREGATE SUBGRADE IMPROVEMENT (BDE)

Effective: April 1, 2012
Revised: April 1, 2022

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 (ASI).

303.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Coarse Aggregate	1004.07
(b) Reclaimed Asphalt Pavement (RAP)	1031.09

303.03 Equipment. The vibratory roller shall be according to Article 1101.01, or as approved by the Engineer. Vibratory machines, such as tampers, shall be used in areas where rollers do not fit.

303.04 Soil Preparation. The minimum immediate bearing value (IBV) of the soil below the improved subgrade shall be according to the Department's "Subgrade Stability Manual" for the aggregate thickness specified.

303.05 Placing and Compacting. The maximum nominal lift thickness of aggregate gradations CA 2, CA 6, and CA 10 when compacted shall be 9 in. (225 mm). The maximum nominal lift thickness of aggregate gradations CS 1, CS 2, and RR 1 when compacted shall be 24 in. (600 mm).

The top surface of the aggregate subgrade improvement shall consist of a layer of capping aggregate gradations CA 6 or CA 10 that is 3 in. (75 mm) thick after compaction. Capping aggregate will not be required when aggregate subgrade improvement is used as a cubic yard pay item for undercut applications.

Each lift of aggregate 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.

303.06 Finishing and Maintenance. 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.

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

303.08 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 (ASI).** 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 ASI material is required, gravel may be used below the top 12 in (300 mm) of ASI.

(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 ASI thickness less than or equal to 12 in. (300 mm) shall be CA 2, CA 6, CA 10, or CS 1.

The coarse aggregate gradation for total ASI thickness greater than 12 in. (300 mm) shall be CS 1 or CS 2 as shown below or RR 1 according to Article 1005.01(c).

	COARSE AGGREGATE SUBGRADE GRADATIONS				
Grad No.	Sieve Size and Percent Passing				
	8"	6"	4"	2"	#4
CS 1	100	97 ± 3	90 ± 10	45 ± 25	20 ± 20
CS 2		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 1	100	97 ± 3	90 ± 10	45 ± 25	20 ± 20
CS 2		100	80 ± 10	25 ± 15	

(2) Capping aggregate shall be gradation CA 6 or CA 10."

Add the following to Article 1031.09 of the Standard Specifications:

"(b) RAP in Aggregate Subgrade Improvement (ASI). RAP in ASI shall be according to Articles 1031.01(a), 1031.02(a), 1031.06(a)(1), and 1031.06(a)(2), and the following.

(1) The testing requirements of Article 1031.03 shall not apply.

(2) Crushed RAP used for the lower lift may be mechanically blended with aggregate gradations CS 1, CS 2, and RR 1 but it shall be no greater than 40 percent of the total product volume. RAP agglomerations shall be no greater than 4 in. (100 mm).

(3) For capping aggregate, well graded RAP having 100 percent passing the 1 1/2 in. (38 mm) sieve may be used when aggregate gradations CS 1, CS 2, CA 2, or RR 1 are used in the lower lift. FRAP will not be permitted as capping material.

Blending shall be through calibrated interlocked feeders or a calibrated blending plant such that the prescribed blending percentage is maintained throughout the blending process. The calibration shall have an accuracy of ± 2.0 percent of the actual quantity of material delivered."

80274

BITUMINOUS MATERIALS COST ADJUSTMENTS (BDE)

Effective: November 2, 2006
Revised: August 1, 2017

Description. Bituminous material cost adjustments will be made to provide additional compensation to the Contractor, or credit to the Department, for fluctuations in the cost of bituminous materials when optioned by the Contractor. The bidder shall indicate with their bid whether or not this special provision will be part of the contract.

The adjustments shall apply to permanent and temporary hot-mix asphalt (HMA) mixtures, bituminous surface treatments (cover and seal coats), and preventative maintenance type surface treatments that are part of the original proposed construction, or added as extra work and paid for by agreed unit prices. The adjustments shall not apply to bituminous prime coats, tack coats, crack filling/sealing, joint filling/sealing, or extra work paid for at a lump sum price or by force account.

Method of Adjustment. Bituminous materials cost adjustments will be computed as follows.

$CA = (BPI_P - BPI_L) \times (\%AC_V / 100) \times Q$

Where: CA = Cost Adjustment, $.
BPI_P = Bituminous Price Index, as published by the Department for the month the work is performed, $/ton ($/metric ton).
BPI_L = Bituminous Price Index, as published by the Department for the month prior to the letting for work paid for at the contract price; or for the month the agreed unit price letter is submitted by the Contractor for extra work paid for by agreed unit price, $/ton ($/metric ton).
$\%AC_V$ = Percent of virgin Asphalt Cement in the Quantity being adjusted. For HMA mixtures, the % AC_V will be determined from the adjusted job mix formula. For bituminous materials applied, a performance graded or cutback asphalt will be considered to be 100% AC_V and undiluted emulsified asphalt will be considered to be 65% AC_V.
Q = Authorized construction Quantity, tons (metric tons) (see below).

For HMA mixtures measured in square yards: Q, tons = A x D x (G_{mb} x 46.8) / 2000. For HMA mixtures measured in square meters: Q, metric tons = A x D x (G_{mb} x 1) / 1000. When computing adjustments for full-depth HMA pavement, separate calculations will be made for the binder and surface courses to account for their different G_{mb} and % AC_V.

For bituminous materials measured in gallons: Q, tons = V x 8.33 lb/gal x SG / 2000
For bituminous materials measured in liters: Q, metric tons = V x 1.0 kg/L x SG / 1000

Where: A = Area of the HMA mixture, sq yd (sq m).
D = Depth of the HMA mixture, in. (mm).
G_{mb} = Average bulk specific gravity of the mixture, from the approved mix design.

V = Volume of the bituminous material, gal (L).
SG = Specific Gravity of bituminous material as shown on the bill of lading.

Basis of Payment. Bituminous materials cost adjustments may be positive or negative but will only be made when there is a difference between the BPI_L and BPI_P in excess of five percent, as calculated by:

Percent Difference = $\{(BPI_L - BPI_P) \div BPI_L\} \times 100$

Bituminous materials cost adjustments will be calculated for each calendar month in which applicable bituminous material is placed; and will be paid or deducted when all other contract requirements for the work placed during the month are satisfied. The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

80173

BLENDED FINELY DIVIDED MINERALS (BDE)

Effective: April 1, 2021

Revise the second paragraph of Article 1010.01 of the Standard Specifications to read:

"Different sources or types of finely divided minerals shall not be mixed or used alternately in the same item of construction, except as a blended finely divided mineral product according to Article 1010.06."

Add the following article to Section 1010 of the Standard Specifications:

"**1010.06 Blended Finely Divided Minerals.** Blended finely divided minerals shall be the product resulting from the blending or intergrinding of two or three finely divided minerals. Blended finely divided minerals shall be according to ASTM C 1697, except as follows.

(a) Blending shall be accomplished by mechanically or pneumatically intermixing the constituent finely divided minerals into a uniform mixture that is then discharged into a silo for storage or tanker for transportation.

(b) The blended finely divided mineral product will be classified according to its predominant constituent or the manufacturer's designation and shall meet the chemical requirements of its classification. The other finely divided mineral constituent(s) will not be required to conform to their individual standards."

80436

CONSTRUCTION AIR QUALITY – DIESEL RETROFIT (BDE)

Effective: June 1, 2010
Revised: November 1, 2014

The reduction of emissions of particulate matter (PM) for off-road equipment shall be accomplished by installing retrofit emission control devices. The term "equipment" refers to diesel fuel powered devices rated at 50 hp and above, to be used on the jobsite in excess of seven calendar days over the course of the construction period on the jobsite (including rental equipment).

Contractor and subcontractor diesel powered off-road equipment assigned to the contract shall be retrofitted using the phased in approach shown below. Equipment that is of a model year older than the year given for that equipment's respective horsepower range shall be retrofitted:

Effective Dates	Horsepower Range	Model Year
June 1, 2010 1/	600-749	2002
	750 and up	2006
June 1, 2011 2/	100-299	2003
	300-599	2001
	600-749	2002
	750 and up	2006
June 1, 2012 2/	50-99	2004
	100-299	2003
	300-599	2001
	600-749	2002
	750 and up	2006

1/ Effective dates apply to Contractor diesel powered off-road equipment assigned to the contract.

2/ Effective dates apply to Contractor and subcontractor diesel powered off-road equipment assigned to the contract.

The retrofit emission control devices shall achieve a minimum PM emission reduction of 50 percent and shall be:

a) Included on the U.S. Environmental Protection Agency (USEPA) *Verified Retrofit Technology List* (http://www.epa.gov/cleandiesel/verification/verif-list.htm), or verified by the California Air Resources Board (CARB) (http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm); or

b) Retrofitted with a non-verified diesel retrofit emission control device if verified retrofit emission control devices are not available for equipment proposed to be used on the project, and if the Contractor has obtained a performance certification from the retrofit

device manufacturer that the emission control device provides a minimum PM emission reduction of 50 percent.

Note: Large cranes (Crawler mounted cranes) which are responsible for critical lift operations are exempt from installing retrofit emission control devices if such devices adversely affect equipment operation.

Diesel powered off-road equipment with engine ratings of 50 hp and above, which are unable to be retrofitted with verified emission control devices or if performance certifications are not available which will achieve a minimum 50 percent PM reduction, may be granted a waiver by the Department if documentation is provided showing good faith efforts were made by the Contractor to retrofit the equipment.

Construction shall not proceed until the Contractor submits a certified list of the diesel powered off-road equipment that will be used, and as necessary, retrofitted with emission control devices. The list(s) shall include (1) the equipment number, type, make, Contractor/rental company name; and (2) the emission control devices make, model, USEPA or CARB verification number, or performance certification from the retrofit device manufacturer. Equipment reported as fitted with emissions control devices shall be made available to the Engineer for visual inspection of the device installation, prior to being used on the jobsite.

The Contractor shall submit an updated list of retrofitted off-road construction equipment as retrofitted equipment changes or comes on to the jobsite. The addition or deletion of any diesel powered equipment shall be included on the updated list.

If any diesel powered off-road equipment is found to be in non-compliance with any portion of this special provision, the Engineer will issue the Contractor a diesel retrofit deficiency deduction.

Any costs associated with retrofitting any diesel powered off-road equipment with emission control devices shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed. The Contractor's compliance with this notice and any associated regulations shall not be grounds for a claim.

Diesel Retrofit Deficiency Deduction

When the Engineer determines that a diesel retrofit deficiency exists, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency continues to exist. The calendar day(s) will begin when the time period for correction is exceeded and end with the Engineer's written acceptance of the correction. The daily monetary deduction will be $1,000.00 for each deficiency identified.

The deficiency will be based on lack of diesel retrofit emissions control.

If a Contractor accumulates three diesel retrofit deficiency deductions for the same piece of equipment in a contract period, the Contractor will be shutdown until the deficiency is corrected.

Such a shutdown will not be grounds for any extension of the contract time, waiver of penalties, or be grounds for any claim.

80261

HOT-MIX ASPHALT – LONGITUDINAL JOINT SEALANT (BDE)

Effective: November 1, 2022
Revised: August 1, 2023

Add the following after the second sentence in the eighth paragraph of Article 406.06(h)(2) of the Standard Specifications:

"If rain is forecasted and traffic is to be on the LJS or if pickup/tracking of the LJS material is likely, the LJS shall be covered immediately following its application with FA 20 fine aggregate mechanically spread uniformly at a rate of 1.5 ± 0.5 lb/sq yd (0.75 ± 0.25 kg/sq m). Fine aggregate landing outside of the LJS shall be removed prior to application of tack coat."

Add the following after the first sentence in the ninth paragraph of Article 406.06(h)(2) of the Standard Specifications:

"LJS half-width shall be applied at a width of 9 ± 1 in. (225 ± 25 mm) in the immediate lane to be placed with the outside edge flush with the joint of the next HMA lift. The vertical face of any longitudinal joint remaining in place shall also be coated."

Add the following after the eleventh paragraph of Article 406.06(h)(2) of the Standard Specifications:

"LJS Half-Width Application Rate, lb/ft (kg/m) [1/]			
Lift Thickness, in. (mm)	Coarse Graded Mixture (IL-19.0, IL-19.0L, IL-9.5, IL-9.5L, IL-4.75)	Fine Graded Mixture (IL-9.5FG)	SMA Mixture (SMA-9.5, SMA-12.5)
¾ (19)	0.44 (0.66)		
1 (25)	0.58 (0.86)		
1 ¼ (32)	0.66 (0.98)	0.44 (0.66)	
1 ½ (38)	0.74 (1.10)	0.48 (0.71)	0.63 (0.94)
1 ¾ (44)	0.82 (1.22)	0.52 (0.77)	0.69 (1.03)
2 (50)	0.90 (1.34)	0.56 (0.83)	0.76 (1.13)
≥ 2 ¼ (60)	0.98 (1.46)		

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

Revise the second paragraph of Article 406.13(b) of the Standard Specifications to read:

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

Add the following to the end of the second paragraph of Article 406.14 of the Standard Specifications:

“Longitudinal joint sealant (LJS) half-width will be paid for at the contract unit price per foot (meter) for LONGITUDINAL JOINT SEALANT, HALF-WIDTH.”

80446

PERFORMANCE GRADED ASPHALT BINDER (BDE)

Effective: January 1, 2023

Revise Article 1032.05 of the Standard Specifications to read:

"**1032.05 Performance Graded Asphalt Binder.** These materials will be accepted according to the Bureau of Materials Policy Memorandum, "Performance Graded Asphalt Binder Qualification Procedure." The Department will maintain a qualified producer list. These materials shall be free from water and shall not foam when heated to any temperature below the actual flash point. Air blown asphalt, recycle engine oil bottoms (ReOB), and polyphosphoric acid (PPA) modification shall not be used.

When requested, producers shall provide the Engineer with viscosity/temperature relationships for the performance graded asphalt binders delivered and incorporated in the work.

(a) Performance Graded (PG) Asphalt Binder. The asphalt binder shall meet the requirements of AASHTO M 320, Table 1 "Standard Specification for Performance Graded Asphalt Binder" for the grade shown on the plans and the following.

Test	Parameter
Small Strain Parameter (AASHTO PP 113) BBR, ΔTc, 40 hrs PAV (40 hrs continuous or 2 PAV at 20 hrs)	-5 °C min.

(b) Modified Performance Graded (PG) Asphalt Binder. The asphalt binder shall meet the requirements of AASHTO M 320, Table 1 "Standard Specification for Performance Graded Asphalt Binder" for the grade shown on the plans.

Asphalt binder modification shall be performed at the source, as defined in the Bureau of Materials Policy Memorandum, "Performance Graded Asphalt Binder Qualification Procedure."

Modified asphalt binder shall be safe to handle at asphalt binder production and storage temperatures or HMA construction temperatures. Safety Data Sheets (SDS) shall be provided for all asphalt modifiers.

(1) Polymer Modification (SB/SBS or SBR). Elastomers shall be added to the base asphalt binder to achieve the specified performance grade and shall be either a styrene-butadiene diblock, triblock copolymer without oil extension, or a styrene-butadiene rubber. The polymer modified asphalt binder shall be smooth, homogeneous, and be according to the requirements shown in Table 1 or 2 for the grade shown on the plans.

Table 1 - Requirements for Styrene-Butadiene Copolymer (SB/SBS) Modified Asphalt Binders		
Test	Asphalt Grade SB/SBS PG 64-28 SB/SBS PG 70-22	Asphalt Grade SB/SBS PG 64-34 SB/SBS PG 70-28 SB/SBS PG 76-22 SB/SBS PG 76-28
Separation of Polymer ITP, "Separation of Polymer from Asphalt Binder" Difference in °F (°C) of the softening point between top and bottom portions	4 (2) max.	4 (2) max.
TESTS ON RESIDUE FROM ROLLING THIN FILM OVEN TEST (AASHTO T 240)		
Elastic Recovery ASTM D 6084, Procedure A, 77 °F (25 °C), 100 mm elongation, %	60 min.	70 min.

Table 2 - Requirements for Styrene-Butadiene Rubber (SBR) Modified Asphalt Binders		
Test	Asphalt Grade SBR PG 64-28 SBR PG 70-22	Asphalt Grade SB/SBS PG 64-34 SB/SBS PG 70-28 SBR PG 76-22 SBR PG 76-28
Separation of Polymer ITP, "Separation of Polymer from Asphalt Binder" Difference in °F (°C) of the softening point between top and bottom portions	4 (2) max.	4 (2) max.
Toughness ASTM D 5801, 77 °F (25 °C), 20 in./min. (500 mm/min.), in.-lbs (N-m)	110 (12.5) min.	110 (12.5) min.
Tenacity ASTM D 5801, 77 °F (25 °C), 20 in./min. (500 mm/min.), in.-lbs (N-m)	75 (8.5) min.	75 (8.5) min.
TESTS ON RESIDUE FROM ROLLING THIN FILM OVEN TEST (AASHTO T 240)		
Elastic Recovery ASTM D 6084, Procedure A, 77 °F (25 °C), 100 mm elongation, %	40 min.	50 min.

(2) Ground Tire Rubber (GTR) Modification. GTR modification is the addition of recycled ground tire rubber to liquid asphalt binder to achieve the specified performance grade. GTR shall be produced from processing automobile and/or truck tires by the ambient

grinding method or micronizing through a cryogenic process. GTR shall not exceed 1/16 in. (2 mm) in any dimension and shall not contain free metal particles, moisture that would cause foaming of the asphalt, or other foreign materials. A mineral powder (such as talc) meeting the requirements of AASHTO M 17 may be added, up to a maximum of four percent by weight of GTR to reduce sticking and caking of the GTR particles. When tested in accordance with Illinois Modified AASHTO T 27 "Standard Method of Test for Sieve Analysis of Fine and Coarse Aggregates" or AASHTO PP 74 "Standard Practice for Determination of Size and Shape of Glass Beads Used in Traffic Markings by Means of Computerized Optical Method", a 50 g sample of the GTR shall conform to the following gradation requirements.

Sieve Size	Percent Passing
No. 16 (1.18 mm)	100
No. 30 (600 µm)	95 ± 5
No. 50 (300 µm)	> 20

GTR modified asphalt binder shall be tested for rotational viscosity according to AASHTO T 316 using spindle S27. GTR modified asphalt binder shall be tested for original dynamic shear and RTFO dynamic shear according to AASHTO T 315 using a gap of 2 mm.

The GTR modified asphalt binder shall meet the requirements of Table 3.

Table 3 - Requirements for Ground Tire Rubber (GTR) Modified Asphalt Binders		
Test	Asphalt Grade GTR PG 64-28 GTR PG 70-22	Asphalt Grade GTR PG 76-22 GTR PG 76-28 GTR PG 70-28
TESTS ON RESIDUE FROM ROLLING THIN FILM OVEN TEST (AASHTO T 240)		
Elastic Recovery ASTM D 6084, Procedure A, 77 °F (25 °C), 100 mm elongation, %	60 min.	70 min.

(3) Softener Modification (SM). Softener modification is the addition of organic compounds, such as engineered flux, bio-oil blends, modified vegetable oils, glycol amines, and fatty acid derivatives, to the base asphalt binder to achieve the specified performance grade. Softeners shall be dissolved, dispersed, or reacted in the asphalt binder to enhance its performance and shall remain compatible with the asphalt binder with no separation. Softeners shall not be added to modified PG asphalt binder as defined in Articles 1032.05(b)(1) or 1032.05(b)(2).

An Attenuated Total Reflectance-Fourier Transform Infrared spectrum (ATR-FTIR) shall be collected for both the softening compound as well as the softener modified

asphalt binder at the dose intended for qualification. The ATR-FTIR spectra shall be collected on unaged softener modified binder, 20-hour Pressurized Aging Vessel (PAV) aged softener modified binder, and 40-hour PAV aged softener modified binder. The ATR-FTIR shall be collected in accordance with Illinois Test Procedure 601. The electronic files spectral files (in one of the following extensions or equivalent: *.SPA, *.SPG, *.IRD, *.IFG, *.CSV, *.SP, *.IRS, *.GAML, *.[0-9], *.IGM, *.ABS, *.DRT, *.SBM, *.RAS) shall be submitted to the Central Bureau of Materials.

Softener modified asphalt binders shall meet the requirements in Table 4.

Table 4 - Requirements for Softener Modified Asphalt Binders	
Test	Asphalt Grade SM PG 46-28 SM PG 46-34 SM PG 52-28 SM PG 52-34 SM PG 58-22 SM PG 58-28 SM PG 64-22
Small Strain Parameter (AASHTO PP 113) BBR, ΔTc, 40 hrs PAV (40 hrs continuous or 2 PAV at 20 hrs)	-5°C min.
Large Strain Parameter (Illinois Modified AASHTO T 391) DSR/LAS Fatigue Property, Δ|G*|peak τ, 40 hrs PAV (40 hrs continuous or 2 PAV at 20 hrs)	≥ 54 %

The following grades may be specified as tack coats.

Asphalt Grade	Use
PG 58-22, PG 58-28, PG 64-22	Tack Coat”

Revise Article 1031.06(c)(1) and 1031.06(c)(2) of the Standard Specifications to read:

“(1) RAP/RAS. When RAP is used alone or RAP is used in conjunction with RAS, the percentage of virgin ABR shall not exceed the amounts listed in the following table.

HMA Mixtures - RAP/RAS Maximum ABR % 1/ 2/			
Ndesign	Binder	Surface	Polymer Modified Binder or Surface 3/
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).

3/ The maximum ABR percentages for ground tire rubber (GTR) modified mixes shall be equivalent to the percentages specified for SBS/SBR polymer modified mixes.

(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 following table.

HMA Mixtures - FRAP/RAS Maximum ABR % 1/ 2/			
Ndesign	Binder	Surface	Polymer Modified Binder or Surface 3/
30	55	45	15
50	45	40	15
70	45	35	15
90	45	35	15
SMA	- -	- -	25
IL-4.75	- -	- -	35

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).

3/ The maximum ABR percentages for GTR modified mixes shall be equivalent to the percentages specified for SBS/SBR polymer modified mixes."

Add the following to the end of Note 2 of Article 1030.03 of the Standard Specifications.

"A dedicated storage tank for the ground tire rubber (GTR) modified asphalt binder shall be provided. This tank shall be capable of providing continuous mechanical mixing throughout and/or recirculation of the asphalt binder to provide a uniform mixture. The tank shall be heated and capable of maintaining the temperature of the asphalt binder at 300 °F to 350 °F (149 °C to 177 °C). The asphalt binder metering systems of dryer drum plants shall be calibrated with the actual GTR modified asphalt binder material with an accuracy of ±0.40 percent."

PORTLAND CEMENT CONCRETE (BDE)

Effective: August 1, 2023

Revise the second paragraph of Article 1103.03(a)(4) the Standard Specifications to read:

> "The dispenser system shall provide a visual indication that the liquid admixture is actually entering the batch, such as via a transparent or translucent section of tubing or by independent check with an integrated secondary metering device. If approved by the Engineer, an alternate indicator may be used for admixtures dosed at rates of 25 oz/cwt (1630 mL/100 kg) or greater, such as accelerating admixtures, corrosion inhibitors, and viscosity modifying admixtures."

80451

SEEDING (BDE)

Effective: November 1, 2022

Revise Article 250.07 of the Standard Specifications to read:

"**250.07 Seeding Mixtures.** The classes of seeding mixtures and combinations of mixtures will be designated in the plans.

When an area is to be seeded with two or more seeding classes, those mixtures shall be applied separately on the designated area within a seven day period. Seeding shall occur prior to placement of mulch cover. A Class 7 mixture can be applied at any time prior to applying any seeding class or added to them and applied at the same time.

TABLE 1 - SEEDING MIXTURES			
Class - Type		Seeds	lb/acre (kg/hectare)
1	Lawn Mixture 1/	Kentucky Bluegrass	100 (110)
		Perennial Ryegrass	60 (70)
		Festuca rubra ssp. r*ubra* (Creeping Red Fescue)	40 (50)
1A	Salt Tolerant Lawn Mixture 1/	Kentucky Bluegrass	60 (70)
		Perennial Ryegrass	20 (20)
		Festuca rubra ssp. *rubra* (Creeping Red Fescue)	20 (20)
		Festuca brevipilla (Hard Fescue)	20 (20)
		Puccinellia distans (Fults Saltgrass or Salty Alkaligrass)	60 (70)
1B	Low Maintenance Lawn Mixture 1/	Turf-Type Fine Fescue 3/	150 (170)
		Perennial Ryegrass	20 (20)
		Red Top	10 (10)
		Festuca rubra ssp. *rubra* (Creeping Red Fescue)	20 (20)
2	Roadside Mixture 1/	*Lolium arundinaceum* (Tall Fescue)	100 (110)
		Perennial Ryegrass	50 (55)
		Festuca rubra ssp. r*ubra* (Creeping Red Fescue)	40 (50)
		Red Top	10 (10)
2A	Salt Tolerant Roadside Mixture 1/	*Lolium arundinaceum* (Tall Fescue)	60 (70)
		Perennial Ryegrass	20 (20)
		Festuca rubra ssp. *rubra* (Creeping Red Fescue)	30 (20)
		Festuca brevipila (Hard Fescue)	30 (20)
		Puccinellia distans (Fults Saltgrass or Salty Alkaligrass)	60 (70)
3	Northern Illinois Slope Mixture 1/	*Elymus canadensis* (Canada Wild Rye) 5/	5 (5)
		Perennial Ryegrass	20 (20)
		Alsike Clover 4/	5 (5)
		Desmanthus illinoensis (Illinois Bundleflower) 4/ 5/	2 (2)
		Schizachyrium scoparium (Little Bluestem) 5/	12 (12)
		Bouteloua curtipendula (Side-Oats Grama) 5/	10 (10)
		Puccinellia distans (Fults Saltgrass or Salty Alkaligrass)	30 (35)
		Oats, Spring	50 (55)
		Slender Wheat Grass 5/	15 (15)
		Buffalo Grass 5/ 7/	5 (5)
3A	Southern Illinois Slope Mixture 1/	Perennial Ryegrass	20 (20)
		Elymus canadensis (Canada Wild Rye) 5/	20 (20)
		Panicum virgatum (Switchgrass) 5/	10 (10)
		Schizachyrium scoparium (Little Blue Stem) 5/	12 (12)
		Bouteloua curtipendula (Side-Oats Grama) 5/	10 (10)
		Dalea candida (White Prairie Clover) 4/ 5/	5 (5)
		Rudbeckia hirta (Black-Eyed Susan) 5/	5 (5)
		Oats, Spring	50 (55)

Class – Type		Seeds	lb/acre (kg/hectare)
4	Native Grass 2/ 6/	*Andropogon gerardi* (Big Blue Stem) 5/	4 (4)
		Schizachyrium scoparium (Little Blue Stem) 5/	5 (5)
		Bouteloua curtipendula (Side-Oats Grama) 5/	5 (5)
		Elymus canadensis (Canada Wild Rye) 5/	1 (1)
		Panicum virgatum (Switch Grass) 5/	1 (1)
		Sorghastrum nutans (Indian Grass) 5/	2 (2)
		Annual Ryegrass	25 (25)
		Oats, Spring	25 (25)
		Perennial Ryegrass	15 (15)
4A	Low Profile Native Grass 2/ 6/	*Schizachyrium scoparium* (Little Blue Stem) 5/	5 (5)
		Bouteloua curtipendula (Side-Oats Grama) 5/	5 (5)
		Elymus canadensis (Canada Wild Rye) 5/	1 (1)
		Sporobolus heterolepis (Prairie Dropseed) 5/	0.5 (0.5)
		Annual Ryegrass	25 (25)
		Oats, Spring	25 (25)
		Perennial Ryegrass	15 (15)
4B	Wetland Grass and Sedge Mixture 2/ 6/	Annual Ryegrass	25 (25)
		Oats, Spring	25 (25)
		Wetland Grasses (species below) 5/	6 (6)

Species:	% By Weight
Calamagrostis canadensis (Blue Joint Grass)	12
Carex lacustris (Lake-Bank Sedge)	6
Carex slipata (Awl-Fruited Sedge)	6
Carex stricta (Tussock Sedge)	6
Carex vulpinoidea (Fox Sedge)	6
Eleocharis acicularis (Needle Spike Rush)	3
Eleocharis obtusa (Blunt Spike Rush)	3
Glyceria striata (Fowl Manna Grass)	14
Juncus effusus (Common Rush)	6
Juncus tenuis (Slender Rush)	6
Juncus torreyi (Torrey's Rush)	6
Leersia oryzoides (Rice Cut Grass)	10
Scirpus acutus (Hard-Stemmed Bulrush)	3
Scirpus atrovirens (Dark Green Rush)	3
Bolboschoenus fluviatilis (River Bulrush)	3
Schoenoplectus tabernaemontani (Softstem Bulrush)	3
Spartina pectinata (Cord Grass)	4

Class – Type		Seeds	lb/acre (kg/hectare)
5	Forb with Annuals Mixture 2/ 5/ 6/	Annuals Mixture (Below) Forb Mixture (Below)	1 (1) 10 (10)

Annuals Mixture - Mixture not exceeding 25 % by weight of any one species, of the following:

Coreopsis lanceolata (Sand Coreopsis)
Leucanthemum maximum (Shasta Daisy)
Gaillardia pulchella (Blanket Flower)
Ratibida columnifera (Prairie Coneflower)
Rudbeckia hirta (Black-Eyed Susan)

Forb Mixture - Mixture not exceeding 5 % by weight PLS of any one species, of the following:

Amorpha canescens (Lead Plant) 4/
Anemone cylindrica (Thimble Weed)
Asclepias tuberosa (Butterfly Weed)
Aster azureus (Sky Blue Aster)
Symphyotrichum leave (Smooth Aster)
Aster novae-angliae (New England Aster)
Baptisia leucantha (White Wild Indigo) 4/
Coreopsis palmata (Prairie Coreopsis)
Echinacea pallida (Pale Purple Coneflower)
Eryngium yuccifolium (Rattlesnake Master)
Helianthus mollis (Downy Sunflower)
Heliopsis helianthoides (Ox-Eye)
Liatris aspera (Rough Blazing Star)
Liatris pycnostachya (Prairie Blazing Star)
Monarda fistulosa (Prairie Bergamot)
Parthenium integrifolium (Wild Quinine)
Dalea candida (White Prairie Clover) 4/
Dalea purpurea (Purple Prairie Clover) 4/
Physostegia virginiana (False Dragonhead)
Potentilla arguta (Prairie Cinquefoil)
Ratibida pinnata (Yellow Coneflower)
Rudbeckia subtomentosa (Fragrant Coneflower)
Silphium laciniatum (Compass Plant)
Silphium terebinthinaceum (Prairie Dock)
Oligoneuron rigidum (Rigid Goldenrod)
Tradescantia ohiensis (Spiderwort)
Veronicastrum virginicum (Culver's Root)

Class	– Type	Seeds	lb/acre (kg/hectare)
5A	Large Flower Native Forb Mixture 2/ 5/ 6/	Forb Mixture (see below)	5 (5)
	Species:		% By Weight
	Aster novae-angliae (New England Aster)		5
	Echinacea pallida (Pale Purple Coneflower)		10
	Helianthus mollis (Downy Sunflower)		10
	Heliopsis helianthoides (Ox-Eye)		10
	Liatris pycnostachya (Prairie Blazing Star)		10
	Ratibida pinnata (Yellow Coneflower)		5
	Rudbeckia hirta (Black-Eyed Susan)		10
	Silphium laciniatum (Compass Plant)		10
	Silphium terebinthinaceum (Prairie Dock)		20
	Oligoneuron rigidum (Rigid Goldenrod)		10
5B	Wetland Forb 2/ 5/ 6/	Forb Mixture (see below)	2 (2)
	Species:		% By Weight
	Acorus calamus (Sweet Flag)		3
	Angelica atropurpurea (Angelica)		6
	Asclepias incarnata (Swamp Milkweed)		2
	Aster puniceus (Purple Stemmed Aster)		10
	Bidens cernua (Beggarticks)		7
	Eutrochium maculatum (Spotted Joe Pye Weed)		7
	Eupatorium perfoliatum (Boneset)		7
	Helenium autumnale (Autumn Sneeze Weed)		2
	Iris virginica shrevei (Blue Flag Iris)		2
	Lobelia cardinalis (Cardinal Flower)		5
	Lobelia siphilitica (Great Blue Lobelia)		5
	Lythrum alatum (Winged Loosestrife)		2
	Physostegia virginiana (False Dragonhead)		5
	Persicaria pensylvanica (Pennsylvania Smartweed)		10
	Persicaria lapathifolia (Curlytop Knotweed)		10
	Pychanthemum virginianum (Mountain Mint)		5
	Rudbeckia laciniata (Cut-leaf Coneflower)		5
	Oligoneuron riddellii (Riddell Goldenrod)		2
	Sparganium eurycarpum (Giant Burreed)		5
6	Conservation Mixture 2/ 6/	*Schizachyrium scoparium* (Little Blue Stem) 5/	5 (5)
		Elymus canadensis (Canada Wild Rye) 5/	2 (2)
		Buffalo Grass 5/ 7/	5 (5)
		Vernal Alfalfa 4/	15 (15)
		Oats, Spring	48 (55)
6A	Salt Tolerant Conservation Mixture 2/ 6/	*Schizachyrium scoparium* (Little Blue Stem) 5/	5 (5)
		Elymus canadensis (Canada Wild Rye) 5/	2 (2)
		Buffalo Grass 5/ 7/	5 (5)
		Vernal Alfalfa 4/	15 (15)
		Oats, Spring	48 (55)
		Puccinellia distans (Fults Saltgrass or Salty Alkaligrass)	20 (20)
7	Temporary Turf Cover Mixture	Perennial Ryegrass	50 (55)
		Oats, Spring	64 (70)

Notes:

1/ Seeding shall be performed when the ambient temperature has been between 45 ºF (7 ºC) and 80 ºF (27 ºC) for a minimum of seven (7) consecutive days and is forecasted to be the same for the next five (5) days according to the National Weather Service.
2/ Seeding shall be performed in late fall through spring beginning when the ambient temperature has been below 45 ºF (7 ºC) for a minimum of seven (7) consecutive days and ending when the ambient temperature exceeds 80 ºF (27 ºC) according to the National Weather Service.
3/ Specific variety as shown in the plans or approved by the Engineer.
4/ Inoculation required.
5/ Pure Live Seed (PLS) shall be used.
6/ Fertilizer shall not be used.
7/ Seed shall be primed with KNO_3 to break dormancy and dyed to indicate such.

Seeding will be inspected after a period of establishment. The period of establishment shall be six (6) months minimum, but not to exceed nine (9) months. After the period of establishment, areas not exhibiting 75 percent uniform growth shall be interseeded or reseeded, as determined by the Engineer, at no additional cost to the Department."

80445

VEHICLE AND EQUIPMENT WARNING LIGHTS (BDE)

Effective: November 1, 2021
Revised: November 1, 2022

Add the following paragraph after the first paragraph of Article 701.08 of the Standard Specifications:

"The Contractor shall equip all vehicles and equipment with high-intensity oscillating, rotating, or flashing, amber or amber-and-white, warning lights which are visible from all directions. In accordance with 625 ILCS 5/12-215, the lights may only be in operation while the vehicle or equipment is engaged in construction operations."

80439

WORK ZONE TRAFFIC CONTROL DEVICES (BDE)

Effective: March 2, 2020

Add the following to Article 701.03 of the Standard Specifications:

"(q) Temporary Sign Supports .....1106.02"

Revise the third paragraph of Article 701.14 of the Standard Specifications to read:

"For temporary sign supports, the Contractor shall provide a FHWA eligibility letter for each device used on the contract. The letter shall provide information for the set-up and use of the device as well as a detailed drawing of the device. The signs shall be supported within 20 degrees of vertical. Weights used to stabilize signs shall be attached to the sign support per the manufacturer's specifications."

Revise the first paragraph of Article 701.15 of the Standard Specifications to read:

"**701.15 Traffic Control Devices.** For devices that must meet crashworthiness standards, the Contractor shall provide a manufacturer's self-certification or a FHWA eligibility letter for each Category 1 device and a FHWA eligibility letter for each Category 2 and Category 3 device used on the contract. The self-certification or letter shall provide information for the set-up and use of the device as well as a detailed drawing of the device."

Revise the first six paragraphs of Article 1106.02 of the Standard Specifications to read:

"**1106.02 Devices.** Work zone traffic control devices and combinations of devices shall meet crashworthiness standards for their respective categories. The categories are as follows.

Category 1 includes small, lightweight, channelizing and delineating devices that have been in common use for many years and are known to be crashworthy by crash testing of similar devices or years of demonstrable safe performance. These include cones, tubular markers, plastic drums, and delineators, with no attachments (e.g. lights). Category 1 devices manufactured after December 31, 2019 shall be MASH-16 compliant. Category 1 devices manufactured on or before December 31, 2019, and compliant with NCHRP 350 or MASH 2009, may be used on contracts let before December 31, 2024.

Category 2 includes devices that are not expected to produce significant vehicular velocity change but may otherwise be hazardous. These include vertical panels with lights, barricades, temporary sign supports, and Category 1 devices with attachments (e.g. drums with lights). Category 2 devices manufactured after December 31, 2019 shall be MASH-16 compliant. Category 2 devices manufactured on or before December 31, 2019, and compliant with NCHRP 350 or MASH 2009, may be used on contracts let before December 31, 2024.

Category 3 includes devices that are expected to cause significant velocity changes or other potentially harmful reactions to impacting vehicles. These include crash cushions (impact

attenuators), truck mounted attenuators, and other devices not meeting the definitions of Category 1 or 2. Category 3 devices manufactured after December 31, 2019 shall be MASH-16 compliant. Category 3 devices manufactured on or before December 31, 2019, and compliant with NCHRP 350 or MASH 2009, may be used on contracts let before December 31, 2029. Category 3 devices shall be crash tested for Test Level 3 or the test level specified.

Category 4 includes portable or trailer-mounted devices such as arrow boards, changeable message signs, temporary traffic signals, and area lighting supports. It is preferable for Category 4 devices manufactured after December 31, 2019 to be MASH-16 compliant; however, there are currently no crash tested devices in this category, so it remains exempt from the NCHRP 350 or MASH compliance requirement.

For each type of device, when no more than one MASH-16 compliant is available, an NCHRP 350 or MASH-2009 compliant device may be used, even if manufactured after December 31, 2019."

Revise Articles 1106.02(g), 1106.02(k), and 1106.02(l) to read:

"(g) Truck Mounted/Trailer Mounted Attenuators. The attenuator shall be approved for use at Test Level 3. Test Level 2 may be used for normal posted speeds less than or equal to 45 mph.

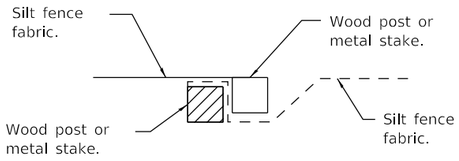
(k) Temporary Water Filled Barrier. The water filled barrier shall be a lightweight plastic shell designed to accept water ballast and be on the Department's qualified product list.

Shop drawings shall be furnished by the manufacturer and shall indicate the deflection of the barrier as determined by acceptance testing; the configuration of the barrier in that test; and the vehicle weight, velocity, and angle of impact of the deflection test. The Engineer shall be provided one copy of the shop drawings.

(l) Movable Traffic Barrier. The movable traffic barrier shall be on the Department's qualified product list.

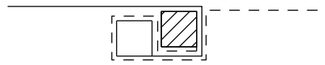
Shop drawings shall be furnished by the manufacturer and shall indicate the deflection of the barrier as determined by acceptance testing; the configuration of the barrier in that test; and the vehicle weight, velocity, and angle of impact of the deflection test. The Engineer shall be provided one copy of the shop drawings. The barrier shall be capable of being moved on and off the roadway on a daily basis."

80427



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

STEP 1

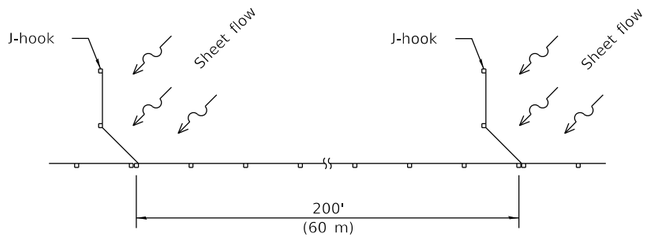


Rotate posts (stakes) together 180° clockwise and drive both posts (stakes) 18 (450) into ground.

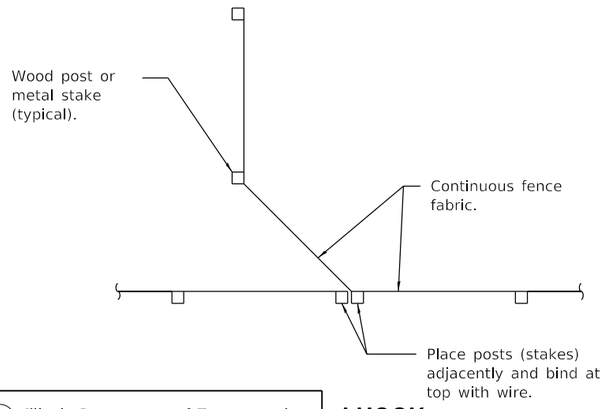
STEP 2

ATTACHING TWO SILT FILTER FENCES

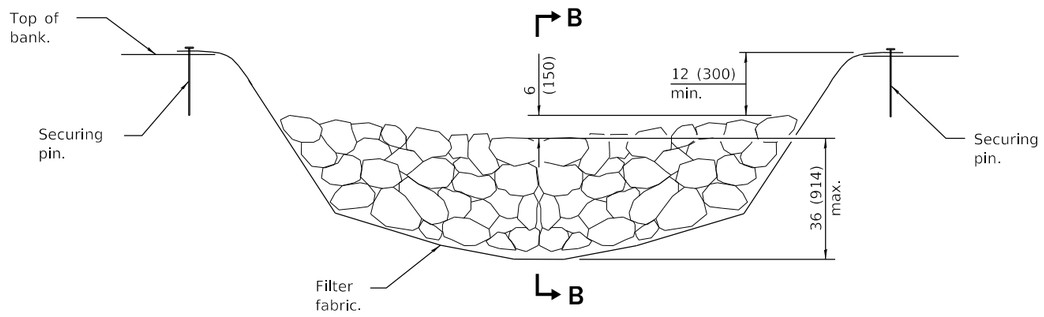
(Not applicable for J-hooks)



SILT FILTER J-HOOK PLACEMENT

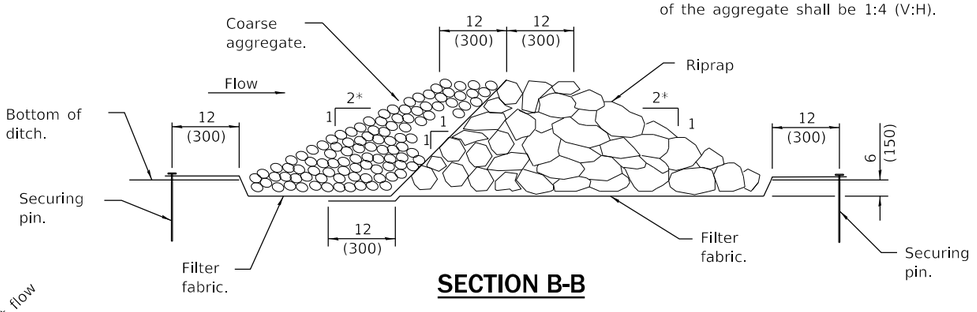


J-HOOK



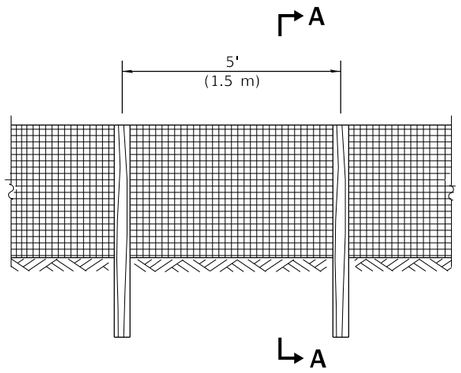
ELEVATION

* 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).



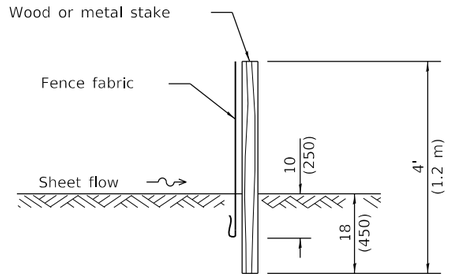
SECTION B-B

AGGREGATE DITCH CHECK

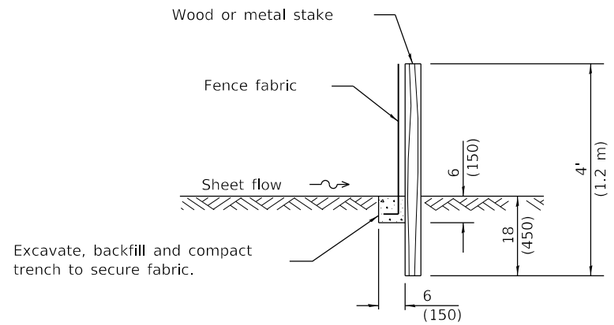


ELEVATION

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

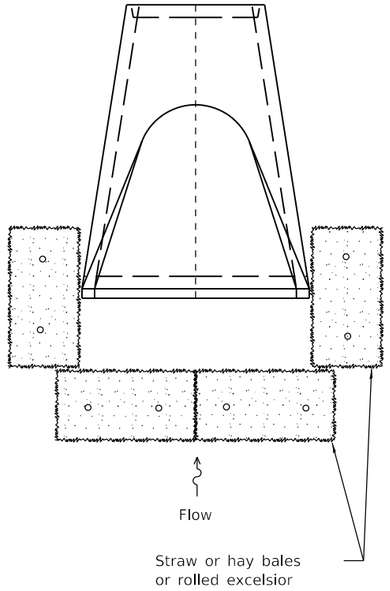
PASSED January 1, 2013
Michael Brand
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2013
ENGINEER OF DESIGN AND ENVIRONMENT

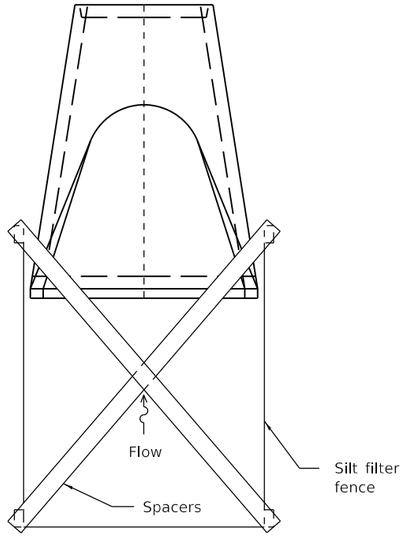
ISSUED 1-1-97

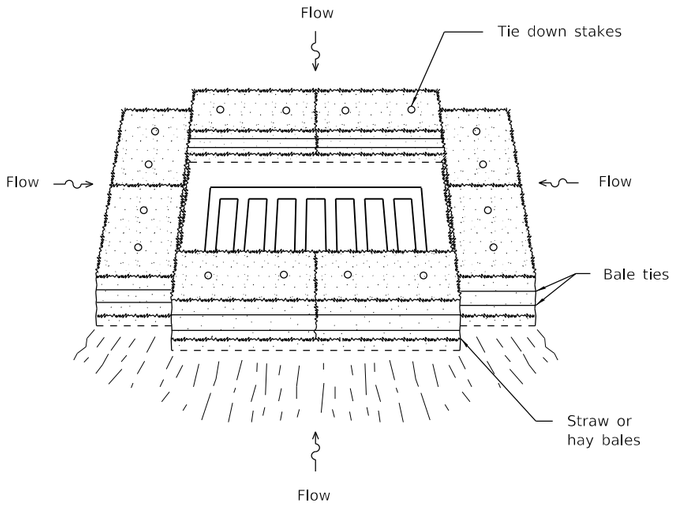
DATE	REVISIONS
1-1-13	Corrected notation for
	flowline (℄) on SEDIMENT
	BASIN ELEVATION.
1-1-12	Omitted hay/straw perimeter
	barrier. Added SLICE METHOD
	to SECTION A-A.

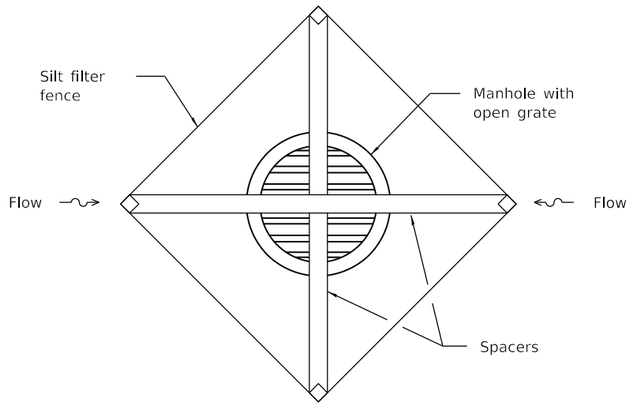
TEMPORARY EROSION CONTROL SYSTEMS

STANDARD 280001-07

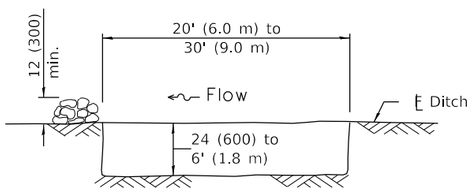






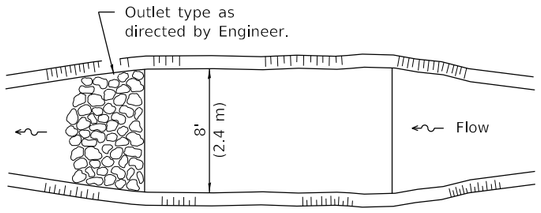


INLET AND PIPE PROTECTION



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

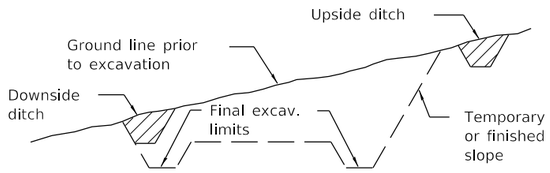
ELEVATION



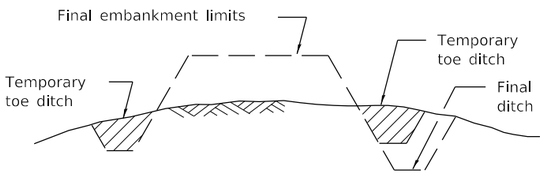
The long dimension should be parallel with the
direction of the flow. Accumulated silt shall be
removed anytime the basins become 75% filled.

PLAN

SEDIMENT BASIN



TYPICAL CUT CROSS-SECTION



TYPICAL FILL CROSS-SECTION

**TEMPORARY DITCHES FOR
CUT & FILL SECTIONS**

Illinois Department of Transportation

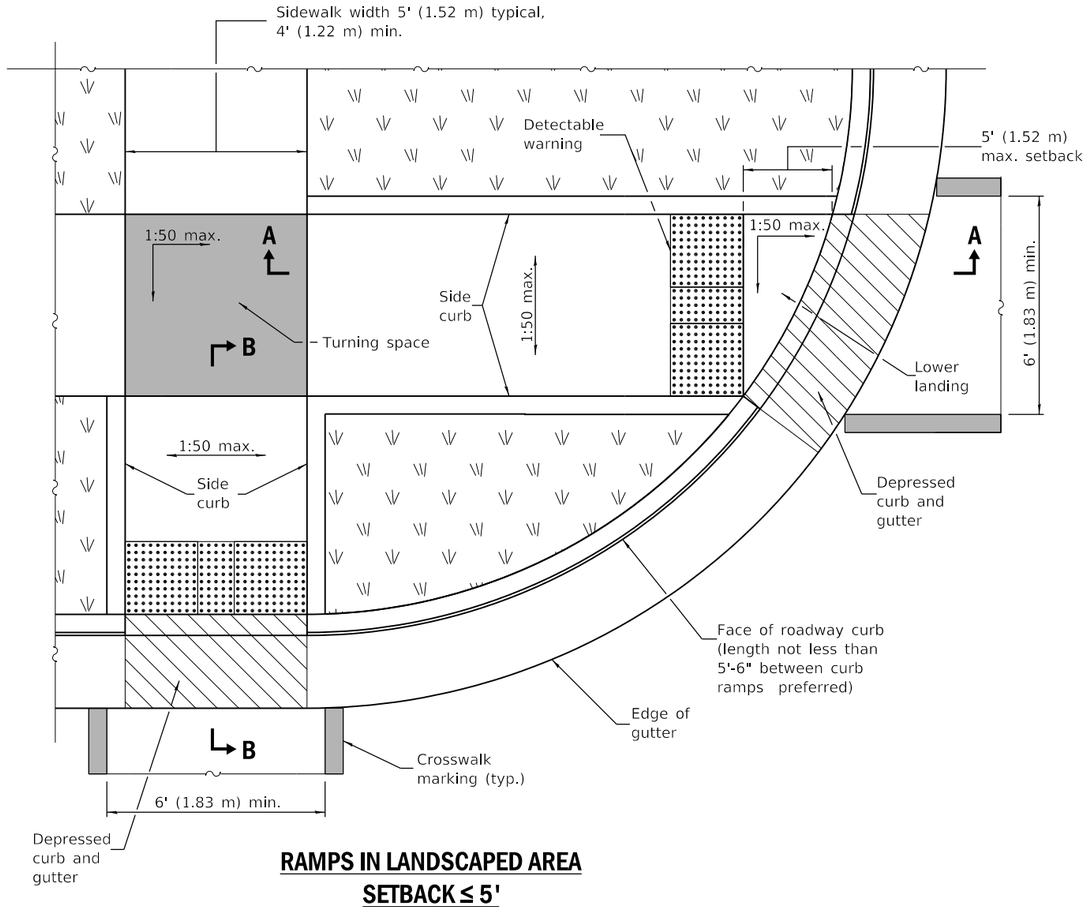
PASSED January 1, 2013
Michael Brand
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2013
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

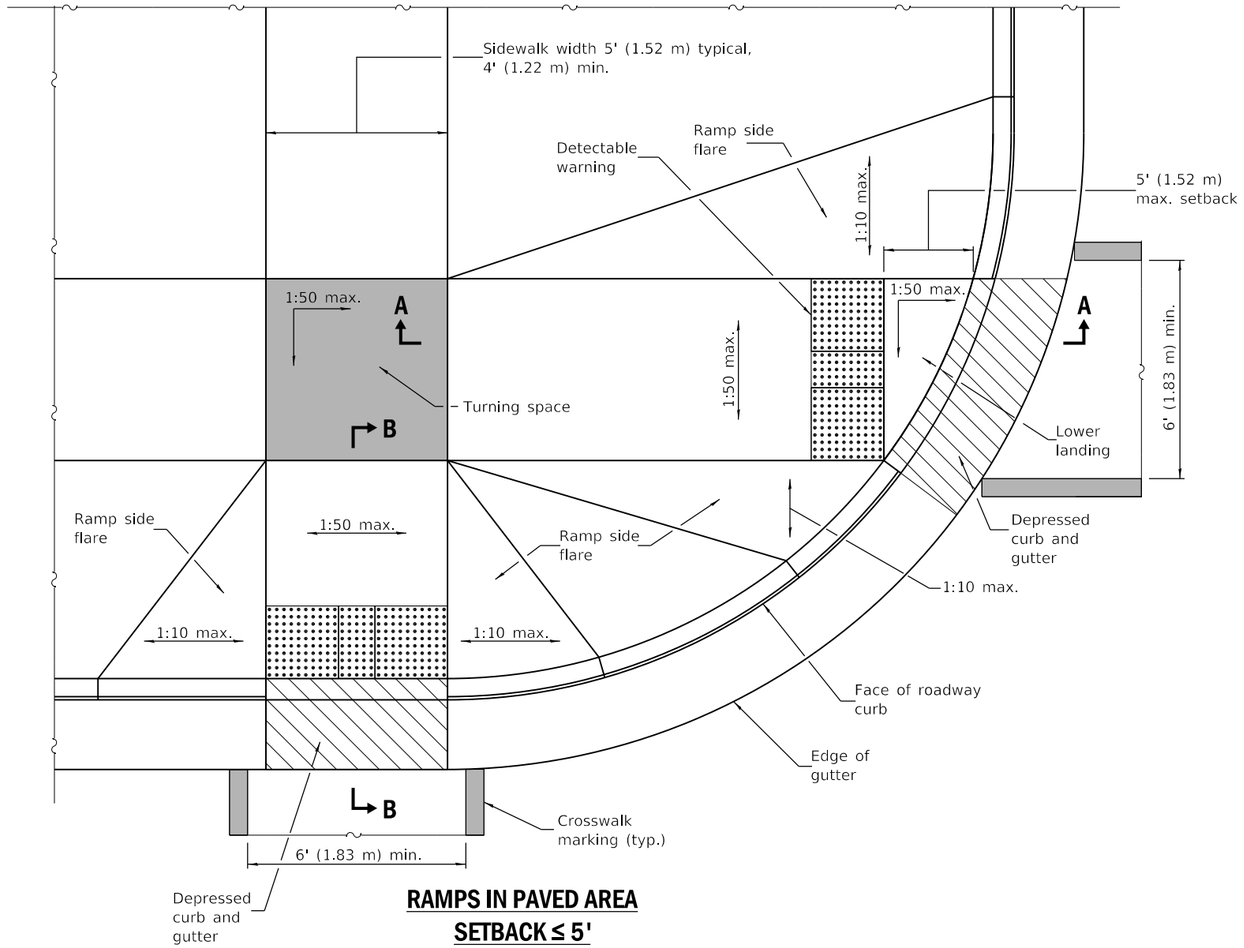
TEMPORARY EROSION CONTROL SYSTEMS

(Sheet 2 of 2)

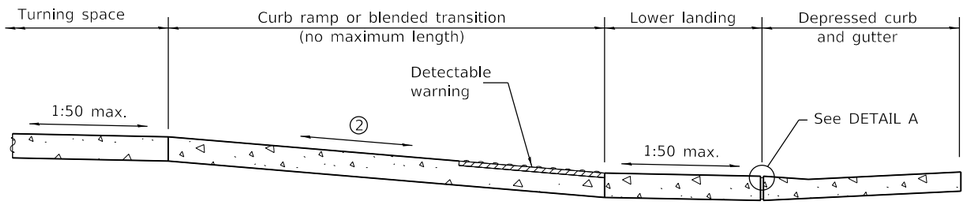
STANDARD 280001-07



RAMPS IN LANDSCAPED AREA
SETBACK ≤ 5'

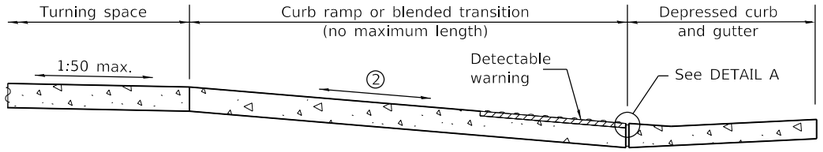


RAMPS IN PAVED AREA
SETBACK ≤ 5'



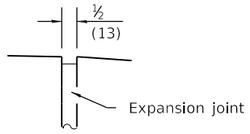
SECTION A-A

② The running slope of a curb ramp shall be 1:20 min. and 1:12 max. The running slope of a blended transition shall be 1:20 max.

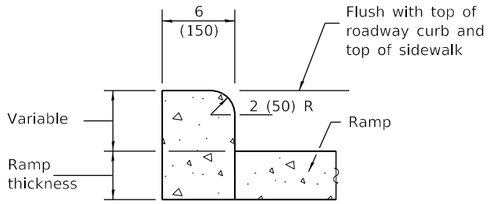


SECTION B-B

② The running slope of a curb ramp shall be 1:20 min. and 1:12 max. The running slope of a blended transition shall be 1:20 max.



DETAIL A



SIDE CURB DETAIL

Illinois Department of Transportation

PASSED January 1, 2019
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2019
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

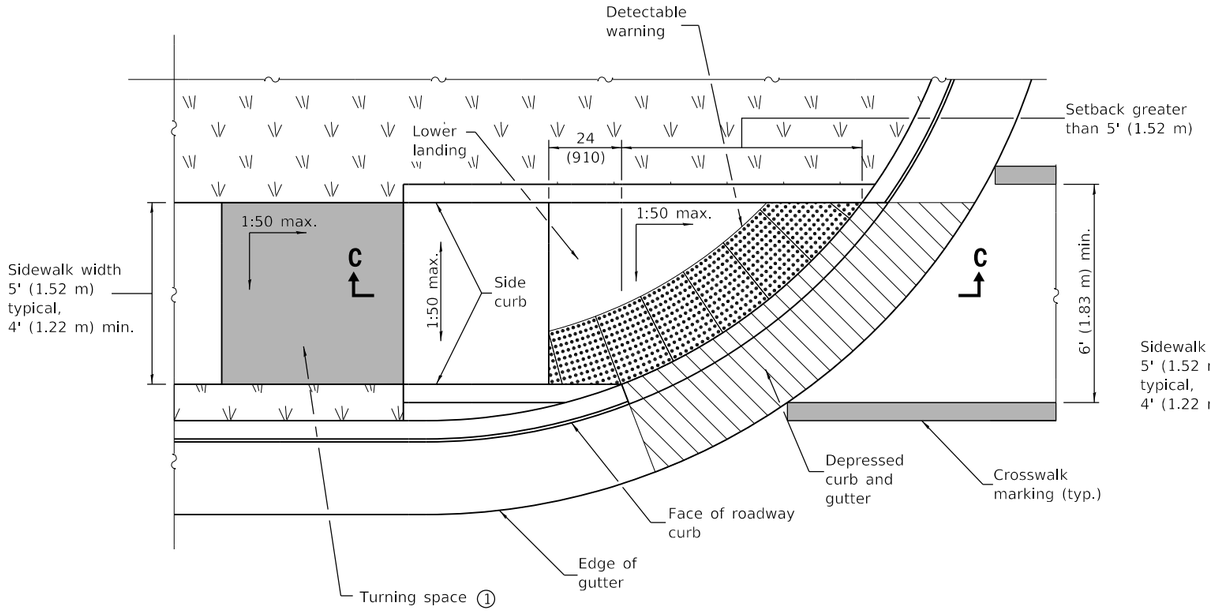
See Sheet 2 for GENERAL NOTES.

DATE	REVISIONS
1-1-19	Removed "15-foot rule", added
	"Blended transitions" and placement
	tolerances for detectable warnings.
1-1-18	Omitted diagonal slope at
	turning spaces and lower
	landings.

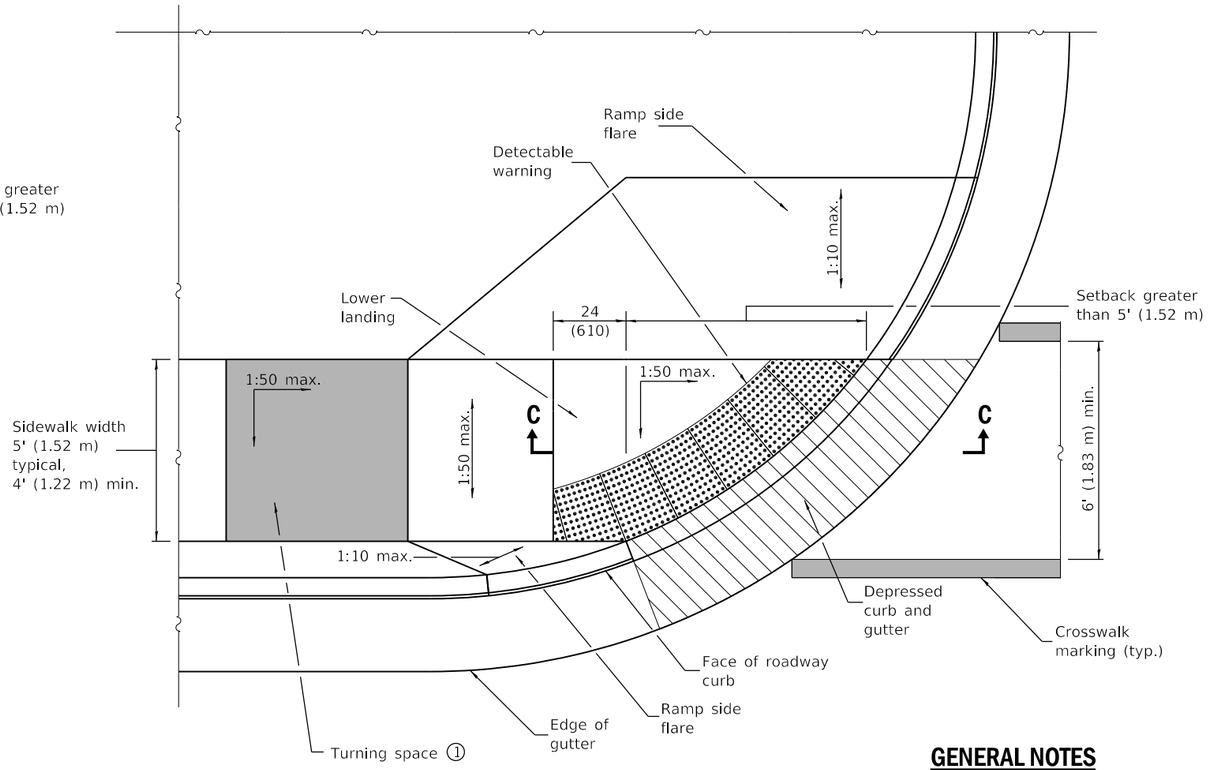
PERPENDICULAR CURB RAMPS FOR SIDEWALKS

(Sheet 1 of 2)

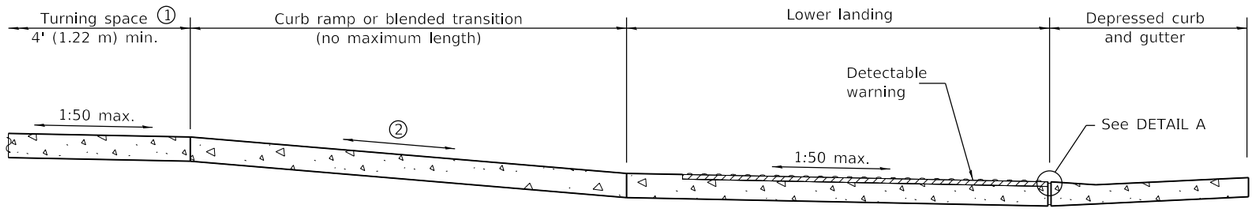
STANDARD 424001-11



RAMP IN LANDSCAPED AREA SETBACK > 5'



RAMP IN PAVED AREA SETBACK > 5'



SECTION C-C

① This turning space not required for blended transitions.

② The running slope of a curb ramp shall be 1:20 min. and 1:12 max. The running slope of a blended transition shall be 1:20 max.

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.

Detectable warnings are shown in their ideal locations but the following placement tolerances are allowed.

Side Border - Detectable warnings should extend the full width of the walking surface (excluding flared sides) but a border along each side up to 2 in. (50 mm) in width is allowed.

Curb Set-Back - Detectable warnings located at the back of curb should closely align with the curb but a gap up to 6 in. (150 mm) behind the curb is allowed.

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, 2019
ENGINEER OF POLICY AND PROCEDURES

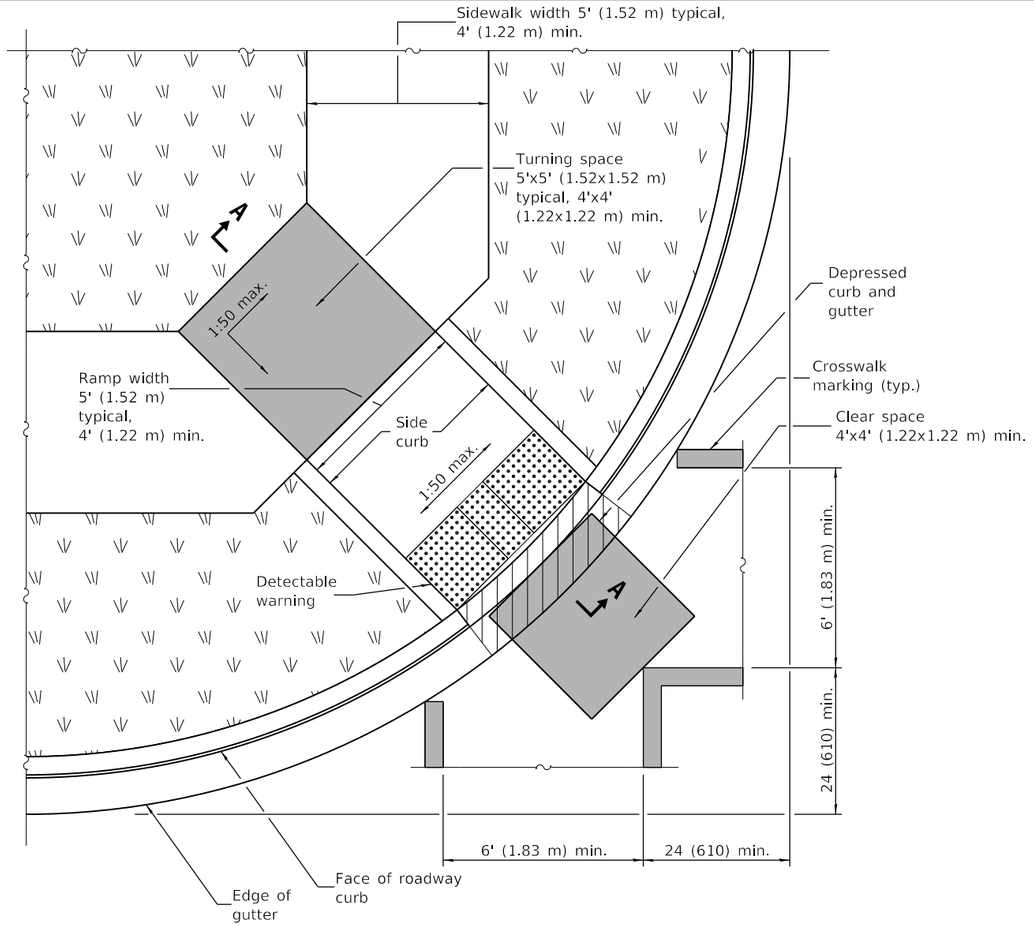
APPROVED January 1, 2019
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

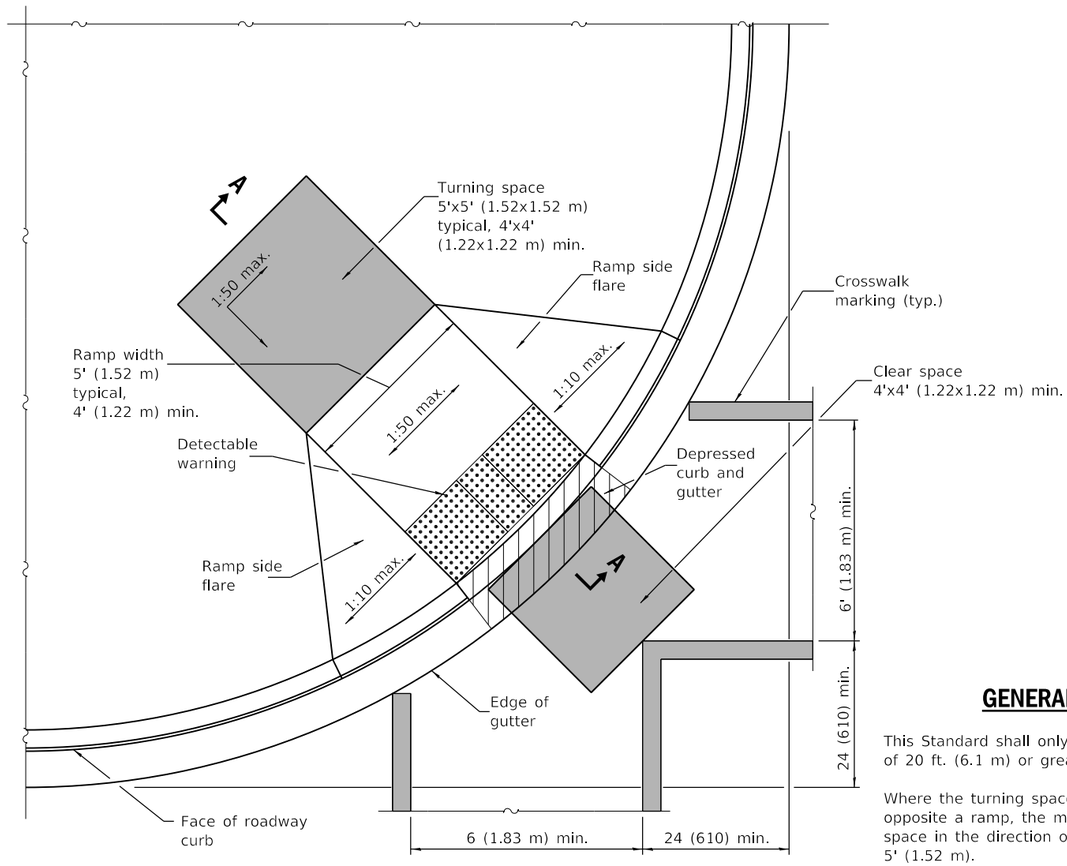
PERPENDICULAR CURB RAMPS FOR SIDEWALKS

(Sheet 2 of 2)

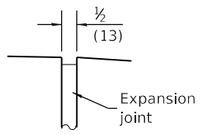
STANDARD 424001-11



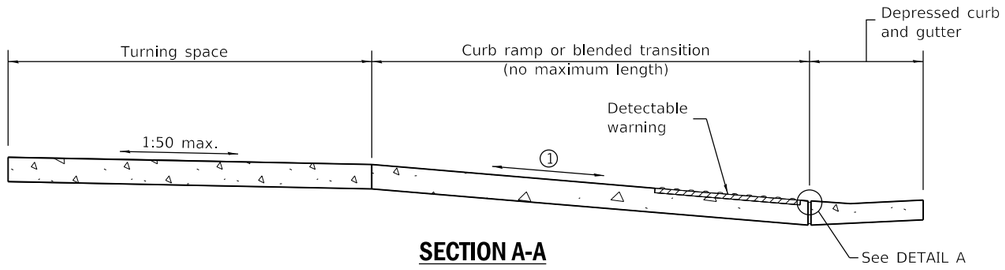
RAMP IN LANDSCAPED AREA



RAMP IN PAVED AREA

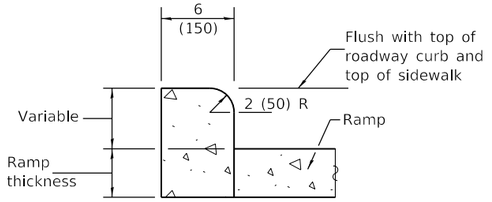


DETAIL A



SECTION A-A

① The running slope of a curb ramp shall be 1:20 min. and 1:12 max. The running slope of a blended transition shall be 1:20 max.



SIDE CURB DETAIL

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.

Detectable warnings are shown in their ideal locations but the following placement tolerances are allowed.

Side Border - Detectable warnings should extend the full width of the walking surface (excluding flared sides) but a border along each side up to 2 in. (50 mm) in width is allowed.

Curb Set-Back - Detectable warnings located at the back of curb should closely align with the curb but a gap up to 6 in. (150 mm) behind the curb is allowed.

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

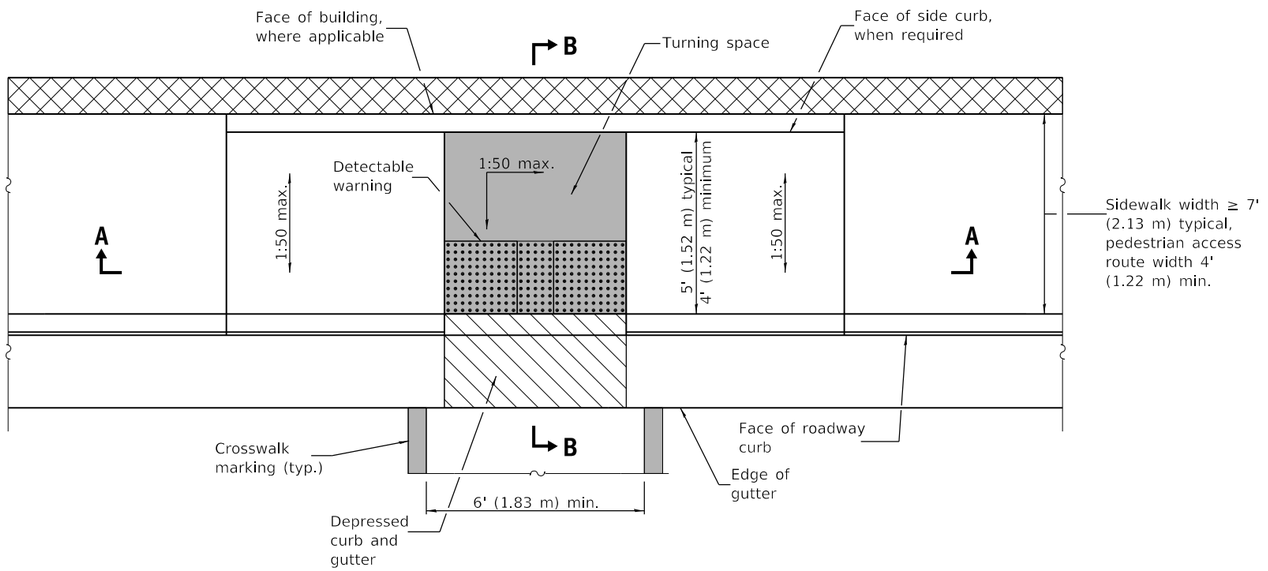
PASSED January 1, 2021
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2021
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-12

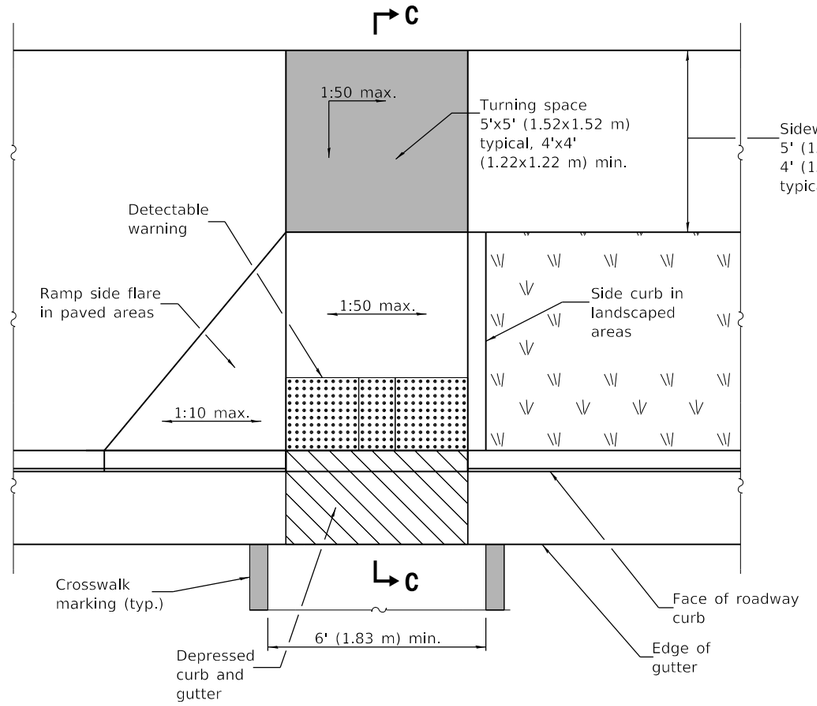
DATE	REVISIONS
1-1-21	Clarified minimum crosswalk width
	and locations.
1-1-19	Removed "15-foot rule", added
	"blended transitions" and placement
	tolerances for detectable warnings.

DIAGONAL CURB RAMPS FOR SIDEWALKS

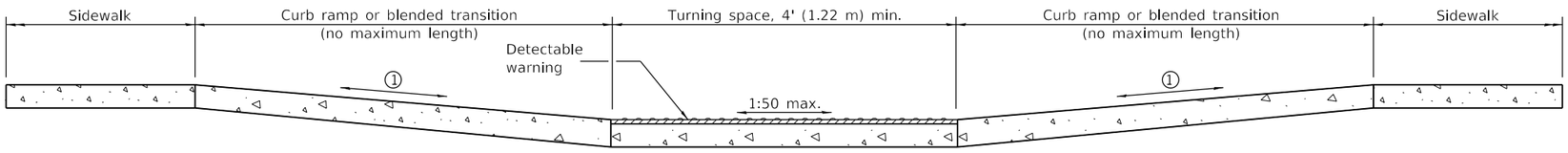
STANDARD 424006-05



PARALLEL MID-BLOCK CURB RAMP

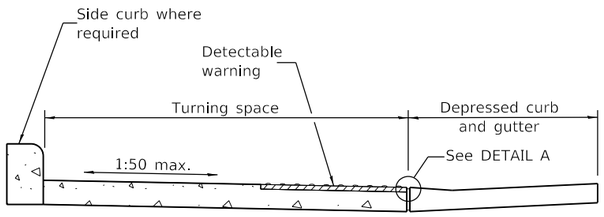


PERPENDICULAR MID-BLOCK CURB RAMP

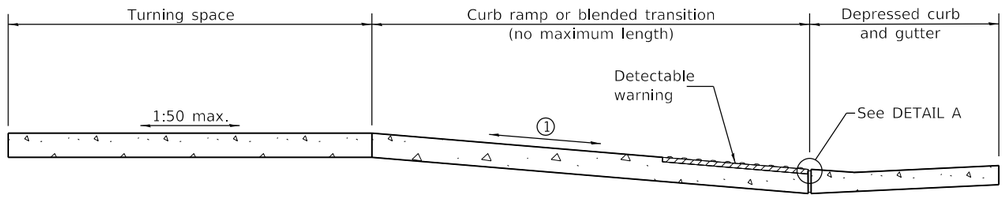


SECTION A-A

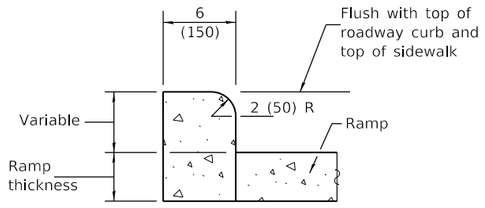
① The running slope of a curb ramp shall be 1:20 min. and 1:12 max. The running slope of a blended transition shall be 1:20 max.



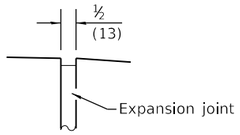
SECTION B-B



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.

Detectable warnings are shown in their ideal locations but the following placement tolerances are allowed.

Side Border - Detectable warnings should extend the full width of the walking surface (excluding flared sides) but a border along each side up to 2 in. (50 mm) in. width is allowed.

Curb Set-Back - Detectable warnings located at the back of curb should closely align with the curb but a gap up to 6 in. (150 mm) behind the curb is allowed.

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, 2019
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2019
ENGINEER OF DESIGN AND ENVIRONMENT

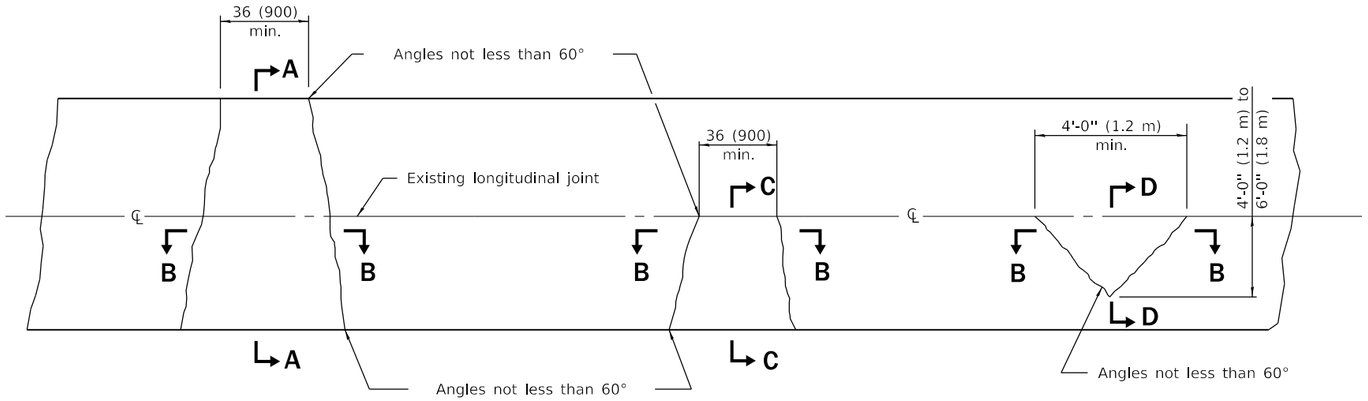
ISSUED 1-1-12

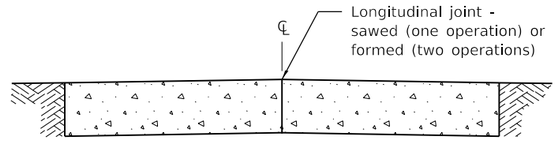
DATE	REVISIONS
1-1-19	Removed upper landing, added
	blended transitions and detectable
	warning tolerances.
1-1-18	Omitted diagonal slope at
	turning spaces and upper
	landings.

MID-BLOCK CURB RAMPS FOR SIDEWALKS

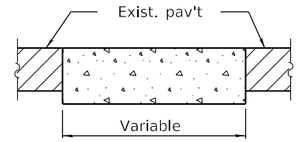
STANDARD 424016-05

CLASS C

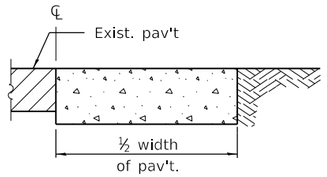




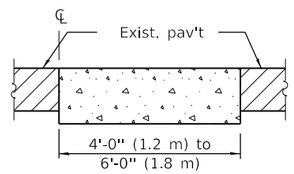
SECTION A-A



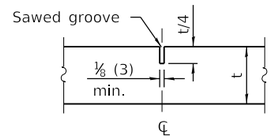
SECTION B-B



SECTION C-C



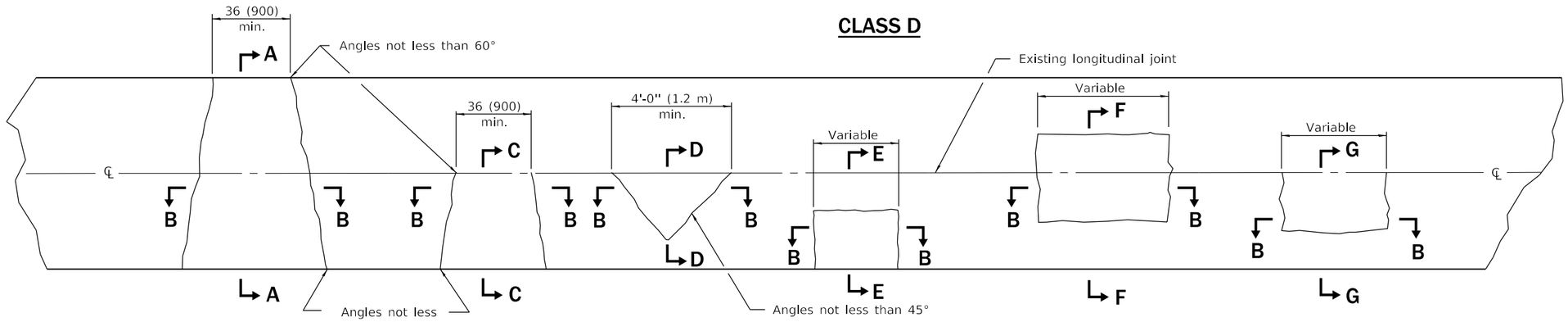
SECTION D-D

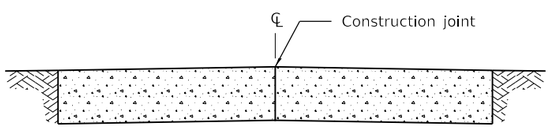


DETAIL OF SAWED CONTRACTION JOINT

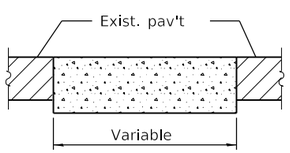
Note:
Longitudinal joints shall be as detailed on Standard 420001, except tie bars are not required for patches 20'-0" (6.0 m) or less in length.

CLASS D

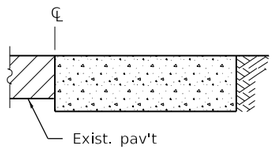




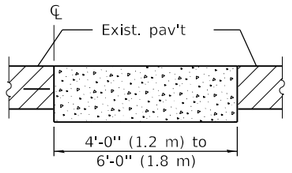
SECTION A-A
(Built in two operations)



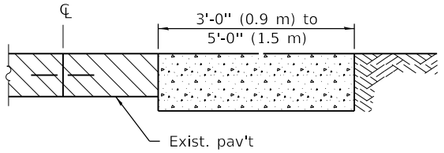
SECTION B-B



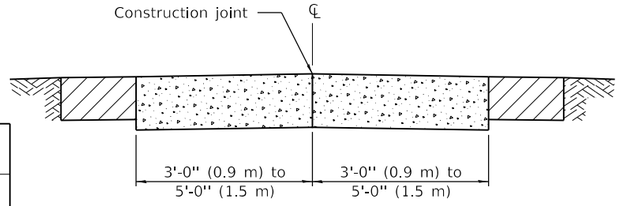
SECTION C-C



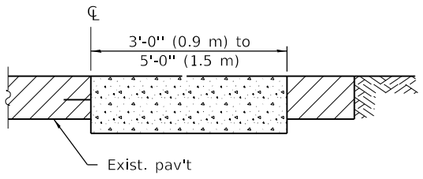
SECTION D-D



SECTION E-E



SECTION F-F
(Built in two operations)



SECTION G-G

GENERAL NOTES

Existing tie bars shall be either cut or removed. Marginal bars shall be cut.

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

Illinois Department of Transportation

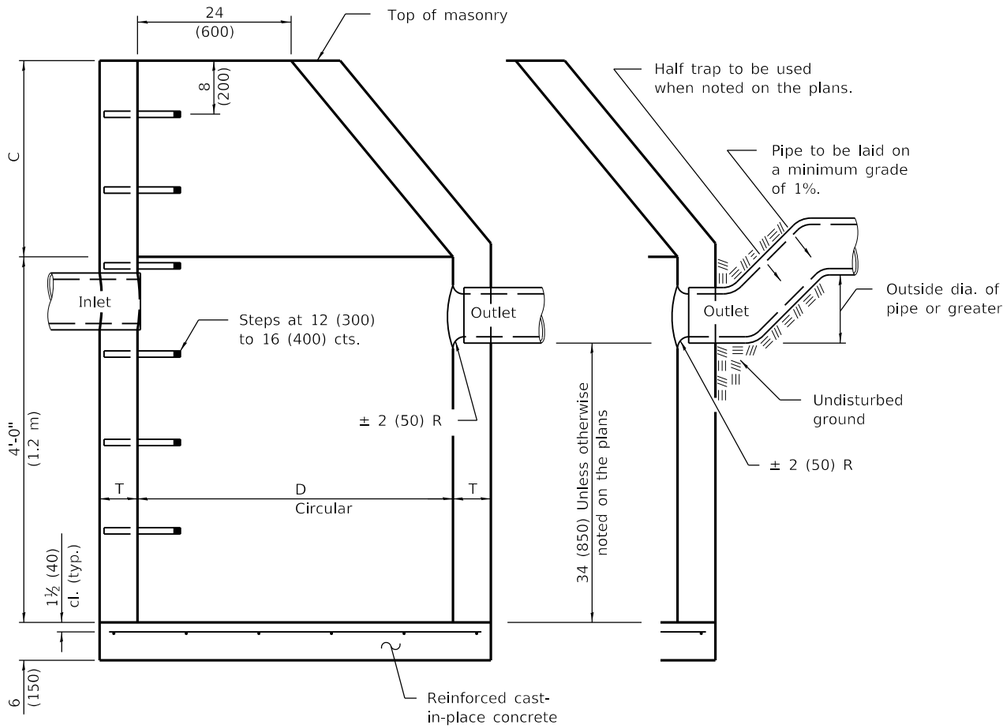
PASSED January 1, 2008
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2008
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

DATE	REVISIONS
1-1-08	Switched units to
	English (metric).
1-1-07	Revised Note for
	Class C patches.

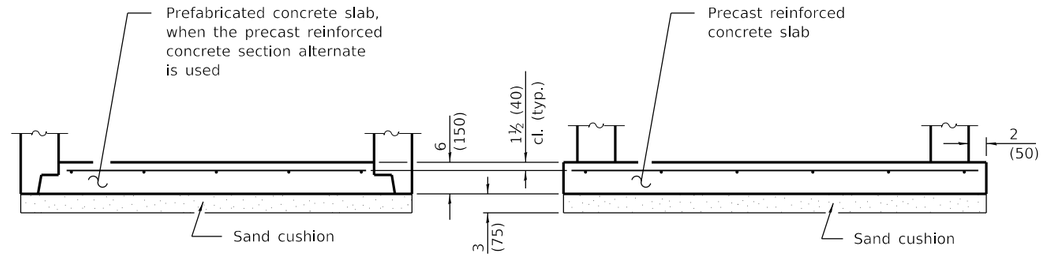
CLASS C and D PATCHES

STANDARD 442201-03



ELEVATION
(Standard Outlet)

ELEVATION
(Half Trap)



ALTERNATE BOTTOM SLAB

ALTERNATE MATERIALS FOR WALLS	D	C*	T (min.)
Concrete Masonry Unit	4'-0" (1.2 m) 5'-0" (1.5 m)	30 (750) 3'-9" (1.15 m)	5 (125) 5 (125)
Brick Masonry	4'-0" (1.2 m) 5'-0" (1.5 m)	30 (750) 3'-9" (1.15 m)	8 (200) 8 (200)
Precast Reinforced Concrete Section	4'-0" (1.2 m) 5'-0" (1.5 m)	30 (750) 3'-9" (1.15 m)	4 (100) 5 (125)
Cast-in-place Concrete	4'-0" (1.2 m) 5'-0" (1.5 m)	30 (750) 3'-9" (1.15 m)	6 (150) 6 (150)

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

GENERAL NOTES

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

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

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

See Standard 602701 for details of steps.

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

Illinois Department of Transportation

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

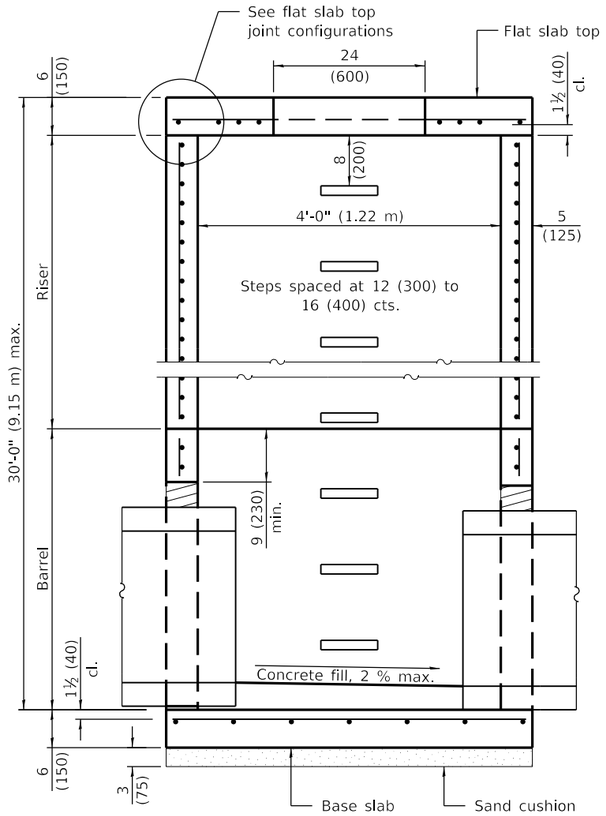
APPROVED January 1, 2011
Scott Schaefer
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

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

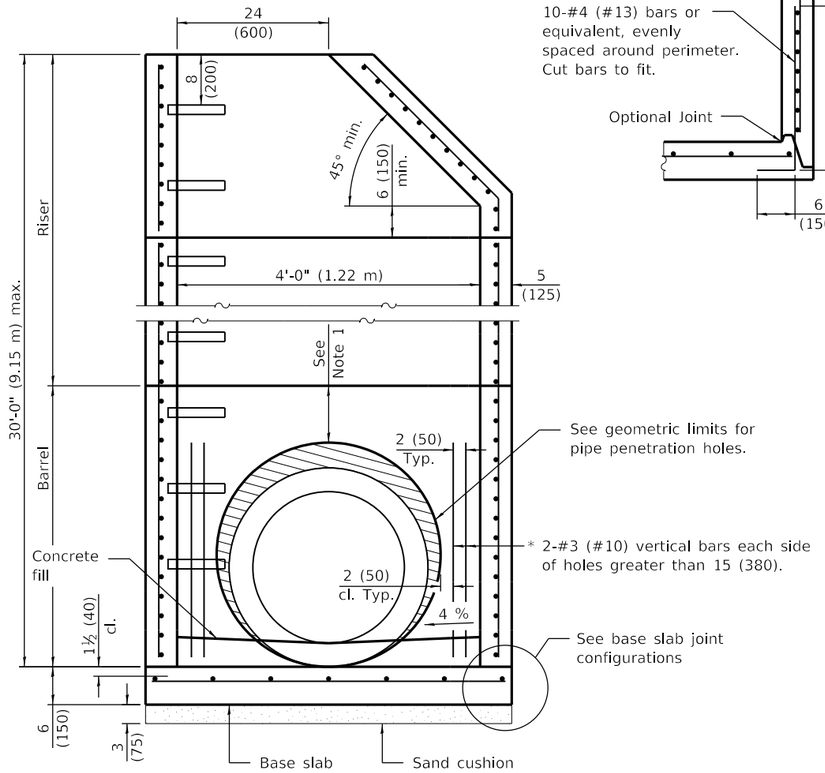
CATCH BASIN TYPE A

STANDARD 602001-02



SECTION PARALLEL TO PIPE

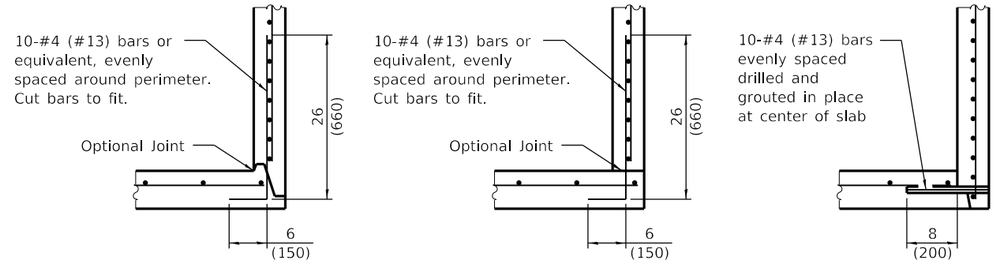
(Without conical top riser)

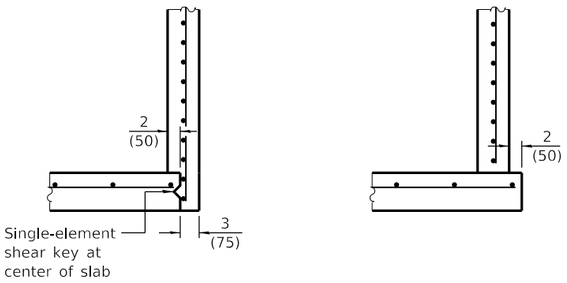


SECTION PERPENDICULAR TO PIPE

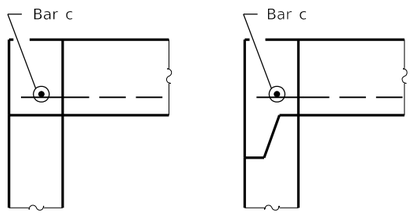
(With conical top riser)

* As an alternate, the barrel wall reinforcement may be reduced to riser wall reinforcement with #3 (#10) bars placed around the pipe penetration holes as shown. This option may be utilized when the pipe penetration holes are formed as opposed to cored.





BASE SLAB JOINT CONFIGURATIONS



FLAT SLAB TOP JOINT CONFIGURATIONS

(Shown at access hole)

GEOMETRIC LIMITS FOR PIPE PENETRATION HOLES

Note 1: A minimum of 9 (230) of monolithic reinforced concrete shall be maintained above pipe penetration holes > 24 (600).

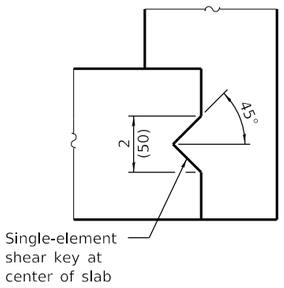
Note 2: A minimum 12 (300) inside arc length of reinforced concrete shall be maintained between pipe penetration holes > 15 (380).

Note 3: A maximum of 60 percent of the inside perimeter of the reinforced concrete manhole walls may be removed.

Note 4: Horizontal joints that intersect pipe penetration holes > 15 (380) shall have one joint splice for every location around the perimeter of the joint where the inside arc length between pipe penetration holes is < 24 (600). See joint splice detail.

Note 5: The recommended pipe penetration hole is equal to the O.D. of the pipe plus 4 (100).

Note 6: Only pipe penetration holes ≤ 15 (380) are allowed in riser sections.



SHEAR KEY GEOMETRY

(Reinforcement not shown for clarity)

GENERAL NOTES

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

Lifting holes shall be located in the sections as per the manufacturer's recommendations.

See Standard 602701 for details of manhole steps.

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

Illinois Department of Transportation

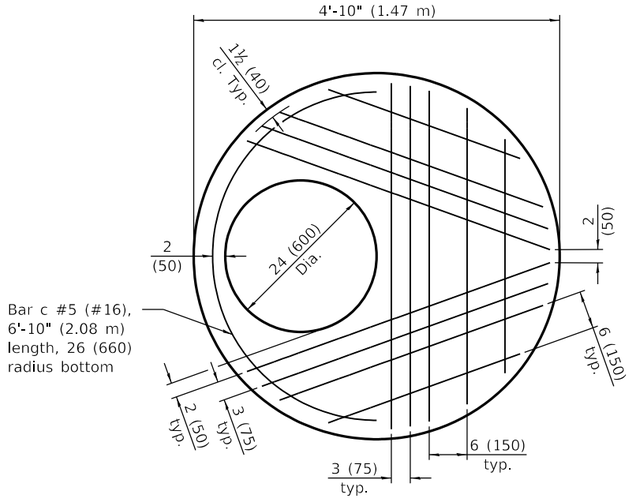
PASSED January 1, 2021
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2021
ENGINEER OF DESIGN AND ENVIRONMENT
ISSUED 1-1-97

DATE	REVISIONS
1-1-21	Revised Note 1 and lifting hole
	general note.
3-1-19	Moved wall reinforcement from
	inside face to middle.

PRECAST MANHOLE TYPE A 4' (1.22 m) DIAMETER

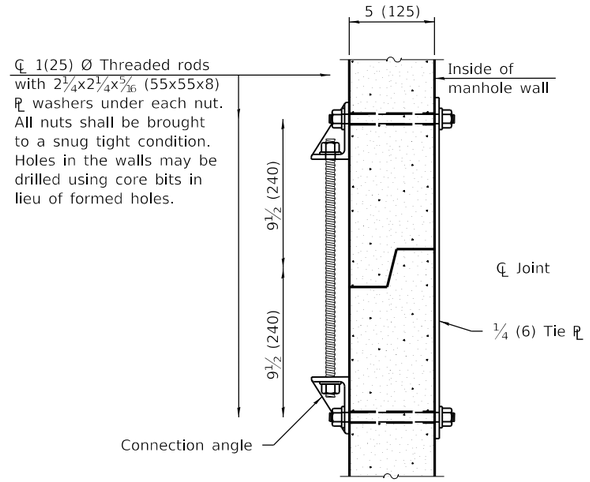
(Sheet 1 of 2)

STANDARD 602401-07

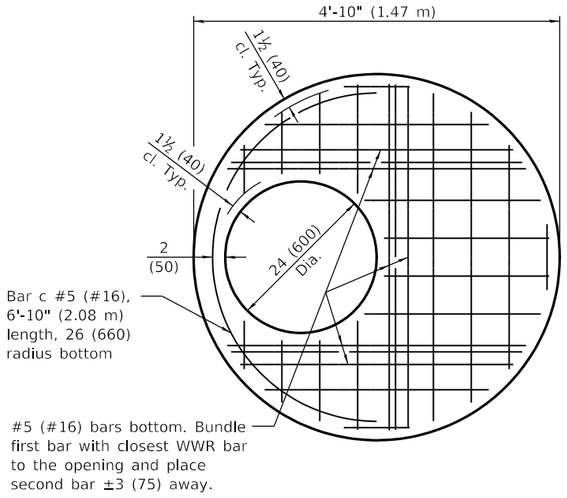


PLAN - FLAT SLAB TOP

(Showing layout of reinforcement bars and c bars)

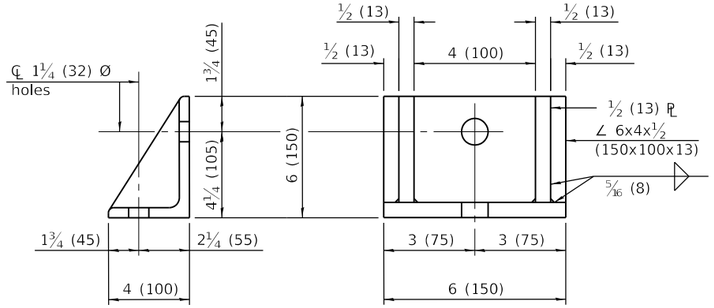


JOINT SPLICE

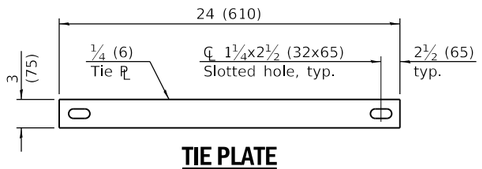


PLAN - FLAT SLAB TOP

(Showing layout of welded wire reinforcement and c bars)



CONNECTION ANGLE



TIE PLATE

FLAT SLAB TOP REINFORCEMENT

Location	WWR (each direction)		Rebar		
	A_s (min.)	Spacing (max.)	A_s (min.)	Spacing (max.)	Bar Size
Bottom Mat	** 0.62 sq. in./ft. (1312 sq. mm/m)	6 (150)	See plan view for rebar orientation and spacing and this table for bar size		#5 (#16)

** Only one layer of WWR permitted to avoid congestion.

WALL REINFORCEMENT

Location	Orientation	WWR or Rebar	
		A_s (min.)	Spacing (max.)
Riser	Circumferential	0.12 sq. in./ft. (254 sq. mm/m)	6 (150)
	Vertical	0.045 sq. in./ft. (95 sq. mm/m)	8 (200)
Barrel	Circumferential	0.12 sq. in./ft. (254 sq. mm/m)	6 (150)
	Vertical	0.16 sq. in./ft. (339 sq. mm/m)	4 (100)

BASE SLAB REINFORCEMENT

Location	Total Height	WWR or Rebar (each direction)	
		A_s (min.)	Spacing (max.)
Top Mat	≤ 20 ft. (6.10 m)	0.24 sq. in./ft. (508 sq. mm/m)	10 (250)
	> 20 ft. (6.10 m)	0.24 sq. in./ft. (508 sq. mm/m)	10 (250)

Illinois Department of Transportation

PASSED January 1, 2021

ENGINEER OF POLICY AND PROCEDURES

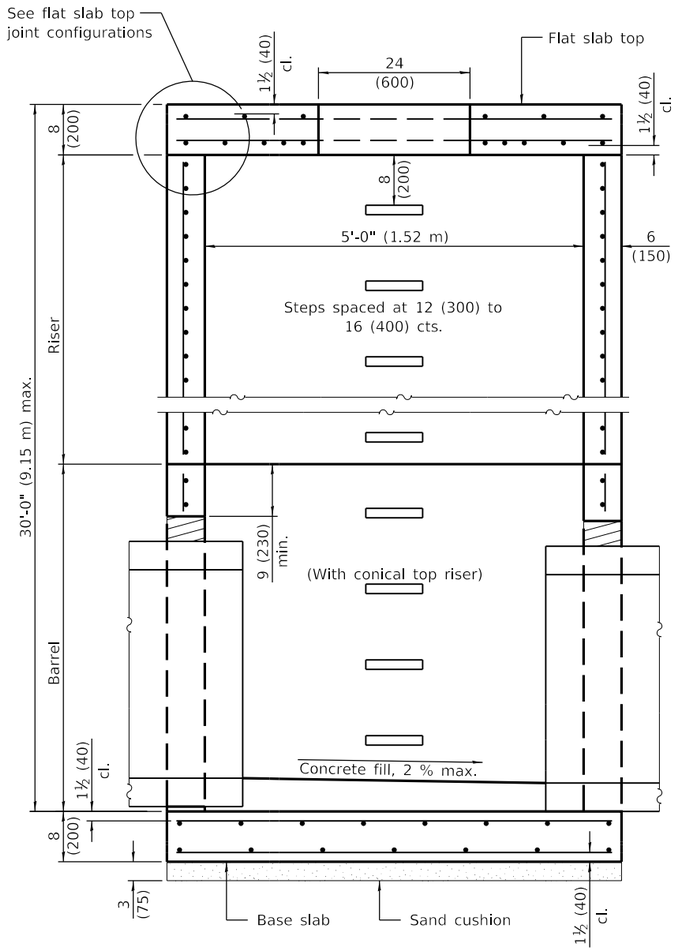
APPROVED January 1, 2021

ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

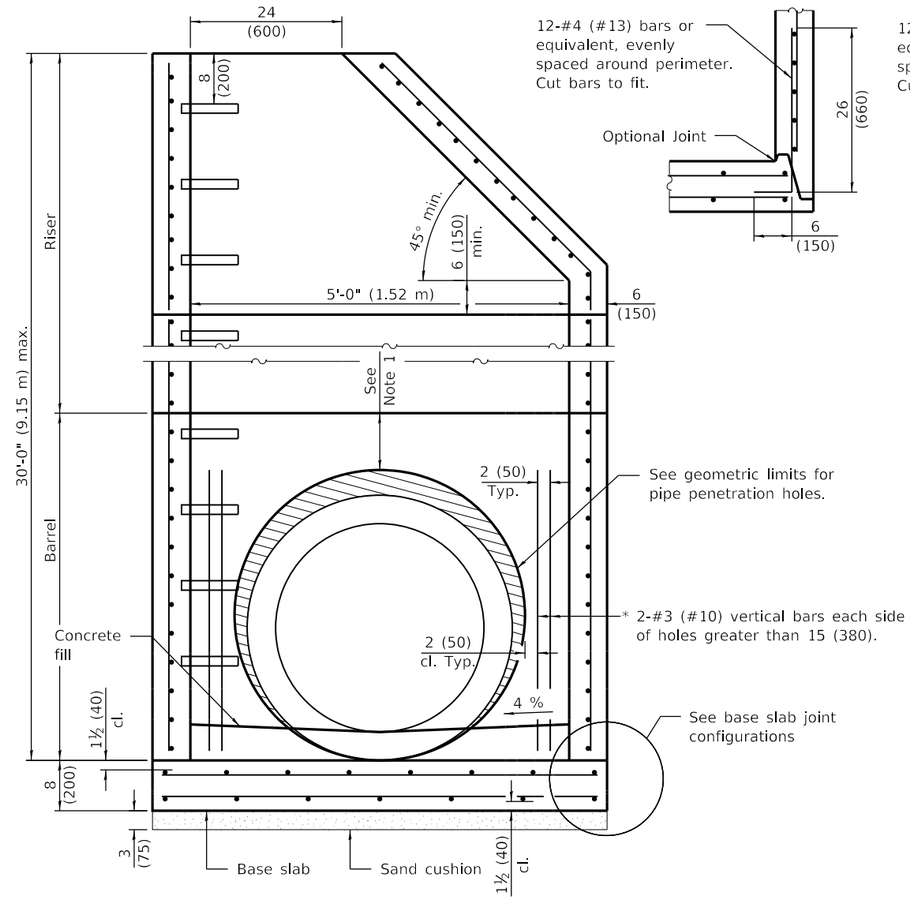
PRECAST MANHOLE TYPE A 4' (1.22 m) DIAMETER

STANDARD 602401-07



SECTION PARALLEL TO PIPE

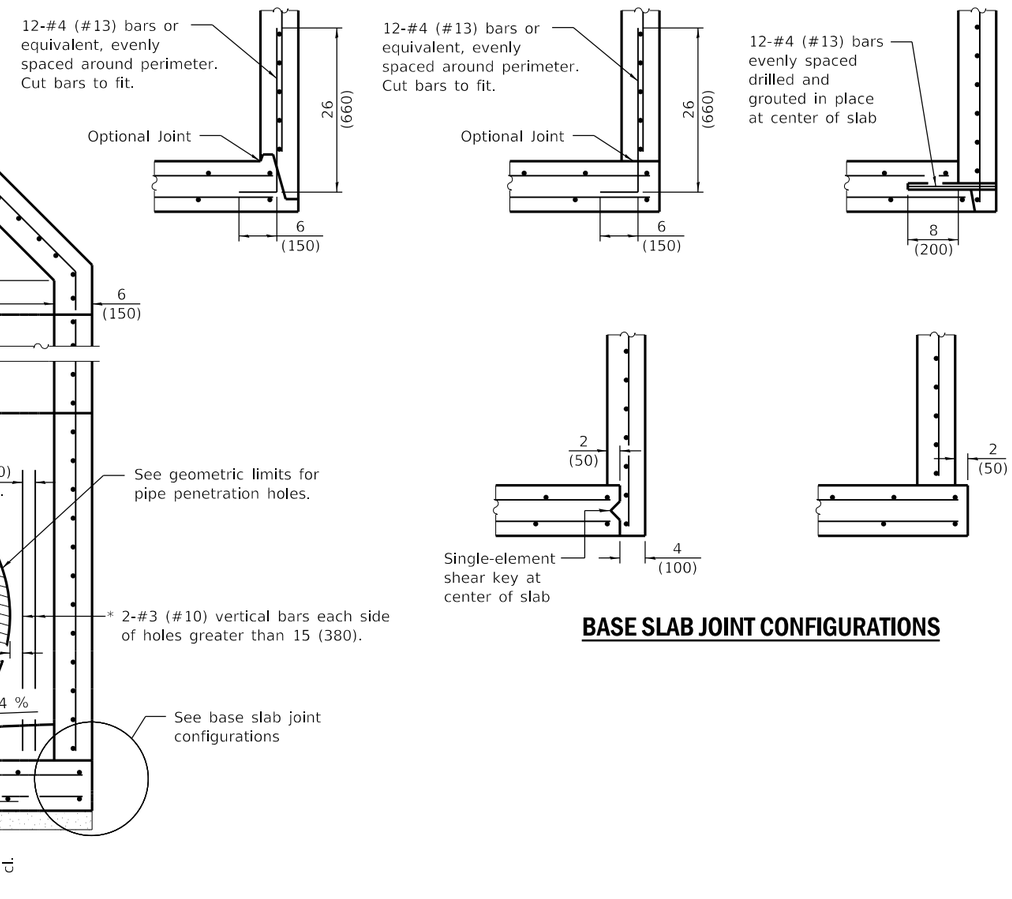
(Without conical top riser)



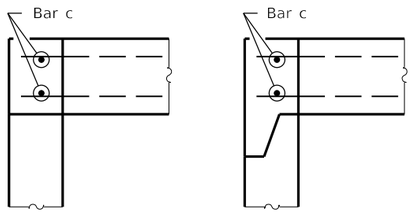
SECTION PERPENDICULAR TO PIPE

(With conical top riser)

* As an alternate, the barrel wall reinforcement may be reduced to riser wall reinforcement with #3 (#10) bars placed around the pipe penetration holes as shown. This option may be utilized when the pipe penetration holes are formed as opposed to cored.



BASE SLAB JOINT CONFIGURATIONS



FLAT SLAB TOP JOINT CONFIGURATIONS

(Shown at access hole)

GEOMETRIC LIMITS FOR PIPE PENETRATION HOLES

Note 1: A minimum of 9 (230) of monolithic reinforced concrete shall be maintained above pipe penetration holes > 32 (810).

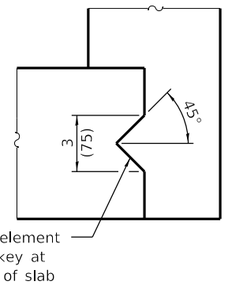
Note 2: A minimum 12 (300) inside arc length of reinforced concrete shall be maintained between pipe penetration holes > 15 (380).

Note 3: A maximum of 60 percent of the inside perimeter of the reinforced concrete manhole walls may be removed.

Note 4: Horizontal joints that intersect pipe penetration holes > 15 (380) shall have one joint splice for every location around the perimeter of the joint where the inside arc length between pipe penetration holes is < 24 (600). See joint splice detail.

Note 5: The recommended pipe penetration hole is equal to the O.D. of the pipe plus 4 (100).

Note 6: Only pipe penetration holes ≤ 15 (380) are allowed in riser sections.



SHEAR KEY GEOMETRY

(Reinforcement not shown for clarity)

GENERAL NOTES

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

Lifting holes shall be located in the sections as per the manufacturer's recommendations.

See Standard 602701 for details of manhole steps.

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

Illinois Department of Transportation

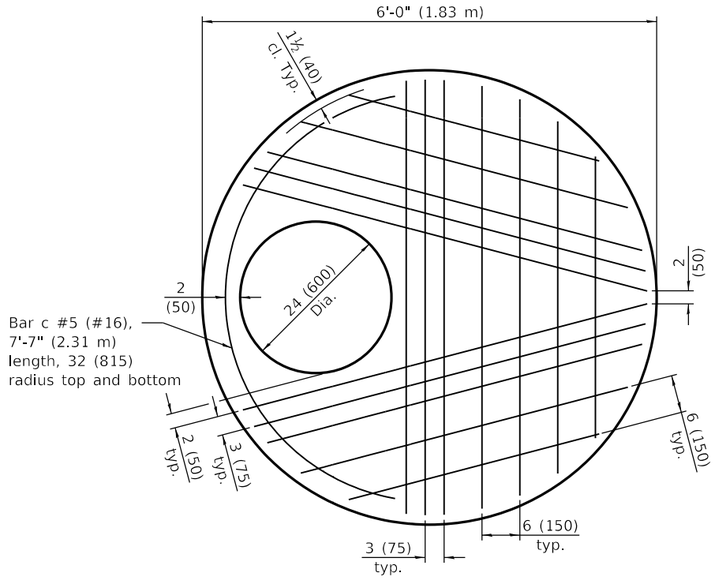
PASSED January 1, 2021
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2021
ENGINEER OF DESIGN AND ENVIRONMENT
ISSUED 1-1-18

DATE	REVISIONS
1-1-21	Revised Note 1 and lifting hole
	general note.
3-1-19	Moved wall reinforcement from
	inside face to middle.

PRECAST MANHOLE TYPE A 5' (1.52 m) DIAMETER

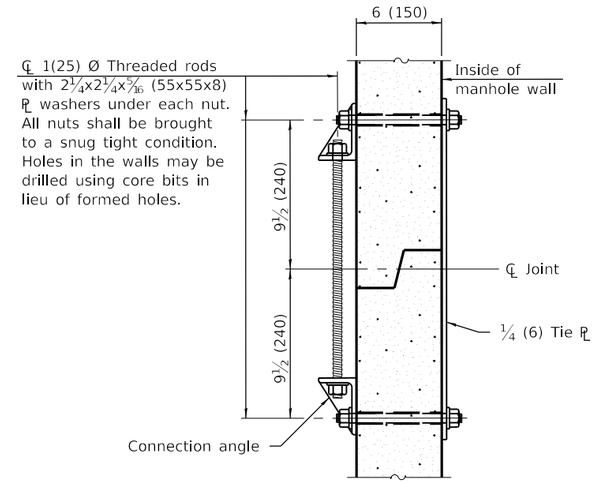
(Sheet 1 of 2)

STANDARD 602402-03

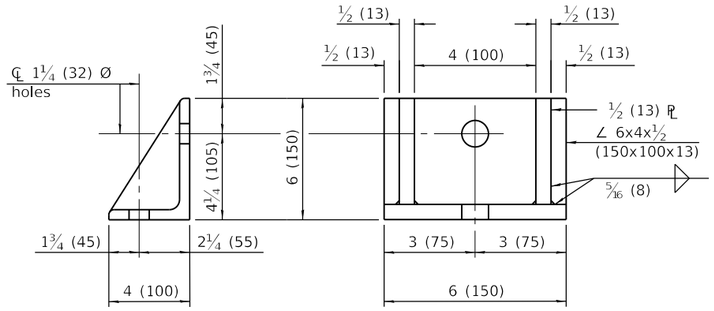


PLAN - FLAT SLAB TOP

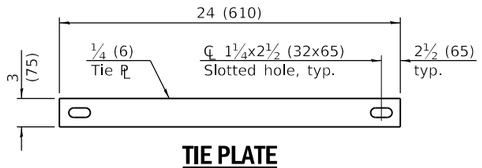
(Showing layout of bottom reinforcement bars and c bars)



JOINT SPLICE



CONNECTION ANGLE



TIE PLATE

FLAT SLAB TOP REINFORCEMENT

Location	WWR (each direction)		Rebar (each direction except as noted)		
	A_s (min.)	Spacing (max.)	A_s (min.)	Spacing (max.)	Bar Size
Top Mat	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)	#3 or #4 (#10) (#13)
Bottom Mat	** 0.40 sq. in./ft. (847 sq. mm/m)	6 (150)	See plan view for rebar orientation and spacing and this table for bar size		#4 (#13)

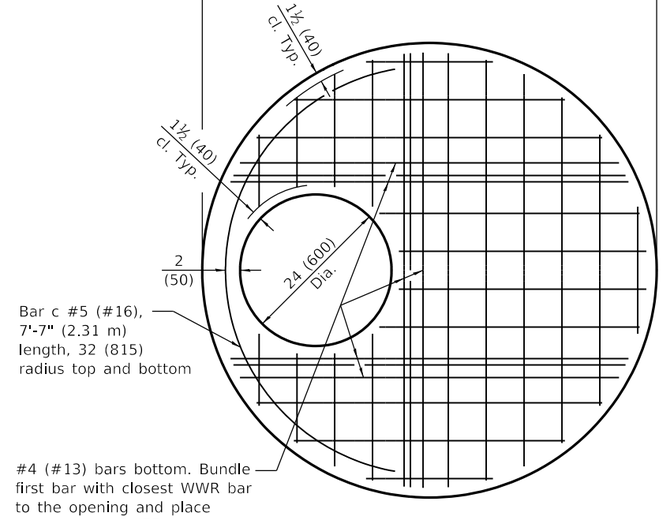
** Only one layer of WWR permitted to avoid congestion.

WALL REINFORCEMENT

Location	Orientation	WWR or Rebar	
		A_s (min.)	Spacing (max.)
Riser	Circumferential	0.15 sq. in./ft. (318 sq. mm/m)	6 (150)
	Vertical	0.045 sq. in./ft. (95 sq. mm/m)	8 (200)
Barrel	Circumferential	0.15 sq. in./ft. (318 sq. mm/m)	6 (150)
	Vertical	0.16 sq. in./ft. (339 sq. mm/m)	4 (100)

BASE SLAB REINFORCEMENT

Location	Total Height	WWR or Rebar (each direction)	
		A_s (min.)	Spacing (max.)
Top Mat	≤ 20 ft. (6.10 m)	0.24 sq. in./ft. (508 sq. mm/m)	10 (250)
	> 20 ft. (6.10 m)	0.28 sq. in./ft. (593 sq. mm/m)	8 (200)
Bottom Mat	All	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)



PLAN - FLAT SLAB TOP

(Showing layout of welded wire reinforcement and c bars)

Illinois Department of Transportation

PASSED January 1, 2021

ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2021

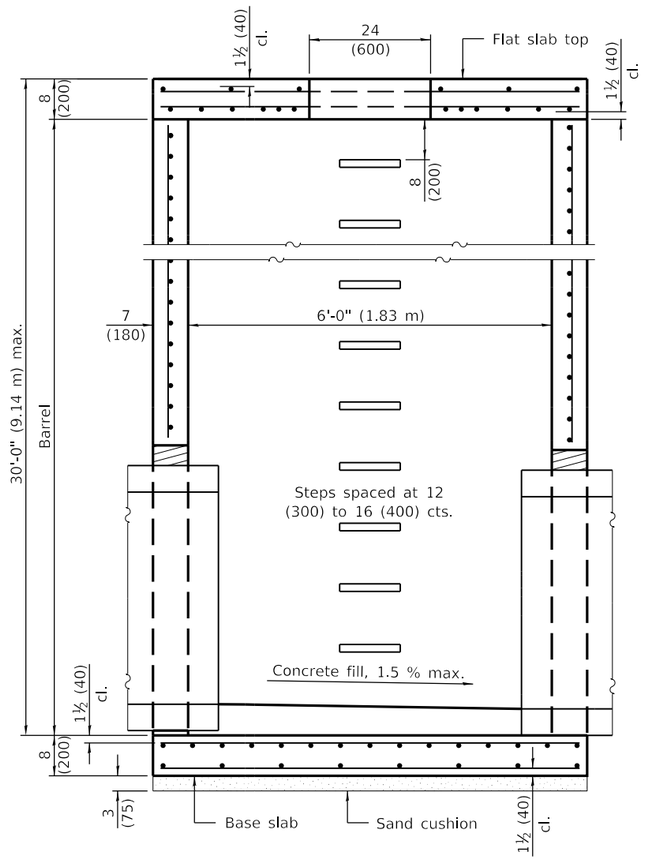
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-18

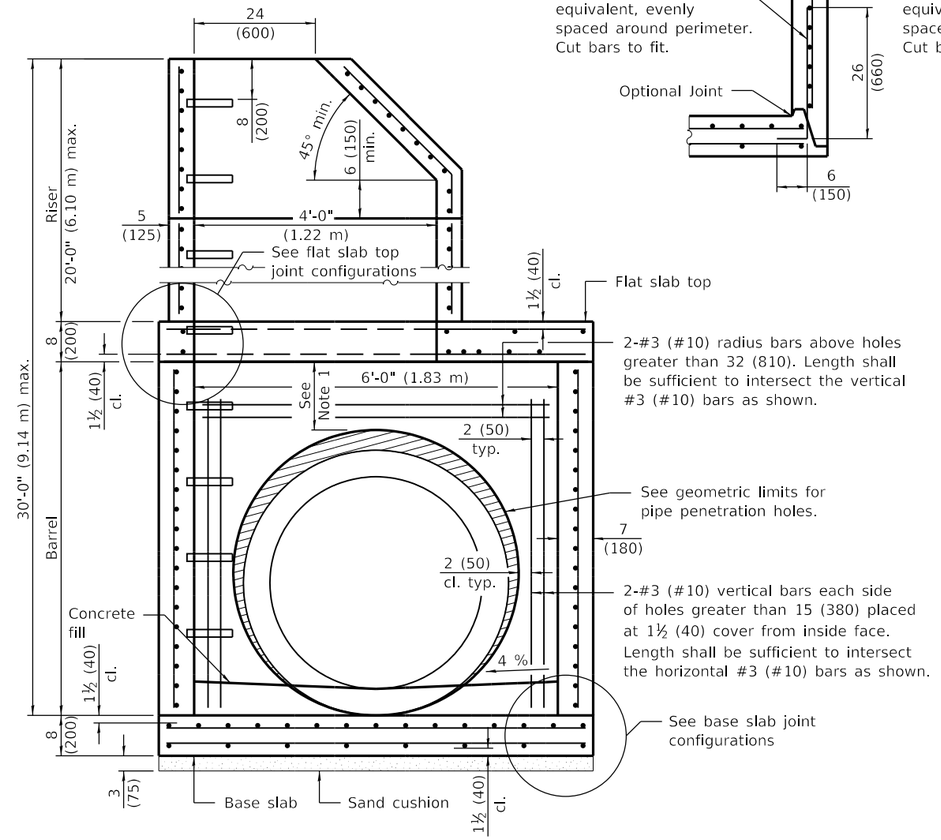
PRECAST MANHOLE TYPE A 5' (1.52 m) DIAMETER

(Sheet 2 of 2)

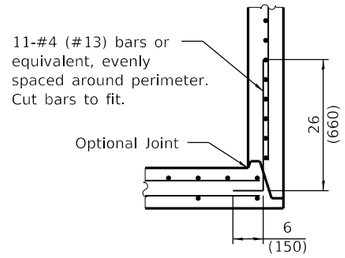
STANDARD 602402-03

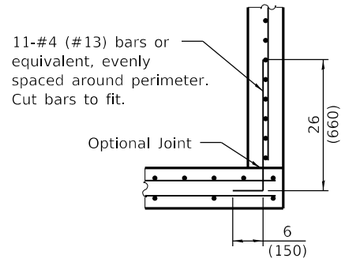


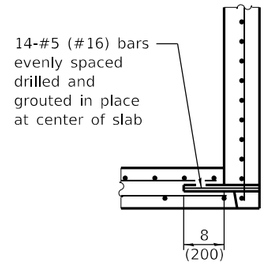
SECTION PARALLEL TO PIPE
(Without conical top riser)

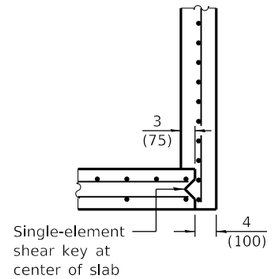


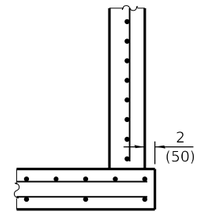
SECTION PERPENDICULAR TO PIPE
(With conical top riser)



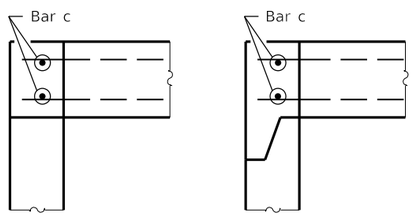








BASE SLAB JOINT CONFIGURATIONS



FLAT SLAB TOP JOINT CONFIGURATIONS
(Shown at access hole)

GEOMETRIC LIMITS FOR PIPE PENETRATION HOLES

Note 1: A minimum of 9 (230) of monolithic reinforced concrete shall be maintained above pipe penetration holes > 32 (810).

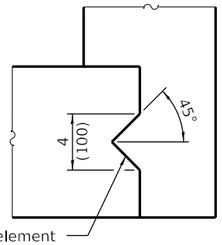
Note 2: A minimum 12 (300) inside arc length of reinforced concrete shall be maintained between pipe penetration holes > 15 (380).

Note 3: A maximum of 60 percent of the inside perimeter of the reinforced concrete manhole walls may be removed.

Note 4: Horizontal joints that intersect pipe penetration holes > 15 (380) shall have one joint splice for every location around the perimeter of the joint where the inside arc length between pipe penetration holes is < 24 (600). See joint splice detail.

Note 5: The recommended pipe penetration hole is equal to the O.D. of the pipe plus 4 (100).

Note 6: Only pipe penetration holes ≤ 15 (380) are allowed in riser sections.



SHEAR KEY GEOMETRY
(Reinforcement not shown for clarity)

GENERAL NOTES

Pipe holes shall be formed to facilitate proper placement of hole reinforcement.

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

Lifting holes shall be located in the sections as per the manufacturer's recommendations.

See Standard 602701 for details of manhole steps.

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

Illinois Department of Transportation

PASSED January 1, 2021
ENGINEER OF POLICY AND PROCEDURES

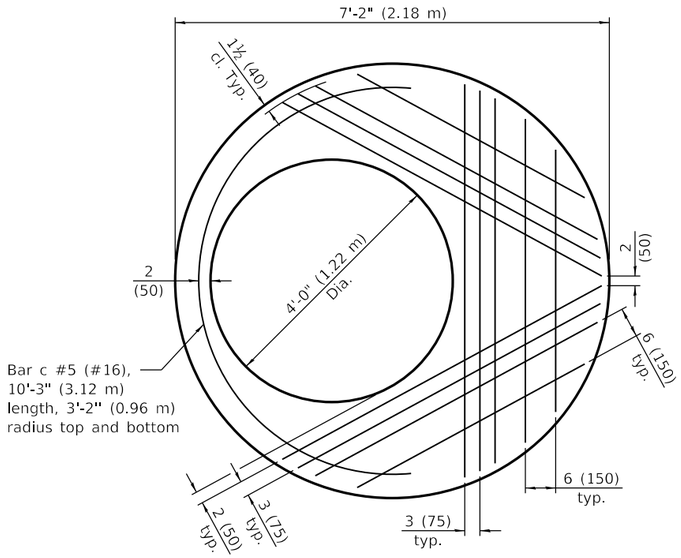
APPROVED January 1, 2021
ENGINEER OF DESIGN AND ENVIRONMENT

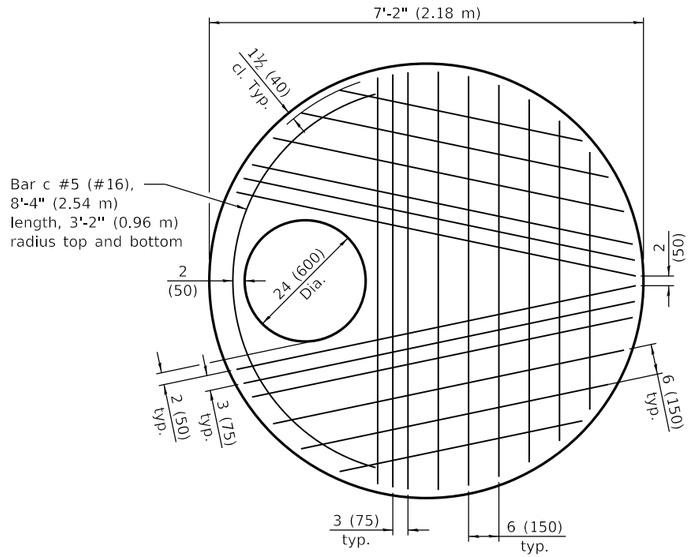
ISSUED 1-1-97

DATE	REVISIONS
1-1-21	Revised Note 1, Note 2 and
	lifting hole general note.
3-1-19	Moved wall reinforcement from
	inside face to middle.

PRECAST MANHOLE TYPE A
6' (1.83 m) DIAMETER

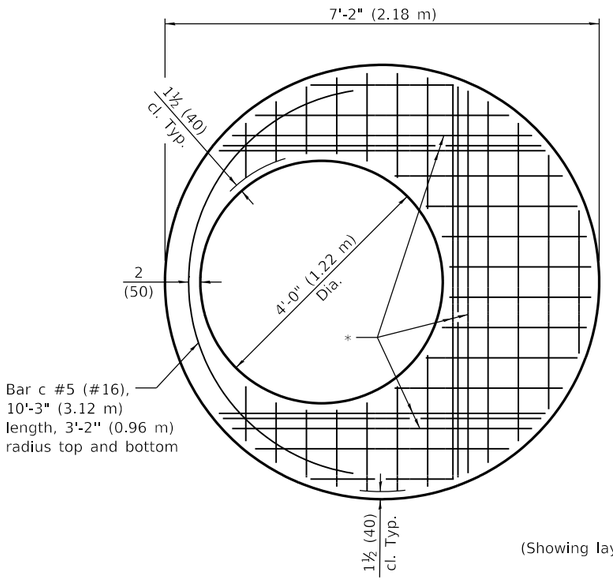
STANDARD 602406-11

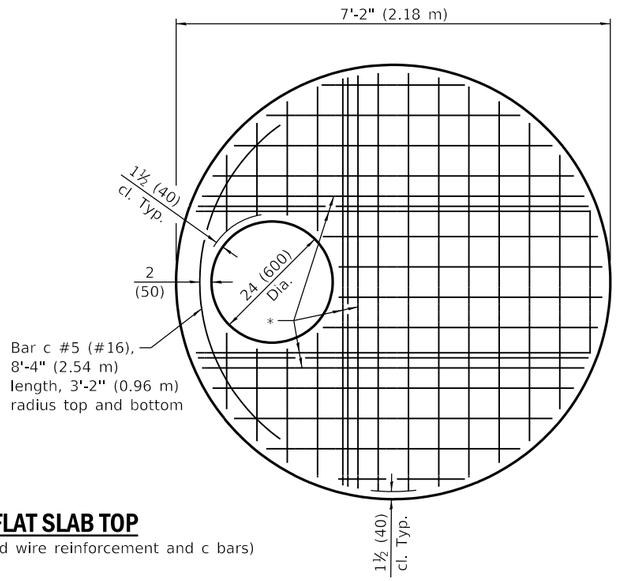




PLAN - FLAT SLAB TOP

(Showing layout of bottom reinforcement bars and c bars)





PLAN - FLAT SLAB TOP

(Showing layout of welded wire reinforcement and c bars)

* #5 (#16) bars for risers ≤ 10 ft. (3.05 m) tall or #6 (#19) bars for risers > 10 ft. (3.05 m) tall bottom. Bundle first bar with closest WWR bar to the opening and place second bar ±3 (75) away.

Illinois Department of Transportation

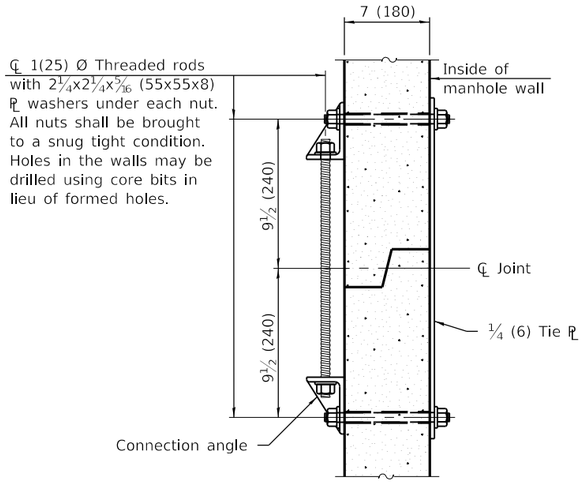
PASSED January 1, 2021
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2021
ENGINEER OF DESIGN AND ENVIRONMENT

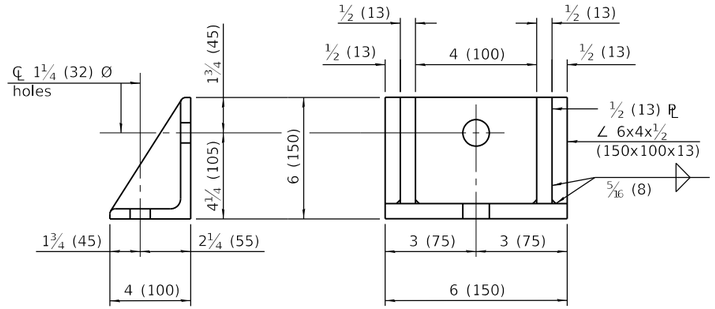
ISSUED 1-1-97

PRECAST MANHOLE TYPE A 6' (1.83 m) DIAMETER

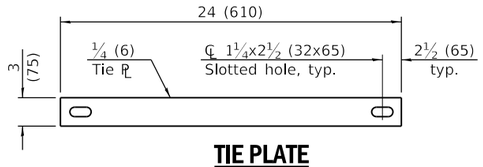
STANDARD 602406-11



JOINT SPLICE



CONNECTION ANGLE



TIE PLATE

FLAT SLAB TOP REINFORCEMENT

Location	Riser Height (RH)	WWR (each direction)		Rebar (each direction except as noted)		
		A_s (min.)	Spacing (max.)	A_s (min.)	Spacing (max.)	Bar Size
Top Mat	All	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)	#3 or #4 (#10) (#13)
Bottom Mat	RH ≤ 10 ft. (3.05 m)	** 0.62 sq. in./ft. (1312 sq. mm/m)	6 (150)	See plan view for rebar orientation and spacing and this table for bar size		#5 (#16)
	RH > 10 ft. (3.05 m)	** 0.88 sq. in./ft. (1863 sq. mm/m)	6 (150)			#6 (#19)

** Only one layer of WWR permitted to avoid congestion.

WALL REINFORCEMENT

Location	Orientation	WWR or Rebar	
		A_s (min.)	Spacing (max.)
4 ft. (1.22 m) Ø Riser	Circumferential	0.12 sq. in./ft. (254 sq. mm/m)	6 (150)
	Vertical	0.045 sq. in./ft. (95 sq. mm/m)	8 (200)
6 ft. (1.83 m) Ø Barrel	Circumferential	0.18 sq. in./ft. (381 sq. mm/m)	6 (150)
	Vertical	0.045 sq. in./ft. (95 sq. mm/m)	8 (200)

BASE SLAB REINFORCEMENT

Location	Riser Height (RH)/ Total Height (TH)	WWR or Rebar (each direction)	
		A_s (min.)	Spacing (max.)
Top Mat	RH ≤ 10 ft. (3.05 m) & TH ≤ 20 ft. (6.10 m)	0.28 sq. in./ft. (593 sq. mm/m)	6 (150)
	RH > 10 ft. (3.05 m) or TH > 20 ft. (6.10 m)	0.40 sq. in./ft. (847 sq. mm/m)	6 (150)
Bottom Mat	All	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)

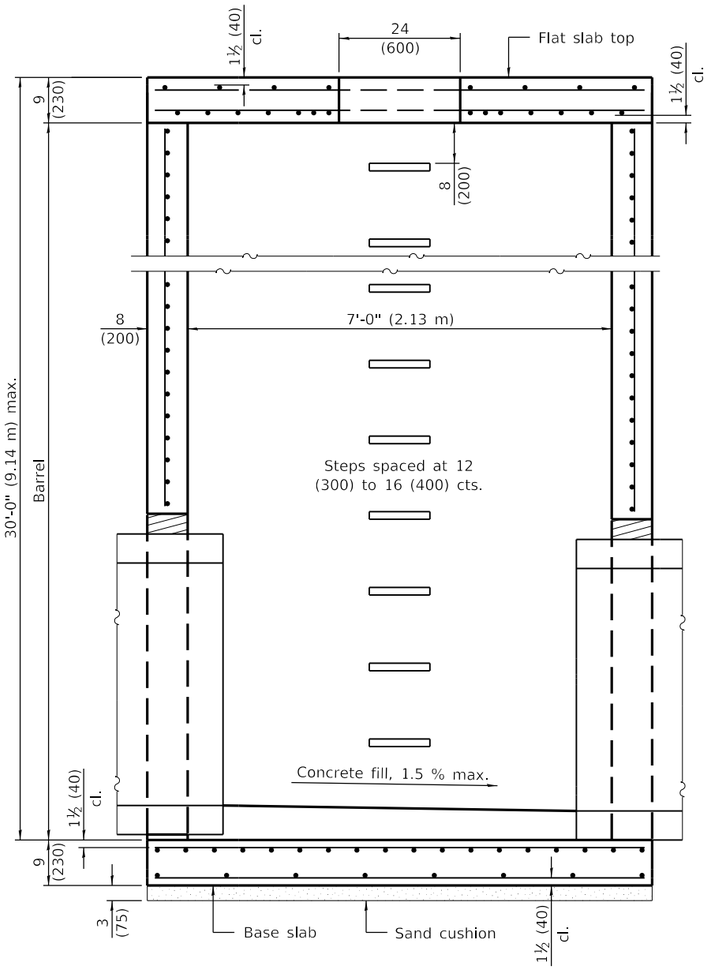
Illinois Department of Transportation

PASSED January 1, 2021
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2021
ENGINEER OF DESIGN AND ENVIRONMENT

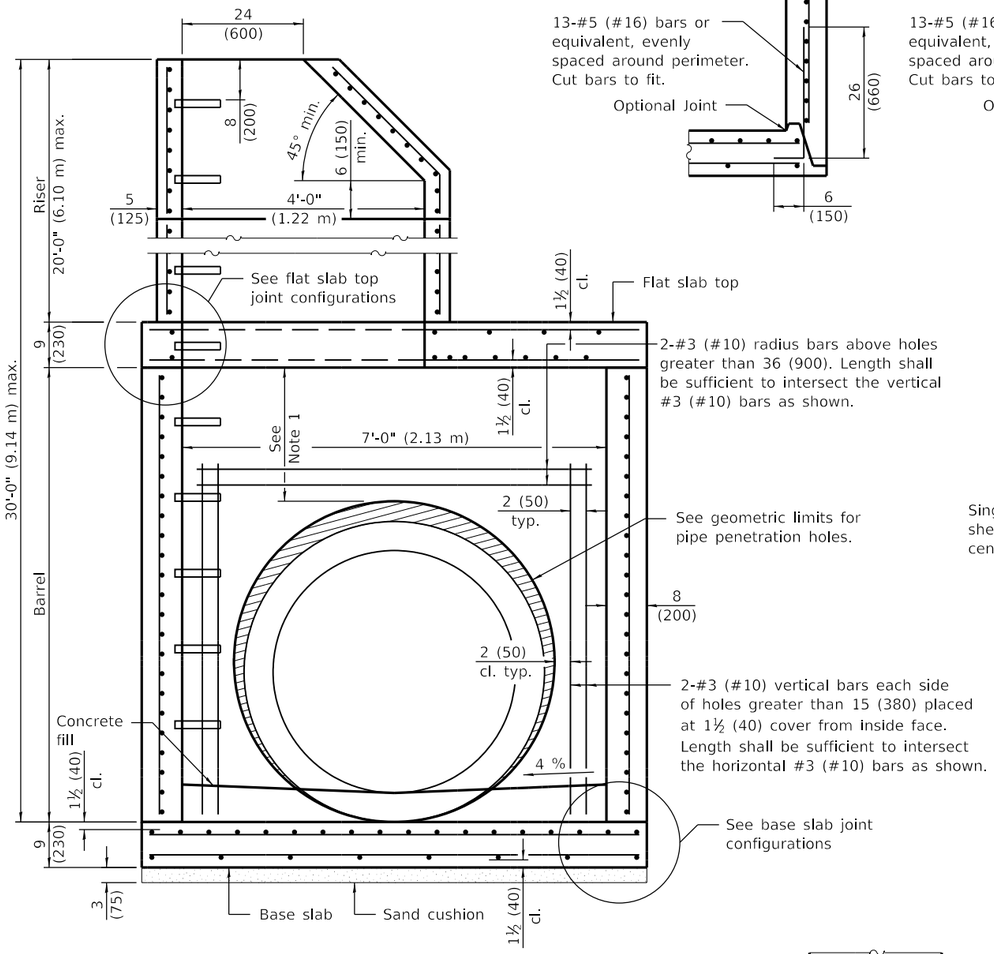
ISSUED 1-1-97

PRECAST MANHOLE TYPE A 6' (1.83 m) DIAMETER

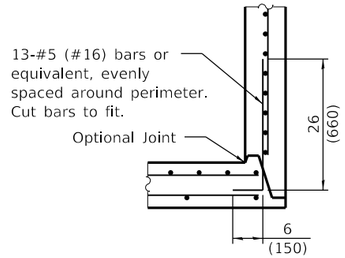
STANDARD 602406-11

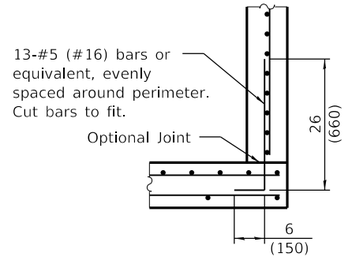


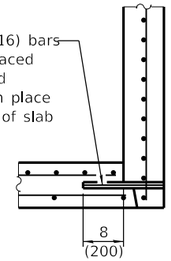
SECTION PARALLEL TO PIPE
(Without conical top riser)

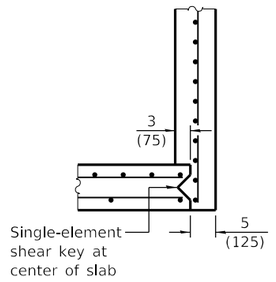


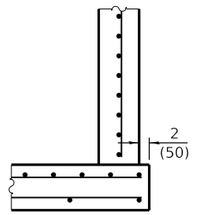
SECTION PERPENDICULAR TO PIPE
(With conical top riser)



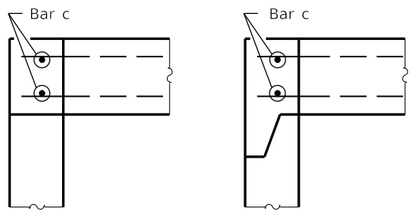








BASE SLAB JOINT CONFIGURATIONS



FLAT SLAB TOP JOINT CONFIGURATIONS
(Shown at access hole)

GEOMETRIC LIMITS FOR PIPE PENETRATION HOLES

Note 1: A minimum of 12 (300) of monolithic reinforced concrete shall be maintained above pipe penetration holes > 36 (900).

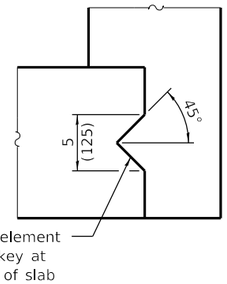
Note 2: A minimum 12 (300) inside arc length of reinforced concrete shall be maintained between pipe penetration holes > 15 (380).

Note 3: A maximum of 60 percent of the inside perimeter of the reinforced concrete manhole walls may be removed.

Note 4: Horizontal joints that intersect pipe penetration holes > 15 (380) shall have one joint splice for every location around the perimeter of the joint where the inside arc length between pipe penetration holes is < 24 (600). See joint splice detail.

Note 5: The recommended pipe penetration hole is equal to the O.D. of the pipe plus 4 (100).

Note 6: Only pipe penetration holes ≤ 15 (380) are allowed in riser sections.



SHEAR KEY GEOMETRY
(Reinforcement not shown for clarity)

GENERAL NOTES

Pipe holes shall be formed to facilitate proper placement of hole reinforcement.

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

Lifting holes shall be located in the sections as per the manufacturer's recommendations.

See Standard 602701 for details of manhole steps.

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

Illinois Department of Transportation

PASSED January 1, 2021
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2021
ENGINEER OF DESIGN AND ENVIRONMENT

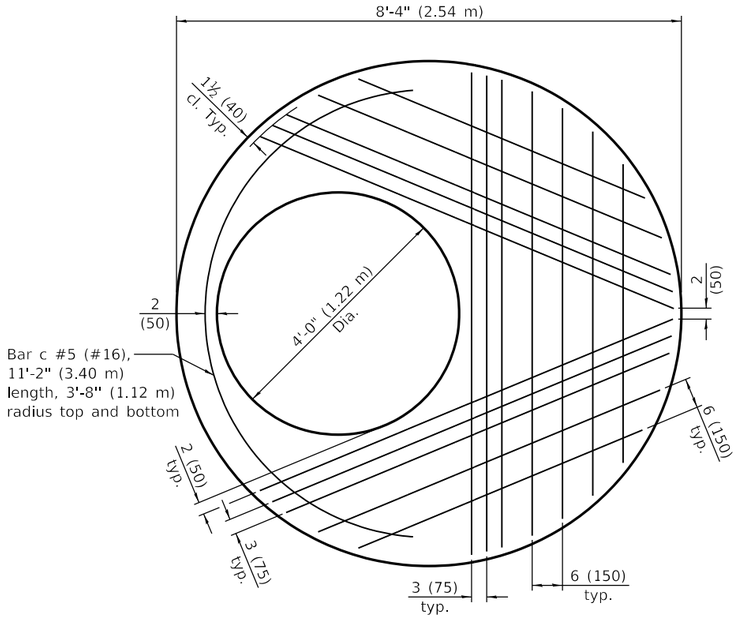
ISSUED 4-1-06

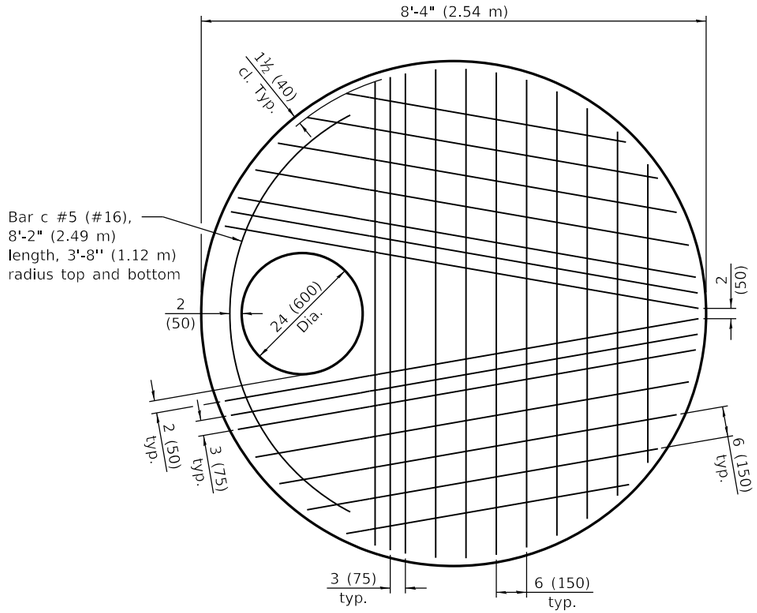
DATE	REVISIONS
1-1-21	Revised Note 1 and lifting hole
	general note.
3-1-19	Moved wall reinforcement from
	inside face to middle.

PRECAST MANHOLE TYPE A
7' (2.13 m) DIAMETER

(Sheet 1 of 3)

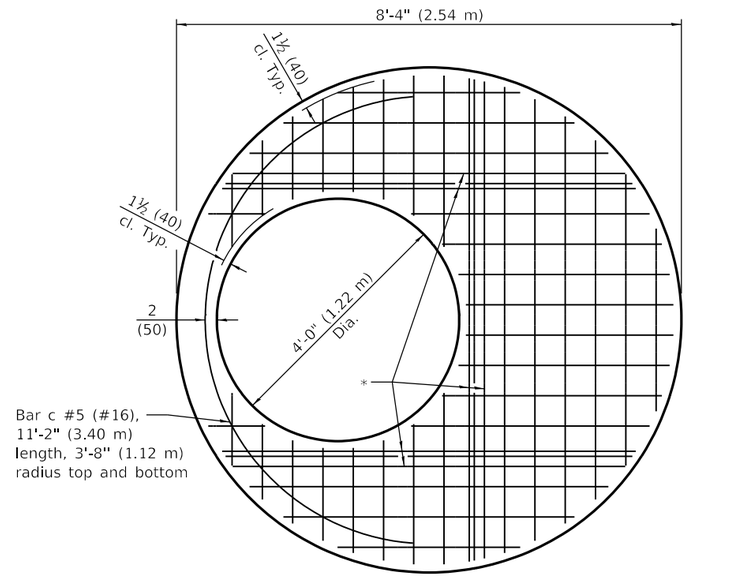
STANDARD 602411-09

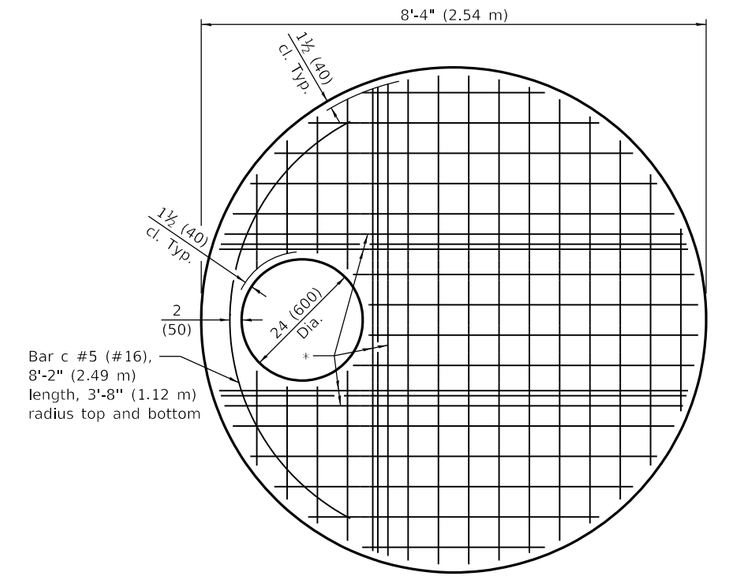




PLAN - FLAT SLAB TOP

(Showing layout of bottom reinforcement bars and c bars)





PLAN - FLAT SLAB TOP

(Showing layout of Welded Wire Reinforcement and c bars)
WWR not permitted for riser heights > 10' (3.05 m).

* #5 (#16) bars bottom. Bundle first bar with closest WWR bar to the opening and place second bar ±3 (75) away.

Illinois Department of Transportation

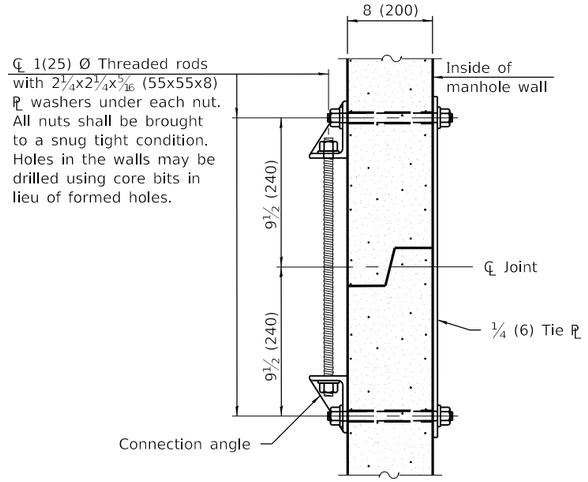
PASSED January 1, 2021
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2021
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 4-1-06

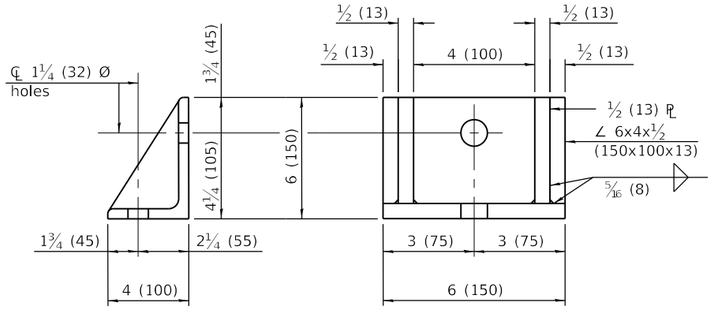
PRECAST MANHOLE TYPE A 7' (2.13 m) DIAMETER

(Sheet 2 of 3)

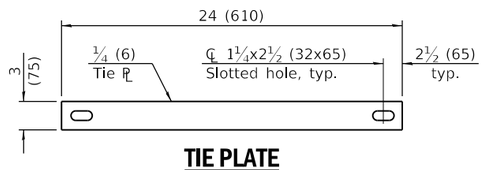
STANDARD 602411-09



JOINT SPLICE



CONNECTION ANGLE



TIE PLATE

FLAT SLAB TOP REINFORCEMENT

Location	Riser Height (RH)	WWR (each direction)		Rebar (each direction except as noted)		
		A_s (min.)	Spacing (max.)	A_s (min.)	Spacing (max.)	Bar Size
Top Mat	All	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)	#3 or #4 (#10) (#13)
Bottom Mat	RH ≤ 10 ft. (3.05 m)	** 0.62 sq. in./ft. (312 sq. mm/m)	6 (150)	See plan view for rebar orientation and spacing and this table for bar size		#5 (#16)
	RH > 10 ft. (3.05 m)	WWR not permitted				#7 (#22)

** Only one layer of WWR permitted to avoid congestion.

WALL REINFORCEMENT

Location	Orientation	WWR or Rebar	
		A_s (min.)	Spacing (max.)
4 ft. (1.22 m) Ø Riser	Circumferential	0.12 sq. in./ft. (254 sq. mm/m)	6 (150)
	Vertical	0.045 sq. in./ft. (95 sq. mm/m)	8 (200)
7 ft. (2.13 m) Ø Barrel	Circumferential	0.21 sq. in./ft. (445 sq. mm/m)	6 (150)
	Vertical	0.045 sq. in./ft. (95 sq. mm/m)	8 (200)

BASE SLAB REINFORCEMENT

Location	Riser Height (RH)/ Total Height (TH)	WWR or Rebar (each direction)	
		A_s (min.)	Spacing (max.)
Top Mat	RH ≤ 10 ft. (3.05 m) & TH ≤ 20 ft. (6.10 m)	0.32 sq. in./ft. (677 sq. mm/m)	6 (150)
	RH > 10 ft. (3.05 m) or TH > 20 ft. (6.10 m)	0.52 sq. in./ft. (1101 sq. mm/m)	6 (150)
Bottom Mat	All	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)

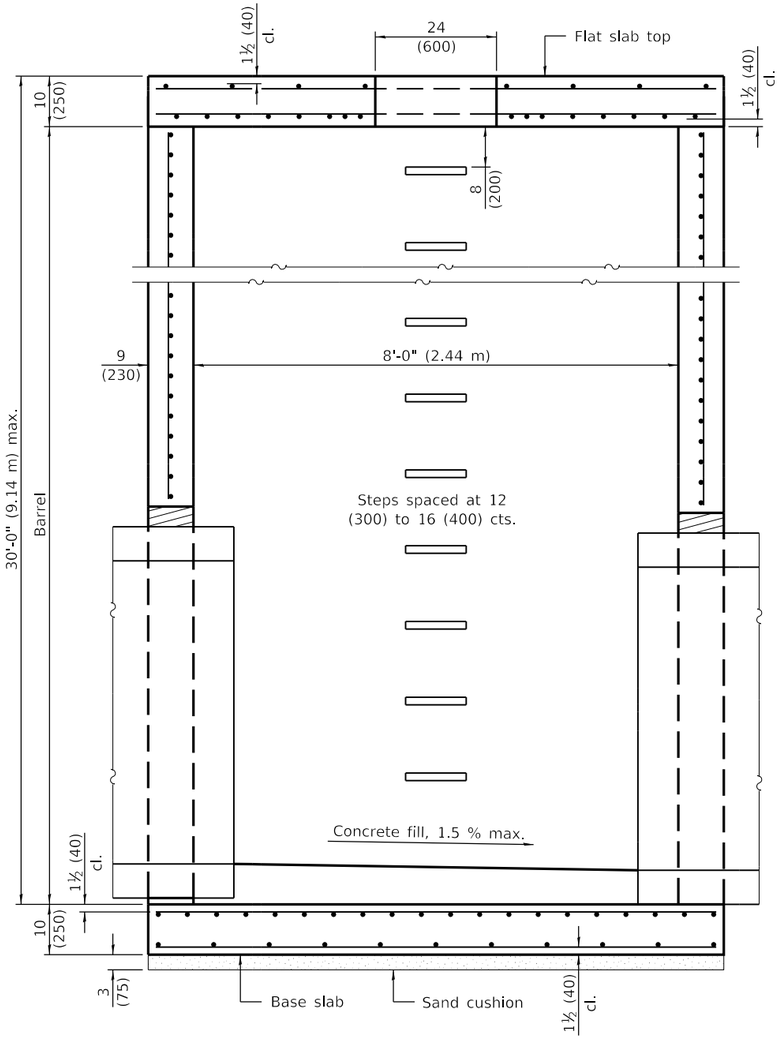
Illinois Department of Transportation

PASSED January 1, 2021
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2021
ENGINEER OF DESIGN AND ENVIRONMENT

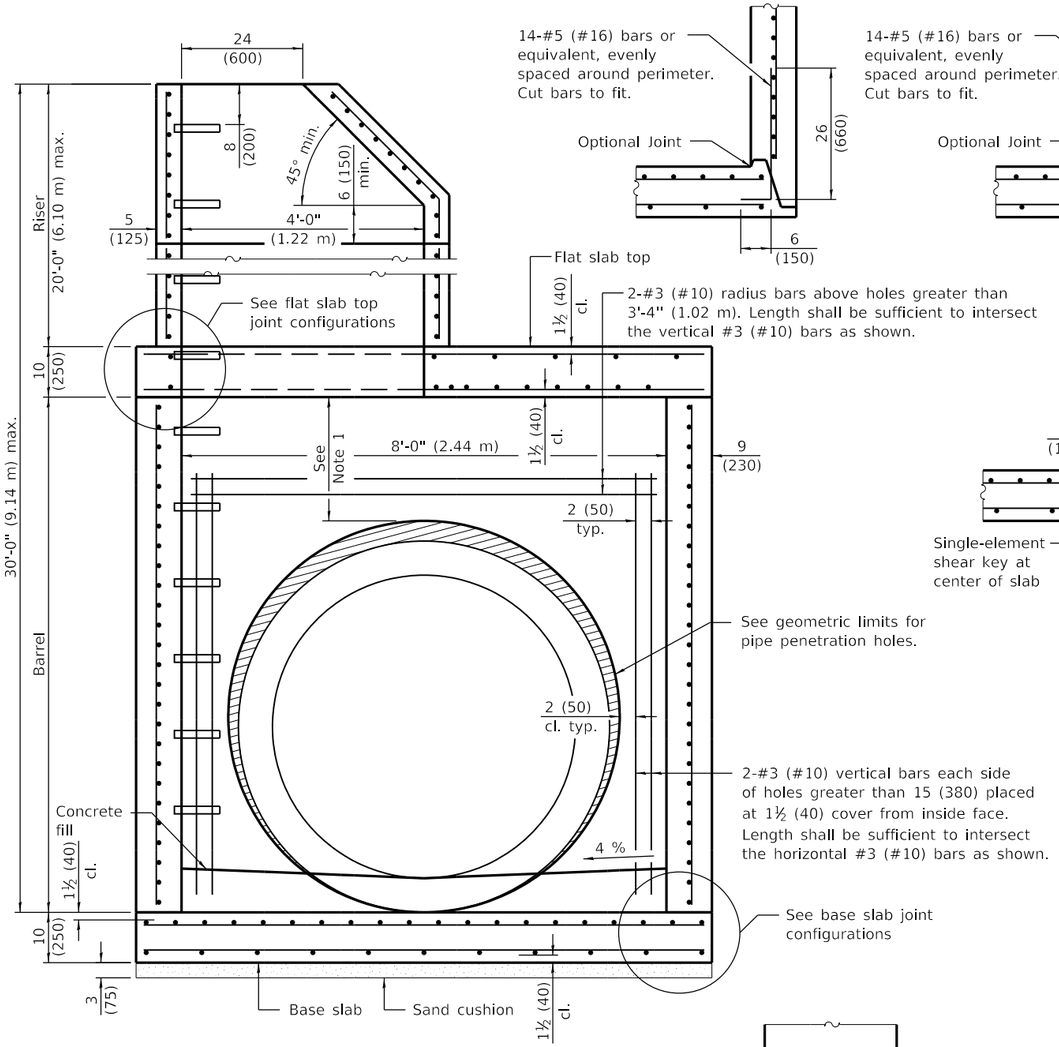
ISSUED 4-1-06

PRECAST MANHOLE TYPE A 7' (2.13 m) DIAMETER

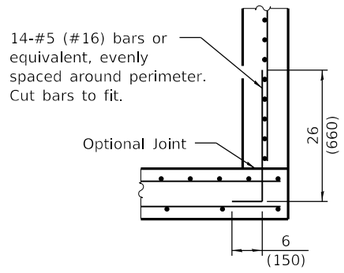
STANDARD 602411-09

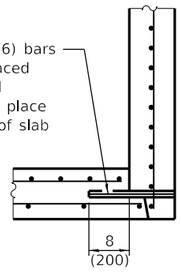


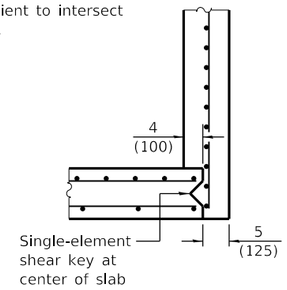
SECTION PARALLEL TO PIPE
(Without conical top riser)

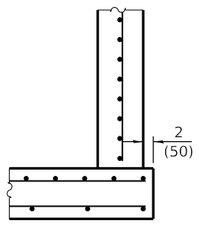


SECTION PERPENDICULAR TO PIPE
(With conical top riser)

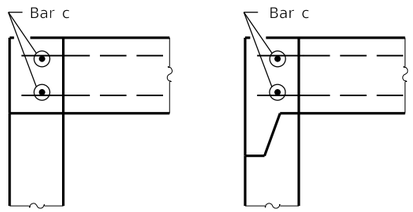








BASE SLAB JOINT CONFIGURATIONS



FLAT SLAB TOP JOINT CONFIGURATIONS
(Shown at access hole)

GEOMETRIC LIMITS FOR PIPE PENETRATION HOLES

Note 1: A minimum of 12 (300) of monolithic reinforced concrete shall be maintained above pipe penetration holes > 3'-4" (1.02 m).

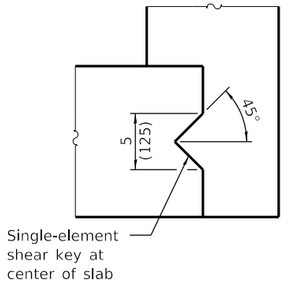
Note 2: A minimum 12 (300) inside arc length of reinforced concrete shall be maintained between pipe penetration holes > 15 (380).

Note 3: A maximum of 60 percent of the inside perimeter of the reinforced concrete manhole walls may be removed.

Note 4: Horizontal joints that intersect pipe penetration holes > 15 (380) shall have one joint splice for every location around the perimeter of the joint where the inside arc length between pipe penetration holes is < 24 (600). See joint splice detail.

Note 5: The recommended pipe penetration hole is equal to the O.D. of the pipe plus 4 (100).

Note 6: Only pipe penetration holes ≤ 15 (380) are allowed in riser sections.



SHEAR KEY GEOMETRY
(Reinforcement not shown for clarity)

GENERAL NOTES

Pipe holes shall be formed to facilitate proper placement of hole reinforcement.

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

Lifting holes shall be located in the sections as per the manufacturer's recommendations.

See Standard 602701 for details of manhole steps.

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

Illinois Department of Transportation

PASSED January 1, 2021
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2021
ENGINEER OF DESIGN AND ENVIRONMENT

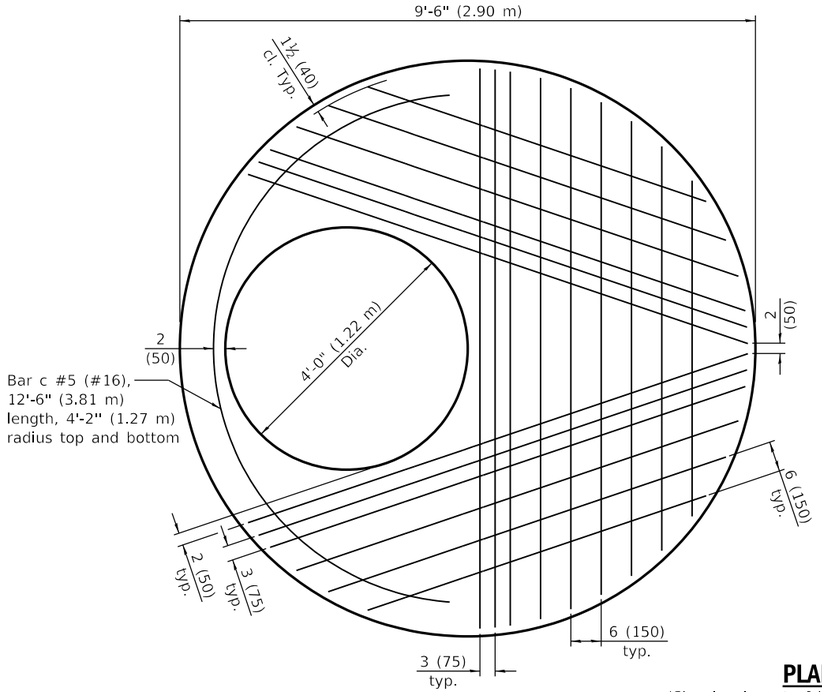
ISSUED 4-1-06

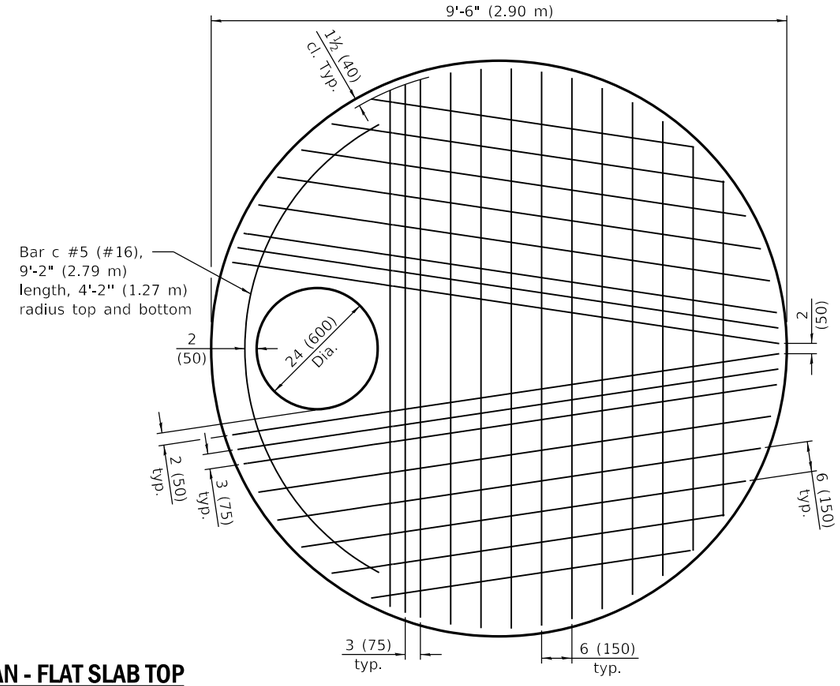
DATE	REVISIONS
1-1-21	Revised Note 1 and lifting hole
	general note.
3-1-19	Moved wall reinforcement from
	inside face to middle.

PRECAST MANHOLE TYPE A 8' (2.44 m) DIAMETER

(Sheet 1 of 3)

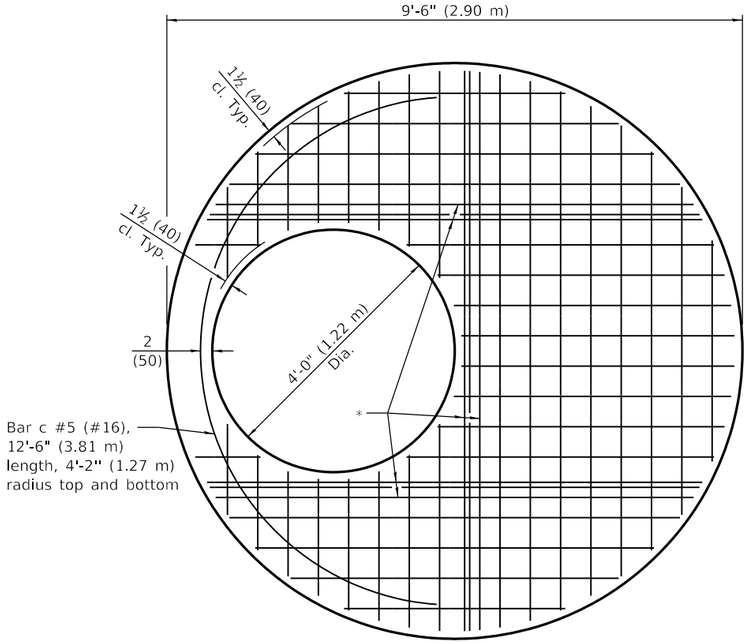
STANDARD 602416-09

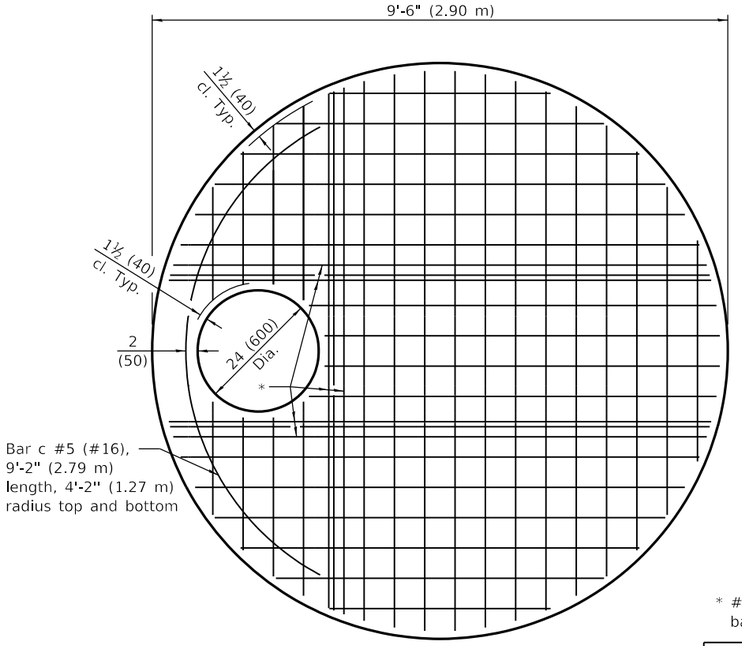




PLAN - FLAT SLAB TOP

(Showing layout of bottom reinforcement bars and c bars)





* #6 (#19) bars bottom. Bundle first bar with closest WWR bar to the opening and place second bar ±3 (75) away.

PLAN - FLAT SLAB TOP

(Showing layout of Welded Wire Reinforcement and c bars)
WWR not permitted for riser heights > 10' (3.05 m).

Illinois Department of Transportation

PASSED January 1, 2021
ENGINEER OF POLICY AND PROCEDURES

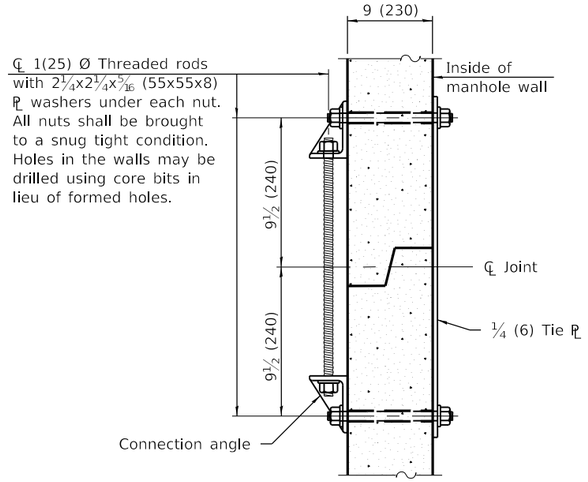
APPROVED January 1, 2021
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 4-1-06

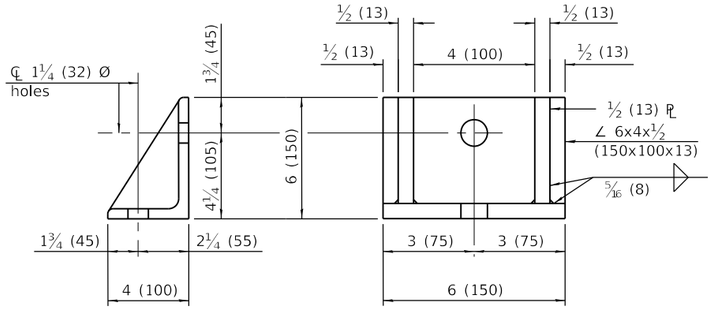
PRECAST MANHOLE TYPE A 8' (2.44 m) DIAMETER

(Sheet 2 of 3)

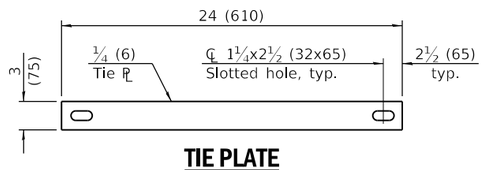
STANDARD 602416-09



JOINT SPLICE



CONNECTION ANGLE



TIE PLATE

FLAT SLAB TOP REINFORCEMENT

Location	Riser Height (RH)	WWR (each direction)		Rebar (each direction except as noted)		
		A_s (min.)	Spacing (max.)	A_s (min.)	Spacing (max.)	Bar Size
Top Mat	All	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)	#3 or #4 (#10) (#13)
Bottom Mat	RH ≤ 10 ft. (3.05 m)	** 0.88 sq. in./ft. (1863 sq. mm/m)	6 (150)	See plan view for rebar orientation and spacing and this table for bar size		#6 (#19)
	RH > 10 ft. (3.05 m)	WWR not permitted				#7 (#22)

** Only one layer of WWR permitted to avoid congestion.

WALL REINFORCEMENT

Location	Orientation	WWR or Rebar	
		A_s (min.)	Spacing (max.)
4 ft. (1.22 m) Ø Riser	Circumferential	0.12 sq. in./ft. (254 sq. mm/m)	6 (150)
	Vertical	0.045 sq. in./ft. (95 sq. mm/m)	8 (200)
8 ft. (2.44 m) Ø Barrel	Circumferential	0.24 sq. in./ft. (508 sq. mm/m)	6 (150)
	Vertical	0.045 sq. in./ft. (95 sq. mm/m)	8 (200)

BASE SLAB REINFORCEMENT

Location	Riser Height (RH)/ Total Height (TH)	WWR or Rebar (each direction)	
		A_s (min.)	Spacing (max.)
Top Mat	RH ≤ 10 ft. (3.05 m) & TH ≤ 20 ft. (6.10 m)	0.36 sq. in./ft. (762 sq. mm/m)	6 (150)
	RH > 10 ft. (3.05 m) or TH > 20 ft. (6.10 m)	0.60 sq. in./ft. (1270 sq. mm/m)	6 (150)
Bottom Mat	All	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)

Illinois Department of Transportation

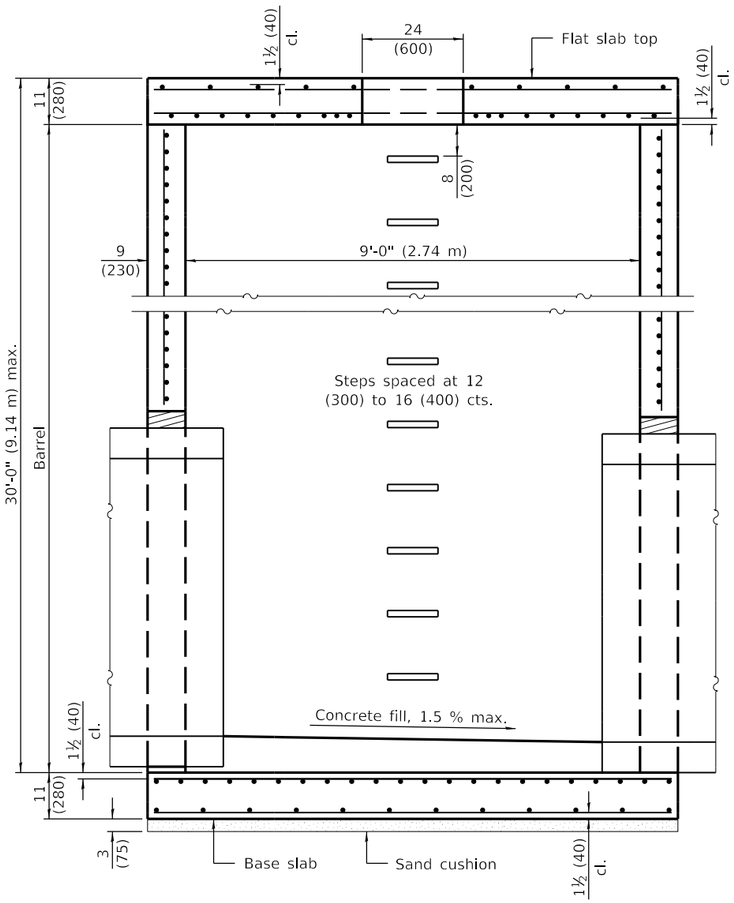
PASSED January 1, 2021
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2021
ENGINEER OF DESIGN AND ENVIRONMENT

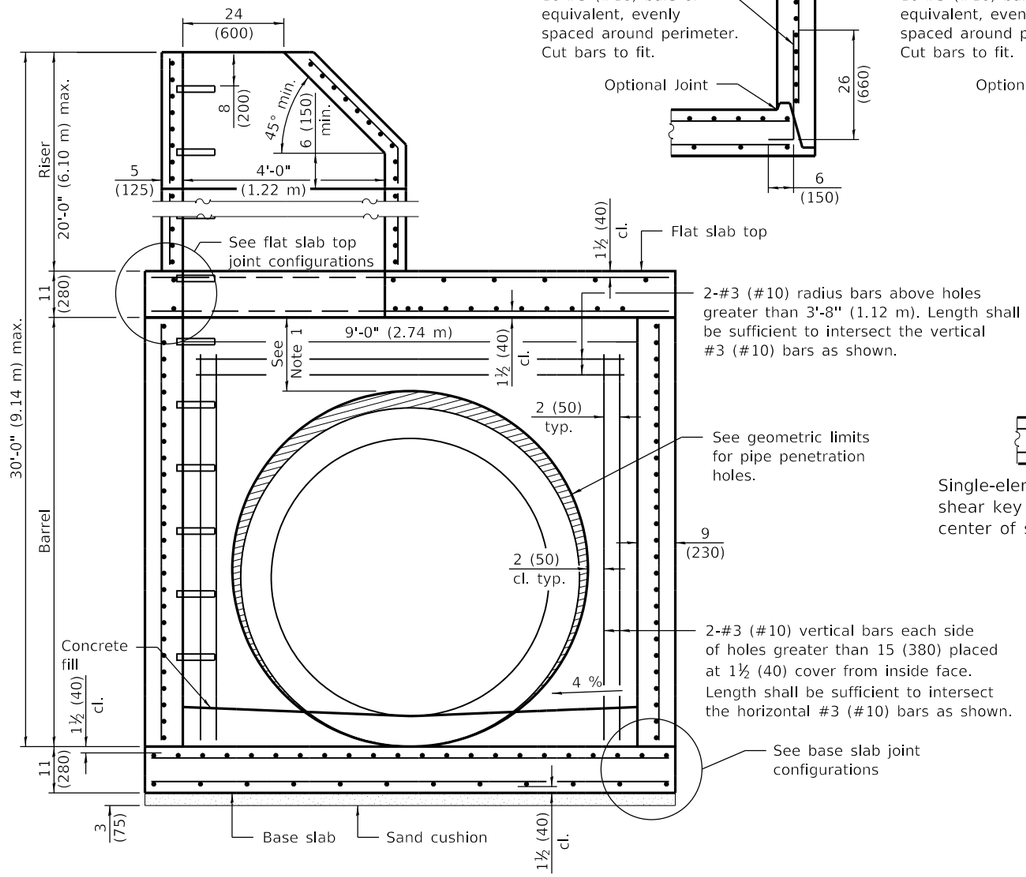
ISSUED 4-1-06

PRECAST MANHOLE TYPE A 8' (2.44 m) DIAMETER

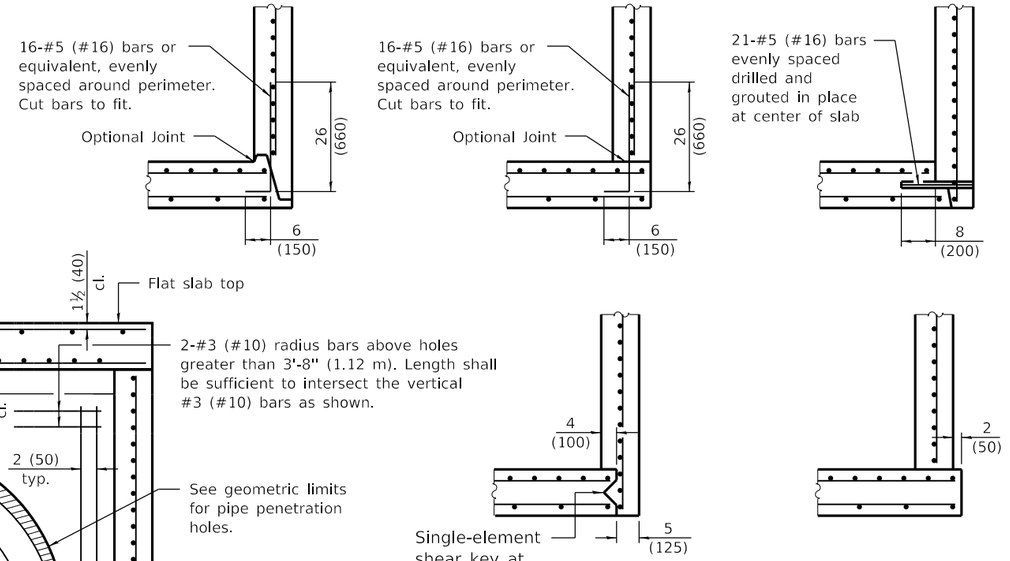
STANDARD 602416-09



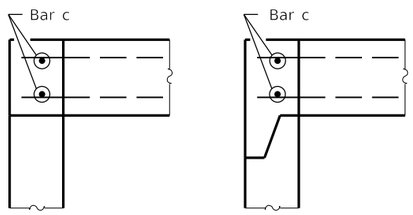
SECTION PARALLEL TO PIPE
(Without conical top riser)



SECTION PERPENDICULAR TO PIPE
(With conical top riser)



BASE SLAB JOINT CONFIGURATIONS



FLAT SLAB TOP JOINT CONFIGURATIONS
(Shown at access hole)

GEOMETRIC LIMITS FOR PIPE PENETRATION HOLES

Note 1: A minimum of 12 (300) of monolithic reinforced concrete shall be maintained above pipe penetration holes > 3'-8" (1.12 m).

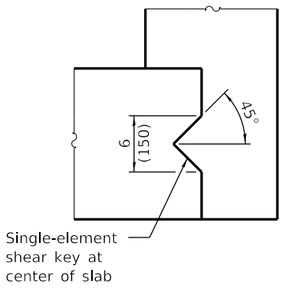
Note 2: A minimum 12 (300) inside arc length of reinforced concrete shall be maintained between pipe penetration holes > 15 (380).

Note 3: A maximum of 60 percent of the inside perimeter of the reinforced concrete manhole walls may be removed.

Note 4: Horizontal joints that intersect pipe penetration holes > 15 (380) shall have one joint splice for every location around the perimeter of the joint where the inside arc length between pipe penetration holes is < 24 (600). See joint splice detail.

Note 5: The recommended pipe penetration hole is equal to the O.D. of the pipe plus 4 (100).

Note 6: Only pipe penetration holes ≤ 15 (380) are allowed in riser sections.



SHEAR KEY GEOMETRY
(Reinforcement not shown for clarity)

GENERAL NOTES

Pipe holes shall be formed to facilitate proper placement of hole reinforcement.

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

Lifting holes shall be located in the sections as per the manufacturer's recommendations.

See Standard 602701 for details of manhole steps.

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

Illinois Department of Transportation

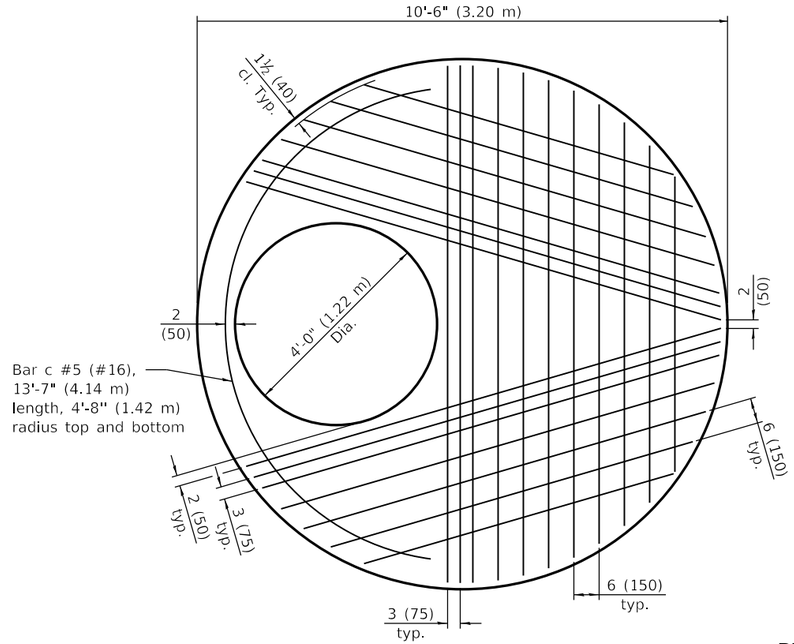
PASSED January 1, 2021
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2021
ENGINEER OF DESIGN AND ENVIRONMENT
ISSUED 4-1-06

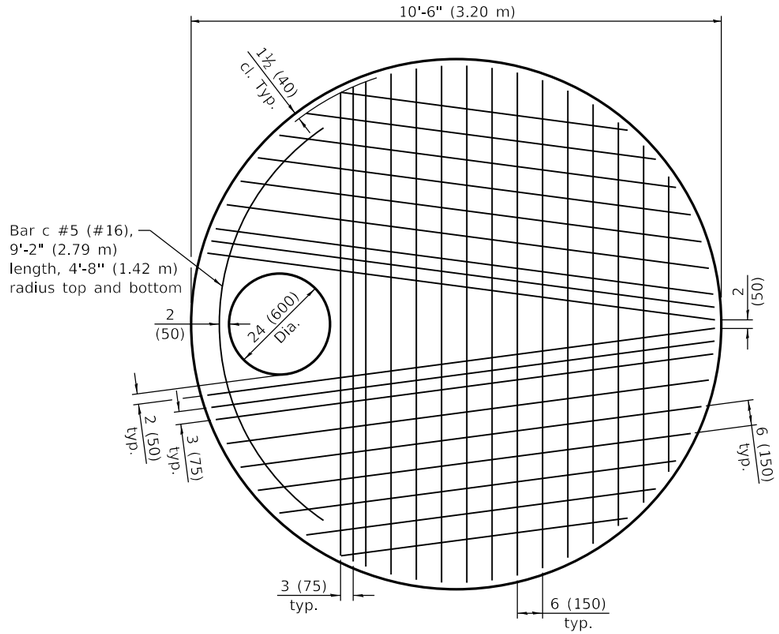
DATE	REVISIONS
1-1-21	Revised Note 1 and lifting hole
	general note.
3-1-19	Moved wall reinforcement from
	inside face to middle.

PRECAST MANHOLE TYPE A
9' (2.74 m) DIAMETER

(Sheet 1 of 3)

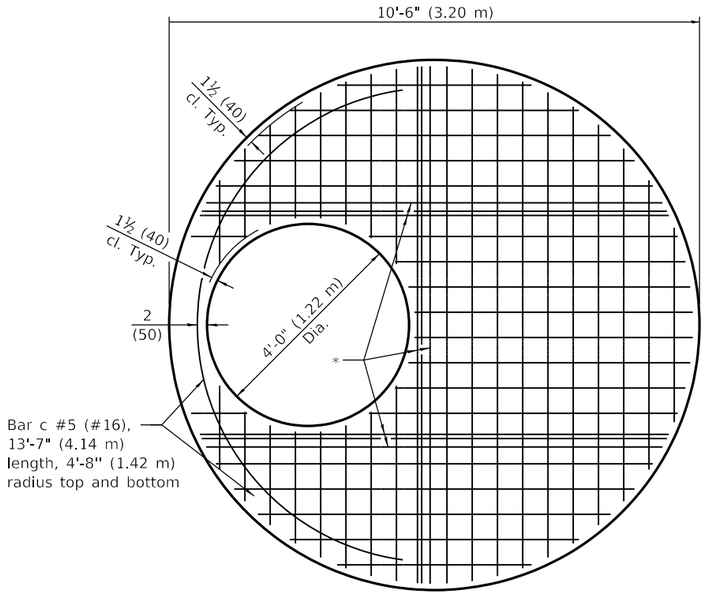
STANDARD 602421-09

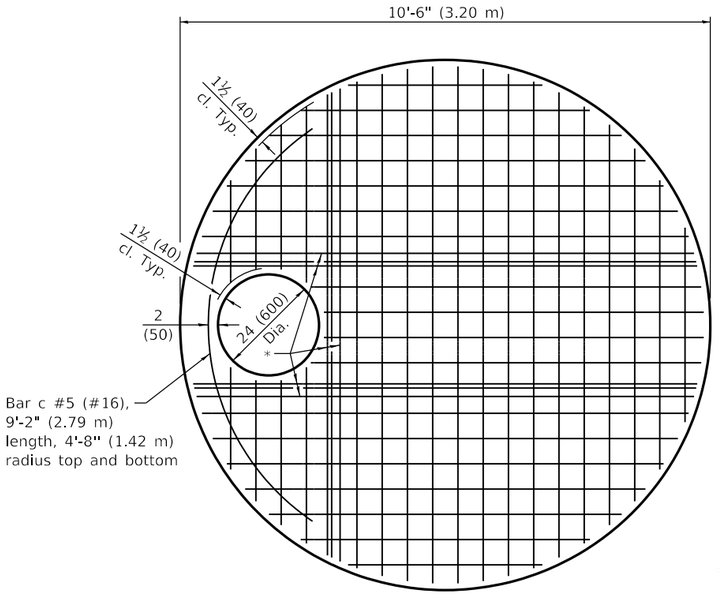




PLAN - FLAT SLAB TOP

(Showing layout of bottom reinforcement bars and c bars)





PLAN - FLAT SLAB TOP

(Showing layout of welded wire reinforcement and c bars)
WWR not permitted for riser heights > 10' (3.05 m).

* #6 (#19) bars bottom. Bundle first bar with closest WWR bar to the opening and place second bar ±3 (75) away.

Illinois Department of Transportation

PASSED January 1, 2021
ENGINEER OF POLICY AND PROCEDURES

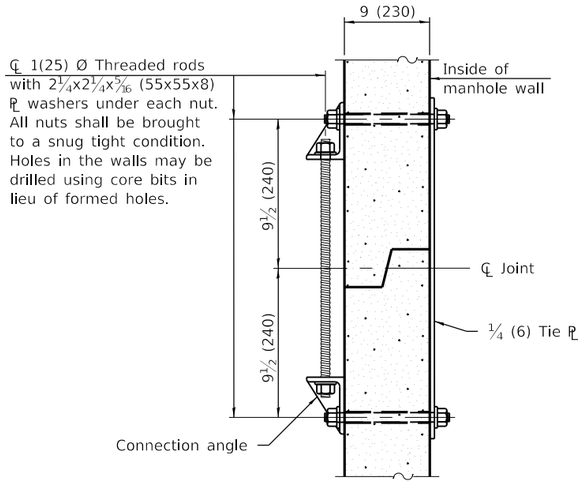
APPROVED January 1, 2021
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 4-1-06

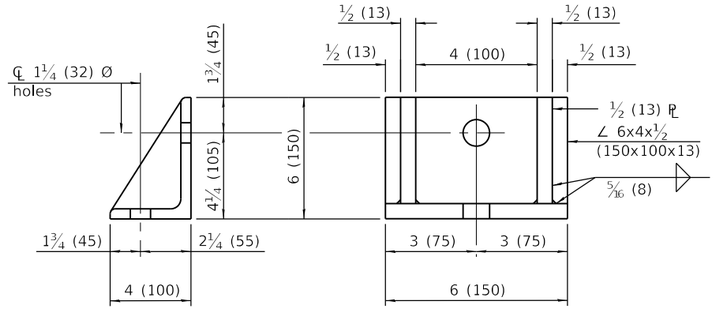
PRECAST MANHOLE TYPE A 9' (2.74 m) DIAMETER

(Sheet 2 of 3)

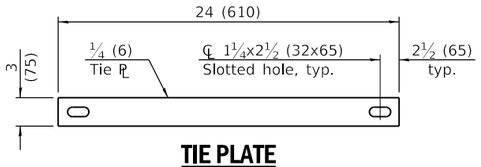
STANDARD 602421-09



JOINT SPLICE



CONNECTION ANGLE



TIE PLATE

FLAT SLAB TOP REINFORCEMENT

Location	Riser Height (RH)	WWR (each direction)		Rebar (each direction except as noted)		
		A_s (min.)	Spacing (max.)	A_s (min.)	Spacing (max.)	Bar Size
Top Mat	All	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)	#3 or #4 (#10) (#13)
Bottom Mat	RH ≤ 10 ft. (3.05 m)	** 0.88 sq. in./ft. (1863 sq. mm/m)	6 (150)	See plan view for rebar orientation and spacing and this table for bar size		#6 (#19)
	RH > 10 ft. (3.05 m)	WWR not permitted				#8 (#25)

** Only one layer of WWR permitted to avoid congestion.

WALL REINFORCEMENT

Location	Orientation	WWR or Rebar	
		A_s (min.)	Spacing (max.)
4 ft. (1.22 m) Ø Riser	Circumferential	0.12 sq. in./ft. (254 sq. mm/m)	6 (150)
	Vertical	0.045 sq. in./ft. (95 sq. mm/m)	8 (200)
9 ft. (2.74 m) Ø Barrel	Circumferential	0.27 sq. in./ft. (572 sq. mm/m)	6 (150)
	Vertical	0.045 sq. in./ft. (95 sq. mm/m)	8 (200)

BASE SLAB REINFORCEMENT

Location	Riser Height (RH)/ Total Height (TH)	WWR or Rebar (each direction)	
		A_s (min.)	Spacing (max.)
Top Mat	RH ≤ 10 ft. (3.05 m) & TH ≤ 20 ft. (6.10 m)	0.44 sq. in./ft. (931 sq. mm/m)	6 (150)
	RH > 10 ft. (3.05 m) or TH > 20 ft. (6.10 m)	0.72 sq. in./ft. (1524 sq. mm/m)	6 (150)
Bottom Mat	All	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)

Illinois Department of Transportation

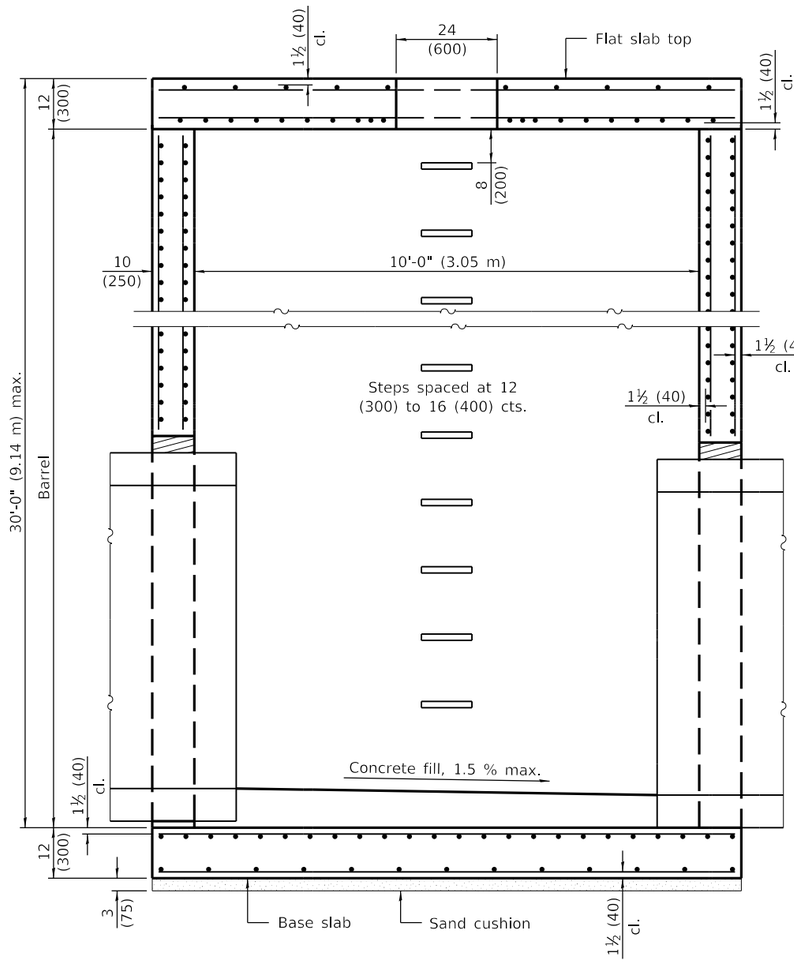
PASSED January 1, 2021
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2021
ENGINEER OF DESIGN AND ENVIRONMENT

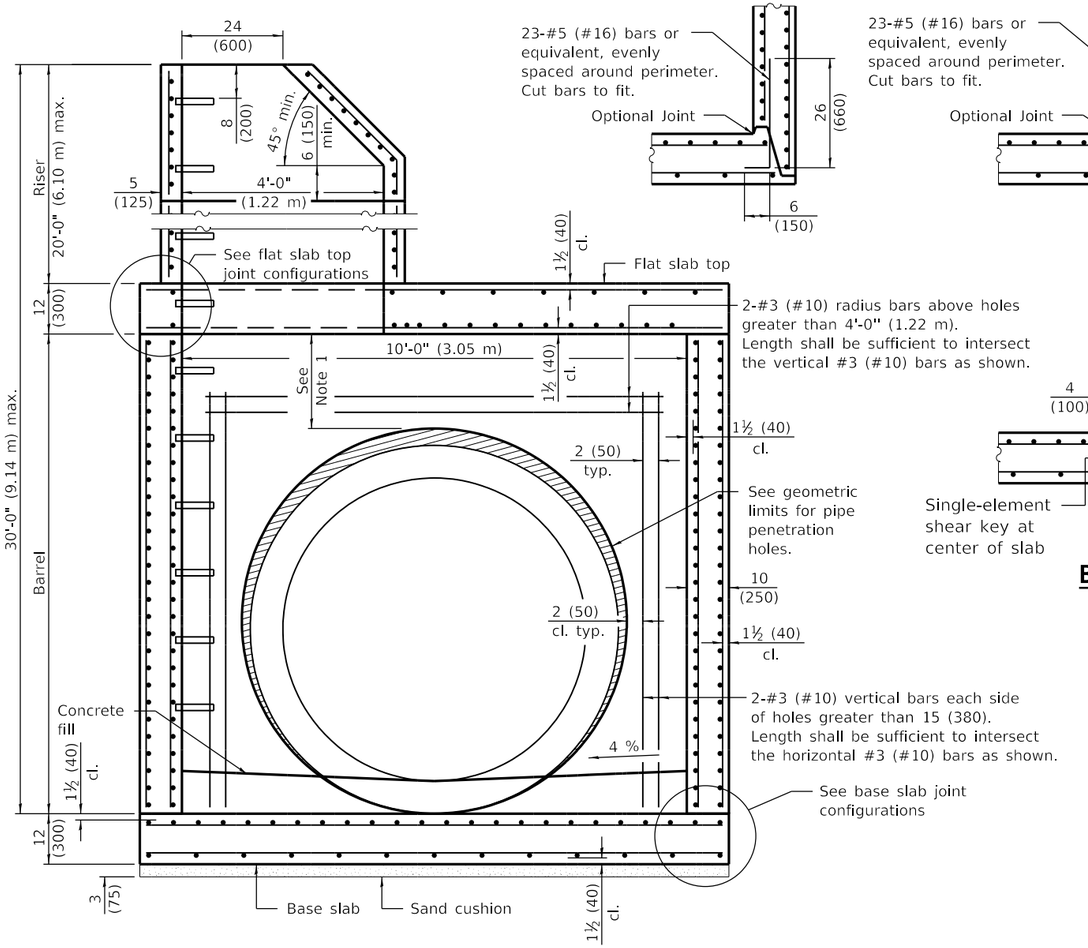
ISSUED 4-1-06

PRECAST MANHOLE TYPE A 9' (2.74 m) DIAMETER

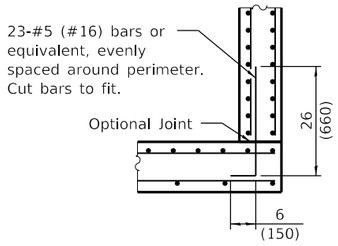
STANDARD 602421-09

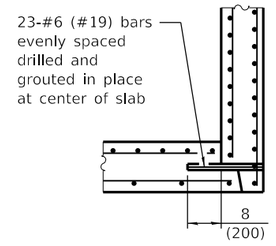


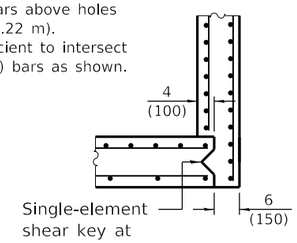
SECTION PARALLEL TO PIPE
(Without conical top riser)

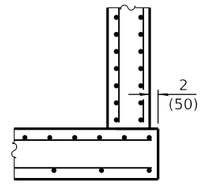


SECTION PERPENDICULAR TO PIPE
(With conical top riser)

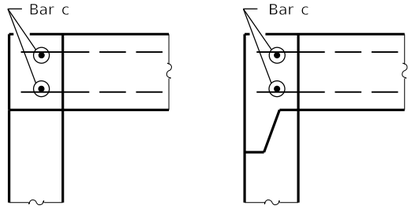








BASE SLAB JOINT CONFIGURATIONS



FLAT SLAB TOP JOINT CONFIGURATIONS
(Shown at access hole)

GEOMETRIC LIMITS FOR PIPE PENETRATION HOLES

Note 1: A minimum of 12 (300) of monolithic reinforced concrete shall be maintained above pipe penetration holes > 4'-0" (1.22 m).

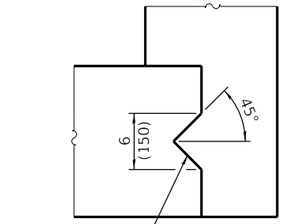
Note 2: A minimum 12 (300) inside arc length of reinforced concrete shall be maintained between pipe penetration holes > 15 (380).

Note 3: A maximum of 60 percent of the inside perimeter of the reinforced concrete manhole walls may be removed.

Note 4: Horizontal joints that intersect pipe penetration holes > 15 (380) shall have one joint splice for every location around the perimeter of the joint where the inside arc length between pipe penetration holes is < 24 (600). See joint splice detail.

Note 5: The recommended pipe penetration hole is equal to the O.D. of the pipe plus 4 (100).

Note 6: Only pipe penetration holes ≤ 15 (380) are allowed in riser sections.



SHEAR KEY GEOMETRY
(Reinforcement not shown for clarity)

GENERAL NOTES

Pipe holes shall be formed to facilitate proper placement of hole reinforcement.

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

Lifting holes shall be located in the sections as per the manufacturer's recommendations.

See Standard 602701 for details of manhole steps.

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

Illinois Department of Transportation

PASSED January 1, 2021
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2021
ENGINEER OF DESIGN AND ENVIRONMENT

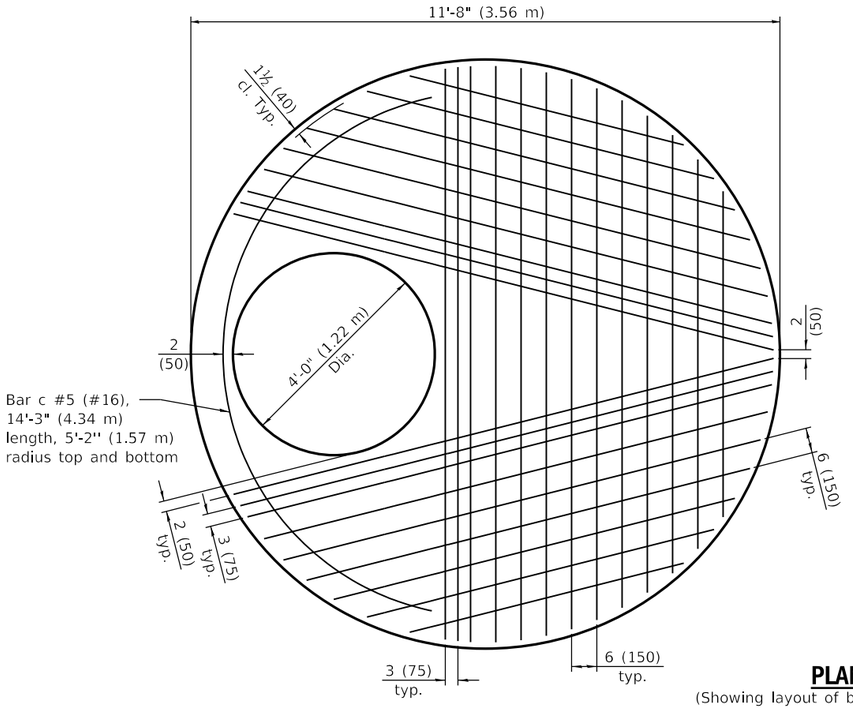
ISSUED 1-1-18

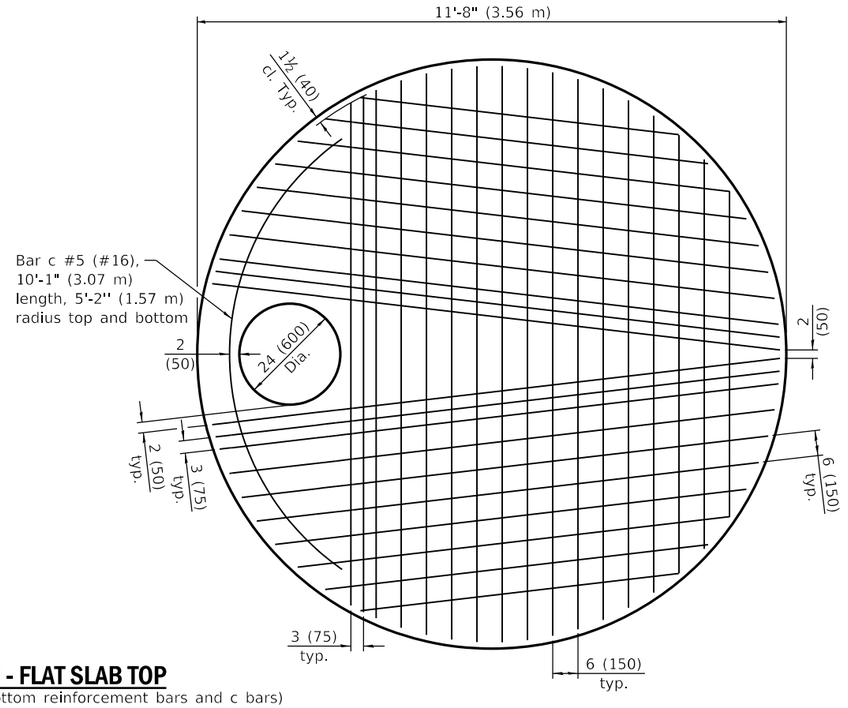
DATE	REVISIONS
1-1-21	Revised Note 1.
3-1-19	Moved wall reinforcement of
	4'-0" (1.22 m) riser from inside
	face to middle.

PRECAST MANHOLE TYPE A 10' (3.05 m) DIAMETER

(Sheet 1 of 3)

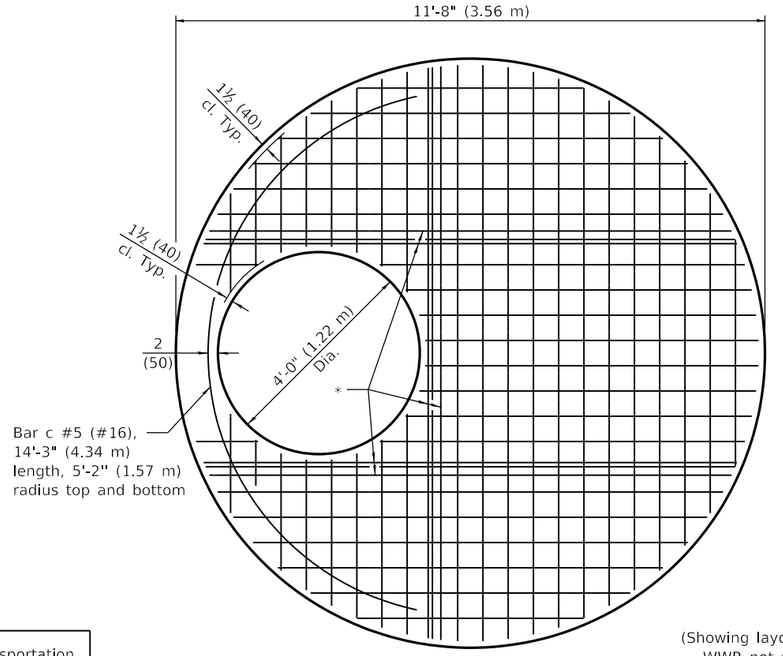
STANDARD 602426-03

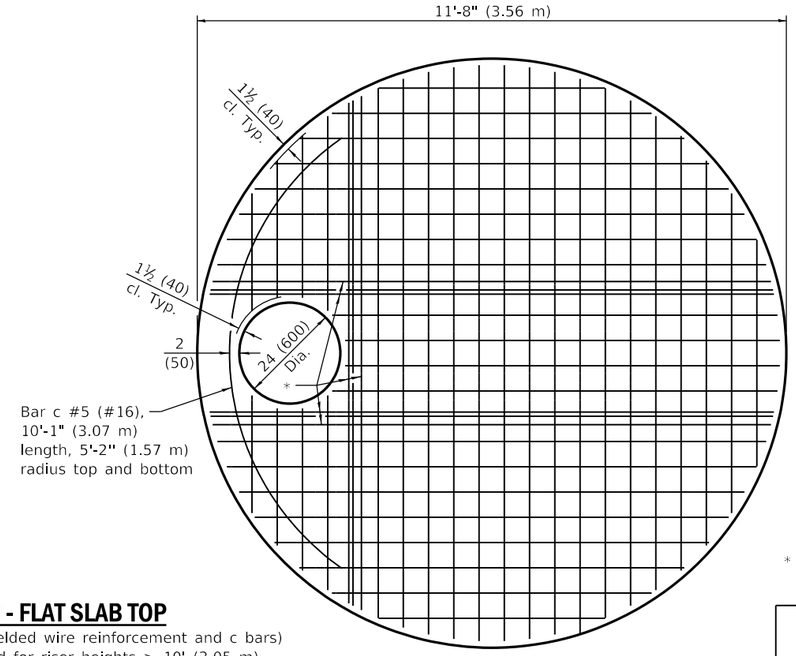




PLAN - FLAT SLAB TOP

(Showing layout of bottom reinforcement bars and c bars)





PLAN - FLAT SLAB TOP

(Showing layout of welded wire reinforcement and c bars)
WWR not permitted for riser heights > 10' (3.05 m).

* #6 (#19) bars bottom. Bundle first bar with closest WWR bar to the opening and place second bar ±3 (75) away.

Illinois Department of Transportation

PASSED January 1, 2021
ENGINEER OF POLICY AND PROCEDURES

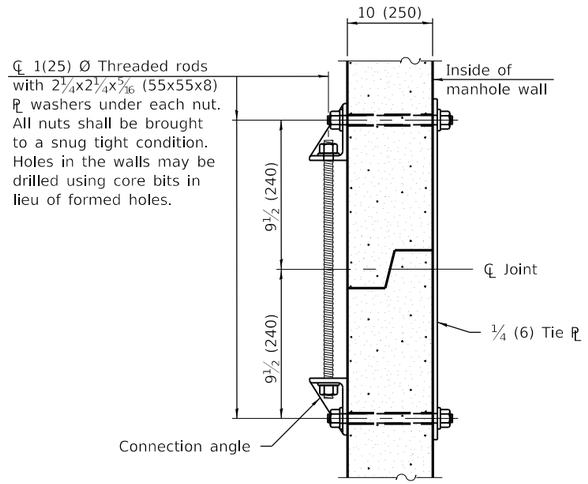
APPROVED January 1, 2021
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-18

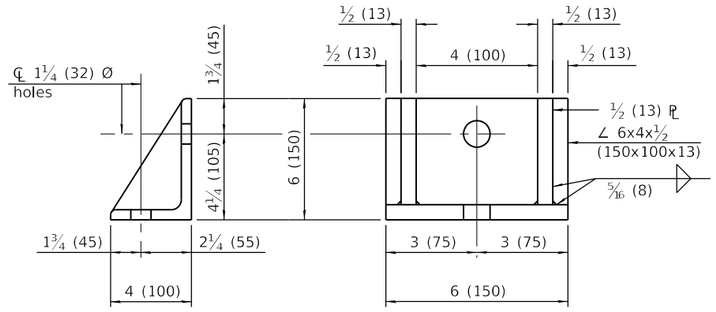
PRECAST MANHOLE TYPE A 10' (3.05 m) DIAMETER

(Sheet 2 of 3)

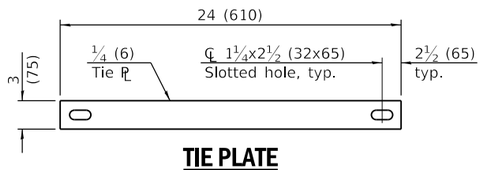
STANDARD 602426-03



JOINT SPLICE



CONNECTION ANGLE



TIE PLATE

FLAT SLAB TOP REINFORCEMENT

Location	Riser Height (RH)	WWR (each direction)		Rebar (each direction except as noted)		
		A_s (min.)	Spacing (max.)	A_s (min.)	Spacing (max.)	Bar Size
Top Mat	All	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)	#3 or #4 (#10) (#13)
Bottom Mat	RH ≤ 10 ft. (3.05 m)	** 0.88 sq. in./ft. (1863 sq. mm/m)	6 (150)	See plan view for rebar orientation and spacing and this table for bar size		#6 (#19)
	RH > 10 ft. (3.05 m)	WWR not permitted				#8 (#25)

** Only one layer of WWR permitted to avoid congestion.

WALL REINFORCEMENT

Location	Orientation	WWR or Rebar	
		A_s (min.)	Spacing (max.)
4 ft. (1.22 m) Ø Riser	Circumferential	0.12 sq. in./ft. (254 sq. mm/m)	6 (150)
	Vertical	0.045 sq. in./ft. (95 sq. mm/m)	8 (200)
10 ft. (3.05 m) Ø Barrel Inside Mat	Circumferential	0.30 sq. in./ft. (635 sq. mm/m)	6 (150)
	Vertical	0.045 sq. in./ft. (95 sq. mm/m)	8 (200)
10 ft. (3.05 m) Ø Barrel Outside Mat	Circumferential	0.11 sq. in./ft. (233 sq. mm/m)	6 (150)
	Vertical	0.045 sq. in./ft. (95 sq. mm/m)	8 (200)

BASE SLAB REINFORCEMENT

Location	Riser Height (RH)/ Total Height (TH)	WWR or Rebar (each direction)	
		A_s (min.)	Spacing (max.)
Top Mat	RH ≤ 10 ft. (3.05 m) & TH ≤ 20 ft. (6.10 m)	0.48 sq. in./ft. (889 sq. mm/m)	6 (150)
	RH > 10 ft. (3.05 m) or TH > 20 ft. (6.10 m)	0.78 sq. in./ft. (1651 sq. mm/m)	6 (150)
Bottom Mat	All	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)

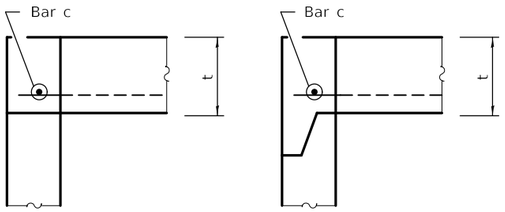
Illinois Department of Transportation

PASSED January 1, 2021
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2021
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-18

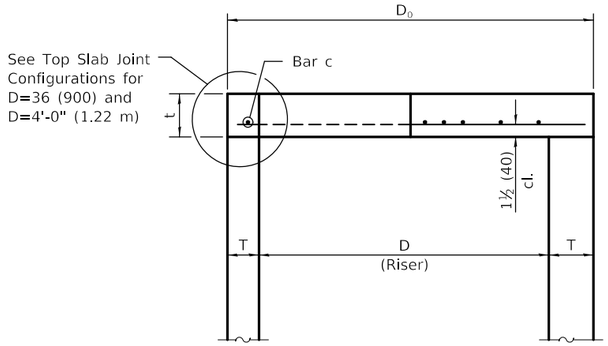
PRECAST MANHOLE TYPE A 10' (3.05 m) DIAMETER

STANDARD 602426-03

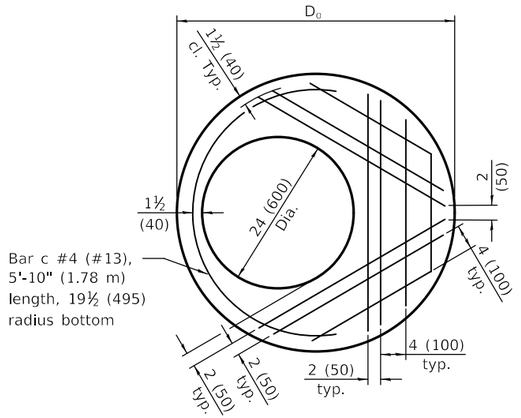


FLAT SLAB TOP JOINT CONFIGURATIONS FOR D = 36 (900) AND D = 4'-0" (1.22 m)

(Shown at access hole)

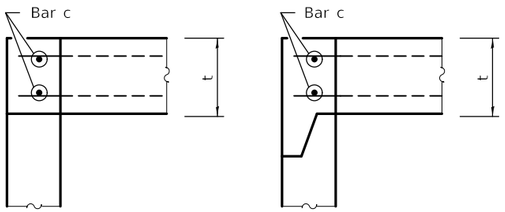


SECTION THRU FLAT SLAB TOP FOR D = 36 (900) AND D = 4'-0" (1.22 m)



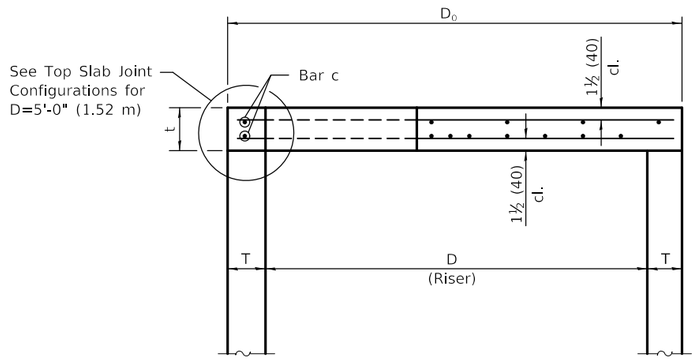
PLAN - FLAT SLAB TOP FOR D = 36 (900)

(Showing layout of reinforcement bars and c bars)

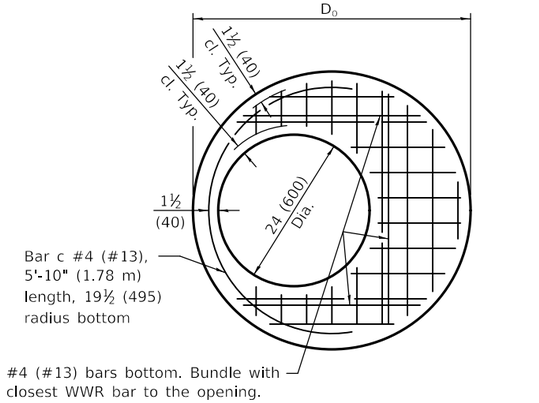


FLAT SLAB TOP JOINT CONFIGURATIONS D = 5'-0" (1.52 m)

(Shown at access hole)



SECTION THRU FLAT SLAB TOP FOR D = 5'-0" (1.52 m)



PLAN - FLAT SLAB TOP FOR D = 36 (900)

(Showing layout of welded wire reinforcement and c bars)

TABLE

D	T	D_0 (min.)	t
36 (900)	See applicable Standards	D + 2T	6 (150)
4'-0" (1.2 m)			6 (150)
5'-0" (1.5 m)			8 (200)

GENERAL NOTES

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

Lifting holes shall be located in the sections as per the manufacturer's recommendations.

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

Illinois Department of Transportation

PASSED January 1, 2019
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2019
ENGINEER OF DESIGN AND ENVIRONMENT

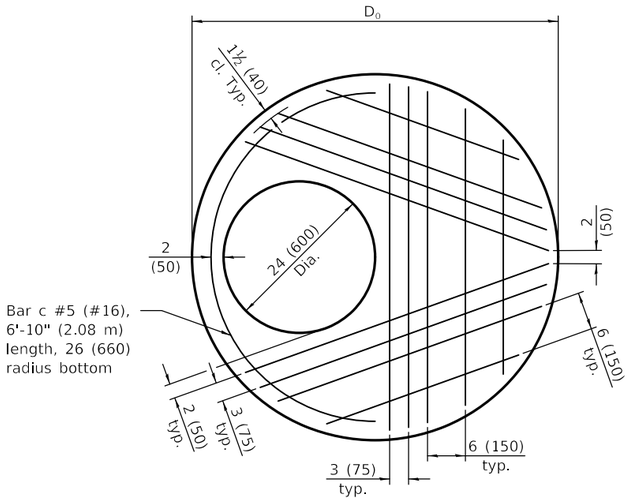
ISSUED 1-1-97

DATE	REVISIONS
1-1-19	Expanded / refined reinforcement
	options.
1-1-18	Revised for compliance with
	LRFD.

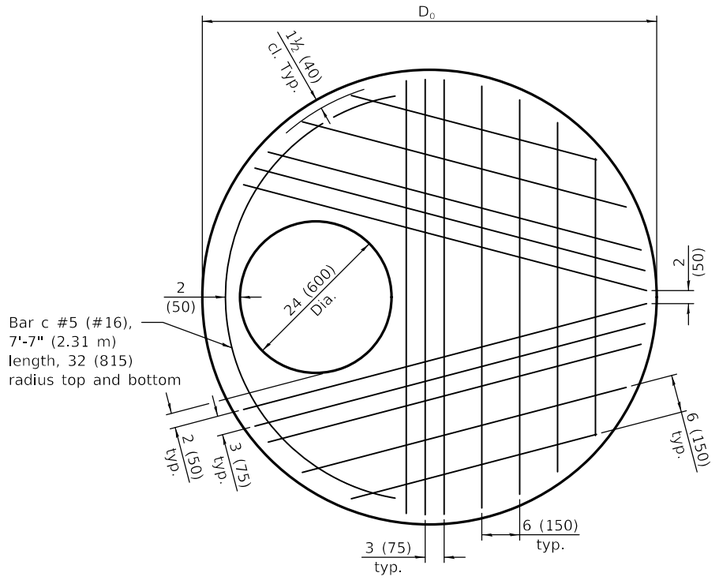
PRECAST REINFORCED CONCRETE FLAT SLAB TOP

(Sheet 1 of 2)

STANDARD 602601-06



PLAN - FLAT SLAB TOP FOR D = 4'-0" (1.22 m)
(Showing layout of reinforcement bars and c bars)



PLAN - FLAT SLAB TOP FOR D = 5'-0" (1.52 m)
(Showing layout of bottom reinforcement bars and c bars)

FLAT SLAB TOP REINFORCEMENT FOR D = 36 (900)

Location	WWR (each direction)		Rebar		
	A_s (min.)	Spacing (max.)	A_s (min.)	Spacing (max.)	Bar Size
Bottom Mat	* 0.60 sq. in./ft. (1270 sq. mm/m)	6 (150)	See plan view for rebar orientation and spacing and this table for bar size		#4 (#13)

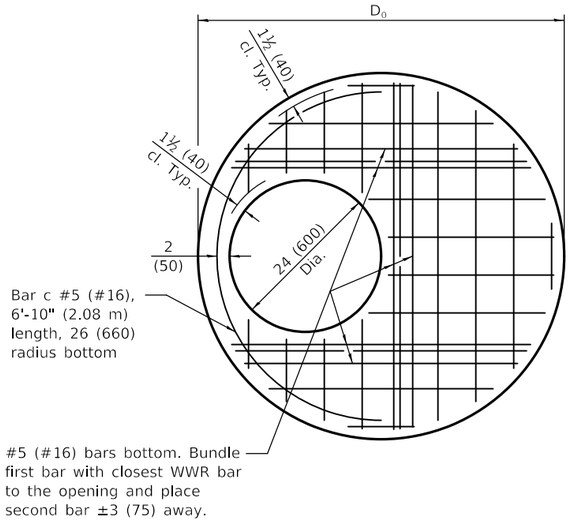
FLAT SLAB TOP REINFORCEMENT FOR D = 4'-0" (1.22 m)

Location	WWR (each direction)		Rebar		
	A_s (min.)	Spacing (max.)	A_s (min.)	Spacing (max.)	Bar Size
Bottom Mat	* 0.62 sq. in./ft. (1312 sq. mm/m)	6 (150)	See plan view for rebar orientation and spacing and this table for bar size		#5 (#16)

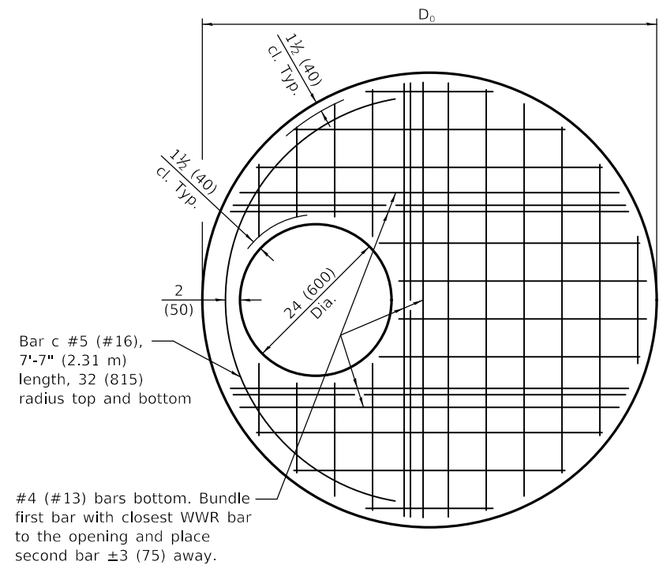
FLAT SLAB TOP REINFORCEMENT FOR D = 5'-0" (1.52 m)

Location	WWR (each direction)		Rebar (each direction except as noted)		
	A_s (min.)	Spacing (max.)	A_s (min.)	Spacing (max.)	Bar Size
Top Mat	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)	0.11 sq. in./ft. (233 sq. mm/m)	18 (450)	#3 or #4 (#10) (#13)
Bottom Mat	* 0.40 sq. in./ft. (847 sq. mm/m)	6 (150)	See plan view for rebar orientation and spacing and this table for bar size		#4 (#13)

* Only one layer of WWR permitted to avoid congestion.



PLAN - FLAT SLAB TOP FOR D = 4'-0" (1.22 m)
(Showing layout of welded wire reinforcement and c bars)



PLAN - FLAT SLAB TOP FOR D = 5'-0" (1.52 m)
(Showing layout of welded wire reinforcement and c bars)

Illinois Department of Transportation

PASSED January 1, 2019
ENGINEER OF POLICY AND PROCEDURES

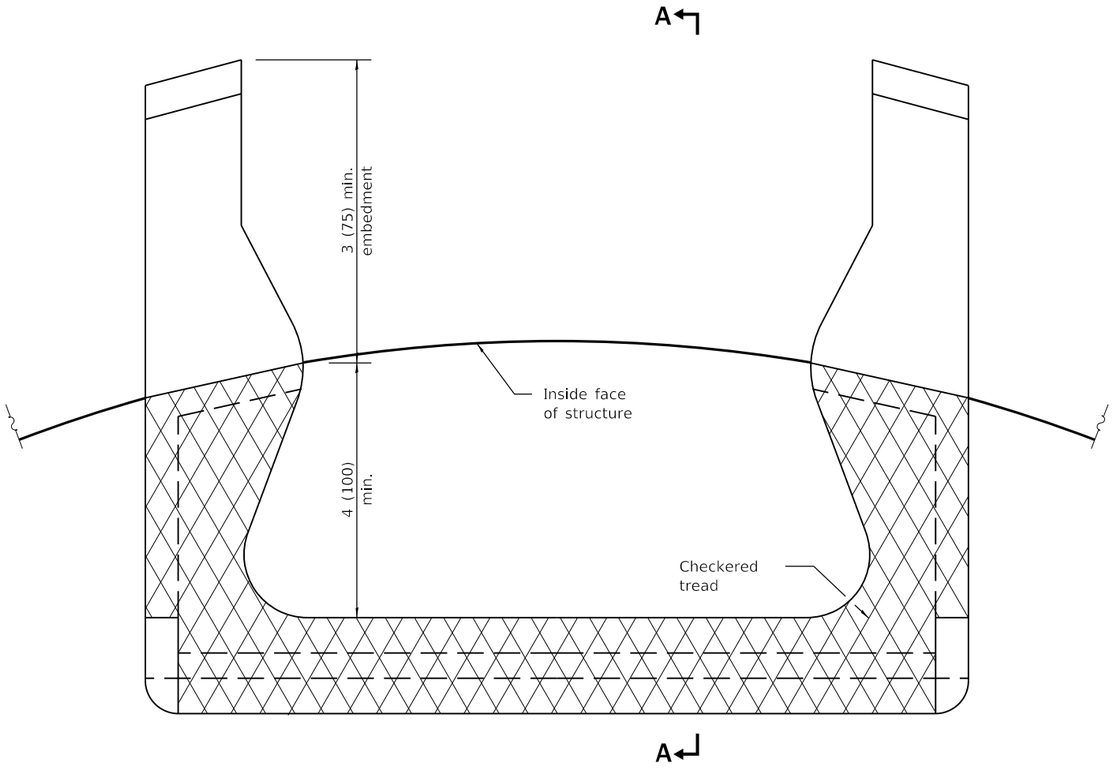
APPROVED January 1, 2019
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

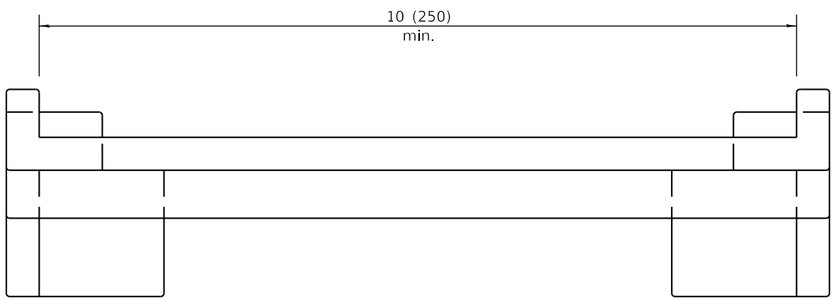
PRECAST REINFORCED CONCRETE FLAT SLAB TOP

STANDARD 602601-06

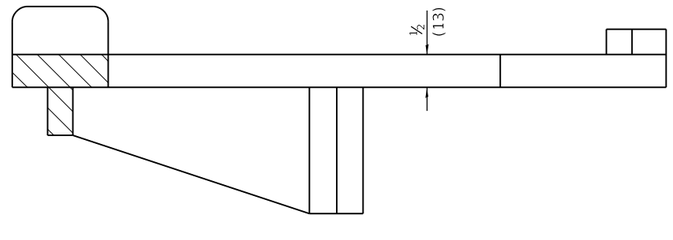
CAST IRON STEPS



PLAN VIEW



ELEVATION VIEW



SECTION A-A

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

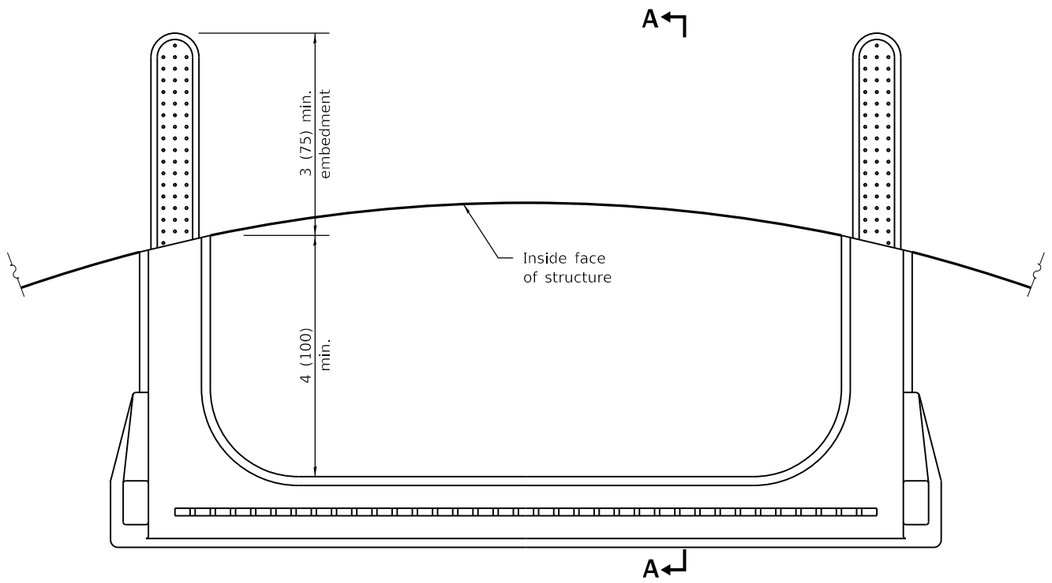
ISSUED 1-1-97

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

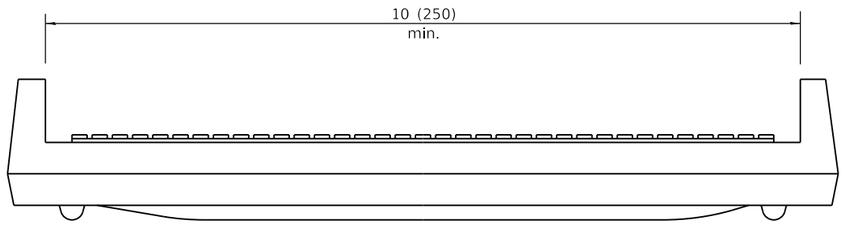
MANHOLE STEPS

(Sheet 1 of 2)

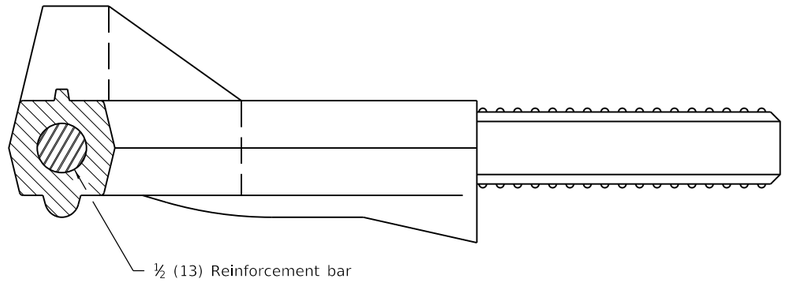
STANDARD 602701-02



PLAN VIEW



ELEVATION VIEW



SECTION A-A

Illinois Department of Transportation

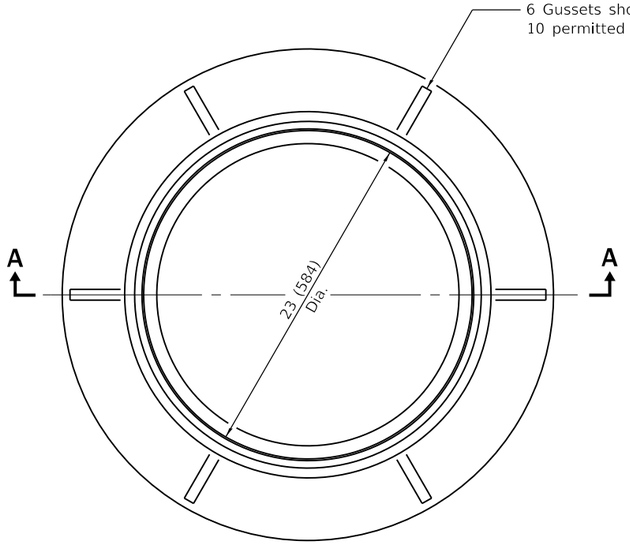
PASSED January 1, 2009
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2009
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

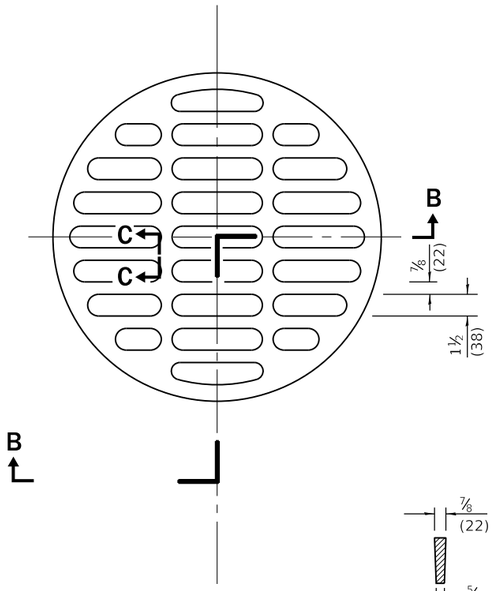
MANHOLE STEPS

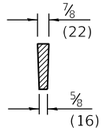
(Sheet 2 of 2)

STANDARD 602701-02

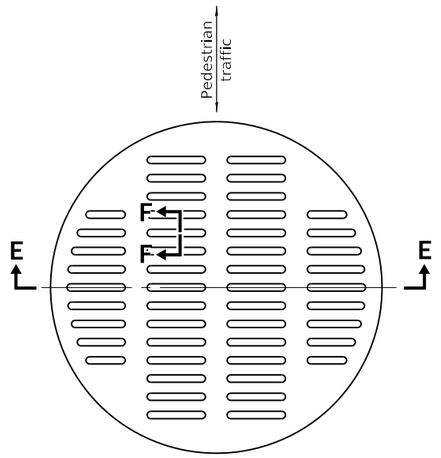


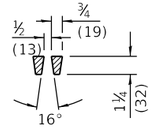
CAST FRAME



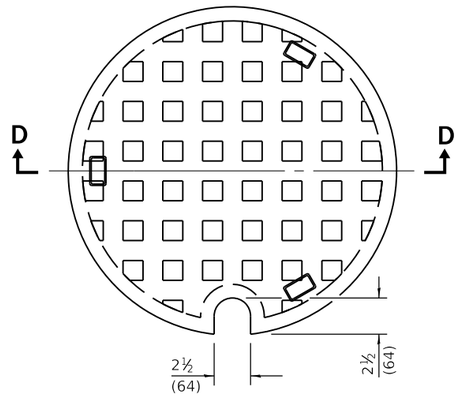


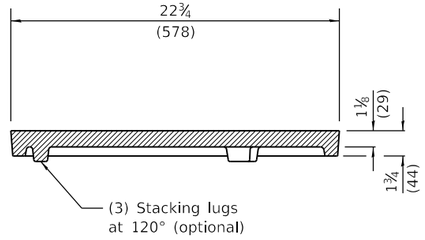
SECTION C-C





SECTION F-F

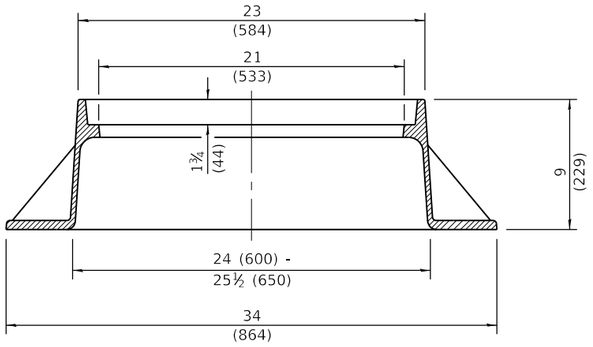




SECTION D-D

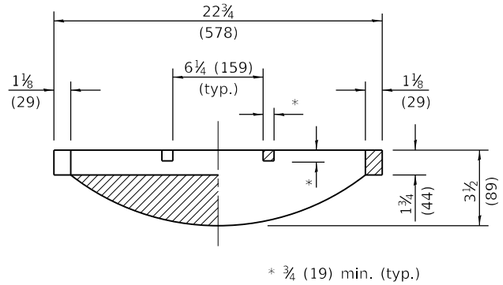
CAST CLOSED LID

Gray Iron Lid



SECTION A-A

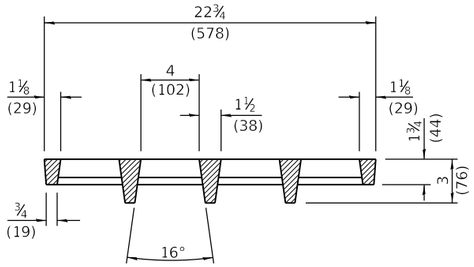
Gray Iron



* ¾ (19) min. (typ.)

SECTION B-B

CAST OPEN LID



SECTION E-E

ADA COMPLIANT CAST OPEN LID

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

DATE	REVISIONS
1-1-20	Revised dimension in Section B-B
	of cast open lid.
1-1-15	Revised dimensioning of
	frame. Added ADA compliant
	open lid.
1-1-09	Switched units to English (metric).

Illinois Department of Transportation

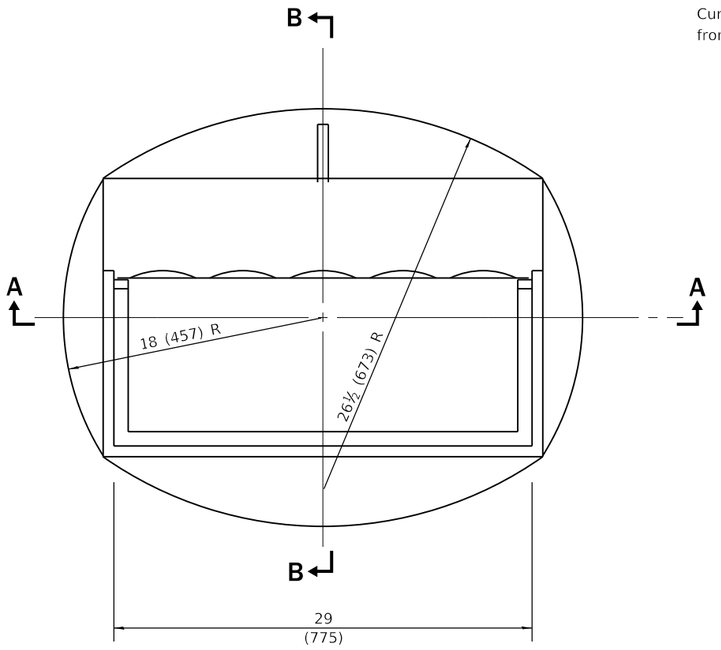
PASSED January 1, 2020
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2020
ENGINEER OF DESIGN AND ENVIRONMENT

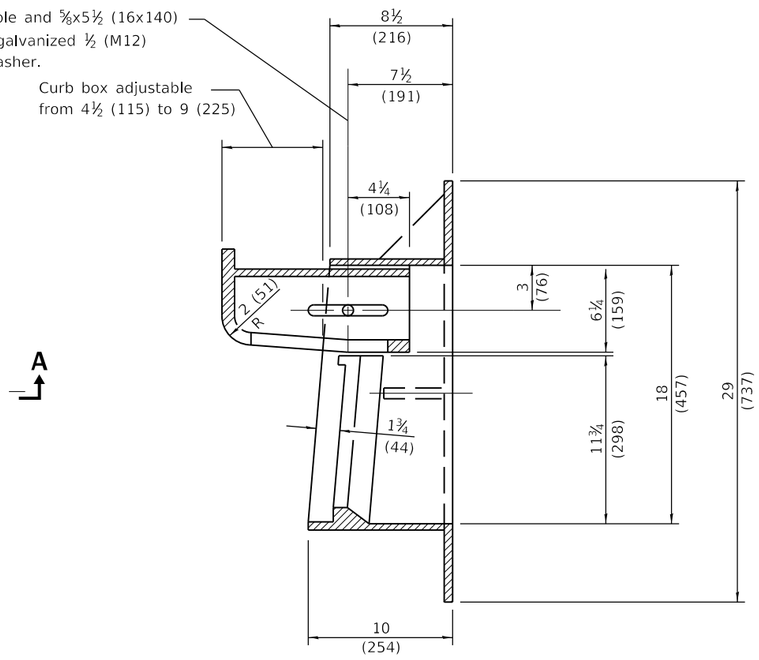
ISSUED 1-1-97

FRAME AND LIDS TYPE 1

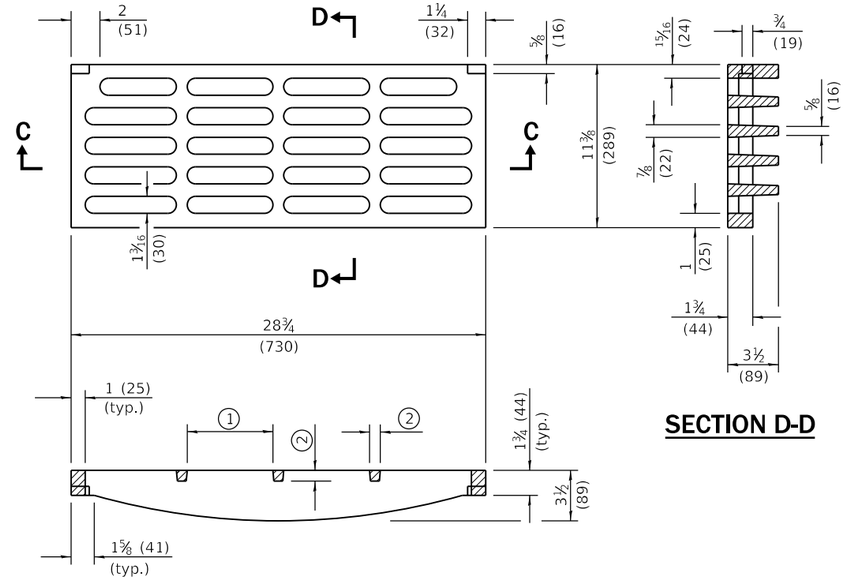
STANDARD 604001-05



CAST FRAME



SECTION B-B



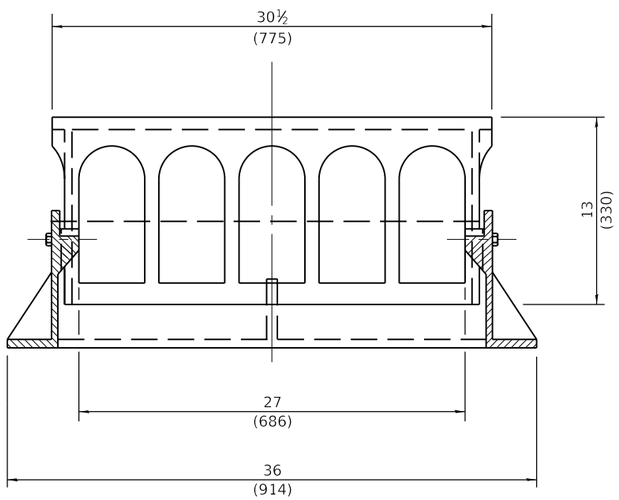
SECTION C-C

① = 6¼ (159) max. (typ.)

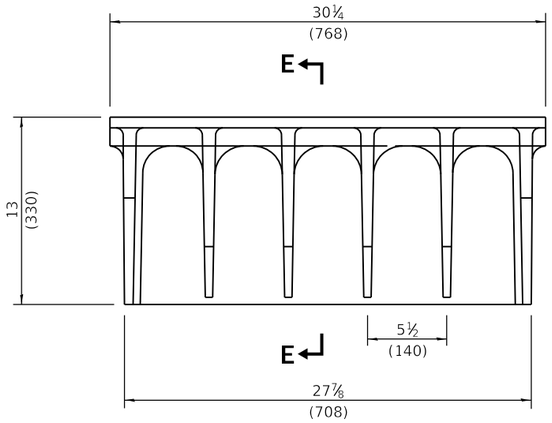
② = ¾ (19) min. (typ.)

SECTION D-D

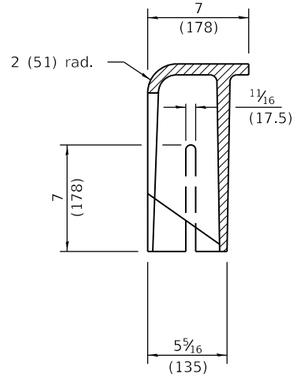
CAST GRATE



SECTION A-A



ALTERNATE CURB BOX



SECTION E-E

Illinois Department of Transportation

PASSED January 1, 2015

Michael Brand

ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2015

ENGINEER OF DESIGN AND ENVIRONMENT

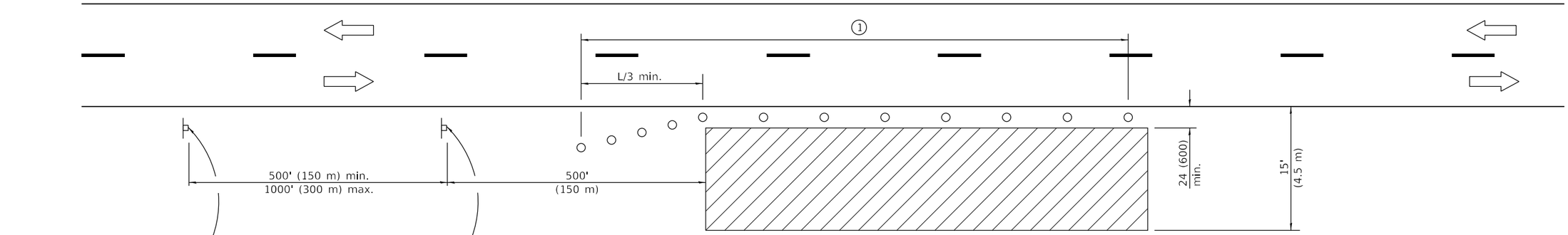
ISSUED 1-1-97

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

DATE	REVISIONS
1-1-15	Revised dimensions of frame
	and alternate curb box.
4-1-09	Switched units to
	English (metric).

FRAME AND GRATE TYPE 11

STANDARD 604051-04



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

PASSED January 1. 2014
ENGINEER OF SAFETY ENGINEERING

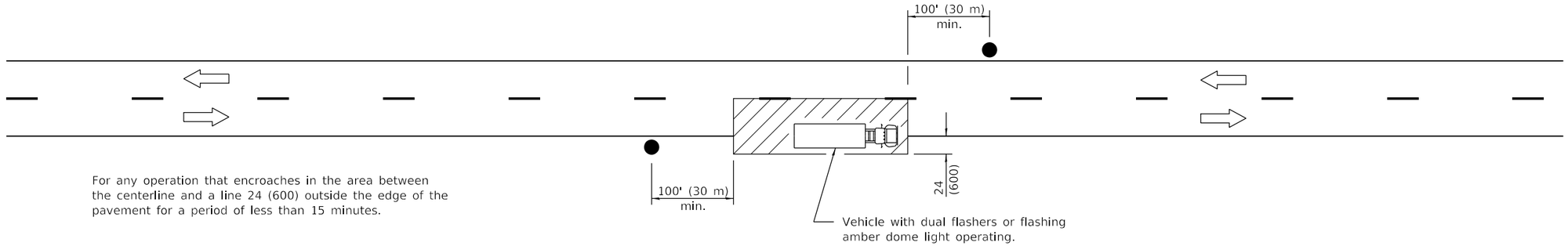
APPROVED January 1. 2014
ENGINEER OF DESIGN AND ENVIRONMENT

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.

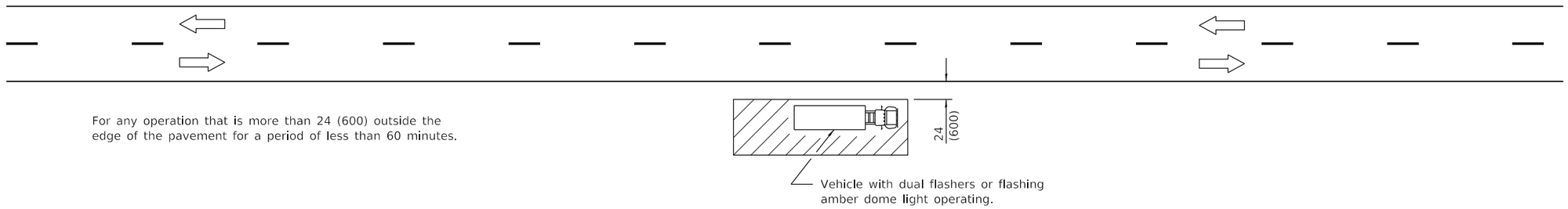
OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE

STANDARD 701006-05



For any operation that encroaches in the area between the centerline and a line 24 (600) outside the edge of the pavement for a period of less than 15 minutes.

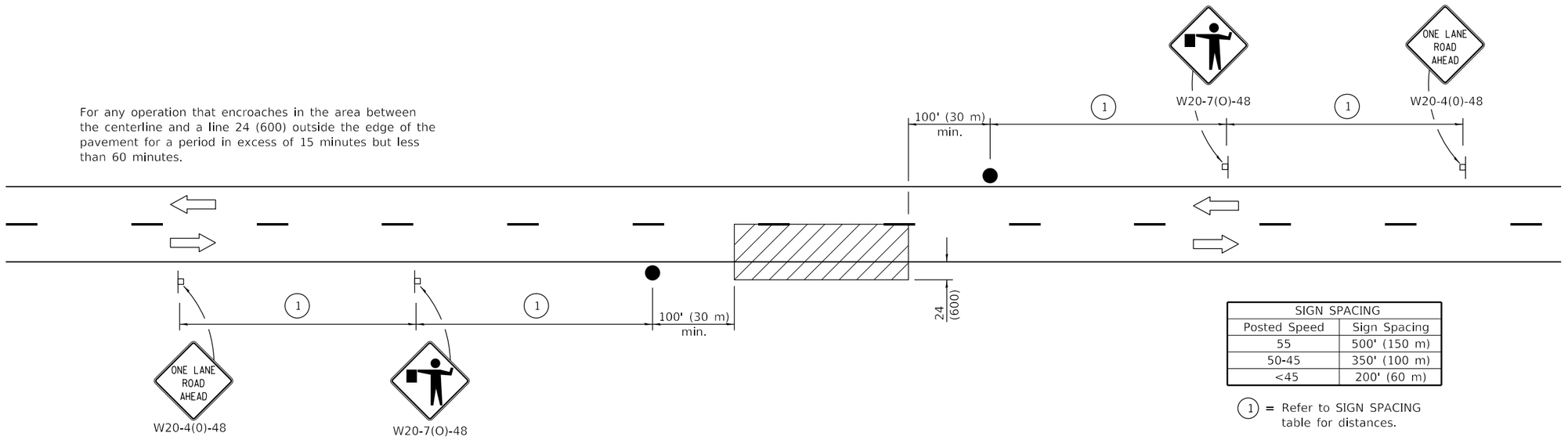
Vehicle with dual flashers or flashing amber dome light operating.



For any operation that is more than 24 (600) outside the edge of the pavement for a period of less than 60 minutes.

Vehicle with dual flashers or flashing amber dome light operating.

For any operation that encroaches in the area between the centerline and a line 24 (600) outside the edge of the pavement for a period in excess of 15 minutes but less than 60 minutes.



SIGN SPACING	
Posted Speed	Sign Spacing
55	500' (150 m)
50-45	350' (100 m)
<45	200' (60 m)

(1) = Refer to SIGN SPACING table for distances.

TYPICAL APPLICATIONS

Marking patches
Field survey
String line
Utility operations
Cleaning up debris on pavement

SYMBOLS

Work area

Sign on portable or permanent support

Flagger with traffic control sign

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

Illinois Department of Transportation

PASSED January 1, 2011
ENGINEER OF SAFETY ENGINEERING

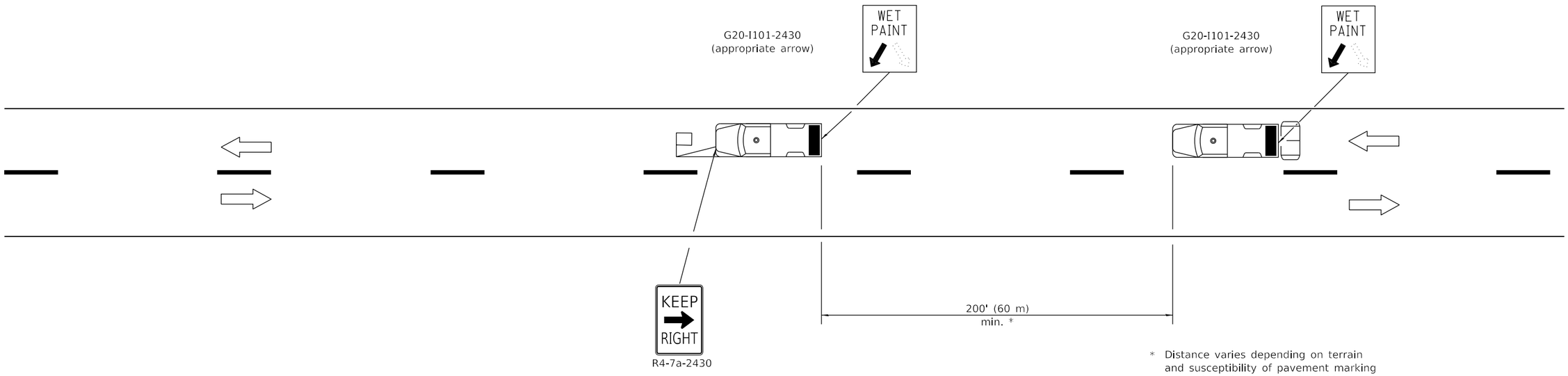
APPROVED January 1, 2011
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

DATE	REVISIONS
1-1-11	Revised flagger sign.
1-1-09	Switched units to
	English (metric).

LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS

STANDARD 701301-04



* Distance varies depending on terrain and susceptibility of pavement marking or crack sealant to wheel tracking.

TYPICAL APPLICATIONS

Landscaping work
Utility work
Pavement marking
Weed spraying
Roadometer measurements
Debris cleanup
Crack pouring

SYMBOLS

Arrow board (Hazard Mode only)

Truck with headlights, emergency flashers and flashing amber light. (visible from all directions)

18x18 (450x450) min. orange flag (use when guide wheel is used)

Truck mounted attenuator

GENERAL NOTES

This Standard is used where any vehicle, equipment, workers or their activities will require a continuous moving operation where the average speed is greater than 3 mph (5 km/h).

For shoulder operations not encroaching on the pavement, use DETAIL A, Standard 701426.

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

Illinois Department of Transportation

PASSED January 1, 2009
ENGINEER OF OPERATIONS

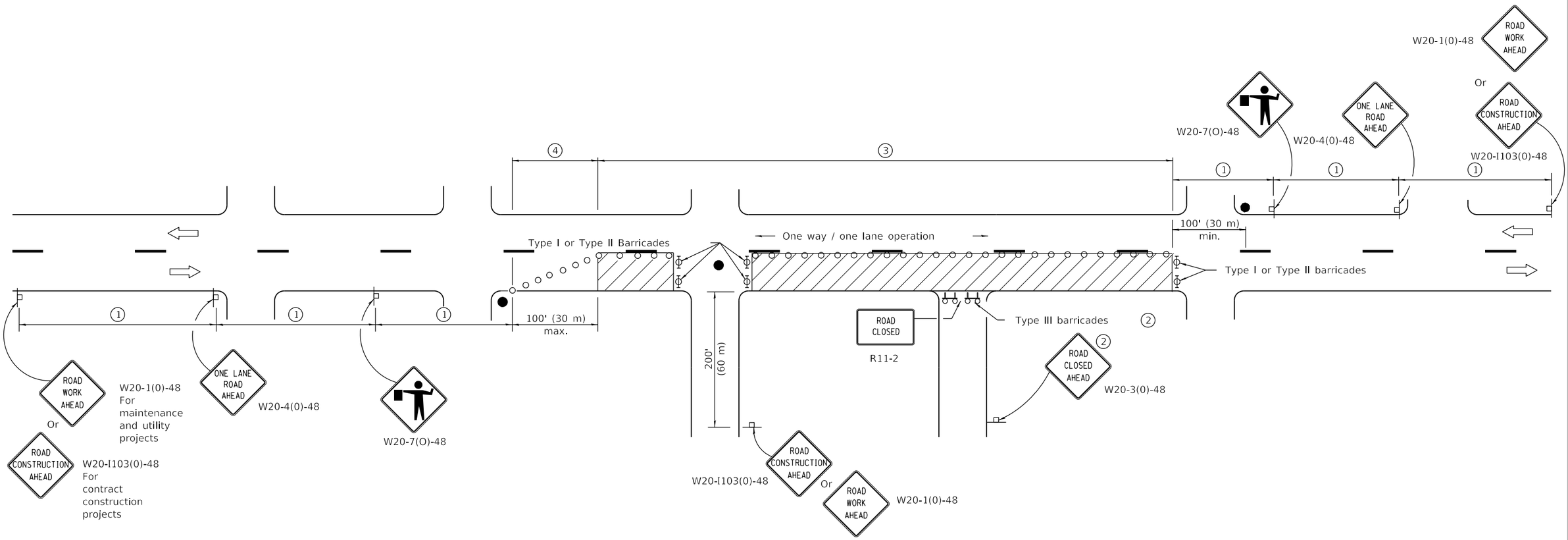
APPROVED January 1, 2009
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

DATE	REVISIONS
1-1-09	Switched units to
	English (metric). Omitted
	Pass With Care sign.
1-1-00	Elim. speed restrictions
	in Standard title.

LANE CLOSURE 2L, 2W MOVING OPERATIONS- DAY ONLY

STANDARD 701311-03



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

PASSED January 1, 2011
ENGINEER OF SAFETY ENGINEERING

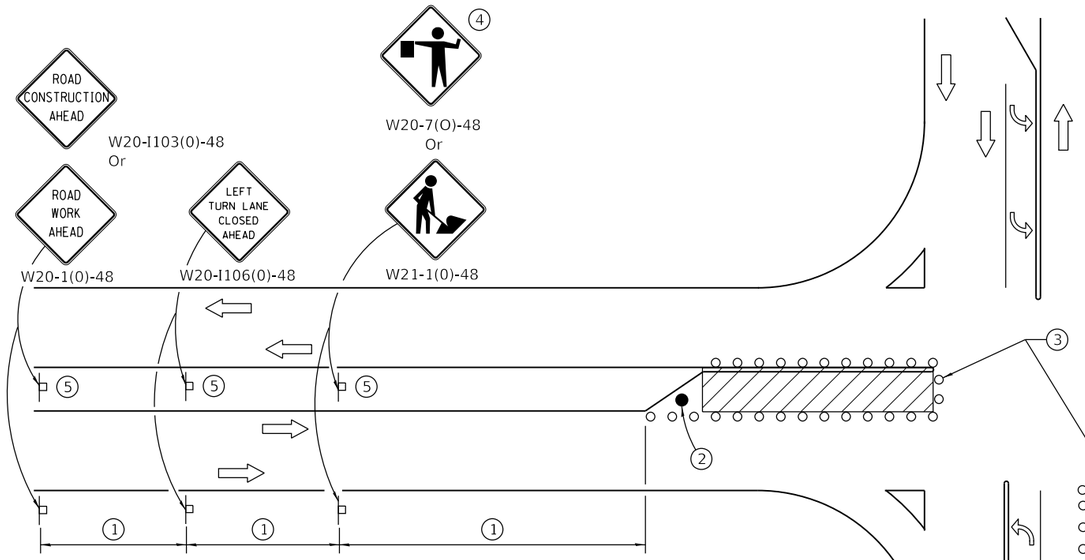
APPROVED January 1, 2011
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

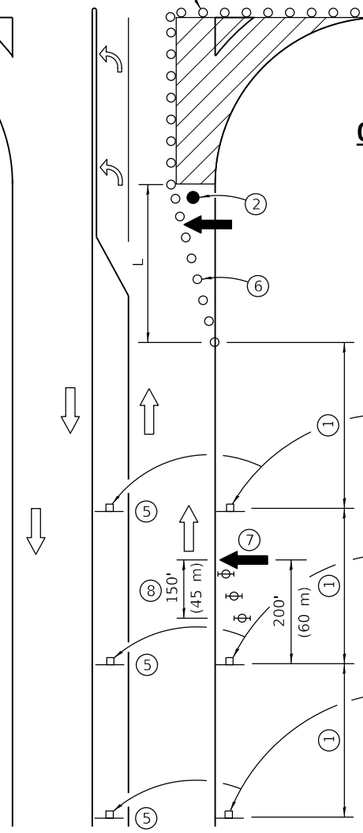
DATE	REVISIONS
1-1-11	Revised flagger sign.
1-1-09	Switched units to
	English (metric).
	Corrected sign No.'s.

URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED

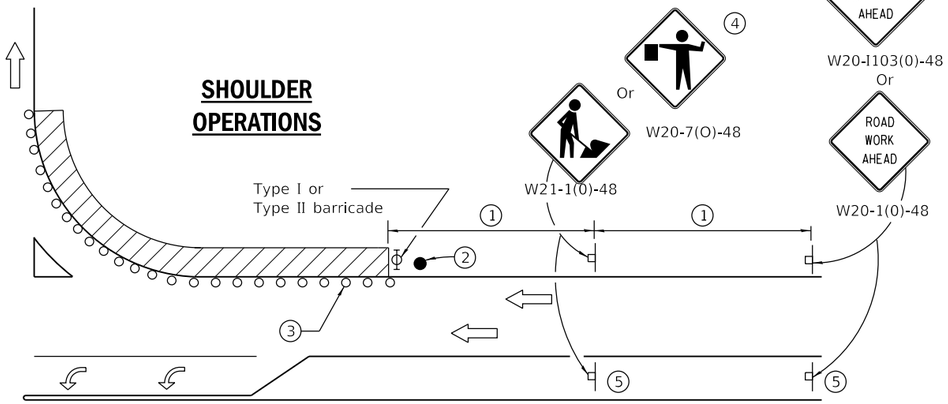
STANDARD 701501-06



LEFT TURN LANE OR CENTER MEDIAN OPERATIONS



CORNER ISLAND OPERATIONS

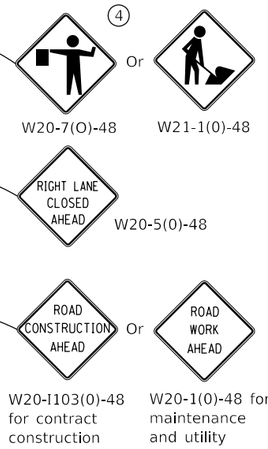


SIGN SPACING	
Posted Speed	Sign Spacing
55	500' (150 m)
50-45	350' (100 m)
<45	200' (60 m)

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.

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

PASSED April 1, 2016
ENGINEER OF SAFETY ENGINEERING

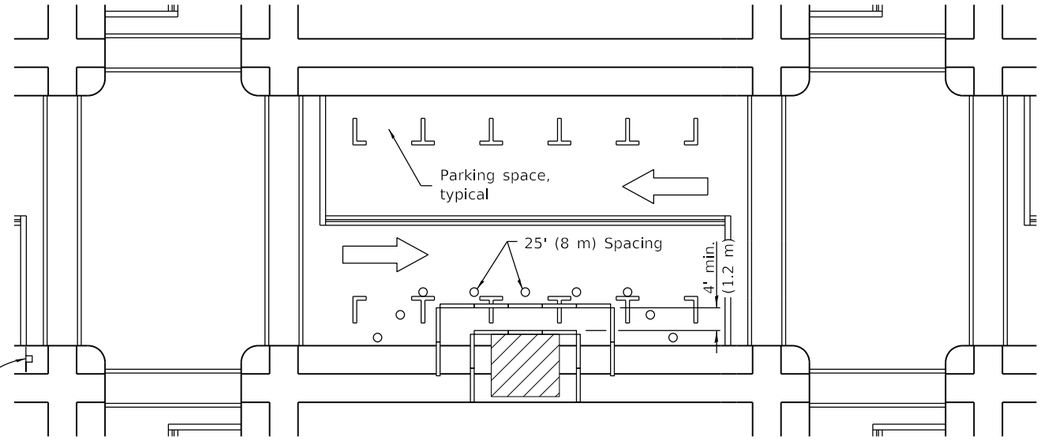
APPROVED April 1, 2016
ENGINEER OF DESIGN AND ENVIRONMENT

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

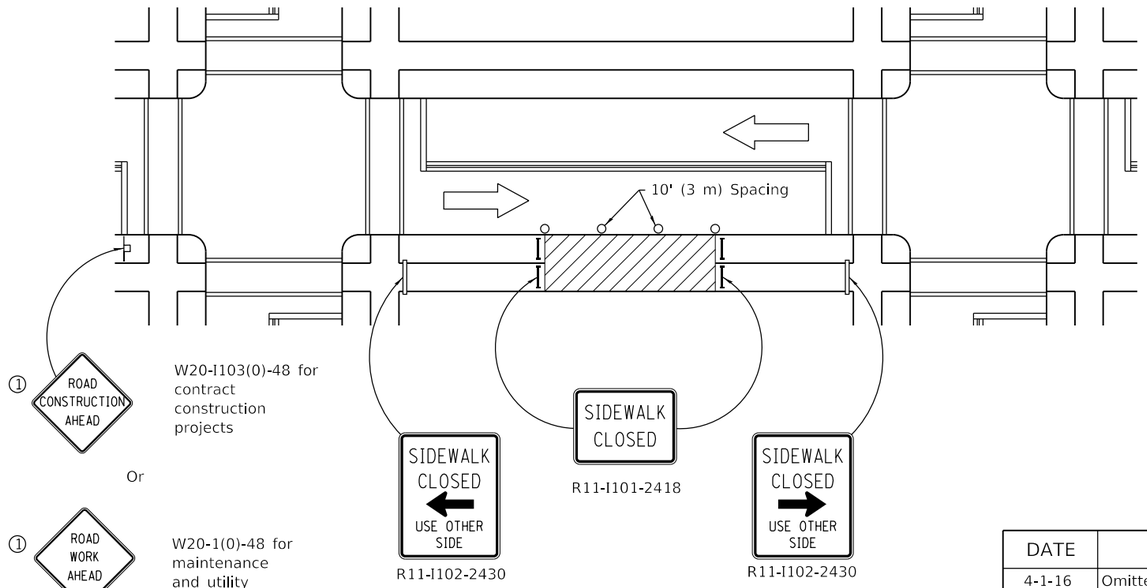
① ROAD WORK AHEAD

W20-1(0)-48 for maintenance and utility projects

SIDEWALK DIVERSION

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

W20-1(0)-48 for maintenance and utility projects

SIDEWALK CLOSURE

① Omit whenever duplicated by road work traffic control.

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

PASSED April 1, 2016
ENGINEER OF SAFETY ENGINEERING

APPROVED April 1, 2016
ENGINEER OF DESIGN AND ENVIRONMENT

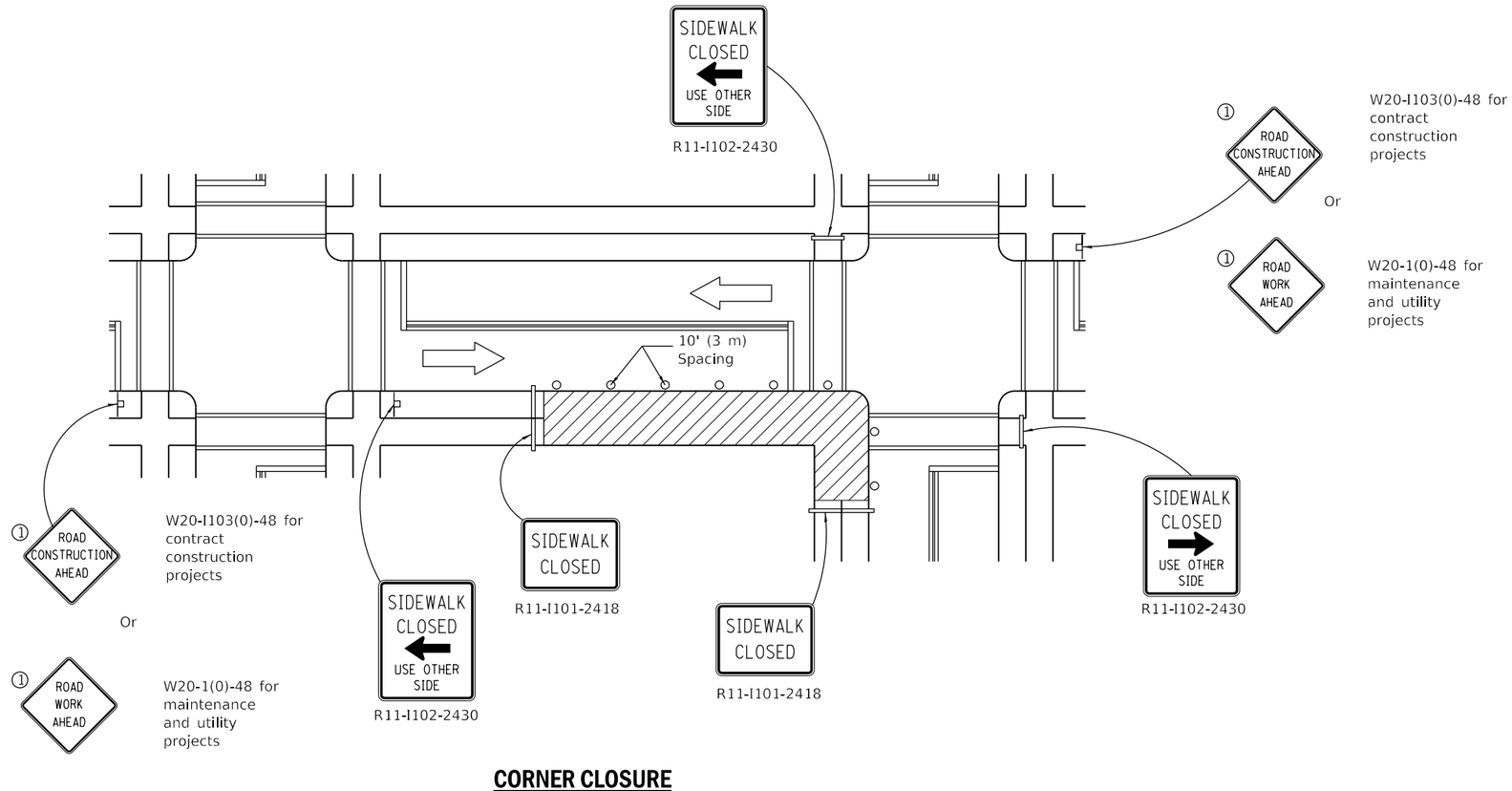
ISSUED 1-1-97

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.

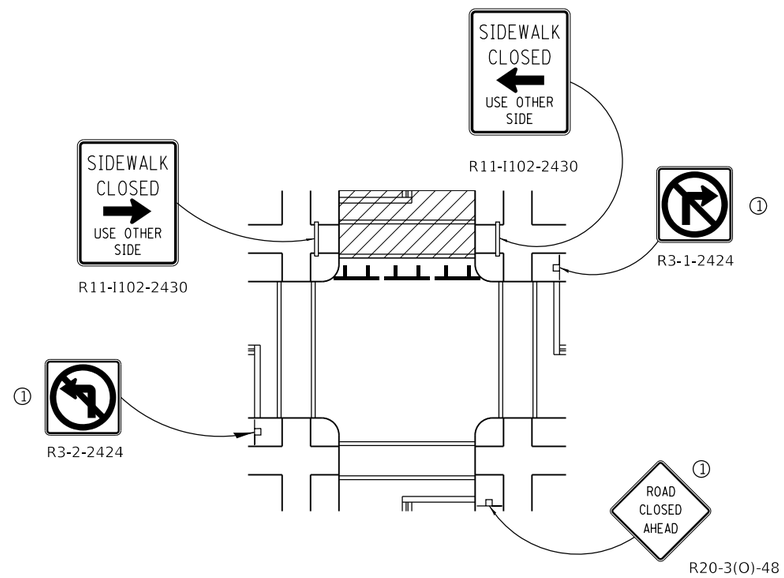
SIDEWALK, CORNER OR CROSSWALK CLOSURE

(Sheet 1 of 2)

STANDARD 701801-06



CORNER CLOSURE



CROSSWALK CLOSURE

Illinois Department of Transportation

PASSED April 1, 2016
ENGINEER OF SAFETY ENGINEERING

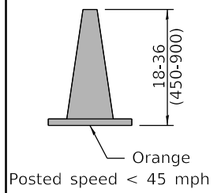
APPROVED April 1, 2016
ENGINEER OF DESIGN AND ENVIRONMENT

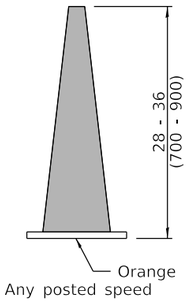
ISSUED 1-1-97

SIDEWALK, CORNER OR CROSSWALK CLOSURE

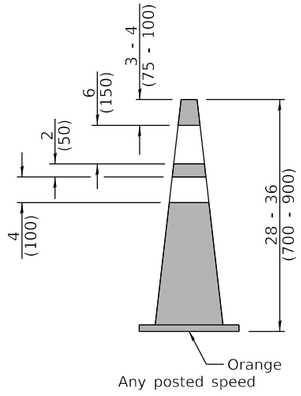
(Sheet 2 of 2)

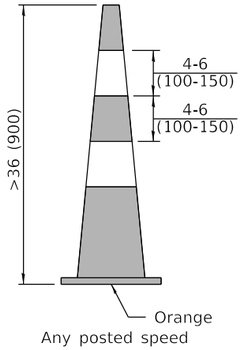
STANDARD 701801-06





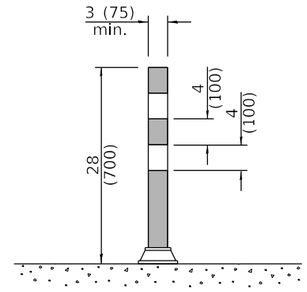
DAYTIME USE



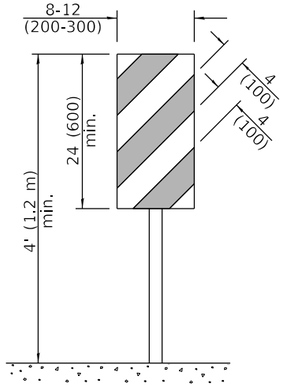


DAY OR NIGHTTIME USE

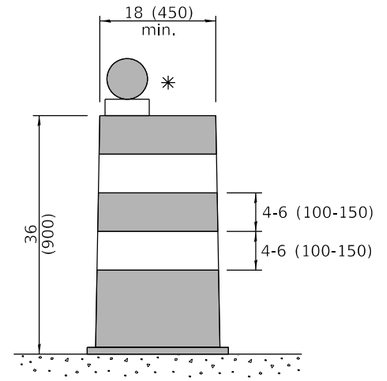
CONES



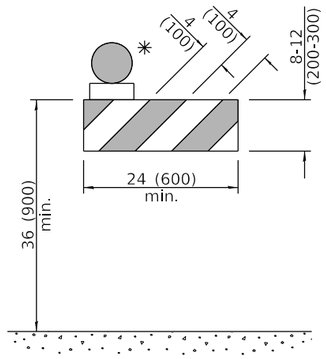
TUBULAR MARKER



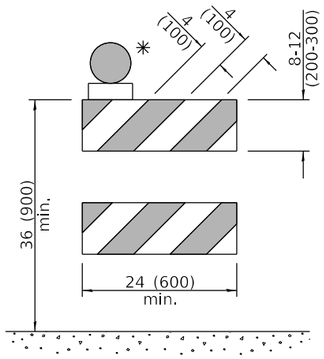
VERTICAL PANEL
POST MOUNTED



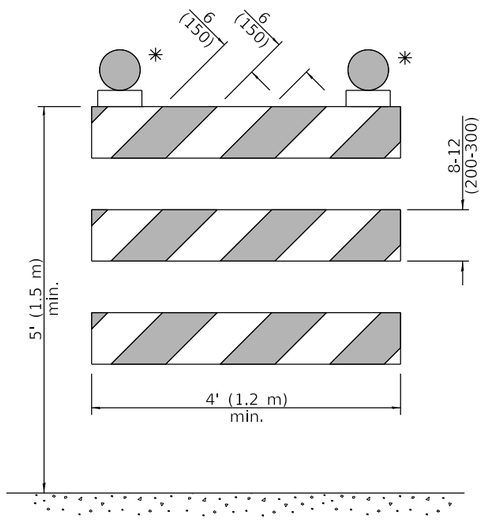
DRUM



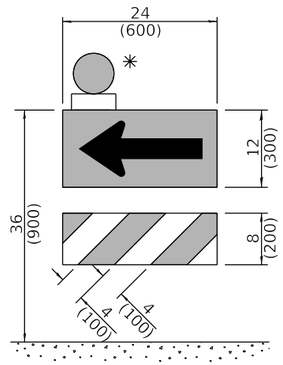
TYPE I BARRICADE



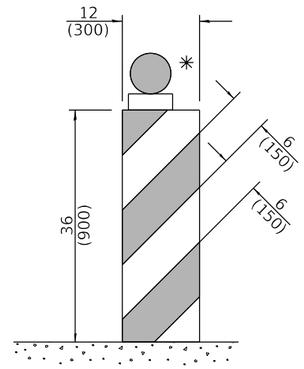
TYPE II BARRICADE



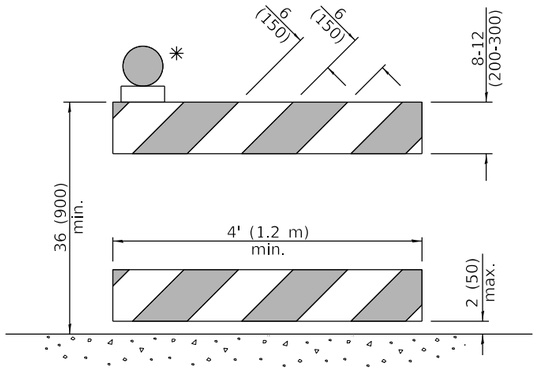
TYPE III BARRICADE



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, 2019
ENGINEER OF SAFETY PROG. AND ENGINEERING

APPROVED January 1, 2019
ENGINEER OF DESIGN AND ENVIRONMENT

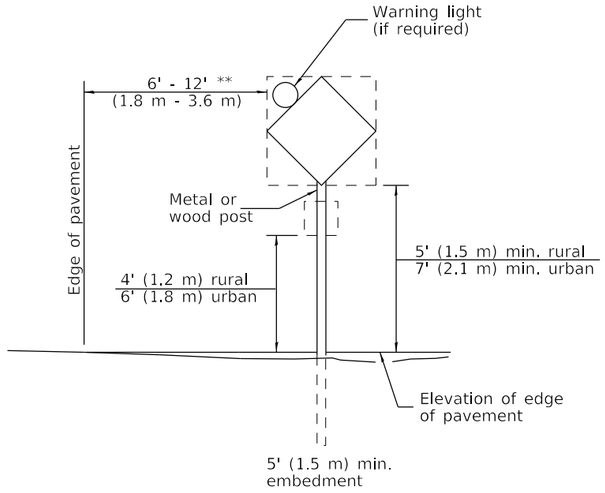
ISSUED 1-1-13

DATE	REVISIONS
1-1-19	Revised cone usage and
	added cones >36" (900 m) height.
1-1-18	Revised END WORK ZONE
	SPEED LIMIT sign from
	orange to white background.

TRAFFIC CONTROL DEVICES

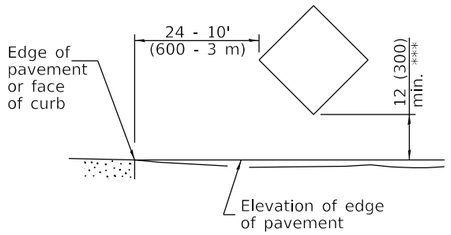
(Sheet 1 of 3)

STANDARD 701901-08



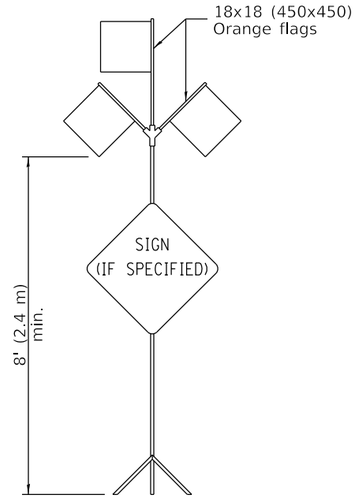
POST MOUNTED SIGNS

** 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

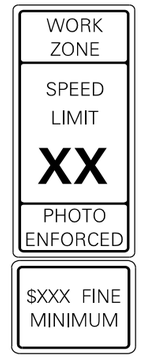
This signing is required for all projects 2 miles (3200 m) or more in length.

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



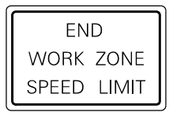
W21-III5(0)-3618

R2-1-3648

R10-I108p-3618 ****

R2-I106p-3618

Sign assembly as shown on Standards or as allowed by District Operations.

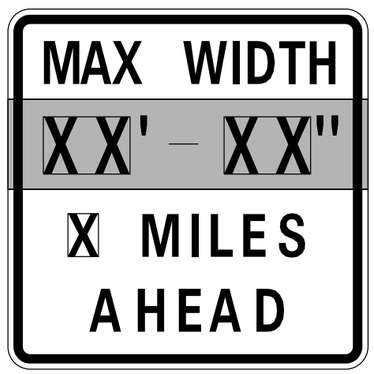


G20-I103-6036

This sign shall be used when the above sign assembly is used.

HIGHWAY CONSTRUCTION SPEED ZONE SIGNS

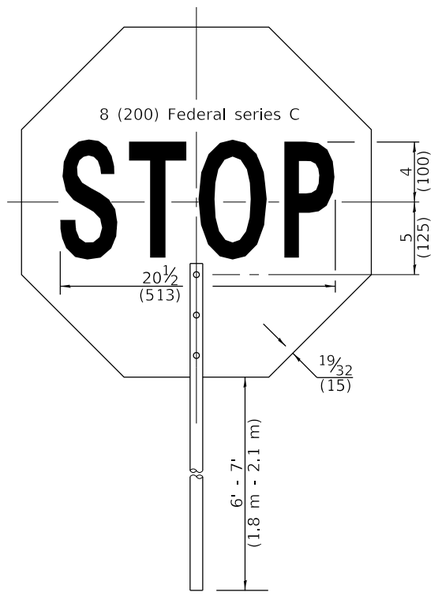
**** R10-I108p shall only be used along roadways under the juristiction of the State.



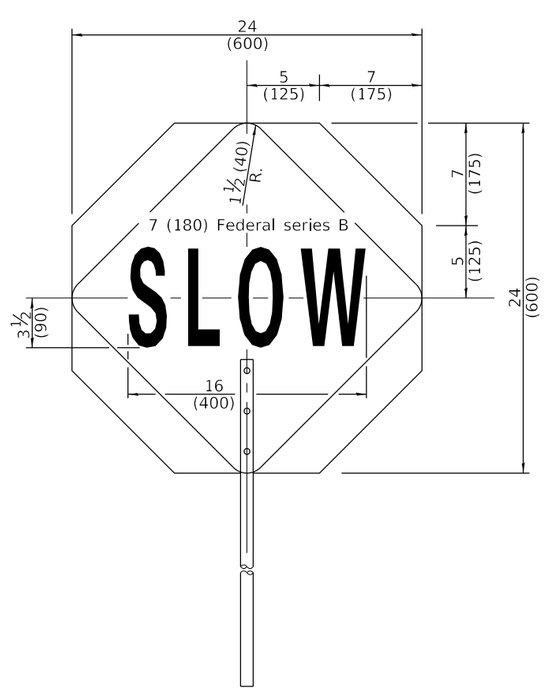
W12-I103-4848

WIDTH RESTRICTION SIGN

XX'-XX" width and X miles are variable.



FRONT SIDE



REVERSE SIDE

FLAGGER TRAFFIC CONTROL SIGN

Illinois Department of Transportation

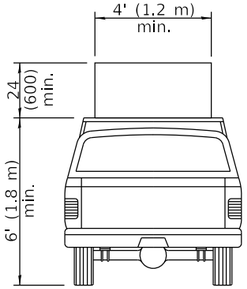
APPROVED January 1, 2019
ENGINEER OF SAFETY PROG. AND ENGINEERING

APPROVED January 1, 2019
ENGINEER OF DESIGN AND ENVIRONMENT

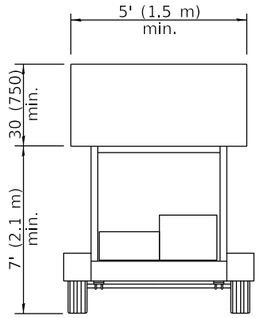
ISSUED 1-1-13

TRAFFIC CONTROL DEVICES

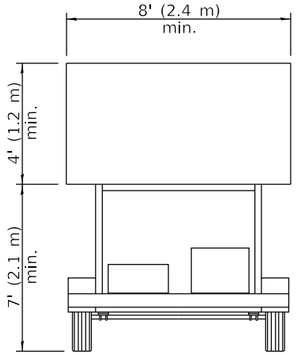
STANDARD 701901-08



**TYPE A
ROOF
MOUNTED**

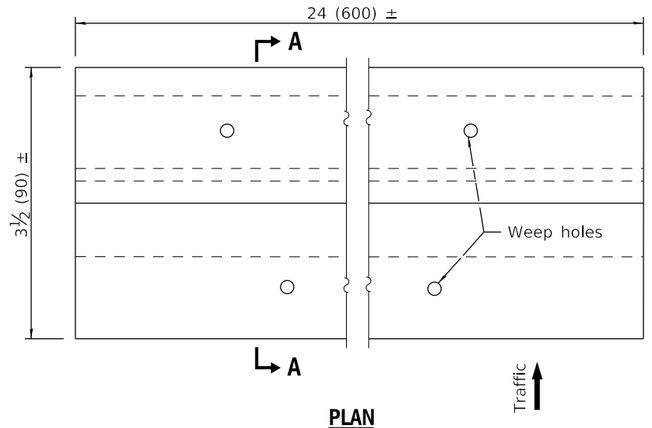


**TYPE B
ROOF OR TRAILER
MOUNTED**

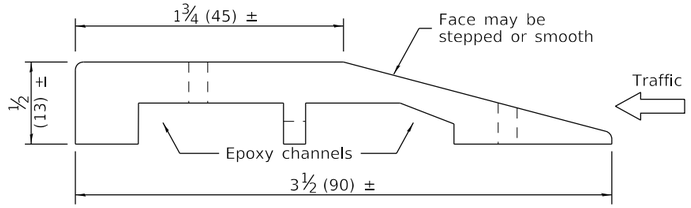


**TYPE C
TRAILER
MOUNTED**

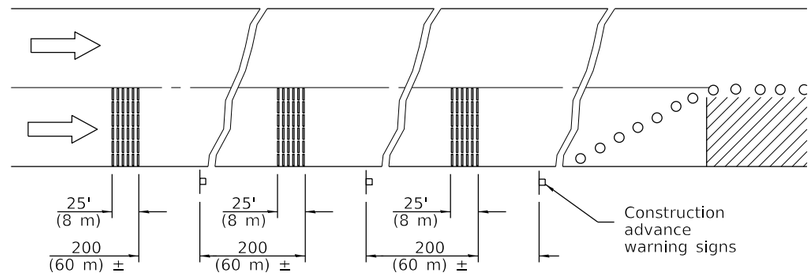
ARROW BOARDS

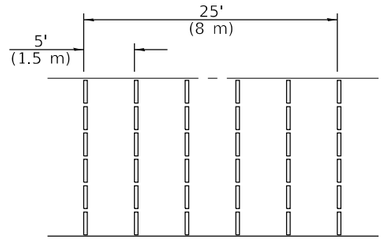


PLAN



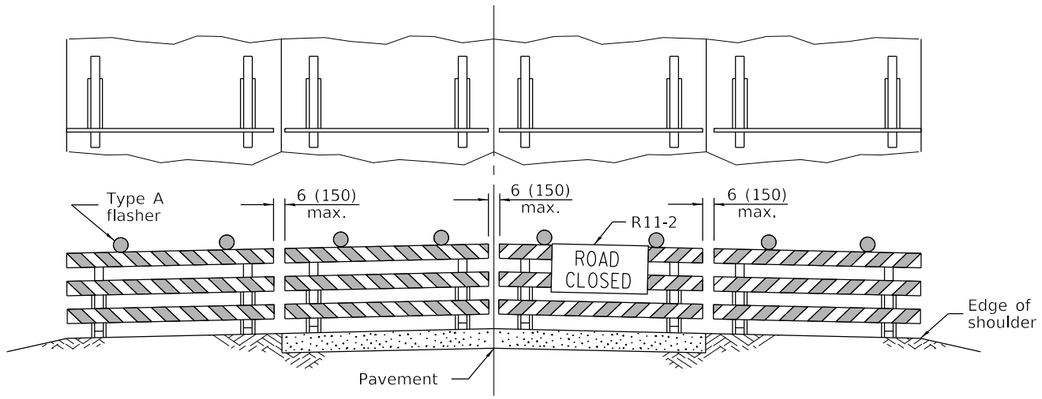
SECTION A-A





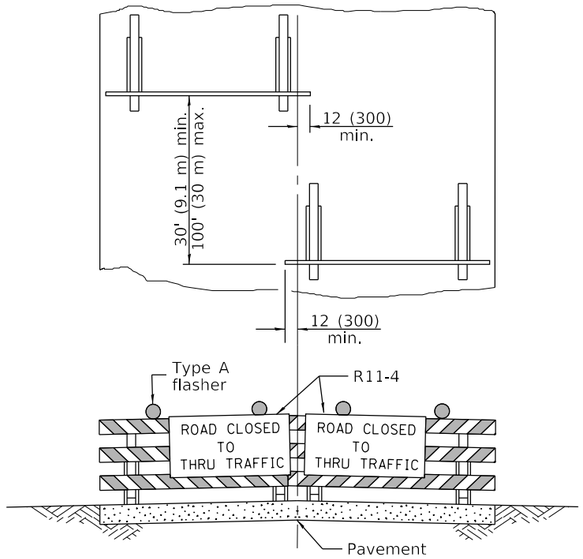
TYPICAL INSTALLATION

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, 2019
ENGINEER OF SAFETY PROG. AND ENGINEERING

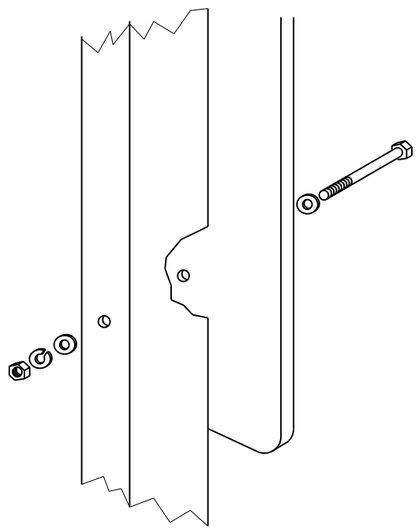
APPROVED January 1, 2019
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-13

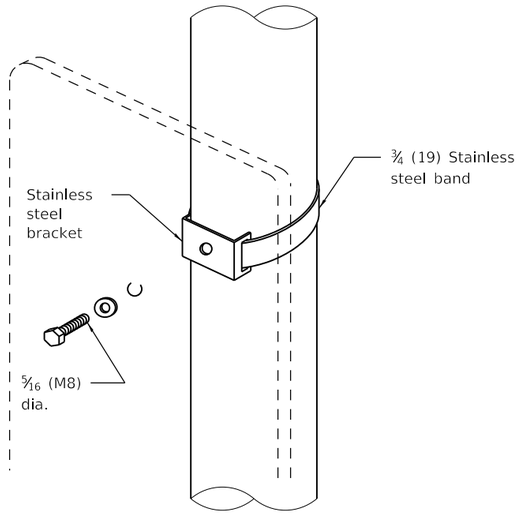
TRAFFIC CONTROL DEVICES

(Sheet 3 of 3)

STANDARD 701901-08

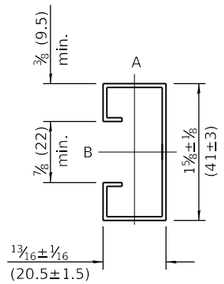


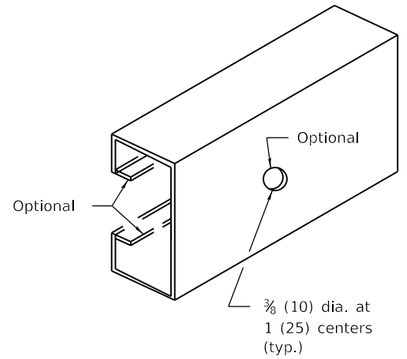
Sign panel 36 (900) wide or less



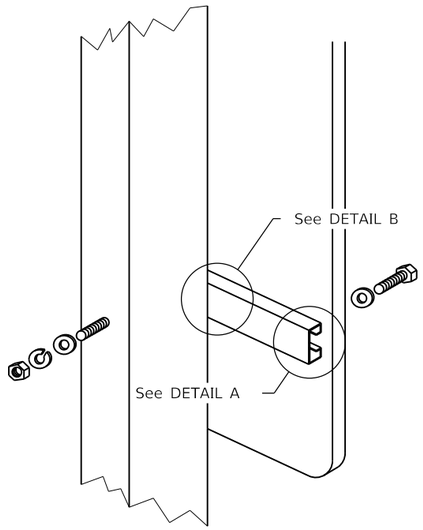
Sign panel 36 (900) wide or less

Section modulus (minimum)	Axis A	Axis B
Steel	0.050 in.³ (819 mm³)	0.105 in.³ (1720 mm³)
Aluminum	0.150 in.³ (2458 mm³)	0.315 in.³ (5162 mm³)



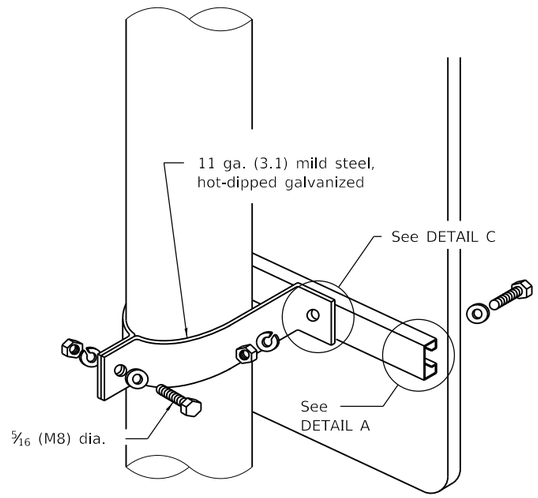


SUPPORTING CHANNEL DETAILS



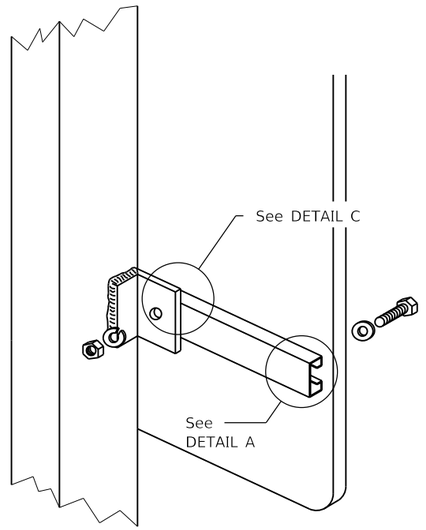
Sign panel over 36 (900) wide

WOOD OR TELESCOPING STEEL POSTS



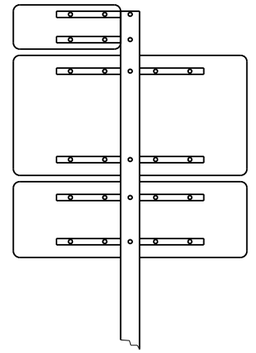
Sign panel over 36 (900) wide

LIGHT OR SIGNAL STANDARDS

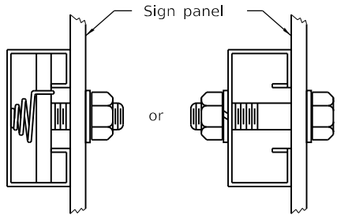


BREAKAWAY STEEL TUBING POSTS

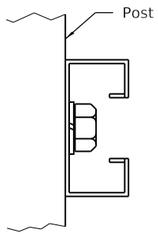
(All sign panel sizes)



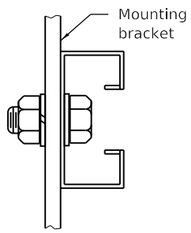
ROUTE MARKER ASSEMBLY



DETAIL A



DETAIL B



DETAIL C

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

Illinois Department of Transportation

PASSED January 1, 2009
ENGINEER OF OPERATIONS

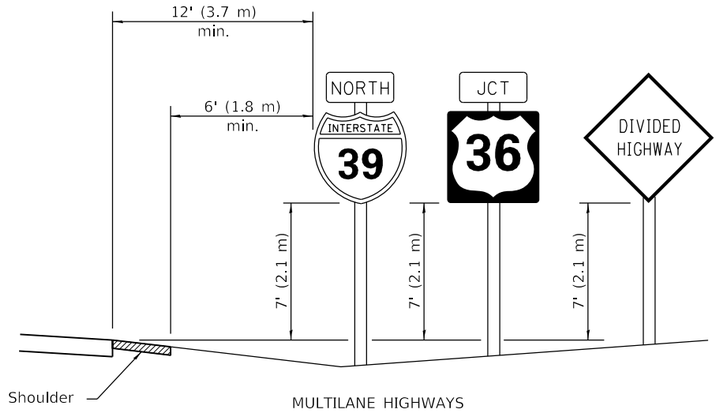
APPROVED January 1, 2009
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

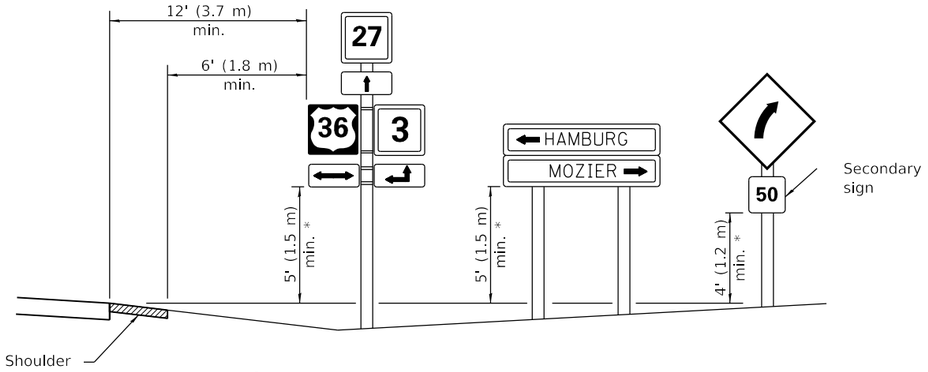
DATE	REVISIONS
1-1-09	Switched units to
	English (metric).
1-1-97	Renum. Standard 2319-6.

SIGN PANEL MOUNTING DETAILS

STANDARD 720001-01

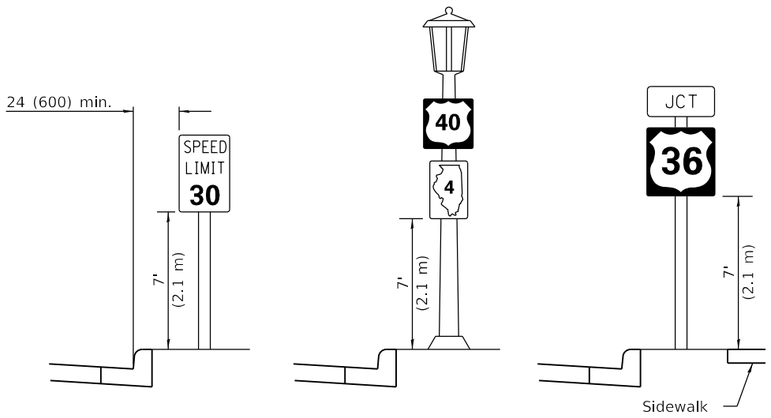


MULTILANE HIGHWAYS



* In any area where parking is likely to occur or where there are obstructions to view or where signs are located over sidewalks, the height shall be at least 7' (2.1 m).

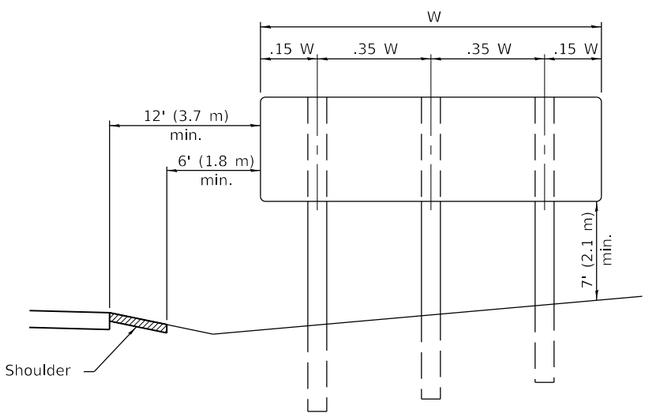
TWO LANE RURAL HIGHWAYS

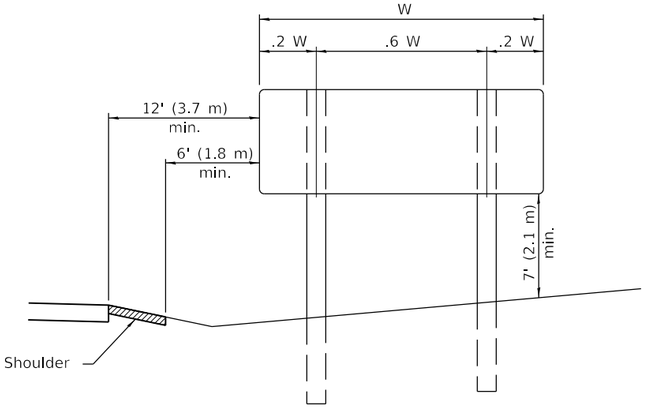


URBAN LOCATIONS

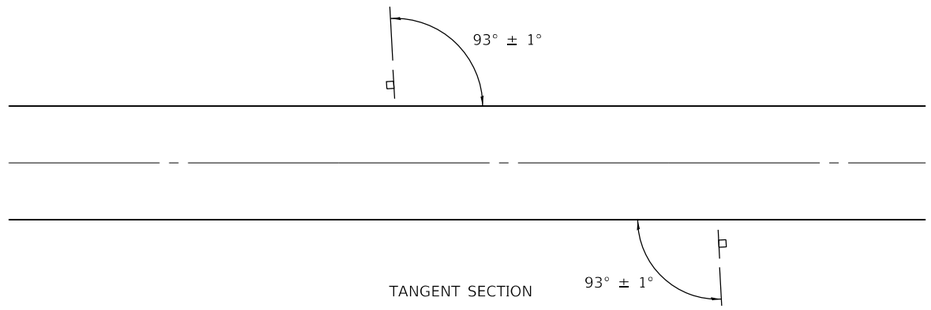
TYPICAL INSTALLATIONS

Signs in any area shall be erected to a uniform height above the edge of the pavement.

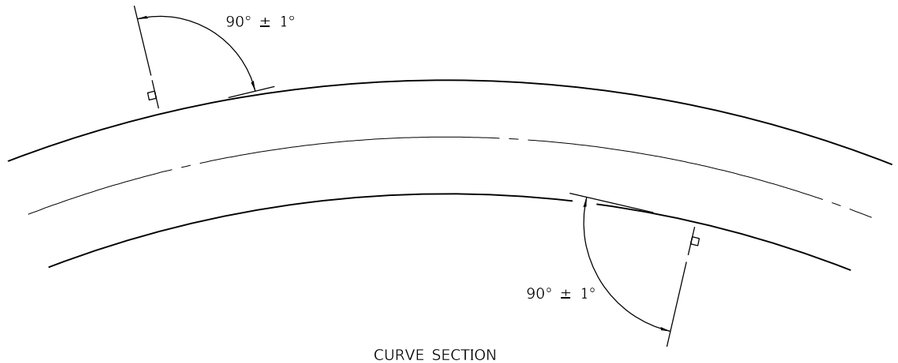




POST SPACING FOR NON-FREEWAY SIGN PANELS



TANGENT SECTION



CURVE SECTION

GROUND MOUNT SIGN POSITIONING

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

Illinois Department of Transportation

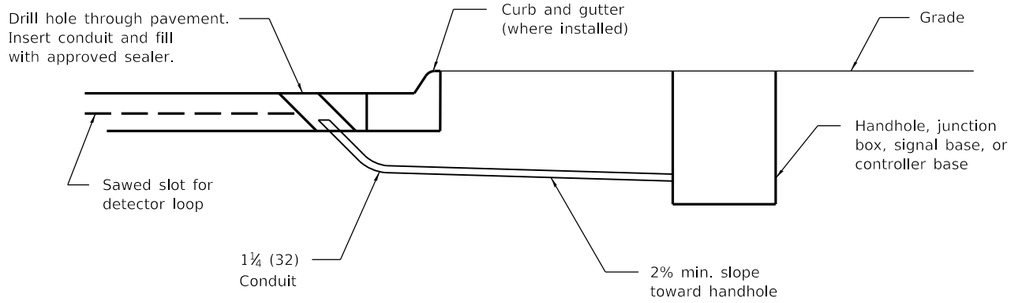
PASSED January 1, 2014
ENGINEER OF OPERATIONS
APPROVED January 1, 2014
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

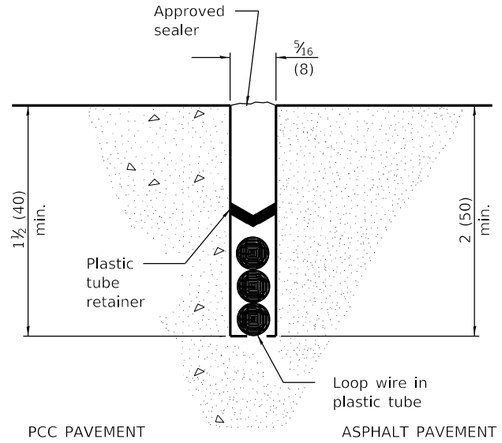
DATE	REVISIONS
1-1-14	Added shoulders and slopes.
	Changed sign distances
	from roadway and shoulder.
1-1-12	Rev. sign elev. for multilane
	hwy's. Revised sign elev. and
	dist. to curb for rural loc.

SIGN PANEL ERECTION DETAILS

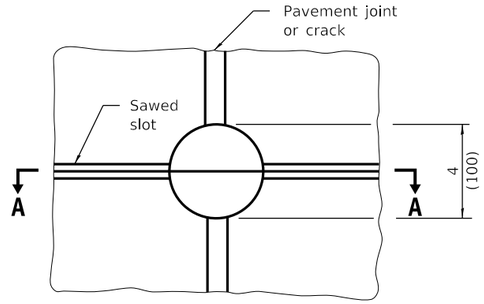
STANDARD 720006-04



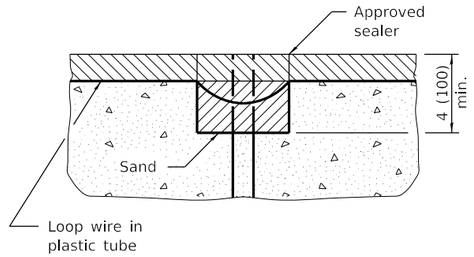
DETECTOR LOOP LEAD-IN



DETECTOR LOOP INSTALLATION



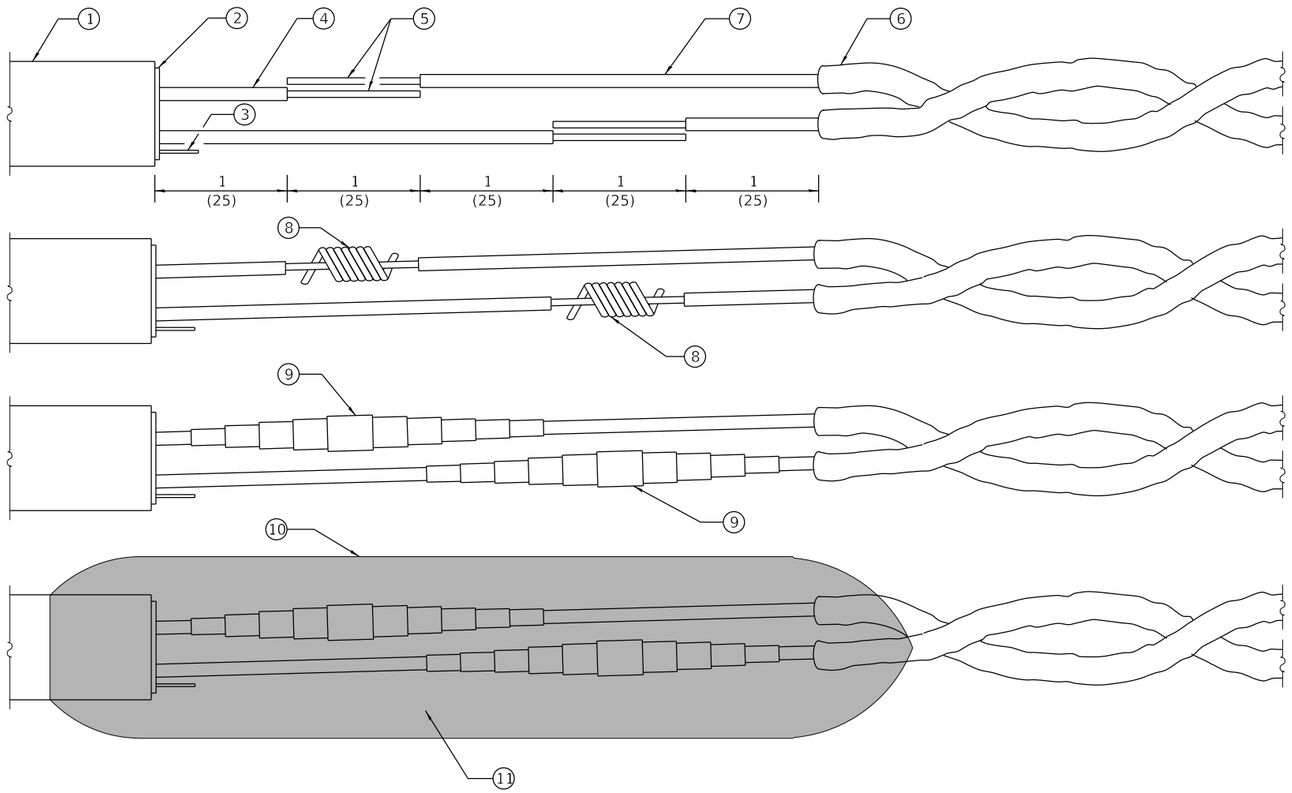
PLAN



SECTION A-A

NOTE
Loop wire shall follow saw cut to bottom, forming slack section at joint.

DETECTOR LOOP AT PAVEMENT JOINT OR PAVEMENT CRACK



LOOP WIRE AND LEAD-IN CABLE SPLICE

1 = Lead-in cable (single pair or multipair)
2 = Lead-in cable shield
3 = Lead-in cable shield drain-wire
4 = Lead-in cable insulated conductor
5 = Bare conductor
6 = Loop wire in tube
7 = Loop wire insulated conductor
8 = Twisted and resin soldered conductor
9 = Electrical tape insulated spice
10 = Rigid mold
11 = Waterproof and dielectric resin

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

Illinois Department of Transportation

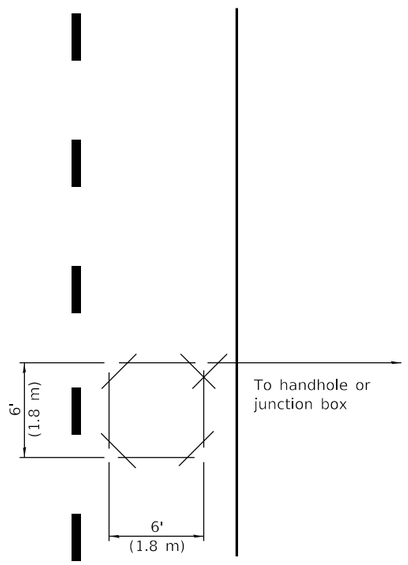
PASSED January 1, 2009
ENGINEER OF OPERATIONS
APPROVED January 1, 2009
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-02

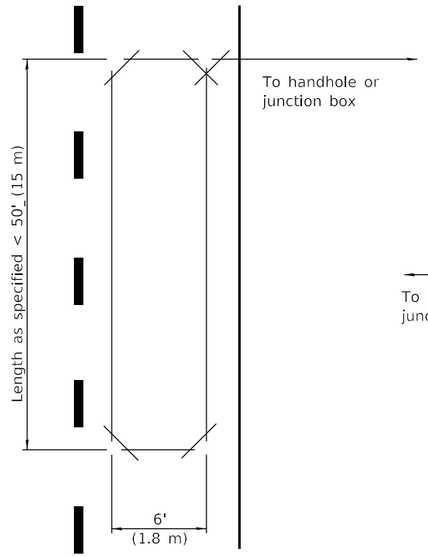
DATE	REVISIONS
1-1-09	Switched units to
	English (metric)
1-1-02	Renum. Standard 846001.

DETECTOR LOOP INSTALLATIONS

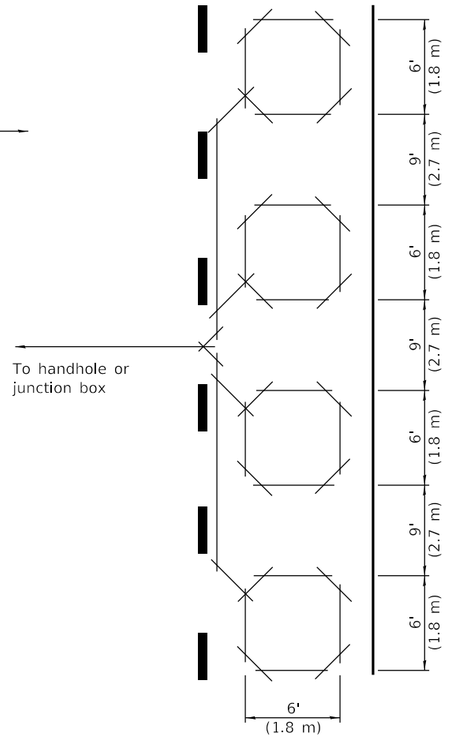
STANDARD 886001-01



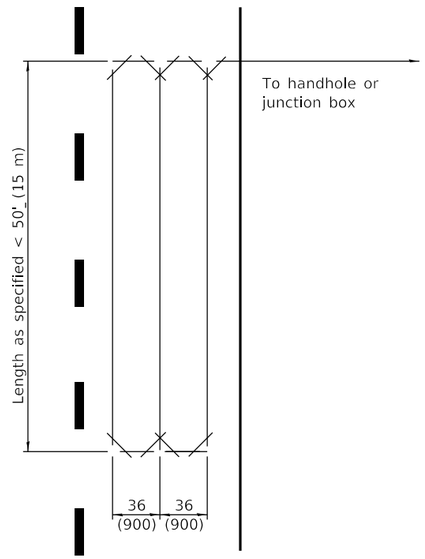
FOR POINT DETECTION
SHORT LOOP



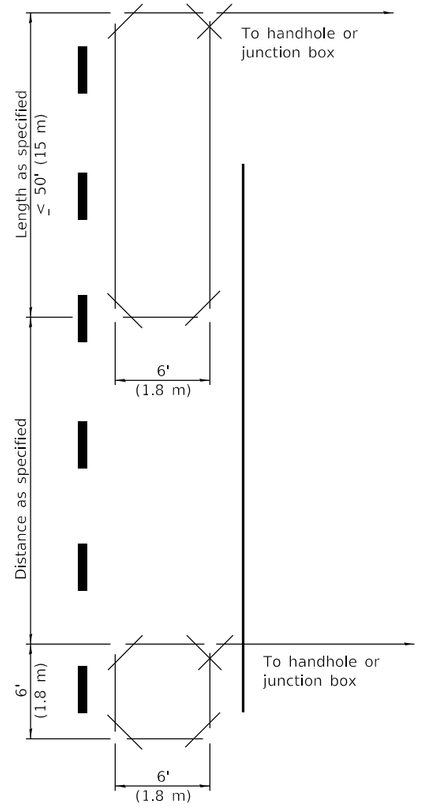
FOR PRESENCE DETECTION
LONG LOOP



FOR PRESENCE DETECTION
MULTIPLE LOOP IN SERIES

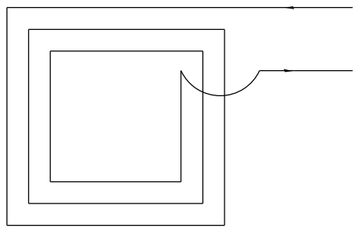


FOR PRESENCE DETECTION
QUADRUPOLE LOOP

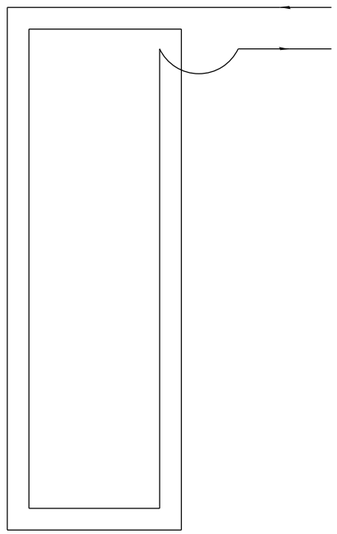


FOR EXTENDED-CALL DETECTION

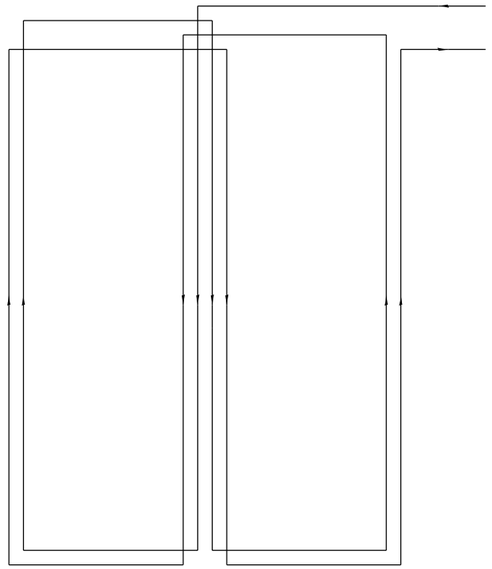
SLOT PLAN



SHORT LOOP



LONG LOOP



QUADRUPOLE LOOP

WIRING DIAGRAM

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

Illinois Department of Transportation

PASSED January 1, 2009
ENGINEER OF OPERATIONS

APPROVED January 1, 2009
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-02

DATE	REVISIONS
1-1-09	Switched units to English (metric)
1-1-02	Renum. Standard 846006.

TYPICAL LAYOUTS FOR DETECTION LOOPS

STANDARD 886006-01

Illinois Department of Transportation

Storm Water Pollution Prevention Plan

Route	Marked Route	Section Number
Bernard Drive		
Project Number	**County**	**Contract Number**
	Cook	

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.

Signature	Date

Print Name	Title	Agency
Kyle Johnson, P.E.	Dep. Director of PW/Village Eng	Village of Buffalo Grove

Note: Guidance on preparing each section of BDE 2342 can be found in Chapter 41 of the IDOT Bureau of Design and Environment (BDE) Manual. Chapter 41 and this form also reference the IDOT Drainage Manual which should be readily available.

I. Site Description:

A. Provide a description of the project location; include latitude and longitude, section, town, and range:

The project involves existing road ROW reconstruction with the addition of a new bike path between Bernard Drive from East Lincoln Terrace to Buffalo Grove Road (from approximately STA 55+25.00 to STA 85+61.09) in the Village of Buffalo Grove, Cook County, Illinois. Sections: 4 and 5; Township: 42N; Range 11E of the Third Principal Meridian (Lat. 42.147151; Long. -87.962541).

B. Provide a description of the construction activity which is the subject of this plan. Include the number of construction stages, drainage improvements, in-stream work, installation, maintenance, removal of erosion measures, and permanent stabilization:

The work to be performed under this contract consists of existing road ROW reconstruction with the addition of a bike path (See Bike Path Profile Plan Sheets) between Bernard Drive from East Lincoln Terrace to Buffalo Grove Road. Work will be completed in 2 stages and includes installation/maintenance of soil erosion and sediment control (SESC) practices; tree protection, trimming, and removal; milling existing hot mix asphalt (HMA) and re-surfacing; driveway/pavement/sidewalk/combination curb & gutter removal and replacement (cement concrete/ HMA); earth excavation/backfilling/removal & disposal of unsuitable material; construction of new bike path; drainage and utility structure adjustments/relocations (i.e., combination curb & gutter, storm & sanitary sewers, pipe underdrains); furnish & place topsoil; final stabilization; removal of temporary SESC measures; and all incidental & collateral work necessary to complete the project as shown on the plans and described in the special provisions. There will be no in-stream work.

C. Provide the estimated duration of this project:

5 months

D. The total area of the construction site is estimated to be 4.3 acres.

The total area of the site estimated to be disturbed by excavation, grading or other activities is 4.3 acres.

E. The following are weighted averages of the runoff coefficient for this project before and after construction activities are completed; see Section 4-102 of the IDOT Drainage Manual:

Pre-construction weighted C=0.80/Post-construction weighted C=0.80

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

805B - Orthents, clayey, undulating,1-6% slopes (K factor = 0.32 - moderate susceptibility of soil erosion)
531C2 - Markham silt loam, 4-6% slopes, eroded (K factor = 0.37 - moderate susceptibility of soil erosion)

* K factor = soil erodibility factor

G. If wetlands were delineated for this project, provide an extent of wetland acreage at the site; see Phase I report:

No wetlands or waters are located within the project limits.

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

Based on the Soil Survey of Cook County, the soils throughout the project corridor are predominantly mapped as Orthents (parent material earthy fill/in areas of disturbed soil material) with a small portion mapped as silt loam. Based on the K factor (soil erodibility factor), the mapped soils throughout most of the project corridor are moderately susceptible to erosion. Potentially erosive areas associated with the project include idle, disturbed soils throughout the project corridor.

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.):

See Typical Sections, Existing Conditions & Removal Plan, Proposed Plan & Profile Sheets, Roadway/Bike Path/Drainage Plan & Profile Sheets, Maintenance of Traffic Sheets (2 Stages), Erosion Control and Landscaping Plan, Existing Drainage Conditions & Removal Plan, Drainage Schedule, Pavement Marking and Signing Plan, MWRD Sanitary Sewer Details, Pavement Patching for HMA Surfaced Pavement Plans, Cross Sections, Sanitary Plan and Profile.

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:

Village of Buffalo Grove & Cook County Department of Transportation and Highways (DoTH)

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

Village of Buffalo Grove & Cook County DoTH

M. The following is a list of receiving water(s) and the ultimate receiving water(s) for this site. In addition, include receiving waters that are listed as Biologically Significant Streams by the Illinois Department of Natural Resources (IDNR). The location of the receiving waters can be found on the erosion and sediment control plans:

White Pine Ditch and Buffalo Creek. The receiving waters adjacent to the project corridor are not listed as Biologically Significant Streams by IDNR.

N. Describe areas of the site that are to be protected or remain undisturbed. These areas may include steep slopes (i.e., 1:3 or steeper), highly erodible soils, streams, stream buffers, specimen trees, natural vegetation, nature preserves, etc. Include any commitments or requirements to protect adjacent wetlands.

For any storm water discharges from construction activities within 50-feet of Waters of the U.S. (except for activities for water-dependent structures authorized by a Section 404 permit, describe: a) How a 50-foot undisturbed natural buffer will be provided between the construction activity and the Waters of the U.S. or b) How additional erosion and sediment controls will be provided within that area.

There are no environmentally sensitive areas within or adjacent to the project work areas.

O. Per the Phase I document, the following sensitive environmental resources are associated with this project and may have the potential to be impacted by the proposed development. Further guidance on these resources is available in Section 41-4 of the BDE Manual.

White Pine Ditch and Buffalo Creek

☒ 303(d) Listed receiving waters for suspended solids, turbidity, or siltation.
The name(s) of the listed water body, and identification of all pollutants causing impairment:

Buffalo Creek (IL_GST) - Impairment causes include Chloride, Dissolved Oxygen, Fecal Coliform, and Total Suspended Solids (TSS).

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:

SESC BMPs shall be installed and maintained per plans and specs (See Erosion Control and Landscaping Plan). Existing land use along the project corridor limits structural BMP options. Vegetation removal, soil exposure, and staging construction activities will be coordinated as necessary to minimize idle, disturbed soils within the project corridor.

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

The project drains to an MS4. There are no direct discharge points to 303(d) listed impaired waters within the project corridor.

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

Dewatering shall occur as needed, and shall occur per the IL Urban Manual.

☒ Applicable Federal, Tribal, State, or Local Programs

See Part II.F below

☐ Floodplain

There is no 100-year regulatory floodplain mapped within the project limits.

☐ Historic Preservation

In a memorandum dated, 09/18/2020, IDOT's Cultural Resources Unit made a "No Historic Properties Affected" finding pursuant to Section 106 of the National Historic Preservation Act.

☐ Receiving waters with Total Maximum Daily Load (TMDL) for sediment, total suspended solids, turbidity or siltation

TMDL (fill out this section if checked above)

The name(s) of the listed water body:

N/A

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:

N/A

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

☐ Threatened and Endangered Species/Illinois Natural Areas (INAI)/Nature Preserves

An updated Natural Resources Review by IDOT has been requested.

☐ Other

N/A

☐ Wetland

N/A

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

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

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

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

Trees/vegetation provide erosion control. Perimeter controls (and tree trunk protection) will protect trees located in the vicinity of construction activities. Construction activities shall be performed in a manner that limits the amount of exposed soil at any one time. Temporary stabilization measures (including erosion control blanket,

geotextiles, and seeding) shall be installed at idle, disturbed areas in accordance with the NPDES ILR10 permit and the Erosion Control Plan.

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

Permanent seeding (installed with erosion control blanket) shall be used as a permanent erosion control measure.

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.

- ☐ Aggregate Ditch
- ☐ Concrete Revetment Mats
- ☒ Dust Suppression
- ☒ Dewatering Filtering
- ☐ Gabions
- ☐ In-Stream or Wetland Work
- ☐ Level Spreaders
- ☐ Paved Ditch
- ☐ Permanent Check Dams
- ☒ Perimeter Erosion Barrier
- ☐ Permanent Sediment Basin
- ☐ Retaining Walls
- ☐ Riprap
- ☐ Rock Outlet Protection
- ☐ Sediment Trap
- ☒ Storm Drain Inlet Protection
- ☒ Stabilized Construction Exits
- ☐ Stabilized Trench Flow
- ☐ Slope Mattress
- ☐ Slope Walls
- ☐ Temporary Ditch Check
- ☐ Temporary Pipe Slope Drain
- ☐ Temporary Sediment Basin
- ☐ Temporary Stream Crossing
- ☐ Turf Reinforcement Mats
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____

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

See Erosion Control and Landscaping Plan. SESC BMPs will be installed prior to commencement of work and maintained throughout project per IUM standards and specs.

- Dust suppression shall be used to control dust and airborne dirt generated by the Contractor's construction activities. Dust control (if necessary) shall follow IDOT Standard Specifications.

- Dewatering filtering shall be used as necessary for excavation activities that encounter groundwater or other water that needs to be removed from the construction area. Dewatering shall follow the General Notes in the Site Improvement Plans and be in accordance with the NPDES ILR10 permit. Contractor shall provide additional dewatering information per Part II.G below, as necessary.

- Perimeter erosion barrier shall be installed at the perimeter of work areas, as necessary, including where runoff sheet flows off site. Perimeter erosion barrier allows sediment to settle from runoff before storm water leaves the work area. Perimeter erosion barrier shall not be installed where sheet flow enters the construction site, unless directed by the Engineer. The work areas shall be graded as the project progresses to eliminate the concentration of runoff and/or appropriate sediment control devices shall be installed to trap sediment.

- Existing inlets, catch basins, and manholes with open lids shall be protected with appropriate inlet protection to detain and/or filter sediment-laden runoff and allow sediment to settle. Proposed drainage structures, if any, shall be protected with inlet and outlet protection immediately following their construction and prior to receiving runoff from disturbed soils.

• Stabilized construction entrance(s) shall be installed, as necessary, at ingress/egress points to reduce or eliminate the tracking of sediment onto public rights-of-way or streets.

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

See Erosion Control and Landscaping Plans. Temporary structural practices shall be removed upon completion of all work and achieving final stabilization (i.e., when all soil disturbing activities are complete and the exposed soils have been stabilized with 70% or greater density of vegetative coverage).

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.

Polymer flocculants or treatment controls are not proposed at this time. However, if during construction activities, it is determined that polymer flocculants or treatment chemicals are necessary to maintain permit compliance, the SWPPP shall be updated with the information at Section G below. The Contractor must obtain approval from the Engineer prior to the use of any proposed polymer flocculants or treatment chemicals

E. **Permanent (i.e., Post-Construction) 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 based on the technical guidance in Chapter 41 (Construction Site Storm Water Pollution Control) of the IDOT BDE 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:

Tree preservation, landscaping, and permanent seeding (installed with erosion control blanket) shall be used as a permanent erosion control measure.

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 IEPA'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:

Village of Buffalo Grove, U.S. Environmental Protection Agency (USEPA), ILEPA, and Metropolitan Water Reclamation District of Greater Chicago (MWRD).

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 time-frame
- Mass clearing and grubbing/roadside clearing dates
- Deployment of Erosion Control Practices
- Deployment of Sediment Control Practices (including stabilized cons

- 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 operation
- Time frame for other significant long-term operations or activities that may plan non-storm water discharges as dewatering, grinding, etc
- Permanent stabilization activities for each area of the project

2. During the pre-construction meeting, 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:
   - Temporary Ditch Checks - Identify what type and the source of Temporary Ditch Checks that will be installed as part of the project. The installation details will then be included with the SWPPP.
   - 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 (e.g., IDOT Erosion and Sediment Control Field Guide) to the Contractor for the practices associated with this project. Describe how all items will be checked for structural integrity, sediment accumulation and functionality. Any damage or undermining shall be repaired immediately. Provide specifics on how repairs will be made. 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.

All controls shall be maintained in good working order by the General Contractor or Subcontractor. If repair is warranted, it shall be completed as soon as possible. New control measures needed or controls needing repair or modification as a result of an inspection shall be implemented as soon as practical, but no later than seven (7) calendar days following the inspection. Requests for repairs to existing controls or new control measures requested by a Regulatory Agency shall be initiated within 24 hours.

• Inlet Protection: Remove sediment from inlet filter baskets when basket is 25% full or 50% of the fabric pores are covered with silt. Clean filter if standing water is present longer than one hour after a rain event. Clean sediment or replace silt fence when sediment accumulates to one-third the height of the fabric. Where there is evidence of sediment accumulation adjacent to the inlet protection device, remove the deposited sediment by

the end of the same business day in which it is found or by the end of the following business day if removal by the same business day is not feasible. Remove trash accumulated around or on top of the inlet protection device. When filter is removed for cleaning, replace fabric if any tear is present.

- Perimeter Erosion Barrier (PEB): Repair tears, gaps or undermining. Restore leaning PEB and ensure taut. Repair or replace any missing or broken stakes immediately. Clean PEB if sediment reaches one-third height of barrier. Remove PEB once final stabilization is established. Repair PEB if undermining occurs anywhere along its entire length.

- Erosion Control Blanket: Repair damage due to water running beneath the blanket and restore blanket when displacement occurs. Re-seeding may be necessary. Replace all displaced blanket and re-staple.

- Seeding: Reapply seed if stabilization hasn't been achieved. Apply erosion control blanket (or alternative approved by Engineer) to hold seed in place if seed has been washed away or found to be concentrated in ditch bottoms. Restore rills as quickly as possible on slopes steeper than 4:1 (H:V) to prevent sheet flow from becoming concentrated flow patterns. Mow, if necessary, to promote seed soil contact when excessive weed development occurs. Supplement seed if weather conditions (extreme heat or cold) are not conducive to germination.

- Protection of Existing Vegetation: The Contractor shall be responsible for removal of the stumps left behind after the tree removal. Replace damaged vegetation with similar species as directed by the Engineer. Restore areas disturbed, disrupted or damaged by the Contractor to pre-construction conditions or better at no additional expense to the contract. Trim any cuts, skins, scrapes or bruises to the bark of the vegetation and utilize local nursery accepted procedures to seal damaged bark. Prune all tree branches broken, severed or damaged during construction. Cut all limbs and branches, one-half inch or greater in diameter, at the base of the damage, flush with the adjacent limb or tree trunk. Smoothly cut, perpendicular to the root, all cut, broken, or severed (during construction) roots 1-inch or greater in diameter. Cover roots exposed during excavation with moist earth and/or backfill immediately to prevent roots from drying.

- Temporary Stabilized Construction Entrances: Replenish stone or replace exit if vehicles continue to track sediment onto the roadway from the construction site. Any sediment reaching a public or private roadway shall be removed before the end of the work day or sooner if directed by the Engineer. Track out shall be removed by sweeping or shoveling these surfaces (or by using other similarly effective means of sediment removal approved by the Engineer). Hosing or sweeping tracked out sediment into any storm water conveyance, storm drain inlet, or waters of the U.S. is prohibited. Ensure culverts (if provided) are free from damage and repair or replace as needed.

- Stockpile Management: Repair and/or replace perimeter controls and stabilization measures when stockpile material has potential to be discharged or leave the limits of the protection. Remove all off-tracked material by sweeping or other methods. Update the SWPPP any time a stockpile location has been removed, relocated, added or required maintenance. During summer months, stockpiles should be watered to maintain the cover crop.

- Dewatering: Ensure proper operation and compliance with permits or water quality standards. Remove accumulated sediment from the flow area. Dispose of sediment in accordance with all applicable laws and regulations. Remove and replace dewatering bags (if used) when half full of sediment or when discharge rate is impractical. Immediately stop discharge if receiving areas show signs of cloudy water, erosion, or sediment accumulation.

- Temporary Concrete Washout: Do not discharge wastewater into the environment (Note: Acidity, not particulates, is environmentally detrimental). Facilitate evaporation of low volume washout water. Clean and remove any discharges within 24 hours of discovery. If effluent cannot be removed prior to anticipated rainfall event, place and secure a non-collapsing, non-water collecting cover over the washout facility to prevent accumulation and precipitation overflow. Replace damaged liner immediately. Remove washout when no longer

needed and restore disturbed areas to original condition. Properly dispose of solidified concrete waste.

- Material Delivery and Storage: Document the various types of materials delivered and their storage locations in the SWPPP. Update the SWPPP any time significant changes occur to material storage or handling locations and when they have been removed. Clean-up spills immediately. Remove empty containers.

- Solid Waste Management: Designate a waste collection area(s) and identify them in the SWPPP. Inspect inlets, outfalls, and drainageways for litter, debris, containers, etc. Observe the construction site for improper waste disposal. Update the SWPPP any time the trash management plan significantly changes. Correct items discarded outside of designated areas.

- Vehicle and Equipment Fueling, Cleaning, and Maintenance: Clean-up spills immediately. Contractor must provide documentation that spills were cleaned, materials disposed of, and impacts mitigated. Update the SWPPP when designated location has been removed, relocated, added or requires maintenance. In the event of a spill into a storm drain, waterway or onto a paved surface, the owner of the fuel must immediately take action to contain the spill. Once contained, clean-up the spill. As an initial step, this may involve collecting any bulk material and placing it in a secure container for later disposal. Follow-up cleaning will also be required to remove residues from paved or other hard surfaces.

- Portable Restroom Facilities: Maintain in accordance with applicable laws to prevent unsanitary conditions. Check for leaks and remove and replace as needed.

Additional information can be found in the IDOT Erosion and Sediment Control Field Guide and the Illinois Urban Manual.

IV. Inspections:

Qualified personnel shall inspect disturbed areas of the construction site including Borrow, Waste, and Use Areas, 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

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 Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: Bernard Drive Improvements Office Phone Number, if available: 847-823-0500

Physical Site Location (address, including number and street):
Bernard Drive from Arlington Heights Road to Buffalo Grove Road

City: Buffalo Grove State: IL Zip Code: 60089

County: Cook Township: Wheeling

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.14668 (Decimal Degrees) Longitude: - 87.97227 (-Decimal Degrees)

Identify how the lat/long data were determined:

○ GPS ○ Map Interpolation ○ Photo Interpolation ○ Survey ⊘ Other

EDR First Report

IEPA Site Number(s), if assigned: BOL: None BOW: None BOA: None

Approximate Start Date (mm/dd/yyyy): Approximate End Date (mm/dd/yyyy):

Estimated Volume of debris (cu. Yd.):

II. Owner/Operator Information for Source Site

Site Owner

Name:
Street Address:
PO Box:
City: State:
Zip Code: Phone:
Contact:
Email, if available:

Site Operator

Name:
Street Address:
PO Box:
City: State:
Zip Code: Phone:
Contact:
Email, if available:

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed $50,000 for the violation and an additional civil penalty of not to exceed $10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

L-93,353

Project Name: Bernard Drive Improvements Latitude: 42.14668 Longitude: - 87.97227

Uncontaminated Soil Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a)]:

See attached report. Review of historical topo maps and aerial photos to 1900 indicate the Site property had been used for agricultural purposes since before that time. Residential subdivision construction after 1953 from east to west, complete after 1962. EDR did not identify Site on environmental databases. PESA ID'd REC. 32 borings performed, screened with a PID.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0,including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201 (g), 1100.205(a), 1100.610]:

PID screening sample identified no volatiles above background. Soil samples C-1, C-2, C-8, C-14, C-22, and C-32 representing site soil conditions, collected for analysis of VOCs, SVOCs, total RCRA metals, & pH. Analytical results verify soil meets MACs, after chromium SPLP. pH range of 8.19 to 8.97 between 6.25 and 9.0, therefore, soils in that area are uncontaminated.

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Aaron J. Ulrey (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name:	Testing Service Corporation
Street Address:	360 South Main Place
City:	Carol Stream State: IL Zip Code: 60188
Phone:	630-462-2600

Aaron J. Ulrey
Printed Name:

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

12-28-2021
Date:

P.E or L.P.G. Seal:

AARON JON ULREY
196.001390
REGISTERED
PROFESSIONAL
GEOLOGIST
STATE OF ILLINOIS

L-93,353

BLUFF CITY MATERIALS, INC

2252 SOUTHWIND BLVD
BARTLETT, IL 60103

27 September 2023

Aaron Ulrey
Testing Service Corporation
360 S. Main Pl.
Carol Stream, IL 60188
Phone: 630-784-4033
Via Email: aulrey@tsccorp.com

Re: Letter of Acceptance
Soil Testing
Bernard Drive Improvements CCDD Testing

Dear Mr. Ulrey:

Bluff City Materials has reviewed the Testing Service Corporation 663 certification and supporting documents for the project located on Bernard Dr. from Arlington Heights Rd. to Buffalo Grove Rd. in Buffalo Grove, IL. Based on the project information provided in your LPC-663 certification, Bluff City Materials agrees to accept the CCDD approved material at our facilities located in Elgin and Lake in the Hills IL.

Bluff City Materials is permitted by the IEPA to accept this material and our IEPA Permit number is CCDD2011-001-DE/OP. All loads entering the facility are inspected visually, with a photo ionization detector (PID) meter, and manifested from the source location. Our facilities comply with all local zoning codes and all applicable local, state and federal rules and regulations.

If you have any questions, please contact me at 630.497.8700 x 289

Sincerely,

Andy Paxson
Bluff City Materials
Environmental Assessments

NOTE:

GROUND SURFACE ELEVATIONS AT THE BORINGS WERE ACQUIRED BY TSC USING A TRIMBLE R8S GNSS RECEIVER, BEING ROUNDED TO THE NEAREST 0.5 FOOT.

LEGEND

CORE LOCATION

CORE LOCATION PLAN
BERNARD DRIVE IMPROVEMENTS
ARLINGTON HEIGHTS TO S. BUFFALO GROVE ROAD
SECTION NO 20-00108-00-RS
BUFFALO GROVE, ILLINOIS

TESTING SERVICE CORPORATION
457 EAST GUNDERSEN DRIVE
CAROL STREAM, ILLINOIS 60188

DRAWN BY:	TJF
CHECKED BY:	TRP
JOB NO. :	L-93,352
DATE:	12-15-21

PAGE NO.
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C-20	1.4"	Bituminous Surface Course	(Pavement overlay fabric between courses)
	0.4"	Bituminous Surface Course	(Not Bonded to Underling Course)
	1.7"	Bituminous Surface Course	(Not Bonded to Underling Course)
	2.4"	Bituminous Surface Course	
	6"	**Total Pavement Thickness**	
	7"	Crushed Gravel Base Course (1" Max, some clay)	
C-21	1.4"	Bituminous Surface Course	(Pavement overlay fabric between courses)
	0.6"	Bituminous Surface Course	
	1.2"	Bituminous Surface Course	
	3.2"	Bituminous Surface Course	
	6¼"	**Total Pavement Thickness**	
	7"	Crushed Gravel Base Course (¾" Max, some clay)	
C-22	1.6"	Bituminous Surface Course	(Pavement overlay fabric between courses)
	1.6"	Bituminous Surface Course	
	0.8"	Bituminous Surface Course	
	2.2"	Bituminous Surface Course	
	6¼"	**Total Pavement Thickness**	
	6"	Crushed Gravel Base Course (¾" Max, some clay)	
C-23	1.5"	Bituminous Surface Course	(Pavement overlay fabric between courses)
	0.2"	Bituminous Surface Course	(Not Bonded to Underling Course)
	1.4"	Bituminous Surface Course	
	3.2"	Bituminous Surface Course	
	6¼"	**Total Pavement Thickness**	
	8"	Crushed Gravel Base Course (¾" Max, some clay)	
C-24	1.8"	Bituminous Surface Course	(Pavement overlay fabric between courses)
	0.5"	Bituminous Surface Course	
	1.0"	Bituminous Surface Course	
	1.0"	Bituminous Surface Course	
	2.2"	Bituminous Surface Course	
	6½"	**Total Pavement Thickness**	
	6"	Crushed Gravel Base Course (¾" Max, some clay)	
C-25	1.3"	Bituminous Surface Course	(Pavement overlay fabric between courses)
	±1.0"	Bituminous Surface Course	(Deteriorated, Not Bonded to Underling Course)
	3.5"	Bituminous Surface Course	(Partially Deteriorated)
	±6"	**Approximate Total Pavement Thickness**	
	8"	Crushed Gravel and Sand Base Course (1" Max, some clay)	

C-26
1.2" Bituminous Surface Course
0.9" Bituminous Sand Mix
0.4" Bituminous Surface Course (Pavement overlay fabric between courses)
0.9" Bituminous Surface Course
3.4" Bituminous Surface Course
6¾" Total Pavement Thickness
5" Crushed Gravel Base Course (¾" Max, some clay)

C-27
1.4" Bituminous Surface Course
0.6" Bituminous Sand Mix
0.4" Bituminous Surface Course (Pavement overlay fabric between courses)
0.7" Bituminous Surface Course
1.1" Bituminous Surface Course
1.9" Bituminous Surface Course
6" Total Pavement Thickness
5" Crushed Gravel Base Course (¾" Max, some clay)

C-28
1.5" Bituminous Surface Course
0.8" Bituminous Sand Mix
0.6" Bituminous Surface Course
0.6" Bituminous Surface Course (Pavement overlay fabric between courses)
0.9" Bituminous Surface Course (Not Bonded to Underling Course)
2.7" Bituminous Surface Course
7" Total Pavement Thickness
11" Crushed Gravel and Sand Base Course (¾" Max, some clay)

C-29
2.0" Bituminous Surface Course
0.4" Bituminous Sand Mix
0.2" Bituminous Surface Course
1.2" Bituminous Surface Course (Pavement overlay fabric between courses)
2.4" Bituminous Surface Course
6¼" Total Pavement Thickness
12" Crushed Gravel and Sand Base Course (¾" Max, some clay)

C-30
1.6" Bituminous Surface Course (Not Bonded to Underling Course)
1.1" Bituminous Sand Mix
1.3" Bituminous Surface Course (Pavement overlay fabric between courses)
0.3" Bituminous Surface Course
1.0" Bituminous Surface Course
2.0" Bituminous Binder Course
7¼" Total Pavement Thickness
10" Crushed Gravel and Sand Base Course (¾" Max, some clay)

C-31	1.7"	Bituminous Surface Course
	1.0"	Bituminous Sand Mix
	0.9"	Bituminous Surface Course
	3.6"	Bituminous Surface Course
	7¼"	**Total Pavement Thickness**
	10"	Crushed Stone Base Course (¾" to fines)

C-32	1.3"	Bituminous Surface Course
	0.9"	Bituminous Sand Mix
	0.6"	Bituminous Surface Course (Pavement overlay fabric between courses)
	±1.0"	Bituminous Surface Course (Deteriorated, Not Bonded to Underling Course)
	2.8"	Bituminous Binder Course
	±6.5"	**Approximate Total Pavement Thickness**
	10"	Crushed Gravel and Sand Base Course (¾" Max, some clay)

EXHIBIT NO.109
MATERIALS LIST

Date of revision: 9/23/19

Water Distribution Material Specifications:

Water main pipe	Ductile Iron Pipe. Pipe class thickness—AWWA C150, minimum thickness, Class 52. Pipe—AWWA C151. Pipe lining—AWWA C104. Fittings—AWWA C153. Joints—mechanical and push-on, AWWA C111. Wrap—4 mil. X-Lam conforming to AWWA C105.A21.5 and AWWA C600. No 90 degree bends allowed. All stainless steel trim.
Valves	American Flow Control, Series 2500 resilient wedge gate valve, All sizes two inch to fourteen inch, counter clockwise to open, AWWA C500., AWWA C504. Clow AWWA C-504 Butterfly Valve for sixteen inch and above. Joint end—mechanical, AWWA C111. All stainless steel trim.
Valve Vault	All structures shall be monolithically precast with designed openings or mechanically cored in the field and shall have rubber boots conforming to ASTM C-923. Dog house vaults are excluded from these requirements when permitted by Village Engineer. Size: For six and eight inch diameter valves, valve vaults shall have a forty-eight inch inside diameter; for pressure connections and valves ten inches and larger in diameter, valve vaults shall have a sixty inch inside diameter. All valve vault cones must be eccentric centers with valve properly aligned.
Castings	Neenah No. R-1772, embossed per Exhibit No. 401.
Fire Hydrant	Waterous Pacer Model WB67-250, AWWA C502, painted fire engine red above ground, with resilient wedge auxiliary gate valve. Nozzles, two at two and one half inch, one at four and one half inch, with threads conforming to National Standard Specifications. Frangible section (breakaway type) with the break line flange located one inch above finished grade. Joint end, six inch, mechanical or push-on. Stainless steel trim below ground. Auxiliary boxes and hydrants shall be a direct flange-to-flange connection.
Fire hydrant extension	Fire hydrant extensions and parts to be manufactured by Waterous only. All stainless steel trim.
Hydrant Valve Box \ Valve boxes	Hydrant Valve Box Tyler 664-S. Lid embossed "WATER." Rubber valve box stabilizer required.
Service Pipe	Copper tube, two inches and smaller, ASTM B88, Type K (1" minimum). Ductile iron, larger than two inches. Conform to Water main section above. Service upgrade for existing water main requires a stainless steel tap repair clamp. Ford model FS1-CC, minimum length 15” long.
Corporation Stop	Mueller H15000, 1” minimum, AWWA C800. 1” Direct tap or 1 1/4” and larger shall use Ford FC202 stainless steel band, epoxy coated saddle.
Curb Stop	Copper service, Mueller H-15154. Ductile iron service, Resilient wedge counter clockwise to open, AWWA C500. Joint end—mechanical, AWWA C111.
Curb box	Copper service, Mueller H-10302. Ductile iron service, conform to Hydrant Valve Box section above. Ductile iron service, 6” and larger, conform to Valve Vault section above.
Copper to Copper Fittings	Mueller Company Model #H-15400. An all flared coupling is required, no sweat joint or compression allowed.
Pressure Connections	Ford FTSS style tapping sleeve. American Flow Control Series 2500 tapping valve four inch minimum. All stainless steel trim.

Sanitary Sewer Material Specifications:

Sewer and Service Connection Pipe	Reinforced concrete pipe—circular reinforcement, minimum Class 3, ASTM C76, with epoxy lining. PVC solid wall (SDR-26H) pipe—ASTM D-3034 for six to fifteen inches in diameter.
Sewer and Service Connection Pipe Joints	Reinforced concrete pipe—ASTM C443. PVC solid wall (SDR-26H) pipe—ASTM D-3212 for six to eighteen inches in diameter.
Sewer and Service Connection Pipe Fittings	PVC solid wall (SDR-26H) pipe—ASTM D3034 for six to fifteen inches in diameter.
Casing Pipes	Steel pipe—ASTM A120, three-eighths inch minimum thickness.
Manholes	Size: For sewer eighteen inch diameter or less, manhole shall have a forty-eight inch inside diameter. For sewer twenty-one inch to thirty-six inch diameter, manhole shall have a sixty inch inside diameter. For sewer greater than thirty-six inch diameter, manhole shall have an offset riser pipe of forty-eight inch inside diameter. All structures shall be monolithically precast including bases and invert flow lines.
Castings	Neenah No. R-1772, with self-sealing lid and recessed pick hole, embossed per Exhibit No. 301.

Storm Sewer System Material Specifications:

Structures	All structures shall be precast with designed openings or mechanically cored in the field.
Castings	Closed Lid, Type 1—Neenah No. R-1772, embossed per Exhibit No. 201., Open Lid, Type 1— Neenah No. R-1772, Standard B4.12 or any other barrier curb, Type 11— Neenah No. R-3170 (open curb box) Box height must be 6" minimum with 5' tapers to match curb height., Depressed barrier curb, Type 10— Neenah No. R-3205. Yard inlet - Neenah R-2579, convex grate.
Sewer Pipe Joints	Reinforced concrete pipe—ASTM C443 or C361. PVC solid wall (SDR-26H) pipe—ASTM D-3212 for six to eighteen inches in diameter.
Sump pump service connection pipe/sub surface drain pipe	4" PVC solid wall sewer pipe SDR-35. Blind connections must be cored in storm sewer and pipe connection shall be made with a rubber boot and stainless steel band. Sump pump per Exhibit No. 202 and underdrain per Exhibit No. 203.

Material Specifications For All Utilities:

Bedding	CA-11, Class B or better. All stone shall be crushed; rounded aggregate will not be permitted. The stone shall be compacted to 90% modified proctor density as required by ASTM D1557 or AASHTO T-180. Recycled materials permitted from IDOT approved sources meeting the correct gradations.
Trench Backfill	CA-11, Class B or better. This item shall meet the requirements of Class B CA-11, per the IDOT Standard Specifications for Road and Bridge Construction. All stone shall be crushed; rounded aggregate will not be permitted. The stone shall be compacted to 90% modified proctor density as required by ASTM D1557 or AASHTO T-180. Jetting of trenches is not permitted. Recycled materials permitted from IDOT approved sources meeting the correct gradations.
Adjustments	No more than two precast concrete adjusting rings with six inch maximum height adjustment shall be allowed, minimum one 2" ring installed on new structures. Only one HDPE ring with a max of 2" may be used within the precast tolerances. Only precast concrete or HDPE adjustment rings permitted. ½" x 3.5" mastic to be used between all frames, rings and structures. Mortar around rings, but none between.

Miscellaneous Material Specifications:

Detectable Warnings	Quick connect plates or bolted plates by Neenah Enterprises, Inc. Color shall be brick red.
Concrete	In accordance with IDOT Standard Specifications for Road and Bridge Construction
Asphalt	In accordance with IDOT Standard Specifications for Road and Bridge Construction and Chapter 16.50.070 of the Village of Buffalo Grove Municipal Code

* The Village Engineer shall have the authority to approve the use of alternative materials than those specifically required by Exhibit 109 in the manner provided for in this Title. The Village Engineer may approve alternative materials that are not specifically required by this title when:

1. The materials or their components required by this title are no longer manufactured and available for purchase; and

2. The alternative materials are generally consistent with requirements of this title, including but not limited to those standards relating to production, composition, safety and aesthetics.

Testing Specifications:

(In addition to the requirements of IDOT's Standard Specifications for Road and Bridge Construction or the Standard Specifications for Water and Sewer Construction in Illinois)

Storm Sewer	Cleaning and televising, with reporting, as directed by the Village Engineer
Sanitary Sewer	Cleaning and televising, with reporting, as directed by the Village Engineer