

BID PROPOSAL INSTRUCTIONS

ABOUT IDOT PROPOSALS: All proposals are potential bidding proposals. Each proposal contains all certifications and affidavits, a proposal signature sheet and a proposal bid bond.

PREQUALIFICATION

Any contractor who desires to become pre-qualified to bid on work advertised by IDOT must submit the properly completed pre-qualification forms to the Bureau of Construction no later than 4:30 p.m. prevailing time twenty-one days prior to the letting of interest. This pre-qualification requirement applies to first time contractors, contractors renewing expired ratings, contractors maintaining continuous pre-qualification or contractors requesting revised ratings. To be eligible to bid, existing pre-qualification ratings must be effective through the date of letting.

WHO CAN BID ?

Bids will be accepted from only those companies that request and receive written Authorization to Bid from IDOT's Central Bureau of Construction.

REQUESTS FOR AUTHORIZATION TO BID

Contractors wanting to bid on items included in a particular letting must submit the properly completed "Request for Authorization to Bid/or Not For Bid Status" (BDE 124) and the ORIGINAL "Affidavit of Availability" (BC 57) to the proper office no later than 4:30 p.m. prevailing time, three (3) days prior to the letting date.

WHAT CONSTITUTES WRITTEN AUTHORIZATION TO BID?

When a prospective prime bidder submits a "Request for Authorization to Bid/or Not For Bid Status"(BDE 124) he/she must indicate at that time which items are being requested For Bidding purposes. Only those items requested For Bidding will be analyzed. After the request has been analyzed, the bidder will be issued an **Authorization to Bid or Not for Bid Report**, approved by the Central Bureau of Construction and the Chief Procurement Officer that indicates which items have been approved For Bidding. If **Authorization to Bid** cannot be approved, the **Authorization to Bid or Not for Bid Report** will indicate the reason for denial.

ABOUT AUTHORIZATION TO BID

Firms that have not received an Authorization to Bid or Not For Bid Report within a reasonable time of complete and correct original document submittal should contact the Department as to the status. Firms unsure as to authorization status should call the Prequalification Section of the Bureau of Construction at the number listed at the end of these instructions.

ADDENDA AND REVISIONS

It is the bidder's responsibility to determine which, if any, addenda or revisions pertain to any project they may be bidding. Failure to incorporate all relevant addenda or revisions may cause the bid to be declared unacceptable.

Each addendum or revision will be included with the Electronic Plans and Proposals. Addenda and revisions will also be placed on the Addendum/Revision Checklist and each subscription service subscriber will be notified by e-mail of each addendum and revision issued.

The Internet is the Department's primary way of doing business. The subscription service emails are an added courtesy the Department provides. It is suggested that bidders check IDOT's website at <http://www.idot.illinois.gov/doing-business/procurements/construction-services/construction-bulletins/transportation-bulletin/index#TransportationBulletin> before submitting final bid information.

IDOT IS NOT RESPONSIBLE FOR ANY E-MAIL FAILURES.

Addenda questions may be directed to the Contracts Office at (217)782-7806 or DOT.D&Econtracts@illinois.gov

Technical questions about downloading these files may be directed to Tim Garman at (217)524-1642 or Timothy.Garman@illinois.gov.

STANDARD GUIDELINES FOR SUBMITTING BIDS

- All pages should be single sided.
- Use the Cover Page that is provided in the Bid Proposal (posted on the IDOT Web Site) as the first page of your submitted bid. It has the item number in large bold type in the upper left-hand corner and lines provided for your company name and address in the upper right-hand corner.
- Do not use report covers, presentation folders or special bindings and do not staple multiple times on left side like a book. Use only 1 staple in the upper left hand corner. Make sure all elements of your bid are stapled together including the bid bond or guaranty check (if required).
- **Do not include any certificates of eligibility, your authorization to bid, Addendum Letters or affidavit of availability.**
- Do not include the Subcontractor Documentation with your bid (pages i – iii and pages a – g). This documentation is required only if you are awarded the project.
- Use the envelope cover sheet (provided with the proposal) as the cover for the proposal envelope.
- Do not rely on overnight services to deliver your proposal prior to 10 AM on letting day. It will not be read if it is delivered after 10 AM.
- Do not submit your Substance Abuse Prevention Program (SAPP) with your bid. If you are awarded the contract this form is to be submitted to the district engineer at the pre-construction conference.

BID SUBMITTAL CHECKLIST

- Cover page** (the sheet that has the item number on it) – This should be the first page of your bid proposal, **followed by your bid (the Schedule of Prices/Pay Items)**. If you are using special software or CBID to generate your schedule of prices, do not include the blank pages of the schedule of prices that came with the proposal package.
- Page 4 (Item 9)** – Check “YES” if you will use a subcontractor(s) with an annual value over \$50,000. Include the subcontractor(s) name, address, general type of work to be performed and the dollar amount. If you will use subcontractor(s) but are uncertain who or the dollar amount; check “YES” but leave the lines blank.
- After page 4** – Insert the following documents: Cost Adjustments for Steel, Bituminous and Fuel (if applicable) and the Contractor Letter of Assent (if applicable). The general rule should be, if you don’t know where it goes, put it after page 4.
- Page 10 (Paragraph J)** – Check “YES” or “NO” whether your company has any business in Iran.
- Page 10 (Paragraph K)** – (Not applicable to federally funded projects) List the name of the apprenticeship and training program sponsor holding the certificate of registration from the US Department of Labor. If no applicable program exists, please indicate the work/job category. Do not include certificates with your bid. Keep the certificates in your office in case they are requested by IDOT.
- Page 11 (Paragraph L)** – A copy of your State Board of Elections certificate of registration is no longer required with your bid.
- Page 11 (Paragraph M)** – Indicate if your company has hired a lobbyist in connection with the job for which you are submitting the bid proposal.
- Page 12 (Paragraph C)** – This is a work sheet to determine if a completed Form A is required. It is not part of the form and you do not need to make copies for each completed Form A.
- Pages 14-17 (Form A)** – One Form A (4 pages) is required for each applicable person in your company. Copies of the forms can be used and only need to be changed when the information changes. The certification signature and date must be original for each letting. **Do not staple the forms together.** If you answered “NO” to all of the questions in Paragraph C (page 12), complete the first section (page 14) with your company information and then sign and date the Not Applicable statement on page 17.
- Page 18 (Form B)** - If you check “YES” to having other current or pending contracts it is acceptable to use the phrase, “See Affidavit of Availability on file”. **Ownership Certification** (at the bottom of the page) - Check N/A if the Form A(s) you submitted accounts for 100 percent of the company ownership. Check YES if any percentage of ownership falls outside of the parameters that require reporting on the Form A. Checking NO indicates that the Form A(s) you submitted is not correct and you will be required to submit a revised Form A.
- Page 20 (Workforce Projection)** – Be sure to include the Duration of the Project. It is acceptable to use the phrase “Per Contract Specifications”.

Proposal Bid Bond – (Insert after the proposal signature page) Submit your proposal Proposal Bid Bond (if applicable) using the current Proposal Bid Bond form provided in the proposal package. The Power of Attorney page should be stapled to the Proposal Bid Bond. If you are using an electronic bond, include your bid bond number on the Proposal Bid Bond and attach the Proof of Insurance printed from the Surety’s Web Site.

Disadvantaged Business Utilization Plan and/or Good Faith Effort – The last items in your bid should be the DBE Utilization Plan (SBE 2026), followed by the DBE Participation Statement (SBE 2025) and supporting paperwork. If you have documentation of a Good Faith Effort, it is to follow the SBE Forms.

The Bid Letting is now available in streaming Audio/Video from the IDOT Web Site. A link to the stream will be placed on the main page of the current letting on the day of the Letting. The stream will not begin until 10 AM. The actual reading of the bids does not begin until approximately 10:30 AM.

Following the Letting, the As-Read Tabulation of Bids will be posted by the end of the day. You will find the link on the main Web page for the current letting.

QUESTIONS: pre-letting up to execution of the contract

Contractor pre-qualification	217-782-3413
Small Business, Disadvantaged Business Enterprise (DBE)	217-785-4611
Contracts, Bids, Letting process or Internet downloads	217-782-7806
Estimates Unit.....	217-785-3483
Aeronautics.....	217-785-8515
IDNR (Land Reclamation, Water Resources, Natural Resources).....	217-782-6302

QUESTIONS: following contract execution

Subcontractor documentation, payments	217-782-3413
Railroad Insurance	217-785-0275

RETURN WITH BID

1X

Proposal Submitted By
Name
Address
City

Letting January 15, 2016

NOTICE TO PROSPECTIVE BIDDERS

This proposal can be used for bidding purposes by only those companies that request and receive written AUTHORIZATION TO BID from IDOT's Central Bureau of Construction.

BIDDERS NEED NOT RETURN THE ENTIRE PROPOSAL

**Notice to Bidders,
Specifications,
Proposal, Contract
and Contract Bond**



**Illinois Department
of Transportation**

Springfield, Illinois 62764

**Contract No. 85612
WINNEBAGO County
Section 01-00509-00-RP (Rockford)
Route FAP 525 (Harrison Avenue)
Project M-5099(071)
District 2 Construction Funds**

PLEASE MARK THE APPROPRIATE BOX BELOW:

- A Bid Bond is included.
- A Cashier's Check or a Certified Check is included
- An Annual Bid Bond is included or is on file with IDOT.

Prepared by

Checked by

F

Page intentionally left blank

RETURN WITH BID



PROPOSAL

TO THE DEPARTMENT OF TRANSPORTATION

1. Proposal of _____

Taxpayer Identification Number (Mandatory) _____

For the improvement identified and advertised for bids in the Invitation for Bids as:

**Contract No. 85612
WINNEBAGO County
Section 01-00509-00-RP (Rockford)
Project M-5099(071)
Route FAP 525 (Harrison Avenue)
District 2 Construction Funds**

Project consists of the complete reconstruction of Harrison Ave. from 9th St. to east of 20th St. and 11th St. from south of Alton Ave. to north of Harrison Ave., located in the City of Rockford. PCC pavement, HMA resurfacing, curb and gutter, sidewalks, shared use path, box culvert replacement, box culvert extension, highway lighting, traffic signal replacement, storm sewer, sanitary sewer replacement and water main replacement.

2. The undersigned bidder will furnish all labor, material and equipment to complete the above described project in a good and workmanlike manner as provided in the contract documents provided by the Department of Transportation. This proposal will become part of the contract and the terms and conditions contained in the contract documents will govern performance and payments.

RETURN WITH BID

3. **ASSURANCE OF EXAMINATION AND INSPECTION/WAIVER.** The undersigned bidder further declares that he/she has carefully examined the proposal, plans, specifications, addenda form of contract and contract bond, and special provisions, and that he/she has inspected in detail the site of the proposed work, and that he/she has familiarized themselves with all of the local conditions affecting the contract and the detailed requirements of construction, and understands that in making this bid proposal he/she waives all right to plead any misunderstanding regarding the same.

4. **EXECUTION OF CONTRACT AND CONTRACT BOND.** The undersigned bidder further agrees to execute a contract for this work and present the same to the department within fifteen (15) days after the contract has been mailed to him/her. The undersigned further agrees that he/she and his/her surety will execute and present within fifteen (15) days after the contract has been mailed to him/her contract bond satisfactory to and in the form prescribed by the Department of Transportation, in the penal sum of the full amount of the contract, or as specified in the special provisions, guaranteeing the faithful performance of the work in accordance with the terms of the contract.

5. **PROPOSAL GUARANTY.** Accompanying this proposal is either a bid bond on the department form, executed by a corporate surety company satisfactory to the department, or a proposal guaranty check consisting of a bank cashier's check or a properly certified check for not less than 5 per cent of the amount bid or for the amount specified in the following schedule:

<u>Amount of Bid</u>		<u>Proposal Guaranty</u>	<u>Amount of Bid</u>		<u>Proposal Guaranty</u>	
Up to	\$5,000	\$150	\$2,000,000	to	\$3,000,000	\$100,000
\$5,000	to \$10,000	\$300	\$3,000,000	to	\$5,000,000	\$150,000
\$10,000	to \$50,000	\$1,000	\$5,000,000	to	\$7,500,000	\$250,000
\$50,000	to \$100,000	\$3,000	\$7,500,000	to	\$10,000,000	\$400,000
\$100,000	to \$150,000	\$5,000	\$10,000,000	to	\$15,000,000	\$500,000
\$150,000	to \$250,000	\$7,500	\$15,000,000	to	\$20,000,000	\$600,000
\$250,000	to \$500,000	\$12,500	\$20,000,000	to	\$25,000,000	\$700,000
\$500,000	to \$1,000,000	\$25,000	\$25,000,000	to	\$30,000,000	\$800,000
\$1,000,000	to \$1,500,000	\$50,000	\$30,000,000	to	\$35,000,000	\$900,000
\$1,500,000	to \$2,000,000	\$75,000	over		\$35,000,000	\$1,000,000

Bank cashier's checks or properly certified checks accompanying bid proposals will be made payable to the Treasurer, State of Illinois.

If a combination bid is submitted, the proposal guaranties which accompany the individual bid proposals making up the combination will be considered as also covering the combination bid.

The amount of the proposal guaranty check is _____ \$(_____). If this proposal is accepted and the undersigned will fail to execute a contract bond as required herein, it is hereby agreed that the amount of the proposal guaranty will become the property of the State of Illinois, and shall be considered as payment of damages due to delay and other causes suffered by the State because of the failure to execute said contract and contract bond; otherwise, the bid bond will become void or the proposal guaranty check will be returned to the undersigned.

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 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:

Item _____

Section No. _____

County _____

Mark the proposal cover sheet as to the type of proposal guaranty submitted.

RETURN WITH BID

6. **COMBINATION BIDS.** The undersigned bidder further agrees that if awarded the contract for the sections contained in the following combination, he/she will perform the work in accordance with the requirements of each individual contract comprising the combination bid specified in the schedule below, and that the combination bid shall be prorated against each section in proportion to the bid submitted for the same. If an error is found to exist in the gross sum bid for one or more of the individual sections included in a combination, the combination bid shall be corrected as provided in the specifications.

When a combination bid is submitted, the schedule below must be completed in each proposal comprising the combination.

If alternate bids are submitted for one or more of the sections comprising the combination, a combination bid must be submitted for each alternate.

Schedule of Combination Bids

Combination No.	Sections Included in Combination	Combination Bid	
		Dollars	Cents

7. **SCHEDULE OF PRICES.** The undersigned bidder submits herewith, in accordance with the rules and instructions, a schedule of prices for the items of work for which bids are sought. The unit prices bid are in U.S. dollars and cents, and all extensions and summations have been made. The bidder understands that the quantities appearing in the bid schedule are approximate and are provided for the purpose of obtaining a gross sum for the comparison of bids. If there is an error in the extension of the unit prices, the unit prices will govern. Payment to the contractor awarded the contract will be made only for 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 provided elsewhere in the contract.
8. **AUTHORITY TO DO BUSINESS IN ILLINOIS.** Section 20-43 of the Illinois Procurement Code (the Code) (30 ILCS 500/20-43) provides that a person (other than an individual acting as a sole proprietor) must be a legal entity authorized to transact business or conduct affairs in the State of Illinois prior to submitting the bid.
9. **EXECUTION OF CONTRACT:** The Department of Transportation will, in accordance with the rules governing Department procurements, execute the contract and shall be the sole entity having the authority to accept performance and make payments under the contract. Execution of the contract by the Chief Procurement Officer (CPO) or the State Purchasing Officer (SPO) is for approval of the procurement process and execution of the contract by the Department. Neither the CPO nor the SPO shall be responsible for administration of the contract or determinations respecting performance or payment there under except as otherwise permitted in the Code.
10. **The services of a subcontractor will be used.**

Check box Yes
 Check box No

For known subcontractors with subcontracts with an annual value of more than \$50,000, the contract shall include their name, address, general type of work to be performed, and the dollar allocation for each subcontractor.
 (30 ILCS 500/20-120)

STATE JOB #- C-92-099-02
 PPS NBR -

SCHEDULE OF PRICES
 RUN DATE - 12/08/15
 RUN TIME - 183025

CONTRACT NUMBER - 85612

COUNTY NAME	CODE	DIST	SECTION NUMBER	PROJECT NUMBER	ROUTE
WINNEBAGO	201	02	01-00509-00-RP (ROCKFORD)	M-5099/0717000	FAP 525

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
A2000118	T-ACERX FREM AB 3	EACH	12.000	X	=		
A2002470	T-BETUL NG HRT CL 8'	EACH	10.000	X	=		
A2002884	T-CELTIS OCCID CL 3	EACH	6.000	X	=		
A2004824	T-GLED TRI-I SK 3	EACH	5.000	X	=		
A2006524	T-QUERCUS BICOL 3	EACH	3.000	X	=		
A2006726	T-QUERCUS MACR 3	EACH	4.000	X	=		
A2008124	T-TILIA CORD GS 3	EACH	5.000	X	=		
B2000769	T-AMEL X GF AB SF 8'	EACH	5.000	X	=		
B2001124	T-CERCIS CAN TF 3	EACH	9.000	X	=		
B2004170	T-MALUS PF CL 8'	EACH	9.000	X	=		
B2005726	T-PYRUS C CH TF 3	EACH	26.000	X	=		
C2C05824	S-RHUS AROMA GRO 2'C	EACH	56.000	X	=		
C2C10118	S-SPIREA JAP GM 18C	EACH	266.000	X	=		
K0012990	P PL ORNAMENT T GAL P	UNIT	3.000	X	=		
K0013020	P PL PRAIRIE TY GAL P	UNIT	8.000	X	=		

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
K1001985	IRRIGATION SLEEVES	FOOT	427.000 X	=	-	=	-
K1001988	IRRIGATION SYSTEM SPL	L SUM	1.000 X	=	-	=	-
K1005481	SHRED BARK MULCH 3	SQ YD	1,277.000 X	=	-	=	-
XX003167	ST NAME SIGN MAM (10)	EACH	16.000 X	=	-	=	-
XX003470	SANITARY CLEANOUT 6	EACH	1.000 X	=	-	=	-
XX006247	SAN SEW REMOVAL	FOOT	803.000 X	=	-	=	-
XX006253	SAN MH 4 DIA	EACH	9.000 X	=	-	=	-
XX006648	TEMP STORM SEWER 12	FOOT	33.000 X	=	-	=	-
XX007149	EXIST GATE RELOCATED	EACH	1.000 X	=	-	=	-
XX007248	WATER CONNECTION SPL	EACH	1.000 X	=	-	=	-
XX007335	PVC CASING PIPE 8	FOOT	40.000 X	=	-	=	-
XX007759	ADJ SAN SEW CLEANOUT	EACH	1.000 X	=	-	=	-
XX007968	PVC CASING PIPE 12	FOOT	357.000 X	=	-	=	-
XX008765	RELOC GUTTER DRAIN	EACH	1.000 X	=	-	=	-
XX009059	REM REPL FIRE IND PST	EACH	4.000 X	=	-	=	-

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
XX009060	FIRE IND POST REMOVED	EACH	1.000 X	=	=	=	=
XX009061	TEMP P CONN W/REM CLR	EACH	11.000 X	=	=	=	=
XX009062	12 WMQ PVC SAN SEWER	FOOT	238.000 X	=	=	=	=
XX009063	15 PVC SDR 35 SAN SEW	FOOT	396.000 X	=	=	=	=
XX009064	16 PVC C905 DR25 SS	FOOT	185.000 X	=	=	=	=
XX009065	SANITARY WYE	EACH	9.000 X	=	=	=	=
XX009066	SAN SEW SERVICE COMPL	FOOT	558.000 X	=	=	=	=
XX009067	SAN SEW CAS PIPE 24	FOOT	120.000 X	=	=	=	=
XX009068	CONC PAVED DITCH SPL	SQ YD	5,290.000 X	=	=	=	=
XX009069	ABAN EX SSS FILL CLSM	FOOT	422.000 X	=	=	=	=
XX009070	ABAN SANSEW FILL CLSM	FOOT	1,569.000 X	=	=	=	=
XX009071	REM EX RISER & CAP	EACH	4.000 X	=	=	=	=
XX009072	PVC CASING PIPE 16	FOOT	376.000 X	=	=	=	=
XX009073	PVC CASING PIPE 24	FOOT	841.000 X	=	=	=	=
XZ127900	RETAINING WALL REMOV	FOOT	41.000 X	=	=	=	=

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
X0322208	TEMP STORM SEWER PLUG	EACH	33.000 X	=	=	=	=
X0323389	STORM SEW CONNECTION	EACH	10.000 X	=	=	=	=
X0323455	ADJ MONITORING WELLS	EACH	2.000 X	=	=	=	=
X0323964	ROOF DRAIN COLL NET	FOOT	525.000 X	=	=	=	=
X0324102	EM VEH SIGNL CONT SYS	EACH	2.000 X	=	=	=	=
X0326657	RELOCATE SIGN SPL	EACH	25.000 X	=	=	=	=
X0326806	WASHOUT BASIN	L SUM	1.000 X	=	=	=	=
X0327070	REMOV EXISTG FLAGPOLE	EACH	2.000 X	=	=	=	=
X0327367	STL CAS P BOR/JKD 24	FOOT	48.000 X	=	=	=	=
X0327550	SAN SEW ML REPAIR 12	FOOT	24.000 X	=	=	=	=
X0327553	TEMP WATER MAIN CAP	EACH	19.000 X	=	=	=	=
X0350810	BOLLARD REMOVAL	EACH	9.000 X	=	=	=	=
X2010510	CLEARING & GRUBBING	L SUM	1.000 X	=	=	=	=
X4402020	CONC MEDIAN SURF REM	SQ FT	10,283.000 X	=	=	=	=
X4404400	PAVT REMOVAL SPL	SQ YD	25,377.000 X	=	=	=	=

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
X5012502	CONC REM SPEC	CU YD	282.000 X	=	=	=	=
X5610646	PLUG WATER MAIN 6	EACH	15.000 X	=	=	=	=
X5610647	PLUG WATER MAIN 8	EACH	19.000 X	=	=	=	=
X5610649	PLUG WATER MAIN 12	EACH	5.000 X	=	=	=	=
X5610651	ABAN EX WM FILL CLSM	FOOT	9,358.000 X	=	=	=	=
X5610700	WATER MAIN REMOVAL	FOOT	344.000 X	=	=	=	=
X5610746	WM LINE STOP 6	EACH	13.000 X	=	=	=	=
X5610748	WM LINE STOP 8	EACH	4.000 X	=	=	=	=
X5610752	WM LINE STOP 12	EACH	1.000 X	=	=	=	=
X5620101	WATER SERV LN 2 BORED	EACH	1.000 X	=	=	=	=
X5630006	CUT & CAP EX 6 WM	EACH	2.000 X	=	=	=	=
X5630008	CUT & CAP EX 8 WM	EACH	3.000 X	=	=	=	=
X5630012	CUT & CAP EX 12 WM	EACH	2.000 X	=	=	=	=
X5630706	CONN TO EX W MAIN 6	EACH	10.000 X	=	=	=	=
X5630708	CONN TO EX W MAIN 8	EACH	11.000 X	=	=	=	=

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
X5630712	CONN TO EX W MAIN 12	EACH	4.000 X	=	=	=	=
X5630716	CONN TO EX W MAIN 16	EACH	1.000 X	=	=	=	=
X5640175	FIRE HYDRANT COMPLETE	EACH	24.000 X	=	=	=	=
X6024210	DOUBLE INLET SPL	EACH	17.000 X	=	=	=	=
X6024240	INLETS SPL	EACH	108.000 X	=	=	=	=
X6024875	TEMPORARY INLET	EACH	2.000 X	=	=	=	=
X6026050	SANITARY MANHOLE ADJ	EACH	14.000 X	=	=	=	=
X6026051	SAN MAN RECONST	EACH	10.000 X	=	=	=	=
X6026054	SAN MAN REMOVED	EACH	18.000 X	=	=	=	=
X6026500	MAN DT 5 DIA T1F CL	EACH	1.000 X	=	=	=	=
X6026600	MAN DT 6 DIA T1F CL	EACH	1.000 X	=	=	=	=
X6026622	VV REMOVED	EACH	3.000 X	=	=	=	=
X6026623	VALVE BOX	EACH	3.000 X	=	=	=	=
X6061100	CONC MED TSB SPL	SQ FT	19,272.000 X	=	=	=	=
X6300135	SPBGR TY B SPL	FOOT	12.500 X	=	=	=	=

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
X6311205	TRAF BAR TERM T5A SPL	EACH	2.000	X	=	=	=
X6640300	CH LK FENCE REMOV	FOOT	1,248.000	X	=	=	=
X6640308	CH LK GATES SPL	EACH	2.000	X	=	=	=
X6640570	CH LK FENCE 8 SPL	FOOT	130.000	X	=	=	=
X7010216	TRAF CONT & PROT SPL	L SUM	1.000	X	=	=	=
X7240300	SIGN REMOVAL	EACH	2.000	X	=	=	=
X8210675	LUM METAL HAL HM 400W	EACH	101.000	X	=	=	=
Z0012450	CONCRETE STEPS	CU YD	1.300	X	=	=	=
Z0012455	CONC STEP REMOV	EACH	2.000	X	=	=	=
Z0013797	STAB CONSTR ENTRANCE	SQ YD	654.000	X	=	=	=
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.000	X	=	=	=
Z0015000	CURB STOPS 1	EACH	32.000	X	=	=	=
Z0015300	CURB STOPS 2	EACH	11.000	X	=	=	=
Z0018002	DRAINAGE SCUPPR DS-11	EACH	4.000	X	=	=	=
Z0018700	DRAINAGE STR REMOVED	EACH	5.000	X	=	=	=

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
Z0019600	DUST CONTROL WATERING	UNIT	40.000	X	=	=	=
Z0022800	FENCE REMOVAL	FOOT	1,276.000	X	=	=	=
Z0024476	FLEX DELINEATOR MAINT	EACH	400.000	X	=	=	=
Z0033072	VIDEO VEH DET SYS	EACH	2.000	X	=	=	=
Z0038800	PERMNT BENCH MARKS T1	EACH	2.000	X	=	=	=
Z0046304	P UNDR FOR STRUCT 4	FOOT	31.000	X	=	=	=
Z0048665	RR PROT LIABILITY INS	L SUM	1.000	X	=	=	=
Z0048900	RR TRACK REMOV	FOOT	75.000	X	=	=	=
Z0049300	REF LAND SECT MARKERS	EACH	4.000	X	=	=	=
Z0054500	ROCK FILL	TON	4,685.000	X	=	=	=
Z0056648	SS 1 WAT MN 12	FOOT	10.000	X	=	=	=
Z0056658	SS 1 WAT MN 30	FOOT	41.000	X	=	=	=
Z0056669	SS 2 WAT MN 15	FOOT	4.000	X	=	=	=
Z0056700	SAN SEW 4	FOOT	161.000	X	=	=	=
Z0062456	TEMP PAVEMENT	SQ YD	2,306.000	X	=	=	=

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
Z0067100	STEEL CASINGS 8	FOOT	92.000 X				
Z0067200	STEEL CASINGS 10	FOOT	34.000 X				
Z0067300	STEEL CASINGS 12	FOOT	72.000 X				
Z0067900	STEEL CASINGS 24	FOOT	111.000 X				
Z0073002	TEMP SOIL RETEN SYSTM	SQ FT	548.000 X				
Z0073346	SLEEPER SLAB	SQ YD	493.000 X				
Z0073400	TEMP SUPPORT SYSTEM	EACH	3.000 X				
Z0076600	TRAINEES	hour	2,000.000 X		0.80		1,600.00
Z0076604	TRAINEES TPG	hour	2,000.000 X		15.00		30,000.00
20100110	TREE REMOV 6-15	UNIT	650.000 X				
20100210	TREE REMOV OVER 15	UNIT	600.000 X				
20101000	TEMPORARY FENCE	FOOT	1,400.000 X				
20101700	SUPPLE WATERING	UNIT	50.000 X				
20200100	EARTH EXCAVATION	CU YD	36,500.000 X				
20200200	ROCK EXCAVATION	CU YD	375.000 X				

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
20300100	CHANNEL EXCAVATION	CU YD	5,279.000	X			
20600200	GRAN EMBANK SPEC	CU YD	2,000.000	X			
20700220	POROUS GRAN EMBANK	CU YD	2,207.000	X			
21101625	TOPSOIL F & P 6	SQ YD	34,500.000	X			
21101685	TOPSOIL F & P 24	SQ YD	1,040.000	X			
25000110	SEEDING CL 1A	ACRE	7.250	X			
25000400	NITROGEN FERT NUTR	POUND	645.000	X			
25000500	PHOSPHORUS FERT NUTR	POUND	645.000	X			
25000600	POTASSIUM FERT NUTR	POUND	645.000	X			
25000750	MOWING	ACRE	7.250	X			
25100630	EROSION CONTR BLANKET	SQ YD	34,500.000	X			
28000250	TEMP EROS CONTR SEED	POUND	180.000	X			
28000400	PERIMETER EROS BAR	FOOT	2,377.000	X			
28000500	INLET & PIPE PROTECT	EACH	237.000	X			
30300112	AGG SUBGRADE IMPR 12	SQ YD	81,104.000	X			

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
35101600	AGG BASE CSE B 4	SQ YD	6,261.000 X	=		=	
35101800	AGG BASE CSE B 6	SQ YD	15,887.000 X	=		=	
35102400	AGG BASE CSE B 12	SQ YD	992.000 X	=		=	
40201000	AGGREGATE-TEMP ACCESS	TON	300.000 X	=		=	
40600275	BIT MATLS PR CT	POUND	27,500.000 X	=		=	
40600990	TEMPORARY RAMP	SQ YD	500.000 X	=		=	
40602978	HMA BC IL-9.5 N50	TON	803.000 X	=		=	
40603310	HMA SC "C" N50	TON	803.000 X	=		=	
40800050	INCIDENTAL HMA SURF	TON	178.000 X	=		=	
42000501	PCC PVT 10 JOINTED	SQ YD	59,268.000 X	=		=	
42001200	PAVEMENT FABRIC	SQ YD	464.000 X	=		=	
42001420	BR APPR PVT CON (PCC)	SQ YD	464.000 X	=		=	
42300400	PCC DRIVEWAY PAVT 8	SQ YD	5,620.000 X	=		=	
42400200	PC CONC SIDEWALK 5	SQ FT	84,762.000 X	=		=	
42400800	DETECTABLE WARNINGS	SQ FT	870.000 X	=		=	

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
44000100	PAVEMENT REM	SQ YD	50,087.000 X	=	=	=	=
44000161	HMA SURF REM 3	SQ YD	4,184.000 X	=	=	=	=
44000200	DRIVE PAVEMENT REM	SQ YD	2,537.000 X	=	=	=	=
44000500	COMB CURB GUTTER REM	FOOT	22,140.000 X	=	=	=	=
44000600	SIDEWALK REM	SQ FT	48,622.000 X	=	=	=	=
44003100	MEDIAN REMOVAL	SQ FT	568.000 X	=	=	=	=
48300100	PCC SHOULDERS 6	SQ YD	849.000 X	=	=	=	=
50100300	REM EXIST STRUCT N1	EACH	1.000 X	=	=	=	=
50100400	REM EXIST STRUCT N2	EACH	1.000 X	=	=	=	=
50100500	REM EXIST STRUCT N3	EACH	1.000 X	=	=	=	=
50100600	REM EXIST STRUCT N4	EACH	1.000 X	=	=	=	=
50102400	CONC REM	CU YD	35.200 X	=	=	=	=
50104400	CONC HDWL REM	EACH	1.000 X	=	=	=	=
50104650	SLOPE WALL REMOV	SQ YD	9,405.000 X	=	=	=	=
50200100	STRUCTURE EXCAVATION	CU YD	1,024.000 X	=	=	=	=

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
50200450	REM/DISP UNS MATL-STR	CU YD	760.000	X	=	=	=
50300225	CONC STRUCT	CU YD	1,611.100	X	=	=	=
50300255	CONC SUP-STR	CU YD	570.700	X	=	=	=
50300260	BR DECK GROOVING	SQ YD	1,434.000	X	=	=	=
50300300	PROTECTIVE COAT	SQ YD	1,889.000	X	=	=	=
50800205	REINF BARS, EPOXY CTD	POUND	412,770.000	X	=	=	=
50800515	BAR SPLICERS	EACH	528.000	X	=	=	=
50900305	STEEL RAILING TY T1	FOOT	70.000	X	=	=	=
50901720	BICYCLE RAILING	FOOT	81.000	X	=	=	=
50901750	PARAPET RAILING	FOOT	175.000	X	=	=	=
51500100	NAME PLATES	EACH	3.000	X	=	=	=
54002070	EXPAN BOLTS 3/4 X 15	EACH	77.000	X	=	=	=
54003000	CONC BOX CUL	CU YD	616.900	X	=	=	=
54248510	CONCRETE COLLAR	CU YD	5.000	X	=	=	=
550A0040	STORM SEW CL A 1 10	FOOT	17.000	X	=	=	=

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
550A0050	STORM SEW CL A 1 12	FOOT	3,734.000	X	=	=	=
550A0070	STORM SEW CL A 1 15	FOOT	350.000	X	=	=	=
550A0090	STORM SEW CL A 1 18	FOOT	757.000	X	=	=	=
550A0120	STORM SEW CL A 1 24	FOOT	727.000	X	=	=	=
550A0140	STORM SEW CL A 1 30	FOOT	465.000	X	=	=	=
550A0160	STORM SEW CL A 1 36	FOOT	28.000	X	=	=	=
550A0330	STORM SEW CL A 2 10	FOOT	10.000	X	=	=	=
550A0340	STORM SEW CL A 2 12	FOOT	453.000	X	=	=	=
550A0360	STORM SEW CL A 2 15	FOOT	725.000	X	=	=	=
550A0380	STORM SEW CL A 2 18	FOOT	870.000	X	=	=	=
550A0410	STORM SEW CL A 2 24	FOOT	3.000	X	=	=	=
550A0430	STORM SEW CL A 2 30	FOOT	619.000	X	=	=	=
550A0450	STORM SEW CL A 2 36	FOOT	699.000	X	=	=	=
550A4000	SS CL A 1 EQRS 18	FOOT	80.000	X	=	=	=
550A4100	SS CL A 1 EQRS 24	FOOT	567.000	X	=	=	=

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
550A4200	SS CL A 1 EQRS 27	FOOT	131.000 X	=	=	=	=
550A4300	SS CL A 1 EQRS 30	FOOT	387.000 X	=	=	=	=
550A4500	SS CL A 1 EQRS 36	FOOT	185.000 X	=	=	=	=
55100100	STORM SEWER REM 4	FOOT	10.000 X	=	=	=	=
55100200	STORM SEWER REM 6	FOOT	152.000 X	=	=	=	=
55100300	STORM SEWER REM 8	FOOT	44.000 X	=	=	=	=
55100400	STORM SEWER REM 10	FOOT	494.000 X	=	=	=	=
55100500	STORM SEWER REM 12	FOOT	1,946.000 X	=	=	=	=
55100700	STORM SEWER REM 15	FOOT	2,485.000 X	=	=	=	=
55100900	STORM SEWER REM 18	FOOT	566.000 X	=	=	=	=
55101100	STORM SEWER REM 21	FOOT	219.000 X	=	=	=	=
55101200	STORM SEWER REM 24	FOOT	670.000 X	=	=	=	=
55101400	STORM SEWER REM 30	FOOT	349.000 X	=	=	=	=
56103000	D I WATER MAIN 6	FOOT	1,658.000 X	=	=	=	=
56103100	D I WATER MAIN 8	FOOT	1,755.000 X	=	=	=	=

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
56103300	D I WATER MAIN 12	FOOT	330.000	X	=		
56103400	D I WATER MAIN 16	FOOT	6,519.000	X	=		
56104800	WATER VALVES 4	EACH	7.000	X	=		
56104900	WATER VALVES 6	EACH	18.000	X	=		
56105000	WATER VALVES 8	EACH	18.000	X	=		
56105750	BUTTERFLY VALVES 12	EACH	4.000	X	=		
56105760	BUTTERFLY VALVES 16	EACH	21.000	X	=		
56200300	WATER SERV LINE 1	FOOT	906.000	X	=		
56200700	WATER SERV LINE 2	FOOT	349.000	X	=		
56201120	WATER SERV LINE 4	FOOT	354.000	X	=		
56400200	FIRE HYDNTS MOVED SPL	EACH	4.000	X	=		
56400500	FIRE HYDNTS TO BE REM	EACH	9.000	X	=		
59000200	EPOXY CRACK INJECTION	FOOT	292.000	X	=		
59100100	GEOCOMPOSITE WALL DR	SQ YD	642.000	X	=		
59300100	CONTR LOW-STRENG MATL	CU YD	10.000	X	=		

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
60100915	PIPE DRAINS 6	FOOT	29.000 X	=	=	=	=
60107600	PIPE UNDERDRAINS 4	FOOT	1,416.000 X	=	=	=	=
60218400	MAN TA 4 DIA T1F CL	EACH	29.000 X	=	=	=	=
60218500	MAN TA 4 DIA T3F&G	EACH	6.000 X	=	=	=	=
60221000	MAN TA 5 DIA T1F OL	EACH	1.000 X	=	=	=	=
60221100	MAN TA 5 DIA T1F CL	EACH	22.000 X	=	=	=	=
60221200	MAN TA 5 DIA T3F&G	EACH	3.000 X	=	=	=	=
60221800	MAN TA 5 DIA T9F&G	EACH	1.000 X	=	=	=	=
60223800	MAN TA 6 DIA T1F CL	EACH	14.000 X	=	=	=	=
60223810	MAN TA 6 DIA T3F&G	EACH	1.000 X	=	=	=	=
60224000	MAN TA 6 DIA T5F CL	EACH	1.000 X	=	=	=	=
60224010	MAN TA 6 DIA T9F&G	EACH	1.000 X	=	=	=	=
60224446	MAN TA 7 DIA T1F CL	EACH	2.000 X	=	=	=	=
60224447	MAN TA 7 DIA T3F&G	EACH	1.000 X	=	=	=	=
60235300	INLETS TA T1F CL	EACH	3.000 X	=	=	=	=

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
60236200	INLETS TA T8G	EACH	9.000 X				
60240301	INLETS TB T8G	EACH	2.000 X				
60255800	MAN ADJ NEW T1F CL	EACH	1.000 X				
60258200	MAN RECON NEW T1F CL	EACH	5.000 X				
60265700	VV ADJUST	EACH	9.000 X				
60266600	VALVE BOX ADJ	EACH	15.000 X				
60500040	REMOV MANHOLES	EACH	39.000 X				
60500050	REMOV CATCH BAS	EACH	4.000 X				
60500060	REMOV INLETS	EACH	76.000 X				
60500370	FILL VALVE BOXES	EACH	16.000 X				
60500405	FILL VALVE VLTS	EACH	35.000 X				
60603500	COMB CC&G TB6.06	FOOT	291.000 X				
60603800	COMB CC&G TB6.12	FOOT	463.000 X				
60604400	COMB CC&G TB6.18	FOOT	14,387.000 X				
60605000	COMB CC&G TB6.24	FOOT	6,171.000 X				

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
60624600	CORRUGATED MED	SQ FT	1,196.000 X	=		=	
63000001	SPBGR TY A 6FT POSTS	FOOT	120.000 X	=		=	
63000005	SPBGR TY B	FOOT	962.500 X	=		=	
63100041	TRAF BAR TERM T1B	EACH	1.000 X	=		=	
63100045	TRAF BAR TERM T2	EACH	1.000 X	=		=	
63100085	TRAF BAR TERM T6	EACH	2.000 X	=		=	
63100169	TR BAR TRM T1 SPL FLR	EACH	1.000 X	=		=	
66400305	CH LK FENCE 6	FOOT	1,664.000 X	=		=	
66700305	PERM SURV MKRS T2	EACH	2.000 X	=		=	
66900105	UNDERGR STOR TANK REM	EACH	5.000 X	=		=	
66900200	NON SPL WASTE DISPOS	CU YD	30,120.000 X	=		=	
66900450	SPL WASTE PLNS/REPORT	L SUM	1.000 X	=		=	
66900530	SOIL DISPOSAL ANALY	EACH	24.000 X	=		=	
67000400	ENGR FIELD OFFICE A	CAL MO	24.000 X	=		=	
67100100	MOBILIZATION	L SUM	1.000 X	=		=	

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
67201100	SEAL ABAN MONIT WELLS	EACH	7.000	X	=	=	=
70103815	TR CONT SURVEILLANCE	CAL DA	160.000	X	=	=	=
70106800	CHANGEABLE MESSAGE SN	CAL MO	24.000	X	=	=	=
70300100	SHORT TERM PAVT MKING	FOOT	544.000	X	=	=	=
70300210	TEMP PVT MK LTR & SYM	SQ FT	483.000	X	=	=	=
70300220	TEMP PVT MK LINE 4	FOOT	108,277.000	X	=	=	=
70300240	TEMP PVT MK LINE 6	FOOT	1,324.000	X	=	=	=
70300250	TEMP PVT MK LINE 8	FOOT	4,124.000	X	=	=	=
70300280	TEMP PVT MK LINE 24	FOOT	783.000	X	=	=	=
70301000	WORK ZONE PAVT MK REM	SQ FT	31,146.000	X	=	=	=
70400100	TEMP CONC BARRIER	FOOT	725.000	X	=	=	=
70600242	IMP ATTN TEMP NRN TL2	EACH	4.000	X	=	=	=
70600255	IMP ATTN TEMP FRN TL2	EACH	4.000	X	=	=	=
70600322	IMP ATTN REL FRN TL2	EACH	2.000	X	=	=	=
70600341	IMP ATTN REL NRN TL2	EACH	2.000	X	=	=	=

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
72000100	SIGN PANEL T1	SQ FT	719.000 X	=	=	=	=
72800100	TELES STL SIN SUPPORT	FOOT	1,324.000 X	=	=	=	=
73000100	WOOD SIN SUPPORT	FOOT	299.000 X	=	=	=	=
78009000	MOD URETH PM LTR-SYM	SQ FT	1,637.000 X	=	=	=	=
78009004	MOD URETH PM LINE 4	FOOT	23,064.000 X	=	=	=	=
78009006	MOD URETH PM LINE 6	FOOT	5,068.000 X	=	=	=	=
78009008	MOD URETH PM LINE 8	FOOT	7,462.000 X	=	=	=	=
78009012	MOD URETH PM LINE 12	FOOT	1,436.000 X	=	=	=	=
78009024	MOD URETH PM LINE 24	FOOT	1,717.000 X	=	=	=	=
78100100	RAISED REFL PAVT MKR	EACH	755.000 X	=	=	=	=
78200100	MONODIR PRIS BAR REFL	EACH	18.000 X	=	=	=	=
78200410	GUARDRAIL MKR TYPE A	EACH	85.000 X	=	=	=	=
78201000	TERMINAL MARKER - DA	EACH	1.000 X	=	=	=	=
78300100	PAVT MARKING REMOVAL	SQ FT	3,186.000 X	=	=	=	=
78300200	RAISED REF PVT MK REM	EACH	179.000 X	=	=	=	=

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
80400100	ELECT SERV INSTALL	EACH	5.000	X			
80500200	SERV INSTALL TY B	EACH	2.000	X			
81028220	UNDRGRD C GALVS 3	FOOT	1,928.000	X			
81028360	UNDRGRD C PVC 2 1/2	FOOT	124.000	X			
81028390	UNDRGRD C PVC 4	FOOT	28.000	X			
81028750	UNDRGRD C CNC 2	FOOT	6,412.000	X			
81028790	UNDRGRD C CNC 4	FOOT	771.000	X			
81200230	CON EMB STR 2 PVC	FOOT	130.000	X			
81301290	JUN BX SS ES 12X12X6	EACH	4.000	X			
81400100	HANDHOLE	EACH	6.000	X			
81400300	DBL HANDHOLE	EACH	2.000	X			
81400730	HANDHOLE C CONC	EACH	24.000	X			
81603037	UD 2#6#6G XLP USE 1.25	FOOT	14,766.000	X			
81702110	EC C XLP USE 1C 10	FOOT	3,646.000	X			
82500360	LT CONT BASEM 480V100	EACH	3.000	X			

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
83008200	LT P A 40MH 6MA	EACH	78.000 X	=	=	=	=
83008300	LT P A 40MH 8MA	EACH	7.000 X	=	=	=	=
83008400	LT P A 40MH 10MA	EACH	7.000 X	=	=	=	=
83008500	LT P A 40MH 12MA	EACH	1.000 X	=	=	=	=
83600200	LIGHT POLE FDN 24D	FOOT	552.000 X	=	=	=	=
83800505	BKWY DEV COU AL SKIRT	EACH	368.000 X	=	=	=	=
84200500	REM LT UNIT SALV	EACH	10.000 X	=	=	=	=
85000200	MAIN EX TR SIG INSTAL	EACH	2.000 X	=	=	=	=
85100500	PT NEW TRAF SIG POST	EACH	2.000 X	=	=	=	=
85100901	PT NEW COM MA&P>=40FT	EACH	8.000 X	=	=	=	=
85700200	FAC T4 CAB	EACH	2.000 X	=	=	=	=
87300901	ELCBL C TRACER 12 1C	FOOT	6,403.000 X	=	=	=	=
87301215	ELCBL C SIGNAL 14 2C	FOOT	4,123.000 X	=	=	=	=
87301225	ELCBL C SIGNAL 14 3C	FOOT	2,273.000 X	=	=	=	=
87301245	ELCBL C SIGNAL 14 5C	FOOT	1,883.000 X	=	=	=	=

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
87301255	ELCBL C SIGNAL 14 7C	FOOT	6,272.000 X	=	=	=	=
87301805	ELCBL C SERV 6 2C	FOOT	132.000 X	=	=	=	=
87301900	ELCBL C EGRDC 6 1C	FOOT	1,101.000 X	=	=	=	=
87502440	TS POST GALVS 10	EACH	1.000 X	=	=	=	=
87502500	TS POST GALVS 16	EACH	1.000 X	=	=	=	=
87702970	STL COMB MAA&P 48	EACH	1.000 X	=	=	=	=
87702980	STL COMB MAA&P 50	EACH	1.000 X	=	=	=	=
87703030	STL COMB MAA&P 60	EACH	2.000 X	=	=	=	=
87703040	STL COMB MAA&P 62	EACH	2.000 X	=	=	=	=
87703050	STL COMB MAA&P 64	EACH	1.000 X	=	=	=	=
87703060	STL COMB MAA&P 65	EACH	1.000 X	=	=	=	=
87800100	CONC FDN TY A	FOOT	6.000 X	=	=	=	=
87800200	CONC FDN TY D	FOOT	7.000 X	=	=	=	=
87800415	CONC FDN TY E 36D	FOOT	28.000 X	=	=	=	=
87800420	CONC FDN TY E 42D	FOOT	130.000 X	=	=	=	=

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
88040090	SH P LED 1F 3S MAM	EACH	8.000 X	=	=	=	=
88040150	SH P LED 1F 5S BM	EACH	2.000 X	=	=	=	=
88040160	SH P LED 1F 5S MAM	EACH	14.000 X	=	=	=	=
88040290	SH P LED 2F 5S BM	EACH	6.000 X	=	=	=	=
88102825	PED SH P LED 1F BM CT	EACH	4.000 X	=	=	=	=
88102845	PED SH P LED 2F BM CT	EACH	4.000 X	=	=	=	=
88200310	TS BACKPLATE LOU PLAS	EACH	22.000 X	=	=	=	=
88800100	PED PUSH-BUTTON	EACH	12.000 X	=	=	=	=
89000100	TEMP TR SIG INSTALL	EACH	2.000 X	=	=	=	=
89502375	REMOV EX TS EQUIP	EACH	2.000 X	=	=	=	=
89502380	REMOV EX HANDHOLE	EACH	18.000 X	=	=	=	=
89502382	REMOV EX DBL HANDHOLE	EACH	1.000 X	=	=	=	=
89502385	REMOV EX CONC FDN	EACH	47.000 X	=	=	=	=

TOTAL \$

NOTE:
 *** PLEASE TURN PAGE FOR IMPORTANT NOTES ***

NOTE:

1. EACH PAY ITEM SHOULD HAVE A UNIT PRICE AND A TOTAL PRICE.
2. THE UNIT PRICE SHALL GOVERN IF NO TOTAL PRICE IS SHOWN OR IF THERE IS A DISCREPANCY BETWEEN THE PRODUCT OF THE UNIT PRICE MULTIPLIED BY THE QUANTITY.
3. IF A UNIT PRICE IS OMITTED, THE TOTAL PRICE WILL BE DIVIDED BY THE QUANTITY IN ORDER TO ESTABLISH A UNIT PRICE.
4. A BID MAY BE DECLARED UNACCEPTABLE IF NEITHER A UNIT PRICE NOR A TOTAL PRICE IS SHOWN.

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STATE REQUIRED ETHICAL STANDARDS GOVERNING CONTRACT PROCUREMENT: ASSURANCES, CERTIFICATIONS AND DISCLOSURES

I. GENERAL

A. Article 50 of the Code establishes the duty of all State CPOs, SPOs, and their designees to maximize the value of the expenditure of public moneys in procuring goods, services, and contracts for the State of Illinois and to act in a manner that maintains the integrity and public trust of State government. In discharging this duty, they are charged by law to use all available information, reasonable efforts, and reasonable actions to protect, safeguard, and maintain the procurement process of the State of Illinois.

B. In order to comply with the provisions of Article 50 and to carry out the duty established therein, all bidders are to adhere to ethical standards established for the procurement process, and to make such assurances, disclosures and certifications required by law. Except as otherwise required in subsection III, paragraphs J-M, by execution of the Proposal Signature Sheet, the bidder indicates that each of the mandated assurances have been read and understood, that each certification is made and understood, and that each disclosure requirement has been understood and completed.

C. In addition to all other remedies provided by law, failure to comply with any assurance, failure to make any disclosure or the making of a false certification shall be grounds for the CPO to void the contract, and may result in the suspension or debarment of the bidder or subcontractor. If a false certification is made by a subcontractor the contractor's submitted bid and the executed contract may not be declared void unless the contractor refuses to terminate the subcontract upon the State's request after a finding that the subcontractor's certification was false.

I acknowledge, understand and accept these terms and conditions.

II. ASSURANCES

The assurances 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.

A. Conflicts of Interest

Section 50-13. Conflicts of Interest.

(a) Prohibition. It is unlawful for any person holding an elective office in this State, holding a seat in the General Assembly, or appointed to or employed in any of the offices or agencies of state government and who receives compensation for such employment in excess of 60% of the salary of the Governor of the State of Illinois, or who is an officer or employee of the Capital Development Board or the Illinois State Toll Highway Authority, or who is the spouse or minor child of any such person to have or acquire any contract, or any direct pecuniary interest in any contract therein, whether for stationery, printing, paper, or any services, materials, or supplies, that will be wholly or partially satisfied by the payment of funds appropriated by the General Assembly of the State of Illinois or in any contract of the Capital Development Board or the Illinois State Toll Highway Authority.

(b) Interests. It is unlawful for any firm, partnership, association or corporation, in which any person listed in subsection (a) is entitled to receive (i) more than 7 1/2% of the total distributable income or (ii) an amount in excess of the salary of the Governor, to have or acquire any such contract or direct pecuniary interest therein.

(c) Combined interests. It is unlawful for any firm, partnership, association, or corporation, in which any person listed in subsection (a) together with his or her spouse or minor children is entitled to receive (i) more than 15%, in the aggregate, of the total distributable income or (ii) an amount in excess of 2 times the salary of the Governor, to have or acquire any such contract or direct pecuniary interest therein.

(d) Securities. Nothing in this Section invalidates the provisions of any bond or other security previously offered or to be offered for sale or sold by or for the State of Illinois.

(e) Prior interests. This Section does not affect the validity of any contract made between the State and an officer or employee of the State or member of the General Assembly, his or her spouse, minor child or any combination of those persons if that contract was in existence before his or her election or employment as an officer, member, or employee. The contract is voidable, however, if it cannot be completed within 365 calendar days after the officer, member, or employee takes office or is employed. The current salary of the Governor is \$177,412.00. Sixty percent of the salary is \$106,447.20.

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The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-13, or that an effective exemption has been issued by the Board of Ethics to any individual subject to the Section 50-13 prohibitions pursuant to the provisions of Section 50-20 of the Code. Information concerning the exemption process is available from the Department upon request.

B. Negotiations

Section 50-15. Negotiations.

It is unlawful for any person employed in or on a continual contractual relationship with any of the offices or agencies of State government to participate in contract negotiations on behalf of that office or agency with any firm, partnership, association, or corporation with whom that person has a contract for future employment or is negotiating concerning possible future employment.

The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-15, and that the bidder has no knowledge of any facts relevant to the kinds of acts prohibited therein.

C. Inducements

Section 50-25. Inducement.

Any person who offers or pays any money or other valuable thing to any person to induce him or her not to provide a submission to a vendor portal or to bid for a State contract or as recompense for not having bid on a State contract is guilty of a Class 4 felony. Any person who accepts any money or other valuable thing for not bidding for a State contract, not making a submission to a vendor portal, or who withholds a bid or submission to a vendor portal in consideration of the promise for the payment of money or other valuable thing is guilty of a Class 4 felony.

The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-25, and that the bidder has no knowledge of any facts relevant to the kinds of acts prohibited therein.

D. Revolving Door Prohibition

Section 50-30. Revolving door prohibition.

CPOs, SPOs, procurement compliance monitors, their designees whose principal duties are directly related to State procurement, and executive officers confirmed by the Senate are expressly prohibited for a period of 2 years after terminating an affected position from engaging in any procurement activity relating to the State agency most recently employing them in an affected position for a period of at least 6 months. The prohibition includes, but is not limited to: lobbying the procurement process; specifying; bidding; proposing bid, proposal, or contract documents; on their own behalf or on behalf of any firm, partnership, association, or corporation. This Section applies only to persons who terminate an affected position on or after January 15, 1999.

The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-30, and that the bidder has no knowledge of any facts relevant to the kinds of acts prohibited therein.

E. Reporting Anticompetitive Practices

Section 50-40. Reporting anticompetitive practices.

When, for any reason, any vendor, bidder, contractor, CPO, SPO, designee, elected official, or State employee suspects collusion or other anticompetitive practice among any bidders, offerors, contractors, proposers, or employees of the State, a notice of the relevant facts shall be transmitted to the Attorney General and the CPO.

The bidder assures the Department that it has not failed to report any relevant facts concerning the practices addressed in Section 50-40 which may involve the contract for which the bid or submission to a vendor portal is submitted.

F. Confidentiality

Section 50-45. Confidentiality.

Any CPO, SPO, designee, or executive officer who willfully uses or allows the use of specifications, competitive bid documents, proprietary competitive information, proposals, contracts, or selection information to compromise the fairness or integrity of the procurement, bidding, or contract process shall be subject to immediate dismissal, regardless of the Personnel code, any contract, or any collective bargaining agreement, and may in addition be subject to criminal prosecution.

The bidder assures the Department that it has no knowledge of any fact relevant to the practices addressed in Section 50-45 which may involve the contract for which the bid is submitted.

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G. Insider Information

Section 50-50. Insider information.

It is unlawful for any current or former elected or appointed State official or State employee to knowingly use confidential information available only by virtue of that office or employment for actual or anticipated gain for themselves or another person.

The bidder assures the Department that it has no knowledge of any facts relevant to the practices addressed in Section 50-50 which may involve the contract for which the bid is submitted.

I acknowledge, understand and accept these terms and conditions for the above assurances.

III. 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. Section 50-2 of the Code provides that every person that has entered into a multi-year contract and every subcontractor with a multi-year subcontract shall certify, by July 1 of each fiscal year covered by the contract after the initial fiscal year, to the responsible CPO whether it continues to satisfy the requirements of Article 50 pertaining to the eligibility for a contract award. If a contractor or subcontractor is not able to truthfully certify that it continues to meet all requirements, it shall provide with its certification a detailed explanation of the circumstances leading to the change in certification status. A contractor or subcontractor that makes a false statement material to any given certification required under Article 50 is, in addition to any other penalties or consequences prescribed by law, subject to liability under the Whistleblower Reward and Protection Act for submission of a false claim.

A. Bribery

Section 50-5. Bribery.

(a) Prohibition. No person or business shall be awarded a contract or subcontract under this Code who:

(1) has been convicted under the laws of Illinois or any other state of bribery or attempting to bribe an officer or employee of the State of Illinois or any other state in that officer's or employee's official capacity; or

(2) has made an admission of guilt of that conduct that is a matter of record but has not been prosecuted for that conduct.

(b) Businesses. No business shall be barred from contracting with any unit of State or local government, or subcontracting under such a contract, as a result of a conviction under this Section of any employee or agent of the business if the employee or agent is no longer employed by the business and:

(1) the business has been finally adjudicated not guilty; or

(2) the business demonstrates to the governmental entity with which it seeks to contract, or which is signatory to the contract which the subcontract relates, and that entity finds that the commission of the offense was not authorized, requested, commanded, or performed by a director, officer, or high managerial agent on behalf of the business as provided in paragraph (2) of subsection (a) of Section 5-4 of the Criminal Code of 2012.

(c) Conduct on behalf of business. For purposes of this Section, when an official, agent, or employee of a business committed the bribery or attempted bribery on behalf of the business and in accordance with the direction or authorization of a responsible official of the business, the business shall be chargeable with the conduct.

(d) Certification. Every bid submitted to and contract executed by the State, and every subcontract subject to Section 20-120 of the Code shall contain a certification by the contractor or the subcontractor, respectively, that the contractor or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any certifications required by this Section are false. A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

The contractor or subcontractor certifies that it is not barred from being awarded a contract under Section 50-5.

B. Felons

Section 50-10. Felons.

(a) Unless otherwise provided, no person or business convicted of a felony shall do business with the State of Illinois or any State agency, or enter into a subcontract, from the date of conviction until 5 years after the date of completion of the sentence for that felony, unless no person held responsible by a prosecutorial office for the facts upon which the conviction was based continues to have any involvement with the business.

(b) Certification. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code and every vendor's submission to a vendor portal shall contain a certification by the bidder or contractor or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any of the certifications required by this Section are false.

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C. Debt Delinquency

Section 50-11 and 50-12. Debt Delinquency.

The contractor or bidder or subcontractor, respectively, certifies that it, or any affiliate, is not barred from being awarded a contract or subcontract under the Code. Section 50-11 prohibits a person from entering into a contract with a State agency, or entering into a subcontract, if it knows or should know that it, or any affiliate, is delinquent in the payment of any debt to the State as defined by the Debt Collection Board. Section 50-12 prohibits a person from entering into a contract with a State agency, or entering into a subcontract, if it, or any affiliate, has failed to collect and remit Illinois Use Tax on all sales of tangible personal property into the State of Illinois in accordance with the provisions of the Illinois Use Tax Act. The bidder or contractor or subcontractor, respectively, further acknowledges that the CPO may declare the related contract void if this certification is false or if the bidder, contractor, or subcontractor, or any affiliate, is determined to be delinquent in the payment of any debt to the State during the term of the contract.

D. Prohibited Bidders, Contractors and Subcontractors

Section 50-10.5 and 50-60(c). Prohibited bidders, contractors and subcontractors.

The bidder or contractor or subcontractor, respectively, certifies in accordance with Section 50-10.5 that no officer, director, partner or other managerial agent of the contracting business has been convicted of a felony under the Sarbanes-Oxley Act of 2002 or a Class 3 or Class 2 felony under the Illinois Securities Law of 1953 or if in violation of Subsection (c) for a period of five years from the date of conviction. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code shall contain a certification by the bidder, contractor, or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO shall declare the related contract void if any of the certifications completed pursuant to this Section are false.

E. Section 42 of the Environmental Protection Act

Section 50-14 Environmental Protection Act violations.

The bidder or contractor or subcontractor, respectively, certifies in accordance with Section 50-14 that the bidder, contractor, or subcontractor, is not barred from being awarded a contract or entering into a subcontract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency, or entering into any subcontract, that is subject to the Code by a person or business found by a court or the Pollution Control Board to have committed a willful or knowing violation of Section 42 of the Environmental Protection Act for a period of five years from the date of the order. The bidder or contractor or subcontractor, respectively, acknowledges that the CPO may declare the contract void if this certification is false.

F. Educational Loan

Section 3 of the Educational Loan Default Act, 5 ILCS 385/3.

Pursuant to the Educational Loan Default Act no State agency shall contract with an individual for goods or services if that individual is in default on an educational loan.

The bidder, if an individual as opposed to a corporation, partnership or other form of business organization, certifies that the bidder is not in default on an educational loan as provided in Section 3 of the Act.

G. Bid-Rigging/Bid Rotating

Section 33E-11 of the Criminal Code of 2012, 720 ILCS 5/3BE-11.

(a) Every bid submitted to and public contract executed pursuant to such bid by the State or a unit of local government shall contain a certification by the prime contractor that the prime contractor is not barred from contracting with any unit of State or local government as a result of a violation of either Section 33E-3 or 33E-4 of this Article.

(b) A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

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

The bidder certifies that it is not barred from contracting with the Department by reason of a violation of either Section 33E-3 or Section 33E-4.

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H. International Anti-Boycott

Section 5 of the International Anti-Boycott Certification Act provides every contract entered into by the State of Illinois for the manufacture, furnishing, or purchasing of supplies, material, or equipment or for the furnishing of work, labor, or services, in an amount exceeding the threshold for small purchases according to the purchasing laws of this State or \$10,000.00, whichever is less, shall contain certification, as a material condition of the contract, by which the contractor agrees that neither the contractor nor any substantially-owned affiliated company is participating or shall participate in an international boycott in violation of the provisions of the U.S. Export Administration Act of 1979 or the regulations of the U.S. Department of Commerce promulgated under that Act.

The bidder makes the certification set forth in Section 5 of the Act.

I. Drug Free Workplace

The Illinois "Drug Free Workplace Act" applies to this contract and it is necessary to comply with the provisions of the "Act" if the contractor is a corporation, partnership, or other entity (including a sole proprietorship) which has 25 or more employees.

The bidder certifies that if awarded a contract in excess of \$5,000 it will provide a drug free workplace in compliance with the provisions of the Act.

J. Disclosure of Business Operations in Iran

Section 50-36 of the Code provides that each bid, offer, or proposal submitted for a State contract shall include a disclosure of whether or not the Company acting as the bidder, offeror, or proposing entity, or any of its corporate parents or subsidiaries, within the 24 months before submission of the bid, offer, or proposal had business operations that involved contracts with or provision of supplies or services to the Government of Iran, companies in which the Government of Iran has any direct or indirect equity share, consortiums or projects commissioned by the Government of Iran, or companies involved in consortiums or projects commissioned by the Government of Iran and either of the following conditions apply:

- (1) More than 10% of the Company's revenues produced in or assets located in Iran involve oil-related activities or mineral-extraction activities; less than 75% of the Company's revenues produced in or assets located in Iran involve contracts with or provision of oil-related or mineral-extraction products or services to the Government of Iran or a project or consortium created exclusively by that government; and the Company has failed to take substantial action.
- (2) The Company has, on or after August 5, 1996, made an investment of \$20 million or more, or any combination of investments of at least \$10 million each that in the aggregate equals or exceeds \$20 million in any 12-month period, which directly or significantly contributes to the enhancement of Iran's ability to develop petroleum resources of Iran.

The terms "Business operations", "Company", "Mineral-extraction activities", "Oil-related activities", "Petroleum resources", and "Substantial action" are all defined in the Code.

Failure to make the disclosure required by the Code may cause the bid, offer or proposal to be considered not responsive. The disclosure will be considered when evaluating the bid or awarding the contract. The name of each Company disclosed as doing business or having done business in Iran will be provided to the State Comptroller.

Check the appropriate statement:

Company has no business operations in Iran to disclose.

Company has business operations in Iran as disclosed on the attached document.

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K. Apprenticeship and Training Certification (Does not apply to federal aid projects)

In accordance with the provisions of Section 30-22 (6) of the Code, the bidder certifies that it is a participant, either as an individual or as part of a group program, in the approved apprenticeship and training programs applicable to each type of work or craft that the bidder will perform with its own forces. The bidder further certifies for work that will be performed by subcontract that each of its subcontractors submitted for approval either (a) is, at the time of such bid, participating in an approved, applicable apprenticeship and training program; or (b) will, prior to commencement of performance of work pursuant to this contract, begin participation in an approved apprenticeship and training program applicable to the work of the subcontract. The Department, at any time before or after award, may require the production of a copy of each applicable Certificate of Registration issued by the United States Department of Labor evidencing such participation by the contractor and any or all of its subcontractors. Applicable apprenticeship and training programs are those that have been approved and registered with the United States Department of Labor. The bidder shall list in the space below, the official name of the program sponsor holding the Certificate of Registration for all of the types of work or crafts in which the bidder is a participant and that will be performed with the bidder's forces. Types of work or craft work that will be subcontracted shall be included and listed as subcontract work. The list shall also indicate any type of work or craft job category that does not have an applicable apprenticeship or training program. **The bidder is responsible for making a complete report and shall make certain that each type of work or craft job category that will be utilized on the project as reported on the Construction Employee Workforce Projection (Form BC-1256) and returned with the bid is accounted for and listed.**

Additionally, Section 30-22 of the Code requires that the bidder certify that an Illinois office be maintained as the primary place of employment for persons employed for this contract.

NA-FEDERAL

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

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L. Political Contributions and Registration with the State Board of Elections

Sections 20-160 and 50-37 of the Code regulate political contributions from business entities and any affiliated entities or affiliated persons bidding on or contracting with the state. Generally under Section 50-37, any business entity, and any affiliated entity or affiliated person of the business entity, whose current year contracts with all state agencies exceed an awarded value of \$50,000, are prohibited from making any contributions to any political committees established to promote the candidacy of the officeholder responsible for the awarding of the contracts or any other declared candidate for that office for the duration of the term of office of the incumbent officeholder or a period 2 years after the termination of the contract, whichever is longer. Any business entity and affiliated entities or affiliated persons whose state contracts in the current year do not exceed an awarded value of \$50,000, but whose aggregate pending bids and proposals on state contracts exceed \$50,000, either alone or in combination with contracts not exceeding \$50,000, are prohibited from making any political contributions to any political committee established to promote the candidacy of the officeholder responsible for awarding the pending contract during the period beginning on the date the invitation for bids or request for proposals or any other procurement opportunity is issued and ending on the day after the date of award or selection if the entity was not awarded or selected. Section 20-160 requires certification of registration of affected business entities in accordance with procedures found in Section 9-35 of The Election Code.

By submission of a bid, the contractor business entity acknowledges and agrees that it has read and understands Sections 20-160 and 50-37 of the Code, and that it makes the following certification:

The undersigned bidder certifies that it has registered as a business with the State Board of Elections and acknowledges a continuing duty to update the registration in accordance with the above referenced statutes. If the business entity is required to register, the CPO shall verify that it is in compliance on the date the bid or proposal is due. The CPO shall not accept a bid or proposal if the business entity is not in compliance with the registration requirements.

These requirements and compliance with the above referenced statutory sections are a material part of the contract, and any breach thereof shall be cause to void the contract under Section 50-60 of the Code. This provision does not apply to Federal-aid contracts.

M. Lobbyist Disclosure

Section 50-38 of the Code requires that any bidder or offeror on a State contract that hires a person required to register under the Lobbyist Registration Act to assist in obtaining a contract shall:

- (i) Disclose all costs, fees, compensation, reimbursements, and other remunerations paid or to be paid to the lobbyist related to the contract,
- (ii) Not bill or otherwise cause the State of Illinois to pay for any of the lobbyist's costs, fees, compensation, reimbursements, or other remuneration, and
- (iii) Sign a verification certifying that none of the lobbyist's costs, fees, compensation, reimbursements, or other remuneration were billed to the State.

This information, along with all supporting documents, shall be filed with the agency awarding the contract and with the Secretary of State. The CPO shall post this information, together with the contract award notice, in the online Procurement Bulletin.

Pursuant to Subsection (c) of this Section, no person or entity shall retain a person or entity to attempt to influence the outcome of a procurement decision made under the Code for compensation contingent in whole or in part upon the decision or procurement. Any person who violates this subsection is guilty of a business offense and shall be fined not more than \$10,000.

Bidder acknowledges that it is required to disclose the hiring of any person required to register pursuant to the Illinois Lobbyist Registration Act (25 ILCS 170) in connection with this contract.

Bidder has not hired any person required to register pursuant to the Illinois Lobbyist Registration Act in connection with this contract.

Or

Bidder has hired the following persons required to register pursuant to the Illinois Lobbyist Registration Act in connection with the contract:

Name and address of person: _____
All costs, fees, compensation, reimbursements and other remuneration paid to said person: _____

I acknowledge, understand and accept these terms and conditions for the above certifications.

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IV. DISCLOSURES

- A. The disclosures 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. The bidder further certifies that the Department has received the disclosure forms for each bid.

The CPO may void the bid, or contract, respectively, if it is later determined that the bidder or subcontractor rendered a false or erroneous disclosure. A contractor or subcontractor may be suspended or debarred for violations of the Code. Furthermore, the CPO may void the contract and the surety providing the performance bond shall be responsible for completion of the contract.

B. Financial Interests and Conflicts of Interest

1. Section 50-35 of the Code provides that all bids of more than \$50,000 and all submissions to a vendor portal shall be accompanied by disclosure of the financial interests of the bidder. This disclosed information for the successful bidder, will be maintained as public information subject to release by request pursuant to the Freedom of Information Act, filed with the Procurement Policy Board, and shall be incorporated as a material term of the contract. Furthermore, pursuant to Section 5-5, the Procurement Policy Board may review a proposal, bid, or contract and issue a recommendation to void a contract or reject a proposal or bid based on any violation of the Code or the existence of a conflict of interest as provided in subsections (b) and (d) of Section 50-35.

The financial interests to be disclosed shall include ownership or distributive income share that is in excess of 5%, or an amount greater than 60% of the annual salary of the Governor, of the bidding entity or its parent entity, whichever is less, unless the contractor or bidder is a publicly traded entity subject to Federal 10K reporting, in which case it may submit its 10K disclosure in place of the prescribed disclosure. If a bidder is a privately held entity that is exempt from Federal 10K reporting, but has more than 100 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any individual or entity holding any ownership share that is in excess of 5%. The disclosure shall include the names, addresses, and dollar or proportionate share of ownership of each individual making the disclosure, their instrument of ownership or beneficial relationship, and notice of any potential conflict of interest resulting from the current ownership or beneficial interest of each individual making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form.

The current annual salary of the Governor is \$177,412.00.

In addition, all disclosures shall indicate any other current or pending contracts, proposals, leases, or other ongoing procurement relationships the bidding entity has with any other unit of state government and shall clearly identify the unit and the contract, proposal, lease, or other relationship.

2. Disclosure Forms. Disclosure Form A is attached for use concerning the individuals meeting the above ownership or distributive share requirements. A separate Disclosure Form A must be submitted with the bid for each individual meeting the above requirements. In addition, a second form (Disclosure Form B) provides for the disclosure of current or pending procurement relationships with other (non-IDOT) state agencies and a total ownership certification. **The forms must be included with each bid.**

C. Disclosure Form Instructions

Form A Instructions for Financial Information & Potential Conflicts of Interest

If the bidder is a publicly traded entity subject to Federal 10K reporting, the 10K Report may be submitted to meet the requirements of Form A. If a bidder is a privately held entity that is exempt from Federal 10K reporting, but has more than 100 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any individual or entity holding any ownership share that is in excess of 5%. If a bidder is not subject to Federal 10K reporting, the bidder must determine if any individuals are required by law to complete a financial disclosure form. To do this, the bidder should answer each of the following questions. A "YES" answer indicates Form A must be completed. If the answer to each of the following questions is "NO", then the NOT APPLICABLE STATEMENT on Form A must be signed and dated by an individual that is authorized to execute contracts for the bidding company. Note: These questions are for assistance only and are not required to be completed.

1. Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity? YES ___ NO ___
2. Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than 60% of the annual salary of the Governor? YES ___ NO ___
3. Does anyone in your organization receive more than 60% of the annual salary of the Governor of the bidding entity's or parent entity's distributive income? YES ___ NO ___
4. Does anyone in your organization receive greater than 5% of the bidding entity's or parent entity's total distributive income, but which is less than 60% of the annual salary of the Governor? YES ___ NO ___

(Note: Only one set of forms needs to be completed per individual per bid even if a specific individual would require a yes answer to more than one question.)

A "YES" answer to any of these questions requires the completion of Form A. The bidder must determine each individual in the bidding entity or the bidding entity's parent company that would cause the questions to be answered "Yes". Each form must be signed and dated by an individual that is authorized to execute contracts for your organization. The individual signing can be, but does not have to be, the individual for which the form is being completed. The bidder is responsible for the accuracy of any information provided.

If the answer to each of the above questions is "NO", then the NOT APPLICABLE STATEMENT of Form A must be signed and dated by an individual that is authorized to execute contracts for your company.

RETURN WITH BID

Form B: Instructions for Identifying Other Contracts & Procurement Related Information

Disclosure Form B must be completed for each bid submitted by the bidding entity. *Note: Checking the NOT APPLICABLE STATEMENT on Form A does not allow the bidder to ignore Form B. Form B must be completed, checked, and dated or the bidder may be considered nonresponsive and the bid will not be accepted.*

The Bidder shall identify, by checking Yes or No on Form B, whether it has any pending contracts (including leases), bids, proposals, or other ongoing procurement relationship with any other (non-IDOT) State of Illinois agency. If "No" is checked, the bidder only needs to complete the check box on the bottom of Form B. If "Yes" is checked, the bidder must do one of the following:

Option I: If the bidder did not submit an Affidavit of Availability to obtain authorization to bid, the bidder must list all non-IDOT State of Illinois agency pending contracts, leases, bids, proposals, and other ongoing procurement relationships. These items may be listed on Form B or on an attached sheet(s). Do not include IDOT contracts. Contracts with cities, counties, villages, etc. are not considered State of Illinois agency contracts and are not to be included. Contracts with other State of Illinois agencies such as the Department of Natural Resources or the Capital Development Board must be included. Bidders who submit Affidavits of Availability are suggested to use Option II.

Option II: If the bidder is required and has submitted an Affidavit of Availability in order to obtain authorization to bid, the bidder may write or type "See Affidavit of Availability" which indicates that the Affidavit of Availability is incorporated by reference and includes all non-IDOT State of Illinois agency pending contracts, leases, bids, proposals, and other ongoing procurement relationships. For any contracts that are not covered by the Affidavit of Availability, the bidder must identify them on Form B or on an attached sheet(s). These might be such things as leases.

RETURN WITH BID

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form A Financial Information & Potential Conflicts of Interest Disclosure

Contractor Name
Legal Address
City, State, Zip
Telephone Number Email Address Fax Number (if available)

Disclosure of the information contained in this Form is required by Section 50-35 of the Code (30 ILCS 500). Vendors desiring to enter into a contract with the State of Illinois must disclose the financial information and potential conflict of interest information as specified in this Disclosure Form. This information shall become part of the publicly available contract file. This Form A must be completed for bids in excess of \$50,000, and for all open-ended contracts. A publicly traded company may submit a 10K disclosure (or equivalent if applicable) in satisfaction of the requirements set forth in Form A. See Disclosure Form Instructions.

The current annual salary of the Governor is \$177,412.00.

DISCLOSURE OF FINANCIAL INFORMATION

- 1. Disclosure of Financial Information. The individual named below has an interest in the BIDDER (or its parent) in terms of ownership or distributive income share in excess of 5%, or an interest which has a value of more than 60% of the annual salary of the Governor. (Make copies of this form as necessary and attach a separate Disclosure Form A for each individual meeting these requirements)

FOR INDIVIDUAL (type or print information)
NAME:
ADDRESS
Type of ownership/distributable income share:
stock sole proprietorship Partnership other: (explain on separate sheet):
% or \$ value of ownership/distributable income share:

- 2. Disclosure of Potential Conflicts of Interest. Check "Yes" or "No" to indicate which, if any, of the following potential conflict of interest relationships apply. If the answer to any question is "Yes", please attach additional pages and describe.

(a) State employment, currently or in the previous 3 years, including contractual employment of services. Yes ___ No ___

If your answer is yes, please answer each of the following questions.

- 1. Are you currently an officer or employee of either the Capitol Development Board or the Illinois State Toll Highway Authority? Yes ___ No ___
2. Are you currently appointed to or employed by any agency of the State of Illinois? If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor provide the name the State agency for which you are employed and your annual salary.

RETURN WITH BID

3. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 100% of the annual salary of the Governor? Yes ___ No ___
4. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or minor children entitled to receive (i) more than 15% in aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of two times the salary of the Governor? Yes ___ No ___

(b) State employment of spouse, father, mother, son, or daughter, including contractual employment for services in the previous 2 years.

Yes ___ No ___

If your answer is yes, please answer each of the following questions.

1. Is your spouse or any minor children currently an officer or employee of the Capitol Development Board or the Illinois State Toll Highway Authority? Yes ___ No ___
2. Is your spouse or any minor children currently appointed to or employed by any agency of the State of Illinois? If your spouse or minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, provide the name of the spouse and/or minor children, the name of the State agency for which he/she is employed and his/her annual salary. _____
-
3. If your spouse or any minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess 100% of the annual salary of the Governor? Yes ___ No ___
4. If your spouse or any minor children are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or any minor children entitled to receive (i) more than 15% in the aggregate of the total distributable income from your firm, partnership, association or corporation, or (ii) an amount in excess of two times the salary of the Governor? Yes ___ No ___

(c) Elective status; the holding of elective office of the State of Illinois, the government of the United States, any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois currently or in the previous 3 years. Yes ___ No ___

(d) Relationship to anyone holding elective office currently or in the previous 2 years; spouse, father, mother, son, or daughter. Yes ___ No ___

(e) Appointive office; the holding of any appointive government office of the State of Illinois, the United State of America, or any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois, which office entitles the holder to compensation in excess of the expenses incurred in the discharge of that office currently or in the previous 3 years. Yes ___ No ___

(f) Relationship to anyone holding appointive office currently or in the previous 2 years; spouse, father, mother, son, or daughter. Yes ___ No ___

(g) Employment, currently or in the previous 3 years, as or by any registered lobbyist of the State government. Yes ___ No ___

RETURN WITH BID

(h) Relationship to anyone who is or was a registered lobbyist in the previous 2 years; spouse, father, mother, son, or daughter. Yes ___ No ___

(i) Compensated employment, currently or in the previous 3 years, by any registered election or reelection committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections. Yes ___ No ___

(j) Relationship to anyone; spouse, father, mother, son, or daughter; who was a compensated employee in the last 2 years by any registered election or re-election committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections. Yes ___ No ___

3. Communication Disclosure.

Disclose the name and address of each lobbyist and other agent of the bidder or offeror who is not identified in Section 2 of this form, who is has communicated, is communicating, or may communicate with any State officer or employee concerning the bid or offer. This disclosure is a continuing obligation and must be promptly supplemented for accuracy throughout the process and throughout the term of the contract. If no person is identified, enter "None" on the line below:

Name and address of person(s): _____

RETURN WITH BID

4. Debarment Disclosure. For each of the persons identified under Sections 2 and 3 of this form, disclose whether any of the following has occurred within the previous 10 years: debarment from contracting with any governmental entity; professional licensure discipline; bankruptcies; adverse civil judgments and administrative findings; and criminal felony convictions. This disclosure is a continuing obligation and must be promptly supplemented for accuracy throughout the procurement process and term of the contract. If no person is identified, enter "None" on the line below:

Name of person(s): _____

Nature of disclosure: _____

APPLICABLE STATEMENT

This Disclosure Form A is submitted on behalf of the INDIVIDUAL named on previous page. Under penalty of perjury, I certify the contents of this disclosure to be true and accurate to the best of my knowledge.

Completed by: _____ Date _____
Signature of Individual or Authorized Representative

NOT APPLICABLE STATEMENT

Under penalty of perjury, I have determined that no individuals associated with this organization meet the criteria that would require the completion of this Form A.

This Disclosure Form A is submitted on behalf of the CONTRACTOR listed on the previous page.

_____ Date _____
Signature of Authorized Representative

The bidder has a continuing obligation to supplement these disclosures under Sec. 50-35 of the Code.

RETURN WITH BID

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form B Other Contracts & Financial Related Information Disclosure

Contractor Name, Legal Address, City, State, Zip, Telephone Number, Email Address, Fax Number (if available)

Disclosure of the information contained in this Form is required by Section 50-35 of the Code (30 ILCS 500). This information shall become part of the publicly available contract file. This Form B must be completed for all bids.

DISCLOSURE OF OTHER CONTRACTS AND PROCUREMENT RELATED INFORMATION

1. Identifying Other Contracts & Procurement Related Information. The BIDDER shall identify whether it has any pending contracts (including leases), bids, proposals, or other ongoing procurement relationship with any other State of Illinois agency: Yes ___ No ___

If "No" is checked, the bidder only needs to complete the signature box on this page.

2. If "Yes" is checked. Identify each such relationship by showing State of Illinois agency name and other descriptive information such as bid or project number (attach additional pages as necessary). SEE DISCLOSURE FORM INSTRUCTIONS:

THE FOLLOWING STATEMENT MUST BE CHECKED

Signature of Authorized Representative, Date

OWNERSHIP CERTIFICATION

Please certify that the following statement is true if the individuals for all submitted Form A disclosures do not total 100% of ownership.

Any remaining ownership interest is held by individuals receiving less than \$106,447.20 of the bidding entity's or parent entity's distributive income or holding less than a 5% ownership interest.

Yes No N/A (Form A disclosure(s) established 100% ownership)

RETURN WITH BID

SPECIAL NOTICE TO CONTRACTORS

The following requirements of the Illinois Department of Human Rights Act are applicable to bidders on all construction contracts advertised by the Illinois Department of Transportation:

CONSTRUCTION EMPLOYEE UTILIZATION PROJECTION

- (a) All bidders on construction contracts shall complete and submit, along with and as part of their bids, a Bidder's Employee Utilization Form (Form BC-1256) setting forth a projection and breakdown of the total workforce intended to be hired and/or allocated to such contract work by the bidder including a projection of minority and female employee utilization in all job classifications on the contract project.
- (b) The Department of Transportation shall review the Employee Utilization Form, and workforce projections contained therein, of the contract awardee to determine if such projections reflect an underutilization of minority persons and/or women in any job classification in accordance with the Equal Employment Opportunity Clause and Title 44, Illinois Administrative Code, Section 750.120. If it is determined that the contract awardee's projections reflect an underutilization of minority persons and/or women in any job classification, it shall be advised in writing of the manner in which it is underutilizing and such awardee shall be considered to be in breach of the contract unless, prior to commencement of work on the contract project, it submits revised satisfactory projections or an acceptable written affirmative action plan to correct such underutilization including a specific timetable geared to the completion stages of the contract.
- (c) The Department of Transportation shall provide to the Department of Human Rights a copy of the contract awardee's Employee Utilization Form, a copy of any required written affirmative action plan, and any written correspondence related thereto. The Department of Human Rights may review and revise any action taken by the Department of Transportation with respect to these requirements.



RETURN WITH BID

**Contract No. 85612
WINNEBAGO County
Section 01-00509-00-RP (Rockford)
Project M-5099(071)
Route FAP 525 (Harrison Avenue)
District 2 Construction Funds**

PART I. IDENTIFICATION

Dept. of Human Rights # _____ Duration of Project: _____

Name of Bidder: _____

PART II. WORKFORCE PROJECTION

A. The undersigned bidder has analyzed minority group and female populations, unemployment rates and availability of workers for the location in which this contract work is to be performed, and for the locations from which the bidder recruits employees, and hereby submits the following workforce projection including a projection for minority and female employee utilization in all job categories in the workforce to be allocated to this contract:

TABLE A

TABLE B

TOTAL Workforce Projection for Contract													
JOB CATEGORIES	TOTAL EMPLOYEES		MINORITY EMPLOYEES						TRAINEES				
			BLACK		HISPANIC		*OTHER MINOR.		APPRENTICES		ON THE JOB TRAINEES		
	M	F	M	F	M	F	M	F	M	F	M	F	
OFFICIALS (MANAGERS)													
SUPERVISORS													
FOREMEN													
CLERICAL													
EQUIPMENT OPERATORS													
MECHANICS													
TRUCK DRIVERS													
IRONWORKERS													
CARPENTERS													
CEMENT MASONS													
ELECTRICIANS													
PIPEFITTERS, PLUMBERS													
PAINTERS													
LABORERS, SEMI-SKILLED													
LABORERS, UNSKILLED													
TOTAL													

CURRENT EMPLOYEES TO BE ASSIGNED TO CONTRACT			
TOTAL EMPLOYEES		MINORITY EMPLOYEES	
M	F	M	F

TABLE C

TOTAL Training Projection for Contract								
EMPLOYEES IN TRAINING	TOTAL EMPLOYEES		BLACK		HISPANIC		*OTHER MINOR.	
	M	F	M	F	M	F	M	F
APPRENTICES								
ON THE JOB TRAINEES								

FOR DEPARTMENT USE ONLY

*Other minorities are defined as Asians (A) or Native Americans (N). Please specify race of each employee shown in Other Minorities column.

BC 1256 (Rev. 12/11/07)

Note: See instructions on page 2

RETURN WITH BID

**Contract No. 85612
WINNEBAGO County
Section 01-00509-00-RP (Rockford)
Project M-5099(071)
Route FAP 525 (Harrison Avenue)
District 2 Construction Funds**

PART II. WORKFORCE PROJECTION - continued

- B. Included in "Total Employees" under Table A is the total number of **new hires** that would be employed in the event the undersigned bidder is awarded this contract.

The undersigned bidder projects that: (number) _____ new hires would be recruited from the area in which the contract project is located; and/or (number) _____ new hires would be recruited from the area in which the bidder's principal office or base of operation is located.

- C. Included in "Total Employees" under Table A is a projection of numbers of persons to be employed directly by the undersigned bidder as well as a projection of numbers of persons to be employed by subcontractors.

The undersigned bidder estimates that (number) _____ persons will be directly employed by the prime contractor and that (number) _____ persons will be employed by subcontractors.

PART III. AFFIRMATIVE ACTION PLAN

- A. The undersigned bidder understands and agrees that in the event the foregoing minority and female employee utilization projection included under **PART II** is determined to be an underutilization of minority persons or women in any job category, and in the event that the undersigned bidder is awarded this contract, he/she will, prior to commencement of work, develop and submit a written Affirmative Action Plan including a specific timetable (geared to the completion stages of the contract) whereby deficiencies in minority and/or female employee utilization are corrected. Such Affirmative Action Plan will be subject to approval by the contracting agency and the **Illinois Department of Human Rights**.
- B. The undersigned bidder understands and agrees that the minority and female employee utilization projection submitted herein, and the goals and timetable included under an Affirmative Action Plan if required, are deemed to be part of the contract specifications.

Company _____ Telephone Number _____

Address _____

NOTICE REGARDING SIGNATURE

The Bidder's signature on the Proposal Signature Sheet will constitute the signing of this form. The following signature block needs to be completed only if revisions are required.

Signature: _____ Title: _____ Date: _____

- Instructions: All tables must include subcontractor personnel in addition to prime contractor personnel.
- Table A - Include both the number of employees that would be hired to perform the contract work and the total number currently employed (Table B) that will be allocated to contract work, and include all apprentices and on-the-job trainees. The "Total Employees" column should include all employees including all minorities, apprentices and on-the-job trainees to be employed on the contract work.
- Table B - Include all employees currently employed that will be allocated to the contract work including any apprentices and on-the-job trainees currently employed.
- Table C - Indicate the racial breakdown of the total apprentices and on-the-job trainees shown in Table A.

RETURN WITH BID

ADDITIONAL FEDERAL REQUIREMENTS

In addition to the Required Contract Provisions for Federal-Aid Construction Contracts (FHWA 1273), all bidders make the following certifications.

- A. By the execution of this proposal, the signing bidder certifies that the bidding entity has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action, in restraint of free competitive bidding in connection with the submitted bid. This statement made by the undersigned bidder is true and correct under penalty of perjury under the laws of the United States.
- B. CERTIFICATION, EQUAL EMPLOYMENT OPPORTUNITY:
1. Have you participated in any previous contracts or subcontracts subject to the equal opportunity clause. YES _____ NO _____
 2. If answer to #1 is yes, have you filed with the Joint Reporting Committee, the Director of OFCC, any Federal agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements of those organizations? YES _____ NO _____

RETURN WITH BID

**Contract No. 85612
WINNEBAGO County
Section 01-00509-00-RP (Rockford)
Project M-5099(071)
Route FAP 525 (Harrison Avenue)
District 2 Construction Funds**

PROPOSAL SIGNATURE SHEET

The undersigned bidder hereby makes and submits this bid on the subject Proposal, thereby assuring the Department that all requirements of the Invitation for Bids and rules of the Department have been met, that there is no misunderstanding of the requirements of paragraph 3 of this Proposal, and that the contract will be executed in accordance with the rules of the Department if an award is made on this bid.

(IF AN INDIVIDUAL)

Firm Name _____
Signature of Owner _____
Business Address _____

(IF A CO-PARTNERSHIP)

Firm Name _____
By _____
Business Address _____
Name and Address of All Members of the Firm: _____

(IF A CORPORATION)

Corporate Name _____
By _____
Signature of Authorized Representative _____
Typed or printed name and title of Authorized Representative _____

(IF A JOINT VENTURE, USE THIS SECTION FOR THE MANAGING PARTY AND THE SECOND PARTY SHOULD SIGN BELOW)

Attest _____
Signature _____
Business Address _____

(IF A JOINT VENTURE)

Corporate Name _____
By _____
Signature of Authorized Representative _____
Typed or printed name and title of Authorized Representative _____

Attest _____
Signature _____
Business Address _____

If more than two parties are in the joint venture, please attach an additional signature sheet.



This Annual Proposal Bid Bond shall become effective at 12:01 AM (CDST) on _____ and shall be valid until _____ 11:59 PM (CDST).

KNOW ALL PERSONS BY THESE PRESENTS, That We _____

as PRINCIPAL, and _____

as SURETY, and held jointly, severally and firmly bound unto the STATE OF ILLINOIS in the penal sum of 5 percent of the total bid price, or for the amount specified in the bid proposal under "Proposal Guaranty" in effect on the date of the Invitation for Bids, whichever is the lesser sum, well and truly to be paid unto said STATE OF ILLINOIS, for the payment of which we bind ourselves, our heirs, executors, administrators, successors and assigns.

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH that whereas, the PRINCIPAL may submit bid proposal(s) to the STATE OF ILLINOIS, acting through the Department of Transportation, for various improvements published in the Transportation Bulletin during the effective term indicated above.

NOW, THEREFORE, if the Department shall accept the bid proposal(s) of the PRINCIPAL; and if the PRINCIPAL shall, within the time and as specified in the bidding and contract documents; and if, after award by the Department, the PRINCIPAL shall enter into a contract in accordance with the terms of the bidding and contract documents including evidence of the required insurance coverages and providing such bond as specified with good and sufficient surety for the faithful performance of such contract and for the prompt payment of labor and material furnished in the prosecution thereof; or if, in the event of the failure of the PRINCIPAL to enter into such contract and to give the specified bond, the PRINCIPAL pays to the Department the difference not to exceed the penalty hereof between the amount specified in the bid proposal and such larger amount for which the Department may contract with another party to perform the work covered by said bid proposal, then this obligation shall be null and void, otherwise, it shall remain in full force and effect.

IN THE EVENT the Department determines the PRINCIPAL has failed to comply with any requirement as set forth in the preceding paragraph, then Surety shall pay the penal sum to the Department within fifteen (15) days of written demand therefor. If Surety does not make full payment within such period of time, the Department may bring an action to collect the amount owed. Surety is liable to the Department for all its expenses, including attorney's fees, incurred in any litigation in which it prevails either in whole or in part.

In TESTIMONY WHEREOF, the said PRINCIPAL has caused this instrument to be signed by its officer _____ day of _____ A.D., _____

In TESTIMONY WHEREOF, the said SURETY has caused this instrument to be signed by its officer _____ day of _____ A.D., _____

(Company Name)

(Company Name)

By _____
(Signature and Title)

By _____
(Signature of Attorney-in-Fact)

Notary for PRINCIPAL

Notary for SURETY

STATE OF _____
COUNTY OF _____

STATE OF _____
COUNTY OF _____

Signed and attested before me on _____ (date)

Signed and attested before me on _____ (date)

by _____
(Name of Notary Public)

by _____
(Name of Notary Public)

(Seal) _____
(Signature of Notary Public)

(Seal) _____
(Signature of Notary Public)

(Date Commission Expires)

(Date Commission Expires)

In lieu of completing the above section of the Annual Proposal Bid Bond form, the Principal may file an Electronic Bid Bond. By signing the proposal(s) the Principal is ensuring the identified electronic bid bond has been executed and the Principal and Surety are firmly bound unto the State of Illinois under the conditions of the bid bond as shown above.

Electronic Bid Bond ID #	Company/Bidder Name	Signature and Title
--------------------------	---------------------	---------------------

This bond may be terminated, at Surety's request, upon giving not less than thirty (30) days prior written notice of the cancellation/termination of the bond. Said written notice shall be issued to the Illinois Department of Transportation, Chief Contracts Official, 2300 South Dirksen Parkway, Springfield, Illinois, 62764, and shall be served in person, by receipted courier delivery or certified or registered mail, return receipt requested. Said notice period shall commence on the first calendar day following the Department's receipt of written cancellation/termination notice. Surety shall remain firmly bound to all obligations herein for proposals submitted prior to the cancellation/termination. Surety shall be released and discharged from any obligation(s) for proposals submitted for any letting or date after the effective date of cancellation/termination.



Item No. _____

Letting Date _____

KNOW ALL PERSONS BY THESE PRESENTS, That We _____

as PRINCIPAL, and _____

as SURETY, and held jointly, severally and firmly bound unto the STATE OF ILLINOIS in the penal sum of 5 percent of the total bid price, or for the amount specified in the bid proposal under "Proposal Guaranty" in effect on the date of the Invitation for Bids, whichever is the lesser sum, well and truly to be paid unto said STATE OF ILLINOIS, for the payment of which we bind ourselves, our heirs, executors, administrators, successors and assigns.

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH that whereas, the PRINCIPAL has submitted a bid proposal to the STATE OF ILLINOIS, acting through the Department of Transportation, for the improvement designated by the Transportation Bulletin Item Number and Letting Date indicated above.

NOW, THEREFORE, if the Department shall accept the bid proposal of the PRINCIPAL; and if the PRINCIPAL shall, within the time and as specified in the bidding and contract documents; and if, after award by the Department, the PRINCIPAL shall enter into a contract in accordance with the terms of the bidding and contract documents including evidence of the required insurance coverages and providing such bond as specified with good and sufficient surety for the faithful performance of such contract and for the prompt payment of labor and material furnished in the prosecution thereof; or if, in the event of the failure of the PRINCIPAL to enter into such contract and to give the specified bond, the PRINCIPAL pays to the Department the difference not to exceed the penalty hereof between the amount specified in the bid proposal and such larger amount for which the Department may contract with another party to perform the work covered by said bid proposal, then this obligation shall be null and void, otherwise, it shall remain in full force and effect.

IN THE EVENT the Department determines the PRINCIPAL has failed to comply with any requirement as set forth in the preceding paragraph, then Surety shall pay the penal sum to the Department within fifteen (15) days of written demand therefor. If Surety does not make full payment within such period of time, the Department may bring an action to collect the amount owed. Surety is liable to the Department for all its expenses, including attorney's fees, incurred in any litigation in which it prevails either in whole or in part.

In TESTIMONY WHEREOF, the said PRINCIPAL has caused this instrument to be signed by its officer
_____ day of _____ A.D., _____

In TESTIMONY WHEREOF, the said SURETY has caused this instrument to be signed by its officer
_____ day of _____ A.D., _____

(Company Name)

(Company Name)

By _____
(Signature and Title)

By _____
(Signature of Attorney-in-Fact)

Notary for PRINCIPAL

Notary for SURETY

STATE OF _____
COUNTY OF _____

STATE OF _____
COUNTY OF _____

Signed and attested before me on _____ (date)
by _____

Signed and attested before me on _____ (date)
by _____

(Name of Notary Public)

(Name of Notary Public)

(Seal) _____
(Signature of Notary Public)

(Seal) _____
(Signature of Notary Public)

(Date Commission Expires)

(Date Commission Expires)

In lieu of completing the above section of the Proposal Bid Bond form, the Principal may file an Electronic Bid Bond. By signing the proposal the Principal is ensuring the identified electronic bid bond has been executed and the Principal and Surety are firmly bound unto the State of Illinois under the conditions of the bid bond as shown above.

Electronic Bid Bond ID # _____ Company/Bidder Name _____ Signature and Title _____

(1) Policy

It is public policy that disadvantageded businesses as defined in 49 CFR Part 26 and the Special Provision shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part with Federal or State funds. Consequently the requirements of 49 CFR Part 26 apply to this contract.

(2) Obligation

The contractor agrees to ensure that disadvantageded businesses as defined in 49 CFR Part 26 and the Special Provision have the maximum opportunity to participate in the performance of contracts or subcontracts financed in whole or in part with Federal or State funds. The contractor shall take all necessary and reasonable steps in accordance with 49 CFR Part 26 and the Special Provision to ensure that said businesses have the maximum opportunity to compete for and perform under this contract. The contractor shall not discriminate on the basis of race, color, national origin or sex in the award and performance of contracts.

(3) Project and Bid Identification

Complete the following information concerning the project and bid:

Route _____	Total Bid _____
Section _____	Contract DBE Goal _____ (Percent) _____ (Dollar Amount)
Project _____	
County _____	
Letting Date _____	
Contract No. _____	
Letting Item No. _____	

(4) Assurance

I, acting in my capacity as an officer of the undersigned bidder (or bidders if a joint venture), hereby assure the Department that on this project my company : (check one)

- Meets or exceeds contract award goals and has provided documented participation as follows:
Disadvantaged Business Participation _____ percent

Attached are the signed participation statements, forms SBE 2025, required by the Special Provision evidencing availability and use of each business participating in this plan and assuring that each business will perform a commercially useful function in the work of the contract.

- Failed to meet contract award goals and has included good faith effort documentation to meet the goals and that my company has provided participation as follows:

Disadvantaged Business Participation _____ percent

The contract goals should be accordingly modified or waived. Attached is all information required by the Special Provision in support of this request including good faith effort. Also attached are the signed participation statements, forms SBE 2025, required by the Special Provision evidencing availability and use of each business participating in this plan and assuring that each business will perform a commercially useful function in the work of the contract.

Company

By _____

Title _____

Date _____

The "as read" Low Bidder is required to comply with the Special Provision.

Submit only one utilization plan for each project. The utilization plan shall be submitted in accordance with the special provision.

Bureau of Small Business Enterprises
2300 South Dirksen Parkway
Springfield, Illinois 62764

Local Let Projects
Submit forms to the
Local Agency

The Department of Transportation is requesting disclosure of information that is necessary to accomplish the purpose as outlined under State and Federal law. Disclosure of this information is **REQUIRED**. Failure to provide any information will result in the contract not being awarded. This form has been approved by the State Forms Manager Center.



Illinois Department of Transportation

DBE Participation Statement

Subcontractor Registration Number _____

Letting _____

Participation Statement

Item No. _____

(1) Instructions

Contract No. _____

This form must be completed for each disadvantaged business participating in the Utilization Plan. This form shall be submitted in accordance with the special provision and will be attached to the Utilization Plan form. If additional space is needed complete an additional form for the firm. Trucking participation items; description must list what is anticipated towards goal credit.

(2) Work:

Please indicate: J/V _____ Manufacturer _____ Supplier (60%) _____ Subcontractor _____ Trucking _____

Pay Item No.	Description (Anticipated items for trucking)*	Quantity	Unit Price	Total
Total				

(3) Partial Payment Items (For any of the above items which are partial pay items)

Description must be sufficient to determine a Commercially Useful Function, specifically describe the work and subcontract dollar amount:

*Applies to trucking only

(4) Commitment

When a DBE is to be a second-tier subcontractor, or if the first-tier DBE subcontractor is going to be subcontracting a portion of its subcontract, it must be clearly indicated on the DBE Participation Statement, and the details of the transaction fully explained.

In the event a DBE subcontractor second-tiers a portion of its subcontract to one or more subcontractors during the work of a contract, the prime must submit a DBE Participation Statement, with the details of the transaction(s) fully explained.

The undersigned certify that the information included herein is true and correct, and that the DBE firm listed below has agreed to perform a commercially useful function in the work of the contract item(s) listed above and to execute a contract with the prime contractor or 1st Tier subcontractor. The undersigned further understand that no changes to this statement may be made without prior approval from the Department's Bureau of Small Business Enterprises and that complete and accurate information regarding actual work performed on this project and the payment therefore must be provided to the Department.

Signature for Contractor __ 1st Tier __ 2nd Tier

Signature for DBE Firm __ 1st Tier __ 2nd Tier

Date _____

Date _____

Contact Person _____

Contact Person _____

Title _____

Title _____

Firm Name _____

Firm Name _____

Address _____

Address _____

City/State/Zip _____

City/State/Zip _____

Phone _____

Phone _____

Email Address _____

Email Address _____

E _____

WC _____

The Department of Transportation is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under the state and federal law. Disclosure of this information is **REQUIRED**. Failure to provide any information will result in the contract not being awarded. This form has been approved by the State Forms Management Center.

PROPOSAL ENVELOPE



PROPOSALS

for construction work advertised for bids by the
Illinois Department of Transportation

Item No.	Item No.	Item No.

Submitted By:

Name:
Address:
Phone No.

Bidders should use an IDOT proposal envelope or affix this form to the front of a 10" x 13" envelope for the submittal of bids. If proposals are mailed, they should be enclosed in a second or outer envelope addressed to:

Engineer of Design and Environment - Room 326
Illinois Department of Transportation
2300 South Dirksen Parkway
Springfield, Illinois 62764

NOTICE

Individual bids, including Bid Bond and/or supplemental information if required, should be securely stapled.

CONTRACTOR OFFICE COPY OF CONTRACT SPECIFICATIONS

NOTICE

None of the following material needs to be returned with the bid package unless the special provisions require documentation and/or other information to be submitted.

**Contract No. 85612
WINNEBAGO County
Section 01-00509-00-RP (Rockford)
Project M-5099(071)
Route FAP 525 (Harrison Avenue)
District 2 Construction Funds**



Illinois Department of Transportation

SUBCONTRACTOR DOCUMENTATION

Public Acts 96-0795, 96-0920, and 97-0895 enacted substantial changes to the provisions of the Code (30 ILCS 500). Among the changes are provisions affecting subcontractors. The Contractor awarded this contract will be required as a material condition of the contract to implement and enforce the contract requirements applicable to subcontractors that entered into a contractual agreement with a total value of \$50,000 or more with a person or entity who has a contract subject to the Code and approved in accordance with article 108.01 of the Standard Specifications for Road and Bridge Construction.

If the Contractor seeks approval of subcontractors to perform a portion of the work, and approval is granted by the Department, the Contractor shall provide a copy of the subcontract to the Illinois Department of Transportation's CPO upon request within 15 calendar days after execution of the subcontract.

Financial disclosures required pursuant to Sec. 50-35 of the Code must be submitted for all applicable subcontractors. The subcontract shall contain the certifications required to be made by subcontractors pursuant to Article 50 of the Code. This Notice to Bidders includes a document incorporating all required subcontractor certifications and disclosures for use by the Contractor in compliance with this mandate. The document is entitled State Required Ethical Standards Governing Subcontractors.

RETURN WITH SUBCONTRACT

STATE ETHICAL STANDARDS GOVERNING SUBCONTRACTORS

Article 50 of the Code establishes the duty of all State CPOs, SPOs, and their designees to maximize the value of the expenditure of public moneys in procuring goods, services, and contracts for the State of Illinois and to act in a manner that maintains the integrity and public trust of State government. In discharging this duty, they are charged by law to use all available information, reasonable efforts, and reasonable actions to protect, safeguard, and maintain the procurement process of the State of Illinois.

The certifications hereinafter made by the subcontractor are each a material representation of fact upon which reliance is placed should the Department approve the subcontractor. The CPO may terminate or void the contract approval if it is later determined that the bidder or subcontractor rendered a false or erroneous certification. If a false certification is made by a subcontractor the contractor's submitted bid and the executed contract may not be declared void unless the contractor refuses to terminate the subcontract upon the State's request after a finding that the subcontractor's certification was false.

Section 50-2 of the Code provides that every person that has entered into a multi-year contract and every subcontractor with a multi-year subcontract shall certify, by July 1 of each fiscal year covered by the contract after the initial fiscal year, to the responsible CPO whether it continues to satisfy the requirements of Article 50 pertaining to the eligibility for a contract award. If a contractor or subcontractor is not able to truthfully certify that it continues to meet all requirements, it shall provide with its certification a detailed explanation of the circumstances leading to the change in certification status. A contractor or subcontractor that makes a false statement material to any given certification required under Article 50 is, in addition to any other penalties or consequences prescribed by law, subject to liability under the Whistleblower Reward and Protection Act for submission of a false claim.

A. Bribery

Section 50-5. Bribery.

(a) Prohibition. No person or business shall be awarded a contract or subcontract under this Code who:

(1) has been convicted under the laws of Illinois or any other state of bribery or attempting to bribe an officer or employee of the State of Illinois or any other state in that officer's or employee's official capacity; or

(2) has made an admission of guilt of that conduct that is a matter of record but has not been prosecuted for that conduct.

(b) Businesses. No business shall be barred from contracting with any unit of State or local government, or subcontracting under such a contract, as a result of a conviction under this Section of any employee or agent of the business if the employee or agent is no longer employed by the business and:

(1) the business has been finally adjudicated not guilty; or

(2) the business demonstrates to the governmental entity with which it seeks to contract, or which is signatory to the contract to which the subcontract relates, and that entity finds that the commission of the offense was not authorized, requested, commanded, or performed by a director, officer, or high managerial agent on behalf of the business as provided in paragraph (2) of subsection (a) of Section 5-4 of the Criminal Code of 2012.

(c) Conduct on behalf of business. For purposes of this Section, when an official, agent, or employee of a business committed the bribery or attempted bribery on behalf of the business and in accordance with the direction or authorization of a responsible official of the business, the business shall be chargeable with the conduct.

(d) Certification. Every bid submitted to and contract executed by the State, and every subcontract subject to Section 20-120 of the Code shall contain a certification by the contractor or the subcontractor, respectively, that the contractor or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any certifications required by this Section are false. A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

The contractor or subcontractor certifies that it is not barred from being awarded a contract under Section 50-5.

B. Felons

Section 50-10. Felons.

(a) Unless otherwise provided, no person or business convicted of a felony shall do business with the State of Illinois or any State agency, or enter into a subcontract, from the date of conviction until 5 years after the date of completion of the sentence for that felony, unless no person held responsible by a prosecutorial office for the facts upon which the conviction was based continues to have any involvement with the business.

(b) Certification. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code shall contain a certification by the bidder or contractor or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any of the certifications required by this Section are false.

RETURN WITH SUBCONTRACT

C. Debt Delinquency

Section 50-11 and 50-12. Debt Delinquency.

The contractor or bidder or subcontractor, respectively, certifies that it, or any affiliate, is not barred from being awarded a contract or subcontract under the Code. Section 50-11 prohibits a person from entering into a contract with a State agency, or entering into a subcontract, if it knows or should know that it, or any affiliate, is delinquent in the payment of any debt to the State as defined by the Debt Collection Board. Section 50-12 prohibits a person from entering into a contract with a State agency, or entering into a subcontract, if it, or any affiliate, has failed to collect and remit Illinois Use Tax on all sales of tangible personal property into the State of Illinois in accordance with the provisions of the Illinois Use Tax Act. The bidder or contractor or subcontractor, respectively, further acknowledges that the CPO may declare the related contract void if this certification is false or if the bidder, contractor, or subcontractor, or any affiliate, is determined to be delinquent in the payment of any debt to the State during the term of the contract.

D. Prohibited Bidders, Contractors and Subcontractors

Section 50-10.5 and 50-60(c). Prohibited bidders, contractors and subcontractors.

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-10.5 that no officer, director, partner or other managerial agent of the contracting business has been convicted of a felony under the Sarbanes-Oxley Act of 2002 or a Class 3 or Class 2 felony under the Illinois Securities Law of 1953 or if in violation of Subsection (c) for a period of five years from the date of conviction. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code shall contain a certification by the bidder, contractor, or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO shall declare the related contract void if any of the certifications completed pursuant to this Section are false.

E. Section 42 of the Environmental Protection Act

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-14 that the bidder, contractor, or subcontractor, is not barred from being awarded a contract or entering into a subcontract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency, or entering into any subcontract, that is subject to the Code by a person or business found by a court or the Pollution Control Board to have committed a willful or knowing violation of Section 42 of the Environmental Protection Act for a period of five years from the date of the order. The bidder or contractor or subcontractor, respectively, acknowledges that the CPO may declare the contract void if this certification is false.

The undersigned, on behalf of the subcontracting company, has read and understands the above certifications and makes the certifications as required by law.

<hr style="width: 80%; margin: 0 auto;"/> <p style="text-align: center;">Name of Subcontracting Company</p> <hr style="width: 80%; margin: 0 auto;"/>	<hr style="width: 20%; margin: 0 auto;"/> <p style="text-align: center;">Date</p>
---	---

RETURN WITH SUBCONTRACT
SUBCONTRACTOR DISCLOSURES

I. DISCLOSURES

- A.** The disclosures hereinafter made by the subcontractor are each a material representation of fact upon which reliance is placed. The subcontractor further certifies that the Department has received the disclosure forms for each subcontract.

The CPO may void the bid, contract, or subcontract, respectively, if it is later determined that the bidder or subcontractor rendered a false or erroneous disclosure. A contractor or subcontractor may be suspended or debarred for violations of the Code. Furthermore, the CPO may void the contract.

B. Financial Interests and Conflicts of Interest

1. Section 50-35 of the Code provides that all subcontracts with a total value of \$50,000 or more, from subcontractors identified in Section 20-120 of the Code, shall be accompanied by disclosure of the financial interests of the subcontractor. This disclosed information for the subcontractor, will be maintained as public information subject to release by request pursuant to the Freedom of Information Act, filed with the Procurement Policy Board, and shall be incorporated as a material term of the Prime Contractor's contract. Furthermore, pursuant to this Section, the Procurement Policy Board may recommend to allow or void a contract or subcontract based on a potential conflict of interest.

The financial interests to be disclosed shall include ownership or distributive income share that is in excess of 5%, or an amount greater than 60% of the annual salary of the Governor, of the subcontracting entity or its parent entity, whichever is less, unless the subcontractor is a publicly traded entity subject to Federal 10K reporting, in which case it may submit its 10K disclosure in place of the prescribed disclosure. If a subcontractor is a privately held entity that is exempt from Federal 10K reporting, but has more than 100 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any individual or entity holding any ownership share that is in excess of 5%. The disclosure shall include the names, addresses, and dollar or proportionate share of ownership of each individual making the disclosure, their instrument of ownership or beneficial relationship, and notice of any potential conflict of interest resulting from the current ownership or beneficial interest of each individual making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form.

The current annual salary of the Governor is \$177,412.00.

In addition, all disclosures shall indicate any other current or pending contracts, subcontracts, proposals, leases, or other ongoing procurement relationships the subcontracting entity has with any other unit of state government and shall clearly identify the unit and the contract, subcontract, proposal, lease, or other relationship.

2. Disclosure Forms. Disclosure Form A is attached for use concerning the individuals meeting the above ownership or distributive share requirements. A separate Disclosure Form A must be submitted with the bid for each individual meeting the above requirements. In addition, a second form (Disclosure Form B) provides for the disclosure of current or pending procurement relationships with other (non-IDOT) state agencies and a total ownership certification. **The forms must be included with each bid.**

C. Disclosure Form Instructions

Form A Instructions for Financial Information & Potential Conflicts of Interest

If the subcontractor is a publicly traded entity subject to Federal 10K reporting, the 10K Report may be submitted to meet the requirements of Form A. If a subcontractor is a privately held entity that is exempt from Federal 10K reporting, but has more than 100 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any individual or entity holding any ownership share that is in excess of 5%. If a subcontractor is not subject to Federal 10K reporting, the subcontractor must determine if any individuals are required by law to complete a financial disclosure form. To do this, the subcontractor should answer each of the following questions. A "YES" answer indicates Form A must be completed. If the answer to each of the following questions is "NO", then the NOT APPLICABLE STATEMENT on the second page of Form A must be signed and dated by an individual that is authorized to execute contracts for the subcontracting company. Note: These questions are for assistance only and are not required to be completed.

1. Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity? YES ___ NO ___
2. Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than 60% of the annual salary of the Governor? YES ___ NO ___
3. Does anyone in your organization receive more than 60% of the annual salary of the Governor of the subcontracting entity's or parent entity's distributive income? YES ___ NO ___

(Note: Distributive income is, for these purposes, any type of distribution of profits. An annual salary is not distributive income.)

4. Does anyone in your organization receive greater than 5% of the subcontracting entity's or parent entity's total distributive income, but which is less than 60% of the annual salary of the Governor? YES ___ NO ___

(Note: Only one set of forms needs to be completed per individual per subcontract even if a specific individual would require a yes answer to more than one question.)

A "YES" answer to any of these questions requires the completion of Form A. The subcontractor must determine each individual in the subcontracting entity or the subcontracting entity's parent company that would cause the questions to be answered "Yes". Each form must be signed and dated by an individual that is authorized to execute contracts for your organization. The individual signing can be, but does not have to be, the individual for which the form is being completed. The subcontractor is responsible for the accuracy of any information provided.

If the answer to each of the above questions is "NO", then the NOT APPLICABLE STATEMENT on page 2 of Form A must be signed and dated by an individual that is authorized to execute contracts for your company.

RETURN WITH SUBCONTRACT

Form B: Instructions for Identifying Other Contracts & Procurement Related Information

Disclosure Form B must be completed for each subcontract submitted by the subcontracting entity. *Note: Checking the NOT APPLICABLE STATEMENT on Form A does not allow the subcontractor to ignore Form B. Form B must be completed, checked, and dated or the subcontract will not be approved.*

The Subcontractor shall identify, by checking Yes or No on Form B, whether it has any pending contracts, subcontracts, leases, bids, proposals, or other ongoing procurement relationship with any other (non-IDOT) State of Illinois agency. If "No" is checked, the subcontractor only needs to complete the check box on the bottom of Form B. If "Yes" is checked, the subcontractor must list all non-IDOT State of Illinois agency pending contracts, subcontracts, leases, bids, proposals, and other ongoing procurement relationships. These items may be listed on Form B or on an attached sheet(s). Contracts with cities, counties, villages, etc. are not considered State of Illinois agency contracts and are not to be included. Contracts or subcontracts with other State of Illinois agencies such as the Department of Natural Resources or the Capital Development Board must be included.

**ILLINOIS DEPARTMENT
OF TRANSPORTATION**

**Form A
Subcontractor: Financial
Information & Potential Conflicts
of Interest Disclosure**

Subcontractor Name		
Legal Address		
City, State, Zip		
Telephone Number	Email Address	Fax Number (if available)

Disclosure of the information contained in this Form is required by Section 50-35 of the Code (30 ILCS 500). Subcontractors desiring to enter into a subcontract of a State of Illinois contract must disclose the financial information and potential conflict of interest information as specified in this Disclosure Form. This information shall become part of the publicly available contract file. This Form A must be completed for subcontracts with a total value of \$50,000 or more, from subcontractors identified in Section 20-120 of the Code, and for all open-ended contracts. **A publicly traded company may submit a 10K disclosure (or equivalent if applicable) in satisfaction of the requirements set forth in Form A. See Disclosure Form Instructions.**

The current annual salary of the Governor is \$177,412.00.

DISCLOSURE OF FINANCIAL INFORMATION

1. Disclosure of Financial Information. The individual named below has an interest in the SUBCONTRACTOR (or its parent) in terms of ownership or distributive income share in excess of 5%, or an interest which has a value of more than 60% of the annual salary of the Governor. **(Make copies of this form as necessary and attach a separate Disclosure Form A for each individual meeting these requirements)**

FOR INDIVIDUAL (type or print information)	
NAME:	_____
ADDRESS	_____
Type of ownership/distributable income share:	
stock _____ sole proprietorship _____ Partnership _____ other: (explain on separate sheet):	
% or \$ value of ownership/distributable income share:	_____

2. Disclosure of Potential Conflicts of Interest. Check "Yes" or "No" to indicate which, if any, of the following potential conflict of interest relationships apply. If the answer to any question is "Yes", please attach additional pages and describe.

(a) State employment, currently or in the previous 3 years, including contractual employment of services. Yes ___ No ___

If your answer is yes, please answer each of the following questions.

1. Are you currently an officer or employee of either the Capitol Development Board or the Illinois State Toll Highway Authority? Yes ___ No ___

2. Are you currently appointed to or employed by any agency of the State of Illinois? If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, provide the name the State agency for which you are employed and your annual salary. _____

RETURN WITH SUBCONTRACT

3. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 100% of the annual salary of the Governor?
Yes ___ No ___

4. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or minor children entitled to receive (i) more than 15 % in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of two times the salary of the Governor?
Yes ___ No ___

(b) State employment of spouse, father, mother, son, or daughter, including contractual employment services in the previous 2 years.

Yes ___ No ___

If your answer is yes, please answer each of the following questions.

1. Is your spouse or any minor children currently an officer or employee of the Capitol Development Board or the Illinois State Toll Highway Authority?
Yes ___ No ___

2. Is your spouse or any minor children currently appointed to or employed by any agency of the State of Illinois? If your spouse or minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, provide the name of your spouse and/or minor children, the name of the State agency for which he/she is employed and his/her annual salary. _____

3. If your spouse or any minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 100% of the annual salary of the Governor?
Yes ___ No ___

4. If your spouse or any minor children are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or minor children entitled to receive (i) more than 15 % in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of two times the salary of the Governor?
Yes ___ No ___

(c) Elective status; the holding of elective office of the State of Illinois, the government of the United States, any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois currently or in the previous 3 years.
Yes ___ No ___

(d) Relationship to anyone holding elective office currently or in the previous 2 years; spouse, father, mother, son, or daughter.
Yes ___ No ___

(e) Appointive office; the holding of any appointive government office of the State of Illinois, the United States of America, or any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois, which office entitles the holder to compensation in excess of the expenses incurred in the discharge of that office currently or in the previous 3 years.
Yes ___ No ___

(f) Relationship to anyone holding appointive office currently or in the previous 2 years; spouse, father, mother, son, or daughter.
Yes ___ No ___

(g) Employment, currently or in the previous 3 years, as or by any registered lobbyist of the State government.
Yes ___ No ___

RETURN WITH SUBCONTRACT

(h) Relationship to anyone who is or was a registered lobbyist in the previous 2 years; spouse, father, mother, son, or daughter. Yes ___ No ___

(i) Compensated employment, currently or in the previous 3 years, by any registered election or reelection committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections. Yes ___ No ___

(j) Relationship to anyone; spouse, father, mother, son, or daughter; who was a compensated employee in the last 2 years by any registered election or re-election committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections. Yes ___ No ___

3 Communication Disclosure.

Disclose the name and address of each lobbyist and other agent of the bidder or offeror who is not identified in Section 2 of this form, who is has communicated, is communicating, or may communicate with any State officer or employee concerning the bid or offer. This disclosure is a continuing obligation and must be promptly supplemented for accuracy throughout the process and throughout the term of the contract. If no person is identified, enter "None" on the line below:

Name and address of person(s): _____

RETURN WITH SUBCONTRACT

4. Debarment Disclosure. For each of the persons identified under Sections 2 and 3 of this form, disclose whether any of the following has occurred within the previous 10 years: debarment from contracting with any governmental entity; professional licensure discipline; bankruptcies; adverse civil judgments and administrative findings; and criminal felony convictions. This disclosure is a continuing obligation and must be promptly supplemented for accuracy throughout the procurement process and term of the contract. If no person is identified, enter "None" on the line below:

Name of person(s): _____

Nature of disclosure: _____

APPLICABLE STATEMENT

This Disclosure Form A is submitted on behalf of the INDIVIDUAL named on previous page. Under penalty of perjury, I certify the contents of this disclosure to be true and accurate to the best of my knowledge.

Completed by: _____ Date _____
Signature of Individual or Authorized Officer

NOT APPLICABLE STATEMENT

Under penalty of perjury, I have determined that no individuals associated with this organization meet the criteria that would require the completion of this Form A.

This Disclosure Form A is submitted on behalf of the SUBCONTRACTOR listed on the previous page.

_____ Date _____
Signature of Authorized Officer

RETURN WITH SUBCONTRACT

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form B Subcontractor: Other Contracts & Financial Related Information Disclosure

Form with fields: Subcontractor Name, Legal Address, City, State, Zip, Telephone Number, Email Address, Fax Number (if available)

Disclosure of the information contained in this Form is required by Section 50-35 of the Code (30 ILCS 500). This information shall become part of the publicly available contract file. This Form B must be completed for subcontracts with a total value of \$50,000 or more, from subcontractors identified in Section 20-120 of the Code, and for all open-ended contracts.

DISCLOSURE OF OTHER CONTRACTS, SUBCONTRACTS, AND PROCUREMENT RELATED INFORMATION

1. Identifying Other Contracts & Procurement Related Information. The SUBCONTRACTOR shall identify whether it has any pending contracts, subcontracts, including leases, bids, proposals, or other ongoing procurement relationship with any other State of Illinois agency: Yes ___ No ___ If "No" is checked, the subcontractor only needs to complete the signature box on this page.

2. If "Yes" is checked. Identify each such relationship by showing State of Illinois agency name and other descriptive information such as bid or project number (attach additional pages as necessary). SEE DISCLOSURE FORM INSTRUCTIONS:

THE FOLLOWING STATEMENT MUST BE CHECKED

Signature box with fields: Signature of Authorized Officer, Date

OWNERSHIP CERTIFICATION

Please certify that the following statement is true if the individuals for all submitted Form A disclosures do not total 100% of ownership

Any remaining ownership interest is held by individuals receiving less than \$106,447.20 of the bidding entity's or parent entity's distributive income or holding less than a 5% ownership interest.

Yes No N/A (Form A disclosure(s) established 100% ownership)



NOTICE TO BIDDERS

- 1. TIME AND PLACE OF OPENING BIDS.** Sealed proposals for the improvement described herein will be received by the Department of Transportation. Electronic bids are to be submitted to the electronic bidding system (iCX-Integrated Contractors Exchange). Paper-based bids are to be submitted to the Chief Procurement Officer for the Department of Transportation in care of the Chief Contracts Official at the Harry R. Hanley Building, 2300 South Dirksen Parkway, in Springfield, Illinois until 10:00 a.m. January 15, 2016. All bids will be gathered, sorted, publicly opened and read in the auditorium at the Department of Transportation's Harry R. Hanley Building shortly after 10:00 a.m.
- 2. DESCRIPTION OF WORK.** The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

**Contract No. 85612
WINNEBAGO County
Section 01-00509-00-RP (Rockford)
Project M-5099(071)
Route FAP 525 (Harrison Avenue)
District 2 Construction Funds**

Project consists of the complete reconstruction of Harrison Ave. from 9th St. to east of 20th St. and 11th St. from south of Alton Ave. to north of Harrison Ave., located in the City of Rockford. PCC pavement, HMA resurfacing, curb and gutter, sidewalks, shared use path, box culvert replacement, box culvert extension, highway lighting, traffic signal replacement, storm sewer, sanitary sewer replacement and water main replacement.

- 3. INSTRUCTIONS TO BIDDERS.** (a) This Notice, the invitation for bids, proposal and letter of award shall, together with all other documents in accordance with Article 101.09 of the Standard Specifications for Road and Bridge Construction, become part of the contract. Bidders are cautioned to read and examine carefully all documents, to make all required inspections, and to inquire or seek explanation of the same prior to submission of a bid.

(b) State law, and, if the work is to be paid wholly or in part with Federal-aid funds, Federal law requires the bidder to make various certifications as a part of the proposal and contract. By execution and submission of the proposal, the bidder makes the certification contained therein. A false or fraudulent certification shall, in addition to all other remedies provided by law, be a breach of contract and may result in termination of the contract.
- 4. AWARD CRITERIA AND REJECTION OF BIDS.** This contract will be awarded to the lowest responsive and responsible bidder considering conformity with the terms and conditions established by the Department in the rules, Invitation for Bids and contract documents. The issuance of plans and proposal forms for bidding based upon a prequalification rating shall not be the sole determinant of responsibility. The Department reserves the right to determine responsibility at the time of award, to reject any or all proposals, to readvertise the proposed improvement, and to waive technicalities.

By Order of the
Illinois Department of Transportation

Randall S. Blankenhorn,
Secretary

**INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS**

Adopted January 1, 2015

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

ERRATA Standard Specifications for Road and Bridge Construction (Adopted 1-1-12) (Revised 1-1-15)

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RECURRING SPECIAL PROVISIONS

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LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS

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LR SD12		<input type="checkbox"/> Slab Movement Detection Device	Nov. 11, 1984	Jan. 1, 2007
LR SD13		<input type="checkbox"/> Required Cold Milled Surface Texture	Nov. 1, 1987	Jan. 1, 2007
LR 107-2		<input type="checkbox"/> Railroad Protective Liability Insurance for Local Lettings	Mar. 1, 2005	Jan. 1, 2006
LR 107-4	251	<input checked="" type="checkbox"/> Insurance	Feb. 1, 2007	Aug. 1, 2007
LR 108		<input type="checkbox"/> Combination Bids	Jan. 1, 1994	Mar. 1, 2005
LR 109		<input type="checkbox"/> Equipment Rental Rates	Jan. 1, 2012	
LR 212		<input type="checkbox"/> Shaping Roadway	Aug. 1, 1969	Jan. 1, 2002
LR 355-1		<input type="checkbox"/> Bituminous Stabilized Base Course, Road Mix or Traveling Plant Mix	Oct. 1, 1973	Jan. 1, 2007
LR 355-2		<input type="checkbox"/> Bituminous Stabilized Base Course, Plant Mix	Feb. 20, 1963	Jan. 1, 2007
LR 400-1		<input type="checkbox"/> Bituminous Treated Earth Surface	Jan. 1, 2007	Apr. 1, 2012
LR 400-2		<input type="checkbox"/> Bituminous Surface Plant Mix (Class B)	Jan. 1, 2008	
LR 400-3		<input type="checkbox"/> Hot In-Place Recycling (HIR) – Surface Recycling	Jan. 1, 2012	
LR 400-4		<input type="checkbox"/> Full-Depth Reclamation (FDR) with Emulsified Asphalt	Apr. 1, 2012	Jun. 1, 2012
LR 400-5		<input type="checkbox"/> Cold In-Place Recycling (CIR) With Emulsified Asphalt	Apr. 1, 2012	Jun. 1, 2012
LR 400-6		<input type="checkbox"/> Cold In Place Recycling (CIR) with Foamed Asphalt	June 1, 2012	
LR 400-7		<input type="checkbox"/> Full-Depth Reclamation (FDR) with Foamed Asphalt	June 1, 2012	
LR 402		<input type="checkbox"/> Salt Stabilized Surface Course	Feb. 20, 1963	Jan. 1, 2007
LR 403-1		<input type="checkbox"/> Surface Profile Milling of Existing, Recycled or Reclaimed Flexible Pavement	Apr. 1, 2012	Jun. 1, 2012
LR 403-2		<input type="checkbox"/> Bituminous Hot Mix Sand Seal Coat	Aug. 1, 1969	Jan. 1, 2007
LR 406		<input type="checkbox"/> Filling HMA Core Holes with Non-shrink Grout	Jan. 1, 2008	
LR 420		<input type="checkbox"/> PCC Pavement (Special)	May 12, 1964	Jan. 2, 2007
LR 442		<input type="checkbox"/> Bituminous Patching Mixtures for Maintenance Use	Jan. 1, 2004	Jun. 1, 2007
LR 451		<input type="checkbox"/> Crack Filling Bituminous Pavement with Fiber-Asphalt	Oct. 1, 1991	Jan. 1, 2007
LR 503-1		<input type="checkbox"/> Furnishing Class SI Concrete	Oct. 1, 1973	Jan. 1, 2002
LR 503-2		<input type="checkbox"/> Furnishing Class SI Concrete (Short Load)	Jan. 1, 1989	Jan. 1, 2002
LR 542		<input type="checkbox"/> Pipe Culverts, Type _____ (Furnished)	Sep. 1, 1964	Jan. 1, 2007
LR 663		<input type="checkbox"/> Calcium Chloride Applied	Jun. 1, 1958	Jan. 1, 2007
LR 702		<input type="checkbox"/> Construction and Maintenance Signs	Jan. 1, 2004	Jun. 1, 2007
LR 1000-1		<input type="checkbox"/> Cold In-Place Recycling (CIR) and Full Depth Reclamation (FDR) with Emulsified Asphalt Mix Design Procedures	Apr. 1, 2012	Jun. 1, 2012
LR 1000-2		<input type="checkbox"/> Cold In-Place Recycling (CIR) and Full Depth Reclamation (FDR) with Foamed Asphalt Mix Design Procedures	June 1, 2012	
LR 1004		<input type="checkbox"/> Coarse Aggregate for Bituminous Surface Treatment	Jan. 1, 2002	Jan. 1, 2007
LR 1030		<input type="checkbox"/> Growth Curve	Mar. 1, 2008	Jan. 1, 2010
LR 1032-1		<input type="checkbox"/> Emulsified Asphalts	Jan. 1, 2007	Feb. 7, 2008
LR 1102		<input type="checkbox"/> Road Mix or Traveling Plan Mix Equipment	Jan. 1, 2007	

BDE SPECIAL PROVISIONS

The following special provisions indicated by an "x" are applicable to this contract. An * indicates a new or revised special provision for the letting.

<u>File Name</u>	<u>Pg.</u>	<u>Special Provision Title</u>	<u>Effective</u>	<u>Revised</u>
80240		Above Grade Inlet Protection	July 1, 2009	Jan. 1, 2012
80099	252	X Accessible Pedestrian Signals (APS)	April 1, 2003	Jan. 1, 2014
* 80274	254	X Aggregate Subgrade Improvement	April 1, 2012	Jan. 1, 2016
80192		Automated Flagger Assistance Device	Jan. 1, 2008	
80173		Bituminous Materials Cost Adjustments	Nov. 2, 2006	July 1, 2015
80241		Bridge Demolition Debris	July 1, 2009	
50261		Building Removal-Case I (Non-Friable and Friable Asbestos)	Sept. 1, 1990	April 1, 2010
50481		Building Removal-Case II (Non-Friable Asbestos)	Sept. 1, 1990	April 1, 2010
50491		Building Removal-Case III (Friable Asbestos)	Sept. 1, 1990	April 1, 2010
50531		Building Removal-Case IV (No Asbestos)	Sept. 1, 1990	April 1, 2010
80360	257	X Coarse Aggregate Quality	July 1, 2015	
80310	259	X Coated Galvanized Steel Conduit	Jan. 1, 2013	Jan. 1, 2015
80341	260	X Coilable Nonmetallic Conduit	Aug. 1, 2014	Jan. 1, 2015
80198		Completion Date (via calendar days)	April 1, 2008	
80199		Completion Date (via calendar days) Plus Working Days	April 1, 2008	
80293		Concrete Box Culverts with Skews > 30 Degrees and Design Fills ≤ 5 Feet	April 1, 2012	April 1, 2015
80294		Concrete Box Culverts with Skews ≤ 30 Degrees Regardless of Design Fill and Skews > 30 Degrees with Design Fills > 5 Feet	April 1, 2012	April 1, 2014
80311		Concrete End Sections for Pipe Culverts	Jan. 1, 2013	
80334	261	X Concrete Gutter, Curb, Median, and Paved Ditch	April 1, 2014	Aug. 1, 2014
80277		Concrete Mix Design – Department Provided	Jan. 1, 2012	Jan. 1, 2014
80261		Construction Air Quality – Diesel Retrofit	June 1, 2010	Nov. 1, 2014
80335	262	X Contract Claims	April 1, 2014	
* 80029	263	X Disadvantaged Business Enterprise Participation	Sept. 1, 2000	Jan. 2, 2016
80358	274	X Equal Employment Opportunity	April 1, 2015	
80265	278	X Friction Aggregate	Jan. 1, 2011	Nov. 1, 2014
80229	282	X Fuel Cost Adjustment	April 1, 2009	July 1, 2015
80329		Glare Screen	Jan. 1, 2014	
80304		Grooving for Recessed Pavement Markings	Nov. 1, 2012	Aug. 1, 2014
80246	286	X Hot-Mix Asphalt – Density Testing of Longitudinal Joints	Jan. 1, 2010	April 1, 2012
80322	288	X Hot-Mix Asphalt – Mixture Design Composition and Volumetric Requirements	Nov. 1, 2013	Nov. 1, 2014
80323	298	X Hot-Mix Asphalt – Mixture Design Verification and Production	Nov. 1, 2013	Nov. 1, 2014
80347		Hot-Mix Asphalt – Pay for Performance Using Percent Within Limits – Jobsite Sampling	Nov. 1, 2014	July 1, 2015
80348	302	X Hot-Mix Asphalt – Prime Coat	Nov. 1, 2014	
80315		Insertion Lining of Culverts	Jan. 1, 2013	Nov. 1, 2013
80351		Light Tower	Jan. 1, 2015	
80336		Longitudinal Joint and Crack Patching	April 1, 2014	
80324		LRFD Pipe Culvert Burial Tables	Nov. 1, 2013	April 1, 2015
80325	307	X LRFD Storm Sewer Burial Tables	Nov. 1, 2013	April 1, 2015
80045		Material Transfer Device	June 15, 1999	Aug. 1, 2014
80342	317	X Mechanical Side Tie Bar Inserter	Aug. 1, 2014	Jan. 1, 2015
80165		Moisture Cured Urethane Paint System	Nov. 1, 2006	Jan. 1, 2010
80361		Overhead Sign Structures Certification of Metal Fabricator	Nov. 1, 2015	
80337		Paved Shoulder Removal	April 1, 2014	
80349		Pavement Marking Blackout Tape	Nov. 1, 2014	
80298		Pavement Marking Tape Type IV	April 1, 2012	
80254		Pavement Patching	Jan. 1, 2010	

<u>File Name</u>	<u>Pg.</u>	<u>Special Provision Title</u>	<u>Effective</u>	<u>Revised</u>
80352	319	X Pavement Striping - Symbols	Jan. 1, 2015	
80359		Portland Cement Concrete Bridge Deck Curing	April 1, 2015	
80353		Portland Cement Concrete Inlay or Overlay	Jan. 1, 2015	April 1, 2015
80338		Portland Cement Concrete Partial Depth Hot-Mix Asphalt Patching	April 1, 2014	
80343	320	X Precast Concrete Handhole	Aug. 1, 2014	
80300		Preformed Plastic Pavement Marking Type D - Inlaid	April 1, 2012	
80328	321	X Progress Payments	Nov. 2, 2013	
34261		Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2006
80157	322	X Railroad Protective Liability Insurance (5 and 10)	Jan. 1, 2006	
80306	324	X Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS)	Nov. 1, 2012	Jan. 2, 2015
80350	334	X Retroreflective Sheeting for Highway Signs	Nov. 1, 2014	
80327	336	X Reinforcement Bars	Nov. 1, 2013	
80344		Rigid Metal Conduit	Aug. 1, 2014	
80354	338	X Sidewalk, Corner, or Crosswalk Closure	Jan. 1, 2015	April 1, 2015
80340		Speed Display Trailer	April 2, 2014	
80127	339	X Steel Cost Adjustment	April 2, 2004	July 1, 2015
* 80362	343	X Steel Slag in Trench Backfill	Jan. 1, 2016	
80317		Surface Testing of Hot-Mix Asphalt Overlays	Jan. 1, 2013	
80355	344	X Temporary Concrete Barrier	Jan. 1, 2015	July 1, 2015
80301		Tracking the Use of Pesticides	Aug. 1, 2012	
80356	346	X Traffic Barrier Terminals Type 6 or 6B	Jan. 1, 2015	
20338	347	X Training Special Provisions	Oct. 15, 1975	
80318		Traversable Pipe Grate	Jan. 1, 2013	April 1, 2014
80345		Underpass Luminaire	Aug. 1, 2014	April 1, 2015
80357	350	X Urban Half Road Closure with Mountable Median	Jan. 1, 2015	July 1, 2015
80346		Waterway Obstruction Warning Luminaire	Aug. 1, 2014	April 1, 2015
80288	351	X Warm Mix Asphalt	Jan. 1, 2012	Nov. 1, 2014
80302	353	X Weekly DBE Trucking Reports	June 2, 2012	April 2, 2015
80289		Wet Reflective Thermoplastic Pavement Marking	Jan. 1, 2012	
80071		Working Days	Jan. 1, 2002	

The following special provisions are in the 2015 Supplemental Specifications and Recurring Special Provisions:

<u>File Name</u>	<u>Special Provision Title</u>	<u>New Location</u>	<u>Effective</u>	<u>Revised</u>
80292	Coarse Aggregate in Bridge Approach Slabs/Footings	Articles 1004.01(b) and 1004.02(f)	April 1, 2012	April 1, 2013
80303	Granular Materials	Articles 1003.04, 1003.04(c), and 1004.05(c)	Nov. 1, 2012	
80330	Pavement Marking for Bike Symbol	Article 780.14	Jan. 1, 2014	
80331	Payrolls and Payroll Records	Recurring CS #1 and #5	Jan. 1, 2014	
80332	Portland Cement Concrete – Curing of Abutments and Piers	Article 1020.13	Jan. 1, 2014	
80326	Portland Cement Concrete Equipment	Article 1103.03(a)(5)	Nov. 1, 2013	
80281	Quality Control/Quality Assurance of Concrete Mixtures	Recurring CS #31	Jan. 1, 2012	Jan. 1, 2014
80283	Removal and Disposal of Regulated Substances	Articles 669.01, 669.08, 669.09, 669.14, and 669.16	Jan. 1, 2012	Nov. 2, 2012
80319	Removal and Disposal of Surplus Materials	Article 202.03	Nov. 2, 2012	
80307	Seeding	Article 250.07	Nov. 1, 2012	
80339	Stabilized Subbase	Article 312.06	April 1, 2014	
80333	Traffic Control Setup and Removal Freeway/Expressway	Articles 701.18(l) and 701.19(a)	Jan. 1, 2014	

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

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

GUIDE BRIDGE SPECIAL PROVISION INDEX/CHECK SHEET

Effective as of the: January 15, 2016 Letting

<u>Pg #</u>	<u>√</u>	<u>File Name</u>	<u>Title</u>	<u>Effective</u>	<u>Revised</u>
		GBSP 4	Polymer Modified Portland Cement Mortar	June 7, 1994	July 26, 2013
		GBSP 12	Drainage System	June 10, 1994	Jun 24, 2015
		GBSP 13	High-Load Multi-Rotational Bearings	Oct 13, 1988	Oct 30, 2012
		GBSP 14	Jack and Remove Existing Bearings	April 20, 1994	Jan 1, 2007
		GBSP 15	Three Sided Precast Concrete Structure	July 12, 1994	Dec 29, 2014
		GBSP 16	Jacking Existing Superstructure	Jan 11, 1993	Jan 1, 2007
		GBSP 17	Bonded Preformed Joint Seal	July 12, 1994	Jan 1, 2007
		GBSP 18	Modular Expansion Joint	May 19, 1994	Dec 29, 2014
		GBSP 21	Cleaning and Painting Contact Surface Areas of Existing Steel Structures	June 30, 2003	May 18, 2011
		GBSP 25	Cleaning and Painting Existing Steel Structures	Oct 2, 2001	April 19, 2012
		GBSP 26	Containment and Disposal of Lead Paint Cleaning Residues	Oct 2, 2001	April 30, 2010
		GBSP 28	Deck Slab Repair	May 15, 1995	Oct 15, 2011
		GBSP 29	Bridge Deck Microsilica Concrete Overlay	May 15, 1995	Jun 24, 2015
		GBSP 30	Bridge Deck Latex Concrete Overlay	May 15, 1995	Jun 24, 2015
		GBSP 31	Bridge Deck High-Reactivity Metakaolin (HRM) Conc Overlay	Jan 21, 2000	Jun 24, 2015
		GBSP 32	Temporary Sheet Piling	Sept 2, 1994	Jan 31, 2012
		GBSP 33	Pedestrian Truss Superstructure	Jan 13, 1998	Dec 29, 2014
		GBSP 34	Concrete Wearing Surface	June 23, 1994	Feb 6, 2013
		GBSP 35	Silicone Bridge Joint Sealer	Aug 1, 1995	Oct 15, 2011
		GBSP 38	Mechanically Stabilized Earth Retaining Walls	Feb 3, 1999	Oct 5, 2015
		GBSP 42	Drilled Soldier Pile Retaining Wall	Sept 20, 2001	Oct 5, 2015
		GBSP 43	Driven Soldier Pile Retaining Wall	Nov 13, 2002	Oct 5, 2015
354	X	GBSP 44	Temporary Soil Retention System	Dec 30, 2002	May 11, 2009
		GBSP 45	Bridge Deck Thin Polymer Overlay	May 7, 1997	Feb 6, 2013
		GBSP 46	Geotextile Retaining Walls	Sept 19, 2003	July 26, 2013
356	X	GBSP 51	Pipe Underdrain for Structures	May 17, 2000	Jan 22, 2010
		GBSP 53	Structural Repair of Concrete	Mar 15, 2006	Aug 29, 2014
		GBSP 55	Erection of Curved Steel Structures	June 1, 2007	
		GBSP 56	Setting Piles in Rock	Nov 14, 1996	April 19, 2012
		GBSP 57	Temporary Mechanically Stabilized Earth Retaining Walls	Jan 6, 2003	Oct 5, 2015
		GBSP 59	Diamond Grinding and Surface Testing Bridge Sections	Dec 6, 2004	Jan 3, 2014
		GBSP 60	Containment and Disposal of Non-Lead Paint Cleaning Residues	Nov 25, 2004	Mar 6, 2009
		GBSP 61	Slipform Parapet	June 1, 2007	Dec 29, 2014
		GBSP 62	Concrete Deck Beams	June 13, 2008	Oct 9, 2009
357	X	GBSP 64	Segmental Concrete Block Wall	Jan 7, 1999	Oct 30, 2012
		GBSP 65	Precast Modular Retaining Walls	Mar 19, 2001	Dec 29, 2014
		GBSP 67	Structural Assessment Reports for Contractor's Means and Methods	Mar 6, 2009	Oct 5, 2015
		GBSP 70	Braced Excavation	Aug 9, 1995	May 18, 2011
		GBSP 71	Aggregate Column Ground Improvement	Jan 15, 2009	Oct 15, 2011

		GBSP 72	Bridge Deck Fly Ash or GGBF Slag Concrete Overlay	Jan 18, 2011	Jun 24, 2015
		GBSP 73	Cofferdams	Oct 15, 2011	
		GBSP 74	Permanent Steel Sheet Piling (LRFD)	Jan 31, 2012	Aug 17, 2012
		GBSP 75	Bond Breaker for Prestressed Concrete Bulb-T Beams	April 19, 2012	
362	X	GBSP 76	Granular Backfill for Structures	April 19, 2012	Oct 30, 2012
364	X	GBSP 77	Weep Hole Drains for Abutments, Wingwalls, Retaining Walls And Culverts	April 19, 2012	Oct 22, 2013
		GBSP 78	Bridge Deck Construction	Oct 22, 2013	April 18, 2014
		GBSP 79	Bridge Deck Grooving (Longitudinal)	Dec 29, 2014	
		GBSP 80	Fabric Reinforced Elastomeric	Aug 29, 2014	
		GBSP 84	Precast, Prestressed Concrete Beams	Oct 5, 2015	
		GBSP 85	Micropiles	Apr 19, 1996	Oct 5, 2015
		GBSP 86	Drilled Shafts	Oct 5, 2015	
		GBSP 87	Lightweight Cellular Concrete Fill	Nov 11, 2011	Oct 5, 2015

LIST ANY ADDITIONAL SPECIAL PROVISIONS BELOW

The following Guide Bridge Special Provisions have been incorporated into the 2012 Standard Specifications:

File Name	Title	Std Spec Location
GBSP22	Cleaning and Painting New Metal Structures	506
GBSP36	Surface Preparation and Painting Req. for Weathering Steel	506
GBSP50	Removal of Existing Non-composite Bridge Decks	501
GBSP58	Mechanical Splicers	508
GBSP63	Demolition Plans for Removal of Existing Structures	501
GBSP68	Piling	512
GBSP69	Freeze-Thaw Aggregates for Concrete Superstructures Poured on Grade	1004

The following Guide Bridge Special Provisions have been discontinued or have been superseded:

File Name	Title	Disposition:
GBSP37	Underwater Structure Excavation Protection	Replaced by GBSP73
GBSP11	Permanent Steel Sheet Piling	Replaced by GBSP74
GBSP47	High Performance Concrete Structures	Discontinued
GBSP52	Porous Granular Embankment (Special)	Replaced by GBSP76
GBSP66	Wave Equation Analysis of Piles	Discontinued

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction", Adopted January 1, 2012, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways", and the "Manual of Test Procedures of Materials" in effect on the date of invitation of bids, and the Supplemental Specifications and Recurring Special Provisions indicated on the Check Sheet included here in which apply to and govern the construction of Section 01-00509-00-RP, Rockford, and in case of conflict with any part, or parts, of said Specifications, the said Special Provisions shall take precedence and shall govern.

SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction", adopted January 1, 2012, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways" and the "Manual of Test Procedures for Materials" in effect on the date of the invitation for bids, and the "Supplemental Specifications and Recurring Special Provisions" indicated on the Check Sheet included herein which apply to and govern the construction of Harrison Avenue, F.A. Rte. 525, Section 01-00509-00-RP, in Winnebago County, City of Rockford and in case of conflict with any part, or parts, of said Specifications, the said Special Provisions shall take precedence and shall govern.

Where the term "Department" appears in the Specifications, the "City of Rockford" shall be substituted therefore, and where any term for an employee of the Department is used, the designated City of Rockford employee shall be substituted therefore. Where the term "Engineer" is used it shall mean the City of Rockford Engineer. The Standard Specifications for Water and Sewer Main Construction in Illinois, latest edition, and the City of Rockford Water Division Specifications – latest revision, and the General Provisions and Technical Specifications for Sanitary Sewer Construction in the Rock River Water Reclamation District shall also apply to this improvement where appropriate. Style, type and grade of applicable materials used for construction shall be in conformance with the City of Rockford Water Division Specifications (Chapter 12) – latest revision.

Herein after the terms "Owner", "City" or "Engineer" shall mean the City of Rockford and its designated representatives and the term "Contractor" shall mean the entity that proposes to perform the work herein described or its designated subcontractors. The abbreviation RRWRD shall represent the Rock River Water Reclamation District.

LOCATION OF PROJECT

Harrison Avenue from the intersection of 9th Street and Harrison Avenue to approximately 550 feet east of the intersection of 20th Street and Harrison Avenue in Section 36, Twp 44 N. Range 1 E. of the 3rd P.M. Also, 11th Street from approximately 300 feet south of Alton Avenue to 700 feet north of Harrison Avenue

DESCRIPTION OF WORK

The work under this contract consists of the complete reconstruction of Harrison Avenue and 11th Street including new PCC pavement, curb and gutter, sidewalk, shared use path, box culvert replacement, box culvert extension, highway lighting, traffic signal replacement, and new storm sewer, sanitary replacement and adjustments, and water main replacement. From

Station 168+50 to Station 174+58 the project will consist of a mill and overlay. Harrison Avenue and 11th Street will initially be closed to all traffic during Pre-Stage 1B for a period of 4 weeks. After this Pre-Stage the 11th Street and Harrison Avenue intersection will be open for traffic for the remainder of the work.

COMPLETION DATE PLUS WORKING DAYS

Revise Article 108.05(b) of the Standard Specifications to read:

(b) Completion Date Plus Working Days. When a completion date plus working days is specified, the Contractor shall complete the project by 11:59 P.M. on or prior to November 3, 2017. The PROJECT shall have all work completed, except the tree planting and seeding in the final stage and the punch list items for the PROJECT to be considered complete. It is expected of the Contractor to work overtime, as needed, in an effort to meet the completion date. The Contractor will be allowed 15 working days after the completion date to complete landscaping items and punch list items.

Additionally, the project prohibits road closures and through lane closures during the winter shutdown period. This requirement includes having two (2) through lanes open in each direction on 11th Street, Harrison Avenue, and 20th Street along with having turn lanes open where these two noted streets intersect Harrison Avenue. Damages will be applied to the contract when this requirement is not met between the following dates unless otherwise approved by the Engineer and IDOT:

November 5, 2016 – March 13, 2017

MAINTENANCE OF ROADWAYS

Beginning on the date that work begins on this project, the Contractor shall assume responsibility for normal maintenance of all existing roadways within the limits of the improvement. This normal maintenance shall include all repair work such as patching, intermittent resurfacing and shoulder 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 Engineer.

If items of work have not been provided 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.

CRITICAL PATH SCHEDULE

The construction of this project will be planned and recorded with a conventional Critical Path Method (CPM) as specified in Article 108.02 of the Standard Specifications and the following:

The Contractor is responsible for preparing the initial schedule in the form of an activity on arrow diagram which shall include activity description and duration. Two copies shall be submitted to the Engineer at the preconstruction meeting. The construction time, as determined by the schedule shall not exceed the specified contract time. The Schedule shall be updated the first

of each month, when there is a delay in completion of any critical activity, or when the contract is modified causing additions, deletion or revision of activities.

As determined by CPM analysis, only delays in activities which affect milestone dates or contract completion dates will be considered for a time extension.

If the Contractor does seek a time extension of any milestone or contract completion date, he/she shall furnish documentation as required by the Engineer to enable him to determine if a time extension is appropriate under the terms of the contract.

SAW CUTS

Whenever possible the removal limits have been set to coincide with existing construction joints. Regardless of the limits of the removal, the Contractor will be required to leave a clean neat edge on the work remaining. This work shall be in accordance with Section 440.03 of the Standard Specifications. The cost of this work will not be paid separately but shall be included in the cost of the items being removed.

EXISTING UTILITIES AND DRAINAGE STRUCTURES LOCATION

The plans show existing utilities and drainage structures lying within the limits of the work under this contract such as gas and water mains; sewers; inlets; buffalo boxes; cablevision facilities and power lines and poles. The City and Engineer do not guarantee the completeness or accuracy of the information shown on the plans regarding these utilities. The Contractor shall make his own investigation to verify or determine the existence, nature and location of all utilities on the site that may interfere with construction before starting his operations. The Contractor and the utility companies shall coordinate any advanced utility relocations with one another. The Contractor shall report to the Engineer any omissions or differences in location from that shown on the plans. Care should be taken while working near these utilities to prevent their damage.

RECORD DRAWINGS

The Contractor shall keep on-site a set of plans to be maintained as the official project Record Drawings. The Contractor shall mark up the set of plans with any revisions in the drawings on a daily basis.

The Contractor shall record measurements to all reducers, bends, tees, line stops, blind connections, and other buried fittings and appurtenances associated with the water and sewer construction. The Contractor shall also note field measurements to surface appurtenances such as manholes, cleanouts, tapping valves, gate valves, line stops, curb stops, and fire hydrants.

The dimensions shall be indicated from physical features indicated on the drawings and from the right-of-way lines and property lines indicated on the drawings.

The Contractor shall take field measurements and indicate the measurements on the Record Drawings where the mains vary from plan depth/grade. The Contractor shall deliver the Record Drawings to the Engineer, along with the final request for payment on the project.

These items will be incidental to the contract and will not be considered for further payment.

COOPERATION WITH UTILITIES

This special provision amends the provisions of Article 105.07 of the Standard Specifications and includes a section clarifying the utility information provided in the plans and specifications.

105.07 – Cooperation with Utilities. Revise the last paragraph regarding (a) known Utilities to read:

“No additional compensation will be allowed for an delays, inconveniences, or damage sustained by the Contractor due to the interference from the said utility appurtenances or the operation of moving them either by the utility company or by him; or on account of any special construction methods required in prosecuting his work due to the existence of said appurtenances either in their present or relocated positions.”

105.07 – Cooperation with Utilities. Delete subarticle 105.07 (b) Unknown Utilities and substitute the following:

(b) Unknown Utilities. The requirements stated above for known utilities shall apply to unknown utilities.

Examination of Plans, Specifications, Special Provisions and Site of Work.

The bidder shall, before submitting a bid, carefully examine the provisions of the contract. The bidder shall inspect in detail the site of the proposed work, investigate and become familiar with all the local conditions affecting the contract and fully acquaint themselves with the detailed requirements of the construction. Submission of a bid shall be a conclusive assurance and warranty the bidder has made these examinations and the bidder understands all the requirements for the performance of the work. If his/her bid is accepted, the bidder shall be responsible for all errors in the proposal resulting from his/her failure or neglect to comply with these instructions. The Department will, in no case, be responsible for any costs, expenses, losses, or change in anticipated profits resulting from such failure or neglect of the bidder to make these examinations.

The bidder shall take no advantage of any error or omission in the proposal and advertised contract. Any prospective bidder who desires an explanation or interpretation of the plans, specification, or any of the contract documents, shall request such in writing from the City of Rockford, in sufficient time to allow a written reply by the Department that can reach all prospective bidders before the submission of their bids. Any reply given a prospective bidder in the form determined by the Department including, but not limited to, an addendum, if the information is deemed by the Department to be necessary in submitting bids or if the Department concludes the information would aid competition. Oral explanations, interpretations, or instructions given before the submission of bids unless at a prebid conference will not be binding on the department.

When the plans or special provisions include information pertaining to the location of underground utility facilities, such information represents only the opinion of the Department as to the location of such utilities and is only included for the convenience of the bidder. The Department assumes no responsibility whatsoever in respect to the sufficiency or the accuracy of the information shown on the plans relative to the location of underground utility facilities. It

shall be the Contractor's responsibility to determine the actual location of all such facilities including field verification of both vertical and horizontal locations relative to the work. He shall also obtain from the respective utility companies detailed information relative to location of their facilities and the working schedules of the utility companies for removing or adjusting them.

It is understood and agreed that the Contractor has considered in his bid all of the permanent and temporary utility appurtenances in their present or relocated positions. The Contractor's attention is directed to the fact that the various utility companies may be relocating and constructing facilities within the project limits concurrent with the Contractor's operations. The Contractor shall coordinate his activities with the various utility companies, at all times, and may be required to work at other locations of the improvement until relocation and construction is completed by the utility company. The contractor is allowed no extra compensation for delays resulting from any work performed by a utility company.

COORDINATION WITH BUILDING DEMOLITION

The Contractor shall coordinate his activities with the building demolition contractor, at all times, and may be required to work at other locations of the improvement until building demolition by the building demolition contractor is complete. The Contractor is advised that the duration and schedules of demolition are only rough estimates and no extra compensation or time will be allowed for delays resulting from any work performed by the building demolition contractor.

These items will be incidental to the contract and will not be considered for further payment.

STORM WATER POLLUTION PREVENTION PLAN

**Storm Water Pollution Prevention Plan
Harrison Avenue Reconstruction - 2015
City of Rockford
Winnebago County, Illinois**

Project No.: 13-1070

May 2014

FEHR GRAHAM
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Preface

This Storm Water Pollution Prevention Plan (SWPPP) was developed consistent with the requirements of the National Pollutant Discharge Elimination System (NPDES) General NPDES Permit No. ILR10 for Storm Water Discharges from Construction Site Activities (see Appendix B for a copy of the general permit).

The purpose of this SWPPP is to reduce, eliminate, or prevent the pollution of storm water and prevent violations of surface water or groundwater quality standards by:

- Identifying potential sources of pollution expected to affect the quality of storm water discharges associated with the construction activity
- Describing the proper implementation of best management practices (BMPs) selected to reduce or eliminate erosion, sedimentation, and pollutants in storm water discharges associated with the construction activity

This plan consists of a detailed narrative section and the appendices, which contain illustrations, maps, and drawings. The narrative section includes descriptions of potential pollution problems and associated BMPs to reduce or eliminate the threat of causing pollution during the actual construction project. The illustrations, maps, and drawings in the appendices show the site location, topography, sensitive environmental receptors, placement of BMPs, and BMP specifications and performance expectations.

The Owner/Operator and Contractor(s) associated with this construction site must implement the provisions of this SWPPP as a condition of the General NPDES Permit No. ILR10. The Owner/Operator and Contractor(s) are also required to sign the certification statements included in Appendix A. A copy of the SWPPP with signed certifications shall be retained on-site and kept current with any revisions required during construction until final site stabilization.

The owner shall retain copies of SWPPP, all reports and notices required by the ILR10 permit, and records of all data used to complete the Notice of Intent to be covered by the permit, for a period of at least three years from the date that the permit coverage expires or is terminated.

1) Site Description

a) Description of Construction Activities -

The proposed construction improvements include upgrading the existing cross section and modifying the existing centerline alignment of Harrison Avenue from 9th Street to 22nd Street. Proposed construction activities and improvements include roadway and utility demolition and removal, new concrete pavement construction with widening, barrier median, curb and gutter, installation of additional turn lanes, a multi-use bicycle/pedestrian path, landscaping, bridge replacement, box culvert extension, drainage channel improvements, new street lighting, new traffic signals, new storm sewer, water utility improvements, and other related items.

b) Intended Sequence of Land Disturbing Activities -

The following lists the sequence of major activities which disturb soils for major portions of the site as described in the Maintenance of Traffic Construction Plan Sheets 109 to 186:

Stage 1

- (1) Median removal and temporary pavement placement at 22nd Street
- (2) North side of Harrison Avenue removals from approximately Sta. 125+00 to 161+00 including curb and gutter and pavement and partial removal of existing box culvert
- (3) Bridge structure removal at Sta. 147+45, 151+65, and 155+40
- (4) Remove and relocate existing fire hydrants east of 11th Street
- (5) Construct new box culvert at Sta. 143+74 from Stage line north.
- (6) Construct channel replacement area from approximately 143+75 to 162+00
- (7) Construct northerly box culvert extension at 20th Street and Harrison Ave.
- (8) Construct underground utilities (storm sewer, water service piping, electrical) east of 11th Street
- (9) Construct final pavement, curb and gutter and driveways from approximately Sta. 125+00 to 161+00. Place temporary pavement needed for Stage 2 and start 11th Street removals and associated underground construction

Stage 2

- (1) Stage 2 removals
- (2) Construct water main, make connections, and stub water lines
- (3) Extend box culvert at 20th Street on south end, construct south end of box culvert at Sta. 143+75
- (4) Construct storm sewer and stub laterals north to stage line and make final connections
- (5) Grade and stone south side of Harrison and west side of 11th Street
- (6) Pave Harrison Avenue EB through lanes and 11th Street SB through lanes, construct curb and gutter, multi-use path, driveways, and south side lighting, pave outside turn lanes
- (7) Construct south-side side streets
- (8) Construct permanent traffic signals within work zone at 11th Street and 20th Street

Stage 2A

- (1) Begin removals on east side of 11th Street

- (2) Finalize watermain and storm sewer construction at 11th Street and Harrison Ave. intersection

Stage 3

- (1) Stage 3 removals
- (2) Complete water main and services work
- (3) Complete storm sewer and connect stubs
- (4) Core out and stone remaining north side of Harrison Ave. and east side of 11th Street
- (5) Construct remaining north side lighting
- (6) Pave the remaining north side of Harrison Ave. and the east side of 11th Street through lanes and outside turn lanes
- (7) Construct curb and gutter, sidewalk, and driveways
- (8) Construct north side traffic signals at 11th Street and 20th Street.

Stage 4

- (1) Remove cross-over pavement and construct median at 23rd Street on Harrison n
- (2) Construct the rest of medians, center lane paving, and center turn lanes
- (3) HMA milling and paving at required areas
- (4) Perform restoration and landscaping in center work zone

Stage 5A/5B

- (1) Complete restoration, landscaping, lighting, and punch list items in north and south outside work zones one side at a time

b) Site Area Estimates -

The total site area is 58 acres and the entire site area is expected to be disturbed by construction activities.

c) Proposed Runoff Coefficient, Existing Soil and Discharge Descriptions -

The completed project area as proposed will be approximately 85% impervious areas (pavement, buildings, and rooftops) and 15% pervious areas (lawns and open areas). The resulting post construction runoff coefficient (Rational Method) is calculated to be 0.85. The soils at the project location are primarily Urban Land, Flagler sandy loam, Comfrey loam, and Griswold loam. The Flagler sandy loam and Comfrey loam (59% of the project site) have a Kw Erosion Factor value of 0.15 and 0.32 respectively. Detailed soils information including a map of the existing soils and a report of the physical soil properties are included in Appendix G.

d) Site Map Information -

A site map and erosion control plans indicating: drainage patterns and approximate slopes (existing and proposed), construction entrance locations, areas of soil disturbance, the location of major structural and nonstructural controls identified in the plan, and the location of areas where stabilization practices are expected to occur are included in Appendices E and F. A portion of the site storm water discharges to the SE Drainage Way (Rockford Drainage Ditch). There are no wetlands on site.

e) Receiving Waters and Wetlands Information -

The site discharges storm water to the SE Drainage Way (Rockford Drainage Ditch) and to the City of Rockford storm sewer network. The SE Drainage Way and the storm sewer network are both tributary to the Rock River. The project site does not include any wetlands. Wetland mapping from the Resource Management Mapping Service is included in Appendix H.

2) Controls

The list below includes the minimum required stabilization and structural controls along with their required sequence of implementation in order to prevent erosion and sedimentation during construction activities which disturb soils for major portions of the site. This work shall conform to the applicable standards from the Illinois Urban Manual (see Appendix I), applicable Illinois Department of Transportation standard specification sections 280-285, applicable project specifications, and the details included in the plan documents. The controls shall be installed as detailed and where indicated on the erosion control plan sheets or as directed by the inspector.

- (1) Prior to any staged demolition work or ground disturbing activities, **stabilized construction entrances, temporary concrete washout facilities, silt fence, and inlet protection** shall be installed for each stage.
- (2) Any additional control measures required for each stage shall be installed as necessary and maintained until the site or portion of the site upstream of the control has reached final stabilization
- (3) Once the above measures are in place, the stage demolition and mass grading may begin. Areas disturbed by mass grading shall be stabilized as soon as practicable (see below). Stockpiles in excess of 100 cubic yards shall be protected with **silt fence**.
- (4) Areas disturbed within the SE Drainage Way must be separated and protected from tributary flows at all times until final stabilization is achieved. This may require additional control measures such as **cofferdams, temporary stream diversions** or other necessary measures.
- (5) Areas disturbed by excavation for electrical, water main, and storm sewer construction shall be stabilized with **temporary seeding, permanent vegetation**, or pavement as soon as practicable (see below). **Sump pits** or other approved methods should be used when dewatering trenches to reduce suspended sediment in the dewatering discharge. The discharge from dewatering operations should be directed to a location that will not cause any additional erosion or sedimentation.
- (6) Areas disturbed by excavation within roadways, driveways and sidewalks shall be stabilized as soon as practicable (see below). These areas may be

temporarily stabilized with the appropriate aggregate base course, or permanently stabilized with the applicable permanent surface restoration.

- (7) Areas disturbed by final grading shall be stabilized with **mulching for seeding and soil stabilization, topsoiling, tree and shrub planting, permanent vegetation, and erosion control blanket** per project seeding specifications. This work shall conform to the applicable standards from the Illinois Urban Manual (see Appendix I), applicable Illinois Department of Transportation standard specification sections 250-254, applicable project specifications, and the details included in the plan documents.
- (8) Once the site has reached final stabilization, all temporary erosion control measures shall be removed. Any areas disturbed by the removal of the temporary erosion control measures shall be stabilized immediately.

a) Erosion and Sediment Controls.

i) Stabilization Practices.

Site activities should ensure that existing vegetation is preserved where practicable and that disturbed portions of the site are stabilized. Stabilization practices may include: temporarily seeding, permanent seeding, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, preservation of mature vegetation, staged or staggered development, and other appropriate measures.

Soil stabilization practices (erosion controls) are designed to prevent soil particles from detaching and becoming suspended in storm water runoff. Erosion control practices protect the soil surface by covering and/or binding soil particles. Erosion control is the first line of defense against storm water pollution prevention in that if soil particles are not suspended in storm water then they will not need to be recaptured with sediment controls. Effective erosion control will reduce the need and cost of sediment control. To this end, the contractor shall preserve existing vegetation wherever feasible and limit disturbed areas to a practical minimum.

Except as provided in paragraphs (a) and (b) below, any disturbed areas shall be stabilized (temporarily or permanently seeded, mulched, sodded or paved) as soon as practicable, but-in no case more than 7 calendar days after the construction activity in that portion of the site has temporarily or permanently ceased.

- (a) Where the initiation of stabilization measures by the 7th day after construction activity temporarily or permanently ceases on a portion of the site is precluded by snow cover, stabilization measures shall be initiated as soon as practicable.
- (b) Where construction activity will resume on a portion of the site within 14 days from when activities ceased, (e.g. the total time period that construction activity is temporarily ceased is less than 14 days) then

stabilization measures do not have to be initiated on that portion of site by the 7th day after construction activity temporarily ceased.

Compliance with the above requirements will be documented by recording the dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated. Refer to Section 7 - *Record Keeping* for documentation requirements.

ii) Structural Practices.

Structural practices (sediment controls) are intended to complement the selected soil stabilization practices. Sediment controls are designed to intercept and settle out soil particles that have been detached or eroded by the force of water. The sediment controls indicated in this SWPPP and on the erosion control plans including: silt fence, inlet protection, cofferdams, temporary stream diversions are intended to prevent a net increase of sediment in storm water discharge relative to pre-construction levels. The contractor shall maintain sufficient quantities of sediment control materials on-site throughout the duration of the project, to allow implementation of temporary sediment controls in the event of predicted rain, and for rapid response to failures or emergencies, in conformance with the requirements in this SWPPP.

iii) Best Management Practices for Impaired Waters.

The project site does not discharge to an impaired water identified on the Agency's website for 303(d) listing for suspended solids, turbidity, or siltation.

b) Storm Water Management.

- i) The Harrison Avenue Reconstruction includes a storm water collection system combining the use of curb and gutter/storm sewers with the reconstructed SE Drainage Way. The existing SE Drainage Way will be reconstructed and the concrete bottom and walls will be replaced which will reduce pollutants from deteriorating concrete. The existing Harrison Avenue storm sewer network will be improved resulting in greater inlet capacity along the roadway and greater conveyance capacity within the storm sewers. This will in-turn result in reduced roadway ponding and pipe discharge velocities. The inlets and SE Drainage Way shall be protected from sediment by properly installing and maintaining the erosion and sediment controls indicated above. The inlets, outlets, and SE Drainage Way shall be inspected at the same frequency as the other controls as required under section 4 of this SWPPP. Any trash or debris deposited on the inlets, outlets or restrictor device shall be removed as soon as practicable.
- ii) The temporary controls listed in this SWPPP shall be selected, installed and maintained to perform as designed for a storm event equal to or greater than a 25-

year 24-hour rainfall event. The contractor shall install and maintain the temporary controls to perform as designed for a storm event equal to or greater than a 25-year 24-hour rainfall event.

c) Other Controls.

In addition to the disturbed soil, the following construction phase pollutant sources are anticipated at the site: vehicle fuels and lubricants, unused portland cement concrete, and unused bituminous asphalt. The following requirements apply:

- i) **Waste Disposal.** No solid materials, including building materials, shall be discharged to Waters of the State, except as authorized by a Section 404 permit. No solid materials including unused construction materials, debris or trash shall be buried onsite. These waste materials shall be collected and stored in a covered metal dumpster, and shall be stored in a manner that does not expose the waste to storm water runoff. The dumpster shall be emptied as necessary, and the waste shall be disposed of offsite at an approved landfill.
- ii) **Sanitary waste.** All sanitary waste shall be collected from the portable units by a licensed sanitary waste management contractor, as often as required by local regulation.
- iii) **All unused portland cement concrete and bituminous asphalt originating from offsite locations shall be hauled offsite and disposed of in accordance with all local and State requirements. No concrete or asphalt waste material shall be buried onsite. Concrete washout shall only be conducted at the designated containment areas.**
- iv) **Hazardous Waste Materials - Any and all hazardous waste materials shall be disposed of in the manner specified by local or State regulation and in conformance with Section 669 of the Illinois Department of Transportation standard specifications**
- v) **Off-Site Vehicle Tracking - Stabilized construction entrances shall be installed as detailed where indicated on the erosion control plan. All construction traffic shall use the stabilized entrances for ingress and egress. All adjacent state, county, and local roads shall be kept clean of debris, mud, soil, and/or gravel deposited on said roadways due to the construction activities. During construction operations, any debris deposited on the streets or highways shall be immediately removed. Adjacent roadways shall be inspected daily. At the end of each work day, the contractor shall sweep or clean (not flush) any construction soil material from the roads to prevent tracking.**
- vi) **Vehicle and Equipment Maintenance - The contractor shall have vehicles and equipment cleaned, serviced and maintained offsite. If it is determined that these operations are not feasible offsite, then the contractor shall designate an area on the Erosion Control Plans for equipment cleaning, maintenance and repair. This designated area shall be protected by a temporary perimeter berm, or equivalent**

approved measure, to prevent surface runoff from entering or leaving the area. The designated area shall be located no closer than 150' from any waters of the United States, and no closer than 50' from any storm inlet.

vii) Material Storage - Materials delivered to the site shall be stored in a designated area that is monitored and inspected at minimum per the inspection requirements in section 4 of this SWPPP. This designated area shall be protected by a temporary perimeter berm, or equivalent approved measure, to prevent surface runoff from entering or leaving the area and to prevent the stored materials from leaving the area.

d) Approved State or Local Plans.

i) The management practices, controls and other provisions contained in this SWPPP are at least as protective as the requirements contained in Illinois Environmental Protection Agency's Illinois Urban Manual, 2002.

ii) In addition to the requirements contained in the ILR10 permit and the Illinois Urban Manual, the contractor shall comply with all the requirements specified in this SWPPP, the erosion control plans, any local site permits or storm water management plan, and any more stringent standards required by any local approval which are, upon submittal of an NOI, to be authorized to discharge under the ILR10 permit, and are incorporated by reference and are enforceable under the ILR10 permit.

3) Maintenance

Until such time as the project site reaches final stabilization and a Notice of Termination is filed, the contractor shall be responsible to maintain in good and effective operating conditions all vegetation, erosion controls, sediment controls, and any other protective measures identified in this SWPPP or on the erosion control plans or project specification. Maintenance shall conform to the: applicable standards from the Illinois Urban Manual (see Appendix I); applicable Illinois Department of Transportation standard specification sections, applicable project specifications, and the details and notes included in the plan documents. The contractor shall adjust, repair, or replace vegetation, erosion controls, sediment controls, and any other protective measures as required in order to maintain their intended function.

If maintaining the above mentioned controls from this SWPPP proves to be ineffective in eliminating or significantly minimizing pollutants from the site's storm water discharges, then the contractor shall make appropriate adjustments to the SWPPP as necessary and notify the inspector of any revisions. Any revisions shall be clearly indicated in the SWPPP and on the Erosion Control Plans (Appendix F) and will be subject to the inspector's review and approval.

4) Inspections

Regular inspections shall be made to determine effectiveness of the SWPPP. Qualified personnel will be provided by the owner and must be a person familiar with the site, the nature of the major construction activities, and able to evaluate both overall system performance and individual component performance. Qualified personnel means a person knowledgeable in the principles and practices of erosion and sediment controls measures, such as a licensed Professional Engineer (P .E.), a Certified Professional in Erosion and Sediment Control (CPESC), a Certified Erosion Sediment and Storm Water Inspector (CESSWI) or other knowledgeable person who possesses the skills to assess conditions at the construction site that could impact storm water quality and to assess the effectiveness of any sediment and erosion control measures selected to control the quality of storm water discharges from the construction activities.

At least once every 7 calendar days and within 24 hours of the end of a storm that is 0.5 inches or greater in precipitation or equivalent snowfall qualified personnel shall inspect disturbed areas of the construction site that have not been finally stabilized, structural control measures, and locations where vehicles enter or exit the site

- a) Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of offsite sediment tracking.
- b) Based on the results of the inspection, the description of potential pollutant sources identified in this SWPPP and pollution prevention measures identified in this SWPPP shall be revised as appropriate as soon as practicable after such inspection. Such modifications shall provide for timely implementation of any changes to the SWPPP within 7 calendar days following the inspection.
- c) A report (see Appendix J) summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the storm water pollution prevention plan, and actions taken in accordance with paragraph a) above shall be made and retained as part of the SWPPP for at least 3 years from the date that the permit coverage expires or is terminated. A copy of all inspection reports shall be given to the contractor to be retained at the construction site. The report shall be signed in accordance with Part VI.G (Signatory Requirements) of the ILR10 permit.
- d) The inspector shall notify the appropriate Agency Field Operations Section office by email at: epa.swnoncomp@illinois.gov, telephone or fax within 24 hours of any incidence of noncompliance for any violation of the SWPPP observed during any inspection conducted, or for violations of any condition of the ILR10 permit. The inspector shall complete and submit within 5 days an "Incidence of Noncompliance"

(ION) report for any violation of the storm water pollution prevention plan observed during any inspection conducted, or for violations of any condition of this permit. Submission shall be on forms provided by the Agency and 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. A copy of the ION report shall be given to the contractor.

- e) All reports of noncompliance shall be signed by a responsible authority as defined in Part VI.G (Signatory Requirements) of the ILR10.
- f) After the initial contact has been made with the appropriate Agency Field Operations Section Office, all reports of noncompliance shall be mailed to the Agency at the following address:

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

5) Non-Storm Water Discharges

Except for flows from firefighting activities, sources of non-storm water expected during the construction process that may be combined with storm water discharges are:

1. Fire hydrant flushing
2. Waters used to wash vehicles (detergents are not to be used)
3. Waters used to control dust
4. Potable water from water main flushing
5. Landscape irrigation drainage
6. Uncontaminated ground water from dewatering excavated trenches
7. Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) Also, detergents are not to be used.
8. Uncontaminated air conditioning condensate

The above non-storm water discharges shall be directed away from unprotected, bare, or otherwise unstabilized soil. The contractor shall further implement appropriate pollution prevention measures to ensure that any of the above discharges do not cause erosion or degrade the quality of runoff from the construction site.

6) Contractors

Listed below are the contractors and subcontractors that are anticipated to implement the erosion and sedimentation controls identified in Section 2, *Controls* of this SWPPP. Each of the contractors and subcontractors identified below are required to sign a copy of the certification statement in Appendix A before conducting any professional service at the construction site that has been identified in this SWPPP at the site. The table below and the certification statements in Appendix A should be amended with any revisions to the contractor designated for the listed control measure.

Control Measure	Responsible Contractor
Stabilized Construction Entrances	General Contractor
Sump pits	General Contractor
Temporary Concrete Washout Facilities	General Contractor
Cofferdams	General Contractor
Temporary Stream Diversions	General Contractor
Silt Fence	Erosion Control Contractor
Inlet Protection	Erosion Control Contractor
Temporary Seeding	Landscaping Contractor
Permanent Vegetation	Landscaping Contractor
Mulching for Seeding & Soil Stabilization	Landscaping Contractor
Topsoiling	General Contractor
Tree and Shrub Planting	Landscaping Contractor
Erosion Control Blanket	Landscaping Contractor

7) Record Keeping.

The contractor shall maintain one copy of the SWPPP at the construction site from the date of project initiation to the date of final stabilization. The contractor shall legibly mark any changes or revisions implemented to the SWPPP.

The contractor shall amend the SWPPP whenever:

- a. There is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to Waters of the State and which has not otherwise been addressed in the SWPPP.
- b. The SWPPP proves to be ineffective in eliminating or significantly minimizing pollutants from storm water discharges associated with construction site activity.
- c. Any new contractor and/or subcontractor that will implement a measure of the SWPPP.

Any revisions made to the SWPPP documents shall be recorded in the SWPPP Amendment Log (Appendix L). The contractor shall also notify the inspector whenever such amendments have been made.

The contractor shall also keep accurate records of the following dates in the Grading and Stabilization Activities Log (Appendix M):

- a. When major grading activities occur
- b. When construction activities temporarily or permanently cease on a portion of the site
- c. When stabilization measures are initiated

The contractor shall also keep copies of the inspection reports and Incidence of Noncompliance reports required by Section 4 on-site with the SWPPP. These reports shall be provided by the inspector. When any inspection report or incidence of noncompliance report requires corrective action, the corrective action taken shall be recorded in the Corrective Action Log (Appendix K).

The SWPPP (including all revisions, records, and inspection reports) shall be stored in a clean, dry and legible condition, and shall be available at all times for inspection by the owner, inspector, and the IEPA.

At completion of the project, the contractor shall deliver the SWPPP (including all revisions, records, and inspection reports) to the owner.

The owner shall retain copies of SWPPP, all reports and notices required by the ILR10 permit, and records of all data used to complete the Notice of Intent to be covered by the

permit, for a period of at least three years from the date that the permit coverage expires or is terminated.

APPENDICES

APPENDIX A

OWNER/OPERATOR AND CONTRACTOR
CERTIFICATIONS

Owner/Operator Certification:

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.

Authorized Signature

Date

Printed Name and Title

General Contractor Certification:

Harrison Avenue Reconstruction - 2016
Project

Harrison Ave. - Rockford
Project Address

I certify under penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit (ILR10) that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

Signature

Date

Printed Name and Title

Company Name

Company Address

Company Telephone Number

In addition to the controls listed in section 6 of the SWPPP, the contractor listed above shall be responsible for the following pollution prevention measures and erosion and sedimentation controls:

Landscaping Contractor Certification:

Harrison Avenue Reconstruction - 2016
Project

Harrison Ave. - Rockford
Project Address

I certify under penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit (ILR10) that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

Signature

Date

Printed Name and Title

Company Name

Company Address

Company Telephone Number

In addition to the controls listed in section 6 of the SWPPP, the contractor listed above shall be responsible for the following pollution prevention measures and erosion and sedimentation controls:

Erosion Control Contractor Certification:

Harrison Avenue Reconstruction - 2016
Project

Harrison Ave. - Rockford
Project Address

I certify under penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit (ILR10) that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

Signature

Date

Printed Name and Title

Company Name

Company Address

Company Telephone Number

In addition to the controls listed in section 6 of the SWPPP, the contractor listed above shall be responsible for the following pollution prevention measures and erosion and sedimentation controls:

Sub Contractor Certification:

Harrison Avenue Reconstruction - 2016
Project

Harrison Ave. - Rockford
Project Address

I certify under penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit (ILR10) that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

Signature

Date

Printed Name and Title

Company Name

Trade

Company Address

Company Telephone Number

In addition to the controls listed in section 6 of the SWPPP, the sub contractor listed above shall be responsible for the following pollution prevention measures and erosion and sedimentation controls:

APPENDIX B

GENERAL NPDES PERMIT ILR10

General NPDES Permit No. ILR10

Illinois Environmental Protection Agency
 Division of Water Pollution Control
 1021 North Grand Avenue East
 Post Office Box 19276
 Springfield, Illinois 62794-9276
www.epa.state.il.us

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

General NPDES Permit
 For
 Storm Water Discharges From Construction Site Activities

Expiration Date: July 31, 2018

Issue Date: July 30, 2013

Effective Date: August 1, 2013

In compliance with the provisions of the Illinois Environmental Protection Act, the Illinois Pollution Control Board Rules and Regulations (35 Ill. Adm. Code, Subtitle C, Chapter I), and the Clean Water Act, and the regulations thereunder the following discharges are authorized by this permit in accordance with the conditions and attachments herein.



Alan Keller, P.E.
 Manager, Permit Section
 Division of Water Pollution Control

Part I. COVERAGE UNDER THIS PERMIT

- A. **Permit Area.** The permit covers all areas of the State of Illinois with discharges to any waters of the State.
- B. **Eligibility.**
1. This permit shall authorize all discharges of storm water associated with industrial activity from a construction site that will result in the disturbance of one or more acres total land area or a construction site less than one acre of total land that is a part of a larger common plan of development or sale if the larger common plan will ultimately disturb one or more acres total land area. This permit may authorize discharges from other construction site activities that have been designated by the Agency as having the potential to adversely affect the water quality of waters of the state. This permit also authorizes discharges from construction sites previously approved by the Agency under the previous version of ILR10 that are still occurring after the effective date of this permit, except for discharges identified under Part I.B.3 (Limitations on Coverage). Where discharges from construction sites were initially covered under the previous version of the ILR10, the Storm Water Pollution Prevention Plan must be updated/revised as necessary to ensure compliance with the provisions of this reissued ILR10 permit in accordance with Part II.A.2.
 2. This permit may only authorize a storm water discharge associated with industrial activity from a construction site that is mixed with a storm water discharge from an industrial source other than construction, where:
 - a. the industrial source other than construction is located on the same site as the construction activity;
 - b. storm water discharges associated with industrial activity from the areas of the site where construction activities are occurring are in compliance with the terms of this permit; and
 - c. storm water discharges associated with industrial activity from the areas of the site where industrial activities other than construction are occurring (including storm water discharges from dedicated asphalt plants and dedicated concrete plants) are covered by a different NPDES general permit or an individual permit authorizing such discharges.
 3. **Limitations on Coverage.** The following storm water discharges from construction sites are not authorized by this permit:
 - a. storm water discharges associated with industrial activities that originate from the site after construction activities have been completed and the site has undergone final stabilization;
 - b. discharges that are mixed with sources of non-storm water other than discharges identified in Part III.A (Prohibition on Non-Storm Water Discharges) of this permit and in compliance with paragraph IV.D.5 (Non-Storm Water Discharges) of this permit;

- c. storm water discharges associated with industrial activity that are subject to an existing NPDES individual or general permit or which are issued a permit in accordance with Part VI.N (Requiring an Individual Permit or an Alternative General Permit) of this permit. Such discharges may be authorized under this permit after an existing permit expires provided the existing permit did not establish numeric limitations for such discharges;
- d. storm water discharges from construction sites that the Agency has determined to be or may reasonably be expected to be contributing to a violation of a water quality standard; and
- e. storm water discharges that the Agency, at its discretion, determines are not appropriately authorized or controlled by this general permit.
- f. storm water discharges to any receiving water specified under 35 Ill. Adm. Code 302.105(d) (6).

C. Authorization.

- 1. In order for storm water discharges from construction sites to be authorized to discharge under this general permit a discharger must submit a Notice of Intent (NOI) in accordance with the requirements of Part II below, using an NOI form provided by the Agency.
- 2. Where a new contractor is selected after the submittal of an NOI under Part II below, or where site ownership is transferred, a new Notice of Intent (NOI) must be submitted by the owner in accordance with Part II.
- 3. Unless notified by the Agency to the contrary, dischargers who submit an NOI in accordance with the requirements of this permit are authorized to discharge storm water from construction sites under the terms and conditions of this permit in 30 days after the date the NOI is received by the Agency.
- 4. The Agency may deny coverage under this permit and require submittal of an application for an individual NPDES permit based on a review of the NOI or other information.

Part II. NOTICE OF INTENT REQUIREMENTS

A. Deadlines for Notification.

- 1. To receive authorization under this general permit, a discharger must submit a completed Notice of Intent (NOI) in accordance with Part VI.G (Signatory Requirements) and the requirements of this Part in sufficient time to allow a 30 day review period after the receipt of the NOI by the Agency and prior to the start of construction. The completed NOI may be submitted electronically to the following email address: epa.constilr10swppp@illinois.gov
- 2. Discharges that were covered by the previous version of ILR10 are automatically covered by this permit. Where discharges associated with construction activities were initially covered under the previous version of ILR10 and are continuing, the Storm Water Pollution Prevention Plan must be updated/revised within 12 months of the effective date of this reissued permit, as necessary to ensure compliance with the provisions of the reissued ILR10. Updating of the SWPPP is not required if construction activities are completed and a Notice of Termination is submitted within 12 months of the effective date of this permit.
- 3. A discharger may submit an NOI in accordance with the requirements of this Part after the start of construction. In such instances, the Agency may bring an enforcement action for any discharges of storm water associated with industrial activity from a construction site that have occurred on or after the start of construction.

B. Failure to Notify. Dischargers who fail to notify the Agency of their intent to be covered, and discharge storm water associated with construction site activity to Waters of the State without an NPDES permit are in violation of the Environmental Protection Act and Clean Water Act.

C. Contents of Notice of Intent. The Notice of Intent shall be signed in accordance with Part VI.G (Signatory Requirements) of this permit by all of the entities identified in paragraph 2 below and shall include the following information:

- 1. The mailing address, and location of the construction site for which the notification is submitted. Where a mailing address for the site is not available, the location can be described in terms of the latitude and longitude of the approximate center of the facility to the nearest 15 seconds, or the nearest quarter section (if the section, township and range is provided) that the construction site is located in;
- 2. The owner's name, address, telephone number, and status as Federal, State, private, public or other entity;
- 3. The name, address and telephone number of the general contractor(s) that have been identified at the time of the NOI submittal;
- 4. The name of the receiving water(s), or if the discharge is through a municipal separate storm sewer, the name of the municipal operator of the storm sewer and the ultimate receiving water(s);
- 5. The number of any NPDES permits for any discharge (including non-storm water discharges) from the site that is currently authorized by an NPDES permit;
- 6. A description of the project, detailing the complete scope of the project, estimated timetable for major activities and an estimate of the number of acres of the site on which soil will be disturbed;
- 7. For projects that have complied with State law on historic preservation and endangered species prior to submittal of the NOI, through coordination with the Illinois Historic Preservation Agency and the Illinois Department of Natural Resources or through fulfillment of the terms of interagency agreements with those agencies, the NOI shall indicate that such compliance has occurred.
- 8. An electronic copy of the storm water pollution prevention plan that has been prepared for the site in accordance with Part IV of this permit. The electronic copy shall be submitted to the Agency at the following email address: epa.constilr10swppp@illinois.gov

9. Revised notice of intents shall be submitted for any substantial modifications to the project such as: address changes, new contractors, area coverage, additional discharges to waters of the state, or other substantial modifications.

D. Where to Submit.

Construction activities which discharge storm water that requires a NPDES permit must use an NOI form provided by the Agency. The applicable fee shall also be submitted. NOIs must be signed in accordance with Part VI.G (Signatory Requirements) of this permit. The NOI form may be submitted to the Agency in any of the following methods:

1. File electronically with digital signature at the following website address:
<http://dataservices.epa.illinois.gov/SWConstructionPermit/bowLogin.aspx>

Registration specific to the permittee is required in order to file electronically.
2. Submit complete NOI and SWPPP electronically to the following email address: epa_constlr10swppp@illinois.gov. Submit the NOI with original signature and fee by certified mail to the Agency at the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control, Mail Code #15
Attention: Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

- E. Additional Notification.** Construction activities that are operating under approved local sediment and erosion plans, land disturbance permits, grading plans, or storm water management plans, in addition to filing copies of the Notice of Intent in accordance with Part D above, shall also submit signed copies of the Notice of Intent to the local agency approving such plans in accordance with the deadlines in Part A above. See Part IV.D.2.d (Approved State or Local Plans). A copy of the NOI shall be sent to the entity holding an active General NPDES Permit No. ILR40 if the permittee is located in an area covered by an active ILR40 permit.
- F. Notice of Termination.** Where a site has completed final stabilization and all storm water discharges from construction activities that are authorized by this permit are eliminated, the permittee must submit a completed Notice of Termination that is signed in accordance with Part VI.G (Signatory Requirements) of this permit.

1. The Notice of Termination shall include the following information:
 - a. The mailing address, and location of the construction site for which the notification is submitted. Where a mailing address for the site is not available, the location can be described in terms of the latitude and longitude of the approximate center of the facility to the nearest 15 seconds, or the nearest quarter section (if the section, township and range is provided) that the construction site is located in;
 - b. The owner's name, address, telephone number, and status as Federal, State, private, public or other entity;
 - c. The name, address and telephone number of the general contractor(s);
 - d. The date when construction was completed and the site was stabilized; and
 - e. The following certification signed in accordance with Part VI.G (Signatory Requirements) of this permit:

"I certify under penalty of law that all storm water discharges associated with construction site activity from the identified facility that are authorized by NPDES general permit ILR10 have otherwise been eliminated. I understand that by submitting this notice of termination, that I am no longer authorized to discharge storm water associated with construction site activity by the general permit, and that discharging pollutants in storm water associated with construction site activity to Waters of the State is unlawful under the Environmental Protection Act and Clean Water Act where the discharge is not authorized by a NPDES permit. I also understand that the submittal of this notice of termination does not release an operator from liability for any violations of this permit or the Clean Water Act."

For the purposes of this certification, elimination of storm water discharges associated with industrial activity means that all disturbed soils at the identified facility have been finally stabilized and temporary erosion and sediment control measures have been removed or will be removed at an appropriate time, or that all storm water discharges associated with construction activities from the identified site that are authorized by a NPDES general permit have otherwise been eliminated.

2. All Notices of Termination are to be sent to the Agency to the mailing address in Part II.D.1, using the form provided by the Agency, or electronically if the permittee submitted a Notice of Intent by electronic means.

Part III. SPECIAL CONDITIONS, MANAGEMENT PRACTICES, AND OTHER NON-NUMERIC LIMITATIONS

A. Prohibition on Non-Storm Water Discharges.

1. Except as provided in Part I paragraph B.2 and paragraphs 2, 3 or 4 below, all discharges covered by this permit shall be comprised entirely of storm water.
2. a. Except as provided in paragraph b below, discharges of materials other than storm water must be in compliance with a NPDES permit (other than this permit) issued for the discharge.

- b. The following non-storm water discharges may be authorized by this permit provided the non-storm water component of the discharges is in compliance with Part IV.D.5 (Non-Storm Water Discharges): discharges from fire fighting activities; fire hydrant flushings; waters used to wash vehicles where detergents are not used; waters used to control dust; potable water sources including uncontaminated waterline flushings; landscape irrigation drainages; routine external building washdown which does not use detergents; pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used; uncontaminated air conditioning condensate; springs; uncontaminated ground water; and foundation or footing drains where flows are not contaminated with process materials such as solvents.
3. The following non-storm water discharges are prohibited by this permit: concrete and wastewater from washout of concrete (unless managed by an appropriate control), drywall compound, wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials, fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance, soaps, solvents, or detergents, toxic or hazardous substances from a spill or other release, or any other pollutant that could cause or tend to cause water pollution.
4. Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, are allowable if managed by appropriate controls.

B. Discharges into Receiving Waters With an Approved Total Maximum Daily Load (TMDL):

Discharges to waters for which there is a TMDL allocation for sediment or a parameter that addresses sediment (such as total suspended solids, turbidity, or siltation) are not eligible for coverage under this permit unless the owner/operator develops and certifies a SWPPP that is consistent with wasteload allocations in the approved TMDL. To be eligible for coverage under this general permit, operators must incorporate into their SWPPP any conditions and/or Best Management Practices applicable to their discharges necessary for consistency with the TMDL within any timeframes established in the TMDL. If a specific numeric waste load allocation has been established that would apply to the project's discharges, the operator must incorporate that allocation into its SWPPP and implement necessary steps to meet that allocation.

Please refer to the Agency website at: <http://www.epa.state.il.us/water/tmdl/report-status.html>

- C. Discharges covered by this permit, alone or in combination with other sources, shall not cause or contribute to a violation of any applicable water quality standard.

Part IV. STORM WATER POLLUTION PREVENTION PLANS

A storm water pollution prevention plan shall be developed for each construction site covered by this permit. Storm water pollution prevention plans shall be prepared in accordance with good engineering practices. The plan shall identify potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges associated with construction site activity from the facility. In addition, the plan shall describe and ensure the implementation of best management practices which will be used to reduce the pollutants in storm water discharges associated with construction site activity and to assure compliance with the terms and conditions of this permit. The permittee must implement the provisions of the storm water pollution prevention plan required under this part as a condition of this permit.

A. Deadlines for Plan Preparation and Compliance.

The plan shall:

1. Be completed prior to the start of the construction activities to be covered under this permit and submitted electronically to the Agency at the time the Notice of Intent is submitted; and
2. Provide for compliance with the terms and schedules of the plan beginning with the initiation of construction activities.

B. Signature, Plan Review and Notification.

1. The plan shall be signed in accordance with Part VI.G (Signatory Requirements), and be retained at the construction site which generates the storm water discharge in accordance with Part VI.E (Duty to Provide Information) of this permit.
2. Prior to commencement of construction, the permittee shall provide the plan to the Agency.
3. The permittee shall make plans available upon request from this Agency or a local agency approving sediment and erosion plans, grading plans, or storm water management plans; or in the case of a storm water discharge associated with industrial activity which discharges through a municipal separate storm sewer system. A list of permitted municipal separate storm sewer systems is available at: <http://www.epa.state.il.us/water/permits/storm-water/ms4-status-report.pdf>
4. The Agency may notify the permittee at any time that the plan does not meet one or more of the minimum requirements of this Part. Such notification shall identify those provisions of the permit which are not being met by the plan, and identify which provisions of the plan require modifications in order to meet the minimum requirements of this part. Within 7 days from receipt of notification from the Agency, the permittee shall make the required changes to the plan and shall submit to the Agency a written certification that the requested changes have been made. Failure to comply shall terminate authorization under this permit.
5. A copy of the letter of notification of coverage along with the General NPDES Permit for Storm Water Discharges from Construction Site Activities or other indication that storm water discharges from the site are covered under an NPDES permit shall be posted at the site in a prominent place for public viewing (such as alongside a building permit).
6. All storm water pollution prevention plans and all completed inspection forms/reports required under this permit are considered reports that shall be available to the public at any reasonable time upon request. However, the permittee may claim any portion of a storm water pollution prevention plan as confidential in accordance with 40 CFR Part 2.

- C. **Keeping Plans Current.** The permittee shall amend the plan whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to Waters of the State and which has not otherwise been addressed in the plan or if the

storm water pollution prevention plan proves to be ineffective in eliminating or significantly minimizing pollutants from sources identified under paragraph D.2 below, or in otherwise achieving the general objectives of controlling pollutants in storm water discharges associated with construction site activity. In addition, the plan shall be amended to identify any new contractor and/or subcontractor that will implement a measure of the storm water pollution prevention plan. Amendments to the plan may be reviewed by the Agency in the same manner as Part IV.B above. Any revisions of the documents for the storm water pollution prevention plan shall be kept on site at all times.

D. **Contents of Plan.** The storm water pollution prevention plan shall include the following items:

1. **Site Description.** Each plan shall provide a description of the following:
 - a. A description of the nature of the construction activity or demolition work;
 - b. A description of the intended sequence of major activities which disturb soils for major portions of the site (e.g. clearing, grubbing, excavation, grading, on-site or off-site stockpiling of soils, on-site or off-site storage of materials);
 - c. An estimate of the total area of the site and the total area of the site that is expected to be disturbed by clearing, grubbing, excavation, grading, on-site or off-site stockpiling of soils and storage of materials, or other activities;
 - d. An estimate of the runoff coefficient of the site after construction activities are completed and existing data describing the soil or the quality of any discharge from the site;
 - e. A site map indicating drainage patterns and approximate slopes anticipated before and after major grading activities, locations where vehicles enter or exit the site and controls to prevent offsite sediment tracking, areas of soil disturbance, the location of major structural and nonstructural controls identified in the plan, the location of areas where stabilization practices are expected to occur, locations of on-site or off-site soil stockpiling or material storage, surface waters (including wetlands), and locations where storm water is discharged to a surface water; and
 - f. The name of the receiving water(s) and the ultimate receiving water(s), and areal extent of wetland acreage at the site.
2. **Controls.** Each plan shall include a description of appropriate controls that will be implemented at the construction site and any off-site stockpile or storage area. The Illinois Urban Manual www.aishwcd.org/IUM or other similar documents shall be used for developing the appropriate management practices, controls or revisions of the plan. The plan will clearly describe for each major activity identified in paragraph D.1 above, appropriate controls and the timing during the construction process that the controls will be implemented. For example, perimeter controls for one portion of the site will be installed after the clearing and grubbing necessary for installation of the measure, but before the clearing and grubbing for the remaining portions of the site. Perimeter controls will be actively maintained and/or repaired until final stabilization of those portions of the site upward of the perimeter control. Temporary perimeter controls will be removed after final stabilization. The description of controls shall address as appropriate the following minimum components:
 - a. **Erosion and Sediment Controls.** The permittee shall design, install and maintain effective erosion controls and sediment controls to minimize the discharge of pollutants. At a minimum, such controls must be designed, installed and maintained to:
 - (i) Control storm water volume and velocity within the site to minimize soil erosion;
 - (ii) Control storm water discharges, including both peak flowrates and total storm water volume, to minimize erosion at outlets and to minimize downstream channel and streambank erosion;
 - (iii) Minimize the amount of soil exposed during construction activity;
 - (iv) Minimize the disturbance of steep slopes;
 - (v) Minimize sediment discharges from the site. The design, installation and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation, the nature of resulting storm water runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site;
 - (vi) Provide and maintain natural buffers around surface waters, direct storm water to vegetated areas to increase sediment removal and maximize storm water infiltration, unless infeasible; and
 - (vii) Minimize soil compaction and, unless infeasible, preserve topsoil.
 - b. **Stabilization Practices.** The storm water pollution prevention plan shall include a description of interim and permanent stabilization practices, including site-specific scheduling of the implementation of the practices. Site plans should ensure that existing vegetation is preserved where practicable and that disturbed portions of the site are stabilized. Stabilization practices may include: temporarily seeding, permanent seeding, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, preservation of mature vegetation, staged or staggered development, and other appropriate measures. A record of the dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated, shall be included in the plan. Stabilization of disturbed areas must, at a minimum, be initiated immediately whenever any clearing, grading, excavating or other earth disturbing activities have permanently ceased on any portion of the site, or temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days. Stabilization of disturbed areas must be initiated within 1 working day of permanent or temporary cessation of earth disturbing activities and shall be completed as soon as possible but not later than 14 days from the initiation of stabilization work in an area. Exceptions to these time frames are specified as provided in paragraphs (i) and (ii) below:
 - (i) Where the initiation of stabilization measures is precluded by snow cover, stabilization measures shall be initiated as soon as practicable.
 - (ii) On areas where construction activity has temporarily ceased and will resume after 14 days, a temporary stabilization method can be used. Temporary stabilization techniques and materials shall be described in the SWPPP.
 - c. **Structural Practices.** A description of structural practices utilized 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 silt fences, earth dikes, drainage swales, sediment traps, check dams, 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. Structural practices should be placed on upland soils to the degree practicable. The installation of these devices may be subject to Section 404 of the CWA.

- (i) The following design requirements apply to sediment basins if such structural practices will be installed to reduce sediment concentrations in storm water discharges:
- a. When discharging from the sediment basin, utilize outlet structures that withdraw water from the surface in order to minimize the discharge.
 - b. Prevent erosion of the sediment basin using stabilization controls (e.g., erosion control blankets), at the inlet and outlet using erosion controls and velocity dissipation devices:
 - c. Sediment basins shall be designed to facilitate maintenance, including sediment removal from the basins, as necessary.
- d. **Use of Treatment Chemicals.** Identify the use of all polymer flocculants or treatment chemicals at the site. Dosage of treatment chemicals shall be identified along with any information from any Material Safety Data Sheet. Describe the location of all storage area for chemicals. Include any information from the manufacturer's specifications. Treatment chemicals must be stored in areas where they will not be exposed to precipitation. The SWPPP must describe procedures for use of treatment chemicals and staff responsible for use/application of treatment chemicals must be trained on the established procedures.
- e. **Best Management Practices for Impaired Waters.** For any site which discharges directly to an impaired water identified on the Agency's website for 303(d) listing for suspended solids, turbidity, or siltation the storm water pollution prevention plan shall be designed for a storm event equal to or greater than a 25-year 24-hour rainfall event. If required by federal regulations or the Illinois Urban Manual, the storm water pollution prevention plan shall adhere to a more restrictive design criteria. Please refer to the Agency's website at: (<http://www.epa.state.il.us/water/tmdl/303d-list.html>)
- f. **Pollution Prevention.** The permittee shall design, install, implement, and maintain effective pollution prevention measures to minimize the discharge of pollutants. At a minimum, such measures must be designed, installed, implemented and maintained to:
- (i) Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;
 - (ii) Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials present on the site to precipitation and to storm water; and
 - (iii) Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures.
- g. **Other Controls.**
- (i) **Waste Disposal.** No solid materials, including building materials, shall be discharged to Waters of the State, except as authorized by a Section 404 permit.
 - (ii) The plan shall ensure and demonstrate compliance with applicable State and/or local waste disposal, sanitary sewer or septic system regulations.
 - (iii) For construction sites that receive concrete or asphalt from off-site locations, the plan must identify and include appropriate controls and measures to reduce or eliminate discharges from these activities.
 - (iv) The plan shall include spill response procedures and provisions for reporting if there are releases in excess of reportable quantities.
- h. **Best Management Practices for Post-Construction Storm Water Management.** Describe the measures that will be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. Structural measures should be placed on upland soils to the degree attainable. The installation of these devices may be subject to Section 404 of the CWA. This permit only addresses the installation of storm water management measures, and not the ultimate operation and maintenance of such structures after the construction activities have been completed and the site has undergone final stabilization. Permittees are responsible for only the installation and maintenance of storm water management measures prior to final stabilization of the site, and are not responsible for maintenance after storm water discharges associated with industrial activity have been eliminated from the site.
- (i) The storm water pollution prevention plan and design and construction plans shall explicitly consider post-construction storm water management. Such practices may include: 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 onsite; and sequential systems (which combine several practices). The Permittee must plan for and put in place storm water BMPs to retain the greatest amount of post-development storm water runoff practicable given the site and project constraints by installing one or more of the Best Management Practices (BMPs) as described in the Illinois Urban Manual.

The storm water pollution prevention plan shall include an explanation of the technical basis used to select the practices to control pollution where post-construction flows will exceed predevelopment levels.
 - (ii) Velocity dissipation devices shall 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).
 - (iii) Unless otherwise specified in the Illinois Urban Manual (2012), the storm water pollution prevention plan shall be designed for a storm event equal to or greater than a 25-year 24-hour rainfall event.
- i. **Approved State or Local Plans.**
- (i) The management practices, controls and other provisions contained in the storm water pollution prevention plan must be at least as protective as the requirements contained in the Illinois Urban Manual, 2012. Construction activities which discharge storm water must include in their storm water pollution prevention plan procedures and requirements specified in applicable sediment and erosion control plans or storm water management plans approved by local officials. Requirements specified in sediment and erosion control plans or site permits of 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 this permit, incorporated by reference and are enforceable under this permit. The plans shall include all requirements of this permit and include more stringent standards required by any local

approval. This provision does not apply to provisions of master plans, comprehensive plans, non-enforceable guidelines or technical guidance documents that are not identified in a specific plan or permit that is issued for the construction site.

- (ii) Dischargers seeking alternative permit requirements are not authorized by this permit and shall submit an individual permit application in accordance with 40 CFR 122.26 at the address indicated in Part II.D (Where to Submit) of this permit, along with a description of why requirements in approved local plans or permits should not be applicable as a condition of an NPDES permit.

3. Maintenance.

- a. The plan shall include a description of procedures to maintain in good and effective operating conditions, all erosion and sediment control measures and other Best Management Practices, including vegetation and other protective measures identified in the Storm Water Pollution Prevention Plan.
- b. Where a basin has been installed to control sediment during construction activities, the Permittees shall keep the basin(s) in effective operating condition and remove accumulated sediment as necessary.

4. Inspections.

Qualified personnel (provided by the permittee) shall inspect disturbed areas of the construction site that have not been finally stabilized, structural control measures, and locations where vehicles enter or exit the site at least once every seven calendar days and within 24 hours of the end of a storm or by the end of the following business or work day that is 0.5 inches or greater. Qualified personnel means a person knowledgeable in the principles and practices of erosion and sediment controls measures, such as a licensed Professional Engineer (P.E.), a Certified Professional in Erosion and Sediment Control (CPESC), a Certified Erosion Sediment and Storm Water Inspector (CESSWI) or other knowledgeable person who possesses the skills to assess conditions at the construction site that could impact storm water quality and to assess the effectiveness of any sediment and erosion control measures selected to control the quality of storm water discharges from the construction activities.

- a. 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.
- b. Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of offsite sediment tracking.
- c. Based on the results of the inspection, the description of potential pollutant sources identified in the storm water pollution prevention plan in accordance with Part IV.D.1 (Site Description) of this permit and the pollution prevention control measures identified in the plan in accordance with Part IV.D.2 (Controls) of this permit shall be revised as appropriate as soon as practicable after such inspection to minimize the potential for such discharges. Such modifications shall provide for timely implementation of any changes to the plan and pollution prevention control measures within 7 calendar days following the inspection.
- d. A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the storm water pollution prevention plan, and actions taken in accordance with paragraph b above shall be made and retained as part of the storm water pollution prevention plan for at least three years from the date that the permit coverage expires or is terminated. All inspection reports shall be retained at the construction site. The report shall be signed in accordance with Part VI.G (Signatory Requirements) of this permit.
- e. The permittee shall notify the appropriate Agency Field Operations Section office by email at: epa.swnoncomp@illinois.gov, telephone or fax within 24 hours of any incidence of noncompliance for any violation of the storm water pollution prevention plan observed during any inspection conducted, or for violations of any condition of this permit. The permittee shall complete and submit within 5 days an "Incidence of Noncompliance" (ION) report for any violation of the storm water pollution prevention plan observed during any inspection conducted, or for violations of any condition of this permit. Submission shall be on forms provided by the Agency and 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. Corrective actions must be undertaken immediately to address the identified non-compliance issue(s).
- f. All reports of noncompliance shall be signed by a responsible authority as defined in Part VI.G (Signatory Requirements).
- g. After the initial contact has been made with the appropriate Agency Field Operations Section Office, all reports of noncompliance shall be mailed to the Agency at the following address:

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

5. Non-Storm Water Discharges.

Except for flows from fire fighting activities, sources of non-storm water listed in Part III.A.2 of this permit that are combined with storm water discharges associated with industrial activity must be identified in the plan. The plan shall identify and insure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge.

E. Additional requirements for storm water discharges from industrial activities other than construction, including dedicated asphalt plants, and dedicated concrete plants.

This permit may only authorize any storm water discharge associated with industrial activity from a construction site that is mixed with a storm water discharge from an industrial source other than construction, where:

- 1. The industrial source other than construction is located on the same site as the construction activity;

2. Storm water discharges associated with industrial activity from the areas of the site where construction activities are occurring are in compliance with the terms of this permit; and
3. Storm water discharges associated with industrial activity from the areas of the site where industrial activity other than construction are occurring (including storm water discharges from dedicated asphalt plants [other than asphalt emulsion facilities] and dedicated concrete plants) are in compliance with the terms, including applicable NOI or application requirements, of a different NPDES general permit or individual permit authorizing such discharges.

F. Contractors.

1. The storm water pollution prevention plan must clearly identify for each measure identified in the plan, the contractor(s) or subcontractor(s) that will implement the measure. All contractors and subcontractors identified in the plan must sign a copy of the certification statement in paragraph 2 below in accordance with Part VI.G (Signatory Requirements) of this permit. All certifications must be included in the storm water pollution prevention plan except for owners that are acting as contractors.
2. **Certification Statement.** All contractors and subcontractors identified in a storm water pollution prevention plan in accordance with paragraph 1 above shall sign a copy of the following certification statement before conducting any professional service at the site identified in the storm water pollution prevention plan:

"I certify under penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit (ILR10) that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification."

The certification must include the name and title of the person providing the signature in accordance with Part VI.G of this permit: the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification is made.

Part V. RETENTION OF RECORDS

- A. The permittee shall retain copies of storm water pollution prevention plans and all reports and notices required by this permit, records of all data used to complete the Notice of Intent to be covered by this permit and the Agency Notice of Permit Coverage letter for a period of at least three years from the date that the permit coverage expires or is terminated. This period may be extended by request of the Agency at any time.
- B. The permittee shall retain a copy of the storm water pollution prevention plan and any revisions to said plan required by this permit at the construction site from the date of project initiation to the date of final stabilization.

Part VI. STANDARD PERMIT CONDITIONS

- A. **Duty to Comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Illinois Environmental Protection Act and the CWA and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. Failure to obtain coverage under this permit or an individual permit for storm water releases associated with construction activities is a violation of the Illinois Environmental Protection Act and the CWA.
- B. **Continuation of the Expired General Permit.** This permit expires five years from the date of issuance. An expired general permit continues in force and effect until a new general permit or an individual permit is issued. Only those construction activities authorized to discharge under the expiring general permit are covered by the continued permit.
- C. **Need to halt or reduce activity not a defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- D. **Duty to Mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
- E. **Duty to Provide Information.** The permittee shall furnish within a reasonable time to the Agency or local agency approving sediment and erosion control plans, grading plans, or storm water management plans; or in the case of a storm water discharge associated with industrial activity which discharges through a municipal separate storm sewer system with an NPDES permit, to the municipal operator of the system, any information which is requested to determine compliance with this permit. Upon request, the permittee shall also furnish to the Agency or local agency approving sediment and erosion control plans, grading plans, or storm water management plans; or in the case of a storm water discharge associated with industrial activity which discharges through a municipal separate storm sewer system with an NPDES permit, to the municipal operator of the system, copies of all records required to be kept by this permit.
- F. **Other Information.** When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in the Notice of Intent or in any other report to the Agency, he or she shall promptly submit such facts or information.
- G. **Signatory Requirements.** All Notices of Intent, storm water pollution prevention plans, reports, certifications or information either submitted to the Agency or the operator of a large or medium municipal separate storm sewer system, or that this permit requires be maintained by the permittee, shall be signed.
 1. All Notices of Intent shall be signed as follows:
 - a. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (1) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or (2) any person authorized to sign documents that has been assigned or delegated said authority in accordance with corporate procedures;
 - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
 - c. For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes (1) the chief executive officer of the agency, or (2) a senior executive officer

having responsibility for the overall operations of a principal geographic unit of the agency.

2. All reports required by the permit and other information requested by the Agency shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described above and submitted to the Agency.
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of manager, operator, superintendent, or position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position).
 - c. **Changes to Authorization.** If an authorization under Part I.C (Authorization) is no longer accurate because a different individual or position has responsibility for the overall operation of the construction site, a new authorization satisfying the requirements of Part I.C must be submitted to the Agency prior to or together with any reports, information, or applications to be signed by an authorized representative.
 - d. **Certification.** Any person signing documents under this Part shall make the following certification:

"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."

- H. **Penalties for Falsification of Reports.** Section 309(c)(4) of the Clean Water Act provides that any person who knowingly makes any false material statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or by both. Section 44(j)(4) and (5) of the Environmental Protection Act provides that any person who knowingly makes any false statement, representation, or certification in an application form, or form pertaining to a NPDES permit commits a Class A misdemeanor, and in addition to any other penalties provided by law is subject to a fine not to exceed \$10,000 for each day of violation.
- I. **Penalties for Falsification of Monitoring Systems.** The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by fines and imprisonment described in Section 309 of the CWA. The Environmental Protection Act provides that any person who knowingly renders inaccurate any monitoring device or record required in connection with any NPDES permit or with any discharge which is subject to the provisions of subsection (f) of Section 12 of the Act commits a Class A misdemeanor, and in addition to any other penalties provided by law is subject to a fine not to exceed \$10,000 for each day of violation.
- J. **Oil and Hazardous Substance Liability.** Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under section 311 of the CWA.
- K. **Property Rights.** The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.
- L. **Severability.** The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.
- M. **Transfers.** This permit is not transferable to any person except after notice to the Agency. The Agency may require the discharger to apply for and obtain an individual NPDES permit as stated in Part I.C (Authorization).
- N. **Requiring an Individual Permit or an Alternative General Permit.**
 1. The Agency may require any person authorized by this permit to apply for and/or obtain either an individual NPDES permit or an alternative NPDES general permit. Any interested person may petition the Agency to take action under this paragraph. Where the Agency requires a discharger authorized to discharge under this permit to apply for an individual NPDES permit, the Agency shall notify the discharger in writing that a permit application is required. This notification shall include a brief statement of the reasons for this decision, an application form, a statement setting a deadline for the discharger to file the application, and a statement that on the effective date of the individual NPDES permit or the alternative general permit as it applies to the individual permittee, coverage under this general permit shall automatically terminate. Applications shall be submitted to the Agency indicated in Part II.D (Where to Submit) of this permit. The Agency may grant additional time to submit the application upon request of the applicant. If a discharger fails to submit in a timely manner an individual NPDES permit application as required by the Agency under this paragraph, then the applicability of this permit to the individual NPDES permittee is automatically terminated at the end of the day specified by the Agency for application submittal. The Agency may require an individual NPDES permit based on:
 - a. information received which indicates the receiving water may be of particular biological significance pursuant to 35 Ill. Adm. Code 302.105(d)(6);
 - b. whether the receiving waters are impaired waters for suspended solids, turbidity or siltation as identified by the Agency's 303(d) listing;
 - c. size of construction site, proximity of site to the receiving stream, etc.

The Agency may also require monitoring of any storm water discharge from any site to determine whether an individual permit is required.
 2. Any discharger authorized by this permit may request to be excluded from the coverage of this permit by applying for an individual permit. In such cases, the permittee shall submit an individual application in accordance with the requirements of 40 CFR 122.26(c)(1)(ii), with reasons supporting the request, to the Agency at the address indicated in Part II.D (Where to Submit) of this permit. The request may be granted by issuance of any individual permit or an alternative general permit if the reasons cited by the permittee are adequate to support the request.
 3. When an individual NPDES permit is issued to a discharger otherwise subject to this permit, or the discharger is authorized to discharge under an

alternative NPDES general permit, the applicability of this permit to the individual NPDES permittee is automatically terminated on the effective date of the individual permit or the date of authorization of coverage under the alternative general permit, whichever the case may be. When an individual NPDES permit is denied to a discharger otherwise subject to this permit or the discharger is denied for coverage under an alternative NPDES general permit, the applicability of this permit to the individual NPDES permittee remains in effect, unless otherwise specified by the Agency.

- O. **State/Environmental Laws.** No condition of this permit shall release the permittee from any responsibility or requirements under other environmental statutes or regulations.
- P. **Proper Operation and Maintenance.** The permittee shall at all times properly operate and maintain all construction activities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit and with the requirements of storm water pollution prevention plans. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by a permittee only when necessary to achieve compliance with the conditions of the permit.
- Q. **Inspection and Entry.** The permittee shall allow the EPA, or an authorized representative upon presentation of credentials and other documents as may be required by law, to:
1. Enter upon the permittee's premises where a regulated construction activity is located or conducted, or where records must be kept under the conditions of this permit;
 2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit;
 3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
 4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.
- R. **Permit Actions.** This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- S. **Bypasses and Upsets.** The provisions of 40 CFR Section 122.41(m) & (n) are applicable and are hereby incorporated by reference.

Part VII. REOPENER CLAUSE

- A. If there is evidence indicating potential or realized impacts on water quality due to any storm water discharge associated with industrial activity covered by this permit, the discharger may be required to obtain an individual permit or an alternative general permit in accordance with Part I.C (Authorization) of this permit or the permit may be modified to include different limitations and/or requirements.
- B. Permit modification or revocation will be conducted according to provisions of 35 Ill. Adm. Code, Subtitle C, Chapter I and the provisions of 40 CFR 122.62, 122.63, 122.64 and 124.5 and any other applicable public participation procedures.
- C. The Agency will reopen and modify this permit under the following circumstances:
1. the U.S. EPA amends its regulations concerning public participation;
 2. a court of competent jurisdiction binding in the State of Illinois or the 7th Circuit Court of Appeals issues an order necessitating a modification of public participation for general permits; or
 3. to incorporate federally required modifications to the substantive requirements of this permit.

Part VIII. DEFINITIONS

"Agency" means the Illinois Environmental Protection Agency.

"Best Management Practices" ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control construction site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

"Commencement of Construction or Demolition Activities" The initial disturbance of soils associated with clearing, grading, or excavating activities or other construction or demolition activities.

"Construction Activities" Earth disturbing activities, such as clearing, grading and excavation of land. For purposes of this permit, construction activities also means construction site, construction site activities, or site. Construction activities also include any demolition activities at a site.

"CWA" means Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub. L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. (96-483 and Pub. L. 97-117, 33 U.S.C. 1251 et seq.).

"Dedicated portable asphalt plant" A portable asphalt plant that is located on or contiguous to a construction site and that provides asphalt only to the construction site that the plant is located on or adjacent to. The term dedicated portable asphalt plant does not include facilities that are subject to the asphalt emulsion effluent limitation guideline at 40 CFR 443.

"Dedicated portable concrete plant" A portable concrete plant that is located on or contiguous to a construction site and that provides concrete only to the construction site that the plant is located on or adjacent to.

"Dedicated sand or gravel operation" An operation that produces sand and/or gravel for a single construction project.

"Director" means the Director of the Illinois Environmental Protection Agency or an authorized representative.

"Final Stabilization" means that all soil disturbing activities at the site have been completed, and either of the two following conditions are met:

- (i) A uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover with a density of 70 percent of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, or
- (ii) Equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.

For individual lots in residential construction, final stabilization means that either:

- (i) The homebuilder has completed final stabilization as specified above, or
- (ii) The homebuilder has established temporary stabilization including perimeter controls for an individual lot prior to occupation of the home by the homeowner and informing the homeowner of the need for, and benefits of, final stabilization.

"Large and Medium municipal separate storm sewer system" means all municipal separate storm sewers that are either:

- (i) Located in an incorporated place (city) with a population of 100,000 or more as determined by the latest Decennial Census by the Bureau of Census (these cities are listed in Appendices F and G of 40 CFR Part 122); or
- (ii) Located in the counties with unincorporated urbanized populations of 100,000 or more, except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties (these counties are listed in Appendices H and I of 40 CFR Part 122); or
- (iii) Owned or operated by a municipality other than those described in paragraph (i) or (ii) and that are designated by the Director as part of the large or medium municipal separate storm sewer system.

"NOI" means notice of intent to be covered by this permit (see Part II of this permit.)

"Point Source" means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

"Runoff coefficient" means the fraction of total rainfall that will appear at the conveyance as runoff.

"Storm Water" means storm water runoff, snow melt runoff, and surface runoff and drainage.

"Storm Water Associated with Industrial Activity" means the discharge from any conveyance which is used for collecting and conveying storm water and which is directly related to manufacturing, processing or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the NPDES program. For the categories of industries identified in subparagraphs (i) through (x) of this subsection, the term includes, but is not limited to, storm water discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined at 40 CFR 401); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and finished products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water. For the categories of industries identified in subparagraph (xi), the term includes only storm water discharges from all areas listed in the previous sentence (except access roads) where material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products, or industrial machinery are exposed to storm water. For the purposes of this paragraph, material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished product, by-product or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with storm water drained from the above described areas. Industrial facilities (including industrial facilities that are Federally or municipally owned or operated that meet the description of the facilities listed in this paragraph (i)-(xi)) include those facilities designated under 40 CFR 122.26(a)(1)(v). The following categories of facilities are considered to be engaging in "industrial activity" for purposes of this subsection:

- (i) Facilities subject to storm water effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards under 40 CFR Subchapter N (except facilities with toxic pollutant effluent standards which are exempted under category (xi) of this paragraph);
- (ii) Facilities classified as Standard Industrial Classifications 24 (except 2434), 26 (except 265 and 267), 28, 29, 311, 32, 33, 3441, 373;
- (iii) Facilities classified as Standard Industrial Classifications 10 through 14 (mineral industry) including active or inactive mining operations (except for areas of coal mining operations meeting the definition of a reclamation area under 40 CFR 434.11(l)) and oil and gas exploration, production, processing, or treatment operations, or transmission facilities that discharge storm water contaminated by contact with or that has come into contact with, any overburden, raw material, intermediate products, finished products, byproducts or waste products located on the site of such operations; inactive mining operations are mining sites that are not being actively mined, but which have an identifiable owner/operator;
- (iv) Hazardous waste treatment, storage, or disposal facilities, including those that are operating under interim status or a permit under Subtitle C of RCRA;
- (v) Landfills, land application sites, and open dumps that have received any industrial wastes (waste that is received from any of the facilities described under this subsection) including those that are subject to regulation under Subtitle D of RCRA;
- (vi) Facilities involved in the recycling of materials, including metal scrapyards, battery reclaimers, salvage yards, and automobile junkyards, including but

limited to those classified as Standard Industrial Classification 5015 and 5093;

- (vii) Steam electric power generating facilities, including coal handling sites;
- (viii) Transportation facilities classified as Standard Industrial Classifications 40, 41, 42, 44, and 45 which have vehicle maintenance shops, equipment cleaning operations, or airport deicing operations. Only those portions of the facility that are either involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, airport deicing operations, or which are otherwise identified under subparagraphs (i)-(vii) or (ix)-(xi) of this subsection are associated with industrial activity;
- (ix) Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are located within the confines of the facility, with a design flow of 1.0 mgd or more, or required to have an approved pretreatment program under 40 CFR 403. Not included are farm lands, domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located in the confines of the facility, or areas that are in compliance with 40 CFR 503;
- (x) Construction activity including clearing, grading and excavation activities except: operations that result in the disturbance of less than one acre of total land area which are not part of a larger common plan of development or sale unless otherwise designated by the Agency pursuant to Part I.B.1.
- (xi) Facilities under Standard Industrial Classifications 20, 21, 22, 23, 2434, 25, 265, 267, 27, 283, 31 (except 311), 34 (except 3441), 35, 36, 37 (except 373), 38, 39, 4221-25, (and which are not otherwise included within categories (i)-(x)).

"Waters" mean all accumulations of water, surface and underground, natural, and artificial, public and private, or parts thereof, which are wholly or partially within, flow through, or border upon the State of Illinois, except that sewers and treatment works are not included except as specially mentioned; provided, that nothing herein contained shall authorize the use of natural or otherwise protected waters as sewers or treatment works except that in-stream aeration under Agency permit is allowable.

"Work day" for the purpose of this permit, a work day is any calendar day on which construction activities will take place.

ILR10TMLPMTFINAL_7/29//2013

The following modifications have been made to the final permit from the previously issued General NPDES Permit ILR10:

1. I.B.1: A requirement that existing permittees may have to update/revise their Storm Water Pollution Prevention Plan (SWPPP). See also Section II.A.2 below
2. II.A.2: Provides that permittees must upgrade/revise their SWPPP within 12 months of the effective date of this permit. Projects which will be terminated within the next 12 months are not required to update/revise their SWPPP.
3. II.C.7: The requirement for consultation with the Illinois Historic Preservation Agency and the Illinois Department of Natural Resources was moved from Section I.C.3 to Section II.C.7.
4. II.C.9: Revised Notices of Intent for substantial modifications.
5. II.D: Where to submit Notices of Intent.
6. II.E: NOI shall be copied to local active MS4 permit holders.
7. II.F.1.d: Date of completion and stabilization now included in Notice of Termination (NOT).
8. II.F.2: Provides for electronic submission of NOT.
9. III.A.3: Prohibition of various non-storm water discharges in accordance with 40 CFR 450.
10. III.A.4: Allowance for groundwater dewatering in accordance with 40 CFR 450.
11. IV.B.5: Copy of Approval Letter must be posted at site.
12. IV.D.1.e: Inclusion of information concerning off-site stockpiling of soils or other materials in the site description.
13. IV.D.2.a: Delineation of erosion and sediment controls now specified in accordance with 40 CFR 450.
14. IV.D.2.b: Requirements for initiation of stabilization activities in accordance with 40 CFR 450.
15. IV.D.2.c: Design requirements for sediment basins added to permit.
16. IV.D.2.f: Pollution prevention measures now included in permit in accordance with 40 CFR 450.
17. IV.D.2.g: Provisions for control of other wastes now included in permit.
18. IV.D.2.h: Requirement to explicitly consider post-construction storm water management in the SWPPP.
19. IV.D.3.b. Requirement to keep sediment basins in operating condition.

20. IV.D.4.a: Clarified inspection requirements after construction has temporarily ceased or under frozen conditions.
21. IV.D.4.e: Specified that corrective actions must be undertaken immediately following an incident of non-compliance in accordance with 40 CFR 450.
22. VI.S: Bypass and Upsets provisions were added to the Standard Permit Conditions.
23. VIII: Definition of construction activities was added to permit.
24. VIII: Definition of work day was added to the permit.
25. General: References to the Illinois Environmental Protection Agency's Urban Manual were changed to Illinois Urban Manual (2012).
26. General: The word "facilities" in previous permit was changed to "construction activities" in the draft permit.
27. General: Various edits.

APPENDIX C

NOI AND LETTER OF NOTIFICATION
OF COVERAGE



Bureau of Water • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Division of Water Pollution Control Notice of Intent (NOI) for General Permit to Discharge Storm Water Associated with Construction Site Activities

This fillable form may be completed online, a copy saved locally, printed and signed before it is submitted to the Permit Section at the above address.

For Office Use Only

OWNER INFORMATION

Permit No. ILR10 _____

Company/Owner Name: City of Rockford

Mailing Address: 425 E. State Street

Phone: 815-987-5570

City: Rockford

State: IL

Zip: 61104

Fax: _____

Contact Person: Matthew Vitner

E-mail: Matthew.Vitner@rockfordil.gov

Owner Type (select one) City

CONTRACTOR INFORMATION

MS4 Community: Yes No

Contractor Name: _____

Mailing Address: _____

Phone: _____

City: _____

State: _____

Zip: _____

Fax: _____

CONSTRUCTION SITE INFORMATION

Select One: New Change of information for: ILR10 _____

Project Name: Harrison Avenue Roadway Improvements 2015

County: Winnebago

Street Address: Harrison Ave (IL 251 & FAP 0525) City: Rockford

IL Zip: 61104

Latitude: 42 14 17
(Deg) (Min) (Sec)

Longitude: 89 3 54
(Deg) (Min) (Sec)

1/36 43N/44N 1E/1E
Section Township Range

Approximate Construction Start Date Apr 1, 2015

Approximate Construction End Date Oct 31, 2016

Total size of construction site in acres: _____

If less than 1 acre, is the site part of a larger common plan of development?

Yes No

Fee Schedule for Construction Sites:
Less than 5 acres - \$250
5 or more acres - \$750

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

Has the SWPPP been submitted to the Agency?

Yes No

(Submit SWPPP electronically to: epa.constilr10swppp@illinois.gov)

Location of SWPPP for viewing: Address: 200 Prairie Street, Suite 208

City: Rockford

SWPPP contact information:

Inspector qualifications:

Contact Name: Ben Bushman, P.E.

Other _____

Phone: 815-394-4700

Fax: 815-394-4702

E-mail: bbushman@fehr-graham.com

Project inspector, if different from above

Inspector qualifications:

Inspector's Name: _____

Phone: _____

Fax: _____

E-mail: _____

TYPE OF CONSTRUCTION (select one)

Construction Type Transportation

SIC Code: _____

Type a detailed description of the project:

The subject section of the Harrison Avenue Reconstruction project is to be converted from a four-lane section to a five-lane section to remove turning vehicles from the through-lanes and provide significant improvement in traffic flow. The project includes the removal of existing roadway items, new pavement and pavement marking, sidewalk, water and drainage improvements, new landscaping, traffic signalization, lighting, and all erosion control techniques and items associated with the aforementioned improvements.

HISTORIC PRESERVATION AND ENDANGERED SPECIES COMPLIANCE

Has the project been submitted to the following state agencies to satisfy applicable requirements for compliance with Illinois law on:

- Historic Preservation Agency Yes No
- Endangered Species Yes No

RECEIVING WATER INFORMATION

Does your storm water discharge directly to: Waters of the State or Storm Sewer

Owner of storm sewer system: _____

Name of closest receiving water body to which you discharge: SE Drainage Way

Mail completed form to: Illinois Environmental Protection Agency
Division of Water Pollution Control
Attn: Permit Section
Post Office Box 19276
Springfield, Illinois 62794-9276
or call (217) 782-0610
FAX: (217) 782-9891

Or submit electronically to: epa.constilr10swppp@illinois.gov

I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this 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. In addition, I certify that the provisions of the permit, including the development and implementation of a storm water pollution prevention plan and a monitoring program plan, will be complied with.

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))

Owner Signature:

Date:

Printed Name:

Title:

INSTRUCTIONS FOR COMPLETION OF CONSTRUCTION ACTIVITY NOTICE OF INTENT (NOI) FORM

Submit original, electronic or facsimile copies. Facsimile and/or electronic copies should be followed-up with submission of an original signature copy as soon as possible. Please write "copy" under the "For Office Use Only" box in the upper right hand corner of the first page.

This fillable form may be completed online, a copy saved locally, printed and signed before it is submitted to the Permit Section at:

Illinois Environmental Protection Agency
 Division of Water Pollution Control
 Permit Section
 Post Office Box 19276
 Springfield, Illinois 62794-9276
 or call (217) 782-0610
 FAX: (217) 782-9891

Or submit electronically to: epa.constilr10swppp@illinois.gov

Reports must be typed or printed legibly and signed.

Any facility that is not presently covered by the General NPDES Permit for Storm Water Discharges From Construction Site Activities is considered a new facility.

If this is a change in your facility information, renewal, etc., please fill in your permit number on the appropriate line, changes of information or permit renewal notifications do not require a fee.

NOTE: FACILITY LOCATION IS NOT NECESSARILY THE FACILITY MAILING ADDRESS, BUT SHOULD DESCRIBE WHERE THE FACILITY IS LOCATED.

Use the formats given in the following examples for correct form completion.

	Example	Format
Section	12	1 or 2 numerical digits
Township	12N	1 or 2 numerical digits followed by "N" or "S"
Range	12W	1 or 2 numerical digits followed by "E" or "W"

For the Name of Closest Receiving Waters, do not use terms such as ditch or channel. For unnamed tributaries, use terms which include at least a named main tributary such as "Unnamed Tributary to Sugar Creek to Sangamon River."

Submission of initial fee and an electronic submission of Storm Water Pollution Prevention Plan (SWPPP) for Initial Permit prior to the Notice of Intent being considered complete for coverage by the ILR10 General Permits. Please make checks payable to: Illinois EPA at the above address.

Construction sites with less than 5 acres of land disturbance - fee is \$250.

Construction sites with 5 or more acres of land disturbance - fee is \$750.

SWPPP should be submitted electronically to: epa.constilr10swppp@illinois.gov When submitting electronically, use Project Name and City as indicated on NOI form.

NOI Placeholder

APPENDIX D

ENDANGERED SPECIES AND
HISTORIC PRESERVATION



Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
<http://dnr.state.il.us>

Pat Quinn, Governor
Marc Miller, Director

April 22, 2014

Lawrence Hasken
Lawrence Hasken
200 Prairie Street
Suite 208
Rockford, IL 61107

RE: Harrison Avenue Roadway Improvements 2015
Project Number(s): 1410556
County: Winnebago

Dear Applicant:

This letter is in reference to the project you recently submitted for consultation. The natural resource review provided by EcoCAT identified protected resources that may be in the vicinity of the proposed action. The Department has evaluated this information and concluded that adverse effects are unlikely. Therefore, consultation under 17 Ill. Adm. Code Part 1075 and 1090 is terminated.

Consultation for Part 1075 is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary. Consultation for Part 1090 (Interagency Wetland Policy Act) is valid for three years.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database and the Illinois Wetlands Inventory at the time of the project submittal, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, you must comply with the applicable statutes and regulations. Also, note that termination does not imply IDNR's authorization or endorsement of the proposed action.

Please contact me if you have questions regarding this review.

Karen Miller
Division of Ecosystems and Environment
217-785-5500

Applicant: Lawrence Hasken
Contact: Lawrence Hasken
Address: 200 Prairie Street
Suite 208
Rockford, IL 61107

IDNR Project Number: 1410556
Date: 04/22/2014

Project: Harrison Avenue Roadway Improvements 2015
Address: Harrison Ave (IL 251 & FAP 0525), Rockford

Description: The subject section of the Harrison Avenue Reconstruction project is to be converted from a four-lane section to a five-lane section to remove turning vehicles from the through-lanes and provide significant improvement in traffic flow. The project includes the removal of existing roadway items, new pavement and pavement marking, sidewalk, water and drainage improvements, new landscaping, traffic signalization, lighting, and all erosion control techniques and items associated with the aforementioned improvements.

Natural Resource Review Results

Consultation for Endangered Species Protection and Natural Areas Preservation (Part 1075)

The Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

- Black Sandshell (*Ligumia recta*)
- Gravel Chub (*Erimystax x-punctatus*)
- Wooly Milkweed (*Asclepias lanuginosa*)

Wetland Review (Part 1090)

The National Wetlands Inventory does not show wetlands within 250 feet of the project location.

An IDNR staff member will evaluate this information and contact you within 30 days to request additional information or to terminate consultation if adverse effects are unlikely.

Location

The applicant is responsible for the accuracy of the location submitted for the project.

County: Winnebago

Township, Range, Section:

- 43N, 1E, 1
- 43N, 1E, 2
- 43N, 2E, 6
- 44N, 1E, 35
- 44N, 1E, 36
- 44N, 2E, 31



IL Department of Natural Resources

Contact

Karen Miller
217-785-5500
Division of Ecosystems & Environment

Local or State Government Jurisdiction

IL Environmental Protection Agency
Alan Keller
1021 N. Grand Ave. E.
P.O. Box 19276
Springfield, Illinois 62794 -9891

Disclaimer

The Illinois Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of natural resources in Illinois. This review reflects the information existing in the Database at the time of this inquiry, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, compliance with applicable statutes and regulations is required.

Terms of Use

By using this website, you acknowledge that you have read and agree to these terms. These terms may be revised by IDNR as necessary. If you continue to use the EcoCAT application after we post changes to these terms, it will mean that you accept such changes. If at any time you do not accept the Terms of Use, you may not continue to use the website.

1. The IDNR EcoCAT website was developed so that units of local government, state agencies and the public could request information or begin natural resource consultations on-line for the Illinois Endangered Species Protection Act, Illinois Natural Areas Preservation Act, and Illinois Interagency Wetland Policy Act. EcoCAT uses databases, Geographic Information System mapping, and a set of programmed decision rules to determine if proposed actions are in the vicinity of protected natural resources. By indicating your agreement to the Terms of Use for this application, you warrant that you will not use this web site for any other purpose.
2. Unauthorized attempts to upload, download, or change information on this website are strictly prohibited and may be punishable under the Computer Fraud and Abuse Act of 1986 and/or the National Information Infrastructure Protection Act.
3. IDNR reserves the right to enhance, modify, alter, or suspend the website at any time without notice, or to terminate or restrict access.

Security

EcoCAT operates on a state of Illinois computer system. We may use software to monitor traffic and to identify unauthorized attempts to upload, download, or change information, to cause harm or otherwise to damage this site. Unauthorized attempts to upload, download, or change information on this server is strictly prohibited by law.

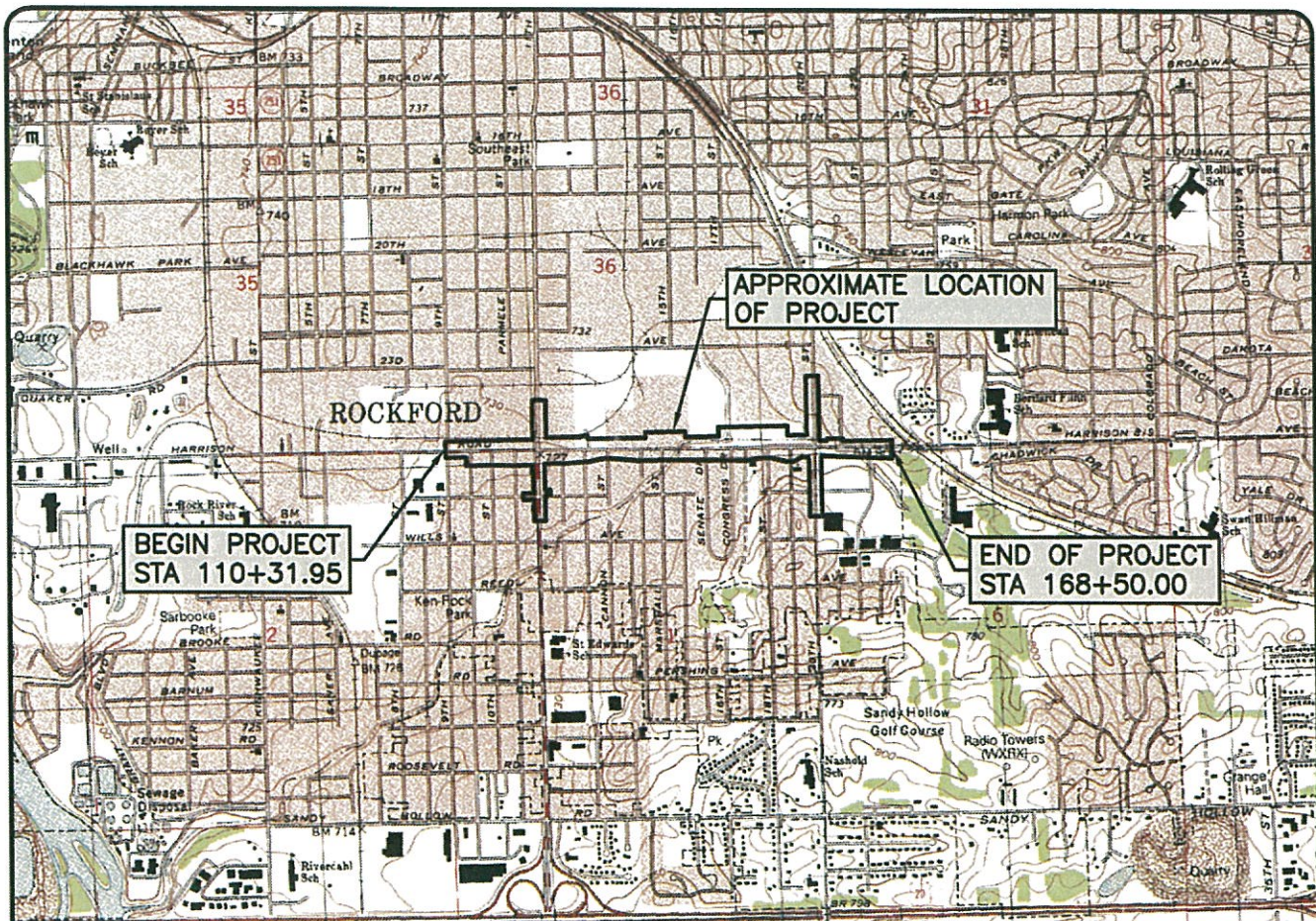
Unauthorized use, tampering with or modification of this system, including supporting hardware or software, may subject the violator to criminal and civil penalties. In the event of unauthorized intrusion, all relevant information regarding possible violation of law may be provided to law enforcement officials.

Privacy

EcoCAT generates a public record subject to disclosure under the Freedom of Information Act. Otherwise, IDNR uses the information submitted to EcoCAT solely for internal tracking purposes.

APPENDIX E

SITE MAPS



ROUTE: FAP ROUTE 525 (HARRISON AVENUE)

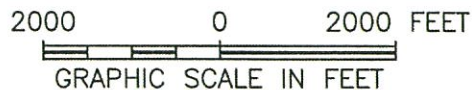
SECTION: 01-00509-00-RP

COUNTY: WINNEBAGO COUNTY

JOB NUMBER: M-5099(071)

TOTAL PROJECT LENGTH IN MILES: 1.6 MILES

PROJECT DESCRIPTION: THE SUBJECT SECTION OF THE HARRISON AVENUE RECONSTRUCTION PROJECT IS TO BE CONVERTED FROM A FOUR-LANE SECTION TO A FIVE-LANE SECTION TO REMOVE TURNING VEHICLES FROM THE THROUGH-LANES AND PROVIDE A SIGNIFICANT IMPROVEMENT IN TRAFFIC FLOW. THE PROJECT ALSO INCLUDES UTILITY AND DRAINAGE CHANNEL IMPROVEMENTS. THE PROJECT HAS THE FOLLOWING APPROXIMATE LIMITS OF CONSTRUCTION: HARRISON AVENUE FROM 9TH STREET TO 1,250 FEET EAST OF 20TH STREET, 11TH STREET FROM 1,000 FEET SOUTH OF HARRISON AVENUE TO 700 FEET NORTH OF HARRISON AVENUE, AND 20TH STREET FROM 400 FEET SOUTH OF HARRISON AVENUE TO 200 FEET NORTH OF HARRISON AVENUE. THE LIMITS ALSO INCLUDE SHORT LENGTHS OF RECONSTRUCTION OF THE EXISTING STREETS ON EITHER SIDE OF HARRISON AVENUE.



PROJECT LOCATION MAP HARRISON AVENUE (IL 251 AND FAP 0525) ROCKFORD, ILLINOIS

SOURCE:
UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY. ROCKFORD SOUTH,
QUADRANGLE ILLINOIS-WINNEBAGO CO. 7.5
MINUTE SERIES. 2012

04/23/14

FEHR GRAHAM

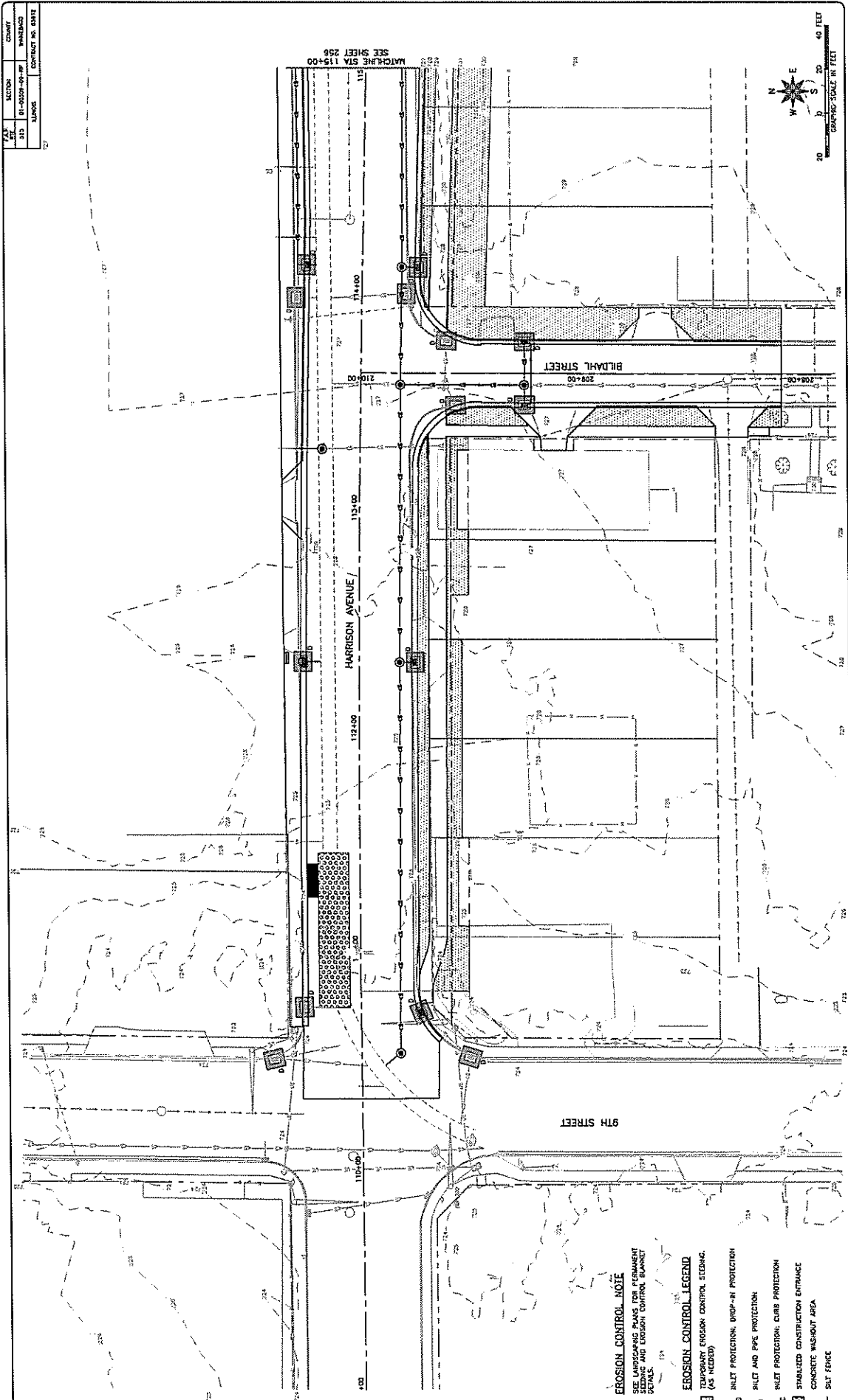
ENGINEERING & ENVIRONMENTAL
ILLINOIS DESIGN FIRM NO. 184-003525

ILLINOIS
IOWA
WISCONSIN

APPENDIX F

EROSION CONTROL PLANS

DATE	DESIGN	PROJECT NO.
2/15	13-1070	255 of 588
1/10		
1/10		



SEE SHEET 256
MATCHLINE STA 115+00



- EROSION CONTROL NOTE**
SEE ATTACHED PLANS FOR EROSION CONTROL STRUCTURE AND EROSION CONTROL BARRIER DETAILS.
- EROSION CONTROL LEGEND**
- TEMPORARY EROSION CONTROL SEEDING (AS NEEDED)
 - INLET PROTECTION: DROP-IN PROTECTION
 - INLET AND PIPE PROTECTION
 - INLET PROTECTION: CURB PROTECTION
 - STABILIZED CONSTRUCTION ENTRANCE
 - CONCRETE WASHOUT AREA
 - SILT FENCE

PROJECT AND LOCATION:
HARRISON AVENUE RECONSTRUCTION
IL 251 AND PAP 0525
11TH ST TO 20TH ST

DESIGNER:
CITY OF ROCKFORD
425 E. STATE ST.
ROCKFORD, ILLINOIS

SCALE:
AS SHOWN

DATE:
6/12/15

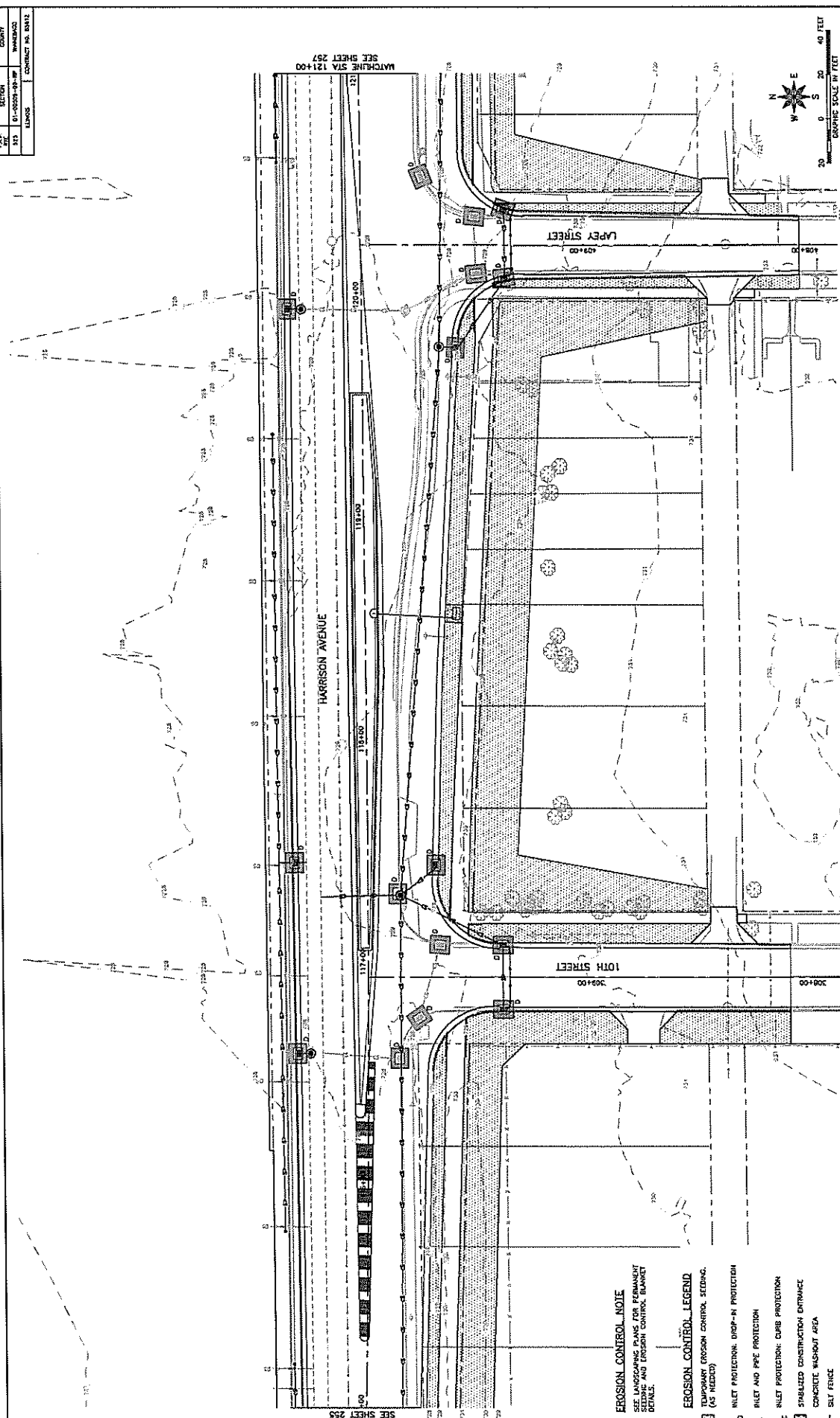
REVISIONS:

REV. NO.	DESCRIPTION	DATE

PROJECT NO.: 13-1070
SHEET NUMBER: 255 of 588

ENGINEER:
FEHR GRAHAM
ENGINEERING & ENVIRONMENTAL
ILLINOIS IOWA WISCONSIN
1045 55TH ST. W. SUITE 200
ROCKFORD, IL 61109
TEL: 815/398-7100 FAX: 815/398-7101
WWW.FEHRGRAHAM.COM

P.A. #	SECTION	COUNTY
213	01-0000-10-00	WISCONSIN
LAND	CONTRACT NO. 1001	



GRAPHIC SCALE IN FEET
0 5 10 20 40



MATCHLINE STA 121+00
SEE SHEET 257

MATCHLINE STA 115+00
SEE SHEET 255

- EROSION CONTROL NOTE**
SEE LARGESCALE PLAN FOR PERMANENT SEDIMENT AND EROSION CONTROL BLANKET DETAILS.
- EROSION CONTROL LEGEND**
- TEMPORARY EROSION CONTROL SETTING (AS NEEDED)
 - INLET PROTECTION: DROP-IN PROTECTION
 - INLET AND PIPE PROTECTION
 - INLET PROTECTION: CURB PROTECTION
 - STABILIZED CONSTRUCTION ENTRANCE
 - CONCRETE W/OUT AREA
 - DAILY FENCE

JOB NUMBER
13-1070

SHEET NUMBER
256 of 588

HARRISON AVENUE AND SIDE STREETS
EROSION CONTROL PLANS

REV	DESCRIPTION	DATE

DESIGNED BY: B.F.
APPROVED BY: B.B.
DATE: 6/12/15
SCALE:

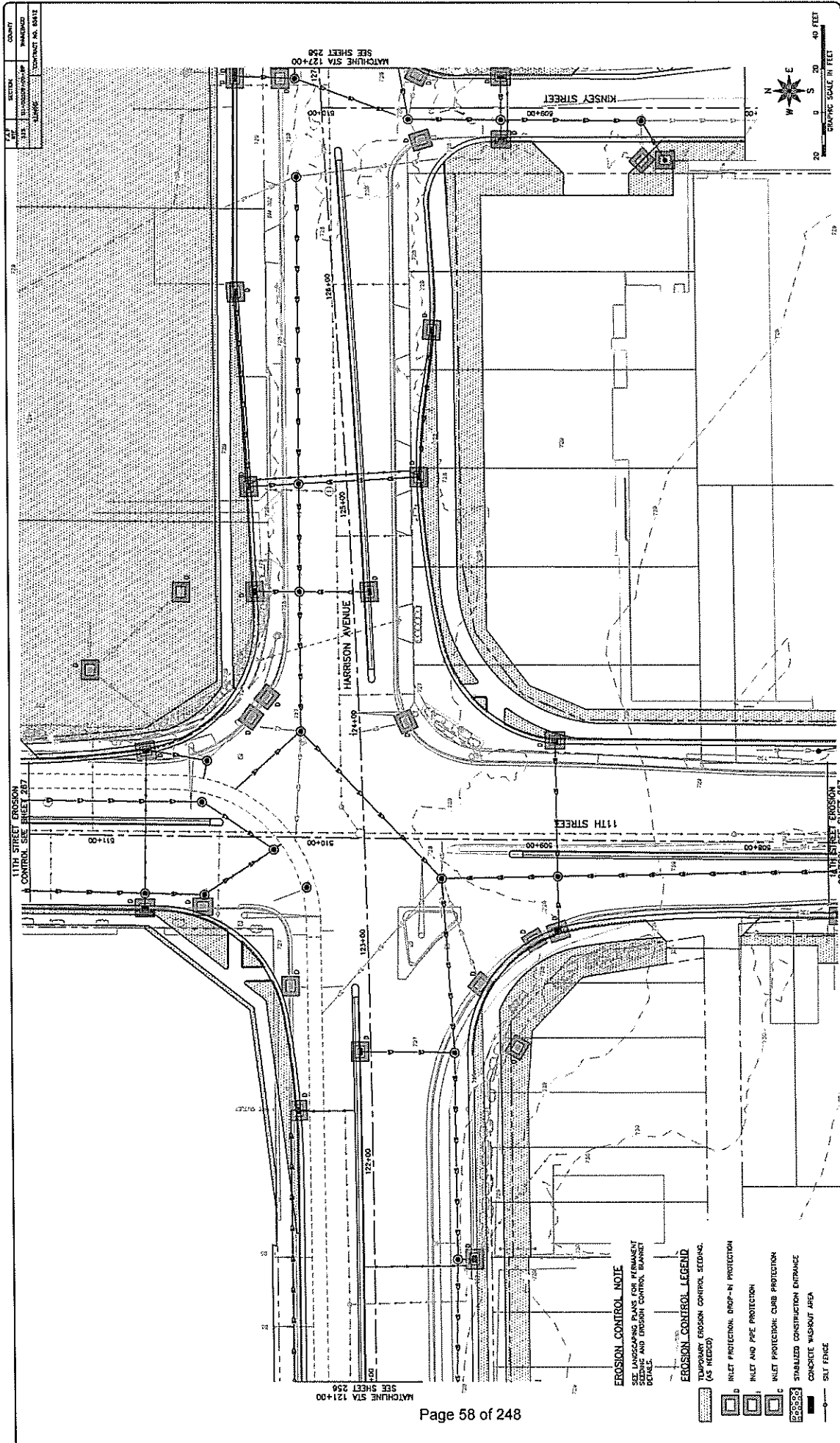
PROJECT AND LOCATION:
HARRISON AVENUE RECONSTRUCTION
IL 251 AND PAR US25
11TH ST TO 20TH ST

ENGINEER/OWNER:
CITY OF ROCKFORD
425 E. STATE ST.
ROCKFORD, ILLINOIS

ILLINOIS
IOWA
WISCONSIN

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DATE	REVISION	CONTRACT NO.

11TH STREET EROSION CONTROL SEE SHEET 287

11TH STREET EROSION CONTROL SEE SHEET 287

MATCHLINE STA 127+00 SEE SHEET 286

MATCHLINE STA 121+00 SEE SHEET 286



- EROSION CONTROL NOTE**
 SEE SUPPLEMENTAL PLANS FOR PERMANENT STRUCTURES AND EROSION CONTROL BLANKET DETAILS.
- EROSION CONTROL LEGEND**
 [Symbol] TEMPORARY EROSION CONTROL SEEDING (AS NEEDED)
 [Symbol] INLET PROTECTION: DROP-IN PROTECTION
 [Symbol] INLET AND PIPE PROTECTION
 [Symbol] INLET PROTECTION: CURB PROTECTION
 [Symbol] SIGNALIZED CONSTRUCTION ENTRANCE
 [Symbol] CONCRETE WASHOUT AREA
 [Symbol] SILT FENCE

OWNER/DEVELOPER
 CITY OF ROCKFORD
 425 E. STATE ST.
 ROCKFORD, ILLINOIS

DESIGNED BY
 B.F.
 APPROVED BY: B.B.
 DATE: 6/12/15
 SCALE:

PROJECT AND LOCATION
 HARRISON AVENUE RECONSTRUCTION
 IL 251 AND PAP D525
 11TH ST TO 20TH ST

PROJECT NO.
 13-1070

SHEET NO.
 257 of 588

DATE
 6/12/15

SCALE

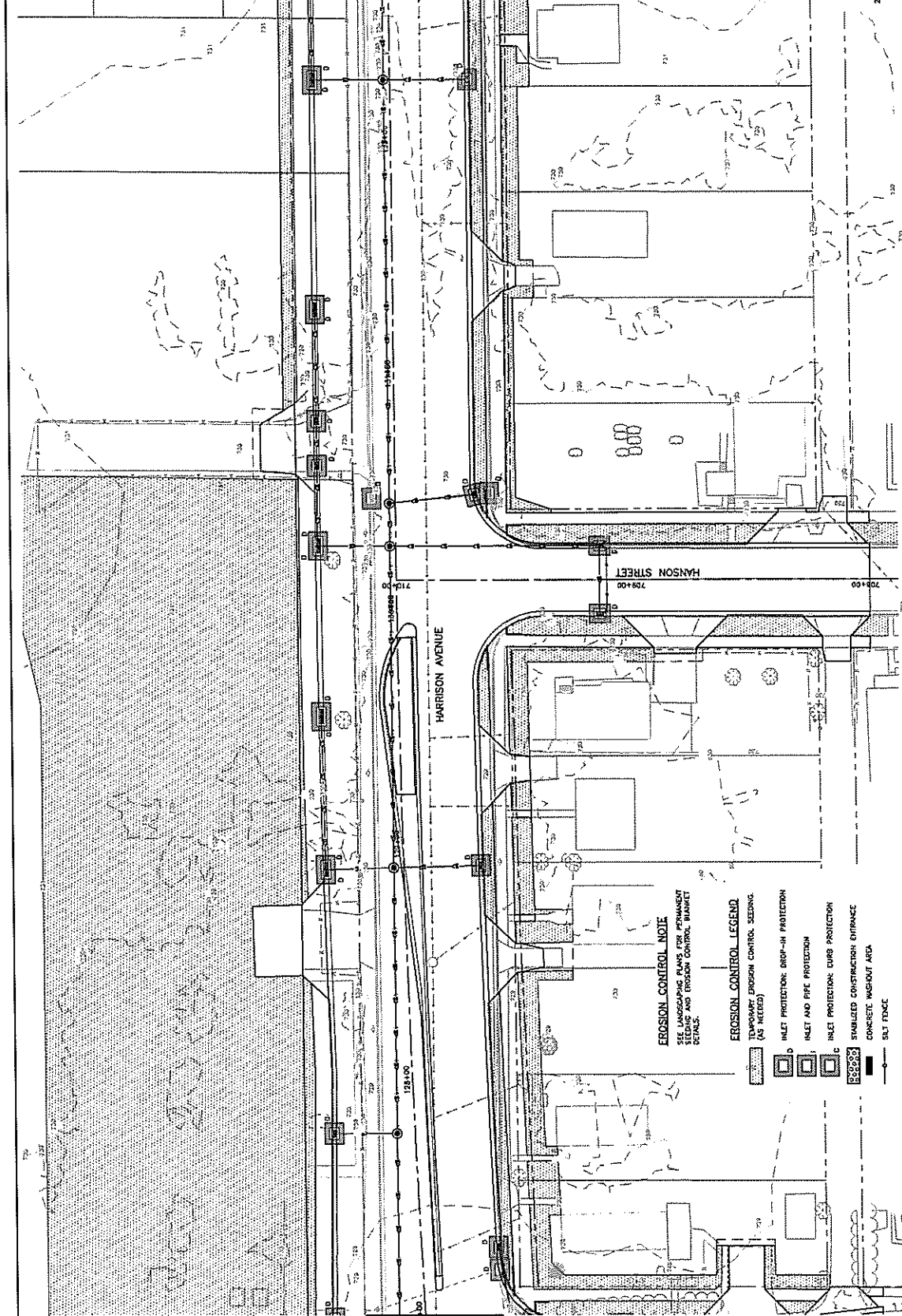
EROSIONS
 EROSION CONTROL

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TYP	SECTION	CONTRACT
313	11-10000-1000	13-1070
11000		258 of 568



MATCHLINE STA 127+00
SEE SHEET 257

MATCHLINE STA 133+00
SEE SHEET 259

- EROSION CONTROL NOTE**
SEE LANDSCAPE PLAN FOR PERMANENT SEEDING AND EROSION CONTROL BLANKET DETAILS.
- EROSION CONTROL LEGEND**
- TEMPORARY EROSION CONTROL SEEDING (AS NEEDED)
 - INLET PROTECTION: DEEP-IN PROTECTION
 - INLET AND PIPE PROTECTION
 - INLET PROTECTION: CURB PROTECTION
 - STABILIZED CONSTRUCTION ENTRANCE
 - CONCRETE WASHOUT AREA
 - SILT FENCE



PROJECT AND LOCATION:
HARRISON AVENUE RECONSTRUCTION
IL 251 AND PAR 0525
11TH ST TO 20TH ST

DESIGNER:
CITY OF ROCKFORD
425 E. STATE ST.
ROCKFORD, ILLINOIS

DATE: 6/12/15

SCALE:

REVISIONS:

REV. NO.	DATE

PROJECT NO.: B.F.
APPROVED BY: B.B.
DATE: 6/12/15
SCALE:

PROJECT AND LOCATION:
HARRISON AVENUE RECONSTRUCTION
IL 251 AND PAR 0525
11TH ST TO 20TH ST

DESIGNER:
CITY OF ROCKFORD
425 E. STATE ST.
ROCKFORD, ILLINOIS

DATE: 6/12/15

SCALE:

REVISIONS:

REV. NO.	DATE

PROJECT NO.: B.F.
APPROVED BY: B.B.
DATE: 6/12/15
SCALE:

PROJECT AND LOCATION:
HARRISON AVENUE RECONSTRUCTION
IL 251 AND PAR 0525
11TH ST TO 20TH ST

DESIGNER:
CITY OF ROCKFORD
425 E. STATE ST.
ROCKFORD, ILLINOIS

DATE: 6/12/15

SCALE:

REVISIONS:

REV. NO.	DATE

PROJECT NO.: B.F.
APPROVED BY: B.B.
DATE: 6/12/15
SCALE:

PROJECT AND LOCATION:
HARRISON AVENUE RECONSTRUCTION
IL 251 AND PAR 0525
11TH ST TO 20TH ST

DESIGNER:
CITY OF ROCKFORD
425 E. STATE ST.
ROCKFORD, ILLINOIS

DATE: 6/12/15

SCALE:

REVISIONS:

REV. NO.	DATE

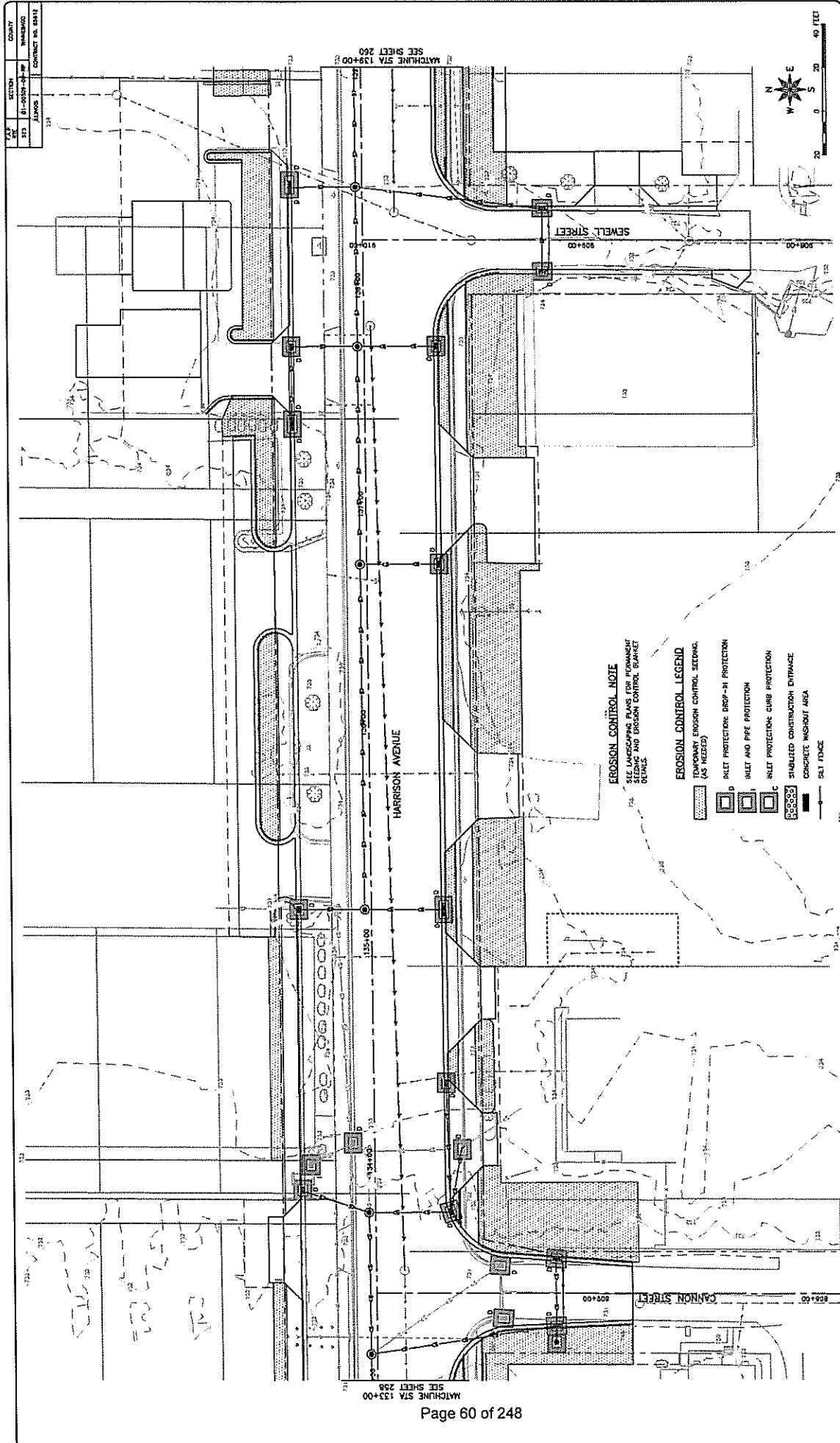
PROJECT NO.: B.F.
APPROVED BY: B.B.
DATE: 6/12/15
SCALE:

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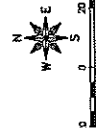
Page 59 of 248



CAD FILE	SECTION	COUNTY
133	B1-1024-01	WINNEBAGO
PLANS		CONTRACT NO. 84812

MATCHLINE STA 139+00
SEE SHEET 260

MATCHLINE STA 133+00
SEE SHEET 258



- EROSION CONTROL NOTE**
SEE LANDSCAPING PLANS FOR PERMANENT SEEDING AND EROSION CONTROL BLANKET DETAILS
- EROSION CONTROL LEGEND**
- TEMPORARY EROSION CONTROL SEEDING (AS NEEDED)
 - INLET PROTECTION: GRIP-IN PROTECTION
 - INLET AND PIPE PROTECTION
 - INLET PROTECTION: CURB PROTECTION
 - STABILIZED CONSTRUCTION ENTRANCE
 - CONCRETE WASHOUT AREA
 - SILT FENCE

JOB NUMBER
13-1070
SHEET NUMBER
259 of 588

PROJECT AND LOCATION
HARRISON AVENUE AND SIDE STREETS
EROSION CONTROL PLANS
A. SURVEYED BY: [Name], DATE: [Date]

DATE	REVISIONS
	DESCRIPTION

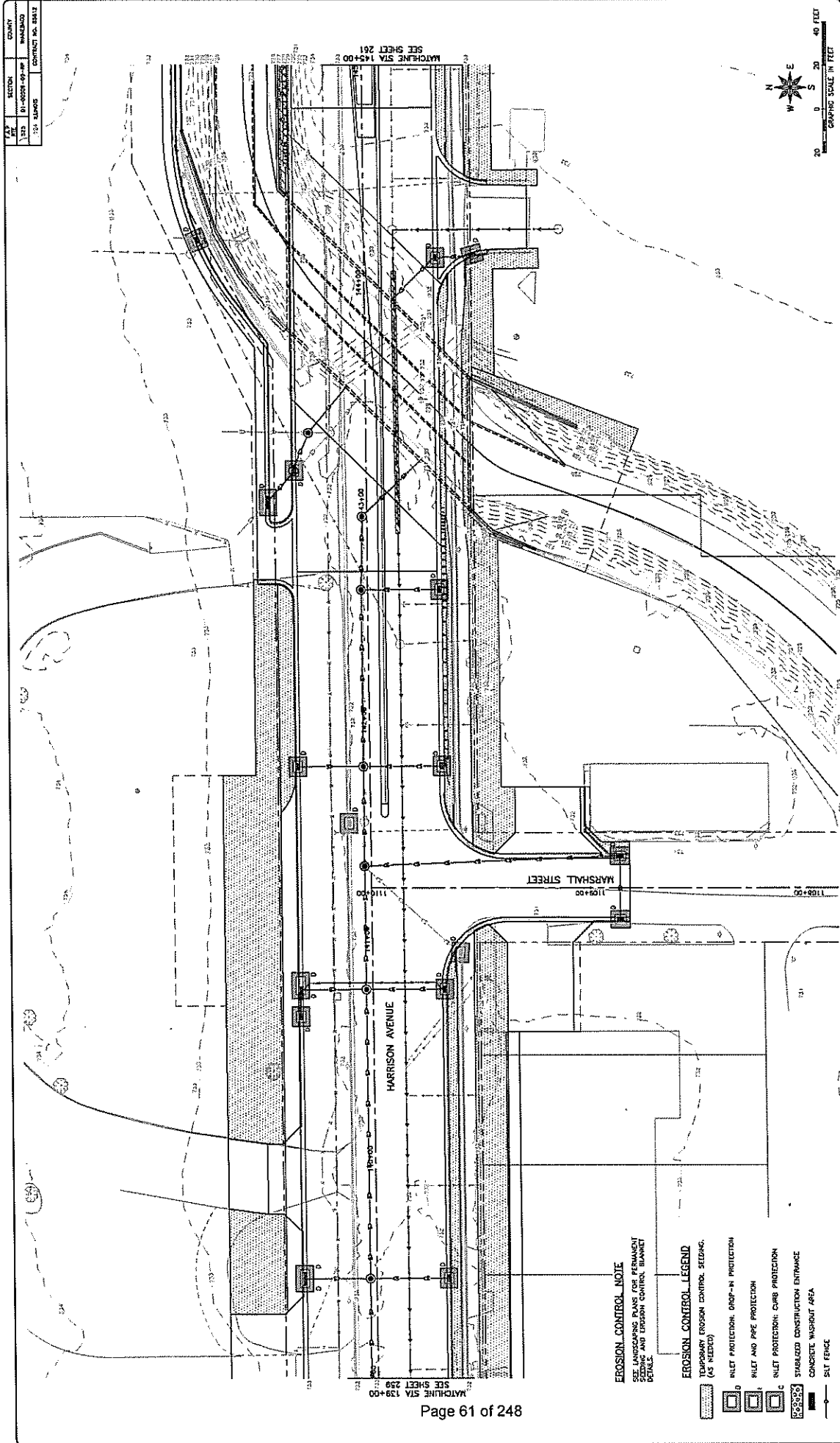
DESIGNED BY: B.F.
CHECKED BY: B.B.
DATE: 6/12/15
SCALE:

PROJECT AND LOCATION
HARRISON AVENUE RECONSTRUCTION
IL 231 AND PAP 0525
11TH ST TO 20TH ST

ENGINEER/OWNER
CITY OF ROCKFORD
425 E. STATE ST.
ROCKFORD, ILLINOIS

ILLINOIS
IOWA
WISCONSIN

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1000 EAST STATE STREET, SUITE 200
ROCKFORD, ILLINOIS 61101
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DATE	REVISION	BY
1/23/15	11-NOV-15	B.F.
1/23/15	11-NOV-15	B.F.
1/23/15	11-NOV-15	B.F.

CONTRACT NO. 15-001
 CONTRACT NO. 15-001

GRAPHIC SCALE IN FEET
 0 20 40
 N
 W E S

MATCHLINE STA 145+00
 SEE SHEET 261

MATCHLINE STA 139+00
 SEE SHEET 259

- EROSION CONTROL NOTE**
 ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT CONSTRUCTION AND THROUGHOUT THE LIFE OF THE PROJECT.
- EROSION CONTROL LEGEND**
- TEMPORARY EROSION CONTROL SEDGAS (AS NEEDED)
 - INLET PROTECTION: DROP-IN PROTECTION
 - INLET AND PIPE PROTECTION
 - INLET PROTECTION: CURB PROTECTION
 - STABILIZED CONSTRUCTION ENTRANCE
 - CONCRETE WASHOUT AREA
 - SILT FENCE

PROJECT AND LOCATION
 HARRISON AVENUE RECONSTRUCTION
 IL 251 AND PAP 0525
 11TH ST TO 20TH ST

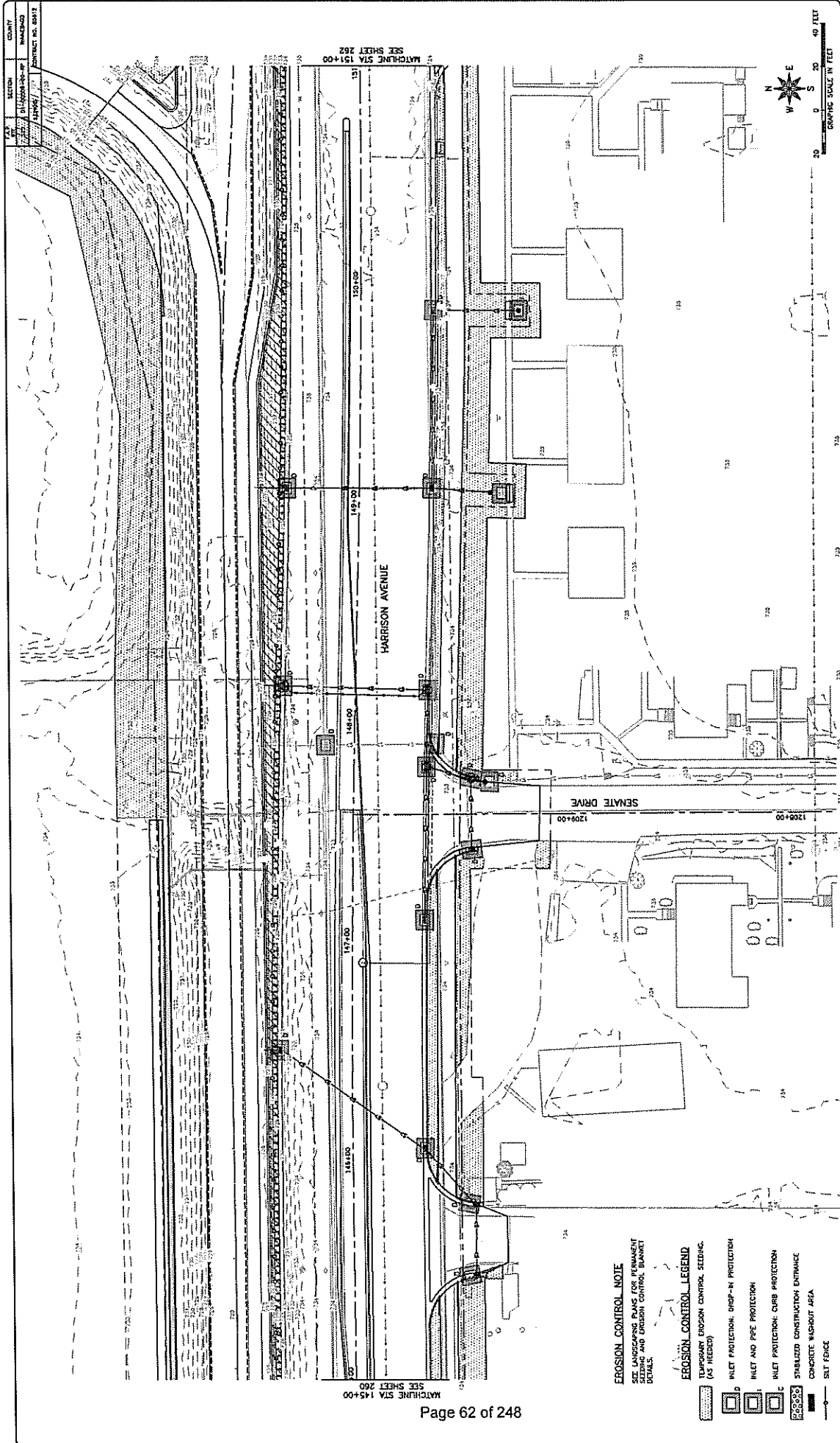
REV. NO.	REVISIONS	DATE

DESIGNED BY: B.F.
 APPROVED BY: B.F.
 DATE: 6/12/15
 ROAD:

ENGINEER/OWNER:
 CITY OF ROCKFORD
 425 E. STATE ST.
 ROCKFORD, ILLINOIS

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- EROSION CONTROL NOTE**
 SEE EROSION CONTROL PLANS FOR PERMANENT SEEDING AND EROSION CONTROL BLANKET DETAILS.
- EROSION CONTROL LEGEND**
 (AS NEEDED)
- TEMPORARY EROSION CONTROL SEEDING
 - INLET PROTECTION: URSP-IN PROTECTION
 - INLET AND PIPE PROTECTION
 - INLET PROTECTION: CURB PROTECTION
 - STABILIZED CONSTRUCTION ENTRANCE
 - CONCRETE W/GRASS AREA
 - SILT FENCE

PROJECT AND LOCATION
 HARRISON AVENUE RECONSTRUCTION
 ILL. 251 AND PAR. 0525
 11TH ST TO 20TH ST

DESIGNER/OWNER
 CITY OF ROCKFORD
 425 E. STATE ST.
 ROCKFORD, ILLINOIS

DATE
 6/12/15

APPROVED BY: B.F. SCAD
DATE: 6/12/15

PROJECT NUMBER
 13-1070

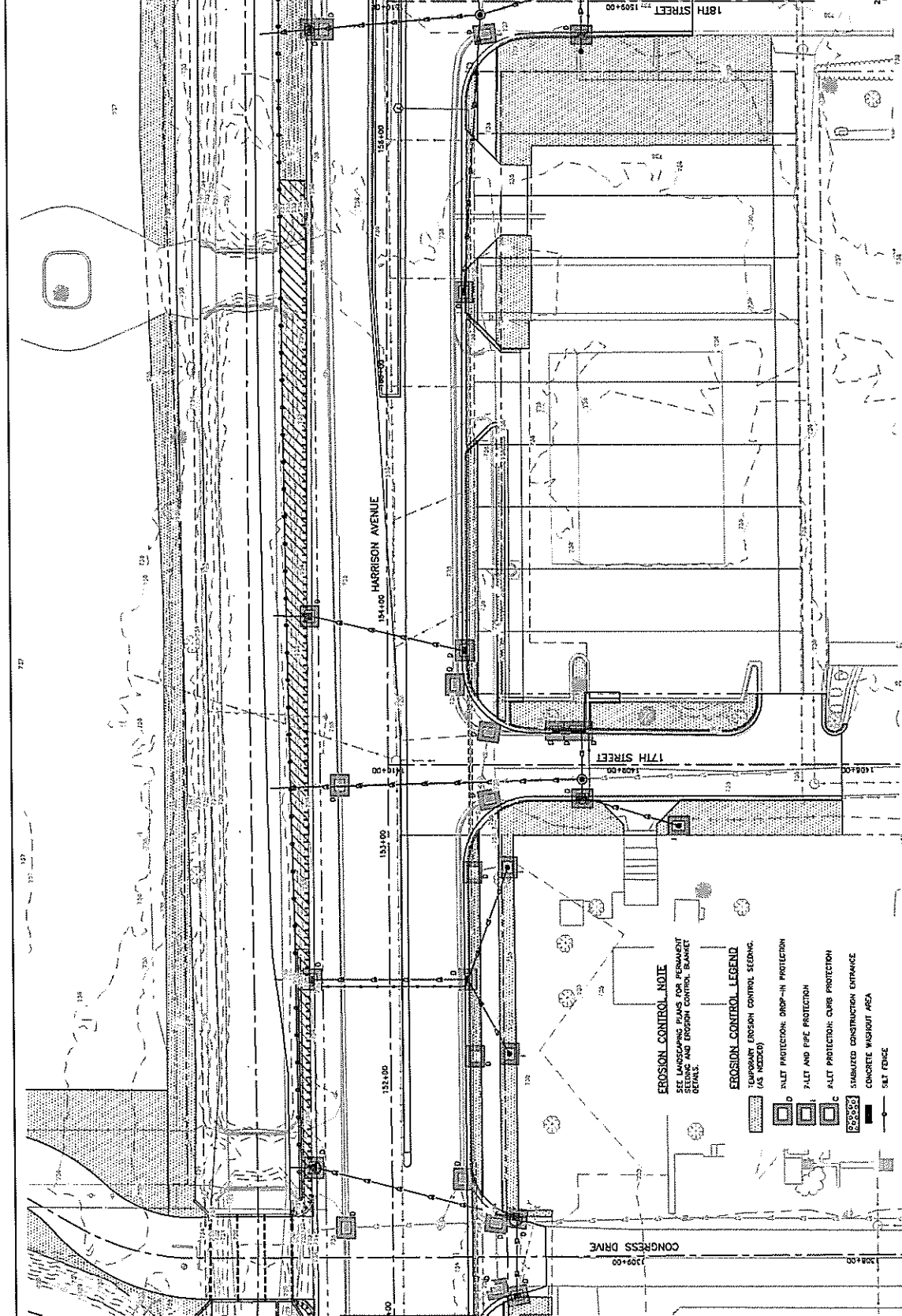
EROSION CONTROL PLANS

DATE
 6/12/15

PROJECT NUMBER
 261 of 588

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TWP	SECTION	COUNTY
213	01-1000-01-00	Winnebago
UNASSIGNED	UNASSIGNED	UNASSIGNED
CONTRACT NO. 5882		



MATCHLINE STA 131+00 SEE SHEET 261
 MATCHLINE STA 200+00 SEE SHEET 263
 Page 63 of 248

DATE	DESCRIPTION

DRAWN BY: B.F.
 CHECKED BY: B.B.
 DATE: 8/12/15
 SCALE:

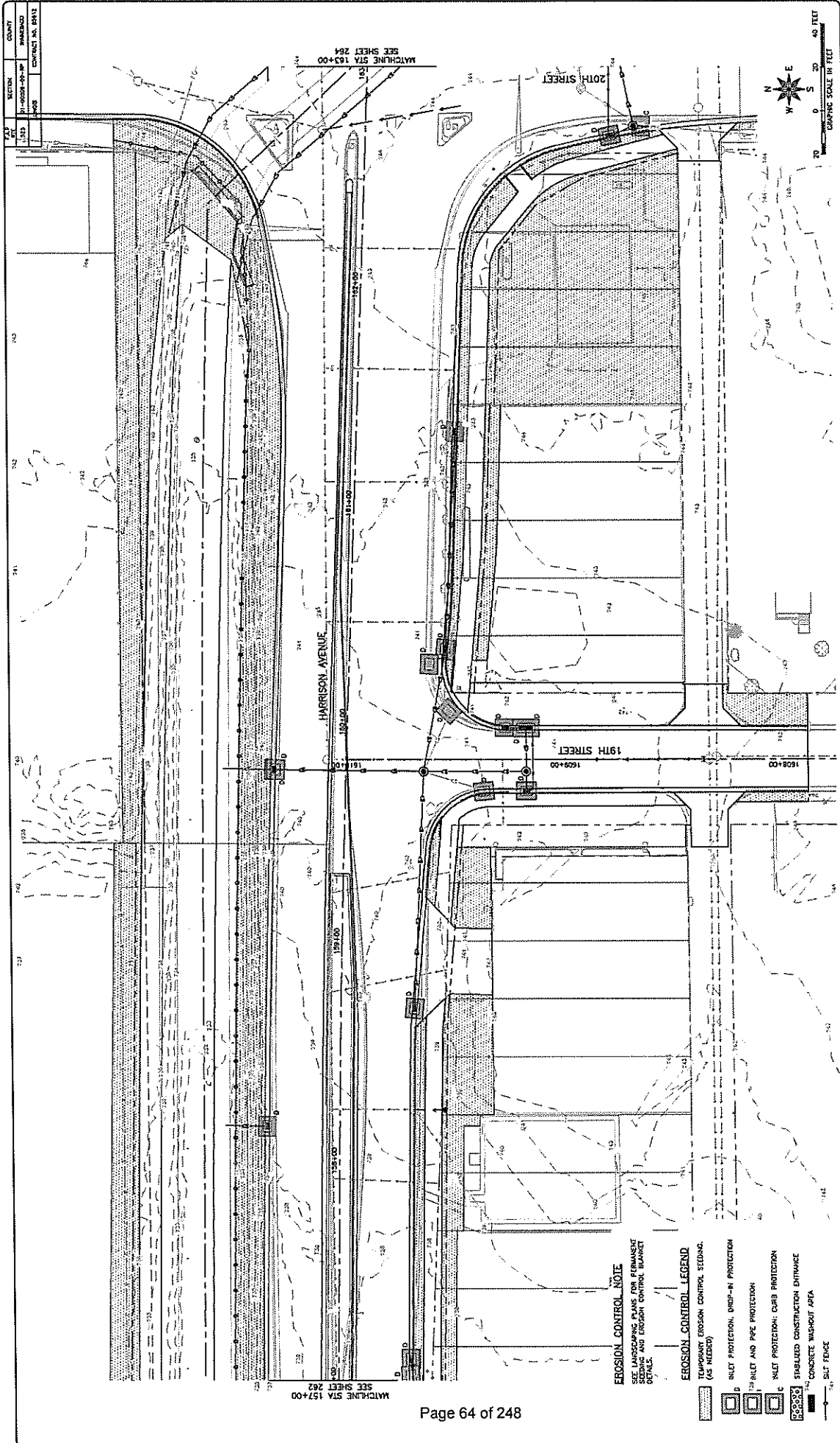
PROJECT AND LOCATION:
 HARRISON AVENUE RECONSTRUCTION
 IL 251 AND PAD 0525
 11TH ST TO 20TH ST

CITY OF ROCKFORD
 425 E. STATE ST.
 ROCKFORD, ILLINOIS

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DATE	SECTION	CONTRACT
11/13/15	11-1000-00-00	13-1070
11/13/15	11-1000-00-00	13-1070
11/13/15	11-1000-00-00	13-1070
11/13/15	11-1000-00-00	13-1070

CONTRACT NO. 13-1070
 SHEET NO. 263 OF 588

PROJECT AND LOCATION
 HARRISON AVENUE RECONSTRUCTION
 IL. 251 AND PAR. 0525
 11TH ST TO 20TH ST

DESIGNED BY
 SUBMITTED BY

DATE
 6/12/15

PROJECT AND LOCATION
 HARRISON AVENUE RECONSTRUCTION
 IL. 251 AND PAR. 0525
 11TH ST TO 20TH ST

DESIGNED BY
 SUBMITTED BY

DATE
 6/12/15

PROJECT AND LOCATION
 HARRISON AVENUE RECONSTRUCTION
 IL. 251 AND PAR. 0525
 11TH ST TO 20TH ST

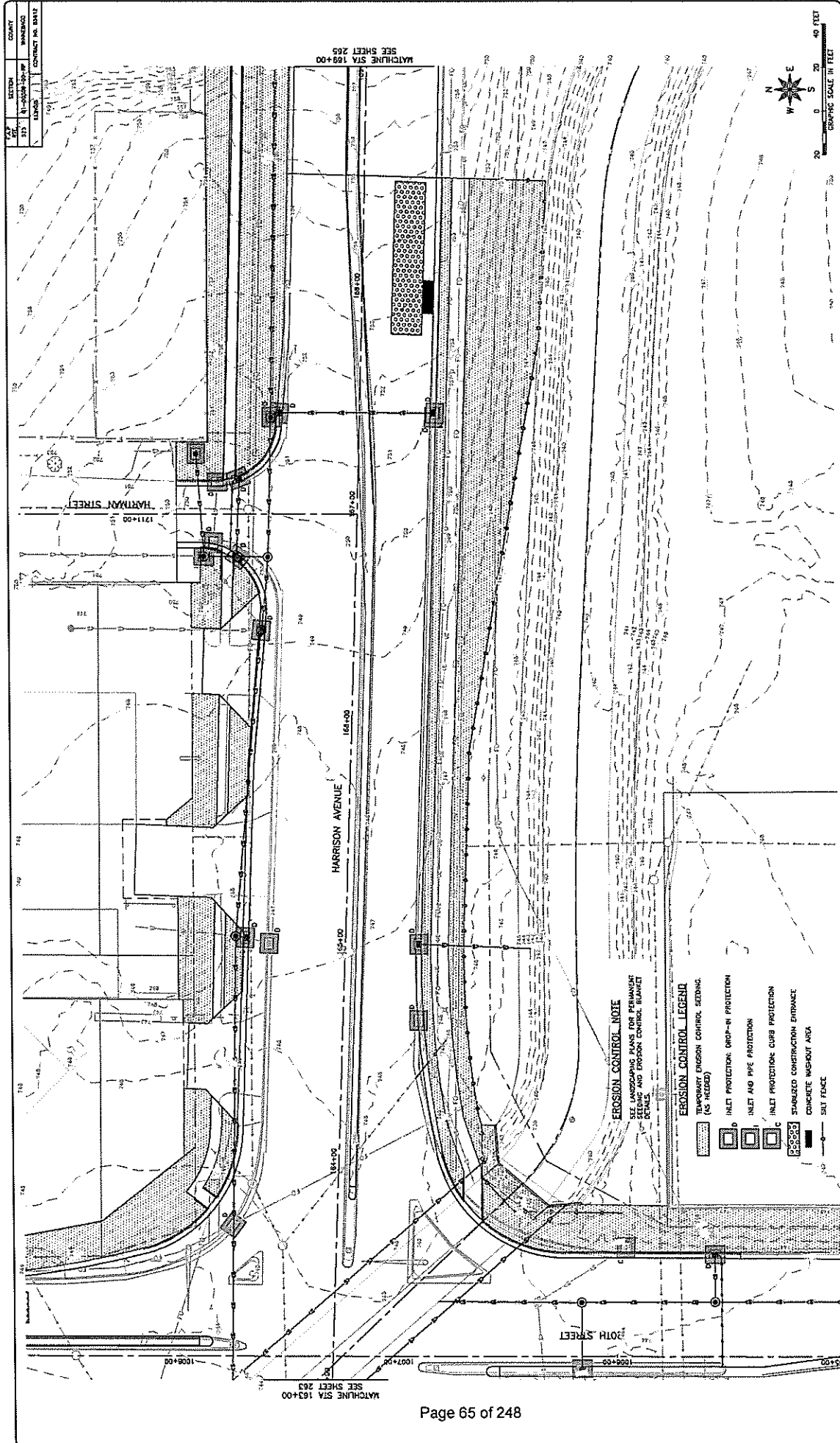
DESIGNED BY
 SUBMITTED BY

- EROSION CONTROL NOTE**
 SEE MATCHING PLANS FOR PERMANENT
 SEEDING AND EROSION CONTROL BLANKET
 DETAILS.
- EROSION CONTROL LEGEND**
- INLET PROTECTION, DRIP-IN PROTECTION
 - INLET AND PIPE PROTECTION
 - INLET PROTECTION, CURB PROTECTION
 - STABILIZED CONSTRUCTION ENTRANCE
 - CONCRETE WASHOUT AREA
 - SILT FENCE

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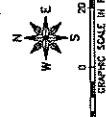
263 OF 588



DATE	REVISION	COUNTY
13-10-10	13-10-10	WINDSOR
13-10-10	13-10-10	CONTRACT NO. 265
13-10-10	13-10-10	CONTRACT NO. 265

MATCHLINE STA 129+00
SEE SHEET 265

MATCHLINE STA 183+00
SEE SHEET 263



EROSION CONTROL NOTE

SEE WORKING PLANS FOR PERMANENT
SEEDING AND EROSION CONTROL BLANKET
DETAILS.

EROSION CONTROL LEGEND

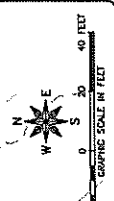
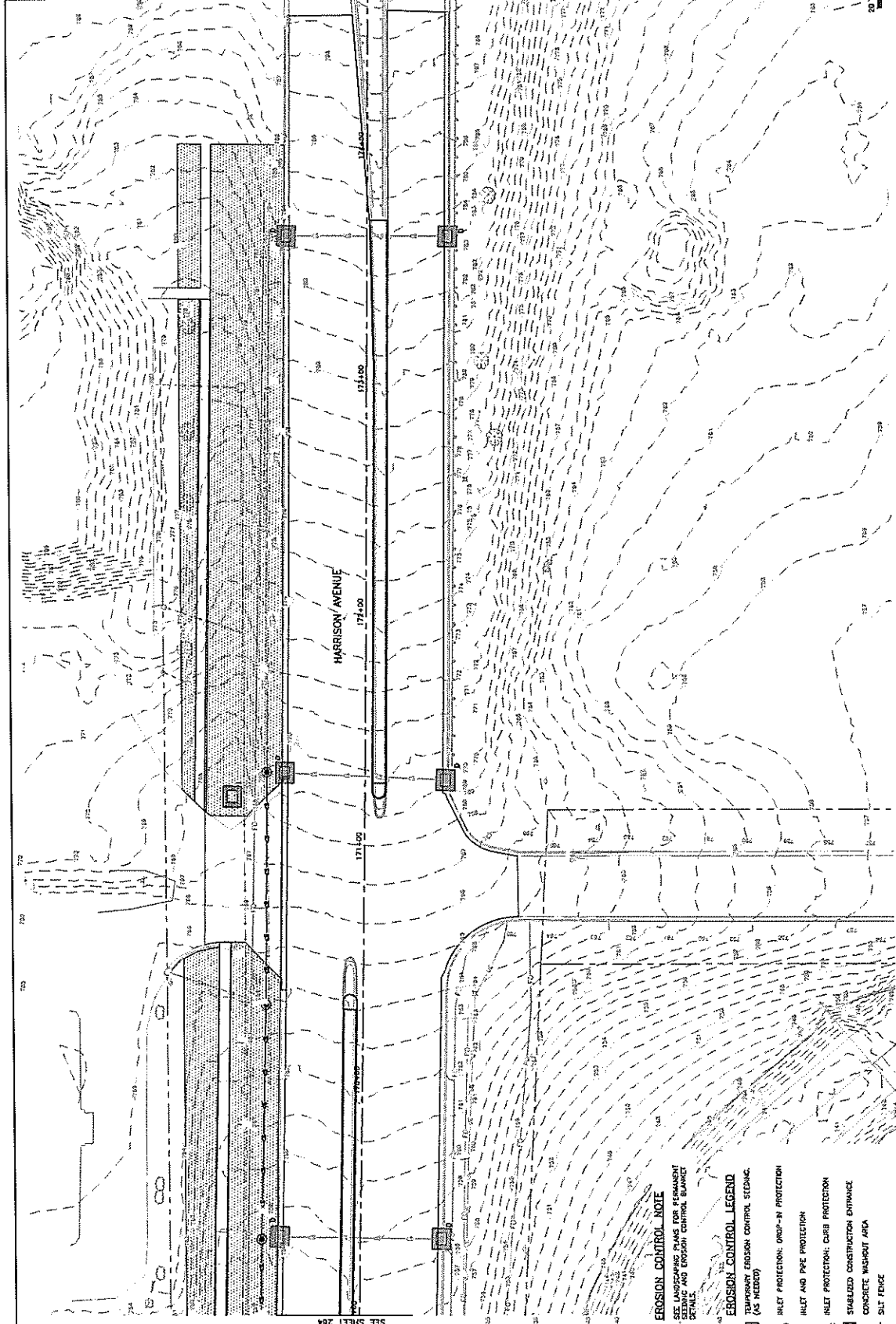
- TEMPORARY EROSION CONTROL BERMING
(AS NEEDED)
- INLET PROTECTION: GRIP-IN PROTECTION
- INLET AND PIPE PROTECTION
- INLET PROTECTION: CURB PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE
- CONCRETE MESHOUT AREA
- SILT FENCE

<p>PROJECT AND LOCATION HARRISON AVENUE RECONSTRUCTION IL 25TH AND PAP 0525 11TH ST TO 20TH ST</p>	<p>DESIGNER FEHR GRAHAM ENGINEERING & ENVIRONMENTAL</p>	<p>CLIENT CITY OF ROCKFORD 425 E. STATE ST. ROCKFORD, ILLINOIS</p>
<p>DATE 6/12/15</p>	<p>PROJECT NO. 13-10-10</p>	
<p>PROJECT NAME HARRISON AVENUE AND SIDE STREETS EROSION CONTROL PLANS</p>		
<p>264 of 588</p>		



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DATE	SECTION	COUNTY
NO.	SYMBOL	NUMBER
PLANS		
		CONTRACT NO. 0527



JOB NUMBER
13-1070
SHEET NUMBER
265 of 588

PROJECT AND LOCATION
HARRISON AVENUE AND SIDE STREETS
EROSION CONTROL PLANS
A. M. WILSON & ASSOCIATES, INC., 1111 S. ROCKFORD ST., ROCKFORD, ILL. 61102

DATE	REVISIONS
	DESCRIPTION

DESIGNED BY: B.F.
APPROVED BY: B.B.
DATE: 6/14/15
SCALE: AS SHOWN

PROJECT AND LOCATION
HARRISON AVENUE RECONSTRUCTION
IL 231 AND PAF 0625
1111 ST TO 20TH ST

OWNER/CLIENT
CITY OF ROCKFORD
425 E. STATE ST.
ROCKFORD, ILLINOIS

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1111 S. ROCKFORD ST. ROCKFORD, IL 61102
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- EROSION CONTROL NOTE**
SEE EROSION CONTROL PLAN FOR RECONSTRUCTION DETAILS AND EROSION CONTROL BLANKET DETAILS.
- EROSION CONTROL LEGEND**
- TEMPORARY EROSION CONTROL SEEDING (AS NEEDED)
 - INLET PROTECTION: DRUM-IN PROTECTION
 - INLET AND PIPE PROTECTION
 - INLET PROTECTION: CURB PROTECTION
 - STABILIZED CONSTRUCTION ENTRANCE
 - CONCRETE WALKOUT AREA
 - SILT FENCE

MATCHLINE STA 169+00
SEE SHEET 264

DATE	REVISION	BY	DESCRIPTION

PROJECT NO. 0588
SHEET NO. 285

PROJECT NAME
EROSION CONTROL PLANS

DATE
6/12/15

APPROVED BY
B.B.

PROJECT AND LOCATION
HARRISON AVENUE RECONSTRUCTION
IL 23RD AND 19TH STS
11TH ST TO 20TH ST

OWNER/DEVELOPER
CITY OF ROCKFORD
425 E. STATE ST.
ROCKFORD, ILLINOIS

STATE
ILLINOIS
IOWA
WISCONSIN

DATE
6/12/15

APPROVED BY
B.B.

PROJECT AND LOCATION
HARRISON AVENUE RECONSTRUCTION
IL 23RD AND 19TH STS
11TH ST TO 20TH ST

OWNER/DEVELOPER
CITY OF ROCKFORD
425 E. STATE ST.
ROCKFORD, ILLINOIS

STATE
ILLINOIS
IOWA
WISCONSIN

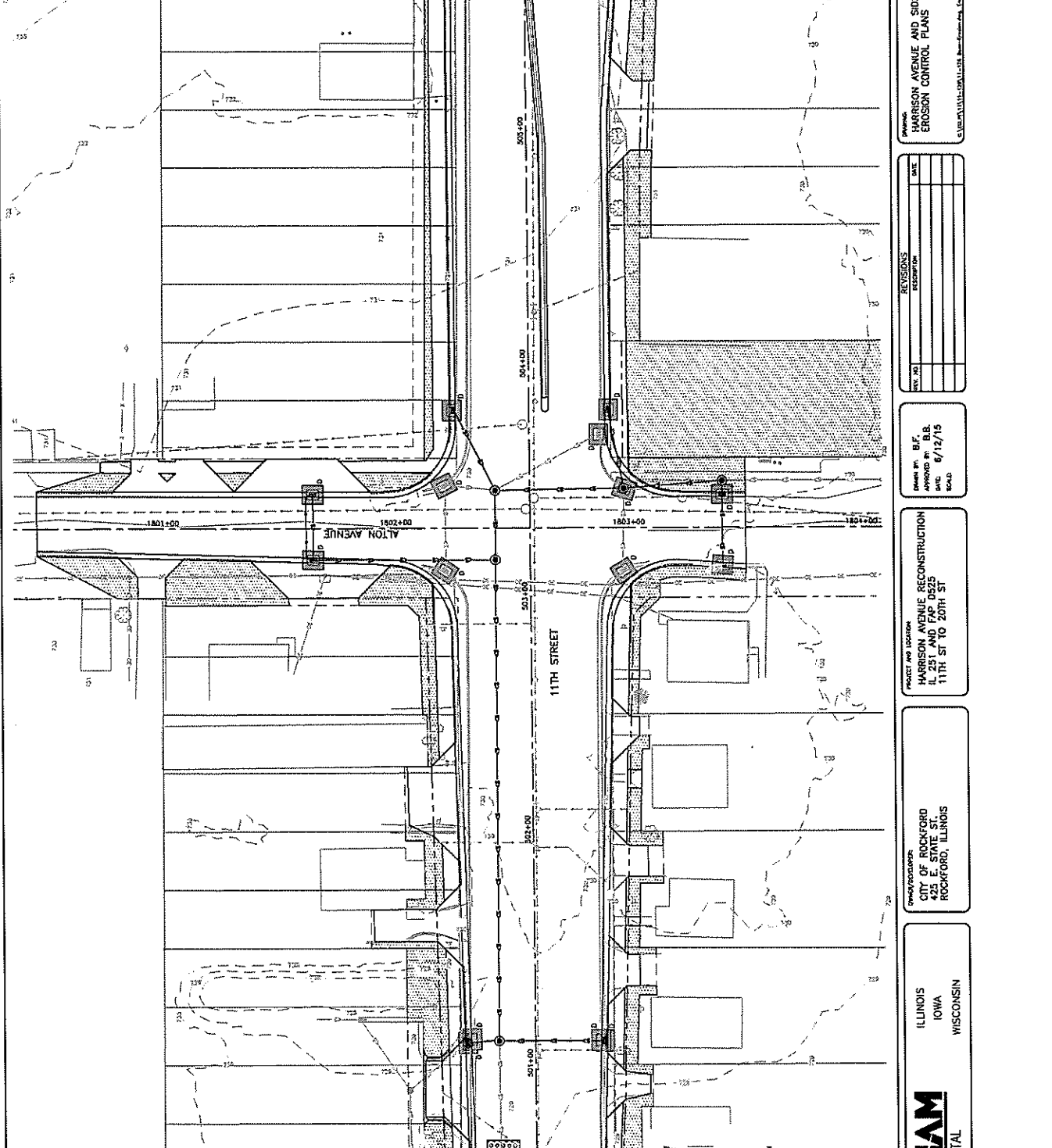
DATE
6/12/15

APPROVED BY
B.B.

PROJECT AND LOCATION
HARRISON AVENUE RECONSTRUCTION
IL 23RD AND 19TH STS
11TH ST TO 20TH ST

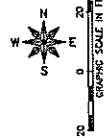
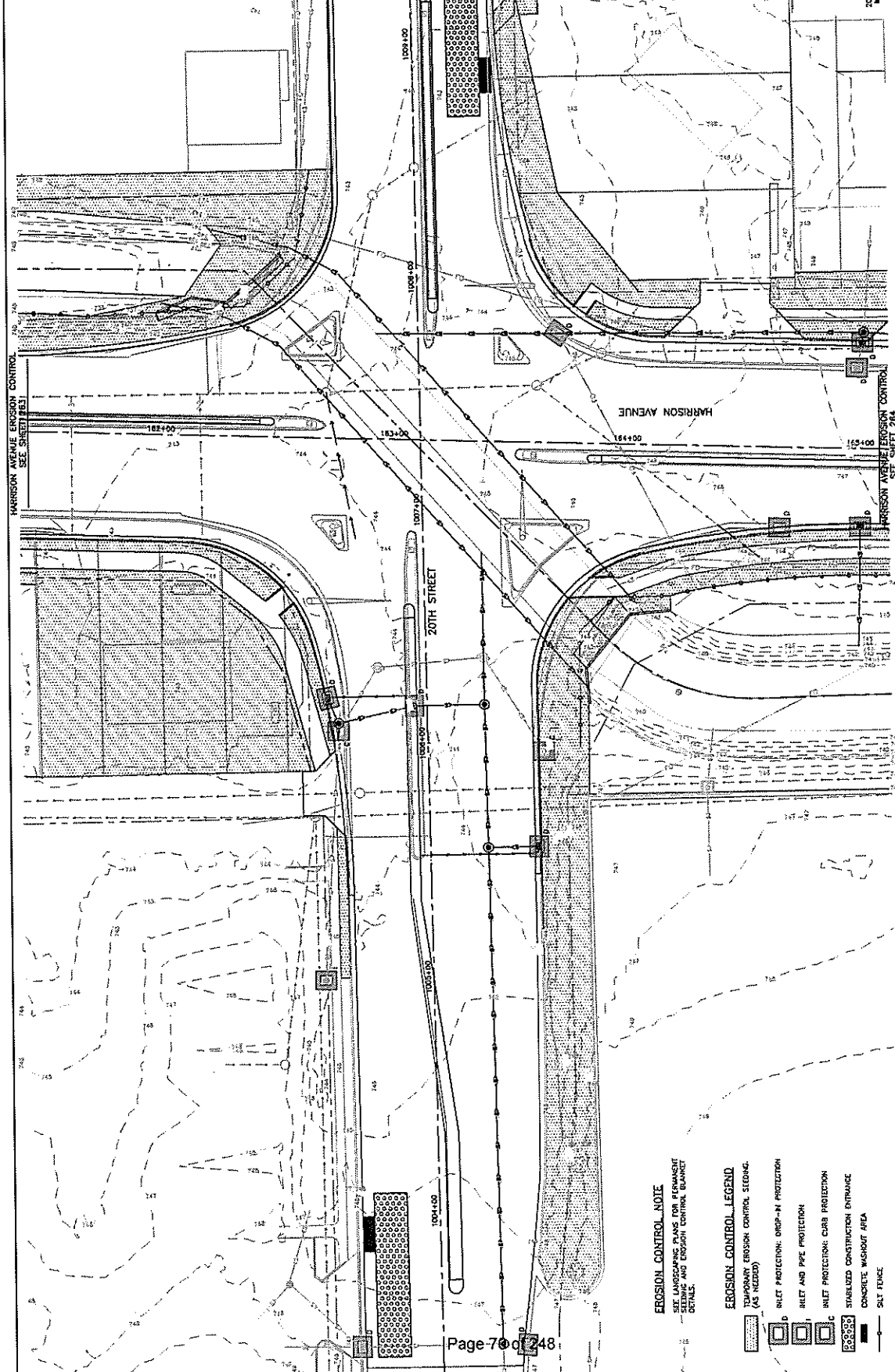
OWNER/DEVELOPER
CITY OF ROCKFORD
425 E. STATE ST.
ROCKFORD, ILLINOIS

STATE
ILLINOIS
IOWA
WISCONSIN



- EROSION CONTROL NOISE**
SEE MEASUREMENTS FOR PERMANENT SEEDING AND EROSION CONTROL BLANKET DETAILS.
- EROSION CONTROL LEGEND**
TEMPORARY EROSION CONTROL SEEDING (AS NEEDED)
- INLET PROTECTION: DROP-IN PROTECTION
 - INLET AND PIPE PROTECTION
 - INLET PROTECTION: CURB PROTECTION
 - STABILIZED CONSTRUCTION ENTRANCE
 - CONCRETE WALKOUT AREA
 - SET FENCE

TWP	SOUTH	COUNTY
R. 10	WEST	JEFFERSON
SECTION 36	10	10
DATE	BY	PROJECT NO.
		13-1070
		289 OF 588



DATE: 6/12/15
 DRAWN BY: B.F.
 APPROVED BY: B.J.B.
 SCALE: AS SHOWN

PROJECT AND LOCATION:
 HARRISON AVENUE RECONSTRUCTION
 IL 251 AND FAP 0225
 11TH ST TO 20TH ST

NO.	REVISIONS	DATE

CONTRACT NO. 13-1070
 SHEET NO. 289 OF 588

CONTRACT NO. 13-1070
 SHEET NO. 289 OF 588

CONTRACT NO. 13-1070
 SHEET NO. 289 OF 588

CONTRACT NO. 13-1070
 SHEET NO. 289 OF 588

CONTRACT NO. 13-1070
 SHEET NO. 289 OF 588

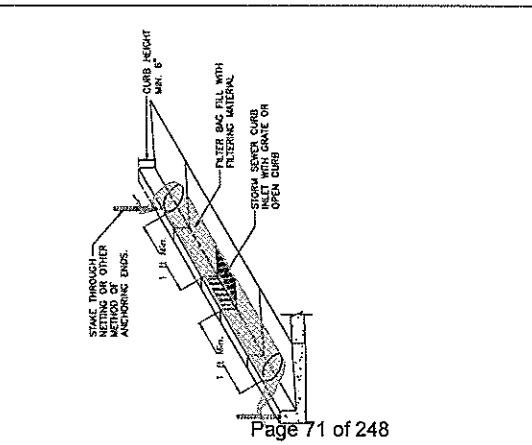
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 SEE ARCHITECTURE PLANS FOR REINFORCEMENT
 SCHEDULE AND EROSION CONTROL BLANKET
 DETAILS.

EROSION CONTROL LEGEND
 TEMPORARY EROSION CONTROL SEEDING
 (AS NEEDED)

- SILT PROTECTION: DROP-IN PROTECTION
- SILT AND PIPE PROTECTION
- SILT PROTECTION: CURB PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE
- CONCRETE WASHOUT AREA
- SILT FENCE

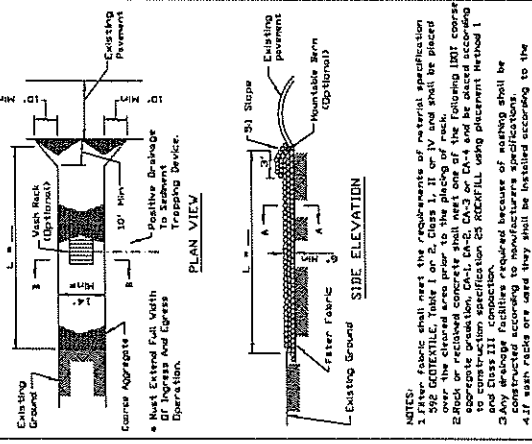
SECTION	COUNT
313	01-0000-07-00
313	01-0000-07-00
313	01-0000-07-00
313	01-0000-07-00
313	01-0000-07-00

**INLET PROTECTION - PAVED AREAS
CURB PROTECTION**



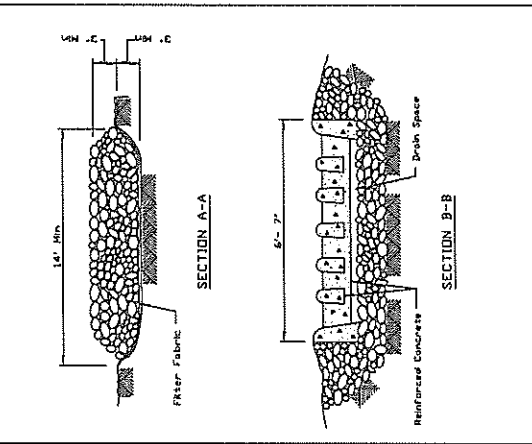
STANDARD SPEC. NO.	614-581C
SECTION	Sheet 1 of 1
DATE	01-11-11
PROJECT	
DESIGNED	
CHECKED	
APPROVED	

STABILIZED CONSTRUCTION ENTRANCE PLAN



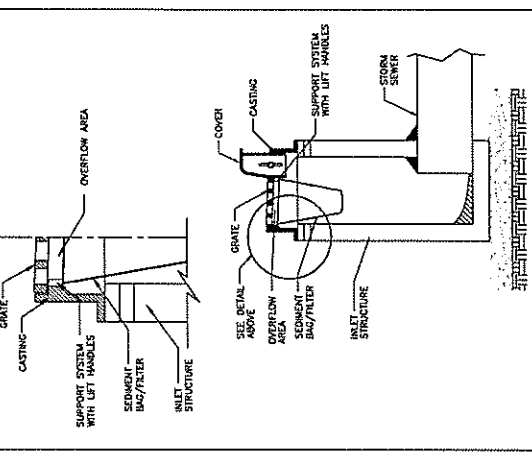
STANDARD SPEC. NO.	614-581C
SECTION	Sheet 1 of 1
DATE	01-11-11
PROJECT	
DESIGNED	
CHECKED	
APPROVED	

STABILIZED CONSTRUCTION ENTRANCE PLAN



STANDARD SPEC. NO.	614-581C
SECTION	Sheet 1 of 1
DATE	01-11-11
PROJECT	
DESIGNED	
CHECKED	
APPROVED	

**INLET PROTECTION - PAVED AREAS
DROP-IN PROTECTION**



STANDARD SPEC. NO.	614-581C
SECTION	Sheet 1 of 1
DATE	01-11-11
PROJECT	
DESIGNED	
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PROJECT AND LOCATION
HARRISON AVENUE RECONSTRUCTION
IL 251 AND FAP 0525
11TH ST TO 20TH ST

DATE: 6/12/15

DESIGNED BY: B.E. BRADY
CHECKED BY: B.E. BRADY
DATE: 6/12/15

STANDARD DETAILS

FOR NUMBER: 13-1070
SHEET NUMBER: 488 of 588

APPENDIX G

NRCS SOIL MAP AND REPORT

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

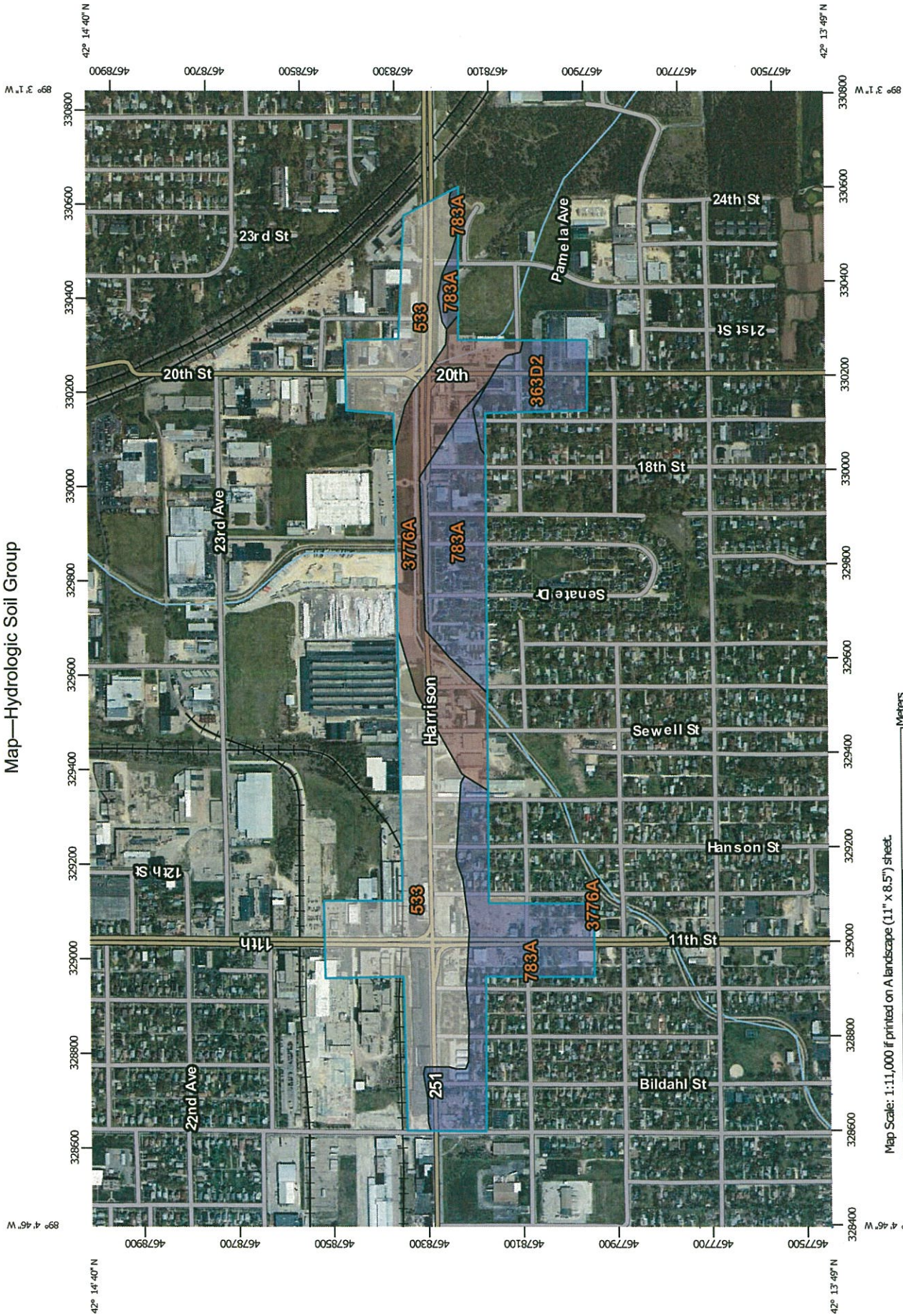
Custom Soil Resource Report

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Custom Soil Resource Report
Map—Hydrologic Soil Group



Map Scale: 1:11,000 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84



MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.






































Soil Survey Area: Winnebago County, Illinois
 Survey Area Data: Version 8, Dec 8, 2013

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 29, 2011—Mar 28, 2012

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

MAP LEGEND

 Area of Interest (AOI)	 Area of Interest (AOI)	 C
Soils	 C/D	 D
Soil Rating Polygons	 Not rated or not available	 Streams and Canals
 A	 A/D	Transportation
 B	 B/D	 Rails
 C	 C/D	 Interstate Highways
 D	 Not rated or not available	 US Routes
 Not rated or not available		 Major Roads
Soil Rating Lines		 Local Roads
 A	 A/D	Background
 B	 B/D	 Aerial Photography
 C	 C/D	
 D	 Not rated or not available	
 Not rated or not available		
Soil Rating Points	 A	
 A/D	 B	
 B	 B/D	
 B/D		

Custom Soil Resource Report

Table—Hydrologic Soil Group

Hydrologic Soil Group— Summary by Map Unit — Winnebago County, Illinois (IL201)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
363D2	Griswold loam, 6 to 12 percent slopes, eroded	B	7.9	7.0%
533	Urban land		45.9	40.6%
783A	Flagler sandy loam, 0 to 2 percent slopes	B	37.8	33.5%
3776A	Comfrey loam, 0 to 2 percent slopes, frequently flooded	B/D	21.4	18.9%
Totals for Area of Interest			112.8	100.0%

Rating Options—Hydrologic Soil Group

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

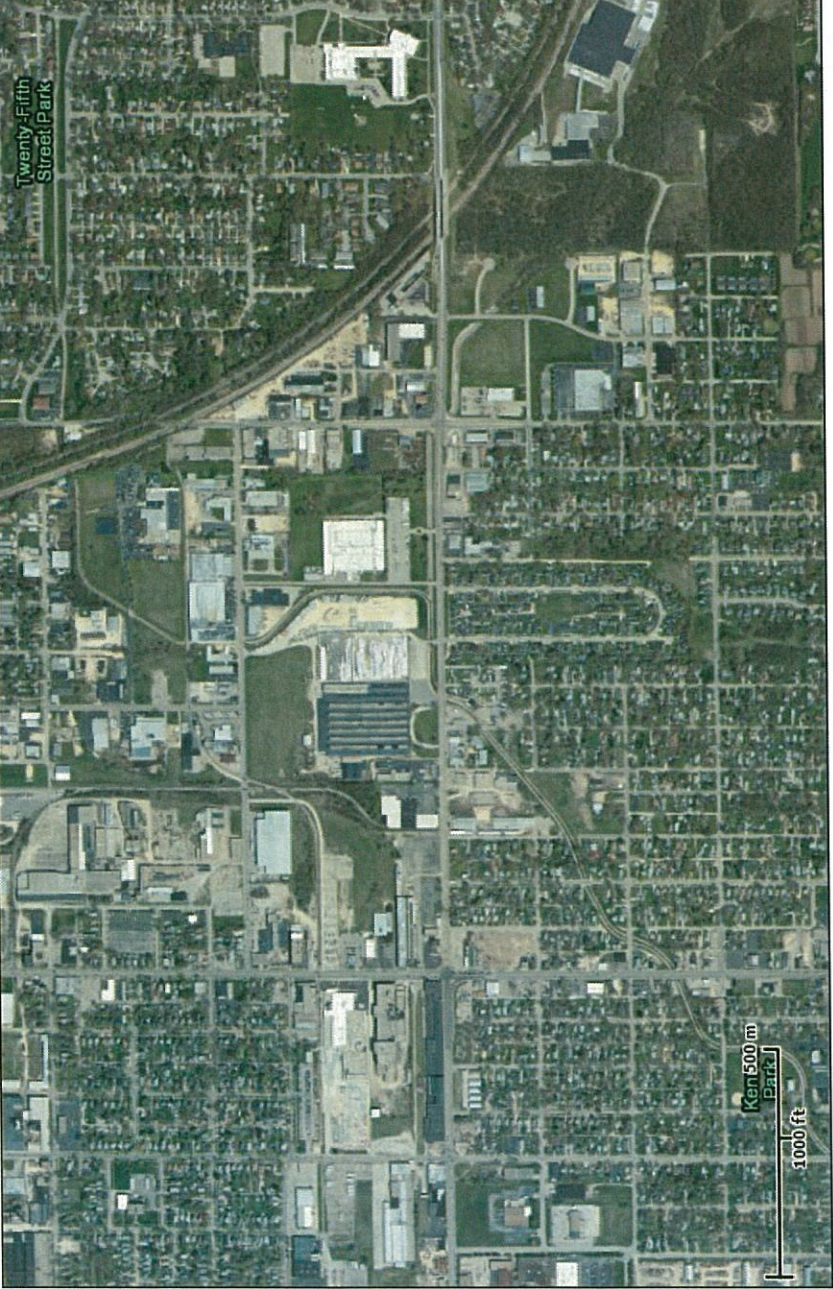
APPENDIX H

WETLAND MAP - RESOURCE MANAGEMENT
MAPPING SERVICE

**Harrison Ave
Roadway
Improvements
2015**

Apr 22, 2014

**U.S. Fish and Wildlife Service
National Wetlands Inventory**



Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

User Remarks:
No Wetlands within Project Area

APPENDIX I

STANDARDS AND SPECIFICATIONS
FOR SELECTED BMPs

ILLINOIS URBAN MANUAL
PRACTICE STANDARD

COFFERDAM

(no.)
CODE 803



Source: Kane-DuPage Soil and Water Conservation District

DEFINITION

A cofferdam is a temporary structure within a waterway or body of water designed to provide a dry work area for temporary construction activities and contain disturbed soil and/or suspended sediment.

PURPOSE

The purpose of this practice is to allow work to be performed in a waterway or body of water while minimizing turbidity and sedimentation in adjacent and/or downstream areas.

CONDITIONS WHERE PRACTICE APPLIES

This practice is to be used as a temporary measure whenever work will be conducted in a waterway (stream, river, or other linear feature

that conveys water) or body of water (lake, pond, or other impoundment). Water is either intercepted upstream and discharged downstream or diverted around the work site. Cofferdams may also be utilized in areas to allow work to be performed in otherwise unsuitable conditions.

Typical activities requiring the use of cofferdams include: shoreline stabilization of a water body; installation or replacement of a culvert, bridge, pier, or abutment; open-cutting for the installation of utilities; and stream restoration projects.

For the purposes of this standard, the term full cofferdam will refer to a cofferdam that blocks the entire base flow of water in a linear waterway and partial cofferdam will refer to a cofferdam that only blocks a portion of the base flow.

For situations in waterways where a full cofferdam is needed, please refer to practice standard **TEMPORARY DIVERSION 976** for temporary diversion practices.

For a full cofferdam in a perennial stream, Standard Drawing **IUM-676DC TEMPORARY STREAM DIVERSION – DIVERSION CHANNEL** may be used for temporary diversion practices.

For a full cofferdam in an intermittent stream, Standard Drawing **IUM-676DC TEMPORARY STREAM DIVERSION – DIVERSION CHANNEL**, Standard Drawing **IUM-676PD TEMPORARY STREAM DIVERSION – PIPE DIVERSION** or Standard Drawing **IUM-676BP TEMPORARY STREAM DIVERSION – BYPASS PUMP** may be used for temporary diversion practices.

This practice standard should not take the place of an engineered sheet pile cofferdam. Cofferdams designed utilizing this standard may necessitate review by an Illinois licensed engineer, depending on the size and scale of the cofferdam.

CRITERIA

General

Cofferdams must be constructed of non-erodible materials such as stone, metal, geosynthetics, or other products as approved by the responsible reviewing authority. The cofferdam materials shall be free of potential pollutants such as soil, silt, sand, clay, grease, or oil.

Any substance used to assemble or maintain cofferdams shall be non-toxic and non-hazardous. Any material used to minimize seepage underneath diversion structures, such as grout, shall be non-toxic, non-hazardous, and as close to neutral pH (7) as possible.

The exterior of vehicles and equipment that will be within the coffered area shall be maintained free of grease, oil, fuel, and residues. Stationary equipment such as motors, pumps, etc. located within the work area or adjacent to a water body shall be positioned over drip pans or other confinement area. All equipment shall be stored outside of the floodplain when not in use to avoid inundation during a high water event.

The term “low-flow conditions” used within this standard refers to flow at or below the ordinary high water mark (OHWM). The OHWM refers to a clear line developed by typical fluctuations in water levels. To avoid or minimize impacts, construction in a linear water feature shall be scheduled during seasonal or temporary periods of low- or no-flow conditions. Scheduling shall also consider seasonal releases of water from dams, water demands due to crop irrigation, and timed to minimize impacts on fish and other aquatic life. Cofferdams shall not be used across a stream bed at times when fish passage/spawning is of concern, unless properly mitigated.

Disturbance or removal of vegetation shall not exceed the minimum necessary to complete operations.

Disturbed areas shall be stabilized with the appropriate vegetation or other stabilization measures upon the completion of work or during periods of inactivity.

Excavated material or spoils resulting from the activity shall be removed from the coffered area as soon as possible and shall not remain overnight.

Waterways with a cobble bottom should be restored following the completion of work.

When installing a cofferdam in a linear water feature, every effort shall be made to block only a portion of the waterway by using a partial cofferdam. The reason for using a partial cofferdam is to maintain stream flow and allow the movement of aquatic life during construction. Blocking the entire flow shall only be done when absolutely necessary.

Sequencing

Prior to the commencement of in-stream activities, all appropriate soil erosion and sediment control measures shall be properly installed.

No construction equipment shall enter standing or flowing water. If equipment must access the work area through water, a non-erodible causeway must be constructed.

Cofferdams used in linear water features shall provide for emergency overflow at the center of the cofferdam to prevent erosion along the banks. The overflow system shall include an energy dissipating

surface and must not contribute to, or cause, erosion of the stream.

Following cofferdam installation, the work area shall be completely dewatered in order to work under dry conditions. Pumping of water may be required throughout the construction activities in order to maintain dry conditions. Practice standards DEWATERING 813 and SUMP PIT 950 may be utilized in order to achieve dry conditions.

Water pumped from the work area shall be filtered to ensure that the discharge results in no visible increase in suspended solids or turbidity in the water that is surrounding the work area. The quality of discharge water shall meet all applicable local, state, or federal regulations, whichever is most restrictive. Methods for cleaning water discharged from the work area include: Practice Standards PORTABLE SEDIMENT TANK 895, TEMPORARY SEDIMENT TRAP 960, or POLYACRYLAMIDE FOR SEDIMENT CONTROL 894, or other approved methods such as sediment dewatering bags.

All water pumped from, or diverted around, the work area shall be discharged on an energy dissipating surface and must not contribute to, or cause, erosion of the stream.

All temporary materials must be removed after the completion of construction activities. Prior to cofferdam removal, the work area must be stabilized with appropriate vegetative and/or structural practices in accordance with plan details and

specifications and be stable enough to accept flows, as determined by the responsible reviewing authority.

The downstream cofferdam shall be removed first followed immediately by the removal of the upstream cofferdam.

Design

The diversion or bypass flow shall be sized to safely convey the 2-year peak flow, at a minimum. The cofferdam shall be designed to overtop for any events greater than the 2-year peak elevation, unless higher peak flows are being bypassed. It is the responsibility of property owners and those performing work to safely convey flows to prevent damage to off-site properties.

If waterway information is not available, the ordinary high water (OHW) mark can be used as an indicator.

The construction of any cofferdam, within a linear water feature, regardless of duration, shall not cause a significant water level difference upstream or downstream of the project site. Stream velocity below the cofferdam shall be maintained at a rate similar to existing, pre-installation flow conditions above the cofferdam.

Cofferdam – Bladder

Inflatable bladders should only be used in situations where there is a relatively flat base material. Large variations in the base elevation will

result in an improper seal, which will allow water seepage. Bladder cofferdams are appropriate for both full and partial cofferdam situations.

Inflatable bladder cofferdams shall be constructed in accordance with manufacturer specifications. The specific sizing, installation requirements, maintenance, allowable flow velocities and other pertinent information shall follow manufacturer specifications. All cofferdams must be dual-chambered to avoid rolling.

Cofferdam – A-frame

A-frame cofferdams should only be used in situations where there is a relatively flat base material. Large variations in the base elevation will result in an improper seal, which will allow water seepage. A-frame cofferdams are appropriate for both full and partial cofferdam situations.

A-frame cofferdams shall be constructed in accordance with manufacturer specifications. The specific sizing, installation requirements, maintenance, allowable flow velocities and other pertinent information shall follow manufacturer specifications.

Cofferdam – Stone and Impermeable Barrier

Stone and impermeable barrier cofferdams should only be used in intermittent streams of lower flow velocity. These cofferdams may be used in partial cofferdam situations in higher velocity linear water features and water bodies.

This cofferdam method could be a possible option in areas where underground electrical and gas lines may be present. It may also be a good option for areas with an uneven, stone, or bedrock base material.

To install a stone impermeable barrier cofferdam, first place the impermeable barrier on the bottom of the water feature. The barrier should extend out past the edge of the future cofferdam a sufficient length so that it can be pulled back over the rip rap after it has been installed. This will create a seamless barrier on the water side with the opening seam on the work area side. After the barrier is pulled over the rip rap, it will likely be necessary to hold the impermeable barrier in place with rip rap or sandbags.

Rip rap should be sized appropriately to ensure that the cofferdam is able to withstand design flows.

Cofferdam – Steel Sheet

Steel sheet cofferdams are different from sheet pile cofferdams. Sheet pile cofferdams are considered to be engineered structures, where steel sheet cofferdams may not be. Steel sheet cofferdams are not recommended for partial cofferdams used in larger waterways or bodies of water.

Steel sheet cofferdams are appropriate for both full and partial cofferdam situations. Steel sheet cofferdams should not be used in areas where underground electrical and gas lines may be

present. Overhead wires located above the potential cofferdam location may also limit the use of this method. In areas with stone or bedrock base materials, the use of steel sheet for cofferdams may be difficult or impractical.

Steel sheet shall be driven into the base material a sufficient distance to avoid undercutting. Steel sheets shall be able to create a fully enclosed work area.

Impermeable Barrier Material

The impermeable barrier used in this standard should consist of one of the following materials:

- 1) rubber liner with a thickness of at least 45 mil. This material elongates up to 100% and has good UV resistance. A solvent weld is necessary to affix material into larger sections.
- 2) polypropylene liner with a thickness of at least 40 mil. This material elongates up to 80%. A heat gun is necessary to weld pieces together. Fabric puncturing may be a concern for this material.
- 3) polyvinyl chloride (PVC) liner with a thickness of at least 40 mil. High elongation properties but not UV stable. A solvent weld is necessary to affix material into larger sections.

CONSIDERATIONS

This standard describes four typical cofferdam types, but others are possible. Alternative cofferdams should be designed based on the general criteria of this standard and adapted to meet the requirements of similar cofferdam types. As an example, rather than stone for the stone and impermeable barrier cofferdam, alternative fillers may be used, such as sand bags or gravel bags. In addition, the up- and downstream cofferdam types can be different.

Cofferdams are temporary and should not be left for long periods of time. Additional considerations should be incorporated for long-term cofferdam usage such as issues with ice flow or aquatic life movement. Long-term cofferdams may have to be built to withstand a less frequent (higher magnitude) storm event.

Any work within a stream may be subject to the rules and regulations of the U.S. Army Corps of Engineers. A permit may also be required from the Illinois Department of Natural Resources and Illinois Environmental Protection Agency.

Additional requirements may apply in areas where state or federally threatened or endangered species are present or other species of local interest.

Prior to the installation or removal of a cofferdam, a SILT CURTAIN 917 may be installed to contain turbid water and allow suspended solids resulting from the installation of the

cofferdam to settle out. Silt curtains should never be placed across stream flow as they may reduce flow and catch debris. The curtains should be placed parallel to flow or the shoreline to contain sedimentation that may occur during the installation of the cofferdam.

The use of sandbags as a seal for areas of seepage from the cofferdam is permissible. Sandbags must only be placed within the cofferdam when utilized for this purpose.

Cofferdams can be used in a variety of situations and as such, require a variety of different practices based on the individual site conditions and work to be performed. All other appropriate cofferdam methods not listed in this standard should be designed by an engineer and constructed to meet the requirements of the local, state, or federal regulations, whichever is more stringent.

When using a partial cofferdam, the potential for scour of the open portion of channel should be considered.

PLANS AND SPECIFICATIONS

Plans and specifications for cofferdams shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose. The following items shall be included in the plans:

- 1) The location of the cofferdam
- 2) Cofferdam type
- 3) Normal water elevation

- 4) Installation, inspection, and maintenance schedules with the responsible party identified
- 5) The 2-year peak flow and elevation values

Standard drawings IUM-503AF – A-Frame Cofferdam, IUM-503AP – A-Frame Partial Cofferdam, IUM-503BF – Bladder Cofferdam, IUM-503BP – Bladder Partial Cofferdam, IUM-503RF – Rock Cofferdam, IUM-503RP – Rock Partial Cofferdam, or IUM-503SS – Steel Sheet cofferdam may be used as the plan sheet.

OPERATION AND MAINTENANCE

Because the potential for washout is high, the cofferdam shall be monitored daily and must not be left unattended for longer than 24 hours. Weather reports should be observed. If a storm event is expected, the site shall be stabilized in preparation as appropriate. All repairs shall be made immediately to prevent further damage to the installation.

Regularly inspect cofferdams for leaks or other deficiencies. Sandbags used within the cofferdam, if applicable, must be removed by hand to prevent breakage.

All disturbed soil within the coffered area shall be returned to original condition with all possible efforts made to retain the existing soil profile prior to the removal of the dams.

The side slopes shall be reseeded and stabilized with an appropriate erosion control blanket and the

substrate shall be restored to pre-construction conditions. Stabilization of all remaining disturbed areas shall be initiated immediately following the removal of the cofferdams. In no instance shall areas adjacent to water features be left disturbed overnight.

REFERENCES

Tennessee Department of Environment and Conservation, Division of Water Pollution Control. Stream Diversion Channel – SDC. Tennessee Erosion and Sediment Control Handbook, Second Edition, March 2002.

Delaware Department of Natural Resources & Environmental Control – Division of Soil & Water Conservation, Delaware Erosion and Sediment Control Handbook, June 2005.

January 2013

urbst803.doc

EROSION CONTROL BLANKET

(sq. ft.)
CODE 830



(Source: USDA – Kane DuPage Soil and Water Conservation District)

DEFINITION

A temporary protective blanket of degradable materials; e.g: straw, wood, coconut, jute, or blend of these materials bound into a mat, usually with a plastic or degradable mesh or netting on one or both sides.

PURPOSE

The purposes of this practice are to protect the soil surface from raindrop impact and overland flow during the establishment of vegetation, and to reduce soil moisture loss due to evaporation.

CONDITIONS WHERE PRACTICE APPLIES

This practice applies on exposed slopes and newly seeded areas. These mats are used on slopes that are 2:1 or flatter. The most common application for erosion control blankets is on slopes and flat areas where turf will need to be established. For swales and channels please refer to practice standard 831 TURF REINFORCEMENT MAT. A

designer should determine blanket type.

CRITERIA

Blanket type should be selected by slope steepness, shear stress, degradation of the blanket, and the duration of time that the blanket will be protecting the soil solely without vegetation. Erosion Control Blankets shall be installed after the seed bed preparation, fertilizing, or liming and seeding is completed. Refer to practice standards 965 TEMPORARY SEEDING and 880 PERMANENT SEEDING.

The blanket shall be in firm contact with the soil. All rocks or soil clods 1.5 inches or larger must be removed prior to installation. It shall be anchored per the manufacturer's recommendation with the proper number and spacing of wire staples. The staples/pins shall be the proper width and length to meet the manufacturer's recommendations.

On slopes and in low flow channels, the blanket shall be unrolled upstream to downstream parallel to the direction of flow. The upstream end of each blanket shall be anchored in a minimum 6-inch deep anchor trench, backfilled, and compacted. These blankets, when laid side by side, shall overlap a minimum of 4 inches. When more than one blanket length is needed, the material shall be shingled at a minimum of 4 inches over the downstream piece as shown in standard drawing EROSION CONTROL BLANKET IL-530. All edges shall be stapled as per manufacturer's recommendation or at least as stringent as that stated in standard drawing IUM-530.

CONSIDERATIONS

Different types of Erosion Control Blankets may be needed for each slope on a construction site and these variations should be reflected on the site's development plan. Erosion Control Blanket materials and netting will break down over time. The proper blanket type should be chosen so that it lasts long enough for the grass or other vegetation to become established. For swales and channels and in other areas of concentrated flow or where a permanent blanket is needed for stabilization refer to practice standard 831 TURF REINFORCEMENT MAT.

PLANS AND SPECIFICATIONS

Plans and specifications for installing Erosion Control Blankets shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose. At minimum erosion control

plans should include the following items:

1. Location of the Erosion Control Blanket
2. Type of blanket
3. Location and cross section of anchor trenches
4. Staple spacing
5. Installation procedures

Standard drawing EROSION CONTROL BLANKET IL-530 may be used as part of the plan sheet. Also, consider adding material specs 800, 801, 802, or 803.

OPERATION AND MAINTENANCE

Inspect all Erosion Control Blankets periodically and after rainstorms to check for damage due to water running under the blanket or if the blankets that have been displaced by wind. Any areas where water seeped under the blanket, more staples may be needed per given area or more frequent anchoring trenches installed with better compaction. If significant erosion has occurred under the blanket then grading and reseeding may also be necessary. Any Erosion Control Blankets that have been displaced will need to be re-installed and re-stapled. This may indicate that the wrong type of blanket was chosen. One may need to revisit the site characteristics and then select a different type of Erosion Control Blanket or chose a different practice.

REFERENCES

U.S. Department of Agriculture, Natural Resources Conservation Service Iowa, 2004. Conservation Strategies for Growing Communities

IDOT

ISTHA

(ECTC), Standard Specification for
Rolled Erosion Control Products or
RECPs Table1.”

Erosion Control Technology Council

IL Urban Manual Technical
Committee

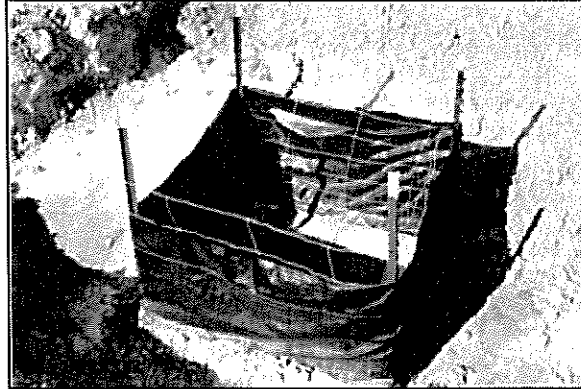
June 2009

urbst830.doc

NATURAL RESOURCES CONSERVATION SERVICE
ILLINOIS URBAN MANUAL
PRACTICE STANDARD

INLET PROTECTION - FABRIC DROP

(no.)
CODE 860



(Source: NC Erosion and Sediment Control Field Manual)

DEFINITION

A temporary fabric barrier placed around a drop inlet.

PURPOSE

The purpose of this practice is to help prevent sediment from entering storm drains during construction operations. This practice allows early use of the storm drainage system.

CONDITIONS WHERE PRACTICE APPLIES

A fabric drop type of inlet protection may be used where storm drain inlets are to be made operational before permanent stabilization of the disturbed drainage area. This method of inlet protection is effective where the inlet drains a small, nearly level area with slopes generally less than 5% and where shallow sheet flows not exceeding 1 cfs are expected. The immediate land area around the inlet should be relatively flat (less than 1% slope) and located so that accumulated sediment can be easily removed. This method should not be

used in areas receiving concentrated flows, such as in street or highway medians.

CRITERIA

The maximum drainage area shall not exceed 1 acre per inlet.

The maximum height of fabric above the crest of the drop inlet shall be 1.5 feet. This height allows a shallow temporary de-silting pool to form behind the fabric but limits the pressure against the fabric if overtopping occurs. The selected height of the top of the barrier should allow overflow to the drop inlet and not let overflow bypass the inlet to unprotected lower areas. It may be necessary to build a temporary dike on the downslope side of the structure to prevent bypass flows.

For fabric barriers, use stakes of 2 x 4-inch wood (preferred) or equivalent metal with a minimum length of 3 feet. Space the stakes a maximum of 3 feet apart, and securely drive them into the

ground to a depth of approximately 18 inches.

Drive the stakes close to the drop inlet so that overflow will fall directly into the structure and not on unprotected soil.

To provide needed stability to the installation, make a frame around the stakes a maximum of 1.5 ft above the top of the drop inlet. This will serve as a stable crest for overflow during rainfall. Place the bottom 12 inches of the fabric in a trench and backfill the trench with 12 inches of compacted soil or six inches of crushed gravel.

Fasten fabric securely by staples or wire to the stakes and frames. Joints must be overlapped to the next stake.

Improved performance and sediment storage volume can be obtained by excavating the area. See practice standard, INLET PROTECTION - EXCAVATED DRAIN 855. The fabric shall meet the requirements as shown in Material Specification 592 GEOTEXTILE Table 1 or 2, Class 1 with an AOS of at least 30 for non-woven and 50 for woven.

CONSIDERATIONS

In developing areas, installation of streets and storm sewer networks usually occur before the construction of homes, businesses or other developments. During this and subsequent phases of construction, unprotected soil is susceptible to erosion. Storm sewers that are operational before their drainage areas are stabilized often carry large amounts of sediment to lakes, detention ponds, streams, or other natural or constructed drainageways. As a result, the water

quality of the receiving body of water is detrimentally affected. In cases of extreme sediment loading, the storm sewer may clog completely or lose a major portion of its capacity. To avoid these problems, it is necessary to prevent sediment from entering the system at the inlets.

Storm drain inlet protection consists of several types of inlet filters and traps. Each type differs in application dependant upon site conditions and type of inlet. Not all designs are appropriate in all cases. The user must carefully select a design suitable for the needs and site conditions.

Inlet protection devices are for drainage areas of one acre or less. Runoff from areas larger than one acre should be routed through a properly designed practice such as IMPOUNDMENT STRUCTURE-ROUTED 842 or TEMPORARY SEDIMENT TRAP 960.

In some instances, a wire mesh may be needed to reinforce the fabric and supporting posts. This should be used in areas where concentrated flows may occur or where timely maintenance may be a concern. If used, the wire mesh shall have a maximum opening of 6 inches.

A temporary berm may need to be constructed downstream of the inlet protection device to prevent bypass.

The best way to prevent sediment from entering the storm sewer system is to stabilize the disturbed area of the site as quickly as possible, preventing erosion and stopping sediment at its source.

PLANS AND SPECIFICATIONS

NRCS IL February 1994

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The plans and specifications for installing fabric drop inlet protection shall be in keeping with this standard and shall describe requirements for applying the practice to achieve its intended purpose. At a minimum include the following items:

1. Inlet location.
2. Type and size support posts.
3. Fabric material requirements.
4. Detail around inlet structure.

All plans shall include the installation, inspection, and maintenance schedules with the responsible party identified.

Standard drawing IL-560 INLET PROTECTION - FABRIC DROP PLAN may be used as the plan sheet.

OPERATION AND MAINTENANCE

Inspect the fabric barrier after each rain and make repairs as needed.

Sediment deposits should be removed after each rainfall to provide adequate storage volume for the next rain. The sediment must be removed when the level of deposition reaches approximately one-half the height of the barrier. Be careful not to damage or undercut the fabric during sediment removal.

When the contributing drainage area has been adequately stabilized, remove all materials and any unstable sediment and dispose of them properly. Bring the disturbed area to the grade of the drop inlet and smooth and compact it. Appropriately stabilize all bare areas around the inlet.

PRACTICE STANDARD

INLET PROTECTION – PAVED AREAS

(no.)
CODE 861



Source:AISWCD

DEFINITION

A temporary sediment control barrier formed around or in a storm drain inlet in paved areas.

PURPOSE

The purpose of this practice is to help prevent sediment from entering storm drains during construction.

CONDITIONS WHERE PRACTICE APPLIES

Various inlet protection practices are used where storm drain inlets are to be made operational during construction operations and before permanent stabilization of the disturbed drainage area. The methods of inlet protection are effective for areas that are paved and areas under construction. Sheet flow or concentrated flows are permitted with these methods. These methods of inlet protection are not applicable for direct discharges from pumps unless the pump discharges are treated prior to discharging to the inlets.

CRITERIA

The primary sediment to be trapped shall be identified and the appropriate

filter requirements specified per manufacturers' recommendations.

When flow rates are critical to the functioning of a site, the selection of the inlet protection device shall include the specified flow rate and the selection of the filter made in conjunction with the specifications for trapping sediment.

Inlet protection using fabric only as a drop-in shall not be allowed.

In situations where a compost filter sock is to be used, follow practice standard COMPOST FILTER SOCK 805.

Drop-in inlet protection devices shall include an overflow which prevents stormwater from flooding paved areas.

CONSIDERATIONS

In developing areas, installation of streets and storm sewer networks usually occur before construction of homes, businesses or other developments. During this and subsequent phases of construction, unprotected soil is susceptible to erosion. The sediment from this erosion may be carried onto paved areas and into the storm sewer system. In addition, sediment, such as concrete dust, may be transported from paved

areas under construction into the storm sewer system as well as sediment tracked onto the paved areas by construction equipment. Sediment that enters into the storm sewer system can be carried to lakes, detention ponds, or other natural or constructed drainageways. As a result, the water quality of the receiving body of water is detrimentally affected. In cases of extreme sediment loading, the storm sewer system may clog completely or lose a major portion of its capacity. To avoid these problems, it is necessary to prevent sediment from entering the system at the inlets.

Inlet protection consists of several types of inlet filters and traps. Each type differs in application dependent upon site conditions and type of inlet. Not all designs are appropriate in all cases. The user must carefully select a design suitable for the needs and site conditions.

Inlet protection is provided by placing a filter in front, around, on top or inside the inlet. Refer to practice standard COMPOST FILTER SOCK 805 for information on using compost socks for inlet protection.

Following are several items to consider when selecting which type of inlet protection to use:

1. Snow removal and street sweeping typically operate close to curbs and in streets or parking lots where inlets are located and can damage inlet protections that are placed in-front, around or above inlets.
2. Use designs that can withstand construction equipment that drive over inlet protections placed in front of inlets.
3. Safety concerns since inlet protections placed in front, around or above inlets typically cause significant ponding into the street or around the inlets.
4. Inlet protections placed in front of, around or above inlets are easily inspected and can be determined if functioning properly.
5. Inlet protections placed in front of or around inlets are flexible and can be applied to various types of inlets.
6. Inlet protections placed inside the inlet are more difficult to determine if functioning properly since sediment removal occurs inside the inlet structure. Inspections must be made close-up to determine effectiveness and for any damage to the protection.
7. Inside types of inlet protection are out of the way of construction equipment and other traffic and do not pond water into traffic areas.

Following are additional considerations that apply to all types of inlet protection methods:

1. The sediment storage capacity of the inlet protection method.
2. Practicality and ease of removing sediment and other pollutants.
3. Durability and the potential problems if the protection fails.
4. The source of runoff to each inlet so the sediment source is identified as well as flow rates if applicable.

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Inlet protection methods should always be combined with other erosion and sediment controls. Also, a combination or series of inlet protection practices can also be used at each inlet to provide additional protection for the storm sewer system.

To prevent sediment from entering the storm sewer system, stabilize disturbed areas as quickly as possible and have routine maintenance where sediment, such as material tracked onto pavement areas, is removed prior to any runoff events.

PLANS AND SPECIFICATIONS

Plans and specifications for installing inlet protection practices shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose. At a minimum include the following items:

1. Locations of inlet protection practices.
2. Type and size of inlet protection.
3. Filter specifications.
4. Installation directions, per manufacturers' specifications.

All plans shall include the installation, inspection, and maintenance schedules with the responsible party identified.

The inlet protection practice shall be constructed in a manner meeting the requirements of standard drawings for the different types of inlet protection

being specified. The designer shall check that the requirements of this standard are met if using drawings prepared by manufacturers of the inlet protection devices. Standard Drawings **IUM-561C INLET PROTECTION – PAVED AREAS CURB PROTECTION** and **IUM-561D INLET PROTECTION – PAVED AREAS DROP-IN PROTECTION** can be used as the plan sheets.

OPERATION AND MAINTENANCE

Each inlet protection practice or device shall be inspected after every runoff event. Accumulated sediment shall be removed per manufacturers' directions but not less than when the capacity for sediment storage has been reduced by half. Sediment that has been removed shall be placed such that it will not reenter the storm drain system.

Repairs or replacement of inlet protection devices shall be made immediately.

For devices to be kept in place in the winter season, areas shall be cleared of any sediment accumulation and prepared or protected for snow removal operations.

Inlet protection practices shall be removed upon job completion.

REFERENCES

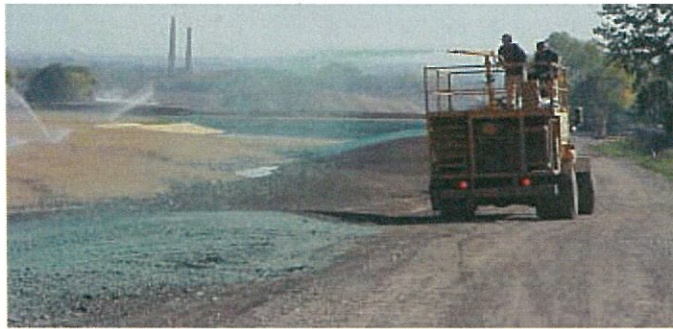
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Technical Standards

January 2011
urbst861.doc

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MULCHING FOR SEEDING AND SOIL STABILIZATION

(no.)
CODE 875



(Source: Kane-DuPage Soil and Water Conservation District)

DEFINITION

The application of mulch materials over seeded areas or for soil stabilization.

PURPOSE

The purposes of this practice are as follows:

1. To prevent erosion and surface compaction or crusting by protecting the soil surface from raindrop impact and reducing the velocity of overland flow.
2. To foster the growth of vegetation by conserving available moisture and providing insulation against extreme heat and cold.

CONDITIONS WHERE PRACTICE APPLIES

1. Areas that have been seeded to provide permanent vegetation.
2. Areas that have been seeded to provide temporary erosion control.
3. Areas requiring soil stabilization.
4. Areas with slopes of 3:1 (H:V) or flatter.

This practice does not apply to tree and shrub planting areas. Follow the requirements of practice standard [TREE](#)

[AND SHRUB PLANTING 985](#) for mulching in these areas.

This practice does not apply to areas where concentrated flows are present. Follow the requirements set forth in other practice standards, such as [EROSION BLANKET: TURF REINFORCEMENT MAT \(TRM\) 831](#) or [SODDING 925](#).

For slopes greater than 3:1 (H:V), follow the requirements of practice standard [EROSION BLANKET 830](#), [EROSION BLANKET: TURF REINFORCEMENT MAT \(TRM\) 831](#), [SOIL BIOENGINEERING 926](#), or [SURFACE ROUGHENING 953](#).

CRITERIA

When used over seeded areas, mulching Methods 1, 2 and 3 shall be performed within 24 hours of the application of seed. Seed shall be applied in accordance with practice standard [PERMANENT VEGETATION 880](#) or [TEMPORARY SEEDING 965](#).

Areas to receive mulch shall be prepared in accordance with construction specification [6 SEEDING, SPRIGGING AND MULCHING](#).

Foot and vehicular traffic and equipment movement shall be prohibited in mulched areas.

The choice of materials and application method shall be based on the soil type, slope length, slope angle, and season.

Mulch Materials – Straw mulch shall come from oats, wheat, rye or barley and be free of diseased plant residue, weed seeds, and harmful chemical residues. Hydraulic mulch shall consist of wood, cotton, straw, or paper – or a combination of the four. Compost shall be thoroughly decomposed organic waste. Chemical mulch binder shall be approved as safe for the surrounding ecosystem. Manufactured mulches shall be installed in accordance with manufacturer's specifications.

Method 1 – This method shall consist of the application of straw mulch at a rate of 2 tons/acre. This method shall be used on relatively flat surfaces in areas protected from wind.

Method 2 – This method shall consist of the application of stabilized straw mulch at a rate of 2 tons/acre. This method shall be used in areas of moderate slope, when the ground is not frozen. Mulch shall be stabilized using one of the following methods:

1. Anchoring by means of mechanical stabilizer, or crimper, with dull, flat, parallel disks spaced approximately eight inches apart. Mulch material shall be tucked 2" to 3" into the soil surface. Anchoring operation shall operate as close to the contour as possible.
2. Stabilizing by the application of an overspray of hydraulic mulch after the application of straw mulch. The hydraulic mulch shall be applied by an approved hydraulic mulcher at a minimum rate of 900 lb. of mulch per acre. The hydraulic mulch shall be mixed in accordance with manufacturer's recommendations. Hydraulic mulch shall not be applied when the ambient temperature is at or below freezing.

3. Anchoring by means of stabilizing the mulch with a chemical mulch binder applied with the straw or as an overspray.

Method 3 – This method shall consist of machine application of hydraulic mulch using an approved hydraulic mulcher. The mulch shall be applied at a rate of 1 ton of mulch per acre. The hydraulic mulch shall be mixed in accordance with manufacturer's recommendations.

Hydraulic mulch shall not be applied when the ambient temperature is at or below freezing. To achieve full and even coverage, the hydraulic mulch shall be applied from two opposing directions.

Method 4 – This method shall consist of the application of compost. Compost shall be applied using a pneumatic blower to a depth of 2 inches. Compost shall be produced at an IEPA permitted facility and be United States Composting Council (USCC) certified.

When compost is used for seeding applications, the seed shall be blended through the mulch or applied to the top of the mulch. Compost shall not be applied over soil that has been seeded.

CONSIDERATIONS

Organic mulch materials such as paper, cotton, straw and wood fiber do not need to be removed since they can incorporate naturally into the soil. Organic mulches should be used where practical. Mulch that can be windblown, such as straw, should be anchored to stay in place.

Chemical mulch binders may be used as recommended by the manufacturer to anchor mulch. When using chemical mulch binder it is important to allow for the required curing time or drying time.

Erosion control blankets also meet the purposes of mulching and can be used

in lieu of this standard. See practice standard [EROSION BLANKET 830](#) and/or [EROSION BLANKET: TURF REINFORCEMENT MAT \(TRM\) 831](#).

When Polyacrylamide (PAM) is used in place of or in addition to mulch products, it shall be applied per practice standard [POLYACRYLAMIDE \(PAM\) FOR TEMPORARY SOIL STABILIZATION 893](#).

Mulch may also be used for aesthetic reasons or to minimize weed growth, however, these are not the primary purposes of this practice standard.

PLANS AND SPECIFICATIONS

Plans and specifications for applying mulch shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose. At a minimum include the following items:

1. Method(s) to be used
2. Application rates for mulch and anchoring material
3. Anchoring method, if applicable
4. Times of application
5. Location of different materials if more than one material is used on the site

OPERATION AND MAINTENANCE

All mulches shall be inspected periodically, in particular after rain events greater than ½ inch, to check for rill erosion and uniform coverage. Where erosion is observed or where mulch has been displaced, the seeding and mulch, as well as other damages, shall be repaired or replaced immediately. Inspections shall occur until seeded areas are firmly established or soil stabilization is no longer required.

Operations by equipment on or near the site shall not damage the intended purpose of the mulch. Any damage

shall be repaired or replaced immediately.

REFERENCES

Illinois Department of Transportation. Standard Specifications for Road and Bridge Construction. January 1, 2007.

Tennessee Department of Environment and Conservation, Division of Water Pollution Control. Tennessee Erosion and Sediment Control Handbook, Second Edition. Disturbed Area Stabilization (With Mulch) – MU. Nashville, TN. March 2002.

O'Hare Modernization Program, Master Specifications, Volume IIIC. Seeding T-901. Rev. 11, Issued 10/15/2008

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April 2010

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NATURAL RESOURCES CONSERVATION SERVICE
ILLINOIS URBAN MANUAL
PRACTICE STANDARD

PERMANENT VEGETATION

(acre or sq.ft.)
CODE 880



(Source: USDA - Natural Resources Conservation Service - Illinois)

DEFINITION

Establishing permanent vegetative cover to stabilize disturbed or exposed areas.

PURPOSE

The purposes of this practice are to:

1. Permanently stabilize disturbed or exposed areas in a manner that adapts to site conditions and allows selection of the most appropriate plant materials.
2. Reduce erosion and sedimentation from such areas.
3. Create a landscape that enhances soil permeability and the filtering of runoff pollutants, while improving wildlife habitat.

CONDITIONS WHERE PRACTICE APPLIES

1. Disturbed areas where long-lived vegetative cover is needed to stabilize the soil.

2. Rough graded areas that will not be brought to final grade for a year or more.
3. Other areas where permanent cover is desired.

CRITERIA

Selection of plant materials

Selection of plant materials shall be based on climate, topography, soils, moisture conditions, land use, available light (shade tolerance), aesthetics, planned use of the area, and the degree of maintenance desired. All seed shall be of high quality and comply with Illinois Seed and Weed Laws.

See Tables A, B and C for selection of grasses, forbs, ground covers, and vines under different moisture and light conditions. These tables provide information for selected species that are generally commercially available and suitable for use in urban and agricultural settings. The native species presented represent those that are more tolerant of disturbed urban situations where this

practice would be applied. See the references given with the tables for information on additional species. The tables in this standard are not meant to be all-inclusive and the information in this standard can be applied to other species that may be desired or suitable for a given application. For trees and shrubs see practice standard TREE AND SHRUB PLANTING 985. For manicured turf grass sod, see practice standard SODDING 925.

Site Preparation

The site shall not be worked when frozen or saturated. Install necessary erosion and sediment control practices before seeding, and complete grading according to the approved plan. The grading plan shall utilize techniques and equipment that minimize soil compaction. If the final graded site consists of subsoil that may have been compacted by heavy equipment during grading activities, the subgrade shall be scarified to a depth of at least four inches by chisel plowing, disking or harrowing. This practice will create at least limited pore space for water and root penetration and bonding of the topsoil and the subsoil.

After the grading operation, spread topsoil where needed following practice standard TOPSOILING 981. Topsoil shall meet criteria in material specification 804 MATERIAL FOR TOPSOILING.

Seedbed preparation

If needed based upon soil conditions and desired vegetation type, incorporate the lime and fertilizer into the soil with a disk harrow, springtooth harrow, or similar tools to a depth of at least 3

inches. On sloping areas the final operation shall be on the contour.

Prior to seeding or planting, the seedbed shall be relatively free of all weeds ($\geq 80\%$ weed free), stones, roots, sticks, rivulets, gullies, crusting and caking, or other debris which may interfere with seeding or planting operations or plant establishment.

The seedbed shall not be worked when frozen or saturated. Prior to seeding or planting the surface shall be disked or raked to a depth of 2-3 inches either by hand or mechanical means to create a smooth uniform seedbed. This operation should result in a seedbed comprised of soil aggregates ranging from fine to coarse, with none larger than two inches in diameter.

In areas that have not been regraded, which have grown up in weeds, or to be no-till seeded, a herbicide application may be necessary to reduce competition with the desired vegetation. An approved herbicide may be used to treat such areas to kill all existing vegetation. Herbicide application shall be done at least 15 days prior to seeding or planting.

Fertilization

Fertilizer or lime is generally not recommended for native vegetation establishment unless soil tests indicate $\text{pH} < 5.5$, $\text{P} < 15 \text{ lb./ac.}$, or $\text{K} < 150 \text{ lb./ac.}$ If levels are below this, apply lime and fertilizer according to a soil test and the needs of the vegetation selected.

Seed

All legumes shall be inoculated with the

proper inoculant prior to seeding. Seeding rates given in Tables A and B are based upon Pure Live Seed (PLS).

Seed mixtures shall be selected according to site conditions and desired use and appearance. Other considerations include soil moisture condition, shade tolerance, mowing tolerance, winter hardiness, flooding tolerance, mature height, emergence time, and salt tolerance.

All seeds shall have the proper stratification and/or scarification to break seed dormancy for spring or early summer plantings. No treatments are needed for late summer, early fall, or dormant seeding.

Seeding

Seeding may be done by any of the following methods:

1. Conventional Drill

- a. Apply seed uniformly at a depth of 1/4 to 1/2 inch with a drill (band seed) or cultipacker seeder. On sloping land, seeding operations should be on the contour wherever possible.
- b. Apply mulch or erosion blanket following seeding as required.

2. Broadcast Seeding

- a. Cultipack or roll seedbed, then apply seed uniformly and cover to 1/4 to 1/2 inch depth with a cultipacker, or similar tool. Spinning disc type broadcasters equipped with an agitator are effective with native seed mixes. Often broadcasters require the use of a carrying agent such as oats or vermiculite. Attention

should be given to seed mixes with seeds of varying size and weight so that the seed remains effectively mixed during seeding operations.

- b. On sloping land, dragging, harrowing or cultipacking should be done on the contour to ensure seed-soil contact and reduce erosion.
- c. Apply mulch or erosion blanket following seeding as required.

3. Hydroseeding

- a. For areas to be hydroseeded, final seedbed preparation shall leave the soil surface in a slightly roughened condition.
- b. Lime and fertilizer shall be incorporated prior to seeding unless they are to be applied at the same time as the seed (applying lime with a hydroseeder may be abrasive to the equipment). Do not use hydrated lime in a slurry mix.
- c. A minimum of 1000 gallons of water per acre shall be used. The hydraulic seeding equipment shall include a pump rated and operated at no less than 100 gallons per minute and at no less than 100 pounds per square inch pressure. The tank shall have a mechanical agitator powerful enough to keep all materials in a uniform suspension in the water. Calibration of the hydraulic equipment shall be accurate.
- d. When seeding legumes, increase the recommended rate for inoculant four times for hydroseeding. If legume inoculant is added to a fertilizer and/or lime, seeding should be applied within 30 minutes.

- e. If seed and fertilizer are mixed together they should be seeded within 2 hours of mixing.

4. Dormant Seeding

Dormant seeding may be done between November 15 and March 15 by using conventional drill or broadcast methods.

If soil conditions are suitable during the dormant seeding period, prepare the seedbed and seed as indicated in this specification. Apply mulch or erosion blanket following seeding.

5. No-till

In some instances it may be desirable to sow seed into existing sod, a temporary cover crop, or natural vegetation. Drilling may be done after herbicide application to non-native sod or undesirable weeds such as Canada thistle. A rangeland type grass drill with a no-till attachment shall be used. Seeds should be drilled to the depth appropriate for the species, according to the supplier's recommendations.

The seeds of some plants require light to stimulate germination and growth. In situations with some of these species, particularly some native forbs, a combination of broadcasting and no-till drilling may be used. Grasses should be drilled first, followed by broadcasting of the desired forbs.

Plugs and Rootstock

Some plants cannot be grown readily from seed and must be planted vegetatively (see Table A). Plugs are young plants that are grown in a nursery or greenhouse for transplant. Rootstock may consist of fragments of horizontal

stems or roots that include at least one node (joint).

1. Plugs

Plugs shall be planted in designated areas according to site plans and the recommendations of the supplier for that species. Attention should be given to soil moisture, anticipated flooding, shade, and other factors.

- a. Plugs shall be planted in a hole dug with a trowel, spade, planting bar, or suitable instrument such that the hole is of a minimum diameter and depth to accommodate the plug, with its roots, without damage.
- b. The soil excavated from the planting hole should be used to backfill around the plant and lightly packed to secure the roots in the soil.
- c. Plugs shall be watered upon completion of planting enough to keep soil moist but not saturated.
- d. If planting is delayed more than six hours after delivery, store plugs in the shade, protect from the weather and mechanical damage, and keep them moist and cool. All plugs should be planted within 24 hours of delivery.
- e. Plugs shall be obtained from a reputable nursery or grown from seed. Plugs shall not be collected from wild populations of plants.

2. Rootstock

Plant tubers and other rootstock into a properly prepared area according to the following and in accordance with the

suppliers recommendations for that species.

- a. Tubers and rootstock should be freshly dug before planting. If planting is delayed, protect material from weather and mechanical damage, and keep moist and cool. Do not use materials that have been in cold storage more than 45 days.
- b. Holes for planting rootstock shall be dug in locations shown on plans or as adjusted in the field.
- c. Holes shall be dug with a trowel, spade, planting bar or other suitable instrument, such that holes are of a minimum depth and diameter to accommodate the tuber or rootstock without damage.
- d. Rootstock shall be obtained from a reputable nursery or grown from seed. Rootstock shall not be collected from wild populations of plants.

Ground Covers

Most shrub and vine type ground covers are available as bare root stock, balled and burlapped, or in containers or pots. Many ground covers and vines perform best when planted in the spring. Container-grown plants can be planted throughout the growing season if adequate water is provided.

Ground covers and vines are plants that naturally grow very close together and close to the ground or climbing over other plants. This can cause severe competition for space, nutrients and water. Soil for ground covers should be well-prepared. A well-drained soil high in organic matter is best. If the area to be planted is so large or difficult to

prepare due to steepness or rockiness that adding amendments to the soil as a whole would be impractical, organic matter and fertilizer may be added to each planting hole.

Lime and fertilize according to soil test, if needed. If no soil test is available and the soil is believed to be deficient, add 30 lbs. of 10-10-10 fertilizer and 100 lbs. of ground agricultural limestone per 1000 square feet. Incorporate into the top 4 to 6 inches of the soil.

When planting individual plants, prepare a hole slightly larger than the container or ball and deep enough that the roots can extend to the bottom. Most ground covers should be planted ½" to 1" deeper than they have grown in the pot or container.

Mulching/Erosion Blanket

All permanent seedings shall be mulched upon completion of seed application or planting. Refer to practice standard MULCHING 875. Erosion blanket should be substituted for mulch on steep slopes (10% slope or greater) or wherever highly erosive conditions exist (e.g. in drainage swales or waterbody shorelines). Refer to practice standard EROSION BLANKET 830. When planting plugs and tubers, particularly in wetland plantings, mulch or erosion blanket should NOT be used except in specific areas with erosive conditions. When planting ground covers it may be advantageous to apply mulch or erosion blanket prior to planting. Plants should then be tucked into the soil through slits or holes. In all cases, planting should be done in a staggered pattern to minimize erosion.

CONSIDERATIONS

Where feasible, deep-rooted native species are preferred because of their abilities to enhance soil permeability and pollutant filtering and their reduced needs for fertilizer, herbicides, irrigation, and mowing. Care also should be taken to avoid non-native aggressive species that could spread beyond the site boundaries.

The best time for seeding depends upon the species; there is no single best time to seed. There are certain groups of species which do best fall planted and are compromised by spring seeding. There are other groups of species that do best spring planted and are compromised by fall seeding. Some species are not tolerant of nurse or temporary cover crops while others benefit by them. Some species are difficult to establish in the field from seed and are far more practical to install as plugs.

Some species require light for germination and are thus less successful if drilled into the soil, while others require burial to have successful germination. Broadcasting is generally favored for native species for this reason, and so the plants do not become established in unnatural looking rows. A temporary cover crop may be necessary to hold soil until permanent vegetation becomes established. See practice standard TEMPORARY SEEDING 965.

Using an intact native soil is the most desirable situation, but in most cases stabilization is needed because of earthwork activities. In many instances, the topsoil may have been removed

and/or stockpiled during earthwork activities.

Evaluate the capabilities and limitations of the soil to be seeded or planted and the desired use and appearance of the area. Special attention needs to be given to soil pH, texture, internal water movement, moisture regime, steepness, and stability in order to plan the appropriate treatment.

PLANS AND SPECIFICATIONS

The plans and specifications for seeding or planting and mulching shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose. At a minimum include the following items:

1. Seed mixtures and rates or plant species and density.
2. Site preparation methods.
3. Fertilization rates and methods of application.
4. Seeding or planting methods.
5. Seeding or planting periods.
6. Mulching or erosion blanket materials and application rates.

All plans shall include the installation, inspection and maintenance schedules with the responsible party identified.

OPERATION AND MAINTENANCE

High-maintenance areas are mowed frequently, fertilized and pesticide treated regularly, and either (1) receive intensive use (e.g., athletic fields or golf courses) or (2) require maintenance to a particular aesthetic standard (e.g., home lawns). Grasses or ground covers used for these situations are long-lived perennials that form a tight sod and are

fine-leaved in appearance. They must be well adapted to the geographic area where they are planted and able to endure the stress of frequent mowing. Sites where high-maintenance vegetative cover is commonly utilized include homes, industrial parks, schools, churches, and active recreational areas.

High-maintenance seedings should be fertilized one year after planting to strengthen the plants and insure proper stand density. The following recommendations may be used:

1. For grass only stands, apply 200 lbs./acre (5 lbs./1000 sq. ft.) of 27-3-3, or equivalent.
2. For grass-legume or pure legume stands, apply 500 lbs/ac. (12 lbs./1000 sq. ft.) of 10-20-20, or equivalent.
3. The best time to apply fertilizer is between March 1 and May 30 or August 1 and September 30.

Do not mow high-maintenance turf seedings until the stand is at least 6 inches tall. Do not mow closer than 3 inches during the year of establishment.

In areas adjacent to waterbodies and wetlands, fertilizer should be used sparingly to minimize runoff of nutrients causing undesired growth of aquatic plants (eutrophication).

Low-maintenance areas are mowed infrequently or not at all, and do not receive lime, pesticide or fertilizer on a regular basis. Plants must persist with little maintenance over long periods of time. Native grass, forb, and legume mixtures are favored for these sites because they are deep-rooted and can add nutrients to the soil. Legumes in particular are a source of soil nitrogen.

Mixed stands are more resistant to adverse conditions. Sites suitable for low-maintenance vegetation include steep slopes, stream or channel banks, lake shorelines, stormwater drainage and detention facilities, office campuses, low-density residential properties, some commercial properties and areas adjacent to roadways.

Native plants typically do not require fertilization to become established. Experience in prairie restoration suggests that fertilizing adds to weed problems and promotes undesirable species. For this reason, conventional fertilizing is not recommended for native plantings.

Low-maintenance stands should be mowed only as needed to control weeds. Native plantings should be mowed to control weeds prior to August 15 during the establishment period (2-3 years). Mowing should be done before undesirable weeds set seed. Keep mowing height above the height of the seeded plants (6-12 inches).

Prescribed burning is the preferred maintenance technique for native prairie vegetation. Burns should be performed after the establishment period (2-3 years) on a 2-3 year rotational basis to control invasive weeds and to encourage a balance between grass and forb species. Less-frequent burning may be appropriate once the prairie is well established.

Goose or other nuisance wildlife control may be needed on some plantings. For example, plantings (plants, rootstock or seed) of native wetland plants must be protected from depredation by Canada geese. Goose exclosures constructed of fence posts and "chicken wire" netting

is usually recommended during the first year of establishment.

Vine and shrub type ground covers may need hand weeding until the area is well covered.

For ground covers and vines, prune old growth in the spring as needed to improve appearance and promote growth. If pruning is desired, it should be done every year rather than when the plants have developed into an overgrown state.

High and low maintenance areas

Vegetation cannot be expected to provide erosion control cover and prevent soil slippage on a soil that is not stable due to its structure, water movement, or excessive slope.

The operation of equipment is restricted and may be unsafe on slopes steeper than 3:1. Where steepness prohibits the use of farm machinery, seedbed preparation, fertilization, and seeding or planting may need to be done by hand.

Moisture is essential for seed germination and seedling establishment. Supplemental irrigation can be very helpful in assuring adequate stands in dry seasons or to speed development of full cover.

Protect the planted area from human, animal and vehicular traffic until the stand is adequately established.

Inspect all planted areas for failures and make necessary repairs, replacements, reseedings, and remulching within the planting season, if possible. If a stand has less than 70% ground cover, re-evaluate the choice of plant materials, quantities of lime and fertilizer, seeding

or planting methods, time of seeding or planting and available light and moisture. Re-establish the stand with modifications based on the evaluation.

After initial planting and/or seeding, irrigate to keep the seedbed moist (not wet) for at least 7 to 10 days after seeding depending on conditions. This may require watering daily the first week, especially during hot weather, and less frequently thereafter. Water application rates and delivery must be carefully controlled to prevent runoff and erosion. Inadequate or excessive amounts of water can be more harmful than no supplemental water. Irrigation is seldom needed for low-maintenance seedings made at the appropriate time of the year.

Herbicides may also be used for weed control. Apply all herbicides according to rates specified on the label.

REFERENCES

U.S Department of Agriculture - Natural Resources Conservation Service, U.S. Environmental Protection Agency - Region 5, U.S. Fish and Wildlife Service, and U.S. Army Corps of Engineers - Chicago District, 1997. Native Plant Guide for Streams and Stormwater Facilities in Northeastern Illinois. IL

NRCS IL October 2001

urbst880.doc

SILT FENCE

(feet)
CODE 920



(Source: USDA Natural Resources Conservation Service - Illinois)

DEFINITION

A temporary barrier of entrenched geotextile fabric (filter fabric) stretched across and attached to supporting posts used to intercept sediment laden runoff from small drainage areas of disturbed soil.

PURPOSE

The purpose of this practice is to cause deposition of transported sediment load from sheet flows leaving disturbed areas.

CONDITIONS WHERE PRACTICE APPLIES

1. Where runoff occurs causing sheet erosion.
2. Downslope areas for perimeter protection from sheet flow.
3. Where adjacent areas are to be protected from silt laden runoff.
4. Where effectiveness is required for one construction season or 6 months, whichever is less.

CRITERIA

The maximum drainage area for overland flow to a silt fence shall not exceed 1/2 acre per 100 feet of fence.

All silt fence shall be placed as close to the contour as possible, with the ends extending upslope.

Silt fence shall not be placed across areas of concentrated flow.

Silt fence should not be placed in areas of concentrated flows, such as streams or ditches.

The maximum allowable slope distances contributing runoff to a silt fence are listed in the following table:

Slope (%)	Maximum Spacing along Slope (ft.)
25	50
20	75
15	125
10	175
Flatter than 10	200

When one row of fence is used, or it is the last in a series, the area below the fence must be undisturbed or stabilized.

Silt fence fabric shall be selected using material specification 592
GEOTEXTILE.

Fence posts shall be a minimum of 48 inches long. Wood posts shall be of sound quality wood with a nominal cross sectional area of 1.5 x 1.5 inches. Steel posts shall be standard T and U sections weighing not less than 1.33 pounds per linear foot or other steel posts having equivalent strength and bending resistance. The maximum spacing shall be 5 feet. When wire or other forms of approved backing are used, the maximum spacing may be increased to 10 feet. The posts shall be driven a minimum of 18 inches into the ground or as approved by the engineer. Spacing may need to be adjusted so the posts are located in low areas where water may pond. Additional posts may be required at low areas.

Wire fence shall be a minimum 14-gauge wire with a maximum 6-inch mesh opening. The filter fabric shall be furnished in a continuous roll cut to the length of the wire fence needed to avoid splices.

When splices are necessary, the fabric shall be spliced at a support post and posts twisted together per drawing IUM-620BW so silt-laden water cannot escape around or beneath the fence.

The height of a silt fence shall be a minimum of 24 inches above the original ground surface. The silt fence shall be entrenched to a minimum depth of 6 inches, with an additional 6 inches extending along the bottom of the trench in the upslope direction. The six inch extension of fabric along the bottom may need to be cut where two fences are spliced per the method mentioned above.

The posts shall be installed, trench backfilled, and the soil compacted over the fabric to 95%. The wire mesh does not get buried and compacted in the anchor trench; it stops at ground level.

The silt fence may also be entrenched by static slicing. Static slicing consists of the insertion of a narrow custom-shaped blade approximately 8 inches into the ground, while simultaneously pulling the silt fence fabric into the opening created as the blade is pulled through the ground. The blade imparts no vibration or oscillatory motion. The tip of the blade is designed to slightly disrupt the soil upward, preventing horizontal compaction of the soil and creating optimum soil conditions for mechanical compaction. Compact (2 passes typically) using a tire on the tractor. Post-setting and driving, followed with tying or stapling the fabric to the post, finalizes the installation.

The filter fabric and wire support, if used, must be securely fastened to the upslope side of the posts using heavy duty wire staples at least one inch long or in accordance with manufacturer's recommendations. The fabric shall be attached to the wire support to prevent sagging of the fabric.

If the silt fence must cross contours, with the exception of the ends of the fence, gravel check dams placed perpendicular to the back of the fence shall be used to minimize concentrated flow and erosion along the back of the fence. The gravel check dams shall be approximately 1 foot high at the back of the fence and be continued perpendicular to the fence at the same elevation until the top of the check dam intercepts the ground surface behind the fence. The gravel check dams shall consist of appropriately sized and specified rock for the fence line grade and contributing drainage area. The gravel check dams shall be located every 10 feet along the fence where the fence must cross contours. J-hooks shall be used at the ends of runs longer than 200 feet and at intervals as deemed necessary by the designer and according to site conditions.

Silt fence shall be used prior to the establishment of erosion controls and

installed prior to the clearing of existing vegetation and grading work. When deemed necessary additional rows of silt fence shall be spaced according to site conditions and in keeping with maximum acreage requirements discussed in the table above.

CONSIDERATIONS

Silt fence should be considered for trapping sediment where sheet erosion may be expected to occur in small drainage areas.

Silt fence may be sold with additional support systems including wire backing or polymeric mesh. Post spacing can be lengthened to 10 feet if wire or poly mesh backed silt fence is used. When traditional silt fence is used appropriately and as part of a suite of practices, wire or poly mesh fences are often not necessary. This practice should be used as a last defense and not as a one-stop solution to erosion and sediment problems.

Where space allows, silt fence at the end of a slope should be placed an adequate distance from the toe for sediment storage.

Silt fence may be used for protection of culvert inlets. Refer to practice standard **CULVERT INLET PROTECTION 808**.

PLANS AND SPECIFICATIONS

Plans and specifications for installing silt fence shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose. At a minimum include the following:

1. Location(s) where the silt fence is to be installed.
2. The type, size, spacing, and insertion depth of fence posts.
3. Location and interval distance of J-hooks, if used.
4. The type and size of wire or other approved support mesh backing, if used.
5. The type of filter fabric used.
6. The method of anchoring the filter fabric.
7. The method of fastening the filter fabric to the fence posts.
8. The rock size and location of gravel check dams, if used.

All plans shall include the installation, inspection, and maintenance schedules with the responsible party identified.

Standard Drawing **IL-620 SILT FENCE PLAN** or **IL-620W SILT FENCE WITH WIRE SUPPORT PLAN** can be used as the plan sheets.

OPERATION AND MAINTENANCE

Silt fence shall be removed once upslope areas have been permanently stabilized.

Silt fence shall be inspected no less frequently than every week during construction. Should the fabric decompose or become ineffective prior to the end of the expected usable life and the fence still is necessary, the fabric or the entire system shall be replaced promptly.

Sediment deposits must be removed when the level of deposition reaches approximately one-half the height of the silt fence.

Any sediment deposits remaining in place after the silt fence is no longer required shall be dressed to conform to the existing grade, a seedbed prepared and the site vegetated.

REFERENCES

North Carolina Sedimentation Control Commission, 1988. Erosion and Sediment Control Planning and Design Manual. NC

Virginia Department of Conservation and Recreation, Division of Soil and Water Conservation, 1992. Virginia Erosion and Sediment Control Handbook. 3rd ed., VA

Washington State Department of Ecology, 2000. Stormwater Management Manual for Western Washington. WA

International Erosion Control Association, 2008, Silt Fence Installation Efficacy: Definitive Research Calls for Toughening Specifications and Introducing New Technology

April 2012

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STABILIZED CONSTRUCTION ENTRANCE

(no.)
CODE 930



(Source: USDA – Natural Resources Conservation Service – Illinois)

DEFINITION

A stabilized pad of aggregate underlain with filter fabric located at any point where traffic will be entering or leaving a construction site to or from a public right-of-way, street, alley, sidewalk, or parking area.

PURPOSE

The purpose of this standard is to reduce or eliminate the tracking of sediment onto public right-of-ways or streets.

CONDITIONS WHERE PRACTICE APPLIES

A stabilized construction entrance shall be used at all points of construction ingress and egress.

CRITERIA

Stabilized construction entrance shall meet the following requirements:

Aggregate size - IDOT coarse aggregate gradations: CA-1, CA-2, CA-3, or CA-4.

Thickness - 6 inches or more.

Stone placement - The stone entrance for the entrance shall be placed according to construction specification 25 ROCKFILL. Placement will be by Method 1 and compaction will be class III.

Width - 14 feet minimum but not less than the full width of ingress or egress points.

Length - As required, but not less than 70 feet, except on a single residence lot where a 30 feet minimum shall apply.

Filter fabric shall be used under the aggregate to minimize the migration of stone into the underlying soil by heavy vehicle loads. The filter fabric shall meet the requirements of materials specification 592 GEOTEXTILE Table 1 or 2, Class I, II, or IV.

All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.

Washing - If conditions on the site are such that the vehicles traveling over the gravel do not remove the majority of the mud, then the tires of the vehicles must be washed before entering a public road. Wash water must be carried away from the entrance to a sediment trapping facility such as practice standards IMPOUNDMENT STRUCTURE-ROUTED 842 or TEMPORARY SEDIMENT TRAP 960. All sediment shall be prevented from entering storm drains, ditches, watercourses, or surface waters including wetlands. A wash rack may be used to make washing more convenient and effective.

Location - the washing station should be located to provide for maximum utility by all construction vehicles.

Timing - the graveled access shall be installed as soon as practical after the start of site disturbance.

Removal - the entrance shall remain in place and be maintained until the disturbed area is stabilized by permanent best management practices.

CONSIDERATIONS

Improperly planned and maintained construction entrances can become a continual erosion problem.

The tracking of mud from active building sites onto paved roads by construction vehicles can be greatly reduced, and in some cases eliminated, by the use of a

stabilized construction entrance. These entrances provide an area where mud can be removed from construction vehicle tires before they enter a public road.

If the action of the vehicle tires traveling over the stone is not sufficient to remove the majority of the mud, then the tires must be washed before the vehicle enters a public road. When washing is required it shall be done on an area stabilized with aggregate, or using a wash rack underlain with gravel. Provisions shall be made to intercept the wash water and trap the sediment before it is carried off-site. Construction entrances should be used in conjunction with the stabilization of construction roads, and other exposed areas, to reduce the amount of mud picked up by construction vehicles.

PLANS AND SPECIFICATIONS

Plans and specifications for installing stabilized construction entrances shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose. At a minimum include the following items:

1. Location.
2. Length.
3. Width.
4. Thickness.
5. Type of materials.

All plans shall include the installation, inspection, and maintenance schedules with the responsible party identified.

Standard drawing STABILIZED CONSTRUCTION ENTRANCE PLAN IL-630 may be used as the plan sheet.

OPERATION AND MAINTENANCE

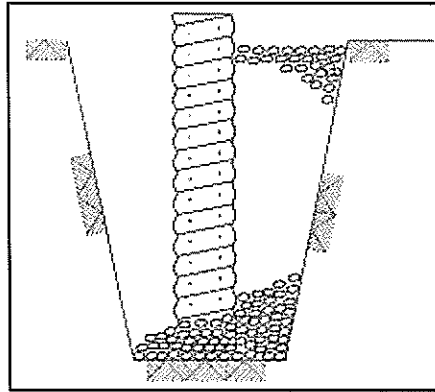
The entrance shall be maintained in a condition that will prevent tracking of sediment onto public right-of-ways or streets. This may require periodic top dressing with additional aggregate. All sediment spilled, dropped, or washed onto public right-of-ways must be removed immediately. Periodic inspection and needed maintenance shall be provided after each rain.

NRCS IL August 1994

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SUMP PIT

(no.)
CODE 950



(Source: USDA – Natural Resources Conservation Service – Illinois)

DEFINITION

A temporary pit which is constructed to trap and filter water for pumping into a suitable discharge area.

PURPOSE

The purpose of this practice is to remove excessive water from excavations in a manner that improves the quality of the water being pumped.

CONDITIONS WHERE PRACTICE APPLIES

Sump pits are constructed when water collects during the excavation phase of construction. This practice is particularly useful in urban areas during excavation for building foundations.

CRITERIA

A perforated vertical standpipe is placed in the center of the pit to collect filtered water. The standpipe will be a perforated 12 to 24-inch diameter corrugated metal or PVC pipe. Water is then pumped from the center of the pipe

to a suitable discharge area. The pit will be filled with coarse aggregate meeting the requirements of IDOT standards for gradations of CA-2, CA-3 or CA-4.

CONSIDERATIONS

Discharge of water pumped from the standpipe should be to a suitable practice such as practice standard IMPOUNDMENT STRUCTURE-ROUTED 842, PORTABLE SEDIMENT TANK 895, TEMPORARY SEDIMENT TRAP 960, or a stabilized area. If water from the sump pit will be pumped directly to a storm drainage system, filter fabric will be wrapped around the standpipe to ensure clean water discharge. The fabric, if used, shall meet the requirements as shown in material specification 592 GEOTEXTILE Table 1 or 2, Class 1 with an equivalent opening size of at least 30 for non-woven or 50 for woven. It is recommended that 1/4 to 1/2 inch hardware cloth wire be wrapped around and secured to the standpipe prior to attaching the filter fabric. This will increase the rate of water seepage into the standpipe.

PLANS AND SPECIFICATIONS

Plans and specifications for installing and utilizing sump pits shall be in keeping with standard and shall describe the requirements for applying the practice to achieve its intended purpose.

The contractor or responsible reviewing authority will determine the number of sump pits and their locations.

Standard drawing IL-650 SUMP PIT PLAN may be used as a plan sheet.

All plans shall include the installation, inspection, and maintenance schedules with the responsible party identified.

OPERATION AND MAINTENANCE

The sump pit may have to be replaced if the pit and filter fabric plugs with sediment.

NRCS IL August 1994

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TEMPORARY CONCRETE WASHOUT FACILITY

(no.)
CODE 954



(Source: Illinois Urban Manual Technical Committee)

DEFINITION

A device used to manage liquid and solid wastes from concrete usage on construction sites.

PURPOSE

The purpose of this practice is to control concrete wastes to prevent both on-site and off-site pollution.

CONDITIONS WHERE THIS PRACTICE APPLIES

This practice applies on any construction site where concrete is used.

CRITERIA

The following steps shall be taken to effectively control concrete wastes.

1. Perform washout of concrete mixer trucks in designated areas only.

2. Each facility shall have appropriate signage to inform concrete equipment operators of the proper washout locations.

3. Each facility shall be located in an area protected from possible damage from construction traffic and have a stabilized access to prevent tracking onto streets.

4. Washout facilities shall be located on level ground a minimum of 15 m (50 ft) from storm drain inlets and all open drainage facilities. For smaller sites where the distance criteria may not be practical, washout facilities shall be located as far from drainage facilities as possible and additional inspections shall be conducted to ensure no illicit discharges have occurred.

5. Temporary concrete washout facilities shall be supplied in sufficient quantity and size to manage all liquid and solid wastes generated by washout operations.

6. Washout water from low volume facilities shall be allowed to evaporate and not be discharged into the environment.

7. Washout water from high volume facilities shall be removed with a vacuum truck and taken back to the batch plant. Washout water shall not be discharged into the environment.

8. Solidified concrete waste from washout facilities shall be considered Clean Construction or Demolition Debris (CCDD) as per the Illinois Environmental Protection Act (415 ILCS 5) and disposed of in accordance to the Act.

9. Each facility shall be inspected daily to ensure the container is not leaking or nearing two-thirds capacity of either solids, liquids or a combination of both.

PREFABRICATED CONCRETE WASHOUT FACILITIES

1. Prefabricated facilities can be any water tight unit designed to contain concrete slurry and solids.

2. Prefabricated facilities shall be of sufficient volume and quantity to contain all the liquids and concrete waste generated by washout operations.

TEMPORARY CONCRETE WASHOUT FACILITIES "ABOVE GRADE"

1. Above grade washout facilities shall be constructed with a minimum length and minimum width of 3m (10 ft) but of sufficient volume and quantity to contain all the liquids and concrete waste generated by washout operations.

2. The walls of the above grade facilities may be constructed of straw bales, barrier walls or earthen berms. If straw bales are used, they shall be entrenched 3" into the earth, butted tightly end to end and staked in place using 2" x 2" x 4' wooden stakes. If barrier walls are used, they shall be butted tightly end to end.

3. The facility shall be lined with a 30-mil polyethylene liner and secured using sand bags, 6" wire staples, or other anchors. The plastic lining material shall be free of holes and tears and must be impermeable.

TEMPORARY CONCRETE WASHOUT FACILITIES "BELOW GRADE"

1. Below grade washout facilities shall be constructed with a minimum length and minimum width of 3m (10 ft) but of sufficient volume and quantity to contain all the liquids and concrete waste generated by washout operations.

2. The soil base shall be prepared free of rocks or debris that may cause tears or holes in the plastic lining material.

3. The facility shall be lined with a 30-mil polyethylene liner and secured using sand bags, 6" wire staples or other anchors. The plastic lining material shall be free of holes and tears and must be impermeable.

REMOVAL OF TEMPORARY WASHOUT FACILITIES

1. When temporary concrete washout facilities are no longer required for the work, the facilities shall be removed from the site of the work.

2. Holes, depressions or other ground disturbances caused by removal of the temporary concrete washout facilities shall be restored to the satisfaction of the engineer.

CONSIDERATIONS

Concrete washout wastewater is corrosive and toxic. The ph of concrete can be over 12 which is the same as many household cleaners. These toxins can clog fish gills, reducing their oxygen and causing death. These ph levels can also be long lasting in the soil. Plants may become stunted or refuse to grow in these soils. Restoration of ground surface surrounding washout facilities may require removal and replacement of top soils, nutrients and alkaline tolerant seed mixture.

Concrete washout water may be considered to be a hazardous waste due to the high pH (characteristic hazard waste due to corrosiveness). Check with local regulatory authorities to ensure it is disposed of in accordance with local, state and Federal regulations.

If access to concrete washout facilities is off pavement, vehicle tracking control may be required.

If larger one day pours are scheduled, multiple facilities may be required or constant maintenance will be necessary throughout the day.

Above grade units shall not exceed a size in which the outside barrier chosen (straw bales, barrier walls, earthen berm) becomes structurally unsound. If the need for a larger facility arises, a below grade facility may be necessary.

If the project is located in areas with potentially high water tables, above grade or prefabricated facilities should be used to prevent leaching of wastewater into groundwater.

As with any other harmful material storage facilities (e.g. petroleum products, concrete curing compounds, etc.) a temporary cover may be necessary to deter rain water from filling the facility and allowing wash water and/or slurry to discharge into the environment.

PLANS AND SPECIFICATIONS

Plans and specifications shall be prepared in accordance with the criteria of this standard and shall describe the requirements for applying the practice to achieve its intended use.

Standard drawings [IUM-654SB](#) [TEMPORARY CONCRETE WASHOUT FACILITY – STRAW BALE](#), [IUM-654BW](#) [TEMPORARY CONCRETE WASHOUT FACILITY – BARRIER WALL](#), or [IUM-654ET](#) [TEMPORARY CONCRETE WASHOUT FACILITY – EARTHEN TYPE](#) may be used as the plan sheet.

OPERATION AND MAINTENANCE

1. Temporary concrete washout facilities shall be maintained to provide adequate holding capacity with a minimum freeboard of 100 mm (4 in.) for above grade facilities and 300 mm (12 in.) for below grade facilities. Maintaining temporary concrete washout facilities shall include removing and disposing of hardened concrete or slurry and returning the facilities to a functional condition.

2. Existing facilities must be cleaned, or new facilities must be constructed and ready for use once the washout is two-thirds full.

3. Temporary concrete washout facilities shall be inspected for damage (e.g. tears in plastic liner, missing sand bags, etc.). Damaged facilities shall be repaired promptly.

REFERENCES

State of California Department of Transportation, 2003. Construction Site Best Management Practice (BMP) Field Manual and Troubleshooting Guide. CA

California Stormwater Quality Association, 2003. Construction Handbook. CA

IL Urban Manual Technical Committee, July 2008

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TEMPORARY SEEDING

(acre or sq. ft.)

CODE 965



(Source: VA Erosion and Sediment Control Handbook)

DEFINITION

Planting rapid-growing annual grasses or small grains, to provide initial, temporary cover for erosion control on disturbed areas.

PURPOSE

The purpose of this practice is to temporarily stabilize denuded areas that will not be brought to final grade or on which construction will be stopped for a period of more than 14 working days.

Temporary seeding helps reduce runoff and erosion until permanent vegetation or other erosion control measures can be established. In addition, it provides residue for soil protection during seedbed preparation and reduces problems of mud and dust production from bare soil surfaces during construction.

CONDITIONS WHERE PRACTICE APPLIES

This practice applies to all cleared, unvegetated, or sparsely vegetated soil

surfaces where vegetative cover is needed for less than 1 year.

Applications of this practice include diversions, dams, temporary sediment basins, temporary road banks, topsoil stockpiles and any other exposed areas of a construction site.

CRITERIA

Plant selection - Select plants appropriate to the season and site conditions from Table 1.

Site preparation - Prior to seeding, install necessary erosion control and sediment control practices if possible.

Remove large rocks or other debris that may interfere with seedbed preparation or seeding operations.

Seedbed preparation:

1. Liming: Where the pH of the soil is below 5.5, apply one and one half to two tons per acre of finely ground agricultural limestone. If the seeding period is less than 30 days liming will not be required.

2. Fertilizer: Apply 500 pounds per acre of 10-10-10 fertilizer or equivalent. Incorporate lime and fertilizer into the top 2 - 4 inches of soil. If the seeding period is less than 30 days fertilizer will not be required.
3. Prepare a seedbed of loose soil to a depth of 3 to 4 inches. If recent tillage or grading operations have resulted in a loose surface, additional tillage or roughening may not be required except to break up large clods. If rainfall caused the surface to become sealed or crusted, loosen it just prior to seeding by disking, raking, harrowing, or other suitable methods. Groove or furrow slopes steeper than 3:1 on the contour before seeding.

Seeding - Seed shall be evenly applied with a cyclone seeder, drill, cultipacker seeder or hydroseeder. Small grains shall be planted no more than one inch deep. Grasses shall be planted no more than one half inch deep.

Cover broadcast seedings by cultipacking, dragging a harrow, or raking.

Mulching - Seedings made during optimum spring and summer seeding dates, with favorable soil and site conditions, will not require mulch.

When temporary protection is needed see practice standard MULCHING 875.

CONSIDERATIONS

Temporary seedings should be used to protect earthen structures such as dikes, diversions, dams and other structures used for sediment control during construction. Temporary seedings can also reduce the amount of

maintenance these structures may need. For example, the frequency of sediment basin clean-outs will be reduced if watershed areas, outside the active construction zone, are stabilized.

Proper seedbed preparation, selection of appropriate species, and use of quality seed are as important in this practice as in practice standard PERMANENT VEGETATION 880. Failure to follow established guidelines and recommendations carefully might result in an inadequate or short-lived stand of vegetation that will not control erosion.

Temporary seeding provides protection for no more than 1 year, during which time permanent stabilization should be initiated.

PLANS AND SPECIFICATIONS

Plans and specifications for temporary seeding shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose. At a minimum include the following items:

1. Plant species to be used
2. Dates of seeding
3. Seedbed preparation
4. Fertilization and seeding rates and methods.

All plans shall include the installation, inspection, and maintenance schedules with the responsible party identified.

OPERATION AND MAINTENANCE

Reseed areas where seedling emergence is poor, or where erosion occurs, as soon as possible. Protect from vehicular and foot traffic. Control weeds by mowing.

TABLE 1

TEMPORARY SEEDING SPECIES, RATES AND DATES

Species	Lbs./Acre	Lbs./1000 ft. ²	Seeding Dates
Oats	90	2	Early spring – July 1
Cereal Rye	90	2	Early spring – Sept. 30
Wheat	90	2	Early spring – Sept. 30
Perennial Ryegrass	25	0.6	Early spring – Sept. 30

TEMPORARY STREAM DIVERSION

(ft.)
CODE 976



(Source: Auckland Regional Council – Stream Facts)

DEFINITION

A temporary channel or pipe used to convey stream flow around a construction site.

PURPOSE

The purpose of this practice is to maintain stream flows and water quality while providing a dry work area.

CONDITIONS WHERE PRACTICE APPLIES

This practice applies to construction sites where:

1. Work within a stream, or part of a stream is required; and
2. Flows are low enough and/or the watershed is small enough to be handled in a diversion channel, pipe, or by a pump.

CRITERIA

The construction of any temporary stream diversion shall not cause a significant water level difference upstream or downstream of the project site (not to exceed 0.1 feet, or less if local ordinances are more restrictive). The velocity of the stream flow offsite shall be maintained.

Erosion and sediment control devices shall be in place prior to starting construction to prevent sediment from entering the diversion or the main stream and shall include temporary stabilization of the inlet and outlet of the temporary stream diversion. The inlet and outlet of the temporary stream diversion shall be stabilized using proper erosion control techniques, such as riprap over geotextile.

Discharges from dewatering of construction areas where streams are being diverted shall not alter the water quality or cause erosion or sedimentation in the stream or the temporary stream diversion. See practice standard **DEWATERING 813**.

Types of Temporary Stream Diversions:
The temporary stream diversion shall be accomplished with a channel, pipe, or pumped diversion. The type of diversion shall be selected based on the site specific conditions, the amount of time the practice will be in use, and the anticipated flow rates.

Capacity –The design capacity of the temporary stream diversion shall take into account the length of time the practice will be in use. Where flood hazard exists, the capacity shall be increased according to the potential damage. See Table 1 for required channel design capacity. The

temporary pipe shall be sized to safely convey the 2-year storm, at a minimum. The pump size shall be based on the anticipated flow. The pump operation shall be monitored and augmented, as needed.

Timing – The construction shall be planned to minimize the time needed for the temporary stream diversion. The temporary stream diversion shall be properly stabilized prior to accepting flows. The temporary stream diversion shall be removed as soon as practicable and only after the worksite on the existing stream has been stabilized.

Cross section - The temporary stream diversion channel shall be trapezoidal. The side slopes shall be no steeper than 2:1 horizontal to vertical. The depth and grade of the diversion channel is variable and shall be dependent upon site conditions.

Channel Lining – The temporary stream diversion channel shall be lined to prevent erosion of the channel and sedimentation in the stream. The process of excavation and stabilization shall be continuous.

The channel lining shall be selected based on the expected velocity in the temporary stream diversion channel for the design storm. See Table 1. The lining shall meet the requirements of the applicable practice standard or material specification – see material specifications **592 GEOTEXTILE, 523 ROCK FOR RIPRAP**, and **805 EROSION BLANKET: TURF REINFORCEMENT MAT (TRM)**, and/or practice standards **EROSION BLANKET 830** and **EROSION BLANKET: TURF REINFORCEMENT MAT (TRM) 831**.

Pipe Material – The temporary pipe shall be constructed of durable material able to withstand the anticipated site conditions. Check local ordinances for acceptable materials.

Pumped Diversion – When a pumped diversion is used, the water shall be pumped from upstream of the construction area to the existing downstream channel. The intake of the water pipe must be screened with openings $<3/32$ inch to prevent entrainment of fish in the coffered area; and fish trapped within the coffered area shall be salvaged and returned to the downstream channel. The pump outlet location shall be properly stabilized to prevent erosion.

Removal of Water – The water within the construction area shall be removed in accordance with practice standard **DEWATERING 813**. Dewatering from the construction area shall not be discharged directly to the stream.

Removal – Once the work is complete and the existing stream channel has been stabilized, the dams shall be removed starting at the downstream end. Then the temporary stream diversion shall be removed. The temporary channel, if used, shall be properly filled and stabilized using appropriate erosion control practices.

CONSIDERATIONS

Any work within a stream is subject to local, county, state and federal rules and regulations. Failure to procure, and comply with, the appropriate permit(s) may result in significant fines.

Crossings of the temporary stream diversion may be required and, if needed, should be included with the design of the temporary stream diversion. See practice standard **TEMPORARY STREAM CROSSING 975**.

When deciding on the location of temporary stockpiles, floodplain limits, wetlands, proximity to other bodies of water and the length of time the stockpile will exist need to be considered. Additionally, all stockpiles should be located outside the drip-line of

trees and away from sensitive ecosystems. For additional information, see practice standards **TREE PROTECTION 990**, **TREE PROTECTION – AUGERING 991**, and **TREE AND FOREST ECOSYSTEM PRESERVATION 984**.

Extreme care should be taken to minimize the impact on the existing ecosystem. The design and implementation of the temporary stream diversion should consider the environmental impacts. Clearing of the streambed and banks should be kept to a minimum.

In order to reduce the impact on fish populations and other aquatic organisms including vegetation, consider installing riffle structures, bank habitats and other practices that mimic and protect the existing stream environment. Also, the lining selected for the temporary stream diversion should take into account the existing conditions and wildlife. When appropriate, fish exclusion or fish capture/handling measures should be used.

The temporary stream diversion can also be used to divert flow from a drainage ditch or other drainage channel. The appropriate type of temporary stream diversion should be selected based on the specific site conditions and anticipated flow amounts.

PLANS AND SPECIFICATIONS

Plans and specifications for installing a temporary stream diversion shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose. At a minimum include the following items, as appropriate:

1. Channel location and alignment
2. Grade, depth and width
3. Channel lining material
4. Conduit type and diameter
5. Pump size and location

6. Outlet stabilization
7. Dam material/design
8. Sediment and erosion control practices and locations
9. Location of excavated material stockpiles
10. Installation, removal and stabilization construction sequences

All plans shall include the installation, inspection, and maintenance schedules with the responsible party identified.

The temporary stream diversion shall be constructed to meet the requirements of construction specification **760 TEMPORARY STREAM DIVERSION**. Standard drawing IL-xxx may be used as the plan sheet.

OPERATION AND MAINTENANCE

The temporary stream diversion and diversion dams shall be checked at the end of each day, at a minimum. Any necessary repairs shall be made immediately. Remove all significant sediment accumulations to maintain the designed carrying capacity. Pumping operations shall be observed in accordance with practice standard **DEWATERING 813**. Contingency measures shall be available for significant storms or unexpected events.

REFERENCES

Tennessee Department of Environment and Conservation, Division of Water Pollution Control. Stream Diversion Channel – SDC. Tennessee Erosion and Sediment Control Handbook, Second Edition, March 2002.

Croft, David. 2004. Fords, Embankments and Underpasses – Guide for Designers and Managers. Neath, UK.

Georgia Soil and Water Conservation Commission (GASWCC). Manual for Erosion and Sediment Control in

Georgia – Stream Diversion Channel.
Athens, GA. 2000.

Portland Bureau of Environmental
Services. Concept Designs and
Technical Guidance – Surface Flow
Diversion Guidelines. April 2007.

September 2011

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TABLE 1
TEMPORARY STREAM DIVERSION CHANNEL LININGS

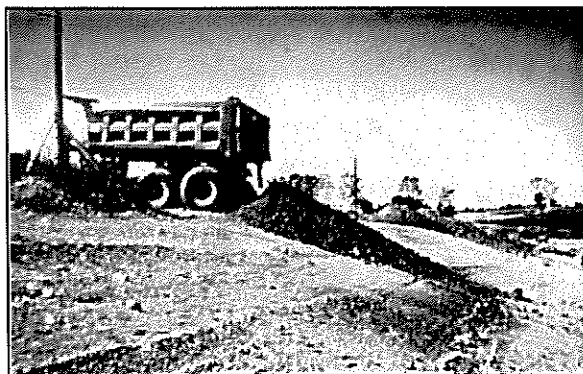
Lining Material	Acceptable Velocity Range	Upstream Tributary Area	Design Capacity Storm
Erosion Blanket ¹	up to 1½ ft./sec.	up to 1 sq. mi.	2-year, 24-hour
Turf Reinforcement Mat ² Non-vegetated	up to 8 ft./sec.	up to 1 sq. mi.	2-year, 24-hour
Geotextile ³	up to 11 ft./sec.	up to 1 sq. mi.	2-year, 24-hour
Rip-Rap and Geotextile ⁴ Avg. 4" (3" - 6") Avg. 8" (4" - 12") Avg. 14" (5" - 18")	up to 4 ft./sec. up to 6 ft./sec. up to 13 ft./sec.	up to 5 sq. mi.	10-year, 24-hour

1. Erosion blanket shall only be used with intermittent, low flows – per manufacturer’s recommendations. Vegetation shall be established when using erosion blanket as a channel lining. Erosion blanket shall be installed in accordance with practice standard **EROSION BLANKET 830**.
2. Turf reinforcement mat (TRM) shall be installed per manufacturer’s recommendations. TRM with temporary seeding may be used when sufficient time is available for the temporary stream diversion channel to vegetate. The acceptable velocity for vegetated TRM shall be per the manufacturer’s recommendations, but not greater than 16 ft/sec. TRM shall be installed in accordance with practice standard **EROSION BLANKET: TURF REINFORCEMENT MAT (TRM) 831**.
3. Selection of Geotextile fabric shall be based on material specification **592 GEOTEXTILE**, Table 2, Class I. All geotextiles shall be installed in accordance with construction specification **95 GEOTEXTILE** and/or per the manufacturer’s recommendations.
4. Rip-Rap thickness shall be 1.5 – 2.0 times D₅₀. Selection of Rip-Rap should be based on guidelines from construction specification **61 ROCK RIPRAP** and material specification **523 ROCK FOR RIP-RAP**.

NATURAL RESOURCES CONSERVATION SERVICE
ILLINOIS URBAN MANUAL
PRACTICE STANDARD

TOPSOILING

(acre or sq. ft.)
CODE 981



(Source: VA Erosion and Sediment Control Handbook)

DEFINITION

Methods of preserving and using topsoil to enhance final site stabilization with vegetation.

PURPOSE

The purpose of this practice is to provide a suitable growth medium for final site stabilization with vegetation.

CONDITIONS WHERE PRACTICE APPLIES

1. Where the preservation or importation of topsoil is determined to be the most effective method of providing a suitable growth medium.
2. Where the subsoil or existing soil present any or all of the following problems:
 - a. The texture, bulk density, pH, or nutrient balance of the available soil cannot be modified by a reasonable means to provide an adequate growth medium for the desired vegetation.
 - b. The soil is too shallow to provide adequate rooting depth or will not

supply necessary moisture and nutrients for growth of desired vegetation.

- c. The soil contains substances toxic or potentially toxic to the desired vegetation.
3. Where high-quality turf or ornamental plants are desired.

CRITERIA

Determine if sufficient quantities of suitable topsoil as described in material specification 804 MATERIAL FOR TOPSOILING is available at the site or nearby. Topsoil shall be spread at a lightly compacted depth of 2 to 4 inches. Depths of 4 inches or greater are recommended where fine-textured (clayey) subsoil or other root limiting factors are present.

If topsoil is to be stockpiled at the site, select a location so that it will not erode, block drainage, or interfere with work on the site.

During construction of the project, soil stockpiles shall be stabilized or protected with sediment trapping

measures such as practice standards SILT FENCE 920 or TEMPORARY SEEDING 965. Perimeter controls shall be placed around the stockpile immediately; seeding of stockpiles shall be completed within 7 days of formation of the stockpile if it is to remain dormant for longer than 30 days.

Bonding - If the topsoil and existing soil surface are not properly bonded water will not infiltrate evenly, and it will be difficult to establish vegetation.

Care must be taken not to apply topsoil to an existing soil surface if the two have contrasting textures. Clayey topsoil over sandy subsoil is a particularly poor combination, as water creeps along the junction between the two soil layers and may cause the topsoil to slough.

Do not apply topsoil to slopes greater than 2:1 to avoid slippage. Topsoiling of steep slopes should be discouraged unless good bonding of the soils can be achieved.

Depending on subsoil conditions, additional measures may be required for ornamental shrub and tree plantings. See practice standard TREE AND SHRUB PLANTING 985.

CONSIDERATIONS

Topsoil is the surface layer of the soil profile, generally characterized as darker than the subsoil due to the enrichment with organic matter. It is the major zone of root development and biological activity. Microorganisms that enhance plant growth thrive in this layer. Topsoil can usually be differentiated from subsoil by texture as well as color. Clay content usually increases in the subsoil. Where subsoils are high in

clay, the topsoil layer may be significantly coarser in texture. The depth of natural topsoil may be quite variable. On severely eroded sites it may be gone entirely.

Advantages of topsoil include its higher organic matter content, friable consistence (soil aggregates can be easily crushed with only moderate pressure), its available water holding capacity, and its nutrient content. Most often it is superior to subsoil in these characteristics. The texture and friability of topsoil are usually much more conducive to seedling germination, emergence, and root growth.

In addition to being a better growth medium, topsoil is often less erodible than subsoil, and the coarser texture of topsoil increases infiltration capacity and reduces runoff.

Although topsoil may provide an improved growth medium, there may be disadvantages, too. Stripping, stockpiling, hauling, and spreading topsoil or importing topsoil may not be cost-effective. Handling may be difficult if large amounts of branches or rocks are present or if the terrain is too rough. Most topsoil contains weed seeds, which compete with desirable species.

In site planning, compare the options of topsoiling with preparing a seedbed in the available subsoil. The clay content of many subsoils retains moisture. When properly limed and fertilized, subsoil may provide a satisfactory growth medium, which is generally free of weed seeds.

Topsoiling is normally recommended where ornamental plants or high-maintenance turf will be grown. It may

also be required to establish vegetation on shallow soils; soils containing potentially toxic materials, stony soils, and soils of critically low pH (highly acid).

NRCS IL February 1994

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PLANS AND SPECIFICATIONS

The plans and specifications for installing topsoiling shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose. At a minimum include the following items:

1. Topsoil source.
2. Stockpile location and method of stabilization prior to its use.
3. Topsoil/subsoil bonding procedures.
4. Site preparation plans and method of application, distribution and compaction.

All plans shall include the installation, inspection, and maintenance schedules with the responsible party identified.

The application of topsoil shall meet the requirements as listed in the construction specification 752 STRIPPING, STOCKPILING SITE PREPARATION AND SPREADING TOPSOIL.

OPERATION AND MAINTENANCE

After topsoil application, follow procedures for seedbed preparation. Take care to avoid excessive mixing of topsoil into the subsoil. Permanently stabilize the site following appropriate practice standards as quickly as practicable. Periodically inspect the site until permanent stabilization is achieved. Make necessary repairs to eroded areas or areas of light vegetative cover.

TREE AND SHRUB PLANTING

(acre or sq. ft.)
CODE 985



(Source: National Arbor Day Foundation)

DEFINITION

Planting of selected trees and shrubs.

PURPOSE

The purpose of this standard is to establish trees and/or shrubs to conserve soil, beautify, screen unsightly views, provide shade and attract wildlife.

CONDITIONS WHERE PRACTICE APPLIES

In urban environments where woody tree and shrub species are needed to protect the soil from erosion, where ornamental plants are desirable for landscaping and beautification and where woody plants are needed to screen unsightly views, reduce noise levels or provide wildlife food and habitat.

CRITERIA

Select tree and shrub species suited to the soil and site conditions and adapted to the plant hardiness zone in which the planting site is located.

Keep the roots of bare root stock moist at all times prior to planting. The ball of balled and burlapped (B&B) stock and the soil of container grown stock shall be kept moist but not saturated prior to planting.

Plant trees and shrubs at a spacing that will provide enough space for full crown development. Ornamental and shade trees shall have a minimum spacing of 20 feet by 20 feet and ornamental shrubs at 5 feet by 5 feet. Trees and shrubs planted as noise barriers, screen plantings and windbreaks shall have a minimum spacing of 8 feet by 8 feet for trees and 4 feet by 8 feet for shrubs.

All bare root, container grown and balled and burlapped (B&B) planting stock shall meet the minimum root system spread criteria as established in construction specification 707-DIGGING, TRANSPORTING, PLANTING AND ESTABLISHMENT OF TREES, SHRUBS AND VINES.

All plant materials will be dormant at the time they are planted. Planting dates and procedures shall conform to those

established by construction specification 707 DIGGING, TRANSPORTING, PLANTING AND ESTABLISHMENT OF TREES, SHRUBS AND VINES for the applicable Planting Suitability Zone of Illinois.

All plantings shall be mulched unless specified otherwise in a landscaping or planting plan following criteria in practice standard MULCHING 895. The mulching material shall be uniformly graded and have the ability to completely block sunlight from reaching the surface of the soil. Mulching materials shall meet the minimum requirements as listed in material specifications 592 GEOTEXTILE, 800 PAPER AND PLASTIC NETTING, 801 JUTE NETTING, 802 EXCELSIOR BLANKETS, and 803 STRAW BLANKETS.

CONSIDERATIONS

Tree planting in urban areas should be completed as specified in a landscaping or tree and shrub planting plan developed for each site.

Care should be exercised to avoid locating trees and shrubs where they will, at maturity, interfere with electrical lines, utility maintenance zones, drain tiles, septic fields or create a traffic hazard due to blocked visibility.

Existing quality trees and shrubs should be evaluated and, where appropriate, incorporated into the landscaping or tree and shrub planting plan.

Trees and shrubs to plant should be selected based on:

1. Desired function such as shade, privacy or noise reduction screening,

2. Plant characteristics such as hardiness, growth rate, mature height and spread, resistance to insect, disease and pollution, seed production habits and soil or site requirements.

PLANS AND SPECIFICATIONS

Plans and specifications are to be developed for specific planting sites in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose.

Installation for this practice shall meet the requirements as listed in construction specification 707-DIGGING, TRANSPORTING, PLANTING AND ESTABLISHMENT OF TREES, SHRUBS AND VINES.

All plans shall include the installation, inspection, and maintenance schedules with the responsible party identified.

Standard drawing IL-686 TREE AND SHRUB PLANTING SITE PLAN may be used as the planting plan for a specific site.

OPERATION AND MAINTENANCE

A maintenance program shall be established to provide sufficient water, fertility, mulch, corrective pruning and protection from damage by insects, diseases and machinery. Dead or severely damaged plants will be replaced as needed.

NRCS IL August 1994

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APPENDIX J

INSPECTION REPORTS

Storm Water Pollution Prevention Plan Erosion Control Inspection Report

Date of Inspection: _____ NPDES Permit No: ILR10
 Project: _____ Project Number: _____
 Name of Inspector: _____ Inspector Qualifications: _____
 Type of Inspection: Weekly P.E. Other
 >0.5" Precip. CPESC
 Precip. Amount: _____ CESSWI

Instructions to the Inspector: At least once every seven calendar days and within 24 hours of the end of a storm that is 0.5 inches or greater or equivalent snowfall, inspectors shall inspect: (1) disturbed areas of the construction site that have not been finally stabilized, (2) structural control measures, and (3) locations where vehicles enter or exit the site. The primary objective for establishing and maintaining temporary erosion control measures is to ensure that sediment is retained within the project limits. If sediment or other pollutants of concern are released from the project site, an Incidence of Non-Compliance (ION) must be submitted to the Illinois Environmental Protection Agency immediately. Note maintenance of and changes to the in-place erosion and sediment control measures on the project SWPPP. Provide one (1) copy of this report to the Contractor on-site. If the answer to any of the following is "No," the contractor is hereby ordered to correct the deficiency.

SITE CONDITIONS ON DAY OF INSPECTION

Erosion and Sediment Control:

- Slopes:** Do all slopes where soil disturbing activities have taken place and not been permanently restored, have adequate temporary seeding or protection? Yes No
- Ditches:** Are all ditches existing, temporary, and/or proposed) clear of sediment and/or debris. Yes No
- Perimeter Erosion Barrier:** Are all perimeter erosion barriers in good working order? Yes No
 Has perimeter barrier no longer needed been removed and the area restored? Yes No
- Temporary Ditch Checks:** Are all temporary ditch checks in good working order? Yes No
 Are the current ditch checks adequate to control erosion? Yes No
- Inlet Protection/Inlet Filters:**
 Are ALL inlet protection measures in good working order? Yes No
 Are ALL inlet filters less than 25% full? Yes No
- Outfalls:** Are all outfalls free of any signs of sediment discharge? Yes No
- Areas of Interest – Wetland/Prairie/Tree Preservation:**
 Has the contractor remained clear of all designated "no entry" areas? Yes No
 Are all "no intrusion" areas adequately marked to prevent accidental entry? Yes No
- Stock Piles:** Are all stockpiles properly maintained to prevent runoff and protected to minimize spread in case of erosion? Yes No
- Borrow/Waste Sites:** Are all borrow and waste locations, including those which are offsite, in compliance with all NPDES rules and regulations? Yes No

General Site Maintenance Required of the Permit

Concrete Washout Areas: Are concrete washout areas adequately maintained? Yes No
 Has all washout occurred only at designated washout locations? Yes No
 (The contractor may want to consider designating additional area(s) for use.)

Staging/Storage Areas: Are all staging/storage facilities free of litter, leaking containers, leaking equipment, spills, etc? Yes No

Vehicle Tracking: Is the site free from mud, sediment and debris from the vehicles entering/leaving off road areas throughout the site? Yes No

Fuel/Chemical Storage Locations: Are all designated fueling locations free of evidence of leaks and or spills? Yes No

Update SWPPP: Have all previous changes to the project's SWPPP been noted on the graphic site plan? Yes No

SWPPP Modification: If properly maintained, are the controls indicated on the erosion control plans and SWPPP adequate to retain sediment within project limits? Yes No

Specific Instructions Related to "No" Answers From Above:

Location	Practice	Comments/Actions Required	Time for Repair

Other Comments:

Additional Pages (Attached As Needed)

- Outfalls / Receiving Waters
 - Drainage Structure/Ditch Check Locations
 - Additional Instructions to Contractor
- Other: _____
- _____
- _____

Repairs and stabilization to be completed within 24 hours of this report (or as indicated above).

Inspector's Signature _____ Date: _____

Owner/Operator Signature _____ Date: _____

APPENDIX K

CORRECTIVE ACTION LOG

APPENDIX L

SWPPP AMENDMENT LOG

SWPPP AMENDMENT LOG

Amendment No.	Description of the Amendment	Date of Amendment	Amendment Prepared by [Name(s) and Title]
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

SWPPP AMENDMENT LOG (continued)

Amendment No.	Description of the Amendment	Date of Amendment	Amendment Prepared by [Name(s) and Title]
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

APPENDIX M

GRADING AND STABILIZATION
ACTIVITIES LOG

GRADING AND STABILIZATION ACTIVITIES LOG

Date Grading Activity Initiated	Description and Location of Grading/Land Disturbing Activity	Date Grading Activity Ceased (Indicate Temporary or Permanent)	Date When Stabilization Measures are Initiated	Description and Location of Stabilization Measures

GRADING AND STABILIZATION ACTIVITIES LOG (continued)

Date Grading Activity Initiated	Description and Location of Grading/Land Disturbing Activity	Date Grading Activity Ceased (Indicate Temporary or Permanent)	Date When Stabilization Measures are Initiated	Description and Location of Stabilization Measures

APPENDIX N

INCIDENCE OF NON-COMPLIANCE (ION) &
NOTICE OF TERMINATION (NOT)



Illinois Environmental Protection Agency

Bureau of Water • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Division of Water Pollution Control

Construction Site Storm Water Discharge Incidence of Non-Compliance (ION)

This fillable form may be completed online, a copy saved locally, printed and signed before it is submitted to the Compliance Assurance Section at the above address. You may email this completed form to:

epa.swnoncomp@illinois.gov

For Office Use Only
Permit No. ILR10

Permittee Information:

Name: _____

Street Address: _____ P.O. Box: _____

City: _____ State: IL Zip Code: _____ County: _____

Phone: _____ Email: _____

Construction Site Information:

Site Name: _____

Street Address: _____

City: _____ State: IL Zip Code: _____

Latitude: _____ Longitude: _____

(Deg) (Min) (Sec) (Deg) (Min) (Sec) Section Township Range

Cause of Non-Compliance

Actions Taken to Prevent Any Further Non-Compliance

Environmental Impact Resulting From the Non-Compliance

Actions Taken to Reduce the Environmental Impact Resulting From the Non-Compliance

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))

Owner Signature: _____

Date: _____

Printed Name: _____

Title: _____

DIVISION OF WATER POLLUTION CONTROL
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
FIELD OPERATIONS SECTION

GUIDELINES FOR COMPLETION OF INCIDENCE OF NON-COMPLIANCE (ION) FORM

Complete and submit this form for any violation of the Storm Water Pollution Prevention Plan observed during any inspection conducted, including those not required by the SWPPP. Please adhere to the following guidelines:

Initial submission within 24 hours by email, telephone or fax (see region fax numbers) of any incidence of non-compliance for any violation. Submit email copy to: epa.swnoncomp@illinois.gov. After 24 hours notification, submit signed original ION within 5 days to the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Compliance Assurance #19
Post Office Box 19276
Springfield, Illinois 62794-9276

FIELD OPERATIONS HEADQUARTERS
Bruce Yurdin, Manager
Phone: 217/782-3362 Fax: 217/785-1225
EMAIL: epa.swnoncomp@illinois.gov

Region 1 - ROCKFORD
Chuck Corley, Manager
Phone: 815/987-7760 Fax: 815/987-7005

Region 2 - DESPLAINES
Jay Patel, Manager
Phone: 847/294-4000 Fax: 847/294-4058

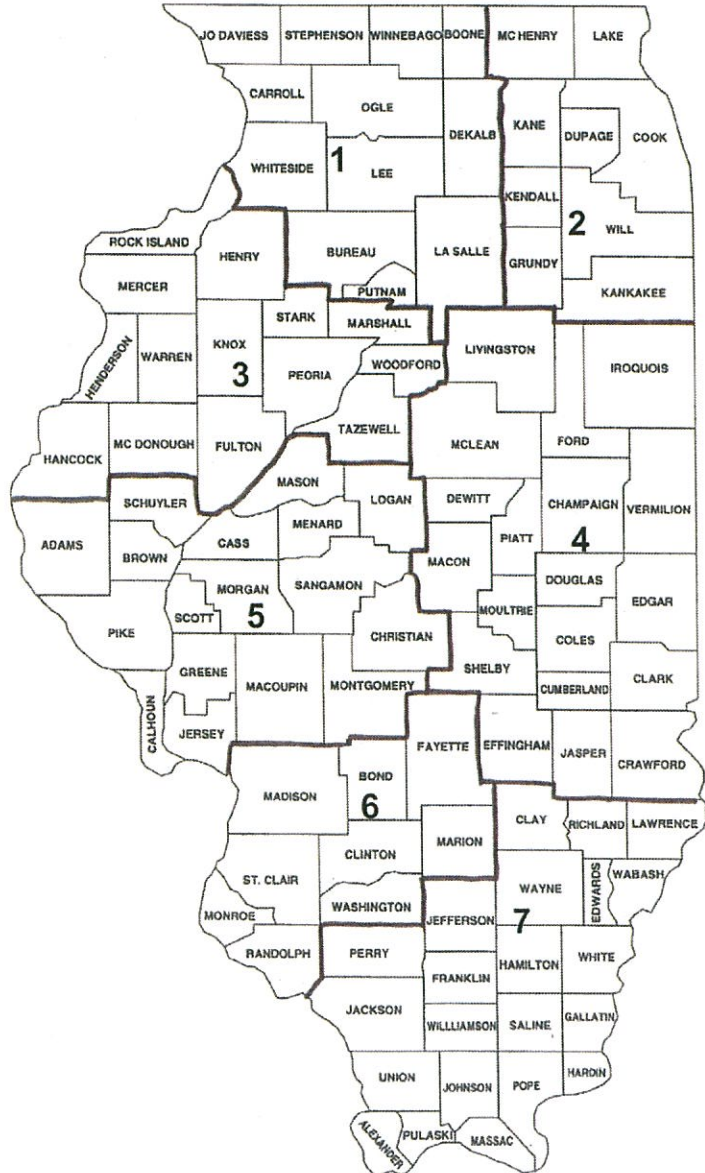
Region 3 - PEORIA
Jim Kammueler, Manager
Phone: 309/693-5463 Fax: 309/693-5467

Region 4 - CHAMPAIGN
Joe Koronkowski, Manager
Phone: 217/278-5800 Fax: 217/278-5808

Region 5 - SPRINGFIELD
Bruce Yurdin, FOS Manager
Phone: 217/782-3362 Fax: 217/785-1225

Region 6 - COLLINSVILLE
Bruce Yurdin, FOS Manager
Phone: 217/782-3362 Fax: 217/785-1225

Region 7 - MARION
Byron Marks, Manager
Phone: 618/993-7200 Fax: 618/997-5467





Illinois Environmental Protection Agency

Bureau of Water • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Division of Water Pollution Control NOTICE OF TERMINATION (NOT) of Coverage under the General Permit for Storm Water Discharges Associated with Construction Site Activities

This fillable form may be completed online, a copy saved locally, printed and signed before it is submitted to the Permit Section at the above address.

OWNER INFORMATION

Permit No. ILR10 _____

Owner Name: City of Rockford

Owner Type (select one) City

Mailing Address: 425 E. State Street Phone: 815-987-5570

City: Rockford State: IL Zip: 61104 Fax: _____

Contact Person: Matthew Vitner E-mail: Matthew.Vitner@rockfordil.gov

CONTRACTOR INFORMATION

Contractor Name: _____

Mailing Address: _____ Phone: _____

City: _____ State: _____ Zip: _____ Fax: _____

CONSTRUCTION SITE INFORMATION

Facility Name: Harrison Avenue Roadway Improvements 2015

Street Address: Harrison Avenue (IL 251 & FAP 0525)

City: Rockford IL Zip: 61104 County: Winnebago

NPDES Storm Water General Permit Number: ILR10

Latitude: 42 14 17 Longitude: 89 3 54 1/36 43N/44N 1E/1E
(Deg) (Min) (Sec) (Deg) (Min) (Sec) Section Township Range

DATE PROJECT HAS BEEN COMPLETED AND STABILIZED: _____

NOTE: Coverage under this permit cannot be terminated without the completion date.

I certify under penalty of law that disturbed soils at the identified facility have been finally stabilized or that all storm water discharges associated with industrial activity from the identified facility that are authorized by an NPDES general permit have otherwise been eliminated. I understand that by submitting this notice of termination, that I am no longer authorized to discharge storm water associated with industrial activity by the general permit, and that discharging pollutants in storm water associated with industrial activity to Waters of the State is unlawful under the Environmental Protection Act and the Clean Water Act where the discharge is not authorized by an NPDES Permit.

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))

Owner Signature: _____

Date: _____

Mail completed form to: Illinois Environmental Protection Agency
Division of Water Pollution Control, Attn: Permit Section
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

(Do not submit additional documentation unless requested)

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) and may also prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

GUIDELINES FOR COMPLETION OF NOTICE OF TERMINATION (NOT) FORM

Please adhere to the following guidelines:

Submit original, electronic or facsimile copies. Facsimile and/or electronic copies should be followed-up with submission of an original signature copy as soon as possible.

Submit completed forms to:

Illinois Environmental Protection Agency
 Division of Water Pollution Control, Attn: Permit Section
 1021 North Grand Avenue East
 P.O. Box 19276
 Springfield, Illinois 62794-9276
 or call (217) 782-0610
 FAX: (217) 782-9891

Or submit electronically to: epa.constilr10swppp@illinois.gov

Reports must be typed or printed legibly and signed.

NOTE: FACILITY LOCATION IS NOT NECESSARILY THE FACILITY MAILING ADDRESS, BUT SHOULD DESCRIBE WHERE THE FACILITY IS LOCATED.

Use the formats given in the following examples for correct form completion.

	Example	Format
Section	12	1 or 2 numerical digits
Township	12N	1 or 2 numerical digits followed by "N" or "S"
Range	12W	1 or 2 numerical digits followed by "E" or "W"

Final stabilization has occurred when:

- (a) all soil disturbing activities at the site have been completed;
- (b) a uniform perennial vegetative cover with a density of 70% of the native background vegetative cover for the area has been established on all unpaved areas not covered by permanent structures; or
- (c) equivalent permanent stabilization measures have been employed.

TRAFFIC CONTROL PLAN

Description: Traffic Control shall be in accordance with the applicable sections for the Standard Specifications for Road and Bridge Construction, the applicable guidelines contained in the National Manual on Uniform Traffic Control Devices for Streets and Highways, Illinois Supplement to the National Manual on Uniform Traffic Control Devices, these Special Provisions, and the Highway Standards and any special details contained herein and in the plans.

Special attention is called to Articles 107.09 and 107.14 through 107.16 of the Standard Specifications for Road and Bridge Construction and the following Highway Standards relating to Traffic Control.

Standards:

701001	701006	701101	701106	701301	701311
701426	701427	701501	701502	701601	701602
701606	701611	701701	701801	701901	704001

Details:

Maintenance of Traffic Plans

District Standard	38.1	Traffic Control for Transition Area
District Standard	39.1	Traffic Control Typ. Weave
District Standard	39.2	Informational Warning Signs (For Narrow Travel Lanes)
District Standard	40.1	Traffic Control for Road Closure
District Standard	40.2	Stay In Your Lane Sign Details
District Standard	40.4	Road Closed to oversize loads
District Standard	91.2	Rough Grooved Surface

General:

Where construction activities involve sidewalks on both sides of the street, the work shall be staged so that both sidewalks are not out of service at the same time.

Signs:

No bracing shall be allowed on post-mounted signs.

Post-mounted signs shall be installed using standard 720011, 728001, and 729001, in 4"x4" wood posts, or on any other "break away" connection if accepted by the FHWA and corresponding letter is provided to the resident.

All signs are required on both sides of the road when the median is greater than 10 feet on one way roadways.

The "WORKERS" (W21-1a (O)-48) signs shall be replaced with "Right or Left Lane Closed Ahead" (W4-2R or L (O)-48) signs on multilane roadways.

"BUMP" (W8-1(O)-48) signs shall be installed as directed by the Engineer.

"UNEVEN LANES" W8-11(O)-48 signs shall be installed at 1 mile intervals or as directed by the Engineer.

When covering existing Department signs, no tape shall be used on the reflective portion of the sign. Contact the District sign shop for covering techniques.

All regulatory signs shall be maintained at a 5 foot minimum bottom (rural), 7 foot minimum (urban).

Plate altering signs shall have the same sheeting as the base sign.

No more than one (1) plate shall be used to alter a sign.

Any post stubs without a sign in place and visible shall have a reflector placed on each post.

Devices:

Cones or reflectorized cones shall not be used during hours of darkness.

A minimum of 3 drums spaced at 4 feet shall be placed at each return when the side road is open.

On all standards, and the devices listed in Section 701 of the Standard Specifications, the device spacing shall be revised to the following dimensions:

Where the spacing shown on the standard is 25 feet, the devices shall be placed at 20 feet.

Where the spacing shown on the standard is 50 feet, the devices shall be placed at 40 feet.

Where the spacing shown on the standard is 100 feet, the devices shall be placed at 80 feet.

Direction Indicator Barricades shall exclusively be used in lane closure tapers. They shall be used only when traffic is being merged with an adjacent through lane. The back of the direction indicator barricades shall resemble a Type II barricade when within 12 feet of opposing traffic. The taper shall not be broken for a turn lane, intersection or large commercial entrance.

Vertical barricades shall not be used in weaves.

Lights:

Steady burn mono-directional lights are required on devices delineating a widening trench.

Flaggers:

Flaggers shall comply with all requirements contained in the Department's "Flagger Handbook" dated September 2011. The flagger equipment listed for flaggers employed by the Illinois Department of Transportation shall apply to all flaggers.

All workers and flaggers shall wear ANSI Class E pants and an ANSI Class 2 vest that in combination meet the requirements of ANSI/ISEA 107-2004 for Conspicuity Class 3 garments during hours of darkness.

In addition to the flaggers shown on applicable standards, on major sideroads flaggers shall be required on all legs of the intersection. Major sideroads for this project shall be Marshall Street, 9th Street, 20th Street, and 11th Street.

In addition to the flaggers shown on applicable standards, a flagger shall also be required on high volume commercial entrances listed below. High volume commercial entrances for this project shall be 135+33 LT, 138+75 LT, 145+64 RT, 154+96 RT, 500+27 LT, 514+74 RT, 515+96 LT, and 516+29 RT.

When the mainline flagger is within 200 feet of an intersection, the sideroad flagger shall be required.

When the road is closed to through traffic and it is necessary to provide access for local traffic, all flaggers as shown on the applicable standards will be required. No reduction in the number of flaggers shall be allowed.

Revise the first and second paragraph of Article 701.20(i) of the Standard Specifications to read:

“Signs, barricades, or other traffic control devices required by the Engineer, over and above those shown on the standard or detailed in the plans and provisions, will be paid for according to Article 109.04. All flaggers required at side roads and commercial entrances remaining open to traffic not shown on the Highway Standards, required by article 701.13(a) or listed above, shall be paid for according to Article 109.04.”

Pavement Markings:

All temporary pavement markings that will be operational during the winter months (December through March) shall be paint.

Short term pavement markings on a milled surface shall be paint.

Temporary pavement markings shall not be included in the cost of the standard rather it shall be paid for separately at the contract unit prices of specified temporary pavement marking items.

Highway Standards Application:

Traffic shall be maintained along Harrison Avenue and 11th Street using Standards 701101, 701502, 701601, 701602, 701606, and 701611.

All signing and pavement marking for the side streets shall be as shown on standard 701501 and the Maintenance of Traffic Plan. Major cross-streets at 11th Street and 20th Street shall be in accordance with the Temporary Signals.

When work is within 200 feet of an intersection, flagger signs and flaggers shall be required on the side road at the discretion of the Engineer.

In addition to the Standards shown on the Maintenance of Traffic Plan, **6 each**, W10-61 (Modified) (Orange) 60" x 30" signs shall be erected at the direction of the Engineer to indicate traffic to local business is allowed. These signs shall be used in City of Rockford R.O.W. only. This cost shall be included in the Lump Sum cost of TRAFFIC CONTROL AND PROTECTION, (SPECIAL).

Parking of personal vehicles within the right-of-way will be strictly prohibited. Parking of construction equipment within the right-of-way will be permitted only at locations approved by the Engineer.

Drop-off Adjacent to Travel Lane Edge of Pavement:

When drop-offs are less than or equal to 3 feet from the edge of a travel lane, the drop-off shall be no more than 12 inches when workers are not present. Failure to reduce the drop-off to 12 inches or less will result in a traffic control deficiency.

Traffic Control for Road Closure:

This work shall be done according to the Road Closure Standard 40.1 and Section 701 of the Standard Specifications, and as shown on the Staging Plans and as noted.

"ROAD CLOSED AHEAD" (W20-3(O)-48) with "___ MILE" (W16-3A (O)-3612) plate mounted below the sign shall be required at the following locations with the distance noted. The contractor shall erect these signs at Sandy Hollow Road (1 MILE), Broadway (1 MILE, and 23rd Avenue (1/4 MILE).

"ROAD CLOSED AHEAD" (W20-3(O)-48) with flasher and the appropriate arrow plate (W1-6(O)-48x24 or W1-7(O)-48x24) shall be required on all side roads within the limits of the mainline "ROAD CLOSED AHEAD" signs.

9th Street and 20th Street shall be considered Condition I Major side road closures for signing as shown on the District Standard Traffic Control for Road Closure Detail.

The Contractor shall submit a Traffic Control Authorization Request to the City and the IDOT Traffic Operations Section of the Bureau of Operations two weeks prior to the start of work.

For the closure of the 11th Street and Harrison Avenue intersection the Contractor shall notify the IDOT Traffic Operations Section of the Bureau of Operations of any proposed closures by fax (815/284-5489) and the Bureau of Project Implementation (815/284-5348) in writing by means of fax (to the numbers provided) and also by letter to the District Office. The City of Rockford Public Works Department shall be notified in writing. **This request shall be submitted a minimum of three weeks (21 days) and no earlier than four weeks (28 days) prior to the anticipated closure date to account for permit load restrictions.**

The Contractor shall notify the City of Rockford Department of Public Works 1 week in advance of any side road closures.

Signing and devices required to close the road, according to the Traffic Control for Road Closure detail and contained herein, shall be the responsibility of the Contractor. No detour shall be erected on Friday, Saturday or Sunday. The road shall not be closed until the detour signing is completely installed, verified, and ready to accept traffic.

The "ROAD CLOSED" sign on the Type III barricades shall be unobstructed and visible to traffic at all times. No equipment, debris, or other materials shall be stored within 20 feet of the first set of Type III barricades, unless approved by the Engineer.

The Contractor shall not drive around the outside of the Type III barricades, but shall relocate the barricades temporarily for access. When it is necessary for the barricades to be moved for access, the Contractor shall move the devices into the left lane and/or left shoulder area behind barricades that are to remain in place. At no time shall the barricades be turned parallel to traffic flow for access purposes.

If a path becomes evident around the outside of the barricades, the Contractor shall be required to place additional Type III barricades to prevent driving around the existing barricades. Additional barricades shall be included in the cost of applicable Traffic Control Standards. Any damage caused by vehicles driving around the outside of barricades shall be repaired by the Contractor to the satisfaction of the Engineer at no additional expense to the Contract.

Basis of Payment: All cost involved in conforming with this provision shall be considered a part of TRAFFIC CONTROL AND PROTECTION, (SPECIAL) except the traffic signals, traffic signal maintenance, temporary concrete barrier, traffic control surveillance, flexible delineator maintenance, impact attenuators (narrow), temporary pavement marking, and pavement marking removal will be paid for separately. The work shall be paid at the contract LUMP SUM price for TRAFFIC CONTROL AND PROTECTION, (SPECIAL).

TRAFFIC CONTROL FOR NARROW TRAVEL LANES

Description: The Contractor shall provide informational warning signs regarding narrow travel lanes in construction areas. MAX WIDTH XX'-XX' X MILES AHEAD (W12-I103-48) signs with a width restriction of 9'-6" shall be installed at the following locations and the distance from the crossroads as noted: Harrison Avenue. & Alpine Road. (1 ½ MILES AHEAD), South Main St. (IL 2) & Harrison Avenue. (1 ½ MILES AHEAD), 11th Street & Broadway (1 MILE AHEAD), and at 11th Street (IL 251) & Sandy Hollow Road. (1 MILE AHEAD).

The material of these signs shall be 0.125 inch thick aluminum, Type AP White and fluorescent orange reflective sheeting, and 6 inch D Series font Black vinyl lettering meeting the requirements of Sections 1090 and 1091 of the Standard Specifications for Road and Bridge Construction.

Additional Narrow Width (W12-I102(O)-48) signs with a width restriction of 9'-6" and a " _____ MILES" (W16-3A(O)-3612) plate mounted below the signs shall be installed near the intersections of Broadway and 20th (1 MILE), 20th and 23rd Ave (1/4 MILE), 20th and Sandy Hollow (1 MILE), and after the ROAD CONSTRUCTION AHEAD sign in the sign series.

The material of these signs shall be 0.125 inch thick aluminum, Type AA fluorescent orange reflective sheeting, and 12 inch D Series font Black vinyl lettering meeting the requirements of Sections 1090 and 1091 of the Standard Specifications for Road and Bridge Construction. Two signs at each location shall be required where the median is greater than 10 feet.

The Contractor shall notify the Traffic Operations Section of the Bureau of Operations by fax (815/284-5489) and the Bureau of Project Implementation (815/284-5348) in writing by means

of fax (to the numbers provided) and also by letter to the District Office. The City of Rockford Public Works Department shall be notified in writing. **This request shall be submitted between three and four weeks (21 to 28 days) prior to the anticipated lane restriction to allow the State adequate time to permit wide loads.**

When lane width restrictions are completed the Contractor shall notify the Traffic Operations Section of the Bureau of Operations and the Bureau of Project Implementation, and the City of Rockford Public Works Department in the manor noted prior to the restriction.

The Contractor shall be responsible for providing, erecting, maintaining, and removing these signs. All cost involved in conforming to this provision shall be considered a part of TRAFFIC CONTROL AND PROTECTION, (SPECIAL).

Basis of Payment: This work shall be included in the contract LUMP SUM price for TRAFFIC CONTROL AND PROTECTION, (SPECIAL).

MAINTENANCE OF TRAFFIC

Description: Staging plans included herein are intended as a suggested method of traffic control. The Contractor shall be responsible for any and all traffic control necessary to complete the project construction per the contract plans and documents, including any necessary sub-stages to further the progress of construction in conjunction with pending utility relocations. Pedestrian access routes shall be maintained through the work zone in accordance with Public Right of Way Accessibility Guidelines (PROWAG). The Contractor shall coordinate the construction to maintain pedestrian routes through the work zone by utilizing staging and temporary access routes or facilities.

Access to businesses shall be coordinated with the owner prior to removing access to properties for both deliveries and commercial operations. 48 hours notice shall be provided prior to removing access. One entrance shall remain open at all times either by staging construction activities or providing accessible temporary facilities. When access to a business is removed, restoration shall commence the next calendar day and shall be completed in 72 hours.

All work necessary to maintain traffic, signing, access, provide detours and any necessary sub-stages to further the progress of construction to complete the project in conjunction with subcontractor and utility work shall be paid for at the Lump Sum contract price for TRAFFIC CONTROL AND PROTECTION, (SPECIAL). No additional compensation will be provided.

Materials used to provide temporary access in excess of 300 tons of aggregate base course shall be included in the cost of the various pay items and no additional compensation will be provided. Existing aggregate base course shall be ramped wherever possible adjacent to traveled lanes to avoid drop-offs greater than 3 inches.

The Contractor shall be required to notify the City of Rockford, emergency response agencies (i.e.: fire, ambulance, police), school bus companies and the Department of Transportation (Bureau of Project Implementation) regarding any changes in traffic control.

The Contractor shall be responsible for providing a weekly article and map to the City of Rockford for distribution to local media describing work being performed and stages closed to traffic.

Placing and removing pavement marking shall be completed using Traffic Control and Protection Standard 701311 or 701701.

The milling and resurfacing shall be completed using Traffic Control and Protection Standard 701601 and 701611. This signage shall be included in the cost of TRAFFIC CONTROL AND PROTECTION, (SPECIAL).

Limitations of Construction: The Contractor shall coordinate the items of work in order to keep hazards and traffic inconvenience to a minimum as specified below.

- 1) Reduction in traffic lanes to a single traffic lane shall be done using Highway Standard 701611 to reduce to one lane in each direction and then use Highway Standard 01501 to reduce to a single lane. This type of lane reduction is only allowed between the hours of 7:00 P.M. to 6:00 A.M.
- 2) Night time work will require the use of nighttime work zone lighting. If the Contractor elects to work at night, the cost of work zone lighting shall be included in the contract and no additional compensation will be allowed. If lighting is used it shall conform to Section 702 of the Standard Specifications.
- 3) The Contractor will be responsible for the maintenance of the traffic control devices at all times during the length of the contract, which also includes the period of winter shutdown.
- 4) All debris shall be removed from the pavement and parkway prior to any shift in Staging operations or removal of traffic control.

The Contractor will be required to have someone available at all times to receive phone calls during non-working hours and who is able to reach the job site within one hour of being called. This person will be able to repair the temporary signals or will be able to have flaggers on site within another hour to flag traffic until the signals are again in operation. Failure to have a person on site within an hour after the initial call out will result in the Contractor being charged a deduction for a Calendar Day in accordance with the schedule in Section 108.09 of the Standard Specifications. Failure to have traffic restored either with repaired signals or with flaggers within two hours after the initial call out will result in the Contractor being charged a deduction for a Work Day in accordance with the schedule in Section 108.09 of the Standard Specifications by the City of Rockford until traffic is restored. The Contractor may use a traffic control subcontractor for the first call; however this does not relieve the prime Contractor from having a person on call.

Basis of Payment: This work shall be included in the contract LUMP SUM price for TRAFFIC CONTROL AND PROTECTION, (SPECIAL).

TEMPORARY TRAFFIC SIGNAL INSTALLATION.

Revise Section 890 of the Standard Specifications to read:

Description: The Contractor shall provide all labor, material, and equipment necessary to furnish, install, maintain, and remove a temporary traffic signal installation as shown on the

plans, including but not limited to temporary signal heads, video vehicle detection, temporary lighting, uninterruptible power supply, and signing. This work shall also include the relocation of equipment as necessary to accommodate the various stages of construction. All work shall be performed in accordance with the plans, Standard Specifications, and as directed herein.

General: No temporary traffic signal work shall begin until all of the temporary traffic signal hardware is on the job site. The existing traffic signal system shall remain in operation during the temporary traffic signal installation. The work shall be scheduled so that a minimum of two signal indications for each phase remains in operation. No signal indication shall be absent for more than seven calendar days.

The temporary traffic signal installation shall be operational prior to the beginning of staged construction. Only an approved equipment vendor will be allowed to assemble the temporary traffic signal cabinet. A representative of the approved control equipment vendor shall be present at the temporary traffic signal turn-on inspection.

Construction Requirements.

(a) Controllers.

1. Only controllers supplied by one of the District approved closed loop equipment manufacturers will be approved for use at temporary signal locations. All controllers used for temporary traffic signals shall be fully actuated NEMA microprocessor based with RS232 data entry ports compatible with existing monitoring software approved by IDOT and the City of Rockford installed in NEMA cabinets with 8 phase back panels, capable of supplying 255 seconds of cycle length and individual phase length settings up to 99 seconds. All controllers used for temporary traffic signals shall meet or exceed the requirements of Section 857 of the Standard Specifications with regards to internal time base coordination and preemption.

2. Only control equipment, including controller cabinet and peripheral equipment, supplied by one of the District approved closed loop equipment manufacturers will be approved for use at temporary traffic signal locations. All control equipment for the temporary traffic signal(s) shall be furnished by the Contractor unless otherwise stated in the plans. On projects with multiple temporary traffic signal installations, all controllers shall be the same manufacturer brand and model number with current software installed.

(b) Cabinets. All temporary traffic signal cabinets shall have a closed bottom made of aluminum alloy. The bottom shall be sealed along the entire perimeter of the cabinet base to ensure a water, dust and insect-proof seal. The bottom shall provide a minimum of two (2) 4 inch (100 mm) diameter holes to run the electric cables through. The 4 inch (100 mm) diameter holes shall have a bushing installed to protect the electric cables and shall be sealed after the electric cables are installed.

(c) Grounding. Grounding shall be provided for the temporary traffic signal cabinet meeting or exceeding the applicable portions of the National Electrical Code, Section 806 of the Standard Specifications and shall meet the requirements of the Traffic Signal Specifications for "Grounding of Traffic Signal Systems."

(d) Traffic Signal Heads. All traffic signal sections shall be 12 inches. Traffic signal sections shall be LED with expandable view, unless otherwise approved by the Engineer. The temporary traffic signal heads shall be placed as indicated on the temporary traffic signal plan or as directed by the Engineer. The Contractor shall furnish enough extra cable length

to relocate heads to any position on the span wire. The temporary traffic signals shall remain in operation during all signal head relocations. Each temporary traffic signal head shall have its own cable from the controller cabinet to the signal head.

(e) Vehicle Detection. All temporary traffic signal installations shall have vehicular detection installed as shown on the plans or as directed by the Engineer. All approaches shall have vehicular detection provided by vehicle detection system as shown on the plans or as directed by the Engineer. Video vehicle detection system shall be approved by IDOT and the City of Rockford prior to the Contractor furnishing and installing. The Contractor shall install, wire, and adjust the alignment of the video vehicle detection system in accordance to the manufacturer's recommendations and requirements. The Contractor shall be responsible for adjusting the alignment of the video vehicle detection system for all construction staging changes and for maintaining proper alignment throughout the project. A representative of the approved control equipment vendor shall be present and assist the contractor in setting up and maintaining the video vehicle detection system. An in-cabinet video monitor shall be provided with all video vehicle detection systems and shall be included in the item Temporary Traffic Signal Installation.

(f) Temporary Lighting. All temporary traffic signal installations shall have temporary lighting installed as shown on the plans or as directed by the Engineer. The Contractor shall notify the Engineer at least 48 hours in advance when the temporary lighting installation is ready to be turned on. Representatives of IDOT will then inspect the installation. The Contractor is responsible for any service connection fees and electrical usage costs. The Contractor shall be responsible for all costs associated with removal of the temporary electric service when the project is complete. The Contractor shall pay the energy costs until such time as the project is final inspected and accepted by IDOT. All burnouts shall be replaced on a next day basis and temporary wiring shall be installed as necessary to keep all lights functioning every night. The Contractor shall furnish to the Engineer the names and phone numbers of two persons responsible for call-out work on the lighting system on a 24/7 basis. The cable shall be installed in one continuous length from the temporary electric service pole to the controller with no splices. No lighting circuit or portion thereof shall be removed from nighttime operation without the approval of the Engineer. After completion of work, the Contractor shall remove the system in accordance with Article 841 of the Standard Specifications for Road and Bridge Construction. All work required to keep the temporary lighting system operational shall be at the Contractor's expense and shall be included in the item Temporary Traffic Signal Installation.

(g) Uninterruptible Power Supply. All temporary traffic signal installations shall have Uninterruptible Power Supply (UPS). The UPS cabinet shall be mounted to the temporary traffic signal cabinet and meet the requirements of Uninterruptible Power Supply in Divisions 800 and 1000 of these specifications.

(h) Signs. All existing street name and intersection regulatory signs shall be removed from existing mast arms and poles and relocated to the temporary signal installation. Any intersection regulatory signs that are required for the temporary traffic signal shall be provided as directed by the Engineer. Relocation, removing, bagging and installing the regulatory signs for the various construction stages shall be provided as directed by the Engineer.

(i) Energy Charges. The electrical utility energy charges for the operation of the temporary traffic signal installation shall be paid for by contractor per Section 890.02.

(j) Maintenance. Maintenance shall meet the requirements of the Standard Specifications Section 890.03 and the TRAFFIC SIGNAL MAINTENANCE section in these specifications.

Basis of Payment: This work shall include all costs for the modifications required for traffic staging, changes in signal phasing as required in the Contract plans, video vehicle detection system, any maintenance or adjustment to the video vehicle detection system, all material required, maintenance during the period, and the installation and complete removal of the temporary traffic signals. Each intersection will be paid for separately. At the end of the need for Temporary Traffic Signals, all equipment shall become the property of the Contractor. This work shall be paid for at the contract unit price EACH for TEMPORARY TRAFFIC SIGNAL INSTALLATION

MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION

Revise Section 850 of the Standard Specifications to read:

Description: This work shall apply to the Existing Traffic Signal Installations at 11th Street and 20th Street until replaced by Temporary Traffic Signals. The energy charges for the operation of the existing traffic signal installation shall be paid for by the City of Rockford until the Temporary Traffic Signal Installation is operational. Full maintenance responsibility for the traffic signals shall start as soon as the Contractor begins any physical work on the Contract or any portion thereof.

The Contractor shall have electricians with IMSA Level II certification on staff to provide signal maintenance.

This item shall include maintenance of all traffic signal equipment at the intersections, including emergency vehicle pre-emption equipment, master controllers, telephone service installations, communication cables and conduits to adjacent intersections.

The maintenance shall be according Article 801.11 and the following contained herein.

The Contractor shall 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 maintain in stock at all times a sufficient amount of materials and equipment to provide effective temporary and permanent repairs.

The Contractor shall 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. When repairs at a signalized intersection require that the controller be disconnected, 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 shall be required to place stop signs (R1-1-36) at each approach of the intersection as a temporary means of regulating traffic. At approaches where a yellow flashing indication is necessary, as directed by the Engineer, stop signs will not be required. The Contractor shall furnish and equip all their vehicles assigned to the maintenance of traffic signal installations with a sufficient

number of stop signs as specified herein. The Contractor shall maintain a sufficient number of spare stop signs in stock at all times to replace stop signs which may be damaged or stolen.

The Contractor shall provide the Engineer with a 24 hour telephone number for the maintenance of the traffic signal installation and for emergency calls by the Engineer.

Traffic signal equipment which is lost or not returned to the City for any reason shall be replaced with new equipment meeting the requirements of these Specifications.

The Contractor shall respond to all emergency calls regarding signals 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 Contract. 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 traffic signal installation in proper operating condition or if the Engineer cannot contact the Contractor's designated personnel, the Engineer shall have the City's Traffic Signal Maintenance Contractor perform the maintenance work required, The City's Traffic Signal Maintenance Contractor shall bill the Contractor for the total cost of the work. 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 City's Traffic Signal Maintenance Contractor to make reviews of the existing traffic signal installation that has been transferred to the Contractor for maintenance.

Locating underground facilities: Revise Section 803 of the Standard Specifications to read:

Once maintenance of traffic signal and/or lighting facilities are transferred from the owner to the Contractor as described herein under this contract, the Contractor shall be responsible for locating and maintaining locates of the facilities both existing and proposed until final acceptance by the owner. This includes JULIE locate requests by other for work within the facility area.

Contractor request for equipment locates will be granted only once prior to the start of the contract. Additional requests shall be at the expense of the Contractor. The location of underground traffic facilities does not relieve the Contractor of their responsibility to repair any item(s) damaged during the construction, at his/her own expense.

Locate requests should be directed to the City's Traffic Signal Maintenance Contractor or to the City of Rockford Traffic Engineering Department.

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 call J.U.L.I.E. at 1-800-892-0123. For locations of some utilities, other Agencies or Municipalities may need to be contacted.

Basis of Payment: This work shall be paid for at the contract unit price EACH for MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION.

WORK ZONE PAVEMENT MARKING

Description: This work shall consist of installing temporary pavement marking according to Section 703 of the Standard Specifications and the following:

Paint pavement marking shall be used on the final wearing surface when the temporary pavement marking will conflict with the permanent pavement marking such as on tapers, crossovers and lane shifts.

Method of Measurement: This work will be measured in feet for Pavement Marking Lines for the actual line painted and in square feet for the actual letters & symbols painted.

Basis of Payment: This work shall be paid at the contract unit price per FOOT for TEMPORARY PAVEMENT MARKING LINES of the sizes specified, and per SQUARE FOOT for TEMPORARY PAVEMENT MARKING LETTERS & SYMBOLS.

WORK ZONE PAVEMENT MARKING REMOVAL

Description: This work shall consist of removing temporary pavement marking according to Section 703 of the Standard Specifications and the following:

All temporary pavement marking on the final wearing surface shall be removed according to Article 1101.12 Water Blaster with Vacuum Recovery and the applicable portions of Section 703 of the Standard Specifications and as described herein.

Add the following paragraph to Article 1101.12 of the Standard Specifications.

For the high pressure water spray, the pressure at the nozzle shall be approximately 25,000 psi with maximum flow rate of 15 gal/min. The nozzle shall be in close proximity to the pavement surface.

Method of Measurement: Work Zone pavement marking removal will be measured in feet for the nominal width of the line and calculated in square feet.

Basis of Payment: This work shall be paid at the contract unit price per SQUARE FOOT for WORK ZONE PAVEMENT MARKING REMOVAL.

FLEXIBLE DELINEATOR MAINTENANCE

Description: This item shall consist of all materials and labor necessary to maintain the flexible delineator required as part of Traffic Control and Protection, (Special) and Maintenance of Traffic Plans for each stage.

Any unit which needs repair because the attachment of the base to the pavement failed within 120 hours after installation shall be reattached by the Contractor at his/her expense. Any unit which breaks within 120 hours after installation shall be replaced by the Contractor at his/her expense. The quantity listed in the contract is only an estimate of the anticipated number of units requiring repair.

The removal and replacement of Flexible Delineators between stages including winter shut-downs shall not be considered maintenance, but shall be considered part of Traffic Control and Protection (Special).

This work to replace any flexible delineator which needs to be replaced after 120 hours shall be paid for at the contract unit price per Each for FLEXIBLE DELINEATOR MAINTENANCE to maintain the flexible delineators required as part of Traffic Control and Protection, (Special) and Maintenance of Traffic Plans for each stage.

Basis of Payment: This work shall be paid at the contract unit price per EACH for FLEXIBLE DELINEATOR MAINTENANCE.

PORTABLE CHANGEABLE MESSAGE SIGN

Description: Changeable message boards shall be erected on the approaches to the work zone of Harrison Ave, 11th Street, and 20th Street two weeks prior to the beginning of construction to provide advance notice of the pending work and schedule.

Changeable message boards shall be used for the various stages as noted in the plans.

Messages providing advanced notice of changes in lane configuration shall be in place three days prior to the changes in lane configuration.

Basis of Payment: This work shall be paid at the contract unit price per CALENDAR MONTH or portion thereof for PORTABLE CHANGEABLE MESSAGE SIGN.

EARTH EXCAVATION

This work shall be according to Article 202 of the Standard Specifications and the following:

Earth Excavation shall include topsoil excavation.

Basis for Payment: This work will be paid for at the contract unit price per CUBIC YARD for EARTH EXCAVATION.

TOPSOIL FURNISH AND PLACE

This work shall be according to Article 211 of the Standard Specifications and the following:

The contractor may salvage and reuse topsoil generated from the site should the material meet requires defined in Article 211 and meet the approval of the Engineer. Topsoil able to be reused onsite will be paid for per SQUARE YARD as TOPSOIL FURNISH AND PLACE of the thickness specified.

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES

This work shall be according to Article 669 of the Standard Specifications and the following:

Qualifications. The term environmental firm shall mean an environmental firm with at least five(5) documented leaking underground storage tank (LUST) cleanups or that is pre-qualified in hazardous waste by the Department. Documentation includes but not limited to

verifying remediation and special waste operations for sites contaminated with gasoline, diesel, or waste oil in accordance with all Federal, State, or local regulatory requirements and shall be provided to the Engineer for approval. The environmental firm selected shall not be a former or current consultant or have any ties with any of the properties contained within and/or adjacent to this construction project.

General. This Special Provision will likely require the Contractor to subcontract for the execution of certain activities.

Within the areas as defined below, all contaminated materials shall be managed as either "uncontaminated soil" or non-special waste. This work shall include monitoring and potential sampling, analytical testing, and management of a material contaminated by regulated substances. The Environmental Firm shall continuously monitor all soil excavation for worker protection and soil contamination. **Phase I Preliminary Engineering information is available through the District's Environmental Studies Unit.** Soil samples or analysis without the approval of the Engineer will be at no additional cost to the Department. The lateral distance is measured from centerline and the farthest distance is the offset distance or construction limit whichever is less.

The Contractor shall manage any excavated soils and sediment within the following areas:

ISGS Site 2836-4 – Vintage Brick Salvage

- Station 110+30 to Station 112+40, 0 to 68 feet RT along Harrison Avenue (Vintage Brick Salvage, PESA Site 2836-4, 1303 Harrison Avenue) - This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)pyrene.

ISGS Site 2836-5 – Stephen Paoli Manufacturing Corporation

- Station 112+50 to Station 113+45, 0 to 35 feet LT along Harrison Avenue (Stephen Paoli Manufacturing Corporation, PESA Site 2836-5, 2531 11th Street) - This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)pyrene.
- Station 116+50 to Station 117+50, 0 to 50 feet LT along Harrison Avenue (Stephen Paoli Manufacturing Corporation, PESA Site 2836-5, 2531 11th Street) - This material meets the criteria of Article 669.09(b)(1) and shall be managed in accordance to Article 669.09.
- Station 117+50 to Station 118+50, 0 to 50 feet LT along Harrison Avenue (Stephen Paoli Manufacturing Corporation, PESA Site 2836-5, 2531 11th Street) - This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Manganese.
- Station 119+50 to Station 123+50, 0 to 130 feet LT along Harrison Avenue (Stephen Paoli Manufacturing Corporation, PESA Site 2836-5, 2531 11th Street) - This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: VOCs.

ISGS Site 2836-6 – Commercial Building

- Station 112+40 to Station 113+65, 0 to 70 feet RT along Harrison Avenue (Commercial Building, PESA Site 2836-6, 1311 Harrison Avenue) - This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article

669.09. COCs sampling parameters: Manganese.

ISGS Site 2836-8 – Storage Buildings

- Station 208+10 to Station 209+30, 0 to 30 feet RT along Bildahl Street (Storage Buildings, PESA Site 2836-8, 1400 Harrison Avenue-SE Corner of Harrison Avenue and Bildahl Street) - This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)anthracene, benzo(a)pyrene, and VOCs.
- Station 114+55 to Station 116+95, 0 to 70 feet RT along Harrison Avenue (Storage Buildings, PESA Site 2836-8, 1400 Harrison Avenue-SE Corner of Harrison Avenue and Bildahl Street) - This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)pyrene, manganese, and VOCs.
- Station 308+10 to Station 309+30, 0 to 30 feet LT along 10th Street (Storage Buildings, PESA Site 2836-8, 1400 Harrison Avenue-SE Corner of Harrison Avenue and Bildahl Street) - This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: VOCs.

ISGS Site 2836-9 – Vacant Land

- Station 308+10 to Station 309+30, 0 to 55 feet RT along 10th Street (Vacant Land, PESA Site 2836-9, 1400 Block of Harrison Avenue-SE Corner of Harrison Avenue and 10th Street)
- This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)pyrene.
- Station 117+60 to Station 120+25, 0 to 80 feet RT along Harrison Avenue (Vacant Land, PESA Site 2836-9, 1400 Block of Harrison Avenue- SE Corner of Harrison Avenue and 10th Street) - This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Lead and manganese.

ISGS Site 2836-14 – Jonny's Auto Sales

- Station 122+40 to Station 123+50, 0 to 155 feet RT along Harrison Street (Jonny's Auto Sales, PESA Site 2836-14, 1529 Harrison Avenue) - This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Manganese.

ISGS Site 2836-15 – IDOT ROW

- Station 511+10 to Station 511+70, 0 to 45 feet LT along 11th Street (IDOT ROW, PESA Site 2836-15, 1500 Block of Harrison Avenue-Intersection of Harrison Avenue and 11th Street) - This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)pyrene and VOCs.
- Station 509+80 to Station 511+10, 0 to 45 feet LT along 11th Street (IDOT ROW, PESA Site 2836-15, 1500 Block of Harrison Avenue-Intersection of Harrison Avenue and 11th Street) - This material meets the criteria of Article 669.09(b)(1) and shall be managed in accordance to Article 669.09.
- Station 123+30 to Station 124+25, 0 to 65 feet LT along Harrison Avenue (IDOT ROW, PESA Site 2836-15, 1500 Block of Harrison Avenue-Intersection of Harrison

Avenue and 11th Street) - This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: VOCs.

ISGS Site 2836-16 – Villa Di Roma

- Station 511+20 to Station 511+70, 0 to 60 feet RT along 11th Street (Villa Di Roma, PESA Site 2836-16, 1620 Harrison Avenue) - This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and VOCs.
- Station 510+35 to Station 511+20, 0 to 105 feet RT along 11th Street (Villa Di Roma, PESA Site 2836-16, 1620 Harrison Avenue) - This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: VOCs.
- Station 124+25 to Station 124+50, 0 to 65 feet LT along Harrison Avenue (Villa Di Roma, PESA Site 2836-16, 1620 Harrison Avenue) - This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: VOCs.

ISGS Site 2836-17 – Commercial Building

- Station 123+50 to Station 124+50, 0 to 55 feet RT along Harrison Avenue (Commercial Building, PESA Site 2836-17, 1601-1617 Harrison Avenue-SE Corner of Harrison Avenue and 11th Street) - This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: VOCs.
- Station 508+80 to Station 509+25, 0 to 105 feet RT along 11th Street (Commercial Building, PESA Site 2836-17, 1601-1617 Harrison Avenue-SE Corner of Harrison Avenue and 11th Street) - This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Manganese and VOCs.
- Station 508+25 to Station 508+80, 0 to 60 feet RT along 11th Street (Commercial Building, PESA Site 2836-17, 1601-1617 Harrison Avenue-SE Corner of Harrison Avenue and 11th Street) - This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: VOCs.

ISGS Site 2836-18 – Owen Plumbing & Heating & Residence

- Station 507+10 to Station 508+25, 0 to 60 feet LT along 11th Street (Owen Plumbing & Heating & Residence, PESA Site 2836-18, 2603 11th Street) - This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: VOCs.

ISGS Site 2836-19 – Construction Site

- Station 504+85 to Station 508+25, 0 to 60 feet RT along 11th Street (Construction Site, PESA Site 2836-19, 2620 11th Street) - This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(b)fluoranthene, Benzo(a)pyrene, dibenzo(a,h)anthracene, manganese, and VOCs.

ISGS Site 2836-20 – Commercial Building

- Station 505+60 to Station 507+10, 0 to 80 feet LT along 11th Street (Commercial Building, PESA Site 2836-20, 2613 11th Street) - This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: VOCs.

ISGS Site 2836-21 – Turbo Trade Center

- Station 505+10 to Station 505+60, 0 to 50 feet LT along 11th Street (Turbo Trade Center, PESA Site 2836-21, 2635 11th Street) - This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)pyrene, dibenzo(a,h)anthracene, and VOCs.

ISGS Site 2836-22 – RB's Auto Sales

- Station 504+30 to Station 505+10, 0 to 50 feet LT along 11th Street (RB's Auto Sales, PESA Site 2836-22, 2643-2701 11th Street) - This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: VOCs.
- Station 502+50 to Station 503+00, 0 to 50 feet LT along 11th Street (RB's Auto Sales, PESA Site 2836-22, 2643-2701 11th Street) - This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: VOCs.
- Station 1800+45 to Station 1801+80, 0 to 30 feet LT along Alton Avenue (RB's Auto Sales, PESA Site 2836-22, 2643-2701 11th Street) - This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Manganese.

ISGS Site 2836-23 – Mixed Use Building

- Station 504+10 to Station 504+85, 0 to 60 feet RT along 11th Street (Mixed Use Building, PESA Site 2836-23, 2638 11th Street) - This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)pyrene, manganese, and VOCs.

ISGS Site 2836-24 – Vacant Lot

- Station 503+30 to Station 504+10, 0 to 45 feet RT along 11th Street (Vacant Lot, PESA Site 2836-24, 2648 11th Street) - This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and VOCs.

ISGS Site 2836-27 – Muchachita's Boutique & Salon

- Station 502+50 to Station 503+30, 0 to 55 feet RT along 11th Street (Muchachita's Boutique & Salon, PESA Site 2836-27, 2702 11th Street) - This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)pyrene, manganese, and VOCs.

ISGS Site 2836-28 – Wheel-In Motel

- Station 502+00 to Station 502+50, 0 to 55 feet LT along 11th Street (Wheel-In Motel,

PESA Site 2836-28, 2707 11th Street) - This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)pyrene and manganese.

ISGS Site 2836-29 – Residence

- Station 502+00 to Station 502+50, 0 to 50 feet RT along 11th Street (Residence, PESA Site 2836-29, 2706 11th Street) - This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)pyrene and VOCs.

ISGS Site 2836-31 – Diva's Hair & Extension Design

- Station 501+50 to Station 502+00, 0 to 55 feet RT along 11th Street (Diva's Hair & Extension Design, PESA Site 2836-31, 2710 11th Street) - This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)pyrene, dibenzo(a,h)anthracene, and VOCs.

ISGS Site 2836-32 – Residence

- Station 501+00 to Station 501+50, 0 to 50 feet RT along 11th Street (Residence, PESA Site 2836-32, 2714 11th Street) - This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)pyrene, dibenzo(a,h)anthracene, lead, manganese, and VOCs.

ISGS Site 2836-33 – Residence

- Station 500+50 to Station 501+00, 0 to 50 feet RT along 11th Street (Residence, PESA Site 2836-33, 2718 11th Street) - This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, lead, manganese, and VOCs.

ISGS Site 2836-34 – Victory Lane Motors

- Station 499+95 to Station 500+50, 0 to 45 feet RT along 11th Street (Victory Lane Motors, PESA Site 2836-34, 2722 11th Street) - This material meets the criteria of Article

669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: VOCs.

ISGS Site 2836-35 – Advance Auto Parts

- Station 499+95 to Station 500+70, 0 to 55 feet LT along 11th Street (Advance Auto Parts, PESA Site 2836-35, 2715 11th Street) - This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Manganese.

PESA Site 69 – 2421 11th Street, UTC Aerospace Systems Plant #1

- Station 515+65 to Station 516+91, 0 feet to 65 feet LT along 11th Street (SB-1). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)pyrene.

PESA Site 64 – 2525 11th Street, Charlestal LLC/multiple tenant building

- Station 512+45 to Station 513+45, 0 feet to 47 feet LT along 11th Street (SB-8). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)pyrene.

PESA Site 68 – 2524 11th Street, AMI facility

- Station 512+30 to Station 513+35, 0 feet to 43 feet RT along 11th Street (SB-9). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)pyrene.

PESA Site 9 – 1620 Harrison Ave., Villa Di Roma Pizza

- Station 510+83 to Station 511+33, 45 feet to 190 feet RT along 11th Street/Harrison Avenue intersection (SB-12). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)pyrene.

PESA Site 46B – east side of 2620 11th Street / in Kinsey Street ROW, Empty Lot

- Station 608+06 to Station 608+75, 0 feet to 40 feet LT along Kinsey Street (SB-19). This material meets the criteria of Article 669.09(b)(1) and shall be managed in accordance to Article 669.09.

PESA Site 14 – xx Harrison Ave. (PIN 11-36-378-005), AMI LLP / vacant parking lot

- Station 132+50 to Station 133+80, 0 feet to 60 feet LT along Harrison Avenue (SB-25). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)pyrene.

PESA Site 18 – 1901 Harrison Ave., B Three Partners LLC/RCE-Rail Construction

- Station 808+83 to Station 809+63, 0 feet to 50 feet RT along Harrison Avenue (SB-27). This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Arsenic and benzo(a)pyrene.
- Station 133+90 to Station 134+93, 0 feet to 56 feet RT along Harrison Avenue (SB-29). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)pyrene.

PESA Site 16 – 1950 Harrison Ave., ABC Supply Company

- Station 134+45 to Station 135+33, 0 feet to 60 feet LT along Harrison Avenue (SB-28). This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Naphthalene, lead, benzo(a)anthracene, benzo(b)fluoranthene, and benzo(a)pyrene.

PESA Site 66 – 1911 Harrison Ave., B Three Partners LLC/ Powmet Inc.

- Station 135+92 to Station 136+87, 18 feet to 78 feet RT along Harrison Avenue (SB-32). This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Lead, benzo(a)anthracene, and benzo(a)pyrene.

PESA Site 19 – 1919 Harrison Ave., Ingram Holdings LLC / Headco Industries

- Station 136+87 to Station 138+21, 0 feet to 70 feet RT along Harrison Avenue (SB-34). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)pyrene.

PESA Site 17 – 2000 Harrison Ave., Wierman Oil Co./Phillips 66

- Station 137+48 to Station 138+24, 0 feet to 100 feet LT along Harrison Avenue (SB-35). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)pyrene.
- Station 138+24 to Station 138+89, 0 feet to 100 feet LT along Harrison Avenue (SB-36). This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Naphthalene, benzo(a)anthracene, benzo(b)fluoranthene, and benzo(a)pyrene.

PESA Site 20 – 2020 Harrison Ave., Harrison Industrial LLC / multi-tenant facility

- Station 140+40 to Station 141+50, 0 feet to 90 feet LT along Harrison Avenue (SB-38). This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09 (soil managed and disposed of off-site as a non-special waste or special waste). COCs sampling parameters: Benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene, carbazole; 4,6-dinitro-2-methylphenol (4,6-dinitro-o-cresol); 2,4-dinitrotoluene; hexachloroethane, isophorone, lead, and chromium.
- Station 144+77 to Station 145+69, 0 feet to 105 feet LT along Harrison Avenue (SB-46). This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09 (soil managed and disposed of off-site as a non-special waste or special waste). COCs sampling parameters: Benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene, and hexachloroethane.

PESA Site 53 – 2103 Harrison Ave., Crab Tree Auto Parts / Kelo Inc.

- Station 141+23 to Station 141+85, 0 feet to 115 feet RT along Harrison Avenue (SB-39). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(b)fluoranthene and benzo(a)pyrene.
- Station 141+85 to Station 142+50, 0 feet to 60 feet RT along Harrison Avenue (SB-41). This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene, naphthalene, and chromium.

PESA Site 55 – 26xx Marshall, Barretts Mobile Home Park

- Station 142+50 to Station 143+13, 0 feet to 95 feet RT along Harrison Avenue (SB-43). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)pyrene.
- Station 143+13 to Station 145+78, 0 feet to 95 feet RT along Harrison Avenue (SB-44). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)anthracene, benzo(b)fluoranthene, and benzo(a)pyrene.

PESA Site 23 – 2210 Harrison Ave., RL Leek Trucking

- Station 149+55 to Station 151+70, 0 feet to 130 feet LT along Harrison Avenue (SB-50). This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09 (soil managed and disposed of off-site as a non-special waste or special waste). COCs sampling parameters: Hexachloroethane and benzo(a)anthracene.
- Station 151+70 to Station 153+00, 0 feet to 95 feet LT along Harrison Avenue (SB-51). This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09 (soil managed and disposed of off-site as a non-special waste or special waste). COCs sampling parameters: Hexachloroethane and benzo(a)pyrene.
- Station 155+20 to Station 156+35, 0 feet to 105 feet LT along Harrison Avenue (SB-54). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)pyrene.
- Station 158+30 to Station 159+30, 0 feet to 105 feet LT along Harrison Avenue (SB-59). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)pyrene.

PESA Site 59 – 2219 Harrison Ave., empty lot

- Station 1508+70 to Station 1509+12, 0 feet to 60 feet LT along 18th Street (SB-56). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)pyrene.

PESA Site 30 – 2535 20th Street, Clankie's Auto Parts

- Station 160+29 to Station 161+65, 64 feet to 119 feet LT along Harrison Avenue (SB-61). This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Hexachloroethane, benzo(a)anthracene, and benzo(a)pyrene.
- Station 160+59 to Station 161+92, 0 feet to 66 feet LT along Harrison Avenue (SB-63). This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(b)fluoranthene; 4,6-dinitro-2-methylphenol (4,6-dinitro-o-cresol); 2,4-dinitrotoluene; hexachloroethane, and benzo(a)pyrene.

PESA Site 28 – 2325 Harrison Ave., Area Erectors Inc.

- Station 159+83 to Station 161+46, 0 feet to 65 feet RT along Harrison Avenue (SB-62). This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)anthracene, naphthalene, benzo(b)fluoranthene, and benzo(a)pyrene.

PESA Site 27 – 2323 Harrison Ave., Area Erectors Inc.

- Station 158+75 to Station 159+83, 0 feet to 65 feet RT along Harrison Avenue (SB-71). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)pyrene.

PESA Site 31 – 2400 Harrison Ave., Econo Automotive Repair

- Station 163+90 to Station 164+75, 0 feet to 90 feet LT along Harrison Avenue (SB-69). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. COCs sampling parameters: Benzo(a)pyrene.

Method of Measurement: Unit of measure will follow Article 669. Cubic yardage quantity calculations will be based on weight tickets from the chosen disposal site. A unit weight of 1.50 tons/cy will be used in the conversion.

Basis of Payment: Payment will be based on the pay items established in Article 669 and as called for in the contract documents. Payment for excavation is excluded from the pay items associated with Article 669.

MILLING RESTRICTIONS

Description: Milling operations shall be performed such that a vertical milled face no greater than 1 1/2 inches exists between adjacent open lanes of traffic at any time. This may be accomplished by the following treatment methods: Make multiple passes with the mill, each one less than the 1 1/2 inches; place a temporary wedge or have milled sloped edge with a minimum 1:3 slope; or mill all lanes in a given area so that no difference in elevation exists when all adjacent lanes are opened to traffic. Other methods may be used if approved by the Engineer prior to implementing the procedure. This work shall be included in the cost of HMA Surface Removal, at the thickness specified.

Method of Measurement: Milling will be measured in square yards from beginning of HMA surface removal and curb flag to median.

Basis of Payment: Milling will be paid at the contract unit price per SQUARE YARD for HOT-MIX ASPHALT SURFACE REMOVAL, 3" and shall include the above restrictions at no additional cost.

TEMPORARY PAVEMENT

Description: This work shall consist of placing a Hot-Mix Asphalt Surface Course or Portland Cement Concrete Base Course and aggregate base to serve as a temporary widening or a runaround at the locations shown on the plans. The choice of material to be used for this item is left to the Contractor to choose from the following options:

HOT-MIX ASPHALT OPTION

This work shall consist of placing and compacting 12 inches of Aggregate Base Course, Type B and constructing 7 inches of Hot-Mix Asphalt Base Course and Hot-Mix Asphalt Surface Course to serve as a temporary runaround at the location shown on the plans. The Hot-Mix Asphalt shall be placed in 2 lifts.

Description: This work shall consist of producing and construction a HMA Surface Course on a prepared base, according to Section 311, 406, 1030 and 1102 of the 2012 Standard Specifications, except as follows.

Materials: Surface Mixture 9.5, Mix C, N 50 shall be used. Binder Course IL-9.5, N50.

Required Field Tests: Density Acceptance at 95% - 102% of growth curve at the frequency indicated in Article 1030.05(d) (3).

All work and materials required to complete the work listed above including excavation and removal of the Temporary Pavement when it is no longer needed shall be included in the contract unit cost per Square Yard for TEMPORARY PAVEMENT.

The hot-mix asphalt and sub-base shall be removed after the final stage is completed or as staging elements dictate. Removal shall not be paid for separately, but shall be included in the cost of TEMPORARY PAVEMENT.

PORTLAND CEMENT CONCRETE OPTION

This work shall consist of placing and compacting 4 inches of Sub-base Granular Material, Type B and constructing an 8 inch thick Portland Cement Concrete Pavement (non-reinforced) to serve as a temporary runaround at the location shown on the plans. The minimum width shall be 3 feet. This work shall be completed according to Sections 311 and 353 of the Standard Specifications.

Pavement fabric shall not be utilized in the PCC Pavement.

The Contractor shall saw longitudinal joints in PCC Pavement wider than 16 feet, according to the Standard 420001, except that uncoated steel tie bars may be used instead of epoxy coated tie bars. These joints shall not be sealed.

The Contractor shall saw transverse joints in the base course at 20' centers according to the detail for Sawed Construction Joints in Standard 420001, except the dowel bars are not required. These joints shall not be sealed.

All work listed above, including tie bars, sawed joints and all other required materials shall be included in the contract unit price per Square Yard for TEMPORARY PAVEMENT.

The base course and sub-base shall be removed after the final stage is completed or as staging elements dictate. Removal shall not be paid for separately, but shall be included in the cost of TEMPORARY PAVEMENT.

Basis of Payment: This work will be paid at the contract unit price per SQUARE YARD for TEMPORARY PAVEMENT.

ADJUSTED PLAN QUANTITY FOR SURFACE COURSE MIXTURES

The adjusted plan quantity for surface course mixtures shall be calculated according to Article 406.13(b) and the following. The maximum allowed average bulk specific gravity for the approved mix design (Gmb) will be:

- 2.460 for Mixture C
- 2.470 for Mixture D

ENGINEER'S FIELD OFFICE TYPE A

Description: Engineer's Field Office Type A shall be in accordance with Article 670.02 of the Standard Specifications:

Add (s) to the end of 670.02

(s) Cellular phone with a minimum of 500 anytime minutes per month for use by the site resident engineer/technician.

Basis of Payment: This work will be paid at the contract unit price per CALENDAR MONTH for ENGINEER'S FIELD OFFICE, TYPE A.

REFERENCING LAND SECTION MARKERS

Description: The Contractor shall monument or re-monument all Section Corners, Quarter Corners with their Reference Monuments (and any lesser Corners which are in place including those which have been monumented by others and do not conform to the Department's procedures) that will be destroyed. The Section Corners will be monumented according to District Reference Marker Detail No. 63.4. It is required that an Illinois Professional Land Surveyor prepare a Department Monument Record Form which is in compliance with the Land Surveying Monuments Acts (765 ILCS220/0.01 et seq.) for any designated Section Corner Monument or any Reference Monument that is disturbed. The Contractor shall secure the IDOT Monument Record Form (with IDOT logo) from the Department and furnish said form to the Illinois Professional Land Surveyor. Each Monument Record Plat shall note how the Section Corner Monument and all Reference Monuments were set, either flush with the ground, buried 28 inches (if monuments were buried, four 3.5' by 5/8" rebars shall be placed around said monuments to make recovery an easier task) or in other cases what was done. A graphic illustration of physical landmarks and their relationship to the Monument Reference Markers shall be shown upon said Monument Record Plat. These Monument Record Plats shall be recorded by the Surveyor. Recorded copies will then be furnished to the IL Department of Transportation by the Contractor.

The determination of those Section Corners which are to be re-monumented by Illinois Department of Transportation standards and all Reference Monuments are in place, a signed and sealed letter from the Illinois Professional Land Surveyor shall be sent to the IDOT District 2 Chief of Surveys affirming this fact. In case a Reference Monument has been destroyed, it will be reset and a new Monument Record Plat shall be recorded.

Any questions deviations from these procedures shall be referred to the IDOT Plats and Plans Unit at 815/284-5370.

This work will be paid for at the contract unit price per EACH for REFERENCING LAND SECTION MARKERS when the land section marker has been previously located. All work shall be done under the direction of a Professional Land Surveyor of the State of Illinois.

Each item shall include the placement of four reference markers and a land section marker where applicable.

Basis of Payment: This work will be paid at the contract unit price per EACH for REFERENCING LAND SECTION MARKERS.

HOT-MIX ASPHALT BINDER AND SURFACE COURSE

Description: This work will be in accordance with Section 406 of the Standard Specifications with the following exception. Modify the first paragraph of the subject Article 406.07 - Compaction to read:

Immediately after the Binder or Surface Course Mixtures are placed, each lift shall be given an initial or breakdown rolling with a three wheeled or tandem roller. After the initial rolling, the Binder or Surface Course shall be given an intermediate rolling with a pneumatic-tired roller. The final or finish rolling shall be done with a tandem roller or vibratory roller in the static mode only. If density cannot be obtained with one three wheeled or tandem roller additional static rollers shall be added until density can be achieved.

Placement of Hot-Mix Asphalt Surface Course will not be permitted after October 15 unless approved, in writing, by the Resident Engineer.

Basis of Payment: This work will be paid for at the contract unit price per TON for HOT MIX ASPHALT BINDER COURSE IL-9.5, N50 AND HOT MIX ASPHALT SURFACE COURSE, MIXTURE C, N50.

POROUS GRANULAR EMBANKMENT

Description: This work shall consist of furnishing, transporting and placing porous granular material according to Section 207 of the Standard Specification, except as follows: The material shall be Gradation CA 7. The coarse aggregate shall be according to Section 1004 of the Standard Specifications.

Basis of Payment: This work will be paid for at the contract unit price per CU YD for POROUS GRANULAR EMBANKMENT.

GRANULAR EMBANKMENT, SPECIAL

Description: This work shall consist of excavation of unsuitable material from the subgrade, furnishing, transporting, placing and compacting granular embankment.

Materials: Coarse Aggregate shall be according to Article 1004.04. Revise Article 1004.04 (a) to include crushed recycled concrete pavement.

Equipment: Shall be in accordance with Article 206.03.

Placement and Compaction: Coarse aggregate shall be placed and compacted to the satisfaction of the Engineer. The maximum lift thickness shall be 6 inches.

Method of Measurement: GRANULAR EMBANKMENT, SPECIAL shall be measured for payment in place and the volume computed in cubic yards. This item is a contingent quantity to be used at the discretion of the Engineer based on the condition of the sub-grade.

Basis for Payment: This work will be paid for at the contract unit price per CUBIC YARD for GRANULAR EMBANKMENT, SPECIAL. The cost of excavation of unsuitable material shall be included in the cost of GRANULAR EMBANKMENT, SPECIAL.

INLET AND PIPE PROTECTION

Description: This work shall consist of furnishing and installing, on a temporary basis, Inlet Filters as a final mode of protection to prevent the discharge of sediment and construction debris in storm water runoff from the project site. The inlet filter shall allow for traffic without presenting a driving hazard to vehicles. The Contractor shall submit the specifications of the product for approval.

The sediment bag shall provide for the overflow of storm overflow water runoff in the event that inflow exceeds the bag filtration rate. The overflow will discharge storm water within the inlet and will not cause storm water to back up onto the roadway.

The Contractor shall remove sediment and debris from the sediment bag according to the manufacturer's recommendation. The Contractor shall regularly inspect the inlet filters and remove debris before it builds up to a level that either the bag is hard to remove or the inlet filter ceases to be effective. Sediment and construction debris that is removed from the bag shall be approximately measured by volume. The Contractor shall keep a record of the sediment removed from each drainage inlet for the time period of the entire project. These records shall be updated as required. The Contractor shall submit their records to the Engineer on a monthly basis.

If the steel supports or fabric bag is damaged, the Contractor shall replace the Inlet Filter at his cost. The cost of sediment maintenance and sediment reporting is included in the cost of the Drainage Structure Inlet Filter.

Basis of Payment: This work will be paid for on the contract unit price for EACH for INLET AND PIPE PROTECTION. Upon installation of the INLET AND PIPE PROTECTION, the Contractor will be allowed to claim up to 80 percent of the unit cost of the INLET AND PIPE PROTECTION. The remaining 20 percent may be claimed when the Contractor removes the INLET AND PIPE PROTECTION after the project site is stabilized as part of final restoration, and the Contractor has provided services to regularly remove sediment and debris and has submitted the final log of sediment removal volumes to the Engineer.

PIPE DRAINS 6"

Description: This work shall consist of furnishing and installing underdrain pipe with a 6-inch nominal diameter within the landscaped median of the project in accordance with the applicable portions of Section 601 of the IDOT Standard Specifications. The pipe shall be single wall high density polyethylene. Perforations shall be uniform slots. The pipe shall conform to ASTM F405 and ASTM F606. The pipe shall be placed within an envelope of crushed aggregate. The crushed aggregate shall conform to IDOT gradations CA 7, CA 14, or CA 15. In turn, this aggregate shall be wrapped in geotextile fabric conforming to Article 1080.05 of the Standard Specifications (Geotextile Fabric for French Drains). The minimum dimensions of the geotextile fabric envelope shall be 18 inches wide by 24 inches high. The fabric shall be placed with a minimum overlap of 12 inches. The pipe shall be

placed so that the nominal separation from the fabric by the aggregate is 6 inches from the sides and 6 inches from the bottom. The pipe shall be placed at a minimum depth of 2.5 feet below finished grade. However, the pipe shall be installed at a minimum slope of 0.5 percent. The slope shall be in the downward direction towards the discharge end of the pipe. The excavation shall be included as part of this pay item. The aggregate and the fabric shall not be paid separately but shall be included in the unit price per foot of the underdrain.

The pipe shall be placed on a uniform grade. The pipe shall be placed in the alignment indicated on the plans. The pipe shall connect to inline drainage structures (Surface Drain Inlet, 8"). The minimum length of pipe to be backfilled at one time shall be from structure to structure.

The slope of the pipe shall be slope tested as follows:

1. The length of placed pipe underdrain to be backfilled pipe shall be backfilled with a minimum cover of 6 inches aggregate on top of the pipe.
2. Water shall be poured into the upstream end until a discharge is observed at the downstream end.
3. After the discharged has ceased the depth of water retained at any one structure shall not exceed 0.5 inches above the inner corrugation of the pipe. If the depth of water exceeds 0.5 inches, the aggregate shall be removed, the pipe removed, and the pipe reinstalled.
4. The Contractor may, at his own risk, complete all backfill operations prior to performing a slope test.

Upon successful completion of the test, the backfill operations may be completed with care taken to not further disturb the pipe underdrain. Any adjusting or reinstalling the pipe shall be at the Contractor's cost.

If the pipe conflicts with any existing utility, the Engineer is to be notified immediately.

Method of Measurement: PIPE UNDERDRAINS 6" will be measured for payment in feet of pipe, measured along the top of the pipe. Excavation and topsoil backfill are included in the cost.

Basis of Payment: This work will be paid at the contract unit price for FOOT for PIPE DRAIN 6".

REQUIREMENTS FOR SCHEDULED WATER MAIN VALVE SHUT OFF

- a) The Contractor shall obtain the permission of the Water Superintendent, or his designee, prior to any water main valve shut off.
- b) The Contractor shall notify all water customers affected by the water main valve shut off at least 24 hours in advance, using forms supplied by the Water Division. Contractor is

responsible to hang tags on each building affected.

- c) The Contractor shall notify the City of Rockford Water Division (815 987-5700) prior to any water main valve shut off and provide the following information (pursuant to Illinois Municipal Code 65 ILCS 5/11-20-10.5):
- Streets and boundaries of shut down
 - Time of shut down
 - Approximate duration of shut down
 - Number of customers affected
 - If non-residential customers (hospitals, nursing homes, restaurants, etc.) are affected, a count of how many individuals affected will be provided.
- d) No shut downs are allowed on Fridays. Work must be completed to ensure completion of bacteriological testing by the end of the day Thursday.
- e) The Contractor shall notify Water Division Operations Center Operator upon completion of repairs and restoration of water service.
- f) The Contractor shall demonstrate, to the satisfaction of the Engineer, that water service at each residence or business affected by the shut down has been restored once the water service line has been reconnected.
- g) The City of Rockford Water Division personnel will be exercising the existing valve prior to the start of construction. It is the contractor's responsibility to determine valve shut off patterns during construction. The shut down shall be allowed to proceed only after the Water Division representative has determined that the required valves are functioning. The Contractor shall be responsible for turning valves on and off during construction and accepts the responsibility for any damages to valves during construction.
- h) All costs of work associated with scheduled water main valve shut off shall be included in the individual bid items and no additional compensation shall be allowed.

REQUIREMENTS FOR UNSCHEDULED (EMERGENCY) WATER MAIN VALVE SHUT OFF

- a) In the event the Contractor must perform an unscheduled water main valve shut off; the Contractor shall notify the City of Rockford Water Division (815 987-5700) as soon as possible.
- b) The Contractor shall notify all water customers affected by the water main valve shut off and the need to boil water as soon as possible, using forms supplied by the Water Division.
- c) The Contractor shall provide the following information (pursuant to Illinois Municipal Code 65 ILCS 5/11-20-10.5):
- Streets and boundaries of shut down

- Time of shut down
 - Approximate duration of shut down
 - Number of customers affected
 - If non-residential customers (hospitals, nursing homes, restaurants, etc.) are affected, a count of how many individuals affected will be provided.
- d) If the Contractor is involved in repairs, the Contractor shall notify Water Division Operations Center Operator upon completion of repairs when water service has been restored
- e) All costs of work associated with unscheduled water main valve shut off shall be included in the individual bid items and no additional compensation shall be allowed.

BACTERIOLOGICAL SAMPLING

Bacteriological sampling shall be collected from the pipeline following disinfection and final flushing. Samples shall be delivered to the City of Rockford Environmental Laboratory (1111 Cedar Street) for analysis. Samples must be submitted in Laboratory approved bottles that may be obtained from the laboratory. A Coliform Analysis Report shall be submitted with each sample (also available at this address) and shall indicate the chlorine residual (either free or total) at the time the sample was collected. Failure to record the residual shall result in the rejection of the sample. If the sample shows the presence of coliform organisms, the contractor shall be notified (contact information MUST appear on the bacteriological form) and repeat the disinfection procedure. On re-sampling, two (2) consecutively passing samples collected on successive days (a minimum of 24 hours between sampling) shall be required.

If valved sections of the pipeline are disinfected separately, each section will be considered a separate pipeline for disinfection, flushing and sampling.

The City of Rockford will retain a copy of all bacteriological laboratory reports and submit results to the Illinois EPA as required. A copy of the bacteriological report shall also be sent to the City Water Engineering Supervisor and the Contractor. This work will be incidental to the contract and will not be considered for further payment.

DUCTILE IRON WATER MAIN 6" **DUCTILE IRON WATER MAIN 8"** **DUCTILE IRON WATER MAIN 12"** **DUCTILE IRON WATER MAIN 16"**

Description: This work shall consist of furnishing and installing ductile iron pipe water main with polyethylene tubing. The water main pipe shall be installed in accordance with the Standard Specifications for Water and Sewer Construction in Illinois – 6th Edition, and the City of Rockford Water Distribution System Design and Specifications, latest edition, including separation requirements from sewers, except as modified by these special provisions.

All water mains shall conform to AWWA Standard C151 & C111 and, be constructed of Class 52 Ductile Iron pipe for all sizes through twelve (12) inch, and Class 51 Ductile Iron pipe for all sizes larger. All pipe, shall be cement mortar lined inside, conforming to

AWWA Standard C104, and bituminous coated on the outside.

Pipe-to-pipe joints on straight runs of main shall be push-on type. All joints on fittings, valves, and bends, shall be mechanical type with ductile iron retainer glands. To ensure electrical conductivity, brass wedges must be used with push on joints in accordance with Section 41- 2.05C of the Standard Specifications for Sewer and Water in Illinois. All mechanical joints shall be tightened to the manufacturer's specification using a torque stick.

Pipe fittings shall be 250 PSI rated cast iron or ductile iron, fully complying with the provisions of AWWA Standard C110 (ANSI Standard A21.10). Ductile iron compact fittings, rated at 350 PSI, are acceptable provided they fully comply with the AWWA Standard C153 (ANSI Standard A21.53).

All fittings shall be cement mortar lined in accordance with the provisions of AWWA Standard C104 (ANSI Standard A21.4).

Fitting joints shall be mechanical type, fully complying with the provisions of AWWA Standard C111 (ANSI Standard A21.11) Fittings shall be furnished with ductile iron retainer glands and all joint accessories.

The parameters involved in the construction of thrust blocks shall include pipe size, maximum system pressure, angle of the bend, (or the configuration of the fitting), and the horizontal bearing strength of the soil. Bearing surface should, where possible, be placed against undisturbed soil. Where it is not possible, the fill between the bearing surface and undisturbed soil must be compacted to at least 90% Standard Proctor density.

Thrust blocks shall be used wherever there is a change in horizontal direction, and on dead ends. On vertical down and vertical up bends, restrained glands are required. Thrust block size shall be as indicated in these plans.

Thrust blocks shall be P.C. concrete, a minimum twelve (12) inches thick, formed between the pipe, or fitting and the undisturbed trench wall, and shall be, anchored in such a manner that the pipe and fitting joints will be accessible for repairs.

Trenches shall be excavated to a depth sufficient to provide a minimum cover of six (6) feet, and a maximum cover of eight (8) feet from the top of the pipe to the finished ground surface. Trench depth shall be increased where necessary so that the main is installed on a uniform gradient despite minor local variations in surface grade. Any pipe that does not have a minimum six (6) foot of cover, or in locations indicated on the plans, will have to be protected with foam insulation wrap at the discretion of the Engineer or City of Rockford Water Department. This work shall be paid for per FOOT for WATER MAIN PROTECTION.

All trenches shall be backfilled, from the bottom of the trench to the centerline of the pipe, with FA-6 granular backfill. The backfill material shall be deposited in the trench for its full width on each side of the pipe simultaneously, distributed evenly by hand, and compacted by tamping.

All trenches shall be backfilled, from the centerline of the pipe to a depth of one (1) foot

above the top of the pipe, with FA-6 granular backfill compacted by tamping. The Contractor shall use special care in placing this portion of the backfill so as to avoid damaging or moving the pipes.

Pipe to be located under or within two feet of pavement shall be backfilled from one foot above the top of the pipe to sub-grade elevation with trench backfill. The trench backfill shall be compacted in 6-inch layers and compacted to not less than ninety five (95) percent of standard laboratory density. At other locations, the trench shall be backfilled from one (1) foot above the pipe to the finished grade, with native material, or other materials approved by the City, in twelve (12) inch layers compacted by tamping.

Restrained glands shall be used on all water mains, hydrant and large service branches, which have vertical down and vertical up bends and any intermediate joints between those bends. Joint restraint will also be required on at least two (2) full pipe lengths of the horizontal run both sides of the bend.

On horizontal bends; thrust blocks shall be constructed of concrete to the dimensions indicated in the plans and shall bear against the polyethylene wrapped pipe. On bridges or other special situations requiring joint restraint, the method of restraint shall be determined by the Rockford Water Division.

Thrust blocks and fittings are included in the cost of the Ductile Iron Water Main and will not be paid for separately. These items are considered incidental to the construction of the water main.

Hydrant installations including the branch end of the tee, as well as the pressure side of distribution valves used at main dead ends, will also require the use of restrained glands.

Restrained glands shall be furnished factory coated with bituminous material meeting the requirements for outside coatings of AWWA Standard C151 (ANSI Standard A21.51). Restrained glands shall be designed for use in place of standard glands for AWWA Standard C111 (ANSI Standard A21.11) mechanical joints. The approved restrained gland type shall be:

a) Individually activated wedge type gland (e.g. Megalug style; Uniflange style) shall be used for restraint due to its increased resistance to joint separation as pressure or external forces increase and its ability to provide joint resiliency and deflection. The wedge type gland shall have a working pressure up to three hundred fifty (350) psi. in main sizes through sixteen (16) inches, and two hundred fifty (250) psi. in larger sizes along with a minimum safety factor of 2:1. The wedges shall be ductile iron heat treated to a minimum hardness of 370 BHN. It shall also have individual activated wedge screws with specially engineered heads designed to break off when desired torque is reached, leaving a hex head in case future removal is required.

Ductile Iron Pipe water main and all fittings, valves, and hydrant barrels shall be fully encased in polyethylene film. The film shall be furnished in tube form for installation on pipe and all pipe-shaped appurtenances such as bends, reducers, offsets, etc. Sheet film shall be provided and used for encasing all odd-shaped appurtenances such as valves, tees, crosses, etc.

The polyethylene tubing shall be installed on the pipe prior to being lowered into the trench. Tubing length shall be sufficient to provide a minimum overlap at all joints of one foot or more. Overlap may be accomplished with a separate sleeve tube placed over one end of the pipe prior to connecting another section of pipe, or by bunching extra overlap material at the pipe ends in accordion fashion. After completing the pipe jointing and positioning the overlap material, the overlap shall be secured in place with plastic adhesive tape wrapped circumferentially around the pipe not less than three (3) turns.

After encasement, the circumferential slack in the tubing film shall be folded over at the top of the pipe to provide a snug fit along the barrel of the pipe. The fold shall be held in place with plastic adhesive tape applied at intervals of approximately three (3) feet along the pipe length. In addition, any rips, punctures, or other damage to the tubing shall be repaired as they are detected. These repairs shall be made with adhesive tape and overlapping patches cut from sheet or tubing material.

At odd-shaped appurtenances such as gate valves, the tubing shall overlap the joint and be secured with plastic adhesive tape. After which the appurtenant piece shall be wrapped with a flat film sheet or split length of tubing by passing the sheet under the appurtenance and bringing it up around the body. Seams shall be made by bringing the edges together, folding over twice, and taping down. Whenever encasement is terminated, it shall extend for at least two (2) feet beyond the joint area.

Openings in the tubing for branches, service taps, air release valves and similar appurtenances shall be made by cutting an X-shaped slit and temporarily, folding back the film. After installing the appurtenance, the cut tabs shall be secured with tape and the encasement shall be completed as necessary for an odd-shaped appurtenance.

Polyethylene encasement material shall conform to the requirements of AWWA Standard C-105 (ANSI Standard A21.5) for tube installation and 8-mil nominal film thickness.

After the pipe has been laid and partly backfilled as specified, all newly laid pipe or any valved sections of it shall, unless otherwise expressly specified, be subjected to a hydrostatic pressure equal to fifty (50) percent more than the operating pressure at the lowest elevation of the pipe section, but not to exceed the pressure rating of the type of pipe specified. The duration of each pressure test shall be for a period of not less than one hour and not more than six hours. The basic provisions of AWWA C-600 and C-603 shall be applicable.

Each valved section of pipe shall be, slowly filled with water and the specified test pressure applied. Before applying the specified test pressure, all air shall be expelled completely from the pipe, valves and hydrants. If permanent air vents are not specified, the contractor shall install corporation stops at all points located at a higher elevation than the immediately adjacent sections of main so that air can be expelled as the line is filled with water. After air has been expelled, corporation stops shall be closed and test pressure applied.

After test pressure has been reached and the system allowed to stabilize, not more than plus or minus five pounds per square inch gauge (+or- 5 PSIG) deviation will be allowed for the duration of the test.

All exposed pipe, fittings, valves, hydrants and joints shall be carefully examined. All joints showing visible leaks shall be repaired by the contractor. Any cracked or defective pipe, fittings, valves, or hydrants discovered in consequence of the pressure test shall be removed and replaced by the contractor. The test shall be repeated until satisfactory to the City.

A leakage test shall be conducted if the pressure test cannot be satisfactorily completed. Leakage shall be defined as the quantity of water that must be supplied into the newly laid pipe, or any valved sections thereof, to maintain pressure within five pounds per square inch (5 PSI). Leakage shall not be measured by a drop in pressure in a test section over a period of time.

No pipe installation will be accepted if the leakage is greater than specified in AWWA Standard C600-87.

After the backfill has been completely made, the contractor shall disinfect the pipeline in compliance with the provisions of AWWA Standard C651 and the provisions herein specified.

Prior to disinfection, the pipeline or valved section thereof, shall be flushed at a minimum flow velocity of two and one-half (2-1/2) feet per second. Following full development of flow, flushing shall continue until the discharge runs clear or until the City directs flushing operations to cease.

In no event shall the duration of flushing be less than ten (10) minutes. Water used in flushing shall be introduced into the pipeline at a point of connection with the existing distribution system designated by the City.

After flushing, the water main shall be disinfected in accordance with AWWA Standard C651. Water used in disinfecting the pipeline shall be introduced into the pipeline through the pressure test connection made under the provisions of Section 12.28 Hydrostatic Testing. Bacteriological sampling shall be collected from the pipeline following disinfection and final flushing. Samples shall be delivered to the City of Rockford Environmental Laboratory (1111 Cedar Street) for analysis. Samples must be submitted in Laboratory approved bottles that may be obtained from the laboratory. A Coliform Analysis Report shall be submitted with each sample (also available at this address) and shall indicate the chlorine residual (either free or total) at the time the sample was collected. Failure to record the residual shall result in the rejection of the sample. If the sample shows the presence of coliform organisms, the contractor shall be notified (contact information MUST appear on the bacteriological form) and repeat the disinfection procedure. On re-sampling, two (2) consecutively passing samples collected on successive days (a minimum of 24 hours between sampling) shall be required.

If valved sections of the pipeline are disinfected separately, each section will be considered a separate pipeline for disinfection, flushing and sampling.

The City of Rockford will retain a copy of all bacteriological laboratory reports and submit results to the Illinois EPA as required. A copy of the bacteriological report shall also be sent to the City Water Engineer and the Contractor. This work will be incidental to the contract and will not be considered for further payment.

Where acceptable material is excavated for backfilling trenches it will be allowed to be reused. Where fine aggregate backfill must be brought to the job trench backfill will not be paid for separately but the cost must be included in the unit cost of the water main.

Basis of Payment: This work will be paid for at the contract unit price bid per FOOT including all fittings such as tees, bends, mechanical joints, restraining glands, blocking, and polyethylene film for DUCTILE IRON WATER MAIN 6", DUCTILE IRON WATER MAIN 8", DUCTILE IRON WATER MAIN 12", and DUCTILE IRON WATER MAIN 16".

WATER VALVES 4"
WATER VALVES 6"
WATER VALVES 8"

Description: This work shall consist of furnishing and installing a gate valve of the size indicated a valve box with a lid and associated appurtenances. Access to the valve shall be through a cast iron valve box. The valve box lid shall be set flush with the grade. If the valve is required to be installed flush prior to being set to final grade, the contractor is to adjust the valve to final grade once needed. This work will be incidental to the unit cost of the valve.

A cast iron valve box shall be provided for every valve. Valve boxes shall be Tyler/Union cast iron 6850 series, with "WATER" imprinted on top cover with a debris cap and with an Adapter II by Adaptor Inc. installed. The valve-operating nut shall be readily accessible for operation through the valve box opening, which shall be set flush with the finished surface.

Gate valves shall be iron body, bronze-mounted, non-rising stem, double disc gate valves with parallel seat or resilient seat wedge type, opening left (counter clockwise), and shall fully comply with the provisions of AWWA Standard C500 for double disc type and AWWA Standard C509 for resilient seat type.

Gate valves shall be furnished with "O" ring stem seals.

All joints shall be mechanical joint type and shall fully comply with the AWWA Standard C111 (ANSI Standard A21.11). Restrained glands shall be designed for use in place of standard glands for AWWA Standard C111 (ANSI Standard A21.11) mechanical joints. The approved restrained gland type shall be:

Individually activated wedge type gland (e.g. Megalug style; Uniflange style) shall be used for restraint due to its increased resistance to joint separation as pressure or external forces increase and its ability to provide joint resiliency and deflection. The wedge type gland shall have a working pressure up to three hundred fifty (350) psi. in main sizes through sixteen (16) inches, and two hundred fifty (250) psi. in larger sizes along with a minimum safety factor of 2:1. The wedges shall be ductile iron heat treated to a minimum hardness of 370 BHN. It shall also have individual activated wedge screws with specially engineered heads designed to break off when desired torque is reached, leaving a hex head in case future removal is required.

The following manufacturers are listed as offering valves in essential compliance with

these specifications. Responsibility rests with the supplier for demonstrating that a particular valve model complies fully with these specifications. Manufacturers other than those listed may be acceptable provided the supplier can satisfy the City's specifications indicating that all components they provide, are American made.

1. Mueller Company, Decatur, Illinois
2. American Flow Control, Birmingham, AL
3. Kennedy Valve, Elmira, New York

Unless otherwise noted on the plan, proposed WATER VALVES 4" and WATER VALVES 6" located at the connection to the existing water main will include the cost of making the connection.

Basis of Payment: This work will be paid for at the contract unit bid price of EACH for WATER VALVES 4", WATER VALVES 6", and WATER VALVES 8" and WATER VALVES 10" and shall include the valve box.

BUTTERFLY VALVES 12"
BUTTERFLY VALVES 16"

Description: This work shall consist of furnishing and installing a butterfly valve of the size indicated, a valve box with a lid and associated appurtenances. Access to the valve shall be through a cast iron valve box. The valve box lid shall be set flush with the grade.

A cast iron valve box shall be provided for every valve. Valve boxes shall be Tyler/Union cast iron 6850 series, with "WATER" imprinted on top cover with a debris cap and with an Adapter II by Adaptor Inc. installed. The valve-operating nut shall be readily accessible for operation through the valve box opening, which shall be set flush with the finished surface.

Butterfly valves shall be of the rubber, seated type that are, in full compliance with the provisions of AWWA Standard C504. In addition the following special requirements shall prevail over the general provisions of the above referenced standards.

Butterfly valves shall be class 1508 as designated in AWWA Standard C504.

Valve bodies shall be of cast iron conforming to ASTM A-126 Class B or of ductile iron conforming to ASTM A-536 grade 65-45-12. Valve ends shall be of mechanical joint type and shall be integral with the bodies.

Valve discs shall be of the offset shaft type so as to provide a full-uninterrupted three hundred sixty (360) degree sealing surface. Discs shall be streamline and present the smallest profile consistent with the structural requirements of the valve class. Valve discs shall be constructed of ductile iron conforming to ASTM A-536 grade 65-45-12.

Valve seats shall be of "Buna-N" rubber. Seats mounted on the disc shall be clamped thereon. Seats mounted in valve bodies shall be cemented and clamped or bonded to the valve body. Seat clamps shall be of stainless steel with stainless steel fasteners. Seats

shall mate with a continuous three hundred sixty (360) degree sealing surface of 18-8 stainless steel.

Valve shafts shall be of 18-8 Type 304 stainless steel. A stub shaft comprises two (2) separate shafts inserted into the valve-disc hubs. Each stub shaft shall be inserted into the valve-disc hubs a distance of at least one and one half (1-1/2) shaft diameters.

Valve actuators shall meet the requirements of AWWA Standard C504 for nut input, and shall require a minimum of two (2) turns per inch of valve size from fully open to fully closed position. Valves shall be designed for buried service and shall turn left (counter-clockwise) to open.

Restrained glands shall be designed for use in place of standard glands for AWWA Standard C111 (ANSI Standard A21.11) mechanical joints. The approved restrained gland type shall be: Restrained glands shall be cast from ductile iron and machined to dimensions and/or tolerances hereinafter specified either directly or by reference. Restrained glands shall be furnished factory coated with bituminous material meeting the requirements for outside coatings of AWWA Standard C151 (ANSI Standard A21.51). The approved restrained gland type shall be:

(a) Individually activated wedge type gland (e.g. Megalug style; Uniflange style) shall be used for restraint due to its increased resistance to joint separation as pressure or external forces increase and its ability to provide joint resiliency and deflection. The wedge type gland shall have a working pressure up to three hundred fifty (350) psi. in main sizes through sixteen (16) inches, and two hundred fifty (250) psi. in larger sizes along with a minimum safety factor of 2:1. The wedges shall be ductile iron heat treated to a minimum hardness of 370 BHN. It shall also have individual activated wedge screws with specially engineered heads designed to break off when desired torque is reached, leaving a hex head in case future removal is required.

The following manufacturers are listed as offering valves essential for compliance with these specifications. Responsibility rests with the supplier for demonstrating that a particular valve model complies fully with these specifications. Manufacturers other than those listed may be acceptable provided the supplier can satisfy the City's specifications indicating that all components they provide are American made.

1. Kennedy Valve, Elmira, New York
2. American-Darling Valve, Birmingham, Alabama
3. Mueller Company, Decatur, Illinois

Basis of Payment: This work will be paid for at the contract unit bid price of EACH for BUTTERFLY VALVES 12" and BUTTERFLY VALVES 16" and shall include the valve box.

FIRE HYDRANT COMPLETE

Description: This work shall consist of furnishing and installing fire hydrants and the associated piping and fittings. The piping shall conform to the specifications in this document for Water Main.

All hydrants shall stand plumb and have their nozzles parallel or at right angles to the curb, with the pumper nozzle facing the curb. No portion of the pumper hose nozzle cap shall be less than twenty-four (24) inches from the gutter face of the curb, driveway or other vehicular traffic surface. Hydrants shall be set with indicated bury line to finished grade, and with centerline of all nozzles at least eighteen (18) inches, but not more than twenty-four (24) inches above finish grade. Break-a-way flange shall be installed not less than two (2) inches, or more than six (6) inches above finished grade.

Each hydrant shall be placed upon a two (2) foot square concrete base set upon undisturbed soil or compacted aggregate base. The hydrant shall be braced until the backfill is made.

Fire hydrants shall fully comply with all of the general provisions of the latest revision of AWWA Standard C502 and with the special requirements hereinafter provided.

The inlet connection shall be six (6) inch oversized mechanical joint type, which is designed to be installed on Class D Pit Cast or Class 250 Cast Iron pipe and Class 52 Ductile Iron pipe by using two (2) types of available gaskets furnished with the hydrant. Gaskets for oversized cast iron and ductile iron are to be color coded to identify which gasket is to be used on which pipe. The interior shoe and lower valve plate shall be coated with an epoxy at a minimum of four (4) mils thickness. Ductile iron restrained retainer glands, bolts, nuts, and gaskets, shall conform to AWWA Standard C111.

The main valve shall be five and one-quarter (5-1/4) inches in size, closing with water pressure. The upper valve plate and seat ring shall both be of solid, one-piece bronze construction, and the seat ring shall be attached to the hydrant shoe by threading into a bronze fitting. The zinc content in the bronze shall not exceed sixteen (16) percent. The main valve assembly shall include provisions to restrain movement of the main valve and stem in any direction other than parallel to the axis of the stem.

Lower barrel length shall be based on a nominal six (6) foot bury (trench) depth. Barrel and stem extensions shall be available in six (6) inch lengths and longer lengths in increments of six inches. The manufacturer's name, size of main valve opening, and year of manufacture shall be cast in the upper barrel of the hydrant.

The outlet connections shall be: a) One (1) four (4) inch pumper nozzle, 5.0109 inch ODM, 4 TPI (NHT); b) Two (2) two and one-half (2-1/2) inch hose nozzles, 3.0686 inch ODM, 7-1/2 TPI (NHT). All connections shall include the appropriately sized Harrington Integral Hydrant Storz fittings.

Nozzles shall be fastened mechanically into the upper barrel and have the Storz caps fastened by aircraft cable to the upper barrel. The centerline of all nozzles shall be no less than eighteen (18) inches, but not more than twenty-four (24) inches above the ground line bury mark on the lower barrel of the hydrant.

Hydrant operating nut shall be one (1) inch square at the base tapering to seven-eighths

(7/8) inch at the top and not less than one (1) inch in height. The hydrant-operating nut shall turn right (clockwise) to open.

Hydrants shall be of the "break-away" flange and stem coupling design. The breakaway design shall allow for three hundred sixty (360) degree facing nozzles by infinite degrees. Safety stem coupling shall be of frangible design, which provides for a clean break or tear into halves upon impact. Stem coupling shall be secured to the stem with stainless steel pins and fasteners.

Fire hydrants installed in public R.O.W. and in easements maintained by the City, shall have the upper barrel, above the ground line, painted a minimum of one (1) coat of Yellow Industrial grade Iron Oxide Primer and two (2) finish coats of Traffic Yellow Industrial grade oil base Alkyd Enamel. Hydrants installed on private property, in conjunction with the owner's fire protection system, shall be painted "Red". Painting and coatings shall be in accordance with AWWA Standard C502.

Hydrant Lubrication - Each threaded nozzle and cap shall be coated with a premium, synthetic, food grade, non-drying thread sealant and anti-seize compound, approved by the specific hydrant manufacturer, immediately before or after installation.

Hydrant installations including the branch end of the tee, as well as the pressure side of distribution valves used at main dead ends, will require the use of restrained glands. Restrained glands shall be furnished factory coated with bituminous material meeting the requirements for outside coatings of AWWA Standard C151 (ANSI Standard A21.51). Restrained glands shall be cast from ductile iron and machined to dimensions and/or tolerances hereinafter specified either directly or by reference.

Approved Hydrants - Only the following manufacturers and models are accepted by the City of Rockford.

1. Kennedy Guardian K-81A
2. Mueller Super Centurion A-423

Basis of Payment: This work will be paid for at the contract unit bid price for EACH for FIRE HYDRANT COMPLETE.

WATER SERVICE LINE 1"
WATER SERVICE LINE 2"
WATER SERVICE LINE 4"

Description: This work shall include the furnishing, installation, and connection of the necessary appurtenances to construct a water service. The typical water service consists of a corporation, copper tubing, a curb stop, and a mechanical union to connect to the existing water service line. Curb Stops will be paid for separately at the contract unit price for CURB STOPS of the size specified. The connection to the existing service on the Private side of the ROW is considered incidental to this item.

All water services are required to be installed/tapped by a licensed plumber and inspected

by the City of Rockford (Building Department) prior to backfilling. A crimping tool shall not be used to temporarily stop a water service, except in an emergency. If a crimping tool is used to stop a service line, the final repair shall be as directed by the Engineer, but in no case shall un-crimping the line be allowed. The temporary freezing of a service is the approved method of use for the City of Rockford.

Service branch pipes two (2) inches in diameter and smaller shall be seamless Type K soft copper tubing for underground service, conforming to ASTM B-88-47.

Each service shall be provided with a valve at the point of connection with the main. For copper services, the valve at the main shall be a corporation stop.

The table below lists the largest service sizes that may be tapped directly into the main for each size of main. For other main or service sizes, a service saddle or tapping sleeve is required.

MAIN SIZE	LARGEST DIRECT TAP
6 inch thru 16 inch=	1 inch

Copper service connections shall be connected to the main by a corporation stop and shall be controlled by a curb stop accessible through a curb box. The curb stop and box shall be installed on the R.O.W. line and shall not be located in or under any service walk or driveway. If any curb stop box is located in a walk or driveway, an A.Y. McDonald, cast iron box receptacle (part 5639) must be used. Where the entire area between the curb and R.O.W. line is paved, the top of the curb box must be fitted with a pavement sleeve.

Tubing shall be seamless Type K copper tubing, suitable for underground service, and conforming to ASTM B-88-47 Type K, soft. Copper is to be of one continuous piece. No joints, couplings, etc. are allowed from main to curb stop, unless authorized by the City Engineer, Water Superintendent or their representative.

Compression joint is hereby defined to be a joint whereby plain end copper tubing is connected to a fitting and locked into place by compressive forces created when a nut threaded onto the body of the fitting is tightened. A compression joint shall require no preparation of the end of the tubing other than simple cleaning. A compression joint shall consist of:

- a) A receptacle in the fitting body for the end of the copper tubing, the outside of which receptacle shall be threaded to accept the coupling nut.
- b) A gasket which shall provide the hydraulic seal for the joint and transmit the compressive forces to the gripper band
- c) A gripper band which shall produce circumferential indentations in the tubing, thereby restraining the tubing and preventing joint separation
- d) A coupling nut which shall thread onto the body of the fitting and, upon tightening, compress the gasket and gripper band

- e) A device or means of providing positive electrical continuity through the joint.

The gasket shall be made of a synthetic rubber material capable of providing a watertight seal when installed at temperatures ranging from minus twenty (-20) degrees Fahrenheit to one hundred (100) degrees Fahrenheit. It shall be capable of maintaining a watertight seal through repeated temperature cycles between thirty-two (32) degrees Fahrenheit and eighty (80) degrees Fahrenheit, and shall be undamaged by water temperatures up to one hundred sixty (160) degrees Fahrenheit. The gasket shall be totally confined by the fitting body/coupling nut assembly.

The gripper band shall be made from corrosive resistant steel. It shall be concave in shape so as to produce two parallel circumferential indentations in the tubing, and shall overlap itself upon compression.

The coupling nut shall be made of waterworks bronze (ASTM B62).

The fitting body receptacle and coupling nut eye shall be manufactured to a close tolerance to Type K copper water tube, so that the tubing cannot be inserted into the coupling assembly unless the tubing is truly round in cross section and axially straight.

Compression couplings shall include provision for positive electrical connection between the tubing and the fitting body. The electrical connection shall be adequate to conduct 200 amps without damage to the gasket or any other part of the joint.

Compression coupling joints shall be rated a minimum of 2000 pounds for tensile loads.

Corporation stop valves shall be manufactured of waterworks bronze (ASTM B62), with full diameter stop orifice, and thread patterns conforming to AWWA Standard C800 figure 1 for Type K copper service tube.

Design and dimension of corporation stops must conform with Mueller H-15000 stops. Corporation stop valves shall be furnished in one (1) inch and two (2) inch sizes for use with Type K copper tubing in the same standard water tube sizes. Corporation stop valves shall be furnished with compression joints.

Curb stop valves shall be manufactured of 85-5-5 waterworks bronze (ASTM Standard B62), with full round top orifices, and ninety (90) degree stop rotation. Tee heads must be designed for connection to curb box shut-off rods similar to Mueller #82865 or #580563.

Curb stop valves shall be "O" ring seal plug or ball types.

Curb stop valves shall be, furnished in one (1) inch and two (2) inch sizes for use with Type K copper tubing.

Curb stop valves shall be compression joints.

The following manufacturers are listed as offering curb stop valves that conform with these specifications. Manufacturers other than those listed may be acceptable, and will be given full consideration, provided the Contractor can satisfy the City of Rockford Water Department these specifications are met.

1. Mueller Company, Decatur, Illinois
2. A.Y. McDonald Manufacturing Company, Dubuque, Iowa

Curb stop boxes shall be extension type, with arch pattern bases, for a nominal six (6) foot trench depth. Upper sections shall be of steel and shall telescope a minimum of twelve (12) inches. The Contractor shall install the upper sections in order to prevent the upper sections from turning or from pulling out of the base sections.

Upper sections for one (1) inch curb stop boxes shall be one (1) inch size. Upper sections for larger curb stop boxes shall be one and one-quarter (1-1/4) inch in size. The base sections shall be adequately sized to accommodate Mueller Oriseal pattern curb stops.

Stationary rods thirty-six (36) inches long shall be furnished with curb stop boxes. Rod design shall center the upper end of the rod in the upper box section.

Lids shall be furnished with curb stop boxes. Lids shall have brass bushings iron pipe threaded, and shall be cast with lettering to indicate a water service valve.

Curb stop boxes shall be coated, inside and outside, with coal tar enamel. Stationary rods and lids shall also be coated with coal tar enamel.

The following manufacturers are listed as offering curb stop boxes that conform to these specifications. Manufacturers other than those listed may be acceptable, and will be given full consideration, provided the Contractor can satisfy the City of Rockford Water Department these specifications are met.

<u>Stop Size</u>	<u>Manufacturer</u>	<u>Box Number</u>	<u>Lid Number</u>
1	A.Y. McDonald	5601	5601-L
1	Mueller	H-10314	89982
2	Mueller	H-10386	89990

Service saddles shall be of the double strap type in pipe sizes up to sixteen (16) inch, and triple strap in larger pipe diameters. Saddles shall be designed for a working pressure of three hundred (300) PSI.

Outlet opening shall be furnished with AWWA "CC" type tapered threads in two (2) inch sizes.

The saddle body shall be made of ductile iron with an enamel coating, and complying with ASTM Standard A536. Straps and nuts shall be made of forged low alloy steel, electro-galvanized with di-chromate seal and conforming to ASTM Standards A108 and B633. The rubber inlet gasket shall be cemented in place.

In soils considered corrosive, service saddle material of construction shall be bronze. The saddle body shall be made of 85-5-5 waterworks bronze, with straps and nuts made of silicon bronze, all in compliance with AWWA Standard C800.

The following manufacturers are listed as offering service saddles in conformance with these specifications. Manufacturers other than those listed may be acceptable, and will be given full consideration, provided the Contractor can satisfy the City of Rockford Water Department these specifications are met.

1. Smith-Blair, Incorporated, Texarkana, Texas
2. Ford Meter Box Company, Wabash, Indiana

Service fittings shall be manufactured of waterworks bronze (ASTM B62).

Services fittings shall be, furnished in one (1) inch and two (2) inch sizes for use with Type K copper tubing in the same standard water tube sizes.

Copper joints on service fittings shall be furnished with compression joints complying with these specifications.

The Water Service Line 4" is to be Ductile Iron Pipe, and shall be installed per the Special Provisions for Ductile Iron Water Main, 6-16". This includes the requirement for encasement in polyethylene film.

Basis of Payment: This work will be paid for at the contract unit bid price per FOOT for WATER SERVICE LINE, of the size specified.

VALVE BOX

This work shall conform to the Standard Specifications for Water and Sewer Main Construction, latest edition, and the requirements of the Engineer. Where shown on the plans, the existing valve vault or valve box shall be excavated and removed as part of the work for this item. Under this item a new valve box shall be placed over the existing valve.

This item shall include removal and proper disposal of all material. The excavated hole shall be properly backfilled and shall include trench backfill where required.

Method of Measurement. Measurement for this work will be per EACH.

Basis of Payment: This work will be paid for at the contract unit price per EACH for VALVE BOX which price shall include any labor, materials, and trench backfill necessary for a complete installation.

WATER MAIN LINE STOP 6"

WATER MAIN LINE STOP 8"

WATER MAIN LINE STOP 12"

Description: This work shall consist of furnishing and installing a water stop for the existing various diameter water main. For the purposes of temporarily plugging the water line, frozen plugs will only be allowed on potable water services. On water main, cessation of flow will be achieved, when feasible, by closing existing valves, or with the use of a line stop,

sleeve and blind flange.

Prior to placing the line stop, the water main to which the line stop sleeve will be attached will be disinfected with chlorine. The line stop sleeve shall be disinfected with chlorine. Furthermore, the line stop plug, wedge, or folding hinge shall be disinfected with chlorine prior to inserting the plug into the live water main.

Contractor shall demonstrate the success of a line stop prior to removing the bolts or wedges from down gradient mechanical fittings. Nuts may be partially removed and water under pressure released at a water main fitting. If flow from the fitting remains constant or indicates qualities of being under pressure, the Contractor shall reset or reconstruct the line stop at their cost.

The Engineer shall observe the Contractor's demonstration of line stop success in removing flow and pressure for the area of water main to be exposed and worked on.

Basis of Payment: This work will be paid at the contract unit bid price per EACH for WATER MAIN LINE STOP, of the size specified.

REMOVE AND REPLACE FIRE INDICATOR POST

Description: This item includes the removal and disposal of the existing fire indicator post. Work also includes the capping of the existing service at the post. The capped existing service will be abandoned per the CLSM abandonment pay item. This item also includes supplying and installing a new fire indicator post in the location indicated. Coordination with the City of Rockford Water Department will be needed to verify the appropriate indicator post is used.

The proposed water service to the fire indicator post shall be paid for under the applicable water service Pay Item, and not this one. Connection of the service to the fire indicator post shall be considered incidental to this item.

Method of Measurement. Measurement for this work will be per EACH.

Basis of Payment: This work will be paid for at the contract unit price per each for REMOVE AND REPLACE FIRE INDICATOR POST which price shall include any labor, materials, and trench backfill necessary for a complete installation.

FIRE INDICATOR POST TO BE REMOVED

Description: This item shall consist of the removal and disposal of the existing fire indicator post. This also includes capping the existing service at the post. The capped existing service will be abandoned per the CLSM abandonment pay item.

Method of Measurement. Measurement for this work will be per EACH.

Basis of Payment: This work will be paid for at the contract unit price per each for FIRE INDICATOR POST TO BE REMOVED which price shall include any labor, materials, and trench backfill necessary for a complete installation.

TEMPORARY STORM SEWER PLUGS

Description: This item shall consist of covering the end of a permanent storm sewer line at or near the Stage line for completion in a future Stage. The pipe must be plugged in such a way that sediment cannot accumulate on the "clean" side of the plug. The plug must also be removable without damage to the end of the permanent storm sewer. The Contractor may vary the Station/Offset given on the plans to allow for an even pipe length as long as it does not encroach on the adjacent traffic lane. It is the intent of this pay item to provide for clean continuous storm sewer from one Stage to the next Stage. If the Contractor fails to provide a clean neat connection between Stages, he will be required to clean the entire downstream system to the satisfaction of the Engineer. If the end of the storm sewer that is plugged is damaged during the construction staging, the Contractor shall provide a concrete collar in accordance with the standard details at no additional cost to the contract.

Method of Measurement: This item will be measured as EACH for each storm sewer which is plugged for completion in the next stage, regardless of size. Payment shall include removal of the plug and cleaning the connecting joint. Plugging of abandoned gas or sanitary sewer pipe etc. which may be found in the normal course of excavation will not be measured for payment.

Basis of Payment: This item shall be paid at the contract unit price EACH for TEMPORARY STORM SEWER PLUGS.

TEMPORARY WATER MAIN CAP

Description: This item shall consist of covering the end of a permanent water line at or near the Stage line for completion in a future Stage. The item shall include both water main and water services as shown on the Maintenance of Traffic Plans. The pipe must be plugged in such a way that sediment cannot accumulate on the "clean" side of the plug. The plug must also be removable without damage to the end of the permanent water line. The Contractor may vary the Station/Offset given on the plans to allow for an even pipe length as long as it does not encroach on the adjacent traffic lane. It is the intent of this pay item to provide for clean continuous water main or service from one Stage to the next Stage. If the Contractor fails to provide a clean neat connection between Stages, he will be required to flush the entire system to the satisfaction of the Engineer. If the end of the water line that is plugged is damaged during the construction staging, the Contractor shall repair the damaged section in accordance with the City of Rockford Water Division specifications at no additional cost to the contract.

Method of Measurement: This item will be measured as EACH for each water line which is plugged for completion in the next stage, regardless of size. Payment shall include removal of the plug and cleaning the connecting joint. Plugging of abandoned gas or sanitary sewer pipe etc. which may be found in the normal course of excavation will not be measured for payment.

Basis of Payment: This item shall be paid at the contract unit price EACH for TEMPORARY WATER MAIN CAP

TEMPORARY PIPE CONNECTION WITH REMOVABLE COLLAR

Description: This item shall consist of connecting proposed storm sewer pipe to existing pipe at the Stage line for completion in a future Stage. If the pipes being connected are dissimilar in

size, invert, or pipe style such that they need a concrete collar connection, a concrete collar shall be used. No reinforcing is required; however, plastic sheeting or other bond breaker material must be used to make the collar removable. The plug must also be removable without damage to the end of the permanent storm sewer. The Contractor may vary the Station/Offset given on the plans to allow for an even pipe length as long as it does not encroach on the adjacent traffic lane. It is the intent of this pay item to provide for clean continuous storm sewer from one Stage to the next Stage. If the Contractor fails to provide a clean neat connection between Stages, he will be required to clean the entire downstream system to the satisfaction of the Engineer. If the end of the storm sewer that is connected is damaged during the construction staging, the Contractor shall provide a permanent concrete collar in accordance with the standard details at no additional cost to the contract.

Method of Measurement: This item will be measured as EACH for each storm sewer which is connected for completion in the next stage, regardless of size. Payment shall include removal of the Temporary Connection and cleaning the connecting joint.

Basis of Payment: This item shall be paid at the contract unit price EACH for TEMPORARY PIPE CONNECTION WITH REMOVABLE COLLAR.

SEALING ABANDONED MONITORING WELL

Description: The Contractor shall hire a licensed water well driller pursuant to the Water Well and Pump Installation Contractor's License Act. All monitoring wells removed shall be abandoned in accordance with the Illinois Water Well Construction Code 77 Illinois Administrative Code Part 920.

Method of Measurement: Monitoring well abandonment will be measured for payment assuming each monitoring well is a 2-4 inch diameter well installed at a maximum depth of 25 feet. If monitoring well does not meet these specifications, the contractor shall notify the Engineer.

Basis of Payment: Monitoring well abandonment will be paid for at the contract unit price per EACH for SEALING ABANDONED MONITORING WELL.

ADJUST MONITORING WELLS

Description: This work shall consist of the removal of the existing monitoring well cap and the adjustment of the well grade to match the proposed improvement grade in the locations indicated in the plans and the Schedule of Quantities.

Method of Measurement: Monitoring well adjustment will be measured for payment assuming each monitoring well is a 2-4 inch diameter well that requires raising or lowering, depending on the proposed grade. If monitoring well does not meet these specifications, the contractor shall notify the Engineer.

This work shall include all labor and materials, including any required risers, caps, seals, or adjusting rings as required.

Basis of Payment: Monitoring well abandonment will be paid for at the contract unit price per EACH for ADJUST MONITORING WELLS.

IMPACT ATTENUATOR, TEMPORARY (NON-REDIRECTIVE, NARROW), TEST LEVEL 2
IMPACT ATTENUATOR, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2

Description: This work shall consist of furnishing, installing, and maintaining Temporary Impact Attenuators according to the Supplemental Specifications and Recurring Special Provisions, Section 706 dated January 1, 2015. If used, temporary sand module systems that are not located on pavement or a hot-mix asphalt shoulder shall be placed on a 6" base. The base can be either hot-mix asphalt or concrete.

Impact attenuators for this contract shall be Test Level 2 (less than or equal to 45 mph).

The hot-mix asphalt base shall be constructed with incidental hot-mix asphalt surfacing according to Section 408 of the Standard Specifications for Road and Bridge Construction. The concrete base shall be constructed using class SI concrete.

The temporary impact attenuator and base shall be removed after the completion of the work. The area under the base shall be restored to the original condition.

Basis of Payment: This work will be paid at the contract unit price per EACH for IMPACT ATTENUATOR, TEMPORARY (NON-REDIRECTIVE, NARROW), TEST LEVEL 2 or IMPACT ATTENUATOR, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2. The cost of the base where needed will be included in the unit price.

TRENCH BACKFILL

Description: This work shall consist of compacting and filling trenches, holes, and excavations to the satisfaction of the Engineer. Soil borings indicate underlying soils are sandy and may prove to be acceptable for backfilling trenches. In addition, existing aggregate base is expected to be acceptable trench backfill material. If existing material meets Standard Specifications for backfilling, the Contractor may reuse the native excavated material. This in no way relieves the Contractor from the provisions of the Standard Specifications regarding compaction of trenches and excavations. If the native soils do not meet Standard Specifications as trench backfill, the Contractor shall import trench backfill in accordance with the Standard Specifications.

Method of Measurement: This work will not be measured directly for payment.

Basis of Payment: This work will **not** be paid directly but the cost shall be included in the cost of the item being backfilled, regardless of whether the material is from the site or imported.

ABANDON EXISTING WATER MAIN, FILL WITH CLSM

Description: This work shall consist of the disconnection of the water main, the closing of valves and removal of valve boxes and corporation stop risers, the removal of a sufficient length of existing main to connect to the new main, the cutting and capping of mains and services to be abandoned, and filling mains 8" or larger with controlled low strength material (CLSM) where

required. The City of Rockford allows the use of Elastizell as the CLSM. The work shall also include the removal of existing fire hydrants and auxiliary valves and disposal at an approved site. Hydrants that are considered salvage by the City of Rockford Water Division shall be set aside within the right of way for pick-up by the City of Rockford. If the water main to be abandoned and left in place is cut by new water main, services, sanitary sewers, storm sewers, or any other reason, then the ends shall be plugged and sealed at no additional cost to the contract. The location of the abandoned main and all plugs shall be kept on the Record Drawings by the Contractor.

Method of Measurement: Measurement will be made along the center line of pipes 8" or larger from plugged end to plugged end.

Basis of Payment: The work will be paid at the contract unit price per FOOT for ABANDONED EXISTING WATER MAIN, FILL WITH CLSM. Cutting and capping the existing water main will be paid at the contract unit price per EACH of the size indicated. The removal of fire hydrants will be paid at the contract unit price per EACH for FIRE HYDRANTS TO BE REMOVED.

SLEEPER SLABS

Description: This work shall consist of constructing an 8" load bearing slab with pavement fabric wire reinforcement as shown on the Intersection Jointing Plans. The slab shall be constructed on undisturbed soil or compacted subgrade. Where staging is required, the pavement fabric shall be overlapped 24" and tied before pouring the next stage. Pavement fabric shall be Type A and shall be free of heavy rust and scale. A bond breaker consisting of a single layer of felt roofing paper or two layers of polyethylene sheeting 6 mils or greater in thickness shall be placed between the sleeper slab and the PCC Pavement. Care shall be taken to strike off the sleeper slab to the grade and slope of the bottom of the PCC Pavement. A smooth finish will be given to the sleeper slab.

When the PCC Pavement is poured, a 1" Preformed Fiber Expansion Joint shall be constructed along the center of the sleeper slab. The top 1" of the joint shall be filled with hot poured joint sealer. The cost of this work shall be included in the cost per square yard for sleeper slab. Sleeper Slabs shall be constructed of Class PV concrete and payment shall include Pavement Fabric, bond breaker, placing and finishing, and joint sealing.

Method of Measurement: The sleeper slabs shall be measured from end to end at the nominal width shown on the plans and calculated in square yards.

Basis of Payment: This work will be paid at the contract unit price per SQUARE YARD for SLEEPER SLAB.

UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT

Description: This work shall consist of furnishing all equipment, material and labor necessary to properly install the proposed underground conduit, coilable nonmetallic conduit at locations as indicated in the plans.

Materials: The materials shall be in accordance with Article 810.02(c) of the "Standard Specifications", plan details, the BDE Special Provision for Coilable Nonmetallic Conduit, and

the following:

The coilable nonmetallic conduit will be HDPE SDR-11 conduits for Traffic Signal Interconnect Conduits and Fiber Optic Conduits as shown on the plans and shall be manufactured from PE 3608, high density polyethylene (HDPE). The conduit shall meet or exceed the requirements for IGSHPA, sized in accordance with AWWA C901. Coiled lengths with factory installed U-bends shall be provided for seamless installation.

General: The work shall be completed in accordance with Section 810 of the "Standard Specifications", plan details and the following:

The HDPE SDR-11 conduits shall be installed with fused or City of Rockford approved mechanical coupled joints.

Pull strings shall be installed in all spare conduits.

A tracer cable shall be installed in the same conduit as the fiber optic cable or pull strings in order to trace the fiber optic cable or conduit after installation. The tracer cable shall be according to the specifications for ELECTRIC CABLE IN CONDUIT, TRACER, No. 12, 1C.

Method of Measurement: This work will be measured for payment in accordance with Article 810.06 of the "Standard Specifications."

The pull string will not be measured for payment but shall be considered incidental to the work.

The tracer cable will be measured for payment per FOOT according to ELECTRIC CABLE IN CONDUIT, TRACER, No. 12, 1C.

Basis of Payment: This work will be paid for at the contract unit price per FOOT for UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, of the size specified.

The pull string will not be paid for separately but shall be considered incidental to the work.

Payment for the tracer cable will be paid for at the contract unit price per FOOT for ELECTRIC CABLE IN CONDUIT, TRACER, No. 12, 1C.

LIGHT POLE, ALUMINUM, 40 FT. M.H., 6' MAST ARM
LIGHT POLE, ALUMINUM, 40 FT. M.H., 8' MAST ARM
LIGHT POLE, ALUMINUM, 40 FT. M.H., 10' MAST ARM
LIGHT POLE, ALUMINUM, 40 FT. M.H., 12' MAST ARM

Description: This work shall consist of furnishing all equipment, material and labor necessary to properly install the proposed light poles with mast arms as specified at the locations as indicated on the plans.

Materials: The materials shall be in accordance with Article 830.02 of the "Standard Specifications", plan details, and the following:

Light poles shall be 40 feet mounting height with 6-foot, 8-foot, 10-foot or 12-foot mast arm.

Light poles shall be as manufactured by Valmont, to match with existing light poles in the City of Rockford.

The aluminum pole, pole base, FHWA approved aluminum clamshell breakaway base (shroud), bracket arms and attachments shall be painted black using a powder coat process or Engineer approved equivalent. They shall be cleaned prior to the powder coat process by the immersion process using both an alkaline and acid bath. The black finish shall be a thermosetting powder coat. The powder resin shall be type TGIC super durable polyester or an Engineer approved equivalent. The aluminum shall be preheated to a sufficient temperature, prior to the coating process, to insure all water vapor is removed in order to fuse the powder to the metal. The pole and appurtenances shall be over cured, after spraying, for a cycle of 5 to 15 minutes at a temperature of 375 to 400 degrees Fahrenheit. The finished coat shall have a dry coat minimum of 3 mil.

A thorough visual inspection shall be made of the painted finish of the installed pole and a field touchup or recoat shall be performed by the Contractor at no additional cost.

General: The work shall be completed in accordance with Section 830 of the "Standard Specifications", plan details, and as modified herein.

Basis of Payment: The work will be paid for at the contract unit price per EACH for LIGHT POLE, ALUMINUM, 40 FT. M.H., of the arm length specified. The unit price shall include the cost of all materials, equipment and labor required to furnish and install the light poles with clamshell base and mast arms of the length specified including the Valmont, smooth powder finish.

HANDHOLE, COMPOSITE CONCRETE

Description: This work shall consist of furnishing all equipment, material and labor necessary to properly install the proposed composite concrete handholes at locations as indicated on the plans.

Materials: The materials shall be in accordance with Article 814.02(c) of the "Standard Specifications", plan details, and the following:

The handhole box and cover as shown on the plans shall be PG series manufactured by Quazite. The cover shall contain cast-in-place legend "COMMUNICATION" or "STREET LIGHTING" when used for future fiber optic or roadway lighting, respectively.

Type 1 Handhole shall be 24" x 36" x 36" as detailed on the plans.

Type 2 Handhole shall be 30" x 48" x 36" as detailed on the plans.

General: The work shall be completed in accordance with Section 814 of the "Standard Specifications", plan details, and as modified herein.

Basis of Payment: This work will be paid for at the contract unit price per EACH for HANDHOLE, COMPOSITE CONCRETE.

ELECTRIC CABLE IN CONDUIT, TRACER, NO. 12, 1C

Description: This work shall consist of furnishing all equipment, material and labor necessary to properly install an electric cable in conduit as a tracer wire for underground conduit, coilable nonmetallic conduit at locations as indicated on the plans.

Materials: The materials shall be in accordance with Article 873.02(a) of the "Standard Specifications", plan details, and the following:

The electric cable in conduit for tracer cable will be 12 gauge THHN stranded.

General: The work shall be completed in accordance with Section 873 of the "Standard Specifications", plan details, and the following:

A tracer cable shall be installed in the same conduit as the fiber optic cable in order to trace the fiber optic cable after installation.

The tracer cable shall be continuous, extended into the controller cabinet and terminated on a barrier type terminal strip mounted on the side wall of the controller cabinet. The barrier type terminal strip and tracer cable shall be clearly marked and identified.

All tracer cable splices shall only be permitted in handholes or junction boxes on bridge structures above grade. The tracer cable splices shall be kept to a minimum and shall incorporate maximum lengths of cable supplied by the manufacturer. The tracer cable splice shall use a splice soldered with resin core flux and shall be soldered using a soldering iron: blow torches or other devices, which oxidize copper cable, shall not be allowed for soldering operation. All exposed surfaces of the solder shall be smooth. The splice shall be covered with a black shrink tube meeting UL 224 guidelines, Type V and rated 600V, minimum length 4 inches (100 mm) and with minimum 1 inch (25 mm) coverage over the insulation, underwater grade.

Method of Measurement: This work will be measured for payment in accordance with Article 873.05 of the "Standard Specifications."

Basis of Payment: This work will be paid for at the contract unit price per FOOT for ELECTRIC CABLE IN CONDUIT, TRACER, No. 12 1C.

CHAIN LINK FENCE 6'
CHAIN LINK FENCE 8' (SPECIAL).

Description: This work shall be in accordance with Section 664 of the Standard Specification and the following:

The fence color and style shall match the existing fence that is to be removed with respect to gauge and galvanized coating.

If the existing fence is removed prior to the installation of the proposed fence a Temporary Fence shall be erected at the location of the proposed fence to limit access to the property. The

installation of temporary fence if needed at this location will not be paid for separately, but will be included in the cost of the replacement.

Basis of Payment: This work will be paid at the contract unit price per FOOT for CHAIN LINK FENCE 6', and CHAIN LINK FENCE 8' (SPECIAL).

CHAIN LINK GATES (SPECIAL)

Description: This work shall be in accordance with Section 664 of the Standard Specification and the following:

The chain link gate color and style shall match the proposed fencing with respect to gauge and galvanized coating.

The location and size of each chain link gate is indicated on the plans as well as in the Schedule of Quantities.

Basis of Payment: This work will be paid at the contract unit price per EACH for CHAIN LINK GATES (SPECIAL) and shall include all materials necessary for a complete installation.

CHAIN LINK FENCE REMOVAL

Description: This work shall consist of furnishing all equipment, material, and labor necessary to remove the chain link fence as shown on the plans and at the locations indicated in the Schedule of Quantities. This work includes fence posts, ties, bracing, concrete in which posts are set and backfilling of any holes due to the fence removal.

General: The work shall be completed such that the fence to remain is undamaged and terminated properly. Any damage to the remaining fence that occurs due to the removal shall be repaired or replaced at the expense of the Contractor.

Method of Measurement: This work will be measured for payment in feet along the top of the fence from center to center of the beginning and ending posts.

Basis of Payment: This work will be paid for at the contract unit price per FOOT for CHAIN LINK FENCE REMOVAL.

FENCE REMOVAL

Description: This work shall consist of furnishing all equipment, material, and labor necessary to remove the fencing as shown on the plans and at the locations indicated in the Schedule of Quantities. This work includes fence posts, ties, bracing, concrete in which posts are set and backfilling of any holes due to the fence removal. This item covers all fencing material not covered under the CHAIN LINK FENCE REMOVAL item.

General: The work shall be completed such that the fence to remain is undamaged and terminated properly. Any damage to the remaining fence that occurs due to the removal shall be repaired or replaced at the expense of the Contractor.

Method of Measurement: This work will be measured for payment in feet along the top of the fence from center to center of the beginning and ending posts.

Basis of Payment: This work will be paid for at the contract unit price per FOOT for FENCE REMOVAL.

WASHOUT BASIN

Description: This work shall consist of constructing and removing concrete truck washout basin(s) within the project limits.

Construction and materials shall be according to the details in the plans, erosion control plan, and as directed by the Engineer.

Disposal of the excavated material and concrete waste or any material required to construct the washout basin will be performed according to Article 202.03 of the Standard Specifications. Upon removal of the washout basin, the disturbed ground shall be restored to the original or proposed grades, and materials. The restoration shall be completed with the materials specified in the plans for the adjacent areas.

Basis of Payment: This work will be paid for at the contract unit price per LUMP SUM for WASHOUT BASIN.

PAVEMENT REMOVAL, SPECIAL

Description: This work shall consist of the complete removal of HMA pavement from aggregate base courses. The HMA is considered waste under the terms of this contract. The Contractor may salvage the material or haul it to a CCDD site. HMA pavement on a concrete base will not be paid separately but will be included in the unit price for PAVEMENT REMOVAL. The cost of sawing to achieve a clean, neat edge shall be considered incidental to this item. Aggregate under the HMA pavement may be reclaimed and used as trench backfill or to maintain driveways. Excavation to the lines and grades as shown on the plans will be paid as EARTH EXCAVATION including aggregate base courses to be removed.

Basis of Payment: This work will be paid at the contract unit price per SQUARE YARD for PAVEMENT REMOVAL, SPECIAL.

CONCRETE REMOVAL, SPECIAL

Description: This work shall consist of the complete removal of the concrete surface from aggregate base courses. The concrete is considered waste under the terms of this contract. The Contractor may salvage the material or haul it to a CCDD site. The cost of sawing to achieve a clean, neat edge shall be considered incidental to this item. Aggregate under the concrete may be reclaimed and used as trench backfill or to maintain driveways. Excavation to the lines and grades as shown on the plans will be paid as EARTH EXCAVATION including aggregate base courses to be removed.

Basis of Payment: This work will be paid at the contract unit price per CUBIC YARD for CONCRETE REMOVAL, SPECIAL.

ROCK FILL

Effective: May 1, 1995

Revised: August 29, 2013

Description: This work shall consist of placing CS02 at locations shown in the plans, except for the bedding material provided (in Article 540.06) for box culverts or (in Article 542.04(c)) pipe culverts. The granular bedding layer is included in the unit price for Precast Concrete Box Culverts and Pipe Culverts. The 6 inch bedding layer under Cast-in-Place Culverts shall be gradation CA07, and shall be paid for as ROCK FILL.

The CS02 shall consist of crushed gravel, crushed stone, or crushed concrete of sound durable particles, reasonably free of deleterious material meeting the following gradation:

Grad No.	Sieve Size and Percent Passing		
	6"	4"	2"
CS02	100	80±10	25±15

Basis of Payment: This work shall be paid for at the contract unit price per TON for ROCK FILL.

MEDIAN REMOVAL

Description: This work shall consist of all labor and equipment to remove and either, recycle or dispose of, concrete solid medians and rumble medians in accordance with Section 440 of the Standard Specifications. Where concrete medians are adjacent to rigid pavement and the rigid pavement is to remain in place, the Contractor shall saw cut the edge to cut the tie bars so that a neat edge is left with no breaking or spalling. Saw cutting where necessary shall be considered incidental to the item being removed.

Basis of Payment: This item will be paid at the contract unit price per SQUARE FOOT for MEDIAN REMOVAL.

DRAINAGE STRUCTURE TO BE REMOVED

Description: This work shall consist of all labor and equipment to remove and either, recycle or dispose of, concrete drainage structures in the locations indicated on the plans and in the Schedule of Quantities. Existing storm sewer pipe entering or existing the drainage structure shall be removed and paid for separately. Saw cutting where necessary shall be considered incidental to the item being removed.

Basis of Payment: This item will be paid at the contract unit price per EACH for DRAINAGE STRUCTURE TO BE REMOVED.

SLOPE WALL REMOVAL

Description: This item shall consist of all labor and equipment to remove and either recycle or dispose of the wire reinforced concrete paved channel. This item shall be in accordance with Section 501 of the Standard Specifications with the following exceptions: 1. No protective shield system is required, 2. The Demolition Plan shall consist of how the Contractor proposes to maintain channel flows during construction. Only as much as the Contractor may reasonably

expect to consider a work zone may be removed at any one time. Drainage flows must be maintained and the Contractor must therefore, maintain the existing paved channel as long as possible. Erosion control measures must be in place prior to the commencement of removal. The existing concrete paved channel is known to have wire reinforcing. The Contractor shall familiarize himself with field conditions prior to bidding this item.

Method of Measurement: The removal will be measured along the slope of the existing channel lining to be removed.

Basis of Payment: This item will be paid at the contract unit price per SQUARE YARD for SLOPE WALL REMOVAL.

CONCRETE PAVED DITCH, SPECIAL

Description: This work shall consist of excavating, shaping, placing aggregate base course, forming and pouring a 6" wire reinforced concrete paved channel. The work shall be in accordance with the Standard Specifications for Road and Bridge Construction. Concrete shall be Class SI concrete in accordance with Section 1020 of the Standard Specifications. Panels shall be poured on a compacted aggregate base to the lines and grades shown on the plans. Contraction joints shall be sawed a minimum of 3/4" deep at 30 foot intervals and a 3/4" pre-molded fiber expansion joint shall be placed at 90 foot intervals. Construction joints can be installed at 30 foot intervals in lieu of a sawed joint as long as the wire reinforcing extends a minimum of 2 feet through the joint by using a split form or other means. All joints shall be sealed with a polysulfide joint sealer in accordance the Standard Specifications.

Wire fabric meeting the requirements of Article 1006.10 of the Standard Specifications shall be placed at the midpoint of the 6" thickness and held in place with reinforcing chairs. Bricks will not be allowed. The wire fabric shall be tied at sufficient intervals to maintain its placement when the concrete is placed. Pushing it into place after concrete placement will not be allowed. Wire reinforcing and weep holes shall be considered incidental to the cost of the concrete paved ditch.

The Contractor shall plan his work to maintain drainage flows at all times. Construction joints will be allowed at the inflection points between the 2 1/2:1 slope and the 30:1 slope but not at the flow line of the ditch. The Contractor shall not remove more of the existing paved channel than he can reasonably completely restore. The Contractor shall submit a plan and schedule for the work which shows his approach to maintaining flows and protect the remainder of the work before beginning. Any work that is damaged by storm water flows that in the opinion of the Engineer are not controlled by the Contractors means and methods will be subject to removal and replacement. Where storm sewers enter the channel, a 1/2" flexible expansion joint shall be placed around the pipe prior to pouring concrete. Pipes shall be miter cut to fit the face of the channel. The concrete shall be given a light broom finish.

Method of Measurement: The Concrete Paved Ditch, Special will be measured longitudinally along the flow line and the transverse measurement will be along the sloped surface to the finished edge at the top of slope. No deduction will be made for pipe openings.

Basis of Payment: Payment will be made for Concrete Paved Ditch, Special at the contract unit price per SQUARE YARD. This payment shall include wire reinforcing and weep holes as

shown on the Plans. Channel Excavation, Slope Wall Removal, and Aggregate Base Course Type B 6" will be paid for separately.

CONCRETE MEDIAN, TYPE SB (SPECIAL)

Description: This item shall consist of all labor and materials needed for the construction of concrete median in the locations indicated in the plans, Schedule of Quantities and proposed Cross Sections. This item shall be constructed in accordance with Article 606.09 of the Standard Specifications.

Method of Measurement: This item will be paid for per SQUARE FOOT. In median locations where curb and gutter are adjacent to the concrete median, the curb shall be considered incidental to the Concrete Median, Type SB (Special) pay item and will be paid for to the flag of the curb. In median locations where curb and gutter are adjacent to topsoil, the curb will be paid for per the applicable Combination Concrete Curb and Gutter pay item and not Concrete Median, Type SB (Special).

Basis of Payment: This item will be paid at the contract unit price per SQUARE FOOT for CONCRETE MEDIAN, TYPE SB (SPECIAL).

DRAINAGE SCUPPER DS-11

Description: This item shall consist of furnishing all labor, equipment, and materials to install drainage scuppers in accordance with the details shown on the plans. The DS-11 drainage scupper shall be installed monolithically with the box culvert Top Slab. The bottom of the drainage scupper tube must extend a minimum of 1" and a maximum of 3" below the bottom of the Top Slab.

Basis of Payment: This item shall be paid at the contract unit price EACH for DRAINAGE SCUPPER DS-11.

PAINT NEW TRAFFIC SIGNAL POST
PAINT NEW COMBINATION MAST ARM AND POLE

Description: This work shall include surface preparation, powder type painted finish application and packaging of new galvanized steel traffic signal mast arm poles and post assemblies. All work associated with applying the painted finish shall be performed at the manufacturing facility for the pole assembly or post or at a painting facility approved by the Engineer. Traffic signal mast arm shrouds and post bases shall also be painted the same color as the pole assemblies and posts.

The color of any traffic signal posts, pushbuttons, hardware, polycarbonate vehicle and pedestrian heads, including exposed conduits for the bracket mounted signal heads shall match the black finish of the mast arm assemblies.

Materials

Galvanizing: All materials to be powder coated shall be galvanized in accordance with ASTM A 123. Only the dry-kettle (pre-fluxing) process shall be used. The material shall not be water or chromate quenched. Galvanized materials to be powder coated shall be air cooled only. An

American Galvanizers Association trained Master Galvanizer shall be on the premises during the hot dipped galvanizing process.

Powder: Powder coating material shall be a thermosetting, durable, TGIC polyester powder of a degassing grade. Such coating powder must be recommended by its manufacturer for use over hot dipped galvanizing. The coating powder's particle size distribution shall be recommended by its manufacturer to produce the best results for powder coating components under this specification.

Surface Preparation

The zinc surface shall be prepared for powder coat application using a multistage system employing appropriate cleaners and imparting a phosphate conversion coat to provide an appropriate substrate for the powder coat material. During the cleaning process, water rinses shall be used as appropriate between stages to clean the items and prepare them for the subsequent stages. Water for the rinses, unless specified elsewhere shall be potable with a hardness not to be more than 250 ppm as CaCO₃ and a combined chloride and sulfate level less than 100 ppm.

Surface Defects: All weld flux and other contaminants shall be mechanically removed. All drainage spikes, tears, high spots, protrusions or other surface defects shall be removed using hand or power tools in accordance with the manufacturer's specifications. Such operations shall not remove the galvanized coating below the thickness allowed by ASTM A 123.

Thickness of the galvanizing shall be verified using a properly calibrated magnetic thickness gauge as per ASTM E 376. Any item falling below the required zinc thickness, before or after removal of any high spots, shall be repaired in accordance with Practice A 780.

Surface Cleaning: The galvanized surface shall be clean and free of oils and grease before they are powder coated. These shall be removed by use of an aqueous alkaline solution and/or hand or power tool cleaning. Subsequent to alkaline/power cleaning, trace zinc oxide will be removed by a mild acidic solution.

- An alkaline solution, pH in the range of 11 to 12 may be used to remove traces of oil, grease, or dirt. The alkaline solution shall not have a pH exceeding 13. After cleaning the piece shall be rinsed thoroughly in water under pressure.
- Hand or power tool cleaning may be used to clean light deposits of zinc reaction products such as wet storage stain, as specified to SSPC Surface Preparation Specification 2 or 3 as appropriate.
- An acidic solution with a pH of 3.5 to 4.5 shall be sprayed onto the item to remove residual zinc oxide.

Surface Profiling: The galvanized surface shall be profiled to promote proper powder coating adhesion. This shall be accomplished by applying a phosphate treatment to create a protective crystalline phosphate conversion coating on the zinc surface. The coating shall have a coating weight between 20 to 70 mg/ft².

Final Rinse: To ensure the most optimum performance possible, a final rinse of de-mineralized water shall be applied as a final rinse prior to pre-baking. This stage will remove any un-reacted phosphate and other contaminants.

Powder Coat Application

The finish color shall be one of the manufacturer's standard colors and shall be as selected by the local agency responsible for paint costs. The Contractor shall confirm, in writing, the color selection with the local responsible agency and provide a copy of the approval to the Engineer and a copy of the approval shall be included in the material catalog submittal. The City desires a smooth powder black finish to match the proposed LIGHT POLE, ALUMINUM, 40 FT. M.H., being installed as part of the project and the existing light poles in the City of Rockford.

Pre-baking: Following phosphating all items to be powder coated shall be placed in an oven capable of maintaining a temperature of 500°F. Specimens shall be baked at a temperature 25°F above the normal cure temperature for the powder that will be employed. The specimens shall remain in the oven for a minimum of 20 minutes after having equalized to the temperature of the oven to remove any residual moisture from the preparation phase, and insure expulsion of any entrapped gases or moisture. Typically, specimens are pre-baked for one hour.

Powder Coat Application: Polyester powder shall be applied through electrostatic/tribomatic application guns. The powder shall be applied in multiple coats. The first coat shall have a thickness of 1.5 to 3 mils. Each intermediate coat shall be partially cured at a temperature of 350°F to insure adhesion. Subsequent coats shall be then applied in 1.5 to 3 mil increments to bring the specimen to its final (cured) thickness as required by the customer specification. In no case will the final (cured) thickness be less than 5 mils.

Cure: The powder coating shall be cured by heating the coated specimens to a temperature and duration specified by the powder coat material manufacturer to insure sufficient curing of the powder coating material. The resulting coating shall be uniform in color and free of pinholes, blisters, and other surface defects. Correct cure shall be checked by a solvent rub test.

Properties of Cured Coating:

- Minimum film thickness TGIC 5.0 mils (120µm)
- Direct impact ASTM D 2794 160 in. /lb (9.0 m/kg)
- Reverse impact ASTM D 2794 160 in. /lb (9.0 m/kg)
- Pencil hardness (scratch/gouge) ASTM D 383 2H
- Flexibility (Mandrel test) ASTM D 522 1/8 in. (3m mm)
- Minimum adhesion ASTM D 3359 5A, 5B (100% crosshatch)
- Salt spray ASTM B 117 + 1000 hrs < 2mm

Repair of Powder Coated Material:

- Damage shall be defined as exposed galvanized coating.
- Damaged coatings less than ½ of 1% of the surface area shall be acceptable for repair. Damage greater than ½ of 1% shall be recoated. Final finish shall be damage free FOB the plant.
- Coatings to be repaired shall be touched up as recommended by the galvanizer and the powder coating supplier. Touch up and/or field repair can be accomplished using either powder coating material or paint. Typically acrylic based paint as recommended by the powder coating material manufacturer, applied either by spray or brushed on liquid is used for touch up and repair of the powder coating.

Any damage to the finish after leaving the manufacturer's facility shall be repaired to the satisfaction of the Engineer using a method approvable by the Engineer and manufacturer. If while at the manufacturer's facility the finish is damaged, the finish shall be re-applied.

Warranty: The Contractor shall furnish in writing to the Engineer, the paint manufacturer's standard warranty and certification that the paint system has been properly applied.

Packaging: Prior to shipping, the poles and posts shall be wrapped in ultraviolet-inhibiting plastic foam or rubberized foam.

Basis of Payment: This work shall be paid for at the contract unit price per EACH for PAINT NEW TRAFFIC SIGNAL POST and PAINT NEW COMBINATION MAST ARM AND POLE, 40 FOOT AND OVER, which shall be payment in full for painting and packaging the traffic signal mast arm poles and posts described above including all shrouds, bases, appurtenances, and as described in this specification.

REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

REMOVE EXISTING HANDHOLE

REMOVE EXISTING DOUBLE HANDHOLE

REMOVE EXISTING CONCRETE FOUNDATION

Description: This work shall be in accordance with Section 895 of the Standard Specifications except where noted herein.

The Contractor shall remove all traffic signal equipment at the intersections of Harrison Avenue and 11th Street and Harrison Avenue and 20th Street.

The following items listed here should represent an accurate listing of removal items; however, it is the Contractor's responsibility to verify all quantities prior to bidding. There will be no additional compensation.

Items: Traffic signal heads, controllers, traffic signal mast arms and poles, traffic signal posts, handholes, foundations, controller cabinet and all equipment within the controller cabinet.

The Contractor shall remove all wires pertaining to existing traffic signals, grounding and loops. The Contractor shall remove all wires from all handholes. This work shall be included in the bid price for this pay item.

The traffic signal equipment which is to be removed and is to become the property of the Contractor shall be disposed of outside the right-of-way at the Contractor's expense.

All equipment to be returned to the City of Rockford shall be set aside within the right of way by the Contractor for pick-up by the City of Rockford. The Contractor shall contact the City's Electrical Maintenance Contractor to schedule an appointment to pick up the equipment.

No equipment will be accepted without a prior appointment. All equipment shall be removed within 30 days of removing it from the traffic signal installation. The Contractor shall provide 5 copies of a list of equipment that is to remain the property of the City, including model and serial numbers, where applicable. He shall also provide a copy of the Contract plan or special provision showing the quantities and type of equipment. Controllers and peripheral equipment from the same location shall be boxed together (equipment from different locations may not be mixed) and all boxes and controller cabinets shall be clearly marked or labeled with the location from which they were removed. If equipment is not returned with these requirements, it will be rejected by the City's Electrical Maintenance Contractor. The Contractor shall be responsible for

the condition of the traffic signal equipment from the time he takes maintenance of the signal installation until the acceptance of a receipt drawn by the City's Electrical Maintenance Contractor indicating the items have been returned in good condition.

The Contractor shall safely store and arrange for pick-up of all equipment to be returned to agencies. The Contractor shall package the equipment and provide all necessary documentation as stated above.

Traffic signal equipment which is lost or not returned to the City for any reason shall be replaced with new equipment meeting the requirements of these Specifications.

The Contractor shall dispose of all other items off of the right-of-way and reflect the salvage value of this equipment in the unit bid price for this pay item. Non-salvageable items, including concrete debris, shall be disposed of according to Section 895.

Method of Measurement: All removal items will be paid for as Each. Remove Existing Traffic Signal Equipment will refer to Each intersection

Basis of Payment: The above work will be paid for at the contract unit price EACH per intersection for REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT or at the contract unit price per EACH for REMOVE EXISTING HANDHOLE, REMOVE EXISTING DOUBLE HANDHOLE, or REMOVE EXISTING CONCRETE FOUNDATION. This shall be payment in full for removing, disposing of, and transporting the equipment described above, complete. No additional compensation will be allowed.

EMERGENCY VEHICLE SIGNAL CONTROL SYSTEM

Description: This work shall be performed in accordance with manufacturer's specifications and with Section 887 of the "Standard Specification for Road and Bridge Construction".

The emergency preemption system shall be the "Tomar/Optronix Optical Preemption System" which is the supplier the Rockford Fire Department uses throughout its traffic emergency preemption network system installation and is required to provide compatibility throughout the entire City.

The Rockford Fire Department shall be contacted to verify that the system is operating properly with the equipment in place on their emergency vehicle.

EMERGENCY VEHICLE SIGNAL CONTROL SYSTEM cost shall include the following, as well as items described in Section 887.03, 1072 and 1076.01 of the "Standard Specifications for Road and Bridge Construction".

SYSTEM REQUIREMENTS

1. LIGHT TRANSMITTER
2. LIGHT DETECTOR (includes Confirmation Beacon) At least one per approach
3. LIGHT DETECTOR AMPLIFIER

The emergency preemption system shall be the "Tomar/Optronix Optical Preemption System". The light detector amplifier shall be rack mounted Tomar Opic-4 Card and backed with a four-channel capacity. The system shall have ID capability with the necessary software included so that events can be downloaded to a laptop computer. Contact Brown

Traffic Products, Davenport, IA 1-800-888-7078 for further information in regards to the manufacturer's installation requirements.

4. ELECTRIC CABLE IN CONDUIT, EVP, NO 14 2/C AND 16 3/C

This item shall include all electric cables and hardware recommended by the manufacturer for use with the emergency vehicle priority system. This installation shall include the number of optical detector confirmation beacons as shown in the plans and shall be installed per the manufacturer's recommendations. Contact Tom Kay at Brown Traffic Products, (319) 323-0009 for further information on the manufacturer's installation requirements.

Basis of Payment: This work shall be paid for at the contact unit price per EACH for EMERGENCY VEHICLE SIGNAL CONTROL SYSTEM, which price will be payment in full for all labor, equipment, and materials required to supply, install, configure, and test a mast arm mounted EMERGENCY VEHICLE SIGNAL CONTROL SYSTEM as described above, complete.

STREET NAME SIGN MAST ARM MOUNTED (INSTALL ONLY)

Description: This work shall be in accordance with Section 720 of the Standard Specifications. Mast arm mounted street name signs shall be supplied by the City of Rockford. The Contractor shall mount these signs in accordance with the Illinois Department of Transportation Standards and Specifications, MUTCD, and as directed by the City Traffic Engineer.

Basis of Payment: This work will be paid for at the contract unit price per EACH for STREET NAME SIGN MAST ARM MOUNTED (INSTALL ONLY),

VIDEO VEHICLE DETECTION SYSTEM

Description: This work shall consist of furnishing, installing and placing into operation a vehicle detection system, which detects vehicles by processing video images and providing detection outputs to a traffic signal controller. This equipment shall meet the NEMA environmental, power and surge ratings as set forth in NEMA TS1 and TS2 Specifications.

Hardware: The sensor shall be four integrated imaging CCD arrays with optics, high-speed, color, image-processing hardware and a CPU bundled into a sealed enclosure. The enclosure shall be waterproof and dust-tight to NEMA-4 Specifications. The enclosure shall allow the sensor to operate satisfactorily over an ambient temperate range from -34 degrees C to +60 degrees C while exposed to precipitation as well as direct sunlight. The enclosure shall allow the image sensor horizon to be rotated during field installation. The enclosure shall include a provision at the rear of the enclosure for connection of the factory-fabricated power and communications cable. Input power to the environmental enclosure shall be 110/220 VAC and either 50 or 60 Hz. A heater shall be at the front of the enclosure to prevent the formation of ice and condensation in cold weather, as well to assure proper operation of the lens' iris mechanism. The heater shall not interfere with the video signal. The enclosure shall be light colored and shall protrude beyond the front edge of the environment enclosure and shall include provision to divert water flow to the sides of the sunshield. The amount of overhang of the sunshield shall be adjustable to prevent direct sunlight from entering the lens or hitting the faceplate.

The sensor shall process a minimum of twenty detector zones placed anywhere in the field of view of sensor. The sensor shall have the ability to produce digital streaming MPEG-4 video output and shall have the ability to selectively show overlaid graphics indicating the current real-time detection state of each individual detector defined in the video. The sensor output color video shall be viewed with any compatible video-display device.

Sensor Hardware: As a minimum each image sensor shall produce images with a CCD sensing element with a horizontal resolution > 470 TVL NTSC. Images shall be output as video conforming to NTSC or PAL specifications and provide software MPEG-4 compression. The sensor shall provide direct real-time iris and shutter speed control, be usable for video surveillance; provide an optical filter and appropriate electronic circuitry in the sensor to suppress "blooming" effects at night, and have gamma for the image sensor present at the factory to a value of 1.0.

Sensor Optics: The machine vision sensor shall be equipped with an integrated zoom lens with zoom and focus capabilities that can be changed using either configuration computer software or hand-held controller.

Functional: The sensor shall be able to be programmed with a variety of detector types that perform specific functions selectable by software. Detector types shall include stop line detectors capable of providing presence of moving vehicle detection based upon phase status, presence detectors, directional presence, and input detectors.

Additionally, phase green or red shall be displayed; the sensor shall also have the capability of being programmed with dilemma zone detectors used to extend green time when vehicles are detected in advance of an intersection.

The unit shall monitor a programmable contract detector and apply video loss timing parameters to the output by implementing minimum, maximum, or user defined fixed time recall the assigned phase(s). The detector shall be capable of having Boolean logic applied to multiple detectors or a minimum number of detectors out of a total present, prior to placing a call.

- A. Count detection-outputs traffic volume statistics and generates traffic counts and occupancy.
- B. Presence detection – indicate presence of a vehicle, stopped vehicle traveling in the wrong direction.
- C. Dilemma Zone Detection – Detect the presence of a vehicles specific distance from the intersection in order to extend green time.
- D. Speed detection – provide vehicle counts, speed, length, and classification.
- E. Detector function combines – outputs of multiple detectors via Boolean logic functions.
- F. Label Displays – information on the machine video output and passes input information to other detectors.
- G. Detector Station - collects and reports traffic data gathered over specified time intervals.
- H. Incident detection – monitor traffic parameters for conditions that indicate an incident has occurred, such as an accident or a stalled vehicle that results in a sudden reduction in roadway capacity or throughout.
- I. Schedulers – define plans that can be used by other detectors to specify different parameters for each time-of-day plan.

J. Contrast Loss Detection – monitor the quality or the video image that the machine vision sensor is processing.

K. Speed Alarm – generates alarm outputs based on user-defined algorithms using speed.

External Interfaces: The external interfaces to the sensor shall include an access point specifically to exchange detector state data with the cabinet interface devices.

Sensor Field Interface equipment: An interface panel shall be provided for installation. The interface panel provides a terminal block for terminating power and wiring to the image sensor.

Supervisor Communications Port: There shall be interface panel port to configure and provide general communications. The sensor shall use an RJ45 Ethernet connection to facilitate 10/100 Mbps communications via a network of rack cards to a remote or local PC client/server application. The communication port shall allow the user to update the embedded software with a new software release and interact with a PC client/server application for all the various detection requests supported by the sensor.

Interface Panel: The interface shall provide a dedicated interface between the machine vision sensor and a detector port master such as a card rack or Access point. The real-time state of phase inputs shall be transmitted to the sensor. The sensor shall exchange input and output state data with the detector port master shall subsequently translate the detection states in an electronically compatible manner to a traffic signal controller:

- (1) The interface card immediately upon receipt of the state change shall apply single pin state outputs and each on or off pulse shall be guaranteed a minimum pulse width of 100 ms.
- (2) Speed outputs from 2 pins shall reflect the true output of the delay proportional to unmeasured speed within + 1 ms.

Power: The sensor shall operate on 110/220 VAC, 50/50 Hz at a minimum of 25 watts. The camera and processor electronics shall consume a maximum of 10 watts. The remaining 15 watts shall support an enclosure heater.

Sensor Operations log: The machine vision sensor shall maintain a non- volatile operations log, which minimally contains:

- A. Revision numbers for the current machine vision sensor hardware and software components in operation.
- B. Title and comments for the detector configuration.
- C. Date and time the last detector configuration was downloaded to the machine vision sensor.
- D. Date and time the operation log was last cleared.
- E. Date and time communications were opened or closed with the machine vision sensor.
- F. Date and time of last power- up.
- G. Time-stamped, self-diagnosed hardware and software errors that shall aid in system maintenance and troubleshooting.

Sensor Vehicle Detection Performance: The real time detection performance of the machine vision sensor shall be optimized by the following guidelines for the traffic application including

sensor mounting location; traffic lanes to monitor ; the sizing, placement, and orientation of vehicle detectors; traffic approaching and/or departing from the sensors field of view, and minimizing the effects of lane changing maneuvers.

Detection Zone Placement: The video detection system shall provide flexible detection zone placement anywhere and at orientation within the field of view of the machine vision sensor.

Preferred detector configurations shall be detection zones placed across lanes of traffic for the optimal count accuracy; detection zones placed parallel to lanes of traffic for optimal presence detection accuracy of moving or stopped vehicles. A single detection zone shall be able to replace one or more conventional detector loops connected in series. Detection zones shall be overlapped for optimal road coverage. In addition, selective groups of detectors shall be able to be logically combined into a single output by using optional delay and extend timing and signal state information. Optimal detection shall be achieved when the sensor placement provides an obstructed view of each traffic lane where vehicle detection is required. Obstructions are not limited to fixed objects. Obstruction of the view can also occur when vehicles from a lane nearer to the sensor obscure the view of the roadway of a lane further away from the sensor.

Detection Zone Programming: Placement of detection zones shall be by means of a portable or desktop computer using a Windows operating system, a keyboard, and a mouse. The VGA monitor shall be able to show the detection zones to provide optimal road coverage for vehicle detection: modify detector parameters for site geometry to optimize performance; edit previously defined detector configurations; adjust the detection zone and placement; add detectors for additional traffic applications; reprogram the sensor for different traffic applications, changes in installation site geometry, or traffic rerouting.

It shall be possible to download detector configurations from the computer to the sensor; upload the current detector configuration that is running in the sensor; back up detector configurations by saving them to the computer's removable or fixed disks; perform the above upload, store, and retrieve functions for video snapshots of the sensor's view.

Optimal Detection: The sensor shall be able to view either approaching or departing traffic or both in the same field of view. The sensor, when placed at a mounting height that minimizes vehicle image occlusion and equipped with a lens to match the width of the road shall be able to monitor a maximum of 6 to 8 traffic lanes simultaneously.

Detection Zone Operation: The sensors real-time detection operation shall be verifiable through the following means:

- A. View the video output of the sensor with any standard video display device (monitor).
- B. The video output of the sensor shall be capable of selectively transmitting:
 - (1) Camera video only
 - (2) Analog video overlaid with the current real-time detection state of each detector.
 - (3) Camera video with overlaid, scaled cross-hairs that are used for aiming the sensor (during installation).
 - (4) Individual detectors shall have the option of being hidden.
- C. View the associated output LED state on the detector port master.
 - (1) An LED shall be on when its assigned detector output or signal controller phase input is on.

(2) An LED shall be OFF when its assigned detector or signal controller input is off.

Count Detection Performance: Using a sensor installed within the optimal viewing specifications described above for count station traffic applications the system shall be able to accurately count vehicles with at least 96% accuracy under normal operating conditions (day and night) and at least 93% accuracy under adverse conditions. Adverse conditions are combinations of weather and lighting conditions that result from shadows, fog, rain, snow, etc.

Demand Presence Detection Performance: Using a sensor installed within the optimal viewing specifications described above for intersection control appliances the system shall be able to accurately provide demand presence detection. The demand presence accuracy shall be based on the ability to enable a protected turning movement on an intersection stop line, when a demand exists. The probability of not detecting a vehicle for demand presence shall be less than 1% error under all operating conditions. In the presence of adverse conditions, the machine vision sensor shall minimize extraneous (false) protected movement's calls to less than 7%.

Speed Detection Performance: The sensor shall accurately measure average arithmetic (mean) speed of multiple vehicles more than 98% accuracy under all operating conditions for approaching and departing traffic. The average speed measurement shall include more than 10 vehicles in the sample to ensure statistical significance. The sensor shall accurately measure individual vehicle speeds with more than 95% accuracy under all operating conditions for vehicles approaching the sensor (viewing the rear end of the vehicles). These specifications shall apply to vehicles that travel through both the count and speed detector pair and shall not include partial detection situations created by lane changing maneuvers.

Sensor Electrical: The video output of the sensor shall be isolated from earth ground. All video connection from the sensor to the interface panel shall also be isolated from earth ground. The video output, communication, and power stages of the sensor due to voltage transients occurring on the cable leading from the machine vision sensor to other field terminations.

Connections for video, communications and power shall be made to the image sensor using a "three wires only" branch cable connection and shall be installed to the interface panel with a compression blocks.

The machine vision sensor shall have passed requirements for and received the CE mark. The power to the sensor shall be fused in the controller cabinet.

Auxiliary Equipment: The system shall be supplied with a color 10 inch monitor in the controller cabinet to display a camera field of view with detection areas overlaid. The input to the monitor shall be selectable from any of the cameras in the system via a push button selector device. An Ethernet cable shall be supplied in the cabinet to allow for communications from the video detection system to a laptop computer.

Training: The supplier of the video detection system shall provide two days of training to maintenance and engineering personnel in the operation, setup and maintenance of the video detection system.

Basis of Payment: This work will be paid for at the contract unit price per EACH for VIDEO VEHICLE DETECTION SYSTEM, which price shall be payment in full for furnishing, installing, and placing into operation the equipment specified to the satisfaction of the engineer.

LUMINAIRE, METAL HALIDE HORIZONTAL MOUNT 400 WATT

Description: This item consists of providing and installing a decorative roadway luminaire on the combination mast arm assemblies at the intersections indicated in the plans. This shall include luminaires, truss arm, lamps, fuse holders, fuses, surge arrestors, hardware, and all equipment necessary to install the decorative roadway luminaire.

Provide surge arrestors in the pole handhole for the luminaires per the plans and Article 1065.02 of the IDOT Standard Specifications. One 2-pole waterproof breakaway in-line fuse holders and two fuses shall be supplied and installed in the handhole for the luminaires.

Materials: The decorative roadway luminaire shall be Lumec Model # DMS55-400PSMH-SG3-480-SMB-HE-BKTX with photocell, to match existing luminaires in the City of Rockford and the luminaires used for the street lighting on this project. Materials shall be in accordance with Section 821.02 of the Standard Specifications.

Luminaire: The luminaires shall be vibration tested and pass ANSI C136.31 requirements. Luminaires shall be rated for '1.5G' minimum peak acceleration. The "1.5G" minimum rated luminaire shall be provided with a grip or suitable device to hold the lamp against vibration. In order to be accepted, the luminaire housing, hardware, and each individual component shall pass this test with no noticeable damage and the unit must remain fully operational after testing.

Submittals shall include product data and samples as per the aforementioned sections for the luminaire, ballast, lamp, pole wiring, fuse holders, fuses, and surge arrestors. Detailed information shall be included concerning the materials, dimensions, finishes, photometric data, ballast bench test data, vibration test data, and warranty information for the lighting unit.

- **Castings:** Casting must be of a permanent mold-type, one piece, die casting. Sand casting will not be allowed.
- **Upper luminaire housing:** A die cast A360.1 aluminum dome complete with a cast-in technical ring with latch and hinge. The mechanism shall offer access to the inside of the luminaire. An embedded memory retentive gasket shall ensure weatherproofing. All seals and sealing devices are made of EPDM or silicone and shall be one-piece, memory retentive and UV resistant.
- **One piece Skirt and Door Frame:** A die cast A360 aluminum skirt complete with a cast in technical ring. Door frame shall house a ¼" tempered glass lens. Glass shall be held to the lens frame with stainless screws and brackets, and shall be sealed with an RTV weather-proof silicone compound.
- **Housing:** In a round shape, this housing is made of cast 356 aluminum, c/w a watertight grommet, mechanically assembled to the bracket with four bolts 3/8-16 UNC. This suspension system permits for full rotation of the luminaire in 90 degree increments.
- **Lens:** Lens shall be made of clear tempered ¼" thick glass lens, mechanically assembled on the lower part of the technical ring brackets.
- **400W Lamps:** Clear 400 Watt Metal Halide (ANSI Code S51), ED 18 bulb, mogul base. Lamp shall have a minimum 30,000 hour rated life, minimum 50,000 initial lumens, and 2100o K color temperature.
- **Optical System:** Lumec type (SG3), I.E.S. type III (asymmetrical). Reflector composed of a chemically brightened multi-faceted, arc image duplicating reflector system with an

uplight recovery box. Reflector surfaces shall be a segmented, specular aluminum alloy attached to formed, pre-painted white frame. Uplight recovery box shall be polished, stippled and formed sheet aluminum riveted to the reflector frame. Reflector system shall deliver an IES Type III distribution with efficiency of not less than 87%. The optical system shall be IP66 rated. The optical system shall house a 400 or 70 Watt (as applicable) clear Metal Halide (mogul base) in a horizontal position. Optical system shall be rotatable in 90 degree increments. Optical system shall be removable and rotatable without the use of tools. All mounting hardware shall be made of 316 stainless steel.

Optical system shall have a luminaire identification label specifying wattage, voltage, luminaire type and product order number. Optical system shall include a mogul base porcelain socket – socket shall be 1500 watt, 600 Volt, 5Kv pulse rated and shall be a single circuit. Lamp holder shall be a porcelain body with copper alloy, nickel plated screw shell with lamp grip with copper alloy nickel plated center contact.

- Ballast: 400Watt or 70 Watt (as applicable), Metal Halide, power factor of 90% or greater, THD of less than 15%, lamp current crest factor of less than 1.5, primary voltage 480 volts, electronic. If suitable electronic ballast is not available, the ballast shall be a constant-wattage autotransformer. Minimum lamp starting capacity shall be -20oF (-30oC). Assembled on a unitized removable tray with quick disconnect plug. Ballast shall operate within ANSI standards. Ballast shall be removable and replaceable without the use of tools. Ballast tray shall have a luminaire identification label specifying wattage, voltage, luminaire type and product order number.

Material Finish – Luminaire: Finish color of the unit shall be black textured (Lumec BKTX). Application of a polyester powder coat paint to (4 mils/100 microns). The chemical composition provides a highly durable UV and salt spray resistant finish in accordance to the ASTM-B117-73 standard and humidity proof in accordance to the ASTM-D2247-68 standard.

- Bath 1: Hot Wash Cycle (82o C) - Each piece is submerged in an alkaline solution to clean the surface of all grease and impurities. This process assures that the surfaces are cleaned inside and out.
- Bath 2: Clear Water Rinse - The cleaning cycle is followed by a rise where the pieces are submerged, shaken and rinsed in order to eliminate all residues.
- Bath 3: Citric Acid Treatment (76o C) - The parts are submerged in a citric acid solution for etching. This treatment gives surfaces the required coarseness for a better adhesion of the Lumiseal treatment to the polyester powder coat.
- Bath 4: Clear Water Rinse - After the etching cycle, the pieces are submerged, shaken and rinsed to eliminate all residues.
- Bath 5: Lumiseal Reactive Organic Conversion Coating (54o C) - Pretreatment and sealing in a one-step process. The chemicals react with the paint film creating a continuous barrier between the paint and the metal substrate providing superior corrosion protection and adhesion characteristics.
- Bath 6: Clear Water Rinse - After the Lumiseal pre-treatment, the pieces are submerged, shaken and rinsed to eliminate all residues.

Warranty: The light unit (luminaires) shall have a five year written warranty from the manufacturer in which they agree to repair or replace any products with failure in materials,

workmanship, corrosion, and color retention. The written warranty from the manufacturer shall also include all labor and materials necessary for repairs or replacements.

Construction Requirements: The contractor shall install the decorative lighting unit according to the plans, as recommended by the manufacturer, and according to Articles 821.03 and 830.03 of the IDOT Standard Specifications. The bracket arm and luminaires shall be oriented as shown on the plans. Install wiring within the pole from the handholes to the luminaires per Article 821.03 and 1066.09 of the IDOT Standard Specifications. The light pole luminaires shall be bonded to the light pole foundation grounding electrode. The contractor shall connect the grounding electrode conductor, circuit equipment grounds, and surge arrestor grounds to the pole ground lug in the handhole.

Luminaire aiming and operation of the lighting controller shall be inspected at nighttime and adjusted by the contractor to the satisfaction of the Engineer.

Any damage to the paint finish of the lighting unit after installation shall be touched up in the field by the contractor per the manufacturer's recommendations.

Basis of Payment: This work will be paid for at the contract unit price per EACH for LUMINAIRE, METAL HALIDE HORIZONTAL MOUNT 400 WATT. The unit price shall include the cost of all labor, materials, and equipment required to complete the installation.

STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 48 FT
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 50 FT
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 60 FT
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 62 FT
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 64 FT
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 65 FT

Description: This work shall consist of furnishing all equipment, material and labor necessary to properly install the proposed Steel Combination Mast Arm Assembly and Pole in the size indicated on the plans. This work shall be in accordance with Section 877 of the Standard Specifications.

Steel Combination Mast Arm Assembly and Poles shall be as manufactured by Valmont to match with proposed street light poles on this project and with existing light poles in the City of Rockford.

Steel Combination Mast Arm Assembly and Pole shall provide for 40 foot luminaire mounting height with 12-foot mast arm. The Steel Combination Mast Arm Assembly shall be painted in accordance with pay code PAINT NEW COMBINATION MAST ARM ASSEMBLY AND POLE, 40 FOOT AND OVER.

Basis of Payment: This work shall be paid for at the contract unit price per EACH for STEEL COMBINATION MAST ARM ASSEMBLY AND POLE of the signal arm length specified.

STORM SEWERS, WATER MAIN QUALITY PIPE

Description: This item shall be in accordance with the latest editions of the Standard Specifications for water and sewer main construction in Illinois, and the current Environmental Protection Agency regulations.

The construction of this item shall conform to Section 550 of the IDOT Standard Specifications.

All pipe labeled "Water Main Equivalent Pipe" shall be pressure tested to the maximum expected surcharge head and conform to Section 653.119, I, C, from Title 35, Subtitle F, Chapter II, of the Illinois Administrative Code.

Method of Measurement: Measurement for this work will be per FOOT in place.

Basis of Payment: This work will be paid for at the contract unit price per FOOT for STORM SEWERS, WATER MAIN QUALITY PIPE of the type and size indicated.

PIPE UNDERDRAINS 4"

Description: This work shall consist of furnishing and installing underdrain pipe with a 4-inch nominal diameter at inlets in Sag locations in accordance with the applicable portions of Section 601 of the IDOT Standard Specifications and IDOT District 2 standard details 88.4 shown in the plans. The pipe shall be single wall high density polyethylene. Perforations shall be uniform slots.

Method of Measurement: Measurement for this work will be per FOOT in place.

Basis of Payment: This work will be paid for at the contract unit price per FOOT for PIPE UNDERDRAINS 4".

INLETS, SPECIAL DOUBLE INLET, SPECIAL

Description: This work shall be constructed in accordance with Section 602 of the IDOT Standard Specifications and IDOT District 2 standard details 10.2, 12.2, 13.2C & 13.2D shown in the plans. Where a driveway frame and grate is specified, a Neenah R-3246 style grate with depressed curb frame shall be substituted for the standard curb head.

Method of Measurement: Measurement for this work will be per EACH of the various types specified.

Basis of Payment: This work will be paid for at the contract unit price per EACH for the various types specified of INLETS, SPECIAL or DOUBLE INLET, SPECIAL.

STORM SEWER CONNECTION

Description: This work shall consist of core drilling existing structures to facilitate a proposed pipe connection. Core drills shall extend through the entire width of the structure and be of a sufficient diameter to make the required pipe connection to the structure. These connections are noted as "CORE DRILL" on the Drainage Plans.

Method of Measurement: Measurement for this work will be per EACH of the associated connecting pipe.

Basis of Payment: This work will be paid for at the contract unit price per EACH for STORM SEWER CONNECTION.

TEMPORARY STORM SEWER 12"

Description: This work shall consist of temporarily connecting existing storm sewer pipe or structures to proposed storm sewer pipe or structures for purposes of construction staging in the locations indicated on the Maintenance of Traffic plan.

The work shall include all labor, materials, and backfill required for a complete connection. Contractor to connect the temporary storm sewer with the intention of the pipe being removed without causing damage to the new structure or pipe. Any damage to new structures or piping shall be replaced or repaired at the Contractor's expense. Although temporary, the storm sewer may need to remain in place over the winter and shall be constructed to potentially remain in place for several months.

Method of Measurement: Measurement for this work will be per FOOT of pipe.

Basis of Payment: This work will be paid for at the contract unit price per FOOT for TEMPORARY STORM SEWER, 12".

RELOCATE GUTTER DRAIN

Description: This work shall consist of adjusting the existing building drain outlet at station 158+75, 45 RT to match the elevation and slope of the finished grade. The existing building drain pipe shall be cut and removed to a length that allows the existing building drain outlet structure to be relocated so the invert elevation matches finished grade. The existing drain outlet structure shall be salvaged and reset to match the finished grade elevation at the structure invert and the pavement elevations around the perimeter of the outlet structure shall be adjusted to match the top of the reset structure.

Method of Measurement: Measurement for this work will be per each.

Basis of Payment: This work will be paid for at the contract unit price per EACH for RELOCATE GUTTER DRAIN.

ROOF DRAIN COLLECTION NETWORK

Description: This work shall consist of furnishing the materials, equipment, and labor to connect the existing roof drains to the proposed inlets on Harrison Avenue between 9th Street and 11th Street. The roof drain collection network shall include all pipe, fittings, cleanouts, couplings, connections, and associated appurtenances required to connect the roof drains to the proposed inlets. Drain pipe shall be in accordance with section 1040.03, Polyvinyl Chloride (PVC) Pipe, of the "Standard Specifications for Road and Bridge Construction" prepared by IDOT, latest edition.

Method of Measurement: Measurement for this work will be per FOOT.

Basis of Payment: This work will be paid for at the contract unit price per FOOT for ROOF DRAIN COLLECTION NETWORK.

MOWING

Description: This work shall consist of mowing all Seeding Class 1A during the course of the project. The vegetation must be at least 6" long before mowing. The vegetation shall be cut to obtain a height of not more than 3".

Basis of Payment: This work will be paid at the contract unit price per ACRE for MOWING.

REMOVAL OF EXISTING STRUCTURES

Description: This work shall be done in accordance with Section 501 of the Standard Specifications. The work shall consist of removing and disposing of the existing bridges or box culverts or portions of box culverts as specified. The work shall include removal to a minimum of 2 feet below the proposed subgrade elevations to avoid interference with proposed work.

No.	Station	Length	Description
1	143+74	51.7'	Triple 10.5'-13.0'-10.5' X 6' Box Culvert
2	147+43 Lt	35.5'	Triple 11' X 6' Box Culvert
3	151+66 Lt	26.0'	Double 12' X 4' Box Culvert
4	155+39 Lt	26.0'	Double 12' X 4' Box Culvert

With particular attention to Structure No. 1, the Contractor shall consider the presence of existing utilities in or near the bottom slab. Known utilities include a sanitary sewer and a gas main (believed to be abandoned) in Stage II, and a water main in Stage I. The sanitary sewer will be re-located as part of this contract. The gas main must be plugged before backfilling. The water main is to be cut and capped between the valve at Station 143+18 and the tee at Station 144+34. Prior to removal, the Contractor shall ensure that sufficient anchoring is in place to prevent the ends from blowing off. The Contractor must consider these items in his bid and no additional compensation will be allowed.

Basis of Payment: This work shall be paid at the contract unit price EACH for REMOVAL OF EXISTING STRUCTURES.

PIPE PLUG

Description: This work shall consist of permanently plugging all pipes so that the pipe in question can be buried without backfill and contaminants entering the pipe opening. Storm sewers that are temporarily plugged for staging purposes may be plugged using a mechanical plug, an inflatable pig, or a plug of a more permanent nature that the Contractor can remove without damaging the pipe. The use of plywood as a temporary plug that will be buried is not acceptable. New water main that must be plugged for staging purposes must be covered with a mechanical plug which may be recovered by the Contractor and reused. Permanent plugs for abandoned utilities shall consist of a pipe cap of material compatible with the existing pipe material. In lieu of caps, the ends of the pipes may be plugged with expansive grout or bulk headed with concrete block and quick-cure grout. Broken pipes or pipes that visually appear to

be corroded, eroded, or otherwise compromised in structural strength shall be filled with Controlled Low Strength Material before being permanently abandoned.

Basis of Payment: The cost of furnishing and installing an acceptable plug or cap and the timely removal of temporary plugs for staging purposes shall be included in the contract unit price for the pipe being plugged, removed, or abandoned. No additional payment will be made for Plug Pipe.

TEMPORARY SUPPORT SYSTEM

Description: This work shall consist of designing, furnishing, and installing a temporary support system according to the dimensions and details shown on the contract plans and in the approved design submittal.

The temporary support system shall be designed by the Contractor, at a minimum to support the existing culvert top slab edge, temporary concrete barrier, and posted traffic load of 16 tons per axle or as directed by the Engineer.

The design calculations and details for the temporary support system proposed by the Contractor shall be submitted to the Engineer for approval. The calculations shall be prepared and sealed by an Illinois Structural Engineer. The approval will not relieve the Contractor of responsibility for the safety of the excavation.

The temporary support system shall be installed according to the approved design prior to the commencement of any related excavation. If unable to install the temporary support system as specified in the approved design, the Contractor shall have the adequacy of the design re-evaluated. Any re-evaluation shall be submitted to the Engineer for approval prior to commencing the excavation adjacent to the area in question. The temporary support system shall remain in place until traffic is no longer using the supported elements and the Contractor has begun demolition of the second Stage.

Method of Measurement: The temporary support system shall be designed, furnished, installed and removed according to the approved design and will be measured for payment for each cell of the culvert being supported regardless of the number of supporting elements or variations in cell width or orientation of the support members.

Basis of Payment: This work will be paid at the contract unit price per EACH for TEMPORARY SUPPORT SYSTEM.

IRRIGATION SLEEVES

Description: This work shall consist of furnishing and installing 4-inch diameter PVC conduit sleeves below the proposed grade for the installation of a water service line intended to provide water to the median and special landscaping irrigation systems. The PVC conduit shall extend two feet beyond any proposed sidewalk or back of curb. The material shall conform to Schedule 80. Where possible, the conduit shall be placed without joints. If joints are necessary to achieve the length of conduit required, the joints shall conform to the following requirements: 1) the gaskets shall be flexible seals that conform to ASTM F477, 2) the spigot pipe ends shall be beveled with no burrs, 3) joints shall meet or exceed ASTM D3139 for pressure and vacuum situations; however no test of the joint is required.

Installation of the irrigation service line through the sleeve will not require the use of skid material; however, the irrigation service line will be pulled through the conduit instead of pushed. Each sleeve will be furnished with a pull cord capable of pulling 25 pounds with a tensile strength of 200 pounds. The ends of the sleeve shall be sealed with duct tape prior to burial and the ends marked with indicator posts. After the installation of the irrigation service line, the conduit ends shall be sealed with hydrophobic polyurethane grout rated NSF 61 potable water approved. The hydrophobic polyurethane grout shall not be placed in quantities that can cause extensive physical damage to the conduits.

Method of Measurement: This work will be measured from end to end along the path of travel in place per foot.

Basis of Payment: This work will be paid at the contract unit price per FOOT of IRRIGATION SLEEVES.

TRAFFIC BARRIER TERMINAL, TYPE 5A (SPECIAL)
STEEL PLATE BEAM GUARDRAIL TYPE B, (SPECIAL)

Description: This work shall be done in accordance with Section 630 of the Standard Specifications with the following exceptions:

Traffic Barrier Terminal, Type 5A, (Special) shall be constructed in accordance with Standard B.L.R. 27-1. Post spacing shall be as shown on the plan details. The guardrail shall be factory bent to the radius shown on the details prior to galvanizing.

Steel Plate Beam Guardrail shall be constructed in accordance with Standard 630001 except that the length shall be custom fit in the field. The Traffic Barrier Terminal, Type 5A shall be set first and a custom fit connecting piece made to join the end of the Steel Plate Beam Guardrail, Type B. The ends of the Type B (Special) and the Type B shall be joined with a Roll Element Splice with sufficient slotting to allow for minor fabrication and installation variances.

Basis of Payment: This work will be paid at the contract unit price EACH for TRAFFIC BARRIER TERMINAL, TYPE 5A (SPECIAL) and at the contract unit price per FOOT for STEEL PLATE BEAM GUARDRAIL, TYPE B (SPECIAL).

SEEPAGE COLLAR

Description: This item shall consist of all labor, material, and equipment to furnish and install seepage collars. Seepage collars shall be placed at locations where storm sewer penetrations occur in reinforced concrete walls. This includes culvert walls and structural channel walls. Seepage collars shall generally be high slump Class SI concrete poured around the full diameter of the storm sewer at the back face of the wall. The Contractor need not set forms, but shall insure that at least 12" of concrete surrounds the storm sewer at the wall

penetration. The Contractor shall seal the front face of the opening to prevent spillage through the opening onto the visible surface.

Basis of Payment: The cost for excavating, sealing, concrete collar, and backfilling shall be included in the contract unit price of the pipe being connected.

UNDERGROUND STORAGE TANK REMOVAL

Underground Storage Tank (UST) removal shall be completed in accordance with Section 669 of the Standard Specifications, latest addition, and applicable Supplemental Specifications and Recurring Special Provisions and in accordance with all Illinois Office of the State Fire Marshal (OSFM) regulations. The contractor shall assume an estimated capacity of 2,500 gallons for each orphan UST system.

Method of Measurement: Measurement for this work will be per EACH.

Basis of Payment: This work will be paid for at the contract unit price per EACH for UNDERGROUND STORAGE TANK REMOVAL which price shall include any labor, materials, disposal, and trench backfill necessary for a complete removal.

IRRIGATION SYSTEM (SPECIAL)

Description: This work shall consist of furnishing and installing all items necessary for the completion of an Automatic Irrigation System located in the two landscaped medians from Sta. 144+80.84 to Sta. 147+59.65, and from Sta. 154+90.14 to Sta. 159+30.71. Work shall include, but is not limited to, providing and installing the following:

- (a) Plumbing Equipment: Including meter, master valve, backflow prevention device, ball valves, drain valves, reducer, unions, piping, and related miscellaneous items required to complete the intended work in place.
- (b) Utility Enclosure: 36"x60" open bottom stackable underground enclosure, 36" depth bottom unit, with 19" depth extension and lid. Enclosures to be 'Quazite' PG Style Polymer Concrete Assembly. Polymer lid by same manufactured as enclosure to have skid resistant surface (.5 coefficient of friction), secured with 1/2" stainless steel hex head bolt w/ washer.
- (c) Concrete Pad: Underground enclosures shall be installed within a concrete pad located within the public parkway. Pad shall be 8' in width, extending from back of curb to edge of sidewalk as detailed on plans. Concrete pad shall be 4" min. thickness over 4" depth compacted aggregate base course. Utility enclosure shall be installed centered within concrete pad, enclosure lid set flush with surrounding concrete.
- (d) Irrigation Equipment: Including mainline, lateral lines, rotor heads, pop-up spray heads, solenoid valves, wiring, valve boxes, controller, and related miscellaneous items required to complete the intended work in place.
- (e) Electrical Connection: Including the conduit and wire, and connection to the electrical service. The conduit and wire shall be in accordance with the applicable sections of the special provisions.

Basis of Payment: This work will be paid at the contract unit price per LUMP SUM for IRRIGATION SYSTEM, SPECIAL, and shall include all items necessary to complete IRRIGATION SYSTEM, SPECIAL

CONCRETE MEDIAN SURFACE REMOVAL

This work shall conform to Section 440 of the Standard Specifications. Work shall consist of the removal and disposal of concrete median surface as indicated in plans.

Basis of Payment: This work will be paid at the contract unit price per SQUARE FOOT for CONCRETE MEDIAN SURFACE REMOVAL

PLUG WATER MAIN 6"
PLUG WATER MAIN 8"
PLUG WATER MAIN 12"

The work required to cut and plug abandoned water mains shall be completed in accordance of the requirements of the Engineer. This item shall consist of furnishing and installing all material and providing all labor necessary to cut and plug the existing water main at the locations shown on the plans. The contractor shall sawcut the existing water main at the trench walls, and plug the remaining pipe ends with non-shrink hydraulic mortar and bricks. This item shall include removal and proper disposal of all material. The excavated hole shall be properly backfilled and shall include trench backfill where required. This method shall only be used on water mains that are to be abandoned, and will no longer have pressure behind them.

Method of Measurement: Measurement for this work will be per each in place.

Basis of Payment: This work will be paid for at the contract unit price per EACH for PLUG WATER MAIN 6", PLUG WATER MAIN 8", and PLUG WATER MAIN 12" which price shall include any labor, materials, and trench backfill necessary for a complete installation.

WATER MAIN REMOVAL

This work shall consist of the removal and disposal of water main as indicated on the plans. The contractor shall plug the remaining pipe ends with non-shrink hydraulic mortar and bricks. The excavated hole shall be properly backfilled and shall include trench backfill where required.

Method of Measurement: Measurement for this work will be per FOOT.

Basis of Payment: This work will be paid for at the contract unit price per FOOT for WATER MAIN REMOVAL which price shall include any labor, materials, disposal, and trench backfill necessary for a complete removal.

WATER SERVICE LINE 2", (BORED)

This work shall conform to the Standard Rockford Water Division Specifications, the Standard Specifications and the requirements of the Engineer. This item shall consist of furnishing trenchless installation of copper water service line complete with corporation stop valve. Curb stop boxes shall be placed as indicated on the plans. Curb stop valve and curb stop box shall be paid for separately.

Also included in this item are the cost of all connections, excavation of push pit and backfilling. These services shall be installed at the locations shown on the plans. Final location to be verified by the Contractor and Owners. The cost for trench backfill and backfilling shall be included in the bid price for this item.

Method of Measurement: Measurement for this work will be per each in place.

Basis of Payment: This work will be paid for at the contract unit price EACH for WATER SERVICE LINE 2" (BORED) which price shall include any labor, materials, and trench backfill necessary for a complete installation.

CUT AND CAP EXISTING 6" WATER MAIN
CUT AND CAP EXISTING 8" WATER MAIN
CUT AND CAP EXISTING 12" WATER MAIN

This work shall conform to the Standard Specifications for Water and Sewer Main Construction, latest edition, and the requirements of the Engineer. Contractor shall sawcut the existing water main and install a mechanical joint end cap with restrained glands. The contractor shall also thrust block the cap against the end of the existing water main that is to remain in place for additional thrust restraint. This item shall include removal and proper disposal of all material. The excavated hole shall be properly backfilled and shall include trench backfill where required.

Method of Measurement: Measurement for this work will be per each in place.

Basis of Payment: This work will be paid for at the contract unit price per EACH for CUT AND CAP EXISTING 6" WATER MAIN, CUT AND CAP EXISTING WATER MAIN 8", and CUT AND CAP EXISTING WATER MAIN 12" which price shall include any labor, materials, and trench backfill necessary for a complete installation.

CONNECTION TO EXISTING WATER MAIN 6"
CONNECTION TO EXISTING WATER MAIN 8"
CONNECTION TO EXISTING WATER MAIN 12"
CONNECTION TO EXISTING WATER MAIN 16"

This work shall consist of furnishing and installing all material and providing all labor necessary to connect the proposed water main to the existing water system.

All workmanship and materials shall conform to the City of Rockford Water Division Specifications latest revisions, "WATER DISTRIBUTION SYSTEM DESIGN AND SPECIFICATIONS".

The cost of the trench backfill, where applicable, shall be in the contract unit price bid for this item.

Method of Measurement: Measurement for this work will be per EACH in place for the various size water mains.

Basis of Payment: This work will be paid for at the contract unit price per EACH for CONNECTION TO EXISTING WATER MAIN 6", CONNECTION TO EXISTING WATER MAIN 8", CONNECTION TO EXISTING WATER MAIN 12", and CONNECTION TO EXISTING WATER MAIN 16" which price shall include any labor, materials, and trench backfill necessary for a complete installation.

WATER CONNECTION SPECIAL

This work shall consist of furnishing and installing all material and providing all labor necessary to connect the proposed 16" water main to the existing 36" water main in the location indicated on the plans and in the Schedule of Quantities.

All workmanship and materials shall conform to the City of Rockford Water Division Specifications latest revisions, "WATER DISTRIBUTION SYSTEM DESIGN AND SPECIFICATIONS".

The cost of the trench backfill, where applicable, shall be in the contract unit price bid for this item.

Method of Measurement: Measurement for this work will be per EACH in place for the connection.

Basis of Payment: This work will be paid for at the contract unit price per EACH for WATER CONNECTION SPECIAL which price shall include any labor, materials, and trench backfill necessary for a complete installation.

VALVE VAULTS TO BE REMOVED

This work shall include the removal of existing valve and valve vaults where shown on the plans. The contractor shall remove the frame and cover and salvaged for the City of Rockford. The existing valve vault shall be excavated and removed for the full depth of the structure. The contractor shall sawcut the existing water main and remove the valve and associated appurtenances. The existing pipes shall be plugged.

This item shall include removal and proper disposal of all material. The excavated hole shall be backfilled with the cost of trench backfill being incidental to the item.

Method of Measurement: Measurement for this work will be per EACH.

Basis of Payment: This work will be paid for at the contract unit price per EACH for VALVE VAULTS TO BE REMOVED which price shall include any labor, materials, and trench backfill necessary for a complete installation.

CURB STOPS 1"
CURB STOPS 2"

Description: This work shall include the furnishing and installation of the necessary appurtenances of CURB STOPS 1" and CURB STOPS 2".

All water services are required to be installed/tapped by a licensed plumber and inspected by the City of Rockford (Building Department) prior to backfilling. A crimping tool shall not be used to temporarily stop a water service, except in an emergency. If a crimping tool is used to stop a service line, the final repair shall be as directed by the Engineer, but in no case shall

un-crimping the line be allowed. The temporary freezing of a service is the approved method of use for the City of Rockford.

Curb stop valves shall be manufactured of waterworks no—lead brass (ASTM Standard B62), with full round top orifices, and ninety (90) degree stop rotation. Tee heads must be designed for connection to curb box shut-off rods similar to Mueller #82865 or #580563.

Curb stop valves shall be "O" ring seal plug or ball types. Inverted or tapered plug valves, as well as stop and waste designs, are not accepted.

Curb stop valves shall be, furnished in one (1) inch, and two (2) inch sizes for use with Type K copper tubing.

Copper joints on curb stop valves shall be compression type, complying fully with the specifications in Section 12.19 Copper Compression Joint Specifications.

The following manufacturers are listed as offering curb stop valves in essential compliance with these specifications. Responsibility rests with the supplier to demonstrate that a particular curb stop model complies fully with these specifications.

1. Mueller Company, Decatur, Illinois
2. A.Y. McDonald Manufacturing Company, Dubuque, Iowa

Method of Measurement: Measurement for this work will be per EACH.

Basis of Payment: This work will be paid for at the contract unit price per EACH for CURB STOPS 1" and CURB STOPS 2" which price shall include any labor and materials necessary for a complete installation.

RAILROAD TRACK REMOVAL

This work shall consist of the removal of existing railroad rail and ties from an abandoned rail line as indicated on the plans. The work shall consist of the excavation of existing wood ties, cutting off the rails, and removal and disposal of the rail and old wood ties. This item is a contingent quantity based on the possibility that the Contractor may encounter abandoned tracks crossing the roadway.

Method of Measurement: Measurement for this work will be per FOOT along the centerline of the tracks.

Basis of Payment: This work will be paid for at the contract unit price per FOOT for RAILROAD TRACK REMOVAL which price shall include any labor and trench backfill necessary for a complete removal.

REMOVE EXISTING FLAGPOLE

This work shall consist of the removal of an existing flagpole in the location indicated on the plans and in the Schedule of Quantities. The work shall consist of the removal and relocation or the removal and disposal of the foundation and pole. Coordination shall be made with the property owner to determine whether the flagpole is to be relocated or disposed of. If relocation is to be

performed, the proposed location is to be coordinated with the property owner and the Engineer. This work shall also include the proposed concrete foundation.

Method of Measurement: Measurement for this work will be per EACH flagpole.

Basis of Payment: This work will be paid for at the contract unit price per EACH for REMOVE EXISTING FLAGPOLE which price shall include any labor and trench backfill necessary for a complete removal, or any materials required for relocation.

BOLLARD REMOVAL

This work shall consist of the removal of existing concrete bollards in the location indicated on the plans and in the Schedule of Quantities. This work shall consist of the excavation and disposal of the bollard as well as any foundation that may be present.

Method of Measurement: Measurement for this work will be per EACH bollard to be removed.

Basis of Payment: This work will be paid for at the contract unit price per EACH for BOLLARD REMOVAL which price shall include any labor and trench backfill necessary for a complete removal.

SIGN REMOVAL

This work shall consist of the removal of an existing sign in the location indicated on the plans and in the Schedule of Quantities. This work shall consist of the removal and disposal of the sign as well as any foundation that may be present. This item does not include relocation of the sign. If relocation is to be made, item shall be paid for under the RELOCATE SIGN, SPECIAL item.

Method of Measurement: Measurement for this work will be per EACH sign to be removed.

Basis of Payment: This work will be paid for at the contract unit price per EACH for SIGN REMOVAL.

RELOCATE SIGN, SPECIAL

This work shall consist of the removal and relocation of an existing sign in the location indicated on the plans and in the Schedule of Quantities. The work shall consist of the removal and relocation of the foundation, if needed. Coordination shall be made with the property owner and the Engineer to verify the proposed location for the sign to be placed. Signs with existing concrete foundation(s) or requiring a concrete foundation shall have one replaced in the new location. This work shall be included in the unit cost for this item.

If no relocation is to be made, the item shall be paid for under the SIGN REMOVAL item.

Method of Measurement: Measurement for this work will be per EACH sign to be removed and relocated.

Basis of Payment: This work will be paid for at the contract unit price per EACH for RELOCATE SIGN, SPECIAL.

RETAINING WALL REMOVAL

This work shall consist of the removal of a retaining wall in the location indicated on the plans and in the Schedule of Quantities. The work shall consist of the excavation, removal, and disposal of the retaining wall and any foundation that may be present. If the entire wall is not to be removed, it shall be the Contractor's responsibility to transition the existing wall to an equal or better condition to the satisfaction of the Engineer.

Method of Measurement: Measurement for this work will be per FOOT along the centerline of the retaining wall.

Basis of Payment: This work will be paid for at the contract unit price per FOOT for RETAINING WALL REMOVAL which price shall include any labor, materials, and trench backfill necessary for a complete removal and transition.

CONCRETE STEP REMOVAL

This work shall consist of the removal of existing concrete steps in the location indicated on the plans and in the Schedule of Quantities. The work shall consist of the excavation, removal, and disposal of the concrete steps and any foundation that may be present.

Method of Measurement: Measurement for this work will be per EACH grouping of steps.

Basis of Payment: This work will be paid for at the contract unit price per EACH for CONCRETE STEP REMOVAL which price shall include any labor and trench backfill necessary for a complete removal.

CLEARING AND GRUBBING

This work shall consist of the removal of vegetative growth in the locations indicated on the plans. The work includes the complete removal and disposal of trees under 6" in diameter, as well as shrubs, bushes, and other woody vegetation.

Method of Measurement: Work shall be in accordance with Section 201 of the "Standard Specifications". Measurement for this work will be per LUMP SUM.

Basis of Payment: This work will be paid for at the contract unit price per LUMP SUM for CLEARING AND GRUBBING which price shall include any labor and backfill necessary for a complete removal.

DUST CONTROL WATERING

The contractor shall be responsible for controlling the dust and air-borne dirt generated from construction activities, in accordance to Article 107.36 of the "Standard Specifications".

The City of Rockford will require the implementation of dust control watering if wind and dry soil conditions reduce visibility of adjacent roads and property. Concerns for health and safety to the public using adjacent facilities will be grounds for the City or the Engineer to request implementation of dust control watering.

Dust control watering measures shall be readily available for use on the project site.

Method of Measurement: Measurement for this work will be per UNIT of water.

Basis of Payment: This work will be paid for at the contract unit price per UNIT for DUST CONTROL WATERING.

EXISTING GATE TO BE RELOCATED

Description: This work shall be in accordance with Section 664 of the Standard Specification and the following:

The power gate that resides at STA 151+70 LT shall be removed and relocated within the property as defined in the proposed plans. Work shall include all necessary materials and labor to reconstruct the gate and reconnect electrical power such that the final gate condition and operation is in equal or better condition.

Basis of Payment: This work will be paid at the contract unit price per EACH for EXISTING GATE TO BE RELOCATED. New materials necessary to complete this work will not receive extra payment.

PERMANENT BENCH MARKS, TYPE 1

Description: This work shall consist of the furnishing and installing of a permanent survey marker to act as a bench mark in a location designated by the Engineer. The bench mark shall be placed in a location with at least 8'-0" (2.4 m) of vertical clearance directly above it, if possible.

After installation, a professional Land Surveyor shall perform a closed loop level circuit to determine the new survey marker elevation and shall stamp the elevation in the face of the survey marker. All level loops used to set the bench mark shall be kept in a field book and shall contain a description and location of original bench marks used and the name and license number of the professional land surveyor. Copies of the field book shall also be submitted to the IDOT District Chief of Surveys or Plats and Plans Manager.

Basis of Payment: This work will be paid at the contract unit price per EACH for PERMANENT BENCH MARKS, TYPE 1 and includes all labor and materials needed for a complete installation.

STEEL CASING PIPE, BORED AND JACKED 24"

This work shall consist of boring and jacking of steel casings. Boring and jacking shall refer to a construction procedure in which a steel sleeve is jacked through the ground while an auger removes the soil from the face. Boring and jacking shall include the material cost of the pipe, as well as all labor, equipment and materials associated with the actual boring and jacking process. Steel sleeves will be jacked in place in the locations indicated on the plans.

The sleeves with locations and sizes shown on the plans shall be ASTM A-139 Grade A structural steel. The minimum wall thicknesses are indicated in the table below. The minimum yield strength for the steel sleeves shall be 35,000 psi.

DIA.	MINIMUM THICKNESS (IN.)
24"	0.375

Steel sleeve joints shall be made by continuous weld completely around the perimeter of the pipe, shall be watertight, and shall provide strength through the joint equal to that of the pipe shell. Pipe shall have beveled edges for welding and shall be new, straight pipe. Adequate stainless steel supports as detailed, shall be used to support the carrier pipes.

Both the steel sleeves and the carrier pipes must be provided in lengths short enough to facilitate proper handling and placement in the jacking pits. No additional compensation will be allowed for incomplete or partial push attempts, for any reason.

Any changes in the push alignment must receive prior approval from the City of Rockford and the Engineer before push operations can resume.

Adequate masonry bulkheads will be placed at each end of the sleeve to permanently seal it. When the stainless steel supports do not prevent 360 degree movement, fill the void between the steel sleeve and the carrier pipe with pea gravel. The Contractor must demonstrate to the satisfaction of the Engineer that the void is completely filled with pea gravel.

The Contractor shall jack the steel sleeve into the earth simultaneously with the boring auger as it drills the earth. Drilling the hole all the way through the earth and pushing the steel sleeve into the hole after the auger has been removed shall not be allowed.

The operation will be advanced by the use of an earth auger where possible. If an earth auger is unable to remove hard material or maintain line and grade, the operation will be advanced by the use of a rock bit. If conditions are such that the use of an earth auger or rock bit are unable to remove hard material or maintain line and grade, the operation may be advanced by mining at the contractor's discretion. No blasting will be allowed.

During the mining operations, the material in front of the pipe shall not be removed for more than six inches (6") beyond the pipe heading before the casing pipe is pushed forward.

If, for any reason, the excavation should extend beyond the outside diameter of the casing pipe, leaving voids outside the casing pipe, holes shall be drilled in the casing pipe and such voids completely filled by pressure grouting with cement grout.

Cathodic Protection of the casing pipe shall be constructed and installed in strict accordance with any and all current requirements and specifications.

Payment for the casing pipes shall be made at the unit price bid per lineal foot for the steel casings of diameters indicated in the plans, complete. Also included in the unit price is the

boring and jacking setup, which includes all necessary labor, equipment and materials preparatory to the boring and jacking operation, including, but not limited to excavation of push and receiving pits, dewatering, shoring, sheeting, setting of rails on line to grade, thrust blocking and backfilling of push and receiving pits, spacers, any necessary sand fill, and pavement removal. GBSP 44 shall be followed for all submittals if shoring or sheeting is used.

Under the unit price, the Contractor shall:

1. Open a suitable jacking pit adjacent to the area into which the steel sleeve will be jacked in place as shown on the plans. The pit shall be long and wide enough to provide proper working space.
2. Set and maintain guide timbers or rails accurately in bottom of jacking pit In order to keep steel sleeve on correct line and grade.
3. Furnish and install heavy backstop supports at rear of jacking pit, sufficient to absorb shock of jacking operation without distortion. Any sheeting or shoring needed to provide a safe working area or to comply with permit requirements shall be considered incidental to the cost of this item.
4. Identify, locate and relocate, as necessary, all existing utilities that could be damaged by setup, boring and jacking or other construction activities. Any damage done to utilities due to construction shall be repaired or replaced by the Contractor, at his own expense, to the satisfaction of the affected utility.

Method of Measurement: Measurement for this work will be on a per FOOT basis.

Basis of Payment: This work will be paid for at the contract unit price per FOOT for STEEL CASING PIPE, BORED AND JACKED 24" which price shall include any labor, materials, and trench backfill necessary for a complete installation.

STEEL CASINGS 8"
STEEL CASINGS 10"
STEEL CASINGS 12"
STEEL CASINGS 24"

Unless otherwise indicated, this work shall consist of the boring and jacking of steel casings. Boring and jacking shall refer to a construction procedure in which a steel sleeve is jacked through the ground while an auger removes the soil from the face. Boring and jacking shall include the material cost of the pipe, as well as all labor, equipment and materials associated with the actual boring and jacking process. Steel sleeves will be jacked in place in the locations indicated on the plans as well as in the Schedule of Quantities.

Steel sleeve joints shall be made by continuous weld completely around the perimeter of the pipe, shall be watertight, and shall provide strength through the joint equal to that of the pipe shell. Pipe shall have beveled edges for welding and shall be new, straight pipe. Stainless steel supports shall be used to support the carrier pipes.

Both the steel sleeves and the carrier pipes must be provided in lengths short enough to facilitate proper handling and placement in the jacking pits. No additional compensation will be allowed for incomplete or partial push attempts, for any reason.

Any changes in the push alignment must receive prior approval from the Engineer.

Adequate masonry bulkheads will be placed at each end of the sleeve to permanently seal it. When the stainless steel supports do not prevent 360 degree movement, fill the void between the steel sleeve and the carrier pipe with pea gravel. The Contractor must demonstrate to the satisfaction of the Engineer that the void is completely filled with pea gravel.

The Contractor shall jack the steel sleeve into the earth simultaneously with the boring auger as it drills the earth. Drilling the hole all the way through the earth and pushing the steel sleeve into the hole after the auger has been removed shall not be allowed.

The operation will be advanced by the use of an earth auger where possible. If an earth auger is unable to remove hard material or maintain line and grade, the operation will be advanced by the use of a rock bit. If conditions are such that the use of an earth auger or rock bit are unable to remove hard material or maintain line and grade, the operation may be advanced by mining at the contractor's discretion. No blasting will be allowed.

During the mining operations, the material in front of the pipe shall not be removed for more than six inches (6") beyond the pipe heading before the casing pipe is pushed forward.

If, for any reason, the excavation should extend beyond the outside diameter of the casing pipe, leaving voids outside the casing pipe, holes shall be drilled in the casing pipe and such voids completely filled by pressure grouting with cement grout.

Payment for the carrier pipes shall be made at the unit price bid per lineal foot for the steel casings of diameters indicated in the plans, complete. Also included in the unit price is the boring and jacking setup, which includes all necessary labor, equipment and materials preparatory to the boring and jacking operation, including, but not limited to excavation of push and receiving pits, dewatering, shoring, sheeting, setting of rails on line to grade, thrust blocking and backfilling of push and receiving pits, and pavement removal.

Under the unit price, the Contractor shall:

1. Open a suitable jacking pit adjacent to the area into which the steel sleeve will be jacked in place as shown on the plans. The pit shall be long and wide enough to provide proper working space.
2. Set and maintain guide timbers or rails accurately in bottom of jacking pit in order to keep steel sleeve on correct line and grade.
3. Furnish and install heavy backstop supports at rear of jacking pit, sufficient to absorb shock of jacking operation without distortion. Any sheeting or shoring needed to provide a safe working area or to comply with permit requirements shall be considered incidental to the cost of this item.

4. Identify, locate and relocate, as necessary, all existing utilities that could be damaged by setup, boring and jacking or other construction activities. Any damage done to utilities due to construction shall be repaired or replaced by the Contractor, at his own expense, to the satisfaction of the affected utility.

Method of Measurement: Measurement for this work will be on a per FOOT basis.

Basis of Payment: This work will be paid for at the contract unit price per FOOT for STEEL CASINGS 8", STEEL CASINGS 10", STEEL CASINGS 12", and STEEL CASINGS 24".

PVC CASING PIPE, 12"
PVC CASING PIPE, 16"
PVC CASING PIPE, 24"

This work shall consist of the installation of PVC casing pipe in the locations indication on the plans as well as in the Schedule of Quantities. In locations where the required vertical and/or horizontal separation of utilities cannot be met, PVC casing shall be used to sleeve the proposed utility.

Unless authorized, all casing pipe installation shall be done by means of open cut trench installation.

The casing pipe diameter shown on the plans and described in these specifications is the minimum size acceptable under this contract. At his sole expense, the Contractor may use a PVC casing pipe of a larger-than-specified diameter if approved in advance by the Engineer.

Method of Measurement: Measurement for this work will be on a per FOOT basis.

Basis of Payment: This work will be paid for at the contract unit price per FOOT for PVC CASING PIPE, 12", PVC CASING PIPE, 16", and PVC CASING PIPE, 24" which price shall include any labor, materials, and trench backfill necessary for a complete installation.

**THE FOLLOWING SPECIAL PROVISIONS PERTAIN TO:
HARRISON AVENUE SANITARY SEWER REHABILITATION
ROCK RIVER WATER RECLAMATION DISTRICT CAPITAL IMPROVEMENT PROJECT #1506**

ROCK EXCAVATION

Description: This item shall consist of furnishing all labor, equipment, tools, transportation and material necessary to perform all operations needed to excavate, remove and dispose of rock material during the construction of the sanitary sewer system improvements.

The Contractor shall demonstrate to the Engineer, by all possible standard methods, that the material encountered while excavating within the lines and grades shown on the plans within the designated limits of payment as described in T.S. 2:2 of the *General Provisions and Technical Specifications for Sanitary Sewer Construction* is not able to be removed with conventional excavation methods. This demonstration shall be completed before the subsurface material is classified as rock.

The following criteria will be used in the determination of whether or not the work will be considered **ROCK EXCAVATION:**

The guidelines and requirements of the *General Provisions and Technical Specifications for Sanitary Sewer Construction*.

Substantial reduction in production rate.

Visual evidence of large boulders, rock, granite, trap quartzite, chert, limestone, hard sand stone, hard shale or slate, or other hard materials, in natural ledges or displaced masses which cannot be removed by a modern backhoe without resorting to the continuous use of pneumatic tools, blasting, barring or wedging for removal from their original beds.

The maximum trench width payment limits shall not exceed the diameter of the pipe plus eighteen inches (18") for pipe diameters 8" to 24" or the diameter of the pipe plus two feet (2') for pipe sizes greater than 24" inches in (inside) diameter.

Method of Measurement: This work shall be determined by the Engineer based on the length and depth of material encountered in the field and the maximum payment width described in these Special Provisions. No payment shall be made for excavation or rock removal beyond these limits. No additional payment will be made for rock removal needed for sanitary manhole or sanitary sewer service construction.

Basis of Payment: This work shall be paid at the contract unit price per Cubic Yard for ROCK EXCAVATION.

ABANDON EXISTING SANITARY SEWER, FILL CLSM

Description: This work includes abandoning and filling of various diameters of existing sanitary sewer between manholes or as shown on the plans. Sanitary sewers designated to be abandoned shall be abandoned by filling, as full as possible, the sewer with bentonite grout material. Prior to the placement of the Controlled Low-Strength Material, the downstream end of

the pipe is to be plugged, while leaving a vent. The insertion of the grout material is completed, to the satisfaction of the District personnel, and the upstream end of the pipe is vented and plugged to the satisfaction of the Engineer by using brick and mortar or another approved method. Not only shall the mainline sewer be filled with flow-able grout material but all other voids either upstream of the mainline sewer or outside of the sewer pipe shall also be filled. Voids outside of the mainline pipe caused by broken and missing pipe and the subsequent erosion of supporting pipe materials shall also be filled as much as possible.

The Contractor shall continue filling the line to be abandoned to the satisfaction of the Inspector.

This work shall include filling the existing sanitary sewer line with a bentonite grout material as directed by the Inspector. The bentonite grout material shall have the following mix design:

"Mix" - 600/0

Mason Sand or Torpedo Sand - 40%

Bentonite Vul-Clay Powder - 5 pounds per 25 pounds of "Mix" and Sand Water – Add as required for pumping material

The "Mix" design is detailed below. All material in the "Mix" shall be pulverized, mixed and screened with 100% passing through a #4 sieve.

Light Sandy Clay Mixture - 80% (100% passing #4 Sieve)

Limestone Powder - 15% (100% passing #50 Sieve)

Mason Sand - 5%

The Bentonite Vul-Clay Powder shall be the following properties:

pH: 9-10

Moisture: 9%

Grind % - 200 Mesh" 88%

Basis of Payment: This work shall be paid for at the contract unit price per FOOT for ABANDON EXISTING SANITARY SEWER, FILL CLSM. Sanitary sewers to be abandoned and filled shall be from manhole to manhole or as shown on the plans.

SANITARY SEWER TO BE REMOVED

This work shall consist of the removal and disposal of sanitary sewer in the locations indicated on the plans. The contractor shall plug any remaining pipe ends with non-shrink hydraulic mortar and bricks. Any voids left in existing manholes that are to remain shall be plugged to the satisfaction of the Engineer. The excavated hole shall be properly backfilled and shall include trench backfill where required.

Method of Measurement: Measurement for this work will be per FOOT.

Basis of Payment: This work will be paid for at the contract unit price per FOOT for SANITARY SEWER TO BE REMOVED which price shall include any labor, materials, disposal, and trench backfill necessary for a complete removal.

MANHOLES, DROP TYPE, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID
MANHOLES, DROP TYPE, 6'-DIAMETER, TYPE 1 FRAME, CLOSED LID
4' DIAMETER SANITARY MANHOLE

Description: This work shall consist of furnishing all excavation, materials, castings, casting seals, exterior joint seals, accessories, inside drop connections, connection to existing sanitary sewers, equipment, tools, transportation, excavation, trench backfill, services and performance of all operations required to construct manholes as shown and detailed on the plans or as directed by the Rock River Water Reclamation District, all in accordance with Article 6:3 and 7 of the Technical Specifications, and the pipe manufacturers requirements.

The frame and lid shall be a Neenah Model 1670 or East Jordan E1117 frame with self-sealing, non-rocking lid, twenty-four inch (24") diameter or RRWRD approved equal. The lid shall have two-inch (2") high "SANITARY" lettering and a concealed pick hole. Rim of frame to be set to grade as shown on plans or as specified in this section; Contractor shall field-verify all rim and invert elevations shown in the plans, as these are approximate. The top of the precast cone section shall be at an elevation to allow for adjustment of frame (12" maximum) without disturbing precast cone section. Precast concrete adjusting rings meeting the requirements of RRWRD shall be installed between cone section and manhole frame.

Should it be required to stub a section of pipe out of a manhole or install a drop connection, this section of pipe and plug shall be considered incidental to the cost of the size and type of manhole installed.

Unless otherwise specified or shown, manhole frames shall be set at one inch (1") above finish grade in turf areas and at finish grade in paved areas. Concrete adjusting rings shall be standard reinforced concrete pipe pattern. Minimum ring thickness shall be two inches (2"). Maximum ring thickness shall be twelve inches (12"). ASTM requirements for adjusting rings: conform to ASTM C478 and ASTM C139, latest revision. Concrete for adjusting rings: Class "A" as specified in 1.S. 5:3 (a). Concrete in the most current edition of the RRWRD's General Provisions and Technical Specifications for Sanitary Sewer Construction; manufacturer to supply certified test results showing compliance with concrete strength requirements. Absorption requirements: ACI Specification P-1-C and ASTM C139, latest revision. All adjusting ring joints shall be sealed watertight by means of EZ Stik, Kent-Seal, or RRWRD approved equal (including cast iron frame to concrete adjusting ring). Minimum adjusting ring placement height: four inches (4"). Maximum adjusting ring placement height: twelve inches (12"); no more than thirty inches (30") from the top of casting to the first step. A maximum of one (1) 2" adjusting ring will be allowed. No adjusting rings are required for manholes in turf areas or with roadway having curb and gutter.

In roadways only: metal or plastic shims will be required only if the casting in the roadway must be pitched to match the grade of the adjacent roadway pavement. Shims must be equally spaced with no more than one inch (1 ") of total adjustment. E-Z Stik, Kent-Seal, or RRWRD approved equal sealant will be used under the casting and in the void area between the casting and masonry. This area shall be grouted from the outside to the inside face of the adjusting ring, with the entire void to be filled. No butyl materials will be allowed as sealant. No trench compaction shall take place until the concrete has cured and hardened to the RRWRD's satisfaction. Final manhole adjustment shall meet IDOT and City of Rockford requirements (concrete collar around casting and adjusting rings).

The Contractor shall install a RRWRD-approved external casting seal on all proposed manholes as indicated on the RRWRD Detail Sheet. The Contractor shall install external seals on all manhole barrel section joints, Cretex Mac Wrap or CANUSA Wrapid Seal.

All manholes shall be vacuum tested per ASTM C124493 Standard Test Method for Concrete Sewer Manholes by The Negative Pressure (Vacuum) Test prior to placing into service.

The Contractor shall construct a concrete manhole bench in each manhole per the standard details or per the Engineer's direction. Manhole benches shall have a minimum slope of two inches (2") per foot.

Pipe connections to manholes shall be made by means of a watertight flexible pipe to manhole connector gasket meeting the requirements of ASTM C 923, "Resilient Connectors between Reinforced Concrete Manhole Structures and Pipes". Integrally cast and expandable gaskets are acceptable (A-IOK Model X-CEI, PSX Series 6, or RRWRD approved equal). The design shall be in accordance with the manhole and pipe manufacturer requirements and shall receive prior RRWRD approval.

If the manhole is to connect to existing sanitary sewer, only the Invert-Out of the structure shall be precast prior to delivery to the site. All other openings shall be core drilled in the field. A flexible pipe to manhole connector (PSX Positive Seal Gasket System w/ Power Sleeve Expansion or RRWRD approved equal) shall be installed.

All connections to the existing sanitary sewer shall be made with PVC SDR 35 pipe (ASTM D-3034) or as shown on the plans. A minimum of 3.0' of new PVC pipe shall be installed. Transitions between the new sanitary sewer pipe and the existing pipe shall meet RRWRD requirements, using coupling fittings where necessary. The connection shall be made at a location where the existing sanitary sewer pipe is structurally sound and in good conditions. The sanitary sewer needed to connect the sanitary manholes to the existing sewer, including all fittings, labor, etc. shall be considered part of this item and will not be measured for payment separately.

Manhole shop drawings must be submitted to the RRWRD for approval prior to manufacture and delivery to the site. Manhole shop drawings shall include a specified detail for each manhole showing the number and height of barrel sections, height of cone section, number and size of adjusting rings, location and spacing of steps and elevations of all pipes. A plan view shall be provided showing the orientation of pipe openings.

Flat top sections will not be permitted; eccentric cone sections must be a component of all sanitary sewer manholes.

This item shall include all materials, labor, transportation, connection to existing sanitary sewer pipes, shear resistant transition couplings and piping, as required, reworking existing manhole inverts and/or benches as required, outside drop connections, all manholes of the sizes and types required, dewatering, pipe stubs, gasket seals, equipment, supervision and service necessary to complete the above described operation with all necessary appurtenances, site preparations and restoration work.

Basis of Payment: This work shall be paid for at the contract unit price per EACH for MANHOLES, DROP TYPE, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID, MANHOLES, DROP TYPE, 6'-DIAMETER, TYPE 1 FRAME, CLOSED LID, and 4' DIAMETER SANITARY MANHOLE.

SANITARY MANHOLES TO BE ADJUSTED

Description: This work shall conform to Sections 603 and 604 of the IDOT. Standard Specification for Road and Bridge Construction and RRWRD requirements.

This work shall consist of removing existing manhole frames and lids, installation of new frames and lids, castings, seals, adjusting rings as required, and exterior manhole casting seals. The new frame and lid shall be set to finish grade.

New manhole castings shall be either Neenah R1670 or East Jordan E117 frame with non-rocking, self-sealing lid. The lid shall have two-inch (2") high "SANITARY" lettering and a concealed pick-hole.

The joint between the manhole casting and adjusting rings on top of manhole shall be watertight by means of a Butyl material (E-Z Stik, Kent Seal or RRWRD approved equal).

The Contractor shall install a RRWRD approved exterior casting seal on all manholes as shown on the standard detail sheet.

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

SANITARY MANHOLES TO BE RECONSTRUCTED

This work shall consist of reconstructing existing sanitary sewer manholes as required to construct this project. This work shall conform to Section 602 of the IDOT Standard Specifications for Road and Bridge Construction and RRWRD requirements. This item shall include all pavement removal, excavation, disposal of soil and existing manhole material, manhole casting replacement, installation of a RRWRD approved external casting seal and installation of a new precast cone or barrel sections.

Manhole reconstruction shall include the removal of the existing casting, adjusting rings, and bricks or blocks to an elevation in order to reconstruct the manhole structure to a depth of four feet (4'). The removal shall stop at a course of bricks or blocks which is a minimum of 90% intact. If necessary, a leveling bed of non-shrink cement shall be applied to the top of the remaining top course. The bottom of the new precast cone or barrel section to be placed on the existing structure shall not have a ship-lap. It shall be full thickness and set on 2 beads of 1" mastic material. A one foot (1') high by six-inch (6") thick concrete collar shall be poured around the entire outside of the manhole, centered on the joint.

New manhole castings shall be either Neenah R1670 or East Jordan E117 frame with non-rocking, self-sealing lid. The lid shall have two-inch (2") high "SANITARY" lettering and a concealed pick-hole.

Rim of frame to be set to grade as shown on plans or as specified in this section; Contractor shall field-verify all rim and invert elevations shown in the plans, as these are approximate. The top of the precast cone section shall be at an elevation to allow for adjustment of frame (12" maximum) without disturbing precast cone section. Precast concrete adjusting rings meeting the requirements of RRWRD shall be installed between cone section and manhole frame. Unless otherwise specified or shown, manhole frames shall be set at one inch (1") above finish grade in turf.

In paved areas, manhole frames shall be set slightly lower (1/8") than the finish grade to allow for unobstructed snow removal. The Contractor shall verify the acceptability of all final manhole adjustments in paved areas with the City of Rockford, as applicable. Concrete adjusting rings shall be standard reinforced concrete pipe pattern. Minimum concrete adjusting ring thickness: three inches (3") 27" openings on concrete sectional cone sections. Maximum ring thickness: eight inches (8"). Concrete adjusting rings must conform to ASTM C-478 and ASTM C-139, latest revision.

Minimum ring thickness shall be two inches (2"). Maximum ring thickness shall be twelve inches (12"). ASTM requirements for adjusting rings: conform to ASTM C478 and ASTM C139, latest revision. Concrete for adjusting rings: Class "A" as specified in T.S. 5:3 (a). Concrete in the most current edition of the RRWRD's General Provisions and Technical Specifications for Sanitary Sewer Construction; manufacturer to supply certified test results showing compliance with concrete strength requirements. Absorption requirements: ACI Specification P-1-C and ASTM C139, latest revision.

All adjusting ring joints shall be sealed watertight by means of EZ Stik, Kent-Seal, or RRWRD approved equal (including cast iron frame to concrete adjusting ring). Minimum adjusting ring placement height: four inches (4"). Maximum adjusting ring placement height: twelve inches (12"); no more than thirty inches (30") from the top of casting to the first step. A maximum of one (1) 2" adjusting ring will be allowed. No adjusting rings are required for manholes in turf areas or with roadway having curb and gutter.

In roadways only: metal or plastic shims will be required only if the casting in the roadway must be pitched to match the grade of the adjacent roadway pavement. Shims must be equally spaced with no more than one inch (1") of total adjustment. No butyl materials seal (E-Z Stik, Kent-Seal, or RRWRD approved equal) will be used under the casting and the void area between the casting, and masonry shall be grouted from the outside to the inside face of the adjusting ring, with the entire void to be filled. No trench compaction shall take place until the concrete has cured and hardened to the RRWRD's satisfaction. Final manhole adjustment shall meet IDOT and City of Rockford requirements (concrete collar around casting and adjusting rings).

The Contractor shall install a RRWRD-approved external casting seal on all proposed manholes as indicated on the RRWRD Detail Sheet. The Contractor shall install external seals on all manhole barrel section joints, Cretex Mac Wrap or CANUSA Wrapid Seal.

Basis of Payment: This work shall be paid for at the contract unit price per EACH for SANITARY MANHOLES TO BE RECONSTRUCTED.

SANITARY MANHOLES TO BE REMOVED

Description: This work shall consist of removing existing sanitary sewer manholes, including outside drop manholes as required to construct this project. Any existing sanitary sewers to be abandoned as part of the manhole removal shall be bulkheaded with a watertight plug. This work shall conform to Section 605 .03 of the IDOT Standard Specifications for Road and Bridge Construction.

This work shall include complete removal of existing sanitary manholes as well as proper disposal of all excavated soil, masonry material, concrete, backfill, grading, compaction, etc.

Prior to removal of each sanitary manhole, the Contractor shall perform a visual inspection to assess the existing site conditions. If there is any evidence of another utility (water main/service, natural gas, electric conduit, etc.) inside the manhole to be removed, the Contractor shall immediately contact the RRWRD inspector and the Engineer. The Contractor shall not remove any manhole containing a non-sanitary utility line until proper coordination and/or abandonment of the utility has been completed.

Basis of Payment: This work shall be paid for at the contract unit price per EACH for SANITARY MANHOLES TO BE REMOVED

SANITARY SEWER, 4"
12" WMQ PVC SANITARY SEWER
15" PVC SDR 35 SANITARY SEWER
16" PVC C-905DR-25 SANITARY SEWER

Description: Project work includes permits, mobilization, site preparation, connection to existing manholes, bypass pumping, trench excavation, trench backfill, pipe bedding, temporary sewer main connections, temporary sewer main plugs, installing new sewer pipe (various sizes and types, as required) on grade and in line according to the plans and specifications. The work also includes trench dewatering, power tamping, grading and dust control, and all other materials, labor, supervision, transportation, services, and all else that is necessary for the completion of the work and not included elsewhere. Utility relocation shall be included in the work covered in this item unless specifically provided for elsewhere.

Sanitary sewer pipe construction that varies +0.05 feet from the proposed grade and/or +0.15 feet from the proposed line will not be accepted. This does not preclude the RRWRD from requiring closer tolerances in the field, nor does it create any obligation for the RRWRD to establish the grade or line during construction. The Contractor is solely responsible for maintaining proper lines and grades for the work. The Contractor shall provide at least one laser device for setting lines and grades for subgrade and pipe invert on all parts of the work. The device(s) shall be of acceptable design and maintained in good working condition throughout the length of the project. The Contractor shall employ workmen with the expertise to operate the device(s). The laser device(s) shall be considered as a convenience to the Contractor and will be operated at no extra cost to the RRWRD.

When directed by the RRWRD, the Contractor shall provide a blower for use in conjunction with the laser. The Contractor shall also provide, and have available on site at all times, a calibrated level and level rod.

Sanitary sewer pipe and pipe laying methods must conform to the requirements contained in the *General Provisions and Technical Specifications for Sanitary Sewer Construction* and as stipulated elsewhere herein.

Materials: PVC Pipe - Sewer Main: All new sanitary mains shall be air and deflection tested per RRWRD specifications and requirements. This requirement shall apply to full-run sanitary sewer installations; sewer installed to replace an existing sewer with existing active services shall be deflection tested and televised by the RRWRD for final acceptance, sewer installed as part of a point or partial-run repair shall not include air and deflection testing.

PVC pipe shall be installed as shown on the plans and meet the following requirements. PVC pipe shall be PVC SDR 35 meeting the requirements of ASTM D-3034 or F-679. Joints shall meet the requirements of ASTM D-3212.

If required, water-main quality PVC pipe shall be PVC SDR 26 meeting the requirements of ASTM D-2241 or AWWA C-905/DR25 Solid Wall Pipe with ASTM D-3034 Joints. Joints shall meet the requirements of ASTM D-3139.

Method of Measurement: This work shall be measured horizontal along the centerline of the pipe from center of manhole casting to center of manhole casting after installation has been completed.

Basis of Payment: This work shall be paid for at the contract unit price per FOOT for SANITARY SEWER, 4", 12" WMQ PVC SANITARY SEWER, 15" PVC SDR 35 SANITARY SEWER, and 16" PVC C-905DR-25 SANITARY SEWER.

SANITARY SEWER CASING PIPE

Unless explicitly authorized all casing pipe installation shall be done by open cut trench installation. The 24" steel casing pipe shall be continuous either by one piece fabrication or by field welded joints done in accordance with AWWA C206. The steel casing material shall have a minimum yield strength of 241,325 kpa (35,000 psi), and the following minimum wall thickness of 7.9 mm (0.312 in). The carrier pipe shall be supported for its entire length inside the casing pipe by means of stainless steel spacers to support the pipe at the required elevation and slope to prevent shifting or floatation. The spacers shall be installed at a minimum of 3.1 M (10 feet) intervals. If the carrier pipe sections measure less than 3.1 M (10 feet) in length, provide a minimum of two (2) spacers per pipe section.

Materials: The sleeves as shown on the plans shall be twenty-four inch (24") diameter, minimum, structural steel sleeve meeting the requirements of ASTM A139 (minimum yield strength of 35,000 psi and minimum tensile strength of 60,000 psi).

The casing pipe diameter shown on the plans and described in these specifications is the minimum size acceptable under this contract. At his sole expense, the Contractor may use a casing pipe of a larger-than-specified diameter if approved in advance by the District and pertinent roadway authority.

Basis of Payment:

Payment for the carrier sewer pipe shall be made at the unit price bid per FOOT for the SANITARY SEWER CASING PIPE of the type and diameter indicated in the plans, complete.

SANITARY SEWER MAIN LINE REPAIR 12"

Description: Project work includes permits, mobilization/transportation, site access, site preparation, supervision, and all labor, equipment and materials needed to: complete sanitary sewer main line point or partial-run repairs on various diameters of Vitrified Clay (VC), Cast Iron (CI) and PVC sanitary sewer pipe with new sanitary sewer pipe on grade and in line. The work shall also include disposal of excavated soil and pipe material, transition couplings, traffic control, temporary by-pass pumping, pipe bedding and trench backfill, compaction, restoration as required, temporary plugs, transition couplings, trench dewatering, utility relocation, grading, erosion control, dust control and any ancillary items necessary for the completion of this project not specifically provided for elsewhere or herein.

PVC pipe shall be installed as shown on the plans and meet the following requirements. PVC pipe shall be PVC SDR 35 meeting the requirements of ASTM D-3034 or F-679. Joints shall meet the requirements of ASTM D-3212.

Pipe edges shall be square and free of jagged edges. Connection shall be made to structurally sound pipe with positive slope as verified by the RRWRD inspector.

The Contractor shall be responsible for locating the Main Line repair limits in the field; both for the J.U.L.I.E. locate and repair. Note: Sewer service locations on the location maps may not be totally accurate. If requested, RRWRD will provide the Contractor a copy of the T.V. reports for sewers to be repaired on this project. It is recommended that the Contractor reference the TV logs for accurate sewer service locations.

Contractor shall field verify the depth of all Main Line repairs on this project. The depths shown on the TV logs are at the upstream manholes on standard televising setups and at the downstream manhole on reverse televising setups.

The Contractor shall be responsible for any costs associated with corrective measures required to replace or repair items not meeting the requirements of these specifications as determined by the RRWRD.

Main Line repairs shall be televised by the RRWRD for Final Acceptance. Contact Terry Stoll at (815) 543-7983 to schedule televising. A minimum of forty-eight (48) hour notice is required. RRWRD Sewer Main Inspection Reports will be provided to the contractor.

Method of Measurement: This work shall be measured horizontal along the centerline of the pipe. If the point repair locations begins or terminates at a manhole, the measurement shall be to the outside of the manhole wall.

Basis of Payment: This work shall be paid for at the contract unit price per FOOT for SANITARY SEWER MAIN LINE REPAIR 12".

SANITARY SEWER SERVICE, COMPLETE

Description: This work shall consist of removal/abandonment, replacement, and reconnecting existing sanitary sewer services from the private VCP or ductile iron pipe at or near the property line (or point of connection as shown on the plans) to new or existing sanitary sewers with the diameter specified, PVC pipe as shown on the plans. This item shall include all necessary

materials, pipe, risers, fittings, labor, bypass pumping, excavation, dewatering, bedding, trench backfill, temporary plugs, temporary connections, utility removal/replacement, capping existing sewer service connections at the main, equipment, supervision and work necessary to complete this work with all necessary appurtenances.

At locations indicated on the plans and as required in the field, the Contractor shall install sanitary sewer service pipe at a one percent (1%) minimum slope in order to connect the existing service at or near the property line with the sanitary sewer main in the public right-of-way. In locations where the sanitary sewer service is being installed at the same location as the existing service, the existing sewer service pipe shall be removed. In instances where the new sanitary sewer service is being reconfigured, the existing sanitary sewer service shall be properly abandoned. Removal and abandonment of the existing services shall be incidental to the contract item for the new sanitary sewer service.

This item shall include the installation of a vertical service cleanout riser near the property line as shown on the drawings. The sanitary sewer service and service riser shall be constructed in accordance with the *General Provisions and Technical Specifications for Sanitary Sewer Construction* and the RRWRD Standard Details. The transition from the SDR 26 pipe to the Schedule 40 pipe shall be made with a factory PVC SDR 26 to Schedule 40 fitting. Cleanouts will be required at the property line and where required by the Illinois State Plumbing Code.

All sanitary sewer services shall be installed to maintain a minimum 18" of vertical separation between proposed/existing storm sewer and water main.

Sanitary sewer service pipe shall be PVC SDR 26 meeting the requirements of ASTM D-2241. Joints shall meet the requirements of ASTM D-3139.

In locations where the new sanitary sewer service will connect to an existing sanitary sewer main, the Contractor shall perform a new cut-in connection using Inserta-Tee fittings or an RRWRD approved equivalent. In locations where the new sanitary sewer service will connect to proposed sanitary sewer, the connection shall be made using a factory fitting. The Contractor shall be responsible for maintaining the current level of service to all users connected to the existing sanitary sewer. Bypass pumping shall be provided as necessary.

Clay or Cast Iron Pipe to PVC pipe transitions shall be made by use of shear resistant flexible Clay or C.I.P.-to-PVC adapters (Fernco Model 5000, or approved equivalent). The transition shall be made on existing pipe that is structurally sound. Connection shall be made to a structurally sound pipe. Connection to the existing sewer service shall not be made until the RRWRD Inspector has verified the structural condition.

Location of the existing sewer services is based upon TV logs and Record Drawing information, and the proposed service connection is based on that location. Should the service connection alignment, diameter or point of connection vary from that shown in the plans, no claims for additional compensation will be entertained. The Contractor shall field-verify the location of all existing sanitary sewer services.

This work shall include excavating at the sewer main and capping of existing sewer services to be abandoned at the sewer main as shown on the plans. Existing services shall be capped as close as possible to the sewer main. The pipe ends shall be sealed with a RRWRD approved flexible rubber cap (Fernco Qwik Cap or RRWRD approved equivalent) with stainless steel straps or an expandable mechanical plug (Cherne Gripper or RRWRD approved equivalent).

Basis of Payment: This work shall be paid for at the contract unit price per Foot for SANITARY SEWER SERVICE, COMPLETE, of the diameter and type specified.

SANITARY CLEANOUT COMPLETE, 6" PVC

Description: This work shall consist of installing a vertical cleanout riser on an existing sanitary sewer service; this item does not apply to work involving construction or reinstallation of a new sanitary sewer service. The service cleanout riser shall be installed as indicated on the Standard District Detail Sheet at the property line or the location shown on the drawings.

Clay or Cast Iron Pipe to PVC pipe transitions shall be made by use of shear resistant flexible Clay or C.I.P.-to-PVC adapters (Fernco Model 5000, or RRWRD approved equivalent). The transition shall be made on existing pipe that is structurally sound. The clean-out cap shall be installed to 1 foot below finished grade.

All pipe and fittings shall be PVC SDR 26 (water-main quality) or PVC Schedule 40 ASTM D-1785.

All work shall be completed in accordance with the specifications and requirements of RRWRD.
Basis of Payment: This work shall be paid for at the contract unit price per EACH for SANITARY CLEANOUT COMPLETE, 6" PVC.

SANITARY CLEANOUT TO BE ADJUSTED

Description: This work shall consist of adjusting a vertical cleanout riser on an existing sanitary sewer service; this item does not apply to work involving construction or reinstallation of a new sanitary sewer service. The top of the service cleanout riser shall be adjusted to the revised roadway elevation at the location indicated on the plans and in the Schedule of Quantities.

Clay or Cast Iron Pipe to PVC pipe transitions shall be made by use of shear resistant flexible Clay or C.I.P.-to-PVC adapters (Fernco Model 5000, or RRWRD approved equivalent). The transition shall be made on existing pipe that is structurally sound. The clean-out cap shall be installed to 1 foot below finished grade.

All pipe and fittings shall be PVC SDR 26 (water-main quality) or PVC Schedule 40 ASTM D-1785.

All work shall be completed in accordance with the specifications and requirements of RRWRD.
Basis of Payment: This work shall be paid for at the contract unit price per EACH for SANITARY CLEANOUT TO BE ADJUSTED.

SANITARY SEWER SERVICE WYE

Description: This work shall consist of installing a new factory service wye on an existing sanitary sewer. This item shall include as necessary, materials, pipe, fittings, labor, bypass pumping, excavating, dewatering, bedding, trench backfill, temporary connections, utility removal/replacement, equipment, supervisions and work necessary to complete this work. The wye fitting shall be the same diameter as the existing sanitary sewer and a 6" connection to the existing sanitary service.

The contractor shall remove the required amount of existing sanitary sewer to properly install a factory service wye. Clay or Cast Iron Pipe to PVC pipe transitions shall be made by use of shear resistant flexible Clay or C.I.P. to PVC adaptors (Fernco Model 5000, or RRWRD approved equivalent). The transition shall be made on existing pipe (mainline and service) that is structurally sound. The contractor shall field-verify the location of the existing sanitary sewer service.

Basis of Payment: This work shall be paid for at the contract unit price per EACH for SANITARY SEWER SERVICE WYE

REMOVE EXISTING RISER AND CAP

Description: This work shall consist of removing an existing sanitary sewer riser and cap. The riser shall be lowered to an elevation 4' below the proposed final grade of the roadway. The riser shall then be fitted with a Fernco Model 5000 or RRWRD approved equivalent and a PVC pipe of the same diameter with a glued cap. All pipe and fittings shall be PVC SDR 25 (water-main quality) or PVC Schedule 40 ASTM-D-1785.

To prevent downward pressure on the riser during construction, an 18" piece of 8" PVC pipe and glue cap shall be installed over the adjusted riser. The 8" PVC pipe shall be placed on three blocks placed as a footing and shall have a 6" void between the adjusted riser and 8" PVC pipe.

All work shall be completed in accordance with the specifications and requirements of the RRWRD.

Basis of Payment: This work shall be paid for at the contract unit price per EACH for REMOVE EXISTING RISER AND CAP.

IDOT TRAINING PROGRAM GRADUATE ON-THE-JOB TRAINING SPECIAL PROVISION (TPG)

Effective: August 1, 2012

Revised: February 1, 2014

In addition to the Contractor's equal employment opportunity affirmative action efforts undertaken as elsewhere required by this Contract, the Contractor is encouraged to participate in the incentive program to provide additional on-the-job training to certified graduates of IDOT funded pre-apprenticeship training programs outlined by this Special Provision.

It is the policy of IDOT to fund IDOT pre-apprenticeship training programs throughout Illinois to provide training and skill-improvement opportunities to assure the increased participation of minority groups, disadvantaged persons and women in all phases of the highway construction industry. The intent of this IDOT Training Program Graduate (TPG) Special Provision is to place certified graduates of these IDOT funded pre-apprentice training programs on IDOT project sites when feasible, and provide the graduates with meaningful on-the-job training intended to lead to journey-level employment. IDOT and its sub-recipients, in carrying out the responsibilities of a state contract, shall determine which construction contracts shall include "Training Program Graduate Special Provisions." To benefit from the incentives to encourage the participation in the additional on-the-job training under this Training Program Graduate Special Provision, the Contractor shall make every reasonable effort to employ certified graduates of IDOT funded Pre-apprenticeship Training Programs to the extent such persons are available within a reasonable recruitment area.

Participation pursuant to IDOT's requirements by the Contractor or subcontractor in this Training Program Graduate (TPG) Special Provision entitles the Contractor or subcontractor to be reimbursed at \$15.00 per hour for training given a certified TPG on this contract. As approved by the Department, reimbursement will be made for training persons as specified herein. This reimbursement will be made even though the Contractor or subcontractor may receive additional training program funds from other sources for other trainees, provided such other source does not specifically prohibit the Contractor or subcontractor from receiving other reimbursement. For purposes of this Special Provision the Contractor is not relieved of requirements under applicable federal law, the Illinois Prevailing Wage Act, and is not eligible for other training fund reimbursements in addition to the Training Program Graduate (TPG) Special Provision reimbursement.

No payment shall be made to the Contractor if the Contractor or subcontractor fails to provide the required training. It is normally expected that a TPG will begin training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project through completion of the contract, so long as training opportunities exist in his work classification or until he has completed his training program. Should the TPG's employment end in advance of the completion of the contract, the Contractor shall promptly notify the designated IDOT staff member under this Special Provision that the TPG's involvement in the contract has ended and supply a written report of the reason for the end of the involvement, the hours completed by the TPG under the Contract and the number of hours for which the incentive payment provided under this Special Provision will be or has been claimed for the TPG.

The Contractor will provide for the maintenance of records and furnish periodic reports documenting its performance under this Special Provision.

METHOD OF MEASUREMENT: The unit of measurement is in hours.

BASIS OF PAYMENT: This work will be paid for at the contract unit price of \$15.00 per hour for certified TRAINEES TRAINING PROGRAM GRADUATE. The estimated total number of hours, unit price and total price have been included in the schedule of prices.

The Contractor shall provide training opportunities aimed at developing full journeyworker in the type of trade or job classification involved. The initial number of TPGs for which the incentive is available under this contract is 4 . During the course of performance of the Contract the Contractor may seek approval from the Department for additional incentive eligible TPGs. In the event the Contractor subcontracts a portion of the contract work, it shall determine how many, if any, of the TPGs are to be trained by the subcontractor, provided however, that the Contractor shall retain the primary responsibility for meeting the training requirements imposed by this Special Provision. The Contractor shall also insure that this Training Program Graduate Special Provision is made applicable to such subcontract if the TPGs are to be trained by a subcontractor and that the incentive payment is passed on to each subcontractor.

For the Contractor to meet the obligations for participation in this TPG incentive program under this Special Provision, the Department has contracted with several entities to provide screening, tutoring and pre-training to individuals interested in working in the applicable construction classification and has certified those students who have successfully completed the program and are eligible to be TPGs. A designated IDOT staff member, the Director of the Office of Business and Workforce Diversity (OBWD), will be responsible for providing assistance and referrals to the Contractor for the applicable TPGs. For this contract, the Director of OBWD is designated as the responsible IDOT staff member to provide the assistance and referral services related to the placement for this Special Provision. For purposes of this Contract, contacting the Director of OBWD and interviewing each candidate he/she recommends constitutes reasonable recruitment.

Prior to commencing construction, the Contractor shall submit to the Department for approval the TPGs to be trained in each selected classification. Furthermore, the Contractor shall specify the starting time for training in each of the classifications. No employee shall be employed as a TPG in any classification in which he/she has successfully completed a training course leading to journeyman status or in which he/she has been employed as a journeyman. Notwithstanding the on-the-job training purpose of this TPG Special Provision, some offsite training is permissible as long as the offsite training is an integral part of the work of the contract and does not comprise a significant part of the overall training.

Training and upgrading of TPGs of IDOT pre-apprentice training programs is intended to move said TPGs toward journeyman status and is the primary objective of this Training Program Graduate Special Provision. Accordingly, the Contractor shall make every effort to enroll TPGs by recruitment through the IDOT funded TPG programs to the extent such persons are available within a reasonable area of recruitment. The Contractor will be responsible for demonstrating the steps that it has taken in pursuance thereof, prior to a determination as to whether the Contractor is in compliance and entitled to the Training Program Graduate Special Provision \$15.00 an hour incentive.

The Contractor or subcontractor shall provide each TPG with a certificate showing the type and length of training satisfactorily completed.

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

SPECIAL PROVISION
FOR
INSURANCE

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

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

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

City of Rockford

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

ACCESSIBLE PEDESTRIAN SIGNALS (APS) (BDE)

Effective: April 1, 2003

Revised: January 1, 2014

Description. This work shall consist of furnishing and installing accessible pedestrian signals (APS). Each APS shall consist of an interactive vibrotactile pedestrian pushbutton with speaker, an informational sign, a light emitting diode (LED) indicator light, a solid state electronic control board, a power supply, wiring, and mounting hardware. The APS shall meet the requirements of the MUTCD and Sections 801 and 888 of the Standard Specifications, except as modified herein.

Electrical Requirements. The APS shall operate with systems providing 95 to 130 VAC, 60 Hz and throughout an ambient air temperature range of -29 to +160 °F (-34 to +70 °C).

The APS shall contain a power protection circuit consisting of both fuse and transient protection.

Audible Indications. A pushbutton locator tone shall sound at each pushbutton.

If two accessible pedestrian pushbuttons are placed less than 10 ft (3 m) apart or placed on the same pole, the audible walk indication shall be a speech walk message.

A clear, verbal message shall be used to communicate the pedestrian walk interval. This message shall sound throughout the WALK interval only. The verbal message shall be modeled after: "Street Name.' Walk Sign is on to cross "Street Name.'" No other messages shall be used to denote the WALK interval.

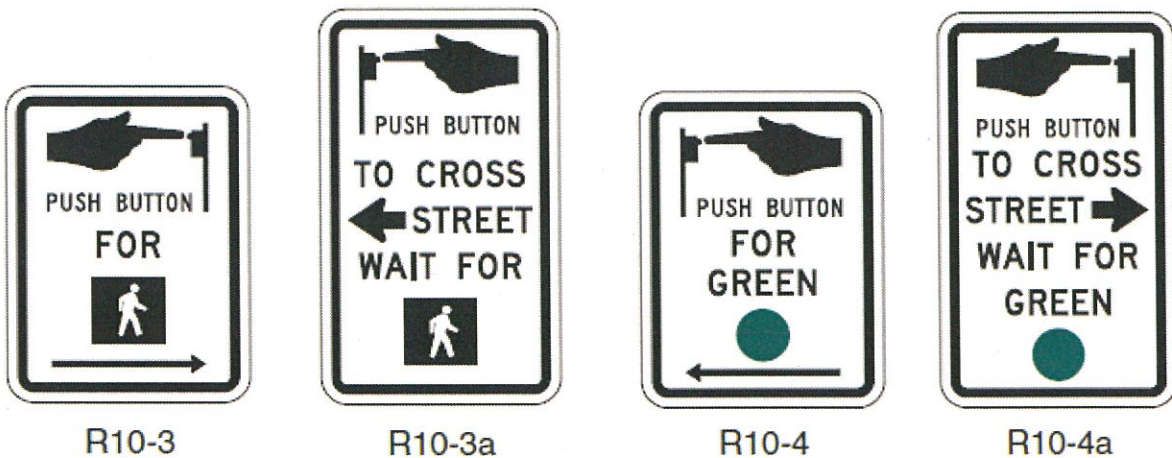
Where two accessible pedestrian pushbuttons are separated by at least 10 ft (3 m), the walk indication shall be an audible percussive tone. It shall repeat at 8 to 10 ticks per second with a dominant frequency of 880 Hz.

Automatic volume adjustments in response to ambient traffic sound level shall be provided up to a maximum volume of 100 dBA. Locator tone and verbal messages shall be no more than 5 dB louder than ambient sound.

Pedestrian Pushbutton. Pedestrian pushbuttons shall be at least 2 in. (50 mm) in diameter or width. The force required to activate the pushbutton shall be no greater than 3.5 lb (15.5 N).

A red LED shall be located on or near the pushbutton which, when activated, acknowledges the pedestrians request to cross the street.

Signage. A sign shall be located immediately above the pedestrian pushbutton and parallel to the crosswalk controlled by the pushbutton. The sign shall be one of the following standard MUTCD designs:



Tactile Arrow. A tactile arrow, pointing in the direction of travel controlled by a pushbutton, shall be provided either on the pushbutton or its sign.

Vibrotactile Feature. The pushbutton shall pulse when depressed and shall vibrate continuously throughout the WALK interval.

Method of Measurement. This work will be measured for payment as each, per pushbutton.

Basis of Payment. This work will be paid for at the contract unit price per each for ACCESSIBLE PEDESTRIAN SIGNALS.

80099

AGGREGATE SUBGRADE IMPROVEMENT (BDE)

Effective: April 1, 2012

Revised: January 1, 2016

Add the following Section to the Standard Specifications:

"SECTION 303. AGGREGATE SUBGRADE IMPROVEMENT

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

303.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Coarse Aggregate	1004.06
(b) Reclaimed Asphalt Pavement (RAP) (Notes 1, 2, and 3)	1031

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

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

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

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

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

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

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

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

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

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

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

Add the following to Section 1004 of the Standard Specifications:

“1004.06 Coarse Aggregate for Aggregate Subgrade Improvement. The aggregate shall be according to Article 1004.01 and the following.

- (a) Description. The coarse aggregate shall be crushed gravel, crushed stone, or crushed concrete. In applications where greater than 24 in. (600 mm) of subgrade material is required, gravel may be used below the first 12 in (300 mm) of subgrade.
- (b) Quality. The coarse aggregate shall consist of sound durable particles reasonably free of deleterious materials.
- (c) Gradation.
 - (1) The coarse aggregate gradation for total subgrade thickness less than or equal to 12 in. (300 mm) shall be CA 2, CA 6, CA 10, or CS 01.

The coarse aggregate gradation for total subgrade thickness more than 12 in. (300 mm) shall be CS 01, CS 02 or RR 01(see Article 1005.01(c)).

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

COARSE AGGREGATE SUBGRADE GRADATIONS (Metric)					
Grad No.	Sieve Size and Percent Passing				

	200 mm	150 mm	100 mm	50 mm	4.75 mm
CS 01	100	97 ± 3	90 ± 10	45 ± 25	20 ± 20
CS 02		100	80 ± 10	25 ± 15	

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

80274

COARSE AGGREGATE QUALITY (BDE)

Effective: July 1, 2015

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

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

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

1/ Does not apply to crushed concrete.

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

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

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

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

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

- 7/ Does not apply to aggregates for HMA binder mixtures.
- 8/ Does not apply to Class A seal and cover coats.
- 9/ Includes deleterious chert. In gravel and crushed gravel aggregate, deleterious chert shall be the lightweight fraction separated in a 2.35 heavy media separation. In crushed stone aggregate, deleterious chert shall be the lightweight fraction separated in a 2.55 heavy media separation. Tests shall be run according to ITP 113.
- 10/ Test shall be run according to ITP 203.
- 11/ Does not apply to crushed slag.

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

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

80360

COATED GALVANIZED STEEL CONDUIT (BDE)

Effective: January 1, 2013

Revised: January 1, 2015

Revise Article 811.03(b) of the Standard Specifications to read:

“(b) Coated Galvanized Steel Conduit. In addition to the methods described in Article 810.05(a) the following methods shall be observed when installing coated conduit.

Coated conduit pipe vise jaw adapters shall be used when the conduit is being clamped to avoid damaging the coating.

Coated conduit shall be cut with a roller cutter or by other means approved by the conduit manufacturer.

After any cutting or threading operations are completed, the bare steel shall be touched up with the conduit manufacturer’s touch up compound.”

80310

COILABLE NONMETALLIC CONDUIT (BDE)

Effective: August 1, 2014

Revised: January 1, 2015

Revise Article 1088.01(c) of the Standard Specifications to read:

“(c) Coilable Nonmetallic Conduit. The conduit shall be a high density polyethylene duct which is intended for underground use can be manufactured and coiled or reeled in continuous transportable lengths and uncoiled for further processing and/or installation without adversely affecting its properties or performance. The conduit and its manufacture shall be according to UL 651A for Schedule 40 conduit, except Schedule 80 shall be used under pavement, stabilized shoulder, paved median, paved driveway, curb and/or gutter and sidewalk.

Performance Tests. Testing procedures and test results shall meet the requirements of UL 651A. Certified copies of the test report shall be submitted to the Engineer prior to the installation of the conduit.”

80341

CONCRETE GUTTER, CURB, MEDIAN, AND PAVED DITCH (BDE)

Effective: April 1, 2014

Revised: August 1, 2014

Add the following to Article 606.02 of the Standard Specifications:

“(j) Polyurethane Joint Sealant 1050.04”

Revise the fifth paragraph of Article 606.07 of the Standard Specifications to read:

“Transverse contraction and longitudinal construction joints shall be sealed according to Article 420.12, except transverse joints in concrete curb and gutter shall be sealed with polysulfide or polyurethane joint sealant.”

Add the following to Section 1050 of the Standard Specifications:

“**1050.04 Polyurethane Joint Sealant.** The joint sealant shall be a polyurethane sealant, Type S, Grade NS, Class 25 or better, Use T (T₁ or T₂), according to ASTM C 920.”

80334

CONTRACT CLAIMS (BDE)

Effective: April 1, 2014

Revise the first paragraph of Article 109.09(a) of the Standard Specifications to read:

“(a) Submission of Claim. All claims filed by the Contractor shall be in writing and in sufficient detail to enable the Department to ascertain the basis and amount of the claim. As a minimum, the following information must accompany each claim submitted.”

Revise Article 109.09(e) of the Standard Specifications to read:

“(e) Procedure. The Department provides two administrative levels for claims review.

Level I Engineer of Construction

Level II Chief Engineer/Director of Highways or Designee

- (1) Level I. All claims shall first be submitted at Level I. Two copies each of the claim and supporting documentation shall be submitted simultaneously to the District and the Engineer of Construction. The Engineer of Construction, in consultation with the District, will consider all information submitted with the claim and render a decision on the claim within 90 days after receipt by the Engineer of Construction. Claims not conforming to this Article will be returned without consideration. The Engineer of Construction may schedule a claim presentation meeting if in the Engineer of Construction's judgment such a meeting would aid in resolution of the claim, otherwise a decision will be made based on the claim documentation submitted. If a Level I decision is not rendered within 90 days of receipt of the claim, or if the Contractor disputes the decision, an appeal to Level II may be made by the Contractor.
- (2) Level II. An appeal to Level II shall be made in writing to the Engineer of Construction within 45 days after the date of the Level I decision. Review of the claim at Level II shall be conducted as a full evaluation of the claim. A claim presentation meeting may be scheduled if the Chief Engineer/Director of Highways determines that such a meeting would aid in resolution of the claim, otherwise a decision will be made based on the claim documentation submitted. A Level II final decision will be rendered within 90 days of receipt of the written request for appeal.

Full compliance by the Contractor with the provisions specified in this Article is a contractual condition precedent to the Contractor's right to seek relief in the Court of Claims. The Director's written decision shall be the final administrative action of the Department. Unless the Contractor files a claim for adjudication by the Court of Claims within 60 days after the date of the written decision, the failure to file shall constitute a release and waiver of the claim.”

80335

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000

Revised: January 2, 2016

FEDERAL OBLIGATION. The Department of Transportation, as a recipient of federal financial assistance, is required to take all necessary and reasonable steps to ensure nondiscrimination in the award and administration of contracts. Consequently, the federal regulatory provisions of 49 CFR Part 26 apply to this contract concerning the utilization of disadvantaged business enterprises. For the purposes of this Special Provision, a disadvantaged business enterprise (DBE) means a business certified by the Department in accordance with the requirements of 49 CFR Part 26 and listed in the Illinois Unified Certification Program (IL UCP) DBE Directory.

STATE OBLIGATION. This Special Provision will also be used by the Department to satisfy the requirements of the Business Enterprise for Minorities, Females, and Persons with Disabilities Act, 30 ILCS 575. When this Special Provision is used to satisfy state law requirements on 100 percent state-funded contracts, the federal government has no involvement in such contracts (not a federal-aid contract) and no responsibility to oversee the implementation of this Special Provision by the Department on those contracts. DBE participation on 100 percent state-funded contracts will not be credited toward fulfilling the Department's annual overall DBE goal required by the US Department of Transportation to comply with the federal DBE program requirements.

CONTRACTOR ASSURANCE. The Contractor makes the following assurance and agrees to include the assurance in each subcontract that the Contractor signs with a subcontractor.

The Contractor, subrecipient, or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of contracts funded in whole or in part with federal or state funds. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- (a) Withholding progress payments;
- (b) Assessing sanctions;
- (c) Liquidated damages; and/or
- (d) Disqualifying the Contractor from future bidding as non-responsible.

OVERALL GOAL SET FOR THE DEPARTMENT. As a requirement of compliance with 49 CFR Part 26, the Department has set an overall goal for DBE participation in its federally assisted contracts. That goal applies to all federal-aid funds the Department will expend in its federally assisted contracts for the subject reporting fiscal year. The Department is required to make a

good faith effort to achieve the overall goal. The dollar amount paid to all approved DBE companies performing work called for in this contract is eligible to be credited toward fulfillment of the Department's overall goal.

CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR. This contract includes a specific DBE utilization goal established by the Department. The goal has been included because the Department has determined that the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies. The determination is based on an assessment of the type of work, the location of the work, and the availability of DBE companies to do a part of the work. The assessment indicates that, in the absence of unlawful discrimination, and in an arena of fair and open competition, DBE companies can be expected to perform 6.00 % of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will only award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work. A bidder makes a good faith effort for award consideration if either of the following is done in accordance with the procedures set for in this Special Provision:

- (a) The bidder documents that enough DBE participation has been obtained to meet the goal or,
- (b) The bidder documents that a good faith effort has been made to meet the goal, even though the effort did not succeed in obtaining enough DBE participation to meet the goal.

DBE LOCATOR REFERENCES. Bidders shall consult the IL UCP DBE Directory as a reference source for DBE-certified companies. In addition, the Department maintains a letting and item specific DBE locator information system whereby DBE companies can register their interest in providing quotes on particular bid items advertised for letting. Information concerning DBE companies willing to quote work for particular contracts may be obtained by contacting the Department's Bureau of Small Business Enterprises at telephone number (217) 785-4611, or by visiting the Department's website at:

<http://www.idot.illinois.gov/doing-business/certifications/disadvantaged-business-enterprise-certification/il-ucp-directory/index>.

BIDDING PROCEDURES. Compliance with this Special Provision is required prior to the award of the contract and the failure of the low bidder to comply will render the bid not responsive.

In order to assure the timely award of the contract, the low bidder shall submit:

- (a) The bidder shall submit a Disadvantaged Business Utilization Plan on completed Department forms SBE 2025 and 2026.
 - (1) The final Utilization Plan must be submitted within five calendar days after the date of the letting.

- (2) To meet the five day requirement, the bidder may send the Utilization Plan electronically by scanning and sending to DOT.DBE.UP@illinois.gov or faxing to (217) 785-1524. The subject line must include the bid Item Number and the Letting date. The Utilization Plan should be sent as one .pdf file, rather than multiple files and emails for the same Item Number. It is the responsibility of the bidder to obtain confirmation of email or fax delivery.

Alternatively, the Utilization Plan may be sent by certified mail or delivery service within the five calendar day period. If a question arises concerning the mailing date of a Utilization Plan, the mailing date will be established by the U.S. Postal Service postmark on the original certified mail receipt from the U.S. Postal Service or the receipt issued by a delivery service. It is the responsibility of the bidder to ensure the postmark or receipt date is affixed within the five days if the bidder intends to rely upon mailing or delivery to satisfy the submission day requirement. The Utilization Plan is to be submitted to:

Illinois Department of Transportation
Bureau of Small Business Enterprises
Contract Compliance Section
2300 South Dirksen Parkway, Room 319
Springfield, Illinois 62764

The Department will not accept a Utilization Plan if it does not meet the five day submittal requirement and the bid will be declared not responsive. In the event the bid is declared not responsive due to a failure to submit a Utilization Plan or failure to comply with the bidding procedures set forth herein, the Department may elect to cause the forfeiture of the penal sum of the bidder's proposal guaranty, and may deny authorization to bid the project if re-advertised for bids. The Department reserves the right to invite any other bidder to submit a Utilization Plan at any time for award consideration or to extend the time for award.

- (b) The Utilization Plan shall indicate that the bidder either has obtained sufficient DBE participation commitments to meet the contract goal or has not obtained enough DBE participation commitments in spite of a good faith effort to meet the goal. The Utilization Plan shall further provide the name, telephone number, and telefax number of a responsible official of the bidder designated for purposes of notification of Utilization Plan approval or disapproval under the procedures of this Special Provision.
- (c) The Utilization Plan shall include a DBE Participation Commitment Statement, Department form SBE 2025, for each DBE proposed for the performance of work to achieve the contract goal. For bidding purposes, submission of the completed SBE 2025 forms, signed by the DBEs and scanned or faxed to the bidder will be acceptable as long as the original is available and provided upon request. All elements of information indicated on the said form shall be provided, including but not limited to the following:

- (1) The names and addresses of DBE firms that will participate in the contract;
- (2) A description, including pay item numbers, of the work each DBE will perform;
- (3) The dollar amount of the participation of each DBE firm participating. The dollar amount of participation for identified work shall specifically state the quantity, unit price, and total subcontract price for the work to be completed by the DBE. If partial pay items are to be performed by the DBE, indicate the portion of each item, a unit price where appropriate and the subcontract price amount;
- (4) DBE Participation Commitment Statements, form SBE 2025, signed by the bidder and each participating DBE firm documenting the commitment to use the DBE subcontractors whose participation is submitted to meet the contract goal;
- (5) If the bidder is a joint venture comprised of DBE companies and non-DBE companies, the Utilization Plan must also include a clear identification of the portion of the work to be performed by the DBE partner(s); and,
- (6) If the contract goal is not met, evidence of good faith efforts; the documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor is selected over a DBE for work on the contract.

GOOD FAITH EFFORT PROCEDURES. The contract will not be awarded until the Utilization Plan submitted by the apparent successful bidder is approved. All information submitted by the bidder must be complete, accurate and adequately document that enough DBE participation has been obtained or document that good faith efforts of the bidder, in the event enough DBE participation has not been obtained, before the Department will commit to the performance of the contract by the bidder. The Utilization Plan will be approved by the Department if the Utilization Plan documents sufficient commercially useful DBE work to meet the contract goal or the bidder submits sufficient documentation of a good faith effort to meet the contract goal pursuant to 49 CFR Part 26, Appendix A. The Utilization Plan will not be approved by the Department if the Utilization Plan does not document sufficient DBE participation to meet the contract goal unless the apparent successful bidder documented in the Utilization Plan that it made a good faith effort to meet the goal. This means that the bidder must show that all necessary and reasonable steps were taken to achieve the contract goal. Necessary and reasonable steps are those which, by their scope, intensity and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not successful. The Department will consider the quality, quantity, and intensity of the kinds of efforts that the bidder has made. Mere *pro forma* efforts, in other words, efforts done as a matter of form, are not good faith efforts; rather, the bidder is expected to have taken genuine efforts that would be reasonably expected of a bidder actively and aggressively trying to obtain DBE participation sufficient to meet the contract goal.

- (a) The following is a list of types of action that the Department will consider as part of the evaluation of the bidder's good faith efforts to obtain participation. These listed factors

are not intended to be a mandatory checklist and are not intended to be exhaustive. Other factors or efforts brought to the attention of the Department may be relevant in appropriate cases, and will be considered by the Department.

- (1) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBE companies that have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBE companies to respond to the solicitation. The bidder must determine with certainty if the DBE companies are interested by taking appropriate steps to follow up initial solicitations.
- (2) Selecting portions of the work to be performed by DBE companies in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime Contractor might otherwise prefer to perform these work items with its own forces.
- (3) Providing interested DBE companies with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
- (4) a. Negotiating in good faith with interested DBE companies. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBE companies that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBE companies to perform the work.
 - b. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBE companies is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Bidders are not, however, required to accept higher quotes from DBE companies if the price difference is excessive or unreasonable. In accordance with subsection (c)(6) of the above Bidding Procedures, the documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract.

- (5) Not rejecting DBE companies as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.
 - (6) Making efforts to assist interested DBE companies in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.
 - (7) Making efforts to assist interested DBE companies in obtaining necessary equipment, supplies, materials, or related assistance or services.
 - (8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBE companies.
- (b) If the Department determines that the apparent successful bidder has made a good faith effort to secure the work commitment of DBE companies to meet the contract goal, the Department will award the contract provided that it is otherwise eligible for award. If the Department determines that the bidder has failed to meet the requirements of this Special Provision or that a good faith effort has not been made, the Department will notify the responsible company official designated in the Utilization Plan that the bid is not responsive. The notification shall include a statement of reasons for the determination. If the Utilization Plan is not approved because it is deficient as a technical matter, unless waived by the Department, the bidder will be notified and will be allowed no more than a five calendar day period in order to cure the deficiency.
- (c) The bidder may request administrative reconsideration of a determination adverse to the bidder within the five working days after the receipt of the notification date of the determination by delivering the request to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217) 785-1524). Deposit of the request in the United States mail on or before the fifth business day shall not be deemed delivery. The determination shall become final if a request is not made and delivered. A request may provide additional written documentation or argument concerning the issues raised in the determination statement of reasons, provided the documentation and arguments address efforts made prior to submitting the bid. The request will be forwarded to the Department's Reconsideration Officer. The Reconsideration Officer will extend an opportunity to the bidder to meet in person in order to consider all issues of documentation and whether the bidder made a good faith effort to meet the goal. After the review by the Reconsideration Officer, the bidder will be sent a written decision within ten working days after receipt of the request for consideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. A final decision by the Reconsideration

Officer that a good faith effort was made shall approve the Utilization Plan submitted by the bidder and shall clear the contract for award. A final decision that a good faith effort was not made shall render the bid not responsive.

CALCULATING DBE PARTICIPATION. The Utilization Plan values represent work anticipated to be performed and paid for upon satisfactory completion. The Department is only able to count toward the achievement of the overall goal and the contract goal the value of payments made for the work actually performed by DBE companies. In addition, a DBE must perform a commercially useful function on the contract to be counted. A commercially useful function is generally performed when the DBE is responsible for the work and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. The Department and Contractor are governed by the provisions of 49 CFR Part 26.55(c) on questions of commercially useful functions as it affects the work. Specific counting guidelines are provided in 49 CFR Part 26.55, the provisions of which govern over the summary contained herein.

- (a) DBE as the Contractor: 100 percent goal credit for that portion of the work performed by the DBE's own forces, including the cost of materials and supplies. Work that a DBE subcontracts to a non-DBE does not count toward the DBE goals.
- (b) DBE as a joint venture Contractor: 100 percent goal credit for that portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work performed by the DBE's own forces.
- (c) DBE as a subcontractor: 100 percent goal credit for the work of the subcontract performed by the DBE's own forces, including the cost of materials and supplies, excluding the purchase of materials and supplies or the lease of equipment by the DBE subcontractor from the prime Contractor or its affiliates. Work that a DBE subcontractor in turn subcontracts to a non-DBE does not count toward the DBE goal.
- (d) DBE as a trucker: 100 percent goal credit for trucking participation provided the DBE is responsible for the management and supervision of the entire trucking operation for which it is responsible. At least one truck owned, operated, licensed, and insured by the DBE must be used on the contract. Credit will be given for the following:
 - (1) The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.
 - (2) The DBE may also lease trucks from a non-DBE firm, including from an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission is receives as a result of the lease arrangement.
- (e) DBE as a material supplier:

- (1) 60 percent goal credit for the cost of the materials or supplies purchased from a DBE regular dealer.
- (2) 100 percent goal credit for the cost of materials of supplies obtained from a DBE manufacturer.
- (3) 100 percent credit for the value of reasonable fees and commissions for the procurement of materials and supplies if not a DBE regular dealer or DBE manufacturer.

CONTRACT COMPLIANCE. Compliance with this Special Provision is an essential part of the contract. The Department is prohibited by federal regulations from crediting the participation of a DBE included in the Utilization Plan toward either the contract goal or the Department's overall goal until the amount to be applied toward the goals has been paid to the DBE. The following administrative procedures and remedies govern the compliance by the Contractor with the contractual obligations established by the Utilization Plan. After approval of the Utilization Plan and award of the contract, the Utilization Plan and individual DBE Participation Statements become part of the contract. If the Contractor did not succeed in obtaining enough DBE participation to achieve the advertised contract goal, and the Utilization Plan was approved and contract awarded based upon a determination of good faith, the total dollar value of DBE work calculated in the approved Utilization Plan as a percentage of the awarded contract value shall become the amended contract goal. All work indicated for performance by an approved DBE shall be performed, managed, and supervised by the DBE executing the DBE Participation Commitment Statement.

- (a) NO AMENDMENT. No amendment to the Utilization Plan may be made without prior written approval from the Department's Bureau of Small Business Enterprises. All requests for amendment to the Utilization Plan shall be submitted to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764. Telephone number (217) 785-4611. Telefax number (217) 785-1524.
- (b) CHANGES TO WORK. Any deviation from the DBE condition-of-award or contract plans, specifications, or special provisions must be approved, in writing, by the Department as provided elsewhere in the Contract. The Contractor shall notify affected DBEs in writing of any changes in the scope of work which result in a reduction in the dollar amount condition-of-award to the contract. Where the revision includes work committed to a new DBE subcontractor, not previously involved in the project, then a Request for Approval of Subcontractor, Department form BC 260A or AER 260A, must be signed and submitted. If the commitment of work is in the form of additional tasks assigned to an existing subcontract, then a new Request for Approval of Subcontractor shall not be required. However, the Contractor must document efforts to assure that the existing DBE subcontractor is capable of performing the additional work and has agreed in writing to the change.

- (c) SUBCONTRACT. The Contractor must provide DBE subcontracts to IDOT upon request. Subcontractors shall ensure that all lower tier subcontracts or agreements with DBEs to supply labor or materials be performed in accordance with this Special Provision.
- (d) ALTERNATIVE WORK METHODS. In addition to the above requirements for reductions in the condition of award, additional requirements apply to the two cases of Contractor-initiated work substitution proposals. Where the contract allows alternate work methods which serve to delete or create underruns in condition of award DBE work, and the Contractor selects that alternate method or, where the Contractor proposes a substitute work method or material that serves to diminish or delete work committed to a DBE and replace it with other work, then the Contractor must demonstrate one of the following:
- (1) That the replacement work will be performed by the same DBE (as long as the DBE is certified in the respective item of work) in a modification of the condition of award; or
 - (2) That the DBE is aware that its work will be deleted or will experience underruns and has agreed in writing to the change. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so; or
 - (3) That the DBE is not capable of performing the replacement work or has declined to perform the work at a reasonable competitive price. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so.
- (e) TERMINATION AND REPLACEMENT PROCEDURES. The Contractor shall not terminate or replace a DBE listed on the approved Utilization Plan, or perform with other forces work designated for a listed DBE except as provided in this Special Provision. The Contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the Contractor obtains the Department's written consent as provided in subsection (a) of this part. Unless Department consent is provided for termination of a DBE subcontractor, the Contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the DBE in the Utilization Plan.

As stated above, the Contractor shall not terminate or replace a DBE subcontractor listed in the approved Utilization Plan without prior written consent. This includes, but is not limited to, instances in which the Contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm. Written consent will be granted only if the Bureau of Small Business Enterprises agrees, for reasons stated in its concurrence document, that the Contractor has good cause to terminate or replace the DBE firm. Before transmitting to the Bureau of Small Business Enterprises any request to terminate and/or substitute a DBE subcontractor, the Contractor shall give notice in writing to the DBE subcontractor,

with a copy to the Bureau, of its intent to request to terminate and/or substitute, and the reason for the request. The Contractor shall give the DBE five days to respond to the Contractor's notice. The DBE so notified shall advise the Bureau and the Contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why the Bureau should not approve the Contractor's action. If required in a particular case as a matter of public necessity, the Bureau may provide a response period shorter than five days.

For purposes of this paragraph, good cause includes the following circumstances:

- (1) The listed DBE subcontractor fails or refuses to execute a written contract;
- (2) The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor;
- (3) The listed DBE subcontractor fails or refuses to meet the prime Contractor's reasonable, nondiscriminatory bond requirements;
- (4) The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;
- (5) The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215 and 1200 or applicable state law.
- (6) You have determined that the listed DBE subcontractor is not a responsible contractor;
- (7) The listed DBE subcontractor voluntarily withdraws from the projects and provides to you written notice of its withdrawal;
- (8) The listed DBE is ineligible to receive DBE credit for the type of work required;
- (9) A DBE owner dies or becomes disabled with the result that the listed DBE contractor is unable to complete its work on the contract;
- (10) Other documented good cause that compels the termination of the DBE subcontractor. Provided, that good cause does not exist if the prime Contractor seeks to terminate a DBE it relied upon to obtain the contract so that the prime Contractor can self-perform the work for which the DBE contractor was engaged or so that the prime Contractor can substitute another DBE or non-DBE contractor after contract award.

When a DBE is terminated, or fails to complete its work on the Contract for any reason the Contractor shall make a good faith effort to find another DBE to substitute for the original DBE to perform at least the same amount of work under the contract as the terminated DBE to the extent needed to meet the established Contract goal. The good faith efforts shall be documented by the Contractor. If the Department requests documentation under this provision, the Contractor shall submit the documentation within seven days, which may be extended for an additional seven days if necessary at the request of the Contractor. The Department shall provide a written determination to the Contractor stating whether or not good faith efforts have been demonstrated.

- (f) PAYMENT RECORDS. The Contractor shall maintain a record of payments for work performed to the DBE participants. The records shall be made available to the Department for inspection upon request. After the performance of the final item of work or delivery of material by a DBE and final payment therefore to the DBE by the Contractor, but not later than thirty calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Agreement on Department form SBE 2115 to the Resident Engineer. If full and final payment has not been made to the DBE, the DBE Payment Agreement shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor believes that the work has not been satisfactorily completed. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the Utilization Plan and after good faith efforts are reviewed, the Department may deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages. The Contractor may request an administrative reconsideration of any amount deducted as damages pursuant to subsection (h) of this part.
- (g) ENFORCEMENT. The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be made on the contract until such time as the Contractor submits sufficient documentation demonstrating achievement of the goal in accordance with this Special Provision or after liquidated damages have been determined and collected.
- (h) RECONSIDERATION. Notwithstanding any other provision of the contract, including but not limited to Article 109.09 of the Standard Specifications, the Contractor may request administrative reconsideration of a decision to deduct the amount of the goal not achieved as liquidated damages. A request to reconsider shall be delivered to the Contract Compliance Section and shall be handled and considered in the same manner as set forth in paragraph (c) of "Good Faith Effort Procedures" of this Special Provision, except a final decision that a good faith effort was not made during contract performance to achieve the goal agreed to in the Utilization Plan shall be the final administrative decision of the Department. The result of the reconsideration process is not administratively appealable to the U.S. Department of Transportation.

EQUAL EMPLOYMENT OPPORTUNITY (BDE)

Effective: April 1, 2015

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

"EQUAL EMPLOYMENT OPPORTUNITY

In the event of the Contractor's noncompliance with the provisions of this Equal Employment Opportunity Clause, the Illinois Human Rights Act, or the Illinois Department of Human Rights Rules and Regulations, the Contractor may be declared ineligible for future contracts or subcontracts with the State of Illinois or any of its political sub-divisions or municipal corporations, and the contract may be cancelled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation.

During the performance of this Contract, the Contractor agrees as follows:

- (1) That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, marital status, order of protection status, national origin or ancestry, citizenship status, age, physical or mental disability unrelated to ability, military status, or an unfavorable discharge from military service; and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.
- (2) That, if it hires additional employees in order to perform this contract or any portion hereof, it will determine the availability (according to the Illinois Department of Human Rights Rules and Regulations) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.
- (3) That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, sexual orientation, marital status, order of protection status, national origin or ancestry, citizenship status, age, physical or mental disability unrelated to ability, military status or an unfavorable discharge from military service.
- (4) That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the Contractor's obligations under the Illinois Human Rights Act and the Illinois Department of Human Rights Rules and Regulations. If any labor organization or representative fails or refuses to cooperate with the Contractor in its efforts to comply with such Act and Rules and Regulations, the

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

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

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

"II. EQUAL EMPLOYMENT OPPORTUNITY

In the event of the Contractor's noncompliance with the provisions of this Equal Employment Opportunity Clause, the Illinois Human Rights Act or the Illinois Department of Human Rights Rules and Regulations, the Contractor may be declared ineligible for future contracts or subcontracts with the State of Illinois or any of its political sub-divisions or municipal corporations, and the contract may be cancelled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation.

During the performance of this Contract, the Contractor agrees as follows:

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

that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.

2. That, if it hires additional employees in order to perform this contract or any portion hereof, it will determine the availability (according to the Illinois Department of Human Rights Rules and Regulations) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.
3. That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, sexual orientation, marital status, order of protection status, national origin or ancestry, citizenship status, age, physical or mental disability unrelated to ability, military status, or an unfavorable discharge from military service.
4. That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the Contractor's obligations under the Illinois Human Rights Act and the Illinois Department of Human Rights Rules and Regulations. If any labor organization or representative fails or refuses to cooperate with the Contractor in its efforts to comply with such Act and Rules and Regulations, the Contractor will promptly so notify the Illinois Department of Human Rights and IDOT and will recruit employees from other sources when necessary to fulfill its obligations thereunder.
5. That it will submit reports as required by the Illinois Department of Human Rights Rules and Regulations, furnish all relevant information as may from time to time be requested by the Illinois Department of Human Rights or IDOT, and in all respects comply with the Illinois Human Rights Act and the Illinois Department of Human Rights Rules and Regulations.
6. That it will permit access to all relevant books, records, accounts and work sites by personnel of IDOT and the Illinois Department of Human Rights for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and the Illinois Department of Human Rights Rules and Regulations.
7. That it will include verbatim or by reference the provisions of this clause in every subcontract it awards under which any portion of the contract obligations are undertaken or assumed, so that the provisions will be binding upon the subcontractor. In the same manner as with other provisions of this contract, the Contractor will be liable for compliance with applicable provisions of this clause by subcontractors; and further it will promptly notify IDOT and the Illinois Department of Human Rights in the event any subcontractor fails or refuses to comply with these provisions. In addition, the Contractor will not utilize any subcontractor declared by the Illinois Human Rights

Commission to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations.”

80358

FRICION AGGREGATE (BDE)

Effective: January 1, 2011
 Revised: November 1, 2014

Revise Article 1004.01(a)(4) of the Standard Specifications to read:

- “(4) Crushed Stone. Crushed stone shall be the angular fragments resulting from crushing undisturbed, consolidated deposits of rock by mechanical means. Crushed stone shall be divided into the following, when specified.
- a. Carbonate Crushed Stone. Carbonate crushed stone shall be either dolomite or limestone. Dolomite shall contain 11.0 percent or more magnesium oxide (MgO). Limestone shall contain less than 11.0 percent magnesium oxide (MgO).
 - b. Crystalline Crushed Stone. Crystalline crushed stone shall be either metamorphic or igneous stone, including but is not limited to, quartzite, granite, rhyolite and diabase.”

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	<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 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/} : 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 Leveling Binder IL-9.5 or IL-9.5L SMA Ndesign 50 Surface	<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 Leveling Binder IL-9.5 SMA Ndesign 50 Surface	<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/} Crushed Concrete ^{3/}
		<u>Other Combinations Allowed:</u>
		<i>Up to...</i> <i>With...</i>
		25% Limestone Dolomite

Use	Mixture	Aggregates Allowed	
		50% Limestone	Any Mixture D aggregate other than Dolomite
		75% Limestone	Crushed Slag (ACBF) or Crushed Sandstone
HMA High ESAL	E Surface IL-9.5 SMA Ndesign 80 Surface	<u>Allowed Alone or in Combination</u> ^{5/} : Crushed Gravel Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag Crushed Concrete ^{3/} No Limestone.	
		<u>Other Combinations Allowed:</u>	
		<i>Up to...</i>	<i>With...</i>
		50% Dolomite ^{2/}	Any Mixture E aggregate
		75% Dolomite ^{2/}	Crushed Sandstone, Crushed Slag (ACBF), Crushed Steel Slag, or Crystalline Crushed Stone
		75% Crushed Gravel or Crushed Concrete ^{3/}	Crushed Sandstone, Crystalline Crushed Stone, Crushed Slag (ACBF), or Crushed Steel Slag
HMA High ESAL	F Surface IL-9.5 SMA Ndesign 80 Surface	<u>Allowed Alone or in Combination</u> ^{5/} : Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag No Limestone.	
		<u>Other Combinations Allowed:</u>	

Use	Mixture	Aggregates Allowed	
		<i>Up to...</i>	<i>With...</i>
		50% Crushed Gravel, Crushed Concrete ^{3/} , or Dolomite ^{2/}	Crushed Sandstone, Crushed Slag (ACBF), Crushed Steel Slag, or Crystalline Crushed Stone

- 1/ Crushed steel slag allowed in shoulder surface only.
- 2/ Carbonate crushed stone shall not be used in SMA Ndesign 80. In SMA Ndesign 50, carbonate crushed stone shall not be blended with any of the other aggregates allowed alone in Ndesign 50 SMA binder or Ndesign 50 SMA surface.
- 3/ Crushed concrete will not be permitted in SMA mixes.
- 4/ Crushed steel slag shall not be used as leveling binder.
- 5/ When combinations of aggregates are used, the blend percent measurements shall be by volume."

80265

FUEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID)

Effective: April 1, 2009

Revised: July 1, 2015

Description. Fuel cost adjustments will be made to provide additional compensation to the Contractor, or a credit to the Department, for fluctuations in fuel prices when optioned by the Contractor. The bidder shall indicate on the attached form whether or not this special provision will be part of the contract and submit the completed form with his/her bid. Failure to submit the form or failure to indicate contract number, company name and sign and date the form shall make this contract exempt of fuel cost adjustments for all categories of work. Failure to indicate "Yes" for any category of work will make that category of work exempt from fuel cost adjustment.

General. The fuel cost adjustment shall apply to contract pay items as grouped by category. The adjustment shall only apply to those categories of work checked "Yes", and only when the cumulative plan quantities for a category exceed the required threshold. Adjustments to work items in a category, either up or down, and extra work paid for by agreed unit price will be subject to fuel cost adjustment only when the category representing the added work was subject to the fuel cost adjustment. Extra work paid for at a lump sum price or by force account will not be subject to fuel cost adjustment. Category descriptions and thresholds for application and the fuel usage factors which are applicable to each are as follows:

(a) Categories of Work.

- (1) Category A: Earthwork. Contract pay items performed under Sections 202, 204, and 206 including any modified standard or nonstandard items where the character of the work to be performed is considered earthwork. The cumulative total of all applicable item plan quantities shall exceed 25,000 cu yd (20,000 cu m). Included in the fuel usage factor is a weighted average 0.10 gal/cu yd (0.50 liters/cu m) factor for trucking.
- (2) Category B: Subbases and Aggregate Base Courses. Contract pay items constructed under Sections 311, 312 and 351 including any modified standard or nonstandard items where the character of the work to be performed is considered construction of a subbase or aggregate, stabilized or modified base course. The cumulative total of all applicable item plan quantities shall exceed 5000 tons (4500 metric tons). Included in the fuel usage factor is a 0.60 gal/ton (2.50 liters/metric ton) factor for trucking.
- (3) Category C: Hot-Mix Asphalt (HMA) Bases, Pavements and Shoulders. Contract pay items constructed under Sections 355, 406, 407 and 482 including any modified standard or nonstandard items where the character of the work to be performed is considered HMA bases, pavements and shoulders. The cumulative total of all applicable item plan quantities shall exceed 5000 tons (4500 metric tons). Included in the fuel usage factor is 0.60 gal/ton (2.50 liters/metric ton) factor for trucking.

- (4) Category D: Portland Cement Concrete (PCC) Bases, Pavements and Shoulders. Contract pay items constructed under Sections 353, 420, 421 and 483 including any modified standard or nonstandard items where the character of the work to be performed is considered PCC base, pavement or shoulder. The cumulative total of all applicable item plan quantities shall exceed 7500 sq yd (6000 sq m). Included in the fuel usage factor is 1.20 gal/cu yd (5.94 liters/cu m) factor for trucking.
- (5) Category E: Structures. Structure items having a cumulative bid price that exceeds \$250,000 for pay items constructed under Sections 502, 503, 504, 505, 512, 516 and 540 including any modified standard or nonstandard items where the character of the work to be performed is considered structure work when similar to that performed under these sections and not included in categories A through D.

(b) Fuel Usage Factors.

English Units Category	Factor	Units
A - Earthwork	0.34	gal / cu yd
B – Subbase and Aggregate Base courses	0.62	gal / ton
C – HMA Bases, Pavements and Shoulders	1.05	gal / ton
D – PCC Bases, Pavements and Shoulders	2.53	gal / cu yd
E – Structures	8.00	gal / \$1000

Metric Units Category	Factor	Units
A - Earthwork	1.68	liters / cu m
B – Subbase and Aggregate Base courses	2.58	liters / metric ton
C – HMA Bases, Pavements and Shoulders	4.37	liters / metric ton
D – PCC Bases, Pavements and Shoulders	12.52	liters / cu m
E – Structures	30.28	liters / \$1000

(c) Quantity Conversion Factors.

Category	Conversion	Factor
B	sq yd to ton	0.057 ton / sq yd / in depth
	sq m to metric ton	0.00243 metric ton / sq m / mm depth
C	sq yd to ton	0.056 ton / sq yd / in depth
	sq m to metric ton	0.00239 m ton / sq m / mm depth
D	sq yd to cu yd	0.028 cu yd / sq yd / in depth
	sq m to cu m	0.001 cu m / sq m / mm depth

Method of Adjustment. Fuel cost adjustments will be computed as follows.

$$CA = (FPI_P - FPI_L) \times FUF \times Q$$

Where: CA = Cost Adjustment, \$
FPI_P = Fuel Price Index, as published by the Department for the month the work is performed, \$/gal (\$/liter)
FPI_L = Fuel 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, \$/gal (\$/liter)
FUF = Fuel Usage Factor in the pay item(s) being adjusted
Q = Authorized construction Quantity, tons (metric tons) or cu yd (cu m)

The entire FUF indicated in paragraph (b) will be used regardless of use of trucking to perform the work.

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

$$\text{Percent Difference} = \{(FPI_L - FPI_P) \div FPI_L\} \times 100$$

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

Return With Bid

**ILLINOIS DEPARTMENT
OF TRANSPORTATION**

**OPTION FOR
FUEL COST ADJUSTMENT**

The bidder shall submit this completed form with his/her bid. Failure to submit the form or properly complete contract number, company name, and sign and date the form shall make this contract exempt of fuel cost adjustments in all categories. Failure to indicate "Yes" for any category of work at the time of bid will make that category of work exempt from fuel cost adjustment. After award, this form, when submitted shall become part of the contract.

Contract No.: _____

Company Name: _____

Contractor's Option:

Is your company opting to include this special provision as part of the contract plans for the following categories of work?

- | | | |
|--|-----|--------------------------|
| Category A Earthwork. | Yes | <input type="checkbox"/> |
| Category B Subbases and Aggregate Base Courses | Yes | <input type="checkbox"/> |
| Category C HMA Bases, Pavements and Shoulders | Yes | <input type="checkbox"/> |
| Category D PCC Bases, Pavements and Shoulders | Yes | <input type="checkbox"/> |
| Category E Structures | Yes | <input type="checkbox"/> |

Signature: _____ **Date:** _____

80229

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

Effective: January 1, 2010

Revised: April 1, 2012

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

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

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

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

- a. Confined Edge. Each confined edge density shall be represented by a one-minute nuclear density reading or a core density and shall be included in the average of density readings or core densities taken across the mat which represents the Individual Test.
- b. Unconfined Edge. Each unconfined edge joint density shall be represented by an average of three one-minute density readings or a single core density at the given density test location and shall meet the density requirements specified herein. The three one-minute readings shall be spaced ten feet apart longitudinally along the unconfined pavement edge and centered at the random density test location.”

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

"Mixture Composition	Parameter	Individual Test (includes confined edges)	Unconfined Edge Joint Density Minimum
IL-4.75	Ndesign = 50	93.0 – 97.4%	91.0%
IL-9.5, IL-12.5	Ndesign ≥ 90	92.0 – 96.0%	90.0%
IL-9.5, IL-9.5L, IL-12.5	Ndesign < 90	92.5 – 97.4%	90.0%
IL-19.0, IL-25.0	Ndesign ≥ 90	93.0 – 96.0%	90.0%
IL-19.0, IL-19.0L, IL-25.0	Ndesign < 90	93.0 – 97.4%	90.0%

SMA	Ndesign = 50 & 80	93.5 – 97.4%	91.0%
All Other	Ndesign = 30	93.0 - 97.4%	90.0% ^a

80246

HOT-MIX ASPHALT – MIXTURE DESIGN COMPOSITION AND VOLUMETRIC REQUIREMENTS (BDE)

Effective: November 1, 2013

Revised: November 1, 2014

Revise the last sentence of the first paragraph of Article 312.05 of the Standard Specifications to read:

“The minimum compacted thickness of each lift shall be according to Article 406.06(d).”

Delete the minimum compacted lift thickness table in Article 312.05 of the Standard Specifications.

Revise the second paragraph of Article 355.02 of the Standard Specifications to read:

“The mixture composition used shall be IL-19.0.”

Revise Article 355.05(a) of the Standard Specifications to read:

“(a) The top lift thickness shall be 2 1/4 in. (60 mm) for mixture composition IL-19.0.”

Revise the Leveling Binder table and second paragraph of Article 406.05(c) of the Standard Specifications to read:

“Leveling Binder	
Nominal, Compacted, Leveling Binder Thickness, in. (mm)	Mixture Composition
≤ 1 1/4 (32)	IL-4.75, IL-9.5, or IL-9.5L
> 1 1/4 to 2 (32 to 50)	IL-9.5 or IL-9.5L

The density requirements of Article 406.07(c) shall apply for leveling binder, machine method, when the nominal compacted thickness is: 3/4 in. (19 mm) or greater for IL-4.75 mixtures; and 1 1/4 in. (32 mm) or greater for IL-9.5 and IL-9.5L mixtures.”

Revise the table in Article 406.06(d) of the Standard Specifications to read:

“MINIMUM COMPACTED LIFT THICKNESS	
Mixture Composition	Thickness, in. (mm)
IL-4.75	3/4 (19)
IL-9.5, IL-9.5L	1 1/4 (32)
SMA-12.5	1 1/2 (38)
IL-19.0, IL-19.0L	2 1/4 (57)”

Revise the ninth paragraph of Article 406.14 of the Standard Specifications to read:

“Test strip mixture will be evaluated at the contract unit price according to the following.”

Revise Article 406.14(a) of the Standard Specifications to read:

“(a) If the HMA placed during the initial test strip is determined to be acceptable the mixture will be paid for at the contract unit price.”

Revise Article 406.14(b) of the Standard Specifications to read:

“(b) If the HMA placed during the initial test strip (1) is determined to be unacceptable to remain in place by the Engineer, and (2) was not produced within 2.0 to 6.0 percent air voids or within the individual control limits of the JMF according to the Department’s test results, the mixture will not be paid for and shall be removed at the Contractor’s expense. An additional test strip shall be constructed and the mixture will be paid for in full, if produced within 2.0 to 6.0 percent air voids and within the individual control limits of the JMF.”

Revise Article 406.14(c) of the Standard Specifications to read:

“(c) If the HMA placed during the initial test strip (1) is determined to be unacceptable to remain in place by the Engineer, and (2) was produced within 2.0 to 6.0 percent air voids and within the individual control limits of the JMF according to the Department’s test results, the mixture shall be removed. Removal will be paid according to Article 109.04. This initial mixture will be paid for at the contract unit price. An additional test strip shall be constructed and the mixture will be paid for in full, if produced within 2.0 to 6.0 percent air voids and within the individual control limits of the JMF.”

Delete Article 406.14(d) of the Standard Specifications.

Delete Article 406.14(e) of the Standard Specifications.

Delete the last sentence of Article 407.06(c) of the Standard Specifications.

Revise Note 2. of Article 442.02 of the Standard Specifications to read:

“Note 2. The mixture composition of the HMA used shall be IL-19.0 binder, designed with the same Ndesign as that specified for the mainline pavement.”

Delete the second paragraph of Article 482.02 of the Standard Specifications.

Revise the first sentence of the sixth paragraph of Article 482.05 of the Standard Specifications to read:

"When the mainline HMA binder and surface course mixture option is used on resurfacing projects, shoulder resurfacing widths of 6 ft (1.8 m) or less may be placed simultaneously with the adjacent traffic lane for both the binder and surface courses."

Revise the second sentence of the fourth paragraph of Article 601.04 of the Standard Specifications to read:

"The top 5 in. (125 mm) of the trench shall be backfilled with an IL-19.0L Low ESAL mixture meeting the requirements of Section 1030 and compacted to a density of not less than 90 percent of the theoretical density."

Revise the second sentence of the fifth paragraph of Article 601.04 of the Standard Specifications to read:

"The top 8 in. (200 mm) of the trench shall be backfilled with an IL-19.0L Low ESAL mixture meeting the requirements of Section 1030 and compacted to a density of not less than 90 percent of the theoretical density."

Revise Article 1003.03(c) of the Standard Specifications to read:

"(c) Gradation. The fine aggregate gradation for all HMA shall be FA 1, FA 2, FA 20, FA 21, or FA 22. The fine aggregate gradation for SMA shall be FA/FM 20.

For mixture IL-4.75 and surface mixtures with an $N_{design} = 90$, at least 50 percent of the required fine aggregate fraction shall consist of either stone sand, slag sand, or steel slag meeting the FA 20 gradation.

For mixture IL-19.0, $N_{design} = 90$ the fine aggregate fraction shall consist of at least 67 percent manufactured sand meeting FA 20 or FA 22 gradation. For mixture IL-19.0, $N_{design} = 50$ or 70 the fine aggregate fraction shall consist of at least 50 percent manufactured sand meeting FA 20 or FA 22 gradation. The manufactured sand shall be stone sand, slag sand, steel slag sand, or combinations thereof.

Gradation FA 1, FA 2, or FA 3 shall be used when required for prime coat aggregate application for HMA."

Remove footnote 3/ from the tables and at the end of the tables in Article 1004.01(c) of the Standard Specifications.

Delete the last sentence of the first paragraph of Article 1004.03(b) of the Standard Specifications.

Revise the table in Article 1004.03(c) of the Standard Specifications to read:

"Use	Size/Application	Gradation No.
Class A-1, 2, & 3	3/8 in. (10 mm) Seal	CA 16
Class A-1	1/2 in. (13 mm) Seal	CA 15
Class A-2 & 3	Cover	CA 14
HMA High ESAL	IL-19.0 IL-9.5	CA 11 ^{1/} CA 16 and/or CA 13 CA 16
HMA Low ESAL	IL-19.0L IL-9.5L Stabilized Subbase or Shoulders	CA 11 ^{1/} CA 16

1/ CA 16 or CA 13 may be blended with the gradations listed."

Revise the nomenclature table in Article 1030.01 of the Standard Specifications to read:

"High ESAL	IL-19.0 binder; IL-9.5 surface
Low ESAL	IL-19.0L binder; IL-9.5L surface; Stabilized Subbase (HMA) ^{1/} ; HMA Shoulders ^{2/}

1/ Uses 19.0L binder mix.

2/ Uses 19.0L for lower lifts and 9.5L for surface lift."

Revise Article 1030.02 of the Standard Specifications and Supplemental Specifications to read:

"1030.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Coarse Aggregate	1004.03
(b) Fine Aggregate	1003.03
(c) RAP Material	1031
(d) Mineral Filler	1011
(e) Hydrated Lime	1012.01
(f) Slaked Quicklime (Note 1)	
(g) Performance Graded Asphalt Binder (Note 2)	1032
(h) Fibers (Note 3)	
(i) Warm Mix Asphalt (WMA) Technologies (Note 4)	

Note 1. Slaked quicklime shall be according to ASTM C 5.

Note 2. The asphalt binder shall be an SBS PG 76-28 when the SMA is used on a full-depth asphalt pavement and SBS PG 76-22 when used as an overlay.

Note 3. A stabilizing additive such as cellulose or mineral fiber shall be added to the SMA mixture according to Illinois Modified AASHTO M 325. The stabilizing additive shall meet the Fiber Quality Requirements listed in Illinois Modified AASHTO M 325. Prior to approval and use of fibers, the Contractor shall submit a notarized certification by the producer of these materials stating they meet these requirements.

Note 4. Warm mix additives or foaming processes shall be selected from the current Bureau of Materials and Physical Research Approved List, "Warm Mix Asphalt Technologies".

Revise Article 1030.04(a)(1) of the Standard Specifications and the Supplemental Specifications to read:

"(1) High ESAL Mixtures. The Job Mix Formula (JMF) shall fall within the following limits.

High ESAL, MIXTURE COMPOSITION (% PASSING) ^{1/}								
Sieve Size	IL-19.0 mm		SMA 12.5 ^{4/}		IL-9.5 mm		IL-4.75 mm	
	min	max	min	max	min	max	min	max
1 1/2 in. (37.5 mm)								
1 in. (25 mm)		100						
3/4 in. (19 mm)	90	100		100				
1/2 in. (12.5 mm)	75	89	90	99		100		100
3/8 in. (9.5 mm)			50	85	90	100		100
#4 (4.75 mm)	40	60	20	40	32	69	90	100
#8 (2.36 mm)	26	42	16	24 ^{5/}	32	52 ^{2/}	70	90
#16 (1.18 mm)	15	30			10	32	50	65
#50 (300 μm)	6	15			4	15	15	30
#100 (150 μm)	4	9			3	10	10	18
#200 (75 μm)	3	6	8.0	11.0 ^{3/}	4	6	7	9
Ratio Dust/Asphalt Binder		1.0				1.0		1.0 ^{3/}

1/ Based on percent of total aggregate weight.

2/ The mixture composition shall not exceed 44 percent passing the #8 (2.36 mm) sieve for surface courses with Ndesign = 90.

3/ Additional minus No. 200 (0.075 mm) material required by the mix design shall be mineral filler, unless otherwise approved by the Engineer.

- 4/ The maximum percent passing the #635 (20 µm) sieve shall be ≤ 3 percent.
- 5/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted above 24 percent.”

Delete Article 1030.04(a)(3) of the Standard Specifications.

Delete Article 1030.04(a)(4) of the Standard Specifications.

Revise the table in Article 1030.04(b)(1) of the Standard Specifications to read:

"VOLUMETRIC REQUIREMENTS High ESAL				
	Voids in the Mineral Aggregate (VMA), % minimum			Voids Filled with Asphalt Binder (VFA), %
Ndesign	IL-19.0	IL-9.5	IL-4.75 ^{1/}	
50	13.5	15.0	18.5	65 – 78 ^{2/}
70				65 - 75
90				

1/ Maximum Draindown for IL-4.75 shall be 0.3 percent

2/ VFA for IL-4.75 shall be 76-83 percent”

Revise the table in Article 1030.04(b)(2) of the Standard Specifications to read:

"VOLUMETRIC REQUIREMENTS Low ESAL				
Mixture Composition	Design Compactive Effort	Design Air Voids Target %	VMA (Voids in the Mineral Aggregate), % min.	VFA (Voids Filled with Asphalt Binder), %
IL-9.5L	N _{DES} =30	4.0	15.0	65-78
IL-19.0L	N _{DES} =30	4.0	13.5	N/A”

Replace Article 1030.04(b)(3) of the Standard Specifications with the following:

“(3) SMA Mixtures.

ESALs (million)	Ndesign	Design Air Voids Target %	Voids in the Mineral Aggregate (VMA), % min.	Voids Filled with Asphalt (VFA), %
≤ 10	50	4.0	16.0	75 – 80
> 10	80	4.0	17.0	75 – 80”

Delete Article 1030.04(b)(4) of the Standard Specifications.

Delete Article 1030.04(b)(5) from the Supplemental Specifications.

Revise the table in Article 1030.05(d)(2)a. of the Standard Specifications to read:

"Parameter	Frequency of Tests		Test Method See Manual of Test Procedures for Materials
	High ESAL Mixture	Low ESAL Mixture	
Aggregate Gradation % passing sieves: 1/2 in. (12.5 mm), No. 4 (4.75 mm), No. 8 (2.36 mm), No. 30 (600 μm) No. 200 (75 μm)	1 washed ignition oven test on the mix per half day of production Note 3.		Illinois Procedure
Asphalt Binder Content by Ignition Oven Note 1.	1 per half day of production		Illinois-Modified AASHTO T 308
VMA Note 2.	Day's production ≥ 1200 tons: 1 per half day of production Day's production < 1200 tons: 1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)		Illinois-Modified AASHTO R 35

"Parameter.	Frequency of Tests		Test Method See Manual of Test Procedures for Materials
	High ESAL Mixture	Low ESAL Mixture	
Air Voids	Day's production ≥ 1200 tons:	1 per half day of production	Illinois-Modified AASHTO T 312
Bulk Specific Gravity of Gyrotory Sample	Day's production < 1200 tons:	1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)	
Note 4.	Day's production ≥ 1200 tons:	1 per half day of production	Illinois-Modified AASHTO T 209
Maximum Specific Gravity of Mixture	Day's production < 1200 tons:	1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)	

Note 1. The Engineer may waive the ignition oven requirement for asphalt binder content if the aggregates to be used are known to have ignition asphalt binder content calibration factors which exceed 1.5 percent. If the ignition oven requirement is waived, other Department approved methods shall be used to determine the asphalt binder content.

Note 2. The G_{sb} used in the voids in the mineral aggregate (VMA) calculation shall be the same average G_{sb} value listed in the mix design.

Note 3. The Engineer reserves the right to require additional hot bin gradations for batch plants if control problems are evident.

Note 4. The WMA compaction temperature for mixture volumetric testing shall be 270 ± 5 °F (132 ± 3 °C) for quality control testing. The WMA compaction temperature for quality assurance testing will be 270 ± 5 °F (132 ± 3 °C) if the mixture is not allowed to cool to room temperature. If the mixture is allowed to cool to room temperature, it shall be reheated to standard HMA compaction temperatures."

Revise the table in Article 1030.05(d)(2)b. of the Standard Specifications to read:

"Parameter	High ESAL Mixture Low ESAL Mixture
Ratio Dust/Asphalt Binder	0.6 to 1.2
Moisture	0.3 %"

Revise the Article 1030.05(d)(4) of the Supplemental Specifications to read:

"(4) Control Limits. Target values shall be determined by applying adjustment factors to the AJMF where applicable. The target values shall be plotted on the control charts within the following control limits.

CONTROL LIMITS						
Parameter	High ESAL Low ESAL		SMA		IL-4.75	
	Individual Test	Moving Avg. of 4	Individual Test	Moving Avg. of 4	Individual Test	Moving Avg. of 4
% Passing: ^{1/}						
1/2 in. (12.5 mm)	± 6 %	± 4 %	± 6 %	± 4 %		
3/8 in. (9.5mm)			± 4 %	± 3 %		
No. 4 (4.75 mm)	± 5 %	± 4 %	± 5 %	± 4 %		
No. 8 (2.36 mm)	± 5 %	± 3 %	± 4 %	± 2 %		
No. 16 (1.18 mm)			± 4 %	± 2 %	± 4 %	± 3 %
No. 30 (600 µm)	± 4 %	± 2.5 %	± 4 %	± 2.5 %		
Total Dust Content No. 200 (75 µm)	± 1.5 %	± 1.0 %			± 1.5 %	± 1.0 %
Asphalt Binder Content	± 0.3 %	± 0.2 %	± 0.2 %	± 0.1 %	± 0.3 %	± 0.2 %
Voids	± 1.2 %	± 1.0 %	± 1.2 %	± 1.0 %	± 1.2 %	± 1.0 %
VMA	-0.7 % ^{2/}	-0.5 % ^{2/}	-0.7 % ^{2/}	-0.5 % ^{2/}	-0.7 % ^{2/}	-0.5 % ^{2/}

1/ Based on washed ignition oven

2/ Allowable limit below minimum design VMA requirement

DENSITY CONTROL LIMITS		
Mixture Composition	Parameter	Individual Test
IL-4.75	Ndesign = 50	93.0 - 97.4 % ^{1/}
IL-9.5	Ndesign = 90	92.0 - 96.0 %
IL-9.5,IL-9.5L	Ndesign < 90	92.5 - 97.4 %
IL-19.0	Ndesign = 90	93.0 - 96.0 %
IL-19.0, IL-19.0L	Ndesign < 90	93.0 ^{2/} - 97.4 %
SMA	Ndesign = 50 & 80	93.5 - 97.4 %

1/ Density shall be determined by cores or by correlated, approved thin lift nuclear gauge.

2/ 92.0 % when placed as first lift on an unimproved subgrade."

Revise the table in Article 1030.05(d)(5) of the Supplemental Specifications to read:

"CONTROL CHART REQUIREMENTS	High ESAL, Low ESAL, SMA & IL-4.75
Gradation ^{1/ 3/}	% Passing Sieves: 1/2 in. (12.5 mm) ^{2/} No. 4 (4.75 mm) No. 8 (2.36 mm) No. 30 (600 µm)
Total Dust Content ^{1/}	No. 200 (75 µm)
	Asphalt Binder Content
	Bulk Specific Gravity
	Maximum Specific Gravity of Mixture
	Voids
	Density
	VMA

1/ Based on washed ignition oven.

2/ Does not apply to IL-4.75.

3/ SMA also requires the 3/8 in. (9.5 mm) sieve."

Delete Article 1030.05(d)(6)a.1.(b.) of the Standard Specifications.

Delete Article 1030.06(b) of the Standard Specifications.

Delete Article 1102.01(e) of the Standard Specifications.

HOT-MIX ASPHALT – MIXTURE DESIGN VERIFICATION AND PRODUCTION (BDE)

Effective: November 1, 2013

Revised: November 1, 2014

Description. This special provision provides the requirements for Hamburg Wheel and tensile strength testing for High ESAL, IL-4.75, and Stone Matrix Asphalt (SMA) hot-mix asphalt (HMA) mixes during mix design verification and production. This special provision also provides the plant requirements for hydrated lime addition systems used in the production of High ESAL, IL-4.75, and SMA mixes.

Mix Design Testing. Add the following below the referenced AASHTO standards in Article 1030.04 of the Standard Specifications:

AASHTO T 324	Hamburg Wheel Test
AASHTO T 283	Tensile Strength Test

Add the following to Article 1030.04 of the Standard Specifications:

“(d) Verification Testing. High ESAL, IL-4.75, and SMA mix designs submitted for verification will be tested to ensure that the resulting mix designs will pass the required criteria for the Hamburg Wheel Test (Illinois Modified AASHTO T 324) and the Tensile Strength Test (Illinois Modified AASHTO T 283). The Department will perform a verification test on gyratory specimens compacted by the Contractor. If the mix fails the Department’s verification test, the Contractor shall make necessary changes to the mix and provide passing Hamburg Wheel and tensile strength test results from a private lab. The Department will verify the passing results.

All new and renewal mix designs shall meet the following requirements for verification testing.

(1) Hamburg Wheel Test Criteria. The maximum allowable rut depth shall be 0.5 in. (12.5 mm). The minimum number of wheel passes at the 0.5 in. (12.5 mm) rut depth criteria shall be based on the high temperature binder grade of the mix as specified in the mix requirements table of the plans.

Illinois Modified AASHTO T 324 Requirements ^{1/}

PG Grade	Number of Passes
PG 58-xx (or lower)	5,000
PG 64-xx	7,500
PG 70-xx	15,000
PG 76-xx (or higher)	20,000

1/ When produced at temperatures of 275 ± 5 °F (135 ± 3 °C) or less, loose Warm Mix Asphalt shall be oven aged at 270 ± 5 °F (132 ± 3 °C) for two hours prior to gyratory compaction of Hamburg Wheel specimens.

(2) Tensile Strength Criteria. The minimum allowable conditioned tensile strength shall be 60 psi (415 kPa) for non-polymer modified performance graded (PG) asphalt binder and 550 kPa (80 psi) for polymer modified PG asphalt binder. The maximum allowable unconditioned tensile strength shall be 200 psi (1380 kPa)."

Production Testing. Revise Article 1030.06(a) of the Standard Specifications to read:

"(a) High ESAL, IL-4.75, WMA, and SMA Mixtures. For each contract, a 300 ton (275 metric tons) test strip will be required at the beginning of HMA production for each mixture with a quantity of 3000 tons (2750 metric tons) or more according to the Manual of Test Procedures for Materials "Hot Mix Asphalt Test Strip Procedures".

Before start-up, target values shall be determined by applying gradation correction factors to the JMF when applicable. These correction factors shall be determined from previous experience. The target values, when approved by the Engineer, shall be used to control HMA production. Plant settings and control charts shall be set according to target values.

Before constructing the test strip, target values shall be determined by applying gradation correction factors to the JMF when applicable. After any JMF adjustment, the JMF shall become the Adjusted Job Mix Formula (AJMF). Upon completion of the first acceptable test strip, the JMF shall become the AJMF regardless of whether or not the JMF has been adjusted. If an adjustment/plant change is made, the Engineer may require a new test strip to be constructed. If the HMA placed during the initial test strip is determined to be unacceptable to remain in place by the Engineer, it shall be removed and replaced.

The limitations between the JMF and AJMF are as follows.

Parameter	Adjustment
1/2 in. (12.5 mm)	± 5.0 %
No. 4 (4.75 mm)	± 4.0 %
No. 8 (2.36 mm)	± 3.0 %
No. 30 (600 μ m)	*
No. 200 (75 μ m)	*
Asphalt Binder Content	± 0.3 %

* In no case shall the target for the amount passing be greater than the JMF.

Any adjustments outside the above limitations will require a new mix design.

Mixture sampled to represent the test strip shall include additional material sufficient for the Department to conduct Hamburg Wheel testing according to Illinois Modified AASHTO T324 (approximately 60 lb (27 kg) total).

The Contractor shall immediately cease production upon notification by the Engineer of failing Hamburg Wheel test. All prior produced material may be paved out provided all other mixture criteria is being met. No additional mixture shall be produced until the Engineer receives passing Hamburg Wheel tests.

The Department may conduct additional Hamburg Wheel tests on production material as determined by the Engineer.”

Revise the title of Article 1030.06(b) of the Standard Specifications to read:

| “(b) Low ESAL Mixtures.”

System for Hydrated Lime Addition. Revise the fourth sentence of the third paragraph of Article 1030.04(c) of the Standard Specifications to read:

“The method of application shall be according to Article 1102.01(a)(10).”

Replace the first three sentences of the second paragraph of Article 1102.01(a)(10) of the Standard Specifications to read:

“When hydrated lime is used as the anti-strip additive, a separate bin or tank and feeder system shall be provided to store and accurately proportion the lime onto the aggregate either as a slurry, as dry lime applied to damp aggregates, or as dry lime injected onto the hot aggregates prior to adding the liquid asphalt cement. If the hydrated lime is added either as a slurry or as dry lime on damp aggregates, the lime and aggregates shall be mixed by a power driven pugmill to provide a uniform coating of the lime prior to entering the dryer. If dry hydrated lime is added to the hot dry aggregates in a dryer-drum plant, the lime shall be added in such a manner that the lime will not become entrained into the air stream of the dryer-drum and that thorough dry mixing shall occur prior to the injection point of the liquid asphalt. When a batch plant is used, the hydrated lime shall be added to the mixture in the weigh hopper or as approved by the Engineer.”

Basis of Payment. Replace the seventh paragraph of Article 406.14 of the Standard Specifications with the following:

“For mixes designed and verified under the Hamburg Wheel criteria, the cost of furnishing and introducing anti-stripping additives in the HMA will not be paid for separately, but shall be considered as included in the contract unit price of the HMA item involved.

If an anti-stripping additive is required for any other HMA mix, the cost of the additive will be paid for according to Article 109.04. The cost incurred in introducing the additive into the

HMA will not be paid for separately, but shall be considered as included in the contract unit price of the HMA item involved.

No additional compensation will be awarded to the Contractor because of reduced production rates associated with the addition of the anti-stripping additive.”

80323

HOT MIX ASPHALT – PRIME COAT (BDE)

Effective: November 1, 2014

Revise Note 1 of Article 406.02 of the Standard Specifications to read:

“Note 1. The bituminous material used for prime coat shall be one of the types listed in the following table.

When emulsified asphalts are used, any dilution with water shall be performed by the emulsion producer. The emulsified asphalt shall be thoroughly agitated within 24 hours of application and show no separation of water and emulsion.

Application	Bituminous Material Types
Prime Coat on Brick, Concrete, or HMA Bases	SS-1, SS-1h, SS-1hP, SS-1vh, RS-1, RS-2, CSS-1, CSS-1h, CSS-1hp, CRS-1, CRS-2, HFE-90, RC-70
Prime Coat on Aggregate Bases	MC-30, PEP”

Add the following to Article 406.03 of the Standard Specifications.

- “(i) Vacuum Sweeper 1101.19
- “(j) Spray Paver 1102.06”

Revise Article 406.05(b) of the Standard Specifications to read:

“(b) Prime Coat. The bituminous material shall be prepared according to Article 403.05 and applied according to Article 403.10. The use of RC-70 shall be limited to air temperatures less than 60 °F (15 °C).

- (1) Brick, Concrete or HMA Bases. The base shall be cleaned of all dust, debris and any substance that will prevent the prime coat from adhering to the base. Cleaning shall be accomplished by sweeping to remove all large particles and air blasting to remove dust. As an alternative to air blasting, a vacuum sweeper may be used to accomplish the dust removal. The base shall be free of standing water at the time of application. The prime coat shall be applied uniformly and at a rate that will provide a residual asphalt rate on the prepared surface as specified in the following table.

Type of Surface to be Primed	Residual Asphalt Rate lb/sq ft (kg/sq m)
Milled HMA, Aged Non-Milled HMA, Milled Concrete, Non-Milled Concrete & Tined Concrete	0.05 (0.244)
Fog Coat between HMA Lifts, IL-4.75 & Brick	0.025 (0.122)

The bituminous material for the prime coat shall be placed one lane at a time. If a spray paver is not used, the primed lane shall remain closed until the prime coat is

fully cured and does not pickup under traffic. When placing prime coat through an intersection where it is not possible to keep the lane closed, the prime coat may be covered immediately following its application with fine aggregate mechanically spread at a uniform rate of 2 to 4 lb/sq yd (1 to 2 kg/sq m).

- (2) Aggregate Bases. The prime coat shall be applied uniformly and at a rate that will provide a residual asphalt rate on the prepared surface of 0.25 lb/sq ft \pm 0.01 (1.21 kg/sq m \pm 0.05).

The prime coat shall be permitted to cure until the penetration has been approved by the Engineer, but at no time shall the curing period be less than 24 hours for MC-30 or four hours for PEP. Pools of prime occurring in the depressions shall be broomed or squeegeed over the surrounding surface the same day the prime coat is applied.

The base shall be primed 1/2 width at a time. The prime coat on the second half/width shall not be applied until the prime coat on the first half/width has cured so that it will not pickup under traffic.

The residual asphalt rate will be verified a minimum of once per type of surface to be primed as specified herein for which at least 2000 tons (1800 metric tons) of HMA will be placed. The test will be according to the "Determination of Residual Asphalt in Prime and Tack Coat Materials" test procedure.

Prime coat shall be fully cured prior to placement of HMA to prevent pickup by haul trucks or paving equipment. If pickup occurs, paving shall cease in order to provide additional cure time, and all areas where the pickup occurred shall be repaired.

If after five days, loss of prime coat is evident prior to covering with HMA, additional prime coat shall be placed as determined by the Engineer at no additional cost to the Department."

Revise the last sentence of the first paragraph of Article 406.13(b) of the Standard Specifications to read:

"Water added to emulsified asphalt, as allowed in Article 406.02, will not be included in the quantities measured for payment."

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

"Aggregate for covering prime coat will not be measured for payment."

Revise the first paragraph of Article 406.14 of the Standard Specifications to read:

406.14 Basis of Payment. Prime Coat will be paid for at the contract unit price per pound (kilogram) of residual asphalt applied for BITUMINOUS MATERIALS (PRIME COAT), or POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT)."

Revise Article 407.02 of the Standard Specifications to read:

407.02 Materials. Materials shall be according to Article 406.02, except as follows.

Item	Article/Section
(a) Packaged Rapid Hardening Mortar or Concrete	1018"

Revise Article 407.06(b) of the Standard Specifications to read:

"(b) A bituminous prime coat shall be applied between each lift of HMA according to Article 406.05(b)."

Delete the second paragraph of Article 407.12 of the Standard Specifications.

Revise the first paragraph of Article 408.04 of the Standard Specifications to read:

408.04 Method of Measurement. Bituminous priming material will be measured for payment according to Article 406.13."

Revise the first paragraph of Article 408.05 of the Standard Specifications to read:

408.05 Basis of Payment. This work will be paid for at the contract unit price per pound (kilogram) of residual asphalt applied for BITUMINOUS MATERIALS (PRIME COAT) or POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT) and at the contract unit price per ton (metric ton) for INCIDENTAL HOT-MIX ASPHALT SURFACING."

Revise Article 1032.02 of the Standard Specifications to read:

1032.02 Measurement. Asphalt binders, emulsified asphalts, rapid curing liquid asphalt, medium curing liquid asphalts, slow curing liquid asphalts, asphalt fillers, and road oils will be measured by weight.

A weight ticket for each truck load shall be furnished to the inspector. The truck shall be weighed at a location approved by the Engineer. The ticket shall show the weight of the empty truck (the truck being weighed each time before it is loaded), the weight of the loaded truck, and the net weight of the bituminous material.

When an emulsion or cutback is used for prime coat, the percentage of asphalt residue of the actual certified product shall be shown on the producer's bill of lading or attached certificate of analysis. If the producer adds extra water to an emulsion at the request of the purchaser, the amount of water shall also be shown on the bill of lading.

Payment will not be made for bituminous materials in excess of 105 percent of the amount specified by the Engineer."

Add the following to the table in Article 1032.04 of the Standard Specifications.

"SS-1vh	160-180	70-80
RS-1, CRS-1	75-130	25-55"

Add the following to Article 1032.06 of the Standard Specifications.

"(g) Non Tracking Emulsified Asphalt SS-1vh shall be according to the following.

Requirements for SS-1vh			
Test		SPEC	AASHTO Test Method
Saybolt Viscosity @ 25C,	SFS	20-200	T 72
Storage Stability, 24hr.,	%	1 max.	T 59
Residue by Evaporation,	%	50 min.	T 59
Sieve Test,	%	0.3 max.	T 59
Tests on Residue from Evaporation			
Penetration @25°C, 100g., 5 sec.,	dmm	20 max.	T 49
Softening Point,	°C	65 min.	T 53
Solubility,	%	97.5 min.	T 44
Orig. DSR @ 82°C,	kPa	1.00 min.	T 315"

Revise the last table in Article 1032.06(f)(2)d. of the Standard Specifications to read:

"Grade	Use
SS-1, SS-1h, RS-1, RS-2, CSS-1, CRS-1, CRS-2, CSS-1h, HFE-90, SS-1hP, CSS-1hP, SS-1vh	Prime or fog seal
PEP	Bituminous surface treatment prime
RS-2, HFE-90, HFE-150, HFE- 300, CRSP, HFP, CRS-2, HFRS-2	Bituminous surface treatment
CSS-1h Latex Modified	Microsurfacing"

Add the following to Article 1101 of the Standard Specifications.

"1101.19 Vacuum Sweeper. The vacuum sweeper shall have a minimum sweeping path of 52 in. (1.3 m) and a minimum blower rating of 20,000 cu ft per minute (566 cu m per minute)."

Add the following to Article 1102 of the Standard Specifications:

"1102.06 Spray Paver. The spreading and finishing machine shall be capable of spraying a rapid setting emulsion tack coat, paving a layer of HMA, and providing a smooth HMA mat in one pass. The HMA shall be spread over the tack coat in less than five seconds after the

application of the tack coat during normal paving speeds. No wheel or other part of the paving machine shall come into contact with the tack coat before the HMA is applied. In addition to meeting the requirements of Article 1102.03, the spray paver shall also meet the requirements of Article 1102.05 for the tank, heating system, pump, thermometer, tachometer or synchronizer, and calibration. The spray bar shall be equipped with properly sized and spaced nozzles to apply a uniform application of tack coat at the specified rate for the full width of the mat being placed.”

80348

LRFD STORM SEWER BURIAL TABLES (BDE)

Effective: November 1, 2013

Revised: April 1, 2015

Revise Article 550.02 of the Standard Specifications to read as follows:

Item	Article Section
(a) Clay Sewer Pipe	1040.02
(b) Extra Strength Clay Pipe	1040.02
(c) Concrete Sewer, Storm Drain, and Culvert Pipe	1042
(d) Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe	1042
(e) Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe (Note 1)	1042
(f) Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe (Note 1)	1042
(g) Polyvinyl Chloride (PVC) Pipe	1040.03
(h) Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior	1040.03
(i) Corrugated Polypropylene (CPP) Pipe with Smooth Interior	1040.08
(j) Rubber Gaskets and Preformed Flexible Joint Sealants for Concrete Pipe	1056
(k) Mastic Joint Sealer for Pipe	1055
(l) External Sealing Band	1057
(m) Fine Aggregate (Note 2)	1003.04
(n) Coarse Aggregate (Note 3)	1004.05
(o) Reinforcement Bars and Welded Wire Fabric	1006.10
(p) Handling Hole Plugs	1042.16
(q) Polyethylene (PE) Pipe with a Smooth Interior	1040.04
(r) Corrugated Polyethylene (PE) Pipe with a Smooth Interior	1040.04

Note 1. The class of elliptical and arch pipe used for various storm sewer sizes and heights of fill shall conform to the requirements for circular pipe.

Note 2. The fine aggregate shall be moist.

Note 3. The coarse aggregate shall be wet.”

Revise the table for permitted materials in Article 550.03 of the Standard Specifications as follows:

"Class	Materials
A	Rigid Pipes: Clay Sewer Pipe Extra Strength Clay Pipe Concrete Sewer, Storm Drain, and Culvert Pipe Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe
B	Rigid Pipes: Clay Sewer Pipe Extra Strength Clay Pipe Concrete Sewer, Storm Drain, and Culvert Pipe Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe Flexible Pipes: Polyvinyl Chloride (PVC) Pipe Corrugated Polyvinyl Chloride Pipe (PVC) with a Smooth Interior Polyethylene (PE) Pipe with a Smooth Interior Corrugated Polyethylene (PE) Pipe with a Smooth Interior Corrugated Polypropylene (CPP) Pipe with a Smooth Interior"

Replace the storm sewers tables in Article 550.03 of the Standard Specifications with the following:

STORM SEWERS KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE																
Nominal Diameter in.	Type 1								Type 2							
	Fill Height: 3' and less With 1' minimum cover								Fill Height: Greater than 3' not exceeding 10'							
	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP
10	NA	3	X	X	X	X	X	NA	NA	1	*X	X	X	X	X	NA
12	IV	NA	X	X	X	X	X	X	II	1	*X	X	X	X	X	X
15	IV	NA	NA	X	X	NA	X	X	II	1	*X	X	X	NA	X	X
18	IV	NA	NA	X	X	X	X	X	II	2	X	X	X	X	X	X
21	III	NA	NA	X	X	NA	NA	NA	II	2	X	X	X	NA	NA	NA
24	III	NA	NA	X	X	X	X	X	II	2	X	X	X	X	X	X
27	III	NA	NA	NA	NA	NA	NA	NA	II	3	X	NA	NA	NA	NA	NA
30	IV	NA	NA	X	X	X	X	X	II	3	X	X	X	X	X	X
33	III	NA	NA	NA	NA	NA	NA	NA	II	NA	X	NA	NA	NA	NA	NA
36	III	NA	NA	X	X	X	X	X	II	NA	X	X	X	X	X	X
42	II	NA	X	X	NA	X	X	NA	II	NA	X	X	NA	X	NA	NA
48	II	NA	X	X	NA	X	X	X	II	NA	X	X	NA	X	NA	NA
54	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
60	II	NA	NA	NA	NA	NA	NA	X	II	NA	NA	NA	NA	NA	NA	X
66	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
72	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
78	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
84	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
90	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
96	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA
102	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA
108	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA

- RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
- CSP Concrete Sewer, Storm drain, and Culvert Pipe
- PVC Polyvinyl Chloride Pipe
- CPVC Corrugated Polyvinyl Chloride Pipe
- ESCP Extra Strength Clay Pipe
- PE Polyethylene Pipe with a Smooth Interior
- CPE Corrugated Polyethylene Pipe with a Smooth Interior
- CPP Corrugated Polypropylene pipe with a Smooth Interior
- X This material may be used for the given pipe diameter and fill height.
- NA This material is Not Acceptable for the given pipe diameter and fill height.
- * May also use Standard Strength Clay Pipe

STORM SEWERS (Metric)																
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED																
FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE																
Nominal Diameter in.	Type 1								Type 2							
	Fill Height: 1 m and less With 300 mm minimum cover								Fill Height: Greater than 1 m not exceeding 3 m							
	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP
250	NA	3	X	X	X	X	X	NA	NA	1	*X	X	X	X	X	NA
300	IV	NA	X	X	X	X	X	X	II	1	*X	X	X	X	X	X
375	IV	NA	NA	X	X	NA	X	X	II	1	*X	X	X	NA	X	X
450	IV	NA	NA	X	X	X	X	X	II	2	X	X	X	X	X	X
525	III	NA	NA	X	X	NA	NA	NA	II	2	X	X	X	NA	NA	NA
600	III	NA	NA	X	X	X	X	X	II	2	X	X	X	X	X	X
675	III	NA	NA	NA	NA	NA	NA	NA	II	3	X	NA	NA	NA	NA	NA
750	IV	NA	NA	X	X	X	X	X	II	3	X	X	X	X	X	X
825	III	NA	NA	NA	NA	NA	NA	NA	II	NA	X	NA	NA	NA	NA	NA
900	III	NA	NA	X	X	X	X	X	II	NA	X	X	X	X	X	X
1050	II	NA	X	X	NA	X	X	NA	II	NA	X	X	NA	X	NA	NA
1200	II	NA	X	X	NA	X	X	X	II	NA	X	X	NA	X	NA	NA
1350	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
1500	II	NA	NA	NA	NA	NA	NA	X	II	NA	NA	NA	NA	NA	NA	X
1650	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
1800	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
1950	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
2100	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
2250	II	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA
2400	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA
2550	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA
2700	II	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA

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- CPVC Corrugated Polyvinyl Chloride Pipe
- ESCP Extra Strength Clay Pipe
- PE Polyethylene Pipe with a Smooth Interior
- CPE Corrugated Polyethylene Pipe with a Smooth Interior
- CPP Corrugated Polypropylene pipe with a Smooth Interior
- X This material may be used for the given pipe diameter and fill height.
- NA This material is Not Acceptable for the given pipe diameter and fill height.
- * May also use Standard Strength Clay Pipe

STORM SEWERS
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED
FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE

Nominal Diameter in.	Type 3								Type 4						
	Fill Height: Greater than 10' not exceeding 15'								Fill Height: Greater than 15' not exceeding 20'						
	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	GPP	RCCP	CSP	ESCP	PVC	CPVC	PE	GPP
10	NA	2	X	X	X	X	X	NA	NA	3	X	X	X	X	NA
12	III	2	X	X	X	X	NA	X	IV	NA	NA	X	X	X	NA
15	III	3	X	X	X	NA	NA	X	IV	NA	NA	X	X	NA	X
18	III	NA	X	X	X	X	NA	X	IV	NA	NA	X	X	X	NA
21	III	NA	NA	X	X	NA	NA	NA	IV	NA	NA	X	X	NA	NA
24	III	NA	NA	X	X	X	NA	NA	IV	NA	NA	X	X	X	NA
27	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
30	III	NA	NA	X	X	X	NA	X	IV	NA	NA	X	X	X	NA
33	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
36	III	NA	NA	X	X	X	NA	NA	IV	NA	NA	X	X	X	NA
42	III	NA	NA	X	NA	X	NA	NA	IV	NA	NA	X	NA	X	NA
48	III	NA	NA	X	NA	X	NA	NA	IV	NA	NA	X	NA	X	NA
54	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
60	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
66	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
72	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
78	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
84	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
90	III	NA	NA	NA	NA	NA	NA	NA	1680	NA	NA	NA	NA	NA	NA
96	III	NA	NA	NA	NA	NA	NA	NA	1690	NA	NA	NA	NA	NA	NA
102	III	NA	NA	NA	NA	NA	NA	NA	1700	NA	NA	NA	NA	NA	NA
108	1360	NA	NA	NA	NA	NA	NA	NA	1710	NA	NA	NA	NA	NA	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe

CSP Concrete Sewer, Storm drain, and Culvert Pipe

PVC Polyvinyl Chloride Pipe

CPVC Corrugated Polyvinyl Chloride Pipe

ESCP Extra Strength Clay Pipe

PE Polyethylene Pipe with a Smooth Interior

CPE Corrugated Polyethylene Pipe with a Smooth Interior

GPP Corrugated Polypropylene pipe with a Smooth Interior

X This material may be used for the given pipe diameter and fill height.

NA This material is Not Acceptable for the given pipe diameter and fill height.

* May also use Standard Strength Clay Pipe

Note RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the D-load to produce a 0.01 in crack

STORM SEWERS (metric)
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED
FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE

Nominal Diameter in.	Type 3								Type 4						
	Fill Height: Greater than 3 m not exceeding 4.5 m								Fill Height: Greater than 4.5 m not exceeding 6 m						
	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP	RCCP	CSP	ESCP	PVC	CPVC	PE	CPP
250	NA	2	X	X	X	X	X	NA	NA	3	X	X	X	X	NA
300	III	2	X	X	X	X	NA	X	IV	NA	NA	X	X	X	NA
375	III	3	X	X	X	NA	NA	X	IV	NA	NA	X	X	NA	X
450	III	NA	X	X	X	X	NA	X	IV	NA	NA	X	X	X	NA
525	III	NA	NA	X	X	NA	NA	NA	IV	NA	NA	X	X	NA	NA
600	III	NA	NA	X	X	X	NA	NA	IV	NA	NA	X	X	X	NA
675	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
750	III	NA	NA	X	X	X	NA	X	IV	NA	NA	X	X	X	NA
825	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
900	III	NA	NA	X	X	X	NA	NA	IV	NA	NA	X	X	X	NA
1050	III	NA	NA	X	NA	X	NA	NA	IV	NA	NA	X	NA	X	NA
1200	III	NA	NA	X	NA	X	NA	NA	IV	NA	NA	X	NA	X	NA
1350	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
1500	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
1650	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
1800	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
1950	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
2100	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
2250	III	NA	NA	NA	NA	NA	NA	NA	80	NA	NA	NA	NA	NA	NA
2400	III	NA	NA	NA	NA	NA	NA	NA	80	NA	NA	NA	NA	NA	NA
2550	III	NA	NA	NA	NA	NA	NA	NA	80	NA	NA	NA	NA	NA	NA
2700	70	NA	NA	NA	NA	NA	NA	NA	80	NA	NA	NA	NA	NA	NA

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- ESCP Extra Strength Clay Pipe
- PE Polyethylene Pipe with a Smooth Interior
- CPE Corrugated Polyethylene Pipe with a Smooth Interior
- CPP Corrugated Polypropylene pipe with a Smooth Interior
- X This material may be used for the given pipe diameter and fill height.
- NA This material is Not Acceptable for the given pipe diameter and fill height.
- * May also use Standard Strength Clay Pipe
- Note RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the metric D-load to produce a 25.4 micro-meter crack.

STORM SEWERS KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE								
Nominal Diameter in.	Type 5			Type 6			Type 7	
	Fill Height: Greater than 20' not exceeding 25'			Fill Height: Greater than 25' not exceeding 30'			Fill Height: Greater than 30' not exceeding 35'	
	RCCP	PVC	CPVC	RCCP	PVC	CPVC	RCCP	CPVC
10	NA	X	X	NA	X	X	NA	X
12	IV	X	X	V	X	X	V	X
15	IV	X	X	V	X	X	V	X
18	IV	X	X	V	X	X	V	X
21	IV	X	X	V	X	X	V	X
24	IV	X	X	V	X	X	V	X
27	IV	NA	NA	V	NA	NA	V	NA
30	IV	X	X	V	X	X	V	X
33	IV	NA	NA	V	NA	NA	V	NA
36	IV	X	X	V	X	X	V	X
42	IV	X	NA	V	X	NA	V	NA
48	IV	X	NA	V	X	NA	V	NA
54	IV	NA	NA	V	NA	NA	V	NA
60	IV	NA	NA	V	NA	NA	V	NA
66	IV	NA	NA	V	NA	NA	V	NA
72	V	NA	NA	V	NA	NA	V	NA
78	2020	NA	NA	2370	NA	NA	2730	NA
84	2020	NA	NA	2380	NA	NA	2740	NA
90	2030	NA	NA	2390	NA	NA	2750	NA
96	2040	NA	NA	2400	NA	NA	2750	NA
102	2050	NA	NA	2410	NA	NA	2760	NA
108	2060	NA	NA	2410	NA	NA	2770	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe

PVC Polyvinyl Chloride Pipe

CPVC Corrugated Polyvinyl Chloride Pipe

ESCP Extra Strength Clay Pipe

X This material may be used for the given pipe diameter and fill height.

NA This material is Not Acceptable for the given pipe diameter and fill height.

Note RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the D-load to produce a 0.01 in crack

STORM SEWERS (metric) KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE								
Nominal Diameter in.	Type 5			Type 6			Type 7	
	Fill Height: Greater than 20' not exceeding 25'			Fill Height: Greater than 25' not exceeding 30'			Fill Height: Greater than 30' not exceeding 35'	
	RCCP	PVC	CPVC	RCCP	PVC	CPVC	RCCP	CPVC
250	NA	X	X	NA	X	X	NA	X
300	IV	X	X	V	X	X	V	X
375	IV	X	X	V	X	X	V	X
450	IV	X	X	V	X	X	V	X
525	IV	X	X	V	X	X	V	X
600	IV	X	X	V	X	X	V	X
675	IV	NA	NA	V	NA	NA	V	NA
750	IV	X	X	V	X	X	V	X
825	IV	NA	NA	V	NA	NA	V	NA
900	IV	X	X	V	X	X	V	X
1050	IV	X	NA	V	X	NA	V	NA
1200	IV	X	NA	V	X	NA	V	NA
1350	IV	NA	NA	V	NA	NA	V	NA
1500	IV	NA	NA	V	NA	NA	V	NA
1650	IV	NA	NA	V	NA	NA	V	NA
1800	V	NA	NA	V	NA	NA	V	NA
1950	100	NA	NA	110	NA	NA	130	NA
2100	100	NA	NA	110	NA	NA	130	NA
2250	100	NA	NA	110	NA	NA	130	NA
2400	100	NA	NA	120	NA	NA	130	NA
2550	100	NA	NA	120	NA	NA	130	NA
2700	100	NA	NA	120	NA	NA	130	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe

PVC Polyvinyl Chloride Pipe

CPVC Corrugated Polyvinyl Chloride Pipe

ESCP Extra Strength Clay Pipe

X This material may be used for the given pipe diameter and fill height.

NA This material is Not Acceptable for the given pipe diameter and fill height.

Note RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the metric D-load to produce a 25.4 micro-meter crack.

Revise the sixth paragraph of Article 550.06 of the Standard Specifications to read:

“PVC, PE and CPP pipes shall be joined according to the manufacturer's specifications.”

Revise the first and second paragraphs of Article 550.08 of the Standard Specifications to read:

“550.08 Deflection Testing for Storm Sewers. All PVC, PE, and CPP storm sewers shall be tested for deflection not less than 30 days after the pipe is installed and the backfill compacted. The testing shall be performed in the presence of the Engineer.

For PVC, PE, and CPP storm sewers with diameters 24 in. (600 mm) or smaller, a mandrel drag shall be used for deflection testing. For PVC, PE, and CPP storm sewers with diameters over 24 in. (600 mm), deflection measurements other than by a mandrel shall be used.”

Revise the fifth paragraph of Article 550.08 to read as follows.

“The outside diameter of the mandrel shall be 95 percent of the base inside diameter. For all PVC pipe the base inside diameter shall be defined using ASTM D 3034 methodology. For all PE and CPP pipe, the base inside diameter shall be defined as the average inside diameter based on the minimum and maximum tolerances specified in the corresponding ASTM or AASHTO material specifications.”

Revise the first paragraph of Article 1040.03 of the Standard Specifications to read:

“1040.03 Polyvinyl Chloride (PVC) Pipe. Acceptance testing of PVC pipe and fittings shall be accomplished during the same construction season in which they are installed. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written certification that the material meets those properties. The pipe shall meet the following additional requirements.”

Delete Articles 1040.03(e) and (f) of the Standard Specifications.

Revise Articles 1040.04(c) and (d) of the Standard Specifications to read:

“(c) PE Profile Wall Pipe for Insertion Lining. The pipe shall be according to ASTM F 894. When used for insertion lining of pipe culverts, the pipe liner shall have a minimum pipe stiffness of 46 psi (317 kPa) at five percent deflection for nominal inside diameters of 42 in. (1050 mm) or less. For nominal inside diameters of greater than 42 in. (1050 mm), the pipe liner shall have a minimum pipe stiffness of 32.5 psi (225 kPa) at five percent deflection. All sizes shall have wall construction that presents essentially smooth internal and external surfaces.

(d) PE Pipe with a Smooth Interior. The pipe shall be according to ASTM F 714 (DR 32.5) with a minimum cell classification of PE 335434 as defined in ASTM D 3350. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written

certification that the material meets those properties and the resin used to manufacture the pipe meets or exceeds the minimum cell classification requirements.”

Add the following to Section 1040 of the Standard Specifications:

“1040.08 Polypropylene (PP) Pipe. Storage and handling shall be according to the manufacturer's recommendations, except in no case shall the pipe be exposed to direct sunlight for more than six months. Acceptance testing of the pipe shall be accomplished during the same construction season in which it is installed. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written certification that the material meets those properties. The pipe shall meet the following additional requirements.

- (a) Corrugated PP Pipe with a Smooth Interior. The pipe shall be according to AAHSTO M 330 (nominal size – 12 to 60 in. (300 to 1500 mm)). The pipe shall be Type S or D.
- (b) Perforated Corrugated PP Pipe with A Smooth Interior. The pipe shall be according to AASHTO M 330 (nominal size – 12 to 60 in. (300 to 1500 mm)). The pipe shall be Type SP. In addition, the top centerline of the pipe shall be marked so that it is readily visible from the top of the trench before backfilling, and the upper ends of the slot perforations shall be a minimum of ten degrees below the horizontal.”

80325

MECHANICAL SIDE TIE BAR INSERTER (BDE)

Effective: August 1, 2014

Revised: January 1, 2015

Add the following to Article 420.03 of the Standard Specifications:

“(k) Mechanical Side Tie Bar Inserters 1103.18”

Revise Article 420.05(b) of the Standard Specifications to read:

“(b) Longitudinal Construction Joint. The tie bars shall be installed using one of the following methods.

- (1) Preformed or Drilled Holes. The tie bars shall be installed with an approved nonshrink grout or chemical adhesive providing a minimum pull-out strength as follows.

Bar Size	Minimum Pull-Out Strength
No. 6 (No. 19)	11,000 lb (49 kN)
No. 8 (No. 25)	19,750 lb (88 kN)

Holes shall be blown clean and dry prior to placing the grout or adhesive. If compressed air is used, the pneumatic tool lubricator shall be bypassed and a filter installed on the discharge valve to keep water and oil out of the lines. The installation shall be with methods and tools conforming to the grout or adhesive manufacturer’s recommendations.

The Contractor shall load test five percent of the first 500 tie bars installed. No further installation will be allowed until the initial five percent testing has been completed and approval to continue installation has been given by the Engineer. Testing will be required for 0.5 percent of the bars installed after the initial 500. For each bar that fails to pass the minimum requirements, two more bars selected by the Engineer shall be tested. Each bar that fails to meet the minimum load requirement shall be reinstalled and retested. The equipment and method used for testing shall meet the requirements of ASTM E 488. All tests shall be performed within 72 hours of installation. The tie bars shall be installed and approved before concrete is placed in the adjacent lane.”

- (2) Inserted. The tie bars shall be installed with the use of a mechanical side tie bar inserter. The inserter shall insert the tie bars with vibration while still within the extrusion process, after the concrete has been struck off and consolidated without deformation of the slab. The inserter shall remain stationary relative to the pavement when inserting tie bars, while the formless paver continues to move in the direction of paving.

A void greater than 1/8 in. (3 mm) at any location around the tie bar shall require immediate adjustment of the paving operation. A void greater than 1/2 in.(13 mm) shall be repaired with a nonshrink grout or chemical adhesive after the concrete has hardened. If at the end of the day of paving more than 20 percent of the tie bars show a void larger than 1/8 in. (3 mm) at any point around the bar, the use of the side tie bar inserter shall be discontinued.

(3) Formed in Place. The tie bar shall be formed in place as shown on the plans.

The sealant reservoir shall be formed either by sawing after the concrete has set according to Article 420.05(a) or by hand tools when the concrete is in a plastic state.”

Add the following to Section 1103 of the Standard Specifications:

“**1103.18 Mechanical Side Bar Inserters.** The mechanical side tie bar inserter shall be self-contained and supported on the formless paver with the ability to move independently from the formless paver. The insertion apparatus shall vibrate within a frequency of 2000 to 6000 vpm. A vibrating reed tachometer, hand type, shall be provided according to Article 1103.12.”

80342

PAVEMENT STRIPING - SYMBOLS (BDE)

Effective: January 1, 2015

Revise the Symbol Table of Article 780.14 of the Supplemental Specifications to read:

"SYMBOLS

Symbol	Large Size sq ft (sq m)	Small Size sq ft (sq m)
Through Arrow	11.5 (1.07)	6.5 (0.60)
Left or Right Arrow	15.6 (1.47)	8.8 (0.82)
2 Arrow Combination Left (or Right) and Through	26.0 (2.42)	14.7 (1.37)
3 Arrow Combination Left, Right, and Through	38.4 (3.56)	20.9 (1.94)
Lane Drop Arrow	41.5 (3.86)	--
Wrong Way Arrow	24.3 (2.26)	--
Railroad "R" 6 ft (1.8 m)	3.6 (0.33)	--
Railroad "X" 20 ft (6.1 m)	54.0 (5.02)	--
International Symbol of Accessibility	3.1 (0.29)	--
Bike Symbol	4.7 (0.44)	--
Shared Lane Symbol	8.0 (0.74)	--"

80352

PRECAST CONCRETE HANDHOLE (BDE)

Effective: August 1, 2014

Revise the third paragraph of Article 814.03 of the Standard Specifications to read:

"Handholes shall be constructed as shown on the plans and shall be cast-in-place, composite concrete, or precast units. Heavy duty handholes shall be either cast-in-place or precast units."

Add the following to Article 814.03 of the Standard Specifications:

"(c) Precast Concrete. Precast concrete handholes shall be fabricated according to Article 1042.17. Where a handhole is contiguous to a sidewalk, preformed joint filler of 1/2 inch (13 mm) thickness shall be placed between the handhole and the sidewalk."

Add the following to Section 1042 of the Standard Specifications:

"**1042.17 Precast Concrete Handholes.** Precast concrete handholes shall be according to Articles 1042.03(a)(c)(d)(e)."

80343

PROGRESS PAYMENTS (BDE)

Effective: November 2, 2013

Revise Article 109.07(a) of the Standard Specifications to read:

"(a) Progress Payments. 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. The amount of the estimate approved as due for payment will be vouchered by the Department and presented to the State Comptroller for payment. No amount less than \$1000.00 will be approved for payment other than the final payment.

Progress payments may be reduced by liens filed pursuant to Section 23(c) of the Mechanics' Lien Act, 770 ILCS 60/23(c).

If a Contractor or subcontractor has defaulted on a loan issued under the Department's Disadvantaged Business Revolving Loan Program (20 ILCS 2705/2705-610), progress payments may be reduced pursuant to the terms of that loan agreement. In such cases, the amount of the estimate related to the work performed by the Contractor or subcontractor, in default of the loan agreement, will be offset, in whole or in part, and vouchered by the Department to the Working Capital Revolving Fund or designated escrow account. Payment for the work shall be considered as issued and received by the Contractor or subcontractor on the date of the offset voucher. Further, the amount of the offset voucher shall be a credit against the Department's obligation to pay the Contractor, the Contractor's obligation to pay the subcontractor, and the Contractor's or subcontractor's total loan indebtedness to the Department. The offset shall continue until such time as the entire loan indebtedness is satisfied. The Department will notify the Contractor and Fund Control Agent in a timely manner of such offset. The Contractor or subcontractor shall not be entitled to additional payment in consideration of the offset.

The failure to perform any requirement, obligation, or term of the contract by the Contractor shall be reason for withholding any progress payments until the Department determines that compliance has been achieved."

80328

RAILROAD PROTECTIVE LIABILITY INSURANCE (5 and 10) (BDE)

Effective: January 1, 2006

Description. Railroad Protective Liability and Property Damage Liability Insurance shall be carried according to Article 107.11 of the Standard Specifications, except the limits shall be a minimum of \$5,000,000 combined single limit per occurrence for bodily injury liability and property damage liability with an aggregate limit of \$10,000,000 over the life of the policy. A separate policy is required for each railroad unless otherwise noted.

NAMED INSURED & ADDRESS	NUMBER & SPEED OF PASSENGER TRAINS	NUMBER & SPEED OF FREIGHT TRAINS
Chicago, Central & Pacific Railroad and its Parents Street1006 East Fourth Street Waterloo, IA 50703	0	Less than 1 per week,
Harlan Ariens, Manager of Public Works		
DOT/AAR No.: 290 048A RR Division: North	RR Mile Post: 85.55 RR Sub-Division: Freeport	
For Freight/Passenger Information Contact: Jim Bard Manager of Track Maintenance (MTM)	Phone: 815-218-0958	
For Insurance Information Contact: Harlan Ariens	Phone: 319-236-9205 Harlan.arian@cn.ca	
Chicago, Central & Pacific Railroad and its Parents Street1006 East Fourth Street Waterloo, IA 50703	0	4 per day at 25 mph
Harlan Ariens, Manager of Public Works		
DOT/AAR No.: 290 013Y RR Division: North	RR Mile Post: 83.05 RR Sub-Division: Freeport	
For Freight/Passenger Information Contact: Jim Bard Manager of Track Maintenance (MTM)	Phone: 815-218-0958	
For Insurance Information Contact: Harlan Ariens	Phone: 319-236-9205 Harlan.arian@cn.ca	

Union Pacific Railway Company
1400 Douglas Street
Omaha, NE 68179

Mr. John N. Venice – Manager Special Projects

DOT/AAR No.: 174 655V
RR Division: Chicago

RR Mile Post: 89.52
RR Sub-Division: Belvidere

For Freight/Passenger Information Contact: Tom Haseltine Phone: 414-788-2310
For Insurance Information Contact: Donna McLaughlin at Marsh USA Phone: 800-729-7001

Approval of Insurance. The original and one certified copy of each required policy shall be submitted to the following address for approval:

Illinois Department of Transportation
Bureau of Design and Environment
2300 South Dirksen Parkway, Room 326
Springfield, Illinois 62764

The Contractor will be advised when the Department has received approval of the insurance from the railroad(s). Before any work begins on railroad right-of-way, the Contractor shall submit to the Engineer evidence that the required insurance has been approved by the railroad(s). The Contractor shall also provide the Engineer with the expiration date of each required policy.

Basis of Payment. Providing Railroad Protective Liability and Property Damage Liability Insurance will be paid for at the contract unit price per Lump Sum for RAILROAD PROTECTIVE LIABILITY INSURANCE.

80157

RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (BDE)

Effective: November 1, 2012

Revise: January 2, 2015

Revise Section 1031 of the Standard Specifications to read:

"SECTION 1031. RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES

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

- (a) Reclaimed Asphalt Pavement (RAP). RAP is the material produced by cold milling or crushing an existing hot-mix asphalt (HMA) pavement. The Contractor shall supply written documentation that the RAP originated from routes or airfields under federal, state, or local agency jurisdiction.
- (b) Reclaimed Asphalt Shingles (RAS). Reclaimed asphalt shingles (RAS). RAS is from the processing and grinding of preconsumer or post-consumer shingles. RAS shall be a clean and uniform material with a maximum of 0.5 percent unacceptable material, as defined in Bureau of Materials and Physical Research Policy Memorandum "Reclaimed Asphalt Shingle (RAS) Sources", by weight of RAS. All RAS used shall come from a Bureau of Materials and Physical Research approved processing facility where it shall be ground and processed to 100 percent passing the 3/8 in. (9.5 mm) sieve and 93 percent passing the #4 (4.75 mm) sieve based on a dry shake gradation. RAS shall be uniform in gradation and asphalt binder content and shall meet the testing requirements specified herein. In addition, RAS shall meet the following Type 1 or Type 2 requirements.
 - (1) Type 1. Type 1 RAS shall be processed, preconsumer asphalt shingles salvaged from the manufacture of residential asphalt roofing shingles.
 - (2) Type 2. Type 2 RAS shall be processed post-consumer shingles only, salvaged from residential, or four unit or less dwellings not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP).

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

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

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

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

Mixture FRAP will be used in:	Sieve Size that 100% of FRAP Shall Pass
IL-25.0	2 in. (50 mm)
IL-19.0	1 1/2 in. (40 mm)
IL-12.5	1 in. (25 mm)
IL-9.5	3/4 in. (20 mm)
IL-4.75	1/2 in. (13 mm)

- (2) Homogeneous. Homogeneous RAP stockpiles shall consist of RAP from Class I, HMA (High and Low ESAL) mixtures and represent: 1) the same aggregate quality, but shall be at least C quality; 2) the same type of crushed aggregate (either crushed natural aggregate, ACBF slag, or steel slag); 3) similar gradation; and 4) similar asphalt binder content. If approved by the Engineer, combined single pass surface/binder millings may be considered "homogenous" with a quality rating dictated by the lowest coarse aggregate quality present in the mixture.
- (3) Conglomerate. Conglomerate RAP stockpiles shall consist of RAP from Class I, HMA (High and Low ESAL) mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. This RAP may have an inconsistent gradation and/or asphalt binder content prior to processing. All conglomerate RAP shall be processed prior to testing by crushing to where all RAP shall pass the 5/8 in. (16 mm) or smaller screen. Conglomerate RAP stockpiles shall not contain steel slag.
- (4) Conglomerate "D" Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP from Class I, HMA (High or Low ESAL), or "All Other" (as defined by Article 1030.04(a)(3)) mixtures. The coarse aggregate in this RAP may be crushed or round but shall be at least D quality. This RAP may have an inconsistent gradation and/or asphalt binder content. Conglomerate DQ RAP stockpiles shall not contain steel slag.
- (5) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Non-Quality".

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

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

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

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

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

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

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

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

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

- (b) RAS Testing. RAS or RAS blended with manufactured sand shall be sampled and tested during stockpiling according to Illinois Department of Transportation Policy Memorandum, "Reclaimed Asphalt Shingle (RAS) Source".

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

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

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

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

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

Parameter	FRAP/Homogeneous /Conglomerate	Conglomerate "D" Quality
1 in. (25 mm)		$\pm 5 \%$
1/2 in. (12.5 mm)	$\pm 8 \%$	$\pm 15 \%$
No. 4 (4.75 mm)	$\pm 6 \%$	$\pm 13 \%$
No. 8 (2.36 mm)	$\pm 5 \%$	
No. 16 (1.18 mm)		$\pm 15 \%$
No. 30 (600 μm)	$\pm 5 \%$	
No. 200 (75 μm)	$\pm 2.0 \%$	$\pm 4.0 \%$
Asphalt Binder	$\pm 0.4 \%$ ^{1/}	$\pm 0.5 \%$
G_{mm}	± 0.03	

1/ The tolerance for FRAP shall be $\pm 0.3 \%$.

If more than 20 percent of the individual sieves and/or asphalt binder content tests are out of the above tolerances, the RAP/FRAP shall not be used in HMA unless the

RAP/FRAP representing the failing tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

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

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

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

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

1031.05 Quality Designation of Aggregate in RAP/FRAP.

- (a) RAP. The aggregate quality of the RAP for homogenous, conglomerate, and conglomerate "D" quality stockpiles shall be set by the lowest quality of coarse aggregate in the RAP stockpile and are designated as follows.
- (1) RAP from Class I, Superpave/HMA (High ESAL), or (Low ESAL) IL-9.5L surface mixtures are designated as containing Class B quality coarse aggregate.
 - (2) RAP from Superpave/HMA (Low ESAL) IL-19.0L binder mixture is designated as Class D quality coarse aggregate.
 - (3) RAP from Class I, Superpave/HMA (High ESAL) binder mixtures, bituminous base course mixtures, and bituminous base course widening mixtures are designated as containing Class C quality coarse aggregate.
 - (4) RAP from bituminous stabilized subbase and BAM shoulders are designated as containing Class D quality coarse aggregate.
- (b) FRAP. If the Engineer has documentation of the quality of the FRAP aggregate, the Contractor shall use the assigned quality provided by the Engineer.

If the quality is not known, the quality shall be determined as follows. Coarse and fine FRAP stockpiles containing plus #4 (4.75 mm) sieve coarse aggregate shall have a maximum tonnage of 5,000 tons (4,500 metric tons). The Contractor shall obtain a representative sample witnessed by the Engineer. The sample shall be a minimum of 50 lb (25 kg). The sample shall be extracted according to Illinois Modified AASHTO T 164 by a consultant prequalified by the Department for the specified testing. The consultant shall submit the test results along with the recovered aggregate to the District Office. The cost for this testing shall be paid by the Contractor. The District will forward the sample to the BMPR Aggregate Lab for MicroDeval Testing, according to Illinois Modified AASHTO T 327. A maximum loss of 15.0 percent will be applied for all HMA applications.

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

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

- (1) Coarse Aggregate Size. The coarse aggregate in all RAP shall be equal to or less than the nominal maximum size requirement for the HMA mixture to be produced.
- (2) Steel Slag Stockpiles. Homogeneous RAP stockpiles containing steel slag will be approved for use in all HMA (High ESAL and Low ESAL) Surface and Binder Mixture applications.
- (3) Use in HMA Surface Mixtures (High and Low ESAL). RAP/FRAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall be FRAP or homogeneous in which the coarse aggregate is Class B quality or better. RAP/FRAP from Conglomerate stockpiles shall be considered equivalent to limestone for frictional considerations. Known frictional contributions from plus #4 (4.75 mm) homogeneous RAP and FRAP stockpiles will be accounted for in meeting frictional requirements in the specified mixture.
- (4) Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. RAP/FRAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be FRAP, homogeneous, or conglomerate, in which the coarse aggregate is Class C quality or better.
- (5) Use in Shoulders and Subbase. RAP/FRAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be FRAP, homogeneous, conglomerate, or conglomerate DQ.
- (6) When the Contractor chooses the RAP option, the percentage of RAP shall not exceed the amounts indicated in Article 1031.06(c)(1) below for a given N Design.

- (b) RAS. RAS meeting Type 1 or Type 2 requirements will be permitted in all HMA applications as specified herein.
- (c) RAP/FRAP and/or RAS Usage Limits. Type 1 or Type 2 RAS may be used alone or in conjunction with RAP or FRAP in HMA mixtures up to a maximum of 5.0% by weight of the total mix.
- (1) RAP/RAS. When RAP is used alone or RAP is used in conjunction with RAS, the percentage of virgin asphalt binder replacement shall not exceed the amounts listed in the Max RAP/RAS ABR table listed below for the given Ndesign.

RAP/RAS Maximum Asphalt Binder Replacement (ABR) Percentage

HMA Mixtures ^{1/, 2/}	RAP/RAS Maximum ABR %		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified
30	30	30	10
50	25	15	10
70	15	10	10
90	10	10	10
105	10	10	10

1/ For HMA "All Other" (shoulder and stabilized subbase) N-30, 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 PG64-22 to be reduced to a PG58-28). If warm mix asphalt (WMA) technology is utilized, and production temperatures do not exceed 275 °F (135 °C) the high and low virgin asphalt binder grades shall each be reduced by one grade when RAP/RAS ABR exceeds 25 percent (i.e. 26 percent RAP/RAS ABR would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

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

FRAP/RAS Maximum Asphalt Binder Replacement (ABR) Percentage

HMA Mixtures ^{1/, 2/}	FRAP/RAS Maximum ABR %		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified ^{3/, 4/}
30	50	40	10

50	40	35	10
70	40	30	10
90	40	30	10
105	40	30	10

- 1/ For HMA "All Other" (shoulder and stabilized subbase) N30, 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 PG64-22 to be reduced to a PG58-28). If warm mix asphalt (WMA) technology is utilized, and production temperatures do not exceed 275 °F (135 °C) the high and low virgin asphalt binder grades shall each be reduced by one grade when FRAP/RAS ABR exceeds 25 percent (i.e. 26 percent ABR would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).
- 3/ For SMA the FRAP/RAS ABR shall not exceed 20 percent.
- 4/ For IL-4.75 mix the FRAP/RAS ABR shall not exceed 30 percent.

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

- (a) RAP/FRAP and/or RAS. RAP/FRAP and/or RAS mix designs shall be submitted for verification. If additional RAP/FRAP stockpiles are tested and found that no more than 20 percent of the results, as defined under "Testing" herein, are outside of the control tolerances set for the original RAP/FRAP stockpile and HMA mix design, and meets all of the requirements herein, the additional RAP/FRAP stockpiles may be used in the original mix design at the percent previously verified.
- (b) RAS. Type 1 and Type 2 RAS are not interchangeable in a mix design. A RAS stone bulk specific gravity (Gsb) of 2.300 shall be used for mix design purposes.

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

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

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

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

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

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

(1) Dryer Drum Plants.

- a. Date, month, year, and time to the nearest minute for each print.
- b. HMA mix number assigned by the Department.
- c. Accumulated weight of dry aggregate (combined or individual) in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
- d. Accumulated dry weight of RAP/FRAP/RAS in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
- e. Accumulated mineral filler in revolutions, tons (metric tons), etc. to the nearest 0.1 unit.
- f. Accumulated asphalt binder in gallons (liters), tons (metric tons), etc. to the nearest 0.1 unit.
- g. Residual asphalt binder in the RAP/FRAP material as a percent of the total mix to the nearest 0.1 percent.
- h. Aggregate and RAP/FRAP moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAP/FRAP are printed in wet condition.)

(2) Batch Plants.

- a. Date, month, year, and time to the nearest minute for each print.
- b. HMA mix number assigned by the Department.

- c. Individual virgin aggregate hot bin batch weights to the nearest pound (kilogram).
- d. Mineral filler weight to the nearest pound (kilogram).
- e. RAP/FRAP/RAS weight to the nearest pound (kilogram).
- f. Virgin asphalt binder weight to the nearest pound (kilogram).
- g. Residual asphalt binder in the RAP/FRAP/RAS material as a percent of the total mix to the nearest 0.1 percent.

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

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

- (a) Stockpiles and Testing. RAP stockpiles may be any of those listed in Article 1031.02, except "Non-Quality" and "FRAP". The testing requirements of Article 1031.03 shall not apply. RAP used to construct aggregate surface course and aggregate shoulders shall be according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications".
- (b) Gradation. One hundred percent of the RAP material shall pass the 1 1/2 in. (37.5 mm) sieve. The RAP material shall be reasonably well graded from coarse to fine. RAP material that is gap-graded or single sized will not be accepted."

80306

RETROREFLECTIVE SHEETING FOR HIGHWAY SIGNS (BDE)

Effective: November 1, 2014

Revise the first sentence of the first paragraph of Article 1091.03(a)(3) of the Standard Specifications to read:

“When tested according to ASTM E 810, with averaging, the sheeting shall have a minimum coefficient of retroreflection as show in the following tables.”

Replace the Tables for Type AA sheeting, Type AP sheeting, Type AZ sheeting and Type ZZ sheeting in Article 1091.03(a)(3) with the following.

Type AA Sheeting
Minimum Coefficient of Retroreflection
Candelas/foot candle/sq ft (candelas/lux/sq m) of material

Type AA (Average of 0 and 90 degree rotation)

Observation Angle (deg.)	Entrance Angle (deg.)	White	Yellow	Red	Green	Blue	FO
0.2	-4	800	600	120	80	40	200
0.2	+30	400	300	60	35	20	100
0.5	-4	200	150	30	20	10	75
0.5	+30	100	75	15	10	5	35

Type AA (45 degree rotation)

Observation Angle (deg.)	Entrance Angle (deg.)	Yellow	FO
0.2	-4	500	165
0.2	+30	115	40
0.5	-4	140	65
0.5	+30	60	30

Type AP Sheeting
 Minimum Coefficient of Retroreflection
 Candelas/foot candle/sq ft (candelas/lux/sq m) of material

Type AP (Average of 0 and 90 degree rotation)

Observation Angle (deg.)	Entrance Angle (deg.)	White	Yellow	Red	Green	Blue	Brown	FO
0.2	-4	500	380	75	55	35	25	150
0.2	+30	180	135	30	20	15	10	55
0.5	-4	300	225	50	30	20	15	90
0.5	+30	90	70	15	10	7.5	5	30

Type AZ Sheeting
 Minimum Coefficient of Retroreflection
 Candelas/foot candle/sq ft (candelas/lux/sq m) of material

Type AZ (Average of 0 and 90 degree rotation)

Observation Angle (deg.)	Entrance Angle (deg.)	White	Yellow	Red	Green	Blue	FYG	FY
0.2	-4	375	280	75	45	25	300	230
0.2	+30	235	170	40	25	15	190	150
0.5	-4	245	180	50	30	20	200	155
0.5	+30	135	100	25	15	10	100	75
1.0	-4	50	37.5	8.5	5	2	45	25
1.0	+30	22.5	20	5	3	1	25	12.5

Type ZZ Sheeting
 Minimum Coefficient of Retroreflection
 Candelas/foot candle/sq ft (candelas/lux/sq m) of material

Type ZZ (Average of 0 and 90 degree rotation)

Observation Angle (deg.)	Entrance Angle (deg.)	White	Yellow	Red	Green	Blue	FYG	FY	FO
0.2	-4	570	425	90	60	30	460	340	170
0.2	+30	190	140	35	20	10	150	110	65
0.5	-4	400	300	60	40	20	320	240	120
0.5	+30	130	95	20	15	7	100	80	45
1.0	-4	115	90	17	12	5	95	70	35
1.0	+30	45	35	7	5	2	35	25	15

80350

REINFORCEMENT BARS (BDE)

Effective: November 1, 2013

Revise the first and second paragraphs of Article 508.05 of the Standard Specifications to read:

“508.05 Placing and Securing. All reinforcement bars shall be placed and tied securely at the locations and in the configuration shown on the plans prior to the placement of concrete. Manual welding of reinforcement may only be permitted on precast concrete products as indicated in the current Bureau of Materials and Physical Research Policy Memorandum “Quality Control / Quality Assurance Program for Precast Concrete Products”, and for precast prestressed concrete products as indicated in the Department’s current “Manual for Fabrication of Precast Prestressed Concrete Products”. Reinforcement bars shall not be placed by sticking or floating into place or immediately after placement of the concrete.

Bars shall be tied at all intersections, except where the center to center dimension is less than 1 ft (300 mm) in each direction, in which case alternate intersections shall be tied. Molded plastic clips may be used in lieu of wire to secure bar intersections, but shall not be permitted in horizontal bar mats subject to construction foot traffic or to secure longitudinal bar laps. Plastic clips shall adequately secure the reinforcement bars, and shall permit the concrete to flow through and fully encase the reinforcement. Plastic clips may be recycled plastic, and shall meet the approval of the Engineer. The number of ties as specified shall be doubled for lap splices at the stage construction line of concrete bridge decks when traffic is allowed on the first completed stage during the pouring of the second stage.”

Revise the fifth paragraph of Article 508.05 of the Standard Specifications to read:

“Supports for reinforcement in bridge decks shall be metal. For all other concrete construction the supports shall be metal or plastic. Metal bar supports shall be made of cold-drawn wire, or other approved material and shall be either epoxy coated, galvanized or plastic tipped. When the reinforcement bars are epoxy coated, the metal supports shall be epoxy coated. Plastic supports may be recycled plastic. Supports shall be provided in sufficient number and spaced to provide the required clearances. Supports shall adequately support the reinforcement bars, and shall permit the concrete to flow through and fully encase the reinforcement. The legs of supports shall be spaced to allow an opening that is a minimum 1.33 times the nominal maximum aggregate size used in the concrete. Nominal maximum aggregate size is defined as the largest sieve which retains any of the aggregate sample particles. All supports shall meet the approval of the Engineer.”

Revise the first sentence of the eighth paragraph of Article 508.05 of the Standard Specifications to read:

“Epoxy coated reinforcement bars shall be tied with plastic coated wire, epoxy coated wire, or molded plastic clips where allowed.”

Add the following sentence to the end of the first paragraph of Article 508.06(c) of the Standard Specifications:

"In addition, the total slip of the bars within the splice sleeve of the connector after loading in tension to 30 ksi (207 MPa) and relaxing to 3 ksi (20.7 MPa) shall not exceed 0.01 in. (254 microns)."

Revise Article 1042.03(d) of the Standard Specifications to read:

"(d) Reinforcement and Accessories: The concrete cover over all reinforcement shall be within $\pm 1/4$ in. (± 6 mm) of the specified cover.

Welded wire fabric shall be accurately bent and tied in place.

Miscellaneous accessories to be cast into the concrete or for forming holes and recesses shall be carefully located and rigidly held in place by bolts, clamps, or other effective means. If paper tubes are used for vertical dowel holes, or other vertical holes which require grouting, they shall be removed before transportation to the construction site."

80327

SIDEWALK, CORNER, OR CROSSWALK CLOSURE (BDE)

Effective: January 1, 2015

| Revised: April 1, 2015

Revise the first sentence of Article 1106.02(m) of the Supplemental Specifications to read:

“The top and bottom panels shall have alternating white and orange stripes sloping 45 degrees on both sides.”

80354

STEEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID)

Effective: April 2, 2004

Revised: July 1, 2015

Description. Steel cost adjustments will be made to provide additional compensation to the Contractor, or a credit to the Department, for fluctuations in steel prices when optioned by the Contractor. The bidder shall indicate on the attached form whether or not this special provision will be part of the contract and submit the completed form with his/her bid. Failure to submit the form or failure to indicate contract number, company name, and sign and date the form shall make this contract exempt of steel cost adjustments for all items of steel. Failure to indicate "Yes" for any item of work will make that item of steel exempt from steel cost adjustment.

Types of Steel Products. An adjustment will be made for fluctuations in the cost of steel used in the manufacture of the following items:

Metal Piling (excluding temporary sheet piling)
Structural Steel
Reinforcing Steel

Other steel materials such as dowel bars, tie bars, mesh reinforcement, guardrail, steel traffic signal and light poles, towers and mast arms, metal railings (excluding wire fence), and frames and grates will be subject to a steel cost adjustment when the pay items they are used in have a contract value of \$10,000 or greater.

The adjustments shall apply to the above items when they are part of the original proposed construction, or added as extra work and paid for by agreed unit prices. The adjustments shall not apply when the item is added as extra work and paid for at a lump sum price or by force account.

Documentation. Sufficient documentation shall be furnished to the Engineer to verify the following:

- (a) The dates and quantity of steel, in lb (kg), shipped from the mill to the fabricator.
- (b) The quantity of steel, in lb (kg), incorporated into the various items of work covered by this special provision. The Department reserves the right to verify submitted quantities.

Method of Adjustment. Steel cost adjustments will be computed as follows:

$$SCA = Q \times D$$

Where: SCA = steel cost adjustment, in dollars
Q = quantity of steel incorporated into the work, in lb (kg)
D = price factor, in dollars per lb (kg)

$$D = MPI_M - MPI_L$$

Where: MPI_M = The Materials Cost Index for steel as published by the Engineering News-Record for the month the steel is shipped from the mill. The indices will be converted from dollars per 100 lb to dollars per lb (kg).

MPI_L = The Materials Cost Index for steel as published by the Engineering News-Record 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,. The indices will be converted from dollars per 100 lb to dollars per lb (kg).

The unit weights (masses) of steel that will be used to calculate the steel cost adjustment for the various items are shown in the attached table.

No steel cost adjustment will be made for any products manufactured from steel having a mill shipping date prior to the letting date.

If the Contractor fails to provide the required documentation, the method of adjustment will be calculated as described above; however, the MPI_M will be based on the date the steel arrives at the job site. In this case, an adjustment will only be made when there is a decrease in steel costs.

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

$$\text{Percent Difference} = \{(MPI_L - MPI_M) \div MPI_L\} \times 100$$

Steel cost adjustments will be calculated by the Engineer and will be paid or deducted when all other contract requirements for the items of work are satisfied. Adjustments will only be made for fluctuations in the cost of the steel as described herein. No adjustment will be made for changes in the cost of manufacturing, fabrication, shipping, storage, etc.

The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

Attachment

Item	Unit Mass (Weight)
Metal Piling (excluding temporary sheet piling)	
Furnishing Metal Pile Shells 12 in. (305 mm), 0.179 in. (3.80 mm) wall thickness)	23 lb/ft (34 kg/m)
Furnishing Metal Pile Shells 12 in. (305 mm), 0.250 in. (6.35 mm) wall thickness)	32 lb/ft (48 kg/m)
Furnishing Metal Pile Shells 14 in. (356 mm), 0.250 in. (6.35 mm) wall thickness)	37 lb/ft (55 kg/m)
Other piling	See plans
Structural Steel	See plans for weights (masses)
Reinforcing Steel	See plans for weights (masses)
Dowel Bars and Tie Bars	6 lb (3 kg) each
Mesh Reinforcement	63 lb/100 sq ft (310 kg/sq m)
Guardrail	
Steel Plate Beam Guardrail, Type A w/steel posts	20 lb/ft (30 kg/m)
Steel Plate Beam Guardrail, Type B w/steel posts	30 lb/ft (45 kg/m)
Steel Plate Beam Guardrail, Types A and B w/wood posts	8 lb/ft (12 kg/m)
Steel Plate Beam Guardrail, Type 2	305 lb (140 kg) each
Steel Plate Beam Guardrail, Type 6	1260 lb (570 kg) each
Traffic Barrier Terminal, Type 1 Special (Tangent)	730 lb (330 kg) each
Traffic Barrier Terminal, Type 1 Special (Flared)	410 lb (185 kg) each
Steel Traffic Signal and Light Poles, Towers and Mast Arms	
Traffic Signal Post	11 lb/ft (16 kg/m)
Light Pole, Tenon Mount and Twin Mount, 30 - 40 ft (9 - 12 m)	14 lb/ft (21 kg/m)
Light Pole, Tenon Mount and Twin Mount, 45 - 55 ft (13.5 - 16.5 m)	21 lb/ft (31 kg/m)
Light Pole w/Mast Arm, 30 - 50 ft (9 - 15.2 m)	13 lb/ft (19 kg/m)
Light Pole w/Mast Arm, 55 - 60 ft (16.5 - 18 m)	19 lb/ft (28 kg/m)
Light Tower w/Luminaire Mount, 80 - 110 ft (24 - 33.5 m)	31 lb/ft (46 kg/m)
Light Tower w/Luminaire Mount, 120 - 140 ft (36.5 - 42.5 m)	65 lb/ft (97 kg/m)
Light Tower w/Luminaire Mount, 150 - 160 ft (45.5 - 48.5 m)	80 lb/ft (119 kg/m)
Metal Railings (excluding wire fence)	
Steel Railing, Type SM	64 lb/ft (95 kg/m)
Steel Railing, Type S-1	39 lb/ft (58 kg/m)
Steel Railing, Type T-1	53 lb/ft (79 kg/m)
Steel Bridge Rail	52 lb/ft (77 kg/m)
Frames and Grates	
Frame	250 lb (115 kg)
Lids and Grates	150 lb (70 kg)

Return With Bid

**ILLINOIS DEPARTMENT
OF TRANSPORTATION**

**OPTION FOR
STEEL COST ADJUSTMENT**

The bidder shall submit this completed form with his/her bid. Failure to submit the form or properly complete contract number, company name, and sign and date the form shall make this contract exempt of steel cost adjustments for all items of steel. Failure to indicate "Yes" for any item of work will make that item of steel exempt from steel cost adjustment. After award, this form, when submitted shall become part of the contract.

Contract No.: _____

Company Name: _____

Contractor's Option:

Is your company opting to include this special provision as part of the contract plans for the following items of work?

- | | | |
|--|-----|--------------------------|
| Metal Piling | Yes | <input type="checkbox"/> |
| Structural Steel | Yes | <input type="checkbox"/> |
| Reinforcing Steel | Yes | <input type="checkbox"/> |
| Dowel Bars, Tie Bars and Mesh Reinforcement | Yes | <input type="checkbox"/> |
| Guardrail | Yes | <input type="checkbox"/> |
| Steel Traffic Signal and Light Poles, Towers and Mast Arms | Yes | <input type="checkbox"/> |
| Metal Railings (excluding wire fence) | Yes | <input type="checkbox"/> |
| Frames and Grates | Yes | <input type="checkbox"/> |

Signature: _____ **Date:** _____

80127

STEEL SLAG IN TRENCH BACKFILL (BDE)

Effective: January 1, 2016

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

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

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

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

80362

TEMPORARY CONCRETE BARRIER (BDE)

Effective: January 1, 2015

Revised: July 1, 2015

Revise Article 704.02 of the Standard Specifications to read:

“704.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Precast Temporary Concrete Barrier	1042
(b) Reinforcement Bars	1006.10(a)
(c) Connecting Pins and Anchor Pins (Note 1)	
(d) Connecting Loop Bars (Note 2)	
(e) Packaged Rapid Hardening Mortar or Concrete	1018

Note 1. Connecting Pins and Anchor Pins shall be according to the requirements of ASTM F 1554 Grade 36 (Grade 250).

Note 2. Connecting loop bars shall be smooth bars according to the requirements of ASTM A 36 (A 36M).”

Revise Article 704.04 of the Standard Specifications to read:

“704.04 Installation. The barriers shall be seated on bare, clean pavement or paved shoulder and connected together in a smooth, continuous line at the locations provided by the Engineer.

Except on bridge decks, or where alternate anchoring details are shown on the plans, the barrier unit at each end of an installation shall be anchored to the pavement or paved shoulder using six anchor pins and protected with an impact attenuator as shown on the plans. When pinning of additional barrier units within the installation is specified, three anchor pins shall be installed in the traffic side holes of the required barriers.

Where both pinned and unpinned barrier units are used in a continuous installation, a transition shall be provided between them. The transition from pinned to unpinned barrier shall consist of two anchor pins installed in the end holes on the traffic side of the first barrier beyond the pinned section and one anchor pin installed in the middle hole on the traffic side of the second barrier beyond the pinned section. The third barrier beyond the pinned section shall then be unpinned.

Barriers located on bridge decks shall be restrained as shown on the plans. Anchor pins shall not be installed through bridge decks, unless otherwise noted.

Barriers or attachments damaged during transportation or handling, or by traffic during the life of the installation, shall be repaired or replaced. The Engineer will be the sole judge in determining which units or attachments require repair or replacement.

The barriers shall be removed when no longer required by the contract. After removal, all anchor holes in the pavement or paved shoulder shall be filled with a rapid hardening mortar or concrete. Only enough water to permit placement and consolidation by rodding shall be used and the material shall be struck-off flush.”

Add the following after the first paragraph of Article 704.05 of the Standard Specifications:

“Anchor pins, except for the six anchor pins for the barrier unit at each end of an installation, will be measured for payment as each, per anchor pin installed.”

Add the following after the second paragraph of Article 704.06 of the Standard Specifications:

“Anchor pins, except for the six anchor pins for the barrier unit at each end of an installation, will be paid for at the contract unit price per each for PINNING TEMPORARY CONCRETE BARRIER.”

80355

TRAFFIC BARRIER TERMINALS TYPE 6 OR 6B (BDE)

Effective: January 1, 2015

Add the following to the Article 631.02 of the Standard Specifications:

“(h) Chemical Adhesive1027.01”

80356

TRAINING SPECIAL PROVISIONS (BDE) This Training Special Provision supersedes Section 7b of the Special Provision entitled "Specific Equal Employment Opportunity Responsibilities," and is in implementation of 23 U.S.C. 140(a).

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided as follows:

The contractor shall provide on-the-job training aimed at developing full journeyman in the type of trade or job classification involved. The number of trainees to be trained under this contract will be 4 . In the event the contractor subcontracts a portion of the contract work, he shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this Training Special Provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the contractor's needs and the availability of journeymen in the various classifications within the reasonable area of recruitment. Prior to commencing construction, the contractor shall submit to the Illinois Department of Transportation for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the contractor shall specify the starting time for training in each of the classifications. The contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeyman status is a primary objective of this Training Special Provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g. by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent such persons are available within a reasonable area of recruitment. The contractor will be responsible for demonstrating the steps that he has taken in pursuance thereof, prior to a determination as to whether the contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he has successfully completed a training course leading to journeyman status or in which he has been employed as a journeyman. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used the contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the contractor and approved by the Illinois Department of Transportation and the Federal Highway Administration. The Illinois Department of Transportation and the Federal Highway Administration shall approve a program, if it is reasonably calculated to meet the equal employment opportunity obligations of the contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved by not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather than clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the Illinois Department of Transportation and the Federal Highway Administration. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the Engineer, reimbursement will be made for training of persons in excess of the number specified herein. This reimbursement will be made even though the contractor receives additional training program funds from other sources, provided such other source does not specifically prohibit the contractor from receiving other reimbursement. Reimbursement for offsite training indicated above may only be made to the contractor where he does one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the offsite training period.

No payment shall be made to the contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the contractor and evidences a lack of good faith on the part of the contractor in meeting the requirement of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program.

It is not required that all trainees be on board for the entire length of the contract. A contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

The contractor shall furnish the trainee a copy of the program he will follow in providing the training. The contractor shall provide each trainee with a certification showing the type and length of training satisfactorily complete.

The contractor will provide for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

METHOD OF MEASUREMENT The unit of measurement is in hours.

BASIS OF PAYMENT This work will be paid for at the contract unit price of 80 cents per hour for TRAINEES. The estimated total number of hours, unit price and total price have been included in the schedule of prices.

20338

URBAN HALF ROAD CLOSURE WITH MOUNTABLE MEDIAN (BDE)

Effective: January 1, 2015

Revised: July 1, 2015

Revise the first paragraph of Article 701.18(j) of the Standard Specifications to read:

“Urban Traffic Control, Standards 701501, 701502, 701601, 701602, 701606, 701611, 701701, and 701801.”

Revise Article 701.18(j)(3) of the Standard Specifications to read:

“(3)Standard 701611. When Standard or 701611 is specified, reflective pavement markings shall be used when the closure time exceeds four days. The double yellow centerline shall be used in the two-way traffic area in addition to the barricades or drums. Single yellow left edge line shall be used to outline the barricade island. White right edge line shall be used along the barricades delineating the work area.”

Revise the first sentence of Article 701.19(c) of the Standard Specifications to read:

“Traffic control and protection required under Standards 701201, 701206, 701306, 701326, 701336, 701406, 701421, 701451, 701456, 701501, 701502, 701601, 701602, 701606, 701611, 701701 and 701801 will be measured for payment on a lump sum basis.”

Add the following to the first paragraph of Article 701.20(b) of the Standard Specifications:

“TRAFFIC CONTROL AND PROTECTION STANDARD 701611;”

80357

WARM MIX ASPHALT (BDE)

Effective: January 1, 2012

Revised: November 1, 2014

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

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

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

Equipment.

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

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

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

"(13) Equipment for Warm Mix Technologies.

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

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

Mix Design Verification.

Add the following to Article 1030.04 of the Standard Specifications.

"(e) Warm Mix Technologies.

- (1) Foaming. WMA mix design verification will not be required when foaming technology is used alone (without WMA additives). However, the foaming technology shall only be used on HMA designs previously approved by the Department.
- (2) Additives. WMA mix designs utilizing additives shall be submitted to the Engineer for mix design verification."

Construction Requirements.

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

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

Basis of Payment.

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

80288

WEEKLY DBE TRUCKING REPORTS (BDE)

Effective: June 2, 2012

Revised: April 2, 2015

The Contractor shall submit a weekly report of Disadvantaged Business Enterprise (DBE) trucks hired by the Contractor or subcontractors (i.e. not owned by the Contractor or subcontractors) that are used for DBE goal credit.

The report shall be submitted to the Engineer on Department form "SBE 723" within ten business days following the reporting period. The reporting period shall be Monday through Sunday for each week reportable trucking activities occur.

Any costs associated with providing weekly DBE trucking reports 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.

80302

TEMPORARY SOIL RETENTION SYSTEM

Effective: December 30, 2002

Revised : May 11, 2009

Description. This work shall consist of designing, furnishing, installing, adjusting for stage construction when required and subsequent removal of the temporary soil retention system according to the dimensions and details shown on the plans and in the approved design submittal.

General. The temporary soil retention system shall be designed by the Contractor as a minimum, to retain the exposed surface area specified in the plans or as directed by the Engineer.

The design calculations and details for the temporary soil retention system proposed by the Contractor shall be submitted to the Engineer for approval. The calculations shall be prepared and sealed by an Illinois Licensed Structural Engineer. This approval will not relieve the Contractor of responsibility for the safety of the excavation. Approval shall be contingent upon acceptance by all involved utilities and/or railroads.

Construction. The Contractor shall verify locations of all underground utilities before installing any of the soil retention system components or commencing any excavation. Any disturbance or damage to existing structures, utilities or other property, caused by the Contractor's operation, shall be repaired by the Contractor in a manner satisfactory to the Engineer at no additional cost to the Department. The soil retention system shall be installed according to the Contractor's approved design, or as directed by the Engineer, prior to commencing any related excavation. If unable to install the temporary soil retention system as specified in the approved design, the Contractor shall have the adequacy of the design re-evaluated. Any reevaluation shall be submitted to the Engineer for approval prior to commencing the excavation adjacent to the area in question. The Contractor shall not excavate below the maximum excavation line shown in the approved design without the prior permission of the Engineer. The temporary soil retention system shall remain in place until the Engineer determines it is no longer required.

The temporary soil retention system shall be removed and disposed of by the Contractor when directed by the Engineer. When allowed, the Contractor may elect to cut off a portion of the temporary soil retention system leaving the remainder in place. The remaining temporary soil retention system shall be removed to a depth which will not interfere with the new construction, and as a minimum, to a depth of 12 in. (300 mm) below the finished grade, or as directed by the Engineer. Removed system components shall become the property of the Contractor.

When an obstruction is encountered, the Contractor shall notify the Engineer and upon concurrence of the Engineer, the Contractor shall begin working to break up, push aside, or remove the obstruction. An obstruction shall be defined as any object (such as but not limited to, boulders, logs, old foundations etc.) where its presence was not obvious or specifically noted on the plans prior to bidding, that cannot be driven or installed through or around, with normal driving or installation procedures, but requires additional excavation or other procedures to remove or miss the obstruction.

Method of Measurement. The temporary soil retention system furnished and installed according to the Contractor's approved design or as directed by the Engineer will be measured for payment in place, in square feet (square meters). The area measured shall be the vertical exposed surface area envelope of the excavation supported by temporary soil retention system. Portions of the temporary soil retention system left in place for reuse in later stages of construction shall only be measured for payment once.

Any temporary soil retention system installed beyond those dimensions shown on the contract plans or the approved contractor's design without the written permission of the Engineer, shall not be measured for payment but shall be done at the contractor's own expense.

Basis of Payment. This work will be paid for at the contract unit price per square foot (square meter) for TEMPORARY SOIL RETENTION SYSTEM.

Payment for any excavation, related solely to the installation and removal of the temporary soil retention system and/or its components, shall not be paid for separately but shall be included in the unit bid price for TEMPORARY SOIL RETENTION SYSTEM. Other excavation, performed in conjunction with this work, will not be included in this item but shall be paid for as specified elsewhere in this contract.

Obstruction mitigation shall be paid for according to Article 109.04 of the Standard Specifications.

PIPE UNDERDRAINS FOR STRUCTURES

Effective: May 17, 2000

Revised: January 22, 2010

Description. This work shall consist of furnishing and installing a pipe underdrain system as shown on the plans, as specified herein, and as directed by the Engineer.

Materials. Materials shall meet the requirements as set forth below:

The perforated pipe underdrain shall be according to Article 601.02 of the Standard Specifications. Outlet pipes or pipes connecting to a separate storm sewer system shall not be perforated.

The drainage aggregate shall be a combination of one or more of the following gradations, FA1, FA2, CA5, CA7, CA8, CA11, or CA13 thru 16, according to Sections 1003 and 1004 of the Standard Specifications.

The fabric surrounding the drainage aggregate shall be Geotechnical Fabric for French Drains according to Article 1080.05 of the Standard Specifications.

Construction Requirements. All work shall be according to the applicable requirements of Section 601 of the Standard Specifications except as modified below.

The pipe underdrains shall consist of a perforated pipe drain situated at the bottom of an area of drainage aggregate wrapped completely in geotechnical fabric and shall be installed to the lines and gradients as shown on the plans.

Method of Measurement. Pipe Underdrains for Structures shall be measured for payment in feet (meters), in place. Measurement shall be along the centerline of the pipe underdrains. All connectors, outlet pipes, elbows, and all other miscellaneous items shall be included in the measurement. Concrete headwalls shall be included in the cost of Pipe Underdrains for Structures, but shall not be included in the measurement for payment.

Basis of Payment. This work will be paid for at the contract unit price per foot (meter) for PIPE UNDERDRAINS FOR STRUCTURES of the diameter specified. Furnishing and installation of the drainage aggregate, geotechnical fabric, forming holes in structural elements and any excavation required, will not be paid for separately, but shall be included in the cost of the pipe underdrains for structures.

SEGMENTAL CONCRETE BLOCK WALL

Effective: January 7, 1999

Revised: October 30, 2012

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

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

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

- (a) Plan, elevation, and cross section sheet(s) for each wall showing the following:
 - (1) A plan view of the wall indicating the offsets from the construction centerline to the first course of blocks at all changes in horizontal alignment. These shall be calculated using the offsets to the front face of the block shown on the contract plans and the suppliers proposed wall batter. The plan view shall indicate bottom (and top course of block when battered), the excavation and select fill limits as well as any soil reinforcing required by the design. The centerline of any drainage structure or pipe behind or passing through/under the wall shall also be shown.
 - (2) An elevation view of the wall, indicating the elevation and all steps in the top course of blocks along the length of the wall. The top of these blocks shall be at or above the theoretical top of block line shown on the contract plans. This view shall also show the steps and proposed top of leveling pad elevations as well as the finished grade line at the wall face specified on the contract plans. These leveling pad elevations shall be located at or below the theoretical top of leveling line shown on the contract plans. The location, size, and length of any soil reinforcing connected to the blocks shall be indicated.
 - (3) Typical cross section(s) showing the limits of the select fill, soil reinforcement if used in the design. The right-of-way limits shall be indicated as well as the proposed excavation, cut slopes, and the elevation relationship between existing ground conditions and proposed grades.
 - (4) All general notes required for constructing the wall.

- (b) All details for the leveling pads, including the steps, shall be shown. The theoretical top of the leveling pad shall either be below the anticipated frost depth or 1.5 ft. (450 mm) below the finished grade line at the wall face, whichever is greater; unless otherwise shown on the plans. The minimum leveling pad thickness shall be 6 in. (152 mm)
- (c) Cap blocks shall be used to cover the top of the standard block units. The top course of blocks and cap blocks shall be stepped to satisfy the top of block line shown on the contract plans.
- (d) All details of the block and/or soil reinforcement placement around all appurtenances located behind, on top of, or passing through the wall shall be clearly indicated. Any modifications to the design of these appurtenances to accommodate a particular design arrangement shall also be submitted.
- (e) All details of the blocks, including color and texture shall be shown. The exterior face shall preferably be straight, textured with a "split rock face" pattern, and dark gray in color unless otherwise stated on the plans.
- (f) All block types (standard, cap, corner, and radius turning blocks) shall be detailed showing all dimensions.
- (g) All blocks shall have alignment/connection devices such as shear keys, leading/trailing lips, or pins. The details for the connection devices between adjacent blocks and the block to soil reinforcement shall be shown. The block set back or face batter shall be limited to 20 degrees from vertical, unless otherwise shown by the plans.

Materials. The materials shall meet the following requirements:

- (a) Dry-Cast Concrete Block: Dry-cast concrete block proposed for use shall be pre-cast and produced according Article 1042.02 and the requirements of ASTM C1372 except as follows:
 - 1. Fly ash shall be according to Articles 1010.01 and 1010.02(b).
 - 2. Ground granulated blast-furnace slag shall be according to Articles 1010.01 and 1010.05.
 - 3. Aggregate shall be according to Articles 1003.02 and 1004.02, with the exception of gradation.
 - 4. Water shall be according to Section 1002.
 - 5. Testing for freeze-thaw durability will not be required. However, unsatisfactory field performance as determined by the Department will be cause to prohibit the use of the block on Department projects.

- (b) Wet-cast Concrete Block: Wet-cast concrete block proposed for use shall be pre-cast and produced according to Section 1020 and Article 1042.02. The concrete shall be Class PC with a minimum compressive strength of at least 3000 psi (31 MPa) at 28 days.
- (c) Select fill: The select fill, defined as the material placed in the reinforced volume behind the wall, shall be according to Sections 1003 and 1004 of the Standard Specifications and the following:
- (1) Select Fill Gradation. Either a coarse aggregate or a fine aggregate may be used. For coarse aggregate, gradations CA 6 thru CA 16 may be used. For fine aggregate, gradations FA 1, FA 2, or FA 20 may be used.
 - (2) Select Fill Quality. The coarse or fine aggregate shall have a maximum sodium sulfate (Na_2SO_4) loss of 15 percent according to Illinois Modified AASHTO T 104.
 - (3) Select Fill Internal Friction Angle. The effective internal friction angle for the coarse or fine aggregate shall be a minimum 34 degrees according to AASHTO T 236 on samples compacted to 95 percent density according to Illinois Modified AASHTO T 99. The AASHTO T 296 test with pore pressure measurement may be used in lieu of AASHTO T 236. If the vendor's design uses a friction angle higher than 34 degrees, as indicated on the approved shop drawings, this higher value shall be taken as the minimum required.
 - (4) Select Fill and Geosynthetic Reinforcing. When geosynthetic reinforcing is used, the select fill pH shall be 4.5 to 9.0 according to Illinois Modified AASHTO T 289.
 - (5) Test Frequency. Prior to start of construction, the Contractor shall provide internal friction angle and pH test results to show the select fill material meets the specification requirements. However, the pH will be required only when geosynthetic reinforcing is used. All test results shall not be older than 12 months. In addition, a sample of select fill material will be obtained for testing and approval by the Department. Thereafter, the minimum frequency of sampling and testing at the jobsite will be one per 40,000 tons (36,300 metric tons) of select fill material. Testing to verify the internal friction angle will only be required when the wall design utilizes a minimum effective internal friction angle greater than 34 degrees, or when crushed coarse aggregate is not used.

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

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

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

ASTM D638 Test Method for Tensile Properties of Plastic

ASTM D1248 Specification for Polyethylene Plastics Molding and Extrusion Materials

ASTM D4218 Test Method for Carbon Black Content in Polyethylene Compounds

ASTM D5262 Test Method for Evaluating the Unconfined Tension Creep Behavior of Geosynthetics

GG1-Standard Test Method for Geogrid Rib Tensile Strength

GG2-Standard Test Method for Geogrid Junction Strength

GG4-Standard Practice for Determination of the Long Term Design Strength of Geogrid

GG5-Standard Practice for Evaluating Geogrid Pullout Behavior

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

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

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

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

The foundation material for the leveling pad and select fill volume shall be graded to the design elevation and compacted according to Article 205.05, except the minimum required compaction shall be 95 percent of the standard laboratory density. The Engineer will perform one density test per 1500 ft (450 m) of the entire length of foundation material through both cut and fill areas. Any foundation soils found to be unsuitable shall be removed and replaced as directed by the Engineer and shall be paid for according to Article 109.04.

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

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

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

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

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

GRANULAR BACKFILL FOR STRUCTURES

Effective: April 19, 2012

Revised: October 30, 2012

Revise Section 586 of the Standard Specifications to read:

SECTION 586. GRANULAR BACKFILL FOR STRUCTURES

586.01 Description. This work shall consist of furnishing, transporting and placing granular backfill for abutment structures.

586.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Fine Aggregate.....	1003.04
(b) Coarse Aggregates	1004.05

CONSTRUCTION REQUIREMENTS

586.03 General. This work shall be done according to Article 502.10 except as modified below. The backfill volume shall be backfilled, with granular material as specified in Article 586.02, to the required elevation as shown in the contract plans. The backfill volume shall be placed in convenient lifts for the full width to be backfilled. Unless otherwise specified in the contract plans, mechanical compaction will not be required. A deposit of gravel or crushed stone placed behind drain holes shall not be required. All drains not covered by geocomposite wall drains or other devices to prevent loss of backfill material shall be covered by sufficient filter fabric material meeting the requirements of Section 1080 and Section 282 with either 6 or 8 oz/sq yd (200 or 270 g/sq m) material allowed, with free edges overlapping the drain hole by at least 12 in. (300 mm) in all directions.

The granular backfill shall be brought to the finished grade as shown in the contract plans. When concrete is to be cast on top of the granular backfill, the Contractor, subject to approval of the Engineer, may prepare the top surface of the fill to receive the concrete as he/she deems necessary for satisfactory placement at no additional cost to the Department.

586.04 Method of Measurement. This work will be measured for payment as follows.

(a) Contract Quantities. The requirements for the use of contract quantities shall conform to Article 202.07(a).

(b) Measured Quantities. This work will be measured for payment in place and the volume computed in cubic yards (cubic meters). The volume will be determined by the method of average end areas behind the abutment.

586.05 Basis of Payment. This work will be paid for at the contract unit price per cubic yard (cubic meter) for GRANULAR BACKFILL FOR STRUCTURES.

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WEEP HOLE DRAINS FOR ABUTMENTS, WINGWALLS, RETAINING WALLS AND CULVERTS

Effective: April 19, 2012

Revised: October 22, 2013

Delete the last paragraphs of Articles 205.05 and 502.10 and replace with the following.

"If a geocomposite wall drain according to Section 591 is not specified, a prefabricated geocomposite strip drain according to Section 1040.07 shall be placed at the back of each drain hole. The strip drain shall be 24 inches (600 mm) wide and 48 inches (1.220 m) tall. The strip drain shall be centered over the drain hole with the bottom located 12 inches (300 mm) below the bottom of the drain hole. All form boards or other obstructions shall be removed from the drain holes before placing any geocomposite strip drain."

Revise the last sentence of the first paragraph of Article 503.11 to read as follows.

"Drain holes shall be covered to prevent the leakage of backfill material according to Article 502.10."

Revise the title of Article 1040.07 to Geocomposite Wall Drains and Strip Drains.

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If

the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color,

religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. Davis-Bacon and Related Act Provisions

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such

action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for

debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such

contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded,"

as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with

commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the

certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

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XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**MINIMUM WAGES FOR FEDERAL AND FEDERALLY
ASSISTED CONSTRUCTION CONTRACTS**

This project is funded, in part, with Federal-aid funds and, as such, is subject to the provisions of the Davis-Bacon Act of March 3, 1931, as amended (46 Sta. 1494, as amended, 40 U.S.C. 276a) and of other Federal statutes referred to in a 29 CFR Part 1, Appendix A, as well as such additional statutes as may from time to time be enacted containing provisions for the payment of wages determined to be prevailing by the Secretary of Labor in accordance with the Davis-Bacon Act and pursuant to the provisions of 29 CFR Part 1. The prevailing rates and fringe benefits shown in the General Wage Determination Decisions issued by the U.S. Department of Labor shall, in accordance with the provisions of the foregoing statutes, constitute the minimum wages payable on Federal and federally assisted construction projects to laborers and mechanics of the specified classes engaged on contract work of the character and in the localities described therein.

General Wage Determination Decisions, modifications and supersedes decisions thereto are to be used in accordance with the provisions of 29 CFR Parts 1 and 5. Accordingly, the applicable decision, together with any modifications issued, must be made a part of every contract for performance of the described work within the geographic area indicated as required by an applicable DBRA Federal prevailing wage law and 29 CFR Part 5. The wage rates and fringe benefits contained in the General Wage Determination Decision shall be the minimum paid by contractors and subcontractors to laborers and mechanics.